APPENDICES

Appendix A

Cultural Resources Records Search

CSUB

Center for Archaeological Research
California State University, Bakersfield
9001 Stockdale Highway
Bakersfield, California 93311-1099

661/664-2476
FAX 661/664-2143

March 25, 2004

James Alcorn
Quad Knopf
PO Box 3699
Visalia CA 93278

Re: Cultural Resources Records Search for the Avenal General Plan Update Draft Background Report, for land in various sections of the Avenal, Garza Peak, La Cima, and Kettleman Plain, CA, 7.5' USGS Topographic Quadrangles, on behalf of the City of Avenal, Kings County

Dear Mr. Alcorn:

Per your request, a cultural resources records search (RS No. 04-097; CAR Project No. 04-13) was conducted for the above-referenced project on March 24, 2004, at the Southern San Joaquin Valley Historical Resources Information Center at California State University, Bakersfield, by myself. The purpose of this records search is for the City of Avenal to develop the Avenal General Plan Update Background Report.

The results of the records search indicate that 14 cultural resource studies have been conducted directly on (and around) portions of the subject project area (title pages enclosed). None of these studies reported any cultural resources on or within a half mile of the project area. As the map I received with your request only provided approximate boundaries for the project, those boundaries are approximate for the records search as well. I have included a small-scale map of the project area based on my determination of the boundaries, as well as large-scale topo maps showing all of the cultural studies that have taken place in and around the project area (the cultural studies are highlighted in yellow and the project area boundaries are highlighted in orange). Of necessity, there is some overlap on these maps, but you will be able to tell by the KI numbers where studies are duplicated on more than one map. I attempted to cut and paste it all into one map, but the scale was too small to be able to see the details.

There are no known cultural resources within the subject properties or within a half-mile radius that are listed in the *National Register of Historic Places*, the *California Register of Historical Resources*, *California Points of Interest*, *California Inventory of Historic Resources*, or the *California State Historic Landmarks*.

As noted above, there are no recorded cultural resources within the subject properties, and it is not known if resources exist there. In addition, while previous surveys on or within about a half mile of the project area reported no cultural materials, an absence of data does not necessarily indicate negative data. As such, the possibility remains that resources exist there, and as such, further investigation may be warranted.

The invoice for this records search will follow shortly. If you have any further questions or concerns, please feel free to contact me at 661-664-3297 or by email at jgardner4@csub.edu.

Sincerely,

Jill K. Gardner

Jill K. Gardner
Assistant Director

Enc.

Appendix B

Madia radiata and Layia heterotricha

Layia heterotricha

pale-yellow layia

Element Code: PDAST5N070

Status		NDDB Element Ranks		Other Lists	
Federal:	Species of Concern	**Global:**	G1	**CNPS List:**	1B
State:	None	**State:**	S1.1	**R-E-D Code:**	3-3-3

Habitat Associations

General: PINYON-JUNIPER WOODLAND, VALLEY AND FOOTHILL GRASSLAND. MANY HISTORICAL, EXTIRPATED OCCURRENCES.

Micro: ALKALINE OR CLAY SOILS; OPEN AREAS. 270-1365 (2675)M.

Occurrence No. 13 **Map Index:** 31564 **EO Index:** 2485

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: HOOVER #4810 UC (HERB)

Dates Last Seen
Element: 1941-03-24
Site: 1941-03-24
Record Last Updated: 1995-08-01

Quad Summary: GARZA PEAK (3512082/291B)
County Summary: KINGS

Lat/Long: 35.97299° / -120.15031°
UTM: Zone-10 N3984707 E756956
Mapping Precision: NON-SPECIFIC
Symbol Type: POLYGON
Area: 161.0 ac

Township: 22S
Range: 17E
Section: XX **Qtr:** XX
Meridian: M
Elevation: 900 ft

Location: TAR CANYON ROAD; FOOTHILLS SW OF AVENAL.
Location Detail: MAPPED ALONG RD FROM KETTLEMAN PLAIN TO KREYENHAGEN HILLS.
Ecological:
Threat:
General: NONE.
Owner/Manager: UNKNOWN

Sources

HOO40S13 HOOVER. HOOVER #4282 CAS #671853. 1940-03-23.

HOO41S15 HOOVER, R.F. HOOVER #4810 UC #762531. 1941-03-24.

Madia radiata

showy madia

Element Code: PDAST650E0

Status		NDDB Element Ranks		Other Lists	
Federal:	Species of Concern	**Global:**	G2	**CNPS List:**	1B
State:	None	**State:**	S2.1	**R-E-D Code:**	2-3-3

Habitat Associations

General: VALLEY AND FOOTHILL GRASSLAND, CISMONTANE WOODLAND, CHENOPOD SCRUB.

Micro: MOSTLY ON ADOBE CLAY IN GRASSLAND OR AMONG SHRUBS. 25-1125M.

Occurrence No. 13 **Map Index:** 25133 **EO Index:** 6122

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: HOOVER, R. #4815 UC #762522 (HERB)

Dates Last Seen
Element: 1941-03-24
Site: 1941-03-24
Record Last Updated: 1994-03-02

Quad Summary: GARZA PEAK (3512082/291B)
County Summary: KINGS

Lat/Long: 35.92924° / -120.16690°
UTM: Zone-10 N3979810 E755601
Mapping Precision: NON-SPECIFIC
Symbol Type: POLYGON
Area: 231.5 ac

Township: 23S
Range: 17E
Section: XX **Qtr:** XX
Meridian: M
Elevation: 1,500 ft

Location: TAR CANYON, REEF RIDGE.
Location Detail:
Ecological:
Threat:
General: TWO COLLECTIONS MADE BY HOOVER IN TAR CANYON, BOTH IN THE EARLY 1940'S. NEEDS FIELDWORK.
Owner/Manager: UNKNOWN

Sources

HO040S10 HOOVER, R.F. HOOVER #4278 JEPS #7391 UC #761801. 1940-03-23.

HO041S10 HOOVER, R.F. HOOVER #4815 UC #762522 JEPS #7389. 1941-03-24.

Appendix C

Traffix 7.6 Data

Avenal Circulation Element Update, 99-9500-05 CH 741
Existing AM Peak Hour Conditions

Scenario Report

Scenario:	EXISTING A.M. PEAK
Command:	Default Command
Volume:	EXISTING A.M. PEAK
Geometry:	Default Geometry
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Avenal Circulation Element Update, 99-9500-05 CH 741
Existing AM Peak Hour Conditions

