

**APPENDICES**

*APPENDIX A*

**Notice of Preparation (NOP) and Comments to NOP**

**APPENDIX B**

Trip Generation No Adjustments

Old Zone	New Zone	Land Use	Units	Size	Daily Rate	Daily Trips	AM Inbound Rate	AM Inbound Trips	AM Outbound Rate	AM Outbound Trips	Total AM Trips	PM Inbound Rate	PM Inbound Trips	PM Outbound Rate	PM Outbound Trips	Total PM Trips
0	17	Special Study	Ac.	387.5	0.00	0	0.00	0	0.00	0	0	0.00	0	0.00	0	0
1	18	Comm. Rec.	Ac.	165.5	0.00	0	0.00	0	0.00	0	0	0.00	0	0.00	0	0
2	14	Single Family	D.U.	908	9.55	8,671	0.19	173	0.55	499	672	0.66	599	0.35	318	917
3																
4	11	Single Family	D.U.	520	9.55	4,966	0.19	99	0.55	286	385	0.66	343	0.35	182	525
4	11	Multi-Family	D.U.	52	6.28	327	0.11	6	0.33	17	23	0.31	16	0.18	9	25
5	10	Multi-Family	D.U.	105	6.28	659	0.11	12	0.33	35	46	0.31	33	0.18	19	51
6	9	Single Family	D.U.	561	9.55	5,358	0.19	107	0.55	309	415	0.66	370	0.35	196	567
7	15	Single Family	D.U.	683	9.55	6,523	0.19	130	0.55	376	505	0.66	451	0.35	239	690
7	12	Multi-Family	D.U.	46	6.28	289	0.11	5	0.33	15	20	0.31	14	0.18	8	23
7	12	Single Family	D.U.	460	9.55	4,393	0.19	87	0.55	253	340	0.66	304	0.35	161	465
8	7, 8	Industrial	KSF	3,814.00	6.97	26,584	0.72	2,752	0.16	604	3,356	0.19	729	0.72	2,742	3,471
8	7, 8	Warehouse	KSF	1,964.60	4.89	9,587	0.41	805	0.16	314	1,120	0.26	511	0.48	943	1,454
9	1,2E	Office	KSF	125.00	11.42	1,428	1.64	205	0.20	25	230	0.23	29	1.28	160	189
9	1,2E	Public Office	KSF	80.00	68.93	5,514	4.94	395	0.94	75	470	8.16	653	2.87	229	882
11	3, 5A	Commercial II	KSF	146.00	46.80	6,833	0.65	95	0.38	55	150	2.20	321	2.20	321	642
12	4	Commercial II	KSF	100.00	46.80	4,680	0.65	65	0.38	38	103	2.20	220	2.20	220	440
13	13	Multi-Family	D.U.	420	6.28	2,638	0.11	46	0.33	139	185	0.31	130	0.18	76	206
13	13	Single Family	D.U.	1,500	9.55	14,325	0.19	285	0.55	825	1,110	0.66	990	0.35	525	1,515
14	4	Office	KSF	100.00	11.42	1,142	1.64	164	0.20	20	184	0.23	23	1.28	128	151
15	1,2E	Multi-Family	D.U.	626	6.28	3,931	0.11	69	0.33	207	275	0.31	194	0.18	113	307
16	1,2E	Commercial II	KSF	285.00	46.80	13,338	0.65	185	0.38	108	294	2.20	627	2.20	627	1,254
17	8	Industrial	KSF	223.50	6.97	1,558	0.72	161	0.16	35	197	0.19	43	0.72	161	203
18	2W	Commercial II	KSF	35.00	46.80	1,638	0.65	23	0.38	13	36	2.20	77	2.20	77	154
19	16	Multi-Family	D.U.	144	6.28	904	0.11	16	0.33	48	63	0.31	45	0.18	26	71
19	16	Single Family	D.U.	250	9.55	2,388	0.19	48	0.55	138	185	0.66	165	0.35	88	253
20																
21	2W	Commercial II	KSF	62.50	46.80	2,925	0.65	41	0.38	24	64	2.20	138	2.20	138	275
22	4	Multi-Family	D.U.	40	6.28	251	0.11	4	0.33	13	18	0.31	12	0.18	7	20
23	5, 5A	Office	KSF	45.00	11.42	514	1.64	74	0.20	9	83	0.23	10	1.28	58	68
24	6	Restaurant	KSF	6.50	96.50	627	0.92	6	0.00	0	6	5.36	35	2.30	15	50
28	12A	Golf Course	Ac.	307.0	8.33	2,557	0.24	74	0.03	9	83	0.08	25	0.31	95	120
29	15A	Open Space	Ac.	100.0	0	0	0.00	0	0.00	0	0	0.00	0	0.00	0	0
						194,547		6,130		4,489	10,619		7,106		7,880	14,986
Total Single-Family Trips					4,882	46,623		928		2,685	3,613		3,222		1,709	4,931
Total Multi-Family Trips					1,433	8,999		158		473	631		444		258	702
Total Residential Trips					6,315	55,622		1,085		3,158	4,243		3,666		1,967	5,633
Total Shopping Trips					942	32,598		488		248	736		1,442		1,493	2,935
Total Office/Industrial Trips					6,352	46,326		4,557		1,083	5,640		1,997		4,421	6,418
Total Non-Residential Trips					7,947	78,925		5,045		1,331	6,376		3,440		5,913	9,353

