

**Appendix E**

Kenwood Village Project

Diesel Particulate Matter Health Risk Assessment Files



## Appendix B-2

### HRA Assessment and AERSCREEN Outputs

---

#### Screening-Level Health Risk Assessment

Exposure to DPM was assessed by predicting health risks in terms of excess cancer risk and non-cancer hazard indexes. Average hourly PM10 exhaust emissions for each construction period were quantified by converting annual emissions estimated by CalEEMod (see Appendix X-1). The EPA's AERSCREEN model, which is the screening-level model for AERMOD, was then used to predict PM10 hourly concentrations at sensitive land uses within 25 to 50,000 meters of the Project site. Worst-case wind angle and atmospheric stability classes were assumed.

Cancer risk occurs exclusively through the inhalation pathway and was calculated according to Equation 3-1.

$$\text{Equation 3-1} \quad \text{Risk} = \text{Cair} * (\text{EH} / \text{AH}) * (\text{EF} * \text{ED} / \text{AT}) * \text{DBR} * \text{Conv}_1 * \text{ASF} * \text{CF} * \text{Conv}_2$$

Where

Risk	= DPM cancer risk (per million)
Cair	= Concentration in the air ( $\mu\text{g}/\text{m}^3$ ), annual average from AERSCREEN
EH	= Exposure hours/day
AH	= Hours per day, 24
EF	= Exposure frequency in days/year
ED	= Exposure duration in years
AT	= Average lift time (25,550 days or 70 years)
DBR	= Daily breathing rate (L/kg body weight-day), 302 for adult and 581 for child
Conv <sub>1</sub>	= Conversion factor, $([\text{mg}/\mu\text{g}] * [\text{m}^3/\text{L}])$ , $1 \times 10^6$
ASF	= Average age sensitivity factor, 1.7 for resident, 3 for student, 1 for worker
CF	= Cancer potency factor $([\text{mg}/\text{kg}\cdot\text{day}]^{-1})$ , 1.1
Conv <sub>2</sub>	= Risk per million people, $1 \times 10^6$

Project-level increases in the non-cancer HI were estimated by dividing the average annual DPM concentration predicted by AERSCREEN by the DPM Chronic Reference Exposure Level (REL) of 5 (California Air Resources Board 2012<sup>1</sup>).

---

<sup>1</sup> California Air Resources Board. 2012. Table 1 Consolidated Table of OEHHA/ARB Approved Risk Assessment Values. Last Revised: May 2012. Available: <http://www.arb.ca.gov/toxics/healthval/contable.pdf>.

**Kenwood Village Residential Project  
Screen Level Health Risk Assessment - Construction**

**Construction Emissions and Emission Rates**

Construction Phase	On-site DPM <sup>1</sup> Emissions (tons/year) <sup>2</sup>	Construction hours/day	Construction days/period	DPM Emission Rate (g/s)
Site Preparation - 2015	0.02	8	10	0.0485
Grading - 2015	0.04	8	20	0.0598
Building Construction - 2015	0.22	8	211	0.0333
Building Construction - 2016	0.02	8	19	0.0310
Paving - 2016	0.01	8	20	0.0198
Coatings - 2016	0.00	8	20	0.0031

1. DPM emissions are assumed to be equal to PM10 exhaust emission  
2. Onsite PM tons from CalEEMod output

**Construction Health Risk**

*At residences to the west, north, and east of Project site.*

Construction Phase	Max. Hourly DPM Concentration (ug/m3)*	Annual DPM Concentration (ug/m3)	Chronic Non- Cancer Hazard Index (HI)	DPM Cancer Risk (per Million)
Site Preparation - 2015	36.52	0.03	0.0	0.3
Grading - 2015	45.03	0.08	0.0	0.6
Building Construction - 2015	25.08	0.48	0.1	3.7
Building Construction - 2016	23.34	0.04	0.0	0.3
Paving - 2016	14.91	0.03	0.0	0.2
Coatings - 2016	2.33	0.00	0.0	0.0
Total			0.1	5.2
<b>SBCAPCD Thresholds</b>			<b>1</b>	<b>10</b>

\* AerScreen output - maximum value is at 144 m from source

**Health Risk Calculation Factors**

Hourly to Annual Concentration scaling factor	0.1	(per BAAQMD 2007 guidance)
Chronic Reference Exposure Level	5	(per OEHHA)
Daily Breath Rate - adult (L/kg-day)	302	
Daily Breath Rate - child (L/kg-day)	581	
Conversion Factor (mg/ug)	0.001	
Conversion Factor (m3/L)	0.001	
DPM Cancer Potency Factor ([mg/kg-day] <sup>-1</sup> )	1.1	
Average Life Time (years)	70	
Average Life Time (days)	25550	
<b>Average Age Sensitivity Factor</b>		
Residence	1.7	
School	3	
Office	1	
<b>Exposure Frequency</b>		
	<u>Hours/day</u>	<u>Days/year</u>
Residence	24	350
School	8	200
Office	12	280

KV\_Cnst\_Ph1.out

AERSCREEN 11126 / AERMOD 1234

06/26/14  
15:01:50

TITLE: KENWOOD VILLAGE CONSTRUCTION

\*\*\*\*\* AREA PARAMETERS \*\*\*\*\*

SOURCE EMISSION RATE: 0.0485 g/s 0.385 lb/hr  
 AREA EMISSION RATE: 0.110E-05 g/(s-m2) 0.875E-05 lb/(hr-m2)  
 AREA HEIGHT: 6.00 meters 19.69 feet  
 AREA SOURCE LONG SIDE: 220.00 meters 721.78 feet  
 AREA SOURCE SHORT SIDE: 200.00 meters 656.17 feet  
 INITIAL VERTICAL DIMENSION: 1.50 meters 4.92 feet  
 RURAL OR URBAN: URBAN  
 POPULATION: 30300  
 FLAGPOLE RECEPTOR HEIGHT: 1.50 meters 4.92 feet  
 INITIAL PROBE DISTANCE = 5000. meters 16404. feet

\*\*\*\*\* BUILDING DOWNWASH PARAMETERS \*\*\*\*\*

BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES

\*\*\*\*\* FLOW SECTOR ANALYSIS \*\*\*\*\*  
25 meter receptor spacing: 1. meters - 5000. meters

MAXIMUM	IMPACT	RECEPTOR				
Zo	SURFACE	1-HR CONC	RADIAL	DIST	TEMPORAL	
SECTOR	ROUGHNESS	(ug/m3)	(deg)	(m)	PERIOD	
1*	1.000	35.69	40	150.0	WIN	

\* = worst case diagonal

\*\*\*\*\* MAKEMET METEOROLOGY PARAMETERS \*\*\*\*\*

MIN/MAX TEMPERATURE: 250.0 / 310.0 (K)  
 MINIMUM WIND SPEED: 0.5 m/s  
 ANEMOMETER HEIGHT: 10.000 meters  
 SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

KV\_Cnst\_Ph1.out

DOMINANT SURFACE PROFILE: Urban  
 DOMINANT CLIMATE TYPE: Average Moisture  
 DOMINANT SEASON: Winter

