



**APPENDIX K**

**TRIP GENERATION AND DISTRIBUTION**

**TRIP DISTRIBUTION GRAVITY MODEL**

Table 1 - Primary Market Area														
Primary Market Area in Philadelphia											New Jersey Primary Market Areas			
	8th/ Market Zone	Assigned Route	Sugar House	Assigned Route	Parx	Assigned Route	Harrah's	Assigned Route	Secondary	Assigned Route	Camden	Assigned Route	Secondary	Assigned Route
Population (2016)	390096	LOCAL (See Table 4)	313006	75 % 95 SB (Callowhill Exit), 25% 95 SB (Columbus Blvd Exit)	272846	75 % 95 SB (Callowhill Exit), 25% 95 SB (Columbus Blvd Exit)	41756	50 % 95 NB (Callowhill Exit), 50% 95 NB (Columbus Blvd Exit)	530977	676 EB	74332	676 WB	321429	676 WB
% Population Age 21+	73.40%		66.60%		77.00%		67.10%		71.00%		63.30%		75.00%	
% Gaming	45%		45%		50%		45%		50%		45%		50%	
Gaming Adults	128849		93808		105046		12608		188497		21173		120536	
Gaming Visits / yr	16		12		16		12		10		12		10	
Total Gaming Visits / yr	2061579		1125695		1680731		151299		1884968		254082		1205359	
%Allocation to Market8 Casino	70%		15%		1%		2%		30%		55%		30%	
%Allocation to other Area Casinos	30%		85%		99%		98%		70%		45%		70%	
<b>Gaming Visits to Market 8</b>	<b>1443106</b>		<b>168854</b>		<b>16807</b>		<b>3026</b>		<b>565491</b>		<b>139745</b>		<b>361608</b>	

Table 2 - Secondary Market Area												
	PA suburban Counties							NJ suburban Counties				
	Bucks	Assigned Route	Chester	Assigned Route	Delaware	Assigned Route	Montgomery	Assigned Route	Burlington	Assigned Route	Gloucester	Assigned Route
Population	636460	75 % 95 SB (Callowhill Exit), 25% 95 SB (Columbus Blvd Exit)	529669	676 EB	565005	25 % 95 NB (Callowhill Exit), 25% 95 NB (Columbus Blvd Exit), 50% 676 EB	821440	676 EB	453036	15 % 95 SB (Callowhill Exit), 85% 676 WB	301759	10% 95 NB (Callowhill Exit), 80% 676 WB, 10% 95 NB (Columbus Blvd Exit)
% Population Age 21+	73.1%		71.00%		72.70%		73.80%		73.70%		71.80%	
% Gaming	50%		40%		45%		40%		40%		50%	
Gaming Adults	232626		150426		184841		242489		133555		108331	
Gaming Visits / yr	10		10		10		10		10		10	
Total Gaming Visits / yr	2326261		1504260		1848414		2424891		1335550		1083315	
% Gaming in Philly Area	80%		80%		80%		75%		75%		75%	
Visits in Philly Area / yr	1861009		1203408		1478731		1818668		1001663		812486	
%Allocation to Market8 Casino	5%		15%		15%		17%		30%		30%	
%Allocation to other Area Casinos	95%		85%		85%		83%		70%		70%	
<b>Gaming Visits to Market 8</b>	<b>93050</b>	<b>180511</b>	<b>221810</b>	<b>309174</b>	<b>300499</b>	<b>243746</b>						

<b>Table 3 - Trip Distribution Summary</b>	
Enter/Exit on local Routes	35%
676 EB	29%
676 WB	24%
95 NB (Callowhill Exit)	2%
95 NB (Columbus Blvd Exit)	2%
95 SB (Callowhill Exit)	6%
95 SB (Columbus Blvd Exit)	2%

<b>Table 4 - 8th/Market Zone Distribution Summary (35% of trips)</b>		
<b>Route</b>	<b>Enter</b>	<b>Exit</b>
EB Market	8%	8%
WB Market	3%	3%
5th	5%	-
Arch	1%	1%
Race	1%	1%
Walnut	2%	4%
Chestnut	4%	2%
9th	6%	-
7th	5%	-
6TH	-	5%
8TH	-	6%
10TH	-	5%
TOTAL	35%	35%

Existing Traffic Volumes

Intersection	Roadway	Approach	Movement	RAW VOLUMES			ADJUSTMENT FACTORS			ADJUSTED EXISTING VOLUMES												TRIP DISTRIBUTION		TRIP ASSIGNMENT (FRIDAY STREET PEAK)		FRIDAY STREET PEAK - BUILD CONDITIONS VOLUMES	TRIP ASSIGNMENT (FRIDAY CASINO PEAK)		FRIDAY CASINO PEAK - BUILD CONDITIONS VOLUMES	TRIP ASSIGNMENT (SATURDAY CASINO PEAK)		
				Friday Street Peak Hour	Friday Casino Peak Hour	Saturday Casino Peak Hour	Friday Street Peak Hour	Friday Casino Peak Hour	Saturday Casino Peak Hour	Friday Street Peak Hour				Friday Casino Peak Hour				Saturday Casino Peak Hour				ENTER	EXIT	ENTER	EXIT		ENTER	EXIT				
				Total Volume (4:30-5:30)	Total Volume (7:15-8:15)	Total Volume (7:30-8:30)				Total Volume	Trucks	PHF	Ped	Total Volume	Trucks	PHF	Ped	Total Volume	Trucks	PHF	Ped			451	490		580	555		817	837	
5th Street & SR 308-676	SR 30 / I-676	Eastbound	T	4869	2579	2033	1	1	1	0.95	NB	2579	2%	0.94	NB	0	2033	1%	0.97	NB	0	0%	24%	0	118	4987	0	133	2712	0	201	
	5th Street (STOP/Yield)	Northbound	R	883	388	334	1	1	1	0.95	EB	388	2%	0.94	EB	0	334	1%	0.97	EB	0	0%	0%	0	334	883	0	0	388	0	0	
7th Street & Vine Street (WB)	Vine Street	Westbound	T	1954	1506	1630	1	1	1	0.95	SB	1506	1%	0.93	WB	0	1630	2%	0.97	SB	24%	0%	108	0	2062	139	0	1645	196	0	0	
			R	3	9	6	1	1	1	0.95	WB	9	0%	0.93	EB	3	6	2%	0.97	WB	0%	0%	0	0	3	0	0	9	0	0	0	
			L (Vine)	112	30	22	1	1	1	0.95	NB	30	0%	0.93	SB	1	22	2%	0.97	NB	0%	0%	0	0	112	0	0	30	0	0	0	
	7th Street	Northbound	L (676)	336	309	301	1	1	1	0.95	EB	309	0%	0.93	NB	0	301	2%	0.97	EB	0%	29%	0	142	478	0	161	470	0	243	0	0
			T (7th)	493	447	424	1	1	1	0.95		447	2%	0.93			424	0%	0.97		0%	0%	0	0	493	0	0	447	0	0	0	
			R (TO 95)	961	504	449	1	1	1	0.95		504	0%	0.93			449	0%	0.97		0%	8%	0	39	1000	0	44	548	0	67	0	
7th and Vine (EB)	Vine Street	Eastbound	L	857	665	606	1	1	1	0.92		665	2%	0.92		606	2%	0.92		0%	7%	0	34	891	0	39	704	0	59	0		
	7th Street	Northbound	T	1096	641	608	1	1	1	0.92		641	2%	0.92		608	2%	0.92		0%	30%	0	147	1243	0	167	808	0	251	0		
7th Street & Franklin Street	Franklin Street (STOP)	Eastbound	L	255	175	167	1	1	1	0.90	SB	175	1%	0.90	WB	0	167	1%	0.95	SB	0	0%	21%	0	103	358	0	117	292	0	176	
	7th Street	Northbound	T	841	466	441	1	1	1	0.90	NB	466	3%	0.90	EB	58	441	1%	0.95	NB	18	0%	9%	0	44	885	0	50	516	0	75	
8th Street & Callowhill Street	Callowhill Street	Westbound	L	285	268	262	1	1	1	0.88	SB	268	2%	0.87	WB	9	262	2%	0.87	SB	28	8%	0%	36	0	321	46	0	314	65	0	
			T	764	475	386	1	1	1	0.88	WB	475	2%	0.87	EB	13	386	1%	0.87	WB	2	0%	0%	0	0	764	0	0	475	0	0	
8th Street & Vine Street (WB)	Vine Street	Westbound	L	227	147	160	1	1	1	0.96	SB	147	1%	0.84	WB	14	160	2%	0.89	SB	3	24%	0%	108	0	335	139	0	286	196	0	
			T (676)	1177	1219	1384	1	1	1	0.96	WB	1219	1%	0.84	EB	23	1384	1%	0.89	WB	12	0%	29%	0	142	1319	0	161	1380	0	243	
			T (Vine)	998	479	409	1	1	1	0.96	NB	479	1%	0.84	SB	2	409	1%	0.89	NB	0	0%	0%	0	0	998	0	0	479	0	0	
	8th Street	Southbound	T	449	243	187	1	1	1	0.96	EB	243	3%	0.84	NB	1	187	3%	0.89	EB	7	6%	0%	36	0	485	46	0	289	65	0	
			R (676)	205	259	261	1	1	1	0.96		259	1%	0.84			261	3%	0.89		0%	0%	0	0	205	0	0	259	0	0		
			R (Vine)	54	28	26	1	1	1	0.96		28	1%	0.84			26	8%	0.89		0%	0%	0	0	54	0	0	28	0	0		
8th Street & Vine Street (EB) Vine Expressway (EB)	Vine Street Expressway (676)	Eastbound	T	150	273	285	1	1	1	0.92	SB	273	2%	0.92	WB	8	285	0%	0.92	SB	1	0%	0%	0	0	150	0	0	273	0	0	
			R	179	289	225	1	1	1	0.92	WB	289	1%	0.92	EB	24	225	1%	0.92	WB	16	29%	0%	131	0	310	168	0	457	237	0	
	Vine Street	Eastbound	T	552	305	256	1	1	1	0.93	SB	305	0%	0.92	WB	3	256	1%	0.92	NB	5	0%	7%	0	34	596	0	39	344	0	59	
			R	502	230	197	1	1	1	0.93	WB	230	6%	0.92	NB	11	197	4%	0.92	EB	13	0%	0%	0	0	502	0	0	230	0	0	
8th Street	Southbound	L	155	87	65	1	1	1	0.93	NB	87	0%	0.92			65	0%	0.92		0%	0%	0	0	155	0	0	87	0	0			
		T	490	315	280	1	1	1	0.93	EB	315	2%	0.92	EB	5	280	2%	0.92		32%	0%	144	0	634	186	0	501	261	0			
9th Street & Vine Street (EB)	Vine Street	Eastbound	T	629	373	305	1	1	1	0.92	NB	373	3%	0.95	EB	5	305	3%	0.85	NB	13	0%	0%	0	0	629	0	0	373	0	0	
	9th Street (STOP)	Northbound	L	78	85	84	1	1	1	0.92	EB	85	0%	0.95	NB	25	84	0%	0.85	EB	0	0%	0%	0	0	78	0	0	85	0	0	
2nd Street & Race Street	Race Street	Eastbound	T	824	607	391	1	1	1	0.88	SB	607	1%	0.92	WB	56	391	1%	0.95	SB	10	0%	1%	0	5	829	0	6	613	0	8	
	2nd Street	Southbound	L	110	76	40	1	1	1	0.88	NB	76	0%	0.92	SB	8	40	0%	0.95	NB	48	0%	0%	0	0	110	0	0	76	0	0	
3rd Street & Race Street	Race Street	Eastbound	T	896	653	393	1	1	1	0.93	WB	653	1%	0.86	EB	135	393	0%	0.84	WB	131	0%	1%	0	5	901	0	6	659	0	8	
	3rd Street	Northbound	T	301	245	174	1	1	1	0.93	NB	245	2%	0.86	SB	43	174	2%	0.84	NB	113	0%	0%	0	0	301	0	0	245	0	0	
4th Street & Race Street	Race Street	Eastbound	T	628	631	414	1	1	1	0.93	SB	631	1%	0.92	WB	30	414	0%	0.85	SB	32	0%	1%	0	5	633	0	6	637	0	8	
	4th Street	Southbound	L	161	134	69	1	1	1	0.93	NB	134	1%	0.92	EB	46	90	4%	0.85	NB	27	0%	0%	0	0	161	0	0	134	0	0	
5th Street & Race Street	Race Street	Eastbound	L	17	4	1	1	1	0.94	SB	4	0%	0.94	WB	9	1	0%	0.79	SB	5	0%	0%	0	0	17	0	0	4	0	0		
	5th Street	Northbound	T	703	561	373	1	1	1	0.94	WB	561	1%	0.94	EB	3	373	1%	0.79	WB	3	0%	1%	0	5	708	0	6	567	0	8	
6th Street & Race Street	Race Street	Eastbound	T (676)	1163	424	329	1	1	1	0.96	SB	424	4%	0.88	WB	1	329	4%	0.89	SB	18	0%	24%	0	118	1281	0	133	557	0	201	
	6th Street	Southbound	L	169	201	168	1	1	1	0.96	EB	201	1%	0.88	NB	97	168	0%	0.89	EB	45	0%	0%	0	0	169	0	0	201	0	0	
7th Street & Race Street	Race Street	Eastbound	L	21	27	47	1	1	1	0.96	SB	27	0%	0.93	WB	21	47	0%	0.91	SB	27	0%	0%	0	0	21	0	0	27	0	0	
	7th Street	Northbound	T	1396	663	531	1	1	1	0.96	WB	663	3%	0.93	EB	8	531	3%	0.91	WB	33	0%	19%	0	93	1489	0	105	788	0	159	
8th Street & Race Street	Race Street	Eastbound	T	1163	528	502	1	1	1	0.96	SB	528	1%	0.90	WB	8	502	1%	0.91	SB	68	0%	40%	0	196	1369	0	222	750	0	335	
	8th Street	Southbound	L	566	322	231	1	1	1	0.96	NB	322	4%	0.90	EB	63	231	3%	0.91	NB	40	0%	0%	0	0	566	0	0	322	0	0	
9th Street & Race Street	Race Street	Eastbound	L	51	68	120	1	1	1	0.94	SB	68	0%	0.92	WB	47	120	0%	0.96	SB	103	0%	0%	0	0	51	0	0	68	0	0	
	9th Street	Northbound	T	864	373	324	1	1	1	0.94	WB	373	0%	0.92	EB	68	324	1%	0.96	WB	34	1%	0%	5	0	869	6	0	379	8	0	
5th Street & Arch Street	Arch Street	Westbound	T	359	236	190	1	1	1	0.94	SB	236	3%	0.98	WB	21	190	2%	0.98	SB	40	1%	0%	5	0	364	6	0	242	8	0	
	5th Street	Northbound	L	188	120	83	1	1	1	0.94	NB	120	10%	0.98	SB	43	83	14%														

