APPENDIX F

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MEMORANDUM

Date:	November 8, 2010	Project #: 8505
To:	Jason Franklin, Parametrix	
From:	Wade Scarbrough, P.E.	
Project:	U.S. 26: Access to Springwater Community	
Subject:	Traffic Analysis of Selected Alternative - Updated	

This memo summarizes the projected traffic analysis results for the selected alternative (Alternative "C-2") of the U.S. 26/Access to the Springwater Area Interchange.

Consistent with the preliminary analysis of alternatives, this analysis focuses on the forecast 2035 traffic conditions within the project study area. For more details related to the land use assumptions and basis of the future traffic projections, please see the *Updated Future Traffic Volumes and Preliminary Findings Memorandum* (Kittelson & Associates, Inc., October 20, 2008). The remainder of this memorandum summarizes results of the future year traffic analysis at the study intersections.

Future Transportation Network

The future transportation network assumed for the study area was based on the recommended network from the Springwater Master Urbanization Plan (which has also been adopted into the Gresham Transportation System Plan). Key transportation improvements within the Springwater Area are as follows:

- A new five-lane arterial would be constructed from the Hogan Road/Rugg Road intersection on the west to Orient Drive on the east.
- A new interchange on U.S. 26 would be provided at the new Arterial Road.
- A new three-lane collector road would extend from the Hogan Road/Butler Road intersection on the west to the new arterial on the east. The collector would cross U.S. 26 via a new overpass structure.
- Hogan Road would be improved to a five-lane arterial.
- Orient Drive would be improved to a five-lane arterial from Palmquist Road to 282nd Avenue.

Projected 2035 Traffic Volumes

The projected 2035 design hour traffic volumes at the study intersections are presented in Figures 1 and 2. As discussed in previous analyses, the design hour for this project corresponds to the weekday p.m. peak hour.

Recommended Lane Configurations and Traffic Control

KAI conducted operational analyses under the projected 2035 traffic volumes to identify recommended lane configurations and traffic control measures at the study intersections. Traffic signal warrant analyses were conducted at the key intersections to determine whether the intersections would meet signal warrants under the future traffic conditions. The signalized intersections were then analyzed using Synchro software, while the unsignalized intersections were analyzed using the *2000 Highway Capacity Manual* methodology.

Based on the analysis results, a number of additional capacity improvements are recommended at several study intersections. These network improvements, which would be beyond those included in the TSP, are as follows:

- On Orient Drive, the dominant travel pattern is for traffic to stay on Orient Drive, rather than turning onto the proposed arterial. Therefore, the existing alignment of Orient Drive should be preserved to maintain the continuity for through traffic. The proposed arterial street should connect to Orient Drive at a 90-degree "T" intersection. This intersection configuration would be a change from the adopted TSP.
- The projected travel demand volume on Hogan Road results in the need for three southbound through lanes within the study area. This demand is likely composed primarily of traffic from Gresham destined for Damascus and/or Boring. In actuality, capacity constraints north of the study area along 242nd Avenue would likely limit these traffic flows and may prevent the projected demand from being fully realized. Nevertheless, the need for a five-lane section on Hogan Road is apparent.
- Significant capacity improvements will be needed at the U.S. 26/Palmquist intersection to address the future traffic demand. Similar to Hogan Road, the actual traffic growth at this intersection will likely be limited by upstream capacity constraints. However, the City of Gresham and ODOT should anticipate the need for future improvements and consider further evaluation of this intersection area.

Figures 3 and 4 display the recommended lane configurations and resulting volume-to-capacity ratios at each study intersection under the projected 2035 traffic volumes.

Analysis Results

Table 1 summarizes the 2035 levels of service at each of the study intersections. The analysis worksheets are provided in Attachment "B."

Table 1 Intersection Analysis Results, Projected 2035 Design Hour Traffic Conditions

Intersection	Intersection Control	Volume-to-Capacity	Level of Service
US 26 / SE 11th St	Unsignalized	1.38	F
US 26 / SE Palmquist Rd	Signalized	0.88	D
US 26 / SE Hillyard Rd	Unsignalized	0.44	F
US 26 Westbound Ramps / *Proposed Arterial*	Signalized	0.76	D
US 26 Eastbound Ramps / *Proposed Arterial*	Signalized	0.79	D
SE 257th Dr / SE 11th St	Signalized	0.74	B
SE Orient Dr / SE Palmquist Rd	Signalized	0.85	C
SE Orient Dr / SE 267th Ave	Unsignalized	0.94	F
SE Orient Dr / *Proposed Arterial*	Signalized	0.74	B
SE Orient Dr / SE 282nd Ave	Signalized	0.82	C
SE 267th / SE Hillyard Rd	Unsignalized	0.04	A
SE 267th / *Proposed Collector*	Unsignalized	0.11	B
Proposed Collector / Proposed Arterial	Signalized	0.43	A
SE Telford Rd / *Proposed Collector*	Signalized	0.66	B
SE Telford Rd / *Proposed Arterial*	Signalized	0.79	C
SE 252nd Ave / SE Hillyard Rd	Unsignalized	0.13	C
SE 252nd Ave / *Proposed Collector*	Signalized	0.66	B
SE 252nd Ave / *Proposed Arterial*	Signalized	0.58	A
SE Hogan Rd / SE Butler Rd	Signalized	0.90	D
SE Hogan Rd / SE Rugg Rd	Signalized	0.81	B

As shown in Table 1, the study intersections will all operate acceptably under the recommended lane configurations, with the exception of three unsignalized intersection intersections. The US 26/SE 11th Street intersection, the US 26/SE Hillyard Road intersection, and the SE Orient Drive/SE 267th Avenue intersection are expected to operate at LOS "F" by 2035. Additional turn restrictions may be appropriate at these intersections to address delays at the minor street approaches. These intersections will not influence the design or performance of the proposed interchange alternative.

