SMOKEY POINT MIXED-USE

Arlington, WA

TRAFFIC IMPACT ANALYSIS (TIA)

January 29, 2024

HEATH & ASSOCIATES

Transportation Planning & Engineering

SMOKEY POINT MIXED-USE TRAFFIC IMPACT ANALYSIS

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SMOKEY POINT MIXED-USE
TRAFFIC IMPACT ANALYSIS

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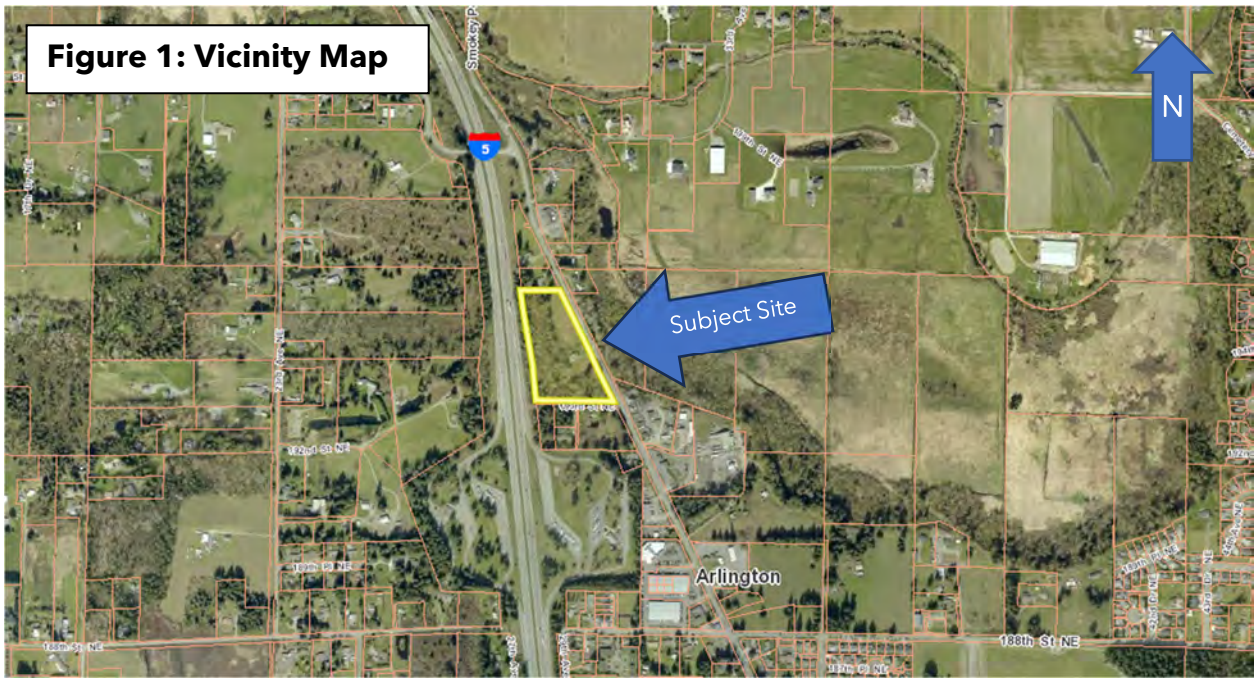
1. INTRODUCTION

The main goals of this study focus on the assessment of existing roadway conditions and forecasts of newly generated project traffic. The first task includes the review of general roadway information on the adjacent street system and baseline vehicular volumes. Forecasts of future traffic and dispersion patterns on the street system are then determined using established trip generation and distribution techniques. As a final step, appropriate conclusions and mitigation measures are defined if needed.

2. PROJECT DESCRIPTION

Smokey Point Mixed-Use is a proposed mixed-use development comprising ~46 townhomes, 16 live/work dwelling units and 42,929 square feet of commercial/retail space, located within the city of Arlington. The subject site is located on within 7.83-acre tax parcel #: 31051700400600, bordered to the east by Smokey Point Boulevard. One single-family residence exists on-site, which is to be demolished prior to new construction. Access to the subject site is proposed four new driveways extending west from Smokey Point Boulevard. Figure 1 below depicts the roadway network servicing the subject site. Figure 2 on the following page highlights the site layout.



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SMOKEY POINT MIXED-USE

CONCEPTUAL SITE PLAN
FIGURE 2

3. EXISTING CONDITIONS

3.1 Existing Street System

The primary roadway serving the subject site is *Smokey Point Boulevard,* a north-south, 2-lane Urban Minor Arterial bordering the subject site to the east. Sidewalk is provided on the west side of the roadway for an ~1,275-foot segment north of 188th Street NE. Elsewhere, non-motorist infrastructure amenities are limited in the subject site vicinity. No formal shoulder treatment is provided along the project frontage. The posted speed limit is 35- to 40-mph.

3.2 Existing Peak Hour Volumes

Field data for this study was obtained and collected by our firm in January of 2024 at the following study intersections:

1. Smokey Point Boulevard (W) & SR 530
2. Smokey Point Boulevard & 188th St NE
3. Airport Blvd & 188th St NE
4. Smokey Point Boulevard & 172nd St NE (SR 531)
5. 51st Ave NE & 172nd St NE (SR 531)

Counts were performed between the PM peak period of 4:00 PM - 6:00 PM, which generally represents peak roadway conditions during a typical 24-hour period. The single hour exhibiting highest overall intersection volumes is then derived (peak hour) and is used for analysis for each respective location. Figure 3 on the following page identifies baseline PM peak hour volumes. Full count sheets have been attached in the appendix for reference.

3.3 Non-Motorist Infrastructure

An approximate 1,275-foot segment of sidewalk is provided on the west side Smokey Point Boulevard north of 188th Street NE. Elsewhere along Smokey Point Boulevard, non-motorist infrastructure is limited in the subject site vicinity. Sidewalk will be provided along the Smokey Point Boulevard project frontage upon full build-out. Connections from the frontage to sidewalk within the subject site will also be provided.

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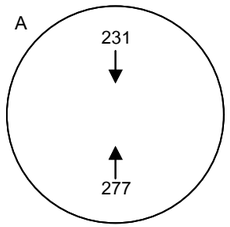

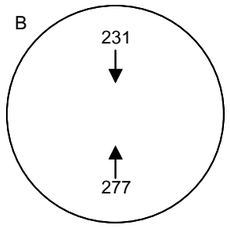

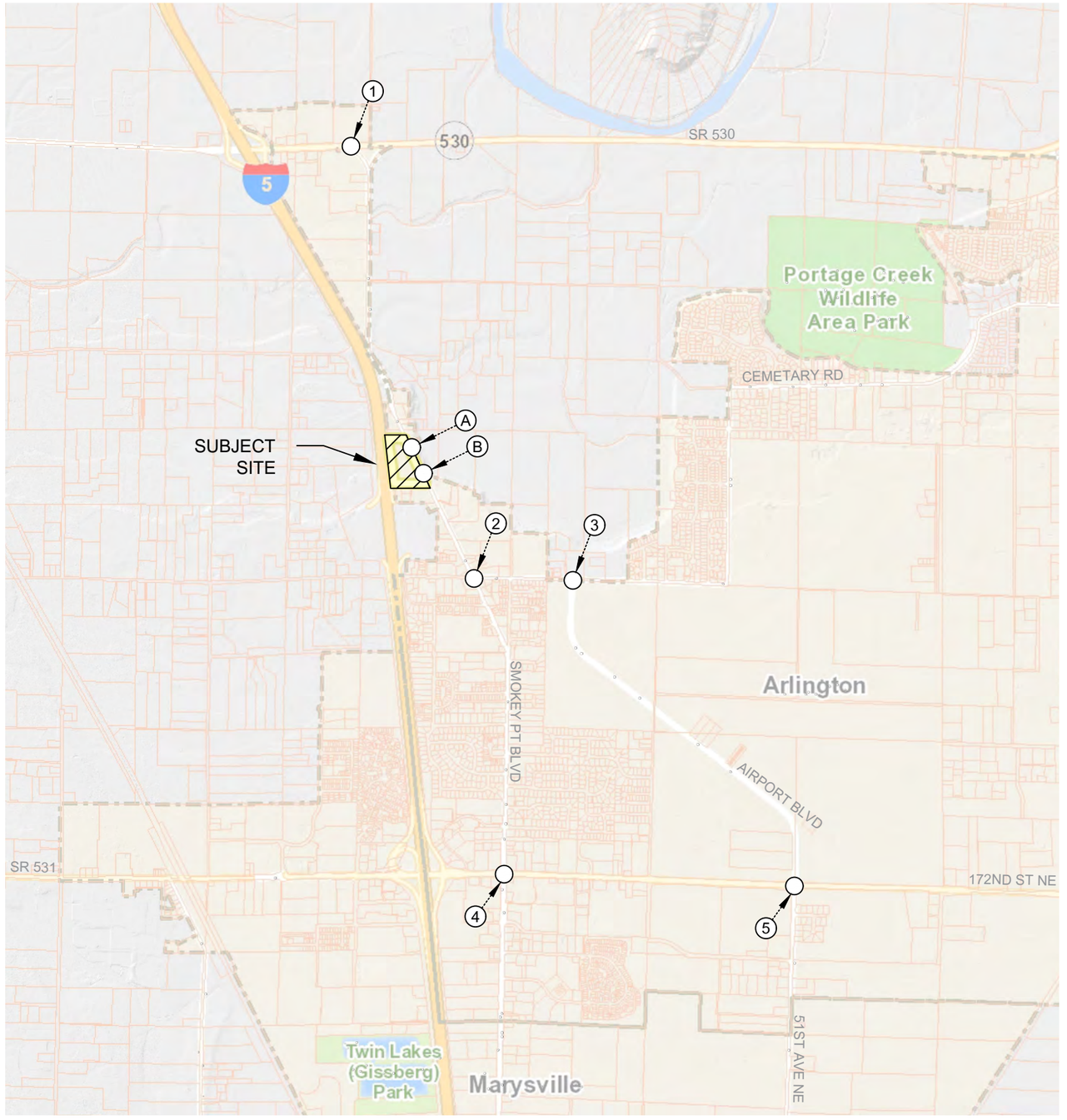

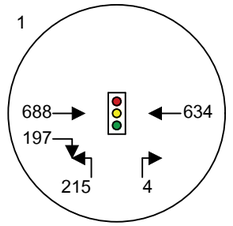

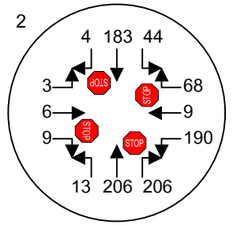

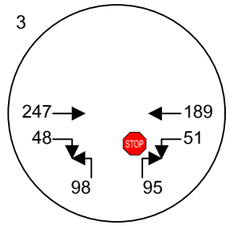

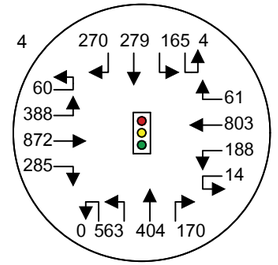

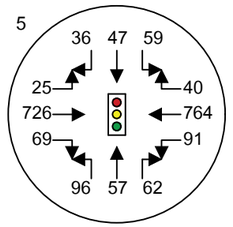

STUDY INTERSECTIONS

1. SR 530 & SMOKEY POINT BLVD W
2. 188TH ST E & SMOKEY POINT BLVD
3. 188TH ST E & AIRPORT BLVD
4. 172ND ST NE & SMOKEY POINT
5. 172ND ST NE & 51ST AVE NE

A. NORTH ACCESS & SMOKEY POINT
B. SOUTH ACCESS & SMOKEY POINT

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EXISTING PM PEAK HOUR VOLUMES
FIGURE 3

3.4 Roadway Improvements

A review of the City of Arlington's Six-Year Transportation Improvement Program (2024-2029) and WSDOT's Statewide Transportation Improvement Program (2024-2027) indicates that the following projects are currently planned in the vicinity of Smokey Point Mixed-Use development. No projects were identified within the vicinity of the subject site within Snohomish County's Transportation Improvement Program (2023 – 2028).

Table 1: Transportation Improvement Projects

Name	Location	Improvement	Cost
City of Arlington TIP			
Smokey Point Blvd & 188th Roundabout (Project #5/I-2)	Smokey Point Blvd & 188th	RAB to be complete with sidewalk, RRFB ped crossing, ped/street lights, landscaping, artwork and street amenities. Design at 60%; ROW at 50%	$3,525,000
Smokey Point Blvd & 180th Roundabout (Project #6)	Smokey Point Blvd & 180th	Construct a RAB at the SPB & 180th St. Funded via PSRC; program year of 2026. Trying to advance CN to 2024. Design: 30%; ROW not yet started	$3,500,000
SR-531 Widening Project Ph. 1 (Proj. #8 / R-14A)	43rd Ave to 67th Ave	Widen SR-531 (172nd Street) between 43rd Ave and 67th Ave. Project managed by WSDOT	$39,350,000
Island Crossing SR-530 Roundabout (Proj. #9/I-1)	SR 530 & Smokey Pt E	CN of a RAB. Project design is complete. Finishing up NEPA and finalizing ROW	$5,115,000
Smokey Pt Blvd Corridor Design & ROW (Project #10/R-30)	174th Ave to 200th Ave	Complete prelim. planning, public outreach, ENG design, and ROW plan for corridor improvements to expand Smokey Pt Blvd's current 2-lane roadway Includes design of RAB's at 174th St, 180th St, 183rd St, and 188th St	$597,818
180th St Extension (Project #11)	Sm Pt Blvd to Airport Blvd	DES & CN a new two-lane urban freight corridor with sidewalks, multi-use trail, ped/streetlights, and street amenities. Connect to Airport Blvd with RAB intersection. Includes connect to 43rd Ave	$5,003,347
183rd St Connector (Project #12)	SPB to Airport Blvd	CN a 2-lane road section with sidewalks and multi-use trail. Private developer funded outside Airport Boundary; City funded inside Airport Boundary. Connections to SPB and Airport Blvd with RABs	$4,325,000
SPB & 174th RAB CN (Project #13)	Intersection	Construct RAB at SPB & 174th St per the SPB Corridor project designs. RAB complete w/ sidewalk, RRFB ped crossing, ped/streetlights, landscaping, artwork and street amenities	$3,350,000
SPB & 183th RAB and N/S Link Construction (Project #14)	Intersection	Construct a RAB at SPB & 183rd intersection along with the 183rd RAB north link to 188th RAB and south link to 180th RAB per designs developed as part of the SPB Corridor project	$7,850,000

Table 1: Transportation Improvement Projects (Cont.)

Name	Location	Improvement	Cost
WSDOT STIP			
Smokey Point Blvd & 188th St Roundabout (STIP ID: ARL-17A)	SPB & 188th St E	Construct a RAB. Work includes sidewalks, multiuse trail, site drainage, lighting, transit stop, local artwork, landscaping and more. The PE phase for this project was completed	$11,284,344
Swift BRT Gold Line (STIP ID: CT-74)	SPB & SR 531 to Smith & Pacific	Construct BRT between Everett Station and SP TC in Arlington with service to Everett CC, Marysville and the Cascade Industrial Center. Project will include DES, ENG, CN and purchase of 13 zero emission buses. Planned service start date is Oct. 2027. Multi-year project; programming reflects the funds available within the span of the current TIP	$68,300,000
SR 531/43rd Ave NE to 67th Ave NE – Widening (STIP ID: WDNW-2013)	SR 531/43rd Ave NE to 67th Ave NE	Widen the SR 531 corridor between 43rd Ave NE and 67th Ave NE, including intersection and pedestrian improvements	$39,300,000

3.5 Transit Service

A review of Community Transit service system indicates that Routes 220, 227 and 230 provide service in the vicinity of the proposed development. Table 2 below provides further route details.

Table 2: Bus Routes

Route	Description	Weekday Service	Saturday	Sunday	Nearest Stop
220	Arlington – Smokey Pt: Smokey Pt TC to Broadway & Gilman	6:20 AM – 9:05 PM (every ~60 min.)	5:52 AM – 8:35 PM (every ~60 min.)	6:52 AM – 8:34 PM (every ~60 min.)	~0.45-miles south
227	Arlington – Seaway TC: Arlington P & R to Seaway TC	4:10 AM – 4:50 PM (2 NB AM services; 2 SB PM services)	N/A	N/A	~0.45-miles south
230	Darrington – Smokey Pt: Smokey Pt TC to Darrington St & Givens	5:40 AM – 8:20 PM (1 EB & WB service in AM and PM)	N/A	N/A	~0.45-miles south

Refer to the Community Transit service schedules for more information.

3.6 Level of Service

Existing intersection delays were determined through the use of the *Highway Capacity Manual* 7th Edition. Capacity analysis is used to determine level of service (LOS) which is an established measure of congestion for transportation facilities. The range[1] for intersection level of service is LOS A to LOS F with the former indicating the best operating conditions with low control delays and the latter indicating the worst conditions with heavy control delays. Detailed descriptions of intersection LOS are given in the 2016 Highway Capacity Manual. Level of service calculations were made through the use of the *Synchro 12* analysis program. For signalized and all-way stop-controlled intersections, LOS is determined by the intersection's overall weighted average delay for each approaching leg. Side-street stop-controlled intersection LOS is determined by the approach with the highest delay. Table 3 presents existing PM peak hour LOS delays for the key intersections of study.

Table 3: Existing Weekday PM Peak Hour Level of Service

Delays given in seconds per vehicle

Ref. #	Intersection	Control	Movement	LOS	Delay
1	Smokey Point Blvd (W) & SR 530	Signal	Overall	B	16.1
2	Smokey Point Blvd & 188th St NE	Stop	Overall	B	15.0
3	Airport Blvd & 188th St NE	Stop	NB	C	15.1
4	Smokey Point Blvd & SR 531	Signal	Overall	D	54.8
5	51st Ave NE & SR 531	Signal	Overall	B	17.1

The City of Arlington has adopted LOS D standards for all City arterials and state highways. Moreover, WSDOT has adopted standards of LOS D for SR 531 and SR 530 at Smokey Point Boulevard West. Existing PM peak hour conditions at the study intersections are shown to operate with delays at LOS D or better, meeting City and WSDOT LOS standards.

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[1] *Signalized Intersections - Level of Service*

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

Stop Controlled Intersections – Level of Service

Level of Service	Control Delay per Vehicle (sec)
A	≤10
B	>10 and ≤15
C	>15 and ≤25
D	>25 and ≤35
E	>35 and ≤50
F	>50

Highway Capacity Manual, 7th Edition

4. FORECAST TRAFFIC DEMAND & ANALYSIS

4.1 Project Trip Generation

Trip generation is used to determine the magnitude of project impacts on the surrounding street system. This is usually denoted by the quantity or specific number of new trips that enter and exit a project during a designated time period, such as a specific peak hour (AM or PM) or an entire day. Data presented in this report was taken from the Institute of Transportation Engineer's publication Trip Generation, 11th Edition. The following land uses were utilized to derive trip generation:

Residential
The project is proposing approximately 46 townhome dwelling units and 16 live/work dwelling units. ITE Land Use Code (LUC) 220 – Multi-Family Housing (Low-Rise) with dwelling units as the input variable and rates were utilized to determine trip estimates.

Commercial Space
Approximately 42,929 square feet of commercial space is proposed on-site. No specific tenants are identified at this time, but the space is planned for professional office and/or miscellaneous retail. The commercial space was grouped together and classified under LUC 821 – Shopping Plaza (40-150k; No Supermarket) so as to account for a variety of potential end-users.

Moreover, the live/work dwelling units may also generate additional trips as outside clients or personnel may visit the workspace. Approximately 4,448 square feet of "work" space was accounted for, which was classified under LUC 710 – General Office.

It should be noted that the proposed project is anticipated to generate trips from internal capture (i.e., customers/residents already on-site) and pass-by (i.e., customers already on the adjacent street system) in addition to new trips. Concerning internal capture, a single trip entering the site for one facility may subsequently use a variety of other services offered on-site. Moreover, residents within the multi-family space may utilize commercial/retail services on-site.

The complimentary uses on-site are anticipated to generate internal trip capture reductions. The NCHRP 8-51 Internal Trip Capture Estimation Tool generated internal trip capture reductions of ~11% for all peak periods, which was applied. Internal capture sheets have been attached to the appendix for reference.

Also considered are pass-by trips, or motorists already passing by the site who decide to make an intermediate stop before proceeding to their primary destination. Pass-by percentages based on similar ITE data were applied to all proposed retail/ commercial space on-site. ITE reports a 40% pass-by rate for LUC 821 – Shopping Plaza (40k-150k). These trips are not considered as new but will impact the site's access points.

Table 4 below provides a project trip generation summary based off of ITE data. Illustrated are total project trips, internal link reductions, pass-by trips and primary project trips for average weekday daily traffic (AWDT) and the AM and PM peak hours. Available in the appendix is a use-specific breakdown including rates used for calculations.

Table 4: Project Trip Generation

Trip Type	AWDT	AM Peak-Hour Trips			PM Peak-Hour Trips		
		In	Out	Total	In	Out	Total
Total Trips	3356	58	47	**105**	130	131	**261**
Internal Link Reduction[2]	-370	-10	-2	**-12**	-14	-15	**-29**
Pass-By Reduction[3]	-1032	-13	-13	**-26**	-40	-40	**-80**
Total New Primary	1954	35	32	**67**	76	76	**152**

As summarized in Table 4, trips to and from the site are broken into internal capture, pass-by and primary. In total, 1,954 new primary vehicular trips per weekday are expected as a result of the proposed development with 67 primary trips occurring during the AM peak hour and 152 primary trips occurring during the PM peak hour.

Moreover, approximately 26 AM peak hour and 80 PM peak hour trips are anticipated to be generated from the development in the form of pass-by.

[2] An internal link reduction of 11% was applied to all peak hour periods for all proposed on-site land uses on-site, which was derived via the NCHRP 8-51 Internal Trip Capture Estimation Tool.

[3] Pass-by rates were derived from the Institute of Transportation Engineers, *2021 Pass-By Tables for ITE Trip Gen Appendices* (2021). Data for LUC 821 – Shopping Plaza (40 - 150k) was utilized. PM Rate: 40%. This rate was also applied to ADT and AM.

4.2 Distribution & Assignment

Trip distribution describes the anticipated travel routes for inbound and outbound project traffic during the peak hour study period. PM peak hour trips are primarily comprised of commuter-based (returning home) and recreational-based trips. Primary and pass-by PM peak hour trips generated by the project are expected to follow the general pattern as shown in Figure 4. While four accesses are proposed to serve the subject site, trips were assigned/consolidated to the northerly and southerly proposed project accesses based on the site layout and optimal travel routing.

New development in the city of Arlington is subject to potential traffic mitigation measures though an interlocal agreement (ILA) with Snohomish County. Therefore, a comprehensive trip distribution effort was performed for the proposed Smokey Point Mixed-Use development whereby trip dissemination was illustrated out to approximately three peak hour trips. Figures A and B, attached in the appendix, illustrate development-generated directional AM and PM peak hour trips, respectively. Also identified are road sections with planned improvements in the project area, as outlined in the County's Transportation Needs Report, Appendix D. As illustrated in the figures, no road improvements are impacted by three or more development-generated directional PM peak hour trips. As such, the proportionate share amount to Snohomish County is calculated to be zero.

Moreover, an ILA with WSDOT is being performed, in which Option 1B (proportionate share mitigation based on standard amount) is currently selected. All associated ILA worksheets have been attached in the appendix.

