

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Result Summary at Representative NSRs (Stations & NTD)

NAP	Predicted Noise Level, dB(A)		Noise Criteria, dB(A)	
	Daytime & Evening	Night-time	Daytime & Evening	Night-time
KSR Station				
KSR-PF01a	57	46	57	46
KSR-PF01b	57	46	57	46
KSR-PF01c	57	46	57	46
KSR-PF02a	56	45	57	46
KSR-PF02b	56	45	57	46
KSR-PF02c	56	45	57	46
KSR-PF02d	57	46	57	46
KSR-PF03a	56	45	57	46
KSR-PF03b	57	46	57	46
KSR-PF04	53	42	57	46
KSR-PF05	54	43	57	46
KSR-PF06	52	-	57	-
AUT Station				
AUT-PF01	59	49	60	50
AUT-PF02	60	50	60	50
AUT-PF03	54	44	60	50
AUT-PF04	58	48	60	50
AUT-F06	60	50	60	50
AUT-F02	53	43	60	50
NTM Station & NTD				
NTM-PF01	47	42	54	48
NTM-PF01a	52	47	58	50
NTM-PF01b	53	48	58	50
NTM-PF02	53	48	54	48
NTM-PF04	52	47	58	50
NTM-PF07a	49	44	58	50
NTM-PF07b	55	50	58	50
NTM-PF07c	55	50	58	50
NTM-PF07d	55	50	58	50
NTM-PF07e	55	50	58	50
NTM-PF07f	55	50	58	50
NTM-PF07g	55	50	58	50
NTM-PF07h	53	48	58	50
NTM-PF07q	55	50	58	50
NTM-PF07r	54	49	58	50
NTM-PF07s	55	50	58	50
NTM-F04	50	45	54	48
NTM-F04a	52	47	54	48
NTM-F05	47	42	47	42
NTM-F05a	52	47	54	48
NTM-F06	47	42	47	42
NTM-F07	43	38	45	38
NTM-F08	49	44	54	48
SAT Station				
SAT-PF01a	52	44	58	50
SAT-PF01b	52	44	58	50
SAT-PF01c	48	40	58	50
SAT-PF01d	54	46	58	50
SAT-PF01e	56	47	58	50
SAT-PF01f	54	46	58	50
SAT-PF01h	49	39	58	50
KTU Station				
KTU-PF01a	51	42	60	50
KTU-PF01b	51	42	60	50
KTU-PF01c	51	42	60	50
KTU-PF02a	59	48	60	50
KTU-PF02b	57	47	60	50
KTU-PF03a	50	40	60	50
KTU-PF03b	50	40	60	50
KTU-PF04a	52	41	60	50
KTU-PF04b	53	43	60	50
KTU-PF05a	50	40	60	50
KTU-PF05b	49	39	60	50
KTU-PF06a	59	49	60	50
KTU-PF06b	59	48	60	50
KTU-PF06c	52	42	60	50

Remark:

' - ' No sensitive use during night-time

Appendix 4.11 Fixed Plant Noise Calculation

Cumulative Fixed Plant Noise Result Summary at Representative NSRs (KSR & KTU Station)

NAP	Predicted Noise Level, dB(A)		Noise Criteria, dB(A)	
	Daytime & Evening	Night-time	Daytime & Evening	Night-time
KSR Station				
KSR-PF01a	59	54	65	55
KSR-PF01b	57	48	65	55
KSR-PF01c	57	47	65	55
KSR-PF02a	58	54	65	55
KSR-PF02b	58	55	65	55
KSR-PF02c	57	48	65	55
KSR-PF02d	57	47	65	55
KSR-PF03a	56	46	65	55
KSR-PF03b	57	47	65	55
KSR-PF04	53	42	65	55
KSR-PF05	54	45	65	55
KSR-PF06	52	-	65	-
KTU Station				
KTU-PF01a	61	51	65	55
KTU-PF01b	61	51	65	55
KTU-PF01c	61	51	65	55
KTU-PF02a	62	52	65	55
KTU-PF02b	62	52	65	55
KTU-PF03a	60	51	65	55
KTU-PF03b	60	51	65	55
KTU-PF04a	61	51	65	55
KTU-PF04b	61	51	65	55
KTU-PF05a	60	51	65	55
KTU-PF05b	60	51	65	55
KTU-PF06a	63	53	65	55
KTU-PF06b	62	52	65	55
KTU-PF06c	61	51	65	55

Remark:

' - ' No sensitive use during night-time

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Result Summary at Representative NSRs (Ancillary Buildings)

NAP	Predicted Noise Level, dB(A)		Noise Criteria, dB(A)	
	Daytime & Evening	Night-time	Daytime & Evening	Night-time
SMA				
AUT-F01	46	42	47	42
AUT-F01a	39	39	47	42
KSR-PF08	46	-	47	-
KSR-PF08a	47	-	47	-
PWA				
AUT-F05a	54	44	60	50
AUT-F05b	53	43	60	50
AUT-F05c	60	50	60	50
LHA				
NTM-F01	45	40	47	42
NTM-F02	47	42	47	42
SNA				
SAT-PF02d	54	46	58	50
SAT-F02	47	39	48	45
KLA				
SAT-PF03	50	-	58	-
SAT-PF03a	55	47	58	50
KTA				
SAT-F04	51	42	53	45
SAT-PF05a	49	42	58	50
PAA				
KTU-PF07	52	46	60	50
KTU-F01	53	47	53	47
KTU-F01a	52	46	53	47

Remark:

' - ' No sensitive use during night-time

Cumulative Fixed Plant Noise Result Summary at Representative NSRs (KTA & PAA)

NAP	Predicted Noise Level, dB(A)		Noise Criteria, dB(A)	
	Daytime & Evening	Night-time	Daytime & Evening	Night-time
KTA				
SAT-F04	51	44	65	55
SAT-PF05a	49	42	65	55
PAA				
KTU-PF07	52	46	65	55
KTU-F01	53	47	65	55
KTU-F01a	52	46	65	55

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KSR Station)

NAP: KSR-PF01a
 Description: Future Kam Sheung Road Package 2 Property Development

Daytime/ Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
Planned Fixed Sources at KSR (NOL)										
KSR-PF01a	K01a	Northeast	328	73	0	-58	3	>300m		
	K01b	Northeast	325	73	0	-58	3	>300m		
	K01c	Northeast	317	73	0	-58	3	>300m		
	K02	Northeast	317	83	0	-58	3	>300m		
	K03	Northeast	313	71	0	-58	3	>300m		
	K04	Northeast	311	83	0	-58	3	>300m		
	K05	Northeast	307	71	0	-58	3	>300m		
	K06	Northeast	304	83	0	-58	3	>300m		
	K07	Northeast	300	71	0	-58	3	16		
	K08	Northeast	297	83	0	-57	3	29		
	K09	Northeast	293	76	0	-57	3	22		
	K09a	Northeast	286	73	0	-57	3	19		
	K09b	Northeast	284	73	0	-57	3	19		
	K09c	Northeast	279	74	0	-57	3	20		
	K09d	Northeast	275	74	0	-57	3	20		
	K10	Northeast	269	81	0	-57	3	27		
	K10a	Northeast	13	69	0	-31	3	41		
	K10b	Northeast	13	71	0	-30	3	44		
	K10c	Northeast	12	71	0	-29	3	45		
	K10d	Northeast	14	71	0	-31	3	43		
	K11	Northeast	16	71	0	-32	3	42		
	K12	Northeast	19	71	0	-34	3	40		
	K13	Northeast	21	71	0	-35	3	39		
	K14	Northeast	25	71	0	-36	3	38		
	K15	Northeast	28	71	0	-37	3	37		
	K16	Northeast	30	71	0	-38	3	36		
	K17	Northeast	32	71	0	-38	3	36		
	K18	Northeast	36	71	0	-39	3	35		
	K19	Southwest	189	86	-10	-54	3	25		
	K20	Southwest	170	88	-10	-53	3	28		
	K20a	Northeast	160	79	0	-52	3	30		
	K21	Northeast	165	79	0	-52	3	30		
	K22	Southwest	168	86	-10	-53	3	26		
	K22a	Southwest	164	81	-10	-52	3	22		
	K22b	Southwest	160	81	-10	-52	3	22		
	K22c	Southwest	158	83	-10	-52	3	24		
	K23	Southwest	28	86	-10	-37	3	42		
	K24	Southwest	29	86	-10	-37	3	42		
	K25	Southwest	32	86	-10	-38	3	41		
	K26	Southwest	35	86	-10	-39	3	40		
	K27	Southwest	39	85	-10	-40	3	38		
	K27a	Southwest	39	83	-10	-40	3	36		
	K28	Southwest	368	88	-10	-59	3	>300m		
	K29	Southwest	357	88	-10	-59	3	>300m		
	K30	Northeast	380	85	0	-60	3	>300m		
	K30a	Northeast	366	69	0	-59	3	>300m		
	K31	Northeast	374	85	0	-59	3	>300m		
	K31a	Northeast	360	66	0	-59	3	>300m		
	K31b	Southwest	358	66	-10	-59	3	>300m		
	K31c	Southwest	311	81	-10	-58	3	>300m		
	K31d	Southwest	309	83	-10	-58	3	>300m		
	K32	Southwest	304	88	-10	-58	3	>300m		
	K33	Southwest	298	88	-10	-57	3	24		
	K34	Southwest	293	88	-10	-57	3	24		
	K35	Southwest	285	87	-10	-57	3	23		
	K35a	Southwest	275	83	-10	-57	3	19		
	K35b	Northwest	269	81	0	-57	3	27		
	K37	Southwest	229	88	-10	-55	3	26		
	K38	Southwest	221	88	-10	-55	3	26		
	K39	Southwest	215	88	-10	-55	3	26		
	K40	Southwest	172	88	-10	-53	3	28		
	K41	Northwest	228	86	-10	-55	3	24		
	K41a	Southwest	233	77	0	-55	3	25		
	K42	Northeast	220	86	-10	-55	3	24		
	K42a	Northeast	217	71	0	-55	3	19		
	K43	Northwest	213	86	-10	-55	3	24		
	K44	Top	212	77	0	-55	3	25		
	K45	Top	208	77	0	-54	3	26		
	K45a	Southwest	178	83	-10	-53	3	23		
	K46	Top	211	77	0	-54	3	26		
	K47	Top	207	76	0	-54	3	25		
	K48	Southwest	36	86	-10	-39	3	40		
	K48a	Southwest	34	81	-10	-39	3	35		
	K48b	Southwest	33	81	-10	-38	3	36		
	K49	Southwest	41	88	-10	-40	3	41		
	K50	Southwest	49	88	-10	-42	3	39		
	K51	Southwest	52	88	-10	-42	3	39		
	K51a	Southwest	55	81	-10	-43	3	31		
	K51b	Southwest	57	81	-10	-43	3	31		
	K52	Southwest	60	88	-10	-43	3	38		
	K53	Northeast	54	85	0	-43	3	45		
	K54	Northeast	46	85	0	-41	3	47		
	K55	Northeast	41	85	0	-40	3	48		
	K56	Northeast	30	85	0	-37	3	51		
	K57	Top	64	85	0	-44	3	44	57	57
Existing Fixed Sources at KSR (TML) and Train Wash Facility at PHD ⁽¹⁾⁽⁴⁾										
	A1	Northwest	74	81	-10	-45	3	28		
	A2	Northwest	64	87	-10	-44	3	36		
	A3	Northwest	120	64	-10	-50	3	7		
	CP	Top	48	92	0	-42	3	53		
	TWF	Top	62	95	0	-64	3	>300m	53	
Cumulative FPN Impact (Daytime & Evening time), dB(A)									59	65

Appendix 4.11 Fixed Plant Noise Calculation

Night-time										
NAP	Plant Item	Direction Facing	Horizontal Distance, m (H)	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KSR-PFD1a	K01a	Northeast	328	62	0	-58	3	>300m		
	K01b	Northeast	325	62	0	-58	3	>300m		
	K01c	Northeast	317	62	0	-58	3	>300m		
	K02	Northeast	317	72	0	-58	3	>300m		
	K03	Northeast	313	60	0	-58	3	>300m		
	K04	Northeast	311	72	0	-58	3	>300m		
	K05	Northeast	307	60	0	-58	3	>300m		
	K06	Northeast	304	72	0	-58	3	>300m		
	K07	Northeast	300	60	0	-58	3	5		
	K08	Northeast	297	72	0	-57	3	18		
	K09	Northeast	293	65	0	-57	3	11		
	K09a	Northeast	286	62	0	-57	3	8		
	K09b	Northeast	284	62	0	-57	3	8		
	K09c	Northeast	279	63	0	-57	3	9		
	K09d	Northeast	275	63	0	-57	3	9		
	K10	Northeast	269	70	0	-57	3	16		
	K10a	Northeast	13	58	0	-31	3	30		
	K10b	Northeast	13	60	0	-30	3	33		
	K10c	Northeast	12	60	0	-29	3	34		
	K10d	Northeast	14	60	0	-31	3	32		
	K11	Northeast	16	60	0	-32	3	31		
	K12	Northeast	19	60	0	-34	3	29		
	K13	Northeast	21	60	0	-35	3	28		
	K14	Northeast	25	60	0	-36	3	27		
	K15	Northeast	28	60	0	-37	3	26		
	K16	Northeast	30	60	0	-38	3	25		
	K17	Northeast	32	60	0	-38	3	25		
	K18	Northeast	36	60	0	-39	3	24		
	K19	Southwest	189	75	-10	-54	3	14		
	K20	Southwest	170	77	-10	-53	3	17		
	K20a	Northeast	160	68	0	-52	3	19		
	K21	Northeast	165	68	0	-52	3	19		
	K22	Southwest	168	75	-10	-53	3	15		
	K22a	Southwest	164	70	-10	-52	3	11		
	K22b	Southwest	160	70	-10	-52	3	11		
	K22c	Southwest	158	72	-10	-52	3	13		
	K23	Southwest	28	75	-10	-37	3	31		
	K24	Southwest	29	75	-10	-37	3	31		
	K25	Southwest	32	75	-10	-38	3	30		
	K26	Southwest	35	75	-10	-39	3	29		
	K27	Southwest	39	74	-10	-40	3	27		
	K27a	Southwest	39	72	-10	-40	3	25		
	K28	Southwest	368	77	-10	-59	3	>300m		
	K29	Southwest	357	77	-10	-59	3	>300m		
	K30	Northeast	380	74	0	-60	3	>300m		
	K30a	Northeast	366	58	0	-59	3	>300m		
	K31	Northeast	374	74	0	-59	3	>300m		
	K31a	Northeast	360	55	0	-59	3	>300m		
	K31b	Southeast	358	55	-10	-59	3	>300m		
	K31c	Southwest	311	70	-10	-58	3	>300m		
	K31d	Southwest	309	72	-10	-58	3	>300m		
	K32	Southwest	304	77	-10	-58	3	>300m		
	K33	Southwest	298	77	-10	-57	3	13		
	K34	Southwest	293	77	-10	-57	3	13		
	K35	Southwest	285	76	-10	-57	3	12		
	K35a	Southwest	275	72	-10	-57	3	8		
	K35b	Northwest	269	70	0	-57	3	16		
K37	Southwest	229	77	-10	-55	3	15			
K38	Southwest	221	77	-10	-55	3	15			
K39	Southwest	215	77	-10	-55	3	15			
K40	Southwest	172	77	-10	-53	3	17			
K41	Northwest	228	75	-10	-55	3	13			
K41a	Southeast	233	66	0	-55	3	14			
K42	Northeast	220	75	-10	-55	3	13			
K42a	Northeast	217	60	0	-55	3	8			
K43	Northwest	213	75	-10	-55	3	13			
K44	Top	212	66	0	-55	3	14			
K45	Top	208	66	0	-54	3	15			
K45a	Southwest	178	72	-10	-53	3	12			
K46	Top	211	66	0	-54	3	15			
K47	Top	207	65	0	-54	3	14			
K48	Southwest	36	75	-10	-39	3	29			
K48a	Southwest	34	70	-10	-39	3	24			
K48b	Southwest	33	70	-10	-38	3	25			
K49	Southwest	41	77	-10	-40	3	30			
K50	Southwest	49	77	-10	-42	3	28			
K51	Southwest	52	77	-10	-42	3	28			
K51a	Southwest	55	70	-10	-43	3	20			
K51b	Southwest	57	70	-10	-43	3	20			
K52	Southwest	60	77	-10	-43	3	27			
K53	Northeast	54	74	0	-43	3	34			
K54	Northeast	46	74	0	-41	3	36			
K55	Northeast	41	74	0	-40	3	37			
K56	Northeast	30	74	0	-37	3	40			
K57	Top	64	74	0	-44	3	33			
Existing Fixed Sources at KSR (TMR) and Train Wash Facility at PHD ^[4]										
A1	Northwest	74	81	-10	-45	3	28			
A2	Northwest	64	87	-10	-44	3	36			
A3	Northwest	120	64	-10	-50	3	7			
CP	Top	48	92	0	-42	3	53			
TWF	Top	622	95	0	-64	3	>300m	53		
Cumulative FPN Impact (Night-time), dB(A)									54	55

Remarks:
 [1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.
 [2] A negative correction of 10 dB(A) has been adopted to the direction facing of the louver totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the louver.
 [3] The SWL of A1-A3 and CP (Chiller Plant) can be referred to the Table 3.2 and Section 4.1 in Appendix 4.12 respectively.
 [4] For the SWL level of TWF (Train Wash Facility), it is within PHD, reference has been made to the approved Environmental Review Report for Pat Heung Depot Modification Works (2012). The predicted noise level was calculated by applying distance attenuation and facade correction to the SWL.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KSR Station)

NAP: KSR-PF01b
 Description: Future Kam Sheung Road Package 2 Property Development

Daytime/ Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
Planned Fixed Sources at KSR (NOL)										
KSR-PF01b	K01a	Northeast	163	73	0	-52	3	24		
	K01b	Northeast	161	73	0	-52	3	24		
	K01c	Northeast	153	73	0	-52	3	24		
	K02	Northeast	153	83	0	-52	3	34		
	K03	Northeast	148	71	0	-51	3	23		
	K04	Northeast	146	83	0	-51	3	35		
	K05	Northeast	142	71	0	-51	3	23		
	K06	Northeast	140	83	0	-51	3	35		
	K07	Northeast	135	71	0	-51	3	23		
	K08	Northeast	133	83	0	-50	3	36		
	K09	Northeast	129	76	0	-50	3	29		
	K09a	Northeast	122	73	0	-50	3	26		
	K09b	Northeast	119	73	0	-50	3	26		
	K09c	Northeast	115	74	0	-49	3	28		
	K09d	Northeast	111	74	0	-49	3	28		
	K10	Northeast	105	81	0	-48	3	36		
	K10a	Northeast	158	69	0	-52	3	20		
	K10b	Northeast	160	71	0	-52	3	22		
	K10c	Northeast	164	71	0	-52	3	22		
	K10d	Northeast	173	71	0	-53	3	21		
	K11	Northeast	176	71	0	-53	3	21		
	K12	Northeast	181	71	0	-53	3	21		
	K13	Northeast	183	71	0	-53	3	21		
	K14	Northeast	187	71	0	-53	3	21		
	K15	Northeast	190	71	0	-54	3	20		
	K16	Northeast	193	71	0	-54	3	20		
	K17	Northeast	195	71	0	-54	3	20		
	K18	Northeast	199	71	0	-54	3	20		
	K19	Southwest	39	86	-10	-40	3	39		
	K20	Southwest	33	88	-10	-38	3	43		
	K20a	Northeast	13	79	0	-30	3	52		
	K21	Northeast	12	79	0	-30	3	52		
	K22	Southwest	33	86	-10	-38	3	41		
	K22a	Southwest	33	81	-10	-38	3	36		
	K22b	Southwest	34	81	-10	-39	3	35		
	K22c	Southwest	34	83	-10	-39	3	37		
	K23	Southwest	170	86	-10	-53	3	26		
	K24	Southwest	175	86	-10	-53	3	26		
	K25	Southwest	182	86	-10	-53	3	26		
	K26	Southwest	187	86	-10	-53	3	26		
	K27	Southwest	193	85	-10	-54	3	24		
	K27a	Southwest	195	83	-10	-54	3	22		
	K28	Southwest	204	88	-10	-54	3	27		
	K29	Southwest	193	88	-10	-54	3	27		
	K30	Northeast	215	85	0	-55	3	33		
	K30a	Northeast	201	69	0	-54	3	18		
	K31	Northeast	209	85	0	-54	3	34		
	K31a	Northeast	196	66	0	-54	3	15		
	K31b	Southwest	194	66	-10	-54	3	5		
	K31c	Southwest	148	81	-10	-51	3	23		
	K31d	Southwest	145	83	-10	-51	3	25		
	K32	Southwest	141	88	-10	-51	3	30		
	K33	Southwest	135	88	-10	-51	3	30		
	K34	Southwest	129	88	-10	-50	3	31		
	K35	Southwest	121	87	-10	-50	3	30		
	K35a	Southwest	113	83	-10	-49	3	27		
	K35b	Northwest	106	81	0	-49	3	35		
	K37	Southwest	69	88	-10	-45	3	36		
	K38	Southwest	62	88	-10	-44	3	37		
	K39	Southwest	56	88	-10	-43	3	38		
	K40	Southwest	33	88	-10	-38	3	43		
	K41	Northwest	66	86	-10	-44	3	35		
	K41a	Southeast	70	77	0	-45	3	35		
	K42	Northeast	56	86	-10	-43	3	36		
	K42a	Northeast	53	71	0	-43	3	31		
	K43	Northwest	52	86	-10	-42	3	37		
	K44	Top	52	77	0	-42	3	38		
	K45	Top	48	77	0	-42	3	38		
	K45a	Southwest	28	83	-10	-37	3	39		
	K46	Top	48	77	0	-42	3	38		
	K47	Top	45	76	0	-41	3	38		
	K48	Southwest	152	86	-10	-52	3	27		
	K48a	Southwest	157	81	-10	-52	3	22		
	K48b	Southwest	163	81	-10	-52	3	22		
	K49	Southwest	197	88	-10	-54	3	27		
	K50	Southwest	207	88	-10	-54	3	27		
	K51	Southwest	211	88	-10	-54	3	27		
	K51a	Southwest	213	81	-10	-55	3	19		
	K51b	Southwest	216	81	-10	-55	3	19		
	K52	Southwest	219	88	-10	-55	3	26		
	K53	Northeast	218	85	0	-55	3	33		
	K54	Northeast	209	85	0	-54	3	34		
	K55	Northeast	205	85	0	-54	3	34		
	K56	Northeast	192	85	0	-54	3	34		
	K57	Top	227	85	0	-55	3	33	57	57
Existing Fixed Sources at KSR (TML) and Train Wash Facility at PHD ⁽¹⁾⁽⁴⁾										
	A1	Northwest	215	81	-10	-55	3	19		
	A2	Northwest	164	87	-10	-52	3	28		
	A3	Northwest	89	64	-10	-47	3	10		
	CP	Top	163	92	0	-52	3	43		
	TWF	Top	457	95	0	-61	3	>300m	43	
Cumulative FPN Impact (Daytime & Evening time), dB(A)									57	65

Appendix 4.11 Fixed Plant Noise Calculation

Night-time										
NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ^[2] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KSR-PFD1b	K01a	Northeast	163	62	0	-52	3	13		
	K01b	Northeast	161	62	0	-52	3	13		
	K01c	Northeast	153	62	0	-52	3	13		
	K02	Northeast	153	72	0	-52	3	23		
	K03	Northeast	148	60	0	-51	3	12		
	K04	Northeast	146	72	0	-51	3	24		
	K05	Northeast	142	60	0	-51	3	12		
	K06	Northeast	140	72	0	-51	3	24		
	K07	Northeast	135	60	0	-51	3	12		
	K08	Northeast	133	72	0	-50	3	25		
	K09	Northeast	129	65	0	-50	3	18		
	K09a	Northeast	122	62	0	-50	3	15		
	K09b	Northeast	119	62	0	-50	3	15		
	K09c	Northeast	115	63	0	-49	3	17		
	K09d	Northeast	111	63	0	-49	3	17		
	K10	Northeast	105	70	0	-48	3	25		
	K10a	Northeast	158	58	0	-52	3	9		
	K10b	Northeast	160	60	0	-52	3	11		
	K10c	Northeast	164	60	0	-52	3	11		
	K10d	Northeast	173	60	0	-53	3	10		
	K11	Northeast	176	60	0	-53	3	10		
	K12	Northeast	181	60	0	-53	3	10		
	K13	Northeast	183	60	0	-53	3	10		
	K14	Northeast	187	60	0	-53	3	10		
	K15	Northeast	190	60	0	-54	3	9		
	K16	Northeast	193	60	0	-54	3	9		
	K17	Northeast	195	60	0	-54	3	9		
	K18	Northeast	199	60	0	-54	3	9		
	K19	Southwest	39	75	-10	-40	3	28		
	K20	Southwest	33	77	-10	-38	3	32		
	K20a	Northeast	13	68	0	-30	3	41		
	K21	Northeast	12	68	0	-30	3	41		
	K22	Southwest	33	75	-10	-38	3	30		
	K22a	Southwest	33	70	-10	-38	3	25		
	K22b	Southwest	34	70	-10	-39	3	24		
	K22c	Southwest	34	72	-10	-39	3	26		
	K23	Southwest	170	75	-10	-53	3	15		
	K24	Southwest	175	75	-10	-53	3	15		
	K25	Southwest	182	75	-10	-53	3	15		
	K26	Southwest	187	75	-10	-53	3	15		
	K27	Southwest	193	74	-10	-54	3	13		
	K27a	Southwest	195	72	-10	-54	3	11		
	K28	Southwest	204	77	-10	-54	3	16		
	K29	Southwest	193	77	-10	-54	3	16		
	K30	Northeast	215	74	0	-55	3	22		
	K30a	Northeast	201	58	0	-54	3	7		
	K31	Northeast	209	74	0	-54	3	23		
	K31a	Northeast	196	55	0	-54	3	4		
	K31b	Southwest	194	55	-10	-54	3	-6		
	K31c	Southwest	148	70	-10	-51	3	12		
	K31d	Southwest	145	72	-10	-51	3	14		
	K32	Southwest	141	77	-10	-51	3	19		
	K33	Southwest	135	77	-10	-51	3	19		
	K34	Southwest	129	77	-10	-50	3	20		
	K35	Southwest	121	76	-10	-50	3	19		
	K35a	Southwest	113	72	-10	-49	3	16		
	K35b	Northwest	106	70	0	-49	3	24		
K37	Southwest	69	77	-10	-45	3	25			
K38	Southwest	62	77	-10	-44	3	26			
K39	Southwest	56	77	-10	-43	3	27			
K40	Southwest	33	77	-10	-38	3	32			
K41	Northwest	66	75	-10	-44	3	24			
K41a	Southwest	70	66	0	-45	3	24			
K42	Northeast	56	75	-10	-43	3	25			
K42a	Northeast	53	60	0	-43	3	20			
K43	Northwest	52	75	-10	-42	3	26			
K44	Top	52	66	0	-42	3	27			
K45	Top	48	66	0	-42	3	27			
K45a	Southwest	28	72	-10	-37	3	28			
K46	Top	48	66	0	-42	3	27			
K47	Top	45	65	0	-41	3	27			
K48	Southwest	152	75	-10	-52	3	16			
K48a	Southwest	157	70	-10	-52	3	11			
K48b	Southwest	163	70	-10	-52	3	11			
K49	Southwest	197	77	-10	-54	3	16			
K50	Southwest	207	77	-10	-54	3	16			
K51	Southwest	211	77	-10	-54	3	16			
K51a	Southwest	213	70	-10	-55	3	8			
K51b	Southwest	216	70	-10	-55	3	8			
K52	Southwest	219	77	-10	-55	3	15			
K53	Northeast	218	74	0	-55	3	22			
K54	Northeast	209	74	0	-54	3	23			
K55	Northeast	205	74	0	-54	3	23			
K56	Northeast	192	74	0	-54	3	23			
K57	Top	227	74	0	-55	3	22	46	46	
Existing Fixed Sources at KSR (TMR) and Train Wash Facility at PHD ^[3]										
A1	Northwest	215	81	-10	-55	3	19			
A2	Northwest	164	87	-10	-52	3	28			
A3	Northwest	89	64	-10	-47	3	10			
CP	Top	163	92	0	-52	3	43			
TWF	Top	457	95	0	-61	3	>300m	43		
Cumulative FPN Impact (Night-time), dB(A)									48	55

Remarks:
 [1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.
 [2] A negative correction of 10 dB(A) has been adopted to the direction facing of the louver totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the louver.
 [3] The SWL of A1-A3 and CP (Chiller Plant) can be referred to the Table 3.2 and Section 4.1 in Appendix 4.12 respectively.
 [4] For the SWL level of TWF (Train Wash Facility), it is within PHD, reference has been made to the approved Environmental Review Report for Pat Heung Depot Modification Works (2012). The predicted noise level was calculated by applying distance attenuation and façade correction to the SWL.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KSR Station)

NAP: KSR-PF01c
 Description: Future Kam Sheung Road Package 2 Property Development

Daytime/ Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
Planned Fixed Sources at KSR (NOL)										
KSR-PF01c	K01a	Northeast	109	73	0	-49	3	27		
	K01b	Northeast	106	73	0	-48	3	28		
	K01c	Northeast	98	73	0	-48	3	28		
	K02	Northeast	98	83	0	-48	3	38		
	K03	Northeast	93	71	0	-47	3	27		
	K04	Northeast	92	83	0	-47	3	39		
	K05	Northeast	87	71	0	-47	3	27		
	K06	Northeast	85	83	0	-47	3	39		
	K07	Northeast	80	71	0	-46	3	28		
	K08	Northeast	78	83	0	-46	3	40		
	K09	Northeast	74	76	0	-45	3	34		
	K09a	Northeast	67	73	0	-45	3	31		
	K09b	Northeast	65	73	0	-44	3	32		
	K09c	Northeast	60	74	0	-44	3	33		
	K09d	Northeast	56	74	0	-43	3	34		
	K10	Northeast	50	81	0	-42	3	42		
	K10a	Northeast	213	69	0	-55	3	17		
	K10b	Northeast	215	71	0	-55	3	19		
	K10c	Northeast	219	71	0	-55	3	19		
	K10d	Northeast	228	71	0	-55	3	19		
	K11	Northeast	231	71	0	-55	3	19		
	K12	Northeast	235	71	0	-55	3	19		
	K13	Northeast	238	71	0	-56	3	18		
	K14	Northeast	241	71	0	-56	3	18		
	K15	Northeast	245	71	0	-56	3	18		
	K16	Northeast	248	71	0	-56	3	18		
	K17	Northeast	250	71	0	-56	3	18		
	K18	Northeast	254	71	0	-56	3	18		
	K19	Southwest	47	86	-10	-41	3	38		
	K20	Southwest	62	88	-10	-44	3	37		
	K20a	Northeast	61	79	0	-44	3	38		
	K21	Northeast	56	79	0	-43	3	39		
	K22	Southwest	64	86	-10	-44	3	35		
	K22a	Southwest	68	81	-10	-45	3	29		
	K22b	Southwest	71	81	-10	-45	3	29		
	K22c	Southwest	73	83	-10	-45	3	31		
	K23	Southwest	224	86	-10	-55	3	24		
	K24	Southwest	229	86	-10	-55	3	24		
	K25	Southwest	237	86	-10	-55	3	24		
	K26	Southwest	242	86	-10	-56	3	23		
	K27	Southwest	248	85	-10	-56	3	22		
	K27a	Southwest	249	83	-10	-56	3	20		
	K28	Southwest	150	88	-10	-52	3	29		
	K29	Southwest	139	88	-10	-51	3	30		
	K30	Northeast	161	85	0	-52	3	36		
	K30a	Northeast	147	69	0	-51	3	21		
	K31	Northeast	154	85	0	-52	3	36		
	K31a	Northeast	141	66	0	-51	3	18		
	K31b	Southwest	139	66	-10	-51	3	8		
	K31c	Southwest	95	81	-10	-48	3	26		
	K31d	Southwest	93	83	-10	-47	3	29		
	K32	Southwest	87	88	-10	-47	3	34		
	K33	Southwest	81	88	-10	-46	3	35		
	K34	Southwest	76	88	-10	-46	3	35		
	K35	Southwest	68	87	-10	-45	3	35		
	K35a	Southwest	62	83	-10	-44	3	32		
	K35b	Northwest	54	81	0	-43	3	41		
	K37	Southwest	30	88	-10	-38	3	43		
	K38	Southwest	29	88	-10	-37	3	44		
	K39	Southwest	30	88	-10	-38	3	43		
	K40	Southwest	60	88	-10	-44	3	37		
	K41	Northwest	22	86	-10	-35	3	44		
	K41a	Southeast	21	77	0	-35	3	45		
	K42	Northeast	13	86	-10	-30	3	49		
	K42a	Northeast	13	71	0	-30	3	44		
	K43	Northwest	22	86	-10	-35	3	44		
	K44	Top	26	77	0	-36	3	44		
	K45	Top	28	77	0	-37	3	43		
	K45a	Southwest	50	83	-10	-42	3	34		
	K46	Top	19	77	0	-34	3	46		
	K47	Top	21	76	0	-35	3	44		
	K48	Southwest	205	86	-10	-54	3	25		
	K48a	Southwest	211	81	-10	-54	3	20		
	K48b	Southwest	217	81	-10	-55	3	19		
	K49	Southwest	251	88	-10	-56	3	25		
	K50	Southwest	261	88	-10	-56	3	25		
	K51	Southwest	265	88	-10	-56	3	25		
	K51a	Southwest	268	81	-10	-57	3	17		
	K51b	Southwest	271	81	-10	-57	3	17		
	K52	Southwest	273	88	-10	-57	3	24		
	K53	Northeast	273	85	0	-57	3	31		
	K54	Northeast	264	85	0	-56	3	32		
	K55	Northeast	259	85	0	-56	3	32		
	K56	Northeast	247	85	0	-56	3	32		
	K57	Top	282	85	0	-57	3	31	57	57
Existing Fixed Sources at KSR (TML) and Train Wash Facility at PHD ^{(3),(4)}										
	A1	Northwest	268	81	-10	-57	3	17		
	A2	Northwest	216	87	-10	-55	3	25		
	A3	Northwest	133	64	-10	-50	3	7		
	CP	Top	216	92	0	-55	3	40		
	TWF	Top	403	95	0	-60	3	>300m	40	
Cumulative FPN Impact (Daytime & Evening time), dB(A)									57	65

Appendix 4.11 Fixed Plant Noise Calculation

Night-time										
NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ^[2] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KSR-PFD1c	K01a	Northeast	109	62	0	-49	3	16		
	K01b	Northeast	106	62	0	-48	3	17		
	K01c	Northeast	98	62	0	-48	3	17		
	K02	Northeast	98	72	0	-48	3	27		
	K03	Northeast	93	60	0	-47	3	16		
	K04	Northeast	92	72	0	-47	3	28		
	K05	Northeast	87	60	0	-47	3	16		
	K06	Northeast	85	72	0	-47	3	28		
	K07	Northeast	80	60	0	-46	3	17		
	K08	Northeast	78	72	0	-46	3	29		
	K09	Northeast	74	65	0	-45	3	23		
	K09a	Northeast	67	62	0	-45	3	20		
	K09b	Northeast	65	62	0	-44	3	21		
	K09c	Northeast	60	63	0	-44	3	22		
	K09d	Northeast	56	63	0	-43	3	23		
	K10	Northeast	50	70	0	-42	3	33		
	K10a	Northeast	213	58	0	-55	3	6		
	K10b	Northeast	215	60	0	-55	3	8		
	K10c	Northeast	219	60	0	-55	3	8		
	K10d	Northeast	228	60	0	-55	3	8		
	K11	Northeast	231	60	0	-55	3	8		
	K12	Northeast	235	60	0	-55	3	8		
	K13	Northeast	238	60	0	-56	3	7		
	K14	Northeast	241	60	0	-56	3	7		
	K15	Northeast	245	60	0	-56	3	7		
	K16	Northeast	248	60	0	-56	3	7		
	K17	Northeast	250	60	0	-56	3	7		
	K18	Northeast	254	60	0	-56	3	7		
	K19	Southwest	47	75	-10	-41	3	27		
	K20	Southwest	62	77	-10	-44	3	26		
	K20a	Northeast	61	68	0	-44	3	27		
	K21	Northeast	56	68	0	-43	3	28		
	K22	Southwest	64	75	-10	-44	3	24		
	K22a	Southwest	68	70	-10	-45	3	18		
	K22b	Southwest	71	70	-10	-45	3	18		
	K22c	Southwest	73	72	-10	-45	3	20		
	K23	Southwest	224	75	-10	-55	3	13		
	K24	Southwest	229	75	-10	-55	3	13		
	K25	Southwest	237	75	-10	-55	3	13		
	K26	Southwest	242	75	-10	-56	3	12		
	K27	Southwest	248	74	-10	-56	3	11		
	K27a	Southwest	249	72	-10	-56	3	9		
	K28	Southwest	150	77	-10	-52	3	18		
	K29	Southwest	139	77	-10	-51	3	19		
	K30	Northeast	161	74	0	-52	3	25		
	K30a	Northeast	147	58	0	-51	3	10		
	K31	Northeast	154	74	0	-52	3	25		
	K31a	Northeast	141	55	0	-51	3	7		
	K31b	Southeast	139	55	-10	-51	3	-3		
	K31c	Southwest	95	70	-10	-48	3	15		
	K31d	Southwest	93	72	-10	-47	3	18		
	K32	Southwest	87	77	-10	-47	3	23		
	K33	Southwest	81	77	-10	-46	3	24		
	K34	Southwest	76	77	-10	-46	3	24		
	K35	Southwest	68	76	-10	-45	3	24		
	K35a	Southwest	62	72	-10	-44	3	21		
	K35b	Northwest	54	70	0	-43	3	30		
K37	Southwest	30	77	-10	-38	3	32			
K38	Southwest	29	77	-10	-37	3	33			
K39	Southwest	30	77	-10	-38	3	32			
K40	Southwest	60	77	-10	-44	3	26			
K41	Northwest	22	75	-10	-35	3	33			
K41a	Southeast	21	66	0	-35	3	34			
K42	Northeast	13	75	-10	-30	3	38			
K42a	Northeast	13	60	0	-30	3	33			
K43	Northwest	22	75	-10	-35	3	33			
K44	Top	26	66	0	-36	3	33			
K45	Top	28	66	0	-37	3	32			
K45a	Southwest	50	72	-10	-42	3	23			
K46	Top	19	66	0	-34	3	35			
K47	Top	21	65	0	-35	3	33			
K48	Southwest	205	75	-10	-54	3	14			
K48a	Southwest	211	70	-10	-54	3	9			
K48b	Southwest	217	70	-10	-55	3	8			
K49	Southwest	251	77	-10	-56	3	14			
K50	Southwest	261	77	-10	-56	3	14			
K51	Southwest	265	77	-10	-56	3	14			
K51a	Southwest	268	70	-10	-57	3	6			
K51b	Southwest	271	70	-10	-57	3	6			
K52	Southwest	273	77	-10	-57	3	13			
K53	Northeast	273	74	0	-57	3	20			
K54	Northeast	264	74	0	-56	3	21			
K55	Northeast	259	74	0	-56	3	21			
K56	Northeast	247	74	0	-56	3	21			
K57	Top	282	74	0	-57	3	20	46	46	
Existing Fixed Sources at KSR (TMR) and Train Wash Facility at PHD ^[4]										
A1	Northwest	268	81	-10	-57	3	17			
A2	Northwest	216	87	-10	-55	3	25			
A3	Northwest	133	64	-10	-50	3	7			
CP	Top	216	92	0	-55	3	40			
TWF	Top	403	95	0	-60	3	>300m	40		
Cumulative FPN Impact (Night-time), dB(A)									47	55

Remarks:

- [1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.
- [2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.
- [3] The SWL of A1-A3 and CP (Chiller Plant) can be referred to the Table 3.2 and Section 4.1 in Appendix 4.12 respectively.
- [4] For the SWL level of TWF (Train Wash Facility), it is within PHD, reference has been made to the approved Environmental Review Report for Pat Heung Depot Modification Works (2012). The predicted noise level was calculated by applying distance attenuation and façade correction to the SWL.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KSR Station)

NAP: KSR-PFO2a
 Description: Grand Mayfair

Daytime/ Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
Planned Fixed Sources at KSR (NOL)										
KSR-PFO2a	K01a	Northeast	371	73	-10	-59	3	>300m		
	K01b	Northeast	368	73	-10	-59	3	>300m		
	K01c	Northeast	360	73	-10	-59	3	>300m		
	K02	Northeast	360	83	-10	-59	3	>300m		
	K03	Northeast	356	71	-10	-59	3	>300m		
	K04	Northeast	354	83	-10	-59	3	>300m		
	K05	Northeast	350	71	-10	-59	3	>300m		
	K06	Northeast	348	83	-10	-59	3	>300m		
	K07	Northeast	343	71	-10	-59	3	>300m		
	K08	Northeast	341	83	-10	-59	3	>300m		
	K09	Northeast	337	76	-10	-59	3	>300m		
	K09a	Northeast	331	73	-10	-58	3	>300m		
	K09b	Northeast	328	73	-10	-58	3	>300m		
	K09c	Northeast	324	74	-10	-58	3	>300m		
	K09d	Northeast	320	74	-10	-58	3	>300m		
	K10	Northeast	314	81	-10	-58	3	>300m		
	K10a	Northeast	95	69	-10	-48	3	14		
	K10b	Northeast	94	71	-10	-47	3	17		
	K10c	Northeast	93	71	-10	-47	3	17		
	K10d	Northeast	90	71	-10	-47	3	17		
	K11	Northeast	89	71	-10	-47	3	17		
	K12	Northeast	88	71	-10	-47	3	17		
	K13	Northeast	88	71	-10	-47	3	17		
	K14	Northeast	87	71	-10	-47	3	17		
	K15	Northeast	87	71	-10	-47	3	17		
	K16	Northeast	87	71	-10	-47	3	17		
	K17	Northeast	87	71	-10	-47	3	17		
	K18	Northeast	87	71	-10	-47	3	17		
	K19	Southwest	228	86	0	-55	3	34		
	K20	Southwest	209	88	0	-54	3	37		
	K20a	Northeast	210	79	-10	-54	3	18		
	K21	Northeast	214	79	-10	-55	3	17		
	K22	Southwest	207	86	0	-54	3	35		
	K22a	Southwest	203	81	0	-54	3	30		
	K22b	Southwest	199	81	0	-54	3	30		
	K22c	Southwest	197	83	0	-54	3	32		
	K23	Southwest	76	86	0	-46	3	43		
	K24	Southwest	74	86	0	-45	3	44		
	K25	Southwest	72	86	0	-45	3	44		
	K26	Southwest	71	86	0	-45	3	44		
	K27	Southwest	70	85	0	-45	3	43		
	K27a	Southwest	71	83	0	-45	3	41		
	K28	Southwest	406	88	0	-60	3	>300m		
	K29	Southwest	394	88	0	-60	3	>300m		
	K30	Northeast	422	85	-10	-61	3	>300m		
	K30a	Northeast	407	69	-10	-60	3	>300m		
	K31	Northeast	416	85	-10	-60	3	>300m		
	K31a	Northeast	400	66	-10	-60	3	>300m		
	K31b	Southwest	400	66	0	-60	3	>300m		
	K31c	Southwest	348	81	0	-59	3	>300m		
	K31d	Southwest	346	83	0	-59	3	>300m		
	K32	Southwest	343	88	0	-59	3	>300m		
	K33	Southwest	337	88	0	-59	3	>300m		
	K34	Southwest	332	88	0	-58	3	>300m		
	K35	Southwest	324	87	0	-58	3	>300m		
	K35a	Southwest	313	83	0	-58	3	>300m		
	K35b	Northwest	310	81	0	-58	3	>300m		
K37	Southwest	268	88	0	-57	3	34			
K38	Southwest	260	88	0	-56	3	35			
K39	Southwest	254	88	0	-56	3	35			
K40	Southwest	211	88	0	-54	3	37			
K41	Northwest	270	86	0	-57	3	32			
K41a	Southeast	276	77	0	-57	3	23			
K42	Northeast	265	86	0	-56	3	33			
K42a	Northeast	263	71	-10	-56	3	8			
K43	Northwest	256	86	0	-56	3	33			
K44	Top	253	77	0	-56	3	24			
K45	Top	249	77	0	-56	3	24			
K45a	Southwest	220	83	0	-55	3	31			
K46	Top	255	77	0	-56	3	24			
K47	Top	251	76	0	-56	3	23			
K48	Southwest	82	86	0	-46	3	43			
K48a	Southwest	79	81	0	-46	3	38			
K48b	Southwest	75	81	0	-46	3	38			
K49	Southwest	70	88	0	-45	3	46			
K50	Southwest	71	88	0	-45	3	46			
K51	Southwest	71	88	0	-45	3	46			
K51a	Southwest	72	81	0	-45	3	39			
K51b	Southwest	73	81	0	-45	3	39			
K52	Southwest	73	88	0	-45	3	46			
K53	Northeast	90	85	-10	-47	3	31			
K54	Northeast	88	85	-10	-47	3	31			
K55	Northeast	87	85	-10	-47	3	31			
K56	Northeast	87	85	-10	-47	3	31			
K57	Top	92	85	0	-47	3	41	56	57	
Existing Fixed Sources at KSR (TML) and Train Wash Facility at PHD ⁽¹⁾⁽²⁾										
	A1	Northwest	38	81	0	-39	3	44		
	A2	Northwest	57	87	0	-43	3	47		
	A3	Northwest	138	64	0	-51	3	16		
	CP	Top	65	92	0	-44	3	51		
	TWF	Top	65	95	0	-64	3	>300m	53	
Cumulative FPN Impact (Daytime & Evening time), dB(A)									58	65

Appendix 4.11 Fixed Plant Noise Calculation

Night-time										
NAP	Plant Item	Direction Facing	Horizontal Distance, m (H)	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KSR-PF02a	K01a	Northeast	371	62	-10	-59	3	>300m		
	K01b	Northeast	368	62	-10	-59	3	>300m		
	K01c	Northeast	360	62	-10	-59	3	>300m		
	K02	Northeast	360	72	-10	-59	3	>300m		
	K03	Northeast	356	60	-10	-59	3	>300m		
	K04	Northeast	354	72	-10	-59	3	>300m		
	K05	Northeast	350	60	-10	-59	3	>300m		
	K06	Northeast	348	72	-10	-59	3	>300m		
	K07	Northeast	343	60	-10	-59	3	>300m		
	K08	Northeast	341	72	-10	-59	3	>300m		
	K09	Northeast	337	65	-10	-59	3	>300m		
	K09a	Northeast	331	62	-10	-58	3	>300m		
	K09b	Northeast	328	62	-10	-58	3	>300m		
	K09c	Northeast	324	63	-10	-58	3	>300m		
	K09d	Northeast	320	63	-10	-58	3	>300m		
	K10	Northeast	314	70	-10	-58	3	>300m		
	K10a	Northeast	95	58	-10	-48	3	3		
	K10b	Northeast	94	60	-10	-47	3	6		
	K10c	Northeast	93	60	-10	-47	3	6		
	K10d	Northeast	90	60	-10	-47	3	6		
	K11	Northeast	89	60	-10	-47	3	6		
	K12	Northeast	88	60	-10	-47	3	6		
	K13	Northeast	88	60	-10	-47	3	6		
	K14	Northeast	87	60	-10	-47	3	6		
	K15	Northeast	87	60	-10	-47	3	6		
	K16	Northeast	87	60	-10	-47	3	6		
	K17	Northeast	87	60	-10	-47	3	6		
	K18	Northeast	87	60	-10	-47	3	6		
	K19	Southwest	228	75	0	-55	3	23		
	K20	Southwest	209	77	0	-54	3	26		
	K20a	Northeast	210	68	-10	-54	3	7		
	K21	Northeast	214	68	-10	-55	3	6		
	K22	Southwest	207	75	0	-54	3	24		
	K22a	Southwest	203	70	0	-54	3	19		
	K22b	Southwest	199	70	0	-54	3	19		
	K22c	Southwest	197	72	0	-54	3	21		
	K23	Southwest	76	75	0	-46	3	32		
	K24	Southwest	74	75	0	-45	3	33		
	K25	Southwest	72	75	0	-45	3	33		
	K26	Southwest	71	75	0	-45	3	33		
	K27	Southwest	70	74	0	-45	3	32		
	K27a	Southwest	71	72	0	-45	3	30		
	K28	Southwest	406	77	0	-60	3	>300m		
	K29	Southwest	394	77	0	-60	3	>300m		
	K30	Northeast	422	74	-10	-61	3	>300m		
	K30a	Northeast	407	58	-10	-60	3	>300m		
	K31	Northeast	416	74	-10	-60	3	>300m		
	K31a	Northeast	400	55	-10	-60	3	>300m		
	K31b	Southeast	400	55	0	-60	3	>300m		
	K31c	Southwest	348	70	0	-59	3	>300m		
	K31d	Southwest	346	72	0	-59	3	>300m		
	K32	Southwest	343	77	0	-59	3	>300m		
	K33	Southwest	337	77	0	-59	3	>300m		
	K34	Southwest	332	77	0	-58	3	>300m		
	K35	Southwest	324	76	0	-58	3	>300m		
	K35a	Southwest	313	72	0	-58	3	>300m		
	K35b	Northwest	310	70	0	-58	3	>300m		
K37	Southwest	268	77	0	-57	3	23			
K38	Southwest	260	77	0	-56	3	24			
K39	Southwest	254	77	0	-56	3	24			
K40	Southwest	211	77	0	-54	3	26			
K41	Northwest	270	75	0	-57	3	21			
K41a	Southeast	276	66	0	-57	3	12			
K42	Northeast	265	75	0	-56	3	22			
K42a	Northeast	263	60	-10	-56	3	-3			
K43	Northwest	256	75	0	-56	3	22			
K44	Top	253	66	0	-56	3	13			
K45	Top	249	66	0	-56	3	13			
K45a	Southwest	220	72	0	-55	3	20			
K46	Top	255	66	0	-56	3	13			
K47	Top	251	65	0	-56	3	12			
K48	Southwest	82	75	0	-46	3	32			
K48a	Southwest	79	70	0	-46	3	27			
K48b	Southwest	75	70	0	-46	3	27			
K49	Southwest	70	77	0	-45	3	35			
K50	Southwest	71	77	0	-45	3	35			
K51	Southwest	71	77	0	-45	3	35			
K51a	Southwest	72	70	0	-45	3	28			
K51b	Southwest	73	70	0	-45	3	28			
K52	Southwest	73	77	0	-45	3	35			
K53	Northeast	90	74	-10	-47	3	20			
K54	Northeast	88	74	-10	-47	3	20			
K55	Northeast	87	74	-10	-47	3	20			
K56	Northeast	87	74	-10	-47	3	20			
K57	Top	92	74	0	-47	3	30	45	46	
Existing Fixed Sources at KSR (TMR) and Train Wash Facility at PHD ^[4]										
A1	Northwest	38	81	0	-39	3	44			
A2	Northwest	57	87	0	-43	3	47			
A3	Northwest	138	64	0	-51	3	16			
CP	Top	65	92	0	-44	3	51			
TWF	Top	657	95	0	-64	3	>300m	53		
Cumulative FPN Impact (Night-time), dB(A)									54	55

Remarks:

- [1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.
- [2] A negative correction of 10 dB(A) has been adopted to the direction facing of the louver totally screened by buildings and negative correction of 5 dB(A) for KSR do not have direct line of sight to the louver.
- [3] The SWL of A1-A3 and CP (Chiller Plant) can be referred to the Table 3.2 and Section 4.1 in Appendix 4.12 respectively.
- [4] For the SWL level of TWF (Train Wash Facility), it is within PHD, reference has been made to the approved Environmental Review Report for Pat Heung Depot Modification Works (2012). The predicted noise level was calculated by applying distance attenuation and facade correction to the SWL.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KSR Station)

NAP: KSR-PF02b
 Description: Grand Mayfair

Daytime/ Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
Planned Fixed Sources at KSR (NOL)										
KSR-PF02b	K01a	Northeast	344	73	-10	-59	3	>300m		
	K01b	Northeast	341	73	-10	-59	3	>300m		
	K01c	Northeast	333	73	-10	-58	3	>300m		
	K02	Northeast	333	83	-10	-58	3	>300m		
	K03	Northeast	329	71	-10	-58	3	>300m		
	K04	Northeast	327	83	-10	-58	3	>300m		
	K05	Northeast	323	71	-10	-58	3	>300m		
	K06	Northeast	321	83	-10	-58	3	>300m		
	K07	Northeast	316	71	-10	-58	3	>300m		
	K08	Northeast	314	83	-10	-58	3	>300m		
	K09	Northeast	310	76	-10	-58	3	>300m		
	K09a	Northeast	304	73	-10	-58	3	>300m		
	K09b	Northeast	301	73	-10	-58	3	>300m		
	K09c	Northeast	297	74	-10	-57	3	10		
	K09d	Northeast	293	74	-10	-57	3	10		
	K10	Northeast	288	81	-10	-57	3	17		
	K10a	Northeast	88	69	-10	-47	3	15		
	K10b	Northeast	88	71	-10	-47	3	17		
	K10c	Northeast	88	71	-10	-47	3	17		
	K10d	Northeast	88	71	-10	-47	3	17		
	K11	Northeast	88	71	-10	-47	3	17		
	K12	Northeast	89	71	-10	-47	3	17		
	K13	Northeast	89	71	-10	-47	3	17		
	K14	Northeast	90	71	-10	-47	3	17		
	K15	Northeast	91	71	-10	-47	3	17		
	K16	Northeast	92	71	-10	-47	3	17		
	K17	Northeast	92	71	-10	-47	3	17		
	K18	Northeast	93	71	-10	-47	3	17		
	K19	Southwest	201	86	0	-54	3	35		
	K20	Southwest	183	88	0	-53	3	38		
	K20a	Northeast	185	79	-10	-53	3	19		
	K21	Northeast	189	79	-10	-54	3	18		
	K22	Southwest	181	86	0	-53	3	36		
	K22a	Southwest	177	81	0	-53	3	31		
	K22b	Southwest	173	81	0	-53	3	31		
	K22c	Southwest	171	83	0	-53	3	33		
	K23	Southwest	71	86	0	-45	3	44		
	K24	Southwest	71	86	0	-45	3	44		
	K25	Southwest	72	86	0	-45	3	44		
	K26	Southwest	74	86	0	-45	3	44		
	K27	Southwest	75	85	0	-46	3	42		
	K27a	Southwest	77	83	0	-46	3	40		
	K28	Southwest	378	88	0	-60	3	>300m		
	K29	Southwest	366	88	0	-59	3	>300m		
	K30	Northeast	395	85	-10	-60	3	>300m		
	K30a	Northeast	379	69	-10	-60	3	>300m		
	K31	Northeast	389	85	-10	-60	3	>300m		
	K31a	Northeast	373	66	-10	-59	3	>300m		
	K31b	Southwest	372	66	0	-59	3	>300m		
	K31c	Southwest	320	81	0	-58	3	>300m		
	K31d	Southwest	318	83	0	-58	3	>300m		
	K32	Southwest	316	88	0	-58	3	>300m		
	K33	Southwest	310	88	0	-58	3	>300m		
	K34	Southwest	305	88	0	-58	3	>300m		
	K35	Southwest	297	87	0	-57	3	33		
	K35a	Southwest	285	83	0	-57	3	29		
	K35b	Northwest	283	81	0	-57	3	27		
	K37	Southwest	241	88	0	-56	3	35		
	K38	Southwest	233	88	0	-55	3	36		
	K39	Southwest	227	88	0	-55	3	36		
	K40	Southwest	184	88	0	-53	3	38		
	K41	Northwest	243	86	0	-56	3	33		
	K41a	Southeast	250	77	0	-56	3	24		
	K42	Northeast	239	86	0	-56	3	33		
	K42a	Northeast	236	71	-10	-55	3	9		
	K43	Northwest	230	86	0	-55	3	34		
	K44	Top	226	77	0	-55	3	25		
	K45	Top	223	77	0	-55	3	25		
	K45a	Southwest	194	83	0	-54	3	32		
	K46	Top	229	77	0	-55	3	25		
	K47	Top	225	76	0	-55	3	24		
	K48	Southwest	70	86	0	-45	3	44		
	K48a	Southwest	69	81	0	-45	3	39		
	K48b	Southwest	68	81	0	-45	3	39		
	K49	Southwest	76	88	0	-46	3	45		
	K50	Southwest	80	88	0	-46	3	45		
	K51	Southwest	82	88	0	-46	3	45		
	K51a	Southwest	84	81	0	-46	3	38		
	K51b	Southwest	85	81	0	-47	3	37		
	K52	Southwest	87	88	0	-47	3	44		
	K53	Northeast	101	85	-10	-48	3	30		
	K54	Northeast	97	85	-10	-48	3	30		
	K55	Northeast	95	85	-10	-48	3	30		
	K56	Northeast	91	85	-10	-47	3	31		
	K57	Top	106	85	0	-48	3	40	56	57
Existing Fixed Sources at KSR (TML) and Train Wash Facility at PHD ⁽¹⁾⁽⁴⁾										
	A1	Northwest	53	81	0	-43	3	41		
	A2	Northwest	40	87	0	-40	3	50		
	A3	Northwest	111	64	0	-49	3	18		
	CP	Top	53	92	0	-43	3	52		
	TWF	Top	629	95	0	-64	3	>300m	55	
Cumulative FPN Impact (Daytime & Evening time), dB(A)									58	65

Appendix 4.11 Fixed Plant Noise Calculation

Night-time										
NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ^[2] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KSR-PF02b	K01a	Northeast	344	62	-10	-59	3	>300m		
	K01b	Northeast	341	62	-10	-59	3	>300m		
	K01c	Northeast	333	62	-10	-58	3	>300m		
	K02	Northeast	333	72	-10	-58	3	>300m		
	K03	Northeast	329	60	-10	-58	3	>300m		
	K04	Northeast	327	72	-10	-58	3	>300m		
	K05	Northeast	323	60	-10	-58	3	>300m		
	K06	Northeast	321	72	-10	-58	3	>300m		
	K07	Northeast	316	60	-10	-58	3	>300m		
	K08	Northeast	314	72	-10	-58	3	>300m		
	K09	Northeast	310	65	-10	-58	3	>300m		
	K09a	Northeast	304	62	-10	-58	3	>300m		
	K09b	Northeast	301	62	-10	-58	3	>300m		
	K09c	Northeast	297	63	-10	-57	3	-1		
	K09d	Northeast	293	63	-10	-57	3	-1		
	K10	Northeast	288	70	-10	-57	3	6		
	K10a	Northeast	88	58	-10	-47	3	4		
	K10b	Northeast	88	60	-10	-47	3	6		
	K10c	Northeast	88	60	-10	-47	3	6		
	K10d	Northeast	88	60	-10	-47	3	6		
	K11	Northeast	88	60	-10	-47	3	6		
	K12	Northeast	89	60	-10	-47	3	6		
	K13	Northeast	89	60	-10	-47	3	6		
	K14	Northeast	90	60	-10	-47	3	6		
	K15	Northeast	91	60	-10	-47	3	6		
	K16	Northeast	92	60	-10	-47	3	6		
	K17	Northeast	92	60	-10	-47	3	6		
	K18	Northeast	93	60	-10	-47	3	6		
	K19	Southwest	201	75	0	-54	3	24		
	K20	Southwest	183	77	0	-53	3	27		
	K20a	Northeast	185	68	-10	-53	3	8		
	K21	Northeast	189	68	-10	-54	3	7		
	K22	Southwest	181	75	0	-53	3	25		
	K22a	Southwest	177	70	0	-53	3	20		
	K22b	Southwest	173	70	0	-53	3	20		
	K22c	Southwest	171	72	0	-53	3	22		
	K23	Southwest	71	75	0	-45	3	33		
	K24	Southwest	71	75	0	-45	3	33		
	K25	Southwest	72	75	0	-45	3	33		
	K26	Southwest	74	75	0	-45	3	33		
	K27	Southwest	75	74	0	-46	3	31		
	K27a	Southwest	77	72	0	-46	3	29		
	K28	Southwest	378	77	0	-60	3	>300m		
	K29	Southwest	366	77	0	-59	3	>300m		
	K30	Northeast	395	74	-10	-60	3	>300m		
	K30a	Northeast	379	58	-10	-60	3	>300m		
	K31	Northeast	389	74	-10	-60	3	>300m		
	K31a	Northeast	373	55	-10	-59	3	>300m		
	K31b	Southeast	372	55	0	-59	3	>300m		
	K31c	Southwest	320	70	0	-58	3	>300m		
	K31d	Southwest	318	72	0	-58	3	>300m		
	K32	Southwest	316	77	0	-58	3	>300m		
	K33	Southwest	310	77	0	-58	3	>300m		
	K34	Southwest	305	77	0	-58	3	>300m		
	K35	Southwest	297	76	0	-57	3	22		
	K35a	Southwest	285	72	0	-57	3	18		
	K35b	Northwest	283	70	0	-57	3	16		
K37	Southwest	241	77	0	-56	3	24			
K38	Southwest	233	77	0	-55	3	25			
K39	Southwest	227	77	0	-55	3	25			
K40	Southwest	184	77	0	-53	3	27			
K41	Northwest	243	75	0	-56	3	22			
K41a	Southeast	250	66	0	-56	3	13			
K42	Northeast	239	75	0	-56	3	22			
K42a	Northeast	236	60	-10	-55	3	-2			
K43	Northwest	230	75	0	-55	3	23			
K44	Top	226	66	0	-55	3	14			
K45	Top	223	66	0	-55	3	14			
K45a	Southwest	194	72	0	-54	3	21			
K46	Top	229	66	0	-55	3	14			
K47	Top	225	65	0	-55	3	13			
K48	Southwest	70	75	0	-45	3	33			
K48a	Southwest	69	70	0	-45	3	28			
K48b	Southwest	68	70	0	-45	3	28			
K49	Southwest	76	77	0	-46	3	34			
K50	Southwest	80	77	0	-46	3	34			
K51	Southwest	82	77	0	-46	3	34			
K51a	Southwest	84	70	0	-46	3	27			
K51b	Southwest	85	70	0	-47	3	26			
K52	Southwest	87	77	0	-47	3	33			
K53	Northeast	101	74	-10	-48	3	19			
K54	Northeast	97	74	-10	-48	3	19			
K55	Northeast	95	74	-10	-48	3	19			
K56	Northeast	91	74	-10	-47	3	20			
K57	Top	106	74	0	-48	3	29	45	46	
Existing Fixed Sources at KSR (TMR) and Train Wash Facility at PHD ^[4]										
A1	Northwest	53	81	0	-43	3	41			
A2	Northwest	40	87	0	-40	3	50			
A3	Northwest	111	64	0	-49	3	18			
CP	Top	53	92	0	-43	3	52			
TWF	Top	629	95	0	-64	3	>300m	55		
Cumulative FPN Impact (Night-time), dB(A)									55	55

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the louver totally screened by buildings and negative correction of 5 dB(A) for KSR do not have direct line of sight to the louver.

[3] The SWL of A1-A3 and CP (Chiller Plant) can be referred to the Table 3.2 and Section 4.1 in Appendix 4.12 respectively.

[4] For the SWL level of TWF (Train Wash Facility), it is within PHD, reference has been made to the approved Environmental Review Report for Pat Heung Depot Modification Works (2012). The predicted noise level was calculated by applying distance attenuation and facade correction to the SWL.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KSR Station)

NAP: KSR-PF02c
 Description: Grand Mayfair

Daytime/ Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
Planned Fixed Sources at KSR (NOL)										
KSR-PF02c	K01a	Northeast	187	73	-10	-53	3	13		
	K01b	Northeast	184	73	-10	-53	3	13		
	K01c	Northeast	177	73	-10	-53	3	13		
	K02	Northeast	177	83	-10	-53	3	23		
	K03	Northeast	174	71	-10	-53	3	11		
	K04	Northeast	172	83	-10	-53	3	23		
	K05	Northeast	168	71	-10	-53	3	11		
	K06	Northeast	167	83	-10	-52	3	24		
	K07	Northeast	163	71	-10	-52	3	12		
	K08	Northeast	161	83	-10	-52	3	24		
	K09	Northeast	158	76	-10	-52	3	17		
	K09a	Northeast	152	73	-10	-52	3	14		
	K09b	Northeast	150	73	-10	-52	3	14		
	K09c	Northeast	146	74	-10	-51	3	16		
	K09d	Northeast	143	74	-10	-51	3	16		
	K10	Northeast	139	81	-10	-51	3	23		
	K10a	Northeast	180	69	-10	-53	3	9		
	K10b	Northeast	182	71	-10	-53	3	11		
	K10c	Northeast	186	71	-10	-53	3	11		
	K10d	Northeast	194	71	-10	-54	3	10		
	K11	Northeast	196	71	-10	-54	3	10		
	K12	Northeast	200	71	-10	-54	3	10		
	K13	Northeast	202	71	-10	-54	3	10		
	K14	Northeast	206	71	-10	-54	3	10		
	K15	Northeast	209	71	-10	-54	3	10		
	K16	Northeast	212	71	-10	-55	3	9		
	K17	Northeast	213	71	-10	-55	3	9		
	K18	Northeast	217	71	-10	-55	3	9		
	K19	Southwest	69	86	0	-45	3	44		
	K20	Southwest	65	88	0	-44	3	47		
	K20a	Northeast	86	79	-10	-47	3	25		
	K21	Northeast	86	79	-10	-47	3	25		
	K22	Southwest	65	86	0	-44	3	45		
	K22a	Southwest	66	81	0	-44	3	40		
	K22b	Southwest	66	81	0	-44	3	40		
	K22c	Southwest	67	83	0	-44	3	42		
	K23	Southwest	182	86	0	-53	3	36		
	K24	Southwest	187	86	0	-53	3	36		
	K25	Southwest	194	86	0	-54	3	35		
	K26	Southwest	198	86	0	-54	3	35		
	K27	Southwest	204	85	0	-54	3	34		
	K27a	Southwest	206	83	0	-54	3	32		
	K28	Southwest	215	88	0	-55	3	36		
	K29	Southwest	204	88	0	-54	3	37		
	K30	Northeast	235	85	-10	-55	3	23		
	K30a	Northeast	219	69	-10	-55	3	7		
	K31	Northeast	229	85	-10	-55	3	23		
	K31a	Northeast	213	66	-10	-55	3	4		
	K31b	Southwest	213	66	0	-55	3	14		
	K31c	Southwest	160	81	0	-52	3	32		
	K31d	Southwest	158	83	0	-52	3	34		
	K32	Southwest	158	88	0	-52	3	39		
	K33	Southwest	153	88	0	-52	3	39		
	K34	Southwest	148	88	0	-51	3	40		
	K35	Southwest	141	87	0	-51	3	39		
	K35a	Southwest	128	83	0	-50	3	36		
	K35b	Northwest	129	81	0	-50	3	34		
	K37	Southwest	93	88	0	-47	3	44		
	K38	Southwest	88	88	0	-47	3	44		
	K39	Southwest	84	88	0	-47	3	44		
	K40	Southwest	66	88	0	-44	3	47		
	K41	Northwest	100	86	0	-48	3	41		
	K41a	Southeast	106	77	0	-49	3	31		
	K42	Northeast	102	86	0	-48	3	41		
	K42a	Northeast	100	71	-10	-48	3	16		
	K43	Northwest	91	86	0	-47	3	42		
	K44	Top	87	77	0	-47	3	33		
	K45	Top	85	77	0	-47	3	33		
	K45a	Southwest	74	83	0	-45	3	41		
	K46	Top	93	77	0	-47	3	33		
	K47	Top	92	76	0	-47	3	32		
	K48	Southwest	162	86	0	-52	3	37		
	K48a	Southwest	167	81	0	-52	3	32		
	K48b	Southwest	173	81	0	-53	3	31		
	K49	Southwest	207	88	0	-54	3	37		
	K50	Southwest	217	88	0	-55	3	36		
	K51	Southwest	221	88	0	-55	3	36		
	K51a	Southwest	223	81	0	-55	3	29		
	K51b	Southwest	226	81	0	-55	3	29		
	K52	Southwest	228	88	0	-55	3	36		
	K53	Northeast	234	85	-10	-55	3	23		
	K54	Northeast	227	85	-10	-55	3	23		
	K55	Northeast	222	85	-10	-55	3	23		
	K56	Northeast	211	85	-10	-54	3	24		
	K57	Top	243	85	0	-56	3	32	56	57
Existing Fixed Sources at KSR (TML) and Train Wash Facility at PHD ^{(3),(4)}										
	A1	Northwest	209	81	0	-54	3	29		
	A2	Northwest	157	87	0	-52	3	38		
	A3	Northwest	72	64	0	-45	3	22		
	CP	Top	164	92	0	-52	3	43		
	TWF	Top	462	95	0	-61	3	>300m	44	
Cumulative FPN Impact (Daytime & Evening time), dB(A)									57	65

Appendix 4.11 Fixed Plant Noise Calculation

Night-time										
NAP	Plant Item	Direction Facing	Horizontal Distance, m (H)	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KSR-PF02c	K01a	Northeast	187	62	-10	-53	3	2		
	K01b	Northeast	184	62	-10	-53	3	2		
	K01c	Northeast	177	62	-10	-53	3	2		
	K02	Northeast	177	72	-10	-53	3	12		
	K03	Northeast	174	60	-10	-53	3	0		
	K04	Northeast	172	72	-10	-53	3	12		
	K05	Northeast	168	60	-10	-53	3	0		
	K06	Northeast	167	72	-10	-52	3	13		
	K07	Northeast	163	60	-10	-52	3	1		
	K08	Northeast	161	72	-10	-52	3	13		
	K09	Northeast	158	65	-10	-52	3	6		
	K09a	Northeast	152	62	-10	-52	3	3		
	K09b	Northeast	150	62	-10	-52	3	3		
	K09c	Northeast	146	63	-10	-51	3	5		
	K09d	Northeast	143	63	-10	-51	3	5		
	K10	Northeast	139	70	-10	-51	3	12		
	K10a	Northeast	180	58	-10	-53	3	-2		
	K10b	Northeast	182	60	-10	-53	3	0		
	K10c	Northeast	186	60	-10	-53	3	0		
	K10d	Northeast	194	60	-10	-54	3	-1		
	K11	Northeast	196	60	-10	-54	3	-1		
	K12	Northeast	200	60	-10	-54	3	-1		
	K13	Northeast	202	60	-10	-54	3	-1		
	K14	Northeast	206	60	-10	-54	3	-1		
	K15	Northeast	209	60	-10	-54	3	-1		
	K16	Northeast	212	60	-10	-55	3	-2		
	K17	Northeast	213	60	-10	-55	3	-2		
	K18	Northeast	217	60	-10	-55	3	-2		
	K19	Southwest	69	75	0	-45	3	33		
	K20	Southwest	65	77	0	-44	3	36		
	K20a	Northeast	86	68	-10	-47	3	14		
	K21	Northeast	86	68	-10	-47	3	14		
	K22	Southwest	65	75	0	-44	3	34		
	K22a	Southwest	66	70	0	-44	3	29		
	K22b	Southwest	66	70	0	-44	3	29		
	K22c	Southwest	67	72	0	-44	3	31		
	K23	Southwest	182	75	0	-53	3	25		
	K24	Southwest	187	75	0	-53	3	25		
	K25	Southwest	194	75	0	-54	3	24		
	K26	Southwest	198	75	0	-54	3	24		
	K27	Southwest	204	74	0	-54	3	23		
	K27a	Southwest	206	72	0	-54	3	21		
	K28	Southwest	215	77	0	-55	3	25		
	K29	Southwest	204	77	0	-54	3	26		
	K30	Northeast	235	74	-10	-55	3	12		
	K30a	Northeast	219	58	-10	-55	3	-4		
	K31	Northeast	229	74	-10	-55	3	12		
	K31a	Northeast	213	55	-10	-55	3	-7		
	K31b	Southeast	213	55	0	-55	3	3		
	K31c	Southwest	160	70	0	-52	3	21		
	K31d	Southwest	158	72	0	-52	3	23		
	K32	Southwest	158	77	0	-52	3	28		
	K33	Southwest	153	77	0	-52	3	28		
	K34	Southwest	148	77	0	-51	3	29		
	K35	Southwest	141	76	0	-51	3	28		
	K35a	Southwest	128	72	0	-50	3	25		
	K35b	Northwest	129	70	0	-50	3	23		
K37	Southwest	93	77	0	-47	3	33			
K38	Southwest	88	77	0	-47	3	33			
K39	Southwest	84	77	0	-47	3	33			
K40	Southwest	66	77	0	-44	3	36			
K41	Northwest	100	75	0	-48	3	30			
K41a	Southeast	106	66	0	-49	3	20			
K42	Northeast	102	75	0	-48	3	30			
K42a	Northeast	100	60	-10	-48	3	5			
K43	Northwest	91	75	0	-47	3	31			
K44	Top	87	66	0	-47	3	22			
K45	Top	85	66	0	-47	3	22			
K45a	Southwest	74	72	0	-45	3	30			
K46	Top	93	66	0	-47	3	22			
K47	Top	92	65	0	-47	3	21			
K48	Southwest	162	75	0	-52	3	26			
K48a	Southwest	167	70	0	-52	3	21			
K48b	Southwest	173	70	0	-53	3	20			
K49	Southwest	207	77	0	-54	3	26			
K50	Southwest	217	77	0	-55	3	25			
K51	Southwest	221	77	0	-55	3	25			
K51a	Southwest	223	70	0	-55	3	18			
K51b	Southwest	226	70	0	-55	3	18			
K52	Southwest	228	77	0	-55	3	25			
K53	Northeast	234	74	-10	-55	3	12			
K54	Northeast	227	74	-10	-55	3	12			
K55	Northeast	222	74	-10	-55	3	12			
K56	Northeast	211	74	-10	-54	3	13			
K57	Top	243	74	0	-56	3	21	45	46	
Existing Fixed Sources at KSR (TMR) and Train Wash Facility at PHD ^[4]										
A1	Northwest	209	81	0	-54	3	29			
A2	Northwest	157	87	0	-52	3	38			
A3	Northwest	72	64	0	-45	3	22			
CP	Top	164	92	0	-52	3	43			
TWF	Top	462	95	0	-61	3	>300m	44		
Cumulative FPN Impact (Night-time), dB(A)									48	55

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the louver totally screened by buildings and negative correction of 5 dB(A) for KSR do not have direct line of sight to the louver.

[3] The SWL of A1-A3 and CP (Chiller Plant) can be referred to the Table 3.2 and Section 4.1 in Appendix 4.12 respectively.

