Appendix D
Air Quality Modeling Data

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Torrance General Plan Update
Caline Results
Ambient CO For Source Receptor Area 3

AQMD Projected CO Concentrations

	Year	One Hour	Year	Eight Hour
	2010	7.3	**2010**	6.1
Ambient	**2020**	7.3	**2020**	6.1
	2035	7.3	**2035**	6.1

1 hr/8hr deterioration 70%

8_Anza at Sepulveda	7.6	5.3
23_Crenshaw at 190th	7.6	5.3
31_Crenshaw at Lomita	7.7	5.4
33_Crenshaw at PCH	7.6	5.3
50_Hawthorne at Lomita	7.7	5.4
78_Prairie_Redondo Beach	7.6	5.3
97_Western at Sepulveda	7.6	5.3
		0.0

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

JOB: 8_Anza at Sepulveda
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= 7.3 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	1357	.9	.0	13.2
B. NA	*	9	-150	9	0	* AG	1046	1.3	.0	14.4
C. ND	*	9	0	9	150	* AG	1366	1.1	.0	9.9
D. NE	*	5	150	5	450	* AG	1366	.9	.0	13.2
E. SF	*	-5	450	-5	150	* AG	1344	.9	.0	13.2
F. SA	*	-9	150	-9	0	* AG	1074	1.3	.0	14.4
G. SD	*	-9	0	-9	-150	* AG	1451	1.1	.0	9.9
H. SE	*	-5	-150	-5	-450	* AG	1451	.9	.0	13.2
I. WF	*	450	5	150	5	* AG	1627	.9	.0	13.2
J. WA	*	150	7	0	7	* AG	1353	1.3	.0	10.8
K. WD	*	0	7	-150	7	* AG	1479	1.1	.0	9.9
L. WE	*	-150	5	-450	5	* AG	1479	.9	.0	13.2
M. EF	*	-450	-5	-150	-5	* AG	1429	1.0	.0	13.2
N. EA	*	-150	-9	0	-9	* AG	1256	1.3	.0	14.4
O. ED	*	0	-9	150	-9	* AG	1461	1.1	.0	9.9
P. EE	*	150	-5	450	-5	* AG	1461	1.0	.0	13.2
Q. NL	*	0	-150	0	0	* AG	311	1.3	.0	9.9
R. SL	*	0	150	0	0	* AG	270	1.3	.0	9.9
S. WL	*	150	0	0	0	* AG	274	1.3	.0	9.9
T. EL	*	-150	0	0	0	* AG	173	1.3	.0	9.9

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

JOB: 8_Anza at Sepulveda
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	19	16	1.8
2. SE	19	-19	1.8
3. SW	-19	-19	1.8
4. NW	-19	16	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	263.	7.6	.0	.0	.0	.0	.0	.0	.0	.0
2. SE	276.	7.6	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	76.	7.6	.0	.0	.0	.0	.0	.0	.0	.0
4. NW	96.	7.6	.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	.1	.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	.0	.0	.0	.0	.0	.0
4. NW	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

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

               JOB: 23_Crenshaw at 190th
               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=  7.3 PPM
     SIGTH=    5. DEGREES         TEMP= 15.0 DEGREE (C)


  II.  LINK VARIABLES

      LINK       *  LINK COORDINATES (M)   *                EF     H     W
   DESCRIPTION   *   X1    Y1    X2    Y2   * TYPE  VPH   (G/MI)  (M)   (M)
----------------*-------------------------*-------------------------------
A. NF           *    7  -450     7  -150 *  AG   2262    .9     .0  16.8
B. NA           *   11  -150    11     0 *  AG   2018   1.2     .0  18.0
C. ND           *   11     0    11   150 *  AG   2466   1.0     .0  10.8
D. NE           *    7   150     7   450 *  AG   2466    .9     .0  16.8
E. SF           *   -7   450    -7   150 *  AG   2295    .8     .0  16.8
F. SA           *  -11   150   -11     0 *  AG   2163   1.2     .0  18.0
G. SD           *  -11     0   -11  -150 *  AG   2031   1.0     .0  10.8
H. SE           *   -7  -150    -7  -450 *  AG   2031    .8     .0  16.8
I. WF           *  450     9   150     9 *  AG   1258    .8     .0  16.8
J. WA           *  150    13     0    13 *  AG   1091   1.3     .0  18.0
K. WD           *    0    13  -150    13 *  AG   1717   1.1     .0  10.8
L. WE           * -150     9  -450     9 *  AG   1717    .8     .0  16.8
M. EF           * -450    -7  -150    -7 *  AG   1862    .8     .0  13.2
N. EA           * -150   -13     0   -13 *  AG   1289   1.3     .0  18.0
O. ED           *    0   -13   150   -13 *  AG   1463   1.3     .0   9.9
P. EE           *  150    -7   450    -7 *  AG   1463    .8     .0  13.2
Q. NL           *    0  -150     0     0 *  AG    244   1.2     .0   9.9
R. SL           *    0   150     0     0 *  AG    132   1.2     .0   9.9
S. WL           *  150     0     0     0 *  AG    167   1.3     .0   9.9
T. EL           * -150     0     0     0 *  AG    573   1.3     .0   9.9


          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
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JOB: 23_Crenshaw at 190th
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	23	25	1.8
2. SE	23	-25	1.8
3. SW	-23	-25	1.8
4. NW	-23	25	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	255.	7.6	.0	.0	.0	.0	.0	.0	.0	.0
2. SE	344.	7.6	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	6.	7.6	.0	.0	.0	.0	.0	.1	.0	.0
4. NW	164.	7.6	.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	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

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

               JOB: 31_Crenshaw at Lomita
               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=  7.3 PPM
     SIGTH=    5. DEGREES       TEMP= 15.0 DEGREE (C)


  II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*-------------------------------
A. NF           *    7  -450     7  -150 *  AG   2244    .8     .0  16.8
B. NA           *   11  -150    11     0 *  AG   2124   1.2     .0  18.0
C. ND           *   11     0    11   150 *  AG   2111   1.0     .0  10.8
D. NE           *    7   150     7   450 *  AG   2111    .8     .0  16.8
E. SF           *   -7   450    -7   150 *  AG   2411    .8     .0  16.8
F. SA           *  -11   150   -11     0 *  AG   2027   1.2     .0  18.0
G. SD           *  -11     0   -11  -150 *  AG   2405   1.0     .0  10.8
H. SE           *   -7  -150    -7  -450 *  AG   2405    .8     .0  16.8
I. WF           *  450     7   150     7 *  AG   1508    .8     .0  13.2
J. WA           *  150    13     0    13 *  AG   1004   1.3     .0  18.0
K. WD           *    0    13  -150    13 *  AG   1126   1.1     .0   9.9
L. WE           * -150     7  -450     7 *  AG   1126    .8     .0  13.2
M. EF           * -450    -7  -150    -7 *  AG   1793    .9     .0  13.2
N. EA           * -150   -13     0   -13 *  AG   1074   1.3     .0  18.0
O. ED           *    0   -13   150   -13 *  AG   2314   1.7     .0   9.9
P. EE           *  150    -7   450    -7 *  AG   2314    .9     .0  13.2
Q. NL           *    0  -150     0     0 *  AG    120   1.2     .0   9.9
R. SL           *    0   150     0     0 *  AG    384   1.2     .0   9.9
S. WL           *  150     0     0     0 *  AG    504   1.3     .0   9.9
T. EL           * -150     0     0     0 *  AG    719   1.4     .0   9.9


          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
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JOB: 31_Crenshaw at Lomita
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	23	25	1.8
2. SE	23	-25	1.8
3. SW	-23	-25	1.8
4. NW	-23	25	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	186.	7.6	.0	.1	.0	.0	.0	.0	.0	.0
2. SE	344.	7.7	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	79.	7.7	.0	.0	.0	.0	.0	.0	.0	.0
4. NW	164.	7.6	.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	.1	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
4. NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

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

              JOB: 33_Crenshaw at PCH
              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=  7.3 PPM
     SIGTH=    5. DEGREES         TEMP= 15.0 DEGREE (C)


  II.  LINK VARIABLES

       LINK       *  LINK COORDINATES (M)   *              EF     H     W
    DESCRIPTION   *   X1    Y1    X2    Y2   * TYPE  VPH  (G/MI)  (M)   (M)
-----------------*-------------------------*-------------------------------
A. NF            *    7  -450     7  -150 *  AG   1371    .8     .0  16.8
B. NA            *   11  -150    11     0 *  AG   1292   1.3     .0  18.0
C. ND            *   11     0    11   150 *  AG   1246    .9     .0  10.8
D. NE            *    7   150     7   450 *  AG   1246    .8     .0  16.8
E. SF            *   -7   450    -7   150 *  AG   1901    .8     .0  16.8
F. SA            *   -9   150    -9     0 *  AG   1164   1.3     .0  14.4
G. SD            *   -9     0    -9  -150 *  AG   1511   1.0     .0  10.8
H. SE            *   -7  -150    -7  -450 *  AG   1511    .8     .0  16.8
I. WF            *  450     7   150     7 *  AG   1779    .8     .0  13.2
J. WA            *  150    11     0    11 *  AG   1369   1.3     .0  14.4
K. WD            *    0    11  -150    11 *  AG   1570    .9     .0  10.8
L. WE            * -150     7  -450     7 *  AG   1570    .8     .0  16.8
M. EF            * -450    -9  -150    -9 *  AG   1606    .8     .0  16.8
N. EA            * -150   -13     0   -13 *  AG   1214   1.2     .0  18.0
O. ED            *    0   -13   150   -13 *  AG   2330   1.2     .0  10.8
P. EE            *  150    -9   450    -9 *  AG   2330    .8     .0  16.8
Q. NL            *    0  -150     0     0 *  AG     79   1.3     .0   9.9
R. SL            *    0   150     0     0 *  AG    737   1.5     .0   9.9
S. WL            *  150     0     0     0 *  AG    410   1.2     .0   9.9
T. EL            * -150     0     0     0 *  AG    392   1.2     .0   9.9


          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
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JOB: 33_Crenshaw at PCH
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	23	21	1.8
2. SE	23	-25	1.8
3. SW	-19	-25	1.8
4. NW	-19	21	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.	7.6	.0	.1	.0	.0	.0	.0	.0	.0
2. SE	346.	7.6	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	75.	7.6	.0	.0	.0	.0	.0	.0	.0	.0
4. NW	97.	7.6	.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	.1	.0	.0	.0	.0	.0
4. NW	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

Title: LA-2035
Version Emfac2007, V2.3 1-Nov-06
Run Date: 6/18/2009 14:07:43
Scenario Year: 2035 - All model years in the range 1991 to 2035 selected
Season: Winter
Area: Los Angeles
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County Average: Los Angeles County Average

Table 1:00: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 70%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
0	0	0	24.27	47.473	0	0	6.217
5	0.859	1.458	1.851	5.189	8.984	23.713	1.59
10	0.782	1.326	1.61	3.314	5.851	20.174	1.341
15	0.715	1.21	1.426	2.14	4.036	17.81	1.161
20	0.655	1.108	1.28	1.554	2.949	16.281	1.034
25	0.602	1.018	1.161	1.331	2.281	15.405	0.943
30	0.555	0.938	1.061	1.187	1.868	15.103	0.87
35	0.513	0.866	0.976	1.1	1.62	15.386	0.812
40	0.475	0.803	0.904	1.056	1.486	16.35	0.766
45	0.442	0.747	0.843	1.049	1.444	18.213	0.733
50	0.412	0.696	0.79	1.076	1.484	21.372	0.715

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

               JOB: 50_Hawthorne at Lomita
               RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide
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I. SITE VARIABLES

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         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=  7.3 PPM
     SIGTH=    5. DEGREES         TEMP= 15.0 DEGREE (C)
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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	2496	.8	.0	20.4
B.	NA	*	11	-150	11	0	* AG	2278	1.2	.0	18.0
C.	ND	*	11	0	11	150	* AG	2975	.9	.0	14.4
D.	NE	*	9	150	9	450	* AG	2975	.8	.0	20.4
E.	SF	*	-9	450	-9	150	* AG	2476	.8	.0	16.8
F.	SA	*	-13	150	-13	0	* AG	2024	1.1	.0	18.0
G.	SD	*	-13	0	-13	-150	* AG	2310	.9	.0	10.8
H.	SE	*	-9	-150	-9	-450	* AG	2310	.8	.0	16.8
I.	WF	*	450	5	150	5	* AG	1689	.8	.0	13.2
J.	WA	*	150	7	0	7	* AG	1408	1.7	.0	10.8
K.	WD	*	0	7	-150	7	* AG	1041	1.2	.0	9.9
L.	WE	*	-150	5	-450	5	* AG	1041	.8	.0	13.2
M.	EF	*	-450	-5	-150	-5	* AG	755	.8	.0	13.2
N.	EA	*	-150	-9	0	-9	* AG	644	1.4	.0	14.4
O.	ED	*	0	-9	150	-9	* AG	1090	1.2	.0	9.9
P.	EE	*	150	-5	450	-5	* AG	1090	.8	.0	13.2
Q.	NL	*	0	-150	0	0	* AG	218	1.1	.0	9.9
R.	SL	*	0	150	0	0	* AG	452	1.1	.0	9.9
S.	WL	*	150	0	0	0	* AG	281	1.4	.0	9.9
T.	EL	*	-150	0	0	0	* AG	111	1.4	.0	9.9

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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   2
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JOB: 50_Hawthorne at Lomita
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	23	16	1.8
2. SE	23	-19	1.8
3. SW	-25	-19	1.8
4. NW	-25	16	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.	7.7	.0	.2	.0	.0	.0	.0	.0	.0
2. SE	346.	7.6	.0	.0	.1	.0	.0	.0	.0	.0
3. SW	78.	7.6	.0	.0	.0	.0	.0	.0	.0	.0
4. NW	97.	7.7	.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	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

Project: **Torrance General Plan Update**

% COLD START

PROJ *	30%
NO PROJ	30%

% HOT START

PROJ	30%
NO PROJ	30%

*COMPOSITE BASED ON TABLE B.6 of the Caltrans Transportation Project-Level Carbon Monoxide Protocol.

Traffic data: Traffic Volumes and roadway configurations based on Traffic Study provided by RBF Consulting, April 2009. Traffic Speeds based on the City of Torrance Municipal Code (Article 10)

Intersection: 8_Anza at Sepulveda — 6

Peak Hour: **PM**

Year: **2035**

Speed Limit	N/W	S/E	
Anza	35	30	mph
Sepulveda	40	40	mph

Scenario: **W Project**

North Link			South - Link			West - Link			East - Link			
LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	TOTAL
311	864	182	270	930	144	274	1024	329	173	1009	247	5,757

Intersection: 23_Crenshaw at 190th — 4

Peak Hour: **PM**

Year: **2035**

Speed Limit	N/W	S/E	
Crenshaw	40	45	mph
190th	45	45	mph

Scenario: **W Project**

North Link			South - Link			West - Link			East - Link			
LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	TOTAL
244	1821	197	132	1709	454	167	1019	72	573	1134	155	7,677

Intersection: 31_Crenshaw at Lomita — 8

Peak Hour: **PM**

Year: **2035**

Speed Limit	N/W	S/E	
Crenshaw	45	45	mph
Lomita	45	40	mph

Scenario: **W Project**

North Link			South - Link			West - Link			East - Link			
LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	TOTAL
120	1143	981	384	1776	251	504	755	249	719	949	125	7,956

Intersection: 33_Crenshaw at PCH — 10

Peak Hour: **PM**

Year: **2035**

Speed Limit	N/W	S/E	
Crenshaw	45	45	mph
PCH	45	45	mph

Scenario: **W Project**

North Link			South - Link			West - Link			East - Link			
LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	TOTAL
79	836	456	737	1024	140	410	1351	18	392	1137	77	6,657

Project: **Torrance General Plan Update**

% COLD START

PROJ *	30%
NO PROJ	30%

% HOT START

PROJ	30%
NO PROJ	30%

*COMPOSITE BASED ON TABLE B.6 of the Caltrans Transportation Project-Level Carbon Monoxide Protocol.

Traffic data: Traffic Volumes and roadway configurations based on Traffic Study provided by RBF Consulting, April 2009. Traffic Speeds based on the City of Torrance Municipal Code (Article 10)

Intersection: 50_Hawthorne at Lomita 9

Peak Hour: **PM**

Year: **2035**

Scenario: **W Project**

Speed Limit	N/W	S/E	
Hawthorne	45	45	mph
Crenshaw	45	45	mph

North Link			South - Link			West - Link			East - Link			
LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	TOTAL
218	2156	122	452	1901	123	281	700	708	111	516	128	7,416

Intersection: 78_Prairie_Redondo Beach 1

Peak Hour: **PM**

Year: **2035**

Scenario: **W Project**

Speed Limit	N/W	S/E	
Prairie	35	35	mph
Redodo Beach	40	40	mph

North Link			South - Link			West - Link			East - Link			
LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	TOTAL
349	892	298	430	841	116	194	788	163	301	832	347	5,551

Intersection: 97_Western at Sepulveda 8

Peak Hour: **PM**

Year: **2035**

Scenario: **W Project**

Speed Limit	N/W	S/E	
Western	40	40	mph
Sepulveda	40	40	mph

North Link			South - Link			West - Link			East - Link			
LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	LT	THRU	RT	TOTAL
196	1,014	474	207	1,410	234	351	1,308	210	294	1,522	143	7,363

Torrance General Plan Update

Adjusted Speeds and Emission Factors for use with the Caline4 CO model

ADJUSTED VEHICLE SPEEDS AND EMISSION FACTORS

Lane width (feet) 12

Intersection:	8_Anza at Sepulveda								
Scenario:	W/O Project	NB		SB		WB		EB	Total
Approach	Thru + Right	1,046		1,074		1,353		1,256	4,729
Volumes	Left	311		270		274		173	1,028
	Total	1,357		1,344		1,627		1,429	5,757
Departure Volumes		1366		1451		1479		1461	5757
Lanes (Free Flow Approach)		2		2		2		2	
Lanes (Approach)		4		4		3		4	
Lanes (left)		1		1		1		1	
Lanes (Departure)		2		2		2		2	
Lanes (Free Flow Departure)		2		2		2		2	
		Red_time	C_Speed	Red_time	C_Speed	Red_time	C_Speed	Red_time	C_Speed
		53%	31	53%	31	47%	28	47%	24
Volumes per Lane									
Approach		300		300		500		300	
Approach (left)		300		300		300		200	
Departure		700		700		700		700	
Speeds									
Index Number		1001		1001		812		568	
Approach Adjusted Speed		10		10		10		11	
Approach Adjusted Speed (left)		10		10		11		12	
Cruise Speed		31		31		28		24	
Departure Adjusted Speed		16		16		19		17	
Emission Factors									
Approach Emission Factor		1.34		1.34		1.34		1.31	
Approach Emission Factor (left)		1.34		1.34		1.31		1.27	
Cruise Speed		0.86		0.86		0.90		0.96	
Departure Emission Factor		1.14		1.14		1.06		1.11	

Intersection:	23_Crenshaw at 190th								
Scenario:	W/O Project	NB		SB		WB		EB	Total
Approach	Thru + Right	2,018		2,163		1,091		1,289	6,561
Volumes	Left	244		132		167		573	1,116
	Total	2,262		2,295		1,258		1,862	7,677
Departure Volumes		2466		2031		1717		1463	7677
Lanes (Free Flow Approach)		3		3		3		2	
Lanes (Approach)		5		5		5		5	
Lanes (left)		1		1		2		2	
Lanes (Departure)		3		3		3		2	
Lanes (Free Flow Departure)		3		3		3		2	
		Red_time	C_Speed	Red_time	C_Speed	Red_time	C_Speed	Red_time	C_Speed
		41%	31	41%	33	59%	33	59%	33
Volumes per Lane									
Approach		400		400		200		300	
Approach (left)		200		200		200		300	
Departure		800		700		600		700	
Speeds									
Index Number		989		1111		1129		1129	
Approach Adjusted Speed		13		13		10		10	
Approach Adjusted Speed (left)		14		15		10		10	
Cruise Speed		31		33		33		33	
Departure Adjusted Speed		21		24		17		11	
Emission Factors									
Approach Emission Factor		1.23		1.23		1.34		1.34	
Approach Emission Factor (left)		1.20		1.16		1.34		1.34	
Cruise Speed		0.86		0.84		0.84		0.84	
Departure Emission Factor		1.02		0.96		1.11		1.31	

Torrance General Plan Update

Adjusted Speeds and Emission Factors for use with the Caline4 CO model

ADJUSTED VEHICLE SPEEDS AND EMISSION FACTORS

Lane width (feet) 12

Intersection:	31_Crenshaw at Lomita								
Scenario:	W/O Project	NB		SB		WB		EB	Total
Approach	Thru + Right	2,124		2,027		1,004		1,074	6,229
Volumes	Left	120		384		504		719	1,727
	Total	2,244		2,411		1,508		1,793	7,956
Departure Volumes		2111		2405		1126		2314	7956
Lanes (Free Flow Approach)		3		3		2		2	
Lanes (Approach)		5		5		5		5	
Lanes (left)		1		1		2		2	
Lanes (Departure)		3		3		2		2	
Lanes (Free Flow Departure)		3		3		2		2	
		Red_time	C_Speed	Red_time	C_Speed	Red_time	C_Speed	Red_time	C_Speed
		41%	33	41%	33	59%	33	59%	31
Volumes per Lane									
Approach		400		400		200		200	
Approach (left)		200		400		300		400	
Departure		700		800		600		1200	
Index Number		1111		1111		1129		1007	
Approach Adjusted Speed		13		13		10		10	
Approach Adjusted Speed (left)		15		13		10		8	
Cruise Speed		33		33		33		31	
Departure Adjusted Speed		24		22		17		3	
Emission Factors									
Approach Emission Factor		1.23		1.23		1.34		1.34	
Approach Emission Factor (left)		1.16		1.23		1.34		1.44	
Cruise Speed		0.84		0.84		0.84		0.86	
Departure Emission Factor		0.96		1.00		1.11		1.69	

Intersection:	33_Crenshaw at PCH								
Scenario:	W/O Project	NB		SB		WB		EB	Total
Approach	Thru + Right	1,292		1,164		1,369		1,214	5,039
Volumes	Left	79		737		410		392	1,618
	Total	1,371		1,901		1,779		1,606	6,657
Departure Volumes		1246		1511		1570		2330	6657
Lanes (Free Flow Approach)		3		3		2		3	
Lanes (Approach)		5		4		4		5	
Lanes (left)		1		1		2		2	
Lanes (Departure)		3		3		3		3	
Lanes (Free Flow Departure)		3		3		3		3	
		Red_time	C_Speed	Red_time	C_Speed	Red_time	C_Speed	Red_time	C_Speed
		51%	33	51%	33	49%	33	49%	33
Volumes per Lane									
Approach		300		300		300		200	
Approach (left)		200		700		200		200	
Departure		400		500		500		800	
Speeds									
Index Number		1121		1121		1119		1119	
Approach Adjusted Speed		11		11		12		13	
Approach Adjusted Speed (left)		12		6		13		13	
Cruise Speed		33		33		33		33	
Departure Adjusted Speed		25		24		25		15	
Emission Factors									
Approach Emission Factor		1.31		1.31		1.27		1.23	
Approach Emission Factor (left)		1.27		1.54		1.23		1.23	
Cruise Speed		0.84		0.84		0.84		0.84	
Departure Emission Factor		0.94		0.96		0.94		1.16	

Torrance General Plan Update

Adjusted Speeds and Emission Factors for use with the Caline4 CO model

ADJUSTED VEHICLE SPEEDS AND EMISSION FACTORS

Lane width (feet) 12

Intersection:	50_Hawthorne at Lomita								
Scenario:	W/O Project	NB		SB		WB		EB	Total
Approach	Thru + Right	2,278		2,024		1,408		644	6,354
Volumes	Left	218		452		281		111	1,062
	Total	2,496		2,476		1,689		755	7,416
Departure Volumes		2975		2310		1041		1090	7416
Lanes (Free Flow Approach)		4		3		2		2	
Lanes (Approach)		5		5		3		4	
Lanes (left)		1		2		1		1	
Lanes (Departure)		4		3		2		2	
Lanes (Free Flow Departure)		4		3		2		2	
		Red_time	C_Speed	Red_time	C_Speed	Red_time	C_Speed	Red_time	C_Speed
		33%	33	33%	33	67%	33	67%	33
Volumes per Lane									
Approach		500		400		500		200	
Approach (left)		200		200		300		200	
Departure		700		800		500		500	
Speeds									
Index Number		1103		1103		1137		1137	
Approach Adjusted Speed		15		16		3		9	
Approach Adjusted Speed (left)		17		17		8		9	
Cruise Speed		33		33		33		33	
Departure Adjusted Speed		27		25		13		13	
Emission Factors									
Approach Emission Factor		1.16		1.14		1.69		1.39	
Approach Emission Factor (left)		1.11		1.11		1.44		1.39	
Cruise Speed		0.84		0.84		0.84		0.84	
Departure Emission Factor		0.91		0.94		1.23		1.23	

Intersection:	78_Prairie_Redondo Beach								
Scenario:	W/O Project	NB		SB		WB		EB	Total
Approach	Thru + Right	1,190		957		951		1,179	4,277
Volumes	Left	349		430		194		301	1,274
	Total	1,539		1,387		1,145		1,480	5,551
Departure Volumes		1356		1382		1253		1560	5551
Lanes (Free Flow Approach)		2		2		2		2	
Lanes (Approach)		4		4		4		4	
Lanes (left)		1		1		1		1	
Lanes (Departure)		2		2		2		2	
Lanes (Free Flow Departure)		2		2		2		2	
		Red_time	C_Speed	Red_time	C_Speed	Red_time	C_Speed	Red_time	C_Speed
		47%	28	47%	28	53%	31	53%	31
Volumes per Lane									
Approach		300		200		200		300	
Approach (left)		300		400		200		300	
Departure		700		700		600		800	
Speeds									
Index Number		812		812		1001		1001	
Approach Adjusted Speed		11		12		11		10	
Approach Adjusted Speed (left)		11		10		11		10	
Cruise Speed		28		28		31		31	
Departure Adjusted Speed		19		19		20		12	
Emission Factors									
Approach Emission Factor		1.31		1.27		1.31		1.34	
Approach Emission Factor (left)		1.31		1.34		1.31		1.34	
Cruise Speed		0.90		0.90		0.86		0.86	
Departure Emission Factor		1.06		1.06		1.03		1.27	

Torrance General Plan Update

Adjusted Speeds and Emission Factors for use with the Caline4 CO model

ADJUSTED VEHICLE SPEEDS AND EMISSION FACTORS

Lane width (feet) 12

Intersection:	97_Western at Sepulveda								
Scenario:	W/O Project	NB		SB		WB		EB	Total
Approach	Thru + Right	1,488		1,644		1,518		1,665	6,315
Volumes	Left	196		207		351		294	1,048
	Total	1,684		1,851		1,869		1,959	7,363
Departure Volumes		1518		1904		1738		2203	7363
Lanes (Free Flow Approach)		3		3		3		3	
Lanes (Approach)		4		4		4		4	
Lanes (left)		1		1		1		1	
Lanes (Departure)		3		3		3		3	
Lanes (Free Flow Departure)		3		3		3		3	
		Red_time	C_Speed	Red_time	C_Speed	Red_time	C_Speed	Red_time	C_Speed
		52%	31	52%	31	48%	31	48%	31
Volumes per Lane									
Approach		400		400		400		400	
Approach (left)		200		200		400		300	
Departure		500		600		600		700	
Speeds									
Index Number		1000		1000		996		996	
Approach Adjusted Speed		10		10		11		11	
Approach Adjusted Speed (left)		11		11		11		11	
Cruise Speed		31		31		31		31	
Departure Adjusted Speed		23		21		23		20	
Emission Factors									
Approach Emission Factor		1.34		1.34		1.31		1.31	
Approach Emission Factor (left)		1.31		1.31		1.31		1.31	
Cruise Speed		0.86		0.86		0.86		0.86	
Departure Emission Factor		0.98		1.02		0.98		1.03	

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

JOB: 78_Prairie_Redondo Beach
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= 7.3 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	1539	.9	.0	13.2
B. NA	*	9	-150	9	0	* AG	1190	1.3	.0	14.4
C. ND	*	9	0	9	150	* AG	1356	1.1	.0	9.9
D. NE	*	5	150	5	450	* AG	1356	.9	.0	13.2
E. SF	*	-5	450	-5	150	* AG	1387	.9	.0	13.2
F. SA	*	-9	150	-9	0	* AG	957	1.3	.0	14.4
G. SD	*	-9	0	-9	-150	* AG	1382	1.1	.0	9.9
H. SE	*	-5	-150	-5	-450	* AG	1382	.9	.0	13.2
I. WF	*	450	5	150	5	* AG	1145	.9	.0	13.2
J. WA	*	150	9	0	9	* AG	951	1.3	.0	14.4
K. WD	*	0	9	-150	9	* AG	1253	1.0	.0	9.9
L. WE	*	-150	5	-450	5	* AG	1253	.9	.0	13.2
M. EF	*	-450	-5	-150	-5	* AG	1480	.9	.0	13.2
N. EA	*	-150	-9	0	-9	* AG	1179	1.3	.0	14.4
O. ED	*	0	-9	150	-9	* AG	1560	1.3	.0	9.9
P. EE	*	150	-5	450	-5	* AG	1560	.9	.0	13.2
Q. NL	*	0	-150	0	0	* AG	349	1.3	.0	9.9
R. SL	*	0	150	0	0	* AG	430	1.3	.0	9.9
S. WL	*	150	0	0	0	* AG	194	1.3	.0	9.9
T. EL	*	-150	0	0	0	* AG	301	1.3	.0	9.9

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

JOB: 78_Prairie_Redondo Beach
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	19	19	1.8
2. SE	19	-19	1.8
3. SW	-19	-19	1.8
4. NW	-19	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	186.	7.6	.0	.1	.0	.0	.0	.0	.0	.0
2. SE	346.	7.6	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	77.	7.6	.0	.0	.0	.0	.0	.0	.0	.0
4. NW	167.	7.5	.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	.1	.0	.0	.0	.0	.0
4. NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

Table 2

Projected Future Year 1-hour CO Concentrations (ppm)

		Y E A R				
Monitoring Site Location		**1999**	**2000**	**2010**	**2015**	**2020**
1	Central LA	7	6.7	5.1	5.1	5.1
2	West LA	6	5.8	4.4	4.4	4.4
3	Hawthorne	10	9.6	7.3	7.3	7.3
4	Long Beach	7	6.7	5.1	5.1	5.1
6	Reseda	9	8.6	6.5	6.6	6.6
7	Burbank	9	8.6	6.5	6.6	6.6
8	Pasadena	9	8.6	6.5	6.6	6.6
9	Azusa	5	4.8	3.6	3.6	3.6
10	Pomona	10	9.6	7.3	7.3	7.3
11	Pico Rivera	7	6.7	5.1	5.1	5.1
12	Lynwood	19	18.2	13.8	13.8	13.9
12	Compton	19	18.2	13.8	13.8	13.9
13	Santa Clarita	7	6.7	5.1	5.1	5.1
16	La Habra	11	10.5	8.0	8.0	8.0
17	Anaheim*	8	7.7	5.8	5.8	5.8
18	Costa Mesa	8	7.7	5.8	5.8	5.8
19	El Toro	4	3.8	2.9	2.9	2.9
23	Rubidoux	7	6.7	5.1	5.1	5.1
23	Banning AP**	7	6.7	5.1	5.1	5.1
30	Palm Springs	3	2.9	2.2	2.2	2.2
34	San Bernardino	5	4.8	3.6	3.6	3.6

*Anaheim data recovery rate: 33.7%
**Banning AP data recovery rate: 82.2%

Table 3

Projected Future Year 8-hour CO Concentrations (ppm)

		Y E A R				
Monitoring Site Location		**1999**	**2000**	**2010**	**2015**	**2020**
1	Central LA	6.3	6.0	4.6	4.6	4.6
2	West LA	3.8	3.6	2.8	2.8	2.8
3	Hawthorne	8.4	8.1	6.1	6.1	6.1
4	Long Beach	5.4	5.2	3.9	3.9	3.9
6	Reseda	7.6	7.3	5.5	5.5	5.5
7	Burbank	9	8.6	6.5	6.6	6.6
8	Pasadena	6.6	6.3	4.8	4.8	4.8
9	Azusa	3.9	3.7	2.8	2.8	2.8
10	Pomona	6.7	6.4	4.9	4.9	4.9
11	Pico Rivera	5.6	5.4	4.1	4.1	4.1
12	Lynwood	11	10.5	8.0	8.0	8.0
12	Compton	11.7	11.2	8.5	8.5	8.5
13	Santa Clarita	3.6	3.5	2.6	2.6	2.6
16	La Habra	5.3	5.1	3.9	3.9	3.9
17	Anaheim*	5.3	5.1	3.9	3.9	3.9
18	Costa Mesa	6.4	6.1	4.7	4.7	4.7
19	El Toro	2.5	2.4	1.8	1.8	1.8
23	Rubidoux	4.4	4.2	3.2	3.2	3.2
23	Banning AP**	4.1	3.9	3.0	3.0	3.0
30	Palm Springs	1.8	1.7	1.3	1.3	1.3
34	San Bernardino	4	3.8	2.9	2.9	2.9

*Anaheim data recovery rate: 33.7%

**Banning AP data recovery rate: 82.2%

Table B.9 Arterial Classification According to Their Functional and Design Categories

	FUNCTIONAL CATEGORY	
DESIGN CATEGORY	PRINCIPAL ARTERIAL	MINOR ARTERIAL
Typical suburban	I	II
Intermediate	II	II or III
Typical Urban	II or III	III

Source: Highway Capacity Manual (TRB, 1994)

Table B.10 Average Cruise Speed as a Function of Arterial Classification and Free-Flow Speed

ARTERIAL CLASSIFICATION	I			II		III		
FREE-FLOW SPEED (MPH)	45	40	35	35	30	35	30	25
AVERAGE CRUISE SPEED (MPH)	33	31	29	28	27	28	24	22

Derived from Table 11-4 of the Highway Capacity Manual (TRB, 1994)

NOTE: It is best to have an estimate of free-flow speed. If one is lacking, however, use the above table assuming the following default values:

For Classification	Free-Flow Speed (mph)
I	40
II	35
III	30

B.4 Calculating 1-Hour CO Concentrations

Microscale dispersion models are used to calculate 1-hour CO concentrations. The protocol recommends the use of CALINE4, a model that has been widely used in California[1]. There is one restriction to the use of CALINE4. The *intersection link* option of CALINE4 should not be used because it calculates modal emissions based on an algorithm developed for an outdated vehicle fleet. Guidance on the input parameters required by CALINE4 is presented in the remainder of this section, including guidance on how to set up the link network for intersection analyses (see Sections B.4.4 and B.4.5).

B.4.1 Present Background Concentration

Background concentration is a very important element in a microscale CO analysis. The background concentration is added to the project contribution to assess the impact of the project on the air quality. The methodology shown in Figure B.1 should be used to

[1] The recommendation to use CALINE4 does not preclude the use of other models approved by EPA such as CAL3QHC.

ARTICLE 10 - SPEED LIMITS

*Note to Article 10

(Added by O-2265; Amended by O-2547; O-2651)
To provide for the orderly movement of vehicular traffic within the City, the prima facie speed limits shall be as follows:

SECTION 61.10.1. TWENTY-FIVE MILES PER HOUR.

(Amended by O-2989; O-3098; O-3099; O-3176; O-3473; O-3506; O-3525; O-3553; O-3660; O-3669; O-3711)
The prima facie speed limit shall be twenty-five (25) miles per hour on the following streets:
a) Paseo de la Playa between Palos Verdes Boulevard and Calle Miramar.
b) Calle Miramar between Paseo de la Playa and Palos Verdes Boulevard.
c) Flagler Lane between west City limits and Beryl Street.
d) Victor Street between Del Amo Boulevard and Torrance Boulevard.
e) Ocean Avenue between Torrance Boulevard and Pacific Coast Highway.
f) Amie Avenue between Spencer Street and Torrance Boulevard.
g) Maple Avenue between Torrance Boulevard and Sepulveda Boulevard.
h) Yukon Avenue between Redondo Beach Boulevard and 190th Street.
i) Arlington Avenue between Van Ness Avenue and Carson Street.
j) Marcelina Avenue between Arlington Avenue and Cabrillo Avenue.
k) 164th Street between Crenshaw Boulevard and east City limits.
l) 166th Street between Crenshaw Boulevard and east City limits.
m) 168th Street between Yukon Avenue and Cherry Avenue.
n) Cherry Avenue between 168th Street and Crenshaw Boulevard.
o) 171st Street between Prairie Avenue and Van Ness Avenue.
p) 186th Street between Kingsdale Avenue and Bailey Drive.
q) Spencer Street between Victor Street and Madrona Avenue.
r) Emerald Street between Henrietta Street and Madrona Avenue.
s) Civic Center Drive between Madrona Avenue and Maple Avenue.
t) Dominguez Street between Crenshaw Boulevard and Van Ness Avenue.
u) 235th Street between Crenshaw Boulevard and Western Avenue.
v) Via Velmonte between Hawthorne Boulevard and south City limits.
w) Newton Street between Hawthorne Boulevard and Pacific Coast Highway.
x) Crest Road between Crenshaw Boulevard and Highross Drive.

