

APPENDIX H
SURFACE TRAFFIC COUNTS AND MODELS

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GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 1 - SH 71 WBFR & Cardinal Loop, Presidential Blvd

Site Code : 1

Start Date : 12/20/2019

Page No : 1

Groups Printed- Vehicles - Heavy Vehicles

Start Time	Cardinal Loop Southbound					SH 71 Westbound					Presidential Blvd Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
06:00	0	9	12	0	21	30	14	3	14	61	173	20	0	4	197	0	0	0	0	0	279
06:15	0	6	12	0	18	26	27	1	10	64	190	21	0	1	212	0	0	0	0	0	294
06:30	0	10	19	0	29	35	20	5	18	78	158	17	0	0	175	0	0	0	0	0	282
06:45	0	14	20	0	34	46	34	3	19	102	121	17	0	1	139	0	0	0	0	0	275
Total	0	39	63	0	102	137	95	12	61	305	642	75	0	6	723	0	0	0	0	0	1130
07:00	0	11	22	0	33	47	34	2	12	95	121	25	0	0	146	0	0	0	0	0	274
07:15	0	14	24	0	38	53	42	3	17	115	104	21	0	2	127	0	0	0	0	0	280
07:30	0	14	17	0	31	33	27	4	15	79	87	17	0	1	105	0	0	0	0	0	215
07:45	0	20	21	0	41	49	25	2	11	87	65	17	0	2	84	0	0	0	0	0	212
Total	0	59	84	0	143	182	128	11	55	376	377	80	0	5	462	0	0	0	0	0	981
08:00	0	12	13	0	25	68	33	7	10	118	87	16	0	3	106	0	0	0	0	0	249
08:15	0	18	23	0	41	64	35	4	12	115	120	22	0	1	143	0	0	0	0	0	299
08:30	0	21	15	0	36	62	35	3	12	112	143	21	0	2	166	0	0	0	0	0	314
08:45	0	17	16	0	33	54	34	6	11	105	181	33	0	3	217	0	0	0	0	0	355
Total	0	68	67	0	135	248	137	20	45	450	531	92	0	9	632	0	0	0	0	0	1217
09:00	0	15	17	0	32	53	25	4	17	99	143	26	0	0	169	0	0	0	0	0	300
09:15	0	20	14	0	34	46	22	4	16	88	132	23	0	3	158	0	0	0	0	0	280
09:30	0	17	12	0	29	54	25	2	16	97	128	21	0	2	151	0	0	0	0	0	277
09:45	0	12	11	0	23	73	22	5	15	115	135	20	0	4	159	0	0	0	0	0	297
Total	0	64	54	0	118	226	94	15	64	399	538	90	0	9	637	0	0	0	0	0	1154
10:00	0	17	8	0	25	54	31	4	13	102	163	19	0	6	188	0	0	0	0	0	315
10:15	0	17	15	0	32	49	22	3	11	85	249	22	0	5	276	0	0	0	0	0	393
10:30	0	23	10	0	33	86	28	1	18	133	226	33	0	3	262	0	0	0	0	0	428
10:45	0	17	22	0	39	87	25	6	15	133	239	28	0	3	270	0	0	0	0	0	442
Total	0	74	55	0	129	276	106	14	57	453	877	102	0	17	996	0	0	0	0	0	1578
11:00	0	29	21	0	50	77	36	1	18	132	225	28	0	5	258	0	0	0	0	0	440
11:15	0	20	13	0	33	83	31	5	10	129	267	23	0	5	295	0	0	0	0	0	457
11:30	0	17	9	0	26	79	37	5	17	138	277	35	0	2	314	0	0	0	0	0	478
11:45	0	20	13	0	33	114	34	4	18	170	279	28	0	4	311	0	0	0	0	0	514
Total	0	86	56	0	142	353	138	15	63	569	1048	114	0	16	1178	0	0	0	0	0	1889
12:00	0	20	9	0	29	90	21	6	21	138	337	18	0	4	359	0	0	0	0	0	526
12:15	0	23	8	0	31	99	42	8	26	175	251	21	0	6	278	0	0	0	0	0	484
12:30	0	25	14	0	39	95	30	3	27	155	270	26	0	9	305	0	0	0	0	0	499
12:45	0	25	12	0	37	109	29	4	24	166	268	27	0	6	301	0	0	0	0	0	504
Total	0	93	43	0	136	393	122	21	98	634	1126	92	0	25	1243	0	0	0	0	0	2013
13:00	0	25	15	0	40	92	27	8	26	153	314	26	0	7	347	0	0	0	0	0	540
13:15	0	25	12	0	37	91	31	6	18	146	281	21	0	1	303	0	0	0	0	0	486
13:30	0	22	7	0	29	82	48	5	25	160	295	23	0	2	320	0	0	0	0	0	509
13:45	0	38	11	0	49	81	42	5	23	151	274	33	0	4	311	0	0	0	0	0	511
Total	0	110	45	0	155	346	148	24	92	610	1164	103	0	14	1281	0	0	0	0	0	2046
14:00	0	29	9	0	38	121	41	7	34	203	250	16	0	6	272	0	0	0	0	0	513
14:15	0	34	9	0	43	103	25	2	19	149	256	25	0	3	284	0	0	0	0	0	476
14:30	0	34	11	0	45	136	32	4	18	190	228	19	0	1	248	0	0	0	0	0	483

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 1 - SH 71 WBFR & Cardinal Loop, Presidential Blvd

Site Code : 1

Start Date : 12/20/2019

Page No : 2

Groups Printed- Vehicles - Heavy Vehicles

Start Time	Cardinal Loop Southbound					SH 71 Westbound					Presidential Blvd Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
14:45	0	23	10	0	33	109	32	4	22	167	311	22	0	1	334	0	0	0	0	0	534
Total	0	120	39	0	159	469	130	17	93	709	1045	82	0	11	1138	0	0	0	0	0	2006
15:00	0	24	8	0	32	119	31	6	26	182	257	28	0	3	288	0	0	0	0	0	502
15:15	0	19	8	0	27	108	25	7	32	172	311	22	0	1	334	0	0	0	0	0	533
15:30	0	34	12	0	46	122	34	4	21	181	314	35	0	5	354	0	0	0	0	0	581
15:45	0	28	7	0	35	110	21	3	14	148	237	29	0	0	266	0	0	0	0	0	449
Total	0	105	35	0	140	459	111	20	93	683	1119	114	0	9	1242	0	0	0	0	0	2065
16:00	0	33	11	0	44	135	26	12	29	202	273	29	0	7	309	0	0	0	0	0	555
16:15	0	25	12	0	37	94	19	5	23	141	253	33	0	2	288	0	0	0	0	0	466
16:30	0	30	10	0	40	104	24	5	21	154	308	25	0	0	333	0	0	0	0	0	527
16:45	0	17	8	0	25	94	20	9	16	139	275	31	0	0	306	0	0	0	0	0	470
Total	0	105	41	0	146	427	89	31	89	636	1109	118	0	9	1236	0	0	0	0	0	2018
17:00	0	34	8	0	42	128	22	6	15	171	269	30	0	4	303	0	0	0	0	0	516
17:15	0	23	7	0	30	96	26	7	20	149	325	32	0	3	360	0	0	0	0	0	539
17:30	0	35	6	0	41	129	29	5	21	184	271	19	0	3	293	0	0	0	0	0	518
17:45	0	16	14	0	30	87	40	6	15	148	300	29	0	3	332	0	0	0	0	0	510
Total	0	108	35	0	143	440	117	24	71	652	1165	110	0	13	1288	0	0	0	0	0	2083
18:00	0	29	6	0	35	105	33	3	17	158	202	23	0	2	227	0	0	0	0	0	420
18:15	0	19	5	0	24	91	32	3	16	142	315	20	0	3	338	0	0	0	0	0	504
18:30	0	30	5	0	35	92	26	3	13	134	279	28	0	3	310	0	0	0	0	0	479
18:45	0	20	9	0	29	81	24	7	21	133	342	16	0	4	362	0	0	0	0	0	524
Total	0	98	25	0	123	369	115	16	67	567	1138	87	0	12	1237	0	0	0	0	0	1927
19:00	0	23	4	0	27	86	23	4	10	123	186	16	0	1	203	0	0	0	0	0	353
19:15	0	27	6	0	33	52	34	4	16	106	187	20	0	2	209	0	0	0	0	0	348
19:30	0	15	4	0	19	48	19	7	20	94	213	14	0	3	230	0	0	0	0	0	343
19:45	0	16	6	0	22	61	24	2	13	100	194	8	0	3	205	0	0	0	0	0	327
Total	0	81	20	0	101	247	100	17	59	423	780	58	0	9	847	0	0	0	0	0	1371
Grand Total	0	1210	662	0	1872	4572	1630	257	1007	7466	12659	1317	0	164	14140	0	0	0	0	0	23478
Apprch %	0	64.6	35.4	0		61.2	21.8	3.4	13.5		89.5	9.3	0	1.2		0	0	0	0	0	
Total %	0	5.2	2.8	0	8	19.5	6.9	1.1	4.3	31.8	53.9	5.6	0	0.7	60.2	0	0	0	0	0	
Vehicles	0	1197	652	0	1849	4442	1479	254	978	7153	12619	1304	0	164	14087	0	0	0	0	0	23089
% Vehicles	0	98.9	98.5	0	98.8	97.2	90.7	98.8	97.1	95.8	99.7	99	0	100	99.6	0	0	0	0	0	98.3
Heavy Vehicles	0	13	10	0	23	130	151	3	29	313	40	13	0	0	53	0	0	0	0	0	389
% Heavy Vehicles	0	1.1	1.5	0	1.2	2.8	9.3	1.2	2.9	4.2	0.3	1	0	0	0.4	0	0	0	0	0	1.7

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 1 - SH 71 WBFR & Cardinal Loop, Presidential Blvd
Site Code : 1
Start Date : 12/20/2019
Page No : 3

Start Time	Cardinal Loop Southbound					SH 71 Westbound					Presidential Blvd Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 14:45																					
14:45	0	23	10	0	33	109	32	4	22	167	311	22	0	1	334	0	0	0	0	0	534
15:00	0	24	8	0	32	119	31	6	26	182	257	28	0	3	288	0	0	0	0	0	502
15:15	0	19	8	0	27	108	25	7	32	172	311	22	0	1	334	0	0	0	0	0	533
15:30	0	34	12	0	46	122	34	4	21	181	314	35	0	5	354	0	0	0	0	0	581
Total Volume	0	100	38	0	138	458	122	21	101	702	1193	107	0	10	1310	0	0	0	0	0	2150
% App. Total	0	72.5	27.5	0		65.2	17.4	3	14.4		91.1	8.2	0	0.8		0	0	0	0		
PHF	.000	.735	.792	.000	.750	.939	.897	.750	.789	.964	.950	.764	.000	.500	.925	.000	.000	.000	.000	.000	.925
Vehicles	0	99	36	0	135	448	115	21	100	684	1189	107	0	10	1306	0	0	0	0	0	2125
% Vehicles	0	99.0	94.7	0	97.8	97.8	94.3	100	99.0	97.4	99.7	100	0	100	99.7	0	0	0	0	0	98.8
Heavy Vehicles	0	1	2	0	3	10	7	0	1	18	4	0	0	0	4	0	0	0	0	0	25
% Heavy Vehicles	0	1.0	5.3	0	2.2	2.2	5.7	0	1.0	2.6	0.3	0	0	0	0.3	0	0	0	0	0	1.2

Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	13:45					14:30					14:45					06:00					
+0 mins.	0	38	11	0	49	136	32	4	18	190	311	22	0	1	334	0	0	0	0	0	0
+15 mins.	0	29	9	0	38	109	32	4	22	167	257	28	0	3	288	0	0	0	0	0	0
+30 mins.	0	34	9	0	43	119	31	6	26	182	311	22	0	1	334	0	0	0	0	0	0
+45 mins.	0	34	11	0	45	108	25	7	32	172	314	35	0	5	354	0	0	0	0	0	0
Total Volume	0	135	40	0	175	472	120	21	98	711	1193	107	0	10	1310	0	0	0	0	0	0
% App. Total	0	77.1	22.9	0		66.4	16.9	3	13.8		91.1	8.2	0	0.8		0	0	0	0		
PHF	.000	.888	.909	.000	.893	.868	.938	.750	.766	.936	.950	.764	.000	.500	.925	.000	.000	.000	.000	.000	.000
Vehicles	0	133	40	0	173	461	114	21	98	694	1189	107	0	10	1306	0	0	0	0	0	0
% Vehicles	0	98.5	100	0	98.9	97.7	95	100	100	97.6	99.7	100	0	100	99.7	0	0	0	0	0	0
Heavy Vehicles	0	2	0	0	2	11	6	0	0	17	4	0	0	0	4	0	0	0	0	0	0
% Heavy Vehicles	0	1.5	0	0	1.1	2.3	5	0	0	2.4	0.3	0	0	0	0.3	0	0	0	0	0	0

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 1 - SH 71 WBFR & Cardinal Loop, Presidential Blvd

Site Code : 1

Start Date : 12/20/2019

Page No : 4

Groups Printed- Vehicles

Start Time	Cardinal Loop Southbound					SH 71 Westbound					Presidential Blvd Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
06:00	0	9	12	0	21	28	13	3	12	56	172	19	0	4	195	0	0	0	0	0	272
06:15	0	6	12	0	18	25	20	1	9	55	190	20	0	1	211	0	0	0	0	0	284
06:30	0	10	19	0	29	31	16	5	17	69	157	17	0	0	174	0	0	0	0	0	272
06:45	0	14	20	0	34	44	33	3	19	99	121	17	0	1	139	0	0	0	0	0	272
Total	0	39	63	0	102	128	82	12	57	279	640	73	0	6	719	0	0	0	0	0	1100
07:00	0	11	22	0	33	46	29	2	12	89	121	25	0	0	146	0	0	0	0	0	268
07:15	0	14	22	0	36	52	36	3	17	108	104	21	0	2	127	0	0	0	0	0	271
07:30	0	14	17	0	31	32	22	4	13	71	86	16	0	1	103	0	0	0	0	0	205
07:45	0	19	20	0	39	47	25	2	11	85	64	17	0	2	83	0	0	0	0	0	207
Total	0	58	81	0	139	177	112	11	53	353	375	79	0	5	459	0	0	0	0	0	951
08:00	0	12	12	0	24	65	29	7	10	111	86	16	0	3	105	0	0	0	0	0	240
08:15	0	18	23	0	41	63	33	4	11	111	120	22	0	1	143	0	0	0	0	0	295
08:30	0	20	15	0	35	60	29	3	12	104	142	21	0	2	165	0	0	0	0	0	304
08:45	0	17	16	0	33	52	31	5	10	98	181	32	0	3	216	0	0	0	0	0	347
Total	0	67	66	0	133	240	122	19	43	424	529	91	0	9	629	0	0	0	0	0	1186
09:00	0	15	17	0	32	51	22	4	15	92	142	25	0	0	167	0	0	0	0	0	291
09:15	0	20	14	0	34	43	20	4	16	83	130	22	0	3	155	0	0	0	0	0	272
09:30	0	16	11	0	27	52	23	2	14	91	128	20	0	2	150	0	0	0	0	0	268
09:45	0	12	11	0	23	68	21	5	15	109	134	20	0	4	158	0	0	0	0	0	290
Total	0	63	53	0	116	214	86	15	60	375	534	87	0	9	630	0	0	0	0	0	1121
10:00	0	17	8	0	25	52	28	4	12	96	163	19	0	6	188	0	0	0	0	0	309
10:15	0	17	15	0	32	47	15	3	11	76	248	22	0	5	275	0	0	0	0	0	383
10:30	0	21	9	0	30	82	26	1	18	127	226	32	0	3	261	0	0	0	0	0	418
10:45	0	17	22	0	39	85	24	5	15	129	239	28	0	3	270	0	0	0	0	0	438
Total	0	72	54	0	126	266	93	13	56	428	876	101	0	17	994	0	0	0	0	0	1548
11:00	0	29	21	0	50	75	33	1	16	125	222	28	0	5	255	0	0	0	0	0	430
11:15	0	20	13	0	33	81	28	5	10	124	267	23	0	5	295	0	0	0	0	0	452
11:30	0	17	9	0	26	77	35	5	17	134	275	35	0	2	312	0	0	0	0	0	472
11:45	0	20	13	0	33	111	28	4	17	160	277	28	0	4	309	0	0	0	0	0	502
Total	0	86	56	0	142	344	124	15	60	543	1041	114	0	16	1171	0	0	0	0	0	1856
12:00	0	20	9	0	29	89	20	6	21	136	336	18	0	4	358	0	0	0	0	0	523
12:15	0	23	8	0	31	96	36	7	26	165	251	21	0	6	278	0	0	0	0	0	474
12:30	0	24	13	0	37	92	28	3	24	147	270	26	0	9	305	0	0	0	0	0	489
12:45	0	25	12	0	37	107	26	4	24	161	265	27	0	6	298	0	0	0	0	0	496
Total	0	92	42	0	134	384	110	20	95	609	1122	92	0	25	1239	0	0	0	0	0	1982
13:00	0	25	15	0	40	91	23	8	26	148	314	26	0	7	347	0	0	0	0	0	535
13:15	0	25	12	0	37	86	29	6	17	138	281	21	0	1	303	0	0	0	0	0	478
13:30	0	21	7	0	28	80	44	5	24	153	295	22	0	2	319	0	0	0	0	0	500
13:45	0	38	11	0	49	81	36	5	22	144	273	31	0	4	308	0	0	0	0	0	501
Total	0	109	45	0	154	338	132	24	89	583	1163	100	0	14	1277	0	0	0	0	0	2014
14:00	0	28	9	0	37	118	39	7	32	196	250	16	0	6	272	0	0	0	0	0	505
14:15	0	34	9	0	43	102	22	2	19	145	253	24	0	3	280	0	0	0	0	0	468
14:30	0	33	11	0	44	132	31	4	18	185	228	19	0	1	248	0	0	0	0	0	477
14:45	0	23	9	0	32	107	31	4	22	164	310	22	0	1	333	0	0	0	0	0	529
Total	0	118	38	0	156	459	123	17	91	690	1041	81	0	11	1133	0	0	0	0	0	1979

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 1 - SH 71 WBFR & Cardinal Loop, Presidential Blvd
Site Code : 1
Start Date : 12/20/2019
Page No : 5

Groups Printed- Vehicles

Start Time	Cardinal Loop Southbound					SH 71 Westbound					Presidential Blvd Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
15:00	0	23	7	0	30	118	28	6	26	178	257	28	0	3	288	0	0	0	0	0	496
15:15	0	19	8	0	27	104	24	7	32	167	310	22	0	1	333	0	0	0	0	0	527
15:30	0	34	12	0	46	119	32	4	20	175	312	35	0	5	352	0	0	0	0	0	573
15:45	0	28	7	0	35	108	19	3	14	144	237	29	0	0	266	0	0	0	0	0	445
Total	0	104	34	0	138	449	103	20	92	664	1116	114	0	9	1239	0	0	0	0	0	2041
16:00	0	32	11	0	43	131	22	12	28	193	272	29	0	7	308	0	0	0	0	0	544
16:15	0	25	12	0	37	93	16	5	23	137	252	33	0	2	287	0	0	0	0	0	461
16:30	0	30	9	0	39	102	24	5	21	152	308	25	0	0	333	0	0	0	0	0	524
16:45	0	17	8	0	25	90	19	9	16	134	275	31	0	0	306	0	0	0	0	0	465
Total	0	104	40	0	144	416	81	31	88	616	1107	118	0	9	1234	0	0	0	0	0	1994
17:00	0	34	8	0	42	123	21	6	15	165	267	30	0	4	301	0	0	0	0	0	508
17:15	0	23	7	0	30	95	25	7	20	147	323	32	0	3	358	0	0	0	0	0	535
17:30	0	35	6	0	41	126	28	5	21	180	271	18	0	3	292	0	0	0	0	0	513
17:45	0	16	14	0	30	84	39	6	15	144	300	29	0	3	332	0	0	0	0	0	506
Total	0	108	35	0	143	428	113	24	71	636	1161	109	0	13	1283	0	0	0	0	0	2062
18:00	0	29	6	0	35	103	31	3	17	154	199	23	0	2	224	0	0	0	0	0	413
18:15	0	19	5	0	24	87	29	3	14	133	315	20	0	3	338	0	0	0	0	0	495
18:30	0	30	5	0	35	90	24	3	12	129	279	28	0	3	310	0	0	0	0	0	474
18:45	0	20	9	0	29	80	21	7	21	129	342	16	0	4	362	0	0	0	0	0	520
Total	0	98	25	0	123	360	105	16	64	545	1135	87	0	12	1234	0	0	0	0	0	1902
19:00	0	23	4	0	27	85	21	4	10	120	186	16	0	1	203	0	0	0	0	0	350
19:15	0	26	6	0	32	49	32	4	16	101	186	20	0	2	208	0	0	0	0	0	341
19:30	0	15	4	0	19	46	17	7	20	90	213	14	0	3	230	0	0	0	0	0	339
19:45	0	15	6	0	21	59	23	2	13	97	194	8	0	3	205	0	0	0	0	0	323
Total	0	79	20	0	99	239	93	17	59	408	779	58	0	9	846	0	0	0	0	0	1353
Grand Total	0	1197	652	0	1849	4442	1479	254	978	7153	12619	1304	0	164	14087	0	0	0	0	0	23089
Apprch %	0	64.7	35.3	0		62.1	20.7	3.6	13.7		89.6	9.3	0	1.2		0	0	0	0		
Total %	0	5.2	2.8	0	8	19.2	6.4	1.1	4.2	31	54.7	5.6	0	0.7	61	0	0	0	0		

Start Time	Cardinal Loop Southbound					SH 71 Westbound					Presidential Blvd Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 14:45																					
14:45	0	23	9	0	32	107	31	4	22	164	310	22	0	1	333	0	0	0	0	0	529
15:00	0	23	7	0	30	118	28	6	26	178	257	28	0	3	288	0	0	0	0	0	496
15:15	0	19	8	0	27	104	24	7	32	167	310	22	0	1	333	0	0	0	0	0	527
15:30	0	34	12	0	46	119	32	4	20	175	312	35	0	5	352	0	0	0	0	0	573
Total Volume	0	99	36	0	135	448	115	21	100	684	1189	107	0	10	1306	0	0	0	0	0	2125
% App. Total	0	73.3	26.7	0		65.5	16.8	3.1	14.6		91	8.2	0	0.8		0	0	0	0		
PHF	.000	.728	.750	.000	.734	.941	.898	.750	.781	.961	.953	.764	.000	.500	.928	.000	.000	.000	.000	.000	.927

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 1 - SH 71 WBFR & Cardinal Loop, Presidential Blvd
Site Code : 1 _____
Start Date : 12/20/2019
Page No : 6

Start Time	Cardinal Loop Southbound					SH 71 Westbound					Presidential Blvd Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	13:45					14:30					14:45					06:00					
+0 mins.	0	38	11	0	49	132	31	4	18	185	310	22	0	1	333	0	0	0	0	0	
+15 mins.	0	28	9	0	37	107	31	4	22	164	257	28	0	3	288	0	0	0	0	0	
+30 mins.	0	34	9	0	43	118	28	6	26	178	310	22	0	1	333	0	0	0	0	0	
+45 mins.	0	33	11	0	44	104	24	7	32	167	312	35	0	5	352	0	0	0	0	0	
Total Volume	0	133	40	0	173	461	114	21	98	694	1189	107	0	10	1306	0	0	0	0	0	
% App. Total	0	76.9	23.1	0		66.4	16.4	3	14.1		91	8.2	0	0.8		0	0	0	0	0	
PHF	.000	.875	.909	.000	.883	.873	.919	.750	.766	.938	.953	.764	.000	.500	.928	.000	.000	.000	.000	.000	

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 1 - SH 71 WBFR & Cardinal Loop, Presidential Blvd

Site Code : 1

Start Date : 12/20/2019

Page No : 7

Groups Printed- Heavy Vehicles

Start Time	Cardinal Loop Southbound					SH 71 Westbound					Presidential Blvd Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
06:00	0	0	0	0	0	2	1	0	2	5	1	1	0	0	2	0	0	0	0	0	7
06:15	0	0	0	0	0	1	7	0	1	9	0	1	0	0	1	0	0	0	0	0	10
06:30	0	0	0	0	0	4	4	0	1	9	1	0	0	0	1	0	0	0	0	0	10
06:45	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	9	13	0	4	26	2	2	0	0	4	0	0	0	0	0	30
07:00	0	0	0	0	0	1	5	0	0	6	0	0	0	0	0	0	0	0	0	0	6
07:15	0	0	2	0	2	1	6	0	0	7	0	0	0	0	0	0	0	0	0	0	9
07:30	0	0	0	0	0	1	5	0	2	8	1	1	0	0	2	0	0	0	0	0	10
07:45	0	1	1	0	2	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	5
Total	0	1	3	0	4	5	16	0	2	23	2	1	0	0	3	0	0	0	0	0	30
08:00	0	0	1	0	1	3	4	0	0	7	1	0	0	0	1	0	0	0	0	0	9
08:15	0	0	0	0	0	1	2	0	1	4	0	0	0	0	0	0	0	0	0	0	4
08:30	0	1	0	0	1	2	6	0	0	8	1	0	0	0	1	0	0	0	0	0	10
08:45	0	0	0	0	0	2	3	1	1	7	0	1	0	0	1	0	0	0	0	0	8
Total	0	1	1	0	2	8	15	1	2	26	2	1	0	0	3	0	0	0	0	0	31
09:00	0	0	0	0	0	2	3	0	2	7	1	1	0	0	2	0	0	0	0	0	9
09:15	0	0	0	0	0	3	2	0	0	5	2	1	0	0	3	0	0	0	0	0	8
09:30	0	1	1	0	2	2	2	0	2	6	0	1	0	0	1	0	0	0	0	0	9
09:45	0	0	0	0	0	5	1	0	0	6	1	0	0	0	1	0	0	0	0	0	7
Total	0	1	1	0	2	12	8	0	4	24	4	3	0	0	7	0	0	0	0	0	33
10:00	0	0	0	0	0	2	3	0	1	6	0	0	0	0	0	0	0	0	0	0	6
10:15	0	0	0	0	0	2	7	0	0	9	1	0	0	0	1	0	0	0	0	0	10
10:30	0	2	1	0	3	4	2	0	0	6	0	1	0	0	1	0	0	0	0	0	10
10:45	0	0	0	0	0	2	1	1	0	4	0	0	0	0	0	0	0	0	0	0	4
Total	0	2	1	0	3	10	13	1	1	25	1	1	0	0	2	0	0	0	0	0	30
11:00	0	0	0	0	0	2	3	0	2	7	3	0	0	0	3	0	0	0	0	0	10
11:15	0	0	0	0	0	2	3	0	0	5	0	0	0	0	0	0	0	0	0	0	5
11:30	0	0	0	0	0	2	2	0	0	4	2	0	0	0	2	0	0	0	0	0	6
11:45	0	0	0	0	0	3	6	0	1	10	2	0	0	0	2	0	0	0	0	0	12
Total	0	0	0	0	0	9	14	0	3	26	7	0	0	0	7	0	0	0	0	0	33
12:00	0	0	0	0	0	1	1	0	0	2	1	0	0	0	1	0	0	0	0	0	3
12:15	0	0	0	0	0	3	6	1	0	10	0	0	0	0	0	0	0	0	0	0	10
12:30	0	1	1	0	2	3	2	0	3	8	0	0	0	0	0	0	0	0	0	0	10
12:45	0	0	0	0	0	2	3	0	0	5	3	0	0	0	3	0	0	0	0	0	8
Total	0	1	1	0	2	9	12	1	3	25	4	0	0	0	4	0	0	0	0	0	31
13:00	0	0	0	0	0	1	4	0	0	5	0	0	0	0	0	0	0	0	0	0	5
13:15	0	0	0	0	0	5	2	0	1	8	0	0	0	0	0	0	0	0	0	0	8
13:30	0	1	0	0	1	2	4	0	1	7	0	1	0	0	1	0	0	0	0	0	9
13:45	0	0	0	0	0	0	6	0	1	7	1	2	0	0	3	0	0	0	0	0	10
Total	0	1	0	0	1	8	16	0	3	27	1	3	0	0	4	0	0	0	0	0	32
14:00	0	1	0	0	1	3	2	0	2	7	0	0	0	0	0	0	0	0	0	0	8
14:15	0	0	0	0	0	1	3	0	0	4	3	1	0	0	4	0	0	0	0	0	8
14:30	0	1	0	0	1	4	1	0	0	5	0	0	0	0	0	0	0	0	0	0	6
14:45	0	0	1	0	1	2	1	0	0	3	1	0	0	0	1	0	0	0	0	0	5
Total	0	2	1	0	3	10	7	0	2	19	4	1	0	0	5	0	0	0	0	0	27

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 1 - SH 71 WBFR & Cardinal Loop, Presidential Blvd
Site Code : 1
Start Date : 12/20/2019
Page No : 8

Groups Printed- Heavy Vehicles

Start Time	Cardinal Loop Southbound					SH 71 Westbound					Presidential Blvd Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
15:00	0	1	1	0	2	1	3	0	0	4	0	0	0	0	0	0	0	0	0	0	6
15:15	0	0	0	0	0	4	1	0	0	5	1	0	0	0	1	0	0	0	0	0	6
15:30	0	0	0	0	0	3	2	0	1	6	2	0	0	0	2	0	0	0	0	0	8
15:45	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	4
Total	0	1	1	0	2	10	8	0	1	19	3	0	0	0	3	0	0	0	0	0	24
16:00	0	1	0	0	1	4	4	0	1	9	1	0	0	0	1	0	0	0	0	0	11
16:15	0	0	0	0	0	1	3	0	0	4	1	0	0	0	1	0	0	0	0	0	5
16:30	0	0	1	0	1	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
16:45	0	0	0	0	0	4	1	0	0	5	0	0	0	0	0	0	0	0	0	0	5
Total	0	1	1	0	2	11	8	0	1	20	2	0	0	0	2	0	0	0	0	0	24
17:00	0	0	0	0	0	5	1	0	0	6	2	0	0	0	2	0	0	0	0	0	8
17:15	0	0	0	0	0	1	1	0	0	2	2	0	0	0	2	0	0	0	0	0	4
17:30	0	0	0	0	0	3	1	0	0	4	0	1	0	0	1	0	0	0	0	0	5
17:45	0	0	0	0	0	3	1	0	0	4	0	0	0	0	0	0	0	0	0	0	4
Total	0	0	0	0	0	12	4	0	0	16	4	1	0	0	5	0	0	0	0	0	21
18:00	0	0	0	0	0	2	2	0	0	4	3	0	0	0	3	0	0	0	0	0	7
18:15	0	0	0	0	0	4	3	0	2	9	0	0	0	0	0	0	0	0	0	0	9
18:30	0	0	0	0	0	2	2	0	1	5	0	0	0	0	0	0	0	0	0	0	5
18:45	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	0	0	0	0	0	4
Total	0	0	0	0	0	9	10	0	3	22	3	0	0	0	3	0	0	0	0	0	25
19:00	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	3
19:15	0	1	0	0	1	3	2	0	0	5	1	0	0	0	1	0	0	0	0	0	7
19:30	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	4
19:45	0	1	0	0	1	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	4
Total	0	2	0	0	2	8	7	0	0	15	1	0	0	0	1	0	0	0	0	0	18
Grand Total	0	13	10	0	23	130	151	3	29	313	40	13	0	0	53	0	0	0	0	0	389
Apprch %	0	56.5	43.5	0		41.5	48.2	1	9.3		75.5	24.5	0	0		0	0	0	0		
Total %	0	3.3	2.6	0	5.9	33.4	38.8	0.8	7.5	80.5	10.3	3.3	0	0	13.6	0	0	0	0	0	

Start Time	Cardinal Loop Southbound					SH 71 Westbound					Presidential Blvd Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:30																					
08:30	0	1	0	0	1	2	6	0	0	8	1	0	0	0	1	0	0	0	0	0	10
08:45	0	0	0	0	0	2	3	1	1	7	0	1	0	0	1	0	0	0	0	0	8
09:00	0	0	0	0	0	2	3	0	2	7	1	1	0	0	2	0	0	0	0	0	9
09:15	0	0	0	0	0	3	2	0	0	5	2	1	0	0	3	0	0	0	0	0	8
Total Volume	0	1	0	0	1	9	14	1	3	27	4	3	0	0	7	0	0	0	0	0	35
% App. Total	0	100	0	0		33.3	51.9	3.7	11.1		57.1	42.9	0	0		0	0	0	0		
PHF	.000	.250	.000	.000	.250	.750	.583	.250	.375	.844	.500	.750	.000	.000	.583	.000	.000	.000	.000	.000	.875

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
 Georgetown, TX 78626
 512-832-8650

File Name : Site 1 - SH 71 WBFR & Cardinal Loop, Presidential Blvd
 Site Code : 1 _____
 Start Date : 12/20/2019
 Page No : 9

Start Time	Cardinal Loop Southbound					SH 71 Westbound					Presidential Blvd Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	

Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15					11:45					13:30					06:00				
+0 mins.	0	0	2	0	2	3	6	0	1	10	0	1	0	0	1	0	0	0	0	0
+15 mins.	0	0	0	0	0	1	1	0	0	2	1	2	0	0	3	0	0	0	0	0
+30 mins.	0	1	1	0	2	3	6	1	0	10	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	1	0	1	3	2	0	3	8	3	1	0	0	4	0	0	0	0	0
Total Volume	0	1	4	0	5	10	15	1	4	30	4	4	0	0	8	0	0	0	0	0
% App. Total	0	20	80	0		33.3	50	3.3	13.3		50	50	0	0		0	0	0	0	
PHF	.000	.250	.500	.000	.625	.833	.625	.250	.333	.750	.333	.500	.000	.000	.500	.000	.000	.000	.000	.000

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 1 - SH 71 WBFR & Cardinal Loop, Presidential Blvd
Site Code : 1
Start Date : 12/20/2019
Page No : 10

Groups Printed- Pedestrians

Start Time	Cardinal Loop Southbound					SH 71 Westbound					Presidential Blvd Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
06:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:00	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	2
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	2
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
12:00	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	1	0	1	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	3
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	0	1	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	3
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
14:30	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
14:45	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Total	0	2	0	0	2	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	4

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 1 - SH 71 WBFR & Cardinal Loop, Presidential Blvd
Site Code : 1
Start Date : 12/20/2019
Page No : 11

Groups Printed- Pedestrians

Start Time	Cardinal Loop Southbound					SH 71 Westbound					Presidential Blvd Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
15:00	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	3
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	1	0	5	0	6	0	0	0	0	0	0	0	0	0	0	6
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
18:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
19:00	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	4	1	0	5	4	3	8	1	16	2	4	0	0	6	0	0	0	0	0	27
Apprch %	0	80	20	0		25	18.8	50	6.2		33.3	66.7	0	0		0	0	0	0		
Total %	0	14.8	3.7	0	18.5	14.8	11.1	29.6	3.7	59.3	7.4	14.8	0	0	22.2	0	0	0	0	0	

Start Time	Cardinal Loop Southbound					SH 71 Westbound					Presidential Blvd Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 14:15																					
14:15	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
14:30	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
14:45	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
15:00	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	3
Total Volume	0	2	0	0	2	1	0	3	0	4	0	1	0	0	1	0	0	0	0	0	7
% App. Total	0	100	0	0		25	0	75	0		0	100	0	0		0	0	0	0		
PHF	.000	.500	.000	.000	.500	.250	.000	.250	.000	.333	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.583

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 1 - SH 71 WBFR & Cardinal Loop, Presidential Blvd
Site Code : 1 _____
Start Date : 12/20/2019
Page No : 12

Start Time	Cardinal Loop Southbound					SH 71 Westbound					Presidential Blvd Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	

Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	14:00					15:00					08:30					06:00				
+0 mins.	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	0	1	1	0	2	0	3	0	2	0	0	2	0	0	0	0	0
Total Volume	0	2	0	0	2	1	0	5	0	6	0	2	0	0	2	0	0	0	0	0
% App. Total	0	100	0	0		16.7	0	83.3	0		0	100	0	0		0	0	0	0	
PHF	.000	.500	.000	.000	.500	.250	.000	.417	.000	.500	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 2 - SH 71 EBFR & Presidential Blvd
Site Code : 2
Start Date : 12/20/2019
Page No : 1

Groups Printed- Vehicles - Heavy Vehicles

Start Time	Cardinal Loop Southbound					Westbound					Presidential Blvd Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
06:00	1	40	0	0	41	0	0	0	0	0	0	173	23	2	198	8	9	244	0	261	500
06:15	3	36	0	0	39	0	0	0	0	0	0	206	33	1	240	8	10	217	0	235	514
06:30	7	52	0	0	59	0	0	0	0	0	0	149	15	0	164	12	15	218	0	245	468
06:45	5	43	0	1	49	0	0	0	0	0	0	142	24	1	167	7	7	171	0	185	401
Total	16	171	0	1	188	0	0	0	0	0	0	670	95	4	769	35	41	850	0	926	1883
07:00	8	59	0	0	67	0	0	0	0	0	0	120	25	0	145	19	18	166	0	203	415
07:15	6	58	0	0	64	0	0	0	0	0	0	94	18	0	112	19	23	126	0	168	344
07:30	7	49	0	0	56	0	0	0	0	0	0	86	16	0	102	14	18	114	0	146	304
07:45	11	67	0	0	78	0	0	0	0	0	0	66	15	0	81	19	25	128	0	172	331
Total	32	233	0	0	265	0	0	0	0	0	0	366	74	0	440	71	84	534	0	689	1394
08:00	4	67	0	0	71	0	0	0	0	0	0	98	28	0	126	18	20	146	0	184	381
08:15	10	72	0	0	82	0	0	0	0	0	0	139	31	1	171	19	25	140	0	184	437
08:30	7	69	0	0	76	0	0	0	0	0	0	135	40	0	175	29	15	166	0	210	461
08:45	4	63	0	0	67	0	0	0	0	0	0	194	50	1	245	23	17	187	0	227	539
Total	25	271	0	0	296	0	0	0	0	0	0	566	149	2	717	89	77	639	0	805	1818
09:00	14	60	0	0	74	0	0	0	0	0	0	132	31	0	163	25	11	161	0	197	434
09:15	10	67	0	0	77	0	0	0	0	0	0	138	18	0	156	18	22	178	0	218	451
09:30	4	69	0	0	73	0	0	0	0	0	0	150	22	0	172	15	19	174	0	208	453
09:45	8	74	0	1	83	0	0	0	0	0	0	135	38	0	173	12	23	212	0	247	503
Total	36	270	0	1	307	0	0	0	0	0	0	555	109	0	664	70	75	725	0	870	1841
10:00	9	67	0	0	76	0	0	0	0	0	0	209	43	1	253	15	17	232	0	264	593
10:15	10	69	0	1	80	0	0	0	0	0	0	227	49	0	276	26	18	244	0	288	644
10:30	15	117	0	0	132	0	0	0	0	0	0	243	50	0	293	21	21	238	0	280	705
10:45	4	101	0	0	105	0	0	0	0	0	0	245	50	2	297	16	28	296	0	340	742
Total	38	354	0	1	393	0	0	0	0	0	0	924	192	3	1119	78	84	1010	0	1172	2684
11:00	10	105	0	0	115	0	0	0	0	0	0	231	47	0	278	17	16	327	0	360	753
11:15	7	89	0	0	96	0	0	0	0	0	0	297	69	1	367	22	20	304	0	346	809
11:30	11	103	0	0	114	0	0	0	0	0	0	255	70	1	326	23	41	337	0	401	841
11:45	10	114	0	1	125	0	0	0	0	0	0	325	68	3	396	21	30	289	0	340	861
Total	38	411	0	1	450	0	0	0	0	0	0	1108	254	5	1367	83	107	1257	0	1447	3264
12:00	7	110	0	0	117	0	0	0	0	0	0	296	96	0	392	18	39	278	0	335	844
12:15	7	126	0	0	133	0	0	0	0	0	0	284	85	0	369	21	37	283	0	341	843
12:30	13	113	0	0	126	0	0	0	0	0	0	243	76	1	320	24	31	248	0	303	749
12:45	10	134	0	0	144	0	0	0	0	0	0	298	118	0	416	23	38	231	0	292	852
Total	37	483	0	0	520	0	0	0	0	0	0	1121	375	1	1497	86	145	1040	0	1271	3288
13:00	10	105	0	0	115	0	0	0	0	0	0	290	124	2	416	23	46	232	0	301	832
13:15	15	105	0	0	120	0	0	0	0	0	0	280	133	0	413	19	48	247	0	314	847
13:30	9	95	0	0	104	0	0	0	0	0	0	303	112	1	416	21	45	231	0	297	817
13:45	18	120	0	0	138	0	0	0	0	0	0	241	103	1	345	19	39	293	0	351	834
Total	52	425	0	0	477	0	0	0	0	0	0	1114	472	4	1590	82	178	1003	0	1263	3330
14:00	11	133	0	0	144	0	0	0	0	0	0	285	93	0	378	16	39	273	0	328	850
14:15	22	134	0	0	156	0	0	0	0	0	0	224	95	0	319	25	62	317	0	404	879
14:30	9	147	0	0	156	0	0	0	0	0	0	273	125	1	399	16	56	339	0	411	966

