

Appendix F

Transportation



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PM Peak Hour Trip Generation Volumes



Table F-1: PM Peak Hour Trip Generation Volumes, Year 5, Alternatives 1, 2, 3, 4, and 5

Land Use	Directional Distribution (%)		Project Alternatives									
	Enter	Exit	Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternative 5	
			Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit
Residential												
<u>Single-family</u>												
• Weekday	64	36	12	7	69	39	160	90	85	48	208	117
• Saturday	54	46	9	7	54	46	124	106	66	56	162	138
• Sunday	53	47	8	6	48	42	112	99	60	53	145	130
<u>Multifamily</u>												
<u>Whole Interest Condominium</u>												
• Weekday	65	35	NA ¹	NA	50	27	26	14	30	16	100	54
• Saturday	54	46	NA	NA	36	31	19	12	21	18	72	62
• Sunday	49	51	NA	NA	32	33	17	17	19	19	63	65
<u>Apartment</u>												
• Weekday	61	39	NA	NA	122	78	113	72	75	48	75	48
• Saturday	NA	NA	NA	NA	78	78	72	72	48	48	48	48
• Sunday	NA	NA	NA	NA	76	76	70	70	47	47	47	47
<u>Timeshare²</u>												
• Weekday	44	56	NA	NA	12	16	10	12	10	12		
• Saturday	48	52	NA	NA	16	17	12	13	12	13		
• Sunday	46	54	NA	NA	15	18	12	14	12	14		
Non-residential												
<u>Community Center</u>												
• Weekday	37	63	NA	NA	47	80	47	80	47	80	19	32
• Saturday	49	51	NA	NA	35	36	35	36	35	36	14	15
• Sunday	56	44	NA	NA	47	37	47	37	47	37	19	14
<u>Business Park</u>												
• Weekday	23	77	NA	NA	11	37	7	23	3	12	11	37
• Saturday	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
• Sunday	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<u>Lodge²</u>												
• Weekday	50	50	NA	NA	18	18	9	9	13	13		
• Saturday	NA	NA	NA	NA	37	37	18	18	28	28		
• Sunday	NA	NA	NA	NA	37	37	18	18	28	28		
<u>Golf Course²</u>												
• Weekday	43	57	NA	NA	28	37	28	37	28	37		
• Saturday	49	51	NA	NA	40	42	40	42	40	42		
• Sunday	NA	NA	NA	NA	40	40	40	40	40	40		
<u>RV Park²</u>												
• Weekday	NA	NA	NA	NA	31	31	28	28	21	21		
• Saturday	NA	NA	NA	NA	31	31	28	28	21	21		
• Sunday	NA	NA	NA	NA	31	31	28	28	21	21		
<u>Horse Park^{2,3}</u>												
			NA	NA	6/45	63/450	NA	NA	6/45	63/450		
Total Trips												
• Weekday	NA	NA	12	7	394	426	428	365	318	350	413	288
• Saturday	NA	NA	9	7	372	768	348	327	316	709	296	263
• Sunday	NA	NA	8	6	371	764	344	323	309	709	274	256

1 NA = Information is not available or not applicable.

2 This feature is not a component of Alternative 5.

3 Numbers for total traffic volumes provided by Atelier, ps. Traffic volumes entering the Horse Park are assumed at 10% of total volume during PM peak hour. Weekday PM peak hour volumes estimated at 65 vehicle trips. Weekend PM peak hour (July/August) volumes estimated at 450 vehicle trips.

Table F-2: PM Peak Hour Trip Generation Volumes, Year 10, Alternatives 1, 2, 3, 4, and 5

Land Use	Directional Distribution (%)		Project Alternatives									
	Enter	Exit	Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternative 5	
			Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit
Residential												
<u>Single-family</u>												
• weekday	64	36	12	7	99	56	227	127	129	72	283	159
• Saturday	54	46	9	7	77	66	176	150	100	85	220	187
• Sunday	53	47	8	6	69	61	159	141	90	80	197	175
<u>Multifamily</u>												
<u>Whole Interest Condominium</u>												
• weekday	65	35	NA ¹	NA	80	43	48	26	30	16	120	64
• Saturday	54	46	NA	NA	58	50	35	29	21	18	86	74
• Sunday	49	51	NA	NA	51	52	30	31	19	19	75	78
<u>Apartment</u>												
• weekday	61	39	NA	NA	122	78	131	84	75	48	75	48
• Saturday	NA	NA	NA	NA	78	78	84	84	48	48	48	48
• Sunday	NA	NA	NA	NA	76	76	82	82	47	47	47	47
<u>Timeshare²</u>												
• weekday	44	56	NA	NA	12	16	10	12	10	12		
• Saturday	48	52	NA	NA	16	17	12	13	12	13		
• Sunday	46	54	NA	NA	15	18	12	14	12	14		
Non-residential												
<u>Community Center</u>												
• weekday	37	63	NA	NA	47	80	47	80	47	80	19	32
• Saturday	49	51	NA	NA	35	36	35	36	35	36	14	15
• Sunday	56	44	NA	NA	47	37	47	37	47	37	19	14
<u>Business Park</u>												
• weekday	23	77	NA	NA	38	128	24	81	89	298	38	128
• Saturday	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
• Sunday	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<u>Lodge²</u>												
• weekday	50	50	NA	NA	18	18	9	9	13	13		
• Saturday	NA	NA	NA	NA	37	37	18	18	28	28		
• Sunday	NA	NA	NA	NA	37	37	18	18	28	28		
<u>Golf Course²</u>												
• weekday	43	57	NA	NA	28	37	28	37	28	37		
• Saturday	49	51	NA	NA	40	42	40	42	40	42		
• Sunday	NA	NA	NA	NA	40	40	40	40	40	40		
<u>RV Park²</u>												
• weekday	NA	NA	NA	NA	31	31	28	28	21	21		
• Saturday	NA	NA	NA	NA	31	31	28	28	21	21		
• Sunday	NA	NA	NA	NA	31	31	28	28	21	21		
<u>Horse Park^{2,3}</u>												
• weekday	NA	NA	12	7	371	550	552	484	448	659	535	431
• Saturday	NA	NA	9	7	417	807	425	400	350	741	368	324
• Sunday	NA	NA	8	6	411	802	416	391	349	736	338	314
Total Trips												

1 NA = Information is not available or not applicable.

2 This feature is not a component of Alternative 5.

3 Numbers for total traffic volumes provided by Atelier, ps. Traffic volumes entering the Horse Park are assumed at 10% of total volume during PM peak hour. Weekday PM peak hour volumes estimated at 65 vehicle trips. Weekend PM peak hour (July/August) volumes estimated at 450 vehicle trips.

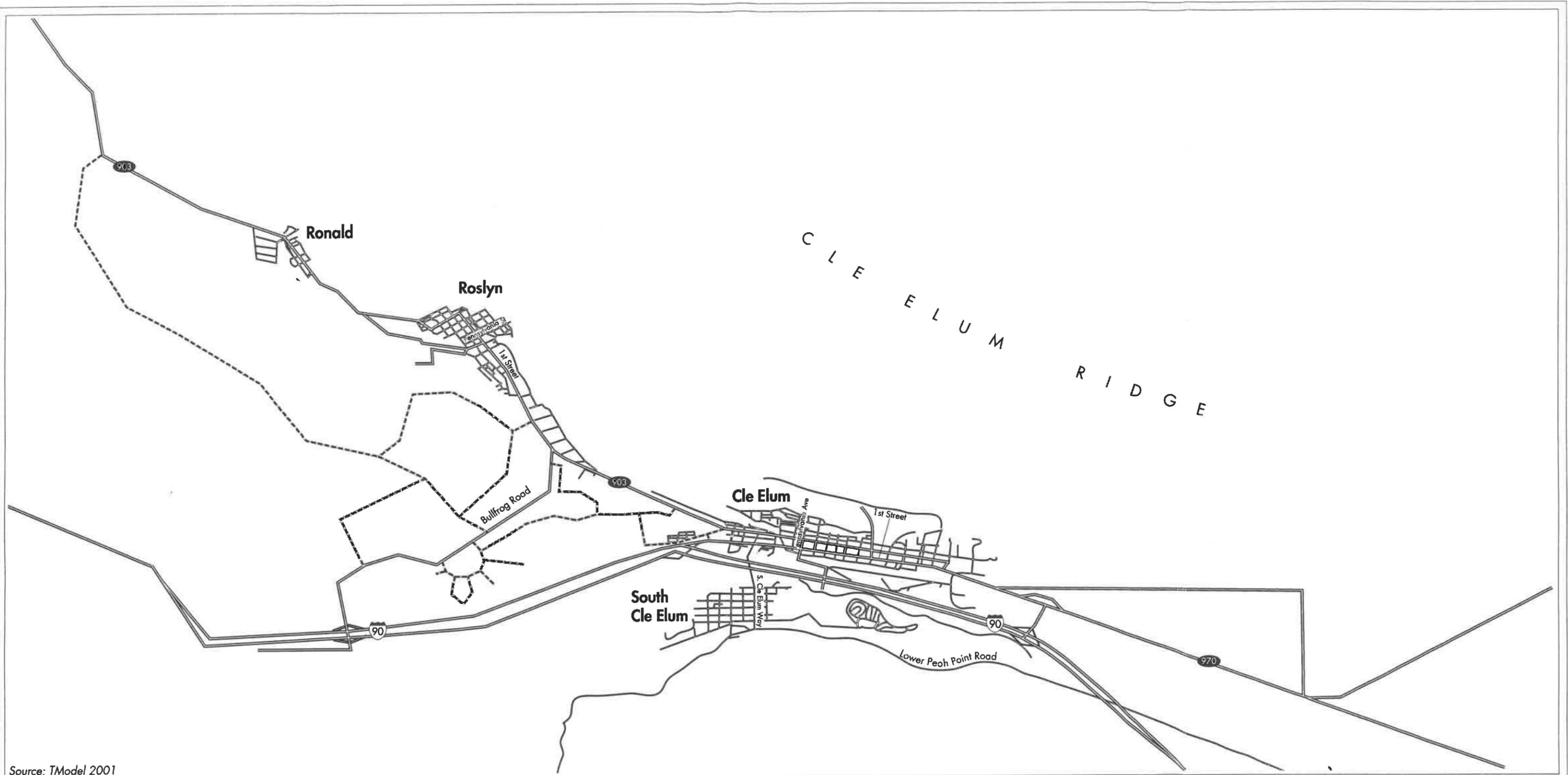
Table F-3: PM Peak Hour Trip Generation Volumes, Year 30, Alternatives 1, 2, 3, 4, and 5

