

Appendix 3.8 Calculation of Portal Emissions

Road Name	Road ID	Road Type	Speed Limit (km/hr)	Average Speed (km/hr)	Start Emission Estimated by Broad Brush Approach (Y/N)	Hour	Total Vehicles (Veh/hr)	01 - Private Cars	02 - Taxi	03 - Light Goods Vehicles<=2.5t	04 - Light 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-franchise d Bus<=6.4 t	12 - Non-franchise d Bus 6.4-15t	13 - Non-franchise d Bus 15-24t	14 - Franchise d Bus Single Deck	15 - Franchise d Bus Double Deck	16 - Motorcycles	17 - Heavy Goods Vehicles>24t	18 - Non-franchise d Bus >24t	Total
								PC	TAXI	LGV3	LGV4	LGV6	HGV7	HGV8	PLB	PV4	PV5	NFB6	NFB7	NFB8	FBSD	FBDD	MC	HGV9	NFB9	
Road 235	235	-	50	47.4905	N	0000-0100	132	57.99%	33.87%	0.01%	1.34%	0.48%	0.13%	0.25%	0.00%	0.12%	0.92%	0.30%	0.21%	0.46%	0.01%	0.34%	3.50%	0.07%	0.00%	100%
Road 235	235	-	50	48.28269	N	0100-0200	90	58.66%	31.64%	0.02%	1.47%	0.53%	0.16%	0.32%	0.00%	0.17%	1.35%	0.44%	0.31%	0.67%	0.01%	0.35%	3.81%	0.08%	0.00%	100%
Road 235	235	-	50	48.68182	N	0200-0300	68	59.41%	29.32%	0.02%	1.60%	0.58%	0.20%	0.40%	0.00%	0.23%	1.80%	0.59%	0.41%	0.89%	0.01%	0.34%	4.12%	0.10%	0.00%	100%
Road 235	235	-	50	49.01024	N	0300-0400	51	60.08%	27.01%	0.02%	1.74%	0.63%	0.24%	0.47%	0.00%	0.29%	2.24%	0.73%	0.51%	1.11%	0.01%	0.35%	4.47%	0.12%	0.00%	100%
Road 235	235	-	50	49.0627	N	0400-0500	48	60.86%	24.56%	0.02%	1.88%	0.68%	0.28%	0.54%	0.00%	0.35%	2.71%	0.88%	0.61%	1.35%	0.01%	0.35%	4.79%	0.14%	0.00%	100%
Road 235	235	-	50	48.67262	N	0500-0600	67	61.65%	22.05%	0.02%	2.03%	0.73%	0.32%	0.62%	0.00%	0.41%	3.18%	1.04%	0.72%	1.58%	0.01%	0.35%	5.14%	0.16%	0.00%	100%
Road 235	235	-	50	46.25317	N	0600-0700	187	62.54%	19.35%	0.02%	2.17%	0.78%	0.36%	0.71%	0.00%	0.48%	3.72%	1.21%	0.84%	1.84%	0.00%	0.34%	5.44%	0.19%	0.00%	100%
Road 235	235	-	50	43.1957	N	0700-0800	337	63.40%	16.66%	0.02%	2.33%	0.84%	0.40%	0.79%	0.00%	0.54%	4.24%	1.38%	0.95%	2.10%	0.00%	0.34%	5.79%	0.21%	0.00%	100%
Road 235	235	-	50	42.67504	N	0800-0900	373	66.37%	20.29%	0.02%	1.96%	0.70%	0.30%	0.59%	0.00%	0.24%	1.88%	0.94%	0.65%	1.44%	0.01%	0.26%	4.17%	0.15%	0.00%	100%
Road 235	235	-	50	44.07742	N	0900-1000	297	63.95%	20.72%	0.04%	3.65%	1.31%	0.67%	1.31%	0.00%	0.19%	1.51%	0.71%	0.49%	1.08%	0.01%	0.35%	3.66%	0.34%	0.00%	100%