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 2 - SH 71 EBFR & Presidential Blvd

Site Code : 2

Start Date : 12/20/2019

Page No : 2

Groups Printed- Vehicles - Heavy Vehicles

Start Time	Cardinal Loop Southbound					Westbound					Presidential Blvd Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
14:45	13	124	0	0	137	0	0	0	0	0	0	277	150	3	430	23	55	300	0	378	945
Total	55	538	0	0	593	0	0	0	0	0	0	1059	463	4	1526	80	212	1229	0	1521	3640
15:00	8	130	0	0	138	0	0	0	0	0	0	307	135	2	444	17	37	269	0	323	905
15:15	11	124	0	0	135	0	0	0	0	0	0	290	160	0	450	28	53	276	0	357	942
15:30	17	142	0	0	159	0	0	0	0	0	0	259	111	2	372	19	45	288	0	352	883
15:45	13	135	0	0	148	0	0	0	0	0	0	283	121	0	404	26	69	304	0	399	951
Total	49	531	0	0	580	0	0	0	0	0	0	1139	527	4	1670	90	204	1137	0	1431	3681
16:00	14	148	0	1	163	0	0	0	0	0	0	275	118	0	393	19	39	318	0	376	932
16:15	14	113	0	0	127	0	0	0	0	0	0	295	139	1	435	16	66	271	0	353	915
16:30	12	119	0	0	131	0	0	0	0	0	0	299	134	0	433	18	48	265	0	331	895
16:45	6	115	0	0	121	0	0	0	0	0	0	303	108	1	412	20	48	294	0	362	895
Total	46	495	0	1	542	0	0	0	0	0	0	1172	499	2	1673	73	201	1148	0	1422	3637
17:00	13	156	0	0	169	0	0	0	0	0	0	294	129	0	423	17	40	290	0	347	939
17:15	10	119	0	0	129	0	0	0	0	0	0	325	166	0	491	17	37	270	0	324	944
17:30	16	140	0	0	156	0	0	0	0	0	0	268	114	0	382	21	36	243	0	300	838
17:45	9	100	0	0	109	0	0	0	0	0	0	298	99	0	397	24	31	234	0	289	795
Total	48	515	0	0	563	0	0	0	0	0	0	1185	508	0	1693	79	144	1037	0	1260	3516
18:00	13	114	0	0	127	0	0	0	0	0	0	216	65	0	281	18	40	254	0	312	720
18:15	7	110	0	0	117	0	0	0	0	0	0	323	91	0	414	21	42	187	0	250	781
18:30	9	106	0	0	115	0	0	0	0	0	0	272	108	0	380	24	46	179	0	249	744
18:45	10	98	0	0	108	0	0	0	0	0	0	311	99	0	410	23	26	174	0	223	741
Total	39	428	0	0	467	0	0	0	0	0	0	1122	363	0	1485	86	154	794	0	1034	2986
19:00	17	82	0	0	99	0	0	0	0	0	0	179	82	1	262	22	31	154	0	207	568
19:15	1	74	0	0	75	0	0	0	0	0	0	210	71	1	282	22	35	126	0	183	540
19:30	11	61	0	0	72	0	0	0	0	0	0	175	76	0	251	26	41	134	0	201	524
19:45	5	70	0	0	75	0	0	0	0	0	0	215	67	0	282	12	26	98	0	136	493
Total	34	287	0	0	321	0	0	0	0	0	0	779	296	2	1077	82	133	512	0	727	2125
Grand Total	545	5412	0	5	5962	0	0	0	0	0	0	12880	4376	31	17287	1084	1839	12915	0	15838	39087
Apprch %	9.1	90.8	0	0.1		0	0	0	0	0	0	74.5	25.3	0.2		6.8	11.6	81.5	0		
Total %	1.4	13.8	0	0	15.3	0	0	0	0	0	0	33	11.2	0.1	44.2	2.8	4.7	33	0	40.5	
Vehicles	537	5311	0	5	5853	0	0	0	0	0	0	12840	4247	31	17118	1060	1675	12808	0	15543	38514
% Vehicles	98.5	98.1	0	100	98.2	0	0	0	0	0	0	99.7	97.1	100	99	97.8	91.1	99.2	0	98.1	98.5
Heavy Vehicles	8	101	0	0	109	0	0	0	0	0	0	40	129	0	169	24	164	107	0	295	573
% Heavy Vehicles	1.5	1.9	0	0	1.8	0	0	0	0	0	0	0.3	2.9	0	1	2.2	8.9	0.8	0	1.9	1.5

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 2 - SH 71 EBFR & Presidential Blvd
Site Code : 2
Start Date : 12/20/2019
Page No : 3

Start Time	Cardinal Loop Southbound					Westbound					Presidential Blvd Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 14:30																					
14:30	9	147	0	0	156	0	0	0	0	0	0	273	125	1	399	16	56	339	0	411	966
14:45	13	124	0	0	137	0	0	0	0	0	0	277	150	3	430	23	55	300	0	378	945
15:00	8	130	0	0	138	0	0	0	0	0	0	307	135	2	444	17	37	269	0	323	905
15:15	11	124	0	0	135	0	0	0	0	0	0	290	160	0	450	28	53	276	0	357	942
Total Volume	41	525	0	0	566	0	0	0	0	0	0	1147	570	6	1723	84	201	1184	0	1469	3758
% App. Total	7.2	92.8	0	0		0	0	0	0	0	0	66.6	33.1	0.3		5.7	13.7	80.6	0		
PHF	.788	.893	.000	.000	.907	.000	.000	.000	.000	.000	.000	.934	.891	.500	.957	.750	.897	.873	.000	.894	.973
Vehicles	40	515	0	0	555	0	0	0	0	0	0	1143	559	6	1708	83	190	1178	0	1451	3714
% Vehicles	97.6	98.1	0	0	98.1	0	0	0	0	0	0	99.7	98.1	100	99.1	98.8	94.5	99.5	0	98.8	98.8
Heavy Vehicles	1	10	0	0	11	0	0	0	0	0	0	4	11	0	15	1	11	6	0	18	44
% Heavy Vehicles	2.4	1.9	0	0	1.9	0	0	0	0	0	0	0.3	1.9	0	0.9	1.2	5.5	0.5	0	1.2	1.2

Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	15:15					06:00					16:30					14:00				
+0 mins.	11	124	0	0	135	0	0	0	0	0	0	299	134	0	433	16	39	273	0	328
+15 mins.	17	142	0	0	159	0	0	0	0	0	0	303	108	1	412	25	62	317	0	404
+30 mins.	13	135	0	0	148	0	0	0	0	0	0	294	129	0	423	16	56	339	0	411
+45 mins.	14	148	0	1	163	0	0	0	0	0	0	325	166	0	491	23	55	300	0	378
Total Volume	55	549	0	1	605	0	0	0	0	0	0	1221	537	1	1759	80	212	1229	0	1521
% App. Total	9.1	90.7	0	0.2		0	0	0	0	0	0	69.4	30.5	0.1		5.3	13.9	80.8	0	
PHF	.809	.927	.000	.250	.928	.000	.000	.000	.000	.000	.000	.939	.809	.250	.896	.800	.855	.906	.000	.925
Vehicles	54	536	0	1	591	0	0	0	0	0	0	121	525	1	1742	76	198	122	0	1499
% Vehicles	98.	97.	0	100	97.7	0	0	0	0	0	0	99.	97.	100	99	95	93.	99.	0	98.6
Heavy Vehicles	2	6	0	0	14	0	0	0	0	0	0	6	8	0	17	4	4	4	0	22
% Heavy Vehicles	1.8	2.4	0	0	2.3	0	0	0	0	0	0	0.4	2.2	0	1	5	6.6	0.3	0	1.4

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 2 - SH 71 EBFR & Presidential Blvd

Site Code : 2

Start Date : 12/20/2019

Page No : 4

Groups Printed- Vehicles

Start Time	Cardinal Loop Southbound					Westbound					Presidential Blvd Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
06:00	1	40	0	0	41	0	0	0	0	0	0	172	21	2	195	6	6	240	0	252	488
06:15	3	36	0	0	39	0	0	0	0	0	0	204	31	1	236	8	6	215	0	229	504
06:30	7	51	0	0	58	0	0	0	0	0	0	149	14	0	163	11	12	213	0	236	457
06:45	5	42	0	1	48	0	0	0	0	0	0	140	21	1	162	7	6	169	0	182	392
Total	16	169	0	1	186	0	0	0	0	0	0	665	87	4	756	32	30	837	0	899	1841
07:00	8	59	0	0	67	0	0	0	0	0	0	120	25	0	145	19	14	161	0	194	406
07:15	6	58	0	0	64	0	0	0	0	0	0	94	17	0	111	18	15	125	0	158	333
07:30	7	49	0	0	56	0	0	0	0	0	0	84	12	0	96	14	12	113	0	139	291
07:45	11	66	0	0	77	0	0	0	0	0	0	66	14	0	80	19	14	125	0	158	315
Total	32	232	0	0	264	0	0	0	0	0	0	364	68	0	432	70	55	524	0	649	1345
08:00	4	66	0	0	70	0	0	0	0	0	0	97	26	0	123	18	16	143	0	177	370
08:15	10	72	0	0	82	0	0	0	0	0	0	137	29	1	167	19	23	138	0	180	429
08:30	7	67	0	0	74	0	0	0	0	0	0	135	39	0	174	29	12	163	0	204	452
08:45	4	62	0	0	66	0	0	0	0	0	0	194	48	1	243	21	12	185	0	218	527
Total	25	267	0	0	292	0	0	0	0	0	0	563	142	2	707	87	63	629	0	779	1778
09:00	14	60	0	0	74	0	0	0	0	0	0	132	27	0	159	24	9	159	0	192	425
09:15	9	66	0	0	75	0	0	0	0	0	0	136	18	0	154	17	20	175	0	212	441
09:30	4	68	0	0	72	0	0	0	0	0	0	150	19	0	169	15	15	173	0	203	444
09:45	6	72	0	1	79	0	0	0	0	0	0	135	36	0	171	11	19	211	0	241	491
Total	33	266	0	1	300	0	0	0	0	0	0	553	100	0	653	67	63	718	0	848	1801
10:00	9	67	0	0	76	0	0	0	0	0	0	209	41	1	251	14	16	230	0	260	587
10:15	9	68	0	1	78	0	0	0	0	0	0	227	45	0	272	26	17	241	0	284	634
10:30	15	116	0	0	131	0	0	0	0	0	0	243	48	0	291	20	17	238	0	275	697
10:45	4	100	0	0	104	0	0	0	0	0	0	245	48	2	295	16	22	295	0	333	732
Total	37	351	0	1	389	0	0	0	0	0	0	924	182	3	1109	76	72	1004	0	1152	2650
11:00	10	104	0	0	114	0	0	0	0	0	0	229	44	0	273	16	14	322	0	352	739
11:15	7	87	0	0	94	0	0	0	0	0	0	296	68	1	365	22	19	303	0	344	803
11:30	11	102	0	0	113	0	0	0	0	0	0	254	67	1	322	23	38	333	0	394	829
11:45	10	111	0	1	122	0	0	0	0	0	0	322	65	3	390	21	28	285	0	334	846
Total	38	404	0	1	443	0	0	0	0	0	0	1101	244	5	1350	82	99	1243	0	1424	3217
12:00	7	108	0	0	115	0	0	0	0	0	0	296	93	0	389	18	38	278	0	334	838
12:15	7	124	0	0	131	0	0	0	0	0	0	284	82	0	366	21	34	281	0	336	833
12:30	12	109	0	0	121	0	0	0	0	0	0	242	74	1	317	23	29	246	0	298	736
12:45	10	133	0	0	143	0	0	0	0	0	0	298	116	0	414	22	36	231	0	289	846
Total	36	474	0	0	510	0	0	0	0	0	0	1120	365	1	1486	84	137	1036	0	1257	3253
13:00	10	103	0	0	113	0	0	0	0	0	0	290	121	2	413	23	41	230	0	294	820
13:15	15	100	0	0	115	0	0	0	0	0	0	280	129	0	409	19	46	245	0	310	834
13:30	9	93	0	0	102	0	0	0	0	0	0	303	109	1	413	20	45	230	0	295	810
13:45	18	118	0	0	136	0	0	0	0	0	0	239	101	1	341	18	34	292	0	344	821
Total	52	414	0	0	466	0	0	0	0	0	0	1112	460	4	1576	80	166	997	0	1243	3285
14:00	10	132	0	0	142	0	0	0	0	0	0	283	91	0	374	16	37	271	0	324	840
14:15	22	131	0	0	153	0	0	0	0	0	0	223	95	0	318	22	58	317	0	397	868
14:30	9	144	0	0	153	0	0	0	0	0	0	273	122	1	396	16	52	338	0	406	955
14:45	13	122	0	0	135	0	0	0	0	0	0	275	147	3	425	22	51	299	0	372	932
Total	54	529	0	0	583	0	0	0	0	0	0	1054	455	4	1513	76	198	1225	0	1499	3595

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 2 - SH 71 EBFR & Presidential Blvd
Site Code : 2
Start Date : 12/20/2019
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Groups Printed- Vehicles

Start Time	Cardinal Loop Southbound					Westbound					Presidential Blvd Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
15:00	7	128	0	0	135	0	0	0	0	0	0	307	132	2	441	17	36	268	0	321	897
15:15	11	121	0	0	132	0	0	0	0	0	0	288	158	0	446	28	51	273	0	352	930
15:30	17	139	0	0	156	0	0	0	0	0	0	259	108	2	369	19	44	287	0	350	875
15:45	12	133	0	0	145	0	0	0	0	0	0	282	119	0	401	25	65	304	0	394	940
Total	47	521	0	0	568	0	0	0	0	0	0	1136	517	4	1657	89	196	1132	0	1417	3642
16:00	14	143	0	1	158	0	0	0	0	0	0	274	116	0	390	19	38	314	0	371	919
16:15	14	112	0	0	126	0	0	0	0	0	0	295	137	1	433	16	62	269	0	347	906
16:30	12	118	0	0	130	0	0	0	0	0	0	297	130	0	427	18	46	262	0	326	883
16:45	6	110	0	0	116	0	0	0	0	0	0	302	106	1	409	20	44	290	0	354	879
Total	46	483	0	1	530	0	0	0	0	0	0	1168	489	2	1659	73	190	1135	0	1398	3587
17:00	13	151	0	0	164	0	0	0	0	0	0	292	126	0	418	16	36	290	0	342	924
17:15	10	117	0	0	127	0	0	0	0	0	0	325	163	0	488	17	34	269	0	320	935
17:30	16	138	0	0	154	0	0	0	0	0	0	268	111	0	379	20	34	241	0	295	828
17:45	9	98	0	0	107	0	0	0	0	0	0	297	96	0	393	24	29	233	0	286	786
Total	48	504	0	0	552	0	0	0	0	0	0	1182	496	0	1678	77	133	1033	0	1243	3473
18:00	13	112	0	0	125	0	0	0	0	0	0	215	63	0	278	17	36	252	0	305	708
18:15	7	106	0	0	113	0	0	0	0	0	0	323	89	0	412	21	42	185	0	248	773
18:30	9	105	0	0	114	0	0	0	0	0	0	271	104	0	375	24	44	178	0	246	735
18:45	10	96	0	0	106	0	0	0	0	0	0	311	98	0	409	23	26	172	0	221	736
Total	39	419	0	0	458	0	0	0	0	0	0	1120	354	0	1474	85	148	787	0	1020	2952
19:00	17	82	0	0	99	0	0	0	0	0	0	178	81	1	260	22	28	153	0	203	562
19:15	1	69	0	0	70	0	0	0	0	0	0	210	70	1	281	22	34	125	0	181	532
19:30	11	59	0	0	70	0	0	0	0	0	0	175	72	0	247	26	38	132	0	196	513
19:45	5	68	0	0	73	0	0	0	0	0	0	215	65	0	280	12	25	98	0	135	488
Total	34	278	0	0	312	0	0	0	0	0	0	778	288	2	1068	82	125	508	0	715	2095
Grand Total	537	5311	0	5	5853	0	0	0	0	0	0	12840	4247	31	17118	1060	1675	12808	0	15543	38514
Apprch %	9.2	90.7	0	0.1		0	0	0	0	0	0	75	24.8	0.2		6.8	10.8	82.4	0		
Total %	1.4	13.8	0	0	15.2	0	0	0	0	0	0	33.3	11	0.1	44.4	2.8	4.3	33.3	0	40.4	

Start Time	Cardinal Loop Southbound					Westbound					Presidential Blvd Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 14:30																					
14:30	9	144	0	0	153	0	0	0	0	0	0	273	122	1	396	16	52	338	0	406	955
14:45	13	122	0	0	135	0	0	0	0	0	0	275	147	3	425	22	51	299	0	372	932
15:00	7	128	0	0	135	0	0	0	0	0	0	307	132	2	441	17	36	268	0	321	897
15:15	11	121	0	0	132	0	0	0	0	0	0	288	158	0	446	28	51	273	0	352	930
Total Volume	40	515	0	0	555	0	0	0	0	0	0	1143	559	6	1708	83	190	1178	0	1451	3714
% App. Total	7.2	92.8	0	0		0	0	0	0	0	0	66.9	32.7	0.4		5.7	13.1	81.2	0		
PHF	.769	.894	.000	.000	.907	.000	.000	.000	.000	.000	.000	.931	.884	.500	.957	.741	.913	.871	.000	.893	.972

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 2 - SH 71 EBFR & Presidential Blvd
Site Code : 2
Start Date : 12/20/2019
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Start Time	Cardinal Loop Southbound					Westbound					Presidential Blvd Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	

Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	15:15					06:00					16:30					14:00				
+0 mins.	11	121	0	0	132	0	0	0	0	0	0	297	130	0	427	16	37	271	0	324
+15 mins.	17	139	0	0	156	0	0	0	0	0	0	302	106	1	409	22	58	317	0	397
+30 mins.	12	133	0	0	145	0	0	0	0	0	0	292	126	0	418	16	52	338	0	406
+45 mins.	14	143	0	1	158	0	0	0	0	0	0	325	163	0	488	22	51	299	0	372
Total Volume	54	536	0	1	591	0	0	0	0	0	0	1216	525	1	1742	76	198	1225	0	1499
% App. Total	9.1	90.7	0	0.2		0	0	0	0		0	69.8	30.1	0.1		5.1	13.2	81.7	0	
PHF	.794	.937	.000	.250	.935	.000	.000	.000	.000	.000	.000	.935	.805	.250	.892	.864	.853	.906	.000	.923

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 2 - SH 71 EBFR & Presidential Blvd
Site Code : 2
Start Date : 12/20/2019
Page No : 7

Groups Printed- Heavy Vehicles

Start Time	Cardinal Loop Southbound					Westbound					Presidential Blvd Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
06:00	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3	2	3	4	0	9	12
06:15	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	0	4	2	0	6	10
06:30	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	1	3	5	0	9	11
06:45	0	1	0	0	1	0	0	0	0	0	0	2	3	0	5	0	1	2	0	3	9
Total	0	2	0	0	2	0	0	0	0	0	0	5	8	0	13	3	11	13	0	27	42
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	5	0	9	9
07:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	8	1	0	10	11
07:30	0	0	0	0	0	0	0	0	0	0	0	2	4	0	6	0	6	1	0	7	13
07:45	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	11	3	0	14	16
Total	0	1	0	0	1	0	0	0	0	0	0	2	6	0	8	1	29	10	0	40	49
08:00	0	1	0	0	1	0	0	0	0	0	0	1	2	0	3	0	4	3	0	7	11
08:15	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	0	2	2	0	4	8
08:30	0	2	0	0	2	0	0	0	0	0	0	0	1	0	1	0	3	3	0	6	9
08:45	0	1	0	0	1	0	0	0	0	0	0	0	2	0	2	2	5	2	0	9	12
Total	0	4	0	0	4	0	0	0	0	0	0	3	7	0	10	2	14	10	0	26	40
09:00	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	1	2	2	0	5	9
09:15	1	1	0	0	2	0	0	0	0	0	0	2	0	0	2	1	2	3	0	6	10
09:30	0	1	0	0	1	0	0	0	0	0	0	0	3	0	3	0	4	1	0	5	9
09:45	2	2	0	0	4	0	0	0	0	0	0	0	2	0	2	1	4	1	0	6	12
Total	3	4	0	0	7	0	0	0	0	0	0	2	9	0	11	3	12	7	0	22	40
10:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	1	2	0	4	6
10:15	1	1	0	0	2	0	0	0	0	0	0	0	4	0	4	0	1	3	0	4	10
10:30	0	1	0	0	1	0	0	0	0	0	0	0	2	0	2	1	4	0	0	5	8
10:45	0	1	0	0	1	0	0	0	0	0	0	0	2	0	2	0	6	1	0	7	10
Total	1	3	0	0	4	0	0	0	0	0	0	0	10	0	10	2	12	6	0	20	34
11:00	0	1	0	0	1	0	0	0	0	0	0	2	3	0	5	1	2	5	0	8	14
11:15	0	2	0	0	2	0	0	0	0	0	0	1	1	0	2	0	1	1	0	2	6
11:30	0	1	0	0	1	0	0	0	0	0	0	1	3	0	4	0	3	4	0	7	12
11:45	0	3	0	0	3	0	0	0	0	0	0	3	3	0	6	0	2	4	0	6	15
Total	0	7	0	0	7	0	0	0	0	0	0	7	10	0	17	1	8	14	0	23	47
12:00	0	2	0	0	2	0	0	0	0	0	0	0	3	0	3	0	1	0	0	1	6
12:15	0	2	0	0	2	0	0	0	0	0	0	0	3	0	3	0	3	2	0	5	10
12:30	1	4	0	0	5	0	0	0	0	0	0	1	2	0	3	1	2	2	0	5	13
12:45	0	1	0	0	1	0	0	0	0	0	0	0	2	0	2	1	2	0	0	3	6
Total	1	9	0	0	10	0	0	0	0	0	0	1	10	0	11	2	8	4	0	14	35
13:00	0	2	0	0	2	0	0	0	0	0	0	0	3	0	3	0	5	2	0	7	12
13:15	0	5	0	0	5	0	0	0	0	0	0	0	4	0	4	0	2	2	0	4	13
13:30	0	2	0	0	2	0	0	0	0	0	0	0	3	0	3	1	0	1	0	2	7
13:45	0	2	0	0	2	0	0	0	0	0	0	2	2	0	4	1	5	1	0	7	13
Total	0	11	0	0	11	0	0	0	0	0	0	2	12	0	14	2	12	6	0	20	45
14:00	1	1	0	0	2	0	0	0	0	0	0	2	2	0	4	0	2	2	0	4	10
14:15	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	3	4	0	0	7	11
14:30	0	3	0	0	3	0	0	0	0	0	0	0	3	0	3	0	4	1	0	5	11
14:45	0	2	0	0	2	0	0	0	0	0	0	2	3	0	5	1	4	1	0	6	13
Total	1	9	0	0	10	0	0	0	0	0	0	5	8	0	13	4	14	4	0	22	45

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 2 - SH 71 EBFR & Presidential Blvd
Site Code : 2
Start Date : 12/20/2019
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Groups Printed- Heavy Vehicles

Start Time	Cardinal Loop Southbound					Westbound					Presidential Blvd Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
15:00	1	2	0	0	3	0	0	0	0	0	0	0	3	0	3	0	1	1	0	2	8
15:15	0	3	0	0	3	0	0	0	0	0	0	2	2	0	4	0	2	3	0	5	12
15:30	0	3	0	0	3	0	0	0	0	0	0	0	3	0	3	0	1	1	0	2	8
15:45	1	2	0	0	3	0	0	0	0	0	0	1	2	0	3	1	4	0	0	5	11
Total	2	10	0	0	12	0	0	0	0	0	0	3	10	0	13	1	8	5	0	14	39
16:00	0	5	0	0	5	0	0	0	0	0	0	1	2	0	3	0	1	4	0	5	13
16:15	0	1	0	0	1	0	0	0	0	0	0	0	2	0	2	0	4	2	0	6	9
16:30	0	1	0	0	1	0	0	0	0	0	0	2	4	0	6	0	2	3	0	5	12
16:45	0	5	0	0	5	0	0	0	0	0	0	1	2	0	3	0	4	4	0	8	16
Total	0	12	0	0	12	0	0	0	0	0	0	4	10	0	14	0	11	13	0	24	50
17:00	0	5	0	0	5	0	0	0	0	0	0	2	3	0	5	1	4	0	0	5	15
17:15	0	2	0	0	2	0	0	0	0	0	0	0	3	0	3	0	3	1	0	4	9
17:30	0	2	0	0	2	0	0	0	0	0	0	0	3	0	3	1	2	2	0	5	10
17:45	0	2	0	0	2	0	0	0	0	0	0	1	3	0	4	0	2	1	0	3	9
Total	0	11	0	0	11	0	0	0	0	0	0	3	12	0	15	2	11	4	0	17	43
18:00	0	2	0	0	2	0	0	0	0	0	0	1	2	0	3	1	4	2	0	7	12
18:15	0	4	0	0	4	0	0	0	0	0	0	0	2	0	2	0	0	2	0	2	8
18:30	0	1	0	0	1	0	0	0	0	0	0	1	4	0	5	0	2	1	0	3	9
18:45	0	2	0	0	2	0	0	0	0	0	0	0	1	0	1	0	0	2	0	2	5
Total	0	9	0	0	9	0	0	0	0	0	0	2	9	0	11	1	6	7	0	14	34
19:00	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	3	1	0	4	6
19:15	0	5	0	0	5	0	0	0	0	0	0	0	1	0	1	0	1	1	0	2	8
19:30	0	2	0	0	2	0	0	0	0	0	0	0	4	0	4	0	3	2	0	5	11
19:45	0	2	0	0	2	0	0	0	0	0	0	0	2	0	2	0	1	0	0	1	5
Total	0	9	0	0	9	0	0	0	0	0	0	1	8	0	9	0	8	4	0	12	30
Grand Total	8	101	0	0	109	0	0	0	0	0	0	40	129	0	169	24	164	107	0	295	573
Apprch %	7.3	92.7	0	0		0	0	0	0		0	23.7	76.3	0		8.1	55.6	36.3	0		
Total %	1.4	17.6	0	0	19	0	0	0	0		0	7	22.5	0	29.5	4.2	28.6	18.7	0	51.5	

Start Time	Cardinal Loop Southbound					Westbound					Presidential Blvd Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:15																					
16:15	0	1	0	0	1	0	0	0	0	0	0	0	2	0	2	0	4	2	0	6	9
16:30	0	1	0	0	1	0	0	0	0	0	0	2	4	0	6	0	2	3	0	5	12
16:45	0	5	0	0	5	0	0	0	0	0	0	1	2	0	3	0	4	4	0	8	16
17:00	0	5	0	0	5	0	0	0	0	0	0	2	3	0	5	1	4	0	0	5	15
Total Volume	0	12	0	0	12	0	0	0	0	0	0	5	11	0	16	1	14	9	0	24	52
% App. Total	0	100	0	0		0	0	0	0		0	31.2	68.8	0		4.2	58.3	37.5	0		
PHF	.000	.600	.000	.000	.600	.000	.000	.000	.000	.000	.000	.625	.688	.000	.667	.250	.875	.563	.000	.750	.813

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 2 - SH 71 EBFR & Presidential Blvd
Site Code : 2
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Start Time	Cardinal Loop Southbound					Westbound					Presidential Blvd Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	

Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	15:15					06:00					11:00					07:00				
+0 mins.	0	3	0	0	3	0	0	0	0	0	0	2	3	0	5	0	4	5	0	9
+15 mins.	0	3	0	0	3	0	0	0	0	0	0	1	1	0	2	1	8	1	0	10
+30 mins.	1	2	0	0	3	0	0	0	0	0	0	1	3	0	4	0	6	1	0	7
+45 mins.	0	5	0	0	5	0	0	0	0	0	0	3	3	0	6	0	11	3	0	14
Total Volume	1	13	0	0	14	0	0	0	0	0	0	7	10	0	17	1	29	10	0	40
% App. Total	7.1	92.9	0	0		0	0	0	0		0	41.2	58.8	0		2.5	72.5	25	0	
PHF	.250	.650	.000	.000	.700	.000	.000	.000	.000	.000	.000	.583	.833	.000	.708	.250	.659	.500	.000	.714

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
 Georgetown, TX 78626
 512-832-8650

File Name : Site 2 - SH 71 EBFR & Presidential Blvd
 Site Code : 2
 Start Date : 12/20/2019
 Page No : 10

Groups Printed- Pedestrians

Start Time	Cardinal Loop Southbound					Westbound					Presidential Blvd Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
08:45	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	3
09:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
09:15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	1	2
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	0	0	0	0	0	0	1	0	1	1	0	0	0	0	1	3
10:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10:15	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	4	4
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 2 - SH 71 EBFR & Presidential Blvd
Site Code : 2
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Groups Printed- Pedestrians

Start Time	Cardinal Loop Southbound					Westbound					Presidential Blvd Northbound					SH 71 Eastbound					Int. Total	
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total		
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
15:45	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	1	0	0	0	0	1	4
Total	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	1	1	0	0	0	2	5
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	1	2
Total	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	1	0	0	0	0	1	4
19:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
Grand Total	0	6	0	0	6	0	0	0	0	0	0	7	0	0	7	8	3	0	0	0	11	24
Apprch %	0	100	0	0		0	0	0	0		0	100	0	0		72.7	27.3	0	0			
Total %	0	25	0	0	25	0	0	0	0	0	0	29.2	0	0	29.2	33.3	12.5	0	0	0	45.8	

Start Time	Cardinal Loop Southbound					Westbound					Presidential Blvd Northbound					SH 71 Eastbound					Int. Total	
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total		
Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 08:30																						
08:30	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
08:45	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
09:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
09:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	1	2
Total Volume	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	2	0	0	0	0	2	6
% App. Total	0	100	0	0		0	0	0	0		0	100	0	0		100	0	0	0			
PHF	.000	.750	.000	.000	.750	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.500	.000	.000	.000	.500	.750	

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 2 - SH 71 EBFR & Presidential Blvd
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Start Time	Cardinal Loop Southbound					Westbound					Presidential Blvd Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	08:15					06:00					18:15					11:00					
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	
+15 mins.	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	
+45 mins.	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	
Total Volume	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	2	2	0	0	4	
% App. Total	0	100	0	0		0	0	0	0		0	100	0	0		50	50	0	0		
PHF	.000	.750	.000	.000	.750	.000	.000	.000	.000	.000	.000	.500	.000	.000	.500	.500	.250	.000	.000	.500	

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 3 - SH 71 WBFR & Spirit of Texas Dr
Site Code : 3
Start Date : 12/20/2019
Page No : 1

Groups Printed- Vehicles - Heavy Vehicles

Start Time	Spirit of Texas Dr Southbound					SH 71 Westbound					Spirit of Texas Dr Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
06:00	0	4	1	0	5	14	0	2	0	16	33	16	0	1	50	0	0	0	0	0	71
06:15	0	5	0	0	5	19	3	3	0	25	29	20	0	0	49	0	0	0	0	0	79
06:30	0	5	1	0	6	15	2	2	0	19	42	15	0	0	57	0	0	0	0	0	82
06:45	0	4	1	0	5	14	2	4	0	20	43	14	0	0	57	0	0	0	0	0	82
Total	0	18	3	0	21	62	7	11	0	80	147	65	0	1	213	0	0	0	0	0	314
07:00	0	3	2	0	5	23	12	2	0	37	43	9	0	0	52	0	0	0	0	0	94
07:15	0	5	1	0	6	13	6	2	0	21	54	8	0	0	62	0	0	0	0	0	89
07:30	0	2	0	0	2	15	3	7	0	25	35	6	0	0	41	0	0	0	0	0	68
07:45	0	3	1	0	4	25	3	5	0	33	27	10	0	0	37	0	0	0	0	0	74
Total	0	13	4	0	17	76	24	16	0	116	159	33	0	0	192	0	0	0	0	0	325
08:00	0	5	4	0	9	16	2	3	0	21	40	14	0	0	54	0	0	0	0	0	84
08:15	0	4	0	0	4	16	6	2	0	24	51	13	0	0	64	0	0	0	0	0	92
08:30	0	5	0	0	5	32	4	4	0	40	52	10	0	0	62	0	0	0	0	0	107
08:45	0	3	3	0	6	15	8	2	0	25	43	5	0	0	48	0	0	0	0	0	79
Total	0	17	7	0	24	79	20	11	0	110	186	42	0	0	228	0	0	0	0	0	362
09:00	0	3	0	0	3	14	4	5	0	23	45	16	0	0	61	0	0	0	0	0	87
09:15	0	4	4	0	8	18	12	6	0	36	57	12	0	0	69	0	0	0	0	0	113
09:30	0	4	0	0	4	24	2	2	0	28	47	8	0	1	56	0	0	0	0	0	88
09:45	0	4	5	0	9	19	3	4	0	26	50	14	0	0	64	0	0	0	0	0	99
Total	0	15	9	0	24	75	21	17	0	113	199	50	0	1	250	0	0	0	0	0	387
10:00	0	4	5	0	9	21	3	2	0	26	64	10	0	0	74	0	0	0	0	0	109
10:15	0	6	4	0	10	20	6	2	0	28	46	11	0	0	57	0	0	0	0	0	95
10:30	0	6	7	0	13	15	8	3	0	26	71	15	0	0	86	0	0	0	0	0	125
10:45	0	7	5	0	12	19	7	5	0	31	70	19	0	0	89	0	0	0	0	0	132
Total	0	23	21	0	44	75	24	12	0	111	251	55	0	0	306	0	0	0	0	0	461
11:00	0	6	3	0	9	25	9	4	0	38	70	12	0	0	82	0	0	0	0	0	129
11:15	0	5	7	0	12	24	6	7	0	37	89	13	0	0	102	0	0	0	0	0	151
11:30	0	9	0	0	9	20	10	6	0	36	118	14	0	0	132	0	0	0	0	0	177
11:45	0	2	14	0	16	32	10	3	0	45	106	14	0	0	120	0	0	0	0	0	181
Total	0	22	24	0	46	101	35	20	0	156	383	53	0	0	436	0	0	0	0	0	638
12:00	0	7	8	0	15	20	12	3	0	35	109	7	0	0	116	0	0	0	0	0	166
12:15	0	8	5	0	13	20	7	7	0	34	99	10	0	0	109	0	0	0	0	0	156
12:30	0	5	9	0	14	16	11	2	0	29	85	8	0	0	93	0	0	0	0	0	136
12:45	0	3	11	0	14	20	10	4	0	34	113	14	0	1	128	0	0	0	0	0	176
Total	0	23	33	0	56	76	40	16	0	132	406	39	0	1	446	0	0	0	0	0	634
13:00	0	4	8	0	12	20	16	6	0	42	100	14	0	0	114	0	0	0	0	0	168
13:15	0	7	3	0	10	31	29	3	0	63	118	9	0	0	127	0	0	0	0	0	200
13:30	0	5	11	0	16	35	65	1	0	101	109	21	0	0	130	0	0	0	0	0	247
13:45	0	9	5	0	14	28	53	8	0	89	92	11	0	0	103	0	0	0	0	0	206
Total	0	25	27	0	52	114	163	18	0	295	419	55	0	0	474	0	0	0	0	0	821
14:00	0	5	10	0	15	17	32	7	0	56	104	10	0	0	114	0	0	0	0	0	185
14:15	0	12	13	0	25	18	27	9	0	54	85	16	0	0	101	0	0	0	0	0	180
14:30	0	14	5	0	19	22	25	3	0	50	95	12	0	0	107	0	0	0	0	0	176

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 3 - SH 71 WBFR & Spirit of Texas Dr

Site Code : 3

Start Date : 12/20/2019

Page No : 2

Groups Printed- Vehicles - Heavy Vehicles

Start Time	Spirit of Texas Dr Southbound					SH 71 Westbound					Spirit of Texas Dr Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
14:45	0	10	4	0	14	22	35	5	0	62	97	14	0	0	111	0	0	0	0	0	187
Total	0	41	32	0	73	79	119	24	0	222	381	52	0	0	433	0	0	0	0	0	728
15:00	0	9	7	0	16	24	44	4	0	72	107	10	0	0	117	0	0	0	0	0	205
15:15	0	6	5	0	11	19	48	4	0	71	112	16	0	0	128	0	0	0	0	0	210
15:30	0	8	3	0	11	18	28	4	0	50	78	12	0	0	90	0	0	0	0	0	151
15:45	0	5	7	0	12	20	31	6	0	57	77	7	0	0	84	0	0	0	0	0	153
Total	0	28	22	0	50	81	151	18	0	250	374	45	0	0	419	0	0	0	0	0	719
16:00	0	13	11	0	24	20	16	6	0	42	89	10	0	0	99	0	0	0	0	0	165
16:15	0	10	19	0	29	18	12	3	0	33	82	16	0	0	98	0	0	0	0	0	160
16:30	0	7	3	0	10	18	15	3	0	36	79	11	0	1	91	0	0	0	0	0	137
16:45	0	4	9	0	13	18	10	8	0	36	95	12	0	0	107	0	0	0	0	0	156
Total	0	34	42	0	76	74	53	20	0	147	345	49	0	1	395	0	0	0	0	0	618
17:00	0	8	3	0	11	17	15	1	0	33	85	12	0	1	98	0	0	0	0	0	142
17:15	0	13	6	0	19	16	3	0	0	19	108	13	0	0	121	0	0	0	0	0	159
17:30	0	5	3	0	8	18	19	3	0	40	99	8	0	0	107	0	0	0	0	0	155
17:45	0	8	4	0	12	31	9	7	0	47	59	8	0	1	68	0	0	0	0	0	127
Total	0	34	16	0	50	82	46	11	0	139	351	41	0	2	394	0	0	0	0	0	583
18:00	0	7	8	0	15	23	7	3	0	33	84	11	0	0	95	0	0	0	0	0	143
18:15	0	5	9	0	14	20	7	6	0	33	74	6	0	3	83	0	0	0	0	0	130
18:30	0	8	7	0	15	21	6	2	0	29	76	11	0	0	87	0	0	0	0	0	131
18:45	0	8	10	0	18	16	6	2	0	24	57	6	0	0	63	0	0	0	0	0	105
Total	0	28	34	0	62	80	26	13	0	119	291	34	0	3	328	0	0	0	0	0	509
19:00	0	7	8	0	15	16	3	2	0	21	55	7	0	0	62	0	0	0	0	0	98
19:15	0	7	10	0	17	17	8	0	0	25	59	7	0	0	66	0	0	0	0	0	108
19:30	0	5	6	0	11	19	8	1	0	28	95	3	0	1	99	0	0	0	0	0	138
19:45	0	1	2	0	3	10	6	2	0	18	74	6	0	2	82	0	0	0	0	0	103
Total	0	20	26	0	46	62	25	5	0	92	283	23	0	3	309	0	0	0	0	0	447
Grand Total	0	341	300	0	641	1116	754	212	0	2082	4175	636	0	12	4823	0	0	0	0	0	7546
Apprch %	0	53.2	46.8	0		53.6	36.2	10.2	0		86.6	13.2	0	0.2		0	0	0	0	0	
Total %	0	4.5	4	0	8.5	14.8	10	2.8	0	27.6	55.3	8.4	0	0.2	63.9	0	0	0	0	0	
Vehicles	0	160	298	0	458	1004	727	211	0	1942	3981	571	0	12	4564	0	0	0	0	0	6964
% Vehicles	0	46.9	99.3	0	71.5	90	96.4	99.5	0	93.3	95.4	89.8	0	100	94.6	0	0	0	0	0	92.3
Heavy Vehicles	0	181	2	0	183	112	27	1	0	140	194	65	0	0	259	0	0	0	0	0	582
% Heavy Vehicles	0	53.1	0.7	0	28.5	10	3.6	0.5	0	6.7	4.6	10.2	0	0	5.4	0	0	0	0	0	7.7