4.3 Future Peak Hour Volumes

A three-year horizon of 2027 was used to analyze future conditions. Background volumes at the intersections of study were derived by applying a 3.0 percent compound annual growth rate to the existing volumes illustrated in Figure 3. This growth rate was derived from historic WSDOT AADT volumes along SR 530 west of Smokey Point Boulevard, which show a ~2.5 percent compound annual growth rate from 2014 (18,000 ADT) to 2022 (22,000 AADT).

Moreover, pipeline volumes from the Wisemark Commons, Safeway Arlington and Arlington Air Industrial projects were accounted for in forecast volumes. PM peak hour pipeline volumes are illustrated in Figure 5. Figures 6 and 7 represent forecast 2026 PM peak hour volumes without and with project traffic.

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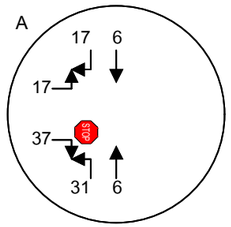
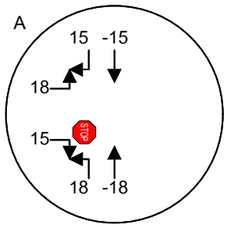
PRIMARY



PASS-BY



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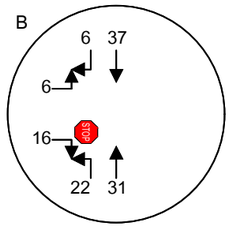
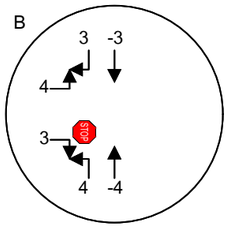


PASS-BY



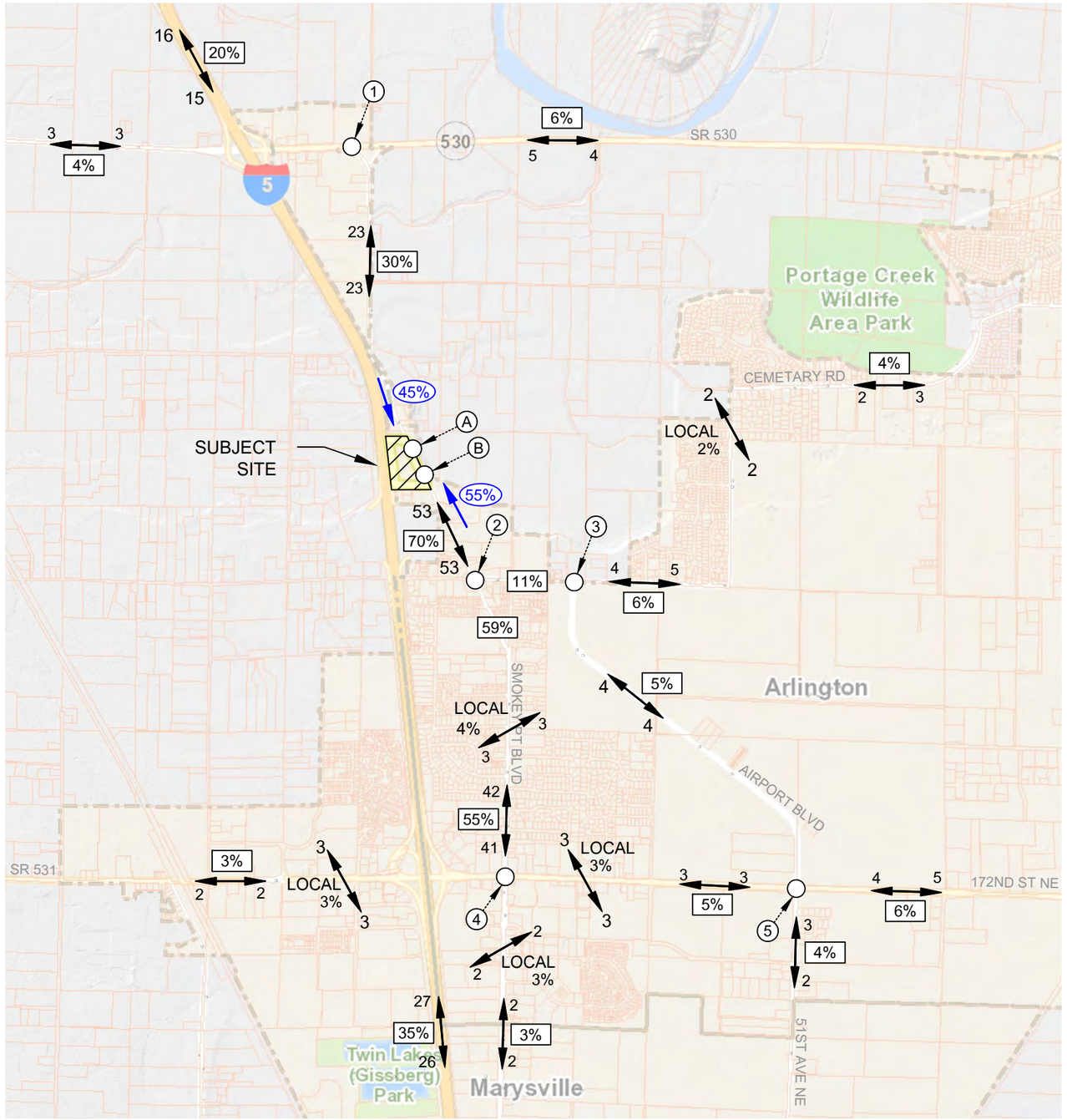
PASS-BY
PM PEAK HOUR TRIPS
INBOUND: 40 VPH
OUTBOUND: 40 VPH

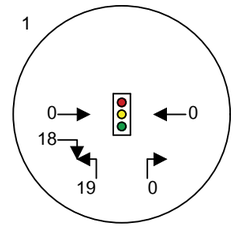
PRIMARY
PM PEAK HOUR TRIPS
INBOUND: 76 VPH
OUTBOUND: 76 VPH

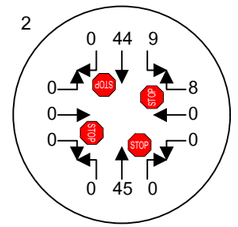
STUDY INTERSECTIONS

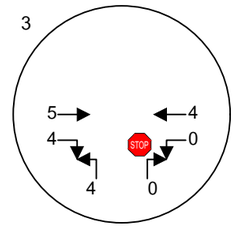
1. SR 530 & SMOKEY POINT BLVD W
2. 188TH ST E & SMOKEY POINT BLVD
3. 188TH ST E & AIRPORT BLVD
4. 172ND ST NE & SMOKEY POINT
5. 172ND ST NE & 51ST AVE NE

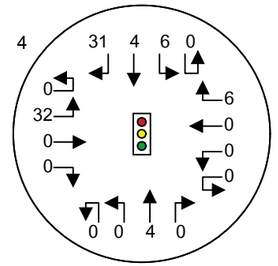
A. NORTH ACCESS & SMOKEY POINT
B. SOUTH ACCESS & SMOKEY POINT

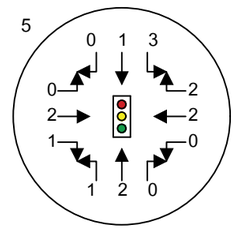












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SMOKEY POINT MIXED-USE
PM PEAK HOUR TRIP DISTRIBUTION & ASSIGNMENT
FIGURE 4

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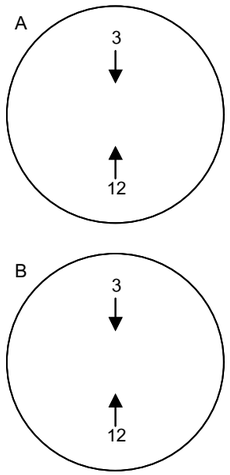

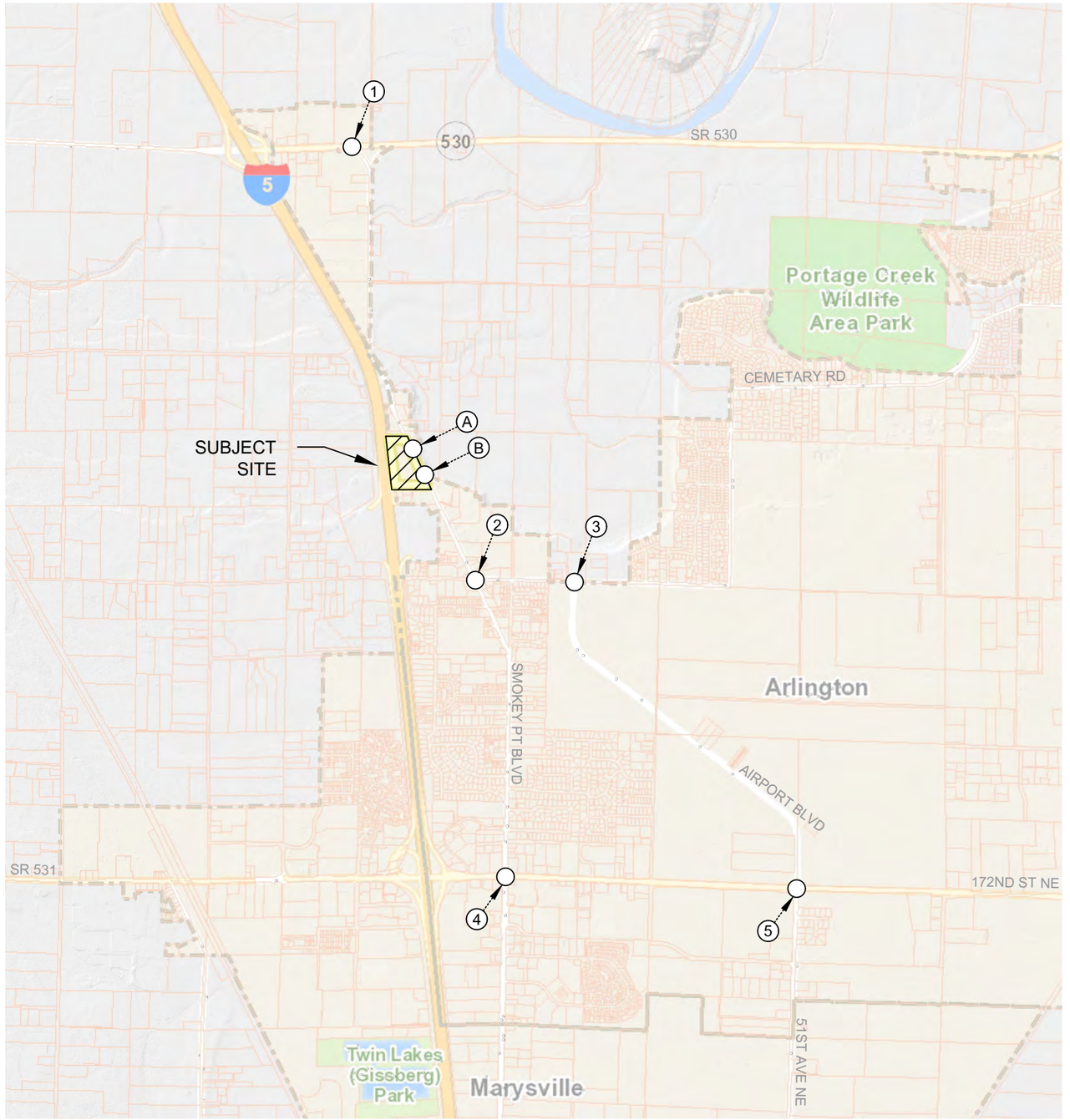

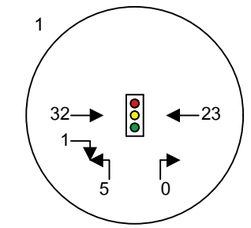

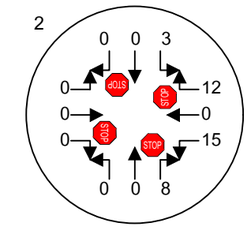

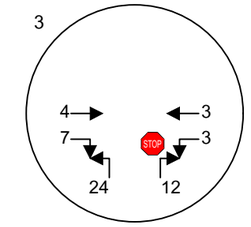

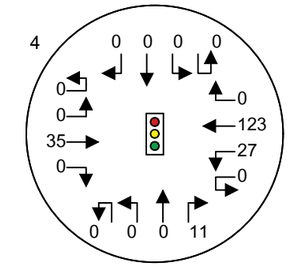

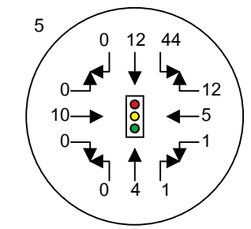

STUDY INTERSECTIONS

1. SR 530 & SMOKEY POINT BLVD W
2. 188TH ST E & SMOKEY POINT BLVD
3. 188TH ST E & AIRPORT BLVD
4. 172ND ST NE & SMOKEY POINT
5. 172ND ST NE & 51ST AVE NE

A. NORTH ACCESS & SMOKEY POINT
B. SOUTH ACCESS & SMOKEY POINT

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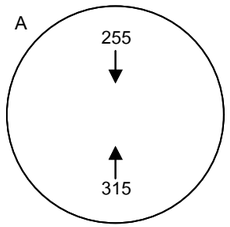
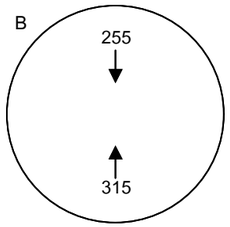
Transportation Planning & Engineering

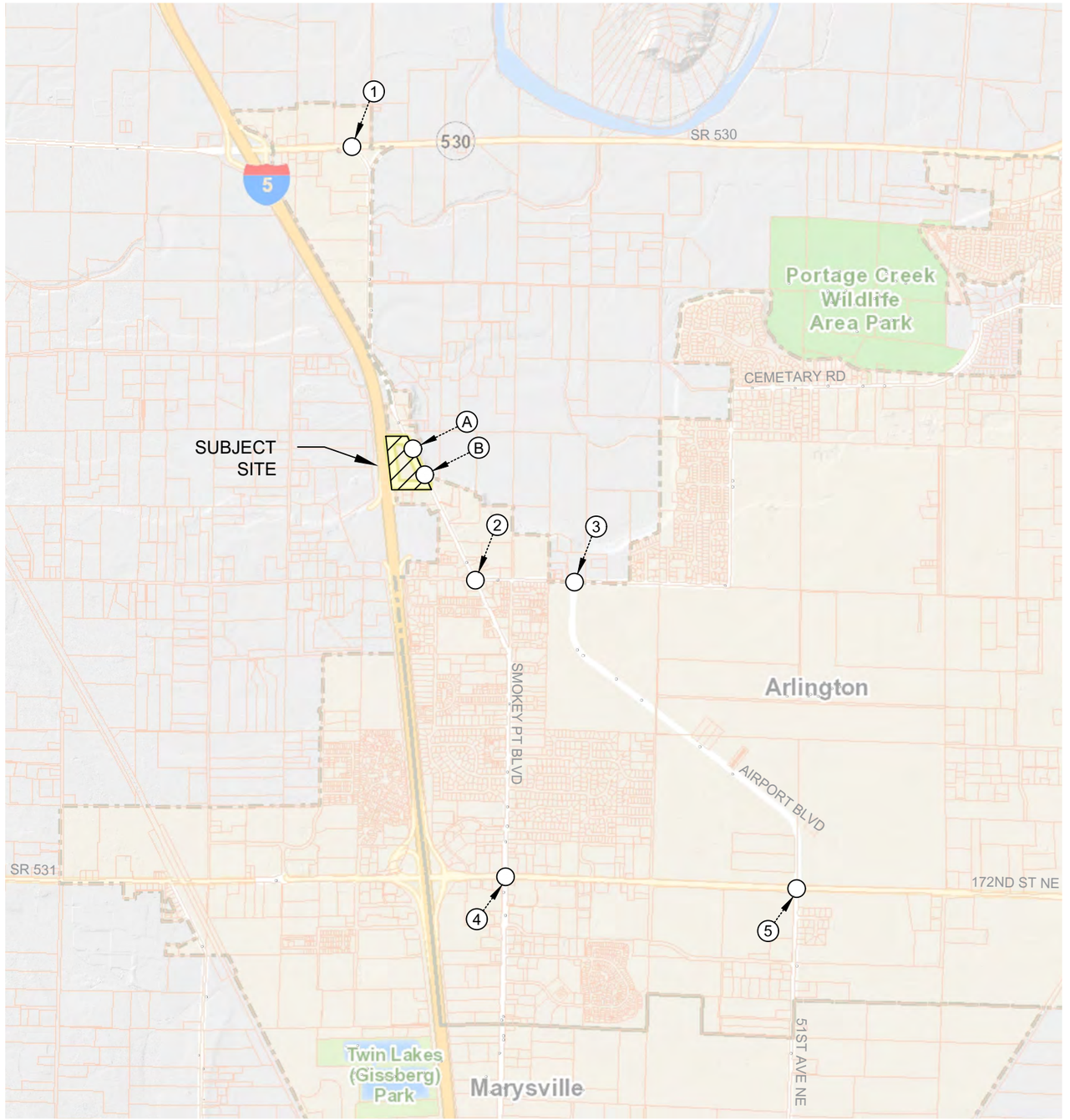
SMOKEY POINT MIXED-USE

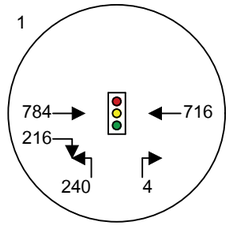
PM PEAK HOUR PIPELINE VOLUMES
FIGURE 5

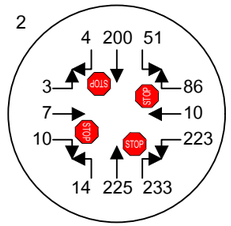
N

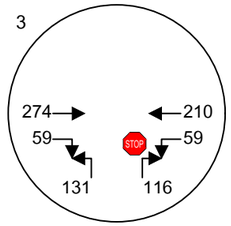


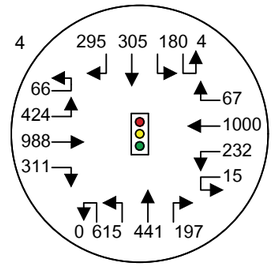


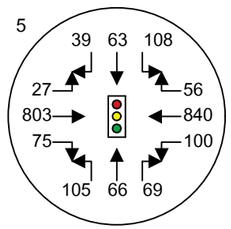












STUDY INTERSECTIONS

1. SR 530 & SMOKEY POINT BLVD W
2. 188TH ST E & SMOKEY POINT BLVD
3. 188TH ST E & AIRPORT BLVD
4. 172ND ST NE & SMOKEY POINT
5. 172ND ST NE & 51ST AVE NE

A. NORTH ACCESS & SMOKEY POINT
B. SOUTH ACCESS & SMOKEY POINT

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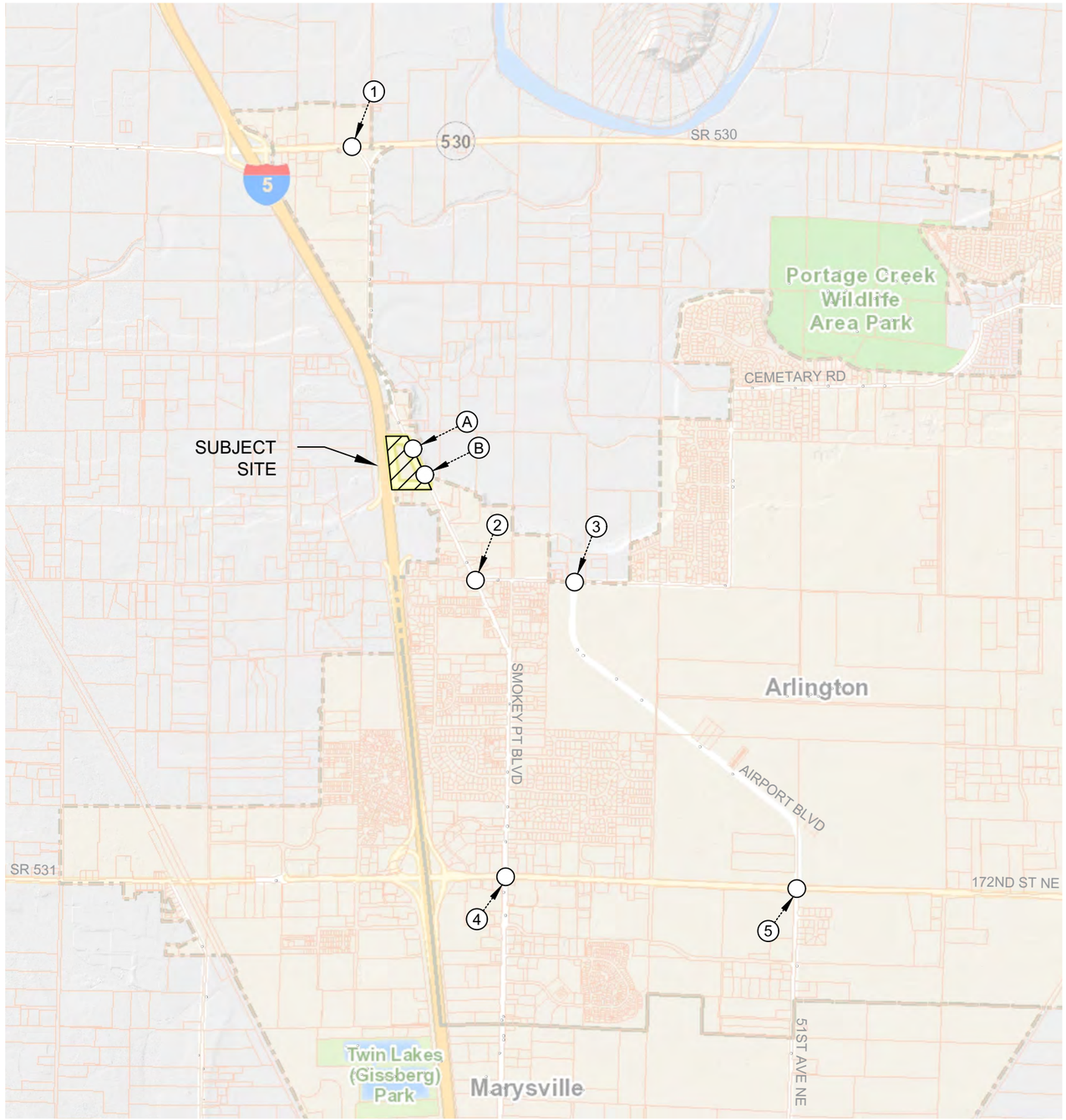
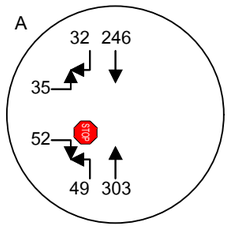
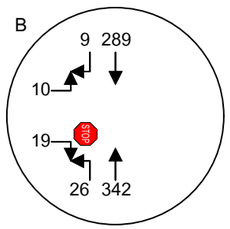
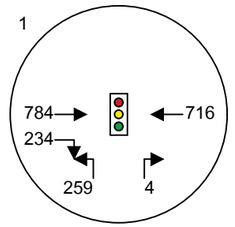
FORECAST 2027 PM PEAK HOUR BACKGROUND VOLUMES
FIGURE 6

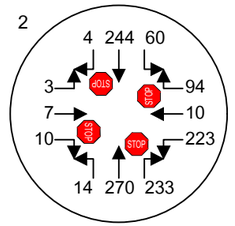
N

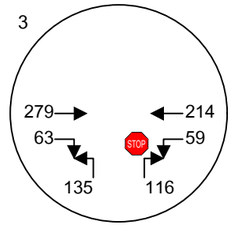


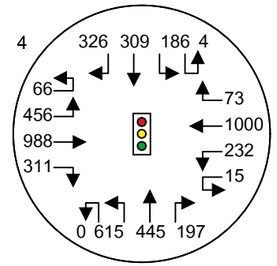


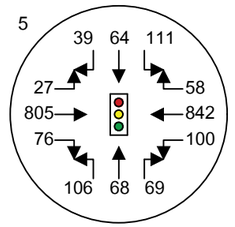












STUDY INTERSECTIONS

1. SR 530 & SMOKEY POINT BLVD W
2. 188TH ST E & SMOKEY POINT BLVD
3. 188TH ST E & AIRPORT BLVD
4. 172ND ST NE & SMOKEY POINT
5. 172ND ST NE & 51ST AVE NE

A. NORTH ACCESS & SMOKEY POINT
B. SOUTH ACCESS & SMOKEY POINT

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SMOKEY POINT MIXED-USE

FORECAST 2027 PM PEAK HOUR VOLUMES WITH PROJECT
FIGURE 7

4.4 Future Level of Service

Level of service analyses were made of the future PM peak hour volumes without (background) and with project related trips added to the key roadways and intersections. This analysis once again involved the use of the *Synchro 12* analysis program. Delays for the study intersections under future conditions are shown below in Table 5.