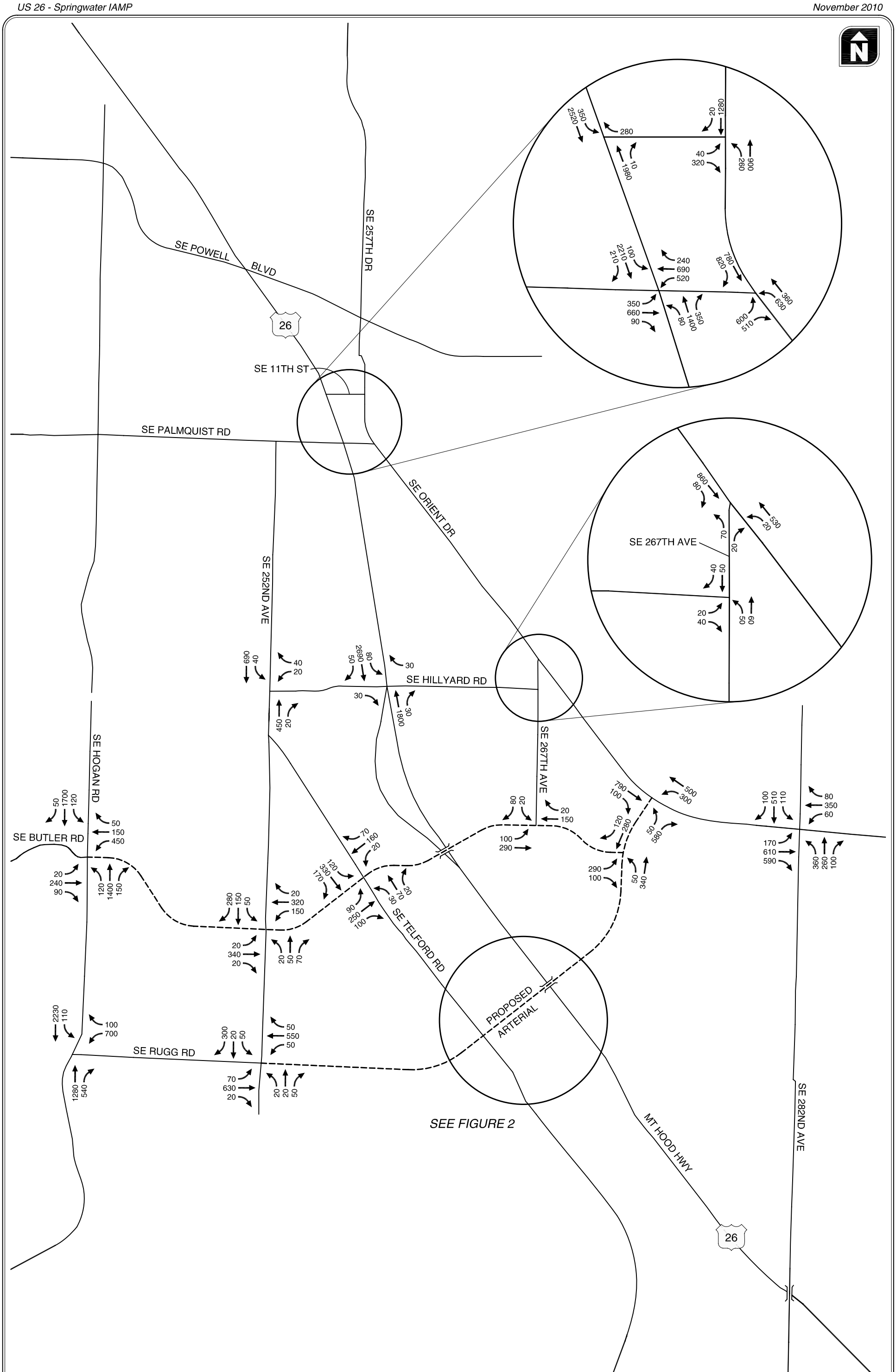
Findings

This analysis of future traffic conditions under the selected Alternative "C-2" interchange scenario resulted in the following key findings:

- The proposed arterial street, with a five-lane basic cross section, is expected to function acceptably through the 2035 design year, with additional capacity to last beyond 2035.
- The proposed collector should function acceptably with a three-lane basic cross section.
- The existing alignment of Orient Drive should be preserved to maintain the continuity for through traffic. The proposed arterial street should connect to Orient Drive at a 90-degree "T" intersection. This intersection configuration would be a change from the adopted TSP.
- The projected 2035 traffic volume on Hogan Road would result in the need for three southbound through lanes within the study area. Capacity constraints north of the study area along 242nd Avenue would likely limit these traffic flows and may prevent the projected demand from being fully realized. Nevertheless, the need for a five-lane section on Hogan Road is apparent.
- Significant capacity improvements will be needed at the U.S. 26/Palmquist intersection to address the future traffic demand. The City of Gresham and ODOT should anticipate the need for future improvements and consider further evaluation of this intersection area.