SECTION 61.10.2. THIRTY MILES PER HOUR.

(Amended by O-2989; O-3098; O-3099; O-3176; O-3196; O-3506; O-3553; O-3711)
The prima facie speed limit shall be thirty (30) miles per hour on the following streets:
a) Palos Verdes Boulevard between Torrance Boulevard and west City limits.
b) Palos Verdes Boulevard between Pacific Coast Highway and south City limits.
c) Anza Avenue between Sepulveda Boulevard and Pacific Coast Highway.
d) Earl Street between Del Amo Boulevard and Torrance Boulevard.
e) Del Amo Circle Drive between Carson Street and Hawthorne Boulevard.
f) Maple Avenue between Del Amo Boulevard and Torrance Boulevard.
g) Arlington Avenue between Carson Street and Sepulveda Boulevard.
h) Cabrillo Avenue between Torrance Boulevard and south City limits.
i) Calle Mayor between Palos Verdes Boulevard and Pacific Coast Highway.
j) Beryl Street between 190th Street and Flagler Lane.
k) 182nd Street between Hawthorne Boulevard and Kingsdale Avenue.
l) Plaza Del Amo between Carson Street and Border Avenue.

SECTION 61.10.3. THIRTY-FIVE MILES PER HOUR.

(Amended by O-2617; O-2663; O-2703; O-3015; O-3162; O-3176; O-3196; O-3459; O-3461; O-3473; O-3484; O-3506; O-3525; O-3533; O-3553; O-3711)
The prima facie speed limit shall be thirty-five (35) miles per hour on the following streets:
a) Henrietta Avenue between Del Amo Boulevard and Torrance Boulevard.
b) Anza Avenue between 190th Street and Sepulveda Boulevard.
c) Anza Avenue between Pacific Coast Highway and Newton Street.
d) Hawthorne Boulevard between Redondo Beach Boulevard and 190th Street.
e) Prairie Avenue between Redondo Beach Boulevard and 190th Street.
f) Madrona Avenue between Torrance Boulevard and Sepulveda Boulevard.
g) Maple Avenue between Sepulveda Boulevard and Nadine Circle/235th Street.
h) Crenshaw Boulevard between Dominguez Street and Carson Street.
i) Van Ness Avenue between Redondo Beach Boulevard and 190th Street.
j) Arlington Avenue between Sepulveda Boulevard and south City limits.
k) 182nd Street between Hawthorne Boulevard and Western Avenue.
l) 190th Street between west City limits and Inglewood Avenue.
m) Del Amo Boulevard between Madrona Avenue and Maple Avenue.
n) Del Amo Boulevard between Crenshaw Boulevard and Western Avenue.
o) Maricopa Street between Maple Avenue and Crenshaw Boulevard.
p) Torrance Boulevard between Madrona Avenue and Western Avenue.
q) Carson Street between Palos Verdes Boulevard and Western Avenue.
r) Plaza Del Amo between Madrona Avenue and Crenshaw Boulevard.
s) 223rd Street between Border Avenue and Western Avenue.
t) 235th Street between Nadine Circle and Crenshaw Boulevard.
u) Calle Mayor between Pacific Coast Highway and Anza Avenue.
v) Pacific Coast Highway between west City limits and Palos Verdes Boulevard.
w) Vista Montana between Paseo De Las Tortugas and Newton Street.
x) Rolling Hills Road between Hawthorne Boulevard and south City limits.

SECTION 61.10.4. FORTY MILES PER HOUR.

(Amended by O-2617; O-2651; O-2941; O-3015; O-3085: O-3162; O-3176; O-3196; O-3461; O-3525; O-3533; O-3540; O-3557; O-3711)
The prima facie speed limit shall be forty (40) miles per hour on the following streets:
a) Hawthorne Boulevard between Pacific Coast Highway and 190th Street.
b) Madison Street between Lomita Boulevard and Pacific Coast Highway.
c) Prairie Avenue between 190th Street and Del Amo Boulevard.
d) Madrona Avenue between Del Amo Boulevard and Torrance Boulevard.
e) Crenshaw Boulevard between Redondo Beach Boulevard and 190th Street.
f) Van Ness Avenue between Del Amo Boulevard and Torrance Boulevard.
g) Western Avenue between Artesia Boulevard and 190th Street.
h) Western Avenue between Del Amo Boulevard and south City limits.
i) Redondo Beach Boulevard between Hawthorne Boulevard and Prairie Avenue.
j) Redondo Beach boulevard between Crenshaw Boulevard and east City limits.
k) Artesia Boulevard between Hawthorne Boulevard and Crenshaw Boulevard.
l) 190th Street between Inglewood Avenue and Prairie Avenue.
m) Del Amo Boulevard between west City limits and Madrona Avenue.
n) Torrance Boulevard between west City limits and Madrona Avenue.
o) Sepulveda Boulevard between west City limits and Maple Avenue.
p) Sepulveda Boulevard between Arlington Avenue and Western Avenue.
q) Lomita Boulevard between Anza Avenue and Hawthorne Boulevard.
r) Pacific Coast Highway between Palos Verdes Boulevard and Vista Del Parque.
s) Pacific Coast Highway (northbound) between Calle Mayor and east City limits.

SECTION 61.10.5. FORTY-FIVE MILES PER HOUR.

(Amended by O-3015; O-3085; O-3162; O-3196; O-3540; O-3711)
The prima facie speed limit shall be forty-five (45) miles per hour on the following streets:
a) Hawthorne Boulevard between Pacific Coast Highway and south City limits.
b) Crenshaw Boulevard between 190th Street and Dominguez Street.

c) Crenshaw Boulevard between Carson Street and south City limits.
d) Van Ness Avenue between 190th Street and Del Amo Boulevard.
e) Western Avenue between 190th Street and Del Amo Boulevard.
f) Artesia Boulevard between Crenshaw Boulevard and Western Avenue.
g) 190th Street between Prairie Avenue and Western Avenue.
h) Sepulveda Boulevard between Maple Avenue and Arlington Avenue.
i) Lomita Boulevard between Hawthorne Boulevard and Crenshaw Boulevard.
j) Skypark Drive between Hawthorne Boulevard and Crenshaw Boulevard.
k) Pacific Coast Highway between Vista Del Parque and Calle Mayor.
l) Pacific Coast Highway (southbound) between Calle Mayor and east City limits.

SECTION 61.10.6. FIFTY MILES PER HOUR.

The prima facie speed limit shall be fifty (50) miles per hour on the following streets:

a) To be determined.

SECTION 61.10.7. FIFTY-FIVE MILES PER HOUR.

The prima facie speed limit shall be fifty-five (55) miles per hour on the following streets:

a) To be determined.

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

JOB: 97_Western at Sepulveda
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=	7.3 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	1684	.9	.0	16.8
B. NA	*	9	-150	9	0	* AG	1488	1.3	.0	14.4
C. ND	*	9	0	9	150	* AG	1518	1.0	.0	10.8
D. NE	*	7	150	7	450	* AG	1518	.9	.0	16.8
E. SF	*	-7	450	-7	150	* AG	1851	.9	.0	16.8
F. SA	*	-9	150	-9	0	* AG	1644	1.3	.0	14.4
G. SD	*	-9	0	-9	-150	* AG	1904	1.0	.0	10.8
H. SE	*	-7	-150	-7	-450	* AG	1904	.9	.0	16.8
I. WF	*	450	7	150	7	* AG	1869	.9	.0	16.8
J. WA	*	150	9	0	9	* AG	1518	1.3	.0	14.4
K. WD	*	0	9	-150	9	* AG	1738	1.0	.0	10.8
L. WE	*	-150	7	-450	7	* AG	1738	.9	.0	16.8
M. EF	*	-450	-7	-150	-7	* AG	1959	.9	.0	16.8
N. EA	*	-150	-9	0	-9	* AG	1665	1.3	.0	14.4
O. ED	*	0	-9	150	-9	* AG	2203	1.0	.0	10.8
P. EE	*	150	-7	450	-7	* AG	2203	.9	.0	16.8
Q. NL	*	0	-150	0	0	* AG	196	1.3	.0	9.9
R. SL	*	0	150	0	0	* AG	207	1.3	.0	9.9
S. WL	*	150	0	0	0	* AG	351	1.3	.0	9.9
T. EL	*	-150	0	0	0	* AG	294	1.3	.0	9.9

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

JOB: 97_Western at Sepulveda
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	19	19	1.8
2. SE	19	-19	1.8
3. SW	-19	-19	1.8
4. NW	-19	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	186.	7.6	.0	.1	.0	.0	.0	.0	.0	.0
2. SE	277.	7.6	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	76.	7.6	.0	.0	.0	.0	.0	.0	.0	.0
4. NW	97.	7.6	.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	.1	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
4. NW	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

Torrance Housing Characteristics

Year Structure was Built (1)		Units (2005)	Percent of Housing Stock	Adjusted based on 53,148 DUs	Average Square feet Based on Year Structure Built (2)	Square-Feet (2006)
Built 2005 or later		325	1%	302	2,482	750,505
Built 2000 to 2004		1,479	3%	1,376	2,330	3,206,213
Built 1990 to 1999		1,416	2%	1,317	2,116	2,788,235
Built 1980 to 1989		3,429	6%	3,190	1,819	5,803,213
Built 1979 or earlier		50,475	88%	46,962	1,699	79,801,499
	Total	57,124	100%	53,148		92,349,665
					Average Sqft	1,738

	Units	Average Square feet Based on Year Structure Built (3)	Square Feet
Existing Land Uses (2005)	53,148	1,738	92,349,665
Current GP Land Uses (Buildout)	54,477	1,757	95,704,061
Increase from Existing (Buildout - 2005)	1,329	2,524	3,354,396
Torrance GP Land Uses (Buildout)	57,536	1,798	103,424,977
Increase from Existing (Buildout - 2005)	4,388	2,524	11,075,312

Sources/Notes:

(1) United States Cenus Bureau, American FactFinder, Torrance City, California, Selected Housing Characeristics 2006, 2006 American Community Survey, Year structure built.

(2) United States Census Bureau, Manufacturing, Mining, and Construction Statistics. Characteristics of New Housing, Median and Average Square Feet by Location. Based on average square-footage of new construction in the west compiled for years 1973 to 1979, 1980 to 1989, 1990 to 1999, 2000 to 2004, and 2005 to 2007. Obtained from http://www.census.gov/const/www/charindex.html#singlecomplete

(3) Assumes all new construction is 2,524 square feet.

Greenhouse Gas Emissions Summary

Existing (2005) Land Uses (Modeled in Year 2030)

Source	*CO_{2e} Emissions Tons/Year*	*CO_{2e} Emissions MTons/Year*	*Percent of Total*
Transportation Sector[1]	2,286,346	2,074,138	63.5%
Electricity Sector			
Purchased Energy[2]	730,876	663,040	20.3%
Water Demand and Treatment[3]	51,695	46,897	1.4%
Total Energy Emissions	782,571	709,936	21.7%
Recycling and Waste[4]	288,914	262,098	8.0%
Area Sources[1]	245,047	222,303	6.8%
Total all Sectors	**3,602,878**	**3,268,476**	**100%**
15 Reduction From Existing 2005	**540,432**	**490,271**	
2020 GHG Goal based on CARB Scoping Plan	**3,062,447**	**2,778,205**	
In Million Metric Tons (MMTons CO2e)	3.6	3.3	
Per Capita CO2e	15.0	13.6	
Residents	135,864		
Employees	104,992		
Total	240,856		

Current General Plan (Buildout Year Post-2030)

Source	*CO_{2e} Emissions Tons/Year*	*CO_{2e} Emissions MTons/Year*	*Percent of Total*
Transportation Sector[1]	2,332,207	2,115,742	63.2%
Electricity Sector			
Purchased Energy[2]	751,428	681,684	20.4%
Water Demand and Treatment[3]	52,833	47,929	1.4%
Total Energy Emissions	804,261	729,613	21.8%
Recycling and Waste[4]	295,954	268,485	8.0%
Area Sources[1]	255,610	231,886	6.9%
Total all Sectors	**3,688,032**	**3,345,726**	**100%**
In Million Metric Tons (MMTons CO2e)	3.7	3.3	

Proposed General Plan (Buildout Year Post-2030)

Source	*CO_{2e} Emissions Tons/Year*	*CO_{2e} Emissions MTons/Year*	*Percent of Total*
Transportation Sector[1]	2,420,349	2,195,703	63.2%
Electricity Sector			
Purchased Energy[2]	796,551	722,619	20.8%
Water Demand and Treatment[3]	55,092	49,979	1.4%
Total Energy Emissions	851,643	772,597	22.2%
Recycling and Waste[4]	304,759	276,473	8.0%
Area Sources[1]	251,701	228,339	6.6%
Total all Sectors	**3,828,452**	**3,473,113**	**100%**
15 Reduction From Existing 2020	**766,005**	**694,908**	
2020 GHG Goal based on CARB Scoping Plan	**3,062,447**	**2,778,205**	
In Million Metric Tons (MMTons CO2e)	3.8	3.5	

Sources:

[1] URBEMIS2007, Version 9.2.4. Assumes CO_2 represents 99.6 percent of total CO_{2e} emissions from motorgasoline and 99.7 percent of total from diesel CO2e while CH_4, N_2O, and Fluorinated Gases comprise the remaining percent based on Bay Area Air Quality Management District's *Source Inventory of Bay Area Greenhouse Gas Emissions* .

[2] CO_{2e} emissions calculated using energy usage factors and emission rates from the United States Department of Energy, EIA, *2003 Commercial Building Energy Consumption* , December 2006, Table C20 and C14; EIA, Residential Energy Consumption Survey, Table US1. Total Energy Consumption, Expenditures, and Intensities, 2005. Part 1: Housing Unit Characteristics and Energy Usage Indicators, Released January 2009.

[3] CO_{2e} emissions from the energy intensity of water are based on the CEC's California's Water Energy Relationship (2005) of 12,700 Kwh/MG for Southern California.

[4] CO_{2e} emissions from waste generation are based on the Waste Reduction Model (WARM) created by the USEPA and the waste stream jurisdictional profile for the City of Torrance

Note CARB CO2e based on fuel consumption and not EMFAC

1 short ton (Ton) equals 0.9071847

BAAQMD Table B: Generalized GHG Emissions Factors (lbs/usage unit)

Fuel	CO2	CH4	N2O	Unit	CO2	CH4	N2O	Total CO2e	CO2	CH4	N2O
GWP	1	21	310						Percent CO2e		
Liquid Fuels											
Distillate Fuel (Fuel Oil, Diesel)	22.4	0.00053	0.00019	Gallon	22.4	0.0111	0.0589	22.470	99.7%	0.0%	0.3%
Jet Fuel	21.1	0.00052	0.00019	Gallon	21.1	0.0109	0.0589	21.170	99.7%	0.1%	0.3%
Kerosene/Naphtha	21.5	0.00050	0.00018	Gallon	21.5	0.0105	0.0558	21.566	99.7%	0.0%	0.3%
Liquified Petroleum Gases (LPG)	12.8	0.00025	0.00002	Gallon	12.8	0.0053	0.0062	12.811	99.9%	0.0%	0.0%
Motor Gasoline	19.6	0.00055	0.00020	Gallon	19.6	0.0116	0.0620	19.674	99.6%	0.1%	0.3%
Residual Fuel (Bunker C Fuel Oil)	26	0.00022	0.00021	Gallon	26	0.0046	0.0651	26.070	99.7%	0.0%	0.2%
Aviation Gasoline	18.4	0.00052	0.00019	Gallon	18.4	0.0109	0.0589	18.470	99.6%	0.1%	0.3%
Bio-diesel	20.7	0.00049	0.00018	Gallon	20.7	0.0103	0.0558	20.766	99.7%	0.0%	0.3%
Propane	12.7	0.00000	0.00000	Gallon	12.7	0.0001	0.0001	12.700	100.0%	0.0%	0.0%
Butane	14.7	0.00000	0.00000	Gallon	14.7	0.0001	0.0001	14.700	100.0%	0.0%	0.0%
Gaseous Fuels											
Natural Gas	120.6	0.00020	0.00020	1000 ft3	120.6	0.0042	0.0620	120.666	99.9%	0.0%	0.1%
Landfill Gas	110.5	0.21050	0.00024	1001 ft3	110.5	4.4205	0.0744	114.995	96.1%	3.8%	0.1%
Digester Gas	104.7	0.02997	0.00030	1002 ft3	104.7	0.6294	0.0930	105.422	99.3%	0.6%	0.1%
Carbon Monoxide	116.1	0.00270	0.00019	1003 ft3	116.1	0.0567	0.0589	116.216	99.9%	0.0%	0.1%
Refinery Waste Gases	139	0.00320	0.00022	1004 ft3	139	0.0672	0.0682	139.135	99.9%	0.0%	0.0%
Solids											
Refuse/Waste	2,000	0.29790	0.08980	Ton	2000	6.2559	27.8380	2034.094	98.3%	0.3%	1.4%
Woor and Other	3,814	0.29790	0.08980	Ton	3814	6.2559	27.8380	3848.094	99.1%	0.2%	0.7%
Agricultural Waste Burning	174	0.14000	0.35000	Ton	174	2.9400	108.5000	285.440	61.0%	1.0%	38.0%
Petroleum Coke	6,769	0.44920	0.10630	Ton	6769	9.4332	32.9530	6811.386	99.4%	0.1%	0.5%

Source: Bay Area Air Quality Management District. 2008, December. Source Inventory of Bay Area Greenhouse Gas Emissions.

Energy Use and Greenhouse Gases Emission from Energy Use - Current GP

Commercial - Climate Zone 4 (Coastal California)

Land Use	Area (ft^2)	Energy Consumption (kWh/ft^2/Year)	Energy Consumption KWH/Year	lbs of CO_2e/Year
Enclosed Strip Malls	20,256,000	21.9	443,606,400	280,449,075
Office	26,327,000	16.8	442,293,600	279,619,120
Other	14,309,000	22.5	321,952,500	203,539,175
Total Commercial	**60,892,000**	**61.2**	**1,207,852,500**	**763,607,370**
			Tons/year	**381,804**
			lbs/day	**2,092,075**

Residential

Land Use	Area (ft^2)	Energy Consumption ($BTU/1000ft^2$/Year)	Energy Consumption KWH/Year	lbs of CO_2e/Year
All Residential	95,704,061	41.7	1,169,322	739,248,157
Total Residential	**95,704,061**	**83.4**	**1,169,322**	**739,248,157**
			Tons/year	**369,624**
			lbs/day	**2,025,337**

Total	Annual Electricity Use			CO2e
KWH/Year	1,209,021,822		lbs/Year	1,502,855,528
GWH/Year	1,209,022		MTons/year	681,684
			Tons/Year	751,428
			lbs/day	4,117,412

Sources

Note: New structures would be constructed to meet newer California Building Code energy efficiency requirements

[1] Commercial energy use based on Table C20 and C14 (where climate specific information was not available) US Energy Information Administration www.eia.doe.gov/emeu/cbecs/

[1] Residential energy use based on US Energy Information Administration www.eia.doe.gov Table US1. Total Energy Consumption, Expenditures, and Intensities, 2005. Part 1: Housing Unit Characteristics and Energy Usage Indicators Released January 2009.

California Energy Emission Factors

0.63089	lbs of CO2/kwh	Southern California Edison*
0.0000067	lbs of CH4/kwh	For California
0.00000378	lbs of N20/kwh	For California

US EUA http://www.eia.doe.gov/oiaf/1605/ee-factors.html

GHG Potential - Coversion to CO2e	CH4	N20
	21	310

lbs of CO2e/kwh 0.632

.* Based on SCE's Climate Action Registry Reporting Year 2007 CO2 emissions.

Conversion Factors

0.0005	lbs in a ton
0.9071847	Metric Tons
0.000293	BTU (British Thermal Units) in a kwh
471,000,000	tons of CO2e in 1990 and Goal for 2020:

Based on CARB emissions inventory of GHG emissions for the State of California in 1990 of 471 million short tons of CO2e (427 million metric tons of CO2e) of in state emissions adopted in December 2007.

Assumptions

Median and Average Square-Feet of Floor Area in Units in New Multi-Family Building Completed.United States Census Bureau, Manufacturing, Mining, and Construction Statistics. Characteristics of New Housing, Median and Average Square Feet by Location. Based on average square-footage of new construction in the west compiled for years 1973 to 1979, 1980 to 1989, 1990 to 1999, 2000 to 2004, and 2005 to 2007. Obtained from http://www.census.gov/const/www/charindex.html#singlecomplete

Note: New structures would be constructed to meet newer California Building Code energy efficiency requirements

Energy Use and Greenhouse Gases Emission from Energy Use - Existing

Commercial - Climate Zone 4 (Coastal California)

Land Use	Area (ft^2)	Energy Consumption (kWh/ft^2/Year)	Energy Consumption KWH/Year	lbs of CO_2e/Year
Enclosed Strip Malls	19,752,000	21.9	432,568,800	273,471,077
Office	26,392,000	16.8	443,385,600	280,309,485
Other	13,683,000	22.5	307,867,500	194,634,603
Total Commercial	**59,827,000**	**61.2**	**1,183,821,900**	**748,415,165**
			Tons/year	**374,208**
			lbs/day	**2,050,453**

Residential

Land Use	Area (ft^2)	Energy Consumption ($BTU/1000ft^2$/Year)	Energy Consumption KWH/Year	lbs of CO_2e/Year
All Residential	92,349,665	41.7	1,128,337	713,337,752
Total Residential	**92,349,665**	**83.4**	**1,128,337**	**713,337,752**
			Tons/year	**356,669**
			lbs/day	**1,954,350**

Total	**Annual Electricity Use**			**CO2e**
KWH/Year	**1,184,950,237**		**lbs/Year**	**1,461,752,916**
GWH/Year	**1,184,950**		**MTons/year**	**663,040**
			Tons/Year	**730,876**
			lbs/day	**4,004,803**

Municipal Government Operations (within City of Torrance)				**CO2e**
Purchased Energy			**Percent of Community-Wide Inventory**	**1.78%**
KWH/Year	21,149,997		**lbs/Year**	**13,371,090**
GWH/Year	21,150		**MTons/year**	**6,065**
Purchased Natural Gas			**Tons/Year**	**6,686**
BTUs/Year	50,878		**lbs/day**	**36,633**
KWH/Year	14.91			
GWH/Year	0.01			
Total Municipal Energy Use	21,150,011.91	KWH/Year		
	21,150.01	GWH/Year		

Sources

Note: New structures would be constructed to meet newer California Building Code energy efficiency requirements

[1] Commercial energy use based on Table C20 and C14 (where climate specific information was not available) US Energy Information Administration www.eia.doe.gov/emeu/cbecs/

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Municipal Government Operations data provided by the City from Southern California Edison

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U.S. Census Bureau
American FactFinder

Ontario city, California

Selected Housing Characteristics: 2006

Data Set: **2006 American Community Survey**
Survey: **American Community Survey**

NOTE. Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns and estimates of housing units for states and counties.

For more information on confidentiality protection, sampling error, nonsampling error, and definitions, see Survey Methodology.

Selected Housing Characteristics: 2006	Estimate	Margin of Error
HOUSING OCCUPANCY		
Total housing units	**46,726**	**+/-3,053**
Occupied housing units	44,267	+/-2,806
Vacant housing units	2,459	+/-867
Homeowner vacancy rate	0.5	+/-0.6
Rental vacancy rate	6.1	+/-2.5
UNITS IN STRUCTURE		
1-unit, detached	27,797	+/-2,207
1-unit, attached	2,655	+/-878
2 units	1,399	+/-715
3 or 4 units	4,367	+/-1,303
5 to 9 units	3,903	+/-956
10 to 19 units	2,176	+/-1,065
20 or more units	2,229	+/-733
Mobile home	2,200	+/-635
Boat, RV, van, etc.	0	+/-289
YEAR STRUCTURE BUILT		
Built 2005 or later	320	+/-333
Built 2000 to 2004	962	+/-538
Built 1990 to 1999	3,151	+/-860
Built 1980 to 1989	16,067	+/-2,271
Built 1970 to 1979	11,023	+/-1,692
Built 1960 to 1969	4,447	+/-1,204
Built 1950 to 1959	7,324	+/-1,243
Built 1940 to 1949	1,852	+/-563
Built 1939 or earlier	1,580	+/-580
ROOMS		
1 room	349	+/-341
2 rooms	671	+/-507
3 rooms	4,880	+/-1,193
4 rooms	10,564	+/-1,732
5 rooms	9,452	+/-1,496
6 rooms	9,554	+/-1,437
7 rooms	6,334	+/-1,279
8 rooms	3,473	+/-1,046
9 rooms or more	1,449	+/-644

Selected Housing Characteristics: 2006	Estimate	Margin of Error
Median (rooms)	5.2	+/-0.2
BEDROOMS		
No bedroom	349	+/-341
1 bedroom	4,848	+/-1,211
2 bedrooms	15,365	+/-2,078
3 bedrooms	14,938	+/-1,955
4 bedrooms	9,642	+/-1,553
5 or more bedrooms	1,584	+/-728
Occupied housing units	**44,267**	**+/-2,806**
HOUSING TENURE		
Owner-occupied	26,800	+/-2,185
Renter-occupied	17,467	+/-2,138
Average household size of owner-occupied unit	3.61	+/-0.19
Average household size of renter-occupied unit	3.30	+/-0.26
YEAR HOUSEHOLDER MOVED INTO UNIT		
Moved in 2005 or later	9,375	+/-2,015
Moved in 2000 to 2004	15,138	+/-1,840
Moved in 1990 to 1999	11,107	+/-1,705
Moved in 1980 to 1989	4,396	+/-903
Moved in 1970 to 1979	2,170	+/-573
Moved in 1969 or earlier	2,081	+/-601
VEHICLES AVAILABLE		
No vehicles available	1,252	+/-460
1 vehicle available	12,614	+/-1,945
2 vehicles available	18,206	+/-1,991
3 or more vehicles available	12,195	+/-1,434
HOUSE HEATING FUEL		
Utility gas	N	N
Bottled, tank, or LP gas	N	N
Electricity	N	N
Fuel oil, kerosene, etc.	N	N
Coal or coke	N	N
Wood	N	N
Solar energy	N	N
Other fuel	N	N
No fuel used	N	N
SELECTED CHARACTERISTICS		
Lacking complete plumbing facilities	200	+/-250
Lacking complete kitchen facilities	76	+/-125
No telephone service available	1,214	+/-683
OCCUPANTS PER ROOM		
1.00 or less	40,068	+/-2,660
1.01 to 1.50	3,632	+/-1,283
1.51 or more	567	+/-295
Owner-occupied units	**26,800**	**+/-2,185**
VALUE		
Less than $50,000	947	+/-534
$50,000 to $99,999	592	+/-375
$100,000 to $149,999	569	+/-437
$150,000 to $199,999	338	+/-213
$200,000 to $299,999	1,852	+/-774
$300,000 to $499,999	16,941	+/-1,803
$500,000 to $999,999	5,493	+/-960
$1,000,000 or more	68	+/-111
Median (dollars)	424,200	+/-9,182

Selected Housing Characteristics: 2006	Estimate	Margin of Error
MORTGAGE STATUS AND SELECTED MONTHLY OWNER COSTS		
Housing units with a mortgage	22,038	+/-2,304
Less than $300	0	+/-289
$300 to $499	201	+/-194
$500 to $699	328	+/-233
$700 to $999	1,408	+/-529
$1,000 to $1,499	6,588	+/-1,230
$1,500 to $1,999	5,976	+/-1,175
$2,000 or more	7,537	+/-1,430
Median (dollars)	1,688	+/-85
Housing units without a mortgage	4,762	+/-1,124
Less than $100	114	+/-189
$100 to $199	523	+/-401
$200 to $299	967	+/-449
$300 to $399	884	+/-477
$400 or more	2,274	+/-653
Median (dollars)	389	+/-44
SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME		
Housing unit with a mortgage	22,038	+/-2,304
Less than 20.0 percent	5,767	+/-1,009
20.0 to 24.9 percent	2,271	+/-785
25.0 to 29.9 percent	2,792	+/-928
30.0 to 34.9 percent	1,725	+/-646
35.0 percent or more	9,317	+/-1,661
Not computed	166	+/-267
Housing unit without a mortgage	4,762	+/-1,124
Less than 10.0 percent	2,056	+/-771
10.0 to 14.9 percent	998	+/-484
15.0 to 19.9 percent	409	+/-418
20.0 to 24.9 percent	502	+/-326
25.0 to 29.9 percent	315	+/-184
30.0 to 34.9 percent	0	+/-289
35.0 percent or more	420	+/-273
Not computed	62	+/-100
Renter-occupied units	**17,467**	**+/-2,138**
GROSS RENT		
Less than $200	0	+/-289
$200 to $299	151	+/-144
$300 to $499	445	+/-362
$500 to $749	1,584	+/-579
$750 to $999	5,892	+/-1,463
$1,000 to $1,499	7,062	+/-1,375
$1,500 or more	1,748	+/-746
No cash rent	585	+/-361
Median (dollars)	1,022	+/-60
GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME		
Less than 15.0 percent	1,510	+/-716
15.0 to 19.9 percent	3,192	+/-1,050
20.0 to 24.9 percent	2,279	+/-877
25.0 to 29.9 percent	2,156	+/-720
30.0 to 34.9 percent	1,388	+/-684
35.0 percent or more	5,873	+/-1,469
Not computed	1,069	+/-548

Source: U.S. Census Bureau, 2006 American Community Survey

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

Notes:
·The median gross rent excludes no cash renters.
·While the 2006 American Community Survey (ACS) data generally reflect the December 2005 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas, in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Explanation of Symbols:
1. An '**' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
5. An '***' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.

Median and Average Square Feet of Floor Area in New One-Family Houses Completed by Location

(Medians and averages computed from unrounded figures)

	Median square feet							Average square feet						
				Region							Region			
Year	United States	Inside MSAs	Outside MSAs	North-east	Midwest	South	West	United States	Inside MSAs	Outside MSAs	North-east	Midwest	South	West
1973	1,525	1,625	1,380	1,450	1,445	1,555	1,575	1,660	1,760	1,490	1,595	1,615	1,670	1,715
1974	1,560	1,665	1,405	1,465	1,490	1,640	1,540	1,695	1,785	1,545	1,600	1,660	1,760	1,660
1975	1,535	1,630	1,365	1,405	1,460	1,605	1,510	1,645	1,735	1,490	1,575	1,580	1,705	1,635
1976	1,590	1,675	1,425	1,505	1,495	1,660	1,565	1,700	1,775	1,560	1,630	1,655	1,755	1,685
1977	1,610	1,705	1,440	1,540	1,540	1,660	1,615	1,720	1,795	1,565	1,650	1,650	1,770	1,730
1978	1,655	1,735	1,490	1,640	1,615	1,685	1,630	1,755	1,830	1,610	1,730	1,730	1,785	1,740
1979	1,645	1,735	1,485	1,690	1,605	1,675	1,625	1,760	1,845	1,605	1,795	1,720	1,795	1,730
1980	1,595	1,670	1,450	1,660	1,520	1,615	1,570	1,740	1,825	1,575	1,770	1,685	1,750	1,735
1981	1,550	1,650	1,415	1,655	1,480	1,540	1,580	1,720	1,820	1,535	1,805	1,670	1,715	1,735
1982	1,520	1,600	1,355	1,605	1,405	1,500	1,595	1,710	1,795	1,545	1,755	1,655	1,700	1,740
1983	1,565	1,610	1,445	1,650	1,515	1,565	1,545	1,725	1,785	1,570	1,795	1,735	1,720	1,695
1984	1,605	1,645	1,495	1,665	1,600	1,590	1,610	1,780	1,840	1,600	1,860	1,800	1,750	1,785
1985	1,605	1,655	1,445	1,655	1,625	1,590	1,595	1,785	1,830	1,610	1,830	1,820	1,765	1,770
1986	1,660	1,700	1,470	1,695	1,685	1,655	1,635	1,825	1,865	1,640	1,850	1,855	1,825	1,800
1987	1,755	1,800	1,565	1,840	1,740	1,755	1,730	1,905	1,950	1,700	1,955	1,890	1,915	1,870
1988	1,810	1,880	1,570	1,810	1,840	1,790	1,845	1,995	2,055	1,750	2,005	2,015	1,985	1,995
1989	1,850	1,920	1,570	1,870	1,800	1,815	1,910	2,035	2,105	1,750	2,075	1,970	2,030	2,065
1990	1,905	1,985	1,630	1,955	1,850	1,855	1,985	2,080	2,155	1,800	2,105	2,005	2,055	2,160
1991	1,890	1,970	1,635	1,950	1,800	1,870	1,980	2,075	2,155	1,815	2,105	1,990	2,065	2,155
1992	1,920	1,990	1,700	2,000	1,870	1,945	1,890	2,095	2,160	1,870	2,115	2,020	2,130	2,090
1993	1,945	2,000	1,700	2,050	1,855	2,000	1,845	2,095	2,160	1,860	2,160	2,025	2,150	2,050
1994	1,940	1,995	1,700	2,035	1,850	2,000	1,835	2,100	2,160	1,865	2,195	2,025	2,165	2,025
1995	1,920	1,975	1,720	2,095	1,850	1,945	1,835	2,095	2,150	1,870	2,240	2,020	2,125	2,045
1996	1,950	2,000	1,735	2,100	1,900	1,995	1,890	2,120	2,170	1,915	2,280	2,025	2,160	2,070
1997	1,975	2,015	1,765	2,130	1,900	2,000	1,930	2,150	2,200	1,955	2,265	2,065	2,175	2,135
1998	2,000	2,050	1,750	2,100	1,945	2,000	1,985	2,190	2,250	1,930	2,270	2,125	2,200	2,200
1999	2,028	2,089	1,811	2,175	1,937	2,044	2,001	2,223	2,274	1,991	2,298	2,135	2,244	2,234
2000	2,057	2,121	1,824	2,266	1,971	2,075	2,014	2,266	2,321	2,024	2,435	2,170	2,287	2,244
2001	2,103	2,152	1,905	2,305	1,965	2,128	2,080	2,324	2,361	2,162	2,466	2,209	2,351	2,317
2002	2,114	2,171	1,884	2,330	1,979	2,120	2,127	2,320	2,379	2,068	2,516	2,209	2,317	2,350
2003	2,137	2,177	1,941	2,288	1,998	2,142	2,166	2,330	2,382	2,113	2,443	2,198	2,335	2,387
2004	2,140	2,207	1,933	2,361	1,993	2,164	2,149	2,349	2,402	2,122	2,543	2,222	2,368	2,352
2005	2,227	2,273	1,952	2,339	2,054	2,259	2,236	2,434	2,479	2,137	2,556	2,310	2,463	2,434
2006	2,248	2,305	1,909	2,395	2,035	2,286	2,275	2,469	2,519	2,120	2,612	2,290	2,499	2,488
2007	2,277	2,319	1,956	2,281	2,064	2,325	2,286	2,521	2,581	2,133	2,550	2,328	2,573	2,524
RSE	1	1	2	5	3	2	2	1	1	2	5	2	2	2

A Represents an RSE that is greater than or equal to 100 or could not be computed.
NA Not available. RSE Relative Standard Error.
S Withheld because estimate did not meet publication standards on the basis of response rate, associated standard error, or a consistency review.
Z Less than 0.5 percent.