Land Use	Directional Distribution		Project Alternatives									
	Enter	Exit	Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternative 5	
			Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit
Residential												
<u>Single-family</u>												
• weekday	64	36	64	36	195	109	426	240	251	141	529	297
• Saturday	54	46	50	42	151	129	331	282	195	166	411	350
• Sunday	53	47	45	39	136	120	297	264	175	155	369	328
<u>Multifamily</u>												
<u>Whole Interest Condo</u>												
• weekday	65	35	NA ¹	NA	80	43	48	26	30	16	119	65
• Saturday	54	46	NA	NA	58	50	35	29	21	18	86	74
• Sunday	49	51	NA	NA	51	52	30	31	19	19	75	78
<u>Apartment</u>												
• weekday	61	39	NA	NA	122	78	131	84	75	48	75	48
• Saturday	NA	NA	NA	NA	78	78	84	84	48	48	48	48
• Sunday	NA	NA	NA	NA	76	76	82	82	47	47	47	47
<u>Timeshare²</u>												
• weekday	44	56	NA	NA	12	16	10	12	10	12		
• Saturday	48	52	NA	NA	16	17	12	13	12	13		
• Sunday	46	54	NA	NA	15	18	12	14	12	14		
Non-Residential												
<u>Community Center</u>												
• weekday	37	63	NA	NA	47	80	47	80	47	80	19	32
• Saturday	49	51	NA	NA	35	36	35	36	35	36	14	15
• Sunday	56	44	NA	NA	47	37	47	37	47	37	19	14
<u>Business Park</u>												
• weekday	23	77	NA	NA	148	495	93	312	47	156	148	494
• Saturday	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
• Sunday	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<u>Lodge²</u>												
• weekday	50	50	NA	NA	18	18	9	9	13	13		
• Saturday	NA	NA	NA	NA	37	37	18	18	28	28		
• Sunday	NA	NA	NA	NA	37	37	18	18	28	28		
<u>Golf Course²</u>												
• weekday	43	57	NA	NA	28	37	28	37	28	37		
• Saturday	49	51	NA	NA	40	42	41	40	40	42		
• Sunday	NA	NA	NA	NA	40	40	40	40	40	40		
<u>RV Park²</u>												
• weekday	NA	NA	NA	NA	31	31	28	28	21	21		
• Saturday	NA	NA	NA	NA	31	31	28	28	21	21		
• Sunday	NA	NA	NA	NA	31	31	28	28	21	21		
<u>Horse Park^{2,3}</u>												
• weekday	NA	NA	64	36	787	972	820	828	528	587	890	936
• Saturday	NA	NA	50	42	491	870	581	530	445	822	559	487
• Sunday	NA	NA	45	39	478	861	554	514	434	811	510	467

1 NA = Information is not available or not applicable.

2 This feature is not a component of Alternative 5.

3 Numbers for total traffic volumes provided by Atelier, ps. Traffic volumes entering the Horse Park are assumed at 10% of total volume during PM peak hour. Weekday PM peak hour volumes estimated at 65 vehicle trips. Weekend PM peak hour (July/August) volumes estimated at 450 vehicle trips.



Source: TModel 2001



0 7000'

Approximate Scale in Feet

----- proposed roadway

FIGURE F-1

MODEL AREA NETWORK



Source: TModel 2001

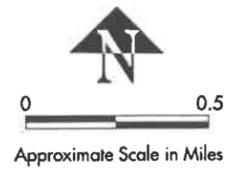


FIGURE F-2
TRAFFIC ANALYSIS ZONES

Intersection Traffic Volumes



Table F-4 Intersection Traffic Volumes

Intersection	Model Node	Location	Alternative	Data Set	Year	Time	Traffic Entering Intersection												Traffic Leaving Intersection							
							Northbound				Southbound				Eastbound				Westbound				Total North	Total South	Total East	Total West
							Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total				
1	152	WB I-90 Ramps @ Bullfrog	5	Background+UGA	5	Weekday	4	324	0	328	0	12	113	125	0	0	0	0	14	0	9	23				
						Weekend	7	335	0	342	0	10	134	144	0	0	0	0	13	0	8	21				
						10	Weekday	4	349	0	353	0	16	121	137	0	0	0	0	16	0	13	29			
							Weekend	8	372	0	380	0	14	146	160	0	0	0	0	15	0	12	27			
						5	Background+UGA+MPR	Weekday	3	405	0	408	0	49	146	195	0	0	0	0	14	0	32	46		
								Weekend	6	456	0	462	0	53	198	251	0	0	0	0	13	0	36	49		
10	Background+UGA+MPR	Weekday	3	445	0	448	0	60	164	224	0	0	0	0	16	0	36	52								
		Weekend	6	523	0	529	0	68	227	295	0	0	0	0	14	0	43	57								
2	154	EB I-90 Ramps @ Bullfrog	5	Background+UGA	5	Weekday	0	7	9	16	7	19	0	26	321	0	16	337	0	0	0					
						Weekend	0	11	16	27	6	17	0	23	331	0	16	347	0	0	0	0				
						10	Weekday	0	8	10	18	10	22	0	32	345	0	17	362	0	0	0	0			
							Weekend	0	13	18	31	9	19	0	28	367	0	18	385	0	0	0	0			
						5	Background+UGA+MPR	Weekday	0	7	8	15	42	21	63	401	0	14	415	0	0	0	0	0		
								Weekend	0	12	15	27	47	19	0	66	450	0	15	465	0	0	0	0		
10	Background+UGA+MPR	Weekday	0	8	9	17	52	24	0	76	440	0	15	455	0	0	0	0								
		Weekend	0	14	17	31	61	22	0	83	515	0	16	531	0	0	0	0								
3	303	WB I-90 Ramps @ Oakes	5	Background+UGA	5	Weekday	0	21	0	21	0	210	0	210	0	0	0	0	10	0	126	136				
						Weekend	0	33	0	33	0	270	0	270	0	0	0	0	9	0	176	185				
						10	Weekday	0	23	0	23	0	230	0	230	0	0	0	0	11	0	134	145			
							Weekend	0	36	0	36	0	294	0	294	0	0	0	0	10	0	189	199			
						5	Background+UGA+MPR	Weekday	0	22	0	22	0	206	0	206	0	0	0	0	9	0	121	130		
								Weekend	0	34	0	34	0	281	0	281	0	0	0	0	9	0	187	196		
10	Background+UGA+MPR	Weekday	0	24	0	24	0	223	0	223	0	0	0	0	9	0	129	138								
		Weekend	0	37	0	37	0	305	0	305	0	0	0	0	14	0	43	57								
4	296	EB I-90 Ramps @ Oakes	5	Background+UGA	5	Weekday	0	21	7	28	173	46	0	219	0	0	0	0	0	0	0					
						Weekend	0	33	10	43	229	50	0	279	0	0	0	0	0	0	0	0				
						10	Weekday	0	23	8	31	190	52	0	142	0	0	0	0	0	0	0	0			
							Weekend	0	36	11	47	249	56	0	305	0	0	0	0	0	0	0	0			
						5	Background+UGA+MPR	Weekday	0	22	6	28	168	46	0	214	0	0	0	0	0	0	0	0		
								Weekend	0	34	9	43	240	50	0	290	0	0	0	0	0	0	0	0		
10	Background+UGA+MPR	Weekday	0	24	6	30	181	52	0	233	0	0	0	0	0	0	0	0								
		Weekend	0	37	10	47	259	56	0	315	0	0	0	0	0	0	0	0								
5	327	EB I-90 Ramps @ SR 970	5	Background+UGA	5	Weekday	0	0	0	0	104	0	0	104	389	0	0	389	0	0	0					
						Weekend	0	0	0	0	111	0	0	111	361	0	0	361	0	0	0	0				
						10	Weekday	0	0	0	0	116	0	0	116	434	0	0	434	0	0	0	0			
							Weekend	0	0	0	0	125	0	0	125	406	0	0	406	0	0	0	0			
						5	Background+UGA+MPR	Weekday	0	0	0	0	92	0	0	92	400	0	0	400	0	0	0	0		
								Weekend	0	0	0	0	103	0	0	103	372	0	0	372	0	0	0	0		
10	Background+UGA+MPR	Weekday	0	0	0	0	101	0	0	101	444	0	0	444	0	0	0	0								
		Weekend	0	0	0	0	113	0	0	113	417	0	0	417	0	0	0	0								
6	325	WB I-90 Ramps @ SR 970	5	Background+UGA	5	Weekday	0	389	0	389	0	104	0	104	0	0	0	0	0	0	88	88				
						Weekend	0	361	0	361	0	111	0	111	0	0	0	0	0	0	0	94	94			
						10	Weekday	0	434	0	434	0	116	0	116	0	0	0	0	0	0	0	102	102		
							Weekend	0	406	0	406	0	125	0	125	0	0	0	0	0	0	0	108	108		
						5	Background+UGA+MPR	Weekday	0	400	0	400	0	92	0	92	0	0	0	0	0	0	0	81	81	
								Weekend	0	372	0	372	0	103	0	103	0	0	0	0	0	0	0	90	90	
10	Background+UGA+MPR	Weekday	0	444	0	444	0	101	0	101	0	0	0	0	0	0	0	93	93							
		Weekend	0	417	0	417	0	113	0	113	0	0	0	0	0	0	0	102	102							
7	323	West End SR 903 Spur @ SR970	5	Background+UGA	5	Weekday	45	0	0	45	0	0	0	0	0	316	54	370	0	372	0	372				
						Weekend	74	0	0	74	0	0	0	0	0	333	77	410	0	312	0	312				
						10	Weekday	49	0	0	49	0	0	0	0	0	361	56	417	0	409	0	409			
							Weekend	83	0	0	83	0	0	0	0	0	377	82	459	0	354	0	354			
						5	Background+UGA+MPR	Weekday	38	0	0	38	0	0	0	0	0	301	43	344	0	351	0	351		
								Weekend	70	0	0	70	0	0	0	0	0	350	69	419	0	326	0	326		
10	Background+UGA+MPR	Weekday	39	0	0	39	0	0	0	0	0	346	42	388	0	384	0	384								
		Weekend	76	0	0	76	0	0	0	0	0	399	71	470	0	371	0	371								