AMERICAN CANYON GENERAL PLAN CIRCULATION SCENARIO 2

Level Of Service Computation Report 4-Way Stop Method Base Volume Alternative

\*\*\*\*\* Intersection #3 Elliot Road/American Canyon Road \*\*\*\*\*

Cycle (sec): 1 Critical Vol./Cap. (X): 0.207
Loss Time (sec): 6 Average Delay (sec/veh): 1.9
Optimal Cycle: 0 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Lanes.

Volume Module: Table with 12 columns for traffic flows and 10 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module: Table with 12 columns for traffic flows and 4 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 12 columns for traffic flows and 2 rows for Vol/Sat, Crit Moves.

Level Of Service Module: Table with 12 columns for traffic flows and 4 rows for Delay/Veh, Delay Adj, AdjDel/Veh, Queue.

AMERICAN CANYON GENERAL PLAN CIRCULATION SCENARIO 2

Level Of Service Computation Report 4-Way Stop Method Future Volume Alternative

\*\*\*\*\* Intersection #3 Elliot Road/American Canyon Road \*\*\*\*\*

Cycle (sec): 1 Critical Vol./Cap. (X): 1.300
Loss Time (sec): 6 Average Delay (sec/veh): OVERFLOW
Optimal Cycle: 0 Level Of Service: E

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module: Table with 13 columns and 13 rows showing Base Vol, Growth Adj, Initial Bse, Added Vol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module: Table with 13 columns and 4 rows showing Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 13 columns and 2 rows showing Vol/Sat, Crit Moves.

Level Of Service Module: Table with 13 columns and 4 rows showing Delay/Veh, Delay Adj, AdjDel/Veh, Queue.

\*\*\*\*\* XXXXX XXXXX XXXXX XXXXX XXXXX XXXXX XXXXX XXXXX XXXXX \*\*\*\*\*

AMERICAN CANYON GENERAL PLAN CIRCULATION SCENARIO 2

Level Of Service Computation Report 1985 HCM Unsignalized Method Base Volume Alternative

\*\*\*\*\* Intersection #4 James Road/American Canyon Road \*\*\*\*\*

\*\*\*\*\* Level Of Service: A \*\*\*\*\*

Table with columns: Approach, Movement, Control, Rights, Lanes. Rows: North Bound, South Bound, East Bound, West Bound. Sub-headers: L - T - R.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol. Rows: North Bound, South Bound, East Bound, West Bound.

Table with columns: Adjusted Volume Module, Grade, % Cycle/Cars, % Truck/Comb, PCE Adj, Cycl/Car PCE, Trck/Comb PCE, Adj Vol. Rows: North Bound, South Bound, East Bound, West Bound.

Table with columns: Critical Gap Module, RT Rad/Ang, Critical Gp. Rows: North Bound, South Bound, East Bound, West Bound.

Table with columns: Capacity Module, Inflict Vol, Potent Cap., Used Cap., Impedance, Actual Cap. Rows: North Bound, South Bound, East Bound, West Bound.

Table with columns: Level Of Service Module, Unused Cap., LOS by Move, Movement, Shared Cap., Unused Cap., Shared LOS. Rows: North Bound, South Bound, East Bound, West Bound.

AMERICAN CANYON GENERAL PLAN CIRCULATION SCENARIO 2

Level Of Service Computation Report 1985 HCM Unsignalized Method Future Volume Alternative

Intersection #4 James Road/American Canyon Road

Level Of Service:

E

Table with columns: Approach, Movement, Control, Rights, Lanes. Rows: North Bound, South Bound, East Bound, West Bound. Includes details like 'Stop Sign Include' and lane counts.

Volume Module table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol. Rows for North, South, East, West bounds.

Adjusted Volume Module table with columns: Cycle/Cars, Truck/Comb, PCE Adj, Vol/Car PCE, Truck/Comb PCE, Adj Vol. Rows for North, South, East, West bounds.

