

MEMORANDUM

To: RMC Architects
From: Matthew Palmer, PE *mjp*
Subject: Trip Generation, Parking Analysis & Level of Service
Project: Port of Everett, GTC #13-053
Date: August 25, 2014

The trip generation and parking demand for the Port of Everett Master Plan is based on a combination of observed actual demand, Institute of Transportation Engineer's (ITE) surveys, and City of Everett code. The basis for the combination of these sources is the unique nature of the facility. Additionally, the sites mixed-use nature of residential, office, commercial and boat slips would have significant internal crossover/combined trip opportunities such as a central business district. Using engineering judgment based on all of these factors produces the following proposed trip generation and parking needs which leads to the level of service results at the critical internal intersections.

Trip Generation Analysis

The preferred density option (2.3c) was analyzed and shown in the attached trip generation and parking figures. The net new trip generation for this option is compared below to the preferred trip generation approved as part of the March 2005 Draft EIS.

- March 2005 Draft EIS
 - o Weekday – 13,631 ADT & 1,051 PM peak-hour
 - o Weekend – 11,256 ADT & 857 PM peak-hour

- Option 2.3c
 - o Weekday – 9,378 ADT & 777 PM peak-hour
 - o Weekend – 9,448 ADT & 668 PM peak-hour

This Preferred Option 2.3c will have less of an impact on the City of Everett road system than the accepted impacts from the March 2005 Draft EIS; therefore, no additional off-site analysis should be required.

The internal crossover for the site was calculated based on ITE methodologies provided in the *Trip Generation Handbook*. The site was split into four generators: multi-family units, hotel/marina, office, and retail. Based on the preferred uses the internal crossover calculations show an internal capture of 20% for the Average Daily Traffic (ADT) and 15% for the PM peak-hour. However, the internal crossover was capped at 13% to stay consistent with the previous internal crossover used in the March 2005 Draft EIS.

Truck Trips

The general light industrial, warehouse, and manufacturing uses as part of the preferred density option account for 1,142 gross ADT. Based on data with the ITE *Trip Generation Manual*, the average truck percentage for these types of uses is 13% (149 trucks). The retail, office, and multi-family would have a truck percentage that is less than 1% (187 trucks). Therefore, the total site's truck percentage would be approximately 1.69% (336 trucks/19,874 gross ADT) or 2%, which is consistent with typical truck percentages along typical roadways. All of the truck numbers and total site truck percentage are based on the gross ADT trips to/from the site.

Parking Generation Analysis

The parking demand and supply for the preferred density option was analyzed per block area. The site plan shows 3,174 parking spaces. The March 2005 Draft EIS had identified the possibility of as many as 4,000 parking spaces. The detailed demand for ITE Average Rate, "highest case" ITE 85th percentile, and City of Everett code are shown in the attachments. Also, in those tables are shown the parking demand per parcel assuming a shared parking plan which includes a 10% reduction for parking overlap between the uses.

It is the intention of the port to reserve approximately 210 parking spaces for the use of the marina at all times; therefore, no shared parking reduction was applied to the marina for any of the scenarios. This marina parking reservation will be accomplished through the use of passes instead of gated parking. The Marina District is not subject to standard City parking codes as its unique mix of uses is recognized to have unique parking demand characteristics. However, for standard comparison the total parking generation using the City Code is shown below with and without shared parking.

- Preferred Density Option 2.3c (3,174 Spaces)
 - o Weekday 3,446
 - o Weekday Shared Parking 3,122
 - o Weekend 2,708
 - o Weekend Shared Parking 2,459

Although, the City Code exceeds available parking supply for the Weekday without shared parking reduction the parking demand is met when the standard Institute of Transportation Engineer (ITE) Average Rates are utilized (2,805 parking spaces) even if there were no shared parking for any of the uses and with shared parking the parking supply would exceed the ITE 85th percentile parking demand estimates..

It should be noted that , even though some individual parcels parking demand may exceed the available parking supply they are adjacent to parcels that provide great shared parking opportunities i.e. restaurant with high weekend or evening parking demand or apartments with high evening demand adjacent to office/business park which has negligible weekend or evening parking demand. Finally, with the central area of business/office there is ample opportunity for weekend event/boater parking during peak summer months with managed parking.

Level of Service

As the site generates fewer trips than the March 2005 Draft EIS, no additional off-site analysis should be required. However, to determine if there are any internal circulation issues with the removal of the connection of 14th Street to West Marine View Drive and all of the traffic utilizing the single-lane roundabout a level of service analysis was conducted for the Weekday PM peak-hour.

The site was split into four sections based on access availability to determine inbound/outbound trips including pass-by trips:

- Parcels A.3-A.11 – 240 In/332 Out
- Parcels B.1, B.3, B.5, B.7, C.2, Marina – 165 In/228 Out
- Parcels B.2, B.4, B.6, B.8, B.9, C.1, Waterfront, Public Access – 215 In/232 Out
- Parcels A.1, A.2, Marine Retail, Bayside Marine, Boat Wash – 46 In/127 Out

It was assumed that all of the traffic would utilize 13th Street, this would be the “worst case” scenario for the level of service analysis.

The roundabout would operate at Level of Service (LOS) C with 28.3 seconds of delay. The “Y” Intersection to the west of the roundabout was analyzed in two configurations, as an all-way stop-control (AWSC) and a minor leg stop control (TWSC) with inbound traffic being free. As an AWSC the intersection would operate at LOS B with 12.7 seconds of delay and as a TWSC intersection the intersection would operate at LOS C with 15.8 seconds of delay. As the intersections operate well within capacity levels it was not necessary to run a microsimulation model.

Conclusions

The trip generation is less than that proposed in the EIS, the parking will meet the City Code requirements with shared parking implemented even with 210 spaces reserved at all times for the marina, and the internal level of service with the maximum number of trips added operates at acceptable levels of service. This analysis and the results should be sufficient so that the EIS does not need to be updated for traffic with the changes that have been proposed under the Preferred Density Option 2.3c.

Attachments (A-1 to A-26)

Parcel	Size	Uses		Trip Generation Rate			ADT Trip Generation		
				ITE Average Rate	Inbound Percentage	Outbound Percentage	Total	Inbound	Outbound
A.1	1. Acres	15,000 SF Retail	15000	0.04432	0.50000	0.50000	665	332	332
A.2	0.19 Acres	3,000 SF Retail	3000	0.04432	0.50000	0.50000	133	66	66
A.3, A.4, A.10	2.98 Acres	10,500 SF Retail	10500	0.04432	0.50000	0.50000	465	233	233
		61,000 SF Commercial (Office)	61000	0.01103	0.50000	0.50000	673	336	336
A.5, A.9	2.98 Acres	114 Units Multi-Family	114	Eqn	0.50	0.50	712	356	356
		10,500 SF Retail	10,500	0.04432	0.50000	0.50000	465	233	233
		74,500 SF Commercial (Office)	74500	0.01103	0.50000	0.50000	822	411	411
A.6	0.4 Acres	90 Units Multi-Family	90	Eqn	0.50	0.50	562	281	281
		5,000 SF Web Locker (Retail)	5,000	0.04432	0.50000	0.50000	222	111	111
A.7	1.65 Acres	4,000 SF Retail	4000	0.04432	0.50000	0.50000	177	89	89
		8,000 SF HTSD Restaurant	8000	0.12715	0.50000	0.50000	1017	509	509
A.8	0.23 Acres	5,000 SF Quality Restaurant	5000	0.08995	0.50000	0.50000	450	225	225
A.11	2.56 Acres	120 Room Hotel	120	8.17000	0.50000	0.50000	980	490	490
		10,000 SF Retail	10000	0.04432	0.50000	0.50000	443	222	222
		20,000 SF Commercial (Office)	20000	0.01103	0.50000	0.50000	221	110	110
A.12	0.32 Acres	4,300 SF Retail	4300	0.04432	0.50000	0.50000	191	95	95
		4,300 SF Commercial (Office)	4300	0.01103	0.50000	0.50000	47	24	24
Total	12.31 Acres					Total	8246	4123	4123

B.1	-	114,000 SF Commercial (Office)	114000	0.01103	0.50000	0.50000	1257	629	629
		2,050 SF Retail	2050	0.04432	0.50000	0.50000	91	45	45
B.2	1.02 Acres	4,100 SF Light Industrial	4100	0.00697	0.50000	0.50000	29	14	14
		2,050 SF Warehouse	2050	0.00356	0.50000	0.50000	7	4	4
B.3	1.57 Acres	75 Units Multi-Family	75	Eqn	0.50	0.50	469	234	234
		3,750 SF Retail	3750	0.04432	0.50000	0.50000	166	83	83
		7,500 SF Light Industrial	7500	0.00697	0.50000	0.50000	52	26	26
B.4	1.01 Acres	3,750 SF Warehouse	3750	0.00356	0.50000	0.50000	13	7	7
		51 Units Multi-Family	51	Eqn	0.50	0.50	319	159	159
		2,050 SF Retail	2050	0.04432	0.50000	0.50000	91	45	45
B.5	1.05 Acres	4,100 SF Light Industrial	4100	0.00697	0.50000	0.50000	29	14	14
		2,050 SF Warehouse	2050	0.00356	0.50000	0.50000	7	4	4
		75 Units Multi-Family	75	Eqn	0.50	0.50	469	234	234
B.6	1.1 Acres	2,750 SF Retail	2750	0.04432	0.50000	0.50000	122	61	61
		5,500 SF Light Industrial	5500	0.00697	0.50000	0.50000	38	19	19
		2,750 SF Warehouse	2750	0.00356	0.50000	0.50000	10	5	5
B.7	1.1 Acres	44 Units Multi-Family	44	Eqn	0.50	0.50	275	137	137
		2,050 SF Retail	2050	0.04432	0.50000	0.50000	91	45	45
		6,150 SF Warehouse	6150	0.00356	0.50000	0.50000	22	11	11
B.8	1.08 Acres	53 Units Multi-Family	53	Eqn	0.50	0.50	331	166	166
		2,050 SF Retail	2050	0.04432	0.50000	0.50000	91	45	45
		6,150 SF Warehouse	6150	0.00356	0.50000	0.50000	22	11	11
B.9	1.42 Acres	38 Units Multi-Family	38	Eqn	0.50	0.50	237	119	119
		13,975 SF Retail	13,975	0.04432	0.50000	0.50000	619	310	310
		27,950 SF Light Industrial	27,950	0.00697	0.50000	0.50000	195	97	97
B.9	1.46 Acres	13,975 SF Office	13,975	0.01103	0.50000	0.50000	154	77	77
		10,000 SF Retail	10,000	0.04432	0.50000	0.50000	443	222	222
		20,000 SF Light Industrial	20000	0.00697	0.50000	0.50000	139	70	70
Waterfront Center		10,000 SF Office	10000	0.01103	0.50000	0.50000	110	55	55
		6,500 SF Restaurant	6500	0.08995	0.50000	0.50000	585	292	292
		18,000 SF Retail	18000	0.04432	0.50000	0.50000	798	399	399
		8,000 SF Office	8000	0.01103	0.50000	0.50000	88	44	44
		6,000 SF Classroom	6000	0.02749	0.50000	0.50000	165	82	82
		5,000 SF Meeting Room	5000	0.00139	0.50000	0.50000	7	3	3
Bayside Marine		14,000 SF Service Shops	14000	0.00697	0.50000	0.50000	98	49	49
		56,000 SF Dry Stack Storage	56000	0.00382	0.50000	0.50000	214	107	107
Boat Wash		19,000 SF Marine Sales/Services	19000	0.00382	0.50000	0.50000	73	36	36
		4,000 SF Office + Maintenance	4000	0.00382	0.50000	0.50000	15	8	8
Maintenance		8,000 SF Office + Maintenance	8000	0.00382	0.50000	0.50000	31	15	15
Marine Retail		24,900 SF Sales + Service	24900	0.00382	0.50000	0.50000	95	48	48
Marine Retail		7,500 SF Retail	7500	0.04432	0.50000	0.50000	332	166	166
		7,500 SF Light Industrial	7500	0.00697	0.50000	0.50000	52	26	26
Total	9.71 Acres					Total	8451	4225	4225

C.1	2.69 Acres	120 Units Multi-Family	120	Eqn	0.50	0.50	750	375	375
C.2	2.1 Acres	60 Room Hotel	60	8.17000	0.50000	0.50000	490	245	245
		4,000 SF Quality Restaurant	4000	0.08995	0.50000	0.50000	360	180	180
Total	4.79 Acres					Total	1600	800	800

Public Access	2.23 Acres	City Park	2.23	17.69444	0.50000	0.50000	39	20	20
Marina	520 Slips	Marina	520	2.96000	0.50000	0.50000	1539	770	770
						Total	1579	789	789

