Transportation Analysis

Harrah's Station Square Casino

Pittsburgh, Pennsylvania

Submitted To:

City of Pittsburgh
and
Pennsylvania Gaming Control Board

Prepared By:

DKS Associates
GAI Consultants
December, 2005

Volume 2 of 2
Appendices

Transportation Analysis
Appendices

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List of Appendices

GAI Consultants, Inc.

Pittsburgh Office

Homestead, Pa 15120-5005

Title1 : W. CARSON STREET

Title2 : WESTBOUND

Title3 : WEST OF COMMERCE

Site: WBCARSONST

Date: 12/01/05

Interval Day: Thursday

Begin	AM - WB		PM - WB	
12:00	*	*	*	*
12:15	*		*	
12:30	*		*	
12:45	*		*	
1:00	*	*	*	*
1:15	*		*	
1:30	*		*	
1:45	*		*	
2:00	*	*	100	518
2:15	*		144	
2:30	*		130	
2:45	*		144	
3:00	*	*	150	716
3:15	*		180	
3:30	*		196	
3:45	*		190	
4:00	*	*	225	931
4:15	*		220	
4:30	*		265	
4:45	*		221	
5:00	*	*	246	943
5:15	*		266	
5:30	*		227	
5:45	*		204	
6:00	*	*	199	554
6:15	*		146	
6:30	*		111	
6:45	*		98	
7:00	*	*	84	313
7:15	*		96	
7:30	*		72	
7:45	*		61	
8:00	*	*	60	254
8:15	*		62	
8:30	*		64	
8:45	*		68	
9:00	*	*	78	284
9:15	*		62	
9:30	*		82	
9:45	*		62	
10:00	*	*	70	250
10:15	*		63	
10:30	*		58	
10:45	*		59	
11:00	*	*	58	197
11:15	*		53	
11:30	*		52	
11:45	*		34	
Totals	0		4,960	
Peak Hour	*		4:30	
Volume	*		998	
Factor	*		0.94	
DayTotal	**4,960**			

GAI Consultants, Inc.

Pittsburgh Office

Homestead, Pa 15120-5005

Title1 : W. CARSON STREET — Site: WBCARSONST

Title2 : WESTBOUND — Date: 12/02/05

Title3 : WEST OF COMMERCE

Interval — Day: Friday

Begin	AM - WB		PM - WB	
12:00	32	144	118	455
12:15	41		101	
12:30	33		98	
12:45	38		138	
1:00	44	127	118	493
1:15	33		139	
1:30	22		112	
1:45	28		124	
2:00	44	127	146	554
2:15	42		136	
2:30	26		130	
2:45	15		142	
3:00	17	53	182	762
3:15	10		180	
3:30	10		184	
3:45	16		216	
4:00	14	45	196	911
4:15	10		270	
4:30	14		225	
4:45	7		220	
5:00	14	127	224	837
5:15	24		229	
5:30	47		234	
5:45	42		150	
6:00	48	259	146	446
6:15	56		128	
6:30	73		90	
6:45	82		82	
7:00	80	405	72	312
7:15	100		80	
7:30	102		80	
7:45	123		80	
8:00	114	445	68	296
8:15	115		81	
8:30	104		68	
8:45	112		79	
9:00	86	394	81	310
9:15	108		87	
9:30	104		74	
9:45	96		68	
10:00	93	344	94	349
10:15	81		96	
10:30	78		73	
10:45	92		86	
11:00	84	378	79	285
11:15	91		78	
11:30	97		78	
11:45	106		50	
Totals	2,848		6,010	
Peak Hour	7:45		4:15	
Volume	456		939	
Factor	0.93		0.87	
DayTotal	**8,858**			

GAI Consultants, Inc.
Pittsburgh Office
Homestead, Pa 15120-5005

Title1 : W. CARSON STREET
Title2 : WESTBOUND
Title3 : WEST OF COMMERCE

Site: WBCARSONST
Date: 12/03/05

Interval Day: Saturday

Begin	AM - WB		PM - WB	
12:00	49	238	84	332
12:15	63		88	
12:30	68		74	
12:45	58		86	
1:00	66	244	90	351
1:15	48		92	
1:30	64		85	
1:45	66		84	
2:00	87	256	68	319
2:15	94		72	
2:30	57		84	
2:45	18		95	
3:00	28	77	90	400
3:15	21		114	
3:30	18		100	
3:45	10		96	
4:00	9	42	106	376
4:15	12		102	
4:30	12		74	
4:45	9		94	
5:00	13	54	82	323
5:15	10		101	
5:30	15		70	
5:45	16		70	
6:00	14	75	91	336
6:15	11		78	
6:30	28		79	
6:45	22		88	
7:00	27	109	72	298
7:15	24		92	
7:30	30		72	
7:45	28		62	
8:00	36	148	64	276
8:15	35		62	
8:30	34		77	
8:45	43		73	
9:00	48	210	70	333
9:15	48		89	
9:30	54		78	
9:45	60		96	
10:00	62	245	96	433
10:15	52		120	
10:30	59		96	
10:45	72		121	
11:00	66	308	126	416
11:15	87		101	
11:30	71		107	
11:45	84		82	
Totals	2,006		4,193	
Peak Hour	1:30		10:15	
Volume	311		463	
Factor	0.83		0.92	
DayTotal	**6,199**			

GAI Consultants, Inc.
Pittsburgh Office
Homestead, Pa 15120-5005

Title1 : W. CARSON STREET
Title2 : WESTBOUND
Title3 : WEST OF COMMERCE

Site: WBCARSONST
Date: 12/04/05

Interval Day: Sunday

Begin	AM - WB		PM - WB	
12:00	70	300	0	0
12:15	88		0	
12:30	82		0	
12:45	60		0	
1:00	70	273	0	0
1:15	72		0	
1:30	65		0	
1:45	66		0	
2:00	86	334	0	0
2:15	118		0	
2:30	88		0	
2:45	42		0	
3:00	27	82	0	0
3:15	21		0	
3:30	18		0	
3:45	16		0	
4:00	14	49	0	0
4:15	20		0	
4:30	12		0	
4:45	3		0	
5:00	3	21	0	0
5:15	4		0	
5:30	7		0	
5:45	7		0	
6:00	15	23	0	0
6:15	8		0	
6:30	0		0	
6:45	0		0	
7:00	0	0	0	0
7:15	0		0	
7:30	0		0	
7:45	0		0	
8:00	0	0	0	0
8:15	0		0	
8:30	0		0	
8:45	0		0	
9:00	0	0	0	0
9:15	0		0	
9:30	0		0	
9:45	0		0	
10:00	0	0	0	0
10:15	0		0	
10:30	0		0	
10:45	0		0	
11:00	0	0	0	0
11:15	0		0	
11:30	0		0	
11:45	0		0	
Totals	1,082		0	
Peak Hour	1:45		*	
Volume	358		*	
Factor	0.76		*	
DayTotal	**1,082**			

GAI Consultants, Inc.

Pittsburgh Office

Homestead, Pa 15120-5005

Title1 : W. CARSON STREET — Site: WBCARSONST

Title2 : WESTBOUND — Date: 12/05/05

Title3 : WEST OF COMMERCE

Interval — Day: Monday

Begin	AM - WB		PM - WB	
12:00	0	0	0	0
12:15	0		0	
12:30	0		0	
12:45	0		0	
1:00	0	0	0	0
1:15	0		0	
1:30	0		0	
1:45	0		0	
2:00	0	0	0	0
2:15	0		0	
2:30	0		0	
2:45	0		0	
3:00	0	0	0	0
3:15	0		0	
3:30	0		0	
3:45	0		0	
4:00	0	0	0	0
4:15	0		0	
4:30	0		0	
4:45	0		0	
5:00	0	0	0	0
5:15	0		0	
5:30	0		0	
5:45	0		0	
6:00	0	0	0	0
6:15	0		0	
6:30	0		0	
6:45	0		0	
7:00	0	0	0	0
7:15	0		0	
7:30	0		0	
7:45	0		0	
8:00	0	0	0	0
8:15	0		0	
8:30	0		0	
8:45	0		0	
9:00	0	0	0	0
9:15	0		0	
9:30	0		0	
9:45	0		0	
10:00	0	0	0	0
10:15	0		0	
10:30	0		0	
10:45	0		0	
11:00	0	0	0	0
11:15	0		0	
11:30	0		0	
11:45	0		0	
Totals	0		0	
Peak Hour	*		*	
Volume	*		*	
Factor	*		*	
DayTotal	0			

GAI Consultants, Inc.

Pittsburgh Office

Homestead, Pa 15120-5005

Title1 : W. CARSON STREET — Site: WBCARSONST

Title2 : WESTBOUND — Date: 12/06/05

Title3 : WEST OF COMMERCE

Interval — Day: Tuesday

Begin	AM - WB		PM - WB	
12:00	0	0	0	0
12:15	0		0	
12:30	0		0	
12:45	0		0	
1:00	0	0	0	0
1:15	0		0	
1:30	0		0	
1:45	0		0	
2:00	0	0	0	0
2:15	0		0	
2:30	0		0	
2:45	0		0	
3:00	0	0	0	0
3:15	0		0	
3:30	0		0	
3:45	0		0	
4:00	0	0	0	0
4:15	0		0	
4:30	0		0	
4:45	0		0	
5:00	0	0	0	0
5:15	0		0	
5:30	0		0	
5:45	0		0	
6:00	0	0	0	0
6:15	0		0	
6:30	0		0	
6:45	0		0	
7:00	0	0	0	0
7:15	0		0	
7:30	0		0	
7:45	0		0	
8:00	0	0	0	0
8:15	0		0	
8:30	0		0	
8:45	0		0	
9:00	0	0	0	0
9:15	0		0	
9:30	0		0	
9:45	0		0	
10:00	0	0	0	0
10:15	0		0	
10:30	0		0	
10:45	0		0	
11:00	0	0	0	0
11:15	0		0	
11:30	0		0	
11:45	0		0	
Totals	0		0	
Peak Hour	*		*	
Volume	*		*	
Factor	*		*	
DayTotal	0			

GAI Consultants, Inc.

Pittsburgh Office

Homestead, Pa 15120-5005

Title1 : W. CARSON STREET — Site: WBCARSONST

Title2 : WESTBOUND — Date: 12/07/05

Title3 : WEST OF COMMERCE

Interval — Day: Wednesday

Begin	AM - WB		PM - WB	
12:00	0	0	0	0
12:15	0		0	
12:30	0		0	
12:45	0		0	
1:00	0	0	0	0
1:15	0		0	
1:30	0		0	
1:45	0		0	
2:00	0	0	0	0
2:15	0		0	
2:30	0		0	
2:45	0		0	
3:00	0	0	0	0
3:15	0		0	
3:30	0		0	
3:45	0		0	
4:00	0	0	0	0
4:15	0		0	
4:30	0		0	
4:45	0		0	
5:00	0	0	0	0
5:15	0		0	
5:30	0		0	
5:45	0		0	
6:00	0	0	0	0
6:15	0		0	
6:30	0		0	
6:45	0		0	
7:00	0	0	0	0
7:15	0		0	
7:30	0		0	
7:45	0		0	
8:00	0	0	0	0
8:15	0		0	
8:30	0		0	
8:45	0		0	
9:00	0	0	0	0
9:15	0		0	
9:30	0		0	
9:45	0		0	
10:00	0	0	0	0
10:15	0		0	
10:30	0		0	
10:45	0		0	
11:00	0	0	0	0
11:15	0		0	
11:30	0		0	
11:45	0		0	
Totals	0		0	
Peak Hour	*		*	
Volume	*		*	
Factor	*		*	
DayTotal	0			

GAI Consultants, Inc.

Pittsburgh Office

Homestead, Pa 15120-5005

Title1 : W. CARSON STREET — Site: WBCARSONST

Title2 : WESTBOUND — Date: 12/08/05

Title3 : WEST OF COMMERCE

Interval — Day: Thursday

Begin	AM - WB		PM - WB	
12:00	0	0	*	*
12:15	0		*	
12:30	0		*	
12:45	0		*	
1:00	0	0	*	*
1:15	0		*	
1:30	0		*	
1:45	0		*	
2:00	0	0	*	*
2:15	0		*	
2:30	0		*	
2:45	0		*	
3:00	0	0	*	*
3:15	0		*	
3:30	0		*	
3:45	0		*	
4:00	0	0	*	*
4:15	0		*	
4:30	0		*	
4:45	0		*	
5:00	0	0	*	*
5:15	0		*	
5:30	0		*	
5:45	0		*	
6:00	0	0	*	*
6:15	0		*	
6:30	0		*	
6:45	0		*	
7:00	0	0	*	*
7:15	0		*	
7:30	0		*	
7:45	0		*	
8:00	0	0	*	*
8:15	0		*	
8:30	0		*	
8:45	0		*	
9:00	0	0	*	*
9:15	0		*	
9:30	0		*	
9:45	0		*	
10:00	0	0	*	*
10:15	0		*	
10:30	0		*	
10:45	0		*	
11:00	*	*	*	*
11:15	*		*	
11:30	*		*	
11:45	*		*	
Totals	0		0	
Peak Hour	*		*	
Volume	*		*	
Factor	*		*	
DayTotal	0			

GAI Consultants, Inc.

Pittsburgh Office

Homestead, Pa 15120-5005

Title1 : W.CARSON STREET

Title2 : EASTBOUND

Title3 : WEST OF COMMERCE

Site: EBCARSON

Date: 12/01/05

Interval Day: Thursday

Begin	AM - EB		PM - EB	
12:00	*	*	*	*
12:15	*		*	
12:30	*		*	
12:45	*		*	
1:00	*	*	*	*
1:15	*		*	
1:30	*		*	
1:45	*		*	
2:00	*	*	*	*
2:15	*		90	
2:30	*		100	
2:45	*		74	
3:00	*	*	90	393
3:15	*		88	
3:30	*		101	
3:45	*		114	
4:00	*	*	130	465
4:15	*		107	
4:30	*		108	
4:45	*		120	
5:00	*	*	114	462
5:15	*		97	
5:30	*		131	
5:45	*		120	
6:00	*	*	96	356
6:15	*		101	
6:30	*		79	
6:45	*		80	
7:00	*	*	71	241
7:15	*		59	
7:30	*		57	
7:45	*		54	
8:00	*	*	51	175
8:15	*		41	
8:30	*		51	
8:45	*		32	
9:00	*	*	41	179
9:15	*		48	
9:30	*		44	
9:45	*		46	
10:00	*	*	52	166
10:15	*		32	
10:30	*		36	
10:45	*		46	
11:00	*	*	32	115
11:15	*		38	
11:30	*		24	
11:45	*		21	
Totals	0		2,816	
Peak Hour	*		4:00	
Volume	*		465	
Factor	*		0.89	
DayTotal	**2,816**			

GAI Consultants, Inc.

Pittsburgh Office

Homestead, Pa 15120-5005

Title1 : W.CARSON STREET — Site: EBCARSON

Title2 : EASTBOUND — Date: 12/02/05

Title3 : WEST OF COMMERCE

Interval — Day: Friday

Begin	AM - EB		PM - EB	
12:00	19	58	100	391
12:15	11		108	
12:30	16		94	
12:45	12		89	
1:00	10	33	101	371
1:15	10		84	
1:30	6		84	
1:45	7		102	
2:00	9	45	101	401
2:15	14		92	
2:30	6		100	
2:45	16		108	
3:00	8	36	94	395
3:15	10		100	
3:30	11		104	
3:45	7		97	
4:00	10	50	115	454
4:15	6		104	
4:30	18		118	
4:45	16		117	
5:00	15	113	120	475
5:15	24		122	
5:30	32		125	
5:45	42		108	
6:00	37	291	102	369
6:15	66		98	
6:30	86		96	
6:45	102		73	
7:00	106	526	122	403
7:15	147		98	
7:30	137		113	
7:45	136		70	
8:00	152	600	76	263
8:15	141		61	
8:30	140		70	
8:45	167		56	
9:00	128	422	58	232
9:15	100		46	
9:30	98		58	
9:45	96		70	
10:00	82	314	70	225
10:15	86		56	
10:30	68		55	
10:45	78		44	
11:00	76	363	51	196
11:15	102		60	
11:30	91		41	
11:45	94		44	
Totals	2,851		4,175	
Peak Hour	8:00		4:45	
Volume	600		484	
Factor	0.9		0.97	
DayTotal	**7,026**			

GAI Consultants, Inc.

Pittsburgh Office

Homestead, Pa 15120-5005

Title1 : W.CARSON STREET — Site: EBCARSON

Title2 : EASTBOUND — Date: 12/03/05

Title3 : WEST OF COMMERCE

Interval — Day: Saturday

Begin	AM - EB		PM - EB	
12:00	36	128	84	336
12:15	34		84	
12:30	30		92	
12:45	28		76	
1:00	17	88	71	279
1:15	28		73	
1:30	23		67	
1:45	20		68	
2:00	20	59	60	280
2:15	16		68	
2:30	16		72	
2:45	7		80	
3:00	4	29	74	312
3:15	4		88	
3:30	16		74	
3:45	5		76	
4:00	4	15	78	313
4:15	4		68	
4:30	3		75	
4:45	4		92	
5:00	8	40	85	389
5:15	8		96	
5:30	10		92	
5:45	14		116	
6:00	21	98	123	468
6:15	19		121	
6:30	24		126	
6:45	34		98	
7:00	26	109	119	352
7:15	28		95	
7:30	33		74	
7:45	22		64	
8:00	34	170	88	272
8:15	36		71	
8:30	48		56	
8:45	52		57	
9:00	42	205	87	319
9:15	57		78	
9:30	50		70	
9:45	56		84	
10:00	60	256	65	352
10:15	66		118	
10:30	66		89	
10:45	64		80	
11:00	66	297	66	203
11:15	82		57	
11:30	70		34	
11:45	79		46	
Totals	1,494		3,875	
Peak Hour	11:00		5:45	
Volume	297		486	
Factor	0.91		0.96	
DayTotal	5,369			

GAI Consultants, Inc.

Pittsburgh Office

Homestead, Pa 15120-5005

Title1 : W.CARSON STREET — Site: EBCARSON

Title2 : EASTBOUND — Date: 12/04/05

Title3 : WEST OF COMMERCE

Interval — Day: Sunday

Begin	AM - EB		PM - EB	
12:00	27	105	54	235
12:15	32		64	
12:30	22		69	
12:45	24		48	
1:00	21	85	58	204
1:15	18		54	
1:30	16		55	
1:45	30		37	
2:00	29	80	31	149
2:15	26		30	
2:30	12		44	
2:45	13		44	
3:00	6	24	39	195
3:15	8		48	
3:30	2		39	
3:45	8		69	
4:00	10	26	68	403
4:15	6		102	
4:30	5		134	
4:45	5		99	
5:00	3	16	160	542
5:15	5		176	
5:30	1		116	
5:45	7		90	
6:00	10	52	50	226
6:15	16		72	
6:30	15		54	
6:45	11		50	
7:00	15	63	31	133
7:15	14		33	
7:30	12		37	
7:45	22		32	
8:00	22	83	30	111
8:15	14		22	
8:30	23		24	
8:45	24		35	
9:00	18	136	29	115
9:15	30		32	
9:30	43		22	
9:45	45		32	
10:00	50	216	34	111
10:15	58		26	
10:30	62		31	
10:45	46		20	
11:00	56	271	16	76
11:15	81		21	
11:30	72		17	
11:45	62		22	
Totals	1,157		2,500	
Peak Hour	11:00		4:30	
Volume	271		569	
Factor	0.84		0.81	
DayTotal	3,657			

GAI Consultants, Inc.

Pittsburgh Office

Homestead, Pa 15120-5005

Title1 : W.CARSON STREET — Site: EBCARSON

Title2 : EASTBOUND — Date: 12/05/05

Title3 : WEST OF COMMERCE

Interval — Day: Monday

Begin	AM - EB		PM - EB	
12:00	9	40	80	343
12:15	15		99	
12:30	11		88	
12:45	5		76	
1:00	8	26	78	334
1:15	8		84	
1:30	6		86	
1:45	4		86	
2:00	9	29	68	331
2:15	4		86	
2:30	6		81	
2:45	10		96	
3:00	2	25	90	407
3:15	9		102	
3:30	10		94	
3:45	4		121	
4:00	3	32	103	412
4:15	3		102	
4:30	13		77	
4:45	13		130	
5:00	13	115	107	435
5:15	20		117	
5:30	24		102	
5:45	58		109	
6:00	54	312	55	245
6:15	68		58	
6:30	84		72	
6:45	106		60	
7:00	118	518	64	202
7:15	124		52	
7:30	138		43	
7:45	138		43	
8:00	141	553	30	118
8:15	148		30	
8:30	112		26	
8:45	152		32	
9:00	154	493	41	125
9:15	106		34	
9:30	134		28	
9:45	99		22	
10:00	88	352	24	98
10:15	100		22	
10:30	76		30	
10:45	88		22	
11:00	72	347	23	71
11:15	93		14	
11:30	94		20	
11:45	88		14	
Totals	2,842		3,121	
Peak Hour	8:15		4:45	
Volume	566		456	
Factor	0.92		0.88	
DayTotal	**5,963**			

GAI Consultants, Inc.
Pittsburgh Office
Homestead, Pa 15120-5005

Title1 : W.CARSON STREET
Title2 : EASTBOUND
Title3 : WEST OF COMMERCE

Site: EBCARSON
Date: 12/06/05

Interval Day: Tuesday

Begin	AM - EB		PM - EB	
12:00	10	42	82	356
12:15	12		94	
12:30	10		92	
12:45	10		88	
1:00	12	37	52	312
1:15	7		86	
1:30	8		87	
1:45	10		87	
2:00	6	35	87	366
2:15	8		80	
2:30	14		86	
2:45	7		113	
3:00	2	17	88	374
3:15	6		86	
3:30	3		100	
3:45	6		100	
4:00	6	40	104	413
4:15	6		104	
4:30	10		94	
4:45	18		111	
5:00	14	129	122	462
5:15	33		110	
5:30	34		112	
5:45	48		118	
6:00	44	298	105	364
6:15	76		102	
6:30	80		87	
6:45	98		70	
7:00	92	500	65	217
7:15	130		64	
7:30	146		44	
7:45	132		44	
8:00	141	590	26	137
8:15	163		34	
8:30	128		36	
8:45	158		41	
9:00	146	468	39	124
9:15	122		28	
9:30	128		31	
9:45	72		26	
10:00	78	332	38	133
10:15	76		39	
10:30	86		32	
10:45	92		24	
11:00	94	338	26	91
11:15	84		26	
11:30	84		25	
11:45	76		14	
Totals	2,826		3,349	
Peak Hour	8:15		5:00	
Volume	595		462	
Factor	0.91		0.95	
DayTotal	**6,175**			

GAI Consultants, Inc.

Pittsburgh Office

Homestead, Pa 15120-5005

Title1 : W.CARSON STREET — Site: EBCARSON

Title2 : EASTBOUND — Date: 12/07/05

Title3 : WEST OF COMMERCE

Interval — Day: Wednesday

Begin	AM - EB		PM - EB	
12:00	14	48	94	372
12:15	10		100	
12:30	16		106	
12:45	8		72	
1:00	3	28	82	346
1:15	6		79	
1:30	7		95	
1:45	12		90	
2:00	6	28	84	381
2:15	10		103	
2:30	8		86	
2:45	4		108	
3:00	2	20	100	398
3:15	6		96	
3:30	4		98	
3:45	8		104	
4:00	8	40	94	420
4:15	5		109	
4:30	13		101	
4:45	14		116	
5:00	6	100	120	448
5:15	20		114	
5:30	26		108	
5:45	48		106	
6:00	46	315	84	296
6:15	76		78	
6:30	89		64	
6:45	104		70	
7:00	104	517	75	260
7:15	140		74	
7:30	130		68	
7:45	143		43	
8:00	134	564	43	163
8:15	132		40	
8:30	152		41	
8:45	146		39	
9:00	131	501	43	151
9:15	150		35	
9:30	122		42	
9:45	98		31	
10:00	70	333	28	123
10:15	88		38	
10:30	79		28	
10:45	96		29	
11:00	100	361	32	98
11:15	87		22	
11:30	84		24	
11:45	90		20	
Totals	2,855		3,456	
Peak Hour	8:30		4:45	
Volume	579		458	
Factor	0.95		0.95	
DayTotal	**6,311**			

GAI Consultants, Inc.
Pittsburgh Office
Homestead, Pa 15120-5005

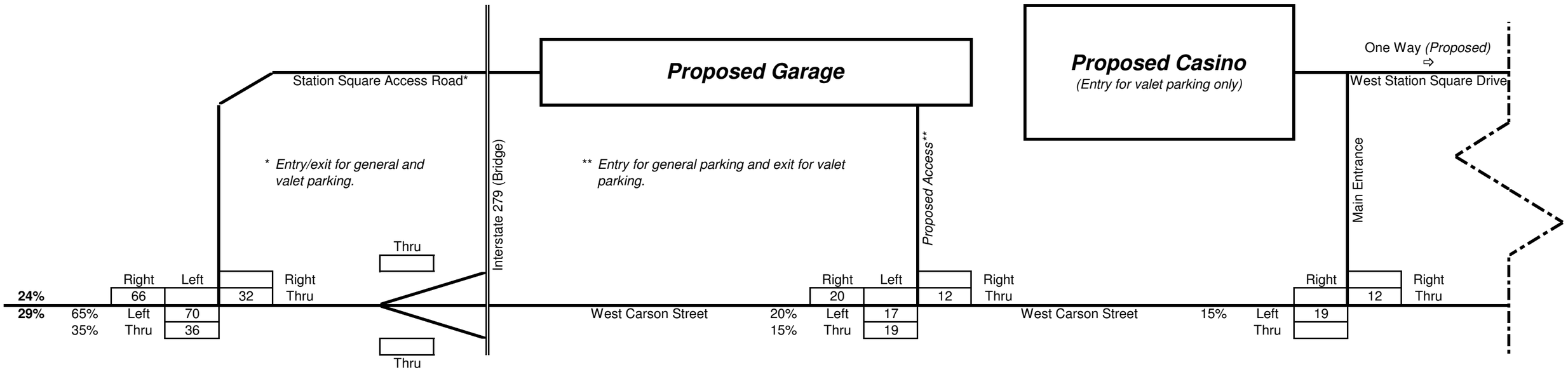
Title1 : W.CARSON STREET
Title2 : EASTBOUND
Title3 : WEST OF COMMERCE

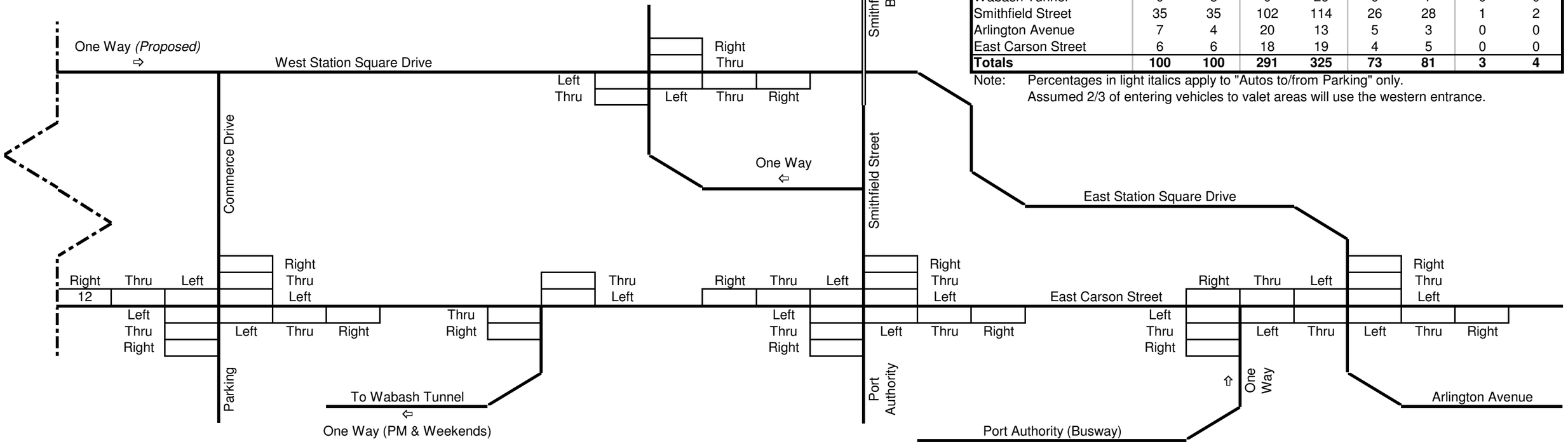
Site: EBCARSON
Date: 12/08/05

Interval Day: Thursday

Begin	AM - EB		PM - EB	
12:00	14	47	*	*
12:15	13		*	
12:30	10		*	
12:45	10		*	
1:00	4	27	*	*
1:15	5		*	
1:30	8		*	
1:45	10		*	
2:00	13	32	*	*
2:15	9		*	
2:30	6		*	
2:45	4		*	
3:00	8	28	*	*
3:15	5		*	
3:30	8		*	
3:45	7		*	
4:00	11	44	*	*
4:15	14		*	
4:30	15		*	
4:45	4		*	
5:00	14	105	*	*
5:15	22		*	
5:30	27		*	
5:45	42		*	
6:00	44	309	*	*
6:15	74		*	
6:30	83		*	
6:45	108		*	
7:00	88	496	*	*
7:15	142		*	
7:30	140		*	
7:45	126		*	
8:00	134	594	*	*
8:15	152		*	
8:30	146		*	
8:45	162		*	
9:00	146	473	*	*
9:15	126		*	
9:30	99		*	
9:45	102		*	
10:00	76	311	*	*
10:15	83		*	
10:30	72		*	
10:45	80		*	
11:00	*	*	*	*
11:15	*		*	
11:30	*		*	
11:45	*		*	
Totals	2,466		0	
Peak Hour	8:15		*	
Volume	606		*	
Factor	0.94		*	
DayTotal	**2,466**			

DESIGN WEEKDAY PM PEAK-HOUR TRIP DISTRIBUTION WORKSHEET - WEST CARSON STREET (NEW NON-EMPLOYEE TRIPS)

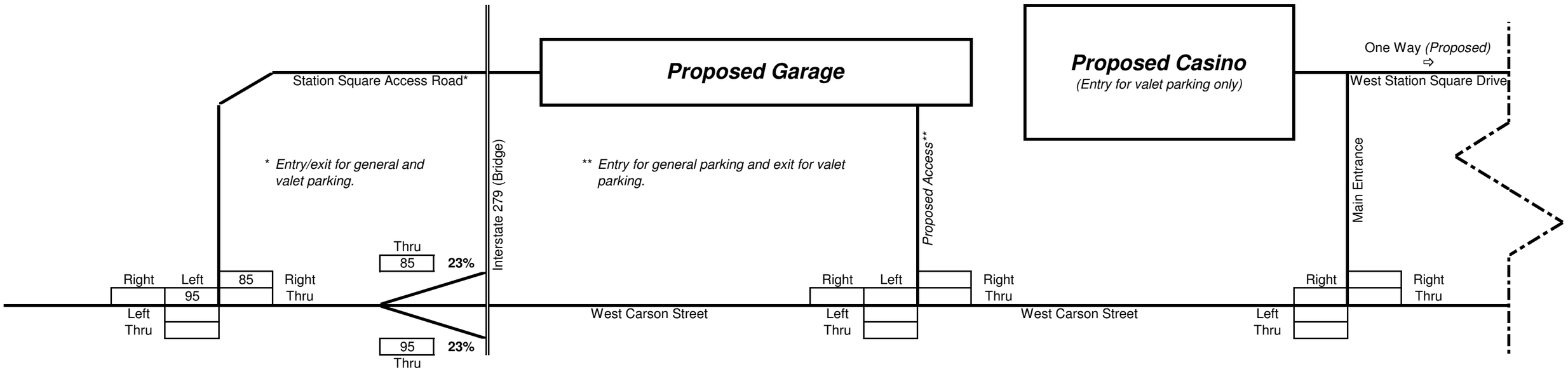




Distribution Route	Distribution Percents (Enter)	(Exit)	Autos to/from Parking (Enter)	(Exit)	Autos to/from Valet Area (Enter)	(Exit)	Tour Buses to/ from Valet Area (Enter)	(Exit)
West Carson Street	**29**	**24**	**84**	**78**	**21**	**19**	**1**	**1**
Interstate 279 Ramps	23	23	67	75	17	19	1	1
Wabash Tunnel	0	8	0	26	0	7	0	0
Smithfield Street	35	35	102	114	26	28	1	2
Arlington Avenue	7	4	20	13	5	3	0	0
East Carson Street	6	6	18	19	4	5	0	0
Totals	**100**	**100**	**291**	**325**	**73**	**81**	**3**	**4**

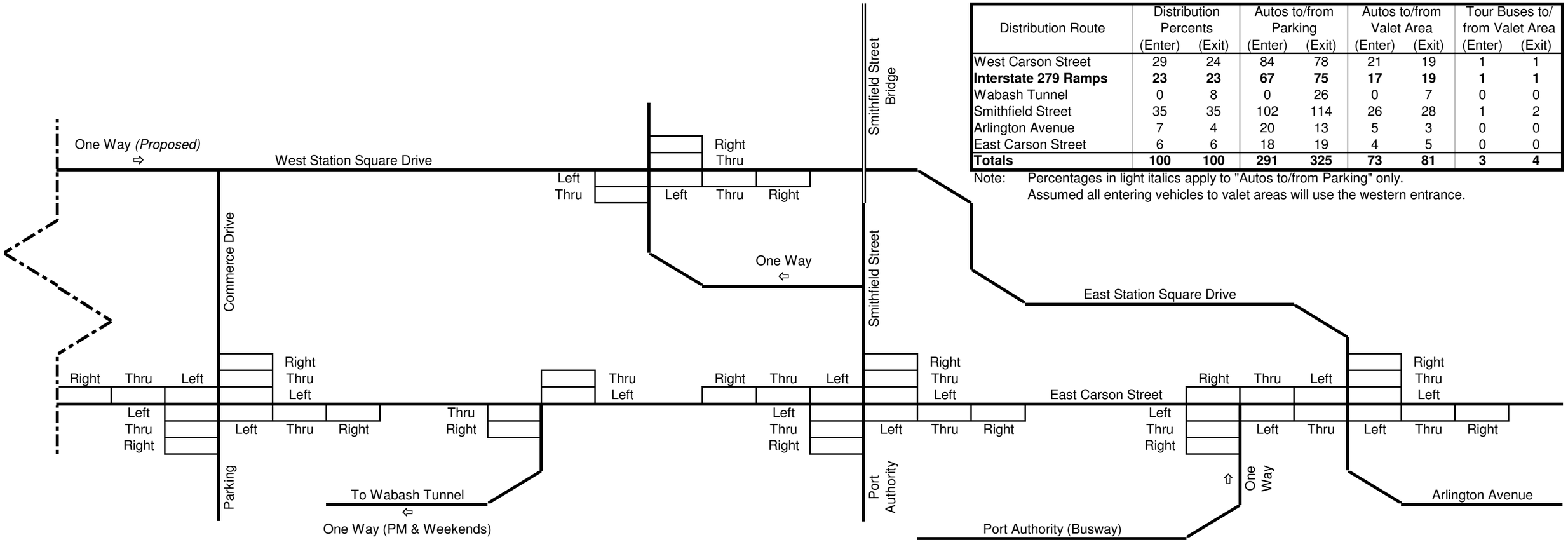
Note: Percentages in light italics apply to "Autos to/from Parking" only.
Assumed 2/3 of entering vehicles to valet areas will use the western entrance.

