Appendix C Air Quality Data

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URBEMIS 2002 For Windows 7.5.0

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\san bernardino development only.urb
Project Name: San Bernardino General Plan Build-Out
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)	573.56	447.73	218.08	1.18	0.85

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	2,417.74	2,098.11	25,754.25	69.98	12,163.55

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	2,991.30	2,545.83	25,972.32	71.16	12,164.40

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URBEMIS 2002 For Windows 7.5.0

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\san bernardino development only.urb
Project Name: San Bernardino General Plan Build-Out
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)	12,867.55	586.48	13,746.40	21.48	1,858.86

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	2,203.29	3,010.19	23,880.73	62.84	12,163.55

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	15,070.84	3,596.67	37,627.13	84.32	14,022.41

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URBEMIS 2002 For Windows 7.5.0

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\san bernardino development only.urb
Project Name: San Bernardino General Plan Build-Out

Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	32.96	446.86	181.61	-	0.82
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	12,297.46	139.62	13,564.80	21.48	1,858.04
Landscaping - No winter emissions					
Consumer Prdcts	537.13	-	-	-	-
TOTALS(lbs/day,unmitigated)	12,867.55	586.48	13,746.40	21.48	1,858.86

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UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Single family housing	85.90	109.51	899.76	2.39	445.99
Apartments low rise	38.06	47.99	394.31	1.05	195.45
Apartments high rise	9.52	11.79	96.86	0.26	48.01
City park	4.78	6.60	52.29	0.14	26.43
Regnl shop. center	219.35	298.34	2,362.65	6.12	1,190.05
Home improvement supersto	165.27	227.60	1,802.44	4.67	907.88
Strip mall	964.66	1,329.07	10,525.36	27.25	5,301.58
Office park	97.64	134.72	1,066.31	2.89	558.32
Government (civic center)	117.31	161.82	1,281.32	3.35	651.01
General light industry	452.86	620.90	4,914.28	13.36	2,576.26
General heavy industry	47.93	61.85	485.15	1.36	262.56
TOTAL EMISSIONS (lbs/day)	2,203.29	3,010.19	23,880.73	62.84	12,163.55

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2030 Temperature (F): 50 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	7.48 trips / dwelling units	5,900.00	44,132.00
Apartments low rise	5.23 trips / dwelling units	3,698.00	19,340.54
Apartments high rise	3.44 trips / dwelling units	1,381.00	4,750.64
City park	50.00 trips / acres	61.00	3,050.00
Regnl shop. center	12.68 trips / 1000 sq. ft.	11,111.00	140,887.48
Home improvement supersto	37.32 trips / 1000 sq. ft.	2,880.00	107,481.60
Strip mall	40.00 trips / 1000 sq. ft.	15,691.00	627,640.00
Office park	10.51 trips / 1000 sq. ft.	4,509.00	47,389.59
Government (civic center)	30.00 trips / 1000 sq. ft.	2,404.00	72,120.00
General light industry	7.46 trips / 1000 sq. ft.	28,956.00	216,011.76
General heavy industry	1.50 trips / 1000 sq. ft.	11,808.00	17,712.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	52.50	0.00	100.00	0.00
Light Truck < 3,750 lbs	15.90	0.00	100.00	0.00

Light Truck	3,751- 5,750	16.70	0.00	100.00	0.00
Med Truck	5,751- 8,500	7.60	0.00	100.00	0.00
Lite-Heavy	8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy	10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy	14,001-33,000	0.90	0.00	22.20	77.80
Heavy-Heavy	33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000	lbs	0.00	0.00	0.00	100.00
Urban Bus		0.20	0.00	50.00	50.00
Motorcycle		1.50	33.30	66.70	0.00
School Bus		0.10	0.00	0.00	100.00
Motor Home		2.60	0.00	92.30	7.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

City park	5.0	2.5	92.5
Regnl shop. center	2.0	1.0	97.0
Home improvement superstore	2.0	1.0	97.0
Strip mall	2.0	1.0	97.0
Office park	48.0	24.0	28.0
Government (civic center)	10.0	5.0	85.0

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General light industry	50.0	25.0	25.0
General heavy industry	90.0	5.0	5.0

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Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area

The wood stove option switch changed from on to off.
The landscape year changed from 2004 to 2020.