Table F-4 Continued

Intersection	Model Node	Location	Alternative	Data Set	Year	Time	Traffic Entering Intersection												Traffic Leaving Intersection								
							Northbound				Southbound				Eastbound				Westbound				Total North	Total South	Total East	Total West	
							Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total					
8	292	First @ Pennsylvania - Cle Elum	5	Background+UGA	5	Weekday	24	5	13	42	40	6	48	94	7	513	21	541	11	469	67	547					
						Weekend	34	7	20	61	32	12	77	121	9	642	37	688	18	506	55	579					
					10	Weekday	25	6	14	45	70	7	57	134	8	549	23	580	12	483	72	567					
						Weekend	36	9	22	67	36	13	92	141	10	686	41	737	20	532	61	613					
				Background+UGA+MPR	5	Weekday	22	6	12	40	46	7	45	98	6	502	20	528	11	444	92	547					
						Weekend	33	9	20	62	61	13	74	148	9	643	36	688	18	498	60	576					
					10	Weekday	24	8	14	46	58	8	52	118	7	560	22	589	12	455	101	568					
						Weekend	36	10	22	68	75	15	87	177	9	686	39	734	20	524	91	635					
9	291	First @ Oakes - Cle Elum	5	Background+UGA	5	Weekday	120	21	21	162	19	10	1	30	25	501	179	705	33	508	0	541					
						Weekend	159	37	41	237	20	35	4	59	33	627	213	873	51	567	0	618					
					10	Weekday	122	30	23	175	19	20	2	41	29	538	189	756	36	529	0	565					
						Weekend	172	41	43	256	23	37	6	66	36	671	234	941	55	604	0	659					
				Background+UGA+MPR	5	Weekday	112	28	20	160	19	9	1	29	21	490	181	692	30	481	0	511					
						Weekend	158	51	40	249	20	24	5	49	36	629	240	905	48	558	0	606					
					10	Weekday	113	37	21	171	18	13	2	33	25	549	193	767	32	498	0	530					
						Weekend	174	55	41	270	18	46	6	70	44	675	241	960	52	592	3	647					
10	223	Bullfrog @ SR 903	5	Background+UGA	5	Weekday	241	0	100	341	0	0	0	0	0	194	94	288	65	257	0	322					
						Weekend	225	0	70	295	0	0	0	0	0	289	134	423	60	238	0	298					
					10	Weekday	267	0	115	382	0	0	0	0	0	211	104	315	85	296	0	381					
						Weekend	250	0	84	334	0	0	0	0	0	319	150	469	77	269	0	346					
				Background+UGA+MPR	5	Weekday	237	0	195	432	0	0	0	0	0	236	104	340	130	268	0	398					
						Weekend	237	0	179	416	0	0	0	0	0	330	154	484	159	268	0	427					
					10	Weekday	256	0	247	503	0	0	0	0	0	270	117	387	185	307	0	492					
						Weekend	255	0	229	484	0	0	0	0	0	378	173	551	216	305	0	521					
11	192	SR903 @ Pennsylvania - Roslyn	5	Background+UGA	5	Weekday	89	305	24	418	4	189	3	196	3	2	56	61	13	1	3	17					
						Weekend	108	265	23	396	5	260	7	272	7	3	93	103	19	3	4	26					
					10	Weekday	100	343	28	471	4	208	4	216	4	2	60	66	14	2	4	20					
						Weekend	120	297	26	443	5	289	8	302	8	3	104	115	21	3	5	29					
				Background+UGA+MPR	5	Weekday	88	292	24	404	4	197	3	204	4	2	56	62	13	2	3	18					
						Weekend	110	271	23	404	5	276	7	288	7	3	95	105	19	3	4	26					
					10	Weekday	99	323	27	449	4	214	4	222	4	2	61	67	14	2	4	20					
						Weekend	122	302	26	450	5	305	7	317	7	3	107	117	21	3	4	28					
12	159	MPR Access West Access @ Bullfrog	5	Background+UGA	5	Weekday	0	333	0	333	0	126	0	126	0	0	0	0	0	0	0	0					
						Weekend	0	344	0	344	0	144	0	144	0	0	0	0	0	0	0	0	0				
					10	Weekday	0	362	0	362	0	138	0	138	0	0	0	0	0	0	0	0	0				
						Weekend	0	384	0	384	0	160	0	160	0	0	0	0	0	0	0	0	0				
				Background+UGA+MPR	5	Weekday	0	437	0	437	0	195	0	195	0	0	0	0	0	0	0	0	0				
						Weekend	0	492	0	492	0	251	0	251	0	0	0	0	0	0	0	0	0				
					10	Weekday	0	481	0	481	0	225	0	225	0	0	0	0	0	0	0	0	0				
						Weekend	0	566	0	566	0	295	0	295	0	0	0	0	0	0	0	0	0				
13	185	West UGA Access @ Bullfrog	5	Background+UGA	5	Weekday	0	0	0	0	0	0	0	0	0	333	0	333	0	126	0	126					
						Weekend	0	0	0	0	0	0	0	0	0	344	0	344	0	144	0	144					
					10	Weekday	0	0	0	0	0	0	0	0	0	362	0	362	0	138	0	138					
						Weekend	0	0	0	0	0	0	0	0	0	384	0	384	0	160	0	160					
				Background+UGA+MPR	5	Weekday	0	0	0	0	7	0	56	63	74	363	0	437	0	140	1	141					
						Weekend	0	0	0	0	4	0	60	64	86	406	0	492	0	192	2	194					
					10	Weekday	0	0	0	0	7	0	61	68	75	407	0	482	0	164	2	166					
						Weekend	0	0	0	0	4	0	76	80	90	476	0	566	0	219	2	221					
14	198	Center UGA Access @ Bullfrog	5	Background+UGA	5	Weekday	7	0	8	15	0	0	0	0	0	311	21	332	12	118	0	130					
						Weekend	6	0	7	13	0	0	0	0	0	324	19	343	11	138	0	149					
					10	Weekday	12	0	11	23	0	0	0	0	0	329	32	361	16	126	0	142					
						Weekend	10	0	9	19	0	0	0	0	0	355	29	384	14	150	0	164					
				Background+UGA+MPR	5	Weekday	6	0	9	15	0	0	0	0	351	18	369	14	136	0	150						
						Weekend	5	0	7	12	0	0	0	0	393	17	410	12	188	0	200						
					10	Weekday	8	0	13	21	0	0	0	0	387	27	414	19	157	0	176						
						Weekend	9	0	10	19	0	0	0	0	455	25	480	16	213	0	229						

Table F-4 Continued

Intersection	Model Node	Location	Alternative	Data Set	Year	Time	Traffic Entering Intersection																Traffic Leaving Intersection			
							Northbound				Southbound				Eastbound				Westbound				Total North	Total South	Total East	Total West
							Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total				
15	209	Main MPR Access @ Bullfrog	5	Background+UGA	5	Weekday	33	0	37	70	0	0	0	0	0	220	100	320	53	97	0	150				
						Weekend	28	0	29	57	0	0	0	0	0	246	85	331	44	120	0	164				
						Weekday	37	0	51	88	0	0	0	0	0	236	105	341	76	106	0	182				
						Weekend	31	0	42	73	0	0	0	0	0	271	93	364	63	132	0	195				
						Weekday	25	0	52	77	0	0	0	0	0	276	85	361	73	125	0	198				
						Weekend	24	0	42	66	0	0	0	0	0	324	76	400	63	176	0	239				
16	226	East UGA/Community Center Access @ Bullfrog	5	Background+UGA	5	Weekday	0	257	0	257	0	150	0	150	0	0	0	0	0	0	0	0				
						Weekend	0	275	0	275	0	164	0	164	0	0	0	0	0	0	0	0				
						Weekday	0	286	0	286	0	181	0	181	0	0	0	0	0	0	0	0				
						Weekend	0	313	0	313	0	196	0	196	0	0	0	0	0	0	0	0				
						Weekday	103	225	0	328	0	133	97	230	128	0	65	193	0	0	0	0				
						Weekend	109	257	0	366	0	149	138	287	143	0	90	233	0	0	0	0				
17	258	UGA Access @ 903	5	Background+UGA	5	Weekday	0	247	3	250	17	128	0	145	0	0	0	0	2	0	17	19				
						Weekend	0	263	1	264	18	158	0	176	0	0	0	0	1	0	11	12				
						Weekday	0	276	3	279	18	156	0	174	0	0	0	0	2	0	22	24				
						Weekend	0	300	1	301	18	188	0	206	0	0	0	0	1	0	12	13				
						Weekday	0	343	3	346	18	204	0	222	0	0	0	0	3	0	17	20				
						Weekend	0	387	1	388	17	279	0	296	0	0	0	0	2	0	11	13				
18	266	Ranger Station Road @ SR 903	5	Background+UGA	5	Weekday	0	0	0	0	0	0	0	0	0	350	0	350	0	299	0	299				
						Weekend	0	0	0	0	0	0	0	0	0	370	0	370	0	317	0	317				
						Weekday	0	0	0	0	0	0	0	0	0	387	0	387	0	352	0	352				
						Weekend	0	0	0	0	0	0	0	0	0	414	0	414	0	366	0	366				
						Weekday	0	0	0	0	0	0	0	0	0	480	0	480	0	369	0	369				
						Weekend	0	0	0	0	0	0	0	0	0	512	0	512	0	436	0	436				
19	283	S Cle Elum Way @ 2nd Street	5	Background+UGA	5	Weekday	5	0	107	112	0	0	0	0	0	334	7	441	118	289	0	407				
						Weekend	2	0	75	77	0	0	0	0	0	360	3	363	101	308	0	409				
						Weekday	15	0	161	176	0	0	0	0	0	372	10	382	131	333	0	464				
						Weekend	4	0	84	88	0	0	0	0	0	406	3	409	102	357	0	459				
						Weekday	6	0	98	104	0	0	0	0	0	461	8	469	112	356	0	468				
						Weekend	2	0	69	71	0	0	0	0	0	500	2	502	94	425	0	519				
20	274	S Cle Elum @ First Street	5	Background+UGA	5	Weekday	28	0	37	65	0	0	0	0	0	442	18	460	31	415	0	446				
						Weekend	33	0	69	102	0	0	0	0	0	442	25	467	62	415	0	477				
						Weekday	28	0	39	67	0	0	0	0	0	522	24	546	33	457	0	490				
						Weekend	32	0	74	106	0	0	0	0	0	487	26	513	69	455	0	524				
						Weekday	27	0	34	61	0	0	0	0	0	555	22	577	31	474	0	505				
						Weekend	37	0	63	100	0	0	0	0	0	570	29	599	61	519	0	580				
21	289	2nd @ Oaks - Cle Elum	5	Background+UGA	5	Weekday	337	0	56	393	0	0	0	0	0	132	221	353	17	104	0	121				
						Weekend	313	0	45	358	0	0	0	0	0	211	207	418	19	147	0	166				
						Weekday	333	0	59	392	0	0	0	0	0	188	217	405	17	146	0	163				
						Weekend	320	0	47	367	0	0	0	0	0	247	225	472	20	181	0	201				
						Weekday	342	0	60	402	0	0	0	0	0	152	267	419	17	148	0	165				
						Weekend	342	0	66	408	0	0	0	0	0	205	259	464	18	205	0	223				
21	289	2nd @ Oaks - Cle Elum	5	Background+UGA+MPR	5	Weekday	348	0	64	412	0	0	0	0	0	191	274	465	16	202	0	218				
						Weekend	364	0	71	435	0	0	0	0	0	267	242	509	19	257	0	276				