Existing Traffic Volumes

Intersection	Roadway	Approach	Movement	RAW VOLUMES			ADJUSTMENT FACTORS			ADJUSTED EXISTING VOLUMES												TRIP DISTRIBUTION		TRIP ASSIGNMENT (FRIDAY STREET PEAK)		FRIDAY STREET PEAK - BUILD CONDITIONS VOLUMES	TRIP ASSIGNMENT (FRIDAY CASINO PEAK)		FRIDAY CASINO PEAK - BUILD CONDITIONS VOLUMES	TRIP ASSIGNMENT (SATURDAY CASINO PEAK)		
				Friday Street Peak Hour	Friday Casino Peak Hour	Saturday Casino Peak Hour	Friday Street Peak Hour	Friday Casino Peak Hour	Saturday Casino Peak Hour	Friday Street Peak Hour				Friday Casino Peak Hour				Saturday Casino Peak Hour				ENTER	EXIT	ENTER	EXIT		ENTER	EXIT				
				Total Volume (4:30 - 5:30)	Total Volume (7:15 - 8:15)	Total Volume (7:30 - 8:30)				Total Volume	Trucks	PHF	Ped	Total Volume	Trucks	PHF	Ped	Total Volume	Trucks	PHF	Ped			451	490		580	555		817	837	
7th Street & Market Street	Market Street	Eastbound	R	114	73	43	1	1	1	114	16%										0%	0%	0	0	114	0	0	73	0	0		
			T	972	604	579	1.2	1.2	1.06	1166	5%												0%	10%	0	49	1215	0	56	781	0	84
		Westbound	T	267	245	267	1.2	1.2	1.06	320	22%												0%	0%	0	0	320	0	0	294	0	0
	7th Street	Northbound	R	75	36	53	1.2	1.2	1.06	90	0%	0.95											0%	0%	32	0	122	41	0	84	57	0
			L	51	47	46	1.2	1.2	1.06	61	0%												0%	2%	0	10	71	0	11	67	0	17
			T	591	309	244	1.2	1.2	1.06	709	2%													7%	15%	32	74	815	41	83	485	57
8th Street & Market Street	Market Street	Eastbound	R	89	47	72	1.2	1.2	1.06	107	0%											0%	0%	0	0	107	0	0	56	0	0	
			T	616	520	558	1.2	1.2	1.06	739	5%												0%	10%	0	49	788	0	56	680	0	84
		Westbound	R	104	104	113	1.2	1.2	1.06	125	1%												0%	4%	104	20	249	133	22	280	188	33
	8th Street	Southbound	T	420	349	348	1.2	1.2	1.06	504	7%	0.94											0%	2%	0	10	514	0	11	430	0	17
			L	61	64	60	1.2	1.2	1.06	73	2%												0%	0%	0	0	73	0	0	77	0	0
			T	380	480	472	1.2	1.2	1.06	456	2%													0%	0%	0	0	803	447	0	1023	629
9th Street & Market Street	Market Street	Eastbound	R	50	38	58	1.2	1.2	1.06	60	2%											0%	0%	0	0	60	0	0	46	0	0	
			T	820	579	563	1.2	1.2	1.06	984	7%												0%	0%	36	0	1020	46	0	741	65	0
		Westbound	T	445	450	329	1.2	1.2	1.06	534	15%												0%	2%	0	10	544	0	11	551	0	17
	9th Street	Northbound	R	47	43	42	1.2	1.2	1.06	56	2%	0.96											0%	0%	0	0	56	0	0	52	0	0
			L	65	38	41	1.2	1.2	1.06	78	2%												0%	0%	0	0	107	0	33	79	0	50
			T	327	219	229	1.2	1.2	1.06	392	3%													0%	55%	0	270	662	0	305	568	0
10th Street & Market Street	Market Street	Eastbound	R	110	65	94	1.2	1.2	1.06	132	2%											0%	15%	68	69	269	87	78	243	123	117	
			T	650	522	372	1	1	1	650	6%												0%	0%	36	0	686	46	0	568	65	0
		Westbound	R	101	93	63	1	1	1	101	0%	0.96											0%	0%	0	0	101	0	0	93	0	0
	10th Street	Southbound	T	384	382	328	1	1	1	384	19%												0%	8%	0	39	423	0	44	426	0	67
			L	113	73	68	1	1	1	113	11%												0%	0%	0	0	113	0	0	73	0	0
			T	278	252	202	1	1	1	278	0%												0%	7%	0	34	312	0	39	291	0	59
8th Street & Site Entrance	8th Street (Free)	Southbound	R	90	106	83	1	1	1	90	4%											0%	0%	0	0	90	0	0	106	0	0	
			T	484	584	585	1.2	1.2	1.06	581	2%	0.92											0%	25%	113	20	714	145	22	868	204	33
9th Street & Site Exit	9th Street	Northbound	R	0	0	0	1.2	1.2	1.06	0	2%											0%	75%	0	338	0	435	0	435	613	0	
			T	502	320	378	1.2	1.2	1.06	602	2%	0.92											15%	0%	68	0	670	87	0	471	123	0
8th Street & Parking Lot	8th Street	Southbound	R	0	0	0	1.2	1.2	1.06	0	2%											0%	75%	0	368	0	416	0	416	628	0	
			T	484	584	585	1.2	1.2	1.06	581	2%	0.92											25%	0%	113	0	113	145	0	145	204	0
5th Street & Chestnut Street	Chestnut Street	Eastbound	L	177	113	111	1	1	1	177	3%											0%	25%	0	123	123	0	139	139	0	209	
			T	311	282	296	1	1	1	311	5%	0.97											0%	0%	0	0	311	0	0	113	0	0
6th Street & Chestnut Street	Chestnut Street	Eastbound	R	583	406	380	1	1	1	583	1%												0%	0%	0	0	583	0	0	406	0	0
			T	75	51	60	1	1	1	75	1%												0%	0%	0	0	75	0	0	51	0	0
7th Street & Chestnut Street	Chestnut Street	Eastbound	R	402	357	309	1	1	1	402	9%												0%	3%	0	15	417	0	17	374	0	25
			T	121	99	79	1	1	1	121	0%	0.93											0%	1%	0	5	126	0	6	105	0	8
8th Street & Chestnut Street	Chestnut Street	Eastbound	L	114	114	121	1	1	1	114	10%												0%	0%	0	0	114	0	0	114	0	0
			T	738	575	453	1	1	1	738	2%	0.93											0%	4%	0	20	758	0	22	597	0	33
9th Street & Chestnut Street	Chestnut Street	Eastbound	L	162	92	116	1.2	1.2	1.06	194	2%												0%	17%	0	83	277	0	94	204	0	142
			T	381	264	337	1.2	1.2	1.06	457	7%	0.93											0%	4%	0	20	477	0	22	339	0	33
10th Street & Chestnut Street	Chestnut Street	Eastbound	R	447	327	230	1.2	1.2	1.06	536	2%												0%	7%	0	34	312	0	39	291	0	59
			T	151	99	86	1.2	1.2	1.06	181	7%	0.92											0%	0%	0	0	90	0	0	106	0	0
5th Street & Walnut Street	Walnut Street	Westbound	R	412	346	320	1.2	1.2	1.06	494	6%												0%	0%	0	0	494	0	0	415	0	0
			T	102	79	98	1.2	1.2	1.06	122	0%	0.87											0%	0%	0	0	122	0	0	95	0	0
6th Street & Walnut Street	Walnut Street	Westbound	L	104	92	133	1.2	1.2	1.06	125	0%												0%	21%	0	103	228	0	117	227	0	176
			T	487	484	455	1.2	1.2	1.06	584	2%	0.94											0%	8%	0	39	623	0	44	625	0	67
7th Street & Walnut Street	Walnut Street	Westbound	L	86	48	48	1.2	1.2	1.06	103	0%												0%	4%	0	18	0	21	81	23	0	33
			T	351	305	319	1.2	1.2	1.06	421	0%	0.90											0%	0%	0	0	421	0	0	366	0	0
8th Street & Walnut Street	Walnut Street	Westbound	R	416	272	330	1.2	1.2	1.06	499	0%												0%	11%	0	50	549	64	0	390	90	0
			T	146	99	110	1.2	1.2	1.06	175	0%	0.97											0%	0%	0	0	175	0	0	119	0	0
9th Street & Walnut Street	Walnut Street	Westbound	R	348	310	306	1	1																								



**\$49,686.15**

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## ABOUT

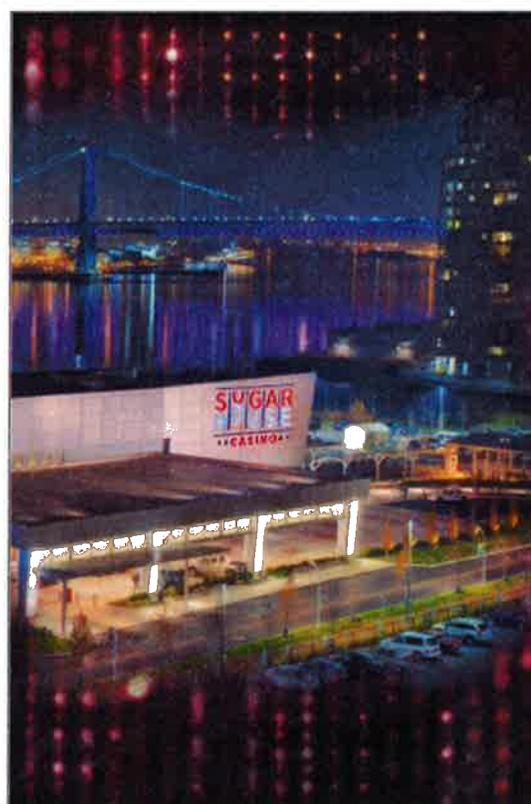
### SugarHouse Casino opened in September 2010 as Philadelphia's first casino.

Located a mile north of the Ben Franklin Bridge in the city's Fishtown section, SugarHouse is situated on the Delaware River, with beautiful views along its waterfront property. With more than 2,000,000 visitors each year, the casino features 1,602 slots, 54 table games, fun and unique dining options and free valet and self-parking.

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MARKET 8

BY: ~~SA~~

1-22-14

PROJECT 2013 TRIP GEN - SUGARHOUSE

CHK'D

1602 Slots } (1) 1926 Gaining Positions  
 54 Table Games } (2) 1958 Gaining Positions \*

FRIDAY PM PEAK (4-6 PM)

	IN	OUT	TOTAL	
N	144	237		
S	42	39		
C	150	120		
	336 (46%)	396 (54%)	732	(1) 0.38 TRIPS / GAINING POSITION
				(2) 0.375 / G.P.

FRIDAY PM CASINO PEAK (7-10 PM)

	IN	OUT	TOTAL	
N	206	246		
S	38	44		
C	205	143		
	449 (51%)	433 (49%)	882	(1) 0.46 TRIPS / G.P.
				(2) 0.452 / G.P.

SATURDAY PM CASINO PEAK (6-9 PM)

	IN	OUT	TOTAL	
N	257	249		
S	57	54		
C	206	262		
	520 (48%)	560 (52%)	1080	(1) 0.56 TRIPS / G.P.
				(2) 0.553 / G.P.

★ USE "BLOOMER" ~~TRIPS~~ / G.P. → 1952  
 PER MEA

PROJECT

MARKETS

1-22-14

SUBJECT

2013 TRIP GEN - Hollywood/Columbus

CHK'D

2500+ SLOTS

70+ TABLE GAMES @ 6/ea  
36 POKER @ 10/ea

SAV 3500 GAMING POSITIONS

FRIDAY PM PEAK (4-6 PM)

TOTAL

1. W. BROAD	<u>IN</u>	<u>OUT</u>	
	145	119	
2. SHOPPER'S LN N	0	111	
3. " " S	177	0	
4. LINCOLN PARK	<u>111</u>	<u>199</u>	
	<u>433</u>	<u>429</u>	→ 0.2463
	(50%)	(50%)	TRIPS/G.P.

FRIDAY PM CASINO PEAK (7-10 PM)

TOTAL

1. W. BROAD	<u>IN</u>	<u>OUT</u>	
	142	106	
2. SHOPPER'S LN N	0	137	
3. " " S	273	0	
4. LINCOLN PARK	<u>146</u>	<u>253</u>	
	<u>561</u>	<u>556</u>	→ 0.3191
	(50%)	(50%)	TRIPS/G.P.

SATURDAY PM CASINO PEAK (6-9 PM)

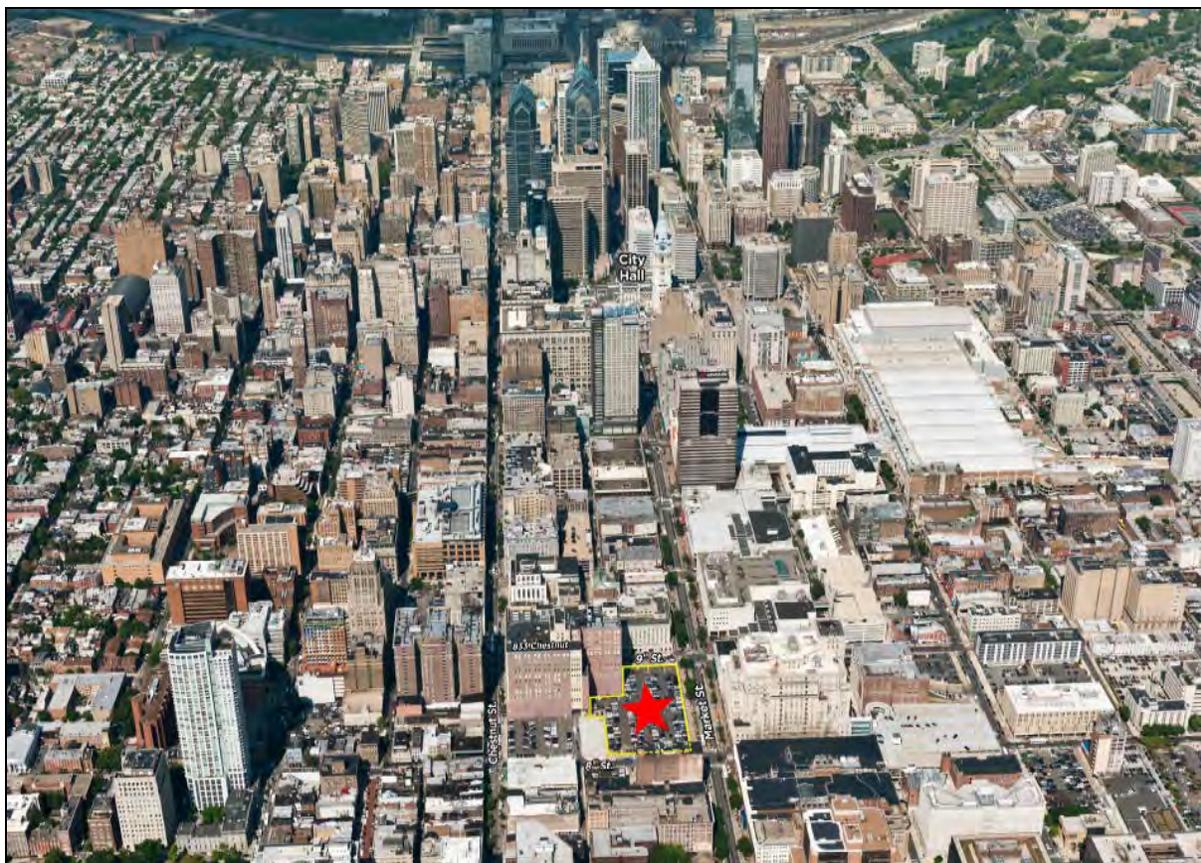
TOTAL

1. W. BROAD	<u>IN</u>	<u>OUT</u>	
	176	172	
2. SHOPPER'S LN N	0	208	
3. " " S	261	0	
4. LINCOLN PARK	<u>170</u>	<u>478</u>	
	<u>607</u>	<u>858</u>	→ 0.4186
	(42%)	(58%)	TRIPS/G.P.

PHILADELPHIA METROPOLITAN AREA POTENTIAL "RESIDENTIAL" GAMING REVENUE - 2016 (EXPRESSED IN 2012 DOLLARS)									
	Pennsylvania Counties					New Jersey Counties			Totals
	Philadelphia	Bucks	Chester	Delaware	Montgomery	Burlington	Camden	Gloucester	
Populations:									
2010	1,526,086	625,249	498,886	558,979	799,874	448,734	513,657	288,288	5,259,753
2016 (est.)	1,548,681	636,460	529,669	565,005	821,440	453,036	515,551	301,759	5,371,601
Percentage >21 Yrs.:									
2010	71.0%	72.7%	70.6%	72.0%	73.3%	73.1%	71.6%	71.4%	
2015 (est.)	71.7%	73.1%	71.0%	72.7%	73.8%	73.7%	72.3%	71.8%	72.5%
Adult Population - 2016	1,110,404	465,252	376,065	410,759	606,223	333,888	372,743	216,663	3,891,997
% Gaming Total	<u>48%</u>	<u>50%</u>	<u>40%</u>	<u>45%</u>	<u>40%</u>	<u>40%</u>	<u>45%</u>	<u>50%</u>	<u>45%</u>
Number Adults Gaming	529,050	232,626	150,426	184,841	242,489	133,555	167,735	108,331	1,749,053
% Gaming in Philadelphia Area	<u>88%</u>	<u>80%</u>	<u>80%</u>	<u>80%</u>	<u>75%</u>	<u>75%</u>	<u>95%</u>	<u>75%</u>	<u>83%</u>
Adults Gaming in Philadelphia Area	466,209	186,101	120,341	147,873	181,867	100,166	159,348	81,249	1,443,153
Visits/Year	<u>13.1</u>	<u>10.0</u>	<u>10.0</u>	<u>10.0</u>	<u>10.0</u>	<u>10.0</u>	<u>12.0</u>	<u>10.0</u>	<u>11.2</u>
Visits	6,086,963	1,861,009	1,203,408	1,478,731	1,818,668	1,001,663	1,912,174	812,486	16,175,102
Win/Visit (2012 dollars)	<u>\$99</u>	<u>\$100</u>	<u>\$100</u>	<u>\$100</u>	<u>\$100</u>	<u>\$100</u>	<u>\$100</u>	<u>\$100</u>	<u>\$100</u>
"Residential" Win	<u>\$604,373,039</u>	<u>\$186,100,904</u>	<u>\$120,340,797</u>	<u>\$147,873,109</u>	<u>\$181,866,816</u>	<u>\$100,166,260</u>	<u>\$191,217,350</u>	<u>\$81,248,611</u>	<u>\$1,613,186,885</u>
"Residential" Win, rounded									<u>\$1,613,000,000</u>

PHILADELPHIA METROPOLITAN AREA POTENTIAL "VISITOR" GAMING REVENUE - 2016 (EXPRESSED IN 2012 DOLLARS)	
Occupied Hotel Rooms - FYE 8/31/12 (rounded)	10,700,000
Estimated Adults Per Occupied Room	<u>1.35</u>
Total Adult Hotel Guests	14,445,000
Average Length of Stay (Nights)	<u>2.00</u>
Estimated Separate Adult Hotel Guests	7,222,500
Percent Gaming	<u>15%</u>
Adult Hotel Guests Gaming	1,083,375
Plus 25% from Day-Trip Visitors to Area Attractions and Convention Center Day Attendees	270,844
Total Hotel Guests and Day-Trip Visitors	1,354,219
Average Win Per Visit	<u>\$120</u>
Gaming Win from Hotel Guests and Day-Trip Visitors	<u>\$162,506,250</u>
Total "Visitor" Win, rounded	<u>\$163,000,000</u>

Combining the residential and visitor gaming markets, we therefore estimate that the Philadelphia metropolitan area, excluding Delaware, would conservatively have a total gaming revenue potential of some \$1.78 billion in 2016 expressed in current 2012 dollars as summarized in the table on the following page.