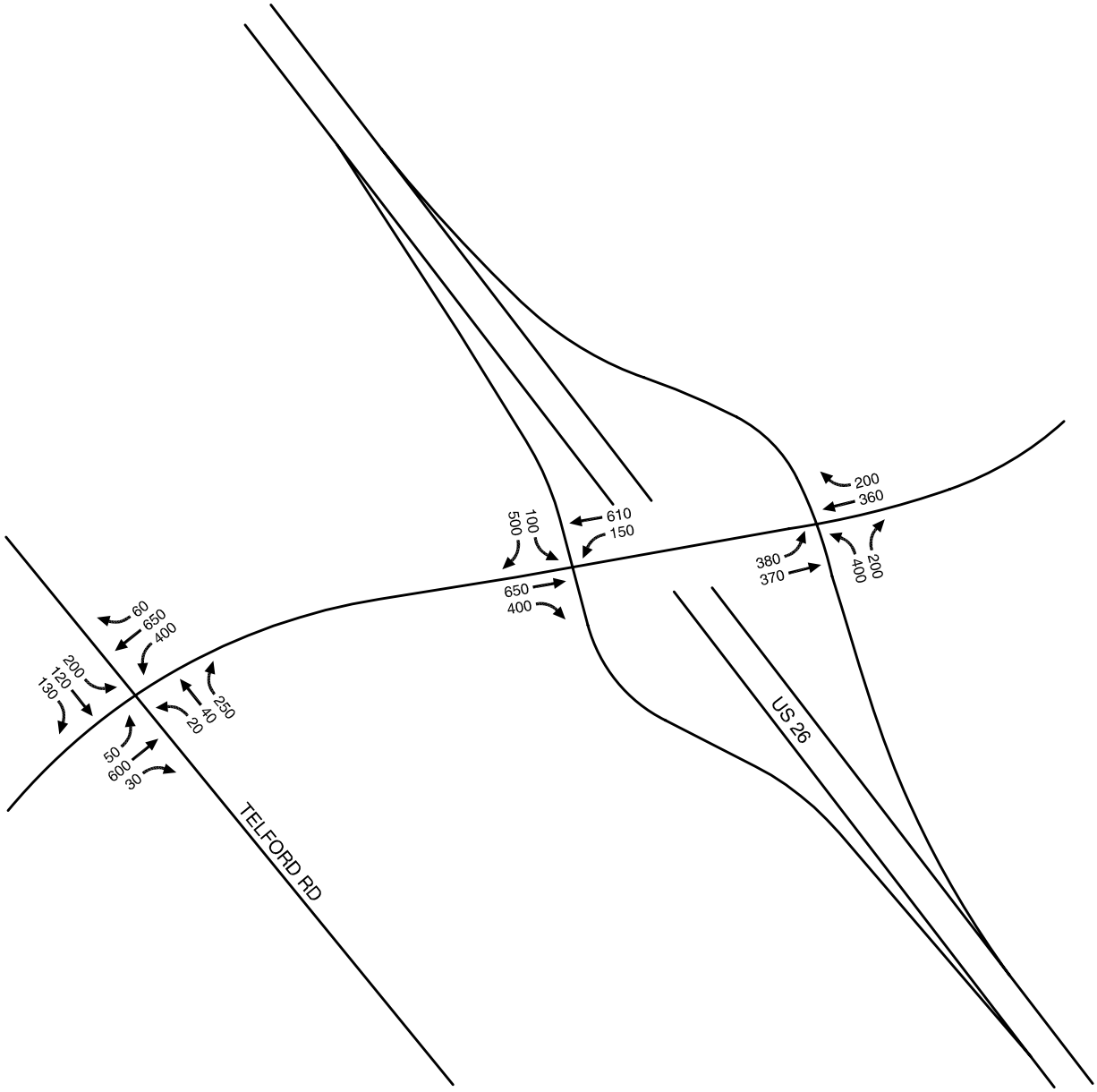
Attachment A

Figures



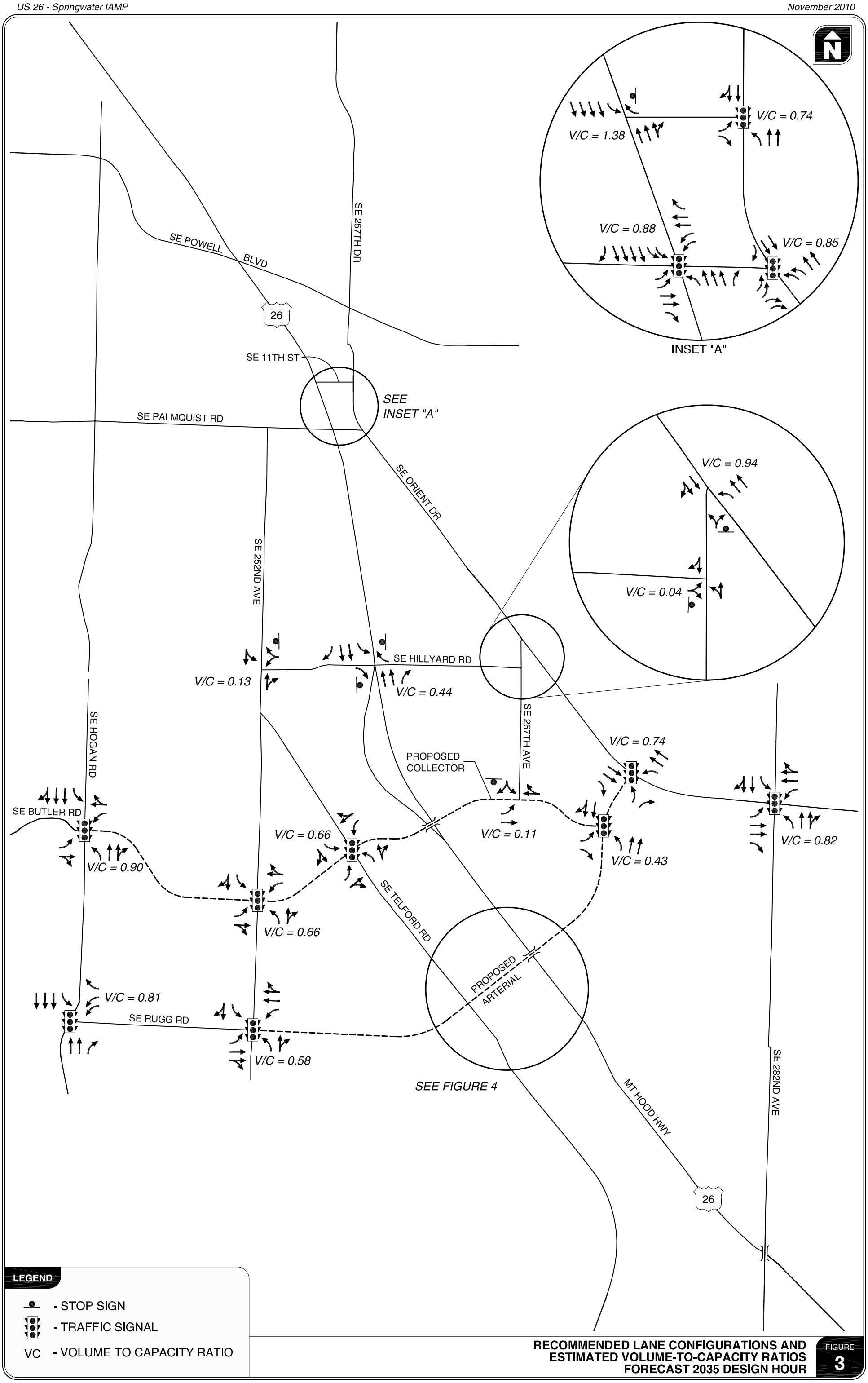
FUTURE TRAFFIC VOLUMES
2035 DESIGN HOUR

FIGURE 1



ALTERNATIVE C2
2035 DESIGN HOUR TRAFFIC VOLUMES

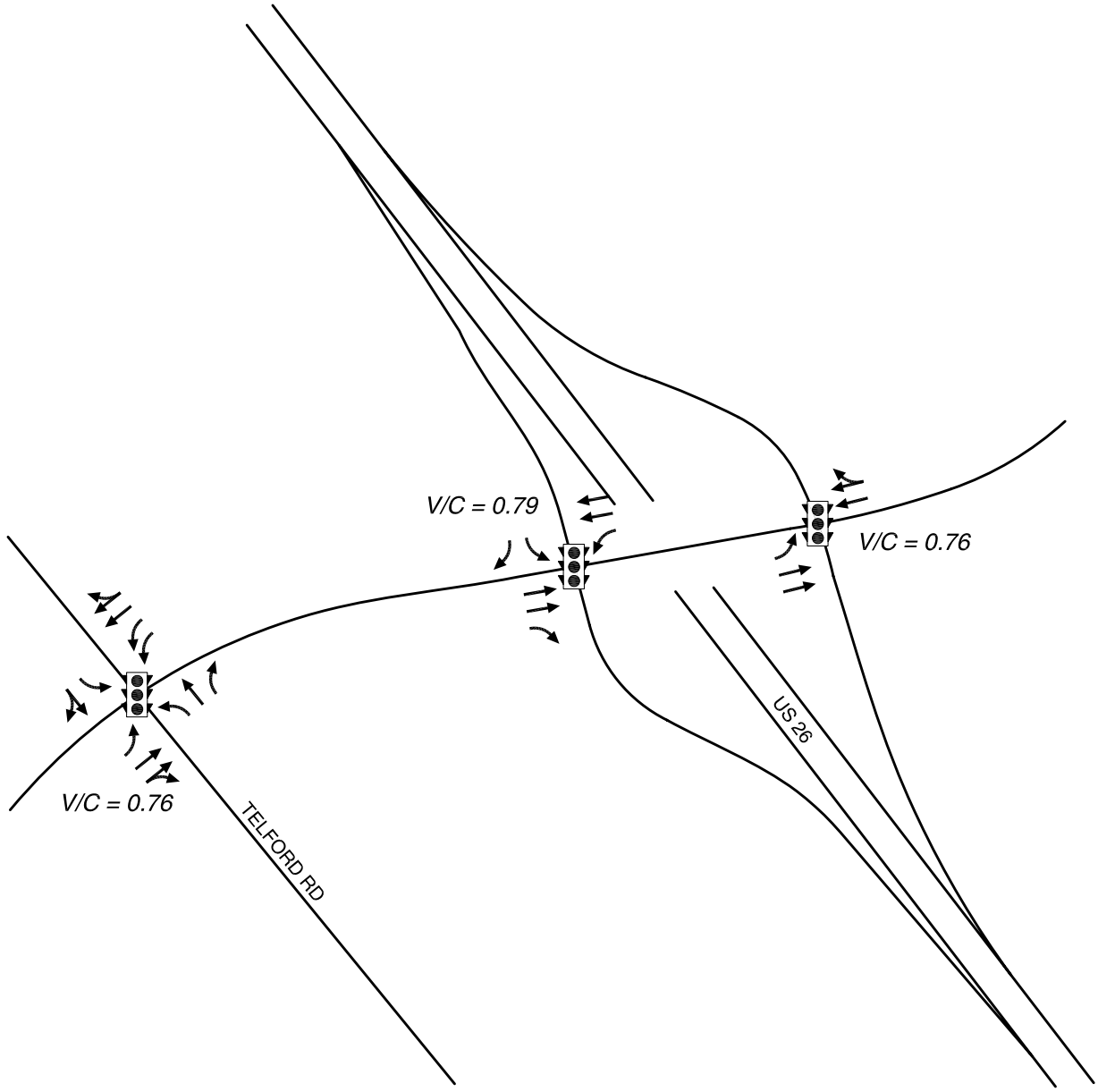
FIGURE
2



RECOMMENDED LANE CONFIGURATIONS AND ESTIMATED VOLUME-TO-CAPACITY RATIOS FORECAST 2035 DESIGN HOUR

FIGURE 3

H:\projfile\8505 - US 26 - Springwater IAMP\dwgs\Figs\8505Fig4.dwg Nov 08, 2010 - 4:59pm - nbadal Layout Tab: 03