DESIGN WEEKDAY PM PEAK-HOUR TRIP DISTRIBUTION WORKSHEET - INTERSTATE 279 RAMPS (NEW NON-EMPLOYEE TRIPS)

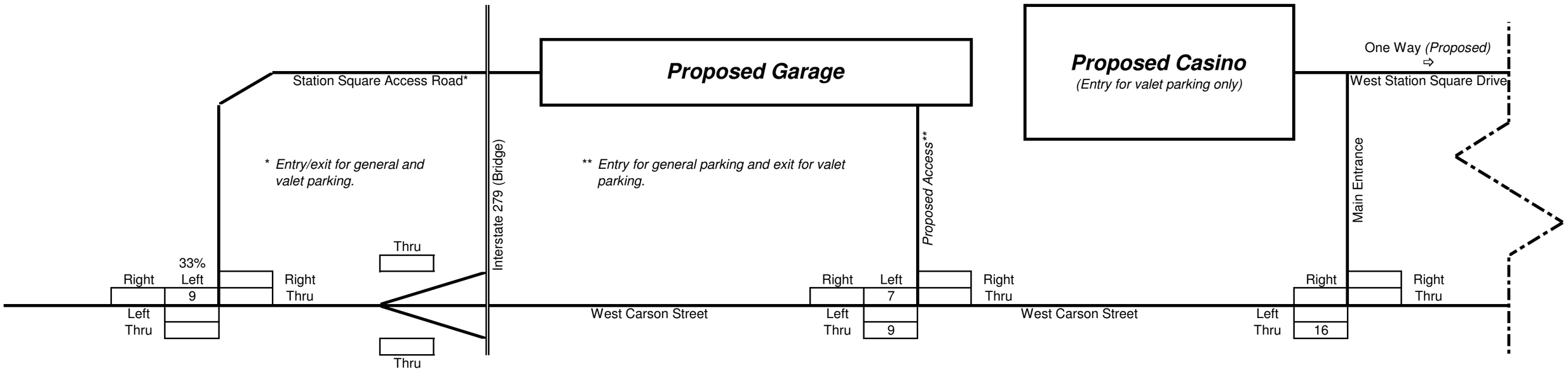


Distribution Route	Distribution Percents (Enter)	(Exit)	Autos to/from Parking (Enter)	(Exit)	Autos to/from Valet Area (Enter)	(Exit)	Tour Buses to/ from Valet Area (Enter)	(Exit)
West Carson Street	29	24	84	78	21	19	1	1
Interstate 279 Ramps	**23**	**23**	**67**	**75**	**17**	**19**	**1**	**1**
Wabash Tunnel	0	8	0	26	0	7	0	0
Smithfield Street	35	35	102	114	26	28	1	2
Arlington Avenue	7	4	20	13	5	3	0	0
East Carson Street	6	6	18	19	4	5	0	0
Totals	**100**	**100**	**291**	**325**	**73**	**81**	**3**	**4**

Note: Percentages in light italics apply to "Autos to/from Parking" only.
Assumed all entering vehicles to valet areas will use the western entrance.



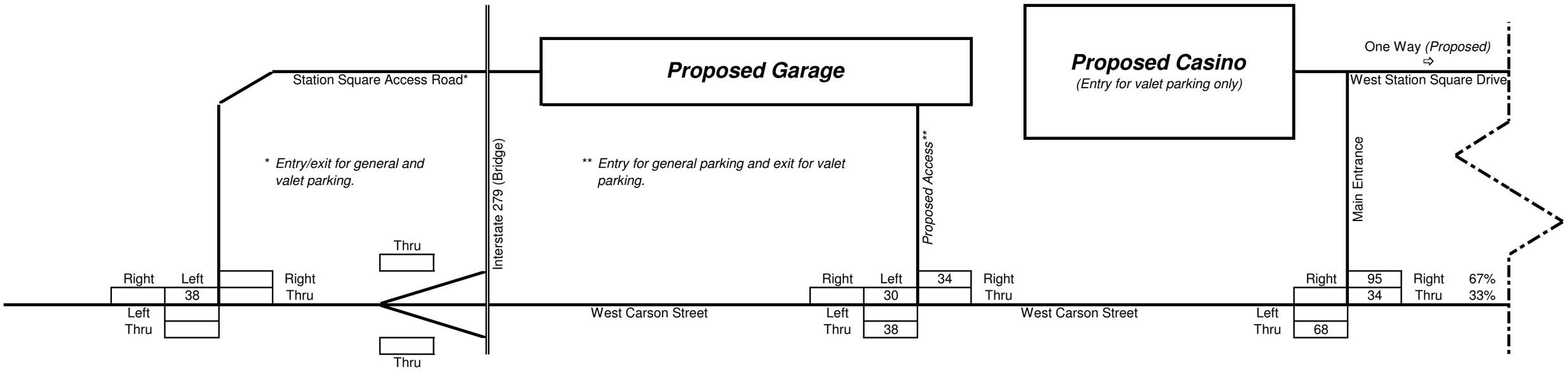
DESIGN WEEKDAY PM PEAK-HOUR TRIP DISTRIBUTION WORKSHEET - WABASH TUNNEL (NEW NON-EMPLOYEE TRIPS)

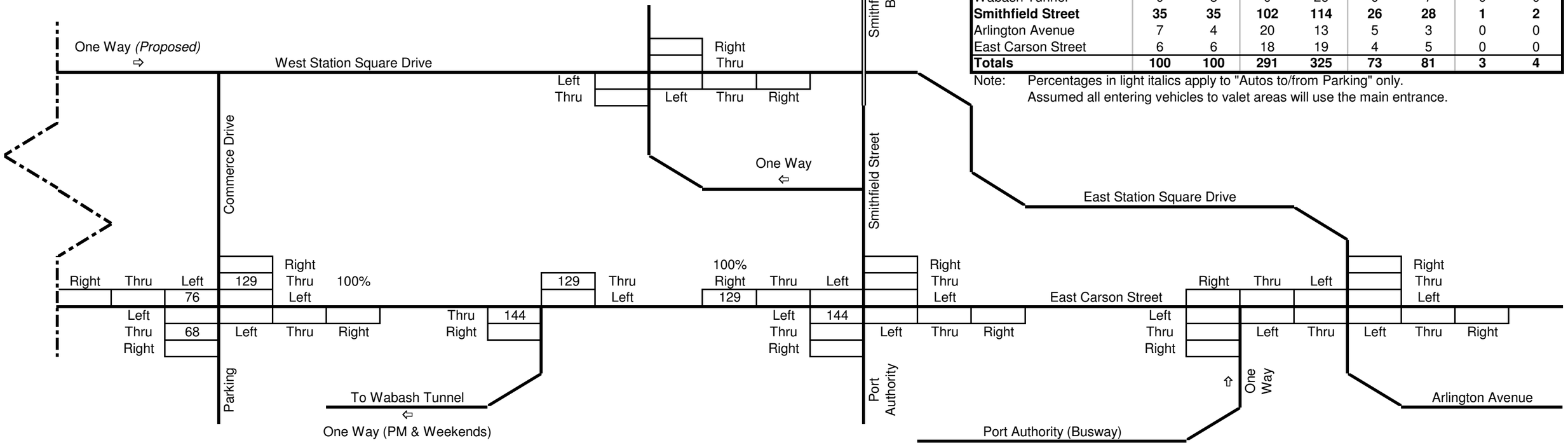


Distribution Route	Distribution Percents (Enter)	(Exit)	Autos to/from Parking (Enter)	(Exit)	Autos to/from Valet Area (Enter)	(Exit)	Tour Buses to/ from Valet Area (Enter)	(Exit)
West Carson Street	29	24	84	78	21	19	1	1
Interstate 279 Ramps	23	23	67	75	17	19	1	1
Wabash Tunnel	**0**	**8**	**0**	**26**	**0**	**7**	**0**	**0**
Smithfield Street	35	35	102	114	26	28	1	2
Arlington Avenue	7	4	20	13	5	3	0	0
East Carson Street	6	6	18	19	4	5	0	0
Totals	**100**	**100**	**291**	**325**	**73**	**81**	**3**	**4**

Note: Percentages in light italics apply to "Autos to/from Parking" only.

DESIGN WEEKDAY PM PEAK-HOUR TRIP DISTRIBUTION WORKSHEET - SMITHFIELD STREET (NEW NON-EMPLOYEE TRIPS)

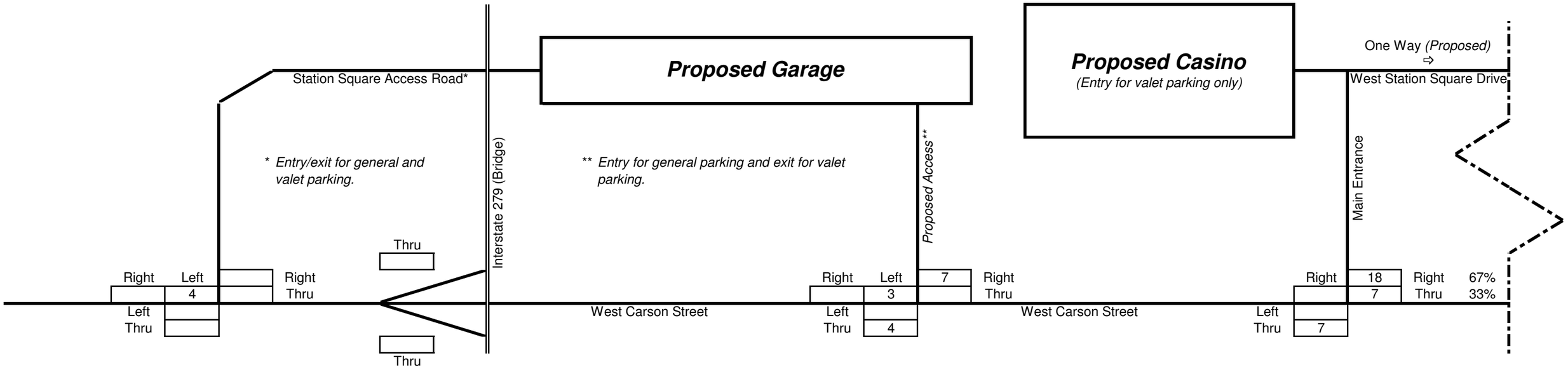


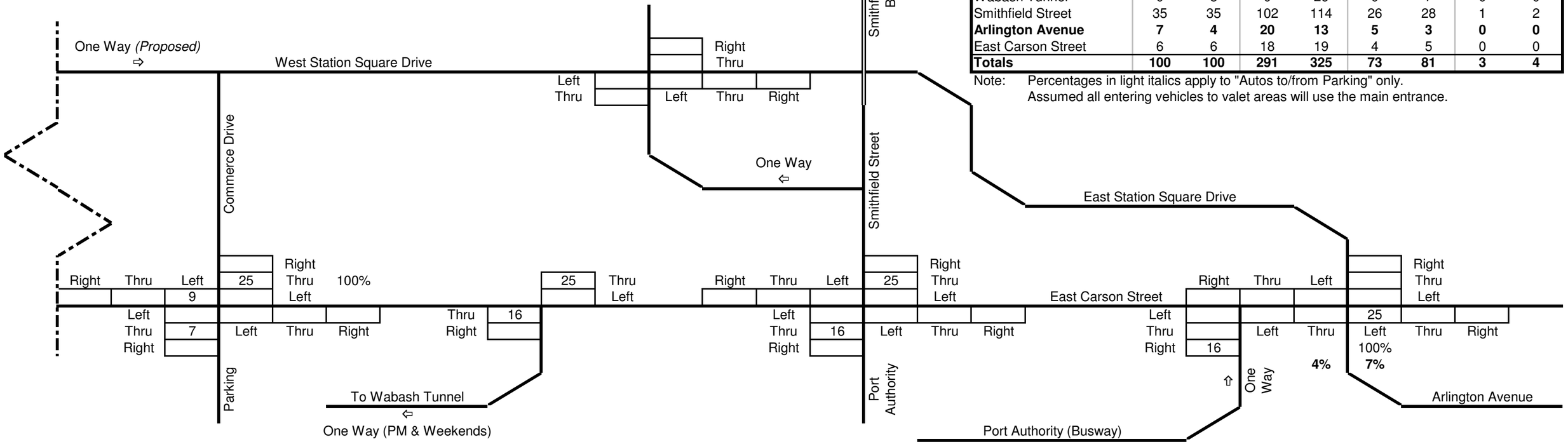


Distribution Route	Distribution Percents (Enter)	(Exit)	Autos to/from Parking (Enter)	(Exit)	Autos to/from Valet Area (Enter)	(Exit)	Tour Buses to/ from Valet Area (Enter)	(Exit)
West Carson Street	29	24	84	78	21	19	1	1
Interstate 279 Ramps	23	23	67	75	17	19	1	1
Wabash Tunnel	0	8	0	26	0	7	0	0
Smithfield Street	**35**	**35**	**102**	**114**	**26**	**28**	**1**	**2**
Arlington Avenue	7	4	20	13	5	3	0	0
East Carson Street	6	6	18	19	4	5	0	0
Totals	**100**	**100**	**291**	**325**	**73**	**81**	**3**	**4**

Note: Percentages in light italics apply to "Autos to/from Parking" only.
Assumed all entering vehicles to valet areas will use the main entrance.

DESIGN WEEKDAY PM PEAK-HOUR TRIP DISTRIBUTION WORKSHEET - ARLINGTON AVENUE (NEW NON-EMPLOYEE TRIPS)

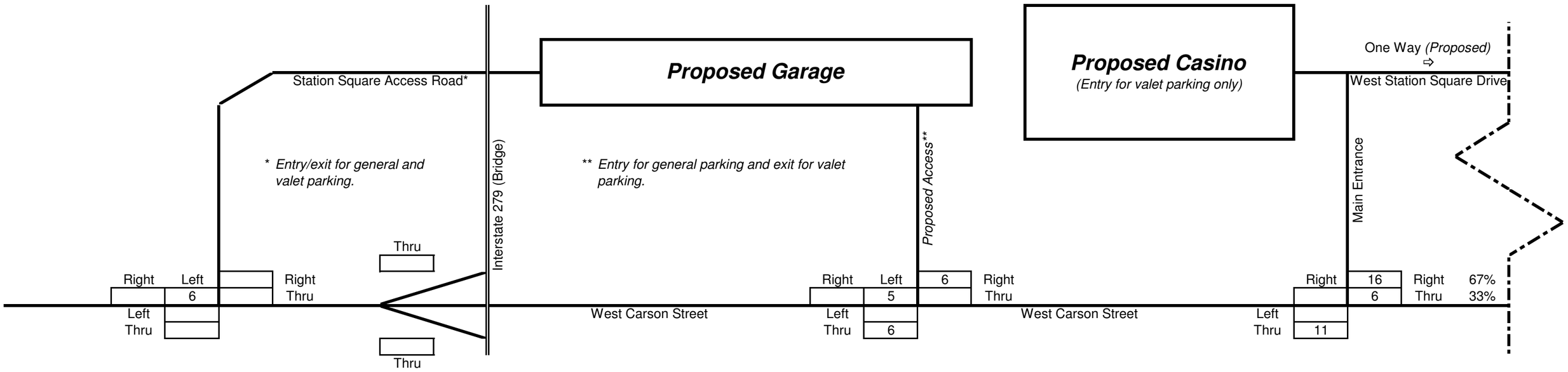




Distribution Route	Distribution Percents (Enter)	(Exit)	Autos to/from Parking (Enter)	(Exit)	Autos to/from Valet Area (Enter)	(Exit)	Tour Buses to/ from Valet Area (Enter)	(Exit)
West Carson Street	29	24	84	78	21	19	1	1
Interstate 279 Ramps	23	23	67	75	17	19	1	1
Wabash Tunnel	0	8	0	26	0	7	0	0
Smithfield Street	35	35	102	114	26	28	1	2
Arlington Avenue	**7**	**4**	**20**	**13**	**5**	**3**	**0**	**0**
East Carson Street	6	6	18	19	4	5	0	0
Totals	**100**	**100**	**291**	**325**	**73**	**81**	**3**	**4**

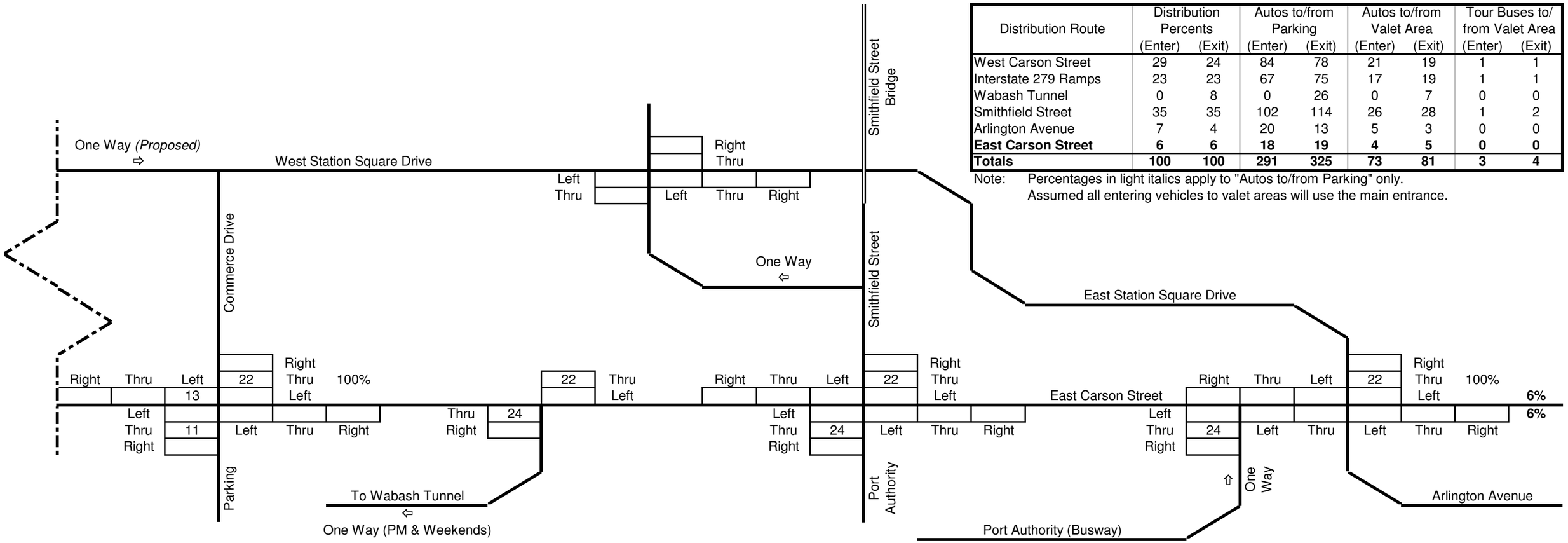
Note: Percentages in light italics apply to "Autos to/from Parking" only.
Assumed all entering vehicles to valet areas will use the main entrance.

DESIGN WEEKDAY PM PEAK-HOUR TRIP DISTRIBUTION WORKSHEET - EAST CARSON STREET (NEW NON-EMPLOYEE TRIPS)

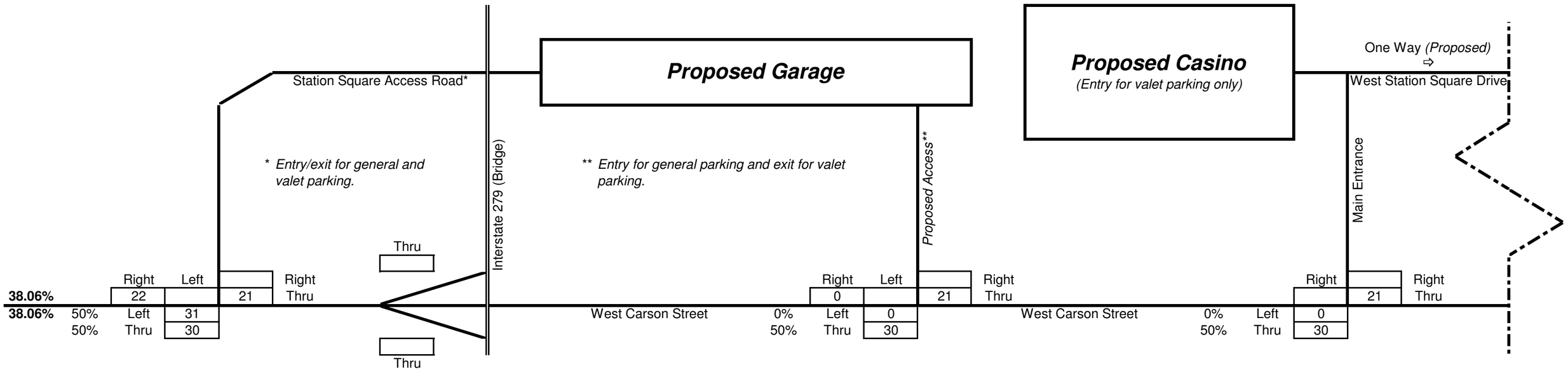


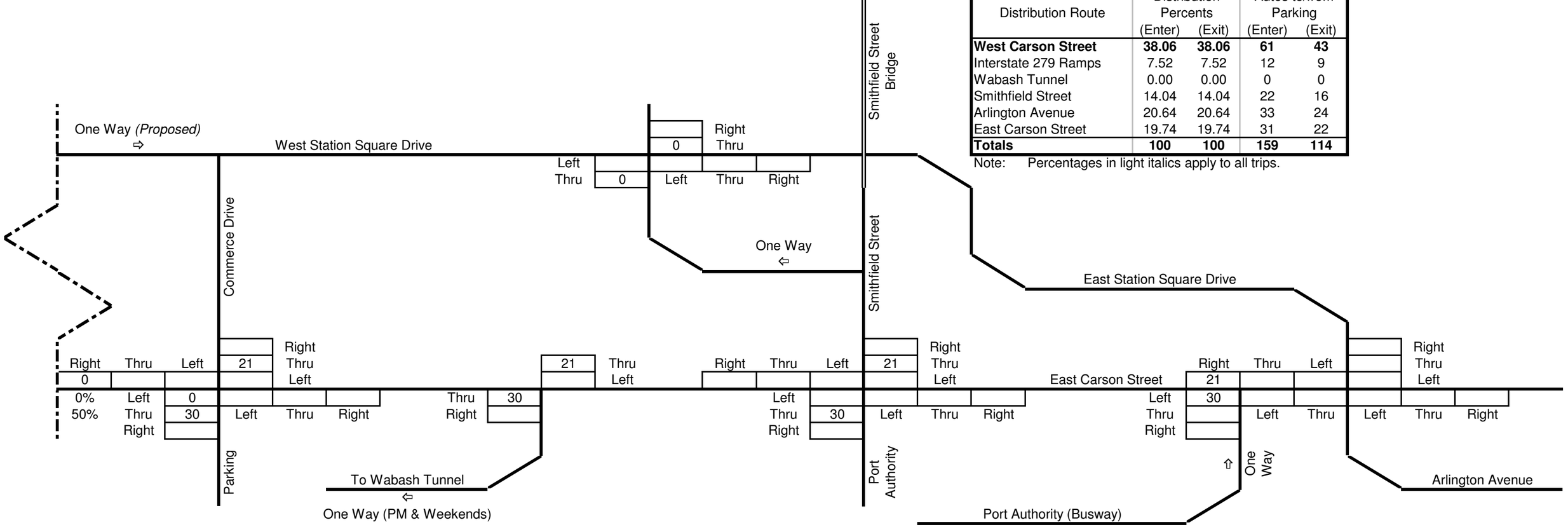
Distribution Route	Distribution Percents (Enter)	(Exit)	Autos to/from Parking (Enter)	(Exit)	Autos to/from Valet Area (Enter)	(Exit)	Tour Buses to/ from Valet Area (Enter)	(Exit)
West Carson Street	29	24	84	78	21	19	1	1
Interstate 279 Ramps	23	23	67	75	17	19	1	1
Wabash Tunnel	0	8	0	26	0	7	0	0
Smithfield Street	35	35	102	114	26	28	1	2
Arlington Avenue	7	4	20	13	5	3	0	0
East Carson Street	**6**	**6**	**18**	**19**	**4**	**5**	**0**	**0**
Totals	**100**	**100**	**291**	**325**	**73**	**81**	**3**	**4**

Note: Percentages in light italics apply to "Autos to/from Parking" only.
Assumed all entering vehicles to valet areas will use the main entrance.



DESIGN WEEKDAY PM PEAK-HOUR TRIP DISTRIBUTION WORKSHEET - WEST CARSON STREET (NEW EMPLOYEE TRIPS)

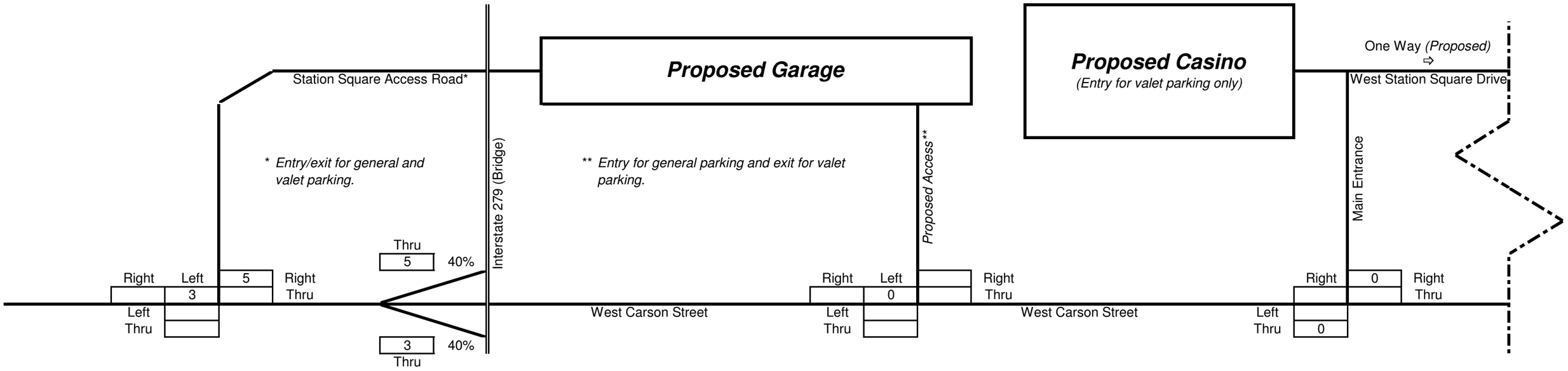




Distribution Route	Distribution Percents (Enter)	(Exit)	Autos to/from Parking (Enter)	(Exit)
West Carson Street	**38.06**	**38.06**	**61**	**43**
Interstate 279 Ramps	7.52	7.52	12	9
Wabash Tunnel	0.00	0.00	0	0
Smithfield Street	14.04	14.04	22	16
Arlington Avenue	20.64	20.64	33	24
East Carson Street	19.74	19.74	31	22
Totals	**100**	**100**	**159**	**114**

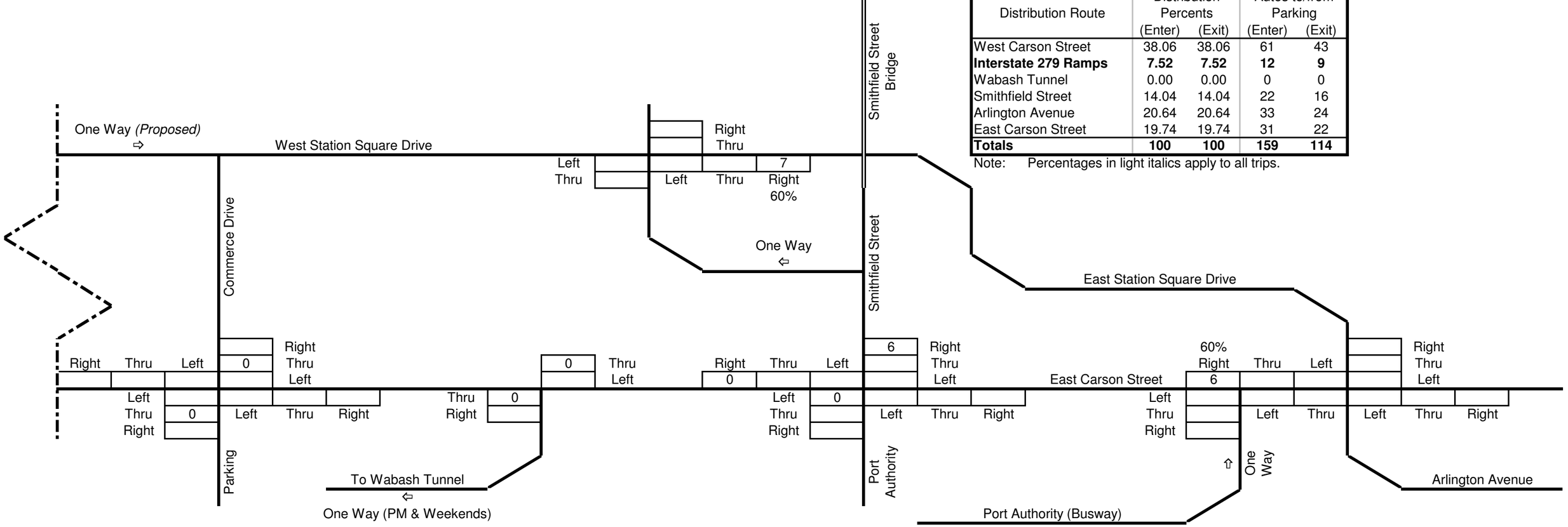
Note: Percentages in light italics apply to all trips.

DESIGN WEEKDAY PM PEAK-HOUR TRIP DISTRIBUTION WORKSHEET - INTERSTATE 279 RAMPS (NEW EMPLOYEE TRIPS)

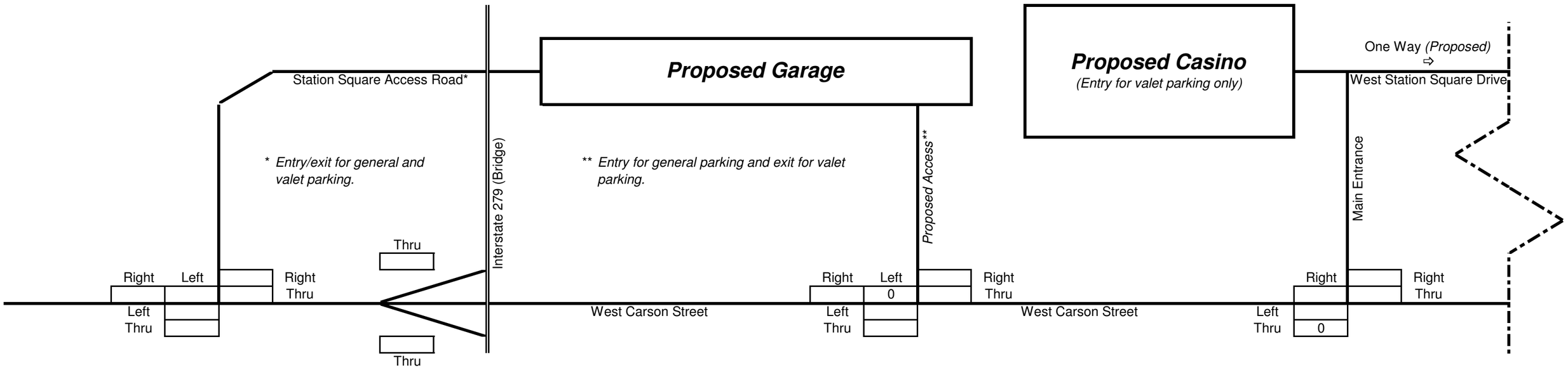


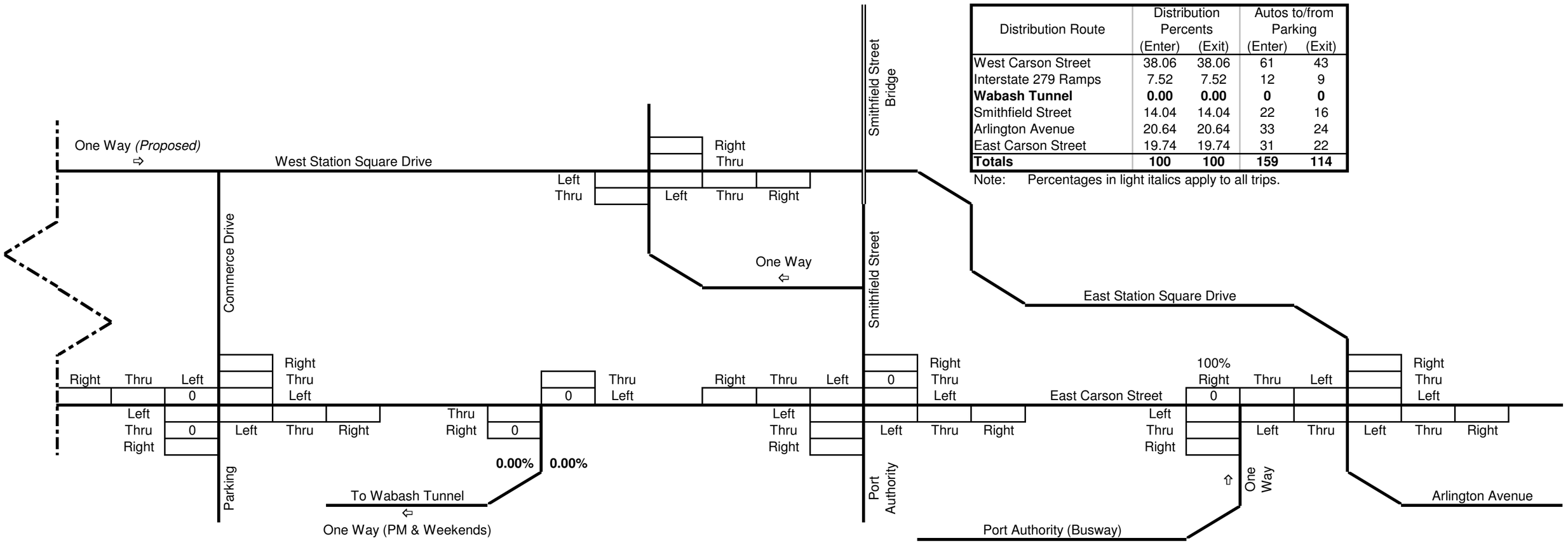
Distribution Route	Distribution Percents (Enter)	(Exit)	Autos to/from Parking (Enter)	(Exit)
West Carson Street	38.06	38.06	61	43
Interstate 279 Ramps	**7.52**	**7.52**	**12**	**9**
Wabash Tunnel	0.00	0.00	0	0
Smithfield Street	14.04	14.04	22	16
Arlington Avenue	20.64	20.64	33	24
East Carson Street	19.74	19.74	31	22
Totals	**100**	**100**	**159**	**114**

Note: Percentages in light italics apply to all trips.