As previously mentioned, the Casino will constitute one element of the overall project, with the hotel element constituting a second separately owned and operated element. Current plans call for the Casino element to encompass:

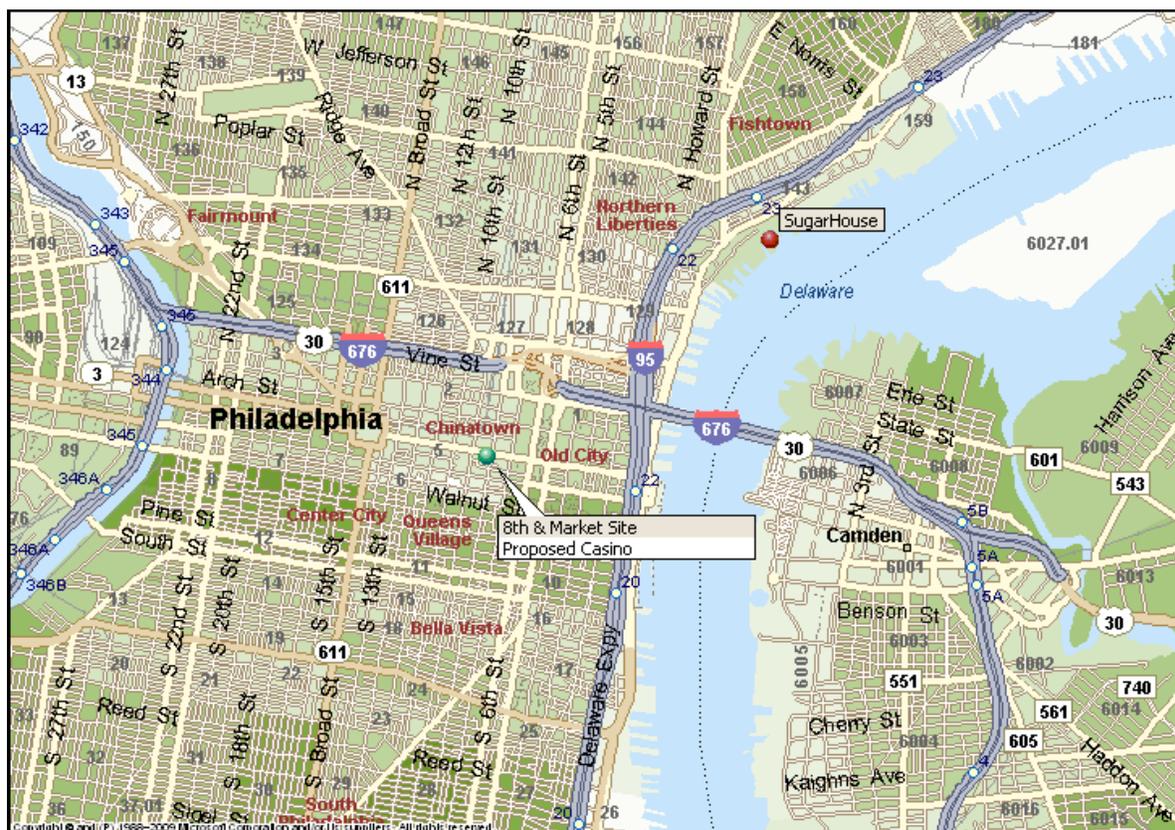
- Underground: Four levels of valet parking totaling some 1,000 spaces
- Ground Level: Up to four restaurant spaces totaling 31,000 square feet, delivery and support areas, lobby entrances to casino (escalators and elevators) and hotel
- Floors 2 & 3: Primarily dedicated to gaming supplemented by restaurants, lounges and bars
- Floor 4: A poker room, a club/lounge, rooftop terraces and an event/banquet room of some 12,000 square feet

For the purposes of the estimates herein, we have assumed a gaming mix of 2,400 slot machines, 82 banked table games and 30 poker tables. The projections herein would not change materially should the gaming mix be altered within reason. Further, it has been assumed that all restaurants, lounges and food/beverage outlets in general, totaling some 60,000 square feet, will be leased to and operated by a qualified third-party operator. Finally, no revenues or expenses have been projected herein for the event/banquet space. We believe that a reasonable, conservative assumption for this event/banquet space is a breakeven financial performance. This space will however, add an important venue for the MARKET8 Casino operations and will generate positive economic impact through its utilization.

ATTENDANCE LEVELS CITY OF PHILADELPHIA MAJOR ATTRACTIONS 2010 AND 2011			
Visitor Center/Attraction	Attendance		% Change from 2010
	2010	2011	
Independence Visitor Center	<u>2,440,295</u>	<u>2,338,400</u>	-4.2%
Attractions:			
Liberty Bell Center	2,271,938	2,045,680	-10.0%
Independence Hall	694,552	689,723	-0.7
National Constitution Center	804,551	817,227	1.6
Franklin Institute	958,330	845,272	-11.8
Academy of Natural Sciences	155,632	165,158	6.1
Philadelphia Museum of Art	680,544	635,035	-6.7
Philadelphia Zoo	1,255,604	1,178,285	-6.2
Please Touch Museum	568,581	574,692	1.1
University of PA Museum of Archaeology & Anthropology	138,718	211,713	51.5
Eastern State Penitentiary	250,458	264,671	5.7
Total Attractions	<u>7,778,908</u>	<u>7,427,456</u>	-4.5%

The Pennsylvania Convention Center (“the PCC”) is located several blocks (an easy walk or subway/bus ride) to the west of the Casino site. In the 12 months ended August 31, 2012, the PCC accommodated over one million visitors.

Like the other major commercial and institutional uses found in the Market East corridor, the MARKET8 Casino site is most appropriately situated in this area designated for higher impact uses while remaining readily accessible to the major population concentrations in Center City. The population density map below, based on 2007 population estimates, indicates the census tracts with populations ranging from 10,000 or more (darkest green) to zero (white).



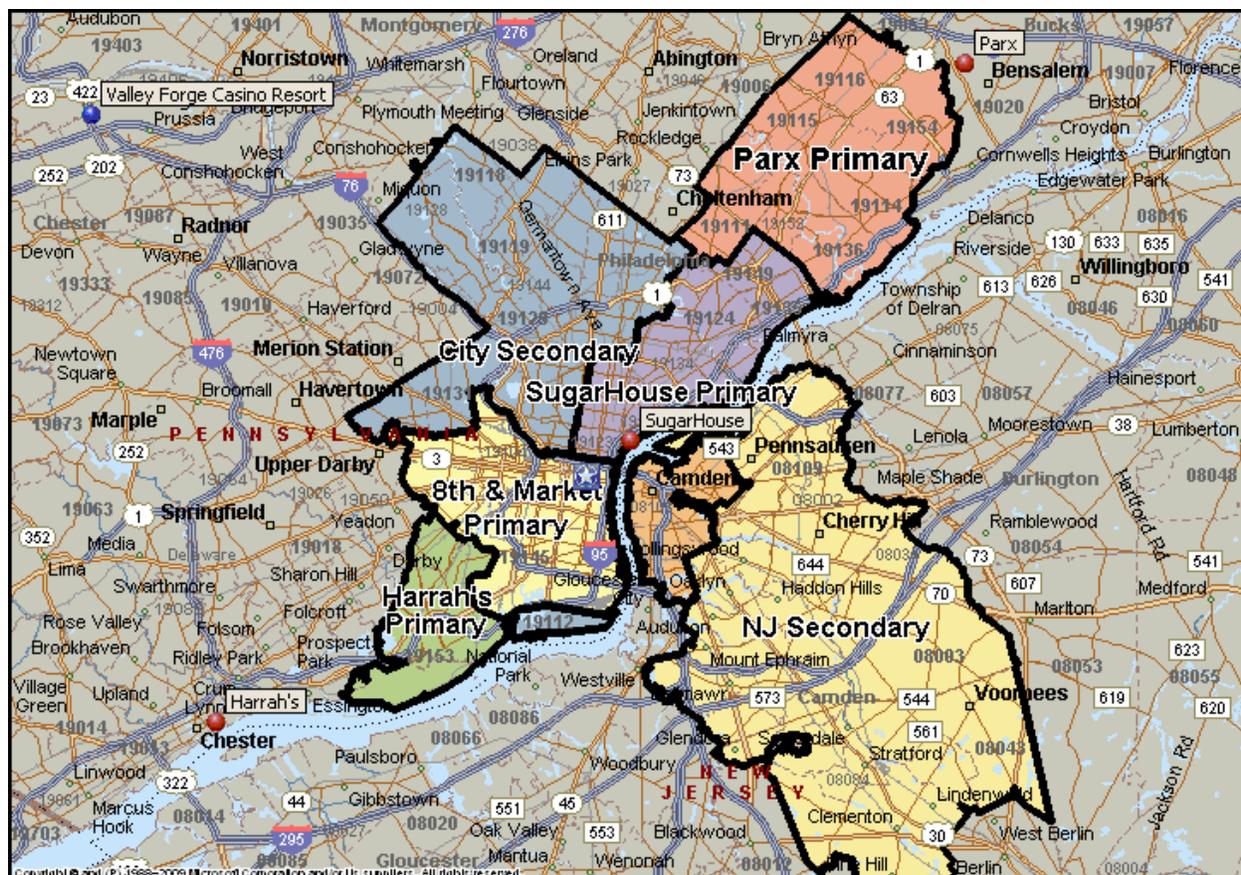
gaming venues to ensure its reasonableness and validity and has been and is utilized and relied upon by gaming companies and industry consultants.

### Gaming Demand from Residential Target Markets

The “residential” win for the subject casino was divided into two sub-markets: (1) a “primary” market consisting of the residents of Philadelphia County plus residents of New Jersey readily accessed by the Benjamin Franklin, Walt Whitman and Betsy Ross Bridges and the PATCO high-speed line; and, (2) a “secondary” suburban market consisting of residents desiring to travel to casinos in the area for an evening or day of dining and/or gaming, including those drawn by the “urban effect” to the casinos in Center City.

#### “Primary” Residential Sub-Market

Based on the availability of public transit and major area highways, we divided the City and the “close-in” New Jersey suburbs into several zones as shown on the following map indicating which areas would likely frequent which gaming venues most often and constitute the Casino’s “primary” residential sub-market. (The Casino site is marked with a star.)



We identified the zip codes located in the above-defined areas and classified them into the zones indicated on the map.

- The “8<sup>th</sup> & Market Primary” zone consists of all of the zip codes in Center City, west along the Market Street Subway and south on Broad Street to

the Navy Yard. This area would constitute the Casino's primary residential market.

- The "SugarHouse Primary" zone consists of all of the zip codes surrounding SugarHouse and to its immediate north and northeast to the approximate seven-mile midway point to Parx Casino.
- The "City Secondary" zone consists of all of the zip codes within the City limits to the southwest of the 8<sup>th</sup> & Market Primary zone.
- The "Camden" zone consists of the zip codes in the City of Camden that are closest to the PATCO line.
- The "New Jersey (NJ) Secondary" zone basically incorporates those zip codes running along the PATCO line down to Lindenwold.

Population figures for each zip code were obtained from the U.S. Census Bureau for 2010, plus estimates for 2016 from ESRI, then aggregated by zone. These figures were then adjusted to reflect the portions of each zone's populations in 2010 and 2016 that were/are estimated to be comprised of adults of 21 years of age or above (the potential gaming market), again based on U.S. Census figures from 2010 and ESRI estimates for 2016.

We then estimated the probabilities of the various populations in the defined zones to participate in casino gaming in general. Our participation estimates utilized the data indicated in the tables on page 7 of this report adjusted to reflect the characteristics of the populations in the various counties/zones (e.g. the propensities to gamble decrease as the distances from existing gaming venues and metropolitan areas increase, levels of median household income, etc.).

As previously mentioned, it has been demonstrated consistently that the propensity-to-game increases with the proximity to a gaming venue. It has also been demonstrated that the propensity-to-game increases with household income.

The next step in the process of estimating gaming revenue levels for the proposed casino at 8<sup>th</sup> and Market Streets was to allocate the projected numbers of overall gaming visits to the five casino venues in the Philadelphia area, as well as "leakage" to venues outside of the area. These allocations specifically considered access to public transportation and highways.

Finally, estimated gaming expenditures/budgeted gaming amounts per visit were based on the household income data for the target counties, our and others' experience with existing gaming markets, including Atlantic City and Valley Forge, internal analyses conducted by gaming companies and general estimates used by gaming companies and analysts. Generally, gaming budgets increase with levels of disposable/household income and with the distance traveled to gamble.

The table on the following page summarizes all of the estimates previously discussed, resulting in our estimate of win for the MARKET8 Casino from the residential market in 2016, its first year of operation.

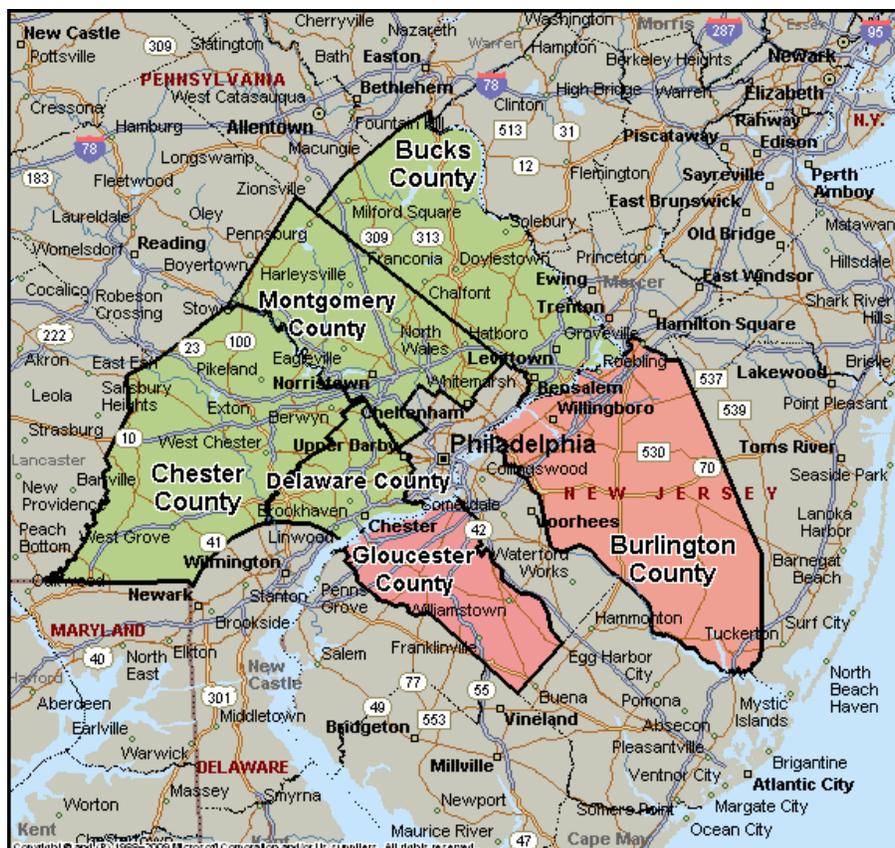
PHILADELPHIA AREA CASINOS AND MARKET8 CASINO ESTIMATED "PRIMARY RESIDENTIAL" CASINO WINS - 2016 (EXPRESSED IN 2012 DOLLARS)										
	Primary Market Areas Within Philadelphia					New Jersey Market Areas			Grand Totals	
	8th & Market	SugarHouse	Parx	Harrah's	Secondary	Totals	Camden	Secondary		Totals
Number of Zip Codes	8	9	7	3	18	45	4	22	26	71
Populations:										
2010	379,936	307,253	269,254	41,675	527,968	1,526,086	75,635	317,307	392,942	1,919,028
2016 (estimate)	<b>390,096</b>	<b>313,006</b>	<b>272,846</b>	<b>41,756</b>	<b>530,977</b>	<b>1,548,681</b>	<b>74,332</b>	<b>321,429</b>	<b>395,761</b>	<b>1,944,442</b>
% Change	2.7%	1.9%	1.3%	0.2%	0.6%	1.5%	-1.7%	1.3%	0.7%	1.3%
Households:										
2010	163,679	107,474	103,598	14,721	210,299	599,771	24,069	124,267	148,336	748,107
2016 (estimate)	169,049	109,615	104,582	14,813	212,805	610,864	23,672	125,791	149,463	760,327
% Change	3.3%	2.0%	0.9%	0.6%	1.2%	1.8%	-1.6%	1.2%	0.8%	1.6%
Median HH Income (2011)	\$30,907	\$31,088	\$49,377	\$32,879	\$35,280		\$27,506	\$62,404		
% of Population - Age 21+:										
2010	72.7%	66.0%	76.9%	66.1%	70.1%		62.5%	74.2%		
2015 (estimate)	<b>73.4%</b>	<b>66.6%</b>	<b>77.0%</b>	<b>67.1%</b>	<b>71.0%</b>	<b>71.7%</b>	<b>63.3%</b>	<b>75.0%</b>	<b>72.8%</b>	<b>71.9%</b>
Population - 2016 Age 21+	286,330	208,462	210,091	28,018	376,994	1,109,896	47,052	241,072	288,124	1,398,020
% Gaming	45%	45%	50%	45%	50%		48%	50%	48%	
Gaming Adults	128,849	93,808	105,046	12,608	188,497	528,807	21,173	120,536	141,709	670,517
Gaming Visits Per Year	16	12	16	12	10	13	12	10	10	12
Total Gaming Visits	2,061,579	1,125,695	1,680,731	151,299	1,884,968	6,904,273	254,082	1,205,359	1,459,440	8,363,713
Gaming Visit %s Allocated to:										
<b>Market8 Casino</b>	<b>70%</b>	<b>15%</b>	<b>1%</b>	<b>2%</b>	<b>30%</b>	<b>32%</b>	<b>55%</b>	<b>30%</b>	<b>34%</b>	<b>32%</b>
SugarHouse	10%	70%	4%	3%	20%	21%	30%	25%	26%	22%
Parx	5%	3%	70%	10%	22%	25%	5%	10%	9%	22%
Harrah's	5%	2%	5%	60%	5%	6%	5%	10%	9%	6%
Valley Forge	2%	2%	5%	5%	8%	4%	0%	0%	0%	4%
Sub-total Philadelphia	92%	92%	85%	80%	85%	88%	95%	75%	78%	86%
Atlantic City	5%	5%	10%	15%	10%	8%	5%	20%	17%	9%
Other	3%	3%	5%	5%	5%	4%	0%	5%	4%	4%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Gaming Visits Allocated:										
<b>Market8 Casino</b>	<b>1,443,106</b>	<b>168,854</b>	<b>16,807</b>	<b>3,026</b>	<b>565,491</b>	<b>2,197,284</b>	<b>139,745</b>	<b>361,608</b>	<b>501,353</b>	<b>2,698,636</b>
SugarHouse	206,158	787,986	67,229	4,539	376,994	1,442,906	76,224	301,340	377,564	1,820,470
Parx	103,079	33,771	1,176,512	15,130	414,693	1,743,185	12,704	120,536	133,240	1,876,425
Harrah's	103,079	22,514	84,037	90,779	94,248	394,657	12,704	120,536	133,240	527,897
Valley Forge	41,232	22,514	84,037	7,565	150,797	306,144	0	0	0	306,144
Sub-total Philadelphia	1,896,653	1,035,639	1,428,622	121,039	1,602,223	6,084,176	241,378	904,019	1,145,397	7,229,573
Atlantic City	103,079	56,285	168,073	22,695	188,497	538,628	12,704	241,072	253,776	792,404
Other	61,847	33,771	84,037	7,565	94,248	281,468	0	60,268	60,268	341,736
Total	2,061,579	1,125,695	1,680,731	151,299	1,884,968	6,904,273	254,082	1,205,359	1,459,440	8,363,713
Estimated Win/Patron - Market 8 Casino	\$95	\$100	\$100	\$100	\$105	\$98	\$100	\$105	\$104	\$99
Estimated "Primary Residential" Win - Market8 Casino	<u>\$137,095,026</u>	<u>\$16,885,422</u>	<u>\$1,680,731</u>	<u>\$302,597</u>	<u>\$59,376,503</u>	<u>\$215,340,280</u>	<u>\$13,974,490</u>	<u>\$37,968,801</u>	<u>\$51,943,291</u>	<u>\$267,283,571</u>
Estimated Market8 "Primary Residential" Win, rded.										<u>\$267,300,000</u>