Critical Gap Module: >> Population: 0 << >> Run Speed(E/W): 30 MPH <<
RT Rad/Ang: 20.0 ft/90.0 deg 20.0 ft/90.0 deg 20.0 ft/90.0 deg 20.0 ft/90.0 deg
Critical Gp: 7.0 6.5 5.5 7.0 6.5 5.5 5.5 XXXX XXXXX 5.5 XXXX XXXXX

Capacity Module table with columns: Conflict Vol, Percent Cap., Used Cap., Impedance, Actual Cap. Rows for North, South, East, West bounds.

Level Of Service Module table with columns: Unused Cap., LOS by Move, Movement, Shared Cap., Unused Cap., Shared LOS. Rows for North, South, East, West bounds.



AMERICAN CANYON GENERAL PLAN CIRCULATION SCENARIO 2

Level of Service Computation Report 1985 HCM Operations Method Base Volume Alternative

original Analy. showed the Base Case LOS D

Intersection #5 State Route 29/American Canyon Road

Cycle (sec): 140 Critical Vol./Cap. (X): 0.607
Loss Time (sec): 15 Average Delay (sec/veh): 20.5
Optimal Cycle: 59 Level of Service: C

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with rows for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table with rows for Sat/Lane, Adjustment, Lanes, and Final Sat. across four approaches.

Capacity Analysis Module table with rows for Vol/Sat, Crit Moves, Green/Cycle, and Volume/Cap. across four approaches.

Level of Service Module table with rows for Delay/Veh, Delay Adj, ProgAdjFctr, AdjDel/Veh, and Queue. across four approaches.

AMERICAN CANYON GENERAL PLAN CIRCULATION SCENARIO 2

Level Of Service Computation Report 1985 HCM Operations Method Future Volume Alternative

Intersection #5 State Route 29/American Canyon Road

Cycle (sec): 140 Critical Vol./Cap. (X): 1.095
Loss Time (sec): 15 Average Delay (sec/veh): 67.1
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 13 columns and 14 rows of traffic volume and adjustment data.

Saturation Flow Module table with 13 columns and 4 rows of saturation flow and adjustment data.

Capacity Analysis Module table with 13 columns and 4 rows of capacity and cycle data.

Level Of Service Module table with 13 columns and 4 rows of delay and queue data.

AMERICAN CANYON GENERAL PLAN CIRCULATION SCENARIO 2

Level Of Service Computation Report 1985 HCM Unsignalized Method Base Volume Alternative

Intersection #6 Broadway/American Canyon

Level Of Service:

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, and Lanes.

Volume Module:

Table with 13 columns for volume calculations. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Vol.

Adjusted Volume Module:

Table with 13 columns for adjusted volume calculations. Rows include Grade, % Cycle/Cars, % Truck/Comb, PCE Adj, Cycl/Car PCE, Trck/Cmb PCE, and Adj Vol.

Table with 13 columns for critical gap calculations. Rows include Critical Gap Module, RT Rad/Ang, and Critical Gp.

Capacity Module:

Table with 13 columns for capacity calculations. Rows include Conflict Vol, Potent Cap., % Used Cap., Impedance, and Actual Cap.

Level Of Service Module:

Table with 13 columns for level of service calculations. Rows include Unused Cap., LOS by Move, Movement, Shared Cap., Unused Cap., and Shared LOS.

AMERICAN CANYON GENERAL PLAN CIRCULATION SCENARIO 2

Level Of Service Computation Report 1985 HCM Unsignalized Method Future Volume Alternative

Intersection #6 Broadway/American Canyon

Level Of Service:

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, and Lanes.

Volume Module:

Table with 12 columns for volume metrics: Base Vol, Growth Adj, Initial Bse, Added Vol, Initial Fut, Jser Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol.

Adjusted Volume Module:

Table with 12 columns for adjusted volume metrics: Grade, Cycle/Cars, Truck/Comb, PCE Adj, Cycl/Car PCE, Truck/Comb PCE, Adj Vol.

Critical Gap Module: Population: 0 Run Speed(E/W): 30 MPH. Critical Gp: 7.0 6.5 5.5 7.0 6.5 5.5 5.5 5.5 5.5

Capacity Module:

Table with 12 columns for capacity metrics: Conflict Vol, Potent Cap., Used Cap., Impedance, Actual Cap.

Level Of Service Module:

Table with 12 columns for level of service metrics: Unused Cap., LOS by Move, Movement, Shared Cap., Unused Cap., Shared LOS.