Table 5: Forecast 2027 Weekday Peak Hour Level of Service

Delays Given in Seconds per Vehicle

				Without Project		*With Project*	
Ref. #	**Intersection**	**Control**	**Movement**	**LOS**	**Delay**	**LOS**	**Delay**
1	Smokey Point Blvd (W) & SR 530	Signal	Overall	B	18.4	C	20.0
2	Smokey Point Blvd & 188th St NE	Stop RAB	Overall Overall	C A	20.0 6.6	D A	28.9 6.7
3	Airport Blvd & 188th St NE	Stop	NB	C	19.0	C	19.8
4	Smokey Point Blvd & SR 531	Signal	Overall	**E**	**63.2**	**E**	**65.0**
5	51st Ave NE & SR 531	Signal	Overall	B	19.9	C	20.2
A	Smokey Point Blvd & North Access	Stop	EB	-	-	B	13.1
B	Smokey Point Blvd & South Access	Stop	EB	-	-	B	12.0

With the exception of Smokey Point Boulevard & SR 531, forecast 2027 weekday PM peak hour delays are shown to operate with up to LOS D conditions with or without the proposed development at the intersections of study. Moreover, the two consolidated accesses are shown to operate with acceptable LOS B conditions. Descriptions of substandard intersections and intersections receiving improvements are outlined below:

Smokey Point Boulevard & SR 531: is shown to operate with substandard LOS E conditions both without and with project-generated traffic. Project traffic accounts for only ~1.6% of total intersection volumes during forecast PM peak hour conditions. It should also be noted that the intersection is fully built-out, with minimal opportunities available for improvement. Overall, project traffic is shown to minimally impact the study intersection.

Smokey Point Boulevard & 188th Street NE: is anticipated to operate with LOS D delays under forecast 2027 conditions with project. The intersection is currently all-way stop-controlled. The City's TIP indicates that a roundabout improvement is proposed at Smokey Point Boulevard & 188th Street NE (study intersection #2), scheduled for construction in 2024 according to the City's website. This improvement will likely reduce delays experienced at the intersection. A conceptual intersection design is provided to the right.

As the intersection improvement is anticipated to be completed prior to full build-out of the proposed Smokey Point Mixed-Use development, level of service analyses were made of the future PM peak hour volumes without (background) and with project related trips added to the study intersection. This analysis involved the use of the *SIDRA 9.1* analysis program. Delays, as shown in Table 5, indicate LOS A conditions both without and with project traffic at the intersection with the roundabout improvement. Overall, no intersection deficiencies are identified as a result of the development proposal.

4.5 Project Access & Sight Distance

Four new accesses are proposed to serve the subject site, all extending west from Smokey Point Boulevard. Entering sight lines were evaluated at all proposed accesses. In accordance with AASHTO standards, the 35-mph posted speed limits (45-mph design speed) on Smokey Point Boulevard would require approximately 500-feet of entering sight lines. Sight lines are available in excess of 550-feet both north and south at all proposed access points. Overall, no sight distance deficiencies are identified at this time with the access proposal.

4.6 Left Turn Warrant Analysis

Turn lanes are a means of providing necessary storage space for left turning vehicles at intersections. Left turn warrants were analyzed at the two consolidated accesses proposed on Smokey Point Boulevard. Procedures described by the WSDOT Design Manual Exhibit 1310-7a were used to ascertain storage requirements. Based on the criteria set forth in the warrant calculations, a left turn lane *would not be warranted* under forecast 2027 PM peak hour conditions at either of the proposed consolidated access points. The northerly access falls just below warrant thresholds. Turn lane exhibit sheets have been included in the appendix.

It should be noted that intersection volumes at the northerly access are likely conservative. Two central driveways are proposed, that provide access to angled parking serving the subject site. Therefore, a portion of inbound/outbound traffic would likely utilize these central driveways as opposed to the northerly access.

5. CONCLUSIONS & MITIGATION

Smokey Point Mixed-Use proposes for the development of 46 townhomes, 16 live/work dwelling units and approximately 42,929 square feet of commercial/retail space within the city of Arlington. The subject site comprises approximately 7.83-acres within tax parcel #: 31051700400600. Access to the subject site is proposed via four driveways extending west from Smokey Point Boulevard. The two central driveways are to provide access to angled parking serving the subject site. A conceptual site plan illustrating the overall configuration of the project and access proposal is provided in Figure 2.

Based on ITE data, the proposed development is anticipated to generate approximately 1954 average weekday daily primary trips with 67 (35 in / 32 out) AM peak hour primary trips and 152 (76 in / 76 out) PM peak hour primary trips. A level of service (LOS) analysis was performed using a three-year horizon which included a background growth rate, pipeline development and project-generated traffic added to the roadway network.

Existing level of service (LOS) at the outlying study intersections are shown operate acceptably with LOS D or better conditions, meeting City and WSDOT standards. Under forecast conditions SR 531 & Smokey Point Boulevard is shown to operate with substandard LOS E conditions. All other intersections are shown to operate with acceptable LOS C or better conditions should City TIP improvements be constructed. The proposed development is not shown to adversely impact the surrounding roadway system. All proposed accesses are projected to operate with acceptable LOS B service levels.

Based on the findings of this report the following mitigation is proposed for the Smokey Point Mixed-Use development:

1. Pay Traffic Impact Fees (TIF) as required by the city of Arlington and/or supplemental interlocal agreements. Exact fees would be calculated and assessed by the City upon review of the traffic study. Initial interlocal agreements are included in the appendix.

2. Coordination should be made with the City regarding frontage improvement requirements.

No other mitigation is identified at this time.

SMOKEY POINT MIXED-USE TRAFFIC IMPACT ANALYSIS

APPENDIX

INTERSECTION COUNT SHEETS

Heath & Associates

PO Box 397 Puyallup, WA 98371

Western Intersection

File Name : 5279b
Site Code : 00005279
Start Date : 1/9/2024
Page No : 1

Groups Printed- Passenger + - Heavy

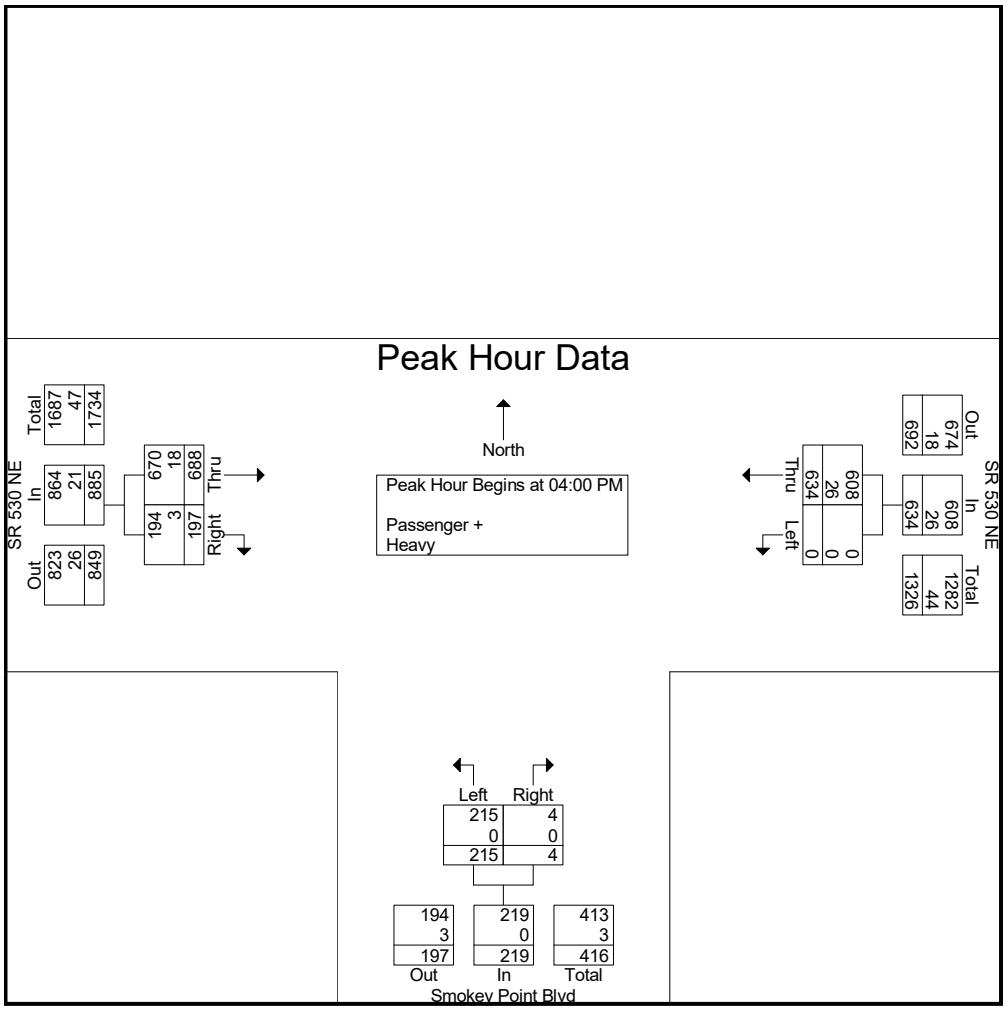
	SR 530 NE Westbound			Smokey Point Blvd Northbound			SR 530 NE Eastbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
04:00 PM	175	0	175	1	56	57	45	158	203	435
04:15 PM	138	0	138	1	51	52	52	179	231	421
04:30 PM	166	0	166	2	48	50	47	162	209	425
04:45 PM	155	0	155	0	60	60	53	189	242	457
Total	634	0	634	4	215	219	197	688	885	1738
05:00 PM	149	0	149	2	56	58	50	145	195	402
05:15 PM	116	0	116	1	49	50	39	154	193	359
05:30 PM	129	0	129	0	44	44	49	125	174	347
05:45 PM	79	0	79	1	33	34	33	95	128	241
Total	473	0	473	4	182	186	171	519	690	1349
Grand Total	1107	0	1107	8	397	405	368	1207	1575	3087
Apprch %	100	0		2	98		23.4	76.6		
Total %	35.9	0	35.9	0.3	12.9	13.1	11.9	39.1	51	
Passenger +	1065	0	1065	8	397	405	361	1175	1536	3006
% Passenger +	96.2	0	96.2	100	100	100	98.1	97.3	97.5	97.4
Heavy	42	0	42	0	0	0	7	32	39	81
% Heavy	3.8	0	3.8	0	0	0	1.9	2.7	2.5	2.6

Heath & Associates

PO Box 397 Puyallup, WA 98371

File Name : 5279b
Site Code : 00005279
Start Date : 1/9/2024
Page No : 2

	SR 530 NE Westbound			Smokey Point Blvd Northbound			SR 530 NE Eastbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**175**	0	**175**	1	56	57	45	158	203	435
04:15 PM	138	0	138	1	51	52	52	179	231	421
04:30 PM	166	0	166	**2**	48	50	47	162	209	425
04:45 PM	155	0	155	0	**60**	**60**	**53**	**189**	**242**	**457**
Total Volume	634	0	634	4	215	219	197	688	885	1738
% App. Total	100	0		1.8	98.2		22.3	77.7		
PHF	.906	.000	.906	.500	.896	.913	.929	.910	.914	.951
Passenger +	608	0	608	4	215	219	194	670	864	1691
% Passenger +	95.9	0	95.9	100	100	100	98.5	97.4	97.6	97.3
Heavy	26	0	26	0	0	0	3	18	21	47
% Heavy	4.1	0	4.1	0	0	0	1.5	2.6	2.4	2.7



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PO Box 397 Puyallup, WA 98371

File Name : 5279a
Site Code : 00005279
Start Date : 1/9/2024
Page No : 1

Groups Printed- Passenger + - Heavy

	Smokey Point Blvd Southbound				188th St NE Westbound				Smokey Point Blvd Northbound				188th St NE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
04:00 PM	0	28	6	34	8	2	11	21	35	34	1	70	1	1	2	4	129
04:15 PM	0	40	5	45	12	2	20	34	54	47	4	105	3	1	4	8	192
04:30 PM	0	42	13	55	23	2	58	83	49	48	3	100	4	3	0	7	245
04:45 PM	3	47	8	58	16	5	50	71	46	48	2	96	2	2	2	6	231
Total	3	157	32	192	59	11	139	209	184	177	10	371	10	7	8	25	797
05:00 PM	0	54	14	68	22	1	49	72	58	56	4	118	1	1	1	3	261
05:15 PM	1	40	9	50	7	1	33	41	53	54	4	111	2	0	0	2	204
05:30 PM	0	38	12	50	9	1	42	52	41	32	1	74	2	1	0	3	179
05:45 PM	1	32	6	39	7	2	28	37	30	28	3	61	1	1	1	3	140
Total	2	164	41	207	45	5	152	202	182	170	12	364	6	3	2	11	784
Grand Total	5	321	73	399	104	16	291	411	366	347	22	735	16	10	10	36	1581
Apprch %	1.3	80.5	18.3		25.3	3.9	70.8		49.8	47.2	3		44.4	27.8	27.8		
Total %	0.3	20.3	4.6	25.2	6.6	1	18.4	26	23.1	21.9	1.4	46.5	1	0.6	0.6	2.3	
Passenger +	5	310	71	386	101	14	275	390	361	342	22	725	14	10	9	33	1534
% Passenger +	100	96.6	97.3	96.7	97.1	87.5	94.5	94.9	98.6	98.6	100	98.6	87.5	100	90	91.7	97
Heavy	0	11	2	13	3	2	16	21	5	5	0	10	2	0	1	3	47
% Heavy	0	3.4	2.7	3.3	2.9	12.5	5.5	5.1	1.4	1.4	0	1.4	12.5	0	10	8.3	3

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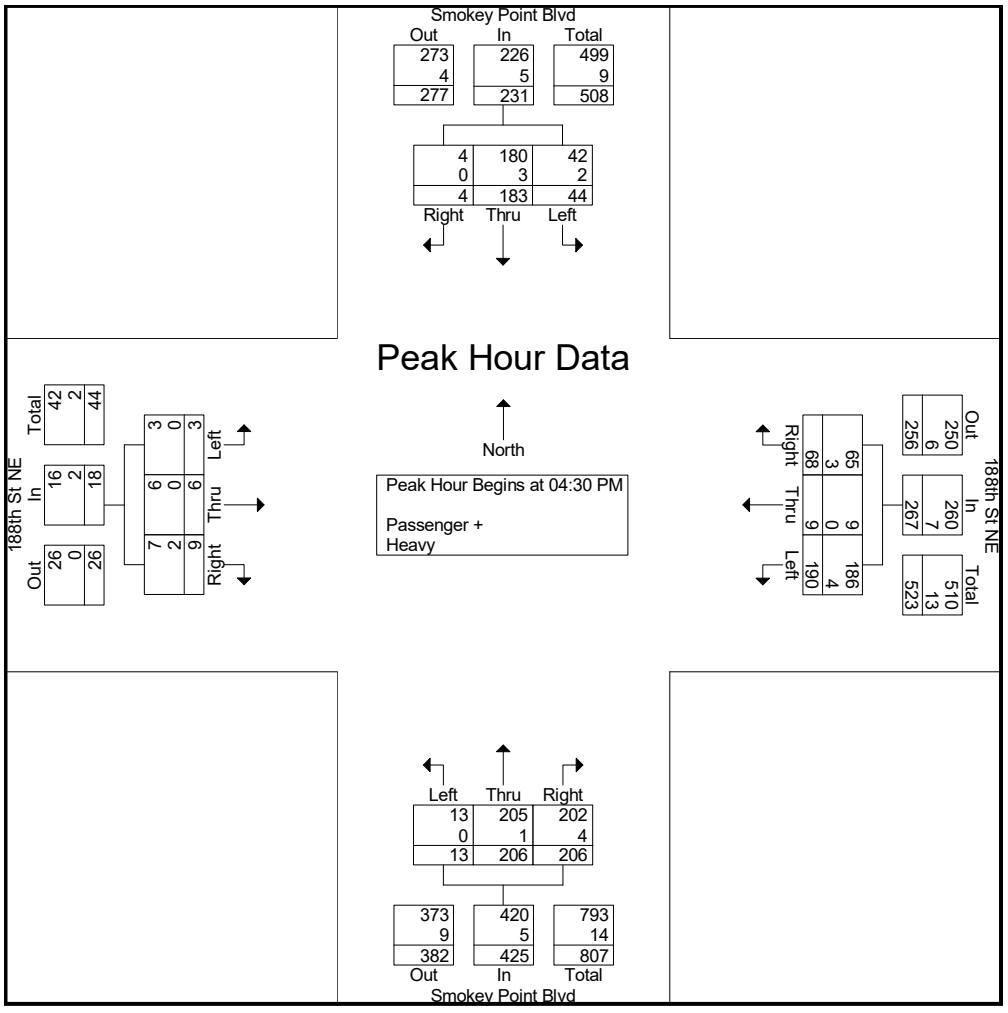
PO Box 397 Puyallup, WA 98371

File Name : 5279a
Site Code : 00005279
Start Date : 1/9/2024
Page No : 2

	Smokey Point Blvd Southbound				188th St NE Westbound				Smokey Point Blvd Northbound				188th St NE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	42	13	55	**23**	2	**58**	**83**	49	48	3	100	**4**	**3**	0	**7**	245
04:45 PM	**3**	47	8	58	16	**5**	50	71	46	48	2	96	2	2	**2**	6	231
05:00 PM	0	**54**	**14**	**68**	22	1	49	72	**58**	**56**	**4**	**118**	1	1	1	3	**261**
05:15 PM	1	40	9	50	7	1	33	41	53	54	4	111	2	0	0	2	204
Total Volume	4	183	44	231	68	9	190	267	206	206	13	425	9	6	3	18	941
% App. Total	1.7	79.2	19		25.5	3.4	71.2		48.5	48.5	3.1		50	33.3	16.7		
PHF	.333	.847	.786	.849	.739	.450	.819	.804	.888	.920	.813	.900	.563	.500	.375	.643	.901
Passenger +	4	180	42	226	65	9	186	260	202	205	13	420	7	6	3	16	922
% Passenger +	100	98.4	95.5	97.8	95.6	100	97.9	97.4	98.1	99.5	100	98.8	77.8	100	100	88.9	98.0
Heavy	0	3	2	5	3	0	4	7	4	1	0	5	2	0	0	2	19
% Heavy	0	1.6	4.5	2.2	4.4	0	2.1	2.6	1.9	0.5	0	1.2	22.2	0	0	11.1	2.0



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PO Box 397 Puyallup, WA 98371

File Name : 5279c
Site Code : 00005279
Start Date : 1/9/2024
Page No : 1

Groups Printed- Passenger + - Heavy

	188th St NE Westbound			Airport Blvd Northbound			188th St NE Eastbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
04:00 PM	54	22	76	13	23	36	15	53	68	180
04:15 PM	32	11	43	15	15	30	12	63	75	148
04:30 PM	52	18	70	23	31	54	14	59	73	197
04:45 PM	61	9	70	24	19	43	9	45	54	167
Total	199	60	259	75	88	163	50	220	270	692
05:00 PM	44	13	57	33	33	66	13	80	93	216
05:15 PM	34	8	42	18	11	29	13	58	71	142
05:30 PM	42	9	51	16	12	28	9	44	53	132
05:45 PM	30	16	46	8	9	17	14	34	48	111
Total	150	46	196	75	65	140	49	216	265	601
Grand Total	349	106	455	150	153	303	99	436	535	1293
Apprch %	76.7	23.3		49.5	50.5		18.5	81.5		
Total %	27	8.2	35.2	11.6	11.8	23.4	7.7	33.7	41.4	
Passenger +	334	100	434	148	147	295	96	428	524	1253
% Passenger +	95.7	94.3	95.4	98.7	96.1	97.4	97	98.2	97.9	96.9
Heavy	15	6	21	2	6	8	3	8	11	40
% Heavy	4.3	5.7	4.6	1.3	3.9	2.6	3	1.8	2.1	3.1

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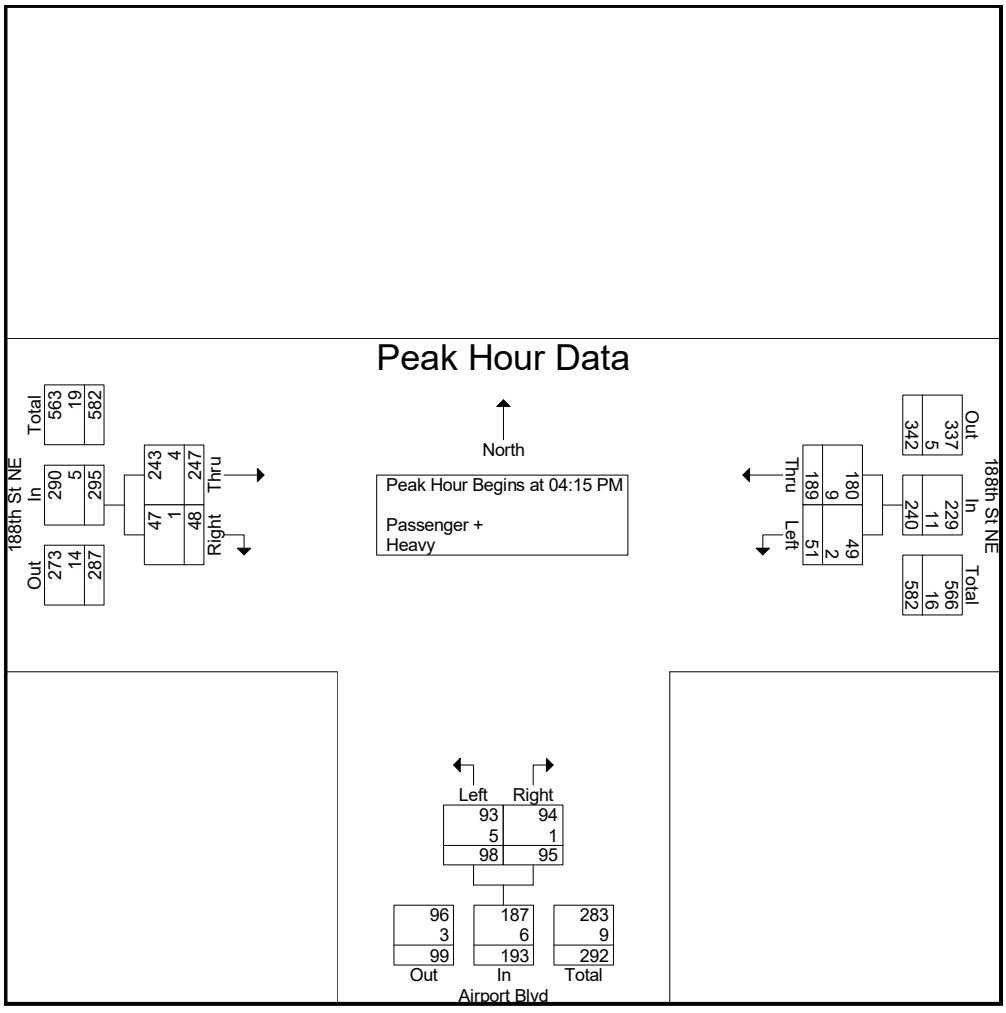
PO Box 397 Puyallup, WA 98371