Energy Use and Greenhouse Gases Emission from Energy Use - Proposed GP

Commercial - Climate Zone 4 (Coastal California)

Land Use	Area (ft^2)	Energy Consumption (kWh/ft^2/Year)	Energy Consumption KWH/Year	lbs of CO_2e/Year
Enclosed Strip Malls	19,585,000	21.9	428,911,500	271,158,923
Office	25,692,000	16.8	431,625,600	272,874,783
Other	14,214,000	22.5	319,815,000	202,187,843
Health Care - Inpatient	2,692,000	28.2	75,914,400	47,993,273
Total Commercial	**62,183,000**	**89.4**	**1,256,266,500**	**794,214,822**
			Tons/year	**397,107**
			lbs/day	**2,175,931**

Residential

Land Use	Area (ft^2)	Energy Consumption ($BTU/1000ft^2$/Year)	Energy Consumption KWH/Year	lbs of CO_2e/Year
All Residential	103,424,977	41.7	1,263,657	798,886,932
Total Residential	**103,424,977**	**83.4**	**1,263,657**	**798,886,932**
			Tons/year	**399,443**
			lbs/day	**2,188,731**

Total	Annual Electricity Use			CO2e
KWH/Year	1,257,530,157		lbs/Year	1,593,101,754
GWH/Year	1,257,530		MTons/year	722,619
			Tons/Year	796,551
			lbs/day	4,364,662

Sources

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Note: New structures would be constructed to meet newer California Building Code energy efficiency requirements

South Bay Cities Council of Governments

Buildings/Facilities/Operations Report Form 2007, 2005, 1990

City of Torrance Edison data

Yellow highlighted areas to be filled in by SBCCOG staff, city to fill in white areas and check one appropriate category box

City	Park/Facility Name	Meter Use (i.e, irrigation, parking lot, building, lighting)	Facility/Building	Street Lights, Traffic Signals, Park & Recreation Lights	Water/Sewage (station, treatment, water pumping)	KWh Usage 2007	KWh Usage 2005	KWh Usage 1990
TORRANCE	Bartlett Ctr	Irrigation, Lightning	x			28,962	20,061	39,906
TORRANCE	Bindeward	Lightning, Controller, Irrigation		x		00	0	932
TORRANCE	Calle Mayor booster station	Pumping Lights			x	13,980	15,540	
TORRANCE	Civic Ctr					947,414	929,502	1,100,880
TORRANCE	Civic Ctr					42,520	36,860	70,160
TORRANCE	Civic Ctr					64,160	26,960	25,960
TORRANCE	Civic Ctr - Library					295,360	274,720	138,800
TORRANCE	Coleman Ct					2,159	2,735	2,781
TORRANCE	Dick Johnson Park						132	0
TORRANCE	Dom Pk					00	0	0
TORRANCE	Keller/Kennedy, St.Scape					00	1	1,739
TORRANCE	La Paloma	Irrigation, Lightning		x		00	0	0
TORRANCE	La Paloma & Lom	Irrigation, Controller			x	47	111	0
TORRANCE	La Romeria	Lightning, Building		x			0	
TORRANCE	La Romeria	Irrigation, Lightning	x			00	9,168	0
TORRANCE	La Romeria			x		00		
TORRANCE	Lago Seco	Irrigation, Lightning		x		32,130	25,740	52,320
TORRANCE	Lago Seco Noise Monitor						132	0
TORRANCE	Las Cancmas	Irrigation, Lightning		x				112,560
TORRANCE	Library	Irrigation Lightning, Building	x			3,068	3,360	15,286
TORRANCE	Los Arboles				x		132	0
TORRANCE	Madrona	Illigation, Lightning, Building	x			04	13	0
TORRANCE	Maple & C.C. DR					11,368	14,882	0
TORRANCE	McMaster, N .Torrance Libr	Irrigation, Lightning	x	x		354		
TORRANCE	Menderson Library		x			37,350	36,576	43,542
TORRANCE	MWD Connection T / 1	Pumping Lights			x	160	0	168
TORRANCE	MWD Connection T / 8	Pumping Lights			x	2,602	1,073	
TORRANCE	Not Parks							454
TORRANCE	Ocean Ave Sump						132	0
TORRANCE	Old well 5 Abandon				x			2,400
TORRANCE	Ref.Pueblo	Irrigation, Lightning	x			00	480	0
TORRANCE	Ref: Hickory	Irrigation, Lightning		x		22,004	21,814	21,376
TORRANCE	Ref: McMaster		x	x		49,170	46,788	63,942
TORRANCE	Ref: SeaAire	Irrigation Lightning	x			9,486	15,837	19,075
TORRANCE	Ref: SeaAire	Irrigation Lightning	x			6,204	5,184	9,012
TORRANCE	ref: SunnyGlen	Irrigation, Lightning, Controller		x		00	0	0
TORRANCE	Ref: Torrance Park	Irrigation, Lightning		x		20,020	24,580	26,480
TORRANCE	Ref: Torrance Park	Irrigation, Lightning		x		28,040	34,360	30,640
TORRANCE	Ref: Torrance Park			x		5,939	3,592	6,033
TORRANCE	Ref: Torrance Park			x		3,048	42	382
TORRANCE	Ref:Alta Loma	Irrigation, Lightning		x		1,770	1,594	3,239
TORRANCE	Ref:Alta Loma	Irrigation, Lightning	x			20,527	18,410	10,626
TORRANCE	Ref:Bartlett Center	Irrigation Lightning, Building	x			102,000	107,430	109,110
TORRANCE	Ref:Columbia	Irrigation, Lightning		x		65,400	71,960	71,720
TORRANCE	Ref:Columbia	Irrigation, Lightning		x		32,520	25,320	46,200

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City of Torrance Edison data

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TORRANCE	Ref:Columbia	Irrigation, Lightning		x		72,920	75,020	72,780
TORRANCE	Ref:De Portola	Irrigation, Lightning		x		15,073	20,987	15,243
TORRANCE	Ref:DelThorne	Irrigation Lightning		x		41,092	48,965	24,744
TORRANCE	Ref:Descano	Irrigation, Lightning		x		00	0	0
TORRANCE	Ref:Discovery	Irrigation, Lightning		x		4,899	3,538	
TORRANCE	Ref:Entradero	Irrigation, Lightning		X		20,338	22,349	1,068
TORRANCE	Ref:Greenwood	Irrigation, Lightning	x			51,120	55,120	34,160
TORRANCE	Ref:Guenser	Irrigation, Lightning		x		00	2,414	7
TORRANCE	Ref:Guenser	Irrigation, Lightning		x		00	8,628	0
TORRANCE	Ref:Guenser	Irrigation, Lightning		x		2,656	2,586	339
TORRANCE	Ref:La Carretera?	Irrigation, Lightning		x		00	2,040	0
TORRANCE	Ref:La Carretera?	Lightining		x		12,971	13,477	7,802
TORRANCE	Ref:Lago Seco	Irrigation, Lightning		x		2,427	6,428	5,003
TORRANCE	Ref:Lago Seco	Irrigation, Lightning		x		47,360		
TORRANCE	Ref:LaRomeria	Irrigation, Lightning		x		21,200	23,640	29,800
TORRANCE	Ref:Los Arboles	Lightning		x		3,212	5,494	5,029
TORRANCE	Ref:Madrona Marsh	Irrigation. Lightning, Building	X			55,740	51,000	
TORRANCE	Ref:Marsh Storage			x		00	0	
TORRANCE	Ref:McMaster		x			5,474	7,037	11,543
TORRANCE	Ref:McMaster			x		41,040	38,780	21,700
TORRANCE	Ref:McMaster	Irrigation, Lightning	X			26,561	31,454	
TORRANCE	Ref:Osage	Irrigation, Lightning		x		2,273	88	0
TORRANCE	Ref:Paradise	Irrigation Lightning		x		33,300	35,748	31,920
TORRANCE	Ref:Pequeno	Irrigation, Lightning		x		1,010	1,324	1,484
TORRANCE	Ref:Pueblo	Irrigation, Lightning	x			2,353	2,362	2,445
TORRANCE	Ref:South East Library	Irrigation, Lightning, Building	x			96,160	98,720	162,420
TORRANCE	Ref:Sur La Brea	Irrigation, Lightning		x		37,842	35,448	35,862
TORRANCE	Ref:Torrance Park	Lightning		x		59	40	
TORRANCE	Ref:Victor	Irrigation, Lightning		x		19,593	17,182	16,273
TORRANCE	Ref:Walteria	Irrigation, Lightning		x		13,361	11,322	13,373
TORRANCE	Ref:Wilson		x			199,260	249,420	
TORRANCE	Ref:Wilson		x			66,645	53,766	
TORRANCE	Ref:Wilson Park	Irrigation, Lightning		x		12,582	10,440	1,800
TORRANCE	Ref:Wilson Park			x		45,974	44,016	
TORRANCE	Sepulveda Booster Station	Pumping Lights			x		85,344	77,580
TORRANCE	SunnyGrea	Irrigation, Lightning		x		16,547	16,313	13,388
TORRANCE	Teen Ctr	Irrigation, Lightning	x			30,737	32,429	No Data
TORRANCE	Teen Ctr	Irrigation, Lightning	x			2,683	1,803	No Data
TORRANCE	This may be the old well 4 abandon				x			517,120
TORRANCE	Victor Surrer	Lightning		x		7,600	12,400	6,280
TORRANCE	Vista Montana Booster Station	Pumping Lights			x	432	5,232	
TORRANCE	Walteria Reservoir Booster Station	Pumping Lights			x	756,275	675,798	538,140

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TORRANCE	Well 6	Pumping Lights			x	1,015,141	555,538	732,640
TORRANCE	Well 7	Pumping Lights			x	13,800	13,320	
TORRANCE	Wilson			x		12,753	15,840	53,037
TORRANCE	Wilson			x		49,860	53,154	37,998
TORRANCE	Wilson			x		87,440	89,520	120,960
TORRANCE	Wilson			x		240,263	239,561	185,580
TORRANCE	Wilson			x		15,138	11,835	8,341
TORRANCE	Wilson				x	82,603	79,662	40,730
TORRANCE		Pump Stations			x	00	0	0
TORRANCE		Pump Stations			x			3,876
TORRANCE		Pump Stations			x	3,372	1,752	774
TORRANCE		Pump Stations			x	14,484	11,556	8,460
TORRANCE		Pump Stations			x	26,270	26,710	12,400
TORRANCE		Pump Stations			x	13,560	11,016	11,250
TORRANCE		Pump Stations			x	36,414	25,614	2,052
TORRANCE		Pump Stations			x	9,192	7,428	9,992
TORRANCE		Pump Stations			x	4,848	7,404	
TORRANCE		Pump Stations			x	9,180	7,392	
TORRANCE						1,308,145	1,314,685	1,457,760
TORRANCE								119
TORRANCE						00	0	3
TORRANCE						04	3	8
TORRANCE						00	0	16
TORRANCE								1
TORRANCE						1,200,951	1,102,498	
TORRANCE							0	0
TORRANCE						00	0	0
TORRANCE						06	0	16
TORRANCE								0
TORRANCE						00	0	0
TORRANCE						01	0	7
TORRANCE						00	0	0
TORRANCE						72	156	10
TORRANCE						00	0	0
TORRANCE						00	0	8
TORRANCE						3,895	4,581	16,376
TORRANCE						4,356	4,356	0
TORRANCE						6,901,168	6,871,311	0
TORRANCE						476,264	476,532	0
TORRANCE						4,800	4,800	0
TORRANCE						04	25	118
TORRANCE						5,211	4,563	16,915
TORRANCE						00	0	17,503
TORRANCE						1,726	1,887	10,421
TORRANCE						3,048	3,018	9,160
TORRANCE						5,211	5,220	10,793

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City of Torrance Edison data

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TORRANCE							1,953	11,516
TORRANCE						3,847	4,310	24,719
TORRANCE						3,613	3,911	14,057
TORRANCE						1,864	2,037	10,274
TORRANCE						4,220	4,893	20,783
TORRANCE						00	0	12
TORRANCE						01	1	56
TORRANCE						00	0	35
TORRANCE						31	52	96
TORRANCE						00	0	79
TORRANCE						01	0	80
TORRANCE						48	13	6
TORRANCE							0	0
TORRANCE						4,500	4,884	22,526
TORRANCE						5,905	6,625	26,578
TORRANCE						3,878	4,247	24,291
TORRANCE						4,541	4,859	24,377
TORRANCE						2,386	2,368	20,411
TORRANCE							0	9,000
TORRANCE							1,317	12,199
TORRANCE						2,316	2,273	7,733
TORRANCE						34	39	36
TORRANCE						2,336	2,960	17,986
TORRANCE						5,560	5,298	17,564
TORRANCE						4,418	5,901	16,887
TORRANCE								1
TORRANCE						1,683,588	1,704,303	2,074,320
TORRANCE						200,610	190,620	143,220
TORRANCE						98,760	104,760	71,940
TORRANCE						5,862	5,972	21,493
TORRANCE						1,319,166	1,373,501	2,142,720
TORRANCE						390,480	446,280	572,220
TORRANCE						96,640	81,760	103,040
TORRANCE						74,240	97,040	89,520
TORRANCE							240	79,320
TORRANCE						565,760	556,320	507,720
TORRANCE						2,533	2,802	27,800
TORRANCE						99	0	3,724
TORRANCE						00	0	26
TORRANCE						6,241	6,667	13,400
TORRANCE						8,454	9,622	18,408
TORRANCE						04	7	11
TORRANCE						5,266	5,033	22,521
TORRANCE						00	0	9
TORRANCE						110	114	1,086
TORRANCE						00	0	981
TORRANCE						89,940	75,400	84,480
TORRANCE						5,175	5,814	11,505

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TORRANCE						4,173	3,918	14,296
TORRANCE						2,896	3,873	18,038
TORRANCE						13,111	13,432	3,067
TORRANCE						4,725	5,369	17,741
TORRANCE						02	4	7
TORRANCE						40	0	80
TORRANCE						2,070	2,214	16,752
TORRANCE						00	0	0
TORRANCE						2,929	2,913	17,018
TORRANCE						00	0	12
TORRANCE						2,552	2,567	15,941
TORRANCE						10,634	3,057	20,702
TORRANCE						2,485	2,477	14,343
TORRANCE						9,072	8,444	10,766
TORRANCE								0
TORRANCE						1,863	1,990	12,114
TORRANCE						00	0	0
TORRANCE						00	0	6
TORRANCE						3,426	3,327	18,420
TORRANCE						28	41	78
TORRANCE								115
TORRANCE						125	123	72
TORRANCE						4,602	4,278	
TORRANCE						3,434	4,135	19,374
TORRANCE						2,682	3,140	16,661
TORRANCE						3,461	3,397	15,924
TORRANCE						4,808	5,439	24,274
TORRANCE							290,480	262,360
TORRANCE						4,726	5,677	22,616
TORRANCE						2,360	2,635	8,157
TORRANCE						2,515	2,895	13,829
TORRANCE						6,338	5,016	25,379
TORRANCE						11,373	11,647	26,092
TORRANCE						1,757	1,566	8,911
TORRANCE						4,893	4,901	24,979
TORRANCE								15,331
TORRANCE						00	0	12
TORRANCE						00	1	0
TORRANCE						4,096	3,764	13,106
TORRANCE						1,828	1,995	10,990
TORRANCE						1,995	2,178	11,404
TORRANCE								33,830
TORRANCE						3,088	3,545	16,314
TORRANCE						4,460	4,996	23,346
TORRANCE						5,139	4,778	14,672
TORRANCE						4,792	5,826	26,604
TORRANCE							132	0
TORRANCE							132	0

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City	Park/Facility Name	Meter Use (i.e, irrigation, parking lot, building, lighting)	Facility/Building	Street Lights, Traffic Signals, Park & Recreation Lights	Water/Sewage (station, treatment, water pumping)	KWh Usage 2007	KWh Usage 2005	KWh Usage 1990
TORRANCE							132	0
TORRANCE						2,769	2,763	13,643
TORRANCE						6,387	6,273	9,878
TORRANCE						78,368	138,670	57,840
TORRANCE						00	0	2
TORRANCE						30	24	0
TORRANCE						49,440	52,600	49,640
TORRANCE							2,656	22,542
TORRANCE								92
TORRANCE						2,404	2,481	12,420
TORRANCE						2,273	2,964	11,247
TORRANCE						4,241	3,719	3,996
TORRANCE						00	0	0
TORRANCE						111,390	90,660	75,570
TORRANCE						4,890	5,190	24,696
TORRANCE						3,904	5,906	19,802
TORRANCE						2,271	2,459	15,173
TORRANCE						5,581	5,699	30,836
TORRANCE						11	1,148	47
TORRANCE						4,777	5,131	4,244
TORRANCE						3,603	4,208	16,863
TORRANCE						115	111	166
TORRANCE						00	0	1
TORRANCE								0
TORRANCE						3,880	5,061	18,255
TORRANCE						00	60	0
TORRANCE						55,392	52,344	39,126
TORRANCE								955
TORRANCE								58,980
TORRANCE						28,920	24,500	97,540
TORRANCE								35,120
TORRANCE						8,816	10,478	2,445
TORRANCE						30,534	30,528	30,636
TORRANCE						01	282	4,567
TORRANCE						2,158	2,389	7,172
TORRANCE						08	538	4,366
TORRANCE								1,763
TORRANCE						10,334	10,837	6,558
TORRANCE								15,226
TORRANCE								15,664
TORRANCE						30,317	24,316	
TORRANCE						33,472	30,022	
TORRANCE						5,089	5,149	
TORRANCE						1,803	3,679	5,576
TORRANCE						4,580	4,054	14,473
TORRANCE								3,472
TORRANCE							0	121
TORRANCE						4,972	5,342	17,129

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TORRANCE						3,333	3,567	11,478
TORRANCE						4,512	4,918	26,331
TORRANCE						00	0	73
TORRANCE						1,629	1,694	14,136
TORRANCE						3,637	3,843	10,881
TORRANCE						00	0	0
TORRANCE						3,184	3,357	18,708
TORRANCE								4
TORRANCE						4,819	4,783	19,634
TORRANCE						4,936	5,654	34,741
TORRANCE						3,429	4,536	15,547
TORRANCE						2,259	2,677	18,023
TORRANCE						3,174	3,662	23,955
TORRANCE						7,737	7,348	20,291
TORRANCE								2,640
TORRANCE						1,791	2,346	15,843
TORRANCE						3,548	4,302	15,161
TORRANCE						3,138	5,457	19,326
TORRANCE						2,495	2,563	13,394
TORRANCE						145	133	87
TORRANCE						00	0	0
TORRANCE						05	5	7
TORRANCE						2,259	2,326	13,353
TORRANCE						5,387	5,415	21,239
TORRANCE						01	0	0
TORRANCE						92	45	96
TORRANCE						1,220	4,140	110
TORRANCE						1,882	2,024	15,143
TORRANCE						3,607	3,715	14,708
TORRANCE						2,237	2,497	5,345
TORRANCE						3,097	3,279	16,553
TORRANCE						2,961	2,876	13,055
TORRANCE						4,821	4,750	21,354
TORRANCE								22,819
TORRANCE						6,140	6,782	17,381
TORRANCE						4,337	5,230	23,323
TORRANCE						1,942	3,004	15,841
TORRANCE						00	0	23,690
TORRANCE						35,076	37,398	39,060
TORRANCE						00	0	0
TORRANCE								3,856
TORRANCE						00	26	3
TORRANCE						2,638	2,876	15,052
TORRANCE						511	555	2,218
TORRANCE								1,415
TORRANCE						00	0	0
TORRANCE								200
TORRANCE								0

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TORRANCE						4,874	1,605	3,368
TORRANCE						00	9	
TORRANCE						540	6,660	
TORRANCE						244,230	246,330	
TORRANCE						00	0	
TORRANCE						00	0	
TORRANCE						3,436	3,822	
TORRANCE						00	1,932	0
TORRANCE							48,402	54,744
TORRANCE						9,495	9,335	35,977
TORRANCE						192	336	
TORRANCE						11,256	13,110	
TORRANCE						01	1	
TORRANCE						11,760	11,984	
TORRANCE						11,700	12,438	
TORRANCE						55,320	50,490	
TORRANCE						7,440	7,440	0
TORRANCE						203	246	
TORRANCE						446	0	
TORRANCE						2,043	2,726	
TORRANCE						331	3	
TORRANCE							7,128	
TORRANCE						30,060	39,640	
TORRANCE						00	0	
TORRANCE						00	0	
TORRANCE						5,836	6,653	
TORRANCE						4,843	4,983	
TORRANCE						1,738	1,953	
TORRANCE						2,016	2,142	
TORRANCE						23,620	23,040	
TORRANCE						54,840	41,359	
TORRANCE						3,168	3,163	
TORRANCE						3,705	4,016	
TORRANCE						4,495	5,537	
TORRANCE						4,466	3,741	
TORRANCE						2,968	2,984	
TORRANCE						4,356	4,666	
TORRANCE						00	1	
TORRANCE						2,289	3,700	
TORRANCE						2,969	3,800	
TORRANCE						38,960	37,640	
TORRANCE						15,480	19,320	
TORRANCE						7,544	6,905	
TORRANCE						17,880	15,040	
TORRANCE						18,520	19,560	
TORRANCE						00	0	
TORRANCE						00	0	
TORRANCE						3,974	3,738	

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TORRANCE						01	2	
TORRANCE						4,908	8,108	
TORRANCE						4,882	4,768	
TORRANCE						5,005	4,990	
TORRANCE						9,149	9,730	
TORRANCE							0	
TORRANCE						4,912	4,919	0
TORRANCE						16,760	26,040	
TORRANCE						4,755	2,792	
TORRANCE						2,348	2,388	
TORRANCE						1,818	1,554	
TORRANCE						226	365	
TORRANCE						358	571	
TORRANCE						345	323	
TORRANCE						510	994	
TORRANCE						388	372	
TORRANCE						745	1,130	
TORRANCE						93	218	
TORRANCE							1,312	
TORRANCE						237		
TORRANCE						772		
TORRANCE						215	185	
TORRANCE						445		
TORRANCE						86,720	23,720	
TORRANCE						4,415	2,974	
TORRANCE						6,974		
TORRANCE						232,440		
TORRANCE						00		
TORRANCE						01		
TORRANCE						801		
						21,548,546	**21,149,997**	**14,932,854**

South Bay Cities Council of Governments

Buildings/Facilities/Operations Report Form 2007, 2005, 1990

City of Torrance Gas Company Data

Yellow highlighted areas to be filled in by SBCCOG staff, city to fill in white areas

Questions contact Heidi Aten at 3

Park/Facility Name	Meter Use (i.e, water heater, pipe insulation, pool heater, boiler)	THERMS Usage 2007	THERMS Usage 2005	*THERMS Usage 1990
Las Cancmas	M-WM	72	75	2.805300
Police Station		28,684	31,940	305.114000
Fire Station #5		1,350	1,071	10.190900
Police Station		24,773	17,220	No Data
Cable/General Service		1,751	1,249	16.668600
Fire Station #3		1,667	1,636	166706.000000
Sur La Brea	M-WM-S	194	72	1.795390
S/E Library	M-WM	422	322	32.062000
City Mau-E	M-WM	36,865	34,366	748.892000
RSVP	M-WM	346	172	No Data
Mistoricaz Soc.	M-WM	2,300	2,011	14.638500
City Yard		14,727	25,090	331.800000
City Yard		10,365	13,161	144.804000
El Retiro		338	264	3.713190
HR		7,948	5,601	111.926000
N. Torrance Library	M-WM	362	159	7.803830
Mcmaster	M-WM-S	1,508	881	4.967930
McMaster	M-WM	399	287	2.336050
Plunge	WH	124,193	102,713	176.264000
Plunge Building	M-WM	3,722	2,621	47.333000
Ken Miller/General Service		5,281	1,356	53.280200
Walteria Library	M-WM	257	246	5.406570
Airport		1,023	974	10.007300
Airport		2,628	3,966	
Wlteria PK	M-WM-S	155	96	0.703875
El Retiro Library & Rec	M-WM-S	365	273	2.070820
GRN Wood	M-WM-S	2,558	1,152	13.587800
Maple Sump/Public Service		24		1.407750
Fire Station #4		1,367	1,233	
Puebulo	M-WM-S	103	33	2.540070
Wilson	M-WM	1,038	1,050	
Fire Station #6		2,026	2,122	24.217400
Fire Station #1		3,791	3,577	47.384000
Alta Loma	M-WM-S	81	47	
El Nido	M-WM	16		
El Nido	M-WM-S	23		
Teen Ctr	M-WM-S	641	443	10.874400
Bartleh Ctr	M-WM-S	2,750	2,052	12.526900
Menderson Library	M-WM	373	422	5.702400
Set Aire	M-WM-S	104	114	1.693380
La Romeria	M-WM-S	55	53	1.162920
City Mau W	M-WM	26,219	23,584	
		50,878	**42,793**	**193**

2007 Annual Entity Emissions: Electric Power Generation/Electric Utility Sector

Southern California Edison

2244 Walnut Grove Ave
Rosemead Ca 91770
Website: www.sce.com

Legend	
Blue	= required
Green	= required
Orange	= optional

Reporting Year:	**2007**
Direct Baseline Year:	**2002**
Indirect Baseline Year:	**0**
Reporting Scope:	**CA and US**
Reporting Boundaries:	Equity Share
Reporting Protocols:	**General Reporting Protocol Version 3.0 (April 2008)** **Power/Utility Reporting Protocol Version 1.0 (April 2005)**

Contact: Howard Gollay
Title: Manager
Telephone: 626 302 4122
Email: howard.gollay@sce.com
Industry Type: Electric Power Producer
Entity NAICS Code: 2211 Electric Power Generation, Transmission and Distribution
Facility NAICS Code:
Entity Description: Southern California Edison is one of the largest electric utilities in the U.S., and the largest subsidiary of Edison International. On an average day, SCE provides power for 13 million individuals, 430 communities and cities, 5,000 large businesses, and 280,000 small businesses. in Central and Southern California. Delivering that power across a 50,000 mile service area takes 16 utility interconnections, 4,900 transmission and distribution circuits, 365 transmission and distribution crews, the days and nights of 12,642 employees, and over a century of experience.

EMISSIONS EFFICIENCY METRICS	Ratio
Electricity Deliveries:	630.89 lbs CO_2/MWh delivered *(includes CO_2 from owned and purchased generation)*
Net Generation:	480.80 lbs CO_2/MWh net owned generation *(fossil, geothermal, hydroelectric, nuclear, solar, etc.)*
Net Fossil Generation:	1,327.32 lbs CO_2/MWh net owned fossil generation only

Note: Efficiency metrics are calculated using CO_2 emissions from stationary combustion for purposes of electricity generation. CO_2 emissions from biogenic sources are not included in the Electricity Deliveries metric; however MWh from biogenic and all other generation sources are included. Geothermal generation CO_2 emissions and MWh are included in Net Generation metric but not Net Fossil Generation metric. Combustion sources related to any non-electricity generating natural gas operations are not included.

Comments:

Energy From Waste Disposal - Waste Profile

Jurisdiction Profile for the City of Torrance (2005)			
Source: Los Angeles County Department of Public Works. 2009. Jurisdiction Profile for City on Torrance. Based on the 2005 Jurisdiction Profile. http://dpw.lacounty.gov/swims/reports/predefined_master.asp?Action=GENERATEREPORT&rpt=23&rptType=DWDPDF			
Project-Generated Solid Waste by Type			
WARM FIELDS	**Percent of Waste**	Tons/day	lbs/day
Yard Trimmings	0.7%	3.57	7,140
Mixed Recyclables	0.4%	2.39	4,780
Mixed Organics	0.7%	4.09	8,180
Mixed MSW	97.7%	536.18	1,072,360
Concrete[1]	0.5%	2.62	5,240
Total Daily disposal	100.0%	548.85	1,097,700
FROM WARM		**455,863**	**Metric Tons of CO2e**
		502,503	**Short Tons of CO2e**
metric tons to short tons conversion		1.102311	tons/metric ton

Waste-Recycling Jurisdiction Profile for the City of Torrance - (Annual 2005)

	Tons Received	On-site Use Greenwaste	On-site Use C&D	On-site Use Other	Recycled/ composted/ other	Energy	Landfilled MSW	Landfilled Inert	Landfilled Other
Antelope Valley Public Landfill	4,761.00			2.00			4,759.00		
Azusa Land Reclamation	1,212.27		4.68	54.37	8.69				1,144.53
Bradely Landfill & Recycling Center	266.05				266.05				
Chiquita Canyon Landfill	25,560.22	284.14					25,276.08		
Commerce Refuse-to-Energy Facility	1,406.15				206.98	1,199.17			
Landcaster Landfill	52,480.00			1,428.00			51,052.00		
Nu-Way Arrow Reclamation, Inc.	1,780.50								1780.5
Nu-Way Live Oak Reclamation, Inc.	9,008.20				292.50				8715.7
Peck Road Gravel Pit	96.00		96.00						
Puente Hills Landfill	53,432.70	1,018.97	609.51		99.53		51,704.69		
Southeast Resource Recovery Facility	18,748.09					18,741.40			
Sunshine Canyon City Landfill	16,356.11			6.69			16,356.11		
Sunshine Canyon County Landfill	15,222.33		245.39				14,976.94		
Total Annual Disposal	200,329.62	1,303.11	955.58	1,491.06	873.75	19,940.57	164,124.82	0.00	11,640.73
Average Day	**548.85**	**3.57**	**2.62**	**4.09**	**2.39**	**54.63**	**449.66**	**0.00**	**31.89**
Average lbs/Day	1,097,697	7,140	5,236	8,170	4,788	109,263	899,314	0	63,785

Energy From Waste Disposal

Table 5.16-8	Existing (lbs/day)	Proposed GP (lbs/day)	Current GP (lbs/day
Residential Units	649,988	703,665	666,241
Commercial (Square Feet)	2,567,760	2,546,050	2,633,150
Office/Industrial (Square Feet)	190,542	190,746	194,418
Public/Quasi-Public/Open Space	49,164	47,760	48,654
Hospital	0	158,828	0
Airport	744	816	1
Total (lbs/day)	3,458,198	3,647,865	3,542,464
Total (Tons/day)	1,729	1,824	1,771
Total (Tons/Year)	631,121	665,735	646,500

WARM FIELDS	Tons/year	Tons/year	Tons/year
Yard Trimmings	4,105	4,330	4,205
Mixed Recyclables	2,748	2,899	2,815
Mixed Organics	4,703	4,961	4,818
Mixed MSW	616,552	650,367	631,576
Concrete[1]	3,013	3,178	3,086
	631,121	665,735	646,500
Metric Tons of CO2e	**262,098**	**276,473**	**268,485**
Short Tons of CO2e	**288,914**	**304,759**	**295,954**
metric tons to short tons conversion	1.102311	0.907184996	tons/metric ton

GHG Emissions Analysis -- Summary Report

Version 8 (5/06)

GHG Emissions Waste Management Analysis for
Prepared by:
Project Period for this Analysis: 01/00/00 to 01/00/00

GHG Emissions from Baseline Waste Management ($MTCO_2E$): 268,485

Commodity	Tons Recycled	Tons Landfilled	Tons Combusted	Tons Composted	Total $MTCO_2E$
Yard Trimmings	NA	4,205	-	-	(921)
Mixed Recyclables	-	2,815	-	NA	393
Mixed Organics	NA	4,818	-	-	1,138
Mixed MSW	NA	631,576	-	NA	267,758
Concrete	-	3,086	NA	NA	117

GHG Emissions Analysis -- Summary Report

Version 8 (5/06)

GHG Emissions Waste Management Analysis for
Prepared by:
Project Period for this Analysis: 01/00/00 to 01/00/00

GHG Emissions from Baseline Waste Management ($MTCO_2E$): 262,098

Commodity	Tons Recycled	Tons Landfilled	Tons Combusted	Tons Composted	Total $MTCO_2E$
Yard Trimmings	NA	4,105	-	-	(899)
Mixed Recyclables	-	2,748	-	NA	383
Mixed Organics	NA	4,703	-	-	1,111
Mixed MSW	NA	616,552	-	NA	261,388
Concrete	-	3,013	NA	NA	114

GHG Emissions Analysis -- Summary Report

Version 8 (5/06)

GHG Emissions Waste Management Analysis for
Prepared by:
Project Period for this Analysis: 01/00/00 to 01/00/00

GHG Emissions from Baseline Waste Management ($MTCO_2E$): 276,473

Commodity	Tons Recycled	Tons Landfilled	Tons Combusted	Tons Composted	Total $MTCO_2E$
Yard Trimmings	NA	4,330	-	-	(948)
Mixed Recyclables	-	2,899	-	NA	404
Mixed Organics	NA	4,961	-	-	1,172
Mixed MSW	NA	650,367	-	NA	275,724
Concrete	-	3,178	NA	NA	121

Energy Use from Project-Related Water Demand - Current GP

Total project-related water demand	40,388	Acre feet per year (AFY)
	13,160,535,265	gallons per year
	13,161	million gallons per year
Energy-intensity	167,138,798	Kwh/MG

CO2 Emissions from Water Demand

	105,665,566	lbs of CO2e/year
	289,495	lbs of CO2e/day
Project-related water-energy	52,833	tons of CO2e/year
	47,929	metrics tons of CO2e/year

Table 1-3: Electricity Use in Typical Urban Water Systems		Kwh/MG
	Northern California	Southern California
Water Supply and Conveyance	150	8,900
Water Treatement	100	100
Water Distribution	1,200	1,200
Wastewater Treatment	2,500	2,500
Total	3,950	12,700

California Energy Emission Factors		
0.63089	lbs of CO2/kwh	Southern California Edison*
0.0000067	lbs of CH4/kwh	For California
0.00000378	lbs of N20/kwh	For California
Coversion to CO2e	CH4	N20
	21	310
lbs of CO2e/kwh	**0.632**	

Sources

California Energy Commission. 2005, November. California's Water-Energy Relationship. CEC-700.2005-011-SF.
.* Based on SCE's Climate Action Registry Reporting Year 2007 CO2 emissions.

US Energy Information Administration (US EIA). 2002, April. Voluntary Reporting of Greenhouse Gases Program, Average Electricty Factors by State and Region. http://www.eia.doe.gov/oiaf/1605/ee-factors.html

Energy Intensity: Amount of energy consumed per unit of water to perform water management-related actions (i.e., desalting, pumping, presurizing, groundwater extraction, conveyance, and treatment)
Kwh/MG: kilowatt hours per million gallon of water

Conversion:	0.0005	lbs in a ton
	0.9071847	tons in a Metric Ton
	325851.429	gallons in an AF (acre-foot)
gallons per day (Table 5.16-5)	36,056,261	GPD
AFY (conversion)	40,388	AFY

Table 5.16-5

Forecast Project-Related Water Demand, gallons per day (gpd)

Land Use	*Existing*	*Existing Water Demand (GPD)*	*Current GP*	*Current GP Water Demand (GPD)*	*Proposed General Plan*	*Proposed General Plan Water Demand (GPD)*	*Water Demand Per Unit1*
Residential Units	53,147	17,272,775	54,476	17,704,700	57,536	18,699,200	325 per unit[2]
Commercial (Square Feet)	19,752,000	8,019,312	20,255,000	8,223,530	19,585,000	7,951,510	406 per 1,000 SF[3]
Office/Industrial (Square Feet)	31,757,000	7,939,250	32,403,000	8,100,750	31,791,000	7,947,750	250 per 1,000 SF[4]
Public/Quasi-Public/Open Space	8,194,000	2,048,500	8,109,000	2,027,250	7,960,000	1,990,000	250 per 1,000 SF[5]
Hospital	0	0	0	0	2,692,000	1,009,500	375 per 1,000 SF[6]
Airport	124	31	124	31	136	34	250 per 1,000 SF[7]
Total		35,279,868		36,056,261		37,597,994	Not Applicable

1 Estimated as 125 percent of wastewater generation factors from the Los Angeles County Sanitation Districts

2 Demand factor for single-family home; demands per unit for multifamily homes are lower

3 Demand factor for shopping center. This is a conservative estimate, as factors for most other retail uses are lower.

4 The generation factors for office building and manufacturing uses are each 200 gpd per 1,000 SF.

5 Using the generation factor for private school: 200 gpd per 1,000 SF

6 Using the generation factor for professional building: 300 gpd per 1,000 SF

7 Using the generation factur for office building: 200 gpd per 1,000 SF

Energy Use from Project-Related Water Demand - Existing

Total project-related water demand	39,518	Acre feet per year (AFY)
	12,877,151,820	gallons per year
	12,877	million gallons per year
Energy-intensity	163,539,828	Kwh/MG

CO2 Emissions from Water Demand

	103,390,288	lbs of CO2e/year
	283,261	lbs of CO2e/day
Project-related water-energy	51,695	tons of CO2e/year
	46,897	metrics tons of CO2e/year

Table 1-3: Electricity Use in Typical Urban Water Systems		Kwh/MG
	Northern California	Southern California
Water Supply and Conveyance	150	8,900
Water Treatement	100	100
Water Distribution	1,200	1,200
Wastewater Treatment	2,500	2,500
Total	3,950	12,700

California Energy Emission Factors			
	0.63089	lbs of CO2/kwh	Southern California Edison*
	0.0000067	lbs of CH4/kwh	For California
	0.00000378	lbs of N20/kwh	For California
Coversion to CO2e		CH4	N20
		21	310
	lbs of CO2e/kwh	0.632	

Sources

California Energy Commission. 2005, November. California's Water-Energy Relationship. CEC-700.2005-011-SF.
.* Based on SCE's Climate Action Registry Reporting Year 2007 CO2 emissions.

