

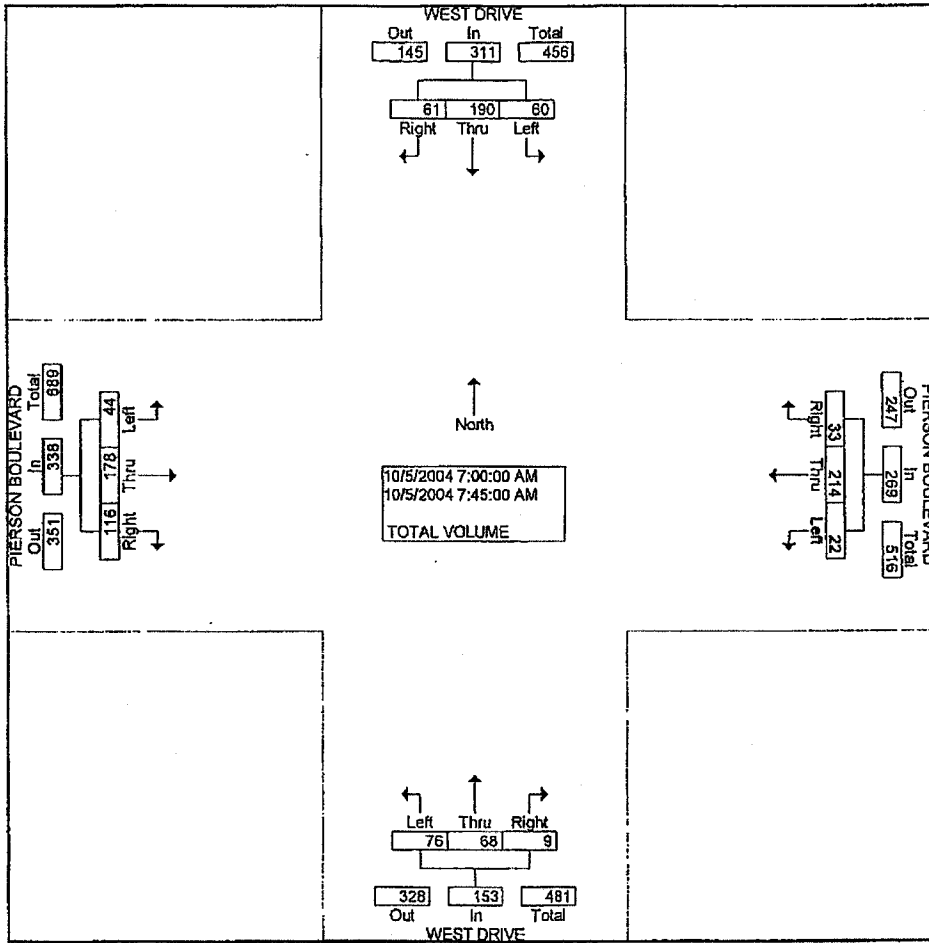
CITY OF DESERT HOT SPRINGS
WEST DRIVE / PIERSON BOULEVARD

Turning Movement Counts
October 2004

CITY OF DESERT HOT SPRINGS
 N/S: WEST DRIVE
 EW: PIERSON BOULEVARD
 WEATHER: SUNNY

COUNTS UNLIMITED INC.
 25424 JACLYN AVENUE
 MORENO VALLEY CA 92557
 951-247-6716

File Name : DHSWEPIAM
 Site Code : 01224008
 Start Date : 10/5/2004
 Page No : 2



Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1

By Approach	08:00 AM	07:00 AM	07:00 AM	07:00 AM	07:00 AM	07:00 AM	07:00 AM
Volume	71 191 51 313	22 214 33 269	76 68 9 153	44 178 116 338			
Percent	22.7 61.0 16.3	8.2 79.6 12.3	49.7 44.4 5.9	13.0 52.7 34.3			
High Int.	08:30 AM	07:00 AM	07:00 AM	07:00 AM			
Volume	24 54 19 97	5 131 8 144	46 18 2 66	10 59 65 134			
Peak Factor		0.807	0.467	0.580			0.631

COUNTS UNLIMITED INC.
 25424 JACLYN AVENUE
 MORENO VALLEY CA 92557
 951-247-6716

CITY OF DESERT HOT SPRINGS
 N/S: WEST DRIVE
 E/W: PIERSON BOULEVARD
 WEATHER: SUNNY

File Name : DHSWEPIAM
 Site Code : 01224008
 Start Date : 10/5/2004
 Page No : 1

Groups Printed- TOTAL VOLUME

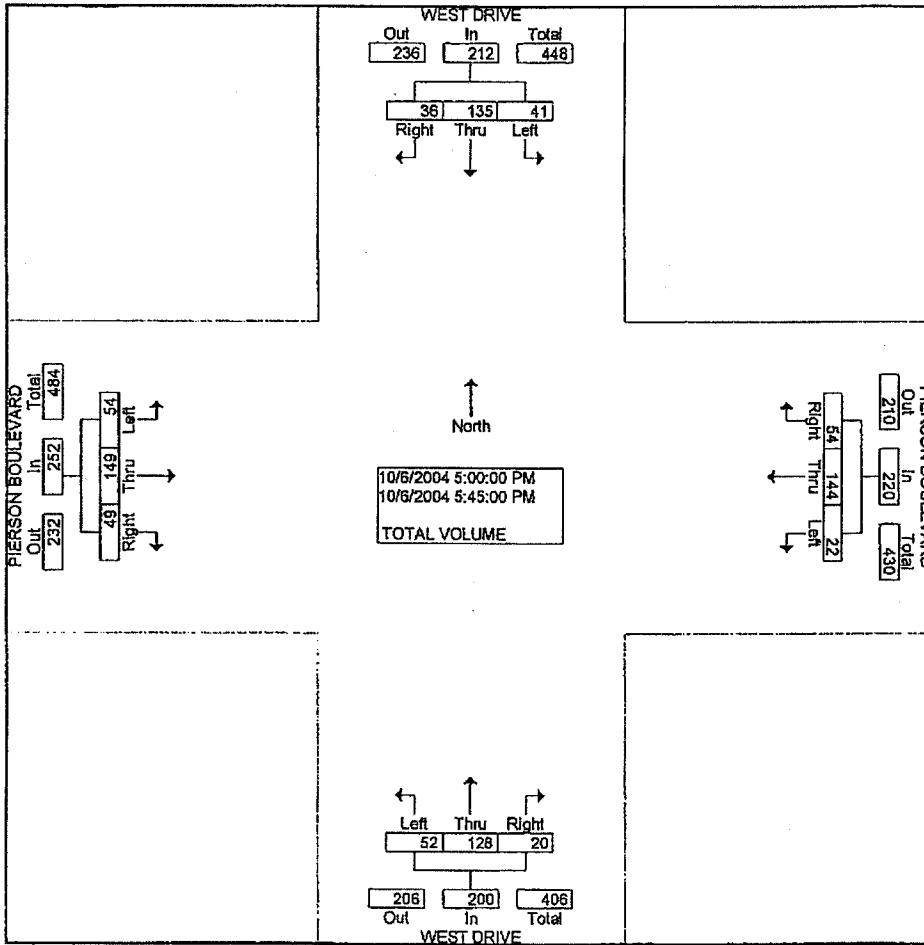
Start Time	WEST DRIVE Southbound				PIERSON BOULEVARD Westbound				WEST DRIVE Northbound				PIERSON BOULEVARD Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
07:00 AM	22	63	18	103	5	131	8	144	46	18	2	66	10	59	65	134	447
07:15 AM	18	65	16	99	3	37	3	43	13	14	0	27	11	65	36	112	281
07:30 AM	8	40	19	67	6	26	8	40	10	26	3	39	11	26	5	42	188
07:45 AM	12	22	8	42	8	20	14	42	7	10	4	21	12	28	10	50	155
Total	60	190	61	311	22	214	33	269	76	68	9	153	44	178	116	338	1071
08:00 AM	7	44	11	62	4	27	12	43	6	21	10	37	11	26	11	48	190
08:15 AM	19	50	12	81	5	25	12	42	6	19	2	27	17	30	6	53	203
08:30 AM	24	54	19	97	9	29	11	49	5	25	8	38	19	16	6	41	225
08:45 AM	21	43	9	73	7	34	16	57	10	25	7	42	14	30	11	55	227
Total	71	191	51	313	25	115	51	191	27	90	27	144	61	102	34	197	845
Grand Total	131	381	112	624	47	329	84	460	103	158	36	297	105	280	150	535	1916
Apprch %	21.0	61.1	17.9		10.2	71.5	18.3		34.7	53.2	12.1		19.6	52.3	28.0		
Total %	6.8	19.9	5.8	32.6	2.5	17.2	4.4	24.0	5.4	8.2	1.9	15.5	5.5	14.6	7.8	27.9	

Start Time	WEST DRIVE Southbound				PIERSON BOULEVARD Westbound				WEST DRIVE Northbound				PIERSON BOULEVARD Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:00 AM																
Volume	60	190	61	311	22	214	33	269	76	68	9	153	44	178	116	338	1071
Percent	19.3	61.1	19.6		8.2	79.6	12.3		49.7	44.4	5.9		13.0	52.7	34.3		
07:00 Volume	22	63	18	103	5	131	8	144	46	18	2	66	10	59	65	134	447
Peak Factor	0.599																
High Int.	07:00 AM																
Volume	22	63	18	103	5	131	8	144	46	18	2	66	10	59	65	134	447
Peak Factor	0.755				0.467				0.580				0.631				

CITY OF DESERT HOT SPRINGS
 N/S: WEST DRIVE
 E/W: PIERSON BOULEVARD
 WEATHER:

COUNTS UNLIMITED INC.
 25424 JACLYN AVENUE
 MORENO VALLEY CA 92557
 951-247-6716

File Name : DHSWEIPM
 Site Code : 01224008
 Start Date : 10/6/2004
 Page No : 2



Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1

By Approach	04:15 PM				04:45 PM				04:45 PM				05:00 PM			
Volume	44	135	38	217	24	146	50	220	58	124	24	206	54	149	49	252
Percent	20.3	62.2	17.5		10.9	66.4	22.7		28.2	60.2	11.7		21.4	59.1	19.4	
High Int.	04:15 PM				05:00 PM				05:00 PM				05:15 PM			
Volume	14	39	9	62	7	42	9	58	22	31	8	61	19	30	16	65
Peak Factor	0.875				0.948				0.844				0.969			

CITY OF DESERT HOT SPRINGS
 N/S: WEST DRIVE
 E/W: PIERSON BOULEVARD
 WEATHER:

COUNTS UNLIMITED INC.
 25424 JACLYN AVENUE
 MORENO VALLEY CA 92557
 951-247-6716

File Name : DHSWEIPM
 Site Code : 01224008
 Start Date : 10/6/2004
 Page No : 1

Groups Printed- TOTAL VOLUME

Start Time	WEST DRIVE Southbound				PIERSON BOULEVARD Westbound				WEST DRIVE Northbound				PIERSON BOULEVARD Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
04:00 PM	10	37	4	51	5	40	6	51	13	33	5	51	9	29	13	51	204
04:15 PM	14	39	9	62	7	25	17	49	3	31	7	41	9	25	11	45	197
04:30 PM	11	28	13	52	6	38	2	46	13	24	5	42	14	41	10	65	205
04:45 PM	5	36	5	46	7	37	11	55	12	26	6	44	14	27	12	53	198
Total	40	140	31	211	25	140	36	201	41	114	23	178	46	122	46	214	804
05:00 PM	14	32	11	57	7	42	9	58	22	31	8	61	9	42	11	62	238
05:15 PM	3	27	8	38	4	36	13	53	13	34	3	50	19	30	16	65	206
05:30 PM	16	38	9	63	6	31	17	54	11	33	7	51	13	38	14	65	233
05:45 PM	8	38	8	54	5	35	15	55	6	30	2	38	13	39	8	60	207
Total	41	135	36	212	22	144	54	220	52	128	20	200	54	149	49	252	884
Grand Total	81	275	67	423	47	284	90	421	93	242	43	378	100	271	95	466	1688
Apprch %	19.1	65.0	15.8		11.2	67.5	21.4		24.6	64.0	11.4		21.5	58.2	20.4		
Total %	4.8	16.3	4.0	25.1	2.8	16.8	5.3	24.9	5.5	14.3	2.5	22.4	5.9	16.1	5.6	27.6	

Start Time	WEST DRIVE Southbound				PIERSON BOULEVARD Westbound				WEST DRIVE Northbound				PIERSON BOULEVARD Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection 05:00 PM																	
Volume	41	135	36	212	22	144	54	220	52	128	20	200	54	149	49	252	884
Percent	19.3	63.7	17.0		10.0	65.5	24.5		26.0	64.0	10.0		21.4	59.1	19.4		
05:00																	
Volume	14	32	11	57	7	42	9	58	22	31	8	61	9	42	11	62	238
Peak Factor																	0.929
High Int. 05:30 PM																	
Volume	16	38	9	63	7	42	9	58	22	31	8	61	19	30	16	65	
Peak Factor	0.841				0.948				0.820				0.969				

97.

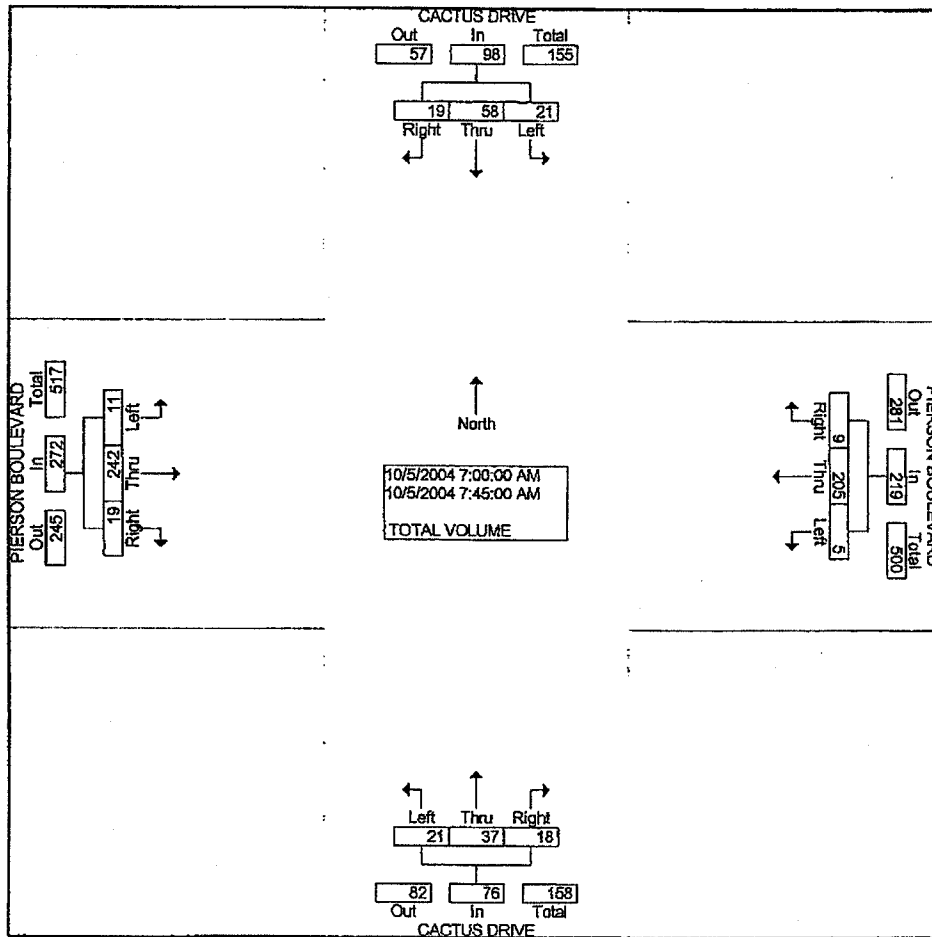
CITY OF DESERT HOT SPRINGS
CACTUS DRIVE / PIERSON BOULEVARD

Turning Movement Counts
October 2004

CITY OF DESERT HOT SPRINGS
 N/S: CACTUS DRIVE
 E/W: PIERSON BOULEVARD
 WEATHER: SUNNY

Counts Unlimited, Inc.
 25424 Jaclyn Avenue
 Moreno Valley, CA 92557
 951-247-6716

File Name : DHSCAPIAM
 Site Code : 01224009
 Start Date : 10/5/2004
 Page No : 2



Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1

By Approach	08:00 AM	07:00 AM	07:00 AM	07:00 AM	07:00 AM
Volume	23 57 22 102	5 205 9 219	21 37 18 76	11 242 19 272	
Percent	22.5 55.9 21.6	2.3 93.6 4.1	27.6 48.7 23.7	4.0 89.0 7.0	
High Int.	08:30 AM	07:15 AM	07:15 AM	07:30 AM	
Volume	10 19 9 38	1 73 2 76	11 14 8 33	5 82 3 90	
Peak Factor	0.671	0.720	0.576	0.756	

CITY OF DESERT HOT SPRINGS
 N/S: CACTUS DRIVE
 E/W: PIERSON BOULEVARD
 WEATHER: SUNNY

Counts Unlimited, Inc.
 25424 Jaclyn Avenue
 Moreno Valley, CA 92557
 951-247-6716

File Name : DHSCAPIAM
 Site Code : 01224009
 Start Date : 10/5/2004
 Page No : 1

Groups Printed- TOTAL VOLUME

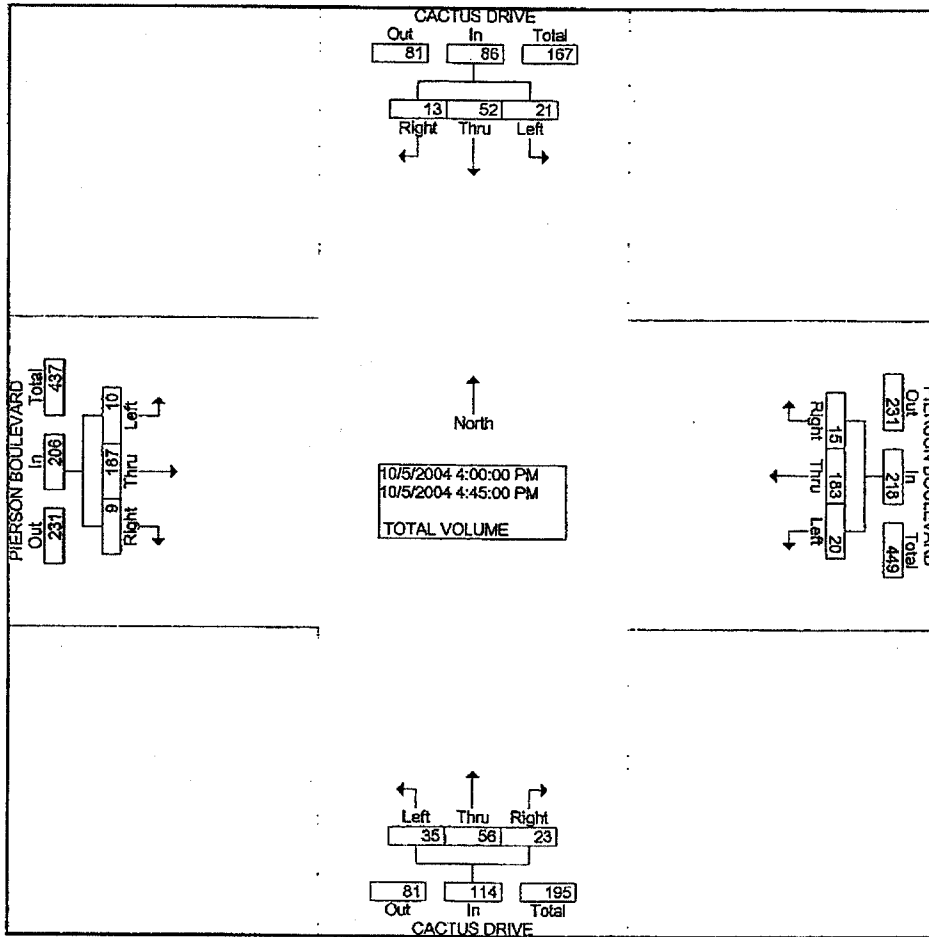
Start Time	CACTUS DRIVE Southbound				PIERSON BOULEVARD Westbound				CACTUS DRIVE Northbound				PIERSON BOULEVARD Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
07:00 AM	6	13	7	26	3	58	5	66	3	7	4	14	1	58	5	64	170
07:15 AM	4	19	3	26	1	73	2	76	11	14	8	33	3	71	9	83	218
07:30 AM	5	13	5	23	1	39	1	41	4	11	5	20	5	82	3	90	174
07:45 AM	6	13	4	23	0	35	1	36	3	5	1	9	2	31	2	35	103
Total	21	58	19	98	5	205	9	219	21	37	18	76	11	242	19	272	665
08:00 AM	5	13	2	20	1	42	6	49	6	5	3	14	5	47	2	54	137
08:15 AM	2	11	2	15	0	42	3	45	3	7	0	10	0	42	2	44	114
08:30 AM	10	19	9	38	3	39	2	44	6	11	3	20	6	47	0	53	155
08:45 AM	6	14	9	29	3	43	4	50	7	5	1	13	3	43	4	50	142
Total	23	57	22	102	7	166	15	188	22	28	7	57	14	179	8	201	548
Grand Total	44	115	41	200	12	371	24	407	43	65	25	133	25	421	27	473	1213
Apprch %	22.0	57.5	20.5		2.9	91.2	5.9		32.3	48.9	18.8		5.3	89.0	5.7		
Total %	3.6	9.5	3.4	16.5	1.0	30.6	2.0	33.6	3.5	5.4	2.1	11.0	2.1	34.7	2.2	39.0	

Start Time	CACTUS DRIVE Southbound				PIERSON BOULEVARD Westbound				CACTUS DRIVE Northbound				PIERSON BOULEVARD Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour From	07:00 AM to 08:45 AM - Peak 1 of 1																
Intersection	07:00 AM																
Volume	21	58	19	98	5	205	9	219	21	37	18	76	11	242	19	272	665
Percent	21.4	59.2	19.4		2.3	93.6	4.1		27.6	48.7	23.7		4.0	89.0	7.0		
07:15																	
Volume	4	19	3	26	1	73	2	76	11	14	8	33	3	71	9	83	218
Peak Factor	0.763																
High Int.	07:00 AM																
Volume	6	13	7	26	1	73	2	76	11	14	8	33	5	82	3	90	
Peak Factor	0.942				0.720				0.576				0.756				

CITY OF DESERT HOT SPRINGS
 N/S: CACTUS DRIVE
 E/W: PIERSON BOULEVARD
 WEATHER: SUNNY

Counts Unlimited, Inc.
 25424 Jaclyn Avenue
 Moreno Valley, CA 92557
 951-247-6716

File Name : DHSCAPIPM
 Site Code : 01224009
 Start Date : 10/5/2004
 Page No : 2



Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1

By Approach	05:00 PM	04:00 PM	04:15 PM
Volume	17 68 6 91	20 183 15 218	35 56 23 114
Percent	18.7 74.7 6.6	9.2 83.9 6.9	30.7 49.1 20.2
High Int.	05:00 PM	04:15 PM	04:45 PM
Volume	4 17 3 24	4 54 3 61	7 20 10 37
Peak Factor	0.948	0.893	0.770

CITY OF DESERT HOT SPRINGS
 N/S: CACTUS DRIVE
 E/W: PIERSON BOULEVARD
 WEATHER: SUNNY

Counts Unlimited, Inc.
 25424 Jaclyn Avenue
 Moreno Valley, CA 92557
 951-247-6716

File Name : DHSCAPIPM
 Site Code : 01224009
 Start Date : 10/5/2004
 Page No : 1

Groups Printed- TOTAL VOLUME

Start Time	CACTUS DRIVE Southbound				PIERSON BOULEVARD Westbound				CACTUS DRIVE Northbound				PIERSON BOULEVARD Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
04:00 PM	1	14	6	21	4	44	5	53	6	16	5	27	1	45	6	52	153
04:15 PM	9	15	2	26	4	54	3	61	10	14	2	26	2	52	2	56	169
04:30 PM	6	10	4	20	7	43	1	51	12	6	6	24	2	39	1	42	137
04:45 PM	5	13	1	19	5	42	6	53	7	20	10	37	5	51	0	56	165
Total	21	52	13	86	20	183	15	218	35	56	23	114	10	187	9	206	624
05:00 PM	4	17	3	24	9	16	6	31	2	8	5	15	3	35	3	41	111
05:15 PM	5	18	1	24	2	38	7	47	1	12	6	19	2	40	2	44	134
05:30 PM	2	17	1	20	6	43	4	53	3	16	6	25	3	47	2	52	150
05:45 PM	6	16	1	23	2	52	2	56	5	19	3	27	4	53	9	66	172
Total	17	68	6	91	19	149	19	187	11	55	20	86	12	175	16	203	567
Grand Total	38	120	19	177	39	332	34	405	46	111	43	200	22	362	25	409	1191
Apprch %	21.5	67.8	10.7		9.6	82.0	8.4		23.0	55.5	21.5		5.4	88.5	6.1		
Total %	3.2	10.1	1.6	14.9	3.3	27.9	2.9	34.0	3.9	9.3	3.6	16.8	1.8	30.4	2.1	34.3	

Start Time	CACTUS DRIVE Southbound				PIERSON BOULEVARD Westbound				CACTUS DRIVE Northbound				PIERSON BOULEVARD Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	04:00 PM																
Volume	21	52	13	86	20	183	15	218	35	56	23	114	10	187	9	206	624
Percent	24.4	60.5	15.1		9.2	83.9	6.9		30.7	49.1	20.2		4.9	90.8	4.4		
04:15																	
Volume	9	15	2	26	4	54	3	61	10	14	2	26	2	52	2	56	169
Peak Factor																	
High Int.	04:15 PM																
Volume	9	15	2	26	4	54	3	61	7	20	10	37	2	52	2	56	0.923
Peak Factor	0.827				0.893				0.770				0.920				

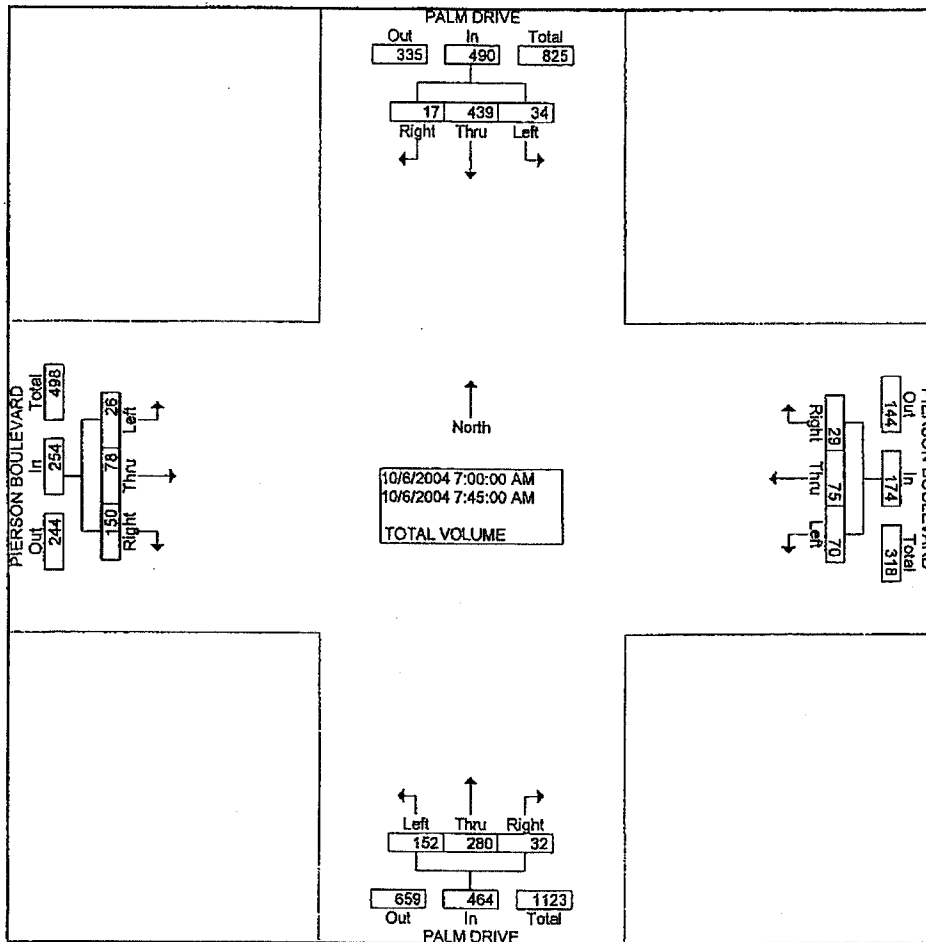
CITY OF DESERT HOT SPRINGS
PALM DRIVE / PIERSON BOULEVARD

Turning Movement Counts
October 2004

CITY OF DESERT HOT SPRINGS
 N/S: PALM DRIVE
 E/W: PIERSON BOULEVARD
 WEATHER: SUNNY

COUNTS UNLIMITED INC.
 25424 JACLYN AVENUE
 MORENO VALLEY CA 92557
 951-247-6716

File Name : DHSPAPIAM
 Site Code : 01224029
 Start Date : 10/6/2004
 Page No : 2



Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1

By Approach	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
Volume	34	439	17	490	70	75	29	174	152	280	32	464	26	78	150	254
Percent	6.9	89.6	3.5		40.2	43.1	16.7		32.8	60.3	6.9		10.2	30.7	59.1	
High Int.	07:15 AM				07:00 AM				07:00 AM				07:00 AM			
Volume	10	137	2	149	16	41	7	64	69	64	5	138	8	27	63	98
Peak Factor	0.822				0.680				0.841				0.648			