Table F-4 Continued

Intersection	Model Node	Location	Alternative	Data Set	Year	Time	Traffic Entering Intersection																Traffic Leaving Intersection							
							Northbound				Southbound				Eastbound				Westbound				Total North	Total South	Total East	Total West				
							Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total								
22	290	2nd @ Pennsylvania - Cle Elum	5	Background+UGA	5	Weekday	53	56	136	245	180	54	5	239	40	407	149	596	172	170	296	638								
					10	Weekend	73	57	183	313	176	45	5	226	27	529	169	725	188	270	274	732								
				Background+UGA+MPR	5	Weekday	49	64	132	245	215	64	4	283	43	364	144	551	165	147	295	607								
					10	Weekend	70	68	179	317	219	53	4	276	48	526	171	745	186	251	292	729								
									5	Weekday	52	73	148	273	220	67	3	290	46	423	169	638	184	152	293	629				
									10	Weekend	74	80	201	355	204	52	5	261	50	576	199	825	208	267	306	781				
23	219	MPR Access @ 903	5	Background+UGA	5	Weekday	17	0	29	46	0	0	0	0	0	103	30	133	0	128	0	128								
					10	Weekend	30	0	40	70	0	0	0	0	0	176	59	235	0	142	0	142								
				Background+UGA+MPR	5	Weekday	25	0	33	58	0	0	0	0	0	146	40	186	0	165	0	165								
					10	Weekend	33	0	44	77	0	0	0	0	0	208	65	273	0	179	0	179								
									5	Weekday	24	0	25	49	0	0	0	0	127	28	155	0	162	0	162					
									10	Weekend	45	0	43	88	0	0	0	0	200	48	248	0	183	0	183					
24	156	SR 903 @ Horvat Road	5	Background+UGA	5	Weekday	68	0	11	79	0	0	0	0	0	89	44	133	50	61	0	111								
					10	Weekend	57	0	15	72	0	0	0	0	0	177	40	217	82	85	0	167								
				Background+UGA+MPR	5	Weekday	74	0	12	86	0	0	0	0	0	105	75	180	59	91	0	150								
					10	Weekend	65	0	16	81	0	0	0	0	0	208	44	252	97	114	0	211								
									5	Weekday	94	0	10	104	0	0	0	0	100	51	151	47	68	0	115					
									10	Weekend	63	0	14	77	0	0	0	0	174	69	243	78	120	0	198					
25	114	North MPR Access @ 903	5	Background+UGA	5	Weekday	0	488	0	488	0	284	0	284	0	0	0	0	0	0	0	0	0							
					10	Weekend	0	454	0	454	0	414	0	414	0	0	0	0	0	0	0	0	0	0						
				Background+UGA+MPR	5	Weekday	0	550	0	550	0	310	0	310	0	0	0	0	0	0	0	0	0	0						
					10	Weekend	0	508	0	508	0	460	0	460	0	0	0	0	0	0	0	0	0	0						
									5	Weekday	34	460	0	494	0	267	6	293	14	0	49	63	0	0	0	0				
									10	Weekend	43	453	0	496	0	425	11	436	13	0	50	63	0	0	0	0				
26	332	East End SR903 Spur @ SR970	5	Background+UGA	5	Weekday	11	0	0	11	0	0	0	0	0	153	11	164	0	236	0	236								
					10	Weekend	13	0	0	13	0	0	0	0	0	199	16	215	0	186	0	186								
				Background+UGA+MPR	5	Weekday	13	0	0	13	0	0	0	0	0	169	12	181	0	265	0	265								
					10	Weekend	15	0	0	15	0	0	0	0	0	222	18	240	0	210	0	210								
									5	Weekday	10	0	0	10	0	0	0	0	161	11	172	0	233	0	233					
									10	Weekend	13	0	0	13	0	0	0	0	214	16	230	0	191	0	191					
27	352	Pine Street @ SR903	5	Background+UGA	5	Weekday	0	143	0	143	0	108	0	108	0	0	0	0	0	0	0	0	0							
					10	Weekend	0	79	0	79	0	121	0	121	0	0	0	0	0	0	0	0	0	0						
				Background+UGA+MPR	5	Weekday	0	162	0	162	0	121	0	121	0	0	0	0	0	0	0	0	0	0						
					10	Weekend	0	90	0	90	0	135	0	135	0	0	0	0	0	0	0	0	0	0						
									5	Weekday	20	113	0	133	0	86	21	107	30	0	34	64	0	0	0	0				
									10	Weekend	24	69	0	93	0	108	21	129	16	0	36	52	0	0	0	0				
28	353	Pine Street @ West First	5	Background+UGA	5	Weekday	0	0	432	432	0	0	0	0	0	316	0	316	223	372	0	595								
					10	Weekend	0	0	381	381	0	0	0	0	0	333	0	333	168	312	0	480								
				Background+UGA+MPR	5	Weekday	0	0	487	487	0	0	0	0	0	361	0	361	252	409	0	661								
					10	Weekend	0	0	431	431	0	0	0	0	0	377	0	377	190	354	0	544								
									5	Weekday	0	0	444	444	0	0	0	0	301	0	301	234	351	0	585					
									10	Weekend	0	0	392	392	0	0	0	0	350	0	350	178	326	0	504					
					10	Weekday	0	0	498	498	0	0	0	0	346	0	346	263	384	0	647									
					10	Weekend	0	0	444	444	0	0	0	0	399	0	399	200	371	0	571									

Table F-4 Continued

Intersection	Model Node	Location	Alternative	Data Set	Year	Time	Traffic Entering Intersection																Traffic Leaving Intersection			
							Northbound				Southbound				Eastbound				Westbound				Total	Total	Total	Total
							Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	North	South	East	West
29	356	Ranger Station Connector @ West First	5	Background+UGA	5	Weekday	34	0	29	63	0	0	0	0	0	341	138	479	15	412	0	427				
						Weekend	51	0	49	100	0	0	0	0	0	373	138	511	27	427	0	454				
					10	Weekday	38	0	27	65	0	0	0	0	0	389	172	561	17	453	0	470				
						Weekend	55	0	64	119	0	0	0	0	0	411	150	561	27	469	0	496				
				Background+UGA+MPR	5	Weekday	39	0	16	55	0	0	0	0	0	421	168	589	13	465	0	478				
						Weekend	62	0	18	80	0	0	0	0	0	453	180	633	25	518	0	543				
					10	Weekday	45	0	11	56	0	0	0	0	0	466	244	710	14	529	0	543				
						Weekend	70	0	22	92	0	0	0	0	0	491	232	723	23	596	0	619				
30	357	Ranger Station Connector @ Ranger Station Road	5	Background+UGA	5	Weekday	1	1	4	6	108	3	42	153	59	489	4	552	7	208	3	218				
						Weekend	1	2	6	9	97	2	67	166	95	622	3	720	6	334	3	343				
					10	Weekday	1	2	5	8	137	4	47	188	60	524	4	588	4	8	222	234				
						Weekend	2	2	6	10	105	2	71	178	113	658	4	775	7	362	4	373				
				Background+UGA+MPR	5	Weekday	1	2	4	7	129	4	49	182	51	425	3	479	7	181	3	191				
						Weekend	1	2	6	9	129	2	74	205	75	610	3	688	6	311	4	321				
					10	Weekday	1	2	5	8	196	4	58	258	50	444	4	498	7	186	4	197				
						Weekend	2	2	6	10	174	2	79	255	85	644	3	732	7	329	4	340				
31	239	UGA Internal Intersection East	5	Background+UGA	5	Weekday	0	0	0	0	4	0	13	17	33	470	0	503	0	161	4	165				
						Weekend	0	0	0	0	14	0	16	30	37	551	0	588	0	229	10	239				
					10	Weekday	0	0	0	0	8	0	22	30	36	494	0	530	0	171	4	175				
						Weekend	0	0	0	0	18	0	17	35	37	587	0	624	0	243	13	256				
				Background+UGA+MPR	5	Weekday	0	0	0	0	8	0	10	18	25	382	0	407	0	129	4	133				
						Weekend	0	0	0	0	18	0	14	32	33	506	0	539	0	202	11	213				
					10	Weekday	0	0	0	0	16	0	16	32	24	381	0	405	0	130	6	136				
						Weekend	0	0	0	0	27	0	15	42	31	523	0	554	0	205	13	218				
32	213	UGA Internal Intersection West	5	Background+UGA	5	Weekday	4	0	32	36	0	0	0	0	0	1	5	6	13	1	0	14				
						Weekend	5	0	42	47	0	0	0	0	0	2	7	9	23	2	0	25				
					10	Weekday	9	0	31	40	0	0	0	0	0	1	11	12	18	1	0	19				
						Weekend	8	0	41	49	0	0	0	0	0	2	8	10	26	2	0	28				
				Background+UGA+MPR	5	Weekday	4	0	25	29	0	0	0	0	0	1	5	6	12	1	0	13				
						Weekend	6	0	38	44	0	0	0	0	0	2	7	9	24	2	0	26				
					10	Weekday	8	0	32	40	0	0	0	0	0	2	11	13	21	1	0	22				
						Weekend	8	0	36	44	0	0	0	0	0	3	10	13	32	3	0	35				

Intersection Level-of-Service



Table F-5: Intersection Levels-of-Service, Year 5 Weekday, Alternatives 1, 2, 3, 4, and 5

