Estimation of Vehicular Emission for the Study Area with EMFAC-HK model

The major air quality impact arisen by the Project is the contribution from biogas combustion during the operation phase, followed by open road emissions. The estimation shall focus on NO_2 and particulate matters namely RSP and FSP, which are the key pollutants for the vehicular emission. EMFAC-HK v4.3 model is adopted to estimate the vehicular emission rates of NO_X and particulate matters, both RSP and FSP. The input parameters and model assumptions made in EMFAC-HK model are summarised as follows:

Model Year

EMFAC-HK considers 45 years of model years for the estimation of vehicular emission. The model years start from 45 years preceding the year of interest to the year of interest as the final model year. The following table summarizes the starting and final model years of the assessment years implemented in EMFAC-HK.

Table 1 Starting and Final model years in EMFAC-HK

Scenario Year	Starting Model Year	Final Model Year
2032	1998	2032
2036	1992	2036
2041	1997	2041

Vehicle Emission Standard Implementation Programme and Technology fraction

According to EPD's Guideline on Modelling Vehicle Emissions - Appendix III, the implementation schedules of Euro VI standards are in the middle of a year for some vehicle classes or fuel types. Since the detailed fraction data is not available after Year 2021, by EMFAC-HK default, the technology fraction of the new emission standard is assumed to be the fraction of effective time in a year (e.g. effective since 1st Oct, the technology fraction for in new emission standard will be 25%), while the same fraction of other technologies are assumed to switch to the new emission standard (e.g. originally Technology A is 50%, A will become 50% x (1 – 25%) = 37.5%). Evaporative technology fraction in the model is based on the default value.

The "2018 Licensed Vehicle by Age and Technology Group Fractions" provided in EPD's website, are adopted in this assessment. Since the provided exhaust technology fractions are only up to Year 2018 at the time of the assessment, those after Year 2018 are projected as abovementioned in accordance with EPD's Guideline on Modelling Vehicle Emissions – Appendix III "Implementation Schedule of Vehicle Emission Standards in Hong Kong (Updated as at May 2020)" and Appendix IV "EMFAC-HK Technology Group Indexes (Released in January 2021)".

Vehicle Population

As recommended in the EPD's Guideline on Modelling Vehicle Emissions, default vehicle populations forecast in EMFAC-HK was used.

Vehicle Accrual

The default accrual rates in EMFAC-HK are estimated from the local mileage data adjusted to reflect the total VKT for each vehicle class. The default value was used.

Vehicle Kilometre Travel (VKT)

The "vehicle fleet" refers to all motor vehicles operating on roads within this assessment area.

The modelled fleet was broken down into 18 vehicle classes based on the information in the Transport Monthly Digest and vehicle population provided by EPD.

Vehicle-kilometer-travelled (VKT) represents the total distance travelled on a weekday. The VKT is calculated by multiplying the number of vehicles, which based on the highest predicted hourly traffic flow, and the length of road travelled in the assessment area.

Vehicle Speed

Vehicle speed on each road link at each hour was provided by the traffic consultant. All the vehicle classes on the same road link were assumed to have the same travelling speed, except medium goods vehicles, heavy goods vehicles, buses and public light buses.

In accordance with the Road Traffic Ordinance, for any road with design speed limit of 70 kph or above, the speed limit for medium goods vehicles, heavy goods vehicles, buses and buses would be limited to not more than 70 kph. Thus, the speeds of medium goods vehicles, heavy goods vehicles and buses from the flow speed or 70 kph, whichever is lower, were adopted. For the public light buses, the speed limit should be limited to post speed of the carriageway or 80 kph, whichever is lower, were adopted.

Temperature and Humidity Profile

The lowest temperature and relative humidity in Year 2020, extracted from the meteorological data of Year 2020 provided by HKO at Lau Fau Shan Station, are adopted for the model input. The lowest temperature is 7°C and relative humidity is 16%.

Start Emissions

Start emissions of vehicle in the assessment is stipulated by the broad-brush approach. Start emissions are distributed to local roads and rural roads within the study area. The number of trips is calculated by the following formular:

$$\begin{aligned} &Number\ of\ Trips\ for\ local\ and\ rural\ roads\ within\ study\ area \\ &= VKT\ (local\ \&\ rural\ roads\ in\ study\ area) \\ &\times \frac{Trips\ (local\ \&\ rural\ roads\ within\ HK)}{VKT\ within\ HK\ \times portion\ of\ local\ and\ rural\ roads} \end{aligned}$$

Trips and VKT within Hong Kong are extracted from the default values from EMFAC-HK for the respective modelling year. The proportion of local and rural roads to other roads within Hong Kong is obtained from Annual Traffic Census 2020 prepared by Transport Department. All trips are assumed to be coming from local and rural roads.

The highest NOx, RSP and FSP start emission factor for each vehicle class among different soak time is taken as a conservative approach.

Estimation of Composite Vehicular Emission Factor

Referring to the EPD's Guideline on Modelling Vehicle Emissions, "EMFAC mode" generates emission factors in terms of grams of pollutant emitted per vehicle activity. It was applied for this Project, since it can provide hourly vehicular emissions, taking into account of ambient conditions and speeds combined with vehicle activity.

Hourly composite emission factors for each road is calculated by multiplying the relevant emission factor for each vehicle type to the flow fraction of the respective vehicle type. The calculated hourly composite emission factors of 18 vehicle classes for each road type were adopted in the subsequent air dispersion modelling.

Only running exhaust will be considered for roads with a category higher than local roads since no cold start is expected for those road sections. Both running and starting emissions will be considered for local and rural roads.

Vehicular Emission burden

Vehicular emission burdens for NO_X and RSP were calculated based on the traffic forecast and composite emission factors. The results are summarized as below:

Table 2 Vehicular Emission Burden of Open Road Source

Year	NOx (kg/day)	RSP (kg/day)
2032	0.74	0.01
2036	0.66	0.02
2041	1.64	0.04

According to the results, Year 2041 is selected as the assessment year because of the highest emission burden in NO_X and RSP.

Appendix 3.6 Calculation of Vehicular Emission Source

Proportion of local & rural roads to other roads

Region	Road Network	Average Daily Vehicle-Kilometre
		Year 2020
Hong Kong Island	Major	4,691,050
	Minor	1,032,862
	Sub-total	5,723,912
Kowloon	Major	7,744,913
	Minor	990,825
	Sub-total	8,735,737
New Territories	Major	19,379,692
	Minor	2,670,039
	Sub-total	22,049,731

Minor Road Sub-total	4,693,726
All Roads Total	36,509,380
Minor Road Percentage	12.86%

Remarks:

Reference from Section 3.4, The Annual Traffic Census 2020, Transport Department

Adjusted Number of Trips per VKT

Year: **2041**

Local and Rurual Roads % within HKSAR = 12.86%

Trips-per-Day by Vehicle/Fuel	Petrol	Diesel	LPG
01 - Private Cars (PC)	1180136	17169	0
02 - Taxi	0	0	73209
03 - Light Goods Vehicles<=2.5t	84	2464	0
04 - Lt Goods Vehicles 2.5-3.5t	5602	238367	0
05 - Light Goods Vehicles>3.5t	0	87607	0
06 - Medium Goods Vehicles<=15t	0	56364	0
07 - Medium Goods Vehicles15-24t	0	110803	0
08 - Public Light Buses	0	17180	112
09 - Private Light Bus <=3.5t	44	1393	0
10 - Private Light Bus >3.5t	2	10961	250
11 - Non-franchised Bus<=6.4t	0	10186	0
12 - Non-franchised Bus 6.4-15t	0	7067	0
13 - Non-franchised Bus 15-24t	0	15513	0
14 - Franchised Bus (SD)	0	2934	0
15 - Franchised Bus (DD)	0	62351	0
16 - Motorcycles (MC)	486573	0	0
17 - Heavy Goods Vehicles>24t	0	28947	0
18 - Non-franchised Bus >24t	0	8	0
19 - <Placeholder (P3)>	0	0	0
20 - <Placeholder (P4)>	0	0	0
21 - <Placeholder (P5)>	0	0	0

Extracted from EMFAC 4.3

VKT by Vehicle/Fuel	Petrol	Diesel	LPG
01 - Private Cars (PC)	22365240	318901	0
02 - Taxi	7	0	7866196
03 - Light Goods Vehicles<=2.5t	1370	41202	0
04 - Lt Goods Vehicles 2.5-3.5t	91793	4017853	0
05 - Light Goods Vehicles>3.5t	0	2130205	0
06 - Medium Goods Vehicles<=15t	0	1207500	0
07 - Medium Goods Vehicles15-24t	0	2380663	0
08 - Public Light Buses	0	1035508	6773
09 - Private Light Bus <=3.5t	767	45671	0
10 - Private Light Bus >3.5t	30	303951	3860
11 - Non-franchised Bus<=6.4t	0	313189	0
12 - Non-franchised Bus 6.4-15t	0	212201	0
13 - Non-franchised Bus 15-24t	0	464490	0
14 - Franchised Bus (SD)	0	49209	0
15 - Franchised Bus (DD)	0	1303434	0
16 - Motorcycles (MC)	1324082	0	0
17 - Heavy Goods Vehicles>24t	0	621831	0
18 - Non-franchised Bus >24t	0	240	0
19 - <Placeholder (P3)>	0	0	0
20 - <Placeholder (P4)>	0	0	0
21 - <Placeholder (P5)>	0	0	0

Extracted from EMFAC 4.3

Trips per VKT (Overall)
0.41055
0.07239
0.46553
0.46176
0.31989
0.36308
0.36203
0.12905
0.24060
0.28332
0.25298
0.25903
0.25978
0.46372
0.37208
2.85838
0.36209
0.25962
0.00000
0.00000
0.00000

Road Classification by Start Emission - YLSEPP

Year 2041

Link No.	Road Type	With Start Emission (Yes/No)
1	DD	N
2	DD	N
3	DD	N
4	DD	N
5	LD	Y
6	LD	Y
7	LD	Y
8	LD	Y
9	LD	Y

Appendix 3.6 Calculation of Vehicular Emission Source

Emission Factors
Year 2041

Year: 2041 Temp: 7 RH: 16%

Start Emission Factor (g/trip) - NO

Time (min)	01 - Private Cars (PC)	02 - Taxi	03 - Light Goods Vehicles<= 2.5t	04 - Lt Goods Vehicles 2.5-3.5t	05 - Light Goods Vehicles>3.5t	06 - Medium Goods Vehicles<=15t	07 - Medium Goods Vehicles15-24t	08 - Public Light Buses	09 - Private Light Bus <=3.5t	10 - Private Light Bus >3.5t	11 - Non-franchised Bus<=6.4t	12 - Non-franchised Bus 6.4-15t	13 - Non-franchised Bus 15-24t	14 - Franchised Bus (SD)	15 - Franchised Bus (DD)	16 - Motorcycles (MC)	17 - Heavy Goods Vehicles>24t	18 - Non-franchised Bus >24t
5	0.04190	0.98240	0.00110	0.00080	0.04930	0.08710	0.08370	0.06150	0.00390	0.07800	0.04930	0.08730	0.08350	0.08830	0.23760	0.02810	0.08380	0.08340
10	0.04260	0.99870	0.00110	0.00080	0.08870	0.15690	0.15060	0.10690	0.00480	0.13160	0.08880	0.15710	0.15010	0.15900	0.42770	0.03840	0.15090	0.15000
20	0.04400	1.03040	0.00120	0.00080	0.11830	0.20910	0.20080	0.14740	0.00620	0.18710	0.11840	0.20940	0.20020	0.21190	0.57040	0.05630	0.20120	0.20000
30	0.04520	1.06110	0.00120	0.00090	0.16750	0.29620	0.28440	0.20540	0.00730	0.25690	0.16770	0.29670	0.28370	0.30030	0.80790	0.07110	0.28490	0.28340
40	0.04660	1.09080	0.00130	0.00090	0.20700	0.36590	0.35140	0.25160	0.00830	0.31210	0.20710	0.36660	0.35050	0.37090	0.99810	0.08250	0.35210	0.35000
50	0.04780	1.11950	0.00130	0.00090	0.27610	0.48800	0.46850	0.32510	0.00890	0.39100	0.27620	0.48880	0.46720	0.49450	1.33080	0.09070	0.46930	0.46670
60	0.04890	1.14720	0.00130	0.00100	0.40410	0.71450	0.68600	0.45540	0.00930	0.52250	0.40440	0.71570	0.68420	0.72410	1.94850	0.09570	0.68730	0.68330
120	0.05440	1.27680	0.00150	0.00100	0.50270	0.88880	0.85330	0.55490	0.00970	0.62190	0.50310	0.89020	0.85100	0.90070	2.42380	0.09640	0.85490	0.85000
180	0.06000	1.40680	0.00160	0.00110	0.73930	1.30700	1.25500	0.78990	0.01060	0.85140	0.73980	1.30920	1.25160	1.32460	3.56440	0.09770	1.25720	1.24990
240	0.05950	1.39520	0.00160	0.00110	0.96600	1.70780	1.63990	1.01490	0.01050	1.07110	0.96670	1.71060	1.63530	1.73080	4.65750	0.09660	1.64280	1.63320
300	0.05870	1.37570	0.00160	0.00100	1.08430	1.91700	1.84060	1.13210	0.01040	1.18510	1.08500	1.92020	1.83550	1.94270	5.22780	0.09540	1.84400	1.83320
360	0.05750	1.34830	0.00160	0.00100	1.28140	2.26550	2.17530	1.32760	0.01040	1.37550	1.28230	2.26920	2.16930	2.29590	6.17840	0.09380	2.17930	2.16660
420	0.05600	1.31280	0.00150	0.00100	1.40960	2.49200	2.39280	1.45430	0.01020	1.49860	1.41050	2.49610	2.38630	2.52550	6.79620	0.09200	2.39720	2.38320
480	0.05420	1.26940	0.00150	0.00100	1.47870	2.61400	2.50990	1.52230	0.01000	1.56390	1.47960	2.61840	2.50310	2.64910	7.12880	0.08980	2.51450	2.49990
540	0.05200	1.21790	0.00140	0.00090	1.51800	2.68380	2.57690	1.56060	0.00970	1.60020	1.51900	2.68820	2.56980	2.71980	7.31900	0.08740	2.58160	2.56660
600	0.04940	1.15860	0.00130	0.00100	1.55750	2.75340	2.64390	1.59890	0.00950	1.63620	1.55850	2.75800	2.63660	2.79040	7.50900	0.08460	2.64860	2.63320
660	0.04660	1.09130	0.00130	0.00090	1.57720	2.78830	2.67730	1.61740	0.00910	1.65280	1.57820	2.79290	2.67000	2.82580	7.60410	0.08170	2.68210	2.66660
720	0.04330	1.01600	0.00120	0.00080	1.57720	2.78830	2.67730	1.61630	0.00880	1.65000	1.57820	2.79290	2.67000	2.82580	7.60410	0.07840	2.68210	2.66660