Road 235	235	-	50	44.52945	N	1000-1100	274	59.24%	26.99%	0.04%	4.24%	1.52%	0.81%	1.60%	0.00%	0.18%	1.42%	0.27%	0.19%	0.42%	0.02%	0.38%	2.25%	0.42%	0.00%	100%
Road 235	235	-	50	44.7624	N	1100-1200	264	60.68%	25.43%	0.04%	3.66%	1.31%	0.81%	1.60%	0.00%	0.14%	1.08%	0.42%	0.29%	0.64%	0.00%	0.34%	3.12%	0.42%	0.00%	100%
Road 235	235	-	50	44.12173	N	1200-1300	273	56.06%	19.44%	0.09%	8.15%	2.93%	1.75%	3.44%	0.00%	0.35%	2.75%	0.72%	0.50%	1.10%	0.01%	0.30%	1.51%	0.90%	0.00%	100%
Road 235	235	-	50	43.94879	N	1300-1400	274	49.80%	20.57%	0.10%	9.89%	3.55%	1.80%	3.53%	0.00%	0.35%	2.76%	1.29%	0.89%	1.96%	0.02%	0.33%	2.23%	0.92%	0.00%	100%
Road 235	235	-	50	43.97898	N	1400-1500	282	56.82%	17.61%	0.09%	8.28%	2.97%	1.83%	3.60%	0.00%	0.30%	2.31%	0.58%	0.40%	0.88%	0.01%	0.31%	3.08%	0.94%	0.00%	100%
Road 235	235	-	50	44.01765	N	1500-1600	281	56.04%	20.15%	0.09%	8.57%	3.08%	1.95%	3.83%	0.00%	0.23%	1.81%	0.24%	0.16%	0.36%	0.01%	0.32%	2.17%	1.00%	0.00%	100%
Road 235	235	-	50	43.55837	N	1600-1700	305	55.91%	19.32%	0.09%	9.01%	3.23%	1.37%	2.70%	0.00%	0.18%	1.39%	0.73%	0.51%	1.11%	0.01%	0.33%	3.41%	0.70%	0.00%	100%
Road 235	235	-	50	42.77004	N	1700-1800	360	65.19%	14.03%	0.06%	5.75%	2.06%	0.69%	1.35%	0.00%	0.15%	1.18%	0.76%	0.52%	1.15%	0.00%	0.27%	6.48%	0.35%	0.00%	100%
Road 235	235	-	50	42.80599	N	1800-1900	367	70.68%	15.63%	0.04%	4.11%	1.48%	0.50%	0.98%	0.00%	0.02%	0.19%	0.51%	0.35%	0.77%	0.00%	0.29%	4.19%	0.26%	0.00%	100%
Road 235	235	-	50	43.76433	N	1900-2000	322	67.55%	21.36%	0.04%	3.70%	1.33%	0.16%	0.32%	0.00%	0.03%	0.24%	0.51%	0.35%	0.78%	0.01%	0.33%	3.20%	0.08%	0.00%	100%
Road 235	235	-	50	44.91523	N	2000-2100	262	65.65%	23.98%	0.03%	3.30%	1.19%	0.30%	0.59%	0.00%	0.01%	0.08%	0.45%	0.31%	0.69%	0.01%	0.34%	2.90%	0.16%	0.00%	100%
Road 235	235	-	50	45.19622	N	2100-2200	249	59.01%	31.83%	0.03%	3.20%	1.15%	0.21%	0.42%	0.00%	0.01%	0.09%	0.35%	0.24%	0.53%	0.01%	0.38%	2.42%	0.11%	0.00%	100%
Road 235	235	-	50	45.36953	N	2200-2300	244	55.13%	36.96%	0.03%	2.92%	1.05%	0.16%	0.32%	0.00%	0.01%	0.08%	0.03%	0.02%	0.05%	0.01%	0.35%	2.79%	0.08%	0.00%	100%
Road 235	235	-	50	46.38947	N	2300-0000	188	55.45%	34.77%	0.03%	3.22%	1.16%	0.25%	0.49%	0.00%	0.06%	0.49%	0.16%	0.11%	0.24%	0.01%	0.36%	3.07%	0.13%	0.00%	100%