CITY OF DESERT HOT SPRINGS
 N/S: PALM DRIVE
 E/W: PIERSON BOULEVARD
 WEATHER: SUNNY

COUNTS UNLIMITED INC.
 25424 JACLYN AVENUE
 MORENO VALLEY CA 92557
 951-247-6716

File Name : DHSPAPIAM
 Site Code : 01224029
 Start Date : 10/6/2004
 Page No : 1

Groups Printed- TOTAL VOLUME

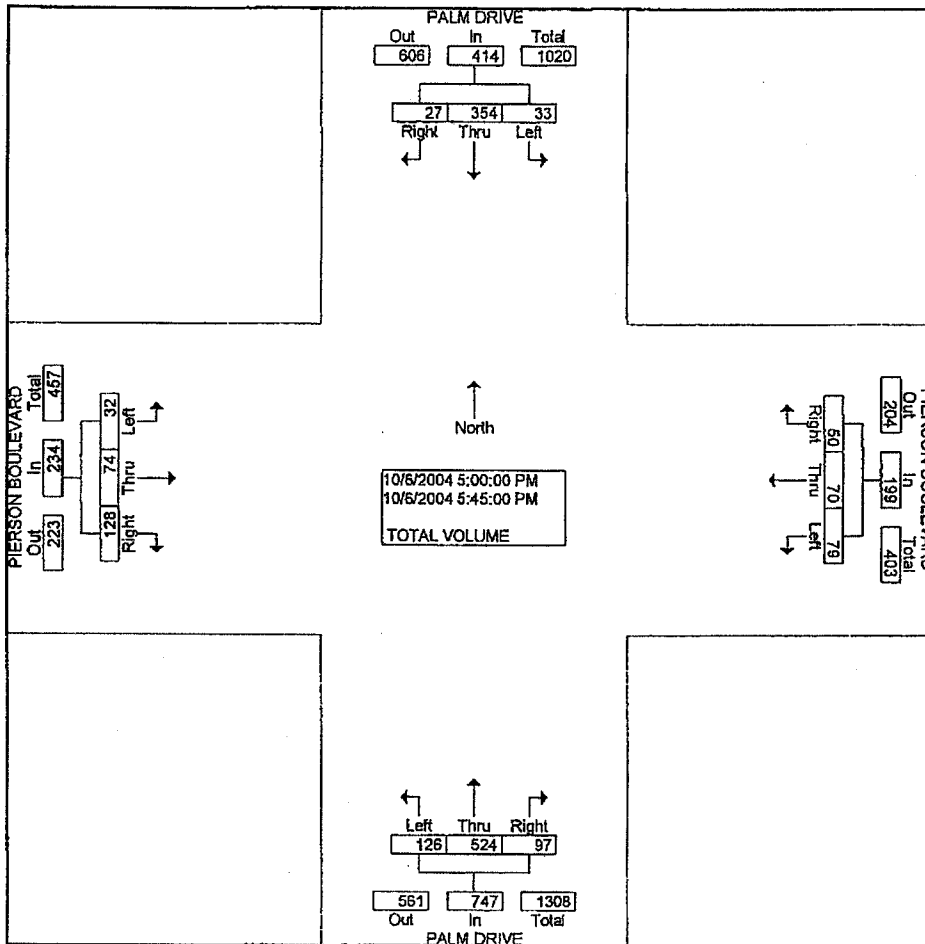
Start Time	PALM DRIVE Southbound				PIERSON BOULEVARD Westbound				PALM DRIVE Northbound				PIERSON BOULEVARD Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
07:00 AM	10	129	1	140	16	41	7	64	69	64	5	138	8	27	63	98	440
07:15 AM	10	137	2	149	19	9	4	32	25	72	4	101	6	24	57	87	369
07:30 AM	8	102	7	117	19	16	5	40	23	73	12	108	5	13	15	33	298
07:45 AM	6	71	7	84	16	9	13	38	35	71	11	117	7	14	15	36	275
Total	34	439	17	490	70	75	29	174	152	280	32	464	26	78	150	254	1382
08:00 AM	9	63	9	81	19	16	10	45	25	44	11	80	5	12	25	42	248
08:15 AM	8	75	5	88	10	16	9	35	19	60	12	91	7	18	25	50	264
08:30 AM	9	101	9	119	18	8	8	34	37	75	20	132	7	32	30	69	354
08:45 AM	7	86	6	99	16	22	15	53	27	94	14	135	7	19	44	70	357
Total	33	325	29	387	63	62	42	167	108	273	57	438	26	81	124	231	1223
Grand Total	67	764	46	877	133	137	71	341	260	553	89	902	52	159	274	485	2605
Apprch %	7.6	87.1	5.2		39.0	40.2	20.8		28.8	61.3	9.9		10.7	32.8	56.5		
Total %	2.6	29.3	1.8	33.7	5.1	5.3	2.7	13.1	10.0	21.2	3.4	34.6	2.0	6.1	10.5	18.6	

Start Time	PALM DRIVE Southbound				PIERSON BOULEVARD Westbound				PALM DRIVE Northbound				PIERSON BOULEVARD Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:00 AM																
Volume	34	439	17	490	70	75	29	174	152	280	32	464	26	78	150	254	1382
Percent	6.9	89.6	3.5		40.2	43.1	16.7		32.8	60.3	6.9		10.2	30.7	59.1		
07:00																	
Volume	10	129	1	140	16	41	7	64	69	64	5	138	8	27	63	98	440
Peak Factor																	0.785
High Int.	07:15 AM				07:00 AM				07:00 AM				07:00 AM				
Volume	10	137	2	149	16	41	7	64	69	64	5	138	8	27	63	98	440
Peak Factor	0.822				0.680				0.841				0.648				

CITY OF DESERT HOT SPRINGS
 N/S: PALM DRIVE
 E/W: PIERSON BOULEVARD
 WEATHER: SUNNY

COUNTS UNLIMITED INC.
 25424 JACLYN AVENUE
 MORENO VALLEY CA 92557
 951-247-6716

File Name : DHSPAPIPM
 Site Code : 01224029
 Start Date : 10/6/2004
 Page No : 2



Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1

By Approach	04:45 PM				04:00 PM				05:00 PM				05:00 PM			
Volume	35	367	24	426	84	71	54	209	126	524	97	747	32	74	128	234
Percent	8.2	86.2	5.6		40.2	34.0	25.8		16.9	70.1	13.0		13.7	31.6	54.7	
High Int.	04:45 PM				04:00 PM				05:15 PM				05:30 PM			
Volume	5	97	6	108	25	19	20	64	32	144	22	198	8	26	33	67
Peak Factor	0.986				0.816				0.943				0.873			

CITY OF DESERT HOT SPRINGS
 N/S: PALM DRIVE
 E/W: PIERSON BOULEVARD
 WEATHER: SUNNY

COUNTS UNLIMITED INC.
 25424 JACLYN AVENUE
 MORENO VALLEY CA 92557
 951-247-6716

File Name : DHSPAPIPM
 Site Code : 01224029
 Start Date : 10/6/2004
 Page No : 1

Groups Printed- TOTAL VOLUME

Start Time	PALM DRIVE Southbound				PIERSON BOULEVARD Westbound				PALM DRIVE Northbound				PIERSON BOULEVARD Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
04:00 PM	7	87	14	108	25	19	20	64	26	141	20	187	11	16	25	52	411
04:15 PM	4	75	6	85	26	20	11	57	23	98	25	146	11	17	28	56	344
04:30 PM	6	84	4	94	19	16	15	50	34	129	31	194	9	15	31	55	393
04:45 PM	5	97	6	108	14	16	8	38	37	122	15	174	9	9	29	47	367
Total	22	343	30	395	84	71	54	209	120	490	91	701	40	57	113	210	1515
05:00 PM	9	89	5	103	17	15	10	42	33	115	20	168	9	20	27	56	369
05:15 PM	10	92	6	108	23	19	15	57	32	144	22	198	7	13	27	47	410
05:30 PM	11	89	7	107	17	21	14	52	30	138	24	192	8	26	33	67	418
05:45 PM	3	84	9	96	22	15	11	48	31	127	31	189	8	15	41	64	397
Total	33	354	27	414	79	70	50	199	126	524	97	747	32	74	128	234	1594
Grand Total	55	697	57	809	163	141	104	408	246	1014	188	1448	72	131	241	444	3109
Apprch %	6.8	86.2	7.0		40.0	34.6	25.5		17.0	70.0	13.0		16.2	29.5	54.3		
Total %	1.8	22.4	1.8	26.0	5.2	4.5	3.3	13.1	7.9	32.6	6.0	46.6	2.3	4.2	7.8	14.3	

Start Time	PALM DRIVE Southbound				PIERSON BOULEVARD Westbound				PALM DRIVE Northbound				PIERSON BOULEVARD Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	05:00 PM																
Volume	33	354	27	414	79	70	50	199	126	524	97	747	32	74	128	234	1594
Percent	8.0	85.5	6.5		39.7	35.2	25.1		16.9	70.1	13.0		13.7	31.5	54.7		
05:30																	
Volume	11	89	7	107	17	21	14	52	30	138	24	192	8	26	33	67	418
Peak Factor																	0.953
High Int.	05:15 PM				05:15 PM				05:15 PM				05:30 PM				
Volume	10	92	6	108	23	19	15	57	32	144	22	198	8	26	33	67	
Peak Factor	0.958				0.873				0.943				0.873				

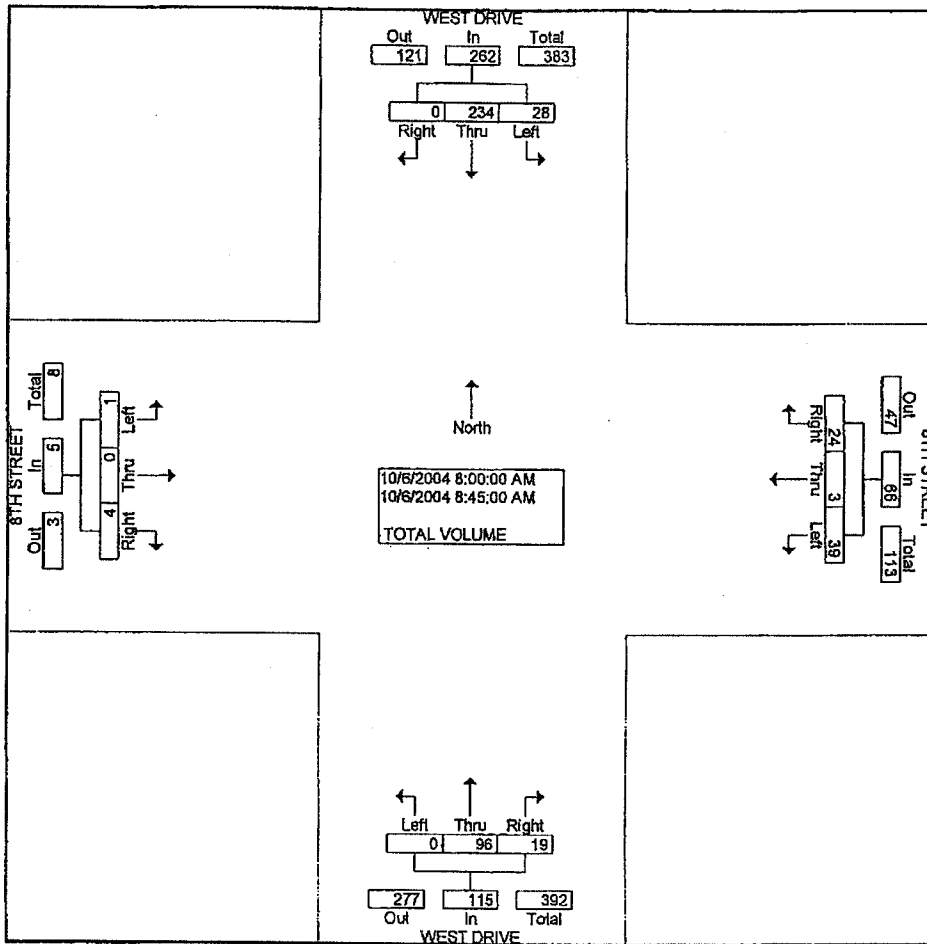
CITY OF DESERT HOT SPRINGS
WEST DRIVE / 8TH STREET

Turning Movement Counts
October 2004

CITY OF DESERT HOT SPRINGS
 N/S: WEST DRIVE
 E/W: 8TH STREET
 WEATHER: SUNNY

COUNTS UNLIMITED INC.
 25424 JACLYN AVENUE
 MORENO VALLEY CA 92557
 951-247-6716

File Name : DHSWEEIAM
 Site Code : 01224030
 Start Date : 10/6/2004
 Page No : 2



Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1

By Approach	08:00 AM				08:00 AM				08:00 AM				07:00 AM			
Volume	28	234	0	262	39	3	24	66	0	96	19	115	2	5	6	13
Percent	10.7	89.3	0.0		59.1	4.5	36.4		0.0	83.5	16.5		15.4	38.5	46.2	
High Int.	08:30 AM				08:45 AM				08:45 AM				07:00 AM			
Volume	9	70	0	79	12	1	7	20	0	37	7	44	2	1	2	5
Peak Factor	0.829				0.825				0.653				0.650			

CITY OF DESERT HOT SPRINGS
 N/S: WEST DRIVE
 E/W: 8TH STREET
 WEATHER: SUNNY

COUNTS UNLIMITED INC.
 25424 JACLYN AVENUE
 MORENO VALLEY CA 92557
 951-247-6716

File Name : DHSWEEIAM
 Site Code : 01224030
 Start Date : 10/6/2004
 Page No : 1

Groups Printed- TOTAL VOLUME

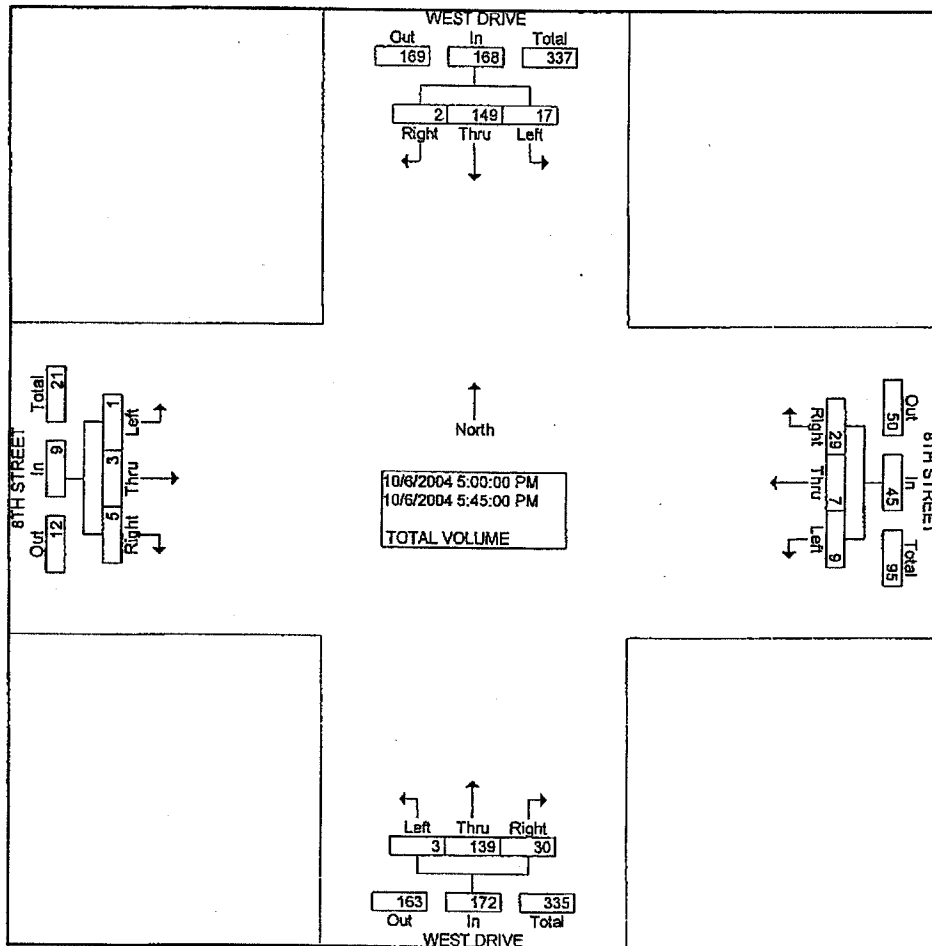
Start Time	WEST DRIVE Southbound				8TH STREET Westbound				WEST DRIVE Northbound				8TH STREET Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
07:00 AM	8	69	1	78	13	0	0	13	1	25	7	33	2	1	2	5	129
07:15 AM	7	42	1	50	3	4	2	9	0	20	7	27	0	2	2	4	90
07:30 AM	10	35	0	45	1	1	6	8	0	21	0	21	0	0	1	1	75
07:45 AM	3	30	1	34	2	0	4	6	0	16	2	18	0	2	1	3	61
Total	28	176	3	207	19	5	12	36	1	82	16	99	2	5	6	13	355
08:00 AM	0	42	0	42	2	0	7	9	0	22	2	24	0	0	2	2	77
08:15 AM	7	55	0	62	12	1	6	19	0	13	2	15	1	0	1	2	98
08:30 AM	9	70	0	79	13	1	4	18	0	24	8	32	0	0	0	0	129
08:45 AM	12	67	0	79	12	1	7	20	0	37	7	44	0	0	1	1	144
Total	28	234	0	262	39	3	24	66	0	96	19	115	1	0	4	5	448
Grand Total	56	410	3	469	58	8	36	102	1	178	35	214	3	5	10	18	803
Apprch %	11.9	87.4	0.6		56.9	7.8	35.3		0.5	83.2	16.4		16.7	27.8	55.6		
Total %	7.0	51.1	0.4	58.4	7.2	1.0	4.5	12.7	0.1	22.2	4.4	26.7	0.4	0.6	1.2	2.2	

Start Time	WEST DRIVE Southbound				8TH STREET Westbound				WEST DRIVE Northbound				8TH STREET Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	08:00 AM																
Volume	28	234	0	262	39	3	24	66	0	96	19	115	1	0	4	5	448
Percent	10.7	89.3	0.0		59.1	4.5	36.4		0.0	83.5	16.5		20.0	0.0	80.0		
08:45																	
Volume	12	67	0	79	12	1	7	20	0	37	7	44	0	0	1	1	144
Peak Factor																	0.778
High Int.	08:30 AM				08:45 AM				08:45 AM				08:00 AM				
Volume	9	70	0	79	12	1	7	20	0	37	7	44	0	0	2	2	
Peak Factor	0.829				0.825				0.653				0.625				

CITY OF DESERT HOT SPRINGS
 N/S: WEST DRIVE
 EW: 8TH STREET
 WEATHER: SUNNY

COUNTS UNLIMITED INC.
 25424 JACLYN AVENUE
 MORENO VALLEY CA 92557
 951-247-6716

File Name : DHSWEEIPM
 Site Code : 01224030
 Start Date : 10/6/2004
 Page No : 2



Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1

By Approach	05:00 PM				04:45 PM				05:00 PM				04:30 PM			
Volume	17	149	2	168	10	6	31	47	3	139	30	172	0	5	5	10
Percent	10.1	88.7	1.2		21.3	12.8	66.0		1.7	80.8	17.4		0.0	50.0	50.0	
High Int.	05:30 PM				05:00 PM				05:30 PM				04:30 PM			
Volume	4	45	1	50	3	1	9	13	1	37	10	48	0	3	2	5
Peak Factor	0.840				0.904				0.896				0.500			

CITY OF DESERT HOT SPRINGS
 N/S: WEST DRIVE
 E/W: 8TH STREET
 WEATHER: SUNNY

COUNTS UNLIMITED INC.
 25424 JACLYN AVENUE
 MORENO VALLEY CA 92557
 951-247-6716

File Name : DHSWEEIPM
 Site Code : 01224030
 Start Date : 10/6/2004
 Page No : 1

Groups Printed- TOTAL VOLUME

Start Time	WEST DRIVE Southbound				8TH STREET Westbound				WEST DRIVE Northbound				8TH STREET Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
04:00 PM	2	32	0	34	2	0	6	8	1	30	1	32	0	0	1	1	75
04:15 PM	3	34	0	37	5	3	8	16	1	30	2	33	0	0	1	1	87
04:30 PM	5	32	0	37	2	1	2	5	0	28	7	35	0	3	2	5	82
04:45 PM	4	33	0	37	4	0	7	11	1	28	4	33	0	0	1	1	82
Total	14	131	0	145	13	4	23	40	3	116	14	133	0	3	5	8	326
05:00 PM	4	44	0	48	3	1	9	13	0	33	8	41	0	1	1	2	104
05:15 PM	4	26	1	31	1	2	8	11	1	35	6	42	0	1	1	2	86
05:30 PM	4	45	1	50	2	3	7	12	1	37	10	48	1	1	3	5	115
05:45 PM	5	34	0	39	3	1	5	9	1	34	6	41	0	0	0	0	89
Total	17	149	2	168	9	7	29	45	3	139	30	172	1	3	5	9	394
Grand Total	31	280	2	313	22	11	52	85	6	255	44	305	1	6	10	17	720
Approch %	9.9	89.5	0.6		25.9	12.9	61.2		2.0	83.6	14.4		5.9	35.3	58.8		
Total %	4.3	38.9	0.3	43.5	3.1	1.5	7.2	11.8	0.8	35.4	6.1	42.4	0.1	0.8	1.4	2.4	

Start Time	WEST DRIVE Southbound				8TH STREET Westbound				WEST DRIVE Northbound				8TH STREET Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	05:00 PM																
Volume	17	149	2	168	9	7	29	45	3	139	30	172	1	3	5	9	394
Percent	10.1	88.7	1.2		20.0	15.6	64.4		1.7	80.8	17.4		11.1	33.3	55.6		
05:30	4	45	1	50	2	3	7	12	1	37	10	48	1	1	3	5	115
Peak Factor																	0.857
High Int.	05:30 PM				05:00 PM				05:30 PM				05:30 PM				
Volume	4	45	1	50	3	1	9	13	1	37	10	48	1	1	3	5	
Peak Factor	0.840								0.865				0.896				0.450

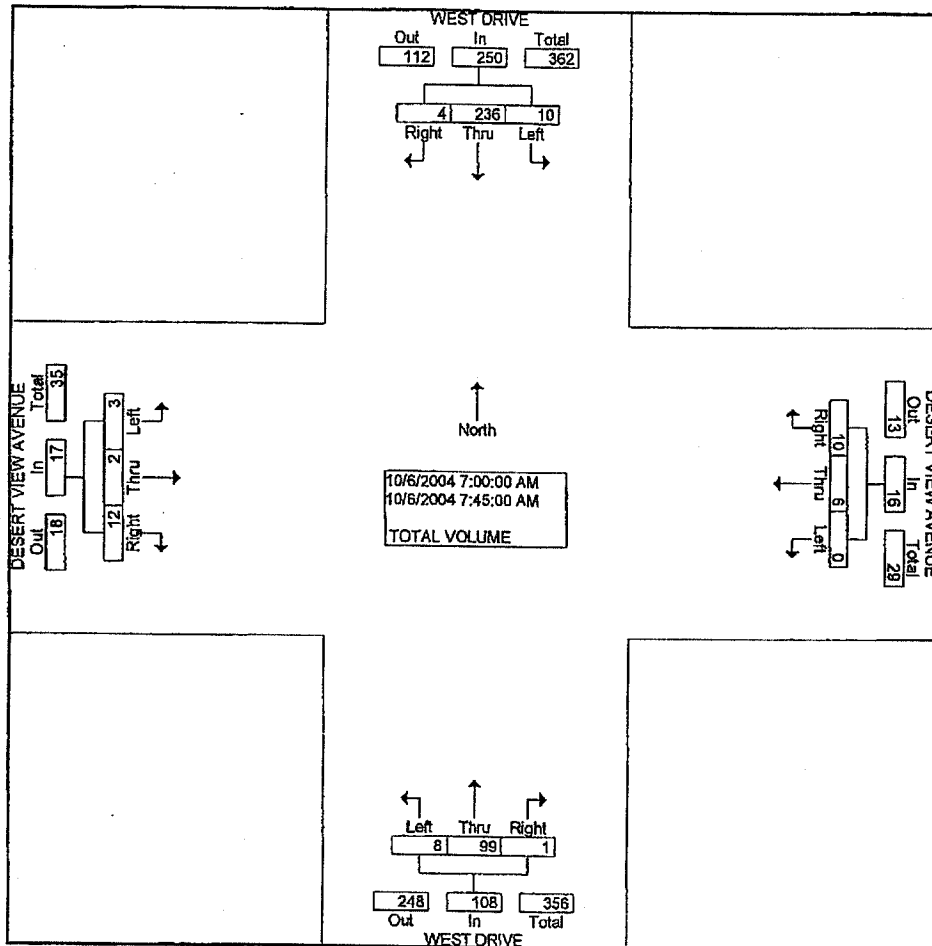
CITY OF DESERT HOT SPRINGS
WEST DRIVE / DESERT VIEW AVENUE

Turning Movement Counts
October 2004

CITY OF DESERT HOT SPRINGS
 N/S: WEST DRIVE
 E/W: DESERT VIEW AVENUE
 WEATHER: SUNNY

COUNTS UNLIMITED INC.
 25424 JACLYN AVENUE
 MORENO VALLEY CA 92557
 951-247-8716

File Name : DHSWEDVAM
 Site Code : 01224021
 Start Date : 10/6/2004
 Page No : 2



Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1

By Approach	07:00 AM				07:30 AM				08:00 AM				07:30 AM			
Volume	10	236	4	250	10	3	13	26	1	113	7	121	5	4	11	20
Percent	4.0	94.4	1.6		38.5	11.5	50.0		0.8	93.4	5.8		25.0	20.0	55.0	
High Int.	07:15 AM				08:15 AM				08:30 AM				07:30 AM			
Volume	3	93	0	96	9	0	2	11	0	40	3	43	2	0	5	7
Peak Factor	0.651				0.591				0.703				0.714			

CITY OF DESERT HOT SPRINGS
 N/S: WEST DRIVE
 E/W: DESERT VIEW AVENUE
 WEATHER: SUNNY

COUNTS UNLIMITED INC.
 25424 JACLYN AVENUE
 MORENO VALLEY CA 92557
 951-247-6716

File Name : DHSWEDVAM
 Site Code : 01224021
 Start Date : 10/6/2004
 Page No : 1

Groups Printed- TOTAL VOLUME

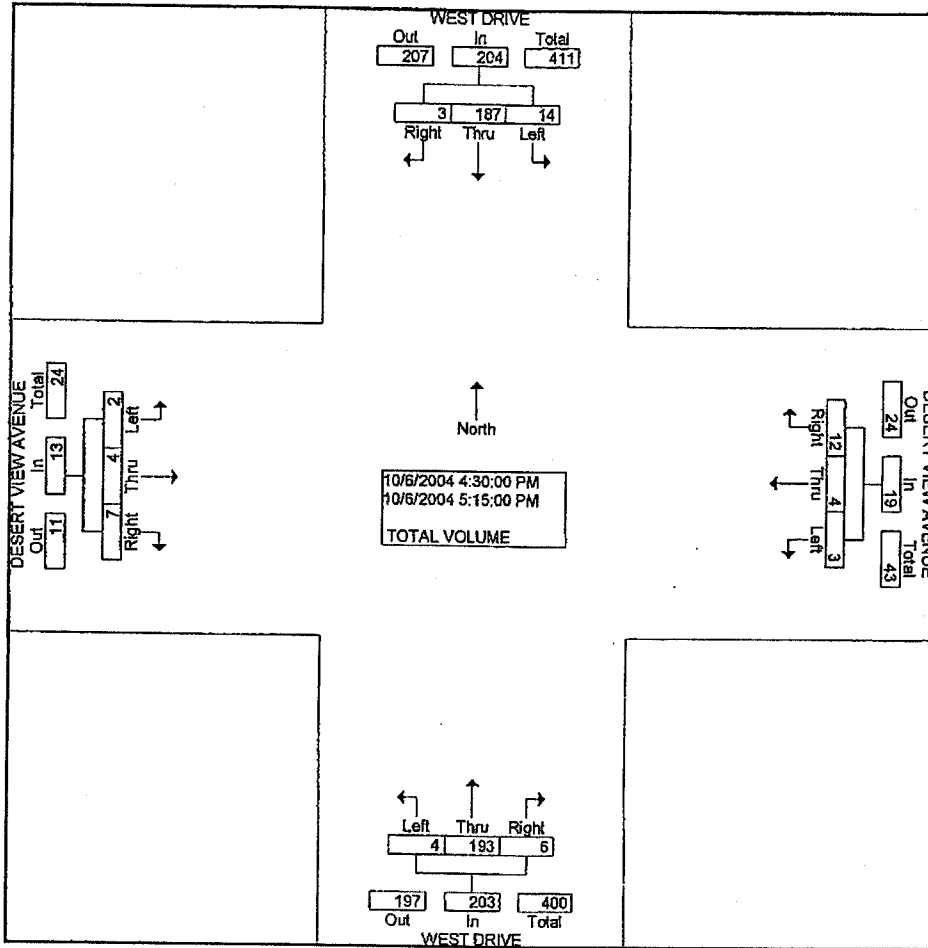
Start Time	WEST DRIVE Southbound				DESERT VIEW AVENUE Westbound				WEST DRIVE Northbound				DESERT VIEW AVENUE Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
07:00 AM	2	59	1	62	0	2	0	2	1	23	0	24	0	1	1	2	90
07:15 AM	3	93	0	96	0	2	2	4	3	32	1	36	0	0	2	2	138
07:30 AM	1	50	1	52	0	1	5	6	4	28	0	32	2	0	5	7	97
07:45 AM	4	34	2	40	0	1	3	4	0	16	0	16	1	1	4	6	66
Total	10	236	4	250	0	6	10	16	8	99	1	108	3	2	12	17	391
08:00 AM	3	43	0	46	1	1	3	5	0	24	1	25	0	3	0	3	79
08:15 AM	3	47	1	51	9	0	2	11	1	18	2	21	2	0	2	4	87
08:30 AM	0	58	2	60	2	0	4	6	0	40	3	43	0	1	3	4	113
08:45 AM	0	31	0	31	1	0	0	1	0	31	1	32	0	0	1	1	65
Total	6	179	3	188	13	1	9	23	1	113	7	121	2	4	6	12	344
Grand Total	16	415	7	438	13	7	19	39	9	212	8	229	5	6	18	29	735
Apprch %	3.7	94.7	1.6		33.3	17.9	48.7		3.9	92.6	3.5		17.2	20.7	62.1		
Total %	2.2	56.5	1.0	59.6	1.8	1.0	2.6	5.3	1.2	28.8	1.1	31.2	0.7	0.8	2.4	3.9	