File Name : 5279c
Site Code : 00005279
Start Date : 1/9/2024
Page No : 2

	188th St NE Westbound			Airport Blvd Northbound			188th St NE Eastbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	32	11	43	15	15	30	12	63	75	148
04:30 PM	52	**18**	**70**	23	31	54	**14**	59	73	197
04:45 PM	**61**	9	70	24	19	43	9	45	54	167
05:00 PM	44	13	57	**33**	**33**	**66**	13	**80**	**93**	**216**
Total Volume	189	51	240	95	98	193	48	247	295	728
% App. Total	78.8	21.2		49.2	50.8		16.3	83.7		
PHF	.775	.708	.857	.720	.742	.731	.857	.772	.793	.843
Passenger +	180	49	229	94	93	187	47	243	290	706
% Passenger +	95.2	96.1	95.4	98.9	94.9	96.9	97.9	98.4	98.3	97.0
Heavy	9	2	11	1	5	6	1	4	5	22
% Heavy	4.8	3.9	4.6	1.1	5.1	3.1	2.1	1.6	1.7	3.0



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File Name : 5279eU
Site Code : 00005279
Start Date : 1/9/2024
Page No : 1

Groups Printed- Passenger + - Heavy

	Smokey Point Blvd Southbound					172nd St NE Westbound					Smokey Point Blvd Northbound					172nd St NE Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
04:00 PM	60	85	32	0	177	26	101	121	4	252	64	97	129	0	290	66	213	73	26	378	1097
04:15 PM	69	52	36	0	157	12	216	57	2	287	40	94	134	0	268	71	245	108	14	438	1150
04:30 PM	71	77	36	2	186	19	209	48	3	279	47	98	147	0	292	64	180	84	14	342	1099
04:45 PM	62	90	45	2	199	13	171	38	5	227	38	129	123	0	290	81	219	100	14	414	1130
Total	262	304	149	4	719	70	697	264	14	1045	189	418	533	0	1140	282	857	365	68	1572	4476
05:00 PM	68	60	48	0	176	17	207	45	4	273	45	83	159	0	287	69	228	96	18	411	1147
05:15 PM	59	61	31	6	157	16	190	42	5	253	46	92	118	0	256	59	146	80	9	294	960
05:30 PM	54	50	45	0	149	15	159	30	4	208	44	64	122	0	230	47	159	73	10	289	876
05:45 PM	49	35	22	0	106	10	148	33	1	192	37	53	80	0	170	73	173	63	13	322	790
Total	230	206	146	6	588	58	704	150	14	926	172	292	479	0	943	248	706	312	50	1316	3773
Grand Total	492	510	295	10	1307	128	1401	414	28	1971	361	710	1012	0	2083	530	1563	677	118	2888	8249
Apprch %	37.6	39	22.6	0.8		6.5	71.1	21	1.4		17.3	34.1	48.6	0		18.4	54.1	23.4	4.1		
Total %	6	6.2	3.6	0.1	15.8	1.6	17	5	0.3	23.9	4.4	8.6	12.3	0	25.3	6.4	18.9	8.2	1.4	35	
Passenger +	477	496	290	10	1273	127	1356	405	28	1916	357	694	993	0	2044	505	1499	664	118	2786	8019
% Passenger +	97	97.3	98.3	100	97.4	99.2	96.8	97.8	100	97.2	98.9	97.7	98.1	0	98.1	95.3	95.9	98.1	100	96.5	97.2
Heavy	15	14	5	0	34	1	45	9	0	55	4	16	19	0	39	25	64	13	0	102	230
% Heavy	3	2.7	1.7	0	2.6	0.8	3.2	2.2	0	2.8	1.1	2.3	1.9	0	1.9	4.7	4.1	1.9	0	3.5	2.8

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File Name : 5279eU
Site Code : 00005279
Start Date : 1/9/2024
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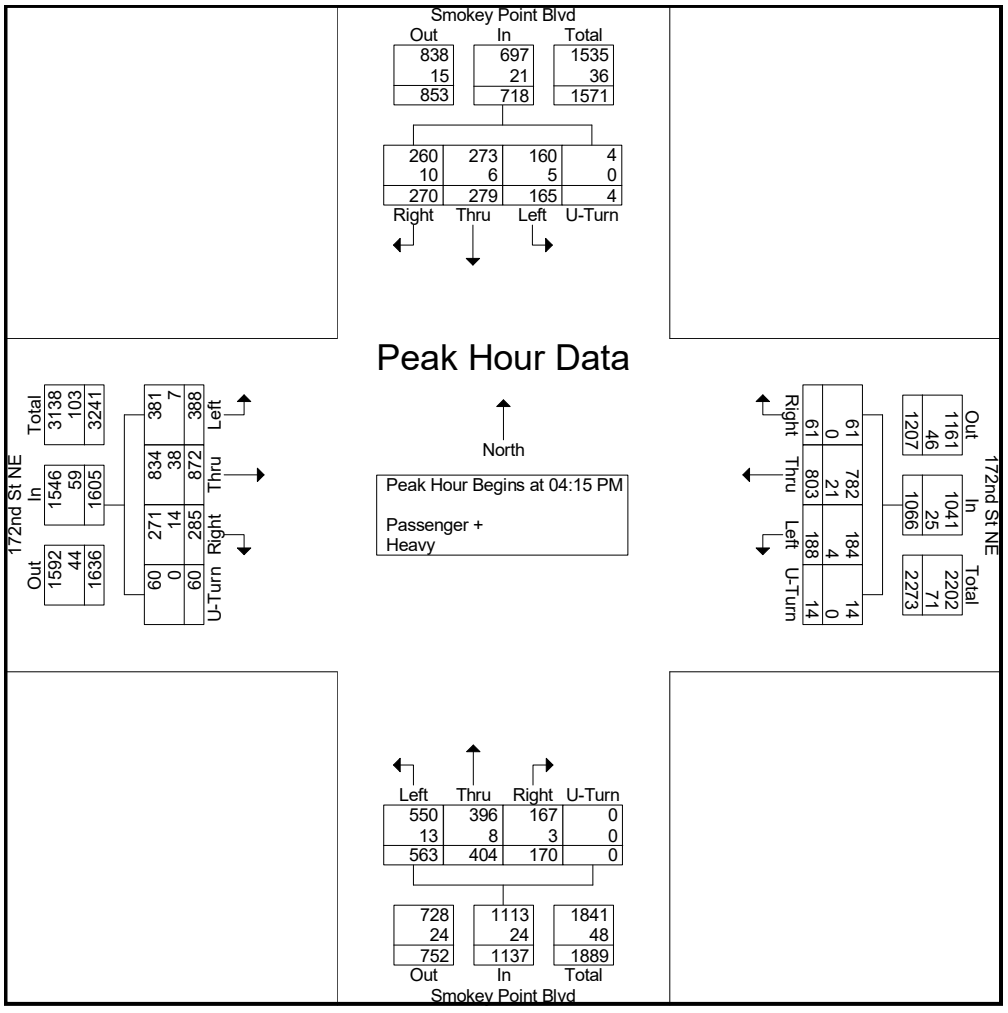
	Smokey Point Blvd Southbound					172nd St NE Westbound					Smokey Point Blvd Northbound					172nd St NE Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	69	52	36	0	157	12	**216**	**57**	2	**287**	40	94	134	0	268	71	**245**	**108**	14	**438**	**1150**
04:30 PM	**71**	77	36	**2**	186	**19**	209	48	3	279	**47**	98	147	0	**292**	64	180	84	14	342	1099
04:45 PM	62	**90**	45	2	**199**	13	171	38	**5**	227	38	**129**	123	0	290	**81**	219	100	14	414	1130
05:00 PM	68	60	**48**	0	176	17	207	45	4	273	45	83	**159**	0	287	69	228	96	**18**	411	1147
Total Volume	270	279	165	4	718	61	803	188	14	1066	170	404	563	0	1137	285	872	388	60	1605	4526
% App. Total	37.6	38.9	23	0.6		5.7	75.3	17.6	1.3		15	35.5	49.5	0		17.8	54.3	24.2	3.7		
PHF	.951	.775	.859	.500	.902	.803	.929	.825	.700	.929	.904	.783	.885	.000	.973	.880	.890	.898	.833	.916	.984
Passenger +	260	273	160	4	697	61	782	184	14	1041	167	396	550	0	1113	271	834	381	60	1546	4397
% Passenger +	96.3	97.8	97.0	100	97.1	100	97.4	97.9	100	97.7	98.2	98.0	97.7	0	97.9	95.1	95.6	98.2	100	96.3	97.1
Heavy	10	6	5	0	21	0	21	4	0	25	3	8	13	0	24	14	38	7	0	59	129
% Heavy	3.7	2.2	3.0	0	2.9	0	2.6	2.1	0	2.3	1.8	2.0	2.3	0	2.1	4.9	4.4	1.8	0	3.7	2.9



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File Name : 5279d
Site Code : 00005279
Start Date : 1/9/2024
Page No : 1

Groups Printed- Passenger + - Heavy

	51st Ave NE Southbound				172nd St NE Westbound				51st Ave NE Northbound				172nd St NE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
04:00 PM	8	17	16	41	6	204	29	239	9	12	13	34	20	186	5	211	525
04:15 PM	7	6	11	24	14	187	23	224	18	7	35	60	13	194	9	216	524
04:30 PM	12	16	20	48	9	206	25	240	20	21	30	71	16	163	4	183	542
04:45 PM	9	8	12	29	11	167	14	192	15	17	18	50	20	183	7	210	481
Total	36	47	59	142	40	764	91	895	62	57	96	215	69	726	25	820	2072
05:00 PM	15	13	13	41	10	165	18	193	21	16	23	60	13	182	5	200	494
05:15 PM	5	11	13	29	15	115	20	150	17	9	24	50	15	152	6	173	402
05:30 PM	5	8	5	18	6	115	14	135	28	11	36	75	22	164	4	190	418
05:45 PM	2	8	14	24	3	113	29	145	8	5	21	34	17	141	5	163	366
Total	27	40	45	112	34	508	81	623	74	41	104	219	67	639	20	726	1680
Grand Total	63	87	104	254	74	1272	172	1518	136	98	200	434	136	1365	45	1546	3752
Apprch %	24.8	34.3	40.9		4.9	83.8	11.3		31.3	22.6	46.1		8.8	88.3	2.9		
Total %	1.7	2.3	2.8	6.8	2	33.9	4.6	40.5	3.6	2.6	5.3	11.6	3.6	36.4	1.2	41.2	
Passenger +	63	80	103	246	71	1241	170	1482	133	96	193	422	130	1310	45	1485	3635
% Passenger +	100	92	99	96.9	95.9	97.6	98.8	97.6	97.8	98	96.5	97.2	95.6	96	100	96.1	96.9
Heavy	0	7	1	8	3	31	2	36	3	2	7	12	6	55	0	61	117
% Heavy	0	8	1	3.1	4.1	2.4	1.2	2.4	2.2	2	3.5	2.8	4.4	4	0	3.9	3.1

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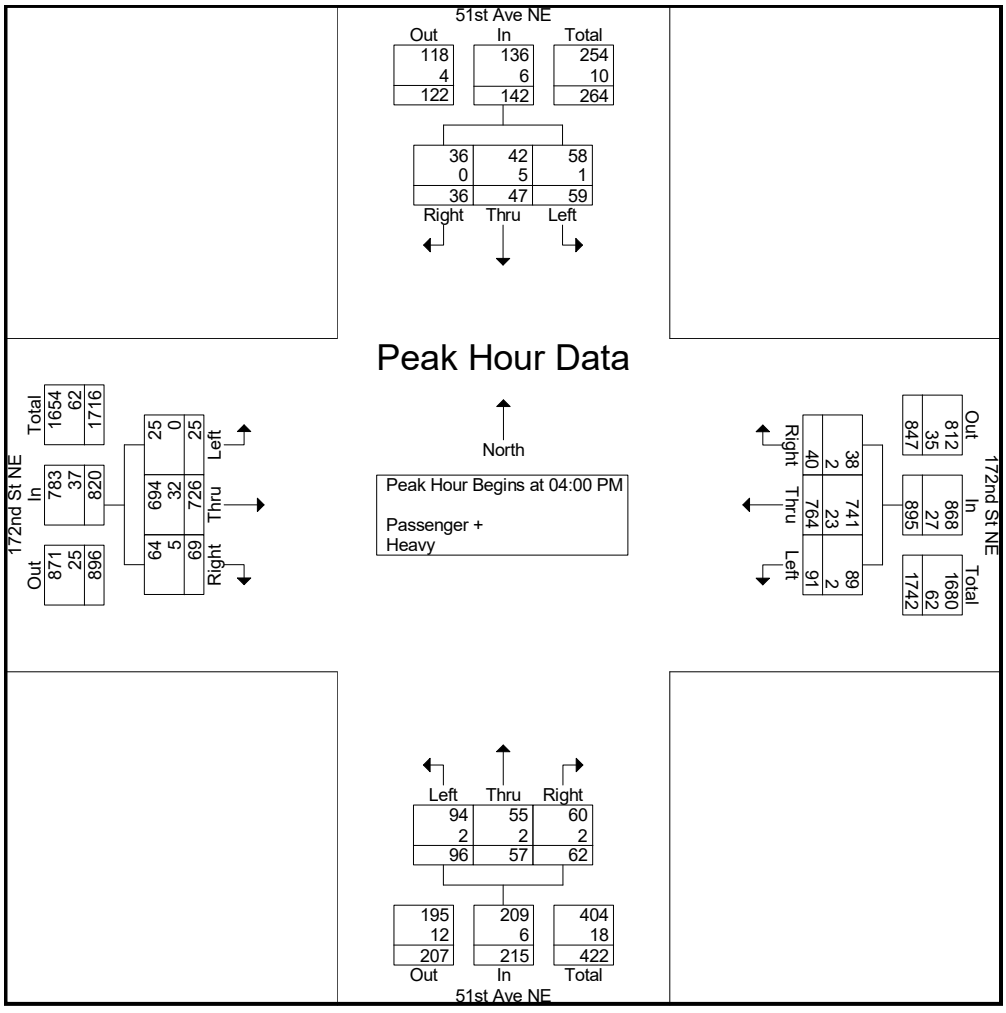
File Name : 5279d
Site Code : 00005279
Start Date : 1/9/2024
Page No : 2

	51st Ave NE Southbound				172nd St NE Westbound				51st Ave NE Northbound				172nd St NE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	8	**17**	16	41	6	204	**29**	239	9	12	13	34	**20**	186	5	211	525
04:15 PM	7	6	11	24	**14**	187	23	224	18	7	**35**	60	13	**194**	**9**	**216**	524
04:30 PM	**12**	16	**20**	**48**	9	**206**	25	**240**	**20**	**21**	30	**71**	16	163	4	183	**542**
04:45 PM	9	8	12	29	11	167	14	192	15	17	18	50	20	183	7	210	481
Total Volume	36	47	59	142	40	764	91	895	62	57	96	215	69	726	25	820	2072
% App. Total	25.4	33.1	41.5		4.5	85.4	10.2		28.8	26.5	44.7		8.4	88.5	3		
PHF	.750	.691	.738	.740	.714	.927	.784	.932	.775	.679	.686	.757	.863	.936	.694	.949	.956
Passenger +	36	42	58	136	38	741	89	868	60	55	94	209	64	694	25	783	1996
% Passenger +	100	89.4	98.3	95.8	95.0	97.0	97.8	97.0	96.8	96.5	97.9	97.2	92.8	95.6	100	95.5	96.3
Heavy	0	5	1	6	2	23	2	27	2	2	2	6	5	32	0	37	76
% Heavy	0	10.6	1.7	4.2	5.0	3.0	2.2	3.0	3.2	3.5	2.1	2.8	7.2	4.4	0	4.5	3.7



SMOKEY POINT MIXED-USE TRAFFIC IMPACT ANALYSIS

APPENDIX

ITE TRIP GENERATION SPREADSHEET

Heath & Associates Transportation Engineering
Project: Smokey Point Mixed-Use
Jurisdiction: Arlington

Trip Generation Summary

Average Weekday Daily

Development	Land Use	LUC	Variable	Value	Rate	Distribution		Total Trips			Internal Capture		Pass-by Trips		Primary Trips		
						In	Out	In	Out	Total	%	Total	%	Total	In	Out	Total
Existing	Single-Family Detached	#210	Dwelling Unit	1	9.43	50%	50%	4.7	4.7	9.4	0.0%	0.0	0%	0.0	4.7	4.7	9.4
Full Build-Out	Multi-Family (Low-Rise)	#220	Dwelling Unit	62	6.74	50%	50%	208.9	208.9	417.9	11.0%	46.0	0%	0.0	186.0	186.0	371.9
	Live/Work Office Space	#710	1,000 sq. ft.	4.49	10.84	50%	50%	24.3	24.3	48.7	11.0%	5.4	0%	0.0	21.7	21.7	43.3
	Shopping Plaza (40-150k) - No Supermarket	#821	1,000 sq. ft.	42.93	67.52	50%	50%	1449.3	1449.3	2898.6	11.0%	318.8	40%	1031.9	773.9	773.9	1547.9
							Net New Totals	**1677.9**	**1677.9**	**3355.8**		**370.2**		**1031.9**	**976.8**	**976.8**	**1953.7**
							Retail:	**1473.7**	**1473.7**	**2947.3**							
							Residential:	**204.2**	**204.2**	**408.5**							

Weekday AM Peak Hour

Development	Land Use	LUC	Variable	Value	Rate	Distribution		Total Trips			Internal Capture		Pass-by Trips		Primary Trips		
						In	Out	In	Out	Total	%	Total	%	Total	In	Out	Total
Existing	Single-Family Detached	#210	Dwelling Unit	1	0.7	25%	75%	0.2	0.5	0.7	0.0%	0.0	0%	0.0	0.2	0.5	0.7
Full Build-Out	Multi-Family (Low-Rise)	#220	Dwelling Unit	62	0.4	24%	76%	6.0	18.8	24.8	11.0%	2.7	0%	0.0	5.3	16.8	22.1
	Live/Work Office Space	#710	1,000 sq. ft.	4.49	1.52	88%	12%	6.0	0.8	6.8	11.0%	0.8	0%	0.0	5.3	0.7	6.1
	Shopping Plaza (40-150k) - No Supermarket	#821	1,000 sq. ft.	42.93	1.73	62%	38%	46.0	28.2	74.3	11.0%	8.2	40%	26.4	24.6	15.1	39.7
							Net New Totals	**57.8**	**47.4**	**105.2**		**11.6**		**26.4**	**35.1**	**32.0**	**67.1**
							Retail:	**52.1**	**29.0**	**81.1**							
							Residential:	**5.8**	**18.3**	**24.1**							

Weekday PM Peak Hour

Development	Land Use	LUC	Variable	Value	Rate	Distribution		Total Trips			Internal Capture		Pass-by Trips		Primary Trips		
						In	Out	In	Out	Total	%	Total	%	Total	In	Out	Total
Existing	Single-Family Detached	#210	Dwelling Unit	1	0.94	63%	37%	0.6	0.3	0.9	0.0%	0.0	0%	0.0	0.6	0.3	0.9
Full Build-Out	Multi-Family (Low-Rise)	#220	Dwelling Unit	62	0.51	63%	37%	19.9	11.7	31.6	11.0%	3.5	0%	0.0	17.7	10.4	28.1
	Live/Work Office Space	#710	1,000 sq. ft.	4.49	1.44	17%	83%	1.1	5.4	6.5	11.0%	0.7	0%	0.0	1.0	4.8	5.8
	Shopping Plaza (40-150k) - No Supermarket	#821	1,000 sq. ft.	42.93	5.19	49%	51%	109.2	113.6	222.8	11.0%	24.5	40%	79.3	58.3	60.7	119.0
							Net New Totals	**130.2**	**130.7**	**260.9**		**28.7**		**79.3**	**76.4**	**75.5**	**151.9**
							Retail:	**110.3**	**119.0**	**229.3**							
							Residential:	**19.3**	**11.4**	**30.7**							

Sources:
>Institute of Transportation Engineers, *Trip Generation Manual,* 11th Edition, (2021).

>Pass-by rates were derived from the Institute of Transportation Engineers, 2021 Pass-By Tables for ITE Trip Gen Appendices (2021). The PM peak period pass-by rate of 40% for LUC 821 - Shopping Plaza was applied to all analysis scenarios for the land use.