LEGEND

- TRAFFIC SIGNAL

VC - VOLUME TO CAPACITY RATIO

ALTERNATIVE C2
RECOMMENDED LANE CONFIGURATIONS

FIGURE 4

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Attachment B

Traffic Analysis Worksheets

Kittelson & Associates, Inc. - Project #8505
US-26 Springwater IAMP - Springwater, Oregon
Year 2031 Background Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 SE 11th Street & US-26

Average Delay (sec/veh): 17.7 Worst Case Level Of Service: F[230.2]

Street Name:	US-26									SE 11th Street								
Approach:	North Bound					South Bound					East Bound					West Bound		
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	2	1	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	1
Volume Module:																				
Base Vol:	0	1980		10		350	2520				0		0		0	0		0		280
Growth Adj:	1.00	1.00		1.00		1.00	1.00				1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	0	1980		10		350	2520				0		0		0	0		0		280
User Adj:	1.00	1.00		1.00		1.00	1.00				1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	0.96	0.96		0.96		0.96	0.96				0.96		0.96		0.96	0.96		0.96		0.96
PHF Volume:	0	2063		10		365	2625				0		0		0	0		0		292
Reduct Vol:	0	0		0		0	0				0		0		0	0		0		0
FinalVolume:	0	2063		10		365	2625				0		0		0	0		0		292
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx		xxxxx		4.1	xxxx				xxxxx		xxxxx		xxxx	xxxxx		xxxxx		xxxx	6.9
FollowUpTim:	xxxxx	xxxx		xxxxx		2.2	xxxx				xxxxx		xxxxx		xxxx	xxxxx		xxxxx		xxxx	3.3
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx		xxxxx		2075	xxxx				xxxxx		xxxx		xxxx	xxxxx		xxxx		xxxx	696
Potent Cap.:	xxxx	xxxx		xxxxx		264	xxxx				xxxxx		xxxx		xxxx	xxxxx		xxxx		xxxx	389
Move Cap.:	xxxx	xxxx		xxxxx		264	xxxx				xxxxx		xxxx		xxxx	xxxxx		xxxx		xxxx	388
Volume/Cap:	xxxx	xxxx		xxxx		1.38	xxxx				xxxx		xxxx		xxxx	xxxx		xxxx		xxxx	0.75
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx		xxxxx		19.6	xxxx				xxxxx		xxxx		xxxx	xxxxx		xxxx		xxxx	6.0
Control Del:	xxxxx	xxxx		xxxxx		230.2	xxxx				xxxxx		xxxxx		xxxx	xxxxx		xxxxx		xxxx	37.6
LOS by Move:	*	*		*		F	*				*		*		*	*		*		*	E
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx				xxxxx		xxxx		xxxx	xxxxx		xxxx		xxxx	xxxxx
SharedQueue:	xxxxx	xxxx		xxxxx		xxxxx	xxxx				xxxxx		xxxxx		xxxx	xxxxx		xxxxx		xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx		xxxxx		xxxxx	xxxx				xxxxx		xxxxx		xxxx	xxxxx		xxxxx		xxxx	xxxxx
Shared LOS:	*	*		*		*	*				*		*		*	*		*		*	*
ApproachDel:	xxxxxx					xxxxxx					xxxxxx							37.6			
ApproachLOS:	*					*					*							E			

Note: Queue reported is the number of cars per lane.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1641	1518	1752	3406	3392	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1641	1518	1752	3406	3392	
Volume (vph)	40	320	260	900	1280	20
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	356	289	1000	1422	22
Lane Group Flow (vph)	44	356	289	1000	1444	0
Confl. Peds. (#/hr)		1				
Heavy Vehicles (%)	10%	6%	3%	6%	6%	18%
Turn Type		pm+ov	Prot			
Protected Phases	2	3	3	8	4	
Permitted Phases		2				
Actuated Green, G (s)	5.0	22.5	17.5	59.0	38.5	
Effective Green, g (s)	6.0	22.5	16.5	60.0	39.5	
Actuated g/C Ratio	0.08	0.30	0.22	0.81	0.53	
Clearance Time (s)	5.0	3.0	3.0	5.0	5.0	
Vehicle Extension (s)	4.0	1.0	1.0	6.0	6.0	
Lane Grp Cap (vph)	133	544	391	2762	1811	
v/s Ratio Prot	0.03	c0.15	0.16	0.29	c0.43	
v/s Ratio Perm		0.09				
v/c Ratio	0.33	0.65	0.74	0.36	0.80	
Uniform Delay, d1	32.1	22.4	26.7	1.9	14.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.0	2.2	6.2	0.2	3.1	
Delay (s)	34.1	24.5	32.9	2.1	17.1	
Level of Service	C	C	C	A	B	
Approach Delay (s)	25.6			9.0	17.1	
Approach LOS	C			A	B	

Intersection Summary			
HCM Average Control Delay	14.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	74.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.91	1.00	0.97	0.86	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3273	3539	1524	1770	4940	1553	3367	5836	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3273	3539	1524	1770	4940	1553	3367	5836	1583
Volume (vph)	350	660	90	520	690	240	80	1400	350	100	2210	210
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	368	695	95	547	726	253	84	1474	368	105	2326	221
Lane Group Flow (vph)	368	695	95	547	726	253	84	1474	368	105	2326	221
Heavy Vehicles (%)	2%	2%	2%	7%	2%	6%	2%	5%	4%	4%	12%	2%
Turn Type	Prot		Perm	Prot		custom	Prot		Perm	Prot		Perm
Protected Phases	7	4!		7!	8		1	6		5	2	
Permitted Phases			4			4			6			2
Actuated Green, G (s)	29.4	69.5	69.5	29.4	36.6	69.5	8.0	67.4	67.4	8.3	67.7	67.7
Effective Green, g (s)	29.4	70.0	70.0	29.4	36.6	70.0	8.0	68.9	68.9	8.3	69.2	69.2
Actuated g/C Ratio	0.18	0.44	0.44	0.18	0.23	0.44	0.05	0.43	0.43	0.05	0.43	0.43
Clearance Time (s)	4.0	4.5	4.5	4.0	4.0	4.5	4.0	5.5	5.5	4.0	5.5	5.5
Vehicle Extension (s)	2.3	2.3	2.3	2.3	3.0	2.3	3.0	5.5	5.5	2.3	5.5	5.5
Lane Grp Cap (vph)	634	1556	696	604	814	670	89	2138	672	176	2537	688
v/s Ratio Prot	0.11	0.20		c0.17	c0.21		c0.05	0.30		0.03	c0.40	
v/s Ratio Perm			0.06			0.17			0.24			0.14
v/c Ratio	0.58	0.45	0.14	0.91	0.89	0.38	0.94	0.69	0.55	0.60	0.92	0.32
Uniform Delay, d1	59.3	31.1	26.6	63.5	59.4	30.0	75.4	36.5	33.6	73.8	42.3	29.6
Progression 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
Incremental Delay, d2	1.0	0.1	0.1	17.0	12.0	0.2	76.4	1.3	1.8	4.1	6.2	0.7
Delay (s)	60.3	31.2	26.6	80.5	71.4	30.2	151.8	37.8	35.4	77.9	48.5	30.2
Level of Service	E	C	C	F	E	C	F	D	D	E	D	C
Approach Delay (s)		40.1			67.9			42.3			48.2	
Approach LOS		D			E			D			D	