Running Exhaust Emission Factor (g/mile-vehicle) - NO

Speed (km/hr)	01 - Private Cars (PC)	02 - Taxi	03 - Light Goods Vehicles<= 2.5t	04 - Lt Goods Vehicles 2.5-3.5t	05 - Light Goods Vehicles>3.5t	06 - Medium Goods Vehicles<=15t	07 - Medium Goods Vehicles15-24t	08 - Public Light Buses	09 - Private Light Bus <=3.5t	10 - Private Light Bus >3.5t	11 - Non-franchised Bus<=6.4t	12 - Non-franchised Bus 6.4-15t	13 - Non-franchised Bus 15-24t	14 - Franchised Bus (SD)	15 - Franchised Bus (DD)	16 - Motorcycles (MC)	17 - Heavy Goods Vehicles>24t	18 - Non-franchised Bus >24t
1	0.06228	2.61229	2.91838	2.95009	1.29005	1.86748	4.14599	1.02242	2.31939	1.31789	1.58343	2.15379	4.70443	3.50032	5.07957	0.44193	4.16498	4.64972
2	0.06228	2.61229	2.91838	2.95009	1.29005	1.86748	4.14599	1.02242	2.31939	1.31789	1.58343	2.15379	4.70443	3.50032	5.07957	0.44193	4.16498	4.64972
3	0.06228	2.61229	2.91838	2.95009	1.29005	1.86748	4.14599	1.02242	2.31939	1.31789	1.58343	2.15379	4.70443	3.50032	5.07957	0.44193	4.16498	4.64972
4	0.06228	2.61229	2.91838	2.95009	1.29005	1.86748	4.14599	1.02242	2.31939	1.31789	1.58343	2.15379	4.70443	3.50032	5.07957	0.44193	4.16498	4.64972
5	0.06228	2.27996	2.91790	2.94977	1.29005	1.86748	4.14599	1.02242	2.31939	1.31789	1.58343	2.15379	4.70443	3.50032	5.07957	0.43436	4.16498	4.64972
6	0.06116	2.03389	2.91758	2.94944	1.29005	1.86748	4.14599	1.02242	2.31923	1.31789	1.58343	2.15379	4.70443	3.50032	5.07957	0.42648	4.16498	4.64972
7	0.06003	1.84672	2.91726	2.94912	1.29005	1.86748	4.14599	1.02242	2.31906	1.31789	1.58343	2.15379	4.70443	3.50032	5.07957	0.41907	4.16498	4.64972
8	0.05874	1.69866	2.91694	2.94912	1.29005	1.86748	4.14599	1.02242	2.31874	1.31789	1.58343	2.15379	4.70443	3.50032	5.07957	0.41183	4.16498	4.64972
9	0.05745	1.57780	2.75938	2.78996	1.22037	1.76658	4.14406	0.95193	2.19386	1.22729	1.47207	2.03759	4.70395	3.50032	5.07957	0.40491	4.16176	4.64972
10	0.05617	1.47706	2.61132	2.64013	1.15470	1.67179	4.14229	0.88997	2.07654	1.14795	1.37454	1.92816	4.70331	3.50032	5.07957	0.39815	4.15887	4.64972
11	0.05488	1.39144	2.47726	2.50462	1.09564	1.58601	3.96043	0.83734	1.97016	1.08035	1.29166	1.82918	4.49763	3.34727	5.07957	0.39155	3.97621	4.44662
12	0.05391	1.31773	2.35495	2.38086	1.04141	1.50763	3.55826	0.79228	1.87312	1.02226	1.22069	1.73874	4.04010	3.00674	4.28874	0.38512	3.57290	3.99407
13	0.05263	1.25320	2.24246	2.26708	0.99168	1.43570	3.22094	0.75269	1.78396	0.97156	1.15873	1.65553	3.65659	2.72108	3.59704	0.37900	3.23462	3.61459
14	0.05166	1.19639	2.13834	2.16167	0.94565	1.36907	2.93432	0.71793	1.70124	0.92682	1.10417	1.57877	3.33054	2.47823	3.13388	0.37305	2.94703	3.29207
15	0.05069	1.14585	2.04145	2.06382	0.90284	1.30711	2.68777	0.68703	1.62415	0.88707	1.05557	1.50699	3.05019	2.26950	2.79817	0.36725	2.69984	3.01478
16	0.04957	1.10047	1.95085	1.97209	0.86261	1.24901	2.47372	0.65919	1.55221	0.85134	1.01212	1.44004	2.80686	2.08845	2.54115	0.36162	2.48515	2.77419
17	0.04876	1.05943	1.86571	1.88583	0.82495	1.19462	2.28639	0.63424	1.48462	0.81900	0.97301	1.37712	2.59378	1.92960	2.33725	0.35631	2.29718	2.56336
18	0.04780	1.02226	1.78541	1.80456	0.78938	1.14328	2.12112	0.61139	1.42089	0.78987	0.93760	1.31757	2.40581	1.78991	2.17052	0.35084	2.13142	2.37748
19	0.04683	0.98814	1.70945	1.72779	0.75591	1.09468	1.97418	0.59047	1.36038	0.76315	0.90510	1.26156	2.23892	1.66551	2.03131	0.34585	1.98416	2.21237
20	0.04603	0.95692	1.63735	1.65489	0.72404	1.04865	1.84302	0.57148	1.30325	0.73853	0.87532	1.20830	2.08973	1.55447	1.91271	0.34102	1.85252	2.06495
21	0.04522	0.92811	1.56863	1.58569	0.69363	1.00487	1.72522	0.55394	1.24869	0.71584	0.84796	1.15760	1.95584	1.45485	1.81051	0.33603	1.73423	1.93250
22	0.04442	0.90155	1.50329	1.51954	0.66466	0.96319	1.61868	0.53768	1.19687	0.69491	0.82270	1.10932	1.83497	1.36472	1.72119	0.33152	1.62769	1.81293
23	0.04361	0.87677	1.44085	1.45646	0.63714	0.92328	1.52244	0.52239	1.14730	0.67544	0.79936	1.06313	1.72554	1.28313	1.64234	0.32702	1.53081	1.70446
24	0.04281	0.85360	1.38114	1.39594	0.61059	0.88498	1.43473	0.50839	1.09966	0.65726	0.77731	1.01888	1.62576	1.20894	1.57217	0.32251	1.44278	1.60580
25	0.04216	0.83219	1.32385	1.33801	0.58532	0.84829	1.35442	0.49536	1.05412	0.64036	0.75704	0.97655	1.53451	1.14102	1.50924	0.31849	1.36231	1.51568
26	0.04152	0.81191	1.26881	1.28233	0.56102	0.81320	1.28104	0.48296	1.01051	0.62443	0.73788	0.93599	1.45098	1.07890	1.45211	0.31430	1.28844	1.43312
27	0.04072	0.79292	1.21586	1.22873	0.53736	0.77924	1.21328	0.47138	0.96834	0.60946	0.72002	0.89673	1.37422	1.02177	1.40061	0.31028	1.22069	1.35716
28	0.04007	0.77506	1.16468	1.17691	0.51483	0.74657	1.15100	0.46043	0.92763	0.59546	0.70312	0.85891	1.30341	0.96899	1.35314	0.30658	1.15808	1.28731
29	0.03943	0.75832	1.11544	1.12702	0.49310	0.71519	1.09339	0.45013	0.88852	0.58210	0.68719	0.82254	1.23791	0.92022	1.31001	0.30288	1.10031	1.22246
30	0.03879	0.74239	1.06780	1.07890	0.47186	0.68478	1.03996	0.44048	0.85086	0.56955	0.67222	0.78729	1.17724	0.87516	1.26993	0.29918	1.04688	1.16243
31	0.03814	0.72726	0.92827	0.93760	0.41022	0.59562	0.99039	0.43114	0.73965	0.55764	0.65806	0.68397	1.12091	0.83300	1.23292	0.29580	0.99699	1.10675
32	0.03750	0.71294	0.88852	0.89753	0.39252	0.57035	0.94420	0.42245	0.70811	0.54637	0.64454	0.65468	1.06844	0.79421	1.19848	0.29242	0.95048	1.05492
33	0.03685	0.69926	0.85166	0.86019	0.37643	0.54686	0.90091	0.41408	0.67882	0.53575	0.63183	0.62748	1.01952	0.75768	1.16645	0.28904	0.90735	1.00648
34	0.03637	0.68639	0.81739	0.82543	0.36114	0.52497	0.86068	0.40636	0.65162	0.52561	0.61976	0.60206	0.97381	0.72372	1.13652	0.28598	0.86695	0.96110
35	0.03573	0.67399	0.78536	0.79325	0.34697	0.50453	0.82302	0.39880	0.62620	0.51596	0.60817	0.57856	0.93101	0.69170	1.10852	0.28292	0.82897	0.91894
36	0.03524	0.66225	0.75575	0.76315	0.33378	0.48538	0.78761	0.39155	0.60254	0.50646	0.59707	0.55635	0.89061	0.66176	1.08228	0.28003	0.79357	0.87902
37	0.03460	0.65082	0.72775	0.73483	0.32139	0.46751	0.75446	0.38463	0.58033	0.49777	0.58661	0.53575	0.85311	0.63376	1.05750	0.27713	0.76025	0.84201
38	0.03412	0.64004	0.70151	0.70827	0.30980	0.45078	0.72324	0.37820	0.55941	0.48940	0.57631	0.51644	0.81755	0.60737	1.03416	0.27439	0.72871	0.80676
39	0.03364	0.62990	0.67689	0.68333	0.29886	0.43501	0.69379	0.37192	0.53993	0.48103	0.56665	0.49809	0.78407	0.58258	1.01196	0.27182	0.69926	0.77377
40	0.03315	0.61992	0.65372	0.65999	0.28872	0.42020	0.66595	0.36596	0.52143	0.47331	0.55748	0.48119	0.75253	0.55893	0.99103	0.26924	0.67142	0.74255
41	0.03267	0.61042	0.63199	0.63794	0.27922	0.40636	0.63971	0.36001	0.50421	0.46591	0.54846	0.46494	0.72276	0.53672	0.97140	0.26683	0.64503	0.71310
42	0.03219	0.60125	0.61139	0.61718	0.27005	0.39316	0.61493	0.35454	0.48779	0.45882	0.54010	0.44965	0.69459	0.51596	0.95257	0.26458	0.62024	0.68542
43	0.03154	0.59256	0.59208	0.59739	0.26136	0.38061	0.59143	0.34923	0.47234	0.45190	0.53189	0.43533	0.66788	0.49600	0.93439	0.26216	0.59658	0.65887
44	0.03106	0.58403	0.57357	0.57888	0.25331	0.36886	0.56922	0.34408	0.45770	0.44531	0.52400	0.42181	0.64261	0.47733	0.91749	0.25991	0.57421	0.63408
45	0.03074	0.57598	0.55603	0.56134	0.24559	0.35776	0.54814	0.33909	0.44370	0.43887	0.51628	0.40893	0.61863	0.45947	0.90107	0.25782	0.55313	0.61026
46	0.03026	0.56794	0.53961	0.54460	0.23818	0.34730	0.52803	0.33442	0.43066	0.43275	0.50904	0.39670	0.59594	0.44257	0.88546	0.25572	0.53285	0.58789
47	0.02993	0.56037	0.52400	0.52867	0.23126	0.33716	0.50904	0.32975	0.41811	0.42680	0.50195	0.38512	0.57437	0.42648	0.87066	0.25379	0.51370	0.56633
48	0.02945	0.55313	0.50904	0.51354	0.22466	0.32766	0.49101	0.32541	0.40620	0.42117	0.49520	0.37401	0.55378	0.41119	0.85617	0.25202	0.49552	0.54621
49	0.02897	0.54605	0.49487	0.49922	0.21839	0.31849	0.47363	0.32123	0.39509	0.41569	0.48860	0.36355	0.53430	0.39670	0.84249	0.25009	0.47830	0.52690
50	0.02849	0.53913	0.48135	0.48554	0.21243	0.30996	0.45721	0.31688	0.38431	0.41038	0.48216	0.35357	0.51563	0.38270	0.82929	0.24832	0.46172	0.50839
51	0.02800	0.53237	0.46848	0.47266	0.20664	0.30159	0.44160	0.31302	0.37417	0.40523	0.47588	0.34408	0.49777	0.36934	0.81658	0.24671	0.44595	0.49069
52	0.02784	0.52593	0.45625	0.46011	0.20133	0.29371	0.42664	0.30915	0.36436	0.40024	0.46993	0.33507	0.48087	0.35679	0.80451	0.24510	0.43098	0.47395
53	0.02736	0.51966	0.44434	0.44836	0.19602	0.28630	0.41231	0.30545	0.35486	0.39558	0.46413	0.32621	0.46462	0.34472	0.79276	0.24349	0.41650	0.45786
54	0.02704	0.51370	0.43307	0.43694	0.19103	0.27906	0.39880	0.30175	0.34601	0.39091	0.45850	0.31801	0.44917	0.33313	0.78166	0.24221	0.40282	0.44257
55	0.02655	0.50775	0.42245	0.42599	0.18636	0.27214	0.38560	0.29837	0.33732	0.38624	0.45303	0.31012	0.43436	0.32219	0.77055	0.24060	0.38978	0.42792
56	0.02623	0.50212	0.41215	0.41569	0.18186	0.26554	0.37321	0.29499	0.32927	0.38206	0.44788	0.30240	0.42004	0.31173	0.76009	0.23947	0.37723	0.41408
57	0.02575	0.49648	0.40234	0.40572	0.17735	0.25927	0.36114	0.29177	0.32139	0.37787	0.44273	0.29515	0.40652	0.30159	0.75012	0.23818	0.36516	0.40057
58	0.02543	0.49117	0.39300	0.39606	0.17317	0.25315	0.34971	0.28856	0.31382	0.37369	0.43774	0.28807	0.39365	0.29177	0.74014	0.23706	0.35373	0.38769

Year: 2041 Temp: 7 RH: 16%

Start Emission Factor (g/trip) - NO2

Time (min)	01 - Private Cars (PC)	02 - Taxi	03 - Light Goods Vehicles<= 2.5t	04 - Lt Goods Vehicles 2.5-3.5t	05 - Light Goods Vehicles>3.5t	06 - Medium Goods Vehicles<=15t	07 - Medium Goods Vehicles15-24t	08 - Public Light Buses	09 - Private Light Bus <=3.5t	10 - Private Light Bus >3.5t	11 - Non-franchised Bus<=6.4t	12 - Non-franchised Bus 6.4-15t	13 - Non-franchised Bus 15-24t	14 - Franchised Bus (SD)	15 - Franchised Bus (DD)	16 - Motorcycles (MC)	17 - Heavy Goods Vehicles>24t	18 - Non-franchised Bus >24t
5	0.00220	0.02760	0.00010	0.00000	0.01920	0.04290	0.04100	0.01910	0.00020	0.01880	0.01920	0.04300	0.04100	0.03610	0.09710	0.00150	0.04100	0.04100
10	0.00220	0.02800	0.00010	0.00000	0.03450	0.07720	0.07380	0.03440	0.00020	0.03380	0.03450	0.07740	0.07390	0.06490	0.17470	0.00200	0.07370	0.07390
20	0.00230	0.02890	0.00010	0.00000	0.04600	0.10300	0.09840	0.04590	0.00030	0.04510	0.04600	0.10320	0.09850	0.08660	0.23290	0.00300	0.09830	0.09850
30	0.00240	0.02980	0.00010	0.00000	0.06520	0.14590	0.13940	0.06500	0.00040	0.06380	0.06520	0.14620	0.13950	0.12260	0.33000	0.00370	0.13930	0.13950
40	0.00240	0.03060	0.00010	0.00000	0.08050	0.18020	0.17210	0.08030	0.00040	0.07880	0.08060	0.18050	0.17230	0.15150	0.40760	0.00430	0.17200	0.17240
50	0.00250	0.03140	0.00010	0.00000	0.10730	0.24020	0.22950	0.10700	0.00050	0.10500	0.10740	0.24070	0.22980	0.20200	0.54350	0.00480	0.22940	0.22980
60	0.00260	0.03220	0.00010	0.00000	0.15720	0.35180	0.33610	0.15650	0.00050	0.15350	0.15730	0.35250	0.33650	0.29580	0.79590	0.00500	0.33590	0.33660
120	0.00290	0.03580	0.00010	0.00010	0.19550	0.43760	0.41810	0.19460	0.00050	0.19080	0.19560	0.43850	0.41860	0.36790	0.99000	0.00510	0.41780	0.41860
180	0.00320	0.03950	0.00010	0.00010	0.28750	0.64350	0.61480	0.28610	0.00060	0.28020	0.28770	0.64480	0.61550	0.54100	1.45590	0.00510	0.61440	0.61570
240	0.00310	0.03920	0.00010	0.00010	0.37570	0.84090	0.80330	0.37380	0.00060	0.36590	0.37590	0.84260	0.80430	0.70690	1.90240	0.00510	0.80280	0.80450
300	0.00310	0.03860	0.00010	0.00010	0.42170	0.94380	0.90170	0.41950	0.00060	0.41060	0.42200	0.94570	0.90280	0.79350	2.13530	0.00500	0.90110	0.90300
360	0.00300	0.03780	0.00010	0.00010	0.49840	1.11540	1.06560	0.49570	0.00050	0.48520	0.49870	1.11770	1.06690	0.93780	2.52350	0.00490	1.06490	1.06710
420	0.00290	0.03680	0.00010	0.00010	0.54820	1.22700	1.17220	0.54530	0.00050	0.53360	0.54860	1.22950	1.17360	1.03160	2.77590	0.00480	1.17140	1.17390
480	0.00280	0.03560	0.00010	0.00010	0.57500	1.28700	1.22960	0.57190	0.00050	0.55970	0.57540	1.28960	1.23100	1.08210	2.91180	0.00470	1.22880	1.23130
540	0.00270	0.03420	0.00010	0.00010	0.59040	1.32130	1.26240	0.58720	0.00050	0.57460	0.59080	1.32400	1.26390	1.11090	2.98940	0.00460	1.26150	1.26410
600	0.00260	0.03250	0.00010	0.00000	0.60570	1.35570	1.29510	0.60240	0.00050	0.58950	0.60610	1.35840	1.29670	1.13980	3.06710	0.00450	1.29430	1.29700
660	0.00240	0.03060	0.00010	0.00000	0.61340	1.37280	1.31150	0.61000	0.00050	0.59690	0.61380	1.37560	1.31310	1.15420	3.10590	0.00430	1.31070	1.31340
720	0.00230	0.02850	0.00010	0.00000	0.61340	1.37280	1.31150	0.61000	0.00050	0.59690	0.61380	1.37560	1.31310	1.15420	3.10590	0.00410	1.31070	1.31340

Running Exhaust Emission Factor (g/mile-vehicle) - NO2

Speed (km/hr)	01 - Private Cars (PC)	02 - Taxi	03 - Light Goods Vehicles<= 2.5t	04 - Lt Goods Vehicles 2.5-3.5t	05 - Light Goods Vehicles>3.5t	06 - Medium Goods Vehicles<=15t	07 - Medium Goods Vehicles15-24t	08 - Public Light Buses	09 - Private Light Bus <=3.5t	10 - Private Light Bus >3.5t	11 - Non-franchised Bus<=6.4t	12 - Non-franchised Bus 6.4-15t	13 - Non-franchised Bus 15-24t	14 - Franchised Bus (SD)	15 - Franchised Bus (DD)	16 - Motorcycles (MC)	17 - Heavy Goods Vehicles>24t	18 - Non-franchised Bus >24t
1	0.00338	0.07339	0.18009	0.17671	0.50163	0.91845	2.03308	0.38817	0.57775	0.49745	0.61574	1.06088	2.31375	1.42974	2.07477	0.02334	2.03711	2.29026
2	0.00338	0.07339	0.18009	0.17671	0.50163	0.91845	2.03308	0.38817	0.57775	0.49745	0.61574	1.06088	2.31375	1.42974	2.07477	0.02334	2.03711	2.29026
3	0.00338	0.07339	0.18009	0.17671	0.50163	0.91845	2.03308	0.38817	0.57775	0.49745	0.61574	1.06088	2.31375	1.42974	2.07477	0.02334	2.03711	2.29026
4	0.00338	0.07339	0.18009	0.17671	0.50163	0.91845	2.03308	0.38817	0.57775	0.49745	0.61574	1.06088	2.31375	1.42974	2.07477	0.02334	2.03711	2.29026
5	0.00338	0.06405	0.17992	0.17671	0.50163	0.91845	2.03308	0.38817	0.57759	0.49745	0.61574	1.06088	2.31375	1.42974	2.07477	0.02285	2.03711	2.29026
6	0.00338	0.05713	0.17992	0.17671	0.50163	0.91845	2.03308	0.38817	0.57759	0.49745	0.61574	1.06088	2.31375	1.42974	2.07477	0.02253	2.03711	2.29026
7	0.00322	0.05182	0.17992	0.17671	0.50163	0.91845	2.03308	0.38817	0.57759	0.49745	0.61574	1.06088	2.31375	1.42974	2.07477	0.02205	2.03711	2.29026
8	0.00322	0.04764	0.17992	0.17655	0.50163	0.91845	2.03308	0.38817	0.57759	0.49745	0.61574	1.06088	2.31375	1.42974	2.07477	0.02173	2.03711	2.29026
9	0.00306	0.04426	0.17027	0.16705	0.47460	0.86888	2.03276	0.36081	0.54653	0.46253	0.57244	1.00359	2.31359	1.42974	2.07477	0.02124	2.03662	2.29026
10	0.00306	0.04152	0.16110	0.15804	0.44917	0.82221	2.03244	0.33700	0.51708	0.43179	0.53446	0.94967	2.31359	1.42974	2.07477	0.02092	2.03614	2.29026
11	0.00306	0.03911	0.15289	0.14999	0.42599	0.78005	1.94360	0.31672	0.49053	0.40588	0.50244	0.90091	2.21237	1.36730	2.07477	0.02060	1.94698	2.19000
12	0.00290	0.03701	0.14532	0.14259	0.40507	0.74159	1.74598	0.29918	0.46639	0.38351	0.47476	0.85633	1.98738	1.22809	1.75161	0.02028	1.74904	1.96726
13	0.00290	0.03524	0.13840	0.13583	0.38560	0.70618	1.58021	0.28405	0.44402	0.36403	0.45062	0.81545	1.79844	1.11141	1.46917	0.01996	1.58311	1.78026
14	0.00274	0.03364	0.13197	0.12955	0.36774	0.67335	1.43924	0.27069	0.42342	0.34697	0.42937	0.77747	1.63799	1.01228	1.28007	0.01963	1.44197	1.62141
15	0.00274	0.03219	0.12601	0.12360	0.35100	0.64277	1.31805	0.25878	0.40427	0.33169	0.41054	0.