SMOKEY POINT MIXED-USE TRAFFIC IMPACT ANALYSIS

APPENDIX

NCHRP 8-51 INTERNAL TRIP CAPTURE ESTIMATION SPREADSHEETS

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Smokey Point Mixed Use	**Organization:**	Kimley-Horn
Project Location:	Arlington, WA	**Performed By:**	Joseph Miller
Scenario Description:	Full Build-Out	**Date:**	7/20/2023
Analysis Year:	---	**Checked By:**	-
Analysis Period:	**PM Street Peak Hour**	**Date:**	-

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				6	1	5
Retail				223	109	114
Restaurant				0	0	0
Cinema/Entertainment				0	0	0
Residential				32	20	12
Hotel				0	0	0
All Other Land Uses[2]				0	0	0
				261	130	131

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.00	0%	0%	1.00	0.00	0.00
Retail	1.00	0%	0%	1.00	0.00	0.00
Restaurant	1.00	0%	0%	1.00	0.00	0.00
Cinema/Entertainment						
Residential	1.00	0%	0%	1.00	0.00	0.00
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		1	0	0	0	0
Retail	0		0	0	9	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	5	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	261	130	131
Internal Capture Percentage	11%	12%	11%
External Vehicle-Trips[5]	231	115	116
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	0%	20%
Retail	6%	8%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	45%	42%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.
[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.
[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).
[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be
[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.
[6]Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	Smokey Point Mixed Use
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	1	1	1.00	5	5
Retail	1.00	109	109	1.00	114	114
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	20	20	1.00	12	12
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		1	0	0	0	0
Retail	2		33	5	30	6
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	5	3	0		0
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		9	0	0	1	0
Retail	0		0	0	9	0
Restaurant	0	55		0	3	0
Cinema/Entertainment	0	4	0		1	0
Residential	1	11	0	0		0
Hotel	0	2	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	1	1	1	0	0
Retail	6	103	109	103	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	9	11	20	11	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	1	4	5	4	0	0
Retail	9	105	114	105	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	5	7	12	7	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

SMOKEY POINT MIXED-USE TRAFFIC IMPACT ANALYSIS

APPENDIX

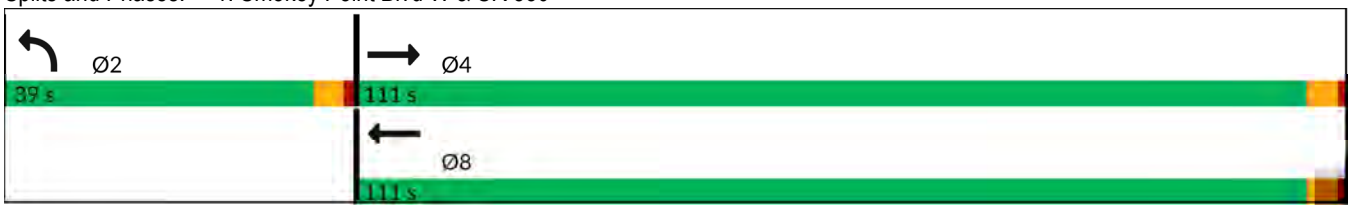
EXISTING LEVEL OF SERVICE

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	688	197	0	634	215	4
Future Volume (vph)	688	197	0	634	215	4
Satd. Flow (prot)	1793	0	0	1881	1789	0
Flt Permitted					0.953	
Satd. Flow (perm)	1793	0	0	1881	1789	0
Satd. Flow (RTOR)	24				1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	2%	4%	1%	1%	1%
Adj. Flow (vph)	724	207	0	667	226	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	931	0	0	667	230	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA			NA	Prot	
Protected Phases	4			8	2	
Permitted Phases						
Minimum Initial (s)	5.0			5.0	5.0	
Minimum Split (s)	22.5			22.5	22.5	
Total Split (s)	111.0			111.0	39.0	
Total Split (%)	74.0%			74.0%	26.0%	
Maximum Green (s)	106.5			106.5	34.5	
Yellow Time (s)	3.5			3.5	3.5	
All-Red Time (s)	1.0			1.0	1.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	None			None	Min	
Walk Time (s)	7.0			7.0	7.0	
Flash Dont Walk (s)	11.0			11.0	11.0	
Pedestrian Calls (#/hr)	0			0	0	
Act Effct Green (s)	47.8			47.8	16.7	
Actuated g/C Ratio	0.64			0.64	0.22	
v/c Ratio	0.80			0.55	0.57	
Control Delay (s/veh)	16.0			9.3	36.0	
Queue Delay	0.0			0.0	0.0	
Total Delay (s/veh)	16.0			9.3	36.0	
LOS	B			A	D	
Approach Delay (s/veh)	16.0			9.3	36.0	
Approach LOS	B			A	D	

Intersection Summary

Cycle Length: 150	
Actuated Cycle Length: 74.5	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay (s/veh): 16.1	Intersection LOS: B
Intersection Capacity Utilization 67.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Smokey Point Blvd W & SR 530



Intersection	
Intersection Delay, s/veh	15
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	6	9	190	9	68	13	206	206	44	183	4
Future Vol, veh/h	3	6	9	190	9	68	13	206	206	44	183	4
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	1	1	22	2	1	4	1	1	2	5	2	1
Mvmt Flow	3	7	10	211	10	76	14	229	229	49	203	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	9.5	14.2	17.2	12.5
HCM LOS	A	B	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	17%	71%	19%
Vol Thru, %	48%	33%	3%	79%
Vol Right, %	48%	50%	25%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	425	18	267	231
LT Vol	13	3	190	44
Through Vol	206	6	9	183
RT Vol	206	9	68	4
Lane Flow Rate	472	20	297	257
Geometry Grp	1	1	1	1
Degree of Util (X)	0.658	0.034	0.48	0.404
Departure Headway (Hd)	5.014	6.204	5.824	5.664
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	718	573	617	634
Service Time	3.058	4.287	3.875	3.717
HCM Lane V/C Ratio	0.657	0.035	0.481	0.405
HCM Control Delay, s/veh	17.2	9.5	14.2	12.5
HCM Lane LOS	C	A	B	B
HCM 95th-tile Q	5	0.1	2.6	2

Intersection	
Int Delay, s/veh	4.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	247	48	51	189	98	95
Future Vol, veh/h	247	48	51	189	98	95
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	175	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	4	5	5	1
Mvmt Flow	294	57	61	225	117	113

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	361	0	689	343
Stage 1	-	-	-	-	333	-
Stage 2	-	-	-	-	356	-
Critical Hdwy	-	-	4.14	-	6.45	6.21
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.236	-	3.545	3.309
Pot Cap-1 Maneuver	-	-	1186	-	407	702
Stage 1	-	-	-	-	720	-
Stage 2	-	-	-	-	702	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1175	-	376	689
Mov Cap-2 Maneuver	-	-	-	-	376	-
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	654	-

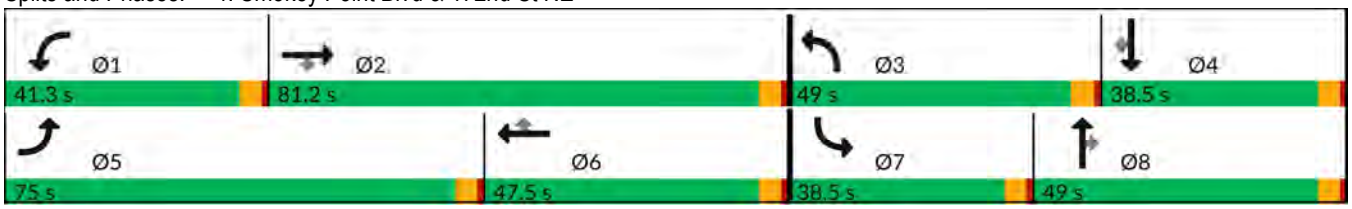
Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.75	15.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	376	689	-	-	383	-
HCM Lane V/C Ratio	0.311	0.164	-	-	0.052	-
HCM Control Delay (s/veh)	18.8	11.2	-	-	8.2	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	1.3	0.6	-	-	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	448	872	285	202	803	61	563	404	170	169	279	270
Future Volume (vph)	448	872	285	202	803	61	563	404	170	169	279	270
Satd. Flow (prot)	1770	3471	1538	1770	5036	1599	3433	3539	1583	1752	3539	1553
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1760	3471	1496	1762	5036	1554	3390	3539	1506	1724	3539	1506
Satd. Flow (RTOR)			185			101			135			276
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	4%	5%	2%	3%	1%	2%	2%	2%	3%	2%	4%
Adj. Flow (vph)	457	890	291	206	819	62	574	412	173	172	285	276
Shared Lane Traffic (%)												
Lane Group Flow (vph)	457	890	291	206	819	62	574	412	173	172	285	276
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	44.5	44.5	9.5	42.5	42.5	40.5	40.5	40.5	38.5	38.5	38.5
Total Split (s)	75.0	81.2	81.2	41.3	47.5	47.5	49.0	49.0	49.0	38.5	38.5	38.5
Total Split (%)	35.7%	38.7%	38.7%	19.7%	22.6%	22.6%	23.3%	23.3%	23.3%	18.3%	18.3%	18.3%
Maximum Green (s)	70.5	76.7	76.7	36.8	43.0	43.0	44.5	44.5	44.5	34.0	34.0	34.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		33.0	33.0		31.0	31.0	29.0	29.0	29.0	27.0	27.0	27.0
Pedestrian Calls (#/hr)		5	5		5	5	5	5	5	5	5	5
Act Effct Green (s)	48.3	57.4	57.4	25.1	34.2	34.2	33.2	31.7	31.7	22.3	20.7	20.7
Actuated g/C Ratio	0.31	0.37	0.37	0.16	0.22	0.22	0.21	0.20	0.20	0.14	0.13	0.13
v/c Ratio	0.83	0.69	0.43	0.72	0.74	0.15	0.78	0.57	0.42	0.69	0.61	0.63
Control Delay (s/veh)	65.9	46.6	16.6	81.3	63.8	1.4	69.1	62.3	19.7	82.7	72.6	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	65.9	46.6	16.6	81.3	63.8	1.4	69.1	62.3	19.7	82.7	72.6	13.9
LOS	E	D	B	F	E	A	E	E	B	F	E	B
Approach Delay (s/veh)		46.7			63.5			59.3			52.9	
Approach LOS		D			E			E			D	

Intersection Summary	
Cycle Length: 210	
Actuated Cycle Length: 155.5	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay (s/veh): 54.8	Intersection LOS: D
Intersection Capacity Utilization 89.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: Smokey Point Blvd & 172nd St NE

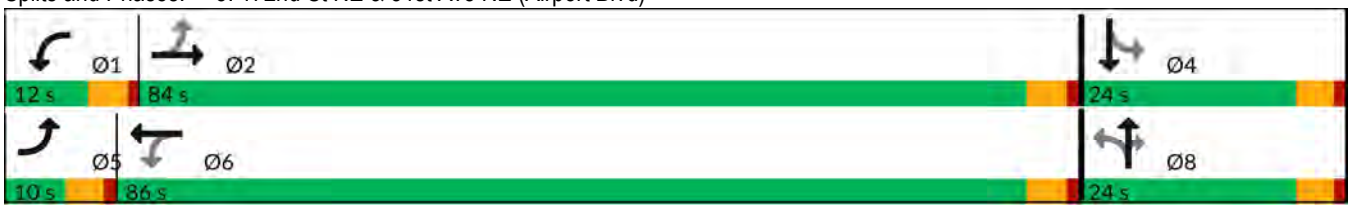


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	726	69	91	764	40	96	57	62	59	47	36
Future Volume (vph)	25	726	69	91	764	40	96	57	62	59	47	36
Satd. Flow (prot)	1787	1799	0	1770	1828	0	1770	1827	1568	1770	1664	0
Flt Permitted	0.236			0.176			0.701			0.719		
Satd. Flow (perm)	444	1799	0	328	1828	0	1306	1827	1568	1339	1664	0
Satd. Flow (RTOR)		8			5				65		28	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	4%	7%	2%	3%	5%	2%	4%	3%	2%	11%	1%
Adj. Flow (vph)	26	756	72	95	796	42	100	59	65	61	49	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	26	828	0	95	838	0	100	59	65	61	87	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (s)	10.0	84.0		12.0	86.0		24.0	24.0	24.0	24.0	24.0	
Total Split (%)	8.3%	70.0%		10.0%	71.7%		20.0%	20.0%	20.0%	20.0%	20.0%	
Maximum Green (s)	5.5	79.5		7.5	81.5		19.5	19.5	19.5	19.5	19.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	Min		None	Min		None	None	None	None	None	
Walk Time (s)		7.0			7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)		10			10		0	0	0	10	10	
Act Effct Green (s)	49.1	44.8		52.9	50.6		11.8	11.8	11.8	11.8	11.8	
Actuated g/C Ratio	0.65	0.60		0.70	0.67		0.16	0.16	0.16	0.16	0.16	
v/c Ratio	0.07	0.77		0.26	0.68		0.49	0.21	0.22	0.29	0.31	
Control Delay (s/veh)	4.0	18.3		5.3	12.5		41.6	33.6	11.4	36.1	26.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	4.0	18.3		5.3	12.5		41.6	33.6	11.4	36.1	26.6	
LOS	A	B		A	B		D	C	B	D	C	
Approach Delay (s/veh)		17.9			11.8			30.7			30.5	
Approach LOS		B			B			C			C	

Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 75.1	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay (s/veh): 17.4	Intersection LOS: B
Intersection Capacity Utilization 70.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 5: 172nd St NE & 51st Ave NE (Airport Blvd)



SMOKEY POINT MIXED-USE
TRAFFIC IMPACT ANALYSIS

APPENDIX

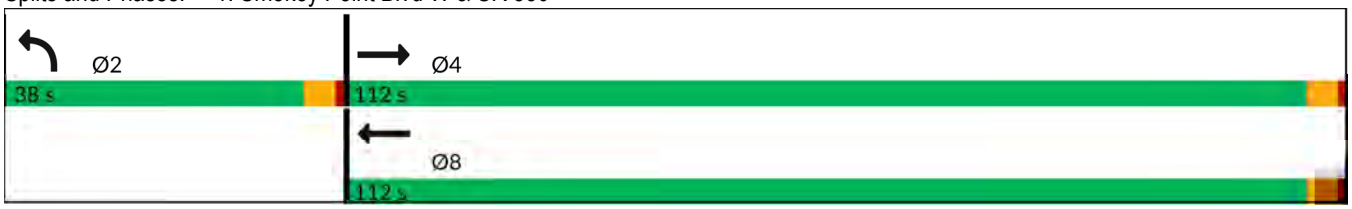
FORECAST 2027 PEAK HOUR LEVEL OF SERVICE
WITHOUT PROJECT

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	784	216	0	716	240	4
Future Volume (vph)	784	216	0	716	240	4
Satd. Flow (prot)	1795	0	0	1881	1789	0
Flt Permitted					0.953	
Satd. Flow (perm)	1795	0	0	1881	1789	0
Satd. Flow (RTOR)	23				1	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	3%	2%	4%	1%	1%	1%
Adj. Flow (vph)	784	216	0	716	240	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1000	0	0	716	244	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA			NA	Prot	
Protected Phases	4			8	2	
Permitted Phases						
Minimum Initial (s)	5.0			5.0	5.0	
Minimum Split (s)	22.5			22.5	22.5	
Total Split (s)	112.0			112.0	38.0	
Total Split (%)	74.7%			74.7%	25.3%	
Maximum Green (s)	107.5			107.5	33.5	
Yellow Time (s)	3.5			3.5	3.5	
All-Red Time (s)	1.0			1.0	1.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	None			None	Min	
Walk Time (s)	7.0			7.0	7.0	
Flash Dont Walk (s)	11.0			11.0	11.0	
Pedestrian Calls (#/hr)	0			0	0	
Act Effct Green (s)	58.5			58.5	19.3	
Actuated g/C Ratio	0.66			0.66	0.22	
v/c Ratio	0.83			0.57	0.62	
Control Delay (s/veh)	18.2			10.0	43.8	
Queue Delay	0.0			0.0	0.0	
Total Delay (s/veh)	18.2			10.0	43.8	
LOS	B			A	D	
Approach Delay (s/veh)	18.2			10.0	43.8	
Approach LOS	B			A	D	

Intersection Summary

Cycle Length: 150	
Actuated Cycle Length: 88.2	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay (s/veh): 18.4	Intersection LOS: B
Intersection Capacity Utilization 75.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Smokey Point Blvd W & SR 530



Intersection	
Intersection Delay, s/veh	20
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	7	10	223	10	86	14	225	233	51	200	4
Future Vol, veh/h	3	7	10	223	10	86	14	225	233	51	200	4
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	1	1	22	2	1	4	1	1	2	5	2	1
Mvmt Flow	3	8	11	248	11	96	16	250	259	57	222	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	10.2	18.1	24.6	14.6
HCM LOS	B	C	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	15%	70%	20%
Vol Thru, %	48%	35%	3%	78%
Vol Right, %	49%	50%	27%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	472	20	319	255
LT Vol	14	3	223	51
Through Vol	225	7	10	200
RT Vol	233	10	86	4
Lane Flow Rate	524	22	354	283
Geometry Grp	1	1	1	1
Degree of Util (X)	0.776	0.042	0.601	0.476
Departure Headway (Hd)	5.327	6.88	6.102	6.049
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	671	524	588	589
Service Time	3.407	4.88	4.184	4.144
HCM Lane V/C Ratio	0.781	0.042	0.602	0.48
HCM Control Delay, s/veh	24.6	10.2	18.1	14.6
HCM Lane LOS	C	B	C	B
HCM 95th-tile Q	7.4	0.1	4	2.6

Intersection	
Int Delay, s/veh	6.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	274	59	59	210	131	116
Future Vol, veh/h	274	59	59	210	131	116
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	175	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	4	5	5	1
Mvmt Flow	326	70	70	250	156	138

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	406	0	772	381
Stage 1	-	-	-	-	371	-
Stage 2	-	-	-	-	400	-
Critical Hdwy	-	-	4.14	-	6.45	6.21
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.236	-	3.545	3.309
Pot Cap-1 Maneuver	-	-	1142	-	364	668
Stage 1	-	-	-	-	691	-
Stage 2	-	-	-	-	670	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1131	-	331	655
Mov Cap-2 Maneuver	-	-	-	-	331	-
Stage 1	-	-	-	-	685	-
Stage 2	-	-	-	-	616	-

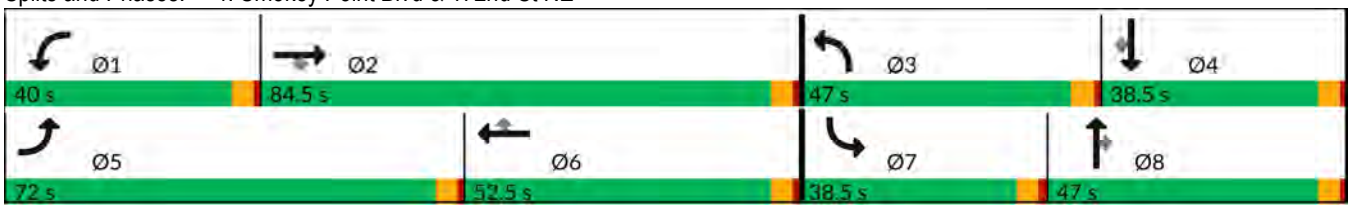
Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.84	18.97
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	331	655	-	-	395	-
HCM Lane V/C Ratio	0.471	0.211	-	-	0.062	-
HCM Control Delay (s/veh)	25.2	12	-	-	8.4	0
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	2.4	0.8	-	-	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	490	988	311	247	1000	67	615	441	197	184	305	295
Future Volume (vph)	490	988	311	247	1000	67	615	441	197	184	305	295
Satd. Flow (prot)	1770	3471	1538	1770	5036	1599	3433	3539	1583	1752	3539	1553
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1762	3471	1496	1763	5036	1554	3391	3539	1506	1725	3539	1506
Satd. Flow (RTOR)			182			101			142			295
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	2%	4%	5%	2%	3%	1%	2%	2%	2%	3%	2%	4%
Adj. Flow (vph)	490	988	311	247	1000	67	615	441	197	184	305	295
Shared Lane Traffic (%)												
Lane Group Flow (vph)	490	988	311	247	1000	67	615	441	197	184	305	295
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	44.5	44.5	9.5	42.5	42.5	40.5	40.5	40.5	38.5	38.5	38.5
Total Split (s)	72.0	84.5	84.5	40.0	52.5	52.5	47.0	47.0	47.0	38.5	38.5	38.5
Total Split (%)	34.3%	40.2%	40.2%	19.0%	25.0%	25.0%	22.4%	22.4%	22.4%	18.3%	18.3%	18.3%
Maximum Green (s)	67.5	80.0	80.0	35.5	48.0	48.0	42.5	42.5	42.5	34.0	34.0	34.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		33.0	33.0		31.0	31.0	29.0	29.0	29.0	27.0	27.0	27.0
Pedestrian Calls (#/hr)		5	5		5	5	5	5	5	5	5	5
Act Effct Green (s)	55.5	68.6	68.6	30.1	43.2	43.2	37.3	35.6	35.6	24.6	23.0	23.0
Actuated g/C Ratio	0.31	0.39	0.39	0.17	0.24	0.24	0.21	0.20	0.20	0.14	0.13	0.13
v/c Ratio	0.89	0.74	0.45	0.83	0.82	0.15	0.85	0.62	0.47	0.76	0.67	0.65
Control Delay (s/veh)	78.1	51.9	19.1	95.9	71.5	2.4	81.5	71.5	24.7	96.9	83.6	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	78.1	51.9	19.1	95.9	71.5	2.4	81.5	71.5	24.7	96.9	83.6	14.3
LOS	E	D	B	F	E	A	F	E	C	F	F	B
Approach Delay (s/veh)		53.4			72.6			69.1			60.6	
Approach LOS		D			E			E			E	

Intersection Summary	
Cycle Length: 210	
Actuated Cycle Length: 177.5	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay (s/veh): 63.2	Intersection LOS: E
Intersection Capacity Utilization 96.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: Smokey Point Blvd & 172nd St NE

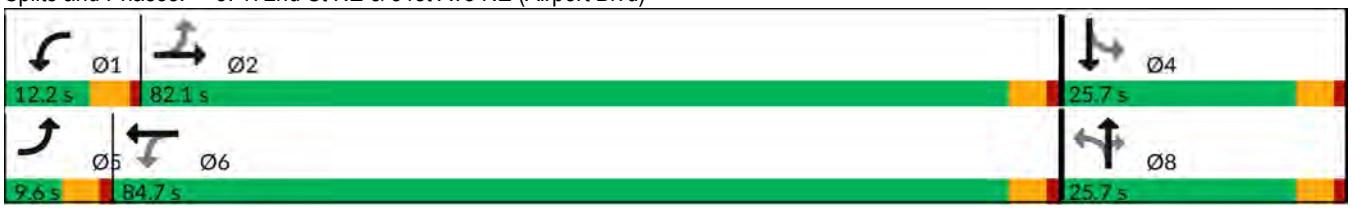


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	803	75	100	840	56	105	66	69	108	63	39
Future Volume (vph)	27	803	75	100	840	56	105	66	69	108	63	39
Satd. Flow (prot)	1787	1799	0	1770	1826	0	1770	1827	1568	1770	1672	0
Flt Permitted	0.204			0.154			0.691			0.714		
Satd. Flow (perm)	384	1799	0	287	1826	0	1287	1827	1568	1330	1672	0
Satd. Flow (RTOR)		8			6				69		23	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	4%	7%	2%	3%	5%	2%	4%	3%	2%	11%	1%
Adj. Flow (vph)	27	803	75	100	840	56	105	66	69	108	63	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	27	878	0	100	896	0	105	66	69	108	102	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (s)	9.6	82.1		12.2	84.7		25.7	25.7	25.7	25.7	25.7	
Total Split (%)	8.0%	68.4%		10.2%	70.6%		21.4%	21.4%	21.4%	21.4%	21.4%	
Maximum Green (s)	5.1	77.6		7.7	80.2		21.2	21.2	21.2	21.2	21.2	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	Min		None	Min		None	None	None	None	None	
Walk Time (s)		7.0			7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)		10			10		0	0	0	10	10	
Act Effct Green (s)	52.6	48.7		56.9	54.6		13.1	13.1	13.1	13.1	13.1	
Actuated g/C Ratio	0.65	0.60		0.71	0.68		0.16	0.16	0.16	0.16	0.16	
v/c Ratio	0.08	0.80		0.30	0.72		0.50	0.22	0.22	0.50	0.35	
Control Delay (s/veh)	4.3	20.1		5.9	13.7		45.5	37.1	11.8	45.1	32.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	4.3	20.1		5.9	13.7		45.5	37.1	11.8	45.1	32.4	
LOS	A	C		A	B		D	D	B	D	C	
Approach Delay (s/veh)		19.6			12.9			33.5			39.0	
Approach LOS		B			B			C			D	

Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 80.5	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay (s/veh): 19.9	Intersection LOS: B
Intersection Capacity Utilization 76.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: 172nd St NE & 51st Ave NE (Airport Blvd)