ALBEDO: 0.35  
 BOWEN RATIO: 1.50  
 ROUGHNESS LENGTH: 1.000 (meters)

METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT

YR MO DY JDY HR

10 01 10 10 01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35		0.50

HT	REF	TA	HT
10.0	310.0		2.0

METEOROLOGY CONDITIONS USED TO PREDICT AMBIENT BOUNDARY IMPACT

YR MO DY JDY HR

10 01 16 10 01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS
-0.41	0.043	-9.000	0.020	-999.	21.		19.3	1.000	1.50	0.35		0.50

HT	REF	TA	HT
10.0	310.0		2.0

\*\*\*\*\* AERSCREEN AUTOMATED DISTANCES \*\*\*\*\*  
 OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE

DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)
1.00	23.99	2525.00	1.635
25.00	26.63	2550.00	1.624
50.00	29.09	2575.00	1.614
75.00	31.35	2600.00	1.603
100.00	33.42	2625.00	1.593
125.00	35.02	2650.00	1.582
150.00	35.69	2675.00	1.572
175.00	29.75	2700.00	1.562
200.00	24.62	2725.00	1.553
225.00	20.84	2750.00	1.543
250.00	18.14	2775.00	1.534

KV\_Cnst\_Ph1.out

275.00	16.10	2800.01	1.524
300.00	14.48	2825.00	1.515
325.00	13.16	2850.00	1.506
350.01	12.05	2875.00	1.497
375.00	11.10	2900.00	1.489
400.00	10.29	2925.00	1.480
425.00	9.579	2950.00	1.472
450.00	8.950	2975.00	1.463
475.00	8.394	3000.00	1.455
500.00	7.894	3025.00	1.447
525.00	7.447	3050.00	1.439
550.00	7.041	3075.00	1.431
575.00	6.673	3100.00	1.423
600.00	6.339	3125.00	1.415
625.00	6.034	3150.00	1.408
650.00	5.755	3175.00	1.400
675.00	5.499	3200.00	1.392
700.00	5.263	3225.00	1.385
725.00	5.043	3250.00	1.378
750.00	4.843	3275.00	1.370
775.00	4.655	3300.00	1.363
800.00	4.482	3325.00	1.356
825.00	4.323	3350.00	1.349
850.00	4.174	3375.00	1.342
875.00	4.034	3400.00	1.336
900.00	3.906	3425.00	1.329
925.00	3.786	3450.00	1.340
950.01	3.674	3475.00	1.333
975.00	3.570	3500.00	1.326
1000.00	3.472	3525.00	1.320
1025.00	3.381	3550.00	1.313
1050.00	3.296	3575.00	1.307
1075.00	3.216	3600.00	1.300
1100.00	3.140	3625.00	1.294
1125.00	3.070	3650.00	1.288
1150.00	3.003	3675.00	1.282
1175.00	2.941	3700.00	1.276
1200.00	2.882	3725.00	1.270
1225.00	2.826	3750.00	1.264
1250.00	2.773	3775.00	1.258
1275.00	2.724	3800.00	1.252
1300.00	2.676	3825.00	1.246
1325.00	2.631	3850.00	1.241
1350.00	2.588	3875.00	1.235
1375.00	2.548	3900.00	1.229
1400.00	2.509	3925.00	1.224
1425.00	2.473	3950.00	1.219
1450.00	2.437	3975.00	1.213
1475.00	2.404	4000.00	1.208
1500.00	2.371	4025.00	1.203
1525.00	2.341	4050.00	1.197
1550.00	2.311	4075.00	1.192
1575.00	2.282	4100.00	1.187
1600.00	2.254	4125.00	1.182
1625.00	2.228	4150.00	1.177
1650.00	2.203	4175.00	1.172
1675.00	2.178	4200.00	1.167
1700.00	2.154	4225.00	1.162
1725.00	2.131	4250.00	1.158
1750.00	2.109	4275.00	1.153
1775.00	2.087	4300.00	1.148
1800.00	2.066	4325.00	1.144
1825.00	2.046	4350.00	1.139

		KV_Cnst_Ph1.out	
1850.00	2.026	4375.00	1.134
1875.00	2.007	4400.00	1.130
1900.00	1.989	4425.00	1.125
1925.00	1.971	4450.00	1.121
1950.00	1.953	4475.00	1.117
1975.00	1.936	4500.00	1.112
2000.00	1.919	4525.00	1.108
2025.00	1.903	4550.00	1.104
2050.00	1.887	4575.00	1.099
2075.00	1.871	4600.00	1.095
2100.00	1.855	4625.00	1.091
2125.00	1.840	4650.00	1.087
2150.00	1.825	4675.00	1.083
2175.00	1.811	4700.00	1.079
2200.00	1.796	4725.00	1.075
2225.00	1.783	4750.00	1.071
2250.00	1.769	4775.00	1.067
2275.00	1.756	4800.00	1.063
2300.00	1.743	4825.00	1.059
2325.00	1.730	4850.00	1.055
2350.00	1.718	4875.00	1.052
2375.00	1.705	4900.00	1.048
2400.00	1.693	4925.00	1.044
2425.00	1.681	4950.00	1.040
2450.00	1.669	4975.00	1.037
2475.00	1.658	5000.00	1.033
2500.00	1.647		

\*\*\*\*\* AERSCREEN MAXIMUM IMPACT SUMMARY \*\*\*\*\*

3-hour, 8-hour, and 24-hour scaled concentrations are equal to the 1-hour concentration as referenced in SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4) Report number EPA-454/R-92-019 [http://www.epa.gov/scram001/guidance\\_permit.htm](http://www.epa.gov/scram001/guidance_permit.htm) under Screening Guidance

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
FLAT TERRAIN	36.52	36.52	36.52	36.52	N/A
DISTANCE FROM SOURCE	144.00 meters				
IMPACT AT THE AMBIENT BOUNDARY	23.99	23.99	23.99	23.99	N/A
DISTANCE FROM SOURCE	1.00 meters				

KV\_Cnst\_Ph2.out

AERSCREEN 11126 / AERMOD 1234 06/26/14 15:06:11

TITLE: KENWOOD VILLAGE CONSTRUCTION

\*\*\*\*\* AREA PARAMETERS \*\*\*\*\*

SOURCE EMISSION RATE:	0.0598 g/s	0.475 lb/hr
AREA EMISSION RATE:	0.136E-05 g/(s-m2)	0.108E-04 lb/(hr-m2)
AREA HEIGHT:	6.00 meters	19.69 feet
AREA SOURCE LONG SIDE:	220.00 meters	721.78 feet
AREA SOURCE SHORT SIDE:	200.00 meters	656.17 feet
INITIAL VERTICAL DIMENSION:	1.50 meters	4.92 feet
RURAL OR URBAN:	URBAN	
POPULATION:	30300	
FLAGPOLE RECEPTOR HEIGHT:	1.50 meters	4.92 feet
INITIAL PROBE DISTANCE =	5000. meters	16404. feet