Changes made to the default values for Operations

The operational emission year changed from 2004 to 2030.
The double counting internal work trip limit changed from to 13644.636.
The double counting shopping trip limit changed from to 25242.5766.
The double counting other trip limit changed from to 29335.9674.

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URBEMIS 2002 For Windows 7.5.0

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\san bernardino development only.urb
Project Name: San Bernardino General Plan Build-Out
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT

(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	32.96	446.86	181.61	-	0.82
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	3.47	0.87	36.47	1.18	0.03
Consumer Prdcts	537.13	-	-	-	-
TOTALS(lbs/day,unmitigated)	573.56	447.73	218.08	1.18	0.85

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Single family housing	104.71	76.23	981.70	2.70	445.99
Apartments low rise	51.22	33.41	430.22	1.18	195.45
Apartments high rise	14.85	8.21	105.68	0.29	48.01
City park	4.68	4.61	55.67	0.15	26.43
Regnl shop. center	252.14	208.48	2,504.15	6.81	1,190.05
Home improvement supersto	165.54	159.04	1,910.39	5.19	907.88
Strip mall	961.28	928.74	11,155.75	30.33	5,301.58
Office park	108.77	93.41	1,189.80	3.22	558.32
Government (civic center)	118.70	112.88	1,373.84	3.73	651.01
General light industry	540.07	430.41	5,492.22	14.86	2,576.26
General heavy industry	95.79	42.68	554.82	1.52	262.56
TOTAL EMISSIONS (lbs/day)	2,417.74	2,098.11	25,754.25	69.98	12,163.55

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2030 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	7.48 trips / dwelling units	5,900.00	44,132.00
Apartments low rise	5.23 trips / dwelling units	3,698.00	19,340.54
Apartments high rise	3.44 trips / dwelling units	1,381.00	4,750.64
City park	50.00 trips / acres	61.00	3,050.00
Regnl shop. center	12.68 trips / 1000 sq. ft.	11,111.00	140,887.48
Home improvement supersto	37.32 trips / 1000 sq. ft.	2,880.00	107,481.60
Strip mall	40.00 trips / 1000 sq. ft.	15,691.00	627,640.00
Office park	10.51 trips / 1000 sq. ft.	4,509.00	47,389.59
Government (civic center)	30.00 trips / 1000 sq. ft.	2,404.00	72,120.00
General light industry	7.46 trips / 1000 sq. ft.	28,956.00	216,011.76
General heavy industry	1.50 trips / 1000 sq. ft.	11,808.00	17,712.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	52.50	0.00	100.00	0.00
Light Truck < 3,750 lbs	15.90	0.00	100.00	0.00
Light Truck 3,751- 5,750	16.70	0.00	100.00	0.00
Med Truck 5,751- 8,500	7.60	0.00	100.00	0.00
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30

Med-Heavy 14,001-33,000	0.90	0.00	22.20	77.80
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.50	33.30	66.70	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	2.60	0.00	92.30	7.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

City park	5.0	2.5	92.5
Regnl shop. center	2.0	1.0	97.0
Home improvement superstore	2.0	1.0	97.0
Strip mall	2.0	1.0	97.0
Office park	48.0	24.0	28.0
Government (civic center)	10.0	5.0	85.0

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General light industry	50.0	25.0	25.0
General heavy industry	90.0	5.0	5.0

Page: 10

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area

The wood stove option switch changed from on to off.
The landscape year changed from 2004 to 2020.

Changes made to the default values for Operations

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The double counting internal work trip limit changed from to 13644.636.
The double counting shopping trip limit changed from to 25242.5766.
The double counting other trip limit changed from to 29335.9674.