Intersection Summary			
HCM Average Control Delay	49.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	159.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	86.5%	ICU Level of Service	D

! Phase conflict between lane groups.
c Critical Lane Group

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.88	0.97	0.95	0.95	1.00
Frpb, ped/bikes	1.00	0.98	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3303	2356	3213	3471	3406	1514
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3303	2356	3213	3471	3406	1514
Volume (vph)	600	510	630	560	780	820
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	632	537	663	589	821	863
Lane Group Flow (vph)	632	537	663	589	821	863
Confl. Peds. (#/hr)	1	1				1
Heavy Vehicles (%)	6%	18%	9%	4%	6%	6%
Turn Type		Perm	Prot			pm+ov
Protected Phases	2		3	8	4	2
Permitted Phases		2				4
Actuated Green, G (s)	31.4	31.4	21.0	55.5	29.5	60.9
Effective Green, g (s)	32.4	32.4	22.0	56.5	30.5	62.9
Actuated g/C Ratio	0.33	0.33	0.23	0.58	0.31	0.65
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	6.0	6.0	1.0	6.0	6.0	6.0
Lane Grp Cap (vph)	1104	788	729	2024	1072	1045
v/s Ratio Prot	0.19		c0.21	0.17	0.24	c0.28
v/s Ratio Perm		0.23				0.29
v/c Ratio	0.57	0.68	0.91	0.29	0.77	0.83
Uniform Delay, d1	26.5	27.8	36.5	10.1	30.0	12.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.4	3.7	14.9	0.2	4.3	6.4
Delay (s)	28.0	31.5	51.4	10.4	34.3	19.2
Level of Service	C	C	D	B	C	B
Approach Delay (s)	29.6			32.1	26.6	
Approach LOS	C			C	C	

Intersection Summary			
HCM Average Control Delay	29.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	96.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	79.1%	ICU Level of Service	C
c Critical Lane Group			

Kittelson & Associates, Inc. - Project #8505
US-26 Springwater IAMP - Springwater, Oregon
Year 2031 Background Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #6 SE 267th Ave & Orient Drive

Average Delay (sec/veh): 9.0 Worst Case Level Of Service: F[155.0]

Street Name:	SE 267th Ave						Orient Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	1 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	70	0	20	0	0	0	0	860	80	20	530	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	70	0	20	0	0	0	0	860	80	20	530	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
PHF Volume:	91	0	26	0	0	0	0	1117	104	26	688	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	91	0	26	0	0	0	0	1117	104	26	688	0
Critical Gap Module:												
Critical Gp:	6.9	6.6	7.0	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1566	1909	612	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1221	xxxx	xxxxx
Potent Cap.:	100	66	431	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	561	xxxx	xxxxx
Move Cap.:	96	63	430	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	561	xxxx	xxxxx
Volume/Cap:	0.94	0.00	0.06	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.05	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	11.7	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	B	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	116	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	6.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	155	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	F	*	*	*	*	*	*	*	*	*	*
ApproachDel:	155.0			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	F			*			*			*		

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #8505
US-26 Springwater IAMP - Springwater, Oregon
Year 2031 Background Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 SE 252nd Ave & Hillyard Rd

Average Delay (sec/veh): 1.2 Worst Case Level Of Service: C[19.2]

Street Name:	SE 252nd Ave									Hillyard Rd							
Approach:	North Bound					South Bound				East Bound					West Bound		
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1!	0	0
Volume Module:																				
Base Vol:	0	450		20		40	690		0		0		0		0	20		0		40
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
Initial Bse:	0	450		20		40	690		0		0		0		0	20		0		40
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00
PHF Adj:	0.94	0.94		0.94		0.94	0.94		0.94		0.94		0.94		0.94	0.94		0.94		0.94
PHF Volume:	0	479		21		43	734		0		0		0		0	21		0		43
Reduct Vol:	0	0		0		0	0		0		0		0		0	0		0		0
FinalVolume:	0	479		21		43	734		0		0		0		0	21		0		43
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx		xxxxx		4.1	xxxx		xxxxx		xxxxx		xxxx		xxxxx	6.4		6.5		6.2
FollowUpTim:	xxxxx	xxxx		xxxxx		2.2	xxxx		xxxxx		xxxxx		xxxx		xxxxx	3.5		4.0		3.3
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx		xxxxx		503	xxxx		xxxxx		xxxx		xxxx		xxxxx	1314		1312		492
Potent Cap.:	xxxx	xxxx		xxxxx		1072	xxxx		xxxxx		xxxx		xxxx		xxxxx	174		158		574
Move Cap.:	xxxx	xxxx		xxxxx		1069	xxxx		xxxxx		xxxx		xxxx		xxxxx	168		151		573
Volume/Cap:	xxxx	xxxx		xxxx		0.04	xxxx		xxxx		xxxx		xxxx		xxxx	0.13		0.00		0.07
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx		xxxxx		0.1	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		xxxx		xxxxx
Control Del:	xxxxx	xxxx		xxxxx		8.5	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
LOS by Move:	*	*		*		A	*		*		*		*		*	*		*		*
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		xxxx		xxxx		xxxxx	xxxx		317		xxxxx
SharedQueue:	xxxxx	xxxx		xxxxx		0.1	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		0.7		xxxxx
Shrd ConDel:	xxxxx	xxxx		xxxxx		8.5	xxxx		xxxxx		xxxxx		xxxx		xxxxx	xxxxx		19.2		xxxxx
Shared LOS:	*	*		*		A	*		*		*		*		*	*		C		*
ApproachDel:	xxxxxx					xxxxxx					xxxxxx							19.2		
ApproachLOS:	*					*					*							C		

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #8505
US-26 Springwater IAMP - Springwater, Oregon
Year 2031 Background Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 US-26 & SE Hillyard Rd

Average Delay (sec/veh): 1.2 Worst Case Level Of Service: F[77.4]

Street Name:	US-26								SE Hillyard Rd							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	0 0 2	0	1		1 0 2	0	1		0 0 0	0	1		0 0 0	0	1	
Volume Module:																
Base Vol:	0	1800	30		80	2690	50		0	0	30		0	0	30	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	1800	30		80	2690	50		0	0	30		0	0	30	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.81	0.81	0.81		0.81	0.81	0.81		0.81	0.81	0.81		0.81	0.81	0.81	
PHF Volume:	0	2222	37		99	3321	62		0	0	37		0	0	37	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
FinalVolume:	0	2222	37		99	3321	62		0	0	37		0	0	37	
Critical Gap Module:																
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	7.0	xxxxx	xxxx	6.9				
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	3.3				
Capacity Module:																
Cnflict Vol:	xxxx	xxxx	xxxxx	2259	xxxx	xxxxx	xxxx	xxxx	1660	xxxx	xxxx	1113				
Potent Cap.:	xxxx	xxxx	xxxxx	230	xxxx	xxxxx	xxxx	xxxx	84	xxxx	xxxx	206				
Move Cap.:	xxxx	xxxx	xxxxx	230	xxxx	xxxxx	xxxx	xxxx	84	xxxx	xxxx	206				
Volume/Cap:	xxxx	xxxx	xxxx	0.43	xxxx	xxxx	xxxx	xxxx	0.44	xxxx	xxxx	0.18				
Level Of Service Module:																
2Way95thQ:	xxxx	xxxx	xxxxx	2.0	xxxx	xxxxx	xxxx	xxxx	1.8	xxxx	xxxx	0.6				
Control Del:	xxxxx	xxxx	xxxxx	31.9	xxxx	xxxxx	xxxxx	xxxx	77.4	xxxxx	xxxx	26.3				
LOS by Move:	*	*	*	D	*	*	*	*	F	*	*	D				
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*		*	*	*		*	*	*		*	*	*	
ApproachDel:	xxxxxx				xxxxxx				77.4				26.3			
ApproachLOS:	*				*				F				D			