Start Time	WEST DRIVE Southbound				DESERT VIEW AVENUE Westbound				WEST DRIVE Northbound				DESERT VIEW AVENUE Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:00 AM																
Volume	10	236	4	250	0	6	10	16	8	99	1	108	3	2	12	17	391
Percent	4.0	94.4	1.6		0.0	37.5	62.5		7.4	91.7	0.9		17.6	11.8	70.6		
07:15	3	93	0	96	0	2	2	4	3	32	1	36	0	0	2	2	138
Volume																	
Peak Factor																	0.708
High Int.	07:15 AM				07:30 AM				07:15 AM				07:30 AM				
Volume	3	93	0	96	0	1	5	6	3	32	1	36	2	0	5	7	
Peak Factor	0.651								0.667				0.750				0.607

CITY OF DESERT HOT SPRINGS
 N/S: WEST DRIVE
 E/W: DESERT VIEW AVENUE
 WEATHER: SUNNY

COUNTS UNLIMITED INC.
 25424 JACLYN AVENUE
 MORENO VALLEY CA 92557
 951-247-6716

File Name : DHSWEDVPM
 Site Code : 01224021
 Start Date : 10/6/2004
 Page No : 2



Peak Hour From 03:45 PM to 05:30 PM - Peak 1 of 1

By Approach	04:30 PM				03:45 PM				04:30 PM				03:45 PM			
Volume	14	187	3	204	6	4	16	26	4	193	6	203	3	6	8	17
Percent	6.9	91.7	1.5		23.1	15.4	61.5		2.0	95.1	3.0		17.6	35.3	47.1	
High Int.	04:45 PM				04:30 PM				05:00 PM				03:45 PM			
Volume	4	61	0	65	3	2	5	10	1	62	2	65	2	2	2	6
Peak Factor				0.785				0.650				0.781				0.708

COUNTS UNLIMITED INC.
 25424 JACLYN AVENUE
 MORENO VALLEY CA 92557
 951-247-6716

CITY OF DESERT HOT SPRINGS
 N/S: WEST DRIVE
 E/W: DESERT VIEW AVENUE
 WEATHER: SUNNY

File Name : DHSWEDVPM
 Site Code : 01224021
 Start Date : 10/6/2004
 Page No : 1

Groups Printed- TOTAL VOLUME

Start Time	WEST DRIVE Southbound				DESERT VIEW AVENUE Westbound				WEST DRIVE Northbound				DESERT VIEW AVENUE Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
03:45 PM	4	56	1	61	1	1	6	8	3	43	3	49	2	2	2	6	124
Total	4	56	1	61	1	1	6	8	3	43	3	49	2	2	2	6	124
04:00 PM	1	43	1	45	1	1	2	4	5	38	2	45	0	1	4	5	99
04:15 PM	2	37	0	39	1	0	3	4	1	31	3	35	1	2	0	3	81
04:30 PM	2	40	1	43	3	2	5	10	1	43	2	46	0	1	2	3	102
04:45 PM	4	61	0	65	0	0	5	5	0	38	1	39	1	1	0	2	111
Total	9	181	2	192	5	3	15	23	7	150	8	165	2	5	6	13	393
05:00 PM	2	45	1	48	0	0	1	1	1	62	2	65	1	0	5	6	120
05:15 PM	6	41	1	48	0	2	1	3	2	50	1	53	0	2	0	2	106
05:30 PM	3	38	1	42	1	1	6	8	1	36	1	38	0	0	2	2	90
Grand Total	24	361	6	391	7	7	29	43	14	341	15	370	5	9	15	29	833
Apprch %	6.1	92.3	1.5		16.3	16.3	67.4		3.8	92.2	4.1		17.2	31.0	51.7		
Total %	2.9	43.3	0.7	46.9	0.8	0.8	3.5	5.2	1.7	40.9	1.8	44.4	0.6	1.1	1.8	3.5	

Start Time	WEST DRIVE Southbound				DESERT VIEW AVENUE Westbound				WEST DRIVE Northbound				DESERT VIEW AVENUE Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour From 03:45 PM to 05:30 PM - Peak 1 of 1																	
Intersection	04:30 PM																
Volume	14	187	3	204	3	4	12	19	4	193	6	203	2	4	7	13	439
Percent	6.9	91.7	1.5		15.8	21.1	63.2		2.0	95.1	3.0		15.4	30.8	53.8		
05:00																	
Volume	2	45	1	48	0	0	1	1	1	62	2	65	1	0	5	6	120
Peak Factor																	0.915
High Int.	04:45 PM				04:30 PM				05:00 PM				05:00 PM				
Volume	4	61	0	65	3	2	5	10	1	62	2	65	1	0	5	6	
Peak Factor	0.785				0.475				0.781				0.542				

APPENDIX C

Existing Conditions HCM Worksheets

Scenario: EX AM
 Command: EX AM
 Volume: EX AM
 Geometry: Default Geometry
 Impact Fee: Default Impact Fee
 Trip Generation: AM
 Trip Distribution: project
 Paths: Default Paths
 Routes: Default Routes
 Configuration: EX AM

Intersection	Base Del/ V/ LOS Veh C	Future Del/ V/ LOS Veh C	Change in in
# 1 Pierson @ Golden Eagle/Atlanta	B 18.1 0.326	B 18.1 0.326	+ 0.000 D/V
# 2 Pierson @ Cholla	B 11.5 0.000	B 11.5 0.000	+ 0.000 D/V
# 3 Pierson @ West	B 12.1 0.345	B 12.1 0.345	+ 0.000 V/C
# 4 Pierson @ Cactus	A 9.0 0.202	A 9.0 0.202	+ 0.000 V/C
# 5 Pierson @ Palm	C 20.1 0.342	C 20.1 0.342	+ 0.000 D/V
# 6 West @ 8th	A 8.7 0.328	A 8.7 0.328	+ 0.000 V/C
# 7 West @ Desert View	B 10.3 0.000	B 10.3 0.000	+ 0.000 D/V

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Existing AM Peak Hour Conditions

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Pearson @ Golden Eagle/Atlantic

Cycle (sec): 80 Critical Vol./Cap. (X): 0.326
Loss time (sec): 5 (X+R = 4 sec) Average Delay (sec/veh): 18.1

Optimal Cycle: 60 Level Of Service: X

Approach: Northbound Southbound Eastbound Westbound
Movement: L-T-R L-T-R L-T-R L-T-R

Control: Permitted Include Protected Protected
Rights: Include Include Include Include

Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 1 0 1 0 5

Volume Module:
Base Vol: 2 36 3 187 0 30 48 126 3 3 151 169

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 2 36 3 187 0 30 48 126 3 3 151 169

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserbyVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 2 36 3 187 0 30 48 126 3 3 151 169

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95

PHF Volumes: 2 27 3 197 0 32 51 133 3 3 159 178

Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Adjustment: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Vol: 2 27 3 197 0 32 51 133 3 3 159 178

Saturation Flow Module:
Sat/Lease: 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800

Adjustment: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98

Lanes: 0.05 0.84 0.18 0.85 0.00 0.14 1.00 0.98 0.02 1.00 1.00 1.00

Final Sat: 120 1557 180 1184 0 190 1805 1850 44 1805 1652 1662

Capacity Analysis Module:
Vol/Fat: 0.02 0.02 0.02 0.17 0.00 0.17 0.03 0.07 0.07 0.00 0.10 0.11

Crit Moves: ****

Green/Cycle: 0.51 0.51 0.51 0.51 0.09 0.35 0.35 0.05 0.33 0.33

Volume/Cap: 0.03 0.03 0.03 0.33 0.00 0.33 0.33 0.20 0.20 0.03 0.29 0.33

Delay/Veh: 9.8 9.8 9.8 11.8 0.0 11.8 35.6 18.2 18.2 35.3 20.1 20.4

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 9.8 9.8 9.8 11.8 0.0 11.8 35.6 18.2 18.2 35.3 20.1 20.4

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Existing AM Peak Hour Conditions

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Pearson @ Golden Eagle/Atlantic

Cycle (sec): 80 Critical Vol./Cap. (X): 0.326
Loss time (sec): 5 (X+R = 4 sec) Average Delay (sec/veh): 18.1

Optimal Cycle: 60 Level Of Service: X

Approach: Northbound Southbound Eastbound Westbound
Movement: L-T-R L-T-R L-T-R L-T-R

Control: Permitted Include Protected Protected
Rights: Include Include Include Include

Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 1 0 1 0 5

Volume Module:
Base Vol: 2 36 3 187 0 30 48 126 3 3 151 169

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 2 36 3 187 0 30 48 126 3 3 151 169

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserbyVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 2 36 3 187 0 30 48 126 3 3 151 169

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95

PHF Volumes: 2 27 3 197 0 32 51 133 3 3 159 178

Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Adjustment: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Vol: 2 27 3 197 0 32 51 133 3 3 159 178

Saturation Flow Module:
Sat/Lease: 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800

Adjustment: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98

Lanes: 0.05 0.84 0.18 0.85 0.00 0.14 1.00 0.98 0.02 1.00 1.00 1.00

Final Sat: 120 1557 180 1184 0 190 1805 1850 44 1805 1652 1662

Capacity Analysis Module:
Vol/Fat: 0.02 0.02 0.02 0.17 0.00 0.17 0.03 0.07 0.07 0.00 0.10 0.11

Crit Moves: ****

Green/Cycle: 0.51 0.51 0.51 0.51 0.09 0.35 0.35 0.05 0.33 0.33

Volume/Cap: 0.03 0.03 0.03 0.33 0.00 0.33 0.33 0.20 0.20 0.03 0.29 0.33

Delay/Veh: 9.8 9.8 9.8 11.8 0.0 11.8 35.6 18.2 18.2 35.3 20.1 20.4

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 9.8 9.8 9.8 11.8 0.0 11.8 35.6 18.2 18.2 35.3 20.1 20.4

City of Desert Hot Springs Civic Center
 Traffic Impact Analysis
 Existing AM Peak Hour Conditions

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #3: Pierson @ West
 Level of Service: A
 Critical Vol./Cap. (X): 0.548
 Loss Time (sec): 0 (Y+X = 4 sec) Average Delay (sec/veh): 12.1
 Optimal Cycle: 0 Level of Service: B
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 1 0 0 0 1 0 0 1 0 1 0 1 0 0
 Lanes: 0 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0

Volume Module:
 Base Vol: 76 68 9 60 190 61 44 178 116 22 214 33
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 76 68 9 60 190 61 44 178 116 22 214 33
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PassesByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Pct: 76 68 9 60 190 61 44 178 116 22 214 33
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 80 72 9 63 200 64 46 187 122 23 225 35
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 80 72 9 63 200 64 46 187 122 23 225 35
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MPF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol: 80 72 9 63 200 64 46 187 122 23 225 35

Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Annex: 0.20 0.44 0.38 0.19 0.62 0.28 1.00 1.21 0.79 1.00 1.21 0.27
 Final Sct: 288 239 32 116 367 118 503 666 466 492 928 143
 Capacity Analysis Module:
 Vol/Sat: 0.30 0.30 0.30 0.54 0.54 0.09 0.28 0.26 0.05 0.24 0.24
 Cof/Grds: ****
 Delay/Veh: 11.5 11.5 11.5 14.8 14.8 14.8 10.2 11.2 10.4 9.8 10.9 10.7
 Delay/Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 11.5 11.5 11.5 14.8 14.8 14.8 10.2 11.2 10.4 9.8 10.9 10.7
 LOS by Move: B B B B B B B B B B B B
 Approach: B B B B B B B B B B B B
 Delay Adj: 11.5 14.8 14.8 10.8 10.8 10.8 10.8 10.8 10.8 10.8 10.8 10.8
 AppradjDel: 11.5 14.8 14.8 10.8 10.8 10.8 10.8 10.8 10.8 10.8 10.8 10.8
 LOS by Appr: B B B B B B B B B B B B

City of Desert Hot Springs Civic Center
 Traffic Impact Analysis
 Existing AM Peak Hour Conditions

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #4: Pierson @ Cactus
 Level of Service: A
 Critical Vol./Cap. (X): 0.202
 Loss Time (sec): 0 (Y+X = 4 sec) Average Delay (sec/veh): 9.0
 Optimal Cycle: 0 Level of Service: A
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 1 0 0 0 1 0 0 1 0 1 0 1 0 0
 Lanes: 0 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0

Volume Module:
 Base Vol: 21 37 18 21 58 19 11 242 19 5 205 9
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 21 37 18 21 58 19 11 242 19 5 205 9
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PassesByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Pct: 21 37 18 21 58 19 11 242 19 5 205 9
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 22 39 19 22 61 20 12 255 20 5 216 9
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 22 39 19 22 61 20 12 255 20 5 216 9
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MPF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol: 22 39 19 22 61 20 12 255 20 5 216 9

Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Annex: 0.27 0.49 0.24 0.21 0.60 0.19 1.00 1.05 0.15 1.00 1.52 0.04
 Final Sct: 180 317 154 141 389 127 615 1261 100 608 1280 57
 Capacity Analysis Module:
 Vol/Sat: 0.12 0.12 0.12 0.16 0.16 0.02 0.20 0.20 0.03 0.17 0.17
 Cof/Grds: ****
 Delay/Veh: 8.8 8.8 8.8 9.0 9.0 9.0 8.5 9.1 9.0 8.5 8.9 8.9
 Delay/Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 8.8 8.8 8.8 9.0 9.0 9.0 8.5 9.1 9.0 8.5 8.9 8.9
 LOS by Move: A A A A A A A A A A A A
 Approach: A A A A A A A A A A A A
 Delay Adj: 8.8 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0
 AppradjDel: 8.8 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0
 LOS by Appr: A A A A A A A A A A A A

Level of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)
 Intersection #5 Piarson @ Palm
 Cycle (sec): 90 Critical Vol./Cap. (X): 0.342
 Loss time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 20.1
 Optimal Cycle: 60 Level of Service: C
 Approach: North Bound South Bound East Bound West Bound
 Movement: L-T-R L-T-R L-T-R L-T-R L-T-R
 Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0
 Lanes: 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0
 Volume Module:
 Base Vol: 152 280 32 34 439 17 26 78 150 70 75 29
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 152 280 32 34 439 17 26 78 150 70 75 29
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserbyVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fct: 152 280 32 34 439 17 26 78 150 70 75 29
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 180 295 34 36 462 18 27 82 158 74 79 31
 Reduced Vol: 160 285 34 36 462 18 27 82 158 74 79 31
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MCF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol: 160 285 34 36 462 18 27 82 158 74 79 31

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.94 0.94 0.95 0.94 0.94 0.68 0.66 0.86 0.53 0.91 0.91
 Lane: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Sat: 1805 3191 365 1805 3455 134 1284 1636 1636 1003 2494 954
 Capacity Analysis Module:
 Vol/Sat: 0.09 0.09 0.09 0.02 0.13 0.13 0.02 0.05 0.10 0.07 0.03 0.03
 Crit Moves: ****
 Green/Cycle: 0.26 0.59 0.59 0.06 0.39 0.39 0.28 0.28 0.28 0.28 0.28 0.28
 Volume/Cap: 0.34 0.16 0.16 0.36 0.34 0.34 0.08 0.18 0.34 0.24 0.11 0.11
 Delay/Veh: 27.6 8.2 8.2 43.1 19.4 19.4 23.7 24.4 25.9 25.4 23.9 23.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 27.6 8.2 8.2 43.1 19.4 19.4 23.7 24.4 25.9 25.4 23.9 23.9
 HCM DelAdj: 4 2 2 1 5 5 1 2 4 3 1 1
 LOS by Appr: A A A A A A A A A A A A

Level of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)
 Intersection #5 West @ 8th
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.125
 Loss time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 8.7
 Optimal Cycle: 0 Level of Service: S, Y
 Approach: North Bound South Bound East Bound West Bound
 Movement: L-T-R L-T-R L-T-R L-T-R L-T-R
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Volume Module:
 Base Vol: 0 95 19 28 234 0 1 0 4 39 3 24
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 95 19 28 234 0 1 0 4 39 3 24
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserbyVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fct: 0 95 19 28 234 0 1 0 4 39 3 24
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 0 101 20 29 246 0 1 0 4 41 3 25
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MCF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol: 0 101 20 29 246 0 1 0 4 41 3 25

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lane: 0.00 0.18 0.17 0.18 0.89 0.00 0.20 0.00 0.80 0.59 0.05 0.36
 Final Sat: 0 870 137 90 751 0 151 0 602 428 33 263
 Capacity Analysis Module:
 Vol/Sat: Xxxx 0.15 0.15 0.13 0.13 Xxxx 0.01 Xxxx 0.01 0.10 0.10 0.10
 Crit Moves: ****
 Delay/Veh: 0 0 7.9 7.9 5.2 9.2 0.0 7.4 0.0 7.4 8.1 8.1
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0 0 7.9 7.9 5.2 9.2 0.0 7.4 0.0 7.4 8.1 8.1
 LOS by Move: A A A A A A A A A A A A
 Approach Del: 7.9 7.9 5.2 9.2 7.4 8.1 8.1
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 7.9 7.9 5.2 9.2 7.4 8.1 8.1
 LOS by Appr: A A A A A A A A A A A A

City of Desert Hot Springs Civic Center
 Traffic Impact Analysis
 Existing AM Peak Hour Conditions

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 West @ Desert View
 Level of Service Computation Report
 Average Delay (sec/veh): 1.2 Worst Case Level of Service: A (10.3)
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Uncontrolled Uncontrolled Uncontrolled Uncontrolled Stop Sign Stop Sign
 Right: Uncontrolled Uncontrolled Uncontrolled Uncontrolled Include Include
 Lanes: 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0

Volume Module:

Base Vol:	8	99	1	10	236	4	3	2	12	12	0	6	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bc:	8	99	1	10	236	4	3	2	12	12	0	6	10
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
PassxVol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	99	1	10	236	4	3	2	12	12	0	6	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	8	104	1	11	248	4	3	2	13	13	0	6	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol:	8	104	1	11	248	4	3	2	13	13	0	6	11

Critical Gap Module:

Critical Gap:	4.1	xxxx	xxxx	4.1	xxxx	xxxx	7.1	6.5	6.2	xxxx	6.5	6.2
Followup Gap:	2.2	xxxx	xxxx	2.2	xxxx	xxxx	3.5	4.0	3.3	xxxx	4.0	3.3

Capacity Module:

Control Vol:	263	xxxx	xxxx	105	xxxx	xxxx	452	394	251	xxxx	398	108
Planned Cap:	1324	xxxx	xxxx	1493	xxxx	xxxx	545	483	313	xxxx	445	855
Move Cap:	1324	xxxx	xxxx	1493	xxxx	xxxx	546	539	373	xxxx	537	955
Volume/Cap:	0.01	xxxx	xxxx	0.01	xxxx	xxxx	0.01	0.00	0.02	xxxx	0.01	0.01

Level of Service Module:

Queue:	0.0	xxxx	xxxx	0.0	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Delayed Del:	1.7	xxxx	xxxx	1.4	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
LOS by Move:	A	*	*	A	*	*	A	A	A	A	A	A
Shared Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shared Del:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shared LOS:	*	*	*	*	*	*	A	A	A	A	A	A
ApproachDel:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
ApproachLOS:							B	B	B			A

EX PM Wed Oct 27, 2004 14:33:02 Page 1-1
 City of Desert Hot Springs Civic Center
 Traffic Impact Analysis
 Existing PM Peak Hour Conditions
 Scenario Report

Scenario: EX PM
 Command: EX PM
 Volume: EX PM
 Geometry: Default Geometry
 Impact Fee: Default Impact Fee
 Trip Generation: PM
 Trip Distribution: Project
 Paths: Default Paths
 Routes: Default Routes
 Configuration: EX PM

EX PM Wed Oct 27, 2004 14:33:03 Page 2-1
 City of Desert Hot Springs Civic Center
 Traffic Impact Analysis
 Existing PM Peak Hour Conditions
 Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del./ LOS Veh	V/ C	Del./ LOS Veh	V/ C	
# 1 Pierson @ Golden Eagle/Atlanti	B 14.2	0.146	B 14.2	0.146	+ 0.000 D/V
# 2 Pierson @ Cholla	B 11.7	0.000	B 11.7	0.000	+ 0.000 D/V
# 3 Pierson @ West	B 10.4	0.356	B 10.4	0.356	+ 0.000 V/C
# 4 Pierson @ Cactus	A 8.8	0.177	A 8.8	0.177	+ 0.000 V/C
# 5 Pierson @ Palm	B 17.8	0.308	B 17.8	0.308	+ 0.000 D/V
# 6 West @ 8th	A 8.1	0.210	A 8.1	0.210	+ 0.000 V/C
# 7 West @ Desert View	B 10.7	0.000	B 10.7	0.000	+ 0.000 D/V

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Existing PM Peak Hour Conditions

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Fierston @ Colden Eagle/Atlantic
Cycle (sec): 80 Critical Vol./Cap. (X): 0.146
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 14.2
Optimal Cycle: 60 Level of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Protected Protected
Signs: Include Include Include Include
Max. Green: 5 5 5 5 5 5 5 5 5 5 5 5
Max. Red: 0 0 1 0 0 0 0 1 0 0 1 0 1 0 1 0 1 0

Volume Module:
Base Vol.: 1 0 1 45 0 8 5 178 1 1 143 28
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bst: 0 0 1 45 0 8 5 178 1 1 143 28
Added Vol.: 0 0 0 0 0 0 0 0 0 0 0 0
Passes/Wpl: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 3 0 1 45 0 8 5 178 1 1 143 28
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 3 0 1 47 0 8 5 184 1 1 172 29
Peak Vol.: 3 0 1 47 0 8 5 184 1 1 172 29
Reduced Vol.: 3 0 1 47 0 8 5 184 1 1 172 29
PCB Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MCF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 3 0 1 47 0 8 5 184 1 1 172 29

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adj: 0.88 1.00 0.88 0.79 1.00 0.79 0.95 1.00 0.95 1.00 0.95 0.93
Lanes: 0.75 0.00 0.25 0.85 0.00 0.15 1.00 0.99 0.01 1.00 1.71 0.29
Final Sat.: 1250 0 417 1282 0 228 1805 1887 11 1805 3013 518

Capacity Analysis Module:
Vol/Bat: 0.00 0.00 0.00 0.04 0.00 0.10 0.10 0.00 0.06 0.06 0.06
Crit Moves: ****
Green/Cycle: 0.24 0.00 0.24 0.24 0.00 0.24 0.34 0.63 0.63 0.06 0.34 0.34
Volume/Cap: 0.01 0.00 0.01 0.16 0.00 0.16 0.01 0.16 0.16 0.01 0.17 0.17
Delay/Veh: 23.4 0.0 23.4 24.4 0.0 24.4 17.3 6.3 6.3 35.2 18.3 18.3
User Del/Del: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Adj/Del/Veh: 23.4 0.0 23.4 24.4 0.0 24.4 17.3 6.3 6.3 35.2 18.3 18.3
HCM2LANV: 0 0 0 1 0 1 0 2 1 0 2 2

Level of Service: B

Approach Delay: 11.6 B
Approach LOS: B

Level of Service: B

Approach Delay: 11.7 B
Approach LOS: B

Level of Service: B

Approach Delay: 11.7 B
Approach LOS: B

Level of Service: B

Approach Delay: 11.7 B
Approach LOS: B

Level of Service: B

Approach Delay: 11.7 B
Approach LOS: B

Level of Service: B

Approach Delay: 11.7 B
Approach LOS: B

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Existing PM Peak Hour Conditions

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Fierston @ Cholla
Average Delay (sec/veh): 0.7 Maxrt Case Level of Service: B (11.7)
Optimal Cycle: 60 Level of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop sign stop sign stop sign stop sign
Signs: Include Include Include Include
Max. Green: 0 0 1 0 0 0 0 1 0 0 1 0 1 0 1 0
Max. Red: 0 0 1 0 0 0 0 1 0 0 1 0 1 0 1 0

Volume Module:
Base Vol.: 5 1 2 7 1 4 9 240 3 3 235 11
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bst: 5 1 2 7 1 4 9 240 3 3 235 11
Added Vol.: 0 0 0 0 0 0 0 0 0 0 0 0
Passes/Wpl: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 5 1 2 7 1 4 9 240 3 3 235 11
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 5 1 2 7 1 4 9 253 3 3 247 12
Peak Vol.: 5 1 2 7 1 4 9 253 3 3 247 12
Reduced Vol.: 5 1 2 7 1 4 9 253 3 3 247 12
PCB Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MCF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 5 1 2 7 1 4 9 253 3 3 247 12

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adj: 0.88 1.00 0.88 0.79 1.00 0.79 0.95 1.00 0.95 1.00 0.95 0.93
Lanes: 0.75 0.00 0.25 0.85 0.00 0.15 1.00 0.99 0.01 1.00 1.71 0.29
Final Sat.: 1250 0 417 1282 0 228 1805 1887 11 1805 3013 518

Capacity Analysis Module:
Vol/Bat: 0.00 0.00 0.00 0.04 0.00 0.10 0.10 0.00 0.06 0.06 0.06
Crit Moves: ****
Green/Cycle: 0.24 0.00 0.24 0.24 0.00 0.24 0.34 0.63 0.63 0.06 0.34 0.34
Volume/Cap: 0.01 0.00 0.01 0.16 0.00 0.16 0.01 0.16 0.16 0.01 0.17 0.17
Delay/Veh: 23.4 0.0 23.4 24.4 0.0 24.4 17.3 6.3 6.3 35.2 18.3 18.3
User Del/Del: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Adj/Del/Veh: 23.4 0.0 23.4 24.4 0.0 24.4 17.3 6.3 6.3 35.2 18.3 18.3
HCM2LANV: 0 0 0 1 0 1 0 2 1 0 2 2

Level of Service: B

Approach Delay: 11.6 B
Approach LOS: B

Level of Service: B

Approach Delay: 11.7 B
Approach LOS: B

Level of Service: B

Approach Delay: 11.7 B
Approach LOS: B

Level of Service: B

Approach Delay: 11.7 B
Approach LOS: B

Level of Service: B

Approach Delay: 11.7 B
Approach LOS: B

Level of Service: B

Approach Delay: 11.7 B
Approach LOS: B

Level of Service: B

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Existing PM Peak Hour Conditions

Level of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #3 Pierson @ West
Cycle (sec): 100 Critical Vol./Cap. (X): 0.356
Loss time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 10.4
Optimal Cycle: 0 Level of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 0 0 0 0 1 0 0 0 1 0 1 0 1 0 0
Volume Module:
Base Vol: 52 128 20 41 135 36 54 149 49 22 144 54
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 52 128 20 41 135 36 54 149 49 22 144 54
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PassesByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 52 128 20 41 135 36 54 149 49 22 144 54
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 55 135 21 43 142 38 57 157 52 23 152 57
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 55 135 21 43 142 38 57 157 52 23 152 57
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol: 55 135 21 43 142 38 57 157 52 23 152 57
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.26 0.64 0.10 0.19 0.64 0.17 1.00 0.51 0.49 2.00 1.45 0.55
Final Sat: 161 395 62 121 399 106 529 877 299 523 637 327
Capacity Analysis Module:
Vol/Sat: 0.34 0.34 0.34 0.36 0.36 0.36 0.11 0.18 0.17 0.04 0.18 0.17
Critic Moves: 11.1 11.1 11.1 11.1 11.1 11.1 9.9 9.7 9.4 9.5 9.8 9.4
Delay/Veh: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 11.1 11.1 11.1 11.1 11.1 11.1 9.9 9.7 9.4 9.5 9.8 9.4
LOS by Move: B B B B B B A A A A A A
ApproachDel: 11.1 11.1 11.1 11.1 11.1 11.1 9.7 9.7 9.7 9.7 9.7 9.7
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
ApproachDel: 11.1 11.1 11.1 11.1 11.1 11.1 9.7 9.7 9.7 9.7 9.7 9.7
LOS by Appr: B B B B B B A A A A A A

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Existing PM Peak Hour Conditions

Level of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #4 Pierson @ Cactus
Cycle (sec): 100 Critical Vol./Cap. (X): 0.177
Loss time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 6.8
Optimal Cycle: 0 Level of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 0 0 0 0 1 0 0 0 1 0 1 0 1 0 0
Volume Module:
Base Vol: 35 56 23 21 52 13 10 187 9 20 183 15
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 35 56 23 21 52 13 10 187 9 20 183 15
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PassesByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 35 56 23 21 52 13 10 187 9 20 183 15
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 37 59 24 22 55 14 11 197 9 21 193 16
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 37 59 24 22 55 14 11 197 9 21 193 16
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol: 37 59 24 22 55 14 11 197 9 21 193 16
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.21 0.49 0.20 0.24 0.61 0.25 1.00 0.91 0.09 1.00 1.65 0.15
Final Sat: 208 332 136 162 402 101 606 1270 62 608 1238 103
Capacity Analysis Module:
Vol/Sat: 0.18 0.18 0.18 0.14 0.14 0.14 0.02 0.15 0.15 0.03 0.16 0.15
Critic Moves: 9.0 9.0 9.0 8.8 8.8 8.8 8.6 8.8 8.8 8.6 8.8 8.7
Delay/Veh: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 9.0 9.0 9.0 8.8 8.8 8.8 8.6 8.8 8.8 8.6 8.8 8.7
LOS by Move: A A A A A A A A A A A A
ApproachDel: 9.0 8.8 8.8 8.8 8.8 8.8 8.8 8.8 8.8 8.8 8.8 8.8
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
ApproachDel: 9.0 8.8 8.8 8.8 8.8 8.8 8.8 8.8 8.8 8.8 8.8 8.8
LOS by Appr: A A A A A A A A A A A A

2000 HCM 4-way Stop Method (Future Volume Alternative)
Intersection # West @ BH
Level of Service Computation Report

Cycles (sec): 100 Critical Vol./Cap. (X): 0.210
Lost Time (sec): 0 (YAR = 4 sec) Average Delay (sec/veh): 8.1
Optimal Cycle: 9 Level of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop sign stop sign stop sign stop sign stop sign
Rights: Include include include include include
Min. Green: 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 0