Thus, we estimate that the MARKET8 Casino would achieve a first-year win of some \$267.3 million from the "primary" residential market, expressed in current 2012 dollars. Approximately half of this win is projected to come from the Casino's specific primary market zone (column 1).

### "Secondary" Residential Sub-Market

We then estimated the gaming win potential from a "secondary" suburban market consisting of residents of the following suburban Philadelphia counties: Bucks, Chester, Delaware and Montgomery in Pennsylvania; and, Burlington and Gloucester in New Jersey. (The relevant parts of Camden County were included in the "primary" market.)

These "secondary" market areas are identified in the map on the following page.



Our analysis utilized, and began with, the estimated numbers of gaming visits within the Philadelphia area estimated and presented on page 9 of this report. We then estimated what percentages of each County’s gaming visits could be expected to gravitate to the various gaming venues in the Philadelphia area based on highway access and other factors. The table below summarizes our estimates of gaming win allocation and specifically to the MARKET8 Casino.

PHILADELPHIA SUBURBAN COUNTY MARKET AREA POTENTIAL "SECONDARY RESIDENTIAL" GAMING REVENUE - 2016 (EXPRESSED IN 2012 DOLLARS)							
	Pennsylvania Suburban Counties				New Jersey Suburban Counties		Totals
	Bucks	Chester	Delaware	Montgomery	Burlington	Gloucester	
Gaming Visits - Philadelphia Area	1,861,009	1,203,408	1,478,731	1,818,668	1,001,663	812,486	8,175,965
Percentage of Philadelphia Area Visits to:							
Parx	85%	3%	3%	40%	35%	5%	34%
Harrah's	2%	62%	62%	6%	5%	35%	26%
SugarHouse (Expanded)	5%	15%	15%	17%	30%	30%	16%
Valley Forge	3%	5%	5%	20%	0%	0%	7%
<b>MARKET8</b>	<b>5%</b>	<b>15%</b>	<b>15%</b>	<b>17%</b>	<b>30%</b>	<b>30%</b>	<b>16%</b>
Total	100%	100%	100%	100%	100%	100%	100%
Suburban Gaming Visits to MARKET8 Casino	93,050	180,511	221,810	309,174	300,499	243,746	1,348,790
Win Per Visit	\$100	\$100	\$100	\$100	\$100	\$100	\$100
"Secondary Residential" Win - MARKET8 Casino	\$9,305,045	\$18,051,120	\$22,180,966	\$30,917,359	\$30,049,878	\$24,374,583	\$134,878,951
"Secondary Residential" Win - MARKET8 Casino (rounded)							<b>\$134,900,000</b>

Thus, we estimate that the MARKET8 Casino would achieve a first-year win of some \$134.9 million from the “secondary” residential market, expressed in current 2012 dollars.

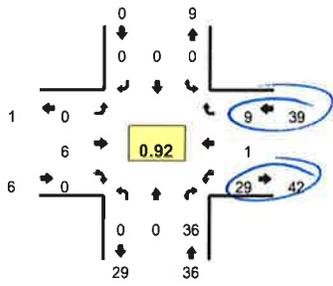


Type of peak hour being reported: Intersection Peak

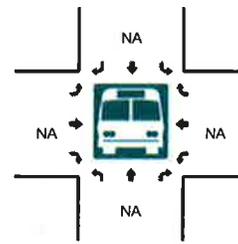
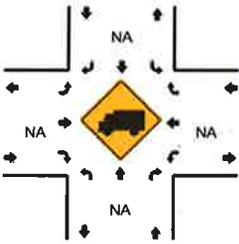
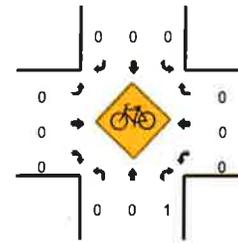
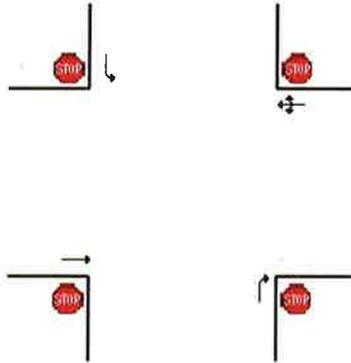
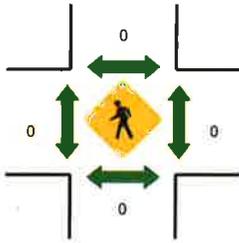
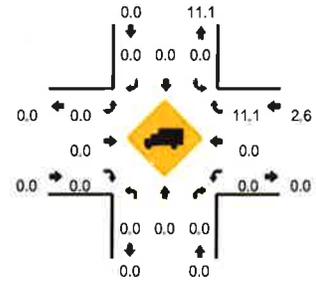
Method for determining peak hour: Total Entering Volume

**LOCATION:** Delaware Ave -- Casino S Ent  
**CITY/STATE:** Philadelphia, PA

**QC JOB #:** 11085307  
**DATE:** Fri, Jun 28 2013



**Peak-Hour: 4:00 PM -- 5:00 PM**  
**Peak 15-Min: 4:30 PM -- 4:45 PM**



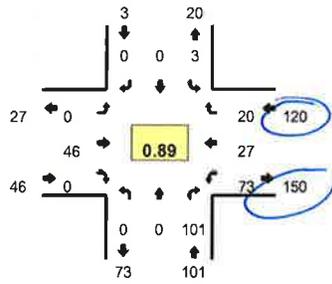
15-Min Count Period Beginning At	Delaware Ave (Northbound)				Delaware Ave (Southbound)				Casino S Ent (Eastbound)				Casino S Ent (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	6	0	0	0	0	0	0	1	0	0	9	1	1	0	18	
4:15 PM	0	0	11	0	0	0	0	0	0	3	0	0	3	0	3	0	20	
4:30 PM	0	0	8	0	0	0	0	0	0	0	0	0	11	0	3	0	22	
4:45 PM	0	0	11	0	0	0	0	0	0	2	0	0	6	0	2	0	21	81
5:00 PM	0	0	7	0	0	0	0	0	0	1	0	0	6	0	2	0	16	79
5:15 PM	0	0	7	0	1	0	0	0	0	1	0	0	7	1	3	0	20	79
5:30 PM	0	0	12	0	0	0	0	0	0	0	0	0	2	0	2	0	16	73
5:45 PM	0	0	10	0	0	0	0	0	0	0	0	0	8	0	4	0	22	74

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	32	0	0	0	0	0	0	0	0	0	44	0	12	0	88
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Pedestrians																	0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	0
Stopped Buses																	0

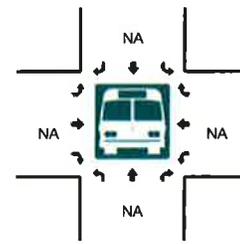
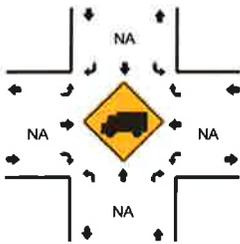
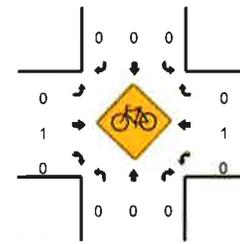
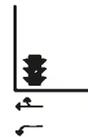
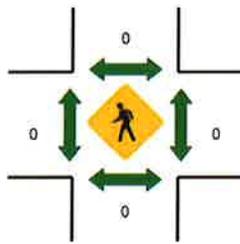
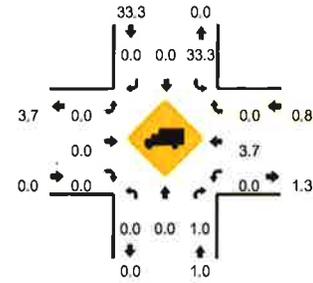
Comments: Ins and Outs only

**LOCATION:** Delaware Ave -- Casino Center Ent  
**CITY/STATE:** Philadelphia, PA

**QC JOB #:** 11085304  
**DATE:** Fri, Jun 28 2013



**Peak-Hour: 4:00 PM -- 5:00 PM**  
**Peak 15-Min: 4:00 PM -- 4:15 PM**



15-Min Count Period	Delaware Ave (Northbound)				Delaware Ave (Southbound)				Casino Center Ent (Eastbound)				Casino Center Ent (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
Beginning At																		
4:00 PM	0	0	27	0	2	0	0	0	0	16	0	0	20	4	7	0	76	
4:15 PM	0	0	17	0	0	0	0	0	0	7	0	0	17	9	5	0	55	
4:30 PM	0	0	31	0	1	0	0	0	0	10	0	0	17	8	4	0	71	
4:45 PM	0	0	26	0	0	0	0	0	0	13	0	0	19	6	4	0	68	270
5:00 PM	0	0	19	0	1	0	0	0	0	17	0	0	21	4	1	0	63	257
5:15 PM	0	0	18	0	1	0	0	0	0	11	0	0	16	8	10	0	64	266
5:30 PM	0	0	28	0	3	0	0	0	0	9	0	0	9	10	4	0	63	258
5:45 PM	0	0	17	0	5	0	0	0	0	13	0	0	15	5	3	0	58	248

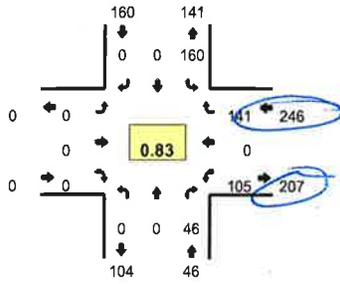
  

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	108	0	8	0	0	0	0	64	0	0	80	16	28	0	304
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Pedestrians			0				0				0				0		0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

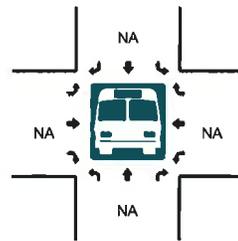
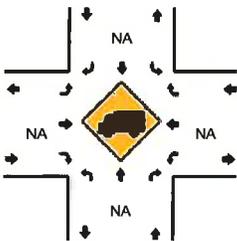
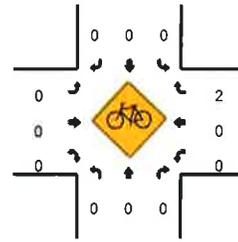
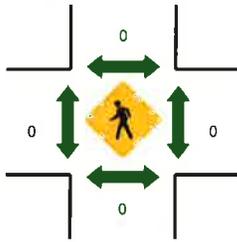
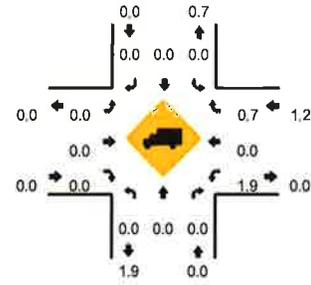
Comments: Ins and Outs Only

**LOCATION:** Delaware Ave -- Casino N Ent  
**CITY/STATE:** Philadelphia, PA

**QC JOB #:** 11085302  
**DATE:** Fri, Jun 28 2013



**Peak-Hour: 7:15 PM -- 8:15 PM**  
**Peak 15-Min: 7:30 PM -- 7:45 PM**



15-Min Count Period Beginning At	Delaware Ave (Northbound)				Delaware Ave (Southbound)				Casino N Ent (Eastbound)				Casino N Ent (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 PM	0	0	11	0	43	0	0	0	0	0	0	0	20	0	21	0	95	
7:15 PM	0	0	17	0	39	0	0	0	0	0	0	0	20	0	25	0	101	
7:30 PM	0	0	13	0	51	0	0	0	0	0	0	0	29	0	43	0	136	
7:45 PM	0	0	10	0	34	0	0	0	0	0	0	0	18	0	21	1	84	416
8:00 PM	0	0	6	0	36	0	0	0	0	0	0	0	37	0	52	0	131	452
8:15 PM	0	0	7	0	34	0	0	0	0	0	0	0	20	0	26	0	87	438
8:30 PM	0	0	4	0	37	0	0	0	0	0	0	0	14	0	28	0	83	385
8:45 PM	0	0	12	0	35	0	0	0	0	0	0	0	15	0	34	0	96	397
9:00 PM	0	0	8	0	31	0	0	0	0	0	0	0	25	0	31	0	95	361
9:15 PM	0	0	5	0	16	0	0	0	0	0	0	0	19	0	26	0	66	340
9:30 PM	0	0	8	0	27	0	0	0	0	0	0	0	20	0	35	0	90	347
9:45 PM	0	0	6	0	30	0	0	0	0	0	0	0	28	0	25	0	89	340

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	52	0	204	0	0	0	0	0	0	0	116	0	172	0	544
Heavy Trucks	0	0	0		0	0	0		0	0	0		8	0	0		8
Pedestrians																	0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	0
Stopped Buses																	0

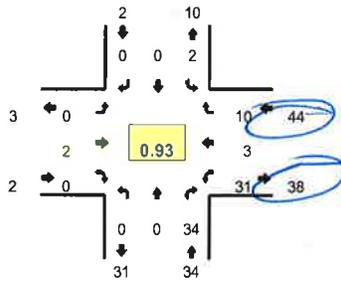
Comments:

Type of peak hour being reported: Intersection Peak

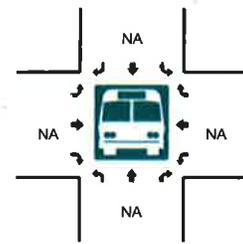
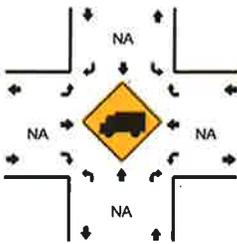
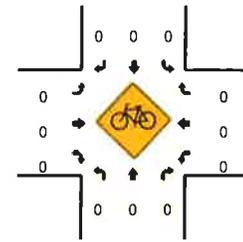
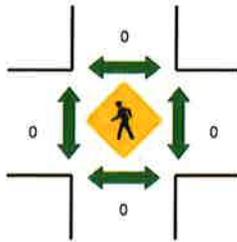
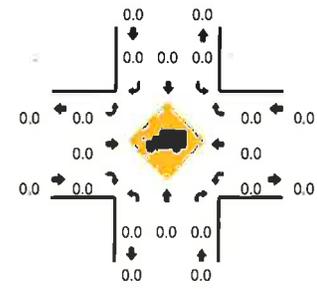
Method for determining peak hour: Total Entering Volume