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc. - Project #8505
US-26 Springwater IAMP - Springwater, Oregon
Year 2031 Background Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 SE 267th Ave & SE Hillyard Rd

Average Delay (sec/veh): 3.6 Worst Case Level Of Service: A[9.3]

Street Name:	SE 267th Ave																						
Street Name:	SE 267th Ave												SE Hillyard Rd										
Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	1	0	0	0	0	0	0	1	0	0	0	1!	0	0	0	0	0	0	0
Volume Module:																				
Base Vol:	50	60	0	0	50	40	20	0	40	0	0	0								
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
Initial Bse:	50	60	0	0	50	40	20	0	40	0	0	0								
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
PHF Volume:	50	60	0	0	50	40	20	0	40	0	0	0								
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
FinalVolume:	50	60	0	0	50	40	20	0	40	0	0	0								
Critical Gap Module:																				
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx								
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx								
Capacity Module:																				
Cnflict Vol:	90	xxxx	xxxxx	xxxx	xxxx	xxxxx	230	230	70	xxxx	xxxx	xxxxx								
Potent Cap.:	1518	xxxx	xxxxx	xxxx	xxxx	xxxxx	763	673	998	xxxx	xxxx	xxxxx								
Move Cap.:	1518	xxxx	xxxxx	xxxx	xxxx	xxxxx	743	650	998	xxxx	xxxx	xxxxx								
Volume/Cap:	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	0.00	0.04	xxxx	xxxx	xxxx								
Level Of Service Module:																				
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Control Del:	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*								
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	896	xxxxx	xxxx	xxxx	xxxxx								
SharedQueue:	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.2	xxxxx	xxxxx	xxxx	xxxxx								
Shrd ConDel:	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	9.3	xxxxx	xxxxx	xxxx	xxxxx								
Shared LOS:	A	*	*	*	*	*	*	A	*	*	*	*								
ApproachDel:	xxxxxx			xxxxxx				9.3			xxxxxx									
ApproachLOS:	*			*				A			*									

Note: Queue reported is the number of cars per lane.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		0.97	1.00		1.00	0.91		1.00	0.91	
Frt	1.00	0.96		1.00	0.96		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1787		3433	1793		1770	5011		1770	5063	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1787		3433	1793		1770	5011		1770	5063	
Volume (vph)	20	240	90	450	150	50	120	1400	150	120	1700	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	267	100	500	167	56	133	1556	167	133	1889	56
Lane Group Flow (vph)	22	367	0	500	223	0	133	1723	0	133	1945	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	2.0	26.8		18.0	42.8		10.0	45.6		11.4	47.0	
Effective Green, g (s)	2.0	26.8		18.0	42.8		10.0	45.6		11.4	47.0	
Actuated g/C Ratio	0.02	0.23		0.15	0.36		0.08	0.39		0.10	0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	30	407		525	651		150	1940		171	2020	
v/s Ratio Prot	0.01	c0.21		c0.15	0.12		c0.08	0.34		0.08	c0.38	
v/s Ratio Perm												
v/c Ratio	0.73	0.90		0.95	0.34		0.89	0.89		0.78	0.96	
Uniform Delay, d1	57.6	44.2		49.5	27.3		53.3	33.7		52.0	34.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	63.0	22.6		27.6	0.3		41.7	5.4		19.6	12.4	
Delay (s)	120.6	66.8		77.1	27.6		95.1	39.1		71.6	47.0	
Level of Service	F	E		E	C		F	D		E	D	
Approach Delay (s)		69.8			61.8			43.1			48.5	
Approach LOS		E			E			D			D	

Intersection Summary			
HCM Average Control Delay	50.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	117.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	92.8%	ICU Level of Service	E
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.91		1.00	0.90	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1847		1770	1846		1770	1700		1770	1681	
Flt Permitted	0.42	1.00		0.39	1.00		0.40	1.00		0.67	1.00	
Satd. Flow (perm)	777	1847		720	1846		745	1700		1250	1681	
Volume (vph)	20	340	20	150	320	20	20	50	70	50	150	280
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	378	22	167	356	22	22	56	78	56	167	311
Lane Group Flow (vph)	22	400	0	167	378	0	22	134	0	56	478	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	11.6	11.6		11.6	11.6		16.8	16.8		16.8	16.8	
Effective Green, g (s)	11.6	11.6		11.6	11.6		16.8	16.8		16.8	16.8	
Actuated g/C Ratio	0.32	0.32		0.32	0.32		0.46	0.46		0.46	0.46	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	248	589		229	588		344	785		577	776	
v/s Ratio Prot		0.22			0.20			0.08			c0.28	
v/s Ratio Perm	0.03			c0.23			0.03			0.04		
v/c Ratio	0.09	0.68		0.73	0.64		0.06	0.17		0.10	0.62	
Uniform Delay, d1	8.7	10.8		11.0	10.6		5.4	5.7		5.5	7.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	3.1		11.0	2.4		0.1	0.1		0.1	1.5	
Delay (s)	8.8	13.9		22.0	13.0		5.5	5.8		5.6	8.8	
Level of Service	A	B		C	B		A	A		A	A	
Approach Delay (s)		13.6			15.8			5.8			8.5	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM Average Control Delay	11.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	36.4	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.3%	ICU Level of Service	B
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		0.95	0.95		1.00	1.00	
Frt	1.00	0.96		1.00	0.95		1.00	0.97		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1783		1770	1778		1681	1711		1770	1768	
Flt Permitted	0.58	1.00		0.40	1.00		0.31	1.00		0.69	1.00	
Satd. Flow (perm)	1081	1783		752	1778		553	1711		1283	1768	
Volume (vph)	90	250	100	20	160	70	30	70	20	120	330	170
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	100	278	111	22	178	78	33	78	22	133	367	189
Lane Group Flow (vph)	100	389	0	22	256	0	33	100	0	133	556	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	14.4	14.4		14.4	14.4		19.1	19.1		19.1	19.1	
Effective Green, g (s)	14.4	14.4		14.4	14.4		19.1	19.1		19.1	19.1	
Actuated g/C Ratio	0.35	0.35		0.35	0.35		0.46	0.46		0.46	0.46	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	375	619		261	617		255	787		590	814	
v/s Ratio Prot		c0.22			0.14			0.06			c0.31	
v/s Ratio Perm	0.09			0.03			0.06			0.10		
v/c Ratio	0.27	0.63		0.08	0.41		0.13	0.13		0.23	0.68	
Uniform Delay, d1	9.8	11.3		9.1	10.3		6.4	6.4		6.7	8.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.4	2.0		0.1	0.5		0.2	0.1		0.2	2.4	
Delay (s)	10.1	13.3		9.3	10.8		6.7	6.5		6.9	11.2	
Level of Service	B	B		A	B		A	A		A	B	
Approach Delay (s)		12.7			10.7			6.5			10.4	
Approach LOS		B			B			A			B	

Intersection Summary			
HCM Average Control Delay	10.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	41.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	65.5%	ICU Level of Service	B
c Critical Lane Group			

Kittelson & Associates, Inc. - Project #8505
US-26 Springwater IAMP - Springwater, Oregon
Year 2031 Background Traffic Conditions, Weekday PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #13 SE 267th Ave & New Collector