DESIGN WEEKDAY PM PEAK-HOUR TRIP DISTRIBUTION WORKSHEET - WABASH TUNNEL (NEW EMPLOYEE TRIPS)

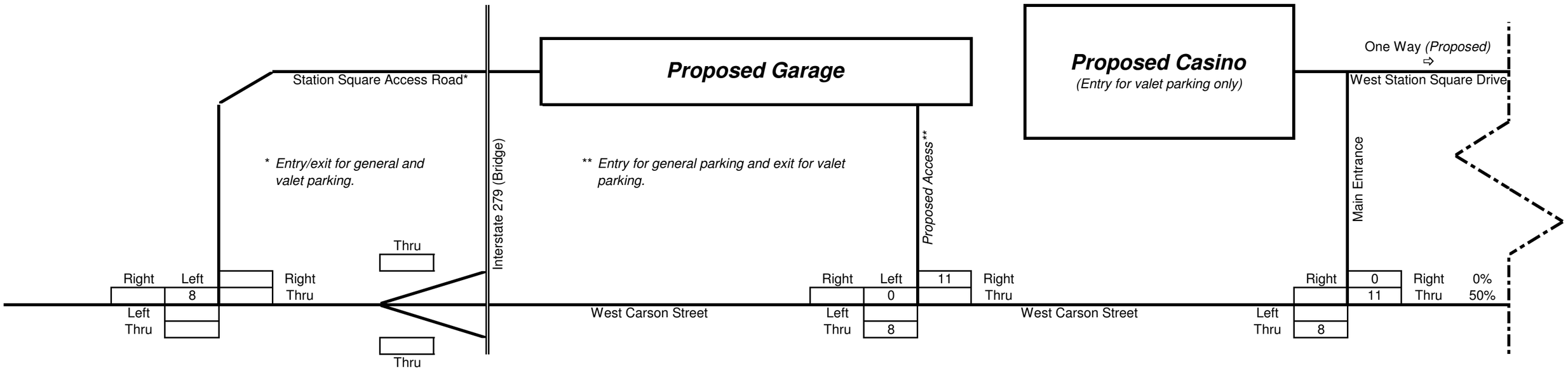


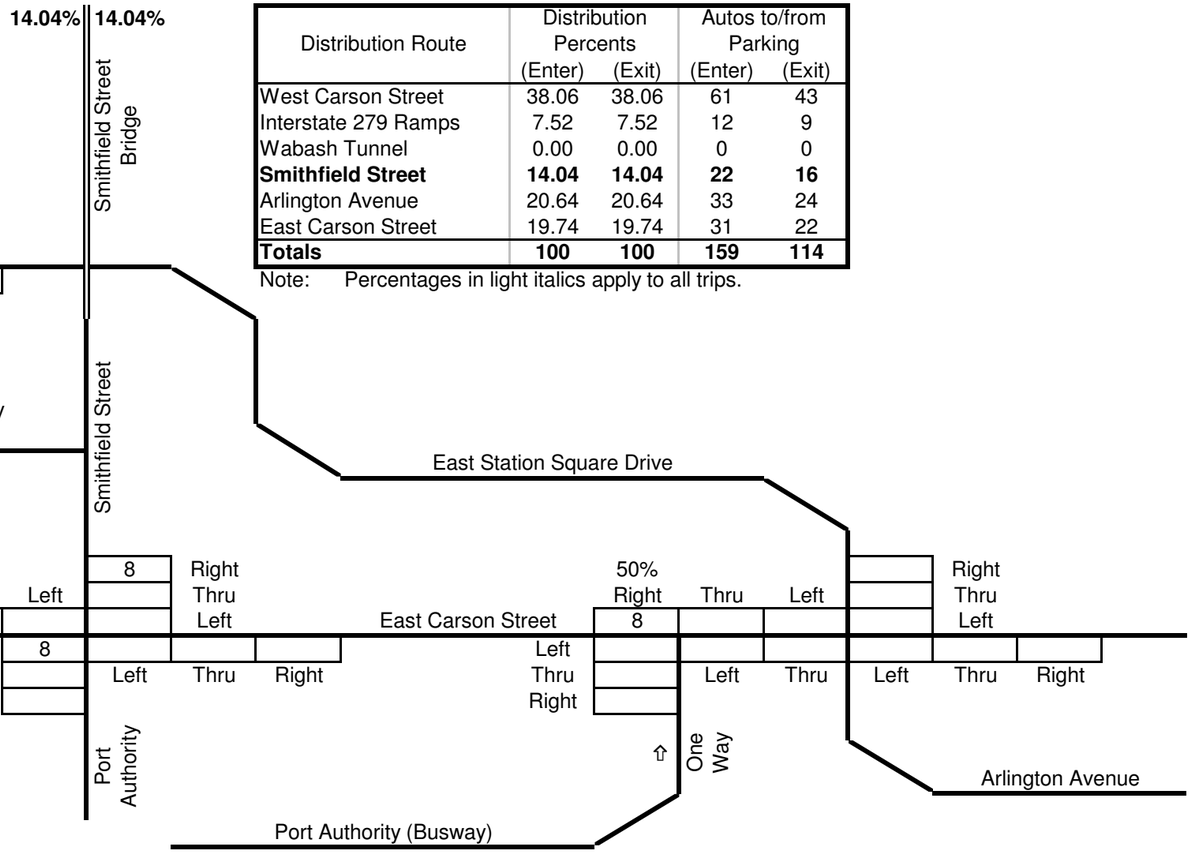


Distribution Route	Distribution Percents (Enter)	(Exit)	Autos to/from Parking (Enter)	(Exit)
West Carson Street	38.06	38.06	61	43
Interstate 279 Ramps	7.52	7.52	12	9
Wabash Tunnel	**0.00**	**0.00**	**0**	**0**
Smithfield Street	14.04	14.04	22	16
Arlington Avenue	20.64	20.64	33	24
East Carson Street	19.74	19.74	31	22
Totals	**100**	**100**	**159**	**114**

Note: Percentages in light italics apply to all trips.

DESIGN WEEKDAY PM PEAK-HOUR TRIP DISTRIBUTION WORKSHEET - SMITHFIELD STREET (NEW EMPLOYEE TRIPS)

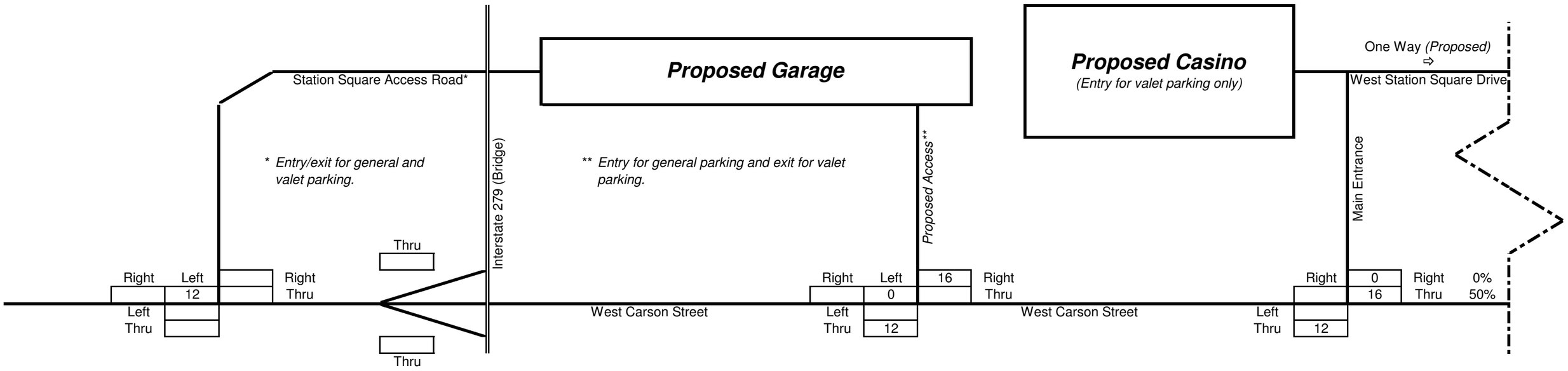




Distribution Route	Distribution Percents (Enter)	(Exit)	Autos to/from Parking (Enter)	(Exit)
West Carson Street	38.06	38.06	61	43
Interstate 279 Ramps	7.52	7.52	12	9
Wabash Tunnel	0.00	0.00	0	0
Smithfield Street	**14.04**	**14.04**	**22**	**16**
Arlington Avenue	20.64	20.64	33	24
East Carson Street	19.74	19.74	31	22
Totals	**100**	**100**	**159**	**114**

Note: Percentages in light italics apply to all trips.

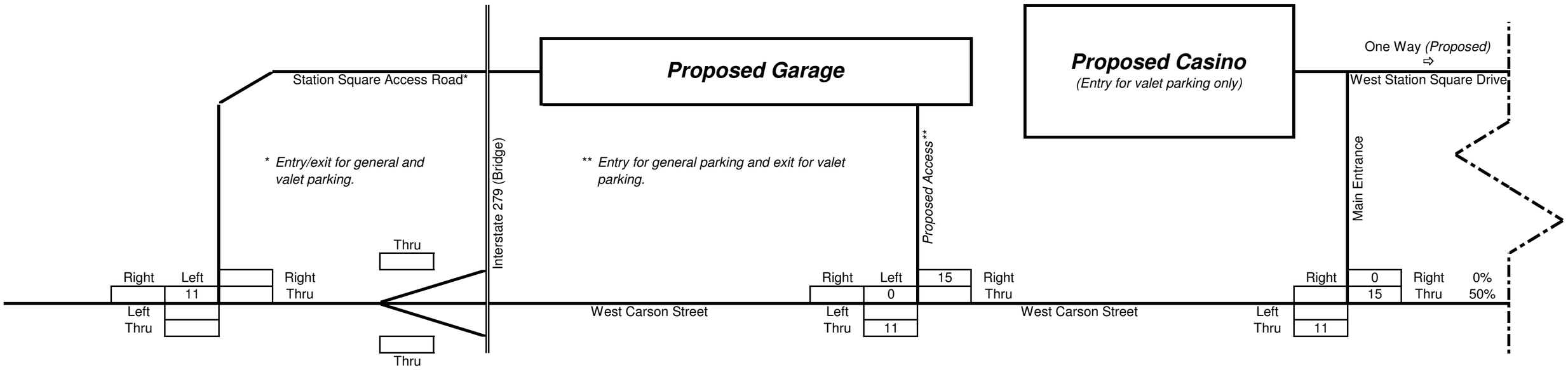
DESIGN WEEKDAY PM PEAK-HOUR TRIP DISTRIBUTION WORKSHEET - ARLINGTON AVENUE (NEW EMPLOYEE TRIPS)



Distribution Route	Distribution Percents (Enter)	(Exit)	Autos to/from Parking (Enter)	(Exit)
West Carson Street	38.06	38.06	61	43
Interstate 279 Ramps	7.52	7.52	12	9
Wabash Tunnel	0.00	0.00	0	0
Smithfield Street	14.04	14.04	22	16
Arlington Avenue	**20.64**	**20.64**	**33**	**24**
East Carson Street	19.74	19.74	31	22
Totals	**100**	**100**	**159**	**114**

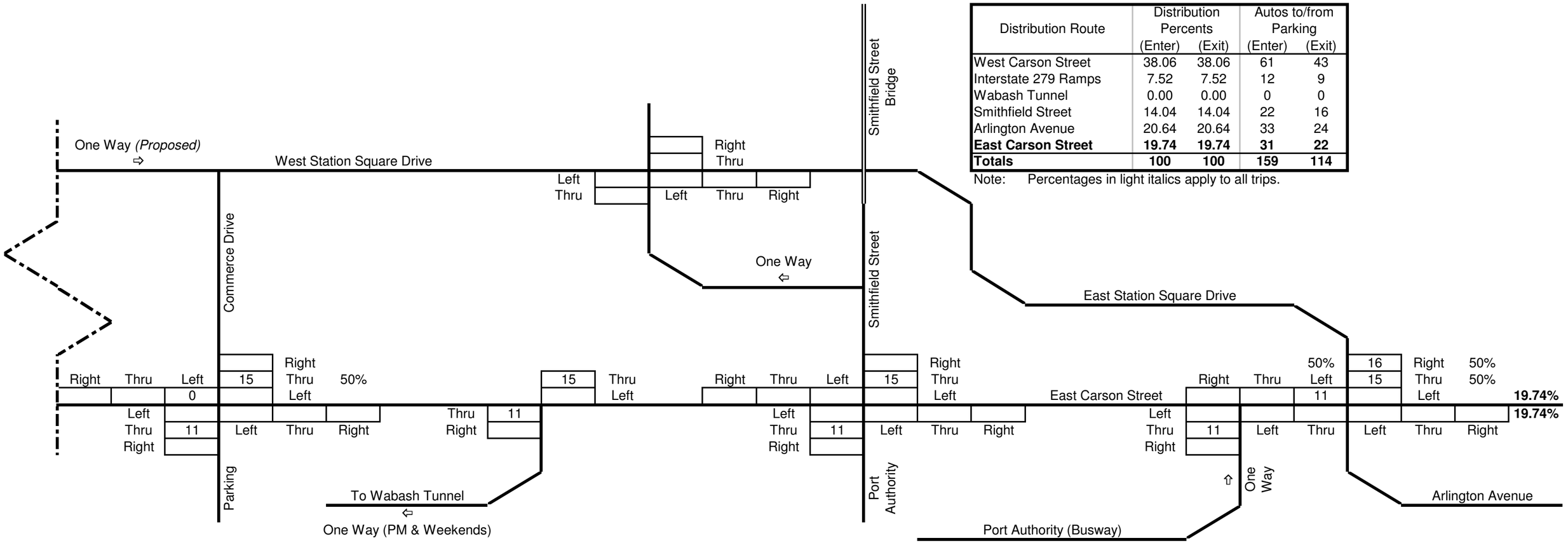
Note: Percentages in light italics apply to all trips.

DESIGN WEEKDAY PM PEAK-HOUR TRIP DISTRIBUTION WORKSHEET - EAST CARSON STREET (NEW EMPLOYEE TRIPS)

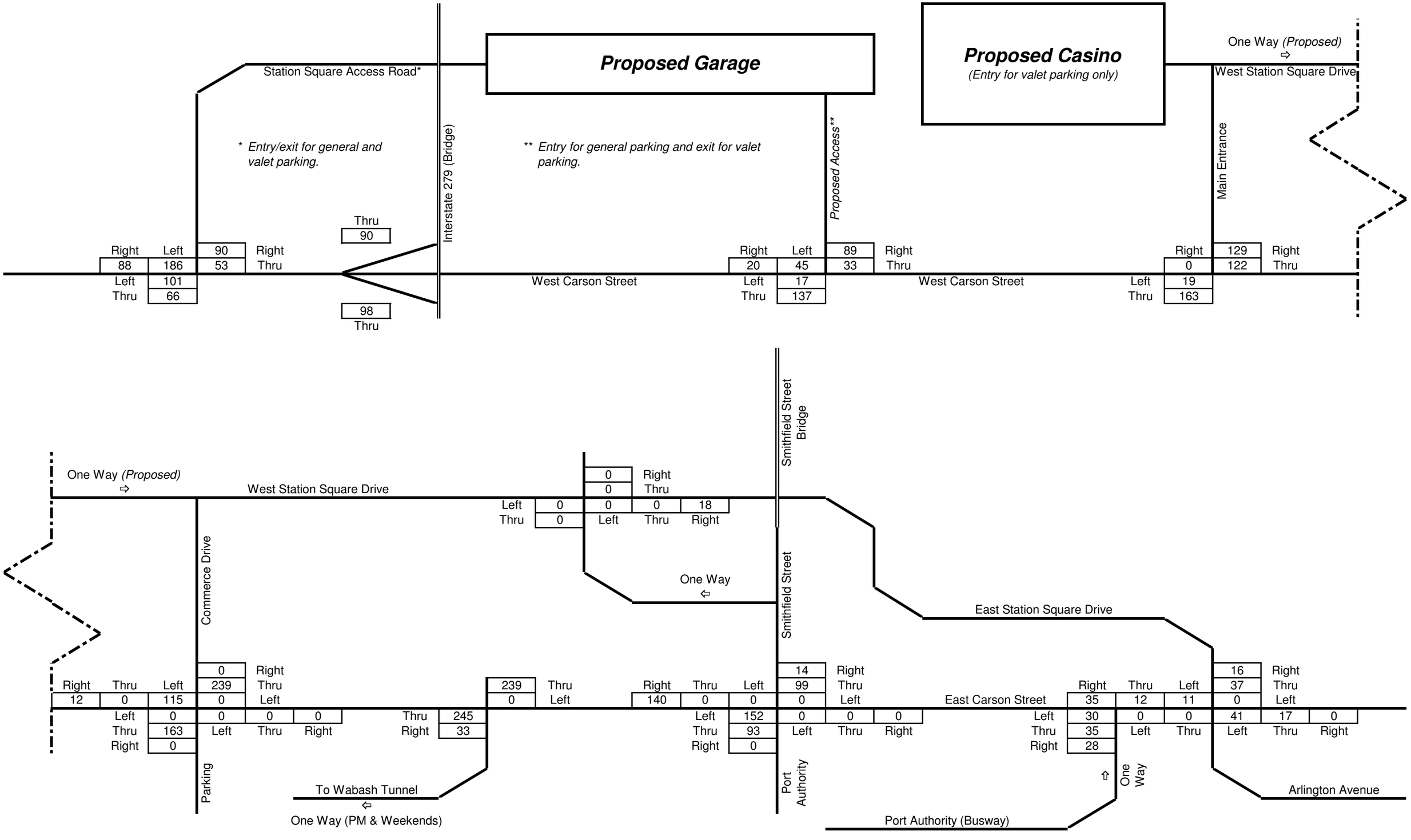


Distribution Route	Distribution Percents (Enter)	(Exit)	Autos to/from Parking (Enter)	(Exit)
West Carson Street	38.06	38.06	61	43
Interstate 279 Ramps	7.52	7.52	12	9
Wabash Tunnel	0.00	0.00	0	0
Smithfield Street	14.04	14.04	22	16
Arlington Avenue	20.64	20.64	33	24
East Carson Street	**19.74**	**19.74**	**31**	**22**
Totals	**100**	**100**	**159**	**114**

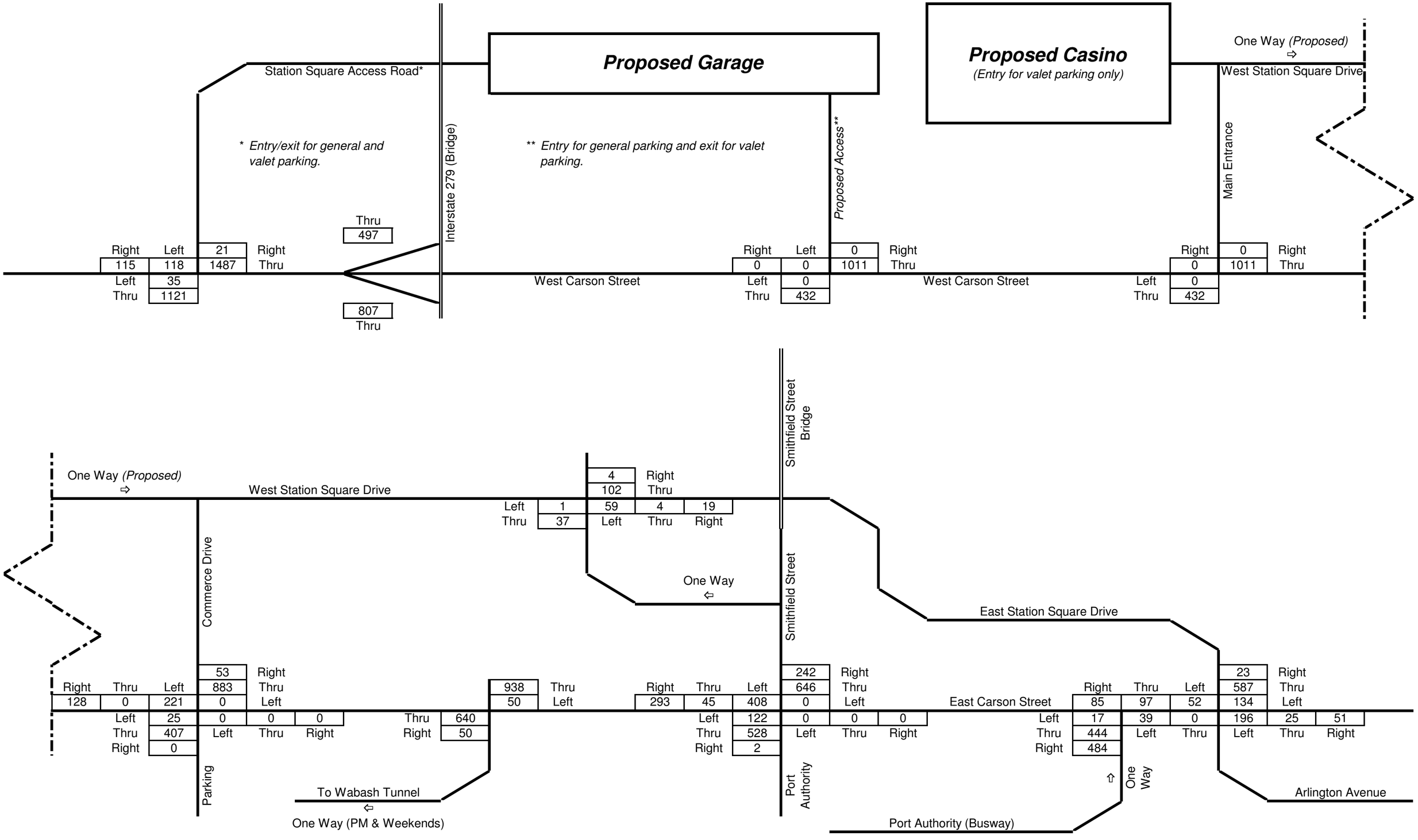
Note: Percentages in light italics apply to all trips.



DESIGN WEEKDAY PM PEAK-HOUR TRIP DISTRIBUTION WORKSHEET - TOTAL NEW TRIPS

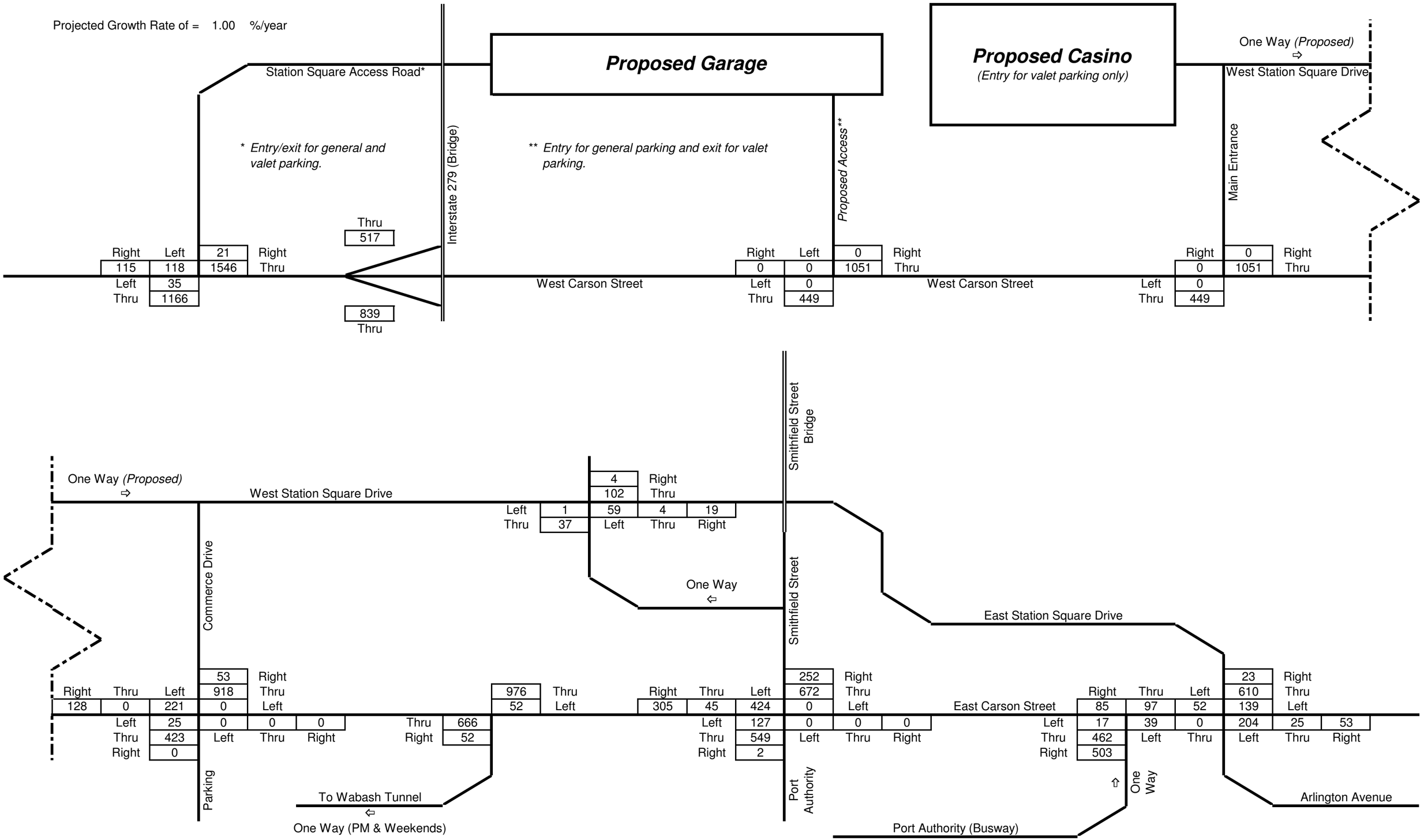


DESIGN WEEKDAY PM PEAK-HOUR TRIP DISTRIBUTION WORKSHEET - EXISTING 2004 TRAFFIC VOLUMES

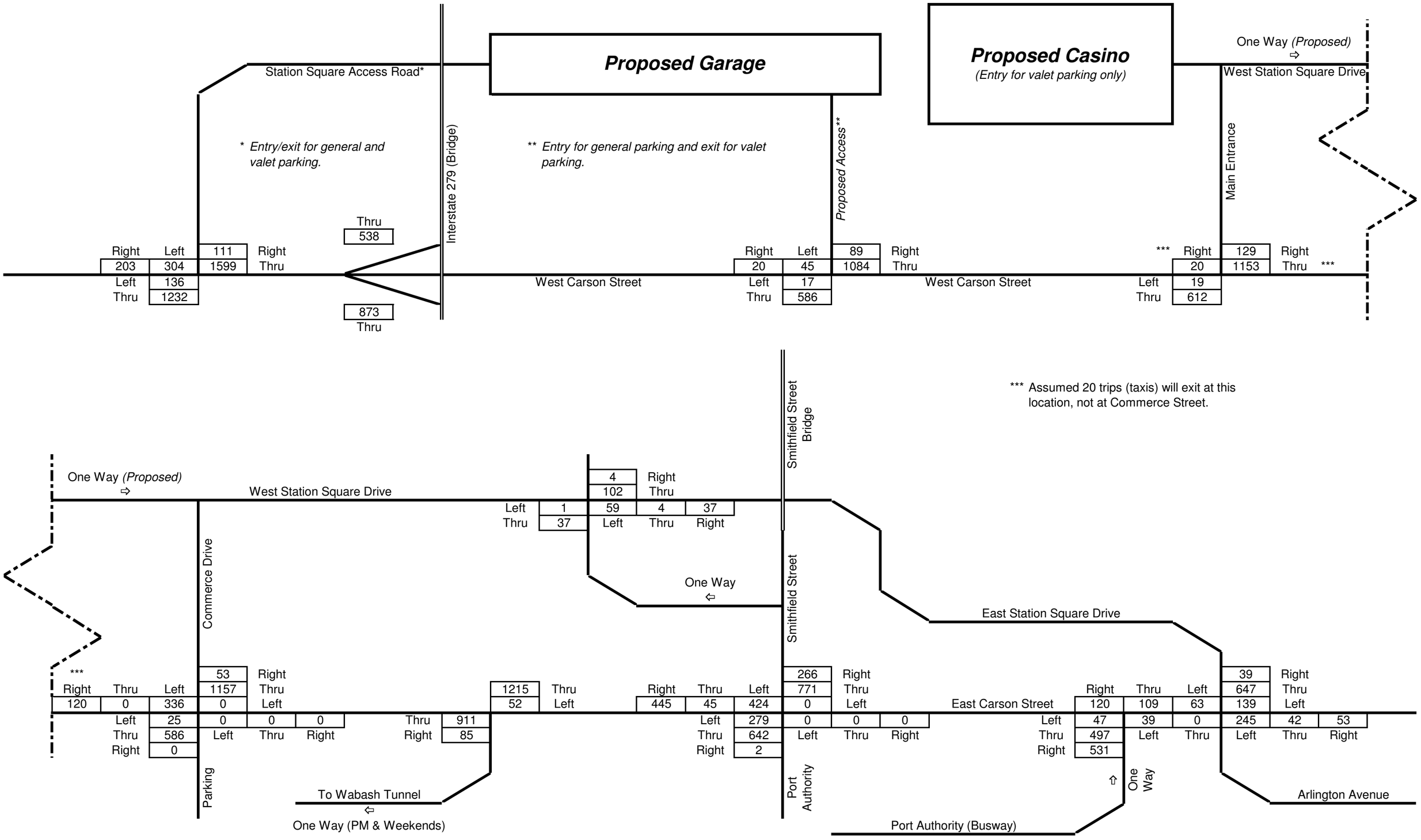


DESIGN WEEKDAY PM PEAK-HOUR TRIP DISTRIBUTION WORKSHEET - PROJECTED 2008 BASE TRAFFIC VOLUMES

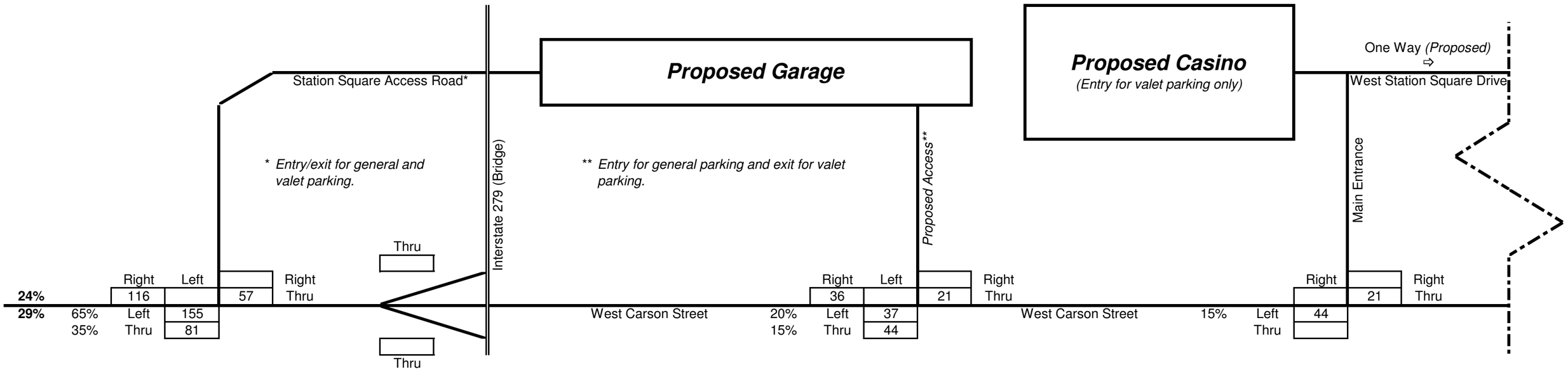
Projected Growth Rate of = 1.00 %/year

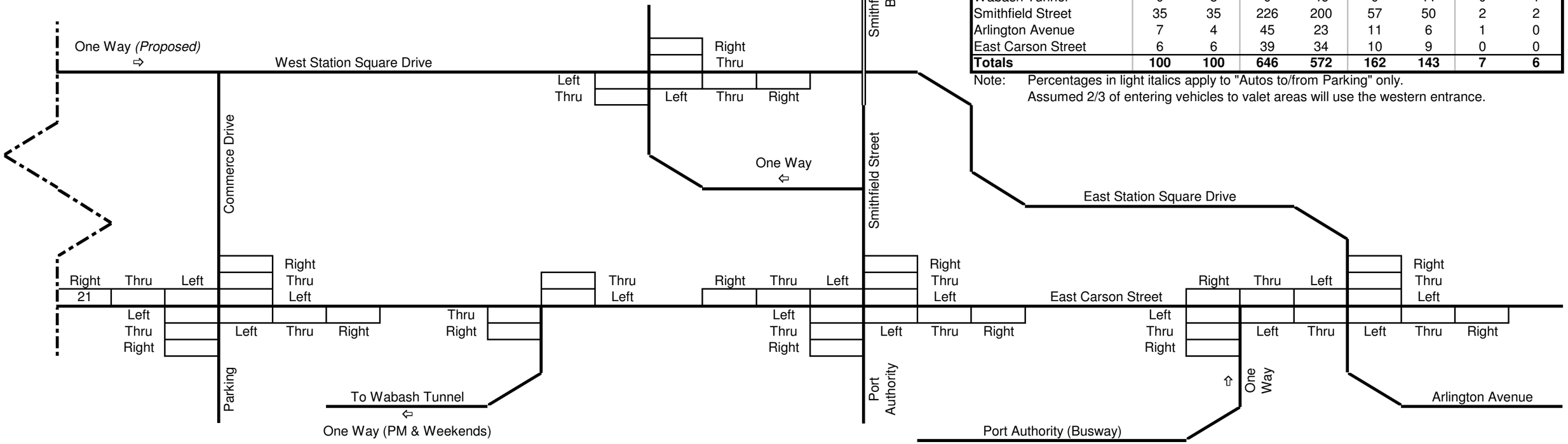


DESIGN WEEKDAY PM PEAK-HOUR TRIP DISTRIBUTION WORKSHEET - PROJECTED 2008 TRAFFIC VOLUMES WITH NEW DEVELOPMENT TRIPS



DESIGN SATURDAY GAMING PEAK-HOUR (6-7 PM) TRIP DISTRIBUTION WORKSHEET - WEST CARSON STREET (NEW NON-EMPLOYEE TRIPS)