Turning Movement Report

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
01 San Joaquin Street / State Route 33													
Base	0	43	11	14	51	0	0	0	0	25	0	17	161
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	43	11	14	51	0	0	0	0	25	0	17	161
02 State Route 269 / State Route 33													
Base	0	31	0	28	47	0	0	0	0	7	0	23	144
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	31	0	28	47	0	0	0	0	7	0	23	144
03 State Route 33 / Seventh Street													
Base	0	27	15	2	29	0	0	0	0	19	0	6	98
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	27	15	2	29	0	0	0	0	19	0	6	98
04 State Route 269 / Third Street													
Base	0	7	1	10	10	3	0	37	0	1	27	2	98
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	7	1	10	10	3	0	37	0	1	27	2	98
05 State Route 269 / Kings Street													
Base	0	5	4	83	12	0	2	43	0	6	26	113	294
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	5	4	83	12	0	2	43	0	6	26	113	294
06 State Route 269 / Fifth Avenue													
Base	1	3	4	16	8	11	12	105	1	3	119	12	295
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	3	4	16	8	11	12	105	1	3	119	12	295
07 State Route 269 / Seventh Avenue													
Base	30	58	27	20	42	9	3	126	17	45	152	17	546
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	30	58	27	20	42	9	3	126	17	45	152	17	546
08 State Route 269 / San Joaquin Street													
Base	0	0	0	59	0	29	32	92	0	0	164	63	439
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	59	0	29	32	92	0	0	164	63	439

Avenal Circulation Element Update, 55-5580-05 CN 741
Existing AM Peak Hour Conditions

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 San Joaquin Street / State Rou	A	9.1	0.000	A	9.1	0.000	+ 0.000 D/V
# 2 State Route 269 / State Route	A	8.8	0.000	A	8.8	0.000	+ 0.000 D/V
# 3 State Route 33 / Seventh Stree	A	8.9	0.000	A	8.9	0.000	+ 0.000 D/V
# 4 State Route 269 / Third Street	A	9.4	0.000	A	9.4	0.000	+ 0.000 D/V
# 5 State Route 269 / Kings Street	A	9.9	0.000	A	9.9	0.000	+ 0.000 D/V
# 6 State Route 269 / Fifth Avenu	B	10.3	0.000	B	10.3	0.000	+ 0.000 D/V
# 7 State Route 269 / Seventh Aven	B	13.9	0.000	B	13.9	0.000	+ 0.000 D/V
# 8 State Route 269 / San Joaquin	B	11.1	0.000	B	11.1	0.000	+ 0.000 D/V

Avenal Circulation Element Update, 55-5580-05 CN 741
Existing AM Peak Hour Conditions

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

Intersection #1 San Joaquin Street / State Route 33

Average Delay (sec/veh): 3.8 Worst Case Level Of Service: A[9.1]

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	1	1 0 1	0	0	0 0 0	0	0	1 0	0	1
Volume Module:												
Base Vol:	0	43	11	14	51	0	0	0	0	25	0	17
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	43	11	14	51	0	0	0	0	25	0	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
PHF 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
PHF Volume:	0	47	12	15	55	0	0	0	0	27	0	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	47	12	15	55	0	0	0	0	27	0	18
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.5	xxxx	6.3
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.6	xxxx	3.4
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	59	xxxx	xxxxx	xxxx	xxxx	xxxxx	133	xxxx	47
Potent Cap.:	xxxx	xxxx	xxxxx	1588	xxxx	xxxxx	xxxx	xxxx	xxxxx	847	xxxx	1006
Move Cap.:	xxxx	xxxx	xxxxx	1588	xxxx	xxxxx	xxxx	xxxx	xxxxx	841	xxxx	1006
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	0.02
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	0.1
Stopped Del:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.4	xxxx	8.6
LOS by Move:	*	*	*	A	*	*	*	*	*	A	*	A
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			9.1		
ApproachLOS:	*			*			*			A		

Avenal Circulation Element Update, 55-5500-05 CH 741
Existing AM Peak Hour Conditions

Level Of Service Detailed Computation Report
2000 HCM Unsignalized Method
Base Volume Alternative

Intersection #1 San Joaquin Street / State Route 33

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
PercVeh:			0%			0%			0%			0%
Grade:			0%			0%			0%			0%
Peds/Hour:			0			0			0			0
Pedestrian Walk Speed: 4.00 feet/sec												
LaneWidth:			12 feet			12 feet			12 feet			12 feet

Time Period: 0.25 hour

Avenal Circulation Element Update, 55-5500-05 CH 741
Existing AM Peak Hour Conditions

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

Intersection #2 State Route 269 / State Route 33

Average Delay (sec/veh): 3.3 Worst Case Level Of Service: A[8.8]

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	1	0	1	0	0	0	0	1	0	0	0	1	0	0	0	1
Volume Module:																				
Base Vol:	0	31		0		28	47		0		0	0		0		7		0		23
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	31		0		28	47		0		0	0		0		7		0		23
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:	0.92	0.92		0.92		0.92	0.92		0.92		0.92	0.92		0.92		0.92		0.92		0.92
PHF Volume:	0	34		0		30	51		0		0	0		0		8		0		25
Reduct Vol:	0	0		0		0	0		0		0	0		0		0		0		0
Final Vol.:	0	34		0		30	51		0		0	0		0		8		0		25
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx		xxxxx		4.2	xxxx		xxxxx		xxxx	xxxxx				6.5	xxxx			6.3
FollowUpTim:	xxxxx	xxxx		xxxxx		2.3	xxxx		xxxxx		xxxx	xxxxx				3.6	xxxx			3.4
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx		xxxxx		42	xxxx		xxxxx		xxxx	xxxxx				146	xxxx			34
Potent Cap.:	xxxx	xxxx		xxxxx		1529	xxxx		xxxxx		xxxx	xxxxx				828	xxxx			1017
Move Cap.:	xxxx	xxxx		xxxxx		1529	xxxx		xxxxx		xxxx	xxxxx				815	xxxx			1017
Volume/Cap:	xxxx	xxxx		xxxx		0.02	xxxx		xxxx		xxxx	xxxx				0.01	xxxx			0.03
Level Of Service Module:																				
Queue:	xxxxx	xxxx		xxxxx		0.1	xxxx		xxxxx		xxxx	xxxxx				0.0	xxxx			0.1
Stopped Del:	xxxxx	xxxx		xxxxx		7.4	xxxx		xxxxx		xxxx	xxxxx				9.5	xxxx			8.6
LOS by Move:	*	*		*		A	*		*		*	*				A	*			A
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx		0	xxxx		xxxxx		xxxx	xxxx		xxxxx	
SharedQueue:	xxxxx	xxxx		xxxxx		0.1	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shrd StpDel:	xxxxx	xxxx		xxxxx		7.4	xxxx		xxxxx		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shared LOS:	*	*		*		A	*		*		*	*		*		*	*		*	
ApproachDel:	xxxxxx			xxxxxx					xxxxxx							8.8				
ApproachLOS:	*			*					*							A				

Avenal Circulation Element Update, 55-5500-05 CH 741
Existing AM Peak Hour Conditions

Level Of Service Detailed Computation Report
2000 HCM Unsignalized Method
Base Volume Alternative

Intersection #2 State Route 269 / State Route 33

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
MovVeh:		8%			8%			10%			10%	
Grade:		8%			0%			0%			0%	
Peds/Hour:		0			0			0			0	
Pedestrian Walk Speed: 4.00 feet/sec												
LaneWidth:		12 feet			12 feet			12 feet			12 feet	
Time Period: 0.25 hour												

Avenal Circulation Element Update, 55-5500-05 CH 741
Existing AM Peak Hour Conditions

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

Intersection #3 State Route 33 / Seventh Street

Average Delay (sec/veh): 2.4 Worst Case Level Of Service: A[8.9]