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Hunts Lane/E Street Existing 2003
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	1.0 M/S	Z0=	175. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	4.4 PPM		
SIGTH=	5. DEGREES	TEMP=	15.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	7	-450	7	-150	AG	2254	6.4	.0	15.0
B. NA	7	-150	7	0	AG	1314	11.3	.0	9.9
C. ND	7	0	7	150	AG	1361	8.5	.0	9.9
D. NE	7	150	7	450	AG	1361	6.4	.0	15.0
E. SF	-5	450	-5	150	AG	445	6.4	.0	19.5
F. SA	-5	150	-5	0	AG	445	10.1	.0	13.5
G. SD	-5	0	-5	-150	AG	570	8.2	.0	13.5
H. SE	-5	-150	-5	-450	AG	570	6.4	.0	19.5
I. WD	0	0	-150	0	AG	1157	16.0	.0	9.9
J. WE	-150	0	-450	0	AG	1157	7.8	.0	6.0
K. EF	-450	-4	-150	-4	AG	389	7.8	.0	10.5
L. EA	-150	-4	0	-4	AG	342	16.0	.0	9.9
M. NL	0	-150	0	0	AG	940	10.5	.0	9.9
N. EL	-150	0	0	0	AG	47	16.0	.0	9.9

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	14	3	1.8
2. SE	14	-8	1.8
3. SW	-14	-8	1.8
4. NW	-14	3	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Hunts Lane/E Street Existing 2003
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE	267.	7.7	.0	.0	.4	.0	.0	.1	.0	.0
2. SE	276.	7.4	.0	.5	.0	.0	.0	.0	.1	.0
3. SW	276.	6.6	.0	.0	.0	.0	.0	.0	.0	.0
4. NW	267.	8.0	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N
1. NE	1.9	.1	.0	.5	.0	.1
2. SE	1.3	.0	.0	.6	.3	.0
3. SW	1.2	.1	.0	.8	.0	.0
4. NW	2.8	.2	.1	.4	.0	.2

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Mountain View/San Bernardino Rd Existing
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	1.0 M/S	Z0=	175. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	4.4 PPM		
SIGTH=	5. DEGREES	TEMP=	15.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	277	6.8	.0	15.0
B. NA	5	-150	5	0	AG	93	14.7	.0	9.9
C. ND	5	0	5	150	AG	54	9.4	.0	9.9
D. NE	5	150	5	450	AG	54	6.8	.0	15.0
E. SF	-5	450	-5	150	AG	132	6.8	.0	15.0
F. SA	-5	150	-5	0	AG	93	14.7	.0	9.9
G. SD	-5	0	-5	-150	AG	681	12.3	.0	9.9
H. SE	-5	-150	-5	-450	AG	681	6.8	.0	15.0
I. WF	450	5	150	5	AG	243	6.8	.0	15.0
J. WA	150	5	0	5	AG	195	9.7	.0	9.9
K. WD	0	5	-150	5	AG	376	8.0	.0	9.9
L. WE	-150	5	-450	5	AG	376	6.8	.0	15.0
M. EF	-450	-5	-150	-5	AG	1283	6.8	.0	15.0
N. EA	-150	-5	0	-5	AG	1265	10.5	.0	9.9
O. ED	0	-5	150	-5	AG	824	8.0	.0	9.9
P. EE	150	-5	450	-5	AG	824	6.8	.0	15.0
Q. NL	0	-150	0	0	AG	184	14.7	.0	9.9
R. SL	0	150	0	0	AG	39	14.7	.0	9.9
S. WL	150	0	0	0	AG	48	9.7	.0	9.9
T. EL	-150	0	0	0	AG	18	9.7	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Tippecanoe Ave/Rialto Ave Existing 2003
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	1.0 M/S	Z0=	175. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	4.4 PPM		
SIGTH=	5. DEGREES	TEMP=	15.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	1211	6.8	.0	15.0
B. NA	5	-150	5	0	AG	1142	10.5	.0	9.9
C. ND	5	0	5	150	AG	1261	8.2	.0	9.9
D. NE	5	150	5	450	AG	1261	6.8	.0	15.0
E. SF	-4	450	-4	150	AG	764	6.8	.0	15.0
F. SA	-4	150	-4	0	AG	764	10.1	.0	9.9
G. SD	-4	0	-4	-150	AG	803	8.0	.0	9.9
H. SE	-4	-150	-4	-450	AG	803	6.8	.0	15.0
I. WD	0	0	-150	0	AG	109	16.0	.0	9.9
J. WE	-150	0	-450	0	AG	109	6.8	.0	6.0
K. EF	-450	-4	-150	-4	AG	198	6.8	.0	10.5
L. EA	-150	-4	0	-4	AG	79	16.0	.0	9.9
M. NL	0	-150	0	0	AG	69	9.7	.0	9.9
N. EL	-150	0	0	0	AG	119	16.0	.0	9.9