\*\*\*\*\* BUILDING DOWNWASH PARAMETERS \*\*\*\*\*

BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES

\*\*\*\*\* FLOW SECTOR ANALYSIS \*\*\*\*\*  
25 meter receptor spacing: 1. meters - 5000. meters

MAXIMUM IMPACT RECEPTOR					
Zo SECTOR	SURFACE ROUGHNESS	1-HR CONC (ug/m3)	RADIAL (deg)	DIST (m)	TEMPORAL PERIOD
1*	1.000	44.01	40	150.0	WIN

\* = worst case diagonal

\*\*\*\*\* MAKEMET METEOROLOGY PARAMETERS \*\*\*\*\*

MIN/MAX TEMPERATURE: 250.0 / 310.0 (K)  
 MINIMUM WIND SPEED: 0.5 m/s  
 ANEMOMETER HEIGHT: 10.000 meters  
 SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

KV\_Cnst\_Ph2.out

DOMINANT SURFACE PROFILE: Urban  
 DOMINANT CLIMATE TYPE: Average Moisture  
 DOMINANT SEASON: Winter

ALBEDO: 0.35  
 BOWEN RATIO: 1.50  
 ROUGHNESS LENGTH: 1.000 (meters)

METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT

```

-----
YR MO DY JDY HR
10 01 10 10 01
-----
H0      U*      W*  DT/DZ ZICNV ZIMCH  M-O LEN      Z0  BOWEN ALBEDO  REF WS
-----
-1.30  0.043 -9.000  0.020 -999.  21.    6.0 1.000  1.50  0.35  0.50
-----
HT  REF TA  HT
10.0 310.0 2.0
  
```

METEOROLOGY CONDITIONS USED TO PREDICT AMBIENT BOUNDARY IMPACT

```

-----
YR MO DY JDY HR
10 01 16 10 01
-----
H0      U*      W*  DT/DZ ZICNV ZIMCH  M-O LEN      Z0  BOWEN ALBEDO  REF WS
-----
-0.41  0.043 -9.000  0.020 -999.  21.    19.3 1.000  1.50  0.35  0.50
-----
HT  REF TA  HT
10.0 310.0 2.0
  
```

\*\*\*\*\* AERSCREEN AUTOMATED DISTANCES \*\*\*\*\*  
 OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE

DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)
1.00	29.58	2525.00	2.017
25.00	32.84	2550.00	2.003
50.00	35.87	2575.00	1.990
75.00	38.67	2600.00	1.977
100.00	41.21	2625.00	1.964
125.00	43.19	2650.00	1.951
150.00	44.01	2675.00	1.939
175.00	36.69	2700.00	1.927
200.00	30.36	2725.00	1.915
225.00	25.70	2750.00	1.903
250.00	22.38	2775.00	1.891

KV\_Cnst\_Ph2.out

275.00	19.86	2800.01	1.880
300.00	17.86	2825.00	1.869
325.00	16.23	2850.00	1.858
350.01	14.86	2875.00	1.847
375.00	13.69	2900.00	1.836
400.00	12.69	2925.00	1.825
425.00	11.81	2950.00	1.815
450.00	11.04	2975.00	1.805
475.00	10.35	3000.00	1.795
500.00	9.735	3025.00	1.784
525.00	9.184	3050.00	1.774
550.00	8.683	3075.00	1.765
575.00	8.230	3100.00	1.755
600.00	7.817	3125.00	1.745
625.00	7.441	3150.00	1.736
650.00	7.097	3175.00	1.726
675.00	6.781	3200.00	1.717
700.00	6.491	3225.00	1.708
725.00	6.219	3250.00	1.699
750.00	5.972	3275.00	1.690
775.00	5.741	3300.00	1.681
800.00	5.528	3325.00	1.673
825.00	5.331	3350.00	1.664
850.00	5.147	3375.00	1.655
875.00	4.975	3400.00	1.647
900.00	4.817	3425.00	1.639
925.00	4.669	3450.00	1.652
950.01	4.531	3475.00	1.644
975.00	4.403	3500.00	1.636
1000.00	4.282	3525.00	1.627
1025.00	4.169	3550.00	1.619
1050.00	4.064	3575.00	1.611
1075.00	3.966	3600.00	1.604
1100.00	3.873	3625.00	1.596
1125.00	3.785	3650.00	1.588
1150.00	3.704	3675.00	1.581
1175.00	3.627	3700.00	1.573
1200.00	3.554	3725.00	1.566
1225.00	3.485	3750.00	1.558
1250.00	3.420	3775.00	1.551
1275.00	3.359	3800.00	1.544
1300.00	3.300	3825.00	1.537
1325.00	3.244	3850.00	1.530
1350.00	3.192	3875.00	1.523
1375.00	3.142	3900.00	1.516
1400.00	3.095	3925.00	1.509
1425.00	3.049	3950.00	1.503
1450.00	3.006	3975.00	1.496
1475.00	2.964	4000.00	1.490
1500.00	2.924	4025.00	1.483
1525.00	2.886	4050.00	1.477
1550.00	2.850	4075.00	1.470
1575.00	2.814	4100.00	1.464
1600.00	2.780	4125.00	1.458
1625.00	2.748	4150.00	1.452
1650.00	2.716	4175.00	1.446
1675.00	2.686	4200.00	1.439
1700.00	2.657	4225.00	1.434
1725.00	2.628	4250.00	1.428
1750.00	2.601	4275.00	1.422
1775.00	2.574	4300.00	1.416
1800.00	2.548	4325.00	1.410
1825.00	2.523	4350.00	1.405

		KV_Cnst_Ph2.out	
1850.00	2.498	4375.00	1.399
1875.00	2.475	4400.00	1.393
1900.00	2.452	4425.00	1.388
1925.00	2.430	4450.00	1.382
1950.00	2.409	4475.00	1.377
1975.00	2.387	4500.00	1.372
2000.00	2.367	4525.00	1.366
2025.00	2.346	4550.00	1.361
2050.00	2.327	4575.00	1.356
2075.00	2.307	4600.00	1.351
2100.00	2.288	4625.00	1.346
2125.00	2.269	4650.00	1.340
2150.00	2.251	4675.00	1.335
2175.00	2.233	4700.00	1.330
2200.00	2.215	4725.00	1.326
2225.00	2.198	4750.00	1.321
2250.00	2.182	4775.00	1.316
2275.00	2.165	4800.00	1.311
2300.00	2.149	4825.00	1.306
2325.00	2.134	4850.00	1.301
2350.00	2.118	4875.00	1.297
2375.00	2.103	4900.00	1.292
2400.00	2.088	4925.00	1.288
2425.00	2.073	4950.00	1.283
2450.00	2.059	4975.00	1.279
2475.00	2.045	5000.00	1.274
2500.00	2.031		

\*\*\*\*\* AERSCREEN MAXIMUM IMPACT SUMMARY \*\*\*\*\*

3-hour, 8-hour, and 24-hour scaled concentrations are equal to the 1-hour concentration as referenced in SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4) Report number EPA-454/R-92-019 [http://www.epa.gov/scram001/guidance\\_permit.htm](http://www.epa.gov/scram001/guidance_permit.htm) under Screening Guidance