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 3 - SH 71 WBFR & Spirit of Texas Dr
Site Code : 3
Start Date : 12/20/2019
Page No : 3

Start Time	Spirit of Texas Dr Southbound					SH 71 Westbound					Spirit of Texas Dr Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 13:15																					
13:15	0	7	3	0	10	31	29	3	0	63	118	9	0	0	127	0	0	0	0	0	200
13:30	0	5	11	0	16	35	65	1	0	101	109	21	0	0	130	0	0	0	0	0	247
13:45	0	9	5	0	14	28	53	8	0	89	92	11	0	0	103	0	0	0	0	0	206
14:00	0	5	10	0	15	17	32	7	0	56	104	10	0	0	114	0	0	0	0	0	185
Total Volume	0	26	29	0	55	111	179	19	0	309	423	51	0	0	474	0	0	0	0	0	838
% App. Total	0	47.3	52.7	0		35.9	57.9	6.1	0		89.2	10.8	0	0		0	0	0	0		
PHF	.000	.722	.659	.000	.859	.793	.688	.594	.000	.765	.896	.607	.000	.000	.912	.000	.000	.000	.000	.000	.848
Vehicles	0	14	29	0	43	102	176	19	0	297	414	49	0	0	463	0	0	0	0	0	803
% Vehicles	0	53.8	100	0	78.2	91.9	98.3	100	0	96.1	97.9	96.1	0	0	97.7	0	0	0	0	0	95.8
Heavy Vehicles	0	12	0	0	12	9	3	0	0	12	9	2	0	0	11	0	0	0	0	0	35
% Heavy Vehicles	0	46.2	0	0	21.8	8.1	1.7	0	0	3.9	2.1	3.9	0	0	2.3	0	0	0	0	0	4.2

Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	15:30					13:15					12:45					06:00					
+0 mins.	0	8	3	0	11	31	29	3	0	63	113	14	0	1	128	0	0	0	0	0	0
+15 mins.	0	5	7	0	12	35	65	1	0	101	100	14	0	0	114	0	0	0	0	0	0
+30 mins.	0	13	11	0	24	28	53	8	0	89	118	9	0	0	127	0	0	0	0	0	0
+45 mins.	0	10	19	0	29	17	32	7	0	56	109	21	0	0	130	0	0	0	0	0	0
Total Volume	0	36	40	0	76	111	179	19	0	309	440	58	0	1	499	0	0	0	0	0	0
% App. Total	0	47.4	52.6	0		35.9	57.9	6.1	0		88.2	11.6	0	0.2		0	0	0	0		
PHF	.000	.692	.526	.000	.655	.793	.688	.594	.000	.765	.932	.690	.000	.250	.960	.000	.000	.000	.000	.000	.000
Vehicles	0	23	40	0	63	102	176	19	0	297	427	56	0	1	484	0	0	0	0	0	0
% Vehicles	0	63.9	100	0	82.9	91.9	98.3	100	0	96.1	97	96.6	0	100	97	0	0	0	0	0	0
Heavy Vehicles	0	13	0	0	13	9	3	0	0	12	13	2	0	0	15	0	0	0	0	0	0
% Heavy Vehicles	0	36.1	0	0	17.1	8.1	1.7	0	0	3.9	3	3.4	0	0	3	0	0	0	0	0	0

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 3 - SH 71 WBFR & Spirit of Texas Dr

Site Code : 3

Start Date : 12/20/2019

Page No : 4

Groups Printed- Vehicles

Start Time	Spirit of Texas Dr Southbound					SH 71 Westbound					Spirit of Texas Dr Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
06:00	0	0	1	0	1	12	0	2	0	14	29	13	0	1	43	0	0	0	0	0	58
06:15	0	2	0	0	2	17	2	3	0	22	23	18	0	0	41	0	0	0	0	0	65
06:30	0	0	1	0	1	11	2	2	0	15	38	15	0	0	53	0	0	0	0	0	69
06:45	0	0	1	0	1	14	2	4	0	20	39	14	0	0	53	0	0	0	0	0	74
Total	0	2	3	0	5	54	6	11	0	71	129	60	0	1	190	0	0	0	0	0	266
07:00	0	0	2	0	2	19	10	2	0	31	35	9	0	0	44	0	0	0	0	0	77
07:15	0	2	1	0	3	12	5	2	0	19	47	8	0	0	55	0	0	0	0	0	77
07:30	0	0	0	0	0	12	3	6	0	21	32	6	0	0	38	0	0	0	0	0	59
07:45	0	0	1	0	1	25	3	5	0	33	23	10	0	0	33	0	0	0	0	0	67
Total	0	2	4	0	6	68	21	15	0	104	137	33	0	0	170	0	0	0	0	0	280
08:00	0	2	4	0	6	14	2	3	0	19	38	14	0	0	52	0	0	0	0	0	77
08:15	0	1	0	0	1	15	5	2	0	22	44	13	0	0	57	0	0	0	0	0	80
08:30	0	0	0	0	0	25	3	4	0	32	49	10	0	0	59	0	0	0	0	0	91
08:45	0	1	3	0	4	14	7	2	0	23	40	5	0	0	45	0	0	0	0	0	72
Total	0	4	7	0	11	68	17	11	0	96	171	42	0	0	213	0	0	0	0	0	320
09:00	0	0	0	0	0	10	3	5	0	18	39	16	0	0	55	0	0	0	0	0	73
09:15	0	0	4	0	4	16	10	6	0	32	53	12	0	0	65	0	0	0	0	0	101
09:30	0	0	0	0	0	23	2	2	0	27	41	8	0	1	50	0	0	0	0	0	77
09:45	0	2	5	0	7	18	3	4	0	25	43	14	0	0	57	0	0	0	0	0	89
Total	0	2	9	0	11	67	18	17	0	102	176	50	0	1	227	0	0	0	0	0	340
10:00	0	1	5	0	6	18	2	2	0	22	59	10	0	0	69	0	0	0	0	0	97
10:15	0	2	4	0	6	16	6	2	0	24	40	11	0	0	51	0	0	0	0	0	81
10:30	0	2	7	0	9	13	7	3	0	23	66	15	0	0	81	0	0	0	0	0	113
10:45	0	1	5	0	6	18	7	5	0	30	66	19	0	0	85	0	0	0	0	0	121
Total	0	6	21	0	27	65	22	12	0	99	231	55	0	0	286	0	0	0	0	0	412
11:00	0	2	3	0	5	20	8	4	0	32	69	12	0	0	81	0	0	0	0	0	118
11:15	0	2	7	0	9	22	6	7	0	35	87	13	0	0	100	0	0	0	0	0	144
11:30	0	5	0	0	5	18	9	6	0	33	115	14	0	0	129	0	0	0	0	0	167
11:45	0	0	14	0	14	32	8	3	0	43	103	14	0	0	117	0	0	0	0	0	174
Total	0	9	24	0	33	92	31	20	0	143	374	53	0	0	427	0	0	0	0	0	603
12:00	0	4	8	0	12	18	12	3	0	33	107	7	0	0	114	0	0	0	0	0	159
12:15	0	3	5	0	8	16	7	7	0	30	95	5	0	0	100	0	0	0	0	0	138
12:30	0	4	9	0	13	14	11	2	0	27	78	5	0	0	83	0	0	0	0	0	123
12:45	0	1	11	0	12	19	10	4	0	33	110	12	0	1	123	0	0	0	0	0	168
Total	0	12	33	0	45	67	40	16	0	123	390	29	0	1	420	0	0	0	0	0	588
13:00	0	0	7	0	7	15	14	6	0	35	93	14	0	0	107	0	0	0	0	0	149
13:15	0	4	3	0	7	30	29	3	0	62	117	9	0	0	126	0	0	0	0	0	195
13:30	0	4	11	0	15	31	65	1	0	97	107	21	0	0	128	0	0	0	0	0	240
13:45	0	5	5	0	10	26	52	8	0	86	88	11	0	0	99	0	0	0	0	0	195
Total	0	13	26	0	39	102	160	18	0	280	405	55	0	0	460	0	0	0	0	0	779
14:00	0	1	10	0	11	15	30	7	0	52	102	8	0	0	110	0	0	0	0	0	173
14:15	0	10	13	0	23	18	25	9	0	52	82	12	0	0	94	0	0	0	0	0	169
14:30	0	10	5	0	15	22	25	3	0	50	91	9	0	0	100	0	0	0	0	0	165
14:45	0	7	4	0	11	20	35	5	0	60	93	12	0	0	105	0	0	0	0	0	176
Total	0	28	32	0	60	75	115	24	0	214	368	41	0	0	409	0	0	0	0	0	683

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 3 - SH 71 WBFR & Spirit of Texas Dr
Site Code : 3
Start Date : 12/20/2019
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Groups Printed- Vehicles

Start Time	Spirit of Texas Dr Southbound					SH 71 Westbound					Spirit of Texas Dr Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
15:00	0	5	7	0	12	21	44	4	0	69	106	7	0	0	113	0	0	0	0	0	194
15:15	0	3	4	0	7	18	47	4	0	69	111	11	0	0	122	0	0	0	0	0	198
15:30	0	5	3	0	8	15	28	4	0	47	76	9	0	0	85	0	0	0	0	0	140
15:45	0	3	7	0	10	18	29	6	0	53	76	5	0	0	81	0	0	0	0	0	144
Total	0	16	21	0	37	72	148	18	0	238	369	32	0	0	401	0	0	0	0	0	676
16:00	0	7	11	0	18	18	16	6	0	40	89	8	0	0	97	0	0	0	0	0	155
16:15	0	8	19	0	27	16	12	3	0	31	78	12	0	0	90	0	0	0	0	0	148
16:30	0	4	3	0	7	18	15	3	0	36	77	8	0	1	86	0	0	0	0	0	129
16:45	0	1	9	0	10	17	10	8	0	35	93	8	0	0	101	0	0	0	0	0	146
Total	0	20	42	0	62	69	53	20	0	142	337	36	0	1	374	0	0	0	0	0	578
17:00	0	4	3	0	7	16	15	1	0	32	82	10	0	1	93	0	0	0	0	0	132
17:15	0	10	6	0	16	15	3	0	0	18	106	8	0	0	114	0	0	0	0	0	148
17:30	0	3	3	0	6	17	19	3	0	39	98	5	0	0	103	0	0	0	0	0	148
17:45	0	3	4	0	7	29	9	7	0	45	57	5	0	1	63	0	0	0	0	0	115
Total	0	20	16	0	36	77	46	11	0	134	343	28	0	2	373	0	0	0	0	0	543
18:00	0	4	8	0	12	22	7	3	0	32	81	11	0	0	92	0	0	0	0	0	136
18:15	0	1	9	0	10	19	7	6	0	32	72	6	0	3	81	0	0	0	0	0	123
18:30	0	4	7	0	11	19	6	2	0	27	73	11	0	0	84	0	0	0	0	0	122
18:45	0	6	10	0	16	12	6	2	0	20	54	6	0	0	60	0	0	0	0	0	96
Total	0	15	34	0	49	72	26	13	0	111	280	34	0	3	317	0	0	0	0	0	477
19:00	0	4	8	0	12	16	3	2	0	21	52	7	0	0	59	0	0	0	0	0	92
19:15	0	5	10	0	15	14	7	0	0	21	57	7	0	0	64	0	0	0	0	0	100
19:30	0	2	6	0	8	18	8	1	0	27	92	3	0	1	96	0	0	0	0	0	131
19:45	0	0	2	0	2	8	6	2	0	16	70	6	0	2	78	0	0	0	0	0	96
Total	0	11	26	0	37	56	24	5	0	85	271	23	0	3	297	0	0	0	0	0	419
Grand Total	0	160	298	0	458	1004	727	211	0	1942	3981	571	0	12	4564	0	0	0	0	0	6964
Apprch %	0	34.9	65.1	0		51.7	37.4	10.9	0		87.2	12.5	0	0.3		0	0	0	0		
Total %	0	2.3	4.3	0	6.6	14.4	10.4	3	0	27.9	57.2	8.2	0	0.2	65.5	0	0	0	0	0	

Start Time	Spirit of Texas Dr Southbound					SH 71 Westbound					Spirit of Texas Dr Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 13:15																					
13:15	0	4	3	0	7	30	29	3	0	62	117	9	0	0	126	0	0	0	0	0	195
13:30	0	4	11	0	15	31	65	1	0	97	107	21	0	0	128	0	0	0	0	0	240
13:45	0	5	5	0	10	26	52	8	0	86	88	11	0	0	99	0	0	0	0	0	195
14:00	0	1	10	0	11	15	30	7	0	52	102	8	0	0	110	0	0	0	0	0	173
Total Volume	0	14	29	0	43	102	176	19	0	297	414	49	0	0	463	0	0	0	0	0	803
% App. Total	0	32.6	67.4	0		34.3	59.3	6.4	0		89.4	10.6	0	0		0	0	0	0		
PHF	.000	.700	.659	.000	.717	.823	.677	.594	.000	.765	.885	.583	.000	.000	.904	.000	.000	.000	.000	.000	.836

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626

512-832-8650

File Name : Site 3 - SH 71 WBFR & Spirit of Texas Dr

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Start Date : 12/20/2019

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Start Time	Spirit of Texas Dr Southbound					SH 71 Westbound					Spirit of Texas Dr Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	

Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	15:30					13:15					12:45					06:00				
+0 mins.	0	5	3	0	8	30	29	3	0	62	110	12	0	1	123	0	0	0	0	0
+15 mins.	0	3	7	0	10	31	65	1	0	97	93	14	0	0	107	0	0	0	0	0
+30 mins.	0	7	11	0	18	26	52	8	0	86	117	9	0	0	126	0	0	0	0	0
+45 mins.	0	8	19	0	27	15	30	7	0	52	107	21	0	0	128	0	0	0	0	0
Total Volume	0	23	40	0	63	102	176	19	0	297	427	56	0	1	484	0	0	0	0	0
% App. Total	0	36.5	63.5	0		34.3	59.3	6.4	0		88.2	11.6	0	0.2		0	0	0	0	0
PHF	.000	.719	.526	.000	.583	.823	.677	.594	.000	.765	.912	.667	.000	.250	.945	.000	.000	.000	.000	.000

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 3 - SH 71 WBFR & Spirit of Texas Dr

Site Code : 3

Start Date : 12/20/2019

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Groups Printed- Heavy Vehicles

Start Time	Spirit of Texas Dr Southbound					SH 71 Westbound					Spirit of Texas Dr Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
06:00	0	4	0	0	4	2	0	0	0	2	4	3	0	0	7	0	0	0	0	0	13
06:15	0	3	0	0	3	2	1	0	0	3	6	2	0	0	8	0	0	0	0	0	14
06:30	0	5	0	0	5	4	0	0	0	4	4	0	0	0	4	0	0	0	0	0	13
06:45	0	4	0	0	4	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	8
Total	0	16	0	0	16	8	1	0	0	9	18	5	0	0	23	0	0	0	0	0	48
07:00	0	3	0	0	3	4	2	0	0	6	8	0	0	0	8	0	0	0	0	0	17
07:15	0	3	0	0	3	1	1	0	0	2	7	0	0	0	7	0	0	0	0	0	12
07:30	0	2	0	0	2	3	0	1	0	4	3	0	0	0	3	0	0	0	0	0	9
07:45	0	3	0	0	3	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	7
Total	0	11	0	0	11	8	3	1	0	12	22	0	0	0	22	0	0	0	0	0	45
08:00	0	3	0	0	3	2	0	0	0	2	2	0	0	0	2	0	0	0	0	0	7
08:15	0	3	0	0	3	1	1	0	0	2	7	0	0	0	7	0	0	0	0	0	12
08:30	0	5	0	0	5	7	1	0	0	8	3	0	0	0	3	0	0	0	0	0	16
08:45	0	2	0	0	2	1	1	0	0	2	3	0	0	0	3	0	0	0	0	0	7
Total	0	13	0	0	13	11	3	0	0	14	15	0	0	0	15	0	0	0	0	0	42
09:00	0	3	0	0	3	4	1	0	0	5	6	0	0	0	6	0	0	0	0	0	14
09:15	0	4	0	0	4	2	2	0	0	4	4	0	0	0	4	0	0	0	0	0	12
09:30	0	4	0	0	4	1	0	0	0	1	6	0	0	0	6	0	0	0	0	0	11
09:45	0	2	0	0	2	1	0	0	0	1	7	0	0	0	7	0	0	0	0	0	10
Total	0	13	0	0	13	8	3	0	0	11	23	0	0	0	23	0	0	0	0	0	47
10:00	0	3	0	0	3	3	1	0	0	4	5	0	0	0	5	0	0	0	0	0	12
10:15	0	4	0	0	4	4	0	0	0	4	6	0	0	0	6	0	0	0	0	0	14
10:30	0	4	0	0	4	2	1	0	0	3	5	0	0	0	5	0	0	0	0	0	12
10:45	0	6	0	0	6	1	0	0	0	1	4	0	0	0	4	0	0	0	0	0	11
Total	0	17	0	0	17	10	2	0	0	12	20	0	0	0	20	0	0	0	0	0	49
11:00	0	4	0	0	4	5	1	0	0	6	1	0	0	0	1	0	0	0	0	0	11
11:15	0	3	0	0	3	2	0	0	0	2	2	0	0	0	2	0	0	0	0	0	7
11:30	0	4	0	0	4	2	1	0	0	3	3	0	0	0	3	0	0	0	0	0	10
11:45	0	2	0	0	2	0	2	0	0	2	3	0	0	0	3	0	0	0	0	0	7
Total	0	13	0	0	13	9	4	0	0	13	9	0	0	0	9	0	0	0	0	0	35
12:00	0	3	0	0	3	2	0	0	0	2	2	0	0	0	2	0	0	0	0	0	7
12:15	0	5	0	0	5	4	0	0	0	4	4	5	0	0	9	0	0	0	0	0	18
12:30	0	1	0	0	1	2	0	0	0	2	7	3	0	0	10	0	0	0	0	0	13
12:45	0	2	0	0	2	1	0	0	0	1	3	2	0	0	5	0	0	0	0	0	8
Total	0	11	0	0	11	9	0	0	0	9	16	10	0	0	26	0	0	0	0	0	46
13:00	0	4	1	0	5	5	2	0	0	7	7	0	0	0	7	0	0	0	0	0	19
13:15	0	3	0	0	3	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	5
13:30	0	1	0	0	1	4	0	0	0	4	2	0	0	0	2	0	0	0	0	0	7
13:45	0	4	0	0	4	2	1	0	0	3	4	0	0	0	4	0	0	0	0	0	11
Total	0	12	1	0	13	12	3	0	0	15	14	0	0	0	14	0	0	0	0	0	42
14:00	0	4	0	0	4	2	2	0	0	4	2	2	0	0	4	0	0	0	0	0	12
14:15	0	2	0	0	2	0	2	0	0	2	3	4	0	0	7	0	0	0	0	0	11
14:30	0	4	0	0	4	0	0	0	0	0	4	3	0	0	7	0	0	0	0	0	11
14:45	0	3	0	0	3	2	0	0	0	2	4	2	0	0	6	0	0	0	0	0	11
Total	0	13	0	0	13	4	4	0	0	8	13	11	0	0	24	0	0	0	0	0	45

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 3 - SH 71 WBFR & Spirit of Texas Dr
Site Code : 3
Start Date : 12/20/2019
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Groups Printed- Heavy Vehicles

Start Time	Spirit of Texas Dr Southbound					SH 71 Westbound					Spirit of Texas Dr Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
15:00	0	4	0	0	4	3	0	0	0	3	1	3	0	0	4	0	0	0	0	0	11
15:15	0	3	1	0	4	1	1	0	0	2	1	5	0	0	6	0	0	0	0	0	12
15:30	0	3	0	0	3	3	0	0	0	3	2	3	0	0	5	0	0	0	0	0	11
15:45	0	2	0	0	2	2	2	0	0	4	1	2	0	0	3	0	0	0	0	0	9
Total	0	12	1	0	13	9	3	0	0	12	5	13	0	0	18	0	0	0	0	0	43
16:00	0	6	0	0	6	2	0	0	0	2	0	2	0	0	2	0	0	0	0	0	10
16:15	0	2	0	0	2	2	0	0	0	2	4	4	0	0	8	0	0	0	0	0	12
16:30	0	3	0	0	3	0	0	0	0	0	2	3	0	0	5	0	0	0	0	0	8
16:45	0	3	0	0	3	1	0	0	0	1	2	4	0	0	6	0	0	0	0	0	10
Total	0	14	0	0	14	5	0	0	0	5	8	13	0	0	21	0	0	0	0	0	40
17:00	0	4	0	0	4	1	0	0	0	1	3	2	0	0	5	0	0	0	0	0	10
17:15	0	3	0	0	3	1	0	0	0	1	2	5	0	0	7	0	0	0	0	0	11
17:30	0	2	0	0	2	1	0	0	0	1	1	3	0	0	4	0	0	0	0	0	7
17:45	0	5	0	0	5	2	0	0	0	2	2	3	0	0	5	0	0	0	0	0	12
Total	0	14	0	0	14	5	0	0	0	5	8	13	0	0	21	0	0	0	0	0	40
18:00	0	3	0	0	3	1	0	0	0	1	3	0	0	0	3	0	0	0	0	0	7
18:15	0	4	0	0	4	1	0	0	0	1	2	0	0	0	2	0	0	0	0	0	7
18:30	0	4	0	0	4	2	0	0	0	2	3	0	0	0	3	0	0	0	0	0	9
18:45	0	2	0	0	2	4	0	0	0	4	3	0	0	0	3	0	0	0	0	0	9
Total	0	13	0	0	13	8	0	0	0	8	11	0	0	0	11	0	0	0	0	0	32
19:00	0	3	0	0	3	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	6
19:15	0	2	0	0	2	3	1	0	0	4	2	0	0	0	2	0	0	0	0	0	8
19:30	0	3	0	0	3	1	0	0	0	1	3	0	0	0	3	0	0	0	0	0	7
19:45	0	1	0	0	1	2	0	0	0	2	4	0	0	0	4	0	0	0	0	0	7
Total	0	9	0	0	9	6	1	0	0	7	12	0	0	0	12	0	0	0	0	0	28
Grand Total	0	181	2	0	183	112	27	1	0	140	194	65	0	0	259	0	0	0	0	0	582
Apprch %	0	98.9	1.1	0		80	19.3	0.7	0		74.9	25.1	0	0		0	0	0	0		
Total %	0	31.1	0.3	0	31.4	19.2	4.6	0.2	0	24.1	33.3	11.2	0	0	44.5	0	0	0	0	0	

Start Time	Spirit of Texas Dr Southbound					SH 71 Westbound					Spirit of Texas Dr Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:15																					
12:15	0	5	0	0	5	4	0	0	0	4	4	5	0	0	9	0	0	0	0	0	18
12:30	0	1	0	0	1	2	0	0	0	2	7	3	0	0	10	0	0	0	0	0	13
12:45	0	2	0	0	2	1	0	0	0	1	3	2	0	0	5	0	0	0	0	0	8
13:00	0	4	1	0	5	5	2	0	0	7	7	0	0	0	7	0	0	0	0	0	19
Total Volume	0	12	1	0	13	12	2	0	0	14	21	10	0	0	31	0	0	0	0	0	58
% App. Total	0	92.3	7.7	0		85.7	14.3	0	0		67.7	32.3	0	0		0	0	0	0		
PHF	.000	.600	.250	.000	.650	.600	.250	.000	.000	.500	.750	.500	.000	.000	.775	.000	.000	.000	.000	.000	.763

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

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Start Time	Spirit of Texas Dr Southbound					SH 71 Westbound					Spirit of Texas Dr Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	10:15					08:30					12:15					06:00					
+0 mins.	0	4	0	0	4	7	1	0	0	8	4	5	0	0	9	0	0	0	0	0	
+15 mins.	0	4	0	0	4	1	1	0	0	2	7	3	0	0	10	0	0	0	0	0	
+30 mins.	0	6	0	0	6	4	1	0	0	5	3	2	0	0	5	0	0	0	0	0	
+45 mins.	0	4	0	0	4	2	2	0	0	4	7	0	0	0	7	0	0	0	0	0	
Total Volume	0	18	0	0	18	14	5	0	0	19	21	10	0	0	31	0	0	0	0	0	
% App. Total	0	100	0	0		73.7	26.3	0	0		67.7	32.3	0	0		0	0	0	0		
PHF	.000	.750	.000	.000	.750	.500	.625	.000	.000	.594	.750	.500	.000	.000	.775	.000	.000	.000	.000	.000	

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
 Georgetown, TX 78626
 512-832-8650

File Name : Site 3 - SH 71 WBFR & Spirit of Texas Dr
 Site Code : 3
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Groups Printed- Pedestrians

Start Time	Spirit of Texas Dr Southbound					SH 71 Westbound					Spirit of Texas Dr Northbound					Eastbound					Int. Total	
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total		
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 3 - SH 71 WBFR & Spirit of Texas Dr
Site Code : 3
Start Date : 12/20/2019
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Groups Printed- Pedestrians

Start Time	Spirit of Texas Dr Southbound					SH 71 Westbound					Spirit of Texas Dr Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
15:00	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	2	6	0	0	8	0	0	0	0	0	0	0	0	0	0	8
Apprch %	0	0	0	0	0	25	75	0	0		0	0	0	0		0	0	0	0		
Total %	0	0	0	0	0	25	75	0	0	100	0	0	0	0		0	0	0	0		

Start Time	Spirit of Texas Dr Southbound					SH 71 Westbound					Spirit of Texas Dr Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	3
Total Volume	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	3
% App. Total	0	0	0	0	0	33.3	66.7	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.250	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250

Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 12:30

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
 Georgetown, TX 78626
 512-832-8650

File Name : Site 3 - SH 71 WBFR & Spirit of Texas Dr
 Site Code : 3
 Start Date : 12/20/2019
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Start Time	Spirit of Texas Dr Southbound					SH 71 Westbound					Spirit of Texas Dr Northbound					Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	

Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	06:00					12:30					06:00					06:00									
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	33.3	66.7	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.250	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 4 - SH 71 EBFR & Spirit of Texas Dr
Site Code : 4
Start Date : 12/20/2019
Page No : 1

Groups Printed- Vehicles - Heavy Vehicles

Start Time	Spirit of Texas Dr Southbound					Westbound					Spirit of Texas Dr Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
06:00	2	14	0	0	16	0	0	0	0	0	0	38	9	0	47	10	1	38	40	89	152
06:15	6	22	0	0	28	0	0	0	0	0	0	38	14	0	52	17	4	53	42	116	196
06:30	5	15	0	0	20	0	0	0	0	0	0	43	16	0	59	10	7	62	53	132	211
06:45	1	16	0	0	17	0	0	0	0	0	0	47	7	0	54	9	3	65	33	110	181
Total	14	67	0	0	81	0	0	0	0	0	0	166	46	0	212	46	15	218	168	447	740
07:00	4	19	0	1	24	0	0	0	0	0	0	49	17	0	66	8	10	54	46	118	208
07:15	3	20	0	0	23	0	0	0	0	0	0	54	16	0	70	4	5	53	48	110	203
07:30	4	12	0	0	16	0	0	0	0	0	0	43	16	0	59	4	6	47	46	103	178
07:45	4	22	0	0	26	0	0	0	0	0	0	26	27	0	53	7	11	63	47	128	207
Total	15	73	0	1	89	0	0	0	0	0	0	172	76	0	248	23	32	217	187	459	796
08:00	5	15	0	0	20	0	0	0	0	0	0	45	15	0	60	10	8	74	45	137	217
08:15	8	15	0	0	23	0	0	0	0	0	0	47	25	0	72	12	5	54	34	105	200
08:30	4	29	0	0	33	0	0	0	0	0	0	58	19	0	77	6	6	67	50	129	239
08:45	4	20	0	0	24	0	0	0	0	0	0	56	15	0	71	3	6	91	47	147	242
Total	21	79	0	0	100	0	0	0	0	0	0	206	74	0	280	31	25	286	176	518	898
09:00	3	14	0	0	17	0	0	0	0	0	0	43	13	0	56	12	8	64	46	130	203
09:15	7	15	0	0	22	0	0	0	0	0	0	57	19	0	76	8	9	70	65	152	250
09:30	5	21	0	0	26	0	0	0	0	0	0	48	17	0	65	6	5	84	39	134	225
09:45	2	20	0	0	22	0	0	0	0	0	0	56	11	0	67	11	12	90	64	177	266
Total	17	70	0	0	87	0	0	0	0	0	0	204	60	0	264	37	34	308	214	593	944
10:00	6	19	0	0	25	0	0	0	0	0	0	63	15	0	78	8	11	72	59	150	253
10:15	7	22	0	0	29	0	0	0	0	0	0	50	14	0	64	9	9	112	50	180	273
10:30	6	16	0	0	22	0	0	0	0	0	0	74	22	0	96	10	15	117	53	195	313
10:45	3	21	0	0	24	0	0	0	0	0	0	72	23	0	95	12	14	101	48	175	294
Total	22	78	0	0	100	0	0	0	0	0	0	259	74	0	333	39	49	402	210	700	1133
11:00	9	23	0	0	32	0	0	0	0	0	0	74	15	2	91	9	15	75	56	155	278
11:15	4	25	0	0	29	0	0	0	0	0	0	99	20	0	119	8	14	99	67	188	336
11:30	14	15	0	0	29	0	0	0	0	0	0	104	34	0	138	11	16	121	58	206	373
11:45	8	26	0	0	34	0	0	0	0	0	0	121	24	0	145	7	16	131	60	214	393
Total	35	89	0	0	124	0	0	0	0	0	0	398	93	2	493	35	61	426	241	763	1380
12:00	10	14	0	0	24	0	0	0	0	0	0	102	35	0	137	9	11	114	104	238	399
12:15	8	17	0	0	25	0	0	0	0	0	0	103	30	0	133	6	22	96	86	210	368
12:30	5	18	0	0	23	0	0	0	0	0	0	99	25	0	124	2	13	109	67	191	338
12:45	8	21	0	0	29	0	0	0	0	0	0	108	39	0	147	12	13	86	86	197	373
Total	31	70	0	0	101	0	0	0	0	0	0	412	129	0	541	29	59	405	343	836	1478
13:00	7	13	0	0	20	0	0	0	0	0	0	99	38	0	137	12	23	116	84	235	392
13:15	15	22	0	0	37	0	0	0	0	0	0	129	18	0	147	13	12	150	74	249	433
13:30	16	25	0	0	41	0	0	0	0	0	0	111	51	0	162	12	18	136	75	241	444
13:45	17	18	0	0	35	0	0	0	0	0	0	97	19	0	116	14	17	101	72	204	355
Total	55	78	0	0	133	0	0	0	0	0	0	436	126	0	562	51	70	503	305	929	1624
14:00	9	17	0	0	26	0	0	0	0	0	0	100	45	0	145	7	10	129	79	225	396
14:15	14	17	0	0	31	0	0	0	0	0	0	99	38	0	137	12	24	104	70	210	378
14:30	18	19	0	0	37	0	0	0	0	0	0	99	40	0	139	6	12	95	58	171	347

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 4 - SH 71 EBFR & Spirit of Texas Dr

Site Code : 4

Start Date : 12/20/2019

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Groups Printed- Vehicles - Heavy Vehicles

Start Time	Spirit of Texas Dr Southbound					Westbound					Spirit of Texas Dr Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
14:45	9	17	0	0	26	0	0	0	0	0	0	99	40	0	139	16	23	89	51	179	344
Total	50	70	0	0	120	0	0	0	0	0	0	397	163	0	560	41	69	417	258	785	1465
15:00	15	25	0	0	40	0	0	0	0	0	0	110	35	0	145	8	10	85	56	159	344
15:15	14	11	0	0	25	0	0	0	0	0	0	125	36	0	161	23	5	88	55	171	357
15:30	16	14	0	0	30	0	0	0	0	0	0	79	45	0	124	17	5	83	46	151	305
15:45	12	16	0	0	28	0	0	0	0	0	0	75	47	0	122	21	4	71	58	154	304
Total	57	66	0	0	123	0	0	0	0	0	0	389	163	0	552	69	24	327	215	635	1310
16:00	13	16	0	0	29	0	0	0	0	0	0	102	42	0	144	8	11	86	46	151	324
16:15	11	22	0	0	33	0	0	0	0	0	0	74	41	0	115	10	16	101	58	185	333
16:30	13	13	0	0	26	0	0	0	0	0	0	93	43	0	136	6	19	110	59	194	356
16:45	6	18	0	0	24	0	0	0	0	0	0	100	42	0	142	7	18	112	62	199	365
Total	43	69	0	0	112	0	0	0	0	0	0	369	168	0	537	31	64	409	225	729	1378
17:00	8	16	0	0	24	0	0	0	0	0	0	89	34	0	123	8	10	90	44	152	299
17:15	10	21	0	0	31	0	0	0	0	0	0	99	23	0	122	10	10	76	60	156	309
17:30	11	11	0	0	22	0	0	0	0	0	0	111	28	0	139	4	19	100	73	196	357
17:45	9	28	0	0	37	0	0	0	0	0	0	69	30	0	99	3	18	74	64	159	295
Total	38	76	0	0	114	0	0	0	0	0	0	368	115	0	483	25	57	340	241	663	1260
18:00	10	23	0	0	33	0	0	0	0	0	0	89	28	0	117	7	14	108	59	188	338
18:15	11	16	0	0	27	0	0	0	0	0	0	80	28	0	108	3	9	95	65	172	307
18:30	10	21	0	0	31	0	0	0	0	0	0	82	34	0	116	4	20	91	76	191	338
18:45	9	16	0	0	25	0	0	0	0	0	0	60	22	0	82	4	14	90	67	175	282
Total	40	76	0	0	116	0	0	0	0	0	0	311	112	0	423	18	57	384	267	726	1265
19:00	7	14	0	0	21	0	0	0	0	0	0	60	26	0	86	6	4	72	44	126	233
19:15	8	13	0	0	21	0	0	0	0	0	0	65	33	0	98	12	4	104	41	161	280
19:30	12	13	0	0	25	0	0	0	0	0	0	88	32	0	120	10	4	71	57	142	287
19:45	10	13	0	0	23	0	0	0	0	0	0	87	27	0	114	8	2	69	52	131	268
Total	37	53	0	0	90	0	0	0	0	0	0	300	118	0	418	36	14	316	194	560	1068
Grand Total	475	1014	0	1	1490	0	0	0	0	0	0	4387	1517	2	5906	511	630	4958	3244	9343	16739
Apprch %	31.9	68.1	0	0.1		0	0	0	0	0	0	74.3	25.7	0		5.5	6.7	53.1	34.7		
Total %	2.8	6.1	0	0	8.9	0	0	0	0	0	0	26.2	9.1	0	35.3	3.1	3.8	29.6	19.4	55.8	
Vehicles	389	804	0	1	1194	0	0	0	0	0	0	3990	1364	2	5356	505	620	4758	2641	8524	15074
% Vehicles	81.9	79.3	0	100	80.1	0	0	0	0	0	0	91	89.9	100	90.7	98.8	98.4	96	81.4	91.2	90.1
Heavy Vehicles	86	210	0	0	296	0	0	0	0	0	0	397	153	0	550	6	10	200	603	819	1665
% Heavy Vehicles	18.1	20.7	0	0	19.9	0	0	0	0	0	0	9	10.1	0	9.3	1.2	1.6	4	18.6	8.8	9.9

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 4 - SH 71 EBFR & Spirit of Texas Dr
Site Code : 4
Start Date : 12/20/2019
Page No : 3

Start Time	Spirit of Texas Dr Southbound					Westbound					Spirit of Texas Dr Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:45																					
12:45	8	21	0	0	29	0	0	0	0	0	0	108	39	0	147	12	13	86	86	197	373
13:00	7	13	0	0	20	0	0	0	0	0	0	99	38	0	137	12	23	116	84	235	392
13:15	15	22	0	0	37	0	0	0	0	0	0	129	18	0	147	13	12	150	74	249	433
13:30	16	25	0	0	41	0	0	0	0	0	0	111	51	0	162	12	18	136	75	241	444
Total Volume	46	81	0	0	127	0	0	0	0	0	0	447	146	0	593	49	66	488	319	922	1642
% App. Total	36.2	63.8	0	0		0	0	0	0	0	0	75.4	24.6	0		5.3	7.2	52.9	34.6		
PHF	.719	.810	.000	.000	.774	.000	.000	.000	.000	.000	.000	.866	.716	.000	.915	.942	.717	.813	.927	.926	.925
Vehicles	40	66	0	0	106	0	0	0	0	0	0	418	136	0	554	46	66	478	256	846	1506
% Vehicles	87.0	81.5	0	0	83.5	0	0	0	0	0	0	93.5	93.2	0	93.4	93.9	100	98.0	80.3	91.8	91.7
Heavy Vehicles	6	15	0	0	21	0	0	0	0	0	0	29	10	0	39	3	0	10	63	76	136
% Heavy Vehicles	13.0	18.5	0	0	16.5	0	0	0	0	0	0	6.5	6.8	0	6.6	6.1	0	2.0	19.7	8.2	8.3

Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	13:15					06:00					12:45					13:00					
+0 mins.	15	22	0	0	37	0	0	0	0	0	0	108	39	0	147	12	23	116	84	235	
+15 mins.	16	25	0	0	41	0	0	0	0	0	0	99	38	0	137	13	12	150	74	249	
+30 mins.	17	18	0	0	35	0	0	0	0	0	0	129	18	0	147	12	18	136	75	241	
+45 mins.	9	17	0	0	26	0	0	0	0	0	0	111	51	0	162	14	17	101	72	204	
Total Volume	57	82	0	0	139	0	0	0	0	0	0	447	146	0	593	51	70	503	305	929	
% App. Total	41	59	0	0		0	0	0	0	0	0	75.4	24.6	0		5.5	7.5	54.1	32.8		
PHF	.838	.820	.000	.000	.848	.000	.000	.000	.000	.000	.000	.866	.716	.000	.915	.911	.761	.838	.908	.933	
Vehicles	52	64	0	0	116	0	0	0	0	0	0	418	136	0	554	48	70	490	244	852	
% Vehicles	91.	78	0	0	83.5	0	0	0	0	0	0	93.	93.	0	93.4	94.	100	97.	80	91.7	
	2											5	2			1		4			
Heavy Vehicles	5	18	0	0	23	0	0	0	0	0	0	29	10	0	39	3	0	13	61	77	
% Heavy Vehicles	8.8	22	0	0	16.5	0	0	0	0	0	0	6.5	6.8	0	6.6	5.9	0	2.6	20	8.3	

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 4 - SH 71 EBFR & Spirit of Texas Dr