Intersection	Alternatives				
	1	2	3	4	5
SR 903/MPR Access	NA ¹	A	A	A	A
Bullfrog/WB I-90 Ramp	A	A	A	A	A
Bullfrog/EB I-90 Ramp	A	B	B	B	B
SR 903/Hovart Road	A	A	A	A	A
Bullfrog/UGA/MPR Access	NA	A	A	A	A
Bullfrog/UGA Access	NA	A	A	A	A
SR 903/Pennsylvania-Roslyn	A	A	A	A	A
Bullfrog/UGA/MPR Access	NA	A	A	A	A
SR 903/MPR Access	NA	A	A	A	A
SR 903/Bullfrog	B	B	B	B	C
Bullfrog/UGA/MPR Access	NA	A	A	A	A
SR 903/UGA/other Access	NA	A	A	A	A
SR 903/Ranger Station Rd	A	A	A	A	A
First Street/S Cle Elum Way	F	F	F	F	F
Second Street/S Cle Elum Way	A	A	A	A	B
First Street/Oakes	B	F	F	F	B
• Northbound	F (54.0) ^{2,3}				
Second Street/Oakes	A	A	A	A	A
Second Street/Pennsylvania-Cle Elum	A	A	A	A	A
First/Pennsylvania-Cle Elum	A	B	B	B	A
Oakes/EB I-90 Ramp	A	A	A	A	A
Oakes/WB I-90 Ramp	A	A	A	A	A
West End SR 903/SR 907	A	A	A	A	A
SR 970/WB I-90 Ramp	A	A	A	A	A
SR 970/EB I-90 Ramp	B	B	B	B	B
SR 970/East End SR 903	A	A	A	A	A
SR 903/Pine Street	A	A	A	A	A
West First/Pine Street	A	C	C	C	A
• Southbound Through		F (72.4) ^{2,3}	F (64.0) ^{2,3}	F (60.1) ^{2,3}	
West First/UGA Access	NA	A	A	A	A

1 NA – not applicable.

2 Indicates critical movement.

3 Number identifies delay in seconds per vehicle.

Table F-6: Intersection Levels-of-Service, Year 5 Weekend, Alternatives 1, 2, 3, 4, and 5

Intersection	Alternative				
	1	2	3	4	5
SR 903/MPR Access	NA ¹	A	A	A	A
Bullfrog/WB I-90 Ramp	A	A	A	A	A
Bullfrog/EB I-90 Ramp	B	B	B	B	B
SR 903/Hovart Road	A	A	A	A	A
Bullfrog/UGA/MPR Access	NA	A	A	A	A
Bullfrog/UGA Access	NA	A	A	A	A
SR 903/Pennsylvania-Roslyn	A	A	A	A	A
Bullfrog/UGA/MPR Access	NA	A	A	A	A
SR 903/MPR Access	NA	A	A	A	A
SR 903/Bullfrog	B	C	B	C	C
• Northbound		E (34.8) ^{2,3}		E (33.9) ^{2,3}	
Bullfrog/UGA/MPR Access	NA	A	A	A	A
SR 903/UGA/other Access	NA	A	A	A	A
SR 903/Ranger Station Rd	A	A	A	A	A
First Street/S Cle Elum Way	F	F	F	F	F
Second Street/S Cle Elum Way	B	A	A	A	B
First Street/Oakes	F	F	F	F	F
Second Street/Oakes	A	A	A	A	A
Second Street/Pennsylvania-Cle Elum	A	A	A	A	A
First/Pennsylvania-Cle Elum	A	B	B	B	A
Oakes/EB I-90 Ramp	A	A	A	A	A
Oakes/WB I-90 Ramp	A	A	A	A	A
West End SR 903/SR 907	A	A	A	A	A
SR 970/WB I-90 Ramp	A	A	A	A	A
SR 970/EB I-90 Ramp	B	B	B	B	B
SR 970/East End SR 903	A	A	A	A	A
SR 903/Pine Street	A	A	A	A	A
West First/Pine Street	A	F	E	F	A
West First/UGA Access	NA	A	A	A	A

1 NA – not applicable.

2 Indicates critical movement.

3 Number identifies delay in seconds per vehicle.

Table F-7: Intersection Levels-of-Service, Year 10 Weekday, Alternatives 1, 2, 3, 4, and 5

Intersection	Alternative				
	1	2	3	4	5
SR 903/MPR Access	NA	A	A	A	A
Bullfrog/WB I-90 Ramp	A	A	A	A	A
Bullfrog/EB I-90 Ramp	B	B	B	B	B
SR 903/Hovart Road	A	A	A	A	A
Bullfrog/UGA/MPR Access	NA	A	A	A	A
Bullfrog/UGA Access	NA	A	A	A	A
SR 903/Pennsylvania-Roslyn	A	A	A	A	A
Bullfrog/UGA/MPR Access	NA	A	A	A	A
SR 903/MPR Access	NA	A	A	A	A
SR 903/Bullfrog	C	C	C	C	F
• Northbound	E (37.2) ^{2,3}	F (48.4) ^{2,3}	F (47.3) ^{2,3}	E (43.7) ^{2,3}	
Bullfrog/UGA Access	NA	A	A	A	A
SR 903/UGA/other Access	NA	A	A	A	A
SR 903/Ranger Station Rd	A	A	A	A	A
First Street/S Cle Elum Way	F	F	F	F	F
Second Street/S Cle Elum Way	B	A	A	A	C
First Street/Oakes	C	F	F	F	D
• Northbound	F (128.0) ^{2,3}				
Second Street/Oakes	A	A	A	A	A
Second Street/Pennsylvania-Cle Elum	A	A	A	A	A
First/Pennsylvania-Cle Elum	A	B	B	B	A
Oakes/EB I-90 Ramp	A	A	A	A	A
Oakes/WB I-90 Ramp	A	A	A	A	A
West End SR 903/SR 907	A	A	A	A	A
SR 970/WB I-90 Ramp	A	A	A	A	A
SR 970/EB I-90 Ramp	B	B	B	B	B
SR 970/East End SR 903	A	A	A	A	A
SR 903/Pine Street	A	A	A	A	A
West First/Pine Street	A	D	D	C	A
• Southbound Through		F (186.0) ^{2,3}	F (127.6) ^{2,3}	F (82.6) ^{2,3}	
West First/UGA Access	NA	A	A	A	A

1 NA – not applicable.

2 Indicates critical movement.

3 Number identifies delay in seconds per vehicle.

Table F-8: Intersection Levels-of-Service, Year 10 Weekend, Alternatives 1, 2, 3, 4, and 5

Intersection	Alternative				
	1	2	3	4	5
SR 903/MPR Access	NA ¹	A	A	A	A
Bullfrog/WB I-90 Ramp	A	A	A	A	A
Bullfrog/EB I-90 Ramp	B	B	B	B	B
SR 903/Hovart Road	A	A	A	A	A
Bullfrog/UGA/MPR Access	NA	A	A	A	A
Bullfrog/UGA Access	NA	A	A	A	A
SR 903/Pennsylvania-Roslyn	A	A	A	A	A
Bullfrog/UGA/MPR Access	NA	A	A	A	A
SR 903/MPR Access	NA	A	A	A	A
SR 903/Bullfrog	C	D	D	D	F
• Northbound	F (61.1) ^{2,3}	F (87.2) ^{2,3}		F (83.1) ^{2,3}	
Bullfrog/UGA/MPR Access	NA	A	A	A	A
SR 903/UGA/other Access	NA	A	A	A	A
SR 903/Ranger Station Rd	A	A	A	A	A
First Street/S Cle Elum Way	F	F	F	F	F
Second Street/S Cle Elum Way	B	A	A	A	C
First Street/Oakes	F	F	F	F	F
Second Street/Oakes	A	A	A	A	A
Second Street/Pennsylvania-Cle Elum	A	A	A	A	A
First/Pennsylvania-Cle Elum	A	B	B	B	A
• Northbound	E (37.6) ^{2,3}				
Oakes/EB I-90 Ramp	A	A	A	A	A
Oakes/WB I-90 Ramp	A	A	A	A	A
East End SR 903/SR 907	A	A	A	A	A
SR 970/WB I-90 Ramp	A	A	A	A	A
SR 970/EB I-90 Ramp	B	B	B	B	B
SR 970/East End SR 903 Spur	A	A	A	A	A
SR 903/Pine Street	A	A	A	A	A
West First/Pine Street	A	F	F	F	B
• Southbound Through	E (36.7) ^{2,3}				
West First/UGA Access	NA	A	A	A	A

- 1 NA – not applicable.
- 2 Indicates critical movement.
- 3 Number identifies delay in seconds per vehicle.

Table F-9: Intersection Levels-of-Service with MPR, Year 5 Weekday, Alternatives 1, 2, 3, 4, and 5

Intersection	Alternative				
	1	2	3	4	5
SR 903/MPR Access	NA ¹	A	A	A	A
Bullfrog/WB I-90 Ramp	A	A	A	A	A
Bullfrog/EB I-90 Ramp	A	B	C	B	C
SR 903/Hovart Road	A	A	A	A	A
Bullfrog/UGA/MPR Access	NA	A	A	A	A
Bullfrog/UGA Access	NA	A	A	A	A
SR 903/Pennsylvania-Roslyn	A	A	A	A	A
Bullfrog/UGA/MPR Access	NA	A	A	A	A
SR 903/MPR Access	NA	A	A	A	A
SR 903/Bullfrog	B	F	F	F	F
Bullfrog/UGA/MPR Access	NA	A	A	A	A
SR 903/UGA/other Access	NA	A	A	A	A
SR 903/Ranger Station Rd	A	A	A	A	A
First Street/S Cle Elum Way	F	F	F	F	F
Second Street/S Cle Elum Way	A	A	A	A	C
First Street/Oakes	F	F	F	F	B
Second Street/Oakes	A	A	A	A	A
Second Street/Pennsylvania-Cle Elum	A	A	A	A	A
First/Pennsylvania-Cle Elum	B	B	B	B	A
Oakes/EB I-90 Ramp	A	A	A	A	A
Oakes/WB I-90 Ramp	A	A	A	A	A
West End SR 903/SR 907	A	A	A	A	A
SR 970/WB I-90 Ramp	A	A	A	A	A
SR 970/EB I-90 Ramp	B	B	B	B	B
SR 970/East End SR 903	A	A	A	A	A
SR 903/Pine Street	NA	A	A	A	A
West First/Pine Street	NA	F	F	F	A
West First/UGA Access	NA	A	A	A	A

¹ NA – not applicable.