Running Exhaust Emission Factor (g/mile-vehicle) - NO

Speed (km/hr)	01 - Private Cars (PC)	02 - Taxi	03 - Light Goods Vehicles<= 2.5t	04 - Lt Goods Vehicles 2.5-3.5t	05 - Light Goods Vehicles>3.5t	06 - Medium Goods Vehicles<= 15t	07 - Medium Goods Vehicles15-24t	08 - Public Light Buses	09 - Private Light Bus <=3.5t	10 - Private Light Bus >3.5t	11 - Non-franchised Bus<=6.4t	12 - Non-franchised Bus 6.4-15t	13 - Non-franchised Bus 15-24t	14 - Franchised Bus (SD)	15 - Franchised Bus (DD)	16 - Motorcycles (MC)	17 - Heavy Goods Vehicles>24t	18 - Non-franchised Bus >24t
59	0.02511	0.48602	0.38383	0.38705	0.16914	0.24736	0.33861	0.28534	0.30658	0.36983	0.43291	0.28147	0.38109	0.28260	0.73080	0.23577	0.34263	0.37546
60	0.02462	0.48087	0.37514	0.37820	0.16528	0.24172	0.32831	0.28260	0.29966	0.36596	0.42809	0.27488	0.36902	0.27359	0.72147	0.23464	0.33201	0.36355
61	0.02446	0.47878	0.36677	0.36967	0.16158	0.23641	0.31801	0.28260	0.29306	0.36596	0.42809	0.26876	0.35760	0.26522	0.71262	0.23384	0.32187	0.35229
62	0.02414	0.47669	0.35888	0.36162	0.15804	0.23126	0.30851	0.28260	0.28662	0.36596	0.42809	0.26281	0.34665	0.25701	0.70393	0.23287	0.31237	0.34134
63	0.02382	0.47476	0.35116	0.35389	0.15466	0.22643	0.29918	0.28260	0.28035	0.36596	0.42809	0.25717	0.33603	0.24913	0.69556	0.23191	0.30304	0.33088
64	0.02350	0.47315	0.34376	0.34633	0.15128	0.22177	0.29016	0.28260	0.27455	0.36596	0.42809	0.25170	0.32589	0.24156	0.68751	0.23094	0.29403	0.32090
65	0.02317	0.47138	0.33651	0.33893	0.14822	0.21710	0.28180	0.28260	0.26876	0.36613	0.42809	0.24623	0.31608	0.23416	0.67963	0.23030	0.28566	0.31125
66	0.02269	0.46977	0.32975	0.33217	0.14500	0.21710	0.28180	0.28260	0.26329	0.36613	0.42809	0.24623	0.31608	0.23416	0.67963	0.22965	0.28550	0.31125
67	0.02237	0.46832	0.32316	0.32525	0.14227	0.21710	0.28180	0.28276	0.25798	0.36613	0.42809	0.24623	0.31608	0.23416	0.67963	0.22901	0.28550	0.31125
68	0.02205	0.46719	0.31672	0.31897	0.13921	0.21710	0.28180	0.28276	0.25283	0.36629	0.42809	0.24623	0.31608	0.23416	0.67963	0.22837	0.28550	0.31125
69	0.02173	0.46591	0.31044	0.31253	0.13647	0.21710	0.28180	0.28276	0.24784	0.36629	0.42809	0.24623	0.31608	0.23416	0.67963	0.22772	0.28550	0.31125
70	0.02173	0.46494	0.30465	0.30658	0.13390	0.21710	0.28180	0.28292	0.24301	0.36645	0.42809	0.24623	0.31608	0.23416	0.67963	0.22740	0.28550	0.31125
71	0.02140	0.46397	0.29886	0.30079	0.13132	0.21710	0.28180	0.28292	0.23834	0.36661	0.42809	0.24623	0.31608	0.23416	0.67963	0.22692	0.28550	0.31125
72	0.02108	0.46301	0.29322	0.29515	0.12875	0.21710	0.28180	0.28308	0.23400	0.36677	0.42809	0.24623	0.31608	0.23416	0.67963	0.22660	0.28550	0.31125
73	0.02076	0.46236	0.28791	0.28968	0.12649	0.21710	0.28180	0.28308	0.22965	0.36693	0.42809	0.24623	0.31608	0.23416	0.67963	0.22627	0.28550	0.31125
74	0.02044	0.46172	0.28260	0.28437	0.12408	0.21710	0.28180	0.28324	0.22563	0.36709	0.42809	0.24623	0.31608	0.23416	0.67963	0.22595	0.28550	0.31125
75	0.02012	0.46140	0.27761	0.27938	0.12183	0.21710	0.28180	0.28341	0.22145	0.36725	0.42809	0.24623	0.31608	0.23416	0.67963	0.22579	0.28550	0.31125
76	0.01979	0.46108	0.27278	0.27423	0.11957	0.21710	0.28180	0.28341	0.21758	0.36741	0.42809	0.24623	0.31608	0.23416	0.67963	0.22563	0.28550	0.31125
77	0.01963	0.46076	0.26812	0.26957	0.11748	0.21710	0.28180	0.28357	0.21372	0.36757	0.42809	0.24623	0.31608	0.23416	0.67963	0.22547	0.28550	0.31125
78	0.01931	0.46059	0.26345	0.26490	0.11539	0.21710	0.28180	0.28373	0.21018	0.36774	0.42809	0.24623	0.31608	0.23416	0.67963	0.22547	0.28550	0.31125
79	0.01899	0.46059	0.25910	0.26039	0.11346	0.21710	0.28180	0.28389	0.20648	0.36806	0.42809	0.24623	0.31608	0.23416	0.67963	0.22547	0.28550	0.31125
80	0.01883	0.46076	0.25492	0.25605	0.11153	0.21710	0.28180	0.28405	0.20310	0.36822	0.42809	0.24623	0.31608	0.23416	0.67963	0.22547	0.28550	0.31125
81	0.01851	0.46092	0.25057	0.25186	0.10960	0.21710	0.28180	0.28421	0.19972	0.36854	0.42809	0.24623	0.31608	0.23416	0.67963	0.22563	0.28550	0.31125
82	0.01835	0.46124	0.24671	0.24768	0.10783	0.21710	0.28180	0.28437	0.19634	0.36870	0.42809	0.24623	0.31608	0.23416	0.67963	0.22579	0.28550	0.31125
83	0.01819	0.46172	0.24269	0.24382	0.10622	0.21710	0.28180	0.28453	0.19328	0.36902	0.42809	0.24623	0.31608	0.23416	0.67963	0.22611	0.28550	0.31125
84	0.01786	0.46204	0.23899	0.23979	0.10445	0.21710	0.28180	0.28469	0.19006	0.36934	0.42809	0.24623	0.31608	0.23416	0.67963	0.22643	0.28550	0.31125
85	0.01770	0.46269	0.23513	0.23609	0.10268	0.21710	0.28180	0.28485	0.18717	0.36967	0.42809	0.24623	0.31608	0.23416	0.67963	0.22676	0.28550	0.31125
86	0.01738	0.46349	0.23175	0.23239	0.10107	0.21710	0.28180	0.28501	0.18427	0.36999	0.42809	0.24623	0.31608	0.23416	0.67963	0.22724	0.28550	0.31125
87	0.01722	0.46446	0.22820	0.22885	0.09962	0.21710	0.28180	0.28534	0.18137	0.37031	0.42809	0.24623	0.31608	0.23416	0.67963	0.22772	0.28550	0.31125
88	0.01690	0.46558	0.22483	0.22547	0.09785	0.21710	0.28180	0.28550	0.17864	0.37063	0.42809	0.24623	0.31608	0.23416	0.67963	0.22804	0.28550	0.31125
89	0.01674	0.46671	0.22322	0.22370	0.09720	0.21710	0.28180	0.28566	0.17719	0.37095	0.42809	0.24623	0.31608	0.23416	0.67963	0.22869	0.28550	0.31125
90	0.01642	0.46784	0.22322	0.22386	0.09720	0.21710	0.28180	0.28598	0.17719	0.37128	0.42809	0.24623	0.31608	0.23416	0.67963	0.22933	0.28550	0.31125
91	0.01625	0.46912	0.22338	0.22386	0.09720	0.21710	0.28180	0.28614	0.17735	0.37176	0.42809	0.24623	0.31608	0.23416	0.67963	0.22998	0.28550	0.31125
92	0.01593	0.47073	0.22354	0.22386	0.09720	0.21710	0.28180	0.28646	0.17735	0.37208	0.42809	0.24623	0.31608	0.23416	0.67963	0.23078	0.28550	0.31125
93	0.01577	0.47234	0.22354	0.22402	0.09720	0.21710	0.28180	0.28662	0.17735	0.37256	0.42809	0.24623	0.31608	0.23416	0.67963	0.23142	0.28550	0.31125
94	0.01561	0.47395	0.22370	0.22402	0.09720	0.21710	0.28180	0.28695	0.17735	0.37289	0.42809	0.24623	0.31608	0.23416	0.67963	0.23239	0.28550	0.31125
95	0.01529	0.47588	0.22386	0.22418	0.09720	0.21710	0.28180	0.28727	0.17735	0.37337	0.42809	0.24623	0.31608	0.23416	0.67963	0.23335	0.28550	0.31125
96	0.01529	0.47798	0.22386	0.22418	0.09720	0.21710	0.28180	0.28743	0.17735	0.37385	0.42809	0.24623	0.31608	0.23416	0.67963	0.23416	0.28550	0.31125
97	0.01513	0.47991	0.22402	0.22434	0.09720	0.21710	0.28180	0.28759	0.17735	0.37433	0.42809	0.24623	0.31608	0.23416	0.67963	0.23529	0.28550	0.31125
98	0.01481	0.48216	0.22418	0.22434	0.09720	0.21710	0.28180	0.28791	0.17751	0.37466	0.42809	0.24623	0.31608	0.23416	0.67963	0.23641	0.28550	0.31125
99	0.01465	0.48457	0.22418	0.22450	0.09720	0.21710	0.28180	0.28823	0.17751	0.37514	0.42809	0.24623	0.31608	0.23416	0.67963	0.23754	0.28550	0.31125
100	0.01448	0.48715	0.22418	0.22450	0.09720	0.21710	0.28180	0.28856	0.17751	0.37562	0.42809	0.24623	0.31608	0.23416	0.67963	0.23867	0.28550	0.31125
101	0.01432	0.48972	0.22434	0.22466	0.09720	0.21710	0.28180	0.28888	0.17751	0.37626	0.42809	0.24623	0.31608	0.23416	0.67963	0.24011	0.28550	0.31125
102	0.01400	0.49246	0.22450	0.22466	0.09720	0.21710	0.28180	0.28920	0.17751	0.37675	0.42809	0.24623	0.31608	0.23416	0.67963	0.24140	0.28550	0.31125
103	0.01384	0.49552	0.22466	0.22483	0.09720	0.21710	0.28180	0.28952	0.17767	0.37723	0.42809	0.24623	0.31608	0.23416	0.67963	0.24285	0.28550	0.31125
104	0.01368	0.49841	0.22466	0.22499	0.09720	0.21710	0.28180	0.28984	0.17767	0.37771	0.42809	0.24623	0.31608	0.23416	0.67963	0.24430	0.28550	0.31125
105	0.01352	0.50035	0.22483	0.22499	0.09720	0.21710	0.28180	0.29016	0.17767	0.37836	0.42809	0.24623	0.31608	0.23416	0.67963	0.24526	0.28550	0.31125
106	0.01352	0.50035	0.22483	0.22499	0.09720	0.21710	0.28180	0.29049	0.17767	0.37884	0.42809	0.24623	0.31608	0.23416	0.67963	0.24526	0.28550	0.31125
107	0.01352	0.50035	0.22483	0.22499	0.09720	0.21710	0.28180	0.29097	0.17767	0.37932	0.42809	0.24623	0.31608	0.23416	0.67963	0.24526	0.28550	0.31125
108	0.01368	0.50035	0.22483	0.22499	0.09720	0.21710	0.28180	0.29129	0.17767	0.37997	0.42809	0.24623	0.31608	0.23416	0.67963	0.24526	0.28550	0.31125
109	0.01368	0.50035	0.22483	0.22499	0.09720	0.21710	0.28180	0.29161	0.17767	0.38045	0.42809	0.24623	0.31608	0.23416	0.67963	0.24526	0.28550	0.31125
110	0.01368	0.50035	0.22483	0.22499	0.09720	0.21710	0.28180	0.29210	0.17767	0.38109	0.42809	0.24623	0.31608	0.23416	0.67963	0.24526	0.28550	0.31125
111	0.01368	0.50035	0.22483	0.22499	0.09720	0.21710	0.28180	0.29242	0.17767	0.38174	0.42809	0.24623	0.31608	0.23416	0.67963	0.24526	0.28550	0.31125
112	0.01368	0.50035	0.22483	0.22499	0.09720	0.21710	0.28180	0.29290	0.17767	0.38238	0.42809	0.24623	0.31608	0.23416	0.67963	0.24526	0.28550	0.31125
113	0.01368	0.50035	0.22483	0.22499	0.09720	0.21710	0.28180	0.29322	0.17767	0.38302	0.42809	0.24623	0.31608	0.23416	0.67963	0.24526	0.28550	0.31125
114	0.01368	0.50035	0.22483	0.22499	0.09720	0.21710	0.28180	0.29371	0.17767	0.38367	0.42809	0.24623	0.31608	0.23416	0.67963	0.24526	0.28550	0.31125
115	0.01368	0.50035	0.22483	0.22499	0.09720	0.21710	0.28180	0.29419	0.17767	0.38447	0.42809	0.24623	0.31608	0.23416	0.67963	0.24526	0.28550	0.31125