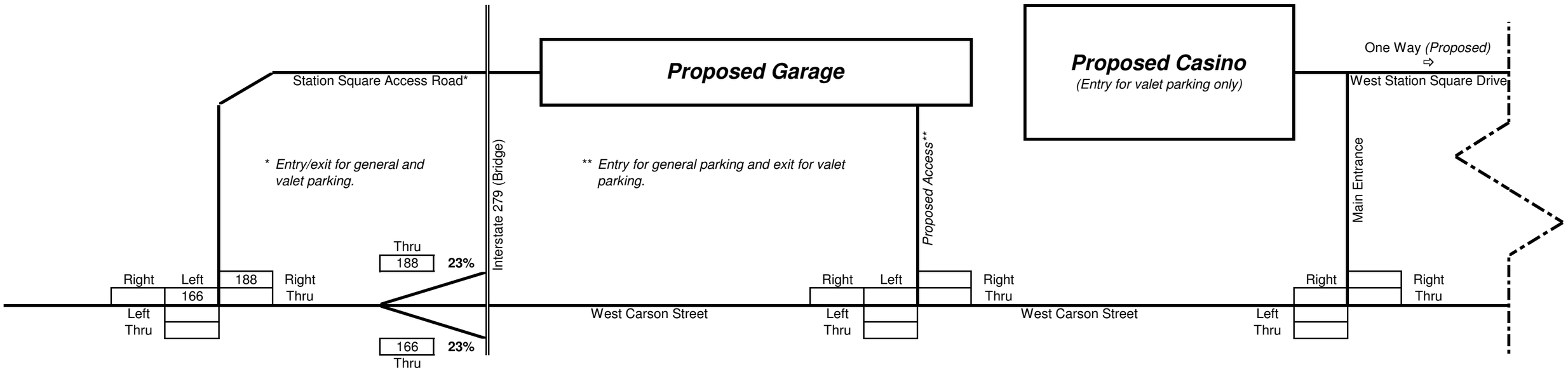


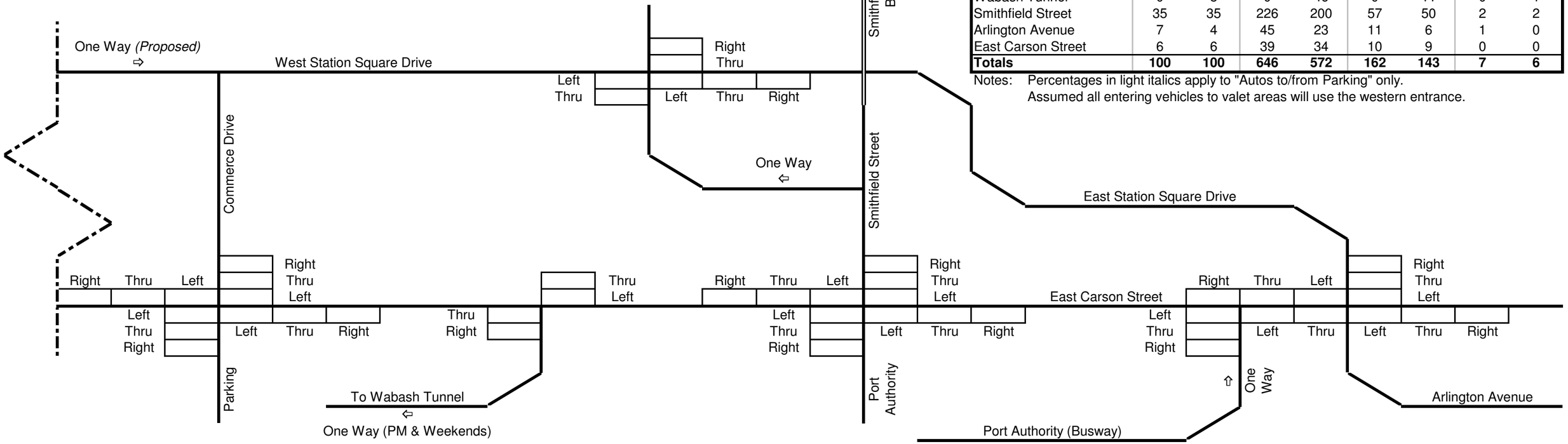


Distribution Route	Distribution Percents (Enter)	(Exit)	Autos to/from Parking (Enter)	(Exit)	Autos to/from Valet Area (Enter)	(Exit)	Tour Buses to/ from Valet Area (Enter)	(Exit)
West Carson Street	**29**	**24**	**187**	**137**	**47**	**34**	**2**	**2**
Interstate 279 Ramps	23	23	149	132	37	33	2	1
Wabash Tunnel	0	8	0	46	0	11	0	1
Smithfield Street	35	35	226	200	57	50	2	2
Arlington Avenue	7	4	45	23	11	6	1	0
East Carson Street	6	6	39	34	10	9	0	0
Totals	**100**	**100**	**646**	**572**	**162**	**143**	**7**	**6**

Note: Percentages in light italics apply to "Autos to/from Parking" only.
Assumed 2/3 of entering vehicles to valet areas will use the western entrance.

DESIGN SATURDAY GAMING PEAK-HOUR (6-7 PM) TRIP DISTRIBUTION WORKSHEET - INTERSTATE 279 RAMPS (NEW NON-EMPLOYEE TRIPS)

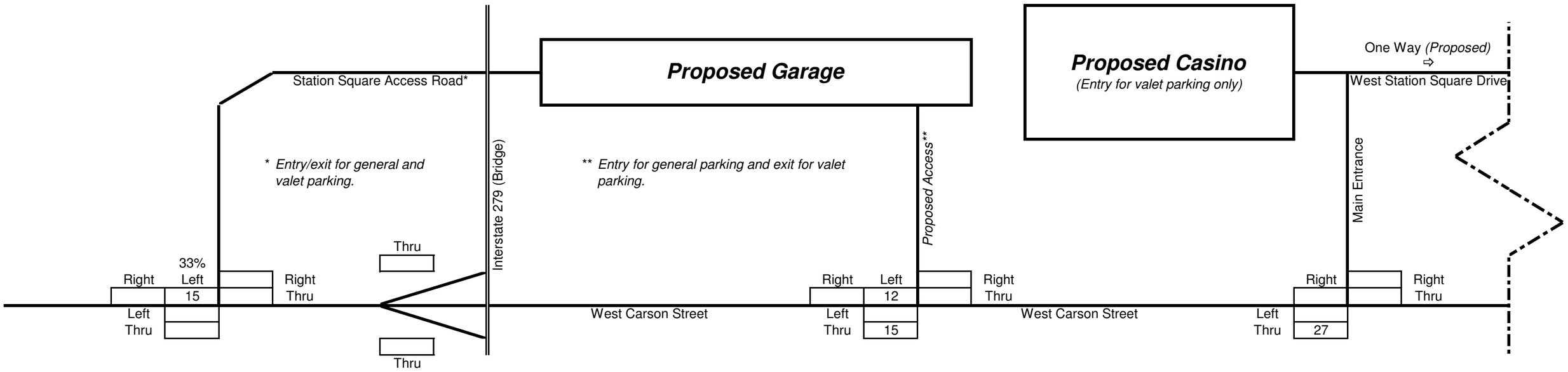




Distribution Route	Distribution Percents (Enter)	(Exit)	Autos to/from Parking (Enter)	(Exit)	Autos to/from Valet Area (Enter)	(Exit)	Tour Buses to/ from Valet Area (Enter)	(Exit)
West Carson Street	29	24	187	137	47	34	2	2
Interstate 279 Ramps	**23**	**23**	**149**	**132**	**37**	**33**	**2**	**1**
Wabash Tunnel	0	8	0	46	0	11	0	1
Smithfield Street	35	35	226	200	57	50	2	2
Arlington Avenue	7	4	45	23	11	6	1	0
East Carson Street	6	6	39	34	10	9	0	0
Totals	**100**	**100**	**646**	**572**	**162**	**143**	**7**	**6**

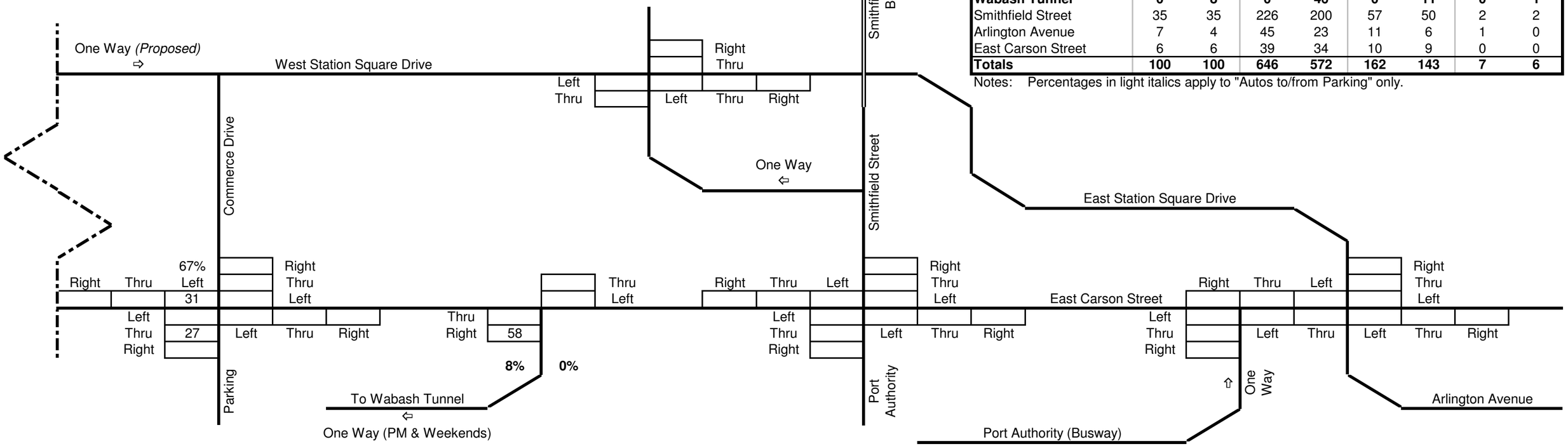
Notes: Percentages in light italics apply to "Autos to/from Parking" only.
Assumed all entering vehicles to valet areas will use the western entrance.

DESIGN SATURDAY GAMING PEAK-HOUR (6-7 PM) TRIP DISTRIBUTION WORKSHEET - WABASH TUNNEL (NEW NON-EMPLOYEE TRIPS)

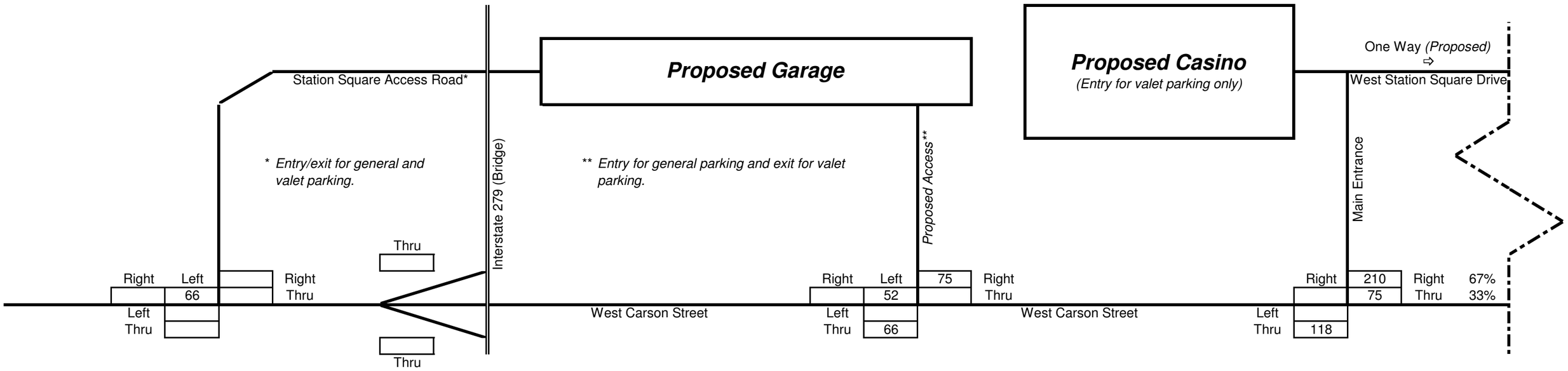


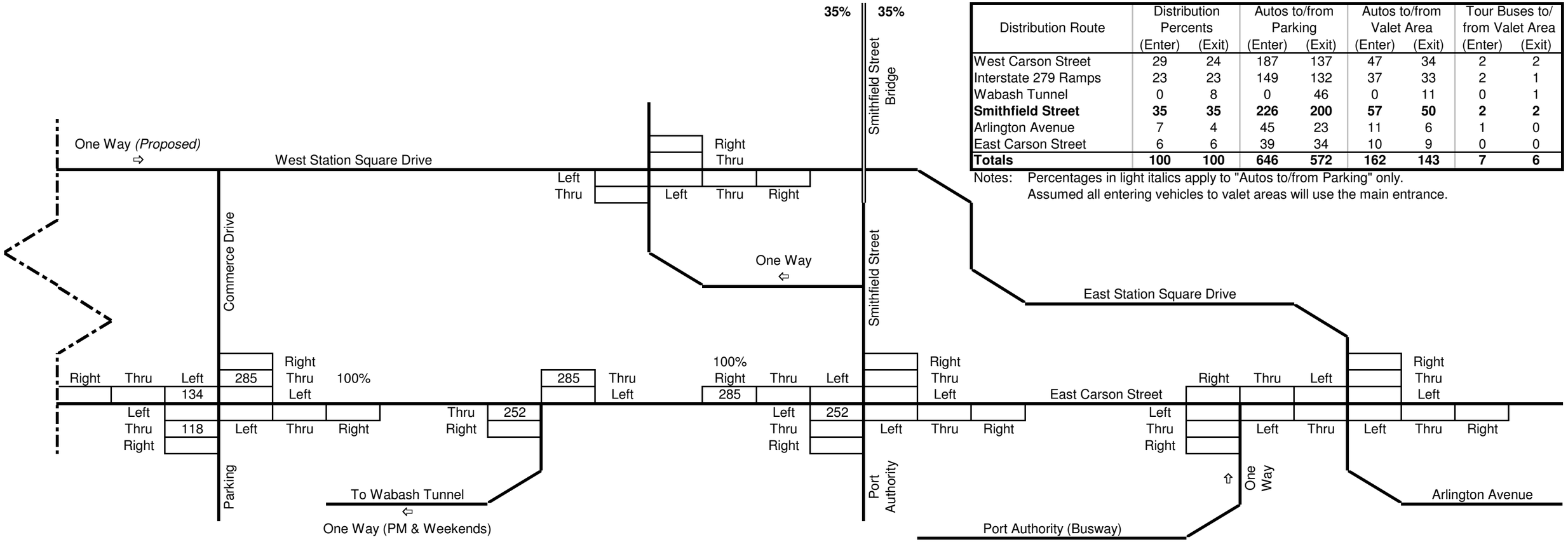
Distribution Route	Distribution Percents (Enter)	(Exit)	Autos to/from Parking (Enter)	(Exit)	Autos to/from Valet Area (Enter)	(Exit)	Tour Buses to/ from Valet Area (Enter)	(Exit)
West Carson Street	29	24	187	137	47	34	2	2
Interstate 279 Ramps	23	23	149	132	37	33	2	1
Wabash Tunnel	**0**	**8**	**0**	**46**	**0**	**11**	**0**	**1**
Smithfield Street	35	35	226	200	57	50	2	2
Arlington Avenue	7	4	45	23	11	6	1	0
East Carson Street	6	6	39	34	10	9	0	0
Totals	**100**	**100**	**646**	**572**	**162**	**143**	**7**	**6**

Notes: Percentages in light italics apply to "Autos to/from Parking" only.



DESIGN SATURDAY GAMING PEAK-HOUR (6-7 PM) TRIP DISTRIBUTION WORKSHEET - SMITHFIELD STREET (NEW NON-EMPLOYEE TRIPS)

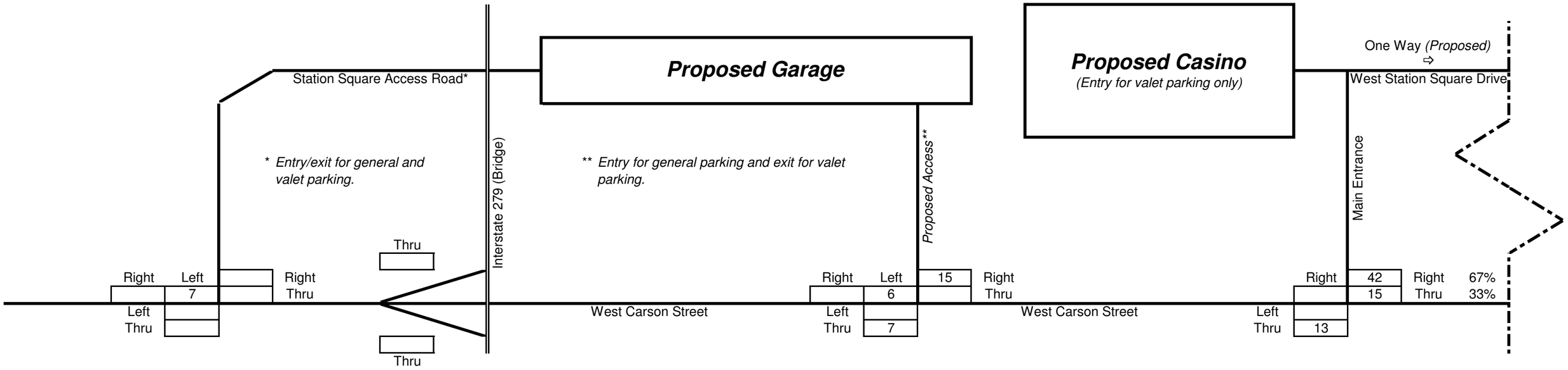




Distribution Route	Distribution Percents (Enter)	(Exit)	Autos to/from Parking (Enter)	(Exit)	Autos to/from Valet Area (Enter)	(Exit)	Tour Buses to/ from Valet Area (Enter)	(Exit)
West Carson Street	29	24	187	137	47	34	2	2
Interstate 279 Ramps	23	23	149	132	37	33	2	1
Wabash Tunnel	0	8	0	46	0	11	0	1
Smithfield Street	**35**	**35**	**226**	**200**	**57**	**50**	**2**	**2**
Arlington Avenue	7	4	45	23	11	6	1	0
East Carson Street	6	6	39	34	10	9	0	0
Totals	**100**	**100**	**646**	**572**	**162**	**143**	**7**	**6**

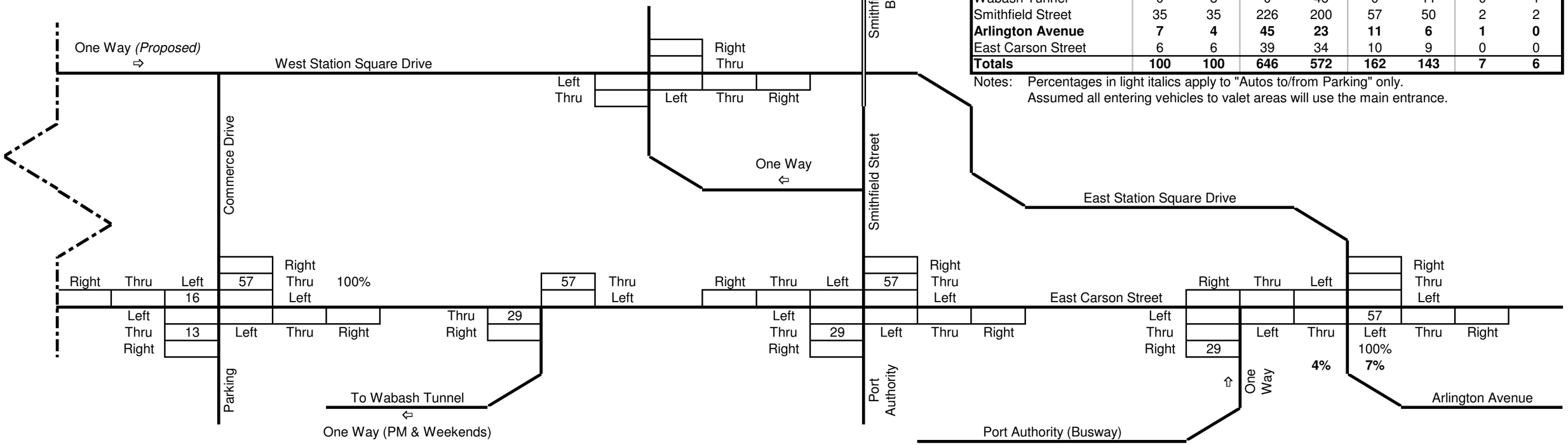
Notes: Percentages in light italics apply to "Autos to/from Parking" only.
Assumed all entering vehicles to valet areas will use the main entrance.

DESIGN SATURDAY GAMING PEAK-HOUR (6-7 PM) TRIP DISTRIBUTION WORKSHEET - ARLINGTON AVENUE (NEW NON-EMPLOYEE TRIPS)

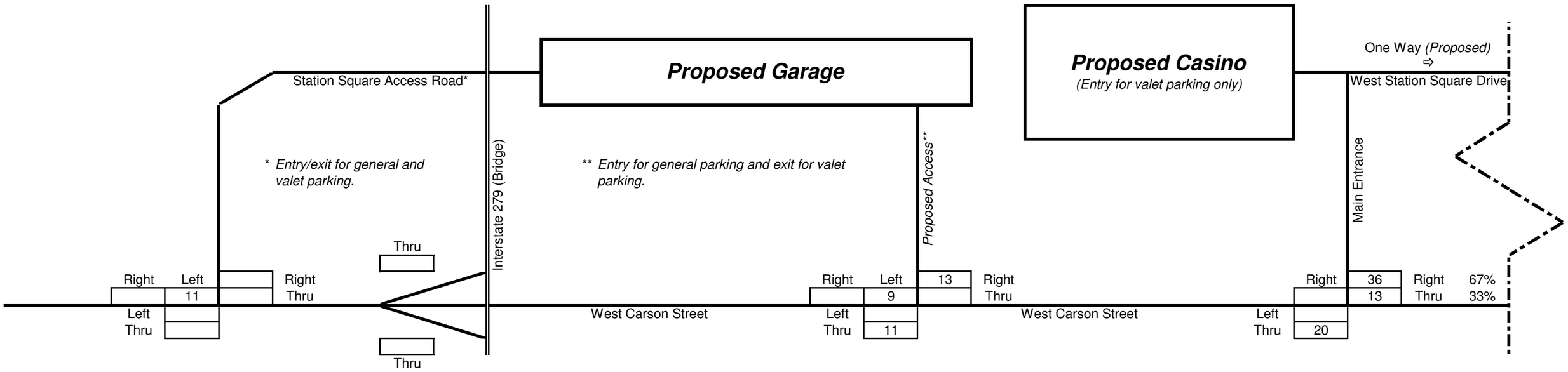


Distribution Route	Distribution Percents (Enter)	(Exit)	Autos to/from Parking (Enter)	(Exit)	Autos to/from Valet Area (Enter)	(Exit)	Tour Buses to/ from Valet Area (Enter)	(Exit)
West Carson Street	29	24	187	137	47	34	2	2
Interstate 279 Ramps	23	23	149	132	37	33	2	1
Wabash Tunnel	0	8	0	46	0	11	0	1
Smithfield Street	35	35	226	200	57	50	2	2
Arlington Avenue	**7**	**4**	**45**	**23**	**11**	**6**	**1**	**0**
East Carson Street	6	6	39	34	10	9	0	0
Totals	**100**	**100**	**646**	**572**	**162**	**143**	**7**	**6**

Notes: Percentages in light italics apply to "Autos to/from Parking" only.
Assumed all entering vehicles to valet areas will use the main entrance.

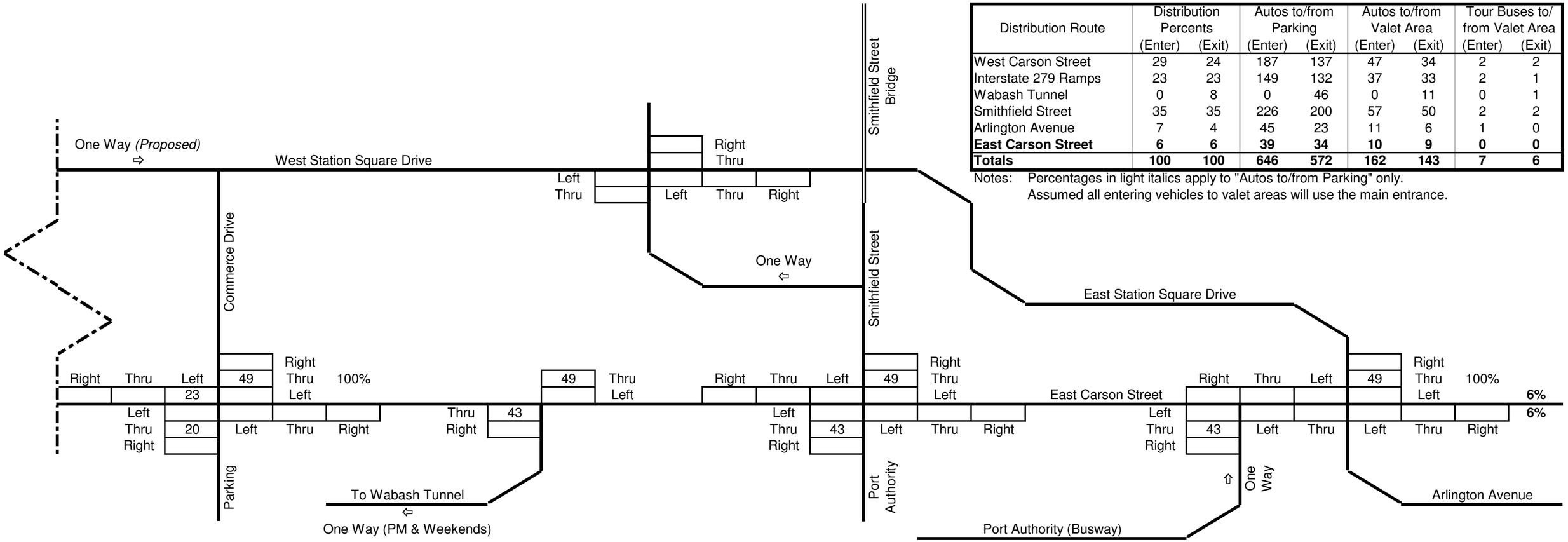


DESIGN SATURDAY GAMING PEAK-HOUR (6-7 PM) TRIP DISTRIBUTION WORKSHEET - EAST CARSON STREET (NEW NON-EMPLOYEE TRIPS)

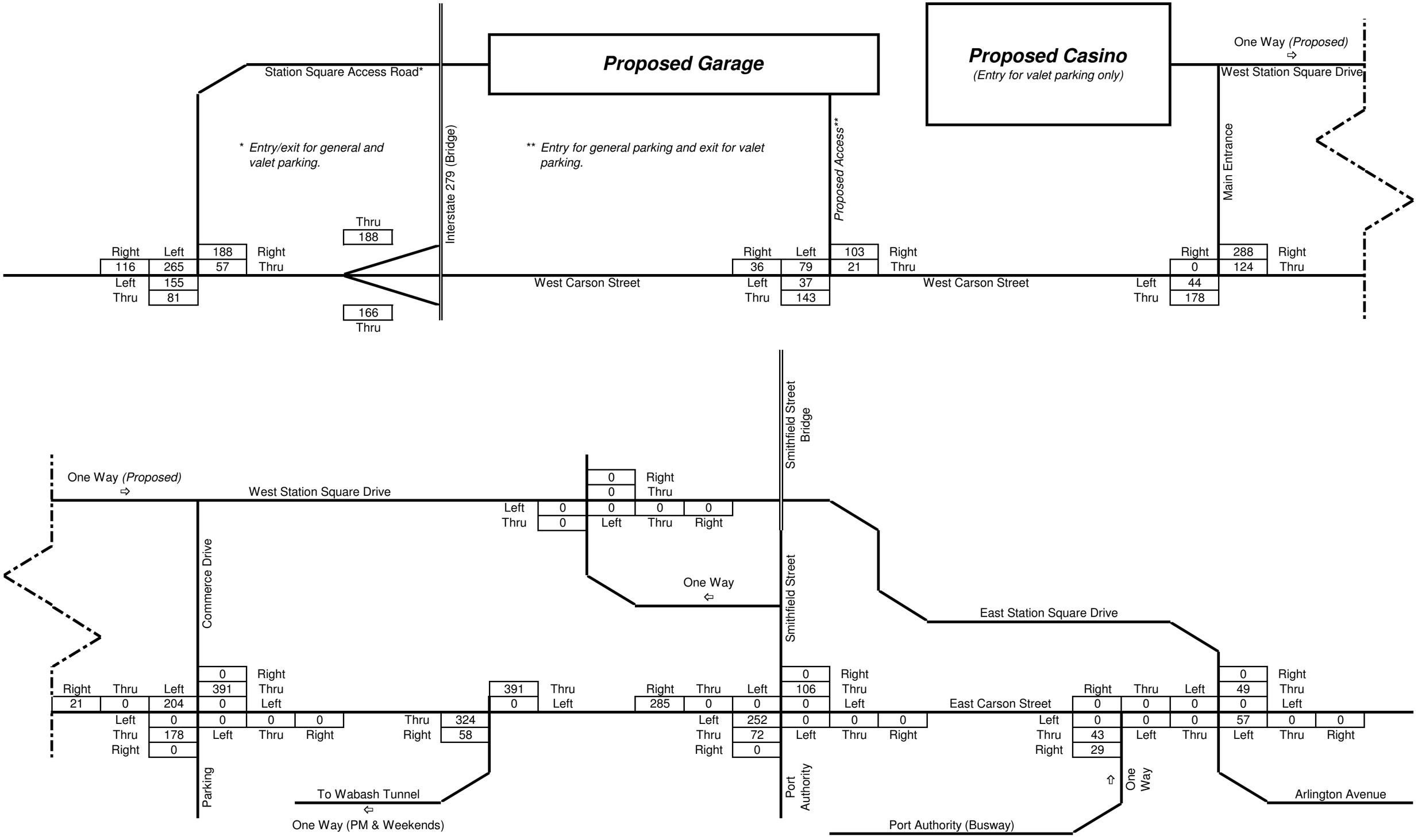


Distribution Route	Distribution Percents (Enter)	(Exit)	Autos to/from Parking (Enter)	(Exit)	Autos to/from Valet Area (Enter)	(Exit)	Tour Buses to/ from Valet Area (Enter)	(Exit)
West Carson Street	29	24	187	137	47	34	2	2
Interstate 279 Ramps	23	23	149	132	37	33	2	1
Wabash Tunnel	0	8	0	46	0	11	0	1
Smithfield Street	35	35	226	200	57	50	2	2
Arlington Avenue	7	4	45	23	11	6	1	0
East Carson Street	**6**	**6**	**39**	**34**	**10**	**9**	**0**	**0**
Totals	**100**	**100**	**646**	**572**	**162**	**143**	**7**	**6**

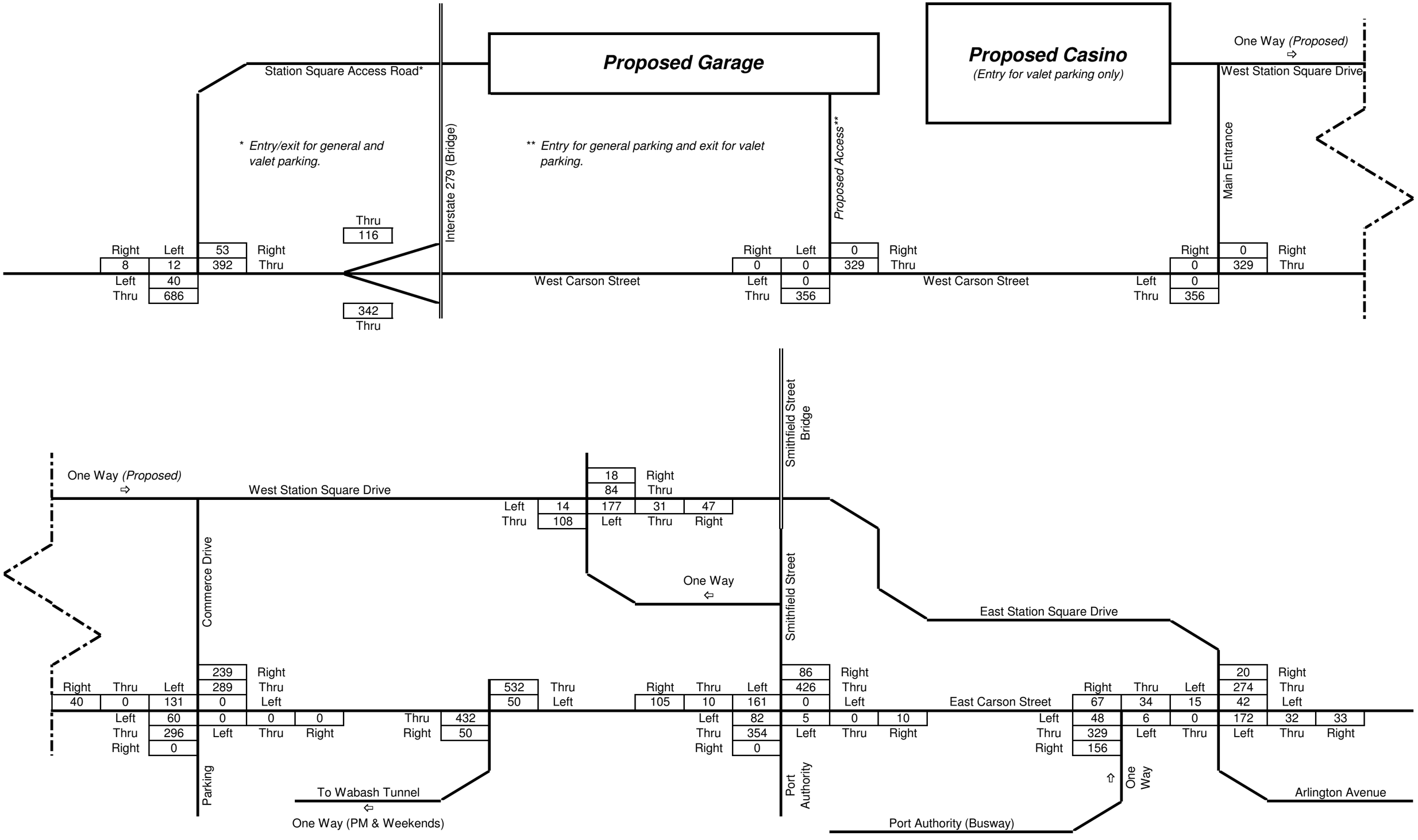
Notes: Percentages in light italics apply to "Autos to/from Parking" only.
Assumed all entering vehicles to valet areas will use the main entrance.