Total	19875	9937	9937
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Parcel	Size	Uses		Trip Generation Rate			Saturday Peak-Hour Trip Generation		
				ITE Average Rate	Inbound Percentage	Outbound Percentage	Total	Inbound	Outbound
A.1	1. Acres	15,000 SF Retail	15000	0.04204	0.50000	0.50000	631	315	315
A.2	0.19 Acres	3,000 SF Retail	3000	0.04204	0.50000	0.50000	126	63	63
A.3, A.4, A.10	2.98 Acres	10,500 SF Retail	10500	0.04204	0.50000	0.50000	441	221	221
		61,000 SF Commercial (Office)	61000	0.00246	0.50000	0.50000	150	75	75
		114 Units of Multi-Family	114	Eqn	0.50	0.50	851	425	425
A.5, A.9	2.98 Acres	10,500 SF Retail	10,500	0.04204	0.50000	0.50000	441	221	221
		74,500 SF Commercial (Office)	74500	0.00246	0.50000	0.50000	183	92	92
		90 Units Multi-Family	90	Eqn	0.50	0.50	672	336	336
A.6	0.4 Acres	5,000 SF Web Locker (Retail)	5,000	0.04204	0.50000	0.50000	210	105	105
A.7	1.65 Acres	4,000 SF Retail	4000	0.04204	0.50000	0.50000	168	84	84
		8,000 SF HTSD Restaurant	8000	0.15837	0.50000	0.50000	1267	633	633
A.8	0.23 Acres	5,000 SF Quality Restaurant	5000	0.09436	0.50000	0.50000	472	236	236
A.11	2.5 Acres	120 Room Hotel	120	8.19000	0.50000	0.50000	983	491	491
		10,000 SF Retail	10000	0.04204	0.50000	0.50000	420	210	210
		20,000 SF Commercial (Office)	20000	0.00246	0.50000	0.50000	49	25	25
A.12	0.32 Acres	4,300 SF Retail	4300	0.04204	0.50000	0.50000	181	90	90
		4,300 SF Commercial (Office)	4300	0.00246	0.50000	0.50000	11	5	5
Total	12.25 Acres					Total	7256	3628	3628
B.1	-	114,000 SF Commercial (Office)	114000	0.00246	0.50000	0.50000	280	140	140
		2,050 SF Retail	2050	0.04204	0.50000	0.50000	86	43	43
B.2	-	4,100 SF Light Industrial	4100	0.00132	0.50000	0.50000	5	3	3
		2,050 SF Warehouse	2050	0.00123	0.50000	0.50000	3	1	1
		75 Units Multi-Family	75	Eqn	0.50	0.50	560	280	280
B.3	-	3,750 SF Retail	3750	0.04204	0.50000	0.50000	158	79	79
		7,500 SF Light Industrial	7500	0.00132	0.50000	0.50000	10	5	5
		3,750 SF Warehouse	3750	0.00123	0.50000	0.50000	5	2	2
		51 Units Multi-Family	51	Eqn	0.50	0.50	381	190	190
B.4	-	2,050 SF Retail	2050	0.04204	0.50000	0.50000	86	43	43
		4,100 SF Light Industrial	4100	0.00132	0.50000	0.50000	5	3	3
		2,050 SF Warehouse	2050	0.00123	0.50000	0.50000	3	1	1
		75 Units Multi-Family	75	Eqn	0.50	0.50	560	280	280
B.5	-	2,750 SF Retail	2750	0.04204	0.50000	0.50000	116	58	58
		5,500 SF Light Industrial	5500	0.00132	0.50000	0.50000	7	4	4
		2,750 SF Warehouse	2750	0.00123	0.50000	0.50000	3	2	2
		44 Units Multi-Family	44	Eqn	0.50	0.50	328	164	164
B.6	-	2,050 SF Retail	2050	0.04204	0.50000	0.50000	86	43	43
		6,150 SF Warehouse	6150	0.00123	0.50000	0.50000	8	4	4
		53 Units Multi-Family	53	Eqn	0.50	0.50	395	198	198
B.7	-	2,050 SF Retail	2050	0.04204	0.50000	0.50000	86	43	43
		6,150 SF Warehouse	6150	0.00123	0.50000	0.50000	8	4	4
		38 Units Multi-Family	38	Eqn	0.50	0.50	284	142	142
B.8	1.42 Acres	13,975 SF Retail	13,975	0.04204	0.50000	0.50000	588	294	294
		27,950 SF Light Industrial	27,950	0.00132	0.50000	0.50000	37	18	18
		13,975 SF Office	13,975	0.00246	0.50000	0.50000	34	17	17
B.9	1.46 Acres	10,000 SF Retail	10,000	0.04204	0.50000	0.50000	420	210	210
		20,000 SF Light Industrial	20000	0.00132	0.50000	0.50000	26	13	13
		10,000 SF Office	10000	0.00246	0.50000	0.50000	25	12	12
Waterfront Center		6,500 SF Restaurant	6500	0.09436	0.50000	0.50000	613	307	307
		18,000 SF Retail	18000	0.04204	0.50000	0.50000	757	378	378
		8,000 SF Office	8000	0.00246	0.50000	0.50000	20	10	10
		6,000 SF Classroom	6000	0.01123	0.50000	0.50000	67	34	34
		5,000 SF Meeting Room	5000	0.00455	0.50000	0.50000	23	11	11
		14,000 SF Service Shops	14000	0.00132	0.50000	0.50000	18	9	9
Bayside Marine		56,000 SF Dry Stack Storage	56000	0.00149	0.50000	0.50000	83	42	42
		19,000 SF Marine Services	19000	0.00149	0.50000	0.50000	28	14	14
Boat Wash		4,000 SF Office + Maintenance	4000	0.00149	0.50000	0.50000	6	3	3
Maintenance		8,000 SF Office + Maintenance	8000	0.00149	0.50000	0.50000	12	6	6
Marine Retail		24,900 SF Sales + Service	24900	0.00149	0.50000	0.50000	37	19	19
Marine Retail		7,500 SF Retail	7500	0.04204	0.50000	0.50000	315	158	158
		7,500 SF Light Industrial	7500	0.00132	0.50000	0.50000	10	5	5
Total	2.88 Acres					Total	6582	3291	3291
C.1	2.69 Acres	120 Units Multi-Family	120	Eqn	0.50	0.50	895	448	448
C.2	2.1 Acres	60 Room Hotel	60	8.19000	0.50000	0.50000	491	246	246
		4,000 SF Quality Restaurant	4000	0.09436	0.50000	0.50000	377	189	189
Total	4.79 Acres					Total	1764	882	882
Public Access	2.23 Acres	City Park	2.23	22.75000	0.50000	0.50000	51	25	25
Marina	520 Slips	Marina	520	3.22000	0.50000	0.50000	1674	837	837
						Total	1725	863	863
Total							17328	8664	8664

Parcel	Size	Uses		Trip Generation Rate			PM Peak-Hour Trip Generation		
				ITE Average Rate	Inbound Percentage	Outbound Percentage	Total	Inbound	Outbound
A.1	1. Acres	15,000 SF Retail	15000	0.00271	0.44000	0.56000	41	18	23
A.2	0.19 Acres	3,000 SF Retail	3000	0.00271	0.44000	0.56000	8	4	5
A.3, A.4, A.10	2.98 Acres	10,500 SF Retail	10500	0.00271	0.44000	0.56000	28	13	16
		61,000 SF Commercial (Office)	61000	0.00149	0.17000	0.83000	91	15	75
		114 Units Multi-Family	114	Eqn	0.65	0.35	66	43	23
A.5, A.9	2.98 Acres	10,500 SF Retail	10,500	0.00271	0.44000	0.56000	28	13	16
		74,500 SF Commercial (Office)	74500	0.00149	0.17000	0.83000	111	19	92
		90 Units Multi-Family	90	Eqn	0.65	0.35	52	34	18
A.6	0.4 Acres	5,000 SF Web Locker (Retail)	5,000	0.00271	0.44000	0.56000	14	6	8
A.7	1.65 Acres	4,000 SF Retail	4000	0.00271	0.44000	0.56000	11	5	6
		8,000 SF HTSD Restaurant	8000	0.00985	0.60000	0.40000	79	47	32
A.8	0.23 Acres	5,000 SF Quality Restaurant	5000	0.00749	0.67000	0.33000	37	25	12
A.11	2.5 Acres	120 Room Hotel	120	0.60000	0.51000	0.49000	72	37	35
		10,000 SF Retail	10000	0.00271	0.44000	0.56000	27	12	15
		20,000 SF Commercial (Office)	20000	0.00149	0.17000	0.83000	30	5	25
A.12	0.32 Acres	4,300 SF Retail	4300	0.00271	0.44000	0.56000	12	5	7
		4,300 SF Commercial (Office)	4300	0.00149	0.17000	0.83000	6	1	5
Total	12.25 Acres					Total	713	300	413
B.1	-	114,000 SF Commercial (Office)	114000	0.00149	0.17000	0.83000	170	29	141
		2,050 SF Retail	2050	0.00271	0.44000	0.56000	6	2	3
B.2	-	4,100 SF Light Industrial	4100	0.00097	0.12000	0.88000	4	0	3
		2,050 SF Warehouse	2050	0.00032	0.25000	0.75000	1	0	0
B.3	-	75 Units Multi-Family	75	Eqn	0.65	0.35	43	28	15
		3,750 SF Retail	3750	0.00271	0.44000	0.56000	10	4	6
		7,500 SF Light Industrial	7500	0.00097	0.12000	0.88000	7	1	6
B.4	-	3,750 SF Warehouse	3750	0.00032	0.25000	0.75000	1	0	1
		51 Units Multi-Family	51	Eqn	0.65	0.35	29	19	10
		2,050 SF Retail	2050	0.00271	0.44000	0.56000	6	2	3
B.5	-	4,100 SF Light Industrial	4100	0.00097	0.12000	0.88000	4	0	3
		2,050 SF Warehouse	2050	0.00032	0.25000	0.75000	1	0	0
		75 Units Multi-Family	75	Eqn	0.65	0.35	43	28	15
B.6	-	2,750 SF Retail	2750	0.00271	0.44000	0.56000	7	3	4
		5,500 SF Light Industrial	5500	0.00097	0.12000	0.88000	5	1	5
		2,750 SF Warehouse	2750	0.00032	0.25000	0.75000	1	0	1
B.7	-	44 Units Multi-Family	44	Eqn	0.65	0.35	25	16	9
		2,050 SF Retail	2050	0.00271	0.44000	0.56000	6	2	3
		6,150 SF Warehouse	6150	0.00032	0.25000	0.75000	2	0	1
B.8	1.42 Acres	53 Units Multi-Family	53	Eqn	0.65	0.35	31	20	11
		2,050 SF Retail	2050	0.00271	0.44000	0.56000	6	2	3
		6,150 SF Warehouse	6150	0.00032	0.25000	0.75000	2	0	1
B.9	1.46 Acres	38 Units Multi-Family	38	Eqn	0.65	0.35	22	14	8
		13,975 SF Retail	13,975	0.00271	0.44000	0.56000	38	17	21
		27,950 SF Light Industrial	27,950	0.00097	0.12000	0.88000	27	3	24
Waterfront Center		13,975 SF Office	13,975	0.00149	0.17000	0.83000	21	4	17
		10,000 SF Retail	10,000	0.00271	0.44000	0.56000	27	12	15
		20,000 SF Light Industrial	20000	0.00097	0.12000	0.88000	19	2	17
Bayside Marine		10,000 SF Office	10000	0.00149	0.17000	0.83000	15	3	12
		6,500 SF Restaurant	6500	0.00749	0.67000	0.33000	49	33	16
		18,000 SF Retail	18000	0.00271	0.44000	0.56000	49	21	27
		8,000 SF Office	8000	0.00149	0.17000	0.83000	12	2	10
		6,000 SF Classroom	6000	0.00254	0.58000	0.42000	15	9	6
		5,000 SF Meeting Room	5000	0.00018	0.16000	0.84000	1	0	1
		14,000 SF Service Shops	14000	0.00097	0.12000	0.88000	14	2	12
Marine Retail		56,000 SF Drystack	56000	0.00073	0.36000	0.64000	41	15	26
		19,000 SF Marine Sales/Service	19000	0.00073	0.36000	0.64000	14	5	9
Boat Wash		4,000 SF Office + Maintenance	4000	0.00073	0.36000	0.64000	3	1	2
Maintenance		8,000 SF Office + Maintenance	8000	0.00073	0.36000	0.64000	6	2	4
Marine Retail		24,900 SF Sales + Service	24900	0.00073	0.36000	0.64000	18	7	12
Marine Retail		7,500 SF Retail	7500	0.00271	0.44000	0.56000	20	9	11
		7,500 SF Light Industrial	7500	0.00097	0.12000	0.88000	7	1	6
Total	2.88 Acres					Total	827	323	504
C.1	3.61 Acres	120 Units Multi-Family	120	Eqn	0.65	0.35	69	45	24
C.2	2.1 Acres	60 Room Hotel	60	0.60000	0.51000	0.49000	36	18	18
		4,000 SF Quality Restaurant	4000	0.00749	0.67000	0.33000	30	20	10
Total	5.71 Acres					Total	135	83	52
Public Access	2.23 Acres	City Park	2.23	3.50000	0.57000	0.43000	8	4	3
Marina	520 Slips	Marina	520	0.19000	0.60000	0.40000	99	59	40
						Total	107	64	43
Total							1782	770	1011