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	0	1	0		0	1	0	0	0		0	0	0	0	0		1	0	0	0	1	
Volume Module:																								
Base Vol:	0	27	15				2	29	0				0	0	0				19	0	6			
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	27	15				2	29	0				0	0	0				19	0	6			
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:	0.92	0.92	0.92				0.92	0.92	0.92				0.92	0.92	0.92				0.92	0.92	0.92			
PHF Volume:	0	29	16				2	32	0				0	0	0				21	0	7			
Reduct Vol:	0	0	0				0	0	0				0	0	0				0	0	0			
Final Vol.:	0	29	16				2	32	0				0	0	0				21	0	7			
Critical Gap Module:																								
Critical Gp:	xxxxx	xxxx	xxxxx				4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx							6.5	xxxx	6.3			
FollowUpTim:	xxxxx	xxxx	xxxxx				2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx							3.6	xxxx	3.4			
Capacity Module:																								
Cnflict Vol:	xxxx	xxxx	xxxxx				46	xxxx	xxxxx	xxxx	xxxx	xxxxx							73	xxxx	38			
Potent Cap.:	xxxx	xxxx	xxxxx				1524	xxxx	xxxxx	xxxx	xxxx	xxxxx							916	xxxx	1018			
Move Cap.:	xxxx	xxxx	xxxxx				1524	xxxx	xxxxx	xxxx	xxxx	xxxxx							915	xxxx	1018			
Volume/Cap:	xxxx	xxxx	xxxx				0.00	xxxx	xxxx	xxxx	xxxx	xxxx							0.02	xxxx	0.01			
Level Of Service Module:																								
Queue:	xxxxx	xxxx	xxxxx				0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx							0.1	xxxx	0.0			
Stopped Del:	xxxxx	xxxx	xxxxx				7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx							9.0	xxxx	8.6			
LOS by Move:	*	*	*				A	*	*	*	*	*							A	*	A			
Movement:	LT	- LTR	- RT				LT	- LTR	- RT	LT	- LTR	- RT	LT	- LTR	- RT				LT	- LTR	- RT			
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx				0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shrd StpDel:	xxxxx	xxxx	xxxxx				7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*				A	*	*	*	*	*	*	*	*				*	*	*			
ApproachDel:	xxxxxx						xxxxxx						xxxxxx						8.9					
ApproachLOS:	*						*						*						A					

Avenal Circulation Element Update, 55-5500-05 CN 741
Existing AM Peak Hour Conditions

Level Of Service Detailed Computation Report
2000 HCM Unsignalized Method
Base Volume Alternative

Intersection #3 State Route 33 / Seventh Street

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
HovVeh:	0%			0%			0%			0%		
Grade:	0%			0%			0%			0%		
Peds/Hour:	0			0			0			0		
Pedestrian Walk Speed: 4.00 feet/sec												
LaneWidth:	12 feet			12 feet			12 feet			12 feet		

Time Period: 0.25 hour

Avenal Circulation Element Update, 55-5500-05 CN 741
Existing AM Peak Hour Conditions

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

Intersection #4 State Route 269 / Third Street

Average Delay (sec/veh): 3.8 Worst Case Level Of Service: A[9.4]

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	0	1 0	0	0	1! 0	0	1	0	0	1 0	1	0	0	1 0
Volume Module:																
Base Vol:	0	7	1	10	10	3	0	37	0	1	27	2				
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	7	1	10	10	3	0	37	0	1	27	2				
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92				
PHF Volume:	0	8	1	11	11	3	0	40	0	1	29	2				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Final Vol.:	0	8	1	11	11	3	0	40	0	1	29	2				
Critical Gap Module:																
Critical Gp:	xxxxx	6.6	6.3	7.2	6.6	6.3	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx				
FollowUpTim:	xxxxx	4.1	3.4	3.6	4.1	3.4	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx				
Capacity Module:																
Cnflict Vol:	xxxx	74	40	77	73	30	xxxx	xxxx	xxxxx	40	xxxx	xxxxx				
Potent Cap.:	xxxx	881	1009	893	802	1021	xxxx	xxxx	xxxxx	1519	xxxx	xxxxx				
Move Cap.:	xxxx	881	1009	885	802	1021	xxxx	xxxx	xxxxx	1519	xxxx	xxxxx				
Volume/Cap:	xxxx	0.01	0.00	0.01	0.01	0.00	xxxx	xxxx	xxxx	0.00	xxxx	xxxx				
Level Of Service Module:																
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx				
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx				
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*				
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT						
Shared Cap.:	xxxx	xxxx	922	xxxx	861	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				
SharedQueue:	xxxxx	xxxx	0.0	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shrd StpDel:	xxxxx	xxxx	9.4	xxxxx	9.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	*	*	A	*	A	*	*	*	*	*	*	*				
ApproachDel:	9.4			9.3			xxxxxx			xxxxxx						
ApproachLOS:	A			A			*			*						

Avenal Circulation Element Update, 55-5500-05 CN 741
Existing AM Peak Hour Conditions

Level Of Service Detailed Computation Report
2000 HCM Unsignalized Method
Base Volume Alternative

Intersection #4 State Route 269 / Third Street

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
MovVeh:	10%			10%			10%			10%		
Grade:	0%			0%			0%			0%		
Peds/Hour:	0			0			0			0		
Pedestrian Walk Speed: 4.00 feet/sec												
LaneWidth:	12 feet			12 feet			12 feet			12 feet		
Time Period: 0.25 hour												

Avenal Circulation Element Update, 55-5500-05 CN 741
Existing AM Peak Hour Conditions

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

Intersection #5 State Route 269 / Kings Street

Average Delay (sec/veh): 3.7 Worst Case Level Of Service: A[9.9]

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	1	0	0	1	0	1	0	0	0	1	0	0	1	0	1	0	1	0	1
Volume Module:																				
Base Vol:	0	5	4			83	12	0			2	43	0			6	26	113		
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	5	4			83	12	0			2	43	0			6	26	113		
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:	0.92	0.92	0.92			0.92	0.92	0.92			0.92	0.92	0.92			0.92	0.92	0.92		
PHF Volume:	0	5	4			90	13	0			2	47	0			7	28	123		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Final Vol.:	0	5	4			90	13	0			2	47	0			7	28	123		
Critical Gap Module:																				
Critical Gp:	xxxxx	6.6	6.3			7.2	6.6	xxxxx			4.2	xxxx	xxxxx			4.2	xxxx	xxxxx		
FollowUpTim:	xxxxx	4.1	3.4			3.6	4.1	xxxxx			2.3	xxxx	xxxxx			2.3	xxxx	xxxxx		
Capacity Module:																				
Cnflict Vol:	xxxx	215	47			97	92	xxxxx			151	xxxx	xxxxx			47	xxxx	xxxxx		
Potent Cap.:	xxxx	669	1000			866	783	xxxxx			1382	xxxx	xxxxx			1511	xxxx	xxxxx		
Move Cap.:	xxxx	665	1000			853	778	xxxxx			1382	xxxx	xxxxx			1511	xxxx	xxxxx		
Volume/Cap:	xxxx	0.01	0.00			0.11	0.02	xxxx			0.00	xxxx	xxxx			0.00	xxxx	xxxx		
Level Of Service Module:																				
Queue:	xxxxx	xxxx		0.0		xxxxx	xxxx	xxxxx			0.0	xxxx	xxxxx			0.0	xxxx	xxxxx		
Stopped Del:	xxxxx	xxxx		8.6		xxxxx	xxxx	xxxxx			7.6	xxxx	xxxxx			7.4	xxxx	xxxxx		
LOS by Move:	*	*		A		*	*	*			A	*	*			A	*	*		
Movement:	LT	- LTR	- RT			LT	- LTR	- RT			LT	- LTR	- RT			LT	- LTR	- RT		
Shared Cap.:	665	xxxx	xxxxx			843	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	0.0	xxxx	xxxxx			0.4	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd StpDel:	10.5	xxxx	xxxxx			9.9	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	B	*	*			A	*	*			*	*	*			*	*	*		
ApproachDel:		9.6					9.9					xxxxxx					xxxxxx			
ApproachLOS:		A					A					*					*			