[4] For the SWL level of TWF (Train Wash Facility), it is within PHD, reference has been made to the approved Environmental Review Report for Pat Heung Depot Modification Works (2012). The predicted noise level was calculated by applying distance attenuation and facade correction to the SWL.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KSR Station)

NAP: KSR-PF02d
 Description: Grand Mayfair

Daytime/ Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
Planned Fixed Sources at KSR (NOL)										
KSR-PF02d	K01a	Northeast	144	73	-10	-51	3	15		
	K01b	Northeast	142	73	-10	-51	3	15		
	K01c	Northeast	136	73	-10	-51	3	15		
	K02	Northeast	136	83	-10	-51	3	25		
	K03	Northeast	133	71	-10	-50	3	14		
	K04	Northeast	131	83	-10	-50	3	26		
	K05	Northeast	128	71	-10	-50	3	14		
	K06	Northeast	127	83	-10	-50	3	26		
	K07	Northeast	124	71	-10	-50	3	14		
	K08	Northeast	122	83	-10	-50	3	26		
	K09	Northeast	119	76	-10	-50	3	19		
	K09a	Northeast	115	73	-10	-49	3	17		
	K09b	Northeast	113	73	-10	-49	3	17		
	K09c	Northeast	111	74	-10	-49	3	18		
	K09d	Northeast	108	74	-10	-49	3	18		
	K10	Northeast	105	81	-10	-48	3	26		
	K10a	Northeast	225	69	-10	-55	3	7		
	K10b	Northeast	227	71	-10	-55	3	9		
	K10c	Northeast	231	71	-10	-55	3	9		
	K10d	Northeast	239	71	-10	-56	3	8		
	K11	Northeast	242	71	-10	-56	3	8		
	K12	Northeast	246	71	-10	-56	3	8		
	K13	Northeast	248	71	-10	-56	3	8		
	K14	Northeast	252	71	-10	-56	3	8		
	K15	Northeast	255	71	-10	-56	3	8		
	K16	Northeast	258	71	-10	-56	3	8		
	K17	Northeast	260	71	-10	-56	3	8		
	K18	Northeast	263	71	-10	-56	3	8		
	K19	Southwest	70	86	0	-45	3	44		
	K20	Southwest	80	88	0	-46	3	45		
	K20a	Northeast	101	79	-10	-48	3	24		
	K21	Northeast	99	79	-10	-48	3	24		
	K22	Southwest	82	86	0	-46	3	43		
	K22a	Southwest	84	81	0	-47	3	37		
	K22b	Southwest	87	81	0	-47	3	37		
	K22c	Southwest	89	83	0	-47	3	39		
	K23	Southwest	229	86	0	-55	3	34		
	K24	Southwest	234	86	0	-55	3	34		
	K25	Southwest	241	86	0	-56	3	33		
	K26	Southwest	246	86	0	-56	3	33		
	K27	Southwest	252	85	0	-56	3	32		
	K27a	Southwest	253	83	0	-56	3	30		
	K28	Southwest	168	88	0	-53	3	38		
	K29	Southwest	158	88	0	-52	3	39		
	K30	Northeast	190	85	-10	-54	3	24		
	K30a	Northeast	173	69	-10	-53	3	9		
	K31	Northeast	184	85	-10	-53	3	25		
	K31a	Northeast	167	66	-10	-52	3	7		
	K31b	Southwest	168	66	0	-53	3	16		
	K31c	Southwest	116	81	0	-49	3	35		
	K31d	Southwest	114	83	0	-49	3	37		
	K32	Southwest	115	88	0	-49	3	42		
	K33	Southwest	111	88	0	-49	3	42		
	K34	Southwest	107	88	0	-49	3	42		
	K35	Southwest	102	87	0	-48	3	42		
	K35a	Southwest	89	83	0	-47	3	39		
	K35b	Northwest	93	81	0	-47	3	37		
	K37	Southwest	69	88	0	-45	3	46		
	K38	Southwest	68	88	0	-45	3	46		
	K39	Southwest	68	88	0	-45	3	46		
	K40	Southwest	79	88	0	-46	3	45		
	K41	Northwest	78	86	0	-46	3	43		
	K41a	Southeast	83	77	0	-46	3	34		
	K42	Northeast	85	86	0	-47	3	42		
	K42a	Northeast	85	71	-10	-47	3	17		
	K43	Northwest	77	86	0	-46	3	43		
	K44	Top	73	77	0	-45	3	35		
	K45	Top	74	77	0	-45	3	35		
	K45a	Southwest	82	83	0	-46	3	40		
	K46	Top	81	77	0	-46	3	34		
	K47	Top	81	76	0	-46	3	33		
	K48	Southwest	209	86	0	-54	3	35		
	K48a	Southwest	214	81	0	-55	3	29		
	K48b	Southwest	220	81	0	-55	3	29		
	K49	Southwest	255	88	0	-56	3	35		
	K50	Southwest	264	88	0	-56	3	35		
	K51	Southwest	268	88	0	-57	3	34		
	K51a	Southwest	271	81	0	-57	3	27		
	K51b	Southwest	274	81	0	-57	3	27		
	K52	Southwest	276	88	0	-57	3	34		
	K53	Northeast	281	85	-10	-57	3	21		
	K54	Northeast	273	85	-10	-57	3	21		
	K55	Northeast	269	85	-10	-57	3	21		
	K56	Northeast	257	85	-10	-56	3	22		
	K57	Top	290	85	0	-57	3	31	57	57
Existing Fixed Sources at KSR (TML) and Train Wash Facility at PHD ^{(3),(4)}										
	A1	Northwest	258	81	0	-56	3	28		
	A2	Northwest	206	87	0	-54	3	36		
	A3	Northwest	118	64	0	-49	3	18		
	CP	Top	212	92	0	-55	3	40		
	TWF	Top	413	95	0	-60	3	>300m	42	
Cumulative FPN Impact (Daytime & Evening time), dB(A)									57	65

Appendix 4.11 Fixed Plant Noise Calculation

Night-time										
NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ^[2] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KSR-PF02d	K01a	Northeast	144	62	-10	-51	3	4		
	K01b	Northeast	142	62	-10	-51	3	4		
	K01c	Northeast	136	62	-10	-51	3	4		
	K02	Northeast	136	72	-10	-51	3	14		
	K03	Northeast	133	60	-10	-50	3	3		
	K04	Northeast	131	72	-10	-50	3	15		
	K05	Northeast	128	60	-10	-50	3	3		
	K06	Northeast	127	72	-10	-50	3	15		
	K07	Northeast	124	60	-10	-50	3	3		
	K08	Northeast	122	72	-10	-50	3	15		
	K09	Northeast	119	65	-10	-50	3	8		
	K09a	Northeast	115	62	-10	-49	3	6		
	K09b	Northeast	113	62	-10	-49	3	6		
	K09c	Northeast	111	63	-10	-49	3	7		
	K09d	Northeast	108	63	-10	-49	3	7		
	K10	Northeast	105	70	-10	-48	3	15		
	K10a	Northeast	225	58	-10	-55	3	-4		
	K10b	Northeast	227	60	-10	-55	3	-2		
	K10c	Northeast	231	60	-10	-55	3	-2		
	K10d	Northeast	239	60	-10	-56	3	-3		
	K11	Northeast	242	60	-10	-56	3	-3		
	K12	Northeast	246	60	-10	-56	3	-3		
	K13	Northeast	248	60	-10	-56	3	-3		
	K14	Northeast	252	60	-10	-56	3	-3		
	K15	Northeast	255	60	-10	-56	3	-3		
	K16	Northeast	258	60	-10	-56	3	-3		
	K17	Northeast	260	60	-10	-56	3	-3		
	K18	Northeast	263	60	-10	-56	3	-3		
	K19	Southwest	70	75	0	-45	3	33		
	K20	Southwest	80	77	0	-46	3	34		
	K20a	Northeast	101	68	-10	-48	3	13		
	K21	Northeast	99	68	-10	-48	3	13		
	K22	Southwest	82	75	0	-46	3	32		
	K22a	Southwest	84	70	0	-47	3	26		
	K22b	Southwest	87	70	0	-47	3	26		
	K22c	Southwest	89	72	0	-47	3	28		
	K23	Southwest	229	75	0	-55	3	23		
	K24	Southwest	234	75	0	-55	3	23		
	K25	Southwest	241	75	0	-56	3	22		
	K26	Southwest	246	75	0	-56	3	22		
	K27	Southwest	252	74	0	-56	3	21		
	K27a	Southwest	253	72	0	-56	3	19		
	K28	Southwest	168	77	0	-53	3	27		
	K29	Southwest	158	77	0	-52	3	28		
	K30	Northeast	190	74	-10	-54	3	13		
	K30a	Northeast	173	58	-10	-53	3	-2		
	K31	Northeast	184	74	-10	-53	3	14		
	K31a	Northeast	167	55	-10	-52	3	-4		
	K31b	Southeast	168	55	0	-53	3	5		
	K31c	Southwest	116	70	0	-49	3	24		
	K31d	Southwest	114	72	0	-49	3	26		
	K32	Southwest	115	77	0	-49	3	31		
	K33	Southwest	111	77	0	-49	3	31		
	K34	Southwest	107	77	0	-49	3	31		
	K35	Southwest	102	76	0	-48	3	31		
	K35a	Southwest	89	72	0	-47	3	28		
	K35b	Northwest	93	70	0	-47	3	26		
K37	Southwest	69	77	0	-45	3	35			
K38	Southwest	68	77	0	-45	3	35			
K39	Southwest	68	77	0	-45	3	35			
K40	Southwest	79	77	0	-46	3	34			
K41	Northwest	78	75	0	-46	3	32			
K41a	Southeast	83	66	0	-46	3	23			
K42	Northeast	85	75	0	-47	3	31			
K42a	Northeast	85	60	-10	-47	3	6			
K43	Northwest	77	75	0	-46	3	32			
K44	Top	73	66	0	-45	3	24			
K45	Top	74	66	0	-45	3	24			
K45a	Southwest	82	72	0	-46	3	29			
K46	Top	81	66	0	-46	3	23			
K47	Top	81	65	0	-46	3	22			
K48	Southwest	209	75	0	-54	3	24			
K48a	Southwest	214	70	0	-55	3	18			
K48b	Southwest	220	70	0	-55	3	18			
K49	Southwest	255	77	0	-56	3	24			
K50	Southwest	264	77	0	-56	3	24			
K51	Southwest	268	77	0	-57	3	23			
K51a	Southwest	271	70	0	-57	3	16			
K51b	Southwest	274	70	0	-57	3	16			
K52	Southwest	276	77	0	-57	3	23			
K53	Northeast	281	74	-10	-57	3	10			
K54	Northeast	273	74	-10	-57	3	10			
K55	Northeast	269	74	-10	-57	3	10			
K56	Northeast	257	74	-10	-56	3	11			
K57	Top	290	74	0	-57	3	20	46	46	
Existing Fixed Sources at KSR (TMR) and Train Wash Facility at PHD ^[3]										
A1	Northwest	258	81	0	-56	3	28			
A2	Northwest	206	87	0	-54	3	36			
A3	Northwest	118	64	0	-49	3	18			
CP	Top	212	92	0	-55	3	40			
TWF	Top	413	95	0	-60	3	>300m	42		
Cumulative FPN Impact (Night-time), dB(A)									47	55

Remarks:

- [1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.
- [2] A negative correction of 10 dB(A) has been adopted to the direction facing of the louver totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the louver.
- [3] The SWL of A1-A3 and CP (Chiller Plant) can be referred to the Table 3.2 and Section 4.1 in Appendix 4.12 respectively.
- [4] For the SWL level of TWF (Train Wash Facility), it is within PHD, reference has been made to the approved Environmental Review Report for Pat Heung Depot Modification Works (2012). The predicted noise level was calculated by applying distance attenuation and façade correction to the SWL.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KSR Station)

NAP: KSR-PF03a
 Description: Planned G/C Site at Kam Tin South Housing Development

Daytime/ Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
Planned Fixed Sources at KSR (NOL)										
KSR-PF03a	K01a	Northeast	54	73	0	-43	3	33		
	K01b	Northeast	52	73	0	-42	3	34		
	K01c	Northeast	45	73	0	-41	3	35		
	K02	Northeast	45	83	0	-41	3	45		
	K03	Northeast	41	71	0	-40	3	34		
	K04	Northeast	40	83	0	-40	3	46		
	K05	Northeast	37	71	0	-39	3	35		
	K06	Northeast	35	83	0	-39	3	47		
	K07	Northeast	32	71	0	-38	3	36		
	K08	Northeast	31	83	0	-38	3	48		
	K09	Northeast	29	76	0	-37	3	42		
	K09a	Northeast	26	73	0	-36	3	40		
	K09b	Northeast	26	73	0	-36	3	40		
	K09c	Northeast	25	74	0	-36	3	41		
	K09d	Northeast	26	74	0	-36	3	41		
	K10	Northeast	28	81	0	-37	3	47		
	K10a	Northeast	275	69	0	-57	3	15		
	K10b	Northeast	277	71	0	-57	3	17		
	K10c	Northeast	281	71	0	-57	3	17		
	K10d	Northeast	290	71	0	-57	3	17		
	K11	Northeast	293	71	0	-57	3	17		
	K12	Northeast	297	71	0	-57	3	17		
	K13	Northeast	300	71	0	-58	3	16		
	K14	Northeast	303	71	0	-58	3	>300m		
	K15	Northeast	307	71	0	-58	3	>300m		
	K16	Northeast	310	71	0	-58	3	>300m		
	K17	Northeast	312	71	0	-58	3	>300m		
	K18	Northeast	315	71	0	-58	3	>300m		
	K19	Southwest	107	86	-10	-49	3	30		
	K20	Southwest	124	88	-10	-50	3	31		
	K20a	Northeast	124	79	0	-50	3	32		
	K21	Northeast	119	79	0	-50	3	32		
	K22	Southwest	126	86	-10	-50	3	29		
	K22a	Southwest	130	81	-10	-50	3	24		
	K22b	Southwest	133	81	-10	-51	3	23		
	K22c	Southwest	136	83	-10	-51	3	25		
	K23	Southwest	287	86	-10	-57	3	22		
	K24	Southwest	292	86	-10	-57	3	22		
	K25	Southwest	299	86	-10	-58	3	21		
	K26	Southwest	304	86	-10	-58	3	>300m		
	K27	Southwest	310	85	-10	-58	3	>300m		
	K27a	Southwest	312	83	-10	-58	3	>300m		
	K28	Southwest	98	88	-10	-48	3	33		
	K29	Southwest	88	88	-10	-47	3	34		
	K30	Northeast	102	85	0	-48	3	40		
	K30a	Northeast	91	69	0	-47	3	25		
	K31	Northeast	96	85	0	-48	3	40		
	K31a	Northeast	86	66	0	-47	3	22		
	K31b	Southwest	83	66	-10	-46	3	13		
	K31c	Southwest	56	81	-10	-43	3	31		
	K31d	Southwest	55	83	-10	-43	3	33		
	K32	Southwest	47	88	-10	-41	3	40		
	K33	Southwest	45	88	-10	-41	3	40		
	K34	Southwest	43	88	-10	-41	3	40		
	K35	Southwest	41	87	-10	-40	3	40		
	K35a	Southwest	49	83	-10	-42	3	34		
	K35b	Northwest	41	81	-10	-40	3	34		
	K37	Southwest	71	88	-10	-45	3	36		
	K38	Southwest	77	88	-10	-46	3	35		
	K39	Southwest	82	88	-10	-46	3	35		
	K40	Southwest	123	88	-10	-50	3	31		
	K41	Northwest	66	86	-10	-44	3	35		
	K41a	Southeast	59	77	0	-43	3	37		
	K42	Northeast	68	86	-10	-45	3	34		
	K42a	Northeast	71	71	0	-45	3	29		
	K43	Northwest	78	86	-10	-46	3	33		
	K44	Top	82	77	0	-46	3	34		
	K45	Top	85	77	0	-47	3	33		
	K45a	Southwest	113	83	-10	-49	3	27		
	K46	Top	78	77	0	-46	3	34		
	K47	Top	82	76	0	-46	3	33		
	K48	Southwest	268	86	-10	-57	3	22		
	K48a	Southwest	273	81	-10	-57	3	17		
	K48b	Southwest	280	81	-10	-57	3	17		
	K49	Southwest	314	88	-10	-58	3	>300m		
	K50	Southwest	323	88	-10	-58	3	>300m		
	K51	Southwest	328	88	-10	-58	3	>300m		
	K51a	Southwest	330	81	-10	-58	3	>300m		
	K51b	Southwest	333	81	-10	-58	3	>300m		
	K52	Southwest	336	88	-10	-59	3	>300m		
	K53	Northeast	334	85	0	-58	3	>300m		
	K54	Northeast	326	85	0	-58	3	>300m		
	K55	Northeast	321	85	0	-58	3	>300m		
	K56	Northeast	309	85	0	-58	3	>300m		
	K57	Top	344	85	0	-59	3	>300m	56	57
Existing Fixed Sources at KSR (TML) and Train Wash Facility at PHD ⁽¹⁾⁽⁴⁾										
	A1	Northwest	331	81	-10	-58	3	>300m		
	A2	Northwest	280	87	-10	-57	3	23		
	A3	Northwest	196	64	-10	-54	3	3		
	CP	Top	279	92	0	-57	3	38		
	TWF	Top	344	95	0	-59	3	>300m	38	
Cumulative FPN Impact (Daytime & Evening time), dB(A)									56	65

Appendix 4.11 Fixed Plant Noise Calculation

Night-time										
NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ^[2] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KSR-PF03a	K01a	Northeast	54	62	0	-43	3	22		
	K01b	Northeast	52	62	0	-42	3	23		
	K01c	Northeast	45	62	0	-41	3	24		
	K02	Northeast	45	72	0	-41	3	34		
	K03	Northeast	41	60	0	-40	3	23		
	K04	Northeast	40	72	0	-40	3	35		
	K05	Northeast	37	60	0	-39	3	24		
	K06	Northeast	35	72	0	-39	3	36		
	K07	Northeast	32	60	0	-38	3	25		
	K08	Northeast	31	72	0	-38	3	37		
	K09	Northeast	29	65	0	-37	3	31		
	K09a	Northeast	26	62	0	-36	3	29		
	K09b	Northeast	26	62	0	-36	3	29		
	K09c	Northeast	25	63	0	-36	3	30		
	K09d	Northeast	26	63	0	-36	3	30		
	K10	Northeast	28	70	0	-37	3	36		
	K10a	Northeast	275	58	0	-57	3	4		
	K10b	Northeast	277	60	0	-57	3	6		
	K10c	Northeast	281	60	0	-57	3	6		
	K10d	Northeast	290	60	0	-57	3	6		
	K11	Northeast	293	60	0	-57	3	6		
	K12	Northeast	297	60	0	-57	3	6		
	K13	Northeast	300	60	0	-58	3	5		
	K14	Northeast	303	60	0	-58	3	>300m		
	K15	Northeast	307	60	0	-58	3	>300m		
	K16	Northeast	310	60	0	-58	3	>300m		
	K17	Northeast	312	60	0	-58	3	>300m		
	K18	Northeast	315	60	0	-58	3	>300m		
	K19	Southwest	107	75	-10	-49	3	19		
	K20	Southwest	124	77	-10	-50	3	20		
	K20a	Northeast	124	68	0	-50	3	21		
	K21	Northeast	119	68	0	-50	3	21		
	K22	Southwest	126	75	-10	-50	3	18		
	K22a	Southwest	130	70	-10	-50	3	13		
	K22b	Southwest	133	70	-10	-51	3	12		
	K22c	Southwest	136	72	-10	-51	3	14		
	K23	Southwest	287	75	-10	-57	3	11		
	K24	Southwest	292	75	-10	-57	3	11		
	K25	Southwest	299	75	-10	-58	3	10		
	K26	Southwest	304	75	-10	-58	3	>300m		
	K27	Southwest	310	74	-10	-58	3	>300m		
	K27a	Southwest	312	72	-10	-58	3	>300m		
	K28	Southwest	98	77	-10	-48	3	22		
	K29	Southwest	88	77	-10	-47	3	23		
	K30	Northeast	102	74	0	-48	3	29		
	K30a	Northeast	91	58	0	-47	3	14		
	K31	Northeast	96	74	0	-48	3	29		
	K31a	Northeast	86	55	0	-47	3	11		
	K31b	Southeast	83	55	-10	-46	3	2		
	K31c	Southwest	56	70	-10	-43	3	20		
	K31d	Southwest	55	72	-10	-43	3	22		
	K32	Southwest	47	77	-10	-41	3	29		
	K33	Southwest	45	77	-10	-41	3	29		
	K34	Southwest	43	77	-10	-41	3	29		
	K35	Southwest	41	76	-10	-40	3	29		
	K35a	Southwest	49	72	-10	-42	3	23		
	K35b	Northwest	41	70	-10	-40	3	23		
K37	Southwest	71	77	-10	-45	3	25			
K38	Southwest	77	77	-10	-46	3	24			
K39	Southwest	82	77	-10	-46	3	24			
K40	Southwest	123	77	-10	-50	3	20			
K41	Northwest	66	75	-10	-44	3	24			
K41a	Southeast	59	66	0	-43	3	26			
K42	Northeast	68	75	-10	-45	3	23			
K42a	Northeast	71	60	0	-45	3	18			
K43	Northwest	78	75	-10	-46	3	22			
K44	Top	82	66	0	-46	3	23			
K45	Top	85	66	0	-47	3	22			
K45a	Southwest	113	72	-10	-49	3	16			
K46	Top	78	66	0	-46	3	23			
K47	Top	82	65	0	-46	3	22			
K48	Southwest	268	75	-10	-57	3	11			
K48a	Southwest	273	70	-10	-57	3	6			
K48b	Southwest	280	70	-10	-57	3	6			
K49	Southwest	314	77	-10	-58	3	>300m			
K50	Southwest	323	77	-10	-58	3	>300m			
K51	Southwest	328	77	-10	-58	3	>300m			
K51a	Southwest	330	70	-10	-58	3	>300m			
K51b	Southwest	333	70	-10	-58	3	>300m			
K52	Southwest	336	77	-10	-59	3	>300m			
K53	Northeast	334	74	0	-58	3	>300m			
K54	Northeast	326	74	0	-58	3	>300m			
K55	Northeast	321	74	0	-58	3	>300m			
K56	Northeast	309	74	0	-58	3	>300m			
K57	Top	344	74	0	-59	3	>300m	45	46	
Existing Fixed Sources at KSR (TMR) and Train Wash Facility at PHD ^[4]										
A1	Northwest	331	81	-10	-58	3	>300m			
A2	Northwest	280	87	-10	-57	3	23			
A3	Northwest	196	64	-10	-54	3	3			
CP	Top	279	92	0	-57	3	38			
TWF	Top	344	95	0	-59	3	>300m	38		
Cumulative FPN Impact (Night-time), dB(A)									46	55

Remarks:

- [1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.
- [2] A negative correction of 10 dB(A) has been adopted to the direction facing of the louver totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the louver.
- [3] The SWL of A1-A3 and CP (Chiller Plant) can be referred to the Table 3.2 and Section 4.1 in Appendix 4.12 respectively.
- [4] For the SWL level of TWF (Train Wash Facility), it is within PHD, reference has been made to the approved Environmental Review Report for Pat Heung Depot Modification Works (2012). The predicted noise level was calculated by applying distance attenuation and façade correction to the SWL.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KSR Station)

NAP: KSR-PF03b
 Description: Planned G/C Site at Kam Tin South Housing Development

Daytime/ Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
Planned Fixed Sources at KSR (NOL)										
KSR-PF03b	K01a	Northeast	48	73	0	-42	3	34		
	K01b	Northeast	51	73	0	-42	3	34		
	K01c	Northeast	58	73	0	-43	3	33		
	K02	Northeast	58	83	0	-43	3	43		
	K03	Northeast	62	71	0	-44	3	30		
	K04	Northeast	64	83	0	-44	3	42		
	K05	Northeast	67	71	0	-45	3	29		
	K06	Northeast	69	83	0	-45	3	41		
	K07	Northeast	74	71	0	-45	3	29		
	K08	Northeast	76	83	0	-46	3	40		
	K09	Northeast	80	76	0	-46	3	33		
	K09a	Northeast	86	73	0	-47	3	29		
	K09b	Northeast	89	73	0	-47	3	29		
	K09c	Northeast	93	74	0	-47	3	30		
	K09d	Northeast	97	74	0	-48	3	29		
	K10	Northeast	103	81	0	-48	3	36		
	K10a	Northeast	363	69	0	-59	3	>300m		
	K10b	Northeast	365	71	0	-59	3	>300m		
	K10c	Northeast	369	71	0	-59	3	>300m		
	K10d	Northeast	378	71	0	-60	3	>300m		
	K11	Northeast	381	71	0	-60	3	>300m		
	K12	Northeast	386	71	0	-60	3	>300m		
	K13	Northeast	388	71	0	-60	3	>300m		
	K14	Northeast	392	71	0	-60	3	>300m		
	K15	Northeast	395	71	0	-60	3	>300m		
	K16	Northeast	398	71	0	-60	3	>300m		
	K17	Northeast	400	71	0	-60	3	>300m		
	K18	Northeast	404	71	0	-60	3	>300m		
	K19	Southwest	189	86	-10	-54	3	25		
	K20	Southwest	208	88	-10	-54	3	27		
	K20a	Northeast	211	79	0	-55	3	27		
	K21	Northeast	206	79	0	-54	3	28		
	K22	Southwest	210	86	-10	-54	3	25		
	K22a	Southwest	214	81	-10	-55	3	19		
	K22b	Southwest	218	81	-10	-55	3	19		
	K22c	Southwest	220	83	-10	-55	3	21		
	K23	Southwest	375	86	-10	-59	3	>300m		
	K24	Southwest	380	86	-10	-60	3	>300m		
	K25	Southwest	387	86	-10	-60	3	>300m		
	K26	Southwest	392	86	-10	-60	3	>300m		
	K27	Southwest	398	85	-10	-60	3	>300m		
	K27a	Southwest	399	83	-10	-60	3	>300m		
	K28	Southwest	44	88	-10	-41	3	40		
	K29	Southwest	46	88	-10	-41	3	40		
	K30	Northeast	25	85	0	-36	3	52		
	K30a	Northeast	30	69	0	-38	3	34		
	K31	Northeast	23	85	0	-35	3	53		
	K31a	Northeast	33	66	0	-38	3	31		
	K31b	Southwest	29	66	0	-37	3	32		
	K31c	Southwest	76	81	-10	-46	3	28		
	K31d	Southwest	78	83	-10	-46	3	30		
	K32	Southwest	77	88	-10	-46	3	35		
	K33	Southwest	82	88	-10	-46	3	35		
	K34	Southwest	87	88	-10	-47	3	34		
	K35	Southwest	94	87	-10	-47	3	33		
	K35a	Southwest	107	83	-10	-49	3	27		
	K35b	Northwest	108	81	-10	-49	3	25		
K37	Southwest	149	88	-10	-51	3	30			
K38	Southwest	157	88	-10	-52	3	29			
K39	Southwest	163	88	-10	-52	3	29			
K40	Southwest	206	88	-10	-54	3	27			
K41	Northwest	147	86	-10	-51	3	28			
K41a	Southeast	141	77	0	-51	3	29			
K42	Northeast	152	86	-10	-52	3	27			
K42a	Northeast	155	71	0	-52	3	22			
K43	Northwest	161	86	-10	-52	3	27			
K44	Top	164	77	0	-52	3	28			
K45	Top	168	77	0	-52	3	28			
K45a	Southwest	197	83	-10	-54	3	22			
K46	Top	162	77	0	-52	3	28			
K47	Top	166	76	0	-52	3	27			
K48	Southwest	356	86	-10	-59	3	>300m			
K48a	Southwest	361	81	-10	-59	3	>300m			
K48b	Southwest	368	81	-10	-59	3	>300m			
K49	Southwest	401	88	-10	-60	3	>300m			
K50	Southwest	411	88	-10	-60	3	>300m			
K51	Southwest	416	88	-10	-60	3	>300m			
K51a	Southwest	418	81	-10	-60	3	>300m			
K51b	Southwest	421	81	-10	-60	3	>300m			
K52	Southwest	424	88	-10	-61	3	>300m			
K53	Northeast	423	85	0	-61	3	>300m			
K54	Northeast	414	85	0	-60	3	>300m			
K55	Northeast	410	85	0	-60	3	>300m			
K56	Northeast	397	85	0	-60	3	>300m			
K57	Top	432	85	0	-61	3	>300m	57	57	
Existing Fixed Sources at KSR (TML) and Train Wash Facility at PHD ⁽¹⁾⁽²⁾										
	A1	Northwest	417	81	-10	-60	3	>300m		
	A2	Northwest	365	87	-10	-59	3	>300m		
	A3	Northwest	279	64	-10	-57	3	0		
	CP	Top	366	92	0	-59	3	>300m		
	TWF	Top	256	95	0	-56	3	42	42	
Cumulative FPN Impact (Daytime & Evening time), dB(A)									57	65

Appendix 4.11 Fixed Plant Noise Calculation

Night-time										
NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ^[2] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KSR-PF03b	K01a	Northeast	48	62	0	-42	3	23		
	K01b	Northeast	51	62	0	-42	3	23		
	K01c	Northeast	58	62	0	-43	3	22		
	K02	Northeast	58	72	0	-43	3	32		
	K03	Northeast	62	60	0	-44	3	19		
	K04	Northeast	64	72	0	-44	3	31		
	K05	Northeast	67	60	0	-45	3	18		
	K06	Northeast	69	72	0	-45	3	30		
	K07	Northeast	74	60	0	-45	3	18		
	K08	Northeast	76	72	0	-46	3	29		
	K09	Northeast	80	65	0	-46	3	22		
	K09a	Northeast	86	62	0	-47	3	18		
	K09b	Northeast	89	62	0	-47	3	18		
	K09c	Northeast	93	63	0	-47	3	19		
	K09d	Northeast	97	63	0	-48	3	18		
	K10	Northeast	103	70	0	-48	3	25		
	K10a	Northeast	363	58	0	-59	3	>300m		
	K10b	Northeast	365	60	0	-59	3	>300m		
	K10c	Northeast	369	60	0	-59	3	>300m		
	K10d	Northeast	378	60	0	-60	3	>300m		
	K11	Northeast	381	60	0	-60	3	>300m		
	K12	Northeast	386	60	0	-60	3	>300m		
	K13	Northeast	388	60	0	-60	3	>300m		
	K14	Northeast	392	60	0	-60	3	>300m		
	K15	Northeast	395	60	0	-60	3	>300m		
	K16	Northeast	398	60	0	-60	3	>300m		
	K17	Northeast	400	60	0	-60	3	>300m		
	K18	Northeast	404	60	0	-60	3	>300m		
	K19	Southwest	189	75	-10	-54	3	14		
	K20	Southwest	208	77	-10	-54	3	16		
	K20a	Northeast	211	68	0	-55	3	16		
	K21	Northeast	206	68	0	-54	3	17		
	K22	Southwest	210	75	-10	-54	3	14		
	K22a	Southwest	214	70	-10	-55	3	8		
	K22b	Southwest	218	70	-10	-55	3	8		
	K22c	Southwest	220	72	-10	-55	3	10		
	K23	Southwest	375	75	-10	-59	3	>300m		
	K24	Southwest	380	75	-10	-60	3	>300m		
	K25	Southwest	387	75	-10	-60	3	>300m		
	K26	Southwest	392	75	-10	-60	3	>300m		
	K27	Southwest	398	74	-10	-60	3	>300m		
	K27a	Southwest	399	72	-10	-60	3	>300m		
	K28	Southwest	44	77	-10	-41	3	29		
	K29	Southwest	46	77	-10	-41	3	29		
	K30	Northeast	25	74	0	-36	3	41		
	K30a	Northeast	30	58	0	-38	3	23		
	K31	Northeast	23	74	0	-35	3	42		
	K31a	Northeast	33	55	0	-38	3	20		
	K31b	Southeast	29	55	0	-37	3	21		
	K31c	Southwest	76	70	-10	-46	3	17		
	K31d	Southwest	78	72	-10	-46	3	19		
	K32	Southwest	77	77	-10	-46	3	24		
	K33	Southwest	82	77	-10	-46	3	24		
	K34	Southwest	87	77	-10	-47	3	23		
	K35	Southwest	94	76	-10	-47	3	22		
	K35a	Southwest	107	72	-10	-49	3	16		
	K35b	Northwest	108	70	-10	-49	3	14		
K37	Southwest	149	77	-10	-51	3	19			
K38	Southwest	157	77	-10	-52	3	18			
K39	Southwest	163	77	-10	-52	3	18			
K40	Southwest	206	77	-10	-54	3	16			
K41	Northwest	147	75	-10	-51	3	17			
K41a	Southeast	141	66	0	-51	3	18			
K42	Northeast	152	75	-10	-52	3	16			
K42a	Northeast	155	60	0	-52	3	11			
K43	Northwest	161	75	-10	-52	3	16			
K44	Top	164	66	0	-52	3	17			
K45	Top	168	66	0	-52	3	17			
K45a	Southwest	197	72	-10	-54	3	11			
K46	Top	162	66	0	-52	3	17			
K47	Top	166	65	0	-52	3	16			
K48	Southwest	356	75	-10	-59	3	>300m			
K48a	Southwest	361	70	-10	-59	3	>300m			
K48b	Southwest	368	70	-10	-59	3	>300m			
K49	Southwest	401	77	-10	-60	3	>300m			
K50	Southwest	411	77	-10	-60	3	>300m			
K51	Southwest	416	77	-10	-60	3	>300m			
K51a	Southwest	418	70	-10	-60	3	>300m			
K51b	Southwest	421	70	-10	-60	3	>300m			
K52	Southwest	424	77	-10	-61	3	>300m			
K53	Northeast	423	74	0	-61	3	>300m			
K54	Northeast	414	74	0	-60	3	>300m			
K55	Northeast	410	74	0	-60	3	>300m			
K56	Northeast	397	74	0	-60	3	>300m			
K57	Top	432	74	0	-61	3	>300m	46	46	
Existing Fixed Sources at KSR (TMR) and Train Wash Facility at PHD ^[4]										
A1	Northwest	417	81	-10	-60	3	>300m			
A2	Northwest	365	87	-10	-59	3	>300m			
A3	Northwest	279	64	-10	-57	3	0			
CP	Top	366	92	0	-59	3	>300m			
TWF	Top	256	95	0	-56	3	42	42		
Cumulative FPN Impact (Night-time), dB(A)									47	55

Remarks:

- [1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.
- [2] A negative correction of 10 dB(A) has been adopted to the direction facing of the louver totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the louver.
- [3] The SWL of A1-A3 and CP (Chiller Plant) can be referred to the Table 3.2 and Section 4.1 in Appendix 4.12 respectively.
- [4] For the SWL level of TWF (Train Wash Facility), it is within PHD, reference has been made to the approved Environmental Review Report for Pat Heung Depot Modification Works (2012). The predicted noise level was calculated by applying distance attenuation and facade correction to the SWL.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KSR Station)

NAP: KSR-PF04

Description: Planned Residential Block at Kam Tin South Housing Development

Daytime/ Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
Planned Fixed Sources at KSR (NOL)										
KSR-PF04	K01a	Northeast	130	73	-10	-50	3	16		
	K01b	Northeast	130	73	-10	-50	3	16		
	K01c	Northeast	129	73	-10	-50	3	16		
	K02	Northeast	129	83	-10	-50	3	26		
	K03	Northeast	129	71	-10	-50	3	14		
	K04	Northeast	128	83	-10	-50	3	26		
	K05	Northeast	128	71	-10	-50	3	14		
	K06	Northeast	128	83	-10	-50	3	26		
	K07	Northeast	129	71	-10	-50	3	14		
	K08	Northeast	129	83	-10	-50	3	26		
	K09	Northeast	129	76	-10	-50	3	19		
	K09a	Northeast	130	73	-10	-50	3	16		
	K09b	Northeast	130	73	-10	-50	3	16		
	K09c	Northeast	131	74	-10	-50	3	17		
	K09d	Northeast	132	74	-10	-50	3	17		
	K10	Northeast	134	81	-10	-51	3	23		
	K10a	Northeast	324	69	-10	-58	3	>300m		
	K10b	Northeast	325	71	-10	-58	3	>300m		
	K10c	Northeast	329	71	-10	-58	3	>300m		
	K10d	Northeast	338	71	-10	-59	3	>300m		
	K11	Northeast	340	71	-10	-59	3	>300m		
	K12	Northeast	344	71	-10	-59	3	>300m		
	K13	Northeast	347	71	-10	-59	3	>300m		
	K14	Northeast	350	71	-10	-59	3	>300m		
	K15	Northeast	353	71	-10	-59	3	>300m		
	K16	Northeast	356	71	-10	-59	3	>300m		
	K17	Northeast	358	71	-10	-59	3	>300m		
	K18	Northeast	362	71	-10	-59	3	>300m		
	K19	Southwest	157	86	0	-52	3	37		
	K20	Southwest	172	88	0	-53	3	38		
	K20a	Northeast	191	79	-10	-54	3	18		
	K21	Northeast	187	79	-10	-53	3	19		
	K22	Southwest	174	86	0	-53	3	36		
	K22a	Southwest	178	81	0	-53	3	31		
	K22b	Southwest	181	81	0	-53	3	31		
	K22c	Southwest	183	83	0	-53	3	33		
	K23	Southwest	327	86	0	-58	3	>300m		
	K24	Southwest	332	86	0	-58	3	>300m		
	K25	Southwest	339	86	0	-59	3	>300m		
	K26	Southwest	344	86	0	-59	3	>300m		
	K27	Southwest	349	85	0	-59	3	>300m		
	K27a	Southwest	351	83	0	-59	3	>300m		
	K28	Southwest	126	88	0	-50	3	41		
	K29	Southwest	120	88	0	-50	3	41		
	K30	Northeast	152	85	-10	-52	3	26		
	K30a	Northeast	137	69	-10	-51	3	11		
	K31	Northeast	148	85	-10	-51	3	27		
	K31a	Northeast	134	66	-10	-51	3	8		
	K31b	Southwest	137	66	-10	-51	3	8		
	K31c	Southwest	106	81	0	-49	3	35		
	K31d	Southwest	106	83	0	-49	3	37		
	K32	Southwest	113	88	0	-49	3	42		
	K33	Southwest	113	88	0	-49	3	42		
	K34	Southwest	114	88	0	-49	3	42		
	K35	Southwest	115	87	0	-49	3	41		
	K35a	Southwest	110	83	0	-49	3	37		
	K35b	Northwest	120	81	-10	-50	3	24		
	K37	Southwest	132	88	0	-50	3	41		
	K38	Southwest	137	88	0	-51	3	40		
	K39	Southwest	141	88	0	-51	3	40		
	K40	Southwest	171	88	0	-53	3	38		
	K41	Northwest	140	86	0	-51	3	38		
	K41a	Southeast	140	77	0	-51	3	29		
	K42	Northeast	150	86	0	-52	3	37		
	K42a	Northeast	152	71	-10	-52	3	12		
	K43	Northwest	148	86	0	-51	3	38		
	K44	Top	146	77	0	-51	3	29		
	K45	Top	149	77	0	-51	3	29		
	K45a	Southwest	170	83	0	-53	3	33		
	K46	Top	152	77	0	-52	3	28		
	K47	Top	155	76	0	-52	3	27		
	K48	Southwest	307	86	0	-58	3	>300m		
	K48a	Southwest	312	81	0	-58	3	>300m		
	K48b	Southwest	318	81	0	-58	3	>300m		
	K49	Southwest	352	88	0	-59	3	>300m		
	K50	Southwest	362	88	0	-59	3	>300m		
	K51	Southwest	366	88	0	-59	3	>300m		
	K51a	Southwest	369	81	0	-59	3	>300m		
	K51b	Southwest	372	81	0	-59	3	>300m		
	K52	Southwest	374	88	0	-59	3	>300m		
	K53	Northeast	379	85	-10	-60	3	>300m		
	K54	Northeast	371	85	-10	-59	3	>300m		
	K55	Northeast	367	85	-10	-59	3	>300m		
	K56	Northeast	355	85	-10	-59	3	>300m		
	K57	Top	388	85	0	-60	3	>300m	53	57
Existing Fixed Sources at KSR (TML) and Train Wash Facility at PHD ⁽¹⁾⁽⁴⁾										
	A1	Northwest	354	81	0	-59	3	>300m		
	A2	Northwest	302	87	0	-58	3	>300m		
	A3	Northwest	216	64	0	-55	3	12		
	CP	Top	310	92	0	-58	3	>300m		
	TWF	Top	334	95	0	-58	3	>300m	12	
Cumulative FPN Impact (Daytime & Evening time), dB(A)									53	65

Appendix 4.11 Fixed Plant Noise Calculation

Night-time										
NAP	Plant Item	Direction Facing	Horizontal Distance, m (H)	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KSR-PFD4	K01a	Northeast	130	62	-10	-50	3	5		
	K01b	Northeast	130	62	-10	-50	3	5		
	K01c	Northeast	129	62	-10	-50	3	5		
	K02	Northeast	129	72	-10	-50	3	15		
	K03	Northeast	129	60	-10	-50	3	3		
	K04	Northeast	128	72	-10	-50	3	15		
	K05	Northeast	128	60	-10	-50	3	3		
	K06	Northeast	128	72	-10	-50	3	15		
	K07	Northeast	129	60	-10	-50	3	3		
	K08	Northeast	129	72	-10	-50	3	15		
	K09	Northeast	129	65	-10	-50	3	8		
	K09a	Northeast	130	62	-10	-50	3	5		
	K09b	Northeast	130	62	-10	-50	3	5		
	K09c	Northeast	131	63	-10	-50	3	6		
	K09d	Northeast	132	63	-10	-50	3	6		
	K10	Northeast	134	70	-10	-51	3	12		
	K10a	Northeast	324	58	-10	-58	3	>300m		
	K10b	Northeast	325	60	-10	-58	3	>300m		
	K10c	Northeast	329	60	-10	-58	3	>300m		
	K10d	Northeast	338	60	-10	-59	3	>300m		
	K11	Northeast	340	60	-10	-59	3	>300m		
	K12	Northeast	344	60	-10	-59	3	>300m		
	K13	Northeast	347	60	-10	-59	3	>300m		
	K14	Northeast	350	60	-10	-59	3	>300m		
	K15	Northeast	353	60	-10	-59	3	>300m		
	K16	Northeast	356	60	-10	-59	3	>300m		
	K17	Northeast	358	60	-10	-59	3	>300m		
	K18	Northeast	362	60	-10	-59	3	>300m		
	K19	Southwest	157	75	0	-52	3	26		
	K20	Southwest	172	77	0	-53	3	27		
	K20a	Northeast	191	68	-10	-54	3	7		
	K21	Northeast	187	68	-10	-53	3	8		
	K22	Southwest	174	75	0	-53	3	25		
	K22a	Southwest	178	70	0	-53	3	20		
	K22b	Southwest	181	70	0	-53	3	20		
	K22c	Southwest	183	72	0	-53	3	22		
	K23	Southwest	327	75	0	-58	3	>300m		
	K24	Southwest	332	75	0	-58	3	>300m		
	K25	Southwest	339	75	0	-59	3	>300m		
	K26	Southwest	344	75	0	-59	3	>300m		
	K27	Southwest	349	74	0	-59	3	>300m		
	K27a	Southwest	351	72	0	-59	3	>300m		
	K28	Southwest	126	77	0	-50	3	30		
	K29	Southwest	120	77	0	-50	3	30		
	K30	Northeast	152	74	-10	-52	3	15		
	K30a	Northeast	137	58	-10	-51	3	0		
	K31	Northeast	148	74	-10	-51	3	16		
	K31a	Northeast	134	55	-10	-51	3	-3		
	K31b	Southeast	137	55	-10	-51	3	-3		
	K31c	Southwest	106	70	0	-49	3	24		
	K31d	Southwest	106	72	0	-49	3	26		
	K32	Southwest	113	77	0	-49	3	31		
	K33	Southwest	113	77	0	-49	3	31		
	K34	Southwest	114	77	0	-49	3	31		
	K35	Southwest	115	76	0	-49	3	30		
	K35a	Southwest	110	72	0	-49	3	26		
	K35b	Northwest	120	70	-10	-50	3	13		
K37	Southwest	132	77	0	-50	3	30			
K38	Southwest	137	77	0	-51	3	29			
K39	Southwest	141	77	0	-51	3	29			
K40	Southwest	171	77	0	-53	3	27			
K41	Northwest	140	75	0	-51	3	27			
K41a	Southeast	140	66	0	-51	3	18			
K42	Northeast	150	75	0	-52	3	26			
K42a	Northeast	152	60	-10	-52	3	1			
K43	Northwest	148	75	0	-51	3	27			
K44	Top	146	66	0	-51	3	18			
K45	Top	149	66	0	-51	3	18			
K45a	Southwest	170	72	0	-53	3	22			
K46	Top	152	66	0	-52	3	17			
K47	Top	155	65	0	-52	3	16			
K48	Southwest	307	75	0	-58	3	>300m			
K48a	Southwest	312	70	0	-58	3	>300m			
K48b	Southwest	318	70	0	-58	3	>300m			
K49	Southwest	352	77	0	-59	3	>300m			
K50	Southwest	362	77	0	-59	3	>300m			
K51	Southwest	366	77	0	-59	3	>300m			
K51a	Southwest	369	70	0	-59	3	>300m			
K51b	Southwest	372	70	0	-59	3	>300m			
K52	Southwest	374	77	0	-59	3	>300m			
K53	Northeast	379	74	-10	-60	3	>300m			
K54	Northeast	371	74	-10	-59	3	>300m			
K55	Northeast	367	74	-10	-59	3	>300m			
K56	Northeast	355	74	-10	-59	3	>300m			
K57	Top	388	74	0	-60	3	>300m	42	46	
Existing Fixed Sources at KSR (TMR) and Train Wash Facility at PHD ^[4]										
A1	Northwest	354	81	0	-59	3	>300m			
A2	Northwest	302	87	0	-58	3	>300m			
A3	Northwest	216	64	0	-55	3	12			
CP	Top	310	92	0	-58	3	>300m			
TWF	Top	334	95	0	-58	3	>300m	12		
Cumulative FPN Impact (Night-time), dB(A)									42	55

Remarks:

- [1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.
- [2] A negative correction of 10 dB(A) has been adopted to the direction facing of the louver totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the louver.
- [3] The SWL of A1-A3 and CP (Chiller Plant) can be referred to the Table 3.2 and Section 4.1 in Appendix 4.12 respectively.
- [4] For the SWL of TWF (Train Wash Facility), it is within PHD, reference has been made to the approved Environmental Review Report for Pat Heung Depot Modification Works (2012). The predicted noise level was calculated by applying distance attenuation and facade correction to the SWL.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KSR Station)

NAP:

KSR-PF05

Description:

Planned G/C Site at Kam Tin South Housing Development

Daytime/ Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
Planned Fixed Sources at KSR (NOL)										
KSR-PF05	K01a	Northeast	97	73	-10	-48	3	18		
	K01b	Northeast	99	73	-10	-48	3	18		
	K01c	Northeast	103	73	-10	-48	3	18		
	K02	Northeast	103	83	-10	-48	3	28		
	K03	Northeast	106	71	-10	-49	3	15		
	K04	Northeast	107	83	-10	-49	3	27		
	K05	Northeast	110	71	-10	-49	3	15		
	K06	Northeast	111	83	-10	-49	3	27		
	K07	Northeast	115	71	-10	-49	3	15		
	K08	Northeast	116	83	-10	-49	3	27		
	K09	Northeast	119	76	-10	-50	3	19		
	K09a	Northeast	124	73	-10	-50	3	16		
	K09b	Northeast	126	73	-10	-50	3	16		
	K09c	Northeast	129	74	-10	-50	3	17		
	K09d	Northeast	133	74	-10	-50	3	17		
	K10	Northeast	137	81	-10	-51	3	23		
	K10a	Northeast	379	69	-10	-60	3	>300m		
	K10b	Northeast	381	71	-10	-60	3	>300m		
	K10c	Northeast	386	71	-10	-60	3	>300m		
	K10d	Northeast	394	71	-10	-60	3	>300m		
	K11	Northeast	397	71	-10	-60	3	>300m		
	K12	Northeast	401	71	-10	-60	3	>300m		
	K13	Northeast	404	71	-10	-60	3	>300m		
	K14	Northeast	407	71	-10	-60	3	>300m		
	K15	Northeast	411	71	-10	-60	3	>300m		
	K16	Northeast	414	71	-10	-60	3	>300m		
	K17	Northeast	416	71	-10	-60	3	>300m		
	K18	Northeast	419	71	-10	-60	3	>300m		
	K19	Southwest	200	86	0	-54	3	35		
	K20	Southwest	218	88	0	-55	3	36		
	K20a	Northeast	232	79	-10	-55	3	17		
	K21	Northeast	227	79	-10	-55	3	17		
	K22	Southwest	221	86	0	-55	3	34		
	K22a	Southwest	225	81	0	-55	3	29		
	K22b	Southwest	228	81	0	-55	3	29		
	K22c	Southwest	231	83	0	-55	3	31		
	K23	Southwest	386	86	0	-60	3	>300m		
	K24	Southwest	391	86	0	-60	3	>300m		
	K25	Southwest	398	86	0	-60	3	>300m		
	K26	Southwest	403	86	0	-60	3	>300m		
	K27	Southwest	409	85	0	-60	3	>300m		
	K27a	Southwest	411	83	0	-60	3	>300m		
	K28	Southwest	66	88	0	-44	3	47		
	K29	Southwest	68	88	0	-45	3	46		
	K30	Northeast	87	85	-10	-47	3	31		
	K30a	Northeast	80	69	-10	-46	3	16		
	K31	Northeast	87	85	-10	-47	3	31		
	K31a	Northeast	79	66	-10	-46	3	13		
	K31b	Southwest	84	66	0	-46	3	23		
	K31c	Southwest	92	81	0	-47	3	37		
	K31d	Southwest	94	83	0	-47	3	39		
	K32	Southwest	101	88	0	-48	3	43		
	K33	Southwest	105	88	0	-48	3	43		
	K34	Southwest	110	88	0	-49	3	42		
	K35	Southwest	116	87	0	-49	3	41		
	K35a	Southwest	121	83	0	-50	3	36		
	K35b	Northwest	130	81	-10	-50	3	24		
	K37	Southwest	163	88	0	-52	3	39		
	K38	Southwest	170	88	0	-53	3	38		
	K39	Southwest	176	88	0	-53	3	38		
	K40	Southwest	217	88	0	-55	3	36		
	K41	Northwest	166	86	0	-52	3	37		
	K41a	Southwest	163	77	0	-52	3	28		
	K42	Northeast	177	86	0	-53	3	36		
	K42a	Northeast	179	71	-10	-53	3	11		
	K43	Northwest	180	86	0	-53	3	36		
	K44	Top	180	77	0	-53	3	27		
	K45	Top	184	77	0	-53	3	27		
	K45a	Southwest	212	83	0	-55	3	31		
	K46	Top	183	77	0	-53	3	27		
	K47	Top	187	76	0	-53	3	26		
	K48	Southwest	366	86	0	-59	3	>300m		
	K48a	Southwest	371	81	0	-59	3	>300m		
	K48b	Southwest	378	81	0	-60	3	>300m		
	K49	Southwest	413	88	0	-60	3	>300m		
	K50	Southwest	422	88	0	-61	3	>300m		
	K51	Southwest	427	88	0	-61	3	>300m		
	K51a	Southwest	429	81	0	-61	3	>300m		
	K51b	Southwest	432	81	0	-61	3	>300m		
	K52	Southwest	435	88	0	-61	3	>300m		
	K53	Northeast	438	85	-10	-61	3	>300m		
	K54	Northeast	430	85	-10	-61	3	>300m		
	K55	Northeast	425	85	-10	-61	3	>300m		
	K56	Northeast	413	85	-10	-60	3	>300m		
	K57	Top	447	85	0	-61	3	>300m	54	57
Existing Fixed Sources at KSR (TML) and Train Wash Facility at PHD (PL14)										
	A1	Northwest	420	81	0	-60	3	>300m		
	A2	Northwest	367	87	0	-59	3	>300m		
	A3	Northwest	277	64	0	-57	3	10		
	CP	Top	371	92	0	-59	3	>300m		
	TWF	Top	252	95	0	-56	3	42	42	
Cumulative FPN Impact (Daytime & Evening time), dB(A)									54	65

Appendix 4.11 Fixed Plant Noise Calculation

Night-time										
NAP	Plant Item	Direction Facing	Horizontal Distance, m (H)	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KSR-PF05	K01a	Northeast	97	62	-10	-48	3	7		
	K01b	Northeast	99	62	-10	-48	3	7		
	K01c	Northeast	103	62	-10	-48	3	7		
	K02	Northeast	103	72	-10	-48	3	17		
	K03	Northeast	106	60	-10	-49	3	4		
	K04	Northeast	107	72	-10	-49	3	16		
	K05	Northeast	110	60	-10	-49	3	4		
	K06	Northeast	111	72	-10	-49	3	16		
	K07	Northeast	115	60	-10	-49	3	4		
	K08	Northeast	116	72	-10	-49	3	16		
	K09	Northeast	119	65	-10	-50	3	8		
	K09a	Northeast	124	62	-10	-50	3	5		
	K09b	Northeast	126	62	-10	-50	3	5		
	K09c	Northeast	129	63	-10	-50	3	6		
	K09d	Northeast	133	63	-10	-50	3	6		
	K10	Northeast	137	70	-10	-51	3	12		
	K10a	Northeast	379	58	-10	-60	3	>300m		
	K10b	Northeast	381	60	-10	-60	3	>300m		
	K10c	Northeast	386	60	-10	-60	3	>300m		
	K10d	Northeast	394	60	-10	-60	3	>300m		
	K11	Northeast	397	60	-10	-60	3	>300m		
	K12	Northeast	401	60	-10	-60	3	>300m		
	K13	Northeast	404	60	-10	-60	3	>300m		
	K14	Northeast	407	60	-10	-60	3	>300m		
	K15	Northeast	411	60	-10	-60	3	>300m		
	K16	Northeast	414	60	-10	-60	3	>300m		
	K17	Northeast	416	60	-10	-60	3	>300m		
	K18	Northeast	419	60	-10	-60	3	>300m		
	K19	Southwest	200	75	0	-54	3	24		
	K20	Southwest	218	77	0	-55	3	25		
	K20a	Northeast	232	68	-10	-55	3	6		
	K21	Northeast	227	68	-10	-55	3	6		
	K22	Southwest	221	75	0	-55	3	23		
	K22a	Southwest	225	70	0	-55	3	18		
	K22b	Southwest	228	70	0	-55	3	18		
	K22c	Southwest	231	72	0	-55	3	20		
	K23	Southwest	386	75	0	-60	3	>300m		
	K24	Southwest	391	75	0	-60	3	>300m		
	K25	Southwest	398	75	0	-60	3	>300m		
	K26	Southwest	403	75	0	-60	3	>300m		
	K27	Southwest	409	74	0	-60	3	>300m		
	K27a	Southwest	411	72	0	-60	3	>300m		
	K28	Southwest	66	77	0	-44	3	36		
	K29	Southwest	68	77	0	-45	3	35		
	K30	Northeast	87	74	-10	-47	3	20		
	K30a	Northeast	80	58	-10	-46	3	5		
	K31	Northeast	87	74	-10	-47	3	20		
	K31a	Northeast	79	55	-10	-46	3	2		
	K31b	Southeast	84	55	0	-46	3	12		
	K31c	Southwest	92	70	0	-47	3	26		
	K31d	Southwest	94	72	0	-47	3	28		
	K32	Southwest	101	77	0	-48	3	32		
	K33	Southwest	105	77	0	-48	3	32		
	K34	Southwest	110	77	0	-49	3	31		
	K35	Southwest	116	76	0	-49	3	30		
	K35a	Southwest	121	72	0	-50	3	25		
	K35b	Northwest	130	70	-10	-50	3	13		
K37	Southwest	163	77	0	-52	3	28			
K38	Southwest	170	77	0	-53	3	27			
K39	Southwest	176	77	0	-53	3	27			
K40	Southwest	217	77	0	-55	3	25			
K41	Northwest	166	75	0	-52	3	26			
K41a	Southeast	163	66	0	-52	3	17			
K42	Northeast	177	75	0	-53	3	25			
K42a	Northeast	179	60	-10	-53	3	0			
K43	Northwest	180	75	0	-53	3	25			
K44	Top	180	66	0	-53	3	16			
K45	Top	184	66	0	-53	3	16			
K45a	Southwest	212	72	0	-55	3	20			
K46	Top	183	66	0	-53	3	16			
K47	Top	187	65	0	-53	3	15			
K48	Southwest	366	75	0	-59	3	>300m			
K48a	Southwest	371	70	0	-59	3	>300m			
K48b	Southwest	378	70	0	-60	3	>300m			
K49	Southwest	413	77	0	-60	3	>300m			
K50	Southwest	422	77	0	-61	3	>300m			
K51	Southwest	427	77	0	-61	3	>300m			
K51a	Southwest	429	70	0	-61	3	>300m			
K51b	Southwest	432	70	0	-61	3	>300m			
K52	Southwest	435	77	0	-61	3	>300m			
K53	Northeast	438	74	-10	-61	3	>300m			
K54	Northeast	430	74	-10	-61	3	>300m			
K55	Northeast	425	74	-10	-61	3	>300m			
K56	Northeast	413	74	-10	-60	3	>300m			
K57	Top	447	74	0	-61	3	>300m	43	46	
Existing Fixed Sources at KSR (TMR) and Train Wash Facility at PHD ^[4]										
A1	Northwest	420	81	0	-60	3	>300m			
A2	Northwest	367	87	0	-59	3	>300m			
A3	Northwest	277	64	0	-57	3	10			
CP	Top	371	92	0	-59	3	>300m			
TWF	Top	252	95	0	-56	3	42	42	42	46
Cumulative FPN Impact (Night-time), dB(A)									45	55

Remarks:

- [1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.
- [2] A negative correction of 10 dB(A) has been adopted to the direction facing of the louver totally screened by buildings and negative correction of 5 dB(A) for KSR do not have direct line of sight to the louver.
- [3] The SWL of A1-A3 and CP (Chiller Plant) can be referred to the Table 3.2 and Section 4.1 in Appendix 4.12 respectively.
- [4] For the SWL level of TWF (Train Wash Facility), it is within PHD, reference has been made to the approved Environmental Review Report for Pat Heung Depot Modification Works (2012). The predicted noise level was calculated by applying distance attenuation and façade correction to the SWL.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KSR Station)

NAP: KSR-PF06
 Description: Planned School Site at Kam Tin South Housing Development

Daytime/ Evening		Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight (2), dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
Planned Fixed Sources at KSR (MGL)											
KSR-PF06	K01a	Northeast	92	73	0	-47	3	29			
	K01b	Northeast	95	73	0	-48	3	28			
	K01c	Northeast	103	73	0	-48	3	28			
	K02	Northeast	103	83	0	-48	3	38			
	K03	Northeast	107	71	0	-49	3	25			
	K04	Northeast	109	83	0	-49	3	37			
	K05	Northeast	113	71	0	-49	3	25			
	K06	Northeast	115	83	0	-49	3	37			
	K07	Northeast	120	71	0	-50	3	24			
	K08	Northeast	122	83	0	-50	3	36			
	K09	Northeast	126	76	0	-50	3	29			
	K09a	Northeast	133	73	0	-50	3	26			
	K09b	Northeast	135	73	0	-51	3	25			
	K09c	Northeast	140	74	0	-51	3	26			
	K09d	Northeast	144	74	0	-51	3	26			
	K10	Northeast	150	81	0	-51	3	33			
	K10a	Northeast	411	69	0	-60	3	>300m			
	K10b	Northeast	413	71	0	-60	3	>300m			
	K10c	Northeast	417	71	0	-60	3	>300m			
	K10d	Northeast	426	71	0	-61	3	>300m			
	K11	Northeast	429	71	0	-61	3	>300m			
	K12	Northeast	434	71	0	-61	3	>300m			
	K13	Northeast	436	71	0	-61	3	>300m			
	K14	Northeast	440	71	0	-61	3	>300m			
	K15	Northeast	443	71	0	-61	3	>300m			
	K16	Northeast	446	71	0	-61	3	>300m			
	K17	Northeast	448	71	0	-61	3	>300m			
	K18	Northeast	452	71	0	-61	3	>300m			
	K19	Southwest	236	86	-10	-55	3	24			
	K20	Southwest	255	88	-10	-56	3	25			
	K20a	Northeast	259	79	0	-56	3	26			
	K21	Northeast	254	79	0	-56	3	26			
	K22	Southwest	257	86	-10	-56	3	23			
	K22a	Southwest	261	81	-10	-56	3	18			
	K22b	Southwest	265	81	-10	-56	3	18			
	K22c	Southwest	267	83	-10	-57	3	19			
	K23	Southwest	422	86	-10	-61	3	>300m			
	K24	Southwest	427	86	-10	-61	3	>300m			
	K25	Southwest	435	86	-10	-61	3	>300m			
	K26	Southwest	440	86	-10	-61	3	>300m			
	K27	Southwest	446	85	-10	-61	3	>300m			
	K27a	Southwest	447	83	-10	-61	3	>300m			
	K28	Southwest	65	88	-10	-44	3	37			
	K29	Southwest	74	88	-10	-45	3	36			
	K30	Northeast	42	85	0	-40	3	48			
	K30a	Northeast	58	69	0	-43	3	29			
	K31	Northeast	48	85	0	-42	3	46			
	K31a	Northeast	64	66	0	-44	3	25			
	K31b	Southwest	64	66	0	-44	3	25			
	K31c	Southwest	117	81	-10	-49	3	25			
	K31d	Southwest	119	83	-10	-50	3	26			
	K32	Southwest	120	88	-10	-50	3	31			
	K33	Southwest	126	88	-10	-50	3	31			
	K34	Southwest	131	88	-10	-50	3	31			
	K35	Southwest	139	87	-10	-51	3	29			
	K35a	Southwest	151	83	-10	-52	3	24			
	K35b	Northeast	153	81	-10	-52	3	22			
	K37	Southwest	195	88	-10	-54	3	27			
	K38	Southwest	203	88	-10	-54	3	27			
	K39	Southwest	209	88	-10	-54	3	27			
	K40	Southwest	253	88	-10	-56	3	25			
	K41	Northeast	193	86	-10	-54	3	25			
	K41a	Southwest	187	77	0	-53	3	27			
	K42	Northeast	200	86	-10	-54	3	25			
	K42a	Northeast	202	71	0	-54	3	20			
	K43	Northeast	208	86	-10	-54	3	25			
	K44	Top	211	77	0	-54	3	26			
	K45	Top	214	77	0	-55	3	25			
	K45a	Southwest	244	83	-10	-56	3	20			
	K46	Top	209	77	0	-54	3	26			
	K47	Top	213	76	0	-55	3	24			
	K48	Southwest	403	86	-10	-60	3	>300m			
	K48a	Southwest	408	81	-10	-60	3	>300m			
	K48b	Southwest	415	81	-10	-60	3	>300m			
	K49	Southwest	449	88	-10	-61	3	>300m			
	K50	Southwest	459	88	-10	-61	3	>300m			
	K51	Southwest	463	88	-10	-61	3	>300m			
	K51a	Southwest	466	81	-10	-61	3	>300m			
	K51b	Southwest	469	81	-10	-61	3	>300m			
	K52	Southwest	472	88	-10	-61	3	>300m			
	K53	Northeast	471	85	0	-61	3	>300m			
	K54	Northeast	462	85	0	-61	3	>300m			
	K55	Northeast	458	85	0	-61	3	>300m			
	K56	Northeast	445	85	0	-61	3	>300m			
	K57	Top	480	85	0	-62	3	>300m	52		57
Existing Fixed Sources at KSR (TMI) and Train Wash Facility at PHD (3), (4)											
	A1	Northeast	464	81	-10	-61	3	>300m			
	A2	Northeast	412	87	-10	-60	3	>300m			
	A3	Northeast	325	64	-10	-58	3	>300m			
	CP	Top	413	92	0	-60	3	>300m			
	TWF	Top	208	95	0	-54	3	44	44		
Cumulative FPN Impact (Daytime & Evening time), dB(A)										52	65

Remarks:
 [1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.
 [2] A negative correction of 10 dB(A) has been adopted to the direction facing of the louvers totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the louvers.
 [3] The SWL of A1-A3 and CP can be referred to the Table 3.2 and Section 4.1 in Appendix 4.1.2 respectively.
 [4] For the SWL level of the existing train wash within PHD, reference has been made to the approved Environmental Review Report for Pat Heung Depot Modification Works (2012). The predicted noise level was calculated by applying distance attenuation and facade correction to the SWL.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (AUT Station)

NAP:

AUT-PF01

Description:

Planned Residential Block at Sha Po Public Housing Development

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
AUT-PF01	A01	West	85	90	-10	-47	3	36		
	A02	West	80	90	-10	-46	3	37		
	A03	West	75	90	-10	-46	3	37		
	A03a	North	42	80	0	-40	3	43		
	A04	North	39	84	0	-40	3	47		
	A04a	North	36	80	0	-39	3	44		
	A05	East	36	80	0	-39	3	44		
	A05a	East	53	80	0	-43	3	40		
	A05b	East	58	85	0	-43	3	45		
	A05c	East	66	85	0	-44	3	44		
	A06	South	79	89	-10	-46	3	36		
	A07	South	82	89	-10	-46	3	36		
	A08	East	51	86	0	-42	3	47		
	A09	West	65	95	-10	-44	3	44		
	A10	West	61	95	-10	-44	3	44		
	A11	West	57	95	-10	-43	3	45		
	A12	West	62	90	-10	-44	3	39		
	A12a	West	63	85	-10	-44	3	34		
	A13	West	64	90	-10	-44	3	39		
	A13a	West	66	90	-10	-44	3	39		
	A14	West	70	85	-10	-45	3	33		
	A14a	West	74	90	-10	-45	3	38		
	A15	West	150	85	-10	-52	3	26		
	A15a	West	154	90	-10	-52	3	31		
	A15b	North	173	90	-10	-53	3	30		
	A15c	North	172	85	-10	-53	3	25		
	A15d	East	161	85	0	-52	3	36		
	A16	Top	162	90	0	-52	3	41		
	A16a	East	49	85	0	-42	3	46		
	A16b	East	44	85	0	-41	3	47		
	A17	Top	50	85	0	-42	3	46		
	A17a	East	30	85	0	-37	3	51		
	A19	South	32	82	0	-38	3	47		
	A20	South	35	82	0	-39	3	46		
	A21	South	41	82	0	-40	3	45		
	A22	South	44	80	0	-41	3	42		
	A23	South	46	80	0	-41	3	42		
	A24	South	49	82	0	-42	3	43		
	A25	South	51	80	0	-42	3	41		
	A26	South	53	82	0	-43	3	42		
	A26a	West	198	85	-10	-54	3	24		
	A27	West	218	89	-10	-55	3	27		
	A28	West	234	87	-10	-55	3	25		
	A28a	West	239	80	-10	-56	3	17		
	A28b	West	244	80	-10	-56	3	17		
	A29	West	247	87	-10	-56	3	24		
	A30	North	259	77	-10	-56	3	14		
	A31	North	258	80	-10	-56	3	17		
	A32	North	257	78	-10	-56	3	15		
	A33	North	257	80	-10	-56	3	17		
	A34	North	256	78	-10	-56	3	15		
	A35	North	255	80	-10	-56	3	17		
	A36	North	255	78	-10	-56	3	15		
	A37	North	255	80	-10	-56	3	17		
	A37a	East	202	80	0	-54	3	29		
	A37b	South	201	80	0	-54	3	29		
	A37c	South	196	80	0	-54	3	29		
	A37d	South	195	82	0	-54	3	31		
	A37e	South	194	82	0	-54	3	31		
	A38	Top	202	87	0	-54	3	36		
	A39	North	242	86	-10	-56	3	23		
	A40	North	242	86	-10	-56	3	23		
	A41	South	194	67	0	-54	3	36	59	60

Appendix 4.11 Fixed Plant Noise Calculation

Night-time										
NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
AUT-PF01	A01	West	85	80	-10	-47	3	26		
	A02	West	80	80	-10	-46	3	27		
	A03	West	75	80	-10	-46	3	27		
	A03a	North	42	70	0	-40	3	33		
	A04	North	39	74	0	-40	3	37		
	A04a	North	36	70	0	-39	3	34		
	A05	East	36	70	0	-39	3	34		
	A05a	East	53	70	0	-43	3	30		
	A05b	East	58	75	0	-43	3	35		
	A05c	East	66	75	0	-44	3	34		
	A06	South	79	79	-10	-46	3	26		
	A07	South	82	79	-10	-46	3	26		
	A08	East	51	76	0	-42	3	37		
	A09	West	65	85	-10	-44	3	34		
	A10	West	61	85	-10	-44	3	34		
	A11	West	57	85	-10	-43	3	35		
	A12	West	62	80	-10	-44	3	29		
	A12a	West	63	75	-10	-44	3	24		
	A13	West	64	80	-10	-44	3	29		
	A13a	West	66	80	-10	-44	3	29		
	A14	West	70	75	-10	-45	3	23		
	A14a	West	74	80	-10	-45	3	28		
	A15	West	150	75	-10	-52	3	16		
	A15a	West	154	80	-10	-52	3	21		
	A15b	North	173	80	-10	-53	3	20		
	A15c	North	172	75	-10	-53	3	15		
	A15d	East	161	75	0	-52	3	26		
	A16	Top	162	80	0	-52	3	31		
	A16a	East	49	75	0	-42	3	36		
	A16b	East	44	75	0	-41	3	37		
	A17	Top	50	75	0	-42	3	36		
	A17a	East	30	75	0	-37	3	41		
	A19	South	32	72	0	-38	3	37		
	A20	South	35	72	0	-39	3	36		
	A21	South	41	72	0	-40	3	35		
	A22	South	44	70	0	-41	3	32		
	A23	South	46	70	0	-41	3	32		
	A24	South	49	72	0	-42	3	33		
	A25	South	51	70	0	-42	3	31		
	A26	South	53	72	0	-43	3	32		
	A26a	West	198	75	-10	-54	3	14		
	A27	West	218	79	-10	-55	3	17		
	A28	West	234	77	-10	-55	3	15		
	A28a	West	239	70	-10	-56	3	7		
	A28b	West	244	70	-10	-56	3	7		
	A29	West	247	77	-10	-56	3	14		
	A30	North	259	67	-10	-56	3	4		
	A31	North	258	70	-10	-56	3	7		
	A32	North	257	68	-10	-56	3	5		
	A33	North	257	70	-10	-56	3	7		
	A34	North	256	68	-10	-56	3	5		
	A35	North	255	70	-10	-56	3	7		
	A36	North	255	68	-10	-56	3	5		
	A37	North	255	70	-10	-56	3	7		
	A37a	East	202	70	0	-54	3	19		
	A37b	South	201	70	0	-54	3	19		
	A37c	South	196	70	0	-54	3	19		
	A37d	South	195	72	0	-54	3	21		
	A37e	South	194	72	0	-54	3	21		
	A38	Top	202	77	0	-54	3	26		
	A39	North	242	76	-10	-56	3	13		
	A40	North	242	76	-10	-56	3	13		
	A41	South	194	77	0	-54	3	26	49	50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (AUT Station)

NAP:

AUT-PF02

Description:

Planned Residential Block at Sha Po Public Housing Development

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
AUT-PF02	A01	West	68	90	-10	-45	3	38		
	A02	West	65	90	-10	-44	3	39		
	A03	West	61	90	-10	-44	3	39		
	A03a	North	31	80	0	-38	3	45		
	A04	North	28	84	0	-37	3	50		
	A04a	North	23	80	0	-35	3	48		
	A05	East	21	80	0	-34	3	49		
	A05a	East	33	80	0	-38	3	45		
	A05b	East	37	85	0	-39	3	49		
	A05c	East	45	85	0	-41	3	47		
	A06	South	57	89	-10	-43	3	39		
	A07	South	61	89	-10	-44	3	38		
	A08	East	31	86	0	-38	3	51		
	A09	West	48	95	-10	-42	3	46		
	A10	West	45	95	-10	-41	3	47		
	A11	West	43	95	-10	-41	3	47		
	A12	West	64	90	-10	-44	3	39		
	A12a	West	67	85	-10	-45	3	33		
	A13	West	69	90	-10	-45	3	38		
	A13a	West	72	90	-10	-45	3	38		
	A14	West	79	85	-10	-46	3	32		
	A14a	West	85	90	-10	-47	3	36		
	A15	West	168	85	-10	-53	3	25		
	A15a	West	173	90	-10	-53	3	30		
	A15b	North	193	90	-10	-54	3	29		
	A15c	North	193	85	-10	-54	3	24		
	A15d	East	182	85	0	-53	3	35		
	A16	Top	182	90	0	-53	3	40		
	A16a	East	68	85	0	-45	3	43		
	A16b	East	62	85	0	-44	3	44		
	A17	Top	66	85	0	-44	3	44		
	A17a	East	43	85	0	-41	3	47		
	A19	South	36	82	0	-39	3	46		
	A20	South	37	82	0	-39	3	46		
	A21	South	41	82	0	-40	3	45		
	A22	South	44	80	0	-41	3	42		
	A23	South	46	80	0	-41	3	42		
	A24	South	48	82	0	-42	3	43		
	A25	South	51	80	0	-42	3	41		
	A26	South	53	82	0	-42	3	43		
	A26a	West	218	85	-10	-55	3	23		
	A27	West	238	89	-10	-56	3	26		
	A28	West	254	87	-10	-56	3	24		
	A28a	West	259	80	-10	-56	3	17		
	A28b	West	264	80	-10	-56	3	17		
	A29	West	267	87	-10	-57	3	23		
	A30	North	279	77	-10	-57	3	13		
	A31	North	279	80	-10	-57	3	16		
	A32	North	278	78	-10	-57	3	14		
	A33	North	278	80	-10	-57	3	16		
	A34	North	277	78	-10	-57	3	14		
	A35	North	277	80	-10	-57	3	16		
	A36	North	276	78	-10	-57	3	14		
	A37	North	276	80	-10	-57	3	16		
	A37a	East	223	80	0	-55	3	28		
	A37b	South	222	80	0	-55	3	28		
	A37c	South	216	80	0	-55	3	28		
	A37d	South	215	82	0	-55	3	30		
	A37e	South	214	82	0	-55	3	30		
	A38	Top	222	87	0	-55	3	35		
	A39	North	263	86	-10	-56	3	23		
	A40	North	263	86	-10	-56	3	23		
	A41	South	214	87	0	-55	3	35	60	60

Appendix 4.11 Fixed Plant Noise Calculation

Night-time										
NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
AUT-PF02	A01	West	68	80	-10	-45	3	28		
	A02	West	65	80	-10	-44	3	29		
	A03	West	61	80	-10	-44	3	29		
	A03a	North	31	70	0	-38	3	35		
	A04	North	28	74	0	-37	3	40		
	A04a	North	23	70	0	-35	3	38		
	A05	East	21	70	0	-34	3	39		
	A05a	East	33	70	0	-38	3	35		
	A05b	East	37	75	0	-39	3	39		
	A05c	East	45	75	0	-41	3	37		
	A06	South	57	79	-10	-43	3	29		
	A07	South	61	79	-10	-44	3	28		
	A08	East	31	76	0	-38	3	41		
	A09	West	48	85	-10	-42	3	36		
	A10	West	45	85	-10	-41	3	37		
	A11	West	43	85	-10	-41	3	37		
	A12	West	64	80	-10	-44	3	29		
	A12a	West	67	75	-10	-45	3	23		
	A13	West	69	80	-10	-45	3	28		
	A13a	West	72	80	-10	-45	3	28		
	A14	West	79	75	-10	-46	3	22		
	A14a	West	85	80	-10	-47	3	26		
	A15	West	168	75	-10	-53	3	15		
	A15a	West	173	80	-10	-53	3	20		
	A15b	North	193	80	-10	-54	3	19		
	A15c	North	193	75	-10	-54	3	14		
	A15d	East	182	75	0	-53	3	25		
	A16	Top	182	80	0	-53	3	30		
	A16a	East	68	75	0	-45	3	33		
	A16b	East	62	75	0	-44	3	34		
	A17	Top	66	75	0	-44	3	34		
	A17a	East	43	75	0	-41	3	37		
	A19	South	36	72	0	-39	3	36		
	A20	South	37	72	0	-39	3	36		
	A21	South	41	72	0	-40	3	35		
	A22	South	44	70	0	-41	3	32		
	A23	South	46	70	0	-41	3	32		
	A24	South	48	72	0	-42	3	33		
	A25	South	51	70	0	-42	3	31		
	A26	South	53	72	0	-42	3	33		
	A26a	West	218	75	-10	-55	3	13		
	A27	West	238	79	-10	-56	3	16		
	A28	West	254	77	-10	-56	3	14		
	A28a	West	259	70	-10	-56	3	7		
	A28b	West	264	70	-10	-56	3	7		
	A29	West	267	77	-10	-57	3	13		
	A30	North	279	67	-10	-57	3	3		
	A31	North	279	70	-10	-57	3	6		
	A32	North	278	68	-10	-57	3	4		
	A33	North	278	70	-10	-57	3	6		
	A34	North	277	68	-10	-57	3	4		
	A35	North	277	70	-10	-57	3	6		
	A36	North	276	68	-10	-57	3	4		
	A37	North	276	70	-10	-57	3	6		
	A37a	East	223	70	0	-55	3	18		
	A37b	South	222	70	0	-55	3	18		
	A37c	South	216	70	0	-55	3	18		
	A37d	South	215	72	0	-55	3	20		
	A37e	South	214	72	0	-55	3	20		
	A38	Top	222	77	0	-55	3	25		
	A39	North	263	76	-10	-56	3	13		
	A40	North	263	76	-10	-56	3	13		
	A41	South	214	77	0	-55	3	25	50	50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (AUT Station)

NAP:

AUT-PF03

Description:

Planned Residential Block at Sha Po Public Housing Development

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ² , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
AUT-PF03	A01	West	335	90	-10	-59	3	24		
	A02	West	329	90	-10	-58	3	25		
	A03	West	320	90	-10	-58	3	25		
	A03a	North	295	80	0	-57	3	26		
	A04	North	295	84	0	-57	3	30		
	A04a	North	294	80	0	-57	3	26		
	A05	East	296	80	0	-57	3	26		
	A05a	East	318	80	0	-58	3	25		
	A05b	East	323	85	0	-58	3	30		
	A05c	East	331	85	0	-58	3	30		
	A06	South	342	89	-10	-59	3	23		
	A07	South	344	89	-10	-59	3	23		
	A08	East	315	86	0	-58	3	31		
	A09	West	319	95	-10	-58	3	30		
	A10	West	314	95	-10	-58	3	30		
	A11	West	308	95	-10	-58	3	30		
	A12	West	273	90	-10	-57	3	26		
	A12a	West	268	85	-10	-57	3	21		
	A13	West	264	90	-10	-56	3	27		
	A13a	West	258	90	-10	-56	3	27		
	A14	West	248	85	-10	-56	3	22		
	A14a	West	241	90	-10	-56	3	27		
	A15	West	155	85	-10	-52	3	26		
	A15a	West	150	90	-10	-52	3	31		
	A15b	North	125	90	0	-50	3	43		
	A15c	North	110	85	0	-49	3	39		
	A15d	East	117	85	0	-49	3	39		
	A16	Top	132	90	0	-50	3	43		
	A16a	East	229	85	0	-55	3	33		
	A16b	East	235	85	0	-55	3	33		
	A17	Top	237	85	0	-56	3	32		
	A17a	East	255	85	0	-56	3	32		
	A19	South	272	82	-10	-57	3	18		
	A20	South	273	82	-10	-57	3	18		
	A21	South	276	82	-10	-57	3	18		
	A22	South	277	80	-10	-57	3	16		
	A23	South	277	80	-10	-57	3	16		
	A24	South	278	82	-10	-57	3	18		
	A25	South	279	80	-10	-57	3	16		
	A26	South	279	82	-10	-57	3	18		
	A26a	West	114	85	-10	-49	3	29		
	A27	West	101	89	-10	-48	3	34		
	A28	West	92	87	-10	-47	3	33		
	A28a	West	90	80	-10	-47	3	26		
	A28b	West	88	80	-10	-47	3	26		
	A29	West	87	87	-10	-47	3	33		
	A30	North	76	77	0	-46	3	34		
	A31	North	72	80	0	-45	3	38		
	A32	North	69	78	0	-45	3	36		
	A33	North	66	80	0	-44	3	39		
	A34	North	60	78	0	-44	3	37		
	A35	North	57	80	0	-43	3	40		
	A36	North	54	78	0	-43	3	38		
	A37	North	51	80	0	-42	3	41		
	A37a	East	82	80	0	-46	3	37		
	A37b	South	84	80	-10	-46	3	27		
	A37c	South	88	80	-10	-48	3	25		
	A37d	South	102	82	-10	-48	3	27		
	A37e	South	105	82	-10	-48	3	27		
	A38	Top	90	87	0	-47	3	43		
	A39	North	57	86	0	-43	3	46		
	A40	North	62	86	0	-44	3	45		
	A41	South	112	67	-10	-49	3	31	54	60

Appendix 4.11 Fixed Plant Noise Calculation

Night-time										
NAP	Plant Item	Direction Facing	Horizontal Distance, m [1]	SWL, dB(A)	Correction for line of sight [2], dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
AUT-PFD3	A01	West	335	80	-10	-59	3	>300m		
	A02	West	329	80	-10	-58	3	>300m		
	A03	West	320	80	-10	-58	3	>300m		
	A03a	North	295	70	0	-57	3	16		
	A04	North	295	74	0	-57	3	20		
	A04a	North	294	70	0	-57	3	16		
	A05	East	296	70	0	-57	3	16		
	A05a	East	318	70	0	-58	3	>300m		
	A05b	East	323	75	0	-58	3	>300m		
	A05c	East	331	75	0	-58	3	>300m		
	A06	South	342	79	-10	-59	3	>300m		
	A07	South	344	79	-10	-59	3	>300m		
	A08	East	315	76	0	-58	3	>300m		
	A09	West	319	85	-10	-58	3	>300m		
	A10	West	314	85	-10	-58	3	>300m		
	A11	West	308	85	-10	-58	3	>300m		
	A12	West	273	80	-10	-57	3	16		
	A12a	West	268	75	-10	-57	3	11		
	A13	West	264	80	-10	-56	3	17		
	A13a	West	258	80	-10	-56	3	17		
	A14	West	248	75	-10	-56	3	12		
	A14a	West	241	80	-10	-56	3	17		
	A15	West	155	75	-10	-52	3	16		
	A15a	West	150	80	-10	-52	3	21		
	A15b	North	125	80	0	-50	3	33		
	A15c	North	110	75	0	-49	3	29		
	A15d	East	117	75	0	-49	3	29		
	A16	Top	132	80	0	-50	3	33		
	A16a	East	229	75	0	-55	3	23		
	A16b	East	235	75	0	-55	3	23		
	A17	Top	237	75	0	-56	3	22		
	A17a	East	255	75	0	-56	3	22		
	A19	South	272	72	-10	-57	3	8		
	A20	South	273	72	-10	-57	3	8		
	A21	South	276	72	-10	-57	3	8		
	A22	South	277	70	-10	-57	3	6		
	A23	South	277	70	-10	-57	3	6		
	A24	South	278	72	-10	-57	3	8		
	A25	South	279	70	-10	-57	3	6		
	A26	South	279	72	-10	-57	3	8		
	A26a	West	114	75	-10	-49	3	19		
	A27	West	101	79	-10	-48	3	24		
	A28	West	92	77	-10	-47	3	23		
	A28a	West	90	70	-10	-47	3	16		
	A28b	West	88	70	-10	-47	3	16		
	A29	West	87	77	-10	-47	3	23		
	A30	North	76	67	0	-46	3	24		
	A31	North	72	70	0	-45	3	28		
	A32	North	69	68	0	-45	3	26		
	A33	North	66	70	0	-44	3	29		
	A34	North	60	68	0	-44	3	27		
	A35	North	57	70	0	-43	3	30		
	A36	North	54	68	0	-43	3	28		
	A37	North	51	70	0	-42	3	31		
	A37a	East	82	70	0	-46	3	27		
	A37b	South	84	70	-10	-46	3	17		
	A37c	South	98	70	-10	-48	3	15		
	A37d	South	102	72	-10	-48	3	17		
	A37e	South	105	72	-10	-48	3	17		
	A38	Top	90	77	0	-47	3	33		
	A39	North	57	76	0	-43	3	36		
	A40	North	62	76	0	-44	3	35		
	A41	South	112	77	-10	-49	3	21	44	50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (AUT Station)

NAP: AUT-PF04

Description: Planned Residential Block at Sha Po Public Housing Development

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL dB(A)	Correction for line of sight ² , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
AUT-PF04	A01	West	69	90	-10	-45	3	38		
	A02	West	73	90	-10	-45	3	38		
	A03	West	79	90	-10	-46	3	37		
	A03a	North	80	80	-10	-46	3	27		
	A04	North	79	84	-10	-46	3	31		
	A04a	North	77	80	-10	-46	3	27		
	A05	East	73	80	0	-45	3	38		
	A05a	East	53	80	0	-43	3	40		
	A05b	East	48	85	0	-42	3	46		
	A05c	East	41	85	0	-40	3	48		
	A06	South	38	89	0	-40	3	52		
	A07	South	44	89	0	-41	3	51		
	A08	East	56	86	0	-43	3	46		
	A09	West	65	95	-10	-44	3	44		
	A10	West	70	95	-10	-45	3	43		
	A11	West	75	95	-10	-45	3	43		
	A12	West	118	90	-10	-49	3	34		
	A12a	West	123	85	-10	-50	3	28		
	A13	West	126	90	-10	-50	3	33		
	A13a	West	132	90	-10	-50	3	33		
	A14	West	142	85	-10	-51	3	27		
	A14a	West	149	90	-10	-51	3	32		
	A15	West	240	85	-10	-56	3	22		
	A15a	West	245	90	-10	-56	3	27		
	A15b	North	266	90	-10	-56	3	27		
	A15c	North	267	85	-10	-57	3	21		
	A15d	East	257	85	0	-56	3	32		
	A16	Top	255	90	0	-56	3	37		
	A16a	East	141	85	0	-51	3	37		
	A16b	East	135	85	0	-51	3	37		
	A17	Top	136	85	0	-51	3	37		
	A17a	East	115	85	0	-49	3	39		
	A19	South	101	82	0	-48	3	37		
	A20	South	101	82	0	-48	3	37		
	A21	South	101	82	0	-48	3	37		
	A22	South	102	80	0	-48	3	35		
	A23	South	103	80	0	-48	3	35		
	A24	South	104	82	0	-48	3	37		
	A25	South	105	80	0	-48	3	35		
	A26	South	106	82	0	-48	3	37		
	A26a	West	291	85	-10	-57	3	21		
	A27	West	311	89	-10	-58	3	>300m		
	A28	West	328	87	-10	-58	3	>300m		
	A28a	West	333	80	-10	-58	3	>300m		
	A28b	West	337	80	-10	-59	3	>300m		
	A29	West	340	87	-10	-59	3	>300m		
	A30	North	353	77	-10	-59	3	>300m		
	A31	North	353	80	-10	-59	3	>300m		
	A32	North	352	78	-10	-59	3	>300m		
	A33	North	352	80	-10	-59	3	>300m		
	A34	North	351	78	-10	-59	3	>300m		
	A35	North	351	80	-10	-59	3	>300m		
	A36	North	351	78	-10	-59	3	>300m		
	A37	North	351	80	-10	-59	3	>300m		
	A37a	East	298	80	0	-57	3	26		
	A37b	South	297	80	0	-57	3	26		
	A37c	South	291	80	0	-57	3	26		
	A37d	South	289	82	0	-57	3	28		
	A37e	South	288	82	0	-57	3	28		
	A38	Top	297	87	0	-57	3	33		
	A39	North	337	86	-10	-59	3	>300m		
	A40	North	338	86	-10	-59	3	>300m		
	A41	South	287	67	0	-57	3	33	58	60