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	12	3	1.8
2. SE	12	-8	1.8
3. SW	-10	-8	1.8
4. NW	-10	3	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Mountain View/San Bernardino Rd Existing
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	12	12	1.8
2. SE	12	-12	1.8
3. SW	-12	-12	1.8
4. NW	-12	12	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE	188.	5.4	.0	.2	.0	.0	.0	.0	.3	.0
2. SE	275.	6.2	.0	.0	.0	.0	.0	.0	.2	.0
3. SW	276.	5.9	.0	.0	.0	.0	.0	.0	.0	.0
4. NW	174.	5.9	.0	.0	.0	.0	.0	.0	.8	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE	.0	.0	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0
2. SE	.0	.0	.0	.0	.1	1.1	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.1	1.2	.0	.0	.0	.0	.0	.0
4. NW	.0	.0	.1	.0	.0	.3	.0	.0	.2	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: SR-30 WB ramp/30th St Existing 2003
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	1.0 M/S	Z0=	175. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	4.4 PPM		
SIGTH=	5. DEGREES	TEMP=	15.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	4	-450	4	-150	AG	768	6.8	.0	10.5
B. NA	4	-150	4	0	AG	280	12.3	.0	9.9
C. ND	4	0	4	150	AG	124	8.5	.0	9.9
D. NE	4	150	4	450	AG	124	6.8	.0	10.5
E. SF	-4	450	-4	150	AG	43	6.8	.0	10.5
F. SA	-4	150	-4	0	AG	35	11.7	.0	9.9
G. WF	450	4	150	4	AG	599	6.8	.0	15.0
H. WA	150	4	0	4	AG	599	11.3	.0	9.9
I. WD	0	4	-150	4	AG	1116	8.8	.0	9.9
J. WE	-150	4	-450	4	AG	1116	6.8	.0	15.0
K. EF	-450	-5	-150	-5	AG	356	6.8	.0	15.0
L. EA	-150	-5	0	-5	AG	238	11.3	.0	9.9
M. ED	0	-5	150	-5	AG	526	8.2	.0	9.9
N. EE	150	-5	450	-5	AG	526	6.8	.0	15.0
O. NL	0	-150	0	0	AG	488	12.9	.0	9.9
P. SL	0	150	0	0	AG	8	11.7	.0	9.9
Q. EL	-150	0	0	0	AG	118	11.3	.0	9.9