Table F-10: Intersection Levels-of-Service with MPR, Year 5 Weekend, Alternatives 1, 2, 3, 4, and 5

Intersection	Alternative				
	1	2	3	4	5
SR 903/MPR Access	NA ¹	A	A	A	A
Bullfrog/WB I-90 Ramp	A	A	A	A	A
Bullfrog/EB I-90 Ramp	B	C	C	B	D
SR 903/Hovart Road	A	A	A	A	A
Bullfrog/UGA/MPR Access	NA	A	A	A	A
Bullfrog/UGA Access	NA	A	A	A	A
SR 903/Pennsylvania-Roslyn	A	A	A	A	A
Bullfrog/UGA/MPR Access	NA	B	A	B	A
SR 903/MPR Access	NA	A	A	A	A
SR 903/Bullfrog	B	F	F	F	F
Bullfrog/UGA/MPR Access	NA	A	A	A	A
SR 903/UGA/other Access	NA	A	A	A	A
SR 903/Ranger Station Rd	A	A	A	A	A
First Street/S Cle Elum Way	F	F	F	F	F
Second Street/S Cle Elum Way	A	A	A	A	D
First Street/Oakes	F	F	F	F	F
Second Street/Oakes	A	A	A	A	A
Second Street/Pennsylvania-Cle Elum	A	A	A	A	A
First/Pennsylvania-Cle Elum	B	B	B	B	A
Oakes/EB I-90 Ramp	A	A	A	A	A
Oakes/WB I-90 Ramp	A	A	A	A	A
West End SR 903/SR 907	A	A	A	A	A
SR 970/WB I-90 Ramp	A	A	A	A	A
SR 970/EB I-90 Ramp	B	B	B	B	B
SR 970/East End SR 903	A	A	A	A	A
SR 903/Pine Street	NA	B	A	B	A
• Northbound Through		E (33.9) ^{2,3}		E (30.5) ^{2,3}	
West First/Pine Street	NA	F	E	F	A
West First/UGA Access	NA	A	A	A	A

1 NA – not applicable.

2 Indicates critical movement.

3 Number identifies delay in seconds per vehicle.

Table F-11: Intersection Levels-of-Service with MPR, Year 10 Weekday, Alternatives 1, 2, 3, 4, and 5

Intersection	Alternative				
	1	2	3	4	5
SR 903/MPR Access	NA ¹	A	A	A	A
Bullfrog/WB I-90 Ramp	A	A	A	A	A
Bullfrog/EB I-90 Ramp	B	C	C	C	D
SR 903/Hovart Road	A	A	A	A	A
Bullfrog/UGA/MPR Access	NA	A	A	A	A
Bullfrog/UGA Access	NA	A	A	A	A
SR 903/Pennsylvania-Roslyn	A	A	A	A	A
Bullfrog/UGA/MPR Access	NA	B	A	A	B
SR 903/MPR Access	NA	A	A	A	A
SR 903/Bullfrog	C	F	F	F	F
	E (34.0) ^{2,3}				
Bullfrog/UGA Access	NA	A	A	A	A
SR 903/UGA/other Access	NA	A	A	A	A
SR 903/Ranger Station Rd	A	A	A	A	A
First Street/S Cle Elum Way	F	F	F	F	F
Second Street/S Cle Elum Way	B	A	A	A	D
First Street/Oakes	F	F	F	F	C
Second Street/Oakes	A	A	A	A	A
Second Street/Pennsylvania-Cle Elum	A	A	A	A	A
First/Pennsylvania-Cle Elum	B	B	B	B	A
Oakes/EB I-90 Ramp	A	A	A	A	A
Oakes/WB I-90 Ramp	A	A	A	A	A
West End SR 903/SR 907	A	A	A	A	A
SR 970/WB I-90 Ramp	A	A	A	A	A
SR 970/EB I-90 Ramp	B	A	A	A	B
SR 970/East End SR 903	A	A	A	A	A
SR 903/Pine Street	NA	B	B	B	A
West First/Pine Street	NA	F	F	F	B
West First/UGA Access	NA	A	A	A	B

1 NA – not applicable.

2 Indicates critical movement.

3 Number identifies delay in seconds per vehicle.

Table F-12: Intersection Levels-of-Service with MPR, Year 10 Weekend, Alternatives 1, 2, 3, 4, and 5

Intersection	Alternative				
	1	2	3	4	5
SR 903/MPR Access	NA ¹	A	A	A	A
Bullfrog/WB I-90 Ramp	A	A	A	A	A
Bullfrog/EB I-90 Ramp	B	C	E	C	F
SR 903/Hovart Road	A	A	A	A	A
Bullfrog/UGA/MPR Access	NA	A	A	A	A
Bullfrog/UGA Access	NA	A	A	A	A
SR 903/Pennsylvania-Roslyn	A	A	A	A	A
Bullfrog/UGA/MPR Access	NA	C	C	C	C
• Eastbound Through		E (42.0) ^{2,3}	E (33.2) ^{2,3}	E (38.2) ^{2,3}	
SR 903/MPR Access	NA	A	A	A	A
SR 903/Bullfrog	C	F	F	F	F
• Northbound	F (52.0) ^{2,3}				
Bullfrog/UGA/MPR Access	NA	A	A	A	A
SR 903/UGA/other Access	NA	A	A	A	A
SR 903/Ranger Station Rd	A	A	A	A	A
First Street/S Cle Elum Way	F	F	F	F	F
Second Street/S Cle Elum Way	A	A	A	A	F
First Street/Oakes	F	F	F	F	F
Second Street/Oakes	A	A	A	A	A
Second Street/Pennsylvania-Cle Elum	A	A	A	A	A
First/Pennsylvania-Cle Elum	B	F	F	F	C
Oakes/EB I-90 Ramp	A	A	A	A	A
Oakes/WB I-90 Ramp	A	A	A	A	A
East End SR 903/SR 907	A	A	A	A	A
SR 970/WB I-90 Ramp	A	A	A	A	A
SR 970/EB I-90 Ramp	B	B	B	B	B
SR 970/East End SR 903 Spur	A	A	A	A	A
SR 903/Pine Street	NA	C	C	E	A
• Northbound Through		F (92.2) ^{2,3}	F (90.6) ^{2,3}		
West First/Pine Street	NA	F	F	F	F
West First/UGA Access	NA	A	A	A	A

1 NA – not applicable.

2 Indicates critical movement.

3 Number identifies delay in seconds per vehicle.

Traffic Signal Warrants



TRAFFIC SIGNAL WARRANTS

—Excerpt of Section C of the Manual on Uniform Traffic Control Devices

4C-1 Advance Engineering Data Required

A comprehensive investigation of traffic conditions and physical characteristics of the location is required to determine the necessity for a signal installation and to furnish necessary data for the proper design and operation of a signal that is found to be warranted. Such data desirably should include:

1. The number of vehicles entering the intersection in each hour from each approach during 16 consecutive hours of a representative day. The 16 hours selected should contain the greatest percentage of the 24-hour traffic.
2. Vehicular volumes for each traffic movement from each approach, classified by vehicle type (heavy trucks, passenger cars and light trucks, public-transit vehicles and, in some locations, bicycles), during each 15-minute period of the two hours in the morning and of the two hours in the afternoon during which total traffic entering the intersection is greatest.
3. Pedestrian volume counts on each crosswalk during the same periods as the vehicular counts in paragraph (2) above and also during hours of highest pedestrian volume. Where young or elderly persons need special consideration, the pedestrians may be classified by general observation and recorded by age groups as follows:
 - (a) under 13 years
 - (b) 13 to 60 years
 - (c) over 60 years
4. The 85-percentile speed of all vehicles on the uncontrolled approaches to the location.
5. A conditions diagram showing details of the physical layout, including such features as intersectional geometrics, channelization, grades, sight-distance restrictions, bus stops and routings, parking conditions, pavement markings, street lighting, driveways, location of nearby railroad crossings, distance to nearest signals, utility poles and fixtures, and adjacent land use.
6. A collision diagram showing accident experience by type, location, direction of movement, severity, time of day, date, and day of week for at least one year.

The following data are also desirable for a more precise understanding of the operation of the intersection and may be obtained during the periods specified in (2) above:

1. Vehicle-seconds delay determined separately for each approach.
2. The number and distribution of gaps in vehicular traffic on the major street when minor-street traffic finds it possible to use the intersection safely.
3. The 85-percentile speed of vehicles on controlled approaches at a point near to the intersection but unaffected by the control.
4. Pedestrian delay time for at least two 3-minute peak pedestrian delay periods of an average weekday or like periods of a Saturday or a Sunday.

Adequate roadway capacity at a signalized intersection is desirable. Widening of both the major street and the minor street may be warranted to reduce the delays caused by assignment of right-of-way at intersections controlled by traffic signals. Widening of the minor street is often beneficial to operation on the major street because it reduces the green time that must be assigned to minor street traffic. In urban areas, the effect of widening can be achieved by elimination of parking at intersectional approaches. It is always desirable to have at least two lanes for moving traffic on each approach to a signalized intersection. Additional width may be necessary on the leaving side of the intersection, as well as the approach side, in order to clear traffic through the intersection effectively. Before an intersection is widened, the additional green time needed by pedestrians to cross the widened streets should be checked to ensure that it will not exceed the green time saved through improved vehicular flow.

4C-2 Warrants for Traffic Signal Installation

Traffic control signals should not be installed unless one or more of the signal warrants in this Manual are met. The satisfaction of a warrant or warrants is not in itself justification for a signal. Information should be obtained by means of engineering studies and compared with the requirements set forth in the warrants. The engineering study should indicate the installation of a traffic signal will improve the overall safety and/or operation of the intersection. If these requirements are not met, a traffic signal should neither be put into operation nor continued in operation (if already installed).

For the purpose of warranting signalization, a wide-median intersection should be considered as one intersection.

When a traffic control signal is indicated as being warranted, it is presumed that the signal and all related traffic control devices and markings are installed according to the standards set forth in this Manual. It is further presumed that signal indications are properly phased, that roadways are properly designed, that adjacent traffic signals are properly coordinated, that there is adequate supervision of the operation and maintenance of the signal and all of its related devices, and that the traffic signal controller will be selected on the basis of engineering study and judgment.

An investigation of the need for traffic signal control should include where applicable, at least an analysis of the factors contained in the following warrants:

- Warrant 1—Minimum vehicular volume.
- Warrant 2—Interruption of continuous traffic.
- Warrant 3—Minimum pedestrian volume.
- Warrant 4—School crossings.
- Warrant 5—Progressive movement.
- Warrant 6—Accident experience.
- Warrant 7—Systems.
- Warrant 8—Combination of warrants.
- Warrant 9—Four Hour Volumes.

Warrant 10—Peak Hour Delay.
 Warrant 11—Peak Hour Volume.

The analysis should consider the effects of the right turn vehicles from the minor street approaches. Engineering judgment should be used to determine what, if any, portion of the right turn traffic is subtracted from the minor street traffic count when evaluating the count against the above warrants.

4C-3 Warrant 1, Minimum Vehicular Volume

The Minimum Vehicular Volume warrant is intended for application where the volume of intersecting traffic is the principal reason for consideration of signal installation. The warrant is satisfied when, for each of any 8 hours of an average day, the traffic volumes given in the table below exist on the major street and on the higher-volume minor- street approach to the intersection. An "average" day is defined as a weekday representing traffic volumes normally and repeatedly found at the location.