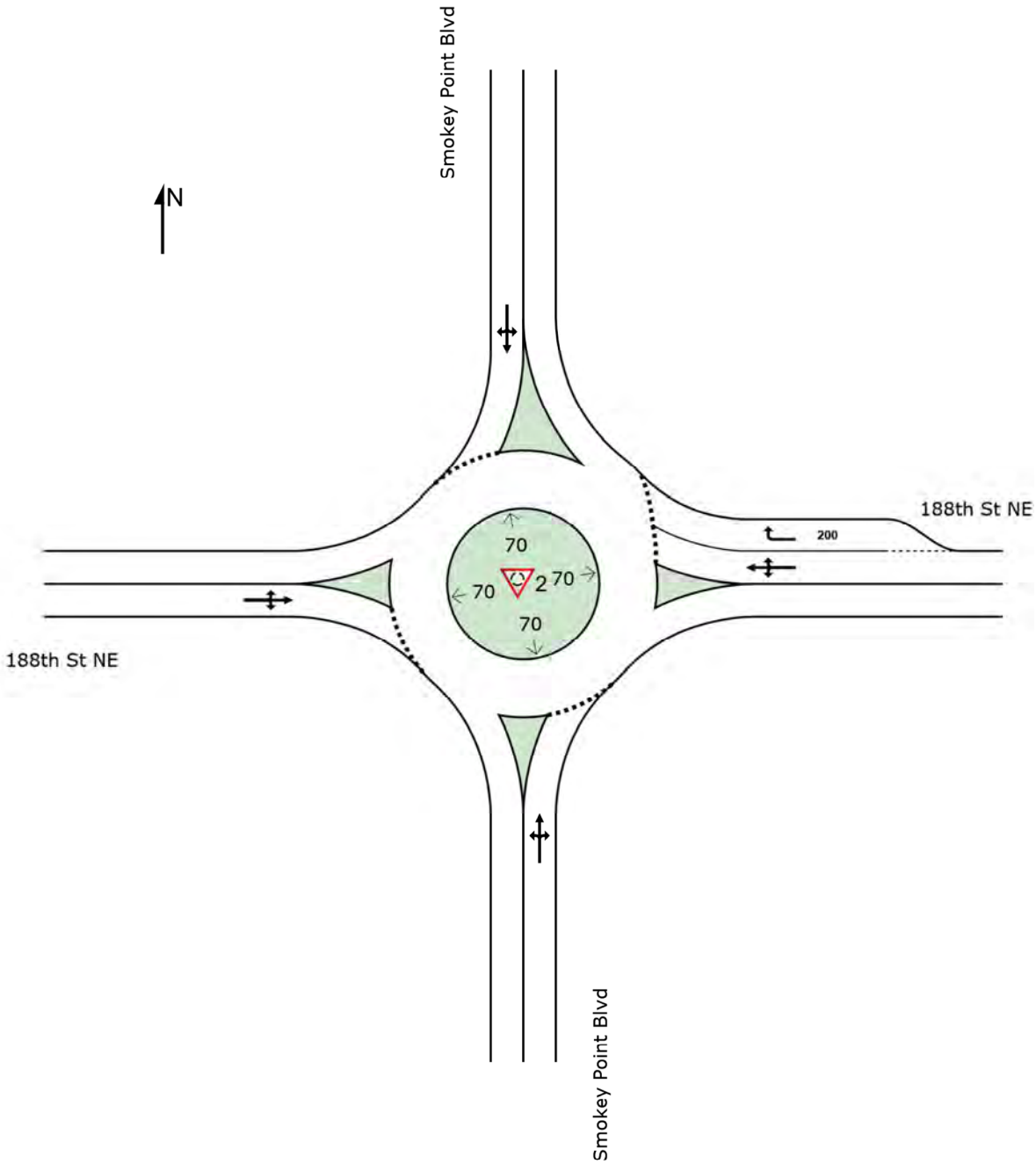


SITE LAYOUT

Site: 2 [1. Forecast 2027 Without (Site Folder: Smokey Point Blvd & 188th St NE)]

Smokey Point Boulevard & 188th Street NE
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 2 [1. Forecast 2027 Without (Site Folder: Smokey Point Blvd & 188th St NE)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Smokey Point Boulevard & 188th Street NE
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Smokey Point Blvd															
3	L2	All MCs	16	1.0	16	1.0	0.394	9.7	LOS A	2.6	65.2	0.27	0.46	0.27	34.7
8	T1	All MCs	250	1.0	250	1.0	0.394	4.9	LOS A	2.6	65.2	0.27	0.46	0.27	35.3
18	R2	All MCs	259	2.0	259	2.0	0.394	4.7	LOS A	2.6	65.2	0.27	0.46	0.27	35.0
Approach			524	1.5	524	1.5	0.394	4.9	LOS A	2.6	65.2	0.27	0.46	0.27	35.2
East: 188th St NE															
1	L2	All MCs	248	2.0	248	2.0	0.225	10.3	LOS B	1.2	31.0	0.40	0.62	0.40	32.6
6	T1	All MCs	11	1.0	11	1.0	0.225	5.4	LOS A	1.2	31.0	0.40	0.62	0.40	33.3
16	R2	All MCs	96	4.0	96	4.0	0.225	5.8	LOS A	1.2	31.0	0.40	0.60	0.40	33.5
Approach			354	2.5	354	2.5	0.225	8.9	LOS A	1.2	31.0	0.40	0.62	0.40	32.9
North: Smokey Point Blvd															
7	L2	All MCs	57	5.0	57	5.0	0.251	10.8	LOS B	1.4	35.1	0.45	0.55	0.45	33.5
4	T1	All MCs	222	2.0	222	2.0	0.251	5.8	LOS A	1.4	35.1	0.45	0.55	0.45	34.3
14	R2	All MCs	4	1.0	4	1.0	0.251	5.5	LOS A	1.4	35.1	0.45	0.55	0.45	34.0
Approach			283	2.6	283	2.6	0.251	6.8	LOS A	1.4	35.1	0.45	0.55	0.45	34.1
West: 188th St NE															
5	L2	All MCs	3	1.0	3	1.0	0.027	11.5	LOS B	0.1	3.4	0.54	0.61	0.54	33.5
2	T1	All MCs	8	1.0	8	1.0	0.027	6.7	LOS A	0.1	3.4	0.54	0.61	0.54	34.2
12	R2	All MCs	11	22.0	11	22.0	0.027	7.6	LOS A	0.1	3.4	0.54	0.61	0.54	33.3
Approach			22	11.5	22	11.5	0.027	7.9	LOS A	0.1	3.4	0.54	0.61	0.54	33.6
All Vehicles			1184	2.2	1184	2.2	0.394	6.6	LOS A	2.6	65.2	0.36	0.53	0.36	34.2

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SMOKEY POINT MIXED-USE TRAFFIC IMPACT ANALYSIS

APPENDIX

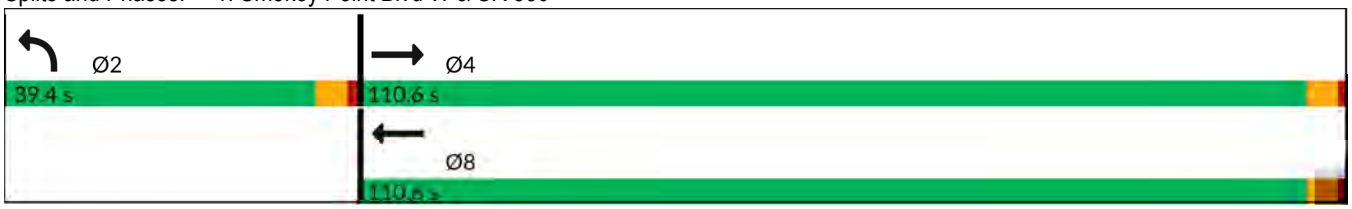
FORECAST 2027 PEAK HOUR LEVEL OF SERVICE WITH PROJECT

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	784	234	0	716	259	4
Future Volume (vph)	784	234	0	716	259	4
Satd. Flow (prot)	1791	0	0	1881	1789	0
Flt Permitted					0.953	
Satd. Flow (perm)	1791	0	0	1881	1789	0
Satd. Flow (RTOR)	24					
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	3%	2%	4%	1%	1%	1%
Adj. Flow (vph)	784	234	0	716	259	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1018	0	0	716	263	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA			NA	Prot	
Protected Phases	4			8	2	
Permitted Phases						
Minimum Initial (s)	5.0			5.0	5.0	
Minimum Split (s)	22.5			22.5	22.5	
Total Split (s)	110.6			110.6	39.4	
Total Split (%)	73.7%			73.7%	26.3%	
Maximum Green (s)	106.1			106.1	34.9	
Yellow Time (s)	3.5			3.5	3.5	
All-Red Time (s)	1.0			1.0	1.0	
Total Lost Time (s)	4.5			4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0	3.0	
Recall Mode	None			None	Min	
Walk Time (s)	7.0			7.0	7.0	
Flash Dont Walk (s)	11.0			11.0	11.0	
Pedestrian Calls (#/hr)	0			0	0	
Act Effct Green (s)	61.4			61.4	20.9	
Actuated g/C Ratio	0.66			0.66	0.23	
v/c Ratio	0.85			0.57	0.65	
Control Delay (s/veh)	20.1			10.5	45.7	
Queue Delay	0.0			0.0	0.0	
Total Delay (s/veh)	20.1			10.5	45.7	
LOS	C			B	D	
Approach Delay (s/veh)	20.1			10.5	45.7	
Approach LOS	C			B	D	

Intersection Summary

Cycle Length: 150	
Actuated Cycle Length: 92.6	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay (s/veh): 20.0	Intersection LOS: C
Intersection Capacity Utilization 77.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Smokey Point Blvd W & SR 530



Intersection	
Intersection Delay, s/veh	28.9
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	7	10	223	10	94	14	270	233	60	244	4
Future Vol, veh/h	3	7	10	223	10	94	14	270	233	60	244	4
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	1	1	22	2	1	4	1	1	2	5	2	1
Mvmt Flow	3	8	11	248	11	104	16	300	259	67	271	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	10.9	21.4	40.3	18.9
HCM LOS	B	C	E	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	15%	68%	19%
Vol Thru, %	52%	35%	3%	79%
Vol Right, %	45%	50%	29%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	517	20	327	308
LT Vol	14	3	223	60
Through Vol	270	7	10	244
RT Vol	233	10	94	4
Lane Flow Rate	574	22	363	342
Geometry Grp	1	1	1	1
Degree of Util (X)	0.906	0.046	0.659	0.608
Departure Headway (Hd)	5.679	7.471	6.532	6.391
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	638	477	552	565
Service Time	3.719	5.557	4.578	4.44
HCM Lane V/C Ratio	0.9	0.046	0.658	0.605
HCM Control Delay, s/veh	40.3	10.9	21.4	18.9
HCM Lane LOS	E	B	C	C
HCM 95th-tile Q	11.4	0.1	4.8	4.1

Intersection	
Int Delay, s/veh	6.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	279	63	59	214	135	116
Future Vol, veh/h	279	63	59	214	135	116
Conflicting Peds, #/hr	0	10	10	0	10	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	175	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	4	5	5	1
Mvmt Flow	332	75	70	255	161	138

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	417	0	785	390
Stage 1	-	-	-	-	380	-
Stage 2	-	-	-	-	405	-
Critical Hdwy	-	-	4.14	-	6.45	6.21
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.236	-	3.545	3.309
Pot Cap-1 Maneuver	-	-	1131	-	357	661
Stage 1	-	-	-	-	685	-
Stage 2	-	-	-	-	667	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1120	-	325	648
Mov Cap-2 Maneuver	-	-	-	-	325	-
Stage 1	-	-	-	-	679	-
Stage 2	-	-	-	-	612	-

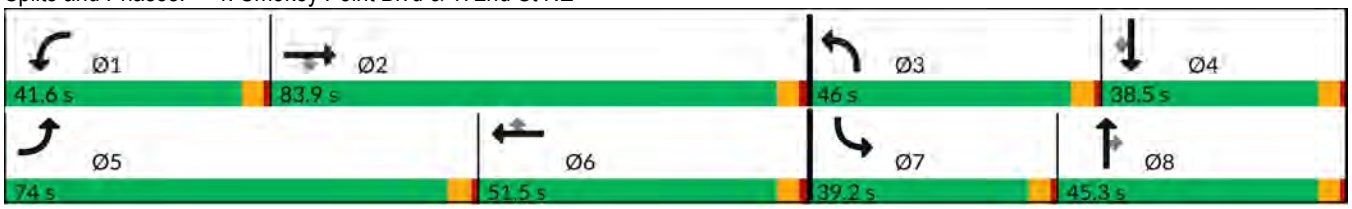
Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.82	19.79
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	325	648	-	-	389	-
HCM Lane V/C Ratio	0.495	0.213	-	-	0.063	-
HCM Control Delay (s/veh)	26.4	12	-	-	8.4	0
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	2.6	0.8	-	-	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	522	988	311	247	1000	73	615	445	197	190	309	326
Future Volume (vph)	522	988	311	247	1000	73	615	445	197	190	309	326
Satd. Flow (prot)	1770	3471	1538	1770	5036	1599	3433	3539	1583	1752	3539	1553
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1762	3471	1496	1763	5036	1554	3392	3539	1506	1725	3539	1506
Satd. Flow (RTOR)			181			101			140			326
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	2%	4%	5%	2%	3%	1%	2%	2%	2%	3%	2%	4%
Adj. Flow (vph)	522	988	311	247	1000	73	615	445	197	190	309	326
Shared Lane Traffic (%)												
Lane Group Flow (vph)	522	988	311	247	1000	73	615	445	197	190	309	326
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	44.5	44.5	9.5	42.5	42.5	40.5	40.5	40.5	38.5	38.5	38.5
Total Split (s)	74.0	83.9	83.9	41.6	51.5	51.5	46.0	45.3	45.3	39.2	38.5	38.5
Total Split (%)	35.2%	40.0%	40.0%	19.8%	24.5%	24.5%	21.9%	21.6%	21.6%	18.7%	18.3%	18.3%
Maximum Green (s)	69.5	79.4	79.4	37.1	47.0	47.0	41.5	40.8	40.8	34.7	34.0	34.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		33.0	33.0		31.0	31.0	29.0	29.0	29.0	27.0	27.0	27.0
Pedestrian Calls (#/hr)		5	5		5	5	5	5	5	5	5	5
Act Effct Green (s)	59.4	72.0	72.0	30.8	43.4	43.4	37.8	35.8	35.8	25.5	23.6	23.6
Actuated g/C Ratio	0.33	0.39	0.39	0.17	0.24	0.24	0.21	0.20	0.20	0.14	0.13	0.13
v/c Ratio	0.91	0.72	0.44	0.83	0.83	0.16	0.87	0.64	0.48	0.78	0.68	0.68
Control Delay (s/veh)	80.6	51.9	19.4	98.4	74.8	3.9	84.8	74.6	26.1	99.9	85.7	14.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	80.6	51.9	19.4	98.4	74.8	3.9	84.8	74.6	26.1	99.9	85.7	14.5
LOS	F	D	B	F	E	A	F	E	C	F	F	B
Approach Delay (s/veh)		54.6			75.3			72.0			60.8	
Approach LOS		D			E			E			E	

Intersection Summary	
Cycle Length: 210	
Actuated Cycle Length: 182.6	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay (s/veh): 65.0	Intersection LOS: E
Intersection Capacity Utilization 98.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: Smokey Point Blvd & 172nd St NE

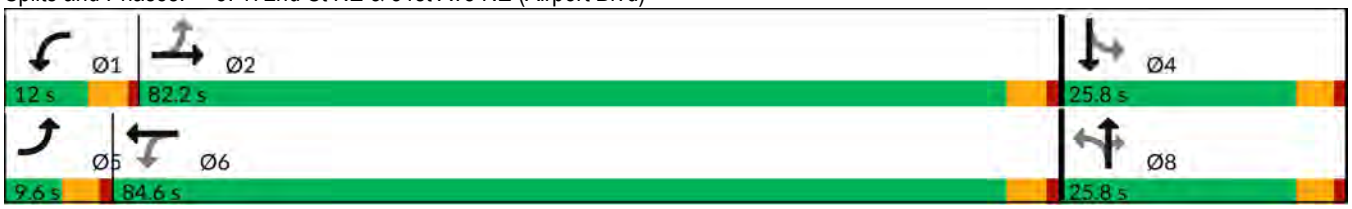


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	805	76	100	842	58	106	68	69	111	64	39
Future Volume (vph)	27	805	76	100	842	58	106	68	69	111	64	39
Satd. Flow (prot)	1787	1799	0	1770	1824	0	1770	1827	1568	1770	1671	0
Flt Permitted	0.200			0.153			0.690			0.713		
Satd. Flow (perm)	376	1799	0	285	1824	0	1285	1827	1568	1328	1671	0
Satd. Flow (RTOR)		8			6				69		22	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	4%	7%	2%	3%	5%	2%	4%	3%	2%	11%	1%
Adj. Flow (vph)	27	805	76	100	842	58	106	68	69	111	64	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	27	881	0	100	900	0	106	68	69	111	103	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (s)	9.6	82.2		12.0	84.6		25.8	25.8	25.8	25.8	25.8	
Total Split (%)	8.0%	68.5%		10.0%	70.5%		21.5%	21.5%	21.5%	21.5%	21.5%	
Maximum Green (s)	5.1	77.7		7.5	80.1		21.3	21.3	21.3	21.3	21.3	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	Min		None	Min		None	None	None	None	None	
Walk Time (s)		7.0			7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)		10			10		0	0	0	10	10	
Act Effct Green (s)	52.8	48.9		57.0	54.7		13.2	13.2	13.2	13.2	13.2	
Actuated g/C Ratio	0.65	0.61		0.71	0.68		0.16	0.16	0.16	0.16	0.16	
v/c Ratio	0.08	0.81		0.30	0.73		0.51	0.23	0.22	0.51	0.35	
Control Delay (s/veh)	4.3	20.3		6.0	13.9		45.7	37.1	11.8	45.6	32.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	4.3	20.3		6.0	13.9		45.7	37.1	11.8	45.6	32.8	
LOS	A	C		A	B		D	D	B	D	C	
Approach Delay (s/veh)		19.8			13.1			33.7			39.4	
Approach LOS		B			B			C			D	

Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 80.8	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay (s/veh): 20.2	Intersection LOS: C
Intersection Capacity Utilization 76.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: 172nd St NE & 51st Ave NE (Airport Blvd)



Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	35	52	49	303	246	32
Future Vol, veh/h	35	52	49	303	246	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	2	2	1
Mvmt Flow	38	57	53	329	267	35

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	721	285	302	0	-	0
Stage 1	285	-	-	-	-	-
Stage 2	436	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	396	757	1265	-	-	-
Stage 1	766	-	-	-	-	-
Stage 2	654	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	375	757	1265	-	-	-
Mov Cap-2 Maneuver	375	-	-	-	-	-
Stage 1	726	-	-	-	-	-
Stage 2	654	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	13.13	1.11	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	251	-	537	-	-
HCM Lane V/C Ratio	0.042	-	0.176	-	-
HCM Control Delay (s/veh)	8	0	13.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	19	26	342	289	9
Future Vol, veh/h	10	19	26	342	289	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	2	2	1
Mvmt Flow	11	21	28	372	314	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	747	319	324	0	-	0
Stage 1	319	-	-	-	-	-
Stage 2	428	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	382	724	1242	-	-	-
Stage 1	739	-	-	-	-	-
Stage 2	659	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	371	724	1242	-	-	-
Mov Cap-2 Maneuver	371	-	-	-	-	-
Stage 1	718	-	-	-	-	-
Stage 2	659	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	12.01	0.56	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	127	-	545	-	-
HCM Lane V/C Ratio	0.023	-	0.058	-	-
HCM Control Delay (s/veh)	8	0	12	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

MOVEMENT SUMMARY

Site: 2 [2. Forecast 2027 With (Site Folder: Smokey Point Blvd & 188th St NE)]

Output produced by SIDRA INTERSECTION Version: 9.1.5.224

Smokey Point Boulevard & 188th Street NE
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Smokey Point Blvd															
3	L2	All MCs	16	1.0	16	1.0	0.436	9.8	LOS A	3.0	76.5	0.30	0.46	0.30	34.5
8	T1	All MCs	300	1.0	300	1.0	0.436	5.0	LOS A	3.0	76.5	0.30	0.46	0.30	35.2
18	R2	All MCs	259	2.0	259	2.0	0.436	4.8	LOS A	3.0	76.5	0.30	0.46	0.30	34.9
Approach			574	1.5	574	1.5	0.436	5.0	LOS A	3.0	76.5	0.30	0.46	0.30	35.0
East: 188th St NE															
1	L2	All MCs	248	2.0	248	2.0	0.239	10.5	LOS B	1.3	34.1	0.45	0.63	0.45	32.6
6	T1	All MCs	11	1.0	11	1.0	0.239	5.6	LOS A	1.3	34.1	0.45	0.63	0.45	33.2
16	R2	All MCs	104	4.0	104	4.0	0.239	6.0	LOS A	1.3	34.1	0.44	0.61	0.44	33.4
Approach			363	2.5	363	2.5	0.239	9.1	LOS A	1.3	34.1	0.45	0.63	0.45	32.8
North: Smokey Point Blvd															
7	L2	All MCs	67	5.0	67	5.0	0.306	10.9	LOS B	1.8	45.0	0.48	0.56	0.48	33.5
4	T1	All MCs	271	2.0	271	2.0	0.306	5.9	LOS A	1.8	45.0	0.48	0.56	0.48	34.2
14	R2	All MCs	4	1.0	4	1.0	0.306	5.6	LOS A	1.8	45.0	0.48	0.56	0.48	34.0
Approach			342	2.6	342	2.6	0.306	6.9	LOS A	1.8	45.0	0.48	0.56	0.48	34.1
West: 188th St NE															
5	L2	All MCs	3	1.0	3	1.0	0.028	11.8	LOS B	0.1	3.7	0.57	0.63	0.57	33.4
2	T1	All MCs	8	1.0	8	1.0	0.028	7.0	LOS A	0.1	3.7	0.57	0.63	0.57	34.0
12	R2	All MCs	11	22.0	11	22.0	0.028	8.1	LOS A	0.1	3.7	0.57	0.63	0.57	33.1
Approach			22	11.5	22	11.5	0.028	8.3	LOS A	0.1	3.7	0.57	0.63	0.57	33.5
All Vehicles			1302	2.2	1302	2.2	0.436	6.7	LOS A	3.0	76.5	0.40	0.53	0.40	34.1