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
FLAT TERRAIN	45.03	45.03	45.03	45.03	N/A
DISTANCE FROM SOURCE	144.00 meters				
IMPACT AT THE AMBIENT BOUNDARY	29.58	29.58	29.58	29.58	N/A
DISTANCE FROM SOURCE	1.00 meters				

KV\_CNST\_PH3.OUT

AERSCREEN 11126 / AERMOD 1234 06/26/14 14:55:04

TITLE: KENWOOD VILLAGE CONSTRUCTION

\*\*\*\*\* AREA PARAMETERS \*\*\*\*\*

SOURCE EMISSION RATE:	0.0333 g/s	0.264 lb/hr
AREA EMISSION RATE:	0.757E-06 g/(s-m2)	0.601E-05 lb/(hr-m2)
AREA HEIGHT:	6.00 meters	19.69 feet
AREA SOURCE LONG SIDE:	220.00 meters	721.78 feet
AREA SOURCE SHORT SIDE:	200.00 meters	656.17 feet
INITIAL VERTICAL DIMENSION:	1.50 meters	4.92 feet
RURAL OR URBAN:	URBAN	
POPULATION:	30300	
FLAGPOLE RECEPTOR HEIGHT:	1.50 meters	4.92 feet
INITIAL PROBE DISTANCE =	5000. meters	16404. feet

\*\*\*\*\* BUILDING DOWNWASH PARAMETERS \*\*\*\*\*

BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES

\*\*\*\*\* FLOW SECTOR ANALYSIS \*\*\*\*\*  
25 meter receptor spacing: 1. meters - 5000. meters

MAXIMUM IMPACT RECEPTOR	So	SURFACE ROUGHNESS	1-HR CONC (ug/m3)	RADIAL (deg)	DIST (m)	TEMPORAL PERIOD
1*	1.000	24.51	40	150.0	WIN	

\* = worst case diagonal

\*\*\*\*\* MAKEMET METEOROLOGY PARAMETERS \*\*\*\*\*

MIN/MAX TEMPERATURE: 250.0 / 310.0 (K)  
 MINIMUM WIND SPEED: 0.5 m/s  
 ANEMOMETER HEIGHT: 10.000 meters  
 SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES



KV\_CNST\_PH3.OUT

DOMINANT SURFACE PROFILE: Urban  
 DOMINANT CLIMATE TYPE: Average Moisture  
 DOMINANT SEASON: winter

ALBEDO: 0.35  
 BOWEN RATIO: 1.50  
 ROUGHNESS LENGTH: 1.000 (meters)

METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT

YR MO DY JDY HR

10 01 10 10 01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35		0.50

HT	REF	TA	HT
10.0	310.0		2.0

METEOROLOGY CONDITIONS USED TO PREDICT AMBIENT BOUNDARY IMPACT

YR MO DY JDY HR

10 01 16 10 01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS
-0.41	0.043	-9.000	0.020	-999.	21.		19.3	1.000	1.50	0.35		0.50

HT	REF	TA	HT
10.0	310.0		2.0

\*\*\*\*\* AERSCREEN AUTOMATED DISTANCES \*\*\*\*\*  
 OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE

DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)
1.00	16.47	2525.00	1.123
25.00	18.29	2550.00	1.116
50.00	19.98	2575.00	1.108
75.00	21.53	2600.00	1.101
100.00	22.95	2625.00	1.094
125.00	24.05	2650.00	1.087
150.00	24.51	2675.00	1.080
175.00	20.43	2700.00	1.073
200.00	16.91	2725.00	1.066
225.00	14.31	2750.00	1.060
250.00	12.46	2775.00	1.053

KV\_CNST\_PH3.OUT

275.00	11.06	2800.01	1.047
300.00	9.945	2825.00	1.041
325.00	9.036	2850.00	1.034
350.01	8.272	2875.00	1.028
375.00	7.625	2900.00	1.022
400.00	7.067	2925.00	1.017
425.00	6.579	2950.00	1.011
450.00	6.146	2975.00	1.005
475.00	5.764	3000.00	0.9993
500.00	5.421	3025.00	0.9937
525.00	5.114	3050.00	0.9882
550.00	4.835	3075.00	0.9827
575.00	4.583	3100.00	0.9773
600.00	4.353	3125.00	0.9719
625.00	4.144	3150.00	0.9666
650.00	3.952	3175.00	0.9614
675.00	3.776	3200.00	0.9562
700.00	3.615	3225.00	0.9511
725.00	3.463	3250.00	0.9460
750.00	3.326	3275.00	0.9411
775.00	3.197	3300.00	0.9362
800.00	3.078	3325.00	0.9314
825.00	2.969	3350.00	0.9266
850.00	2.866	3375.00	0.9219
875.00	2.771	3400.00	0.9173
900.00	2.683	3425.00	0.9127
925.00	2.600	3450.00	0.9200
950.01	2.523	3475.00	0.9154
975.00	2.452	3500.00	0.9108
1000.00	2.385	3525.00	0.9063
1025.00	2.322	3550.00	0.9018
1050.00	2.263	3575.00	0.8974
1075.00	2.209	3600.00	0.8930
1100.00	2.157	3625.00	0.8887
1125.00	2.108	3650.00	0.8844
1150.00	2.062	3675.00	0.8802
1175.00	2.020	3700.00	0.8760
1200.00	1.979	3725.00	0.8719
1225.00	1.941	3750.00	0.8678
1250.00	1.905	3775.00	0.8638
1275.00	1.870	3800.00	0.8598
1300.00	1.838	3825.00	0.8559
1325.00	1.807	3850.00	0.8520
1350.00	1.777	3875.00	0.8481
1375.00	1.750	3900.00	0.8443
1400.00	1.723	3925.00	0.8406
1425.00	1.698	3950.00	0.8368
1450.00	1.674	3975.00	0.8331
1475.00	1.651	4000.00	0.8295
1500.00	1.629	4025.00	0.8259
1525.00	1.607	4050.00	0.8223
1550.00	1.587	4075.00	0.8188
1575.00	1.567	4100.00	0.8153
1600.00	1.548	4125.00	0.8118
1625.00	1.530	4150.00	0.8084
1650.00	1.513	4175.00	0.8050
1675.00	1.496	4200.00	0.8016
1700.00	1.479	4225.00	0.7983
1725.00	1.464	4250.00	0.7950
1750.00	1.448	4275.00	0.7917
1775.00	1.433	4300.00	0.7885
1800.00	1.419	4325.00	0.7853
1825.00	1.405	4350.00	0.7822