MINIMUM VEHICULAR VOLUMES FOR WARRANT 1

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)	Vehicles per hour on higher-volume minor-street approach (one direction only)
Major Street	Minor Street		
1	1	500	150
2 or more	1	600	150
2 or more	2 or more	600	200
1	2 or more	500	200

These major-street and minor-street volumes are for the same 8 hours. During those 8 hours, the direction of higher volume on the minor street may be on one approach during some hours and on the opposite approach during other hours.

When the 85-percentile speed of major-street traffic exceeds 40 mph in either an urban or a rural area, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the Minimum Vehicular Volume warrant is 70 percent of the requirements above.

4C-4 Warrant 2, Interruption of Continuous Traffic

The Interruption of Continuous Traffic warrant applies to operating conditions where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or hazard in entering or crossing the major street. The warrant is satisfied when, for each of any 8 hours of an average day, the traffic volumes given in the table below exist on the major street and on the higher-volume minor- street approach to the intersection, and the signal installation will not seriously disrupt progressive traffic flow.

MINIMUM VEHICULAR VOLUMES FOR WARRANT 2

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)	Vehicles per hour on higher-volume minor-street approach (one direction only)
Major Street	Minor Street		
1	1	750	75
2 or more	1	900	75
2 or more	2 or more	900	100
1	2 or more	750	100

These major-street and minor-street volumes are for the same 8 hours. During those 8 hours, the direction of higher volume on the minor street may be on one approach during some hours and on the opposite approach during other hours.

When the 85-percentile speed of major-street traffic exceeds 40 mph in either an urban or a rural area, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the Interruption of Continuous Traffic warrant is 70 percent of the requirements above.

4C-5 Warrant 3, Minimum Pedestrian Volume

A traffic signal may be warranted where the pedestrian volume crossing the major street at an intersection or mid-block location during an average day is:

- 100 or more for each of any four hours; or
- 190 or more during any one hour.

The pedestrian volume crossing the major street may be reduced as much as 50 percent of the values given above when the predominant pedestrian crossing speed is below 3.5 feet per second.

In addition to a minimum pedestrian volume of that stated above, there shall be less than 60 gaps per hour in the traffic stream of adequate length for pedestrians to cross during the same period when the pedestrian volume criterion is satisfied. Where there is a divided street having a median of sufficient width for the pedestrian(s) to wait, the requirement applies separately to each direction of vehicular traffic.

Where coordinated traffic signals on each side of the study location provide for platooned traffic which result in fewer than 60 gaps per hour of adequate length for the pedestrians to cross the street, a traffic signal may not be warranted.

This warrant applies only to those locations where the nearest traffic signal along the major street is greater than 300 feet and where a new traffic signal at the study location would not unduly restrict platooned flow of traffic. Curbside parking at non-intersection locations should be prohibited for 100 feet in advance of and 20 feet beyond the crosswalk.

A signal installed under this warrant should be of the traffic-actuated type with push buttons for pedestrians crossing the main street. If such a signal is installed within a signal system, it should be coordinated if the signal system is coordinated.

Signals installed according to this warrant shall be equipped with pedestrian indications conforming to requirements set forth in other sections of this Manual.

4C-6 Warrant 4, School Crossing

A traffic control signal may be warranted at an established school crossing when a traffic engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of school children at the school crossing shows that the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period (sec. 7A-3). When traffic control signals are installed entirely under this warrant:

1. Pedestrian indications shall be provided at least for each crosswalk established as a school crossing.
2. At an intersection, the signal normally should be traffic-actuated. As a minimum, it should be semi-traffic-actuated, but full actuation with detectors on all approaches may be desirable. Intersection installations that can be fitted into progressive signal systems may have pretimed control.
3. At non-intersection crossings, the signal should be pedestrian- actuated, parking and other obstructions to view should be prohibited for at least 100 feet in advance of and 20 feet beyond the crosswalk, and the markings. Special police supervision and/or enforcement should be provided for a new non-intersection installation. Installation should include suitable standard signs and pavement

4C-7 Warrant 5, Progressive Movement

Progressive movement control sometimes necessitates traffic signal installations at intersections where they would not otherwise be warranted, in order to maintain proper grouping of vehicles and effectively regulate group speed. The Progressive Movement warrant is satisfied when:

1. On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning and speed control, or
2. On a two-way street, adjacent signals do not provide the necessary degree of platooning and speed control and the proposed and adjacent signals could constitute a progressive signal system.

The installation of a signal according to this warrant should be based on the 85th-percentile speed unless an engineering study indicates that another speed is more desirable.

The installation of a signal according to this warrant should not be considered where the resultant signal spacing would be less than 1000 feet.

4C-8 Warrant 6, Accident Experience

The Accident Experience warrant is satisfied when:

1. Adequate trial of less restrictive remedies with satisfactory observance and enforcement has failed to reduce the accident frequency and
2. Five or more reported accidents, of types susceptible to correction by traffic signal control, have occurred within a 12-month period, each accident involving personal injury or property damage apparently exceeding the applicable requirements for a reportable accident; and
3. There exists a volume of vehicular and pedestrian traffic not less than 80 percent of the requirements specified either in the Minimum Vehicular Volume warrant, the Interruption of Continuous Traffic warrant, or the Minimum Pedestrian Volume warrant; and
4. The signal installation will not seriously disrupt progressive traffic flow.

Any traffic signal installed solely on the Accident Experience warrant should be semi-traffic-actuated (with control devices which provide proper coordination if installed at an intersection within a coordinated system and normally should be fully traffic-actuated if installed at an isolate intersection.

4C-9 Warrant 7, Systems Warrant

A traffic signal installation at some intersections may be warranted to encourage concentration and organization of traffic flow networks. The Systems Warrant is applicable when the common intersection of two or more major routes: (1) has a total existing, or immediately projected, entering volume of at least 1000 vehicles during the peak hour of a typical weekday and has five year projected traffic volumes, based on an engineering study, which meet one or more of Warrants 1, 2, 8, 9, and 11 during an average weekday; or (2) has a total existing or immediately projected entering volume of at least 1000 vehicles for each of any five hours of a Saturday and/or Sunday.

A major route as used in the above warrant has one or more of the following characteristics:

1. It is part of the street or highway system that serves as the principal network for through traffic flow;
2. It includes rural or suburban highways outside, entering or traversing a city;
3. It appears as a major route on an official plan such as a major street plan in an urban area traffic and transportation study.

4G-10 Warrant 8, Combination of Warrants

In exceptional cases, signals occasionally may be justified where no single warrant is satisfied but where Warrants 1 and 2 are satisfied to the extent of 80 percent or more of the stated values. Adequate trial of other remedial measures which cause less delay and inconvenience to traffic should precede installation of signals under this warrant.

4C-10.1 Warrant 9--Four Hour Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day the plotted points representing the vehicles per hour on the major street (total of both approaches)

and the corresponding vehicles per hour on the higher volume minor street approach (one direction only) all fall above the curve in Figure 4-7 for the existing combination of approach lanes.

When the 85th percentile speed of the major street traffic exceeds 40 miles per hour or when the intersection lies within a built-up area of an isolated community having a population less than 10,000, the four hour volume requirement is satisfied when the plotted points referred to fall above the curve in Figure 4-8 for the existing combination of approach lanes.

4C-10.2 Warrant 10, Peak Hour Delay

The peak hour delay warrant is intended for application where traffic conditions are such that for one hour of the day minor street traffic suffers undue delay in entering or crossing the major street. The peak hour delay warrant is satisfied when the conditions given below exist for one hour (any four consecutive 15-minute periods) of an average weekday.

The peak hour delay warrant is met when:

1. The total delay experienced by the traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach, and
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes, and
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four (or more) approaches or 650 vph for intersections with three approaches.

4C-10.3 Warrant 11, Peak Hour Volume

The peak hour volume warrant is also intended for application when traffic conditions are such that for one hour of the day minor street traffic suffers undue traffic delay in entering or crossing the major street.

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicle per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

When the 85th percentile speed of major street traffic exceeds 40 mph or when the intersection lies within a built-up area of an isolated community having a population less than 10,000, the peak hour volume requirements is satisfied when the plotted point referred to above falls above the curve in Figure 4-6 for the existing combination of approach lanes.

4C-II Factors Governing Selection of Type of Control

The principal factors that may lead to the favorable consideration of traffic-actuated control in the selection of the type of signal control include:

1. Low, fluctuating or unbalanced traffic volumes.
2. High side street traffic volumes and delays only during the peak hours.
3. The pedestrian or accident warrant is the only warrant which is met.
4. The installation is to provide for one-way movement of two-way traffic.
5. The installation is at a non-intersection location.

Appendix G

Agency Correspondence





United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services

P. O. Box 848

Ephrata, Washington 98823

Phone: 509-754-8580 Fax: 509-754-8575

December 13, 2001

Calvin Kelly Douglas
Shapiro & Associates Inc.
101 Yessler Way, Suite 400
Seattle, Washington 98104

RE: Species List Request
FWS Reference: 02-SP-E0064

Thank you for your request of December 3, 2001. The following threatened and endangered species, and candidate species may be present near the project area in Kittitas County, Washington:

LISTED

Endangered

Gray wolf (*Canis lupus*)

Threatened

Bald eagle (*Haliaeetus leucocephalus*)

Bull trout (*Salvelinus confluentus*)

Canada lynx (*Lynx canadensis*)

Grizzly bear (*Ursus arctos* = *U.a. horribilis*)

Marbled murrelet (*Brachyramphus marmoratus marmoratus*)

Northern spotted owl (*Strix occidentalis caurina*)

Ute ladies'-tresses (*Spiranthes diluvialis*), plant

Designated

Critical habitat for the northern spotted owl

CANDIDATE

Basalt daisy (*Erigeron basalticus*), plant

Western sage grouse (*Centrocercus urophasianus phaios*)

Western yellow-billed cuckoo (*Coccyzus americanus*)

This list fulfills the requirements of the U. S. Fish and Wildlife Service (Service) under Section 7(c) of the Endangered Species Act of 1973, as amended (Act).

If there is federal agency involvement in this project (funding, authorization, or other action), the

involved federal agency must meet its responsibilities under section 7 of the Endangered Species Act of 1973, as amended (Act), as outlined in Enclosure A. Enclosure A includes a discussion of the contents of a Biological Assessment (BA), which provides an analysis of the impacts of the project on listed and proposed species, and designated and proposed critical habitat. Preparation of a BA is required for all major construction projects. Even if a BA is not prepared, potential project effects on listed and proposed species should be addressed in the environmental review for this project. Federal agencies may designate, in writing, a non-federal representative to prepare a BA. However, the involved federal agency retains responsibility for the BA, its adequacy, and ultimate compliance with section 7 of the Act.