Average Delay (sec/veh): 3.0 Worst Case Level Of Service: B[11.6]

Street Name:	SE 267th Ave								New Collector							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	0	0	1!	0	0	0	1	0	0	0	0	0	0	1	0
Volume Module:																				
Base Vol:	0	0	0	20	0	80	100	290	0	0	150	20								
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
Initial Bse:	0	0	0	20	0	80	100	290	0	0	150	20								
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87								
PHF Volume:	0	0	0	23	0	92	115	333	0	0	172	23								
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
FinalVolume:	0	0	0	23	0	92	115	333	0	0	172	23								
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx	747	747	184	195	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Potent Cap.:	xxxx	xxxx	xxxxx	378	339	853	1348	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Move Cap.:	xxxx	xxxx	xxxxx	351	308	853	1348	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Volume/Cap:	xxxx	xxxx	xxxx	0.07	0.00	0.11	0.09	xxxx	xxxx	xxxx	xxxx	xxxx								
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*								
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	664	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.6	xxxxx	0.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	11.6	xxxxx	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
Shared LOS:	*	*	*	*	B	*	A	*	*	*	*	*								
ApproachDel:	xxxxxx				11.6		xxxxxx				xxxxxx									
ApproachLOS:	*				B		*				*									

Note: Queue reported is the number of cars per lane.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frt	1.00	0.85	1.00	1.00	0.96	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1583	1770	3539	3380	
Flt Permitted	0.95	1.00	0.49	1.00	1.00	
Satd. Flow (perm)	1770	1583	922	3539	3380	
Volume (vph)	290	100	50	340	280	120
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	322	111	56	378	311	133
Lane Group Flow (vph)	322	111	56	378	444	0
Turn Type		Perm	Perm			
Protected Phases	4			2	6	
Permitted Phases		4	2			
Actuated Green, G (s)	9.0	9.0	12.3	12.3	12.3	
Effective Green, g (s)	9.0	9.0	12.3	12.3	12.3	
Actuated g/C Ratio	0.31	0.31	0.42	0.42	0.42	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	544	486	387	1486	1419	
v/s Ratio Prot	c0.18			0.11	c0.13	
v/s Ratio Perm		0.07	0.06			
v/c Ratio	0.59	0.23	0.14	0.25	0.31	
Uniform Delay, d1	8.6	7.6	5.3	5.5	5.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.7	0.2	0.2	0.1	0.1	
Delay (s)	10.3	7.8	5.4	5.6	5.8	
Level of Service	B	A	A	A	A	
Approach Delay (s)	9.7			5.6	5.8	
Approach LOS	A			A	A	

Intersection Summary			
HCM Average Control Delay	7.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	29.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	37.4%	ICU Level of Service	A
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1583	1770	3539	1770	1583
Volume (vph)	790	100	300	500	50	580
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	878	111	333	556	56	644
Lane Group Flow (vph)	878	111	333	556	56	644
Turn Type		Perm	Prot			pm+ov
Protected Phases	4		3	8	2	3
Permitted Phases		4				2
Actuated Green, G (s)	23.7	23.7	23.4	51.1	8.4	31.8
Effective Green, g (s)	23.7	23.7	23.4	51.1	8.4	31.8
Actuated g/C Ratio	0.35	0.35	0.35	0.76	0.12	0.47
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1243	556	614	2679	220	840
v/s Ratio Prot	c0.25		0.19	0.16	0.03	c0.27
v/s Ratio Perm		0.07				0.14
v/c Ratio	0.71	0.20	0.54	0.21	0.25	0.77
Uniform Delay, d1	18.9	15.3	17.7	2.4	26.7	14.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.9	0.2	1.0	0.0	0.6	4.2
Delay (s)	20.8	15.5	18.7	2.4	27.3	19.0
Level of Service	C	B	B	A	C	B
Approach Delay (s)	20.2			8.5	19.7	
Approach LOS	C			A	B	

Intersection Summary			
HCM Average Control Delay	16.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	67.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	70.8%	ICU Level of Service	C
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.91
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1583	3539	1583	1770	5085
Flt Permitted	0.95	1.00	1.00	1.00	0.13	1.00
Satd. Flow (perm)	3433	1583	3539	1583	239	5085
Volume (vph)	700	100	1280	540	110	2230
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	778	111	1422	600	122	2478
Lane Group Flow (vph)	778	111	1422	600	122	2478
Turn Type		Perm		Perm	Perm	
Protected Phases	8		2			6
Permitted Phases		8		2	6	
Actuated Green, G (s)	23.0	23.0	56.9	56.9	56.9	56.9
Effective Green, g (s)	23.0	23.0	56.9	56.9	56.9	56.9
Actuated g/C Ratio	0.26	0.26	0.65	0.65	0.65	0.65
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	898	414	2291	1025	155	3292
v/s Ratio Prot	c0.23		0.40			0.49
v/s Ratio Perm		0.07		0.38	c0.51	
v/c Ratio	0.87	0.27	0.62	0.59	0.79	0.75
Uniform Delay, d1	31.0	25.8	9.1	8.8	11.1	10.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	8.8	0.4	0.5	0.9	22.6	1.0
Delay (s)	39.8	26.1	9.7	9.7	33.8	11.7
Level of Service	D	C	A	A	C	B
Approach Delay (s)	38.1		9.7			12.7
Approach LOS	D		A			B

Intersection Summary			
HCM Average Control Delay	15.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	87.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	78.3%	ICU Level of Service	C
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	0.89		1.00	0.86	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3523		1770	3495		1770	1662		1770	1601	
Flt Permitted	0.39	1.00		0.36	1.00		0.49	1.00		0.71	1.00	
Satd. Flow (perm)	726	3523		664	3495		904	1662		1316	1601	
Volume (vph)	70	630	20	50	550	50	20	20	50	50	20	300
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	78	700	22	56	611	56	22	22	56	56	22	333
Lane Group Flow (vph)	78	722	0	56	667	0	22	78	0	56	355	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	12.8	12.8		12.8	12.8		9.6	9.6		9.6	9.6	
Effective Green, g (s)	12.8	12.8		12.8	12.8		9.6	9.6		9.6	9.6	
Actuated g/C Ratio	0.42	0.42		0.42	0.42		0.32	0.32		0.32	0.32	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	306	1483		280	1472		285	525		416	506	
v/s Ratio Prot		c0.20			0.19			0.05			c0.22	
v/s Ratio Perm	0.11			0.08			0.02			0.04		
v/c Ratio	0.25	0.49		0.20	0.45		0.08	0.15		0.13	0.70	
Uniform Delay, d1	5.7	6.4		5.6	6.3		7.3	7.5		7.4	9.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.4	0.3		0.4	0.2		0.1	0.1		0.1	4.4	
Delay (s)	6.1	6.7		5.9	6.5		7.4	7.6		7.6	13.5	
Level of Service	A	A		A	A		A	A		A	B	
Approach Delay (s)		6.6			6.5			7.6			12.7	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM Average Control Delay	7.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	30.4	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.2%	ICU Level of Service	A
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3514		1770	3494		1770	1863	1583	1770	1717	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3514		1770	3494		1770	1863	1583	1770	1717	
Volume (vph)	50	600	30	400	650	60	20	40	250	200	120	130
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	667	33	444	722	67	22	44	278	222	133	144
Lane Group Flow (vph)	56	700	0	444	789	0	22	44	278	222	277	0
Turn Type	Prot			Prot			Prot		pm+ov	Prot		
Protected Phases	7	4		3	8		5	2	3	1	6	
Permitted Phases									2			
Actuated Green, G (s)	3.9	20.1		22.8	39.0		1.8	11.5	34.3	12.4	22.1	
Effective Green, g (s)	3.9	20.1		22.8	39.0		1.8	11.5	34.3	12.4	22.1	
Actuated g/C Ratio	0.05	0.24		0.28	0.47		0.02	0.14	0.41	0.15	0.27	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	83	853		487	1646		38	259	732	265	458	
v/s Ratio Prot	0.03	c0.20		c0.25	0.23		0.01	0.02	0.10	c0.13	c0.16	
v/s Ratio Perm									0.07			
v/c Ratio	0.67	0.82		0.91	0.48		0.58	0.17	0.38	0.84	0.60	
Uniform Delay, d1	38.8	29.6		29.0	15.0		40.1	31.4	16.9	34.2	26.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	19.5	6.4		21.3	0.2		19.6	0.3	0.3	20.0	2.3	
Delay (s)	58.4	36.0		50.3	15.2		59.7	31.8	17.2	54.3	28.8	
Level of Service	E	D		D	B		E	C	B	D	C	
Approach Delay (s)		37.7			27.8			21.8			40.1	
Approach LOS		D			C			C			D	