		KV_CNST_PH3.OUT	
1850.00	1.391	4375.00	0.7790
1875.00	1.378	4400.00	0.7759
1900.00	1.366	4425.00	0.7729
1925.00	1.353	4450.00	0.7698
1950.00	1.341	4475.00	0.7668
1975.00	1.329	4500.00	0.7638
2000.00	1.318	4525.00	0.7609
2025.00	1.307	4550.00	0.7579
2050.00	1.296	4575.00	0.7550
2075.00	1.285	4600.00	0.7521
2100.00	1.274	4625.00	0.7493
2125.00	1.264	4650.00	0.7465
2150.00	1.253	4675.00	0.7437
2175.00	1.243	4700.00	0.7409
2200.00	1.234	4725.00	0.7382
2225.00	1.224	4750.00	0.7354
2250.00	1.215	4775.00	0.7327
2275.00	1.206	4800.00	0.7301
2300.00	1.197	4825.00	0.7274
2325.00	1.188	4850.00	0.7248
2350.00	1.180	4875.00	0.7222
2375.00	1.171	4900.00	0.7196
2400.00	1.163	4924.99	0.7170
2425.00	1.155	4950.00	0.7145
2450.00	1.146	4975.00	0.7120
2475.00	1.139	5000.00	0.7095
2500.00	1.131		

\*\*\*\*\* AERSCREEN MAXIMUM IMPACT SUMMARY \*\*\*\*\*

3-hour, 8-hour, and 24-hour scaled concentrations are equal to the 1-hour concentration as referenced in SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4) Report number EPA-454/R-92-019 [http://www.epa.gov/scram001/guidance\\_permit.htm](http://www.epa.gov/scram001/guidance_permit.htm) under Screening Guidance

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
FLAT TERRAIN	25.08	25.08	25.08	25.08	N/A
DISTANCE FROM SOURCE	144.00 meters				
IMPACT AT THE AMBIENT BOUNDARY	16.47	16.47	16.47	16.47	N/A
DISTANCE FROM SOURCE	1.00 meters				

KV\_Cnst\_Ph4.out

AERSCREEN 11126 / AERMOD 1234 06/26/14 15:08:12

TITLE: KENWOOD VILLAGE CONSTRUCTION

\*\*\*\*\* AREA PARAMETERS \*\*\*\*\*

SOURCE EMISSION RATE:	0.0310 g/s	0.246 lb/hr
AREA EMISSION RATE:	0.705E-06 g/(s-m2)	0.559E-05 lb/(hr-m2)
AREA HEIGHT:	6.00 meters	19.69 feet
AREA SOURCE LONG SIDE:	220.00 meters	721.78 feet
AREA SOURCE SHORT SIDE:	200.00 meters	656.17 feet
INITIAL VERTICAL DIMENSION:	1.50 meters	4.92 feet
RURAL OR URBAN:	URBAN	
POPULATION:	30300	
FLAGPOLE RECEPTOR HEIGHT:	1.50 meters	4.92 feet
INITIAL PROBE DISTANCE =	5000. meters	16404. feet

\*\*\*\*\* BUILDING DOWNWASH PARAMETERS \*\*\*\*\*

BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES

\*\*\*\*\* FLOW SECTOR ANALYSIS \*\*\*\*\*  
25 meter receptor spacing: 1. meters - 5000. meters

MAXIMUM IMPACT RECEPTOR	So	SURFACE ROUGHNESS	1-HR CONC (ug/m3)	RADIAL (deg)	DIST (m)	TEMPORAL PERIOD
1*	1.000	22.82	40	150.0	WIN	

\* = worst case diagonal

\*\*\*\*\* MAKEMET METEOROLOGY PARAMETERS \*\*\*\*\*

MIN/MAX TEMPERATURE: 250.0 / 310.0 (K)  
 MINIMUM WIND SPEED: 0.5 m/s  
 ANEMOMETER HEIGHT: 10.000 meters  
 SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

KV\_Cnst\_Ph4.out

DOMINANT SURFACE PROFILE: Urban  
 DOMINANT CLIMATE TYPE: Average Moisture  
 DOMINANT SEASON: winter

ALBEDO: 0.35  
 BOWEN RATIO: 1.50  
 ROUGHNESS LENGTH: 1.000 (meters)

METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT

YR MO DY JDY HR

10 01 10 10 01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35		0.50

HT	REF	TA	HT
10.0	310.0		2.0

METEOROLOGY CONDITIONS USED TO PREDICT AMBIENT BOUNDARY IMPACT

YR MO DY JDY HR

10 01 16 10 01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS
-0.41	0.043	-9.000	0.020	-999.	21.		19.3	1.000	1.50	0.35		0.50

HT	REF	TA	HT
10.0	310.0		2.0

\*\*\*\*\* AERSCREEN AUTOMATED DISTANCES \*\*\*\*\*  
 OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE

DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)
1.00	15.33	2525.00	1.045
25.00	17.03	2550.00	1.038
50.00	18.60	2575.00	1.032
75.00	20.04	2600.00	1.025
100.00	21.37	2625.00	1.018
125.00	22.39	2650.00	1.012
150.00	22.82	2675.00	1.005
175.00	19.02	2700.00	0.9989
200.00	15.74	2725.00	0.9927
225.00	13.33	2750.00	0.9865
250.00	11.60	2775.00	0.9805

KV\_Cnst\_Ph4.out

275.00	10.29	2800.01	0.9746
300.00	9.258	2825.00	0.9687
325.00	8.411	2850.00	0.9630
350.01	7.701	2875.00	0.9573
375.00	7.098	2900.00	0.9518
400.00	6.579	2925.00	0.9463
425.00	6.124	2950.00	0.9409
450.00	5.722	2975.00	0.9356
475.00	5.366	3000.00	0.9303
500.00	5.047	3025.00	0.9250
525.00	4.761	3050.00	0.9199
550.00	4.501	3075.00	0.9148
575.00	4.266	3100.00	0.9098
600.00	4.052	3125.00	0.9048
625.00	3.857	3150.00	0.8998
650.00	3.679	3175.00	0.8949
675.00	3.515	3200.00	0.8901
700.00	3.365	3225.00	0.8854
725.00	3.224	3250.00	0.8807
750.00	3.096	3275.00	0.8761
775.00	2.976	3300.00	0.8715
800.00	2.865	3325.00	0.8670
825.00	2.764	3350.00	0.8626
850.00	2.668	3375.00	0.8582
875.00	2.579	3400.00	0.8539
900.00	2.497	3425.00	0.8496
925.00	2.421	3450.00	0.8565
950.01	2.349	3475.00	0.8521
975.00	2.282	3500.00	0.8479
1000.00	2.220	3525.00	0.8436
1025.00	2.161	3550.00	0.8395
1050.00	2.107	3575.00	0.8354
1075.00	2.056	3600.00	0.8313
1100.00	2.008	3625.00	0.8273
1125.00	1.962	3650.00	0.8233
1150.00	1.920	3675.00	0.8194
1175.00	1.880	3700.00	0.8155
1200.00	1.843	3725.00	0.8117
1225.00	1.807	3750.00	0.8079
1250.00	1.773	3775.00	0.8041
1275.00	1.741	3800.00	0.8004
1300.00	1.711	3825.00	0.7967
1325.00	1.682	3850.00	0.7931
1350.00	1.654	3875.00	0.7895
1375.00	1.629	3900.00	0.7860
1400.00	1.604	3925.00	0.7825
1425.00	1.581	3950.00	0.7790
1450.00	1.558	3975.00	0.7756
1475.00	1.537	4000.00	0.7722
1500.00	1.516	4025.00	0.7688
1525.00	1.496	4050.00	0.7655
1550.00	1.477	4075.00	0.7622
1575.00	1.459	4100.00	0.7589
1600.00	1.441	4125.00	0.7557
1625.00	1.424	4150.00	0.7525
1650.00	1.408	4175.00	0.7494
1675.00	1.392	4200.00	0.7462
1700.00	1.377	4225.00	0.7431
1725.00	1.362	4250.00	0.7401
1750.00	1.348	4275.00	0.7370
1775.00	1.334	4300.00	0.7340
1800.00	1.321	4325.00	0.7311
1825.00	1.308	4350.00	0.7281