US Energy Information Administration (US EIA). 2002, April. Voluntary Reporting of Greenhouse Gases Program, Average Electricty Factors by State and Region. http://www.eia.doe.gov/oiaf/1605/ee-factors.html

Energy Intensity: Amount of energy consumed per unit of water to perform water management-related actions (i.e., desalting, pumping, presurizing, groundwater extraction, conveyance, and treatment)
Kwh/MG: kilowatt hours per million gallon of water

Conversion:	0.0005	lbs in a ton
	0.9071847	tons in a Metric Ton
	325851.429	gallons in an AF (acre-foot)
gallons per day (Table 5.16-5)	35,279,868	GPD
AFY (conversion)	39,518	AFY

Table 5.16-8
Forecast Project-Related Solid Waste Generation,

Land Use	*Existing*	*Existing Water Demand (lbs/day)*	*Current GP*	*Current GP Water Demand (lbs/day)*	*Proposed General Plan*	*Proposed General Plan Water Demand*	*Solid Waste Generation*
Residential Units	53,147	649,988	54,476	666,241	57,536	703,665	12.23
Commercial (Square Feet)	19,752,000	2,567,760	20,255,000	2,633,150	19,585,000	2,546,050	13 per 1,000 SF
Office/Industrial (Square Feet)	31,757,000	190,542	32,403,000	194,418	31,791,000	190,746	6 per 1,000 SF
Public/Quasi-Public/Open Space	8,194,000	49,164	8,109,000	48,654	7,960,000	47,760	6 per 1,000 SF[2]
Hospital	0	0	0	0	2,692,000	158,828	59 per 1,000 SF
Airport	124,000	744	124	1	136,000	816	6 per 1,000 SF[3]
Total (lbs/day)		3,458,198		3,542,464		3,647,865	
Total (Tons/day)		1,729		1,771		1,824	0

1 Source: Los Angeles County Sanitation Districts

2 Generation factor for Office use

3 Generation factor for Office use

Energy Use from Project-Related Water Demand - Proposed GP

Total project-related water demand	42,115	Acre feet per year (AFY)
	13,723,267,810	gallons per year
	13,723	million gallons per year
Energy-intensity	174,285,501	Kwh/MG

CO2 Emissions from Water Demand

	110,183,730	lbs of CO2e/year
	301,873	lbs of CO2e/day
Project-related water-energy	55,092	tons of CO2e/year
	49,978	metrics tons of CO2e/year

Table 1-3: Electricity Use in Typical Urban Water Systems		Kwh/MG
	Northern California	Southern California
Water Supply and Conveyance	150	8,900
Water Treatement	100	100
Water Distribution	1,200	1,200
Wastewater Treatment	2,500	2,500
Total	3,950	12,700

California Energy Emission Factors			
	0.63089	lbs of CO2/kwh	Southern California Edison*
	0.0000067	lbs of CH4/kwh	For California
	0.00000378	lbs of N20/kwh	For California
Coversion to CO2e		CH4	N20
		21	310
	lbs of CO2e/kwh	0.632	

Sources

California Energy Commission. 2005, November. California's Water-Energy Relationship. CEC-700.2005-011-SF.

.* Based on SCE's Climate Action Registry Reporting Year 2007 CO2 emissions.

US Energy Information Administration (US EIA). 2002, April. Voluntary Reporting of Greenhouse Gases Program, Average Electricty Factors by State and Region. http://www.eia.doe.gov/oiaf/1605/ee-factors.html

Energy Intensity: Amount of energy consumed per unit of water to perform water management-related actions (i.e., desalting, pumping, presurizing, groundwater extraction, conveyance, and treatment)

Kwh/MG: kilowatt hours per million gallon of water

Conversion:	0.0005	lbs in a ton
	0.9071847	tons in a Metric Ton
	325851.429	gallons in an AF (acre-foot)
gallons per day (Table 5.16-5)	37,597,994	GPD
AFY (conversion)	42,115	AFY

TORRANCE, CALIFORNIA (048973)

Period of Record Monthly Climate Summary

Period of Record : 1/ 1/1932 to 12/31/2008

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	65.8	66.5	67.4	69.6	71.6	73.9	77.6	78.6	78.0	75.5	71.6	67.0	71.9
Average Min. Temperature (F)	44.2	45.8	47.3	49.8	53.4	56.6	60.2	61.0	59.5	55.3	48.8	45.0	52.2
Average Total Precipitation (in.)	3.05	3.22	2.08	0.83	0.18	0.06	0.02	0.06	0.23	0.40	1.33	2.12	13.58
Average Total SnowFall (in.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Percent of possible observations for period of record.
Max. Temp.: 98.5% Min. Temp.: 98.4% Precipitation: 99.2% Snowfall: 99.4% Snow Depth: 99.4%
Check Station Metadata or Metadata graphics for more detail about data completeness.

Western Regional Climate Center, wrcc@dri.edu

Criteria Emissions Summary

Existing (2005) Land Uses (Modeled in Year 2030)

Summer	*ROG*	*NOx*	*CO*	*SO2*	*PM10*	*PM2.5*	*CO2*
Stationary	3,522	1,081	1,844	0	5	5	1,336,085
Transporation	4,503	3,934	44,010	131	21,382	4,146	12,890,737
Total	8,024	5,015	45,855	131	21,388	4,152	14,226,821

Winter	*ROG*	*NOx*	*CO*	*SO2*	*PM10*	*PM2.5*	*CO2*
Stationary	11,628	1,763	23,696	65	3,582	3,449	2,267,785
Transporation	5,020	4,720	41,764	109	21,382	4,146	11,652,559
Total	16,649	6,483	65,461	173	24,965	7,595	13,920,344

Current General Plan (Buildout Year Post-2030)

Summer	*ROG*	*NOx*	*CO*	*SO2*	*PM10*	*PM2.5*	*CO2*
Stationary	3,599	1,098	1,850	0	5	5	1,357,393
Transporation	4,595	4,013	44,895	134	21,811	4,230	13,149,304
Total	8,194	5,111	46,745	134	21,816	4,235	14,506,698
Increase from Existing	170	96	890	3	429	83	279,876

Winter	*ROG*	*NOx*	*CO*	*SO2*	*PM10*	*PM2.5*	*CO2*
Stationary	11,707	1,787	23,709	65	3,583	3,449	2,298,205
Transporation	5,123	4,815	42,606	111	21,811	4,230	11,886,296
Total	16,830	6,602	66,315	175	25,394	7,679	14,184,501
Increase from Existing	181	119	854	2	429	84	264,158

Proposed General Plan (Buildout Year Post-2030)

Summer	*ROG*	*NOx*	*CO*	*SO2*	*PM10*	*PM2.5*	*CO2*
Stationary	3,522	1,081	1,844	0	5	5	1,336,085
Transporation	4,752	4,161	46,561	139	22,638	4,390	13,646,312
Total	8,274	5,242	48,405	139	22,643	4,395	14,982,397
Increase from Existing	249	227	2,551	8	1,256	243	755,576
Increase from Current GP	80	131	1,660	5	827	160	475,699

Winter	*ROG*	*NOx*	*CO*	*SO2*	*PM10*	*PM2.5*	*CO2*
Stationary	11,628	1,763	23,696	65	3,582	3,449	2,267,785
Transporation	5,295	4,993	44,168	115	22,638	4,390	12,335,415
Total	16,924	6,756	67,865	180	26,220	7,838	14,603,200
Increase from Existing	275	273	2,404	6	1,256	243	682,857
Increase from Current GP	94	154	1,550	4	826	160	418,699

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: Q:\TOR-02.0E\Technical Studies\Air\Urbemis\SampleConstruction.urb924
Project Name: Torrance GP - Sample Construction
Project Location: Los Angeles County
On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006
Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

Phase Assumptions

Phase: Mass Grading 1/1/2010 - 12/31/2029 - Default Mass Site Grading/Excavation Description
Total Acres Disturbed: 517.19
Maximum Daily Acreage Disturbed: 129.3
Fugitive Dust Level of Detail: Default
20 lbs per acre-day
On Road Truck Travel (VMT): 0
Off-Road Equipment:
2 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
1 Plate Compactors (8 hp) operating at a 0.43 load factor for 8 hours per day
2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day
4 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
2 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Trenching 1/1/2010 - 12/31/2029 - Default Trenching Description
Off-Road Equipment:
4 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
2 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 8 hours per day
2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day

Phase: Paving 1/1/2010 - 12/31/2029 - Default Paving Description
Acres to be Paved: 129.3
Off-Road Equipment:
1 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day
2 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day
2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 1/1/2010 - 12/31/2029 - Default Building Construction Description
Off-Road Equipment:
1 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day
3 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day
1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
1 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 1/1/2010 - 12/31/2029 - Default Architectural Coating Description
Rule: Residential Interior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 100
Rule: Residential Interior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 50
Rule: Residential Exterior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 250
Rule: Residential Exterior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 100
Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250
Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:
CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2010	13.97	64.45	146.98	0.18	53.98	3.08	57.06	11.39	2.81	14.19	20,590.25
Asphalt 01/01/2010-12/31/2029	0.43	2.55	1.56	0.00	0.00	0.22	0.22	0.00	0.20	0.20	210.36
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.42	2.50	1.37	0.00	0.00	0.22	0.22	0.00	0.20	0.20	185.16
Paving On Road Diesel	0.00	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.92
Paving Worker Trips	0.01	0.01	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.28
Building 01/01/2010-12/31/2029	6.81	40.57	134.66	0.18	0.78	1.89	2.67	0.28	1.71	1.99	18,313.01
Building Off Road Diesel	0.53	3.04	1.87	0.00	0.00	0.22	0.22	0.00	0.20	0.20	294.84
Building Vendor Trips	2.81	31.07	24.39	0.05	0.20	1.34	1.53	0.07	1.23	1.29	5,623.37
Building Worker Trips	3.47	6.45	108.39	0.13	0.59	0.34	0.92	0.21	0.28	0.50	12,394.81
Coating 01/01/2010-12/31/2029	4.29	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.23
Architectural Coating	4.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.23
Mass Grading 01/01/2010-	1.89	16.69	8.25	0.00	53.19	0.74	53.93	11.11	0.68	11.79	1,577.68
Mass Grading Dust	0.00	0.00	0.00	0.00	53.19	0.00	53.19	11.11	0.00	11.11	0.00
Mass Grading Off Road Diesel	1.88	16.67	7.83	0.00	0.00	0.74	0.74	0.00	0.68	0.68	1,528.99
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.01	0.03	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.68
Trenching 01/01/2010-12/31/2029	0.55	4.63	2.43	0.00	0.00	0.23	0.23	0.00	0.21	0.21	479.97
Trenching Off Road Diesel	0.54	4.62	2.14	0.00	0.00	0.23	0.23	0.00	0.21	0.21	447.52
Trenching Worker Trips	0.01	0.02	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.45
2011	13.20	59.05	136.77	0.18	53.77	2.83	56.60	11.34	2.57	13.92	20,508.75
Asphalt 01/01/2010-12/31/2029	0.41	2.42	1.52	0.00	0.00	0.21	0.21	0.00	0.20	0.20	209.55
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.39	2.37	1.34	0.00	0.00	0.21	0.21	0.00	0.19	0.19	184.45
Paving On Road Diesel	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.90
Paving Worker Trips	0.01	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.20
Building 01/01/2010-12/31/2029	6.23	36.71	125.07	0.18	0.78	1.73	2.51	0.28	1.56	1.84	18,240.26
Building Off Road Diesel	0.49	2.84	1.81	0.00	0.00	0.20	0.20	0.00	0.19	0.19	293.71
Building Vendor Trips	2.58	27.98	22.54	0.05	0.20	1.19	1.39	0.07	1.09	1.16	5,601.89
Building Worker Trips	3.16	5.89	100.72	0.13	0.58	0.34	0.92	0.21	0.28	0.49	12,344.66
Coating 01/01/2010-12/31/2029	4.27	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.19
Architectural Coating	4.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.19
Mass Grading 01/01/2010-	1.77	15.63	7.74	0.00	52.99	0.67	53.66	11.07	0.62	11.68	1,571.62
Mass Grading Dust	0.00	0.00	0.00	0.00	52.99	0.00	52.99	11.07	0.00	11.07	0.00
Mass Grading Off Road Diesel	1.76	15.61	7.34	0.00	0.00	0.67	0.67	0.00	0.62	0.62	1,523.14
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.01	0.02	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.48
Trenching 01/01/2010-12/31/2029	0.51	4.29	2.36	0.00	0.00	0.21	0.22	0.00	0.20	0.20	478.13
Trenching Off Road Diesel	0.51	4.27	2.10	0.00	0.00	0.21	0.21	0.00	0.20	0.20	445.81
Trenching Worker Trips	0.01	0.02	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.32

2012	12.56	54.26	128.18	0.18	53.98	2.60	56.58	11.39	2.36	13.75	20,585.41
Asphalt 01/01/2010-12/31/2029	0.39	2.30	1.50	0.00	0.00	0.20	0.20	0.00	0.19	0.19	210.35
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.37	2.26	1.34	0.00	0.00	0.20	0.20	0.00	0.18	0.18	185.16
Paving On Road Diesel	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.92
Paving Worker Trips	0.00	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.28
Building 01/01/2010-12/31/2029	5.70	33.26	116.95	0.18	0.78	1.58	2.37	0.28	1.43	1.70	18,308.21
Building Off Road Diesel	0.45	2.67	1.78	0.00	0.00	0.19	0.19	0.00	0.17	0.17	294.84
Building Vendor Trips	2.38	25.16	20.95	0.05	0.20	1.06	1.26	0.07	0.97	1.04	5,623.42
Building Worker Trips	2.87	5.43	94.22	0.13	0.59	0.34	0.92	0.21	0.28	0.50	12,389.95
Coating 01/01/2010-12/31/2029	4.29	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.23
Architectural Coating	4.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.23
Mass Grading 01/01/2010-	1.69	14.71	7.33	0.00	53.19	0.63	53.82	11.11	0.58	11.68	1,577.66
Mass Grading Dust	0.00	0.00	0.00	0.00	53.19	0.00	53.19	11.11	0.00	11.11	0.00
Mass Grading Off Road Diesel	1.68	14.69	6.96	0.00	0.00	0.62	0.62	0.00	0.57	0.57	1,528.99
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.01	0.02	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.66
Trenching 01/01/2010-12/31/2029	0.48	3.99	2.34	0.00	0.00	0.19	0.19	0.00	0.18	0.18	479.96
Trenching Off Road Diesel	0.47	3.98	2.09	0.00	0.00	0.19	0.19	0.00	0.18	0.18	447.52
Trenching Worker Trips	0.01	0.01	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.44
2013	11.95	49.47	119.53	0.18	53.98	2.38	56.36	11.39	2.16	13.55	20,583.90
Asphalt 01/01/2010-12/31/2029	0.37	2.18	1.48	0.00	0.00	0.19	0.19	0.00	0.17	0.17	210.35
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.35	2.15	1.32	0.00	0.00	0.19	0.19	0.00	0.17	0.17	185.16
Paving On Road Diesel	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.92
Paving Worker Trips	0.00	0.01	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.27
Building 01/01/2010-12/31/2029	5.21	29.78	108.76	0.18	0.78	1.44	2.22	0.28	1.29	1.57	18,306.72
Building Off Road Diesel	0.42	2.48	1.74	0.00	0.00	0.17	0.17	0.00	0.15	0.15	294.84
Building Vendor Trips	2.16	22.32	19.31	0.05	0.20	0.93	1.13	0.07	0.85	0.92	5,623.51
Building Worker Trips	2.63	4.98	87.72	0.13	0.59	0.34	0.92	0.21	0.28	0.50	12,388.37
Coating 01/01/2010-12/31/2029	4.29	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.23
Architectural Coating	4.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.23
Mass Grading 01/01/2010-	1.63	13.80	6.91	0.00	53.19	0.58	53.77	11.11	0.54	11.64	1,577.65
Mass Grading Dust	0.00	0.00	0.00	0.00	53.19	0.00	53.19	11.11	0.00	11.11	0.00
Mass Grading Off Road Diesel	1.62	13.78	6.57	0.00	0.00	0.58	0.58	0.00	0.53	0.53	1,528.99
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.01	0.02	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.66
Trenching 01/01/2010-12/31/2029	0.45	3.70	2.31	0.00	0.00	0.18	0.18	0.00	0.16	0.16	479.96
Trenching Off Road Diesel	0.45	3.68	2.08	0.00	0.00	0.18	0.18	0.00	0.16	0.16	447.52
Trenching Worker Trips	0.01	0.01	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.44
2014	11.37	44.82	111.76	0.18	53.98	2.18	56.15	11.39	1.97	13.36	20,582.62
Asphalt 01/01/2010-12/31/2029	0.35	2.07	1.46	0.00	0.00	0.18	0.18	0.00	0.16	0.16	210.35
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.33	2.04	1.31	0.00	0.00	0.18	0.18	0.00	0.16	0.16	185.16
Paving On Road Diesel	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.92
Paving Worker Trips	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.27
Building 01/01/2010-12/31/2029	4.75	26.55	101.38	0.18	0.78	1.31	2.09	0.28	1.18	1.45	18,305.45
Building Off Road Diesel	0.38	2.30	1.70	0.00	0.00	0.14	0.14	0.00	0.13	0.13	294.84
Building Vendor Trips	1.96	19.66	17.78	0.05	0.20	0.81	1.01	0.07	0.75	0.81	5,623.55
Building Worker Trips	2.41	4.59	81.89	0.13	0.59	0.35	0.94	0.21	0.30	0.51	12,387.06
Coating 01/01/2010-12/31/2029	4.29	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.22
Architectural Coating	4.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.22
Mass Grading 01/01/2010-	1.55	12.79	6.58	0.00	53.19	0.53	53.73	11.11	0.49	11.60	1,577.64
Mass Grading Dust	0.00	0.00	0.00	0.00	53.19	0.00	53.19	11.11	0.00	11.11	0.00
Mass Grading Off Road Diesel	1.54	12.78	6.26	0.00	0.00	0.53	0.53	0.00	0.49	0.49	1,528.99
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.01	0.02	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.65
Trenching 01/01/2010-12/31/2029	0.43	3.41	2.27	0.00	0.00	0.15	0.16	0.00	0.14	0.14	479.95
Trenching Off Road Diesel	0.42	3.40	2.06	0.00	0.00	0.15	0.15	0.00	0.14	0.14	447.52
Trenching Worker Trips	0.01	0.01	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.43

2015	10.80	40.33	104.43	0.18	53.98	2.00	55.98	11.39	1.81	13.19	20,581.65
Asphalt 01/01/2010-12/31/2029	0.33	1.94	1.44	0.00	0.00	0.16	0.16	0.00	0.15	0.15	210.35
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.31	1.91	1.30	0.00	0.00	0.16	0.16	0.00	0.15	0.15	185.16
Paving On Road Diesel	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.92
Paving Worker Trips	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.27
Building 01/01/2010-12/31/2029	4.33	23.56	94.43	0.18	0.78	1.20	1.98	0.28	1.07	1.35	18,304.49
Building Off Road Diesel	0.35	2.11	1.67	0.00	0.00	0.13	0.13	0.00	0.12	0.12	294.84
Building Vendor Trips	1.77	17.22	16.36	0.05	0.20	0.71	0.91	0.07	0.65	0.72	5,623.68
Building Worker Trips	2.21	4.23	76.40	0.13	0.59	0.35	0.94	0.21	0.30	0.51	12,385.97
Coating 01/01/2010-12/31/2029	4.29	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.22
Architectural Coating	4.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.22
Mass Grading 01/01/2010-	1.46	11.78	6.26	0.00	53.19	0.49	53.68	11.11	0.45	11.56	1,577.64
Mass Grading Dust	0.00	0.00	0.00	0.00	53.19	0.00	53.19	11.11	0.00	11.11	0.00
Mass Grading Off Road Diesel	1.46	11.77	5.96	0.00	0.00	0.49	0.49	0.00	0.45	0.45	1,528.99
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.01	0.02	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.65
Trenching 01/01/2010-12/31/2029	0.39	3.05	2.25	0.00	0.00	0.15	0.15	0.00	0.13	0.13	479.95
Trenching Off Road Diesel	0.39	3.04	2.05	0.00	0.00	0.14	0.14	0.00	0.13	0.13	447.52
Trenching Worker Trips	0.01	0.01	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.43
2016	10.30	36.52	98.07	0.18	53.98	1.84	55.82	11.39	1.66	13.05	20,580.28
Asphalt 01/01/2010-12/31/2029	0.30	1.81	1.42	0.00	0.00	0.15	0.15	0.00	0.14	0.14	210.34
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.29	1.79	1.29	0.00	0.00	0.15	0.15	0.00	0.14	0.14	185.16
Paving On Road Diesel	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.92
Paving Worker Trips	0.00	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.27
Building 01/01/2010-12/31/2029	3.95	21.14	88.37	0.18	0.78	1.11	1.90	0.28	0.99	1.27	18,303.13
Building Off Road Diesel	0.32	1.94	1.65	0.00	0.00	0.11	0.11	0.00	0.11	0.11	294.84
Building Vendor Trips	1.61	15.28	15.19	0.05	0.20	0.63	0.83	0.07	0.58	0.64	5,623.76
Building Worker Trips	2.02	3.92	71.54	0.13	0.59	0.37	0.95	0.21	0.31	0.52	12,384.53
Coating 01/01/2010-12/31/2029	4.29	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.22
Architectural Coating	4.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.22
Mass Grading 01/01/2010-	1.38	10.85	6.00	0.00	53.19	0.46	53.65	11.11	0.42	11.53	1,577.63
Mass Grading Dust	0.00	0.00	0.00	0.00	53.19	0.00	53.19	11.11	0.00	11.11	0.00
Mass Grading Off Road Diesel	1.38	10.84	5.71	0.00	0.00	0.45	0.45	0.00	0.42	0.42	1,528.99
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.01	0.02	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.64
Trenching 01/01/2010-12/31/2029	0.37	2.71	2.23	0.00	0.00	0.12	0.12	0.00	0.11	0.11	479.95
Trenching Off Road Diesel	0.36	2.70	2.04	0.00	0.00	0.12	0.12	0.00	0.11	0.11	447.52
Trenching Worker Trips	0.01	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.43
2017	9.82	33.01	91.69	0.18	53.77	1.68	55.46	11.34	1.52	12.86	20,500.57
Asphalt 01/01/2010-12/31/2029	0.28	1.69	1.39	0.00	0.00	0.14	0.14	0.00	0.13	0.13	209.54
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.27	1.67	1.28	0.00	0.00	0.14	0.14	0.00	0.13	0.13	184.45
Paving On Road Diesel	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.90
Paving Worker Trips	0.00	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.19
Building 01/01/2010-12/31/2029	3.61	19.01	82.33	0.18	0.78	1.02	1.80	0.28	0.91	1.19	18,232.16
Building Off Road Diesel	0.29	1.77	1.62	0.00	0.00	0.10	0.10	0.00	0.09	0.09	293.71
Building Vendor Trips	1.47	13.63	14.10	0.05	0.20	0.56	0.75	0.07	0.51	0.58	5,602.36
Building Worker Trips	1.85	3.60	66.61	0.13	0.58	0.37	0.95	0.21	0.31	0.52	12,336.09
Coating 01/01/2010-12/31/2029	4.27	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.19
Architectural Coating	4.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.19
Mass Grading 01/01/2010-	1.31	9.92	5.71	0.00	52.99	0.41	53.40	11.07	0.38	11.45	1,571.59
Mass Grading Dust	0.00	0.00	0.00	0.00	52.99	0.00	52.99	11.07	0.00	11.07	0.00
Mass Grading Off Road Diesel	1.30	9.91	5.45	0.00	0.00	0.41	0.41	0.00	0.38	0.38	1,523.14
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.01	0.01	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.45
Trenching 01/01/2010-12/31/2029	0.34	2.39	2.20	0.00	0.00	0.11	0.11	0.00	0.10	0.10	478.11
Trenching Off Road Diesel	0.34	2.38	2.03	0.00	0.00	0.11	0.11	0.00	0.10	0.10	445.81
Trenching Worker Trips	0.00	0.01	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.30

2018	9.45	30.12	86.47	0.18	53.98	1.56	55.54	11.39	1.40	12.79	20,578.93
Asphalt 01/01/2010-12/31/2029	0.27	1.59	1.39	0.00	0.00	0.13	0.13	0.00	0.12	0.12	210.34
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.26	1.57	1.28	0.00	0.00	0.13	0.13	0.00	0.12	0.12	185.16
Paving On Road Diesel	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.92
Paving Worker Trips	0.00	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.26
Building 01/01/2010-12/31/2029	3.34	17.30	77.30	0.18	0.78	0.96	1.74	0.28	0.85	1.13	18,301.80
Building Off Road Diesel	0.27	1.63	1.60	0.00	0.00	0.09	0.09	0.00	0.08	0.08	294.84
Building Vendor Trips	1.36	12.34	13.23	0.05	0.20	0.50	0.70	0.07	0.46	0.53	5,624.11
Building Worker Trips	1.71	3.34	62.47	0.13	0.59	0.37	0.95	0.21	0.31	0.52	12,382.86
Coating 01/01/2010-12/31/2029	4.29	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.22
Architectural Coating	4.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.22
Mass Grading 01/01/2010-	1.23	9.12	5.53	0.00	53.19	0.37	53.56	11.11	0.34	11.45	1,577.63
Mass Grading Dust	0.00	0.00	0.00	0.00	53.19	0.00	53.19	11.11	0.00	11.11	0.00
Mass Grading Off Road Diesel	1.22	9.11	5.29	0.00	0.00	0.37	0.37	0.00	0.34	0.34	1,528.99
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.01	0.01	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.63
Trenching 01/01/2010-12/31/2029	0.32	2.10	2.20	0.00	0.00	0.10	0.10	0.00	0.09	0.09	479.94
Trenching Off Road Diesel	0.32	2.10	2.03	0.00	0.00	0.10	0.10	0.00	0.09	0.09	447.52
Trenching Worker Trips	0.00	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.42
2019	9.09	27.44	81.29	0.18	53.98	1.43	55.41	11.39	1.29	12.67	20,578.63
Asphalt 01/01/2010-12/31/2029	0.25	1.49	1.37	0.00	0.00	0.12	0.12	0.00	0.11	0.11	210.34
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.24	1.47	1.27	0.00	0.00	0.11	0.11	0.00	0.11	0.11	185.16
Paving On Road Diesel	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.92
Paving Worker Trips	0.00	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.26
Building 01/01/2010-12/31/2029	3.08	15.76	72.36	0.18	0.78	0.90	1.68	0.28	0.80	1.07	18,301.50
Building Off Road Diesel	0.25	1.49	1.58	0.00	0.00	0.07	0.07	0.00	0.07	0.07	294.84
Building Vendor Trips	1.26	11.19	12.40	0.05	0.20	0.46	0.65	0.07	0.42	0.48	5,624.33
Building Worker Trips	1.57	3.08	58.37	0.13	0.59	0.37	0.95	0.21	0.31	0.52	12,382.34
Coating 01/01/2010-12/31/2029	4.29	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.22
Architectural Coating	4.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.22
Mass Grading 01/01/2010-	1.17	8.34	5.34	0.00	53.19	0.33	53.53	11.11	0.31	11.42	1,577.63
Mass Grading Dust	0.00	0.00	0.00	0.00	53.19	0.00	53.19	11.11	0.00	11.11	0.00
Mass Grading Off Road Diesel	1.17	8.33	5.11	0.00	0.00	0.33	0.33	0.00	0.31	0.31	1,528.99
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.01	0.01	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.63
Trenching 01/01/2010-12/31/2029	0.30	1.84	2.18	0.00	0.00	0.08	0.09	0.00	0.08	0.08	479.94
Trenching Off Road Diesel	0.29	1.84	2.03	0.00	0.00	0.08	0.08	0.00	0.08	0.08	447.52
Trenching Worker Trips	0.00	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.42
2020	8.77	25.17	76.67	0.19	54.19	1.34	55.52	11.43	1.20	12.63	20,657.30
Asphalt 01/01/2010-12/31/2029	0.23	1.40	1.36	0.00	0.00	0.11	0.11	0.00	0.10	0.10	211.14
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.22	1.38	1.26	0.00	0.00	0.11	0.11	0.00	0.10	0.10	185.86
Paving On Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.94
Paving Worker Trips	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.34
Building 01/01/2010-12/31/2029	2.84	14.49	67.89	0.18	0.79	0.85	1.64	0.28	0.75	1.03	18,371.45
Building Off Road Diesel	0.22	1.38	1.58	0.00	0.00	0.07	0.07	0.00	0.06	0.06	295.97
Building Vendor Trips	1.18	10.26	11.69	0.05	0.20	0.42	0.62	0.07	0.38	0.45	5,646.11
Building Worker Trips	1.44	2.86	54.62	0.13	0.59	0.37	0.96	0.21	0.31	0.52	12,429.37
Coating 01/01/2010-12/31/2029	4.31	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.26
Architectural Coating	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.26
Mass Grading 01/01/2010-	1.11	7.65	5.20	0.00	53.40	0.30	53.70	11.15	0.27	11.43	1,583.67
Mass Grading Dust	0.00	0.00	0.00	0.00	53.39	0.00	53.39	11.15	0.00	11.15	0.00
Mass Grading Off Road Diesel	1.10	7.64	4.99	0.00	0.00	0.30	0.30	0.00	0.27	0.27	1,534.85
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.01	0.01	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.82
Trenching 01/01/2010-12/31/2029	0.28	1.63	2.18	0.00	0.00	0.08	0.08	0.00	0.07	0.07	481.78
Trenching Off Road Diesel	0.27	1.62	2.03	0.00	0.00	0.08	0.08	0.00	0.07	0.07	449.24
Trenching Worker Trips	0.00	0.01	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.54

2021	7.94	21.24	58.03	0.18	53.98	1.22	55.20	11.39	1.09	12.48	20,579.50
Asphalt 01/01/2010-12/31/2029	0.23	1.39	1.33	0.00	0.00	0.11	0.11	0.00	0.10	0.10	210.34
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.22	1.37	1.26	0.00	0.00	0.11	0.11	0.00	0.10	0.10	185.16
Paving On Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.92
Paving Worker Trips	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.26
Building 01/01/2010-12/31/2029	2.05	10.62	49.42	0.18	0.78	0.74	1.52	0.28	0.65	0.92	18,302.38
Building Off Road Diesel	0.22	1.37	1.57	0.00	0.00	0.06	0.06	0.00	0.06	0.06	294.84
Building Vendor Trips	0.89	7.31	8.96	0.05	0.20	0.30	0.50	0.07	0.28	0.34	5,625.77
Building Worker Trips	0.94	1.95	38.90	0.13	0.59	0.37	0.95	0.21	0.31	0.52	12,381.77
Coating 01/01/2010-12/31/2029	4.29	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.22
Architectural Coating	4.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.22
Mass Grading 01/01/2010-	1.10	7.62	5.12	0.00	53.19	0.30	53.49	11.11	0.27	11.38	1,577.62
Mass Grading Dust	0.00	0.00	0.00	0.00	53.19	0.00	53.19	11.11	0.00	11.11	0.00
Mass Grading Off Road Diesel	1.10	7.61	4.97	0.00	0.00	0.30	0.30	0.00	0.27	0.27	1,528.99
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.00	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.63
Trenching 01/01/2010-12/31/2029	0.27	1.62	2.13	0.00	0.00	0.08	0.08	0.00	0.07	0.07	479.94
Trenching Off Road Diesel	0.27	1.61	2.03	0.00	0.00	0.08	0.08	0.00	0.07	0.07	447.52
Trenching Worker Trips	0.00	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.42
2022	7.91	21.16	57.80	0.18	53.77	1.21	54.99	11.34	1.08	12.43	20,500.65
Asphalt 01/01/2010-12/31/2029	0.23	1.38	1.32	0.00	0.00	0.11	0.11	0.00	0.10	0.10	209.53
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.22	1.37	1.26	0.00	0.00	0.11	0.11	0.00	0.10	0.10	184.45
Paving On Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.90
Paving Worker Trips	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.18
Building 01/01/2010-12/31/2029	2.04	10.58	49.23	0.18	0.78	0.73	1.51	0.28	0.64	0.92	18,232.25
Building Off Road Diesel	0.22	1.36	1.56	0.00	0.00	0.06	0.06	0.00	0.06	0.06	293.71
Building Vendor Trips	0.88	7.28	8.92	0.05	0.20	0.30	0.50	0.07	0.27	0.34	5,604.22
Building Worker Trips	0.93	1.94	38.75	0.13	0.58	0.37	0.95	0.21	0.31	0.52	12,334.33
Coating 01/01/2010-12/31/2029	4.27	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.19
Architectural Coating	4.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.19
Mass Grading 01/01/2010-	1.10	7.59	5.10	0.00	52.99	0.30	53.29	11.07	0.27	11.34	1,571.58
Mass Grading Dust	0.00	0.00	0.00	0.00	52.99	0.00	52.99	11.07	0.00	11.07	0.00
Mass Grading Off Road Diesel	1.09	7.58	4.95	0.00	0.00	0.29	0.29	0.00	0.27	0.27	1,523.14
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.00	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.44
Trenching 01/01/2010-12/31/2029	0.27	1.61	2.12	0.00	0.00	0.08	0.08	0.00	0.07	0.07	478.10
Trenching Off Road Diesel	0.27	1.61	2.02	0.00	0.00	0.07	0.07	0.00	0.07	0.07	445.81
Trenching Worker Trips	0.00	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.30
2023	7.91	21.16	57.80	0.18	53.77	1.21	54.99	11.34	1.08	12.43	20,500.65
Asphalt 01/01/2010-12/31/2029	0.23	1.38	1.32	0.00	0.00	0.11	0.11	0.00	0.10	0.10	209.53
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.22	1.37	1.26	0.00	0.00	0.11	0.11	0.00	0.10	0.10	184.45
Paving On Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.90
Paving Worker Trips	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.18
Building 01/01/2010-12/31/2029	2.04	10.58	49.23	0.18	0.78	0.73	1.51	0.28	0.64	0.92	18,232.25
Building Off Road Diesel	0.22	1.36	1.56	0.00	0.00	0.06	0.06	0.00	0.06	0.06	293.71
Building Vendor Trips	0.88	7.28	8.92	0.05	0.20	0.30	0.50	0.07	0.27	0.34	5,604.22
Building Worker Trips	0.93	1.94	38.75	0.13	0.58	0.37	0.95	0.21	0.31	0.52	12,334.33
Coating 01/01/2010-12/31/2029	4.27	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.19
Architectural Coating	4.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.19
Mass Grading 01/01/2010-	1.10	7.59	5.10	0.00	52.99	0.30	53.29	11.07	0.27	11.34	1,571.58
Mass Grading Dust	0.00	0.00	0.00	0.00	52.99	0.00	52.99	11.07	0.00	11.07	0.00
Mass Grading Off Road Diesel	1.09	7.58	4.95	0.00	0.00	0.29	0.29	0.00	0.27	0.27	1,523.14
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.00	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.44
Trenching 01/01/2010-12/31/2029	0.27	1.61	2.12	0.00	0.00	0.08	0.08	0.00	0.07	0.07	478.10
Trenching Off Road Diesel	0.27	1.61	2.02	0.00	0.00	0.07	0.07	0.00	0.07	0.07	445.81
Trenching Worker Trips	0.00	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.30