AMERICAN CANYON GENERAL PLAN CIRCULATION SCENARIO 2

Level of Service Computation Report 1985 HCM Operations Method Base Volume Alternative

Intersection #7 Flodden Road/American Canyon

Cycle (sec): 90 Critical Vol./Cap. (X): 0.671
Loss Time (sec): 12 Average Delay (sec/veh): 16.9
Optimal Cycle: 54 Level of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 13 columns and 13 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 13 columns and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 13 columns and 4 rows including Vol/Sat, Crit Moves, Green/Cycle, and Volume/Cap.

Level of Service Module table with 13 columns and 5 rows including Delay/Veh, Delay Adj, ProgAdjFctr, AdjDel/Veh, and Queue.

AMERICAN CANYON GENERAL PLAN CIRCULATION SCENARIO 2

Level Of Service Computation Report 1985 HCM Operations Method Future Volume Alternative

Intersection #7 Flosden Road/American Canyon

Cycle (sec): 90 Loss Time (sec): 12 Optimal Cycle: 116 Critical Vol./Cap. (X): 0.926 Average Delay (sec/veh): 26.3 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control, Rights, Lin. Green, and Lanes.

Volume Module table with 12 columns for different traffic directions and 10 rows for various volume and adjustment factors.

Saturation Flow Module table with 12 columns for directions and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for directions and 4 rows for Sat, Green/Cycle, and Volume/Cap.

Level Of Service Module table with 12 columns for directions and 5 rows for Delay/Veh, Delay Adj, LogAdjFctr, AdjDel/Veh, and Queue.

AMERICAN CANYON GENERAL PLAN CIRCULATION SCENARIO 2

Level Of Service Computation Report 1985 HCM Operations Method Base Volume Alternative

Intersection #8 State Route 29/Jameson Canyon Road

Cycle (sec): 120 Loss Time (sec): 12 Optimal Cycle: 180 Critical Vol./Cap. (X): 1.407 Average Delay (sec/veh): OVERFLOW Level Of Service: F

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Prot+Permit), Rights (Include), Min. Green (4, 10, 0), and Lanes (1, 0, 2, 0, 1).

Volume Module table with 13 columns and 13 rows including Base Vol., Growth Adj., Initial Bse., User Adj., PHF Adj., PHF Volume, Reduct Vol., Reduced Vol., PCE Adj., MLF Adj., and Final Vol..

Saturation Flow Module table with 13 columns and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat..

Capacity Analysis Module table with 13 columns and 4 rows including Vol/Sat, Crit Moves, Green/Cycle, and Volume/Cap.

Level Of Service Module table with 13 columns and 4 rows including Delay/Veh, Delay Adj, ProgAdjFctr, and AdjDel/Veh.

AMERICAN CANYON GENERAL PLAN CIRCULATION SCENARIO 2

Level Of Service Computation Report 1985 HCM Operations Method Future Volume Alternative

Intersection #8 State Route 29/Jameson Canyon Road

Cycle (sec): 120 Critical Vol./Cap. (X): 8.505
Loss Time (sec): 12 Average Delay (sec/veh): OVERFLOW
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 13 columns and 13 rows including Base Vol, Growth Adj, Initial Base, Added Vol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLEF Adj, and Final Vol.

Saturation Flow Module table with 13 columns and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 13 columns and 4 rows including Vol/Sat, Crit Moves, Green/Cycle, and Volume/Cap.

Level Of Service Module table with 13 columns and 5 rows including Delay/Veh, Delay Adj, ProgAdjFctr, AdjDel/Veh, and Queue.



***APPENDIX C***

**Estimated Daily Emissions  
City of American Canyon Theoretical and Policy Buildout**

**Project Data**

Jurisdiction	Buildout Year
Napa County	2010

Additional Land Uses	Theoretical Size			Policy Size		
	City Limits	Expanded SOI	TOTAL	City Limits	Expanded SOI	TOTAL
Single Family	1,678 d/u	3,204 d/u	4,882 d/u	1,678 d/u	3,204 d/u	4,882 d/u
Multiple Family	967 d/u	466 d/u	1,433 d/u	967 d/u	466 d/u	1,433 d/u
Retail	1,124,500 sq. ft.	0 sq. ft.	1,124,500 sq. ft.	607,500 sq. ft.	0 sq. ft.	607,500 sq. ft.
Office	466,000 sq. ft.	0 sq. ft.	466,000 sq. ft.	270,000 sq. ft.	0 sq. ft.	270,000 sq. ft.
Industrial (mixed)	18,597,089 sq. ft.	6,878,375 sq. ft.	25,475,464 sq. ft.	1,560,195 sq. ft.	4,218,305 sq. ft.	5,778,500 sq. ft.
Civic Facilities	150,000 sq. ft.	0 sq. ft.	150,000 sq. ft.	80,000 sq. ft.	0 sq. ft.	80,000 sq. ft.