Volume Module:
Base Vol: 3 139 30 17 149 2 1 3 5 9 7 29
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bst: 3 139 30 17 149 2 1 3 5 9 7 29
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 3 139 30 17 149 2 1 3 5 9 7 29
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PRF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PRF Volume: 3 146 32 18 157 2 1 3 5 9 7 31
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 3 146 32 18 157 2 1 3 5 9 7 31
PCB Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 3 146 32 18 157 2 1 3 5 9 7 31

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Losses: 0.02 0.81 0.17 0.10 0.89 0.01 0.11 0.33 0.56 0.20 0.16 0.64
Final Sat.: 15 699 151 85 746 10 85 254 423 156 131 502

Capacity Analysis Module:
Vol/Sat: 0.21 0.21 0.21 0.21 0.21 0.01 0.01 0.01 0.01 0.06 0.06 0.06
Crit Moves: *****
Delay/Veh: 8.1 8.1 8.1 8.3 8.3 7.4 7.4 7.4 7.4 7.6 7.6 7.6
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 8.1 8.1 8.1 8.3 8.3 7.4 7.4 7.4 7.4 7.6 7.6 7.6
LOS By Move: A A A A A A A A A A A A
ApproachDel: 8.1 8.3 8.3 8.3 8.3 7.4 7.4 7.4 7.4 7.6 7.6
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
ApproachDel: 8.1 8.3 8.3 8.3 8.3 7.4 7.4 7.4 7.4 7.6 7.6
LOS By Appr: A A A A A A A A A A A A

2000 HCM Operations Method (Future Volume Alternative)
Intersection # Piersom @ Palm
Level of Service Computation Report

Cycles (sec): 90 Critical Vol./Cap. (X): 0.308
Lost Time (sec): 6 (YAR = 4 sec) Average Delay (sec/veh): 17.8
Optimal Cycle: 60 Level of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected Protected
Rights: Include include include include include
Min. Green: 5 0 1 0 5 5 5 1 0 1 0 5 5 1 0 1 0 5
Lanes: 1 0 1 0 5 5 5 1 0 1 0 5 5 1 0 1 0 5

Volume Module:
Base Vol: 126 524 97 33 354 27 32 74 128 79 70 50
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bst: 126 524 97 33 354 27 32 74 128 79 70 50
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 126 524 97 33 354 27 32 74 128 79 70 50
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PRF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PRF Volume: 133 532 102 35 373 28 34 78 135 83 74 53
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 133 532 102 35 373 28 34 78 135 83 74 53
PCB Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 133 552 102 35 373 28 34 78 135 83 74 53

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Losses: 0.95 0.93 0.93 0.94 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86
Final Sat.: 1805 2976 551 1805 3317 253 1241 1634 1634 1047 1973 1409

Capacity Analysis Module:
Vol/Sat: 0.07 0.19 0.19 0.02 0.11 0.11 0.03 0.05 0.08 0.08 0.04 0.04
Crit Moves: *****
Green/Cycle: 0.26 0.60 0.61 0.06 0.40 0.40 0.27 0.27 0.27 0.27 0.27 0.27
Delay/Veh: 2.7 0.31 0.31 0.31 0.28 0.28 0.10 0.10 0.10 0.10 0.10 0.10
AdjDel/Veh: 2.7 0.8 0.8 0.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9
LOS By Move: A A A A A A A A A A A A
ApproachDel: 2.7 0.8 0.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
ApproachDel: 2.7 0.8 0.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9
LOS By Appr: A A A A A A A A A A A A

City of Desert Hot Springs Civic Center

Traffic Impact Analysis

Existing PM Peak Hour Conditions

Level of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection: West & Desert View

Average Delay (sec/Veh): 1.3 West: Case Level of Service: B(10.7)

Approach: North Bound South Bound East Bound West Bound

Movement: L T R L T R L T R L T R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Right: Include Include Include Include

Lanes: 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0

Volume Module: 4 193 6 14 187 3 2 4 7 3 4 12

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Svc: 4 193 6 14 187 3 2 4 7 3 4 12

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PassesByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 4 193 6 14 187 3 2 4 7 3 4 12

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95

PHF Volume: 4 203 6 15 197 3 2 4 7 3 4 13

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Final Vol: 4 203 6 15 197 3 2 4 7 3 4 13

Critical Gap Module: Critical Gap: 4.1 xxxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2

FollowUpTime: 2.2 xxxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module: Capacity Module: 209 xxxxx xxxxx 451 446 189 448 444 206

Potent Cap: 1184 xxxxx xxxxx 1173 xxxxx xxxxx 522 510 848 524 511 839

Move Cap: 1184 xxxxx xxxxx 1173 xxxxx xxxxx 505 503 848 511 504 839

Volume/Cap: 0.00 xxxxx xxxxx 0.01 xxxxx xxxxx 0.00 0.01 0.01 0.01 0.01 0.02

Level of Service Module: Level of Service Module: 0.0 xxxxx xxxxx 0.0 xxxxx xxxxx xxxxx xxxxx xxxxx

Queue: 0.0 xxxxx xxxxx 7.6 xxxxx xxxxx 7.6 xxxxx xxxxx xxxxx xxxxx xxxxx

Stopped Del: 7.6 xxxxx xxxxx A A A A A A A A A A

LOS By Move: A A A A A A A A A A

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 645 xxxxx xxxxx 676 xxxxx

Shared Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.1 xxxxx xxxxx 0.1 xxxxx

Shared Stopped: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 10.7 xxxxx xxxxx 10.5 xxxxx

Shared LOS: A A A A A A A A A A

Approach/Bei: xxxxx xxxxx 10.7 10.5

Approach/LOS: B B

APPENDIX D

Existing Plus Project Conditions HCM Worksheets

City of Desert Hot Springs Civic Center
 Traffic Impact Analysis
 Existing Plus Project AM Peak Hour Conditions

Scenario: EK*PROJ AM Scenario Report

Command: EK*PROJ AM
 Volume: EK AM
 Geometry: Default Geometry
 Impact Fee: Default Impact Fee
 Trip Generation: project
 Trip Distribution: Default Paths
 Routes: Default Routes
 Configuration: EK*PROJ AM

City of Desert Hot Springs Civic Center
 Traffic Impact Analysis

Existing Plus Project AM Peak Hour Conditions

Impact Analysis Report
 Level Of Service

Intersection	Base V/ Day/ C	LOS Veh C	Return V/ Day/ C	Change In
# 1 Pierson @ Golden Eagle/Atlanti	B 18.1 0.326	B 18.2 0.325	B 18.2 0.325	+ 0.143 D/V
# 2 Pierson @ Cholla	B 11.5 0.000	B 12.9 0.000	B 12.9 0.000	+ 1.377 D/V
# 3 Pierson @ West	B 12.1 0.545	B 13.5 0.607	B 13.5 0.607	+ 0.062 V/C
# 4 Pierson @ Cactus	A 9.0 0.202	A 9.3 0.220	A 9.3 0.220	+ 0.018 V/C
# 5 Pierson @ Palm	C 20.1 0.142	C 20.7 0.376	C 20.7 0.376	+ 0.611 D/V
# 6 West @ 8th	A 8.7 0.128	A 9.0 0.366	A 9.0 0.366	+ 0.038 V/C
# 7 West @ Desert View	B 10.3 0.000	B 10.5 0.000	B 10.5 0.000	+ 0.167 D/V

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Existing Plus Project AM Peak Hour Conditions

Level of Service Computation Report
2000 HCM Unimodal Method (Future Volume Alternative)

Intersection #1: Piarom & Golden Eagle/Atlantic
 Cycle (sec): 80
 Loss Time (sec): 6 (V+R = 4 sec)
 Optimal Cycle: 60
 Approach: North Bound South Bound East Bound West Bound
 Movement: L T R L T R L T R L T R L T R
 Control: Permitted Permitted Permitted Permitted
 Rights: Includes Includes Includes Includes
 Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 0 1 0 1 0 1 0 1 0
 Volume Module:
 Base Vol: 2 26 3 187 0 30 48 126 3 3 151 169
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 2 26 3 187 0 30 48 126 3 3 151 169
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Passes/Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Sat: 0 0 0 0 0 0 0 0 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 2 27 3 197 0 32 51 164 3 3 168 178
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 2 27 3 197 0 32 51 164 3 3 168 178
 PCS Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol: 2 27 3 197 0 32 51 164 3 3 168 178

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.98 0.98 0.72 0.72 0.72 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 Demand Sat: 120 137 120 128 0 230 260 289 36 1905 1865 1866

Capacity Analysis Module:
 Vol/Sat: 0.02 0.02 0.02 0.17 0.00 0.17 0.03 0.09 0.09 0.00 0.10 0.11
 Crit. Moves: *****
 Green/Cycle: 0.51 0.51 0.51 0.51 0.00 0.51 0.09 0.35 0.35 0.05 0.33 0.33
 Volume/Cap: 0.03 0.03 0.03 0.33 0.00 0.33 0.33 0.25 0.25 0.03 0.31 0.33
 Delay/Veh: 9.8 9.8 9.8 11.7 0.0 11.7 35.6 18.6 18.6 35.3 20.2 20.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 9.8 9.8 9.8 11.7 0.0 11.7 35.6 18.6 18.6 35.3 20.2 20.4
 HOP/Delay: 0 0 0 5 0 4 2 3 3 0 3 3

Level of Service Module:
 Queue: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 Delay: 12.0 12.0 12.0 12.9 0 12.9 12.9 12.9 12.9 12.9 12.9 12.9
 LOS: A B C D E F G H I J K L M N P Q R S T U V W X Y Z
 Approach/LOS: B B B B B B B B B B B B

Approach/LOS: B B B B B B B B B B B B

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Existing Plus Project AM Peak Hour Conditions

Level of Service Computation Report
2000 HCM Unimodal Method (Future Volume Alternative)

Intersection #2: Piarom & Cholla
 Cycle (sec): 80
 Loss Time (sec): 6 (V+R = 4 sec)
 Optimal Cycle: 60
 Approach: North Bound South Bound East Bound West Bound
 Movement: L T R L T R L T R L T R L T R
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
 Rights: Includes Includes Includes Includes
 Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 1 0 1 0 1 0 1 0
 Volume Module:
 Base Vol: 6 2 3 11 4 10 4 260 3 2 214 19
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 6 2 3 11 4 10 4 260 3 2 214 19
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Passes/Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Sat: 0 0 0 0 0 0 0 0 0 0 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 6 2 3 11 4 10 4 260 3 2 214 19
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 6 2 3 11 4 10 4 260 3 2 214 19
 PCS Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol: 6 2 3 11 4 10 4 260 3 2 214 19

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.98 0.98 0.72 0.72 0.72 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 Demand Sat: 120 137 120 128 0 230 260 289 36 1905 1865 1866

Capacity Analysis Module:
 Vol/Sat: 0.02 0.02 0.02 0.17 0.00 0.17 0.03 0.09 0.09 0.00 0.10 0.11
 Crit. Moves: *****
 Green/Cycle: 0.51 0.51 0.51 0.51 0.00 0.51 0.09 0.35 0.35 0.05 0.33 0.33
 Volume/Cap: 0.03 0.03 0.03 0.33 0.00 0.33 0.33 0.25 0.25 0.03 0.31 0.33
 Delay/Veh: 9.8 9.8 9.8 11.7 0.0 11.7 35.6 18.6 18.6 35.3 20.2 20.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 9.8 9.8 9.8 11.7 0.0 11.7 35.6 18.6 18.6 35.3 20.2 20.4
 HOP/Delay: 0 0 0 5 0 4 2 3 3 0 3 3

Level of Service Module:
 Queue: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 Delay: 12.0 12.0 12.0 12.9 0 12.9 12.9 12.9 12.9 12.9 12.9 12.9
 LOS: A B C D E F G H I J K L M N P Q R S T U V W X Y Z
 Approach/LOS: B B B B B B B B B B B B

Approach/LOS: B B B B B B B B B B B B

City of Desert Hot Springs Civic Center
 Traffic Impact Analysis
 Existing Plus Project AM Peak Hour Conditions

Level of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)
 Intersection #4 Pierson @ Cactus

Cycle (sec): 100 Critical Vol./Cap. (X): 0.230
 Loss time (sec): 0 (Y/R = 4 sec) Average Delay (sec/veh): 9.3
 Optimal Cycle: 0 Level of Service: A

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0

Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 1 0 1 0 1 0
 Volume Module: 21 37 18 21 58 19 11 242 19 5 205 9

Base Vol.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Growth Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Sat.: 21 37 18 21 58 19 11 242 19 5 205 9

Passes/Vol.: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial FUL: 21 37 18 21 58 19 11 242 19 5 205 9

User Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PPF Adj.: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PPF Volume: 23 39 19 23 61 20 12 274 20 5 279 9

Reduct Vol.: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reducted Vol.: 23 39 19 23 61 20 12 274 20 5 279 9
 PCF Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MFP Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 23 39 19 23 61 20 12 274 20 5 279 9

Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.27 0.49 0.24 0.21 0.60 0.19 1.00 1.86 0.14 1.00 1.93 0.07
 Final Sat.: 173 305 148 136 374 123 606 1246 92 605 1285 44

Capacity Analysis Module:
 Vol./Sat: 0.13 0.13 0.13 0.15 0.16 0.16 0.03 0.22 0.22 0.01 0.22 0.32
 Crit Moves: ****
 Delay/Veh: 9.0 9.0 9.0 9.2 9.2 9.2 8.6 9.4 9.3 8.5 9.4 9.3
 Delay Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 9.0 9.0 9.0 9.2 9.2 9.2 8.6 9.4 9.3 8.5 9.4 9.3
 LOS by Move: A A A A A A A A A A A A
 ApproachDel: 9.0 9.2 9.3 9.4
 Delay Adj.: 1.00 1.00 1.00 1.00
 ApproachDel: 9.0 9.2 9.3 9.4
 LOS by Appr: A A A A

City of Desert Hot Springs Civic Center
 Traffic Impact Analysis
 Existing Plus Project AM Peak Hour Conditions

Level of Service Computation Report
 2000 HCM 4-Way Stop Method (Future Volume Alternative)
 Intersection #3 Pierson @ West

Cycle (sec): 100 Critical Vol./Cap. (X): 0.607
 Loss time (sec): 0 (Y/R = 4 sec) Average Delay (sec/veh): 13.5
 Optimal Cycle: 0 Level of Service: B

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0

Lanes: 0 0 1 0 0 0 1 0 0 1 0 0 1 0 1 0 0
 Volume Module: 76 68 9 60 190 61 44 178 116 22 214 33

Base Vol.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Growth Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Sat.: 76 68 9 60 190 61 44 178 116 22 214 33

Passes/Vol.: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial FUL: 76 68 9 60 190 61 44 178 116 22 214 33

User Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PPF Adj.: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PPF Volume: 112 72 9 63 200 81 52 206 132 23 288 35

Reduct Vol.: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reducted Vol.: 112 72 9 63 200 81 52 206 132 23 288 35
 PCF Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MFP Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 112 72 9 63 200 81 52 206 132 23 288 35

Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.58 0.37 0.05 0.48 0.58 0.24 1.00 1.22 0.78 1.00 1.79 0.21
 Final Sat.: 293 188 25 104 330 134 477 634 432 472 912 111

Capacity Analysis Module:
 Vol./Sat: 0.38 0.38 0.38 0.61 0.61 0.33 0.36 0.05 0.32 0.31
 Crit Moves: ****
 Delay/Veh: 13.1 13.1 13.1 17.2 17.2 17.2 10.7 12.2 11.3 10.3 12.2 12.0
 Delay Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 13.1 13.1 13.1 17.2 17.2 17.2 10.7 12.2 11.3 10.3 12.2 12.0
 LOS by Move: B B C C C B B B B B B
 ApproachDel: 13.1 17.2 11.7 12.1
 Delay Adj.: 1.00 1.00 1.00 1.00
 ApproachDel: 13.1 17.2 11.7 12.1
 LOS by Appr: B C C B

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Existing Plus Project AM Peak Hour Conditions
Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Hiaron & Palm
Cycle (sec): 90 Critical Vol./Cap. (X): 0.376
Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 20.7
Optimal Cycle: 60 Level of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L T R L T R L T R L T R L T R
Control: Protected Protected Permitted Permitted Permitted Permitted
Rights: Include Include Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0

Volume Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Sat.: 1805 3191 365 1805 3266 298 1362 1625 1625 975 2571 898

Capacity Analysis Module:
Vol/Sat: 0.11 0.09 0.09 0.02 0.14 0.14 0.03 0.05 0.10 0.08 0.03 0.03
Crit Moves: ****
Green/Cycle: 0.28 0.60 0.60 0.06 0.38 0.38 0.27 0.27 0.27 0.27 0.27 0.27
Volume/Cap: 0.38 0.15 0.15 0.36 0.38 0.38 0.10 0.19 0.38 0.28 0.12 0.12
Delay/Veh: 26.4 7.8 7.8 43.1 20.5 20.5 24.5 25.1 26.8 26.2 24.5 24.5
User Delay: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 26.4 7.8 7.8 43.1 20.5 20.5 24.5 25.1 26.8 26.2 24.5 24.5
RCH2LWg: 5 2 2 1 5 5 1 2 4 3 1 1

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Existing Plus Project AM Peak Hour Conditions
Level of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 West @ 8th
Cycle (sec): 100 Critical Vol./Cap. (X): 0.366
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 9.0
Optimal Cycle: 0 Level of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L T R L T R L T R L T R L T R
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0

Volume Module:
Sat/Lane: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Adjustment: 0.00 0.85 0.15 0.13 0.90 0.00 0.20 0.00 0.80 0.59 0.05 0.16
Lanes: 0 694 426 80 758 0 147 0 586 418 32 257

Capacity Analysis Module:
Vol/Sat: 0.16 0.37 0.37 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01
Crit Moves: ****
Delay/Veh: 0.0 8.1 8.1 9.6 9.6 0.0 7.5 0.0 7.5 8.2 8.2 8.2
AdjDel/Veh: 0.0 8.1 8.1 9.6 9.6 0.0 7.5 0.0 7.5 8.2 8.2 8.2
User Delay: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RCH2LWg: 8.2 9.6 9.6 7.5 7.5 1.00 1.00 1.00 1.00 1.00 1.00 1.00

City of Desert Hot Springs Civic Center
 Traffic Impact Analysis
 Existing Plus Project AM Peak Hour Conditions

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 West @ Desert View
 Worst Case Level Of Service: B [10.5]

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include

Lanes: 0 0 1 1 0 0 0 0 1 1 0 0 3 0 0 1 0

Volume Module:
 Base Vol: 8 95 1 10 236 4 3 2 2 12 0 6 10
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Sst: 8 95 1 10 236 4 3 2 2 12 0 6 10
 Adjusted Vol: 8 95 1 10 236 4 3 2 2 12 0 6 10
 Passenger Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Heavy Duty: 0 125 1 10 245 4 3 2 2 12 0 6 10
 Initial Pct: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Growth Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95

Final Vol: 8 136 1 11 258 4 3 2 2 13 0 6 11
 Critical Gap Module:
 Critical Gap: 4.1 3.0 3.0 4.1 3.0 3.0 4.1 3.0 3.0 4.1 3.0 3.0
 Followup Gap: 2.2 3.0 3.0 2.2 3.0 3.0 2.2 3.0 3.0 2.2 3.0 3.0

Capacity Module:
 Conflict Vol: 262 300 300 137 300 300 443 435 260 300 436 136
 Potential Cap: 1314 300 300 1460 300 300 529 518 784 300 517 918
 Move Cap: 1314 300 300 1460 300 300 512 511 784 300 510 918
 Volume/Cap: 0.01 300 300 0.01 300 300 0.01 0.00 0.02 300 0.01 0.01

Level Of Service Module:
 Queue: 0.0 300 300 0.0 300 300 300 300 300 300 300 300
 Stopped Tail: 7.8 300 300 7.5 300 300 300 300 300 300 300 300
 LOS by Move: A A A A A A A A A A A A

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap: 300 300 300 300 300 300 300 300 300 300 300 300
 Shared Queue: 300 300 300 300 300 300 300 300 300 300 300 300
 Shared Stop: 300 300 300 300 300 300 300 300 300 300 300 300

Shared LOS: 10.2 10.2 10.2 10.2 10.2 10.2 10.2 10.2 10.2 10.2 10.2 10.2
 Approach LOS: 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5
 Approach LOS: 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5

Scenario: EK+PROJ PM
 Command: EK+PROJ PM
 Volume: EK PM
 Geometry: Default Geometry
 Impact Fee: Default Impact Fee
 Trip Generation: PM
 Trip Distribution: Project
 Paths: Default Paths
 Routes: Default Routes
 Configuration: EK+PROJ PM

Intersection	Base Del./ Veh C	Future Del./ Veh C	Change in
# 1 Pierson @ Golden Eagle/Atlanti	B 14.2 0.146	A 8.5 0.153	-5.752 D/V
# 2 Pierson @ Cholla	B 11.7 0.000	B 13.7 0.000	+ 1.989 D/V
# 3 Pierson @ West	B 10.4 0.356	B 11.3 0.397	+ 0.041 V/C
# 4 Pierson @ Cactus	A 9.8 0.177	A 9.2 0.208	+ 0.030 V/C
# 5 Pierson @ Palm	B 17.8 0.308	B 18.7 0.330	+ 0.927 D/V
# 6 West @ 8th	A 8.1 0.210	A 8.4 0.250	+ 0.040 V/C
# 7 West @ Desert View	B 10.7 0.000	B 11.0 0.000	+ 0.344 D/V

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Existing Plus Project PM Peak Hour Conditions

Level of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #1 Pierson @ Cochise
Cycle (sec): 100 Critical Vol./Cap. (K): 0.208
Cycle Time (sec): 0 (YWR = 4 sec) Average Delay (sec/Veh): 9.2
Optimal Cycle: 0 Level of Service: A
Control: L - T - R L - T - R L - T - R L - T - R

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Right: 0
Min. Green: 0 0 11 0 0 0 0 11 0 0 0 0 11 0 0 0 0 11 0 0
Lanes: 0 0 11 0 0 0 0 11 0 0 0 0 11 0 0 0 0 11 0 0

Volume Module:
Base Vol: 35 56 23 21 52 13 10 187 9 20 183 15
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 35 56 23 21 52 13 10 187 9 20 183 15
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PassesByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fct: 35 56 23 21 52 13 10 251 9 20 211 15
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 37 59 24 22 55 14 11 254 9 21 222 16
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 37 59 24 22 55 14 11 254 9 21 222 16

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.31 0.49 0.20 0.24 0.61 0.15 1.00 1.93 0.07 1.00 1.87 0.33
Final Sat.: 198 317 130 155 383 96 601 1272 46 597 1227 88

Capacity Analysis Module:
Vol/Sat: 0.19 0.19 0.19 0.14 0.14 0.14 0.02 0.21 0.21 0.04 0.18 0.18
Crit Moves: 9.3 9.3 9.3 9.1 9.1 9.1 8.6 9.3 9.3 8.9 9.1 9.1
Delay/Veh: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 9.3 9.3 9.3 9.1 9.1 9.1 8.6 9.3 9.3 8.8 9.1 9.1
LOS by Move: A A A A A A A A A A A A
Approach: 9.3 9.3 9.1 9.1 9.1 9.1 9.3 9.3 9.1 9.1 9.1
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AppAdjDel: 9.3 9.1 9.1 9.1 9.1 9.1 9.3 9.3 9.1 9.1 9.1
LOS by Appr: A A A A A A A A A A A A

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Existing Plus Project PM Peak Hour Conditions

Level of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #3 Pierson @ West
Cycle (sec): 100 Critical Vol./Cap. (K): 0.377
Cycle Time (sec): 0 (YWR = 4 sec) Average Delay (sec/Veh): 11.3
Optimal Cycle: 0 Level of Service: B
Control: L - T - R L - T - R L - T - R L - T - R

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Right: 0
Min. Green: 0 0 11 0 0 0 0 11 0 0 0 0 11 0 0 0 0 11 0 0
Lanes: 0 0 11 0 0 0 0 11 0 0 0 0 11 0 0 0 0 11 0 0

Volume Module:
Base Vol: 52 128 20 41 135 36 54 149 49 22 144 54
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 52 128 20 41 135 36 54 149 49 22 144 54
Added Vol: 14 0 0 0 7 17 64 32 0 0 0 0
PassesByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fct: 66 128 20 41 135 43 71 213 81 22 172 54
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 69 135 21 43 142 45 75 224 85 23 181 57
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 69 135 21 43 142 45 75 224 85 23 181 57

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.31 0.60 0.09 0.19 0.62 0.19 1.00 1.45 0.55 1.00 1.52 0.48
Final Sat.: 177 342 53 109 358 114 516 822 196 497 829 269

Capacity Analysis Module:
Vol/Sat: 0.39 0.39 0.39 0.40 0.40 0.40 0.27 0.26 0.05 0.22 0.21
Crit Moves: 12.4 12.4 12.4 12.3 12.3 10.5 10.9 10.4 9.9 10.5 10.2
Delay/Veh: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 12.4 12.4 12.4 12.3 12.3 10.5 10.9 10.4 9.9 10.5 10.2
LOS by Move: B B B B B B B B B B B B
Approach: 12.4 12.3 12.3 10.7 10.7 10.4 10.4 10.4 10.4 10.4 10.4
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AppAdjDel: 12.4 10.7 10.7 10.7 10.7 10.4 10.4 10.4 10.4 10.4 10.4
LOS by Appr: B B B B B B B B B B B B

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Existing Plus Project PM Peak Hour Conditions

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Pierson @ Palm
Cycle (sec): 90 Critical Vol./Cap. (X): 0.130
Loss time (sec): 6 (Yr = 4 sec) Average Delay (sec/Veh): 18.7
Optimal Cycle: 60 Level of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Permitted Permitted
Rights: 5 Include 5 Include 5 Include 5 Include
Min. Green: 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 0 1 0 1 0

Volume Module:
Base Vol: 126 524 97 33 354 27 32 74 128 79 70 50
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bst: 126 524 97 33 354 27 32 74 128 79 70 50
Added Vol: 14 0 0 0 0 11 24 6 32 0 0 0 0
PassesByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 140 534 97 33 354 38 55 82 160 79 74 50
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 147 552 102 35 373 40 59 86 168 83 78 53
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol: 147 552 102 35 373 40 59 86 168 83 78 53

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.93 0.93 0.94 0.94 0.94 0.86 0.86 0.86 0.89 0.89 0.89
Lanes: 1.00 1.69 0.31 1.00 1.81 0.19 1.00 1.00 1.00 1.00 1.19 0.81
Final Sat.: 1805 2976 551 1805 3211 345 1241 1626 1626 999 2025 1368

Capacity Analysis Module:
Vol/Sat: 0.08 0.19 0.19 0.02 0.12 0.12 0.05 0.05 0.10 0.08 0.04 0.04
Crit Moves: ****
Green/Cycle: 0.26 0.56 0.56 0.06 0.36 0.36 0.31 0.31 0.31 0.31 0.31 0.31
Volume/Cap: 0.32 0.33 0.33 0.32 0.32 0.32 0.15 0.17 0.33 0.27 0.12 0.12
Delay/Veh: 27.5 10.7 10.7 42.5 20.8 20.8 22.4 22.4 23.9 23.6 22.1 22.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 27.5 10.7 10.7 42.5 20.8 20.8 22.4 22.4 23.9 23.6 22.1 22.1
HCM XAV: 4 5 5 1 4 4 2 2 4 3 1 1

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Existing Plus Project PM Peak Hour Conditions

Level of Service Computation Report
2000 HCM 4-way Stop Method (Future Volume Alternative)

Intersection #6 West @ 8th
Cycle (sec): 100 Critical Vol./Cap. (X): 0.230
Loss time (sec): 0 (Yr = 4 sec) Average Delay (sec/Veh): 8.4
Optimal Cycle: 0 Level of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: 0
Min. Green: 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0
Lanes: 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0

Volume Module:
Base Vol: 3 139 30 17 149 2 1 3 5 9 7 29
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bst: 3 139 30 17 149 2 1 3 5 9 7 29
Added Vol: 0 32 0 0 14 0 0 0 0 0 0 0 0
PassesByVol: 0 32 0 0 14 0 0 0 0 0 0 0 0
Initial Fut: 3 171 30 17 163 2 1 3 5 9 7 29
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 3 180 32 18 172 2 2 3 5 9 7 31
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol: 3 180 32 18 172 2 2 3 5 9 7 31

Saturation Flow Module:
Sat/Lane: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Adjustment: 0.01 0.84 0.15 0.09 0.90 0.01 0.11 0.33 0.56 0.20 0.16 0.64
Lanes: 13 719 126 78 748 9 82 246 410 351 118 488
Final Sat.: 0.25 0.25 0.25 0.23 0.23 0.23 0.01 0.01 0.01 0.06 0.06 0.06

Capacity Analysis Module:
Vol/Sat: 0.25 0.25 0.25 0.23 0.23 0.23 0.01 0.01 0.01 0.06 0.06 0.06
Crit Moves: ****
Delay/Veh: 8.5 8.5 8.5 8.5 8.5 8.5 7.5 7.5 7.5 7.7 7.7 7.7
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 8.5 8.5 8.5 8.5 8.5 8.5 7.5 7.5 7.5 7.7 7.7 7.7
LOS by Move: A A A A A A A A A A A A
ApproachDel: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 8.5 8.5 8.5 8.5 8.5 8.5 7.5 7.5 7.5 7.7 7.7 7.7
HCM XAV: 8 5 5 1 4 4 2 2 4 3 1 1

City of Desert Hot Springs Civic Center
Existing Plus Project PM Peak Hour Conditions

Level of Service Computation Report

2000 HCM Unsignalized Method (Source Volume Alternative)
Intersection #7 West @ Desert View

Average Delay (sec/veh): 1.0 Worst Case Level of Service: B (11.0)

Approach: North Bound South Bound East Bound West Bound

Movement: L T R L T R L T R L T R L T R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Right-of-Way: Uncontrolled Uncontrolled Stop Sign Stop Sign