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SMOKEY POINT MIXED-USE TRAFFIC IMPACT ANALYSIS

APPENDIX

LEFT TURN LANE WARRANT EXHIBITS

Exhibit 1310-9 Left-Turn Storage Guidelines: Two-Lane, Unsignalized

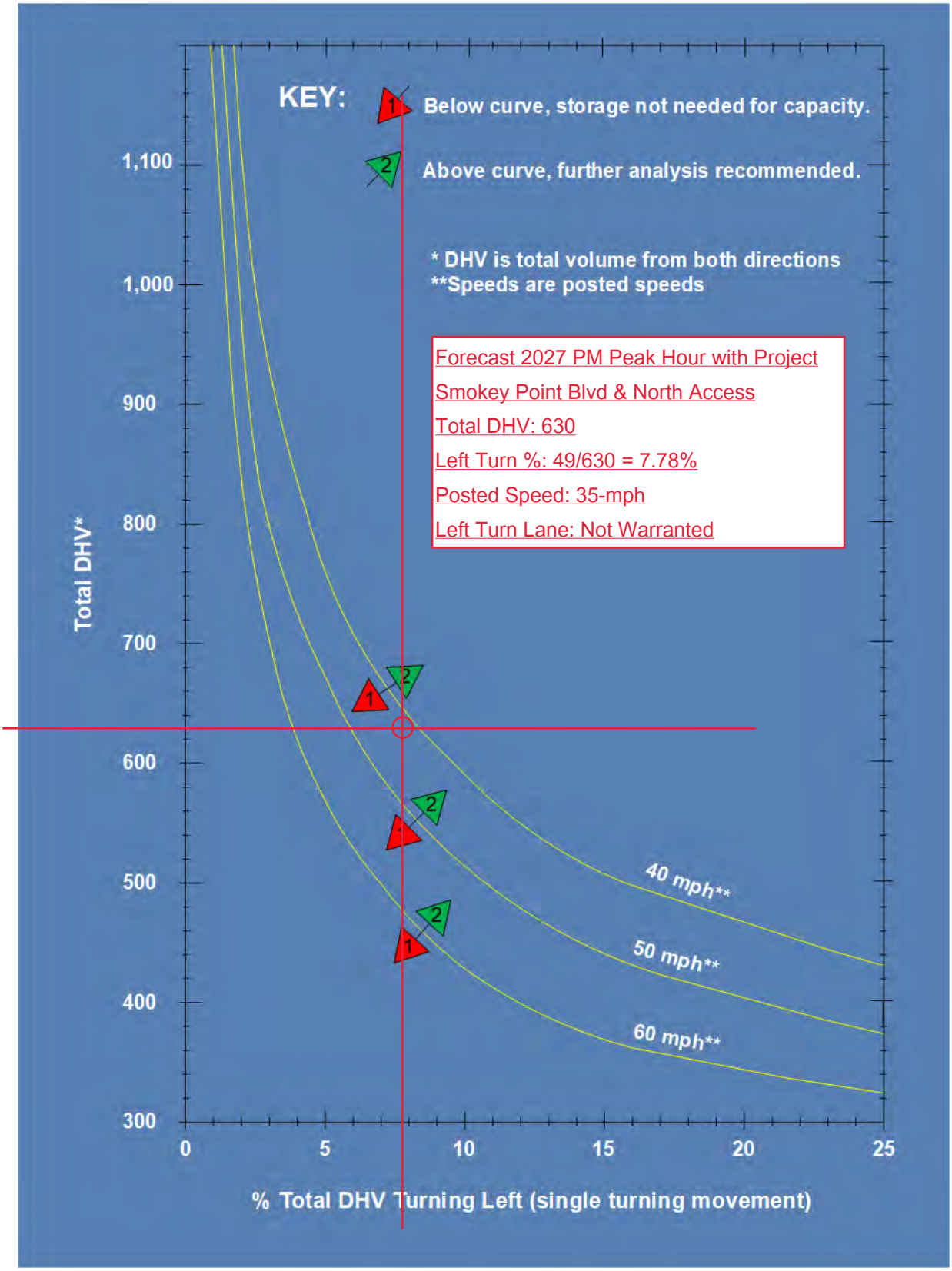
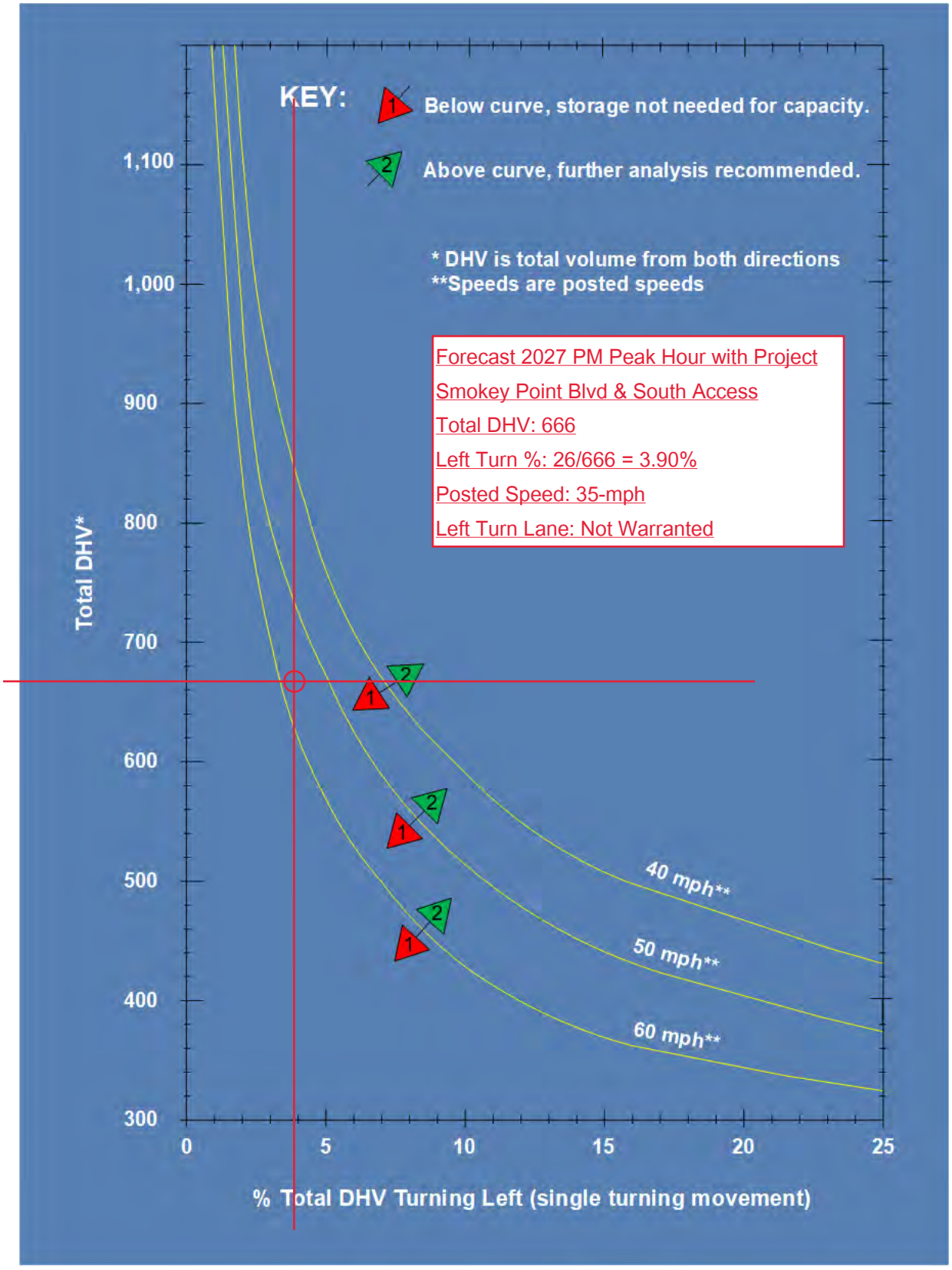


Exhibit 1310-9 Left-Turn Storage Guidelines: Two-Lane, Unsignalized



SMOKEY POINT MIXED-USE
TRAFFIC IMPACT ANALYSIS

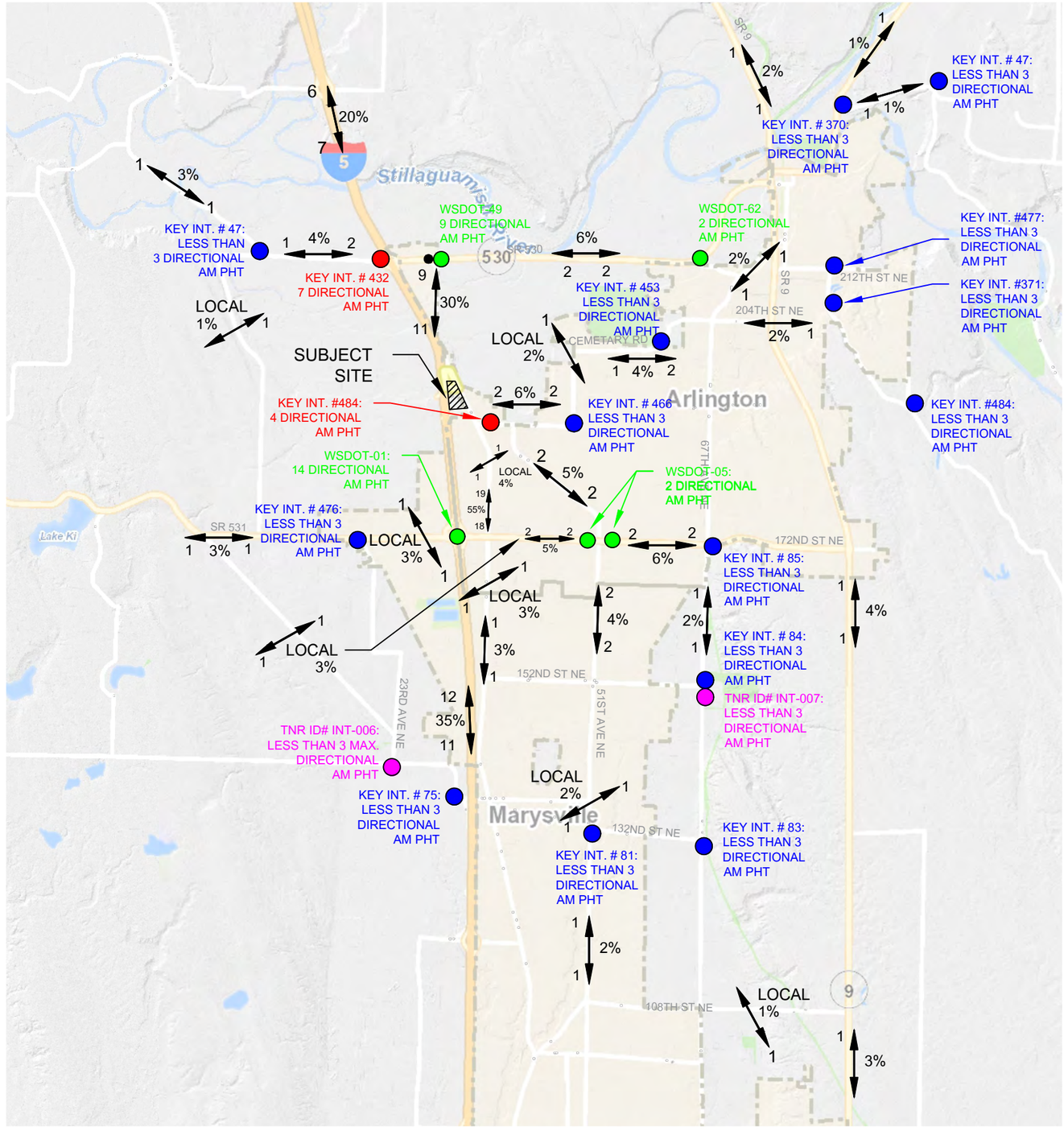
APPENDIX

INTERLOCAL TRIP DISTRIBUTION & ASSIGNMENT

N

PRIMARY
AM PEAK HOUR TRIPS

INBOUND: 35 VPH
OUTBOUND: 32 VPH



= WSDOT EXHIBIT C PROJECT
= TNR APPENDIX D PROJECT
= KEY INTERSECTION WITHOUT 3+ PM PEAK HOUR TRIPS
= KEY INTERSECTION WITH 3+ PM PEAK HOUR TRIPS

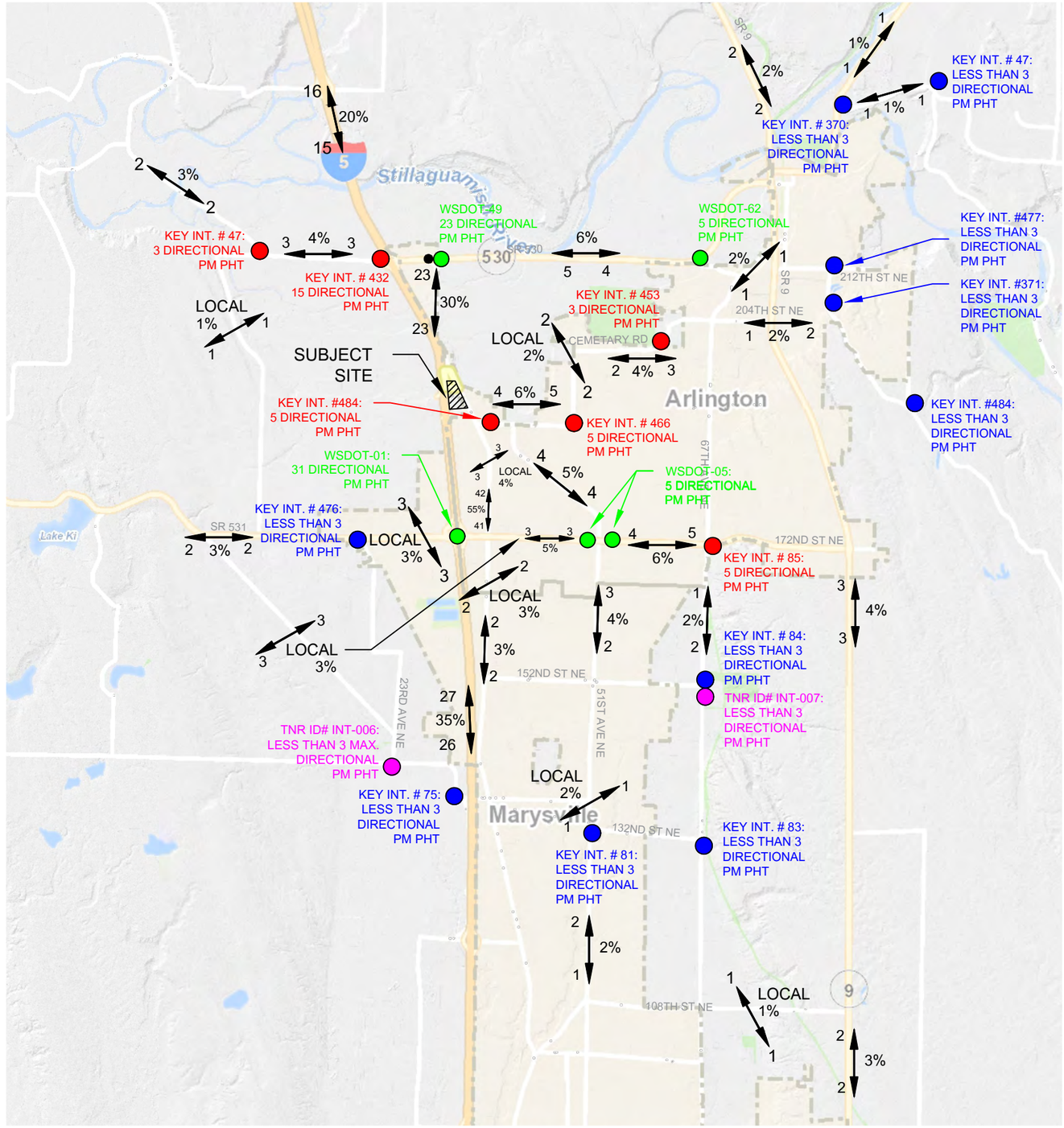
HEATH&ASSOCIATES
Transportation Planning & Engineering

SMOKEY POINT MIXED-USE
INTERLOCAL AM PEAK HOUR TRIP DISTRIBUTION & ASSIGNMENT
FIGURE A

N

PRIMARY
PM PEAK HOUR TRIPS

INBOUND: 76 VPH
OUTBOUND: 76 VPH



= WSDOT EXHIBIT C PROJECT
= TNR APPENDIX D PROJECT
= KEY INTERSECTION WITHOUT 3+ PM PEAK HOUR TRIPS
= KEY INTERSECTION WITH 3+ PM PEAK HOUR TRIPS

HEATH&ASSOCIATES
Transportation Planning & Engineering

SMOKEY POINT MIXED-USE
INTERLOCAL PM PEAK HOUR TRIP DISTRIBUTION & ASSIGNMENT
FIGURE B

SMOKEY POINT MIXED-USE TRAFFIC IMPACT ANALYSIS

APPENDIX

KEY INTERSECTION TURNING MOVEMENTS

Project: Smokey Point Mixed-Use
Date: 1/29/24

KEY INTERSECTION TURNING MOVEMENTS: AM PEAK HOUR

Intersection ID#	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
#432		2			1					7		
#484		4			4							

Project: Smokey Point Mixed-Use
Date: 1/29/24

KEY INTERSECTION TURNING MOVEMENTS: PM PEAK HOUR

Intersection ID#	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
#47		1			1	2				2		
#85		3	2		3		1					
#432		3			3					15		
#453		3			2							
#466	5											4
#484		9			8							

SMOKEY POINT MIXED-USE
TRAFFIC IMPACT ANALYSIS

APPENDIX

SNOHOMISH COUNTY INTERLOCAL AGREEMENT
TRAFFIC WORKSHEET

Snohomish County Traffic Worksheet and Traffic Study Requirements for Developments in the City of Arlington

Snohomish County government, through an interlocal agreement (ILA) with the City of Arlington, may request traffic mitigation measures from any new development in the city that impacts roads in the unincorporated county. The City will impose the requested mitigation to the extent that the City determines that the mitigation is reasonably related to the impacts of the development. To determine the impacts, and to determine reasonable mitigation measures, the City of Arlington requires a traffic study from any development in the city that may have impacts on county roads. This 'traffic study' may be as simple as completing sections one and two of the county traffic worksheet below, or having a professional traffic engineer conduct a formal traffic study consistent with the requirements in section three below.

- If a development generates less than ten peak-hour trips and the applicant chooses Option A for mitigation payment (standard payment by percent of county impact fee), then the applicant will generally only have to fill out the first two sections of this traffic worksheet and complete a mitigation offer (see section four).
- However, if a development generates more than ten peak-hour trips, or if the applicant chooses Option B for mitigation payment (comprehensive impact analysis), then the applicant will have to fill out the first section of this worksheet, complete a separate traffic study consistent with the requirements in section three, and complete a mitigation offer (see Section Four).
- Applicants should submit all documents *to the City* as part of their initial submittal.
- Traffic study requirements for impacts on county roads are based on the County's traffic mitigation ordinance (Chapter 30.66B) and the city/county ILA. At the end of this document find references to the county contacts and county web site (sources for may of the documents related to traffic mitigation).
- Following review of the documents submitted, the County may request supplemental information and analysis as necessary to determine the impacts of the development in accordance with the city/county ILA. The City will require the proposed development to submit the supplemental information and analysis to the extent that the City determines that it is necessary to determine the impacts of the development.

Section One (1) Worksheet General Information

1. Name of Proposed Development Smokey Point Mixed-Use

   City Development File Number (if known)_____

2. Name, Address and Phone Number of Applicant C/O Michael Weeks & Al Ostman

   PO Box 2429 Lynwood, WA 98036 (206) 571-2834 nwdev@hotmail.com

3. Development Site Address Tax parcel #: 31051700400600

4. Is it a residential or commercial development? Mixed-Use

5. Description of Development (size and specific type) ~46 townhomes, 16 live/work dwelling units and 42,929 square feet of commercial/retail space

6. How many new vehicle trips are expected to be generated by the proposed development? (For many common types of developments this information can be provided by the city or the county. For more complex developments trip generation may have to be determined under section three below)

   67 AM Peak Hour 152 PM Peak Hour 1954 Average Daily Trips (ADT)

7. Proportionate Share Impact Mitigation: All applicants have two options in determining the amount of their traffic mitigation payment:

   _____ For determining the amount based on a percentage of the county fee go to section two.

   x For determining the amount based on a comprehensive traffic study go to section three.

Section Two (2) Proportionate Share Determined by Percentage of County Impact Fee

2(a) Calculation of Payment Amount

1. Standard default estimated percentage of trips impacting county roads 70 %

or

2. Other Percentage: (Note: See author's qualifications in section three below.) Estimated percentage of trips impacting county roads from attached trip distribution: _____ %

3. Development New Average Daily Trip Generation (ADT)_____

4. Type of Development (Residential or Commercial)_____

5. County Commercial Fee Rate $_____ 6. County Residential Fee Rate $_____

(Note: Consistent with county code and the ILA, developments pay the rate in effect at the time of their submittal. As of 2/1/06 the rates were $206 for commercial developments and $242 for residential developments. Through ordinance, the County Council can change these rates at any time, so consult with the County or look at Snohomish County Code 30.66B.330 to find the latest fee rates.)

7. Calculation of Proportionate Share Impact Mitigation

_____	×	_____	×	_____	=	$_____
#1 or #2 above: % of trips		#3 above: ADT		#5 or #6 above: Fee Rate		proportionate share mitigating payment

2(b) Determining whether or not an additional traffic study is necessary

Will the development generate more than 10 peak-hour trips *or* are there other impacts that need to be addressed (e.g., level of service, safety, or access and circulation)

_____ No. Skip section three and go to section four.

_____ Yes. Read the introduction to section three and skip to section 3(b).

Section Three (3) Traffic Study Requirements

Introduction: This section outlines requirements for traffic studies for impacts on County roads. If an applicant chooses (or is required) to complete a traffic study, then it should be submitted along with this worksheet and a mitigation offer. (Note on Author's Qualifications: A traffic study under this section must be conducted by an engineer licensed to practice in the state of Washington with special training and experience in traffic engineering and, preferably, membership in the institute of transportation engineers. For individuals/firms not on the City's approved list, the developer will provide, with the traffic study, the credentials of the individual or firm performing the traffic study certifying compliance with these qualifications.)

3(a) Proportionate share impact mitigation based on comprehensive traffic study

1. Development's Trip Generation and Distribution. Determine the PM peak-hour trip generation and distribution for the development consistent with Section 3(b) below.
2. Impacted Improvements. Determine which of the road sections with planned improvements in the county's impact fee cost basis (Transportation Needs Report Appendix D) are impacted by three or more development-generated *directional* PM peak hour trips (PM PHT).
3. Current Counts. For each impacted improvement, provide current traffic counts to determine the PM PHT.
4. Reserve Capacity. Determine "reserve capacity" for each impacted improvement by subtracting the current PM PHT from the maximum service volume (MSV) for the existing facility. Reserve capacity is set to zero if current PM PHT exceeds the MSV. For MSVs see County DPW Rule 4224.
5. New Capacity. New capacity is the incremental increase in PHT that could be accommodated with the planned improvement. Determine the new capacity of each impacted improvement by subtracting the current MSV from the future MSV after the improvement.
6. Chargeable Capacity. For each impacted improvement, add the reserve capacity to the new capacity.
7. Final Adjusted Cost. Find the cost of each impacted improvement and make any adjustments used by the County for tax credits (see Transportation Needs Report Appendix D).
8. Capacity Cost per Peak-Hour Trip. For each impacted improvement, determine the capacity cost per PM PHT by dividing the final adjusted improvement cost by the chargeable capacity.
9. Traffic Impacts. From step one above, take the *total* number of PM PHT (in both directions) impacting each planned improvement.
10. Proportionate Share. For each impacted improvement, determine the proportionate share impact mitigation by multiplying the capacity cost per peak-hour trip by the number of PM PHT impacting the improvement.

3(b) Trip Generation and AM and PM Peak Hour Trip Distribution and Assignment

Calculate AM, PM and Daily trip generation consistent with the ITE Trip Generation Handbook and Snohomish County Public Works Rule 4220. Determine the trip distribution and assignments consistent with the County's document titled "Format for Trip Distributions"(available at County web site, see below).

- Within the developments transportation service area (TSA) the distributions will be carried out to each key intersection at which the approach or departure volumes on any leg have three (3) or more peak hour trips. Get the most current list of key intersections on the web site described below. Trips should be distributed onto the road system as it is expected to be in six years.
- The distribution should be a schematic map showing the broad distributions of trips in terms of percentages on different roads. Show all City boundaries.
- The assignment should be a schematic map with the impacted key intersections identified by ID# and turning movements for each shown in separate diagrams on the same page or on different pages. The assignment should also be presented in tabular form listing each intersection by intersection ID#, and the number of trips at each movement.

3(c) Additional Analysis for Developments Generating More Than Fifty (50) Peak Hour Trips

For large developments (i.e., those generating more than 50 peak-hour trips), the County may request mitigation for impacts on the level of service of County roads, documented safety locations (the County calls such locations "inadequate road conditions" or "IRCs"), and access or circulation. The traffic study requirements below are intended to disclose impacts. Based on this information the County may request through the City that the applicant provide additional information showing possible mitigation measures. If any off-site improvements were needed for mitigation the County would work with the applicant to determine requirements for right-of-way, construction plans, right-of-way use permits, construction/maintenance bonds, and other issues.

Impacts on Level of Service (LOS) of County Arterials

Contact Snohomish County Public Works for the most current list of arterial units in arrears and critical arterial units. Identify any arterial units in arrears or critical arterial units impacted by three or more directional peak-hour trips.