Preparation of a BA would be prudent when listed or proposed species, or designated or proposed critical habitat, occur within the project area. Should the BA determine that a listed species is likely to be affected by the project, the involved federal agency should request section 7 consultation with the U. S. Fish and Wildlife Service (Service). If a proposed species is likely to be jeopardized by the project, regulations require conferencing between the involved federal agency and the Service. If the BA concludes that the project will have no effect on any listed or proposed species, we would appreciate receiving a copy for our information.

Candidate species receive no protection under the Act, but are included for your use during planning of the project. Candidate species could be formally proposed and listed during project planning, thereby falling within the scope of section 7 of the Act. Protection provided to these species now may preclude possible listing in the future. If evaluation of the subject project indicates that it is likely to adversely impact a candidate species, we encourage you to modify the project to minimize/avoid these impacts.

If there is no federal agency involvement in your project, and you determine that it may negatively impact a listed or proposed species, you may contact us regarding the potential need for permitting your actions under section 10 of the Act.

Several species of anadromous fishes that have been listed by the National Marine Fisheries Service (NMFS) may occur in the project area. Please contact NMFS in Seattle, Washington, at (206) 526-6150, in Portland, Oregon, at (503) 231-2319, or in Boise, Idaho, at (208) 378-5696 to request a list of these species.

If you would like information concerning state listed species or species of concern, you may contact the Washington Department of Fish and Wildlife, at (360) 902-2543, for fish and wildlife species; or the Washington Department of Natural Resources, at (360) 902-1667, for plant species.

This letter fulfills the requirements of the Service under section 7 of the Act. Should the project plans change significantly, or if the project is delayed more than 90 days, you should request an update to this response.

Thank you for your efforts to protect our nation's species and their habitats. If you have any questions concerning the above information, please contact Gregg Kurz at (509) 754-8580.

Sincerely,

Mark G. Miller

Supervisor

Enclosure



State of Washington
DEPARTMENT OF FISH AND WILDLIFE

Mailing Address: 600 Capitol Way N, Olympia, WA 98501-1091 - (360) 902-2200; TDD (360) 902-2207
Main Office Location: Natural Resources Building, 1111 Washington Street SE, Olympia, WA

Date: OCT 25 2001

Dear Habitats and Species Requester:

Enclosed are the habitats and species products you requested from the Washington Department of Fish and Wildlife (WDFW). This package may also contain documentation to help you understand and use these products.

These products only include information that WDFW maintains in a computer database. They are not an attempt to provide you with an official agency response as to the impacts of your project on fish and wildlife, nor are they designed to provide you with guidance on interpreting this information and determining how to proceed in consideration of fish and wildlife. These products only document the location of important fish and wildlife resources to the best of our knowledge. It is important to note that habitats or species may occur on the ground in areas not currently known to WDFW biologists, or in areas for which comprehensive surveys have not been conducted. Site-specific surveys are frequently necessary to rule out the presence of priority habitats or species.

Your project may require further field inspection or you may need to contact our field biologists or others in WDFW to assist you in interpreting and applying this information. Generally, for assistance on a specific project, you should contact the WDFW Habitat Program Manager for your county and ask for the area habitat biologist for your project area. Refer to the enclosed directory for those contacts.

Please note that sections potentially impacted by spotted owl management concerns are displayed on the 1:24,000 scale standard map products. If specific details on spotted owl site centers are required they must be requested separately.

These products are designed for users external to the forest practice permit process and as such does not reflect all the information pertinent to forest practice review. The Forest Practice Rules adopted August 22, 1997 by the Forest Practice Board and administered by the Washington Department of Natural Resources require forest practice applications to be screened against marbled murrelet detection areas and detection sections. Marbled murrelet detection locations are included in the standard priority habitats and species products, but the detection areas and detection sections are not included. If your project is affected by Forest Practice Regulations, you should specially request murrelet detection areas.

WDFW updates this information as additional data become available. Because fish and wildlife species are mobile and because habitats and species information changes, project reviews for fish and wildlife should not rest solely on mapped information. Instead, they should also consider new information gathered from current field investigations. Remember, habitats and species information can only show that a species or habitat type is present, they cannot show that a species or habitat type is not present. These products should not be used for future projects. Please obtain updates rather than use outdated information.

Because of the high volume of requests for information that WDFW receives, we need to charge for these products to recover some of our costs. Enclosed is an invoice itemizing the costs for your request and instructions for submitting payment.

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE - SENSITIVE INFORMATION REPORT
FOR TOWNSHIP: T20R15E
Report Date: October 25, 2001

This map contains the following species and/or habitat locations that are deemed sensitive by the Washington Department of Fish and Wildlife Sensitive Fish and Wildlife Policy.

PHS CODE/ SPPCODE	COMMON NAME	USE CODE	USE DESCRIPTION
ACGE	NORTHERN GOSHAWK	B	BREEDING OCCURRENCE
CONTE	SHARPTAIL SNAKE	IO	INDIVIDUAL OCCURRENCE
STOC	SPOTTED OWL		SITE CENTER

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE - PHS POLYGON REPORT
FOR TOWNSHIP: T20R15E
Report Date: October 25, 2001

***** PHS POLYGON CROSS REFERENCE SHEET *****

PHS POLY#	PHS FORM NUMBER	PHS CODE*USE CODE
1		
2	900000	*-
3	902894	RIPAR*-
4	900000	*-
5	900000	*-
6	901509	CEEL*PA-
7	901509-902894	CEEL*PA-RIPAR*-
8	901509	CEEL*PA-
9	901509	CEEL*PA-
10	901287	CEEL*RLC-
11	901287-901746	CEEL*RLC-RIPAR*-
12	901287	CEEL*RLC-
13	917950	CONTE*IO-
14	902892-917950	RIPAR*-CONTE*IO-
15	902892	RIPAR*-
16	917950	CONTE*IO-
17	900000	*-
18	900000	*-
19	901746	RIPAR*-
20	901288	CEEL*RC-
21	901288-901746	CEEL*RC-RIPAR*-
22	901288-902892	CEEL*RC-RIPAR*-
23	901288-901289-902892	CEEL*RC-AISP*B-RIPAR*-
24	901288-901289	CEEL*RC-AISP*B-
25	901289-901746	AISP*B-RIPAR*-
26	901289-902892	AISP*B-RIPAR*-
27	902891	UNOS*-
28	902891	UNOS*-

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE
 PRIORITY ANADROMOUS AND RESIDENT FISH PRESENCE REPORT FROM THE STREAMNET DATABASE
 FOR TOWNSHIP T20R15E
 Report Date: October 25, 2001

PRIORITY ANADROMOUS FISH PRESENCE

CODE	COMMON NAME	STREAM NAME	STREAM LLID	RECORD DATE	SOURCE
CHSP	Spring Chinook	Cle Elum River	1209901471771	05-12-97	P. Harvester, WDFW
STSU	Summer Steelhead	Cle Elum River	1209901471771	05-02-97	P. Harvester, WDFW
CHSP	Spring Chinook	Middle Fork Teanaway River	1208968472571	05-12-97	P. Harvester, WDFW
STSU	Summer Steelhead	Middle Fork Teanaway River	1208968472571	05-02-97	P. Harvester, WDFW
CHSP	Spring Chinook	Teanaway River	1208336471670	05-12-97	P. Harvester, WDFW
STSU	Summer Steelhead	Teanaway River	1208336471670	05-02-97	P. Harvester, WDFW
CHSP	Spring Chinook	West Fork Teanaway River	1208968472581	05-12-97	P. Harvester, WDFW
STSU	Summer Steelhead	West Fork Teanaway River	1208968472581	05-02-97	P. Harvester, WDFW
CHSP	Spring Chinook	Yakima River	1192269462537	05-12-97	P. Harvester, WDFW
STSU	Summer Steelhead	Yakima River	1192269462537	05-02-97	P. Harvester, WDFW

PRIORITY RESIDENT FISH PRESENCE

CODE	COMMON NAME	STREAM NAME	STREAM LLID	RECORD DATE	SOURCE
RBT	Rainbow Trout	Cle Elum River	1209901471771	06/12/92	WDFW Staff
RBT	Rainbow Trout	Yakima River	1192269462537	06/12/92	WDFW Staff
DBT	Dolly Varden/Bull Trout	Yakima River	1192269462537	08-21-00	Eric Anderson, WDFW

The fish information in this report only includes data that the Washington Department of Fish and Wildlife (WDFW) maintains in a central database. This information only documents the location of important fish resources to the best of our knowledge. It is not a complete inventory of the fish species in the state. Fish are identified as priority by WDFW if they meet 1 of 3 criterion as listed in the Priority Habitats and Species List.

For questions on the StreamNet Database, please contact Martin Hudson at (360) 902 2487.



November 26, 2001

Calvin Kelly Douglas
Shapiro & Associates Inc
101 Yesler Way – Ste 400
Seattle WA 98104

**SUBJECT: Trendwest Properties Proposed Development, Cle Elum
(T20N R15E S21,27-34)**

We've searched the Natural Heritage Information System for information on significant natural features in your project area. Currently, we have no records for rare plants or high quality ecosystems in the vicinity of your project.

The information provided by the Washington Natural Heritage Program is based solely on existing information in the database. In the absence of field inventories, we cannot state whether or not a given site contains high quality ecosystems or rare species; there may be significant natural features in your study area of which we are not aware.

The Washington Natural Heritage Program is responsible for information on the state's endangered, threatened, and sensitive plants as well as high quality ecosystems. We have begun to add information to our database on selected groups of animals of conservation concern, such as freshwater mussels, butterflies and bats. We now make this information available in our reports along with information on rare plants and high quality ecosystems.

The authority for protection of animal species in Washington rests with the Department of Fish and Wildlife which manages and interprets data on wildlife species of concern in the state. To ensure that you receive information on all animal species of concern, please contact Priority Habitats and Species, Washington Department of Fish and Wildlife, 600 Capitol Way N, Olympia, WA 98501-1091, or by phone (360) 902-2543.

If you have the opportunity, visit our website at <http://www.wa.gov/dnr> and click on *Programs & Topics*. Please do not hesitate to call me at (360) 902-1667 if you have any questions, or by E-Mail: sandra.moody@wadnr.gov.

Sincerely,

Sandy Swope Moody, Environmental Review Coordinator
Washington Natural Heritage Program
Asset Management & Protection Division
PO Box 47014
Olympia WA 98504-7014