Lanes: 0 0 1 1 0 0 0 1 1 0 0 0 1 1 0 0 0 1 1 0 0

Volume Module:

Base Vol: 4 193 6 14 187 3 2 4 7 3 4 12

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Rsr: 4 193 6 14 187 3 2 4 7 3 4 12

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PassesbyVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Pub: 4 207 6 14 219 3 2 4 7 3 4 12

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95

PHF Volume: 4 218 6 15 231 3 2 4 7 3 4 13

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Final Vol: 4 218 6 15 231 3 2 4 7 3 4 13

Critical Gap Module:

Critical Gap: 4.1 xxxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2

FollowupTrn: 2.2 xxxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:

Conflict Vol: 224 xxxxx xxxxx 499 494 232 497 493 221

Potential Cap: 1346 xxxxx xxxxx 485 479 812 487 480 824

Move Cap: 1346 xxxxx xxxxx 469 472 812 474 473 824

Volume/Cap: 0.00 xxxxx xxxxx 0.00 0.01 0.01 0.01 0.01 0.02

Level of Service Module:

Queue: 0.0 xxxxx xxxxx 0.0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

Stopped Del: 7.7 xxxxx xxxxx 7.7 xxxxx xxxxx xxxxx xxxxx xxxxx

Loss By Move: A A A A A A A A A A A A

Movement: LT - LTR - RT RT - LTR - RT LT - LTR - RT

Shared Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

Shared Stopped: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

Shared LOS: A A A A A A A A A A A A

Approaches: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

APPENDIX E

Near-Term Conditions HCM Worksheets

Scenario Report

NT without AM
 Command: NT without AM
 Volume: NT AM
 Geometry: Default Geometry
 Impact Fee: Default Impact Fee
 Trip Generation: AM
 Trip Distribution: Project
 Paths: Default Paths
 Routes: Default Routes
 Configuration: NT without AM

Intersection	Base Del/ LOS Veh	Base V/ C	Futura Del/ LOS Veh	Futura V/ C	Change in
# 1 Pierson & Golden Eagle/Atlanti	B 19.7	0.367	C 20.2	0.488	+ 0.474 D/V
# 2 Pierson & Cholla	B 11.9	0.000	C 18.3	0.000	+ 6.348 D/V
# 3 Pierson & West	B 13.7	0.637	C 21.6	0.744	+ 0.106 V/C
# 4 Pierson & Cactus	A 9.3	0.231	B 11.6	0.461	+ 0.230 V/C
# 5 Pierson & Palm	C 20.4	0.383	C 24.3	0.637	+ 3.923 D/V
# 6 West & 6th	A 9.1	0.371	A 9.1	0.371	+ 0.000 V/C
# 7 West & Desert View	B 10.6	0.000	B 11.3	0.000	+ 0.719 D/V

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term Without Project AM Peak Hour Conditions

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Pleasant & Cholla
Average Delay (sec/veh) 0.7 Worst Case Level of Service: C (18.3)
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 1 0 1 0 1 0

Volumes Module:
Base Vol: 6 2 3 11 4 10 4 260 3 2 214 19
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Base: 7 2 3 12 4 11 4 291 3 2 240 21
Passerby Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Pct: 7 2 3 12 4 11 4 634 3 2 554 21
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 7 2 4 12 6 12 5 668 4 2 372 22
Reduced Vol: 7 2 4 12 6 12 5 668 4 2 372 22
Final Vol: 7 2 4 12 6 12 5 668 4 2 372 22

Critical Gap Module:
Critical Gap: 7.5 6.5 6.9 7.5 6.5 6.9 4.1 1000 1000 4.1 1000 1000
Following Pkts: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 1000 1000 2.2 1000 1000

Capacity Module:
Capacity Module:
Potential Cap: 248 220 668 313 223 817 1175 1000 1000 671 1000 1000
Move Cap: 239 219 668 307 222 817 1175 1000 1000 929 1000 1000
Volume/Cap: 0.03 0.01 0.01 0.04 0.02 0.01 0.00 1000 1000 0.00 1000 1000

Level of Service Module:
Stopped Del: 1000 1000 1000 1000 1000 1000 1000 1000 1000 0.0 1000 1000
LOS by Move: * * * * * A * * * * * A * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap: 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000
Shared Queue: 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000
Shared Stpl: 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000
Shared LOS: * * * * * C * * * * * C * * * * * C * * * * *
Approach Del: 18.3 15.3
Approach LOS: C C

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term Without Project AM Peak Hour Conditions

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Pleasant & Cholla
Average Delay (sec/veh) 0.488
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 1 0 1 0 1 0

Volumes Module:
Base Vol: 2 26 3 187 0 30 48 126 3 3 151 169
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Base: 2 29 3 209 0 34 54 141 3 3 169 189
Passerby Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Pct: 2 29 3 241 0 32 64 332 3 3 283 189
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 2 31 4 254 0 69 124 476 4 4 288 199
Reduced Vol: 2 31 4 254 0 69 124 476 4 4 288 199
Final Vol: 2 31 4 254 0 69 124 476 4 4 288 199

Critical Gap Module:
Critical Gap: 7.5 6.5 6.9 7.5 6.5 6.9 4.1 1000 1000 4.1 1000 1000
Following Pkts: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 1000 1000 2.2 1000 1000

Capacity Module:
Capacity Module:
Potential Cap: 248 220 668 313 223 817 1175 1000 1000 671 1000 1000
Move Cap: 239 219 668 307 222 817 1175 1000 1000 929 1000 1000
Volume/Cap: 0.03 0.01 0.01 0.04 0.02 0.01 0.00 1000 1000 0.00 1000 1000

Level of Service Module:
Stopped Del: 1000 1000 1000 1000 1000 1000 1000 1000 1000 0.0 1000 1000
LOS by Move: * * * * * A * * * * * A * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap: 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000
Shared Queue: 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000
Shared Stpl: 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000
Shared LOS: * * * * * C * * * * * C * * * * * C * * * * *
Approach Del: 18.3 15.3
Approach LOS: C C

NT without AM Wed Oct 27, 2004 15:19:05 Page 5-1
City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term Without Project AM Peak Hour Conditions
Level of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)
Intersection #3 Pierson @ West
Cycle (sec): 100 Critical Vol./Cap. (X): 0.744
Loss Time (sec): 0 (V+R = 4 sec) Average Delay (sec/veh): 21.6
Optimal Cycle: 0 Level of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Right: Include Include Include Include
Min. Green: 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 1 0 1 0 1 0
Volume Module:
Base Vol: 76 68 9 60 190 61 44 178 116 22 234 33
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bus: 55 76 10 67 213 68 49 139 120 26 240 37
Added Vol: 0 0 0 0 0 0 0 0 272 72 0 90 0
Pass-By/Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fur: 109 76 10 67 213 68 49 171 202 28 330 37
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Wear Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 115 80 11 71 224 72 52 496 213 28 347 39
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol: 115 80 11 71 224 72 52 496 213 28 347 39
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.56 0.39 0.05 0.19 0.61 0.20 1.00 1.40 0.60 1.00 1.80 0.20
Final Sat: 243 169 22 95 301 97 453 593 310 420 811 92
Capacity Analysis Module:
Vol/Sat: 0.47 0.47 0.47 0.74 0.74 0.11 0.72 0.69 0.06 0.43 0.42
C/Crit Moves: ****
Delay/Veh: 16.9 16.9 16.9 26.6 26.6 26.6 11.5 23.6 22.9 11.5 15.7 15.5
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 16.9 16.9 16.9 26.6 26.6 26.6 11.5 23.6 22.9 11.5 15.7 15.5
LOS by Move: C C C D D D E D C B C C
ApproachDel: 16.9 26.6 23.9 15.4
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 16.9 26.6 23.9 15.4
LOS by Appr: C D C C

NT without AM Wed Oct 27, 2004 15:19:05 Page 6-1
City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term Without Project AM Peak Hour Conditions
Level of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)
Intersection #4 Pierson @ Cactus
Cycle (sec): 100 Critical Vol./Cap. (X): 0.461
Loss Time (sec): 0 (V+R = 4 sec) Average Delay (sec/veh): 11.6
Optimal Cycle: 0 Level of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Right: Include Include Include Include
Min. Green: 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 1 0 1 0 1 0
Volume Module:
Base Vol: 21 37 19 21 56 19 11 242 19 5 205 9
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bus: 24 41 20 24 65 21 12 271 21 6 230 10
Added Vol: 0 0 0 0 0 0 0 0 272 0 0 90 0
Pass-By/Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fur: 24 43 20 24 65 21 12 543 21 6 320 10
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Wear Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 26 44 21 23 68 24 13 572 24 6 336 11
Reduced Vol: 25 44 21 23 68 24 13 572 24 6 336 11
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol: 25 44 21 23 68 24 13 572 24 6 336 11
Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.27 0.49 0.24 0.21 0.60 0.19 1.00 1.92 0.08 1.00 1.94 0.66
Final Sat: 152 267 130 139 330 108 586 1339 49 553 1172 37
Capacity Analysis Module:
Vol/Sat: 0.16 0.16 0.16 0.21 0.21 0.21 0.62 0.46 0.46 0.01 0.29 0.29
C/Crit Moves: ****
Delay/Veh: 10.1 10.1 10.1 10.4 10.4 10.4 8.9 12.7 12.6 9.1 10.7 10.6
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 10.1 10.1 10.1 10.4 10.4 10.4 8.9 12.7 12.6 9.1 10.7 10.6
LOS by Move: E B B B B A B A B A B B
ApproachDel: 10.1 10.4 12.6 10.7
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 10.1 10.4 12.6 10.7
LOS by Appr: B B B B

Traffic 7.6.0715 (c) 2003 Dowling Assoc. Licensed to RBF CONSULTING, IRVINE

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term Without Project AM Peak Hour Conditions

Level of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)
Intersection #5 Near S 8th
Cycle (sec): 100 Critical Vol./Cap. (X): 0.371
Loss Time (sec): 0 (N+R = 4 sec) Average Delay (sec/veh): 9.1
Optimal Cycle: 0 Level of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 0 1 0 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0

Volume Module:
Base Vol.: 0 96 19 28 234 0 1 0 4 39 3 24
Growth Adj.: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Req.: 0 108 21 31 262 0 1 0 4 44 3 27
Added Vol.: 0
PasserbyVol.: 0
User Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Fut.: 0 108 21 31 262 0 1 0 4 44 3 27
User Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PFV Volume: 0 96 19 28 234 0 1 0 4 39 3 24
Reduct Vol.: 0
Reduced Vol.: 0 113 22 33 276 0 1 0 5 46 4 28
PCB Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MF Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 113 23 33 276 0 1 0 5 46 4 28

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0 0 0 0.83 0.17 0.11 0.89 0.00 0.20 0.01 0.79 0.58 0.05 0.36
Final Sat.: 0 680 135 89 744 0 145 0 581 435 32 256

Capacity Analysis Module:
Vol/Sat: xxxxx 0.17 0.17 0.37 0.37 xxxxx 0.01 0.00 0.01 0.11 0.11 0.11
Crit Moves: xxxxx xxxxx
Delay/Veh: 0.0 8.1 8.1 9.7 9.7 0.0 7.5 7.5 7.5 8.3 8.3 8.3
Delay Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 8.1 8.1 9.7 9.7 0.0 7.5 7.5 7.5 8.3 8.3 8.3
LOS by Move: A A A A A A A A A A A A A
ApproachDel: 8.1 9.7 7.5 8.3
Delay Adj.: 1.00 1.00 1.00 1.00
ApprAdjDel: 8.1 9.7 7.5 8.3
LOS by Appr: A A A A A A A A

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term Without Project AM Peak Hour Conditions

Level of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)
Intersection #5 Picason S Palm
Cycle (sec): 90 Critical Vol./Cap. (X): 0.637
Loss Time (sec): 6 (N+R = 4 sec) Average Delay (sec/veh): 24.3
Optimal Cycle: 60 Level of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Permitted Permitted
Rights: Include Include Include Include
Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0

Volume Module:
Base Vol.: 152 280 32 34 439 37 25 76 150 70 75 29
Growth Adj.: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Req.: 170 314 35 38 492 19 25 87 168 8 94 32
Added Vol.: 0 0 0 0 0 0 0 0 272 0 0 0 0 0 0 0 0 0 0
PasserbyVol.: 0
User Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Fut.: 260 314 36 38 492 19 25 87 440 78 84 72
User Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PFV Volume: 0 95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
Reduct Vol.: 274 330 38 40 538 20 31 92 463 83 88 34
Reduced Vol.: 0
PCB Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MF Adj.: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 274 330 38 40 538 20 31 92 463 83 88 34

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
Lanes: 1.00 1.79 0.21 1.00 1.93 0.87 1.00 1.00 1.00 1.00 1.44 0.56
Final Sat.: 1605 3191 365 1805 2455 134 1273 1579 1579 688 2494 964

Capacity Analysis Module:
Vol/Sat: 0.15 0.10 0.10 0.02 0.15 0.15 0.02 0.05 0.29 0.12 0.04 0.04
Crit Moves: xxxxx
Green/Cycle: 0.24 0.42 0.42 0.06 0.24 0.24 0.46 0.46 0.46 0.46 0.46 0.46
Volume/Cap: 0.64 0.25 0.25 0.40 0.64 0.64 0.25 0.13 0.64 0.26 0.08 0.08
Delay/Veh: 34.0 17.1 17.1 43.7 32.6 32.6 13.5 13.9 20.1 15.3 13.6 13.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 34.0 17.1 17.1 43.7 32.6 32.6 13.5 13.9 20.1 15.3 13.6 13.6
RCMDkAvg: 8 3 2 8 8 1 1 11 4 1 1

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term Without Project AM Peak Hour Conditions

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 West @ Desert View
Average Delay (sec/vah): 1.1 Worst Case Level Of Service: B(1.1)

Approach: North Bound South Bound East Bound West Bound
L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Include Include Include Include

Queue: 0 0 1 0 0 0 0 1 0 0 0 1 0 0 0 0 0 1 0

Volume Module: 8 99 1 10 235 4 3 2 12 0 5 10

Gravh Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Que: 0 11 24 4 2 13 0 7 11

Added Vol: 0 24 0 0 0 0 0 0 0 0 0 0

Passes/Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 9 113 1 11 335 4 3 2 13 0 7 11

Heav Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95

PHF Volume: 8 142 1 11 354 4 3 2 13 0 7 11

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Final Vol: 8 142 1 11 354 4 3 2 13 0 7 11

Critical Gap Module: 4.1 6.5 6.2 3.3 4.0 3.3

Critical Gap: 4.1 6.5 6.2 3.3 4.0 3.3

FollowUpTime: 2.2 3.5 4.0 3.3 4.0 3.3

Capacity Module: 143 359 511 542 356 143

Conflict Vol: 359 359 359 359 359 359

Potent Cap: 1211 1211 1211 1211 1211 1211

Move Cap: 1211 1211 1211 1211 1211 1211

Volume/Cap: 0.01 0.01 0.01 0.01 0.01 0.01

Level Of Service Module: 0.0 11.3 11.3 10.7

Queue: 0.0 11.3 11.3 10.7

Stopped Del: 8.0 7.3 7.3 7.3

LOS by Move: A A A A

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap: 550 550 550 550 550 550

SharedQueue: 0.1 0.1 0.1 0.1 0.1 0.1

Shrd Stpbal: 11.3 11.3 11.3 10.7

Shared LOS: B B B B

ApproachDel: 11.3 10.7

ApproachLOS: B B

City of Desert Hot Springs Civic Center
 Traffic Impact Analysis
 Near-Term Without Project PM Peak Hour Conditions
 Impact Analysis Report
 Level Of Service

Intersection	Base Del/V/ LOS Veh C	Future Del/V/ LOS Veh C	Change In
# 1 Pierson @ Golden Eagle/Aciami	B 15.9 0.117 A 7.1 0.254	C 20.9 0.000 + 8.482 D/V	-8.771 D/V
# 2 Pierson @ Cholla	B 12.4 0.000 C 19.1 0.684	C 20.9 0.000 + 8.482 D/V	
# 3 Pierson @ West	B 11.2 0.416 C 19.1 0.684	C 20.9 0.000 + 8.482 D/V	
# 4 Pierson @ Cactus	A 9.7 0.205 B 12.0 0.452	C 22.8 0.644 + 4.752 D/V	
# 5 Pierson @ Palm	B 18.1 0.346 C 22.8 0.644	C 22.8 0.644 + 4.752 D/V	
# 6 West @ 8th	A 8.3 0.238 A 8.3 0.238	A 8.3 0.238 + 0.000 V/C	
# 7 West @ Desert View	B 11.1 0.000 B 12.0 0.000	B 12.0 0.000 + 0.984 D/V	

City of Desert Hot Springs Civic Center
 Traffic Impact Analysis
 Near-Term Without Project PM Peak Hour Conditions
 Scenario Report
 MT without PM

Command: MT without PM
 Volume: MT PM
 Geometry: Default Geometry
 Impact Fee: Default Impact Fee
 Trip Generation: project
 Trip Distribution: Default Paths
 Paths: Default Routes
 Routes: MT without PM
 Configuration:

2000 HCM Operations Method (Future Volume Alternative)
 Intersection #1 Pierceon @ Golden Eagle/Alhambic
 Cycle (sec): 80
 Loss Time (sec): 5
 Optimal Cycle: 60
 Approach: North Bound South Bound East Bound West Bound
 Movement: L T R L T R L T R L T R

Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
 Volume Module: 5 0 1 0 0 5 5 5 5 5 5 5 5 5 5 5

Base Vol: 3 0 1 45 0 8 5 175 1 1 163 28
 Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Base: 3 0 1 50 0 9 6 196 1 1 183 31
 Added Vol: 0 0 0 0 0 0 0 238 0 0 388 0
 PassesByVol: 0 0 0 0 0 13 7 0 0 0 -6 6
 Initial Fut: 3 0 1 50 0 22 13 424 1 1 565 37
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 4 0 1 53 0 23 13 446 1 1 594 39
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Critical Gap Module: 4 0 1 53 0 23 13 446 1 1 594 39
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Sat: 4 0 1 53 0 23 13 446 1 1 594 39

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.86 1.00 0.86 0.79 1.00 0.79 0.95 0.95 0.95 0.95 0.94 0.94
 Lanes: 0.75 0.00 4.08 1046 0 456 1805 3600 10 1805 3355 222
 Final Sat.: 1224 0 408 1046 0 456 1805 3600 10 1805 3355 222
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.05 0.00 0.05 0.01 0.12 0.12 0.06 0.15 0.18
 Crit Moves: ****
 Green/Cycle: 0.19 0.00 0.19 0.00 0.19 0.06 0.67 0.67 0.06 0.67 0.67 0.67
 Volume/Cap: 0.01 0.00 0.02 0.26 0.00 0.26 0.12 0.18 0.18 0.01 0.48 0.26
 Daily/Veh: 26.2 0.0 26.2 26.0 0.0 26.0 35.9 5.0 5.0 35.2 5.3 5.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 26.2 0.0 26.2 26.0 0.0 26.0 35.9 5.0 5.0 35.2 5.3 5.3
 RCNRAVGI: 0 0 0 2 0 2 0 2 0 2 0 3

2000 HCM Unsignalized Method (Future Volume Alternative)
 Intersection #2 Pierceon @ Cholla
 Average Delay (sec/veh): 0.5
 Worst Case Level Of Service: C [20.9]
 Approach: North Bound South Bound East Bound West Bound
 Movement: L T R L T R L T R L T R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
 Rights: Include Include Include Include
 Lanes: 0 0 1 1 0 0 0 0 1 0 0 1 0 0 1 0 1 0 1 0 1 0
 Volume Module: 9 1 1 7 1 4 9 240 3 3 235 11
 Growth Adj: 1.12
 Initial Base: 10 0 0 0 0 4 10 289 3 3 283 12
 Added Vol: 0 0 0 0 0 0 0 228 0 0 388 0
 PassesByVol: 0
 Initial Fut: 10 1 1 6 1 4 10 477 3 3 624 12
 User Adj: 1.00
 PHF Volume: 0.95
 PHF Volume: 11 1 1 8 1 5 11 523 4 4 695 13
 Reduced Vol: 0
 Final Vol.: 11 1 1 8 1 5 11 523 4 4 695 13
 Critical Gap Module: 7.5 6.5 6.9 7.5 6.5 5.9 4.1 4.1 4.1 4.1 4.1 4.1 4.1 4.1 4.1 4.1 4.1 4.1 4.1 4.1 4.1
 PCE Adj: 1.5 4.0 3.3 3.3 4.0 3.3 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2
 MF Adj: 1.00
 Final Sat.: 11 1 1 8 1 5 11 523 4 4 695 13

Capacity Module:
 Conflict Vol: 896 1251 263 982 1247 349 698 907 907 907 1051 526 526 526 526 526 526 526 526 526 526 526
 Potent Cap.: 238 174 741 206 175 653 907 907 907 907 1051 526 526 526 526 526 526 526 526 526 526 526
 Move Cap.: 232 171 741 203 172 653 907 907 907 907 1051 526 526 526 526 526 526 526 526 526 526 526
 Volume/Cap: 0.05 0.01 0.00 0.04 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01

Level of Service Module:
 Queue: 0.00
 Stopped Del.: 0.00
 LOS by Move: A
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: 240
 Shared Queue: 0.2
 Shared LOS: C
 Approach Del.: 20.9 19.8
 Approach LOS: C C

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term Without Project PM Peak Hour Conditions

Level of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #1 Pierson @ West
Cycle (sec): 100 Critical Vol./Cap. (X): 0.684
Loss time (sec): 0 (Y.R. = 4 sec) Average Delay (sec/veh): 19.1
Optimal Cycle: 0 Level of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop sign Stop sign Stop sign Stop sign
Rights: Include Include Include Include
Min. Green: 0 0 1 0 0 0 1 0 1 0 1 0 1 0 1 0
Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 1 0 1 0 1 0

Volume Module:
Base Vol: 52 123 20 41 135 36 54 149 48 22 144 54
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 58 143 22 46 151 40 60 167 55 25 161 60
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PassesByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 135 143 22 46 151 40 60 167 55 25 161 60
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Per Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
Per Volume: 147 151 24 48 159 42 64 385 108 26 493 64
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 147 151 24 48 159 42 64 385 108 26 493 64
PCF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Per Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol: 147 151 24 48 159 42 64 385 108 26 493 64

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Losses: 0.46 0.47 0.07 0.19 0.64 0.37 1.09 1.54 0.46 1.00 1.77 0.23
Final Sat: 214 221 34 87 287 77 433 723 220 439 839 110
Capacity Analysis Module:
Vol/Sat: 0.68 0.68 0.55 0.55 0.51 0.49 0.06 0.59 0.58
Exit Moves: ****
Delay/Veh: 23.6 23.6 23.6 18.5 18.5 18.5 12.1 17.2 16.4 11.2 19.7 19.3
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 23.6 23.6 23.6 18.5 18.5 18.5 12.1 17.2 16.4 11.2 19.7 19.3
LOS by Move: C C C C C C C C C C C C
ApproachDel: 23.6 18.5 16.4 16.4 19.3
Delay Adj: 1.00 1.00 1.00 1.00 1.00
ApproachDel: 23.6 18.5 16.4 16.4 19.3
LOS by Appr: C C C C C

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term Without Project PM Peak Hour Conditions

Level of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #1 Pierson @ West
Cycle (sec): 100 Critical Vol./Cap. (X): 0.684
Loss time (sec): 0 (Y.R. = 4 sec) Average Delay (sec/veh): 19.1
Optimal Cycle: 0 Level of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop sign Stop sign Stop sign Stop sign
Rights: Include Include Include Include
Min. Green: 0 0 1 0 0 0 1 0 1 0 1 0 1 0 1 0
Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 1 0 1 0 1 0

Volume Module:
Base Vol: 52 123 20 41 135 36 54 149 48 22 144 54
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 58 143 22 46 151 40 60 167 55 25 161 60
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PassesByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 135 143 22 46 151 40 60 167 55 25 161 60
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Per Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
Per Volume: 147 151 24 48 159 42 64 385 108 26 493 64
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 147 151 24 48 159 42 64 385 108 26 493 64
PCF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Per Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol: 147 151 24 48 159 42 64 385 108 26 493 64

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Losses: 0.46 0.47 0.07 0.19 0.64 0.37 1.09 1.54 0.46 1.00 1.77 0.23
Final Sat: 214 221 34 87 287 77 433 723 220 439 839 110
Capacity Analysis Module:
Vol/Sat: 0.68 0.68 0.55 0.55 0.51 0.49 0.06 0.59 0.58
Exit Moves: ****
Delay/Veh: 23.6 23.6 23.6 18.5 18.5 18.5 12.1 17.2 16.4 11.2 19.7 19.3
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 23.6 23.6 23.6 18.5 18.5 18.5 12.1 17.2 16.4 11.2 19.7 19.3
LOS by Move: C C C C C C C C C C C C
ApproachDel: 23.6 18.5 16.4 16.4 19.3
Delay Adj: 1.00 1.00 1.00 1.00 1.00
ApproachDel: 23.6 18.5 16.4 16.4 19.3
LOS by Appr: C C C C C

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term Without Project PM Peak Hour Conditions

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)
Intersection #5 Pearson @ Palm

Cycle (sec): 90 Critical Vol./Cap. (X): 0.644
Loss time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 22.8
Optimal Cycle: 60 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L T R L T R L T R L T R L T R

Control: Protected Protected Permitted Permitted Permitted
Signals: 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Min. Green: 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0
Lanes: 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0
Volume Module:
Base Vol: 126 574 97 33 154 27 32 74 128 79 70 50
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Rec: 141 587 109 37 386 30 36 81 143 88 78 56
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserbyVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Pct: 444 587 109 37 396 30 36 83 123 88 78 56
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PRF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PRF Volume: 472 618 114 39 417 32 38 87 340 93 83 59
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 472 618 114 39 417 32 38 87 340 93 83 59
PCS Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MPF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol: 472 618 114 39 417 32 38 87 340 93 83 59

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adj/Adj: 0.95 0.93 0.91 0.95 0.94 0.84 0.64 0.84 0.84 0.89 0.89 0.89
Lanes: 1.00 1.69 0.31 1.00 1.86 0.14 1.00 1.00 1.00 1.00 1.17 0.83
Final Sat: 1805 2976 561 1805 3317 283 1224 1550 1590 739 1973 1409

Capacity Analysis Module:
Vol/Sat: 0.26 0.21 0.21 0.02 0.13 0.13 0.03 0.05 0.21 0.13 0.04 0.04
C/T Moves: ****
Green/Cycle: 0.41 0.55 0.55 0.06 0.20 0.20 0.33 0.33 0.33 0.33 0.33 0.33
Volume/Cap: 0.64 0.38 0.38 0.39 0.64 0.64 0.09 0.17 0.64 0.38 0.13 0.13
Delay/Veh: 23.5 11.9 11.9 43.5 35.4 35.4 20.8 21.3 27.7 23.9 21.0 21.0
User Del/Del: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Adj/Del/Veh: 23.5 11.9 11.9 43.5 35.4 35.4 20.8 21.3 27.7 23.9 21.0 21.0
HCM/Del/Veh: 12 6 5 2 7 7 1 2 9 5 1 1

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term Without Project PM Peak Hour Conditions

Level of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)
Intersection #6 West @ 8th

Cycle (sec): 100 Critical Vol./Cap. (X): 0.238
Loss time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 8.3
Optimal Cycle: 0 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L T R L T R L T R L T R L T R

Control: Stop Sign Stop Sign Stop Sign Stop Sign Stop Sign
Signals: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Min. Green: 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0
Lanes: 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0
Volume Module:
Base Vol: 3 139 30 17 149 2 1 3 5 9 7 29
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Rec: 3 156 34 19 167 2 1 3 6 10 8 32
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserbyVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Pct: 3 156 34 19 167 2 1 3 6 10 8 32
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PRF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PRF Volume: 4 124 30 20 176 2 1 4 6 11 8 34
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 4 124 30 20 176 2 1 4 6 11 8 34
PCS Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MPF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol: 4 124 30 20 176 2 1 4 6 11 8 34

Saturation Flow Module:
Sat/Lane: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Adj/Adj: 0.02 0.11 0.17 0.10 0.89 0.01 0.11 0.33 0.56 0.20 0.16 0.64
Lanes: 15 691 149 84 738 10 82 246 410 152 138 489

Capacity Analysis Module:
Vol/Sat: 0.24 0.24 0.24 0.01 0.01 0.01 0.01 0.01 0.01 0.07 0.07 0.07
C/T Moves: ****
Green/Cycle: 8.4 8.4 8.4 8.5 8.5 8.5 7.5 7.5 7.5 7.7 7.7 7.7
Volume/Cap: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 8.4 8.4 8.4 8.4 8.4 8.4 8.5 8.5 8.5 7.5 7.5 7.5
User Del/Del: A A A A A A A A A A A A
Adj/Del/Veh: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
HCM/Del/Veh: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
LOS by Move: A A A A A A A A A A A A
Approach Del: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Adj/Del/Veh: 8.4 8.4 8.4 8.5 8.5 8.5 7.5 7.5 7.5 7.7 7.7 7.7
HCM/Del/Veh: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
LOS by Move: A A A A A A A A A A A A

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term Without Project PM Peak Hour Conditions

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection # West @ Desert View *****
Average Delay (sec/vol): 0.9 Worst Case Level Of Service: Bf 12.0J

Approach: North Bound South Bound East Bound West Bound
Movement: L T R L T R L T R L T R L T R
Control: Uncontrolled Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include Include
Lanes: 0 0 1 0 0 0 1 0 0 0 1 0 0 0 0 1 0 0