**LOCATION:** Delaware Ave -- Casino S Ent  
**CITY/STATE:** Philadelphia, PA

**QC JOB #:** 11085308  
**DATE:** Fri, Jun 28 2013



**Peak-Hour: 7:15 PM -- 8:15 PM**  
**Peak 15-Min: 7:45 PM -- 8:00 PM**



15-Min Count Period Beginning At	Delaware Ave (Northbound)				Delaware Ave (Southbound)				Casino S Ent (Eastbound)				Casino S Ent (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 PM	0	0	9	0	0	0	0	0	0	1	0	0	5	1	2	0	18	
7:15 PM	0	0	8	0	1	0	0	0	0	2	0	0	8	1	1	0	21	
7:30 PM	0	0	8	0	0	0	0	0	0	0	0	0	9	2	1	0	20	
7:45 PM	0	0	11	0	0	0	0	0	0	0	0	0	6	0	5	0	22	81
8:00 PM	0	0	7	0	1	0	0	0	0	0	0	0	8	0	3	0	19	82
8:15 PM	0	0	6	0	0	0	0	0	0	0	0	0	6	0	2	0	14	75
8:30 PM	0	0	14	0	0	0	0	0	0	0	0	0	5	1	2	0	22	77
8:45 PM	0	0	10	0	1	0	0	0	0	1	0	0	6	1	3	0	22	77
9:00 PM	0	0	2	0	0	0	0	0	0	1	0	0	0	2	2	0	7	65
9:15 PM	0	0	11	0	1	0	0	0	0	1	0	0	5	1	4	0	23	74
9:30 PM	0	0	13	0	1	0	0	0	0	1	0	0	4	3	2	0	24	76
9:45 PM	0	0	3	0	1	0	0	0	0	1	0	0	5	1	1	0	12	66

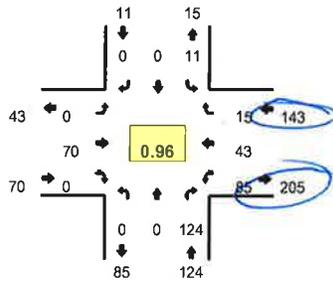
  

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	44	0	0	0	0	0	0	0	0	0	24	0	20	0	88
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Pedestrians			0				0				0				0		0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	0
Stopped Buses																	0

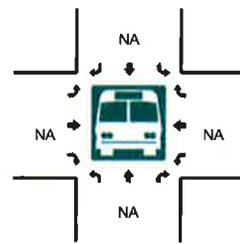
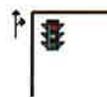
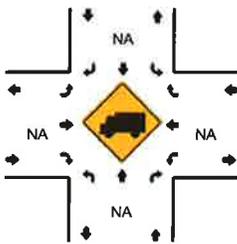
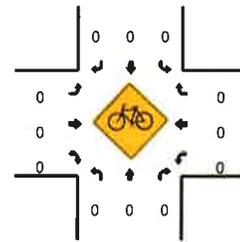
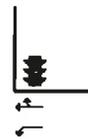
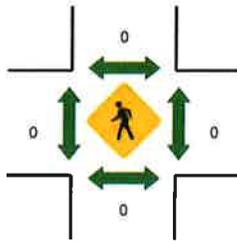
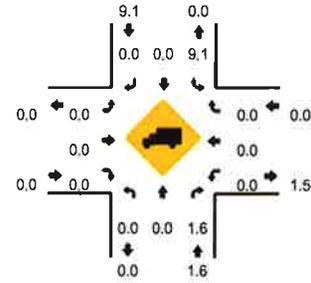
Comments: Ins and Outs only

**LOCATION:** Delaware Ave -- Casino Center Ent  
**CITY/STATE:** Philadelphia, PA

**QC JOB #:** 11085305  
**DATE:** Fri, Jun 28 2013



**Peak-Hour: 8:00 PM -- 9:00 PM**  
**Peak 15-Min: 8:45 PM -- 9:00 PM**



15-Min Count Period	Delaware Ave (Northbound)				Delaware Ave (Southbound)				Casino Center Ent (Eastbound)				Casino Center Ent (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 PM	0	0	23	0	1	0	0	0	0	8	0	0	26	14	5	0	77	
7:15 PM	0	0	29	0	3	0	0	0	0	16	0	0	19	10	7	0	84	
7:30 PM	0	0	24	0	5	0	0	0	0	22	0	0	27	11	6	0	95	
7:45 PM	0	0	22	0	7	0	0	0	0	13	0	0	23	8	2	0	75	331
8:00 PM	0	0	30	0	3	0	0	0	0	17	0	0	23	10	5	0	88	342
8:15 PM	0	0	28	0	2	0	0	0	0	13	0	0	27	8	3	0	81	339
8:30 PM	0	0	36	0	1	0	0	0	0	16	0	0	14	15	6	0	88	332
8:45 PM	0	0	30	0	5	0	0	0	0	24	0	0	21	10	1	0	91	348
9:00 PM	0	0	27	0	2	0	0	0	0	16	0	0	20	17	5	1	88	348
9:15 PM	0	0	32	0	2	0	0	0	0	10	0	0	16	8	5	0	73	340
9:30 PM	0	0	27	0	0	0	0	0	0	15	0	0	16	15	7	0	80	332
9:45 PM	0	0	29	0	1	0	0	0	0	15	0	0	19	14	4	0	82	323

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	120	0	20	0	0	0	0	96	0	0	84	40	4	0	364
Heavy Trucks	0	0	4		4	0	0		0	0	0		0	0	0		8
Pedestrians																	0
Bicycles																	0
Railroad																	0
Stopped Buses																	0

Comments: Ins and Outs Only

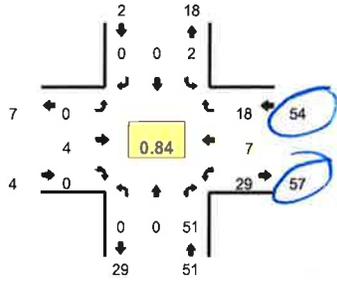


Type of peak hour being reported: Intersection Peak

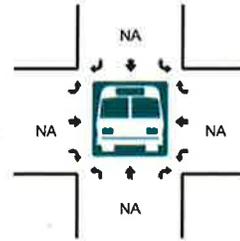
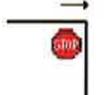
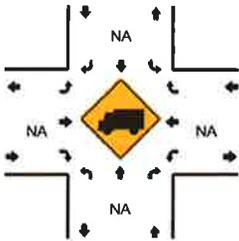
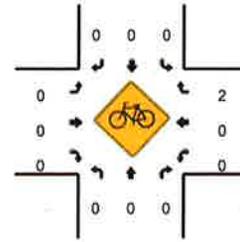
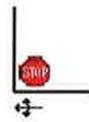
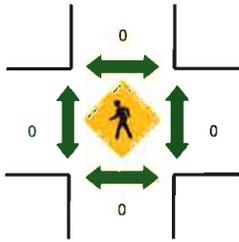
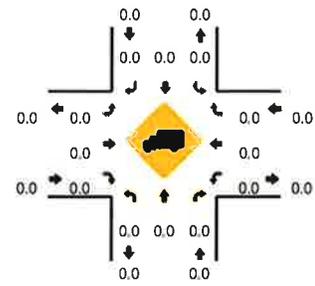
Method for determining peak hour: Total Entering Volume

**LOCATION:** Delaware Ave -- Casino S Ent  
**CITY/STATE:** Philadelphia, PA

**QC JOB #:** 11085309  
**DATE:** Sat, Jun 29 2013



**Peak-Hour: 7:45 PM -- 8:45 PM**  
**Peak 15-Min: 8:15 PM -- 8:30 PM**

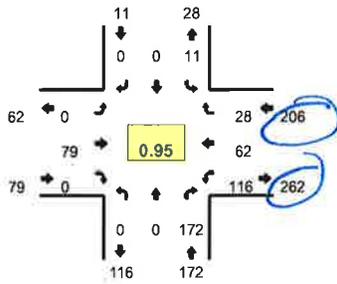


15-Min Count Period	Delaware Ave (Northbound)				Delaware Ave (Southbound)				Casino S Ent (Eastbound)				Casino S Ent (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
Beginning At																		
6:00 PM	0	0	13	0	0	0	0	0	0	0	0	0	6	2	6	0	27	
6:15 PM	0	0	13	0	0	0	0	0	0	2	0	0	7	0	1	0	23	
6:30 PM	0	0	12	0	0	0	0	0	0	4	0	0	6	0	13	0	35	
6:45 PM	0	0	6	0	0	0	0	0	0	1	0	0	4	0	4	0	15	100
7:00 PM	0	0	10	0	0	0	0	0	0	1	0	0	8	3	5	0	27	100
7:15 PM	0	0	10	0	0	0	0	0	0	1	0	0	4	0	4	0	19	96
7:30 PM	0	0	8	0	0	0	0	0	0	0	0	0	2	1	2	0	13	74
7:45 PM	0	0	12	0	0	0	0	0	0	0	0	0	9	2	2	0	25	84
8:00 PM	0	0	13	0	1	0	0	0	0	3	0	0	6	1	6	0	30	87
8:15 PM	0	0	15	0	1	0	0	0	0	1	0	0	8	1	7	0	33	101
8:30 PM	0	0	11	0	0	0	0	0	0	0	0	0	6	3	3	0	23	111
8:45 PM	0	0	7	0	0	0	0	0	0	2	0	0	4	2	1	0	16	102
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	60	0	4	0	0	0	0	4	0	0	32	4	28	0	132	
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0	
Pedestrians																	0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																	0	
Stopped Buses																	0	

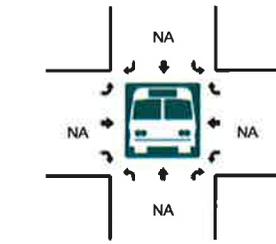
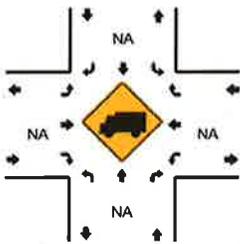
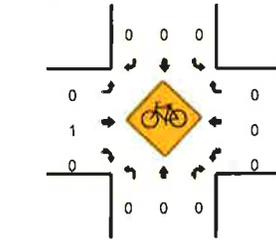
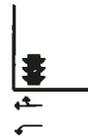
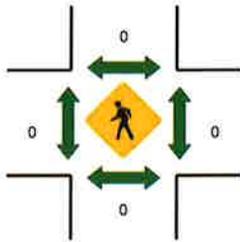
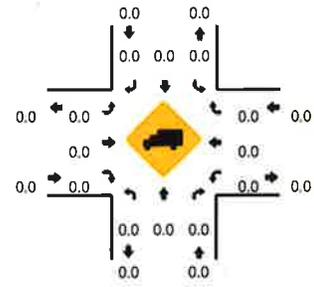
Comments: Ins and Outs only

**LOCATION:** Delaware Ave -- Casino Center Ent  
**CITY/STATE:** Philadelphia, PA

**QC JOB #:** 11085306  
**DATE:** Sat, Jun 29 2013



**Peak-Hour: 7:30 PM -- 8:30 PM**  
**Peak 15-Min: 8:15 PM -- 8:30 PM**



15-Min Count Period Beginning At	Delaware Ave (Northbound)				Delaware Ave (Southbound)				Casino Center Ent (Eastbound)				Casino Center Ent (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	0	26	0	1	0	0	0	0	27	0	0	23	16	6	0	99	
6:15 PM	0	0	25	0	0	0	0	0	0	12	0	0	16	5	8	0	66	
6:30 PM	0	0	30	0	3	0	0	0	0	28	0	0	25	11	6	0	103	
6:45 PM	0	0	23	0	1	0	0	0	0	13	0	0	18	13	7	0	75	343
7:00 PM	0	0	45	0	1	0	0	0	0	24	0	0	32	9	9	0	120	364
7:15 PM	0	0	32	0	3	0	0	0	0	22	0	0	24	14	3	0	98	396
7:30 PM	0	0	42	0	2	0	0	0	0	31	0	0	25	13	6	0	119	412
7:45 PM	0	0	46	0	2	0	0	0	0	22	0	0	25	11	10	0	116	453
8:00 PM	0	0	45	0	2	0	0	0	0	7	0	0	33	16	7	0	110	443
8:15 PM	0	0	39	0	5	0	0	0	0	19	0	0	33	22	5	0	123	488
8:30 PM	0	0	33	0	3	0	0	0	0	7	0	0	26	21	6	0	96	445
8:45 PM	0	0	29	0	1	0	0	0	0	15	0	0	23	11	9	0	88	417

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	156	0	20	0	0	0	0	76	0	0	132	88	20	0	492
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians			0				0				0				0		0
Bicycles	0	0	0		0	0	0		0	1	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments: Ins and Outs Only

**Period Setting**

**Analysis Name:** Revised Program - Hotel + Theatre (PM)  
**Project Name:** Market8 **No:** FINAL TIS  
**Date:** 7/3/2013 **City:** Philadelphia  
**State/Province:** PA **Zip/Postal Code:**  
**Country:** USA **Client Name:** Market East Associates  
**Analyst's Name:** AJC **Edition:** 9th

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
Quality Restaurant	1000 Sq. Feet Gross Floor Area	30 <sup>(0)</sup>	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average	150	75	225
Hotel	Rooms	168	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average	51	50	101
Live Theater	Seats	2000 <sup>(0)</sup>	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average	20 <sup>(1)</sup>	20 <sup>(1)</sup>	40 <sup>(1)</sup>

(0) indicates size out of range.  
 (1) indicates small sample size, use carefully.

**Traffic Reductions**

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
Quality Restaurant	50 %	75	50 %	38
Hotel	0 %	51	0 %	50
Live Theater	0 %	20	0 %	20

**Internal Trips**

<b>Quality Restaurant</b>				<b>Hotel</b>					
<b>Exit</b>	38	Demand Exit:	50 % (19)	Balanced:	19	Demand Entry:	50 % (26)	<b>Entry</b>	51
<b>Entry</b>	75	Demand Entry:	50 % (38)	Balanced:	25	Demand Exit:	50 % (25)	<b>Exit</b>	50
<b>Quality Restaurant</b>				<b>Live Theater</b>					
<b>Exit</b>	38	Demand Exit:	50 % (19)	Balanced:	10	Demand Entry:	50 % (10)	<b>Entry</b>	20
<b>Entry</b>	75	Demand Entry:	50 % (38)	Balanced:	10	Demand Exit:	50 % (10)	<b>Exit</b>	20
<b>Hotel</b>				<b>Live Theater</b>					
<b>Exit</b>	50	Demand Exit:	0 % (0)	Balanced:	0	Demand Entry:	0 % (0)	<b>Entry</b>	20
<b>Entry</b>	51	Demand Entry:	0 % (0)	Balanced:	0	Demand Exit:	0 % (0)	<b>Exit</b>	20
<b>Quality Restaurant</b>		<b>Total Trips</b>			<b>Internal Trips</b>			<b>External Trips</b>	
				<b>Hotel</b>	<b>Live Theater</b>	<b>Total</b>			

<b>Entry</b>	75 (100%)	25 (33%)	10 (13%)	35 (47%)	40 (53%)
<b>Exit</b>	38 (100%)	19 (50%)	10 (26%)	29 (76%)	9 (24%)
<b>Total</b>	113 (100%)	44 (39%)	20 (18%)	64 (57%)	49 (43%)

**Hotel**

	Total Trips	Quality Restaurant	Internal Trips Live Theater	Total	External Trips
<b>Entry</b>	51 (100%)	19 (37%)	0 (0%)	19 (37%)	32 (63%)
<b>Exit</b>	50 (100%)	25 (50%)	0 (0%)	25 (50%)	25 (50%)
<b>Total</b>	101 (100%)	44 (44%)	0 (0%)	44 (44%)	57 (56%)

**Live Theater**

	Total Trips	Quality Restaurant	Internal Trips Hotel	Total	External Trips
<b>Entry</b>	20 (100%)	10 (50%)	0 (0%)	10 (50%)	10 (50%)
<b>Exit</b>	20 (100%)	10 (50%)	0 (0%)	10 (50%)	10 (50%)
<b>Total</b>	40 (100%)	20 (50%)	0 (0%)	20 (50%)	20 (50%)

**External Trips**

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
Quality Restaurant	49	<input checked="" type="checkbox"/> 44 %	22	27
Hotel	57	<input type="checkbox"/> 0 %	0	57
Live Theater	20	<input type="checkbox"/> 0 %	0	20

**Notes**

**Internal Trips Notes:**

- Assumed 50% internal trips between Hotel / Restaurant
- Assumed 50% internal trips between Casino Amphitheatre / Restaurant
- Assumed 0% internal trips between Hotel /Casino Amphitheatre

**ITE Deviation Details**

**Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.**

- Landuse No deviations from ITE.
- Methods No deviations from ITE.
- External Trips
  - Hotel  
ITE does not recommend a particular pass-by% for this case.
  - Live Theater  
ITE does not recommend a particular pass-by% for this case.

**Summary**

<b>Total Entering</b>	221
<b>Total Exiting</b>	145
<b>Total Entering Reduction</b>	75
<b>Total Exiting Reduction</b>	37
<b>Total Entering Internal Capture Reduction</b>	64
<b>Total Exiting Internal Capture Reduction</b>	64
<b>Total Entering Pass-by Reduction</b>	18
<b>Total Exiting Pass-by Reduction</b>	4
<b>Total Entering Non-Pass-by Trips</b>	64
<b>Total Exiting Non-Pass-by Trips</b>	40



**Period Setting**

**Analysis Name:** CASINO PEAK  
**Project Name:** Market8 **No:** FINAL TIS  
**Date:** 7/3/2013 **City:** Philadelphia  
**State/Province:** PA **Zip/Postal Code:**  
**Country:** USA **Client Name:** Market East Associates  
**Analyst's Name:** AJC **Edition:** 9th

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
Quality Restaurant	1000 Sq. Feet Gross Floor Area	30 <sup>(0)</sup>	Weekday, P.M. Peak Hour of Generator	Average	168	103	271
Hotel	Rooms	168	Weekday, P.M. Peak Hour of Generator	Average	59	43	102
Live Theater	Seats	2000 <sup>(0)</sup>	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average	20 <sup>(1)</sup>	20 <sup>(1)</sup>	40 <sup>(1)</sup>

(0) indicates size out of range.