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	8	10	1.8
2. SE	8	-12	1.8
3. SW	-8	-12	1.8
4. NW	-8	10	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: SR-30 WB ramp/30th St Existing 2003
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE	185.	5.7	.0	.4	.0	.0	.0	.0	.0	.2
2. SE	277.	5.6	.0	.1	.0	.0	.0	.0	.0	.0
3. SW	84.	5.5	.0	.1	.0	.0	.0	.0	.1	.2
4. NW	173.	5.7	.0	.2	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q
1. NE	.0	.0	.0	.0	.1	.0	.5	.0	.0
2. SE	.3	.1	.0	.3	.0	.0	.2	.0	.0
3. SW	.0	.0	.0	.0	.4	.0	.2	.0	.0
4. NW	.4	.0	.0	.0	.0	.0	.5	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Tippecanoe Ave/Rialto Ave Existing 2003
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE	186.	6.0	.1	1.1	.0	.0	.0	.0	.2	.1
2. SE	186.	5.9	.1	1.1	.0	.0	.0	.0	.2	.2
3. SW	6.	5.9	.0	.0	.3	.2	.0	.7	.0	.0
4. NW	173.	5.8	.2	.4	.0	.0	.0	.0	.6	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N
1. NE	.0	.0	.0	.0	.0	.0
2. SE	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0
4. NW	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Waterman Ave/30th Street Existing 2003
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	1.0 M/S	Z0=	175. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	4.4 PPM		
SIGTH=	5. DEGREES	TEMP=	15.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	9	-450	9	-150	AG	717	6.8	.0	24.0
B. NA	7	-150	7	0	AG	524	10.5	.0	13.5
C. ND	7	0	7	150	AG	686	8.0	.0	18.0
D. NE	9	150	9	450	AG	686	6.8	.0	24.0
E. SF	-9	450	-9	150	AG	1659	6.8	.0	24.0
F. SA	-5	150	-5	0	AG	1633	12.9	.0	9.9
G. SD	-5	0	-5	-150	AG	1203	8.2	.0	18.0
H. SE	-9	-150	-9	-450	AG	1203	6.8	.0	24.0
I. WF	450	9	150	9	AG	1190	6.8	.0	24.0
J. WA	150	9	0	9	AG	945	12.9	.0	18.0
K. WD	0	9	-150	9	AG	1724	9.1	.0	18.0
L. WE	-150	9	-450	9	AG	1724	6.8	.0	24.0
M. EF	-450	-9	-150	-9	AG	285	6.8	.0	24.0
N. EA	-150	-7	0	-7	AG	279	12.9	.0	13.5
O. ED	0	-7	150	-7	AG	238	8.8	.0	18.0
P. EE	150	-9	450	-9	AG	238	6.8	.0	24.0
Q. NL	0	-150	0	0	AG	193	10.5	.0	9.9
R. SL	0	150	0	0	AG	26	10.5	.0	9.9
S. WL	150	0	0	0	AG	245	12.9	.0	9.9
T. EL	-150	0	0	0	AG	6	12.9	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Waterman Ave/30th Street Existing 2003
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	16	19	1.8
2. SE	16	-16	1.8
3. SW	-12	-16	1.8
4. NW	-12	19	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE	264.	6.6	.0	.0	.2	.0	.0	.4	.0	.0
2. SE	351.	6.1	.0	.0	.4	.0	.2	.5	.0	.0
3. SW	6.	7.2	.0	.0	.2	.1	.0	1.6	.3	.0
4. NW	98.	6.7	.0	.0	.1	.0	.0	.8	.0	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE	.0	.1	1.1	.2	.0	.0	.0	.0	.0	.0	.0	.0
2. SE	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.3	.0	.0	.1	.0	.0	.0	.0	.0	.0
4. NW	.0	1.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Hunts Lane/E Street Year 2030
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	1.0 M/S	Z0=	175. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	3.6 PPM		
SIGTH=	5. DEGREES	TEMP=	15.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	7	-450	7	-150	AG	1700	.8	.0	15.0
B. NA	7	-150	7	0	AG	1135	1.3	.0	9.9
C. ND	7	0	7	150	AG	1177	1.0	.0	9.9
D. NE	7	150	7	450	AG	1177	.8	.0	15.0
E. SF	-5	450	-5	150	AG	596	.8	.0	19.5
F. SA	-5	150	-5	0	AG	596	1.2	.0	13.5
G. SD	-5	0	-5	-150	AG	1079	1.0	.0	13.5
H. SE	-5	-150	-5	-450	AG	1079	.8	.0	19.5
I. WD	0	0	-150	0	AG	709	1.6	.0	9.9
J. WE	-150	0	-450	0	AG	709	1.0	.0	6.0
K. EF	-450	-4	-150	-4	AG	669	1.0	.0	10.5
L. EA	-150	-4	0	-4	AG	627	1.6	.0	9.9
M. NL	0	-150	0	0	AG	565	1.2	.0	9.9
N. EL	-150	0	0	0	AG	42	1.5	.0	9.9