Volume Module:
Base Vol: 4 193 6 14 197 3 2 4 7 3 4 12
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bse: 4 216 7 16 209 3 2 4 8 3 4 13
Added Vol: 0 81 0 0 48 0 0 0 0 0 0 0
PasserbyVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial FVE: 4 297 7 16 257 3 2 4 8 3 4 13
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FRF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
FRF Volumes: 5 313 7 17 271 4 2 5 8 4 5 14
Final Vol: 5 313 7 17 271 4 2 5 8 4 5 14
Critical Gap Module:
Critical Gap: 4.1 xxxxx xxxxx 7.1 5.5 5.2 7.1 6.5 6.2
FollowupGap: 2.2 xxxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:
CFL1 Vol: 275 xxxxx xxxxx 120 xxxxx xxxxx 641 535 273 638 533 316
Percent Cap: 1300 xxxxx xxxxx 1251 xxxxx xxxxx 390 389 771 392 400 729
Move Cap: 1300 xxxxx xxxxx 1251 xxxxx xxxxx 374 382 771 379 383 729
Volume/Cap: 0.00 xxxxx xxxxx 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.02

Level Of Service Module:
Queue: 0.0 xxxxx xxxxx 0.0 xxxxx xxxxx 0.0 xxxxx xxxxx xxxxx xxxxx xxxxx
Stopped Del: 7.8 xxxxx xxxxx 7.9 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
LOS by Move: A * A * A * A * A * A * A * A * A *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 528 xxxxx xxxxx 550 xxxxx
Shared Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.1 xxxxx xxxxx 0.1 xxxxx
Shared StpDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 12.0 xxxxx xxxxx 11.8 xxxxx
Shared LOS: * * * * * E * * * * * B * *
ApproachDel: xxxxx * xxxxx * 12.0 * * * 11.8 *
ApproachLOS: B B

NT with AM
 Wed Oct 27, 2004 15:21:10
 Page 2-1
 City of Desert Hot Springs Civic Center
 Traffic Impact Analysis
 Near-Term With Project AM Peak Hour Conditions

Impact Analysis Report
Level Of Service

Intersection	Base LOS V/C	Base V/C	Future Del./ V/C	Change In
# 1 Pierson @ Golden Eagle/Atlanti	B 13.7 0.367	C 20.1 0.451	+ 0.447 D/V	
# 2 Pierson @ Cholla	B 11.9 0.000	D 26.8 0.814	+ 0.177 V/C	
# 3 Pierson @ West	A 9.3 0.231	B 12.1 0.484	+ 0.253 V/C	
# 4 Pierson @ Cactus	C 20.4 0.383	C 35.0 0.671	+ 4.680 D/V	
# 5 Pierson @ Palm	A 9.1 0.371	A 9.4 0.410	+ 0.039 V/C	
# 6 West @ 8th	B 10.6 0.000	B 11.5 0.000	+ 0.928 D/V	
# 7 West @ Desert View				

NT with AM
 Wed Oct 27, 2004 15:21:09
 Page 1-1
 City of Desert Hot Springs Civic Center
 Traffic Impact Analysis
 Near-Term With Project AM Peak Hour Conditions

Scenario:
 Command: NT with AM
 Volume: NT AM
 Geometry: Default Geometry
 Impact Fee: Default Impact Fee
 Trip Generation: AM
 Trip Distribution: Project
 Paths: Default Paths
 Routes: Default Routes
 Configuration: NT with AM

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term With Project AM Peak Hour Conditions

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Pierson @ Cholla
Average Delay (sec/veh): 1.0 Worst Case Level Of Service: C (19.3)

Approach: North Bound South Bound East Bound West Bound
Movement: L T R L T R L T R L T R L T R

Control: Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include

Lanes: 0 0 1 0 0 0 1 0 0 1 0 1 0 1 0 1 0 1 0

Volume Module:
Base Vol: 5 2 3 11 4 10 4 260 3 2 214 19

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Base: 7 2 3 12 4 11 4 281 3 2 240 21

Added Vol: 0 0 0 13 0 4 14 359 0 0 119 43

PasserbyVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Pct: 7 2 3 25 4 15 16 650 3 2 359 64

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95

PHF Volume: 7 2 4 27 5 16 19 684 4 2 378 68

Final Vol: 7 2 4 27 5 16 19 684 4 2 378 68

Critical Gap Module:
Critical Gap: 7.5 6.5 6.9 7.5 6.5 6.9 4.1 1000 1000 4.1 1000 1000

FollowupPct: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 1000 1000 2.2 1000 1000

Capacity Module:
Conflict Vol: 344 798 1143 223 445 1000 1000 688 1000 1000

Potential Cap: 229 193 658 280 202 787 1126 1000 916 1000 1000

Volume/Cap: 0.03 0.01 0.01 0.10 0.02 0.02 0.02 0.02 0.02 0.02 0.02

Level Of Service Module:
Stopped Del: 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000

LOS by Move: IT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term With Project AM Peak Hour Conditions

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Pierson @ Golden Eagle/Atlantic
Cycle (sec): 80 Critical Vol./Cap. (X): 0.491

Loss Time (sec): 6 (X*R = 4 sec) Average Delay (sec/veh): 20.1

Optimal Cycle: 60 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L T R L T R L T R L T R

Control: Permitted Permitted Permitted Protected Protected
Rights: Include Include Include

Lanes: 0 0 1 0 0 0 1 0 0 1 0 1 0 1 0 1 0 1 0

Volume Module:
Base Vol: 2 95 3 187 0 30 48 126 3 3 151 169

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Base: 2 28 3 206 0 34 54 141 3 3 169 189

Added Vol: 0 0 0 22 0 32 6 212 0 0 223 0

PasserbyVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Pct: 2 29 3 243 0 62 138 482 7 7 292 189

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95

PHF Volume: 2 31 4 254 0 69 124 507 4 4 307 189

Reduced Vol: 2 31 4 254 0 69 124 507 4 4 307 189

PCF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Vol: 2 31 4 254 0 69 124 507 4 4 307 189

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.97 0.97 0.97 0.72 1.00 0.72 0.95 0.95 0.95 0.95 0.95 0.95

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term With Project AM Peak Hour Conditions

Level Of Service Computation Report
2003 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #4 Pierson & Cactus
Cycle (sec): 100 Critical Vol./Cap. (X): 0.484
Loss Time (sec): 0 (W+R = 4 sec) Average Delay (sec/veh): 12.1
Optimal Cycle: 0 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop sign Stop sign Stop sign Stop sign
Rights: Include Include Include Include
Min. Green: 0 0 1 0 0 0 1 0 0 1 0 1 0 1 0 0 0
Lanes: 0 0 1 0 0 0 0 1 0 0 0 1 0 1 0 1 0 0

Volume Module:
Base Vol: 21 37 18 21 58 19 11 242 19 5 205 9
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Sse: 24 41 20 24 65 21 12 271 21 6 230 10
Added Vol: 0 0 0 0 0 0 0 0 250 0 0 151 0 0
PasserbyVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Pct: 24 41 20 24 65 21 12 271 21 6 230 10
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PCE Adj: 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25
PCE Volume: 28 44 41 25 68 22 13 591 22 6 401 11
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PCE Vol: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MCF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol: 28 44 41 25 68 22 13 591 22 6 401 11

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.27 0.49 0.24 0.21 0.60 0.19 1.00 1.00 0.97 1.00 1.95 0.85
Final Sat: 148 260 127 116 322 195 576 1219 46 549 1168 31

Capacity Analysis Module:
Vol/Sat: 0.17 0.17 0.17 0.21 0.21 0.21 0.02 0.48 0.48 0.01 0.34 0.34
Crit Moves: ****
Delay/Veh: 10.3 10.3 10.3 10.6 10.6 10.6 9.0 13.3 13.2 9.1 11.4 11.4
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 10.3 10.3 10.3 10.6 10.6 10.6 9.0 13.3 13.2 9.1 11.4 11.4
LOS by Move: E B B B B B A B A B A B B
ApproachDel: 10.3 10.6 13.2
Delay Adj: 1.00 1.00 1.00
ApproachDel: 10.3 10.6 13.2
LOS by Appr: B B B

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term With Project AM Peak Hour Conditions

Level Of Service Computation Report
2003 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #3 Pierson & West
Cycle (sec): 100 Critical Vol./Cap. (X): 0.614
Loss Time (sec): 0 (W+R = 4 sec) Average Delay (sec/veh): 26.8
Optimal Cycle: 0 Level Of Service: D
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop sign Stop sign Stop sign Stop sign
Rights: Include Include Include Include
Min. Green: 0 0 1 0 0 0 1 0 0 1 0 1 0 1 0 0 0
Lanes: 0 0 1 0 0 0 0 1 0 0 0 1 0 1 0 1 0 0

Volume Module:
Base Vol: 76 68 9 60 190 61 44 178 116 22 214 33
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Sse: 85 76 10 67 213 68 49 199 130 25 240 37
Added Vol: 0 0 0 0 0 18 5 290 81 0 151 0 0
PasserbyVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Pct: 76 68 9 60 190 61 44 178 116 22 214 33
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PCE Adj: 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25
PCE Volume: 146 80 11 71 224 89 57 515 222 26 411 39
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PCE Vol: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MCF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol: 146 80 11 71 224 89 57 515 222 26 411 39

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.62 0.34 0.04 0.18 0.59 0.23 1.00 1.40 0.60 1.00 1.83 0.17
Final Sat: 258 141 19 87 275 109 430 654 294 405 792 76

Capacity Analysis Module:
Vol/Sat: 0.57 0.57 0.57 0.81 0.81 0.81 0.13 0.79 0.76 0.06 0.52 0.52
Crit Moves: ****
Delay/Veh: 20.4 20.4 20.4 34.1 34.1 34.1 12.2 32.9 29.1 11.9 18.7 18.5
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 20.4 20.4 20.4 34.1 34.1 34.1 12.2 32.9 29.1 11.9 18.7 18.5
LOS by Move: C C C D D D B D D B C C C
ApproachDel: 20.4 34.1 30.3 18.4
Delay Adj: 1.00 1.00 1.00
ApproachDel: 20.4 34.1 30.3 18.4
LOS by Appr: C C D D

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term With Project AM Peak Hour Conditions

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

***** Intersection #6 West @ 8th *****
Cycle (sec): 100 Critical Vol./Cap. (X): 0.410
Loss time (sec): 0 (Y/N = 4 sec) Average Delay (sec/veh): 9.4
Optimal Cycle: 0 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Min. Green: 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
Volume Module: 0 96 19 28 234 0 1 0 4 39 3 24
Base Vol: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bus: 0 108 21 31 262 0 1 0 4 44 3 27
Added Vol: 0 9 0 0 30 0 0 0 0 0 0 0
Passer-Bycl: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Pct: 0 117 21 31 292 0 1 0 4 44 3 27
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 123 22 33 307 0 1 0 5 46 4 28
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 123 22 33 307 0 1 0 5 46 4 28
PCF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol: 0 123 22 33 307 0 1 0 5 46 4 28
Saturation Flow Module:
Adj/Sat: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.85 0.15 0.10 0.90 0.00 0.20 0.01 0.79 0.58 0.05 0.36
Final Sat: 0 681 124 89 750 0 141 0 566 407 31 250
Capacity Analysis Module:
Vol/Sat: 0.00 0.18 0.41 0.41 0.00 0.01 0.00 0.01 0.11 0.11 0.11 0.11
Vol/Sat: 0.00 0.18 0.41 0.41 0.00 0.01 0.00 0.01 0.11 0.11 0.11 0.11
C/Crit Moves: 0.00 8.3 8.3 10.1 10.1 0.0 7.6 7.6 7.6 8.4 8.4 8.4
Delay/Veh: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 8.3 8.3 10.1 10.1 0.0 7.6 7.6 7.6 8.4 8.4 8.4
LOS by Move: A A A B B A A A A A A A
ApproachDel: 8.3 10.1 10.1 10.1 10.1 10.1 10.1 10.1 10.1 10.1 10.1 10.1
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
ApproachDel: 8.3 10.1 10.1 10.1 10.1 10.1 10.1 10.1 10.1 10.1 10.1 10.1
LOS by Appr: A A B A A A A A A A A A

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term With Project AM Peak Hour Conditions

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

***** Intersection #5 Pierson @ Pain *****
Cycle (sec): 90 Critical Vol./Cap. (X): 0.674
Loss time (sec): 6 (Y/N = 4 sec) Average Delay (sec/veh): 25.0
Optimal Cycle: 60 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Permitted Permitted
Rights: 5 5 5 5 5 5 5 5 5 5 5 5
Min. Green: 1 0 1 0 1 0 1 0 1 0 1 0
Lanes: 1 0 1 0 1 0 1 0 1 0 1 0
Volume Module: 152 280 32 34 439 17 26 78 150 70 75 29
Base Vol: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Initial Bus: 170 314 36 38 492 19 29 87 168 78 84 32
Added Vol: 121 0 0 0 23 7 2 281 0 8 0
Passer-Bycl: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Pct: 291 314 36 38 492 42 36 89 449 78 92 32
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 307 330 38 40 518 44 38 94 473 83 97 34
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 307 330 38 40 518 44 38 94 473 83 97 34
PCF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol: 307 330 38 40 518 44 38 94 473 83 97 34
Saturation Flow Module:
Adj/Sat: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.95 0.94 0.94 0.94 0.95 0.94 0.16 1.00 1.00 1.00 1.00 0.52
Final Sat: 1805 3191 365 1805 3286 281 1262 1579 1579 685 2564 905
Capacity Analysis Module:
Vol/Sat: 0.17 0.10 0.10 0.02 0.16 0.16 0.03 0.06 0.10 0.12 0.04 0.04
Vol/Sat: 0.17 0.10 0.10 0.02 0.16 0.16 0.03 0.06 0.10 0.12 0.04 0.04
C/Crit Moves: 0.25 0.43 0.43 0.06 0.23 0.23 0.45 0.45 0.45 0.45 0.45 0.45
Green/Cycle: 0.67 0.34 0.34 0.40 0.67 0.67 0.07 0.13 0.67 0.28 0.08 0.08
Volume/Cap: 34.1 16.3 16.3 43.7 33.4 33.4 14.3 14.7 31.9 16.3 14.4 14.4
Delay/Veh: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 34.1 16.3 16.3 43.7 33.4 33.4 14.3 14.7 31.9 16.3 14.4 14.4
HMCRAVGI: 9 3 3 2 8 8 1 2 11 4 1 1

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term with Project AM Peak Hour Conditions

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 West @ Desert Vic

Average Delay (sec/veh): 1.0 Worst Case Level of Service: B (11.5)

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Rights: Include Include Include Include

Lanes: 0 0 1 0 0 0 0 1 0 0 0 1 0 0 0 0 1 0

Volume Module:

Base Vol: 8 99 1 10 235 4 3 2 12 0 6 10

Worst Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Prg: 0 111 2 12 284 4 5 2 13 0 7 11

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Passes/Prot: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Prg: 9 155 7 11 345 4 3 2 13 0 7 11

Worst Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Prg: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95

Final Vol: 8 174 1 12 163 5 4 2 24 0 7 12

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Final Vol: 9 174 1 12 363 5 4 2 14 0 7 12

Critical Gap Module:

Critical Gap: 4.1 4.1 4.1 4.1 4.1 4.1 4.1 4.1 4.1 4.1 4.1 4.1

Followup Gap: 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2

Capacity Module:

Conflict Vol: 368 368 368 368 368 368 368 368 368 368 368

Potent Cap: 1201 1201 1201 1201 1201 1201 1201 1201 1201 1201 1201

Wave Cap: 1201 1201 1201 1201 1201 1201 1201 1201 1201 1201 1201

Volume/Cap: 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01

Level of Service Module:

Queue: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Stopped Del: 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0

LOS by Move: A A A A A A A A A A A A

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Queue: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Shared StpDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Shared LOS: 11.5 11.5 11.5 11.5 11.5 11.5 11.5 11.5 11.5 11.5

ApproachDel: 11.5 11.5 11.5 11.5 11.5 11.5 11.5 11.5

ApproachLOS: B B B B B B B B

City of Desert Hot Springs Civic Center
 Traffic Impact Analysis
 Near-Term With Project PM Peak Hour Conditions
 Scenario Report

Scenario: NT with PM

Command: NT with PM
 Volume: NT PM
 Geometry: Default Geometry
 Impact Fee: Default Impact Fee
 Trip Generation: PM
 Trip Distribution: Project
 Paths: Default Paths
 Routes: Default Routes
 Configuration: NT with PM

City of Desert Hot Springs Civic Center
 Traffic Impact Analysis
 Near-Term With Project PM Peak Hour Conditions
 Impact Analysis Report
 Level Of Service

Intersection	Base Del./ LOS Veh	V/ C	Future Del./ LOS Veh	V/ C	Change in
# 1 Pierson @ Golden Eagle/Arlanti	B 12.4	0.000	D 28.7	0.000	+16.274 D/V
# 2 Pierson @ Cholla	B 11.2	0.416	C 22.8	0.744	+ 0.328 V/C
# 3 Pierson @ West	A 9.2	0.205	B 12.8	0.486	+ 0.280 V/C
# 4 Pierson @ Cactus	B 18.1	0.346	C 23.5	0.679	+ 5.528 D/V
# 5 Pierson @ Palm	A 8.3	0.238	A 8.6	0.278	+ 0.041 V/C
# 6 West @ 8th	B 11.1	0.000	B 12.5	0.000	+ 1.394 D/V
# 7 West @ Desert View					

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term With Project PM Peak Hour Conditions

Level of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Stanton & Cholla

Average Delay (sec/veh): 2.0 Worst Case Level of Service: Df (28.7)

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled

Rights: Include Include Include Include

Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 1 0 1 0 1 0

Volume Module:

Base Vol: 9 1 1 7 1 4 9 240 3 3 235 11

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bst: 10 1 1 8 1 4 10 289 3 3 283 12

Added Vol: 0 0 0 45 0 48 7 235 0 0 405 30

Passes/Vol: 0 0 0 1 0 0 0 0 0 0 0 0

Maximal PUE: 1.0 1.2 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Prp Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95

Prp Volume: 11 6 0 58 1 24 18 330 4 4 703 34

Final Vol: 11 6 0 58 1 24 18 330 4 4 703 34

Critical Gap Module:

Critical Gap: 7.5 6.5 6.9 7.5 6.5 6.9 4.1 1.000 1.000 4.1 1.000 1.000

Followup Gap: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 1.000 1.000 2.2 1.000 1.000

Capacity Module:

Conflict Vol: 267 1029 1297 369 737 1044 534 1.000 1.000

Potential Cap: 226 160 737 186 159 634 878 1.000 1.000

Volume/Cap: 0.05 0.01 0.00 0.30 0.01 0.03 0.02 1.000 1.000

Level of Service Module:

Stopped Pel: 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000

LAG by Move: 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term With Project PM Peak Hour Conditions

Level of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Piarson & Golden Eagle/Atlantic

Cycle (sec): 80 Critical Vol./Cap. (X): 0.265

Loss Time (sec): 6 (Y/N = 4 sec) Average Delay (sec/veh): 5.9

Optimal Cycle: 60 Level of Service: A

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected

Rights: Include Include Include Include

Lanes: 0 0 1 0 0 0 1 0 1 0 1 0 1 0 1 0

Volume Module:

Base Vol: 3 0 1 45 0 8 5 175 1 1 163 28

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bst: 3 0 1 50 0 9 6 196 1 1 183 31

Added Vol: 0 0 0 0 0 13 7 242 0 0 420 6

Passes/Vol: 0 0 0 0 0 13 7 438 0 0 420 6

Maximal PUE: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Prp Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95

Prp Volume: 4 0 1 53 0 23 13 461 1 1 628 39

Final Vol: 4 0 1 53 0 23 13 461 1 1 628 39

Reduced Vol: 4 0 1 53 0 23 13 461 1 1 628 39

PCF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MPF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Vol: 4 0 1 53 0 23 13 461 1 1 628 39

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adj/Adj: 0.86 1.00 0.86 0.79 1.00 0.79 0.95 0.95 0.95 0.95 0.94 0.94

Lanes: 0.75 0.00 0.25 0.20 1.00 0.30 1.00 1.00 1.00 1.00 1.00 1.00

Final Sat: 1220 0 407 1044 0 455 1605 1601 9 1805 3367 211

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term With Project PM Peak Hour Conditions

Level of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Piarson & Golden Eagle/Atlantic

Cycle (sec): 80 Critical Vol./Cap. (X): 0.265

Loss Time (sec): 6 (Y/N = 4 sec) Average Delay (sec/veh): 5.9

Optimal Cycle: 60 Level of Service: A

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected

Rights: Include Include Include Include

Lanes: 0 0 1 0 0 0 1 0 1 0 1 0 1 0 1 0

Volume Module:

Base Vol: 3 0 1 45 0 8 5 175 1 1 163 28

Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12

Initial Bst: 3 0 1 50 0 9 6 196 1 1 183 31

Added Vol: 0 0 0 0 0 13 7 242 0 0 420 6

Passes/Vol: 0 0 0 0 0 13 7 438 0 0 420 6

Maximal PUE: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Prp Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95

Prp Volume: 4 0 1 53 0 23 13 461 1 1 628 39

Final Vol: 4 0 1 53 0 23 13 461 1 1 628 39

Reduced Vol: 4 0 1 53 0 23 13 461 1 1 628 39

PCF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MPF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Vol: 4 0 1 53 0 23 13 461 1 1 628 39

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adj/Adj: 0.86 1.00 0.86 0.79 1.00 0.79 0.95 0.95 0.95 0.95 0.94 0.94

Lanes: 0.75 0.00 0.25 0.20 1.00 0.30 1.00 1.00 1.00 1.00 1.00 1.00

Final Sat: 1220 0 407 1044 0 455 1605 1601 9 1805 3367 211

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term with Project PM Peak Hour Conditions

Level of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #3 Piacron @ West
Cycle (sec): 100 Critical Vol./Cap. (X): 0.744
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 22.8
Optimal Cycle: 0 Level of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 1 0 1 0 1 0

Volume Module:
Base Vol: 52 128 20 41 135 36 54 149 49 22 144 54
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Critical Base: 58 143 22 46 158 40 60 170 55 25 152 60
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Passerby Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Pct: 153 143 72 46 151 47 77 432 135 25 492 60
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
User Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PBF Volumes: 161 151 24 48 159 50 82 434 142 26 522 64
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 161 151 24 48 159 50 82 434 142 26 522 64
PBF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol: 161 151 24 48 159 50 82 434 142 26 522 64

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.48 0.45 0.07 0.19 0.62 0.19 1.00 1.51 0.49 1.00 1.78 0.22
Final Sat: 217 203 32 81 267 84 423 690 233 420 806 99

Capacity Analysis Module:
Vol/Sat: 0.74 0.74 0.74 0.60 0.60 0.60 0.19 0.63 0.61 0.06 0.65 0.64
Crit Moves: ****
Delay/Veh: 28.5 28.5 26.5 20.8 20.8 20.8 13.0 22.2 20.9 11.6 23.3 22.8
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 28.5 28.5 28.5 20.8 20.8 20.8 13.0 22.2 20.9 11.6 23.3 22.8
LOS by Move: D D C C C C B C C C B C C C
ApproachDel: 28.5 20.8 20.8 20.8 20.8 20.8 20.8 20.8 20.8 20.8 20.8 20.8
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
ApprAdjDel: 28.5 20.8 20.8 20.8 20.8 20.8 20.8 20.8 20.8 20.8 20.8 20.8
LOS by Appr: D D C C C C C C C C C C C

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term with Project PM Peak Hour Conditions

Level of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #4 Piacron @ Cactus
Cycle (sec): 100 Critical Vol./Cap. (X): 0.485
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 12.6
Optimal Cycle: 0 Level of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 1 0 0 0 0 1 0 0 1 0 1 0 1 0 1 0
Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 1 0 1 0 1 0

Volume Module:
Base Vol: 35 56 23 21 52 33 10 167 9 30 193 15
Growth Adj: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
Critical Base: 39 63 26 24 58 35 11 209 10 22 208 17
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Passerby Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Pct: 39 63 26 24 58 35 11 209 10 22 208 17
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
User Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PBF Volumes: 41 66 27 25 61 31 12 478 11 24 568 18
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 41 66 27 25 61 31 12 478 11 24 568 18
PBF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MUF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol: 41 66 27 25 61 31 12 478 11 24 568 18

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.31 0.49 0.20 0.24 0.61 0.15 1.00 1.96 0.04 1.00 1.94 0.06
Final Sat: 162 259 107 125 311 78 538 1148 26 952 1171 37

Capacity Analysis Module:
Vol/Sat: 0.25 0.25 0.25 0.26 0.26 0.26 0.02 0.42 0.42 0.04 0.49 0.46
Crit Moves: ****
Delay/Veh: 11.3 11.3 11.3 10.9 10.9 10.9 9.3 12.7 12.7 9.4 13.8 13.7
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 11.3 11.3 11.3 10.9 10.9 10.9 9.3 12.7 12.7 9.4 13.8 13.7
LOS by Move: B B B B B B A B B A B B B
ApproachDel: 11.3 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
ApprAdjDel: 11.3 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9
LOS by Appr: B B B B B B B B B B B B B

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term With Project PM Peak Hour Conditions

Level of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection # Pierson & Palm

Cycle (sec): 90 Critical Vol./Cap. (K): 0.679

Loss Time (sec): 6 (Yr = 4 sec) Average Delay (sec/veh): 23.6

Optimal Cycle: 60 Level of Service: C

Approach: North Bound South Bound East Bound West Bound

Movement: L T R L T R L T R L T R

Control: Protected Protected Permitted Permitted

Right: Include Include Include Include

Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5

Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 1 0

Volume Module:

Saturation Flow Module:

Capacity Analysis Module:

Crit Moves:

Delay/Veh:

Delay Adj:

AdjDel/Veh:

LOS by Move:

ApproachDel:

Delay Adj:

ApprchAdjDel:

LOS by Appr:

City of Desert Hot Springs Civic Center
Traffic Impact Analysis
Near-Term With Project PM Peak Hour Conditions

Level of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection # Pierson & Palm

Cycle (sec): 90 Critical Vol./Cap. (K): 0.679

Loss Time (sec): 6 (Yr = 4 sec) Average Delay (sec/veh): 23.6

Optimal Cycle: 60 Level of Service: C

Approach: North Bound South Bound East Bound West Bound

Movement: L T R L T R L T R L T R

Control: Protected Protected Permitted Permitted

Right: Include Include Include Include

Min. Green: 5 5 5 5 5 5 5 5 5 5 5 5

Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 1 0

Volume Module:

Saturation Flow Module:

Capacity Analysis Module:

Crit Moves:

Delay/Veh:

Delay Adj:

AdjDel/Veh:

LOS by Move:

ApproachDel:

Delay Adj:

ApprchAdjDel:

LOS by Appr:

City of Desert Rot Springs Civic Center
 Traffic Impact Analysis
 Year-Term With Project PM Peak Hour Conditions

Level of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 West & Desert View
 Average Delay (sec/vch): 0.9 Worst Case Level of Service: B [12.5]

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include

Volume Module: 4 193 6 14 187 3 2 4 7 3 4 12
 Base Vol: 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12
 Initial Vol: 4 193 6 14 187 3 2 4 7 3 4 12
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Paved Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Vol: 4 193 6 14 187 3 2 4 7 3 4 12
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PMP Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PMP Volume: 5 328 7 17 305 4 2 5 8 4 5 14
 Paved Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Final Vol: 5 328 7 17 305 4 2 5 8 4 5 14

Critical Gap: 4.1 xxxxx xxxxx 7.1 5.5 6.2 7.1 6.5 6.2
 FollowUpTime: 2.2 xxxxx xxxxx 3.5 4.0 3.3 3.3 4.0 3.3

Capacity Module:
 Conflict Vol: 308 xxxxx xxxxx 315 xxxxx xxxxx 589 683 306 686 682 331
 Potential Cap: 1264 xxxxx xxxxx 1316 xxxxx xxxxx 362 374 738 364 375 715
 Volume Cap: 1264 xxxxx xxxxx 1316 xxxxx xxxxx 347 368 738 352 368 715
 Volume/Cap: 0.00 xxxxx xxxxx 0.01 xxxxx xxxxx 0.01 0.01 0.01 0.01 0.01 0.02

Level of Service Module:
 Queue: 0.0 xxxxx xxxxx 0.0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Stopped Del: 7.9 xxxxx xxxxx 8.0 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 LOS by Mvmt: A A A A A A A A A A A A
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shared Queue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shared Stopped: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
 Shared LOS: A A A A A A A A A A A A
 ApproachDel: xxxxx xxxxx 12.5
 ApproachLOS: B B



AIR QUALITY ASSESSMENT
for the
Civic Center Expansion Project

City of Desert Hot Springs
County of Riverside, State of California

Lead Agency:

CITY OF DESERT HOT SPRINGS
65-950 Pierson Boulevard
Desert Hot Springs, California 92240

Consultant:

RBF CONSULTING
14725 Alton Parkway
Irvine, California 92618
Contact: *Mr. Eddie Torres, INCE*
Project Manager, Environmental Services
949/855-3612

December 6, 2004

JN 20-100589

Attachment C

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
1.0 INTRODUCTION AND PROJECT DESCRIPTION.....	2
2.0 ENVIRONMENTAL SETTING.....	6
2.1 Air Quality Management.....	6
3.0 REGULATORY FRAMEWORK	10
3.1 Federal Clean Air Act.....	10
3.2 California Clean Air Act.....	10
3.3 California State Implementation Plan	10
3.4 South Coast Air Quality Management District.....	11
4.0 MONITORED AIR QUALITY.....	13
5.0 POTENTIAL AIR QUALITY IMPACTS.....	17
5.1 Short-Term Construction Impacts.....	17
5.1.1 Equipment Exhaust and Fugitive Dust.....	17
5.1.2 Diesel Particulate Matter.....	19
5.1.3 Architectural Coatings	19
5.2 Long-Term Emissions	19
5.2.1 Mobile Source and Stationary Source Emissions.....	19
5.2.2 Carbon Monoxide Hotspots	20
5.3 Air Quality Management Plan Consistency.....	21
5.4 Cumulative Impacts.....	22
6.0 MITIGATION MEASURES	23
6.1 Construction Impacts	23
6.2 Operational Impacts	24
7.0 REFERENCES	25
7.1 Preparer.....	25
7.2 Documents.....	25
7.1 Web Sites and Software Programs	25

APPENDIX A – Air Quality Modeling

APPENDIX B – SCAQMD Dust Control Measures

LIST OF EXHIBITS

Exhibit 1 – Regional Vicinity Map	3
Exhibit 2 – Site Vicinity Map	4
Exhibit 3 – Conceptual Site Plan	5
Exhibit 4 – California Air Basins	7

LIST OF TABLES

Table 1 – Federal and State Attainment Designations	8
Table 2 – National and California Ambient Air Quality Standards.....	9
Table 3 – Local Air Quality Levels.....	15
Table 4 – Salton Sea Air Basin Thresholds of Significance.....	17
Table 5 – Federal and State Carbon Monoxide Standards.....	17
Table 6 – Daily Construction Equipment Exhaust Emissions	18
Table 7 – Long Term Emissions.....	20
Table 8 – Level of Service.....	21



EXECUTIVE SUMMARY

The proposed Civic Center expansion project would provide a new civic center so that city services other than law enforcement can be vacated from the existing City Hall, where all city services are now located. This facility would comprise a new 50,000-square-foot City Hall complex, a 20,000-square-foot Community Center, a 20,000-square-foot Boys and Girls Club building, an Olympic-sized swimming pool and an amphitheatre with a seating capacity of at least 500. The City's top priority is to construct the new Civic Center facilities to facilitate the ongoing operations and future expansion of the Police Department. The project will be completed in five phases over a period of 6 years.