Weekend - Full (2.3c) PM Peak

Parcel	Size	Uses		Trip Generation Rate			Saturday Peak-Hour Trip Generation		
				ITE Average Rate	Inbound Percentage	Outbound Percentage	Total	Inbound	Outbound
A.1	1. Acres	15,000 SF Retail	15000	0.00257	0.44000	0.56000	39	17	22
A.2	0.19 Acres	3,000 SF Retail	3000	0.00257	0.44000	0.56000	8	3	4
A.3, A.4, A.10	2.98 Acres	10,500 SF Retail	10500	0.00257	0.44000	0.56000	27	12	15
		61,000 SF Commercial (Office)	61000	0.00043	0.54000	0.46000	26	14	12
		114 Units Multi-Family	114	Eqn	0.65	0.35	50	33	18
A.5, A.9	2.98 Acres	10,500 SF Retail	10,500	0.00257	0.44000	0.56000	27	12	15
		74,500 SF Commercial (Office)	74500	0.00043	0.54000	0.46000	32	17	15
		90 Units Multi-Family	90	Eqn	0.65	0.35	40	26	14
A.6	0.4 Acres	5,000 SF Web Locker (Retail)	5,000	0.00257	0.44000	0.56000	13	6	7
A.7	1.65 Acres	4,000 SF Retail	4000	0.00257	0.44000	0.56000	10	5	6
		8,000 SF HTSD Restaurant	8000	0.01407	0.53000	0.47000	113	60	53
A.8	0.23 Acres	5,000 SF Quality Restaurant	5000	0.01082	0.59000	0.41000	54	32	22
A.11	2.5 Acres	120 Room Hotel	120	0.72000	0.56000	0.44000	86	48	38
		10,000 SF Retail	10000	0.00257	0.44000	0.56000	26	11	14
		20,000 SF Commercial (Office)	20000	0.00043	0.54000	0.46000	9	5	4
A.12	0.32 Acres	4,300 SF Retail	4300	0.00257	0.44000	0.56000	11	5	6
		4,300 SF Commercial (Office)	4300	0.00043	0.54000	0.46000	2	1	1
Total	12.25 Acres					Total	571	306	266
B.1	-	114,000 SF Commercial (Office)	114000	0.00043	0.54000	0.46000	49	26	23
		2,050 SF Retail	2050	0.00257	0.44000	0.56000	5	2	3
B.2	-	4,100 SF Light Industrial	4100	0.00014	0.47000	0.53000	1	0	0
		2,050 SF Warehouse	2050	0.00013	0.64000	0.36000	0	0	0
		75 Units Multi-Family	75	Eqn	0.65	0.35	33	21	12
B.3	-	3,750 SF Retail	3750	0.00257	0.44000	0.56000	10	4	5
		7,500 SF Light Industrial	7500	0.00014	0.47000	0.53000	1	0	1
		3,750 SF Warehouse	3750	0.00013	0.64000	0.36000	0	0	0
		51 Units Multi-Family	51	Eqn	0.65	0.35	22	15	8
B.4	-	2,050 SF Retail	2050	0.00257	0.44000	0.56000	5	2	3
		4,100 SF Light Industrial	4100	0.00014	0.47000	0.53000	1	0	0
		2,050 SF Warehouse	2050	0.00013	0.64000	0.36000	0	0	0
		75 Units Multi-Family	75	Eqn	0.65	0.35	33	21	12
B.5	-	2,750 SF Retail	2750	0.00257	0.44000	0.56000	7	3	4
		5,500 SF Light Industrial	5500	0.00014	0.47000	0.53000	1	0	0
		2,750 SF Warehouse	2750	0.00013	0.64000	0.36000	0	0	0
		44 Units Multi-Family	44	Eqn	0.65	0.35	19	13	7
B.6	-	2,050 SF Retail	2050	0.00257	0.44000	0.56000	5	2	3
		6,150 SF Warehouse	6150	0.00013	0.64000	0.36000	1	1	0
		53 Units Multi-Family	53	Eqn	0.65	0.35	23	15	8
B.7	-	2,050 SF Retail	2050	0.00257	0.44000	0.56000	5	2	3
		6,150 SF Warehouse	6150	0.00013	0.64000	0.36000	1	1	0
		38 Units Multi-Family	38	Eqn	0.65	0.35	17	11	6
B.8	1.42 Acres	13,975 SF Retail	13,975	0.00257	0.44000	0.56000	36	16	20
		27,950 SF Light Industrial	27,950	0.00014	0.47000	0.53000	4	2	2
		13,975 SF Office	13,975	0.00043	0.54000	0.46000	6	3	3
B.9	1.46 Acres	10,000 SF Retail	10,000	0.00257	0.44000	0.56000	26	11	14
		20,000 SF Light Industrial	20000	0.00014	0.47000	0.53000	3	1	1
		10,000 SF Office	10000	0.00043	0.54000	0.46000	4	2	2
Waterfront Center		6,500 SF Restaurant	6500	0.01082	0.59000	0.41000	70	41	29
		18,000 SF Retail	18000	0.00257	0.44000	0.56000	46	20	26
		8,000 SF Office	8000	0.00043	0.54000	0.46000	3	2	2
		6,000 SF Classroom	6000	0.00142	0.57000	0.43000	9	5	4
		5,000 SF Meeting Room	5000	0.00066	0.71000	0.29000	3	2	1
		14,000 SF Service Shops	14000	0.00014	0.47000	0.53000	2	1	1
Bayside Marine		56,000 SF Dry Stack Storage	56000	0.00028	0.26000	0.74000	16	4	12
		19,000 SF Marine Sales/Service	19000	0.00028	0.26000	0.74000	5	1	4
Boat Wash		4,000 SF Office + Maintenance	4000	0.00028	0.26000	0.74000	1	0	1
Maintenance		8,000 SF Office + Maintenance	8000	0.00028	0.26000	0.74000	2	1	2
Marine Retail		24,900 SF Sales + Service	24900	0.00028	0.26000	0.74000	7	2	5
Marine Retail		7,500 SF Retail	7500	0.00257	0.44000	0.56000	19	8	11
		7,500 SF Light Industrial	7500	0.00014	0.47000	0.53000	1	0	1
Total	2.88 Acres					Total	504	267	237
C.1	2.69 Acres	120 Units Multi-Family	120	Eqn	0.65	0.35	53	34	18
C.2	2.1 Acres	60 Room Hotel	60	0.72000	0.56000	0.44000	43	24	19
		4,000 SF Quality Restaurant	4000	0.01082	0.59000	0.41000	43	26	18
Total	4.79 Acres					Total	139	84	55
Public Access	2.23 Acres	City Park	2.23	4.50000	0.50000	0.50000	10	5	5
Marina	520 Slips	Marina	520	0.27000	0.44000	0.56000	140	62	79
						Total	150	67	84
Total							1365	724	642

Port of Everett
GTC #13-053/#14-078

	Weekday ADT		Weekday PM Peak	
	2005 EIS	2.3 c	2005 EIS	2.3 c
Existing Uses				
Warehouse	1,285	1,285	122	122
Light Industrial	1,134	1,134	159	159
Manufacturing	992	992	192	192
Marina	2,368	2,368	152	152
New Uses				
Specialty Retail (Including Web Locker)	9,312	4,877	570	298
Multi-Family	2,777	3,587	245	331
High Turnover Sit Down Restaurant	0	885	0	69
Quality Restaurant	1,565	1,213	131	101
Hotel	888	1,279	64	94
Warehousing	367	71	35	6
Marine Sales/Service (Manufacturing)	0	372	0	71
General Office	5,043	2,934	683	396
Classroom (Junior/Comm College)	0	144	0	13
Meeting Room (Library/Museum)	0	6	0	1
General Light Ind.	0	550	0	77
City Park	0	34	0	7
Marina	2,318	1,339	149	86
Total Proposed Use Trips	22,270	17,291	1,877	1,550
Pass-By Trips	-2,860	-2,133.41	-201	-148.47
Net New Trips	13,631	9,378	1,051	777

Port of Everett
GTC #13-053/#14-078

	Weekend ADT		Weekend PM Peak	
	2005 EIS	2.3 c	2005 EIS	2.3 c
Existing Uses				
Warehouse	316	316	31	31
Light Industrial	215	215	23	23
Manufacturing	387	387	73	73
Marina	2,576	2,576	216	216
New Uses				
Specialty Retail (Including Web Locker)	8,834	4,626	540	283
Multi-Family	2,451	4,285	204	252
High Turnover Sit Down Restaurant	0	1,102	0	98
Quality Restaurant	1,642	1,272	188	146
Hotel	891	1,283	78	113
Warehousing	91	25	9	3
Marine Sales/Service (Manufacturing)	0	145	0	27
General Office	1,086	654	188	114
Classroom (Junior/Comm College)	0	59	0	7
Meeting Room (Library/Museum)	0	20	0	3
General Light Ind.	0	104	0	11
City Park	0	44	0	9
Marina	2,521	1,457	211	122
Total Proposed Use Trips	17,516	15,075	1,418	1,188
Pass-By Trips	-2,766	-2,133	-218	-177
Net New Trips	11,256	9,448	857	668

Port of Everett
GTC #13-053

**Trip Generation for: Development Peak Weekday
(a.k.a.): Average Weekday Daily Trips (AWDT)**

LAND USES		NET EXTERNAL TRIPS BY TYPE																				
		Gross Trips					INTERNAL CROSSOVER					IN BOTH DIRECTIONS				DIRECTIONAL ASSIGNMENTS						
		Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	% of Trips	In+Out (Total)	% of Gross Trips	% of Ext. Trips	In+Out (Total)	TOTAL In+Out (Total)	% of Ext. Trips	PASS-BY In+Out (Total)	% of Ext. Trips	DIVERTED LINK In+Out (Total)	NEW In+Out (Total)	PASS-BY In	PASS-BY Out	DIVERTED LINK In	DIVERTED LINK Out	NEW In
Specialty Retail (Including Web Locker)	ITE LU code 826	44.32	50%	50%	5,605.37	13%	728.70	13%	4,876.67	25%	1,219.17	0%	3,657.50	0%	0.00	3,657.50	609.59	609.58	0.00	0.00	1,828.75	1,828.75
Multi-Family	660 Units	Eqn	50%	50%	4,123.16	13%	536.01	13%	3,587.15	0%	0.00	0%	3,587.15	0%	0.00	3,587.15	0.00	0.00	0.00	0.00	1,793.58	1,793.57
High Turnover Sit Down Restaurant	8,000 KSF	127.15	50%	50%	1,017.20	13%	132.24	13%	884.96	43%	380.53	0%	504.43	0%	0.00	504.43	190.27	190.26	0.00	0.00	252.22	252.21
Quality Restaurant	15,500 KSF	89.95	50%	50%	1,394.23	13%	181.25	13%	1,212.98	44%	533.71	0%	679.27	0%	0.00	679.27	266.86	266.85	0.00	0.00	339.64	339.63
Hotel	180 Rooms	8.17	50%	50%	1,470.60	13%	191.18	13%	1,279.42	0%	0.00	0%	1,279.42	0%	0.00	1,279.42	0.00	0.00	0.00	0.00	639.71	639.71
Warehousing	22,900 KSF	3.56	50%	50%	81.52	13%	10.60	13%	70.92	0%	0.00	0%	70.92	0%	0.00	70.92	0.00	0.00	0.00	0.00	35.46	35.46
Marine Sales/Service (Manufacturing)	111,900 KSF	3.82	50%	50%	427.46	13%	55.57	13%	371.89	0%	0.00	0%	371.89	0%	0.00	371.89	0.00	0.00	0.00	0.00	185.95	185.94
General Office	305,775 KSF	11.03	50%	50%	3,372.70	13%	438.45	13%	2,934.25	0%	0.00	0%	2,934.25	0%	0.00	2,934.25	0.00	0.00	0.00	0.00	1,467.13	1,467.12
Classroom (Junior/Comm College)	6,000 KSF	540	50%	50%	164.94	13%	21.44	13%	143.50	0%	0.00	0%	143.50	0%	0.00	143.50	0.00	0.00	0.00	0.00	71.75	71.75
Meeting Room (Library/Museum)	5,000 KSF	-	50%	50%	6.93	13%	0.90	13%	6.03	0%	0.00	0%	6.03	0%	0.00	6.03	0.00	0.00	0.00	0.00	3.02	3.01
General Light Ind.	90,650 KSF	110	50%	50%	631.83	13%	82.14	13%	549.69	0%	0.00	0%	549.69	0%	0.00	549.69	0.00	0.00	0.00	0.00	274.85	274.84
City Park	2.23 Acres	411	50%	50%	39.46	13%	5.13	13%	34.33	0%	0.00	0%	34.33	0%	0.00	34.33	0.00	0.00	0.00	0.00	17.17	17.16
Marina	520 Slips	420	50%	50%	1,539.20	13%	200.10	13%	1,339.10	0%	0.00	0%	1,339.10	0%	0.00	1,339.10	0.00	0.00	0.00	0.00	689.55	689.55
Total					19,874.60		2,583.71		17,290.89		2,133.41		15,157.48		0.00	15,157.48	1,066.72	1,066.69	0.00	0.00	7,578.78	7,578.70

Port of Everett
 GTC #13-053

**Trip Generation for: Development Peak Weekday, Peak Hour of Adjacent Street Traffic, One Hour between 4 and 6 PM
 (a.k.a.): Weekday PM Peak Hour**