Site Code : 4

Start Date : 12/20/2019

Page No : 4

Groups Printed- Vehicles

Start Time	Spirit of Texas Dr Southbound					Westbound					Spirit of Texas Dr Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
06:00	1	11	0	0	12	0	0	0	0	0	0	33	6	0	39	10	0	36	26	72	123
06:15	4	18	0	0	22	0	0	0	0	0	0	29	10	0	39	17	4	49	33	103	164
06:30	1	11	0	0	12	0	0	0	0	0	0	34	12	0	46	10	7	56	41	114	172
06:45	0	13	0	0	13	0	0	0	0	0	0	36	6	0	42	9	3	64	26	102	157
Total	6	53	0	0	59	0	0	0	0	0	0	132	34	0	166	46	14	205	126	391	616
07:00	0	15	0	1	16	0	0	0	0	0	0	38	13	0	51	8	10	53	39	110	177
07:15	3	12	0	0	15	0	0	0	0	0	0	43	12	0	55	4	5	51	35	95	165
07:30	3	9	0	0	12	0	0	0	0	0	0	36	11	0	47	4	4	46	32	86	145
07:45	1	20	0	0	21	0	0	0	0	0	0	20	16	0	36	7	11	61	33	112	169
Total	7	56	0	1	64	0	0	0	0	0	0	137	52	0	189	23	30	211	139	403	656
08:00	4	12	0	0	16	0	0	0	0	0	0	37	11	0	48	10	8	72	36	126	190
08:15	6	12	0	0	18	0	0	0	0	0	0	41	23	0	64	12	5	52	25	94	176
08:30	2	22	0	0	24	0	0	0	0	0	0	48	16	0	64	6	6	62	21	95	183
08:45	1	17	0	0	18	0	0	0	0	0	0	48	12	0	60	3	5	83	31	122	200
Total	13	63	0	0	76	0	0	0	0	0	0	174	62	0	236	31	24	269	113	437	749
09:00	2	9	0	0	11	0	0	0	0	0	0	34	11	0	45	12	7	59	25	103	159
09:15	4	12	0	0	16	0	0	0	0	0	0	50	17	0	67	8	9	68	39	124	207
09:30	3	18	0	0	21	0	0	0	0	0	0	40	14	0	54	6	5	78	24	113	188
09:45	1	17	0	0	18	0	0	0	0	0	0	44	8	0	52	10	12	81	39	142	212
Total	10	56	0	0	66	0	0	0	0	0	0	168	50	0	218	36	33	286	127	482	766
10:00	4	16	0	0	20	0	0	0	0	0	0	55	14	0	69	8	11	66	35	120	209
10:15	5	16	0	0	21	0	0	0	0	0	0	38	13	0	51	9	9	107	37	162	234
10:30	6	9	0	0	15	0	0	0	0	0	0	66	16	0	82	9	15	114	37	175	272
10:45	2	17	0	0	19	0	0	0	0	0	0	65	19	0	84	12	13	100	29	154	257
Total	17	58	0	0	75	0	0	0	0	0	0	224	62	0	286	38	48	387	138	611	972
11:00	6	16	0	0	22	0	0	0	0	0	0	68	13	2	83	9	15	74	36	134	239
11:15	4	21	0	0	25	0	0	0	0	0	0	90	15	0	105	8	14	96	42	160	290
11:30	11	13	0	0	24	0	0	0	0	0	0	94	31	0	125	11	16	116	37	180	329
11:45	6	24	0	0	30	0	0	0	0	0	0	115	22	0	137	7	16	123	41	187	354
Total	27	74	0	0	101	0	0	0	0	0	0	367	81	2	450	35	61	409	156	661	1212
12:00	10	10	0	0	20	0	0	0	0	0	0	96	32	0	128	9	11	109	78	207	355
12:15	6	11	0	0	17	0	0	0	0	0	0	96	27	0	123	6	21	92	64	183	323
12:30	3	16	0	0	19	0	0	0	0	0	0	87	23	0	110	2	13	103	57	175	304
12:45	8	17	0	0	25	0	0	0	0	0	0	102	35	0	137	12	13	85	73	183	345
Total	27	54	0	0	81	0	0	0	0	0	0	381	117	0	498	29	58	389	272	748	1327
13:00	3	10	0	0	13	0	0	0	0	0	0	91	35	0	126	11	23	114	64	212	351
13:15	13	20	0	0	33	0	0	0	0	0	0	123	17	0	140	11	12	147	65	235	408
13:30	16	19	0	0	35	0	0	0	0	0	0	102	49	0	151	12	18	132	54	216	402
13:45	16	11	0	0	27	0	0	0	0	0	0	91	17	0	108	14	17	97	61	189	324
Total	48	60	0	0	108	0	0	0	0	0	0	407	118	0	525	48	70	490	244	852	1485
14:00	7	14	0	0	21	0	0	0	0	0	0	95	43	0	138	7	10	125	65	207	366
14:15	13	14	0	0	27	0	0	0	0	0	0	92	35	0	127	12	23	101	61	197	351
14:30	16	17	0	0	33	0	0	0	0	0	0	92	37	0	129	6	11	92	52	161	323
14:45	7	15	0	0	22	0	0	0	0	0	0	93	36	0	129	16	23	86	44	169	320
Total	43	60	0	0	103	0	0	0	0	0	0	372	151	0	523	41	67	404	222	734	1360

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 4 - SH 71 EBFR & Spirit of Texas Dr
Site Code : 4
Start Date : 12/20/2019
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Groups Printed- Vehicles

Start Time	Spirit of Texas Dr Southbound					Westbound					Spirit of Texas Dr Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
15:00	14	19	0	0	33	0	0	0	0	0	0	106	33	0	139	8	10	82	51	151	323
15:15	12	9	0	0	21	0	0	0	0	0	0	120	34	0	154	22	5	87	52	166	341
15:30	15	11	0	0	26	0	0	0	0	0	0	74	42	0	116	17	5	82	42	146	288
15:45	12	11	0	0	23	0	0	0	0	0	0	73	46	0	119	21	4	70	54	149	291
Total	53	50	0	0	103	0	0	0	0	0	0	373	155	0	528	68	24	321	199	612	1243
16:00	9	12	0	0	21	0	0	0	0	0	0	99	40	0	139	8	11	80	44	143	303
16:15	10	18	0	0	28	0	0	0	0	0	0	67	37	0	104	10	16	98	50	174	306
16:30	10	12	0	0	22	0	0	0	0	0	0	87	42	0	129	6	19	104	59	188	339
16:45	5	15	0	0	20	0	0	0	0	0	0	96	38	0	134	7	18	109	58	192	346
Total	34	57	0	0	91	0	0	0	0	0	0	349	157	0	506	31	64	391	211	697	1294
17:00	8	11	0	0	19	0	0	0	0	0	0	84	31	0	115	8	10	87	44	149	283
17:15	9	18	0	0	27	0	0	0	0	0	0	90	21	0	111	10	10	75	58	153	291
17:30	9	9	0	0	18	0	0	0	0	0	0	106	25	0	131	4	18	96	71	189	338
17:45	8	25	0	0	33	0	0	0	0	0	0	64	27	0	91	3	18	70	63	154	278
Total	34	63	0	0	97	0	0	0	0	0	0	344	104	0	448	25	56	328	236	645	1190
18:00	8	19	0	0	27	0	0	0	0	0	0	83	27	0	110	7	14	103	59	183	320
18:15	9	14	0	0	23	0	0	0	0	0	0	75	28	0	103	3	9	92	64	168	294
18:30	10	15	0	0	25	0	0	0	0	0	0	75	33	0	108	4	20	85	76	185	318
18:45	8	10	0	0	18	0	0	0	0	0	0	53	22	0	75	4	14	89	65	172	265
Total	35	58	0	0	93	0	0	0	0	0	0	286	110	0	396	18	57	369	264	708	1197
19:00	7	11	0	0	18	0	0	0	0	0	0	52	24	0	76	6	4	68	44	122	216
19:15	7	10	0	0	17	0	0	0	0	0	0	58	32	0	90	12	4	97	41	154	261
19:30	11	11	0	0	22	0	0	0	0	0	0	84	30	0	114	10	4	70	57	141	277
19:45	10	10	0	0	20	0	0	0	0	0	0	82	25	0	107	8	2	64	52	126	253
Total	35	42	0	0	77	0	0	0	0	0	0	276	111	0	387	36	14	299	194	543	1007
Grand Total	389	804	0	1	1194	0	0	0	0	0	0	3990	1364	2	5356	505	620	4758	2641	8524	15074
Apprch %	32.6	67.3	0	0.1		0	0	0	0			74.5	25.5	0		5.9	7.3	55.8	31		
Total %	2.6	5.3	0	0	7.9	0	0	0	0	0	0	26.5	9	0	35.5	3.4	4.1	31.6	17.5	56.5	

Start Time	Spirit of Texas Dr Southbound					Westbound					Spirit of Texas Dr Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:45																					
12:45	8	17	0	0	25	0	0	0	0	0	0	102	35	0	137	12	13	85	73	183	345
13:00	3	10	0	0	13	0	0	0	0	0	0	91	35	0	126	11	23	114	64	212	351
13:15	13	20	0	0	33	0	0	0	0	0	0	123	17	0	140	11	12	147	65	235	408
13:30	16	19	0	0	35	0	0	0	0	0	0	102	49	0	151	12	18	132	54	216	402
Total Volume	40	66	0	0	106	0	0	0	0	0	0	418	136	0	554	46	66	478	256	846	1506
% App. Total	37.7	62.3	0	0		0	0	0	0			75.5	24.5	0		5.4	7.8	56.5	30.3		
PHF	.625	.825	.000	.000	.757	.000	.000	.000	.000	.000	.000	.850	.694	.000	.917	.958	.717	.813	.877	.900	.923

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 4 - SH 71 EBFR & Spirit of Texas Dr
Site Code : 4
Start Date : 12/20/2019
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Start Time	Spirit of Texas Dr Southbound					Westbound					Spirit of Texas Dr Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	

Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	13:15					06:00					12:45					13:00				
+0 mins.	13	20	0	0	33	0	0	0	0	0	0	102	35	0	137	11	23	114	64	212
+15 mins.	16	19	0	0	35	0	0	0	0	0	0	91	35	0	126	11	12	147	65	235
+30 mins.	16	11	0	0	27	0	0	0	0	0	0	123	17	0	140	12	18	132	54	216
+45 mins.	7	14	0	0	21	0	0	0	0	0	0	102	49	0	151	14	17	97	61	189
Total Volume	52	64	0	0	116	0	0	0	0	0	0	418	136	0	554	48	70	490	244	852
% App. Total	44.8	55.2	0	0		0	0	0	0		0	75.5	24.5	0		5.6	8.2	57.5	28.6	
PHF	.813	.800	.000	.000	.829	.000	.000	.000	.000	.000	.000	.850	.694	.000	.917	.857	.761	.833	.938	.906

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 4 - SH 71 EBFR & Spirit of Texas Dr

Site Code : 4

Start Date : 12/20/2019

Page No : 7

Groups Printed- Heavy Vehicles

Start Time	Spirit of Texas Dr Southbound					Westbound					Spirit of Texas Dr Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
06:00	1	3	0	0	4	0	0	0	0	0	0	5	3	0	8	0	1	2	14	17	29
06:15	2	4	0	0	6	0	0	0	0	0	0	9	4	0	13	0	0	4	9	13	32
06:30	4	4	0	0	8	0	0	0	0	0	0	9	4	0	13	0	0	6	12	18	39
06:45	1	3	0	0	4	0	0	0	0	0	0	11	1	0	12	0	0	1	7	8	24
Total	8	14	0	0	22	0	0	0	0	0	0	34	12	0	46	0	1	13	42	56	124
07:00	4	4	0	0	8	0	0	0	0	0	0	11	4	0	15	0	0	1	7	8	31
07:15	0	8	0	0	8	0	0	0	0	0	0	11	4	0	15	0	0	2	13	15	38
07:30	1	3	0	0	4	0	0	0	0	0	0	7	5	0	12	0	2	1	14	17	33
07:45	3	2	0	0	5	0	0	0	0	0	0	6	11	0	17	0	0	2	14	16	38
Total	8	17	0	0	25	0	0	0	0	0	0	35	24	0	59	0	2	6	48	56	140
08:00	1	3	0	0	4	0	0	0	0	0	0	8	4	0	12	0	0	2	9	11	27
08:15	2	3	0	0	5	0	0	0	0	0	0	6	2	0	8	0	0	2	9	11	24
08:30	2	7	0	0	9	0	0	0	0	0	0	10	3	0	13	0	0	5	29	34	56
08:45	3	3	0	0	6	0	0	0	0	0	0	8	3	0	11	0	1	8	16	25	42
Total	8	16	0	0	24	0	0	0	0	0	0	32	12	0	44	0	1	17	63	81	149
09:00	1	5	0	0	6	0	0	0	0	0	0	9	2	0	11	0	1	5	21	27	44
09:15	3	3	0	0	6	0	0	0	0	0	0	7	2	0	9	0	0	2	26	28	43
09:30	2	3	0	0	5	0	0	0	0	0	0	8	3	0	11	0	0	6	15	21	37
09:45	1	3	0	0	4	0	0	0	0	0	0	12	3	0	15	1	0	9	25	35	54
Total	7	14	0	0	21	0	0	0	0	0	0	36	10	0	46	1	1	22	87	111	178
10:00	2	3	0	0	5	0	0	0	0	0	0	8	1	0	9	0	0	6	24	30	44
10:15	2	6	0	0	8	0	0	0	0	0	0	12	1	0	13	0	0	5	13	18	39
10:30	0	7	0	0	7	0	0	0	0	0	0	8	6	0	14	1	0	3	16	20	41
10:45	1	4	0	0	5	0	0	0	0	0	0	7	4	0	11	0	1	1	19	21	37
Total	5	20	0	0	25	0	0	0	0	0	0	35	12	0	47	1	1	15	72	89	161
11:00	3	7	0	0	10	0	0	0	0	0	0	6	2	0	8	0	0	1	20	21	39
11:15	0	4	0	0	4	0	0	0	0	0	0	9	5	0	14	0	0	3	25	28	46
11:30	3	2	0	0	5	0	0	0	0	0	0	10	3	0	13	0	0	5	21	26	44
11:45	2	2	0	0	4	0	0	0	0	0	0	6	2	0	8	0	0	8	19	27	39
Total	8	15	0	0	23	0	0	0	0	0	0	31	12	0	43	0	0	17	85	102	168
12:00	0	4	0	0	4	0	0	0	0	0	0	6	3	0	9	0	0	5	26	31	44
12:15	2	6	0	0	8	0	0	0	0	0	0	7	3	0	10	0	1	4	22	27	45
12:30	2	2	0	0	4	0	0	0	0	0	0	12	2	0	14	0	0	6	10	16	34
12:45	0	4	0	0	4	0	0	0	0	0	0	6	4	0	10	0	0	1	13	14	28
Total	4	16	0	0	20	0	0	0	0	0	0	31	12	0	43	0	1	16	71	88	151
13:00	4	3	0	0	7	0	0	0	0	0	0	8	3	0	11	1	0	2	20	23	41
13:15	2	2	0	0	4	0	0	0	0	0	0	6	1	0	7	2	0	3	9	14	25
13:30	0	6	0	0	6	0	0	0	0	0	0	9	2	0	11	0	0	4	21	25	42
13:45	1	7	0	0	8	0	0	0	0	0	0	6	2	0	8	0	0	4	11	15	31
Total	7	18	0	0	25	0	0	0	0	0	0	29	8	0	37	3	0	13	61	77	139
14:00	2	3	0	0	5	0	0	0	0	0	0	5	2	0	7	0	0	4	14	18	30
14:15	1	3	0	0	4	0	0	0	0	0	0	7	3	0	10	0	1	3	9	13	27
14:30	2	2	0	0	4	0	0	0	0	0	0	7	3	0	10	0	1	3	6	10	24
14:45	2	2	0	0	4	0	0	0	0	0	0	6	4	0	10	0	0	3	7	10	24
Total	7	10	0	0	17	0	0	0	0	0	0	25	12	0	37	0	2	13	36	51	105

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 4 - SH 71 EBFR & Spirit of Texas Dr
Site Code : 4
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Groups Printed- Heavy Vehicles

Start Time	Spirit of Texas Dr Southbound					Westbound					Spirit of Texas Dr Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
15:00	1	6	0	0	7	0	0	0	0	0	0	4	2	0	6	0	0	3	5	8	21
15:15	2	2	0	0	4	0	0	0	0	0	0	5	2	0	7	1	0	1	3	5	16
15:30	1	3	0	0	4	0	0	0	0	0	0	5	3	0	8	0	0	1	4	5	17
15:45	0	5	0	0	5	0	0	0	0	0	0	2	1	0	3	0	0	1	4	5	13
Total	4	16	0	0	20	0	0	0	0	0	0	16	8	0	24	1	0	6	16	23	67
16:00	4	4	0	0	8	0	0	0	0	0	0	3	2	0	5	0	0	6	2	8	21
16:15	1	4	0	0	5	0	0	0	0	0	0	7	4	0	11	0	0	3	8	11	27
16:30	3	1	0	0	4	0	0	0	0	0	0	6	1	0	7	0	0	6	0	6	17
16:45	1	3	0	0	4	0	0	0	0	0	0	4	4	0	8	0	0	3	4	7	19
Total	9	12	0	0	21	0	0	0	0	0	0	20	11	0	31	0	0	18	14	32	84
17:00	0	5	0	0	5	0	0	0	0	0	0	5	3	0	8	0	0	3	0	3	16
17:15	1	3	0	0	4	0	0	0	0	0	0	9	2	0	11	0	0	1	2	3	18
17:30	2	2	0	0	4	0	0	0	0	0	0	5	3	0	8	0	1	4	2	7	19
17:45	1	3	0	0	4	0	0	0	0	0	0	5	3	0	8	0	0	4	1	5	17
Total	4	13	0	0	17	0	0	0	0	0	0	24	11	0	35	0	1	12	5	18	70
18:00	2	4	0	0	6	0	0	0	0	0	0	6	1	0	7	0	0	5	0	5	18
18:15	2	2	0	0	4	0	0	0	0	0	0	5	0	0	5	0	0	3	1	4	13
18:30	0	6	0	0	6	0	0	0	0	0	0	7	1	0	8	0	0	6	0	6	20
18:45	1	6	0	0	7	0	0	0	0	0	0	7	0	0	7	0	0	1	2	3	17
Total	5	18	0	0	23	0	0	0	0	0	0	25	2	0	27	0	0	15	3	18	68
19:00	0	3	0	0	3	0	0	0	0	0	0	8	2	0	10	0	0	4	0	4	17
19:15	1	3	0	0	4	0	0	0	0	0	0	7	1	0	8	0	0	7	0	7	19
19:30	1	2	0	0	3	0	0	0	0	0	0	4	2	0	6	0	0	1	0	1	10
19:45	0	3	0	0	3	0	0	0	0	0	0	5	2	0	7	0	0	5	0	5	15
Total	2	11	0	0	13	0	0	0	0	0	0	24	7	0	31	0	0	17	0	17	61
Grand Total	86	210	0	0	296	0	0	0	0	0	0	397	153	0	550	6	10	200	603	819	1665
Apprch %	29.1	70.9	0	0		0	0	0	0	0	0	72.2	27.8	0		0.7	1.2	24.4	73.6		
Total %	5.2	12.6	0	0	17.8	0	0	0	0	0	0	23.8	9.2	0	33	0.4	0.6	12	36.2	49.2	

Start Time	Spirit of Texas Dr Southbound					Westbound					Spirit of Texas Dr Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:30																					
08:30	2	7	0	0	9	0	0	0	0	0	0	10	3	0	13	0	0	5	29	34	56
08:45	3	3	0	0	6	0	0	0	0	0	0	8	3	0	11	0	1	8	16	25	42
09:00	1	5	0	0	6	0	0	0	0	0	0	9	2	0	11	0	1	5	21	27	44
09:15	3	3	0	0	6	0	0	0	0	0	0	7	2	0	9	0	0	2	26	28	43
Total Volume	9	18	0	0	27	0	0	0	0	0	0	34	10	0	44	0	2	20	92	114	185
% App. Total	33.3	66.7	0	0		0	0	0	0	0	0	77.3	22.7	0		0	1.8	17.5	80.7		
PHF	.750	.643	.000	.000	.750	.000	.000	.000	.000	.000	.000	.850	.833	.000	.846	.000	.500	.625	.793	.838	.826

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 4 - SH 71 EBFR & Spirit of Texas Dr
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Start Time	Spirit of Texas Dr Southbound					Westbound					Spirit of Texas Dr Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	

Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	10:15					06:00					07:00					08:30				
+0 mins.	2	6	0	0	8	0	0	0	0	0	0	11	4	0	15	0	0	5	29	34
+15 mins.	0	7	0	0	7	0	0	0	0	0	0	11	4	0	15	0	1	8	16	25
+30 mins.	1	4	0	0	5	0	0	0	0	0	0	7	5	0	12	0	1	5	21	27
+45 mins.	3	7	0	0	10	0	0	0	0	0	0	6	11	0	17	0	0	2	26	28
Total Volume	6	24	0	0	30	0	0	0	0	0	0	35	24	0	59	0	2	20	92	114
% App. Total	20	80	0	0		0	0	0	0		0	59.3	40.7	0		0	1.8	17.5	80.7	
PHF	.500	.857	.000	.000	.750	.000	.000	.000	.000	.000	.000	.795	.545	.000	.868	.000	.500	.625	.793	.838

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 4 - SH 71 EBFR & Spirit of Texas Dr
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Groups Printed- Pedestrians

Start Time	Spirit of Texas Dr Southbound					Westbound					Spirit of Texas Dr Northbound					SH 71 Eastbound					Int. Total	
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total		
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
13:15	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
Georgetown, TX 78626
512-832-8650

File Name : Site 4 - SH 71 EBFR & Spirit of Texas Dr
Site Code : 4
Start Date : 12/20/2019
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Groups Printed- Pedestrians

Start Time	Spirit of Texas Dr Southbound					Westbound					Spirit of Texas Dr Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	3	1	0	0	4	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	6
Apprch %	75	25	0	0		0	0	0	0		0	100	0	0		0	100	0	0		
Total %	50	16.7	0	0	66.7	0	0	0	0		0	16.7	0	0	16.7	0	16.7	0	0	16.7	

Start Time	Spirit of Texas Dr Southbound					Westbound					Spirit of Texas Dr Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	
Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 10:45																					
10:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
% App. Total	100	0	0	0		0	0	0	0		0	100	0	0		0	0	0	0		
PHF	.250	.000	.000	.000	.250	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.500

GRAM Traffic Counting, inc.

3751 FM 1105, Bldg. A
 Georgetown, TX 78626
 512-832-8650

File Name : Site 4 - SH 71 EBFR & Spirit of Texas Dr
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 Page No : 12

Start Time	Spirit of Texas Dr Southbound					Westbound					Spirit of Texas Dr Northbound					SH 71 Eastbound					Int. Total
	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	Left	Thru	Right	U-TURN	App. Total	

Peak Hour Analysis From 06:00 to 19:45 - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	12:30					06:00					10:00					08:45									
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1
Total Volume	2	0	0	0	2	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1
% App. Total	100	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	100	0	0	0	0	100	0	0	0
PHF	.500	.000	.000	.000	.500	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.250	.000	.000	.250	.000	.250	.000	.000	.250

GRAM Traffic Counting Inc.

3751 FM 1105
Georgetown, Tx 78626
512-832-8650

Site Code: 8
Station ID:
SH 71 WBFR
West of Spirit of Texas Dr Entrance Ramp
Latitude: 0' 0.0000 Undefined

Start Time	20-Dec-19 Fri	Westbound		Hour Totals	
		Morning	Afternoon	Morning	Afternoon
12:00		138	422		
12:15		172	434		
12:30		214	326		
12:45		152	430	676	1612
01:00		132	412		
01:15		94	430		
01:30		84	454		
01:45		80	486	390	1782
02:00		68	426		
02:15		74	382		
02:30		76	360		
02:45		64	348	282	1516
03:00		62	418		
03:15		32	444		
03:30		32	308		
03:45		38	332	164	1502
04:00		48	316		
04:15		50	324		
04:30		38	332		
04:45		52	340	188	1312
05:00		84	310		
05:15		80	344		
05:30		106	378		
05:45		110	294	380	1326
06:00		152	302		
06:15		148	334		
06:30		172	310		
06:45		160	304	632	1250
07:00		204	228		
07:15		192	232		
07:30		196	298		
07:45		160	304	752	1062
08:00		168	252		
08:15		184	250		
08:30		212	224		
08:45		204	208	768	934
09:00		184	234		
09:15		246	248		
09:30		194	224		
09:45		238	242	862	948
10:00		266	222		
10:15		212	182		
10:30		252	174		
10:45		274	230	1004	808
11:00		260	180		
11:15		336	136		
11:30		304	196		
11:45		420	148	1320	660
Total		7418	14712		
Percent		33.5%	66.5%		
Grand Total		7418	14712		
Percent		33.5%	66.5%		
ADT		ADT 22,130		AAADT 22,130	

GRAM Traffic Counting Inc.

3751 FM 1105
Georgetown, Tx 78626
512-832-8650

Site Code: 1
Station ID: 1919
SH 71 EBFR Entrance Ramp
Cardinal Loop / Presidential Blvd
Latitude: 30° 12.6663 North

Start Time	20-Dec-19 Fri	Eastbound		Hour Totals	
		Morning	Afternoon	Morning	Afternoon
12:00		65	164		
12:15		80	157		
12:30		57	147		
12:45		55	195	257	663
01:00		36	210		
01:15		26	225		
01:30		31	191		
01:45		50	192	143	818
02:00		30	175		
02:15		29	210		
02:30		21	210		
02:45		15	248	95	843
03:00		15	207		
03:15		15	250		
03:30		24	199		
03:45		27	222	81	878
04:00		38	202		
04:15		35	251		
04:30		44	213		
04:45		40	182	157	848
05:00		43	199		
05:15		43	242		
05:30		41	187		
05:45		56	161	183	789
06:00		45	139		
06:15		66	161		
06:30		52	174		
06:45		59	152	222	626
07:00		67	144		
07:15		68	120		
07:30		58	150		
07:45		67	113	260	527
08:00		64	112		
08:15		81	81		
08:30		77	60		
08:45		86	73	308	326
09:00		74	86		
09:15		68	85		
09:30		64	111		
09:45		96	121	302	403
10:00		74	79		
10:15		95	58		
10:30		106	65		
10:45		102	93	377	295
11:00		87	93		
11:15		115	70		
11:30		142	54		
11:45		137	57	481	274
Total		2866	7290		
Percent		28.2%	71.8%		
Grand Total		2866	7290		
Percent		28.2%	71.8%		
ADT		ADT 10,156		AAADT 10,156	

GRAM Traffic Counting Inc.

3751 FM 1105
Georgetown, Tx 78626
512-832-8650

Site Code: 2
Station ID: 1917
SH71 WBFR Exit Ramp
Cardinal Loop / Presidential Blvd
Latitude: 30° 12.7185 North

Start Time	20-Dec-19 Fri	Westbound		Hour Totals	
		Morning	Afternoon	Morning	Afternoon
12:00		43	155		
12:15		27	189		
12:30		29	167		
12:45		29	160	128	671
01:00		23	168		
01:15		13	131		
01:30		24	238		
01:45		24	243	84	780
02:00		17	255		
02:15		20	215		
02:30		37	203		
02:45		27	204	101	877
03:00		37	195		
03:15		34	217		
03:30		56	247		
03:45		97	219	224	878
04:00		61	201		
04:15		68	173		
04:30		71	137		
04:45		92	185	292	696
05:00		84	190		
05:15		88	196		
05:30		94	198		
05:45		77	166	343	750
06:00		77	153		
06:15		84	156		
06:30		119	142		
06:45		95	155	375	606
07:00		153	116		
07:15		117	84		
07:30		112	101		
07:45		112	88	494	389
08:00		124	63		
08:15		127	74		
08:30		119	68		
08:45		123	84	493	289
09:00		111	72		
09:15		102	71		
09:30		117	72		
09:45		124	65	454	280
10:00		106	39		
10:15		116	61		
10:30		143	58		
10:45		147	45	512	203
11:00		146	44		
11:15		139	60		
11:30		155	62		
11:45		153	60	593	226
Total		4093	6645		
Percent		38.1%	61.9%		
Grand Total		4093	6645		
Percent		38.1%	61.9%		
ADT		ADT 10,738		AAADT 10,738	

GRAM Traffic Counting Inc.

3751 FM 1105
Georgetown, Tx 78626
512-832-8650

Site Code: 3
Station ID: 1901
SH 71 EBFR Exit Ramp
Cardinal Loop / Presidential Blvd
Latitude: 30° 12.8549 North

Start Time	20-Dec-19 Fri	Eastbound		Hour Totals	
		Morning	Afternoon	Morning	Afternoon
12:00		70	279		
12:15		85	281		
12:30		44	250		
12:45		51	238	250	1048
01:00		36	228		
01:15		42	253		
01:30		49	239		
01:45		33	290	160	1010
02:00		20	282		
02:15		37	323		
02:30		30	323		
02:45		34	303	121	1231
03:00		42	264		
03:15		73	274		
03:30		135	296		
03:45		213	316	463	1150
04:00		204	297		
04:15		319	261		
04:30		364	278		
04:45		365	295	1252	1131
05:00		327	278		
05:15		295	283		
05:30		271	231		
05:45		259	250	1152	1042
06:00		243	241		
06:15		212	203		
06:30		210	189		
06:45		170	166	835	799
07:00		163	162		
07:15		131	133		
07:30		130	127		
07:45		131	109	555	531
08:00		158	124		
08:15		154	109		
08:30		191	141		
08:45		181	125	684	499
09:00		181	101		
09:15		182	91		
09:30		188	92		
09:45		229	87	780	371
10:00		241	83		
10:15		243	100		
10:30		255	89		
10:45		298	84	1037	356
11:00		331	90		
11:15		323	117		
11:30		326	121		
11:45		279	113	1259	441
Total		8548	9609		
Percent		47.1%	52.9%		
Grand Total		8548	9609		
Percent		47.1%	52.9%		
ADT		ADT 18,157		AAAT 18,157	

GRAM Traffic Counting Inc.

3751 FM 1105
Georgetown, Tx 78626
512-832-8650

Site Code: 4
Station ID: 1909
SH 71 WBFR Entrance Ramp
Cardinal Loop / Presidential Blvd
Latitude: 30° 12.8835 North

Start Time	20-Dec-19 Fri	Westbound		Hour Totals	
		Morning	Afternoon	Morning	Afternoon
12:00		233	300		
12:15		301	279		
12:30		281	268		
12:45		138	280	953	1127
01:00		98	325		
01:15		39	275		
01:30		87	255		
01:45		185	233	409	1088
02:00		88	247		
02:15		81	229		
02:30		73	242		
02:45		55	267	297	985
03:00		34	262		
03:15		40	263		
03:30		56	245		
03:45		111	263	241	1033
04:00		118	256		
04:15		163	295		
04:30		209	284		
04:45		251	296	741	1131
05:00		256	283		
05:15		239	329		
05:30		255	269		
05:45		202	301	952	1182
06:00		186	220		
06:15		209	319		
06:30		170	293		
06:45		163	309	728	1141
07:00		156	166		
07:15		136	209		
07:30		102	190		
07:45		95	212	489	777
08:00		123	222		
08:15		155	181		
08:30		143	115		
08:45		193	172	614	690
09:00		151	194		
09:15		152	194		
09:30		161	222		
09:45		141	284	605	894
10:00		211	142		
10:15		237	84		
10:30		239	151		
10:45		258	207	945	584
11:00		243	199		
11:15		300	167		
11:30		263	134		
11:45		319	198	1125	698
Total		8099	11330		
Percent		41.7%	58.3%		
Grand Total		8099	11330		
Percent		41.7%	58.3%		
ADT		ADT 19,429		AAAT 19,429	

GRAM Traffic Counting Inc.

3751 FM 1105
Georgetown, Tx 78626
512-832-8650

Site Code: 5
Station ID: 1903
SH 71 EBFR Exit Ramp
Spirit of Texas Dr
Latitude: 30° 13.0240 North

Start Time	20-Dec-19 Fri	Eastbound		Hour Totals	
		Morning	Afternoon	Morning	Afternoon
12:00		94	276		
12:15		88	216		
12:30		103	217		
12:45		72	221	357	930
01:00		88	247		
01:15		69	263		
01:30		46	259		
01:45		63	204	266	973
02:00		31	245		
02:15		45	225		
02:30		103	175		
02:45		75	192	254	837
03:00		68	155		
03:15		90	177		
03:30		101	159		
03:45		96	154	355	645
04:00		75	157		
04:15		112	188		
04:30		112	198		
04:45		106	199	405	742
05:00		82	157		
05:15		92	168		
05:30		107	192		
05:45		114	169	395	686
06:00		101	189		
06:15		127	190		
06:30		142	198		
06:45		123	164	493	741
07:00		131	132		
07:15		118	165		
07:30		117	138		
07:45		151	140	517	575
08:00		149	124		
08:15		111	131		
08:30		167	149		
08:45		175	178	602	582
09:00		146	140		
09:15		178	131		
09:30		166	129		
09:45		200	116	690	516
10:00		166	125		
10:15		206	126		
10:30		217	141		
10:45		194	124	783	516
11:00		180	99		
11:15		202	114		
11:30		231	148		
11:45		237	138	850	499
Total		5967	8242		
Percent		42.0%	58.0%		
Grand Total		5967	8242		
Percent		42.0%	58.0%		
ADT		ADT 14,209		AAADT 14,209	

GRAM Traffic Counting Inc.

3751 FM 1105
Georgetown, Tx 78626
512-832-8650

Site Code: 6
Station ID: 1916
SH 71 WBFR Entrance Ramp
Spirit of Texas Dr
Latitude: 30° 13.0054 North

Start Time	20-Dec-19 Fri	Westbound		Hour Totals	
		Morning	Afternoon	Morning	Afternoon
12:00		79	249		
12:15		92	222		
12:30		110	192		
12:45		74	229	355	892
01:00		71	219		
01:15		41	248		
01:30		41	255		
01:45		45	257	198	979
02:00		45	226		
02:15		35	206		
02:30		39	203		
02:45		34	190	153	825
03:00		38	213		
03:15		18	235		
03:30		18	156		
03:45		29	175	103	779
04:00		24	168		
04:15		25	162		
04:30		22	171		
04:45		41	173	112	674
05:00		46	148		
05:15		46	176		
05:30		57	202		
05:45		66	143	215	669
06:00		87	155		
06:15		87	167		
06:30		105	165		
06:45		93	141	372	628
07:00		120	114		
07:15		117	120		
07:30		105	162		
07:45		94	142	436	538
08:00		102	135		
08:15		97	125		
08:30		142	106		
08:45		126	105	467	471
09:00		113	115		
09:15		162	127		
09:30		97	113		
09:45		152	121	524	476
10:00		155	110		
10:15		121	97		
10:30		160	112		
10:45		154	108	590	427
11:00		156	97		
11:15		191	59		
11:30		188	106		
11:45		214	72	749	334
Total		4274	7692		
Percent		35.7%	64.3%		
Grand Total		4274	7692		
Percent		35.7%	64.3%		
ADT		ADT 11,966		AAAT 11,966	

























GRAM Traffic Counting Inc.

3751 FM 1105
Georgetown, Tx 78626
512-832-8650

Site Code: 7
Station ID:
SH 71 EBFR
West of Spirit of Texas Dr Exit Ramp
Latitude: 0' 0.0000 Undefined

Start Time	20-Dec-19 Fri	Eastbound		Hour Totals	
		Morning	Afternoon	Morning	Afternoon
12:00		186	482		
12:15		168	410		
12:30		210	384		
12:45		136	400	700	1676
01:00		164	484		
01:15		138	488		
01:30		88	484		
01:45		108	400	498	1856
02:00		60	452		
02:15		82	422		
02:30		200	344		
02:45		130	358	472	1576
03:00		140	316		
03:15		162	344		
03:30		188	302		
03:45		192	314	682	1276
04:00		152	300		
04:15		214	372		
04:30		208	384		
04:45		196	394	770	1450
05:00		154	304		
05:15		162	316		
05:30		218	392		
05:45		228	328	762	1340
06:00		168	376		
06:15		226	352		
06:30		256	380		
06:45		228	344	878	1452
07:00		236	252		
07:15		226	324		
07:30		202	282		
07:45		256	258	920	1116
08:00		278	260		
08:15		214	254		
08:30		264	306		
08:45		290	348	1046	1168
09:00		266	290		
09:15		308	250		
09:30		274	244		
09:45		344	244	1192	1028
10:00		300	234		
10:15		364	254		
10:30		392	266		
10:45		348	246	1404	1000
11:00		316	194		
11:15		376	236		
11:30		410	280		
11:45		422	262	1524	972
Total		10848	15910		
Percent		40.5%	59.5%		
Grand Total		10848	15910		
Percent		40.5%	59.5%		
ADT		ADT 26,758		AADT 26,758	

Diamond Interchange Capacity Utilization
1: Presidential Blvd & EB Hwy 71 Service Rd

													
Movement	EBL	EBT	EBR	NBT	NBR	SBL	SBT	WBL	WBT	WBR	NBL	NBT	
Node	0	0	0	0	0	0	0	0	0	0	0	0	
Lane Configurations													
Volume (vph)	91	159	1282	1273	345	39	490	437	145	25	1253	111	
Pedestrians													
Ped Button													
Pedestrian Timing (s)													
Free Right	Yes			No						No			
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Space						3.2	6.4				3.2	3.2	
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Green (s)	8.0	8.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	15.0	15.0	
Refr Cycle Length (s)													
Travel Time (s)	3.6	120		120	120	120	120	120	120	120	120	120	
Volume Combined (vph)	91	586	855	1273	345	39	490	0	607	0	0	1364	
Lane Utilization Factor	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	
Turning Factor (vph)	0.95	0.89	0.85	1.00	0.85	0.95	1.00	0.95	0.96	0.85	0.95	0.95	
Saturated Flow (vph)	1805	1692	1615	3618	1615	1805	3618	0	3641	0	0	3625	
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Pedestrian Frequency (%)	0.00		0.00				0.00			0.00			
Reference Time (s)	6.0	41.6	63.5	42.2	25.6	2.6	16.3	0.0	20.0	0.0	0.0	45.1	
Adj Reference Time (s)	12.0	45.6	67.5	46.2	29.6	8.0	20.3	0.0	24.0	0.0	0.0	49.1	
Volume per cycle, 90th	5.3						2.8	21.5	19.5				50.0
Volume to Storage	1.6						0.9	3.4	3.0				15.6
Isolated Timings (s)	99.8							73.2					
Timing Options													
Leading Option (s)	117.3												
Lagging Option (s)	NA												
Lead-Lag Option (s)	NA												
Intersection Capacity Utilization													
			97.8%	ICU Level of Service					F				

Reference Times and Phasing Options do not represent an optimized timing plan.





