Avenal Circulation Element Update, 55-5500-05 CN 741
Existing AM Peak Hour Conditions

Level Of Service Detailed Computation Report
2000 HCM Unsignalized Method
Base Volume Alternative

Intersection #5 State Route 269 / Kings Street

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
HevVeh:	10%			10%			10%			10%		
Grade:	0%			0%			0%			0%		
Peds/Hour:	0			0			0			0		
Pedestrian Walk Speed: 4.00 feet/sec												
LaneWidth:	12 feet			12 feet			12 feet			12 feet		
Time Period: 0.25 hour												

Avenal Circulation Element Update, 55-5500-05 CN 741
Existing AM Peak Hour Conditions

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

Intersection #6 State Route 269 / Fifth Avenue

Average Delay (sec/veh): 1.9 Worst Case Level Of Service: B[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:	Stop Sign						Stop Sign						Uncontrolled						Uncontrolled					
Rights:	Include						Include						Include						Include					
Lanes:	0	0	1	0	0		0	0	1	0	0		1	0	0	1	0		1	0	0	1	0	
Volume Module:																								
Base Vol:	1		3		4		16		8		11		12		105		1		3		119		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 Bse:	1		3		4		16		8		11		12		105		1		3		119		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	
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	
PHF Volume:	1		3		4		16		8		11		12		105		1		3		119		12	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Final Vol.:	1		3		4		16		8		11		12		105		1		3		119		12	
Critical Gap Module:																								
Critical Gp:	7.2		6.6		6.3		7.2		6.6		6.3		4.2		XXXX		XXXXX		4.2		XXXX		XXXXX	
FollowUpTim:	3.6		4.1		3.4		3.6		4.1		3.4		2.3		XXXX		XXXXX		2.3		XXXX		XXXXX	
Capacity Module:																								
Cnflict Vol:	270		267		106		264		261		125		131		XXXX		XXXXX		106		XXXX		XXXXX	
Potent Cap.:	667		626		928		673		630		905		1406		XXXX		XXXXX		1437		XXXX		XXXXX	
Move Cap.:	647		619		928		662		624		905		1406		XXXX		XXXXX		1437		XXXX		XXXXX	
Volume/Cap:	0.00		0.00		0.00		0.02		0.01		0.01		0.01		XXXX		XXXX		0.00		XXXX		XXXX	
Level Of Service Module:																								
Queue:	XXXXX		XXXX		XXXXX		XXXXX		XXXX		XXXXX		0.0		XXXX		XXXXX		0.0		XXXX		XXXXX	
Stopped Del:	XXXXX		XXXX		XXXXX		XXXXX		XXXX		XXXXX		7.6		XXXX		XXXXX		7.5		XXXX		XXXXX	
LOS by Move:	*		*		*		*		*		*		A		*		*		A		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	XXXX		747		XXXXX		XXXX		712		XXXXX		XXXX		XXXX		XXXXX		XXXX		XXXX		XXXXX	
SharedQueue:	XXXXX		0.0		XXXXX		XXXXX		0.2		XXXXX		XXXXX		XXXX		XXXXX		XXXXX		XXXX		XXXXX	
Shrd StpDel:	XXXXX		9.9		XXXXX		XXXXX		10.3		XXXXX		XXXXX		XXXX		XXXXX		XXXXX		XXXX		XXXXX	
Shared LOS:	*		A		*		*		B		*		*		*		*		*		*		*	
ApproachDel:			9.9						10.3						XXXXXX						XXXXXX			
ApproachLOS:			A						B						*						*			

Avenal Circulation Element Update, 55-5500-05 CH 741
Existing AM Peak Hour Conditions

Level Of Service Detailed Computation Report
2000 HCM Unsignalized Method
Base Volume Alternative

Intersection 06 State Route 269 / Fifth Avenue

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
MovVeh:		10%			10%			10%			10%	
Grade:		0%			0%			0%			0%	
Peds/Hour:		0			0			0			0	
Pedestrian Walk Speed: 4.00 feet/sec												
LaneWidth:		12 feet			12 feet			12 feet			12 feet	
Time Period: 0.25 hour												

Avenal Circulation Element Update, 55-5500-05 CH 741
Existing AM Peak Hour Conditions

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

Intersection 07 State Route 269 / Seventh Avenue

Average Delay (sec/veh): 5.3 Worst Case Level Of Service: B[13.9]

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	0	0		1	0	0	1	0		1	0	0	1	0		1	0	0	1	0	
Volume Module:																								
Base Vol:	30		58		27		20		42		9		3		126		17		45		152		17	
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:	30		58		27		20		42		9		3		126		17		45		152		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	
PHF 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	
PHF Volume:	33		63		29		22		46		10		3		137		18		49		165		18	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Final Vol.:	33		63		29		22		46		10		3		137		18		49		165		18	
Critical Gap Module:																								
Critical Gp:	7.2		6.6		6.3		7.2		6.6		6.3		4.2		XXXX		XXXXX		4.2		XXXX		XXXXX	
FollowUpTim:	3.6		4.1		3.4		3.6		4.1		3.4		2.3		XXXX		XXXXX		2.3		XXXX		XXXXX	
Capacity Module:																								
Cnflict Vol:	453		434		146		471		434		174		184		XXXX		XXXXX		155		XXXX		XXXXX	
Potent Cap.:	506		503		880		490		503		849		1344		XXXX		XXXXX		1377		XXXX		XXXXX	
Move Cap.:	449		484		880		414		484		849		1344		XXXX		XXXXX		1377		XXXX		XXXXX	
Volume/Cap:	0.07		0.13		0.03		0.05		0.09		0.01		0.00		XXXX		XXXX		0.04		XXXX		XXXX	
Level Of Service Module:																								
Queue:	XXXXX		XXXX		XXXXX		0.2		XXXX		XXXXX		0.0		XXXX		XXXXX		0.1		XXXX		XXXXX	
Stopped Del:	XXXXX		XXXX		XXXXX		14.2		XXXX		XXXXX		7.7		XXXX		XXXXX		7.7		XXXX		XXXXX	
LOS by Move:	*		*		*		B		*		*		A		*		*		A		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	XXXX		529		XXXXX		XXXX		XXXX		524		XXXX		XXXX		XXXXX		XXXX		XXXX		XXXXX	
SharedQueue:	XXXXX		0.9		XXXXX		XXXXX		XXXX		0.4		XXXXX		XXXX		XXXXX		XXXXX		XXXX		XXXXX	
Shrd StpDel:	XXXXX		13.9		XXXXX		XXXXX		XXXX		12.7		XXXXX		XXXX		XXXXX		XXXXX		XXXX		XXXXX	
Shared LOS:	*		B		*		*		*		B		*		*		*		*		*		*	
ApproachDel:			13.9						13.1						XXXXXX						XXXXXX			
ApproachLOS:			B						B						*						*			