LAND USES	VARIABLE	ITE LU code	Gross Trips				Internal Crossover		IN BOTH DIRECTIONS				DIRECTIONAL ASSIGNMENTS							
			Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	% of Trips	TOTAL	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	DIVERTED LINK	NEW	PASS-BY	DIVERTED LINK	NEW			
									In+Out (Total)		In+Out (Total)		In	Out	In	Out	In	Out		
Specialty Retail (Including Web Locker)	126.475 KSF	826	2.71	44%	56%	342.75	13%	44.56	298.19	25%	74.55	0%	0.00	223.64	32.80	41.75	0.00	0.00	98.40	125.24
Multi-Family	660 Units	220	Eqn	65%	35%	380.65	13%	49.48	331.17	0%	0.00	0%	0.00	331.17	0.00	0.00	0.00	0.00	215.26	115.91
High Turnover Sit Down Restaurant	8,000 KSF	932	9.85	60%	40%	78.80	13%	10.24	68.56	43%	29.48	0%	0.00	39.08	17.69	11.79	0.00	0.00	23.45	15.63
Quality Restaurant	15,500 KSF	931	7.49	67%	33%	116.10	13%	15.09	101.01	44%	44.44	0%	0.00	56.57	29.77	14.67	0.00	0.00	37.90	18.67
Hotel	180 Rooms	310	0.60	51%	49%	108.00	13%	14.04	93.96	0%	0.00	0%	0.00	93.96	0.00	0.00	0.00	0.00	47.92	46.04
Warehousing	22,900 KSF	150	0.32	25%	75%	7.33	13%	0.95	6.38	0%	0.00	0%	0.00	6.38	0.00	0.00	0.00	0.00	1.60	4.78
Marine Sales/Service (Manufacturing)	111,900 KSF	140	0.73	36%	64%	81.69	13%	10.62	71.07	0%	0.00	0%	0.00	71.07	0.00	0.00	0.00	0.00	25.59	45.48
General Office	305,775 KSF	710	1.49	17%	83%	455.60	13%	59.23	396.37	0%	0.00	0%	0.00	396.37	0.00	0.00	0.00	0.00	67.38	328.99
Classroom (Junior/Comm College)	6,000 KSF	540	2.54	58%	42%	15.24	13%	1.98	13.26	0%	0.00	0%	0.00	13.26	0.00	0.00	0.00	0.00	7.69	5.57
Meeting Room (Library/Museum)	5,000 KSF	-	0.18	16%	84%	0.90	13%	0.12	0.78	0%	0.00	0%	0.00	0.78	0.00	0.00	0.00	0.00	0.12	0.66
General Light Ind.	90,650 KSF	110	0.97	12%	88%	87.93	13%	11.43	76.50	0%	0.00	0%	0.00	76.50	0.00	0.00	0.00	0.00	9.18	67.32
City Park	2.23 Acres	411	3.50	57%	43%	7.81	13%	1.02	6.79	0%	0.00	0%	0.00	6.79	0.00	0.00	0.00	0.00	3.87	2.92
Marina	520 Slips	420	0.19	60%	40%	98.80	13%	12.84	85.96	0%	0.00	0%	0.00	85.96	0.00	0.00	0.00	0.00	51.58	34.38
Total						1,781.60		231.60	1,550.00		148.47		0.00	1,401.53	80.26	68.21	0.00	0.00	589.94	811.59

Port of Everett
GTC #13-053

**Trip Generation for: Development Peak Weekend
(a.k.a.): Average Weekend Daily Trips (AWDT)**

LAND USES	VARIABLE	ITE LU code	Gross Trips				Internal Crossover		IN BOTH DIRECTIONS				NET EXTERNAL TRIPS BY TYPE								
			Trip Rate	% IN	% OUT	In+Out (Total)	% of Gross Trips	% of Gross Trips	TOTAL	PASS-BY		DIVERGED LINK		NEW		DIVERGED LINK		PASS-BY		NEW	
										In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In	Out	In	Out	In	Out
Specialty Retail (Including Web Locker)	126,475 KSF	826	42.04	50%	50%	5,317.01	13%	691.21	4,625.80	25%	1,156.45	0%	0.00	3,469.35	578.23	578.22	0.00	0.00	1,734.68	1,734.67	
Multi-Family	660 Units	220	Eqn	50%	50%	4,924.81	13%	640.23	4,284.58	0%	0.00	0%	0.00	4,284.58	0.00	0.00	0.00	0.00	2,142.29	2,142.29	
High Turnover Sit Down Restaurant	8,000 KSF	932	158.37	50%	50%	1,266.96	13%	164.70	1,102.26	43%	473.97	0%	0.00	628.29	236.99	236.98	0.00	0.00	314.15	314.14	
Quality Restaurant	15,500 KSF	931	94.36	50%	50%	1,462.58	13%	190.14	1,272.44	44%	559.87	0%	0.00	712.57	279.94	279.93	0.00	0.00	356.29	356.28	
Hotel	180 Rooms	310	8.19	50%	50%	1,474.20	13%	191.65	1,282.55	0%	0.00	0%	0.00	1,282.55	0.00	0.00	0.00	0.00	641.28	641.27	
Warehousing	22,900 KSF	150	1.23	50%	50%	28.17	13%	3.66	24.51	0%	0.00	0%	0.00	24.51	0.00	0.00	0.00	0.00	12.26	12.25	
Marine Sales/Service (Manufacturing)	111,900 KSF	140	1.49	50%	50%	166.73	13%	21.67	145.06	0%	0.00	0%	0.00	145.06	0.00	0.00	0.00	0.00	72.53	72.53	
General Office	305,775 KSF	710	2.46	50%	50%	752.21	13%	97.79	654.42	0%	0.00	0%	0.00	654.42	0.00	0.00	0.00	0.00	327.21	327.21	
Classroom (Junior/Comm College)	6,000 KSF	540	11.23	50%	50%	67.38	13%	8.76	58.62	0%	0.00	0%	0.00	58.62	0.00	0.00	0.00	0.00	29.31	29.31	
Meeting Room (Library/Museum)	5,000 KSF	-	4.55	50%	50%	22.76	13%	2.96	19.80	0%	0.00	0%	0.00	19.80	0.00	0.00	0.00	0.00	9.90	9.90	
General Light Ind.	90,650 KSF	110	1.32	50%	50%	119.66	13%	15.56	104.10	0%	0.00	0%	0.00	104.10	0.00	0.00	0.00	0.00	52.05	52.05	
City Park	2.23 Acres	411	22.75	50%	50%	50.73	13%	6.59	44.14	0%	0.00	0%	0.00	44.14	0.00	0.00	0.00	0.00	22.07	22.07	
Marina	520 Slips	420	3.22	50%	50%	1,674.40	13%	217.67	1,456.73	0%	0.00	0%	0.00	1,456.73	0.00	0.00	0.00	0.00	728.37	728.36	
Total						17,327.60		2,252.59	15,075.01		2,190.29		0.00	12,884.72	1,095.16	1,095.13	0.00	0.00	6,442.39	6,442.33	

Port of Everett
GTC #13-053

**Trip Generation for: Development Peak Weekend, Peak Hour of Adjacent Street Traffic, One Hour between 4 and 6 PM
(a.k.a.): Weekend PM Peak Hour**

LAND USES	VARIABLE	ITE LU code	Trip Rate	Gross Trips			Internal Crossover		IN BOTH DIRECTIONS				DIRECTIONAL ASSIGNMENTS						
				% IN	% OUT	In+Out (Total)	% of Gross Trips	Trips In+Out (Total)	TOTAL In+Out (Total)	% of Ext. Trips	In+Out (Total)	NEW In+Out (Total)	PASS-BY		DIVERTED LINK		NEW		
													In	Out	In	Out	In	Out	In
Specialty Retail (Including Web Locker)	126.475 KSF	826	2.57	44%	325.04	13%	42.26	282.78	25%	70.70	0%	0.00	212.08	31.11	39.59	0.00	0.00	93.32	118.76
Multi-Family	660 units	220	Eqn	65%	289.83	13%	37.68	252.15	0%	0.00	0%	0.00	252.15	0.00	0.00	0.00	0.00	163.90	88.25
High Turnover Sit Down Restaurant	8,000 KSF	932	14.07	53%	112.56	13%	14.63	97.93	43%	42.11	0%	0.00	55.82	22.32	19.79	0.00	0.00	29.58	26.24
Quality Restaurant	15,500 KSF	931	10.82	59%	167.71	13%	21.80	145.91	44%	64.20	0%	0.00	81.71	37.88	26.32	0.00	0.00	48.21	33.50
Hotel	180 Rooms	310	0.72	56%	129.60	13%	16.85	112.75	0%	0.00	0%	0.00	112.75	0.00	0.00	0.00	0.00	63.14	49.61
Warehousing	22,900 KSF	150	0.13	64%	2.98	13%	0.39	2.59	0%	0.00	0%	0.00	2.59	0.00	0.00	0.00	0.00	1.66	0.93
Marine Sales/Service (Manufacturing)	111,900 KSF	140	0.28	26%	31.33	13%	4.07	27.26	0%	0.00	0%	0.00	27.26	0.00	0.00	0.00	0.00	7.09	20.17
General Office	305,775 KSF	710	0.43	54%	131.48	13%	17.09	114.39	0%	0.00	0%	0.00	114.39	0.00	0.00	0.00	0.00	61.77	52.62
Classroom (Junior/Comm College)	6,000 KSF	540	1.42	57%	8.52	13%	1.11	7.41	0%	0.00	0%	0.00	7.41	0.00	0.00	0.00	0.00	4.22	3.19
Meeting Room (Library/Museum)	5,000 KSF	-	0.66	71%	3.30	13%	0.43	2.87	0%	0.00	0%	0.00	2.87	0.00	0.00	0.00	0.00	2.04	0.83
General Light Ind.	90,650 KSF	110	0.14	47%	12.69	13%	1.65	11.04	0%	0.00	0%	0.00	11.04	0.00	0.00	0.00	0.00	5.19	5.85
City Park	2.23 Acres	411	4.50	50%	10.04	13%	1.31	8.73	0%	0.00	0%	0.00	8.73	0.00	0.00	0.00	0.00	4.37	4.36
Marina	520 Slips	420	0.27	44%	140.40	13%	18.25	122.15	0%	0.00	0%	0.00	122.15	0.00	0.00	0.00	0.00	53.75	68.40
Total					1,365.48		177.52	1,187.96		177.01		0.00	1,010.95	91.31	85.70	0.00	0.00	538.24	472.71

**MULTI-USE DEVELOPMENT
TRIP GENERATION AND INTERNAL CAPTURE SUMMARY**

Analyst: ZJW Time Period: Daily
 Date: 5/29/2014
 Project: Port of Everett

Land Use A Residential				(Multi-Family)				Land Use B Residential															
ITE LU Code				ITE LU Code				ITE LU Code															
Size				Size				Size															
Exit to Ext	1700.58	Enter	2062	Total	488	Internal	1573.58	External	0	Demand	Balanced	Demand	0	0%	Enter	1505	Total	486	Internal	1018.9	External	1018.9	Ent from Ext
Ent from Int	1573.58	Exit	2062	Total	361	Internal	1700.58	External	0	Demand	Balanced	Demand	0	0%	Exit	1505	Total	361	Internal	1143.9	External	1143.9	Exit to Ext
	1573.58	Total	4123.16	%	100%	21%	3274.16	79%	Demand	Balanced	Demand				Total	3009.8	%	28%	2162.8	72%			

Land Use C Office				(Places of Employment)				Land Use D Retail															
ITE LU Code				ITE LU Code				ITE LU Code															
Size				Size				Size															
Exit to Ext	2090.69	Enter	2343	Total	120	Internal	2222.69	External	351	Demand	Balanced	Demand	120	3%	Enter	4008	Total	882	Internal	3126.4	External	3126.4	Ent from Ext
Ent from Int	2222.69	Exit	2343	Total	252	Internal	2090.69	External	515	Demand	Balanced	Demand	160	4%	Exit	4008	Total	1002	Internal	3006.4	External	3006.4	Exit to Ext
	2222.69	Total	4685.38	%	100%	8%	4313.38	92%	Demand	Balanced	Demand			Total	8016.8	%	24%	1884	76%	6132.8	76%		

Net External Trips for Multi-Use Development				
Land Use	Land Use	Land Use	Land Use	Total
Enter	1573.58	1018.9	2222.69	3126.4
Exit	1700.58	1143.9	2090.69	3006.4
Total	3274.16	2162.8	4313.38	15883.14
Single-Use Trip Gen. Est.	4123.16	3009.8	4685.38	8016.8
				19835.14
				20%

**MULTI-USE DEVELOPMENT
TRIP GENERATION AND INTERNAL CAPTURE SUMMARY**

Analyst: ZJW Time Period: PM Peak Hour of Adj St
 Date: 5/29/2014
 Project: Port of Everett

Land Use A Residential				(Multi-Family)				Land Use B Residential				(Hotel/Marina)			
ITE LU Code 220				ITE LU Code ---				ITE LU Code ---				ITE LU Code ---			
Size 660 units				Size ---				Size ---				Size ---			
Exit to Ext	Total	Internal	External	Demand	Balanced	Demand	Balanced	Enter	Total	Internal	External	Enter	Total	Internal	External
108.2275	247	36	211.4225	0%	0	0	0	0%	114	33	81.36	81.36	114	33	81.36
Ent from I	133	25	108.2275	0%	0	0	0	0%	92	25	67.44	67.44	92	25	67.44
211.4225	380.65	61	319.65	Demand	Balanced	Demand	Balanced	Total	206.8	58	148.8	148.8	206.8	58	148.8
%	100%	16%	84%					%	100%	28%	72%	72%	100%	28%	72%