Appendix 4.11 Fixed Plant Noise Calculation

Night-time										
NAP	Plant Item	Direction Facing	Horizontal Distance, m [1]	SWL, dB(A)	Correction for line of sight [2], dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
AUT-PF04	A01	West	69	80	-10	-45	3	28		
	A02	West	73	80	-10	-45	3	28		
	A03	West	79	80	-10	-46	3	27		
	A03a	North	80	70	-10	-46	3	17		
	A04	North	79	74	-10	-46	3	21		
	A04a	North	77	70	-10	-46	3	17		
	A05	East	73	70	0	-45	3	28		
	A05a	East	53	70	0	-43	3	30		
	A05b	East	48	75	0	-42	3	36		
	A05c	East	41	75	0	-40	3	38		
	A06	South	38	79	0	-40	3	42		
	A07	South	44	79	0	-41	3	41		
	A08	East	56	76	0	-43	3	36		
	A09	West	65	85	-10	-44	3	34		
	A10	West	70	85	-10	-45	3	33		
	A11	West	75	85	-10	-45	3	33		
	A12	West	118	80	-10	-49	3	24		
	A12a	West	123	75	-10	-50	3	18		
	A13	West	126	80	-10	-50	3	23		
	A13a	West	132	80	-10	-50	3	23		
	A14	West	142	75	-10	-51	3	17		
	A14a	West	149	80	-10	-51	3	22		
	A15	West	240	75	-10	-56	3	12		
	A15a	West	245	80	-10	-56	3	17		
	A15b	North	266	80	-10	-56	3	17		
	A15c	North	267	75	-10	-57	3	11		
	A15d	East	257	75	0	-56	3	22		
	A16	Top	255	80	0	-56	3	27		
	A16a	East	141	75	0	-51	3	27		
	A16b	East	135	75	0	-51	3	27		
	A17	Top	136	75	0	-51	3	27		
	A17a	East	115	75	0	-49	3	29		
	A19	South	101	72	0	-48	3	27		
	A20	South	101	72	0	-48	3	27		
	A21	South	101	72	0	-48	3	27		
	A22	South	102	70	0	-48	3	25		
	A23	South	103	70	0	-48	3	25		
	A24	South	104	72	0	-48	3	27		
	A25	South	105	70	0	-48	3	25		
	A26	South	106	72	0	-48	3	27		
	A26a	West	291	75	-10	-57	3	11		
	A27	West	311	79	-10	-58	3	>300m		
	A28	West	328	77	-10	-58	3	>300m		
	A28a	West	333	70	-10	-58	3	>300m		
	A28b	West	337	70	-10	-59	3	>300m		
	A29	West	340	77	-10	-59	3	>300m		
	A30	North	353	67	-10	-59	3	>300m		
	A31	North	353	70	-10	-59	3	>300m		
	A32	North	352	68	-10	-59	3	>300m		
	A33	North	352	70	-10	-59	3	>300m		
	A34	North	351	68	-10	-59	3	>300m		
	A35	North	351	70	-10	-59	3	>300m		
	A36	North	351	68	-10	-59	3	>300m		
	A37	North	351	70	-10	-59	3	>300m		
	A37a	East	298	70	0	-57	3	16		
	A37b	South	297	70	0	-57	3	16		
	A37c	South	291	70	0	-57	3	16		
	A37d	South	289	72	0	-57	3	18		
	A37e	South	288	72	0	-57	3	18		
	A38	Top	297	77	0	-57	3	23		
	A39	North	337	76	-10	-59	3	>300m		
	A40	North	338	76	-10	-59	3	>300m		
	A41	South	287	77	0	-57	3	23	48	50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (AUT Station)

NAP: AUT-F02
 Description: Shum Residence

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL dB(A)	Correction for line of sight ² , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
AUT-F02	A01	West	243	90	-10	-56	3	27		
	A02	West	237	90	-10	-55	3	28		
	A03	West	229	90	-10	-55	3	28		
	A03a	North	200	80	0	-54	3	29		
	A04	North	199	84	0	-54	3	33		
	A04a	North	198	80	0	-54	3	29		
	A05	East	199	80	0	-54	3	29		
	A05a	East	220	80	0	-55	3	28		
	A05b	East	225	85	0	-55	3	33		
	A05c	East	233	85	0	-55	3	33		
	A06	South	245	89	-10	-56	3	26		
	A07	South	247	89	-10	-56	3	26		
	A08	East	217	86	0	-55	3	34		
	A09	West	225	95	-10	-55	3	33		
	A10	West	220	95	-10	-55	3	33		
	A11	West	215	95	-10	-55	3	33		
	A12	West	186	90	-10	-53	3	30		
	A12a	West	181	85	-10	-53	3	25		
	A13	West	178	90	-10	-53	3	30		
	A13a	West	173	90	-10	-53	3	30		
	A14	West	165	85	-10	-52	3	26		
	A14a	West	159	90	-10	-52	3	31		
	A15	West	104	85	-10	-48	3	30		
	A15a	West	103	90	-10	-48	3	35		
	A15b	North	91	90	-10	-47	3	36		
	A15c	North	70	85	-10	-45	3	33		
	A15d	East	63	85	0	-44	3	44		
	A16	Top	88	90	0	-47	3	46		
	A16a	East	136	85	0	-51	3	37		
	A16b	East	141	85	0	-51	3	37		
	A17	Top	147	85	0	-51	3	37		
	A17a	East	160	85	0	-52	3	36		
	A19	South	178	82	-10	-53	3	22		
	A20	South	179	82	-10	-53	3	22		
	A21	South	183	82	-10	-53	3	22		
	A22	South	184	80	-10	-53	3	20		
	A23	South	186	80	-10	-53	3	20		
	A24	South	187	82	-10	-53	3	22		
	A25	South	188	80	-10	-53	3	20		
	A26	South	189	82	-10	-54	3	21		
	A26a	West	104	85	-10	-48	3	30		
	A27	West	111	89	-10	-49	3	33		
	A28	West	119	87	-10	-49	3	31		
	A28a	West	121	80	-10	-50	3	23		
	A28b	West	124	80	-10	-50	3	23		
	A29	West	126	87	-10	-50	3	30		
	A30	North	129	77	-10	-50	3	20		
	A31	North	126	80	-10	-50	3	23		
	A32	North	124	78	-10	-50	3	21		
	A33	North	122	80	-10	-50	3	23		
	A34	North	118	78	-10	-49	3	22		
	A35	North	116	80	-10	-49	3	24		
	A36	North	114	78	-10	-49	3	22		
	A37	North	112	80	-10	-49	3	24		
	A37a	East	75	80	0	-46	3	37		
	A37b	South	77	80	0	-46	3	37		
	A37c	South	85	80	0	-47	3	36		
	A37d	South	88	82	0	-47	3	38		
	A37e	South	90	82	0	-47	3	38		
	A38	Top	84	87	0	-46	3	44		
	A39	North	102	86	-10	-48	3	31		
	A40	North	106	86	-10	-49	3	30		
	A41	South	97	67	0	-48	3	42	53	60

Appendix 4.11 Fixed Plant Noise Calculation

Night-time										
NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
AUT-F02	A01	West	243	80	-10	-56	3	17		
	A02	West	237	80	-10	-55	3	18		
	A03	West	229	80	-10	-55	3	18		
	A03a	North	200	70	0	-54	3	19		
	A04	North	199	74	0	-54	3	23		
	A04a	North	198	70	0	-54	3	19		
	A05	East	199	70	0	-54	3	19		
	A05a	East	220	70	0	-55	3	18		
	A05b	East	225	75	0	-55	3	23		
	A05c	East	233	75	0	-55	3	23		
	A06	South	245	79	-10	-56	3	16		
	A07	South	247	79	-10	-56	3	16		
	A08	East	217	76	0	-55	3	24		
	A09	West	225	85	-10	-55	3	23		
	A10	West	220	85	-10	-55	3	23		
	A11	West	215	85	-10	-55	3	23		
	A12	West	186	80	-10	-53	3	20		
	A12a	West	181	75	-10	-53	3	15		
	A13	West	178	80	-10	-53	3	20		
	A13a	West	173	80	-10	-53	3	20		
	A14	West	165	75	-10	-52	3	16		
	A14a	West	159	80	-10	-52	3	21		
	A15	West	104	75	-10	-48	3	20		
	A15a	West	103	80	-10	-48	3	25		
	A15b	North	91	80	-10	-47	3	26		
	A15c	North	70	75	-10	-45	3	23		
	A15d	East	63	75	0	-44	3	34		
	A16	Top	88	80	0	-47	3	36		
	A16a	East	136	75	0	-51	3	27		
	A16b	East	141	75	0	-51	3	27		
	A17	Top	147	75	0	-51	3	27		
	A17a	East	160	75	0	-52	3	26		
	A19	South	178	72	-10	-53	3	12		
	A20	South	179	72	-10	-53	3	12		
	A21	South	183	72	-10	-53	3	12		
	A22	South	184	70	-10	-53	3	10		
	A23	South	186	70	-10	-53	3	10		
	A24	South	187	72	-10	-53	3	12		
	A25	South	188	70	-10	-53	3	10		
	A26	South	189	72	-10	-54	3	11		
	A26a	West	104	75	-10	-48	3	20		
	A27	West	111	79	-10	-49	3	23		
	A28	West	119	77	-10	-49	3	21		
	A28a	West	121	70	-10	-50	3	13		
	A28b	West	124	70	-10	-50	3	13		
	A29	West	126	77	-10	-50	3	20		
	A30	North	129	67	-10	-50	3	10		
	A31	North	126	70	-10	-50	3	13		
	A32	North	124	68	-10	-50	3	11		
	A33	North	122	70	-10	-50	3	13		
	A34	North	118	68	-10	-49	3	12		
	A35	North	116	70	-10	-49	3	14		
	A36	North	114	68	-10	-49	3	12		
	A37	North	112	70	-10	-49	3	14		
	A37a	East	75	70	0	-46	3	27		
	A37b	South	77	70	0	-46	3	27		
	A37c	South	85	70	0	-47	3	26		
	A37d	South	88	72	0	-47	3	28		
	A37e	South	90	72	0	-47	3	28		
	A38	Top	84	77	0	-46	3	34		
	A39	North	102	76	-10	-48	3	21		
	A40	North	106	76	-10	-49	3	20		
	A41	South	97	77	0	-48	3	32	43	50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (AUT Station)

NAP: AUT-F06
 Description: 26 Mo Fan Heung

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL dB(A)	Correction for line of sight ¹⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
AUT-F06	A01	West	327	90	-10	-58	3	>300m		
	A02	West	320	90	-10	-58	3	>300m		
	A03	West	311	90	-10	-58	3	>300m		
	A03a	North	291	80	0	-57	3	26		
	A04	North	291	84	0	-57	3	30		
	A04a	North	292	80	0	-57	3	26		
	A05	East	295	80	-10	-57	3	16		
	A05a	East	316	80	-10	-58	3	>300m		
	A05b	East	322	85	-10	-58	3	>300m		
	A05c	East	330	85	-10	-58	3	>300m		
	A06	South	340	89	-10	-59	3	>300m		
	A07	South	340	89	-10	-59	3	>300m		
	A08	East	313	86	-10	-58	3	>300m		
	A09	West	314	95	0	-58	3	>300m		
	A10	West	308	95	0	-58	3	>300m		
	A11	West	303	95	0	-58	3	>300m		
	A12	West	263	90	-10	-56	3	27		
	A12a	West	257	85	-10	-56	3	22		
	A13	West	253	90	-10	-56	3	27		
	A13a	West	247	90	-10	-56	3	27		
	A14	West	236	85	-10	-55	3	23		
	A14a	West	229	90	-10	-55	3	28		
	A15	West	134	85	-10	-51	3	27		
	A15a	West	129	90	-10	-50	3	33		
	A15b	North	104	90	0	-48	3	45		
	A15c	North	100	85	0	-48	3	40		
	A15d	East	110	85	-10	-49	3	29		
	A16	Top	114	90	0	-49	3	44		
	A16a	East	226	85	-10	-55	3	23		
	A16b	East	232	85	-10	-55	3	23		
	A17	Top	232	85	0	-55	3	33		
	A17a	East	253	85	-10	-56	3	22		
	A19	South	268	82	-10	-57	3	18		
	A20	South	269	82	-10	-57	3	18		
	A21	South	271	82	-10	-57	3	18		
	A22	South	270	80	-10	-57	3	16		
	A23	South	270	80	-10	-57	3	16		
	A24	South	271	82	-10	-57	3	18		
	A25	South	271	80	-10	-57	3	16		
	A26	South	271	82	-10	-57	3	18		
	A26a	West	83	85	-10	-46	3	32		
	A27	West	63	89	-10	-44	3	38		
	A28	West	47	87	-10	-41	3	39		
	A28a	West	42	80	-10	-41	3	32		
	A28b	West	38	80	-10	-40	3	33		
	A29	West	36	87	-10	-39	3	41		
	A30	North	19	77	0	-34	3	46		
	A31	North	17	80	0	-33	3	50		
	A32	North	16	78	0	-32	3	49		
	A33	North	15	80	0	-32	3	51		
	A34	North	16	78	0	-32	3	49		
	A35	North	17	80	0	-33	3	50		
	A36	North	19	78	0	-33	3	48		
	A37	North	20	80	0	-34	3	49		
	A37a	East	70	80	-10	-45	3	28		
	A37b	South	70	80	-10	-45	3	28		
	A37c	South	77	80	-10	-46	3	27		
	A37d	South	79	82	-10	-46	3	29		
	A37e	South	81	82	-10	-46	3	29		
	A38	Top	70	87	0	-45	3	45		
	A39	North	31	86	0	-38	3	51		
	A40	North	30	86	0	-37	3	52		
	A41	South	84	67	-10	-46	3	34	60	60

Appendix 4.11 Fixed Plant Noise Calculation

Night-time										
NAP	Plant Item	Direction Facing	Horizontal Distance, m [1]	SWL, dB(A)	Correction for line of sight [2], dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
AUT-F06	A01	West	327	80	-10	-58	3	>300m		
	A02	West	320	80	-10	-58	3	>300m		
	A03	West	311	80	-10	-58	3	>300m		
	A03a	North	291	70	0	-57	3	16		
	A04	North	291	74	0	-57	3	20		
	A04a	North	292	70	0	-57	3	16		
	A05	East	295	70	-10	-57	3	6		
	A05a	East	316	70	-10	-58	3	>300m		
	A05b	East	322	75	-10	-58	3	>300m		
	A05c	East	330	75	-10	-58	3	>300m		
	A06	South	340	79	-10	-59	3	>300m		
	A07	South	340	79	-10	-59	3	>300m		
	A08	East	313	76	-10	-58	3	>300m		
	A09	West	314	85	0	-58	3	>300m		
	A10	West	308	85	0	-58	3	>300m		
	A11	West	303	85	0	-58	3	>300m		
	A12	West	263	80	-10	-56	3	17		
	A12a	West	257	75	-10	-56	3	12		
	A13	West	253	80	-10	-56	3	17		
	A13a	West	247	80	-10	-56	3	17		
	A14	West	236	75	-10	-55	3	13		
	A14a	West	229	80	-10	-55	3	18		
	A15	West	134	75	-10	-51	3	17		
	A15a	West	129	80	-10	-50	3	23		
	A15b	North	104	80	0	-48	3	35		
	A15c	North	100	75	0	-48	3	30		
	A15d	East	110	75	-10	-49	3	19		
	A16	Top	114	80	0	-49	3	34		
	A16a	East	226	75	-10	-55	3	13		
	A16b	East	232	75	-10	-55	3	13		
	A17	Top	232	75	0	-55	3	23		
	A17a	East	253	75	-10	-56	3	12		
	A19	South	268	72	-10	-57	3	8		
	A20	South	269	72	-10	-57	3	8		
	A21	South	271	72	-10	-57	3	8		
	A22	South	270	70	-10	-57	3	6		
	A23	South	270	70	-10	-57	3	6		
	A24	South	271	72	-10	-57	3	8		
	A25	South	271	70	-10	-57	3	6		
	A26	South	271	72	-10	-57	3	8		
	A26a	West	83	75	-10	-46	3	22		
	A27	West	63	79	-10	-44	3	28		
	A28	West	47	77	-10	-41	3	29		
	A28a	West	42	70	-10	-41	3	22		
	A28b	West	38	70	-10	-40	3	23		
	A29	West	36	77	-10	-39	3	31		
	A30	North	19	67	0	-34	3	36		
	A31	North	17	70	0	-33	3	40		
	A32	North	16	68	0	-32	3	39		
	A33	North	15	70	0	-32	3	41		
	A34	North	16	68	0	-32	3	39		
	A35	North	17	70	0	-33	3	40		
	A36	North	19	68	0	-33	3	38		
	A37	North	20	70	0	-34	3	39		
	A37a	East	70	70	-10	-45	3	18		
	A37b	South	70	70	-10	-45	3	18		
	A37c	South	77	70	-10	-46	3	17		
	A37d	South	79	72	-10	-46	3	19		
	A37e	South	81	72	-10	-46	3	19		
	A38	Top	70	77	0	-45	3	35		
	A39	North	31	76	0	-38	3	41		
	A40	North	30	76	0	-37	3	42		
	A41	South	84	77	-10	-46	3	24	50	50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-PF01
 Description: Potential Development at NTM LUR

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-PF01	N01	Northwest	197	79	0	-54	3	28		
	N02	Northwest	186	79	0	-53	3	29		
	N03	Northwest	177	79	0	-53	3	29		
	N04	Northwest	176	77	0	-53	3	27		
	N05	Northwest	172	77	0	-53	3	27		
	N06	Northwest	168	77	0	-53	3	27		
	N07	Northwest	166	77	0	-52	3	28		
	N08	Northwest	166	80	0	-52	3	31		
	N09	Northwest	164	77	0	-52	3	28		
	N10	Northwest	162	77	0	-52	3	28		
	N11	Northwest	160	77	0	-52	3	28		
	N12	Northwest	157	82	0	-52	3	33		
	N12a	Northwest	154	78	0	-52	3	29		
	N12b	Northwest	149	78	0	-51	3	30		
	N12c	Northwest	144	78	0	-51	3	30		
	N12d	Northwest	171	80	0	-53	3	30		
	N13	Top	168	80	0	-52	3	31		
	N14	Top	141	80	0	-51	3	32		
	N15	Northwest	133	77	0	-50	3	30		
	N15a	Northwest	132	78	0	-50	3	31		
	N16	Northwest	133	77	0	-50	3	30		
	N17	Northwest	133	80	0	-51	3	32		
	N18	Northwest	134	77	0	-51	3	29		
	N19	Northwest	134	77	0	-51	3	29		
	N20	Northwest	134	80	0	-51	3	32		
	N20a	Northwest	136	78	0	-51	3	30		
	N21	Northwest	139	77	0	-51	3	29		
	N21a	Northwest	139	78	0	-51	3	30		
	N22	Northwest	430	77	0	-61	3	>300m		
	N23	Northwest	142	77	0	-51	3	29		
	N24	Northwest	144	77	0	-51	3	29		
	N25	Northwest	146	79	0	-51	3	31		
	N26	Northwest	149	80	0	-51	3	32		
	N27	Northwest	154	77	0	-52	3	28		
	N28	Northwest	157	79	0	-52	3	30		
	N29	Northwest	161	79	0	-52	3	30		
	N30	Northwest	160	77	0	-52	3	28		
	N30a	Northwest	164	78	0	-52	3	29		
	N31	Northwest	168	79	-10	-53	3	19		
	N31a	Northeast	172	82	-10	-53	3	22		
	N31b	Northeast	181	82	-10	-53	3	22		
	N31c	Northeast	171	82	-10	-53	3	22		
	N31d	Northeast	180	82	-10	-53	3	22		
	N32	Northeast	187	80	-10	-53	3	20		
	N32a	Northeast	190	78	-10	-54	3	17		
	N32b	Southeast	193	78	-10	-54	3	17		
	N33	Southeast	190	80	-10	-54	3	19		
	N34	Southeast	186	80	-10	-53	3	20		
	N34a	Southeast	182	73	-10	-53	3	13		
	N35	Southeast	178	82	-10	-53	3	22		
	N36	Southeast	176	80	-10	-53	3	20		
	N37	Southeast	169	80	0	-53	3	30		
	N38	Southeast	173	68	-10	-53	3	8		
	N39	Southeast	172	80	-10	-53	3	20		
	N39a	Southeast	170	75	-10	-53	3	15		
	N40	Southeast	168	78	-10	-53	3	18		
	N40a	Southeast	168	78	-10	-53	3	18		
	N40b	Southeast	150	82	-10	-52	3	23		
	N41	Southeast	181	75	-10	-53	3	15		
	N41a	Southeast	191	72	-10	-54	3	11		
	N43	Southeast	201	72	-10	-54	3	11		
	N44	Southeast	206	76	-10	-54	3	15		
	N45	Southeast	207	72	-10	-54	3	11		
	N45a	Southeast	215	68	-10	-55	3	6		
	N45b	Southeast	221	68	-10	-55	3	6		
	N46	Southeast	231	76	-10	-55	3	14		
	N46a	Southeast	239	75	-10	-56	3	12		
	N47	Southwest	225	76	-10	-55	3	14		
	N47a	Southwest	234	75	-10	-55	3	13		
	N47b	West	225	75	-10	-55	3	13		
	N47c	West	217	75	-10	-55	3	13		
	N48	Northeast	179	79	0	-53	3	29		
	N49	Northeast	199	76	0	-54	3	25		
	N50	Northeast	159	81	0	-52	3	32		
	N50a	Top	162	81	0	-52	3	32		
	N51	Southwest	155	81	0	-52	3	32		
	N52	Southwest	149	78	0	-51	3	30		
	N53	Northeast	191	79	0	-54	3	28		
	N54	Northeast	178	79	0	-53	3	29		
	N55	West	204	79	0	-54	3	28		
	N56	Southwest	208	79	-10	-54	3	18		
	NTD01	North	272	78	0	-57	3	24		
	NTD02	North	272	76	0	-57	3	22		
	NTD03	East	290	75	0	-57	3	21		
	NTD04	East	313	75	0	-58	3	>300m		
	NTD05	East	323	75	0	-58	3	>300m		
	NTD06	East	329	76	0	-58	3	>300m		
	NTD07	East	333	75	0	-58	3	>300m		
	NTD08	East	340	75	0	-59	3	>300m		
	NTD09	East	344	70	0	-59	3	>300m		
	NTD10	East	351	70	0	-59	3	>300m		
	NTD11	East	366	70	0	-59	3	>300m		
	NTD12	West	383	75	-10	-60	3	>300m		
	NTD13	West	377	79	-10	-60	3	>300m		
	NTD14	West	371	77	-10	-59	3	>300m		
	NTD15	West	366	77	-10	-59	3	>300m		
	NTD15a	West	354	80	-10	-59	3	>300m		
	NTD16	West	340	80	-10	-59	3	>300m		

Appendix 4.11 Fixed Plant Noise Calculation

NTD16a	West	303	80	-10	-58	3	>300m
NTD17	West	291	77	-10	-57	3	13
NTD18	West	286	73	-10	-57	3	9
NTD19	West	281	73	-10	-57	3	9
NTD20	West	275	73	-10	-57	3	9
NTD21	West	396	78	-10	-60	3	>300m
NTD22	West	414	80	-10	-60	3	>300m
NTD23	West	431	80	-10	-61	3	>300m
NTD24	West	444	76	-10	-61	3	>300m
NTD25	West	450	80	-10	-61	3	>300m
NTD26	West	457	70	-10	-61	3	>300m
NTD27	West	464	70	-10	-61	3	>300m
NTD28	West	476	75	-10	-62	3	>300m
NTD29	West	484	75	-10	-62	3	>300m
NTD30	West	496	83	-10	-62	3	>300m
NTD31	Southwest	508	80	-10	-62	3	>300m
NTD32	Southwest	529	82	-10	-62	3	>300m
NTD33	Southwest	571	81	-10	-63	3	>300m
NTD34	Southwest	588	80	-10	-63	3	>300m
NTD35	South	638	85	-10	-64	3	>300m
NTD36	South	646	85	-10	-64	3	>300m
NTD37	South	651	85	-10	-64	3	>300m
NTD38	South	655	85	-10	-64	3	>300m
NTD39	South	658	85	-10	-64	3	>300m
NTD40	Top	655	80	-10	-64	3	>300m
NTD41	Southeast	652	75	-10	-64	3	>300m
NTD42	Southeast	636	75	-10	-64	3	>300m
NTD43	South	633	75	-10	-64	3	>300m
NTD44	East	643	75	-10	-64	3	>300m
NTD45	East	640	75	-10	-64	3	>300m
NTD46	East	636	75	-10	-64	3	>300m
NTD47	East	632	75	-10	-64	3	>300m
NTD48	East	626	70	-10	-64	3	>300m
NTD49	East	617	70	-10	-64	3	>300m
NTD50	East	611	70	-10	-64	3	>300m
NTD51	East	607	80	-10	-64	3	>300m
NTD52	East	601	73	-10	-64	3	>300m
NTD53	East	597	68	-10	-64	3	>300m
NTD54	Northeast	580	73	-10	-63	3	>300m
NTD55	East	490	85	-10	-62	3	>300m
NTD56	East	477	72	-10	-62	3	>300m
NTD57	South	475	78	-10	-62	3	>300m
NTD58	South	476	73	-10	-62	3	>300m
NTD59	South	478	70	-10	-62	3	>300m
NTD60	South	480	69	-10	-62	3	>300m
NTD61	South	482	71	-10	-62	3	>300m
NTD62	South	484	80	-10	-62	3	>300m
NTD63	South	488	78	-10	-62	3	>300m
NTD64	South	489	72	-10	-62	3	>300m
NTD65	East	456	72	-10	-61	3	>300m
NTD66	East	450	74	-10	-61	3	>300m
NTD67	Northeast	439	73	-10	-61	3	>300m
NTD68	Northeast	421	75	-10	-60	3	>300m
NTD69	Northeast	411	70	-10	-60	3	>300m
NTD70	Northeast	408	75	-10	-60	3	>300m
NTD71	Northeast	404	75	-10	-60	3	>300m
NTD72	Northeast	398	78	-10	-60	3	>300m
NTD73	East	297	75	-10	-57	3	11
NTD74	East	293	75	-10	-57	3	11
NTD75	East	287	75	-10	-57	3	11
NTD76	East	284	75	-10	-57	3	11
NTD77	Southeast	230	77	-10	-55	3	15
NTD78	Northeast	219	75	-10	-55	3	13
NTD79	Northeast	214	76	-10	-55	3	14
NTD80	Northeast	207	75	-10	-54	3	14
NTD81	Northeast	204	75	-10	-54	3	14
NTD82	Northeast	200	75	-10	-54	3	14
NTD83	Northeast	191	75	-10	-54	3	14
NTD84	Northeast	188	75	0	-53	3	25
NTD85	Northwest	187	75	0	-53	3	25
NTD86	Northwest	183	77	0	-53	3	27
NTD87	Northwest	182	75	0	-53	3	25
NTD88	Northwest	182	74	0	-53	3	24
NTD89	Northwest	184	73	0	-53	3	23
NTD90	Northwest	185	72	0	-53	3	22
NTD91	Northwest	187	75	0	-53	3	25
NTD92	Northwest	190	74	0	-54	3	23
NTD93	West	647	78	-10	-64	3	>300m
NTD94	South	654	73	-10	-64	3	>300m
NTD94a	South	654	73	-10	-64	3	>300m
NTD95	South	656	73	-10	-64	3	>300m
NTD96	South	657	74	-10	-64	3	>300m
NTD97	Top	653	80	0	-64	3	>300m
NTD98	Top	655	80	0	-64	3	>300m
NTD99	Top	657	80	0	-64	3	>300m
NTD100	South	663	80	-10	-64	3	>300m
NTD101	Northeast	691	80	0	-65	3	>300m
NTD102	Northeast	697	75	0	-65	3	>300m
NTD103	Northeast	699	75	0	-65	3	>300m
NTD104	Northeast	705	83	0	-65	3	>300m
NTD105	Southeast	711	73	0	-65	3	>300m
NTD106	Southeast	716	75	-10	-65	3	>300m
NTD107	Southeast	726	72	-10	-65	3	>300m
NTD108	Southeast	729	82	-10	-65	3	>300m
NTD109	Southeast	737	82	-10	-65	3	>300m
NTD110	Southeast	738	85	-10	-65	3	>300m
NTD111	Southwest	698	77	-10	-65	3	>300m
NTD112	Southwest	725	77	0	-65	3	>300m
NTD113	Southwest	727	77	0	-65	3	>300m
NTD114	Southwest	727	85	-10	-65	3	>300m
NTD115	Southwest	708	85	0	-65	3	>300m

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-PF01	N01	Northwest	197	74	0	-54	3	23		
	N02	Northwest	186	74	0	-53	3	24		
	N03	Northwest	177	74	0	-53	3	24		
	N04	Northwest	176	72	0	-53	3	22		
	N05	Northwest	172	72	0	-53	3	22		
	N06	Northwest	168	72	0	-53	3	22		
	N07	Northwest	166	72	0	-52	3	23		
	N08	Northwest	166	75	0	-52	3	26		
	N09	Northwest	164	72	0	-52	3	23		
	N10	Northwest	162	72	0	-52	3	23		
	N11	Northwest	160	72	0	-52	3	23		
	N12	Northwest	157	77	0	-52	3	28		
	N12a	Northwest	154	73	0	-52	3	24		
	N12b	Northwest	149	73	0	-51	3	25		
	N12c	Northwest	144	73	0	-51	3	25		
	N12d	Northwest	171	75	0	-53	3	25		
	N13	Top	168	75	0	-52	3	26		
	N14	Top	141	75	0	-51	3	27		
	N15	Northwest	133	72	0	-50	3	25		
	N15a	Northwest	132	73	0	-50	3	26		
	N16	Northwest	133	72	0	-50	3	25		
	N17	Northwest	133	75	0	-51	3	27		
	N18	Northwest	134	72	0	-51	3	24		
	N19	Northwest	134	72	0	-51	3	24		
	N20	Northwest	134	75	0	-51	3	27		
	N20a	Northwest	136	73	0	-51	3	25		
	N21	Northwest	139	72	0	-51	3	24		
	N21a	Northwest	139	73	0	-51	3	25		
	N22	Northwest	430	72	0	-61	3	>300m		
	N23	Northwest	142	72	0	-51	3	24		
	N24	Northwest	144	72	0	-51	3	24		
	N25	Northwest	146	74	0	-51	3	26		
	N26	Northwest	149	75	0	-51	3	27		
	N27	Northwest	154	72	0	-52	3	23		
	N28	Northwest	157	74	0	-52	3	25		
	N29	Northwest	161	74	0	-52	3	25		
	N30	Northwest	160	72	0	-52	3	23		
	N30a	Northwest	164	73	0	-52	3	24		
	N31	Northwest	168	74	-10	-53	3	14		
	N31a	Northeast	172	77	-10	-53	3	17		
	N31b	Northeast	181	77	-10	-53	3	17		
	N31c	Northeast	171	77	-10	-53	3	17		
	N31d	Northeast	180	77	-10	-53	3	17		
	N32	Northeast	187	75	-10	-53	3	15		
	N32a	Northeast	190	73	-10	-54	3	12		
	N32b	Southeast	193	73	-10	-54	3	12		
	N33	Southeast	190	75	-10	-54	3	14		
	N34	Southeast	186	75	-10	-53	3	15		
	N34a	Southeast	182	68	-10	-53	3	8		
	N35	Southeast	178	77	-10	-53	3	17		
	N36	Southeast	176	75	-10	-53	3	15		
	N37	Southeast	169	75	0	-53	3	25		
	N38	Southeast	173	63	-10	-53	3	3		
	N39	Southeast	172	75	-10	-53	3	15		
	N39a	Southeast	170	70	-10	-53	3	10		
	N40	Southeast	168	73	-10	-53	3	13		
	N40a	Southeast	168	73	-10	-53	3	13		
	N40b	Southwest	150	77	-10	-52	3	18		
	N41	Southwest	181	70	-10	-53	3	10		
	N41a	Southwest	191	67	-10	-54	3	6		
	N43	Southwest	201	67	-10	-54	3	6		
	N44	Southwest	206	71	-10	-54	3	10		
	N45	Southwest	207	67	-10	-54	3	6		
	N45a	Southwest	215	63	-10	-55	3	1		
	N45b	Southwest	221	63	-10	-55	3	1		
	N46	Southwest	231	71	-10	-55	3	9		
	N46a	Southwest	239	70	-10	-56	3	7		
	N47	Southwest	225	71	-10	-55	3	9		
	N47a	Southwest	234	70	-10	-55	3	8		
	N47b	West	225	70	-10	-55	3	8		
	N47c	West	217	70	-10	-55	3	8		
	N48	Northeast	179	74	0	-53	3	24		
	N49	Northeast	199	71	0	-54	3	20		
	N50	Northeast	159	76	0	-52	3	27		
N50a	Top	162	76	0	-52	3	27			
N51	Southwest	155	76	0	-52	3	27			
N52	Southwest	149	73	0	-51	3	25			
N53	Northeast	191	74	0	-54	3	23			
N54	Northeast	178	74	0	-53	3	24			
N55	West	204	74	0	-54	3	23			
N56	Southwest	208	74	-10	-54	3	13			
NTD01	North	272	73	0	-57	3	19			
NTD02	North	272	71	0	-57	3	17			
NTD03	East	290	70	0	-57	3	16			
NTD04	East	313	70	0	-58	3	>300m			
NTD05	East	323	70	0	-58	3	>300m			
NTD06	East	329	71	0	-58	3	>300m			
NTD07	East	333	70	0	-58	3	>300m			
NTD08	East	340	70	0	-59	3	>300m			
NTD09	East	344	65	0	-59	3	>300m			
NTD10	East	351	65	0	-59	3	>300m			
NTD11	East	366	65	0	-59	3	>300m			
NTD12	West	383	70	-10	-60	3	>300m			
NTD13	West	377	74	-10	-60	3	>300m			
NTD14	West	371	72	-10	-59	3	>300m			
NTD15	West	366	72	-10	-59	3	>300m			
NTD15a	West	354	75	-10	-59	3	>300m			
NTD16	West	340	75	-10	-59	3	>300m			
NTD16a	West	303	75	-10	-58	3	>300m			
NTD17	West	291	72	-10	-57	3	8			

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	286	68	-10	-57	3	4
NTD19	West	281	68	-10	-57	3	4
NTD20	West	275	68	-10	-57	3	4
NTD21	West	396	73	-10	-60	3	>300m
NTD22	West	414	75	-10	-60	3	>300m
NTD23	West	431	75	-10	-61	3	>300m
NTD24	West	444	71	-10	-61	3	>300m
NTD25	West	450	75	-10	-61	3	>300m
NTD26	West	457	65	-10	-61	3	>300m
NTD27	West	464	65	-10	-61	3	>300m
NTD28	West	476	70	-10	-62	3	>300m
NTD29	West	484	70	-10	-62	3	>300m
NTD30	West	496	78	-10	-62	3	>300m
NTD31	Southwest	508	75	-10	-62	3	>300m
NTD32	Southwest	529	77	-10	-62	3	>300m
NTD33	Southwest	571	76	-10	-63	3	>300m
NTD34	Southwest	588	75	-10	-63	3	>300m
NTD35	South	638	80	-10	-64	3	>300m
NTD36	South	646	80	-10	-64	3	>300m
NTD37	South	651	80	-10	-64	3	>300m
NTD38	South	655	80	-10	-64	3	>300m
NTD39	South	658	80	-10	-64	3	>300m
NTD40	Top	655	75	-10	-64	3	>300m
NTD41	Southeast	652	70	-10	-64	3	>300m
NTD42	Southeast	636	70	-10	-64	3	>300m
NTD43	South	633	70	-10	-64	3	>300m
NTD44	East	643	70	-10	-64	3	>300m
NTD45	East	640	70	-10	-64	3	>300m
NTD46	East	636	70	-10	-64	3	>300m
NTD47	East	632	70	-10	-64	3	>300m
NTD48	East	626	65	-10	-64	3	>300m
NTD49	East	617	65	-10	-64	3	>300m
NTD50	East	611	65	-10	-64	3	>300m
NTD51	East	607	75	-10	-64	3	>300m
NTD52	East	601	68	-10	-64	3	>300m
NTD53	East	597	63	-10	-64	3	>300m
NTD54	Northeast	580	68	-10	-63	3	>300m
NTD55	East	490	80	-10	-62	3	>300m
NTD56	East	477	67	-10	-62	3	>300m
NTD57	South	475	73	-10	-62	3	>300m
NTD58	South	476	68	-10	-62	3	>300m
NTD59	South	478	65	-10	-62	3	>300m
NTD60	South	480	64	-10	-62	3	>300m
NTD61	South	482	66	-10	-62	3	>300m
NTD62	South	484	75	-10	-62	3	>300m
NTD63	South	488	73	-10	-62	3	>300m
NTD64	South	489	67	-10	-62	3	>300m
NTD65	East	456	67	-10	-61	3	>300m
NTD66	East	450	69	-10	-61	3	>300m
NTD67	Northeast	439	68	-10	-61	3	>300m
NTD68	Northeast	421	70	-10	-60	3	>300m
NTD69	Northeast	411	65	-10	-60	3	>300m
NTD70	Northeast	408	70	-10	-60	3	>300m
NTD71	Northeast	404	70	-10	-60	3	>300m
NTD72	Northeast	398	73	-10	-60	3	>300m
NTD73	East	297	70	-10	-57	3	6
NTD74	East	293	70	-10	-57	3	6
NTD75	East	287	70	-10	-57	3	6
NTD76	East	284	70	-10	-57	3	6
NTD77	Southeast	230	72	-10	-55	3	10
NTD78	Northeast	219	70	-10	-55	3	8
NTD79	Northeast	214	71	-10	-55	3	9
NTD80	Northeast	207	70	-10	-54	3	9
NTD81	Northeast	204	70	-10	-54	3	9
NTD82	Northeast	200	70	-10	-54	3	9
NTD83	Northeast	191	70	-10	-54	3	9
NTD84	Northeast	188	70	0	-53	3	20
NTD85	Northwest	187	70	0	-53	3	20
NTD86	Northwest	183	72	0	-53	3	22
NTD87	Northwest	182	70	0	-53	3	20
NTD88	Northwest	182	69	0	-53	3	19
NTD89	Northwest	184	68	0	-53	3	18
NTD90	Northwest	185	67	0	-53	3	17
NTD91	Northwest	187	70	0	-53	3	20
NTD92	Northwest	190	69	0	-54	3	18
NTD93	West	647	73	-10	-64	3	>300m
NTD94	South	654	68	-10	-64	3	>300m
NTD94a	South	654	68	-10	-64	3	>300m
NTD95	South	656	68	-10	-64	3	>300m
NTD96	South	657	69	-10	-64	3	>300m
NTD97	Top	653	75	0	-64	3	>300m
NTD98	Top	655	75	0	-64	3	>300m
NTD99	Top	657	75	0	-64	3	>300m
NTD100	South	663	75	-10	-64	3	>300m
NTD101	Northeast	691	75	0	-65	3	>300m
NTD102	Northeast	697	70	0	-65	3	>300m
NTD103	Northeast	699	70	0	-65	3	>300m
NTD104	Northeast	705	78	0	-65	3	>300m
NTD105	Southeast	711	68	0	-65	3	>300m
NTD106	Southeast	716	70	-10	-65	3	>300m
NTD107	Southeast	726	67	-10	-65	3	>300m
NTD108	Southeast	729	77	-10	-65	3	>300m
NTD109	Southeast	737	77	-10	-65	3	>300m
NTD110	Southeast	738	80	-10	-65	3	>300m
NTD111	Southwest	698	72	-10	-65	3	>300m
NTD112	Southwest	725	72	0	-65	3	>300m
NTD113	Southwest	727	72	0	-65	3	>300m
NTD114	Southwest	727	80	-10	-65	3	>300m
NTD115	Southwest	708	80	0	-65	3	>300m

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-PF01a
 Description: Potential Development at NTM LUR

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-PF01a	N01	Northwest	52	79	0	-42	3	40		
	N02	Northwest	49	79	0	-42	3	40		
	N03	Northwest	50	79	0	-42	3	40		
	N04	Northwest	51	77	0	-42	3	38		
	N05	Northwest	52	77	0	-42	3	38		
	N06	Northwest	55	77	0	-43	3	37		
	N07	Northwest	56	77	0	-43	3	37		
	N08	Northwest	57	80	0	-43	3	40		
	N09	Northwest	58	77	0	-43	3	37		
	N10	Northwest	60	77	0	-44	3	36		
	N11	Northwest	64	77	0	-44	3	36		
	N12	Northwest	67	82	0	-44	3	41		
	N12a	Northwest	70	78	0	-45	3	36		
	N12b	Northwest	77	78	0	-46	3	35		
	N12c	Northwest	88	78	0	-47	3	34		
	N12d	Northwest	89	80	-10	-47	3	26		
	N13	Top	73	80	0	-45	3	38		
	N14	Top	143	80	0	-51	3	32		
	N15	Northwest	148	77	0	-51	3	29		
	N15a	Northwest	142	78	0	-51	3	30		
	N16	Northwest	150	77	0	-52	3	28		
	N17	Northwest	153	80	0	-52	3	31		
	N18	Northwest	155	77	0	-52	3	28		
	N19	Northwest	157	77	0	-52	3	28		
	N20	Northwest	157	80	0	-52	3	31		
	N20a	Northwest	169	78	0	-53	3	28		
	N21	Northwest	178	77	0	-53	3	27		
	N21a	Northwest	179	78	0	-53	3	28		
	N22	Northwest	468	77	0	-61	3	>300m		
	N23	Northwest	187	77	0	-53	3	27		
	N24	Northwest	191	77	0	-54	3	26		
	N25	Northwest	192	79	0	-54	3	28		
	N26	Northwest	203	80	0	-54	3	29		
	N27	Northwest	214	77	0	-55	3	25		
	N28	Northwest	216	79	0	-55	3	27		
	N29	Northwest	223	79	0	-55	3	27		
	N30	Northwest	224	77	0	-55	3	25		
	N30a	Northwest	231	78	0	-55	3	26		
	N31	Northwest	229	79	-10	-55	3	17		
	N31a	Northeast	235	82	-10	-55	3	20		
	N31b	Northeast	238	82	-10	-56	3	19		
	N31c	Northeast	235	82	-10	-55	3	20		
	N31d	Northeast	238	82	-10	-56	3	19		
	N32	Northeast	235	80	-10	-55	3	18		
	N32a	Northeast	241	78	-10	-56	3	15		
	N32b	Southeast	240	78	-10	-56	3	15		
	N33	Southeast	233	80	-10	-55	3	18		
	N34	Southeast	226	80	-10	-55	3	18		
	N34a	Southeast	217	73	-10	-55	3	11		
	N35	Southeast	207	82	-10	-54	3	21		
	N36	Southeast	199	80	-10	-54	3	19		
	N37	Southeast	193	80	0	-54	3	29		
	N38	Southeast	191	68	-10	-54	3	7		
	N39	Southeast	187	80	-10	-53	3	20		
	N39a	Southeast	175	75	-10	-53	3	15		
	N40	Southeast	164	78	-10	-52	3	19		
	N40a	Southeast	160	78	-10	-52	3	19		
	N40b	Southeast	147	82	0	-51	3	34		
	N41	Southeast	105	75	-10	-48	3	20		
	N41a	Southeast	93	72	-10	-47	3	18		
	N43	Southeast	87	72	-10	-47	3	18		
	N44	Southeast	85	76	-10	-47	3	22		
	N45	Southeast	85	72	-10	-47	3	18		
	N45a	Southeast	85	68	-10	-47	3	14		
	N45b	Southeast	86	68	-10	-47	3	14		
	N46	Southeast	91	76	-10	-47	3	22		
	N46a	Southeast	96	75	-10	-48	3	20		
	N47	Southwest	84	76	-10	-46	3	23		
	N47a	Southwest	88	75	-10	-47	3	21		
	N47b	West	78	75	-10	-46	3	22		
	N47c	West	70	75	-10	-45	3	23		
	N48	Northeast	58	79	-10	-43	3	29		
	N49	Northeast	82	76	-10	-46	3	23		
	N50	Northeast	179	81	0	-53	3	31		
	N50a	Top	189	81	0	-54	3	30		
	N51	Southwest	186	81	0	-53	3	31		
	N52	Southwest	189	78	0	-54	3	27		
	N53	Northeast	88	79	-10	-47	3	25		
	N54	Northeast	73	79	-10	-45	3	27		
	N55	West	56	79	-10	-43	3	29		
	N56	Southwest	63	79	-10	-44	3	28		
	NTD01	North	125	78	0	-50	3	31		
	NTD02	North	126	76	0	-50	3	29		
	NTD03	East	146	75	0	-51	3	27		
	NTD04	East	168	75	0	-53	3	25		
	NTD05	East	178	75	0	-53	3	25		
	NTD06	East	183	76	0	-53	3	26		
	NTD07	East	188	75	0	-53	3	25		
	NTD08	East	194	75	0	-54	3	24		
	NTD09	East	198	70	0	-54	3	19		
	NTD10	East	204	70	0	-54	3	19		
	NTD11	East	220	70	0	-55	3	18		
	NTD12	West	235	75	0	-55	3	23		
	NTD13	West	229	79	0	-55	3	27		
	NTD14	West	223	77	0	-55	3	25		
	NTD15	West	218	77	0	-55	3	25		
	NTD15a	West	206	80	0	-54	3	29		
	NTD16	West	192	80	0	-54	3	29		

Appendix 4.11 Fixed Plant Noise Calculation

NTD16a	West	155	80	0	-52	3	31
NTD17	West	144	77	0	-51	3	29
NTD18	West	139	73	0	-51	3	25
NTD19	West	134	73	0	-51	3	25
NTD20	West	128	73	0	-50	3	26
NTD21	West	248	78	-10	-56	3	15
NTD22	West	266	80	-10	-57	3	16
NTD23	West	283	80	-10	-57	3	16
NTD24	West	296	76	-10	-57	3	12
NTD25	West	302	80	-10	-58	3	>300m
NTD26	West	309	70	-10	-58	3	>300m
NTD27	West	316	70	-10	-58	3	>300m
NTD28	West	328	75	-10	-58	3	>300m
NTD29	West	336	75	-10	-59	3	>300m
NTD30	West	348	83	-10	-59	3	>300m
NTD31	Southwest	360	80	-10	-59	3	>300m
NTD32	Southwest	382	82	-10	-60	3	>300m
NTD33	Southwest	425	81	-10	-61	3	>300m
NTD34	Southwest	443	80	-10	-61	3	>300m
NTD35	South	498	85	-10	-62	3	>300m
NTD36	South	509	85	-10	-62	3	>300m
NTD37	South	515	85	-10	-62	3	>300m
NTD38	South	521	85	-10	-62	3	>300m
NTD39	South	525	85	-10	-62	3	>300m
NTD40	Top	522	80	-10	-62	3	>300m
NTD41	Southeast	520	75	-10	-62	3	>300m
NTD42	Southeast	505	75	-10	-62	3	>300m
NTD43	South	504	75	-10	-62	3	>300m
NTD44	East	519	75	-10	-62	3	>300m
NTD45	East	516	75	-10	-62	3	>300m
NTD46	East	513	75	-10	-62	3	>300m
NTD47	East	509	75	-10	-62	3	>300m
NTD48	East	503	70	-10	-62	3	>300m
NTD49	East	495	70	-10	-62	3	>300m
NTD50	East	489	70	-10	-62	3	>300m
NTD51	East	485	80	-10	-62	3	>300m
NTD52	East	480	73	-10	-62	3	>300m
NTD53	East	477	68	-10	-62	3	>300m
NTD54	Northeast	461	73	-10	-61	3	>300m
NTD55	East	380	85	-10	-60	3	>300m
NTD56	East	371	72	-10	-59	3	>300m
NTD57	South	371	78	-10	-59	3	>300m
NTD58	South	373	73	-10	-59	3	>300m
NTD59	South	377	70	-10	-60	3	>300m
NTD60	South	380	69	-10	-60	3	>300m
NTD61	South	385	71	-10	-60	3	>300m
NTD62	South	389	80	-10	-60	3	>300m
NTD63	South	395	78	-10	-60	3	>300m
NTD64	South	399	72	-10	-60	3	>300m
NTD65	East	378	72	-10	-60	3	>300m
NTD66	East	374	74	-10	-59	3	>300m
NTD67	Northeast	365	73	0	-59	3	>300m
NTD68	Northeast	347	75	0	-59	3	>300m
NTD69	Northeast	336	70	0	-59	3	>300m
NTD70	Northeast	334	75	0	-58	3	>300m
NTD71	Northeast	329	75	0	-58	3	>300m
NTD72	Northeast	322	78	0	-58	3	>300m
NTD73	East	229	75	-10	-55	3	13
NTD74	East	227	75	-10	-55	3	13
NTD75	East	224	75	-10	-55	3	13
NTD76	East	222	75	-10	-55	3	13
NTD77	Southeast	222	77	-10	-55	3	15
NTD78	Northeast	221	75	-10	-55	3	13
NTD79	Northeast	218	76	-10	-55	3	14
NTD80	Northeast	214	75	-10	-55	3	13
NTD81	Northeast	213	75	-10	-55	3	13
NTD82	Northeast	210	75	-10	-54	3	14
NTD83	Northeast	205	75	-10	-54	3	14
NTD84	Northeast	204	75	0	-54	3	24
NTD85	Northwest	199	75	0	-54	3	24
NTD86	Northwest	181	77	0	-53	3	27
NTD87	Northwest	166	75	0	-52	3	26
NTD88	Northwest	161	74	0	-52	3	25
NTD89	Northwest	143	73	0	-51	3	25
NTD90	Northwest	138	72	0	-51	3	24
NTD91	Northwest	130	75	0	-50	3	28
NTD92	Northwest	123	74	0	-50	3	27
NTD93	West	517	78	0	-62	3	>300m
NTD94	South	524	73	-10	-62	3	>300m
NTD94a	South	525	73	-10	-62	3	>300m
NTD95	South	527	73	-10	-62	3	>300m
NTD96	South	528	74	-10	-62	3	>300m
NTD97	Top	525	80	0	-62	3	>300m
NTD98	Top	528	80	0	-62	3	>300m
NTD99	Top	531	80	0	-62	3	>300m
NTD100	South	537	80	-10	-63	3	>300m
NTD101	Northeast	550	80	0	-63	3	>300m
NTD102	Northeast	557	75	0	-63	3	>300m
NTD103	Northeast	560	75	0	-63	3	>300m
NTD104	Northeast	568	83	0	-63	3	>300m
NTD105	Southeast	574	73	0	-63	3	>300m
NTD106	Southeast	580	75	-10	-63	3	>300m
NTD107	Southeast	590	72	-10	-63	3	>300m
NTD108	Southeast	592	82	-10	-63	3	>300m
NTD109	Southeast	599	82	-10	-64	3	>300m
NTD110	Southeast	599	85	-10	-64	3	>300m
NTD111	Southwest	556	77	0	-63	3	>300m
NTD112	Southwest	586	77	0	-63	3	>300m
NTD113	Southwest	589	77	0	-63	3	>300m
NTD114	Southwest	587	85	-10	-63	3	>300m
NTD115	Southwest	568	85	0	-63	3	>300m

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-PF01a	N01	Northwest	52	74	0	-42	3	35		
	N02	Northwest	49	74	0	-42	3	35		
	N03	Northwest	50	74	0	-42	3	35		
	N04	Northwest	51	72	0	-42	3	33		
	N05	Northwest	52	72	0	-42	3	33		
	N06	Northwest	55	72	0	-43	3	32		
	N07	Northwest	56	72	0	-43	3	32		
	N08	Northwest	57	75	0	-43	3	35		
	N09	Northwest	58	72	0	-43	3	32		
	N10	Northwest	60	72	0	-44	3	31		
	N11	Northwest	64	72	0	-44	3	31		
	N12	Northwest	67	77	0	-44	3	36		
	N12a	Northwest	70	73	0	-45	3	31		
	N12b	Northwest	77	73	0	-46	3	30		
	N12c	Northwest	88	73	0	-47	3	29		
	N12d	Northwest	89	75	-10	-47	3	21		
	N13	Top	73	75	0	-45	3	33		
	N14	Top	143	75	0	-51	3	27		
	N15	Northwest	148	72	0	-51	3	24		
	N15a	Northwest	142	73	0	-51	3	25		
	N16	Northwest	150	72	0	-52	3	23		
	N17	Northwest	153	75	0	-52	3	26		
	N18	Northwest	155	72	0	-52	3	23		
	N19	Northwest	157	72	0	-52	3	23		
	N20	Northwest	157	75	0	-52	3	26		
	N20a	Northwest	169	73	0	-53	3	23		
	N21	Northwest	178	72	0	-53	3	22		
	N21a	Northwest	179	73	0	-53	3	23		
	N22	Northwest	468	72	0	-61	3	>300m		
	N23	Northwest	187	72	0	-53	3	22		
	N24	Northwest	191	72	0	-54	3	21		
	N25	Northwest	192	74	0	-54	3	23		
	N26	Northwest	203	75	0	-54	3	24		
	N27	Northwest	214	72	0	-55	3	20		
	N28	Northwest	216	74	0	-55	3	22		
	N29	Northwest	223	74	0	-55	3	22		
	N30	Northwest	224	72	0	-55	3	20		
	N30a	Northwest	231	73	0	-55	3	21		
	N31	Northwest	229	74	-10	-55	3	12		
	N31a	Northwest	235	77	-10	-55	3	15		
	N31b	Northwest	238	77	-10	-56	3	14		
	N31c	Northwest	235	77	-10	-55	3	15		
	N31d	Northwest	238	77	-10	-56	3	14		
	N32	Northwest	235	75	-10	-55	3	13		
	N32a	Northwest	241	73	-10	-56	3	10		
	N32b	Southwest	240	73	-10	-56	3	10		
	N33	Southwest	233	75	-10	-55	3	13		
	N34	Southwest	226	75	-10	-55	3	13		
	N34a	Southwest	217	68	-10	-55	3	6		
	N35	Southwest	207	77	-10	-54	3	16		
	N36	Southwest	199	75	-10	-54	3	14		
	N37	Southwest	193	75	0	-54	3	24		
	N38	Southwest	191	63	-10	-54	3	2		
	N39	Southwest	187	75	-10	-53	3	15		
	N39a	Southwest	175	70	-10	-53	3	10		
	N40	Southwest	164	73	-10	-52	3	14		
	N40a	Southwest	160	73	-10	-52	3	14		
	N40b	Southwest	147	77	0	-51	3	29		
	N41	Southwest	105	70	-10	-48	3	15		
	N41a	Southwest	93	67	-10	-47	3	13		
	N43	Southwest	87	67	-10	-47	3	13		
	N44	Southwest	85	71	-10	-47	3	17		
	N45	Southwest	85	67	-10	-47	3	13		
	N45a	Southwest	85	63	-10	-47	3	9		
	N45b	Southwest	86	63	-10	-47	3	9		
	N46	Southwest	91	71	-10	-47	3	17		
	N46a	Southwest	96	70	-10	-48	3	15		
	N47	Southwest	84	71	-10	-46	3	18		
	N47a	Southwest	88	70	-10	-47	3	16		
	N47b	West	78	70	-10	-46	3	17		
	N47c	West	70	70	-10	-45	3	18		
	N48	Northwest	58	74	-10	-43	3	24		
	N49	Northwest	82	71	-10	-46	3	18		
	N50	Northwest	179	76	0	-53	3	26		
	N50a	Top	189	76	0	-54	3	25		
	N51	Southwest	186	76	0	-53	3	26		
	N52	Southwest	189	73	0	-54	3	22		
	N53	Northwest	88	74	-10	-47	3	20		
	N54	Northwest	73	74	-10	-45	3	22		
	N55	West	56	74	-10	-43	3	24		
	N56	Southwest	63	74	-10	-44	3	23		
	NTD01	North	125	73	0	-50	3	26		
	NTD02	North	126	71	0	-50	3	24		
	NTD03	East	146	70	0	-51	3	22		
	NTD04	East	168	70	0	-53	3	20		
	NTD05	East	178	70	0	-53	3	20		
	NTD06	East	183	71	0	-53	3	21		
	NTD07	East	188	70	0	-53	3	20		
	NTD08	East	194	70	0	-54	3	19		
	NTD09	East	198	65	0	-54	3	14		
	NTD10	East	204	65	0	-54	3	14		
	NTD11	East	220	65	0	-55	3	13		
	NTD12	West	235	70	0	-55	3	18		
	NTD13	West	229	74	0	-55	3	22		
	NTD14	West	223	72	0	-55	3	20		
	NTD15	West	218	72	0	-55	3	20		
	NTD15a	West	206	75	0	-54	3	24		
	NTD16	West	192	75	0	-54	3	24		
	NTD16a	West	155	75	0	-52	3	26		
	NTD17	West	144	72	0	-51	3	24		

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	139	68	0	-51	3	20
NTD19	West	134	68	0	-51	3	20
NTD20	West	128	68	0	-50	3	21
NTD21	West	248	73	-10	-56	3	10
NTD22	West	266	75	-10	-57	3	11
NTD23	West	283	75	-10	-57	3	11
NTD24	West	296	71	-10	-57	3	7
NTD25	West	302	75	-10	-58	3	>300m
NTD26	West	309	65	-10	-58	3	>300m
NTD27	West	316	65	-10	-58	3	>300m
NTD28	West	328	70	-10	-58	3	>300m
NTD29	West	336	70	-10	-59	3	>300m
NTD30	West	348	78	-10	-59	3	>300m
NTD31	Southwest	360	75	-10	-59	3	>300m
NTD32	Southwest	382	77	-10	-60	3	>300m
NTD33	Southwest	425	76	-10	-61	3	>300m
NTD34	Southwest	443	75	-10	-61	3	>300m
NTD35	South	498	80	-10	-62	3	>300m
NTD36	South	509	80	-10	-62	3	>300m
NTD37	South	515	80	-10	-62	3	>300m
NTD38	South	521	80	-10	-62	3	>300m
NTD39	South	525	80	-10	-62	3	>300m
NTD40	Top	522	75	-10	-62	3	>300m
NTD41	Southeast	520	70	-10	-62	3	>300m
NTD42	Southeast	505	70	-10	-62	3	>300m
NTD43	South	504	70	-10	-62	3	>300m
NTD44	East	519	70	-10	-62	3	>300m
NTD45	East	516	70	-10	-62	3	>300m
NTD46	East	513	70	-10	-62	3	>300m
NTD47	East	509	70	-10	-62	3	>300m
NTD48	East	503	65	-10	-62	3	>300m
NTD49	East	495	65	-10	-62	3	>300m
NTD50	East	489	65	-10	-62	3	>300m
NTD51	East	485	75	-10	-62	3	>300m
NTD52	East	480	68	-10	-62	3	>300m
NTD53	East	477	63	-10	-62	3	>300m
NTD54	Northeast	461	68	-10	-61	3	>300m
NTD55	East	380	80	-10	-60	3	>300m
NTD56	East	371	67	-10	-59	3	>300m
NTD57	South	371	73	-10	-59	3	>300m
NTD58	South	373	68	-10	-59	3	>300m
NTD59	South	377	65	-10	-60	3	>300m
NTD60	South	380	64	-10	-60	3	>300m
NTD61	South	385	66	-10	-60	3	>300m
NTD62	South	389	75	-10	-60	3	>300m
NTD63	South	395	73	-10	-60	3	>300m
NTD64	South	399	67	-10	-60	3	>300m
NTD65	East	378	67	-10	-60	3	>300m
NTD66	East	374	69	-10	-59	3	>300m
NTD67	Northeast	365	68	0	-59	3	>300m
NTD68	Northeast	347	70	0	-59	3	>300m
NTD69	Northeast	336	65	0	-59	3	>300m
NTD70	Northeast	334	70	0	-58	3	>300m
NTD71	Northeast	329	70	0	-58	3	>300m
NTD72	Northeast	322	73	0	-58	3	>300m
NTD73	East	229	70	-10	-55	3	8
NTD74	East	227	70	-10	-55	3	8
NTD75	East	224	70	-10	-55	3	8
NTD76	East	222	70	-10	-55	3	8
NTD77	Southeast	222	72	-10	-55	3	10
NTD78	Northeast	221	70	-10	-55	3	8
NTD79	Northeast	218	71	-10	-55	3	9
NTD80	Northeast	214	70	-10	-55	3	8
NTD81	Northeast	213	70	-10	-55	3	8
NTD82	Northeast	210	70	-10	-54	3	9
NTD83	Northeast	205	70	-10	-54	3	9
NTD84	Northeast	204	70	0	-54	3	19
NTD85	Northwest	199	70	0	-54	3	19
NTD86	Northwest	181	72	0	-53	3	22
NTD87	Northwest	166	70	0	-52	3	21
NTD88	Northwest	161	69	0	-52	3	20
NTD89	Northwest	143	68	0	-51	3	20
NTD90	Northwest	138	67	0	-51	3	19
NTD91	Northwest	130	70	0	-50	3	23
NTD92	Northwest	123	69	0	-50	3	22
NTD93	West	517	73	0	-62	3	>300m
NTD94	South	524	68	-10	-62	3	>300m
NTD94a	South	525	68	-10	-62	3	>300m
NTD95	South	527	68	-10	-62	3	>300m
NTD96	South	528	69	-10	-62	3	>300m
NTD97	Top	525	75	0	-62	3	>300m
NTD98	Top	528	75	0	-62	3	>300m
NTD99	Top	531	75	0	-62	3	>300m
NTD100	South	537	75	-10	-63	3	>300m
NTD101	Northeast	550	75	0	-63	3	>300m
NTD102	Northeast	557	70	0	-63	3	>300m
NTD103	Northeast	560	70	0	-63	3	>300m
NTD104	Northeast	568	78	0	-63	3	>300m
NTD105	Southeast	574	68	0	-63	3	>300m
NTD106	Southeast	580	70	-10	-63	3	>300m
NTD107	Southeast	590	67	-10	-63	3	>300m
NTD108	Southeast	592	77	-10	-63	3	>300m
NTD109	Southeast	599	77	-10	-64	3	>300m
NTD110	Southeast	599	80	-10	-64	3	>300m
NTD111	Southwest	556	72	0	-63	3	>300m
NTD112	Southwest	586	72	0	-63	3	>300m
NTD113	Southwest	589	72	0	-63	3	>300m
NTD114	Southwest	587	80	-10	-63	3	>300m
NTD115	Southwest	568	80	0	-63	3	>300m

47

50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-PF01b
 Description: Potential Development at NTM LUR

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-PF01b	N01	Northwest	63	79	0	-44	3	38		
	N02	Northwest	54	79	0	-43	3	39		
	N03	Northwest	50	79	0	-42	3	40		
	N04	Northwest	50	77	0	-42	3	38		
	N05	Northwest	49	77	0	-42	3	38		
	N06	Northwest	49	77	0	-42	3	38		
	N07	Northwest	49	77	0	-42	3	38		
	N08	Northwest	49	80	0	-42	3	41		
	N09	Northwest	50	77	0	-42	3	38		
	N10	Northwest	50	77	0	-42	3	38		
	N11	Northwest	52	77	0	-42	3	38		
	N12	Northwest	54	82	0	-43	3	42		
	N12a	Northwest	56	78	0	-43	3	38		
	N12b	Northwest	61	78	0	-44	3	37		
	N12c	Northwest	70	78	0	-45	3	36		
	N12d	Northwest	77	80	0	-46	3	37		
	N13	Top	63	80	0	-44	3	39		
	N14	Top	122	80	0	-50	3	33		
	N15	Northwest	126	77	0	-50	3	30		
	N15a	Northwest	121	78	0	-50	3	31		
	N16	Northwest	128	77	0	-50	3	30		
	N17	Northwest	131	80	0	-50	3	33		
	N18	Northwest	133	77	0	-50	3	30		
	N19	Northwest	135	77	0	-51	3	29		
	N20	Northwest	136	80	0	-51	3	32		
	N20a	Northwest	147	78	0	-51	3	30		
	N21	Northwest	156	77	0	-52	3	28		
	N21a	Northwest	157	78	0	-52	3	29		
	N22	Northwest	449	77	0	-61	3	>300m		
	N23	Northwest	165	77	0	-52	3	28		
	N24	Northwest	169	77	0	-53	3	27		
	N25	Northwest	170	79	0	-53	3	29		
	N26	Northwest	181	80	0	-53	3	30		
	N27	Northwest	192	77	0	-54	3	26		
	N28	Northwest	194	79	0	-54	3	28		
	N29	Northwest	201	79	0	-54	3	28		
	N30	Northwest	202	77	0	-54	3	26		
	N30a	Northwest	208	78	0	-54	3	27		
	N31	Northwest	207	79	-10	-54	3	18		
	N31a	Northeast	213	82	-10	-55	3	20		
	N31b	Northeast	216	82	-10	-55	3	20		
	N31c	Northeast	213	82	-10	-55	3	20		
	N31d	Northeast	216	82	-10	-55	3	20		
	N32	Northeast	214	80	-10	-55	3	18		
	N32a	Northeast	220	78	-10	-55	3	16		
	N32b	Southeast	219	78	-10	-55	3	16		
	N33	Southeast	212	80	-10	-55	3	18		
	N34	Southeast	205	80	-10	-54	3	19		
	N34a	Southeast	196	73	-10	-54	3	12		
	N35	Southeast	186	82	-10	-53	3	22		
	N36	Southeast	179	80	-10	-53	3	20		
	N37	Southeast	172	80	0	-53	3	30		
	N38	Southeast	171	68	-10	-53	3	8		
	N39	Southeast	167	80	-10	-52	3	21		
	N39a	Southeast	155	75	-10	-52	3	16		
	N40	Southeast	145	78	-10	-51	3	20		
	N40a	Southeast	141	78	-10	-51	3	20		
	N40b	Southeast	127	82	0	-50	3	35		
	N41	Southeast	93	75	-10	-47	3	21		
	N41a	Southeast	86	72	-10	-47	3	18		
	N43	Southeast	85	72	-10	-47	3	18		
	N44	Southeast	86	76	-10	-47	3	22		
	N45	Southeast	86	72	-10	-47	3	18		
	N45a	Southeast	89	68	-10	-47	3	14		
	N45b	Southeast	93	68	-10	-47	3	14		
	N46	Southeast	100	76	-10	-48	3	21		
	N46a	Southeast	107	75	-10	-49	3	19		
	N47	Southwest	94	76	-10	-47	3	22		
	N47a	Southwest	100	75	-10	-48	3	20		
	N47b	West	91	75	-10	-47	3	21		
	N47c	West	83	75	-10	-46	3	22		
	N48	Northwest	56	79	0	-43	3	39		
	N49	Northwest	80	76	0	-46	3	33		
	N50	Northwest	158	81	0	-52	3	32		
	N50a	Top	168	81	0	-52	3	32		
	N51	Southwest	165	81	0	-52	3	32		
	N52	Southwest	167	78	0	-52	3	29		
	N53	Northeast	82	79	0	-46	3	36		
	N54	Northeast	66	79	0	-44	3	38		
	N55	West	69	79	0	-45	3	37		
	N56	Southwest	74	79	-10	-45	3	27		
	NTD01	North	138	78	0	-51	3	30		
	NTD02	North	139	76	0	-51	3	28		
	NTD03	East	158	75	0	-52	3	26		
	NTD04	East	181	75	0	-53	3	25		
	NTD05	East	191	75	0	-54	3	24		
	NTD06	East	196	76	0	-54	3	25		
	NTD07	East	201	75	0	-54	3	24		
	NTD08	East	207	75	0	-54	3	24		
	NTD09	East	211	70	0	-54	3	19		
	NTD10	East	218	70	0	-55	3	18		
	NTD11	East	233	70	0	-55	3	18		
	NTD12	West	249	75	-10	-56	3	12		
	NTD13	West	243	79	-10	-56	3	16		
	NTD14	West	238	77	-10	-56	3	14		
	NTD15	West	232	77	-10	-55	3	15		
	NTD15a	West	220	80	-10	-55	3	18		
	NTD16	West	206	80	-10	-54	3	19		

Appendix 4.11 Fixed Plant Noise Calculation

NTD16a	West	169	80	-10	-53	3	20
NTD17	West	158	77	-10	-52	3	18
NTD18	West	153	73	-10	-52	3	14
NTD19	West	147	73	-10	-51	3	15
NTD20	West	142	73	-10	-51	3	15
NTD21	West	263	78	-10	-56	3	15
NTD22	West	281	80	-10	-57	3	16
NTD23	West	298	80	-10	-57	3	16
NTD24	West	310	76	-10	-58	3	>300m
NTD25	West	317	80	-10	-58	3	>300m
NTD26	West	324	70	-10	-58	3	>300m
NTD27	West	331	70	-10	-58	3	>300m
NTD28	West	342	75	-10	-59	3	>300m
NTD29	West	350	75	-10	-59	3	>300m
NTD30	West	363	83	-10	-59	3	>300m
NTD31	Southwest	374	80	-10	-59	3	>300m
NTD32	Southwest	396	82	-10	-60	3	>300m
NTD33	Southwest	439	81	-10	-61	3	>300m
NTD34	Southwest	456	80	-10	-61	3	>300m
NTD35	South	509	85	-10	-62	3	>300m
NTD36	South	520	85	-10	-62	3	>300m
NTD37	South	525	85	-10	-62	3	>300m
NTD38	South	530	85	-10	-62	3	>300m
NTD39	South	535	85	-10	-63	3	>300m
NTD40	Top	531	80	-10	-63	3	>300m
NTD41	Southeast	529	75	-10	-62	3	>300m
NTD42	Southeast	514	75	-10	-62	3	>300m
NTD43	South	512	75	-10	-62	3	>300m
NTD44	East	526	75	-10	-62	3	>300m
NTD45	East	522	75	-10	-62	3	>300m
NTD46	East	519	75	-10	-62	3	>300m
NTD47	East	515	75	-10	-62	3	>300m
NTD48	East	509	70	-10	-62	3	>300m
NTD49	East	501	70	-10	-62	3	>300m
NTD50	East	496	70	-10	-62	3	>300m
NTD51	East	491	80	-10	-62	3	>300m
NTD52	East	486	73	-10	-62	3	>300m
NTD53	East	483	68	-10	-62	3	>300m
NTD54	Northeast	466	73	-10	-61	3	>300m
NTD55	East	383	85	-10	-60	3	>300m
NTD56	East	372	72	-10	-59	3	>300m
NTD57	South	372	78	-10	-59	3	>300m
NTD58	South	374	73	-10	-59	3	>300m
NTD59	South	377	70	-10	-60	3	>300m
NTD60	South	381	69	-10	-60	3	>300m
NTD61	South	385	71	-10	-60	3	>300m
NTD62	South	389	80	-10	-60	3	>300m
NTD63	South	394	78	-10	-60	3	>300m
NTD64	South	397	72	-10	-60	3	>300m
NTD65	East	374	72	-10	-59	3	>300m
NTD66	East	369	74	-10	-59	3	>300m
NTD67	Northeast	360	73	0	-59	3	>300m
NTD68	Northeast	342	75	0	-59	3	>300m
NTD69	Northeast	331	70	0	-58	3	>300m
NTD70	Northeast	328	75	0	-58	3	>300m
NTD71	Northeast	324	75	0	-58	3	>300m
NTD72	Northeast	317	78	0	-58	3	>300m
NTD73	East	221	75	-10	-55	3	13
NTD74	East	218	75	-10	-55	3	13
NTD75	East	214	75	-10	-55	3	13
NTD76	East	213	75	-10	-55	3	13
NTD77	Southeast	205	77	-10	-54	3	16
NTD78	Northeast	203	75	-10	-54	3	14
NTD79	Northeast	200	76	-10	-54	3	15
NTD80	Northeast	195	75	-10	-54	3	14
NTD81	Northeast	194	75	-10	-54	3	14
NTD82	Northeast	191	75	-10	-54	3	14
NTD83	Northeast	186	75	-10	-53	3	15
NTD84	Northeast	184	75	0	-53	3	25
NTD85	Northwest	180	75	0	-53	3	25
NTD86	Northwest	162	77	0	-52	3	28
NTD87	Northwest	148	75	0	-51	3	27
NTD88	Northwest	143	74	0	-51	3	26
NTD89	Northwest	127	73	0	-50	3	26
NTD90	Northwest	123	72	0	-50	3	25
NTD91	Northwest	117	75	0	-49	3	29
NTD92	Northwest	111	74	0	-49	3	28
NTD93	West	526	78	-10	-62	3	>300m
NTD94	South	532	73	-10	-63	3	>300m
NTD94a	South	533	73	-10	-63	3	>300m
NTD95	South	535	73	-10	-63	3	>300m
NTD96	South	536	74	-10	-63	3	>300m
NTD97	Top	533	80	0	-63	3	>300m
NTD98	Top	535	80	0	-63	3	>300m
NTD99	Top	538	80	0	-63	3	>300m
NTD100	South	544	80	-10	-63	3	>300m
NTD101	Northeast	562	80	0	-63	3	>300m
NTD102	Northeast	569	75	0	-63	3	>300m
NTD103	Northeast	571	75	0	-63	3	>300m
NTD104	Northeast	578	83	0	-63	3	>300m
NTD105	Southeast	585	73	0	-63	3	>300m
NTD106	Southeast	590	75	-10	-63	3	>300m
NTD107	Southeast	600	72	-10	-64	3	>300m
NTD108	Southeast	603	82	-10	-64	3	>300m
NTD109	Southeast	610	82	-10	-64	3	>300m
NTD110	Southeast	610	85	-10	-64	3	>300m
NTD111	Southwest	568	77	-10	-63	3	>300m
NTD112	Southwest	597	77	0	-64	3	>300m
NTD113	Southwest	600	77	0	-64	3	>300m
NTD114	Southwest	599	85	-10	-64	3	>300m
NTD115	Southwest	580	85	0	-63	3	>300m

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-PF01b	N01	Northwest	63	74	0	-44	3	33		
	N02	Northwest	54	74	0	-43	3	34		
	N03	Northwest	50	74	0	-42	3	35		
	N04	Northwest	50	72	0	-42	3	33		
	N05	Northwest	49	72	0	-42	3	33		
	N06	Northwest	49	72	0	-42	3	33		
	N07	Northwest	49	72	0	-42	3	33		
	N08	Northwest	49	75	0	-42	3	36		
	N09	Northwest	50	72	0	-42	3	33		
	N10	Northwest	50	72	0	-42	3	33		
	N11	Northwest	52	72	0	-42	3	33		
	N12	Northwest	54	77	0	-43	3	37		
	N12a	Northwest	56	73	0	-43	3	33		
	N12b	Northwest	61	73	0	-44	3	32		
	N12c	Northwest	70	73	0	-45	3	31		
	N12d	Northwest	77	75	0	-46	3	32		
	N13	Top	63	75	0	-44	3	34		
	N14	Top	122	75	0	-50	3	28		
	N15	Northwest	126	72	0	-50	3	25		
	N15a	Northwest	121	73	0	-50	3	26		
	N16	Northwest	128	72	0	-50	3	25		
	N17	Northwest	131	75	0	-50	3	28		
	N18	Northwest	133	72	0	-50	3	25		
	N19	Northwest	135	72	0	-51	3	24		
	N20	Northwest	136	75	0	-51	3	27		
	N20a	Northwest	147	73	0	-51	3	25		
	N21	Northwest	156	72	0	-52	3	23		
	N21a	Northwest	157	73	0	-52	3	24		
	N22	Northwest	449	72	0	-61	3	>300m		
	N23	Northwest	165	72	0	-52	3	23		
	N24	Northwest	169	72	0	-53	3	22		
	N25	Northwest	170	74	0	-53	3	24		
	N26	Northwest	181	75	0	-53	3	25		
	N27	Northwest	192	72	0	-54	3	21		
	N28	Northwest	194	74	0	-54	3	23		
	N29	Northwest	201	74	0	-54	3	23		
	N30	Northwest	202	72	0	-54	3	21		
	N30a	Northwest	208	73	0	-54	3	22		
	N31	Northwest	207	74	-10	-54	3	13		
	N31a	Northeast	213	77	-10	-55	3	15		
	N31b	Northeast	216	77	-10	-55	3	15		
	N31c	Northeast	213	77	-10	-55	3	15		
	N31d	Northeast	216	77	-10	-55	3	15		
	N32	Northeast	214	75	-10	-55	3	13		
	N32a	Northeast	220	73	-10	-55	3	11		
	N32b	Southeast	219	73	-10	-55	3	11		
	N33	Southeast	212	75	-10	-55	3	13		
	N34	Southeast	205	75	-10	-54	3	14		
	N34a	Southeast	196	68	-10	-54	3	7		
	N35	Southeast	186	77	-10	-53	3	17		
	N36	Southeast	179	75	-10	-53	3	15		
	N37	Southeast	172	75	0	-53	3	25		
	N38	Southeast	171	63	-10	-53	3	3		
	N39	Southeast	167	75	-10	-52	3	16		
	N39a	Southeast	155	70	-10	-52	3	11		
	N40	Southeast	145	73	-10	-51	3	15		
	N40a	Southeast	141	73	-10	-51	3	15		
	N40b	Southwest	127	77	0	-50	3	30		
	N41	Southeast	93	70	-10	-47	3	16		
	N41a	Southeast	86	67	-10	-47	3	13		
	N43	Southeast	85	67	-10	-47	3	13		
	N44	Southeast	86	71	-10	-47	3	17		
	N45	Southeast	86	67	-10	-47	3	13		
	N45a	Southeast	89	63	-10	-47	3	9		
	N45b	Southeast	93	63	-10	-47	3	9		
	N46	Southeast	100	71	-10	-48	3	16		
	N46a	Southeast	107	70	-10	-49	3	14		
	N47	Southwest	94	71	-10	-47	3	17		
	N47a	Southwest	100	70	-10	-48	3	15		
	N47b	West	91	70	-10	-47	3	16		
	N47c	West	83	70	-10	-46	3	17		
	N48	Northeast	56	74	0	-43	3	34		
	N49	Northeast	80	71	0	-46	3	28		
	N50	Northeast	158	76	0	-52	3	27		
	N50a	Top	168	76	0	-52	3	27		
	N51	Southwest	165	76	0	-52	3	27		
	N52	Southwest	167	73	0	-52	3	24		
	N53	Northeast	82	74	0	-46	3	31		
	N54	Northeast	66	74	0	-44	3	33		
	N55	West	69	74	0	-45	3	32		
	N56	Southwest	74	74	-10	-45	3	22		
	NTD01	North	138	73	0	-51	3	25		
	NTD02	North	139	71	0	-51	3	23		
	NTD03	East	158	70	0	-52	3	21		
	NTD04	East	181	70	0	-53	3	20		
	NTD05	East	191	70	0	-54	3	19		
	NTD06	East	196	71	0	-54	3	20		
	NTD07	East	201	70	0	-54	3	19		
	NTD08	East	207	70	0	-54	3	19		
	NTD09	East	211	65	0	-54	3	14		
	NTD10	East	218	65	0	-55	3	13		
	NTD11	East	233	65	0	-55	3	13		
	NTD12	West	249	70	-10	-56	3	7		
	NTD13	West	243	74	-10	-56	3	11		
	NTD14	West	238	72	-10	-56	3	9		
	NTD15	West	232	72	-10	-55	3	10		
	NTD15a	West	220	75	-10	-55	3	13		
	NTD16	West	206	75	-10	-54	3	14		
	NTD16a	West	169	75	-10	-53	3	15		
	NTD17	West	158	72	-10	-52	3	13		

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	153	68	-10	-52	3	9
NTD19	West	147	68	-10	-51	3	10
NTD20	West	142	68	-10	-51	3	10
NTD21	West	263	73	-10	-56	3	10
NTD22	West	281	75	-10	-57	3	11
NTD23	West	298	75	-10	-57	3	11
NTD24	West	310	71	-10	-58	3	>300m
NTD25	West	317	75	-10	-58	3	>300m
NTD26	West	324	65	-10	-58	3	>300m
NTD27	West	331	65	-10	-58	3	>300m
NTD28	West	342	70	-10	-59	3	>300m
NTD29	West	350	70	-10	-59	3	>300m
NTD30	West	363	78	-10	-59	3	>300m
NTD31	Southwest	374	75	-10	-59	3	>300m
NTD32	Southwest	396	77	-10	-60	3	>300m
NTD33	Southwest	439	76	-10	-61	3	>300m
NTD34	Southwest	456	75	-10	-61	3	>300m
NTD35	South	509	80	-10	-62	3	>300m
NTD36	South	520	80	-10	-62	3	>300m
NTD37	South	525	80	-10	-62	3	>300m
NTD38	South	530	80	-10	-62	3	>300m
NTD39	South	535	80	-10	-63	3	>300m
NTD40	Top	531	75	-10	-63	3	>300m
NTD41	Southeast	529	70	-10	-62	3	>300m
NTD42	Southeast	514	70	-10	-62	3	>300m
NTD43	South	512	70	-10	-62	3	>300m
NTD44	East	526	70	-10	-62	3	>300m
NTD45	East	522	70	-10	-62	3	>300m
NTD46	East	519	70	-10	-62	3	>300m
NTD47	East	515	70	-10	-62	3	>300m
NTD48	East	509	65	-10	-62	3	>300m
NTD49	East	501	65	-10	-62	3	>300m
NTD50	East	496	65	-10	-62	3	>300m
NTD51	East	491	75	-10	-62	3	>300m
NTD52	East	486	68	-10	-62	3	>300m
NTD53	East	483	63	-10	-62	3	>300m
NTD54	Northeast	466	68	-10	-61	3	>300m
NTD55	East	383	80	-10	-60	3	>300m
NTD56	East	372	67	-10	-59	3	>300m
NTD57	South	372	73	-10	-59	3	>300m
NTD58	South	374	68	-10	-59	3	>300m
NTD59	South	377	65	-10	-60	3	>300m
NTD60	South	381	64	-10	-60	3	>300m
NTD61	South	385	66	-10	-60	3	>300m
NTD62	South	389	75	-10	-60	3	>300m
NTD63	South	394	73	-10	-60	3	>300m
NTD64	South	397	67	-10	-60	3	>300m
NTD65	East	374	67	-10	-59	3	>300m
NTD66	East	369	69	-10	-59	3	>300m
NTD67	Northeast	360	68	0	-59	3	>300m
NTD68	Northeast	342	70	0	-59	3	>300m
NTD69	Northeast	331	65	0	-58	3	>300m
NTD70	Northeast	328	70	0	-58	3	>300m
NTD71	Northeast	324	70	0	-58	3	>300m
NTD72	Northeast	317	73	0	-58	3	>300m
NTD73	East	221	70	-10	-55	3	8
NTD74	East	218	70	-10	-55	3	8
NTD75	East	214	70	-10	-55	3	8
NTD76	East	213	70	-10	-55	3	8
NTD77	Southeast	205	72	-10	-54	3	11
NTD78	Northeast	203	70	-10	-54	3	9
NTD79	Northeast	200	71	-10	-54	3	10
NTD80	Northeast	195	70	-10	-54	3	9
NTD81	Northeast	194	70	-10	-54	3	9
NTD82	Northeast	191	70	-10	-54	3	9
NTD83	Northeast	186	70	-10	-53	3	10
NTD84	Northeast	184	70	0	-53	3	20
NTD85	Northwest	180	70	0	-53	3	20
NTD86	Northwest	162	72	0	-52	3	23
NTD87	Northwest	148	70	0	-51	3	22
NTD88	Northwest	143	69	0	-51	3	21
NTD89	Northwest	127	68	0	-50	3	21
NTD90	Northwest	123	67	0	-50	3	20
NTD91	Northwest	117	70	0	-49	3	24
NTD92	Northwest	111	69	0	-49	3	23
NTD93	West	526	73	-10	-62	3	>300m
NTD94	South	532	68	-10	-63	3	>300m
NTD94a	South	533	68	-10	-63	3	>300m
NTD95	South	535	68	-10	-63	3	>300m
NTD96	South	536	69	-10	-63	3	>300m
NTD97	Top	533	75	0	-63	3	>300m
NTD98	Top	535	75	0	-63	3	>300m
NTD99	Top	538	75	0	-63	3	>300m
NTD100	South	544	75	-10	-63	3	>300m
NTD101	Northeast	562	75	0	-63	3	>300m
NTD102	Northeast	569	70	0	-63	3	>300m
NTD103	Northeast	571	70	0	-63	3	>300m
NTD104	Northeast	578	78	0	-63	3	>300m
NTD105	Southeast	585	68	0	-63	3	>300m
NTD106	Southeast	590	70	-10	-63	3	>300m
NTD107	Southeast	600	67	-10	-64	3	>300m
NTD108	Southeast	603	77	-10	-64	3	>300m
NTD109	Southeast	610	77	-10	-64	3	>300m
NTD110	Southeast	610	80	-10	-64	3	>300m
NTD111	Southwest	568	72	-10	-63	3	>300m
NTD112	Southwest	597	72	0	-64	3	>300m
NTD113	Southwest	600	72	0	-64	3	>300m
NTD114	Southwest	599	80	-10	-64	3	>300m
NTD115	Southwest	580	80	0	-63	3	>300m