Emissions (lbs. per day)		CO	ROG	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>
<b>Non-Stationary Sources (Vehicles)</b>						
Theoretical	City Limits	12,583.26	507.39	841.97	327.34	3,491.66
	Expanded SO	5,977.76	215.1	364.89	144.41	1,540.33
Policy	City Limits	6,219.69	244.55	392.39	151.43	1,615.28
	Expanded SO	5,376.73	191.25	321.35	127.01	1,354.81
<b>Stationary Sources*</b>						
Theoretical	City Limits	173.92	331.9	60.1	3.6	9.8
	Expanded SO	241.3	460.5	83.4	5	13.6
Policy	City Limits	173.92	331.9	60.1	3.6	9.8
	Expanded SO	241.3	460.5	83.4	5	13.6

\* Computed per BAAQMD's Air Quality and Urban Development: Guidelines for Assessing Impacts of Projects and Plans.

Theoretical City Buildout

EMISSIONS OF ALL VEHICLES  
CITY OF AMERICAN CANYON THEORETICAL CITY BUILDOUT

ROG Emissions

LAND USE	SIZE	TRIP GENERATION (per measured unit)	TRIP LENGTH (miles)	EMISSION RATE* (gram/mile)	CORRECTION FACTOR**	POUNDS/DAY
Single Family Residential	1678 d/u	10	6.2	0.3	1.08	74.25
Multiple Family Residential	967 d/u	5.7	6.2	0.3	1.08	24.39
Retail	1124.5 thous. sq. ft.	48	3.7	0.3	1.18	155.72
Office	466 thous. sq. ft.	15	6.2	0.3	1.25	35.80
Industrial	427 acres	64	9.6	0.3	0.96	166.42
Civic Facilities	150 thous. sq. ft.	68.9	6.2	0.3	1.2	50.81
<b>TOTAL</b>						<b>507.39</b>

CO Emissions

LAND USE	SIZE	TRIP GENERATION (per measured unit)	TRIP LENGTH (miles)	EMISSION RATE* (gram/mile)	CORRECTION FACTOR**	POUNDS/DAY
Single Family Residential	1678 d/u	10	6.2	7.72	1.21	2140.58
Multiple Family Residential	967 d/u	5.7	6.2	7.72	1.21	703.14
Retail	1124.5 thous. sq. ft.	48	3.7	7.72	1.01	3429.93
Office	466 thous. sq. ft.	15	6.2	7.72	1.26	928.54
Industrial	427 acres	64	9.6	7.72	0.94	4193.42
Civic Facilities	150 thous. sq. ft.	68.9	6.2	7.72	1.09	1187.65
<b>TOTAL</b>						<b>12583.26</b>

NOx Emissions

LAND USE	SIZE	TRIP GENERATION (per measured unit)	TRIP LENGTH (miles)	EMISSION RATE* (gram/mile)	CORRECTION FACTOR**	POUNDS/DAY
Single Family Residential	1678 d/u	10	6.2	0.73	0.73	122.12
Multiple Family Residential	967 d/u	5.7	6.2	0.73	0.73	40.11
Retail	1124.5 thous. sq. ft.	48	3.7	0.73	0.76	244.05
Office	466 thous. sq. ft.	15	6.2	0.73	0.77	53.64
Industrial	427 acres	64	9.6	0.73	0.72	303.72
Civic Facilities	150 thous. sq. ft.	68.9	6.2	0.73	0.76	78.30
<b>TOTAL</b>						<b>841.97</b>

PM10 Emissions

LAND USE	SIZE	TRIP GENERATION (per measured unit)	TRIP LENGTH (miles)	EMISSION RATE* (gram/mile)	POUNDS/DAY †
Single Family Residential	1678 d/u	10	6.2	2.24	256.65
Multiple Family Residential	967 d/u	5.7	6.2	2.24	84.31
Retail	1124.5 thous. sq. ft.	48	3.7	2.24	492.68
Office	466 thous. sq. ft.	15	6.2	2.24	106.91
Industrial	427 acres	64	9.6	2.24	447.20
Civic Facilities	150 thous. sq. ft.	68.9	6.2	2.24	158.08
<b>TOTAL</b>					<b>1745.83</b>

SOx Emissions

LAND USE	SIZE	TRIP GENERATION (per measured unit)	TRIP LENGTH (miles)	EMISSION RATE* (gram/mile)	POUNDS/DAY
Single Family Residential	1678 d/u	10	6.2	0.21	48.12
Multiple Family Residential	967 d/u	5.7	6.2	0.21	15.81
Retail	1124.5 thous. sq. ft.	48	3.7	0.21	92.38
Office	466 thous. sq. ft.	15	6.2	0.21	20.05
Industrial	427 acres	64	9.6	0.21	121.35
Civic Facilities	150 thous. sq. ft.	68.9	6.2	0.21	29.64
<b>TOTAL</b>					<b>327.34</b>

\* Average speed equals 25 miles per hour.