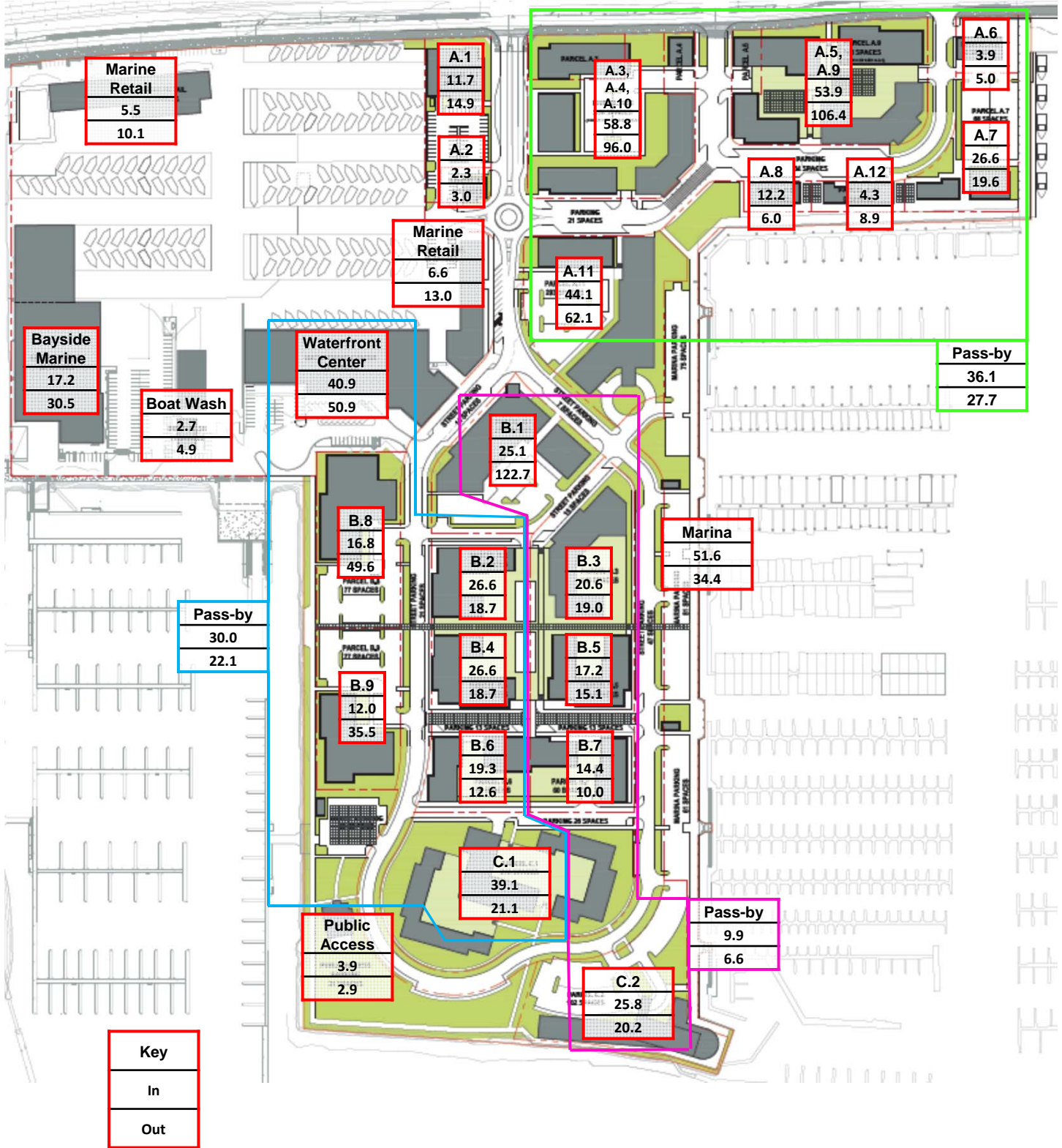
Demand				Demand				Demand				Demand			
Balanced				Balanced				Balanced				Balanced			
Demand				Demand				Demand				Demand			
Balanced				Balanced				Balanced				Balanced			
0%	0	5	2%	71	25	9%	25	0%	0	0	0%	0	0	0	0%
Demand	0	Demand	5	Demand	25	Demand	25	Demand	0	Demand	0	Demand	49	Demand	35
Balanced	0	Balanced	5	Balanced	0	Balanced	0	Balanced	0	Balanced	0	Balanced	25	Balanced	31
Demand	0	Demand	10	Demand	2	Demand	2	Demand	77	Demand	31	Demand	25	Demand	31
%	0%	%	2%	%	2%	%	2%	%	31%	%	31%	%	9%	%	12%
Demand	10	Demand	10	Demand	2	Demand	2	Demand	31	Demand	31	Demand	25	Demand	31
Balanced	10	Balanced	10	Balanced	0	Balanced	0	Balanced	0	Balanced	0	Balanced	0	Balanced	0
Demand	10	Demand	10	Demand	10	Demand	10	Demand	31	Demand	31	Demand	31	Demand	31
%	2%	%	2%	%	2%	%	2%	%	12%	%	12%	%	12%	%	12%

Land Use C Office				(Places of Employment)				Land Use D Retail				(Including restaurants)			
ITE LU Code ---				ITE LU Code ---				ITE LU Code ---				ITE LU Code ---			
Size ---				Size ---				Size ---				Size ---			
Exit to Ext	Total	Internal	External	Demand	Balanced	Demand	Balanced	Enter	Total	Internal	External	Enter	Total	Internal	External
507.4623	128	8	120.2277	31%	40	8	3%	3%	276	56	219.877	219.877	276	56	219.877
Ent from I	520	13	507.4623	23%	120	6	2%	2%	262	70	191.773	191.773	262	70	191.773
120.2277	648.69	21	627.69	Demand	Balanced	Demand	Balanced	Total	537.65	126	411.65	411.65	537.65	126	411.65
%	100%	3%	97%					%	100%	23%	77%	77%	100%	23%	77%

Net External Trips for Multi-Use Development				
Land Use	Land Use	Land Use	Total	
Enter	211.4225	81.36	120.2277	632.8872
Exit	108.2275	67.44	507.4623	874.9028
Total	319.65	148.8	627.69	1507.79
Single-Use Trip Gen. Est.	380.65	206.8	648.69	1773.79
				Internal Capture
				15%

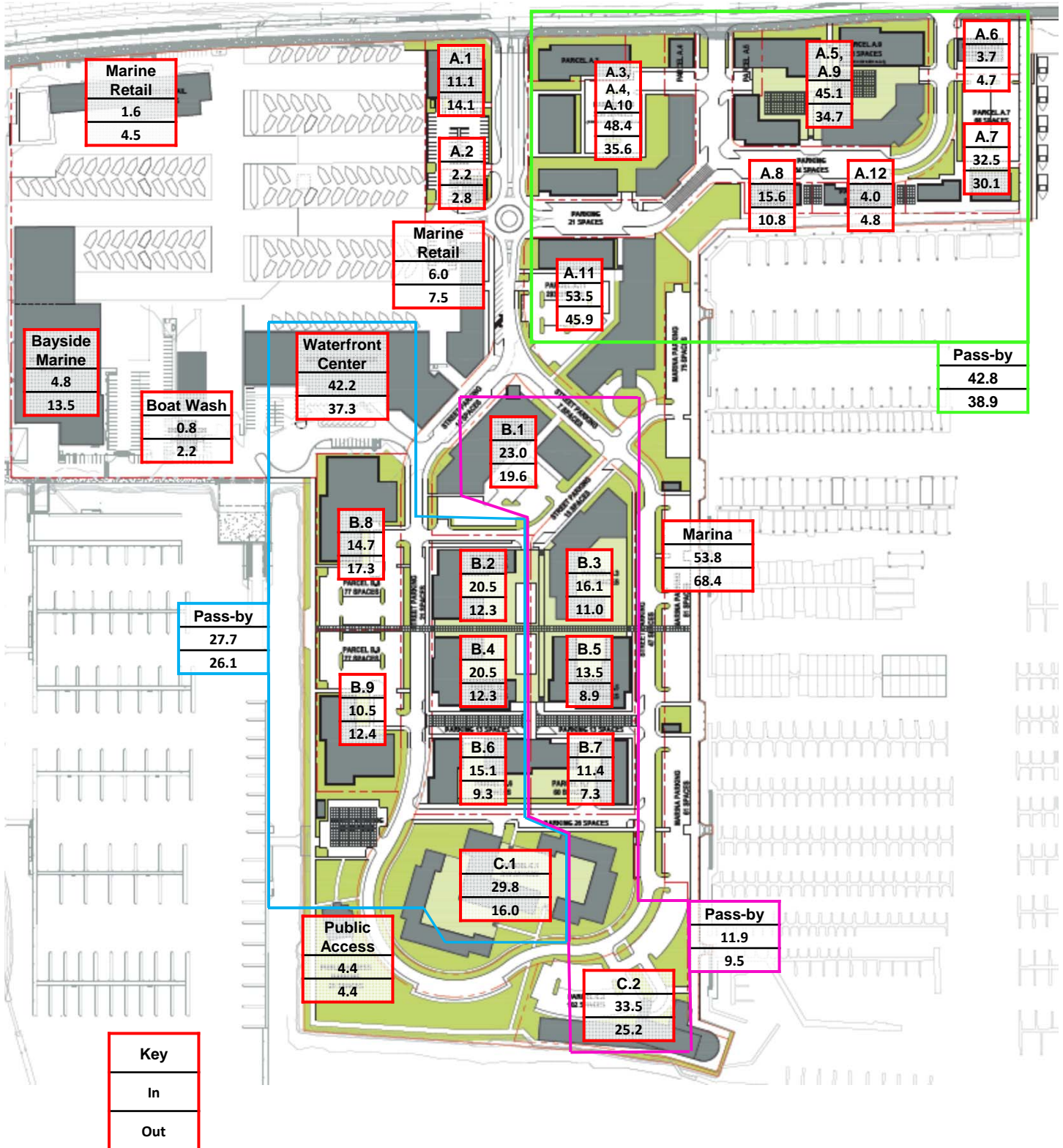
Weekday PM Peak Trip Generation

Summary of Site Trip Generation (Net New)	
In	Out
589.9	811.6



Weekend PM Peak Trip Generation

Summary of Site Trip Generation (Net New)	
In	Out
538.2	472.7



Parking requirements were calculated using two sources. The first source was *ITE Parking Generation Manual (4th Edition)*. This manual identifies required parking for specific land uses based on site observations of similar developments. The average (50th percentile) and 85th percentile parking rates for each land use were calculated and included in the parking spreadsheet. The second source used to calculate required parking was the City of Everett municipal code (Title 19, Chapter 34.020). These rates represent the minimum number of off-street parking stalls to be provided by the developer.

Due to mixed-uses in the development, it could be assumed a percentage of trips will result in multiple stops within the development, referred to as internal crossover. Using methods outlined in the *ITE Trip Generation Manual (9th Edition)*, an internal crossover percentage of 13% was assumed for the entire development—the same percentage used in the original 2005 EIS. Additionally, different land uses in the development require peak parking demand during different times of the day. The parking demand was calculated for the PM peak-hour when it is expected only 60% of overnight parking demand is required. Therefore the number of parking stalls “required” for the development includes a 10% reduction for internal crossover and a 40% reduction in the number of multi-family parking spaces required.

Below are a list of assumptions about development land uses and corresponding ITE land uses:

Development Land Use	ITE Land Use (Land Use Code)
Retail	Shopping Center (820) <ul style="list-style-type: none"> • Non-Friday, non-December
Web Locker	Warehousing (150)
Restaurant	Quality Restaurant (931) <ul style="list-style-type: none"> • Conservative compared to high-turnover sit down restaurant High Turnover Sit Down Restaurant (932) <ul style="list-style-type: none"> • Family/No bar, Urban
Multi-Family	Low/Mid-Rise Apartment (221) <ul style="list-style-type: none"> • Study sites had 1-4 floors
Hotel	Hotel (310) <ul style="list-style-type: none"> • Suburban location
Office	Office Building (701) <ul style="list-style-type: none"> • Suburban location
Light Industrial	Light Industrial (110)
Classroom	Junior/Community College (540)
Meeting Room <ul style="list-style-type: none"> • Used for informational meetings/gatherings about the Port 	Museum (580) <ul style="list-style-type: none"> • Uses include displays, shows, exhibits, and demonstrations • Convention Center (595) was observed at only one location and had 2,000 to 3,000 visitors as well as paid parking.
Service Shops <ul style="list-style-type: none"> • Marine service 	General Light Industrial (110)
Marina	Marina (420) <ul style="list-style-type: none"> • Observation site included 36,000 SF of restaurant and retail space
Park	City Park (411) <ul style="list-style-type: none"> • Used Sunday parking demand for 10-acre site

Required w/o Shared Parking			Required w/ Shared Parking			Provided
ITE Average Rate	ITE 85th Percentile	City of Everett Code	ITE Average Rate	ITE 85th Percentile	City of Everett Code	
Weekday	2805	3703	3446	2194	2814	3122
Weekend	2206	3004	2708	2006	2724	2459