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-PF02
 Description: Potential Development at NTM LUR

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ⁽¹⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-PF02	N01	Northwest	188	79	0	-53	3	29		
	N02	Northwest	173	79	0	-53	3	29		
	N03	Northwest	161	79	0	-52	3	30		
	N04	Northwest	159	77	0	-52	3	28		
	N05	Northwest	154	77	0	-52	3	28		
	N06	Northwest	148	77	0	-51	3	29		
	N07	Northwest	145	77	0	-51	3	29		
	N08	Northwest	144	80	0	-51	3	32		
	N09	Northwest	142	77	0	-51	3	29		
	N10	Northwest	138	77	0	-51	3	29		
	N11	Northwest	134	77	0	-51	3	29		
	N12	Northwest	130	82	0	-50	3	35		
	N12a	Northwest	125	78	0	-50	3	31		
	N12b	Northwest	116	78	0	-49	3	32		
	N12c	Northwest	104	78	0	-48	3	33		
	N12d	Northwest	131	80	0	-50	3	33		
	N13	Top	137	80	0	-51	3	32		
	N14	Top	69	80	0	-45	3	38		
	N15	Northwest	58	77	0	-43	3	37		
	N15a	Northwest	60	78	0	-44	3	37		
	N16	Northwest	57	77	0	-43	3	37		
	N17	Northwest	56	80	0	-43	3	40		
	N18	Northwest	55	77	0	-43	3	37		
	N19	Northwest	54	77	0	-43	3	37		
	N20	Northwest	54	80	0	-43	3	40		
	N20a	Northwest	52	78	0	-42	3	39		
	N21	Northwest	53	77	0	-42	3	38		
	N21a	Northwest	53	78	0	-42	3	39		
	N22	Northwest	346	77	0	-59	3	>300m		
	N23	Northwest	55	77	0	-43	3	37		
	N24	Northwest	56	77	0	-43	3	37		
	N25	Northwest	58	79	0	-43	3	39		
	N26	Northwest	62	80	0	-44	3	39		
	N27	Northwest	69	77	0	-45	3	35		
	N28	Northwest	71	79	0	-45	3	37		
	N29	Northwest	76	79	0	-46	3	36		
	N30	Northwest	76	77	0	-46	3	34		
	N30a	Northwest	81	78	0	-46	3	35		
	N31	Northwest	84	79	0	-46	3	36		
	N31a	Northeast	89	82	0	-47	3	38		
	N31b	Northeast	96	82	0	-48	3	37		
	N31c	Northeast	88	82	0	-47	3	38		
	N31d	Northeast	95	82	0	-48	3	37		
	N32	Northeast	101	80	0	-48	3	35		
	N32a	Northeast	104	78	0	-48	3	33		
	N32b	Southeast	107	78	-10	-49	3	22		
	N33	Southeast	103	80	-10	-48	3	25		
	N34	Southeast	99	80	-10	-48	3	25		
	N34a	Southeast	95	73	-10	-48	3	18		
	N35	Southeast	91	82	-10	-47	3	28		
	N36	Southeast	89	80	-10	-47	3	26		
	N37	Southeast	83	80	-10	-46	3	27		
	N38	Southeast	88	68	-10	-47	3	14		
	N39	Southeast	88	80	-10	-47	3	26		
	N39a	Southeast	88	75	-10	-47	3	21		
	N40	Southeast	91	78	-10	-47	3	24		
	N40a	Southeast	92	78	-10	-47	3	24		
	N40b	Southeast	77	82	-10	-46	3	29		
	N41	Southeast	134	75	-10	-51	3	17		
	N41a	Southeast	153	72	-10	-52	3	13		
	N43	Southeast	170	72	-10	-53	3	12		
	N44	Southeast	176	76	-10	-53	3	16		
	N45	Southeast	179	72	-10	-53	3	12		
	N45a	Southeast	190	68	-10	-54	3	7		
	N45b	Southeast	199	68	-10	-54	3	7		
	N46	Southeast	210	76	-10	-54	3	15		
	N46a	Southeast	222	75	-10	-55	3	13		
	N47	Southwest	208	76	-10	-54	3	15		
	N47a	Southwest	219	75	-10	-55	3	13		
	N47b	West	214	75	-10	-55	3	13		
	N47c	West	207	75	-10	-54	3	14		
	N48	Northwest	159	79	0	-52	3	30		
	N49	Northwest	170	76	0	-53	3	26		
	N50	Northwest	75	81	-10	-46	3	28		
	N50a	Top	76	81	0	-46	3	38		
	N51	Southwest	69	81	0	-45	3	39		
	N52	Southwest	62	78	-10	-44	3	27		
	N53	Northeast	156	79	0	-52	3	30		
	N54	Northeast	148	79	0	-51	3	31		
	N55	West	196	79	0	-54	3	28		
	N56	Southwest	196	79	-10	-54	3	18		
	NTD01	North	254	78	0	-56	3	25		
	NTD02	North	252	76	0	-56	3	23		
	NTD03	East	269	75	0	-57	3	21		
	NTD04	East	290	75	0	-57	3	21		
	NTD05	East	300	75	0	-58	3	20		
	NTD06	East	305	76	0	-58	3	>300m		
	NTD07	East	310	75	0	-58	3	>300m		
	NTD08	East	318	75	0	-58	3	>300m		
	NTD09	East	321	70	0	-58	3	>300m		
	NTD10	East	327	70	0	-58	3	>300m		
	NTD11	East	341	70	0	-59	3	>300m		
	NTD12	West	360	75	-10	-59	3	>300m		
	NTD13	West	354	79	-10	-59	3	>300m		
	NTD14	West	349	77	-10	-59	3	>300m		
	NTD15	West	344	77	-10	-59	3	>300m		
	NTD15a	West	332	80	-10	-58	3	>300m		
	NTD16	West	319	80	-10	-58	3	>300m		

Appendix 4.11 Fixed Plant Noise Calculation

NTD16a	West	283	80	-10	-57	3	16
NTD17	West	272	77	-10	-57	3	13
NTD18	West	268	73	-10	-57	3	9
NTD19	West	263	73	-10	-56	3	10
NTD20	West	257	73	-10	-56	3	10
NTD21	West	373	78	-10	-59	3	>300m
NTD22	West	390	80	-10	-60	3	>300m
NTD23	West	407	80	-10	-60	3	>300m
NTD24	West	419	76	-10	-60	3	>300m
NTD25	West	426	80	-10	-61	3	>300m
NTD26	West	432	70	-10	-61	3	>300m
NTD27	West	439	70	-10	-61	3	>300m
NTD28	West	450	75	-10	-61	3	>300m
NTD29	West	458	75	-10	-61	3	>300m
NTD30	West	470	83	-10	-61	3	>300m
NTD31	Southwest	481	80	-10	-62	3	>300m
NTD32	Southwest	502	82	-10	-62	3	>300m
NTD33	Southwest	540	81	-10	-63	3	>300m
NTD34	Southwest	556	80	-10	-63	3	>300m
NTD35	South	598	85	-10	-64	3	>300m
NTD36	South	603	85	-10	-64	3	>300m
NTD37	South	606	85	-10	-64	3	>300m
NTD38	South	609	85	-10	-64	3	>300m
NTD39	South	611	85	-10	-64	3	>300m
NTD40	Top	607	80	-10	-64	3	>300m
NTD41	Southeast	604	75	-10	-64	3	>300m
NTD42	Southeast	586	75	-10	-63	3	>300m
NTD43	South	583	75	-10	-63	3	>300m
NTD44	East	589	75	-10	-63	3	>300m
NTD45	East	586	75	-10	-63	3	>300m
NTD46	East	582	75	-10	-63	3	>300m
NTD47	East	578	75	-10	-63	3	>300m
NTD48	East	571	70	-10	-63	3	>300m
NTD49	East	562	70	-10	-63	3	>300m
NTD50	East	556	70	-10	-63	3	>300m
NTD51	East	551	80	-10	-63	3	>300m
NTD52	East	546	73	-10	-63	3	>300m
NTD53	East	542	68	-10	-63	3	>300m
NTD54	Northeast	523	73	-10	-62	3	>300m
NTD55	East	429	85	-10	-61	3	>300m
NTD56	East	415	72	-10	-60	3	>300m
NTD57	South	412	78	-10	-60	3	>300m
NTD58	South	413	73	-10	-60	3	>300m
NTD59	South	413	70	-10	-60	3	>300m
NTD60	South	414	69	-10	-60	3	>300m
NTD61	South	416	71	-10	-60	3	>300m
NTD62	South	417	80	-10	-60	3	>300m
NTD63	South	419	78	-10	-60	3	>300m
NTD64	South	419	72	-10	-60	3	>300m
NTD65	East	383	72	-10	-60	3	>300m
NTD66	East	376	74	-10	-60	3	>300m
NTD67	Northeast	365	73	0	-59	3	>300m
NTD68	Northeast	347	75	0	-59	3	>300m
NTD69	Northeast	337	70	0	-59	3	>300m
NTD70	Northeast	335	75	0	-58	3	>300m
NTD71	Northeast	331	75	0	-58	3	>300m
NTD72	Northeast	325	78	0	-58	3	>300m
NTD73	East	226	75	-10	-55	3	13
NTD74	East	222	75	-10	-55	3	13
NTD75	East	215	75	-10	-55	3	13
NTD76	East	212	75	-10	-55	3	13
NTD77	Southeast	146	77	-10	-51	3	19
NTD78	Northeast	134	75	0	-51	3	27
NTD79	Northeast	129	76	0	-50	3	29
NTD80	Northeast	122	75	0	-50	3	28
NTD81	Northeast	119	75	0	-50	3	28
NTD82	Northeast	114	75	0	-49	3	29
NTD83	Northeast	105	75	0	-48	3	30
NTD84	Northeast	103	75	0	-48	3	30
NTD85	Northwest	102	75	0	-48	3	30
NTD86	Northwest	102	77	0	-48	3	32
NTD87	Northwest	106	75	0	-48	3	30
NTD88	Northwest	108	74	0	-49	3	28
NTD89	Northwest	118	73	0	-49	3	27
NTD90	Northwest	121	72	0	-50	3	25
NTD91	Northwest	128	75	0	-50	3	28
NTD92	Northwest	136	74	0	-51	3	26
NTD93	West	598	78	-10	-64	3	>300m
NTD94	South	604	73	-10	-64	3	>300m
NTD94a	South	604	73	-10	-64	3	>300m
NTD95	South	605	73	-10	-64	3	>300m
NTD96	South	606	74	-10	-64	3	>300m
NTD97	Top	601	80	0	-64	3	>300m
NTD98	Top	602	80	0	-64	3	>300m
NTD99	Top	604	80	0	-64	3	>300m
NTD100	South	610	80	-10	-64	3	>300m
NTD101	Northeast	651	80	0	-64	3	>300m
NTD102	Northeast	656	75	0	-64	3	>300m
NTD103	Northeast	657	75	0	-64	3	>300m
NTD104	Northeast	662	83	0	-64	3	>300m
NTD105	Southeast	666	73	0	-64	3	>300m
NTD106	Southeast	670	75	-10	-65	3	>300m
NTD107	Southeast	681	72	-10	-65	3	>300m
NTD108	Southeast	685	82	-10	-65	3	>300m
NTD109	Southeast	695	82	-10	-65	3	>300m
NTD110	Southeast	697	85	-10	-65	3	>300m
NTD111	Southwest	659	77	-10	-64	3	>300m
NTD112	Southwest	682	77	0	-65	3	>300m
NTD113	Southwest	684	77	0	-65	3	>300m
NTD114	Southwest	687	85	-10	-65	3	>300m
NTD115	Southwest	666	85	0	-64	3	>300m

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-PF02	N01	Northwest	188	74	0	-53	3	24		
	N02	Northwest	173	74	0	-53	3	24		
	N03	Northwest	161	74	0	-52	3	25		
	N04	Northwest	159	72	0	-52	3	23		
	N05	Northwest	154	72	0	-52	3	23		
	N06	Northwest	148	72	0	-51	3	24		
	N07	Northwest	145	72	0	-51	3	24		
	N08	Northwest	144	75	0	-51	3	27		
	N09	Northwest	142	72	0	-51	3	24		
	N10	Northwest	138	72	0	-51	3	24		
	N11	Northwest	134	72	0	-51	3	24		
	N12	Northwest	130	77	0	-50	3	30		
	N12a	Northwest	125	73	0	-50	3	26		
	N12b	Northwest	116	73	0	-49	3	27		
	N12c	Northwest	104	73	0	-48	3	28		
	N12d	Northwest	131	75	0	-50	3	28		
	N13	Top	137	75	0	-51	3	27		
	N14	Top	69	75	0	-45	3	33		
	N15	Northwest	58	72	0	-43	3	32		
	N15a	Northwest	60	73	0	-44	3	32		
	N16	Northwest	57	72	0	-43	3	32		
	N17	Northwest	56	75	0	-43	3	35		
	N18	Northwest	55	72	0	-43	3	32		
	N19	Northwest	54	72	0	-43	3	32		
	N20	Northwest	54	75	0	-43	3	35		
	N20a	Northwest	52	73	0	-42	3	34		
	N21	Northwest	53	72	0	-42	3	33		
	N21a	Northwest	53	73	0	-42	3	34		
	N22	Northwest	346	72	0	-59	3	>300m		
	N23	Northwest	55	72	0	-43	3	32		
	N24	Northwest	56	72	0	-43	3	32		
	N25	Northwest	58	74	0	-43	3	34		
	N26	Northwest	62	75	0	-44	3	34		
	N27	Northwest	69	72	0	-45	3	30		
	N28	Northwest	71	74	0	-45	3	32		
	N29	Northwest	76	74	0	-46	3	31		
	N30	Northwest	76	72	0	-46	3	29		
	N30a	Northwest	81	73	0	-46	3	30		
	N31	Northwest	84	74	0	-46	3	31		
	N31a	Northeast	89	77	0	-47	3	33		
	N31b	Northeast	96	77	0	-48	3	32		
	N31c	Northeast	88	77	0	-47	3	33		
	N31d	Northeast	95	77	0	-48	3	32		
	N32	Northeast	101	75	0	-48	3	30		
	N32a	Northeast	104	73	0	-48	3	28		
	N32b	Southeast	107	73	-10	-49	3	17		
	N33	Southeast	103	75	-10	-48	3	20		
	N34	Southeast	99	75	-10	-48	3	20		
	N34a	Southeast	95	68	-10	-48	3	13		
	N35	Southeast	91	77	-10	-47	3	23		
N36	Southeast	89	75	-10	-47	3	21			
N37	Southeast	83	75	-10	-46	3	22			
N38	Southeast	88	63	-10	-47	3	9			
N39	Southeast	88	75	-10	-47	3	21			
N39a	Southeast	88	70	-10	-47	3	16			
N40	Southeast	91	73	-10	-47	3	19			
N40a	Southeast	92	73	-10	-47	3	19			
N40b	Southwest	77	77	-10	-46	3	24			
N41	Southeast	134	70	-10	-51	3	12			
N41a	Southeast	153	67	-10	-52	3	8			
N43	Southeast	170	67	-10	-53	3	7			
N44	Southeast	176	71	-10	-53	3	11			
N45	Southeast	179	67	-10	-53	3	7			
N45a	Southeast	190	63	-10	-54	3	2			
N45b	Southeast	199	63	-10	-54	3	2			
N46	Southeast	210	71	-10	-54	3	10			
N46a	Southeast	222	70	-10	-55	3	8			
N47	Southwest	208	71	-10	-54	3	10			
N47a	Southwest	219	70	-10	-55	3	8			
N47b	West	214	70	-10	-55	3	8			
N47c	West	207	70	-10	-54	3	9			
N48	Northeast	159	74	0	-52	3	25			
N49	Northeast	170	71	0	-53	3	21			
N50	Northeast	75	76	-10	-46	3	23			
N50a	Top	76	76	0	-46	3	33			
N51	Southwest	69	76	0	-45	3	34			
N52	Southwest	62	73	-10	-44	3	22			
N53	Northeast	156	74	0	-52	3	25			
N54	Northeast	148	74	0	-51	3	26			
N55	West	196	74	0	-54	3	23			
N56	Southwest	196	74	-10	-54	3	13			
NTD01	North	254	73	0	-56	3	20			
NTD02	North	252	71	0	-56	3	18			
NTD03	East	269	70	0	-57	3	16			
NTD04	East	290	70	0	-57	3	16			
NTD05	East	300	70	0	-58	3	15			
NTD06	East	305	71	0	-58	3	>300m			
NTD07	East	310	70	0	-58	3	>300m			
NTD08	East	318	70	0	-58	3	>300m			
NTD09	East	321	65	0	-58	3	>300m			
NTD10	East	327	65	0	-58	3	>300m			
NTD11	East	341	65	0	-59	3	>300m			
NTD12	West	360	70	-10	-59	3	>300m			
NTD13	West	354	74	-10	-59	3	>300m			
NTD14	West	349	72	-10	-59	3	>300m			
NTD15	West	344	72	-10	-59	3	>300m			
NTD15a	West	332	75	-10	-58	3	>300m			
NTD16	West	319	75	-10	-58	3	>300m			
NTD16a	West	283	75	-10	-57	3	11			
NTD17	West	272	72	-10	-57	3	8			

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	268	68	-10	-57	3	4
NTD19	West	263	68	-10	-56	3	5
NTD20	West	257	68	-10	-56	3	5
NTD21	West	373	73	-10	-59	3	>300m
NTD22	West	390	75	-10	-60	3	>300m
NTD23	West	407	75	-10	-60	3	>300m
NTD24	West	419	71	-10	-60	3	>300m
NTD25	West	426	75	-10	-61	3	>300m
NTD26	West	432	65	-10	-61	3	>300m
NTD27	West	439	65	-10	-61	3	>300m
NTD28	West	450	70	-10	-61	3	>300m
NTD29	West	458	70	-10	-61	3	>300m
NTD30	West	470	78	-10	-61	3	>300m
NTD31	Southwest	481	75	-10	-62	3	>300m
NTD32	Southwest	502	77	-10	-62	3	>300m
NTD33	Southwest	540	76	-10	-63	3	>300m
NTD34	Southwest	556	75	-10	-63	3	>300m
NTD35	South	598	80	-10	-64	3	>300m
NTD36	South	603	80	-10	-64	3	>300m
NTD37	South	606	80	-10	-64	3	>300m
NTD38	South	609	80	-10	-64	3	>300m
NTD39	South	611	80	-10	-64	3	>300m
NTD40	Top	607	75	-10	-64	3	>300m
NTD41	Southeast	604	70	-10	-64	3	>300m
NTD42	Southeast	586	70	-10	-63	3	>300m
NTD43	South	583	70	-10	-63	3	>300m
NTD44	East	589	70	-10	-63	3	>300m
NTD45	East	586	70	-10	-63	3	>300m
NTD46	East	582	70	-10	-63	3	>300m
NTD47	East	578	70	-10	-63	3	>300m
NTD48	East	571	65	-10	-63	3	>300m
NTD49	East	562	65	-10	-63	3	>300m
NTD50	East	556	65	-10	-63	3	>300m
NTD51	East	551	75	-10	-63	3	>300m
NTD52	East	546	68	-10	-63	3	>300m
NTD53	East	542	63	-10	-63	3	>300m
NTD54	Northeast	523	68	-10	-62	3	>300m
NTD55	East	429	80	-10	-61	3	>300m
NTD56	East	415	67	-10	-60	3	>300m
NTD57	South	412	73	-10	-60	3	>300m
NTD58	South	413	68	-10	-60	3	>300m
NTD59	South	413	65	-10	-60	3	>300m
NTD60	South	414	64	-10	-60	3	>300m
NTD61	South	416	66	-10	-60	3	>300m
NTD62	South	417	75	-10	-60	3	>300m
NTD63	South	419	73	-10	-60	3	>300m
NTD64	South	419	67	-10	-60	3	>300m
NTD65	East	383	67	-10	-60	3	>300m
NTD66	East	376	69	-10	-60	3	>300m
NTD67	Northeast	365	68	0	-59	3	>300m
NTD68	Northeast	347	70	0	-59	3	>300m
NTD69	Northeast	337	65	0	-59	3	>300m
NTD70	Northeast	335	70	0	-58	3	>300m
NTD71	Northeast	331	70	0	-58	3	>300m
NTD72	Northeast	325	73	0	-58	3	>300m
NTD73	East	226	70	-10	-55	3	8
NTD74	East	222	70	-10	-55	3	8
NTD75	East	215	70	-10	-55	3	8
NTD76	East	212	70	-10	-55	3	8
NTD77	Southeast	146	72	-10	-51	3	14
NTD78	Northeast	134	70	0	-51	3	22
NTD79	Northeast	129	71	0	-50	3	24
NTD80	Northeast	122	70	0	-50	3	23
NTD81	Northeast	119	70	0	-50	3	23
NTD82	Northeast	114	70	0	-49	3	24
NTD83	Northeast	105	70	0	-48	3	25
NTD84	Northeast	103	70	0	-48	3	25
NTD85	Northwest	102	70	0	-48	3	25
NTD86	Northwest	102	72	0	-48	3	27
NTD87	Northwest	106	70	0	-48	3	25
NTD88	Northwest	108	69	0	-49	3	23
NTD89	Northwest	118	68	0	-49	3	22
NTD90	Northwest	121	67	0	-50	3	20
NTD91	Northwest	128	70	0	-50	3	23
NTD92	Northwest	136	69	0	-51	3	21
NTD93	West	598	73	-10	-64	3	>300m
NTD94	South	604	68	-10	-64	3	>300m
NTD94a	South	604	68	-10	-64	3	>300m
NTD95	South	605	68	-10	-64	3	>300m
NTD96	South	606	69	-10	-64	3	>300m
NTD97	Top	601	75	0	-64	3	>300m
NTD98	Top	602	75	0	-64	3	>300m
NTD99	Top	604	75	0	-64	3	>300m
NTD100	South	610	75	-10	-64	3	>300m
NTD101	Northeast	651	75	0	-64	3	>300m
NTD102	Northeast	656	70	0	-64	3	>300m
NTD103	Northeast	657	70	0	-64	3	>300m
NTD104	Northeast	662	78	0	-64	3	>300m
NTD105	Southeast	666	68	0	-64	3	>300m
NTD106	Southeast	670	70	-10	-65	3	>300m
NTD107	Southeast	681	67	-10	-65	3	>300m
NTD108	Southeast	685	77	-10	-65	3	>300m
NTD109	Southeast	695	77	-10	-65	3	>300m
NTD110	Southeast	697	80	-10	-65	3	>300m
NTD111	Southwest	659	72	-10	-64	3	>300m
NTD112	Southwest	682	72	0	-65	3	>300m
NTD113	Southwest	684	72	0	-65	3	>300m
NTD114	Southwest	687	80	-10	-65	3	>300m
NTD115	Southwest	666	80	0	-64	3	>300m

48

48

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-PF04
 Description: Potential Development at NTM LUR

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-PF04	N01	Northwest	366	79	-10	-59	3	>300m		
	N02	Northwest	364	79	-10	-59	3	>300m		
	N03	Northwest	363	79	-10	-59	3	>300m		
	N04	Northwest	363	77	-10	-59	3	>300m		
	N05	Northwest	362	77	-10	-59	3	>300m		
	N06	Northwest	362	77	-10	-59	3	>300m		
	N07	Northwest	362	77	-10	-59	3	>300m		
	N08	Northwest	362	80	-10	-59	3	>300m		
	N09	Northwest	362	77	-10	-59	3	>300m		
	N10	Northwest	362	77	-10	-59	3	>300m		
	N11	Northwest	361	77	-10	-59	3	>300m		
	N12	Northwest	362	82	-10	-59	3	>300m		
	N12a	Northwest	362	78	-10	-59	3	>300m		
	N12b	Northwest	363	78	-10	-59	3	>300m		
	N12c	Northwest	364	78	-10	-59	3	>300m		
	N12d	Northwest	341	80	-10	-59	3	>300m		
	N13	Top	351	80	0	-59	3	>300m		
	N14	Top	365	80	0	-59	3	>300m		
	N15	Northwest	376	77	-10	-60	3	>300m		
	N15a	Northwest	375	78	-10	-59	3	>300m		
	N16	Northwest	377	77	-10	-60	3	>300m		
	N17	Northwest	378	80	-10	-60	3	>300m		
	N18	Northwest	378	77	-10	-60	3	>300m		
	N19	Northwest	379	77	-10	-60	3	>300m		
	N20	Northwest	379	80	-10	-60	3	>300m		
	N20a	Northwest	383	78	-10	-60	3	>300m		
	N21	Northwest	386	77	-10	-60	3	>300m		
	N21a	Northwest	387	78	-10	-60	3	>300m		
	N22	Northwest	385	77	-10	-60	3	>300m		
	N23	Northwest	389	77	-10	-60	3	>300m		
	N24	Northwest	391	77	-10	-60	3	>300m		
	N25	Northwest	389	79	-10	-60	3	>300m		
	N26	Northwest	396	80	-10	-60	3	>300m		
	N27	Northwest	401	77	-10	-60	3	>300m		
	N28	Northwest	400	79	-10	-60	3	>300m		
	N29	Northwest	403	79	-10	-60	3	>300m		
	N30	Northwest	405	77	-10	-60	3	>300m		
	N30a	Northwest	409	78	-10	-60	3	>300m		
	N31	Northwest	400	79	-10	-60	3	>300m		
	N31a	Northeast	403	82	-10	-60	3	>300m		
	N31b	Northeast	393	82	-10	-60	3	>300m		
	N31c	Northeast	404	82	-10	-60	3	>300m		
	N31d	Northeast	394	82	-10	-60	3	>300m		
	N32	Northeast	380	80	-10	-60	3	>300m		
	N32a	Northeast	384	78	-10	-60	3	>300m		
	N32b	Southeast	377	78	0	-60	3	>300m		
	N33	Southeast	373	80	0	-59	3	>300m		
	N34	Southeast	370	80	0	-59	3	>300m		
	N34a	Southeast	365	73	0	-59	3	>300m		
	N35	Southeast	360	82	0	-59	3	>300m		
	N36	Southeast	357	80	0	-59	3	>300m		
	N37	Southeast	360	80	0	-59	3	>300m		
	N38	Southeast	353	68	0	-59	3	>300m		
	N39	Southeast	351	80	0	-59	3	>300m		
	N39a	Southeast	347	75	0	-59	3	>300m		
	N40	Southeast	343	78	0	-59	3	>300m		
	N40a	Southeast	341	78	0	-59	3	>300m		
	N40b	Southeast	357	82	0	-59	3	>300m		
	N41	Southeast	327	75	0	-58	3	>300m		
	N41a	Southeast	326	72	0	-58	3	>300m		
	N43	Southeast	327	72	0	-58	3	>300m		
	N44	Southeast	327	76	0	-58	3	>300m		
	N45	Southeast	327	72	0	-58	3	>300m		
	N45a	Southeast	329	68	0	-58	3	>300m		
	N45b	Southeast	330	68	0	-58	3	>300m		
	N46	Southeast	329	76	0	-58	3	>300m		
	N46a	Southeast	332	75	0	-58	3	>300m		
	N47	Southwest	338	76	-10	-59	3	>300m		
	N47a	Southwest	342	75	-10	-59	3	>300m		
	N47b	West	351	75	-10	-59	3	>300m		
	N47c	West	356	75	-10	-59	3	>300m		
	N48	Northwest	356	79	-10	-59	3	>300m		
	N49	Northwest	331	76	-10	-58	3	>300m		
	N50	Northwest	362	81	0	-59	3	>300m		
	N50a	Top	365	81	0	-59	3	>300m		
	N51	Southwest	372	81	-10	-59	3	>300m		
	N52	Southwest	383	78	0	-60	3	>300m		
	N53	Northeast	329	79	-10	-58	3	>300m		
	N54	Northeast	345	79	-10	-59	3	>300m		
	N55	West	365	79	-10	-59	3	>300m		
	N56	Southwest	356	79	-10	-59	3	>300m		
	NTD01	North	320	78	-10	-58	3	>300m		
	NTD02	North	316	76	-10	-58	3	>300m		
	NTD03	East	304	75	0	-58	3	>300m		
	NTD04	East	294	75	0	-57	3	21		
	NTD05	East	291	75	0	-57	3	21		
	NTD06	East	289	76	0	-57	3	22		
	NTD07	East	288	75	0	-57	3	21		
	NTD08	East	290	75	0	-57	3	21		
	NTD09	East	289	70	0	-57	3	16		
	NTD10	East	284	70	0	-57	3	16		
	NTD11	East	279	70	0	-57	3	16		
	NTD12	West	286	75	-10	-57	3	11		
	NTD13	West	287	79	-10	-57	3	15		
	NTD14	West	288	77	-10	-57	3	13		
	NTD15	West	289	77	-10	-57	3	13		
	NTD15a	West	293	80	-10	-57	3	16		
	NTD16	West	296	80	-10	-57	3	16		

Appendix 4.11 Fixed Plant Noise Calculation

NTD16a	West	308	80	-10	-58	3	>300m
NTD17	West	313	77	-10	-58	3	>300m
NTD18	West	315	73	-10	-58	3	>300m
NTD19	West	317	73	-10	-58	3	>300m
NTD20	West	320	73	-10	-58	3	>300m
NTD21	West	284	78	-10	-57	3	14
NTD22	West	283	80	-10	-57	3	16
NTD23	West	283	80	-10	-57	3	16
NTD24	West	284	76	-10	-57	3	12
NTD25	West	284	80	-10	-57	3	16
NTD26	West	285	70	-10	-57	3	6
NTD27	West	286	70	-10	-57	3	6
NTD28	West	287	75	-10	-57	3	11
NTD29	West	288	75	-10	-57	3	11
NTD30	West	290	83	-10	-57	3	19
NTD31	Southwest	293	80	-10	-57	3	16
NTD32	Southwest	296	82	-10	-57	3	18
NTD33	Southwest	298	81	-10	-57	3	17
NTD34	Southwest	298	80	-10	-57	3	16
NTD35	South	281	85	-10	-57	3	21
NTD36	South	269	85	-10	-57	3	21
NTD37	South	263	85	-10	-56	3	22
NTD38	South	258	85	-10	-56	3	22
NTD39	South	254	85	-10	-56	3	22
NTD40	Top	248	80	0	-56	3	27
NTD41	Southeast	245	75	0	-56	3	22
NTD42	Southeast	224	75	0	-55	3	23
NTD43	South	216	75	-10	-55	3	13
NTD44	East	203	75	0	-54	3	24
NTD45	East	199	75	0	-54	3	24
NTD46	East	196	75	0	-54	3	24
NTD47	East	192	75	0	-54	3	24
NTD48	East	185	70	0	-53	3	20
NTD49	East	177	70	0	-53	3	20
NTD50	East	171	70	0	-53	3	20
NTD51	East	166	80	0	-52	3	31
NTD52	East	161	73	0	-52	3	24
NTD53	East	157	68	0	-52	3	19
NTD54	Northeast	140	73	0	-51	3	25
NTD55	East	76	85	0	-46	3	42
NTD56	East	67	72	0	-45	3	30
NTD57	South	62	78	0	-44	3	37
NTD58	South	56	73	0	-43	3	33
NTD59	South	50	70	0	-42	3	31
NTD60	South	43	69	0	-41	3	31
NTD61	South	34	71	0	-39	3	35
NTD62	South	27	80	0	-37	3	46
NTD63	South	19	78	0	-33	3	48
NTD64	South	14	72	0	-31	3	44
NTD65	East	59	72	0	-43	3	32
NTD66	East	67	74	0	-44	3	33
NTD67	Northeast	78	73	0	-46	3	30
NTD68	Northeast	92	75	-10	-47	3	21
NTD69	Northeast	100	70	-10	-48	3	15
NTD70	Northeast	102	75	-10	-48	3	20
NTD71	Northeast	105	75	-10	-48	3	20
NTD72	Northeast	109	78	-10	-49	3	22
NTD73	East	207	75	0	-54	3	24
NTD74	East	211	75	0	-54	3	24
NTD75	East	218	75	0	-55	3	23
NTD76	East	221	75	0	-55	3	23
NTD77	Southeast	300	77	0	-58	3	>300m
NTD78	Northeast	315	75	-10	-58	3	>300m
NTD79	Northeast	320	76	-10	-58	3	>300m
NTD80	Northeast	326	75	-10	-58	3	>300m
NTD81	Northeast	329	75	-10	-58	3	>300m
NTD82	Northeast	333	75	-10	-58	3	>300m
NTD83	Northeast	342	75	-10	-59	3	>300m
NTD84	Northeast	343	75	-10	-59	3	>300m
NTD85	Northwest	341	75	-10	-59	3	>300m
NTD86	Northwest	333	77	-10	-58	3	>300m
NTD87	Northwest	327	75	-10	-58	3	>300m
NTD88	Northwest	325	74	-10	-58	3	>300m
NTD89	Northwest	320	73	-10	-58	3	>300m
NTD90	Northwest	318	72	-10	-58	3	>300m
NTD91	Northwest	316	75	-10	-58	3	>300m
NTD92	Northwest	315	74	-10	-58	3	>300m
NTD93	West	232	78	-10	-55	3	16
NTD94	South	235	73	-10	-55	3	11
NTD94a	South	234	73	-10	-55	3	11
NTD95	South	232	73	-10	-55	3	11
NTD96	South	231	74	-10	-55	3	12
NTD97	Top	224	80	0	-55	3	28
NTD98	Top	222	80	0	-55	3	28
NTD99	Top	220	80	0	-55	3	28
NTD100	South	224	80	-10	-55	3	18
NTD101	Northeast	323	80	0	-58	3	>300m
NTD102	Northeast	318	75	0	-58	3	>300m
NTD103	Northeast	317	75	0	-58	3	>300m
NTD104	Northeast	313	83	0	-58	3	>300m
NTD105	Southeast	310	73	0	-58	3	>300m
NTD106	Southeast	310	75	0	-58	3	>300m
NTD107	Southeast	322	72	0	-58	3	>300m
NTD108	Southeast	328	82	0	-58	3	>300m
NTD109	Southeast	343	82	-10	-59	3	>300m
NTD110	Southeast	350	85	-10	-59	3	>300m
NTD111	Southwest	336	77	-10	-59	3	>300m
NTD112	Southwest	333	77	0	-58	3	>300m
NTD113	Southwest	332	77	0	-58	3	>300m
NTD114	Southwest	349	85	-10	-59	3	>300m
NTD115	Southwest	327	85	0	-58	3	>300m

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-PF04	N01	Northwest	366	74	-10	-59	3	>300m		
	N02	Northwest	364	74	-10	-59	3	>300m		
	N03	Northwest	363	74	-10	-59	3	>300m		
	N04	Northwest	363	72	-10	-59	3	>300m		
	N05	Northwest	362	72	-10	-59	3	>300m		
	N06	Northwest	362	72	-10	-59	3	>300m		
	N07	Northwest	362	72	-10	-59	3	>300m		
	N08	Northwest	362	75	-10	-59	3	>300m		
	N09	Northwest	362	72	-10	-59	3	>300m		
	N10	Northwest	362	72	-10	-59	3	>300m		
	N11	Northwest	361	72	-10	-59	3	>300m		
	N12	Northwest	362	77	-10	-59	3	>300m		
	N12a	Northwest	362	73	-10	-59	3	>300m		
	N12b	Northwest	363	73	-10	-59	3	>300m		
	N12c	Northwest	364	73	-10	-59	3	>300m		
	N12d	Northwest	341	75	-10	-59	3	>300m		
	N13	Top	351	75	0	-59	3	>300m		
	N14	Top	365	75	0	-59	3	>300m		
	N15	Northwest	376	72	-10	-60	3	>300m		
	N15a	Northwest	375	73	-10	-59	3	>300m		
	N16	Northwest	377	72	-10	-60	3	>300m		
	N17	Northwest	378	75	-10	-60	3	>300m		
	N18	Northwest	378	72	-10	-60	3	>300m		
	N19	Northwest	379	72	-10	-60	3	>300m		
	N20	Northwest	379	75	-10	-60	3	>300m		
	N20a	Northwest	383	73	-10	-60	3	>300m		
	N21	Northwest	386	72	-10	-60	3	>300m		
	N21a	Northwest	387	73	-10	-60	3	>300m		
	N22	Northwest	385	72	-10	-60	3	>300m		
	N23	Northwest	389	72	-10	-60	3	>300m		
	N24	Northwest	391	72	-10	-60	3	>300m		
	N25	Northwest	389	74	-10	-60	3	>300m		
	N26	Northwest	396	75	-10	-60	3	>300m		
	N27	Northwest	401	72	-10	-60	3	>300m		
	N28	Northwest	400	74	-10	-60	3	>300m		
	N29	Northwest	403	74	-10	-60	3	>300m		
	N30	Northwest	405	72	-10	-60	3	>300m		
	N30a	Northwest	409	73	-10	-60	3	>300m		
	N31	Northwest	400	74	-10	-60	3	>300m		
	N31a	Northeast	403	77	-10	-60	3	>300m		
	N31b	Northeast	393	77	-10	-60	3	>300m		
	N31c	Northeast	404	77	-10	-60	3	>300m		
	N31d	Northeast	394	77	-10	-60	3	>300m		
	N32	Northeast	380	75	-10	-60	3	>300m		
	N32a	Northeast	384	73	-10	-60	3	>300m		
	N32b	Southeast	377	73	0	-60	3	>300m		
	N33	Southeast	373	75	0	-59	3	>300m		
	N34	Southeast	370	75	0	-59	3	>300m		
	N34a	Southeast	365	68	0	-59	3	>300m		
	N35	Southeast	360	77	0	-59	3	>300m		
	N36	Southeast	357	75	0	-59	3	>300m		
	N37	Southeast	360	75	0	-59	3	>300m		
	N38	Southeast	353	63	0	-59	3	>300m		
	N39	Southeast	351	75	0	-59	3	>300m		
	N39a	Southeast	347	70	0	-59	3	>300m		
	N40	Southeast	343	73	0	-59	3	>300m		
	N40a	Southeast	341	73	0	-59	3	>300m		
	N40b	Southwest	357	77	0	-59	3	>300m		
	N41	Southeast	327	70	0	-58	3	>300m		
	N41a	Southeast	326	67	0	-58	3	>300m		
	N43	Southeast	327	67	0	-58	3	>300m		
	N44	Southeast	327	71	0	-58	3	>300m		
	N45	Southeast	327	67	0	-58	3	>300m		
	N45a	Southeast	329	63	0	-58	3	>300m		
	N45b	Southeast	330	63	0	-58	3	>300m		
	N46	Southeast	329	71	0	-58	3	>300m		
	N46a	Southeast	332	70	0	-58	3	>300m		
	N47	Southwest	338	71	-10	-59	3	>300m		
	N47a	Southwest	342	70	-10	-59	3	>300m		
	N47b	West	351	70	-10	-59	3	>300m		
	N47c	West	356	70	-10	-59	3	>300m		
	N48	Northeast	356	74	-10	-59	3	>300m		
	N49	Northeast	331	71	-10	-58	3	>300m		
	N50	Northeast	362	76	0	-59	3	>300m		
	N50a	Top	365	76	0	-59	3	>300m		
	N51	Southwest	372	76	-10	-59	3	>300m		
	N52	Southwest	383	73	0	-60	3	>300m		
	N53	Northeast	329	74	-10	-58	3	>300m		
	N54	Northeast	345	74	-10	-59	3	>300m		
	N55	West	365	74	-10	-59	3	>300m		
	N56	Southwest	356	74	-10	-59	3	>300m		
	NTD01	North	320	73	-10	-58	3	>300m		
	NTD02	North	316	71	-10	-58	3	>300m		
	NTD03	East	304	70	0	-58	3	>300m		
	NTD04	East	294	70	0	-57	3	16		
	NTD05	East	291	70	0	-57	3	16		
	NTD06	East	289	71	0	-57	3	17		
	NTD07	East	288	70	0	-57	3	16		
	NTD08	East	290	70	0	-57	3	16		
	NTD09	East	289	65	0	-57	3	11		
	NTD10	East	284	65	0	-57	3	11		
	NTD11	East	279	65	0	-57	3	11		
	NTD12	West	286	70	-10	-57	3	6		
	NTD13	West	287	74	-10	-57	3	10		
	NTD14	West	288	72	-10	-57	3	8		
	NTD15	West	289	72	-10	-57	3	8		
	NTD15a	West	293	75	-10	-57	3	11		
	NTD16	West	296	75	-10	-57	3	11		
	NTD16a	West	308	75	-10	-58	3	>300m		
	NTD17	West	313	72	-10	-58	3	>300m		

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	315	68	-10	-58	3	>300m
NTD19	West	317	68	-10	-58	3	>300m
NTD20	West	320	68	-10	-58	3	>300m
NTD21	West	284	73	-10	-57	3	9
NTD22	West	283	75	-10	-57	3	11
NTD23	West	283	75	-10	-57	3	11
NTD24	West	284	71	-10	-57	3	7
NTD25	West	284	75	-10	-57	3	11
NTD26	West	285	65	-10	-57	3	1
NTD27	West	286	65	-10	-57	3	1
NTD28	West	287	70	-10	-57	3	6
NTD29	West	288	70	-10	-57	3	6
NTD30	West	290	78	-10	-57	3	14
NTD31	Southwest	293	75	-10	-57	3	11
NTD32	Southwest	296	77	-10	-57	3	13
NTD33	Southwest	298	76	-10	-57	3	12
NTD34	Southwest	298	75	-10	-57	3	11
NTD35	South	281	80	-10	-57	3	16
NTD36	South	269	80	-10	-57	3	16
NTD37	South	263	80	-10	-56	3	17
NTD38	South	258	80	-10	-56	3	17
NTD39	South	254	80	-10	-56	3	17
NTD40	Top	248	75	0	-56	3	22
NTD41	Southeast	245	70	0	-56	3	17
NTD42	Southeast	224	70	0	-55	3	18
NTD43	South	216	70	-10	-55	3	8
NTD44	East	203	70	0	-54	3	19
NTD45	East	199	70	0	-54	3	19
NTD46	East	196	70	0	-54	3	19
NTD47	East	192	70	0	-54	3	19
NTD48	East	185	65	0	-53	3	15
NTD49	East	177	65	0	-53	3	15
NTD50	East	171	65	0	-53	3	15
NTD51	East	166	75	0	-52	3	26
NTD52	East	161	68	0	-52	3	19
NTD53	East	157	63	0	-52	3	14
NTD54	Northeast	140	68	0	-51	3	20
NTD55	East	76	80	0	-46	3	37
NTD56	East	67	67	0	-45	3	25
NTD57	South	62	73	0	-44	3	32
NTD58	South	56	68	0	-43	3	28
NTD59	South	50	65	0	-42	3	26
NTD60	South	43	64	0	-41	3	26
NTD61	South	34	66	0	-39	3	30
NTD62	South	27	75	0	-37	3	41
NTD63	South	19	73	0	-33	3	43
NTD64	South	14	67	0	-31	3	39
NTD65	East	59	67	0	-43	3	27
NTD66	East	67	69	0	-44	3	28
NTD67	Northeast	78	68	0	-46	3	25
NTD68	Northeast	92	70	-10	-47	3	16
NTD69	Northeast	100	65	-10	-48	3	10
NTD70	Northeast	102	70	-10	-48	3	15
NTD71	Northeast	105	70	-10	-48	3	15
NTD72	Northeast	109	73	-10	-49	3	17
NTD73	East	207	70	0	-54	3	19
NTD74	East	211	70	0	-54	3	19
NTD75	East	218	70	0	-55	3	18
NTD76	East	221	70	0	-55	3	18
NTD77	Southeast	300	72	0	-58	3	>300m
NTD78	Northeast	315	70	-10	-58	3	>300m
NTD79	Northeast	320	71	-10	-58	3	>300m
NTD80	Northeast	326	70	-10	-58	3	>300m
NTD81	Northeast	329	70	-10	-58	3	>300m
NTD82	Northeast	333	70	-10	-58	3	>300m
NTD83	Northeast	342	70	-10	-59	3	>300m
NTD84	Northeast	343	70	-10	-59	3	>300m
NTD85	Northwest	341	70	-10	-59	3	>300m
NTD86	Northwest	333	72	-10	-58	3	>300m
NTD87	Northwest	327	70	-10	-58	3	>300m
NTD88	Northwest	325	69	-10	-58	3	>300m
NTD89	Northwest	320	68	-10	-58	3	>300m
NTD90	Northwest	318	67	-10	-58	3	>300m
NTD91	Northwest	316	70	-10	-58	3	>300m
NTD92	Northwest	315	69	-10	-58	3	>300m
NTD93	West	232	73	-10	-55	3	11
NTD94	South	235	68	-10	-55	3	6
NTD94a	South	234	68	-10	-55	3	6
NTD95	South	232	68	-10	-55	3	6
NTD96	South	231	69	-10	-55	3	7
NTD97	Top	224	75	0	-55	3	23
NTD98	Top	222	75	0	-55	3	23
NTD99	Top	220	75	0	-55	3	23
NTD100	South	224	75	-10	-55	3	13
NTD101	Northeast	323	75	0	-58	3	>300m
NTD102	Northeast	318	70	0	-58	3	>300m
NTD103	Northeast	317	70	0	-58	3	>300m
NTD104	Northeast	313	78	0	-58	3	>300m
NTD105	Southeast	310	68	0	-58	3	>300m
NTD106	Southeast	310	70	0	-58	3	>300m
NTD107	Southeast	322	67	0	-58	3	>300m
NTD108	Southeast	328	77	0	-58	3	>300m
NTD109	Southeast	343	77	-10	-59	3	>300m
NTD110	Southeast	350	80	-10	-59	3	>300m
NTD111	Southwest	336	72	-10	-59	3	>300m
NTD112	Southwest	333	72	0	-58	3	>300m
NTD113	Southwest	332	72	0	-58	3	>300m
NTD114	Southwest	349	80	-10	-59	3	>300m
NTD115	Southwest	327	80	0	-58	3	>300m

47

50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-PF07a
 Description: Potential Development at NTM LUR

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-PF07a	N01	Northwest	403	79	-10	-60	3	>300m		
	N02	Northwest	412	79	-10	-60	3	>300m		
	N03	Northwest	418	79	-10	-60	3	>300m		
	N04	Northwest	420	77	-10	-60	3	>300m		
	N05	Northwest	423	77	-10	-61	3	>300m		
	N06	Northwest	427	77	-10	-61	3	>300m		
	N07	Northwest	428	77	-10	-61	3	>300m		
	N08	Northwest	429	80	-10	-61	3	>300m		
	N09	Northwest	430	77	-10	-61	3	>300m		
	N10	Northwest	433	77	-10	-61	3	>300m		
	N11	Northwest	435	77	-10	-61	3	>300m		
	N12	Northwest	438	82	-10	-61	3	>300m		
	N12a	Northwest	442	78	-10	-61	3	>300m		
	N12b	Northwest	448	78	-10	-61	3	>300m		
	N12c	Northwest	457	78	-10	-61	3	>300m		
	N12d	Northwest	428	80	-10	-61	3	>300m		
	N13	Top	428	80	-10	-61	3	>300m		
	N14	Top	489	80	-10	-62	3	>300m		
	N15	Northwest	502	77	-10	-62	3	>300m		
	N15a	Northwest	498	78	-10	-62	3	>300m		
	N16	Northwest	504	77	-10	-62	3	>300m		
	N17	Northwest	506	80	-10	-62	3	>300m		
	N18	Northwest	507	77	-10	-62	3	>300m		
	N19	Northwest	509	77	-10	-62	3	>300m		
	N20	Northwest	510	80	-10	-62	3	>300m		
	N20a	Northwest	519	78	-10	-62	3	>300m		
	N21	Northwest	526	77	-10	-62	3	>300m		
	N21a	Northwest	527	78	-10	-62	3	>300m		
	N22	Northwest	630	77	-10	-64	3	>300m		
	N23	Northwest	532	77	-10	-63	3	>300m		
	N24	Northwest	536	77	-10	-63	3	>300m		
	N25	Northwest	535	79	-10	-63	3	>300m		
	N26	Northwest	546	80	-10	-63	3	>300m		
	N27	Northwest	554	77	-10	-63	3	>300m		
	N28	Northwest	554	79	-10	-63	3	>300m		
	N29	Northwest	560	79	-10	-63	3	>300m		
	N30	Northwest	562	77	-10	-63	3	>300m		
	N30a	Northwest	568	78	-10	-63	3	>300m		
	N31	Northwest	560	79	-10	-63	3	>300m		
	N31a	Northeast	565	82	-10	-63	3	>300m		
	N31b	Northeast	559	82	-10	-63	3	>300m		
	N31c	Northeast	566	82	-10	-63	3	>300m		
	N31d	Northeast	560	82	-10	-63	3	>300m		
	N32	Northeast	546	80	-10	-63	3	>300m		
	N32a	Northeast	553	78	-10	-63	3	>300m		
	N32b	Southeast	547	78	-10	-63	3	>300m		
	N33	Southeast	541	80	-10	-63	3	>300m		
	N34	Southeast	534	80	-10	-63	3	>300m		
	N34a	Southeast	526	73	-10	-62	3	>300m		
	N35	Southeast	517	82	-10	-62	3	>300m		
	N36	Southeast	511	80	-10	-62	3	>300m		
	N37	Southeast	510	80	-10	-62	3	>300m		
	N38	Southeast	503	68	-10	-62	3	>300m		
	N39	Southeast	499	80	-10	-62	3	>300m		
	N39a	Southeast	489	75	-10	-62	3	>300m		
	N40	Southeast	479	78	-10	-62	3	>300m		
	N40a	Southeast	475	78	-10	-62	3	>300m		
	N40b	Southeast	484	82	-10	-62	3	>300m		
	N41	Southeast	422	75	-10	-61	3	>300m		
	N41a	Southeast	406	72	-10	-60	3	>300m		
	N43	Southeast	394	72	-10	-60	3	>300m		
	N44	Southeast	389	76	-10	-60	3	>300m		
	N45	Southeast	387	72	-10	-60	3	>300m		
	N45a	Southeast	380	68	-10	-60	3	>300m		
	N45b	Southeast	374	68	-10	-59	3	>300m		
	N46	Southeast	366	76	-10	-59	3	>300m		
	N46a	Southeast	359	75	-10	-59	3	>300m		
	N47	Southwest	372	76	-10	-59	3	>300m		
	N47a	Southwest	367	75	-10	-59	3	>300m		
	N47b	West	376	75	-10	-60	3	>300m		
	N47c	West	384	75	-10	-60	3	>300m		
	N48	Northeast	416	79	-10	-60	3	>300m		
	N49	Northeast	396	76	-10	-60	3	>300m		
	N50	Northeast	505	81	-10	-62	3	>300m		
	N50a	Top	513	81	0	-62	3	>300m		
	N51	Southwest	518	81	-10	-62	3	>300m		
	N52	Southwest	528	78	-10	-62	3	>300m		
	N53	Northeast	405	79	-10	-60	3	>300m		
	N54	Northeast	417	79	-10	-60	3	>300m		
	N55	West	398	79	-10	-60	3	>300m		
	N56	Southwest	392	79	-10	-60	3	>300m		
	NTD01	North	329	78	-10	-58	3	>300m		
	NTD02	North	328	76	-10	-58	3	>300m		
	NTD03	East	309	75	0	-58	3	>300m		
	NTD04	East	286	75	0	-57	3	21		
	NTD05	East	277	75	0	-57	3	21		
	NTD06	East	271	76	0	-57	3	22		
	NTD07	East	267	75	0	-57	3	21		
	NTD08	East	261	75	0	-56	3	22		
	NTD09	East	258	70	0	-56	3	17		
	NTD10	East	251	70	0	-56	3	17		
	NTD11	East	236	70	0	-55	3	18		
	NTD12	West	223	75	-10	-55	3	13		
	NTD13	West	229	79	-10	-55	3	17		
	NTD14	West	234	77	-10	-55	3	15		
	NTD15	West	239	77	-10	-56	3	14		
	NTD15a	West	251	80	-10	-56	3	17		
	NTD16	West	264	80	-10	-56	3	17		

Appendix 4.11 Fixed Plant Noise Calculation

NTD16a	West	299	80	-10	-58	3	15
NTD17	West	311	77	-10	-58	3	>300m
NTD18	West	315	73	-10	-58	3	>300m
NTD19	West	321	73	-10	-58	3	>300m
NTD20	West	326	73	-10	-58	3	>300m
NTD21	West	211	78	-10	-54	3	17
NTD22	West	194	80	-10	-54	3	19
NTD23	West	179	80	-10	-53	3	20
NTD24	West	168	76	-10	-52	3	17
NTD25	West	162	80	-10	-52	3	21
NTD26	West	156	70	-10	-52	3	11
NTD27	West	150	70	-10	-52	3	11
NTD28	West	140	75	-10	-51	3	17
NTD29	West	133	75	-10	-51	3	17
NTD30	West	123	83	-10	-50	3	26
NTD31	Southwest	114	80	-10	-49	3	24
NTD32	Southwest	96	82	-10	-48	3	27
NTD33	Southwest	60	81	-5	-44	3	35
NTD34	Southwest	47	80	-5	-41	3	37
NTD35	South	44	85	-5	-41	3	42
NTD36	South	60	85	-5	-44	3	39
NTD37	South	71	85	-5	-45	3	38
NTD38	South	82	85	-5	-46	3	37
NTD39	South	90	85	-5	-47	3	36
NTD40	Top	91	80	-5	-47	3	31
NTD41	Southeast	90	75	-5	-47	3	26
NTD42	Southeast	91	75	-5	-47	3	26
NTD43	South	98	75	-5	-48	3	25
NTD44	East	130	75	-10	-50	3	18
NTD45	East	129	75	-10	-50	3	18
NTD46	East	129	75	-10	-50	3	18
NTD47	East	129	75	-10	-50	3	18
NTD48	East	129	70	-10	-50	3	13
NTD49	East	129	70	-10	-50	3	13
NTD50	East	130	70	-10	-50	3	13
NTD51	East	131	80	-10	-50	3	23
NTD52	East	132	73	-10	-50	3	16
NTD53	East	133	68	-10	-50	3	11
NTD54	Northeast	139	73	-10	-51	3	15
NTD55	East	194	85	-10	-54	3	24
NTD56	East	209	72	-10	-54	3	11
NTD57	South	216	78	-10	-55	3	16
NTD58	South	221	73	-10	-55	3	11
NTD59	South	226	70	-10	-55	3	8
NTD60	South	232	69	-10	-55	3	7
NTD61	South	239	71	-10	-56	3	8
NTD62	South	246	80	-10	-56	3	17
NTD63	South	254	78	-10	-56	3	15
NTD64	South	264	72	-10	-56	3	9
NTD65	East	304	72	-10	-58	3	>300m
NTD66	East	311	74	-10	-58	3	>300m
NTD67	Northeast	317	73	-10	-58	3	>300m
NTD68	Northeast	319	75	-10	-58	3	>300m
NTD69	Northeast	319	70	-10	-58	3	>300m
NTD70	Northeast	319	75	-10	-58	3	>300m
NTD71	Northeast	319	75	-10	-58	3	>300m
NTD72	Northeast	318	78	-10	-58	3	>300m
NTD73	East	364	75	-10	-59	3	>300m
NTD74	East	368	75	-10	-59	3	>300m
NTD75	East	376	75	-10	-59	3	>300m
NTD76	East	379	75	-10	-60	3	>300m
NTD77	Southeast	469	77	-10	-61	3	>300m
NTD78	Northeast	483	75	-10	-62	3	>300m
NTD79	Northeast	486	76	-10	-62	3	>300m
NTD80	Northeast	490	75	-10	-62	3	>300m
NTD81	Northeast	492	75	-10	-62	3	>300m
NTD82	Northeast	494	75	-10	-62	3	>300m
NTD83	Northeast	500	75	-10	-62	3	>300m
NTD84	Northeast	500	75	-10	-62	3	>300m
NTD85	Northwest	497	75	-10	-62	3	>300m
NTD86	Northwest	480	77	-10	-62	3	>300m
NTD87	Northwest	465	75	-10	-61	3	>300m
NTD88	Northwest	460	74	-10	-61	3	>300m
NTD89	Northwest	442	73	-10	-61	3	>300m
NTD90	Northwest	437	72	-10	-61	3	>300m
NTD91	Northwest	429	75	-10	-61	3	>300m
NTD92	Northwest	420	74	-10	-60	3	>300m
NTD93	West	98	78	0	-48	3	33
NTD94	South	104	73	-10	-48	3	18
NTD94a	South	106	73	-10	-49	3	17
NTD95	South	110	73	-10	-49	3	17
NTD96	South	114	74	-10	-49	3	18
NTD97	Top	116	80	0	-49	3	34
NTD98	Top	121	80	0	-50	3	33
NTD99	Top	127	80	0	-50	3	33
NTD100	South	132	80	-10	-50	3	23
NTD101	Northeast	96	80	0	-48	3	35
NTD102	Northeast	103	75	0	-48	3	30
NTD103	Northeast	106	75	0	-49	3	29
NTD104	Northeast	115	83	0	-49	3	37
NTD105	Southeast	124	73	0	-50	3	26
NTD106	Southeast	130	75	-10	-50	3	18
NTD107	Southeast	138	72	-10	-51	3	14
NTD108	Southeast	140	82	-10	-51	3	24
NTD109	Southeast	145	82	-10	-51	3	24
NTD110	Southeast	144	85	-10	-51	3	27
NTD111	Southwest	104	77	0	-48	3	32
NTD112	Southwest	133	77	0	-50	3	30
NTD113	Southwest	136	77	0	-51	3	29
NTD114	Southwest	133	85	-10	-50	3	28
NTD115	Southwest	114	85	0	-49	3	39

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-PF07a	N01	Northwest	403	74	-10	-60	3	>300m		
	N02	Northwest	412	74	-10	-60	3	>300m		
	N03	Northwest	418	74	-10	-60	3	>300m		
	N04	Northwest	420	72	-10	-60	3	>300m		
	N05	Northwest	423	72	-10	-61	3	>300m		
	N06	Northwest	427	72	-10	-61	3	>300m		
	N07	Northwest	428	72	-10	-61	3	>300m		
	N08	Northwest	429	75	-10	-61	3	>300m		
	N09	Northwest	430	72	-10	-61	3	>300m		
	N10	Northwest	433	72	-10	-61	3	>300m		
	N11	Northwest	435	72	-10	-61	3	>300m		
	N12	Northwest	438	77	-10	-61	3	>300m		
	N12a	Northwest	442	73	-10	-61	3	>300m		
	N12b	Northwest	448	73	-10	-61	3	>300m		
	N12c	Northwest	457	73	-10	-61	3	>300m		
	N12d	Northwest	428	75	-10	-61	3	>300m		
	N13	Top	428	75	-10	-61	3	>300m		
	N14	Top	489	75	-10	-62	3	>300m		
	N15	Northwest	502	72	-10	-62	3	>300m		
	N15a	Northwest	498	73	-10	-62	3	>300m		
	N16	Northwest	504	72	-10	-62	3	>300m		
	N17	Northwest	506	75	-10	-62	3	>300m		
	N18	Northwest	507	72	-10	-62	3	>300m		
	N19	Northwest	509	72	-10	-62	3	>300m		
	N20	Northwest	510	75	-10	-62	3	>300m		
	N20a	Northwest	519	73	-10	-62	3	>300m		
	N21	Northwest	526	72	-10	-62	3	>300m		
	N21a	Northwest	527	73	-10	-62	3	>300m		
	N22	Northwest	630	72	-10	-64	3	>300m		
	N23	Northwest	532	72	-10	-63	3	>300m		
	N24	Northwest	536	72	-10	-63	3	>300m		
	N25	Northwest	535	74	-10	-63	3	>300m		
	N26	Northwest	546	75	-10	-63	3	>300m		
	N27	Northwest	554	72	-10	-63	3	>300m		
	N28	Northwest	554	74	-10	-63	3	>300m		
	N29	Northwest	560	74	-10	-63	3	>300m		
	N30	Northwest	562	72	-10	-63	3	>300m		
	N30a	Northwest	568	73	-10	-63	3	>300m		
	N31	Northwest	560	74	-10	-63	3	>300m		
	N31a	Northeast	565	77	-10	-63	3	>300m		
	N31b	Northeast	559	77	-10	-63	3	>300m		
	N31c	Northeast	566	77	-10	-63	3	>300m		
	N31d	Northeast	560	77	-10	-63	3	>300m		
	N32	Northeast	546	75	-10	-63	3	>300m		
	N32a	Northeast	553	73	-10	-63	3	>300m		
	N32b	Southeast	547	73	-10	-63	3	>300m		
	N33	Southeast	541	75	-10	-63	3	>300m		
	N34	Southeast	534	75	-10	-63	3	>300m		
	N34a	Southeast	526	68	-10	-62	3	>300m		
	N35	Southeast	517	77	-10	-62	3	>300m		
	N36	Southeast	511	75	-10	-62	3	>300m		
	N37	Southeast	510	75	-10	-62	3	>300m		
	N38	Southeast	503	63	-10	-62	3	>300m		
	N39	Southeast	499	75	-10	-62	3	>300m		
	N39a	Southeast	489	70	-10	-62	3	>300m		
	N40	Southeast	479	73	-10	-62	3	>300m		
	N40a	Southeast	475	73	-10	-62	3	>300m		
	N40b	Southwest	484	77	-10	-62	3	>300m		
	N41	Southeast	422	70	-10	-61	3	>300m		
	N41a	Southeast	406	67	-10	-60	3	>300m		
	N43	Southeast	394	67	-10	-60	3	>300m		
	N44	Southeast	389	71	-10	-60	3	>300m		
	N45	Southeast	387	67	-10	-60	3	>300m		
	N45a	Southeast	380	63	-10	-60	3	>300m		
	N45b	Southeast	374	63	-10	-59	3	>300m		
	N46	Southeast	366	71	-10	-59	3	>300m		
	N46a	Southeast	359	70	-10	-59	3	>300m		
	N47	Southwest	372	71	-10	-59	3	>300m		
	N47a	Southwest	367	70	-10	-59	3	>300m		
	N47b	West	376	70	-10	-60	3	>300m		
	N47c	West	384	70	-10	-60	3	>300m		
	N48	Northeast	416	74	-10	-60	3	>300m		
	N49	Northeast	396	71	-10	-60	3	>300m		
	N50	Northeast	505	76	-10	-62	3	>300m		
N50a	Top	513	76	0	-62	3	>300m			
N51	Southwest	518	76	-10	-62	3	>300m			
N52	Southwest	528	73	-10	-62	3	>300m			
N53	Northeast	405	74	-10	-60	3	>300m			
N54	Northeast	417	74	-10	-60	3	>300m			
N55	West	398	74	-10	-60	3	>300m			
N56	Southwest	392	74	-10	-60	3	>300m			
NTD01	North	329	73	-10	-58	3	>300m			
NTD02	North	328	71	-10	-58	3	>300m			
NTD03	East	309	70	0	-58	3	>300m			
NTD04	East	286	70	0	-57	3	16			
NTD05	East	277	70	0	-57	3	16			
NTD06	East	271	71	0	-57	3	17			
NTD07	East	267	70	0	-57	3	16			
NTD08	East	261	70	0	-56	3	17			
NTD09	East	258	65	0	-56	3	12			
NTD10	East	251	65	0	-56	3	12			
NTD11	East	236	65	0	-55	3	13			
NTD12	West	223	70	-10	-55	3	8			
NTD13	West	229	74	-10	-55	3	12			
NTD14	West	234	72	-10	-55	3	10			
NTD15	West	239	72	-10	-56	3	9			
NTD15a	West	251	75	-10	-56	3	12			
NTD16	West	264	75	-10	-56	3	12			
NTD16a	West	299	75	-10	-58	3	10			
NTD17	West	311	72	-10	-58	3	>300m			

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	315	68	-10	-58	3	>300m
NTD19	West	321	68	-10	-58	3	>300m
NTD20	West	326	68	-10	-58	3	>300m
NTD21	West	211	73	-10	-54	3	12
NTD22	West	194	75	-10	-54	3	14
NTD23	West	179	75	-10	-53	3	15
NTD24	West	168	71	-10	-52	3	12
NTD25	West	162	75	-10	-52	3	16
NTD26	West	156	65	-10	-52	3	6
NTD27	West	150	65	-10	-52	3	6
NTD28	West	140	70	-10	-51	3	12
NTD29	West	133	70	-10	-51	3	12
NTD30	West	123	78	-10	-50	3	21
NTD31	Southwest	114	75	-10	-49	3	19
NTD32	Southwest	96	77	-10	-48	3	22
NTD33	Southwest	60	76	-5	-44	3	30
NTD34	Southwest	47	75	-5	-41	3	32
NTD35	South	44	80	-5	-41	3	37
NTD36	South	60	80	-5	-44	3	34
NTD37	South	71	80	-5	-45	3	33
NTD38	South	82	80	-5	-46	3	32
NTD39	South	90	80	-5	-47	3	31
NTD40	Top	91	75	-5	-47	3	26
NTD41	Southeast	90	70	-5	-47	3	21
NTD42	Southeast	91	70	-5	-47	3	21
NTD43	South	98	70	-5	-48	3	20
NTD44	East	130	70	-10	-50	3	13
NTD45	East	129	70	-10	-50	3	13
NTD46	East	129	70	-10	-50	3	13
NTD47	East	129	70	-10	-50	3	13
NTD48	East	129	65	-10	-50	3	8
NTD49	East	129	65	-10	-50	3	8
NTD50	East	130	65	-10	-50	3	8
NTD51	East	131	75	-10	-50	3	18
NTD52	East	132	68	-10	-50	3	11
NTD53	East	133	63	-10	-50	3	6
NTD54	Northeast	139	68	-10	-51	3	10
NTD55	East	194	80	-10	-54	3	19
NTD56	East	209	67	-10	-54	3	6
NTD57	South	216	73	-10	-55	3	11
NTD58	South	221	68	-10	-55	3	6
NTD59	South	226	65	-10	-55	3	3
NTD60	South	232	64	-10	-55	3	2
NTD61	South	239	66	-10	-56	3	3
NTD62	South	246	75	-10	-56	3	12
NTD63	South	254	73	-10	-56	3	10
NTD64	South	264	67	-10	-56	3	4
NTD65	East	304	67	-10	-58	3	>300m
NTD66	East	311	69	-10	-58	3	>300m
NTD67	Northeast	317	68	-10	-58	3	>300m
NTD68	Northeast	319	70	-10	-58	3	>300m
NTD69	Northeast	319	65	-10	-58	3	>300m
NTD70	Northeast	319	70	-10	-58	3	>300m
NTD71	Northeast	319	70	-10	-58	3	>300m
NTD72	Northeast	318	73	-10	-58	3	>300m
NTD73	East	364	70	-10	-59	3	>300m
NTD74	East	368	70	-10	-59	3	>300m
NTD75	East	376	70	-10	-59	3	>300m
NTD76	East	379	70	-10	-60	3	>300m
NTD77	Southeast	469	72	-10	-61	3	>300m
NTD78	Northeast	483	70	-10	-62	3	>300m
NTD79	Northeast	486	71	-10	-62	3	>300m
NTD80	Northeast	490	70	-10	-62	3	>300m
NTD81	Northeast	492	70	-10	-62	3	>300m
NTD82	Northeast	494	70	-10	-62	3	>300m
NTD83	Northeast	500	70	-10	-62	3	>300m
NTD84	Northeast	500	70	-10	-62	3	>300m
NTD85	Northwest	497	70	-10	-62	3	>300m
NTD86	Northwest	480	72	-10	-62	3	>300m
NTD87	Northwest	465	70	-10	-61	3	>300m
NTD88	Northwest	460	69	-10	-61	3	>300m
NTD89	Northwest	442	68	-10	-61	3	>300m
NTD90	Northwest	437	67	-10	-61	3	>300m
NTD91	Northwest	429	70	-10	-61	3	>300m
NTD92	Northwest	420	69	-10	-60	3	>300m
NTD93	West	98	73	0	-48	3	28
NTD94	South	104	68	-10	-48	3	13
NTD94a	South	106	68	-10	-49	3	12
NTD95	South	110	68	-10	-49	3	12
NTD96	South	114	69	-10	-49	3	13
NTD97	Top	116	75	0	-49	3	29
NTD98	Top	121	75	0	-50	3	28
NTD99	Top	127	75	0	-50	3	28
NTD100	South	132	75	-10	-50	3	18
NTD101	Northeast	96	75	0	-48	3	30
NTD102	Northeast	103	70	0	-48	3	25
NTD103	Northeast	106	70	0	-49	3	24
NTD104	Northeast	115	78	0	-49	3	32
NTD105	Southeast	124	68	0	-50	3	21
NTD106	Southeast	130	70	-10	-50	3	13
NTD107	Southeast	138	67	-10	-51	3	9
NTD108	Southeast	140	77	-10	-51	3	19
NTD109	Southeast	145	77	-10	-51	3	19
NTD110	Southeast	144	80	-10	-51	3	22
NTD111	Southwest	104	72	0	-48	3	27
NTD112	Southwest	133	72	0	-50	3	25
NTD113	Southwest	136	72	0	-51	3	24
NTD114	Southwest	133	80	-10	-50	3	23
NTD115	Southwest	114	80	0	-49	3	34

44

50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-PF07b
 Description: Potential Development at NTM LUR

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-PF07b	N01	Northwest	382	79	-10	-60	3	>300m		
	N02	Northwest	392	79	-10	-60	3	>300m		
	N03	Northwest	400	79	-10	-60	3	>300m		
	N04	Northwest	402	77	-10	-60	3	>300m		
	N05	Northwest	405	77	-10	-60	3	>300m		
	N06	Northwest	410	77	-10	-60	3	>300m		
	N07	Northwest	412	77	-10	-60	3	>300m		
	N08	Northwest	412	80	-10	-60	3	>300m		
	N09	Northwest	414	77	-10	-60	3	>300m		
	N10	Northwest	417	77	-10	-60	3	>300m		
	N11	Northwest	420	77	-10	-60	3	>300m		
	N12	Northwest	423	82	-10	-61	3	>300m		
	N12a	Northwest	427	78	-10	-61	3	>300m		
	N12b	Northwest	434	78	-10	-61	3	>300m		
	N12c	Northwest	444	78	-10	-61	3	>300m		
	N12d	Northwest	416	80	-10	-60	3	>300m		
	N13	Top	414	80	-10	-60	3	>300m		
	N14	Top	482	80	-10	-62	3	>300m		
	N15	Northwest	495	77	-10	-62	3	>300m		
	N15a	Northwest	490	78	-10	-62	3	>300m		
	N16	Northwest	497	77	-10	-62	3	>300m		
	N17	Northwest	499	80	-10	-62	3	>300m		
	N18	Northwest	501	77	-10	-62	3	>300m		
	N19	Northwest	503	77	-10	-62	3	>300m		
	N20	Northwest	503	80	-10	-62	3	>300m		
	N20a	Northwest	513	78	-10	-62	3	>300m		
	N21	Northwest	520	77	-10	-62	3	>300m		
	N21a	Northwest	522	78	-10	-62	3	>300m		
	N22	Northwest	651	77	-10	-64	3	>300m		
	N23	Northwest	528	77	-10	-62	3	>300m		
	N24	Northwest	531	77	-10	-63	3	>300m		
	N25	Northwest	531	79	-10	-63	3	>300m		
	N26	Northwest	542	80	-10	-63	3	>300m		
	N27	Northwest	551	77	-10	-63	3	>300m		
	N28	Northwest	552	79	-10	-63	3	>300m		
	N29	Northwest	558	79	-10	-63	3	>300m		
	N30	Northwest	560	77	-10	-63	3	>300m		
	N30a	Northwest	566	78	-10	-63	3	>300m		
	N31	Northwest	559	79	-10	-63	3	>300m		
	N31a	Northeast	564	82	-10	-63	3	>300m		
	N31b	Northeast	559	82	-10	-63	3	>300m		
	N31c	Northeast	565	82	-10	-63	3	>300m		
	N31d	Northeast	559	82	-10	-63	3	>300m		
	N32	Northeast	547	80	-10	-63	3	>300m		
	N32a	Northeast	553	78	-10	-63	3	>300m		
	N32b	Southeast	548	78	-10	-63	3	>300m		
	N33	Southeast	541	80	-10	-63	3	>300m		
	N34	Southeast	534	80	-10	-63	3	>300m		
	N34a	Southeast	526	73	-10	-62	3	>300m		
	N35	Southeast	516	82	-10	-62	3	>300m		
	N36	Southeast	509	80	-10	-62	3	>300m		
	N37	Southeast	508	80	-10	-62	3	>300m		
	N38	Southeast	501	68	-10	-62	3	>300m		
	N39	Southeast	497	80	-10	-62	3	>300m		
	N39a	Southeast	486	75	-10	-62	3	>300m		
	N40	Southeast	475	78	-10	-62	3	>300m		
	N40a	Southeast	471	78	-10	-61	3	>300m		
	N40b	Southeast	478	82	-10	-62	3	>300m		
	N41	Southeast	412	75	-10	-60	3	>300m		
	N41a	Southeast	394	72	-10	-60	3	>300m		
	N43	Southeast	379	72	-10	-60	3	>300m		
	N44	Southeast	374	76	-10	-59	3	>300m		
	N45	Southeast	372	72	-10	-59	3	>300m		
	N45a	Southeast	363	68	-10	-59	3	>300m		
	N45b	Southeast	356	68	-10	-59	3	>300m		
	N46	Southeast	347	76	-10	-59	3	>300m		
	N46a	Southeast	338	75	-10	-59	3	>300m		
	N47	Southeast	352	76	-10	-59	3	>300m		
	N47a	Southeast	345	75	-10	-59	3	>300m		
	N47b	West	354	75	-10	-59	3	>300m		
	N47c	West	362	75	-10	-59	3	>300m		
	N48	Northeast	398	79	-10	-60	3	>300m		
	N49	Northeast	381	76	-10	-60	3	>300m		
	N50	Northeast	501	81	-10	-62	3	>300m		
	N50a	Top	510	81	0	-62	3	>300m		
	N51	Southwest	514	81	-10	-62	3	>300m		
	N52	Southwest	524	78	-10	-62	3	>300m		
	N53	Northeast	392	79	-10	-60	3	>300m		
	N54	Northeast	403	79	-10	-60	3	>300m		
	N55	West	376	79	-10	-60	3	>300m		
	N56	Southwest	371	79	-10	-59	3	>300m		
	NTD01	North	307	78	-10	-58	3	>300m		
	NTD02	North	306	76	-10	-58	3	>300m		
	NTD03	East	287	75	-10	-57	3	11		
	NTD04	East	264	75	-10	-56	3	12		
	NTD05	East	255	75	-10	-56	3	12		
	NTD06	East	249	76	-10	-56	3	13		
	NTD07	East	244	75	-10	-56	3	12		
	NTD08	East	238	75	-10	-56	3	12		
	NTD09	East	234	70	-10	-55	3	8		
	NTD10	East	227	70	-10	-55	3	8		
	NTD11	East	212	70	-10	-55	3	8		
	NTD12	West	196	75	-5	-54	3	19		
	NTD13	West	203	79	-5	-54	3	23		
	NTD14	West	208	77	-5	-54	3	21		
	NTD15	West	213	77	-5	-55	3	20		
	NTD15a	West	225	80	-5	-55	3	23		
	NTD16	West	239	80	-5	-56	3	22		

Appendix 4.11 Fixed Plant Noise Calculation

NTD16a	West	276	80	-5	-57	3	21
NTD17	West	288	77	-5	-57	3	18
NTD18	West	293	73	-5	-57	3	14
NTD19	West	298	73	-5	-57	3	14
NTD20	West	304	73	-5	-58	3	>300m
NTD21	West	183	78	-5	-53	3	23
NTD22	West	165	80	-5	-52	3	26
NTD23	West	148	80	-5	-51	3	27
NTD24	West	136	76	-5	-51	3	23
NTD25	West	130	80	-5	-50	3	28
NTD26	West	123	70	-5	-50	3	18
NTD27	West	116	70	-5	-49	3	19
NTD28	West	105	75	-5	-48	3	25
NTD29	West	97	75	-5	-48	3	25
NTD30	West	85	83	-5	-47	3	34
NTD31	Southwest	74	80	-5	-45	3	33
NTD32	Southwest	52	82	-5	-42	3	38
NTD33	Southwest	7	81	-5	-25	3	54
NTD34	Southwest	12	80	-5	-30	3	48
NTD35	South	87	85	-10	-47	3	31
NTD36	South	110	85	-10	-49	3	29
NTD37	South	122	85	-10	-50	3	28
NTD38	South	134	85	-10	-51	3	27
NTD39	South	143	85	-10	-51	3	27
NTD40	Top	144	80	-10	-51	3	22
NTD41	Southeast	144	75	-10	-51	3	17
NTD42	Southeast	146	75	-10	-51	3	17
NTD43	South	152	75	-10	-52	3	16
NTD44	East	184	75	-10	-53	3	15
NTD45	East	184	75	-10	-53	3	15
NTD46	East	184	75	-10	-53	3	15
NTD47	East	183	75	-10	-53	3	15
NTD48	East	183	70	-10	-53	3	10
NTD49	East	183	70	-10	-53	3	10
NTD50	East	183	70	-10	-53	3	10
NTD51	East	183	80	-10	-53	3	20
NTD52	East	184	73	-10	-53	3	13
NTD53	East	184	68	-10	-53	3	8
NTD54	Northeast	188	73	-10	-53	3	13
NTD55	East	225	85	-10	-55	3	23
NTD56	East	238	72	-10	-56	3	9
NTD57	South	246	78	-10	-56	3	15
NTD58	South	251	73	-10	-56	3	10
NTD59	South	257	70	-10	-56	3	7
NTD60	South	263	69	-10	-56	3	6
NTD61	South	271	71	-10	-57	3	7
NTD62	South	278	80	-10	-57	3	16
NTD63	South	287	78	-10	-57	3	14
NTD64	South	297	72	-10	-57	3	8
NTD65	East	334	72	-10	-58	3	>300m
NTD66	East	339	74	-10	-59	3	>300m
NTD67	Northeast	345	73	-10	-59	3	>300m
NTD68	Northeast	343	75	-10	-59	3	>300m
NTD69	Northeast	342	70	-10	-59	3	>300m
NTD70	Northeast	342	75	-10	-59	3	>300m
NTD71	Northeast	341	75	-10	-59	3	>300m
NTD72	Northeast	339	78	-10	-59	3	>300m
NTD73	East	371	75	-10	-59	3	>300m
NTD74	East	374	75	-10	-59	3	>300m
NTD75	East	381	75	-10	-60	3	>300m
NTD76	East	385	75	-10	-60	3	>300m
NTD77	Southeast	472	77	-10	-61	3	>300m
NTD78	Northeast	486	75	-10	-62	3	>300m
NTD79	Northeast	488	76	-10	-62	3	>300m
NTD80	Northeast	491	75	-10	-62	3	>300m
NTD81	Northeast	493	75	-10	-62	3	>300m
NTD82	Northeast	495	75	-10	-62	3	>300m
NTD83	Northeast	500	75	-10	-62	3	>300m
NTD84	Northeast	500	75	-10	-62	3	>300m
NTD85	Northwest	496	75	-10	-62	3	>300m
NTD86	Northwest	477	77	-10	-62	3	>300m
NTD87	Northwest	462	75	-10	-61	3	>300m
NTD88	Northwest	457	74	-10	-61	3	>300m
NTD89	Northwest	437	73	-10	-61	3	>300m
NTD90	Northwest	431	72	-10	-61	3	>300m
NTD91	Northwest	422	75	-10	-61	3	>300m
NTD92	Northwest	412	74	-10	-60	3	>300m
NTD93	West	152	78	0	-52	3	29
NTD94	South	159	73	-10	-52	3	14
NTD94a	South	161	73	-10	-52	3	14
NTD95	South	165	73	-10	-52	3	14
NTD96	South	168	74	-10	-53	3	14
NTD97	Top	171	80	0	-53	3	30
NTD98	Top	176	80	0	-53	3	30
NTD99	Top	182	80	0	-53	3	30
NTD100	South	187	80	-10	-53	3	20
NTD101	Northeast	127	80	0	-50	3	33
NTD102	Northeast	139	75	0	-51	3	27
NTD103	Northeast	143	75	0	-51	3	27
NTD104	Northeast	155	83	0	-52	3	34
NTD105	Southeast	166	73	0	-52	3	24
NTD106	Southeast	173	75	-10	-53	3	15
NTD107	Southeast	179	72	-10	-53	3	12
NTD108	Southeast	179	82	-10	-53	3	22
NTD109	Southeast	181	82	-10	-53	3	22
NTD110	Southeast	177	85	-10	-53	3	25
NTD111	Southwest	130	77	0	-50	3	30
NTD112	Southwest	169	77	0	-53	3	27
NTD113	Southwest	173	77	0	-53	3	27
NTD114	Southwest	163	85	-10	-52	3	26
NTD115	Southwest	149	85	0	-51	3	37