Intersection Summary			
HCM Average Control Delay	31.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	82.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.1%	ICU Level of Service	C
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Lane Util. Factor		0.95	1.00	1.00	0.95						1.00	1.00
Frt		1.00	0.85	1.00	1.00						1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00						0.95	1.00
Satd. Flow (prot)		3539	1583	1770	3539						1770	1583
Flt Permitted		1.00	1.00	0.15	1.00						0.95	1.00
Satd. Flow (perm)		3539	1583	276	3539						1770	1583
Volume (vph)	0	650	400	150	610	0	0	0	0	100	0	500
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	707	435	163	663	0	0	0	0	109	0	543
Lane Group Flow (vph)	0	707	435	163	663	0	0	0	0	0	109	543
Turn Type			Perm	pm+pt						Perm		Perm
Protected Phases		4		3	8						6	
Permitted Phases			4	8						6		6
Actuated Green, G (s)		23.0	23.0	37.7	37.7						44.3	44.3
Effective Green, g (s)		23.0	23.0	37.7	37.7						44.3	44.3
Actuated g/C Ratio		0.26	0.26	0.42	0.42						0.49	0.49
Clearance Time (s)		4.0	4.0	4.0	4.0						4.0	4.0
Vehicle Extension (s)		3.0	3.0	3.0	3.0						3.0	3.0
Lane Grp Cap (vph)		904	405	293	1482						871	779
v/s Ratio Prot		0.20		c0.07	0.19							
v/s Ratio Perm			c0.27	0.17							0.06	c0.34
v/c Ratio		0.78	1.07	0.56	0.45						0.13	0.70
Uniform Delay, d1		31.2	33.5	18.9	18.7						12.4	17.7
Progression Factor		1.00	1.00	1.79	1.47						1.00	1.00
Incremental Delay, d2		4.5	65.9	1.6	0.2						0.3	5.1
Delay (s)		35.6	99.4	35.5	27.7						12.7	22.8
Level of Service		D	F	D	C						B	C
Approach Delay (s)		59.9			29.2			0.0			21.1	
Approach LOS		E			C			A			C	

Intersection Summary			
HCM Average Control Delay	40.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.6%	ICU Level of Service	A
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0	4.0			
Lane Util. Factor	1.00	0.95			0.95			1.00	1.00			
Frt	1.00	1.00			0.95			1.00	0.85			
Flt Protected	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (prot)	1770	3539			3350			1770	1583			
Flt Permitted	0.95	1.00			1.00			0.95	1.00			
Satd. Flow (perm)	1770	3539			3350			1770	1583			
Volume (vph)	380	370	0	0	360	200	400	0	200	0	0	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	413	402	0	0	391	217	435	0	217	0	0	0
Lane Group Flow (vph)	413	402	0	0	608	0	0	435	217	0	0	0
Turn Type	Prot						Perm		Perm			
Protected Phases	7	4			8			2				
Permitted Phases							2		2			
Actuated Green, G (s)	24.9	46.3			17.4			35.7	35.7			
Effective Green, g (s)	24.9	46.3			17.4			35.7	35.7			
Actuated g/C Ratio	0.28	0.51			0.19			0.40	0.40			
Clearance Time (s)	4.0	4.0			4.0			4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0			3.0	3.0			
Lane Grp Cap (vph)	490	1821			648			702	628			
v/s Ratio Prot	c0.23	0.11			c0.18							
v/s Ratio Perm								c0.25	0.14			
v/c Ratio	0.84	0.22			0.94			0.62	0.35			
Uniform Delay, d1	30.7	12.0			35.8			21.7	19.0			
Progression Factor	1.67	1.61			1.00			1.00	1.00			
Incremental Delay, d2	9.5	0.0			21.2			4.1	1.5			
Delay (s)	60.9	19.3			57.0			25.8	20.5			
Level of Service	E	B			E			C	C			
Approach Delay (s)		40.4			57.0			24.0			0.0	
Approach LOS		D			E			C			A	

Intersection Summary			
HCM Average Control Delay	40.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	74.7%	ICU Level of Service	C
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	0.96		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1626	3223	1568	1641	3203		1626	3140		1719	3240	
Flt Permitted	0.34	1.00	1.00	0.23	1.00		0.20	1.00		0.52	1.00	
Satd. Flow (perm)	588	3223	1568	401	3203		335	3140		934	3240	
Volume (vph)	170	610	590	60	350	80	360	260	100	110	510	100
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	189	678	656	67	389	89	400	289	111	122	567	111
Lane Group Flow (vph)	189	678	656	67	478	0	400	400	0	122	678	0
Heavy Vehicles (%)	11%	12%	3%	10%	9%	12%	11%	11%	8%	5%	10%	2%
Turn Type	pm+pt		pm+ov	pm+pt			pm+pt			pm+pt		
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Actuated Green, G (s)	29.2	25.1	42.9	27.0	24.0		46.2	37.7		29.9	25.4	
Effective Green, g (s)	30.2	26.1	42.9	28.0	25.0		47.2	38.7		30.9	26.4	
Actuated g/C Ratio	0.34	0.30	0.49	0.32	0.28		0.53	0.44		0.35	0.30	
Clearance Time (s)	4.0	5.0	3.0	4.0	5.0		3.0	5.0		4.0	5.0	
Vehicle Extension (s)	3.0	6.0	1.0	3.0	6.0		1.0	6.0		3.0	6.0	
Lane Grp Cap (vph)	249	953	833	169	907		425	1376		367	969	
v/s Ratio Prot	c0.04	0.21	c0.15	0.01	0.15		c0.18	0.13		0.02	0.21	
v/s Ratio Perm	0.22		0.27	0.11			c0.32			0.10		
v/c Ratio	0.76	0.71	0.79	0.40	0.53		0.94	0.29		0.33	0.70	
Uniform Delay, d1	25.6	27.7	18.9	22.1	26.7		18.9	16.0		20.1	27.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	12.5	3.6	4.6	1.5	1.4		28.9	0.3		0.5	3.3	
Delay (s)	38.1	31.4	23.5	23.7	28.1		47.7	16.3		20.6	30.8	
Level of Service	D	C	C	C	C		D	B		C	C	
Approach Delay (s)		28.8			27.5			32.0			29.2	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	29.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	88.3	Sum of lost time (s)	4.0
Intersection Capacity Utilization	78.8%	ICU Level of Service	C

c Critical Lane Group