3174

Parcel	Size	Uses	Parking Rate per Unit			Parking on Plan	Required w/o Shared Parking			Required w/ Shared Parking		
			ITE Average Rate	ITE 85th Percentile	City of Everett Code		ITE Average Rate	ITE 85th Percentile	City of Everett Code	ITE Average Rate	ITE 85th Percentile	City of Everett Code
A.1	1. Acres	15,000 SF Sales + Service	2.55/1000	3.16/1000	1/300	48	38	47	50	34	43	45
A.2	0.19 Acres	3,000 SF Retail	2.55/1000	3.16/1000	1/300	9	8	9	10	7	9	9
A.3, A.4, A.10	2.98 Acres	10,500 SF Retail	2.55/1000	3.16/1000	1/300	258	27	33	35	24	30	32
		61,000 SF Commercial (Office)	2.84/1000	3.45/1000	1/400		173	210	153	156	189	137
		114 Unit Multi-Family	1.23	1.94	2.00		140	221	228	76	119	205
A.5, A.9	2.98 Acres	10,500 SF Retail	2.55/1000	3.16/1000	1/300	345	27	33	35	24	30	32
		74,500 SF Commercial (Office)	2.84/1000	3.45/1000	1/400		212	257	186	190	231	168
		90 Units Multi-Family	1.23	1.94	2.00		111	175	180	60	94	162
A.6	0.4 Acres	5,000 Web Locker (Retail)	2.55/1000	3.16/1000	1/300	0	13	16	17	11	14	15
A.7	1.65 Acres	4,000 SF Retail	2.55/1000	3.16/1000	1/300	68	10	13	13	9	11	12
		8,000 SF HTSD Restaurant	5.55/1000	6.37/1000	1/100		44	51	80	40	46	72
A.8	0.23 Acres	5,000 SF Quality Restaurant	10.6/1000	14.2/1000	1/100	0	53	71	50	29	38	45
A.11	2.5 Acres	120 Room Hotel	0.89	1.08	1.00	293	107	130	120	96	117	108
		20,000 SF Commercial (Office)	2.84/1000	3.45/1000	1/400		57	69	50	51	62	45
		10,000 SF Retail	2.55/1000	3.16/1000	1/300		26	32	33	23	28	30
A.12	0.32 Acres	4,300 SF Retail	2.55/1000	3.16/1000	1/300	0	11	14	14	10	12	13
		4,300 SF Commercial (Office)	2.84/1000	3.45/1000	1/400		12	15	11	11	13	10
Street Parking						75						
Total	12.25 Acres				Total	1096	1068	1395	1265	852	1088	1139
B.1	1.92 Acres	114,000 SF Commercial (Office)	2.84/1000	3.45/1000	1/400	270	324	393	285	291	354	257
B.2	1.02 Acres	2,050 SF Retail	2.55/1000	3.16/1000	1/300	140	5	6	7	5	6	6
		4,100 SF Light Industrial	0.75/1000	1.13/1000	1/600		3	5	7	3	4	6
		2,050 SF Warehouse	0.51/1000	0.81/1000	1/1,000		0	2	2	0	1	2
		75 Units Multi-Family	1.23	1.94	2.00		92	146	150	50	79	135
B.3	1.57 Acres	3,750 SF Retail	2.55/1000	3.16/1000	1/300	140	10	12	13	9	11	11
		7,500 SF Light Industrial	0.75/1000	1.13/1000	1/600		6	8	13	5	8	11
		3,750 SF Warehouse	0.51/1000	0.81/1000	1/1,000		0	3	4	0	3	3
		51 Units Multi-Family	1.23	1.94	2.00		63	99	102	34	53	92
B.4	1.01 Acres	2,050 SF Retail	2.55/1000	3.16/1000	1/300	140	5	6	7	5	6	6
		4,100 SF Light Industrial	0.75/1000	1.13/1000	1/600		3	5	7	3	4	6
		2,050 SF Warehouse	0.51/1000	0.81/1000	1/1,000		0	2	2	0	1	2
		75 Units Multi-Family	1.23	1.94	2.00		92	146	150	50	79	135
B.5	1.05 Acres	2,750 SF Retail	2.55/1000	3.16/1000	1/300	140	7	9	9	6	8	8
		5,500 SF Light Industrial	0.75/1000	1.13/1000	1/600		4	6	9	4	6	8
		2,750 SF Warehouse	0.51/1000	0.81/1000	1/1,000		0	2	3	0	2	2
		44 Units Multi-Family	1.23	1.94	2.00		54	85	88	29	46	79
B.6	1.1 Acres	2,050 SF Retail	2.55/1000	3.16/1000	1/300	60	5	6	7	5	6	6
		6,150 SF Warehouse	0.51/1000	0.81/1000	1/1,000		0	5	6	0	4	6
		53 Units Multi-Family	1.23	1.94	2.00		65	103	106	35	56	95
B.7	1.08 Acres	2,050 SF Retail	2.55/1000	3.16/1000	1/300	60	5	6	7	5	6	6
		6,150 SF Warehouse	0.51/1000	0.81/1000	1/1,000		0	5	6	0	4	6
		38 Units Multi-Family	1.23	1.94	2.00		47	74	76	25	40	68
B.8	1.42 Acres	13,975 SF Retail	2.55/1000	3.16/1000	1/300	77	36	44	47	32	40	42
		27,950 SF Light Industrial	0.75/1000	1.13/1000	1/600		21	32	47	19	28	42
		13,975 SF Office	2.84/1000	3.45/1000	1/400		40	48	35	36	43	31
B.9	1.46 Acres	10,000 SF Retail	2.55/1000	3.16/1000	1/300	77	26	32	33	23	28	30
		20,000 SF Light Industrial	0.75/1000	1.13/1000	1/600		15	23	33	14	20	30
		10,000 SF Office	2.84/1000	3.45/1000	1/400		28	35	25	26	31	23
Waterfront Center		6,500 SF Restaurant	10.6/1000	14.2/1000	1/100	60	69	92	65	37	50	59
		18,000 SF Retail	2.55/1000	3.16/1000	1/300		46	57	60	41	51	54
		8,000 SF Office	2.84/1000	3.45/1000	1/400		23	28	20	20	25	18
		6,000 SF Classroom	4.8/1000	4.8/1000	1/2		29	29	40	26	26	36
		5,000 SF Meeting Room	0.98/1000	1.23/1000	1/400		5	5	13	4	4	11
		14,000 SF Service Shops	0.75/1000	1.13/1000	1/600		11	16	23	9	14	21
Bayside Marine		56,000 SF Dry Stack Storage	1.02/1000	1.18/1000	1/3000	96	57	66	19	51	59	17
		19,000 SF Marine Sales/Services	1.02/1000	1.18/1000	1/600		19	22	32	17	20	29
Boat Wash		4,000 SF Office + Maintenance	1.02/1000	1.18/1000	1/600	11	4	5	7	4	4	6
Maintenance		8,000 SF Office + Maintenance	1.02/1000	1.18/1000	1/600		8	9	13	7	8	12
Marine Retail		24,900 SF Sales + Service	1.02/1000	1.18/1000	1/600	34	25	29	42	23	26	37
Marine Retail		7,500 SF Retail	2.55/1000	3.16/1000	1/300	18	19	24	25	17	21	23
		7,500 SF Light Industrial	0.75/1000	1.13/1000	1/600		6	8	13	5	8	11
Street Parking						151						
Total	11.63 Acres				Total	1474	1277	1737	1654	976	1296	1489
C.1	3.61 Acres	120 Units Multi-Family	1.23	1.94	2.00	219	148	233	230	80	126	207
C.2	2.1 Acres	60 Room Hotel	0.89	1.08	1.00	102	53	65	60	48	58	54
		4,000 SF Quality Restaurant	10.6/1000	14.2/1000	1/200		42	57	20	23	31	18
Total	5.71 Acres				Total	321	243	354	310	151	215	279
Public Access	2.23 Acres	City Park	2.80	2.80	2.80	66	6	6	6	6	6	6
Marina	520 Slips	Marina	0.27	0.27	0.27	217	210	210	210	210	210	210
					Total	283	216	216	216	216	216	216
					Total	3174	2805	3703	3446	2194	2814	3122

88% 117% 109% 69% 89% 98%

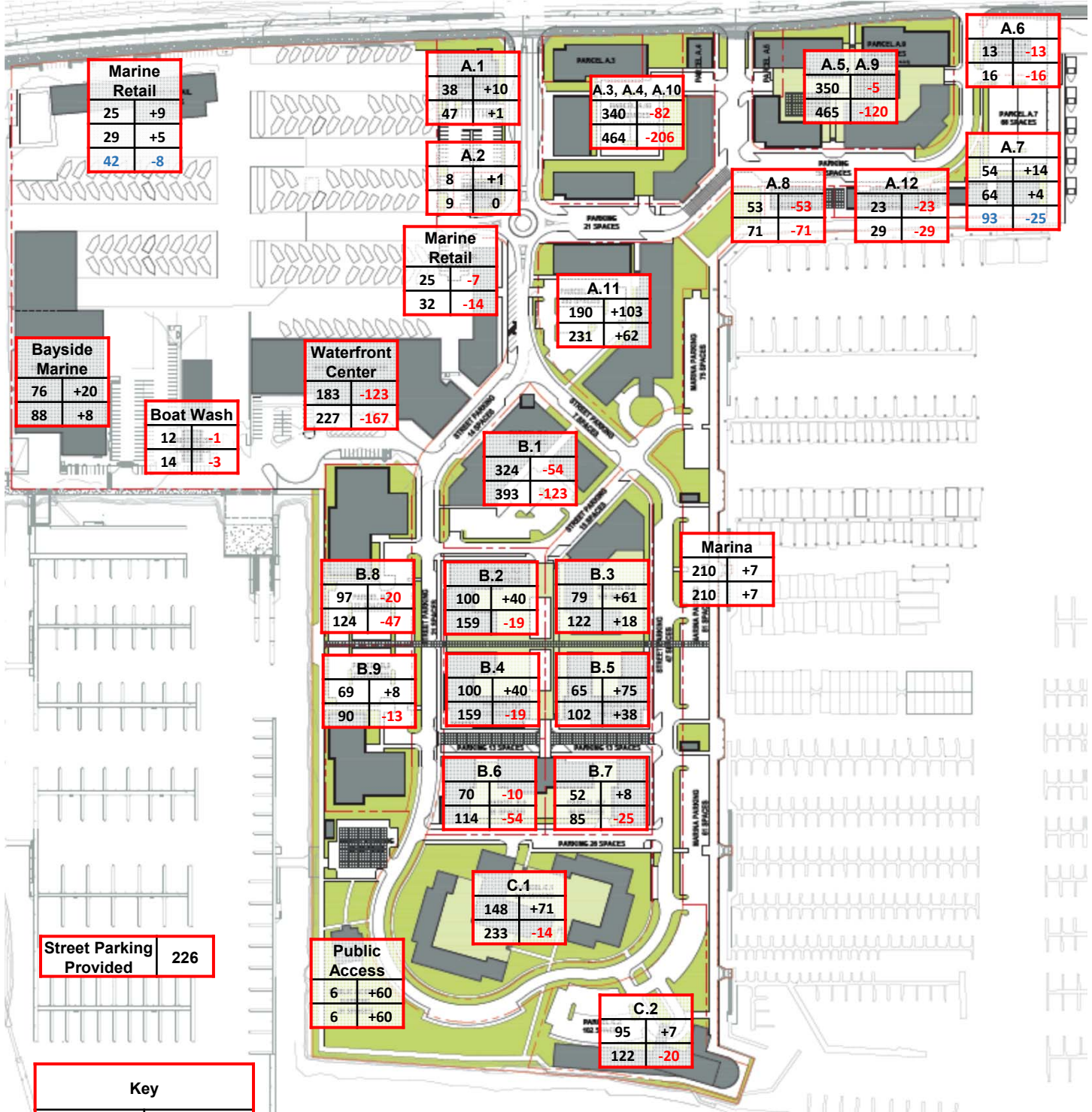
Quality Restaurant reduced by 40% in the shared parking to account for peak demand being reduced before 5 PM.
 Multi-Family reduced by 40% in the shared parking to account for peak demand being reduced before 5 PM.
 In the shared parking calculations there is a 10% reduction for internal crossover between uses.
 Used Shopping Center (Non-December) Non-Friday from ITE Parking Generation for the Retail parking component.
 Used City Park Sunday Peak from ITE Parking Generation for the City Park parking component.