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-PF07b	N01	Northwest	382	74	-10	-60	3	>300m		
	N02	Northwest	392	74	-10	-60	3	>300m		
	N03	Northwest	400	74	-10	-60	3	>300m		
	N04	Northwest	402	72	-10	-60	3	>300m		
	N05	Northwest	405	72	-10	-60	3	>300m		
	N06	Northwest	410	72	-10	-60	3	>300m		
	N07	Northwest	412	72	-10	-60	3	>300m		
	N08	Northwest	412	75	-10	-60	3	>300m		
	N09	Northwest	414	72	-10	-60	3	>300m		
	N10	Northwest	417	72	-10	-60	3	>300m		
	N11	Northwest	420	72	-10	-60	3	>300m		
	N12	Northwest	423	77	-10	-61	3	>300m		
	N12a	Northwest	427	73	-10	-61	3	>300m		
	N12b	Northwest	434	73	-10	-61	3	>300m		
	N12c	Northwest	444	73	-10	-61	3	>300m		
	N12d	Northwest	416	75	-10	-60	3	>300m		
	N13	Top	414	75	-10	-60	3	>300m		
	N14	Top	482	75	-10	-62	3	>300m		
	N15	Northwest	495	72	-10	-62	3	>300m		
	N15a	Northwest	490	73	-10	-62	3	>300m		
	N16	Northwest	497	72	-10	-62	3	>300m		
	N17	Northwest	499	75	-10	-62	3	>300m		
	N18	Northwest	501	72	-10	-62	3	>300m		
	N19	Northwest	503	72	-10	-62	3	>300m		
	N20	Northwest	503	75	-10	-62	3	>300m		
	N20a	Northwest	513	73	-10	-62	3	>300m		
	N21	Northwest	520	72	-10	-62	3	>300m		
	N21a	Northwest	522	73	-10	-62	3	>300m		
	N22	Northwest	651	72	-10	-64	3	>300m		
	N23	Northwest	528	72	-10	-62	3	>300m		
	N24	Northwest	531	72	-10	-63	3	>300m		
	N25	Northwest	531	74	-10	-63	3	>300m		
	N26	Northwest	542	75	-10	-63	3	>300m		
	N27	Northwest	551	72	-10	-63	3	>300m		
	N28	Northwest	552	74	-10	-63	3	>300m		
	N29	Northwest	558	74	-10	-63	3	>300m		
	N30	Northwest	560	72	-10	-63	3	>300m		
	N30a	Northwest	566	73	-10	-63	3	>300m		
	N31	Northwest	559	74	-10	-63	3	>300m		
	N31a	Northeast	564	77	-10	-63	3	>300m		
	N31b	Northeast	559	77	-10	-63	3	>300m		
	N31c	Northeast	565	77	-10	-63	3	>300m		
	N31d	Northeast	559	77	-10	-63	3	>300m		
	N32	Northeast	547	75	-10	-63	3	>300m		
	N32a	Northeast	553	73	-10	-63	3	>300m		
	N32b	Southeast	548	73	-10	-63	3	>300m		
	N33	Southeast	541	75	-10	-63	3	>300m		
	N34	Southeast	534	75	-10	-63	3	>300m		
	N34a	Southeast	526	68	-10	-62	3	>300m		
	N35	Southeast	516	77	-10	-62	3	>300m		
	N36	Southeast	509	75	-10	-62	3	>300m		
	N37	Southeast	508	75	-10	-62	3	>300m		
	N38	Southeast	501	63	-10	-62	3	>300m		
	N39	Southeast	497	75	-10	-62	3	>300m		
	N39a	Southeast	486	70	-10	-62	3	>300m		
	N40	Southeast	475	73	-10	-62	3	>300m		
	N40a	Southeast	471	73	-10	-61	3	>300m		
	N40b	Southwest	478	77	-10	-62	3	>300m		
	N41	Southeast	412	70	-10	-60	3	>300m		
	N41a	Southeast	394	67	-10	-60	3	>300m		
	N43	Southeast	379	67	-10	-60	3	>300m		
	N44	Southeast	374	71	-10	-59	3	>300m		
	N45	Southeast	372	67	-10	-59	3	>300m		
	N45a	Southeast	363	63	-10	-59	3	>300m		
	N45b	Southeast	356	63	-10	-59	3	>300m		
	N46	Southeast	347	71	-10	-59	3	>300m		
	N46a	Southeast	338	70	-10	-59	3	>300m		
	N47	Southwest	352	71	-10	-59	3	>300m		
	N47a	Southwest	345	70	-10	-59	3	>300m		
	N47b	West	354	70	-10	-59	3	>300m		
	N47c	West	362	70	-10	-59	3	>300m		
	N48	Northeast	398	74	-10	-60	3	>300m		
	N49	Northeast	381	71	-10	-60	3	>300m		
	N50	Northeast	501	76	-10	-62	3	>300m		
N50a	Top	510	76	0	-62	3	>300m			
N51	Southwest	514	76	-10	-62	3	>300m			
N52	Southwest	524	73	-10	-62	3	>300m			
N53	Northeast	392	74	-10	-60	3	>300m			
N54	Northeast	403	74	-10	-60	3	>300m			
N55	West	376	74	-10	-60	3	>300m			
N56	Southwest	371	74	-10	-59	3	>300m			
NTD01	North	307	73	-10	-58	3	>300m			
NTD02	North	306	71	-10	-58	3	>300m			
NTD03	East	287	70	-10	-57	3	6			
NTD04	East	264	70	-10	-56	3	7			
NTD05	East	255	70	-10	-56	3	7			
NTD06	East	249	71	-10	-56	3	8			
NTD07	East	244	70	-10	-56	3	7			
NTD08	East	238	70	-10	-56	3	7			
NTD09	East	234	65	-10	-55	3	3			
NTD10	East	227	65	-10	-55	3	3			
NTD11	East	212	65	-10	-55	3	3			
NTD12	West	196	70	-5	-54	3	14			
NTD13	West	203	74	-5	-54	3	18			
NTD14	West	208	72	-5	-54	3	16			
NTD15	West	213	72	-5	-55	3	15			
NTD15a	West	225	75	-5	-55	3	18			
NTD16	West	239	75	-5	-56	3	17			
NTD16a	West	276	75	-5	-57	3	16			
NTD17	West	288	72	-5	-57	3	13			

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	293	68	-5	-57	3	9
NTD19	West	298	68	-5	-57	3	9
NTD20	West	304	68	-5	-58	3	>300m
NTD21	West	183	73	-5	-53	3	18
NTD22	West	165	75	-5	-52	3	21
NTD23	West	148	75	-5	-51	3	22
NTD24	West	136	71	-5	-51	3	18
NTD25	West	130	75	-5	-50	3	23
NTD26	West	123	65	-5	-50	3	13
NTD27	West	116	65	-5	-49	3	14
NTD28	West	105	70	-5	-48	3	20
NTD29	West	97	70	-5	-48	3	20
NTD30	West	85	78	-5	-47	3	29
NTD31	Southwest	74	75	-5	-45	3	28
NTD32	Southwest	52	77	-5	-42	3	33
NTD33	Southwest	7	76	-5	-25	3	49
NTD34	Southwest	12	75	-5	-30	3	43
NTD35	South	87	80	-10	-47	3	26
NTD36	South	110	80	-10	-49	3	24
NTD37	South	122	80	-10	-50	3	23
NTD38	South	134	80	-10	-51	3	22
NTD39	South	143	80	-10	-51	3	22
NTD40	Top	144	75	-10	-51	3	17
NTD41	Southeast	144	70	-10	-51	3	12
NTD42	Southeast	146	70	-10	-51	3	12
NTD43	South	152	70	-10	-52	3	11
NTD44	East	184	70	-10	-53	3	10
NTD45	East	184	70	-10	-53	3	10
NTD46	East	184	70	-10	-53	3	10
NTD47	East	183	70	-10	-53	3	10
NTD48	East	183	65	-10	-53	3	5
NTD49	East	183	65	-10	-53	3	5
NTD50	East	183	65	-10	-53	3	5
NTD51	East	183	75	-10	-53	3	15
NTD52	East	184	68	-10	-53	3	8
NTD53	East	184	63	-10	-53	3	3
NTD54	Northeast	188	68	-10	-53	3	8
NTD55	East	225	80	-10	-55	3	18
NTD56	East	238	67	-10	-56	3	4
NTD57	South	246	73	-10	-56	3	10
NTD58	South	251	68	-10	-56	3	5
NTD59	South	257	65	-10	-56	3	2
NTD60	South	263	64	-10	-56	3	1
NTD61	South	271	66	-10	-57	3	2
NTD62	South	278	75	-10	-57	3	11
NTD63	South	287	73	-10	-57	3	9
NTD64	South	297	67	-10	-57	3	3
NTD65	East	334	67	-10	-58	3	>300m
NTD66	East	339	69	-10	-59	3	>300m
NTD67	Northeast	345	68	-10	-59	3	>300m
NTD68	Northeast	343	70	-10	-59	3	>300m
NTD69	Northeast	342	65	-10	-59	3	>300m
NTD70	Northeast	342	70	-10	-59	3	>300m
NTD71	Northeast	341	70	-10	-59	3	>300m
NTD72	Northeast	339	73	-10	-59	3	>300m
NTD73	East	371	70	-10	-59	3	>300m
NTD74	East	374	70	-10	-59	3	>300m
NTD75	East	381	70	-10	-60	3	>300m
NTD76	East	385	70	-10	-60	3	>300m
NTD77	Southeast	472	72	-10	-61	3	>300m
NTD78	Northeast	486	70	-10	-62	3	>300m
NTD79	Northeast	488	71	-10	-62	3	>300m
NTD80	Northeast	491	70	-10	-62	3	>300m
NTD81	Northeast	493	70	-10	-62	3	>300m
NTD82	Northeast	495	70	-10	-62	3	>300m
NTD83	Northeast	500	70	-10	-62	3	>300m
NTD84	Northeast	500	70	-10	-62	3	>300m
NTD85	Northwest	496	70	-10	-62	3	>300m
NTD86	Northwest	477	72	-10	-62	3	>300m
NTD87	Northwest	462	70	-10	-61	3	>300m
NTD88	Northwest	457	69	-10	-61	3	>300m
NTD89	Northwest	437	68	-10	-61	3	>300m
NTD90	Northwest	431	67	-10	-61	3	>300m
NTD91	Northwest	422	70	-10	-61	3	>300m
NTD92	Northwest	412	69	-10	-60	3	>300m
NTD93	West	152	73	0	-52	3	24
NTD94	South	159	68	-10	-52	3	9
NTD94a	South	161	68	-10	-52	3	9
NTD95	South	165	68	-10	-52	3	9
NTD96	South	168	69	-10	-53	3	9
NTD97	Top	171	75	0	-53	3	25
NTD98	Top	176	75	0	-53	3	25
NTD99	Top	182	75	0	-53	3	25
NTD100	South	187	75	-10	-53	3	15
NTD101	Northeast	127	75	0	-50	3	28
NTD102	Northeast	139	70	0	-51	3	22
NTD103	Northeast	143	70	0	-51	3	22
NTD104	Northeast	155	78	0	-52	3	29
NTD105	Southeast	166	68	0	-52	3	19
NTD106	Southeast	173	70	-10	-53	3	10
NTD107	Southeast	179	67	-10	-53	3	7
NTD108	Southeast	179	77	-10	-53	3	17
NTD109	Southeast	181	77	-10	-53	3	17
NTD110	Southeast	177	80	-10	-53	3	20
NTD111	Southwest	130	72	0	-50	3	25
NTD112	Southwest	169	72	0	-53	3	22
NTD113	Southwest	173	72	0	-53	3	22
NTD114	Southwest	163	80	-10	-52	3	21
NTD115	Southwest	149	80	0	-51	3	32

50

50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-PF07c
 Description: Potential Development at NTM LUR

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-PF07c	N01	Northwest	324	79	-10	-58	3	>300m		
	N02	Northwest	335	79	-10	-58	3	>300m		
	N03	Northwest	343	79	-10	-59	3	>300m		
	N04	Northwest	345	77	-10	-59	3	>300m		
	N05	Northwest	349	77	-10	-59	3	>300m		
	N06	Northwest	353	77	-10	-59	3	>300m		
	N07	Northwest	356	77	-10	-59	3	>300m		
	N08	Northwest	356	80	-10	-59	3	>300m		
	N09	Northwest	358	77	-10	-59	3	>300m		
	N10	Northwest	361	77	-10	-59	3	>300m		
	N11	Northwest	364	77	-10	-59	3	>300m		
	N12	Northwest	368	82	-10	-59	3	>300m		
	N12a	Northwest	372	78	-10	-59	3	>300m		
	N12b	Northwest	379	78	-10	-60	3	>300m		
	N12c	Northwest	390	78	-10	-60	3	>300m		
	N12d	Northwest	362	80	-10	-59	3	>300m		
	N13	Top	359	80	-10	-59	3	>300m		
	N14	Top	431	80	-10	-61	3	>300m		
	N15	Northwest	444	77	-10	-61	3	>300m		
	N15a	Northwest	439	78	-10	-61	3	>300m		
	N16	Northwest	445	77	-10	-61	3	>300m		
	N17	Northwest	448	80	-10	-61	3	>300m		
	N18	Northwest	450	77	-10	-61	3	>300m		
	N19	Northwest	452	77	-10	-61	3	>300m		
	N20	Northwest	452	80	-10	-61	3	>300m		
	N20a	Northwest	463	78	-10	-61	3	>300m		
	N21	Northwest	470	77	-10	-61	3	>300m		
	N21a	Northwest	472	78	-10	-61	3	>300m		
	N22	Northwest	623	77	-10	-64	3	>300m		
	N23	Northwest	478	77	-10	-62	3	>300m		
	N24	Northwest	482	77	-10	-62	3	>300m		
	N25	Northwest	482	79	-10	-62	3	>300m		
	N26	Northwest	493	80	-10	-62	3	>300m		
	N27	Northwest	503	77	-10	-62	3	>300m		
	N28	Northwest	503	79	-10	-62	3	>300m		
	N29	Northwest	510	79	-10	-62	3	>300m		
	N30	Northwest	512	77	-10	-62	3	>300m		
	N30a	Northwest	518	78	-10	-62	3	>300m		
	N31	Northwest	511	79	-10	-62	3	>300m		
	N31a	Northeast	517	82	-10	-62	3	>300m		
	N31b	Northeast	512	82	-10	-62	3	>300m		
	N31c	Northeast	517	82	-10	-62	3	>300m		
	N31d	Northeast	513	82	-10	-62	3	>300m		
	N32	Northeast	501	80	-10	-62	3	>300m		
	N32a	Northeast	507	78	-10	-62	3	>300m		
	N32b	Southeast	502	78	-10	-62	3	>300m		
	N33	Southeast	495	80	-10	-62	3	>300m		
	N34	Southeast	488	80	-10	-62	3	>300m		
	N34a	Southeast	479	73	-10	-62	3	>300m		
	N35	Southeast	469	82	-10	-61	3	>300m		
	N36	Southeast	462	80	-10	-61	3	>300m		
	N37	Southeast	460	80	-10	-61	3	>300m		
	N38	Southeast	453	68	-10	-61	3	>300m		
	N39	Southeast	449	80	-10	-61	3	>300m		
	N39a	Southeast	437	75	-10	-61	3	>300m		
	N40	Southeast	426	78	-10	-61	3	>300m		
	N40a	Southeast	422	78	-10	-61	3	>300m		
	N40b	Southeast	427	82	-10	-61	3	>300m		
	N41	Southeast	359	75	-10	-59	3	>300m		
	N41a	Southeast	340	72	-10	-59	3	>300m		
	N43	Southeast	325	72	-10	-58	3	>300m		
	N44	Southeast	319	76	-10	-58	3	>300m		
	N45	Southeast	316	72	-10	-58	3	>300m		
	N45a	Southeast	307	68	-10	-58	3	>300m		
	N45b	Southeast	300	68	-10	-58	3	3		
	N46	Southeast	290	76	-10	-57	3	12		
	N46a	Southeast	281	75	-10	-57	3	11		
	N47	Southwest	295	76	-10	-57	3	12		
	N47a	Southwest	287	75	-10	-57	3	11		
	N47b	West	296	75	-10	-57	3	11		
	N47c	West	304	75	-10	-58	3	>300m		
	N48	Northeast	342	79	-10	-59	3	>300m		
	N49	Northeast	326	76	-10	-58	3	>300m		
	N50	Northeast	452	81	-10	-61	3	>300m		
	N50a	Top	462	81	0	-61	3	>300m		
	N51	Southwest	465	81	-10	-61	3	>300m		
	N52	Southwest	475	78	-10	-62	3	>300m		
	N53	Northeast	337	79	-10	-59	3	>300m		
	N54	Northeast	347	79	-10	-59	3	>300m		
	N55	West	318	79	-10	-58	3	>300m		
	N56	Southwest	313	79	-10	-58	3	>300m		
	NTD01	North	249	78	-10	-56	3	15		
	NTD02	North	249	76	-10	-56	3	13		
	NTD03	East	230	75	-10	-55	3	13		
	NTD04	East	207	75	-10	-54	3	14		
	NTD05	East	197	75	-10	-54	3	14		
	NTD06	East	192	76	-10	-54	3	15		
	NTD07	East	187	75	-10	-53	3	15		
	NTD08	East	180	75	-10	-53	3	15		
	NTD09	East	176	70	-10	-53	3	10		
	NTD10	East	170	70	-10	-53	3	10		
	NTD11	East	154	70	-10	-52	3	11		
	NTD12	West	138	75	-5	-51	3	22		
	NTD13	West	144	79	-5	-51	3	26		
	NTD14	West	149	77	-5	-51	3	24		
	NTD15	West	155	77	-5	-52	3	23		
	NTD15a	West	167	80	-5	-52	3	26		
	NTD16	West	181	80	-5	-53	3	25		

Appendix 4.11 Fixed Plant Noise Calculation

NTD16a	West	218	80	-5	-55	3	23
NTD17	West	230	77	-5	-55	3	20
NTD18	West	235	73	-5	-55	3	16
NTD19	West	240	73	-5	-56	3	15
NTD20	West	245	73	-5	-56	3	15
NTD21	West	125	78	-5	-50	3	26
NTD22	West	106	80	-5	-49	3	29
NTD23	West	89	80	-5	-47	3	31
NTD24	West	77	76	-5	-46	3	28
NTD25	West	70	80	-5	-45	3	33
NTD26	West	63	70	-5	-44	3	24
NTD27	West	56	70	-5	-43	3	25
NTD28	West	45	75	-5	-41	3	32
NTD29	West	37	75	-5	-39	3	34
NTD30	West	25	83	-5	-36	3	45
NTD31	Southwest	13	80	-5	-30	3	48
NTD32	Southwest	9	82	-5	-27	3	53
NTD33	Southwest	54	81	-5	-43	3	36
NTD34	Southwest	73	80	-5	-45	3	33
NTD35	South	143	85	-10	-51	3	27
NTD36	South	163	85	-10	-52	3	26
NTD37	South	175	85	-10	-53	3	25
NTD38	South	185	85	-10	-53	3	25
NTD39	South	193	85	-10	-54	3	24
NTD40	Top	193	80	-10	-54	3	19
NTD41	Southeast	192	75	-10	-54	3	14
NTD42	Southeast	189	75	-10	-54	3	14
NTD43	South	194	75	-10	-54	3	14
NTD44	East	223	75	-10	-55	3	13
NTD45	East	222	75	-10	-55	3	13
NTD46	East	221	75	-10	-55	3	13
NTD47	East	220	75	-10	-55	3	13
NTD48	East	217	70	-10	-55	3	8
NTD49	East	215	70	-10	-55	3	8
NTD50	East	213	70	-10	-55	3	8
NTD51	East	212	80	-10	-55	3	18
NTD52	East	211	73	-10	-54	3	12
NTD53	East	210	68	-10	-54	3	7
NTD54	Northeast	208	73	-10	-54	3	12
NTD55	East	218	85	-10	-55	3	23
NTD56	East	229	72	-10	-55	3	10
NTD57	South	236	78	-10	-55	3	16
NTD58	South	241	73	-10	-56	3	10
NTD59	South	248	70	-10	-56	3	7
NTD60	South	255	69	-10	-56	3	6
NTD61	South	263	71	-10	-56	3	8
NTD62	South	271	80	-10	-57	3	16
NTD63	South	280	78	-10	-57	3	14
NTD64	South	291	72	-10	-57	3	8
NTD65	East	320	72	-10	-58	3	>300m
NTD66	East	325	74	-10	-58	3	>300m
NTD67	Northeast	328	73	-10	-58	3	>300m
NTD68	Northeast	324	75	-10	-58	3	>300m
NTD69	Northeast	321	70	-10	-58	3	>300m
NTD70	Northeast	320	75	-10	-58	3	>300m
NTD71	Northeast	319	75	-10	-58	3	>300m
NTD72	Northeast	315	78	-10	-58	3	>300m
NTD73	East	331	75	-10	-58	3	>300m
NTD74	East	335	75	-10	-58	3	>300m
NTD75	East	341	75	-10	-59	3	>300m
NTD76	East	345	75	-10	-59	3	>300m
NTD77	Southeast	429	77	-10	-61	3	>300m
NTD78	Northeast	442	75	-10	-61	3	>300m
NTD79	Northeast	444	76	-10	-61	3	>300m
NTD80	Northeast	447	75	-10	-61	3	>300m
NTD81	Northeast	448	75	-10	-61	3	>300m
NTD82	Northeast	450	75	-10	-61	3	>300m
NTD83	Northeast	454	75	-10	-61	3	>300m
NTD84	Northeast	454	75	-10	-61	3	>300m
NTD85	Northwest	449	75	-10	-61	3	>300m
NTD86	Northwest	430	77	-10	-61	3	>300m
NTD87	Northwest	414	75	-10	-60	3	>300m
NTD88	Northwest	408	74	-10	-60	3	>300m
NTD89	Northwest	387	73	-10	-60	3	>300m
NTD90	Northwest	381	72	-10	-60	3	>300m
NTD91	Northwest	372	75	-10	-59	3	>300m
NTD92	Northwest	361	74	-10	-59	3	>300m
NTD93	West	198	78	-10	-54	3	17
NTD94	South	205	73	-10	-54	3	12
NTD94a	South	207	73	-10	-54	3	12
NTD95	South	210	73	-10	-54	3	12
NTD96	South	214	74	-10	-55	3	12
NTD97	Top	215	80	0	-55	3	28
NTD98	Top	220	80	0	-55	3	28
NTD99	Top	225	80	0	-55	3	28
NTD100	South	230	80	-10	-55	3	18
NTD101	Northeast	188	80	-10	-53	3	20
NTD102	Northeast	199	75	-10	-54	3	14
NTD103	Northeast	203	75	-10	-54	3	14
NTD104	Northeast	214	83	-10	-55	3	21
NTD105	Southeast	224	73	-10	-55	3	11
NTD106	Southeast	231	75	-10	-55	3	13
NTD107	Southeast	238	72	-10	-56	3	9
NTD108	Southeast	239	82	-10	-56	3	19
NTD109	Southeast	241	82	-10	-56	3	19
NTD110	Southeast	238	85	-10	-56	3	22
NTD111	Southwest	191	77	-10	-54	3	16
NTD112	Southwest	229	77	-10	-55	3	15
NTD113	Southwest	233	77	-10	-55	3	15
NTD114	Southwest	224	85	-10	-55	3	23
NTD115	Southwest	209	85	-10	-54	3	24

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-PF07c	N01	Northwest	324	74	-10	-58	3	>300m		
	N02	Northwest	335	74	-10	-58	3	>300m		
	N03	Northwest	343	74	-10	-59	3	>300m		
	N04	Northwest	345	72	-10	-59	3	>300m		
	N05	Northwest	349	72	-10	-59	3	>300m		
	N06	Northwest	353	72	-10	-59	3	>300m		
	N07	Northwest	356	72	-10	-59	3	>300m		
	N08	Northwest	356	75	-10	-59	3	>300m		
	N09	Northwest	358	72	-10	-59	3	>300m		
	N10	Northwest	361	72	-10	-59	3	>300m		
	N11	Northwest	364	72	-10	-59	3	>300m		
	N12	Northwest	368	77	-10	-59	3	>300m		
	N12a	Northwest	372	73	-10	-59	3	>300m		
	N12b	Northwest	379	73	-10	-60	3	>300m		
	N12c	Northwest	390	73	-10	-60	3	>300m		
	N12d	Northwest	362	75	-10	-59	3	>300m		
	N13	Top	359	75	-10	-59	3	>300m		
	N14	Top	431	75	-10	-61	3	>300m		
	N15	Northwest	444	72	-10	-61	3	>300m		
	N15a	Northwest	439	73	-10	-61	3	>300m		
	N16	Northwest	445	72	-10	-61	3	>300m		
	N17	Northwest	448	75	-10	-61	3	>300m		
	N18	Northwest	450	72	-10	-61	3	>300m		
	N19	Northwest	452	72	-10	-61	3	>300m		
	N20	Northwest	452	75	-10	-61	3	>300m		
	N20a	Northwest	463	73	-10	-61	3	>300m		
	N21	Northwest	470	72	-10	-61	3	>300m		
	N21a	Northwest	472	73	-10	-61	3	>300m		
	N22	Northwest	623	72	-10	-64	3	>300m		
	N23	Northwest	478	72	-10	-62	3	>300m		
	N24	Northwest	482	72	-10	-62	3	>300m		
	N25	Northwest	482	74	-10	-62	3	>300m		
	N26	Northwest	493	75	-10	-62	3	>300m		
	N27	Northwest	503	72	-10	-62	3	>300m		
	N28	Northwest	503	74	-10	-62	3	>300m		
	N29	Northwest	510	74	-10	-62	3	>300m		
	N30	Northwest	512	72	-10	-62	3	>300m		
	N30a	Northwest	518	73	-10	-62	3	>300m		
	N31	Northwest	511	74	-10	-62	3	>300m		
	N31a	Northeast	517	77	-10	-62	3	>300m		
	N31b	Northeast	512	77	-10	-62	3	>300m		
	N31c	Northeast	517	77	-10	-62	3	>300m		
	N31d	Northeast	513	77	-10	-62	3	>300m		
	N32	Northeast	501	75	-10	-62	3	>300m		
	N32a	Northeast	507	73	-10	-62	3	>300m		
	N32b	Southeast	502	73	-10	-62	3	>300m		
	N33	Southeast	495	75	-10	-62	3	>300m		
	N34	Southeast	488	75	-10	-62	3	>300m		
	N34a	Southeast	479	68	-10	-62	3	>300m		
	N35	Southeast	469	77	-10	-61	3	>300m		
	N36	Southeast	462	75	-10	-61	3	>300m		
	N37	Southeast	460	75	-10	-61	3	>300m		
	N38	Southeast	453	63	-10	-61	3	>300m		
	N39	Southeast	449	75	-10	-61	3	>300m		
	N39a	Southeast	437	70	-10	-61	3	>300m		
	N40	Southeast	426	73	-10	-61	3	>300m		
	N40a	Southeast	422	73	-10	-61	3	>300m		
	N40b	Southwest	427	77	-10	-61	3	>300m		
	N41	Southwest	359	70	-10	-59	3	>300m		
	N41a	Southwest	340	67	-10	-59	3	>300m		
	N43	Southwest	325	67	-10	-58	3	>300m		
	N44	Southwest	319	71	-10	-58	3	>300m		
	N45	Southwest	316	67	-10	-58	3	>300m		
	N45a	Southwest	307	63	-10	-58	3	>300m		
	N45b	Southwest	300	63	-10	-58	3	>300m		
	N46	Southwest	290	71	-10	-57	3	7		
	N46a	Southwest	281	70	-10	-57	3	6		
	N47	Southwest	295	71	-10	-57	3	7		
	N47a	Southwest	287	70	-10	-57	3	6		
	N47b	West	296	70	-10	-57	3	6		
	N47c	West	304	70	-10	-58	3	>300m		
	N48	Northeast	342	74	-10	-59	3	>300m		
N49	Northeast	326	71	-10	-58	3	>300m			
N50	Northeast	452	76	-10	-61	3	>300m			
N50a	Top	462	76	0	-61	3	>300m			
N51	Southwest	465	76	-10	-61	3	>300m			
N52	Southwest	475	73	-10	-62	3	>300m			
N53	Northeast	337	74	-10	-59	3	>300m			
N54	Northeast	347	74	-10	-59	3	>300m			
N55	West	318	74	-10	-58	3	>300m			
N56	Southwest	313	74	-10	-58	3	>300m			
NTD01	North	249	73	-10	-56	3	10			
NTD02	North	249	71	-10	-56	3	8			
NTD03	East	230	70	-10	-55	3	8			
NTD04	East	207	70	-10	-54	3	9			
NTD05	East	197	70	-10	-54	3	9			
NTD06	East	192	71	-10	-54	3	10			
NTD07	East	187	70	-10	-53	3	10			
NTD08	East	180	70	-10	-53	3	10			
NTD09	East	176	65	-10	-53	3	5			
NTD10	East	170	65	-10	-53	3	5			
NTD11	East	154	65	-10	-52	3	6			
NTD12	West	138	70	-5	-51	3	17			
NTD13	West	144	74	-5	-51	3	21			
NTD14	West	149	72	-5	-51	3	19			
NTD15	West	155	72	-5	-52	3	18			
NTD15a	West	167	75	-5	-52	3	21			
NTD16	West	181	75	-5	-53	3	20			
NTD16a	West	218	75	-5	-55	3	18			
NTD17	West	230	72	-5	-55	3	15			

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	235	68	-5	-55	3	11
NTD19	West	240	68	-5	-56	3	10
NTD20	West	245	68	-5	-56	3	10
NTD21	West	125	73	-5	-50	3	21
NTD22	West	106	75	-5	-49	3	24
NTD23	West	89	75	-5	-47	3	26
NTD24	West	77	71	-5	-46	3	23
NTD25	West	70	75	-5	-45	3	28
NTD26	West	63	65	-5	-44	3	19
NTD27	West	56	65	-5	-43	3	20
NTD28	West	45	70	-5	-41	3	27
NTD29	West	37	70	-5	-39	3	29
NTD30	West	25	78	-5	-36	3	40
NTD31	Southwest	13	75	-5	-30	3	43
NTD32	Southwest	9	77	-5	-27	3	48
NTD33	Southwest	54	76	-5	-43	3	31
NTD34	Southwest	73	75	-5	-45	3	28
NTD35	South	143	80	-10	-51	3	22
NTD36	South	163	80	-10	-52	3	21
NTD37	South	175	80	-10	-53	3	20
NTD38	South	185	80	-10	-53	3	20
NTD39	South	193	80	-10	-54	3	19
NTD40	Top	193	75	-10	-54	3	14
NTD41	Southeast	192	70	-10	-54	3	9
NTD42	Southeast	189	70	-10	-54	3	9
NTD43	South	194	70	-10	-54	3	9
NTD44	East	223	70	-10	-55	3	8
NTD45	East	222	70	-10	-55	3	8
NTD46	East	221	70	-10	-55	3	8
NTD47	East	220	70	-10	-55	3	8
NTD48	East	217	65	-10	-55	3	3
NTD49	East	215	65	-10	-55	3	3
NTD50	East	213	65	-10	-55	3	3
NTD51	East	212	75	-10	-55	3	13
NTD52	East	211	68	-10	-54	3	7
NTD53	East	210	63	-10	-54	3	2
NTD54	Northeast	208	68	-10	-54	3	7
NTD55	East	218	80	-10	-55	3	18
NTD56	East	229	67	-10	-55	3	5
NTD57	South	236	73	-10	-55	3	11
NTD58	South	241	68	-10	-56	3	5
NTD59	South	248	65	-10	-56	3	2
NTD60	South	255	64	-10	-56	3	1
NTD61	South	263	66	-10	-56	3	3
NTD62	South	271	75	-10	-57	3	11
NTD63	South	280	73	-10	-57	3	9
NTD64	South	291	67	-10	-57	3	3
NTD65	East	320	67	-10	-58	3	>300m
NTD66	East	325	69	-10	-58	3	>300m
NTD67	Northeast	328	68	-10	-58	3	>300m
NTD68	Northeast	324	70	-10	-58	3	>300m
NTD69	Northeast	321	65	-10	-58	3	>300m
NTD70	Northeast	320	70	-10	-58	3	>300m
NTD71	Northeast	319	70	-10	-58	3	>300m
NTD72	Northeast	315	73	-10	-58	3	>300m
NTD73	East	331	70	-10	-58	3	>300m
NTD74	East	335	70	-10	-58	3	>300m
NTD75	East	341	70	-10	-59	3	>300m
NTD76	East	345	70	-10	-59	3	>300m
NTD77	Southeast	429	72	-10	-61	3	>300m
NTD78	Northeast	442	70	-10	-61	3	>300m
NTD79	Northeast	444	71	-10	-61	3	>300m
NTD80	Northeast	447	70	-10	-61	3	>300m
NTD81	Northeast	448	70	-10	-61	3	>300m
NTD82	Northeast	450	70	-10	-61	3	>300m
NTD83	Northeast	454	70	-10	-61	3	>300m
NTD84	Northeast	454	70	-10	-61	3	>300m
NTD85	Northwest	449	70	-10	-61	3	>300m
NTD86	Northwest	430	72	-10	-61	3	>300m
NTD87	Northwest	414	70	-10	-60	3	>300m
NTD88	Northwest	408	69	-10	-60	3	>300m
NTD89	Northwest	387	68	-10	-60	3	>300m
NTD90	Northwest	381	67	-10	-60	3	>300m
NTD91	Northwest	372	70	-10	-59	3	>300m
NTD92	Northwest	361	69	-10	-59	3	>300m
NTD93	West	198	73	-10	-54	3	12
NTD94	South	205	68	-10	-54	3	7
NTD94a	South	207	68	-10	-54	3	7
NTD95	South	210	68	-10	-54	3	7
NTD96	South	214	69	-10	-55	3	7
NTD97	Top	215	75	0	-55	3	23
NTD98	Top	220	75	0	-55	3	23
NTD99	Top	225	75	0	-55	3	23
NTD100	South	230	75	-10	-55	3	13
NTD101	Northeast	188	75	-10	-53	3	15
NTD102	Northeast	199	70	-10	-54	3	9
NTD103	Northeast	203	70	-10	-54	3	9
NTD104	Northeast	214	78	-10	-55	3	16
NTD105	Southeast	224	68	-10	-55	3	6
NTD106	Southeast	231	70	-10	-55	3	8
NTD107	Southeast	238	67	-10	-56	3	4
NTD108	Southeast	239	77	-10	-56	3	14
NTD109	Southeast	241	77	-10	-56	3	14
NTD110	Southeast	238	80	-10	-56	3	17
NTD111	Southwest	191	72	-10	-54	3	11
NTD112	Southwest	229	72	-10	-55	3	10
NTD113	Southwest	233	72	-10	-55	3	10
NTD114	Southwest	224	80	-10	-55	3	18
NTD115	Southwest	209	80	-10	-54	3	19

50

50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-PF07d
 Description: Potential Development at NTM LUR

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-PF07d	N01	Northwest	265	79	-10	-56	3	16		
	N02	Northwest	276	79	-10	-57	3	15		
	N03	Northwest	285	79	-10	-57	3	15		
	N04	Northwest	286	77	-10	-57	3	13		
	N05	Northwest	290	77	-10	-57	3	13		
	N06	Northwest	295	77	-10	-57	3	13		
	N07	Northwest	297	77	-10	-57	3	13		
	N08	Northwest	298	80	-10	-57	3	16		
	N09	Northwest	300	77	-10	-58	3	12		
	N10	Northwest	303	77	-10	-58	3	>300m		
	N11	Northwest	306	77	-10	-58	3	>300m		
	N12	Northwest	310	82	-10	-58	3	>300m		
	N12a	Northwest	314	78	-10	-58	3	>300m		
	N12b	Northwest	321	78	-10	-58	3	>300m		
	N12c	Northwest	333	78	-10	-58	3	>300m		
	N12d	Northwest	305	80	-10	-58	3	>300m		
N13	Top	301	80	-10	-58	3	>300m			
N14	Top	376	80	-10	-59	3	>300m			
N15	Northwest	388	77	-10	-60	3	>300m			
N15a	Northwest	383	78	-10	-60	3	>300m			
N16	Northwest	390	77	-10	-60	3	>300m			
N17	Northwest	392	80	-10	-60	3	>300m			
N18	Northwest	394	77	-10	-60	3	>300m			
N19	Northwest	396	77	-10	-60	3	>300m			
N20	Northwest	397	80	-10	-60	3	>300m			
N20a	Northwest	407	78	-10	-60	3	>300m			
N21	Northwest	415	77	-10	-60	3	>300m			
N21a	Northwest	417	78	-10	-60	3	>300m			
N22	Northwest	586	77	-10	-63	3	>300m			
N23	Northwest	423	77	-10	-61	3	>300m			
N24	Northwest	427	77	-10	-61	3	>300m			
N25	Northwest	427	79	-10	-61	3	>300m			
N26	Northwest	439	80	-10	-61	3	>300m			
N27	Northwest	449	77	-10	-61	3	>300m			
N28	Northwest	449	79	-10	-61	3	>300m			
N29	Northwest	456	79	-10	-61	3	>300m			
N30	Northwest	458	77	-10	-61	3	>300m			
N30a	Northwest	464	78	-10	-61	3	>300m			
N31	Northwest	458	79	-10	-61	3	>300m			
N31a	Northwest	464	82	-10	-61	3	>300m			
N31b	Northwest	459	82	-10	-61	3	>300m			
N31c	Northwest	464	82	-10	-61	3	>300m			
N31d	Northwest	460	82	-10	-61	3	>300m			
N32	Northwest	448	80	-10	-61	3	>300m			
N32a	Northwest	455	78	-10	-61	3	>300m			
N32b	Southwest	450	78	-10	-61	3	>300m			
N33	Southwest	443	80	-10	-61	3	>300m			
N34	Southwest	436	80	-10	-61	3	>300m			
N34a	Southwest	427	73	-10	-61	3	>300m			
N35	Southwest	416	82	-10	-60	3	>300m			
N36	Southwest	409	80	-10	-60	3	>300m			
N37	Southwest	406	80	-10	-60	3	>300m			
N38	Southwest	400	68	-10	-60	3	>300m			
N39	Southwest	396	80	-10	-60	3	>300m			
N39a	Southwest	384	75	-10	-60	3	>300m			
N40	Southwest	372	78	-10	-59	3	>300m			
N40a	Southwest	368	78	-10	-59	3	>300m			
N40b	Southwest	372	82	-10	-59	3	>300m			
N41	Southwest	303	75	-10	-58	3	>300m			
N41a	Southwest	283	72	-10	-57	3	8			
N43	Southwest	267	72	-10	-57	3	8			
N44	Southwest	261	76	-10	-56	3	13			
N45	Southwest	258	72	-10	-56	3	9			
N45a	Southwest	248	68	-10	-56	3	5			
N45b	Southwest	241	68	-10	-56	3	5			
N46	Southwest	231	76	-10	-55	3	14			
N46a	Southwest	222	75	-10	-55	3	13			
N47	Southwest	236	76	-10	-55	3	14			
N47a	Southwest	228	75	-10	-55	3	13			
N47b	West	237	75	-10	-55	3	13			
N47c	West	245	75	-10	-56	3	12			
N48	Northwest	284	79	-10	-57	3	15			
N49	Northwest	268	76	-10	-57	3	12			
N50	Northwest	398	81	-10	-60	3	>300m			
N50a	Top	408	81	0	-60	3	>300m			
N51	Southwest	411	81	-10	-60	3	>300m			
N52	Southwest	420	78	-10	-60	3	>300m			
N53	Northwest	280	79	-10	-57	3	15			
N54	Northwest	289	79	-10	-57	3	15			
N55	West	258	79	-10	-56	3	16			
N56	Southwest	254	79	-10	-56	3	16			
NTD01	North	190	78	-10	-54	3	17			
NTD02	North	190	76	-10	-54	3	15			
NTD03	East	171	75	-10	-53	3	15			
NTD04	East	148	75	-10	-51	3	17			
NTD05	East	138	75	-10	-51	3	17			
NTD06	East	133	76	-10	-50	3	19			
NTD07	East	128	75	-10	-50	3	18			
NTD08	East	121	75	-10	-50	3	18			
NTD09	East	117	70	-10	-49	3	14			
NTD10	East	111	70	-10	-49	3	14			
NTD11	East	96	70	-10	-48	3	15			
NTD12	West	78	75	-5	-46	3	27			
NTD13	West	85	79	-5	-47	3	30			
NTD14	West	90	77	-5	-47	3	28			
NTD15	West	96	77	-5	-48	3	27			
NTD15a	West	107	80	-5	-49	3	29			
NTD16	West	121	80	-5	-50	3	28			

Appendix 4.11 Fixed Plant Noise Calculation

NTD16a	West	159	80	-5	-52	3	26
NTD17	West	170	77	-5	-53	3	22
NTD18	West	175	73	-5	-53	3	18
NTD19	West	181	73	-5	-53	3	18
NTD20	West	186	73	-5	-53	3	18
NTD21	West	65	78	-5	-44	3	32
NTD22	West	47	80	-5	-41	3	37
NTD23	West	30	80	-5	-37	3	41
NTD24	West	18	76	-5	-33	3	41
NTD25	West	11	80	-5	-29	3	49
NTD26	West	4	70	-5	-20	3	48
NTD27	West	3	70	-5	-18	3	50
NTD28	West	14	75	-5	-31	3	42
NTD29	West	23	75	-5	-35	3	38
NTD30	West	35	83	-5	-39	3	42
NTD31	Southwest	47	80	-5	-41	3	37
NTD32	Southwest	69	82	-5	-45	3	35
NTD33	Southwest	112	81	-5	-49	3	30
NTD34	Southwest	131	80	-5	-50	3	28
NTD35	South	195	85	-10	-54	3	24
NTD36	South	213	85	-10	-55	3	23
NTD37	South	222	85	-10	-55	3	23
NTD38	South	231	85	-10	-55	3	23
NTD39	South	238	85	-10	-56	3	22
NTD40	Top	237	80	-10	-56	3	17
NTD41	Southeast	236	75	-10	-55	3	13
NTD42	Southeast	229	75	-10	-55	3	13
NTD43	South	232	75	-10	-55	3	13
NTD44	East	258	75	-10	-56	3	12
NTD45	East	256	75	-10	-56	3	12
NTD46	East	254	75	-10	-56	3	12
NTD47	East	252	75	-10	-56	3	12
NTD48	East	248	70	-10	-56	3	7
NTD49	East	243	70	-10	-56	3	7
NTD50	East	241	70	-10	-56	3	7
NTD51	East	239	80	-10	-56	3	17
NTD52	East	236	73	-10	-55	3	11
NTD53	East	234	68	-10	-55	3	6
NTD54	Northeast	228	73	-10	-55	3	11
NTD55	East	211	85	-10	-55	3	23
NTD56	East	218	72	-10	-55	3	10
NTD57	South	224	78	-10	-55	3	16
NTD58	South	230	73	-10	-55	3	11
NTD59	South	236	70	-10	-55	3	8
NTD60	South	243	69	-10	-56	3	6
NTD61	South	252	71	-10	-56	3	8
NTD62	South	259	80	-10	-56	3	17
NTD63	South	269	78	-10	-57	3	14
NTD64	South	279	72	-10	-57	3	8
NTD65	East	301	72	-10	-58	3	>300m
NTD66	East	304	74	-10	-58	3	>300m
NTD67	Northeast	305	73	-10	-58	3	>300m
NTD68	Northeast	298	75	-10	-57	3	11
NTD69	Northeast	293	70	-10	-57	3	6
NTD70	Northeast	292	75	-10	-57	3	11
NTD71	Northeast	290	75	-10	-57	3	11
NTD72	Northeast	286	78	-10	-57	3	14
NTD73	East	287	75	-10	-57	3	11
NTD74	East	290	75	-10	-57	3	11
NTD75	East	296	75	-10	-57	3	11
NTD76	East	299	75	-10	-58	3	10
NTD77	Southeast	380	77	-10	-60	3	>300m
NTD78	Northeast	392	75	-10	-60	3	>300m
NTD79	Northeast	393	76	-10	-60	3	>300m
NTD80	Northeast	396	75	-10	-60	3	>300m
NTD81	Northeast	396	75	-10	-60	3	>300m
NTD82	Northeast	398	75	-10	-60	3	>300m
NTD83	Northeast	401	75	-10	-60	3	>300m
NTD84	Northeast	401	75	-10	-60	3	>300m
NTD85	Northwest	397	75	-10	-60	3	>300m
NTD86	Northwest	377	77	-10	-60	3	>300m
NTD87	Northwest	361	75	-10	-59	3	>300m
NTD88	Northwest	354	74	-10	-59	3	>300m
NTD89	Northwest	333	73	-10	-58	3	>300m
NTD90	Northwest	327	72	-10	-58	3	>300m
NTD91	Northwest	317	75	-10	-58	3	>300m
NTD92	Northwest	306	74	-10	-58	3	>300m
NTD93	West	239	78	-10	-56	3	15
NTD94	South	246	73	-10	-56	3	10
NTD94a	South	247	73	-10	-56	3	10
NTD95	South	251	73	-10	-56	3	10
NTD96	South	254	74	-10	-56	3	11
NTD97	Top	253	80	0	-56	3	27
NTD98	Top	258	80	0	-56	3	27
NTD99	Top	262	80	0	-56	3	27
NTD100	South	268	80	-10	-57	3	16
NTD101	Northeast	243	80	-10	-56	3	17
NTD102	Northeast	253	75	-10	-56	3	12
NTD103	Northeast	257	75	-10	-56	3	12
NTD104	Northeast	267	83	-10	-57	3	19
NTD105	Southeast	276	73	-10	-57	3	9
NTD106	Southeast	283	75	-10	-57	3	11
NTD107	Southeast	291	72	-10	-57	3	8
NTD108	Southeast	292	82	-10	-57	3	18
NTD109	Southeast	296	82	-10	-57	3	18
NTD110	Southeast	293	85	-10	-57	3	21
NTD111	Southwest	248	77	-10	-56	3	14
NTD112	Southwest	283	77	-10	-57	3	13
NTD113	Southwest	287	77	-10	-57	3	13
NTD114	Southwest	280	85	-10	-57	3	21
NTD115	Southwest	264	85	-10	-56	3	22

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-PF07d	N01	Northwest	265	74	-10	-56	3	11		
	N02	Northwest	276	74	-10	-57	3	10		
	N03	Northwest	285	74	-10	-57	3	10		
	N04	Northwest	286	72	-10	-57	3	8		
	N05	Northwest	290	72	-10	-57	3	8		
	N06	Northwest	295	72	-10	-57	3	8		
	N07	Northwest	297	72	-10	-57	3	8		
	N08	Northwest	298	75	-10	-57	3	11		
	N09	Northwest	300	72	-10	-58	3	7		
	N10	Northwest	303	72	-10	-58	3	>300m		
	N11	Northwest	306	72	-10	-58	3	>300m		
	N12	Northwest	310	77	-10	-58	3	>300m		
	N12a	Northwest	314	73	-10	-58	3	>300m		
	N12b	Northwest	321	73	-10	-58	3	>300m		
	N12c	Northwest	333	73	-10	-58	3	>300m		
	N12d	Northwest	305	75	-10	-58	3	>300m		
	N13	Top	301	75	-10	-58	3	>300m		
	N14	Top	376	75	-10	-59	3	>300m		
	N15	Northwest	388	72	-10	-60	3	>300m		
	N15a	Northwest	383	73	-10	-60	3	>300m		
	N16	Northwest	390	72	-10	-60	3	>300m		
	N17	Northwest	392	75	-10	-60	3	>300m		
	N18	Northwest	394	72	-10	-60	3	>300m		
	N19	Northwest	396	72	-10	-60	3	>300m		
	N20	Northwest	397	75	-10	-60	3	>300m		
	N20a	Northwest	407	73	-10	-60	3	>300m		
	N21	Northwest	415	72	-10	-60	3	>300m		
	N21a	Northwest	417	73	-10	-60	3	>300m		
	N22	Northwest	586	72	-10	-63	3	>300m		
	N23	Northwest	423	72	-10	-61	3	>300m		
	N24	Northwest	427	72	-10	-61	3	>300m		
	N25	Northwest	427	74	-10	-61	3	>300m		
	N26	Northwest	439	75	-10	-61	3	>300m		
	N27	Northwest	449	72	-10	-61	3	>300m		
	N28	Northwest	449	74	-10	-61	3	>300m		
	N29	Northwest	456	74	-10	-61	3	>300m		
	N30	Northwest	458	72	-10	-61	3	>300m		
	N30a	Northwest	464	73	-10	-61	3	>300m		
	N31	Northwest	458	74	-10	-61	3	>300m		
	N31a	Northwest	464	77	-10	-61	3	>300m		
	N31b	Northwest	459	77	-10	-61	3	>300m		
	N31c	Northwest	464	77	-10	-61	3	>300m		
	N31d	Northwest	460	77	-10	-61	3	>300m		
	N32	Northwest	448	75	-10	-61	3	>300m		
	N32a	Northwest	455	73	-10	-61	3	>300m		
	N32b	Southwest	450	73	-10	-61	3	>300m		
	N33	Southwest	443	75	-10	-61	3	>300m		
	N34	Southwest	436	75	-10	-61	3	>300m		
	N34a	Southwest	427	68	-10	-61	3	>300m		
	N35	Southwest	416	77	-10	-60	3	>300m		
	N36	Southwest	409	75	-10	-60	3	>300m		
	N37	Southwest	406	75	-10	-60	3	>300m		
	N38	Southwest	400	63	-10	-60	3	>300m		
	N39	Southwest	396	75	-10	-60	3	>300m		
	N39a	Southwest	384	70	-10	-60	3	>300m		
	N40	Southwest	372	73	-10	-59	3	>300m		
	N40a	Southwest	368	73	-10	-59	3	>300m		
	N40b	Southwest	372	77	-10	-59	3	>300m		
	N41	Southwest	303	70	-10	-58	3	>300m		
	N41a	Southwest	283	67	-10	-57	3	3		
	N43	Southwest	267	67	-10	-57	3	3		
	N44	Southwest	261	71	-10	-56	3	8		
	N45	Southwest	258	67	-10	-56	3	4		
	N45a	Southwest	248	63	-10	-56	3	0		
	N45b	Southwest	241	63	-10	-56	3	0		
	N46	Southwest	231	71	-10	-55	3	9		
	N46a	Southwest	222	70	-10	-55	3	8		
	N47	Southwest	236	71	-10	-55	3	9		
	N47a	Southwest	228	70	-10	-55	3	8		
	N47b	West	237	70	-10	-55	3	8		
	N47c	West	245	70	-10	-56	3	7		
	N48	Northwest	284	74	-10	-57	3	10		
	N49	Northwest	268	71	-10	-57	3	7		
	N50	Northwest	398	76	-10	-60	3	>300m		
	N50a	Top	408	76	0	-60	3	>300m		
	N51	Southwest	411	76	-10	-60	3	>300m		
	N52	Southwest	420	73	-10	-60	3	>300m		
	N53	Northwest	280	74	-10	-57	3	10		
	N54	Northwest	289	74	-10	-57	3	10		
	N55	West	258	74	-10	-56	3	11		
	N56	Southwest	254	74	-10	-56	3	11		
	NTD01	North	190	73	-10	-54	3	12		
	NTD02	North	190	71	-10	-54	3	10		
	NTD03	East	171	70	-10	-53	3	10		
	NTD04	East	148	70	-10	-51	3	12		
	NTD05	East	138	70	-10	-51	3	12		
	NTD06	East	133	71	-10	-50	3	14		
	NTD07	East	128	70	-10	-50	3	13		
	NTD08	East	121	70	-10	-50	3	13		
	NTD09	East	117	65	-10	-49	3	9		
	NTD10	East	111	65	-10	-49	3	9		
	NTD11	East	96	65	-10	-48	3	10		
	NTD12	West	78	70	-5	-46	3	22		
	NTD13	West	85	74	-5	-47	3	25		
	NTD14	West	90	72	-5	-47	3	23		
	NTD15	West	96	72	-5	-48	3	22		
	NTD15a	West	107	75	-5	-49	3	24		
	NTD16	West	121	75	-5	-50	3	23		
	NTD16a	West	159	75	-5	-52	3	21		
	NTD17	West	170	72	-5	-53	3	17		

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	175	68	-5	-53	3	13
NTD19	West	181	68	-5	-53	3	13
NTD20	West	186	68	-5	-53	3	13
NTD21	West	65	73	-5	-44	3	27
NTD22	West	47	75	-5	-41	3	32
NTD23	West	30	75	-5	-37	3	36
NTD24	West	18	71	-5	-33	3	36
NTD25	West	11	75	-5	-29	3	44
NTD26	West	4	65	-5	-20	3	43
NTD27	West	3	65	-5	-18	3	45
NTD28	West	14	70	-5	-31	3	37
NTD29	West	23	70	-5	-35	3	33
NTD30	West	35	78	-5	-39	3	37
NTD31	Southwest	47	75	-5	-41	3	32
NTD32	Southwest	69	77	-5	-45	3	30
NTD33	Southwest	112	76	-5	-49	3	25
NTD34	Southwest	131	75	-5	-50	3	23
NTD35	South	195	80	-10	-54	3	19
NTD36	South	213	80	-10	-55	3	18
NTD37	South	222	80	-10	-55	3	18
NTD38	South	231	80	-10	-55	3	18
NTD39	South	238	80	-10	-56	3	17
NTD40	Top	237	75	-10	-56	3	12
NTD41	Southeast	236	70	-10	-55	3	8
NTD42	Southeast	229	70	-10	-55	3	8
NTD43	South	232	70	-10	-55	3	8
NTD44	East	258	70	-10	-56	3	7
NTD45	East	256	70	-10	-56	3	7
NTD46	East	254	70	-10	-56	3	7
NTD47	East	252	70	-10	-56	3	7
NTD48	East	248	65	-10	-56	3	2
NTD49	East	243	65	-10	-56	3	2
NTD50	East	241	65	-10	-56	3	2
NTD51	East	239	75	-10	-56	3	12
NTD52	East	236	68	-10	-55	3	6
NTD53	East	234	63	-10	-55	3	1
NTD54	Northeast	228	68	-10	-55	3	6
NTD55	East	211	80	-10	-55	3	18
NTD56	East	218	67	-10	-55	3	5
NTD57	South	224	73	-10	-55	3	11
NTD58	South	230	68	-10	-55	3	6
NTD59	South	236	65	-10	-55	3	3
NTD60	South	243	64	-10	-56	3	1
NTD61	South	252	66	-10	-56	3	3
NTD62	South	259	75	-10	-56	3	12
NTD63	South	269	73	-10	-57	3	9
NTD64	South	279	67	-10	-57	3	3
NTD65	East	301	67	-10	-58	3	>300m
NTD66	East	304	69	-10	-58	3	>300m
NTD67	Northeast	305	68	-10	-58	3	>300m
NTD68	Northeast	298	70	-10	-57	3	6
NTD69	Northeast	293	65	-10	-57	3	1
NTD70	Northeast	292	70	-10	-57	3	6
NTD71	Northeast	290	70	-10	-57	3	6
NTD72	Northeast	286	73	-10	-57	3	9
NTD73	East	287	70	-10	-57	3	6
NTD74	East	290	70	-10	-57	3	6
NTD75	East	296	70	-10	-57	3	6
NTD76	East	299	70	-10	-58	3	5
NTD77	Southeast	380	72	-10	-60	3	>300m
NTD78	Northeast	392	70	-10	-60	3	>300m
NTD79	Northeast	393	71	-10	-60	3	>300m
NTD80	Northeast	396	70	-10	-60	3	>300m
NTD81	Northeast	396	70	-10	-60	3	>300m
NTD82	Northeast	398	70	-10	-60	3	>300m
NTD83	Northeast	401	70	-10	-60	3	>300m
NTD84	Northeast	401	70	-10	-60	3	>300m
NTD85	Northwest	397	70	-10	-60	3	>300m
NTD86	Northwest	377	72	-10	-60	3	>300m
NTD87	Northwest	361	70	-10	-59	3	>300m
NTD88	Northwest	354	69	-10	-59	3	>300m
NTD89	Northwest	333	68	-10	-58	3	>300m
NTD90	Northwest	327	67	-10	-58	3	>300m
NTD91	Northwest	317	70	-10	-58	3	>300m
NTD92	Northwest	306	69	-10	-58	3	>300m
NTD93	West	239	73	-10	-56	3	10
NTD94	South	246	68	-10	-56	3	5
NTD94a	South	247	68	-10	-56	3	5
NTD95	South	251	68	-10	-56	3	5
NTD96	South	254	69	-10	-56	3	6
NTD97	Top	253	75	0	-56	3	22
NTD98	Top	258	75	0	-56	3	22
NTD99	Top	262	75	0	-56	3	22
NTD100	South	268	75	-10	-57	3	11
NTD101	Northeast	243	75	-10	-56	3	12
NTD102	Northeast	253	70	-10	-56	3	7
NTD103	Northeast	257	70	-10	-56	3	7
NTD104	Northeast	267	78	-10	-57	3	14
NTD105	Southeast	276	68	-10	-57	3	4
NTD106	Southeast	283	70	-10	-57	3	6
NTD107	Southeast	291	67	-10	-57	3	3
NTD108	Southeast	292	77	-10	-57	3	13
NTD109	Southeast	296	77	-10	-57	3	13
NTD110	Southeast	293	80	-10	-57	3	16
NTD111	Southwest	248	72	-10	-56	3	9
NTD112	Southwest	283	72	-10	-57	3	8
NTD113	Southwest	287	72	-10	-57	3	8
NTD114	Southwest	280	80	-10	-57	3	16
NTD115	Southwest	264	80	-10	-56	3	17

50

50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-PF07e
 Description: Potential Development at NTM LUR

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-PF07e	N01	Northwest	211	79	-10	-54	3	18		
	N02	Northwest	222	79	-10	-55	3	17		
	N03	Northwest	231	79	-10	-55	3	17		
	N04	Northwest	233	77	-10	-55	3	15		
	N05	Northwest	237	77	-10	-55	3	15		
	N06	Northwest	241	77	-10	-56	3	14		
	N07	Northwest	244	77	-10	-56	3	14		
	N08	Northwest	244	80	-10	-56	3	17		
	N09	Northwest	246	77	-10	-56	3	14		
	N10	Northwest	249	77	-10	-56	3	14		
	N11	Northwest	253	77	-10	-56	3	14		
	N12	Northwest	257	82	-10	-56	3	19		
	N12a	Northwest	261	78	-10	-56	3	15		
	N12b	Northwest	269	78	-10	-57	3	14		
	N12c	Northwest	280	78	-10	-57	3	14		
	N12d	Northwest	253	80	-10	-56	3	17		
	N13	Top	248	80	-10	-56	3	17		
	N14	Top	325	80	-10	-58	3	>300m		
	N15	Northwest	337	77	-10	-59	3	>300m		
	N15a	Northwest	332	78	-10	-58	3	>300m		
	N16	Northwest	339	77	-10	-59	3	>300m		
	N17	Northwest	341	80	-10	-59	3	>300m		
	N18	Northwest	343	77	-10	-59	3	>300m		
	N19	Northwest	345	77	-10	-59	3	>300m		
	N20	Northwest	346	80	-10	-59	3	>300m		
	N20a	Northwest	357	78	-10	-59	3	>300m		
	N21	Northwest	365	77	-10	-59	3	>300m		
	N21a	Northwest	366	78	-10	-59	3	>300m		
	N22	Northwest	552	77	-10	-63	3	>300m		
	N23	Northwest	373	77	-10	-59	3	>300m		
	N24	Northwest	377	77	-10	-60	3	>300m		
	N25	Northwest	377	79	-10	-60	3	>300m		
	N26	Northwest	389	80	-10	-60	3	>300m		
	N27	Northwest	399	77	-10	-60	3	>300m		
	N28	Northwest	400	79	-10	-60	3	>300m		
	N29	Northwest	407	79	-10	-60	3	>300m		
	N30	Northwest	409	77	-10	-60	3	>300m		
	N30a	Northwest	415	78	-10	-60	3	>300m		
	N31	Northwest	409	79	-10	-60	3	>300m		
	N31a	Northeast	415	82	-10	-60	3	>300m		
	N31b	Northeast	411	82	-10	-60	3	>300m		
	N31c	Northeast	415	82	-10	-60	3	>300m		
	N31d	Northeast	411	82	-10	-60	3	>300m		
	N32	Northeast	400	80	-10	-60	3	>300m		
	N32a	Northeast	407	78	-10	-60	3	>300m		
	N32b	Southeast	402	78	-10	-60	3	>300m		
	N33	Southeast	395	80	-10	-60	3	>300m		
	N34	Southeast	388	80	-10	-60	3	>300m		
	N34a	Southeast	379	73	-10	-60	3	>300m		
	N35	Southeast	368	82	-10	-59	3	>300m		
	N36	Southeast	360	80	-10	-59	3	>300m		
	N37	Southeast	358	80	-10	-59	3	>300m		
	N38	Southeast	351	68	-10	-59	3	>300m		
	N39	Southeast	347	80	-10	-59	3	>300m		
	N39a	Southeast	335	75	-10	-58	3	>300m		
	N40	Southeast	323	78	-10	-58	3	>300m		
	N40a	Southeast	318	78	-10	-58	3	>300m		
	N40b	Southeast	321	82	-10	-58	3	>300m		
	N41	Southeast	251	75	-10	-56	3	12		
	N41a	Southeast	231	72	-10	-55	3	10		
	N43	Southeast	214	72	-10	-55	3	10		
	N44	Southeast	208	76	-10	-54	3	15		
	N45	Southeast	205	72	-10	-54	3	11		
	N45a	Southeast	195	68	-10	-54	3	7		
	N45b	Southeast	188	68	-10	-53	3	8		
	N46	Southeast	177	76	-10	-53	3	16		
	N46a	Southeast	168	75	-10	-53	3	15		
	N47	Southwest	182	76	-10	-53	3	16		
	N47a	Southwest	174	75	-10	-53	3	15		
	N47b	West	183	75	-10	-53	3	15		
	N47c	West	191	75	-10	-54	3	14		
	N48	Northwest	230	79	-10	-55	3	17		
	N49	Northwest	215	76	-10	-55	3	14		
	N50	Northwest	349	81	-10	-59	3	>300m		
	N50a	Top	358	81	0	-59	3	>300m		
	N51	Southwest	362	81	-10	-59	3	>300m		
	N52	Southwest	371	78	-10	-59	3	>300m		
	N53	Northeast	227	79	-10	-55	3	17		
	N54	Northeast	236	79	-10	-55	3	17		
	N55	West	205	79	-10	-54	3	18		
	N56	Southwest	200	79	-10	-54	3	18		
	NTD01	North	136	78	-10	-51	3	20		
	NTD02	North	136	76	-10	-51	3	18		
	NTD03	East	117	75	-10	-49	3	19		
	NTD04	East	95	75	-10	-48	3	20		
	NTD05	East	85	75	-10	-47	3	21		
	NTD06	East	79	76	-10	-46	3	23		
	NTD07	East	75	75	-10	-45	3	23		
	NTD08	East	67	75	-10	-45	3	23		
	NTD09	East	63	70	-10	-44	3	19		
	NTD10	East	57	70	-10	-43	3	20		
	NTD11	East	43	70	-10	-41	3	22		
	NTD12	West	25	75	-5	-36	3	37		
	NTD13	West	31	79	-5	-38	3	39		
	NTD14	West	36	77	-5	-39	3	36		
	NTD15	West	42	77	-5	-40	3	35		
	NTD15a	West	54	80	-5	-43	3	35		
	NTD16	West	68	80	-5	-45	3	33		

Appendix 4.11 Fixed Plant Noise Calculation

NTD16a	West	105	80	-5	-48	3	30
NTD17	West	117	77	-5	-49	3	26
NTD18	West	122	73	-5	-50	3	21
NTD19	West	127	73	-5	-50	3	21
NTD20	West	132	73	-5	-50	3	21
NTD21	West	12	78	-5	-29	3	47
NTD22	West	7	80	-5	-25	3	53
NTD23	West	24	80	-5	-36	3	42
NTD24	West	36	76	-5	-39	3	35
NTD25	West	43	80	-5	-41	3	37
NTD26	West	50	70	-5	-42	3	26
NTD27	West	57	70	-5	-43	3	25
NTD28	West	68	75	-5	-45	3	28
NTD29	West	76	75	-5	-46	3	27
NTD30	West	89	83	-5	-47	3	34
NTD31	Southwest	100	80	-5	-48	3	30
NTD32	Southwest	122	82	-5	-50	3	30
NTD33	Southwest	165	81	-5	-52	3	27
NTD34	Southwest	183	80	-10	-53	3	20
NTD35	South	244	85	-10	-56	3	22
NTD36	South	259	85	-10	-56	3	22
NTD37	South	267	85	-10	-57	3	21
NTD38	South	275	85	-10	-57	3	21
NTD39	South	281	85	-10	-57	3	21
NTD40	Top	280	80	-10	-57	3	16
NTD41	Southeast	278	75	-10	-57	3	11
NTD42	Southeast	268	75	-10	-57	3	11
NTD43	South	270	75	-10	-57	3	11
NTD44	East	292	75	-10	-57	3	11
NTD45	East	290	75	-10	-57	3	11
NTD46	East	288	75	-10	-57	3	11
NTD47	East	285	75	-10	-57	3	11
NTD48	East	281	70	-10	-57	3	6
NTD49	East	275	70	-10	-57	3	6
NTD50	East	271	70	-10	-57	3	6
NTD51	East	268	80	-10	-57	3	16
NTD52	East	265	73	-10	-56	3	10
NTD53	East	262	68	-10	-56	3	5
NTD54	Northeast	252	73	-10	-56	3	10
NTD55	East	215	85	-10	-55	3	23
NTD56	East	217	72	-10	-55	3	10
NTD57	South	222	78	-10	-55	3	16
NTD58	South	227	73	-10	-55	3	11
NTD59	South	234	70	-10	-55	3	8
NTD60	South	241	69	-10	-56	3	6
NTD61	South	249	71	-10	-56	3	8
NTD62	South	256	80	-10	-56	3	17
NTD63	South	266	78	-10	-56	3	15
NTD64	South	275	72	-10	-57	3	8
NTD65	East	288	72	-10	-57	3	8
NTD66	East	290	74	-10	-57	3	10
NTD67	Northeast	290	73	-10	-57	3	9
NTD68	Northeast	279	75	-10	-57	3	11
NTD69	Northeast	273	70	-10	-57	3	6
NTD70	Northeast	271	75	-10	-57	3	11
NTD71	Northeast	269	75	-10	-57	3	11
NTD72	Northeast	263	78	-10	-56	3	15
NTD73	East	248	75	-10	-56	3	12
NTD74	East	251	75	-10	-56	3	12
NTD75	East	256	75	-10	-56	3	12
NTD76	East	259	75	-10	-56	3	12
NTD77	Southeast	335	77	-10	-59	3	>300m
NTD78	Northeast	346	75	-10	-59	3	>300m
NTD79	Northeast	347	76	-10	-59	3	>300m
NTD80	Northeast	349	75	-10	-59	3	>300m
NTD81	Northeast	350	75	-10	-59	3	>300m
NTD82	Northeast	351	75	-10	-59	3	>300m
NTD83	Northeast	354	75	-10	-59	3	>300m
NTD84	Northeast	354	75	-10	-59	3	>300m
NTD85	Northwest	349	75	-10	-59	3	>300m
NTD86	Northwest	329	77	-10	-58	3	>300m
NTD87	Northwest	312	75	-10	-58	3	>300m
NTD88	Northwest	305	74	-10	-58	3	>300m
NTD89	Northwest	283	73	-10	-57	3	9
NTD90	Northwest	277	72	-10	-57	3	8
NTD91	Northwest	267	75	-10	-57	3	11
NTD92	Northwest	256	74	-10	-56	3	11
NTD93	West	279	78	-10	-57	3	14
NTD94	South	286	73	-10	-57	3	9
NTD94a	South	287	73	-10	-57	3	9
NTD95	South	290	73	-10	-57	3	9
NTD96	South	293	74	-10	-57	3	10
NTD97	Top	292	80	0	-57	3	26
NTD98	Top	296	80	0	-57	3	26
NTD99	Top	300	80	0	-58	3	25
NTD100	South	306	80	-10	-58	3	>300m
NTD101	Northeast	294	80	-10	-57	3	16
NTD102	Northeast	303	75	-10	-58	3	>300m
NTD103	Northeast	306	75	-10	-58	3	>300m
NTD104	Northeast	315	83	-10	-58	3	>300m
NTD105	Southeast	324	73	-10	-58	3	>300m
NTD106	Southeast	330	75	-10	-58	3	>300m
NTD107	Southeast	339	72	-10	-59	3	>300m
NTD108	Southeast	340	82	-10	-59	3	>300m
NTD109	Southeast	345	82	-10	-59	3	>300m
NTD110	Southeast	343	85	-10	-59	3	>300m
NTD111	Southwest	299	77	-10	-58	3	12
NTD112	Southwest	332	77	-10	-58	3	>300m
NTD113	Southwest	336	77	-10	-59	3	>300m
NTD114	Southwest	331	85	-10	-58	3	>300m
NTD115	Southwest	314	85	-10	-58	3	>300m

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-PF07e	N01	Northwest	211	74	-10	-54	3	13		
	N02	Northwest	222	74	-10	-55	3	12		
	N03	Northwest	231	74	-10	-55	3	12		
	N04	Northwest	233	72	-10	-55	3	10		
	N05	Northwest	237	72	-10	-55	3	10		
	N06	Northwest	241	72	-10	-56	3	9		
	N07	Northwest	244	72	-10	-56	3	9		
	N08	Northwest	244	75	-10	-56	3	12		
	N09	Northwest	246	72	-10	-56	3	9		
	N10	Northwest	249	72	-10	-56	3	9		
	N11	Northwest	253	72	-10	-56	3	9		
	N12	Northwest	257	77	-10	-56	3	14		
	N12a	Northwest	261	73	-10	-56	3	10		
	N12b	Northwest	269	73	-10	-57	3	9		
	N12c	Northwest	280	73	-10	-57	3	9		
	N12d	Northwest	253	75	-10	-56	3	12		
	N13	Top	248	75	-10	-56	3	12		
	N14	Top	325	75	-10	-58	3	>300m		
	N15	Northwest	337	72	-10	-59	3	>300m		
	N15a	Northwest	332	73	-10	-58	3	>300m		
	N16	Northwest	339	72	-10	-59	3	>300m		
	N17	Northwest	341	75	-10	-59	3	>300m		
	N18	Northwest	343	72	-10	-59	3	>300m		
	N19	Northwest	345	72	-10	-59	3	>300m		
	N20	Northwest	346	75	-10	-59	3	>300m		
	N20a	Northwest	357	73	-10	-59	3	>300m		
	N21	Northwest	365	72	-10	-59	3	>300m		
	N21a	Northwest	366	73	-10	-59	3	>300m		
	N22	Northwest	552	72	-10	-63	3	>300m		
	N23	Northwest	373	72	-10	-59	3	>300m		
	N24	Northwest	377	72	-10	-60	3	>300m		
	N25	Northwest	377	74	-10	-60	3	>300m		
	N26	Northwest	389	75	-10	-60	3	>300m		
	N27	Northwest	399	72	-10	-60	3	>300m		
	N28	Northwest	400	74	-10	-60	3	>300m		
	N29	Northwest	407	74	-10	-60	3	>300m		
	N30	Northwest	409	72	-10	-60	3	>300m		
	N30a	Northwest	415	73	-10	-60	3	>300m		
	N31	Northwest	409	74	-10	-60	3	>300m		
	N31a	Northeast	415	77	-10	-60	3	>300m		
	N31b	Northeast	411	77	-10	-60	3	>300m		
	N31c	Northeast	415	77	-10	-60	3	>300m		
	N31d	Northeast	411	77	-10	-60	3	>300m		
	N32	Northeast	400	75	-10	-60	3	>300m		
	N32a	Northeast	407	73	-10	-60	3	>300m		
	N32b	Southeast	402	73	-10	-60	3	>300m		
	N33	Southeast	395	75	-10	-60	3	>300m		
	N34	Southeast	388	75	-10	-60	3	>300m		
	N34a	Southeast	379	68	-10	-60	3	>300m		
	N35	Southeast	368	77	-10	-59	3	>300m		
	N36	Southeast	360	75	-10	-59	3	>300m		
	N37	Southeast	358	75	-10	-59	3	>300m		
	N38	Southeast	351	63	-10	-59	3	>300m		
	N39	Southeast	347	75	-10	-59	3	>300m		
	N39a	Southeast	335	70	-10	-58	3	>300m		
	N40	Southeast	323	73	-10	-58	3	>300m		
	N40a	Southeast	318	73	-10	-58	3	>300m		
	N40b	Southwest	321	77	-10	-58	3	>300m		
	N41	Southwest	251	70	-10	-56	3	7		
	N41a	Southwest	231	67	-10	-55	3	5		
	N43	Southwest	214	67	-10	-55	3	5		
	N44	Southwest	208	71	-10	-54	3	10		
	N45	Southwest	205	67	-10	-54	3	6		
	N45a	Southwest	195	63	-10	-54	3	2		
	N45b	Southwest	188	63	-10	-53	3	3		
	N46	Southwest	177	71	-10	-53	3	11		
	N46a	Southwest	168	70	-10	-53	3	10		
	N47	Southwest	162	71	-10	-53	3	11		
	N47a	Southwest	174	70	-10	-53	3	10		
	N47b	West	183	70	-10	-53	3	10		
	N47c	West	191	70	-10	-54	3	9		
	N48	Northeast	230	74	-10	-55	3	12		
	N49	Northeast	215	71	-10	-55	3	9		
	N50	Northeast	349	76	-10	-59	3	>300m		
	N50a	Top	358	76	0	-59	3	>300m		
	N51	Southwest	362	76	-10	-59	3	>300m		
	N52	Southwest	371	73	-10	-59	3	>300m		
	N53	Northeast	227	74	-10	-55	3	12		
	N54	Northeast	236	74	-10	-55	3	12		
	N55	West	205	74	-10	-54	3	13		
	N56	Southwest	200	74	-10	-54	3	13		
	NTD01	North	136	73	-10	-51	3	15		
	NTD02	North	136	71	-10	-51	3	13		
	NTD03	East	117	70	-10	-49	3	14		
	NTD04	East	95	70	-10	-48	3	15		
	NTD05	East	85	70	-10	-47	3	16		
	NTD06	East	79	71	-10	-46	3	18		
	NTD07	East	75	70	-10	-45	3	18		
	NTD08	East	67	70	-10	-45	3	18		
	NTD09	East	63	65	-10	-44	3	14		
	NTD10	East	57	65	-10	-43	3	15		
	NTD11	East	43	65	-10	-41	3	17		
	NTD12	West	25	70	-5	-36	3	32		
	NTD13	West	31	74	-5	-38	3	34		
	NTD14	West	36	72	-5	-39	3	31		
	NTD15	West	42	72	-5	-40	3	30		
	NTD15a	West	54	75	-5	-43	3	30		
	NTD16	West	68	75	-5	-45	3	28		
	NTD16a	West	105	75	-5	-48	3	25		
	NTD17	West	117	72	-5	-49	3	21		

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	122	68	-5	-50	3	16
NTD19	West	127	68	-5	-50	3	16
NTD20	West	132	68	-5	-50	3	16
NTD21	West	12	73	-5	-29	3	42
NTD22	West	7	75	-5	-25	3	48
NTD23	West	24	75	-5	-36	3	37
NTD24	West	36	71	-5	-39	3	30
NTD25	West	43	75	-5	-41	3	32
NTD26	West	50	65	-5	-42	3	21
NTD27	West	57	65	-5	-43	3	20
NTD28	West	68	70	-5	-45	3	23
NTD29	West	76	70	-5	-46	3	22
NTD30	West	89	78	-5	-47	3	29
NTD31	Southwest	100	75	-5	-48	3	25
NTD32	Southwest	122	77	-5	-50	3	25
NTD33	Southwest	165	76	-5	-52	3	22
NTD34	Southwest	183	75	-10	-53	3	15
NTD35	South	244	80	-10	-56	3	17
NTD36	South	259	80	-10	-56	3	17
NTD37	South	267	80	-10	-57	3	16
NTD38	South	275	80	-10	-57	3	16
NTD39	South	281	80	-10	-57	3	16
NTD40	Top	280	75	-10	-57	3	11
NTD41	Southeast	278	70	-10	-57	3	6
NTD42	Southeast	268	70	-10	-57	3	6
NTD43	South	270	70	-10	-57	3	6
NTD44	East	292	70	-10	-57	3	6
NTD45	East	290	70	-10	-57	3	6
NTD46	East	288	70	-10	-57	3	6
NTD47	East	285	70	-10	-57	3	6
NTD48	East	281	65	-10	-57	3	1
NTD49	East	275	65	-10	-57	3	1
NTD50	East	271	65	-10	-57	3	1
NTD51	East	268	75	-10	-57	3	11
NTD52	East	265	68	-10	-56	3	5
NTD53	East	262	63	-10	-56	3	0
NTD54	Northeast	252	68	-10	-56	3	5
NTD55	East	215	80	-10	-55	3	18
NTD56	East	217	67	-10	-55	3	5
NTD57	South	222	73	-10	-55	3	11
NTD58	South	227	68	-10	-55	3	6
NTD59	South	224	65	-10	-55	3	3
NTD60	South	241	64	-10	-56	3	1
NTD61	South	249	66	-10	-56	3	3
NTD62	South	256	75	-10	-56	3	12
NTD63	South	266	73	-10	-56	3	10
NTD64	South	275	67	-10	-57	3	3
NTD65	East	288	67	-10	-57	3	3
NTD66	East	290	69	-10	-57	3	5
NTD67	Northeast	290	68	-10	-57	3	4
NTD68	Northeast	279	70	-10	-57	3	6
NTD69	Northeast	273	65	-10	-57	3	1
NTD70	Northeast	271	70	-10	-57	3	6
NTD71	Northeast	269	70	-10	-57	3	6
NTD72	Northeast	263	73	-10	-56	3	10
NTD73	East	248	70	-10	-56	3	7
NTD74	East	251	70	-10	-56	3	7
NTD75	East	256	70	-10	-56	3	7
NTD76	East	259	70	-10	-56	3	7
NTD77	Southeast	335	72	-10	-59	3	>300m
NTD78	Northeast	346	70	-10	-59	3	>300m
NTD79	Northeast	347	71	-10	-59	3	>300m
NTD80	Northeast	349	70	-10	-59	3	>300m
NTD81	Northeast	350	70	-10	-59	3	>300m
NTD82	Northeast	351	70	-10	-59	3	>300m
NTD83	Northeast	354	70	-10	-59	3	>300m
NTD84	Northeast	354	70	-10	-59	3	>300m
NTD85	Northwest	349	70	-10	-59	3	>300m
NTD86	Northwest	329	72	-10	-58	3	>300m
NTD87	Northwest	312	70	-10	-58	3	>300m
NTD88	Northwest	305	69	-10	-58	3	>300m
NTD89	Northwest	283	68	-10	-57	3	4
NTD90	Northwest	277	67	-10	-57	3	3
NTD91	Northwest	267	70	-10	-57	3	6
NTD92	Northwest	256	69	-10	-56	3	6
NTD93	West	279	73	-10	-57	3	9
NTD94	South	286	68	-10	-57	3	4
NTD94a	South	287	68	-10	-57	3	4
NTD95	South	290	68	-10	-57	3	4
NTD96	South	293	69	-10	-57	3	5
NTD97	Top	292	75	0	-57	3	21
NTD98	Top	296	75	0	-57	3	21
NTD99	Top	300	75	0	-58	3	20
NTD100	South	306	75	-10	-58	3	>300m
NTD101	Northeast	294	75	-10	-57	3	11
NTD102	Northeast	303	70	-10	-58	3	>300m
NTD103	Northeast	306	70	-10	-58	3	>300m
NTD104	Northeast	315	78	-10	-58	3	>300m
NTD105	Southeast	324	68	-10	-58	3	>300m
NTD106	Southeast	330	70	-10	-58	3	>300m
NTD107	Southeast	339	67	-10	-59	3	>300m
NTD108	Southeast	340	77	-10	-59	3	>300m
NTD109	Southeast	345	77	-10	-59	3	>300m
NTD110	Southeast	343	80	-10	-59	3	>300m
NTD111	Southwest	299	72	-10	-58	3	7
NTD112	Southwest	332	72	-10	-58	3	>300m
NTD113	Southwest	336	72	-10	-59	3	>300m
NTD114	Southwest	331	80	-10	-58	3	>300m
NTD115	Southwest	314	80	-10	-58	3	>300m

50

50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-PF07
 Description: Potential Development at NTM LUR