DESIGN SATURDAY GAMING PEAK-HOUR (6-7 PM) TRIP DISTRIBUTION WORKSHEET - TOTAL NEW TRIPS

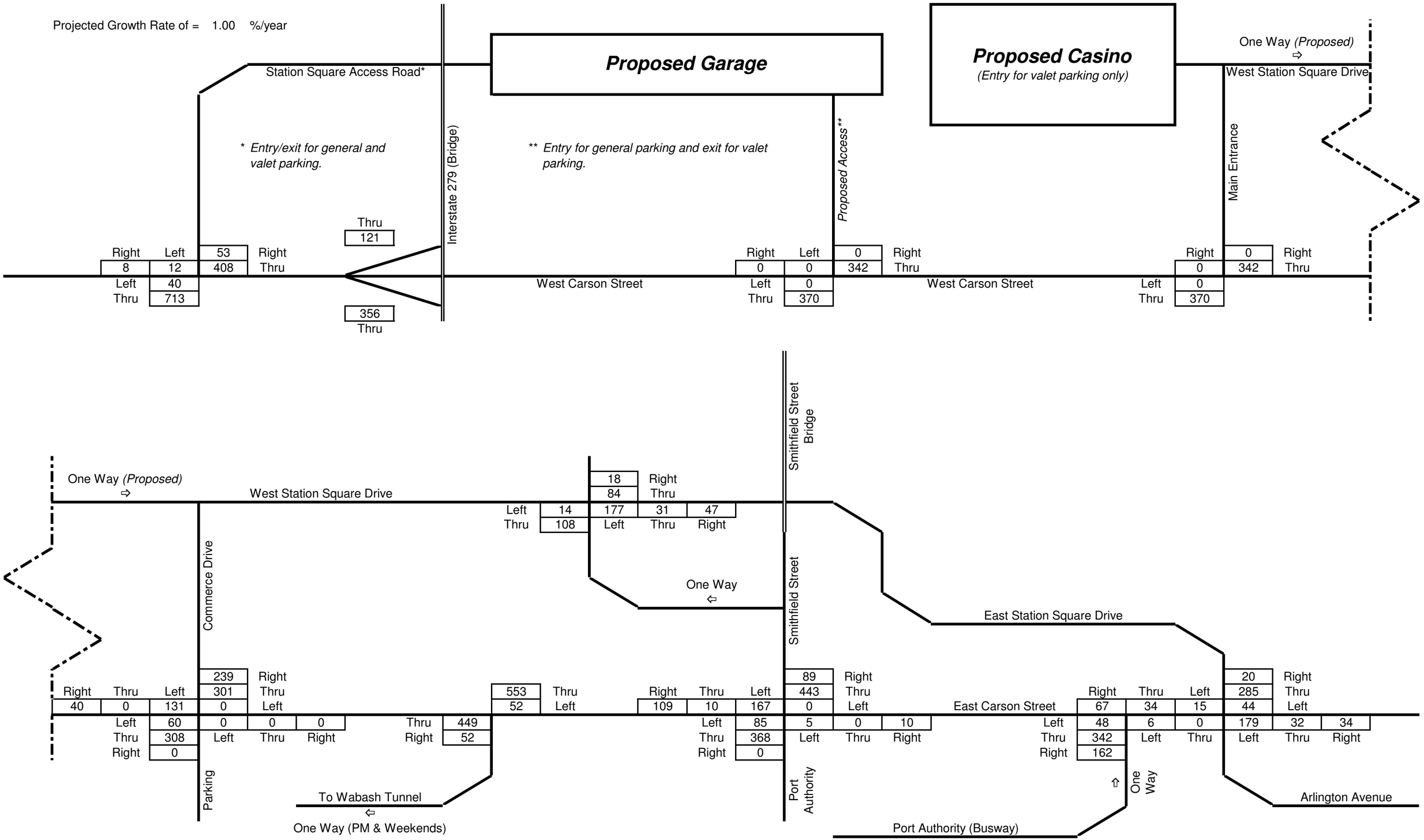


DESIGN SATURDAY GAMING PEAK-HOUR (6-7 PM) TRIP DISTRIBUTION WORKSHEET - EXISTING 2004 TRAFFIC VOLUMES

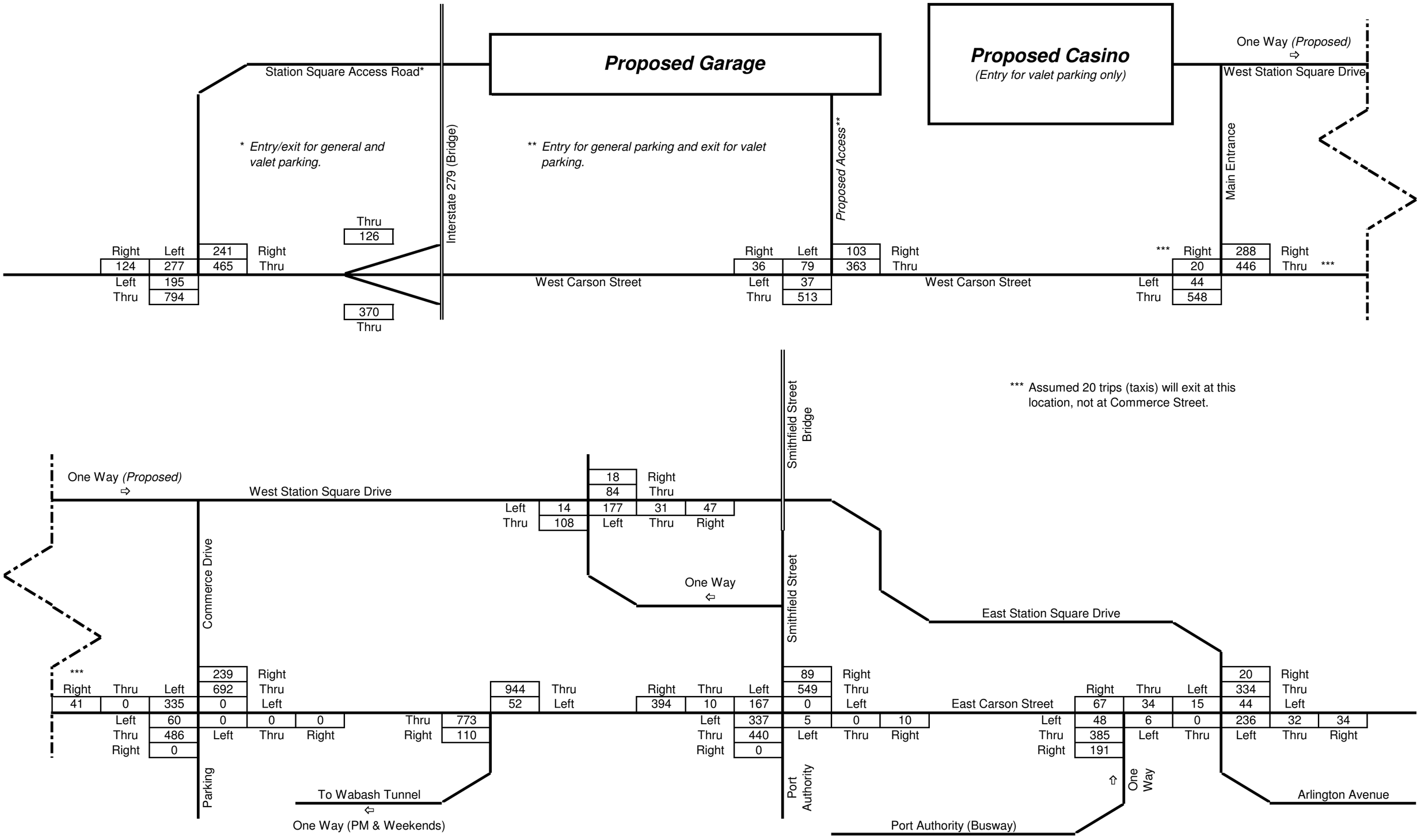


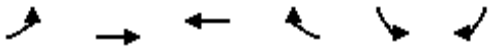
DESIGN SATURDAY GAMING PEAK-HOUR (6-7 PM) TRIP DISTRIBUTION WORKSHEET - PROJECTED 2008 BASE TRAFFIC VOLUMES

Projected Growth Rate of = 1.00 %/year



DESIGN SATURDAY GAMING PEAK-HOUR (6-7 PM) TRIP DISTRIBUTION WORKSHEET - PROJECTED 2008 TRAFFIC VOLUMES WITH NEW DEVELOPMENT TRIPS





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	10	11	11	12	12	12
Grade (%)		1%	-2%		2%	
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	1.00		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1588	3103	3174		1693	1515
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1588	3103	3174		1693	1515
Volume (vph)	35	1121	1487	21	118	115
Peak-hour factor, PHF	0.91	0.91	0.90	0.90	1.00	1.00
Adj. Flow (vph)	38	1232	1652	23	118	115
RTOR Reduction (vph)	0	0	1	0	0	98
Lane Group Flow (vph)	38	1232	1674	0	118	17
Heavy Vehicles (%)	0%	6%	5%	5%	0%	0%
Turn Type	Prot					Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Actuated Green, G (s)	4.7	70.2	60.0		12.5	12.5
Effective Green, g (s)	6.2	72.2	62.0		13.5	13.5
Actuated g/C Ratio	0.07	0.77	0.66		0.14	0.14
Clearance Time (s)	5.5	6.0	6.0		5.0	5.0
Vehicle Extension (s)	2.0	8.0	8.0		4.0	4.0
Lane Grp Cap (vph)	105	2391	2100		244	218
v/s Ratio Prot	0.02	c0.40	c0.53		c0.07	
v/s Ratio Perm						0.01
v/c Ratio	0.36	0.52	0.80		0.48	0.08
Uniform Delay, d1	41.9	4.1	11.4		36.9	34.7
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.8	0.7	3.0		2.1	0.2
Delay (s)	42.6	4.8	14.3		38.9	34.9
Level of Service	D	A	B		D	C
Approach Delay (s)		6.0	14.3		37.0	
Approach LOS		A	B		D	

Intersection Summary			
HCM Average Control Delay	12.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	93.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		1%	-1%		0%	
Volume (veh/h)	0	432	1011	0	0	0
Peak Hour Factor	1.00	1.00	0.92	0.92	0.90	0.90
Hourly flow rate (vph)	0	432	1099	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			405			
pX, platoon unblocked	0.78				0.78	0.78
vC, conflicting volume	1099				1315	549
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	837				1116	128
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	624				159	701

Direction, Lane #	SE 1	SE 2	NW 1	NW 2	SW 1	SW 2
Volume Total	144	288	733	366	0	0
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0
cSH	624	1700	1700	1700	1700	1700
Volume to Capacity	0.00	0.17	0.43	0.22	0.00	0.00
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS					A	A
Approach Delay (s)	0.0		0.0		0.0	
Approach LOS					A	

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	32.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	12	10	11	12	12	12	12	12	11	11
Grade (%)		1%			-1%			-6%			-1%	
Total Lost time (s)	4.0	4.0			4.0						4.0	4.0
Lane Util. Factor	1.00	0.95			0.95						1.00	1.00
Frt	1.00	1.00			0.99						1.00	0.85
Flt Protected	0.95	1.00			1.00						0.95	1.00
Satd. Flow (prot)	1612	3225			3198						1661	1486
Flt Permitted	0.95	1.00			1.00						0.76	1.00
Satd. Flow (perm)	1612	3225			3198						1324	1486
Volume (vph)	25	407	0	0	883	53	0	0	0	221	0	128
Peak-hour factor, PHF	1.00	1.00	1.00	0.92	0.92	0.92	0.90	0.90	0.90	0.97	0.97	0.97
Adj. Flow (vph)	25	407	0	0	960	58	0	0	0	228	0	132
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	25	407	0	0	1018	0	0	0	0	0	228	132
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	0%	0%	0%	0%	0%	0%
Turn Type	Prot			Prot			Perm			Perm		Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8			4		4
Actuated Green, G (s)	2.4	35.0			27.1						14.5	14.5
Effective Green, g (s)	3.9	37.0			29.1						16.5	16.5
Actuated g/C Ratio	0.06	0.60			0.47						0.27	0.27
Clearance Time (s)	5.5	6.0			6.0						6.0	6.0
Vehicle Extension (s)	3.0	4.5			4.5						3.0	3.0
Lane Grp Cap (vph)	102	1940			1513						355	399
v/s Ratio Prot	0.02	c0.13			c0.32							
v/s Ratio Perm											c0.17	0.09
v/c Ratio	0.25	0.21			0.67						0.64	0.33
Uniform Delay, d1	27.4	5.6			12.5						19.9	18.1
Progression Factor	1.00	1.00			1.00						1.00	1.00
Incremental Delay, d2	1.3	0.1			1.4						3.9	0.5
Delay (s)	28.7	5.7			13.9						23.8	18.6
Level of Service	C	A			B						C	B
Approach Delay (s)		7.0			13.9			0.0			21.9	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM Average Control Delay	13.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	61.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	47.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	WBR2	SBL	SBR	SBR2	SEL2	SEL	SER	NEL	NER
Lane Configurations											
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	11	12	12	12	12	12	11	12	11	12
Grade (%)	1%			-2%				2%		-5%	
Total Lost time (s)		4.0		4.0	4.0	4.0		4.0			
Lane Util. Factor		0.88		1.00	1.00	1.00		0.97			
Frt		0.85		1.00	0.85	0.85		1.00			
Flt Protected		1.00		0.95	1.00	1.00		0.95			
Satd. Flow (prot)		2421		1661	805	1486		3119			
Flt Permitted		1.00		0.76	1.00	1.00		0.56			
Satd. Flow (perm)		2421		1324	805	1486		1844			
Volume (vph)	0	646	242	408	45	293	122	528	2	0	0
Peak-hour factor, PHF	1.00	1.00	1.00	0.84	0.84	0.84	0.99	0.99	0.99	0.90	0.90
Adj. Flow (vph)	0	646	242	486	54	349	123	533	2	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	888	0	486	54	349	0	658	0	0	0
Heavy Vehicles (%)	7%	7%	7%	4%	92%	4%	2%	2%	2%	2%	2%
Turn Type		custom			custom	custom	custom			custom	
Protected Phases								2			
Permitted Phases		6		4	4	4	5			8	
Actuated Green, G (s)		40.1		42.6	42.6	42.6		40.1			
Effective Green, g (s)		41.6		44.1	44.1	44.1		41.6			
Actuated g/C Ratio		0.44		0.47	0.47	0.47		0.44			
Clearance Time (s)		5.5		5.5	5.5	5.5		5.5			
Vehicle Extension (s)		4.5		3.0	3.0	3.0		4.5			
Lane Grp Cap (vph)		1075		623	379	699		819			
v/s Ratio Prot											
v/s Ratio Perm		c0.37		c0.37	0.07	0.23		0.36			
v/c Ratio		0.83		0.78	0.14	0.50		1.50dl			
Uniform Delay, d1		22.9		20.7	14.1	17.2		22.5			
Progression Factor		1.00		1.00	1.00	1.00		1.00			
Incremental Delay, d2		5.8		6.3	0.2	0.6		6.4			
Delay (s)		28.7		27.0	14.2	17.7		28.9			
Level of Service		C		C	B	B		C			
Approach Delay (s)	28.7			22.6				28.9		0.0	
Approach LOS	C			C				C		A	

Intersection Summary			
HCM Average Control Delay	26.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	93.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

Movement	EBL2	WBL	WBR	WBR2	SEL2	SEL	SET	NWT	NWR	NWR2	SWL2	SWL
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	16	12	12	12	12	11	11	12	12	12	12	14
Grade (%)							1%	-7%				0%
Total Lost time (s)	4.0	4.0	4.0			4.0	4.0	4.0				4.0
Lane Util. Factor	1.00	1.00	1.00			1.00	1.00	0.95				1.00
Frt	1.00	1.00	0.85			1.00	1.00	0.96				1.00
Flt Protected	0.95	0.95	1.00			0.95	1.00	1.00				0.95
Satd. Flow (prot)	1058	1621	1451			1581	1665	3358				1771
Flt Permitted	0.95	0.09	1.00			0.00	1.00	1.00				0.95
Satd. Flow (perm)	1058	150	1451			0	1665	3358				1771
Volume (vph)	39	134	587	23	17	444	484	196	25	51	52	97
Peak-hour factor, PHF	1.00	0.95	0.95	0.95	0.81	0.81	0.81	1.00	1.00	1.00	0.96	0.96
Adj. Flow (vph)	39	141	618	24	21	548	598	196	25	51	54	101
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	39	141	642	0	0	569	598	272	0	0	0	155
Heavy Vehicles (%)	85%	6%	6%	6%	4%	4%	4%	1%	1%	1%	3%	3%
Turn Type	Prot	custom			pm+pt		custom				Prot	Prot
Protected Phases	3	1!	6		5!	2	2	8			4	4
Permitted Phases		3 6	1!		2	5!	5 8					
Actuated Green, G (s)	6.7	53.5	46.8			32.9	46.9	14.0				10.3
Effective Green, g (s)	7.7	55.5	47.8			33.9	48.9	15.0				11.3
Actuated g/C Ratio	0.08	0.57	0.49			0.35	0.50	0.15				0.12
Clearance Time (s)	5.0	5.0	5.0			5.0	5.0	5.0				5.0
Vehicle Extension (s)	4.0	2.0	4.0			4.0	4.0	4.0				4.0
Lane Grp Cap (vph)	83	234	709			548	901	515				205
v/s Ratio Prot	0.04	0.06	c0.44			c0.36	c0.23	0.08				c0.09
v/s Ratio Perm		c0.28					0.13					
v/c Ratio	0.47	0.60	0.91			1.04	0.66	0.53				0.76
Uniform Delay, d1	43.1	43.3	22.9			32.0	18.3	38.1				41.9
Progression Factor	1.00	1.00	1.00			1.00	1.00	1.00				1.00
Incremental Delay, d2	5.6	3.0	15.4			48.7	2.0	1.3				15.5
Delay (s)	48.7	46.2	38.3			80.7	20.3	39.4				57.4
Level of Service	D	D	D			F	C	D				E
Approach Delay (s)							49.8	39.4				50.6
Approach LOS							D	D				D

Intersection Summary			
HCM Average Control Delay	45.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	97.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	91.8%	ICU Level of Service	F
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

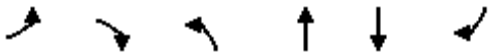
Movement	SWR2
Lane Configurations	
Ideal Flow (vphpl)	1800
Lane Width	12
Grade (%)	
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1485
Flt Permitted	1.00
Satd. Flow (perm)	1485
Volume (vph)	85
Peak-hour factor, PHF	0.96
Adj. Flow (vph)	89
RTOR Reduction (vph)	79
Lane Group Flow (vph)	10
Heavy Vehicles (%)	3%
Turn Type	custom
Protected Phases	4
Permitted Phases	
Actuated Green, G (s)	10.3
Effective Green, g (s)	11.3
Actuated g/C Ratio	0.12
Clearance Time (s)	5.0
Vehicle Extension (s)	4.0
Lane Grp Cap (vph)	172
v/s Ratio Prot	0.01
v/s Ratio Perm	
v/c Ratio	0.06
Uniform Delay, d1	38.5
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	38.7
Level of Service	D
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	NEL2	NEL	NER
Lane Configurations											
Sign Control	Stop			Stop			Stop			Stop	
Volume (vph)	0	0	1	37	0	0	102	4	59	4	19
Peak Hour Factor	0.90	0.90	0.73	0.73	0.73	0.76	0.76	0.76	0.93	0.93	0.93
Hourly flow rate (vph)	0	0	1	51	0	0	134	5	63	4	20

Direction, Lane #	SE 1	NW 1	NE 1
Volume Total (vph)	52	139	88
Volume Left (vph)	1	0	63
Volume Right (vph)	0	5	20
Hadj (s)	0.01	-0.02	0.12
Departure Headway (s)	4.3	4.1	4.4
Degree Utilization, x	0.06	0.16	0.11
Capacity (veh/h)	819	848	772
Control Delay (s)	7.5	7.9	8.0
Approach Delay (s)	7.5	7.9	8.0
Approach LOS	A	A	A

Intersection Summary					
Delay	7.9				
HCM Level of Service	A				
Intersection Capacity Utilization	17.5%	ICU Level of Service		A	
Analysis Period (min)	15				



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			2%	-2%	
Volume (veh/h)	0	0	0	364	746	82
Peak Hour Factor	0.90	0.90	0.90	1.00	0.84	0.93
Hourly flow rate (vph)	0	0	0	364	888	88
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				149		
pX, platoon unblocked						
vC, conflicting volume	1296	340	976			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1296	340	976			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	154	656	702			

Direction, Lane #	NB 1	SB 1	SB 2	SB 3
Volume Total	364	355	355	266
Volume Left	0	0	0	0
Volume Right	0	0	0	88
cSH	1700	1700	1700	1700
Volume to Capacity	0.21	0.21	0.21	0.16
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0	0.0		
Approach LOS				

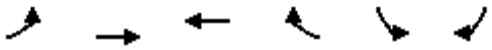
Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	23.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection has too many legs for HCM analysis.

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	11	12	12	11	12	12
Grade (%)	0%			0%	-2%	
Total Lost time (s)	4.0			4.0		
Lane Util. Factor	0.95			0.95		
Frt	0.99			1.00		
Flt Protected	1.00			1.00		
Satd. Flow (prot)	3206			3202		
Flt Permitted	1.00			0.87		
Satd. Flow (perm)	3206			2797		
Volume (vph)	640	50	50	938	0	0
Peak-hour factor, PHF	1.00	1.00	0.91	0.91	0.90	0.90
Adj. Flow (vph)	640	50	55	1031	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	690	0	0	1086	0	0
Heavy Vehicles (%)	2%	2%	3%	3%	2%	2%
Turn Type			Perm			
Protected Phases	6			2		
Permitted Phases			2			
Actuated Green, G (s)	120.0			120.0		
Effective Green, g (s)	120.0			120.0		
Actuated g/C Ratio	1.00			1.00		
Clearance Time (s)	6.0			6.0		
Vehicle Extension (s)	3.0			3.0		
Lane Grp Cap (vph)	3206			2797		
v/s Ratio Prot	0.22					
v/s Ratio Perm				c0.39		
v/c Ratio	0.22			0.39		
Uniform Delay, d1	0.0			0.0		
Progression Factor	1.00			1.00		
Incremental Delay, d2	0.2			0.4		
Delay (s)	0.2			0.4		
Level of Service	A			A		
Approach Delay (s)	0.2			0.4	0.0	
Approach LOS	A			A	A	

Intersection Summary			
HCM Average Control Delay	0.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	55.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	10	11	11	12	12	12
Grade (%)		1%	-2%		2%	
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	0.98		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1527	3163	3153		1539	1377
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1527	3163	3153		1539	1377
Volume (vph)	40	686	392	53	12	8
Peak-hour factor, PHF	0.90	0.90	0.75	0.75	0.63	0.63
Adj. Flow (vph)	44	762	523	71	19	13
RTOR Reduction (vph)	0	0	5	0	0	12
Lane Group Flow (vph)	44	762	589	0	19	1
Heavy Vehicles (%)	4%	4%	4%	4%	10%	10%
Turn Type	Prot					Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Actuated Green, G (s)	4.0	65.6	56.1		4.1	4.1
Effective Green, g (s)	5.5	67.6	58.1		5.1	5.1
Actuated g/C Ratio	0.07	0.84	0.72		0.06	0.06
Clearance Time (s)	5.5	6.0	6.0		5.0	5.0
Vehicle Extension (s)	2.0	8.0	8.0		4.0	4.0
Lane Grp Cap (vph)	104	2650	2270		97	87
v/s Ratio Prot	c0.03	c0.24	0.19		c0.01	
v/s Ratio Perm						0.00
v/c Ratio	0.42	0.29	0.26		0.20	0.01
Uniform Delay, d1	36.1	1.4	3.9		35.9	35.4
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	1.0	0.3	0.3		1.4	0.1
Delay (s)	37.1	1.7	4.2		37.2	35.5
Level of Service	D	A	A		D	D
Approach Delay (s)		3.6	4.2		36.5	
Approach LOS		A	A		D	

Intersection Summary			
HCM Average Control Delay	4.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	80.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	42.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		1%	-1%		0%	
Volume (veh/h)	0	356	329	0	0	0
Peak Hour Factor	1.00	1.00	0.91	0.91	0.90	0.90
Hourly flow rate (vph)	0	356	362	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			405			
pX, platoon unblocked						
vC, conflicting volume	362				540	181
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	362				540	181
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1194				472	831

Direction, Lane #	SE 1	SE 2	NW 1	NW 2	SW 1	SW 2
Volume Total	119	237	241	121	0	0
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0
cSH	1194	1700	1700	1700	1700	1700
Volume to Capacity	0.00	0.14	0.14	0.07	0.00	0.00
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS					A	A
Approach Delay (s)	0.0		0.0		0.0	
Approach LOS					A	

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	13.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	12	10	11	12	12	12	12	12	11	11
Grade (%)		1%			-1%			-6%			-1%	
Total Lost time (s)	4.0	4.0			4.0						4.0	4.0
Lane Util. Factor	1.00	0.95			0.95						1.00	1.00
Frt	1.00	1.00			0.93						1.00	0.85
Flt Protected	0.95	1.00			1.00						0.95	1.00
Satd. Flow (prot)	1628	3257			3066						1661	1486
Flt Permitted	0.95	1.00			1.00						0.76	1.00
Satd. Flow (perm)	1628	3257			3066						1324	1486
Volume (vph)	60	296	0	0	289	239	0	0	0	131	0	40
Peak-hour factor, PHF	1.00	1.00	1.00	0.87	0.87	0.87	0.90	0.90	0.90	1.00	1.00	1.00
Adj. Flow (vph)	60	296	0	0	332	275	0	0	0	131	0	40
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	60	296	0	0	607	0	0	0	0	0	131	40
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Turn Type	Prot			Prot			Perm			Perm		Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8			4		4
Actuated Green, G (s)	5.3	37.1			26.3						10.4	10.4
Effective Green, g (s)	6.8	39.1			28.3						12.4	12.4
Actuated g/C Ratio	0.11	0.66			0.48						0.21	0.21
Clearance Time (s)	5.5	6.0			6.0						6.0	6.0
Vehicle Extension (s)	3.0	4.5			4.5						3.0	3.0
Lane Grp Cap (vph)	186	2140			1458						276	310
v/s Ratio Prot	c0.04	0.09			c0.20							
v/s Ratio Perm											c0.10	0.03
v/c Ratio	0.32	0.14			0.42						0.47	0.13
Uniform Delay, d1	24.2	3.8			10.2						20.7	19.2
Progression Factor	1.00	1.00			1.00						1.00	1.00
Incremental Delay, d2	1.0	0.1			0.3						1.3	0.2
Delay (s)	25.2	3.9			10.5						22.0	19.3
Level of Service	C	A			B						C	B
Approach Delay (s)		7.5			10.5			0.0			21.4	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM Average Control Delay	11.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	59.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	38.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	WBR2	SBL	SBR	SBR2	SEL2	SEL	SER	NEL2	NEL	NER
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	11	12	12	12	12	12	11	12	12	11	12
Grade (%)	1%			-2%				2%			-5%	
Total Lost time (s)		4.0		4.0	4.0	4.0		4.0			4.0	
Lane Util. Factor		0.88		1.00	1.00	1.00		0.97			1.00	
Frt		0.85		1.00	0.85	0.85		1.00			0.91	
Flt Protected		1.00		0.95	1.00	1.00		0.95			0.98	
Satd. Flow (prot)		2515		1629	773	1458		3143			1565	
Flt Permitted		1.00		0.75	1.00	1.00		0.78			0.94	
Satd. Flow (perm)		2515		1282	773	1458		2583			1492	
Volume (vph)	0	426	86	161	10	105	82	354	0	5	0	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.87	0.87	0.87	0.96	0.96	0.96	1.00	1.00	1.00
Adj. Flow (vph)	0	473	96	185	11	121	85	369	0	5	0	10
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	569	0	185	11	121	0	454	0	0	15	0
Heavy Vehicles (%)	3%	3%	3%	6%	100%	6%	1%	1%	1%	2%	2%	2%
Turn Type		custom			custom	custom	custom			custom	custom	
Protected Phases								2				
Permitted Phases		6		4	4	4	5			8	8	
Actuated Green, G (s)		26.0		13.1	13.1	13.1		26.0			12.6	
Effective Green, g (s)		27.5		14.6	14.6	14.6		27.5			14.6	
Actuated g/C Ratio		0.55		0.29	0.29	0.29		0.55			0.29	
Clearance Time (s)		5.5		5.5	5.5	5.5		5.5			6.0	
Vehicle Extension (s)		4.5		3.0	3.0	3.0		4.5			3.0	
Lane Grp Cap (vph)		1380		374	225	425		1418			435	
v/s Ratio Prot												
v/s Ratio Perm		c0.23		c0.14	0.01	0.08		0.18			0.01	
v/c Ratio		0.41		0.49	0.05	0.28		0.32			0.03	
Uniform Delay, d1		6.6		14.7	12.8	13.7		6.2			12.7	
Progression Factor		1.00		1.00	1.00	1.00		1.00			1.00	
Incremental Delay, d2		0.3		1.0	0.1	0.4		0.2			0.0	
Delay (s)		6.9		15.7	12.8	14.1		6.4			12.7	
Level of Service		A		B	B	B		A			B	
Approach Delay (s)	6.9			15.0				6.4			12.7	
Approach LOS	A			B				A			B	

Intersection Summary			
HCM Average Control Delay	8.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	50.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	36.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL2	WBL	WBR	WBR2	SEL2	SEL	SET	NWT	NWR	NWR2	SWL2	SWL
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	16	12	12	12	12	11	11	12	12	12	12	14
Grade (%)							1%	-7%				0%
Total Lost time (s)	4.0	4.0	4.0			4.0	4.0	4.0				4.0
Lane Util. Factor	1.00	1.00	1.00			1.00	1.00	0.95				1.00
Frt	1.00	1.00	0.85			1.00	1.00	0.96				1.00
Flt Protected	0.95	0.95	1.00			0.95	1.00	1.00				0.95
Satd. Flow (prot)	979	1668	1493			1597	1681	3362				1824
Flt Permitted	0.95	0.21	1.00			0.00	1.00	1.00				0.95
Satd. Flow (perm)	979	361	1493			0	1681	3362				1824
Volume (vph)	6	42	274	20	48	329	156	172	32	33	15	34
Peak-hour factor, PHF	1.00	0.94	0.94	0.94	0.93	0.93	0.93	0.93	0.93	0.93	0.91	0.91
Adj. Flow (vph)	6	45	291	21	52	354	168	185	34	35	16	37
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	6	45	312	0	0	406	168	254	0	0	0	53
Heavy Vehicles (%)	100%	3%	3%	3%	3%	3%	3%	1%	1%	1%	0%	0%
Turn Type	Prot	custom			pm+pt		custom				Prot	Prot
Protected Phases	3	1!	6		5!	2	2	8			4	4
Permitted Phases		3 6	1!		2	5!	5 8					
Actuated Green, G (s)	1.3	41.8	40.5			32.4	44.3	11.9				6.8
Effective Green, g (s)	2.3	43.8	41.5			33.4	46.3	12.9				7.8
Actuated g/C Ratio	0.03	0.54	0.52			0.41	0.58	0.16				0.10
Clearance Time (s)	5.0	5.0	5.0			5.0	5.0	5.0				5.0
Vehicle Extension (s)	4.0	2.0	4.0			4.0	4.0	4.0				4.0
Lane Grp Cap (vph)	28	263	770			663	1050	539				177
v/s Ratio Prot	c0.01	0.01	c0.21			c0.25	0.07	c0.08				c0.03
v/s Ratio Perm		0.08					0.03					
v/c Ratio	0.21	0.17	0.41			0.61	0.16	0.47				0.30
Uniform Delay, d1	38.2	24.2	11.9			18.5	8.0	30.7				33.8
Progression Factor	1.00	1.00	1.00			1.00	1.00	1.00				1.00
Incremental Delay, d2	5.2	0.1	0.5			1.9	0.1	0.9				1.3
Delay (s)	43.4	24.3	12.4			20.4	8.1	31.6				35.1
Level of Service	D	C	B			C	A	C				D
Approach Delay (s)							16.8	31.6				34.0
Approach LOS							B	C				C

Intersection Summary			
HCM Average Control Delay	20.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	80.5	Sum of lost time (s)	20.0
Intersection Capacity Utilization	65.1%	ICU Level of Service	C
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

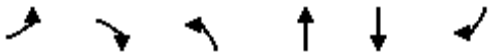
Movement	SWR2
Lane Configurations	
Ideal Flow (vphpl)	1800
Lane Width	12
Grade (%)	
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1530
Flt Permitted	1.00
Satd. Flow (perm)	1530
Volume (vph)	67
Peak-hour factor, PHF	0.91
Adj. Flow (vph)	74
RTOR Reduction (vph)	67
Lane Group Flow (vph)	7
Heavy Vehicles (%)	0%
Turn Type	custom
Protected Phases	4
Permitted Phases	
Actuated Green, G (s)	6.8
Effective Green, g (s)	7.8
Actuated g/C Ratio	0.10
Clearance Time (s)	5.0
Vehicle Extension (s)	4.0
Lane Grp Cap (vph)	148
v/s Ratio Prot	0.00
v/s Ratio Perm	
v/c Ratio	0.05
Uniform Delay, d1	33.0
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	33.2
Level of Service	C
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	NEL2	NEL	NER
Lane Configurations											
Sign Control	Stop			Stop			Stop			Stop	
Volume (vph)	0	0	14	108	0	0	84	18	177	31	47
Peak Hour Factor	0.90	0.90	1.00	1.00	1.00	0.83	0.83	0.83	0.87	0.87	0.87
Hourly flow rate (vph)	0	0	14	108	0	0	101	22	203	36	54

Direction, Lane #	SE 1	NW 1	NE 1
Volume Total (vph)	122	123	293
Volume Left (vph)	14	0	203
Volume Right (vph)	0	22	54
Hadj (s)	0.02	-0.11	0.03
Departure Headway (s)	4.8	4.7	4.5
Degree Utilization, x	0.16	0.16	0.37
Capacity (veh/h)	698	716	763
Control Delay (s)	8.7	8.6	10.1
Approach Delay (s)	8.7	8.6	10.1
Approach LOS	A	A	B

Intersection Summary			
Delay		9.5	
HCM Level of Service		A	
Intersection Capacity Utilization	35.3%	ICU Level of Service	A
Analysis Period (min)		15	



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			2%	-2%	
Volume (veh/h)	0	0	0	168	276	255
Peak Hour Factor	0.90	0.90	0.90	0.98	0.86	0.86
Hourly flow rate (vph)	0	0	0	171	321	297
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				149		
pX, platoon unblocked						
vC, conflicting volume	641	255	617			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	641	255	617			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	407	744	959			

Direction, Lane #	NB 1	SB 1	SB 2	SB 3
Volume Total	171	128	128	361
Volume Left	0	0	0	0
Volume Right	0	0	0	297
cSH	1700	1700	1700	1700
Volume to Capacity	0.10	0.08	0.08	0.21
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0	0.0		
Approach LOS				

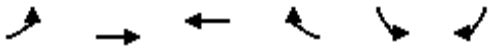
Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	15.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection has too many legs for HCM analysis.