Parcel	Size	Uses	Parking Rate per Unit			Parking on Plan	Required w/o Shared Parking			Required w/ Shared Parking		
			ITE Average Rate	ITE 85th Percentile	City of Everett Code		ITE Average Rate	ITE 85th Percentile	City of Everett Code	ITE Average Rate	ITE 85th Percentile	City of Everett Code
A.1	1. Acres	15,000 SF Retail	2.87/1000	3.4/1000	1/300	48	43	51	50	39	46	45
A.2	0.19 Acres	3,000 SF Retail	2.87/1000	3.4/1000	1/300	9	9	10	10	8	9	9
A.3, A.4, A.10	2.98 Acres	10,500 SF Retail	2.87/1000	3.4/1000	1/300	258	30	36	35	27	32	32
		61,000 SF Commercial (Office)	.568/1000	.690/1000	1/400		35	42	15	31	38	14
		114 Unit Multi-Family	1.23	1.94	2.00		140	221	228	126	199	205
A.5, A.9	2.98 Acres	10,500 SF Retail	2.87/1000	3.4/1000	1/300	345	30	36	35	27	32	32
		74,500 SF Commercial (Office)	.568/1000	.690/1000	1/400		42	51	19	38	46	17
		90 Units Multi-Family	1.23	1.94	2.00		111	175	180	100	157	162
A.6	0.4 Acres	5,000 SF Web Locker (Retail)	2.87/1000	3.4/1000	1/300	0	14	17	17	13	15	15
A.7	1.65 Acres	4,000 SF Retail	2.87/1000	3.4/1000	1/300	68	11	14	13	10	12	12
		8,000 SF HTSD Restaurant	7.07/1000	8.05/1000	1/100		57	64	80	51	58	72
A.8	0.23 Acres	5,000 SF Quality Restaurant	16.4/1000	22.7/1000	1/100	0	82	114	50	74	102	45
A.11	2.5 Acres	120 Room Hotel	1.20	1.54	1.00	293	144	185	120	130	166	108
		20,000 SF Commercial (Office)	.568/1000	.690/1000	1/400		11	14	5	10	12	5
		10,000 SF Retail	2.87/1000	3.4/1000	1/300		29	34	33	26	31	30
A.12	0.32 Acres	4,300 SF Retail	2.87/1000	3.4/1000	1/300	0	12	15	14	11	13	13
		4,300 SF Commercial (Office)	.568/1000	.690/1000	1/400		2	3	1	2	3	1
Street Parking						75						
Total	12.25 Acres				Total	1096	803	1081	906	723	972	815
B.1	1.92 Acres	114,000 SF Commercial	.568/1000	.690/1000	1/400	270	65	79	29	58	71	26
B.2	1.02 Acres	2,050 SF Retail	2.87/1000	3.4/1000	1/300	140	6	7	7	5	6	6
		4,100 SF Light Industrial	0.75/1000	1.13/1000	1/600		3	5	7	3	4	6
		2,050 SF Warehouse	0.51/1000	0.81/1000	1/1,000		0	2	2	0	1	2
		75 Units Multi-Family	1.23	1.94	2.00		92	146	150	83	131	135
B.3	1.57 Acres	3,750 SF Retail	2.87/1000	3.4/1000	1/300	140	11	13	13	10	11	11
		7,500 SF Light Industrial	0.75/1000	1.13/1000	1/600		6	8	13	5	8	11
		3,750 SF Warehouse	0.51/1000	0.81/1000	1/1,000		0	3	4	0	3	3
		51 Units Multi-Family	1.23	1.94	2.00		63	99	102	56	89	92
B.4	1.01 Acres	2,050 SF Retail	2.87/1000	3.4/1000	1/300	140	6	7	7	5	6	6
		4,100 SF Light Industrial	0.75/1000	1.13/1000	1/600		3	5	7	3	4	6
		2,050 SF Warehouse	0.51/1000	0.81/1000	1/1,000		0	2	2	0	1	2
		75 Units Multi-Family	1.23	1.94	2.00		92	146	150	83	131	135
B.5	1.05 Acres	2,750 SF Retail	2.87/1000	3.4/1000	1/300	140	8	9	9	7	8	8
		5,500 SF Light Industrial	0.75/1000	1.13/1000	1/600		4	6	9	4	6	8
		2,750 SF Warehouse	0.51/1000	0.81/1000	1/1,000		0	2	3	0	2	2
		44 Units Multi-Family	1.23	1.94	2.00		54	85	88	49	77	79
B.6	1.1 Acres	2,050 SF Retail	2.87/1000	3.4/1000	1/300	60	6	7	7	5	6	6
		6,150 SF Warehouse	0.51/1000	0.81/1000	1/1,000		0	5	6	0	4	6
		53 Units Multi-Family	1.23	1.94	2.00		65	103	106	59	93	95
B.7	1.08 Acres	2,050 SF Retail	2.87/1000	3.4/1000	1/300	60	6	7	7	5	6	6
		6,150 SF Warehouse	0.51/1000	0.81/1000	1/1,000		0	5	6	0	4	6
		38 Units Multi-Family	1.23	1.94	2.00		47	74	76	42	66	68
B.8	1.42 Acres	13,975 SF Retail	2.87/1000	3.4/1000	1/300	77	40	48	47	36	43	42
		27,950 SF Light Industrial	0.75/1000	1.13/1000	1/600		21	32	47	19	28	42
		13,975 SF Office	.568/1000	.690/1000	1/400		8	10	3	7	9	3
B.9	1.46 Acres	10,000 SF Retail	2.87/1000	3.4/1000	1/300	77	29	34	33	26	31	30
		20,000 SF Light Industrial	0.75/1000	1.13/1000	1/600		15	23	33	14	20	30
		10,000 SF Office	.568/1000	.690/1000	1/400		6	7	3	5	6	2
Waterfront Center		6,500 SF Restaurant	16.4/1000	22.7/1000	1/100	60	107	148	65	96	133	59
		18,000 SF Retail	2.87/1000	3.4/1000	1/300		52	61	60	46	55	54
		8,000 SF Office	.568/1000	.690/1000	1/400		5	6	2	4	5	2
		6,000 SF Classroom	4.8/1000	4.8/1000	1/2		29	29	40	26	26	36
		5,000 SF Meeting Room	1.32/1000	1.79/1000	1/400		7	9	13	6	8	11
		14,000 SF Service Shops	0.75/1000	1.13/1000	1/600		11	16	23	9	14	21
Bayside Marine		56,000 SF Dry Stack Storage	.254/1000	.370/1000	1/3000	96	14	21	19	13	19	17
		19,000 SF Marine Sales/Services	.254/1000	.370/1000	1/600		5	7	5	4	6	4
Boat Wash		4,000 SF Office + Maintenance	.254/1000	.370/1000	1/600	11	1	1	1	1	1	
Maintenance		8,000 SF Office + Maintenance	.254/1000	.370/1000	1/600		2	3	2	2	3	
Marine Retail		24,900 SF Sales + Service	.254/1000	.370/1000	1/600	34	6	9	6	6	8	
Marine Retail		7,500 SF Retail	2.87/1000	3.4/1000	1/300	18	22	26	25	19	23	23
		7,500 SF Light Industrial	0.75/1000	1.13/1000	1/600		6	8	13	5	8	11
Street Parking						151	0	0	0	0	0	0
Total	11.63 Acres				Total	1474	920	1318	1247	828	1187	1122
C.1	3.61 Acres	120 Units Multi-Family	1.23	1.94	2.00	219	148	233	240	133	210	216
C.2	2.1 Acres	60 Room Hotel	1.20	1.54	1.00	102	53	65	60	48	58	54
		4,000 SF Quality Restaurant	16.4/1000	22.7/1000	1/100		66	91	40	59	82	36
Total	5.71 Acres				Total	321	267	388	340	240	350	306
Public Access	2.23 Acres	City Park	2.80	2.80	2.80	66	6	6	6	6	6	6
Marina	520 Slips	Marina	0.35	0.35	0.35	217	210	210	210	210	210	210
Total						283	216	216	216	216	216	216
Total						3174	2206	3004	2708	2006	2724	2459
							69%	95%	85%	63%	86%	77%

In the shared parking calculations there is a 10% reduction for internal crossover between uses.
 Used Shopping Center (Non-December) Saturday from ITE Parking Generation for the Retail parking component.
 Used City Park Sunday Peak from ITE Parking Generation for the City Park parking component.

Weekday Parking Demand without Shared Parking

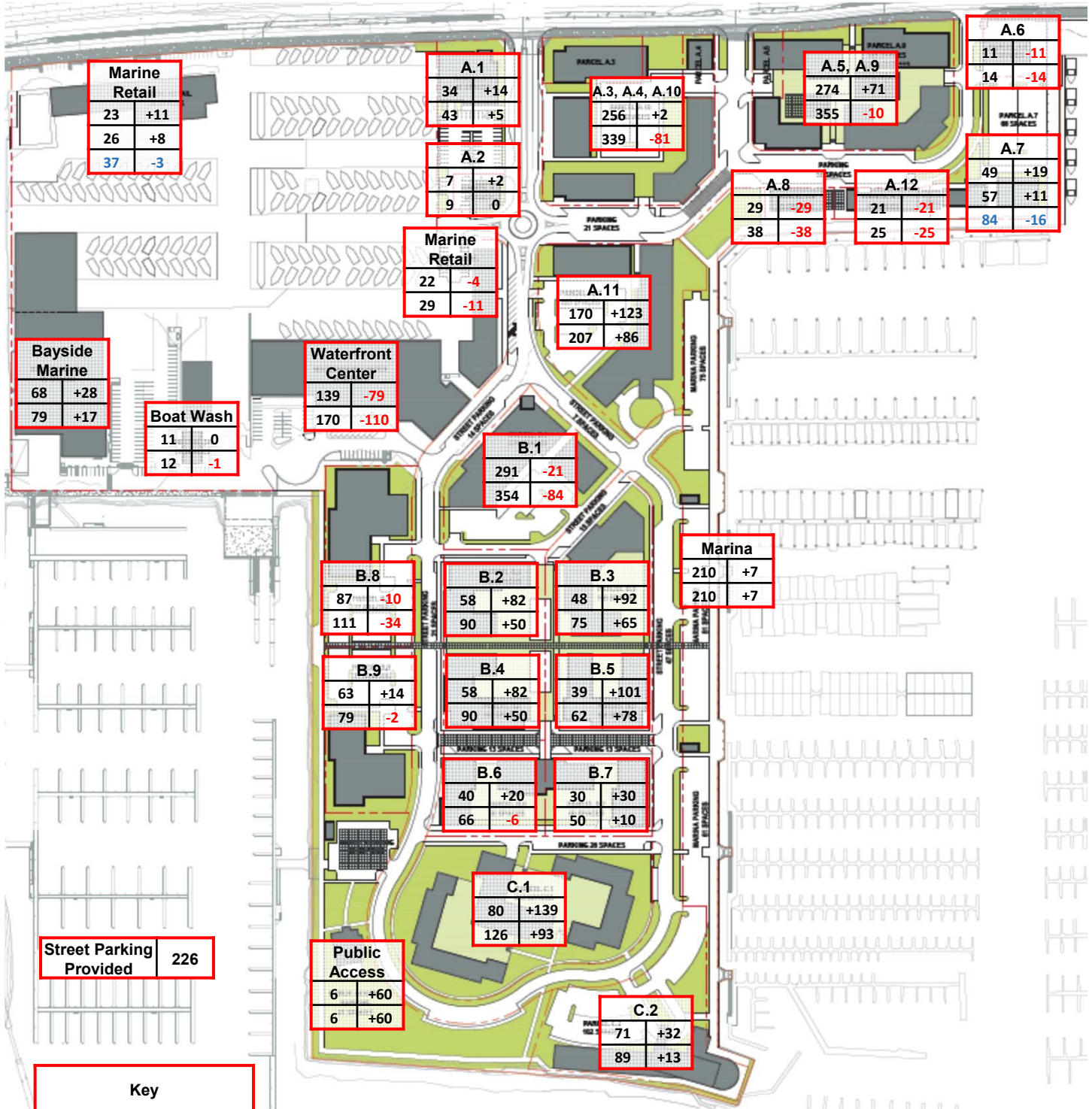
Summary of Site Parking Supply			
# Provided	ITE Average	ITE 85 th percentile	City of Everett
3,174	2,805	3,703	3,446



Key	
ITE Average	+/- provided
ITE 85 th %	+/- provided

Weekday Parking Demand with Shared Parking

Summary of Site Parking Supply			
# Provided	ITE Average	ITE 85 th percentile	City of Everett
3,174	2,194	2,814	3,122

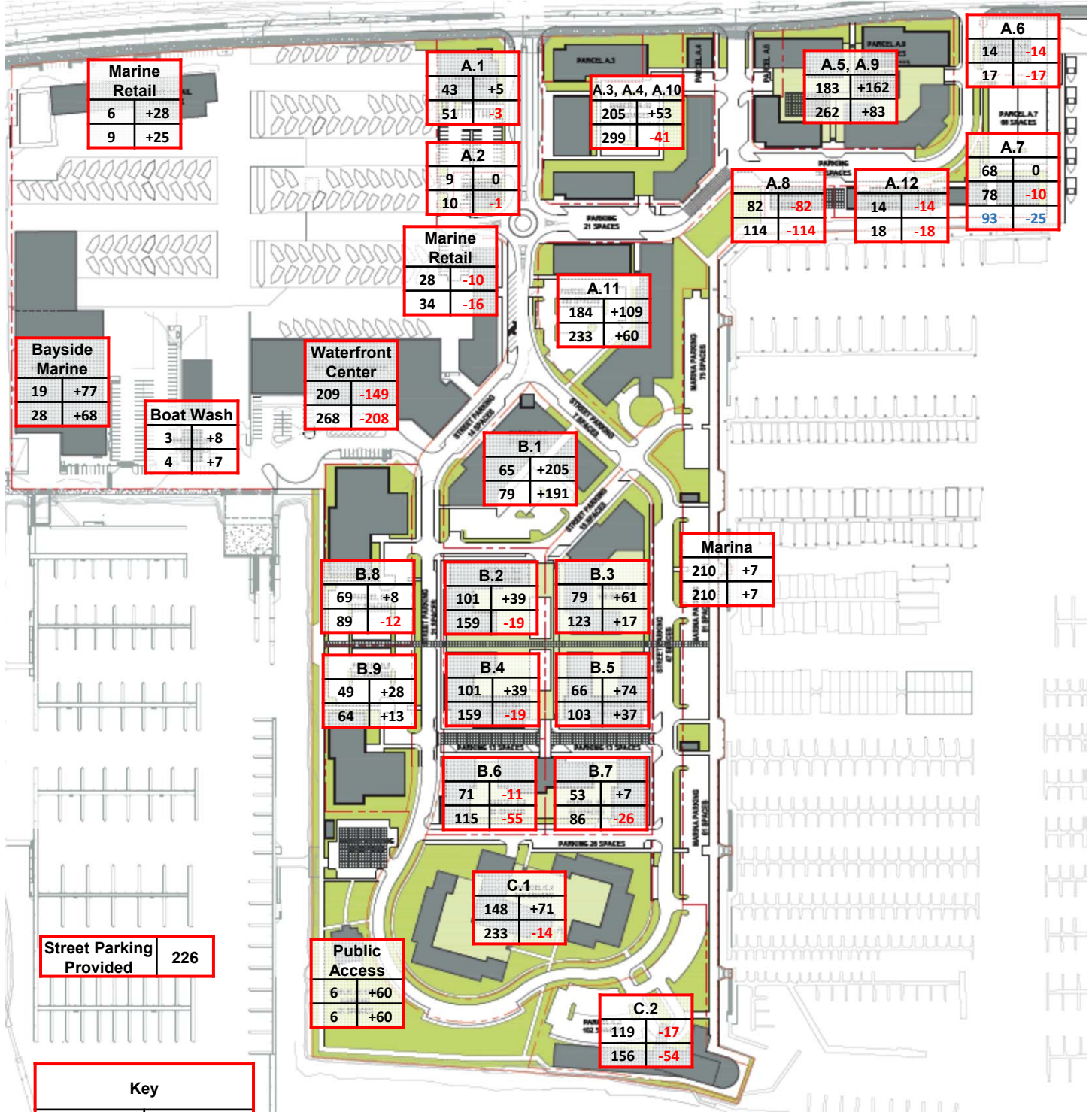


Street Parking Provided	226
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Key	
ITE Average	+/- provided
ITE 85 th %	+/- provided