2024	7.97	21.33	58.25	0.19	54.19	1.22	55.41	11.43	1.09	12.53	20,658.35
Asphalt 01/01/2010-12/31/2029	0.23	1.39	1.33	0.00	0.00	0.11	0.11	0.00	0.10	0.10	211.14
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.22	1.38	1.26	0.00	0.00	0.11	0.11	0.00	0.10	0.10	185.86
Paving On Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.94
Paving Worker Trips	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.34
Building 01/01/2010-12/31/2029	2.06	10.66	49.61	0.18	0.79	0.74	1.53	0.28	0.65	0.93	18,372.50
Building Off Road Diesel	0.22	1.38	1.58	0.00	0.00	0.07	0.07	0.00	0.06	0.06	295.97
Building Vendor Trips	0.89	7.33	8.99	0.05	0.20	0.31	0.50	0.07	0.28	0.34	5,647.33
Building Worker Trips	0.94	1.96	39.05	0.13	0.59	0.37	0.96	0.21	0.31	0.52	12,429.21
Coating 01/01/2010-12/31/2029	4.31	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.26
Architectural Coating	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.26
Mass Grading 01/01/2010-	1.11	7.64	5.14	0.00	53.40	0.30	53.70	11.15	0.27	11.43	1,583.67
Mass Grading Dust	0.00	0.00	0.00	0.00	53.39	0.00	53.39	11.15	0.00	11.15	0.00
Mass Grading Off Road Diesel	1.10	7.64	4.99	0.00	0.00	0.30	0.30	0.00	0.27	0.27	1,534.85
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.00	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.82
Trenching 01/01/2010-12/31/2029	0.27	1.62	2.14	0.00	0.00	0.08	0.08	0.00	0.07	0.07	481.78
Trenching Off Road Diesel	0.27	1.62	2.03	0.00	0.00	0.08	0.08	0.00	0.07	0.07	449.24
Trenching Worker Trips	0.00	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.54
2025	7.94	21.24	58.03	0.18	53.98	1.22	55.20	11.39	1.09	12.48	20,579.50
Asphalt 01/01/2010-12/31/2029	0.23	1.39	1.33	0.00	0.00	0.11	0.11	0.00	0.10	0.10	210.34
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.22	1.37	1.26	0.00	0.00	0.11	0.11	0.00	0.10	0.10	185.16
Paving On Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.92
Paving Worker Trips	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.26
Building 01/01/2010-12/31/2029	2.05	10.62	49.42	0.18	0.78	0.74	1.52	0.28	0.65	0.92	18,302.38
Building Off Road Diesel	0.22	1.37	1.57	0.00	0.00	0.06	0.06	0.00	0.06	0.06	294.84
Building Vendor Trips	0.89	7.31	8.96	0.05	0.20	0.30	0.50	0.07	0.28	0.34	5,625.77
Building Worker Trips	0.94	1.95	38.90	0.13	0.59	0.37	0.95	0.21	0.31	0.52	12,381.77
Coating 01/01/2010-12/31/2029	4.29	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.22
Architectural Coating	4.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.22
Mass Grading 01/01/2010-	1.10	7.62	5.12	0.00	53.19	0.30	53.49	11.11	0.27	11.38	1,577.62
Mass Grading Dust	0.00	0.00	0.00	0.00	53.19	0.00	53.19	11.11	0.00	11.11	0.00
Mass Grading Off Road Diesel	1.10	7.61	4.97	0.00	0.00	0.30	0.30	0.00	0.27	0.27	1,528.99
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.00	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.63
Trenching 01/01/2010-12/31/2029	0.27	1.62	2.13	0.00	0.00	0.08	0.08	0.00	0.07	0.07	479.94
Trenching Off Road Diesel	0.27	1.61	2.03	0.00	0.00	0.08	0.08	0.00	0.07	0.07	447.52
Trenching Worker Trips	0.00	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.42
2026	7.50	19.59	47.86	0.18	53.98	1.18	55.15	11.39	1.05	12.44	20,581.01
Asphalt 01/01/2010-12/31/2029	0.23	1.38	1.31	0.00	0.00	0.11	0.11	0.00	0.10	0.10	210.34
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.22	1.37	1.26	0.00	0.00	0.11	0.11	0.00	0.10	0.10	185.16
Paving On Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.92
Paving Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.26
Building 01/01/2010-12/31/2029	1.61	8.98	39.34	0.18	0.78	0.69	1.48	0.28	0.61	0.89	18,303.88
Building Off Road Diesel	0.22	1.37	1.57	0.00	0.00	0.06	0.06	0.00	0.06	0.06	294.84
Building Vendor Trips	0.76	6.18	7.58	0.05	0.20	0.26	0.46	0.07	0.24	0.30	5,626.61
Building Worker Trips	0.62	1.43	30.19	0.13	0.59	0.37	0.95	0.21	0.31	0.52	12,382.43
Coating 01/01/2010-12/31/2029	4.29	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.22
Architectural Coating	4.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.22
Mass Grading 01/01/2010-	1.10	7.61	5.08	0.00	53.19	0.30	53.49	11.11	0.27	11.38	1,577.63
Mass Grading Dust	0.00	0.00	0.00	0.00	53.19	0.00	53.19	11.11	0.00	11.11	0.00
Mass Grading Off Road Diesel	1.10	7.61	4.97	0.00	0.00	0.30	0.30	0.00	0.27	0.27	1,528.99
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.00	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.63
Trenching 01/01/2010-12/31/2029	0.27	1.62	2.11	0.00	0.00	0.08	0.08	0.00	0.07	0.07	479.94
Trenching Off Road Diesel	0.27	1.61	2.03	0.00	0.00	0.08	0.08	0.00	0.07	0.07	447.52
Trenching Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.42

2027	7.50	19.59	47.86	0.18	53.98	1.18	55.15	11.39	1.05	12.44	20,581.01
Asphalt 01/01/2010-12/31/2029	0.23	1.38	1.31	0.00	0.00	0.11	0.11	0.00	0.10	0.10	210.34
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.22	1.37	1.26	0.00	0.00	0.11	0.11	0.00	0.10	0.10	185.16
Paving On Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.92
Paving Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.26
Building 01/01/2010-12/31/2029	1.61	8.98	39.34	0.18	0.78	0.69	1.48	0.28	0.61	0.89	18,303.88
Building Off Road Diesel	0.22	1.37	1.57	0.00	0.00	0.06	0.06	0.00	0.06	0.06	294.84
Building Vendor Trips	0.76	6.18	7.58	0.05	0.20	0.26	0.46	0.07	0.24	0.30	5,626.61
Building Worker Trips	0.62	1.43	30.19	0.13	0.59	0.37	0.95	0.21	0.31	0.52	12,382.43
Coating 01/01/2010-12/31/2029	4.29	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.22
Architectural Coating	4.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.22
Mass Grading 01/01/2010-	1.10	7.61	5.08	0.00	53.19	0.30	53.49	11.11	0.27	11.38	1,577.63
Mass Grading Dust	0.00	0.00	0.00	0.00	53.19	0.00	53.19	11.11	0.00	11.11	0.00
Mass Grading Off Road Diesel	1.10	7.61	4.97	0.00	0.00	0.30	0.30	0.00	0.27	0.27	1,528.99
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.00	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.63
Trenching 01/01/2010-12/31/2029	0.27	1.62	2.11	0.00	0.00	0.08	0.08	0.00	0.07	0.07	479.94
Trenching Off Road Diesel	0.27	1.61	2.03	0.00	0.00	0.08	0.08	0.00	0.07	0.07	447.52
Trenching Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.42
2028	7.47	19.51	47.68	0.18	53.77	1.17	54.94	11.34	1.05	12.39	20,502.15
Asphalt 01/01/2010-12/31/2029	0.23	1.38	1.31	0.00	0.00	0.11	0.11	0.00	0.10	0.10	209.53
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.22	1.37	1.26	0.00	0.00	0.11	0.11	0.00	0.10	0.10	184.45
Paving On Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.90
Paving Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.19
Building 01/01/2010-12/31/2029	1.60	8.94	39.19	0.18	0.78	0.69	1.47	0.28	0.60	0.88	18,233.75
Building Off Road Diesel	0.22	1.36	1.56	0.00	0.00	0.06	0.06	0.00	0.06	0.06	293.71
Building Vendor Trips	0.76	6.16	7.55	0.05	0.20	0.26	0.46	0.07	0.24	0.30	5,605.06
Building Worker Trips	0.62	1.42	30.07	0.13	0.58	0.37	0.95	0.21	0.31	0.52	12,334.99
Coating 01/01/2010-12/31/2029	4.27	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.19
Architectural Coating	4.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.19
Mass Grading 01/01/2010-	1.10	7.58	5.07	0.00	52.99	0.30	53.29	11.07	0.27	11.34	1,571.58
Mass Grading Dust	0.00	0.00	0.00	0.00	52.99	0.00	52.99	11.07	0.00	11.07	0.00
Mass Grading Off Road Diesel	1.09	7.58	4.95	0.00	0.00	0.29	0.29	0.00	0.27	0.27	1,523.14
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.00	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.45
Trenching 01/01/2010-12/31/2029	0.27	1.61	2.10	0.00	0.00	0.08	0.08	0.00	0.07	0.07	478.10
Trenching Off Road Diesel	0.27	1.61	2.02	0.00	0.00	0.07	0.07	0.00	0.07	0.07	445.81
Trenching Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.30
2029	7.50	19.59	47.86	0.18	53.98	1.18	55.15	11.39	1.05	12.44	20,581.01
Asphalt 01/01/2010-12/31/2029	0.23	1.38	1.31	0.00	0.00	0.11	0.11	0.00	0.10	0.10	210.34
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.22	1.37	1.26	0.00	0.00	0.11	0.11	0.00	0.10	0.10	185.16
Paving On Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.92
Paving Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.26
Building 01/01/2010-12/31/2029	1.61	8.98	39.34	0.18	0.78	0.69	1.48	0.28	0.61	0.89	18,303.88
Building Off Road Diesel	0.22	1.37	1.57	0.00	0.00	0.06	0.06	0.00	0.06	0.06	294.84
Building Vendor Trips	0.76	6.18	7.58	0.05	0.20	0.26	0.46	0.07	0.24	0.30	5,626.61
Building Worker Trips	0.62	1.43	30.19	0.13	0.59	0.37	0.95	0.21	0.31	0.52	12,382.43
Coating 01/01/2010-12/31/2029	4.29	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.22
Architectural Coating	4.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.22
Mass Grading 01/01/2010-	1.10	7.61	5.08	0.00	53.19	0.30	53.49	11.11	0.27	11.38	1,577.63
Mass Grading Dust	0.00	0.00	0.00	0.00	53.19	0.00	53.19	11.11	0.00	11.11	0.00
Mass Grading Off Road Diesel	1.10	7.61	4.97	0.00	0.00	0.30	0.30	0.00	0.27	0.27	1,528.99
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.00	0.01	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.63
Trenching 01/01/2010-12/31/2029	0.27	1.62	2.11	0.00	0.00	0.08	0.08	0.00	0.07	0.07	479.94
Trenching Off Road Diesel	0.27	1.61	2.03	0.00	0.00	0.08	0.08	0.00	0.07	0.07	447.52
Trenching Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.42

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 1/1/2010 - 12/31/2029 - Default Mass Site Grading/Excavation Description

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:
PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:
PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:
PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:
PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:
PM10: 55% PM25: 55%

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: Q:\TOR-02.0E\Technical Studies\Air\Urbemis\SampleConstruction.urb924
Project Name: Torrance GP - Sample Construction
Project Location: Los Angeles County
On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006
Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

Phase Assumptions

Phase: Mass Grading 1/1/2010 - 12/31/2029 - Default Mass Site Grading/Excavation Description
Total Acres Disturbed: 517.19
Maximum Daily Acreage Disturbed: 129.3
Fugitive Dust Level of Detail: Default
20 lbs per acre-day
On Road Truck Travel (VMT): 0
Off-Road Equipment:
2 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
1 Plate Compactors (8 hp) operating at a 0.43 load factor for 8 hours per day
2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day
4 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
2 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Trenching 1/1/2010 - 12/31/2029 - Default Trenching Description
Off-Road Equipment:
4 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
2 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 8 hours per day
2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day

Phase: Paving 1/1/2010 - 12/31/2029 - Default Paving Description
Acres to be Paved: 129.3
Off-Road Equipment:
1 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day
2 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day
2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 1/1/2010 - 12/31/2029 - Default Building Construction Description
Off-Road Equipment:
1 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day
3 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day
1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
1 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 1/1/2010 - 12/31/2029 - Default Architectural Coating Description
Rule: Residential Interior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 100
Rule: Residential Interior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 50
Rule: Residential Exterior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 250
Rule: Residential Exterior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 100
Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250
Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:
CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 1/1/2010-12/31/2010 Active	107.09	**493.88**	1,126.26	**1.42**	413.63	**23.59**	437.22	87.27	**21.50**	108.76	**157,779.69**
Asphalt 01/01/2010-12/31/2029	3.33	19.53	11.95	0.00	0.01	1.70	1.71	0.00	1.56	1.56	1,611.95
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.20	19.17	10.47	0.00	0.00	1.68	1.68	0.00	1.55	1.55	1,418.81
Paving On Road Diesel	0.02	0.28	0.11	0.00	0.00	0.01	0.01	0.00	0.01	0.01	37.71
Paving Worker Trips	0.04	0.08	1.36	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.43
Building 01/01/2010-12/31/2029	52.21	310.88	1,031.84	1.41	6.00	14.49	20.48	2.13	13.12	15.25	140,329.58
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	21.51	238.11	186.93	0.41	1.51	10.25	11.76	0.51	9.40	9.91	43,090.92
Building Worker Trips	26.63	49.46	830.59	1.00	4.49	2.57	7.06	1.62	2.18	3.80	94,979.37
Coating 01/01/2010-12/31/2029	32.88	0.04	0.62	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.73
Architectural Coating	32.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.62	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.73
Mass Grading 01/01/2010-	14.48	127.92	63.25	0.00	407.61	5.65	413.26	85.13	5.20	90.33	12,089.46
Mass Grading Dust	0.00	0.00	0.00	0.00	407.59	0.00	407.59	85.12	0.00	85.12	0.00
Mass Grading Off Road Diesel	14.37	127.73	59.99	0.00	0.00	5.64	5.64	0.00	5.19	5.19	11,716.43
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.10	0.19	3.26	0.00	0.02	0.01	0.03	0.01	0.01	0.01	373.03
Trenching 01/01/2010-12/31/2029	4.19	35.51	18.61	0.00	0.01	1.76	1.77	0.00	1.62	1.62	3,677.96
Trenching Off Road Diesel	4.12	35.38	16.43	0.00	0.00	1.75	1.75	0.00	1.61	1.61	3,429.28
Trenching Worker Trips	0.07	0.13	2.17	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.69
Time Slice 1/3/2011-12/30/2011 Active	101.51	454.22	1,052.07	**1.42**	413.63	21.77	435.40	87.27	19.80	107.07	157,759.65
Asphalt 01/01/2010-12/31/2029	3.15	18.58	11.71	0.00	0.01	1.64	1.65	0.00	1.51	1.51	1,611.92
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.02	18.25	10.34	0.00	0.00	1.62	1.62	0.00	1.49	1.49	1,418.81
Paving On Road Diesel	0.02	0.26	0.10	0.00	0.00	0.01	0.01	0.00	0.01	0.01	37.71
Paving Worker Trips	0.04	0.07	1.27	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.40
Building 01/01/2010-12/31/2029	47.91	282.39	962.06	1.41	6.00	13.32	19.31	2.13	12.03	14.16	140,309.72
Building Off Road Diesel	3.77	21.85	13.95	0.00	0.00	1.57	1.57	0.00	1.45	1.45	2,259.28
Building Vendor Trips	19.86	215.22	173.37	0.41	1.51	9.16	10.67	0.51	8.40	8.91	43,091.48
Building Worker Trips	24.29	45.33	774.75	1.00	4.49	2.59	7.07	1.62	2.18	3.80	94,958.96
Coating 01/01/2010-12/31/2029	32.88	0.03	0.58	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.72
Architectural Coating	32.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.03	0.58	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.72
Mass Grading 01/01/2010-	13.61	120.25	59.54	0.00	407.61	5.17	412.78	85.13	4.75	89.88	12,089.38
Mass Grading Dust	0.00	0.00	0.00	0.00	407.59	0.00	407.59	85.12	0.00	85.12	0.00
Mass Grading Off Road Diesel	13.52	120.07	56.49	0.00	0.00	5.16	5.16	0.00	4.74	4.74	11,716.43
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.10	0.18	3.04	0.00	0.02	0.01	0.03	0.01	0.01	0.01	372.95
Trenching 01/01/2010-12/31/2029	3.96	32.96	18.18	0.00	0.01	1.65	1.66	0.00	1.52	1.52	3,677.91
Trenching Off Road Diesel	3.90	32.84	16.15	0.00	0.00	1.64	1.64	0.00	1.51	1.51	3,429.28
Trenching Worker Trips	0.06	0.12	2.03	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.63

Time Slice 1/2/2012-12/31/2012 Active	96.22	415.82	982.25	**1.42**	413.63	19.94	433.57	87.27	18.12	105.39	157,742.59
Asphalt 01/01/2010-12/31/2029	2.98	17.63	11.51	0.00	0.01	1.55	1.56	0.00	1.42	1.43	1,611.89
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.86	17.34	10.24	0.00	0.00	1.53	1.53	0.00	1.41	1.41	1,418.81
Paving On Road Diesel	0.02	0.23	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	37.71
Paving Worker Trips	0.04	0.07	1.18	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.37
Building 01/01/2010-12/31/2029	43.71	254.84	896.15	1.41	6.00	12.13	18.13	2.13	10.93	13.06	140,292.81
Building Off Road Diesel	3.48	20.42	13.62	0.00	0.00	1.42	1.42	0.00	1.31	1.31	2,259.28
Building Vendor Trips	18.21	192.79	160.53	0.41	1.51	8.12	9.63	0.51	7.44	7.95	43,091.34
Building Worker Trips	22.02	41.62	721.99	1.00	4.49	2.59	7.07	1.62	2.18	3.80	94,942.18
Coating 01/01/2010-12/31/2029	32.88	0.03	0.54	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.70
Architectural Coating	32.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.03	0.54	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.70
Mass Grading 01/01/2010-	12.99	112.72	56.14	0.00	407.61	4.79	412.40	85.13	4.41	89.54	12,089.32
Mass Grading Dust	0.00	0.00	0.00	0.00	407.59	0.00	407.59	85.12	0.00	85.12	0.00
Mass Grading Off Road Diesel	12.90	112.56	53.31	0.00	0.00	4.78	4.78	0.00	4.40	4.40	11,716.43
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.09	0.16	2.84	0.00	0.02	0.01	0.03	0.01	0.01	0.01	372.88
Trenching 01/01/2010-12/31/2029	3.67	30.59	17.91	0.00	0.01	1.47	1.48	0.00	1.35	1.36	3,677.87
Trenching Off Road Diesel	3.61	30.48	16.02	0.00	0.00	1.46	1.46	0.00	1.35	1.35	3,429.28
Trenching Worker Trips	0.06	0.11	1.89	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.59
Time Slice 1/1/2013-12/31/2013 Active	91.59	379.07	915.96	**1.42**	413.63	18.27	431.90	87.27	16.58	103.84	157,731.04
Asphalt 01/01/2010-12/31/2029	2.80	16.72	11.33	0.00	0.01	1.45	1.45	0.00	1.33	1.33	1,611.87
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.69	16.46	10.15	0.00	0.00	1.43	1.43	0.00	1.32	1.32	1,418.81
Paving On Road Diesel	0.02	0.20	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	37.71
Paving Worker Trips	0.03	0.06	1.10	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.35
Building 01/01/2010-12/31/2029	39.91	228.24	833.44	1.41	6.00	11.01	17.00	2.13	9.89	12.02	140,281.37
Building Off Road Diesel	3.19	19.04	13.34	0.00	0.00	1.26	1.26	0.00	1.16	1.16	2,259.28
Building Vendor Trips	16.59	171.04	147.94	0.41	1.51	7.15	8.66	0.51	6.55	7.06	43,092.05
Building Worker Trips	20.13	38.16	672.16	1.00	4.49	2.59	7.08	1.62	2.18	3.80	94,930.04
Coating 01/01/2010-12/31/2029	32.87	0.03	0.50	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.69
Architectural Coating	32.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.03	0.50	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.69
Mass Grading 01/01/2010-	12.52	105.75	52.99	0.00	407.61	4.46	412.07	85.13	4.10	89.23	12,089.27
Mass Grading Dust	0.00	0.00	0.00	0.00	407.59	0.00	407.59	85.12	0.00	85.12	0.00
Mass Grading Off Road Diesel	12.45	105.60	50.35	0.00	0.00	4.45	4.45	0.00	4.09	4.09	11,716.43
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.08	0.15	2.64	0.00	0.02	0.01	0.03	0.01	0.01	0.01	372.84
Trenching 01/01/2010-12/31/2029	3.48	28.34	17.70	0.00	0.01	1.36	1.37	0.00	1.25	1.26	3,677.83
Trenching Off Road Diesel	3.43	28.24	15.94	0.00	0.00	1.35	1.35	0.00	1.25	1.25	3,429.28
Trenching Worker Trips	0.05	0.10	1.76	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.56
Time Slice 1/1/2014-12/31/2014 Active	87.09	343.48	856.38	**1.42**	413.63	16.67	430.30	87.27	15.10	102.37	157,721.19
Asphalt 01/01/2010-12/31/2029	2.65	15.85	11.17	0.00	0.01	1.36	1.36	0.00	1.25	1.25	1,611.85
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.54	15.61	10.07	0.00	0.00	1.34	1.34	0.00	1.24	1.24	1,418.81
Paving On Road Diesel	0.02	0.18	0.07	0.00	0.00	0.01	0.01	0.00	0.01	0.01	37.71
Paving Worker Trips	0.03	0.06	1.03	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.33
Building 01/01/2010-12/31/2029	36.41	203.44	776.87	1.41	6.00	10.05	16.04	2.13	9.01	11.14	140,271.61
Building Off Road Diesel	2.93	17.65	13.06	0.00	0.00	1.11	1.11	0.00	1.02	1.02	2,259.28
Building Vendor Trips	15.03	150.62	136.28	0.41	1.51	6.24	7.75	0.51	5.71	6.22	43,092.36
Building Worker Trips	18.45	35.17	627.53	1.00	4.49	2.70	7.19	1.62	2.28	3.90	94,919.97
Coating 01/01/2010-12/31/2029	32.87	0.03	0.47	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.69
Architectural Coating	32.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.03	0.47	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.69
Mass Grading 01/01/2010-	11.90	98.04	50.45	0.00	407.61	4.09	411.70	85.13	3.76	88.89	12,089.23
Mass Grading Dust	0.00	0.00	0.00	0.00	407.59	0.00	407.59	85.12	0.00	85.12	0.00
Mass Grading Off Road Diesel	11.83	97.90	47.99	0.00	0.00	4.08	4.08	0.00	3.75	3.75	11,716.43
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.07	0.14	2.46	0.00	0.02	0.01	0.03	0.01	0.01	0.02	372.80
Trenching 01/01/2010-12/31/2029	3.26	26.13	17.43	0.00	0.01	1.18	1.20	0.00	1.09	1.09	3,677.81
Trenching Off Road Diesel	3.21	26.04	15.78	0.00	0.00	1.18	1.18	0.00	1.08	1.08	3,429.28
Trenching Worker Trips	0.05	0.09	1.64	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.53

Time Slice 1/1/2015-12/31/2015 Active	82.76	309.06	800.27	**1.42**	413.63	15.30	428.93	87.27	13.83	101.10	157,713.79
Asphalt 01/01/2010-12/31/2029	2.49	14.86	11.00	0.00	0.01	1.26	1.26	0.00	1.15	1.16	1,611.84
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.38	14.65	9.98	0.00	0.00	1.25	1.25	0.00	1.15	1.15	1,418.81
Paving On Road Diesel	0.01	0.15	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	37.71
Paving Worker Trips	0.03	0.05	0.96	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.32
Building 01/01/2010-12/31/2029	33.17	180.51	723.62	1.41	6.00	9.17	15.16	2.13	8.19	10.32	140,264.28
Building Off Road Diesel	2.69	16.17	12.80	0.00	0.00	1.03	1.03	0.00	0.94	0.94	2,259.28
Building Vendor Trips	13.56	131.93	125.39	0.41	1.51	5.43	6.94	0.51	4.97	5.48	43,093.37
Building Worker Trips	16.92	32.41	585.43	1.00	4.49	2.71	7.20	1.62	2.28	3.90	94,911.63
Coating 01/01/2010-12/31/2029	32.87	0.02	0.44	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.68
Architectural Coating	32.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.02	0.44	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.68
Mass Grading 01/01/2010-	11.22	90.29	47.99	0.00	407.61	3.76	411.37	85.13	3.46	88.59	12,089.20
Mass Grading Dust	0.00	0.00	0.00	0.00	407.59	0.00	407.59	85.12	0.00	85.12	0.00
Mass Grading Off Road Diesel	11.15	90.16	45.69	0.00	0.00	3.75	3.75	0.00	3.45	3.45	11,716.43
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.07	0.13	2.30	0.00	0.02	0.01	0.03	0.01	0.01	0.02	372.76
Trenching 01/01/2010-12/31/2029	3.01	23.38	17.23	0.00	0.01	1.12	1.13	0.00	1.03	1.03	3,677.79
Trenching Off Road Diesel	2.97	23.30	15.70	0.00	0.00	1.11	1.11	0.00	1.02	1.02	3,429.28
Trenching Worker Trips	0.04	0.08	1.53	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.51
Time Slice 1/1/2016-12/30/2016 Active	78.93	279.84	751.47	**1.42**	413.63	14.11	427.74	87.27	12.73	100.00	157,703.27
Asphalt 01/01/2010-12/31/2029	2.32	13.90	10.86	0.00	0.01	1.15	1.16	0.00	1.06	1.06	1,611.82
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.22	13.72	9.91	0.00	0.00	1.14	1.14	0.00	1.05	1.05	1,418.81
Paving On Road Diesel	0.01	0.14	0.06	0.00	0.00	0.01	0.01	0.00	0.00	0.01	37.71
Paving Worker Trips	0.03	0.05	0.90	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.30
Building 01/01/2010-12/31/2029	30.30	161.97	677.17	1.41	6.00	8.52	14.52	2.13	7.59	9.72	140,253.86
Building Off Road Diesel	2.47	14.84	12.61	0.00	0.00	0.88	0.88	0.00	0.81	0.81	2,259.28
Building Vendor Trips	12.34	117.12	116.40	0.41	1.51	4.82	6.33	0.51	4.41	4.92	43,093.98
Building Worker Trips	15.49	30.01	548.16	1.00	4.49	2.82	7.31	1.62	2.38	4.00	94,900.60
Coating 01/01/2010-12/31/2029	32.87	0.02	0.41	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.67
Architectural Coating	32.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.02	0.41	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.67
Mass Grading 01/01/2010-	10.61	83.17	45.94	0.00	407.61	3.50	411.11	85.13	3.22	88.34	12,089.15
Mass Grading Dust	0.00	0.00	0.00	0.00	407.59	0.00	407.59	85.12	0.00	85.12	0.00
Mass Grading Off Road Diesel	10.55	83.05	43.79	0.00	0.00	3.49	3.49	0.00	3.21	3.21	11,716.43
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.06	0.12	2.15	0.00	0.02	0.01	0.03	0.01	0.01	0.02	372.72
Trenching 01/01/2010-12/31/2029	2.83	20.77	17.09	0.00	0.01	0.94	0.95	0.00	0.86	0.87	3,677.76
Trenching Off Road Diesel	2.79	20.70	15.65	0.00	0.00	0.93	0.93	0.00	0.86	0.86	3,429.28
Trenching Worker Trips	0.04	0.08	1.44	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.48
Time Slice 1/2/2017-12/29/2017 Active	75.58	253.91	705.27	**1.42**	413.63	12.95	426.58	87.27	11.66	98.93	157,696.73
Asphalt 01/01/2010-12/31/2029	2.19	13.02	10.72	0.00	0.01	1.06	1.07	0.00	0.98	0.98	1,611.81
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.09	12.86	9.83	0.00	0.00	1.05	1.05	0.00	0.97	0.97	1,418.81
Paving On Road Diesel	0.01	0.12	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	37.71
Paving Worker Trips	0.02	0.05	0.84	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.29
Building 01/01/2010-12/31/2029	27.80	146.20	633.28	1.41	6.00	7.88	13.88	2.13	7.00	9.13	140,247.39
Building Off Road Diesel	2.25	13.62	12.45	0.00	0.00	0.77	0.77	0.00	0.71	0.71	2,259.28
Building Vendor Trips	11.34	104.85	108.47	0.41	1.51	4.29	5.80	0.51	3.91	4.42	43,095.10
Building Worker Trips	14.22	27.73	512.36	1.00	4.49	2.82	7.31	1.62	2.38	4.00	94,893.01
Coating 01/01/2010-12/31/2029	32.87	0.02	0.38	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.67
Architectural Coating	32.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.02	0.38	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.67
Mass Grading 01/01/2010-	10.07	76.31	43.94	0.00	407.61	3.17	410.78	85.13	2.92	88.04	12,089.13
Mass Grading Dust	0.00	0.00	0.00	0.00	407.59	0.00	407.59	85.12	0.00	85.12	0.00
Mass Grading Off Road Diesel	10.02	76.20	41.93	0.00	0.00	3.16	3.16	0.00	2.91	2.91	11,716.43
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.06	0.11	2.01	0.00	0.02	0.01	0.03	0.01	0.01	0.02	372.69
Trenching 01/01/2010-12/31/2029	2.65	18.36	16.95	0.00	0.01	0.83	0.84	0.00	0.76	0.77	3,677.74
Trenching Off Road Diesel	2.61	18.29	15.61	0.00	0.00	0.82	0.82	0.00	0.76	0.76	3,429.28
Trenching Worker Trips	0.04	0.07	1.34	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.46

Time Slice 1/1/2018-12/31/2018 Active	72.42	230.78	662.57	**1.42**	413.63	11.95	425.58	87.27	10.74	98.01	157,692.95
Asphalt 01/01/2010-12/31/2029	2.07	12.18	10.62	0.00	0.01	0.97	0.98	0.00	0.89	0.90	1,611.80
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.97	12.02	9.79	0.00	0.00	0.96	0.96	0.00	0.89	0.89	1,418.81
Paving On Road Diesel	0.01	0.11	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	37.71
Paving Worker Trips	0.02	0.04	0.78	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.28
Building 01/01/2010-12/31/2029	25.58	132.58	592.36	1.41	6.00	7.36	13.36	2.13	6.52	8.65	140,243.66
Building Off Road Diesel	2.03	12.45	12.26	0.00	0.00	0.67	0.67	0.00	0.62	0.62	2,259.28
Building Vendor Trips	10.45	94.54	101.39	0.41	1.51	3.87	5.38	0.51	3.53	4.04	43,096.59
Building Worker Trips	13.10	25.59	478.71	1.00	4.49	2.82	7.31	1.62	2.38	4.00	94,887.78
Coating 01/01/2010-12/31/2029	32.87	0.02	0.36	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Architectural Coating	32.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.02	0.36	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Mass Grading 01/01/2010-	9.43	69.87	42.41	0.00	407.61	2.85	410.46	85.13	2.62	87.75	12,089.10
Mass Grading Dust	0.00	0.00	0.00	0.00	407.59	0.00	407.59	85.12	0.00	85.12	0.00
Mass Grading Off Road Diesel	9.38	69.77	40.53	0.00	0.00	2.84	2.84	0.00	2.61	2.61	11,716.43
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.05	0.10	1.88	0.00	0.02	0.01	0.03	0.01	0.01	0.02	372.67
Trenching 01/01/2010-12/31/2029	2.47	16.12	16.82	0.00	0.01	0.76	0.77	0.00	0.70	0.70	3,677.72
Trenching Off Road Diesel	2.43	16.06	15.57	0.00	0.00	0.75	0.75	0.00	0.69	0.69	3,429.28
Trenching Worker Trips	0.03	0.07	1.25	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.45
Time Slice 1/1/2019-12/31/2019 Active	69.65	210.24	622.88	**1.42**	413.63	10.99	424.62	87.27	9.86	97.12	157,690.66
Asphalt 01/01/2010-12/31/2029	1.92	11.41	10.47	0.00	0.01	0.88	0.89	0.00	0.81	0.82	1,611.79
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.83	11.27	9.70	0.00	0.00	0.88	0.88	0.00	0.81	0.81	1,418.81
Paving On Road Diesel	0.01	0.10	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.71
Paving Worker Trips	0.02	0.04	0.73	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.27
Building 01/01/2010-12/31/2029	23.58	120.74	554.45	1.41	6.00	6.90	12.89	2.13	6.09	8.22	140,241.41
Building Off Road Diesel	1.88	11.39	12.14	0.00	0.00	0.57	0.57	0.00	0.52	0.52	2,259.28
Building Vendor Trips	9.68	85.77	95.01	0.41	1.51	3.50	5.01	0.51	3.19	3.70	43,098.31
Building Worker Trips	12.02	23.58	447.30	1.00	4.49	2.82	7.31	1.62	2.38	4.00	94,883.81
Coating 01/01/2010-12/31/2029	32.87	0.02	0.33	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Architectural Coating	32.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.02	0.33	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Mass Grading 01/01/2010-	8.99	63.94	40.93	0.00	407.61	2.56	410.17	85.13	2.35	87.48	12,089.09
Mass Grading Dust	0.00	0.00	0.00	0.00	407.59	0.00	407.59	85.12	0.00	85.12	0.00
Mass Grading Off Road Diesel	8.94	63.85	39.17	0.00	0.00	2.54	2.54	0.00	2.34	2.34	11,716.43
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.05	0.09	1.76	0.00	0.02	0.01	0.03	0.01	0.01	0.02	372.65
Trenching 01/01/2010-12/31/2029	2.29	14.13	16.70	0.00	0.01	0.65	0.66	0.00	0.60	0.60	3,677.71
Trenching Off Road Diesel	2.25	14.07	15.53	0.00	0.00	0.64	0.64	0.00	0.59	0.59	3,429.28
Trenching Worker Trips	0.03	0.06	1.17	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.44
Time Slice 1/1/2020-12/31/2020 Active	66.93	192.10	585.24	**1.42**	413.63	10.22	423.85	87.27	9.15	96.41	157,689.33
Asphalt 01/01/2010-12/31/2029	1.79	10.66	10.38	0.00	0.01	0.83	0.84	0.00	0.76	0.76	1,611.79
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.70	10.53	9.66	0.00	0.00	0.82	0.82	0.00	0.75	0.75	1,418.81
Paving On Road Diesel	0.01	0.09	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.71
Paving Worker Trips	0.02	0.04	0.68	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.27
Building 01/01/2010-12/31/2029	21.70	110.63	518.24	1.41	6.00	6.53	12.52	2.13	5.75	7.88	140,240.10
Building Off Road Diesel	1.71	10.50	12.03	0.00	0.00	0.50	0.50	0.00	0.46	0.46	2,259.28
Building Vendor Trips	9.01	78.33	89.26	0.41	1.51	3.20	4.71	0.51	2.91	3.43	43,100.10
Building Worker Trips	10.98	21.81	416.96	1.00	4.49	2.82	7.31	1.62	2.38	4.00	94,880.72
Coating 01/01/2010-12/31/2029	32.87	0.02	0.31	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Architectural Coating	32.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.02	0.31	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Mass Grading 01/01/2010-	8.46	58.39	39.69	0.00	407.61	2.28	409.89	85.13	2.10	87.22	12,089.08
Mass Grading Dust	0.00	0.00	0.00	0.00	407.59	0.00	407.59	85.12	0.00	85.12	0.00
Mass Grading Off Road Diesel	8.42	58.30	38.06	0.00	0.00	2.27	2.27	0.00	2.09	2.09	11,716.43
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.04	0.09	1.64	0.00	0.02	0.01	0.03	0.01	0.01	0.02	372.64
Trenching 01/01/2010-12/31/2029	2.11	12.41	16.62	0.00	0.01	0.58	0.60	0.00	0.54	0.54	3,677.71
Trenching Off Road Diesel	2.08	12.35	15.53	0.00	0.00	0.58	0.58	0.00	0.53	0.53	3,429.28
Trenching Worker Trips	0.03	0.06	1.09	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.43