Avenal Circulation Element Update, 55-5500-05 CN 741
Existing AM Peak Hour Conditions

Level Of Service Detailed Computation Report
2000 HCM Unsignalized Method
Base Volume Alternative

Intersection 07 State Route 269 / Seventh Avenue

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
MovVeh:		10%			10%			10%			10%	
Grade:		0%			0%			0%			0%	
Peds/Hour:		0			0			0			0	
Pedestrian Walk Speed: 4.00 feet/sec												
LaneWidth:		12 feet			12 feet			12 feet			12 feet	

Time Period: 0.25 hour

Avenal Circulation Element Update, 55-5500-05 CN 741
Existing AM Peak Hour Conditions

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

Intersection 08 State Route 269 / San Joaquin Street

Average Delay (sec/veh): 2.8 Worst Case Level Of Service: B[11.1]

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	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	1	0
Volume Module:																				
Base Vol:	0	0	0			59	0	29			32	92	0			0	164	63		
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	0	0			59	0	29			32	92	0			0	164	63		
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:	0.92	0.92	0.92			0.92	0.92	0.92			0.92	0.92	0.92			0.92	0.92	0.92		
PHF Volume:	0	0	0			64	0	32			35	100	0			0	178	68		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Final Vol.:	0	0	0			64	0	32			35	100	0			0	178	68		
Critical Gap Module:																				
Critical Gp:	xxxx	xxxx	xxxxx			6.5	xxxx	6.3			4.2	xxxx	xxxxx			xxxx	xxxx	xxxxx		
FollowUpTim:	xxxx	xxxx	xxxxx			3.6	xxxx	3.4			2.3	xxxx	xxxxx			xxxx	xxxx	xxxxx		
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx			382	xxxx	213			247	xxxx	xxxxx			xxxx	xxxx	xxxxx		
Potent Cap.:	xxxx	xxxx	xxxxx			605	xxxx	808			1274	xxxx	xxxxx			xxxx	xxxx	xxxxx		
Move Cap.:	xxxx	xxxx	xxxxx			592	xxxx	808			1274	xxxx	xxxxx			xxxx	xxxx	xxxxx		
Volume/Cap:	xxxx	xxxx	xxxx			0.11	xxxx	0.04			0.03	xxxx	xxxx			xxxx	xxxx	xxxx		
Level Of Service Module:																				
Queue:	xxxx	xxxx	xxxxx			0.4	xxxx	0.1			0.1	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Stopped Del:	xxxx	xxxx	xxxxx			11.8	xxxx	9.6			7.9	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
LOS by Move:	*	*	*			B	*	A			A	*	*			*	*	*		
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			0.1	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd StpDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			7.9	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*	*	*			*	*	*			A	*	*			*	*	*		
ApproachDel:	xxxxxx					11.1					xxxxxx					xxxxxx				
ApproachLOS:	*					B					*					*				

Avenal Circulation Element Update, 55-5500-05 CN 741
Existing AM Peak Hour Conditions

Level Of Service Detailed Computation Report
2000 HCM Unsignalized Method
Base Volume Alternative

Intersection 08 State Route 269 / San Joaquin Street

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
HevVeh:	10%	10%	10%	10%
Grade:	0%	0%	0%	0%
Peds/Hour:	0	0	0	0

Pedestrian Walk Speed: 4.00 feet/sec

LaneWidth:	12 feet	12 feet	12 feet	12 feet

Time Period: 0.25 hour

TrafFix 7.6.0715 (c) 2003 Dowling Assoc. Licensed to [redacted], [redacted], CA

Avenal Circulation Element Update, 55-5500-05 CH 741
Existing PM Peak Hour Conditions

Scenario Report

Scenario:	EXISTING P.M. PEAK
Command:	Default Command
Volume:	EXISTING P.M. PEAK
Geometry:	Default Geometry
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Paths
Routes:	Default Routes
Configuration:	Default Configuration

Avenal Circulation Element Update, 55-5500-05 CH 741
Existing PM Peak Hour Conditions

Turning Movement Report

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#1 San Joaquin Street / State Route 33													
Base	0	64	11	27	82	0	0	0	0	7	0	17	208
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	64	11	27	82	0	0	0	0	7	0	17	208
#2 State Route 269 / State Route 33													
Base	0	73	34	27	49	0	0	0	0	11	0	31	225
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	73	34	27	49	0	0	0	0	11	0	31	225
#3 State Route 33 / Seventh Street													
Base	0	93	116	7	48	0	0	0	0	15	0	8	287
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	93	116	7	48	0	0	0	0	15	0	8	287
#4 State Route 269 / Third Street													
Base	0	7	6	20	12	7	5	56	0	4	20	5	142
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	7	6	20	12	7	5	56	0	4	20	5	142
#5 State Route 269 / Kings Street													
Base	0	15	10	119	9	5	1	67	9	17	39	188	479
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	15	10	119	9	5	1	67	9	17	39	188	479
#6 State Route 269 / Fifth Avenue													
Base	4	16	15	26	14	36	24	161	4	0	194	37	539
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	4	16	15	26	14	36	24	161	4	0	194	37	539
#7 State Route 269 / Seventh Avenue													
Base	23	21	184	15	19	11	15	144	21	38	188	25	616
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	23	21	184	15	19	11	15	144	21	38	188	25	616
#8 State Route 269 / San Joaquin Street													
Base	0	0	0	74	0	60	82	165	0	0	158	121	660
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	74	0	60	82	165	0	0	158	121	660

Avenal Circulation Element Update, 55-5500-05 CH 741
Existing PM Peak Hour Conditions

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 San Joaquin Street / State Rou	A	9.1	0.000	A	9.1	0.000	+ 0.000 D/V
# 2 State Route 269 / State Route	A	9.1	0.000	A	9.1	0.000	+ 0.000 D/V
# 3 State Route 33 / Seventh Stree	A	9.7	0.000	A	9.7	0.000	+ 0.000 D/V
# 4 State Route 269 / Third Street	A	9.5	0.000	A	9.5	0.000	+ 0.000 D/V
# 5 State Route 269 / Kings Street	B	11.0	0.000	B	11.0	0.000	+ 0.000 D/V
# 6 State Route 269 / Fifth Avenu	B	12.5	0.000	B	12.5	0.000	+ 0.000 D/V
# 7 State Route 269 / Seventh Aven	B	13.5	0.000	B	13.5	0.000	+ 0.000 D/V
# 8 State Route 269 / San Joaquin	B	13.0	0.000	B	13.0	0.000	+ 0.000 D/V

Avenal Circulation Element Update, 55-5500-05 CH 741
Existing PM Peak Hour Conditions