Impacts on Inadequate Road Conditions

Contact Snohomish County Public Works for a list of the current IRCs. Identify any IRCs impacted by three or more peak-hour trips. Note: Unlike LOS impacts in which at least three or more peak hour trips have to be added in one direction to require disclosure (e.g., 3 westbound), for IRCs, any three peak hour trips added to IRC locations are considered an impact for which disclosure is necessary (e.g., 2 westbound plus 1 eastbound).

Impacts on Access or Circulation

The County may request improvements to existing roads to provide safe and efficient access and/or circulation. In some instances, the County may request provisions for future County roads identified in the Comprehensive Plan or in Small Area Transportation Studies. If so, the County will request specific additional information through the City.

Section Four (4) Traffic Mitigation Offer to Snohomish County

The applicant should complete a traffic mitigation offer to Snohomish County that summarizes the mitigation identified in the county traffic worksheet and any additional traffic study. This will facilitate timely review of the development and processing of the application. The form to use for the mitigation offer is titled "Traffic Mitigation Offer to Snohomish County." This form is typically provided to all applicants along with this traffic study checklist. In addition, copies are available from the county contacts or the Snohomish County web site shown below.

Additional Information

County Web Site

Snohomish County Public Works has a web site with many documents related to traffic studies and mitigation requirements for developers. From the Snohomish County Home Page go to:

Departments/Public Works/Divisions/TES/ProgramPlanning/3066B

County Contacts

- Deb Werdal, Snohomish County DPW Traffic, 3000 Rockefeller M/S 607, Everett WA 98201, (425) 388-3184, debra.werdal@co.snohomish.wa.us
- Maria Schmidt, Snohomish County DPW Traffic, 3000 Rockefeller M/S 607, Everett WA 98201, (425) 388-3099, maria.schmidt@co.snohomish.wa.us

SMOKEY POINT MIXED-USE TRAFFIC IMPACT ANALYSIS

APPENDIX

TRAFFIC MITIGATION OFFER TO SNOHOMISH COUNTY

Traffic Mitigation Offer to Snohomish County

The applicant completes part one and submits it to the City with a completed county traffic worksheet. The City completes part two and sends it to the County. The County completes part three and sends it back to the City.

Part One to be completed by Applicant

Basic Development Information

Name of City in which development is located: Arlington

Name of Proposed Development: Smokey Point Mixed-Use

City Project File Number (if known): N/A

Name of Applicant: C/O Michael Weeks & Al Ostman

Address of Applicant: PO Box 2429 Lynwood, WA 98036

Proportionate Share Calculation: *Choose Option A or B*

☐ Option A: Based on a percentage of the County's adopted impact fee (attach traffic worksheet.)

1. The applicable percentage of the County's fee: _____%
2. Net New Average Daily Traffic: _____ADT
3. The adopted County impact fee for this development: _____$/ADT
4. Total Proportionate Share Amount: $_____

■ Option B: Based on a comprehensive traffic study (attach traffic worksheet and traffic study)

_■_ No road improvements are impacted. Hence, proportionate share amount is zero ($0).

_____ The following road improvements are impacted. The calculation of proportionate shares is summarized below.

List by Names/Description the Impacted County Projects (attach other pages if necessary)	County Project ID#	PHTs Impacting Project	Capacity Cost per PHT	Proportionate Share Obligation per Impacted Project
1.				
2.				
3.				
4. Total Proportionate Share Amount (sum of obligations for each impacted project)				$0

■ **Trip Distribution and Assignment if required**

If required, attach AM and PM peak-hour trip distribution and assignment. Attach traffic worksheet showing whether or not it is required and traffic study.

■ **Mitigation of other impacts if required for developments generating more than 50 Peak-Hour Trips**

Mitigation of Impacts on Level of Service

_■_ No impact or not applicable _____ Mitigation as described in attached traffic study.

Mitigation of Impacts on Inadequate Road Conditions

_■_ No impact or not applicable _____ Mitigation as described in attached traffic study.

Mitigation for Impacts on Access or Circulation

_■_ No impact or not applicable _____ Mitigation as described in attached traffic study.

☐ **Written Offer**

The Applicant hereby voluntarily agrees to pay the total proportionate share amount shown above for impacts of the proposed development on the capacity of Snohomish County roads and provide mitigation of all other impacts as indicated above and described in attached documents.

BY: _____ Date: _____

Signature by Authorized Official of Applicant or Authorized Representative

Print Name and Title _____

Instructions to Applicant. Submit this Offer, a completed county traffic worksheet, and any other attachments to the City with your initial application or send directly to Contact.pwCMS@snoco.org.

Part Two: To be completed by the City

Receipt of Written Offer and attachments by City and routing to County

Name of Proposed Development

City Project File Number

Date Received

City Staffer Assigned to Project

Address

Phone

Instructions to City. Send this offer and all attachments to Contact.pwCMS@snoco.org

Received by:

_____ Date: _____ _____

Initialed by City Staffer Print Name and Title

Part Three: To be completed by Snohomish County

Receipt of Offer and attachments by Snohomish County and routing back to City

Name of Proposed Development

City Project File Number

Received by:

_____ Date: _____ _____

Initialed by County Staffer Print Name and Title

Snohomish County Mitigation Request to City

Snohomish County has reviewed the traffic study worksheet and mitigation offer submitted by the applicant and has determined as follows:

☐ Snohomish County requests that the City impose the mitigation offered above as a condition of approval for the Development. Snohomish County agrees to accept changes in the mitigation payment amount shown above resulting from TDM or lot-yield adjustments approved by the City.

☐ Snohomish County requests that the City require additional supplemental information to adequately evaluate the proposed development's impacts.

☐ The information requested is shown in the notes below.

By:

_____ Date: _____ _____

Signature by Authorized County Staffer Print Name and Title

Routing Back to City

Instructions to County Send this offer and all attachments to the City Staffer shown in Part Two above.

Sent by:

_____ Date: _____ _____

Initialed by City Staffer Print Name and Title

Notes

SMOKEY POINT MIXED-USE TRAFFIC IMPACT ANALYSIS

APPENDIX

WSDOT INTERLOCAL AGREEMENT
TRAFFIC WORKSHEET

Traffic Analysis Impact Checklist

Washington State Department of Transportation (WSDOT) Northwest Region
Developments within Snohomish County

Attach this completed and signed form to the initial development application.

Contact: WSDOT Snohomish Area Developer Services (206) 440-4912
MS 240, WSDOT NW Region, PO Box 330310, Seattle, WA 98153-9710
Website: www.wsdot.wa.gov/regions/northwest/snohomish/developerservices/snokingdevelopmentserviceshome.htm

Section One (1)

1. **Development Name:** Smokey Point Mixed-Use **PFN:** N/A
2. **Development Location:**
   Tax parcel #: 31051700400600

   a. Transportation Service Area (TSA) (*circle one*): **A** B C D E F
3. **Vicinity Map attached.**
4. **Development Type:** Mixed-use
5. **Trip Generation:**
   a. Average daily traffic generated: 1954
   b. PM Peak Hour traffic generated: 152
6. **Is PM Peak Hour traffic generated fifty (50) or greater?** ☑ **Yes** ☐ **No**
7. **Is the development likely to add ten (10) or more PM Peak-Hour trips to any LOS F or HAL location within the development's TSA?:** ☐ **Yes** ☑ **No**
   Detail:
8. **If "yes" to Number 6 or 7:**

   [X] A comprehensive traffic study is required, consistent with the County/WSDOT Traffic Impact Analysis Checklist Section (2).

Signatures and date:

Applicant/Representative: _____ Date: _____

Snohomish County Representative: _____ Date: _____

Attachments:

1. Vicinity Map
2. Report of LOS F or HAL locations, if appropriate
3. Traffic Mitigation Offer to WSDOT: ☑ Short Version ☐ Long Version

Exhibit "A"
Interlocal Agreement WDSOT and Snohomish County

White/Green/Yellow - Submit with application Pink - Applicant's copy Goldenrod - DPW's copy
Rev. 02/04

SMOKEY POINT MIXED-USE TRAFFIC IMPACT ANALYSIS

APPENDIX

TRAFFIC MITIGATION OFFER TO WSDOT

Short Version Traffic Mitigation Offer to WSDOT

This two-page version is intended for developments that are required to *only* complete Section One of the WSDOT Traffic Analysis Checklist.

Section One: Offer of Mitigation by Applicant for Proposed Snohomish County Development

This section to be completed by applicant		
Name of Proposed Development Smokey Point Mixed-Use		Snohomish County Project File Number (Only if this offer is not submitted to PDS with initial application)
Name of Applicant C/O Michael Weeks & Al Ostman		
Address of Applicant PO Box 2429 Lynwood, WA 98036 (206) 571-2834 nwdev@hotmail.com		
MITIGATION PAYMENT CALCULATION USING STANDARD RATE		
1	1954	*New Average Daily Traffic (ADT) generated (as reported on Line 5a of* the WSDOT Traffic Study Checklist Section One)
2	$36.00	*The current "standard payment" rate per ADT in Section 5.2(b) of the applicable version of the WSDOT/COUNTY interlocal agreement (ILA)*
3	$ 70,344	*Proportionate share calculation of ADT x $36.00 (#1 x #2 = #3)*

The APPLICANT hereby voluntarily agrees to pay the amount shown on line #3 above for impacts of the proposed DEVELOPMENT on the capacity of state highways, based on the "standard payment" rate method (Section 5.2.b of applicable version of WSDOT/COUNTY interlocal agreement (ILA), and based on information provided in the WSDOT Traffic Study Checklist Section One (attached hereto).

SUBMITTAL OPTIONS for APPLICANT (*Choose one*)

Option One (submitted with application)

If this offer and Section One of the WSDOT Traffic Analysis Checklist are submitted to Snohomish County PDS (COUNTY) with the initial development application, PDS will send documents to WSDOT for review and comment(s). WSDOT will review and send the written offer back to PDS.

Submittal to PDS: one original plus two complete copies (total 3) must include all of the following:

- ☐ This offer, signed by applicant or representative
- ☐ Section One of WSDOT Traffic Analysis Checklist
- ☐ Vicinity map

Option Two

If not submitted with initial application, the applicant is responsible for working directly with WSDOT, submitting the required documents, obtaining WSDOT's signature, and submitting the written offer with all applicable signatures to PDS.

☐ Applicant is working directly with WSDOT and will forward information to WSDOT as above.

BY:

_____Date_____ _____

Signature of Applicant or Authorized Representative Print Name and Title

Section Two: Processing by Snohomish County PDS if included with initial application. Otherwise applicant works directly with WSDOT (Section 3).

This section to be completed by Snohomish County PDS		
Date Received	Name of PDS Planner Assigned to Project	Phone Number of Planner

Instructions to PDS. Send this two-page offer and attachments to WSDOT and DPW as shown below:

1. Send original to WSDOT, Snohomish Area Development Services, MS 240, WSDOT NW Region, PO Box 330310, Seattle WA 98133-9710.
2. Send one copy to Snohomish County Public Works Land Use Section.

BY:

_____Date_____ _____

PDS Staff Person Print Name and Title

Section Three: Review and/or Approval by WSDOT

This section to be completed by WSDOT

WSDOT RECEIPT OF OFFER ATTACHMENT(S) *(Check one)*

☐ Original offer and Section One of the WSDOT Traffic Analysis Checklist received from Snohomish County PDS.

☐ Original offer and Section One of the WSDOT Traffic Analysis Checklist received from applicant/representative:

_____.

BY:

_____ Date:_____ _____

Initialed by WSDOT staff person Print Name and title

WSDOT REQUEST

WSDOT has reviewed the traffic study checklist section one and this mitigation offer submitted by the Applicant and has determined as follows:

☐ WSDOT requests that the COUNTY impose the mitigation offered above as a condition of approval for the DEVELOPMENT. WSDOT agrees to accept changes in the mitigation payment amount shown above resulting from TDM or lot-yield adjustments approved by the COUNTY.

☐ WSDOT requests that the COUNTY require additional supplemental information to adequately evaluate the proposed development's impacts.

☐ The information requested is shown in the attached document.

ROUTING BY WSDOT

☐ Original written offer has been mailed to the PDS Planner shown in Section 2 above at Snohomish County PDS, 3000 Rockefeller, MS 604, Everett WA 98201.

☐ Copy has been mailed to Snohomish County DPW, Land Use Division, 2930 Wetmore Suite 7A, Everett, WA 98201

Alternatively, in cases in which the form was not submitted to PDS with initial application

☐ Original written offer has been mailed to the applicant shown above and a copy has been mailed to Snohomish County DPW Land Use Division, 3000 Rockefeller, Everett, WA 98201.

BY:

_____ Date_____ _____

Signature by Authorized WSDOT Official Print Name and Title

SMOKEY POINT MIXED-USE TRAFFIC IMPACT ANALYSIS

APPENDIX

CONCEPTUAL SITE PLAN

PARKING REQUIREMENTS

TOWNHOUSE: 2 PER UNIT
62 UNITS X2 = 124 PARKING SPACES REQUIRED

RETAIL/SERVICE
LESS THAN 3500 SF = 0 REQUIRED
GREATER THAN 3500 SF 2 PER 1000 SF

COMMERCIAL:

		PARKING REQUIRED
COMM BLDG 1	TOTAL = 9,328 GSF	19
COMM BLDG 2	TOTAL = 4,787 GSF	10
COMM BLDG 3	TOTAL= 7,675 GSF	16
COMM BLDG 4	TOTAL = 3,848 GSF	8
COMM BLDG 5	TOTAL = 4,992 GSF	10
COMM BLDG 6	TOTAL = 4,992 GSF	10
COMM BLDG 7	TOTAL= 1935 GSF	0
COMM BLDG 8	TOTAL= 5,451 GSF	11
	TOTAL REQUIRED PARKING	84

TOTAL REQUIRED= 124+84=153

PARKING PROVIDED

RESIDENTIAL/LIVE WORK	124 SPACES
SOUTH OF SITE (RESIDENTIAL)	38 STALLS
STREET	31 STALLS
TOTAL RESIDENTIAL =	193
NORTH OF SITE (COMMERCIAL)	91 STALLS
STREET	12 STALLS
TOTAL COMMERCIAL	103 STALLS

TOTAL PROVIDED: 302 STALLS
REQ. 208 STALLS

COMPACT STALL REQUIREMENTS

302 STALLS X0.20=60 MAX ALLOWED
52 COMPACT PROVIDED

ACCESSIBLE PARKING REQUIREMENTS

ACCESSIBLE PARKING REQUIREMENTS FOR 301-400 PARKING SPACES= 6 STANDARD AND 2 VAN=8 SPACES
PROVIDED- 11 STANDARD AND 3 VAN =14 SPACES

BICYCLE PARKING REQUIREMENTS

COMMERCIAL=84 OFF STREET AUTO PARKING X0.20= 16.8=17 SPACES
PROVIDED-20 PROVIDED
RESIDENTIAL (3 BEDROOM X 46 UNITS)/4=35 SPACES
(2 BEDROOM X 16 UNITES)/4= 8 SPACES
43 SPACES

PROVIDED 62 SPACES

MIN. PARK REQUIRED (ACTIVE SPACE)

UNITS	PEOPLE PER UNIT	TOTAL PEOPLE
(2 BEDROOM)		
16 UNITS	2.2	35.2
(3 BEDROOM)		
46 UNITS	3.2	147.2
	TOTAL	182.4

20.30.280(A) MINI PARKS 6.5 SF PER PERSON REQUIRED
182.4 PEOPLE X 6.5 SF =1,186 SF REQUIRED
40,815 SF PROVIDED

PLAY GROUND
FOR CHILDREN UNDER AGE OF 12 AND SITTING AREA FOR PARENTS MIN.
15% OF40,815 = 6,122 SQ FT
THERE ARE MORE THEN 50 UNITS, 3 PLAYGROUNDS
PROVIDED EACH 6,122/ 3 =2,041 SF MIN.

USABLE OPEN SPACE

20.30.280(D) CIVIC AND OPEN SPACE STANDARDS
CIVIC AND OPEN SPACE REGULATIONS.
MINIMUM 10% OF TOTAL PROPERTY SQUARE FOOTAGE FOR USABLE OPENS
340,354 SF X .10 =34,036 REQUIRED
90,186 SF PROVIDED

MINI PARK AREA

ACTIVE SPACE 1	23,221 SF
ACTIVE SPACE 2	5,892 SF
ACTIVE SPACE 3	8,133 SF
ACTIVE SPACE 4	3,569 SF
TOTAL MINIPARK	40,815 SF

COMMON SPACES AREA

COMMON SPACE 1	1,318 SF
COMMON SPACE 2	1,996 SF
COMMON SPACE 3	963
COMMON SPACE 4	419 SFX3X7=7,800 SF+672+437+422+422+437+438=7,118 SF
COMMON SPACE 5	4,467 SF
COMMON SPACE 6	1,888 SF
COMMON SPACE 6	809 SF
COMMON SPACE 7	18,635 SF
COMMON SPACE 8	5,368 SF
COMMON SPACE 9	899 SF
COMMON SPACE 10	753 SF
COMMON SPACE 11	809 SF
COMMON SPACE 12	367 SQ
COMMON SPACE 13	141 SF
COMMON SPACE 14	2,879 SF
TOTAL COMMON SPACE	49,314 SF
TOTAL ACTIVE + COMMON SPACES	90,129 SF

PROJECT DATA

SITE ADDRESS:	19402 SMOKEY POINT BLVD ARLINGTON, WA, 98223
PARCEL NUMBER:	31051700400600
SITE AREA:	340,354 SF (7.84 ACRES)
COMPREHENSIVE PLAN DESIGNATION:	CC-(COMMERCIAL CORRIDOR)
PLACE TYPE:	MIXED-USE NEIGHBORHOOD CORRIDOR
TRANSECT:	T4 FLEX (T4-F)

SEWER AND WATER PURVEYOR - CITY OF ARLINGTON, WA

LEGAL DESCRIPTION

THE NORTH HALF OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER AND THE NORTH HALF OF THE SOUTH HALF OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 11, TOWNSHIP 31 NORTH, RANGE 5 EAST OF THE WILLAMETTE MERIDIAN, LYING WESTERLY OF STATE HIGHWAY;

LESS THE FOLLOWING DESCRIBED TRACT;

BEGINNING AT AN INTERSECTION WITH THE NORTH LINE OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 11, TOUNSHIP 31 NORTH, RANGE 5 EAST OF THE WILLAMETTE MERIDIAN, AND THE EAST LINE OF PRIMARY STATE HIGHWAY NO. 11 THENCE EAST ALONG THE NORTH LINE OF SAID SUBDIVISION FOR 250 FEET MORE OR LESS TO THE WEST LINE OF STATE ROAD NO. 1, ALSO KNOUN AS OLD U.S. 99; THENCE SOUTHEASTERLY ALONG THE WEST LINE OF SAID STATE ROAD FOR 180 FEET; THENCE WEST PARALLEL TO THE NORTH LINE OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION 11 FOR 30 FEET, MORE OR LESS, TO THE EAST LINE OF PRIMARY STATE HIGHWAY NO. 11; THENCE NORTHWESTERLY ALONG THE EAST LINE OF PRIMARY STATE HIGHWAY NO. 1 FOR 162 FEET, MORE OR LESS, TO THE POINT OF BEGINNING; AND

EXCEPT ANY PORTION LYING WITHIN THE RIGHT OF WAY OF STATE HIGHWAY NO. 11 AND

EXCEPT THAT PORTION LYING WESTERLY OF PRIMARY STATE HIGHWAY NO. 1.

SITUATE IN THE COUNTY OF SNOHOMISH, STATE OF WASHINGTON.

APPLICANT: CARL F. PIRSCHER AIA, LEED AP
CDA + PIRSCHER ARCHITECTS INC.
2314 100TH AVE WEST
EDMONDS, WA 98020
CARL@CDAARCH.COM
206-853-1304

BUILDING AREAS:

BUILDING A1 -TOWNHOME
1ST FLOOR = 4,862 GSF
2ND FLOOR = 4,858 GSF
TOTAL = 9,720 GSF

BUILDING B1-LIVE WORK
1ST FLOOR = 2224 GSF WORK SPACE
5,592 GSF RESIDENTIAL
TOTAL 1ST FLR=7,776 GSF
2ND FLOOR = 7,368 GSF
3RD FLOOR = 4,796 GSF
TOTAL WORK SPACE 2224 GSF
TOTAL RESIDENTIAL 17,908 GSF
TOTAL = 20,132 GSF

B2-LIVE WORK SAME AS B1
FOR B1 AND B2 2x2,224= 4,448 GSF FOR WORK SPACE
2X 17,908+39,816 GSF FOR RESIDENTIAL
TOTAL = 40,264 GSF

BUILDING C-TOWNHOMES
1ST FLOOR = 7,214 GSF
2ND FLOOR = 7,269 GSF
TOTAL= 14,543 GSF

TOTAL FOR 7 X14,543 GSF = 101,801 GSF

TOTAL COMM. = 151,186 GSF

COMMERCIAL:

COMM BLDG 1	MAIN FLOOR = 5,783 GSF	
	LOFT FLOOR = 3,455 GSF	
	TOTAL = 9,328 GSF	
COMM BLDG 2	TOTAL FLOOR = 4,787 GSF	
COMM BLDG 3	MAIN FLOOR = 7,675 GSF	
COMM BLDG 4	MAIN FLOOR = 3,848 GSF	
COMM BLDG 5	MAIN FLOOR = 4,992 GSF	
COMM BLDG 6	MAIN FLOOR = 4,992 GSF	
COMM BLDG 7	MAIN FLOOR = 1,935 GSF	
COMM BLDG 8	MAIN FLOOR = 3,851 GSF	
	LOFT FLOOR = 1,600 GSF	
	TOTAL = 5,451 GSF	
TOTAL COMM. =	42,929 GSF	

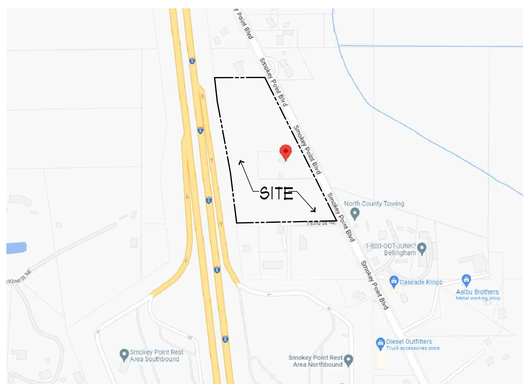
TOTAL RESIDENTIAL AND COMMERCIAL:
151,186 GSF + 42,929 GSF=194,115 GSF

SITE PLAN
SCALE: 1" = 40'-0"

SCALE: 1" = 40'
0 20' 40' 80' 120'

KEY NOTES:

1. PROVIDE BICYCLE HANGING RACK IN EACH TOWNHOME GARAGE
2. 8 BICYCLE RACK WITH CONCRETE PAD
3. 4 BICYCLE RACK WITH CONCRETE PAD



VICINITY MAP
SCALE: NOT TO SCALE

REGISTERED ARCHITECT
4412
CARL F. PIRSCHER
STATE OF WASHINGTON
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MARK	DATE	DESCRIPTION
	XX/XX/XXX	PERMIT SET

DRAWN: M
CHECK: CP
JOB NO: 21008

SMOKEY POINT MIXED USE
19402 SMOKEY POINT BLVD
ARLINGTON, WA, 98223
Owners
SITE PLAN

CDA PIRSCHER ARCHITECTS
CDA + Pirscher Architects
2314 100 AVE N
EDMONDS, WASHINGTON, 98020
(206)366-1665

SHEET:
A-1.1
OF: SHEETS