Running Exhaust Emission Factor (g/mile-vehicle) - NO2

Speed (km/hr)	01 - Private Cars (PC)	02 - Taxi	03 - Light Goods Vehicles<= 2.5t	04 - Lt Goods Vehicles 2.5-3.5t	05 - Light Goods Vehicles>3.5t	06 - Medium Goods Vehicles<= 15t	07 - Medium Goods Vehicles15-24t	08 - Public Light Buses	09 - Private Light Bus <=3.5t	10 - Private Light Bus >3.5t	11 - Non-franchised Bus<=6.4t	12 - Non-franchised Bus 6.4-15t	13 - Non-franchised Bus 15-24t	14 - Franchised Bus (SD)	15 - Franchised Bus (DD)	16 - Motorcycles (MC)	17 - Heavy Goods Vehicles>24t	18 - Non-franchised Bus >24t
59	0.00145	0.01368	0.02382	0.02317	0.06582	0.12134	0.16480	0.10622	0.07548	0.13599	0.16834	0.13856	0.18684	0.11539	0.29837	0.01239	0.16544	0.18491
60	0.00145	0.01352	0.02317	0.02269	0.06437	0.11861	0.15949	0.10493	0.07371	0.13454	0.16657	0.13551	0.18105	0.11185	0.29467	0.01239	0.16029	0.17912
61	0.00129	0.01336	0.02269	0.02221	0.06293	0.11603	0.15466	0.10493	0.07210	0.13454	0.16657	0.13245	0.17542	0.10831	0.29113	0.01223	0.15530	0.17349
62	0.00129	0.01336	0.02221	0.02173	0.06148	0.11346	0.14983	0.10493	0.07049	0.13454	0.16657	0.12955	0.16995	0.10493	0.28759	0.01223	0.15047	0.16818
63	0.00129	0.01336	0.02173	0.02124	0.06019	0.11104	0.14532	0.10493	0.06904	0.13454	0.16657	0.12666	0.16480	0.10171	0.28421	0.01223	0.14597	0.16303
64	0.00129	0.01320	0.02124	0.02076	0.05890	0.10863	0.14098	0.10493	0.06743	0.13454	0.16657	0.12392	0.15981	0.09865	0.28083	0.01223	0.14162	0.15804
65	0.00129	0.01320	0.02092	0.02044	0.05761	0.10638	0.13663	0.10493	0.06614	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01207	0.13728	0.15321
66	0.00129	0.01320	0.02044	0.01996	0.05649	0.10638	0.13663	0.10493	0.06470	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01207	0.13728	0.15321
67	0.00129	0.01320	0.01996	0.01963	0.05520	0.10638	0.13663	0.10493	0.06341	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01207	0.13728	0.15321
68	0.00129	0.01304	0.01963	0.01915	0.05423	0.10638	0.13663	0.10493	0.06212	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01207	0.13728	0.15321
69	0.00129	0.01304	0.01931	0.01883	0.05311	0.10638	0.13663	0.10493	0.06083	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01207	0.13728	0.15321
70	0.00113	0.01304	0.01883	0.01851	0.05198	0.10638	0.13663	0.10493	0.05971	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01191	0.13728	0.15321
71	0.00113	0.01304	0.01851	0.01802	0.05102	0.10638	0.13663	0.10493	0.05858	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01191	0.13728	0.15321
72	0.00113	0.01304	0.01819	0.01770	0.05005	0.10638	0.13663	0.10493	0.05745	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01191	0.13728	0.15321
73	0.00113	0.01304	0.01786	0.01738	0.04908	0.10638	0.13663	0.10493	0.05633	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01191	0.13728	0.15321
74	0.00113	0.01304	0.01754	0.01706	0.04828	0.10638	0.13663	0.10493	0.05520	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01191	0.13728	0.15321
75	0.00113	0.01287	0.01722	0.01674	0.04731	0.10638	0.13663	0.10493	0.05423	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01191	0.13728	0.15321
76	0.00113	0.01287	0.01690	0.01658	0.04651	0.10638	0.13663	0.10493	0.05327	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01191	0.13728	0.15321
77	0.00113	0.01287	0.01658	0.01625	0.04571	0.10638	0.13663	0.10493	0.05230	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01191	0.13728	0.15321
78	0.00113	0.01287	0.01642	0.01593	0.04490	0.10638	0.13663	0.10493	0.05134	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01191	0.13728	0.15321
79	0.00113	0.01287	0.01609	0.01561	0.04410	0.10638	0.13663	0.10493	0.05053	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01191	0.13728	0.15321
80	0.00113	0.01287	0.01577	0.01545	0.04345	0.10638	0.13663	0.10493	0.04957	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01191	0.13728	0.15321
81	0.00113	0.01287	0.01561	0.01513	0.04265	0.10638	0.13663	0.10493	0.04876	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01191	0.13728	0.15321
82	0.00097	0.01287	0.01529	0.01497	0.04200	0.10638	0.13663	0.10493	0.04796	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01191	0.13728	0.15321
83	0.00097	0.01287	0.01513	0.01465	0.04120	0.10638	0.13663	0.10493	0.04715	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01191	0.13728	0.15321
84	0.00097	0.01304	0.01481	0.01448	0.04056	0.10638	0.13663	0.10493	0.04651	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01191	0.13728	0.15321
85	0.00097	0.01304	0.01465	0.01416	0.03991	0.10638	0.13663	0.10493	0.04571	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01191	0.13728	0.15321
86	0.00097	0.01304	0.01432	0.01400	0.03927	0.10638	0.13663	0.10493	0.04490	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01191	0.13728	0.15321
87	0.00097	0.01304	0.01416	0.01384	0.03862	0.10638	0.13663	0.10493	0.04426	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01191	0.13728	0.15321
88	0.00097	0.01304	0.01400	0.01352	0.03814	0.10638	0.13663	0.10493	0.04361	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01207	0.13728	0.15321
89	0.00097	0.01304	0.01384	0.01352	0.03782	0.10638	0.13663	0.10493	0.04329	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01207	0.13728	0.15321
90	0.00097	0.01320	0.01384	0.01352	0.03782	0.10638	0.13663	0.10493	0.04329	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01207	0.13728	0.15321
91	0.00097	0.01320	0.01384	0.01352	0.03782	0.10638	0.13663	0.10493	0.04329	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01207	0.13728	0.15321
92	0.00097	0.01320	0.01384	0.01352	0.03782	0.10638	0.13663	0.10493	0.04329	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01207	0.13728	0.15321
93	0.00097	0.01320	0.01384	0.01352	0.03782	0.10638	0.13663	0.10493	0.04329	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01223	0.13728	0.15321
94	0.00097	0.01336	0.01384	0.01352	0.03782	0.10638	0.13663	0.10493	0.04329	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01223	0.13728	0.15321
95	0.00097	0.01336	0.01384	0.01352	0.03782	0.10638	0.13663	0.10493	0.04329	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01223	0.13728	0.15321
96	0.00080	0.01336	0.01384	0.01352	0.03782	0.10638	0.13663	0.10493	0.04329	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01239	0.13728	0.15321
97	0.00080	0.01352	0.01384	0.01352	0.03782	0.10638	0.13663	0.10509	0.04329	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01239	0.13728	0.15321
98	0.00080	0.01352	0.01384	0.01352	0.03782	0.10638	0.13663	0.10509	0.04329	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01239	0.13728	0.15321
99	0.00080	0.01368	0.01384	0.01352	0.03782	0.10638	0.13663	0.10509	0.04329	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01255	0.13728	0.15321
100	0.00080	0.01368	0.01400	0.01352	0.03782	0.10638	0.13663	0.10509	0.04329	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01255	0.13728	0.15321
101	0.00080	0.01368	0.01400	0.01352	0.03782	0.10638	0.13663	0.10509	0.04329	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01255	0.13728	0.15321
102	0.00080	0.01384	0.01400	0.01352	0.03782	0.10638	0.13663	0.10509	0.04329	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01271	0.13728	0.15321
103	0.00080	0.01384	0.01400	0.01352	0.03782	0.10638	0.13663	0.10509	0.04329	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01271	0.13728	0.15321
104	0.00080	0.01400	0.01400	0.01352	0.03782	0.10638	0.13663	0.10509	0.04329	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01287	0.13728	0.15321
105	0.00080	0.01400	0.01400	0.01352	0.03782	0.10638	0.13663	0.10509	0.04329	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01287	0.13728	0.15321
106	0.00080	0.01400	0.01400	0.01352	0.03782	0.10638	0.13663	0.10509	0.04329	0.13454	0.16657	0.12134	0.15498	0.09576	0.27761	0.01287	0.13728	0.15321
107	0.00080	0.01400	0.01400	0.01352	0.03782	0.10638	0.13663	0.10509	0.04329	0.13470	0.16657	0.12134	0.15498	0.09576	0.27761	0.01287	0.13728	0.15321
108	0.00080	0.01400	0.01400	0.01352	0.03782	0.10638	0.13663	0.10509	0.04329	0.13470	0.16657	0.12134	0.15498	0.09576	0.27761	0.01287	0.13728	0.15321
109	0.00080	0.01400	0.01400	0.01352	0.03782	0.10638	0.13663	0.10509	0.04329	0.13470	0.16657	0.12134	0.15498	0.09576	0.27761	0.01287	0.13728	0.15321
110	0.00080	0.01400	0.01400	0.01352	0.03782	0.10638	0.13663	0.10509	0.04329	0.13470	0.16657	0.12134	0.15498	0.09576	0.27761	0.01287	0.13728	0.15321
111	0.00080	0.01400	0.01400	0.01352	0.03782	0.10638	0.13663	0.10509	0.04329	0.13470	0.16657	0.12134	0.15498	0.09576	0.27761	0.01287	0.13728	0.15321
112	0.00080	0.01400	0.01400	0.01352	0.03782	0.10638	0.13663	0.10509	0.04329	0.13470	0.16657	0.12134	0.15498	0.09576	0.27761	0.01287	0.13728	0.15321
113	0.00080	0.01400	0.01400	0.01352	0.03782	0.10638	0.13663	0.10509	0.04329	0.13470	0.16657	0.12134	0.15498	0.09576	0.27761	0.01287	0.13728	0.15321
114	0.00080	0.01400	0.01400	0.01352	0.03782	0.10638	0.13663	0.10509	0.04329	0.13470	0.16657	0.12134	0.15498	0.09576	0.27761	0.01287	0.13728	0.15321
115	0.00080	0.01400	0.01400	0.01352	0.03782	0.10638	0.13663	0.10509	0.04329	0.13470	0.16657	0.12134	0.15498	0.09576	0.27761	0.01287	0.13728	0.15321

Appendix 3.6 Calculation of Vehicular Emission Source

Emission Factors
Year 2041

Year: 2041 Temp: 7 RH: 16%

Start Emission Factor (g/trip) - RSP

Time (min)	01 - Private Cars (PC)	02 - Taxi	03 - Light Goods Vehicles<= 2.5t	04 - Lt Goods Vehicles 2.5-3.5t	05 - Light Goods Vehicles>3.5t	06 - Medium Goods Vehicles<= 15t	07 - Medium Goods Vehicles15-24t	08 - Public Light Buses	09 - Private Light Bus <=3.5t	10 - Private Light Bus >3.5t	11 - Non-franchised Bus<=6.4t	12 - Non-franchised Bus 6.4-15t	13 - Non-franchised Bus 15-24t	14 - Franchised Bus (SD)	15 - Franchised Bus (DD)	16 - Motorcycle s (MC)	17 - Heavy Goods Vehicles>24t	18 - Non-franchised Bus >24t
5	0.00040	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00100	0.00000	0.00000
10	0.00080	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00150	0.00000	0.00000
20	0.00150	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00260	0.00000	0.00000
30	0.00220	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00350	0.00000	0.00000
40	0.00290	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00020	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00440	0.00000	0.00000
50	0.00360	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00020	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00520	0.00000	0.00000
60	0.00420	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00020	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00580	0.00000	0.00000
120	0.00690	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00040	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00810	0.00000	0.00000
180	0.00780	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00040	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00850	0.00000	0.00000
240	0.00850	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00040	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00880	0.00000	0.00000
300	0.00920	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00050	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00920	0.00000	0.00000
360	0.00980	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00050	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00950	0.00000	0.00000
420	0.01020	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00050	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00990	0.00000	0.00000
480	0.01060	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00050	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01020	0.00000	0.00000
540	0.01090	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00050	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01050	0.00000	0.00000
600	0.01100	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00060	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01080	0.00000	0.00000
660	0.01110	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00060	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01110	0.00000	0.00000
720	0.01110	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00060	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01140	0.00000	0.00000