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

Intersection #1 San Joaquin Street / State Route 33

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: A[9.1]

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 1		1 0 1	0 0		0 0 0	0 0		1 0	0 0	1
Volume Module:												
Base Vol:	0	64	11	27	82	0	0	0	0	7	0	17
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	64	11	27	82	0	0	0	0	7	0	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
PHF 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
PHF Volume:	0	70	12	29	89	0	0	0	0	8	0	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	70	12	29	89	0	0	0	0	8	0	18
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.5	xxxx	6.3
FollowUpTim:	xxxxx	xxxx	xxxxx	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.6	xxxx	3.4
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	82	xxxx	xxxxx	xxxx	xxxx	xxxxx	217	xxxx	70
Potent Cap.:	xxxx	xxxx	xxxxx	1479	xxxx	xxxxx	xxxx	xxxx	xxxxx	758	xxxx	977
Move Cap.:	xxxx	xxxx	xxxxx	1479	xxxx	xxxxx	xxxx	xxxx	xxxxx	746	xxxx	977
Volume/Cap:	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	0.02
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	0.1
Stopped Del:	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.9	xxxx	8.8
LOS by Move:	*	*	*	A	*	*	*	*	*	A	*	A
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			9.1		
ApproachLOS:	*			*			*			A		

Avenal Circulation Element Update, 95-5500-05 CN 741
Existing PM Peak Hour Conditions

Level Of Service Detailed Computation Report
2000 HCM Unsignalized Method
Base Volume Alternative

Intersection #1 San Joaquin Street / State Route 33

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
HevVeh:	0%			0%			0%			0%		
Grade:	0%			0%			0%			0%		
Peds/Hour:	0			0			0			0		
Pedestrian Walk Speed: 4.00 feet/sec												
LaneWidth:	12 feet			12 feet			12 feet			12 feet		
Time Period: 0.25 hour												

Avenal Circulation Element Update, 95-5500-05 CN 741
Existing PM Peak Hour Conditions

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

Intersection #2 State Route 269 / State Route 33

Average Delay (sec/veh): 2.6 Worst Case Level Of Service: A(9.1)

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	1	0	1	0	0	0	0	1	0	0	0	1	0	0	0	1
Volume Module:																				
Base Vol:	0		73		34	27		49		0	0		0		0	11		0		31
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		73		34	27		49		0	0		0		0	11		0		31
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:	0.92		0.92		0.92	0.92		0.92		0.92	0.92		0.92		0.92	0.92		0.92		0.92
PHF Volume:	0		79		37	29		53		0	0		0		0	12		0		34
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
Final Vol.:	0		79		37	29		53		0	0		0		0	12		0		34
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx			4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx		6.5	xxxx		6.3				
FollowUpTim:	xxxxx	xxxx	xxxxx			2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx		3.6	xxxx		3.4				
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx			116	xxxx	xxxxx	xxxx	xxxx	xxxxx		191	xxxx		79				
Potent Cap.:	xxxx	xxxx	xxxxx			1436	xxxx	xxxxx	xxxx	xxxx	xxxxx		780	xxxx		959				
Move Cap.:	xxxx	xxxx	xxxxx			1436	xxxx	xxxxx	xxxx	xxxx	xxxxx		767	xxxx		959				
Volume/Cap:	xxxx	xxxx	xxxx			0.02	xxxx	xxxx	xxxx	xxxx	xxxx		0.02	xxxx		0.04				
Level Of Service Module:																				
Queue:	xxxxx	xxxx	xxxxx			0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx		0.0	xxxx		0.1				
Stopped Del:	xxxxx	xxxx	xxxxx			7.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx		9.8	xxxx		8.9				
LOS by Move:	*		*		*	A		*		*	*		*		*	A		*		A
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			0	xxxx	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	xxxx	xxxxx			0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		
Shrd StpDel:	xxxxx	xxxx	xxxxx			7.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		
Shared LOS:	*		*		*	A		*		*	*		*		*	*		*		*
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					9.1				
ApproachLOS:	*					*					*					A				

Avenal Circulation Element Update, 55-5500-05 CN 741
Existing PM Peak Hour Conditions

Level Of Service Detailed Computation Report
2000 HCM Unsignalized Method
Base Volume Alternative

Intersection #2 State Route 269 / State Route 33

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
MovVeh:		8%			8%			10%			10%	
Grade:		0%			0%			0%			0%	
Peds/Hour:		0			0			0			0	
Pedestrian Walk Speed: 4.00 feet/sec												
LaneWidth:		12 feet			12 feet			12 feet			12 feet	
Time Period: 0.25 hour												

Avenal Circulation Element Update, 55-5500-05 CN 741
Existing PM Peak Hour Conditions

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

Intersection #3 State Route 33 / Seventh Street

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: A[9.7]

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					
Rights:	Include						Include						Include						Include					
Lanes:	0	0	0	1	0		0	1	0	0	0		0	0	0	0	0		1	0	0	0	1	
Volume Module:																								
Base Vol:	0		93		116		7		48		0		0		0		0		15		0		8	
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		93		116		7		48		0		0		0		0		15		0		8	
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:	0.92		0.92		0.92		0.92		0.92		0.92		0.92		0.92		0.92		0.92		0.92		0.92	
PHF Volume:	0		101		126		8		52		0		0		0		0		16		0		9	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Final Vol.:	0		101		126		8		52		0		0		0		0		16		0		9	
Critical Gap Module:																								
Critical Gp:	xxxxx	xxxx	xxxxx				4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx							6.5	xxxx	6.3			
FollowUpTim:	xxxxx	xxxx	xxxxx				2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx							3.6	xxxx	3.4			
Capacity Module:																								
Cnflict Vol:	xxxx	xxxx	xxxxx				227	xxxx	xxxxx	xxxx	xxxx	xxxxx							232	xxxx	164			
Potent Cap.:	xxxx	xxxx	xxxxx				1386	xxxx	xxxxx	xxxx	xxxx	xxxxx							744	xxxx	865			
Move Cap.:	xxxx	xxxx	xxxxx				1386	xxxx	xxxxx	xxxx	xxxx	xxxxx							740	xxxx	865			
Volume/Cap:	xxxx	xxxx	xxxx				0.01	xxxx	xxxx	xxxx	xxxx	xxxx							0.02	xxxx	0.01			
Level Of Service Module:																								
Queue:	xxxxx	xxxx	xxxxx				0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx							0.1	xxxx	0.0			
Stopped Del:	xxxxx	xxxx	xxxxx				7.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx							10.0	xxxx	9.2			
LOS by Move:	*	*	*				A	*	*	*	*	*							A	*	A			
Movement:	LT - LTR - RT						LT - LTR - RT						LT - LTR - RT						LT - LTR - RT					
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx				0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shrd StpDel:	xxxxx	xxxx	xxxxx				7.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*				A	*	*	*	*	*	*	*	*				*	*	*			
ApproachDel:	xxxxxx						xxxxxx						xxxxxx						9.7					
ApproachLOS:	*						*						*						A					

Avenal Circulation Element Update, 55-5500-05 CN 741
Existing PM Peak Hour Conditions

Level Of Service Detailed Computation Report
2000 HCM Unsignalized Method
Base Volume Alternative