		KV_Cnst_Ph4.out	
1850.00	1.295	4375.00	0.7252
1875.00	1.283	4400.00	0.7223
1900.00	1.271	4425.00	0.7194
1925.00	1.260	4450.00	0.7166
1950.00	1.249	4475.00	0.7138
1975.00	1.238	4500.00	0.7110
2000.00	1.227	4525.00	0.7083
2025.00	1.216	4550.00	0.7055
2050.00	1.206	4575.00	0.7028
2075.00	1.196	4600.00	0.7002
2100.00	1.186	4625.00	0.6975
2125.00	1.176	4650.00	0.6949
2150.00	1.167	4675.00	0.6923
2175.00	1.157	4700.00	0.6897
2200.00	1.148	4725.00	0.6871
2225.00	1.140	4750.00	0.6846
2250.00	1.131	4775.00	0.6821
2275.00	1.122	4800.00	0.6796
2300.00	1.114	4825.00	0.6771
2325.00	1.106	4850.00	0.6747
2350.00	1.098	4875.00	0.6723
2375.00	1.090	4900.00	0.6699
2400.00	1.082	4924.99	0.6675
2425.00	1.075	4950.00	0.6651
2450.00	1.067	4975.00	0.6628
2475.00	1.060	5000.00	0.6605
2500.00	1.053		

\*\*\*\*\* AERSCREEN MAXIMUM IMPACT SUMMARY \*\*\*\*\*

3-hour, 8-hour, and 24-hour scaled concentrations are equal to the 1-hour concentration as referenced in SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4) Report number EPA-454/R-92-019 [http://www.epa.gov/scram001/guidance\\_permit.htm](http://www.epa.gov/scram001/guidance_permit.htm) under Screening Guidance

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
FLAT TERRAIN	23.34	23.34	23.34	23.34	N/A
DISTANCE FROM SOURCE	144.00 meters				
IMPACT AT THE AMBIENT BOUNDARY	15.33	15.33	15.33	15.33	N/A
DISTANCE FROM SOURCE	1.00 meters				

KV\_Cnst\_Ph5.out

AERSCREEN 11126 / AERMOD 1234 06/26/14 15:22:23

TITLE: KENWOOD VILLAGE CONSTRUCTION

\*\*\*\*\* AREA PARAMETERS \*\*\*\*\*

SOURCE EMISSION RATE:	0.0198 g/s	0.157 lb/hr
AREA EMISSION RATE:	0.450E-06 g/(s-m2)	0.357E-05 lb/(hr-m2)
AREA HEIGHT:	6.00 meters	19.69 feet
AREA SOURCE LONG SIDE:	220.00 meters	721.78 feet
AREA SOURCE SHORT SIDE:	200.00 meters	656.17 feet
INITIAL VERTICAL DIMENSION:	1.50 meters	4.92 feet
RURAL OR URBAN:	URBAN	
POPULATION:	30300	
FLAGPOLE RECEPTOR HEIGHT:	1.50 meters	4.92 feet
INITIAL PROBE DISTANCE =	5000. meters	16404. feet

\*\*\*\*\* BUILDING DOWNWASH PARAMETERS \*\*\*\*\*

BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES

\*\*\*\*\* FLOW SECTOR ANALYSIS \*\*\*\*\*  
25 meter receptor spacing: 1. meters - 5000. meters

MAXIMUM IMPACT RECEPTOR	Zo	SURFACE ROUGHNESS	1-HR CONC (ug/m3)	RADIAL (deg)	DIST (m)	TEMPORAL PERIOD
1*	1.000	14.57	40	150.0	WIN	

\* = worst case diagonal

\*\*\*\*\* MAKEMET METEOROLOGY PARAMETERS \*\*\*\*\*

MIN/MAX TEMPERATURE: 250.0 / 310.0 (K)  
 MINIMUM WIND SPEED: 0.5 m/s  
 ANEMOMETER HEIGHT: 10.000 meters  
 SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

KV\_Cnst\_Ph5.out

DOMINANT SURFACE PROFILE: Urban  
 DOMINANT CLIMATE TYPE: Average Moisture  
 DOMINANT SEASON: winter

ALBEDO: 0.35  
 BOWEN RATIO: 1.50  
 ROUGHNESS LENGTH: 1.000 (meters)

METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT

```

YR MO DY JDY HR
-- -- -- -- --
10 01 10 10 01

H0      U*      W*  DT/DZ ZICNV ZIMCH  M-O LEN  Z0  BOWEN ALBEDO  REF WS
-- -- -- -- --
-1.30  0.043 -9.000  0.020 -999.  21.    6.0 1.000  1.50  0.35  0.50

HT  REF TA  HT
--  --  --
10.0 310.0 2.0
  
```

METEOROLOGY CONDITIONS USED TO PREDICT AMBIENT BOUNDARY IMPACT

```

YR MO DY JDY HR
-- -- -- -- --
10 01 16 10 01

H0      U*      W*  DT/DZ ZICNV ZIMCH  M-O LEN  Z0  BOWEN ALBEDO  REF WS
-- -- -- -- --
-0.41  0.043 -9.000  0.020 -999.  21.   19.3 1.000  1.50  0.35  0.50

HT  REF TA  HT
--  --  --
10.0 310.0 2.0
  
```

\*\*\*\*\* AERSCREEN AUTOMATED DISTANCES \*\*\*\*\*  
 OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE

DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)
1.00	9.795	2525.00	0.6678
25.00	10.88	2550.00	0.6633
50.00	11.88	2575.00	0.6589
75.00	12.80	2600.00	0.6546
100.00	13.65	2625.00	0.6503
125.00	14.30	2650.00	0.6461
150.00	14.57	2675.00	0.6420
175.00	12.15	2700.00	0.6380
200.00	10.05	2725.00	0.6341
225.00	8.511	2750.00	0.6301
250.00	7.409	2775.00	0.6263