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Time Slice 1/1/2021-12/31/2021 Active	60.87	162.79	444.65	1.42	413.63	9.34	422.97	87.27	8.35	95.61	157,697.33
Asphalt 01/01/2010-12/31/2029	1.78	10.62	10.17	0.00	0.01	0.83	0.84	0.00	0.76	0.76	1,611.79
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.70	10.53	9.66	0.00	0.00	0.82	0.82	0.00	0.75	0.75	1,418.81
Paving On Road Diesel	0.01	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.71
Paving Worker Trips	0.01	0.02	0.49	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.27
Building 01/01/2010-12/31/2029	15.69	81.41	378.73	1.41	6.00	5.65	11.64	2.13	4.95	7.08	140,248.12
Building Off Road Diesel	1.71	10.50	12.03	0.00	0.00	0.50	0.50	0.00	0.46	0.46	2,259.28
Building Vendor Trips	6.80	55.98	68.63	0.41	1.51	2.33	3.84	0.51	2.11	2.63	43,109.39
Building Worker Trips	7.18	14.93	298.07	1.00	4.49	2.82	7.30	1.62	2.38	4.00	94,879.45
Coating 01/01/2010-12/31/2029	32.86	0.01	0.22	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Architectural Coating	32.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.22	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Mass Grading 01/01/2010-	8.45	58.36	39.23	0.00	407.61	2.28	409.89	85.13	2.10	87.22	12,089.07
Mass Grading Dust	0.00	0.00	0.00	0.00	407.59	0.00	407.59	85.12	0.00	85.12	0.00
Mass Grading Off Road Diesel	8.42	58.30	38.06	0.00	0.00	2.27	2.27	0.00	2.09	2.09	11,716.43
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.03	0.06	1.17	0.00	0.02	0.01	0.03	0.01	0.01	0.02	372.64
Trenching 01/01/2010-12/31/2029	2.10	12.39	16.31	0.00	0.01	0.58	0.60	0.00	0.54	0.54	3,677.70
Trenching Off Road Diesel	2.08	12.35	15.53	0.00	0.00	0.58	0.58	0.00	0.53	0.53	3,429.28
Trenching Worker Trips	0.02	0.04	0.78	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.42
Time Slice 1/3/2022-12/30/2022 Active	60.87	162.79	444.65	1.42	413.63	9.34	422.97	87.27	8.35	95.61	157,697.33
Asphalt 01/01/2010-12/31/2029	1.78	10.62	10.17	0.00	0.01	0.83	0.84	0.00	0.76	0.76	1,611.79
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.70	10.53	9.66	0.00	0.00	0.82	0.82	0.00	0.75	0.75	1,418.81
Paving On Road Diesel	0.01	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.71
Paving Worker Trips	0.01	0.02	0.49	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.27
Building 01/01/2010-12/31/2029	15.69	81.41	378.73	1.41	6.00	5.65	11.64	2.13	4.95	7.08	140,248.12
Building Off Road Diesel	1.71	10.50	12.03	0.00	0.00	0.50	0.50	0.00	0.46	0.46	2,259.28
Building Vendor Trips	6.80	55.98	68.63	0.41	1.51	2.33	3.84	0.51	2.11	2.63	43,109.39
Building Worker Trips	7.18	14.93	298.07	1.00	4.49	2.82	7.30	1.62	2.38	4.00	94,879.45
Coating 01/01/2010-12/31/2029	32.86	0.01	0.22	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Architectural Coating	32.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.22	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Mass Grading 01/01/2010-	8.45	58.36	39.23	0.00	407.61	2.28	409.89	85.13	2.10	87.22	12,089.07
Mass Grading Dust	0.00	0.00	0.00	0.00	407.59	0.00	407.59	85.12	0.00	85.12	0.00
Mass Grading Off Road Diesel	8.42	58.30	38.06	0.00	0.00	2.27	2.27	0.00	2.09	2.09	11,716.43
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.03	0.06	1.17	0.00	0.02	0.01	0.03	0.01	0.01	0.02	372.64
Trenching 01/01/2010-12/31/2029	2.10	12.39	16.31	0.00	0.01	0.58	0.60	0.00	0.54	0.54	3,677.70
Trenching Off Road Diesel	2.08	12.35	15.53	0.00	0.00	0.58	0.58	0.00	0.53	0.53	3,429.28
Trenching Worker Trips	0.02	0.04	0.78	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.42
Time Slice 1/2/2023-12/29/2023 Active	60.87	162.79	444.65	1.42	413.63	9.34	422.97	87.27	8.35	95.61	157,697.33
Asphalt 01/01/2010-12/31/2029	1.78	10.62	10.17	0.00	0.01	0.83	0.84	0.00	0.76	0.76	1,611.79
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.70	10.53	9.66	0.00	0.00	0.82	0.82	0.00	0.75	0.75	1,418.81
Paving On Road Diesel	0.01	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.71
Paving Worker Trips	0.01	0.02	0.49	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.27
Building 01/01/2010-12/31/2029	15.69	81.41	378.73	1.41	6.00	5.65	11.64	2.13	4.95	7.08	140,248.12
Building Off Road Diesel	1.71	10.50	12.03	0.00	0.00	0.50	0.50	0.00	0.46	0.46	2,259.28
Building Vendor Trips	6.80	55.98	68.63	0.41	1.51	2.33	3.84	0.51	2.11	2.63	43,109.39
Building Worker Trips	7.18	14.93	298.07	1.00	4.49	2.82	7.30	1.62	2.38	4.00	94,879.45
Coating 01/01/2010-12/31/2029	32.86	0.01	0.22	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Architectural Coating	32.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.22	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Mass Grading 01/01/2010-	8.45	58.36	39.23	0.00	407.61	2.28	409.89	85.13	2.10	87.22	12,089.07
Mass Grading Dust	0.00	0.00	0.00	0.00	407.59	0.00	407.59	85.12	0.00	85.12	0.00
Mass Grading Off Road Diesel	8.42	58.30	38.06	0.00	0.00	2.27	2.27	0.00	2.09	2.09	11,716.43
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.03	0.06	1.17	0.00	0.02	0.01	0.03	0.01	0.01	0.02	372.64
Trenching 01/01/2010-12/31/2029	2.10	12.39	16.31	0.00	0.01	0.58	0.60	0.00	0.54	0.54	3,677.70
Trenching Off Road Diesel	2.08	12.35	15.53	0.00	0.00	0.58	0.58	0.00	0.53	0.53	3,429.28
Trenching Worker Trips	0.02	0.04	0.78	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.42

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Time Slice 1/1/2024-12/31/2024 Active	60.87	162.79	444.65	1.42	413.63	9.34	422.97	87.27	8.35	95.61	157,697.33
Asphalt 01/01/2010-12/31/2029	1.78	10.62	10.17	0.00	0.01	0.83	0.84	0.00	0.76	0.76	1,611.79
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.70	10.53	9.66	0.00	0.00	0.82	0.82	0.00	0.75	0.75	1,418.81
Paving On Road Diesel	0.01	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.71
Paving Worker Trips	0.01	0.02	0.49	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.27
Building 01/01/2010-12/31/2029	15.69	81.41	378.73	1.41	6.00	5.65	11.64	2.13	4.95	7.08	140,248.12
Building Off Road Diesel	1.71	10.50	12.03	0.00	0.00	0.50	0.50	0.00	0.46	0.46	2,259.28
Building Vendor Trips	6.80	55.98	68.63	0.41	1.51	2.33	3.84	0.51	2.11	2.63	43,109.39
Building Worker Trips	7.18	14.93	298.07	1.00	4.49	2.82	7.30	1.62	2.38	4.00	94,879.45
Coating 01/01/2010-12/31/2029	32.86	0.01	0.22	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Architectural Coating	32.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.22	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Mass Grading 01/01/2010-	8.45	58.36	39.23	0.00	407.61	2.28	409.89	85.13	2.10	87.22	12,089.07
Mass Grading Dust	0.00	0.00	0.00	0.00	407.59	0.00	407.59	85.12	0.00	85.12	0.00
Mass Grading Off Road Diesel	8.42	58.30	38.06	0.00	0.00	2.27	2.27	0.00	2.09	2.09	11,716.43
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.03	0.06	1.17	0.00	0.02	0.01	0.03	0.01	0.01	0.02	372.64
Trenching 01/01/2010-12/31/2029	2.10	12.39	16.31	0.00	0.01	0.58	0.60	0.00	0.54	0.54	3,677.70
Trenching Off Road Diesel	2.08	12.35	15.53	0.00	0.00	0.58	0.58	0.00	0.53	0.53	3,429.28
Trenching Worker Trips	0.02	0.04	0.78	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.42
Time Slice 1/1/2025-12/31/2025 Active	60.87	162.79	444.65	1.42	413.63	9.34	422.97	87.27	8.35	95.61	157,697.33
Asphalt 01/01/2010-12/31/2029	1.78	10.62	10.17	0.00	0.01	0.83	0.84	0.00	0.76	0.76	1,611.79
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.70	10.53	9.66	0.00	0.00	0.82	0.82	0.00	0.75	0.75	1,418.81
Paving On Road Diesel	0.01	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.71
Paving Worker Trips	0.01	0.02	0.49	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.27
Building 01/01/2010-12/31/2029	15.69	81.41	378.73	1.41	6.00	5.65	11.64	2.13	4.95	7.08	140,248.12
Building Off Road Diesel	1.71	10.50	12.03	0.00	0.00	0.50	0.50	0.00	0.46	0.46	2,259.28
Building Vendor Trips	6.80	55.98	68.63	0.41	1.51	2.33	3.84	0.51	2.11	2.63	43,109.39
Building Worker Trips	7.18	14.93	298.07	1.00	4.49	2.82	7.30	1.62	2.38	4.00	94,879.45
Coating 01/01/2010-12/31/2029	32.86	0.01	0.22	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Architectural Coating	32.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.22	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Mass Grading 01/01/2010-	8.45	58.36	39.23	0.00	407.61	2.28	409.89	85.13	2.10	87.22	12,089.07
Mass Grading Dust	0.00	0.00	0.00	0.00	407.59	0.00	407.59	85.12	0.00	85.12	0.00
Mass Grading Off Road Diesel	8.42	58.30	38.06	0.00	0.00	2.27	2.27	0.00	2.09	2.09	11,716.43
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.03	0.06	1.17	0.00	0.02	0.01	0.03	0.01	0.01	0.02	372.64
Trenching 01/01/2010-12/31/2029	2.10	12.39	16.31	0.00	0.01	0.58	0.60	0.00	0.54	0.54	3,677.70
Trenching Off Road Diesel	2.08	12.35	15.53	0.00	0.00	0.58	0.58	0.00	0.53	0.53	3,429.28
Trenching Worker Trips	0.02	0.04	0.78	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.42
Time Slice 1/1/2026-12/31/2026 Active	57.47	150.11	366.76	1.42	413.63	9.01	422.64	87.27	8.05	95.31	157,708.87
Asphalt 01/01/2010-12/31/2029	1.78	10.61	10.06	0.00	0.01	0.83	0.84	0.00	0.76	0.76	1,611.80
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.70	10.53	9.66	0.00	0.00	0.82	0.82	0.00	0.75	0.75	1,418.81
Paving On Road Diesel	0.01	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.71
Paving Worker Trips	0.01	0.02	0.38	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.27
Building 01/01/2010-12/31/2029	12.30	68.78	301.44	1.41	6.00	5.32	11.32	2.13	4.65	6.78	140,259.60
Building Off Road Diesel	1.71	10.50	12.03	0.00	0.00	0.50	0.50	0.00	0.46	0.46	2,259.28
Building Vendor Trips	5.82	47.35	58.07	0.41	1.51	2.01	3.52	0.51	1.82	2.33	43,115.82
Building Worker Trips	4.78	10.93	231.34	1.00	4.49	2.82	7.30	1.62	2.38	4.00	94,884.51
Coating 01/01/2010-12/31/2029	32.86	0.01	0.17	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Architectural Coating	32.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.17	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Mass Grading 01/01/2010-	8.44	58.34	38.97	0.00	407.61	2.28	409.89	85.13	2.10	87.22	12,089.09
Mass Grading Dust	0.00	0.00	0.00	0.00	407.59	0.00	407.59	85.12	0.00	85.12	0.00
Mass Grading Off Road Diesel	8.42	58.30	38.06	0.00	0.00	2.27	2.27	0.00	2.09	2.09	11,716.43
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.02	0.04	0.91	0.00	0.02	0.01	0.03	0.01	0.01	0.02	372.66
Trenching 01/01/2010-12/31/2029	2.09	12.38	16.13	0.00	0.01	0.58	0.60	0.00	0.54	0.54	3,677.72
Trenching Off Road Diesel	2.08	12.35	15.53	0.00	0.00	0.58	0.58	0.00	0.53	0.53	3,429.28
Trenching Worker Trips	0.01	0.03	0.61	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.44

Time Slice 1/1/2027-12/31/2027 Active	57.47	150.11	366.76	1.42	413.63	9.01	422.64	87.27	8.05	95.31	157,708.87
Asphalt 01/01/2010-12/31/2029	1.78	10.61	10.06	0.00	0.01	0.83	0.84	0.00	0.76	0.76	1,611.80
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.70	10.53	9.66	0.00	0.00	0.82	0.82	0.00	0.75	0.75	1,418.81
Paving On Road Diesel	0.01	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.71
Paving Worker Trips	0.01	0.02	0.38	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.27
Building 01/01/2010-12/31/2029	12.30	68.78	301.44	1.41	6.00	5.32	11.32	2.13	4.65	6.78	140,259.60
Building Off Road Diesel	1.71	10.50	12.03	0.00	0.00	0.50	0.50	0.00	0.46	0.46	2,259.28
Building Vendor Trips	5.82	47.35	58.07	0.41	1.51	2.01	3.52	0.51	1.82	2.33	43,115.82
Building Worker Trips	4.78	10.93	231.34	1.00	4.49	2.82	7.30	1.62	2.38	4.00	94,884.51
Coating 01/01/2010-12/31/2029	32.86	0.01	0.17	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Architectural Coating	32.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.17	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Mass Grading 01/01/2010-	8.44	58.34	38.97	0.00	407.61	2.28	409.89	85.13	2.10	87.22	12,089.09
Mass Grading Dust	0.00	0.00	0.00	0.00	407.59	0.00	407.59	85.12	0.00	85.12	0.00
Mass Grading Off Road Diesel	8.42	58.30	38.06	0.00	0.00	2.27	2.27	0.00	2.09	2.09	11,716.43
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.02	0.04	0.91	0.00	0.02	0.01	0.03	0.01	0.01	0.02	372.66
Trenching 01/01/2010-12/31/2029	2.09	12.38	16.13	0.00	0.01	0.58	0.60	0.00	0.54	0.54	3,677.72
Trenching Off Road Diesel	2.08	12.35	15.53	0.00	0.00	0.58	0.58	0.00	0.53	0.53	3,429.28
Trenching Worker Trips	0.01	0.03	0.61	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.44
Time Slice 1/3/2028-12/29/2028 Active	57.47	150.11	366.76	1.42	413.63	9.01	422.64	87.27	8.05	95.31	157,708.87
Asphalt 01/01/2010-12/31/2029	1.78	10.61	10.06	0.00	0.01	0.83	0.84	0.00	0.76	0.76	1,611.80
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.70	10.53	9.66	0.00	0.00	0.82	0.82	0.00	0.75	0.75	1,418.81
Paving On Road Diesel	0.01	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.71
Paving Worker Trips	0.01	0.02	0.38	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.27
Building 01/01/2010-12/31/2029	12.30	68.78	301.44	1.41	6.00	5.32	11.32	2.13	4.65	6.78	140,259.60
Building Off Road Diesel	1.71	10.50	12.03	0.00	0.00	0.50	0.50	0.00	0.46	0.46	2,259.28
Building Vendor Trips	5.82	47.35	58.07	0.41	1.51	2.01	3.52	0.51	1.82	2.33	43,115.82
Building Worker Trips	4.78	10.93	231.34	1.00	4.49	2.82	7.30	1.62	2.38	4.00	94,884.51
Coating 01/01/2010-12/31/2029	32.86	0.01	0.17	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Architectural Coating	32.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.17	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Mass Grading 01/01/2010-	8.44	58.34	38.97	0.00	407.61	2.28	409.89	85.13	2.10	87.22	12,089.09
Mass Grading Dust	0.00	0.00	0.00	0.00	407.59	0.00	407.59	85.12	0.00	85.12	0.00
Mass Grading Off Road Diesel	8.42	58.30	38.06	0.00	0.00	2.27	2.27	0.00	2.09	2.09	11,716.43
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.02	0.04	0.91	0.00	0.02	0.01	0.03	0.01	0.01	0.02	372.66
Trenching 01/01/2010-12/31/2029	2.09	12.38	16.13	0.00	0.01	0.58	0.60	0.00	0.54	0.54	3,677.72
Trenching Off Road Diesel	2.08	12.35	15.53	0.00	0.00	0.58	0.58	0.00	0.53	0.53	3,429.28
Trenching Worker Trips	0.01	0.03	0.61	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.44
Time Slice 1/1/2029-12/31/2029 Active	57.47	150.11	366.76	1.42	413.63	9.01	422.64	87.27	8.05	95.31	157,708.87
Asphalt 01/01/2010-12/31/2029	1.78	10.61	10.06	0.00	0.01	0.83	0.84	0.00	0.76	0.76	1,611.80
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.70	10.53	9.66	0.00	0.00	0.82	0.82	0.00	0.75	0.75	1,418.81
Paving On Road Diesel	0.01	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.71
Paving Worker Trips	0.01	0.02	0.38	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.27
Building 01/01/2010-12/31/2029	12.30	68.78	301.44	1.41	6.00	5.32	11.32	2.13	4.65	6.78	140,259.60
Building Off Road Diesel	1.71	10.50	12.03	0.00	0.00	0.50	0.50	0.00	0.46	0.46	2,259.28
Building Vendor Trips	5.82	47.35	58.07	0.41	1.51	2.01	3.52	0.51	1.82	2.33	43,115.82
Building Worker Trips	4.78	10.93	231.34	1.00	4.49	2.82	7.30	1.62	2.38	4.00	94,884.51
Coating 01/01/2010-12/31/2029	32.86	0.01	0.17	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Architectural Coating	32.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.17	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.66
Mass Grading 01/01/2010-	8.44	58.34	38.97	0.00	407.61	2.28	409.89	85.13	2.10	87.22	12,089.09
Mass Grading Dust	0.00	0.00	0.00	0.00	407.59	0.00	407.59	85.12	0.00	85.12	0.00
Mass Grading Off Road Diesel	8.42	58.30	38.06	0.00	0.00	2.27	2.27	0.00	2.09	2.09	11,716.43
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.02	0.04	0.91	0.00	0.02	0.01	0.03	0.01	0.01	0.02	372.66
Trenching 01/01/2010-12/31/2029	2.09	12.38	16.13	0.00	0.01	0.58	0.60	0.00	0.54	0.54	3,677.72
Trenching Off Road Diesel	2.08	12.35	15.53	0.00	0.00	0.58	0.58	0.00	0.53	0.53	3,429.28
Trenching Worker Trips	0.01	0.03	0.61	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.44

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 1/1/2010 - 12/31/2029 - Default Mass Site Grading/Excavation Description

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:
PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:
PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:
PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:
PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:
PM10: 55% PM25: 55%

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: Q:\TOR-02.0E\Technical Studies\Air\Urbemis\Torrance_CurrentGP.urb924
Project Name: Torrance GP- Current GP
Project Location: Los Angeles County
On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006
Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	765.66	205.45	631.83	0.81	46.53	44.81	254,757.63

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	870.74	781.18	8,054.06	22.99	3,980.54	771.93	2,322,915.03

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	1,636.40	986.63	8,685.89	23.80	4,027.07	816.74	2,577,672.66

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	14.97	197.86	112.47	0.00	0.37	0.37	247,361.97
Hearth	108.86	5.05	294.19	0.80	45.56	43.85	7,033.34
Landscape	40.33	2.54	225.17	0.01	0.60	0.59	362.32
Consumer Products	510.03						
Architectural Coatings	91.47						
TOTALS (tons/year, unmitigated)	765.66	205.45	631.83	0.81	46.53	44.81	254,757.63

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	127.89	119.56	1,262.76	3.64	627.85	121.75	366,909.41
Apartments low rise	1.15	1.05	11.06	0.03	5.50	1.07	3,212.37
Apartments mid rise	30.39	27.14	286.66	0.83	142.53	27.64	83,290.85
Apartments high rise	0.70	0.62	6.58	0.02	3.27	0.63	1,910.58
Condo/townhouse general	23.79	21.84	230.69	0.66	114.70	22.24	67,029.73
Condo/townhouse high rise	47.21	42.76	451.59	1.30	224.53	43.54	131,214.29
Free-standing discount store	214.32	184.63	1,867.51	5.23	907.95	176.16	530,012.74
Regnl shop. center	119.13	108.17	1,092.20	3.12	542.36	105.13	315,692.36
Strip mall	49.71	42.04	425.38	1.19	206.02	39.98	120,324.76
Office park	115.80	111.14	1,160.79	3.38	584.76	113.33	340,826.30
Government (civic center)	91.36	78.31	799.59	2.25	389.15	75.51	227,341.86
General light industry	43.23	39.62	414.12	1.21	208.87	40.48	121,729.53
General heavy industry	5.56	3.84	40.38	0.12	20.64	4.00	12,019.75
Industrial park	0.50	0.46	4.75	0.01	2.41	0.47	1,400.50
TOTALS (tons/year, unmitigated)	870.74	781.18	8,054.06	22.99	3,980.54	771.93	2,322,915.03

Operational Settings:

Includes correction for passby trips
Includes the following double counting adjustment for internal trips:
Residential Trip % Reduction: 0.00 Nonresidential Trip % Reduction: 0.00
Analysis Year: 2030 Season: Annual
Emfac: Version : Emfac2007 V2.3 Nov 1 2006

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Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	3,998.00	8.29	dwelling units	27,189.00	225,396.81	1,993,635.09
Apartments low rise	17.88	6.90	dwelling units	286.00	1,973.40	17,454.73
Apartments mid rise	262.00	5.92	dwelling units	8,643.00	51,166.56	452,568.30
Apartments high rise	5.00	5.67	dwelling units	207.00	1,173.69	10,381.29
Condo/townhouse general	426.00	7.16	dwelling units	5,751.00	41,177.16	364,212.03
Condo/townhouse high rise	591.00	6.50	dwelling units	12,401.00	80,606.50	712,964.60
Free-standing discount store		56.02	1000 sq ft	10,177.00	570,115.54	2,882,666.84
Regnl shop. center		42.94	1000 sq ft	7,001.00	300,622.93	1,722,347.01
Strip mall		42.94	1000 sq ft	3,078.00	132,169.32	654,054.31
Office park		11.42	1000 sq ft	18,218.00	208,049.56	1,857,128.61
Government (civic center)		27.92	1000 sq ft	8,109.00	226,403.28	1,235,501.91
General light industry		6.97	1000 sq ft	10,440.00	72,766.80	663,360.32
General heavy industry		1.50	1000 sq ft	3,745.00	5,617.50	65,571.42
Industrial park		6.96	1000 sq ft	124.00	863.04	7,640.09
					1,918,102.09	12,639,486.55

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.7	0.0	100.0	0.0
Light Truck < 3750 lbs	6.7	0.0	100.0	0.0
Light Truck 3751-5750 lbs	23.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.5	32.0	68.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Free-standing discount store				2.0	1.0	97.0
Regnl shop. center				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
General light industry				50.0	25.0	25.0
General heavy industry				90.0	5.0	5.0
Industrial park				41.5	20.8	37.8

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: Q:\TOR-02.0E\Technical Studies\Air\Urbemis\Torrance_CurrentGP_wFPcor.urb924
Project Name: Torrance GP- Current GP
Project Location: Los Angeles County
On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006
Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	660.11	200.59	337.72	0.01	0.99	0.98	247,964.54

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	870.74	781.18	8,054.06	22.99	3,980.54	771.93	2,322,915.03

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	1,530.85	981.77	8,391.78	23.00	3,981.53	772.91	2,570,879.57

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	14.97	197.86	112.47	0.00	0.37	0.37	247,361.97
Hearth	3.31	0.19	0.08	0.00	0.02	0.02	240.25
Landscape	40.33	2.54	225.17	0.01	0.60	0.59	362.32
Consumer Products	510.03						
Architectural Coatings	91.47						
TOTALS (tons/year, unmitigated)	660.11	200.59	337.72	0.01	0.99	0.98	247,964.54

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Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 10% to 0%

Percentage of residences with wood fireplaces changed from 5% to 0%

Percentage of residences with natural gas fireplaces changed from 85% to 100%

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	127.89	119.56	1,262.76	3.64	627.85	121.75	366,909.41
Apartments low rise	1.15	1.05	11.06	0.03	5.50	1.07	3,212.37
Apartments mid rise	30.39	27.14	286.66	0.83	142.53	27.64	83,290.85
Apartments high rise	0.70	0.62	6.58	0.02	3.27	0.63	1,910.58
Condo/townhouse general	23.79	21.84	230.69	0.66	114.70	22.24	67,029.73
Condo/townhouse high rise	47.21	42.76	451.59	1.30	224.53	43.54	131,214.29
Free-standing discount store	214.32	184.63	1,867.51	5.23	907.95	176.16	530,012.74
Regnl shop. center	119.13	108.17	1,092.20	3.12	542.36	105.13	315,692.36
Strip mall	49.71	42.04	425.38	1.19	206.02	39.98	120,324.76
Office park	115.80	111.14	1,160.79	3.38	584.76	113.33	340,826.30
Government (civic center)	91.36	78.31	799.59	2.25	389.15	75.51	227,341.86
General light industry	43.23	39.62	414.12	1.21	208.87	40.48	121,729.53
General heavy industry	5.56	3.84	40.38	0.12	20.64	4.00	12,019.75
Industrial park	0.50	0.46	4.75	0.01	2.41	0.47	1,400.50
TOTALS (tons/year, unmitigated)	870.74	781.18	8,054.06	22.99	3,980.54	771.93	2,322,915.03

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 0.00 Nonresidential Trip % Reduction: 0.00

Analysis Year: 2030 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

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Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	3,998.00	8.29	dwelling units	27,189.00	225,396.81	1,993,635.09
Apartments low rise	17.88	6.90	dwelling units	286.00	1,973.40	17,454.73
Apartments mid rise	262.00	5.92	dwelling units	8,643.00	51,166.56	452,568.30
Apartments high rise	5.00	5.67	dwelling units	207.00	1,173.69	10,381.29
Condo/townhouse general	426.00	7.16	dwelling units	5,751.00	41,177.16	364,212.03
Condo/townhouse high rise	591.00	6.50	dwelling units	12,401.00	80,606.50	712,964.60
Free-standing discount store		56.02	1000 sq ft	10,177.00	570,115.54	2,882,666.84
Regnl shop. center		42.94	1000 sq ft	7,001.00	300,622.93	1,722,347.01
Strip mall		42.94	1000 sq ft	3,078.00	132,169.32	654,054.31
Office park		11.42	1000 sq ft	18,218.00	208,049.56	1,857,128.61
Government (civic center)		27.92	1000 sq ft	8,109.00	226,403.28	1,235,501.91
General light industry		6.97	1000 sq ft	10,440.00	72,766.80	663,360.32
General heavy industry		1.50	1000 sq ft	3,745.00	5,617.50	65,571.42
Industrial park		6.96	1000 sq ft	124.00	863.04	7,640.09
					1,918,102.09	12,639,486.55

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.7	0.0	100.0	0.0
Light Truck < 3750 lbs	6.7	0.0	100.0	0.0
Light Truck 3751-5750 lbs	23.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.5	32.0	68.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Free-standing discount store				2.0	1.0	97.0
Regnl shop. center				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
General light industry				50.0	25.0	25.0
General heavy industry				90.0	5.0	5.0
Industrial park				41.5	20.8	37.8

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: Q:\TOR-02.0E\Technical Studies\Air\Urbemis\Torrance_CurrentGP.urb924
Project Name: Torrance GP- Current GP
Project Location: Los Angeles County
On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006
Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	3,598.82	1,098.10	1,850.06	0.07	5.31	5.26	1,357,393.39

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	4,595.03	4,013.19	44,894.78	133.51	21,811.18	4,229.62	13,149,304.44

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	8,193.85	5,111.29	46,744.84	133.58	21,816.49	4,234.88	14,506,697.83

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	82.00	1,084.16	616.25	0.01	2.03	2.01	1,355,408.05
Hearth - No Summer Emissions							
Landscape	220.96	13.94	1,233.81	0.06	3.28	3.25	1,985.34
Consumer Products	2,794.67						
Architectural Coatings	501.19						
TOTALS (lbs/day, unmitigated)	3,598.82	1,098.10	1,850.06	0.07	5.31	5.26	1,357,393.39

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Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	686.34	613.77	7,069.44	21.13	3,440.28	667.13	2,076,867.57
Apartments low rise	6.18	5.37	61.89	0.18	30.12	5.84	18,183.45
Apartments mid rise	164.70	139.33	1,604.81	4.80	780.97	151.44	471,462.62
Apartments high rise	3.81	3.20	36.81	0.11	17.91	3.47	10,814.70
Condo/townhouse general	128.21	112.13	1,291.50	3.86	628.50	121.88	379,417.56
Condo/townhouse high rise	255.09	219.50	2,528.18	7.56	1,230.31	238.58	742,730.24
Free-standing discount store	1,111.70	949.30	10,352.94	30.40	4,975.08	965.24	3,000,196.83
Regnl shop. center	620.67	555.98	6,070.11	18.12	2,971.81	576.05	1,787,190.03
Strip mall	258.30	216.18	2,357.13	6.90	1,128.86	219.05	681,099.33
Office park	615.73	570.51	6,505.39	19.62	3,204.19	620.96	1,929,399.61
Government (civic center)	477.28	402.51	4,441.35	13.05	2,132.34	413.73	1,286,861.57
General light industry	232.63	203.38	2,321.53	7.01	1,144.51	221.79	689,106.71
General heavy industry	31.70	19.68	227.08	0.69	113.12	21.91	68,045.76
Industrial park	2.69	2.35	26.62	0.08	13.18	2.55	7,928.46
TOTALS (lbs/day, unmitigated)	4,595.03	4,013.19	44,894.78	133.51	21,811.18	4,229.62	13,149,304.44

Operational Settings:

Includes correction for passby trips
Includes the following double counting adjustment for internal trips:
Residential Trip % Reduction: 0.00 Nonresidential Trip % Reduction: 0.00
Analysis Year: 2030 Temperature (F): 80 Season: Summer
Emfac: Version : Emfac2007 V2.3 Nov 1 2006

6/22/2009 10:02:45 AM

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	3,998.00	8.29	dwelling units	27,189.00	225,396.81	1,993,635.09
Apartments low rise	17.88	6.90	dwelling units	286.00	1,973.40	17,454.73
Apartments mid rise	262.00	5.92	dwelling units	8,643.00	51,166.56	452,568.30
Apartments high rise	5.00	5.67	dwelling units	207.00	1,173.69	10,381.29
Condo/townhouse general	426.00	7.16	dwelling units	5,751.00	41,177.16	364,212.03
Condo/townhouse high rise	591.00	6.50	dwelling units	12,401.00	80,606.50	712,964.60
Free-standing discount store		56.02	1000 sq ft	10,177.00	570,115.54	2,882,666.84
Regnl shop. center		42.94	1000 sq ft	7,001.00	300,622.93	1,722,347.01
Strip mall		42.94	1000 sq ft	3,078.00	132,169.32	654,054.31
Office park		11.42	1000 sq ft	18,218.00	208,049.56	1,857,128.61
Government (civic center)		27.92	1000 sq ft	8,109.00	226,403.28	1,235,501.91
General light industry		6.97	1000 sq ft	10,440.00	72,766.80	663,360.32
General heavy industry		1.50	1000 sq ft	3,745.00	5,617.50	65,571.42
Industrial park		6.96	1000 sq ft	124.00	863.04	7,640.09
					1,918,102.09	12,639,486.55

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.7	0.0	100.0	0.0
Light Truck < 3750 lbs	6.7	0.0	100.0	0.0
Light Truck 3751-5750 lbs	23.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.5	32.0	68.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

6/22/2009 10:02:45 AM

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Free-standing discount store				2.0	1.0	97.0
Regnl shop. center				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
General light industry				50.0	25.0	25.0
General heavy industry				90.0	5.0	5.0
Industrial park				41.5	20.8	37.8

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: Q:\TOR-02.0E\Technical Studies\Air\Urbemis\Torrance_CurrentGP_wFPcor.urb924
Project Name: Torrance GP- Current GP
Project Location: Los Angeles County
On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006
Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	3,598.82	1,098.10	1,850.06	0.07	5.31	5.26	1,357,393.39

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	4,595.03	4,013.19	44,894.78	133.51	21,811.18	4,229.62	13,149,304.44

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	8,193.85	5,111.29	46,744.84	133.58	21,816.49	4,234.88	14,506,697.83

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	82.00	1,084.16	616.25	0.01	2.03	2.01	1,355,408.05
Hearth - No Summer Emissions							
Landscape	220.96	13.94	1,233.81	0.06	3.28	3.25	1,985.34
Consumer Products	2,794.67						
Architectural Coatings	501.19						
TOTALS (lbs/day, unmitigated)	3,598.82	1,098.10	1,850.06	0.07	5.31	5.26	1,357,393.39

6/22/2009 10:03:57 AM

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 10% to 0%

Percentage of residences with wood fireplaces changed from 5% to 0%

Percentage of residences with natural gas fireplaces changed from 85% to 100%

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	686.34	613.77	7,069.44	21.13	3,440.28	667.13	2,076,867.57
Apartments low rise	6.18	5.37	61.89	0.18	30.12	5.84	18,183.45
Apartments mid rise	164.70	139.33	1,604.81	4.80	780.97	151.44	471,462.62
Apartments high rise	3.81	3.20	36.81	0.11	17.91	3.47	10,814.70
Condo/townhouse general	128.21	112.13	1,291.50	3.86	628.50	121.88	379,417.56
Condo/townhouse high rise	255.09	219.50	2,528.18	7.56	1,230.31	238.58	742,730.24
Free-standing discount store	1,111.70	949.30	10,352.94	30.40	4,975.08	965.24	3,000,196.83
Regnl shop. center	620.67	555.98	6,070.11	18.12	2,971.81	576.05	1,787,190.03
Strip mall	258.30	216.18	2,357.13	6.90	1,128.86	219.05	681,099.33
Office park	615.73	570.51	6,505.39	19.62	3,204.19	620.96	1,929,399.61
Government (civic center)	477.28	402.51	4,441.35	13.05	2,132.34	413.73	1,286,861.57
General light industry	232.63	203.38	2,321.53	7.01	1,144.51	221.79	689,106.71
General heavy industry	31.70	19.68	227.08	0.69	113.12	21.91	68,045.76
Industrial park	2.69	2.35	26.62	0.08	13.18	2.55	7,928.46
TOTALS (lbs/day, unmitigated)	4,595.03	4,013.19	44,894.78	133.51	21,811.18	4,229.62	13,149,304.44

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 0.00 Nonresidential Trip % Reduction: 0.00

Analysis Year: 2030 Temperature (F): 80 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

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Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	3,998.00	8.29	dwelling units	27,189.00	225,396.81	1,993,635.09
Apartments low rise	17.88	6.90	dwelling units	286.00	1,973.40	17,454.73
Apartments mid rise	262.00	5.92	dwelling units	8,643.00	51,166.56	452,568.30
Apartments high rise	5.00	5.67	dwelling units	207.00	1,173.69	10,381.29
Condo/townhouse general	426.00	7.16	dwelling units	5,751.00	41,177.16	364,212.03
Condo/townhouse high rise	591.00	6.50	dwelling units	12,401.00	80,606.50	712,964.60
Free-standing discount store		56.02	1000 sq ft	10,177.00	570,115.54	2,882,666.84
Regnl shop. center		42.94	1000 sq ft	7,001.00	300,622.93	1,722,347.01
Strip mall		42.94	1000 sq ft	3,078.00	132,169.32	654,054.31
Office park		11.42	1000 sq ft	18,218.00	208,049.56	1,857,128.61
Government (civic center)		27.92	1000 sq ft	8,109.00	226,403.28	1,235,501.91
General light industry		6.97	1000 sq ft	10,440.00	72,766.80	663,360.32
General heavy industry		1.50	1000 sq ft	3,745.00	5,617.50	65,571.42
Industrial park		6.96	1000 sq ft	124.00	863.04	7,640.09
					1,918,102.09	12,639,486.55

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.7	0.0	100.0	0.0
Light Truck < 3750 lbs	6.7	0.0	100.0	0.0
Light Truck 3751-5750 lbs	23.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.5	32.0	68.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Free-standing discount store				2.0	1.0	97.0
Regnl shop. center				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
General light industry				50.0	25.0	25.0
General heavy industry				90.0	5.0	5.0
Industrial park				41.5	20.8	37.8