Intersection #3 State Route 33 / Seventh Street

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
HevVeh:	0%			0%			0%			0%		
Grade:	0%			0%			0%			0%		
Peds/Hour:	0			0			0			0		
Pedestrian Walk Speed: 4.00 feet/sec												
LaneWidth:	12 feet			12 feet			12 feet			12 feet		
Time Period: 0.25 hour												

Avenal Circulation Element Update, 55-5500-05 CN 741
Existing PM Peak Hour Conditions

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

Intersection #4 State Route 269 / Third Street

Average Delay (sec/veh): 3.9 Worst Case Level Of Service: A[9.5]

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	0	1	0		0	0	1!	0	0		1	0	0	1	0		1	0	0	1	0	
Volume Module:																								
Base Vol:	0	7	6	20	12	7	5	56	0	4	20	5												
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	7	6	20	12	7	5	56	0	4	20	5												
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92												
PHF Volume:	0	8	7	22	13	8	5	61	0	4	22	5												
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0												
Final Vol.:	0	8	7	22	13	8	5	61	0	4	22	5												
Critical Gap Module:																								
Critical Gp:	xxxxx	6.6	6.3	7.2	6.6	6.3	4.2	xxxx	xxxxx	4.2	xxxx	xxxxx												
FollowUpTim:	xxxxx	4.1	3.4	3.6	4.1	3.4	2.3	xxxx	xxxxx	2.3	xxxx	xxxxx												
Capacity Module:																								
Cnflict Vol:	xxxx	188	61	113	105	24	27	xxxx	xxxxx	61	xxxx	xxxxx												
Potent Cap.:	xxxx	768	982	847	778	1029	1536	xxxx	xxxxx	1493	xxxx	xxxxx												
Move Cap.:	xxxx	763	982	831	765	1029	1536	xxxx	xxxxx	1493	xxxx	xxxxx												
Volume/Cap:	xxxx	0.01	0.01	0.03	0.02	0.01	0.00	xxxx	xxxx	0.00	xxxx	xxxx												
Level Of Service Module:																								
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx												
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	7.4	xxxx	xxxxx												
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*												
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	850	xxxx	838	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx												
SharedQueue:	xxxxx	xxxx	0.1	xxxxx	0.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx												
Shrd StpDel:	xxxxx	xxxx	9.3	xxxxx	9.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx												
Shared LOS:	*	*	A	*	A	*	*	*	*	*	*	*												
ApproachDel:	9.3			9.5			xxxxxx			xxxxxx														
ApproachLOS:	A			A			*			*														

Avenal Circulation Element Update, 55-5580-05 CH 741
Existing PM Peak Hour Conditions

Level Of Service Detailed Computation Report
2000 HCM Unsignalized Method
Base Volume Alternative

Intersection #4 State Route 269 / Third Street

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
HevVeh:	10%	10%	10%	10%
Grade:	0%	0%	0%	0%
Peds/Hour:	0	0	0	0
Pedestrian Walk Speed: 4.00 feet/sec				
LaneWidth:	12 feet	12 feet	12 feet	12 feet
Time Period: 0.25 hour				

Avenal Circulation Element Update, 55-5580-05 CH 741
Existing PM Peak Hour Conditions

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

Intersection #5 State Route 269 / Kings Street

Average Delay (sec/veh): 3.9 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
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 1	0	0 1	0	0 1!	0 0	1	0	0 1	0	1	0 1
Volume Module:												
Base Vol:	0	15	10	119	9	5	1	67	9	17	39	188
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	15	10	119	9	5	1	67	9	17	39	188
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	16	11	129	10	5	1	73	10	18	42	204
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	16	11	129	10	5	1	73	10	18	42	204
Critical Gap Module:												
Critical Gp:	xxxxx	6.6	6.3	7.2	6.6	6.3	4.2	xxxx	xxxxx	4.2	xxxx	xxxxx
FollowUpTim:	xxxxx	4.1	3.4	3.6	4.1	3.4	2.3	xxxx	xxxxx	2.3	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	364	78	173	164	42	247	xxxx	xxxxx	83	xxxx	xxxxx
Potent Cap.:	xxxx	552	961	773	714	1006	1274	xxxx	xxxxx	1465	xxxx	xxxxx
Move Cap.:	xxxx	544	961	739	704	1006	1274	xxxx	xxxxx	1465	xxxx	xxxxx
Volume/Cap:	xxxx	0.03	0.01	0.18	0.01	0.01	0.00	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	0.0	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	0.0	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx	7.5	xxxx	xxxxx
LOS by Move:	*	*	A	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	544	xxxx	xxxxx	xxxx	744	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.1	xxxx	xxxxx	xxxxx	0.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	11.8	xxxx	xxxxx	xxxxx	11.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	B	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	10.6			11.0			xxxxxx			xxxxxx		
ApproachLOS:	B			B			*			*		

Avenal Circulation Element Update, 99-9500-05 CH 741
Existing PM Peak Hour Conditions

Level Of Service Detailed Computation Report
2000 HCM Unsignalized Method
Base Volume Alternative

Intersection 05 State Route 269 / Kings Street

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
MovVeh:	10%			10%			10%			10%		
Grade:	0%			0%			0%			0%		
Peds/Hour:	0			0			0			0		
Pedestrian Walk Speed: 4.00 feet/sec												
LaneWidth:	12 feet			12 feet			12 feet			12 feet		

Time Period: 0.25 hour

Avenal Circulation Element Update, 99-9500-05 CH 741
Existing PM Peak Hour Conditions

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

Intersection 05 State Route 269 / Fifth Avenue

Average Delay (sec/veh): 3.0 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:	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	0	1	0
Volume Module:																
Base Vol:	4	16	15		26	14	36		24	161	4		8	194	37	
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:	4	16	15		26	14	36		24	161	4		8	194	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	
PHF 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	
PHF Volume:	4	17	16		28	15	39		26	175	4		9	211	40	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Final Vol.:	4	17	16		28	15	39		26	175	4		9	211	40	
Critical Gap Module:																
Critical Gp:	7.2	6.6	6.3		7.2	6.6	6.3		4.2	XXXX	XXXXX		4.2	XXXX	XXXXX	
FollowUpTim:	3.6	4.1	3.4		3.6	4.1	3.4		2.3	XXXX	XXXXX		2.3	XXXX	XXXXX	
Capacity Module:																
Cnflict Vol:	505	498	177		495	480	231		251	XXXX	XXXXX		179	XXXX	XXXXX	
Potent Cap.:	465	463	846		472	474	789		1269	XXXX	XXXXX		1349	XXXX	XXXXX	
Move Cap.:	422	458	846		448	461	789		1269	XXXX	XXXXX		1349	XXXX	XXXXX	
Volume/Cap:	0.01	0.04	0.02		0.06	0.03	0.05		0.02	XXXX	XXXX		0.01	XXXX	XXXX	
Level Of Service Module:																
Queue:	XXXXX	XXXX	XXXXX		XXXXX	XXXX	XXXXX		0.1	XXXX	XXXXX		0.0	XXXX	XXXXX	
Stopped Del:	XXXXX	XXXX	XXXXX		XXXXX	XXXX	XXXXX		7.9	XXXX	XXXXX		7.7	XXXX	XXXXX	
LOS by Move:	*	*	*		*	*	*		A	*	*		A	*	*	
Movement:	LT	LTR	RT		LT	LTR	RT		LT	LTR	RT		LT	LTR	RT	
Shared Cap.:	XXXX	558	XXXXX		XXXX	563	XXXXX		XXXX	XXXX	XXXXX		XXXX	XXXX	XXXXX	
SharedQueue:	XXXXX	0.2	XXXXX		XXXXX	0.5	XXXXX		XXXXX	XXXX	XXXXX		XXXXX	XXXX	XXXXX	
Shrd StpDel:	XXXXX	11.9	XXXXX		XXXXX	12.5	XXXXX		XXXXX	XXXX	XXXXX		XXXXX	XXXX	XXXXX	
Shared LOS:	*	B	*		*	B	*		*	*	*		*	*	*	
ApproachDel:		11.9				12.5				XXXXXX				XXXXXX		
ApproachLOS:		B				B				*				*		