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-PF07	N01	Northwest	159	79	-10	-52	3	20		
	N02	Northwest	170	79	-10	-53	3	19		
	N03	Northwest	178	79	-10	-53	3	19		
	N04	Northwest	179	77	-10	-53	3	17		
	N05	Northwest	183	77	-10	-53	3	17		
	N06	Northwest	188	77	-10	-53	3	17		
	N07	Northwest	190	77	-10	-54	3	16		
	N08	Northwest	191	80	-10	-54	3	19		
	N09	Northwest	193	77	-10	-54	3	16		
	N10	Northwest	196	77	-10	-54	3	16		
	N11	Northwest	199	77	-10	-54	3	16		
	N12	Northwest	203	82	-10	-54	3	21		
	N12a	Northwest	207	78	-10	-54	3	17		
	N12b	Northwest	214	78	-10	-55	3	16		
	N12c	Northwest	226	78	-10	-55	3	16		
	N12d	Northwest	199	80	-10	-54	3	19		
	N13	Top	194	80	-10	-54	3	19		
	N14	Top	270	80	-10	-57	3	16		
	N15	Northwest	282	77	-10	-57	3	13		
	N15a	Northwest	277	78	-10	-57	3	14		
	N16	Northwest	284	77	-10	-57	3	13		
	N17	Northwest	287	80	-10	-57	3	16		
	N18	Northwest	289	77	-10	-57	3	13		
	N19	Northwest	291	77	-10	-57	3	13		
	N20	Northwest	292	80	-10	-57	3	16		
	N20a	Northwest	303	78	-10	-58	3	>300m		
	N21	Northwest	311	77	-10	-58	3	>300m		
	N21a	Northwest	312	78	-10	-58	3	>300m		
	N22	Northwest	509	77	-10	-62	3	>300m		
	N23	Northwest	319	77	-10	-58	3	>300m		
	N24	Northwest	323	77	-10	-58	3	>300m		
	N25	Northwest	323	79	-10	-58	3	>300m		
	N26	Northwest	335	80	-10	-59	3	>300m		
	N27	Northwest	345	77	-10	-59	3	>300m		
	N28	Northwest	346	79	-10	-59	3	>300m		
	N29	Northwest	353	79	-10	-59	3	>300m		
	N30	Northwest	355	77	-10	-59	3	>300m		
	N30a	Northwest	362	78	-10	-59	3	>300m		
	N31	Northwest	355	79	-10	-59	3	>300m		
	N31a	Northeast	361	82	-10	-59	3	>300m		
	N31b	Northeast	358	82	-10	-59	3	>300m		
	N31c	Northeast	362	82	-10	-59	3	>300m		
	N31d	Northeast	358	82	-10	-59	3	>300m		
	N32	Northeast	348	80	-10	-59	3	>300m		
	N32a	Northeast	355	78	-10	-59	3	>300m		
	N32b	Southeast	350	78	-10	-59	3	>300m		
	N33	Southeast	343	80	-10	-59	3	>300m		
	N34	Southeast	335	80	-10	-59	3	>300m		
	N34a	Southeast	326	73	-10	-58	3	>300m		
	N35	Southeast	315	82	-10	-58	3	>300m		
	N36	Southeast	307	80	-10	-58	3	>300m		
	N37	Southeast	304	80	-10	-58	3	>300m		
	N38	Southeast	298	68	-10	-57	3	4		
	N39	Southeast	294	80	-10	-57	3	16		
	N39a	Southeast	281	75	-10	-57	3	11		
	N40	Southeast	269	78	-10	-57	3	14		
	N40a	Southeast	265	78	-10	-56	3	15		
	N40b	Southeast	267	82	-10	-57	3	18		
	N41	Southeast	197	75	-10	-54	3	14		
	N41a	Southeast	176	72	-10	-53	3	12		
	N43	Southeast	160	72	-10	-52	3	13		
	N44	Southeast	154	76	-10	-52	3	17		
	N45	Southeast	151	72	-10	-52	3	13		
	N45a	Southeast	141	68	-10	-51	3	10		
	N45b	Southeast	134	68	-10	-51	3	10		
	N46	Southeast	124	76	-10	-50	3	19		
	N46a	Southeast	116	75	-10	-49	3	19		
	N47	Southwest	130	76	-10	-50	3	19		
	N47a	Southwest	123	75	-10	-50	3	18		
	N47b	West	132	75	-10	-50	3	18		
	N47c	West	140	75	-10	-51	3	17		
	N48	Northwest	177	79	-10	-53	3	19		
	N49	Northwest	161	76	-10	-52	3	17		
	N50	Northwest	295	81	-10	-57	3	17		
	N50a	Top	305	81	0	-58	3	>300m		
	N51	Southwest	308	81	-10	-58	3	>300m		
	N52	Southwest	317	78	-10	-58	3	>300m		
	N53	Northeast	173	79	-10	-53	3	19		
	N54	Northeast	182	79	-10	-53	3	19		
	N55	West	154	79	-10	-52	3	20		
	N56	Southwest	148	79	-10	-51	3	21		
	NTD01	North	84	78	-10	-47	3	24		
	NTD02	North	84	76	-10	-46	3	23		
	NTD03	East	65	75	0	-44	3	34		
	NTD04	East	42	75	0	-40	3	38		
	NTD05	East	32	75	0	-38	3	40		
	NTD06	East	27	76	0	-36	3	43		
	NTD07	East	22	75	0	-35	3	43		
	NTD08	East	17	75	0	-33	3	45		
	NTD09	East	14	70	0	-31	3	42		
	NTD10	East	7	70	0	-25	3	48		
	NTD11	East	12	70	0	-29	3	44		
	NTD12	West	31	75	-5	-38	3	35		
	NTD13	West	26	79	-5	-36	3	41		
	NTD14	West	22	77	-5	-35	3	40		
	NTD15	West	18	77	-5	-33	3	42		
	NTD15a	West	16	80	-5	-32	3	46		
	NTD16	West	21	80	-5	-35	3	43		

Appendix 4.11 Fixed Plant Noise Calculation

NTD16a	West	55	80	-5	-43	3	35
NTD17	West	66	77	-5	-44	3	31
NTD18	West	71	73	-5	-45	3	26
NTD19	West	76	73	-5	-46	3	25
NTD20	West	81	73	-5	-46	3	25
NTD21	West	43	78	-5	-41	3	35
NTD22	West	61	80	-5	-44	3	34
NTD23	West	78	80	-5	-46	3	32
NTD24	West	90	76	-5	-47	3	27
NTD25	West	96	80	-5	-48	3	30
NTD26	West	103	70	-5	-48	3	20
NTD27	West	110	70	-5	-49	3	19
NTD28	West	121	75	-5	-50	3	23
NTD29	West	129	75	-5	-50	3	23
NTD30	West	141	83	-5	-51	3	30
NTD31	Southwest	153	80	-5	-52	3	26
NTD32	Southwest	175	82	-5	-53	3	27
NTD33	Southwest	216	81	-5	-55	3	24
NTD34	Southwest	233	80	-10	-55	3	18
NTD35	South	289	85	-10	-57	3	21
NTD36	South	301	85	-10	-58	3	>300m
NTD37	South	308	85	-10	-58	3	>300m
NTD38	South	315	85	-10	-58	3	>300m
NTD39	South	320	85	-10	-58	3	>300m
NTD40	Top	318	80	-10	-58	3	>300m
NTD41	Southeast	315	75	-10	-58	3	>300m
NTD42	Southeast	303	75	-10	-58	3	>300m
NTD43	South	303	75	-10	-58	3	>300m
NTD44	East	323	75	-10	-58	3	>300m
NTD45	East	320	75	-10	-58	3	>300m
NTD46	East	317	75	-10	-58	3	>300m
NTD47	East	314	75	-10	-58	3	>300m
NTD48	East	309	70	-10	-58	3	>300m
NTD49	East	302	70	-10	-58	3	>300m
NTD50	East	297	70	-10	-57	3	6
NTD51	East	294	80	-10	-57	3	16
NTD52	East	290	73	-10	-57	3	9
NTD53	East	287	68	-10	-57	3	4
NTD54	Northeast	274	73	-10	-57	3	9
NTD55	East	217	85	-10	-55	3	23
NTD56	East	215	72	-10	-55	3	10
NTD57	South	219	78	-10	-55	3	16
NTD58	South	224	73	-10	-55	3	11
NTD59	South	229	70	-10	-55	3	8
NTD60	South	236	69	-10	-55	3	7
NTD61	South	243	71	-10	-56	3	8
NTD62	South	250	80	-10	-56	3	17
NTD63	South	259	78	-10	-56	3	15
NTD64	South	267	72	-10	-57	3	8
NTD65	East	271	72	-10	-57	3	8
NTD66	East	272	74	-10	-57	3	10
NTD67	Northeast	269	73	-10	-57	3	9
NTD68	Northeast	256	75	-10	-56	3	12
NTD69	Northeast	248	70	-10	-56	3	7
NTD70	Northeast	246	75	-10	-56	3	12
NTD71	Northeast	243	75	-10	-56	3	12
NTD72	Northeast	237	78	-10	-55	3	16
NTD73	East	205	75	-10	-54	3	14
NTD74	East	207	75	-10	-54	3	14
NTD75	East	211	75	-10	-54	3	14
NTD76	East	213	75	-10	-55	3	13
NTD77	Southeast	285	77	-10	-57	3	13
NTD78	Northeast	295	75	-10	-57	3	11
NTD79	Northeast	296	76	-10	-57	3	12
NTD80	Northeast	298	75	-10	-57	3	11
NTD81	Northeast	298	75	-10	-57	3	11
NTD82	Northeast	299	75	-10	-58	3	10
NTD83	Northeast	302	75	-10	-58	3	>300m
NTD84	Northeast	301	75	-10	-58	3	>300m
NTD85	Northwest	297	75	-10	-57	3	11
NTD86	Northwest	276	77	-10	-57	3	13
NTD87	Northwest	259	75	-10	-56	3	12
NTD88	Northwest	252	74	-10	-56	3	11
NTD89	Northwest	230	73	-10	-55	3	11
NTD90	Northwest	224	72	-10	-55	3	10
NTD91	Northwest	213	75	-10	-55	3	13
NTD92	Northwest	202	74	-10	-54	3	13
NTD93	West	315	78	-10	-58	3	>300m
NTD94	South	322	73	-10	-58	3	>300m
NTD94a	South	323	73	-10	-58	3	>300m
NTD95	South	325	73	-10	-58	3	>300m
NTD96	South	327	74	-10	-58	3	>300m
NTD97	Top	325	80	0	-58	3	>300m
NTD98	Top	328	80	0	-58	3	>300m
NTD99	Top	332	80	0	-58	3	>300m
NTD100	South	338	80	-10	-59	3	>300m
NTD101	Northeast	340	80	-10	-59	3	>300m
NTD102	Northeast	348	75	-10	-59	3	>300m
NTD103	Northeast	351	75	-10	-59	3	>300m
NTD104	Northeast	359	83	-10	-59	3	>300m
NTD105	Southeast	366	73	-10	-59	3	>300m
NTD106	Southeast	372	75	-10	-59	3	>300m
NTD107	Southeast	382	72	-10	-60	3	>300m
NTD108	Southeast	384	82	-10	-60	3	>300m
NTD109	Southeast	390	82	-10	-60	3	>300m
NTD110	Southeast	389	85	-10	-60	3	>300m
NTD111	Southwest	346	77	-10	-59	3	>300m
NTD112	Southwest	377	77	-10	-60	3	>300m
NTD113	Southwest	380	77	-10	-60	3	>300m
NTD114	Southwest	377	85	-10	-60	3	>300m
NTD115	Southwest	359	85	-10	-59	3	>300m

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-PF071	N01	Northwest	159	74	-10	-52	3	15		
	N02	Northwest	170	74	-10	-53	3	14		
	N03	Northwest	178	74	-10	-53	3	14		
	N04	Northwest	179	72	-10	-53	3	12		
	N05	Northwest	183	72	-10	-53	3	12		
	N06	Northwest	188	72	-10	-53	3	12		
	N07	Northwest	190	72	-10	-54	3	11		
	N08	Northwest	191	75	-10	-54	3	14		
	N09	Northwest	193	72	-10	-54	3	11		
	N10	Northwest	196	72	-10	-54	3	11		
	N11	Northwest	199	72	-10	-54	3	11		
	N12	Northwest	203	77	-10	-54	3	16		
	N12a	Northwest	207	73	-10	-54	3	12		
	N12b	Northwest	214	73	-10	-55	3	11		
	N12c	Northwest	226	73	-10	-55	3	11		
	N12d	Northwest	199	75	-10	-54	3	14		
	N13	Top	194	75	-10	-54	3	14		
	N14	Top	270	75	-10	-57	3	11		
	N15	Northwest	282	72	-10	-57	3	8		
	N15a	Northwest	277	73	-10	-57	3	9		
	N16	Northwest	284	72	-10	-57	3	8		
	N17	Northwest	287	75	-10	-57	3	11		
	N18	Northwest	289	72	-10	-57	3	8		
	N19	Northwest	291	72	-10	-57	3	8		
	N20	Northwest	292	75	-10	-57	3	11		
	N20a	Northwest	303	73	-10	-58	3	>300m		
	N21	Northwest	311	72	-10	-58	3	>300m		
	N21a	Northwest	312	73	-10	-58	3	>300m		
	N22	Northwest	509	72	-10	-62	3	>300m		
	N23	Northwest	319	72	-10	-58	3	>300m		
	N24	Northwest	323	72	-10	-58	3	>300m		
	N25	Northwest	323	74	-10	-58	3	>300m		
	N26	Northwest	335	75	-10	-59	3	>300m		
	N27	Northwest	345	72	-10	-59	3	>300m		
	N28	Northwest	346	74	-10	-59	3	>300m		
	N29	Northwest	353	74	-10	-59	3	>300m		
	N30	Northwest	355	72	-10	-59	3	>300m		
	N30a	Northwest	362	73	-10	-59	3	>300m		
	N31	Northwest	355	74	-10	-59	3	>300m		
	N31a	Northeast	361	77	-10	-59	3	>300m		
	N31b	Northeast	358	77	-10	-59	3	>300m		
	N31c	Northeast	362	77	-10	-59	3	>300m		
	N31d	Northeast	358	77	-10	-59	3	>300m		
	N32	Northeast	348	75	-10	-59	3	>300m		
	N32a	Northeast	355	73	-10	-59	3	>300m		
	N32b	Southeast	350	73	-10	-59	3	>300m		
	N33	Southeast	343	75	-10	-59	3	>300m		
	N34	Southeast	335	75	-10	-59	3	>300m		
	N34a	Southeast	326	68	-10	-58	3	>300m		
	N35	Southeast	315	77	-10	-58	3	>300m		
	N36	Southeast	307	75	-10	-58	3	>300m		
	N37	Southeast	304	75	-10	-58	3	>300m		
	N38	Southeast	298	63	-10	-57	3	-1		
	N39	Southeast	294	75	-10	-57	3	11		
	N39a	Southeast	281	70	-10	-57	3	6		
	N40	Southeast	269	73	-10	-57	3	9		
	N40a	Southeast	265	73	-10	-56	3	10		
	N40b	Southwest	267	77	-10	-57	3	13		
	N41	Southeast	197	70	-10	-54	3	9		
	N41a	Southeast	176	67	-10	-53	3	7		
	N43	Southeast	160	67	-10	-52	3	8		
	N44	Southeast	154	71	-10	-52	3	12		
	N45	Southeast	151	67	-10	-52	3	8		
	N45a	Southeast	141	63	-10	-51	3	5		
	N45b	Southeast	134	63	-10	-51	3	5		
	N46	Southeast	124	71	-10	-50	3	14		
	N46a	Southeast	116	70	-10	-49	3	14		
	N47	Southwest	130	71	-10	-50	3	14		
	N47a	Southwest	123	70	-10	-50	3	13		
	N47b	West	132	70	-10	-50	3	13		
	N47c	West	140	70	-10	-51	3	12		
	N48	Northeast	177	74	-10	-53	3	14		
	N49	Northeast	161	71	-10	-52	3	12		
	N50	Northeast	295	76	-10	-57	3	12		
	N50a	Top	305	76	0	-58	3	>300m		
	N51	Southwest	308	76	-10	-58	3	>300m		
	N52	Southwest	317	73	-10	-58	3	>300m		
	N53	Northeast	173	74	-10	-53	3	14		
	N54	Northeast	182	74	-10	-53	3	14		
	N55	West	154	74	-10	-52	3	15		
	N56	Southwest	148	74	-10	-51	3	16		
	NTD01	North	84	73	-10	-47	3	19		
	NTD02	North	84	71	-10	-46	3	18		
	NTD03	East	65	70	0	-44	3	29		
	NTD04	East	42	70	0	-40	3	33		
	NTD05	East	32	70	0	-38	3	35		
	NTD06	East	27	71	0	-36	3	38		
	NTD07	East	22	70	0	-35	3	38		
	NTD08	East	17	70	0	-33	3	40		
	NTD09	East	14	65	0	-31	3	37		
	NTD10	East	7	65	0	-25	3	43		
	NTD11	East	12	65	0	-29	3	39		
	NTD12	West	31	70	-5	-38	3	30		
	NTD13	West	26	74	-5	-36	3	36		
	NTD14	West	22	72	-5	-35	3	35		
	NTD15	West	18	72	-5	-33	3	37		
	NTD15a	West	16	75	-5	-32	3	41		
	NTD16	West	21	75	-5	-35	3	38		
	NTD16a	West	55	75	-5	-43	3	30		
	NTD17	West	66	72	-5	-44	3	26		

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	71	68	-5	-45	3	21
NTD19	West	76	68	-5	-46	3	20
NTD20	West	81	68	-5	-46	3	20
NTD21	West	43	73	-5	-41	3	30
NTD22	West	61	75	-5	-44	3	29
NTD23	West	78	75	-5	-46	3	27
NTD24	West	90	71	-5	-47	3	22
NTD25	West	96	75	-5	-48	3	25
NTD26	West	103	65	-5	-48	3	15
NTD27	West	110	65	-5	-49	3	14
NTD28	West	121	70	-5	-50	3	18
NTD29	West	129	70	-5	-50	3	18
NTD30	West	141	78	-5	-51	3	25
NTD31	Southwest	153	75	-5	-52	3	21
NTD32	Southwest	175	77	-5	-53	3	22
NTD33	Southwest	216	76	-5	-55	3	19
NTD34	Southwest	233	75	-10	-55	3	13
NTD35	South	289	80	-10	-57	3	16
NTD36	South	301	80	-10	-58	3	>300m
NTD37	South	308	80	-10	-58	3	>300m
NTD38	South	315	80	-10	-58	3	>300m
NTD39	South	320	80	-10	-58	3	>300m
NTD40	Top	318	75	-10	-58	3	>300m
NTD41	Southeast	315	70	-10	-58	3	>300m
NTD42	Southeast	303	70	-10	-58	3	>300m
NTD43	South	303	70	-10	-58	3	>300m
NTD44	East	323	70	-10	-58	3	>300m
NTD45	East	320	70	-10	-58	3	>300m
NTD46	East	317	70	-10	-58	3	>300m
NTD47	East	314	70	-10	-58	3	>300m
NTD48	East	309	65	-10	-58	3	>300m
NTD49	East	302	65	-10	-58	3	>300m
NTD50	East	297	65	-10	-57	3	1
NTD51	East	294	75	-10	-57	3	11
NTD52	East	290	68	-10	-57	3	4
NTD53	East	287	63	-10	-57	3	-1
NTD54	Northeast	274	68	-10	-57	3	4
NTD55	East	217	80	-10	-55	3	18
NTD56	East	215	67	-10	-55	3	5
NTD57	South	219	73	-10	-55	3	11
NTD58	South	224	68	-10	-55	3	6
NTD59	South	229	65	-10	-55	3	3
NTD60	South	236	64	-10	-55	3	2
NTD61	South	243	66	-10	-56	3	3
NTD62	South	250	75	-10	-56	3	12
NTD63	South	259	73	-10	-56	3	10
NTD64	South	267	67	-10	-57	3	3
NTD65	East	271	67	-10	-57	3	3
NTD66	East	272	69	-10	-57	3	5
NTD67	Northeast	269	68	-10	-57	3	4
NTD68	Northeast	256	70	-10	-56	3	7
NTD69	Northeast	248	65	-10	-56	3	2
NTD70	Northeast	246	70	-10	-56	3	7
NTD71	Northeast	243	70	-10	-56	3	7
NTD72	Northeast	237	73	-10	-55	3	11
NTD73	East	205	70	-10	-54	3	9
NTD74	East	207	70	-10	-54	3	9
NTD75	East	211	70	-10	-54	3	9
NTD76	East	213	70	-10	-55	3	8
NTD77	Southeast	285	72	-10	-57	3	8
NTD78	Northeast	295	70	-10	-57	3	6
NTD79	Northeast	296	71	-10	-57	3	7
NTD80	Northeast	298	70	-10	-57	3	6
NTD81	Northeast	298	70	-10	-57	3	6
NTD82	Northeast	299	70	-10	-58	3	5
NTD83	Northeast	302	70	-10	-58	3	>300m
NTD84	Northeast	301	70	-10	-58	3	>300m
NTD85	Northwest	297	70	-10	-57	3	6
NTD86	Northwest	276	72	-10	-57	3	8
NTD87	Northwest	259	70	-10	-56	3	7
NTD88	Northwest	252	69	-10	-56	3	6
NTD89	Northwest	230	68	-10	-55	3	6
NTD90	Northwest	224	67	-10	-55	3	5
NTD91	Northwest	213	70	-10	-55	3	8
NTD92	Northwest	202	69	-10	-54	3	8
NTD93	West	315	73	-10	-58	3	>300m
NTD94	South	322	68	-10	-58	3	>300m
NTD94a	South	323	68	-10	-58	3	>300m
NTD95	South	325	68	-10	-58	3	>300m
NTD96	South	327	69	-10	-58	3	>300m
NTD97	Top	325	75	0	-58	3	>300m
NTD98	Top	328	75	0	-58	3	>300m
NTD99	Top	332	75	0	-58	3	>300m
NTD100	South	338	75	-10	-59	3	>300m
NTD101	Northeast	340	75	-10	-59	3	>300m
NTD102	Northeast	348	70	-10	-59	3	>300m
NTD103	Northeast	351	70	-10	-59	3	>300m
NTD104	Northeast	359	78	-10	-59	3	>300m
NTD105	Southeast	366	68	-10	-59	3	>300m
NTD106	Southeast	372	70	-10	-59	3	>300m
NTD107	Southeast	382	67	-10	-60	3	>300m
NTD108	Southeast	384	77	-10	-60	3	>300m
NTD109	Southeast	390	77	-10	-60	3	>300m
NTD110	Southeast	389	80	-10	-60	3	>300m
NTD111	Southwest	346	72	-10	-59	3	>300m
NTD112	Southwest	377	72	-10	-60	3	>300m
NTD113	Southwest	380	72	-10	-60	3	>300m
NTD114	Southwest	377	80	-10	-60	3	>300m
NTD115	Southwest	359	80	-10	-59	3	>300m

50

50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-PF07g
 Description: Potential Development at NTM LUR

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-PF07g	N01	Northwest	107	79	-10	-49	3	23		
	N02	Northwest	117	79	-10	-49	3	23		
	N03	Northwest	126	79	-10	-50	3	22		
	N04	Northwest	127	77	-10	-50	3	20		
	N05	Northwest	131	77	-10	-50	3	20		
	N06	Northwest	136	77	-10	-51	3	19		
	N07	Northwest	138	77	-10	-51	3	19		
	N08	Northwest	139	80	-10	-51	3	22		
	N09	Northwest	141	77	-10	-51	3	19		
	N10	Northwest	144	77	-10	-51	3	19		
	N11	Northwest	147	77	-10	-51	3	19		
	N12	Northwest	151	82	-10	-52	3	23		
	N12a	Northwest	155	78	-10	-52	3	19		
	N12b	Northwest	163	78	-10	-52	3	19		
	N12c	Northwest	175	78	-10	-53	3	18		
	N12d	Northwest	149	80	-10	-51	3	22		
	N13	Top	142	80	-10	-51	3	22		
	N14	Top	222	80	-10	-55	3	18		
	N15	Northwest	234	77	-10	-55	3	15		
	N15a	Northwest	229	78	-10	-55	3	16		
	N16	Northwest	236	77	-10	-55	3	15		
	N17	Northwest	239	80	-10	-56	3	17		
	N18	Northwest	241	77	-10	-56	3	14		
	N19	Northwest	243	77	-10	-56	3	14		
	N20	Northwest	243	80	-10	-56	3	17		
	N20a	Northwest	255	78	-10	-56	3	15		
	N21	Northwest	263	77	-10	-56	3	14		
	N21a	Northwest	265	78	-10	-56	3	15		
	N22	Northwest	482	77	-10	-62	3	>300m		
	N23	Northwest	272	77	-10	-57	3	13		
	N24	Northwest	276	77	-10	-57	3	13		
	N25	Northwest	276	79	-10	-57	3	15		
	N26	Northwest	288	80	-10	-57	3	16		
	N27	Northwest	299	77	-10	-58	3	12		
	N28	Northwest	300	79	-10	-58	3	14		
	N29	Northwest	307	79	-10	-58	3	>300m		
	N30	Northwest	309	77	-10	-58	3	>300m		
	N30a	Northwest	315	78	-10	-58	3	>300m		
	N31	Northwest	310	79	-10	-58	3	>300m		
	N31a	Northeast	316	82	-10	-58	3	>300m		
	N31b	Northeast	313	82	-10	-58	3	>300m		
	N31c	Northeast	316	82	-10	-58	3	>300m		
	N31d	Northeast	313	82	-10	-58	3	>300m		
	N32	Northeast	304	80	-10	-58	3	>300m		
	N32a	Northeast	311	78	-10	-58	3	>300m		
	N32b	Southeast	307	78	-10	-58	3	>300m		
	N33	Southeast	299	80	-10	-58	3	15		
	N34	Southeast	292	80	-10	-57	3	16		
	N34a	Southeast	282	73	-10	-57	3	9		
	N35	Southeast	271	82	-10	-57	3	18		
	N36	Southeast	263	80	-10	-56	3	17		
	N37	Southeast	259	80	-10	-56	3	17		
	N38	Southeast	254	68	-10	-56	3	5		
	N39	Southeast	249	80	-10	-56	3	17		
	N39a	Southeast	236	75	-10	-55	3	13		
	N40	Southeast	224	78	-10	-55	3	16		
	N40a	Southeast	219	78	-10	-55	3	16		
	N40b	Southeast	220	82	-10	-55	3	20		
	N41	Southeast	149	75	-10	-51	3	17		
	N41a	Southeast	127	72	-10	-50	3	15		
	N43	Southeast	109	72	-10	-49	3	16		
	N44	Southeast	103	76	-10	-48	3	21		
	N45	Southeast	100	72	-10	-48	3	17		
	N45a	Southeast	89	68	-10	-47	3	14		
	N45b	Southeast	82	68	-10	-46	3	15		
	N46	Southeast	72	76	-10	-45	3	24		
	N46a	Southeast	64	75	0	-44	3	34		
	N47	Southwest	77	76	-10	-46	3	23		
	N47a	Southwest	71	75	0	-45	3	33		
	N47b	West	81	75	0	-46	3	32		
	N47c	West	89	75	0	-47	3	31		
	N48	Northeast	124	79	-10	-50	3	22		
	N49	Northeast	109	76	-10	-49	3	20		
	N50	Northeast	249	81	-10	-56	3	18		
	N50a	Top	259	81	0	-56	3	28		
	N51	Southwest	262	81	-10	-56	3	18		
	N52	Southwest	270	78	-10	-57	3	14		
	N53	Northeast	123	79	-10	-50	3	22		
	N54	Northeast	131	79	-10	-50	3	22		
	N55	West	102	79	-10	-48	3	24		
	N56	Southwest	97	79	0	-48	3	34		
	NTD01	North	34	78	-10	-39	3	32		
	NTD02	North	32	76	-10	-38	3	31		
	NTD03	East	13	75	0	-30	3	48		
	NTD04	East	11	75	0	-29	3	49		
	NTD05	East	21	75	0	-34	3	44		
	NTD06	East	27	76	0	-36	3	43		
	NTD07	East	31	75	0	-38	3	40		
	NTD08	East	39	75	0	-40	3	38		
	NTD09	East	42	70	0	-41	3	32		
	NTD10	East	48	70	0	-42	3	31		
	NTD11	East	63	70	0	-44	3	29		
	NTD12	West	81	75	-5	-46	3	27		
	NTD13	West	75	79	-5	-46	3	31		
	NTD14	West	70	77	-5	-45	3	30		
	NTD15	West	65	77	-5	-44	3	31		
	NTD15a	West	53	80	-5	-43	3	35		
	NTD16	West	40	80	-5	-40	3	38		

Appendix 4.11 Fixed Plant Noise Calculation

NTD16a	West	15	80	-5	-31	3	47
NTD17	West	19	77	-5	-34	3	41
NTD18	West	22	73	-5	-35	3	36
NTD19	West	26	73	-5	-36	3	35
NTD20	West	31	73	-5	-38	3	33
NTD21	West	94	78	-5	-47	3	29
NTD22	West	112	80	-5	-49	3	29
NTD23	West	129	80	-5	-50	3	28
NTD24	West	142	76	-5	-51	3	23
NTD25	West	148	80	-5	-51	3	27
NTD26	West	155	70	-5	-52	3	16
NTD27	West	162	70	-5	-52	3	16
NTD28	West	173	75	-5	-53	3	20
NTD29	West	182	75	-5	-53	3	20
NTD30	West	194	83	-5	-54	3	27
NTD31	Southwest	205	80	-5	-54	3	24
NTD32	Southwest	227	82	-5	-55	3	25
NTD33	Southwest	268	81	-5	-57	3	22
NTD34	Southwest	286	80	-10	-57	3	16
NTD35	South	339	85	-10	-59	3	>300m
NTD36	South	351	85	-10	-59	3	>300m
NTD37	South	357	85	-10	-59	3	>300m
NTD38	South	363	85	-10	-59	3	>300m
NTD39	South	368	85	-10	-59	3	>300m
NTD40	Top	365	80	-10	-59	3	>300m
NTD41	Southeast	363	75	-10	-59	3	>300m
NTD42	Southeast	349	75	-10	-59	3	>300m
NTD43	South	349	75	-10	-59	3	>300m
NTD44	East	366	75	-10	-59	3	>300m
NTD45	East	363	75	-10	-59	3	>300m
NTD46	East	360	75	-10	-59	3	>300m
NTD47	East	356	75	-10	-59	3	>300m
NTD48	East	351	70	-10	-59	3	>300m
NTD49	East	343	70	-10	-59	3	>300m
NTD50	East	338	70	-10	-59	3	>300m
NTD51	East	334	80	-10	-58	3	>300m
NTD52	East	330	73	-10	-58	3	>300m
NTD53	East	327	68	-10	-58	3	>300m
NTD54	Northeast	312	73	-10	-58	3	>300m
NTD55	East	244	85	-10	-56	3	22
NTD56	East	239	72	-10	-56	3	9
NTD57	South	241	78	-10	-56	3	15
NTD58	South	245	73	-10	-56	3	10
NTD59	South	250	70	-10	-56	3	7
NTD60	South	256	69	-10	-56	3	6
NTD61	South	262	71	-10	-56	3	8
NTD62	South	268	80	-10	-57	3	16
NTD63	South	276	78	-10	-57	3	14
NTD64	South	283	72	-10	-57	3	8
NTD65	East	278	72	-10	-57	3	8
NTD66	East	277	74	-10	-57	3	10
NTD67	Northeast	272	73	-10	-57	3	9
NTD68	Northeast	257	75	-10	-56	3	12
NTD69	Northeast	248	70	-10	-56	3	7
NTD70	Northeast	245	75	-10	-56	3	12
NTD71	Northeast	242	75	-10	-56	3	12
NTD72	Northeast	235	78	-10	-55	3	16
NTD73	East	181	75	-10	-53	3	15
NTD74	East	182	75	-10	-53	3	15
NTD75	East	185	75	-10	-53	3	15
NTD76	East	186	75	-10	-53	3	15
NTD77	Southeast	247	77	-10	-56	3	14
NTD78	Northeast	256	75	-10	-56	3	12
NTD79	Northeast	256	76	-10	-56	3	13
NTD80	Northeast	257	75	-10	-56	3	12
NTD81	Northeast	257	75	-10	-56	3	12
NTD82	Northeast	257	75	-10	-56	3	12
NTD83	Northeast	259	75	-10	-56	3	12
NTD84	Northeast	258	75	-10	-56	3	12
NTD85	Northwest	254	75	-10	-56	3	12
NTD86	Northwest	232	77	-10	-55	3	15
NTD87	Northwest	215	75	-10	-55	3	13
NTD88	Northwest	208	74	-10	-54	3	13
NTD89	Northwest	185	73	-10	-53	3	13
NTD90	Northwest	178	72	-10	-53	3	12
NTD91	Northwest	167	75	-10	-52	3	16
NTD92	Northwest	155	74	-10	-52	3	15
NTD93	West	361	78	-10	-59	3	>300m
NTD94	South	368	73	-10	-59	3	>300m
NTD94a	South	369	73	-10	-59	3	>300m
NTD95	South	371	73	-10	-59	3	>300m
NTD96	South	373	74	-10	-59	3	>300m
NTD97	Top	370	80	0	-59	3	>300m
NTD98	Top	373	80	0	-59	3	>300m
NTD99	Top	376	80	0	-60	3	>300m
NTD100	South	383	80	-10	-60	3	>300m
NTD101	Northeast	391	80	-10	-60	3	>300m
NTD102	Northeast	399	75	-10	-60	3	>300m
NTD103	Northeast	402	75	-10	-60	3	>300m
NTD104	Northeast	409	83	-10	-60	3	>300m
NTD105	Southeast	416	73	-10	-60	3	>300m
NTD106	Southeast	422	75	-10	-60	3	>300m
NTD107	Southeast	431	72	-10	-61	3	>300m
NTD108	Southeast	434	82	-10	-61	3	>300m
NTD109	Southeast	440	82	-10	-61	3	>300m
NTD110	Southeast	440	85	-10	-61	3	>300m
NTD111	Southwest	398	77	-10	-60	3	>300m
NTD112	Southwest	428	77	-10	-61	3	>300m
NTD113	Southwest	430	77	-10	-61	3	>300m
NTD114	Southwest	428	85	-10	-61	3	>300m
NTD115	Southwest	410	85	-10	-60	3	>300m

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-PF07g	N01	Northwest	107	74	-10	-49	3	18		
	N02	Northwest	117	74	-10	-49	3	18		
	N03	Northwest	126	74	-10	-50	3	17		
	N04	Northwest	127	72	-10	-50	3	15		
	N05	Northwest	131	72	-10	-50	3	15		
	N06	Northwest	136	72	-10	-51	3	14		
	N07	Northwest	138	72	-10	-51	3	14		
	N08	Northwest	139	75	-10	-51	3	17		
	N09	Northwest	141	72	-10	-51	3	14		
	N10	Northwest	144	72	-10	-51	3	14		
	N11	Northwest	147	72	-10	-51	3	14		
	N12	Northwest	151	77	-10	-52	3	18		
	N12a	Northwest	155	73	-10	-52	3	14		
	N12b	Northwest	163	73	-10	-52	3	14		
	N12c	Northwest	175	73	-10	-53	3	13		
	N12d	Northwest	149	75	-10	-51	3	17		
	N13	Top	142	75	-10	-51	3	17		
	N14	Top	222	75	-10	-55	3	13		
	N15	Northwest	234	72	-10	-55	3	10		
	N15a	Northwest	229	73	-10	-55	3	11		
	N16	Northwest	236	72	-10	-55	3	10		
	N17	Northwest	239	75	-10	-56	3	12		
	N18	Northwest	241	72	-10	-56	3	9		
	N19	Northwest	243	72	-10	-56	3	9		
	N20	Northwest	243	75	-10	-56	3	12		
	N20a	Northwest	255	73	-10	-56	3	10		
	N21	Northwest	263	72	-10	-56	3	9		
	N21a	Northwest	265	73	-10	-56	3	10		
	N22	Northwest	482	72	-10	-62	3	>300m		
	N23	Northwest	272	72	-10	-57	3	8		
	N24	Northwest	276	72	-10	-57	3	8		
	N25	Northwest	276	74	-10	-57	3	10		
	N26	Northwest	288	75	-10	-57	3	11		
	N27	Northwest	299	72	-10	-58	3	7		
	N28	Northwest	300	74	-10	-58	3	9		
	N29	Northwest	307	74	-10	-58	3	>300m		
	N30	Northwest	309	72	-10	-58	3	>300m		
	N30a	Northwest	315	73	-10	-58	3	>300m		
	N31	Northwest	310	74	-10	-58	3	>300m		
	N31a	Northeast	316	77	-10	-58	3	>300m		
	N31b	Northeast	313	77	-10	-58	3	>300m		
	N31c	Northeast	316	77	-10	-58	3	>300m		
	N31d	Northeast	313	77	-10	-58	3	>300m		
	N32	Northeast	304	75	-10	-58	3	>300m		
	N32a	Northeast	311	73	-10	-58	3	>300m		
	N32b	Southeast	307	73	-10	-58	3	>300m		
	N33	Southeast	299	75	-10	-58	3	10		
	N34	Southeast	292	75	-10	-57	3	11		
	N34a	Southeast	282	68	-10	-57	3	4		
	N35	Southeast	271	77	-10	-57	3	13		
	N36	Southeast	263	75	-10	-56	3	12		
	N37	Southeast	259	75	-10	-56	3	12		
	N38	Southeast	254	63	-10	-56	3	0		
	N39	Southeast	249	75	-10	-56	3	12		
	N39a	Southeast	236	70	-10	-55	3	8		
	N40	Southeast	224	73	-10	-55	3	11		
	N40a	Southeast	219	73	-10	-55	3	11		
	N40b	Southwest	220	77	-10	-55	3	15		
	N41	Southeast	149	70	-10	-51	3	12		
	N41a	Southeast	127	67	-10	-50	3	10		
	N43	Southeast	109	67	-10	-49	3	11		
	N44	Southeast	103	71	-10	-48	3	16		
	N45	Southeast	100	67	-10	-48	3	12		
	N45a	Southeast	89	63	-10	-47	3	9		
	N45b	Southeast	82	63	-10	-46	3	10		
	N46	Southeast	72	71	-10	-45	3	19		
	N46a	Southeast	64	70	0	-44	3	29		
	N47	Southwest	77	71	-10	-46	3	18		
	N47a	Southwest	71	70	0	-45	3	28		
	N47b	West	81	70	0	-46	3	27		
	N47c	West	89	70	0	-47	3	26		
	N48	Northeast	124	74	-10	-50	3	17		
N49	Northeast	109	71	-10	-49	3	15			
N50	Northeast	249	76	-10	-56	3	13			
N50a	Top	259	76	0	-56	3	23			
N51	Southwest	262	76	-10	-56	3	13			
N52	Southwest	270	73	-10	-57	3	9			
N53	Northeast	123	74	-10	-50	3	17			
N54	Northeast	131	74	-10	-50	3	17			
N55	West	102	74	-10	-48	3	19			
N56	Southwest	97	74	0	-48	3	29			
NTD01	North	34	73	-10	-39	3	27			
NTD02	North	32	71	-10	-38	3	26			
NTD03	East	13	70	0	-30	3	43			
NTD04	East	11	70	0	-29	3	44			
NTD05	East	21	70	0	-34	3	39			
NTD06	East	27	71	0	-36	3	38			
NTD07	East	31	70	0	-38	3	35			
NTD08	East	39	70	0	-40	3	33			
NTD09	East	42	65	0	-41	3	27			
NTD10	East	48	65	0	-42	3	26			
NTD11	East	63	65	0	-44	3	24			
NTD12	West	81	70	-5	-46	3	22			
NTD13	West	75	74	-5	-46	3	26			
NTD14	West	70	72	-5	-45	3	25			
NTD15	West	65	72	-5	-44	3	26			
NTD15a	West	53	75	-5	-43	3	30			
NTD16	West	40	75	-5	-40	3	33			
NTD16a	West	15	75	-5	-31	3	42			
NTD17	West	19	72	-5	-34	3	36			

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	22	68	-5	-35	3	31
NTD19	West	26	68	-5	-36	3	30
NTD20	West	31	68	-5	-38	3	28
NTD21	West	94	73	-5	-47	3	24
NTD22	West	112	75	-5	-49	3	24
NTD23	West	129	75	-5	-50	3	23
NTD24	West	142	71	-5	-51	3	18
NTD25	West	148	75	-5	-51	3	22
NTD26	West	155	65	-5	-52	3	11
NTD27	West	162	65	-5	-52	3	11
NTD28	West	173	70	-5	-53	3	15
NTD29	West	182	70	-5	-53	3	15
NTD30	West	194	78	-5	-54	3	22
NTD31	Southwest	205	75	-5	-54	3	19
NTD32	Southwest	227	77	-5	-55	3	20
NTD33	Southwest	268	76	-5	-57	3	17
NTD34	Southwest	286	75	-10	-57	3	11
NTD35	South	339	80	-10	-59	3	>300m
NTD36	South	351	80	-10	-59	3	>300m
NTD37	South	357	80	-10	-59	3	>300m
NTD38	South	363	80	-10	-59	3	>300m
NTD39	South	368	80	-10	-59	3	>300m
NTD40	Top	365	75	-10	-59	3	>300m
NTD41	Southeast	363	70	-10	-59	3	>300m
NTD42	Southeast	349	70	-10	-59	3	>300m
NTD43	South	349	70	-10	-59	3	>300m
NTD44	East	366	70	-10	-59	3	>300m
NTD45	East	363	70	-10	-59	3	>300m
NTD46	East	360	70	-10	-59	3	>300m
NTD47	East	356	70	-10	-59	3	>300m
NTD48	East	351	65	-10	-59	3	>300m
NTD49	East	343	65	-10	-59	3	>300m
NTD50	East	338	65	-10	-59	3	>300m
NTD51	East	334	75	-10	-58	3	>300m
NTD52	East	330	68	-10	-58	3	>300m
NTD53	East	327	63	-10	-58	3	>300m
NTD54	Northeast	312	68	-10	-58	3	>300m
NTD55	East	244	80	-10	-56	3	17
NTD56	East	239	67	-10	-56	3	4
NTD57	South	241	73	-10	-56	3	10
NTD58	South	245	68	-10	-56	3	5
NTD59	South	250	65	-10	-56	3	2
NTD60	South	256	64	-10	-56	3	1
NTD61	South	262	66	-10	-56	3	3
NTD62	South	268	75	-10	-57	3	11
NTD63	South	276	73	-10	-57	3	9
NTD64	South	283	67	-10	-57	3	3
NTD65	East	278	67	-10	-57	3	3
NTD66	East	277	69	-10	-57	3	5
NTD67	Northeast	272	68	-10	-57	3	4
NTD68	Northeast	257	70	-10	-56	3	7
NTD69	Northeast	248	65	-10	-56	3	2
NTD70	Northeast	245	70	-10	-56	3	7
NTD71	Northeast	242	70	-10	-56	3	7
NTD72	Northeast	235	73	-10	-55	3	11
NTD73	East	181	70	-10	-53	3	10
NTD74	East	182	70	-10	-53	3	10
NTD75	East	185	70	-10	-53	3	10
NTD76	East	186	70	-10	-53	3	10
NTD77	Southeast	247	72	-10	-56	3	9
NTD78	Northeast	256	70	-10	-56	3	7
NTD79	Northeast	256	71	-10	-56	3	8
NTD80	Northeast	257	70	-10	-56	3	7
NTD81	Northeast	257	70	-10	-56	3	7
NTD82	Northeast	257	70	-10	-56	3	7
NTD83	Northeast	259	70	-10	-56	3	7
NTD84	Northeast	258	70	-10	-56	3	7
NTD85	Northwest	254	70	-10	-56	3	7
NTD86	Northwest	232	72	-10	-55	3	10
NTD87	Northwest	215	70	-10	-55	3	8
NTD88	Northwest	208	69	-10	-54	3	8
NTD89	Northwest	185	68	-10	-53	3	8
NTD90	Northwest	178	67	-10	-53	3	7
NTD91	Northwest	167	70	-10	-52	3	11
NTD92	Northwest	155	69	-10	-52	3	10
NTD93	West	361	73	-10	-59	3	>300m
NTD94	South	368	68	-10	-59	3	>300m
NTD94a	South	369	68	-10	-59	3	>300m
NTD95	South	371	68	-10	-59	3	>300m
NTD96	South	373	69	-10	-59	3	>300m
NTD97	Top	370	75	0	-59	3	>300m
NTD98	Top	373	75	0	-59	3	>300m
NTD99	Top	376	75	0	-60	3	>300m
NTD100	South	383	75	-10	-60	3	>300m
NTD101	Northeast	391	75	-10	-60	3	>300m
NTD102	Northeast	399	70	-10	-60	3	>300m
NTD103	Northeast	402	70	-10	-60	3	>300m
NTD104	Northeast	409	78	-10	-60	3	>300m
NTD105	Southeast	416	68	-10	-60	3	>300m
NTD106	Southeast	422	70	-10	-60	3	>300m
NTD107	Southeast	431	67	-10	-61	3	>300m
NTD108	Southeast	434	77	-10	-61	3	>300m
NTD109	Southeast	440	77	-10	-61	3	>300m
NTD110	Southeast	440	80	-10	-61	3	>300m
NTD111	Southwest	398	72	-10	-60	3	>300m
NTD112	Southwest	428	72	-10	-61	3	>300m
NTD113	Southwest	430	72	-10	-61	3	>300m
NTD114	Southwest	428	80	-10	-61	3	>300m
NTD115	Southwest	410	80	-10	-60	3	>300m

50

50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-PF07h
 Description: Potential Development at NTM LUR

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ⁽¹⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-PF07h	N01	Northwest	50	79	-10	-42	3	30		
	N02	Northwest	50	79	-10	-42	3	30		
	N03	Northwest	54	79	-10	-43	3	29		
	N04	Northwest	54	77	-10	-43	3	27		
	N05	Northwest	57	77	-10	-43	3	27		
	N06	Northwest	60	77	-10	-44	3	26		
	N07	Northwest	62	77	-10	-44	3	26		
	N08	Northwest	63	80	-10	-44	3	29		
	N09	Northwest	64	77	-10	-44	3	26		
	N10	Northwest	67	77	-10	-44	3	26		
	N11	Northwest	70	77	-10	-45	3	25		
	N12	Northwest	73	82	-10	-45	3	30		
	N12a	Northwest	77	78	-10	-46	3	25		
	N12b	Northwest	85	78	-10	-47	3	24		
	N12c	Northwest	96	78	-10	-48	3	23		
	N12d	Northwest	70	80	-10	-45	3	28		
	N13	Top	64	80	0	-44	3	39		
	N14	Top	145	80	0	-51	3	32		
	N15	Northwest	156	77	-10	-52	3	18		
	N15a	Northwest	151	78	-10	-52	3	19		
	N16	Northwest	158	77	-10	-52	3	18		
	N17	Northwest	161	80	-10	-52	3	21		
	N18	Northwest	163	77	-10	-52	3	18		
	N19	Northwest	165	77	-10	-52	3	18		
	N20	Northwest	166	80	-10	-52	3	21		
	N20a	Northwest	178	78	-10	-53	3	18		
	N21	Northwest	187	77	-10	-53	3	17		
	N21a	Northwest	188	78	-10	-53	3	18		
	N22	Northwest	430	77	-10	-61	3	>300m		
	N23	Northwest	195	77	-10	-54	3	16		
	N24	Northwest	199	77	-10	-54	3	16		
	N25	Northwest	200	79	-10	-54	3	18		
	N26	Northwest	212	80	-10	-55	3	18		
	N27	Northwest	223	77	-10	-55	3	15		
	N28	Northwest	224	79	-10	-55	3	17		
	N29	Northwest	231	79	-10	-55	3	17		
	N30	Northwest	233	77	-10	-55	3	15		
	N30a	Northwest	240	78	-10	-56	3	15		
	N31	Northwest	235	79	-10	-55	3	17		
	N31a	Northeast	241	82	-10	-56	3	19		
	N31b	Northeast	239	82	-10	-56	3	19		
	N31c	Northeast	241	82	-10	-56	3	19		
	N31d	Northeast	239	82	-10	-56	3	19		
	N32	Northeast	231	80	-10	-55	3	18		
	N32a	Northeast	238	78	-10	-56	3	15		
	N32b	Southeast	234	78	0	-55	3	26		
	N33	Southeast	227	80	0	-55	3	28		
	N34	Southeast	219	80	0	-55	3	28		
	N34a	Southeast	209	73	0	-54	3	22		
	N35	Southeast	198	82	0	-54	3	31		
	N36	Southeast	190	80	0	-54	3	29		
	N37	Southeast	186	80	0	-53	3	30		
	N38	Southeast	181	68	0	-53	3	18		
	N39	Southeast	176	80	0	-53	3	30		
	N39a	Southeast	163	75	0	-52	3	26		
	N40	Southeast	150	78	0	-52	3	29		
	N40a	Southeast	145	78	0	-51	3	30		
	N40b	Southeast	144	82	0	-51	3	34		
	N41	Southeast	72	75	0	-45	3	33		
	N41a	Southeast	49	72	0	-42	3	33		
	N43	Southeast	31	72	0	-38	3	37		
	N44	Southeast	24	76	0	-36	3	43		
	N45	Southeast	21	72	0	-35	3	40		
	N45a	Southeast	14	68	0	-31	3	40		
	N45b	Southeast	15	68	0	-31	3	40		
	N46	Southeast	21	76	0	-34	3	45		
	N46a	Southeast	32	75	0	-38	3	40		
	N47	Southwest	27	76	-10	-37	3	32		
	N47a	Southwest	38	75	0	-40	3	38		
	N47b	West	42	75	0	-41	3	37		
	N47c	West	44	75	0	-41	3	37		
	N48	Northeast	50	79	0	-42	3	40		
	N49	Northeast	31	76	0	-38	3	41		
	N50	Northeast	174	81	0	-53	3	31		
	N50a	Top	185	81	0	-53	3	31		
	N51	Southwest	186	81	-10	-53	3	21		
	N52	Southwest	194	78	0	-54	3	27		
	N53	Northeast	44	79	-10	-41	3	31		
	N54	Northeast	53	79	-10	-42	3	30		
	N55	West	50	79	-10	-42	3	30		
	N56	Southwest	41	79	0	-40	3	42		
	NTD01	North	57	78	-10	-43	3	28		
	NTD02	North	54	76	-10	-43	3	26		
	NTD03	East	69	75	-10	-45	3	23		
	NTD04	East	90	75	-10	-47	3	21		
	NTD05	East	100	75	-10	-48	3	20		
	NTD06	East	105	76	-10	-48	3	21		
	NTD07	East	110	75	-10	-49	3	19		
	NTD08	East	117	75	-10	-49	3	19		
	NTD09	East	121	70	-10	-50	3	13		
	NTD10	East	127	70	-10	-50	3	13		
	NTD11	East	141	70	-10	-51	3	12		
	NTD12	West	160	75	-10	-52	3	16		
	NTD13	West	154	79	-10	-52	3	20		
	NTD14	West	148	77	-10	-51	3	19		
	NTD15	West	143	77	-10	-51	3	19		
	NTD15a	West	132	80	-10	-50	3	23		
	NTD16	West	119	80	-10	-49	3	24		

Appendix 4.11 Fixed Plant Noise Calculation

NTD16a	West	84	80	-10	-46	3	27
NTD17	West	74	77	-10	-45	3	25
NTD18	West	69	73	-10	-45	3	21
NTD19	West	65	73	-10	-44	3	22
NTD20	West	60	73	-10	-44	3	22
NTD21	West	173	78	-10	-53	3	18
NTD22	West	191	80	-10	-54	3	19
NTD23	West	208	80	-10	-54	3	19
NTD24	West	220	76	-10	-55	3	14
NTD25	West	226	80	-10	-55	3	18
NTD26	West	233	70	-10	-55	3	8
NTD27	West	240	70	-10	-56	3	7
NTD28	West	251	75	-10	-56	3	12
NTD29	West	259	75	-10	-56	3	12
NTD30	West	271	83	-10	-57	3	19
NTD31	Southwest	283	80	-10	-57	3	16
NTD32	Southwest	304	82	-10	-58	3	>300m
NTD33	Southwest	344	81	-10	-59	3	>300m
NTD34	Southwest	361	80	-10	-59	3	>300m
NTD35	South	409	85	-10	-60	3	>300m
NTD36	South	418	85	-10	-60	3	>300m
NTD37	South	423	85	-10	-61	3	>300m
NTD38	South	428	85	-10	-61	3	>300m
NTD39	South	432	85	-10	-61	3	>300m
NTD40	Top	429	80	-10	-61	3	>300m
NTD41	Southeast	426	75	-10	-61	3	>300m
NTD42	Southeast	411	75	-10	-60	3	>300m
NTD43	South	409	75	-10	-60	3	>300m
NTD44	East	422	75	-10	-61	3	>300m
NTD45	East	419	75	-10	-60	3	>300m
NTD46	East	416	75	-10	-60	3	>300m
NTD47	East	412	75	-10	-60	3	>300m
NTD48	East	406	70	-10	-60	3	>300m
NTD49	East	398	70	-10	-60	3	>300m
NTD50	East	392	70	-10	-60	3	>300m
NTD51	East	388	80	-10	-60	3	>300m
NTD52	East	383	73	-10	-60	3	>300m
NTD53	East	379	68	-10	-60	3	>300m
NTD54	Northeast	363	73	-10	-59	3	>300m
NTD55	East	281	85	-10	-57	3	21
NTD56	East	272	72	-10	-57	3	8
NTD57	South	272	78	-10	-57	3	14
NTD58	South	275	73	-10	-57	3	9
NTD59	South	278	70	-10	-57	3	6
NTD60	South	282	69	-10	-57	3	5
NTD61	South	287	71	-10	-57	3	7
NTD62	South	292	80	-10	-57	3	16
NTD63	South	298	78	-10	-57	3	14
NTD64	South	302	72	-10	-58	3	>300m
NTD65	East	285	72	-10	-57	3	8
NTD66	East	281	74	-10	-57	3	10
NTD67	Northeast	274	73	-10	-57	3	9
NTD68	Northeast	256	75	-10	-56	3	12
NTD69	Northeast	246	70	-10	-56	3	7
NTD70	Northeast	243	75	-10	-56	3	12
NTD71	Northeast	239	75	-10	-56	3	12
NTD72	Northeast	232	78	-10	-55	3	16
NTD73	East	149	75	-10	-51	3	17
NTD74	East	148	75	-10	-51	3	17
NTD75	East	148	75	-10	-51	3	17
NTD76	East	148	75	-10	-51	3	17
NTD77	Southeast	185	77	-10	-53	3	17
NTD78	Northeast	191	75	-10	-54	3	14
NTD79	Northeast	190	76	-10	-54	3	15
NTD80	Northeast	189	75	-10	-54	3	14
NTD81	Northeast	189	75	-10	-54	3	14
NTD82	Northeast	188	75	-10	-53	3	15
NTD83	Northeast	188	75	-10	-53	3	15
NTD84	Northeast	187	75	-5	-53	3	20
NTD85	Northwest	182	75	-5	-53	3	20
NTD86	Northwest	161	77	-5	-52	3	23
NTD87	Northwest	143	75	-5	-51	3	22
NTD88	Northwest	136	74	-5	-51	3	21
NTD89	Northwest	112	73	-5	-49	3	22
NTD90	Northwest	106	72	-5	-48	3	22
NTD91	Northwest	95	75	-5	-48	3	25
NTD92	Northwest	82	74	-5	-46	3	26
NTD93	West	423	78	-10	-61	3	>300m
NTD94	South	429	73	-10	-61	3	>300m
NTD94a	South	430	73	-10	-61	3	>300m
NTD95	South	432	73	-10	-61	3	>300m
NTD96	South	433	74	-10	-61	3	>300m
NTD97	Top	430	80	-10	-61	3	>300m
NTD98	Top	432	80	-10	-61	3	>300m
NTD99	Top	435	80	-10	-61	3	>300m
NTD100	South	441	80	-10	-61	3	>300m
NTD101	Northeast	462	80	-10	-61	3	>300m
NTD102	Northeast	469	75	-10	-61	3	>300m
NTD103	Northeast	471	75	-10	-61	3	>300m
NTD104	Northeast	478	83	-10	-62	3	>300m
NTD105	Southeast	483	73	-10	-62	3	>300m
NTD106	Southeast	488	75	-10	-62	3	>300m
NTD107	Southeast	499	72	-10	-62	3	>300m
NTD108	Southeast	502	82	-10	-62	3	>300m
NTD109	Southeast	510	82	-10	-62	3	>300m
NTD110	Southeast	510	85	-10	-62	3	>300m
NTD111	Southwest	470	77	-10	-61	3	>300m
NTD112	Southwest	497	77	-10	-62	3	>300m
NTD113	Southwest	499	77	-10	-62	3	>300m
NTD114	Southwest	499	85	-10	-62	3	>300m
NTD115	Southwest	480	85	-10	-62	3	>300m

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-PF07h	N01	Northwest	50	74	-10	-42	3	25		
	N02	Northwest	50	74	-10	-42	3	25		
	N03	Northwest	54	74	-10	-43	3	24		
	N04	Northwest	54	72	-10	-43	3	22		
	N05	Northwest	57	72	-10	-43	3	22		
	N06	Northwest	60	72	-10	-44	3	21		
	N07	Northwest	62	72	-10	-44	3	21		
	N08	Northwest	63	75	-10	-44	3	24		
	N09	Northwest	64	72	-10	-44	3	21		
	N10	Northwest	67	72	-10	-44	3	21		
	N11	Northwest	70	72	-10	-45	3	20		
	N12	Northwest	73	77	-10	-45	3	25		
	N12a	Northwest	77	73	-10	-46	3	20		
	N12b	Northwest	85	73	-10	-47	3	19		
	N12c	Northwest	96	73	-10	-48	3	18		
	N12d	Northwest	70	75	-10	-45	3	23		
	N13	Top	64	75	0	-44	3	34		
	N14	Top	145	75	0	-51	3	27		
	N15	Northwest	156	72	-10	-52	3	13		
	N15a	Northwest	151	73	-10	-52	3	14		
	N16	Northwest	158	72	-10	-52	3	13		
	N17	Northwest	161	75	-10	-52	3	16		
	N18	Northwest	163	72	-10	-52	3	13		
	N19	Northwest	165	72	-10	-52	3	13		
	N20	Northwest	166	75	-10	-52	3	16		
	N20a	Northwest	178	73	-10	-53	3	13		
	N21	Northwest	187	72	-10	-53	3	12		
	N21a	Northwest	188	73	-10	-53	3	13		
	N22	Northwest	430	72	-10	-61	3	>300m		
	N23	Northwest	195	72	-10	-54	3	11		
	N24	Northwest	199	72	-10	-54	3	11		
	N25	Northwest	200	74	-10	-54	3	13		
	N26	Northwest	212	75	-10	-55	3	13		
	N27	Northwest	223	72	-10	-55	3	10		
	N28	Northwest	224	74	-10	-55	3	12		
	N29	Northwest	231	74	-10	-55	3	12		
	N30	Northwest	233	72	-10	-55	3	10		
	N30a	Northwest	240	73	-10	-56	3	10		
	N31	Northwest	235	74	-10	-55	3	12		
	N31a	Northeast	241	77	-10	-56	3	14		
	N31b	Northeast	239	77	-10	-56	3	14		
	N31c	Northeast	241	77	-10	-56	3	14		
	N31d	Northeast	239	77	-10	-56	3	14		
	N32	Northeast	231	75	-10	-55	3	13		
	N32a	Northeast	238	73	-10	-56	3	10		
	N32b	Southeast	234	73	0	-55	3	21		
	N33	Southeast	227	75	0	-55	3	23		
	N34	Southeast	219	75	0	-55	3	23		
	N34a	Southeast	209	68	0	-54	3	17		
	N35	Southeast	198	77	0	-54	3	26		
	N36	Southeast	190	75	0	-54	3	24		
	N37	Southeast	186	75	0	-53	3	25		
	N38	Southeast	181	63	0	-53	3	13		
	N39	Southeast	176	75	0	-53	3	25		
	N39a	Southeast	163	70	0	-52	3	21		
	N40	Southeast	150	73	0	-52	3	24		
	N40a	Southeast	145	73	0	-51	3	25		
	N40b	Southwest	144	77	0	-51	3	29		
	N41	Southeast	72	70	0	-45	3	28		
	N41a	Southeast	49	67	0	-42	3	28		
	N43	Southeast	31	67	0	-38	3	32		
	N44	Southeast	24	71	0	-36	3	38		
	N45	Southeast	21	67	0	-35	3	35		
	N45a	Southeast	14	63	0	-31	3	35		
	N45b	Southeast	15	63	0	-31	3	35		
	N46	Southeast	21	71	0	-34	3	40		
	N46a	Southeast	32	70	0	-38	3	35		
	N47	Southwest	27	71	-10	-37	3	27		
	N47a	Southwest	38	70	0	-40	3	33		
	N47b	West	42	70	0	-41	3	32		
	N47c	West	44	70	0	-41	3	32		
	N48	Northeast	50	74	0	-42	3	35		
	N49	Northeast	31	71	0	-38	3	36		
	N50	Northeast	174	76	0	-53	3	26		
	N50a	Top	185	76	0	-53	3	26		
	N51	Southwest	186	76	-10	-53	3	16		
	N52	Southwest	194	73	0	-54	3	22		
	N53	Northeast	44	74	-10	-41	3	26		
	N54	Northeast	53	74	-10	-42	3	25		
	N55	West	50	74	-10	-42	3	25		
	N56	Southwest	41	74	0	-40	3	37		
	NTD01	North	57	73	-10	-43	3	23		
	NTD02	North	54	71	-10	-43	3	21		
	NTD03	East	69	70	-10	-45	3	18		
	NTD04	East	90	70	-10	-47	3	16		
	NTD05	East	100	70	-10	-48	3	15		
	NTD06	East	105	71	-10	-48	3	16		
	NTD07	East	110	70	-10	-49	3	14		
	NTD08	East	117	70	-10	-49	3	14		
	NTD09	East	121	65	-10	-50	3	8		
	NTD10	East	127	65	-10	-50	3	8		
	NTD11	East	141	65	-10	-51	3	7		
	NTD12	West	160	70	-10	-52	3	11		
	NTD13	West	154	74	-10	-52	3	15		
	NTD14	West	148	72	-10	-51	3	14		
	NTD15	West	143	72	-10	-51	3	14		
	NTD15a	West	132	75	-10	-50	3	18		
	NTD16	West	119	75	-10	-49	3	19		
	NTD16a	West	84	75	-10	-46	3	22		
	NTD17	West	74	72	-10	-45	3	20		

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	69	68	-10	-45	3	16
NTD19	West	65	68	-10	-44	3	17
NTD20	West	60	68	-10	-44	3	17
NTD21	West	173	73	-10	-53	3	13
NTD22	West	191	75	-10	-54	3	14
NTD23	West	208	75	-10	-54	3	14
NTD24	West	220	71	-10	-55	3	9
NTD25	West	226	75	-10	-55	3	13
NTD26	West	233	65	-10	-55	3	3
NTD27	West	240	65	-10	-56	3	2
NTD28	West	251	70	-10	-56	3	7
NTD29	West	259	70	-10	-56	3	7
NTD30	West	271	78	-10	-57	3	14
NTD31	Southwest	283	75	-10	-57	3	11
NTD32	Southwest	304	77	-10	-58	3	>300m
NTD33	Southwest	344	76	-10	-59	3	>300m
NTD34	Southwest	361	75	-10	-59	3	>300m
NTD35	South	409	80	-10	-60	3	>300m
NTD36	South	418	80	-10	-60	3	>300m
NTD37	South	423	80	-10	-61	3	>300m
NTD38	South	428	80	-10	-61	3	>300m
NTD39	South	432	80	-10	-61	3	>300m
NTD40	Top	429	75	-10	-61	3	>300m
NTD41	Southeast	426	70	-10	-61	3	>300m
NTD42	Southeast	411	70	-10	-60	3	>300m
NTD43	South	409	70	-10	-60	3	>300m
NTD44	East	422	70	-10	-61	3	>300m
NTD45	East	419	70	-10	-60	3	>300m
NTD46	East	416	70	-10	-60	3	>300m
NTD47	East	412	70	-10	-60	3	>300m
NTD48	East	406	65	-10	-60	3	>300m
NTD49	East	398	65	-10	-60	3	>300m
NTD50	East	392	65	-10	-60	3	>300m
NTD51	East	388	75	-10	-60	3	>300m
NTD52	East	383	68	-10	-60	3	>300m
NTD53	East	379	63	-10	-60	3	>300m
NTD54	Northeast	363	68	-10	-59	3	>300m
NTD55	East	281	80	-10	-57	3	16
NTD56	East	272	67	-10	-57	3	3
NTD57	South	272	73	-10	-57	3	9
NTD58	South	275	68	-10	-57	3	4
NTD59	South	278	65	-10	-57	3	1
NTD60	South	282	64	-10	-57	3	0
NTD61	South	287	66	-10	-57	3	2
NTD62	South	292	75	-10	-57	3	11
NTD63	South	298	73	-10	-57	3	9
NTD64	South	302	67	-10	-58	3	>300m
NTD65	East	285	67	-10	-57	3	3
NTD66	East	281	69	-10	-57	3	5
NTD67	Northeast	274	68	-10	-57	3	4
NTD68	Northeast	256	70	-10	-56	3	7
NTD69	Northeast	246	65	-10	-56	3	2
NTD70	Northeast	243	70	-10	-56	3	7
NTD71	Northeast	239	70	-10	-56	3	7
NTD72	Northeast	232	73	-10	-55	3	11
NTD73	East	149	70	-10	-51	3	12
NTD74	East	148	70	-10	-51	3	12
NTD75	East	148	70	-10	-51	3	12
NTD76	East	148	70	-10	-51	3	12
NTD77	Southeast	185	72	-10	-53	3	12
NTD78	Northeast	191	70	-10	-54	3	9
NTD79	Northeast	190	71	-10	-54	3	10
NTD80	Northeast	189	70	-10	-54	3	9
NTD81	Northeast	189	70	-10	-54	3	9
NTD82	Northeast	188	70	-10	-53	3	10
NTD83	Northeast	188	70	-10	-53	3	10
NTD84	Northeast	187	70	-5	-53	3	15
NTD85	Northwest	182	70	-5	-53	3	15
NTD86	Northwest	161	72	-5	-52	3	18
NTD87	Northwest	143	70	-5	-51	3	17
NTD88	Northwest	136	69	-5	-51	3	16
NTD89	Northwest	112	68	-5	-49	3	17
NTD90	Northwest	106	67	-5	-48	3	17
NTD91	Northwest	95	70	-5	-48	3	20
NTD92	Northwest	82	69	-5	-46	3	21
NTD93	West	423	73	-10	-61	3	>300m
NTD94	South	429	68	-10	-61	3	>300m
NTD94a	South	430	68	-10	-61	3	>300m
NTD95	South	432	68	-10	-61	3	>300m
NTD96	South	433	69	-10	-61	3	>300m
NTD97	Top	430	75	-10	-61	3	>300m
NTD98	Top	432	75	-10	-61	3	>300m
NTD99	Top	435	75	-10	-61	3	>300m
NTD100	South	441	75	-10	-61	3	>300m
NTD101	Northeast	462	75	-10	-61	3	>300m
NTD102	Northeast	469	70	-10	-61	3	>300m
NTD103	Northeast	471	70	-10	-61	3	>300m
NTD104	Northeast	478	78	-10	-62	3	>300m
NTD105	Southeast	483	68	-10	-62	3	>300m
NTD106	Southeast	488	70	-10	-62	3	>300m
NTD107	Southeast	499	67	-10	-62	3	>300m
NTD108	Southeast	502	77	-10	-62	3	>300m
NTD109	Southeast	510	77	-10	-62	3	>300m
NTD110	Southeast	510	80	-10	-62	3	>300m
NTD111	Southwest	470	72	-10	-61	3	>300m
NTD112	Southwest	497	72	-10	-62	3	>300m
NTD113	Southwest	499	72	-10	-62	3	>300m
NTD114	Southwest	499	80	-10	-62	3	>300m
NTD115	Southwest	480	80	-10	-62	3	>300m

48

50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-PF07q
 Description: Potential Development at NTM LUR

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-PF07q	N01	Northwest	335	79	-10	-59	3	>300m		
	N02	Northwest	335	79	-10	-58	3	>300m		
	N03	Northwest	334	79	-10	-58	3	>300m		
	N04	Northwest	334	77	-10	-58	3	>300m		
	N05	Northwest	334	77	-10	-58	3	>300m		
	N06	Northwest	335	77	-10	-58	3	>300m		
	N07	Northwest	335	77	-10	-58	3	>300m		
	N08	Northwest	335	80	-10	-58	3	>300m		
	N09	Northwest	335	77	-10	-58	3	>300m		
	N10	Northwest	335	77	-10	-59	3	>300m		
	N11	Northwest	335	77	-10	-59	3	>300m		
	N12	Northwest	336	82	-10	-59	3	>300m		
	N12a	Northwest	336	78	-10	-59	3	>300m		
	N12b	Northwest	338	78	-10	-59	3	>300m		
	N12c	Northwest	340	78	-10	-59	3	>300m		
	N12d	Northwest	316	80	-10	-58	3	>300m		
	N13	Top	325	80	-10	-58	3	>300m		
	N14	Top	346	80	-10	-59	3	>300m		
	N15	Northwest	358	77	-10	-59	3	>300m		
	N15a	Northwest	356	78	-10	-59	3	>300m		
	N16	Northwest	359	77	-10	-59	3	>300m		
	N17	Northwest	360	80	-10	-59	3	>300m		
	N18	Northwest	361	77	-10	-59	3	>300m		
	N19	Northwest	361	77	-10	-59	3	>300m		
	N20	Northwest	362	80	-10	-59	3	>300m		
	N20a	Northwest	367	78	-10	-59	3	>300m		
	N21	Northwest	370	77	-10	-59	3	>300m		
	N21a	Northwest	371	78	-10	-59	3	>300m		
	N22	Northwest	399	77	-10	-60	3	>300m		
	N23	Northwest	374	77	-10	-59	3	>300m		
	N24	Northwest	376	77	-10	-60	3	>300m		
	N25	Northwest	375	79	-10	-59	3	>300m		
	N26	Northwest	383	80	-10	-60	3	>300m		
	N27	Northwest	388	77	-10	-60	3	>300m		
	N28	Northwest	387	79	-10	-60	3	>300m		
	N29	Northwest	391	79	-10	-60	3	>300m		
	N30	Northwest	394	77	-10	-60	3	>300m		
	N30a	Northwest	397	78	-10	-60	3	>300m		
	N31	Northwest	389	79	-10	-60	3	>300m		
	N31a	Northeast	392	82	-10	-60	3	>300m		
	N31b	Northeast	383	82	-10	-60	3	>300m		
	N31c	Northeast	393	82	-10	-60	3	>300m		
	N31d	Northeast	384	82	-10	-60	3	>300m		
	N32	Northeast	369	80	-10	-59	3	>300m		
	N32a	Northeast	374	78	-10	-59	3	>300m		
	N32b	Southeast	367	78	-10	-59	3	>300m		
	N33	Southeast	363	80	-10	-59	3	>300m		
	N34	Southeast	359	80	-10	-59	3	>300m		
	N34a	Southeast	353	73	-10	-59	3	>300m		
	N35	Southeast	348	82	-10	-59	3	>300m		
	N36	Southeast	343	80	-10	-59	3	>300m		
	N37	Southeast	346	80	-10	-59	3	>300m		
	N38	Southeast	339	68	-10	-59	3	>300m		
	N39	Southeast	337	80	-10	-59	3	>300m		
	N39a	Southeast	331	75	-10	-58	3	>300m		
	N40	Southeast	325	78	-10	-58	3	>300m		
	N40a	Southeast	323	78	-10	-58	3	>300m		
	N40b	Southeast	338	82	-10	-59	3	>300m		
	N41	Southeast	303	75	-10	-58	3	>300m		
	N41a	Southeast	300	72	-10	-58	3	7		
	N43	Southeast	298	72	-10	-57	3	8		
	N44	Southeast	298	76	-10	-57	3	12		
	N45	Southeast	298	72	-10	-57	3	8		
	N45a	Southeast	299	68	-10	-58	3	3		
	N45b	Southeast	299	68	-10	-58	3	3		
	N46	Southeast	298	76	-10	-57	3	12		
	N46a	Southeast	300	75	-10	-58	3	10		
	N47	Southwest	307	76	-10	-58	3	>300m		
	N47a	Southwest	310	75	-10	-58	3	>300m		
	N47b	West	319	75	-10	-58	3	>300m		
	N47c	West	325	75	-10	-58	3	>300m		
	N48	Northeast	327	79	-10	-58	3	>300m		
	N49	Northeast	303	76	-10	-58	3	>300m		
	N50	Northeast	346	81	-10	-59	3	>300m		
	N50a	Top	351	81	0	-59	3	>300m		
	N51	Southwest	357	81	-10	-59	3	>300m		
	N52	Southwest	368	78	-10	-59	3	>300m		
	N53	Northeast	302	79	-10	-58	3	>300m		
	N54	Northeast	318	79	-10	-58	3	>300m		
	N55	West	334	79	-10	-58	3	>300m		
	N56	Southwest	325	79	-10	-58	3	>300m		
	NTD01	North	286	78	-10	-57	3	14		
	NTD02	North	282	76	-10	-57	3	12		
	NTD03	East	269	75	-10	-57	3	11		
	NTD04	East	259	75	-10	-56	3	12		
	NTD05	East	255	75	-10	-56	3	12		
	NTD06	East	253	76	-10	-56	3	13		
	NTD07	East	251	75	-10	-56	3	12		
	NTD08	East	253	75	-10	-56	3	12		
	NTD09	East	252	70	-10	-56	3	7		
	NTD10	East	247	70	-10	-56	3	7		
	NTD11	East	242	70	-10	-56	3	7		
	NTD12	West	249	75	-10	-56	3	12		
	NTD13	West	250	79	-10	-56	3	16		
	NTD14	West	251	77	-10	-56	3	14		
	NTD15	West	252	77	-10	-56	3	14		
	NTD15a	West	256	80	-10	-56	3	17		
	NTD16	West	259	80	-10	-56	3	17		

Appendix 4.11 Fixed Plant Noise Calculation

NTD16a	West	273	80	-10	-57	3	16
NTD17	West	278	77	-10	-57	3	13
NTD18	West	280	73	-10	-57	3	9
NTD19	West	283	73	-10	-57	3	9
NTD20	West	286	73	-10	-57	3	9
NTD21	West	247	78	-10	-56	3	15
NTD22	West	246	80	-10	-56	3	17
NTD23	West	246	80	-10	-56	3	17
NTD24	West	247	76	-10	-56	3	13
NTD25	West	247	80	-10	-56	3	17
NTD26	West	248	70	-10	-56	3	7
NTD27	West	249	70	-10	-56	3	7
NTD28	West	251	75	-10	-56	3	12
NTD29	West	252	75	-10	-56	3	12
NTD30	West	255	83	-10	-56	3	20
NTD31	Southwest	258	80	-10	-56	3	17
NTD32	Southwest	262	82	-10	-56	3	19
NTD33	Southwest	268	81	-10	-57	3	17
NTD34	Southwest	269	80	-10	-57	3	16
NTD35	South	260	85	-10	-56	3	22
NTD36	South	250	85	-10	-56	3	22
NTD37	South	246	85	-10	-56	3	22
NTD38	South	242	85	-10	-56	3	22
NTD39	South	240	85	-10	-56	3	22
NTD40	Top	234	80	-10	-55	3	18
NTD41	Southeast	231	75	-10	-55	3	13
NTD42	Southeast	210	75	-10	-54	3	14
NTD43	South	203	75	-10	-54	3	14
NTD44	East	195	75	0	-54	3	24
NTD45	East	191	75	0	-54	3	24
NTD46	East	188	75	0	-53	3	25
NTD47	East	184	75	0	-53	3	25
NTD48	East	177	70	0	-53	3	20
NTD49	East	168	70	0	-52	3	21
NTD50	East	161	70	0	-52	3	21
NTD51	East	156	80	0	-52	3	31
NTD52	East	151	73	0	-52	3	24
NTD53	East	147	68	0	-51	3	20
NTD54	Northeast	128	73	0	-50	3	26
NTD55	East	43	85	0	-41	3	47
NTD56	East	31	72	0	-38	3	37
NTD57	South	25	78	-5	-36	3	40
NTD58	South	19	73	-5	-34	3	37
NTD59	South	13	70	-5	-30	3	38
NTD60	South	5	69	-5	-23	3	44
NTD61	South	3	71	-5	-19	3	50
NTD62	South	11	80	-5	-29	3	49
NTD63	South	21	78	-5	-34	3	42
NTD64	South	31	72	-5	-38	3	32
NTD65	East	69	72	-10	-45	3	20
NTD66	East	75	74	-10	-46	3	21
NTD67	Northeast	84	73	-10	-46	3	20
NTD68	Northeast	91	75	-10	-47	3	21
NTD69	Northeast	95	70	-10	-48	3	15
NTD70	Northeast	97	75	-10	-48	3	20
NTD71	Northeast	98	75	-10	-48	3	20
NTD72	Northeast	101	78	-10	-48	3	23
NTD73	East	189	75	-10	-54	3	14
NTD74	East	193	75	-10	-54	3	14
NTD75	East	201	75	-10	-54	3	14
NTD76	East	205	75	-10	-54	3	14
NTD77	Southeast	289	77	-10	-57	3	13
NTD78	Northeast	304	75	-10	-58	3	>300m
NTD79	Northeast	308	76	-10	-58	3	>300m
NTD80	Northeast	314	75	-10	-58	3	>300m
NTD81	Northeast	317	75	-10	-58	3	>300m
NTD82	Northeast	321	75	-10	-58	3	>300m
NTD83	Northeast	329	75	-10	-58	3	>300m
NTD84	Northeast	330	75	-10	-58	3	>300m
NTD85	Northwest	328	75	-10	-58	3	>300m
NTD86	Northwest	318	77	-10	-58	3	>300m
NTD87	Northwest	310	75	-10	-58	3	>300m
NTD88	Northwest	308	74	-10	-58	3	>300m
NTD89	Northwest	299	73	-10	-58	3	8
NTD90	Northwest	297	72	-10	-57	3	8
NTD91	Northwest	294	75	-10	-57	3	11
NTD92	Northwest	291	74	-10	-57	3	10
NTD93	West	220	78	-10	-55	3	16
NTD94	South	223	73	-10	-55	3	11
NTD94a	South	223	73	-10	-55	3	11
NTD95	South	221	73	-10	-55	3	11
NTD96	South	221	74	-10	-55	3	12
NTD97	Top	214	80	0	-55	3	28
NTD98	Top	213	80	0	-55	3	28
NTD99	Top	212	80	0	-55	3	28
NTD100	South	217	80	-10	-55	3	18
NTD101	Northeast	305	80	0	-58	3	>300m
NTD102	Northeast	302	75	0	-58	3	>300m
NTD103	Northeast	301	75	0	-58	3	>300m
NTD104	Northeast	299	83	0	-58	3	28
NTD105	Southeast	298	73	0	-57	3	19
NTD106	Southeast	299	75	0	-58	3	20
NTD107	Southeast	310	72	0	-58	3	>300m
NTD108	Southeast	316	82	0	-58	3	>300m
NTD109	Southeast	330	82	-10	-58	3	>300m
NTD110	Southeast	337	85	-10	-59	3	>300m
NTD111	Southwest	317	77	-10	-58	3	>300m
NTD112	Southwest	319	77	0	-58	3	>300m
NTD113	Southwest	319	77	0	-58	3	>300m
NTD114	Southwest	334	85	-10	-58	3	>300m
NTD115	Southwest	311	85	0	-58	3	>300m

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-PF07q	N01	Northwest	335	74	-10	-59	3	>300m		
	N02	Northwest	335	74	-10	-58	3	>300m		
	N03	Northwest	334	74	-10	-58	3	>300m		
	N04	Northwest	334	72	-10	-58	3	>300m		
	N05	Northwest	334	72	-10	-58	3	>300m		
	N06	Northwest	335	72	-10	-58	3	>300m		
	N07	Northwest	335	72	-10	-58	3	>300m		
	N08	Northwest	335	75	-10	-58	3	>300m		
	N09	Northwest	335	72	-10	-58	3	>300m		
	N10	Northwest	335	72	-10	-59	3	>300m		
	N11	Northwest	335	72	-10	-59	3	>300m		
	N12	Northwest	336	77	-10	-59	3	>300m		
	N12a	Northwest	336	73	-10	-59	3	>300m		
	N12b	Northwest	338	73	-10	-59	3	>300m		
	N12c	Northwest	340	73	-10	-59	3	>300m		
	N12d	Northwest	316	75	-10	-58	3	>300m		
	N13	Top	325	75	-10	-58	3	>300m		
	N14	Top	346	75	-10	-59	3	>300m		
	N15	Northwest	358	72	-10	-59	3	>300m		
	N15a	Northwest	356	73	-10	-59	3	>300m		
	N16	Northwest	359	72	-10	-59	3	>300m		
	N17	Northwest	360	75	-10	-59	3	>300m		
	N18	Northwest	361	72	-10	-59	3	>300m		
	N19	Northwest	361	72	-10	-59	3	>300m		
	N20	Northwest	362	75	-10	-59	3	>300m		
	N20a	Northwest	367	73	-10	-59	3	>300m		
	N21	Northwest	370	72	-10	-59	3	>300m		
	N21a	Northwest	371	73	-10	-59	3	>300m		
	N22	Northwest	399	72	-10	-60	3	>300m		
	N23	Northwest	374	72	-10	-59	3	>300m		
	N24	Northwest	376	72	-10	-60	3	>300m		
	N25	Northwest	375	74	-10	-59	3	>300m		
	N26	Northwest	383	75	-10	-60	3	>300m		
	N27	Northwest	388	72	-10	-60	3	>300m		
	N28	Northwest	387	74	-10	-60	3	>300m		
	N29	Northwest	391	74	-10	-60	3	>300m		
	N30	Northwest	394	72	-10	-60	3	>300m		
	N30a	Northwest	397	73	-10	-60	3	>300m		
	N31	Northwest	389	74	-10	-60	3	>300m		
	N31a	Northeast	392	77	-10	-60	3	>300m		
	N31b	Northeast	383	77	-10	-60	3	>300m		
	N31c	Northeast	393	77	-10	-60	3	>300m		
	N31d	Northeast	384	77	-10	-60	3	>300m		
	N32	Northeast	369	75	-10	-59	3	>300m		
	N32a	Northeast	374	73	-10	-59	3	>300m		
	N32b	Southeast	367	73	-10	-59	3	>300m		
	N33	Southeast	363	75	-10	-59	3	>300m		
	N34	Southeast	359	75	-10	-59	3	>300m		
	N34a	Southeast	353	68	-10	-59	3	>300m		
	N35	Southeast	348	77	-10	-59	3	>300m		
	N36	Southeast	343	75	-10	-59	3	>300m		
	N37	Southeast	346	75	-10	-59	3	>300m		
	N38	Southeast	339	63	-10	-59	3	>300m		
	N39	Southeast	337	75	-10	-59	3	>300m		
	N39a	Southeast	331	70	-10	-58	3	>300m		
	N40	Southeast	325	73	-10	-58	3	>300m		
N40a	Southeast	323	73	-10	-58	3	>300m			
N40b	Southwest	338	77	-10	-59	3	>300m			
N41	Southeast	303	70	-10	-58	3	>300m			
N41a	Southeast	300	67	-10	-58	3	2			
N43	Southeast	298	67	-10	-57	3	3			
N44	Southeast	298	71	-10	-57	3	7			
N45	Southeast	298	67	-10	-57	3	3			
N45a	Southeast	299	63	-10	-58	3	-2			
N45b	Southeast	299	63	-10	-58	3	-2			
N46	Southeast	298	71	-10	-57	3	7			
N46a	Southeast	300	70	-10	-58	3	5			
N47	Southwest	307	71	-10	-58	3	>300m			
N47a	Southwest	310	70	-10	-58	3	>300m			
N47b	West	319	70	-10	-58	3	>300m			
N47c	West	325	70	-10	-58	3	>300m			
N48	Northeast	327	74	-10	-58	3	>300m			
N49	Northeast	303	71	-10	-58	3	>300m			
N50	Northeast	346	76	-10	-59	3	>300m			
N50a	Top	351	76	0	-59	3	>300m			
N51	Southwest	357	76	-10	-59	3	>300m			
N52	Southwest	368	73	-10	-59	3	>300m			
N53	Northeast	302	74	-10	-58	3	>300m			
N54	Northeast	318	74	-10	-58	3	>300m			
N55	West	334	74	-10	-58	3	>300m			
N56	Southwest	325	74	-10	-58	3	>300m			
NTD01	North	286	73	-10	-57	3	9			
NTD02	North	282	71	-10	-57	3	7			
NTD03	East	269	70	-10	-57	3	6			
NTD04	East	259	70	-10	-56	3	7			
NTD05	East	255	70	-10	-56	3	7			
NTD06	East	253	71	-10	-56	3	8			
NTD07	East	251	70	-10	-56	3	7			
NTD08	East	253	70	-10	-56	3	7			
NTD09	East	252	65	-10	-56	3	2			
NTD10	East	247	65	-10	-56	3	2			
NTD11	East	242	65	-10	-56	3	2			
NTD12	West	249	70	-10	-56	3	7			
NTD13	West	250	74	-10	-56	3	11			
NTD14	West	251	72	-10	-56	3	9			
NTD15	West	252	72	-10	-56	3	9			
NTD15a	West	256	75	-10	-56	3	12			
NTD16	West	259	75	-10	-56	3	12			
NTD16a	West	273	75	-10	-57	3	11			
NTD17	West	278	72	-10	-57	3	8			