Diamond Interchange Capacity Utilization
 1: Presidential Blvd & EB Hwy 71 Service Rd



Movement	SBT	SBR		
Node	0	0		
Lane Configurations	↑↑			
Volume (vph)	92	43		
Pedestrians				
Ped Button				
Pedestrian Timing (s)				
Free Right		No		
Ideal Flow	1900	1900		
Storage Space				
Lost Time (s)	4.0	4.0		
Minimum Green (s)	4.0	4.0		
Refr Cycle Length (s)				
Travel Time (s)	120	120	120	120
Volume Combined (vph)	135	0		
Lane Utilization Factor	0.95	1.00		
Turning Factor (vph)	0.95	0.85		
Saturated Flow (vph)	3445	0		
Ped Intf Time (s)	0.0	0.0		
Pedestrian Frequency (%)	0.00			
Reference Time (s)	4.7	0.0		
Adj Reference Time (s)	8.7	0.0		
Volume per cycle, 90th				
Volume to Storage				
Isolated Timings (s)				
Timing Options				

HCM Signalized Intersection Capacity Analysis

1: Presidential Blvd & EB Hwy 71 Service Rd






















													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	91	159	1282	0	0	0	0	1273	345	39	490	0	
Future Volume (vph)	91	159	1282	0	0	0	0	1273	345	39	490	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0		
Lane Util. Factor	1.00	0.95	0.95					0.95	1.00	1.00	0.95		
Frt	1.00	0.88	0.85					1.00	0.85	1.00	1.00		
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (prot)	1805	1560	1519					3610	1553	1805	3539		
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (perm)	1805	1560	1519					3610	1553	1805	3539		
Peak-hour factor, PHF	0.90	0.90	0.88	0.92	0.92	0.92	0.92	0.89	0.83	0.80	0.90	0.92	
Adj. Flow (vph)	101	177	1457	0	0	0	0	1430	416	49	544	0	
RTOR Reduction (vph)	0	78	0	0	0	0	0	0	124	0	0	0	
Lane Group Flow (vph)	101	755	801	0	0	0	0	1430	292	49	544	0	
Heavy Vehicles (%)	0%	6%	1%	2%	2%	2%	2%	0%	4%	0%	2%	2%	
Turn Type	Split	NA	Free					NA	Perm	Prot	NA		
Protected Phases	4 5	4 5						1 2		6 7	1 2 6 7		
Permitted Phases			Free						1 2				
Actuated Green, G (s)	31.0	31.0	174.0					77.0	77.0	50.0	132.0		
Effective Green, g (s)	32.0	32.0	174.0					79.0	79.0	51.0	128.0		
Actuated g/C Ratio	0.18	0.18	1.00					0.45	0.45	0.29	0.74		
Clearance Time (s)													
Vehicle Extension (s)													
Lane Grp Cap (vph)	331	286	1519					1639	705	529	2603		
v/s Ratio Prot	0.06	c0.48						c0.40		0.03	0.15		
v/s Ratio Perm			c0.53						0.19				
v/c Ratio	0.31	2.64	0.53					0.87	0.41	0.09	0.21		
Uniform Delay, d1	61.4	71.0	0.0					42.9	31.9	44.7	7.2		
Progression Factor	1.00	1.00	1.00					1.00	1.00	0.53	0.09		
Incremental Delay, d2	0.5	748.7	1.3					5.4	0.4	0.0	0.0		
Delay (s)	61.9	819.7	1.3					48.4	32.3	23.6	0.6		
Level of Service	E	F	A					D	C	C	A		
Approach Delay (s)		397.7			0.0			44.8			2.5		
Approach LOS		F			A			D			A		
Intersection Summary													
HCM 2000 Control Delay			185.5									HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio			1.21										
Actuated Cycle Length (s)			174.0									Sum of lost time (s)	24.0
Intersection Capacity Utilization			97.8%									ICU Level of Service	F
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
 2: Presidential Blvd/Cardinal Loop & WB Hwy 71 Service Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↔		↖	↗			↕	↗
Traffic Volume (vph)	0	0	0	437	145	25	1253	111	0	0	92	43
Future Volume (vph)	0	0	0	437	145	25	1253	111	0	0	92	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor				0.95	0.95		0.95	0.95			0.95	
Frt				1.00	0.99		1.00	1.00			0.95	
Flt Protected				0.95	0.98		0.95	0.96			1.00	
Satd. Flow (prot)				1681	1636		1715	1734			3421	
Flt Permitted				0.95	0.98		0.95	0.96			1.00	
Satd. Flow (perm)				1681	1636		1715	1734			3421	
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.80	0.72	0.85	0.73	0.92	0.92	0.87	0.75
Adj. Flow (vph)	0	0	0	520	181	35	1474	152	0	0	106	57
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	40	0
Lane Group Flow (vph)	0	0	0	364	370	0	811	815	0	0	123	0
Heavy Vehicles (%)	2%	2%	2%	2%	11%	4%	0%	0%	2%	2%	0%	0%
Turn Type				Split	NA		Split	NA			NA	
Protected Phases				1 7	1 7		2 4	2 4			5 6	
Permitted Phases												
Actuated Green, G (s)				39.0	39.0		100.0	100.0			19.0	
Effective Green, g (s)				38.0	38.0		101.0	101.0			21.0	
Actuated g/C Ratio				0.22	0.22		0.58	0.58			0.12	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				367	357		995	1006			412	
v/s Ratio Prot				0.22	c0.23		c0.47	0.47			c0.04	
v/s Ratio Perm												
v/c Ratio				0.99	1.04		0.82	0.81			0.30	
Uniform Delay, d1				67.8	68.0		29.1	28.9			69.8	
Progression Factor				1.00	1.00		0.30	0.29			1.00	
Incremental Delay, d2				44.6	57.1		3.1	3.0			0.4	
Delay (s)				112.5	125.1		11.8	11.5			70.2	
Level of Service				F	F		B	B			E	
Approach Delay (s)		0.0			118.8			11.6			70.2	
Approach LOS		A			F			B			E	
Intersection Summary												
HCM 2000 Control Delay			46.7									D
HCM 2000 Volume to Capacity ratio			0.84									
Actuated Cycle Length (s)			174.0						22.0			
Intersection Capacity Utilization			97.8%									F
Analysis Period (min)			15									
c Critical Lane Group												

Diamond Interchange Capacity Utilization
3: Spirit of Texas Dr & EB Hwy 71 Service Rd

												
Movement	EBL	EBT	EBR	NBT	NBR	SBL	SBT	WBL	WBT	WBR	NBL	NBT
Node	0	0	0	0	0	0	0	0	0	0	0	0
Lane Configurations												
Volume (vph)	37	71	499	479	133	47	82	100	43	21	467	49
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No					
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Space						5.4	5.4				5.4	5.4
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)												
Travel Time (s)	4.9		120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	108	499	612	0	47	82	100	64	0	467	49
Lane Utilization Factor	1.00	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.97	0.85	0.95	1.00	0.95	0.95	0.85	0.95	1.00
Saturated Flow (vph)	0	3556	1615	3500	0	1805	1900	1805	1806	0	1805	1900
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00		0.00			0.00		0.00			0.00
Reference Time (s)	0.0	3.6	37.1	21.0	0.0	3.1	5.2	6.6	4.3	0.0	31.0	3.1
Adj Reference Time (s)	0.0	8.0	41.1	25.0	0.0	8.0	9.2	10.6	8.3	0.0	35.0	8.0
Volume per cycle, 90th	2.7					3.2	4.8	5.7			20.6	3.3
Volume to Storage	0.5					0.6	0.9	1.1			3.8	0.6
Isolated Timings (s)	50.3							53.7				
Leading Option (s)												
		74.9										
Lagging Option (s)												
	NA											
Lead-Lag Option (s)												
	NA											
Interchange Summary												
Intersection Capacity Utilization	62.4%			ICU Level of Service			B					




















Reference Times and Phasing Options do not represent an optimized timing plan.

Diamond Interchange Capacity Utilization
 3: Spirit of Texas Dr & EB Hwy 71 Service Rd





















Movement	SBT	SBR		
Node	0	0		
Lane Configurations	↑	↑		
Volume (vph)	29	30		
Pedestrians				
Ped Button				
Pedestrian Timing (s)				
Free Right		No		
Ideal Flow	1900	1900		
Storage Space				
Lost Time (s)	4.0	4.0		
Minimum Green (s)	4.0	4.0		
Refr Cycle Length (s)				
Travel Time (s)	120	120	120	120
Volume Combined (vph)	29	30		
Lane Utilization Factor	1.00	1.00		
Turning Factor (vph)	1.00	0.85		
Saturated Flow (vph)	1900	1615		
Ped Intf Time (s)	0.0	0.0		
Pedestrian Frequency (%)	0.00			
Reference Time (s)	1.8	2.2		
Adj Reference Time (s)	8.0	8.0		
Volume per cycle, 90th				
Volume to Storage				
Isolated Timings (s)				
Timing Options				

HCM Unsignalized Intersection Capacity Analysis
 3: Spirit of Texas Dr & EB Hwy 71 Service Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 						 				
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	37	71	499	0	0	0	0	479	133	47	82	0
Future Volume (vph)	37	71	499	0	0	0	0	479	133	47	82	0
Peak Hour Factor	0.75	0.74	0.88	0.92	0.92	0.92	0.92	0.89	0.88	0.71	0.69	0.92
Hourly flow rate (vph)	49	96	567	0	0	0	0	538	151	66	119	0
Direction, Lane #	EB 1	EB 2	EB 3	NB 1	NB 2	SB 1	SB 2					
Volume Total (vph)	81	64	567	359	330	66	119					
Volume Left (vph)	49	0	0	0	0	66	0					
Volume Right (vph)	0	0	567	0	151	0	0					
Hadj (s)	0.32	0.03	-0.61	0.12	-0.19	0.81	0.32					
Departure Headway (s)	6.7	6.5	3.2	5.3	5.0	6.5	6.0					
Degree Utilization, x	0.15	0.11	0.50	0.53	0.46	0.12	0.20					
Capacity (veh/h)	494	514	1116	663	701	526	570					
Control Delay (s)	9.7	9.1	8.2	13.0	11.0	9.2	9.4					
Approach Delay (s)	8.5			12.1			9.3					
Approach LOS	A			B			A					
Intersection Summary												
Delay			10.1									
Level of Service			B									
Intersection Capacity Utilization			62.4%	ICU Level of Service								B
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
4: Spirit of Texas Dr & WB Hwy 71 Service Rd




















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control	Stop			Stop			Stop			Stop		
Traffic Volume (vph)	0	0	0	100	43	21	467	49	0	0	29	30
Future Volume (vph)	0	0	0	100	43	21	467	49	0	0	29	30
Peak Hour Factor	0.92	0.92	0.92	0.72	0.81	0.68	0.92	0.80	0.92	0.92	0.72	0.48
Hourly flow rate (vph)	0	0	0	139	53	31	508	61	0	0	40	62
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	139	84	508	61	40	62						
Volume Left (vph)	139	0	508	0	0	0						
Volume Right (vph)	0	31	0	0	0	62						
Hadj (s)	0.65	-0.17	0.55	0.19	0.92	-0.70						
Departure Headway (s)	7.0	6.1	5.9	5.6	6.9	5.3						
Degree Utilization, x	0.27	0.14	0.84	0.09	0.08	0.09						
Capacity (veh/h)	486	548	598	626	495	645						
Control Delay (s)	11.3	9.0	31.0	7.9	9.3	7.6						
Approach Delay (s)	10.4		28.5		8.2							
Approach LOS	B		D		A							
Intersection Summary												
Delay			21.7									
Level of Service			C									
Intersection Capacity Utilization			62.4%		ICU Level of Service				B			
Analysis Period (min)			15									

Intersection Capacity Utilization
22: Emma Browning Ave & Burluson Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	173	4	1	846	83	0	0	0	13	0	18
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	8.0	8.0	4.0	8.0	8.0	4.0	6.0	6.0	4.0	6.0	6.0	8.0
Minimum Green (s)	30.0	30.0	4.0	30.0	30.0	4.0	5.0	5.0	4.0	5.0	5.0	30.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	140	177	0	1	929	0	0	0	0	0	13	18
Lane Utilization Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.99	0.85	0.95	1.00	0.85	0.95	0.95	0.85
Saturated Flow (vph)	1805	3605	0	1805	3569	0	0	1900	0	0	1805	1615
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		Yes			Yes			No			No	
Reference Time (s)	9.3	5.9	0.0	0.1	31.2	0.0			0.0			1.3
Adj Reference Time (s)	38.0	38.0	0.0	38.0	39.2	0.0			0.0			38.0
Permitted Option												
Adj Saturation A (vph)	120	1803		120	1785		0	1900		0	1023	
Reference Time A (s)	139.6	5.9		1.0	31.2		0.0	0.0		0.0	1.5	
Adj Saturation B (vph)	NA	NA		NA	NA		0	1900		0	0	
Reference Time B (s)	NA	NA		NA	NA		0.0	0.0		8.9	8.9	
Reference Time (s)		139.6			31.2			0.0			1.5	
Adj Reference Time (s)		147.6			39.2			11.0			11.0	
Split Option												
Ref Time Combined (s)	9.3	5.9		0.1	31.2		0.0	0.0		0.0	0.9	
Ref Time Seperate (s)	9.3	5.8		0.1	28.4		0.0	0.0		0.9	0.0	
Reference Time (s)	9.3	9.3		31.2	31.2		0.0	0.0		0.9	0.9	
Adj Reference Time (s)	38.0	38.0		39.2	39.2		0.0	0.0		11.0	11.0	
Summary												
	EB WB		NB SB		Combined							
Protected Option (s)	77.2		NA									
Permitted Option (s)	147.6		11.0									
Split Option (s)	77.2		11.0									
Minimum (s)	77.2		11.0		88.2							
Right Turns												
	SBR											
Adj Reference Time (s)	38.0											
Cross Thru Ref Time (s)	39.2											
Oncoming Left Ref Time (s)	0.0											
Combined (s)	77.2											
Intersection Summary												
Intersection Capacity Utilization			73.5%		ICU Level of Service		D					
Reference Times and Phasing Options do not represent an optimized timing plan.												

HCM Signalized Intersection Capacity Analysis
22: Emma Browning Ave & Burluson Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	173	4	1	846	83	0	0	0	13	0	18
Future Volume (vph)	140	173	4	1	846	83	0	0	0	13	0	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0		8.0	8.0						6.0	8.0
Lane Util. Factor	1.00	0.95		1.00	0.95						1.00	1.00
Frt	1.00	0.99		1.00	0.98						1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)	1770	3513		1770	3473						1770	1583
Flt Permitted	0.27	1.00		0.61	1.00						1.00	1.00
Satd. Flow (perm)	508	3513		1137	3473						1863	1583
Peak-hour factor, PHF	0.25	0.80	0.38	0.25	0.92	0.64	0.92	0.92	0.92	0.36	0.92	0.64
Adj. Flow (vph)	560	216	11	4	920	130	0	0	0	36	0	28
RTOR Reduction (vph)	0	3	0	0	7	0	0	0	0	0	0	7
Lane Group Flow (vph)	560	224	0	4	1043	0	0	0	0	0	36	21
Turn Type	Perm	NA		Perm	NA					Perm	NA	custom
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		6
Actuated Green, G (s)	52.1	52.1		52.1	52.1						3.4	52.1
Effective Green, g (s)	52.1	52.1		52.1	52.1						3.4	52.1
Actuated g/C Ratio	0.75	0.75		0.75	0.75						0.05	0.75
Clearance Time (s)	8.0	8.0		8.0	8.0						6.0	8.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0						3.0	3.0
Lane Grp Cap (vph)	380	2633		852	2603						91	1186
v/s Ratio Prot		0.06			0.30							
v/s Ratio Perm	c1.10			0.00							c0.02	0.01
v/c Ratio	1.47	0.09		0.00	0.40						0.40	0.02
Uniform Delay, d1	8.7	2.3		2.2	3.1						32.1	2.2
Progression Factor	1.00	1.00		1.00	1.00						1.00	1.00
Incremental Delay, d2	227.0	0.0		0.0	0.1						2.8	0.0
Delay (s)	235.7	2.3		2.2	3.2						34.9	2.2
Level of Service	F	A		A	A						C	A
Approach Delay (s)		168.4			3.2			0.0			20.6	
Approach LOS		F			A			A			C	
Intersection Summary												
HCM 2000 Control Delay			72.0			HCM 2000 Level of Service				E		
HCM 2000 Volume to Capacity ratio			1.40									
Actuated Cycle Length (s)			69.5			Sum of lost time (s)			14.0			
Intersection Capacity Utilization			73.5%			ICU Level of Service			D			
Analysis Period (min)			15									

c Critical Lane Group

Queues

1: Presidential Blvd & EB Hwy 71 Service Rd























Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	121	867	828	1340	692	57	644
v/c Ratio	0.32	2.29	0.55	0.81	0.75	0.13	0.25
Control Delay	69.3	615.2	1.4	51.5	25.8	28.7	0.5
Queue Delay	0.0	0.0	0.0	0.3	0.0	7.7	16.6
Total Delay	69.3	615.2	1.4	51.8	25.8	36.4	17.0
Queue Length 50th (ft)	136	~1877	0	794	391	16	2
Queue Length 95th (ft)	170	#2163	0	889	557	m16	m1
Internal Link Dist (ft)		835		276			80
Turn Bay Length (ft)	175						
Base Capacity (vph)	377	379	1519	1650	919	444	2596
Starvation Cap Reductn	0	0	0	0	0	348	1944
Spillback Cap Reductn	0	0	0	47	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	2.29	0.55	0.84	0.75	0.59	0.99

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
1: Presidential Blvd & EB Hwy 71 Service Rd

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	91	218	1279	0	0	0	0	1246	616	45	573	0	
Future Volume (vph)	91	218	1279	0	0	0	0	1246	616	45	573	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	5.0	5.0	4.0					6.0	6.0	5.0	6.0		
Lane Util. Factor	1.00	0.95	0.95					0.95	1.00	1.00	0.95		
Frt	1.00	0.89	0.85					1.00	0.85	1.00	1.00		
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (prot)	1787	1576	1519					3610	1583	1770	3539		
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (perm)	1787	1576	1519					3610	1583	1770	3539		
Peak-hour factor, PHF	0.75	0.90	0.88	0.92	0.92	0.92	0.92	0.93	0.89	0.79	0.89	0.92	
Adj. Flow (vph)	121	242	1453	0	0	0	0	1340	692	57	644	0	
RTOR Reduction (vph)	0	47	0	0	0	0	0	0	194	0	0	0	
Lane Group Flow (vph)	121	820	828	0	0	0	0	1340	498	57	644	0	
Heavy Vehicles (%)	1%	5%	1%	2%	2%	2%	2%	0%	2%	2%	2%	2%	
Turn Type	Split	NA	Free					NA	Perm	Prot	NA		
Protected Phases	4 5	4 5						1 2		6 7	1 2 6 7		
Permitted Phases			Free						1 2				
Actuated Green, G (s)	41.0	41.0	199.0					92.0	92.0	50.0	147.0		
Effective Green, g (s)	41.0	41.0	199.0					92.0	92.0	50.0	137.0		
Actuated g/C Ratio	0.21	0.21	1.00					0.46	0.46	0.25	0.69		
Clearance Time (s)													
Vehicle Extension (s)													
Lane Grp Cap (vph)	368	324	1519					1668	731	444	2436		
v/s Ratio Prot	0.07	c0.52						c0.37		0.03	0.18		
v/s Ratio Perm			c0.55						0.31				
v/c Ratio	0.33	2.53	0.55					0.80	0.68	0.13	0.26		
Uniform Delay, d1	67.3	79.0	0.0					45.8	42.0	57.6	11.8		
Progression Factor	1.00	1.00	1.00					1.00	1.00	0.49	0.05		
Incremental Delay, d2	0.5	698.2	1.4					2.9	2.6	0.0	0.0		
Delay (s)	67.8	777.2	1.4					48.7	44.6	28.4	0.6		
Level of Service	E	F	A					D	D	C	A		
Approach Delay (s)		376.2			0.0			47.3			2.9		
Approach LOS		F			A			D			A		
Intersection Summary													
HCM 2000 Control Delay			171.8									HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio			1.24										
Actuated Cycle Length (s)			199.0									Sum of lost time (s)	32.0
Intersection Capacity Utilization			111.5%									ICU Level of Service	H
Analysis Period (min)			15										
c Critical Lane Group													

Queues

2: Presidential Blvd/Cardinal Loop & WB Hwy 71 Service Rd



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	375	380	750	764	194
v/c Ratio	1.14	1.14	0.70	0.70	0.60
Control Delay	160.1	160.9	9.2	9.5	87.3
Queue Delay	0.0	0.0	3.5	3.8	0.0
Total Delay	160.1	160.9	12.6	13.2	87.3
Queue Length 50th (ft)	~600	~609	885	907	118
Queue Length 95th (ft)	#796	#851	1073	18	134
Internal Link Dist (ft)		132		80	381
Turn Bay Length (ft)					
Base Capacity (vph)	329	332	1077	1088	322
Starvation Cap Reductn	0	0	232	235	0
Spillback Cap Reductn	0	0	0	0	1
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.14	1.14	0.89	0.90	0.60

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.




















HCM Signalized Intersection Capacity Analysis

2: Presidential Blvd/Cardinal Loop & WB Hwy 71 Service Rd





















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↔		↖	↗			↕	↗
Traffic Volume (vph)	0	0	0	510	130	23	1235	102	0	0	108	40
Future Volume (vph)	0	0	0	510	130	23	1235	102	0	0	108	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0	6.0		5.0	5.0			6.0	
Lane Util. Factor				0.95	0.95		0.95	0.95			0.95	
Frt				1.00	0.99		1.00	1.00			0.96	
Flt Protected				0.95	0.97		0.95	0.96			1.00	
Satd. Flow (prot)				1681	1685		1715	1733			3383	
Flt Permitted				0.95	0.97		0.95	0.96			1.00	
Satd. Flow (perm)				1681	1685		1715	1733			3383	
Peak-hour factor, PHF	0.92	0.92	0.92	0.87	0.94	0.75	0.89	0.81	0.92	0.92	0.74	0.84
Adj. Flow (vph)	0	0	0	586	138	31	1388	126	0	0	146	48
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	16	0
Lane Group Flow (vph)	0	0	0	375	378	0	750	764	0	0	178	0
Heavy Vehicles (%)	2%	2%	2%	2%	5%	0%	0%	0%	0%	2%	2%	5%
Turn Type				Split	NA		Split	NA			NA	
Protected Phases				1 7	1 7		2 4	2 4			5 6	
Permitted Phases												
Actuated Green, G (s)				39.0	39.0		125.0	125.0			19.0	
Effective Green, g (s)				34.0	34.0		125.0	125.0			19.0	
Actuated g/C Ratio				0.17	0.17		0.63	0.63			0.10	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				287	287		1077	1088			323	
v/s Ratio Prot				0.22	c0.22		0.44	c0.44			c0.05	
v/s Ratio Perm												
v/c Ratio				1.31	1.32		0.70	0.70			0.55	
Uniform Delay, d1				82.5	82.5		24.5	24.6			85.9	
Progression Factor				1.00	1.00		0.27	0.28			1.00	
Incremental Delay, d2				160.9	165.7		1.3	1.4			2.0	
Delay (s)				243.4	248.2		7.8	8.2			87.9	
Level of Service				F	F		A	A			F	
Approach Delay (s)		0.0			245.8			8.0			87.9	
Approach LOS		A			F			A			F	
Intersection Summary												
HCM 2000 Control Delay			87.2	HCM 2000 Level of Service				F				
HCM 2000 Volume to Capacity ratio			0.86									
Actuated Cycle Length (s)			199.0	Sum of lost time (s)				32.0				
Intersection Capacity Utilization			111.5%	ICU Level of Service				H				
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis
 3: Spirit of Texas Dr & EB Hwy 71 Service Rd

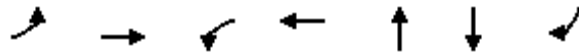
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 						 				
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	58	54	396	0	0	0	0	468	164	61	78	0
Future Volume (vph)	58	54	396	0	0	0	0	468	164	61	78	0
Peak Hour Factor	0.58	0.54	0.94	0.92	0.92	0.92	0.92	0.87	0.94	0.78	0.72	0.92
Hourly flow rate (vph)	100	100	421	0	0	0	0	538	174	78	108	0
Direction, Lane #	EB 1	EB 2	EB 3	NB 1	NB 2	SB 1	SB 2					
Volume Total (vph)	133	67	421	359	353	78	108					
Volume Left (vph)	100	0	0	0	0	78	0					
Volume Right (vph)	0	0	421	0	174	0	0					
Hadj (s)	0.41	0.03	-0.65	0.08	-0.24	0.72	0.29					
Departure Headway (s)	6.9	6.6	3.2	5.5	5.2	6.8	6.3					
Degree Utilization, x	0.26	0.12	0.37	0.55	0.51	0.15	0.19					
Capacity (veh/h)	485	510	1114	639	677	509	545					
Control Delay (s)	11.1	9.3	6.9	13.9	12.3	9.7	9.6					
Approach Delay (s)	8.1			13.1			9.6					
Approach LOS	A			B			A					
Intersection Summary												
Delay			10.6									
Level of Service			B									
Intersection Capacity Utilization			61.0%	ICU Level of Service	B							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
4: Spirit of Texas Dr & WB Hwy 71 Service Rd

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Sign Control	Stop			Stop			Stop			Stop			
Traffic Volume (vph)	0	0	0	95	165	18	466	60	0	0	44	23	
Future Volume (vph)	0	0	0	95	165	18	466	60	0	0	44	23	
Peak Hour Factor	0.92	0.92	0.92	0.91	0.79	0.80	0.92	0.81	0.92	0.92	0.70	0.75	
Hourly flow rate (vph)	0	0	0	104	209	22	507	74	0	0	63	31	
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2							
Volume Total (vph)	104	231	507	74	63	31							
Volume Left (vph)	104	0	507	0	0	0							
Volume Right (vph)	0	22	0	0	0	31							
Hadj (s)	0.62	-0.05	0.53	0.42	0.61	-0.61							
Departure Headway (s)	7.0	6.4	6.3	6.2	7.1	5.8							
Degree Utilization, x	0.20	0.41	0.88	0.13	0.12	0.05							
Capacity (veh/h)	486	539	568	565	487	586							
Control Delay (s)	10.6	12.5	38.3	8.9	9.9	7.9							
Approach Delay (s)	11.9		34.5		9.2								
Approach LOS	B		D		A								
Intersection Summary													
Delay			24.7										
Level of Service			C										
Intersection Capacity Utilization			61.0%		ICU Level of Service			B					
Analysis Period (min)			15										




















Queues

22: Emma Browning Ave & Burlison Rd



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	61	962	7	498	19	85	109
v/c Ratio	0.11	0.42	0.02	0.22	0.07	0.40	0.10
Control Delay	6.7	7.1	6.2	5.7	0.5	25.4	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.7	7.1	6.2	5.7	0.5	25.4	1.9
Queue Length 50th (ft)	8	80	1	33	0	24	0
Queue Length 95th (ft)	25	142	6	65	0	58	17
Internal Link Dist (ft)		445		398	129	323	
Turn Bay Length (ft)	240		240				250
Base Capacity (vph)	709	2862	442	2832	643	585	1303
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.34	0.02	0.18	0.03	0.15	0.08
Intersection Summary							

HCM Signalized Intersection Capacity Analysis
22: Emma Browning Ave & Burluson Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	875	10	6	415	43	9	0	8	77	1	100
Future Volume (vph)	56	875	10	6	415	43	9	0	8	77	1	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0		8.0	8.0			6.0			6.0	8.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.99			0.94			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.95	1.00
Satd. Flow (prot)	1770	3533		1770	3489			1699			1775	1583
Flt Permitted	0.47	1.00		0.29	1.00			0.79			0.71	1.00
Satd. Flow (perm)	875	3533		546	3489			1377			1332	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	951	11	7	451	47	10	0	9	84	1	109
RTOR Reduction (vph)	0	1	0	0	8	0	0	16	0	0	0	42
Lane Group Flow (vph)	61	961	0	7	490	0	0	3	0	0	85	67
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	custom
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		6
Actuated Green, G (s)	34.2	34.2		34.2	34.2			7.7			7.7	34.2
Effective Green, g (s)	34.2	34.2		34.2	34.2			7.7			7.7	34.2
Actuated g/C Ratio	0.61	0.61		0.61	0.61			0.14			0.14	0.61
Clearance Time (s)	8.0	8.0		8.0	8.0			6.0			6.0	8.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	535	2161		334	2134			189			183	968
v/s Ratio Prot		c0.27			0.14							
v/s Ratio Perm	0.07			0.01				0.00			c0.06	0.04
v/c Ratio	0.11	0.44		0.02	0.23			0.01			0.46	0.07
Uniform Delay, d1	4.5	5.8		4.3	4.9			20.8			22.2	4.4
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	0.1	0.1		0.0	0.1			0.0			1.9	0.0
Delay (s)	4.6	5.9		4.3	5.0			20.8			24.1	4.4
Level of Service	A	A		A	A			C			C	A
Approach Delay (s)		5.9			4.9			20.8			13.0	
Approach LOS		A			A			C			B	
Intersection Summary												
HCM 2000 Control Delay			6.6									A
HCM 2000 Volume to Capacity ratio			0.45									
Actuated Cycle Length (s)			55.9								14.0	
Intersection Capacity Utilization			72.5%									C
Analysis Period (min)			15									

c Critical Lane Group

Queues

1: Presidential Blvd & EB Hwy 71 Service Rd























Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	289	1179	1100	1743	506	139	663
v/c Ratio	0.85	3.56	0.72	1.08	0.62	0.26	0.25
Control Delay	89.8	1177.5	3.0	91.4	22.5	26.5	0.2
Queue Delay	0.0	0.0	0.0	9.7	0.0	45.5	54.0
Total Delay	89.8	1177.5	3.0	101.1	22.5	72.0	54.2
Queue Length 50th (ft)	323	~2509	0	~1161	244	38	1
Queue Length 95th (ft)	#479	#2793	0	#1267	309	m27	m1
Internal Link Dist (ft)		835		276			80
Turn Bay Length (ft)	175						
Base Capacity (vph)	342	331	1519	1618	821	529	2705
Starvation Cap Reductn	0	0	0	0	0	392	2160
Spillback Cap Reductn	0	0	0	94	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	3.56	0.72	1.14	0.62	1.01	1.22

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
1: Presidential Blvd & EB Hwy 71 Service Rd

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	260	454	1562	0	0	0	0	1551	420	111	597	0	
Future Volume (vph)	260	454	1562	0	0	0	0	1551	420	111	597	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0		
Lane Util. Factor	1.00	0.95	0.95					0.95	1.00	1.00	0.95		
Frt	1.00	0.91	0.85					1.00	0.85	1.00	1.00		
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (prot)	1805	1600	1519					3610	1553	1805	3539		
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (perm)	1805	1600	1519					3610	1553	1805	3539		
Peak-hour factor, PHF	0.90	0.90	0.88	0.92	0.92	0.92	0.92	0.89	0.83	0.80	0.90	0.92	
Adj. Flow (vph)	289	504	1775	0	0	0	0	1743	506	139	663	0	
RTOR Reduction (vph)	0	28	0	0	0	0	0	0	124	0	0	0	
Lane Group Flow (vph)	289	1151	1100	0	0	0	0	1743	382	139	663	0	
Heavy Vehicles (%)	0%	6%	1%	2%	2%	2%	2%	0%	4%	0%	2%	2%	
Turn Type	Split	NA	Free					NA	Perm	Prot	NA		
Protected Phases	4 5	4 5						1 2		6 7	1 2 6 7		
Permitted Phases			Free						1 2				
Actuated Green, G (s)	31.0	31.0	174.0					77.0	77.0	50.0	132.0		
Effective Green, g (s)	32.0	32.0	174.0					79.0	79.0	51.0	128.0		
Actuated g/C Ratio	0.18	0.18	1.00					0.45	0.45	0.29	0.74		
Clearance Time (s)													
Vehicle Extension (s)													
Lane Grp Cap (vph)	331	294	1519					1639	705	529	2603		
v/s Ratio Prot	0.16	c0.72						c0.48		0.08	0.19		
v/s Ratio Perm			c0.72						0.25				
v/c Ratio	0.87	3.92	0.72					1.06	0.54	0.26	0.25		
Uniform Delay, d1	69.0	71.0	0.0					47.5	34.4	47.1	7.5		
Progression Factor	1.00	1.00	1.00					1.00	1.00	0.56	0.03		
Incremental Delay, d2	21.5	1320.3	3.0					41.3	0.9	0.0	0.0		
Delay (s)	90.5	1391.3	3.0					88.8	35.2	26.2	0.2		
Level of Service	F	F	A					F	D	C	A		
Approach Delay (s)		650.3			0.0			76.7			4.7		
Approach LOS		F			A			E			A		
Intersection Summary													
HCM 2000 Control Delay			328.6									HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio			1.66										
Actuated Cycle Length (s)			174.0									Sum of lost time (s)	24.0
Intersection Capacity Utilization			142.6%									ICU Level of Service	H
Analysis Period (min)			15										
c Critical Lane Group													

Queues

2: Presidential Blvd/Cardinal Loop & WB Hwy 71 Service Rd



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	626	687	1077	1082	305
v/c Ratio	1.58	1.79	1.08	1.07	0.76
Control Delay	313.7	402.7	58.2	54.8	82.0
Queue Delay	0.0	0.0	7.9	11.0	0.0
Total Delay	313.7	402.7	66.1	65.9	82.0
Queue Length 50th (ft)	~1064	~1235	~1445	~1445	167
Queue Length 95th (ft)	#1205	#1283	m#1316	1140	216
Internal Link Dist (ft)		132		80	381
Turn Bay Length (ft)					
Base Capacity (vph)	396	383	995	1007	401
Starvation Cap Reductn	0	0	139	141	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.58	1.79	1.26	1.25	0.76

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 2: Presidential Blvd/Cardinal Loop & WB Hwy 71 Service Rd





















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↔		↖	↗			↗↖	
Traffic Volume (vph)	0	0	0	585	414	71	1664	147	0	0	123	123
Future Volume (vph)	0	0	0	585	414	71	1664	147	0	0	123	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor				0.95	0.95		0.95	0.95			0.95	
Frt				1.00	0.98		1.00	1.00			0.92	
Flt Protected				0.95	0.99		0.95	0.96			1.00	
Satd. Flow (prot)				1681	1611		1715	1734			3319	
Flt Permitted				0.95	0.99		0.95	0.96			1.00	
Satd. Flow (perm)				1681	1611		1715	1734			3319	
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.80	0.72	0.85	0.73	0.92	0.92	0.87	0.75
Adj. Flow (vph)	0	0	0	696	518	99	1958	201	0	0	141	164
RTOR Reduction (vph)	0	0	0	0	4	0	0	0	0	0	20	0
Lane Group Flow (vph)	0	0	0	626	683	0	1077	1082	0	0	285	0
Heavy Vehicles (%)	2%	2%	2%	2%	11%	4%	0%	0%	2%	2%	0%	0%
Turn Type				Split	NA		Split	NA			NA	
Protected Phases				1 7	1 7		2 4	2 4			5 6	
Permitted Phases												
Actuated Green, G (s)				39.0	39.0		100.0	100.0			19.0	
Effective Green, g (s)				38.0	38.0		101.0	101.0			21.0	
Actuated g/C Ratio				0.22	0.22		0.58	0.58			0.12	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				367	351		995	1006			400	
v/s Ratio Prot				0.37	c0.42		c0.63	0.62			c0.09	
v/s Ratio Perm												
v/c Ratio				1.71	1.95		1.08	1.08			0.71	
Uniform Delay, d1				68.0	68.0		36.5	36.5			73.6	
Progression Factor				1.00	1.00		0.35	0.35			1.00	
Incremental Delay, d2				329.0	436.1		42.5	39.6			5.9	
Delay (s)				397.0	504.1		55.3	52.4			79.5	
Level of Service				F	F		E	D			E	
Approach Delay (s)		0.0			453.0			53.8			79.5	
Approach LOS		A			F			D			E	
Intersection Summary												
HCM 2000 Control Delay			194.7									F
HCM 2000 Volume to Capacity ratio			1.30									
Actuated Cycle Length (s)			174.0						22.0			
Intersection Capacity Utilization			142.6%									H
Analysis Period (min)			15									
c Critical Lane Group												

Queues

3: Spirit of Texas Dr & EB Hwy 71 Service Rd

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	60	691	840	189	145
v/c Ratio	0.14	0.45	0.57	0.40	0.11
Control Delay	61.6	1.0	29.6	12.0	0.3
Queue Delay	0.0	0.0	0.0	1.1	0.7
Total Delay	61.6	1.0	29.7	13.1	1.0
Queue Length 50th (ft)	27	0	292	14	1
Queue Length 95th (ft)	45	0	383	38	1
Internal Link Dist (ft)	148		633		134
Turn Bay Length (ft)		500			
Base Capacity (vph)	625	1538	1837	543	1391
Starvation Cap Reductn	0	0	0	179	976
Spillback Cap Reductn	0	0	54	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.10	0.45	0.47	0.52	0.35
Intersection Summary					

HCM Signalized Intersection Capacity Analysis
3: Spirit of Texas Dr & EB Hwy 71 Service Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	0	608	0	0	0	0	584	162	134	100	0
Future Volume (vph)	45	0	608	0	0	0	0	584	162	134	100	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0					6.0		5.0	6.0	
Lane Util. Factor		0.95	1.00					0.95		1.00	1.00	
Frt		1.00	0.85					0.97		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		3430	1538					3250		1530	1597	
Flt Permitted		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		3430	1538					3250		1530	1597	
Peak-hour factor, PHF	0.75	0.74	0.88	0.92	0.92	0.92	0.92	0.89	0.88	0.71	0.69	0.92
Adj. Flow (vph)	60	0	691	0	0	0	0	656	184	189	145	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	14	0	0	0	0
Lane Group Flow (vph)	0	60	691	0	0	0	0	826	0	189	145	0
Heavy Vehicles (%)	0%	2%	5%	2%	2%	2%	0%	7%	9%	18%	19%	2%
Turn Type	Split	NA	Free					NA		custom	NA	
Protected Phases	4 5	4 5						1 2		6 7	1 2 6 7	
Permitted Phases			Free							6		
Actuated Green, G (s)		16.8	140.0					64.1		43.1	112.2	
Effective Green, g (s)		16.8	140.0					64.1		43.1	102.2	
Actuated g/C Ratio		0.12	1.00					0.46		0.31	0.73	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)		411	1538					1488		471	1165	
v/s Ratio Prot		0.02						c0.25		0.12	0.09	
v/s Ratio Perm			c0.45									
v/c Ratio		0.15	0.45					0.56		0.40	0.12	
Uniform Delay, d1		55.2	0.0					27.6		38.3	5.6	
Progression Factor		1.00	1.00					1.00		0.24	0.06	
Incremental Delay, d2		0.2	1.0					0.5		0.5	0.0	
Delay (s)		55.3	1.0					28.0		9.6	0.4	
Level of Service		E	A					C		A	A	
Approach Delay (s)		5.3			0.0			28.0			5.6	
Approach LOS		A			A			C			A	
Intersection Summary												
HCM 2000 Control Delay			15.3					HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio			0.63									
Actuated Cycle Length (s)			140.0					Sum of lost time (s)		32.0		
Intersection Capacity Utilization			52.4%					ICU Level of Service		A		
Analysis Period (min)			15									
c Critical Lane Group												

Queues



















4: Spirit of Texas Dr & WB Hwy 71 Service Rd



Lane Group	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	253	190	618	75	72	77
v/c Ratio	0.67	0.47	0.68	0.08	0.45	0.25
Control Delay	61.2	51.7	10.0	1.2	73.7	5.2
Queue Delay	0.0	0.0	0.3	0.2	0.0	0.0
Total Delay	61.2	51.7	10.3	1.4	73.7	5.2
Queue Length 50th (ft)	220	151	442	1	65	0
Queue Length 95th (ft)	268	223	628	2	105	0
Internal Link Dist (ft)		951		134	185	
Turn Bay Length (ft)	650					
Base Capacity (vph)	417	441	1110	1085	162	309
Starvation Cap Reductn	0	0	110	674	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.43	0.62	0.18	0.44	0.25

Intersection Summary

HCM Signalized Intersection Capacity Analysis
4: Spirit of Texas Dr & WB Hwy 71 Service Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	182	123	26	569	60	0	0	52	37
Future Volume (vph)	0	0	0	182	123	26	569	60	0	0	52	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0	6.0		5.0	5.0			6.0	6.0
Lane Util. Factor				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.97		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1656	1732		1752	1712			1234	1615
Flt Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1656	1732		1752	1712			1234	1615
Peak-hour factor, PHF	0.92	0.92	0.92	0.72	0.81	0.68	0.92	0.80	0.92	0.92	0.72	0.48
Adj. Flow (vph)	0	0	0	253	152	38	618	75	0	0	72	77
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	0	66
Lane Group Flow (vph)	0	0	0	253	184	0	618	75	0	0	72	11
Heavy Vehicles (%)	2%	2%	2%	9%	8%	0%	3%	11%	2%	2%	54%	0%
Turn Type				Split	NA		Split	NA			NA	Prot
Protected Phases				1 7	1 7		2 4	2 4			5 6	5 6
Permitted Phases												
Actuated Green, G (s)				32.0	32.0		72.9	72.9			19.1	19.1
Effective Green, g (s)				27.0	27.0		72.9	72.9			19.1	19.1
Actuated g/C Ratio				0.19	0.19		0.52	0.52			0.14	0.14
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				319	334		912	891			168	220
v/s Ratio Prot				c0.15	0.11		c0.35	0.04			c0.06	0.01
v/s Ratio Perm												
v/c Ratio				0.79	0.55		0.68	0.08			0.43	0.05
Uniform Delay, d1				53.8	51.0		24.8	16.8			55.4	52.5
Progression Factor				1.00	1.00		0.24	0.06			1.00	1.00
Incremental Delay, d2				12.7	2.0		1.8	0.0			1.8	0.1
Delay (s)				66.5	53.0		7.9	1.0			57.2	52.6
Level of Service				E	D		A	A			E	D
Approach Delay (s)		0.0			60.7			7.1			54.8	
Approach LOS		A			E			A			D	
Intersection Summary												
HCM 2000 Control Delay			31.1	HCM 2000 Level of Service				C				
HCM 2000 Volume to Capacity ratio			0.73									
Actuated Cycle Length (s)			140.0	Sum of lost time (s)				32.0				
Intersection Capacity Utilization			52.4%	ICU Level of Service				A				
Analysis Period (min)			15									
c Critical Lane Group												