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	11	12	12	11	12	12
Grade (%)	0%			0%	-2%	
Total Lost time (s)	4.0			4.0		
Lane Util. Factor	0.95			0.95		
Frt	0.98			1.00		
Flt Protected	1.00			1.00		
Satd. Flow (prot)	3226			3262		
Flt Permitted	1.00			0.86		
Satd. Flow (perm)	3226			2819		
Volume (vph)	432	50	50	532	0	0
Peak-hour factor, PHF	0.96	0.96	0.87	0.87	0.90	0.90
Adj. Flow (vph)	450	52	57	611	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	502	0	0	668	0	0
Heavy Vehicles (%)	1%	0%	0%	1%	0%	0%
Turn Type			Perm			
Protected Phases	6			2		
Permitted Phases			2			
Actuated Green, G (s)	120.0			120.0		
Effective Green, g (s)	120.0			120.0		
Actuated g/C Ratio	1.00			1.00		
Clearance Time (s)	6.0			6.0		
Vehicle Extension (s)	3.0			3.0		
Lane Grp Cap (vph)	3226			2819		
v/s Ratio Prot	0.16					
v/s Ratio Perm				c0.24		
v/c Ratio	0.16			0.24		
Uniform Delay, d1	0.0			0.0		
Progression Factor	1.00			1.00		
Incremental Delay, d2	0.1			0.2		
Delay (s)	0.1			0.2		
Level of Service	A			A		
Approach Delay (s)	0.1			0.2	0.0	
Approach LOS	A			A	A	

Intersection Summary			
HCM Average Control Delay	0.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.24		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	38.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	10	11	11	12	12	12
Grade (%)		1%	-2%		2%	
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	1.00		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1588	3103	3174		1693	1515
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1588	3103	3174		1693	1515
Volume (vph)	35	1166	1546	21	118	115
Peak-hour factor, PHF	0.91	0.91	0.90	0.90	1.00	1.00
Adj. Flow (vph)	38	1281	1718	23	118	115
RTOR Reduction (vph)	0	0	1	0	0	99
Lane Group Flow (vph)	38	1281	1740	0	118	16
Heavy Vehicles (%)	0%	6%	5%	5%	0%	0%
Turn Type	Prot					Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Actuated Green, G (s)	4.7	70.7	60.5		12.5	12.5
Effective Green, g (s)	6.2	72.7	62.5		13.5	13.5
Actuated g/C Ratio	0.07	0.77	0.66		0.14	0.14
Clearance Time (s)	5.5	6.0	6.0		5.0	5.0
Vehicle Extension (s)	2.0	8.0	8.0		4.0	4.0
Lane Grp Cap (vph)	105	2395	2106		243	217
v/s Ratio Prot	0.02	c0.41	c0.55		c0.07	
v/s Ratio Perm						0.01
v/c Ratio	0.36	0.53	0.83		0.49	0.08
Uniform Delay, d1	42.1	4.2	11.8		37.2	34.9
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.8	0.8	3.6		2.1	0.2
Delay (s)	42.9	5.0	15.4		39.2	35.2
Level of Service	D	A	B		D	D
Approach Delay (s)		6.1	15.4		37.2	
Approach LOS		A	B		D	

Intersection Summary			
HCM Average Control Delay	13.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	94.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	60.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		1%	-1%		0%	
Volume (veh/h)	0	449	1051	0	0	0
Peak Hour Factor	1.00	1.00	0.92	0.92	0.90	0.90
Hourly flow rate (vph)	0	449	1142	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			405			
pX, platoon unblocked	0.76				0.76	0.76
vC, conflicting volume	1142				1367	571
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	876				1170	128
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	595				144	691

Direction, Lane #	SE 1	SE 2	NW 1	NW 2	SW 1	SW 2
Volume Total	150	299	762	381	0	0
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0
cSH	595	1700	1700	1700	1700	1700
Volume to Capacity	0.00	0.18	0.45	0.22	0.00	0.00
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS					A	A
Approach Delay (s)	0.0		0.0		0.0	
Approach LOS					A	

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	34.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	12	10	11	12	12	12	12	12	11	11
Grade (%)		1%			-1%			-6%			-1%	
Total Lost time (s)	4.0	4.0			4.0						4.0	4.0
Lane Util. Factor	1.00	0.95			0.95						1.00	1.00
Frt	1.00	1.00			0.99						1.00	0.85
Flt Protected	0.95	1.00			1.00						0.95	1.00
Satd. Flow (prot)	1612	3225			3199						1661	1486
Flt Permitted	0.95	1.00			1.00						0.76	1.00
Satd. Flow (perm)	1612	3225			3199						1324	1486
Volume (vph)	25	423	0	0	918	53	0	0	0	221	0	128
Peak-hour factor, PHF	1.00	1.00	1.00	0.92	0.92	0.92	0.90	0.90	0.90	0.97	0.97	0.97
Adj. Flow (vph)	25	423	0	0	998	58	0	0	0	228	0	132
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	25	423	0	0	1056	0	0	0	0	0	228	132
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	0%	0%	0%	0%	0%	0%
Turn Type	Prot			Prot			Perm			Perm		Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8			4		4
Actuated Green, G (s)	2.4	35.9			28.0						14.6	14.6
Effective Green, g (s)	3.9	37.9			30.0						16.6	16.6
Actuated g/C Ratio	0.06	0.61			0.48						0.27	0.27
Clearance Time (s)	5.5	6.0			6.0						6.0	6.0
Vehicle Extension (s)	3.0	4.5			4.5						3.0	3.0
Lane Grp Cap (vph)	101	1956			1536						352	395
v/s Ratio Prot	0.02	c0.13			c0.33							
v/s Ratio Perm											c0.17	0.09
v/c Ratio	0.25	0.22			0.69						0.65	0.33
Uniform Delay, d1	27.9	5.6			12.6						20.4	18.5
Progression Factor	1.00	1.00			1.00						1.00	1.00
Incremental Delay, d2	1.3	0.1			1.5						4.1	0.5
Delay (s)	29.2	5.7			14.1						24.4	19.0
Level of Service	C	A			B						C	B
Approach Delay (s)		7.0			14.1			0.0			22.4	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM Average Control Delay	14.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	62.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	48.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	WBR2	SBL	SBR	SBR2	SEL2	SEL	SER	NEL	NER
Lane Configurations											
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	11	12	12	12	12	12	11	12	11	12
Grade (%)	1%			-2%				2%		-5%	
Total Lost time (s)		4.0		4.0	4.0	4.0		4.0			
Lane Util. Factor		0.88		1.00	1.00	1.00		0.97			
Frt		0.85		1.00	0.85	0.85		1.00			
Flt Protected		1.00		0.95	1.00	1.00		0.95			
Satd. Flow (prot)		2421		1661	805	1486		3119			
Flt Permitted		1.00		0.76	1.00	1.00		0.55			
Satd. Flow (perm)		2421		1324	805	1486		1798			
Volume (vph)	0	672	252	424	45	305	127	549	2	0	0
Peak-hour factor, PHF	1.00	1.00	1.00	0.84	0.84	0.84	0.99	0.99	0.99	0.90	0.90
Adj. Flow (vph)	0	672	252	505	54	363	128	555	2	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	924	0	505	54	363	0	685	0	0	0
Heavy Vehicles (%)	7%	7%	7%	4%	92%	4%	2%	2%	2%	2%	2%
Turn Type		custom			custom	custom	custom			custom	
Protected Phases								2			
Permitted Phases		6		4	4	4	5			8	
Actuated Green, G (s)		46.3		45.8	45.8	45.8		46.3			
Effective Green, g (s)		47.8		47.3	47.3	47.3		47.8			
Actuated g/C Ratio		0.46		0.46	0.46	0.46		0.46			
Clearance Time (s)		5.5		5.5	5.5	5.5		5.5			
Vehicle Extension (s)		4.5		3.0	3.0	3.0		4.5			
Lane Grp Cap (vph)		1122		607	369	682		834			
v/s Ratio Prot											
v/s Ratio Perm		c0.38		c0.38	0.07	0.24		0.38			
v/c Ratio		0.82		0.83	0.15	0.53		1.66dl			
Uniform Delay, d1		24.0		24.4	16.2	20.0		24.0			
Progression Factor		1.00		1.00	1.00	1.00		1.00			
Incremental Delay, d2		5.5		9.5	0.2	0.8		7.1			
Delay (s)		29.5		33.9	16.4	20.8		31.1			
Level of Service		C		C	B	C		C			
Approach Delay (s)	29.5			27.7				31.1		0.0	
Approach LOS	C			C				C		A	

Intersection Summary			
HCM Average Control Delay	29.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	103.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

Movement	EBL2	WBL	WBR	WBR2	SEL2	SEL	SET	NWT	NWR	NWR2	SWL2	SWL
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	16	12	12	12	12	11	11	12	12	12	12	14
Grade (%)							1%	-7%				0%
Total Lost time (s)	4.0	4.0	4.0			4.0	4.0	4.0				4.0
Lane Util. Factor	1.00	1.00	1.00			1.00	1.00	0.95				1.00
Frt	1.00	1.00	0.85			1.00	1.00	0.96				1.00
Flt Protected	0.95	0.95	1.00			0.95	1.00	1.00				0.95
Satd. Flow (prot)	1058	1621	1451			1581	1665	3359				1771
Flt Permitted	0.95	0.09	1.00			0.00	1.00	1.00				0.95
Satd. Flow (perm)	1058	149	1451			0	1665	3359				1771
Volume (vph)	39	139	610	23	17	462	503	204	25	53	52	97
Peak-hour factor, PHF	1.00	0.95	0.95	0.95	0.81	0.81	0.81	1.00	1.00	1.00	0.96	0.96
Adj. Flow (vph)	39	146	642	24	21	570	621	204	25	53	54	101
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	39	146	666	0	0	591	621	282	0	0	0	155
Heavy Vehicles (%)	85%	6%	6%	6%	4%	4%	4%	1%	1%	1%	3%	3%
Turn Type	Prot	custom			pm+pt		custom				Prot	Prot
Protected Phases	3	1!	6		5!	2	2	8			4	4
Permitted Phases		3 6	1!		2	5!	5 8					
Actuated Green, G (s)	6.7	53.8	47.1			33.0	47.3	14.3				10.3
Effective Green, g (s)	7.7	55.8	48.1			34.0	49.3	15.3				11.3
Actuated g/C Ratio	0.08	0.57	0.49			0.35	0.50	0.16				0.11
Clearance Time (s)	5.0	5.0	5.0			5.0	5.0	5.0				5.0
Vehicle Extension (s)	4.0	2.0	4.0			4.0	4.0	4.0				4.0
Lane Grp Cap (vph)	83	236	709			546	902	522				203
v/s Ratio Prot	0.04	0.06	c0.46			c0.37	c0.24	0.08				c0.09
v/s Ratio Perm		c0.29					0.14					
v/c Ratio	0.47	0.62	0.94			1.08	0.69	0.54				0.76
Uniform Delay, d1	43.4	40.5	23.8			32.2	18.7	38.3				42.3
Progression Factor	1.00	1.00	1.00			1.00	1.00	1.00				1.00
Incremental Delay, d2	5.6	3.4	20.3			62.7	2.4	1.4				16.5
Delay (s)	49.0	43.9	44.1			94.9	21.1	39.7				58.7
Level of Service	D	D	D			F	C	D				E
Approach Delay (s)							57.1	39.7				51.5
Approach LOS							E	D				D

Intersection Summary			
HCM Average Control Delay	50.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	98.4	Sum of lost time (s)	16.0
Intersection Capacity Utilization	94.6%	ICU Level of Service	F
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

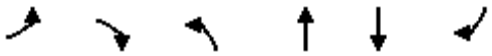
Movement	SWR2
Lane Configurations	
Ideal Flow (vphpl)	1800
Lane Width	12
Grade (%)	
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1485
Flt Permitted	1.00
Satd. Flow (perm)	1485
Volume (vph)	85
Peak-hour factor, PHF	0.96
Adj. Flow (vph)	89
RTOR Reduction (vph)	79
Lane Group Flow (vph)	10
Heavy Vehicles (%)	3%
Turn Type	custom
Protected Phases	4
Permitted Phases	
Actuated Green, G (s)	10.3
Effective Green, g (s)	11.3
Actuated g/C Ratio	0.11
Clearance Time (s)	5.0
Vehicle Extension (s)	4.0
Lane Grp Cap (vph)	171
v/s Ratio Prot	0.01
v/s Ratio Perm	
v/c Ratio	0.06
Uniform Delay, d1	38.8
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	39.0
Level of Service	D
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	NEL2	NEL	NER
Lane Configurations											
Sign Control	Stop			Stop			Stop			Stop	
Volume (vph)	0	0	1	37	0	0	102	4	59	4	19
Peak Hour Factor	0.90	0.90	0.73	0.73	0.73	0.76	0.76	0.76	0.93	0.93	0.93
Hourly flow rate (vph)	0	0	1	51	0	0	134	5	63	4	20

Direction, Lane #	SE 1	NW 1	NE 1
Volume Total (vph)	52	139	88
Volume Left (vph)	1	0	63
Volume Right (vph)	0	5	20
Hadj (s)	0.01	-0.02	0.12
Departure Headway (s)	4.3	4.1	4.4
Degree Utilization, x	0.06	0.16	0.11
Capacity (veh/h)	819	848	772
Control Delay (s)	7.5	7.9	8.0
Approach Delay (s)	7.5	7.9	8.0
Approach LOS	A	A	A

Intersection Summary			
Delay		7.9	
HCM Level of Service		A	
Intersection Capacity Utilization	17.5%	ICU Level of Service	A
Analysis Period (min)		15	



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			2%	-2%	
Volume (veh/h)	0	0	0	379	774	82
Peak Hour Factor	0.90	0.90	0.90	1.00	0.84	0.93
Hourly flow rate (vph)	0	0	0	379	921	88
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				149		
pX, platoon unblocked						
vC, conflicting volume	1345	351	1010			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1345	351	1010			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	143	645	682			

Direction, Lane #	NB 1	SB 1	SB 2	SB 3
Volume Total	379	369	369	272
Volume Left	0	0	0	0
Volume Right	0	0	0	88
cSH	1700	1700	1700	1700
Volume to Capacity	0.22	0.22	0.22	0.16
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0	0.0		
Approach LOS				

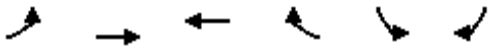
Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	24.4%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection has too many legs for HCM analysis.

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	11	12	12	11	12	12
Grade (%)	0%			0%	-2%	
Total Lost time (s)	4.0			4.0		
Lane Util. Factor	0.95			0.95		
Frt	0.99			1.00		
Flt Protected	1.00			1.00		
Satd. Flow (prot)	3206			3202		
Flt Permitted	1.00			0.87		
Satd. Flow (perm)	3206			2782		
Volume (vph)	666	52	52	976	0	0
Peak-hour factor, PHF	1.00	1.00	0.91	0.91	0.90	0.90
Adj. Flow (vph)	666	52	57	1073	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	718	0	0	1130	0	0
Heavy Vehicles (%)	2%	2%	3%	3%	2%	2%
Turn Type			Perm			
Protected Phases	6			2		
Permitted Phases			2			
Actuated Green, G (s)	120.0			120.0		
Effective Green, g (s)	120.0			120.0		
Actuated g/C Ratio	1.00			1.00		
Clearance Time (s)	6.0			6.0		
Vehicle Extension (s)	3.0			3.0		
Lane Grp Cap (vph)	3206			2782		
v/s Ratio Prot	0.22					
v/s Ratio Perm				c0.41		
v/c Ratio	0.22			0.41		
Uniform Delay, d1	0.0			0.0		
Progression Factor	1.00			1.00		
Incremental Delay, d2	0.2			0.4		
Delay (s)	0.2			0.4		
Level of Service	A			A		
Approach Delay (s)	0.2			0.4	0.0	
Approach LOS	A			A	A	

Intersection Summary			
HCM Average Control Delay	0.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	10	11	11	12	12	12
Grade (%)		1%	-2%		2%	
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	0.98		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1527	3163	3155		1539	1377
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1527	3163	3155		1539	1377
Volume (vph)	40	713	408	53	12	8
Peak-hour factor, PHF	0.90	0.90	0.75	0.75	0.63	0.63
Adj. Flow (vph)	44	792	544	71	19	13
RTOR Reduction (vph)	0	0	5	0	0	12
Lane Group Flow (vph)	44	792	610	0	19	1
Heavy Vehicles (%)	4%	4%	4%	4%	10%	10%
Turn Type	Prot					Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Actuated Green, G (s)	4.0	65.6	56.1		4.1	4.1
Effective Green, g (s)	5.5	67.6	58.1		5.1	5.1
Actuated g/C Ratio	0.07	0.84	0.72		0.06	0.06
Clearance Time (s)	5.5	6.0	6.0		5.0	5.0
Vehicle Extension (s)	2.0	8.0	8.0		4.0	4.0
Lane Grp Cap (vph)	104	2650	2271		97	87
v/s Ratio Prot	c0.03	c0.25	0.19		c0.01	
v/s Ratio Perm						0.00
v/c Ratio	0.42	0.30	0.27		0.20	0.01
Uniform Delay, d1	36.1	1.4	3.9		35.9	35.4
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	1.0	0.3	0.3		1.4	0.1
Delay (s)	37.1	1.7	4.2		37.2	35.5
Level of Service	D	A	A		D	D
Approach Delay (s)		3.6	4.2		36.5	
Approach LOS		A	A		D	

Intersection Summary			
HCM Average Control Delay	4.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	80.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	42.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		1%	-1%		0%	
Volume (veh/h)	0	370	342	0	0	0
Peak Hour Factor	1.00	1.00	0.91	0.91	0.90	0.90
Hourly flow rate (vph)	0	370	376	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			405			
pX, platoon unblocked						
vC, conflicting volume	376				561	188
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	376				561	188
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1179				458	822

Direction, Lane #	SE 1	SE 2	NW 1	NW 2	SW 1	SW 2
Volume Total	123	247	251	125	0	0
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0
cSH	1179	1700	1700	1700	1700	1700
Volume to Capacity	0.00	0.15	0.15	0.07	0.00	0.00
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS					A	A
Approach Delay (s)	0.0		0.0		0.0	
Approach LOS					A	

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	14.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	12	10	11	12	12	12	12	12	11	11
Grade (%)		1%			-1%			-6%			-1%	
Total Lost time (s)	4.0	4.0			4.0						4.0	4.0
Lane Util. Factor	1.00	0.95			0.95						1.00	1.00
Frt	1.00	1.00			0.93						1.00	0.85
Flt Protected	0.95	1.00			1.00						0.95	1.00
Satd. Flow (prot)	1628	3257			3071						1661	1486
Flt Permitted	0.95	1.00			1.00						0.76	1.00
Satd. Flow (perm)	1628	3257			3071						1324	1486
Volume (vph)	60	308	0	0	301	239	0	0	0	131	0	40
Peak-hour factor, PHF	1.00	1.00	1.00	0.87	0.87	0.87	0.90	0.90	0.90	1.00	1.00	1.00
Adj. Flow (vph)	60	308	0	0	346	275	0	0	0	131	0	40
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	60	308	0	0	621	0	0	0	0	0	131	40
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Turn Type	Prot			Prot			Perm			Perm		Perm
Protected Phases	5	2		1	6			8			4	
Permitted Phases							8			4		4
Actuated Green, G (s)	5.3	37.4			26.6						10.4	10.4
Effective Green, g (s)	6.8	39.4			28.6						12.4	12.4
Actuated g/C Ratio	0.11	0.66			0.48						0.21	0.21
Clearance Time (s)	5.5	6.0			6.0						6.0	6.0
Vehicle Extension (s)	3.0	4.5			4.5						3.0	3.0
Lane Grp Cap (vph)	185	2146			1469						275	308
v/s Ratio Prot	c0.04	0.09			c0.20							
v/s Ratio Perm											c0.10	0.03
v/c Ratio	0.32	0.14			0.42						0.48	0.13
Uniform Delay, d1	24.4	3.8			10.2						20.8	19.3
Progression Factor	1.00	1.00			1.00						1.00	1.00
Incremental Delay, d2	1.0	0.1			0.3						1.3	0.2
Delay (s)	25.4	3.9			10.5						22.1	19.5
Level of Service	C	A			B						C	B
Approach Delay (s)		7.4			10.5			0.0			21.5	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM Average Control Delay	11.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	59.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	38.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	WBR2	SBL	SBR	SBR2	SEL2	SEL	SER	NEL2	NEL	NER
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	11	12	12	12	12	12	11	12	12	11	12
Grade (%)	1%			-2%				2%			-5%	
Total Lost time (s)		4.0		4.0	4.0	4.0		4.0			4.0	
Lane Util. Factor		0.88		1.00	1.00	1.00		0.97			1.00	
Frt		0.85		1.00	0.85	0.85		1.00			0.91	
Flt Protected		1.00		0.95	1.00	1.00		0.95			0.98	
Satd. Flow (prot)		2515		1629	773	1458		3143			1565	
Flt Permitted		1.00		0.75	1.00	1.00		0.77			0.94	
Satd. Flow (perm)		2515		1282	773	1458		2560			1489	
Volume (vph)	0	443	89	167	10	109	85	368	0	5	0	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.87	0.87	0.87	0.96	0.96	0.96	1.00	1.00	1.00
Adj. Flow (vph)	0	492	99	192	11	125	89	383	0	5	0	10
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	591	0	192	11	125	0	472	0	0	15	0
Heavy Vehicles (%)	3%	3%	3%	6%	100%	6%	1%	1%	1%	2%	2%	2%
Turn Type		custom			custom	custom	custom			custom	custom	
Protected Phases								2				
Permitted Phases		6		4	4	4	5			8	8	
Actuated Green, G (s)		24.1		12.3	12.3	12.3		24.1			11.8	
Effective Green, g (s)		25.6		13.8	13.8	13.8		25.6			13.8	
Actuated g/C Ratio		0.54		0.29	0.29	0.29		0.54			0.29	
Clearance Time (s)		5.5		5.5	5.5	5.5		5.5			6.0	
Vehicle Extension (s)		4.5		3.0	3.0	3.0		4.5			3.0	
Lane Grp Cap (vph)		1358		373	225	424		1383			434	
v/s Ratio Prot												
v/s Ratio Perm		c0.24		c0.15	0.01	0.09		0.18			0.01	
v/c Ratio		0.44		0.51	0.05	0.29		0.34			0.03	
Uniform Delay, d1		6.6		14.0	12.1	13.0		6.1			12.0	
Progression Factor		1.00		1.00	1.00	1.00		1.00			1.00	
Incremental Delay, d2		0.4		1.2	0.1	0.4		0.3			0.0	
Delay (s)		6.9		15.2	12.2	13.4		6.4			12.1	
Level of Service		A		B	B	B		A			B	
Approach Delay (s)	6.9			14.4				6.4			12.1	
Approach LOS	A			B				A			B	

Intersection Summary			
HCM Average Control Delay	8.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	47.4	Sum of lost time (s)	8.0
Intersection Capacity Utilization	37.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL2	WBL	WBR	WBR2	SEL2	SEL	SET	NWT	NWR	NWR2	SWL2	SWL
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	16	12	12	12	12	11	11	12	12	12	12	14
Grade (%)							1%	-7%				0%
Total Lost time (s)	4.0	4.0	4.0			4.0	4.0	4.0				4.0
Lane Util. Factor	1.00	1.00	1.00			1.00	1.00	0.95				1.00
Frt	1.00	1.00	0.85			1.00	1.00	0.96				1.00
Flt Protected	0.95	0.95	1.00			0.95	1.00	1.00				0.95
Satd. Flow (prot)	979	1668	1493			1597	1681	3363				1824
Flt Permitted	0.95	0.20	1.00			0.00	1.00	1.00				0.95
Satd. Flow (perm)	979	354	1493			0	1681	3363				1824
Volume (vph)	6	44	285	20	48	342	162	179	32	34	15	34
Peak-hour factor, PHF	1.00	0.94	0.94	0.94	0.93	0.93	0.93	0.93	0.93	0.93	0.91	0.91
Adj. Flow (vph)	6	47	303	21	52	368	174	192	34	37	16	37
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	6	47	324	0	0	420	174	263	0	0	0	53
Heavy Vehicles (%)	100%	3%	3%	3%	3%	3%	3%	1%	1%	1%	0%	0%
Turn Type	Prot	custom			pm+pt		custom				Prot	Prot
Protected Phases	3	1!	6		5!	2	2	8			4	4
Permitted Phases		3 6	1!		2	5!	5 8					
Actuated Green, G (s)	1.4	43.6	42.2			33.9	46.1	12.2				6.8
Effective Green, g (s)	2.4	45.6	43.2			34.9	48.1	13.2				7.8
Actuated g/C Ratio	0.03	0.55	0.52			0.42	0.58	0.16				0.09
Clearance Time (s)	5.0	5.0	5.0			5.0	5.0	5.0				5.0
Vehicle Extension (s)	4.0	2.0	4.0			4.0	4.0	4.0				4.0
Lane Grp Cap (vph)	28	264	781			675	1060	537				172
v/s Ratio Prot	c0.01	0.01	c0.22			c0.26	0.07	c0.08				c0.03
v/s Ratio Perm		0.09					0.03					
v/c Ratio	0.21	0.18	0.41			0.62	0.16	0.49				0.31
Uniform Delay, d1	39.2	24.7	12.0			18.7	8.0	31.6				34.9
Progression Factor	1.00	1.00	1.00			1.00	1.00	1.00				1.00
Incremental Delay, d2	5.2	0.1	0.5			2.0	0.1	1.0				1.4
Delay (s)	44.4	24.8	12.5			20.7	8.1	32.6				36.3
Level of Service	D	C	B			C	A	C				D
Approach Delay (s)							17.0	32.6				35.1
Approach LOS							B	C				D

Intersection Summary			
HCM Average Control Delay	21.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	82.6	Sum of lost time (s)	20.0
Intersection Capacity Utilization	66.9%	ICU Level of Service	C
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

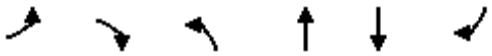
Movement	SWR2
Lane Configurations	
Ideal Flow (vphpl)	1800
Lane Width	12
Grade (%)	
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1530
Flt Permitted	1.00
Satd. Flow (perm)	1530
Volume (vph)	67
Peak-hour factor, PHF	0.91
Adj. Flow (vph)	74
RTOR Reduction (vph)	67
Lane Group Flow (vph)	7
Heavy Vehicles (%)	0%
Turn Type	custom
Protected Phases	4
Permitted Phases	
Actuated Green, G (s)	6.8
Effective Green, g (s)	7.8
Actuated g/C Ratio	0.09
Clearance Time (s)	5.0
Vehicle Extension (s)	4.0
Lane Grp Cap (vph)	144
v/s Ratio Prot	0.00
v/s Ratio Perm	
v/c Ratio	0.05
Uniform Delay, d1	34.0
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	34.2
Level of Service	C
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	NEL2	NEL	NER
Lane Configurations											
Sign Control	Stop			Stop			Stop			Stop	
Volume (vph)	0	0	14	108	0	0	84	18	177	31	47
Peak Hour Factor	0.90	0.90	1.00	1.00	1.00	0.83	0.83	0.83	0.87	0.87	0.87
Hourly flow rate (vph)	0	0	14	108	0	0	101	22	203	36	54

Direction, Lane #	SE 1	NW 1	NE 1
Volume Total (vph)	122	123	293
Volume Left (vph)	14	0	203
Volume Right (vph)	0	22	54
Hadj (s)	0.02	-0.11	0.03
Departure Headway (s)	4.8	4.7	4.5
Degree Utilization, x	0.16	0.16	0.37
Capacity (veh/h)	698	716	763
Control Delay (s)	8.7	8.6	10.1
Approach Delay (s)	8.7	8.6	10.1
Approach LOS	A	A	B

Intersection Summary				
Delay	9.5			
HCM Level of Service	A			
Intersection Capacity Utilization	35.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			2%	-2%	
Volume (veh/h)	0	0	0	174	286	255
Peak Hour Factor	0.90	0.90	0.90	0.98	0.86	0.86
Hourly flow rate (vph)	0	0	0	178	333	297
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				149		
pX, platoon unblocked						
vC, conflicting volume	658	259	629			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	658	259	629			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	397	740	949			

Direction, Lane #	NB 1	SB 1	SB 2	SB 3
Volume Total	178	133	133	363
Volume Left	0	0	0	0
Volume Right	0	0	0	297
cSH	1700	1700	1700	1700
Volume to Capacity	0.10	0.08	0.08	0.21
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0	0.0		
Approach LOS				

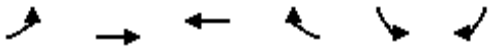
Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	15.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection has too many legs for HCM analysis.