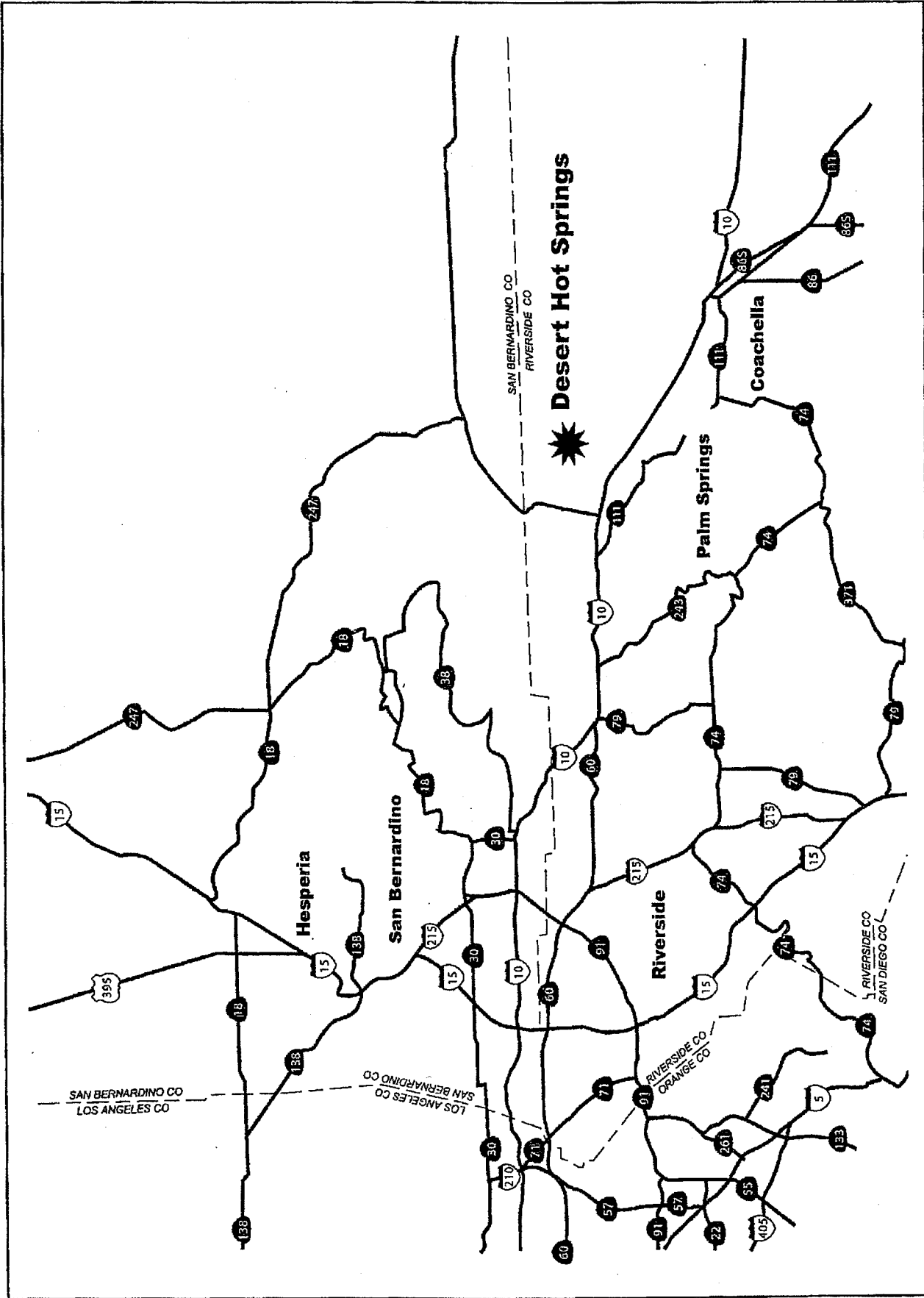
Based upon the results of the analysis conducted for this air quality assessment, Project implementation would neither result in an exceedance of the operational air pollutant thresholds nor result in daily construction emissions that exceed thresholds established by the South Coast Air Quality Management District (SCAQMD). However, to comply with SCAQMD Rule 403 and 403.1 (dust control), control measures are recommended during construction as outlined in Section 6, *Control Measures*.

1.0 INTRODUCTION AND PROJECT DESCRIPTION

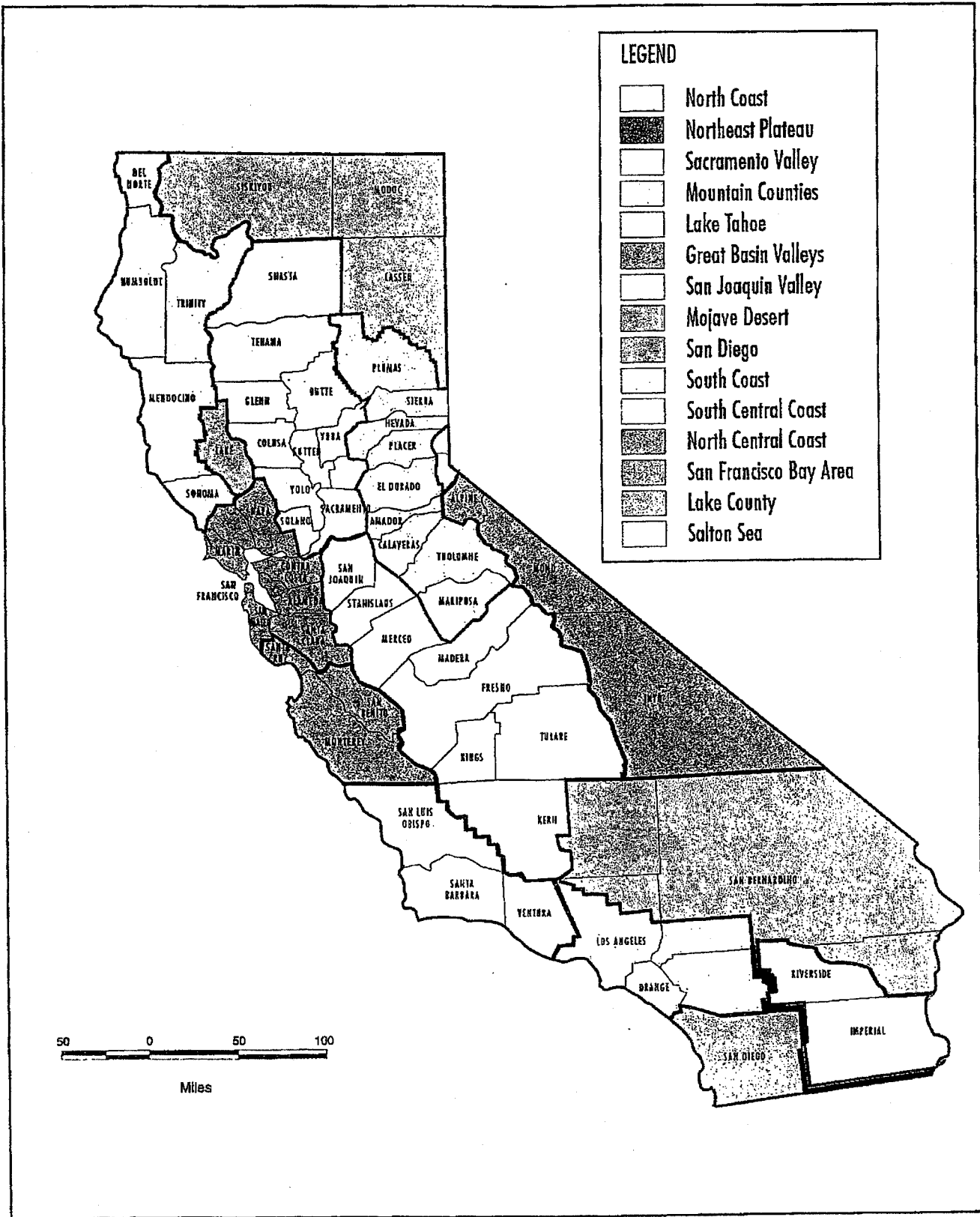
The purpose of this air quality assessment is to evaluate potential short-term and long-term air quality impacts related to the proposed Civic Center Expansion project (Project) in the City of Desert Hot Springs (refer to Exhibit 1, *Regional Vicinity Map*).

The Project site is located adjacent to the existing City Hall building on Pierson Boulevard, and extends north and east to Cholla Drive (refer to Exhibit 2, *Site Vicinity Map*). The proposed Project would include a new 50,000-square-foot City Hall complex, a 20,000-square-foot Community Center, a 20,000-square-foot Boys and Girls Club building, an Olympic-sized swimming pool and an amphitheatre with a seating capacity of at least 500 (refer to Exhibit 3, *Conceptual Site Plan*). All current City functions except the Police Department would vacate the existing City Hall building, leaving it for the sole use of the Police Department.

The Project would be accessed from three unsignalized driveways: driveway on Pierson Boulevard would primarily serve the new City Hall, and two driveways (on Cholla Drive and Fourth Street) would primarily serve the Community Center, the Boys and Girls Club and the swimming pool.



Regional Vicinity Map
Exhibit 1



2.0 ENVIRONMENTAL SETTING

The proposed Project site lies within the southwestern portion of the Salton Sea Air Basin (SSAB), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board (CARB). The SCAQMD sets and enforces air pollutant regulations for stationary sources in the SSAB while CARB is charged with controlling motor vehicle emissions. The SSAB is composed of the western portions of Riverside County and all of Imperial County (refer to Exhibit 4, *California Air Basins*).

The southeastern edge of SSAB is bounded by the Colorado River. The western boundary follows the ridge line of a series of high mountain ranges: the San Gabriel, San Bernardino and San Jacinto ranges, which form both a physical and climatological barrier between the Salton Sea and South Coast Air Basins. The SSAB, including the Coachella Valley, has a desert climate characterized by low annual rainfall, low humidity, hot days, and very cool nights. The mean annual precipitation in the Coachella Valley averages approximately three inches, most of which occurs between October and January. Temperature in the City of Desert Hot Springs area varies greatly between summer and winter, ranging from the higher 30's in winter to over 107°F in the summer. Relative humidity is generally low in summer; afternoons are particularly dry. These clear, dry conditions result in intense solar radiation that, combined with high temperatures, is highly conducive to photochemical smog formation.

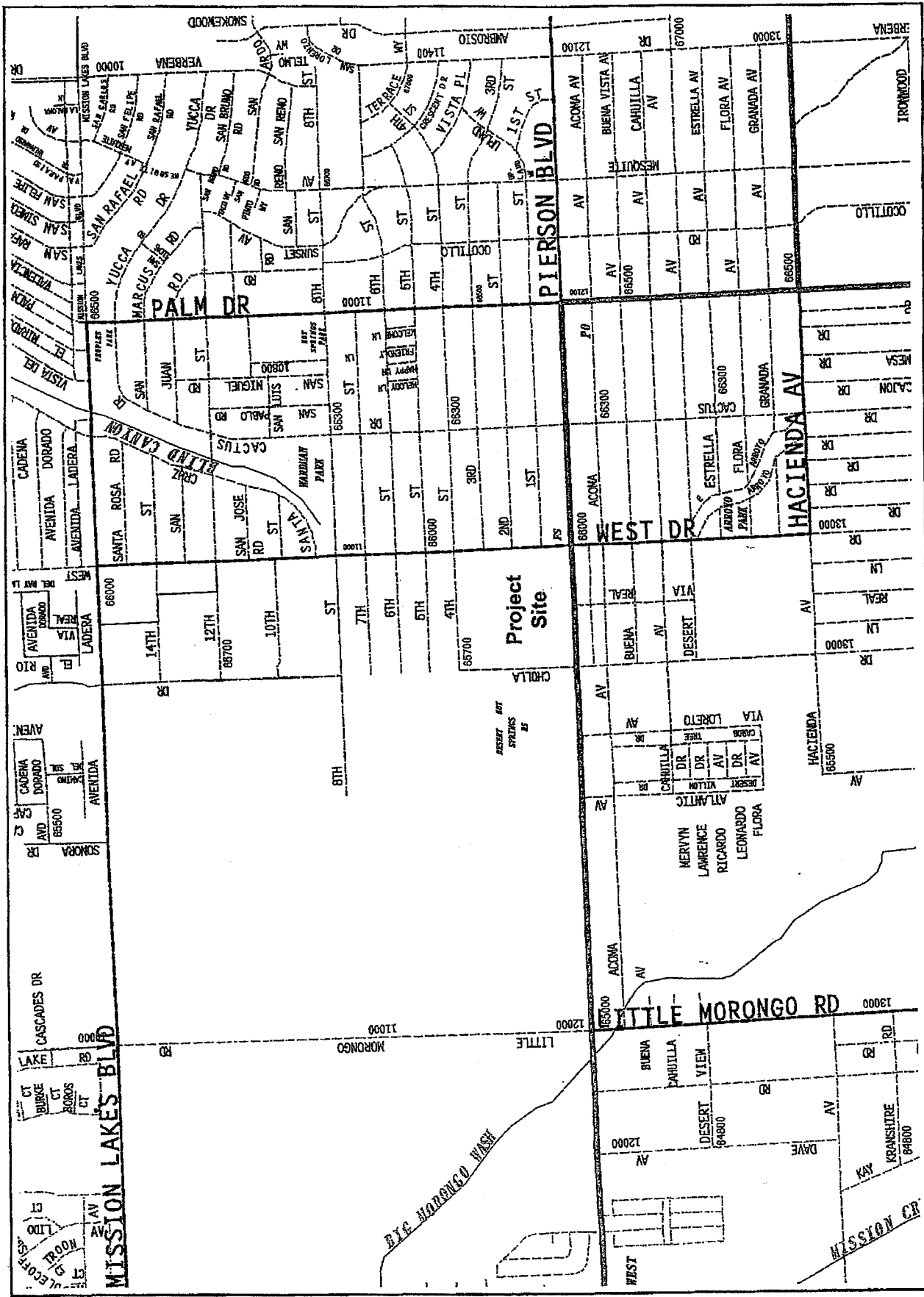
Wind direction and speed (which in turn affect atmospheric stability) are the most important climatological factors affecting the ambient air quality within the Project area. The onshore dominant daytime wind pattern is from the west between noon and 7:00 p.m., following the peak travel period (6:00 a.m. to 9:00 a.m.) in Los Angeles and Orange counties. Consequently, during periods of low temperature inversions and slow wind speeds, the photochemical smog formed in these counties is transported downwind into Riverside County and San Bernardino County. Within the vicinity of the Project site, the wind direction is generally to the southeast.

The Coachella Valley rarely experiences the summer temperature inversions that frequently "cap" polluted air layers in the Los Angeles basin area. However, inversions can form during cold nights with mild winds (typically during the winter), but usually dissipate during daytime heating. When these desert inversions form, they may trap pollutants near low-level emission sources, such as freeways or parking lots.

2.1 Air Quality Management

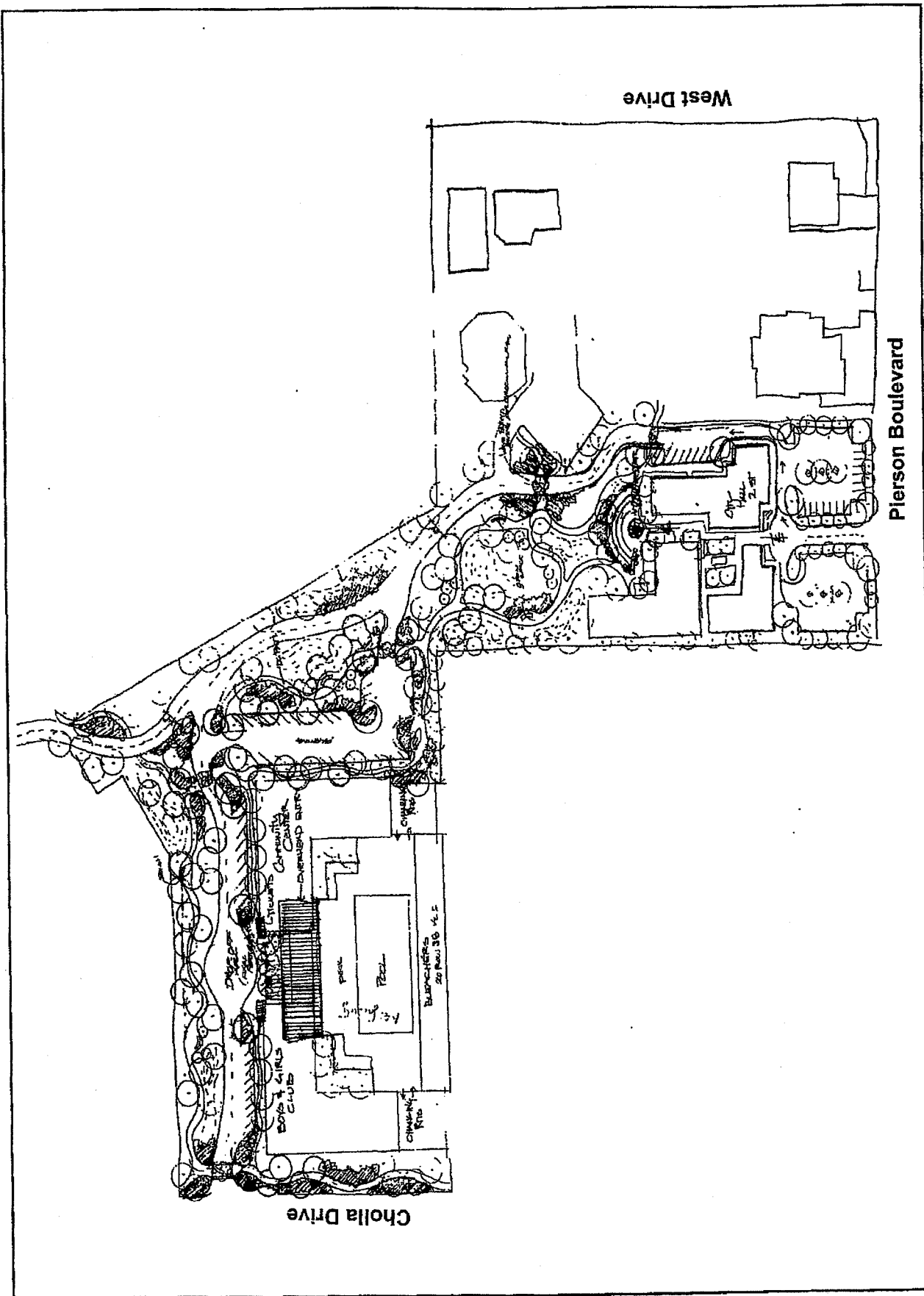
Ambient air quality is described in terms of compliance with Federal and State standards. Ambient air quality standards are the air pollutant concentrations considered safe to protect the public health and welfare. They are designed to protect the people who are the most sensitive to respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise.

The Federal Clean Air Act (FCAA), which was last amended in 1990, requires the United States Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The FCAA established two types of national air quality standards. Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.



Site Vicinity Map
Exhibit 2





Conceptual Site Plan
Exhibit 3



Despite implementing many strict emissions controls, the SSAB still fails to meet Federal and State air quality standards for two of the criteria pollutants: ozone (O₃) and particulate matter (PM₁₀). Because Federal pollution standards have not been achieved, the SSAB is considered a "nonattainment" area for Federal standards for these pollutants (refer to Table 1, *Federal and State Attainment Designations*). For State standards, the California Air Resources Board (CARB) designates areas of the State as attainment, nonattainment, or unclassified for any State standard. An "attainment" designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A "nonattainment" designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. An "unclassified" designation signifies that the data do not support either an attainment or non-attainment status. California Ambient Air Quality Standards (CAAQS) for pollutants and NAAQS are included in Table 2 – *National and California Ambient Air Quality Standards*.

**Table 1
FEDERAL AND STATE ATTAINMENT DESIGNATIONS**

Standard	Attainment Status					Degree of Attainment/Nonattainment				
	CO	O ₃	NO _x	SO _x	PM ₁₀	CO	O ₃	NO _x	SO _x	PM ₁₀
CAAQS	U	No	Yes	Yes	No	N/A	N/A	N/A	N/A	N/A
NAAQS	U	No	Yes	Yes	No	N/A	N/A	N/A	N/A	N/A

CO = Carbon Monoxide; O₃ = Ozone; NO_x = Nitrogen Oxides; SO_x = Sulfur Oxides; PM₁₀ = Particulate Matter
U = Unclassified
Source: California Air Resources Board



**Table 2
NATIONAL AND CALIFORNIA AMBIENT AIR QUALITY STANDARDS**

Pollutant	Averaging Time	California Standard	Federal Standards	
		Concentration	Primary	Secondary
Ozone (O ₃)	1 Hour	0.09 ppm (180 µg/m ³)	0.12 ppm (235 µg/m ³) ⁶	0.12 ppm (235 µg/m ³) ⁶
	8 Hour	N/A	0.08 ppm (157 µg/m ³)	0.08 ppm (157 µg/m ³)
Particulate Matter (PM ₁₀)	24 Hour	50 µg/m ³	150 µg/m ³	150 µg/m ³
	Annual Arithmetic Mean	20 µg/m ³	50 µg/m ³	50 µg/m ³
Fine Particulate Matter (PM _{2.5})	24 Hour	No Separate State Standard	65 µg/m ³	65 µg/m ³
	Annual Arithmetic Mean	12 µg/m ³	15 µg/m ³	15 µg/m ³
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)
	1 Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	35 ppm (40 mg/m ³)
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	N/A	0.053 ppm (100 µg/m ³)	0.053 ppm (100 µg/m ³)
	1 Hour	0.25 ppm (470 µg/m ³)	N/A	N/A
Lead	30 days average	1.5 µg/m ³	N/A	N/A
	Calendar Quarter	N/A	1.5 µg/m ³	1.5 µg/m ³
Sulfur Dioxide (SO ₂)	Annual Arithmetic Mean	N/A	0.030 ppm (80 µg/m ³)	N/A
	24 Hour	0.04 ppm (105 µg/m ³)	0.14 ppm (365 µg/m ³)	N/A
	3 Hour	N/A	N/A	0.5 ppm (1300 µg/m ³)
	1 Hour	0.25 ppm (655 µg/m ³)	N/A	N/A
Visibility Reducing Particles	8 Hour (10 am to 6 pm, PST)	Extinction Coeff. = 0.23 km@<70% RH	No Federal Standards	
Sulfates	24 Hour	25 µg/m ³		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)		

ppm = parts per million; µg/m³ = micrograms per cubic meter; mg/m³ = milligrams per cubic meter; km = kilometers; RH = relative humidity; PST = pacific standard time; N/A = not applicable

Notes:

- 1 - California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter-PM₁₀, and visibility-reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations. In 1990, the CARB identified vinyl chloride as a Toxic Air Contaminant and determined that there was not sufficient available scientific evidence to support the identification of a threshold exposure level. This action allows the implementation of health-protective control measures at levels below the 0.010 ppm ambient concentration specified in the 1978 standard.
- 2 - National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. EPA also may designate an area as *attainment/unclassifiable*, if: (1) monitored air quality data show that the area has not violated the ozone standard over a three-year period; or (2) there is not enough information to determine the air quality in the area. For PM₁₀, the 24-hour standard is attained when 99 percent of the daily concentrations, averaged over the three years, are equal to or less than the standard. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the EPA for further clarification and current federal policies.
- 3 - Concentration is expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 millimeters (mm) of mercury. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 mm of mercury (1,013.2 millibar); ppm in this table refers to ppm by volume (micromoles of pollutant per mole of gas).
- 4 - National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
- 5 - National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

Source: California Air Resources Board.

3.0 REGULATORY FRAMEWORK

3.1 Federal Clean Air Act

The FCAA (1977 amendments, 42 U.S. Code [USC] 7401 *et. seq.*) states that the Federal government is prohibited from engaging in, supporting, providing financial assistance for, licensing, permitting or approving any activity that does not conform to an applicable State Implementation Plan (SIP). Federal actions relating to transportation plans, programs, and projects developed, funded, or approved under 23 USC of the Federal Transit Act (40 USC 1601 *et. seq.*) are covered under separate regulations for transportation conformity.

In the 1990 FCAA amendments, the EPA included provisions requiring Federal agencies to ensure that actions undertaken in nonattainment or attainment-maintenance areas are consistent with applicable SIPs. The process of determining whether or not a federal action is consistent with an applicable SIP is called "conformity".

The EPA General Conformity Rule applies only to federal actions that result in emissions of nonattainment or maintenance pollutants, or their precursors, in Federally designated nonattainment or maintenance areas. The EPA General Conformity Rule establishes a process to demonstrate that federal actions would be consistent with applicable SIPs and would not cause or contribute to new violations of the NAAQS, increase the frequency or severity of existing violations of the NAAQS, or delay the timely attainment of the NAAQS. The emissions thresholds that trigger requirements of the conformity rule for Federal actions emitting nonattainment or maintenance pollutants, or their precursors, are called *de minimis* levels. The general conformity *de minimis* thresholds are defined in 40 Code of Federal regulations (CFR) 93.153(b).

3.2 California Clean Air Act

The CARB administers the air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in Table 2, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility-reducing particulates, hydrogen sulfide, and sulfates. The California Clean Air Act (CCAA), which was approved in 1988, requires each local air district to prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for preparation of the SIP for the State of California.

CARB establishes policy and statewide standards and administers the State's mobile source emissions control program. In addition CARB oversees air quality programs established by State statute, such as Assembly Bill (AB) 2588, the Air Toxics "Hot Spots" Information and Assessment Act of 1987.

3.3 California State Implementation Plan

The FCAA, as amended in 1990, requires a comprehensive attainment plan from every ozone nonattainment area classified as serious, severe, or extreme. There are six nonattainment areas in California subject to the 1994 ozone planning requirement: the Sacramento Metropolitan area (encompassing all or portions of the Sacramento, Placer, El Dorado, Feather River, and Yolo-Solano air districts), San Diego County, the San Joaquin Valley (including the eight unified counties and the nonunified portion of Kern County), the South Coast Air Basin, Ventura County, and the Southeast Desert Modified Air Quality Management Area (including portions of Los Angeles and Riverside counties and a section of Mojave Desert). The ozone plans were



submitted to the EPA by November 15, 1994, as a revision to the California State Implementation Plan (California SIP).

In addition, California state law gives the CARB authority to adopt statewide regulations affecting many mobile sources, fuels, and, more recently, consumer products. The California SIP contains the CARB's comprehensive plan for controlling emissions further from mobile sources and consumer products.

The California SIP provides for the needed reductions in mobile sources and consumer product emissions that, in combination with other measures, will provide ozone attainment in southern California and other areas of California. The mobile source element of the California SIP is the CARB's blueprint of technology- and market-based emission control strategies for achieving attainment of the Federal ambient ozone air quality standard. The proposed mobile source control measures in the California SIP are likewise far-reaching and based on continued technological progress.

Obtaining emission reductions from consumer products was only recently made a part of the clean air challenge through the enactment of the CCAA of 1988. This law resulted in regulations adopted by the CARB in the early 1990s that will provide significant statewide emission reductions from consumer products. Achieving additional emission reductions from consumer products is an important component of the California SIP. These products contain reactive organic gases (ROGs), emitted during product use.

The consumer products control program is a multipronged program that comprises near-term, mid-term, and long-term measures. These measures are based on the following five major elements:

1. Existing control measures plus new aerosol paints control measure;
2. Traditional control measures applied to currently unregulated consumer products;
3. Development of new and innovative technologies and market mechanisms;
4. Public education; and
5. Working with EPA on its consumer products control program.

The California SIP achieves the same objective as the Federal Implementation Plan (FIP) for Sacramento, South Coast and Ventura with a different combination of state, local, and federal measures. Therefore, it supercedes the FIP.

3.4 South Coast Air Quality Management District (SCAQMD)

The SCAQMD has prepared multiple Air Quality Management Plans (AQMPs) to accomplish the five-percent annual reduction goal. The most recent AQMP was adopted in 2003. To accomplish its task, the AQMP relies on a multilevel partnership of governmental agencies at the federal, state, regional and local level. The 2003 AQMP relies on a multilevel partnership of governmental agencies at the Federal, State, regional and local level. The EPA, CARB, local governments, and the SCAQMD are the primary agencies that implement the AQMP programs. The 2003 AQMP proposes policies and measures to achieve Federal and State standards for improved air quality in the South Coast Air Basin (SCAB) and those portions of the SSAB (formerly named the Southeast Desert Air Basin) that are under SCAQMD jurisdiction.

The 2003 AQMP also addresses several State and Federal planning requirements and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient air quality measurements, new meteorological episodes and new air quality modeling tools. The 2003 AQMP is consistent with and builds upon the approaches taken in the 1997 AQMP and the 1999 Amendments to the Ozone State Implementation Plan (SIP).



However, the 2003 AQMP points to the urgent need for additional emission reductions (beyond those incorporated in the 1997/99 Plan) to offset increased emission estimates from mobile sources and to meet all Federal criteria pollutant standards within the time frames allowed under the FCAA.