\*\* Factor is for year 2000, but most recent factor per BAAQMD.

† Rate includes 2.0 grams per mile to reflect dust entrainment from paved roadways (EPA Publication AP-42, Supplement No. 9, 11.2.5-3, 12/77).

‡ Fifty percent of the particulate generation rate used for representation of PM10.

EMISSIONS OF ALL VEHICLES  
CITY OF AMERICAN CANYON THEORETICAL EXPANDED SPHERE OF INFLUENCE BUILDOUT

ROG Emissions

LAND USE	SIZE	TRIP GENERATION (per measured unit)	TRIP LENGTH (miles)	EMISSION RATE* (gram/mile)	CORRECTION FACTOR**	POUNDS/DAY
Single Family Residential	3204 d/u	10	6.2	0.3	1.08	141.77
Multiple Family Residential	466 d/u	5.7	6.2	0.3	1.08	11.75
Retail	0 thou. sq. ft.	48	3.7	0.3	1.18	0.00
Office	0 thou. sq. ft.	15	6.2	0.3	1.25	0.00
Industrial	158 acres	64	9.6	0.3	0.96	61.58
Civic Facilities	0 thou. sq. ft.	68.9	6.2	0.3	1.2	0.00
<b>TOTAL</b>						<b>215.10</b>

CO Emissions

LAND USE	SIZE	TRIP GENERATION (per measured unit)	TRIP LENGTH (miles)	EMISSION RATE* (gram/mile)	CORRECTION FACTOR**	POUNDS/DAY
Single Family Residential	3204 d/u	10	6.2	7.72	1.21	4087.25
Multiple Family Residential	466 d/u	5.7	6.2	7.72	1.21	338.84
Retail	0 thou. sq. ft.	48	3.7	7.72	1.01	0.00
Office	0 thou. sq. ft.	15	6.2	7.72	1.26	0.00
Industrial	158 acres	64	9.6	7.72	0.94	1551.66
Civic Facilities	0 thou. sq. ft.	68.9	6.2	7.72	1.09	0.00
<b>TOTAL</b>						<b>5977.76</b>

NOx Emissions

LAND USE	SIZE	TRIP GENERATION (per measured unit)	TRIP LENGTH (miles)	EMISSION RATE* (gram/mile)	CORRECTION FACTOR**	POUNDS/DAY
Single Family Residential	3204 d/u	10	6.2	0.73	0.73	233.17
Multiple Family Residential	466 d/u	5.7	6.2	0.73	0.73	19.33
Retail	0 thou. sq. ft.	48	3.7	0.73	0.76	0.00
Office	0 thou. sq. ft.	15	6.2	0.73	0.77	0.00
Industrial	158 acres	64	9.6	0.73	0.72	112.38
Civic Facilities	0 thou. sq. ft.	68.9	6.2	0.73	0.76	0.00
<b>TOTAL</b>						<b>364.89</b>

PM10 Emissions

LAND USE	SIZE	TRIP GENERATION (per measured unit)	TRIP LENGTH (miles)	EMISSION RATE* (gram/mile)	POUNDS/DAY†
Single Family Residential	3204 d/u	10	6.2	2.24	490.06
Multiple Family Residential	466 d/u	5.7	6.2	2.24	40.63
Retail	0 thou. sq. ft.	48	3.7	2.24	0.00
Office	0 thou. sq. ft.	15	6.2	2.24	0.00
Industrial	158 acres	64	9.6	2.24	239.48
Civic Facilities	0 thou. sq. ft.	68.9	6.2	2.24	0.00
<b>TOTAL</b>					<b>770.16</b>

SOx Emissions

LAND USE	SIZE	TRIP GENERATION (per measured unit)	TRIP LENGTH (miles)	EMISSION RATE* (gram/mile)	POUNDS/DAY
Single Family Residential	3204 d/u	10	6.2	0.21	91.89
Multiple Family Residential	466 d/u	5.7	6.2	0.21	7.62
Retail	0 thou. sq. ft.	48	3.7	0.21	0.00
Office	0 thou. sq. ft.	15	6.2	0.21	0.00
Industrial	158 acres	64	9.6	0.21	44.90
Civic Facilities	0 thou. sq. ft.	68.9	6.2	0.21	0.00
<b>TOTAL</b>					<b>144.41</b>

\* Average speed equals 25 mile per hour.