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	14	3	1.8
2. SE	14	-8	1.8
3. SW	-14	-8	1.8
4. NW	-14	3	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Hunts Lane/E Street Year 2030
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE	267.	3.9	.0	.0	.0	.0	.0	.0	.0	.0
2. SE	274.	3.9	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	275.	3.8	.0	.0	.0	.0	.0	.0	.0	.0
4. NW	172.	3.9	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N
1. NE	.1	.0	.0	.0	.0	.0
2. SE	.0	.0	.0	.1	.0	.0
3. SW	.0	.0	.0	.1	.0	.0
4. NW	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Mountain View/San Bernardino Rd Year 203
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	1.0 M/S	Z0=	175. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	3.6 PPM		
SIGTH=	5. DEGREES	TEMP=	15.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	740	.9	.0	15.0
B. NA	5	-150	5	0	AG	415	1.4	.0	9.9
C. ND	5	0	5	150	AG	268	1.1	.0	9.9
D. NE	5	150	5	450	AG	268	.9	.0	15.0
E. SF	-5	450	-5	150	AG	531	.9	.0	15.0
F. SA	-5	150	-5	0	AG	310	1.4	.0	9.9
G. SD	-5	0	-5	-150	AG	936	1.3	.0	9.9
H. SE	-5	-150	-5	-450	AG	936	.9	.0	15.0
I. WF	450	5	150	5	AG	1119	.9	.0	15.0
J. WA	150	5	0	5	AG	843	1.2	.0	9.9
K. WD	0	5	-150	5	AG	1064	1.0	.0	9.9
L. WE	-150	5	-450	5	AG	1064	.9	.0	15.0
M. EF	-450	-5	-150	-5	AG	1200	.9	.0	15.0
N. EA	-150	-5	0	-5	AG	1177	1.3	.0	9.9
O. ED	0	-5	150	-5	AG	1322	1.1	.0	9.9
P. EE	150	-5	450	-5	AG	1322	.9	.0	15.0
Q. NL	0	-150	0	0	AG	325	1.5	.0	9.9
R. SL	0	150	0	0	AG	221	1.4	.0	9.9
S. WL	150	0	0	0	AG	276	1.2	.0	9.9
T. EL	-150	0	0	0	AG	23	1.2	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Mountain View/San Bernardino Rd Year 203
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	12	12	1.8
2. SE	12	-12	1.8
3. SW	-12	-12	1.8
4. NW	-12	12	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE	187.	3.8	.0	.0	.0	.0	.0	.0	.0	.0
2. SE	276.	3.9	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	84.	3.9	.0	.0	.0	.0	.0	.0	.0	.0
4. NW	174.	3.9	.0	.0	.0	.0	.0	.0	.1	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
4. NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: SR-30 WB ramp/30th St Year 2030
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	1.0 M/S	Z0=	175. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	3.6 PPM		
SIGTH=	5. DEGREES	TEMP=	15.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	4	-450	4	-150	AG	1170	.9	.0	10.5
B. NA	4	-150	4	0	AG	83	1.3	.0	9.9
C. WF	450	4	150	4	AG	477	.9	.0	15.0
D. WA	150	4	0	4	AG	477	1.3	.0	9.9
E. WD	0	4	-150	4	AG	1564	1.3	.0	9.9
F. WE	-150	4	-450	4	AG	1564	.9	.0	15.0
G. EF	-450	-4	-150	-4	AG	644	.9	.0	15.0
H. EA	-150	-4	0	-4	AG	644	1.3	.0	9.9
I. ED	0	-4	150	-4	AG	727	1.1	.0	9.9
J. EE	150	-4	450	-4	AG	727	.9	.0	15.0
K. NL	0	-150	0	0	AG	1087	1.6	.0	9.9

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	8	10	1.8
2. SE	8	-10	1.8
3. SW	-8	-10	1.8
4. NW	-8	10	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: SR-30 WB ramp/30th St Year 2030
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE	264.	3.8	.0	.0	.0	.0	.2	.0	.0	.0
2. SE	276.	3.8	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	84.	3.8	.0	.0	.0	.0	.0	.0	.0	.0
4. NW	174.	3.8	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) I	J	K
1. NE	.0	.0	.0
2. SE	.0	.0	.0
3. SW	.0	.0	.0
4. NW	.0	.0	.1