Running Exhaust Emission Factor (g/mile-vehicle) - RSP

Speed (km/hr)	01 - Private Cars (PC)	02 - Taxi	03 - Light Goods Vehicles<= 2.5t	04 - Lt Goods Vehicles 2.5-3.5t	05 - Light Goods Vehicles>3.5t	06 - Medium Goods Vehicles<= 15t	07 - Medium Goods Vehicles15-24t	08 - Public Light Buses	09 - Private Light Bus <=3.5t	10 - Private Light Bus >3.5t	11 - Non-franchised Bus<=6.4t	12 - Non-franchised Bus 6.4-15t	13 - Non-franchised Bus 15-24t	14 - Franchised Bus (SD)	15 - Franchised Bus (DD)	16 - Motorcycle s (MC)	17 - Heavy Goods Vehicles>24t	18 - Non-franchised Bus >24t
1	0.01545	0.00000	0.02446	0.02462	0.03943	0.06437	0.11941	0.09527	0.01545	0.07580	0.11442	0.07306	0.16866	0.04361	0.06824	0.01593	0.12585	0.16061
2	0.01545	0.00000	0.02446	0.02462	0.03943	0.06437	0.11941	0.09527	0.01545	0.07580	0.11442	0.07306	0.16866	0.04361	0.06824	0.01593	0.12585	0.16061
3	0.01545	0.00000	0.02446	0.02462	0.03943	0.06437	0.11941	0.09527	0.01545	0.07580	0.11442	0.07306	0.16866	0.04361	0.06824	0.01593	0.12585	0.16061
4	0.01545	0.00000	0.02446	0.02462	0.03943	0.06437	0.11941	0.09527	0.01545	0.07580	0.11442	0.07306	0.16866	0.04361	0.06824	0.01593	0.12585	0.16061
5	0.01545	0.00000	0.02446	0.02462	0.03943	0.06437	0.11941	0.09527	0.01545	0.07580	0.11442	0.07306	0.16866	0.04361	0.06824	0.01593	0.12585	0.16061
6	0.01545	0.00000	0.02446	0.02462	0.03943	0.06437	0.11941	0.09527	0.01545	0.07580	0.11442	0.07306	0.16866	0.04361	0.06824	0.01593	0.12585	0.16061
7	0.01545	0.00000	0.02446	0.02462	0.03943	0.06437	0.11941	0.09527	0.01545	0.07580	0.11442	0.07306	0.16866	0.04361	0.06824	0.01593	0.12585	0.16061
8	0.01545	0.00000	0.02446	0.02462	0.03943	0.06437	0.11941	0.09527	0.01545	0.07580	0.11442	0.07306	0.16866	0.04361	0.06824	0.01593	0.12585	0.16061
9	0.01545	0.00000	0.02382	0.02382	0.03782	0.06244	0.11233	0.09045	0.01497	0.07194	0.10863	0.07113	0.15868	0.04088	0.06405	0.01593	0.11829	0.15112
10	0.01545	0.00000	0.02301	0.02317	0.03637	0.06083	0.10573	0.08578	0.01465	0.06824	0.10316	0.06920	0.14951	0.03862	0.06051	0.01593	0.11137	0.14243
11	0.01513	0.00000	0.02237	0.02253	0.03492	0.05922	0.10010	0.08175	0.01416	0.06502	0.09817	0.06743	0.14130	0.03669	0.05745	0.01561	0.10541	0.13470
12	0.01432	0.00000	0.02173	0.02173	0.03380	0.05778	0.09495	0.07821	0.01368	0.06212	0.09382	0.06582	0.13422	0.03492	0.05472	0.01481	0.10010	0.12778
13	0.01368	0.00000	0.02108	0.02108	0.03267	0.05649	0.09045	0.07483	0.01336	0.05955	0.08996	0.06437	0.12778	0.03347	0.05230	0.01400	0.09527	0.12183
14	0.01287	0.00000	0.02044	0.02060	0.03154	0.05520	0.08642	0.07194	0.01287	0.05713	0.08642	0.06309	0.12199	0.03203	0.05021	0.01336	0.09093	0.11636
15	0.01223	0.00000	0.01979	0.01996	0.03074	0.05407	0.08272	0.06920	0.01239	0.05504	0.08304	0.06180	0.11684	0.03090	0.04844	0.01255	0.08723	0.11137
16	0.01159	0.00000	0.01931	0.01931	0.02977	0.05311	0.07934	0.06679	0.01207	0.05311	0.08015	0.06067	0.11217	0.02977	0.04667	0.01207	0.08369	0.10686
17	0.01110	0.00000	0.01867	0.01883	0.02897	0.05214	0.07644	0.06453	0.01175	0.05134	0.07741	0.05955	0.10799	0.02881	0.04522	0.01143	0.08047	0.10284
18	0.01062	0.00000	0.01819	0.01835	0.02816	0.05118	0.07355	0.06244	0.01143	0.04957	0.07500	0.05858	0.10396	0.02800	0.04377	0.01094	0.07757	0.09914
19	0.00998	0.00000	0.01770	0.01770	0.02752	0.05037	0.07113	0.06051	0.01110	0.04812	0.07258	0.05761	0.10042	0.02720	0.04249	0.01030	0.07483	0.09576
20	0.00950	0.00000	0.01722	0.01722	0.02688	0.04957	0.06872	0.05874	0.01078	0.04667	0.07049	0.05665	0.09720	0.02639	0.04136	0.00982	0.07242	0.09254
21	0.00917	0.00000	0.01674	0.01690	0.02623	0.04876	0.06663	0.05713	0.01046	0.04538	0.06856	0.05568	0.09415	0.02559	0.04023	0.00933	0.07017	0.08964
22	0.00869	0.00000	0.01625	0.01642	0.02575	0.04796	0.06453	0.05552	0.01014	0.04426	0.06679	0.05488	0.09125	0.02494	0.03911	0.00901	0.06808	0.08690
23	0.00837	0.00000	0.01577	0.01593	0.02527	0.04731	0.06276	0.05407	0.00982	0.04297	0.06502	0.05407	0.08867	0.02446	0.03830	0.00853	0.06614	0.08449
24	0.00789	0.00000	0.01545	0.01545	0.02478	0.04651	0.06099	0.05279	0.00950	0.04200	0.06341	0.05327	0.08626	0.02382	0.03734	0.00821	0.06421	0.08208
25	0.00756	0.00000	0.01497	0.01513	0.02430	0.04587	0.05938	0.05166	0.00933	0.04104	0.06196	0.05263	0.08401	0.02334	0.03653	0.00789	0.06260	0.07998
26	0.00724	0.00000	0.01465	0.01481	0.02382	0.04538	0.05794	0.05037	0.00901	0.04007	0.06051	0.05182	0.08175	0.02285	0.03573	0.00756	0.06099	0.07789
27	0.00708	0.00000	0.01432	0.01432	0.02350	0.04474	0.05649	0.04941	0.00885	0.03927	0.05922	0.05118	0.07982	0.02237	0.03492	0.00724	0.05955	0.07612
28	0.00676	0.00000	0.01400	0.01400	0.02301	0.04410	0.05520	0.04828	0.00853	0.03846	0.05810	0.05053	0.07805	0.02189	0.03428	0.00692	0.05810	0.07435
29	0.00644	0.00000	0.01352	0.01368	0.02269	0.04361	0.05391	0.04731	0.00837	0.03766	0.05697	0.04989	0.07628	0.02140	0.03364	0.00660	0.05681	0.07258
30	0.00628	0.00000	0.01320	0.01336	0.02237	0.04297	0.05279	0.04651	0.00821	0.03685	0.05584	0.04925	0.07451	0.02108	0.03299	0.00644	0.05568	0.07113
31	0.00595	0.00000	0.01287	0.01304	0.02205	0.04249	0.05166	0.04571	0.00805	0.03621	0.05488	0.04860	0.07306	0.02076	0.03251	0.00612	0.05440	0.06952
32	0.00579	0.00000	0.01271	0.01271	0.02173	0.04200	0.05069	0.04490	0.00772	0.03557	0.05391	0.04812	0.07162	0.02028	0.03187	0.00595	0.05343	0.06824
33	0.00547	0.00000	0.01239	0.01239	0.02140	0.04152	0.04973	0.04410	0.00756	0.03508	0.05295	0.04748	0.07017	0.01996	0.03138	0.00579	0.05230	0.06695
34	0.00531	0.00000	0.01207	0.01223	0.02124	0.04104	0.04876	0.04345	0.00740	0.03444	0.05214	0.04699	0.06888	0.01963	0.03090	0.00547	0.05134	0.06566
35	0.00515	0.00000	0.01175	0.01191	0.02092	0.04056	0.04796	0.04265	0.00724	0.03396	0.05134	0.04651	0.06759	0.01931	0.03026	0.00531	0.05053	0.06453
36	0.00499	0.00000	0.01159	0.01159	0.02076	0.04007	0.04699	0.04200	0.00708	0.03347	0.05053	0.04603	0.06647	0.01899	0.02993	0.00515	0.04957	0.06341
37	0.00483	0.00000	0.01127	0.01143	0.02044	0.03975	0.04635	0.04152	0.00692	0.03299	0.04989	0.04554	0.06534	0.01883	0.02945	0.00499	0.04876	0.06228
38	0.00467	0.00000	0.01110	0.01110	0.02028	0.03927	0.04554	0.04088	0.00676	0.03251	0.04908	0.04506	0.06437	0.01851	0.02897	0.00483	0.04796	0.06132
39	0.00451	0.00000	0.01078	0.01094	0.02012	0.03879	0.04490	0.04039	0.00660	0.03203	0.04844	0.04458	0.06341	0.01819	0.02865	0.00467	0.04715	0.06035
40	0.00435	0.00000	0.01062	0.01062	0.01996	0.03846	0.04410	0.03991	0.00644	0.03170	0.04796	0.04410	0.06244	0.01802	0.02816	0.00451	0.04651	0.05938
41	0.00418	0.00000	0.01046	0.01046	0.01979	0.03814	0.04345	0.03943	0.00628	0.03122	0.04731	0.04361	0.06148	0.01770	0.02784	0.00435	0.04587	0.05858
42	0.00418	0.00000	0.01014	0.01030	0.01963	0.03766	0.04297	0.03895	0.00628	0.03090	0.04667	0.04313	0.06067	0.01754	0.02736	0.00418	0.04522	0.05778
43	0.00402	0.00000	0.00998	0.00998	0.01947	0.03734	0.04233	0.03846	0.00612	0.03058	0.04619	0.04281	0.05987	0.01722	0.02704	0.00418	0.04458	0.05697
44	0.00386	0.00000	0.00982	0.00982	0.01931	0.03701	0.04184	0.03814	0.00595	0.03026	0.04571	0.04233	0.05906	0.01706	0.02672	0.00402	0.04410	0.05617
45	0.00370	0.00000	0.00966	0.00966	0.01915	0.03653	0.04120	0.03766	0.00579	0.02993	0.04522	0.04184	0.05826	0.01690	0.02639	0.00386	0.04345	0.05552
46	0.00370	0.00000	0.00950	0.00950	0.01899	0.03621	0.04072	0.03734	0.00579	0.02961	0.04474	0.04152	0.05761	0.01674	0.02607	0.00386	0.04297	0.05488
47	0.00354	0.00000	0.00917	0.00933	0.01899	0.03589	0.04023	0.03701	0.00563	0.02929	0.04442	0.04120	0.05697	0.01642	0.02575	0.00370	0.04249	0.05423
48	0.00354	0.00000	0.00901	0.00917	0.01883	0.03557	0.03975	0.03669	0.00547	0.02913	0.04394	0.04072	0.05633	0.01625	0.02543	0.00354	0.04200	0.05359
49	0.00338	0.00000	0.00885	0.00901	0.01883	0.03524	0.03943	0.03637	0.00547	0.02881	0.04361	0.04039	0.05568	0.01609	0.02527	0.00354	0.04152	0.05295
50	0.00338	0.00000	0.00885	0.00885	0.01867	0.03492	0.03895	0.03605	0.00531	0.02865	0.04329	0.04007	0.05504	0.01593	0.02494	0.00338	0.04104	0.05246
51	0.00322	0.00000	0.00869	0.00869	0.01851	0.03460	0.03862	0.03573	0.00531	0.02832	0.04297	0.03959	0.05456	0.01577	0.02462	0.00338	0.04072	0.05198
52	0.00322	0.00000	0.00853	0.00853	0.01851	0.03428	0.03814	0.03541	0.00515	0.02816	0.04265	0.03927	0.05391	0.01561	0.02446	0.00338	0.04023	0.05150
53	0.00306	0.00000	0.00837	0.00837	0.01851	0.03396	0.03782	0.03524	0.00515	0.02800	0.04233	0.03895	0.05343	0.01545	0.02414	0.00322	0.03991	0.05102
54	0.00306	0.00000	0.00821	0.00821	0.01835	0.03364	0.03750	0.03492	0.00499	0.02768	0.04200	0.03862	0.05295	0.01529	0.02382	0.00322	0.03959	0.05053
55	0.00306	0.00000	0.00805	0.00821	0.01835	0.03347	0.03718	0.03476	0.00499	0.02752	0.04168	0.03830	0.05246	0.01513	0.02366	0.00306	0.03927	0.05005
56	0.00290	0.00000	0.00789	0.00805	0.01835	0.03315	0.03685	0.03460	0.00483	0.02736	0.04152	0.03798	0.05214	0.01497	0.02334	0.00306	0.03895	0.04957
57	0.00290	0.00000	0.00789	0.00789	0.01835	0.03283	0.03653	0.03444	0.00483	0.02720	0.04120	0.03766	0.05166	0.01481	0.02317	0.00306	0.03862	0.04925
58	0.00290	0.00000	0.00772	0.00772	0.01819	0.03251	0.03637	0.03412	0.00467	0.02720	0.04104	0.03734	0.05134	0.01465	0.02301	0.00290	0.03830	0.04876
59	0.00274	0.00000	0.00756	0.00772	0.01819	0.03235	0.03605	0.03396	0.00467	0.02704	0.04088	0.03701	0.05086	0.01448	0.02269	0.00290	0.03798	0.04844
60	0.00274	0.00000	0.00756	0.00756	0.01819	0.03203	0.03573	0.03380	0.00451	0.02688	0.04072	0.03669	0.05053	0.01432	0.02253	0.00290	0.03766	0.04812
61	0.00274	0.00000	0.00740	0.00740	0.01819	0.03170	0.03557	0.03364	0.00451	0.02672	0.04056	0.03637	0.05021	0.01432	0.02237	0.00290	0.03750	0.04780
62	0.00274	0.00000	0.00724	0.00740	0.01819	0.03154	0.03524	0.03364	0.00451	0.02672	0.04039	0.03605	0.04989	0.01416	0.02221	0.00274	0.03718	0.04748
63	0.00274	0.00000	0.00724	0.00724	0.01819	0.03122	0.03508	0.03347	0.00435	0.02655	0.04023	0.03589	0.04957	0.01400	0.02189	0.00274	0.03701	0.04715
64	0.00257	0.00000	0.00708	0.00724	0.01819	0.03106	0.03492	0.03331	0.00435	0.02639	0.04007	0.03557	0.04925	0.01384	0.02173	0.00274	0.03685	0.04683

Year: 2041 Temp: 7 RH: 16%

Start Emission Factor (g/trip) - FSP

Time (min)	01 - Private Cars (PC)	02 - Taxi	03 - Light Goods Vehicles<= 2.5t	04 - Lt Goods Vehicles 2.5-3.5t	05 - Light Goods Vehicles>3.5t	06 - Medium Goods Vehicles<= 15t	07 - Medium Goods Vehicles15-24t	08 - Public Light Buses	09 - Private Light Bus <=3.5t	10 - Private Light Bus >3.5t	11 - Non-franchised Bus<=6.4t	12 - Non-franchised Bus 6.4-15t	13 - Non-franchised Bus 15-24t	14 - Franchised Bus (SD)	15 - Franchised Bus (DD)	16 - Motorcycle s (MC)	17 - Heavy Goods Vehicles>24t	18 - Non-franchised Bus >24t
5	0.00040	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00080	0.00000	0.00000
10	0.00070	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00140	0.00000	0.00000
20	0.00140	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00230	0.00000	0.00000
30	0.00210	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00320	0.00000	0.00000
40	0.00270	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00020	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00400	0.00000	0.00000
50	0.00330	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00020	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00480	0.00000	0.00000
60	0.00390	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00020	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00540	0.00000	0.00000
120	0.00640	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00030	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00750	0.00000	0.00000
180	0.00720	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00040	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00780	0.00000	0.00000
240	0.00790	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00040	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00810	0.00000	0.00000
300	0.00850	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00040	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00840	0.00000	0.00000
360	0.00910	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00050	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00870	0.00000	0.00000
420	0.00950	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00050	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00900	0.00000	0.00000
480	0.00980	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00050	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00930	0.00000	0.00000
540	0.01010	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00050	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00960	0.00000	0.00000
600	0.01030	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00050	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00990	0.00000	0.00000
660	0.01030	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00050	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01020	0.00000	0.00000
720	0.01030	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00050	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01050	0.00000	0.00000

Running Exhaust Emission Factor (g/mile-vehicle) - FSP

Speed (km/hr)	01 - Private Cars (PC)	02 - Taxi	03 - Light Goods Vehicles<= 2.5t	04 - Lt Goods Vehicles 2.5-3.5t	05 - Light Goods Vehicles>3.5t	06 - Medium Goods Vehicles<= 15t	07 - Medium Goods Vehicles15-24t	08 - Public Light Buses	09 - Private Light Bus <=3.5t	10 - Private Light Bus >3.5t	11 - Non-franchised Bus<=6.4t	12 - Non-franchised Bus 6.4-15t	13 - Non-franchised Bus 15-24t	14 - Franchised Bus (SD)	15 - Franchised Bus (DD)	16 - Motorcycle s (MC)	17 - Heavy Goods Vehicles>24t	18 - Non-franchised Bus >24t
1	0.01432	0.00000	0.02253	0.02269	0.03621	0.05922	0.10976	0.08771	0.01416	0.06968	0.10525	0.06727	0.15514	0.04007	0.06276	0.01465	0.11571	0.14774
2	0.01432	0.00000	0.02253	0.02269	0.03621	0.05922	0.10976	0.08771	0.01416	0.06968	0.10525	0.06727	0.15514	0.04007	0.06276	0.01465	0.11571	0.14774
3	0.01432	0.00000	0.02253	0.02269	0.03621	0.05922	0.10976	0.08771	0.01416	0.06968	0.10525	0.06727	0.15514	0.04007	0.06276	0.01465	0.11571	0.14774
4	0.01432	0.00000	0.02253	0.02269	0.03621	0.05922	0.10976	0.08771	0.01416	0.06968	0.10525	0.06727	0.15514	0.04007	0.06276	0.01465	0.11571	0.14774
5	0.01432	0.00000	0.02253	0.02269	0.03621	0.05922	0.10976	0.08771	0.01416	0.06968	0.10525	0.06727	0.15514	0.04007	0.06276	0.01465	0.11571	0.14774
6	0.01432	0.00000	0.02253	0.02269	0.03621	0.05922	0.10976	0.08771	0.01416	0.06968	0.10525	0.06727	0.15514	0.04007	0.06276	0.01465	0.11571	0.14774
7	0.01432	0.00000	0.02253	0.02269	0.03621	0.05922	0.10976	0.08771	0.01416	0.06968	0.10525	0.06727	0.15514	0.04007	0.06276	0.01465	0.11571	0.14774
8	0.01432	0.00000	0.02253	0.02269	0.03621	0.05922	0.10976	0.08771	0.01416	0.06968	0.10525	0.06727	0.15514	0.04007	0.06276	0.01448	0.11571	0.14774
9	0.01432	0.00000	0.02189	0.02205	0.03476	0.05745	0.10332	0.08320	0.01384	0.06614