Queues

22: Emma Browning Ave & Burlison Rd






















Lane Group	EBL	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	928	645	12	2837	78	59
v/c Ratio	8.29	0.25	0.02	1.12	0.42	0.05
Control Delay	3296.6	5.0	5.0	77.1	33.2	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3296.6	5.0	5.0	77.1	33.2	1.8
Queue Length 50th (ft)	~724	47	1	~765	29	0
Queue Length 95th (ft)	#212	72	2	#981	65	6
Internal Link Dist (ft)		445		398	323	
Turn Bay Length (ft)	240		240			250
Base Capacity (vph)	112	2540	547	2532	495	1159
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	8.29	0.25	0.02	1.12	0.16	0.05

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
22: Emma Browning Ave & Burluson Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	232	493	11	3	2413	137	0	0	0	28	0	38
Future Volume (vph)	232	493	11	3	2413	137	0	0	0	28	0	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0		8.0	8.0						6.0	8.0
Lane Util. Factor	1.00	0.95		1.00	0.95						1.00	1.00
Frt	1.00	0.99		1.00	0.99						1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)	1770	3515		1770	3499						1770	1583
Flt Permitted	0.08	1.00		0.41	1.00						0.76	1.00
Satd. Flow (perm)	156	3515		758	3499						1410	1583
Peak-hour factor, PHF	0.25	0.80	0.38	0.25	0.92	0.64	0.92	0.92	0.92	0.36	0.92	0.64
Adj. Flow (vph)	928	616	29	12	2623	214	0	0	0	78	0	59
RTOR Reduction (vph)	0	3	0	0	5	0	0	0	0	0	0	19
Lane Group Flow (vph)	928	642	0	12	2832	0	0	0	0	0	78	40
Turn Type	Perm	NA		Perm	NA					Perm	NA	custom
Protected Phases		2			6			4			8	8
Permitted Phases	2			6			4			8		6
Actuated Green, G (s)	47.9	47.9		47.9	47.9						8.0	47.9
Effective Green, g (s)	47.9	47.9		47.9	47.9						8.0	47.9
Actuated g/C Ratio	0.69	0.69		0.69	0.69						0.11	0.69
Clearance Time (s)	8.0	8.0		8.0	8.0						6.0	8.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0						3.0	3.0
Lane Grp Cap (vph)	106	2408		519	2397						161	1084
v/s Ratio Prot		0.18			0.81							
v/s Ratio Perm	c5.97			0.02							c0.06	0.03
v/c Ratio	8.75	0.27		0.02	1.18						0.48	0.04
Uniform Delay, d1	11.0	4.2		3.5	11.0						29.0	3.6
Progression Factor	1.00	1.00		1.00	1.00						1.00	1.00
Incremental Delay, d2	3508.7	0.1		0.0	86.3						2.3	0.0
Delay (s)	3519.7	4.3		3.5	97.3						31.3	3.6
Level of Service	F	A		A	F						C	A
Approach Delay (s)		2078.2			96.9			0.0			19.4	
Approach LOS		F			F			A			B	
Intersection Summary												
HCM 2000 Control Delay			778.2			HCM 2000 Level of Service					F	
HCM 2000 Volume to Capacity ratio			7.51									
Actuated Cycle Length (s)			69.9			Sum of lost time (s)				14.0		
Intersection Capacity Utilization			118.6%			ICU Level of Service				H		
Analysis Period (min)			15									
c Critical Lane Group												

Queues

1: Presidential Blvd & EB Hwy 71 Service Rd



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	347	1275	1186	1632	844	162	784
v/c Ratio	0.92	3.56	0.78	0.99	0.97	0.36	0.30
Control Delay	105.7	1177.6	4.1	72.2	59.2	30.6	0.7
Queue Delay	0.0	0.0	0.0	13.6	0.0	73.6	54.5
Total Delay	105.7	1177.6	4.1	85.8	59.2	104.1	55.2
Queue Length 50th (ft)	452	~3128	0	1111	849	50	3
Queue Length 95th (ft)	470	#3411	0	#1281	#1147	m29	m2
Internal Link Dist (ft)		835		276			80
Turn Bay Length (ft)	175						
Base Capacity (vph)	377	358	1519	1650	869	444	2596
Starvation Cap Reductn	0	0	0	0	0	321	2086
Spillback Cap Reductn	0	0	0	76	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	3.56	0.78	1.04	0.97	1.32	1.54

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis

1: Presidential Blvd & EB Hwy 71 Service Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	260	622	1558	0	0	0	0	1518	751	128	698	0
Future Volume (vph)	260	622	1558	0	0	0	0	1518	751	128	698	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.0					6.0	6.0	5.0	6.0	
Lane Util. Factor	1.00	0.95	0.95					0.95	1.00	1.00	0.95	
Frt	1.00	0.93	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1787	1629	1519					3610	1583	1770	3539	
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1787	1629	1519					3610	1583	1770	3539	
Peak-hour factor, PHF	0.75	0.90	0.88	0.92	0.92	0.92	0.92	0.93	0.89	0.79	0.89	0.92
Adj. Flow (vph)	347	691	1770	0	0	0	0	1632	844	162	784	0
RTOR Reduction (vph)	0	15	0	0	0	0	0	0	145	0	0	0
Lane Group Flow (vph)	347	1260	1186	0	0	0	0	1632	699	162	784	0
Heavy Vehicles (%)	1%	5%	1%	2%	2%	2%	2%	0%	2%	2%	2%	2%
Turn Type	Split	NA	Free					NA	Perm	Prot	NA	
Protected Phases	4 5	4 5						1 2		6 7	1 2 6 7	
Permitted Phases			Free						1 2			
Actuated Green, G (s)	41.0	41.0	199.0					92.0	92.0	50.0	147.0	
Effective Green, g (s)	41.0	41.0	199.0					92.0	92.0	50.0	137.0	
Actuated g/C Ratio	0.21	0.21	1.00					0.46	0.46	0.25	0.69	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)	368	335	1519					1668	731	444	2436	
v/s Ratio Prot	0.19	c0.77						c0.45		0.09	0.22	
v/s Ratio Perm			c0.78						0.44			
v/c Ratio	0.94	3.76	0.78					0.98	0.96	0.36	0.32	
Uniform Delay, d1	77.8	79.0	0.0					52.5	51.6	61.4	12.4	
Progression Factor	1.00	1.00	1.00					1.00	1.00	0.49	0.07	
Incremental Delay, d2	32.3	1249.7	4.1					17.0	23.0	0.0	0.0	
Delay (s)	110.2	1328.7	4.1					69.5	74.6	30.1	0.9	
Level of Service	F	F	A					E	E	C	A	
Approach Delay (s)		618.6			0.0			71.2			5.9	
Approach LOS		F			A			E			A	
HCM 2000 Control Delay			308.0									
HCM 2000 Volume to Capacity ratio			1.72									
Actuated Cycle Length (s)			199.0									
Intersection Capacity Utilization			162.4%									
Analysis Period (min)			15									
c Critical Lane Group												

Queues

2: Presidential Blvd/Cardinal Loop & WB Hwy 71 Service Rd





















Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	626	640	997	1016	332
v/c Ratio	1.90	1.92	0.93	0.93	1.02
Control Delay	454.5	462.2	17.9	18.7	131.5
Queue Delay	0.0	0.0	45.5	45.0	13.4
Total Delay	454.5	462.2	63.4	63.7	145.0
Queue Length 50th (ft)	~1315	~1353	1244	1274	~220
Queue Length 95th (ft)	#1517	#1627	m1336	1275	#231
Internal Link Dist (ft)		132		80	381
Turn Bay Length (ft)					
Base Capacity (vph)	329	333	1077	1088	326
Starvation Cap Reductn	0	0	183	184	0
Spillback Cap Reductn	0	0	0	0	13
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.90	1.92	1.12	1.12	1.06

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 2: Presidential Blvd/Cardinal Loop & WB Hwy 71 Service Rd



















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	681	371	66	1643	135	0	0	145	114
Future Volume (vph)	0	0	0	681	371	66	1643	135	0	0	145	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0	6.0		5.0	5.0			6.0	
Lane Util. Factor				0.95	0.95		0.95	0.95			0.95	
Frt				1.00	0.98		1.00	1.00			0.94	
Flt Protected				0.95	0.99		0.95	0.96			1.00	
Satd. Flow (prot)				1681	1686		1715	1733			3282	
Flt Permitted				0.95	0.99		0.95	0.96			1.00	
Satd. Flow (perm)				1681	1686		1715	1733			3282	
Peak-hour factor, PHF	0.92	0.92	0.92	0.87	0.94	0.75	0.89	0.81	0.92	0.92	0.74	0.84
Adj. Flow (vph)	0	0	0	783	395	88	1846	167	0	0	196	136
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	0	0	29	0
Lane Group Flow (vph)	0	0	0	626	637	0	997	1016	0	0	303	0
Heavy Vehicles (%)	2%	2%	2%	2%	5%	0%	0%	0%	0%	2%	2%	5%
Turn Type				Split	NA		Split	NA			NA	
Protected Phases				1 7	1 7		2 4	2 4			5 6	
Permitted Phases												
Actuated Green, G (s)				39.0	39.0		125.0	125.0			19.0	
Effective Green, g (s)				34.0	34.0		125.0	125.0			19.0	
Actuated g/C Ratio				0.17	0.17		0.63	0.63			0.10	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				287	288		1077	1088			313	
v/s Ratio Prot				0.37	c0.38		0.58	c0.59			c0.09	
v/s Ratio Perm												
v/c Ratio				2.18	2.21		0.93	0.93			0.97	
Uniform Delay, d1				82.5	82.5		32.9	33.3			89.7	
Progression Factor				1.00	1.00		0.35	0.36			1.00	
Incremental Delay, d2				542.9	556.0		4.8	5.3			41.8	
Delay (s)				625.4	638.5		16.4	17.2			131.5	
Level of Service				F	F		B	B			F	
Approach Delay (s)		0.0			632.0			16.8			131.5	
Approach LOS		A			F			B			F	
Intersection Summary												
HCM 2000 Control Delay			243.0				HCM 2000 Level of Service				F	
HCM 2000 Volume to Capacity ratio			1.26									
Actuated Cycle Length (s)			199.0				Sum of lost time (s)			32.0		
Intersection Capacity Utilization			162.4%				ICU Level of Service			H		
Analysis Period (min)			15									
c Critical Lane Group												

Queues

3: Spirit of Texas Dr & EB Hwy 71 Service Rd

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	122	500	868	223	132
v/c Ratio	0.28	0.32	0.59	0.43	0.10
Control Delay	65.8	0.5	33.1	11.7	0.6
Queue Delay	0.0	0.0	0.0	2.1	0.4
Total Delay	65.8	0.5	33.1	13.8	0.9
Queue Length 50th (ft)	60	0	334	25	2
Queue Length 95th (ft)	62	0	402	38	3
Internal Link Dist (ft)	148		633		134
Turn Bay Length (ft)		500			
Base Capacity (vph)	759	1568	1969	515	1493
Starvation Cap Reductn	0	0	0	173	1011
Spillback Cap Reductn	0	0	54	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.16	0.32	0.45	0.65	0.27
Intersection Summary					

HCM Signalized Intersection Capacity Analysis
3: Spirit of Texas Dr & EB Hwy 71 Service Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	0	470	0	0	0	0	570	200	174	95	0
Future Volume (vph)	71	0	470	0	0	0	0	570	200	174	95	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0					6.0		5.0	6.0	
Lane Util. Factor		0.95	1.00					0.95		1.00	1.00	
Frt		1.00	0.85					0.96		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		3362	1568					3296		1597	1624	
Flt Permitted		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		3362	1568					3296		1597	1624	
Peak-hour factor, PHF	0.58	0.54	0.94	0.92	0.92	0.92	0.92	0.87	0.94	0.78	0.72	0.92
Adj. Flow (vph)	122	0	500	0	0	0	0	655	213	223	132	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	16	0	0	0	0
Lane Group Flow (vph)	0	122	500	0	0	0	0	852	0	223	132	0
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	5%	7%	13%	17%	2%
Turn Type	Split	NA	Free					NA		Prot	NA	
Protected Phases	4 5	4 5						1 2		6 7	1 2 6 7	
Permitted Phases			Free									
Actuated Green, G (s)		19.6	156.7					70.4		50.7	126.1	
Effective Green, g (s)		19.6	156.7					70.4		50.7	116.1	
Actuated g/C Ratio		0.13	1.00					0.45		0.32	0.74	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)		420	1568					1480		516	1203	
v/s Ratio Prot		0.04						c0.26		c0.14	0.08	
v/s Ratio Perm			c0.32									
v/c Ratio		0.29	0.32					0.58		0.43	0.11	
Uniform Delay, d1		62.2	0.0					32.1		41.7	5.7	
Progression Factor		1.00	1.00					1.00		0.20	0.11	
Incremental Delay, d2		0.4	0.5					0.5		0.5	0.0	
Delay (s)		62.6	0.5					32.6		8.9	0.7	
Level of Service		E	A					C		A	A	
Approach Delay (s)		12.7			0.0			32.6			5.9	
Approach LOS		B			A			C			A	
Intersection Summary												
HCM 2000 Control Delay			20.8					HCM 2000 Level of Service		C		
HCM 2000 Volume to Capacity ratio			0.57									
Actuated Cycle Length (s)			156.7					Sum of lost time (s)		32.0		
Intersection Capacity Utilization			70.4%					ICU Level of Service		C		
Analysis Period (min)			15									
c Critical Lane Group												

Queues

4: Spirit of Texas Dr & WB Hwy 71 Service Rd



Lane Group	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	202	624	617	90	121	37
v/c Ratio	0.46	1.29	0.68	0.11	0.75	0.14
Control Delay	57.2	191.0	10.1	1.7	96.5	1.1
Queue Delay	0.0	0.0	0.2	0.3	0.8	0.0
Total Delay	57.2	191.0	10.2	2.0	97.3	1.1
Queue Length 50th (ft)	176	-816	437	3	122	0
Queue Length 95th (ft)	316	#1094	582	3	#183	0
Internal Link Dist (ft)		951		134	185	
Turn Bay Length (ft)	650					
Base Capacity (vph)	435	483	1169	1004	162	265
Starvation Cap Reductn	0	0	91	583	0	0
Spillback Cap Reductn	0	0	0	0	3	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.46	1.29	0.57	0.21	0.76	0.14

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

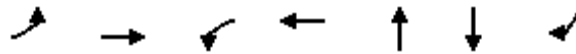
HCM Signalized Intersection Capacity Analysis
4: Spirit of Texas Dr & WB Hwy 71 Service Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↗		↖	↗			↗	↖
Traffic Volume (vph)	0	0	0	184	471	22	568	73	0	0	85	28
Future Volume (vph)	0	0	0	184	471	22	568	73	0	0	85	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0	6.0		5.0	5.0			6.0	6.0
Lane Util. Factor				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.99		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1687	1869		1770	1520			1397	1538
Flt Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1687	1869		1770	1520			1397	1538
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.79	0.80	0.92	0.81	0.92	0.92	0.70	0.75
Adj. Flow (vph)	0	0	0	202	596	28	617	90	0	0	121	37
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	32
Lane Group Flow (vph)	0	0	0	202	623	0	617	90	0	0	121	5
Heavy Vehicles (%)	2%	2%	2%	7%	1%	0%	2%	25%	2%	2%	36%	5%
Turn Type				Split	NA		Split	NA			NA	Prot
Protected Phases				1 7	1 7		2 4	2 4			5 6	5 6
Permitted Phases												
Actuated Green, G (s)				40.5	40.5		81.0	81.0			19.2	19.2
Effective Green, g (s)				35.5	35.5		81.0	81.0			19.2	19.2
Actuated g/C Ratio				0.23	0.23		0.52	0.52			0.12	0.12
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				382	423		914	785			171	188
v/s Ratio Prot				0.12	c0.33		c0.35	0.06			c0.09	0.00
v/s Ratio Perm												
v/c Ratio				0.53	1.47		0.68	0.11			0.71	0.02
Uniform Delay, d1				53.3	60.6		28.1	19.4			66.1	60.5
Progression Factor				1.00	1.00		0.23	0.08			1.00	1.00
Incremental Delay, d2				1.3	225.5		1.9	0.1			12.6	0.1
Delay (s)				54.6	286.1		8.3	1.6			78.6	60.6
Level of Service				D	F		A	A			E	E
Approach Delay (s)		0.0			229.5			7.5			74.4	
Approach LOS		A			F			A			E	
Intersection Summary												
HCM 2000 Control Delay			122.2									F
HCM 2000 Volume to Capacity ratio			0.97									
Actuated Cycle Length (s)			156.7						32.0			
Intersection Capacity Utilization			70.4%									C
Analysis Period (min)			15									
c Critical Lane Group												

Queues

22: Emma Browning Ave & Burlison Rd






















Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	101	2745	18	1364	53	140	179
v/c Ratio	0.50	1.14	0.16	0.57	0.18	0.60	0.16
Control Delay	22.0	89.2	12.1	9.6	6.3	36.3	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	89.2	12.1	9.6	6.3	36.3	1.7
Queue Length 50th (ft)	22	~794	3	166	0	55	0
Queue Length 95th (ft)	#109	#1063	17	290	20	107	24
Internal Link Dist (ft)		445		398	129	323	
Turn Bay Length (ft)	240		240				250
Base Capacity (vph)	204	2400	111	2388	507	446	1132
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	1.14	0.16	0.57	0.10	0.31	0.16

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
22: Emma Browning Ave & Burluson Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	2496	29	17	1184	71	26	0	23	127	2	165
Future Volume (vph)	93	2496	29	17	1184	71	26	0	23	127	2	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0		8.0	8.0			6.0			6.0	8.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.99			0.94			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.95	1.00
Satd. Flow (prot)	1770	3533		1770	3509			1699			1775	1583
Flt Permitted	0.16	1.00		0.09	1.00			0.76			0.69	1.00
Satd. Flow (perm)	300	3533		164	3509			1333			1286	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	2713	32	18	1287	77	28	0	25	138	2	179
RTOR Reduction (vph)	0	1	0	0	4	0	0	45	0	0	0	64
Lane Group Flow (vph)	101	2744	0	18	1360	0	0	8	0	0	140	115
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	custom
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		6
Actuated Green, G (s)	45.3	45.3		45.3	45.3			11.1			11.1	45.3
Effective Green, g (s)	45.3	45.3		45.3	45.3			11.1			11.1	45.3
Actuated g/C Ratio	0.64	0.64		0.64	0.64			0.16			0.16	0.64
Clearance Time (s)	8.0	8.0		8.0	8.0			6.0			6.0	8.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	193	2273		105	2257			210			202	1018
v/s Ratio Prot		c0.78			0.39							
v/s Ratio Perm	0.34			0.11				0.01			c0.11	0.07
v/c Ratio	0.52	1.21		0.17	0.60			0.04			0.69	0.11
Uniform Delay, d1	6.7	12.6		5.0	7.3			25.1			28.0	4.8
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	2.5	97.7		0.8	0.5			0.1			9.8	0.0
Delay (s)	9.3	110.3		5.8	7.8			25.2			37.9	4.9
Level of Service	A	F		A	A			C			D	A
Approach Delay (s)		106.7			7.7			25.2			19.4	
Approach LOS		F			A			C			B	
Intersection Summary												
HCM 2000 Control Delay			70.0									E
HCM 2000 Volume to Capacity ratio			1.11									
Actuated Cycle Length (s)			70.4							14.0		
Intersection Capacity Utilization			100.8%									G
Analysis Period (min)			15									

c Critical Lane Group

Queues

1: Presidential Blvd & EB Hwy 71 Service Rd



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	289	1205	1144	1812	527	139	690
v/c Ratio	0.85	3.63	0.75	1.12	0.64	0.26	0.26
Control Delay	89.8	1207.5	3.5	106.7	23.9	26.4	0.2
Queue Delay	0.0	0.0	0.0	0.2	0.0	49.9	53.9
Total Delay	89.8	1207.5	3.5	106.9	23.9	76.3	54.1
Queue Length 50th (ft)	323	~2570	0	~1246	268	38	1
Queue Length 95th (ft)	#479	#2856	0	#1352	336	m27	m0
Internal Link Dist (ft)		835		276			80
Turn Bay Length (ft)	175						
Base Capacity (vph)	342	332	1519	1618	821	529	2705
Starvation Cap Reductn	0	0	0	0	0	394	2155
Spillback Cap Reductn	0	0	0	96	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	3.63	0.75	1.19	0.64	1.03	1.25

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis

1: Presidential Blvd & EB Hwy 71 Service Rd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	260	454	1624	0	0	0	0	1613	437	111	621	0	
Future Volume (vph)	260	454	1624	0	0	0	0	1613	437	111	621	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0		
Lane Util. Factor	1.00	0.95	0.95					0.95	1.00	1.00	0.95		
Frt	1.00	0.91	0.85					1.00	0.85	1.00	1.00		
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (prot)	1805	1598	1519					3610	1553	1805	3539		
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (perm)	1805	1598	1519					3610	1553	1805	3539		
Peak-hour factor, PHF	0.90	0.90	0.88	0.92	0.92	0.92	0.92	0.89	0.83	0.80	0.90	0.92	
Adj. Flow (vph)	289	504	1845	0	0	0	0	1812	527	139	690	0	
RTOR Reduction (vph)	0	29	0	0	0	0	0	0	124	0	0	0	
Lane Group Flow (vph)	289	1176	1144	0	0	0	0	1812	403	139	690	0	
Heavy Vehicles (%)	0%	6%	1%	2%	2%	2%	2%	0%	4%	0%	2%	2%	
Turn Type	Split	NA	Free					NA	Perm	Prot	NA		
Protected Phases	4 5	4 5						1 2		6 7	1 2 6 7		
Permitted Phases			Free						1 2				
Actuated Green, G (s)	31.0	31.0	174.0					77.0	77.0	50.0	132.0		
Effective Green, g (s)	32.0	32.0	174.0					79.0	79.0	51.0	128.0		
Actuated g/C Ratio	0.18	0.18	1.00					0.45	0.45	0.29	0.74		
Clearance Time (s)													
Vehicle Extension (s)													
Lane Grp Cap (vph)	331	293	1519					1639	705	529	2603		
v/s Ratio Prot	0.16	c0.74						c0.50		0.08	0.19		
v/s Ratio Perm			c0.75						0.26				
v/c Ratio	0.87	4.01	0.75					1.11	0.57	0.26	0.27		
Uniform Delay, d1	69.0	71.0	0.0					47.5	35.0	47.1	7.6		
Progression Factor	1.00	1.00	1.00					1.00	1.00	0.55	0.03		
Incremental Delay, d2	21.5	1363.7	3.5					57.1	1.1	0.0	0.0		
Delay (s)	90.5	1434.7	3.5					104.6	36.1	26.1	0.2		
Level of Service	F	F	A					F	D	C	A		
Approach Delay (s)		666.8			0.0			89.2			4.6		
Approach LOS		F			A			F			A		
Intersection Summary													
HCM 2000 Control Delay			339.5									HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio			1.71										
Actuated Cycle Length (s)			174.0									Sum of lost time (s)	24.0
Intersection Capacity Utilization			146.2%									ICU Level of Service	H
Analysis Period (min)			15										
c Critical Lane Group													

Queues

2: Presidential Blvd/Cardinal Loop & WB Hwy 71 Service Rd



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	647	689	1113	1121	311
v/c Ratio	1.63	1.80	1.12	1.11	0.78
Control Delay	335.6	404.9	71.2	68.7	83.2
Queue Delay	0.0	0.0	0.8	0.8	0.0
Total Delay	335.6	404.9	71.9	69.5	83.2
Queue Length 50th (ft)	~1115	~1240	~1536	~1544	172
Queue Length 95th (ft)	#1255	#1288	m#1320	m1212	221
Internal Link Dist (ft)		132		80	381
Turn Bay Length (ft)					
Base Capacity (vph)	396	383	995	1007	401
Starvation Cap Reductn	0	0	138	141	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.63	1.80	1.30	1.29	0.78

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 2: Presidential Blvd/Cardinal Loop & WB Hwy 71 Service Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↔		↖	↗			↗	↔
Traffic Volume (vph)	0	0	0	604	414	71	1720	153	0	0	128	123
Future Volume (vph)	0	0	0	604	414	71	1720	153	0	0	128	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor				0.95	0.95		0.95	0.95			0.95	
Frt				1.00	0.98		1.00	1.00			0.92	
Flt Protected				0.95	0.99		0.95	0.96			1.00	
Satd. Flow (prot)				1681	1611		1715	1735			3324	
Flt Permitted				0.95	0.99		0.95	0.96			1.00	
Satd. Flow (perm)				1681	1611		1715	1735			3324	
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.80	0.72	0.85	0.73	0.92	0.92	0.87	0.75
Adj. Flow (vph)	0	0	0	719	518	99	2024	210	0	0	147	164
RTOR Reduction (vph)	0	0	0	0	4	0	0	0	0	0	19	0
Lane Group Flow (vph)	0	0	0	647	685	0	1113	1121	0	0	292	0
Heavy Vehicles (%)	2%	2%	2%	2%	11%	4%	0%	0%	2%	2%	0%	0%
Turn Type				Split	NA		Split	NA			NA	
Protected Phases				1 7	1 7		2 4	2 4			5 6	
Permitted Phases												
Actuated Green, G (s)				39.0	39.0		100.0	100.0			19.0	
Effective Green, g (s)				38.0	38.0		101.0	101.0			21.0	
Actuated g/C Ratio				0.22	0.22		0.58	0.58			0.12	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				367	351		995	1007			401	
v/s Ratio Prot				0.38	c0.43		c0.65	0.65			c0.09	
v/s Ratio Perm												
v/c Ratio				1.76	1.95		1.12	1.11			0.73	
Uniform Delay, d1				68.0	68.0		36.5	36.5			73.7	
Progression Factor				1.00	1.00		0.35	0.35			1.00	
Incremental Delay, d2				354.3	438.6		54.9	52.5			6.5	
Delay (s)				422.3	506.6		67.7	65.3			80.2	
Level of Service				F	F		E	E			F	
Approach Delay (s)		0.0			465.8			66.5			80.2	
Approach LOS		A			F			E			F	
Intersection Summary												
HCM 2000 Control Delay			205.0									F
HCM 2000 Volume to Capacity ratio			1.33									
Actuated Cycle Length (s)			174.0						22.0			
Intersection Capacity Utilization			146.2%									H
Analysis Period (min)			15									
c Critical Lane Group												

Queues

3: Spirit of Texas Dr & EB Hwy 71 Service Rd



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	63	718	873	189	151
v/c Ratio	0.14	0.47	0.59	0.41	0.12
Control Delay	62.1	1.0	30.4	12.4	0.3
Queue Delay	0.0	0.0	0.0	1.2	0.8
Total Delay	62.1	1.0	30.4	13.6	1.2
Queue Length 50th (ft)	30	0	318	14	1
Queue Length 95th (ft)	47	0	408	41	1
Internal Link Dist (ft)	148		633		134
Turn Bay Length (ft)		500			
Base Capacity (vph)	612	1538	1798	531	1367
Starvation Cap Reductn	0	0	0	179	975
Spillback Cap Reductn	0	0	52	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.10	0.47	0.50	0.54	0.39
Intersection Summary					

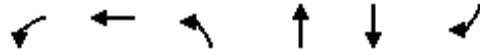
HCM Signalized Intersection Capacity Analysis
3: Spirit of Texas Dr & EB Hwy 71 Service Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔	↗					↕↔		↘	↕	
Traffic Volume (vph)	47	0	632	0	0	0	0	607	168	134	104	0
Future Volume (vph)	47	0	632	0	0	0	0	607	168	134	104	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0					6.0		5.0	6.0	
Lane Util. Factor		0.95	1.00					0.95		1.00	1.00	
Frt		1.00	0.85					0.97		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		3430	1538					3250		1530	1597	
Flt Permitted		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		3430	1538					3250		1530	1597	
Peak-hour factor, PHF	0.75	0.74	0.88	0.92	0.92	0.92	0.92	0.89	0.88	0.71	0.69	0.92
Adj. Flow (vph)	63	0	718	0	0	0	0	682	191	189	151	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	14	0	0	0	0
Lane Group Flow (vph)	0	63	718	0	0	0	0	859	0	189	151	0
Heavy Vehicles (%)	0%	2%	5%	2%	2%	2%	0%	7%	9%	18%	19%	2%
Turn Type	Split	NA	Free					NA		custom	NA	
Protected Phases	4 5	4 5						1 2		6 7	1 2 6 7	
Permitted Phases			Free							6		
Actuated Green, G (s)		17.3	143.0					66.1		43.6	114.7	
Effective Green, g (s)		17.3	143.0					66.1		43.6	104.7	
Actuated g/C Ratio		0.12	1.00					0.46		0.30	0.73	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)		414	1538					1502		466	1169	
v/s Ratio Prot		0.02						c0.26		0.12	0.09	
v/s Ratio Perm			c0.47									
v/c Ratio		0.15	0.47					0.57		0.41	0.13	
Uniform Delay, d1		56.3	0.0					28.1		39.4	5.7	
Progression Factor		1.00	1.00					1.00		0.24	0.06	
Incremental Delay, d2		0.2	1.0					0.5		0.5	0.0	
Delay (s)		56.5	1.0					28.6		10.0	0.4	
Level of Service		E	A					C		A	A	
Approach Delay (s)		5.5			0.0			28.6			5.7	
Approach LOS		A			A			C			A	
Intersection Summary												
HCM 2000 Control Delay			15.7					HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio			0.65									
Actuated Cycle Length (s)			143.0					Sum of lost time (s)		32.0		
Intersection Capacity Utilization			53.3%					ICU Level of Service		A		
Analysis Period (min)			15									
c Critical Lane Group												



















Queues

4: Spirit of Texas Dr & WB Hwy 71 Service Rd



Lane Group	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	256	192	643	78	75	79
v/c Ratio	0.68	0.48	0.70	0.09	0.48	0.26
Control Delay	62.9	52.9	10.3	1.1	76.3	5.6
Queue Delay	0.0	0.0	0.3	0.3	0.0	0.0
Total Delay	62.9	52.9	10.6	1.4	76.3	5.6
Queue Length 50th (ft)	235	161	484	2	72	0
Queue Length 95th (ft)	273	226	672	2	109	0
Internal Link Dist (ft)		951		134	185	
Turn Bay Length (ft)	650					
Base Capacity (vph)	408	432	1105	1080	158	305
Starvation Cap Reductn	0	0	112	691	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.44	0.65	0.20	0.47	0.26
Intersection Summary						

HCM Signalized Intersection Capacity Analysis
4: Spirit of Texas Dr & WB Hwy 71 Service Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	184	123	27	592	62	0	0	54	38
Future Volume (vph)	0	0	0	184	123	27	592	62	0	0	54	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0	6.0		5.0	5.0			6.0	6.0
Lane Util. Factor				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.97		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1656	1731		1752	1712			1234	1615
Flt Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1656	1731		1752	1712			1234	1615
Peak-hour factor, PHF	0.92	0.92	0.92	0.72	0.81	0.68	0.92	0.80	0.92	0.92	0.72	0.48
Adj. Flow (vph)	0	0	0	256	152	40	643	78	0	0	75	79
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	0	68
Lane Group Flow (vph)	0	0	0	256	186	0	643	78	0	0	75	11
Heavy Vehicles (%)	2%	2%	2%	9%	8%	0%	3%	11%	2%	2%	54%	0%
Turn Type				Split	NA		Split	NA			NA	Prot
Protected Phases				1 7	1 7		2 4	2 4			5 6	5 6
Permitted Phases												
Actuated Green, G (s)				32.5	32.5		75.4	75.4			19.1	19.1
Effective Green, g (s)				27.5	27.5		75.4	75.4			19.1	19.1
Actuated g/C Ratio				0.19	0.19		0.53	0.53			0.13	0.13
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				318	332		923	902			164	215
v/s Ratio Prot				c0.15	0.11		c0.37	0.05			c0.06	0.01
v/s Ratio Perm												
v/c Ratio				0.81	0.56		0.70	0.09			0.46	0.05
Uniform Delay, d1				55.2	52.3		25.3	16.7			57.2	54.0
Progression Factor				1.00	1.00		0.24	0.05			1.00	1.00
Incremental Delay, d2				13.7	2.2		2.1	0.0			2.0	0.1
Delay (s)				68.9	54.5		8.2	1.0			59.2	54.1
Level of Service				E	D		A	A			E	D
Approach Delay (s)		0.0			62.7			7.4			56.6	
Approach LOS		A			E			A			E	
Intersection Summary												
HCM 2000 Control Delay			31.8	HCM 2000 Level of Service				C				
HCM 2000 Volume to Capacity ratio			0.75									
Actuated Cycle Length (s)			143.0	Sum of lost time (s)				32.0				
Intersection Capacity Utilization			53.3%	ICU Level of Service				A				
Analysis Period (min)			15									
c Critical Lane Group												

Queues

22: Emma Browning Ave & Burlison Rd






















Lane Group	EBL	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	556	645	12	2751	47	36
v/c Ratio	4.79	0.23	0.02	0.98	0.29	0.03
Control Delay	1740.2	3.7	4.3	26.5	31.6	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1740.2	3.7	4.3	26.5	31.6	1.6
Queue Length 50th (ft)	~481	45	1	~811	22	0
Queue Length 95th (ft)	#108	64	2	#890	44	4
Internal Link Dist (ft)		445		398	323	
Turn Bay Length (ft)	240		240			250
Base Capacity (vph)	116	2816	607	2816	501	1276
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	4.79	0.23	0.02	0.98	0.09	0.03

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
 22: Emma Browning Ave & Burluson Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	139	493	11	3	2413	82	0	0	0	17	0	23
Future Volume (vph)	139	493	11	3	2413	82	0	0	0	17	0	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0		8.0	8.0						6.0	8.0
Lane Util. Factor	1.00	0.95		1.00	0.95						1.00	1.00
Frt	1.00	0.99		1.00	0.99						1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)	1770	3515		1770	3515						1770	1583
Flt Permitted	0.08	1.00		0.41	1.00						0.76	1.00
Satd. Flow (perm)	146	3515		758	3515						1410	1583
Peak-hour factor, PHF	0.25	0.80	0.38	0.25	0.92	0.64	0.92	0.92	0.92	0.36	0.92	0.64
Adj. Flow (vph)	556	616	29	12	2623	128	0	0	0	47	0	36
RTOR Reduction (vph)	0	2	0	0	2	0	0	0	0	0	0	10
Lane Group Flow (vph)	556	643	0	12	2749	0	0	0	0	0	47	26
Turn Type	Perm	NA		Perm	NA					Perm	NA	custom
Protected Phases		2			6			4			8	8
Permitted Phases	2			6			4			8		6
Actuated Green, G (s)	51.0	51.0		51.0	51.0						5.3	51.0
Effective Green, g (s)	51.0	51.0		51.0	51.0						5.3	51.0
Actuated g/C Ratio	0.73	0.73		0.73	0.73						0.08	0.73
Clearance Time (s)	8.0	8.0		8.0	8.0						6.0	8.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0						3.0	3.0
Lane Grp Cap (vph)	105	2550		549	2550						106	1148
v/s Ratio Prot		0.18			0.78							
v/s Ratio Perm	c3.81			0.02							c0.03	0.02
v/c Ratio	5.30	0.25		0.02	1.08						0.44	0.02
Uniform Delay, d1	9.6	3.2		2.7	9.6						31.1	2.7
Progression Factor	1.00	1.00		1.00	1.00						1.00	1.00
Incremental Delay, d2	1953.8	0.1		0.0	43.0						2.9	0.0
Delay (s)	1963.4	3.3		2.7	52.6						34.0	2.7
Level of Service	F	A		A	D						C	A
Approach Delay (s)		910.7			52.4			0.0			20.4	
Approach LOS		F			D			A			C	
Intersection Summary												
HCM 2000 Control Delay			306.5			HCM 2000 Level of Service					F	
HCM 2000 Volume to Capacity ratio			4.80									
Actuated Cycle Length (s)			70.3			Sum of lost time (s)				14.0		
Intersection Capacity Utilization			116.8%			ICU Level of Service				H		
Analysis Period (min)			15									

c Critical Lane Group

Queues

1: Presidential Blvd & EB Hwy 71 Service Rd























Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	347	1317	1215	1697	876	162	816
v/c Ratio	0.92	3.67	0.80	1.03	1.01	0.36	0.31
Control Delay	105.7	1225.1	4.5	81.6	68.5	30.5	0.9
Queue Delay	0.0	0.0	0.0	19.4	0.0	73.7	54.4
Total Delay	105.7	1225.1	4.5	101.0	68.5	104.3	55.3
Queue Length 50th (ft)	452	~3246	0	~1242	~957	51	3
Queue Length 95th (ft)	470	#3525	0	#1371	#1234	m29	m1
Internal Link Dist (ft)		835		276			80
Turn Bay Length (ft)	175						
Base Capacity (vph)	377	359	1519	1650	869	444	2596
Starvation Cap Reductn	0	0	0	0	0	322	2079
Spillback Cap Reductn	0	0	0	77	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	3.67	0.80	1.08	1.01	1.33	1.58

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis

1: Presidential Blvd & EB Hwy 71 Service Rd

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	260	622	1620	0	0	0	0	1578	780	128	726	0	
Future Volume (vph)	260	622	1620	0	0	0	0	1578	780	128	726	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	5.0	5.0	4.0					6.0	6.0	5.0	6.0		
Lane Util. Factor	1.00	0.95	0.95					0.95	1.00	1.00	0.95		
Frt	1.00	0.93	0.85					1.00	0.85	1.00	1.00		
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (prot)	1787	1626	1519					3610	1583	1770	3539		
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (perm)	1787	1626	1519					3610	1583	1770	3539		
Peak-hour factor, PHF	0.75	0.90	0.88	0.92	0.92	0.92	0.92	0.93	0.89	0.79	0.89	0.92	
Adj. Flow (vph)	347	691	1841	0	0	0	0	1697	876	162	816	0	
RTOR Reduction (vph)	0	17	0	0	0	0	0	0	145	0	0	0	
Lane Group Flow (vph)	347	1300	1215	0	0	0	0	1697	731	162	816	0	
Heavy Vehicles (%)	1%	5%	1%	2%	2%	2%	2%	0%	2%	2%	2%	2%	
Turn Type	Split	NA	Free					NA	Perm	Prot	NA		
Protected Phases	4 5	4 5						1 2		6 7	1 2 6 7		
Permitted Phases			Free						1 2				
Actuated Green, G (s)	41.0	41.0	199.0					92.0	92.0	50.0	147.0		
Effective Green, g (s)	41.0	41.0	199.0					92.0	92.0	50.0	137.0		
Actuated g/C Ratio	0.21	0.21	1.00					0.46	0.46	0.25	0.69		
Clearance Time (s)													
Vehicle Extension (s)													
Lane Grp Cap (vph)	368	335	1519					1668	731	444	2436		
v/s Ratio Prot	0.19	c0.80						c0.47		0.09	0.23		
v/s Ratio Perm			c0.80						0.46				
v/c Ratio	0.94	3.88	0.80					1.02	1.00	0.36	0.33		
Uniform Delay, d1	77.8	79.0	0.0					53.5	53.5	61.4	12.6		
Progression Factor	1.00	1.00	1.00					1.00	1.00	0.49	0.09		
Incremental Delay, d2	32.3	1303.9	4.5					26.5	33.4	0.0	0.0		
Delay (s)	110.2	1382.9	4.5					80.0	86.9	30.1	1.2		
Level of Service	F	F	A					E	F	C	A		
Approach Delay (s)		647.8			0.0			82.3			6.0		
Approach LOS		F			A			F			A		
Intersection Summary													
HCM 2000 Control Delay			323.9									HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio			1.78										
Actuated Cycle Length (s)			199.0									Sum of lost time (s)	32.0
Intersection Capacity Utilization			166.3%									ICU Level of Service	H
Analysis Period (min)			15										
c Critical Lane Group													