KV\_Cnst\_Ph5.out

275.00	6.575	2800.00	0.6225
300.00	5.914	2825.00	0.6188
325.00	5.373	2850.00	0.6151
350.01	4.919	2875.00	0.6115
375.00	4.534	2900.00	0.6079
400.00	4.202	2925.00	0.6044
425.00	3.912	2950.00	0.6010
450.00	3.655	2975.00	0.5976
475.00	3.428	3000.00	0.5942
500.00	3.224	3025.00	0.5909
525.00	3.041	3050.00	0.5876
550.00	2.875	3075.00	0.5843
575.00	2.725	3100.00	0.5811
600.00	2.588	3125.00	0.5779
625.00	2.464	3150.00	0.5748
650.00	2.350	3175.00	0.5716
675.00	2.245	3200.00	0.5686
700.00	2.149	3225.00	0.5655
725.00	2.059	3250.00	0.5625
750.00	1.978	3275.00	0.5596
775.00	1.901	3300.00	0.5567
800.00	1.830	3325.00	0.5538
825.00	1.765	3350.00	0.5510
850.00	1.704	3375.00	0.5482
875.00	1.647	3400.00	0.5454
900.00	1.595	3425.00	0.5427
925.00	1.546	3450.00	0.5401
950.01	1.500	3475.00	0.5376
975.00	1.458	3500.00	0.5351
1000.00	1.418	3525.00	0.5326
1025.00	1.381	3550.00	0.5301
1050.00	1.346	3575.00	0.5276
1075.00	1.313	3600.00	0.5251
1100.00	1.282	3625.00	0.5226
1125.00	1.253	3650.00	0.5201
1150.00	1.226	3675.00	0.5176
1175.00	1.201	3700.00	0.5151
1200.00	1.177	3725.00	0.5126
1225.00	1.154	3750.00	0.5101
1250.00	1.132	3775.00	0.5076
1275.00	1.112	3800.00	0.5051
1300.00	1.093	3825.00	0.5026
1325.00	1.074	3850.00	0.5001
1350.00	1.057	3875.00	0.4976
1375.00	1.040	3900.00	0.4951
1400.00	1.025	3925.00	0.4926
1425.00	1.010	3950.00	0.4901
1450.00	0.9952	3975.00	0.4876
1475.00	0.9815	4000.00	0.4851
1500.00	0.9683	4025.00	0.4826
1525.00	0.9558	4050.00	0.4801
1550.00	0.9436	4075.00	0.4776
1575.00	0.9318	4100.00	0.4751
1600.00	0.9206	4125.00	0.4726
1625.00	0.9098	4150.00	0.4701
1650.00	0.8994	4175.00	0.4676
1675.00	0.8894	4200.00	0.4651
1700.00	0.8797	4225.00	0.4626
1725.00	0.8703	4250.00	0.4601
1750.00	0.8611	4275.00	0.4576
1775.00	0.8522	4300.00	0.4551
1800.00	0.8437	4325.00	0.4526
1825.00	0.8354	4350.00	0.4501

		KV_Cnst_Ph5.out	
1850.00	0.8273	4375.00	0.4632
1875.00	0.8195	4400.00	0.4614
1900.00	0.8120	4425.00	0.4595
1925.00	0.8047	4450.00	0.4577
1950.00	0.7976	4475.00	0.4559
1975.00	0.7905	4500.00	0.4542
2000.00	0.7836	4525.00	0.4524
2025.00	0.7769	4550.00	0.4507
2050.00	0.7704	4575.00	0.4489
2075.00	0.7640	4600.00	0.4472
2100.00	0.7576	4625.00	0.4455
2125.00	0.7514	4650.00	0.4439
2150.00	0.7453	4675.00	0.4422
2175.00	0.7394	4700.00	0.4405
2200.00	0.7335	4725.00	0.4389
2225.00	0.7279	4750.00	0.4373
2250.00	0.7224	4775.00	0.4357
2275.00	0.7170	4800.00	0.4341
2300.00	0.7117	4825.00	0.4325
2325.00	0.7065	4850.00	0.4310
2350.00	0.7014	4875.00	0.4294
2375.00	0.6963	4900.00	0.4279
2400.00	0.6914	4925.00	0.4264
2425.00	0.6865	4950.00	0.4248
2450.00	0.6817	4975.00	0.4233
2475.00	0.6770	5000.00	0.4219
2500.00	0.6724		

\*\*\*\*\* AERSCREEN MAXIMUM IMPACT SUMMARY \*\*\*\*\*

3-hour, 8-hour, and 24-hour scaled concentrations are equal to the 1-hour concentration as referenced in SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4) Report number EPA-454/R-92-019 [http://www.epa.gov/scram001/guidance\\_permit.htm](http://www.epa.gov/scram001/guidance_permit.htm) under Screening Guidance

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
FLAT TERRAIN	14.91	14.91	14.91	14.91	N/A
DISTANCE FROM SOURCE	144.00 meters				
IMPACT AT THE AMBIENT BOUNDARY	9.795	9.795	9.795	9.795	N/A
DISTANCE FROM SOURCE	1.00 meters				

KV\_Cnst\_Ph6.out

AERSCREEN 11126 / AERMOD 1234 06/26/14 15:24:43

TITLE: KENWOOD VILLAGE CONSTRUCTION

\*\*\*\*\* AREA PARAMETERS \*\*\*\*\*

SOURCE EMISSION RATE:	0.310E-02 g/s	0.246E-01 lb/hr
AREA EMISSION RATE:	0.705E-07 g/(s-m2)	0.559E-06 lb/(hr-m2)
AREA HEIGHT:	6.00 meters	19.69 feet
AREA SOURCE LONG SIDE:	220.00 meters	721.78 feet
AREA SOURCE SHORT SIDE:	200.00 meters	656.17 feet
INITIAL VERTICAL DIMENSION:	1.50 meters	4.92 feet
RURAL OR URBAN:	URBAN	
POPULATION:	30300	
FLAGPOLE RECEPTOR HEIGHT:	1.50 meters	4.92 feet
INITIAL PROBE DISTANCE =	5000. meters	16404. feet

\*\*\*\*\* BUILDING DOWNWASH PARAMETERS \*\*\*\*\*

BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES

\*\*\*\*\* FLOW SECTOR ANALYSIS \*\*\*\*\*  
25 meter receptor spacing: 1. meters - 5000. meters

MAXIMUM IMPACT RECEPTOR	Zo SECTOR	SURFACE ROUGHNESS	1-HR CONC (ug/m3)	RADIAL (deg)	DIST (m)	TEMPORAL PERIOD
1*	1.000	2.282	40	150.0	WIN	

\* = worst case diagonal

\*\*\*\*\* MAKEMET METEOROLOGY PARAMETERS \*\*\*\*\*

MIN/MAX TEMPERATURE: 250.0 / 310.0 (K)  
 MINIMUM WIND SPEED: 0.5 m/s  
 ANEMOMETER HEIGHT: 10.000 meters  
 SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

KV\_Cnst\_Ph6.out

DOMINANT SURFACE PROFILE: Urban  
 DOMINANT CLIMATE TYPE: Average Moisture  
 DOMINANT SEASON: winter

ALBEDO: 0.35  
 BOWEN RATIO: 1.50  
 ROUGHNESS LENGTH: 1.000 (meters)

METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT

YR MO DY JDY HR

10 01 10 10 01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS
-1.30	0.043	-9.000	0.020	-999.	21.		6.0	1.000	1.50	0.35		0.50