4.0 MONITORED AIR QUALITY

The SCAQMD operates several air quality monitoring stations throughout the SSAB. The Project site is located within Source Receptor Area (SRA) 30, one of the 30 areas under the jurisdiction of the SCAQMD. The communities within an SRA have similar climatology and, therefore, similar ambient air pollutant concentrations. The closest monitoring station to the site within SRA 30 is the Indio-Jackson Street Monitoring Station, which monitors O₃, PM₁₀ and particulate matter up to 2.5 microns (PM_{2.5}). The next closest monitoring station is the Palm Springs Fire Station Monitoring Station, which monitors, NO₂ and CO. The data collected at these stations is representative of the air quality experienced on-site. Air quality data from 1999 to 2003 for the Indio-Jackson Street and Palm Springs Monitoring Stations are provided in Table 3, *Local Air Quality Levels*. The following air quality information briefly describes the various types of pollutants.

Carbon Monoxide (CO)

Carbon monoxide is a colorless and odorless gas. Motor vehicles are the main source of this pollutant in the SSAB (82%). CO concentrations are generally higher along roadways, especially in the early mornings. The State CO standard is 35.0 ppm (parts per million), averaged over one hour at the Palm Springs Fire Station Monitoring Station. The readings averaged 1.47 ppm between 1999 and 2003.

Ozone (O₃)

Ozone, a colorless gas with a sharp odor, is one of a number of substances called photochemical oxidants (highly reactive secondary pollutants). These oxidants are formed when hydrocarbons, NO_x, and related compounds interact in the presence of ultraviolet sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the City of Desert Hot Springs. Ozone concentrations increase in the summer, and peak concentrations are the highest from late morning through afternoon. Because of the excellent dispersive capacity of desert air, the O₃ problem is primarily due to transport of O₃ into the Coachella Valley from other areas rather than from any local pollutant contribution. The State standard for O₃ is 0.09 ppm, averaged over 1 hour. At the Indio-Jackson Street Monitoring Station between 1999 and 2003, the maximum O₃ hourly concentration level was 0.126 ppm.

Nitrogen Dioxide (NO₂)

NO₂ is a reddish-brown gas with an odor similar to bleach, and is the by-product of fuel combustion resulting from mobile and stationary sources. NO₂ has complex diurnal concentrations that are typically higher at night. The SSAB has relatively low NO₂ concentrations, as very few monitoring stations have exceeded the State standard of 0.25 ppm (one-hour) Standard since 1988. NO₂ is itself a regulated pollutant, but it also reacts with hydrocarbons in the presence of sunlight to form O₃ and other compounds that make up photochemical smog. At the Palm Springs Fire Station Monitoring Station between 1999 and 2003, NO₂ levels have not exceeded the State one-hour standard (0.25 ppm) between 1999 and 2003.

Coarse Particulate Matter (PM₁₀)

PM₁₀ refers to suspended particulate matter that is smaller than 10 microns in diameter (ten one-millionth of a meter). PM₁₀ arises from sources such as road dust, diesel fuel soot, combustion products, construction operations, and dust storms. PM₁₀ scatters light and

significantly reduces visibility; these particulates also penetrate into lungs and can damage the respiratory tract. On June 19, 2003, the CARB amended the statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (Senate Bill 25). The Federal 24-hour standard of 150 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) was retained. Approximately 1.07% of PM_{10} is a result of mobile sources within the SSAB. At the Indio-Jackson Street Monitoring Station maximum PM_{10} concentrations fluctuated from $119.0 \mu\text{g}/\text{m}^3$ to $604.0 \mu\text{g}/\text{m}^3$ between 1999 and 2003.

Fine Particulate Matter ($\text{PM}_{2.5}$)

Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both State and Federal $\text{PM}_{2.5}$ standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. The Federal Standard is $65 \mu\text{g}/\text{m}^3$ averaged over 24 hours.

On June 20, 2002, the CARB amended statewide annual ambient fine particulate matter air quality standards. These standards were revised because of increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some part of the year, and the Statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.¹ Based upon a desire to set clean air goals throughout the State, the CARB created a new annual average standard for $\text{PM}_{2.5}$ of $12 \mu\text{g}/\text{m}^3$. Currently, the CARB has issued a staff report that recommends the SSAB be designated as nonattainment for State and Federal $\text{PM}_{2.5}$ standards.²

Visibility

Visibility is the distance that atmospheric conditions permit a person to see at any given time. Technically, visibility is defined as the farthest distance an observer can distinguish a large black object against the horizon. Reduced visibility aesthetically impairs surroundings and also interferes with aircraft operations. Visibility may be impaired by natural or manmade sources, including natural aerosols such as precipitation, fog, soil particles, volcanic emissions, vegetation, sea spray, and organic decomposition products; and by manmade sources such as sulfates and nitrates. The greatest contribution to visibility reduction in the SSAB is from light scattering by "fine-particle" aerosols (0.1 to 2 microns in diameter). Visibility is not measured in SRA 30.

Total Suspended Particulates (TSP)

Total suspended particulates are the solid matter particles suspended in the atmosphere. Approximately 9.5% of TSP is generated by stationary sources. This complicated mixture of natural and manmade materials includes soil particles, biological materials, sulfates, nitrates, organic (carbon-containing) compounds, and lead. A high-volume sampler is used to determine TSP concentration by passing a measured column of air through a glass fiber filter. The filter then is weighed to determine the concentration of TSP, after which it is analyzed for lead, sulfate, and nitrate by an SCAQMD laboratory. TSP tends to be at higher concentrations in the day and has an unclear seasonal pattern. High dust levels result from strong winds and loose,

¹ California Air Resources Board, *Staff Report: Public Hearing To Consider Amendments to the Ambient Air Quality Standards for Particulate Matter and Sulfates*, May 3, 2002.

² California Air Resources Board, *Proposed Amendments to Area Designation Criteria and Area Designations for State Ambient Air Quality Standards and Maps of Area Designations for State and National Ambient Air Quality Standards*, December 5, 2003.



arid soil. Larger dust particles pose a less serious health threat than small particles produced by fossil fuel combustion. TSP monitoring was discontinued in 1991.

**Table 3
LOCAL AIR QUALITY LEVELS**

Pollutant	California Standard	Federal Primary Standard	Year	Maximum Concentration	Number of Days State/Federal Standard Exceeded
Carbon Monoxide (CO) at the Palm Springs Fire Station	9.0 ppm for 8 hours	9.0 ppm for 8 hours	1999	1.75 ppm	0/0
			2000	1.59	0/0
			2001	1.60	0/0
			2002	1.14	0/0
			2003	1.29	0/0
Ozone (O ₃) (1-Hour) at the Indio-Jackson Street Station	0.09 ppm for 1 hour	0.12 ppm for 1 hour	1999	0.126 ppm	13/1
			2000	0.112	7/0
			2001	0.114	21/0
			2002	0.114	24/0
			2003	0.123	24/0
Ozone (O ₃) (8-Hour) at the Indio-Jackson Street Station	NA	0.08 ppm for 8 hours	1999	0.107 ppm	NA/7
			2000	0.096	NA/7
			2001	0.098	NA/15
			2002	0.110	NA/15
			2003	0.105	NA/19
Nitrogen Dioxide (NO _x) at the Palm Springs Fire Station	0.25 ppm for 1 hour	0.053 ppm annual average	1999	0.068 ppm	0/NA
			2000	0.064	0/NA
			2001	0.081	0/NA
			2002	0.068	0/NA
			2003	0.081	0/NA
Fine Particulate Matter (PM _{2.5}) ³ at the Indio-Jackson Street Station	65 µg/m ³ for 24 hours	65 µg/m ³ for 24 hours	1999	29.6 µg/m ³	NA/0
			2000	28.6	NA/0
			2001	33.5	NA/0
			2002	26.8	NA/0
			2003	26.8	NA/0
Particulate Matter (PM ₁₀) ^{2,3} at the Indio-Jackson Street Station	50 µg/m ³ for 24 hours	150 µg/m ³ for 24 hours	1999	119.0 µg/m ³	30/0
			2000	201.0	55/3
			2001	604.0	55/5
			2002	276.0	54/2
			2003	309.0	25/3
ppm = parts per million		PM ₁₀ = particulate matter 10 microns in diameter or less			
µg/m ³ = micrograms per cubic meter		PM _{2.5} = particulate matter 2.5 microns in diameter or less			
NM = Not Measured		NA = Not Applicable			
Notes:					
1. Maximum concentration is measured over the same period as the California standard.					
2. PM ₁₀ exceedances are based on State thresholds established prior to amendments adopted on June 20, 2002.					
3. PM ₁₀ and PM _{2.5} exceedances are derived from the number of samples exceeded, not days.					
Source: California Air Resources Board, ADAM Air Quality Data Statistics, http://www.arb.ca.gov/adam/welcome.html					

Lead (Pb)

In the SSAB, atmospheric lead is generated almost entirely by the combustion of leaded gasoline. In recent years atmospheric lead concentrations have been reduced substantially by the lowering of the average lead content in gasoline. Exceedances of the State air quality standard for lead (monthly average concentration of 1.50 µg/m³) now are confined to the densely populated portions of Riverside County, where vehicle traffic is greatest.



Blowsand

Both the topography and meteorology that make up the Coachella Valley contribute to a unique annual sand migration process termed "blowsand". Although blowsand particles are larger than PM_{10} , there is still a direct relationship between blowsand and PM_{10} . In natural conditions, sand particles collide with each other, creating the natural uncontrollable portion of PM_{10} . In addition, after the winds subside, blowsand deposited in the streets is crushed by automobiles and resuspended into the air, thus creating additional PM_{10} .

The SCAQMD's AQMP is governed by State and Federal law and is part of the SIP submitted to the EPA. Although the Coachella Valley is within the SCAQMD jurisdiction, it is not included in the AQMP for PM_{10} attainment because PM_{10} is generated primarily within the Coachella Valley, rather than transported from sources in the SCAB. Therefore, a separate SIP for PM_{10} is required, and the SCAQMD is the appointed authority to prepare it. The SCAQMD's Final November 1994 SIP for PM_{10} in the Coachella Valley addresses the Valley's nonattainment designation for PM_{10} . The SIP focuses on reducing PM_{10} from manmade dust-producing activities and the reduction of blowsand intrusion into populated areas, and does not attempt to reduce naturally caused PM_{10} produced during desert wind storms.

SIP control measures are designed to reduce fugitive dust from five major source categories. These categories, and the percent of the fugitive dust generated by each in the Coachella Valley, are: open area erosion (62%); construction demolition activities (22%); paved roads (9%); unpaved roads (4%); and agricultural operations (3%). Generally, SIP control measures include chemical and water treatment of unpaved roads, paving of construction roads, stabilizing blowsand areas, covering trucks, limiting soil movement activities on windy days, and planting vegetation.

The SIP identifies candidate control measures to reduce fugitive dust from the five major sources. The applicability of the control measures depends on site-specific factors, primarily: wind conditions, soil type, crop type, and condition of the surrounding area. Based on the candidate control measures and input from the Coachella Valley Area Governments (CVAG) within the SIP area, the SCAQMD recommends control measures. These measures include, but are not limited to:

- Requiring watering of all active construction projects;
- Requiring the chemical treatment of unattended construction areas;
- Prohibiting all construction grading activities on days when the wind gusts exceed or are forecast to exceed 30 mph;
- Requiring construction trucks to maintain at least two feet of freeboard;
- Requiring all trucks hauling dirt, sand, soil, or other loose dirt material to be covered; and
- Encouraging the planting of vegetative ground cover as soon as possible on construction sites.

The SIP also provides supplementary (contingency) control measures, should the recommended measures fail to achieve the level of control specified in the SIP.

5.0 POTENTIAL AIR QUALITY IMPACTS

The *CEQA Air Quality Handbook* establishes thresholds for pollutant emissions generated both during and following construction. SCAQMD construction and operation thresholds are indicated in Table 4, *Salton Sea Air Basin Thresholds of Significance*. As noted previously, the SSAB is designated nonattainment for PM₁₀ and O₃ under State and Federal standards.

Table 4
SALTON SEA AIR BASIN THRESHOLDS OF SIGNIFICANCE

Pollutant	Daily Emissions Thresholds	
	Construction	Operational
Reactive Organic Gases (ROGs)	75 pounds	75 pounds per day
Nitrogen Oxides (NO _x)	100 pounds	100 pounds per day
Carbon Monoxide (CO)	550 pounds	550 pounds per day
Particulate Matter (PM ₁₀)	150 pounds	150 pounds per day
Sulfur Oxides (SO _x)	150 pounds	150 pounds per day

Source: South Coast Air Quality Management District, *CEQA Air Quality Handbook*, 1993.

In addition, the significance of localized project impacts depends on whether ambient CO levels in the vicinity of the Project are above or below State and Federal CO standards. If the project causes an exceedance of either the state one-hour or eight-hour CO concentrations, the Project would be considered to have a significant local impact. If ambient levels already exceed a state or federal standard, then Project emissions would be considered significant if they increase one-hour CO concentrations by 1.0 ppm or more, or eight-hour CO concentrations by 0.45 ppm or more (refer to Table 5, *Federal and State Carbon Monoxide Standards*).

Table 5
FEDERAL AND STATE CARBON MONOXIDE STANDARDS

Jurisdiction	Averaging Time	CO Standard
Federal	1 Hour	35 ppm
	8 Hour	9 ppm
State	1 Hour	20 ppm
	8 Hour	9 ppm

Notes:
 ppm = parts per million
 Source: California Air Resources Board.

5.1 Short-Term Impacts

5.1.1 Equipment Exhaust and Fugitive Dust

Construction activities produce combustion emissions from various sources, such as site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, and motor vehicles transporting the construction crew. The use of construction equipment on site will result in localized vehicular exhaust emissions. Vehicular exhaust emissions during site construction will vary as construction activity levels change. There is not much detail regarding the construction operation and schedule for the proposed project. Therefore, the following construction emissions estimates are based on projects similar to the proposed project (refer to Table 6 - *Daily Construction Equipment Exhaust Emissions*).³

³ Construction assumptions are primarily based on typically industry practices, as well as the following references: Paulson, B.C., S.A. Douglas, A. Kalk, A. Touran and G.A. Victor, *Simulation and Analysis of Construction*

**Table 6
DAILY CONSTRUCTION EQUIPMENT EXHAUST EMISSIONS**

Number and Equipment Type ¹	Number of Hours in Operation	Pollutants (pounds/day)				
		CO	ROG	NO _x	SO _x	PM ₁₀
1 Tracked Loader	8	1.6	0.8	6.6	0.6	0.5
1 Tracked Tractor	8	3.5	1.2	13	1.4	1.1
1 Scraper	8	10	2.2	31	3.7	3.3
1 Roller	8	2.4	0.5	7.0	0.5	0.4
2 Motor Graders	8	2.4	0.6	11	1.4	1.0
2 Miscellaneous Equipment	8	11	2.4	27	2.3	2.2
24 Construction Worker Trips	50 miles/RT ²	12	0.48	3.7	0.03	0.11
TOTAL ³		43	8.1	99	9.9	8.6
SCAQMD Threshold		550	75	100	150	150
Exceed SCAQMD Threshold?		NO	NO	NO	NO	NO

CO = Carbon Monoxide; ROG = Reactive Organic Gases; O₃ = Ozone; NO_x = Nitrogen Oxides; SO_x = Sulfur Oxides; PM₁₀ = Particulate Matter

Notes:

- Emission factors provided by the U.S. Environmental Protection Agency, AP-42, Volume II (4th Edition, 1989; Supplement A, 1991).
- RT = roundtrip
- Emissions would be further reduced through the implementation of SCAQMD Rules 403 and 403.1, which include: watering exposed surfaces twice a day, covering stockpiles with a tarpaulin, and reducing speeds on unpaved roads to less than 15 mph.

PM₁₀ emissions from site clearance and grading operations during a peak construction day are based on assumptions and past experience on similar-sized projects. The SCAQMD estimates that each acre of graded surface creates about 26.4 pounds of PM₁₀ per workday during the construction phase of the project and 21.8 pounds of PM₁₀ per hour from pushing dirt and debris per bulldozer or scraper. The entire site is not expected to be under construction at one time. It is assumed that up to one acre of land would be under construction or exposed on any one day. It is also assumed that one dozer or scraper would be used eight hours per day, together with other equipment. Therefore, a maximum of 200.8 pounds of PM₁₀ per day would be generated from soil disturbance (without mitigation) during the construction phase. This level of dust emission would exceed the SCAQMD threshold of 150 pounds per day during construction.

With the implementation of the standard construction measures listed in Section 6 (providing 50-percent effectiveness) such as frequent watering (e.g., a minimum of twice per day), fugitive dust emissions from construction activities are expected to be reduced to 100 pounds or less per day.⁴ Combined with the 9.6 pounds per day generated by equipment engine exhaust, the total mitigated dust emissions of 110 pounds per day would be below the SCAQMD threshold of 150 pounds per day. Based upon the conclusions provided in the tables above, Project construction does not have the potential to significantly impact short-term air quality. To minimize construction-related emissions, all construction vehicles and construction equipment would be required to be equipped with the State-mandated emission control devices pursuant to State emission regulations and standard construction practices. Short-term construction PM₁₀ emissions would be further reduced with the implementation of required dust suppression measures outlined within SCAQMD Rules 403 and 403.1. After construction of the Project is complete, all construction-related impacts would cease, thus resulting in a less than significant impact. Therefore, Project construction is not anticipated to violate State or Federal air quality

Operations - ASCE Journal of Technical Topics in Civil Engineering, August 1983 or Carr, R.I., Simulation of Construction Project Duration - ASCE Journal of the Construction Division, June 1979.

⁴ Standard particulate matter control measures include SCAQMD Rules 403 and 403.1: watering exposed surfaces twice a day, covering stockpiles with a tarpaulin, and reducing speeds on unpaved roads to less than 15 mph.

standards or contribute to existing air quality violation in the SSAB as only minor earth movement is proposed.

5.1.2 Diesel Particulate Matter

Diesel particulate matter is part of a complex mixture that makes up diesel engine exhaust emissions. Diesel exhaust has two phases - gas or particles - both phases contribute to the risk. The gas phase is composed of many of the urban hazardous air pollutants, such as acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde, and polycyclic aromatic hydrocarbons. The particle phase also has different types of particles that can be classified by size or composition. The diesel particulates that are of greatest health concern are the fine and ultra-fine particles whose composition may be composed of elemental carbon with adsorbed compounds such as organic compounds, sulfates, nitrates, metals and other trace elements. Diesel exhaust is emitted from a broad range of diesel engines; the on-road diesel engines of trucks, buses, and cars and the off-road diesel engines that include locomotives, marine vessels, and heavy-duty equipment.

Toxic air contaminants are not expected to be a significant source of pollution from Project operations. Health Risk Assessments (HRA) for diesel particulate matter (DPM) are typically conducted for areas that would expose sensitive receptors to high concentrations of DPM over a long period of time. Per a telephone conversation with Steve Smith, the Program Supervisor of the CEQA Section at the SCAQMD (June 30, 2004), estimating cancer risk for DPM is not required for construction activities because construction activities would occur for only a short period of time and therefore would not measurably increase cancer risk. Estimating individual cancer risk from DPM would be necessary only if activities that release DPM would last for seven or more years. The proposed Project would not require a Health Risk Assessment for DPM because construction activities would not occur over an extended period of time. Thus, the project construction is not expected to increase the number of diesel trucks traveling through the area, or bring these sources of DPM significantly closer to sensitive receptors.

5.1.3 Architectural Coatings

Architectural coatings contain volatile organic compounds (VOCs) that are similar to reactive organic gases (ROGs) and are O₃ precursors. The proposed Project would require architectural coatings on exterior and interior surfaces. An emissions estimate for architectural coatings is not provided in this analysis. Compliance with the SCAQMD Rules and Regulations on the use of architectural coatings is considered sufficient. In addition, emissions associated with architectural coatings could be reduced by using precoated or natural-colored building materials, using water-based or low-VOC coating, and using coating transfer or spray equipment with high transfer efficiency. For example, a high-volume, low-pressure (HVLP) spray method is a coating application system operated at air pressure between 0.1 and 10 pounds per square inch gauge (psig), with 65 percent transfer efficiency. Manual applications such as paintbrush, hand roller, trowel, spatula, dauber, rag, or sponge have 100-percent transfer efficiency.

5.2 Long-Term Impacts

5.2.1 Mobile and Stationary Source Emissions

Mobile Sources – Mobile source emissions are major contributors to air pollution within the City of Desert Hot Springs and the surrounding vicinity. As shown on Table 7, *Long-Term Emissions*, emissions from the proposed Project would not exceed SCAQMD thresholds for



ROG, NO_x, CO and PM₁₀. Operational emissions are based on 2,623 daily trips for the City Hall Facility, the Boys and Girls Club, the Community Center, and the swimming pool.

Stationary Source Emissions – Stationary source emissions would be generated by an increased demand for natural resources consumption with the development of the proposed Project (referred to below as "area source emissions"). The primary use of natural gas by the proposed land uses would be for combustion to produce space heating, water heating, and other miscellaneous heating or air conditioning. Note that, while construction-related emissions occur predominantly in the immediate Project area, operational emissions are dispersed throughout southern California (due to Project traffic). As shown in Table 7, emissions from the proposed Project would not exceed SCAQMD thresholds for ROG, NO_x, SO_x, CO or PM₁₀.

**Table 7
LONG-TERM EMISSIONS**

Project	Pollutant (Pounds/Day)				
	ROG	NO _x	SO _x	CO	PM ₁₀
• Area Source Emissions ²	0.06	0.85	0.00	0.34	0.00
• Vehicle Emissions	13.15	17.76	0.07	136.05	13.88
Total Emissions	13.21	18.61	0.07	136.29	13.88
SCAQMD Threshold	75	75	150	550	150
Is Threshold Exceeded? (Significant Impact?)	No	No	No	No	No
CO = Carbon Monoxide; ROG = Reactive Organic Gases; O ₃ = Ozone; NO _x = Nitrogen Oxides; SO _x = Sulfur Oxides; PM ₁₀ = Particulate Matter					
NOTE:					
1 – Based on URBEMIS2002 modeling results (refer to Appendix A – <i>Air Quality Modeling</i>), worst-case seasonal emissions for area and mobile emissions, and trip rate data provided in the Project Traffic Study.					
2 – Area Source emissions excludes the use of fireplaces and wood burning stoves.					

5.2.2 Carbon Monoxide Hotspots

Local air quality is a major concern along roadways. Carbon monoxide is a primary pollutant, and, unlike ozone, is directly emitted from a variety of sources. For this reason, CO concentrations usually indicate the local air quality generated by a roadway network and are used to indicate its impacts upon the local air quality. Comparisons of levels with State and Federal CO standards indicate the severity of the existing concentrations for receptors in the Project area. The Federal and State standards for CO are presented in Table 5, *Federal and State Carbon Monoxide Standards*.

An impact is potentially significant if the project produces emissions levels that exceed the State or Federal AAQS. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to AAQS is typically demonstrated through an analysis of localized CO concentrations. Areas of vehicle congestion have the potential to create "pockets" of CO called "hot spots". To identify CO hotspots, the SCAQMD criterion recommends performing a CO hotspot analysis when a project increases the intersection capacity utilization by 0.02 (two percent) for any intersection with an existing level of service (LOS) of D or worse. However, there are no existing intersections in the Project Traffic Study that operate at an LOS D or worse (refer to Table 8, *Level of Service*).



the goals, objectives, and assumptions outlined in the *2003 Air Quality Management Plan* and City of Desert Hot Springs General Plan to achieve the Federal and State air quality standards.

As indicated in SCAQMD's *CEQA Air Quality Handbook*, there are two main indicators of consistency:

- Whether the project would not increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP; and
- Whether the project would exceed the AQMP's assumptions for 2010 or increments based on the year of project buildout and phase.

The proposed Project is consistent with the City's General Plan and would not require an amendment. In addition, the Project is consistent with the anticipated growth within the area. The anticipated growth has been utilized within the SCAQMD *2003 Air Quality Management Plan*. Additionally, as indicated in Section 5.1, *Short-Term Impacts*, and Section 5.2, *Long-Term Impacts*, the proposed Project would not exceed SCAQMD thresholds for construction activities or long-term operations. Thus, impacts on air quality conformity would be considered less than significant.

5.4 Cumulative Impacts

Cumulative projects include local development as well as general growth within the Project area. However, as with most development, the greatest source of air pollutant emissions is from mobile sources, which travel far outside the local area. Therefore, from an air quality standpoint, the cumulative analysis extends beyond any local projects and, when wind patterns are considered, cover an even larger area. Accordingly, the cumulative analysis of a project's air quality impacts must be regional by nature. Air quality would be temporarily degraded during construction activities that occur separately or simultaneously. However, the greatest cumulative impact on the quality of regional air will be the incremental addition of pollutants (mainly from increased traffic from residential, commercial, and industrial development) and the use of heavy equipment and trucks associated with the construction of these projects. Note that the results of the air quality analysis illustrate that project implementation would not violate published air quality standards, and therefore would not present a significant cumulative impact. In addition, the Project does not exceed SCAQMD operational thresholds for ROG, NO_x, SO_x, CO, or PM₁₀. Thus, the project's cumulative impacts would be less than significant.

6.0 CONTROL MEASURES

6.1 Construction Impacts

The following particulate emissions control measures, while not required to reduce PM₁₀ emissions to below the applicable threshold, are recommended (refer to Appendix B, *SCAQMD Dust Control Measures*):

- AQ1** During clearing, grading, earthmoving, and excavation operations, excessive fugitive dust emissions shall be controlled by regular watering or other dust-preventive measures using the following procedures, as specified in the South Coast Air Quality Management Districts Rules and Regulations.
- Comply with AQMD Rule 403, particularly to minimize fugitive dust and noise in surrounding areas. SCAQMD Rule 403.1, as amended, ensuring that the cleanup of the construction-related dirt on approach routes to the site and the application of water and/or chemical dust retardants that solidify loose soils are implemented for construction vehicle access, as directed by the City Engineer. This includes covering, watering, or otherwise stabilizing all inactive soil piles (left more than 10 days) and inactive graded areas (left more than 10 days).
 - On-site vehicle speed shall not exceed 15 miles per hour.
 - Sufficiently water all material excavated or graded to prevent excessive amounts of dust. Water at least twice daily with complete coverage, preferably in the late morning and after work is done for the day.
 - Water unpaved haul roads at least twice daily.
 - Sufficiently water or securely cover all material transported on-site or off- to prevent releasing excessive amounts of dust.
 - Minimize the area disturbed by clearing, grading, earthmoving, and excavation operations to prevent generating excessive amounts of dust.
 - Include control techniques in Project specifications.
- AQ2** Project grading plans shall show the duration of construction. Control ozone precursor emissions from construction equipment vehicles by maintaining equipment engines in good condition and in proper tune per manufacturer's specifications, to the satisfaction of the City Engineer. Compliance with this measure will be subject to periodic inspections of construction equipment vehicles by the City.
- AQ3** All trucks that are to haul excavated or graded material on-site shall comply with State Vehicle Code Section 23114, with special attention to Sections 23114(b)(F), (e)(2) and (e)(4) as amended, regarding the prevention of such material spilling onto public streets and roads.
- AQ4** Whenever feasible the Construction Contractor shall use precoated or natural colored building materials, water-based or low-VOC coatings, and coating transfer or spray equipment with high transfer efficiency.



6.2 Operational Impacts

No mitigation is required.

7.0 REFERENCES

7.1 Preparer

RBF CONSULTING
14725 Alton Parkway
Irvine, California 95618
949/472-3505

Eddie Torres, I.N.C.E., Environmental Analyst

7.2 Documents

1. California Geological Survey, *Geologic Map of the Riverside East 7.5' Quadrangle*, 2003.
2. City of Desert Hot Springs, *General Plan*, 2003.
3. Institute of Transportation Studies University of California at Davis, *Transportation Project-Level Carbon Monoxide Protocol*, December 1997.
4. RBF Consulting, *Sandhurst Estates Tentative Tract 32304 Traffic Impact Analysis*, October 2004.
5. South Coast Air Quality Management District, *CEQA Air Quality Handbook*, April 1993.
6. South Coast Air Quality Management District, *Final 2003 Air Quality Management Plan*, August 1, 2003.
7. South Coast Air Quality Management District, *Final 2003 Coachella Valley PM10 State Implementation Plan*, August 1, 2003.
8. Thomas Brothers, *2003 Riverside and San Bernardino County Street Guide and Directory*, 2003.

7.3 Web Sites and Software Programs

California Air Resources Board (prepared by Jones & Stokes Associates), *URBEMIS2002 – Air Emissions from Land Development*, July 11, 2003.

California Air Resources Board, *EMFAC2002*, September 23, 2002.

California Air Resources Board, www.arb.ca.gov.

South Coast Air Quality Management District, www.aqmd.gov.

APPENDIX

A. AIR QUALITY MODELING

URBEMIS 2002 For Windows 7.5.0

File Name: I:\pdata\00000100\10P\WFWIN\EddieT\URBEMIS\URBEMIS2002\Desert Hot Springs.urb
Project Name: Desert Hot Springs Civic center
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	0.12	0.86	0.89	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	12.71	12.47	131.39	0.09	13.88

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	12.84	13.34	132.28	0.09	13.88

URBEMIS 2002 For Windows 7.5.0

File Name: I:\pdata\00000100\10P\WPWIN\Eddiet\URBEMIS\URBEMIS2002\Desert Hot Springs.urb
Project Name: Desert Hot Springs Civic center
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	0.06	0.85	0.34	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	13.15	17.76	136.05	0.07	13.88

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	13.21	18.61	136.39	0.07	13.88

URBEMIS 2002 For Windows 7.5.0

File Name: I:\pdata\00000100\10P\WPWIN\Eddiet\URBEMIS\URBEMIS2002\Desert Hot Springs.urb
Project Name: Desert Hot Springs Civic center
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES					
	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.02	0.16	0.11	0.00	0.00
OPERATIONAL (VEHICLE) EMISSION ESTIMATES					
	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	2.35	2.60	24.26	0.02	2.53
SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES					
	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	2.36	2.75	24.37	0.02	2.53