\*\* Factor is for year 2000, but most recent factor per BAAQMD.

† Rate includes 2.0 grams per mile to reflect dust entrainment from paved roadways (EPA Publication AP-42, Supplement No. 9, 11.2.5-3, 12/77).

‡ Fifty percent of the particulate generation rate used for representation of PM10.

EMISSIONS OF ALL VEHICLES  
CITY OF AMERICAN CANYON THEORETICAL CITY BUILDOUT

ROG Emissions

LAND USE	SIZE	TRIP GENERATION (per measured unit)	TRIP LENGTH (miles)	EMISSION RATE* (gram/mile)	CORRECTION FACTOR**	POUNDS/DAY
Single Family Residential	1678 d/u	10	6.2	0.3	1.08	74.25
Multiple Family Residential	967 d/u	5.7	6.2	0.3	1.08	24.39
Retail	607.5 thous. sq. ft.	48	3.7	0.3	1.18	84.13
Office	270 thous. sq. ft.	15	6.2	0.3	1.25	20.74
Industrial	35.8 acres	64	9.6	0.3	0.96	13.95
Civic Facilities	80 thous. sq. ft.	68.9	6.2	0.3	1.2	27.10
<b>TOTAL</b>						<b>244.55</b>

CO Emissions

LAND USE	SIZE	TRIP GENERATION (per measured unit)	TRIP LENGTH (miles)	EMISSION RATE* (gram/mile)	CORRECTION FACTOR**	POUNDS/DAY
Single Family Residential	1678 d/u	10	6.2	7.72	1.21	2140.58
Multiple Family Residential	967 d/u	5.7	6.2	7.72	1.21	703.14
Retail	607.5 thous. sq. ft.	48	3.7	7.72	1.01	1852.99
Office	270 thous. sq. ft.	15	6.2	7.72	1.26	538.00
Industrial	35.8 acres	64	9.6	7.72	0.94	351.58
Civic Facilities	80 thous. sq. ft.	68.9	6.2	7.72	1.09	633.42
<b>TOTAL</b>						<b>6219.69</b>

NOx Emissions

LAND USE	SIZE	TRIP GENERATION (per measured unit)	TRIP LENGTH (miles)	EMISSION RATE* (gram/mile)	CORRECTION FACTOR**	POUNDS/DAY
Single Family Residential	1678 d/u	10	6.2	0.73	0.73	122.12
Multiple Family Residential	967 d/u	5.7	6.2	0.73	0.73	40.11
Retail	607.5 thous. sq. ft.	48	3.7	0.73	0.76	131.85
Office	270 thous. sq. ft.	15	6.2	0.73	0.77	31.09
Industrial	35.8 acres	64	9.6	0.73	0.72	25.46
Civic Facilities	80 thous. sq. ft.	68.9	6.2	0.73	0.76	41.76
<b>TOTAL</b>						<b>392.39</b>

PM10 Emissions

LAND USE	SIZE	TRIP GENERATION (per measured unit)	TRIP LENGTH (miles)	EMISSION RATE* (gram/mile)	POUNDS/DAY†
Single Family Residential	1678 d/u	10	6.2	2.24	256.65
Multiple Family Residential	967 d/u	5.7	6.2	2.24	84.31
Retail	607.5 thous. sq. ft.	48	3.7	2.24	266.17
Office	270 thous. sq. ft.	15	6.2	2.24	61.95
Industrial	35.8 acres	64	9.6	2.24	54.26
Civic Facilities	80 thous. sq. ft.	68.9	6.2	2.24	84.21
<b>TOTAL</b>					<b>807.64</b>

SOx Emissions

LAND USE	SIZE	TRIP GENERATION (per measured unit)	TRIP LENGTH (miles)	EMISSION RATE* (gram/mile)	POUNDS/DAY
Single Family Residential	1678 d/u	10	6.2	0.21	48.12
Multiple Family Residential	967 d/u	5.7	6.2	0.21	15.81
Retail	607.5 thous. sq. ft.	48	3.7	0.21	69.91
Office	270 thous. sq. ft.	15	6.2	0.21	11.61
Industrial	35.8 acres	64	9.6	0.21	10.17
Civic Facilities	80 thous. sq. ft.	68.9	6.2	0.21	15.81
<b>TOTAL</b>					<b>151.43</b>

\* Average speed equals 25 miles per hour.

\*\* Factor is for year 2000, but most recent factor per BAAQMD.