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Tippecanoe Ave/Rialto Ave Year 2030
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	1.0 M/S	Z0=	175. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	3.6 PPM		
SIGTH=	5. DEGREES	TEMP=	15.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	1079	.9	.0	15.0
B. NA	5	-150	5	0	AG	976	1.2	.0	9.9
C. ND	5	0	5	150	AG	1154	1.0	.0	9.9
D. NE	5	150	5	450	AG	1154	.9	.0	15.0
E. SF	-4	450	-4	150	AG	854	.9	.0	15.0
F. SA	-4	150	-4	0	AG	854	1.2	.0	9.9
G. SD	-4	0	-4	-150	AG	970	1.0	.0	9.9
H. SE	-4	-150	-4	-450	AG	970	.9	.0	15.0
I. WD	0	0	-150	0	AG	156	1.6	.0	9.9
J. WE	-150	0	-450	0	AG	156	.9	.0	6.0
K. EF	-450	-4	-150	-4	AG	347	.9	.0	10.5
L. EA	-150	-4	0	-4	AG	169	1.6	.0	9.9
M. NL	0	-150	0	0	AG	103	1.2	.0	9.9
N. EL	-150	0	0	0	AG	178	1.6	.0	9.9

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	12	3	1.8
2. SE	12	-8	1.8
3. SW	-10	-8	1.8
4. NW	-10	3	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Tippecanoe Ave/Rialto Ave Year 2030
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE	267.	3.8	.0	.0	.0	.0	.0	.0	.0	.0
2. SE	186.	3.8	.0	.1	.0	.0	.0	.0	.0	.0
3. SW	6.	3.8	.0	.0	.0	.0	.0	.0	.0	.0
4. NW	174.	3.8	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N
1. NE	.0	.0	.0	.0	.0	.0
2. SE	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0
4. NW	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Waterman Ave/30th Street Year 2030
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	1.0 M/S	Z0=	175. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	3.6 PPM		
SIGTH=	5. DEGREES	TEMP=	15.0 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	9	-450	9	-150	AG	460	.9	.0	24.0
B. NA	7	-150	7	0	AG	458	1.3	.0	13.5
C. ND	7	0	7	150	AG	1564	1.0	.0	18.0
D. NE	9	150	9	450	AG	1564	.9	.0	24.0
E. SF	-9	450	-9	150	AG	1359	.9	.0	24.0
F. SA	-5	150	-5	0	AG	1276	1.4	.0	9.9
G. SD	-5	0	-5	-150	AG	1234	1.0	.0	18.0
H. SE	-9	-150	-9	-450	AG	1234	.9	.0	24.0
I. WF	450	9	150	9	AG	1195	.9	.0	24.0
J. WA	150	9	0	9	AG	1119	1.4	.0	18.0
K. WD	0	9	-150	9	AG	229	1.1	.0	18.0
L. WE	-150	9	-450	9	AG	229	.9	.0	24.0
M. EF	-450	-9	-150	-9	AG	231	.9	.0	24.0
N. EA	-150	-7	0	-7	AG	192	1.4	.0	13.5
O. ED	0	-7	150	-7	AG	218	1.1	.0	18.0
P. EE	150	-9	450	-9	AG	218	.9	.0	24.0
Q. NL	0	-150	0	0	AG	2	1.3	.0	9.9
R. SL	0	150	0	0	AG	83	1.3	.0	9.9
S. WL	150	0	0	0	AG	76	1.4	.0	9.9
T. EL	-150	0	0	0	AG	39	1.4	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
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JOB: Waterman Ave/30th Street Year 2030
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	16	19	1.8
2. SE	16	-16	1.8
3. SW	-12	-16	1.8
4. NW	-12	19	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE	187.	3.8	.0	.0	.0	.0	.0	.0	.0	.0
2. SE	354.	3.9	.0	.0	.1	.0	.0	.0	.0	.0
3. SW	6.	3.9	.0	.0	.0	.0	.0	.1	.0	.0
4. NW	96.	3.9	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NW	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0