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: Q:\TOR-02.0E\Technical Studies\Air\Urbemis\Torrance_CurrentGP.urb924
Project Name: Torrance GP- Current GP
Project Location: Los Angeles County
On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006
Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	11,914.24	1,795.63	24,282.09	66.33	3,671.71	3,534.70	2,310,167.30

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	5,123.45	4,814.89	42,606.01	110.71	21,811.18	4,229.62	11,886,296.07

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	17,037.69	6,610.52	66,888.10	177.04	25,482.89	7,764.32	14,196,463.37

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	82.00	1,084.16	616.25	0.01	2.03	2.01	1,355,408.05
Hearth	8,536.38	711.47	23,665.84	66.32	3,669.68	3,532.69	954,759.25
Landscaping - No Winter Emissions							
Consumer Products	2,794.67						
Architectural Coatings	501.19						
TOTALS (lbs/day, unmitigated)	11,914.24	1,795.63	24,282.09	66.33	3,671.71	3,534.70	2,310,167.30

6/22/2009 10:03:00 AM

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	729.56	737.88	6,618.88	17.53	3,440.28	667.13	1,877,652.37
Apartments low rise	6.48	6.46	57.95	0.15	30.12	5.84	16,439.27
Apartments mid rise	170.16	167.50	1,502.53	3.98	780.97	151.44	426,239.46
Apartments high rise	3.92	3.84	34.47	0.09	17.91	3.47	9,777.34
Condo/townhouse general	134.72	134.80	1,209.19	3.20	628.50	121.88	343,023.45
Condo/townhouse high rise	265.83	263.88	2,367.05	6.27	1,230.31	238.58	671,486.82
Free-standing discount store	1,299.58	1,136.38	9,992.95	25.21	4,975.08	965.24	2,712,144.60
Regnl shop. center	716.94	666.24	5,813.82	15.02	2,971.81	576.05	1,615,083.46
Strip mall	300.59	258.73	2,278.35	5.72	1,128.86	219.05	615,742.56
Office park	672.13	685.93	6,070.71	16.27	3,204.19	620.96	1,743,824.90
Government (civic center)	547.24	482.19	4,261.24	10.82	2,132.34	413.73	1,163,403.30
General light industry	245.40	244.55	2,164.37	5.81	1,144.51	221.79	622,820.03
General heavy industry	28.07	23.69	209.64	0.57	113.12	21.91	61,493.49
Industrial park	2.83	2.82	24.86	0.07	13.18	2.55	7,165.02
TOTALS (lbs/day, unmitigated)	5,123.45	4,814.89	42,606.01	110.71	21,811.18	4,229.62	11,886,296.07

Operational Settings:

Includes correction for passby trips
Includes the following double counting adjustment for internal trips:
Residential Trip % Reduction: 0.00 Nonresidential Trip % Reduction: 0.00
Analysis Year: 2030 Temperature (F): 60 Season: Winter
Emfac: Version : Emfac2007 V2.3 Nov 1 2006

6/22/2009 10:03:00 AM

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	3,998.00	8.29	dwelling units	27,189.00	225,396.81	1,993,635.09
Apartments low rise	17.88	6.90	dwelling units	286.00	1,973.40	17,454.73
Apartments mid rise	262.00	5.92	dwelling units	8,643.00	51,166.56	452,568.30
Apartments high rise	5.00	5.67	dwelling units	207.00	1,173.69	10,381.29
Condo/townhouse general	426.00	7.16	dwelling units	5,751.00	41,177.16	364,212.03
Condo/townhouse high rise	591.00	6.50	dwelling units	12,401.00	80,606.50	712,964.60
Free-standing discount store		56.02	1000 sq ft	10,177.00	570,115.54	2,882,666.84
Regnl shop. center		42.94	1000 sq ft	7,001.00	300,622.93	1,722,347.01
Strip mall		42.94	1000 sq ft	3,078.00	132,169.32	654,054.31
Office park		11.42	1000 sq ft	18,218.00	208,049.56	1,857,128.61
Government (civic center)		27.92	1000 sq ft	8,109.00	226,403.28	1,235,501.91
General light industry		6.97	1000 sq ft	10,440.00	72,766.80	663,360.32
General heavy industry		1.50	1000 sq ft	3,745.00	5,617.50	65,571.42
Industrial park		6.96	1000 sq ft	124.00	863.04	7,640.09
					1,918,102.09	12,639,486.55

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.7	0.0	100.0	0.0
Light Truck < 3750 lbs	6.7	0.0	100.0	0.0
Light Truck 3751-5750 lbs	23.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.5	32.0	68.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Free-standing discount store				2.0	1.0	97.0
Regnl shop. center				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
General light industry				50.0	25.0	25.0
General heavy industry				90.0	5.0	5.0
Industrial park				41.5	20.8	37.8

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: Q:\TOR-02.0E\Technical Studies\Air\Urbemis\Torrance_CurrentGP_wFPcor.urb924
Project Name: Torrance GP- Current GP
Project Location: Los Angeles County
On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006
Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	3,399.88	1,460.56	776.42	2.41	32.46	32.12	1,835,912.76

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	5,123.45	4,814.89	42,606.01	110.71	21,811.18	4,229.62	11,886,296.07

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	8,523.33	6,275.45	43,382.43	113.12	21,843.64	4,261.74	13,722,208.83

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	82.00	1,084.16	616.25	0.01	2.03	2.01	1,355,408.05
Hearth	22.02	376.40	160.17	2.40	30.43	30.11	480,504.71
Landscaping - No Winter Emissions							
Consumer Products	2,794.67						
Architectural Coatings	501.19						
TOTALS (lbs/day, unmitigated)	3,399.88	1,460.56	776.42	2.41	32.46	32.12	1,835,912.76

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Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 10% to 0%

Percentage of residences with wood fireplaces changed from 5% to 0%

Percentage of residences with natural gas fireplaces changed from 85% to 100%

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	729.56	737.88	6,618.88	17.53	3,440.28	667.13	1,877,652.37
Apartments low rise	6.48	6.46	57.95	0.15	30.12	5.84	16,439.27
Apartments mid rise	170.16	167.50	1,502.53	3.98	780.97	151.44	426,239.46
Apartments high rise	3.92	3.84	34.47	0.09	17.91	3.47	9,777.34
Condo/townhouse general	134.72	134.80	1,209.19	3.20	628.50	121.88	343,023.45
Condo/townhouse high rise	265.83	263.88	2,367.05	6.27	1,230.31	238.58	671,486.82
Free-standing discount store	1,299.58	1,136.38	9,992.95	25.21	4,975.08	965.24	2,712,144.60
Regnl shop. center	716.94	666.24	5,813.82	15.02	2,971.81	576.05	1,615,083.46
Strip mall	300.59	258.73	2,278.35	5.72	1,128.86	219.05	615,742.56
Office park	672.13	685.93	6,070.71	16.27	3,204.19	620.96	1,743,824.90
Government (civic center)	547.24	482.19	4,261.24	10.82	2,132.34	413.73	1,163,403.30
General light industry	245.40	244.55	2,164.37	5.81	1,144.51	221.79	622,820.03
General heavy industry	28.07	23.69	209.64	0.57	113.12	21.91	61,493.49
Industrial park	2.83	2.82	24.86	0.07	13.18	2.55	7,165.02
TOTALS (lbs/day, unmitigated)	5,123.45	4,814.89	42,606.01	110.71	21,811.18	4,229.62	11,886,296.07

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 0.00 Nonresidential Trip % Reduction: 0.00

Analysis Year: 2030 Temperature (F): 60 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

6/22/2009 10:04:05 AM

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	3,998.00	8.29	dwelling units	27,189.00	225,396.81	1,993,635.09
Apartments low rise	17.88	6.90	dwelling units	286.00	1,973.40	17,454.73
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Apartments high rise	5.00	5.67	dwelling units	207.00	1,173.69	10,381.29
Condo/townhouse general	426.00	7.16	dwelling units	5,751.00	41,177.16	364,212.03
Condo/townhouse high rise	591.00	6.50	dwelling units	12,401.00	80,606.50	712,964.60
Free-standing discount store		56.02	1000 sq ft	10,177.00	570,115.54	2,882,666.84
Regnl shop. center		42.94	1000 sq ft	7,001.00	300,622.93	1,722,347.01
Strip mall		42.94	1000 sq ft	3,078.00	132,169.32	654,054.31
Office park		11.42	1000 sq ft	18,218.00	208,049.56	1,857,128.61
Government (civic center)		27.92	1000 sq ft	8,109.00	226,403.28	1,235,501.91
General light industry		6.97	1000 sq ft	10,440.00	72,766.80	663,360.32
General heavy industry		1.50	1000 sq ft	3,745.00	5,617.50	65,571.42
Industrial park		6.96	1000 sq ft	124.00	863.04	7,640.09
					1,918,102.09	12,639,486.55

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.7	0.0	100.0	0.0
Light Truck < 3750 lbs	6.7	0.0	100.0	0.0
Light Truck 3751-5750 lbs	23.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.5	32.0	68.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

6/22/2009 10:04:05 AM

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Free-standing discount store				2.0	1.0	97.0
Regnl shop. center				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
General light industry				50.0	25.0	25.0
General heavy industry				90.0	5.0	5.0
Industrial park				41.5	20.8	37.8

6/22/2009 10:05:19 AM

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: Q:\TOR-02.0E\Technical Studies\Air\Urbemis\Torrance_Existing.urb924
Project Name: Torrance GP- Existing
Project Location: Los Angeles County
On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006
Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	748.86	202.24	623.63	0.79	45.42	43.74	250,698.33

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	853.25	765.76	7,895.23	22.52	3,902.28	756.73	2,277,236.94

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	1,602.11	968.00	8,518.86	23.31	3,947.70	800.47	2,527,935.27

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	14.73	194.76	110.81	0.00	0.37	0.36	243,472.12
Hearth	106.17	4.93	287.01	0.78	44.45	42.78	6,862.87
Landscape	40.44	2.55	225.81	0.01	0.60	0.60	363.34
Consumer Products	497.58						
Architectural Coatings	89.94						
TOTALS (tons/year, unmitigated)	748.86	202.24	623.63	0.79	45.42	43.74	250,698.33

6/22/2009 10:05:19 AM

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	128.25	119.91	1,266.39	3.65	629.65	122.10	367,962.00
Apartments low rise	1.15	1.05	11.06	0.03	5.50	1.07	3,212.37
Apartments mid rise	28.77	25.70	271.43	0.78	134.95	26.17	78,865.64
Apartments high rise	0.94	0.83	8.74	0.03	4.34	0.84	2,538.69
Condo/townhouse general	23.44	21.52	227.28	0.65	113.01	21.91	66,039.03
Condo/townhouse high rise	43.69	39.58	417.98	1.20	207.82	40.30	121,448.08
Free-standing discount store	202.02	174.03	1,760.35	4.93	855.85	166.05	499,598.33
Regnl shop. center	118.64	107.73	1,087.68	3.11	540.11	104.69	314,384.68
Strip mall	51.47	43.53	440.45	1.23	213.31	41.39	124,585.77
Office park	115.68	111.02	1,159.52	3.37	584.12	113.20	340,452.14
Government (civic center)	92.32	79.13	807.97	2.27	393.23	76.30	229,724.90
General light industry	40.92	37.50	391.98	1.14	197.71	38.31	115,223.30
General heavy industry	5.46	3.77	39.65	0.12	20.27	3.93	11,801.51
Industrial park	0.50	0.46	4.75	0.01	2.41	0.47	1,400.50
TOTALS (tons/year, unmitigated)	853.25	765.76	7,895.23	22.52	3,902.28	756.73	2,277,236.94

Operational Settings:

Includes correction for passby trips
Includes the following double counting adjustment for internal trips:
Residential Trip % Reduction: 0.00 Nonresidential Trip % Reduction: 0.00
Analysis Year: 2030 Season: Annual
Emfac: Version : Emfac2007 V2.3 Nov 1 2006

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Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	4,010.00	8.29	dwelling units	27,267.00	226,043.43	1,999,354.44
Apartments low rise	17.88	6.90	dwelling units	286.00	1,973.40	17,454.73
Apartments mid rise	248.00	5.93	dwelling units	8,170.00	48,448.10	428,523.50
Apartments high rise	6.00	5.55	dwelling units	281.00	1,559.55	13,794.22
Condo/townhouse general	420.00	7.16	dwelling units	5,666.00	40,568.56	358,828.96
Condo/townhouse high rise	547.00	6.50	dwelling units	11,478.00	74,607.00	659,899.02
Free-standing discount store		56.02	1000 sq ft	9,593.00	537,399.86	2,717,247.03
Regnl shop. center		42.94	1000 sq ft	6,972.00	299,377.67	1,715,212.59
Strip mall		42.94	1000 sq ft	3,187.00	136,849.78	677,216.07
Office park		11.42	1000 sq ft	18,198.00	207,821.16	1,855,089.83
Government (civic center)		27.92	1000 sq ft	8,194.00	228,776.48	1,248,452.66
General light industry		6.97	1000 sq ft	9,882.00	68,877.54	627,904.86
General heavy industry		1.50	1000 sq ft	3,677.00	5,515.50	64,380.81
Industrial park		6.96	1000 sq ft	124.00	863.04	7,640.09
					1,878,681.07	12,390,998.81

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.7	0.0	100.0	0.0
Light Truck < 3750 lbs	6.7	0.0	100.0	0.0
Light Truck 3751-5750 lbs	23.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.5	32.0	68.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Free-standing discount store				2.0	1.0	97.0
Regnl shop. center				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
General light industry				50.0	25.0	25.0
General heavy industry				90.0	5.0	5.0
Industrial park				41.5	20.8	37.8

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: Q:\TOR-02.0E\Technical Studies\Air\Urbemis\Torrance_Existing_wFPcor.urb924
Project Name: Torrance GP- Existing
Project Location: Los Angeles County
On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006
Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	645.87	197.49	336.70	0.01	0.98	0.97	244,071.16

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	853.25	765.76	7,895.23	22.52	3,902.28	756.73	2,277,236.94

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	1,499.12	963.25	8,231.93	22.53	3,903.26	757.70	2,521,308.10

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	14.73	194.76	110.81	0.00	0.37	0.36	243,472.12
Hearth	3.18	0.18	0.08	0.00	0.01	0.01	235.70
Landscape	40.44	2.55	225.81	0.01	0.60	0.60	363.34
Consumer Products	497.58						
Architectural Coatings	89.94						
TOTALS (tons/year, unmitigated)	645.87	197.49	336.70	0.01	0.98	0.97	244,071.16

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Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 10% to 0%

Percentage of residences with wood fireplaces changed from 5% to 0%

Percentage of residences with natural gas fireplaces changed from 85% to 100%

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	128.25	119.91	1,266.39	3.65	629.65	122.10	367,962.00
Apartments low rise	1.15	1.05	11.06	0.03	5.50	1.07	3,212.37
Apartments mid rise	28.77	25.70	271.43	0.78	134.95	26.17	78,865.64
Apartments high rise	0.94	0.83	8.74	0.03	4.34	0.84	2,538.69
Condo/townhouse general	23.44	21.52	227.28	0.65	113.01	21.91	66,039.03
Condo/townhouse high rise	43.69	39.58	417.98	1.20	207.82	40.30	121,448.08
Free-standing discount store	202.02	174.03	1,760.35	4.93	855.85	166.05	499,598.33
Regnl shop. center	118.64	107.73	1,087.68	3.11	540.11	104.69	314,384.68
Strip mall	51.47	43.53	440.45	1.23	213.31	41.39	124,585.77
Office park	115.68	111.02	1,159.52	3.37	584.12	113.20	340,452.14
Government (civic center)	92.32	79.13	807.97	2.27	393.23	76.30	229,724.90
General light industry	40.92	37.50	391.98	1.14	197.71	38.31	115,223.30
General heavy industry	5.46	3.77	39.65	0.12	20.27	3.93	11,801.51
Industrial park	0.50	0.46	4.75	0.01	2.41	0.47	1,400.50
TOTALS (tons/year, unmitigated)	853.25	765.76	7,895.23	22.52	3,902.28	756.73	2,277,236.94

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 0.00 Nonresidential Trip % Reduction: 0.00

Analysis Year: 2030 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

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Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	4,010.00	8.29	dwelling units	27,267.00	226,043.43	1,999,354.44
Apartments low rise	17.88	6.90	dwelling units	286.00	1,973.40	17,454.73
Apartments mid rise	248.00	5.93	dwelling units	8,170.00	48,448.10	428,523.50
Apartments high rise	6.00	5.55	dwelling units	281.00	1,559.55	13,794.22
Condo/townhouse general	420.00	7.16	dwelling units	5,666.00	40,568.56	358,828.96
Condo/townhouse high rise	547.00	6.50	dwelling units	11,478.00	74,607.00	659,899.02
Free-standing discount store		56.02	1000 sq ft	9,593.00	537,399.86	2,717,247.03
Regnl shop. center		42.94	1000 sq ft	6,972.00	299,377.67	1,715,212.59
Strip mall		42.94	1000 sq ft	3,187.00	136,849.78	677,216.07
Office park		11.42	1000 sq ft	18,198.00	207,821.16	1,855,089.83
Government (civic center)		27.92	1000 sq ft	8,194.00	228,776.48	1,248,452.66
General light industry		6.97	1000 sq ft	9,882.00	68,877.54	627,904.86
General heavy industry		1.50	1000 sq ft	3,677.00	5,515.50	64,380.81
Industrial park		6.96	1000 sq ft	124.00	863.04	7,640.09
					1,878,681.07	12,390,998.81

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.7	0.0	100.0	0.0
Light Truck < 3750 lbs	6.7	0.0	100.0	0.0
Light Truck 3751-5750 lbs	23.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.5	32.0	68.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Free-standing discount store				2.0	1.0	97.0
Regnl shop. center				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
General light industry				50.0	25.0	25.0
General heavy industry				90.0	5.0	5.0
Industrial park				41.5	20.8	37.8

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: Q:\TOR-02.0E\Technical Studies\Air\Urbemis\Torrance_Existing.urb924
Project Name: Torrance GP- Existing
Project Location: Los Angeles County
On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006
Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	3,521.63	1,081.18	1,844.48	0.07	5.29	5.24	1,336,084.73

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	4,502.70	3,933.83	44,010.08	130.89	21,382.35	4,146.49	12,890,736.67

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	8,024.33	5,015.01	45,854.56	130.96	21,387.64	4,151.73	14,226,821.40

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	80.71	1,067.20	607.19	0.01	2.00	1.98	1,334,093.80
Hearth - No Summer Emissions							
Landscape	221.59	13.98	1,237.29	0.06	3.29	3.26	1,990.93
Consumer Products	2,726.49						
Architectural Coatings	492.84						
TOTALS (lbs/day, unmitigated)	3,521.63	1,081.18	1,844.48	0.07	5.29	5.24	1,336,084.73

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Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	688.31	615.53	7,089.72	21.19	3,450.15	669.05	2,082,825.70
Apartments low rise	6.18	5.37	61.89	0.18	30.12	5.84	18,183.45
Apartments mid rise	155.90	131.93	1,519.55	4.54	739.47	143.40	446,413.97
Apartments high rise	5.08	4.25	48.91	0.15	23.80	4.62	14,370.12
Condo/townhouse general	126.31	110.47	1,272.41	3.80	619.21	120.08	373,809.75
Condo/townhouse high rise	236.10	203.16	2,340.01	6.99	1,138.74	220.82	687,449.21
Free-standing discount store	1,047.91	894.82	9,758.84	28.66	4,689.59	909.85	2,828,032.64
Regnl shop. center	618.10	553.68	6,044.97	18.05	2,959.50	573.67	1,779,787.02
Strip mall	267.45	223.83	2,440.60	7.15	1,168.83	226.81	705,218.83
Office park	615.06	569.88	6,498.25	19.60	3,200.67	620.28	1,927,281.48
Government (civic center)	482.29	406.73	4,487.90	13.19	2,154.69	418.07	1,300,350.69
General light industry	220.19	192.51	2,197.45	6.63	1,083.34	209.94	652,275.14
General heavy industry	31.13	19.32	222.96	0.68	111.06	21.51	66,810.21
Industrial park	2.69	2.35	26.62	0.08	13.18	2.55	7,928.46
TOTALS (lbs/day, unmitigated)	4,502.70	3,933.83	44,010.08	130.89	21,382.35	4,146.49	12,890,736.67

Operational Settings:

Includes correction for passby trips
Includes the following double counting adjustment for internal trips:
Residential Trip % Reduction: 0.00 Nonresidential Trip % Reduction: 0.00
Analysis Year: 2030 Temperature (F): 80 Season: Summer
Emfac: Version : Emfac2007 V2.3 Nov 1 2006

6/22/2009 10:05:03 AM

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	4,010.00	8.29	dwelling units	27,267.00	226,043.43	1,999,354.44
Apartments low rise	17.88	6.90	dwelling units	286.00	1,973.40	17,454.73
Apartments mid rise	248.00	5.93	dwelling units	8,170.00	48,448.10	428,523.50
Apartments high rise	6.00	5.55	dwelling units	281.00	1,559.55	13,794.22
Condo/townhouse general	420.00	7.16	dwelling units	5,666.00	40,568.56	358,828.96
Condo/townhouse high rise	547.00	6.50	dwelling units	11,478.00	74,607.00	659,899.02
Free-standing discount store		56.02	1000 sq ft	9,593.00	537,399.86	2,717,247.03
Regnl shop. center		42.94	1000 sq ft	6,972.00	299,377.67	1,715,212.59
Strip mall		42.94	1000 sq ft	3,187.00	136,849.78	677,216.07
Office park		11.42	1000 sq ft	18,198.00	207,821.16	1,855,089.83
Government (civic center)		27.92	1000 sq ft	8,194.00	228,776.48	1,248,452.66
General light industry		6.97	1000 sq ft	9,882.00	68,877.54	627,904.86
General heavy industry		1.50	1000 sq ft	3,677.00	5,515.50	64,380.81
Industrial park		6.96	1000 sq ft	124.00	863.04	7,640.09
					1,878,681.07	12,390,998.81

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.7	0.0	100.0	0.0
Light Truck < 3750 lbs	6.7	0.0	100.0	0.0
Light Truck 3751-5750 lbs	23.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.5	32.0	68.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Free-standing discount store				2.0	1.0	97.0
Regnl shop. center				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
General light industry				50.0	25.0	25.0
General heavy industry				90.0	5.0	5.0
Industrial park				41.5	20.8	37.8

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: Q:\TOR-02.0E\Technical Studies\Air\Urbemis\Torrance_Existing_wFPcor.urb924
Project Name: Torrance GP- Existing
Project Location: Los Angeles County
On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006
Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	3,521.63	1,081.18	1,844.48	0.07	5.29	5.24	1,336,084.73

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	4,502.70	3,933.83	44,010.08	130.89	21,382.35	4,146.49	12,890,736.67

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	8,024.33	5,015.01	45,854.56	130.96	21,387.64	4,151.73	14,226,821.40

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	80.71	1,067.20	607.19	0.01	2.00	1.98	1,334,093.80
Hearth - No Summer Emissions							
Landscape	221.59	13.98	1,237.29	0.06	3.29	3.26	1,990.93
Consumer Products	2,726.49						
Architectural Coatings	492.84						
TOTALS (lbs/day, unmitigated)	3,521.63	1,081.18	1,844.48	0.07	5.29	5.24	1,336,084.73

6/22/2009 10:05:59 AM

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 10% to 0%

Percentage of residences with wood fireplaces changed from 5% to 0%

Percentage of residences with natural gas fireplaces changed from 85% to 100%

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	688.31	615.53	7,089.72	21.19	3,450.15	669.05	2,082,825.70
Apartments low rise	6.18	5.37	61.89	0.18	30.12	5.84	18,183.45
Apartments mid rise	155.90	131.93	1,519.55	4.54	739.47	143.40	446,413.97
Apartments high rise	5.08	4.25	48.91	0.15	23.80	4.62	14,370.12
Condo/townhouse general	126.31	110.47	1,272.41	3.80	619.21	120.08	373,809.75
Condo/townhouse high rise	236.10	203.16	2,340.01	6.99	1,138.74	220.82	687,449.21
Free-standing discount store	1,047.91	894.82	9,758.84	28.66	4,689.59	909.85	2,828,032.64
Regnl shop. center	618.10	553.68	6,044.97	18.05	2,959.50	573.67	1,779,787.02
Strip mall	267.45	223.83	2,440.60	7.15	1,168.83	226.81	705,218.83
Office park	615.06	569.88	6,498.25	19.60	3,200.67	620.28	1,927,281.48
Government (civic center)	482.29	406.73	4,487.90	13.19	2,154.69	418.07	1,300,350.69
General light industry	220.19	192.51	2,197.45	6.63	1,083.34	209.94	652,275.14
General heavy industry	31.13	19.32	222.96	0.68	111.06	21.51	66,810.21
Industrial park	2.69	2.35	26.62	0.08	13.18	2.55	7,928.46
TOTALS (lbs/day, unmitigated)	4,502.70	3,933.83	44,010.08	130.89	21,382.35	4,146.49	12,890,736.67

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 0.00 Nonresidential Trip % Reduction: 0.00

Analysis Year: 2030 Temperature (F): 80 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

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Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	4,010.00	8.29	dwelling units	27,267.00	226,043.43	1,999,354.44
Apartments low rise	17.88	6.90	dwelling units	286.00	1,973.40	17,454.73
Apartments mid rise	248.00	5.93	dwelling units	8,170.00	48,448.10	428,523.50
Apartments high rise	6.00	5.55	dwelling units	281.00	1,559.55	13,794.22
Condo/townhouse general	420.00	7.16	dwelling units	5,666.00	40,568.56	358,828.96
Condo/townhouse high rise	547.00	6.50	dwelling units	11,478.00	74,607.00	659,899.02
Free-standing discount store		56.02	1000 sq ft	9,593.00	537,399.86	2,717,247.03
Regnl shop. center		42.94	1000 sq ft	6,972.00	299,377.67	1,715,212.59
Strip mall		42.94	1000 sq ft	3,187.00	136,849.78	677,216.07
Office park		11.42	1000 sq ft	18,198.00	207,821.16	1,855,089.83
Government (civic center)		27.92	1000 sq ft	8,194.00	228,776.48	1,248,452.66
General light industry		6.97	1000 sq ft	9,882.00	68,877.54	627,904.86
General heavy industry		1.50	1000 sq ft	3,677.00	5,515.50	64,380.81
Industrial park		6.96	1000 sq ft	124.00	863.04	7,640.09
					1,878,681.07	12,390,998.81

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.7	0.0	100.0	0.0
Light Truck < 3750 lbs	6.7	0.0	100.0	0.0
Light Truck 3751-5750 lbs	23.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.5	32.0	68.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Free-standing discount store				2.0	1.0	97.0
Regnl shop. center				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
General light industry				50.0	25.0	25.0
General heavy industry				90.0	5.0	5.0
Industrial park				41.5	20.8	37.8

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: Q:\TOR-02.0E\Technical Studies\Air\Urbemis\Torrance_Existing.urb924
Project Name: Torrance GP- Existing
Project Location: Los Angeles County
On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006
Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	11,628.27	1,763.06	23,696.43	64.72	3,582.29	3,448.62	2,267,784.99

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	5,020.47	4,719.73	41,764.09	108.55	21,382.35	4,146.49	11,652,558.59

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	16,648.74	6,482.79	65,460.52	173.27	24,964.64	7,595.11	13,920,343.58

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	80.71	1,067.20	607.19	0.01	2.00	1.98	1,334,093.80
Hearth	8,328.23	695.86	23,089.24	64.71	3,580.29	3,446.64	933,691.19
Landscaping - No Winter Emissions							
Consumer Products	2,726.49						
Architectural Coatings	492.84						
TOTALS (lbs/day, unmitigated)	11,628.27	1,763.06	23,696.43	64.72	3,582.29	3,448.62	2,267,784.99

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Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	731.65	740.00	6,637.86	17.58	3,450.15	669.05	1,883,039.00
Apartments low rise	6.48	6.46	57.95	0.15	30.12	5.84	16,439.27
Apartments mid rise	161.10	158.60	1,422.70	3.77	739.47	143.40	403,593.50
Apartments high rise	5.22	5.11	45.80	0.12	23.80	4.62	12,991.72
Condo/townhouse general	132.73	132.81	1,191.31	3.16	619.21	120.08	337,953.55
Condo/townhouse high rise	246.05	244.24	2,190.87	5.80	1,138.74	220.82	621,508.40
Free-standing discount store	1,225.00	1,071.17	9,419.51	23.76	4,689.59	909.85	2,556,510.08
Regnl shop. center	713.97	663.48	5,789.74	14.96	2,959.50	573.67	1,608,393.36
Strip mall	311.23	267.89	2,359.03	5.92	1,168.83	226.81	637,547.60
Office park	671.40	685.17	6,064.04	16.26	3,200.67	620.28	1,741,910.50
Government (civic center)	552.97	487.24	4,305.91	10.94	2,154.69	418.07	1,175,598.30
General light industry	232.28	231.48	2,048.68	5.50	1,083.34	209.94	589,531.37
General heavy industry	27.56	23.26	205.83	0.56	111.06	21.51	60,376.92
Industrial park	2.83	2.82	24.86	0.07	13.18	2.55	7,165.02
TOTALS (lbs/day, unmitigated)	5,020.47	4,719.73	41,764.09	108.55	21,382.35	4,146.49	11,652,558.59

Operational Settings:

Includes correction for passby trips
Includes the following double counting adjustment for internal trips:
Residential Trip % Reduction: 0.00 Nonresidential Trip % Reduction: 0.00
Analysis Year: 2030 Temperature (F): 60 Season: Winter
Emfac: Version : Emfac2007 V2.3 Nov 1 2006

6/22/2009 10:05:12 AM

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	4,010.00	8.29	dwelling units	27,267.00	226,043.43	1,999,354.44
Apartments low rise	17.88	6.90	dwelling units	286.00	1,973.40	17,454.73
Apartments mid rise	248.00	5.93	dwelling units	8,170.00	48,448.10	428,523.50
Apartments high rise	6.00	5.55	dwelling units	281.00	1,559.55	13,794.22
Condo/townhouse general	420.00	7.16	dwelling units	5,666.00	40,568.56	358,828.96
Condo/townhouse high rise	547.00	6.50	dwelling units	11,478.00	74,607.00	659,899.02
Free-standing discount store		56.02	1000 sq ft	9,593.00	537,399.86	2,717,247.03
Regnl shop. center		42.94	1000 sq ft	6,972.00	299,377.67	1,715,212.59
Strip mall		42.94	1000 sq ft	3,187.00	136,849.78	677,216.07
Office park		11.42	1000 sq ft	18,198.00	207,821.16	1,855,089.83
Government (civic center)		27.92	1000 sq ft	8,194.00	228,776.48	1,248,452.66
General light industry		6.97	1000 sq ft	9,882.00	68,877.54	627,904.86
General heavy industry		1.50	1000 sq ft	3,677.00	5,515.50	64,380.81
Industrial park		6.96	1000 sq ft	124.00	863.04	7,640.09
					1,878,681.07	12,390,998.81

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.7	0.0	100.0	0.0
Light Truck < 3750 lbs	6.7	0.0	100.0	0.0
Light Truck 3751-5750 lbs	23.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.5	32.0	68.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Free-standing discount store				2.0	1.0	97.0
Regnl shop. center				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
General light industry				50.0	25.0	25.0
General heavy industry				90.0	5.0	5.0
Industrial park				41.5	20.8	37.8

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: Q:\TOR-02.0E\Technical Studies\Air\Urbemis\Torrance_Existing_wFPcor.urb924
Project Name: Torrance GP- Existing
Project Location: Los Angeles County
On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006
Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	3,321.65	1,436.46	764.32	2.37	31.86	31.52	1,805,492.62

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	5,020.47	4,719.73	41,764.09	108.55	21,382.35	4,146.49	11,652,558.59

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	8,342.12	6,156.19	42,528.41	110.92	21,414.21	4,178.01	13,458,051.21

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	80.71	1,067.20	607.19	0.01	2.00	1.98	1,334,093.80
Hearth	21.61	369.26	157.13	2.36	29.86	29.54	471,398.82
Landscaping - No Winter Emissions							
Consumer Products	2,726.49						
Architectural Coatings	492.84						
TOTALS (lbs/day, unmitigated)	3,321.65	1,436.46	764.32	2.37	31.86	31.52	1,805,492.62

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Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 10% to 0%

Percentage of residences with wood fireplaces changed from 5% to 0%

Percentage of residences with natural gas fireplaces changed from 85% to 100%

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	731.65	740.00	6,637.86	17.58	3,450.15	669.05	1,883,039.00
Apartments low rise	6.48	6.46	57.95	0.15	30.12	5.84	16,439.27
Apartments mid rise	161.10	158.60	1,422.70	3.77	739.47	143.40	403,593.50
Apartments high rise	5.22	5.11	45.80	0.12	23.80	4.62	12,991.72
Condo/townhouse general	132.73	132.81	1,191.31	3.16	619.21	120.08	337,953.55
Condo/townhouse high rise	246.05	244.24	2,190.87	5.80	1,138.74	220.82	621,508.40
Free-standing discount store	1,225.00	1,071.17	9,419.51	23.76	4,689.59	909.85	2,556,510.08
Regnl shop. center	713.97	663.48	5,789.74	14.96	2,959.50	573.67	1,608,393.36
Strip mall	311.23	267.89	2,359.03	5.92	1,168.83	226.81	637,547.60
Office park	671.40	685.17	6,064.04	16.26	3,200.67	620.28	1,741,910.50
Government (civic center)	552.97	487.24	4,305.91	10.94	2,154.69	418.07	1,175,598.30
General light industry	232.28	231.48	2,048.68	5.50	1,083.34	209.94	589,531.37
General heavy industry	27.56	23.26	205.83	0.56	111.06	21.51	60,376.92
Industrial park	2.83	2.82	24.86	0.07	13.18	2.55	7,165.02
TOTALS (lbs/day, unmitigated)	5,020.47	4,719.73	41,764.09	108.55	21,382.35	4,146.49	11,652,558.59

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 0.00 Nonresidential Trip % Reduction: 0.00

Analysis Year: 2030 Temperature (F): 60 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

6/22/2009 10:06:06 AM

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	4,010.00	8.29	dwelling units	27,267.00	226,043.43	1,999,354.44
Apartments low rise	17.88	6.90	dwelling units	286.00	1,973.40	17,454.73
Apartments mid rise	248.00	5.93	dwelling units	8,170.00	48,448.10	428,523.50
Apartments high rise	6.00	5.55	dwelling units	281.00	1,559.55	13,794.22
Condo/townhouse general	420.00	7.16	dwelling units	5,666.00	40,568.56	358,828.96
Condo/townhouse high rise	547.00	6.50	dwelling units	11,478.00	74,607.00	659,899.02
Free-standing discount store		56.02	1000 sq ft	9,593.00	537,399.86	2,717,247.03
Regnl shop. center		42.94	1000 sq ft	6,972.00	299,377.67	1,715,212.59
Strip mall		42.94	1000 sq ft	3,187.00	136,849.78	677,216.07
Office park		11.42	1000 sq ft	18,198.00	207,821.16	1,855,089.83
Government (civic center)		27.92	1000 sq ft	8,194.00	228,776.48	1,248,452.66
General light industry		6.97	1000 sq ft	9,882.00	68,877.54	627,904.86
General heavy industry		1.50	1000 sq ft	3,677.00	5,515.50	64,380.81
Industrial park		6.96	1000 sq ft	124.00	863.04	7,640.09
					1,878,681.07	12,390,998.81

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.7	0.0	100.0	0.0
Light Truck < 3750 lbs	6.7	0.0	100.0	0.0
Light Truck 3751-5750 lbs	23.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.5	32.0	68.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

6/22/2009 10:06:06 AM

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Free-standing discount store				2.0	1.0	97.0
Regnl shop. center				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
General light industry				50.0	25.0	25.0
General heavy industry				90.0	5.0	5.0
Industrial park				41.5	20.8	37.8

Fireplace Correction - Rule 445, Woodburning Devices

Area Sources Only

Existing (tons/year)							
Annual With Fireplaces	**ROG**	NOx	CO	SO2	PM10	PM2.5	CO2
	749	202	624	1	45	44	250,698
Annual Without Fireplaces	**ROG**	NOx	CO	SO2	PM10	PM2.5	CO2
	646	197	337	0	1	1	244,071
Wood Hearth vs. Gas Hearth	103	5	287	1	44	43	6,627

Current GP (tons/year)							
Annual With Fireplaces	**ROG**	NOx	CO	SO2	PM10	PM2.5	CO2
	766	205	632	1	47	45	254,758
Annual Without Fireplaces	**ROG**	NOx	CO	SO2	PM10	PM2.5	CO2
	660	201	338	0	1	1	247,965
Wood Hearth vs. Gas Hearth	106	5	294	1	46	44	6,793
2005 Base	749	202	624	1	45	44	250,698
Adjusted	763	205	625	1	45	44	254,592

Proposed GP (tons/year)							
Annual With Fireplaces	**ROG**	NOx	CO	SO2	PM10	PM2.5	CO2
	803	213	652	1	49	47	263,724
Annual Without Fireplaces	**ROG**	NOx	CO	SO2	PM10	PM2.5	CO2
	646	197	337	0	1	1	244,071
Wood Hearth vs. Gas Hearth	158	15	316	1	48	46	19,652
2005 Base	749	202	624	1	45	44	250,698
Adjusted	749	202	624	1	45	44	250,698

Existing residential units constructed prior to adoption of SCAQMD Rule 445, Woodburning Devices; therefore, URBEMIS defualts used
Future residential uses (new development) construction after SCAQMD Rule 445; therefore assume gas-burning devices only.