Avenal Circulation Element Update, 55-5500-05 CH 741
Existing PM Peak Hour Conditions

Level Of Service Detailed Computation Report
2000 HCM Unsignalized Method
Base Volume Alternative

Intersection #6 State Route 269 / Fifth Avenue

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
MovVeh:		10%			10%			10%			10%	
Grade:		0%			0%			0%			0%	
Peds/Hour:		0			0			0			0	
Pedestrian Walk Speed: 4.00 feet/sec												
LaneWidth:		12 feet			12 feet			12 feet			12 feet	
Time Period: 0.25 hour												

Avenal Circulation Element Update, 55-5500-05 CH 741
Existing PM Peak Hour Conditions

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

Intersection #7 State Route 269 / Seventh Avenue

Average Delay (sec/veh): 4.6 Worst Case Level Of Service: B[13.5]

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		1	0	0	1	0		1	0	0	1	0		1	0	0	1	0	
Volume Module:																								
Base Vol:	23	21	104				15	19	11				15	144	21				38	180	25			
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:	23	21	104				15	19	11				15	144	21				38	180	25			
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:	0.92	0.92	0.92				0.92	0.92	0.92				0.92	0.92	0.92				0.92	0.92	0.92			
PHF Volume:	25	23	113				16	21	12				16	157	23				41	196	27			
Reduct Vol:	0	0	0				0	0	0				0	0	0				0	0	0			
Final Vol.:	25	23	113				16	21	12				16	157	23				41	196	27			
Critical Gap Module:																								
Critical Gp:	7.2	6.6	6.3				7.2	6.6	6.3				4.2	XXXX	XXXXX				4.2	XXXX	XXXXX			
FollowUpTim:	3.6	4.1	3.4				3.6	4.1	3.4				2.3	XXXX	XXXXX				2.3	XXXX	XXXXX			
Capacity Module:																								
Cnflict Vol:	509	506	168				560	504	209				223	XXXX	XXXXX				179	XXXX	XXXXX			
Potent Cap.:	462	458	856				427	459	811				1308	XXXX	XXXXX				1349	XXXX	XXXXX			
Move Cap.:	425	438	856				344	439	811				1308	XXXX	XXXXX				1349	XXXX	XXXXX			
Volume/Cap:	0.06	0.05	0.13				0.05	0.05	0.01				0.01	XXXX	XXXX				0.03	XXXX	XXXX			
Level Of Service Module:																								
Queue:	XXXXX	XXXX	XXXXX				0.1	XXXX	XXXXX				0.0	XXXX	XXXXX				0.1	XXXX	XXXXX			
Stopped Del:	XXXXX	XXXX	XXXXX				16.0	XXXX	XXXXX				7.8	XXXX	XXXXX				7.8	XXXX	XXXXX			
LOS by Move:	*	*	*				C	*	*				A	*	*				A	*	*			
Movement:	LT	- LTR	- RT				LT	- LTR	- RT				LT	- LTR	- RT				LT	- LTR	- RT			
Shared Cap.:	XXXX	662	XXXXX				XXXX	XXXX	528				XXXX	XXXX	XXXXX				XXXX	XXXX	XXXXX			
SharedQueue:	XXXXX	0.9	XXXXX				XXXXX	XXXX	0.2				XXXXX	XXXX	XXXXX				XXXXX	XXXX	XXXXX			
Shrd StpDel:	XXXXX	12.2	XXXXX				XXXXX	XXXX	12.3				XXXXX	XXXX	XXXXX				XXXXX	XXXX	XXXXX			
Shared LOS:	*	B	*				*	*	B				*	*	*				*	*	*			
ApproachDel:		12.2						13.5						XXXXXX						XXXXXX				
ApproachLOS:		B						B						*						*				

Avenal Circulation Element Update, 98-5500-05 CH 741
Existing PM Peak Hour Conditions

Level Of Service Detailed Computation Report
2000 HCM Unsignalized Method
Base Volume Alternative

Intersection #7 State Route 269 / Seventh Avenue

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
MovVeh:		10%			10%			10%			10%	
Grade:		0%			0%			0%			0%	
Peds/Hour:		0			0			0			0	
Pedestrian Walk Speed: 4.00 feet/sec												
LaneWidth:		12 feet			12 feet			12 feet			12 feet	
Time Period: 0.25 hour												

Avenal Circulation Element Update, 98-5500-05 CH 741
Existing PM Peak Hour Conditions

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

Intersection #8 State Route 269 / San Joaquin Street

Average Delay (sec/veh): 3.7 Worst Case Level Of Service: B[13.8]

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 0 0 0			1 0 0 0 1			0 1 0 0 0			0 0 0 1 0		
Volume Module:												
Base Vol:	0	0	0	74	0	60	82	165	0	0	158	121
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	0	0	74	0	60	82	165	0	0	158	121
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	80	0	65	89	179	0	0	172	132
ReDuct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	80	0	65	89	179	0	0	172	132
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.5	xxxx	6.3	4.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.6	xxxx	3.4	2.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	595	xxxx	238	303	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	454	xxxx	782	1213	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	427	xxxx	782	1213	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.19	xxxx	0.08	0.07	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	0.7	xxxx	0.3	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	15.4	xxxx	10.0	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	C	*	B	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			13.0			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Avenal Circulation Element Update, 55-5500-05 CH 741
Existing PM Peak Hour Conditions

Level Of Service Detailed Computation Report
2000 HCM Unsignalized Method
Base Volume Alternative

Intersection 08 State Route 269 / San Joaquin Street

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
HevVeh:	10%			10%			10%			10%		
Grade:	0%			0%			0%			0%		
Peds/Hour:	0			0			0			0		
Pedestrian Walk Speed: 4.00 feet/sec												
LaneWidth:	12 feet			12 feet			12 feet			12 feet		
Time Period: 0.25 hour												

Traffix 7.6.0715 (c) 2003 Dowling Assoc. Licensed to [redacted], [redacted],CA

Appendix D

References and Persons Contacted

References and Persons Contacted:

- Chris Gerking, Captain. Kings County Fire Department, Personal Communication, March 17, 2004.
- Luiz Florez, Kings County Health Department, Personal Communication, March 18, 2004.
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