(1) indicates small sample size, use carefully.

 The time periods do not match.

**Traffic Reductions**

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
Quality Restaurant	25 %	126	25 %	77
Hotel	90 %	6	90 %	4
Live Theater	0 %	20	0 %	20

**Internal Trips**

Quality Restaurant				Hotel			
<b>Exit</b> 77	Demand Exit: 50 % (39)	Balanced: 3	Demand Entry: 50 % (3)	<b>Entry</b> 6			
<b>Entry</b> 126	Demand Entry: 50 % (63)	Balanced: 2	Demand Exit: 50 % (2)	<b>Exit</b> 4			
Quality Restaurant				Live Theater			
<b>Exit</b> 77	Demand Exit: 50 % (39)	Balanced: 10	Demand Entry: 50 % (10)	<b>Entry</b> 20			
<b>Entry</b> 126	Demand Entry: 50 % (63)	Balanced: 10	Demand Exit: 50 % (10)	<b>Exit</b> 20			
Hotel				Live Theater			
<b>Exit</b> 4	Demand Exit: 0 % (0)	Balanced: 0	Demand Entry: 0 % (0)	<b>Entry</b> 20			
<b>Entry</b> 6	Demand Entry: 0 % (0)	Balanced: 0	Demand Exit: 0 % (0)	<b>Exit</b> 20			

**Quality Restaurant**

	Total Trips	Internal Trips		Total	External Trips
		Hotel	Live Theater		
<b>Entry</b>	126 (100%)	2 (2%)	10 (8%)	12 (10%)	114 (90%)
<b>Exit</b>	77 (100%)	3 (4%)	10 (13%)	13 (17%)	64 (83%)

<b>Total</b>	203 (100%)	5 (2%)	20 (10%)	25 (12%)	178 (88%)
<b>Hotel</b>					
	<b>Total Trips</b>	<b>Quality Restaurant</b>	<b>Internal Trips</b>		<b>External Trips</b>
			<b>Live Theater</b>	<b>Total</b>	
<b>Entry</b>	6 (100%)	3 (50%)	0 (0%)	3 (50%)	3 (50%)
<b>Exit</b>	4 (100%)	2 (50%)	0 (0%)	2 (50%)	2 (50%)
<b>Total</b>	10 (100%)	5 (50%)	0 (0%)	5 (50%)	5 (50%)
<b>Live Theater</b>					
	<b>Total Trips</b>	<b>Internal Trips</b>		<b>External Trips</b>	
		<b>Quality Restaurant</b>	<b>Hotel</b>	<b>Total</b>	
<b>Entry</b>	20 (100%)	10 (50%)	0 (0%)	10 (50%)	10 (50%)
<b>Exit</b>	20 (100%)	10 (50%)	0 (0%)	10 (50%)	10 (50%)
<b>Total</b>	40 (100%)	20 (50%)	0 (0%)	20 (50%)	20 (50%)

<b>External Trips</b>					
	<b>Land Use</b>	<b>External Trips</b>	<b>Pass-by%</b>	<b>Pass-by Trips</b>	<b>Non-pass-by Trips</b>
	Quality Restaurant	178	44 %	78	100
	Hotel	5	0 %	0	5
	Live Theater	20	0 %	0	20

<b>ITE Deviation Details</b>	
<b>Weekday, P.M. Peak Hour of Generator</b>	
Landuse	No deviations from ITE.
Methods	No deviations from ITE.
External Trips	Hotel ITE does not recommend a particular pass-by% for this case.
<b>Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.</b>	
Landuse	No deviations from ITE.
Methods	No deviations from ITE.
External Trips	Live Theater ITE does not recommend a particular pass-by% for this case.

<b>Summary</b>	
<b>Total Entering</b>	247
<b>Total Exiting</b>	166

<b>Total Entering Reduction</b>	95
<b>Total Exiting Reduction</b>	65
<b>Total Entering Internal Capture Reduction</b>	25
<b>Total Exiting Internal Capture Reduction</b>	25
<b>Total Entering Pass-by Reduction</b>	50
<b>Total Exiting Pass-by Reduction</b>	28
<b>Total Entering Non-Pass-by Trips</b>	77
<b>Total Exiting Non-Pass-by Trips</b>	48



**Period Setting**

**Analysis Name:** Revised Program - Hotel + Theatre (SAT)  
**Project Name:** Market8 **No:** FINAL TIS  
**Date:** 7/3/2013 **City:** Philadelphia  
**State/Province:** PA **Zip/Postal Code:**  
**Country:** USA **Client Name:** Market East Associates  
**Analyst's Name:** AJC **Edition:** 9th

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
Quality Restaurant	1000 Sq. Feet Gross Floor Area	30 <sup>(0)</sup>	Saturday, Peak Hour of Generator	Average	191	134	325
Hotel	Rooms	168	Saturday, Peak Hour of Generator	Best Fit (LIN)	67	53	120
Live Theater	Seats	2000 <sup>(0)</sup>	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average	20 <sup>(1)</sup>	20 <sup>(1)</sup>	40 <sup>(1)</sup>

(0) indicates size out of range.

(1) indicates small sample size, use carefully.

 The time periods do not match.

**Traffic Reductions**

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
Quality Restaurant	25 %	143	25 %	101
Hotel	90 %	7	90 %	5
Live Theater	0 %	20	0 %	20

**Internal Trips**

<b>Quality Restaurant</b>				<b>Hotel</b>					
<b>Exit</b>	101	Demand Exit:	50 % (51)	Balanced:	4	Demand Entry:	50 % (4)	<b>Entry</b>	7
<b>Entry</b>	143	Demand Entry:	50 % (72)	Balanced:	3	Demand Exit:	50 % (3)	<b>Exit</b>	5
<b>Quality Restaurant</b>				<b>Live Theater</b>					
<b>Exit</b>	101	Demand Exit:	50 % (51)	Balanced:	10	Demand Entry:	50 % (10)	<b>Entry</b>	20
<b>Entry</b>	143	Demand Entry:	50 % (72)	Balanced:	10	Demand Exit:	50 % (10)	<b>Exit</b>	20
<b>Hotel</b>				<b>Live Theater</b>					
<b>Exit</b>	5	Demand Exit:	0 % (0)	Balanced:	0	Demand Entry:	0 % (0)	<b>Entry</b>	20
<b>Entry</b>	7	Demand Entry:	0 % (0)	Balanced:	0	Demand Exit:	0 % (0)	<b>Exit</b>	20

**Quality Restaurant**

	Total Trips	Internal Trips			External Trips
		Hotel	Live Theater	Total	
<b>Entry</b>	143 (100%)	3 (2%)	10 (7%)	13 (9%)	130 (91%)
<b>Exit</b>	101 (100%)	4 (4%)	10 (10%)	14 (14%)	87 (86%)

<b>Total</b>	244 (100%)	7 (3%)	20 (8%)	27 (11%)	217 (89%)
<b>Hotel</b>					
	<b>Total Trips</b>	<b>Quality Restaurant</b>	<b>Internal Trips</b>	<b>Total</b>	<b>External Trips</b>
			<b>Live Theater</b>		
<b>Entry</b>	7 (100%)	4 (57%)	0 (0%)	4 (57%)	3 (43%)
<b>Exit</b>	5 (100%)	3 (60%)	0 (0%)	3 (60%)	2 (40%)
<b>Total</b>	12 (100%)	7 (58%)	0 (0%)	7 (58%)	5 (42%)
<b>Live Theater</b>					
	<b>Total Trips</b>	<b>Quality Restaurant</b>	<b>Internal Trips</b>	<b>Total</b>	<b>External Trips</b>
			<b>Hotel</b>		
<b>Entry</b>	20 (100%)	10 (50%)	0 (0%)	10 (50%)	10 (50%)
<b>Exit</b>	20 (100%)	10 (50%)	0 (0%)	10 (50%)	10 (50%)
<b>Total</b>	40 (100%)	20 (50%)	0 (0%)	20 (50%)	20 (50%)

<b>External Trips</b>					
	<b>Land Use</b>	<b>External Trips</b>	<b>Pass-by%</b>	<b>Pass-by Trips</b>	<b>Non-pass-by Trips</b>
	Quality Restaurant	217	<input type="text" value="0"/> %	0	217
	Hotel	5	<input type="text" value="0"/> %	0	5
	Live Theater	20	<input type="text" value="0"/> %	0	20

**Notes**

**Internal Trips Notes:**

Same assumptions as PM Peak

**ITE Deviation Details**

**Saturday, Peak Hour of Generator**

Landuse No deviations from ITE.

Methods No deviations from ITE.

External Trips Quality Restaurant  
ITE does not recommend a particular pass-by% for this case.

Hotel  
ITE does not recommend a particular pass-by% for this case.

**Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.**

Landuse No deviations from ITE.

Methods No deviations from ITE.

External Trips Live Theater  
ITE does not recommend a particular pass-by% for this case.

Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.

### Summary

<b>Total Entering</b>	278
<b>Total Exiting</b>	207
<b>Total Entering Reduction</b>	108
<b>Total Exiting Reduction</b>	81
<b>Total Entering Internal Capture Reduction</b>	27
<b>Total Exiting Internal Capture Reduction</b>	27
<b>Total Entering Pass-by Reduction</b>	0
<b>Total Exiting Pass-by Reduction</b>	0
<b>Total Entering Non-Pass-by Trips</b>	143
<b>Total Exiting Non-Pass-by Trips</b>	99



# Land Use: 931

## Quality Restaurant

### Description

This land use consists of high quality, full-service eating establishments with turnover rates usually of at least one hour or longer. Quality restaurants generally do not serve breakfast; some do not serve lunch; all serve dinner. This type of restaurant usually requires reservations and is generally not part of a chain. High-turnover (sit-down) restaurant (Land Use 932) is a related use.

### Additional Data

Truck trips accounted for approximately 1 to 4 percent of the weekday traffic. The average for the sites that were surveyed was approximately 1.6 percent.

Vehicle occupancy ranged from 1.59 to 1.98 persons per automobile on an average weekday. The average for the sites that were surveyed was approximately 1.78.

The outdoor seating area is not included in the overall gross floor area. Therefore, the number of seats may be a more reliable independent variable on which to establish trip generation rates for facilities having significant outdoor seating.

The sites were surveyed from the 1970s to the 1990s throughout the United States.

### Source Numbers

13, 73, 88, 90, 98, 100, 126, 172, 260, 291, 301, 338, 339, 368, 437, 440

# Land Use: 310 Hotel

## Description

Hotels are places of lodging that provide sleeping accommodations and supporting facilities such as restaurants, cocktail lounges, meeting and banquet rooms or convention facilities, limited recreational facilities (pool, fitness room) and/or other retail and service shops. Some of the sites included in this land use category are actually large motels providing the facilities of a hotel noted above. All suites hotel (Land Use 311), business hotel (Land Use 312), motel (Land Use 320) and resort hotel (Land Use 330) are related uses.

## Additional Data

Studies of hotel employment density indicate that, on the average, a hotel will employ 0.9 employees per room.<sup>1</sup>

Thirty studies provided information on occupancy rates at the time the studies were conducted. The average occupancy rate for these studies was approximately 83 percent.

The hotels surveyed were primarily located outside central business districts in suburban areas.

The sites were surveyed from the late 1960s to the 2000s throughout the United States.

***For all lodging uses, it is important to collect data on occupied rooms as well as total rooms in order to accurately predict trip generation characteristics for the site.***

## Source Numbers

4, 5, 12, 13, 18, 55, 72, 170, 187, 254, 260, 262, 277, 280, 301, 306, 357, 422, 436, 507, 577

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<sup>1</sup> Buttke, Carl H., Unpublished studies of building employment densities, Portland, Oregon.

# Land Use: 441

## Live Theater

### Description

Live theaters are situated in buildings or open air settings and include a stage, backstage area, dressing rooms, seats for the audience and a lobby area.

### Additional Data

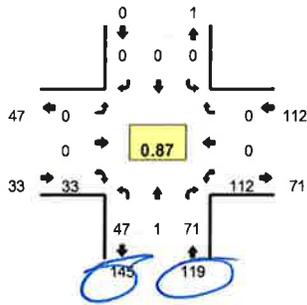
The site was surveyed in 1979 in suburban New York City.

### Source Number

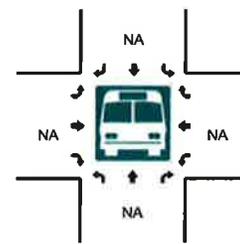
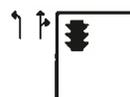
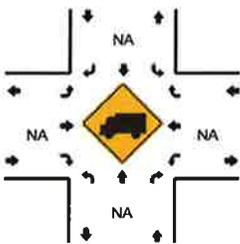
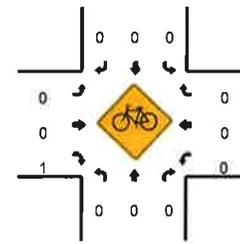
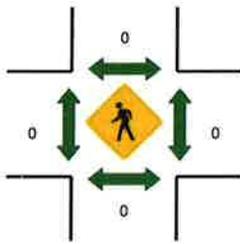
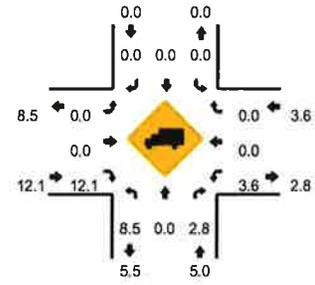
193

**LOCATION:** Hollywood Dr N -- Broad St  
**CITY/STATE:** Columbus, OH

**QC JOB #:** 11085410  
**DATE:** Fri, Jun 28 2013



**Peak-Hour: 4:30 PM -- 5:30 PM**  
**Peak 15-Min: 5:15 PM -- 5:30 PM**



15-Min Count Period	Hollywood Dr N (Northbound)				Hollywood Dr N (Southbound)				Broad St (Eastbound)				Broad St (Westbound)				Total	Hourly Totals	
	Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right			U
4:00 PM	10	0	16	0	0	0	0	0	0	0	0	20	0	15	0	0	0	61	
4:15 PM	13	0	14	0	0	0	0	0	0	0	0	12	0	14	0	0	0	53	
4:30 PM	13	0	22	0	0	0	0	0	0	0	0	6	0	33	0	0	0	74	
4:45 PM	10	0	10	0	0	0	0	0	0	0	0	7	0	27	0	0	0	54	242
5:00 PM	8	1	18	0	0	0	0	0	0	0	0	8	0	25	0	0	0	60	241
5:15 PM	16	0	21	0	0	0	0	0	0	0	0	12	0	27	0	0	0	76	264
5:30 PM	13	0	19	0	0	0	0	0	0	0	0	12	0	18	0	0	0	62	252
5:45 PM	8	0	20	0	0	0	0	0	0	0	0	9	0	24	0	0	0	61	259
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total		
All Vehicles	64	0	84	0	0	0	0	0	0	0	0	48	0	108	0	0	0	304	
Heavy Trucks	8	0	0		0	0	0		0	0	8		4	0	0			20	
Pedestrians			0				0				0				0			0	
Bicycles	0		0		0		0			0		1		0		0		1	
Railroad																			
Stopped Buses																			

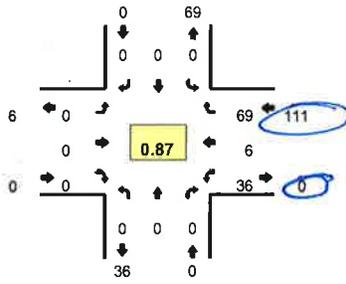
Comments:

Type of peak hour being reported: Intersection Peak

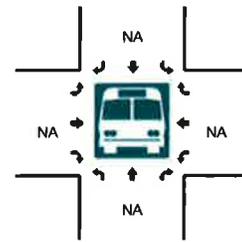
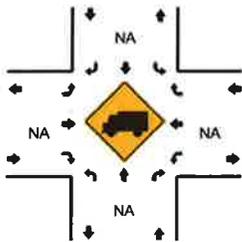
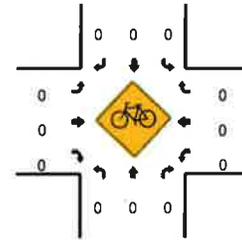
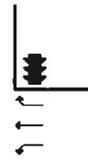
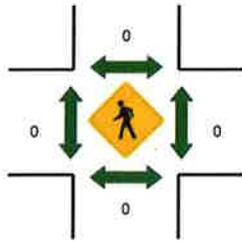
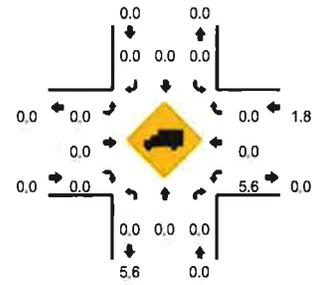
Method for determining peak hour: Total Entering Volume

**LOCATION:** Georgesville Rd -- Shoppers Ln N/Hollywood Dr  
**CITY/STATE:** Columbus, OH

**QC JOB #:** 11085407  
**DATE:** Fri, Jun 28 2013



**Peak-Hour: 5:00 PM -- 6:00 PM**  
**Peak 15-Min: 5:30 PM -- 5:45 PM**



15-Min Count Period	Georgesville Rd (Northbound)				Georgesville Rd (Southbound)				Shoppers Ln N/Hollywood Dr (Eastbound)				Shoppers Ln N/Hollywood Dr (Westbound)				Total	Hourly Totals	
	Beginning At	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right			U
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	7	3	11	0	21	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	21	0	25	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	22	0	28	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	19	0	24	98
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	10	2	15	0	27	104
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	11	0	23	102
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	10	2	20	0	32	106
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	23	0	29	111