HT	REF	TA	HT
10.0	310.0		2.0

METEOROLOGY CONDITIONS USED TO PREDICT AMBIENT BOUNDARY IMPACT

YR MO DY JDY HR

10 01 16 10 01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS
-0.41	0.043	-9.000	0.020	-999.	21.		19.3	1.000	1.50	0.35		0.50

HT	REF	TA	HT
10.0	310.0		2.0

\*\*\*\*\* AERSCREEN AUTOMATED DISTANCES \*\*\*\*\*  
 OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE

DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)
1.00	1.533	2525.00	0.1045
25.00	1.703	2550.00	0.1038
50.00	1.860	2575.00	0.1032
75.00	2.004	2600.00	0.1025
100.00	2.137	2625.00	0.1018
125.00	2.239	2650.00	0.1012
150.00	2.282	2675.00	0.1005
175.00	1.902	2700.00	0.9989E-01
200.00	1.574	2725.00	0.9927E-01
225.00	1.333	2750.00	0.9865E-01
250.00	1.160	2775.00	0.9805E-01

KV\_Cnst\_Ph6.out

275.00	1.029	2800.01	0.9746E-01
300.00	0.9258	2825.00	0.9687E-01
325.00	0.8411	2850.00	0.9630E-01
350.01	0.7701	2875.00	0.9573E-01
375.00	0.7098	2900.00	0.9518E-01
400.00	0.6579	2925.00	0.9463E-01
425.00	0.6124	2950.00	0.9409E-01
450.00	0.5722	2975.00	0.9356E-01
475.00	0.5366	3000.00	0.9303E-01
500.00	0.5047	3025.00	0.9250E-01
525.00	0.4761	3050.00	0.9199E-01
550.00	0.4501	3075.00	0.9148E-01
575.00	0.4266	3100.00	0.9098E-01
600.00	0.4052	3125.00	0.9048E-01
625.00	0.3857	3150.00	0.8998E-01
650.00	0.3679	3175.00	0.8949E-01
675.00	0.3515	3200.00	0.8901E-01
700.00	0.3365	3225.00	0.8854E-01
725.00	0.3224	3250.00	0.8807E-01
750.00	0.3096	3275.00	0.8761E-01
775.00	0.2976	3300.00	0.8715E-01
800.00	0.2865	3325.00	0.8670E-01
825.00	0.2764	3350.00	0.8626E-01
850.00	0.2668	3375.00	0.8582E-01
875.00	0.2579	3400.00	0.8539E-01
900.00	0.2497	3425.00	0.8496E-01
925.00	0.2421	3450.00	0.8564E-01
950.01	0.2349	3475.00	0.8521E-01
975.00	0.2282	3500.00	0.8479E-01
1000.00	0.2220	3525.00	0.8436E-01
1025.00	0.2161	3550.00	0.8395E-01
1050.00	0.2107	3575.00	0.8354E-01
1075.00	0.2056	3600.00	0.8313E-01
1100.00	0.2008	3625.00	0.8273E-01
1125.00	0.1962	3650.00	0.8233E-01
1150.00	0.1920	3675.00	0.8194E-01
1175.00	0.1880	3700.00	0.8155E-01
1200.00	0.1843	3725.00	0.8117E-01
1225.00	0.1807	3750.00	0.8079E-01
1250.00	0.1773	3775.00	0.8041E-01
1275.00	0.1741	3800.00	0.8004E-01
1300.00	0.1711	3825.00	0.7967E-01
1325.00	0.1682	3850.00	0.7931E-01
1350.00	0.1654	3875.00	0.7895E-01
1375.00	0.1629	3900.00	0.7860E-01
1400.00	0.1604	3925.00	0.7825E-01
1425.00	0.1581	3950.00	0.7790E-01
1450.00	0.1558	3975.00	0.7756E-01
1475.00	0.1537	4000.00	0.7722E-01
1500.00	0.1516	4025.00	0.7688E-01
1525.00	0.1496	4050.00	0.7655E-01
1550.00	0.1477	4075.00	0.7622E-01
1575.00	0.1459	4100.00	0.7589E-01
1600.00	0.1441	4125.00	0.7557E-01
1625.00	0.1424	4150.00	0.7525E-01
1650.00	0.1408	4175.00	0.7493E-01
1675.00	0.1392	4200.00	0.7462E-01
1700.00	0.1377	4225.00	0.7431E-01
1725.00	0.1362	4250.00	0.7401E-01
1750.00	0.1348	4275.00	0.7370E-01
1775.00	0.1334	4300.00	0.7340E-01
1800.00	0.1321	4325.00	0.7311E-01
1825.00	0.1308	4350.00	0.7281E-01

		KV_Cnst_Ph6.out		
1850.00	0.1295	4375.00	0.7252E-01	
1875.00	0.1283	4400.00	0.7223E-01	
1900.00	0.1271	4425.00	0.7194E-01	
1925.00	0.1260	4450.00	0.7166E-01	
1950.00	0.1249	4475.00	0.7138E-01	
1975.00	0.1238	4500.00	0.7110E-01	
2000.00	0.1227	4525.00	0.7083E-01	
2025.00	0.1216	4550.00	0.7055E-01	
2050.00	0.1206	4575.00	0.7028E-01	
2075.00	0.1196	4600.00	0.7002E-01	
2100.00	0.1186	4625.00	0.6975E-01	
2125.00	0.1176	4650.00	0.6949E-01	
2150.00	0.1167	4675.00	0.6923E-01	
2175.00	0.1157	4700.00	0.6897E-01	
2200.00	0.1148	4725.00	0.6871E-01	
2225.00	0.1140	4750.00	0.6846E-01	
2250.00	0.1131	4775.00	0.6821E-01	
2275.00	0.1122	4800.00	0.6796E-01	
2300.00	0.1114	4825.00	0.6771E-01	
2325.00	0.1106	4850.00	0.6747E-01	
2350.00	0.1098	4875.00	0.6723E-01	
2375.00	0.1090	4900.00	0.6699E-01	
2400.00	0.1082	4924.99	0.6675E-01	
2425.00	0.1075	4950.00	0.6651E-01	
2450.00	0.1067	4975.00	0.6628E-01	
2475.00	0.1060	5000.00	0.6605E-01	
2500.00	0.1053			

\*\*\*\*\* AERSCREEN MAXIMUM IMPACT SUMMARY \*\*\*\*\*

3-hour, 8-hour, and 24-hour scaled concentrations are equal to the 1-hour concentration as referenced in SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4) Report number EPA-454/R-92-019 [http://www.epa.gov/scram001/guidance\\_permit.htm](http://www.epa.gov/scram001/guidance_permit.htm) under Screening Guidance

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
FLAT TERRAIN	2.334	2.334	2.334	2.334	N/A
DISTANCE FROM SOURCE	144.00 meters				
IMPACT AT THE AMBIENT BOUNDARY	1.533	1.533	1.533	1.533	N/A
DISTANCE FROM SOURCE	1.00 meters				