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	11	12	12	11	12	12
Grade (%)	0%			0%	-2%	
Total Lost time (s)	4.0			4.0		
Lane Util. Factor	0.95			0.95		
Frt	0.98			1.00		
Flt Protected	1.00			1.00		
Satd. Flow (prot)	3226			3262		
Flt Permitted	1.00			0.86		
Satd. Flow (perm)	3226			2807		
Volume (vph)	449	52	52	553	0	0
Peak-hour factor, PHF	0.98	0.98	0.86	0.86	0.90	0.90
Adj. Flow (vph)	458	53	60	643	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	511	0	0	703	0	0
Heavy Vehicles (%)	1%	0%	0%	1%	0%	0%
Turn Type			Perm			
Protected Phases	6			2		
Permitted Phases			2			
Actuated Green, G (s)	120.0			120.0		
Effective Green, g (s)	120.0			120.0		
Actuated g/C Ratio	1.00			1.00		
Clearance Time (s)	6.0			6.0		
Vehicle Extension (s)	3.0			3.0		
Lane Grp Cap (vph)	3226			2807		
v/s Ratio Prot	0.16					
v/s Ratio Perm				c0.25		
v/c Ratio	0.16			0.25		
Uniform Delay, d1	0.0			0.0		
Progression Factor	1.00			1.00		
Incremental Delay, d2	0.1			0.2		
Delay (s)	0.1			0.2		
Level of Service	A			A		
Approach Delay (s)	0.1			0.2	0.0	
Approach LOS	A			A	A	

Intersection Summary			
HCM Average Control Delay	0.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	39.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	10	11	11	12	12	12
Grade (%)		1%	-2%		2%	
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1588	3103	3149		1693	1515
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1588	3103	3149		1693	1515
Volume (vph)	136	1232	1599	111	304	203
Peak-hour factor, PHF	0.91	0.91	0.90	0.90	1.00	1.00
Adj. Flow (vph)	149	1354	1777	123	304	203
RTOR Reduction (vph)	0	0	4	0	0	158
Lane Group Flow (vph)	149	1354	1896	0	304	45
Heavy Vehicles (%)	0%	6%	5%	5%	0%	0%
Turn Type	Prot					Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Actuated Green, G (s)	12.8	73.5	55.2		22.6	22.6
Effective Green, g (s)	14.3	75.5	57.2		23.6	23.6
Actuated g/C Ratio	0.13	0.70	0.53		0.22	0.22
Clearance Time (s)	5.5	6.0	6.0		5.0	5.0
Vehicle Extension (s)	2.0	8.0	8.0		4.0	4.0
Lane Grp Cap (vph)	212	2187	1682		373	334
v/s Ratio Prot	c0.09	0.44	c0.60		c0.18	
v/s Ratio Perm						0.03
v/c Ratio	0.70	0.62	1.13		0.82	0.13
Uniform Delay, d1	44.4	8.3	24.9		39.7	33.5
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	8.3	1.2	65.5		13.4	0.2
Delay (s)	52.7	9.5	90.4		53.1	33.8
Level of Service	D	A	F		D	C
Approach Delay (s)		13.8	90.4		45.4	
Approach LOS		B	F		D	

Intersection Summary			
HCM Average Control Delay	55.1	HCM Level of Service	E
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	107.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	86.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	12	11	11	12	12	12
Grade (%)		1%	-1%		0%	
Total Lost time (s)		4.0	4.0			4.0
Lane Util. Factor		0.95	0.95			1.00
Frt		1.00	0.98			0.86
Flt Protected		1.00	1.00			1.00
Satd. Flow (prot)		3222	3186			1557
Flt Permitted		0.89	1.00			1.00
Satd. Flow (perm)		2861	3186			1557
Volume (vph)	19	612	1153	129	0	20
Peak-hour factor, PHF	1.00	1.00	0.92	0.92	0.90	0.90
Adj. Flow (vph)	19	612	1253	140	0	22
RTOR Reduction (vph)	0	0	3	0	0	21
Lane Group Flow (vph)	0	631	1390	0	0	1
Heavy Vehicles (%)	0%	2%	3%	0%	0%	0%
Turn Type	Perm					custom
Protected Phases		2	6			
Permitted Phases	2					4
Actuated Green, G (s)		94.9	94.9			3.0
Effective Green, g (s)		96.9	96.9			5.0
Actuated g/C Ratio		0.88	0.88			0.05
Clearance Time (s)		6.0	6.0			6.0
Vehicle Extension (s)		4.5	4.5			3.0
Lane Grp Cap (vph)		2523	2809			71
v/s Ratio Prot			c0.44			
v/s Ratio Perm		0.22				c0.00
v/c Ratio		0.25	0.49			0.01
Uniform Delay, d1		1.0	1.4			50.1
Progression Factor		1.00	1.00			1.00
Incremental Delay, d2		0.1	0.2			0.1
Delay (s)		1.1	1.6			50.2
Level of Service		A	A			D
Approach Delay (s)		1.1	1.6		50.2	
Approach LOS		A	A		D	

Intersection Summary			
HCM Average Control Delay	2.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	109.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	12	10	11	12	12	12	12	12	11	11
Grade (%)		1%			-1%			-6%			-1%	
Total Lost time (s)	4.0	4.0			4.0					4.0	4.0	4.0
Lane Util. Factor	1.00	0.95			0.95					0.95	0.95	1.00
Frt	1.00	1.00			0.99					1.00	1.00	0.85
Flt Protected	0.95	1.00			1.00					0.95	0.95	1.00
Satd. Flow (prot)	1612	3225			3204					1633	1578	1486
Flt Permitted	0.95	1.00			1.00					0.95	0.95	1.00
Satd. Flow (perm)	1612	3225			3204					1633	1578	1486
Volume (vph)	25	586	0	0	1157	53	0	0	0	336	0	120
Peak-hour factor, PHF	1.00	1.00	1.00	0.92	0.92	0.92	0.90	0.90	0.90	0.97	0.97	0.97
Adj. Flow (vph)	25	586	0	0	1258	58	0	0	0	346	0	124
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	25	586	0	0	1316	0	0	0	0	173	173	124
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	0%	0%	0%	0%	0%	0%
Turn Type	Prot			Prot			Split			Split		Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases												4
Actuated Green, G (s)	1.6	40.1			33.0					10.7	10.7	10.7
Effective Green, g (s)	3.1	42.1			35.0					12.7	12.7	12.7
Actuated g/C Ratio	0.05	0.67			0.56					0.20	0.20	0.20
Clearance Time (s)	5.5	6.0			6.0					6.0	6.0	6.0
Vehicle Extension (s)	3.0	4.5			4.5					3.0	3.0	3.0
Lane Grp Cap (vph)	80	2162			1786					330	319	301
v/s Ratio Prot	0.02	c0.18			c0.41					0.11	c0.11	
v/s Ratio Perm												0.08
v/c Ratio	0.31	0.27			0.74					0.52	0.54	0.41
Uniform Delay, d1	28.8	4.2			10.4					22.4	22.4	21.8
Progression Factor	1.00	1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2	2.2	0.1			1.8					1.5	1.9	0.9
Delay (s)	31.1	4.3			12.3					23.9	24.3	22.7
Level of Service	C	A			B					C	C	C
Approach Delay (s)		5.4			12.3			0.0			23.7	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM Average Control Delay	12.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	62.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	WBR2	SBL	SBR	SBR2	SEL2	SEL	SER	NEL	NER
Lane Configurations											
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	11	12	12	12	12	12	11	12	11	12
Grade (%)	1%			-2%				2%		-5%	
Total Lost time (s)		4.0		4.0	4.0	4.0		4.0			
Lane Util. Factor		0.88		1.00	1.00	1.00		0.97			
Frt		0.85		1.00	0.85	0.85		1.00			
Flt Protected		1.00		0.95	1.00	1.00		0.95			
Satd. Flow (prot)		2421		1661	805	1486		3120			
Flt Permitted		1.00		0.76	1.00	1.00		0.50			
Satd. Flow (perm)		2421		1324	805	1486		1653			
Volume (vph)	0	771	266	424	45	445	279	642	2	0	0
Peak-hour factor, PHF	1.00	1.00	1.00	0.84	0.84	0.84	0.99	0.99	0.99	0.90	0.90
Adj. Flow (vph)	0	771	266	505	54	530	282	648	2	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1037	0	505	54	530	0	932	0	0	0
Heavy Vehicles (%)	7%	7%	7%	4%	92%	4%	2%	2%	2%	2%	2%
Turn Type		custom			custom	custom	custom			custom	
Protected Phases								2			
Permitted Phases		6		4	4	4	5			8	
Actuated Green, G (s)		69.7		45.0	45.0	45.0		69.7			
Effective Green, g (s)		71.2		46.5	46.5	46.5		71.2			
Actuated g/C Ratio		0.57		0.37	0.37	0.37		0.57			
Clearance Time (s)		5.5		5.5	5.5	5.5		5.5			
Vehicle Extension (s)		4.5		3.0	3.0	3.0		4.5			
Lane Grp Cap (vph)		1371		490	298	550		936			
v/s Ratio Prot											
v/s Ratio Perm		0.43		c0.38	0.07	0.36		c0.56			
v/c Ratio		0.76		1.03	0.18	0.96		4.41dl			
Uniform Delay, d1		20.7		39.6	26.7	38.8		27.1			
Progression Factor		1.00		1.00	1.00	1.00		1.00			
Incremental Delay, d2		2.7		48.7	0.3	29.2		28.2			
Delay (s)		23.4		88.3	27.0	67.9		55.3			
Level of Service		C		F	C	E		E			
Approach Delay (s)	23.4			75.4				55.3		0.0	
Approach LOS	C			E				E		A	

Intersection Summary			
HCM Average Control Delay	51.6	HCM Level of Service	D
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	125.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	74.0%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

Movement	EBL2	WBL	WBR	WBR2	SEL2	SEL	SET	NWT	NWR	NWR2	SWL2	SWL
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	16	12	12	12	12	11	11	12	12	12	12	14
Grade (%)							1%	-7%				0%
Total Lost time (s)	4.0	4.0	4.0			4.0	4.0	4.0				4.0
Lane Util. Factor	1.00	1.00	1.00			1.00	1.00	0.95				1.00
Frt	1.00	1.00	0.85			1.00	1.00	0.96				1.00
Flt Protected	0.95	0.95	1.00			0.95	1.00	1.00				0.95
Satd. Flow (prot)	1058	1621	1451			1581	1665	3358				1771
Flt Permitted	0.95	0.09	1.00			0.00	1.00	1.00				0.95
Satd. Flow (perm)	1058	149	1451			0	1665	3358				1771
Volume (vph)	39	139	647	39	47	497	531	245	42	53	63	109
Peak-hour factor, PHF	1.00	0.95	0.95	0.95	0.81	0.81	0.81	1.00	1.00	1.00	0.96	0.96
Adj. Flow (vph)	39	146	681	41	58	614	656	245	42	53	66	114
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	39	146	722	0	0	672	656	340	0	0	0	180
Heavy Vehicles (%)	85%	6%	6%	6%	4%	4%	4%	1%	1%	1%	3%	3%
Turn Type	Prot	custom			pm+pt		custom				Prot	Prot
Protected Phases	3	1!	6		5!	2	2	8			4	4
Permitted Phases		3 6	1!		2	5!	5 8					
Actuated Green, G (s)	6.7	53.9	47.2			33.0	49.1	16.1				10.3
Effective Green, g (s)	7.7	55.9	48.2			34.0	51.1	17.1				11.3
Actuated g/C Ratio	0.08	0.56	0.48			0.34	0.51	0.17				0.11
Clearance Time (s)	5.0	5.0	5.0			5.0	5.0	5.0				5.0
Vehicle Extension (s)	4.0	2.0	4.0			4.0	4.0	4.0				4.0
Lane Grp Cap (vph)	81	233	697			536	915	573				200
v/s Ratio Prot	0.04	0.06	c0.50			c0.42	c0.24	0.10				c0.10
v/s Ratio Perm		c0.29					0.15					
v/c Ratio	0.48	0.63	1.04			1.25	0.72	0.59				0.90
Uniform Delay, d1	44.4	44.5	26.0			33.2	19.0	38.4				43.9
Progression Factor	1.00	1.00	1.00			1.00	1.00	1.00				1.00
Incremental Delay, d2	6.0	3.8	43.7			128.9	2.9	1.9				37.8
Delay (s)	50.4	48.2	69.7			162.0	21.9	40.3				81.8
Level of Service	D	D	E			F	C	D				F
Approach Delay (s)							92.8	40.3				65.1
Approach LOS							F	D				E

Intersection Summary			
HCM Average Control Delay	75.1	HCM Level of Service	E
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	100.3	Sum of lost time (s)	16.0
Intersection Capacity Utilization	103.7%	ICU Level of Service	G
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

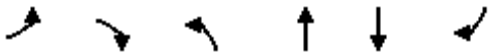
Movement	SWR2
Lane Configurations	
Ideal Flow (vphpl)	1800
Lane Width	12
Grade (%)	
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1485
Flt Permitted	1.00
Satd. Flow (perm)	1485
Volume (vph)	120
Peak-hour factor, PHF	0.96
Adj. Flow (vph)	125
RTOR Reduction (vph)	96
Lane Group Flow (vph)	29
Heavy Vehicles (%)	3%
Turn Type	custom
Protected Phases	4
Permitted Phases	
Actuated Green, G (s)	10.3
Effective Green, g (s)	11.3
Actuated g/C Ratio	0.11
Clearance Time (s)	5.0
Vehicle Extension (s)	4.0
Lane Grp Cap (vph)	167
v/s Ratio Prot	0.02
v/s Ratio Perm	
v/c Ratio	0.17
Uniform Delay, d1	40.3
Progression Factor	1.00
Incremental Delay, d2	0.7
Delay (s)	41.0
Level of Service	D
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	NEL2	NEL	NER
Lane Configurations											
Sign Control	Stop			Stop			Stop			Stop	
Volume (vph)	0	0	1	37	0	0	102	4	59	4	37
Peak Hour Factor	0.90	0.90	0.73	0.73	0.73	0.76	0.76	0.76	0.93	0.93	0.93
Hourly flow rate (vph)	0	0	1	51	0	0	134	5	63	4	40

Direction, Lane #	SE 1	NW 1	NE 1
Volume Total (vph)	52	139	108
Volume Left (vph)	1	0	63
Volume Right (vph)	0	5	40
Hadj (s)	0.01	-0.02	0.02
Departure Headway (s)	4.3	4.2	4.3
Degree Utilization, x	0.06	0.16	0.13
Capacity (veh/h)	808	837	791
Control Delay (s)	7.6	8.0	8.0
Approach Delay (s)	7.6	8.0	8.0
Approach LOS	A	A	A

Intersection Summary				
Delay	7.9			
HCM Level of Service	A			
Intersection Capacity Utilization	18.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			2%	-2%	
Volume (veh/h)	0	0	0	564	933	100
Peak Hour Factor	0.90	0.90	0.90	1.00	0.84	0.93
Hourly flow rate (vph)	0	0	0	564	1111	108
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				149		
pX, platoon unblocked						
vC, conflicting volume	1728	424	1218			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1728	424	1218			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	79	579	568			

Direction, Lane #	NB 1	SB 1	SB 2	SB 3
Volume Total	564	444	444	330
Volume Left	0	0	0	0
Volume Right	0	0	0	108
cSH	1700	1700	1700	1700
Volume to Capacity	0.33	0.26	0.26	0.19
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0	0.0		
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	34.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection has too many legs for HCM analysis.

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		0.95	0.95		1.00	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		3353	3320		1676	1500
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		3353	3320		1676	1500
Volume (vph)	0	586	1173	0	45	20
Peak-hour factor, PHF	1.00	1.00	0.91	0.91	0.90	0.90
Adj. Flow (vph)	0	586	1289	0	50	22
RTOR Reduction (vph)	0	0	0	0	0	20
Lane Group Flow (vph)	0	586	1289	0	50	2
Heavy Vehicles (%)	2%	2%	3%	3%	2%	2%
Turn Type						Perm
Protected Phases		2	6		4	
Permitted Phases						4
Actuated Green, G (s)		77.3	77.3		6.4	6.4
Effective Green, g (s)		79.3	79.3		8.4	8.4
Actuated g/C Ratio		0.83	0.83		0.09	0.09
Clearance Time (s)		6.0	6.0		6.0	6.0
Vehicle Extension (s)		4.5	4.5		3.0	3.0
Lane Grp Cap (vph)		2778	2751		147	132
v/s Ratio Prot		0.17	c0.39		c0.03	
v/s Ratio Perm						0.00
v/c Ratio		0.21	0.47		0.34	0.01
Uniform Delay, d1		1.7	2.3		41.0	39.9
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.1	0.2		1.4	0.0
Delay (s)		1.8	2.5		42.4	39.9
Level of Service		A	A		D	D
Approach Delay (s)		1.8	2.5		41.7	
Approach LOS		A	A		D	

Intersection Summary			
HCM Average Control Delay	3.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	95.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	45.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	11	12	12	11	12	12
Grade (%)	0%			0%	-2%	
Total Lost time (s)	4.0			4.0		
Lane Util. Factor	0.95			0.95		
Frt	0.99			1.00		
Flt Protected	1.00			1.00		
Satd. Flow (prot)	3200			3203		
Flt Permitted	1.00			0.85		
Satd. Flow (perm)	3200			2716		
Volume (vph)	911	85	52	1215	0	0
Peak-hour factor, PHF	1.00	1.00	0.91	0.91	0.90	0.90
Adj. Flow (vph)	911	85	57	1335	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	996	0	0	1392	0	0
Heavy Vehicles (%)	2%	2%	3%	3%	2%	2%
Turn Type			Perm			
Protected Phases	6			2		
Permitted Phases			2			
Actuated Green, G (s)	120.0			120.0		
Effective Green, g (s)	120.0			120.0		
Actuated g/C Ratio	1.00			1.00		
Clearance Time (s)	6.0			6.0		
Vehicle Extension (s)	4.5			4.5		
Lane Grp Cap (vph)	3200			2716		
v/s Ratio Prot	0.31					
v/s Ratio Perm				c0.51		
v/c Ratio	0.31			0.51		
Uniform Delay, d1	0.0			0.0		
Progression Factor	1.00			1.00		
Incremental Delay, d2	0.1			0.3		
Delay (s)	0.1			0.3		
Level of Service	A			A		
Approach Delay (s)	0.1			0.3	0.0	
Approach LOS	A			A	A	

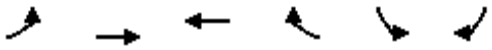
Intersection Summary			
HCM Average Control Delay	0.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	-2%		0%	
Volume (veh/h)	17	586	1084	89	0	0
Peak Hour Factor	1.00	1.00	0.91	0.91	0.90	0.90
Hourly flow rate (vph)	17	586	1191	98	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			603			
pX, platoon unblocked	0.90				0.90	0.90
vC, conflicting volume	1289				1567	645
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1207				1517	488
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				100	100
cM capacity (veh/h)	514				95	471

Direction, Lane #	SE 1	SE 2	NW 1	NW 2
Volume Total	212	391	794	495
Volume Left	17	0	0	0
Volume Right	0	0	0	98
cSH	514	1700	1700	1700
Volume to Capacity	0.03	0.23	0.47	0.29
Queue Length 95th (ft)	3	0	0	0
Control Delay (s)	1.4	0.0	0.0	0.0
Lane LOS	A			
Approach Delay (s)	0.5		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	38.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	10	11	11	12	12	12
Grade (%)		1%	-2%		2%	
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	0.95		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1527	3163	3046		1539	1377
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1527	3163	3046		1539	1377
Volume (vph)	195	794	465	241	277	124
Peak-hour factor, PHF	0.90	0.90	0.75	0.75	0.63	0.63
Adj. Flow (vph)	217	882	620	321	440	197
RTOR Reduction (vph)	0	0	71	0	0	142
Lane Group Flow (vph)	217	882	870	0	440	55
Heavy Vehicles (%)	4%	4%	4%	4%	10%	10%
Turn Type	Prot					Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Actuated Green, G (s)	15.0	57.3	36.8		25.1	25.1
Effective Green, g (s)	16.5	59.3	38.8		26.1	26.1
Actuated g/C Ratio	0.18	0.63	0.42		0.28	0.28
Clearance Time (s)	5.5	6.0	6.0		5.0	5.0
Vehicle Extension (s)	2.0	8.0	8.0		4.0	4.0
Lane Grp Cap (vph)	270	2008	1265		430	385
v/s Ratio Prot	c0.14	0.28	c0.29		c0.29	
v/s Ratio Perm						0.04
v/c Ratio	0.80	0.44	0.69		1.02	0.14
Uniform Delay, d1	36.9	8.6	22.3		33.6	25.3
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	14.9	0.7	3.1		49.4	0.2
Delay (s)	51.8	9.3	25.4		83.1	25.5
Level of Service	D	A	C		F	C
Approach Delay (s)		17.7	25.4		65.3	
Approach LOS		B	C		E	

Intersection Summary			
HCM Average Control Delay	31.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	93.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	61.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	12	11	11	12	12	12
Grade (%)		1%	-1%		0%	
Total Lost time (s)		4.0	4.0			4.0
Lane Util. Factor		0.95	0.95			1.00
Frt		1.00	0.94			0.86
Flt Protected		1.00	1.00			1.00
Satd. Flow (prot)		3245	3096			1557
Flt Permitted		0.82	1.00			1.00
Satd. Flow (perm)		2675	3096			1557
Volume (vph)	44	548	446	288	0	20
Peak-hour factor, PHF	1.00	1.00	0.74	0.74	0.90	0.90
Adj. Flow (vph)	44	548	603	389	0	22
RTOR Reduction (vph)	0	0	46	0	0	21
Lane Group Flow (vph)	0	592	946	0	0	1
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%
Turn Type	Perm					custom
Protected Phases		2	6			
Permitted Phases	2					4
Actuated Green, G (s)		86.6	86.6			3.5
Effective Green, g (s)		88.6	88.6			5.5
Actuated g/C Ratio		0.87	0.87			0.05
Clearance Time (s)		6.0	6.0			6.0
Vehicle Extension (s)		4.5	4.5			3.0
Lane Grp Cap (vph)		2321	2687			84
v/s Ratio Prot			c0.31			
v/s Ratio Perm		0.22				c0.00
v/c Ratio		0.26	0.35			0.01
Uniform Delay, d1		1.1	1.3			45.7
Progression Factor		1.00	1.00			1.00
Incremental Delay, d2		0.1	0.1			0.1
Delay (s)		1.2	1.4			45.8
Level of Service		A	A			D
Approach Delay (s)		1.2	1.4		45.8	
Approach LOS		A	A		D	

Intersection Summary			
HCM Average Control Delay	2.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	102.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	46.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	12	10	11	12	12	12	12	12	11	11
Grade (%)		1%			-1%			-6%			-1%	
Total Lost time (s)	4.0	4.0			4.0					4.0	4.0	4.0
Lane Util. Factor	1.00	0.95			0.95					0.95	0.95	1.00
Frt	1.00	1.00			0.96					1.00	1.00	0.85
Flt Protected	0.95	1.00			1.00					0.95	0.95	1.00
Satd. Flow (prot)	1628	3257			3163					1633	1578	1486
Flt Permitted	0.95	1.00			1.00					0.95	0.95	1.00
Satd. Flow (perm)	1628	3257			3163					1633	1578	1486
Volume (vph)	60	486	0	0	692	239	0	0	0	335	0	41
Peak-hour factor, PHF	1.00	1.00	1.00	0.87	0.87	0.87	0.90	0.90	0.90	1.00	1.00	1.00
Adj. Flow (vph)	60	486	0	0	795	275	0	0	0	335	0	41
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	60	486	0	0	1070	0	0	0	0	168	167	41
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Turn Type	Prot			Prot			Split			Split		Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases												4
Actuated Green, G (s)	2.8	39.8			31.5					9.8	9.8	9.8
Effective Green, g (s)	4.3	41.8			33.5					11.8	11.8	11.8
Actuated g/C Ratio	0.07	0.68			0.54					0.19	0.19	0.19
Clearance Time (s)	5.5	6.0			6.0					6.0	6.0	6.0
Vehicle Extension (s)	3.0	4.5			4.5					3.0	3.0	3.0
Lane Grp Cap (vph)	114	2210			1720					313	302	285
v/s Ratio Prot	c0.04	0.15			c0.34					0.10	c0.11	
v/s Ratio Perm												0.03
v/c Ratio	0.53	0.22			0.62					0.54	0.55	0.14
Uniform Delay, d1	27.7	3.7			9.7					22.4	22.5	20.7
Progression Factor	1.00	1.00			1.00					1.00	1.00	1.00
Incremental Delay, d2	4.3	0.1			0.9					1.8	2.2	0.2
Delay (s)	32.0	3.8			10.6					24.2	24.7	20.9
Level of Service	C	A			B					C	C	C
Approach Delay (s)		6.9			10.6			0.0			24.1	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM Average Control Delay	12.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	61.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	52.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	WBR2	SBL	SBR	SBR2	SEL2	SEL	SER	NEL2	NEL	NER
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	11	12	12	12	12	12	11	12	12	11	12
Grade (%)	1%			-2%				2%			-5%	
Total Lost time (s)		4.0		4.0	4.0	4.0		4.0			4.0	
Lane Util. Factor		0.88		1.00	1.00	1.00		0.97			1.00	
Frt		0.85		1.00	0.85	0.85		1.00			0.91	
Flt Protected		1.00		0.95	1.00	1.00		0.95			0.98	
Satd. Flow (prot)		2515		1629	773	1458		3143			1565	
Flt Permitted		1.00		0.75	1.00	1.00		0.55			0.96	
Satd. Flow (perm)		2515		1282	773	1458		1814			1523	
Volume (vph)	0	549	89	167	10	394	337	440	0	5	0	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.87	0.87	0.87	0.96	0.96	0.96	1.00	1.00	1.00
Adj. Flow (vph)	0	610	99	192	11	453	351	458	0	5	0	10
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	709	0	192	11	453	0	809	0	0	15	0
Heavy Vehicles (%)	3%	3%	3%	6%	100%	6%	1%	1%	1%	2%	2%	2%
Turn Type		custom			custom	custom	custom			custom	custom	
Protected Phases								2				
Permitted Phases		6		4	4	4	5			8	8	
Actuated Green, G (s)		46.6		32.5	32.5	32.5		46.6			32.0	
Effective Green, g (s)		48.1		34.0	34.0	34.0		48.1			34.0	
Actuated g/C Ratio		0.53		0.38	0.38	0.38		0.53			0.38	
Clearance Time (s)		5.5		5.5	5.5	5.5		5.5			6.0	
Vehicle Extension (s)		4.5		3.0	3.0	3.0		4.5			3.0	
Lane Grp Cap (vph)		1343		484	292	550		968			575	
v/s Ratio Prot												
v/s Ratio Perm		0.28		0.15	0.01	c0.31		c0.45			0.01	
v/c Ratio		0.53		0.40	0.04	0.82		2.31dl			0.03	
Uniform Delay, d1		13.6		20.5	17.7	25.3		17.7			17.6	
Progression Factor		1.00		1.00	1.00	1.00		1.00			1.00	
Incremental Delay, d2		0.6		0.5	0.1	9.7		6.9			0.0	
Delay (s)		14.2		21.1	17.8	35.0		24.6			17.7	
Level of Service		B		C	B	D		C			B	
Approach Delay (s)	14.2			30.7				24.6			17.7	
Approach LOS	B			C				C			B	

Intersection Summary			
HCM Average Control Delay	23.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	90.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	56.0%	ICU Level of Service	B
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

Movement	EBL2	WBL	WBR	WBR2	SEL2	SEL	SET	NWT	NWR	NWR2	SWL2	SWL
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	16	12	12	12	12	11	11	12	12	12	12	14
Grade (%)							1%	-7%				0%
Total Lost time (s)	4.0	4.0	4.0			4.0	4.0	4.0				4.0
Lane Util. Factor	1.00	1.00	1.00			1.00	1.00	0.95				1.00
Frt	1.00	1.00	0.85			1.00	1.00	0.97				1.00
Flt Protected	0.95	0.95	1.00			0.95	1.00	1.00				0.95
Satd. Flow (prot)	979	1668	1493			1597	1681	3390				1824
Flt Permitted	0.95	0.17	1.00			0.00	1.00	1.00				0.95
Satd. Flow (perm)	979	300	1493			0	1681	3390				1824
Volume (vph)	6	44	334	20	48	385	191	236	32	34	15	34
Peak-hour factor, PHF	1.00	0.94	0.94	0.94	0.93	0.93	0.93	0.93	0.93	0.93	0.91	0.91
Adj. Flow (vph)	6	47	355	21	52	414	205	254	34	37	16	37
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	6	47	376	0	0	466	205	325	0	0	0	53
Heavy Vehicles (%)	100%	3%	3%	3%	3%	3%	3%	1%	1%	1%	0%	0%
Turn Type	Prot	custom			pm+pt		custom				Prot	Prot
Protected Phases	3	1!	6		5!	2	2	8			4	4
Permitted Phases		3 6	1!		2	5!	5 8					
Actuated Green, G (s)	1.4	44.8	43.4			35.1	48.7	13.6				6.8
Effective Green, g (s)	2.4	46.8	44.4			36.1	50.7	14.6				7.8
Actuated g/C Ratio	0.03	0.55	0.52			0.42	0.60	0.17				0.09
Clearance Time (s)	5.0	5.0	5.0			5.0	5.0	5.0				5.0
Vehicle Extension (s)	4.0	2.0	4.0			4.0	4.0	4.0				4.0
Lane Grp Cap (vph)	28	234	778			677	1079	581				167
v/s Ratio Prot	c0.01	0.01	c0.25			c0.29	0.08	c0.10				c0.03
v/s Ratio Perm		0.10					0.04					
v/c Ratio	0.21	0.20	0.48			0.69	0.19	0.56				0.32
Uniform Delay, d1	40.5	27.2	13.1			20.0	7.9	32.4				36.2
Progression Factor	1.00	1.00	1.00			1.00	1.00	1.00				1.00
Incremental Delay, d2	5.2	0.2	0.6			3.2	0.1	1.4				1.5
Delay (s)	45.7	27.4	13.7			23.1	8.0	33.8				37.7
Level of Service	D	C	B			C	A	C				D
Approach Delay (s)							18.5	33.8				36.4
Approach LOS							B	C				D

Intersection Summary			
HCM Average Control Delay	22.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	85.2	Sum of lost time (s)	20.0
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

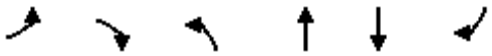
Movement	SWR2
Lane Configurations	
Ideal Flow (vphpl)	1800
Lane Width	12
Grade (%)	
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1530
Flt Permitted	1.00
Satd. Flow (perm)	1530
Volume (vph)	67
Peak-hour factor, PHF	0.91
Adj. Flow (vph)	74
RTOR Reduction (vph)	67
Lane Group Flow (vph)	7
Heavy Vehicles (%)	0%
Turn Type	custom
Protected Phases	4
Permitted Phases	
Actuated Green, G (s)	6.8
Effective Green, g (s)	7.8
Actuated g/C Ratio	0.09
Clearance Time (s)	5.0
Vehicle Extension (s)	4.0
Lane Grp Cap (vph)	140
v/s Ratio Prot	0.00
v/s Ratio Perm	
v/c Ratio	0.05
Uniform Delay, d1	35.3
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	35.5
Level of Service	D
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	NEL2	NEL	NER
Lane Configurations											
Sign Control	Stop			Stop			Stop			Stop	
Volume (vph)	0	0	14	108	0	0	84	18	177	31	47
Peak Hour Factor	0.90	0.90	1.00	1.00	1.00	0.83	0.83	0.83	0.87	0.87	0.87
Hourly flow rate (vph)	0	0	14	108	0	0	101	22	203	36	54

Direction, Lane #	SE 1	NW 1	NE 1
Volume Total (vph)	122	123	293
Volume Left (vph)	14	0	203
Volume Right (vph)	0	22	54
Hadj (s)	0.02	-0.11	0.03
Departure Headway (s)	4.8	4.7	4.5
Degree Utilization, x	0.16	0.16	0.37
Capacity (veh/h)	698	716	763
Control Delay (s)	8.7	8.6	10.1
Approach Delay (s)	8.7	8.6	10.1
Approach LOS	A	A	B

Intersection Summary				
Delay	9.5			
HCM Level of Service	A			
Intersection Capacity Utilization	35.3%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			2%	-2%	
Volume (veh/h)	0	0	0	426	571	255
Peak Hour Factor	0.90	0.90	0.90	0.98	0.86	0.86
Hourly flow rate (vph)	0	0	0	435	664	297
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				149		
pX, platoon unblocked						
vC, conflicting volume	1247	370	960			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1247	370	960			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	166	628	712			

Direction, Lane #	NB 1	SB 1	SB 2	SB 3
Volume Total	435	266	266	429
Volume Left	0	0	0	0
Volume Right	0	0	0	297
cSH	1700	1700	1700	1700
Volume to Capacity	0.26	0.16	0.16	0.25
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0	0.0		
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	27.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection has too many legs for HCM analysis.

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		0.95	0.95		1.00	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		3386	3386		1710	1530
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		3386	3386		1710	1530
Volume (vph)	0	513	466	0	79	36
Peak-hour factor, PHF	1.00	1.00	0.74	0.74	0.90	0.90
Adj. Flow (vph)	0	513	630	0	88	40
RTOR Reduction (vph)	0	0	0	0	0	33
Lane Group Flow (vph)	0	513	630	0	88	7
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%
Turn Type						Perm
Protected Phases		2	6		4	
Permitted Phases						4
Actuated Green, G (s)		39.2	39.2		9.0	9.0
Effective Green, g (s)		41.2	41.2		11.0	11.0
Actuated g/C Ratio		0.68	0.68		0.18	0.18
Clearance Time (s)		6.0	6.0		6.0	6.0
Vehicle Extension (s)		4.5	4.5		3.0	3.0
Lane Grp Cap (vph)		2317	2317		312	280
v/s Ratio Prot		0.15	c0.19		c0.05	
v/s Ratio Perm						0.00
v/c Ratio		0.22	0.27		0.28	0.03
Uniform Delay, d1		3.5	3.7		21.2	20.2
Progression Factor		1.00	1.00		1.00	1.00
Incremental Delay, d2		0.1	0.1		0.5	0.0
Delay (s)		3.6	3.8		21.7	20.2
Level of Service		A	A		C	C
Approach Delay (s)		3.6	3.8		21.2	
Approach LOS		A	A		C	

Intersection Summary			
HCM Average Control Delay	5.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	60.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	26.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	11	12	12	11	12	12
Grade (%)	0%			0%	-2%	
Total Lost time (s)	4.0			4.0		
Lane Util. Factor	0.95			0.95		
Frt	0.98			1.00		
Flt Protected	1.00			1.00		
Satd. Flow (prot)	3216			3266		
Flt Permitted	1.00			0.83		
Satd. Flow (perm)	3216			2729		
Volume (vph)	773	110	52	944	0	0
Peak-hour factor, PHF	0.96	0.96	0.87	0.87	0.90	0.90
Adj. Flow (vph)	805	115	60	1085	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	920	0	0	1145	0	0
Heavy Vehicles (%)	1%	0%	0%	1%	0%	0%
Turn Type			Perm			
Protected Phases	6			2		
Permitted Phases			2			
Actuated Green, G (s)	120.0			120.0		
Effective Green, g (s)	120.0			120.0		
Actuated g/C Ratio	1.00			1.00		
Clearance Time (s)	6.0			6.0		
Vehicle Extension (s)	4.5			4.5		
Lane Grp Cap (vph)	3216			2729		
v/s Ratio Prot	0.29					
v/s Ratio Perm				c0.42		
v/c Ratio	0.29			0.42		
Uniform Delay, d1	0.0			0.0		
Progression Factor	1.00			1.00		
Incremental Delay, d2	0.1			0.2		
Delay (s)	0.1			0.2		
Level of Service	A			A		
Approach Delay (s)	0.1			0.2	0.0	
Approach LOS	A			A	A	

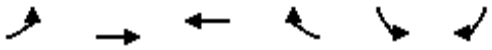
Intersection Summary			
HCM Average Control Delay	0.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	62.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	-2%		0%	
Volume (veh/h)	37	513	399	103	0	0
Peak Hour Factor	1.00	1.00	0.74	0.74	0.90	0.90
Hourly flow rate (vph)	37	513	539	139	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			603			
pX, platoon unblocked	0.99				0.99	0.99
vC, conflicting volume	678				939	339
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	660				925	316
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				100	100
cM capacity (veh/h)	911				254	670

Direction, Lane #	SE 1	SE 2	NW 1	NW 2
Volume Total	208	342	359	319
Volume Left	37	0	0	0
Volume Right	0	0	0	139
cSH	911	1700	1700	1700
Volume to Capacity	0.04	0.20	0.21	0.19
Queue Length 95th (ft)	3	0	0	0
Control Delay (s)	2.0	0.0	0.0	0.0
Lane LOS	A			
Approach Delay (s)	0.7		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	37.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	10	11	11	12	12	12
Grade (%)		1%	-2%		2%	
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	0.95		0.97	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1588	3103	3149		3284	1515
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1588	3103	3149		3284	1515
Volume (vph)	136	1232	1599	111	304	203
Peak-hour factor, PHF	0.91	0.91	0.90	0.90	1.00	1.00
Adj. Flow (vph)	149	1354	1777	123	304	203
RTOR Reduction (vph)	0	0	6	0	0	178
Lane Group Flow (vph)	149	1354	1894	0	304	25
Heavy Vehicles (%)	0%	6%	5%	5%	0%	0%
Turn Type	Prot					Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Actuated Green, G (s)	10.5	68.0	52.0		10.0	10.0
Effective Green, g (s)	12.0	70.0	54.0		11.0	11.0
Actuated g/C Ratio	0.13	0.79	0.61		0.12	0.12
Clearance Time (s)	5.5	6.0	6.0		5.0	5.0
Vehicle Extension (s)	2.0	8.0	8.0		4.0	4.0
Lane Grp Cap (vph)	214	2441	1911		406	187
v/s Ratio Prot	c0.09	0.44	c0.60		c0.09	
v/s Ratio Perm						0.02
v/c Ratio	0.70	0.55	0.99		0.75	0.13
Uniform Delay, d1	36.8	3.6	17.3		37.7	34.8
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	7.7	0.9	18.6		7.9	0.4
Delay (s)	44.5	4.4	35.9		45.5	35.2
Level of Service	D	A	D		D	D
Approach Delay (s)		8.4	35.9		41.4	
Approach LOS		A	D		D	