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	40	8	80	0	128
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Railroad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments:



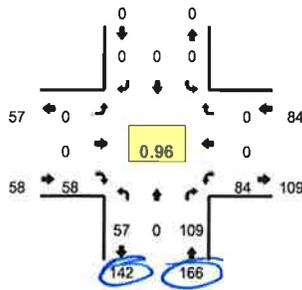


Type of peak hour being reported: Intersection Peak

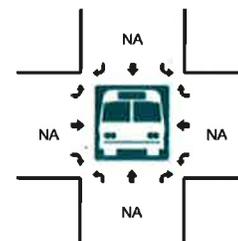
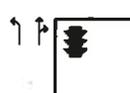
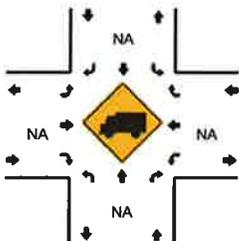
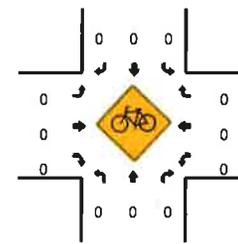
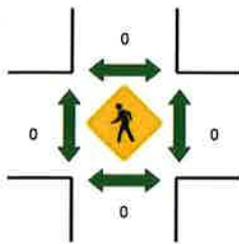
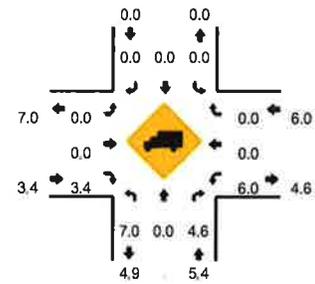
Method for determining peak hour: Total Entering Volume

**LOCATION:** Hollywood Dr N -- Broad St  
**CITY/STATE:** Columbus, OH

**QC JOB #:** 11085411  
**DATE:** Fri, Jun 28 2013



**Peak-Hour: 7:45 AM -- 8:45 AM**  
**Peak 15-Min: 7:45 AM -- 8:00 AM**

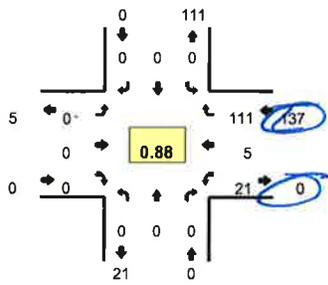


15-Min Count Period Beginning At	Hollywood Dr N (Northbound)				Hollywood Dr N (Southbound)				Broad St (Eastbound)				Broad St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	2	0	4	0	0	0	0	0	0	0	4	0	3	0	0	0	13	
7:15 AM	0	0	4	0	0	0	0	0	0	0	3	0	2	0	0	0	9	
7:30 AM	7	0	11	0	0	0	0	0	0	0	4	0	14	0	0	0	36	
7:45 AM	9	0	38	0	0	0	0	0	0	0	9	0	24	0	0	0	80	138
8:00 AM	22	0	28	0	0	0	0	0	0	0	18	0	12	0	0	0	80	205
8:15 AM	15	0	12	0	0	0	0	0	0	0	19	0	29	0	0	0	75	271
8:30 AM	11	0	31	0	0	0	0	0	0	0	12	0	19	0	0	0	73	308
8:45 AM	7	0	27	0	0	0	0	0	0	0	11	0	20	0	0	0	65	293
9:00 AM	13	0	14	0	0	0	0	0	0	0	7	0	16	0	0	0	50	263
9:15 AM	5	0	15	0	0	0	0	0	0	0	11	0	24	0	0	0	55	243
9:30 AM	13	0	19	0	0	0	0	0	0	0	8	0	21	0	0	0	61	231
9:45 AM	5	0	10	0	0	0	0	0	0	0	5	0	21	0	0	0	41	207
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
All Vehicles	36	0	152	0	0	0	0	0	0	0	36	0	96	0	0	0	320	
Heavy Trucks	8	0	8	0	0	0	0	0	0	0	4	0	8	0	0	0	28	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

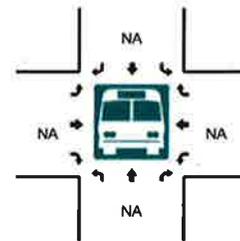
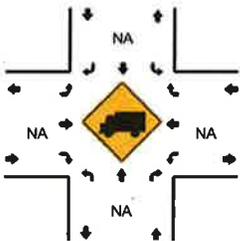
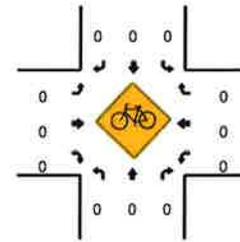
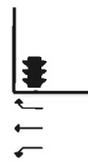
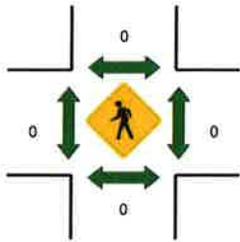
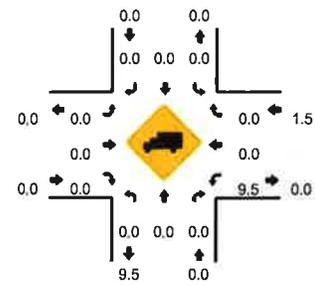
Comments:

LOCATION: Georgesville Rd -- Shoppers Ln N/Hollywood Dr  
 CITY/STATE: Columbus, OH

QC JOB #: 11085408  
 DATE: Fri, Jun 28 2013



Peak-Hour: 8:45 PM -- 9:45 PM  
 Peak 15-Min: 9:15 PM -- 9:30 PM



15-Min Count Period Beginning At	Georgesville Rd (Northbound)				Georgesville Rd (Southbound)				Shoppers Ln N/Hollywood Dr (Eastbound)				Shoppers Ln N/Hollywood Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	8	1	21	0	30	
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	6	0	24	0	30	
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	5	2	17	0	24	
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	5	1	13	0	19	103
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	4	1	16	0	21	94
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	5	1	23	0	29	93
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	1	22	0	25	94
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	26	0	28	103
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	7	1	23	0	31	113
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	5	2	32	0	39	123
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	8	1	30	0	39	137
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	5	0	23	0	28	137
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	20	8	128	0	156	
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

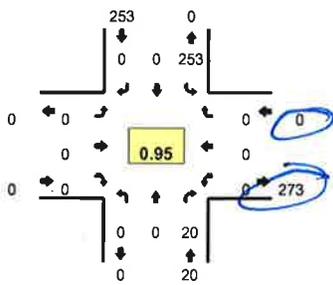
Comments:

Type of peak hour being reported: Intersection Peak

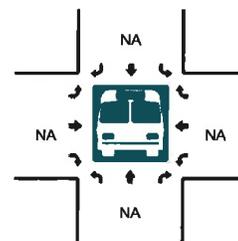
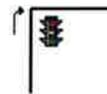
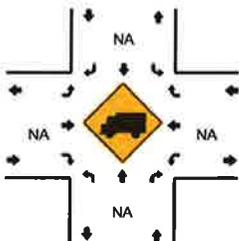
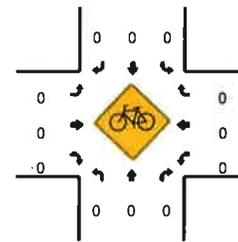
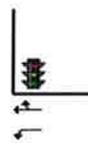
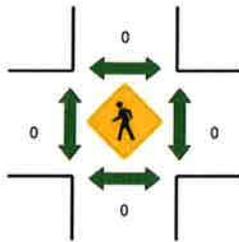
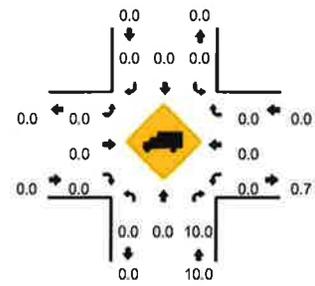
Method for determining peak hour: Total Entering Volume

**LOCATION:** Georgesville Rd -- Shoppers Ln S/Hollywood Dr  
**CITY/STATE:** Columbus, OH

**QC JOB #:** 11085405  
**DATE:** Fri, Jun 28 2013



**Peak-Hour:** 7:45 AM -- 8:45 AM  
**Peak 15-Min:** 8:00 AM -- 8:15 AM



15-Min Count Period Beginning At	Georgesville Rd (Northbound)				Georgesville Rd (Southbound)				Shoppers Ln S/Hollywood Dr (Eastbound)				Shoppers Ln S/Hollywood Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	4	0	53	0	0	0	0	1	0	0	0	0	0	0	58	
7:15 AM	0	0	5	0	61	0	0	0	0	2	0	0	0	0	0	0	68	
7:30 AM	0	0	5	0	50	0	0	0	0	1	0	0	0	0	0	0	56	
7:45 AM	0	0	5	0	64	0	0	0	0	0	0	0	0	0	0	0	69	251
8:00 AM	0	0	9	0	63	0	0	0	0	0	0	0	0	0	0	0	72	265
8:15 AM	0	0	3	0	57	0	0	0	0	0	0	0	0	0	0	0	60	257
8:30 AM	0	0	3	0	69	0	0	0	0	0	0	0	0	0	0	0	72	273
8:45 AM	0	0	2	0	56	0	0	0	0	0	0	0	0	0	0	0	58	262
9:00 AM	0	0	6	0	64	0	0	0	0	0	0	0	0	0	0	0	70	260
9:15 AM	0	0	3	0	49	0	0	0	0	0	0	0	0	0	0	0	52	252
9:30 AM	0	0	5	0	51	0	0	0	0	0	0	0	0	0	0	0	56	236
9:45 AM	0	0	2	0	52	0	0	0	0	0	0	0	0	0	0	0	54	232
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	36	0	252	0	0	0	0	0	0	0	0	0	0	0	288	
Heavy Trucks	0	0	4		0	0	0		0	0	0		0	0	0		4	
Pedestrians																	0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																	0	
Stopped Buses																	0	

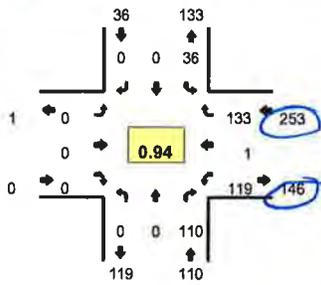
Comments: Driveway Ins and Outs Only

Type of peak hour being reported: Intersection Peak

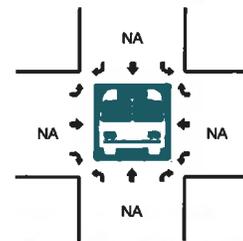
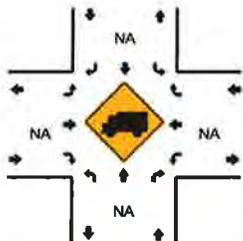
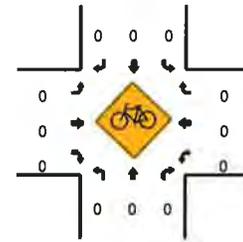
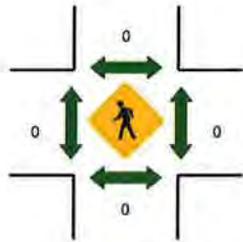
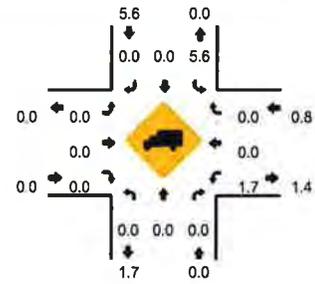
Method for determining peak hour: Total Entering Volume

**LOCATION:** Georgesville Rd -- Lincoln Park Ct/Hollywood Dr S  
**CITY/STATE:** Columbus, OH

**QC JOB #:** 11085402  
**DATE:** Fri, Jun 28 2013



**Peak-Hour: 9:00 PM -- 10:00 PM**  
**Peak 15-Min: 9:30 PM -- 9:45 PM**

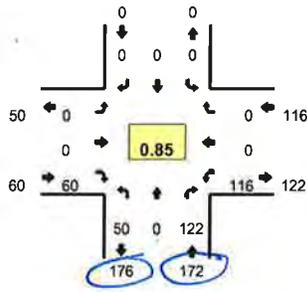


15-Min Count Period Beginning At	Georgesville Rd (Northbound)				Georgesville Rd (Southbound)				Lincoln Park Ct/Hollywood Dr (Eastbound)				Lincoln Park Ct/Hollywood Dr (Westbound)				S Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 PM	0	0	33	0	9	0	0	0	0	0	0	0	24	0	21	0	87	
7:15 PM	0	0	40	0	3	0	0	0	0	0	0	0	20	0	23	0	86	
7:30 PM	0	0	37	0	7	0	0	0	0	1	0	0	24	0	19	0	88	
7:45 PM	0	0	25	0	15	0	0	0	0	0	0	0	23	0	15	0	78	339
8:00 PM	0	0	22	0	7	0	0	0	0	0	0	0	28	2	28	0	87	339
8:15 PM	0	0	33	0	4	0	0	0	0	0	0	0	29	0	24	0	90	343
8:30 PM	0	0	32	0	7	0	0	0	0	1	0	0	27	1	25	0	93	348
8:45 PM	0	0	27	0	6	0	0	0	0	0	0	0	16	2	27	0	78	348
9:00 PM	0	0	30	0	7	0	0	0	0	0	0	0	33	0	28	0	98	359
9:15 PM	0	0	25	0	12	0	0	0	0	0	0	0	32	0	30	0	99	368
9:30 PM	0	0	27	0	10	0	0	0	0	0	0	0	33	1	35	0	106	381
9:45 PM	0	0	28	0	7	0	0	0	0	0	0	0	21	0	40	0	96	399
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
All Vehicles	0	0	108	0	40	0	0	0	0	0	0	0	132	4	140	0		424
Heavy Trucks	0	0	0		4	0	0		0	0	0		8	0	0		12	
Pedestrians	0	0	0		0	0	0		0	0	0		0	0	0		0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																	0	
Stopped Buses																	0	

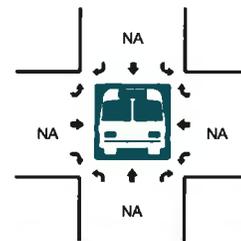
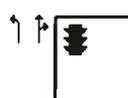
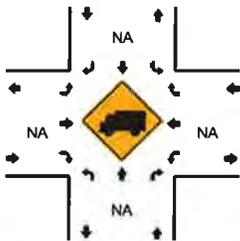
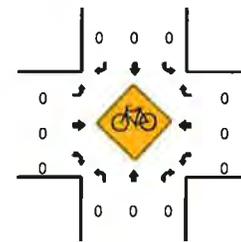
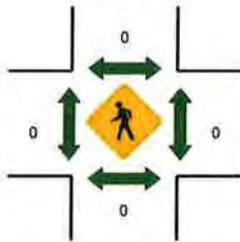
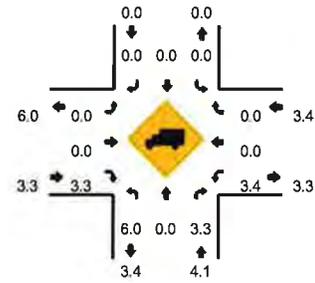
Comments: Driveway Ins and Outs Only

**LOCATION:** Hollywood Dr N -- Broad St  
**CITY/STATE:** Columbus, OH

**QC JOB #:** 11085412  
**DATE:** Sat, Jun 29 2013



**Peak-Hour: 7:00 PM -- 8:00 PM**  
**Peak 15-Min: 7:45 PM -- 8:00 PM**



15-Min Count Period Beginning At	Hollywood Dr N (Northbound)				Hollywood Dr N (Southbound)				Broad St (Eastbound)				Broad St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	12	0	14	0	0	0	0	0	0	0	7	0	38	0	0	0	71	
6:15 PM	13	0	23	0	0	0	0	0	0	0	7	0	28	0	0	0	71	
6:30 PM	5	0	24	0	0	0	0	0	0	0	14	0	34	0	0	0	77	
6:45 PM	7	0	22	0	0	0	0	0	0	0	18	0	34	0	0	0	81	300
7:00 PM	8	0	15	0	0	0	0	0	0	0	20	0	35	0	0	0	78	307
7:15 PM	15	0	26	0	0	0	0	0	0	0	15	0	34	0	0	0	90	326
7:30 PM	11	0	32	0	0	0	0	0	0	0	11	0	24	0	0	0	78	327
7:45 PM	16	0	49	0	0	0	0	0	0	0	14	0	23	0	0	0	102	348
8:00 PM	15	0	27	0	0	0	0	0	0	0	9	0	22	0	0	0	73	343
8:15 PM	10	0	15	0	0	0	0	0	0	0	8	0	24	0	0	0	57	310
8:30 PM	7	0	15	0	0	0	0	0	0	0	12	0	23	0	0	0	57	289
8:45 PM	9	0	24	0	0	0	0	0	0	0	4	0	24	0	0	0	61	248

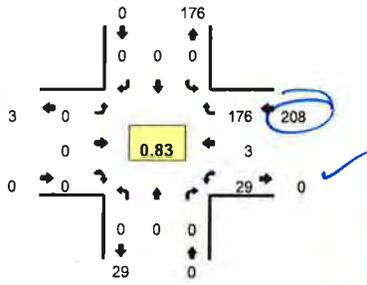
  

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	64	0	196	0	0	0	0	0	0	0	56	0	92	0	0	0	408
Heavy Trucks	4	0	4	0	0	0	0	0	0	0	0	0	4	0	0	0	12
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Railroad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