Appendix 3.8 Calculation of Portal Emissions

Road ID	Segment ID	X coordinate of endpoint 1	Y coordinate of endpoint 1	X coordinate of endpoint 2	Y coordinate of endpoint 2	Road height (mAG)	Physical Road width (m)	Road elevation (m)	Barrier 1 width (m)	Barrier 1 height (m)	Barrier 1 DCL (m)	Barrier 2 width (m)	Barrier 2 height (m)	Barrier 2 DCL (m)
221	1550	844386.48	817710.15	844384.31	817775.50	0.00	15.00							
221	1551	844382.30	817776.35	844381.00	817910.31	0.00	15.00							
222	1552	844398.14	818390.29	844395.21	818350.53	0.00	15.00							
222	1553	844395.21	818350.53	844396.69	818194.95	0.00	15.00							
222	1554	844396.69	818194.95	844397.87	818151.33	0.00	15.00							
222	1555	844400.38	817910.88	844397.33	817814.59	0.00	15.00							
222	1556	844397.33	817814.59	844397.38	817709.97	0.00	15.00							
227	1591	844151.50	817553.19	844179.69	817528.83	4.41	12.10							
227	1592	844082.88	817621.50	844123.81	817579.50	4.41	12.10							
227	1593	844123.81	817579.50	844151.50	817553.19	4.41	12.10							
235	1685	844350.98	818193.33	844267.80	818293.34	0.00	7.50							
235	1686	844267.80	818293.34	844225.46	818323.61	0.00	7.50							
235	1687	844225.46	818323.61	844183.01	818348.62	0.00	7.50							
235	1688	844374.04	818153.80	844350.98	818193.33	0.00	7.50							

Appendix 3.8 Calculation of Portal Emissions

Start Profile	01 - Private Cars	02 - Taxi	03 - Light Goods Vehicles <=2.5t	04 - Light Goods Vehicles 2.5-3.5t	05 - Light Goods Vehicles >3.5t	06 - Medium Goods Vehicles <=15t	07 - Medium Goods Vehicles 15-24t	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 Single Deck	15 - Franchised Bus Double Deck	16 - Motorcycles	17 - Heavy Goods Vehicles >24t	18 - Non-franchised Bus >24t
	PC	TAXI	LGV3	LGV4	LGV6	HGV7	HGV8	PLB	PV4	PV5	NFB6	NFB7	NFB8	FBSD	FBDD	MC	HGV9	NFB9
Y	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix 3.8 Calculation of Portal Emissions

Hour	Annual		January		February		March		April		May		June		July		August		September		October		November		December		
	Temperature	RH	Temperature	RH	Temperature	RH	Temperature	RH	Temperature	RH	Temperature	RH	Temperature	RH	Temperature	RH	Temperature	RH	Temperature	RH	Temperature	RH	Temperature	RH	Temperature	RH	
0000-0100	8	20																									
0100-0200	8	20																									
0200-0300	8	20																									
0300-0400	8	20																									
0400-0500	8	20																									
0500-0600	8	20																									
0600-0700	8	20																									
0700-0800	8	20																									
0800-0900	8	20																									
0900-1000	8	20																									
1000-1100	8	20																									
1100-1200	8	20																									
1200-1300	8	20																									
1300-1400	8	20																									
1400-1500	8	20																									
1500-1600	8	20																									
1600-1700	8	20																									
1700-1800	8	20																									
1800-1900	8	20																									
1900-2000	8	20																									
2000-2100	8	20																									
2100-2200	8	20																									
2200-2300	8	20																									
2300-0000	8	20																									

Location of Portal Emission Sources