† Rate includes 2.0 grams per mile to reflect dust entrainment from paved roadways (EPA Publication AP-42, Supplement No. 9, 11.2.5-3, 12/77).

‡ Fifty percent of the particulate generation rate used for representation of PM10.

EMISSIONS OF ALL VEHICLES  
CITY OF AMERICAN CANYON EXPANDED SPHERE OF INFLUENCE POLICY BUILDOUT

ROG Emissions

LAND USE	SIZE	TRIP GENERATION (per measured unit)	TRIP LENGTH (miles)	EMISSION RATE* (grams/mile)	CORRECTION FACTOR**	POUNDS/DAY
Single Family Residential	3204 d/u	10	6.2	0.3	1.08	141.77
Multiple Family Residential	466 d/u	5.7	6.2	0.3	1.08	11.75
Retail	0 thous. sq. ft.	48	3.7	0.3	1.18	0.00
Office	0 thous. sq. ft.	15	6.2	0.3	1.25	0.00
Industrial	96.8 acres	64	9.6	0.3	0.96	37.73
Civic Facilities	0 thous. sq. ft.	68.9	6.2	0.3	1.2	0.00
<b>TOTAL</b>						<b>191.25</b>

CO Emissions

LAND USE	SIZE	TRIP GENERATION (per measured unit)	TRIP LENGTH (miles)	EMISSION RATE* (grams/mile)	CORRECTION FACTOR**	POUNDS/DAY
Single Family Residential	3204 d/u	10	6.2	7.72	1.21	4087.25
Multiple Family Residential	466 d/u	5.7	6.2	7.72	1.21	338.84
Retail	0 thous. sq. ft.	48	3.7	7.72	1.01	0.00
Office	0 thous. sq. ft.	15	6.2	7.72	1.26	0.00
Industrial	96.8 acres	64	9.6	7.72	0.94	950.64
Civic Facilities	0 thous. sq. ft.	68.9	6.2	7.72	1.09	0.00
<b>TOTAL</b>						<b>5376.73</b>

NOx Emissions

LAND USE	SIZE	TRIP GENERATION (per measured unit)	TRIP LENGTH (miles)	EMISSION RATE* (grams/mile)	CORRECTION FACTOR**	POUNDS/DAY
Single Family Residential	3204 d/u	10	6.2	0.73	0.73	233.17
Multiple Family Residential	466 d/u	5.7	6.2	0.73	0.73	19.33
Retail	0 thous. sq. ft.	48	3.7	0.73	0.76	0.00
Office	0 thous. sq. ft.	15	6.2	0.73	0.77	0.00
Industrial	96.8 acres	64	9.6	0.73	0.72	69.85
Civic Facilities	0 thous. sq. ft.	68.9	6.2	0.73	0.76	0.00
<b>TOTAL</b>						<b>321.35</b>

PM10 Emissions

LAND USE	SIZE	TRIP GENERATION (per measured unit)	TRIP LENGTH (miles)	EMISSION RATE* (grams/mile)	POUNDS/DAY
Single Family Residential	3204 d/u	10	6.2	2.24	490.06
Multiple Family Residential	466 d/u	5.7	6.2	2.24	40.63
Retail	0 thous. sq. ft.	48	3.7	2.24	0.00
Office	0 thous. sq. ft.	15	6.2	2.24	0.00
Industrial	96.8 acres	64	9.6	2.24	144.72
Civic Facilities	0 thous. sq. ft.	68.9	6.2	2.24	0.00
<b>TOTAL</b>					<b>677.40</b>

SOx Emissions

LAND USE	SIZE	TRIP GENERATION (per measured unit)	TRIP LENGTH (miles)	EMISSION RATE* (grams/mile)	POUNDS/DAY
Single Family Residential	3204 d/u	10	6.2	0.21	91.89
Multiple Family Residential	466 d/u	5.7	6.2	0.21	7.62
Retail	0 thous. sq. ft.	48	3.7	0.21	0.00
Office	0 thous. sq. ft.	15	6.2	0.21	0.00
Industrial	96.8 acres	64	9.6	0.21	27.51
Civic Facilities	0 thous. sq. ft.	68.9	6.2	0.21	0.00
<b>TOTAL</b>					<b>127.01</b>

\* Average speed equals 25 miles per hour.

\*\* Factor is for year 2000, but most recent factor per BAAQMD.

† Rate includes 1.0 grams per mile to reflect dust entrainment from paved roadways (EPA Publication AP-42, Supplement No. 9, 11.2.5-3, 12/77).

‡ Fifty percent of the particulate generation rate used for representation of PM10.

**APPENDIX D**  
***(Under Separate Cover)***

**APPENDIX E**