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	280	68	-10	-57	3	4
NTD19	West	283	68	-10	-57	3	4
NTD20	West	286	68	-10	-57	3	4
NTD21	West	247	73	-10	-56	3	10
NTD22	West	246	75	-10	-56	3	12
NTD23	West	246	75	-10	-56	3	12
NTD24	West	247	71	-10	-56	3	8
NTD25	West	247	75	-10	-56	3	12
NTD26	West	248	65	-10	-56	3	2
NTD27	West	249	65	-10	-56	3	2
NTD28	West	251	70	-10	-56	3	7
NTD29	West	252	70	-10	-56	3	7
NTD30	West	255	78	-10	-56	3	15
NTD31	Southwest	258	75	-10	-56	3	12
NTD32	Southwest	262	77	-10	-56	3	14
NTD33	Southwest	268	76	-10	-57	3	12
NTD34	Southwest	269	75	-10	-57	3	11
NTD35	South	260	80	-10	-56	3	17
NTD36	South	250	80	-10	-56	3	17
NTD37	South	246	80	-10	-56	3	17
NTD38	South	242	80	-10	-56	3	17
NTD39	South	240	80	-10	-56	3	17
NTD40	Top	234	75	-10	-55	3	13
NTD41	Southeast	231	70	-10	-55	3	8
NTD42	Southeast	210	70	-10	-54	3	9
NTD43	South	203	70	-10	-54	3	9
NTD44	East	195	70	0	-54	3	19
NTD45	East	191	70	0	-54	3	19
NTD46	East	188	70	0	-53	3	20
NTD47	East	184	70	0	-53	3	20
NTD48	East	177	65	0	-53	3	15
NTD49	East	168	65	0	-52	3	16
NTD50	East	161	65	0	-52	3	16
NTD51	East	156	75	0	-52	3	26
NTD52	East	151	68	0	-52	3	19
NTD53	East	147	63	0	-51	3	15
NTD54	Northeast	120	68	0	-50	3	21
NTD55	East	43	80	0	-41	3	42
NTD56	East	31	67	0	-38	3	32
NTD57	South	25	73	-5	-36	3	35
NTD58	South	19	68	-5	-34	3	32
NTD59	South	13	65	-5	-30	3	33
NTD60	South	5	64	-5	-23	3	39
NTD61	South	3	66	-5	-19	3	45
NTD62	South	11	75	-5	-29	3	44
NTD63	South	21	73	-5	-34	3	37
NTD64	South	31	67	-5	-38	3	27
NTD65	East	69	67	-10	-45	3	15
NTD66	East	75	69	-10	-46	3	16
NTD67	Northeast	84	68	-10	-46	3	15
NTD68	Northeast	91	70	-10	-47	3	16
NTD69	Northeast	95	65	-10	-48	3	10
NTD70	Northeast	97	70	-10	-48	3	15
NTD71	Northeast	98	70	-10	-48	3	15
NTD72	Northeast	101	73	-10	-48	3	18
NTD73	East	189	70	-10	-54	3	9
NTD74	East	193	70	-10	-54	3	9
NTD75	East	201	70	-10	-54	3	9
NTD76	East	205	70	-10	-54	3	9
NTD77	Southeast	289	72	-10	-57	3	8
NTD78	Northeast	304	70	-10	-58	3	>300m
NTD79	Northeast	308	71	-10	-58	3	>300m
NTD80	Northeast	314	70	-10	-58	3	>300m
NTD81	Northeast	317	70	-10	-58	3	>300m
NTD82	Northeast	321	70	-10	-58	3	>300m
NTD83	Northeast	329	70	-10	-58	3	>300m
NTD84	Northeast	330	70	-10	-58	3	>300m
NTD85	Northwest	328	70	-10	-58	3	>300m
NTD86	Northwest	318	72	-10	-58	3	>300m
NTD87	Northwest	310	70	-10	-58	3	>300m
NTD88	Northwest	308	69	-10	-58	3	>300m
NTD89	Northwest	299	68	-10	-58	3	3
NTD90	Northwest	297	67	-10	-57	3	3
NTD91	Northwest	294	70	-10	-57	3	6
NTD92	Northwest	291	69	-10	-57	3	5
NTD93	West	220	73	-10	-55	3	11
NTD94	South	223	68	-10	-55	3	6
NTD94a	South	223	68	-10	-55	3	6
NTD95	South	221	68	-10	-55	3	6
NTD96	South	221	69	-10	-55	3	7
NTD97	Top	214	75	0	-55	3	23
NTD98	Top	213	75	0	-55	3	23
NTD99	Top	212	75	0	-55	3	23
NTD100	South	217	75	-10	-55	3	13
NTD101	Northeast	305	75	0	-58	3	>300m
NTD102	Northeast	302	70	0	-58	3	>300m
NTD103	Northeast	301	70	0	-58	3	>300m
NTD104	Northeast	299	78	0	-58	3	23
NTD105	Southeast	298	68	0	-57	3	14
NTD106	Southeast	299	70	0	-58	3	15
NTD107	Southeast	310	67	0	-58	3	>300m
NTD108	Southeast	316	77	0	-58	3	>300m
NTD109	Southeast	330	77	-10	-58	3	>300m
NTD110	Southeast	337	80	-10	-59	3	>300m
NTD111	Southwest	317	72	-10	-58	3	>300m
NTD112	Southwest	319	72	0	-58	3	>300m
NTD113	Southwest	319	72	0	-58	3	>300m
NTD114	Southwest	334	80	-10	-58	3	>300m
NTD115	Southwest	311	80	0	-58	3	>300m

50

50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-PF07
 Description: Potential Development at NTM LUR

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-PF07	N01	Northwest	423	79	-10	-61	3	>300m		
	N02	Northwest	427	79	-10	-61	3	>300m		
	N03	Northwest	430	79	-10	-61	3	>300m		
	N04	Northwest	431	77	-10	-61	3	>300m		
	N05	Northwest	432	77	-10	-61	3	>300m		
	N06	Northwest	434	77	-10	-61	3	>300m		
	N07	Northwest	435	77	-10	-61	3	>300m		
	N08	Northwest	436	80	-10	-61	3	>300m		
	N09	Northwest	436	77	-10	-61	3	>300m		
	N10	Northwest	438	77	-10	-61	3	>300m		
	N11	Northwest	439	77	-10	-61	3	>300m		
	N12	Northwest	440	82	-10	-61	3	>300m		
	N12a	Northwest	443	78	-10	-61	3	>300m		
	N12b	Northwest	446	78	-10	-61	3	>300m		
	N12c	Northwest	452	78	-10	-61	3	>300m		
	N12d	Northwest	425	80	-10	-61	3	>300m		
	N13	Top	429	80	-10	-61	3	>300m		
	N14	Top	470	80	-10	-61	3	>300m		
	N15	Northwest	482	77	-10	-62	3	>300m		
	N15a	Northwest	479	78	-10	-62	3	>300m		
	N16	Northwest	483	77	-10	-62	3	>300m		
	N17	Northwest	485	80	-10	-62	3	>300m		
	N18	Northwest	486	77	-10	-62	3	>300m		
	N19	Northwest	487	77	-10	-62	3	>300m		
	N20	Northwest	487	80	-10	-62	3	>300m		
	N20a	Northwest	494	78	-10	-62	3	>300m		
	N21	Northwest	499	77	-10	-62	3	>300m		
	N21a	Northwest	500	78	-10	-62	3	>300m		
	N22	Northwest	540	77	-10	-63	3	>300m		
	N23	Northwest	504	77	-10	-62	3	>300m		
	N24	Northwest	507	77	-10	-62	3	>300m		
	N25	Northwest	506	79	-10	-62	3	>300m		
	N26	Northwest	514	80	-10	-62	3	>300m		
	N27	Northwest	521	77	-10	-62	3	>300m		
	N28	Northwest	521	79	-10	-62	3	>300m		
	N29	Northwest	525	79	-10	-62	3	>300m		
	N30	Northwest	527	77	-10	-62	3	>300m		
	N30a	Northwest	532	78	-10	-63	3	>300m		
	N31	Northwest	523	79	-10	-62	3	>300m		
	N31a	Northeast	527	82	-10	-62	3	>300m		
	N31b	Northeast	519	82	-10	-62	3	>300m		
	N31c	Northeast	528	82	-10	-62	3	>300m		
	N31d	Northeast	520	82	-10	-62	3	>300m		
	N32	Northeast	506	80	-10	-62	3	>300m		
	N32a	Northeast	511	78	-10	-62	3	>300m		
	N32b	Southeast	504	78	-10	-62	3	>300m		
	N33	Southeast	499	80	-10	-62	3	>300m		
	N34	Southeast	494	80	-10	-62	3	>300m		
	N34a	Southeast	488	73	-10	-62	3	>300m		
	N35	Southeast	481	82	-10	-62	3	>300m		
	N36	Southeast	476	80	-10	-62	3	>300m		
	N37	Southeast	477	80	-10	-62	3	>300m		
	N38	Southeast	470	68	-10	-61	3	>300m		
	N39	Southeast	467	80	-10	-61	3	>300m		
	N39a	Southeast	460	75	-10	-61	3	>300m		
	N40	Southeast	453	78	-10	-61	3	>300m		
	N40a	Southeast	450	78	-10	-61	3	>300m		
	N40b	Southeast	462	82	-10	-61	3	>300m		
	N41	Southeast	414	75	-10	-60	3	>300m		
	N41a	Southeast	405	72	-10	-60	3	>300m		
	N43	Southeast	398	72	-10	-60	3	>300m		
	N44	Southeast	396	76	-10	-60	3	>300m		
	N45	Southeast	395	72	-10	-60	3	>300m		
	N45a	Southeast	391	68	-10	-60	3	>300m		
	N45b	Southeast	389	68	-10	-60	3	>300m		
	N46	Southeast	383	76	-10	-60	3	>300m		
	N46a	Southeast	381	75	-10	-60	3	>300m		
	N47	Southwest	391	76	-10	-60	3	>300m		
	N47a	Southwest	390	75	-10	-60	3	>300m		
	N47b	West	400	75	-10	-60	3	>300m		
	N47c	West	408	75	-10	-60	3	>300m		
	N48	Northeast	425	79	-10	-61	3	>300m		
	N49	Northeast	402	76	-10	-60	3	>300m		
	N50	Northeast	476	81	-10	-62	3	>300m		
	N50a	Top	482	81	0	-62	3	>300m		
	N51	Southwest	488	81	-10	-62	3	>300m		
	N52	Southwest	498	78	-10	-62	3	>300m		
	N53	Northeast	406	79	-10	-60	3	>300m		
	N54	Northeast	421	79	-10	-60	3	>300m		
	N55	West	420	79	-10	-60	3	>300m		
	N56	Southwest	412	79	-10	-60	3	>300m		
	NTD01	North	357	78	-10	-59	3	>300m		
	NTD02	North	354	76	-10	-59	3	>300m		
	NTD03	East	337	75	-10	-59	3	>300m		
	NTD04	East	319	75	-10	-58	3	>300m		
	NTD05	East	311	75	-10	-58	3	>300m		
	NTD06	East	307	76	-10	-58	3	>300m		
	NTD07	East	304	75	-10	-58	3	>300m		
	NTD08	East	302	75	-10	-58	3	>300m		
	NTD09	East	299	70	-10	-58	3	5		
	NTD10	East	292	70	-10	-57	3	6		
	NTD11	East	280	70	-10	-57	3	6		
	NTD12	West	276	75	-10	-57	3	11		
	NTD13	West	281	79	-10	-57	3	15		
	NTD14	West	284	77	-10	-57	3	13		
	NTD15	West	288	77	-10	-57	3	13		
	NTD15a	West	297	80	-10	-57	3	16		
	NTD16	West	306	80	-10	-58	3	>300m		

Appendix 4.11 Fixed Plant Noise Calculation

NTD16a	West	334	80	-10	-58	3	>300m
NTD17	West	343	77	-10	-59	3	>300m
NTD18	West	347	73	-10	-59	3	>300m
NTD19	West	351	73	-10	-59	3	>300m
NTD20	West	356	73	-10	-59	3	>300m
NTD21	West	268	78	-10	-57	3	14
NTD22	West	257	80	-10	-56	3	17
NTD23	West	248	80	-10	-56	3	17
NTD24	West	242	76	-10	-56	3	13
NTD25	West	238	80	-10	-56	3	17
NTD26	West	235	70	-10	-55	3	8
NTD27	West	232	70	-10	-55	3	8
NTD28	West	227	75	-10	-55	3	13
NTD29	West	224	75	-10	-55	3	13
NTD30	West	219	83	-10	-55	3	21
NTD31	Southwest	216	80	-10	-55	3	18
NTD32	Southwest	207	82	-10	-54	3	21
NTD33	Southwest	188	81	-10	-53	3	21
NTD34	Southwest	179	80	-10	-53	3	20
NTD35	South	137	85	-10	-51	3	27
NTD36	South	120	85	-10	-50	3	28
NTD37	South	111	85	-10	-49	3	29
NTD38	South	104	85	-10	-48	3	30
NTD39	South	100	85	-10	-48	3	30
NTD40	Top	94	80	-10	-47	3	26
NTD41	Southeast	91	75	-10	-47	3	21
NTD42	Southeast	70	75	-10	-45	3	23
NTD43	South	62	75	-10	-44	3	24
NTD44	East	52	75	-5	-42	3	31
NTD45	East	48	75	-5	-42	3	31
NTD46	East	45	75	-5	-41	3	32
NTD47	East	40	75	-5	-40	3	33
NTD48	East	33	70	-5	-38	3	30
NTD49	East	24	70	-5	-36	3	32
NTD50	East	18	70	-5	-33	3	35
NTD51	East	13	80	-5	-30	3	48
NTD52	East	7	73	-5	-25	3	46
NTD53	East	3	68	-5	-17	3	49
NTD54	Northeast	16	73	-5	-32	3	39
NTD55	East	113	85	-5	-49	3	34
NTD56	East	130	72	-5	-50	3	20
NTD57	South	135	78	0	-51	3	30
NTD58	South	137	73	0	-51	3	25
NTD59	South	139	70	0	-51	3	22
NTD60	South	142	69	0	-51	3	21
NTD61	South	145	71	0	-51	3	23
NTD62	South	149	80	0	-51	3	32
NTD63	South	154	78	0	-52	3	29
NTD64	South	162	72	0	-52	3	23
NTD65	East	209	72	-10	-54	3	11
NTD66	East	217	74	-10	-55	3	12
NTD67	Northeast	227	73	-10	-55	3	11
NTD68	Northeast	235	75	-10	-55	3	13
NTD69	Northeast	239	70	-10	-56	3	7
NTD70	Northeast	240	75	-10	-56	3	12
NTD71	Northeast	242	75	-10	-56	3	12
NTD72	Northeast	243	78	-10	-56	3	15
NTD73	East	320	75	-10	-58	3	>300m
NTD74	East	324	75	-10	-58	3	>300m
NTD75	East	332	75	-10	-58	3	>300m
NTD76	East	336	75	-10	-59	3	>300m
NTD77	Southeast	425	77	-10	-61	3	>300m
NTD78	Northeast	440	75	-10	-61	3	>300m
NTD79	Northeast	444	76	-10	-61	3	>300m
NTD80	Northeast	449	75	-10	-61	3	>300m
NTD81	Northeast	451	75	-10	-61	3	>300m
NTD82	Northeast	455	75	-10	-61	3	>300m
NTD83	Northeast	463	75	-10	-61	3	>300m
NTD84	Northeast	464	75	-10	-61	3	>300m
NTD85	Northwest	461	75	-10	-61	3	>300m
NTD86	Northwest	448	77	-10	-61	3	>300m
NTD87	Northwest	438	75	-10	-61	3	>300m
NTD88	Northwest	434	74	-10	-61	3	>300m
NTD89	Northwest	421	73	-10	-60	3	>300m
NTD90	Northwest	418	72	-10	-60	3	>300m
NTD91	Northwest	412	75	-10	-60	3	>300m
NTD92	Northwest	407	74	-10	-60	3	>300m
NTD93	West	78	78	-10	-46	3	25
NTD94	South	80	73	-10	-46	3	20
NTD94a	South	79	73	-10	-46	3	20
NTD95	South	78	73	-10	-46	3	20
NTD96	South	77	74	-10	-46	3	21
NTD97	Top	70	80	0	-45	3	38
NTD98	Top	69	80	0	-45	3	38
NTD99	Top	69	80	0	-45	3	38
NTD100	South	74	80	-10	-45	3	28
NTD101	Northeast	172	80	-10	-53	3	20
NTD102	Northeast	165	75	-10	-52	3	16
NTD103	Northeast	163	75	-10	-52	3	16
NTD104	Northeast	159	83	-10	-52	3	24
NTD105	Southeast	156	73	-10	-52	3	14
NTD106	Southeast	156	75	-10	-52	3	16
NTD107	Southeast	168	72	-10	-52	3	13
NTD108	Southeast	174	82	-10	-53	3	22
NTD109	Southeast	188	82	-10	-54	3	21
NTD110	Southeast	196	85	-10	-54	3	24
NTD111	Southwest	184	77	-10	-53	3	17
NTD112	Southwest	178	77	-10	-53	3	17
NTD113	Southwest	177	77	-10	-53	3	17
NTD114	Southwest	195	85	-10	-54	3	24
NTD115	Southwest	173	85	-10	-53	3	25

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-PF07	N01	Northwest	423	74	-10	-61	3	>300m		
	N02	Northwest	427	74	-10	-61	3	>300m		
	N03	Northwest	430	74	-10	-61	3	>300m		
	N04	Northwest	431	72	-10	-61	3	>300m		
	N05	Northwest	432	72	-10	-61	3	>300m		
	N06	Northwest	434	72	-10	-61	3	>300m		
	N07	Northwest	435	72	-10	-61	3	>300m		
	N08	Northwest	436	75	-10	-61	3	>300m		
	N09	Northwest	436	72	-10	-61	3	>300m		
	N10	Northwest	438	72	-10	-61	3	>300m		
	N11	Northwest	439	72	-10	-61	3	>300m		
	N12	Northwest	440	77	-10	-61	3	>300m		
	N12a	Northwest	443	73	-10	-61	3	>300m		
	N12b	Northwest	446	73	-10	-61	3	>300m		
	N12c	Northwest	452	73	-10	-61	3	>300m		
	N12d	Northwest	425	75	-10	-61	3	>300m		
	N13	Top	429	75	-10	-61	3	>300m		
	N14	Top	470	75	-10	-61	3	>300m		
	N15	Northwest	482	72	-10	-62	3	>300m		
	N15a	Northwest	479	73	-10	-62	3	>300m		
	N16	Northwest	483	72	-10	-62	3	>300m		
	N17	Northwest	485	75	-10	-62	3	>300m		
	N18	Northwest	486	72	-10	-62	3	>300m		
	N19	Northwest	487	72	-10	-62	3	>300m		
	N20	Northwest	487	75	-10	-62	3	>300m		
	N20a	Northwest	494	73	-10	-62	3	>300m		
	N21	Northwest	499	72	-10	-62	3	>300m		
	N21a	Northwest	500	73	-10	-62	3	>300m		
	N22	Northwest	540	72	-10	-63	3	>300m		
	N23	Northwest	504	72	-10	-62	3	>300m		
	N24	Northwest	507	72	-10	-62	3	>300m		
	N25	Northwest	506	74	-10	-62	3	>300m		
	N26	Northwest	514	75	-10	-62	3	>300m		
	N27	Northwest	521	72	-10	-62	3	>300m		
	N28	Northwest	521	74	-10	-62	3	>300m		
	N29	Northwest	525	74	-10	-62	3	>300m		
	N30	Northwest	527	72	-10	-62	3	>300m		
	N30a	Northwest	532	73	-10	-63	3	>300m		
	N31	Northwest	523	74	-10	-62	3	>300m		
	N31a	Northwest	527	77	-10	-62	3	>300m		
	N31b	Northwest	519	77	-10	-62	3	>300m		
	N31c	Northwest	528	77	-10	-62	3	>300m		
	N31d	Northwest	520	77	-10	-62	3	>300m		
	N32	Northwest	506	75	-10	-62	3	>300m		
	N32a	Northwest	511	73	-10	-62	3	>300m		
	N32b	Southwest	504	73	-10	-62	3	>300m		
	N33	Southwest	499	75	-10	-62	3	>300m		
	N34	Southwest	494	75	-10	-62	3	>300m		
	N34a	Southwest	488	68	-10	-62	3	>300m		
	N35	Southwest	481	77	-10	-62	3	>300m		
N36	Southwest	476	75	-10	-62	3	>300m			
N37	Southwest	477	75	-10	-62	3	>300m			
N38	Southwest	470	63	-10	-61	3	>300m			
N39	Southwest	467	75	-10	-61	3	>300m			
N39a	Southwest	460	70	-10	-61	3	>300m			
N40	Southwest	453	73	-10	-61	3	>300m			
N40a	Southwest	450	73	-10	-61	3	>300m			
N40b	Southwest	462	77	-10	-61	3	>300m			
N41	Southwest	414	70	-10	-60	3	>300m			
N41a	Southwest	405	67	-10	-60	3	>300m			
N43	Southwest	398	67	-10	-60	3	>300m			
N44	Southwest	396	71	-10	-60	3	>300m			
N45	Southwest	395	67	-10	-60	3	>300m			
N45a	Southwest	391	63	-10	-60	3	>300m			
N45b	Southwest	389	63	-10	-60	3	>300m			
N46	Southwest	383	71	-10	-60	3	>300m			
N46a	Southwest	381	70	-10	-60	3	>300m			
N47	Southwest	391	71	-10	-60	3	>300m			
N47a	Southwest	390	70	-10	-60	3	>300m			
N47b	West	400	70	-10	-60	3	>300m			
N47c	West	408	70	-10	-60	3	>300m			
N48	Northwest	425	74	-10	-61	3	>300m			
N49	Northwest	402	71	-10	-60	3	>300m			
N50	Northwest	476	76	-10	-62	3	>300m			
N50a	Top	482	76	0	-62	3	>300m			
N51	Southwest	488	76	-10	-62	3	>300m			
N52	Southwest	498	73	-10	-62	3	>300m			
N53	Northwest	406	74	-10	-60	3	>300m			
N54	Northwest	421	74	-10	-60	3	>300m			
N55	West	420	74	-10	-60	3	>300m			
N56	Southwest	412	74	-10	-60	3	>300m			
NTD01	North	357	73	-10	-59	3	>300m			
NTD02	North	354	71	-10	-59	3	>300m			
NTD03	East	337	70	-10	-59	3	>300m			
NTD04	East	319	70	-10	-58	3	>300m			
NTD05	East	311	70	-10	-58	3	>300m			
NTD06	East	307	71	-10	-58	3	>300m			
NTD07	East	304	70	-10	-58	3	>300m			
NTD08	East	302	70	-10	-58	3	>300m			
NTD09	East	299	65	-10	-58	3	0			
NTD10	East	292	65	-10	-57	3	1			
NTD11	East	280	65	-10	-57	3	1			
NTD12	West	276	70	-10	-57	3	6			
NTD13	West	281	74	-10	-57	3	10			
NTD14	West	284	72	-10	-57	3	8			
NTD15	West	288	72	-10	-57	3	8			
NTD15a	West	297	75	-10	-57	3	11			
NTD16	West	306	75	-10	-58	3	>300m			
NTD16a	West	334	75	-10	-58	3	>300m			
NTD17	West	343	72	-10	-59	3	>300m			

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	347	68	-10	-59	3	>300m
NTD19	West	351	68	-10	-59	3	>300m
NTD20	West	356	68	-10	-59	3	>300m
NTD21	West	268	73	-10	-57	3	9
NTD22	West	257	75	-10	-56	3	12
NTD23	West	248	75	-10	-56	3	12
NTD24	West	242	71	-10	-56	3	8
NTD25	West	238	75	-10	-56	3	12
NTD26	West	235	65	-10	-55	3	3
NTD27	West	232	65	-10	-55	3	3
NTD28	West	227	70	-10	-55	3	8
NTD29	West	224	70	-10	-55	3	8
NTD30	West	219	78	-10	-55	3	16
NTD31	Southwest	216	75	-10	-55	3	13
NTD32	Southwest	207	77	-10	-54	3	16
NTD33	Southwest	188	76	-10	-53	3	16
NTD34	Southwest	179	75	-10	-53	3	15
NTD35	South	137	80	-10	-51	3	22
NTD36	South	120	80	-10	-50	3	23
NTD37	South	111	80	-10	-49	3	24
NTD38	South	104	80	-10	-48	3	25
NTD39	South	100	80	-10	-48	3	25
NTD40	Top	94	75	-10	-47	3	21
NTD41	Southeast	91	70	-10	-47	3	16
NTD42	Southeast	70	70	-10	-45	3	18
NTD43	South	62	70	-10	-44	3	19
NTD44	East	52	70	-5	-42	3	26
NTD45	East	48	70	-5	-42	3	26
NTD46	East	45	70	-5	-41	3	27
NTD47	East	40	70	-5	-40	3	28
NTD48	East	33	65	-5	-38	3	25
NTD49	East	24	65	-5	-36	3	27
NTD50	East	18	65	-5	-33	3	30
NTD51	East	13	75	-5	-30	3	43
NTD52	East	7	68	-5	-25	3	41
NTD53	East	3	63	-5	-17	3	44
NTD54	Northeast	16	68	-5	-32	3	24
NTD55	East	113	80	-5	-49	3	29
NTD56	East	130	67	-5	-50	3	15
NTD57	South	135	73	0	-51	3	25
NTD58	South	137	68	0	-51	3	20
NTD59	South	139	65	0	-51	3	17
NTD60	South	142	64	0	-51	3	16
NTD61	South	145	66	0	-51	3	18
NTD62	South	149	75	0	-51	3	27
NTD63	South	154	73	0	-52	3	24
NTD64	South	162	67	0	-52	3	18
NTD65	East	209	67	-10	-54	3	6
NTD66	East	217	69	-10	-55	3	7
NTD67	Northeast	227	68	-10	-55	3	6
NTD68	Northeast	235	70	-10	-55	3	8
NTD69	Northeast	239	65	-10	-56	3	2
NTD70	Northeast	240	70	-10	-56	3	7
NTD71	Northeast	242	70	-10	-56	3	7
NTD72	Northeast	243	73	-10	-56	3	10
NTD73	East	320	70	-10	-58	3	>300m
NTD74	East	324	70	-10	-58	3	>300m
NTD75	East	332	70	-10	-58	3	>300m
NTD76	East	336	70	-10	-59	3	>300m
NTD77	Southeast	425	72	-10	-61	3	>300m
NTD78	Northeast	440	70	-10	-61	3	>300m
NTD79	Northeast	444	71	-10	-61	3	>300m
NTD80	Northeast	449	70	-10	-61	3	>300m
NTD81	Northeast	451	70	-10	-61	3	>300m
NTD82	Northeast	455	70	-10	-61	3	>300m
NTD83	Northeast	463	70	-10	-61	3	>300m
NTD84	Northeast	464	70	-10	-61	3	>300m
NTD85	Northwest	461	70	-10	-61	3	>300m
NTD86	Northwest	448	72	-10	-61	3	>300m
NTD87	Northwest	438	70	-10	-61	3	>300m
NTD88	Northwest	434	69	-10	-61	3	>300m
NTD89	Northwest	421	68	-10	-60	3	>300m
NTD90	Northwest	418	67	-10	-60	3	>300m
NTD91	Northwest	412	70	-10	-60	3	>300m
NTD92	Northwest	407	69	-10	-60	3	>300m
NTD93	West	78	73	-10	-46	3	20
NTD94	South	80	68	-10	-46	3	15
NTD94a	South	79	68	-10	-46	3	15
NTD95	South	78	68	-10	-46	3	15
NTD96	South	77	69	-10	-46	3	16
NTD97	Top	70	75	0	-45	3	33
NTD98	Top	69	75	0	-45	3	33
NTD99	Top	69	75	0	-45	3	33
NTD100	South	74	75	-10	-45	3	23
NTD101	Northeast	172	75	-10	-53	3	15
NTD102	Northeast	165	70	-10	-52	3	11
NTD103	Northeast	163	70	-10	-52	3	11
NTD104	Northeast	159	78	-10	-52	3	19
NTD105	Southeast	156	68	-10	-52	3	9
NTD106	Southeast	156	70	-10	-52	3	11
NTD107	Southeast	168	67	-10	-52	3	8
NTD108	Southeast	174	77	-10	-53	3	17
NTD109	Southeast	188	77	-10	-54	3	16
NTD110	Southeast	196	80	-10	-54	3	19
NTD111	Southwest	184	72	-10	-53	3	12
NTD112	Southwest	178	72	-10	-53	3	12
NTD113	Southwest	177	72	-10	-53	3	12
NTD114	Southwest	195	80	-10	-54	3	19
NTD115	Southwest	173	80	-10	-53	3	20

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-PF07s
 Description: Potential Development at NTM LUR

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-PF07s	N01	Northwest	445	79	-10	-61	3	>300m		
	N02	Northwest	450	79	-10	-61	3	>300m		
	N03	Northwest	453	79	-10	-61	3	>300m		
	N04	Northwest	454	77	-10	-61	3	>300m		
	N05	Northwest	456	77	-10	-61	3	>300m		
	N06	Northwest	458	77	-10	-61	3	>300m		
	N07	Northwest	459	77	-10	-61	3	>300m		
	N08	Northwest	459	80	-10	-61	3	>300m		
	N09	Northwest	460	77	-10	-61	3	>300m		
	N10	Northwest	461	77	-10	-61	3	>300m		
	N11	Northwest	463	77	-10	-61	3	>300m		
	N12	Northwest	465	82	-10	-61	3	>300m		
	N12a	Northwest	467	78	-10	-61	3	>300m		
	N12b	Northwest	470	78	-10	-61	3	>300m		
	N12c	Northwest	476	78	-10	-62	3	>300m		
	N12d	Northwest	449	80	-10	-61	3	>300m		
	N13	Top	454	80	-10	-61	3	>300m		
	N14	Top	495	80	-10	-62	3	>300m		
	N15	Northwest	508	77	-10	-62	3	>300m		
	N15a	Northwest	505	78	-10	-62	3	>300m		
	N16	Northwest	509	77	-10	-62	3	>300m		
	N17	Northwest	510	80	-10	-62	3	>300m		
	N18	Northwest	512	77	-10	-62	3	>300m		
	N19	Northwest	513	77	-10	-62	3	>300m		
	N20	Northwest	513	80	-10	-62	3	>300m		
	N20a	Northwest	520	78	-10	-62	3	>300m		
	N21	Northwest	525	77	-10	-62	3	>300m		
	N21a	Northwest	526	78	-10	-62	3	>300m		
	N22	Northwest	564	77	-10	-63	3	>300m		
	N23	Northwest	530	77	-10	-62	3	>300m		
	N24	Northwest	533	77	-10	-63	3	>300m		
	N25	Northwest	532	79	-10	-63	3	>300m		
	N26	Northwest	541	80	-10	-63	3	>300m		
	N27	Northwest	547	77	-10	-63	3	>300m		
	N28	Northwest	547	79	-10	-63	3	>300m		
	N29	Northwest	551	79	-10	-63	3	>300m		
	N30	Northwest	554	77	-10	-63	3	>300m		
	N30a	Northwest	558	78	-10	-63	3	>300m		
	N31	Northwest	550	79	-10	-63	3	>300m		
	N31a	Northeast	554	82	-10	-63	3	>300m		
	N31b	Northeast	545	82	-10	-63	3	>300m		
	N31c	Northeast	555	82	-10	-63	3	>300m		
	N31d	Northeast	547	82	-10	-63	3	>300m		
	N32	Northeast	532	80	-10	-63	3	>300m		
	N32a	Northeast	537	78	-10	-63	3	>300m		
	N32b	Southeast	531	78	-10	-62	3	>300m		
	N33	Southeast	526	80	-10	-62	3	>300m		
	N34	Southeast	521	80	-10	-62	3	>300m		
	N34a	Southeast	514	73	-10	-62	3	>300m		
	N35	Southeast	507	82	-10	-62	3	>300m		
	N36	Southeast	502	80	-10	-62	3	>300m		
	N37	Southeast	504	80	-10	-62	3	>300m		
	N38	Southeast	496	68	-10	-62	3	>300m		
	N39	Southeast	494	80	-10	-62	3	>300m		
	N39a	Southeast	486	75	-10	-62	3	>300m		
	N40	Southeast	479	78	-10	-62	3	>300m		
N40a	Southeast	476	78	-10	-62	3	>300m			
N40b	Southeast	488	82	-10	-62	3	>300m			
N41	Southeast	439	75	-10	-61	3	>300m			
N41a	Southeast	429	72	-10	-61	3	>300m			
N43	Southeast	422	72	-10	-61	3	>300m			
N44	Southeast	419	76	-10	-60	3	>300m			
N45	Southeast	418	72	-10	-60	3	>300m			
N45a	Southeast	414	68	-10	-60	3	>300m			
N45b	Southeast	411	68	-10	-60	3	>300m			
N46	Southeast	406	76	-10	-60	3	>300m			
N46a	Southeast	403	75	-10	-60	3	>300m			
N47	Southeast	414	76	-10	-60	3	>300m			
N47a	Southeast	412	75	-10	-60	3	>300m			
N47b	West	422	75	-10	-61	3	>300m			
N47c	West	429	75	-10	-61	3	>300m			
N48	Northeast	448	79	-10	-61	3	>300m			
N49	Northeast	425	76	-10	-61	3	>300m			
N50	Northeast	502	81	-10	-62	3	>300m			
N50a	Top	508	81	0	-62	3	>300m			
N51	Southwest	514	81	-10	-62	3	>300m			
N52	Southwest	525	78	-10	-62	3	>300m			
N53	Northeast	430	79	-10	-61	3	>300m			
N54	Northeast	444	79	-10	-61	3	>300m			
N55	West	442	79	-10	-61	3	>300m			
N56	Southwest	434	79	-10	-61	3	>300m			
NTD01	North	378	78	-10	-60	3	>300m			
NTD02	North	376	76	-10	-59	3	>300m			
NTD03	East	358	75	-10	-59	3	>300m			
NTD04	East	339	75	-10	-59	3	>300m			
NTD05	East	331	75	-10	-58	3	>300m			
NTD06	East	327	76	-10	-58	3	>300m			
NTD07	East	323	75	-10	-58	3	>300m			
NTD08	East	321	75	-10	-58	3	>300m			
NTD09	East	318	70	-10	-58	3	>300m			
NTD10	East	310	70	-10	-58	3	>300m			
NTD11	East	298	70	-10	-57	3	6			
NTD12	West	293	75	-10	-57	3	11			
NTD13	West	298	79	-10	-57	3	15			
NTD14	West	302	77	-10	-58	3	>300m			
NTD15	West	305	77	-10	-58	3	>300m			
NTD15a	West	315	80	-10	-58	3	>300m			
NTD16	West	325	80	-10	-58	3	>300m			

Appendix 4.11 Fixed Plant Noise Calculation

NTD16a	West	354	80	-10	-59	3	>300m
NTD17	West	363	77	-10	-59	3	>300m
NTD18	West	367	73	-10	-59	3	>300m
NTD19	West	372	73	-10	-59	3	>300m
NTD20	West	376	73	-10	-60	3	>300m
NTD21	West	284	78	-10	-57	3	14
NTD22	West	272	80	-10	-57	3	16
NTD23	West	262	80	-10	-56	3	17
NTD24	West	254	76	-10	-56	3	13
NTD25	West	251	80	-10	-56	3	17
NTD26	West	247	70	-10	-56	3	7
NTD27	West	243	70	-10	-56	3	7
NTD28	West	237	75	-10	-56	3	12
NTD29	West	233	75	-10	-55	3	13
NTD30	West	227	83	-10	-55	3	21
NTD31	Southwest	222	80	-10	-55	3	18
NTD32	Southwest	211	82	-10	-54	3	21
NTD33	Southwest	187	81	-10	-53	3	21
NTD34	Southwest	176	80	-10	-53	3	20
NTD35	South	124	85	-10	-50	3	28
NTD36	South	103	85	-10	-48	3	30
NTD37	South	89	85	-10	-47	3	31
NTD38	South	84	85	-10	-47	3	31
NTD39	South	79	85	-10	-46	3	32
NTD40	Top	73	80	-10	-45	3	28
NTD41	Southeast	70	75	-10	-45	3	23
NTD42	Southeast	51	75	-10	-42	3	26
NTD43	South	42	75	-10	-40	3	28
NTD44	East	25	75	-5	-36	3	37
NTD45	East	22	75	-5	-35	3	38
NTD46	East	18	75	-5	-33	3	40
NTD47	East	14	75	-5	-31	3	42
NTD48	East	7	70	-5	-25	3	43
NTD49	East	3	70	-5	-16	3	52
NTD50	East	9	70	-5	-27	3	41
NTD51	East	14	80	-5	-31	3	47
NTD52	East	20	73	-5	-34	3	37
NTD53	East	24	68	-5	-36	3	30
NTD54	Northeast	43	73	-5	-41	3	30
NTD55	East	140	85	-5	-51	3	32
NTD56	East	156	72	-5	-52	3	18
NTD57	South	162	78	0	-52	3	29
NTD58	South	163	73	0	-52	3	24
NTD59	South	165	70	0	-52	3	21
NTD60	South	168	69	0	-53	3	19
NTD61	South	172	71	0	-53	3	21
NTD62	South	175	80	0	-53	3	30
NTD63	South	180	78	0	-53	3	28
NTD64	South	187	72	0	-53	3	22
NTD65	East	235	72	-10	-55	3	10
NTD66	East	242	74	-10	-56	3	11
NTD67	Northeast	252	73	-10	-56	3	10
NTD68	Northeast	261	75	-10	-56	3	12
NTD69	Northeast	265	70	-10	-56	3	7
NTD70	Northeast	267	75	-10	-57	3	11
NTD71	Northeast	268	75	-10	-57	3	11
NTD72	Northeast	270	78	-10	-57	3	14
NTD73	East	347	75	-10	-59	3	>300m
NTD74	East	351	75	-10	-59	3	>300m
NTD75	East	359	75	-10	-59	3	>300m
NTD76	East	363	75	-10	-59	3	>300m
NTD77	Southeast	451	77	-10	-61	3	>300m
NTD78	Northeast	466	75	-10	-61	3	>300m
NTD79	Northeast	470	76	-10	-61	3	>300m
NTD80	Northeast	476	75	-10	-62	3	>300m
NTD81	Northeast	478	75	-10	-62	3	>300m
NTD82	Northeast	482	75	-10	-62	3	>300m
NTD83	Northeast	489	75	-10	-62	3	>300m
NTD84	Northeast	490	75	-10	-62	3	>300m
NTD85	Northwest	487	75	-10	-62	3	>300m
NTD86	Northwest	474	77	-10	-62	3	>300m
NTD87	Northwest	463	75	-10	-61	3	>300m
NTD88	Northwest	460	74	-10	-61	3	>300m
NTD89	Northwest	447	73	-10	-61	3	>300m
NTD90	Northwest	443	72	-10	-61	3	>300m
NTD91	Northwest	438	75	-10	-61	3	>300m
NTD92	Northwest	432	74	-10	-61	3	>300m
NTD93	West	56	78	-10	-43	3	28
NTD94	South	57	73	-10	-43	3	23
NTD94a	South	56	73	-10	-43	3	23
NTD95	South	53	73	-10	-43	3	23
NTD96	South	52	74	-10	-42	3	25
NTD97	Top	45	80	0	-41	3	42
NTD98	Top	43	80	0	-41	3	42
NTD99	Top	42	80	0	-40	3	43
NTD100	South	47	80	-10	-41	3	32
NTD101	Northeast	152	80	-10	-52	3	21
NTD102	Northeast	144	75	-10	-51	3	17
NTD103	Northeast	142	75	-10	-51	3	17
NTD104	Northeast	136	83	-10	-51	3	25
NTD105	Southeast	132	73	-10	-50	3	16
NTD106	Southeast	132	75	-10	-50	3	18
NTD107	Southeast	143	72	-10	-51	3	14
NTD108	Southeast	149	82	-10	-51	3	24
NTD109	Southeast	165	82	-10	-52	3	23
NTD110	Southeast	172	85	-10	-53	3	25
NTD111	Southwest	165	77	-10	-52	3	18
NTD112	Southwest	155	77	-10	-52	3	18
NTD113	Southwest	154	77	-10	-52	3	18
NTD114	Southwest	173	85	-10	-53	3	25
NTD115	Southwest	151	85	-10	-52	3	26

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-PF07s	N01	Northwest	445	74	-10	-61	3	>300m		
	N02	Northwest	450	74	-10	-61	3	>300m		
	N03	Northwest	453	74	-10	-61	3	>300m		
	N04	Northwest	454	72	-10	-61	3	>300m		
	N05	Northwest	456	72	-10	-61	3	>300m		
	N06	Northwest	458	72	-10	-61	3	>300m		
	N07	Northwest	459	72	-10	-61	3	>300m		
	N08	Northwest	459	75	-10	-61	3	>300m		
	N09	Northwest	460	72	-10	-61	3	>300m		
	N10	Northwest	461	72	-10	-61	3	>300m		
	N11	Northwest	463	72	-10	-61	3	>300m		
	N12	Northwest	465	77	-10	-61	3	>300m		
	N12a	Northwest	467	73	-10	-61	3	>300m		
	N12b	Northwest	470	73	-10	-61	3	>300m		
	N12c	Northwest	476	73	-10	-62	3	>300m		
	N12d	Northwest	449	75	-10	-61	3	>300m		
	N13	Top	454	75	-10	-61	3	>300m		
	N14	Top	495	75	-10	-62	3	>300m		
	N15	Northwest	508	72	-10	-62	3	>300m		
	N15a	Northwest	505	73	-10	-62	3	>300m		
	N16	Northwest	509	72	-10	-62	3	>300m		
	N17	Northwest	510	75	-10	-62	3	>300m		
	N18	Northwest	512	72	-10	-62	3	>300m		
	N19	Northwest	513	72	-10	-62	3	>300m		
	N20	Northwest	513	75	-10	-62	3	>300m		
	N20a	Northwest	520	73	-10	-62	3	>300m		
	N21	Northwest	525	72	-10	-62	3	>300m		
	N21a	Northwest	526	73	-10	-62	3	>300m		
	N22	Northwest	564	72	-10	-63	3	>300m		
	N23	Northwest	530	72	-10	-62	3	>300m		
	N24	Northwest	533	72	-10	-63	3	>300m		
	N25	Northwest	532	74	-10	-63	3	>300m		
	N26	Northwest	541	75	-10	-63	3	>300m		
	N27	Northwest	547	72	-10	-63	3	>300m		
	N28	Northwest	547	74	-10	-63	3	>300m		
	N29	Northwest	551	74	-10	-63	3	>300m		
	N30	Northwest	554	72	-10	-63	3	>300m		
	N30a	Northwest	558	73	-10	-63	3	>300m		
	N31	Northwest	550	74	-10	-63	3	>300m		
	N31a	Northwest	554	77	-10	-63	3	>300m		
	N31b	Northwest	545	77	-10	-63	3	>300m		
	N31c	Northwest	555	77	-10	-63	3	>300m		
	N31d	Northwest	547	77	-10	-63	3	>300m		
	N32	Northwest	532	75	-10	-63	3	>300m		
	N32a	Northwest	537	73	-10	-63	3	>300m		
	N32b	Southwest	531	73	-10	-62	3	>300m		
	N33	Southwest	526	75	-10	-62	3	>300m		
	N34	Southwest	521	75	-10	-62	3	>300m		
	N34a	Southwest	514	68	-10	-62	3	>300m		
	N35	Southwest	507	77	-10	-62	3	>300m		
	N36	Southwest	502	75	-10	-62	3	>300m		
	N37	Southwest	504	75	-10	-62	3	>300m		
	N38	Southwest	496	63	-10	-62	3	>300m		
	N39	Southwest	494	75	-10	-62	3	>300m		
	N39a	Southwest	486	70	-10	-62	3	>300m		
	N40	Southwest	479	73	-10	-62	3	>300m		
	N40a	Southwest	476	73	-10	-62	3	>300m		
	N40b	Southwest	488	77	-10	-62	3	>300m		
	N41	Southwest	439	70	-10	-61	3	>300m		
	N41a	Southwest	429	67	-10	-61	3	>300m		
	N43	Southwest	422	67	-10	-61	3	>300m		
	N44	Southwest	419	71	-10	-60	3	>300m		
	N45	Southwest	418	67	-10	-60	3	>300m		
	N45a	Southwest	414	63	-10	-60	3	>300m		
	N45b	Southwest	411	63	-10	-60	3	>300m		
	N46	Southwest	406	71	-10	-60	3	>300m		
	N46a	Southwest	403	70	-10	-60	3	>300m		
	N47	Southwest	414	71	-10	-60	3	>300m		
	N47a	Southwest	412	70	-10	-60	3	>300m		
	N47b	West	422	70	-10	-61	3	>300m		
N47c	West	429	70	-10	-61	3	>300m			
N48	Northwest	448	74	-10	-61	3	>300m			
N49	Northwest	425	71	-10	-61	3	>300m			
N50	Northwest	502	76	-10	-62	3	>300m			
N50a	Top	508	76	0	-62	3	>300m			
N51	Southwest	514	76	-10	-62	3	>300m			
N52	Southwest	525	73	-10	-62	3	>300m			
N53	Northwest	430	74	-10	-61	3	>300m			
N54	Northwest	444	74	-10	-61	3	>300m			
N55	West	442	74	-10	-61	3	>300m			
N56	Southwest	434	74	-10	-61	3	>300m			
NTD01	North	378	73	-10	-60	3	>300m			
NTD02	North	376	71	-10	-59	3	>300m			
NTD03	East	358	70	-10	-59	3	>300m			
NTD04	East	339	70	-10	-59	3	>300m			
NTD05	East	331	70	-10	-58	3	>300m			
NTD06	East	327	71	-10	-58	3	>300m			
NTD07	East	323	70	-10	-58	3	>300m			
NTD08	East	321	70	-10	-58	3	>300m			
NTD09	East	318	65	-10	-58	3	>300m			
NTD10	East	310	65	-10	-58	3	>300m			
NTD11	East	298	65	-10	-57	3	1			
NTD12	West	293	70	-10	-57	3	6			
NTD13	West	298	74	-10	-57	3	10			
NTD14	West	302	72	-10	-58	3	>300m			
NTD15	West	305	72	-10	-58	3	>300m			
NTD15a	West	315	75	-10	-58	3	>300m			
NTD16	West	325	75	-10	-58	3	>300m			
NTD16a	West	354	75	-10	-59	3	>300m			
NTD17	West	363	72	-10	-59	3	>300m			

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	367	68	-10	-59	3	>300m
NTD19	West	372	68	-10	-59	3	>300m
NTD20	West	376	68	-10	-60	3	>300m
NTD21	West	284	73	-10	-57	3	9
NTD22	West	272	75	-10	-57	3	11
NTD23	West	262	75	-10	-56	3	12
NTD24	West	254	71	-10	-56	3	8
NTD25	West	251	75	-10	-56	3	12
NTD26	West	247	65	-10	-56	3	2
NTD27	West	243	65	-10	-56	3	2
NTD28	West	237	70	-10	-56	3	7
NTD29	West	233	70	-10	-55	3	8
NTD30	West	227	78	-10	-55	3	16
NTD31	Southwest	222	75	-10	-55	3	13
NTD32	Southwest	211	77	-10	-54	3	16
NTD33	Southwest	187	76	-10	-53	3	16
NTD34	Southwest	176	75	-10	-53	3	15
NTD35	South	124	80	-10	-50	3	23
NTD36	South	103	80	-10	-48	3	25
NTD37	South	93	80	-10	-47	3	26
NTD38	South	84	80	-10	-47	3	26
NTD39	South	79	80	-10	-46	3	27
NTD40	Top	73	75	-10	-45	3	23
NTD41	Southeast	70	70	-10	-45	3	18
NTD42	Southeast	51	70	-10	-42	3	21
NTD43	South	42	70	-10	-40	3	23
NTD44	East	25	70	-5	-36	3	32
NTD45	East	22	70	-5	-35	3	33
NTD46	East	18	70	-5	-33	3	35
NTD47	East	14	70	-5	-31	3	37
NTD48	East	7	65	-5	-25	3	38
NTD49	East	3	65	-5	-16	3	47
NTD50	East	9	65	-5	-27	3	36
NTD51	East	14	75	-5	-31	3	42
NTD52	East	20	68	-5	-34	3	32
NTD53	East	24	63	-5	-36	3	25
NTD54	Northeast	43	68	-5	-41	3	25
NTD55	East	140	80	-5	-51	3	27
NTD56	East	156	67	-5	-52	3	13
NTD57	South	162	73	0	-52	3	24
NTD58	South	163	68	0	-52	3	19
NTD59	South	165	65	0	-52	3	16
NTD60	South	168	64	0	-53	3	14
NTD61	South	172	66	0	-53	3	16
NTD62	South	175	75	0	-53	3	25
NTD63	South	180	73	0	-53	3	23
NTD64	South	187	67	0	-53	3	17
NTD65	East	235	67	-10	-55	3	5
NTD66	East	242	69	-10	-56	3	6
NTD67	Northeast	252	68	-10	-56	3	5
NTD68	Northeast	261	70	-10	-56	3	7
NTD69	Northeast	265	65	-10	-56	3	2
NTD70	Northeast	267	70	-10	-57	3	6
NTD71	Northeast	268	70	-10	-57	3	6
NTD72	Northeast	270	73	-10	-57	3	9
NTD73	East	347	70	-10	-59	3	>300m
NTD74	East	351	70	-10	-59	3	>300m
NTD75	East	359	70	-10	-59	3	>300m
NTD76	East	363	70	-10	-59	3	>300m
NTD77	Southeast	451	72	-10	-61	3	>300m
NTD78	Northeast	466	70	-10	-61	3	>300m
NTD79	Northeast	470	71	-10	-61	3	>300m
NTD80	Northeast	476	70	-10	-62	3	>300m
NTD81	Northeast	478	70	-10	-62	3	>300m
NTD82	Northeast	482	70	-10	-62	3	>300m
NTD83	Northeast	489	70	-10	-62	3	>300m
NTD84	Northeast	490	70	-10	-62	3	>300m
NTD85	Northwest	487	70	-10	-62	3	>300m
NTD86	Northwest	474	72	-10	-62	3	>300m
NTD87	Northwest	463	70	-10	-61	3	>300m
NTD88	Northwest	460	69	-10	-61	3	>300m
NTD89	Northwest	447	68	-10	-61	3	>300m
NTD90	Northwest	443	67	-10	-61	3	>300m
NTD91	Northwest	438	70	-10	-61	3	>300m
NTD92	Northwest	432	69	-10	-61	3	>300m
NTD93	West	56	73	-10	-43	3	23
NTD94	South	57	68	-10	-43	3	18
NTD94a	South	56	68	-10	-43	3	18
NTD95	South	53	68	-10	-43	3	18
NTD96	South	52	69	-10	-42	3	20
NTD97	Top	45	75	0	-41	3	37
NTD98	Top	43	75	0	-41	3	37
NTD99	Top	42	75	0	-40	3	38
NTD100	South	47	75	-10	-41	3	27
NTD101	Northeast	152	75	-10	-52	3	16
NTD102	Northeast	144	70	-10	-51	3	12
NTD103	Northeast	142	70	-10	-51	3	12
NTD104	Northeast	136	78	-10	-51	3	20
NTD105	Southeast	132	68	-10	-50	3	11
NTD106	Southeast	132	70	-10	-50	3	13
NTD107	Southeast	143	67	-10	-51	3	9
NTD108	Southeast	149	77	-10	-51	3	19
NTD109	Southeast	165	77	-10	-52	3	18
NTD110	Southeast	172	80	-10	-53	3	20
NTD111	Southwest	165	72	-10	-52	3	13
NTD112	Southwest	155	72	-10	-52	3	13
NTD113	Southwest	154	72	-10	-52	3	13
NTD114	Southwest	173	80	-10	-53	3	20
NTD115	Southwest	151	80	-10	-52	3	21

50

50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-F04
 Description: Hongtai Home for the Aged Limited

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ¹⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-F04	N01	Northwest	60	79	0	-44	3	38		
	N02	Northwest	75	79	0	-46	3	36		
	N03	Northwest	88	79	0	-47	3	35		
	N04	Northwest	90	77	0	-47	3	33		
	N05	Northwest	95	77	0	-48	3	32		
	N06	Northwest	101	77	0	-48	3	32		
	N07	Northwest	105	77	0	-48	3	32		
	N08	Northwest	105	80	0	-48	3	35		
	N09	Northwest	108	77	0	-49	3	31		
	N10	Northwest	112	77	0	-49	3	31		
	N11	Northwest	117	77	0	-49	3	31		
	N12	Northwest	121	82	0	-50	3	35		
	N12a	Northwest	126	78	0	-50	3	31		
	N12b	Northwest	136	78	0	-51	3	30		
	N12c	Northwest	150	78	0	-51	3	30		
	N12d	Northwest	136	80	-10	-51	3	22		
	N13	Top	120	80	0	-50	3	33		
	N14	Top	207	80	0	-54	3	29		
	N15	Northwest	215	77	0	-55	3	25		
	N15a	Northwest	209	78	0	-54	3	27		
	N16	Northwest	217	77	0	-55	3	25		
	N17	Northwest	220	80	0	-55	3	28		
	N18	Northwest	222	77	0	-55	3	25		
	N19	Northwest	225	77	0	-55	3	25		
	N20	Northwest	225	80	0	-55	3	28		
	N20a	Northwest	227	78	0	-56	3	25		
	N21	Northwest	247	77	0	-56	3	24		
	N21a	Northwest	248	78	0	-56	3	25		
	N22	Northwest	517	77	0	-62	3	>300m		
	N23	Northwest	256	77	0	-56	3	24		
	N24	Northwest	260	77	0	-56	3	24		
	N25	Northwest	261	79	0	-56	3	26		
	N26	Northwest	273	80	0	-57	3	26		
	N27	Northwest	284	77	0	-57	3	23		
	N28	Northwest	286	79	0	-57	3	25		
	N29	Northwest	293	79	0	-57	3	25		
	N30	Northwest	294	77	0	-57	3	23		
	N30a	Northwest	301	78	0	-58	3	>300m		
	N31	Northwest	298	79	-10	-57	3	15		
	N31a	Northeast	305	82	-10	-58	3	>300m		
	N31b	Northeast	306	82	-10	-58	3	>300m		
	N31c	Northeast	304	82	-10	-58	3	>300m		
	N31d	Northeast	305	82	-10	-58	3	>300m		
	N32	Northeast	300	80	-10	-58	3	>300m		
	N32a	Northeast	307	78	-10	-58	3	>300m		
	N32b	Southeast	305	78	-10	-58	3	>300m		
	N33	Southeast	297	80	-10	-57	3	16		
	N34	Southeast	290	80	-10	-57	3	16		
	N34a	Southeast	280	73	-10	-57	3	9		
	N35	Southeast	269	82	-10	-57	3	18		
	N36	Southeast	261	80	-10	-56	3	17		
	N37	Southeast	255	80	0	-56	3	27		
	N38	Southeast	252	68	-10	-56	3	5		
	N39	Southeast	247	80	-10	-56	3	17		
	N39a	Southeast	234	75	-10	-55	3	13		
	N40	Southeast	222	78	-10	-55	3	16		
	N40a	Southeast	217	78	-10	-55	3	16		
	N40b	Southeast	209	82	0	-54	3	31		
	N41	Southeast	147	75	-10	-51	3	17		
	N41a	Southeast	124	72	-10	-50	3	15		
	N43	Southeast	107	72	-10	-49	3	16		
	N44	Southeast	101	76	-10	-48	3	21		
	N45	Southeast	98	72	-10	-48	3	17		
	N45a	Southeast	87	68	-10	-47	3	14		
	N45b	Southeast	80	68	-10	-46	3	15		
	N46	Southeast	74	76	-10	-45	3	24		
	N46a	Southeast	66	75	-10	-44	3	24		
	N47	Southeast	66	76	0	-44	3	35		
	N47a	Southeast	57	75	0	-43	3	35		
	N47b	West	51	75	0	-42	3	36		
	N47c	West	51	75	0	-42	3	36		
	N48	Northeast	94	79	-10	-47	3	25		
	N49	Northeast	103	76	-10	-48	3	21		
	N50	Northeast	242	81	0	-56	3	28		
	N50a	Top	253	81	0	-56	3	28		
	N51	Southwest	252	81	-10	-56	3	18		
	N52	Southwest	257	78	0	-56	3	25		
	N53	Northeast	118	79	-10	-49	3	23		
	N54	Northeast	112	79	-10	-49	3	23		
	N55	West	54	79	-10	-43	3	29		
	N56	Southwest	60	79	0	-44	3	38		
	NTD01	North	76	78	0	-46	3	35		
	NTD02	North	79	76	0	-46	3	33		
	NTD03	East	94	75	-10	-48	3	20		
	NTD04	East	112	75	-10	-49	3	19		
	NTD05	East	120	75	-10	-50	3	18		
	NTD06	East	125	76	-10	-50	3	19		
	NTD07	East	128	75	-10	-50	3	18		
	NTD08	East	132	75	-10	-50	3	18		
	NTD09	East	136	70	-10	-51	3	12		
	NTD10	East	143	70	-10	-51	3	12		
	NTD11	East	157	70	-10	-52	3	11		
	NTD12	West	169	75	0	-53	3	25		
	NTD13	West	163	79	0	-52	3	30		
	NTD14	West	158	77	0	-52	3	28		
	NTD15	West	153	77	0	-52	3	28		
	NTD15a	West	141	80	0	-51	3	32		
	NTD16	West	129	80	0	-50	3	33		

Appendix 4.11 Fixed Plant Noise Calculation

NTD16a	West	97	80	0	-48	3	35
NTD17	West	88	77	0	-47	3	33
NTD18	West	84	73	0	-46	3	30
NTD19	West	80	73	0	-46	3	30
NTD20	West	76	73	0	-46	3	30
NTD21	West	181	78	0	-53	3	28
NTD22	West	199	80	0	-54	3	29
NTD23	West	215	80	0	-55	3	28
NTD24	West	227	76	0	-55	3	24
NTD25	West	233	80	0	-55	3	28
NTD26	West	240	70	0	-56	3	17
NTD27	West	247	70	0	-56	3	17
NTD28	West	258	75	0	-56	3	22
NTD29	West	266	75	0	-57	3	21
NTD30	West	278	83	0	-57	3	29
NTD31	Southwest	290	80	0	-57	3	26
NTD32	Southwest	312	82	0	-58	3	>300m
NTD33	Southwest	356	81	0	-59	3	>300m
NTD34	Southwest	375	80	-10	-59	3	>300m
NTD35	South	436	85	-10	-61	3	>300m
NTD36	South	449	85	-10	-61	3	>300m
NTD37	South	457	85	-10	-61	3	>300m
NTD38	South	464	85	-10	-61	3	>300m
NTD39	South	469	85	-10	-61	3	>300m
NTD40	Top	467	80	-10	-61	3	>300m
NTD41	Southeast	465	75	-10	-61	3	>300m
NTD42	Southeast	452	75	-10	-61	3	>300m
NTD43	South	452	75	-10	-61	3	>300m
NTD44	East	471	75	-10	-61	3	>300m
NTD45	East	468	75	-10	-61	3	>300m
NTD46	East	465	75	-10	-61	3	>300m
NTD47	East	462	75	-10	-61	3	>300m
NTD48	East	456	70	-10	-61	3	>300m
NTD49	East	449	70	-10	-61	3	>300m
NTD50	East	444	70	-10	-61	3	>300m
NTD51	East	440	80	-10	-61	3	>300m
NTD52	East	436	73	-10	-61	3	>300m
NTD53	East	433	68	-10	-61	3	>300m
NTD54	Northeast	419	73	-10	-60	3	>300m
NTD55	East	349	85	-10	-59	3	>300m
NTD56	East	343	72	-10	-59	3	>300m
NTD57	South	344	78	-10	-59	3	>300m
NTD58	South	348	73	-10	-59	3	>300m
NTD59	South	352	70	-10	-59	3	>300m
NTD60	South	357	69	-10	-59	3	>300m
NTD61	South	364	71	-10	-59	3	>300m
NTD62	South	369	80	-10	-59	3	>300m
NTD63	South	376	78	-10	-60	3	>300m
NTD64	South	382	72	-10	-60	3	>300m
NTD65	East	371	72	-10	-59	3	>300m
NTD66	East	368	74	-10	-59	3	>300m
NTD67	Northeast	361	73	-10	-59	3	>300m
NTD68	Northeast	344	75	-10	-59	3	>300m
NTD69	Northeast	334	70	-10	-58	3	>300m
NTD70	Northeast	332	75	-10	-58	3	>300m
NTD71	Northeast	328	75	-10	-58	3	>300m
NTD72	Northeast	321	78	-10	-58	3	>300m
NTD73	East	243	75	-10	-56	3	12
NTD74	East	242	75	-10	-56	3	12
NTD75	East	241	75	-10	-56	3	12
NTD76	East	241	75	-10	-56	3	12
NTD77	Southeast	269	77	-10	-57	3	13
NTD78	Northeast	272	75	-10	-57	3	11
NTD79	Northeast	270	76	-10	-57	3	12
NTD80	Northeast	268	75	-10	-57	3	11
NTD81	Northeast	267	75	-10	-57	3	11
NTD82	Northeast	266	75	-10	-56	3	12
NTD83	Northeast	263	75	-10	-56	3	12
NTD84	Northeast	262	75	0	-56	3	22
NTD85	Northwest	257	75	0	-56	3	22
NTD86	Northwest	237	77	0	-55	3	25
NTD87	Northwest	219	75	0	-55	3	23
NTD88	Northwest	213	74	0	-55	3	22
NTD89	Northwest	190	73	0	-54	3	22
NTD90	Northwest	184	72	0	-53	3	22
NTD91	Northwest	174	75	0	-53	3	25
NTD92	Northwest	163	74	0	-52	3	25
NTD93	West	464	78	0	-61	3	>300m
NTD94	South	471	73	-10	-61	3	>300m
NTD94a	South	472	73	-10	-61	3	>300m
NTD95	South	474	73	-10	-62	3	>300m
NTD96	South	476	74	-10	-62	3	>300m
NTD97	Top	474	80	0	-62	3	>300m
NTD98	Top	477	80	0	-62	3	>300m
NTD99	Top	481	80	0	-62	3	>300m
NTD100	South	487	80	-10	-62	3	>300m
NTD101	Northeast	486	80	0	-62	3	>300m
NTD102	Northeast	495	75	0	-62	3	>300m
NTD103	Northeast	498	75	0	-62	3	>300m
NTD104	Northeast	507	83	0	-62	3	>300m
NTD105	Southeast	514	73	0	-62	3	>300m
NTD106	Southeast	521	75	-10	-62	3	>300m
NTD107	Southeast	530	72	-10	-62	3	>300m
NTD108	Southeast	532	82	-10	-63	3	>300m
NTD109	Southeast	537	82	-10	-63	3	>300m
NTD110	Southeast	535	85	-10	-63	3	>300m
NTD111	Southwest	491	77	0	-62	3	>300m
NTD112	Southwest	524	77	0	-62	3	>300m
NTD113	Southwest	527	77	0	-62	3	>300m
NTD114	Southwest	523	85	-10	-62	3	>300m
NTD115	Southwest	505	85	0	-62	3	>300m

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-F04	N01	Northwest	60	74	0	-44	3	33		
	N02	Northwest	75	74	0	-46	3	31		
	N03	Northwest	88	74	0	-47	3	30		
	N04	Northwest	90	72	0	-47	3	28		
	N05	Northwest	95	72	0	-48	3	27		
	N06	Northwest	101	72	0	-48	3	27		
	N07	Northwest	105	72	0	-48	3	27		
	N08	Northwest	105	75	0	-48	3	30		
	N09	Northwest	108	72	0	-49	3	26		
	N10	Northwest	112	72	0	-49	3	26		
	N11	Northwest	117	72	0	-49	3	26		
	N12	Northwest	121	77	0	-50	3	30		
	N12a	Northwest	126	73	0	-50	3	26		
	N12b	Northwest	136	73	0	-51	3	25		
	N12c	Northwest	150	73	0	-51	3	25		
	N12d	Northwest	136	75	-10	-51	3	17		
	N13	Top	120	75	0	-50	3	28		
	N14	Top	207	75	0	-54	3	24		
	N15	Northwest	215	72	0	-55	3	20		
	N15a	Northwest	209	73	0	-54	3	22		
	N16	Northwest	217	72	0	-55	3	20		
	N17	Northwest	220	75	0	-55	3	23		
	N18	Northwest	222	72	0	-55	3	20		
	N19	Northwest	225	72	0	-55	3	20		
	N20	Northwest	225	75	0	-55	3	23		
	N20a	Northwest	237	73	0	-56	3	20		
	N21	Northwest	247	72	0	-56	3	19		
	N21a	Northwest	248	73	0	-56	3	20		
	N22	Northwest	517	72	0	-62	3	>300m		
	N23	Northwest	256	72	0	-56	3	19		
	N24	Northwest	260	72	0	-56	3	19		
	N25	Northwest	261	74	0	-56	3	21		
	N26	Northwest	273	75	0	-57	3	21		
	N27	Northwest	284	72	0	-57	3	18		
	N28	Northwest	286	74	0	-57	3	20		
	N29	Northwest	293	74	0	-57	3	20		
	N30	Northwest	294	72	0	-57	3	18		
	N30a	Northwest	301	73	0	-58	3	>300m		
	N31	Northwest	298	74	-10	-57	3	10		
	N31a	Northeast	305	77	-10	-58	3	>300m		
	N31b	Northeast	306	77	-10	-58	3	>300m		
	N31c	Northeast	304	77	-10	-58	3	>300m		
	N31d	Northeast	305	77	-10	-58	3	>300m		
	N32	Northeast	300	75	-10	-58	3	>300m		
	N32a	Northeast	307	73	-10	-58	3	>300m		
	N32b	Southeast	305	73	-10	-58	3	>300m		
	N33	Southeast	297	75	-10	-57	3	11		
	N34	Southeast	290	75	-10	-57	3	11		
	N34a	Southeast	280	68	-10	-57	3	4		
	N35	Southeast	269	77	-10	-57	3	13		
	N36	Southeast	261	75	-10	-56	3	12		
	N37	Southeast	255	75	0	-56	3	22		
	N38	Southeast	252	63	-10	-56	3	0		
	N39	Southeast	247	75	-10	-56	3	12		
	N39a	Southeast	234	70	-10	-55	3	8		
	N40	Southeast	222	73	-10	-55	3	11		
	N40a	Southeast	217	73	-10	-55	3	11		
	N40b	Southwest	209	77	0	-54	3	26		
	N41	Southeast	147	70	-10	-51	3	12		
	N41a	Southeast	124	67	-10	-50	3	10		
	N43	Southeast	107	67	-10	-49	3	11		
	N44	Southeast	101	71	-10	-48	3	16		
	N45	Southeast	98	67	-10	-48	3	12		
	N45a	Southeast	87	63	-10	-47	3	9		
	N45b	Southeast	80	63	-10	-46	3	10		
	N46	Southeast	74	71	-10	-45	3	19		
	N46a	Southeast	66	70	-10	-44	3	19		
	N47	Southwest	66	71	0	-44	3	30		
	N47a	Southwest	57	70	0	-43	3	30		
	N47b	West	51	70	0	-42	3	31		
	N47c	West	51	70	0	-42	3	31		
	N48	Northeast	94	74	-10	-47	3	20		
	N49	Northeast	103	71	-10	-48	3	16		
	N50	Northeast	242	76	0	-56	3	23		
	N50a	Top	253	76	0	-56	3	23		
	N51	Southwest	252	76	-10	-56	3	13		
	N52	Southwest	257	73	0	-56	3	20		
	N53	Northeast	118	74	-10	-49	3	18		
	N54	Northeast	112	74	-10	-49	3	18		
	N55	West	54	74	-10	-43	3	24		
	N56	Southwest	60	74	0	-44	3	33		
	NTD01	North	76	73	0	-46	3	30		
	NTD02	North	79	71	0	-46	3	28		
	NTD03	East	94	70	-10	-48	3	15		
	NTD04	East	112	70	-10	-49	3	14		
	NTD05	East	120	70	-10	-50	3	13		
	NTD06	East	125	71	-10	-50	3	14		
	NTD07	East	128	70	-10	-50	3	13		
	NTD08	East	132	70	-10	-50	3	13		
	NTD09	East	136	65	-10	-51	3	7		
	NTD10	East	143	65	-10	-51	3	7		
	NTD11	East	157	65	-10	-52	3	6		
	NTD12	West	169	70	0	-53	3	20		
	NTD13	West	163	74	0	-52	3	25		
	NTD14	West	158	72	0	-52	3	23		
	NTD15	West	153	72	0	-52	3	23		
	NTD15a	West	141	75	0	-51	3	27		
	NTD16	West	129	75	0	-50	3	28		
	NTD16a	West	97	75	0	-48	3	30		
	NTD17	West	88	72	0	-47	3	28		

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	84	68	0	-46	3	25
NTD19	West	80	68	0	-46	3	25
NTD20	West	76	68	0	-46	3	25
NTD21	West	181	73	0	-53	3	23
NTD22	West	199	75	0	-54	3	24
NTD23	West	215	75	0	-55	3	23
NTD24	West	227	71	0	-55	3	19
NTD25	West	233	75	0	-55	3	23
NTD26	West	240	65	0	-56	3	12
NTD27	West	247	65	0	-56	3	12
NTD28	West	258	70	0	-56	3	17
NTD29	West	266	70	0	-57	3	16
NTD30	West	278	78	0	-57	3	24
NTD31	Southwest	290	75	0	-57	3	21
NTD32	Southwest	312	77	0	-58	3	>300m
NTD33	Southwest	356	76	0	-59	3	>300m
NTD34	Southwest	375	75	-10	-59	3	>300m
NTD35	South	436	80	-10	-61	3	>300m
NTD36	South	449	80	-10	-61	3	>300m
NTD37	South	457	80	-10	-61	3	>300m
NTD38	South	464	80	-10	-61	3	>300m
NTD39	South	469	80	-10	-61	3	>300m
NTD40	Top	467	75	-10	-61	3	>300m
NTD41	Southeast	465	70	-10	-61	3	>300m
NTD42	Southeast	452	70	-10	-61	3	>300m
NTD43	South	452	70	-10	-61	3	>300m
NTD44	East	471	70	-10	-61	3	>300m
NTD45	East	468	70	-10	-61	3	>300m
NTD46	East	465	70	-10	-61	3	>300m
NTD47	East	462	70	-10	-61	3	>300m
NTD48	East	456	65	-10	-61	3	>300m
NTD49	East	449	65	-10	-61	3	>300m
NTD50	East	444	65	-10	-61	3	>300m
NTD51	East	440	75	-10	-61	3	>300m
NTD52	East	436	68	-10	-61	3	>300m
NTD53	East	433	63	-10	-61	3	>300m
NTD54	Northeast	419	68	-10	-60	3	>300m
NTD55	East	349	80	-10	-59	3	>300m
NTD56	East	343	67	-10	-59	3	>300m
NTD57	South	344	73	-10	-59	3	>300m
NTD58	South	348	68	-10	-59	3	>300m
NTD59	South	352	65	-10	-59	3	>300m
NTD60	South	357	64	-10	-59	3	>300m
NTD61	South	364	66	-10	-59	3	>300m
NTD62	South	369	75	-10	-59	3	>300m
NTD63	South	376	73	-10	-60	3	>300m
NTD64	South	382	67	-10	-60	3	>300m
NTD65	East	371	67	-10	-59	3	>300m
NTD66	East	368	69	-10	-59	3	>300m
NTD67	Northeast	361	68	-10	-59	3	>300m
NTD68	Northeast	344	70	-10	-59	3	>300m
NTD69	Northeast	334	65	-10	-58	3	>300m
NTD70	Northeast	332	70	-10	-58	3	>300m
NTD71	Northeast	328	70	-10	-58	3	>300m
NTD72	Northeast	321	73	-10	-58	3	>300m
NTD73	East	243	70	-10	-56	3	7
NTD74	East	242	70	-10	-56	3	7
NTD75	East	241	70	-10	-56	3	7
NTD76	East	241	70	-10	-56	3	7
NTD77	Southeast	269	72	-10	-57	3	8
NTD78	Northeast	272	70	-10	-57	3	6
NTD79	Northeast	270	71	-10	-57	3	7
NTD80	Northeast	268	70	-10	-57	3	6
NTD81	Northeast	267	70	-10	-57	3	6
NTD82	Northeast	266	70	-10	-56	3	7
NTD83	Northeast	263	70	-10	-56	3	7
NTD84	Northeast	262	70	0	-56	3	17
NTD85	Northwest	257	70	0	-56	3	17
NTD86	Northwest	237	72	0	-55	3	20
NTD87	Northwest	219	70	0	-55	3	18
NTD88	Northwest	213	69	0	-55	3	17
NTD89	Northwest	190	68	0	-54	3	17
NTD90	Northwest	184	67	0	-53	3	17
NTD91	Northwest	174	70	0	-53	3	20
NTD92	Northwest	163	69	0	-52	3	20
NTD93	West	464	73	0	-61	3	>300m
NTD94	South	471	68	-10	-61	3	>300m
NTD94a	South	472	68	-10	-61	3	>300m
NTD95	South	474	68	-10	-62	3	>300m
NTD96	South	476	69	-10	-62	3	>300m
NTD97	Top	474	75	0	-62	3	>300m
NTD98	Top	477	75	0	-62	3	>300m
NTD99	Top	481	75	0	-62	3	>300m
NTD100	South	487	75	-10	-62	3	>300m
NTD101	Northeast	486	75	0	-62	3	>300m
NTD102	Northeast	495	70	0	-62	3	>300m
NTD103	Northeast	498	70	0	-62	3	>300m
NTD104	Northeast	507	78	0	-62	3	>300m
NTD105	Southeast	514	68	0	-62	3	>300m
NTD106	Southeast	521	70	-10	-62	3	>300m
NTD107	Southeast	530	67	-10	-62	3	>300m
NTD108	Southeast	532	77	-10	-63	3	>300m
NTD109	Southeast	537	77	-10	-63	3	>300m
NTD110	Southeast	535	80	-10	-63	3	>300m
NTD111	Southwest	491	72	0	-62	3	>300m
NTD112	Southwest	524	72	0	-62	3	>300m
NTD113	Southwest	527	72	0	-62	3	>300m
NTD114	Southwest	523	80	-10	-62	3	>300m
NTD115	Southwest	505	80	0	-62	3	>300m

45

48

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-F04a
 Description: Temporary Structure near Ching Yau Road

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ⁽¹⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-F04a	N01	Northwest	115	79	-10	-49	3	23		
	N02	Northwest	129	79	-10	-50	3	22		
	N03	Northwest	140	79	-10	-51	3	21		
	N04	Northwest	142	77	-10	-51	3	19		
	N05	Northwest	146	77	-10	-51	3	19		
	N06	Northwest	152	77	-10	-52	3	18		
	N07	Northwest	155	77	-10	-52	3	18		
	N08	Northwest	156	80	-10	-52	3	21		
	N09	Northwest	158	77	-10	-52	3	18		
	N10	Northwest	161	77	-10	-52	3	18		
	N11	Northwest	166	77	-10	-52	3	18		
	N12	Northwest	170	82	-10	-53	3	22		
	N12a	Northwest	175	78	-10	-53	3	18		
	N12b	Northwest	184	78	-10	-53	3	18		
	N12c	Northwest	197	78	-10	-54	3	17		
	N12d	Northwest	173	80	-10	-53	3	20		
	N13	Top	163	80	0	-52	3	31		
	N14	Top	249	80	0	-56	3	27		
	N15	Northwest	260	77	-10	-56	3	14		
	N15a	Northwest	255	78	-10	-56	3	15		
	N16	Northwest	262	77	-10	-56	3	14		
	N17	Northwest	265	80	-10	-56	3	17		
	N18	Northwest	267	77	-10	-57	3	13		
	N19	Northwest	269	77	-10	-57	3	13		
	N20	Northwest	270	80	-10	-57	3	16		
	N20a	Northwest	282	78	-10	-57	3	14		
	N21	Northwest	291	77	-10	-57	3	13		
	N21a	Northwest	292	78	-10	-57	3	14		
	N22	Northwest	523	77	-10	-62	3	>300m		
	N23	Northwest	300	77	-10	-58	3	12		
	N24	Northwest	304	77	-10	-58	3	>300m		
	N25	Northwest	304	79	-10	-58	3	>300m		
	N26	Northwest	317	80	-10	-58	3	>300m		
	N27	Northwest	327	77	-10	-58	3	>300m		
	N28	Northwest	329	79	-10	-58	3	>300m		
	N29	Northwest	326	79	-10	-59	3	>300m		
	N30	Northwest	337	77	-10	-59	3	>300m		
	N30a	Northwest	344	78	-10	-59	3	>300m		
	N31	Northwest	339	79	-10	-59	3	>300m		
	N31a	Northeast	346	82	-10	-59	3	>300m		
	N31b	Northeast	344	82	-10	-59	3	>300m		
	N31c	Northeast	346	82	-10	-59	3	>300m		
	N31d	Northeast	344	82	-10	-59	3	>300m		
	N32	Northeast	336	80	-10	-59	3	>300m		
	N32a	Northeast	343	78	-10	-59	3	>300m		
	N32b	Southeast	339	78	0	-59	3	>300m		
	N33	Southeast	331	80	0	-58	3	>300m		
	N34	Southeast	324	80	0	-58	3	>300m		
	N34a	Southeast	314	73	0	-58	3	>300m		
	N35	Southeast	303	82	0	-58	3	>300m		
	N36	Southeast	294	80	0	-57	3	26		
	N37	Southeast	290	80	0	-57	3	26		
	N38	Southeast	285	68	0	-57	3	14		
	N39	Southeast	280	80	0	-57	3	26		
	N39a	Southeast	267	75	0	-57	3	21		
	N40	Southeast	255	78	0	-56	3	25		
	N40a	Southeast	250	78	0	-56	3	25		
	N40b	Southeast	248	82	0	-56	3	29		
	N41	Southeast	177	75	0	-53	3	25		
	N41a	Southeast	153	72	0	-52	3	23		
	N43	Southeast	124	72	0	-51	3	24		
	N44	Southeast	126	76	0	-50	3	29		
	N45	Southeast	123	72	0	-50	3	25		
	N45a	Southeast	111	68	0	-49	3	22		
	N45b	Southeast	102	68	0	-48	3	23		
	N46	Southeast	90	76	0	-47	3	32		
	N46a	Southeast	78	75	0	-46	3	32		
	N47	Southwest	92	76	0	-47	3	32		
	N47a	Southwest	81	75	0	-46	3	32		
	N47b	West	87	75	0	-47	3	31		
	N47c	West	95	75	0	-48	3	30		
	N48	Northeast	141	79	-10	-51	3	21		
	N49	Northeast	133	76	-10	-50	3	19		
	N50	Northeast	279	81	0	-57	3	27		
	N50a	Top	290	81	0	-57	3	27		
	N51	Southwest	291	81	-10	-57	3	17		
	N52	Southwest	299	78	0	-58	3	23		
	N53	Northeast	148	79	-10	-51	3	21		
	N54	Northeast	152	79	-10	-52	3	20		
	N55	West	108	79	-10	-49	3	23		
	N56	Southwest	106	79	0	-48	3	34		
	NTD01	North	48	78	0	-42	3	39		
	NTD02	North	51	76	0	-42	3	37		
	NTD03	East	43	75	-10	-41	3	27		
	NTD04	East	39	75	-10	-40	3	28		
	NTD05	East	41	75	-10	-40	3	28		
	NTD06	East	43	76	-10	-41	3	28		
	NTD07	East	46	75	-10	-41	3	27		
	NTD08	East	46	75	-10	-41	3	27		
	NTD09	East	49	70	-10	-42	3	21		
	NTD10	East	56	70	-10	-43	3	20		
	NTD11	East	69	70	-10	-45	3	18		
	NTD12	West	79	75	0	-46	3	32		
	NTD13	West	73	79	0	-45	3	37		
	NTD14	West	68	77	0	-45	3	35		
	NTD15	West	63	77	0	-44	3	36		
	NTD15a	West	52	80	0	-42	3	41		
	NTD16	West	42	80	0	-40	3	43		