Appendix 3.6 Calculation of Vehicular Emission Source

Running Exhaust Emission Factor (g/mile-vehicle) - RSP

Speed (km/hr)	01 - Private Cars (PC)	02 - Taxi	03 - Light Goods Vehicles<= 2.5t	04 - Lt Goods Vehicles 2.5-3.5t	05 - Light Goods Vehicles>3.5t	06 - Medium Goods Vehicles<= 15t	07 - Medium Goods Vehicles15-24t	08 - Public Light Buses	09 - Private Light Bus <=3.5t	10 - Private Light Bus >3.5t	11 - Non-franchised Bus<=6.4t	12 - Non-franchised Bus 6.4-15t	13 - Non-franchised Bus 15-24t	14 - Franchised Bus (SD)	15 - Franchised Bus (DD)	16 - Motorcycles (MC)	17 - Heavy Goods Vehicles>24t	18 - Non-franchised Bus >24t
65	0.00257	0.00000	0.00708	0.00708	0.01819	0.03074	0.03476	0.03331	0.00435	0.02639	0.03991	0.03524	0.04892	0.01384	0.02157	0.00274	0.03653	0.04667
66	0.00257	0.00000	0.00692	0.00708	0.01835	0.03074	0.03476	0.03315	0.00418	0.02623	0.03991	0.03524	0.04892	0.01384	0.02157	0.00274	0.03653	0.04667
67	0.00257	0.00000	0.00692	0.00692	0.01835	0.03074	0.03476	0.03299	0.00418	0.02623	0.03991	0.03524	0.04892	0.01384	0.02157	0.00257	0.03653	0.04667
68	0.00257	0.00000	0.00676	0.00692	0.01835	0.03074	0.03476	0.03299	0.00418	0.02623	0.03991	0.03524	0.04892	0.01384	0.02157	0.00257	0.03653	0.04667
69	0.00257	0.00000	0.00676	0.00676	0.01835	0.03074	0.03476	0.03299	0.00402	0.02607	0.03991	0.03524	0.04892	0.01384	0.02157	0.00257	0.03653	0.04667
70	0.00257	0.00000	0.00660	0.00676	0.01851	0.03074	0.03476	0.03283	0.00402	0.02607	0.03991	0.03524	0.04892	0.01384	0.02157	0.00257	0.03653	0.04667
71	0.00241	0.00000	0.00660	0.00660	0.01851	0.03074	0.03476	0.03283	0.00402	0.02607	0.03991	0.03524	0.04892	0.01384	0.02157	0.00257	0.03653	0.04667
72	0.00241	0.00000	0.00660	0.00660	0.01867	0.03074	0.03476	0.03283	0.00402	0.02607	0.03991	0.03524	0.04892	0.01384	0.02157	0.00257	0.03653	0.04667
73	0.00241	0.00000	0.00644	0.00644	0.01867	0.03074	0.03476	0.03283	0.00386	0.02607	0.03991	0.03524	0.04892	0.01384	0.02157	0.00257	0.03653	0.04667
74	0.00241	0.00000	0.00644	0.00644	0.01883	0.03074	0.03476	0.03283	0.00386	0.02607	0.03991	0.03524	0.04892	0.01384	0.02157	0.00257	0.03653	0.04667
75	0.00241	0.00000	0.00628	0.00644	0.01883	0.03074	0.03476	0.03283	0.00386	0.02607	0.03991	0.03524	0.04892	0.01384	0.02157	0.00257	0.03653	0.04667
76	0.00241	0.00000	0.00628	0.00628	0.01899	0.03074	0.03476	0.03283	0.00386	0.02607	0.03991	0.03524	0.04892	0.01384	0.02157	0.00257	0.03653	0.04667
77	0.00241	0.00000	0.00628	0.00628	0.01915	0.03074	0.03476	0.03283	0.00386	0.02607	0.03991	0.03524	0.04892	0.01384	0.02157	0.00257	0.03653	0.04667
78	0.00241	0.00000	0.00628	0.00628	0.01931	0.03074	0.03476	0.03283	0.00370	0.02607	0.03991	0.03524	0.04892	0.01384	0.02157	0.00257	0.03653	0.04667
79	0.00241	0.00000	0.00612	0.00612	0.01931	0.03074	0.03476	0.03283	0.00370	0.02607	0.03991	0.03524	0.04892	0.01384	0.02157	0.00257	0.03653	0.04667
80	0.00241	0.00000	0.00612	0.00612	0.01947	0.03074	0.03476	0.03299	0.00370	0.02607	0.03991	0.03524	0.04892	0.01384	0.02157	0.00257	0.03653	0.04667
81	0.00241	0.00000	0.00612	0.00612	0.01963	0.03074	0.03476	0.03299	0.00370	0.02623	0.03991	0.03524	0.04892	0.01384	0.02157	0.00257	0.03653	0.04667
82	0.00241	0.00000	0.00595	0.00612	0.01979	0.03074	0.03476	0.03299	0.00370	0.02623	0.03991	0.03524	0.04892	0.01384	0.02157	0.00257	0.03653	0.04667
83	0.00241	0.00000	0.00595	0.00595	0.01996	0.03074	0.03476	0.03315	0.00370	0.02623	0.03991	0.03524	0.04892	0.01384	0.02157	0.00257	0.03653	0.04667
84	0.00241	0.00000	0.00595	0.00595	0.02012	0.03074	0.03476	0.03315	0.00370	0.02639	0.03991	0.03524	0.04892	0.01384	0.02157	0.00257	0.03653	0.04667
85	0.00257	0.00000	0.00595	0.00595	0.02044	0.03074	0.03476	0.03331	0.00370	0.02639	0.03991	0.03524	0.04892	0.01384	0.02157	0.00257	0.03653	0.04667
86	0.00257	0.00000	0.00595	0.00595	0.02060	0.03074	0.03476	0.03347	0.00354	0.02655	0.03991	0.03524	0.04892	0.01384	0.02157	0.00257	0.03653	0.04667
87	0.00257	0.00000	0.00579	0.00595	0.02076	0.03074	0.03476	0.03347	0.00354	0.02655	0.03991	0.03524	0.04892	0.01384	0.02157	0.00257	0.03653	0.04667
88	0.00257	0.00000	0.00579	0.00595	0.02108	0.03074	0.03476	0.03364	0.00354	0.02672	0.03991	0.03524	0.04892	0.01384	0.02157	0.00257	0.03653	0.04667
89	0.00257	0.00000	0.00579	0.00579	0.02124	0.03074	0.03476	0.03380	0.00354	0.02688	0.03991	0.03524	0.04892	0.01384	0.02157	0.00274	0.03653	0.04667
90	0.00257	0.00000	0.00579	0.00579	0.02157	0.03074	0.03476	0.03396	0.00354	0.02688	0.03991	0.03524	0.04892	0.01384	0.02157	0.00274	0.03653	0.04667
91	0.00257	0.00000	0.00579	0.00579	0.02189	0.03074	0.03476	0.03412	0.00354	0.02704	0.03991	0.03524	0.04892	0.01384	0.02157	0.00274	0.03653	0.04667
92	0.00274	0.00000	0.00579	0.00579	0.02221	0.03074	0.03476	0.03428	0.00354	0.02720	0.03991	0.03524	0.04892	0.01384	0.02157	0.00274	0.03653	0.04667
93	0.00274	0.00000	0.00579	0.00579	0.02253	0.03074	0.03476	0.03444	0.00354	0.02736	0.03991	0.03524	0.04892	0.01384	0.02157	0.00274	0.03653	0.04667
94	0.00274	0.00000	0.00579	0.00579	0.02285	0.03074	0.03476	0.03476	0.00354	0.02752	0.03991	0.03524	0.04892	0.01384	0.02157	0.00290	0.03653	0.04667
95	0.00274	0.00000	0.00579	0.00579	0.02317	0.03074	0.03476	0.03492	0.00354	0.02768	0.03991	0.03524	0.04892	0.01384	0.02157	0.00290	0.03653	0.04667
96	0.00290	0.00000	0.00579	0.00579	0.02366	0.03074	0.03476	0.03508	0.00354	0.02784	0.03991	0.03524	0.04892	0.01384	0.02157	0.00290	0.03653	0.04667
97	0.00290	0.00000	0.00563	0.00579	0.02398	0.03074	0.03476	0.03541	0.00354	0.02800	0.03991	0.03524	0.04892	0.01384	0.02157	0.00290	0.03653	0.04667
98	0.00290	0.00000	0.00563	0.00579	0.02446	0.03074	0.03476	0.03557	0.00354	0.02832	0.03991	0.03524	0.04892	0.01384	0.02157	0.00306	0.03653	0.04667
99	0.00290	0.00000	0.00563	0.00579	0.02494	0.03074	0.03476	0.03589	0.00354	0.02849	0.03991	0.03524	0.04892	0.01384	0.02157	0.00306	0.03653	0.04667
100	0.00306	0.00000	0.00563	0.00579	0.02543	0.03074	0.03476	0.03621	0.00354	0.02865	0.03991	0.03524	0.04892	0.01384	0.02157	0.00306	0.03653	0.04667
101	0.00306	0.00000	0.00563	0.00579	0.02591	0.03074	0.03476	0.03653	0.00354	0.02897	0.03991	0.03524	0.04892	0.01384	0.02157	0.00322	0.03653	0.04667
102	0.00322	0.00000	0.00563	0.00579	0.02655	0.03074	0.03476	0.03685	0.00354	0.02913	0.03991	0.03524	0.04892	0.01384	0.02157	0.00322	0.03653	0.04667
103	0.00322	0.00000	0.00563	0.00579	0.02720	0.03074	0.03476	0.03718	0.00354	0.02945	0.03991	0.03524	0.04892	0.01384	0.02157	0.00338	0.03653	0.04667
104	0.00322	0.00000	0.00579	0.00579	0.02784	0.03074	0.03476	0.03750	0.00354	0.02977	0.03991	0.03524	0.04892	0.01384	0.02157	0.00338	0.03653	0.04667
105	0.00338	0.00000	0.00579	0.00579	0.02849	0.03074	0.03476	0.03798	0.00354	0.03009	0.03991	0.03524	0.04892	0.01384	0.02157	0.00338	0.03653	0.04667
106	0.00338	0.00000	0.00579	0.00579	0.02929	0.03074	0.03476	0.03830	0.00354	0.03042	0.03991	0.03524	0.04892	0.01384	0.02157	0.00338	0.03653	0.04667
107	0.00338	0.00000	0.00579	0.00579	0.03009	0.03074	0.03476	0.03879	0.00354	0.03074	0.03991	0.03524	0.04892	0.01384	0.02157	0.00338	0.03653	0.04667
108	0.00338	0.00000	0.00579	0.00579	0.03106	0.03074	0.03476	0.03927	0.00354	0.03106	0.03991	0.03524	0.04892	0.01384	0.02157	0.00338	0.03653	0.04667
109	0.00338	0.00000	0.00579	0.00579	0.03203	0.03074	0.03476	0.03975	0.00354	0.03138	0.03991	0.03524	0.04892	0.01384	0.02157	0.00338	0.03653	0.04667
110	0.00338	0.00000	0.00579	0.00579	0.03315	0.03074	0.03476	0.04023	0.00354	0.03187	0.03991	0.03524	0.04892	0.01384	0.02157	0.00338	0.03653	0.04667
111	0.00338	0.00000	0.00579	0.00579	0.03428	0.03074	0.03476	0.04072	0.00370	0.03219	0.03991	0.03524	0.04892	0.01384	0.02157	0.00338	0.03653	0.04667
112	0.00338	0.00000	0.00579	0.00579	0.03557	0.03074	0.03476	0.04120	0.00370	0.03267	0.03991	0.03524	0.04892	0.01384	0.02157	0.00338	0.03653	0.04667
113	0.00338	0.00000	0.00579	0.00595	0.03685	0.03074	0.03476	0.04184	0.00370	0.03315	0.03991	0.03524	0.04892	0.01384	0.02157	0.00338	0.03653	0.04667
114	0.00338	0.00000	0.00595	0.00595	0.03846	0.03074	0.03476	0.04249	0.00370	0.03364	0.03991	0.03524	0.04892	0.01384	0.02157	0.00338	0.03653	0.04667
115	0.00338	0.00000	0.00595	0.00595	0.04023	0.03074	0.03476	0.04313	0.00370	0.03412	0.03991	0.03524	0.04892	0.01384	0.02157	0.00338	0.03653	0.04667

Running Exhaust Emission Factor (g/mile-vehicle) - FSP

Speed (km/hr)	01 - Private Cars (PC)	02 - Taxi	03 - Light Goods Vehicles<= 2.5t	04 - Lt Goods Vehicles 2.5-3.5t	05 - Light Goods Vehicles>3.5t	06 - Medium Goods Vehicles<= 15t	07 - Medium Goods Vehicles15-24t	08 - Public Light Buses	09 - Private Light Bus <=3.5t	10 - Private Light Bus >3.5t	11 - Non-franchised Bus<=6.4t	12 - Non-franchised Bus 6.4-15t	13 - Non-franchised Bus 15-24t	14 - Franchised Bus (SD)	15 - Franchised Bus (DD)	16 - Motorcycles (MC)	17 - Heavy Goods Vehicles>24t	18 - Non-franchised Bus >24t
65	0.00241	0.00000	0.00644	0.00660	0.01674	0.02832	0.03187	0.03058	0.00386	0.02430	0.03669	0.03251	0.04506	0.01271	0.01979	0.00241	0.03364	0.04297
66	0.00241	0.00000	0.00644	0.00644	0.01690	0.02832	0.03187	0.03042	0.00386	0.02414	0.03669	0.03251	0.04506	0.01271	0.01979	0.00241	0.03364	0.04297
67	0.00241	0.00000	0.00628	0.00644	0.01690	0.02832	0.03187	0.03042	0.00386	0.02414	0.03669	0.03251	0.04506	0.01271	0.01979	0.00241	0.03364	0.04297
68	0.00241	0.00000	0.00628	0.00628	0.01690	0.02832	0.03187	0.03042	0.00386	0.02414	0.03669	0.03251	0.04506	0.01271	0.01979	0.00241	0.03364	0.04297
69	0.00225	0.00000	0.00612	0.00628	0.01690	0.02832	0.03187	0.03026	0.00370	0.02398	0.03669	0.03251	0.04506	0.01271	0.01979	0.00241	0.03364	0.04297
70	0.00225	0.00000	0.00612	0.00612	0.01706	0.02832	0.03187	0.03026	0.00370	0.02398	0.03669	0.03251	0.04506	0.01271	0.01979	0.00241	0.03364	0.04297
71	0.00225	0.00000	0.00612	0.00612	0.01706	0.02832	0.03187	0.03026	0.00370	0.02398	0.03669	0.03251	0.04506	0.01271	0.01979	0.00241	0.03364	0.04297
72	0.00225	0.00000	0.00595	0.00612	0.01706	0.02832	0.03187	0.03026	0.00370	0.02398	0.03669	0.03251	0.04506	0.01271	0.01979	0.00241	0.03364	0.04297
73	0.00225	0.00000	0.00595	0.00595	0.01722	0.02832	0.03187	0.03009	0.00354	0.02398	0.03669	0.03251	0.04506	0.01271	0.01979	0.00225	0.03364	0.04297
74	0.00225	0.00000	0.00595	0.00595	0.01722	0.02832	0.03187	0.03009	0.00354	0.02398	0.03669	0.03251	0.04506	0.01271	0.01979	0.00225	0.03364	0.04297
75	0.00225	0.00000	0.00579	0.00595	0.01738	0.02832	0.03187	0.03009	0.00354	0.02398	0.03669	0.03251	0.04506	0.01271	0.01979	0.00225	0.03364	0.04297
76	0.00225	0.00000	0.00579	0.00579	0.01754	0.02832	0.03187	0.03009	0.00354	0.02398	0.03669	0.03251	0.04506	0.01271	0.01979	0.00225	0.03364	0.04297
77	0.00225	0.00000	0.00579	0.00579	0.01754	0.02832	0.03187	0.03026	0.00354	0.02398	0.03669	0.03251	0.04506	0.01271	0.01979	0.00225	0.03364	0.04297
78	0.00225	0.00000	0.00563	0.00579	0.01770	0.02832	0.03187	0.03026	0.00354	0.02398	0.03669	0.03251	0.04506	0.01271	0.01979	0.00225	0.03364	0.04297
79	0.00225	0.00000	0.00563	0.00563	0.01786	0.02832	0.03187	0.03026	0.00338	0.02398	0.03669	0.03251	0.04506	0.01271	0.01979	0.00225	0.03364	0.04297
80	0.00225	0.00000	0.00563	0.00563	0.01802	0.02832	0.03187	0.03026	0.00338	0.02398	0.03669	0.03251	0.04506	0.01271	0.01979	0.00225	0.03364	0.04297
81	0.00225	0.00000	0.00563	0.00563	0.01802	0.02832	0.03187	0.03026	0.00338	0.02414	0.03669	0.03251	0.04506	0.01271	0.01979	0.00225	0.03364	0.04297
82	0.00225	0.00000	0.00547	0.00563	0.01819	0.02832	0.03187	0.03042	0.00338	0.02414	0.03669	0.03251	0.04506	0.01271	0.01979	0.00225	0.03364	0.04297
83	0.00225	0.00000	0.00547	0.00547	0.01835	0.02832	0.03187	0.03042	0.00338	0.02414	0.03669	0.03251	0.04506	0.01271	0.01979	0.00241	0.03364	0.04297
84	0.00225	0.00000	0.00547	0.00547	0.01851	0.02832	0.03187	0.03058	0.00338	0.02430	0.03669	0.03251	0.04506	0.01271	0.01979	0.00241	0.03364	0.04297
85	0.00225	0.00000	0.00547	0.00547	0.01883	0.02832	0.03187	0.03058	0.00338	0.02430	0.03669	0.03251	0.04506	0.01271	0.01979	0.00241	0.03364	0.04297
86	0.00241	0.00000	0.00547	0.00547	0.01899	0.02832	0.03187	0.03074	0.00338	0.02446	0.03669	0.03251	0.04506	0.01271	0.01979	0.00241	0.03364	0.04297
87	0.00241	0.00000	0.00547	0.00547	0.01915	0.02832	0.03187	0.03090	0.00338	0.02446	0.03669	0.03251	0.04506	0.01271	0.01979	0.00241	0.03364	0.04297
88	0.00241	0.00000	0.00531	0.00547	0.01931	0.02832	0.03187	0.03090	0.00322	0.02462	0.03669	0.03251	0.04506	0.01271	0.01979	0.00241	0.03364	0.04297
89	0.00241	0.00000	0.00531	0.00531	0.01963	0.02832	0.03187	0.03106	0.00322	0.02462	0.03669	0.03251	0.04506	0.01271	0.01979	0.00241	0.03364	0.04297
90	0.00241	0.00000	0.00531	0.00531	0.01979	0.02832	0.03187	0.03122	0.00322	0.02478	0.03669	0.03251	0.04506	0.01271	0.01979	0.00241	0.03364	0.04297
91	0.00241	0.00000	0.00531	0.00531	0.02012	0.02832	0.03187	0.03138	0.00322	0.02494	0.03669	0.03251	0.04506	0.01271	0.01979	0.00241	0.03364	0.04297
92	0.00241	0.00000	0.00531	0.00531	0.02044	0.02832	0.03187	0.03154	0.00322	0.02511	0.03669	0.03251	0.04506	0.01271	0.01979	0.00257	0.03364	0.04297
93	0.00257	0.00000	0.00531	0.00531	0.02076	0.02832	0.03187	0.03170	0.00322	0.02511	0.03669	0.03251	0.04506	0.01271	0.01979	0.00257	0.03364	0.04297
94	0.00257	0.00000	0.00531	0.00531	0.02108	0.02832	0.03187	0.03187	0.00322	0.02527	0.03669	0.03251	0.04506	0.01271	0.01979	0.00257	0.03364	0.04297
95	0.00257	0.00000	0.00531	0.00531	0.02140	0.02832	0.03187	0.03219	0.00322	0.02543	0.03669	0.03251	0.04506	0.01271	0.01979	0.00257	0.03364	0.04297
96	0.00257	0.00000	0.00531	0.00531	0.02173	0.02832	0.03187	0.03235	0.00322	0.02559	0.03669	0.03251	0.04506	0.01271	0.01979	0.00274	0.03364	0.04297
97	0.00274	0.00000	0.00531	0.00531	0.02205	0.02832	0.03187	0.03251	0.00322	0.02575	0.03669	0.03251	0.04506	0.01271	0.01979	0.00274	0.03364	0.04297
98	0.00274	0.00000	0.00531	0.00531	0.02253	0.02832	0.03187	0.03283	0.00322	0.02607	0.03669	0.03251	0.04506	0.01271	0.01979	0.00274	0.03364	0.04297
99	0.00274	0.00000	0.00531	0.00531	0.02301	0.02832	0.03187	0.03299	0.00322	0.02623	0.03669	0.03251	0.04506	0.01271	0.01979	0.00274	0.03364	0.04297
100	0.00274	0.00000	0.00531	0.00531	0.02334	0.02832	0.03187	0.03331	0.00322	0.02639	0.03669	0.03251	0.04506	0.01271	0.01979	0.00290	0.03364	0.04297
101	0.00290	0.00000	0.00531	0.00531	0.02398	0.02832	0.03187	0.03364	0.00322	0.02672	0.03669	0.03251	0.04506	0.01271	0.01979	0.00290	0.03364	0.04297
102	0.00290	0.00000	0.00531	0.00531	0.02446	0.02832	0.03187	0.03396	0.00322	0.02688	0.03669	0.03251	0.04506	0.01271	0.01979	0.00290	0.03364	0.04297
103	0.00290	0.00000	0.00531	0.00531	0.02494	0.02832	0.03187	0.03428	0.00322	0.02720	0.03669	0.03251	0.04506	0.01271	0.01979	0.00306	0.03364	0.04297
104	0.00306	0.00000	0.00531	0.00531	0.02559	0.02832	0.03187	0.03460	0.00322	0.02736	0.03669	0.03251	0.04506	0.01271	0.01979	0.00306	0.03364	0.04297
105	0.00306	0.00000	0.00531	0.00531	0.02623	0.02832	0.03187	0.03492	0.00322	0.02768	0.03669	0.03251	0.04506	0.01271	0.01979	0.00306	0.03364	0.04297
106	0.00306	0.00000	0.00531	0.00531	0.02704	0.02832	0.03187	0.03524	0.00322	0.02800	0.03669	0.03251	0.04506	0.01271	0.01979	0.00306	0.03364	0.04297
107	0.00306	0.00000	0.00531	0.00531	0.02768	0.02832	0.03187	0.03573	0.00338	0.02832	0.03669	0.03251	0.04506	0.01271	0.01979	0.00306	0.03364	0.04297
108	0.00306	0.00000	0.00531	0.00531	0.02849	0.02832	0.03187	0.03605	0.00338	0.02865	0.03669	0.03251	0.04506	0.01271	0.01979	0.00306	0.03364	0.04297
109	0.00306	0.00000	0.00531	0.00531	0.02945	0.02832	0.03187	0.03653	0.00338	0.02897	0.03669	0.03251	0.04506	0.01271	0.01979	0.00306	0.03364	0.04297
110	0.00306	0.00000	0.00531	0.00531	0.03042	0.02832	0.03187	0.03701	0.00338	0.02929	0.03669	0.03251	0.04506	0.01271	0.01979	0.00306	0.03364	0.04297
111	0.00306	0.00000	0.00531	0.00531	0.03154	0.02832	0.03187	0.03750	0.00338	0.02961	0.03669	0.03251	0.04506	0.01271	0.01979	0.00306	0.03364	0.04297
112	0.00306	0.00000	0.00531	0.00547	0.03267	0.02832	0.03187	0.03798	0.00338	0.03009	0.03669	0.03251	0.04506	0.01271	0.01979	0.00306	0.03364	0.04297
113	0.00306	0.00000	0.00531	0.00547	0.03396	0.02832	0.03187	0.03846	0.00338	0.03058	0.03669	0.03251	0.04506	0.01271	0.01979	0.00306	0.03364	0.04297
114	0.00306	0.00000	0.00547	0.00547	0.03541	0.02832	0.03187	0.03911	0.00338	0.03090	0.03669	0.03251	0.04506	0.01271	0.01979	0.00306	0.03364	0.04297
115	0.00306	0.00000	0.00547	0.00547	0.03701	0.02832	0.03187	0.03975	0.00338	0.03138	0.03669	0.03251	0.04506	0.01271	0.01979	0.00306	0.03364	0.04297