Intersection Summary			
HCM Average Control Delay	26.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	89.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	12	11	11	12	12	12
Grade (%)		1%	-1%		0%	
Total Lost time (s)		4.0	4.0			4.0
Lane Util. Factor		0.95	0.95			1.00
Frt		1.00	0.98			0.86
Flt Protected		1.00	1.00			1.00
Satd. Flow (prot)		3222	3186			1557
Flt Permitted		0.89	1.00			1.00
Satd. Flow (perm)		2865	3186			1557
Volume (vph)	19	612	1153	129	0	20
Peak-hour factor, PHF	1.00	1.00	0.92	0.92	0.90	0.90
Adj. Flow (vph)	19	612	1253	140	0	22
RTOR Reduction (vph)	0	0	3	0	0	21
Lane Group Flow (vph)	0	631	1390	0	0	1
Heavy Vehicles (%)	0%	2%	3%	0%	0%	0%
Turn Type	Perm					custom
Protected Phases		2	6			
Permitted Phases	2					4
Actuated Green, G (s)		91.6	91.6			2.4
Effective Green, g (s)		93.6	93.6			4.4
Actuated g/C Ratio		0.88	0.88			0.04
Clearance Time (s)		6.0	6.0			6.0
Vehicle Extension (s)		4.5	4.5			3.0
Lane Grp Cap (vph)		2530	2813			65
v/s Ratio Prot			c0.44			
v/s Ratio Perm		0.22				c0.00
v/c Ratio		0.25	0.49			0.01
Uniform Delay, d1		0.9	1.3			48.7
Progression Factor		0.90	0.00			1.00
Incremental Delay, d2		0.2	0.5			0.1
Delay (s)		1.1	0.5			48.8
Level of Service		A	A			D
Approach Delay (s)		1.1	0.5		48.8	
Approach LOS		A	A		D	

Intersection Summary			
HCM Average Control Delay	1.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	106.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	12	10	11	12	12	12	12	12	11	11
Grade (%)		1%			-1%			-6%			-1%	
Total Lost time (s)	4.0	4.0			4.0					4.0	4.0	4.0
Lane Util. Factor	1.00	0.95			0.95					0.95	0.95	1.00
Frt	1.00	1.00			0.99					1.00	1.00	0.85
Flt Protected	0.95	1.00			1.00					0.95	0.95	1.00
Satd. Flow (prot)	1612	3225			3204					1633	1578	1486
Flt Permitted	0.95	1.00			1.00					0.95	0.95	1.00
Satd. Flow (perm)	1612	3225			3204					1633	1578	1486
Volume (vph)	25	586	0	0	1157	53	0	0	0	336	0	120
Peak-hour factor, PHF	1.00	1.00	1.00	0.92	0.92	0.92	0.90	0.90	0.90	0.97	0.97	0.97
Adj. Flow (vph)	25	586	0	0	1258	58	0	0	0	346	0	124
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	25	586	0	0	1316	0	0	0	0	173	173	124
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	0%	0%	0%	0%	0%	0%
Turn Type	Prot			Prot			Split			Split		Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases												4
Actuated Green, G (s)	3.6	78.3			69.2					15.7	15.7	15.7
Effective Green, g (s)	5.1	80.3			71.2					17.7	17.7	17.7
Actuated g/C Ratio	0.05	0.76			0.67					0.17	0.17	0.17
Clearance Time (s)	5.5	6.0			6.0					6.0	6.0	6.0
Vehicle Extension (s)	3.0	4.5			4.5					3.0	3.0	3.0
Lane Grp Cap (vph)	78	2443			2152					273	263	248
v/s Ratio Prot	c0.02	0.18			c0.41					0.11	c0.11	
v/s Ratio Perm												0.08
v/c Ratio	0.32	0.24			0.61					0.63	0.66	0.50
Uniform Delay, d1	48.8	3.8			9.7					41.1	41.3	40.1
Progression Factor	0.89	0.77			0.66					1.00	1.00	1.00
Incremental Delay, d2	2.3	0.2			0.6					4.7	5.8	1.6
Delay (s)	45.9	3.2			7.0					45.9	47.1	41.7
Level of Service	D	A			A					D	D	D
Approach Delay (s)		4.9			7.0			0.0			45.2	
Approach LOS		A			A			A			D	

Intersection Summary			
HCM Average Control Delay	14.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	106.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	WBR2	SBL	SBR	SBR2	SEL2	SEL	SER	NEL	NER
Lane Configurations											
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	11	12	12	12	12	12	11	12	11	12
Grade (%)	1%			-2%				2%		-5%	
Total Lost time (s)		4.0		4.0	4.0	4.0		4.0			
Lane Util. Factor		0.88		1.00	1.00	0.88		0.97			
Frt		0.85		1.00	0.85	0.85		1.00			
Flt Protected		1.00		0.95	1.00	1.00		0.95			
Satd. Flow (prot)		2421		1661	805	2615		3120			
Flt Permitted		1.00		0.76	1.00	1.00		0.46			
Satd. Flow (perm)		2421		1324	805	2615		1490			
Volume (vph)	0	771	266	424	45	445	279	642	2	0	0
Peak-hour factor, PHF	1.00	1.00	1.00	0.84	0.84	0.84	0.99	0.99	0.99	0.90	0.90
Adj. Flow (vph)	0	771	266	505	54	530	282	648	2	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1037	0	505	54	530	0	932	0	0	0
Heavy Vehicles (%)	7%	7%	7%	4%	92%	4%	2%	2%	2%	2%	2%
Turn Type		custom			custom	custom	custom			custom	
Protected Phases					4	4		2			
Permitted Phases		6		4			5	5		8	
Actuated Green, G (s)		52.7		42.3	42.3	42.3		52.7			
Effective Green, g (s)		54.2		43.8	43.8	43.8		54.2			
Actuated g/C Ratio		0.51		0.41	0.41	0.41		0.51			
Clearance Time (s)		5.5		5.5	5.5	5.5		5.5			
Vehicle Extension (s)		4.5		3.0	3.0	3.0		4.5			
Lane Grp Cap (vph)		1238		547	333	1081		1595			
v/s Ratio Prot					0.07	0.20		0.30			
v/s Ratio Perm		c0.43		c0.38							
v/c Ratio		0.84		0.92	0.16	0.49		0.58			
Uniform Delay, d1		22.1		29.5	19.6	22.9		18.0			
Progression Factor		1.00		1.00	1.00	1.00		0.54			
Incremental Delay, d2		5.5		23.5	1.0	1.6		0.7			
Delay (s)		27.7		53.0	20.6	24.5		10.5			
Level of Service		C		D	C	C		B			
Approach Delay (s)	27.7			37.5				10.5		0.0	
Approach LOS	C			D				B		A	

Intersection Summary			
HCM Average Control Delay	26.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	106.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL2	WBL	WBR	WBR2	SEL2	SEL	SET	NWT	NWR	NWR2	SWL2	SWL
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	16	12	12	12	12	11	11	12	12	12	12	14
Grade (%)							1%	-7%				0%
Total Lost time (s)	4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00	1.00			1.00	1.00	0.95			1.00	1.00
Frt	1.00	1.00	0.85			1.00	1.00	0.96			1.00	1.00
Flt Protected	0.95	0.95	1.00			0.95	1.00	1.00			0.95	0.95
Satd. Flow (prot)	1058	1621	1451			1581	1665	3358			1660	1771
Flt Permitted	0.95	0.07	1.00			0.00	1.00	1.00			0.95	0.95
Satd. Flow (perm)	1058	125	1451			0	1665	3358			1660	1771
Volume (vph)	39	139	647	39	47	497	531	245	42	53	63	109
Peak-hour factor, PHF	1.00	0.95	0.95	0.95	0.81	0.81	0.81	1.00	1.00	1.00	0.96	0.96
Adj. Flow (vph)	39	146	681	41	58	614	656	245	42	53	66	114
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	39	146	722	0	0	672	656	340	0	0	66	114
Heavy Vehicles (%)	85%	6%	6%	6%	4%	4%	4%	1%	1%	1%	3%	3%
Turn Type	Prot	custom			pm+pt		custom				Prot	Prot
Protected Phases	3	1!	6		5!	2	2	8			4	4
Permitted Phases		3 6	1!		2	5!	5 8					
Actuated Green, G (s)	6.9	62.1	55.2			41.8	55.5	13.7			8.2	8.2
Effective Green, g (s)	7.9	64.1	56.2			42.8	57.5	14.7			9.2	9.2
Actuated g/C Ratio	0.08	0.62	0.54			0.41	0.55	0.14			0.09	0.09
Clearance Time (s)	5.0	5.0	5.0			5.0	5.0	5.0			5.0	5.0
Vehicle Extension (s)	4.0	2.0	4.0			4.0	4.0	4.0			4.0	4.0
Lane Grp Cap (vph)	80	212	784			651	985	475			147	157
v/s Ratio Prot	0.04	0.06	c0.50			c0.42	c0.27	0.10			0.04	c0.06
v/s Ratio Perm		c0.36					0.12					
v/c Ratio	0.49	0.69	0.92			1.03	0.67	0.72			0.45	0.73
Uniform Delay, d1	46.1	44.1	21.9			30.6	16.5	42.7			45.0	46.2
Progression Factor	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	6.3	7.2	16.3			43.8	1.3	5.4			3.0	16.3
Delay (s)	52.4	51.3	38.2			74.4	17.8	48.1			48.0	62.5
Level of Service	D	D	D			E	B	D			D	E
Approach Delay (s)							46.4	48.1				51.7
Approach LOS							D	D				D

Intersection Summary			
HCM Average Control Delay	45.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	104.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	103.7%	ICU Level of Service	G
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

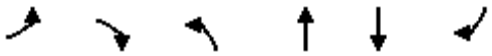
Movement	SWR2
Lane Configurations	
Ideal Flow (vphpl)	1800
Lane Width	12
Grade (%)	
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1485
Flt Permitted	1.00
Satd. Flow (perm)	1485
Volume (vph)	120
Peak-hour factor, PHF	0.96
Adj. Flow (vph)	125
RTOR Reduction (vph)	114
Lane Group Flow (vph)	11
Heavy Vehicles (%)	3%
Turn Type	custom
Protected Phases	4
Permitted Phases	
Actuated Green, G (s)	8.2
Effective Green, g (s)	9.2
Actuated g/C Ratio	0.09
Clearance Time (s)	5.0
Vehicle Extension (s)	4.0
Lane Grp Cap (vph)	131
v/s Ratio Prot	0.01
v/s Ratio Perm	
v/c Ratio	0.08
Uniform Delay, d1	43.5
Progression Factor	1.00
Incremental Delay, d2	0.4
Delay (s)	43.9
Level of Service	D
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	NEL2	NEL	NER
Lane Configurations											
Sign Control	Stop			Stop			Stop			Stop	
Volume (vph)	0	0	1	37	0	0	102	4	59	4	37
Peak Hour Factor	0.90	0.90	0.73	0.73	0.73	0.76	0.76	0.76	0.93	0.93	0.93
Hourly flow rate (vph)	0	0	1	51	0	0	134	5	63	4	40

Direction, Lane #	SE 1	NW 1	NE 1	NE 2
Volume Total (vph)	52	139	63	44
Volume Left (vph)	1	0	63	0
Volume Right (vph)	0	5	0	40
Hadj (s)	0.01	-0.02	0.62	-0.51
Departure Headway (s)	4.3	4.2	5.5	4.4
Degree Utilization, x	0.06	0.16	0.10	0.05
Capacity (veh/h)	804	833	624	777
Control Delay (s)	7.6	8.0	7.9	6.5
Approach Delay (s)	7.6	8.0	7.3	
Approach LOS	A	A	A	

Intersection Summary				
Delay	7.7			
HCM Level of Service	A			
Intersection Capacity Utilization	16.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			2%	-2%	
Volume (veh/h)	0	0	0	564	933	100
Peak Hour Factor	0.90	0.90	0.90	1.00	0.84	0.93
Hourly flow rate (vph)	0	0	0	564	1111	108
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				149		
pX, platoon unblocked						
vC, conflicting volume	1728	424	1218			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1728	424	1218			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	79	579	568			

Direction, Lane #	NB 1	SB 1	SB 2	SB 3
Volume Total	564	444	444	330
Volume Left	0	0	0	0
Volume Right	0	0	0	108
cSH	1700	1700	1700	1700
Volume to Capacity	0.33	0.26	0.26	0.19
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0	0.0		
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	34.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection has too many legs for HCM analysis.

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		0.95	0.95		1.00	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		3353	3320		1676	1500
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		3353	3320		1676	1500
Volume (vph)	0	586	1173	0	45	20
Peak-hour factor, PHF	1.00	1.00	0.91	0.91	0.90	0.90
Adj. Flow (vph)	0	586	1289	0	50	22
RTOR Reduction (vph)	0	0	0	0	0	19
Lane Group Flow (vph)	0	586	1289	0	50	3
Heavy Vehicles (%)	2%	2%	3%	3%	2%	2%
Turn Type						Perm
Protected Phases		2	6		4	
Permitted Phases						4
Actuated Green, G (s)		36.2	36.2		4.8	4.8
Effective Green, g (s)		38.2	38.2		6.8	6.8
Actuated g/C Ratio		0.72	0.72		0.13	0.13
Clearance Time (s)		6.0	6.0		6.0	6.0
Vehicle Extension (s)		4.5	4.5		3.0	3.0
Lane Grp Cap (vph)		2417	2393		215	192
v/s Ratio Prot		0.17	c0.39		c0.03	
v/s Ratio Perm						0.00
v/c Ratio		0.24	0.54		0.23	0.01
Uniform Delay, d1		2.5	3.4		20.8	20.2
Progression Factor		1.00	1.17		1.00	1.00
Incremental Delay, d2		0.2	0.8		0.6	0.0
Delay (s)		2.7	4.8		21.3	20.2
Level of Service		A	A		C	C
Approach Delay (s)		2.7	4.8		21.0	
Approach LOS		A	A		C	

Intersection Summary			
HCM Average Control Delay	4.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	53.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	45.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	11	12	12	11	12	12
Grade (%)	0%			0%	-2%	
Total Lost time (s)	4.0			4.0		
Lane Util. Factor	0.95			0.95		
Frt	0.99			1.00		
Flt Protected	1.00			1.00		
Satd. Flow (prot)	3200			3203		
Flt Permitted	1.00			0.85		
Satd. Flow (perm)	3200			2736		
Volume (vph)	911	85	52	1215	0	0
Peak-hour factor, PHF	1.00	1.00	0.91	0.91	0.90	0.90
Adj. Flow (vph)	911	85	57	1335	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	996	0	0	1392	0	0
Heavy Vehicles (%)	2%	2%	3%	3%	2%	2%
Turn Type			Perm			
Protected Phases	6			2		
Permitted Phases			2			
Actuated Green, G (s)	106.0			106.0		
Effective Green, g (s)	106.0			106.0		
Actuated g/C Ratio	1.00			1.00		
Clearance Time (s)	6.0			6.0		
Vehicle Extension (s)	4.5			4.5		
Lane Grp Cap (vph)	3200			2736		
v/s Ratio Prot	0.31					
v/s Ratio Perm				c0.51		
v/c Ratio	0.31			0.51		
Uniform Delay, d1	0.0			0.0		
Progression Factor	1.00			1.00		
Incremental Delay, d2	0.2			0.5		
Delay (s)	0.2			0.5		
Level of Service	A			A		
Approach Delay (s)	0.2			0.5	0.0	
Approach LOS	A			A	A	

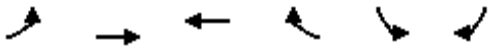
Intersection Summary			
HCM Average Control Delay	0.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	106.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	-2%		0%	
Volume (veh/h)	17	586	1084	89	0	0
Peak Hour Factor	1.00	1.00	0.91	0.91	0.90	0.90
Hourly flow rate (vph)	17	586	1191	98	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			603			
pX, platoon unblocked	0.84				0.84	0.84
vC, conflicting volume	1289				1567	645
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1149				1482	378
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				100	100
cM capacity (veh/h)	505				94	518

Direction, Lane #	SE 1	SE 2	SE 3	NW 1	NW 2
Volume Total	17	293	293	794	495
Volume Left	17	0	0	0	0
Volume Right	0	0	0	0	98
cSH	505	1700	1700	1700	1700
Volume to Capacity	0.03	0.17	0.17	0.47	0.29
Queue Length 95th (ft)	3	0	0	0	0
Control Delay (s)	12.4	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	0.3			0.0	
Approach LOS					

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	38.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	10	11	11	12	12	12
Grade (%)		1%	-2%		2%	
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	0.95		0.97	1.00
Frt	1.00	1.00	0.95		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1527	3163	3046		2986	1377
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1527	3163	3046		2986	1377
Volume (vph)	195	794	465	241	277	124
Peak-hour factor, PHF	0.90	0.90	0.75	0.75	0.63	0.63
Adj. Flow (vph)	217	882	620	321	440	197
RTOR Reduction (vph)	0	0	94	0	0	160
Lane Group Flow (vph)	217	882	847	0	440	37
Heavy Vehicles (%)	4%	4%	4%	4%	10%	10%
Turn Type	Prot					Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Actuated Green, G (s)	11.5	46.1	29.1		12.0	12.0
Effective Green, g (s)	13.0	48.1	31.1		13.0	13.0
Actuated g/C Ratio	0.19	0.70	0.45		0.19	0.19
Clearance Time (s)	5.5	6.0	6.0		5.0	5.0
Vehicle Extension (s)	2.0	8.0	8.0		4.0	4.0
Lane Grp Cap (vph)	287	2202	1371		562	259
v/s Ratio Prot	c0.14	0.28	c0.28		c0.15	
v/s Ratio Perm						0.03
v/c Ratio	0.76	0.40	0.62		0.78	0.14
Uniform Delay, d1	26.5	4.4	14.5		26.7	23.4
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	9.7	0.5	2.0		7.4	0.3
Delay (s)	36.2	4.9	16.4		34.1	23.8
Level of Service	D	A	B		C	C
Approach Delay (s)		11.1	16.4		30.9	
Approach LOS		B	B		C	

Intersection Summary			
HCM Average Control Delay	17.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	69.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	12	11	11	12	12	12
Grade (%)		1%	-1%		0%	
Total Lost time (s)		4.0	4.0			4.0
Lane Util. Factor		0.95	0.95			1.00
Frt		1.00	0.95			0.86
Flt Protected		1.00	1.00			1.00
Satd. Flow (prot)		3245	3113			1557
Flt Permitted		0.85	1.00			1.00
Satd. Flow (perm)		2758	3113			1557
Volume (vph)	44	548	446	248	0	20
Peak-hour factor, PHF	1.00	1.00	0.74	0.74	0.90	0.90
Adj. Flow (vph)	44	548	603	335	0	22
RTOR Reduction (vph)	0	0	38	0	0	21
Lane Group Flow (vph)	0	592	900	0	0	1
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%
Turn Type	Perm					custom
Protected Phases		2	6			
Permitted Phases	2					4
Actuated Green, G (s)		56.8	56.8			1.2
Effective Green, g (s)		58.8	58.8			3.2
Actuated g/C Ratio		0.84	0.84			0.05
Clearance Time (s)		6.0	6.0			6.0
Vehicle Extension (s)		4.5	4.5			3.0
Lane Grp Cap (vph)		2317	2615			71
v/s Ratio Prot			c0.29			
v/s Ratio Perm		0.21				c0.00
v/c Ratio		0.26	0.34			0.01
Uniform Delay, d1		1.1	1.3			31.9
Progression Factor		0.91	0.13			1.00
Incremental Delay, d2		0.3	0.3			0.1
Delay (s)		1.3	0.5			32.0
Level of Service		A	A			C
Approach Delay (s)		1.3	0.5		32.0	
Approach LOS		A	A		C	

Intersection Summary			
HCM Average Control Delay	1.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	45.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	12	10	11	12	12	12	12	12	11	11
Grade (%)		1%			-1%			-6%			-1%	
Total Lost time (s)	4.0	4.0			4.0					4.0	4.0	4.0
Lane Util. Factor	1.00	0.95			0.95					0.95	0.95	1.00
Frt	1.00	1.00			0.96					1.00	1.00	0.85
Flt Protected	0.95	1.00			1.00					0.95	0.95	1.00
Satd. Flow (prot)	1628	3257			3163					1633	1578	1486
Flt Permitted	0.95	1.00			1.00					0.95	0.95	1.00
Satd. Flow (perm)	1628	3257			3163					1633	1578	1486
Volume (vph)	60	486	0	0	692	239	0	0	0	335	0	41
Peak-hour factor, PHF	1.00	1.00	1.00	0.87	0.87	0.87	0.90	0.90	0.90	1.00	1.00	1.00
Adj. Flow (vph)	60	486	0	0	795	275	0	0	0	335	0	41
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	60	486	0	0	1070	0	0	0	0	168	167	41
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Turn Type	Prot			Prot			Split			Split		Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases												4
Actuated Green, G (s)	5.8	49.9			38.6					8.1	8.1	8.1
Effective Green, g (s)	7.3	51.9			40.6					10.1	10.1	10.1
Actuated g/C Ratio	0.10	0.74			0.58					0.14	0.14	0.14
Clearance Time (s)	5.5	6.0			6.0					6.0	6.0	6.0
Vehicle Extension (s)	3.0	4.5			4.5					3.0	3.0	3.0
Lane Grp Cap (vph)	170	2415			1835					236	228	214
v/s Ratio Prot	c0.04	0.15			c0.34					0.10	c0.11	
v/s Ratio Perm												0.03
v/c Ratio	0.35	0.20			0.58					0.71	0.73	0.19
Uniform Delay, d1	29.2	2.8			9.3					28.6	28.7	26.4
Progression Factor	0.86	1.43			0.69					1.00	1.00	1.00
Incremental Delay, d2	1.2	0.2			0.6					9.7	11.5	0.4
Delay (s)	26.2	4.1			7.1					38.3	40.1	26.8
Level of Service	C	A			A					D	D	C
Approach Delay (s)		6.5			7.1			0.0			37.9	
Approach LOS		A			A			A			D	

Intersection Summary			
HCM Average Control Delay	12.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	52.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	WBR2	SBL	SBR	SBR2	SEL2	SEL	SER	NEL2	NEL	NER
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	11	12	12	12	12	12	11	12	12	11	12
Grade (%)	1%			-2%				2%			-5%	
Total Lost time (s)		4.0		4.0	4.0	4.0		4.0			4.0	
Lane Util. Factor		0.88		1.00	1.00	0.88		0.97			1.00	
Frt		0.85		1.00	0.85	0.85		1.00			0.91	
Flt Protected		1.00		0.95	1.00	1.00		0.95			0.98	
Satd. Flow (prot)		2515		1629	773	2566		3143			1565	
Flt Permitted		1.00		0.75	1.00	1.00		0.46			0.94	
Satd. Flow (perm)		2515		1282	773	2566		1505			1501	
Volume (vph)	0	549	89	167	10	394	337	440	0	5	0	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.87	0.87	0.87	0.96	0.96	0.96	1.00	1.00	1.00
Adj. Flow (vph)	0	610	99	192	11	453	351	458	0	5	0	10
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	709	0	192	11	453	0	809	0	0	15	0
Heavy Vehicles (%)	3%	3%	3%	6%	100%	6%	1%	1%	1%	2%	2%	2%
Turn Type		custom			custom	custom	custom			custom	custom	
Protected Phases					4	4		2				
Permitted Phases		6		4			5	5		8	8	
Actuated Green, G (s)		30.4		16.5	16.5	16.5		42.5			16.0	
Effective Green, g (s)		31.9		18.0	18.0	18.0		44.0			18.0	
Actuated g/C Ratio		0.46		0.26	0.26	0.26		0.63			0.26	
Clearance Time (s)		5.5		5.5	5.5	5.5		5.5			6.0	
Vehicle Extension (s)		4.5		3.0	3.0	3.0		4.5			3.0	
Lane Grp Cap (vph)		1146		330	199	660		1976			386	
v/s Ratio Prot					0.01	c0.18		c0.26				
v/s Ratio Perm		c0.28		0.15							0.01	
v/c Ratio		0.62		0.58	0.06	0.69		0.41			0.04	
Uniform Delay, d1		14.4		22.7	19.6	23.5		6.5			19.5	
Progression Factor		0.74		1.00	1.00	1.00		0.60			1.00	
Incremental Delay, d2		2.2		2.6	0.1	3.0		0.2			0.0	
Delay (s)		12.8		25.3	19.7	26.4		4.1			19.6	
Level of Service		B		C	B	C		A			B	
Approach Delay (s)	12.8			26.0				4.1			19.6	
Approach LOS	B			C				A			B	

Intersection Summary			
HCM Average Control Delay	13.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL2	WBL	WBR	WBR2	SEL2	SEL	SET	NWT	NWR	NWR2	SWL2	SWL
Lane Configurations												
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	16	12	12	12	12	11	11	12	12	12	12	14
Grade (%)							1%	-7%				0%
Total Lost time (s)	4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00	1.00			1.00	1.00	0.95			1.00	1.00
Frt	1.00	1.00	0.85			1.00	1.00	0.97			1.00	1.00
Flt Protected	0.95	0.95	1.00			0.95	1.00	1.00			0.95	0.95
Satd. Flow (prot)	979	1668	1493			1597	1681	3390			1710	1824
Flt Permitted	0.95	0.16	1.00			0.00	1.00	1.00			0.95	0.95
Satd. Flow (perm)	979	287	1493			0	1681	3390			1710	1824
Volume (vph)	6	44	334	20	48	385	191	236	32	34	15	34
Peak-hour factor, PHF	1.00	0.94	0.94	0.94	0.93	0.93	0.93	0.93	0.93	0.93	0.91	0.91
Adj. Flow (vph)	6	47	355	21	52	414	205	254	34	37	16	37
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	6	47	376	0	0	466	205	325	0	0	16	37
Heavy Vehicles (%)	100%	3%	3%	3%	3%	3%	3%	1%	1%	1%	0%	0%
Turn Type	Prot	custom			pm+pt		custom				Prot	Prot
Protected Phases	3	1!	6		5!	2	2	8			4	4
Permitted Phases		3 6	1!		2	5!	5 8					
Actuated Green, G (s)	1.2	38.5	37.3			29.1	36.6	7.5			4.0	4.0
Effective Green, g (s)	2.2	40.5	38.3			30.1	38.6	8.5			5.0	5.0
Actuated g/C Ratio	0.03	0.58	0.55			0.43	0.55	0.12			0.07	0.07
Clearance Time (s)	5.0	5.0	5.0			5.0	5.0	5.0			5.0	5.0
Vehicle Extension (s)	4.0	2.0	4.0			4.0	4.0	4.0			4.0	4.0
Lane Grp Cap (vph)	31	249	817			687	1023	412			122	130
v/s Ratio Prot	c0.01	0.01	c0.25			c0.29	0.09	c0.10			0.01	c0.02
v/s Ratio Perm		0.10					0.04					
v/c Ratio	0.19	0.19	0.46			0.68	0.20	0.79			0.13	0.28
Uniform Delay, d1	33.0	21.9	9.6			16.1	7.9	29.9			30.5	30.8
Progression Factor	1.00	1.00	1.00			1.01	0.92	1.00			1.00	1.00
Incremental Delay, d2	4.1	0.1	0.6			1.9	0.0	10.2			0.7	1.6
Delay (s)	37.2	22.0	10.2			18.2	7.3	40.1			31.1	32.4
Level of Service	D	C	B			B	A	D			C	C
Approach Delay (s)							14.9	40.1				31.2
Approach LOS							B	D				C

Intersection Summary			
HCM Average Control Delay	20.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

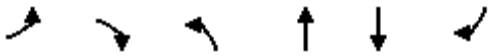
Movement	SWR2
Lane Configurations	
Ideal Flow (vphpl)	1800
Lane Width	12
Grade (%)	
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1530
Flt Permitted	1.00
Satd. Flow (perm)	1530
Volume (vph)	67
Peak-hour factor, PHF	0.91
Adj. Flow (vph)	74
RTOR Reduction (vph)	69
Lane Group Flow (vph)	5
Heavy Vehicles (%)	0%
Turn Type	custom
Protected Phases	4
Permitted Phases	
Actuated Green, G (s)	4.0
Effective Green, g (s)	5.0
Actuated g/C Ratio	0.07
Clearance Time (s)	5.0
Vehicle Extension (s)	4.0
Lane Grp Cap (vph)	109
v/s Ratio Prot	0.00
v/s Ratio Perm	
v/c Ratio	0.05
Uniform Delay, d1	30.3
Progression Factor	1.00
Incremental Delay, d2	0.3
Delay (s)	30.5
Level of Service	C
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	NEL2	NEL	NER
Lane Configurations											
Sign Control	Stop			Stop			Stop			Stop	
Volume (vph)	0	0	14	108	0	0	84	18	177	31	47
Peak Hour Factor	0.90	0.90	1.00	1.00	1.00	0.83	0.83	0.83	0.87	0.87	0.87
Hourly flow rate (vph)	0	0	14	108	0	0	101	22	203	36	54

Direction, Lane #	SE 1	NW 1	NE 1	NE 2
Volume Total (vph)	122	123	203	90
Volume Left (vph)	14	0	203	0
Volume Right (vph)	0	22	0	54
Hadj (s)	0.02	-0.11	0.50	-0.42
Departure Headway (s)	4.8	4.7	5.6	4.7
Degree Utilization, x	0.16	0.16	0.32	0.12
Capacity (veh/h)	699	717	620	738
Control Delay (s)	8.8	8.6	10.0	7.1
Approach Delay (s)	8.8	8.6	9.1	
Approach LOS	A	A	A	

Intersection Summary			
Delay	8.9		
HCM Level of Service	A		
Intersection Capacity Utilization	30.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			2%	-2%	
Volume (veh/h)	0	0	0	426	571	255
Peak Hour Factor	0.90	0.90	0.90	0.98	0.86	0.86
Hourly flow rate (vph)	0	0	0	435	664	297
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				149		
pX, platoon unblocked						
vC, conflicting volume	1247	370	960			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1247	370	960			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	166	628	712			

Direction, Lane #	NB 1	SB 1	SB 2	SB 3
Volume Total	435	266	266	429
Volume Left	0	0	0	0
Volume Right	0	0	0	297
cSH	1700	1700	1700	1700
Volume to Capacity	0.26	0.16	0.16	0.25
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0	0.0		
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	27.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection has too many legs for HCM analysis.

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Total Lost time (s)		4.0	4.0		4.0	4.0
Lane Util. Factor		0.95	0.95		1.00	1.00
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		3386	3386		1710	1530
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		3386	3386		1710	1530
Volume (vph)	0	592	466	0	79	36
Peak-hour factor, PHF	1.00	1.00	0.74	0.74	0.90	0.90
Adj. Flow (vph)	0	592	630	0	88	40
RTOR Reduction (vph)	0	0	0	0	0	35
Lane Group Flow (vph)	0	592	630	0	88	5
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%
Turn Type						Perm
Protected Phases		2	6		4	
Permitted Phases						4
Actuated Green, G (s)		50.5	50.5		7.5	7.5
Effective Green, g (s)		52.5	52.5		9.5	9.5
Actuated g/C Ratio		0.75	0.75		0.14	0.14
Clearance Time (s)		6.0	6.0		6.0	6.0
Vehicle Extension (s)		4.5	4.5		3.0	3.0
Lane Grp Cap (vph)		2540	2540		232	208
v/s Ratio Prot		0.17	c0.19		c0.05	
v/s Ratio Perm						0.00
v/c Ratio		0.23	0.25		0.38	0.03
Uniform Delay, d1		2.7	2.7		27.6	26.2
Progression Factor		1.00	0.26		1.00	1.00
Incremental Delay, d2		0.2	0.2		1.0	0.1
Delay (s)		2.9	0.9		28.6	26.3
Level of Service		A	A		C	C
Approach Delay (s)		2.9	0.9		27.9	
Approach LOS		A	A		C	

Intersection Summary			
HCM Average Control Delay	4.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	28.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	11	12	12	11	12	12
Grade (%)	0%			0%	-2%	
Total Lost time (s)	4.0			4.0		
Lane Util. Factor	0.95			0.95		
Frt	0.98			1.00		
Flt Protected	1.00			1.00		
Satd. Flow (prot)	3216			3266		
Flt Permitted	1.00			0.86		
Satd. Flow (perm)	3216			2819		
Volume (vph)	773	110	52	944	0	0
Peak-hour factor, PHF	0.96	0.96	0.87	0.87	0.90	0.90
Adj. Flow (vph)	805	115	60	1085	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	920	0	0	1145	0	0
Heavy Vehicles (%)	1%	0%	0%	1%	0%	0%
Turn Type			Perm			
Protected Phases	6			2		
Permitted Phases			2			
Actuated Green, G (s)	70.0			70.0		
Effective Green, g (s)	70.0			70.0		
Actuated g/C Ratio	1.00			1.00		
Clearance Time (s)	6.0			6.0		
Vehicle Extension (s)	4.5			4.5		
Lane Grp Cap (vph)	3216			2819		
v/s Ratio Prot	0.29					
v/s Ratio Perm				c0.41		
v/c Ratio	0.29			0.41		
Uniform Delay, d1	0.0			0.0		
Progression Factor	1.00			1.00		
Incremental Delay, d2	0.2			0.4		
Delay (s)	0.2			0.4		
Level of Service	A			A		
Approach Delay (s)	0.2			0.4	0.0	
Approach LOS	A			A	A	

Intersection Summary			
HCM Average Control Delay	0.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	62.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	-2%		0%	
Volume (veh/h)	37	513	399	103	0	0
Peak Hour Factor	1.00	1.00	0.74	0.74	0.90	0.90
Hourly flow rate (vph)	37	513	539	139	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			603			
pX, platoon unblocked	1.00				1.00	1.00
vC, conflicting volume	678				939	339
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	675				937	335
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				100	100
cM capacity (veh/h)	917				256	665

Direction, Lane #	SE 1	SE 2	SE 3	NW 1	NW 2
Volume Total	37	256	256	359	319
Volume Left	37	0	0	0	0
Volume Right	0	0	0	0	139
cSH	917	1700	1700	1700	1700
Volume to Capacity	0.04	0.15	0.15	0.21	0.19
Queue Length 95th (ft)	3	0	0	0	0
Control Delay (s)	9.1	0.0	0.0	0.0	0.0
Lane LOS	A				
Approach Delay (s)	0.6			0.0	
Approach LOS					

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	25.1%	ICU Level of Service	A
Analysis Period (min)	15		