

Appendix 11: Noise Predictions for Sensitive Receptors.

MARLDENE

LINK	18 Hr Flow (Q)	18 Hr BNL (dB(A))	Speed(V) (km/h)	% HG V (p)	Speed & HG V Correction (dB(A))	Distance (d) (m)	d'	Distance Correction*	/	Soft Ground Correction*	Angle of View	Correction for Angle of View	18 Hr PNL (dB(A))	Road Surface Corrected
2010 WITHOUT DEVELOPMENT														
A68	9794	69.010	81.4	8.40	2.494	100	103.715	-8.855	0.87	-6.160	180	0.000	56.488	55.5
TOTAL														
2010 WITH DEVELOPMENT														
A68	9881	69.048	86.4	8.40	2.920	98	101.730	-8.771	0.90	-6.333	180	0.000	56.863	55.9
TOTAL														
2025 WITHOUT DEVELOPMENT														
A68	12431	70.045	79.5	8.90	2.419	100	103.726	-8.856	0.90	-6.373	180	0.000	57.235	56.2
TOTAL														
2025 WITH DEVELOPMENT														
A68	12538	70.082	85.0	8.90	2.886	98	101.719	-8.771	0.86	-6.052	180	0.000	58.145	57.1
TOTAL														

VEHICLES PER 16 HOURS
 Assumed LAE at 3 metres

LINK	18 Hr Flow (Q)	16 Hr Flow	LAeq 16 hours	Distance (d) (m)	Distance Correction*	Adjusted	18 HOUR
2010 WITHOUT							
U77	94	83.556	51.6	90	19.542	32.07	34.1
TOTAL							
2025 WITHOUT							
U77	120	106.667	52.7	90	19.542	33.13	35.1
TOTAL							

OLD CRICHTON DEAN

LINK	18 Hr Flow (Q)	18 Hr BNL (dB(A))	Speed(V) (km/h)	% HGV (p)	Speed & HGV Correction (dB(A))	Distance (d) (m)	d'	Distance Correction*	/	Soft Ground Correction*	Angle of View	Correction for Angle of View	18 Hr PNL (dB(A))	Road Surface Corrected
2010 WITHOUT														
A68	9793	69.009	78.1	8.40	2.210	160	164.271	-10.852	1.00	-8.114	180	0.000	52.253	51.3
TOTAL														
2025 WITHOUT														
A68	12431	70.045	75.5	8.90	2.077	160	164.271	-10.852	1.00	-8.114	180	0.000	53.156	52.2
TOTAL														
2010 WITH														
A68	9881	69.048	87.2	8.90	3.071	158	162.281	-10.799	1.00	-8.086	180	0.000	53.234	52.2
TOTAL														
2025 WITH														
A68	12538	70.082	85.0	8.90	2.886	158	162.281	-10.799	1.00	-8.086	180	0.000	54.083	53.1
TOTAL														

VEHICLES PER 16 HOURS
 Assumed LAE at 3 metres

LINK	18 Hr Flow (Q)	16 Hr Flow	LAeq 16 hours	Distance (d) (m)	Distance Correction*	Adjusted	ADD 2	18 HOUR
2010 WITHOUT								
U77	94	83.556	51.6	2	3.010	48.61		50.6
TOTAL								
2025 WITHOUT								
U77	120	106.667	52.7	2	3.010	49.67		51.7
TOTAL								

HAUGH HEAD HOUSE

LINK	18 Hr Flow (Q)	18 Hr BNL (dB(A))	Speed(V) (km/h)	% HGVS (p)	Speed & HGVS Correction (dB(A))	Distance (d) (m)	d'	Distance Correction*	/	Soft Ground Correction*	Angle of View	Correction for Angle of View	18 Hr PNL (dB(A))	Road Surface Corrected
2010 WITHOUT														
A68	9793	69.009	78.1	8.40	2.210	202	206.219	-11.840	1.00	-8.630	180	0.000	50.749	49.7
TOTAL														
2025 WITHOUT														
A68	12431	70.045	75.5	8.90	2.077	202	206.219	-11.840	1.00	-8.630	180	0.000	51.652	50.7
TOTAL														
2010 WITH														
A68	9881	69.048	85.8	8.40	2.869	201	204.630	-11.806	1.00	-8.619	180	0.000	51.492	50.5
TOTAL														
2025 WITH														
A68	12539	70.083	83.8	8.90	2.784	201	204.630	-11.806	1.00	-8.619	180	0.000	52.442	51.4
TOTAL														