Appendix 3.6 Calculation of Vehicular Emission Source

Year 2041

Summary of Composite Vehicular Emission Factors for CALINE4 Model

Open Road 24 hour NO Emission Factor (g/mile-veh) and Traffic Profile

No. of CALINE 4 Model Links	Link Type [1]	X-Start	Y-Start	X-End	Y-End	Height	Width	Length	Hour 01		Hour 02		Hour 03		Hour 04		Hour 05		Hour 06		Hour 07		Hour 08		Hour 09		Hour 10		Hour 11		Hour 12		Hour 13		Hour 14		Hour 15		Hour 16		Hour 17		Hour 18		Hour 19		Hour 20		Hour 21		Hour 22		Hour 23		Hour 24	
									Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF
1001	1	819961.7	830883.2	820129.2	831173.0	0.0	13.3	334.8	5	0.772	4	0.778	3	0.783	2	0.789	2	0.795	3	0.801	8	0.807	18	0.841	18	0.774	16	0.839	15	0.868	14	0.841	10	0.888	10	0.882	10	0.886	10	0.865	12	0.886	14	0.892	14	0.825	12	0.812	10	0.843	10	0.854	10	0.857	7	0.861
1002	1	819933.2	830899.8	820100.6	831189.3	0.0	13.3	334.4	24	0.761	16	0.765	11	0.746	9	0.750	9	0.754	13	0.759	34	0.788	81	0.849	82	0.794	72	0.858	64	0.856	62	0.826	45	0.876	44	0.873	45	0.887	46	0.866	53	0.884	62	0.865	66	0.805	57	0.814	47	0.841	45	0.844	44	0.862	33	0.837
1003	1	819736.9	830494.0	819961.7	830883.2	0.0	13.3	449.4	5	0.326	3	0.341	2	0.357	2	0.373	2	0.389	3	0.405	7	0.422	17	0.438	20	0.393	17	0.483	15	0.531	15	0.504	13	0.646	13	0.655	15	0.674	15	0.649	15	0.632	16	0.576	15	0.446	12	0.400	9	0.402	8	0.409	8	0.378	6	0.401
1004	1	819705.3	830504.9	819933.2	830899.8	0.0	13.3	456.0	9	0.350	6	0.361	4	0.372	3	0.383	4	0.394	5	0.405	14	0.417	33	0.442	34	0.406	29	0.474	26	0.512	26	0.490	19	0.429	19	0.435	18	0.430	19	0.429	21	0.424	25	0.387	27	0.323	23	0.314	18	0.322	18	0.333	16	0.313	12	0.322
1005	1	819962.0	830883.0	819802.7	830976.0	0.0	13.3	184.5	26	0.440	18	0.455	12	0.478	10	0.503	10	0.528	14	0.554	36	0.592	85	0.634	96	0.554	78	0.676	68	0.760	67	0.708	25	0.732	26	0.733	27	0.767	29	0.722	31	0.702	36	0.603	40	0.447	33	0.413	26	0.432	24	0.437	23	0.394	17	0.416
1006	1	819802.7	830976.0	819971.3	831265.9	0.0	13.3	335.3	57	0.385	38	0.402	26	0.420	21	0.431	21	0.450	30	0.478	76	0.509	177	0.554	201	0.481	156	0.554	133	0.601	133	0.559	87	0.708	89	0.709	91	0.741	98	0.698	106	0.697	123	0.600	141	0.446	116	0.414	91	0.427	83	0.431	82	0.397	61	0.411
1007	1	819714.5	831026.3	819802.7	830976.0	0.0	13.3	101.5	59	0.463	39	0.489	28	0.515	22	0.543	22	0.571	32	0.600	83	0.643	194	0.722	219	0.636	179	0.785	158	0.862	155	0.805	105	0.677	107	0.677	110	0.707	118	0.667	128	0.656	151	0.578	174	0.433	144	0.397	113	0.412	103	0.416	102	0.384	76	0.404
1008	1	819692.5	831049.8	819714.5	831026.3	0.0	13.3	32.3	59	0.463	39	0.489	28	0.515	22	0.543	22	0.571	32	0.600	83	0.643	194	0.722	219	0.636	179	0.785	158	0.862	155	0.805	105	0.677	107	0.677	110	0.707	118	0.667	128	0.656	151	0.578	174	0.433	144	0.397	113	0.412	103	0.416	102	0.384	76	0.404
1009	1	819681.8	831079.8	819692.5	831049.8	0.0	13.3	31.8	59	0.463	39	0.489	28	0.515	22	0.543	22	0.571	32	0.600	83	0.643	194	0.722	219	0.636	179	0.785	158	0.862	155	0.805	105	0.677	107	0.677	110	0.707	118	0.667	128	0.656	151	0.578	174	0.433	144	0.397	113	0.412	103	0.416	102	0.384	76	0.404
1010	1	819684.3	831106.9	819681.8	831079.8	0.0	13.3	27.3	59	0.463	39	0.489	28	0.515	22	0.543	22	0.571	32	0.600	83	0.643	194	0.722	219	0.636	179	0.785	158	0.862	155	0.805	105	0.677	107	0.677	110	0.707	118	0.667	128	0.656	151	0.578	174	0.433	144	0.397	113	0.412	103	0.416	102	0.384	76	0.404
1011	1	819692.7	831127.1	819684.3	831106.9	0.0	13.3	21.8	59	0.463	39	0.489	28	0.515	22	0.543	22	0.571	32	0.600	83	0.643	194	0.722	219	0.636	179	0.785	158	0.862	155	0.805	105	0.677	107	0.677	110	0.707	118	0.667	128	0.656	151	0.578	174	0.433	144	0.397	113	0.412	103	0.416	102	0.384	76	0.404
1012	1	819723.1	831180.0	819692.7	831127.1	0.0	13.3	61.1	59	0.463	39	0.489	28	0.515	22	0.543	22	0.571	32	0.600	83	0.643	194	0.722	219	0.636	179	0.785	158	0.862	155	0.805	105	0.677	107	0.677	110	0.707	118	0.667	128	0.656	151	0.578	174	0.433	144	0.397	113	0.412	103	0.416	102	0.384	76	0.404
1013	1	819819.2	831346.0	819723.1	831180.0	0.0	13.3	191.8	98	0.462	66	0.478	46	0.503	36	0.529	36	0.557	53	0.584	137	0.640	320	0.720	362	0.632	295	0.759	259	0.854	254	0.797	162	0.679	165	0.680	170	0.710	183	0.670	199	0.674	233	0.581	271	0.437	224	0.409	176	0.425	160	0.419	158	0.388	118	0.408
1014	1	819617.0	831240.2	819723.1	831180.0	0.0	13.3	122.0	39	0.437	26	0.461	18	0.475	14	0.499	15	0.524	21	0.550	54	0.588	127	0.643	144	0.561	116	0.685	101	0.770	100	0.702	58	0.614	59	0.614	60	0.640	65	0.618	71	0.611	83	0.528	97	0.400	80	0.376	63	0.394	58	0.397	57	0.368	43	0.386

[1] Link Type No. 1- At grade, 2- Depressed, 3- Fill, 4- Bridge

Appendix 3.6 Calculation of Vehicular Emission Source

YLSEPP 2041
Summary of Composite Vehicular Emission Factors for CALINE4 Model

Open Road 24 hour NO2 Emission Factor (g/mile-veh) and Traffic Profile

No. of CALINE 4 Model Links	Link Type [1]	X-Start	Y-Start	X-End	Y-End	Height	Width	Length	Hour 01		Hour 02		Hour 03		Hour 04		Hour 05		Hour 06		Hour 07		Hour 08		Hour 09		Hour 10		Hour 11		Hour 12		Hour 13		Hour 14		Hour 15		Hour 16		Hour 17		Hour 18		Hour 19		Hour 20		Hour 21		Hour 22		Hour 23		Hour 24	
									Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF
1001	1	819961.7	830883.2	820129.2	831173.0	0.0	13.3	334.8	5	0.279	4	0.281	3	0.284	2	0.286	2	0.289	3	0.291	8	0.294	18	0.307	18	0.282	16	0.303	15	0.314	14	0.302	10	0.339	10	0.333	10	0.335	10	0.325	12	0.335	14	0.339	14	0.314	12	0.311	10	0.321	10	0.322	10	0.323	7	0.325
1002	1	819933.2	830899.8	820100.6	831189.3	0.0	13.3	334.4	24	0.276	16	0.278	11	0.271	9	0.273	9	0.275	13	0.277	34	0.288	81	0.311	82	0.290	72	0.311	64	0.310	62	0.298	45	0.334	44	0.330	45	0.335	46	0.326	53	0.335	62	0.329	66	0.306	57	0.312	47	0.320	45	0.319	44	0.325	33	0.316
1003	1	819736.9	830494.0	819961.7	830883.2	0.0	13.3	449.4	5	0.059	3	0.066	2	0.073	2	0.080	2	0.086	3	0.093	7	0.100	17	0.107	20	0.098	17	0.123	15	0.140	15	0.130	13	0.187	13	0.183	15	0.189	15	0.179	15	0.170	16	0.145	15	0.104	12	0.095	9	0.090	8	0.089	8	0.074	6	0.083
1004	1	819705.3	830504.9	819933.2	830899.8	0.0	13.3	456.0	9	0.086	6	0.091	4	0.096	3	0.101	4	0.106	5	0.111	14	0.116	33	0.126	34	0.114	29	0.133	26	0.147	26	0.139	19	0.129	19	0.125	18	0.122	19	0.121	21	0.119	25	0.107	27	0.088	23	0.088	18	0.087	18	0.087	16	0.075	12	0.079
1005	1	819962.0	830883.0	819802.7	830976.0	0.0	13.3	184.5	26	0.090	18	0.100	12	0.111	10	0.123	10	0.135	14	0.148	36	0.165	85	0.182	96	0.161	78	0.203	68	0.238	67	0.216	25	0.237	26	0.228	27	0.243	29	0.224	31	0.213	36	0.171	40	0.114	33	0.105	26	0.099	24	0.090	23	0.069	17	0.080
1006	1	819802.7	830976.0	819971.3	831265.9	0.0	13.3	335.3	57	0.067	38	0.075	26	0.085	21	0.092	21	0.102	30	0.114	76	0.128	177	0.146	201	0.127	156	0.148	133	0.168	133	0.150	87	0.225	89	0.216	91	0.230	98	0.212	106	0.207	123	0.166	141	0.111	116	0.103	91	0.096	83	0.086	82	0.067	61	0.076
1007	1	819714.5	831026.3	819802.7	830976.0	0.0	13.3	101.5	59	0.100	39	0.112	28	0.125	22	0.138	22	0.152	32	0.166	83	0.184	194	0.213	219	0.190	179	0.242	158	0.277	155	0.253	105	0.210	107	0.200	110	0.213	118	0.196	128	0.190	151	0.156	174	0.105	144	0.096	113	0.090	103	0.080	102	0.062	76	0.072
1008	1	819692.5	831049.8	819714.5	831026.3	0.0	13.3	32.3	59	0.100	39	0.112	28	0.125	22	0.138	22	0.152	32	0.166	83	0.184	194	0.213	219	0.190	179	0.242	158	0.277	155	0.253	105	0.210	107	0.200	110	0.213	118	0.196	128	0.190	151	0.156	174	0.105	144	0.096	113	0.090	103	0.080	102	0.062	76	0.072
1009	1	819681.8	831079.8	819692.5	831049.8	0.0	13.3	31.8	59	0.100	39	0.112	28	0.125	22	0.138	22	0.152	32	0.166	83	0.184	194	0.213	219	0.190	179	0.242	158	0.277	155	0.253	105	0.210	107	0.200	110	0.213	118	0.196	128	0.190	151	0.156	174	0.105	144	0.096	113	0.090	103	0.080	102	0.062	76	0.072
1010	1	819684.3	831106.9	819681.8	831079.8	0.0	13.3	27.3	59	0.100	39	0.112	28	0.125	22	0.138	22	0.152	32	0.166	83	0.184	194	0.213	219	0.190	179	0.242	158	0.277	155	0.253	105	0.210	107	0.200	110	0.213	118	0.196	128	0.190	151	0.156	174	0.105	144	0.096	113	0.090	103	0.080	102	0.062	76	0.072
1011	1	819692.7	831127.1	819684.3	831106.9	0.0	13.3	21.8	59	0.100	39	0.112	28	0.125	22	0.138	22	0.152	32	0.166	83	0.184	194	0.213	219	0.190	179	0.242	158	0.277	155	0.253	105	0.210	107	0.200	110	0.213	118	0.196	128	0.190	151	0.156	174	0.105	144	0.096	113	0.090	103	0.080	102	0.062	76	0.072
1012	1	819723.1	831180.0	819692.7	831127.1	0.0	13.3	61.1	59	0.100	39	0.112	28	0.125	22	0.138	22	0.152	32	0.166	83	0.184	194	0.213	219	0.190	179	0.242	158	0.277	155	0.253	105	0.210	107	0.200	110	0.213	118	0.196	128	0.190	151	0.156	174	0.105	144	0.096	113	0.090	103	0.080	102	0.062	76	0.072
1013	1	819819.2	831346.0	819723.1	831180.0	0.0	13.3	191.8	98	0.098	66	0.108	46	0.120	36	0.133	36	0.146	53	0.159	137	0.181	320	0.210	362	0.187	295	0.231	259	0.271	254	0.246	162	0.209	165	0.198	170	0.212	183	0.195	199	0.194	233	0.156	271	0.105	224	0.099	176	0.092	160	0.080	158	0.062	118	0.072
1014	1	819617.0	831240.2	819723.1	831180.0	0.0	13.3	122.0	39	0.089	26	0.100	18	0.110	14	0.122	15	0.134	21	0.147	54	0.163	127	0.184	144	0.163	116	0.205	101	0.240	100	0.213	58	0.186	59	0.177	60	0.189	65	0.178	71	0.173	83	0.139	97	0.094	80	0.090	63	0.083	58	0.073	57	0.057	43	0.066