Queues

2: Presidential Blvd/Cardinal Loop & WB Hwy 71 Service Rd





















Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	640	653	1030	1051	337
v/c Ratio	1.95	1.96	0.96	0.97	1.04
Control Delay	472.5	478.7	20.1	21.4	136.5
Queue Delay	0.0	0.0	43.0	41.9	13.8
Total Delay	472.5	478.7	63.1	63.4	150.3
Queue Length 50th (ft)	~1355	~1390	1340	1383	~229
Queue Length 95th (ft)	#1557	#1667	m1345	m1336	#239
Internal Link Dist (ft)		132		80	381
Turn Bay Length (ft)					
Base Capacity (vph)	329	333	1077	1088	324
Starvation Cap Reductn	0	0	183	184	0
Spillback Cap Reductn	0	0	0	0	12
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.95	1.96	1.15	1.16	1.08

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 2: Presidential Blvd/Cardinal Loop & WB Hwy 71 Service Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	705	371	66	1698	140	0	0	149	114
Future Volume (vph)	0	0	0	705	371	66	1698	140	0	0	149	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0	6.0		5.0	5.0			6.0	
Lane Util. Factor				0.95	0.95		0.95	0.95			0.95	
Frt				1.00	0.98		1.00	1.00			0.94	
Flt Protected				0.95	0.99		0.95	0.96			1.00	
Satd. Flow (prot)				1681	1686		1715	1733			3286	
Flt Permitted				0.95	0.99		0.95	0.96			1.00	
Satd. Flow (perm)				1681	1686		1715	1733			3286	
Peak-hour factor, PHF	0.92	0.92	0.92	0.87	0.94	0.75	0.89	0.81	0.92	0.92	0.74	0.84
Adj. Flow (vph)	0	0	0	810	395	88	1908	173	0	0	201	136
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	0	0	27	0
Lane Group Flow (vph)	0	0	0	640	650	0	1030	1051	0	0	310	0
Heavy Vehicles (%)	2%	2%	2%	2%	5%	0%	0%	0%	0%	2%	2%	5%
Turn Type				Split	NA		Split	NA			NA	
Protected Phases				1 7	1 7		2 4	2 4			5 6	
Permitted Phases												
Actuated Green, G (s)				39.0	39.0		125.0	125.0			19.0	
Effective Green, g (s)				34.0	34.0		125.0	125.0			19.0	
Actuated g/C Ratio				0.17	0.17		0.63	0.63			0.10	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				287	288		1077	1088			313	
v/s Ratio Prot				0.38	c0.39		0.60	c0.61			c0.09	
v/s Ratio Perm												
v/c Ratio				2.23	2.26		0.96	0.97			0.99	
Uniform Delay, d1				82.5	82.5		34.5	35.0			89.9	
Progression Factor				1.00	1.00		0.36	0.36			1.00	
Incremental Delay, d2				564.6	576.1		6.2	7.2			47.6	
Delay (s)				647.1	658.6		18.5	19.9			137.5	
Level of Service				F	F		B	B			F	
Approach Delay (s)		0.0			652.9			19.2			137.5	
Approach LOS		A			F			B			F	
Intersection Summary												
HCM 2000 Control Delay			250.7				HCM 2000 Level of Service		F			
HCM 2000 Volume to Capacity ratio			1.29									
Actuated Cycle Length (s)			199.0				Sum of lost time (s)		32.0			
Intersection Capacity Utilization			166.3%				ICU Level of Service		H			
Analysis Period (min)			15									
c Critical Lane Group												

Queues



















3: Spirit of Texas Dr & EB Hwy 71 Service Rd



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	126	520	868	223	132
v/c Ratio	0.28	0.33	0.59	0.43	0.10
Control Delay	65.9	0.6	33.1	11.7	0.6
Queue Delay	0.0	0.0	0.0	2.1	0.4
Total Delay	65.9	0.6	33.2	13.9	0.9
Queue Length 50th (ft)	62	0	335	25	2
Queue Length 95th (ft)	64	0	404	38	3
Internal Link Dist (ft)	148		633		134
Turn Bay Length (ft)		500			
Base Capacity (vph)	757	1568	1964	514	1490
Starvation Cap Reductn	0	0	0	173	1011
Spillback Cap Reductn	0	0	54	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.17	0.33	0.45	0.65	0.28

Intersection Summary

HCM Signalized Intersection Capacity Analysis
3: Spirit of Texas Dr & EB Hwy 71 Service Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	0	489	0	0	0	0	570	200	174	95	0
Future Volume (vph)	73	0	489	0	0	0	0	570	200	174	95	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0					6.0		5.0	6.0	
Lane Util. Factor		0.95	1.00					0.95		1.00	1.00	
Frt		1.00	0.85					0.96		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		3362	1568					3296		1597	1624	
Flt Permitted		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		3362	1568					3296		1597	1624	
Peak-hour factor, PHF	0.58	0.54	0.94	0.92	0.92	0.92	0.92	0.87	0.94	0.78	0.72	0.92
Adj. Flow (vph)	126	0	520	0	0	0	0	655	213	223	132	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	16	0	0	0	0
Lane Group Flow (vph)	0	126	520	0	0	0	0	852	0	223	132	0
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	5%	7%	13%	17%	2%
Turn Type	Split	NA	Free					NA		Prot	NA	
Protected Phases	4 5	4 5						1 2		6 7	1 2 6 7	
Permitted Phases			Free									
Actuated Green, G (s)		19.7	157.1					70.7		50.7	126.4	
Effective Green, g (s)		19.7	157.1					70.7		50.7	116.4	
Actuated g/C Ratio		0.13	1.00					0.45		0.32	0.74	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)		421	1568					1483		515	1203	
v/s Ratio Prot		0.04						c0.26		c0.14	0.08	
v/s Ratio Perm			c0.33									
v/c Ratio		0.30	0.33					0.57		0.43	0.11	
Uniform Delay, d1		62.4	0.0					32.0		41.9	5.7	
Progression Factor		1.00	1.00					1.00		0.20	0.11	
Incremental Delay, d2		0.4	0.6					0.5		0.5	0.0	
Delay (s)		62.8	0.6					32.6		9.0	0.7	
Level of Service		E	A					C		A	A	
Approach Delay (s)		12.7			0.0			32.6			5.9	
Approach LOS		B			A			C			A	
Intersection Summary												
HCM 2000 Control Delay			20.6					HCM 2000 Level of Service		C		
HCM 2000 Volume to Capacity ratio			0.57									
Actuated Cycle Length (s)			157.1					Sum of lost time (s)		32.0		
Intersection Capacity Utilization			70.4%					ICU Level of Service		C		
Analysis Period (min)			15									
c Critical Lane Group												

Queues

4: Spirit of Texas Dr & WB Hwy 71 Service Rd





















Lane Group	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	202	624	620	90	121	37
v/c Ratio	0.47	1.29	0.68	0.11	0.75	0.14
Control Delay	57.5	192.4	10.1	1.7	97.0	1.1
Queue Delay	0.0	0.0	0.2	0.3	0.8	0.0
Total Delay	57.5	192.4	10.3	2.0	97.8	1.1
Queue Length 50th (ft)	176	-819	438	3	122	0
Queue Length 95th (ft)	317	#1094	585	3	#183	0
Internal Link Dist (ft)		951		134	185	
Turn Bay Length (ft)	650					
Base Capacity (vph)	434	482	1168	1003	161	264
Starvation Cap Reductn	0	0	89	585	0	0
Spillback Cap Reductn	0	0	0	0	3	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.47	1.29	0.57	0.22	0.77	0.14

Intersection Summary

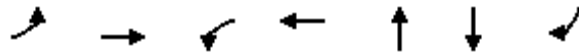
- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
4: Spirit of Texas Dr & WB Hwy 71 Service Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	184	471	22	570	73	0	0	85	28
Future Volume (vph)	0	0	0	184	471	22	570	73	0	0	85	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0	6.0		5.0	5.0			6.0	6.0
Lane Util. Factor				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.99		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1687	1869		1770	1520			1397	1538
Flt Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1687	1869		1770	1520			1397	1538
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.79	0.80	0.92	0.81	0.92	0.92	0.70	0.75
Adj. Flow (vph)	0	0	0	202	596	28	620	90	0	0	121	37
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	32
Lane Group Flow (vph)	0	0	0	202	623	0	620	90	0	0	121	5
Heavy Vehicles (%)	2%	2%	2%	7%	1%	0%	2%	25%	2%	2%	36%	5%
Turn Type				Split	NA		Split	NA			NA	Prot
Protected Phases				1 7	1 7		2 4	2 4			5 6	5 6
Permitted Phases												
Actuated Green, G (s)				40.5	40.5		81.4	81.4			19.2	19.2
Effective Green, g (s)				35.5	35.5		81.4	81.4			19.2	19.2
Actuated g/C Ratio				0.23	0.23		0.52	0.52			0.12	0.12
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				381	422		917	787			170	187
v/s Ratio Prot				0.12	c0.33		c0.35	0.06			c0.09	0.00
v/s Ratio Perm												
v/c Ratio				0.53	1.48		0.68	0.11			0.71	0.02
Uniform Delay, d1				53.5	60.8		28.1	19.4			66.3	60.7
Progression Factor				1.00	1.00		0.23	0.08			1.00	1.00
Incremental Delay, d2				1.4	227.1		1.9	0.1			13.2	0.1
Delay (s)				54.9	287.9		8.4	1.6			79.4	60.8
Level of Service				D	F		A	A			E	E
Approach Delay (s)		0.0			230.9			7.5			75.1	
Approach LOS		A			F			A			E	
Intersection Summary												
HCM 2000 Control Delay			122.7									F
HCM 2000 Volume to Capacity ratio			0.97									
Actuated Cycle Length (s)			157.1						32.0			
Intersection Capacity Utilization			70.4%									C
Analysis Period (min)			15									
c Critical Lane Group												

Queues

22: Emma Browning Ave & Burlison Rd






















Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	61	2745	18	1334	53	84	108
v/c Ratio	0.26	1.10	0.15	0.54	0.21	0.45	0.09
Control Delay	10.0	70.1	9.8	7.6	7.3	33.6	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	70.1	9.8	7.6	7.3	33.6	1.6
Queue Length 50th (ft)	9	~732	3	136	0	31	0
Queue Length 95th (ft)	36	#958	15	229	21	70	16
Internal Link Dist (ft)		445		398	129	323	
Turn Bay Length (ft)	240		240				250
Base Capacity (vph)	231	2491	117	2485	542	465	1147
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	1.10	0.15	0.54	0.10	0.18	0.09

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
22: Emma Browning Ave & Burluson Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	2496	29	17	1184	43	26	0	23	76	1	99
Future Volume (vph)	56	2496	29	17	1184	43	26	0	23	76	1	99
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0		8.0	8.0			6.0			6.0	8.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.99			0.94			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.95	1.00
Satd. Flow (prot)	1770	3533		1770	3521			1699			1775	1583
Flt Permitted	0.18	1.00		0.09	1.00			0.79			0.69	1.00
Satd. Flow (perm)	328	3533		165	3521			1377			1285	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	2713	32	18	1287	47	28	0	25	83	1	108
RTOR Reduction (vph)	0	1	0	0	2	0	0	46	0	0	0	36
Lane Group Flow (vph)	61	2744	0	18	1332	0	0	7	0	0	84	72
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	custom
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		6
Actuated Green, G (s)	45.1	45.1		45.1	45.1			8.4			8.4	45.1
Effective Green, g (s)	45.1	45.1		45.1	45.1			8.4			8.4	45.1
Actuated g/C Ratio	0.67	0.67		0.67	0.67			0.12			0.12	0.67
Clearance Time (s)	8.0	8.0		8.0	8.0			6.0			6.0	8.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	219	2360		110	2352			171			159	1057
v/s Ratio Prot		c0.78			0.38							
v/s Ratio Perm	0.19			0.11				0.00			c0.07	0.05
v/c Ratio	0.28	1.16		0.16	0.57			0.04			0.53	0.07
Uniform Delay, d1	4.6	11.2		4.2	6.0			26.0			27.7	3.9
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	0.7	78.4		0.7	0.3			0.1			3.1	0.0
Delay (s)	5.3	89.6		4.9	6.3			26.1			30.8	3.9
Level of Service	A	F		A	A			C			C	A
Approach Delay (s)		87.7			6.3			26.1			15.7	
Approach LOS		F			A			C			B	
Intersection Summary												
HCM 2000 Control Delay			58.8			HCM 2000 Level of Service				E		
HCM 2000 Volume to Capacity ratio			1.06									
Actuated Cycle Length (s)			67.5			Sum of lost time (s)			14.0			
Intersection Capacity Utilization			91.1%			ICU Level of Service				F		
Analysis Period (min)			15									

c Critical Lane Group

Queues

1: Presidential Blvd & EB Hwy 71 Service Rd























Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	556	1498	1356	1851	537	268	704
v/c Ratio	1.63	4.65	0.89	1.14	0.66	0.51	0.26
Control Delay	335.5	1663.8	8.9	115.9	26.1	26.7	0.1
Queue Delay	0.6	0.0	0.0	0.2	0.0	67.3	55.2
Total Delay	336.1	1663.8	8.9	116.1	26.1	94.0	55.3
Queue Length 50th (ft)	~909	~3343	0	~1295	297	79	0
Queue Length 95th (ft)	#1152	#3622	0	#1398	366	m39	m0
Internal Link Dist (ft)		835		276			80
Turn Bay Length (ft)	175						
Base Capacity (vph)	342	322	1519	1618	813	529	2705
Starvation Cap Reductn	0	0	0	0	0	361	2236
Spillback Cap Reductn	19	0	0	100	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.72	4.65	0.89	1.22	0.66	1.60	1.50

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis

1: Presidential Blvd & EB Hwy 71 Service Rd

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	500	873	1658	0	0	0	0	1647	446	214	634	0	
Future Volume (vph)	500	873	1658	0	0	0	0	1647	446	214	634	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0		
Lane Util. Factor	1.00	0.95	0.95					0.95	1.00	1.00	0.95		
Frt	1.00	0.95	0.85					1.00	0.85	1.00	1.00		
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (prot)	1805	1640	1519					3610	1553	1805	3539		
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (perm)	1805	1640	1519					3610	1553	1805	3539		
Peak-hour factor, PHF	0.90	0.90	0.88	0.92	0.92	0.92	0.92	0.89	0.83	0.80	0.90	0.92	
Adj. Flow (vph)	556	970	1884	0	0	0	0	1851	537	268	704	0	
RTOR Reduction (vph)	0	11	0	0	0	0	0	0	116	0	0	0	
Lane Group Flow (vph)	556	1487	1356	0	0	0	0	1851	421	268	704	0	
Heavy Vehicles (%)	0%	6%	1%	2%	2%	2%	2%	0%	4%	0%	2%	2%	
Turn Type	Split	NA	Free					NA	Perm	Prot	NA		
Protected Phases	4 5	4 5						1 2		6 7	1 2 6 7		
Permitted Phases			Free						1 2				
Actuated Green, G (s)	31.0	31.0	174.0					77.0	77.0	50.0	132.0		
Effective Green, g (s)	32.0	32.0	174.0					79.0	79.0	51.0	128.0		
Actuated g/C Ratio	0.18	0.18	1.00					0.45	0.45	0.29	0.74		
Clearance Time (s)													
Vehicle Extension (s)													
Lane Grp Cap (vph)	331	301	1519					1639	705	529	2603		
v/s Ratio Prot	0.31	c0.91						c0.51		0.15	0.20		
v/s Ratio Perm			c0.89						0.27				
v/c Ratio	1.68	4.94	0.89					1.13	0.60	0.51	0.27		
Uniform Delay, d1	71.0	71.0	0.0					47.5	35.6	51.1	7.6		
Progression Factor	1.00	1.00	1.00					1.00	1.00	0.51	0.01		
Incremental Delay, d2	318.8	1779.9	8.4					66.6	1.4	0.1	0.0		
Delay (s)	389.8	1850.9	8.4					114.1	37.0	26.2	0.1		
Level of Service	F	F	A					F	D	C	A		
Approach Delay (s)		880.0			0.0			96.7			7.3		
Approach LOS		F			A			F			A		
Intersection Summary													
HCM 2000 Control Delay			478.4									HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio			1.98										
Actuated Cycle Length (s)			174.0									Sum of lost time (s)	24.0
Intersection Capacity Utilization			188.7%									ICU Level of Service	H
Analysis Period (min)			15										
c Critical Lane Group													

Queues

2: Presidential Blvd/Cardinal Loop & WB Hwy 71 Service Rd

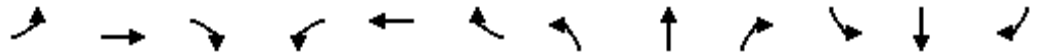


Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	750	1268	1276	1284	485
v/c Ratio	1.89	3.32	1.28	1.28	1.64dr
Control Delay	445.2	1069.0	147.5	144.2	202.6
Queue Delay	0.0	0.1	0.7	0.7	1.5
Total Delay	445.2	1069.1	148.2	144.9	204.1
Queue Length 50th (ft)	~1372	~2696	~1935	~1943	~366
Queue Length 95th (ft)	#1501	#2593	m#1382	m#1356	#468
Internal Link Dist (ft)		132		80	381
Turn Bay Length (ft)					
Base Capacity (vph)	396	382	995	1007	378
Starvation Cap Reductn	0	0	135	137	0
Spillback Cap Reductn	2	2	0	0	49
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.90	3.34	1.48	1.48	1.47

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.
- dr Defacto Right Lane. Recode with 1 though lane as a right lane.

HCM Signalized Intersection Capacity Analysis
 2: Presidential Blvd/Cardinal Loop & WB Hwy 71 Service Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↔		↗	↕			↕	↗
Traffic Volume (vph)	0	0	0	700	796	137	1972	175	0	0	148	236
Future Volume (vph)	0	0	0	700	796	137	1972	175	0	0	148	236
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor				0.95	0.95		0.95	0.95			0.95	
Frt				1.00	0.98		1.00	1.00			0.90	
Flt Protected				0.95	1.00		0.95	0.96			1.00	
Satd. Flow (prot)				1681	1608		1715	1734			3258	
Flt Permitted				0.95	1.00		0.95	0.96			1.00	
Satd. Flow (perm)				1681	1608		1715	1734			3258	
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.80	0.72	0.85	0.73	0.92	0.92	0.87	0.75
Adj. Flow (vph)	0	0	0	833	995	190	2320	240	0	0	170	315
RTOR Reduction (vph)	0	0	0	0	4	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	0	0	750	1264	0	1276	1284	0	0	481	0
Heavy Vehicles (%)	2%	2%	2%	2%	11%	4%	0%	0%	2%	2%	0%	0%
Turn Type				Split	NA		Split	NA			NA	
Protected Phases				1 7	1 7		2 4	2 4			5 6	
Permitted Phases												
Actuated Green, G (s)				39.0	39.0		100.0	100.0			19.0	
Effective Green, g (s)				38.0	38.0		101.0	101.0			21.0	
Actuated g/C Ratio				0.22	0.22		0.58	0.58			0.12	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				367	351		995	1006			393	
v/s Ratio Prot				0.45	c0.79		c0.74	0.74			c0.15	
v/s Ratio Perm												
v/c Ratio				2.04	3.60		1.28	1.28			1.64dr	
Uniform Delay, d1				68.0	68.0		36.5	36.5			76.5	
Progression Factor				1.00	1.00		0.42	0.42			1.00	
Incremental Delay, d2				479.0	1177.7		127.8	125.1			122.0	
Delay (s)				547.0	1245.7		143.3	140.6			198.5	
Level of Service				F	F		F	F			F	
Approach Delay (s)		0.0			986.0			141.9			198.5	
Approach LOS		A			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	483.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.92		
Actuated Cycle Length (s)	174.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	188.7%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.
 c Critical Lane Group

Queues



















3: Spirit of Texas Dr & EB Hwy 71 Service Rd

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	64	734	892	363	154
v/c Ratio	0.15	0.48	0.61	0.72	0.12
Control Delay	63.5	1.1	33.2	24.4	0.2
Queue Delay	0.0	0.0	0.0	20.5	1.2
Total Delay	63.5	1.1	33.2	44.9	1.5
Queue Length 50th (ft)	32	0	342	139	1
Queue Length 95th (ft)	47	0	420	144	m1
Internal Link Dist (ft)	148		633		134
Turn Bay Length (ft)		500			
Base Capacity (vph)	562	1538	1655	502	1384
Starvation Cap Reductn	0	0	0	135	1043
Spillback Cap Reductn	0	0	51	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.11	0.48	0.56	0.99	0.45

Intersection Summary

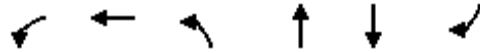
m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
3: Spirit of Texas Dr & EB Hwy 71 Service Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	48	0	646	0	0	0	0	620	172	258	106	0
Future Volume (vph)	48	0	646	0	0	0	0	620	172	258	106	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0					6.0		5.0	6.0	
Lane Util. Factor		0.95	1.00					0.95		1.00	1.00	
Frt		1.00	0.85					0.97		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		3430	1538					3250		1530	1597	
Flt Permitted		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		3430	1538					3250		1530	1597	
Peak-hour factor, PHF	0.75	0.74	0.88	0.92	0.92	0.92	0.92	0.89	0.88	0.71	0.69	0.92
Adj. Flow (vph)	64	0	734	0	0	0	0	697	195	363	154	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	14	0	0	0	0
Lane Group Flow (vph)	0	64	734	0	0	0	0	878	0	363	154	0
Heavy Vehicles (%)	0%	2%	5%	2%	2%	2%	0%	7%	9%	18%	19%	2%
Turn Type	Split	NA	Free					NA		custom	NA	
Protected Phases	4 5	4 5						1 2		6 7	1 2 6 7	
Permitted Phases			Free							6		
Actuated Green, G (s)		17.5	153.1					69.3		50.3	124.6	
Effective Green, g (s)		17.5	153.1					69.3		50.3	114.6	
Actuated g/C Ratio		0.11	1.00					0.45		0.33	0.75	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)		392	1538					1471		502	1195	
v/s Ratio Prot		0.02						c0.27		c0.24	0.10	
v/s Ratio Perm			c0.48									
v/c Ratio		0.16	0.48					0.60		0.72	0.13	
Uniform Delay, d1		61.2	0.0					31.4		45.3	5.4	
Progression Factor		1.00	1.00					1.00		0.41	0.04	
Incremental Delay, d2		0.2	1.1					0.7		2.4	0.0	
Delay (s)		61.4	1.1					32.1		21.1	0.2	
Level of Service		E	A					C		C	A	
Approach Delay (s)		5.9			0.0			32.1			14.9	
Approach LOS		A			A			C			B	
Intersection Summary												
HCM 2000 Control Delay			18.6					HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio			0.74									
Actuated Cycle Length (s)			153.1					Sum of lost time (s)		32.0		
Intersection Capacity Utilization			60.2%					ICU Level of Service		B		
Analysis Period (min)			15									
c Critical Lane Group												

Queues

4: Spirit of Texas Dr & WB Hwy 71 Service Rd





















Lane Group	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	390	331	658	79	115	81
v/c Ratio	0.92	0.74	0.73	0.09	0.79	0.28
Control Delay	84.1	64.5	11.3	1.1	101.8	6.3
Queue Delay	0.0	0.0	0.5	0.5	43.8	0.0
Total Delay	84.1	64.5	11.8	1.6	145.7	6.3
Queue Length 50th (ft)	406	321	520	2	119	0
Queue Length 95th (ft)	426	404	697	2	#167	0
Internal Link Dist (ft)		951		134	185	
Turn Bay Length (ft)	650					
Base Capacity (vph)	424	449	1049	1025	145	289
Starvation Cap Reductn	0	0	110	693	0	0
Spillback Cap Reductn	0	0	0	0	34	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.74	0.70	0.24	1.04	0.28

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
4: Spirit of Texas Dr & WB Hwy 71 Service Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	281	236	27	605	63	0	0	83	39
Future Volume (vph)	0	0	0	281	236	27	605	63	0	0	83	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0	6.0		5.0	5.0			6.0	6.0
Lane Util. Factor				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.98		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1656	1743		1752	1712			1234	1615
Flt Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1656	1743		1752	1712			1234	1615
Peak-hour factor, PHF	0.92	0.92	0.92	0.72	0.81	0.68	0.92	0.80	0.92	0.92	0.72	0.48
Adj. Flow (vph)	0	0	0	390	291	40	658	79	0	0	115	81
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	0	0	0	71
Lane Group Flow (vph)	0	0	0	390	328	0	658	79	0	0	115	10
Heavy Vehicles (%)	2%	2%	2%	9%	8%	0%	3%	11%	2%	2%	54%	0%
Turn Type				Split	NA		Split	NA			NA	Prot
Protected Phases				1 7	1 7		2 4	2 4			5 6	5 6
Permitted Phases												
Actuated Green, G (s)				39.2	39.2		78.8	78.8			19.1	19.1
Effective Green, g (s)				34.2	34.2		78.8	78.8			19.1	19.1
Actuated g/C Ratio				0.22	0.22		0.51	0.51			0.12	0.12
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				369	389		901	881			153	201
v/s Ratio Prot				c0.24	0.19		c0.38	0.05			c0.09	0.01
v/s Ratio Perm												
v/c Ratio				1.06	0.84		0.73	0.09			0.75	0.05
Uniform Delay, d1				59.4	56.9		28.9	18.9			64.7	59.0
Progression Factor				1.00	1.00		0.23	0.05			1.00	1.00
Incremental Delay, d2				62.6	15.2		2.7	0.0			18.6	0.1
Delay (s)				122.1	72.1		9.5	1.0			83.3	59.1
Level of Service				F	E		A	A			F	E
Approach Delay (s)		0.0			99.1			8.6			73.3	
Approach LOS		A			F			A			E	
Intersection Summary												
HCM 2000 Control Delay			55.7	HCM 2000 Level of Service				E				
HCM 2000 Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			153.1	Sum of lost time (s)				32.0				
Intersection Capacity Utilization			60.2%	ICU Level of Service				B				
Analysis Period (min)			15									
c Critical Lane Group												

Queues

22: Emma Browning Ave & Burlison Rd






















Lane Group	EBL	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	932	1246	20	5267	78	59
v/c Ratio	8.32	0.49	0.07	2.07	0.42	0.05
Control Delay	3312.6	6.7	6.0	500.4	33.2	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3312.6	6.7	6.0	500.4	33.2	1.8
Queue Length 50th (ft)	~728	118	3	~1881	29	0
Queue Length 95th (ft)	#213	161	3	#2146	65	6
Internal Link Dist (ft)		445		398	323	
Turn Bay Length (ft)	240		240			250
Base Capacity (vph)	112	2540	273	2543	495	1159
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	8.32	0.49	0.07	2.07	0.16	0.05

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
22: Emma Browning Ave & Burluson Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	233	950	22	5	4647	138	0	0	0	28	0	38
Future Volume (vph)	233	950	22	5	4647	138	0	0	0	28	0	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0		8.0	8.0						6.0	8.0
Lane Util. Factor	1.00	0.95		1.00	0.95						1.00	1.00
Frt	1.00	0.99		1.00	0.99						1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)	1770	3515		1770	3517						1770	1583
Flt Permitted	0.08	1.00		0.20	1.00						0.76	1.00
Satd. Flow (perm)	156	3515		377	3517						1410	1583
Peak-hour factor, PHF	0.25	0.80	0.38	0.25	0.92	0.64	0.92	0.92	0.92	0.36	0.92	0.64
Adj. Flow (vph)	932	1188	58	20	5051	216	0	0	0	78	0	59
RTOR Reduction (vph)	0	3	0	0	3	0	0	0	0	0	0	19
Lane Group Flow (vph)	932	1243	0	20	5264	0	0	0	0	0	78	40
Turn Type	Perm	NA		Perm	NA					Perm	NA	custom
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		6
Actuated Green, G (s)	47.9	47.9		47.9	47.9						8.0	47.9
Effective Green, g (s)	47.9	47.9		47.9	47.9						8.0	47.9
Actuated g/C Ratio	0.69	0.69		0.69	0.69						0.11	0.69
Clearance Time (s)	8.0	8.0		8.0	8.0						6.0	8.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0						3.0	3.0
Lane Grp Cap (vph)	106	2408		258	2410						161	1084
v/s Ratio Prot		0.35			1.50							
v/s Ratio Perm	c5.99			0.05							c0.06	0.03
v/c Ratio	8.79	0.52		0.08	2.18						0.48	0.04
Uniform Delay, d1	11.0	5.4		3.7	11.0						29.0	3.6
Progression Factor	1.00	1.00		1.00	1.00						1.00	1.00
Incremental Delay, d2	3525.7	0.2		0.1	534.4						2.3	0.0
Delay (s)	3536.7	5.5		3.8	545.4						31.3	3.6
Level of Service	F	A		A	F						C	A
Approach Delay (s)		1516.6			543.3			0.0			19.4	
Approach LOS		F			F			A			B	
Intersection Summary												
HCM 2000 Control Delay			812.7			HCM 2000 Level of Service					F	
HCM 2000 Volume to Capacity ratio			7.54									
Actuated Cycle Length (s)			69.9			Sum of lost time (s)				14.0		
Intersection Capacity Utilization			180.3%			ICU Level of Service				H		
Analysis Period (min)			15									
c	Critical Lane Group											

Queues

1: Presidential Blvd & EB Hwy 71 Service Rd























Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	667	1706	1505	1733	896	313	833
v/c Ratio	1.77	4.77	0.99	1.05	1.14	0.70	0.32
Control Delay	396.6	1714.1	23.2	87.8	118.3	31.2	0.9
Queue Delay	0.5	0.0	0.0	20.4	0.0	68.0	56.4
Total Delay	397.1	1714.1	23.2	108.2	118.3	99.2	57.3
Queue Length 50th (ft)	~1296	~4386	0	~1294	~1273	121	1
Queue Length 95th (ft)	#1212	#4645	#125	#1421	#1511	m38	m0
Internal Link Dist (ft)		835		276			80
Turn Bay Length (ft)	175						
Base Capacity (vph)	377	358	1519	1650	788	444	2596
Starvation Cap Reductn	0	0	0	0	0	298	2184
Spillback Cap Reductn	18	0	0	87	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.86	4.77	0.99	1.11	1.14	2.14	2.02

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
1: Presidential Blvd & EB Hwy 71 Service Rd

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	500	1197	1655	0	0	0	0	1612	797	247	741	0	
Future Volume (vph)	500	1197	1655	0	0	0	0	1612	797	247	741	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	5.0	5.0	4.0					6.0	6.0	5.0	6.0		
Lane Util. Factor	1.00	0.95	0.95					0.95	1.00	1.00	0.95		
Frt	1.00	0.97	0.85					1.00	0.85	1.00	1.00		
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (prot)	1787	1676	1519					3610	1583	1770	3539		
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (perm)	1787	1676	1519					3610	1583	1770	3539		
Peak-hour factor, PHF	0.75	0.90	0.88	0.92	0.92	0.92	0.92	0.93	0.89	0.79	0.89	0.92	
Adj. Flow (vph)	667	1330	1881	0	0	0	0	1733	896	313	833	0	
RTOR Reduction (vph)	0	5	0	0	0	0	0	0	64	0	0	0	
Lane Group Flow (vph)	667	1701	1505	0	0	0	0	1733	832	313	833	0	
Heavy Vehicles (%)	1%	5%	1%	2%	2%	2%	2%	0%	2%	2%	2%	2%	
Turn Type	Split	NA	Free					NA	Perm	Prot	NA		
Protected Phases	4 5	4 5						1 2		6 7	1 2 6 7		
Permitted Phases			Free						1 2				
Actuated Green, G (s)	41.0	41.0	199.0					92.0	92.0	50.0	147.0		
Effective Green, g (s)	41.0	41.0	199.0					92.0	92.0	50.0	137.0		
Actuated g/C Ratio	0.21	0.21	1.00					0.46	0.46	0.25	0.69		
Clearance Time (s)													
Vehicle Extension (s)													
Lane Grp Cap (vph)	368	345	1519					1668	731	444	2436		
v/s Ratio Prot	0.37	c1.01						0.48		0.18	0.24		
v/s Ratio Perm			c0.99						c0.53				
v/c Ratio	1.81	4.93	0.99					1.04	1.14	0.70	0.34		
Uniform Delay, d1	79.0	79.0	0.0					53.5	53.5	67.8	12.6		
Progression Factor	1.00	1.00	1.00					1.00	1.00	0.44	0.09		
Incremental Delay, d2	376.2	1775.5	21.0					32.9	78.3	0.5	0.0		
Delay (s)	455.2	1854.5	21.0					86.4	131.8	30.5	1.2		
Level of Service	F	F	C					F	F	C	A		
Approach Delay (s)		902.3			0.0			101.9			9.2		
Approach LOS		F			A			F			A		
Intersection Summary													
HCM 2000 Control Delay			493.6									HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio			2.17										
Actuated Cycle Length (s)			199.0									Sum of lost time (s)	32.0
Intersection Capacity Utilization			216.2%									ICU Level of Service	H
Analysis Period (min)			15										
c Critical Lane Group													

Queues

2: Presidential Blvd/Cardinal Loop & WB Hwy 71 Service Rd



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	843	1022	1184	1207	496
v/c Ratio	2.56	3.07	1.10	1.11	1.77dr
Control Delay	738.4	960.6	63.4	68.0	361.9
Queue Delay	0.2	0.2	1.2	0.9	2.5
Total Delay	738.5	960.8	64.6	68.9	364.4
Queue Length 50th (ft)	~1934	~2453	~1835	~1884	~492
Queue Length 95th (ft)	#2125	#2738	m913	m1037	#472
Internal Link Dist (ft)		132		80	381
Turn Bay Length (ft)					
Base Capacity (vph)	329	333	1077	1088	297
Starvation Cap Reductn	0	0	185	186	0
Spillback Cap Reductn	5	5	0	0	53
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	2.60	3.12	1.33	1.34	2.03

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.
- dr Defacto Right Lane. Recode with 1 though lane as a right lane.