Assumed LAE at 3 metres

LINK	18 Hr Flow (Q)	16 Hr Flow	LAeq 16 hours	Distance (d) (m)	Distance Correction*	LAeq 16 HOUR Adjusted	18 HOUR
2010 WITHOUT							
U77	94	83.556	51.6	2	3.010	48.61	50.6
TOTAL							
2025 WITHOUT							
U77	120	106.667	52.7	2	3.010	49.67	51.7
TOTAL							

Assumed LAE at 3 metres

LINK	18 Hr Flow (Q)	16 Hr Flow	LAeq 16 hours	Distance (d) (m)	Distance Correction*	LAeq 16 HOUR Adjusted	18 HOUR	Combined noise level
2010 WITH								
U77	58	51.556	49.5	180	22.553	26.97	29.0	
NEW ROAD	153	136.000	53.7	75	18.751	34.98	37.0	
TOTAL								37.6
2025 WITH								
U77	75	66.667	50.6	180	22.553	28.08	30.1	
NEW ROAD	196	174.222	54.8	75	18.751	36.06	38.1	
TOTAL								38.7

ROUTHENHILL

LINK	18 Hr Flow (Q)	18 Hr BNL (dB(A))	Speed(V) (km/h)	% HGV (p)	Speed & HGV Correction (dB(A))	Distance (d) (m)	d'	Distance Correction*	/	Soft Ground Correction*	Angle of View	Correction for Angle of View	18 Hr PNL (dB(A))	Road Surface Corrected
2010 WITHOUT														
A68	9654	68.947	77.0	8.50	2.130	270	273.501	-13.066	1.00	-9.275	180	0.000	48.735	47.7
TOTAL														
2025 WITHOUT														
A68	12268	69.988	75.0	9.10	2.070	270	273.501	-13.066	1.00	-9.275	180	0.000	49.716	48.7
TOTAL														
2010 WITH														
A68	9655	68.948	86.7	8.60	2.979	270	273.501	-13.066	1.00	-9.275	180	0.000	49.585	48.6
TOTAL														
2025 WITH														
A79	12268	69.988	84.3	9.10	2.860	270	273.501	-13.066	1.00	-9.275	180	0.000	50.506	49.5
TOTAL														

VEHICLES PER 16 HOURS

Assumed LAE at 3 metres

LINK	18 Hr Flow (Q)	16 Hr Flow	LAEq 16 hours	Distance (d) (m)	Distance Correction*	LAEQ 16 HOUR Adjusted	ADD 2	18 HOUR	Combined noise level
2010 WITHOUT									
U78	58	51.556	49.5	70	18.451	31.07		33.1	
U77	58	51.556	49.5	4	6.021	43.50		45.5	
TOTAL									45.7
2025 WITHOUT									
U78	75	66.667	50.6	70	18.451	32.18		34.2	
U77	75	66.667	50.6	4	6.021	44.61		46.6	
TOTAL									46.9

Assumed LAE at 3 metres

LINK	18 Hr Flow (Q)	16 Hr Flow	LAEq 16 hours	Distance (d) (m)	Distance Correction*	LAEQ 16 HOUR Adjusted	ADD 2	18 HOUR	Combined noise level
2010 WITH									
NEW SIDE ROAD	153	136.000	53.7	185	22.672	31.06		33.1	
U77	58	51.556	49.5	4	6.021	43.50		45.5	
TOTAL									45.7
2025 WITH									
NEW SIDE ROAD	196	174.222	54.8	185	22.672	32.14		34.1	
U77	75	66.667	50.6	4	6.021	44.61		46.6	
TOTAL									46.9

HOPE

LINK	18 Hr Flow (Q)	18 Hr BNL (dB(A))	Speed(V) (km/h)	% HGV (p)	Speed & HGV Correction (dB(A))	Distance (d) (m)	d'	Distance Correction*	/	Soft Ground Correction*	Angle of View	Correction for Angle of View	18 Hr PNL (dB(A))	Road Surface Corrected
2010 WITHOUT DEVELOPMENT														
A68	9892	69.053	79.4	8.40	2.318	30	34.087	-4.023	0.50	-2.267	180	0.000	65.082	64.1
TOTAL														
2010 WITH DEVELOPMENT														
A68	9892	69.053	80.5	8.40	2.415	30	34.087	-4.023	0.50	-2.267	180	0.000	65.178	64.2
TOTAL														
2025 WITHOUT DEVELOPMENT														
A68	12552	70.087	77.6	8.90	2.256	30	34.087	-4.023	0.50	-2.267	180	0.000	66.054	65.1
TOTAL														
2025 WITH DEVELOPMENT														
A68	12553	70.087	78.6	8.90	2.339	30	34.087	-4.023	0.50	-2.267	180	0.000	66.137	65.1
TOTAL														