[1] Link Type No. 1- At grade, 2- Depressed, 3- Fill, 4- Bridge

Appendix 3.6 Calculation of Vehicular Emission Source

YLSEPP 2041
Summary of Composite Vehicular Emission Factors for CALINE4 Model

Open Road 24 hour RSP Emission Factor (g/mile-veh) and Traffic Profile

No. of CALINE 4 Model Links	Link Type [1]	X-Start	Y-Start	X-End	Y-End	Height	Width	Length	Hour 01		Hour 02		Hour 03		Hour 04		Hour 05		Hour 06		Hour 07		Hour 08		Hour 09		Hour 10		Hour 11		Hour 12		Hour 13		Hour 14		Hour 15		Hour 16		Hour 17		Hour 18		Hour 19		Hour 20		Hour 21		Hour 22		Hour 23		Hour 24	
									Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF
1001	1	819961.7	830883.2	820129.2	831173.0	0.0	13.3	334.8	5	0.021	4	0.022	3	0.022	2	0.022	2	0.023	3	0.023	8	0.023	18	0.024	18	0.023	16	0.024	15	0.025	14	0.024	10	0.025	10	0.025	10	0.024	12	0.025	14	0.025	14	0.023	12	0.023	10	0.023	10	0.023	10	0.023	7	0.023
1002	1	819933.2	830899.8	820100.6	831189.3	0.0	13.3	334.4	24	0.024	16	0.025	11	0.025	9	0.025	9	0.025	13	0.026	34	0.027	81	0.028	82	0.026	72	0.028	64	0.028	62	0.027	45	0.029	44	0.029	45	0.028	46	0.028	53	0.029	62	0.028	66	0.027	57	0.027	47	0.027	45	0.027	44	0.027	33	0.026
1003	1	819736.9	830494.0	819961.7	830883.2	0.0	13.3	449.4	5	0.011	3	0.012	2	0.012	2	0.013	2	0.014	3	0.015	7	0.016	17	0.016	20	0.016	17	0.018	15	0.019	15	0.018	13	0.024	13	0.024	15	0.024	15	0.023	15	0.022	16	0.020	15	0.016	12	0.015	9	0.014	8	0.014	8	0.012	6	0.013
1004	1	819705.3	830504.9	819933.2	830899.8	0.0	13.3	456.0	9	0.021	6	0.021	4	0.022	3	0.023	4	0.023	5	0.024	14	0.025	33	0.026	34	0.023	29	0.025	26	0.026	26	0.026	19	0.027	19	0.026	18	0.025	19	0.025	21	0.025	25	0.024	27	0.022	23	0.022	18	0.022	18	0.023	16	0.020	12	0.021
1005	1	819962.0	830883.0	819802.7	830976.0	0.0	13.3	184.5	26	0.016	18	0.016	12	0.017	10	0.017	10	0.018	14	0.018	36	0.019	85	0.020	96	0.019	78	0.020	68	0.021	67	0.020	25	0.021	26	0.020	27	0.020	29	0.020	31	0.020	36	0.020	40	0.018	33	0.017	26	0.016	24	0.016	23	0.014	17	0.015
1006	1	819802.7	830976.0	819971.3	831265.9	0.0	13.3	335.3	57	0.015	38	0.015	26	0.016	21	0.016	21	0.017	30	0.018	76	0.019	177	0.020	201	0.019	156	0.019	133	0.019	133	0.018	87	0.020	89	0.020	91	0.020	98	0.020	106	0.020	123	0.020	141	0.018	116	0.018	91	0.017	83	0.016	82	0.015	61	0.015
1007	1	819714.5	831026.3	819802.7	830976.0	0.0	13.3	101.5	59	0.016	39	0.016	28	0.017	22	0.018	22	0.018	32	0.019	83	0.020	194	0.022	219	0.021	179	0.022	158	0.022	155	0.021	105	0.020	107	0.019	110	0.020	118	0.020	128	0.020	151	0.020	174	0.018	144	0.017	113	0.016	103	0.016	102	0.015	76	0.015
1008	1	819692.5	831049.8	819714.5	831026.3	0.0	13.3	32.3	59	0.016	39	0.016	28	0.017	22	0.018	22	0.018	32	0.019	83	0.020	194	0.022	219	0.021	179	0.022	158	0.022	155	0.021	105	0.020	107	0.019	110	0.020	118	0.020	128	0.020	151	0.020	174	0.018	144	0.017	113	0.016	103	0.016	102	0.015	76	0.015
1009	1	819681.8	831079.8	819692.5	831049.8	0.0	13.3	31.8	59	0.016	39	0.016	28	0.017	22	0.018	22	0.018	32	0.019	83	0.020	194	0.022	219	0.021	179	0.022	158	0.022	155	0.021	105	0.020	107	0.019	110	0.020	118	0.020	128	0.020	151	0.020	174	0.018	144	0.017	113	0.016	103	0.016	102	0.015	76	0.015
1010	1	819684.3	831106.9	819681.8	831079.8	0.0	13.3	27.3	59	0.016	39	0.016	28	0.017	22	0.018	22	0.018	32	0.019	83	0.020	194	0.022	219	0.021	179	0.022	158	0.022	155	0.021	105	0.020	107	0.019	110	0.020	118	0.020	128	0.020	151	0.020	174	0.018	144	0.017	113	0.016	103	0.016	102	0.015	76	0.015
1011	1	819692.7	831127.1	819684.3	831106.9	0.0	13.3	21.8	59	0.016	39	0.016	28	0.017	22	0.018	22	0.018	32	0.019	83	0.020	194	0.022	219	0.021	179	0.022	158	0.022	155	0.021	105	0.020	107	0.019	110	0.020	118	0.020	128	0.020	151	0.020	174	0.018	144	0.017	113	0.016	103	0.016	102	0.015	76	0.015
1012	1	819723.1	831180.0	819692.7	831127.1	0.0	13.3	61.1	59	0.016	39	0.016	28	0.017	22	0.018	22	0.018	32	0.019	83	0.020	194	0.022	219	0.021	179	0.022	158	0.022	155	0.021	105	0.020	107	0.019	110	0.020	118	0.020	128	0.020	151	0.020	174	0.018	144	0.017	113	0.016	103	0.016	102	0.015	76	0.015
1013	1	819819.2	831346.0	819723.1	831180.0	0.0	13.3	191.8	98	0.016	66	0.016	46	0.017	36	0.018	36	0.018	53	0.019	137	0.020	320	0.022	362	0.021	295	0.021	259	0.022	254	0.021	162	0.021	165	0.020	170	0.020	183	0.020	199	0.020	233	0.020	271	0.019	224	0.018	176	0.017	160	0.016	158	0.015	118	0.015
1014	1	819617.0	831240.2	819723.1	831180.0	0.0	13.3	122.0	39	0.016	26	0.016	18	0.017	14	0.017	15	0.018	21	0.018	54	0.019	127	0.021	144	0.020	116	0.020	101	0.021	100	0.020	58	0.019	59	0.018	60	0.019	65	0.019	71	0.019	83	0.019	97	0.018	80	0.017	63	0.016	58	0.015	57	0.014	43	0.015

[1] Link Type No. 1- At grade, 2- Depressed, 3- Fill, 4- Bridge

Appendix 3.6 Calculation of Vehicular Emission Source

YLSEPP 2041
Summary of Composite Vehicular Emission Factors for CALINE4 Model

Open Road 24 hour FSP Emission Factor (g/mile-veh) and Traffic Profile

No. of CALINE 4 Model Links	Link Type [1]	X-Start	Y-Start	X-End	Y-End	Height	Width	Length	Hour 01		Hour 02		Hour 03		Hour 04		Hour 05		Hour 06		Hour 07		Hour 08		Hour 09		Hour 10		Hour 11		Hour 12		Hour 13		Hour 14		Hour 15		Hour 16		Hour 17		Hour 18		Hour 19		Hour 20		Hour 21		Hour 22		Hour 23		Hour 24	
									Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF	Flow	EmF
1001	1	819961.7	830883.2	820129.2	831173.0	0.0	13.3	334.8	5	0.020	4	0.020	3	0.020	2	0.020	2	0.021	3	0.021	8	0.021	18	0.022	18	0.021	16	0.022	15	0.023	14	0.022	10	0.023	10	0.023	10	0.023	10	0.022	12	0.023	14	0.023	14	0.021	12	0.021	10	0.021	10	0.021	10	0.021	7	0.021
1002	1	819933.2	830899.8	820100.6	831189.3	0.0	13.3	334.4	24	0.022	16	0.023	11	0.023	9	0.023	9	0.023	13	0.024	34	0.024	81	0.026	82	0.024	72	0.025	64	0.026	62	0.025	45	0.027	44	0.026	45	0.026	46	0.026	53	0.026	62	0.026	66	0.024	57	0.025	47	0.025	45	0.025	44	0.024	33	0.024
1003	1	819736.9	830494.0	819961.7	830883.2	0.0	13.3	449.4	5	0.010	3	0.011	2	0.011	2	0.012	2	0.013	3	0.014	7	0.014	17	0.015	20	0.014	17	0.016	15	0.018	15	0.017	13	0.022	13	0.022	15	0.022	15	0.021	15	0.021	16	0.018	15	0.015	12	0.014	9	0.013	8	0.013	8	0.011	6	0.012
1004	1	819705.3	830504.9	819933.2	830899.8	0.0	13.3	456.0	9	0.019	6	0.020	4	0.020	3	0.021	4	0.021	5	0.022	14	0.023	33	0.024	34	0.021	29	0.023	26	0.024	26	0.024	19	0.025	19	0.024	18	0.023	19	0.023	21	0.023	25	0.022	27	0.020	23	0.021	18	0.021	18	0.021	16	0.019	12	0.019
1005	1	819962.0	830883.0	819802.7	830976.0	0.0	13.3	184.5	26	0.014	18	0.015	12	0.015	10	0.016	10	0.016	14	0.017	36	0.018	85	0.019	96	0.018	78	0.018	68	0.019	67	0.018	25	0.019	26	0.018	27	0.019	29	0.018	31	0.018	36	0.018	40	0.016	33	0.016	26	0.015	24	0.015	23	0.013	17	0.014
1006	1	819802.7	830976.0	819971.3	831265.9	0.0	13.3	335.3	57	0.014	38	0.014	26	0.015	21	0.015	21	0.016	30	0.016	76	0.017	177	0.018	201	0.018	156	0.017	133	0.017	133	0.017	87	0.019	89	0.018	91	0.019	98	0.018	106	0.019	123	0.018	141	0.017	116	0.016	91	0.015	83	0.015	82	0.014	61	0.014
1007	1	819714.5	831026.3	819802.7	830976.0	0.0	13.3	101.5	59	0.015	39	0.015	28	0.016	22	0.016	22	0.017	32	0.018	83	0.019	194	0.020	219	0.019	179	0.020	158	0.020	155	0.020	105	0.019	107	0.018	110	0.019	118	0.018	128	0.018	151	0.019	174	0.017	144	0.016	113	0.015	102	0.014	76	0.014
1008	1	819692.5	831049.8	819714.5	831026.3	0.0	13.3	32.3	59	0.015	39	0.015	28	0.016	22	0.016	22	0.017	32	0.018	83	0.019	194	0.020	219	0.019	179	0.020	158	0.020	155	0.020	105	0.019	107	0.018	110	0.019	118	0.018	128	0.018	151	0.019	174	0.017	144	0.016	113	0.015	103	0.015	102	0.014	76	0.014
1009	1	819681.8	831079.8	819692.5	831049.8	0.0	13.3	31.8	59	0.015	39	0.015	28	0.016	22	0.016	22	0.017	32	0.018	83	0.019	194	0.020	219	0.019	179	0.020	158	0.020	155	0.020	105	0.019	107	0.018	110	0.019	118	0.018	128	0.018	151	0.019	174	0.017	144	0.016	113	0.015	103	0.015	102	0.014	76	0.014
1010	1	819684.3	831106.9	819681.8	831079.8	0.0	13.3	27.3	59	0.015	39	0.015	28	0.016	22	0.016	22	0.017	32	0.018	83	0.019	194	0.020	219	0.019	179	0.020	158	0.020	155	0.020	105	0.019	107	0.018	110	0.019	118	0.018	128	0.018	151	0.019	174	0.017	144	0.016	113	0.015	103	0.015	102	0.014	76	0.014
1011	1	819692.7	831127.1	819684.3	831106.9	0.0	13.3	21.8	59	0.015	39	0.015	28	0.016	22	0.016	22	0.017	32	0.018	83	0.019	194	0.020	219	0.019	179	0.020	158	0.020	155	0.020	105	0.019	107	0.018	110	0.019	118	0.018	128	0.018	151	0.019	174	0.017	144	0.016	113	0.015	103	0.015	102	0.014	76	0.014
1012	1	819723.1	831180.0	819692.7	831127.1	0.0	13.3	61.1	59	0.015	39	0.015	28	0.016	22	0.016	22	0.017	32	0.018	83	0.019	194	0.020	219	0.019	179	0.020	158	0.020	155	0.020	105	0.019	107	0.018	110	0.019	118	0.018	128	0.018	151	0.019	174	0.017	144	0.016	113	0.015	103	0.015	102	0.014	76	0.014
1013	1	819819.2	831346.0	819723.1	831180.0	0.0	13.3	191.8	98	0.015	66	0.015	46	0.016	36	0.016	36	0.017	53	0.017	137	0.019	320	0.021	362	0.020	295	0.020	259	0.021	254	0.020	162	0.019	165	0.018	170	0.019	183	0.018	199	0.019	233	0.019	271	0.017	224	0.017	176	0.016	160	0.015	158	0.014	118	0.014
1014	1	819617.0	831240.2	819723.1	831180.0	0.0	13.3	122.0	39	0.014	26	0.015	18	0.015	14	0.016	15	0.016	21	0.017	54	0.018	127	0.019	144	0.018	116	0.019	101	0.019	100	0.018	58	0.018	59	0.017	60	0.017	65	0.017	71	0.018	83	0.018	97	0.016	80	0.016	63	0.015	58	0.014	57	0.013	43	0.014

[1] Link Type No. 1- At grade, 2- Depressed, 3- Fill, 4- Bridge

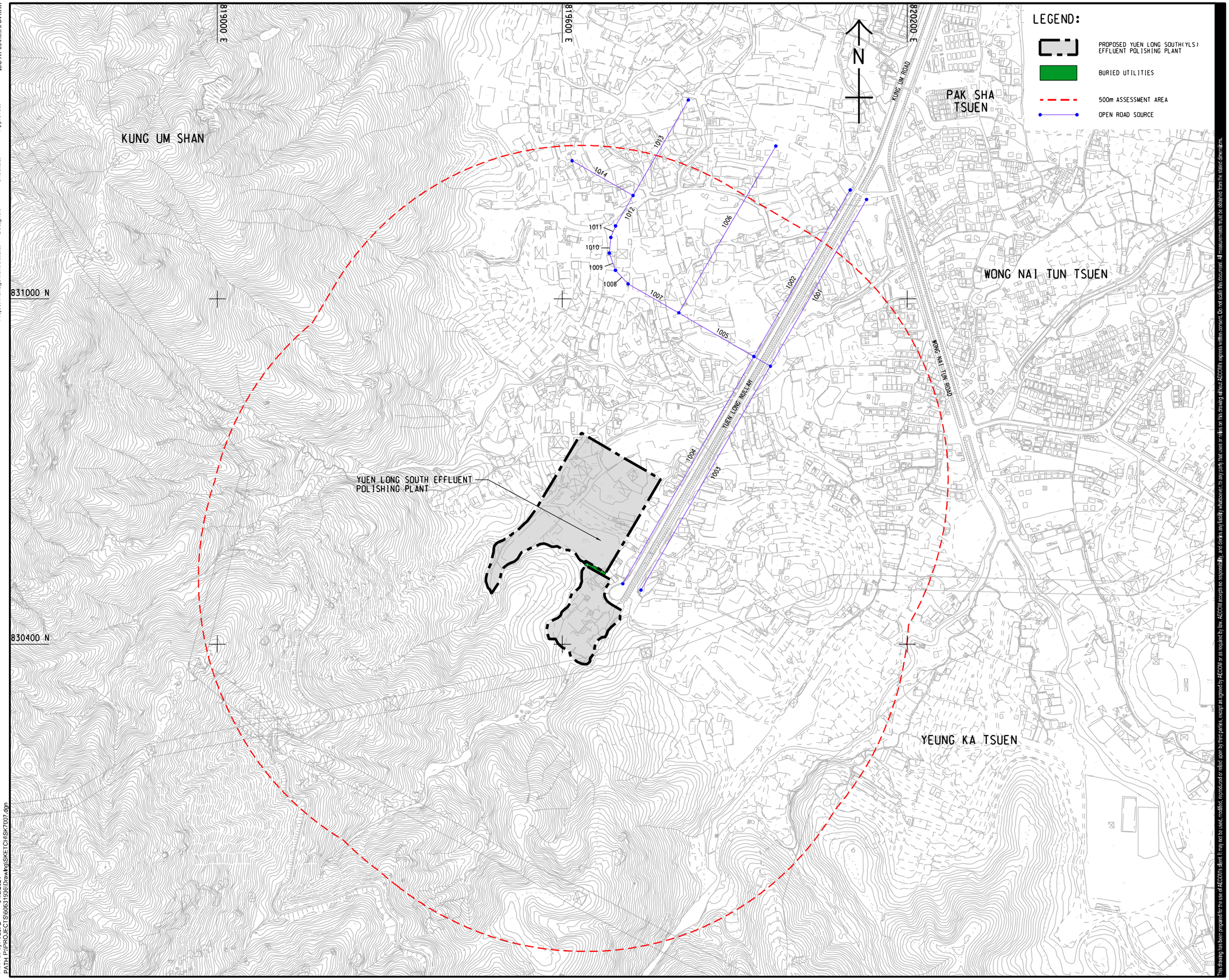
ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:



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AECOM

PROJECT
項目
HUNG SHUI KIU EFFLUENT POLISHING PLANT AND YUEN LONG SOUTH EFFLUENT POLISHING PLANT - INVESTIGATION

CLIENT
客戶
渠務署
Drainage Services Department

CONSULTANT
顧問公司
AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS
分顧問公司

ISSUE/REVISION
修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容/摘要	CHK. 核核

STATUS
阶段

SCALE
比例
A1 1 : 3000

DIMENSION UNIT
尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO.
項目編號
60631936

CONTRACT NO.
合約編號
CE 6/2019 (DS)

SHEET TITLE
圖紙名稱
LOCATION OF OPEN ROAD EMISSION (YEAR 2041)

SHEET NUMBER
圖紙編號
60631936/SK7007