HCM Signalized Intersection Capacity Analysis
 2: Presidential Blvd/Cardinal Loop & WB Hwy 71 Service Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	815	714	126	1951	161	0	0	173	220
Future Volume (vph)	0	0	0	815	714	126	1951	161	0	0	173	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0	6.0		5.0	5.0			6.0	
Lane Util. Factor				0.95	0.95		0.95	0.95			0.95	
Frt				1.00	0.98		1.00	1.00			0.92	
Flt Protected				0.95	1.00		0.95	0.96			1.00	
Satd. Flow (prot)				1681	1687		1715	1733			3209	
Flt Permitted				0.95	1.00		0.95	0.96			1.00	
Satd. Flow (perm)				1681	1687		1715	1733			3209	
Peak-hour factor, PHF	0.92	0.92	0.92	0.87	0.94	0.75	0.89	0.81	0.92	0.92	0.74	0.84
Adj. Flow (vph)	0	0	0	937	760	168	2192	199	0	0	234	262
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	0	0	7	0
Lane Group Flow (vph)	0	0	0	843	1019	0	1184	1207	0	0	489	0
Heavy Vehicles (%)	2%	2%	2%	2%	5%	0%	0%	0%	0%	2%	2%	5%
Turn Type				Split	NA		Split	NA			NA	
Protected Phases				1 7	1 7		2 4	2 4			5 6	
Permitted Phases												
Actuated Green, G (s)				39.0	39.0		125.0	125.0			19.0	
Effective Green, g (s)				34.0	34.0		125.0	125.0			19.0	
Actuated g/C Ratio				0.17	0.17		0.63	0.63			0.10	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				287	288		1077	1088			306	
v/s Ratio Prot				0.50	c0.60		0.69	c0.70			c0.15	
v/s Ratio Perm												
v/c Ratio				2.94	3.54		1.10	1.11			1.77dr	
Uniform Delay, d1				82.5	82.5		37.0	37.0			90.0	
Progression Factor				1.00	1.00		0.39	0.39			1.00	
Incremental Delay, d2				881.2	1150.3		46.3	50.7			283.7	
Delay (s)				963.7	1232.8		60.7	65.1			373.7	
Level of Service				F	F		E	E			F	
Approach Delay (s)		0.0			1111.2			62.9			373.7	
Approach LOS		A			F			E			F	

Intersection Summary			
HCM 2000 Control Delay	506.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.73		
Actuated Cycle Length (s)	199.0	Sum of lost time (s)	32.0
Intersection Capacity Utilization	216.2%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.
 c Critical Lane Group

Queues



















3: Spirit of Texas Dr & EB Hwy 71 Service Rd

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	129	531	923	429	140
v/c Ratio	0.29	0.34	0.61	0.86	0.11
Control Delay	68.0	0.6	33.5	31.4	0.4
Queue Delay	0.0	0.0	0.0	51.0	0.9
Total Delay	68.0	0.6	33.5	82.4	1.3
Queue Length 50th (ft)	66	0	367	162	2
Queue Length 95th (ft)	65	0	444	m321	m3
Internal Link Dist (ft)	148		633		134
Turn Bay Length (ft)		500			
Base Capacity (vph)	730	1568	1895	496	1441
Starvation Cap Reductn	0	0	0	118	1072
Spillback Cap Reductn	0	0	53	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.18	0.34	0.50	1.13	0.38

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
3: Spirit of Texas Dr & EB Hwy 71 Service Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	0	499	0	0	0	0	606	212	335	101	0
Future Volume (vph)	75	0	499	0	0	0	0	606	212	335	101	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0					6.0		5.0	6.0	
Lane Util. Factor		0.95	1.00					0.95		1.00	1.00	
Frt		1.00	0.85					0.96		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		3362	1568					3296		1597	1624	
Flt Permitted		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		3362	1568					3296		1597	1624	
Peak-hour factor, PHF	0.58	0.54	0.94	0.92	0.92	0.92	0.92	0.87	0.94	0.78	0.72	0.92
Adj. Flow (vph)	129	0	531	0	0	0	0	697	226	429	140	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	16	0	0	0	0
Lane Group Flow (vph)	0	129	531	0	0	0	0	907	0	429	140	0
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	5%	7%	13%	17%	2%
Turn Type	Split	NA	Free					NA		Prot	NA	
Protected Phases	4 5	4 5						1 2		6 7	1 2 6 7	
Permitted Phases			Free									
Actuated Green, G (s)		20.5	162.8					75.7		50.6	131.3	
Effective Green, g (s)		20.5	162.8					75.7		50.6	121.3	
Actuated g/C Ratio		0.13	1.00					0.46		0.31	0.75	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)		423	1568					1532		496	1210	
v/s Ratio Prot		0.04						c0.28		c0.27	0.09	
v/s Ratio Perm			c0.34									
v/c Ratio		0.30	0.34					0.59		0.86	0.12	
Uniform Delay, d1		64.7	0.0					32.2		52.9	5.8	
Progression Factor		1.00	1.00					1.00		0.37	0.09	
Incremental Delay, d2		0.4	0.6					0.6		6.8	0.0	
Delay (s)		65.1	0.6					32.8		26.1	0.6	
Level of Service		E	A					C		C	A	
Approach Delay (s)		13.2			0.0			32.8			19.8	
Approach LOS		B			A			C			B	
Intersection Summary												
HCM 2000 Control Delay			23.3					HCM 2000 Level of Service		C		
HCM 2000 Volume to Capacity ratio			0.75									
Actuated Cycle Length (s)			162.8					Sum of lost time (s)		32.0		
Intersection Capacity Utilization			97.5%					ICU Level of Service		F		
Analysis Period (min)			15									
c Critical Lane Group												

Queues

4: Spirit of Texas Dr & WB Hwy 71 Service Rd



Lane Group	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	327	1176	655	96	197	40
v/c Ratio	0.78	2.52	0.69	0.12	1.26	0.15
Control Delay	73.5	716.7	10.2	1.6	215.1	1.3
Queue Delay	0.0	0.0	0.2	0.4	4.8	0.0
Total Delay	73.5	716.7	10.4	2.0	219.9	1.3
Queue Length 50th (ft)	331	~2118	480	3	~266	0
Queue Length 95th (ft)	#583	#2353	642	3	#358	0
Internal Link Dist (ft)		951		134	185	
Turn Bay Length (ft)	650					
Base Capacity (vph)	419	466	1167	1002	156	259
Starvation Cap Reductn	0	0	87	605	0	0
Spillback Cap Reductn	0	0	0	0	34	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.78	2.52	0.61	0.24	1.61	0.15

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

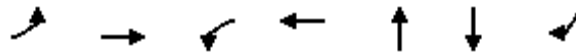
HCM Signalized Intersection Capacity Analysis
4: Spirit of Texas Dr & WB Hwy 71 Service Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↗		↖	↗			↗	↖
Traffic Volume (vph)	0	0	0	298	906	23	603	78	0	0	138	30
Future Volume (vph)	0	0	0	298	906	23	603	78	0	0	138	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0	6.0		5.0	5.0			6.0	6.0
Lane Util. Factor				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	1.00		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1687	1875		1770	1520			1397	1538
Flt Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1687	1875		1770	1520			1397	1538
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.79	0.80	0.92	0.81	0.92	0.92	0.70	0.75
Adj. Flow (vph)	0	0	0	327	1147	29	655	96	0	0	197	40
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	35
Lane Group Flow (vph)	0	0	0	327	1175	0	655	96	0	0	197	5
Heavy Vehicles (%)	2%	2%	2%	7%	1%	0%	2%	25%	2%	2%	36%	5%
Turn Type				Split	NA		Split	NA			NA	Prot
Protected Phases				1 7	1 7		2 4	2 4			5 6	5 6
Permitted Phases												
Actuated Green, G (s)				40.4	40.4		87.2	87.2			19.2	19.2
Effective Green, g (s)				35.4	35.4		87.2	87.2			19.2	19.2
Actuated g/C Ratio				0.22	0.22		0.54	0.54			0.12	0.12
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				366	407		948	814			164	181
v/s Ratio Prot				0.19	c0.63		c0.37	0.06			c0.14	0.00
v/s Ratio Perm												
v/c Ratio				0.89	2.89		0.69	0.12			1.20	0.03
Uniform Delay, d1				61.9	63.7		27.9	18.7			71.8	63.5
Progression Factor				1.00	1.00		0.23	0.07			1.00	1.00
Incremental Delay, d2				23.0	856.1		2.0	0.1			134.6	0.1
Delay (s)				84.8	919.8		8.5	1.4			206.4	63.6
Level of Service				F	F		A	A			F	E
Approach Delay (s)		0.0			738.1			7.6			182.3	
Approach LOS		A			F			A			F	
Intersection Summary												
HCM 2000 Control Delay			465.0									F
HCM 2000 Volume to Capacity ratio			1.42									
Actuated Cycle Length (s)			162.8							32.0		
Intersection Capacity Utilization			97.5%									F
Analysis Period (min)			15									
c Critical Lane Group												

Queues

22: Emma Browning Ave & Burlison Rd






















Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	101	5284	36	2555	101	141	182
v/c Ratio	0.89	2.20	0.32	1.07	0.35	0.55	0.16
Control Delay	86.5	557.5	18.5	57.2	13.9	33.8	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.5	557.5	18.5	57.2	13.9	33.8	1.7
Queue Length 50th (ft)	37	~2026	7	~700	12	54	0
Queue Length 95th (ft)	#104	#2382	#43	#956	48	105	24
Internal Link Dist (ft)		445		398	129	323	
Turn Bay Length (ft)	240		240				250
Base Capacity (vph)	113	2404	113	2398	508	490	1135
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	2.20	0.32	1.07	0.20	0.29	0.16

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
22: Emma Browning Ave & Burluson Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	4806	55	33	2279	72	49	0	44	128	2	167
Future Volume (vph)	93	4806	55	33	2279	72	49	0	44	128	2	167
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0		8.0	8.0			6.0			6.0	8.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00			0.94			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.95	1.00
Satd. Flow (prot)	1770	3533		1770	3523			1699			1775	1583
Flt Permitted	0.09	1.00		0.09	1.00			0.76			0.75	1.00
Satd. Flow (perm)	165	3533		165	3523			1327			1400	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	5224	60	36	2477	78	53	0	48	139	2	182
RTOR Reduction (vph)	0	1	0	0	2	0	0	57	0	0	0	65
Lane Group Flow (vph)	101	5283	0	36	2553	0	0	44	0	0	141	117
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	custom
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		6
Actuated Green, G (s)	45.1	45.1		45.1	45.1			11.0			11.0	45.1
Effective Green, g (s)	45.1	45.1		45.1	45.1			11.0			11.0	45.1
Actuated g/C Ratio	0.64	0.64		0.64	0.64			0.16			0.16	0.64
Clearance Time (s)	8.0	8.0		8.0	8.0			6.0			6.0	8.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	106	2273		106	2266			208			219	1018
v/s Ratio Prot		c1.50			0.72							
v/s Ratio Perm	0.61			0.22				0.03			c0.10	0.07
v/c Ratio	0.95	2.32		0.34	1.13			0.21			0.64	0.12
Uniform Delay, d1	11.5	12.5		5.7	12.5			25.8			27.7	4.8
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	71.9	597.4		1.9	63.3			0.5			6.3	0.1
Delay (s)	83.4	609.9		7.6	75.8			26.3			34.1	4.9
Level of Service	F	F		A	E			C			C	A
Approach Delay (s)		600.0			74.9			26.3			17.6	
Approach LOS		F			E			C			B	
Intersection Summary												
HCM 2000 Control Delay			408.7									F
HCM 2000 Volume to Capacity ratio			1.99									
Actuated Cycle Length (s)			70.1								14.0	
Intersection Capacity Utilization			158.3%									H
Analysis Period (min)			15									

c Critical Lane Group

Queues

1: Presidential Blvd & EB Hwy 71 Service Rd























Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	556	1633	1477	2100	611	268	800
v/c Ratio	1.63	5.07	0.97	1.30	0.75	0.51	0.30
Control Delay	335.5	1851.2	19.3	177.8	31.9	26.7	0.1
Queue Delay	0.7	0.0	0.0	0.2	0.0	68.0	55.0
Total Delay	336.2	1851.2	19.3	178.0	31.9	94.7	55.1
Queue Length 50th (ft)	~909	~3678	0	~1604	397	80	0
Queue Length 95th (ft)	#1152	#3952	#84	#1696	474	m36	m0
Internal Link Dist (ft)		835		276			80
Turn Bay Length (ft)	175						
Base Capacity (vph)	342	322	1519	1618	813	529	2705
Starvation Cap Reductn	0	0	0	0	0	368	2221
Spillback Cap Reductn	20	0	0	100	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.73	5.07	0.97	1.38	0.75	1.66	1.65

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis

1: Presidential Blvd & EB Hwy 71 Service Rd

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	500	873	1883	0	0	0	0	1869	507	214	720	0	
Future Volume (vph)	500	873	1883	0	0	0	0	1869	507	214	720	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0		
Lane Util. Factor	1.00	0.95	0.95					0.95	1.00	1.00	0.95		
Frt	1.00	0.94	0.85					1.00	0.85	1.00	1.00		
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (prot)	1805	1630	1519					3610	1553	1805	3539		
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (perm)	1805	1630	1519					3610	1553	1805	3539		
Peak-hour factor, PHF	0.90	0.90	0.88	0.92	0.92	0.92	0.92	0.89	0.83	0.80	0.90	0.92	
Adj. Flow (vph)	556	970	2140	0	0	0	0	2100	611	268	800	0	
RTOR Reduction (vph)	0	14	0	0	0	0	0	0	116	0	0	0	
Lane Group Flow (vph)	556	1619	1477	0	0	0	0	2100	495	268	800	0	
Heavy Vehicles (%)	0%	6%	1%	2%	2%	2%	2%	0%	4%	0%	2%	2%	
Turn Type	Split	NA	Free					NA	Perm	Prot	NA		
Protected Phases	4 5	4 5						1 2		6 7	1 2 6 7		
Permitted Phases			Free						1 2				
Actuated Green, G (s)	31.0	31.0	174.0					77.0	77.0	50.0	132.0		
Effective Green, g (s)	32.0	32.0	174.0					79.0	79.0	51.0	128.0		
Actuated g/C Ratio	0.18	0.18	1.00					0.45	0.45	0.29	0.74		
Clearance Time (s)													
Vehicle Extension (s)													
Lane Grp Cap (vph)	331	299	1519					1639	705	529	2603		
v/s Ratio Prot	0.31	c0.99						c0.58		0.15	0.23		
v/s Ratio Perm			c0.97						0.32				
v/c Ratio	1.68	5.42	0.97					1.28	0.70	0.51	0.31		
Uniform Delay, d1	71.0	71.0	0.0					47.5	38.1	51.1	7.9		
Progression Factor	1.00	1.00	1.00					1.00	1.00	0.51	0.01		
Incremental Delay, d2	318.8	1994.2	17.4					131.4	3.2	0.1	0.0		
Delay (s)	389.8	2065.2	17.4					178.9	41.3	26.2	0.1		
Level of Service	F	F	B					F	D	C	A		
Approach Delay (s)		986.0			0.0			147.9			6.7		
Approach LOS		F			A			F			A		
Intersection Summary													
HCM 2000 Control Delay			540.3									HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio			2.19										
Actuated Cycle Length (s)			174.0									Sum of lost time (s)	24.0
Intersection Capacity Utilization			201.8%									ICU Level of Service	H
Analysis Period (min)			15										
c Critical Lane Group													

Queues

2: Presidential Blvd/Cardinal Loop & WB Hwy 71 Service Rd



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	827	1277	1408	1416	501
v/c Ratio	2.09	3.34	1.42	1.41	1.66dr
Control Delay	528.6	1079.4	207.5	203.5	219.7
Queue Delay	0.1	0.1	0.7	0.7	1.5
Total Delay	528.6	1079.5	208.2	204.2	221.2
Queue Length 50th (ft)	~1564	~2720	~2271	~2276	~388
Queue Length 95th (ft)	#1683	#2614	m#1405	m#1373	#489
Internal Link Dist (ft)		132		80	381
Turn Bay Length (ft)					
Base Capacity (vph)	396	382	995	1007	377
Starvation Cap Reductn	0	0	134	136	0
Spillback Cap Reductn	2	2	0	0	49
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	2.10	3.36	1.64	1.63	1.53

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.
- dr Defacto Right Lane. Recode with 1 though lane as a right lane.

HCM Signalized Intersection Capacity Analysis
 2: Presidential Blvd/Cardinal Loop & WB Hwy 71 Service Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↔		↖	↗			↕	↗
Traffic Volume (vph)	0	0	0	772	796	137	2176	193	0	0	162	236
Future Volume (vph)	0	0	0	772	796	137	2176	193	0	0	162	236
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor				0.95	0.95		0.95	0.95			0.95	
Frt				1.00	0.98		1.00	1.00			0.91	
Flt Protected				0.95	1.00		0.95	0.96			1.00	
Satd. Flow (prot)				1681	1609		1715	1734			3270	
Flt Permitted				0.95	1.00		0.95	0.96			1.00	
Satd. Flow (perm)				1681	1609		1715	1734			3270	
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.80	0.72	0.85	0.73	0.92	0.92	0.87	0.75
Adj. Flow (vph)	0	0	0	919	995	190	2560	264	0	0	186	315
RTOR Reduction (vph)	0	0	0	0	4	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	0	0	827	1273	0	1408	1416	0	0	499	0
Heavy Vehicles (%)	2%	2%	2%	2%	11%	4%	0%	0%	2%	2%	0%	0%
Turn Type				Split	NA		Split	NA			NA	
Protected Phases				1 7	1 7		2 4	2 4			5 6	
Permitted Phases												
Actuated Green, G (s)				39.0	39.0		100.0	100.0			19.0	
Effective Green, g (s)				38.0	38.0		101.0	101.0			21.0	
Actuated g/C Ratio				0.22	0.22		0.58	0.58			0.12	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				367	351		995	1006			394	
v/s Ratio Prot				0.49	c0.79		c0.82	0.82			c0.15	
v/s Ratio Perm												
v/c Ratio				2.25	3.63		1.42	1.41			1.66dr	
Uniform Delay, d1				68.0	68.0		36.5	36.5			76.5	
Progression Factor				1.00	1.00		0.42	0.42			1.00	
Incremental Delay, d2				572.7	1189.2		187.3	184.0			138.9	
Delay (s)				640.7	1257.2		202.8	199.4			215.4	
Level of Service				F	F		F	F			F	
Approach Delay (s)		0.0			1014.9			201.1			215.4	
Approach LOS		A			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	517.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	2.02		
Actuated Cycle Length (s)	174.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	201.8%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.
 c Critical Lane Group

Queues

3: Spirit of Texas Dr & EB Hwy 71 Service Rd

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	72	833	1013	363	174
v/c Ratio	0.16	0.54	0.68	0.77	0.14
Control Delay	63.1	1.4	36.7	27.5	0.2
Queue Delay	0.0	0.0	0.1	49.0	2.5
Total Delay	63.1	1.4	36.8	76.5	2.7
Queue Length 50th (ft)	36	0	419	158	1
Queue Length 95th (ft)	51	0	555	m158	m1
Internal Link Dist (ft)	148		633		134
Turn Bay Length (ft)		500			
Base Capacity (vph)	559	1538	1565	474	1307
Starvation Cap Reductn	0	0	0	139	1010
Spillback Cap Reductn	0	0	50	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.13	0.54	0.67	1.08	0.59

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
3: Spirit of Texas Dr & EB Hwy 71 Service Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔	↗					↕↔		↘	↕	
Traffic Volume (vph)	54	0	733	0	0	0	0	704	195	258	120	0
Future Volume (vph)	54	0	733	0	0	0	0	704	195	258	120	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0					6.0		5.0	6.0	
Lane Util. Factor		0.95	1.00					0.95		1.00	1.00	
Frt		1.00	0.85					0.97		1.00	1.00	
Flt Protected		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		3430	1538					3250		1530	1597	
Flt Permitted		0.95	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		3430	1538					3250		1530	1597	
Peak-hour factor, PHF	0.75	0.74	0.88	0.92	0.92	0.92	0.92	0.89	0.88	0.71	0.69	0.92
Adj. Flow (vph)	72	0	833	0	0	0	0	791	222	363	174	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	14	0	0	0	0
Lane Group Flow (vph)	0	72	833	0	0	0	0	999	0	363	174	0
Heavy Vehicles (%)	0%	2%	5%	2%	2%	2%	0%	7%	9%	18%	19%	2%
Turn Type	Split	NA	Free					NA		custom	NA	
Protected Phases	4 5	4 5						1 2		6 7	1 2 6 7	
Permitted Phases			Free							6		
Actuated Green, G (s)		20.7	161.6					74.8		50.1	129.9	
Effective Green, g (s)		20.7	161.6					74.8		50.1	119.9	
Actuated g/C Ratio		0.13	1.00					0.46		0.31	0.74	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)		439	1538					1504		474	1184	
v/s Ratio Prot		0.02						c0.31		c0.24	0.11	
v/s Ratio Perm			c0.54									
v/c Ratio		0.16	0.54					0.66		0.77	0.15	
Uniform Delay, d1		62.7	0.0					33.7		50.4	6.0	
Progression Factor		1.00	1.00					1.00		0.44	0.03	
Incremental Delay, d2		0.2	1.4					1.1		2.3	0.0	
Delay (s)		62.9	1.4					34.8		24.6	0.2	
Level of Service		E	A					C		C	A	
Approach Delay (s)		6.3			0.0			34.8			16.7	
Approach LOS		A			A			C			B	
Intersection Summary												
HCM 2000 Control Delay			20.3					HCM 2000 Level of Service		C		
HCM 2000 Volume to Capacity ratio			0.80									
Actuated Cycle Length (s)			161.6					Sum of lost time (s)		32.0		
Intersection Capacity Utilization			64.1%					ICU Level of Service		C		
Analysis Period (min)			15									
c Critical Lane Group												

Queues

4: Spirit of Texas Dr & WB Hwy 71 Service Rd



Lane Group	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	406	337	746	90	119	92
v/c Ratio	1.01	0.79	0.79	0.10	0.87	0.33
Control Delay	108.3	72.6	13.4	1.0	118.2	9.4
Queue Delay	0.0	0.0	1.2	0.7	59.3	0.0
Total Delay	108.3	72.6	14.5	1.7	177.5	9.4
Queue Length 50th (ft)	~460	339	647	2	127	0
Queue Length 95th (ft)	#512	440	932	2	#191	0
Internal Link Dist (ft)		951		134	185	
Turn Bay Length (ft)	650					
Base Capacity (vph)	400	424	1060	1036	137	279
Starvation Cap Reductn	0	0	135	724	0	0
Spillback Cap Reductn	0	0	0	0	37	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.01	0.79	0.81	0.29	1.19	0.33

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
4: Spirit of Texas Dr & WB Hwy 71 Service Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	292	236	31	686	72	0	0	86	44
Future Volume (vph)	0	0	0	292	236	31	686	72	0	0	86	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0	6.0		5.0	5.0			6.0	6.0
Lane Util. Factor				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.98		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1656	1741		1752	1712			1234	1615
Flt Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1656	1741		1752	1712			1234	1615
Peak-hour factor, PHF	0.92	0.92	0.92	0.72	0.81	0.68	0.92	0.80	0.92	0.92	0.72	0.48
Adj. Flow (vph)	0	0	0	406	291	46	746	90	0	0	119	92
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	0	0	0	81
Lane Group Flow (vph)	0	0	0	406	334	0	746	90	0	0	119	11
Heavy Vehicles (%)	2%	2%	2%	9%	8%	0%	3%	11%	2%	2%	54%	0%
Turn Type				Split	NA		Split	NA			NA	Prot
Protected Phases				1 7	1 7		2 4	2 4			5 6	5 6
Permitted Phases												
Actuated Green, G (s)				39.1	39.1		87.5	87.5			19.0	19.0
Effective Green, g (s)				34.1	34.1		87.5	87.5			19.0	19.0
Actuated g/C Ratio				0.21	0.21		0.54	0.54			0.12	0.12
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				349	367		948	926			145	189
v/s Ratio Prot				c0.25	0.19		c0.43	0.05			c0.10	0.01
v/s Ratio Perm												
v/c Ratio				1.16	0.91		0.79	0.10			0.82	0.06
Uniform Delay, d1				63.8	62.2		29.6	17.9			69.6	63.3
Progression Factor				1.00	1.00		0.27	0.05			1.00	1.00
Incremental Delay, d2				100.4	25.5		3.5	0.0			29.6	0.1
Delay (s)				164.1	87.7		11.5	0.9			99.2	63.5
Level of Service				F	F		B	A			F	E
Approach Delay (s)		0.0			129.5			10.4			83.6	
Approach LOS		A			F			B			F	
Intersection Summary												
HCM 2000 Control Delay			68.4									HCM 2000 Level of Service E
HCM 2000 Volume to Capacity ratio			0.96									
Actuated Cycle Length (s)			161.6								32.0	Sum of lost time (s)
Intersection Capacity Utilization			64.1%									ICU Level of Service C
Analysis Period (min)			15									
c Critical Lane Group												

Queues

22: Emma Browning Ave & Burlison Rd






















Lane Group	EBL	EBT	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	560	1246	20	5181	47	36
v/c Ratio	4.83	0.44	0.06	1.83	0.29	0.03
Control Delay	1755.6	4.9	5.0	393.6	31.6	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1755.6	4.9	5.0	393.6	31.6	1.6
Queue Length 50th (ft)	~485	112	2	~2169	22	0
Queue Length 95th (ft)	#109	142	3	#2016	44	4
Internal Link Dist (ft)		445		398	323	
Turn Bay Length (ft)	240		240			250
Base Capacity (vph)	116	2816	314	2824	501	1276
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	4.83	0.44	0.06	1.83	0.09	0.03

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
22: Emma Browning Ave & Burluson Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	950	22	5	4647	83	0	0	0	17	0	23
Future Volume (vph)	140	950	22	5	4647	83	0	0	0	17	0	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0		8.0	8.0						6.0	8.0
Lane Util. Factor	1.00	0.95		1.00	0.95						1.00	1.00
Frt	1.00	0.99		1.00	1.00						1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)	1770	3515		1770	3526						1770	1583
Flt Permitted	0.08	1.00		0.21	1.00						0.76	1.00
Satd. Flow (perm)	146	3515		392	3526						1410	1583
Peak-hour factor, PHF	0.25	0.80	0.38	0.25	0.92	0.64	0.92	0.92	0.92	0.36	0.92	0.64
Adj. Flow (vph)	560	1188	58	20	5051	130	0	0	0	47	0	36
RTOR Reduction (vph)	0	2	0	0	1	0	0	0	0	0	0	10
Lane Group Flow (vph)	560	1244	0	20	5180	0	0	0	0	0	47	26
Turn Type	Perm	NA		Perm	NA					Perm	NA	custom
Protected Phases		2			6			4			8	8
Permitted Phases	2			6			4			8		6
Actuated Green, G (s)	51.0	51.0		51.0	51.0						5.3	51.0
Effective Green, g (s)	51.0	51.0		51.0	51.0						5.3	51.0
Actuated g/C Ratio	0.73	0.73		0.73	0.73						0.08	0.73
Clearance Time (s)	8.0	8.0		8.0	8.0						6.0	8.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0						3.0	3.0
Lane Grp Cap (vph)	105	2550		284	2557						106	1148
v/s Ratio Prot		0.35			1.47							
v/s Ratio Perm	c3.83			0.05							c0.03	0.02
v/c Ratio	5.33	0.49		0.07	2.03						0.44	0.02
Uniform Delay, d1	9.6	4.1		2.8	9.6						31.1	2.7
Progression Factor	1.00	1.00		1.00	1.00						1.00	1.00
Incremental Delay, d2	1970.9	0.1		0.1	462.9						2.9	0.0
Delay (s)	1980.5	4.2		2.9	472.6						34.0	2.7
Level of Service	F	A		A	F						C	A
Approach Delay (s)		617.0			470.8			0.0			20.4	
Approach LOS		F			F			A			C	
Intersection Summary												
HCM 2000 Control Delay			502.8			HCM 2000 Level of Service					F	
HCM 2000 Volume to Capacity ratio			4.83									
Actuated Cycle Length (s)			70.3			Sum of lost time (s)				14.0		
Intersection Capacity Utilization			169.4%			ICU Level of Service				H		
Analysis Period (min)			15									
c	Critical Lane Group											

Queues

1: Presidential Blvd & EB Hwy 71 Service Rd























Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	667	1842	1622	1968	1017	313	945
v/c Ratio	1.77	5.15	1.07	1.19	1.29	0.70	0.36
Control Delay	396.6	1883.9	48.0	139.1	178.2	31.1	2.2
Queue Delay	0.5	0.0	0.0	0.2	0.0	68.8	56.1
Total Delay	397.1	1883.9	48.0	139.3	178.2	99.9	58.3
Queue Length 50th (ft)	~1296	~4774	~293	~1628	~1604	120	44
Queue Length 95th (ft)	#1212	#5022	#447	#1746	#1842	m34	m0
Internal Link Dist (ft)		835		276			80
Turn Bay Length (ft)	175						
Base Capacity (vph)	377	358	1519	1650	788	444	2596
Starvation Cap Reductn	0	0	0	0	0	304	2171
Spillback Cap Reductn	18	0	0	87	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.86	5.15	1.07	1.26	1.29	2.24	2.22

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis

1: Presidential Blvd & EB Hwy 71 Service Rd

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	500	1197	1878	0	0	0	0	1830	905	247	841	0	
Future Volume (vph)	500	1197	1878	0	0	0	0	1830	905	247	841	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	5.0	5.0	4.0					6.0	6.0	5.0	6.0		
Lane Util. Factor	1.00	0.95	0.95					0.95	1.00	1.00	0.95		
Frt	1.00	0.96	0.85					1.00	0.85	1.00	1.00		
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (prot)	1787	1665	1519					3610	1583	1770	3539		
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.95	1.00		
Satd. Flow (perm)	1787	1665	1519					3610	1583	1770	3539		
Peak-hour factor, PHF	0.75	0.90	0.88	0.92	0.92	0.92	0.92	0.93	0.89	0.79	0.89	0.92	
Adj. Flow (vph)	667	1330	2134	0	0	0	0	1968	1017	313	945	0	
RTOR Reduction (vph)	0	7	0	0	0	0	0	0	64	0	0	0	
Lane Group Flow (vph)	667	1835	1622	0	0	0	0	1968	953	313	945	0	
Heavy Vehicles (%)	1%	5%	1%	2%	2%	2%	2%	0%	2%	2%	2%	2%	
Turn Type	Split	NA	Free					NA	Perm	Prot	NA		
Protected Phases	4 5	4 5						1 2		6 7	1 2 6 7		
Permitted Phases			Free						1 2				
Actuated Green, G (s)	41.0	41.0	199.0					92.0	92.0	50.0	147.0		
Effective Green, g (s)	41.0	41.0	199.0					92.0	92.0	50.0	137.0		
Actuated g/C Ratio	0.21	0.21	1.00					0.46	0.46	0.25	0.69		
Clearance Time (s)													
Vehicle Extension (s)													
Lane Grp Cap (vph)	368	343	1519					1668	731	444	2436		
v/s Ratio Prot	0.37	c1.10						0.55		0.18	0.27		
v/s Ratio Perm			c1.07						c0.60				
v/c Ratio	1.81	5.35	1.07					1.18	1.30	0.70	0.39		
Uniform Delay, d1	79.0	79.0	99.5					53.5	53.5	67.8	13.2		
Progression Factor	1.00	1.00	1.00					1.00	1.00	0.44	0.22		
Incremental Delay, d2	376.2	1963.7	43.6					87.5	146.5	0.5	0.0		
Delay (s)	455.2	2042.7	143.1					141.0	200.0	30.4	3.0		
Level of Service	F	F	F					F	F	C	A		
Approach Delay (s)		1040.5			0.0			161.1			9.8		
Approach LOS		F			A			F			A		
Intersection Summary													
HCM 2000 Control Delay			572.2									HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio			2.39										
Actuated Cycle Length (s)			199.0									Sum of lost time (s)	32.0
Intersection Capacity Utilization			230.2%									ICU Level of Service	H
Analysis Period (min)			15										
c Critical Lane Group													

Queues

2: Presidential Blvd/Cardinal Loop & WB Hwy 71 Service Rd



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	928	1031	1306	1332	520
v/c Ratio	2.82	3.10	1.21	1.22	1.79dr
Control Delay	851.5	972.5	115.2	120.5	400.1
Queue Delay	0.2	0.2	0.9	0.9	2.5
Total Delay	851.7	972.8	116.2	121.4	402.6
Queue Length 50th (ft)	~2176	~2480	~2189	~2246	~530
Queue Length 95th (ft)	#2362	#2764	m1186	m1208	#505
Internal Link Dist (ft)		132		80	381
Turn Bay Length (ft)					
Base Capacity (vph)	329	333	1077	1088	295
Starvation Cap Reductn	0	0	184	185	0
Spillback Cap Reductn	7	7	0	0	52
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	2.88	3.16	1.46	1.48	2.14

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.
- dr Defacto Right Lane. Recode with 1 though lane as a right lane.

HCM Signalized Intersection Capacity Analysis
 2: Presidential Blvd/Cardinal Loop & WB Hwy 71 Service Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↔		↖	↗			↗↖	
Traffic Volume (vph)	0	0	0	897	714	126	2152	178	0	0	191	220
Future Volume (vph)	0	0	0	897	714	126	2152	178	0	0	191	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0	6.0		5.0	5.0			6.0	
Lane Util. Factor				0.95	0.95		0.95	0.95			0.95	
Frt				1.00	0.98		1.00	1.00			0.92	
Flt Protected				0.95	1.00		0.95	0.96			1.00	
Satd. Flow (prot)				1681	1687		1715	1733			3224	
Flt Permitted				0.95	1.00		0.95	0.96			1.00	
Satd. Flow (perm)				1681	1687		1715	1733			3224	
Peak-hour factor, PHF	0.92	0.92	0.92	0.87	0.94	0.75	0.89	0.81	0.92	0.92	0.74	0.84
Adj. Flow (vph)	0	0	0	1031	760	168	2418	220	0	0	258	262
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	0	0	928	1028	0	1306	1332	0	0	515	0
Heavy Vehicles (%)	2%	2%	2%	2%	5%	0%	0%	0%	0%	2%	2%	5%
Turn Type				Split	NA		Split	NA			NA	
Protected Phases				1 7	1 7		2 4	2 4			5 6	
Permitted Phases												
Actuated Green, G (s)				39.0	39.0		125.0	125.0			19.0	
Effective Green, g (s)				34.0	34.0		125.0	125.0			19.0	
Actuated g/C Ratio				0.17	0.17		0.63	0.63			0.10	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				287	288		1077	1088			307	
v/s Ratio Prot				0.55	c0.61		0.76	c0.77			c0.16	
v/s Ratio Perm												
v/c Ratio				3.23	3.57		1.21	1.22			1.79dr	
Uniform Delay, d1				82.5	82.5		37.0	37.0			90.0	
Progression Factor				1.00	1.00		0.40	0.40			1.00	
Incremental Delay, d2				1014.1	1164.4		96.5	101.7			319.5	
Delay (s)				1096.6	1246.9		111.3	116.5			409.5	
Level of Service				F	F		F	F			F	
Approach Delay (s)		0.0			1175.7			113.9			409.5	
Approach LOS		A			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	550.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.83		
Actuated Cycle Length (s)	199.0	Sum of lost time (s)	32.0
Intersection Capacity Utilization	230.2%	ICU Level of Service	H
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.
 c Critical Lane Group

Queues

3: Spirit of Texas Dr & EB Hwy 71 Service Rd

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	147	603	1046	429	160
v/c Ratio	0.32	0.38	0.65	0.93	0.12
Control Delay	70.9	0.7	35.5	36.5	0.5
Queue Delay	0.0	0.0	0.0	46.8	1.9
Total Delay	70.9	0.7	35.5	83.3	2.3
Queue Length 50th (ft)	85	0	460	298	3
Queue Length 95th (ft)	72	0	543	m313	m3
Internal Link Dist (ft)	148		633		134
Turn Bay Length (ft)		500			
Base Capacity (vph)	679	1568	1763	461	1377
Starvation Cap Reductn	0	0	0	116	1071
Spillback Cap Reductn	0	0	49	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.22	0.38	0.61	1.24	0.52

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

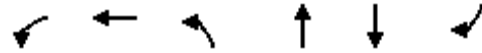
HCM Signalized Intersection Capacity Analysis
3: Spirit of Texas Dr & EB Hwy 71 Service Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↔↔	↗					↕↔		↘	↕		
Traffic Volume (vph)	85	0	567	0	0	0	0	687	241	335	115	0	
Future Volume (vph)	85	0	567	0	0	0	0	687	241	335	115	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		5.0	4.0					6.0		5.0	6.0		
Lane Util. Factor		0.95	1.00					0.95		1.00	1.00		
Frt		1.00	0.85					0.96		1.00	1.00		
Flt Protected		0.95	1.00					1.00		0.95	1.00		
Satd. Flow (prot)		3362	1568					3297		1597	1624		
Flt Permitted		0.95	1.00					1.00		0.95	1.00		
Satd. Flow (perm)		3362	1568					3297		1597	1624		
Peak-hour factor, PHF	0.58	0.54	0.94	0.92	0.92	0.92	0.92	0.87	0.94	0.78	0.72	0.92	
Adj. Flow (vph)	147	0	603	0	0	0	0	790	256	429	160	0	
RTOR Reduction (vph)	0	0	0	0	0	0	0	15	0	0	0	0	
Lane Group Flow (vph)	0	147	603	0	0	0	0	1031	0	429	160	0	
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	5%	7%	13%	17%	2%	
Turn Type	Split	NA	Free					NA		Prot	NA		
Protected Phases	4 5	4 5						1 2		6 7	1 2 6 7		
Permitted Phases			Free										
Actuated Green, G (s)		23.0	174.4					85.0		50.4	140.4		
Effective Green, g (s)		23.0	174.4					85.0		50.4	130.4		
Actuated g/C Ratio		0.13	1.00					0.49		0.29	0.75		
Clearance Time (s)													
Vehicle Extension (s)													
Lane Grp Cap (vph)		443	1568					1606		461	1214		
v/s Ratio Prot		0.04						c0.31		c0.27	0.10		
v/s Ratio Perm			c0.38										
v/c Ratio		0.33	0.38					0.64		0.93	0.13		
Uniform Delay, d1		68.7	0.0					33.3		60.3	6.2		
Progression Factor		1.00	1.00					1.00		0.39	0.10		
Incremental Delay, d2		0.4	0.7					0.9		8.8	0.0		
Delay (s)		69.2	0.7					34.2		32.4	0.6		
Level of Service		E	A					C		C	A		
Approach Delay (s)		14.1			0.0			34.2			23.7		
Approach LOS		B			A			C			C		
Intersection Summary													
HCM 2000 Control Delay			25.3									HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.79										
Actuated Cycle Length (s)			174.4									Sum of lost time (s)	32.0
Intersection Capacity Utilization			101.1%									ICU Level of Service	G
Analysis Period (min)			15										
c Critical Lane Group													

Queues

4: Spirit of Texas Dr & WB Hwy 71 Service Rd



Lane Group	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	337	1180	743	109	204	45
v/c Ratio	0.87	2.73	0.74	0.13	1.42	0.18
Control Delay	87.7	806.3	11.1	1.4	272.5	1.6
Queue Delay	0.0	0.0	0.2	0.6	8.0	0.0
Total Delay	87.7	806.3	11.3	2.0	280.5	1.6
Queue Length 50th (ft)	400	~2439	603	3	-336	0
Queue Length 95th (ft)	#626	#2406	794	3	#382	0
Internal Link Dist (ft)		951		134	185	
Turn Bay Length (ft)	650					
Base Capacity (vph)	389	433	1189	1020	144	247
Starvation Cap Reductn	0	0	77	653	0	0
Spillback Cap Reductn	0	0	0	0	45	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.87	2.73	0.67	0.30	2.06	0.18

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

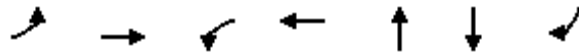
HCM Signalized Intersection Capacity Analysis
4: Spirit of Texas Dr & WB Hwy 71 Service Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	307	906	26	684	88	0	0	143	34
Future Volume (vph)	0	0	0	307	906	26	684	88	0	0	143	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0	6.0		5.0	5.0			6.0	6.0
Lane Util. Factor				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	1.00		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1687	1874		1770	1520			1397	1538
Flt Permitted				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1687	1874		1770	1520			1397	1538
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.79	0.80	0.92	0.81	0.92	0.92	0.70	0.75
Adj. Flow (vph)	0	0	0	337	1147	32	743	109	0	0	204	45
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	40
Lane Group Flow (vph)	0	0	0	337	1179	0	743	109	0	0	204	5
Heavy Vehicles (%)	2%	2%	2%	7%	1%	0%	2%	25%	2%	2%	36%	5%
Turn Type				Split	NA		Split	NA			NA	Prot
Protected Phases				1 7	1 7		2 4	2 4			5 6	5 6
Permitted Phases												
Actuated Green, G (s)				40.3	40.3		99.0	99.0			19.1	19.1
Effective Green, g (s)				35.3	35.3		99.0	99.0			19.1	19.1
Actuated g/C Ratio				0.20	0.20		0.57	0.57			0.11	0.11
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				341	379		1004	862			152	168
v/s Ratio Prot				0.20	c0.63		c0.42	0.07			c0.15	0.00
v/s Ratio Perm												
v/c Ratio				0.99	3.11		0.74	0.13			1.34	0.03
Uniform Delay, d1				69.3	69.6		28.1	17.6			77.7	69.4
Progression Factor				1.00	1.00		0.25	0.07			1.00	1.00
Incremental Delay, d2				45.1	957.1		2.5	0.1			191.3	0.1
Delay (s)				114.4	1026.6		9.5	1.3			269.0	69.4
Level of Service				F	F		A	A			F	E
Approach Delay (s)		0.0			824.0			8.4			232.9	
Approach LOS		A			F			A			F	
Intersection Summary												
HCM 2000 Control Delay			502.3									F
HCM 2000 Volume to Capacity ratio			1.46									
Actuated Cycle Length (s)			174.4							32.0		
Intersection Capacity Utilization			101.1%									G
Analysis Period (min)			15									
c Critical Lane Group												

Queues

22: Emma Browning Ave & Burlison Rd






















Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	61	5284	36	2524	101	85	109
v/c Ratio	0.53	2.13	0.31	1.02	0.39	0.40	0.10
Control Delay	31.7	526.6	16.1	39.2	15.6	30.8	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.7	526.6	16.1	39.2	15.6	30.8	1.6
Queue Length 50th (ft)	12	~1922	6	~635	12	31	0
Queue Length 95th (ft)	#82	#2221	36	#860	50	69	17
Internal Link Dist (ft)		445		398	129	323	
Turn Bay Length (ft)	240		240				250
Base Capacity (vph)	116	2481	116	2479	540	520	1144
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	2.13	0.31	1.02	0.19	0.16	0.10

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
22: Emma Browning Ave & Burluson Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	4806	55	33	2279	43	49	0	44	77	1	100
Future Volume (vph)	56	4806	55	33	2279	43	49	0	44	77	1	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0		8.0	8.0			6.0			6.0	8.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00			0.94			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.95	1.00
Satd. Flow (prot)	1770	3533		1770	3529			1699			1775	1583
Flt Permitted	0.09	1.00		0.09	1.00			0.79			0.77	1.00
Satd. Flow (perm)	165	3533		165	3529			1378			1442	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	5224	60	36	2477	47	53	0	48	84	1	109
RTOR Reduction (vph)	0	1	0	0	1	0	0	59	0	0	0	36
Lane Group Flow (vph)	61	5283	0	36	2523	0	0	42	0	0	85	73
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	custom
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		6
Actuated Green, G (s)	45.1	45.1		45.1	45.1			8.7			8.7	45.1
Effective Green, g (s)	45.1	45.1		45.1	45.1			8.7			8.7	45.1
Actuated g/C Ratio	0.67	0.67		0.67	0.67			0.13			0.13	0.67
Clearance Time (s)	8.0	8.0		8.0	8.0			6.0			6.0	8.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	109	2350		109	2347			176			185	1052
v/s Ratio Prot		c1.50			0.71							
v/s Ratio Perm	0.37			0.22				0.03			c0.06	0.05
v/c Ratio	0.56	2.25		0.33	1.07			0.24			0.46	0.07
Uniform Delay, d1	6.1	11.3		4.9	11.3			26.6			27.4	4.0
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	6.1	563.1		1.8	42.5			0.7			1.8	0.0
Delay (s)	12.2	574.4		6.7	53.8			27.3			29.2	4.0
Level of Service	B	F		A	D			C			C	A
Approach Delay (s)		568.0			53.2			27.3			15.0	
Approach LOS		F			D			C			B	

Intersection Summary

HCM 2000 Control Delay	387.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.96		
Actuated Cycle Length (s)	67.8	Sum of lost time (s)	14.0
Intersection Capacity Utilization	158.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group