Fireplace Correction - Rule 445, Woodburning Devices

Area Sources Only

Existing (lbs/day)

Summer With Fireplaces	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
	3,522	1,081	1,844	0	5	5	1,336,085
Summer Without Fireplaces	**ROG**	NOx	CO	SO2	PM10	PM2.5	CO2
	3,522	1,081	1,844	0	5	5	1,336,085
Wood Hearth vs. Gas Hearth	0	0	0	0	0	0	0

Current GP (lbs/day)

Summer With Fireplaces	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
	3,599	1,098	1,850	0	5	5	1,357,393
Summer Without Fireplaces	**ROG**	NOx	CO	SO2	PM10	PM2.5	CO2
	3,599	1,098	1,850	0	5	5	1,357,393
Wood Hearth vs. Gas Hearth	0	0	0	0	0	0	0
2005 Base	3,522	1,081	1,844	0	5	5	1,336,085
Adjusted	3,599	1,098	1,850	0	5	5	1,357,393

Proposed GP (lbs/day)

Summer With Fireplaces	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
	3,772	1,135	1,871	0	5	5	1,404,370
Summer Without Fireplaces	**ROG**	NOx	CO	SO2	PM10	PM2.5	CO2
	3,522	1,081	1,844	0	5	5	1,336,085
Wood Hearth vs. Gas Hearth	250	54	27	0	0	0	68,285
2005 Base	3,522	1,081	1,844	0	5	5	1,336,085
Adjusted	3,522	1,081	1,844	0	5	5	1,336,085

Existing residential units constructed prior to adoption of SCAQMD Rule 445, Woodburning Devices; therefore, URBEMIS defualts used
Future residential uses (new development) construction after SCAQMD Rule 445; therefore assume gas-burning devices only.

Fireplace Correction - Rule 445, Woodburning Devices

Area Sources Only

Existing (lbs/day)

Winter With Fireplaces	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
	11,628	1,763	23,696	65	3,582	3,449	2,267,785
Winter Without Fireplaces	**ROG**	NOx	CO	SO2	PM10	PM2.5	CO2
	3,322	1,436	764	2	32	32	1,805,493
Wood Hearth vs. Gas Hearth	8,307	327	22,932	62	3,550	3,417	462,292

Current GP (lbs/day)

Winter With Fireplaces	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
	11,914	1,796	24,282	66	3,672	3,535	2,310,167
Winter Without Fireplaces	**ROG**	NOx	CO	SO2	PM10	PM2.5	CO2
	3,400	1,461	776	2	32	32	1,835,913
Wood Hearth vs. Gas Hearth	8,514	335	23,506	64	3,639	3,503	474,255
2005 Base	11,628	1,763	23,696	65	3,582	3,449	2,267,785
Adjusted	11,707	1,787	23,709	65	3,583	3,449	2,298,205

Proposed GP (lbs/day)

Winter With Fireplaces	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
	12,566	1,869	25,628	70	3,878	3,733	2,406,234
Winter Without Fireplaces	**ROG**	NOx	CO	SO2	PM10	PM2.5	CO2
	3,322	1,436	764	2	32	32	1,805,493
Wood Hearth vs. Gas Hearth	9,244	433	24,864	68	3,846	3,701	600,742
2005 Base	11,628	1,763	23,696	65	3,582	3,449	2,267,785
Adjusted	11,628	1,763	23,696	65	3,582	3,449	2,267,785

Existing residential units constructed prior to adoption of SCAQMD Rule 445, Woodburning Devices; therefore, URBEMIS defualts used
Future residential uses (new development) construction after SCAQMD Rule 445; therefore assume gas-burning devices only.

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: Q:\TOR-02.0E\Technical Studies\Air\Urbemis\Torrance_ProposedGP.urb924
Project Name: Torrance GP- Proposed GP
Project Location: Los Angeles County
On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006
Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	803.37	212.54	652.22	0.86	49.10	47.29	263,723.55

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	900.29	809.98	8,351.80	23.84	4,131.44	801.13	2,410,705.75

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	1,703.66	1,022.52	9,004.02	24.70	4,180.54	848.42	2,674,429.30

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	15.48	204.65	115.89	0.00	0.38	0.38	255,934.42
Hearth	115.06	5.34	310.71	0.85	48.12	46.31	7,426.02
Landscape	40.38	2.55	225.62	0.01	0.60	0.60	363.11
Consumer Products	538.67						
Architectural Coatings	93.78						
TOTALS (tons/year, unmitigated)	803.37	212.54	652.22	0.86	49.10	47.29	263,723.55

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Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	127.98	119.66	1,263.74	3.64	628.34	121.85	367,192.80
Apartments low rise	5.33	4.86	51.37	0.15	25.54	4.95	14,927.43
Apartments mid rise	31.78	28.39	299.79	0.86	149.06	28.90	87,107.03
Apartments high rise	0.70	0.62	6.58	0.02	3.27	0.63	1,910.58
Condo/townhouse general	23.44	21.52	227.28	0.65	113.01	21.91	66,039.03
Condo/townhouse high rise	52.63	47.52	501.87	1.45	249.53	48.39	145,822.67
Free-standing discount store	265.00	228.29	2,309.20	6.47	1,122.69	217.82	655,368.02
Regnl shop. center	119.13	108.17	1,092.20	3.12	542.36	105.13	315,692.36
General office building	2.56	2.39	24.74	0.07	12.46	2.41	7,255.17
Office park	109.78	105.36	1,100.45	3.20	554.37	107.44	323,109.62
Government (civic center)	89.68	76.87	784.90	2.20	382.00	74.12	223,164.53
Hospital	23.36	22.77	234.07	0.68	118.72	23.00	69,036.55
General light industry	42.81	39.23	410.07	1.19	206.83	40.08	120,540.22
General heavy industry	5.56	3.83	40.33	0.12	20.62	3.99	12,003.71
Industrial park	0.55	0.50	5.21	0.02	2.64	0.51	1,536.03
TOTALS (tons/year, unmitigated)	900.29	809.98	8,351.80	23.84	4,131.44	801.13	2,410,705.75

Operational Settings:

Includes correction for passby trips
Includes the following double counting adjustment for internal trips:
Residential Trip % Reduction: 0.00 Nonresidential Trip % Reduction: 0.00
Analysis Year: 2030 Season: Annual
Emfac: Version : Emfac2007 V2.3 Nov 1 2006

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Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	4,002.00	8.29	dwelling units	27,210.00	225,570.90	1,995,174.91
Apartments low rise	83.06	6.90	dwelling units	1,329.00	9,170.10	81,109.55
Apartments mid rise	274.00	5.92	dwelling units	9,039.00	53,510.88	473,303.81
Apartments high rise	5.00	5.67	dwelling units	207.00	1,173.69	10,381.29
Condo/townhouse general	420.00	7.16	dwelling units	5,666.00	40,568.56	358,828.96
Condo/townhouse high rise	606.00	6.36	dwelling units	14,085.00	89,580.60	792,340.55
Free-standing discount store		56.02	1000 sq ft	12,584.00	704,955.69	3,564,457.07
Regnl shop. center		42.94	1000 sq ft	7,001.00	300,622.93	1,722,347.01
General office building		11.01	1000 sq ft	441.00	4,855.41	39,557.46
Office park		11.42	1000 sq ft	17,271.00	197,234.82	1,760,592.18
Government (civic center)		27.92	1000 sq ft	7,960.00	222,243.20	1,212,800.00
Hospital		17.57	1000 sq ft	2,692.00	47,298.44	377,094.19
General light industry		6.97	1000 sq ft	10,338.00	72,055.86	656,879.22
General heavy industry		1.50	1000 sq ft	3,740.00	5,610.00	65,483.88
Industrial park		6.96	1000 sq ft	136.00	946.56	8,379.46
					1,975,397.64	13,118,729.54

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.7	0.0	100.0	0.0
Light Truck < 3750 lbs	6.7	0.0	100.0	0.0
Light Truck 3751-5750 lbs	23.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.5	32.0	68.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Free-standing discount store				2.0	1.0	97.0
Regnl shop. center				2.0	1.0	97.0
General office building				35.0	17.5	47.5
Office park				48.0	24.0	28.0
Government (civic center)				10.0	5.0	85.0
Hospital				25.0	12.5	62.5
General light industry				50.0	25.0	25.0
General heavy industry				90.0	5.0	5.0
Industrial park				41.5	20.8	37.8

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: Q:\TOR-02.0E\Technical Studies\Air\Urbemis\Torrance_ProposedGP_wFPcor.urb924
Project Name: Torrance GP- Existing
Project Location: Los Angeles County
On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006
Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	645.87	197.49	336.70	0.01	0.98	0.97	244,071.16

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	853.25	765.76	7,895.23	22.52	3,902.28	756.73	2,277,236.94

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	1,499.12	963.25	8,231.93	22.53	3,903.26	757.70	2,521,308.10

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	14.73	194.76	110.81	0.00	0.37	0.36	243,472.12
Hearth	3.18	0.18	0.08	0.00	0.01	0.01	235.70
Landscape	40.44	2.55	225.81	0.01	0.60	0.60	363.34
Consumer Products	497.58						
Architectural Coatings	89.94						
TOTALS (tons/year, unmitigated)	645.87	197.49	336.70	0.01	0.98	0.97	244,071.16

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Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 10% to 0%

Percentage of residences with wood fireplaces changed from 5% to 0%

Percentage of residences with natural gas fireplaces changed from 85% to 100%

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	128.25	119.91	1,266.39	3.65	629.65	122.10	367,962.00
Apartments low rise	1.15	1.05	11.06	0.03	5.50	1.07	3,212.37
Apartments mid rise	28.77	25.70	271.43	0.78	134.95	26.17	78,865.64
Apartments high rise	0.94	0.83	8.74	0.03	4.34	0.84	2,538.69
Condo/townhouse general	23.44	21.52	227.28	0.65	113.01	21.91	66,039.03
Condo/townhouse high rise	43.69	39.58	417.98	1.20	207.82	40.30	121,448.08
Free-standing discount store	202.02	174.03	1,760.35	4.93	855.85	166.05	499,598.33
Regnl shop. center	118.64	107.73	1,087.68	3.11	540.11	104.69	314,384.68
Strip mall	51.47	43.53	440.45	1.23	213.31	41.39	124,585.77
Office park	115.68	111.02	1,159.52	3.37	584.12	113.20	340,452.14
Government (civic center)	92.32	79.13	807.97	2.27	393.23	76.30	229,724.90
General light industry	40.92	37.50	391.98	1.14	197.71	38.31	115,223.30
General heavy industry	5.46	3.77	39.65	0.12	20.27	3.93	11,801.51
Industrial park	0.50	0.46	4.75	0.01	2.41	0.47	1,400.50
TOTALS (tons/year, unmitigated)	853.25	765.76	7,895.23	22.52	3,902.28	756.73	2,277,236.94

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 0.00 Nonresidential Trip % Reduction: 0.00

Analysis Year: 2030 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

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Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	4,010.00	8.29	dwelling units	27,267.00	226,043.43	1,999,354.44
Apartments low rise	17.88	6.90	dwelling units	286.00	1,973.40	17,454.73
Apartments mid rise	248.00	5.93	dwelling units	8,170.00	48,448.10	428,523.50
Apartments high rise	6.00	5.55	dwelling units	281.00	1,559.55	13,794.22
Condo/townhouse general	420.00	7.16	dwelling units	5,666.00	40,568.56	358,828.96
Condo/townhouse high rise	547.00	6.50	dwelling units	11,478.00	74,607.00	659,899.02
Free-standing discount store		56.02	1000 sq ft	9,593.00	537,399.86	2,717,247.03
Regnl shop. center		42.94	1000 sq ft	6,972.00	299,377.67	1,715,212.59
Strip mall		42.94	1000 sq ft	3,187.00	136,849.78	677,216.07
Office park		11.42	1000 sq ft	18,198.00	207,821.16	1,855,089.83
Government (civic center)		27.92	1000 sq ft	8,194.00	228,776.48	1,248,452.66
General light industry		6.97	1000 sq ft	9,882.00	68,877.54	627,904.86
General heavy industry		1.50	1000 sq ft	3,677.00	5,515.50	64,380.81
Industrial park		6.96	1000 sq ft	124.00	863.04	7,640.09
					1,878,681.07	12,390,998.81

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.7	0.0	100.0	0.0
Light Truck < 3750 lbs	6.7	0.0	100.0	0.0
Light Truck 3751-5750 lbs	23.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.5	32.0	68.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Free-standing discount store				2.0	1.0	97.0
Regnl shop. center				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
General light industry				50.0	25.0	25.0
General heavy industry				90.0	5.0	5.0
Industrial park				41.5	20.8	37.8

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: Q:\TOR-02.0E\Technical Studies\Air\Urbemis\Torrance_ProposedGP.urb924
Project Name: Torrance GP- Proposed GP
Project Location: Los Angeles County
On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006
Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	3,771.58	1,135.36	1,871.32	0.07	5.39	5.34	1,404,370.03

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	4,752.04	4,161.08	46,560.72	138.56	22,637.97	4,389.81	13,646,312.28

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	8,523.62	5,296.44	48,432.04	138.63	22,643.36	4,395.15	15,050,682.31

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	84.84	1,121.38	635.03	0.01	2.10	2.08	1,402,380.38
Hearth - No Summer Emissions							
Landscape	221.25	13.98	1,236.29	0.06	3.29	3.26	1,989.65
Consumer Products	2,951.60						
Architectural Coatings	513.89						
TOTALS (lbs/day, unmitigated)	3,771.58	1,135.36	1,871.32	0.07	5.39	5.34	1,404,370.03

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	686.87	614.24	7,074.90	21.14	3,442.94	667.65	2,078,471.68
Apartments low rise	28.73	24.97	287.61	0.86	139.97	27.14	84,495.80
Apartments mid rise	172.25	145.71	1,678.34	5.02	816.75	158.38	493,063.82
Apartments high rise	3.81	3.20	36.81	0.11	17.91	3.47	10,814.70
Condo/townhouse general	126.31	110.47	1,272.41	3.80	619.21	120.08	373,809.75
Condo/townhouse high rise	284.58	243.93	2,809.64	8.40	1,367.29	265.14	825,420.06
Free-standing discount store	1,374.64	1,173.82	12,801.55	37.59	6,151.75	1,193.53	3,709,784.51
Regnl shop. center	620.67	555.98	6,070.11	18.12	2,971.81	576.05	1,787,190.03
General office building	13.60	12.25	138.44	0.42	68.25	13.23	41,071.97
Office park	583.73	540.85	6,167.23	18.60	3,037.63	588.69	1,829,106.41
Government (civic center)	468.51	395.11	4,359.74	12.81	2,093.16	406.13	1,263,215.95
Hospital	123.38	116.94	1,309.11	3.97	650.54	126.01	390,842.90
General light industry	230.35	201.39	2,298.85	6.94	1,133.33	219.63	682,374.06
General heavy industry	31.66	19.65	226.78	0.69	112.97	21.88	67,954.91
Industrial park	2.95	2.57	29.20	0.09	14.46	2.80	8,695.73
TOTALS (lbs/day, unmitigated)	4,752.04	4,161.08	46,560.72	138.56	22,637.97	4,389.81	13,646,312.28

Operational Settings:

Includes correction for passby trips
Includes the following double counting adjustment for internal trips:
Residential Trip % Reduction: 0.00 Nonresidential Trip % Reduction: 0.00
Analysis Year: 2030 Temperature (F): 80 Season: Summer
Emfac: Version : Emfac2007 V2.3 Nov 1 2006

6/22/2009 10:06:51 AM

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	4,002.00	8.29	dwelling units	27,210.00	225,570.90	1,995,174.91
Apartments low rise	83.06	6.90	dwelling units	1,329.00	9,170.10	81,109.55
Apartments mid rise	274.00	5.92	dwelling units	9,039.00	53,510.88	473,303.81
Apartments high rise	5.00	5.67	dwelling units	207.00	1,173.69	10,381.29
Condo/townhouse general	420.00	7.16	dwelling units	5,666.00	40,568.56	358,828.96
Condo/townhouse high rise	606.00	6.36	dwelling units	14,085.00	89,580.60	792,340.55
Free-standing discount store		56.02	1000 sq ft	12,584.00	704,955.69	3,564,457.07
Regnl shop. center		42.94	1000 sq ft	7,001.00	300,622.93	1,722,347.01
General office building		11.01	1000 sq ft	441.00	4,855.41	39,557.46
Office park		11.42	1000 sq ft	17,271.00	197,234.82	1,760,592.18
Government (civic center)		27.92	1000 sq ft	7,960.00	222,243.20	1,212,800.00
Hospital		17.57	1000 sq ft	2,692.00	47,298.44	377,094.19
General light industry		6.97	1000 sq ft	10,338.00	72,055.86	656,879.22
General heavy industry		1.50	1000 sq ft	3,740.00	5,610.00	65,483.88
Industrial park		6.96	1000 sq ft	136.00	946.56	8,379.46
					1,975,397.64	13,118,729.54

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.7	0.0	100.0	0.0
Light Truck < 3750 lbs	6.7	0.0	100.0	0.0
Light Truck 3751-5750 lbs	23.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.5	32.0	68.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Free-standing discount store				2.0	1.0	97.0
Regnl shop. center				2.0	1.0	97.0
General office building				35.0	17.5	47.5
Office park				48.0	24.0	28.0
Government (civic center)				10.0	5.0	85.0
Hospital				25.0	12.5	62.5
General light industry				50.0	25.0	25.0
General heavy industry				90.0	5.0	5.0
Industrial park				41.5	20.8	37.8

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: Q:\TOR-02.0E\Technical Studies\Air\Urbemis\Torrance_ProposedGP_wFPcor.urb924
Project Name: Torrance GP- Existing
Project Location: Los Angeles County
On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006
Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	3,521.63	1,081.18	1,844.48	0.07	5.29	5.24	1,336,084.73

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	4,502.70	3,933.83	44,010.08	130.89	21,382.35	4,146.49	12,890,736.67

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	8,024.33	5,015.01	45,854.56	130.96	21,387.64	4,151.73	14,226,821.40

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	80.71	1,067.20	607.19	0.01	2.00	1.98	1,334,093.80
Hearth - No Summer Emissions							
Landscape	221.59	13.98	1,237.29	0.06	3.29	3.26	1,990.93
Consumer Products	2,726.49						
Architectural Coatings	492.84						
TOTALS (lbs/day, unmitigated)	3,521.63	1,081.18	1,844.48	0.07	5.29	5.24	1,336,084.73

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Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 10% to 0%

Percentage of residences with wood fireplaces changed from 5% to 0%

Percentage of residences with natural gas fireplaces changed from 85% to 100%

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	688.31	615.53	7,089.72	21.19	3,450.15	669.05	2,082,825.70
Apartments low rise	6.18	5.37	61.89	0.18	30.12	5.84	18,183.45
Apartments mid rise	155.90	131.93	1,519.55	4.54	739.47	143.40	446,413.97
Apartments high rise	5.08	4.25	48.91	0.15	23.80	4.62	14,370.12
Condo/townhouse general	126.31	110.47	1,272.41	3.80	619.21	120.08	373,809.75
Condo/townhouse high rise	236.10	203.16	2,340.01	6.99	1,138.74	220.82	687,449.21
Free-standing discount store	1,047.91	894.82	9,758.84	28.66	4,689.59	909.85	2,828,032.64
Regnl shop. center	618.10	553.68	6,044.97	18.05	2,959.50	573.67	1,779,787.02
Strip mall	267.45	223.83	2,440.60	7.15	1,168.83	226.81	705,218.83
Office park	615.06	569.88	6,498.25	19.60	3,200.67	620.28	1,927,281.48
Government (civic center)	482.29	406.73	4,487.90	13.19	2,154.69	418.07	1,300,350.69
General light industry	220.19	192.51	2,197.45	6.63	1,083.34	209.94	652,275.14
General heavy industry	31.13	19.32	222.96	0.68	111.06	21.51	66,810.21
Industrial park	2.69	2.35	26.62	0.08	13.18	2.55	7,928.46
TOTALS (lbs/day, unmitigated)	4,502.70	3,933.83	44,010.08	130.89	21,382.35	4,146.49	12,890,736.67

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 0.00 Nonresidential Trip % Reduction: 0.00

Analysis Year: 2030 Temperature (F): 80 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

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Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	4,010.00	8.29	dwelling units	27,267.00	226,043.43	1,999,354.44
Apartments low rise	17.88	6.90	dwelling units	286.00	1,973.40	17,454.73
Apartments mid rise	248.00	5.93	dwelling units	8,170.00	48,448.10	428,523.50
Apartments high rise	6.00	5.55	dwelling units	281.00	1,559.55	13,794.22
Condo/townhouse general	420.00	7.16	dwelling units	5,666.00	40,568.56	358,828.96
Condo/townhouse high rise	547.00	6.50	dwelling units	11,478.00	74,607.00	659,899.02
Free-standing discount store		56.02	1000 sq ft	9,593.00	537,399.86	2,717,247.03
Regnl shop. center		42.94	1000 sq ft	6,972.00	299,377.67	1,715,212.59
Strip mall		42.94	1000 sq ft	3,187.00	136,849.78	677,216.07
Office park		11.42	1000 sq ft	18,198.00	207,821.16	1,855,089.83
Government (civic center)		27.92	1000 sq ft	8,194.00	228,776.48	1,248,452.66
General light industry		6.97	1000 sq ft	9,882.00	68,877.54	627,904.86
General heavy industry		1.50	1000 sq ft	3,677.00	5,515.50	64,380.81
Industrial park		6.96	1000 sq ft	124.00	863.04	7,640.09
					1,878,681.07	12,390,998.81

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.7	0.0	100.0	0.0
Light Truck < 3750 lbs	6.7	0.0	100.0	0.0
Light Truck 3751-5750 lbs	23.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.5	32.0	68.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Free-standing discount store				2.0	1.0	97.0
Regnl shop. center				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
General light industry				50.0	25.0	25.0
General heavy industry				90.0	5.0	5.0
Industrial park				41.5	20.8	37.8

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: Q:\TOR-02.0E\Technical Studies\Air\Urbemis\Torrance_ProposedGP.urb924
Project Name: Torrance GP- Proposed GP
Project Location: Los Angeles County
On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006
Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	12,565.84	1,869.26	25,628.25	70.03	3,877.55	3,732.85	2,406,234.24

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	5,295.26	4,992.67	44,168.47	114.92	22,637.97	4,389.81	12,335,415.27

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	17,861.10	6,861.93	69,796.72	184.95	26,515.52	8,122.66	14,741,649.51

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	84.84	1,121.38	635.03	0.01	2.10	2.08	1,402,380.38
Hearth	9,015.51	747.88	24,993.22	70.02	3,875.45	3,730.77	1,003,853.86
Landscaping - No Winter Emissions							
Consumer Products	2,951.60						
Architectural Coatings	513.89						
TOTALS (lbs/day, unmitigated)	12,565.84	1,869.26	25,628.25	70.03	3,877.55	3,732.85	2,406,234.24

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Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	730.12	738.45	6,623.99	17.55	3,442.94	667.65	1,879,102.62
Apartments low rise	30.09	30.02	269.28	0.71	139.97	27.14	76,390.88
Apartments mid rise	177.96	175.18	1,571.37	4.16	816.75	158.38	445,768.65
Apartments high rise	3.92	3.84	34.47	0.09	17.91	3.47	9,777.34
Condo/townhouse general	132.73	132.81	1,191.31	3.16	619.21	120.08	337,953.55
Condo/townhouse high rise	295.99	293.26	2,630.57	6.97	1,367.29	265.14	746,244.95
Free-standing discount store	1,606.94	1,405.15	12,356.42	31.17	6,151.75	1,193.53	3,353,603.97
Regnl shop. center	716.94	666.24	5,813.82	15.02	2,971.81	576.05	1,615,083.46
General office building	14.80	14.72	129.80	0.35	68.25	13.23	37,119.17
Office park	637.20	650.27	5,755.14	15.43	3,037.63	588.69	1,653,178.17
Government (civic center)	537.18	473.33	4,182.94	10.62	2,093.16	406.13	1,142,026.17
Hospital	137.25	140.49	1,229.51	3.29	650.54	126.01	353,161.54
General light industry	243.00	242.16	2,143.22	5.76	1,133.33	219.63	616,735.00
General heavy industry	28.03	23.66	209.36	0.57	112.97	21.88	61,411.39
Industrial park	3.11	3.09	27.27	0.07	14.46	2.80	7,858.41
TOTALS (lbs/day, unmitigated)	5,295.26	4,992.67	44,168.47	114.92	22,637.97	4,389.81	12,335,415.27

Operational Settings:

Includes correction for passby trips
Includes the following double counting adjustment for internal trips:
Residential Trip % Reduction: 0.00 Nonresidential Trip % Reduction: 0.00
Analysis Year: 2030 Temperature (F): 60 Season: Winter
Emfac: Version : Emfac2007 V2.3 Nov 1 2006

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Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	4,002.00	8.29	dwelling units	27,210.00	225,570.90	1,995,174.91
Apartments low rise	83.06	6.90	dwelling units	1,329.00	9,170.10	81,109.55
Apartments mid rise	274.00	5.92	dwelling units	9,039.00	53,510.88	473,303.81
Apartments high rise	5.00	5.67	dwelling units	207.00	1,173.69	10,381.29
Condo/townhouse general	420.00	7.16	dwelling units	5,666.00	40,568.56	358,828.96
Condo/townhouse high rise	606.00	6.36	dwelling units	14,085.00	89,580.60	792,340.55
Free-standing discount store		56.02	1000 sq ft	12,584.00	704,955.69	3,564,457.07
Regnl shop. center		42.94	1000 sq ft	7,001.00	300,622.93	1,722,347.01
General office building		11.01	1000 sq ft	441.00	4,855.41	39,557.46
Office park		11.42	1000 sq ft	17,271.00	197,234.82	1,760,592.18
Government (civic center)		27.92	1000 sq ft	7,960.00	222,243.20	1,212,800.00
Hospital		17.57	1000 sq ft	2,692.00	47,298.44	377,094.19
General light industry		6.97	1000 sq ft	10,338.00	72,055.86	656,879.22
General heavy industry		1.50	1000 sq ft	3,740.00	5,610.00	65,483.88
Industrial park		6.96	1000 sq ft	136.00	946.56	8,379.46
					1,975,397.64	13,118,729.54

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.7	0.0	100.0	0.0
Light Truck < 3750 lbs	6.7	0.0	100.0	0.0
Light Truck 3751-5750 lbs	23.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.5	32.0	68.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Free-standing discount store				2.0	1.0	97.0
Regnl shop. center				2.0	1.0	97.0
General office building				35.0	17.5	47.5
Office park				48.0	24.0	28.0
Government (civic center)				10.0	5.0	85.0
Hospital				25.0	12.5	62.5
General light industry				50.0	25.0	25.0
General heavy industry				90.0	5.0	5.0
Industrial park				41.5	20.8	37.8

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: Q:\TOR-02.0E\Technical Studies\Air\Urbemis\Torrance_ProposedGP_wFPcor.urb924
Project Name: Torrance GP- Existing
Project Location: Los Angeles County
On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006
Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	3,321.65	1,436.46	764.32	2.37	31.86	31.52	1,805,492.62

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	5,020.47	4,719.73	41,764.09	108.55	21,382.35	4,146.49	11,652,558.59

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	8,342.12	6,156.19	42,528.41	110.92	21,414.21	4,178.01	13,458,051.21

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	80.71	1,067.20	607.19	0.01	2.00	1.98	1,334,093.80
Hearth	21.61	369.26	157.13	2.36	29.86	29.54	471,398.82
Landscaping - No Winter Emissions							
Consumer Products	2,726.49						
Architectural Coatings	492.84						
TOTALS (lbs/day, unmitigated)	3,321.65	1,436.46	764.32	2.37	31.86	31.52	1,805,492.62

6/22/2009 10:08:19 AM

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 10% to 0%

Percentage of residences with wood fireplaces changed from 5% to 0%

Percentage of residences with natural gas fireplaces changed from 85% to 100%

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	731.65	740.00	6,637.86	17.58	3,450.15	669.05	1,883,039.00
Apartments low rise	6.48	6.46	57.95	0.15	30.12	5.84	16,439.27
Apartments mid rise	161.10	158.60	1,422.70	3.77	739.47	143.40	403,593.50
Apartments high rise	5.22	5.11	45.80	0.12	23.80	4.62	12,991.72
Condo/townhouse general	132.73	132.81	1,191.31	3.16	619.21	120.08	337,953.55
Condo/townhouse high rise	246.05	244.24	2,190.87	5.80	1,138.74	220.82	621,508.40
Free-standing discount store	1,225.00	1,071.17	9,419.51	23.76	4,689.59	909.85	2,556,510.08
Regnl shop. center	713.97	663.48	5,789.74	14.96	2,959.50	573.67	1,608,393.36
Strip mall	311.23	267.89	2,359.03	5.92	1,168.83	226.81	637,547.60
Office park	671.40	685.17	6,064.04	16.26	3,200.67	620.28	1,741,910.50
Government (civic center)	552.97	487.24	4,305.91	10.94	2,154.69	418.07	1,175,598.30
General light industry	232.28	231.48	2,048.68	5.50	1,083.34	209.94	589,531.37
General heavy industry	27.56	23.26	205.83	0.56	111.06	21.51	60,376.92
Industrial park	2.83	2.82	24.86	0.07	13.18	2.55	7,165.02
TOTALS (lbs/day, unmitigated)	5,020.47	4,719.73	41,764.09	108.55	21,382.35	4,146.49	11,652,558.59

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 0.00 Nonresidential Trip % Reduction: 0.00

Analysis Year: 2030 Temperature (F): 60 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

6/22/2009 10:08:19 AM

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	4,010.00	8.29	dwelling units	27,267.00	226,043.43	1,999,354.44
Apartments low rise	17.88	6.90	dwelling units	286.00	1,973.40	17,454.73
Apartments mid rise	248.00	5.93	dwelling units	8,170.00	48,448.10	428,523.50
Apartments high rise	6.00	5.55	dwelling units	281.00	1,559.55	13,794.22
Condo/townhouse general	420.00	7.16	dwelling units	5,666.00	40,568.56	358,828.96
Condo/townhouse high rise	547.00	6.50	dwelling units	11,478.00	74,607.00	659,899.02
Free-standing discount store		56.02	1000 sq ft	9,593.00	537,399.86	2,717,247.03
Regnl shop. center		42.94	1000 sq ft	6,972.00	299,377.67	1,715,212.59
Strip mall		42.94	1000 sq ft	3,187.00	136,849.78	677,216.07
Office park		11.42	1000 sq ft	18,198.00	207,821.16	1,855,089.83
Government (civic center)		27.92	1000 sq ft	8,194.00	228,776.48	1,248,452.66
General light industry		6.97	1000 sq ft	9,882.00	68,877.54	627,904.86
General heavy industry		1.50	1000 sq ft	3,677.00	5,515.50	64,380.81
Industrial park		6.96	1000 sq ft	124.00	863.04	7,640.09
					1,878,681.07	12,390,998.81

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.7	0.0	100.0	0.0
Light Truck < 3750 lbs	6.7	0.0	100.0	0.0
Light Truck 3751-5750 lbs	23.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.5	32.0	68.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Free-standing discount store				2.0	1.0	97.0
Regnl shop. center				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
General light industry				50.0	25.0	25.0
General heavy industry				90.0	5.0	5.0
Industrial park				41.5	20.8	37.8

Vehicle Miles Traveled (VMT) and Trip Generation Summary

Existing (2005) Land Uses (Modeled in Year 2030)

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	4,010	8.29	dwelling units	27,267	226,043	1,999,354
Apartments low rise	18	6.90	dwelling units	286	1,973	17,455
Apartments mid rise	248	5.93	dwelling units	8,170	48,448	428,524
Apartments high rise	6	5.55	dwelling units	281	1,560	13,794
Condo/townhouse general	420	7.16	dwelling units	5,666	40,569	358,829
Condo/townhouse high rise	547	6.50	dwelling units	11,478	74,607	659,899
Free-standing discount store		56.02	1000 sq ft	9,593	537,400	2,717,247
Regnl shop. center		42.94	1000 sq ft	6,972	299,378	1,715,213
Strip mall		42.94	1000 sq ft	3,187	136,850	677,216
Office park		11.42	1000 sq ft	18,198	207,821	1,855,090
Government (civic center)		27.92	1000 sq ft	8,194	228,776	1,248,453
General light industry		6.97	1000 sq ft	9,882	68,878	627,905
General heavy industry		1.50	1000 sq ft	3,677	5,516	64,381
Industrial park		6.96	1000 sq ft	124	863	7,640
				112,975	1,878,681	12,390,999

Current General Plan (Buildout Year Post-2030)

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	3,998	8.29	dwelling units	27,189	225,397	1,993,635
Apartments low rise	18	6.90	dwelling units	286	1,973	17,455
Apartments mid rise	262	5.92	dwelling units	8,643	51,167	452,568
Apartments high rise	5	5.67	dwelling units	207	1,174	10,381
Condo/townhouse general	426	7.16	dwelling units	5,751	41,177	364,212
Condo/townhouse high rise	591	6.50	dwelling units	12,401	80,607	712,965
Free-standing discount store		56.02	1000 sq ft	10,177	570,116	2,882,667
Regnl shop. center		42.94	1000 sq ft	7,001	300,623	1,722,347
Strip mall		42.94	1000 sq ft	3,078	132,169	654,054
Office park		11.42	1000 sq ft	18,218	208,050	1,857,129
Government (civic center)		27.92	1000 sq ft	8,109	226,403	1,235,502
General light industry		6.97	1000 sq ft	10,440	72,767	663,360
General heavy industry		1.50	1000 sq ft	3,745	5,618	65,571
Industrial park		6.96	1000 sq ft	124	863	7,640
					1,918,102	12,639,487

	Total Trips	Total VMT
Increase from Existing	39,421	248,488

Proposed General Plan (Buildout Year Post-2030)

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	4,002	8.29	dwelling units	27,210	225,571	1,995,175
Apartments low rise	83	6.90	dwelling units	1,329	9,170	81,110
Apartments mid rise	274	5.92	dwelling units	9,039	53,511	473,304
Apartments high rise	5	5.67	dwelling units	207	1,174	10,381
Condo/townhouse general	420	7.16	dwelling units	5,666	40,569	358,829
Condo/townhouse high rise	606	6.36	dwelling units	14,085	89,581	792,341
Free-standing discount store		56.02	1000 sq ft	12,584	704,956	3,564,457
Regnl shop. center		42.94	1000 sq ft	7,001	300,623	1,722,347
General office building		11.01	1000 sq ft	441	4,855	39,557
Office park		11.42	1000 sq ft	17,271	197,235	1,760,592
Government (civic center)		27.92	1000 sq ft	7,960	222,243	1,212,800
Hospital		17.57	1000 sq ft	2,692	47,298	377,094
General light industry		6.97	1000 sq ft	10,338	72,056	656,879
General heavy industry		1.50	1000 sq ft	3,740	5,610	65,484
Industrial park		6.96	1000 sq ft	136	947	8,379
					1,975,398	13,118,730

	Total Trips	Total VMT
Increase from Existing	96,717	727,731
Increase from Current GP	57,296	479,243