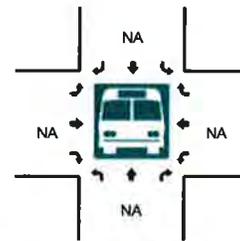
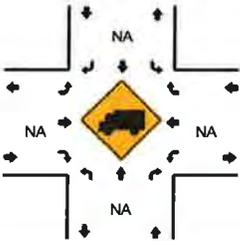
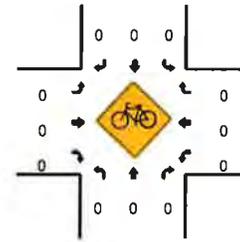
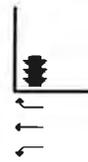
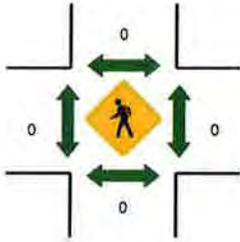
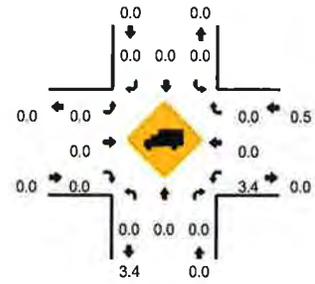
Comments:

**LOCATION:** Georgesville Rd -- Shoppers Ln N/Hollywood Dr  
**CITY/STATE:** Columbus, OH

**QC JOB #:** 11085409  
**DATE:** Sat, Jun 29 2013



**Peak-Hour: 7:15 PM -- 8:15 PM**  
**Peak 15-Min: 7:30 PM -- 7:45 PM**



15-Min Count Period Beginning At	Georgesville Rd (Northbound)				Georgesville Rd (Southbound)				Shoppers Ln N/Hollywood Dr (Eastbound)				Shoppers Ln N/Hollywood Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	7	1	27	0	35	
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	7	1	27	0	35	
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	28	0	32	
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	6	0	22	0	28	130
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	5	2	35	0	42	137
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	11	1	40	0	52	154
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	8	2	53	0	63	185
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	5	0	39	0	44	201
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	5	0	44	0	49	208
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	25	0	29	185
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	5	0	22	0	27	149
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	7	1	24	0	32	137
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	32	8	212	0	252	
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

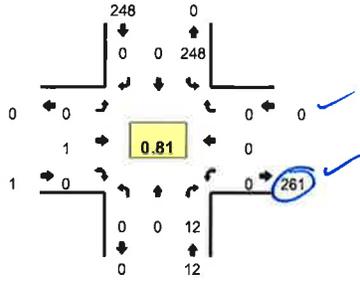
Comments:

Type of peak hour being reported: Intersection Peak

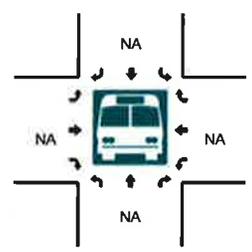
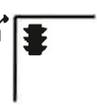
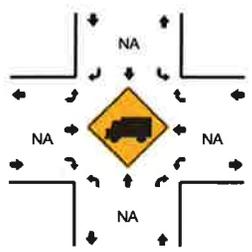
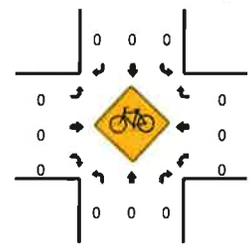
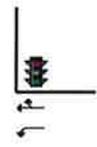
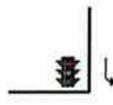
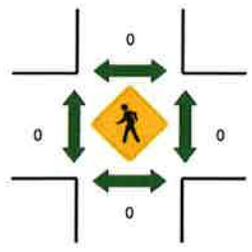
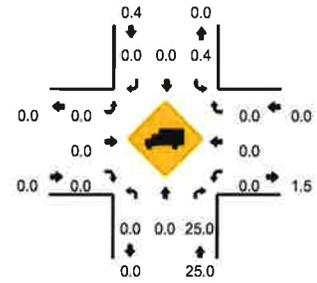
Method for determining peak hour: Total Entering Volume

LOCATION: Georgesville Rd -- Shoppers Ln S/Hollywood Dr  
 CITY/STATE: Columbus, OH

QC JOB #: 11085406  
 DATE: Sat, Jun 29 2013



Peak-Hour: 8:00 PM -- 9:00 PM  
 Peak 15-Min: 8:45 PM -- 9:00 PM



15-Min Count Period Beginning At	Georgesville Rd (Northbound)				Georgesville Rd (Southbound)				Shoppers Ln S/Hollywood Dr (Eastbound)				Shoppers Ln S/Hollywood Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	0	6	0	58	0	0	0	0	0	0	0	0	0	0	0	64	
6:15 PM	0	0	4	0	50	0	0	0	0	0	0	0	0	0	0	0	54	
6:30 PM	0	0	2	0	62	0	0	0	0	0	0	0	0	0	0	0	64	
6:45 PM	0	0	3	0	47	0	0	0	0	0	0	0	0	0	0	0	50	232
7:00 PM	0	0	5	0	61	0	0	0	0	0	0	0	0	0	0	0	66	234
7:15 PM	0	0	3	0	56	0	0	0	0	0	0	0	0	0	0	0	59	239
7:30 PM	0	0	3	0	55	0	0	0	0	0	0	0	0	0	0	0	58	233
7:45 PM	0	0	2	0	43	0	0	0	0	0	0	0	0	0	0	0	45	228
8:00 PM	0	0	4	0	53	0	0	0	0	0	0	0	0	0	0	0	57	219
8:15 PM	0	0	0	0	57	0	0	0	0	0	0	0	0	0	0	0	57	217
8:30 PM	0	0	2	0	64	0	0	0	0	0	0	0	0	0	0	0	66	225
8:45 PM	0	0	6	0	74	0	0	0	0	1	0	0	0	0	0	0	81	261

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	24	0	296	0	0	0	0	0	4	0	0	0	0	0	324
Heavy Trucks	0	0	4		4	0	0		0	0	0		0	0	0		8
Pedestrians						0					0				0		0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

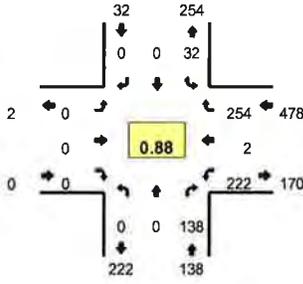
Comments: Driveway Ins and Outs Only

Type of peak hour being reported: Intersection Peak

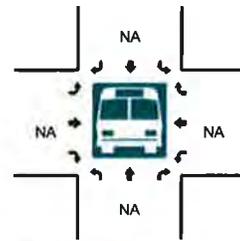
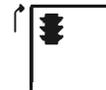
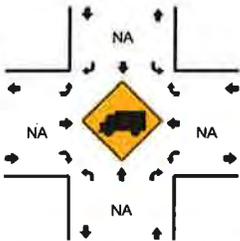
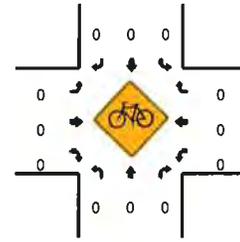
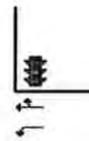
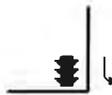
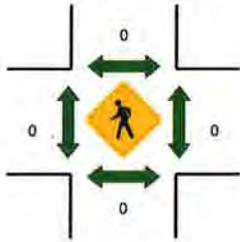
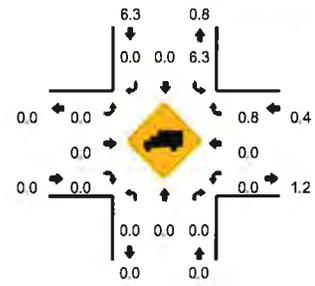
Method for determining peak hour: Total Entering Volume

**LOCATION:** Georgesville Rd -- Lincoln Park Ct/Hollywood Dr S  
**CITY/STATE:** Columbus, OH

**QC JOB #:** 11085403  
**DATE:** Sat, Jun 29 2013



**Peak-Hour: 7:15 PM -- 8:15 PM**  
**Peak 15-Min: 7:30 PM -- 7:45 PM**



15-Min Count Period Beginning At	Georgesville Rd (Northbound)				Georgesville Rd (Southbound)				Lincoln Park Ct/Hollywood Dr (Eastbound)				Lincoln Park Ct/Hollywood Dr (Westbound)				S Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	0	29	0	10	0	0	0	0	0	0	0	28	0	38	0	105	
6:15 PM	0	0	31	0	2	0	0	0	0	0	0	0	26	0	41	0	100	
6:30 PM	0	0	38	0	9	0	0	0	0	0	0	0	26	0	48	0	121	
6:45 PM	0	0	44	0	2	0	0	0	0	0	0	0	26	0	26	0	98	424
7:00 PM	0	0	43	0	4	0	0	0	0	0	0	0	23	0	26	0	96	415
7:15 PM	0	0	52	0	3	0	0	0	0	0	0	0	46	0	59	0	160	475
7:30 PM	0	0	29	0	5	0	0	0	0	0	0	0	67	1	82	0	184	538
7:45 PM	0	0	34	0	6	0	0	0	0	0	0	0	54	1	62	0	157	597
8:00 PM	0	0	23	0	18	0	0	0	0	0	0	0	55	0	51	0	147	648
8:15 PM	0	0	36	0	8	0	0	0	0	0	0	0	30	1	47	0	122	610
8:30 PM	0	0	35	0	16	0	0	0	0	0	0	0	29	0	52	0	132	558
8:45 PM	0	0	30	0	7	0	0	0	0	0	0	0	23	0	43	0	103	504
<b>Peak 15-Min Flowrates</b>	<b>Northbound</b>				<b>Southbound</b>				<b>Eastbound</b>				<b>Westbound</b>				<b>Total</b>	
All Vehicles	0	0	116	0	20	0	0	0	0	0	0	0	268	4	328	0	736	
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Comments: Driveway Ins and Outs Only

# Gaming Casino Traffic

**THE AUTHORS  
SUMMARIZE RESULTS  
FROM TRAFFIC VOLUME  
STUDIES OF TWO  
GAMING CASINOS—  
THE CASINO ST. CHARLES  
AND THE CASINO QUEEN.**

GAMING CASINOS GENERATE significant volumes of traffic—especially during the evening peak hour. Two studies of existing operations were made in the St. Louis, Mo., USA, metropolitan area, including hourly vehicular volumes and daily variations. Also, the projections from an economic report for a proposed casino were utilized to provide multiplication factors for traffic counted in any given month, to that expected during the peak summer months.

Gaming casinos have three general types of positions—individual, such as slots and video poker; table, such as blackjack and poker; and audience, such as Keno or racing. For riverboat type facilities, a land-side staging area is used. Other customary services include bar and restaurant.

The Casino St. Charles is located in the metropolitan area, west of the Missouri River. It is reported to have about 2,500 gaming positions, about 80 percent of which are slots or video poker machines.

In January 1995, counts of entering and leaving traffic were taken across weekdays, Saturday and Sunday.<sup>1</sup> For the peak hours, the counts were converted into rates of flow in and out of the facility per gaming position and were expanded to the summer peak conditions (see Table 1). The highest weekday traffic occurs on Friday, while the absolute peak hour occurs on Saturday evening.

From the counts, it also was possible to calculate the hourly variation by the days of the week during which counts

**Table 1. Casino St. Charles peak hour rates of vehicular flow per gaming position.**

Day	Hour	Rate*	
Thursday facility peak	18:00 to 19:00	IN	0.25
		OUT	0.23
Thursday street peak	16:30 to 17:30	IN	0.19
		OUT	0.23
Friday facility peak	18:00 to 19:00	IN	0.29
		OUT	0.25
Friday street peak	16:30 to 17:30	IN	0.19
		OUT	0.24
Saturday facility peak	18:00 to 19:00	IN	0.34
		OUT	0.30
Sunday facility peak	13:00 to 14:00	IN	0.25
	16:00 to 17:00	OUT	0.25

\*Expanded to summer peaks.  
Source: Ref. 1

**BY PAUL C. BOX AND  
WILLIAM BUNTE**

were taken. These data are given in Table 2. It should be noted that the facility is quite busy from 09:00 through 22:00 hours. Unlike residential, office or industrial developments, gaming casinos have no significant AM peak hour loading.

A second study was taken at the Casino Queen, a land-based facility on the north side of the Mississippi River in East St. Louis, Ill., USA. Table 3 gives the rates of flow in the PM peak hour per gaming position for customer traffic and separately for employee/service vehicles. The counts have been expanded to peak summer month activity. Only one truck entered or left the casino during the PM peak, which was from 16:30 to 17:30. This is a much smaller facility than the Casino St. Charles, with only 1,200 gaming positions. About 80 percent are slots or video poker. Furthermore, this casino is only open 22 hours per day (09:00 through 07:00). Pickup/dropoff traffic also was observed at the Casino Queen, and amounted to about 10 vehicles during the PM peak. Data on various characteristics of the casinos, such as floor area and employees, are given in Table 4.

The peak gaming months are reported as May, July and August. These may be considered as the "design" condition. The percent of average months and the monthly variation in expected casino traffic, provided in the form of a multiplier for counts taken in a given month to those projected during the peak months, is given in Table 5. For example, a February count would be expanded by 30 percent (1.3 times the count) to reach peak month volumes. The data are taken from an economic study,<sup>3</sup> prepared in connection with a gaming facility zoning application to St. Louis County.

Additional studies of casino traffic are warranted because of widely varying characteristics. For example, the St. Louis casinos had similar rates of peak flow per gaming position. However, the St. Charles facility continued to experience significant flow and had a weekday peak just after the PM peak, while the Casino Queen traffic dropped abruptly at the end of the rush hour. The count was discontinued at this point, because

**Table 2. Hourly variation by day of week.**

Hour Begin	Percent of Daily Vehicular Traffic					
	IN			OUT		
	Weekday*	Sat.	Sun.	Weekday*	Sat.	Sun.
00	2.5	3.0	3.9	4.3	5.9	7.3
01	1.8	2.7	3.7	3.9	4.4	6.2
02	1.2	1.3	1.9	3.3	4.2	5.4
03	0.7	0.8	1.0	3.2	4.7	5.2
04	1.0	0.6	0.9	3.3	3.7	3.9
05	0.7	0.6	0.9	1.6	2.0	2.5
06	1.0	0.7	0.8	0.6	0.7	0.8
07	1.6	1.1	1.3	0.6	0.5	0.4
08	3.9	3.3	4.4	1.2	0.9	0.8
09	5.6	4.7	6.1	1.3	0.9	0.9
10	5.2	4.3	5.6	2.1	1.7	1.9
11	5.5	4.9	5.7	3.0	2.6	2.9
12	5.8	4.8	6.6	4.1	2.8	3.8
13	6.0	5.2	7.2	5.2	3.5	4.4
14	5.4	5.6	6.5	6.1	4.1	5.5
15	5.2	5.6	6.1	6.4	5.8	6.5
16	5.3	5.7	5.8	7.1	6.3	6.6
17	5.9	6.7	6.2	6.6	6.8	6.0
18	7.8	7.8	5.8	7.0	6.9	6.4
19	7.4	7.7	4.0	5.7	6.4	5.8
20	6.3	6.5	3.9	5.3	6.7	4.3
21	5.3	6.1	5.0	5.7	6.1	4.3
22	4.7	5.7	3.4	6.3	6.0	4.6
23	4.0	4.6	3.3	6.1	6.4	3.6

\*Average Monday AM, Thursday PM plus Friday.  
Source: Ref. 1.

**Table 3. Evening peak hour Casino Queen vehicular traffic.**

Type of Traffic	Rate per Gaming Position*	
	IN	OUT
Customer	0.27	0.26
Employee/Service	0.02	0.02
TOTAL	0.29	0.28

\*Expanded to peak months per Ref. 3.  
Source: Ref. 2.

**Table 4. Site characteristics.**

	St. Charles	Casino Queen
Floor area (gaming and staging), square feet*	47,000	65,000
Employees	—	1,200
Employees at peak time	700	450
Capacity (gamblers)	4,200	—

\*Conversion: One square foot = 0.093 square meter.

**Table 5. Monthly variation.**

Month of Count	Percent of Average Month	Multiplier to Expand to Seasonal Peak
January.....	111%.....	1.1
February.....	90%.....	1.3
March.....	111%.....	1.1
April.....	108%.....	1.1
May.....	116%.....	1.0
June.....	108%.....	1.1
July.....	121%.....	1.0
August.....	121%.....	1.0
September.....	113%.....	1.1
October.....	105%.....	1.2
November.....	98%.....	1.2
December.....	105%.....	1.2

Source: Ref. 3.

the scope of study was intended to analyze only the PM street peak hour generation.

The two sites studied have provided useful information on hourly and monthly variation. These data should guide studies of other sites. Separate counts of customer and employee vehicular traffic, plus trucks, should be taken on busy weekdays and perhaps on a Saturday evening, if a street capacity problem is likely. At some locations, large numbers of patrons may arrive by bus, which relates to geometric design of driveways.

Other studies of gaming facilities needed include parking generation, which represents a major factor. The development of gaming on Native American tribal lands is often away from or at the fringe of metropolitan areas. Traffic and parking characteristics of these facilities may differ from those

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within a metropolitan area. Busing may represent a more significant factor—especially relative to parking layout. ■



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