Weekend Parking Demand without Shared Parking

Summary of Site Parking Supply			
# Provided	ITE Average	ITE 85 th percentile	City of Everett
3,174	2,206	3,004	2,708

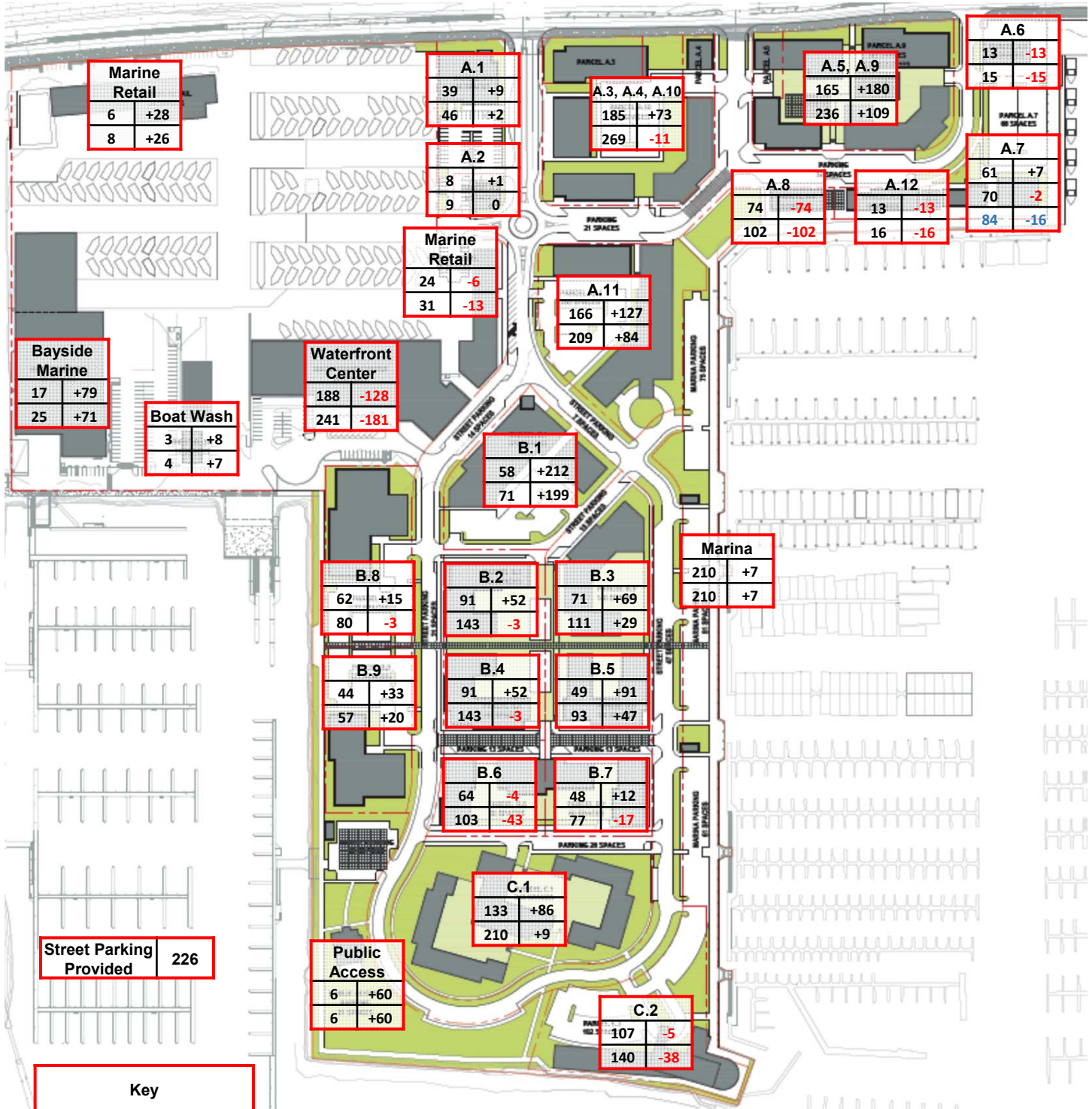


Street Parking Provided	226
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Key	
ITE Average	+/- provided
ITE 85 th %	+/- provided

Weekend Parking Demand with Shared Parking

Summary of Site Parking Supply			
# Provided	ITE Average	ITE 85 th percentile	City of Everett
3,174	2,006	2,724	2,459



Key	
ITE Average	+/- provided
ITE 85 th %	+/- provided

INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

 Site: Roundabout at 13th St

New Site
Roundabout

Volume Display Method: Total and %

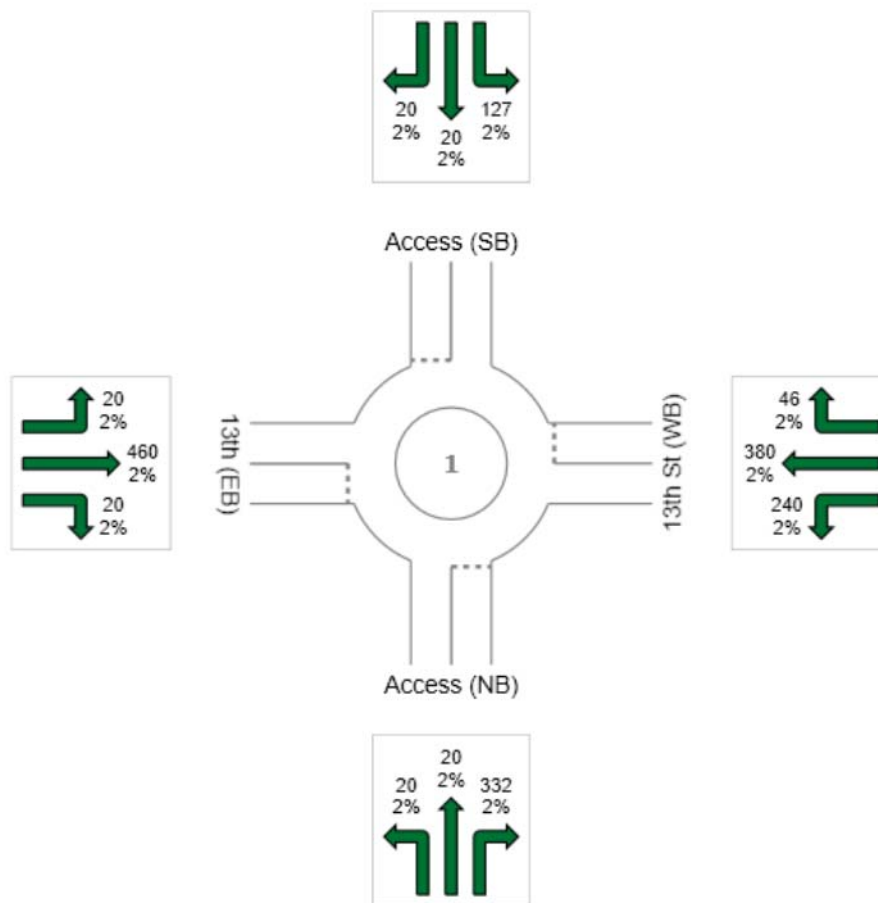
Volumes are shown for Movement Class(es): All Classes and Heavy Vehicles

Total Intersection Volumes (veh)

All Movement Classes: 1705

Light Vehicles (LV): 1671

Heavy Vehicles (HV): 34



MOVEMENT SUMMARY

 Site: Roundabout at 13th St

New Site
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Access (NB)											
3	L2	22	2.0	0.842	40.2	LOS D	7.3	185.1	0.89	1.15	22.0
8	T1	22	2.0	0.842	40.2	LOS D	7.3	185.1	0.89	1.15	22.1
18	R2	361	2.0	0.842	40.2	LOS D	7.3	185.1	0.89	1.15	21.7
Approach		404	2.0	0.842	40.2	LOS D	7.3	185.1	0.89	1.15	21.8
East: 13th St (WB)											
1	L2	261	2.0	0.773	19.5	LOS B	8.6	218.8	0.56	0.31	27.3
6	T1	413	2.0	0.773	19.5	LOS B	8.6	218.8	0.56	0.31	27.4
16	R2	50	2.0	0.773	19.5	LOS B	8.6	218.8	0.56	0.31	26.9
Approach		724	2.0	0.773	19.5	LOS B	8.6	218.8	0.56	0.31	27.4
North: Access (SB)											
7	L2	138	2.0	0.393	14.7	LOS B	1.6	40.9	0.67	0.71	28.4
4	T1	22	2.0	0.393	14.7	LOS B	1.6	40.9	0.67	0.71	28.5
14	R2	22	2.0	0.393	14.7	LOS B	1.6	40.9	0.67	0.71	28.0
Approach		182	2.0	0.393	14.7	LOS B	1.6	40.9	0.67	0.71	28.4
West: 13th (EB)											
5	L2	22	2.0	0.865	35.8	LOS D	10.1	257.6	0.95	1.20	23.1
2	T1	500	2.0	0.865	35.8	LOS D	10.1	257.6	0.95	1.20	23.2
12	R2	22	2.0	0.865	35.8	LOS D	10.1	257.6	0.95	1.20	22.8
Approach		543	2.0	0.865	35.8	LOS D	10.1	257.6	0.95	1.20	23.1
All Vehicles		1853	2.0	0.865	28.3	LOS C	10.1	257.6	0.76	0.80	24.8

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Processed: Tuesday, June 10, 2014 11:10:52 AM

SIDRA INTERSECTION 6.0.22.4722

Project: H:\2013\13-053\Update April 2014\Sidra\Roundabout.sip6

8000265, GIBSON TRAFFIC CONSULTANTS, PLUS / 1PC

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**SIDRA
INTERSECTION 6**

Intersection

Intersection Delay, s/veh	12.7									
Intersection LOS	B									
Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT	
Vol, veh/h	0	10	228	0	232	10	0	165	215	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	
Mvmt Flow	0	11	248	0	252	11	0	179	234	
Number of Lanes	0	1	0	0	1	0	0	0	1	

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	10.9	11.3	14.7
HCM LOS	B	B	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	4%	43%
Vol Thru, %	96%	0%	57%
Vol Right, %	4%	96%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	242	238	380
LT Vol	232	0	215
Through Vol	10	228	0
RT Vol	0	10	165
Lane Flow Rate	263	259	413
Geometry Grp	1	1	1
Degree of Util (X)	0.378	0.363	0.573
Departure Headway (Hd)	5.175	5.057	5.111
Convergence, Y/N	Yes	Yes	Yes
Cap	697	714	710
Service Time	3.191	3.069	3.111
HCM Lane V/C Ratio	0.377	0.363	0.582
HCM Control Delay	11.3	10.9	14.7
HCM Lane LOS	B	B	B
HCM 95th-tile Q	1.8	1.7	3.7

Intersection

Int Delay, s/veh 6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	10	228	232	10	165	215
Conflicting Peds, #/hr	50	50	0	50	50	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	248	252	11	179	234

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	900	358	0	0	313	0
Stage 1	308	-	-	-	-	-
Stage 2	592	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	309	686	-	-	1247	-
Stage 1	745	-	-	-	-	-
Stage 2	553	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	235	630	-	-	1195	-
Mov Cap-2 Maneuver	235	-	-	-	-	-
Stage 1	714	-	-	-	-	-
Stage 2	439	-	-	-	-	-

Approach	WB		NB		SB
HCM Control Delay, s	15.8		0		3.7
HCM LOS	C				

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	588	1195	-
HCM Lane V/C Ratio	-	-	0.44	0.15	-
HCM Control Delay (s)	-	-	15.8	8.5	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2.2	0.5	-