Appendix 4.11 Fixed Plant Noise Calculation

NTD16a	West	29	80	0	-37	3	46
NTD17	West	34	77	0	-39	3	41
NTD18	West	37	73	0	-39	3	37
NTD19	West	40	73	0	-40	3	36
NTD20	West	44	73	0	-41	3	35
NTD21	West	91	78	0	-47	3	34
NTD22	West	109	80	0	-49	3	34
NTD23	West	126	80	0	-50	3	33
NTD24	West	138	76	0	-51	3	28
NTD25	West	144	80	0	-51	3	32
NTD26	West	151	70	0	-52	3	21
NTD27	West	158	70	0	-52	3	21
NTD28	West	169	75	0	-53	3	25
NTD29	West	177	75	0	-53	3	25
NTD30	West	189	83	0	-54	3	32
NTD31	Southwest	201	80	0	-54	3	29
NTD32	Southwest	223	82	0	-55	3	30
NTD33	Southwest	267	81	0	-57	3	27
NTD34	Southwest	285	80	-10	-57	3	16
NTD35	South	346	85	-10	-59	3	>300m
NTD36	South	360	85	-10	-59	3	>300m
NTD37	South	368	85	-10	-59	3	>300m
NTD38	South	375	85	-10	-59	3	>300m
NTD39	South	380	85	-10	-60	3	>300m
NTD40	Top	378	80	-10	-60	3	>300m
NTD41	Southeast	376	75	-10	-60	3	>300m
NTD42	Southeast	365	75	-10	-59	3	>300m
NTD43	South	365	75	-10	-59	3	>300m
NTD44	East	385	75	-10	-60	3	>300m
NTD45	East	382	75	-10	-60	3	>300m
NTD46	East	380	75	-10	-60	3	>300m
NTD47	East	377	75	-10	-60	3	>300m
NTD48	East	371	70	-10	-59	3	>300m
NTD49	East	364	70	-10	-59	3	>300m
NTD50	East	360	70	-10	-59	3	>300m
NTD51	East	357	80	-10	-59	3	>300m
NTD52	East	352	73	-10	-59	3	>300m
NTD53	East	350	68	-10	-59	3	>300m
NTD54	Northeast	337	73	-10	-59	3	>300m
NTD55	East	277	85	-10	-57	3	21
NTD56	East	273	72	-10	-57	3	8
NTD57	South	276	78	-10	-57	3	14
NTD58	South	280	73	-10	-57	3	9
NTD59	South	286	70	-10	-57	3	6
NTD60	South	292	69	-10	-57	3	5
NTD61	South	299	71	-10	-58	3	6
NTD62	South	305	80	-10	-58	3	>300m
NTD63	South	313	78	-10	-58	3	>300m
NTD64	South	320	72	-10	-58	3	>300m
NTD65	East	319	72	-10	-58	3	>300m
NTD66	East	318	74	-10	-58	3	>300m
NTD67	Northeast	314	73	-10	-58	3	>300m
NTD68	Northeast	299	75	-10	-58	3	10
NTD69	Northeast	290	70	-10	-57	3	6
NTD70	Northeast	288	75	-10	-57	3	11
NTD71	Northeast	284	75	-10	-57	3	11
NTD72	Northeast	277	78	-10	-57	3	14
NTD73	East	224	75	-10	-55	3	13
NTD74	East	225	75	-10	-55	3	13
NTD75	East	227	75	-10	-55	3	13
NTD76	East	228	75	-10	-55	3	13
NTD77	Southeast	284	77	-10	-57	3	13
NTD78	Northeast	292	75	-10	-57	3	11
NTD79	Northeast	292	76	-10	-57	3	12
NTD80	Northeast	292	75	-10	-57	3	11
NTD81	Northeast	292	75	-10	-57	3	11
NTD82	Northeast	292	75	-10	-57	3	11
NTD83	Northeast	292	75	-10	-57	3	11
NTD84	Northeast	291	75	0	-57	3	21
NTD85	Northwest	286	75	0	-57	3	21
NTD86	Northwest	265	77	0	-56	3	24
NTD87	Northwest	247	75	0	-56	3	22
NTD88	Northwest	240	74	0	-56	3	21
NTD89	Northwest	216	73	0	-55	3	21
NTD90	Northwest	210	72	0	-54	3	21
NTD91	Northwest	199	75	0	-54	3	24
NTD92	Northwest	187	74	0	-53	3	24
NTD93	West	376	78	-10	-60	3	>300m
NTD94	South	383	73	-10	-60	3	>300m
NTD94a	South	384	73	-10	-60	3	>300m
NTD95	South	387	73	-10	-60	3	>300m
NTD96	South	389	74	-10	-60	3	>300m
NTD97	Top	387	80	0	-60	3	>300m
NTD98	Top	390	80	0	-60	3	>300m
NTD99	Top	394	80	0	-60	3	>300m
NTD100	South	400	80	-10	-60	3	>300m
NTD101	Northeast	396	80	0	-60	3	>300m
NTD102	Northeast	405	75	0	-60	3	>300m
NTD103	Northeast	408	75	0	-60	3	>300m
NTD104	Northeast	417	83	0	-60	3	>300m
NTD105	Southeast	425	73	0	-61	3	>300m
NTD106	Southeast	431	75	-10	-61	3	>300m
NTD107	Southeast	440	72	-10	-61	3	>300m
NTD108	Southeast	442	82	-10	-61	3	>300m
NTD109	Southeast	447	82	-10	-61	3	>300m
NTD110	Southeast	446	85	-10	-61	3	>300m
NTD111	Southwest	401	77	0	-60	3	>300m
NTD112	Southwest	434	77	0	-61	3	>300m
NTD113	Southwest	438	77	0	-61	3	>300m
NTD114	Southwest	433	85	-10	-61	3	>300m
NTD115	Southwest	416	85	0	-60	3	>300m

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-FD4a	N01	Northwest	115	74	-10	-49	3	18		
	N02	Northwest	129	74	-10	-50	3	17		
	N03	Northwest	140	74	-10	-51	3	16		
	N04	Northwest	142	72	-10	-51	3	14		
	N05	Northwest	146	72	-10	-51	3	14		
	N06	Northwest	152	72	-10	-52	3	13		
	N07	Northwest	155	72	-10	-52	3	13		
	N08	Northwest	156	75	-10	-52	3	16		
	N09	Northwest	158	72	-10	-52	3	13		
	N10	Northwest	161	72	-10	-52	3	13		
	N11	Northwest	166	72	-10	-52	3	13		
	N12	Northwest	170	77	-10	-53	3	17		
	N12a	Northwest	175	73	-10	-53	3	13		
	N12b	Northwest	184	73	-10	-53	3	13		
	N12c	Northwest	197	73	-10	-54	3	12		
	N12d	Northwest	173	75	-10	-53	3	15		
	N13	Top	163	75	0	-52	3	26		
	N14	Top	249	75	0	-56	3	22		
	N15	Northwest	260	72	-10	-56	3	9		
	N15a	Northwest	255	73	-10	-56	3	10		
	N16	Northwest	262	72	-10	-56	3	9		
	N17	Northwest	265	75	-10	-56	3	12		
	N18	Northwest	267	72	-10	-57	3	8		
	N19	Northwest	269	72	-10	-57	3	8		
	N20	Northwest	270	75	-10	-57	3	11		
	N20a	Northwest	282	73	-10	-57	3	9		
	N21	Northwest	291	72	-10	-57	3	8		
	N21a	Northwest	292	73	-10	-57	3	9		
	N22	Northwest	523	72	-10	-62	3	>300m		
	N23	Northwest	300	72	-10	-58	3	7		
	N24	Northwest	304	72	-10	-58	3	>300m		
	N25	Northwest	304	74	-10	-58	3	>300m		
	N26	Northwest	317	75	-10	-58	3	>300m		
	N27	Northwest	327	72	-10	-58	3	>300m		
	N28	Northwest	329	74	-10	-58	3	>300m		
	N29	Northwest	336	74	-10	-59	3	>300m		
	N30	Northwest	337	72	-10	-59	3	>300m		
	N30a	Northwest	344	73	-10	-59	3	>300m		
	N31	Northwest	339	74	-10	-59	3	>300m		
	N31a	Northeast	346	77	-10	-59	3	>300m		
	N31b	Northeast	344	77	-10	-59	3	>300m		
	N31c	Northeast	346	77	-10	-59	3	>300m		
	N31d	Northeast	344	77	-10	-59	3	>300m		
	N32	Northeast	336	75	-10	-59	3	>300m		
	N32a	Northeast	343	73	-10	-59	3	>300m		
	N32b	Southeast	339	73	0	-59	3	>300m		
	N33	Southeast	331	75	0	-58	3	>300m		
	N34	Southeast	324	75	0	-58	3	>300m		
	N34a	Southeast	314	68	0	-58	3	>300m		
	N35	Southeast	303	77	0	-58	3	>300m		
	N36	Southeast	294	75	0	-57	3	21		
	N37	Southeast	290	75	0	-57	3	21		
	N38	Southeast	285	63	0	-57	3	9		
	N39	Southeast	280	75	0	-57	3	21		
	N39a	Southeast	267	70	0	-57	3	16		
	N40	Southeast	255	73	0	-56	3	20		
	N40a	Southeast	250	73	0	-56	3	20		
	N40b	Southwest	248	77	0	-56	3	24		
	N41	Southeast	177	70	0	-53	3	20		
	N41a	Southeast	153	67	0	-52	3	18		
	N43	Southeast	134	67	0	-51	3	19		
	N44	Southeast	126	71	0	-50	3	24		
	N45	Southeast	123	67	0	-50	3	20		
	N45a	Southeast	111	63	0	-49	3	17		
	N45b	Southeast	102	63	0	-48	3	18		
	N46	Southeast	90	71	0	-47	3	27		
	N46a	Southeast	78	70	0	-46	3	27		
	N47	Southwest	92	71	0	-47	3	27		
	N47a	Southwest	81	70	0	-46	3	27		
	N47b	West	87	70	0	-47	3	26		
	N47c	West	95	70	0	-48	3	25		
	N48	Northeast	141	74	-10	-51	3	16		
	N49	Northeast	133	71	-10	-50	3	14		
	N50	Northeast	279	76	0	-57	3	22		
N50a	Top	290	76	0	-57	3	22			
N51	Southwest	291	76	-10	-57	3	12			
N52	Southwest	299	73	0	-58	3	18			
N53	Northeast	148	74	-10	-51	3	16			
N54	Northeast	152	74	-10	-52	3	15			
N55	West	108	74	-10	-49	3	18			
N56	Southwest	106	74	0	-48	3	29			
NTD01	North	48	73	0	-42	3	34			
NTD02	North	51	71	0	-42	3	32			
NTD03	East	43	70	-10	-41	3	22			
NTD04	East	39	70	-10	-40	3	23			
NTD05	East	41	70	-10	-40	3	23			
NTD06	East	43	71	-10	-41	3	23			
NTD07	East	46	70	-10	-41	3	22			
NTD08	East	46	70	-10	-41	3	22			
NTD09	East	49	65	-10	-42	3	16			
NTD10	East	56	65	-10	-43	3	15			
NTD11	East	69	65	-10	-45	3	13			
NTD12	West	79	70	0	-46	3	27			
NTD13	West	73	74	0	-45	3	32			
NTD14	West	68	72	0	-45	3	30			
NTD15	West	63	72	0	-44	3	31			
NTD15a	West	52	75	0	-42	3	36			
NTD16	West	42	75	0	-40	3	38			
NTD16a	West	29	75	0	-37	3	41			
NTD17	West	34	72	0	-39	3	36			

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	37	68	0	-39	3	32
NTD19	West	40	68	0	-40	3	31
NTD20	West	44	68	0	-41	3	30
NTD21	West	91	73	0	-47	3	29
NTD22	West	109	75	0	-49	3	29
NTD23	West	126	75	0	-50	3	28
NTD24	West	138	71	0	-51	3	23
NTD25	West	144	75	0	-51	3	27
NTD26	West	151	65	0	-52	3	16
NTD27	West	158	65	0	-52	3	16
NTD28	West	169	70	0	-53	3	20
NTD29	West	177	70	0	-53	3	20
NTD30	West	189	78	0	-54	3	27
NTD31	Southwest	201	75	0	-54	3	24
NTD32	Southwest	223	77	0	-55	3	25
NTD33	Southwest	267	76	0	-57	3	22
NTD34	Southwest	285	75	-10	-57	3	11
NTD35	South	346	80	-10	-59	3	>300m
NTD36	South	360	80	-10	-59	3	>300m
NTD37	South	368	80	-10	-59	3	>300m
NTD38	South	375	80	-10	-59	3	>300m
NTD39	South	380	80	-10	-60	3	>300m
NTD40	Top	378	75	-10	-60	3	>300m
NTD41	Southeast	376	70	-10	-60	3	>300m
NTD42	Southeast	365	70	-10	-59	3	>300m
NTD43	South	365	70	-10	-59	3	>300m
NTD44	East	385	70	-10	-60	3	>300m
NTD45	East	382	70	-10	-60	3	>300m
NTD46	East	380	70	-10	-60	3	>300m
NTD47	East	377	70	-10	-60	3	>300m
NTD48	East	371	65	-10	-59	3	>300m
NTD49	East	364	65	-10	-59	3	>300m
NTD50	East	360	65	-10	-59	3	>300m
NTD51	East	357	75	-10	-59	3	>300m
NTD52	East	352	68	-10	-59	3	>300m
NTD53	East	350	63	-10	-59	3	>300m
NTD54	Northeast	337	68	-10	-59	3	>300m
NTD55	East	277	80	-10	-57	3	16
NTD56	East	273	67	-10	-57	3	3
NTD57	South	276	73	-10	-57	3	9
NTD58	South	280	68	-10	-57	3	4
NTD59	South	286	65	-10	-57	3	1
NTD60	South	292	64	-10	-57	3	0
NTD61	South	299	66	-10	-58	3	1
NTD62	South	305	75	-10	-58	3	>300m
NTD63	South	313	73	-10	-58	3	>300m
NTD64	South	320	67	-10	-58	3	>300m
NTD65	East	319	67	-10	-58	3	>300m
NTD66	East	318	69	-10	-58	3	>300m
NTD67	Northeast	314	68	-10	-58	3	>300m
NTD68	Northeast	299	70	-10	-58	3	5
NTD69	Northeast	290	65	-10	-57	3	1
NTD70	Northeast	288	70	-10	-57	3	6
NTD71	Northeast	284	70	-10	-57	3	6
NTD72	Northeast	277	73	-10	-57	3	9
NTD73	East	224	70	-10	-55	3	8
NTD74	East	225	70	-10	-55	3	8
NTD75	East	227	70	-10	-55	3	8
NTD76	East	228	70	-10	-55	3	8
NTD77	Southeast	284	72	-10	-57	3	8
NTD78	Northeast	292	70	-10	-57	3	6
NTD79	Northeast	292	71	-10	-57	3	7
NTD80	Northeast	292	70	-10	-57	3	6
NTD81	Northeast	292	70	-10	-57	3	6
NTD82	Northeast	292	70	-10	-57	3	6
NTD83	Northeast	292	70	-10	-57	3	6
NTD84	Northeast	291	70	0	-57	3	16
NTD85	Northwest	286	70	0	-57	3	16
NTD86	Northwest	265	72	0	-56	3	19
NTD87	Northwest	247	70	0	-56	3	17
NTD88	Northwest	240	69	0	-56	3	16
NTD89	Northwest	216	68	0	-55	3	16
NTD90	Northwest	210	67	0	-54	3	16
NTD91	Northwest	199	70	0	-54	3	19
NTD92	Northwest	187	69	0	-53	3	19
NTD93	West	376	73	-10	-60	3	>300m
NTD94	South	383	68	-10	-60	3	>300m
NTD94a	South	384	68	-10	-60	3	>300m
NTD95	South	387	68	-10	-60	3	>300m
NTD96	South	389	69	-10	-60	3	>300m
NTD97	Top	387	75	0	-60	3	>300m
NTD98	Top	390	75	0	-60	3	>300m
NTD99	Top	394	75	0	-60	3	>300m
NTD100	South	400	75	-10	-60	3	>300m
NTD101	Northeast	396	75	0	-60	3	>300m
NTD102	Northeast	405	70	0	-60	3	>300m
NTD103	Northeast	408	70	0	-60	3	>300m
NTD104	Northeast	417	78	0	-60	3	>300m
NTD105	Southeast	425	68	0	-61	3	>300m
NTD106	Southeast	431	70	-10	-61	3	>300m
NTD107	Southeast	440	67	-10	-61	3	>300m
NTD108	Southeast	442	77	-10	-61	3	>300m
NTD109	Southeast	447	77	-10	-61	3	>300m
NTD110	Southeast	446	80	-10	-61	3	>300m
NTD111	Southwest	401	72	0	-60	3	>300m
NTD112	Southwest	434	72	0	-61	3	>300m
NTD113	Southwest	438	72	0	-61	3	>300m
NTD114	Southwest	433	80	-10	-61	3	>300m
NTD115	Southwest	416	80	0	-60	3	>300m

47

48

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-F05
 Description: The Dhamma Garden

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-F05	N01	Northwest	569	79	-10	-63	3	>300m		
	N02	Northwest	572	79	-10	-63	3	>300m		
	N03	Northwest	574	79	-10	-63	3	>300m		
	N04	Northwest	575	77	-10	-63	3	>300m		
	N05	Northwest	576	77	-10	-63	3	>300m		
	N06	Northwest	578	77	-10	-63	3	>300m		
	N07	Northwest	579	77	-10	-63	3	>300m		
	N08	Northwest	579	80	-10	-63	3	>300m		
	N09	Northwest	579	77	-10	-63	3	>300m		
	N10	Northwest	581	77	-10	-63	3	>300m		
	N11	Northwest	581	77	-10	-63	3	>300m		
	N12	Northwest	583	82	-10	-63	3	>300m		
	N12a	Northwest	584	78	-10	-63	3	>300m		
	N12b	Northwest	587	78	-10	-63	3	>300m		
	N12c	Northwest	592	78	-10	-63	3	>300m		
	N12d	Northwest	565	80	-10	-63	3	>300m		
	N13	Top	572	80	0	-63	3	>300m		
	N14	Top	604	80	0	-64	3	>300m		
	N15	Northwest	616	77	-10	-64	3	>300m		
	N15a	Northwest	614	78	-10	-64	3	>300m		
	N16	Northwest	617	77	-10	-64	3	>300m		
	N17	Northwest	618	80	-10	-64	3	>300m		
	N18	Northwest	619	77	-10	-64	3	>300m		
	N19	Northwest	620	77	-10	-64	3	>300m		
	N20	Northwest	620	80	-10	-64	3	>300m		
	N20a	Northwest	626	78	-10	-64	3	>300m		
	N21	Northwest	630	77	-10	-64	3	>300m		
	N21a	Northwest	631	78	-10	-64	3	>300m		
	N22	Northwest	617	77	-10	-64	3	>300m		
	N23	Northwest	634	77	-10	-64	3	>300m		
	N24	Northwest	636	77	-10	-64	3	>300m		
	N25	Northwest	635	79	-10	-64	3	>300m		
	N26	Northwest	642	80	-10	-64	3	>300m		
	N27	Northwest	648	77	-10	-64	3	>300m		
	N28	Northwest	647	79	-10	-64	3	>300m		
	N29	Northwest	651	79	-10	-64	3	>300m		
	N30	Northwest	653	77	-10	-64	3	>300m		
	N30a	Northwest	657	78	-10	-64	3	>300m		
	N31	Northwest	648	79	-10	-64	3	>300m		
	N31a	Northeast	651	82	-10	-64	3	>300m		
	N31b	Northeast	642	82	-10	-64	3	>300m		
	N31c	Northeast	652	82	-10	-64	3	>300m		
	N31d	Northeast	643	82	-10	-64	3	>300m		
	N32	Northeast	629	80	-10	-64	3	>300m		
	N32a	Northeast	633	78	-10	-64	3	>300m		
	N32b	Southeast	626	78	0	-64	3	>300m		
	N33	Southeast	622	80	0	-64	3	>300m		
	N34	Southeast	618	80	0	-64	3	>300m		
	N34a	Southeast	613	73	0	-64	3	>300m		
	N35	Southeast	607	82	0	-64	3	>300m		
	N36	Southeast	603	80	0	-64	3	>300m		
	N37	Southeast	606	80	0	-64	3	>300m		
	N38	Southeast	599	68	0	-64	3	>300m		
	N39	Southeast	596	80	0	-64	3	>300m		
	N39a	Southeast	590	75	0	-63	3	>300m		
	N40	Southeast	584	78	0	-63	3	>300m		
	N40a	Southeast	582	78	0	-63	3	>300m		
	N40b	Southeast	596	82	-10	-64	3	>300m		
	N41	Southeast	554	75	0	-63	3	>300m		
	N41a	Southeast	547	72	0	-63	3	>300m		
	N43	Southeast	541	72	0	-63	3	>300m		
	N44	Southeast	540	76	0	-63	3	>300m		
	N45	Southeast	539	72	0	-63	3	>300m		
	N45a	Southeast	536	68	0	-63	3	>300m		
	N45b	Southeast	534	68	0	-63	3	>300m		
	N46	Southeast	529	76	0	-62	3	>300m		
	N46a	Southeast	527	75	0	-62	3	>300m		
	N47	Southwest	538	76	-10	-63	3	>300m		
	N47a	Southwest	537	75	-10	-63	3	>300m		
	N47b	West	547	75	-10	-63	3	>300m		
	N47c	West	554	75	-10	-63	3	>300m		
	N48	Northwest	569	79	0	-63	3	>300m		
	N49	Northwest	545	76	0	-63	3	>300m		
	N50	Northwest	606	81	0	-64	3	>300m		
	N50a	Top	611	81	0	-64	3	>300m		
	N51	Southwest	617	81	-10	-64	3	>300m		
	N52	Southwest	628	78	0	-64	3	>300m		
	N53	Northeast	548	79	0	-63	3	>300m		
	N54	Northeast	563	79	0	-63	3	>300m		
	N55	West	566	79	0	-63	3	>300m		
	N56	Southwest	558	79	-10	-63	3	>300m		
	NTD01	North	505	78	-10	-62	3	>300m		
	NTD02	North	502	76	-10	-62	3	>300m		
	NTD03	East	484	75	0	-62	3	>300m		
	NTD04	East	466	75	0	-61	3	>300m		
	NTD05	East	459	75	0	-61	3	>300m		
	NTD06	East	455	76	0	-61	3	>300m		
	NTD07	East	451	75	0	-61	3	>300m		
	NTD08	East	449	75	0	-61	3	>300m		
	NTD09	East	446	70	0	-61	3	>300m		
	NTD10	East	439	70	0	-61	3	>300m		
	NTD11	East	427	70	0	-61	3	>300m		
	NTD12	West	423	75	-10	-61	3	>300m		
	NTD13	West	427	79	-10	-61	3	>300m		
	NTD14	West	431	77	-10	-61	3	>300m		
	NTD15	West	435	77	-10	-61	3	>300m		
	NTD15a	West	444	80	-10	-61	3	>300m		
	NTD16	West	453	80	-10	-61	3	>300m		

Appendix 4.11 Fixed Plant Noise Calculation

NTD16a	West	481	80	-10	-62	3	>300m
NTD17	West	490	77	-10	-62	3	>300m
NTD18	West	494	73	-10	-62	3	>300m
NTD19	West	498	73	-10	-62	3	>300m
NTD20	West	503	73	-10	-62	3	>300m
NTD21	West	413	78	-10	-60	3	>300m
NTD22	West	401	80	-10	-60	3	>300m
NTD23	West	391	80	-10	-60	3	>300m
NTD24	West	383	76	-10	-60	3	>300m
NTD25	West	379	80	-10	-60	3	>300m
NTD26	West	375	70	-10	-59	3	>300m
NTD27	West	371	70	-10	-59	3	>300m
NTD28	West	364	75	-10	-59	3	>300m
NTD29	West	360	75	-10	-59	3	>300m
NTD30	West	352	83	-10	-59	3	>300m
NTD31	Southwest	346	80	-10	-59	3	>300m
NTD32	Southwest	333	82	-10	-58	3	>300m
NTD33	Southwest	301	81	-10	-58	3	>300m
NTD34	Southwest	285	80	-10	-57	3	16
NTD35	South	216	85	0	-55	3	33
NTD36	South	191	85	0	-54	3	34
NTD37	South	177	85	0	-53	3	35
NTD38	South	165	85	0	-52	3	36
NTD39	South	155	85	0	-52	3	36
NTD40	Top	153	80	0	-52	3	31
NTD41	Southeast	152	75	0	-52	3	26
NTD42	Southeast	150	75	0	-52	3	26
NTD43	South	144	75	0	-51	3	27
NTD44	East	115	75	0	-49	3	29
NTD45	East	117	75	0	-49	3	29
NTD46	East	119	75	0	-50	3	28
NTD47	East	121	75	0	-50	3	28
NTD48	East	125	70	0	-50	3	23
NTD49	East	131	70	0	-50	3	23
NTD50	East	135	70	0	-51	3	22
NTD51	East	138	80	0	-51	3	32
NTD52	East	143	73	0	-51	3	25
NTD53	East	146	68	0	-51	3	20
NTD54	Northeast	160	73	0	-52	3	24
NTD55	East	245	85	0	-56	3	32
NTD56	East	259	72	0	-56	3	19
NTD57	South	262	78	0	-56	3	25
NTD58	South	261	73	0	-56	3	20
NTD59	South	260	70	0	-56	3	17
NTD60	South	260	69	0	-56	3	16
NTD61	South	260	71	0	-56	3	18
NTD62	South	260	80	0	-56	3	27
NTD63	South	260	78	0	-56	3	25
NTD64	South	263	72	0	-56	3	19
NTD65	East	309	72	0	-58	3	>300m
NTD66	East	317	74	0	-58	3	>300m
NTD67	Northeast	328	73	-10	-58	3	>300m
NTD68	Northeast	342	75	-10	-59	3	>300m
NTD69	Northeast	350	70	-10	-59	3	>300m
NTD70	Northeast	351	75	-10	-59	3	>300m
NTD71	Northeast	354	75	-10	-59	3	>300m
NTD72	Northeast	358	78	-10	-59	3	>300m
NTD73	East	449	75	-10	-61	3	>300m
NTD74	East	453	75	-10	-61	3	>300m
NTD75	East	461	75	-10	-61	3	>300m
NTD76	East	464	75	-10	-61	3	>300m
NTD77	Southeast	548	77	-10	-63	3	>300m
NTD78	Northeast	563	75	-10	-63	3	>300m
NTD79	Northeast	567	76	-10	-63	3	>300m
NTD80	Northeast	574	75	-10	-63	3	>300m
NTD81	Northeast	576	75	-10	-63	3	>300m
NTD82	Northeast	581	75	-10	-63	3	>300m
NTD83	Northeast	589	75	-10	-63	3	>300m
NTD84	Northeast	590	75	-10	-63	3	>300m
NTD85	Northwest	588	75	-10	-63	3	>300m
NTD86	Northwest	577	77	-10	-63	3	>300m
NTD87	Northwest	569	75	-10	-63	3	>300m
NTD88	Northwest	566	74	-10	-63	3	>300m
NTD89	Northwest	556	73	-10	-63	3	>300m
NTD90	Northwest	554	72	-10	-63	3	>300m
NTD91	Northwest	549	75	-10	-63	3	>300m
NTD92	Northwest	545	74	-10	-63	3	>300m
NTD93	West	143	78	-10	-51	3	20
NTD94	South	136	73	0	-51	3	25
NTD94a	South	135	73	0	-51	3	25
NTD95	South	130	73	0	-50	3	26
NTD96	South	127	74	0	-50	3	27
NTD97	Top	124	80	0	-50	3	33
NTD98	Top	119	80	0	-50	3	33
NTD99	Top	114	80	0	-49	3	34
NTD100	South	109	80	0	-49	3	34
NTD101	Northeast	213	80	0	-55	3	28
NTD102	Northeast	199	75	0	-54	3	24
NTD103	Northeast	194	75	0	-54	3	24
NTD104	Northeast	180	83	0	-53	3	33
NTD105	Southeast	169	73	0	-53	3	23
NTD106	Southeast	162	75	0	-52	3	26
NTD107	Southeast	168	72	0	-53	3	22
NTD108	Southeast	174	82	0	-53	3	32
NTD109	Southeast	189	82	-10	-54	3	21
NTD110	Southeast	200	85	-10	-54	3	24
NTD111	Southwest	224	77	-10	-55	3	15
NTD112	Southwest	188	77	0	-53	3	27
NTD113	Southwest	183	77	0	-53	3	27
NTD114	Southwest	210	85	-10	-54	3	24
NTD115	Southwest	198	85	0	-54	3	34

Appendix 4.11 Fixed Plant Noise Calculation

Night-time										
NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-FDS	N01	Northwest	569	74	-10	-63	3	>300m		
	N02	Northwest	572	74	-10	-63	3	>300m		
	N03	Northwest	574	74	-10	-63	3	>300m		
	N04	Northwest	575	72	-10	-63	3	>300m		
	N05	Northwest	576	72	-10	-63	3	>300m		
	N06	Northwest	578	72	-10	-63	3	>300m		
	N07	Northwest	579	72	-10	-63	3	>300m		
	N08	Northwest	579	75	-10	-63	3	>300m		
	N09	Northwest	579	72	-10	-63	3	>300m		
	N10	Northwest	581	72	-10	-63	3	>300m		
	N11	Northwest	581	72	-10	-63	3	>300m		
	N12	Northwest	583	77	-10	-63	3	>300m		
	N12a	Northwest	584	73	-10	-63	3	>300m		
	N12b	Northwest	587	73	-10	-63	3	>300m		
	N12c	Northwest	592	73	-10	-63	3	>300m		
	N12d	Northwest	565	75	-10	-63	3	>300m		
	N13	Top	572	75	0	-63	3	>300m		
	N14	Top	604	75	0	-64	3	>300m		
	N15	Northwest	616	72	-10	-64	3	>300m		
	N15a	Northwest	614	73	-10	-64	3	>300m		
	N16	Northwest	617	72	-10	-64	3	>300m		
	N17	Northwest	618	75	-10	-64	3	>300m		
	N18	Northwest	619	72	-10	-64	3	>300m		
	N19	Northwest	620	72	-10	-64	3	>300m		
	N20	Northwest	620	75	-10	-64	3	>300m		
	N20a	Northwest	626	73	-10	-64	3	>300m		
	N21	Northwest	630	72	-10	-64	3	>300m		
	N21a	Northwest	631	73	-10	-64	3	>300m		
	N22	Northwest	617	72	-10	-64	3	>300m		
	N23	Northwest	634	72	-10	-64	3	>300m		
	N24	Northwest	636	72	-10	-64	3	>300m		
	N25	Northwest	635	74	-10	-64	3	>300m		
	N26	Northwest	642	75	-10	-64	3	>300m		
	N27	Northwest	648	72	-10	-64	3	>300m		
	N28	Northwest	647	74	-10	-64	3	>300m		
	N29	Northwest	651	74	-10	-64	3	>300m		
	N30	Northwest	653	72	-10	-64	3	>300m		
	N30a	Northwest	657	73	-10	-64	3	>300m		
	N31	Northwest	648	74	-10	-64	3	>300m		
	N31a	Northeast	651	77	-10	-64	3	>300m		
	N31b	Northeast	642	77	-10	-64	3	>300m		
	N31c	Northeast	652	77	-10	-64	3	>300m		
	N31d	Northeast	643	77	-10	-64	3	>300m		
	N32	Northeast	629	75	-10	-64	3	>300m		
	N32a	Northeast	633	73	-10	-64	3	>300m		
	N32b	Southeast	626	73	0	-64	3	>300m		
	N33	Southeast	622	75	0	-64	3	>300m		
	N34	Southeast	618	75	0	-64	3	>300m		
	N34a	Southeast	613	68	0	-64	3	>300m		
	N35	Southeast	607	77	0	-64	3	>300m		
	N36	Southeast	603	75	0	-64	3	>300m		
	N37	Southeast	606	75	0	-64	3	>300m		
	N38	Southeast	599	63	0	-64	3	>300m		
	N39	Southeast	596	75	0	-64	3	>300m		
	N39a	Southeast	590	70	0	-63	3	>300m		
	N40	Southeast	584	73	0	-63	3	>300m		
	N40a	Southeast	582	73	0	-63	3	>300m		
	N40b	Southwest	596	77	-10	-64	3	>300m		
	N41	Southeast	554	70	0	-63	3	>300m		
	N41a	Southeast	547	67	0	-63	3	>300m		
	N43	Southeast	541	67	0	-63	3	>300m		
	N44	Southeast	540	71	0	-63	3	>300m		
	N45	Southeast	539	67	0	-63	3	>300m		
	N45a	Southeast	536	63	0	-63	3	>300m		
	N45b	Southeast	534	63	0	-63	3	>300m		
	N46	Southeast	529	71	0	-62	3	>300m		
	N46a	Southeast	527	70	0	-62	3	>300m		
	N47	Southwest	538	71	-10	-63	3	>300m		
	N47a	Southwest	537	70	-10	-63	3	>300m		
	N47b	West	547	70	-10	-63	3	>300m		
	N47c	West	554	70	-10	-63	3	>300m		
	N48	Northeast	569	74	0	-63	3	>300m		
	N49	Northeast	545	71	0	-63	3	>300m		
	N50	Northeast	606	76	0	-64	3	>300m		
	N50a	Top	611	76	0	-64	3	>300m		
	N51	Southwest	617	76	-10	-64	3	>300m		
	N52	Southwest	628	73	0	-64	3	>300m		
	N53	Northeast	548	74	0	-63	3	>300m		
	N54	Northeast	563	74	0	-63	3	>300m		
	N55	West	566	74	0	-63	3	>300m		
	N56	Southwest	558	74	-10	-63	3	>300m		
	NTD01	North	505	73	-10	-62	3	>300m		
	NTD02	North	502	71	-10	-62	3	>300m		
	NTD03	East	484	70	0	-62	3	>300m		
	NTD04	East	466	70	0	-61	3	>300m		
	NTD05	East	459	70	0	-61	3	>300m		
	NTD06	East	455	71	0	-61	3	>300m		
	NTD07	East	451	70	0	-61	3	>300m		
	NTD08	East	449	70	0	-61	3	>300m		
	NTD09	East	446	65	0	-61	3	>300m		
	NTD10	East	439	65	0	-61	3	>300m		
	NTD11	East	427	65	0	-61	3	>300m		
	NTD12	West	423	70	-10	-61	3	>300m		
	NTD13	West	427	74	-10	-61	3	>300m		
	NTD14	West	431	72	-10	-61	3	>300m		
	NTD15	West	435	72	-10	-61	3	>300m		
	NTD15a	West	444	75	-10	-61	3	>300m		
	NTD16	West	453	75	-10	-61	3	>300m		
	NTD16a	West	481	75	-10	-62	3	>300m		
	NTD17	West	490	72	-10	-62	3	>300m		

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	494	68	-10	-62	3	>300m
NTD19	West	498	68	-10	-62	3	>300m
NTD20	West	503	68	-10	-62	3	>300m
NTD21	West	413	73	-10	-60	3	>300m
NTD22	West	401	75	-10	-60	3	>300m
NTD23	West	391	75	-10	-60	3	>300m
NTD24	West	383	71	-10	-60	3	>300m
NTD25	West	379	75	-10	-60	3	>300m
NTD26	West	375	65	-10	-59	3	>300m
NTD27	West	371	65	-10	-59	3	>300m
NTD28	West	364	70	-10	-59	3	>300m
NTD29	West	360	70	-10	-59	3	>300m
NTD30	West	352	78	-10	-59	3	>300m
NTD31	Southwest	346	75	-10	-59	3	>300m
NTD32	Southwest	333	77	-10	-58	3	>300m
NTD33	Southwest	301	76	-10	-58	3	>300m
NTD34	Southwest	285	75	-10	-57	3	11
NTD35	South	216	80	0	-55	3	28
NTD36	South	191	80	0	-54	3	29
NTD37	South	177	80	0	-53	3	30
NTD38	South	165	80	0	-52	3	31
NTD39	South	155	80	0	-52	3	31
NTD40	Top	153	75	0	-52	3	26
NTD41	Southeast	152	70	0	-52	3	21
NTD42	Southeast	150	70	0	-52	3	21
NTD43	South	144	70	0	-51	3	22
NTD44	East	115	70	0	-49	3	24
NTD45	East	117	70	0	-49	3	24
NTD46	East	119	70	0	-50	3	23
NTD47	East	121	70	0	-50	3	23
NTD48	East	125	65	0	-50	3	18
NTD49	East	131	65	0	-50	3	18
NTD50	East	135	65	0	-51	3	17
NTD51	East	138	75	0	-51	3	27
NTD52	East	143	68	0	-51	3	20
NTD53	East	146	63	0	-51	3	15
NTD54	Northeast	160	68	0	-52	3	19
NTD55	East	245	80	0	-56	3	27
NTD56	East	259	67	0	-56	3	14
NTD57	South	262	73	0	-56	3	20
NTD58	South	261	68	0	-56	3	15
NTD59	South	260	65	0	-56	3	12
NTD60	South	260	64	0	-56	3	11
NTD61	South	260	66	0	-56	3	13
NTD62	South	260	75	0	-56	3	22
NTD63	South	260	73	0	-56	3	20
NTD64	South	263	67	0	-56	3	14
NTD65	East	309	67	0	-58	3	>300m
NTD66	East	317	69	0	-58	3	>300m
NTD67	Northeast	328	68	-10	-58	3	>300m
NTD68	Northeast	342	70	-10	-59	3	>300m
NTD69	Northeast	350	65	-10	-59	3	>300m
NTD70	Northeast	351	70	-10	-59	3	>300m
NTD71	Northeast	354	70	-10	-59	3	>300m
NTD72	Northeast	358	73	-10	-59	3	>300m
NTD73	East	449	70	-10	-61	3	>300m
NTD74	East	453	70	-10	-61	3	>300m
NTD75	East	461	70	-10	-61	3	>300m
NTD76	East	464	70	-10	-61	3	>300m
NTD77	Southeast	548	72	-10	-63	3	>300m
NTD78	Northeast	563	70	-10	-63	3	>300m
NTD79	Northeast	567	71	-10	-63	3	>300m
NTD80	Northeast	574	70	-10	-63	3	>300m
NTD81	Northeast	576	70	-10	-63	3	>300m
NTD82	Northeast	581	70	-10	-63	3	>300m
NTD83	Northeast	589	70	-10	-63	3	>300m
NTD84	Northeast	590	70	-10	-63	3	>300m
NTD85	Northwest	588	70	-10	-63	3	>300m
NTD86	Northwest	577	72	-10	-63	3	>300m
NTD87	Northwest	569	70	-10	-63	3	>300m
NTD88	Northwest	566	69	-10	-63	3	>300m
NTD89	Northwest	556	68	-10	-63	3	>300m
NTD90	Northwest	554	67	-10	-63	3	>300m
NTD91	Northwest	549	70	-10	-63	3	>300m
NTD92	Northwest	545	69	-10	-63	3	>300m
NTD93	West	143	73	-10	-51	3	15
NTD94	South	136	68	0	-51	3	20
NTD94a	South	135	68	0	-51	3	20
NTD95	South	130	68	0	-50	3	21
NTD96	South	127	69	0	-50	3	22
NTD97	Top	124	75	0	-50	3	28
NTD98	Top	119	75	0	-50	3	28
NTD99	Top	114	75	0	-49	3	29
NTD100	South	109	75	0	-49	3	29
NTD101	Northeast	213	75	0	-55	3	23
NTD102	Northeast	199	70	0	-54	3	19
NTD103	Northeast	194	70	0	-54	3	19
NTD104	Northeast	180	78	0	-53	3	28
NTD105	Southeast	169	68	0	-53	3	18
NTD106	Southeast	162	70	0	-52	3	21
NTD107	Southeast	168	67	0	-53	3	17
NTD108	Southeast	174	77	0	-53	3	27
NTD109	Southeast	189	77	-10	-54	3	16
NTD110	Southeast	200	80	-10	-54	3	19
NTD111	Southwest	224	72	-10	-55	3	10
NTD112	Southwest	188	72	0	-53	3	22
NTD113	Southwest	183	72	0	-53	3	22
NTD114	Southwest	210	80	-10	-54	3	19
NTD115	Southwest	198	80	0	-54	3	29

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-F05a
 Description: Temporary Structure near Chuk Yau Road

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-F05a	N01	Northwest	424	79	-10	-61	3	>300m		
	N02	Northwest	428	79	-10	-61	3	>300m		
	N03	Northwest	431	79	-10	-61	3	>300m		
	N04	Northwest	431	77	-10	-61	3	>300m		
	N05	Northwest	433	77	-10	-61	3	>300m		
	N06	Northwest	434	77	-10	-61	3	>300m		
	N07	Northwest	435	77	-10	-61	3	>300m		
	N08	Northwest	436	80	-10	-61	3	>300m		
	N09	Northwest	436	77	-10	-61	3	>300m		
	N10	Northwest	437	77	-10	-61	3	>300m		
	N11	Northwest	438	77	-10	-61	3	>300m		
	N12	Northwest	440	82	-10	-61	3	>300m		
	N12a	Northwest	442	78	-10	-61	3	>300m		
	N12b	Northwest	445	78	-10	-61	3	>300m		
	N12c	Northwest	450	78	-10	-61	3	>300m		
	N12d	Northwest	423	80	-10	-61	3	>300m		
	N13	Top	429	80	-10	-61	3	>300m		
	N14	Top	466	80	-10	-61	3	>300m		
	N15	Northwest	478	77	-10	-62	3	>300m		
	N15a	Northwest	476	78	-10	-62	3	>300m		
	N16	Northwest	479	77	-10	-62	3	>300m		
	N17	Northwest	481	80	-10	-62	3	>300m		
	N18	Northwest	482	77	-10	-62	3	>300m		
	N19	Northwest	483	77	-10	-62	3	>300m		
	N20	Northwest	483	80	-10	-62	3	>300m		
	N20a	Northwest	490	78	-10	-62	3	>300m		
	N21	Northwest	494	77	-10	-62	3	>300m		
	N21a	Northwest	495	78	-10	-62	3	>300m		
	N22	Northwest	527	77	-10	-62	3	>300m		
	N23	Northwest	499	77	-10	-62	3	>300m		
	N24	Northwest	502	77	-10	-62	3	>300m		
	N25	Northwest	500	79	-10	-62	3	>300m		
	N26	Northwest	509	80	-10	-62	3	>300m		
	N27	Northwest	515	77	-10	-62	3	>300m		
	N28	Northwest	515	79	-10	-62	3	>300m		
	N29	Northwest	519	79	-10	-62	3	>300m		
	N30	Northwest	522	77	-10	-62	3	>300m		
	N30a	Northwest	526	78	-10	-62	3	>300m		
	N31	Northwest	517	79	-10	-62	3	>300m		
	N31a	Northeast	521	82	-10	-62	3	>300m		
	N31b	Northeast	512	82	-10	-62	3	>300m		
	N31c	Northeast	522	82	-10	-62	3	>300m		
	N31d	Northeast	514	82	-10	-62	3	>300m		
	N32	Northeast	499	80	-10	-62	3	>300m		
	N32a	Northeast	504	78	-10	-62	3	>300m		
	N32b	Southeast	498	78	-10	-62	3	>300m		
	N33	Southeast	493	80	-10	-62	3	>300m		
	N34	Southeast	488	80	-10	-62	3	>300m		
	N34a	Southeast	482	73	-10	-62	3	>300m		
	N35	Southeast	475	82	-10	-62	3	>300m		
	N36	Southeast	470	80	-10	-61	3	>300m		
	N37	Southeast	472	80	-10	-61	3	>300m		
	N38	Southeast	465	68	-10	-61	3	>300m		
	N39	Southeast	462	80	-10	-61	3	>300m		
	N39a	Southeast	455	75	-10	-61	3	>300m		
	N40	Southeast	448	78	-10	-61	3	>300m		
	N40a	Southeast	445	78	-10	-61	3	>300m		
	N40b	Southeast	459	82	-10	-61	3	>300m		
	N41	Southeast	412	75	-10	-60	3	>300m		
	N41a	Southeast	404	72	-10	-60	3	>300m		
	N43	Southeast	398	72	-10	-60	3	>300m		
	N44	Southeast	396	76	-10	-60	3	>300m		
	N45	Southeast	395	72	-10	-60	3	>300m		
	N45a	Southeast	392	68	-10	-60	3	>300m		
	N45b	Southeast	390	68	-10	-60	3	>300m		
	N46	Southeast	385	76	-10	-60	3	>300m		
	N46a	Southeast	383	75	-10	-60	3	>300m		
	N47	Southwest	393	76	-10	-60	3	>300m		
	N47a	Southwest	393	75	-10	-60	3	>300m		
	N47b	West	403	75	-10	-60	3	>300m		
	N47c	West	410	75	-10	-60	3	>300m		
	N48	Northeast	425	79	-10	-61	3	>300m		
	N49	Northeast	402	76	-10	-60	3	>300m		
	N50	Northeast	471	81	-10	-61	3	>300m		
	N50a	Top	476	81	0	-62	3	>300m		
	N51	Southwest	483	81	-10	-62	3	>300m		
	N52	Southwest	493	78	-10	-62	3	>300m		
	N53	Northeast	405	79	-10	-60	3	>300m		
	N54	Northeast	420	79	-10	-60	3	>300m		
	N55	West	422	79	-10	-60	3	>300m		
	N56	Southwest	414	79	-10	-60	3	>300m		
	NTD01	North	361	78	-10	-59	3	>300m		
	NTD02	North	358	76	-10	-59	3	>300m		
	NTD03	East	341	75	0	-59	3	>300m		
	NTD04	East	323	75	0	-58	3	>300m		
	NTD05	East	316	75	0	-58	3	>300m		
	NTD06	East	312	76	0	-58	3	>300m		
	NTD07	East	309	75	0	-58	3	>300m		
	NTD08	East	307	75	0	-58	3	>300m		
	NTD09	East	304	70	0	-58	3	>300m		
	NTD10	East	297	70	0	-57	3	16		
	NTD11	East	286	70	0	-57	3	16		
	NTD12	West	284	75	-10	-57	3	11		
	NTD13	West	288	79	-10	-57	3	15		
	NTD14	West	291	77	-10	-57	3	13		
	NTD15	West	295	77	-10	-57	3	13		
	NTD15a	West	303	80	-10	-58	3	>300m		
	NTD16	West	312	80	-10	-58	3	>300m		

Appendix 4.11 Fixed Plant Noise Calculation

NTD16a	West	338	80	-10	-59	3	>300m
NTD17	West	347	77	-10	-59	3	>300m
NTD18	West	351	73	-10	-59	3	>300m
NTD19	West	355	73	-10	-59	3	>300m
NTD20	West	359	73	-10	-59	3	>300m
NTD21	West	276	78	-10	-57	3	14
NTD22	West	266	80	-10	-56	3	17
NTD23	West	258	80	-10	-56	3	17
NTD24	West	252	76	-10	-56	3	13
NTD25	West	249	80	-10	-56	3	17
NTD26	West	246	70	-10	-56	3	7
NTD27	West	243	70	-10	-56	3	7
NTD28	West	239	75	-10	-56	3	12
NTD29	West	236	75	-10	-55	3	13
NTD30	West	232	83	-10	-55	3	21
NTD31	Southwest	229	80	-10	-55	3	18
NTD32	Southwest	221	82	-10	-55	3	20
NTD33	Southwest	204	81	-10	-54	3	20
NTD34	Southwest	195	80	-10	-54	3	19
NTD35	South	154	85	-10	-52	3	26
NTD36	South	136	85	-10	-51	3	27
NTD37	South	127	85	-10	-50	3	28
NTD38	South	120	85	-10	-50	3	28
NTD39	South	115	85	-10	-49	3	29
NTD40	Top	109	80	-10	-49	3	24
NTD41	Southeast	106	75	0	-49	3	29
NTD42	Southeast	86	75	0	-47	3	31
NTD43	South	77	75	-10	-46	3	22
NTD44	East	62	75	0	-44	3	34
NTD45	East	58	75	0	-43	3	35
NTD46	East	55	75	0	-43	3	35
NTD47	East	51	75	0	-42	3	36
NTD48	East	44	70	0	-41	3	32
NTD49	East	36	70	0	-39	3	34
NTD50	East	30	70	0	-38	3	35
NTD51	East	26	80	0	-36	3	47
NTD52	East	21	73	0	-35	3	41
NTD53	East	19	68	0	-33	3	38
NTD54	Northeast	17	73	0	-33	3	43
NTD55	East	107	85	0	-49	3	39
NTD56	East	123	72	0	-50	3	25
NTD57	South	127	78	0	-50	3	21
NTD58	South	128	73	0	-50	3	26
NTD59	South	130	70	0	-50	3	23
NTD60	South	132	69	0	-50	3	22
NTD61	South	135	71	0	-51	3	23
NTD62	South	138	80	0	-51	3	22
NTD63	South	142	78	0	-51	3	30
NTD64	South	149	72	0	-51	3	24
NTD65	East	197	72	0	-54	3	21
NTD66	East	205	74	0	-54	3	23
NTD67	Northeast	215	73	-10	-55	3	11
NTD68	Northeast	224	75	-10	-55	3	13
NTD69	Northeast	229	70	-10	-55	3	8
NTD70	Northeast	230	75	-10	-55	3	13
NTD71	Northeast	232	75	-10	-55	3	13
NTD72	Northeast	234	78	-10	-55	3	16
NTD73	East	314	75	-10	-58	3	>300m
NTD74	East	319	75	-10	-58	3	>300m
NTD75	East	327	75	-10	-58	3	>300m
NTD76	East	330	75	-10	-58	3	>300m
NTD77	Southeast	418	77	-10	-60	3	>300m
NTD78	Northeast	433	75	-10	-61	3	>300m
NTD79	Northeast	437	76	-10	-61	3	>300m
NTD80	Northeast	443	75	-10	-61	3	>300m
NTD81	Northeast	445	75	-10	-61	3	>300m
NTD82	Northeast	449	75	-10	-61	3	>300m
NTD83	Northeast	457	75	-10	-61	3	>300m
NTD84	Northeast	458	75	-10	-61	3	>300m
NTD85	Northwest	455	75	-10	-61	3	>300m
NTD86	Northwest	443	77	-10	-61	3	>300m
NTD87	Northwest	433	75	-10	-61	3	>300m
NTD88	Northwest	429	74	-10	-61	3	>300m
NTD89	Northwest	418	73	-10	-60	3	>300m
NTD90	Northwest	415	72	-10	-60	3	>300m
NTD91	Northwest	410	75	-10	-60	3	>300m
NTD92	Northwest	404	74	-10	-60	3	>300m
NTD93	West	93	78	-10	-47	3	24
NTD94	South	94	73	-10	-47	3	19
NTD94a	South	93	73	-10	-47	3	19
NTD95	South	91	73	-10	-47	3	19
NTD96	South	90	74	-10	-47	3	20
NTD97	Top	83	80	0	-46	3	37
NTD98	Top	81	80	0	-46	3	37
NTD99	Top	79	80	0	-46	3	37
NTD100	South	84	80	-10	-46	3	27
NTD101	Northeast	188	80	0	-53	3	30
NTD102	Northeast	181	75	0	-53	3	25
NTD103	Northeast	179	75	0	-53	3	25
NTD104	Northeast	174	83	0	-53	3	33
NTD105	Southeast	170	73	0	-53	3	23
NTD106	Southeast	170	75	0	-53	3	25
NTD107	Southeast	181	72	0	-53	3	22
NTD108	Southeast	187	82	0	-53	3	32
NTD109	Southeast	202	82	-10	-54	3	21
NTD110	Southeast	210	85	-10	-54	3	24
NTD111	Southwest	201	77	-10	-54	3	16
NTD112	Southwest	193	77	0	-54	3	26
NTD113	Southwest	191	77	0	-54	3	26
NTD114	Southwest	210	85	-10	-54	3	24
NTD115	Southwest	188	85	0	-53	3	35

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-FDSa	N01	Northwest	424	74	-10	-61	3	>300m		
	N02	Northwest	428	74	-10	-61	3	>300m		
	N03	Northwest	431	74	-10	-61	3	>300m		
	N04	Northwest	431	72	-10	-61	3	>300m		
	N05	Northwest	433	72	-10	-61	3	>300m		
	N06	Northwest	434	72	-10	-61	3	>300m		
	N07	Northwest	435	72	-10	-61	3	>300m		
	N08	Northwest	436	75	-10	-61	3	>300m		
	N09	Northwest	436	72	-10	-61	3	>300m		
	N10	Northwest	437	72	-10	-61	3	>300m		
	N11	Northwest	438	72	-10	-61	3	>300m		
	N12	Northwest	440	77	-10	-61	3	>300m		
	N12a	Northwest	442	73	-10	-61	3	>300m		
	N12b	Northwest	445	73	-10	-61	3	>300m		
	N12c	Northwest	450	73	-10	-61	3	>300m		
	N12d	Northwest	423	75	-10	-61	3	>300m		
	N13	Top	429	75	-10	-61	3	>300m		
	N14	Top	466	75	-10	-61	3	>300m		
	N15	Northwest	478	72	-10	-62	3	>300m		
	N15a	Northwest	476	73	-10	-62	3	>300m		
	N16	Northwest	479	72	-10	-62	3	>300m		
	N17	Northwest	481	75	-10	-62	3	>300m		
	N18	Northwest	482	72	-10	-62	3	>300m		
	N19	Northwest	483	72	-10	-62	3	>300m		
	N20	Northwest	483	75	-10	-62	3	>300m		
	N20a	Northwest	490	73	-10	-62	3	>300m		
	N21	Northwest	494	72	-10	-62	3	>300m		
	N21a	Northwest	495	73	-10	-62	3	>300m		
	N22	Northwest	527	72	-10	-62	3	>300m		
	N23	Northwest	499	72	-10	-62	3	>300m		
	N24	Northwest	502	72	-10	-62	3	>300m		
	N25	Northwest	500	74	-10	-62	3	>300m		
	N26	Northwest	509	75	-10	-62	3	>300m		
	N27	Northwest	515	72	-10	-62	3	>300m		
	N28	Northwest	515	74	-10	-62	3	>300m		
	N29	Northwest	519	74	-10	-62	3	>300m		
	N30	Northwest	522	72	-10	-62	3	>300m		
	N30a	Northwest	526	73	-10	-62	3	>300m		
	N31	Northwest	517	74	-10	-62	3	>300m		
	N31a	Northeast	521	77	-10	-62	3	>300m		
	N31b	Northeast	512	77	-10	-62	3	>300m		
	N31c	Northeast	522	77	-10	-62	3	>300m		
	N31d	Northeast	514	77	-10	-62	3	>300m		
	N32	Northeast	499	75	-10	-62	3	>300m		
	N32a	Northeast	504	73	-10	-62	3	>300m		
	N32b	Southeast	498	73	-10	-62	3	>300m		
	N33	Southeast	493	75	-10	-62	3	>300m		
	N34	Southeast	488	75	-10	-62	3	>300m		
	N34a	Southeast	482	68	-10	-62	3	>300m		
	N35	Southeast	475	77	-10	-62	3	>300m		
	N36	Southeast	470	75	-10	-61	3	>300m		
	N37	Southwest	472	75	-10	-61	3	>300m		
	N38	Southeast	465	63	-10	-61	3	>300m		
	N39	Southeast	462	75	-10	-61	3	>300m		
	N39a	Southeast	455	70	-10	-61	3	>300m		
N40	Southeast	448	73	-10	-61	3	>300m			
N40a	Southeast	445	73	-10	-61	3	>300m			
N40b	Southwest	459	77	-10	-61	3	>300m			
N41	Southeast	412	70	-10	-60	3	>300m			
N41a	Southeast	404	67	-10	-60	3	>300m			
N43	Southeast	398	67	-10	-60	3	>300m			
N44	Southeast	396	71	-10	-60	3	>300m			
N45	Southeast	395	67	-10	-60	3	>300m			
N45a	Southeast	392	63	-10	-60	3	>300m			
N45b	Southeast	390	63	-10	-60	3	>300m			
N46	Southeast	385	71	-10	-60	3	>300m			
N46a	Southeast	383	70	-10	-60	3	>300m			
N47	Southwest	393	71	-10	-60	3	>300m			
N47a	Southwest	393	70	-10	-60	3	>300m			
N47b	West	403	70	-10	-60	3	>300m			
N47c	West	410	70	-10	-60	3	>300m			
N48	Northeast	425	74	-10	-61	3	>300m			
N49	Northeast	402	71	-10	-60	3	>300m			
N50	Northeast	471	76	-10	-61	3	>300m			
N50a	Top	476	76	0	-62	3	>300m			
N51	Southwest	483	76	-10	-62	3	>300m			
N52	Southwest	493	73	-10	-62	3	>300m			
N53	Northeast	405	74	-10	-60	3	>300m			
N54	Northeast	420	74	-10	-60	3	>300m			
N55	West	422	74	-10	-60	3	>300m			
N56	Southwest	414	74	-10	-60	3	>300m			
NTD01	North	361	73	-10	-59	3	>300m			
NTD02	North	358	71	-10	-59	3	>300m			
NTD03	East	341	70	0	-59	3	>300m			
NTD04	East	323	70	0	-58	3	>300m			
NTD05	East	316	70	0	-58	3	>300m			
NTD06	East	312	71	0	-58	3	>300m			
NTD07	East	309	70	0	-58	3	>300m			
NTD08	East	307	70	0	-58	3	>300m			
NTD09	East	304	65	0	-58	3	>300m			
NTD10	East	297	65	0	-57	3	11			
NTD11	East	286	65	0	-57	3	11			
NTD12	West	284	70	-10	-57	3	6			
NTD13	West	288	74	-10	-57	3	10			
NTD14	West	291	72	-10	-57	3	8			
NTD15	West	295	72	-10	-57	3	8			
NTD15a	West	303	75	-10	-58	3	>300m			
NTD16	West	312	75	-10	-58	3	>300m			
NTD16a	West	338	75	-10	-59	3	>300m			
NTD17	West	347	72	-10	-59	3	>300m			

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	351	68	-10	-59	3	>300m
NTD19	West	355	68	-10	-59	3	>300m
NTD20	West	359	68	-10	-59	3	>300m
NTD21	West	276	73	-10	-57	3	9
NTD22	West	266	75	-10	-56	3	12
NTD23	West	258	75	-10	-56	3	12
NTD24	West	252	71	-10	-56	3	8
NTD25	West	249	75	-10	-56	3	12
NTD26	West	246	65	-10	-56	3	2
NTD27	West	243	65	-10	-56	3	2
NTD28	West	239	70	-10	-56	3	7
NTD29	West	236	70	-10	-55	3	8
NTD30	West	232	78	-10	-55	3	16
NTD31	Southwest	229	75	-10	-55	3	13
NTD32	Southwest	221	77	-10	-55	3	15
NTD33	Southwest	204	76	-10	-54	3	15
NTD34	Southwest	195	75	-10	-54	3	14
NTD35	South	154	80	-10	-52	3	21
NTD36	South	136	80	-10	-51	3	22
NTD37	South	127	80	-10	-50	3	23
NTD38	South	120	80	-10	-50	3	23
NTD39	South	115	80	-10	-49	3	24
NTD40	Top	109	75	-10	-49	3	19
NTD41	Southeast	106	70	0	-49	3	24
NTD42	Southeast	86	70	0	-47	3	26
NTD43	South	77	70	-10	-46	3	17
NTD44	East	62	70	0	-44	3	29
NTD45	East	58	70	0	-43	3	30
NTD46	East	55	70	0	-43	3	30
NTD47	East	51	70	0	-42	3	31
NTD48	East	44	65	0	-41	3	27
NTD49	East	36	65	0	-39	3	29
NTD50	East	30	65	0	-38	3	30
NTD51	East	26	75	0	-36	3	42
NTD52	East	21	68	0	-35	3	36
NTD53	East	19	63	0	-33	3	33
NTD54	Northeast	17	68	0	-32	3	38
NTD55	East	107	80	0	-49	3	34
NTD56	East	123	67	0	-50	3	20
NTD57	South	127	73	0	-50	3	26
NTD58	South	128	68	0	-50	3	21
NTD59	South	130	65	0	-50	3	18
NTD60	South	132	64	0	-50	3	17
NTD61	South	135	66	0	-51	3	18
NTD62	South	138	75	0	-51	3	27
NTD63	South	142	73	0	-51	3	25
NTD64	South	149	67	0	-51	3	19
NTD65	East	197	67	0	-54	3	16
NTD66	East	205	69	0	-54	3	18
NTD67	Northeast	215	68	-10	-55	3	6
NTD68	Northeast	224	70	-10	-55	3	8
NTD69	Northeast	229	65	-10	-55	3	3
NTD70	Northeast	230	70	-10	-55	3	8
NTD71	Northeast	232	70	-10	-55	3	8
NTD72	Northeast	234	73	-10	-55	3	11
NTD73	East	314	70	-10	-58	3	>300m
NTD74	East	319	70	-10	-58	3	>300m
NTD75	East	327	70	-10	-58	3	>300m
NTD76	East	330	70	-10	-58	3	>300m
NTD77	Southeast	418	72	-10	-60	3	>300m
NTD78	Northeast	433	70	-10	-61	3	>300m
NTD79	Northeast	437	71	-10	-61	3	>300m
NTD80	Northeast	443	70	-10	-61	3	>300m
NTD81	Northeast	445	70	-10	-61	3	>300m
NTD82	Northeast	449	70	-10	-61	3	>300m
NTD83	Northeast	457	70	-10	-61	3	>300m
NTD84	Northeast	458	70	-10	-61	3	>300m
NTD85	Northwest	455	70	-10	-61	3	>300m
NTD86	Northwest	443	72	-10	-61	3	>300m
NTD87	Northwest	433	70	-10	-61	3	>300m
NTD88	Northwest	429	69	-10	-61	3	>300m
NTD89	Northwest	418	68	-10	-60	3	>300m
NTD90	Northwest	415	67	-10	-60	3	>300m
NTD91	Northwest	410	70	-10	-60	3	>300m
NTD92	Northwest	404	69	-10	-60	3	>300m
NTD93	West	93	73	-10	-47	3	19
NTD94	South	94	68	-10	-47	3	14
NTD94a	South	93	68	-10	-47	3	14
NTD95	South	91	68	-10	-47	3	14
NTD96	South	90	69	-10	-47	3	15
NTD97	Top	83	75	0	-46	3	32
NTD98	Top	81	75	0	-46	3	32
NTD99	Top	79	75	0	-46	3	32
NTD100	South	84	75	-10	-46	3	22
NTD101	Northeast	188	75	0	-53	3	25
NTD102	Northeast	181	70	0	-53	3	20
NTD103	Northeast	179	70	0	-53	3	20
NTD104	Northeast	174	78	0	-53	3	28
NTD105	Southeast	170	68	0	-53	3	18
NTD106	Southeast	170	70	0	-53	3	20
NTD107	Southeast	181	67	0	-53	3	17
NTD108	Southeast	187	77	0	-53	3	27
NTD109	Southeast	202	77	-10	-54	3	16
NTD110	Southeast	210	80	-10	-54	3	19
NTD111	Southwest	201	72	-10	-54	3	11
NTD112	Southwest	193	72	0	-54	3	21
NTD113	Southwest	191	72	0	-54	3	21
NTD114	Southwest	210	80	-10	-54	3	19
NTD115	Southwest	188	80	0	-53	3	30

47

48

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-F06
 Description: Village House near Wang Ping Shan South Road

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-F06	N01	Northwest	485	79	-10	-62	3	>300m		
	N02	Northwest	496	79	-10	-62	3	>300m		
	N03	Northwest	506	79	-10	-62	3	>300m		
	N04	Northwest	507	77	-10	-62	3	>300m		
	N05	Northwest	511	77	-10	-62	3	>300m		
	N06	Northwest	516	77	-10	-62	3	>300m		
	N07	Northwest	518	77	-10	-62	3	>300m		
	N08	Northwest	519	80	-10	-62	3	>300m		
	N09	Northwest	521	77	-10	-62	3	>300m		
	N10	Northwest	524	77	-10	-62	3	>300m		
	N11	Northwest	527	77	-10	-62	3	>300m		
	N12	Northwest	531	82	-10	-63	3	>300m		
	N12a	Northwest	535	78	-10	-63	3	>300m		
	N12b	Northwest	543	78	-10	-63	3	>300m		
	N12c	Northwest	554	78	-10	-63	3	>300m		
	N12d	Northwest	526	80	-10	-62	3	>300m		
	N13	Top	522	80	-10	-62	3	>300m		
	N14	Top	595	80	-10	-63	3	>300m		
	N15	Northwest	607	77	-10	-64	3	>300m		
	N15a	Northwest	603	78	-10	-64	3	>300m		
	N16	Northwest	609	77	-10	-64	3	>300m		
	N17	Northwest	612	80	-10	-64	3	>300m		
	N18	Northwest	613	77	-10	-64	3	>300m		
	N19	Northwest	615	77	-10	-64	3	>300m		
	N20	Northwest	616	80	-10	-64	3	>300m		
	N20a	Northwest	626	78	-10	-64	3	>300m		
	N21	Northwest	634	77	-10	-64	3	>300m		
	N21a	Northwest	635	78	-10	-64	3	>300m		
	N22	Northwest	767	77	-10	-66	3	>300m		
	N23	Northwest	641	77	-10	-64	3	>300m		
	N24	Northwest	645	77	-10	-64	3	>300m		
	N25	Northwest	645	79	-10	-64	3	>300m		
	N26	Northwest	656	80	-10	-64	3	>300m		
	N27	Northwest	666	77	-10	-64	3	>300m		
	N28	Northwest	666	79	-10	-64	3	>300m		
	N29	Northwest	673	79	-10	-65	3	>300m		
	N30	Northwest	675	77	-10	-65	3	>300m		
	N30a	Northwest	681	78	-10	-65	3	>300m		
	N31	Northwest	674	79	-10	-65	3	>300m		
	N31a	Northeast	679	82	-10	-65	3	>300m		
	N31b	Northeast	674	82	-10	-65	3	>300m		
	N31c	Northeast	680	82	-10	-65	3	>300m		
	N31d	Northeast	675	82	-10	-65	3	>300m		
	N32	Northeast	662	80	-10	-64	3	>300m		
	N32a	Northeast	669	78	-10	-65	3	>300m		
	N32b	Southeast	663	78	-10	-64	3	>300m		
	N33	Southeast	657	80	-10	-64	3	>300m		
	N34	Southeast	650	80	-10	-64	3	>300m		
	N34a	Southeast	641	73	-10	-64	3	>300m		
	N35	Southeast	631	82	-10	-64	3	>300m		
	N36	Southeast	624	80	-10	-64	3	>300m		
	N37	Southeast	622	80	-10	-64	3	>300m		
	N38	Southeast	616	68	-10	-64	3	>300m		
	N39	Southeast	612	80	-10	-64	3	>300m		
	N39a	Southeast	600	75	-10	-64	3	>300m		
	N40	Southeast	589	78	-10	-63	3	>300m		
	N40a	Southeast	585	78	-10	-63	3	>300m		
	N40b	Southeast	591	82	-10	-63	3	>300m		
	N41	Southeast	523	75	-10	-62	3	>300m		
	N41a	Southeast	504	72	-10	-62	3	>300m		
	N43	Southeast	488	72	-10	-62	3	>300m		
	N44	Southeast	482	76	-10	-62	3	>300m		
	N45	Southeast	480	72	-10	-62	3	>300m		
	N45a	Southeast	470	68	-10	-61	3	>300m		
	N45b	Southeast	462	68	-10	-61	3	>300m		
	N46	Southeast	452	76	-10	-61	3	>300m		
	N46a	Southeast	443	75	-10	-61	3	>300m		
	N47	Southwest	457	76	-10	-61	3	>300m		
	N47a	Southwest	448	75	-10	-61	3	>300m		
	N47b	West	456	75	-10	-61	3	>300m		
	N47c	West	465	75	-10	-61	3	>300m		
	N48	Northwest	505	79	-10	-62	3	>300m		
	N49	Northwest	489	76	-10	-62	3	>300m		
	N50	Northwest	615	81	-10	-64	3	>300m		
	N50a	Top	624	81	0	-64	3	>300m		
	N51	Southwest	628	81	-10	-64	3	>300m		
	N52	Southwest	638	78	-10	-64	3	>300m		
	N53	Northeast	501	79	-10	-62	3	>300m		
	N54	Northeast	511	79	-10	-62	3	>300m		
	N55	West	478	79	-10	-62	3	>300m		
	N56	Southwest	474	79	-10	-62	3	>300m		
	NTD01	North	410	78	-10	-60	3	>300m		
	NTD02	North	411	76	-10	-60	3	>300m		
	NTD03	East	392	75	-10	-60	3	>300m		
	NTD04	East	369	75	-10	-59	3	>300m		
	NTD05	East	359	75	-10	-59	3	>300m		
	NTD06	East	354	76	-10	-59	3	>300m		
	NTD07	East	349	75	-10	-59	3	>300m		
	NTD08	East	342	75	-10	-59	3	>300m		
	NTD09	East	338	70	-10	-59	3	>300m		
	NTD10	East	332	70	-10	-58	3	>300m		
	NTD11	East	317	70	-10	-58	3	>300m		
	NTD12	West	299	75	0	-58	3	20		
	NTD13	West	305	79	0	-58	3	>300m		
	NTD14	West	311	77	0	-58	3	>300m		
	NTD15	West	316	77	0	-58	3	>300m		
	NTD15a	West	328	80	0	-58	3	>300m		
	NTD16	West	342	80	0	-59	3	>300m		

Appendix 4.11 Fixed Plant Noise Calculation

NTD16a	West	379	80	0	-60	3	>300m
NTD17	West	391	77	0	-60	3	>300m
NTD18	West	396	73	0	-60	3	>300m
NTD19	West	401	73	0	-60	3	>300m
NTD20	West	407	73	0	-60	3	>300m
NTD21	West	286	78	0	-57	3	24
NTD22	West	268	80	0	-57	3	26
NTD23	West	251	80	0	-56	3	27
NTD24	West	239	76	0	-56	3	23
NTD25	West	232	80	0	-55	3	28
NTD26	West	225	70	0	-55	3	18
NTD27	West	218	70	0	-55	3	18
NTD28	West	207	75	0	-54	3	24
NTD29	West	199	75	0	-54	3	24
NTD30	West	187	83	0	-53	3	33
NTD31	Southwest	175	80	0	-53	3	30
NTD32	Southwest	155	82	0	-52	3	33
NTD33	Southwest	121	81	0	-50	3	34
NTD34	Southwest	112	80	0	-49	3	34
NTD35	South	132	85	0	-50	3	38
NTD36	South	154	85	0	-52	3	36
NTD37	South	166	85	0	-52	3	36
NTD38	South	177	85	0	-53	3	35
NTD39	South	186	85	0	-53	3	35
NTD40	Top	191	80	-10	-54	3	19
NTD41	Southeast	193	75	-10	-54	3	14
NTD42	Southeast	206	75	-10	-54	3	14
NTD43	South	216	75	-10	-55	3	13
NTD44	East	246	75	-10	-56	3	12
NTD45	East	247	75	-10	-56	3	12
NTD46	East	249	75	-10	-56	3	12
NTD47	East	250	75	-10	-56	3	12
NTD48	East	253	70	-10	-56	3	7
NTD49	East	257	70	-10	-56	3	7
NTD50	East	259	70	-10	-56	3	7
NTD51	East	262	80	-10	-56	3	17
NTD52	East	264	73	-10	-56	3	10
NTD53	East	266	68	-10	-57	3	4
NTD54	Northeast	276	73	-10	-57	3	9
NTD55	East	334	85	-10	-58	3	>300m
NTD56	East	349	72	-10	-59	3	>300m
NTD57	South	356	78	-10	-59	3	>300m
NTD58	South	361	73	-10	-59	3	>300m
NTD59	South	366	70	-10	-59	3	>300m
NTD60	South	373	69	-10	-59	3	>300m
NTD61	South	380	71	-10	-60	3	>300m
NTD62	South	386	80	-10	-60	3	>300m
NTD63	South	395	78	-10	-60	3	>300m
NTD64	South	405	72	-10	-60	3	>300m
NTD65	East	445	72	-10	-61	3	>300m
NTD66	East	451	74	-10	-61	3	>300m
NTD67	Northeast	457	73	-10	-61	3	>300m
NTD68	Northeast	457	75	-10	-61	3	>300m
NTD69	Northeast	457	70	-10	-61	3	>300m
NTD70	Northeast	457	75	-10	-61	3	>300m
NTD71	Northeast	456	75	-10	-61	3	>300m
NTD72	Northeast	454	78	-10	-61	3	>300m
NTD73	East	488	75	-10	-62	3	>300m
NTD74	East	491	75	-10	-62	3	>300m
NTD75	East	498	75	-10	-62	3	>300m
NTD76	East	502	75	-10	-62	3	>300m
NTD77	Southeast	589	77	-10	-63	3	>300m
NTD78	Northeast	602	75	-10	-64	3	>300m
NTD79	Northeast	604	76	-10	-64	3	>300m
NTD80	Northeast	608	75	-10	-64	3	>300m
NTD81	Northeast	609	75	-10	-64	3	>300m
NTD82	Northeast	611	75	-10	-64	3	>300m
NTD83	Northeast	615	75	-10	-64	3	>300m
NTD84	Northeast	616	75	-10	-64	3	>300m
NTD85	Northwest	611	75	-10	-64	3	>300m
NTD86	Northwest	592	77	-10	-63	3	>300m
NTD87	Northwest	577	75	-10	-63	3	>300m
NTD88	Northwest	571	74	-10	-63	3	>300m
NTD89	Northwest	550	73	-10	-63	3	>300m
NTD90	Northwest	545	72	-10	-63	3	>300m
NTD91	Northwest	535	75	-10	-63	3	>300m
NTD92	Northwest	525	74	-10	-62	3	>300m
NTD93	West	206	78	0	-54	3	27
NTD94	South	210	73	0	-54	3	22
NTD94a	South	212	73	0	-55	3	21
NTD95	South	216	73	0	-55	3	21
NTD96	South	219	74	0	-55	3	22
NTD97	Top	225	80	0	-55	3	28
NTD98	Top	230	80	0	-55	3	28
NTD99	Top	236	80	0	-55	3	28
NTD100	South	238	80	0	-56	3	27
NTD101	Northeast	122	80	-10	-50	3	23
NTD102	Northeast	137	75	-10	-51	3	17
NTD103	Northeast	142	75	-10	-51	3	17
NTD104	Northeast	156	83	-10	-52	3	24
NTD105	Southeast	169	73	-10	-53	3	13
NTD106	Southeast	176	75	-10	-53	3	15
NTD107	Southeast	175	72	-10	-53	3	12
NTD108	Southeast	171	82	-10	-53	3	22
NTD109	Southeast	161	82	-10	-52	3	23
NTD110	Southwest	151	85	0	-52	3	36
NTD111	Southwest	113	77	0	-49	3	31
NTD112	Southwest	156	77	-10	-52	3	18
NTD113	Southwest	161	77	-10	-52	3	18
NTD114	Southwest	136	85	0	-51	3	37
NTD115	Southwest	140	85	-10	-51	3	27

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-F06	N01	Northwest	485	74	-10	-62	3	>300m		
	N02	Northwest	496	74	-10	-62	3	>300m		
	N03	Northwest	506	74	-10	-62	3	>300m		
	N04	Northwest	507	72	-10	-62	3	>300m		
	N05	Northwest	511	72	-10	-62	3	>300m		
	N06	Northwest	516	72	-10	-62	3	>300m		
	N07	Northwest	518	72	-10	-62	3	>300m		
	N08	Northwest	519	75	-10	-62	3	>300m		
	N09	Northwest	521	72	-10	-62	3	>300m		
	N10	Northwest	524	72	-10	-62	3	>300m		
	N11	Northwest	527	72	-10	-62	3	>300m		
	N12	Northwest	531	77	-10	-63	3	>300m		
	N12a	Northwest	535	73	-10	-63	3	>300m		
	N12b	Northwest	543	73	-10	-63	3	>300m		
	N12c	Northwest	554	73	-10	-63	3	>300m		
	N12d	Northwest	526	75	-10	-62	3	>300m		
	N13	Top	522	75	-10	-62	3	>300m		
	N14	Top	595	75	-10	-63	3	>300m		
	N15	Northwest	607	72	-10	-64	3	>300m		
	N15a	Northwest	603	73	-10	-64	3	>300m		
	N16	Northwest	609	72	-10	-64	3	>300m		
	N17	Northwest	612	75	-10	-64	3	>300m		
	N18	Northwest	613	72	-10	-64	3	>300m		
	N19	Northwest	615	72	-10	-64	3	>300m		
	N20	Northwest	616	75	-10	-64	3	>300m		
	N20a	Northwest	626	73	-10	-64	3	>300m		
	N21	Northwest	634	72	-10	-64	3	>300m		
	N21a	Northwest	635	73	-10	-64	3	>300m		
	N22	Northwest	767	72	-10	-66	3	>300m		
	N23	Northwest	641	72	-10	-64	3	>300m		
	N24	Northwest	645	72	-10	-64	3	>300m		
	N25	Northwest	645	74	-10	-64	3	>300m		
	N26	Northwest	656	75	-10	-64	3	>300m		
	N27	Northwest	666	72	-10	-64	3	>300m		
	N28	Northwest	666	74	-10	-64	3	>300m		
	N29	Northwest	673	74	-10	-65	3	>300m		
	N30	Northwest	675	72	-10	-65	3	>300m		
	N30a	Northwest	681	73	-10	-65	3	>300m		
	N31	Northwest	674	74	-10	-65	3	>300m		
	N31a	Northeast	679	77	-10	-65	3	>300m		
	N31b	Northeast	674	77	-10	-65	3	>300m		
	N31c	Northeast	680	77	-10	-65	3	>300m		
	N31d	Northeast	675	77	-10	-65	3	>300m		
	N32	Northeast	662	75	-10	-64	3	>300m		
	N32a	Northeast	669	73	-10	-65	3	>300m		
	N32b	Southeast	663	73	-10	-64	3	>300m		
	N33	Southeast	657	75	-10	-64	3	>300m		
	N34	Southeast	650	75	-10	-64	3	>300m		
	N34a	Southeast	641	68	-10	-64	3	>300m		
	N35	Southeast	631	77	-10	-64	3	>300m		
	N36	Southeast	624	75	-10	-64	3	>300m		
	N37	Southeast	622	75	-10	-64	3	>300m		
	N38	Southeast	616	63	-10	-64	3	>300m		
	N39	Southeast	612	75	-10	-64	3	>300m		
	N39a	Southeast	600	70	-10	-64	3	>300m		
	N40	Southeast	589	73	-10	-63	3	>300m		
	N40a	Southeast	585	73	-10	-63	3	>300m		
N40b	Southwest	591	77	-10	-63	3	>300m			
N41	Southwest	523	70	-10	-62	3	>300m			
N41a	Southwest	504	67	-10	-62	3	>300m			
N43	Southwest	488	67	-10	-62	3	>300m			
N44	Southwest	482	71	-10	-62	3	>300m			
N45	Southwest	480	67	-10	-62	3	>300m			
N45a	Southwest	470	63	-10	-61	3	>300m			
N45b	Southwest	462	63	-10	-61	3	>300m			
N46	Southwest	452	71	-10	-61	3	>300m			
N46a	Southwest	443	70	-10	-61	3	>300m			
N47	Southwest	457	71	-10	-61	3	>300m			
N47a	Southwest	448	70	-10	-61	3	>300m			
N47b	West	456	70	-10	-61	3	>300m			
N47c	West	465	70	-10	-61	3	>300m			
N48	Northeast	505	74	-10	-62	3	>300m			
N49	Northeast	489	71	-10	-62	3	>300m			
N50	Northeast	615	76	-10	-64	3	>300m			
N50a	Top	624	76	0	-64	3	>300m			
N51	Southwest	628	76	-10	-64	3	>300m			
N52	Southwest	638	73	-10	-64	3	>300m			
N53	Northeast	501	74	-10	-62	3	>300m			
N54	Northeast	511	74	-10	-62	3	>300m			
N55	West	478	74	-10	-62	3	>300m			
N56	Southwest	474	74	-10	-62	3	>300m			
NTD01	North	410	73	-10	-60	3	>300m			
NTD02	North	411	71	-10	-60	3	>300m			
NTD03	East	392	70	-10	-60	3	>300m			
NTD04	East	369	70	-10	-59	3	>300m			
NTD05	East	359	70	-10	-59	3	>300m			
NTD06	East	354	71	-10	-59	3	>300m			
NTD07	East	349	70	-10	-59	3	>300m			
NTD08	East	342	70	-10	-59	3	>300m			
NTD09	East	338	65	-10	-59	3	>300m			
NTD10	East	332	65	-10	-58	3	>300m			
NTD11	East	317	65	-10	-58	3	>300m			
NTD12	West	299	70	0	-58	3	15			
NTD13	West	305	74	0	-58	3	>300m			
NTD14	West	311	72	0	-58	3	>300m			
NTD15	West	316	72	0	-58	3	>300m			
NTD15a	West	328	75	0	-58	3	>300m			
NTD16	West	342	75	0	-59	3	>300m			
NTD16a	West	379	75	0	-60	3	>300m			
NTD17	West	391	72	0	-60	3	>300m			

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	396	68	0	-60	3	>300m
NTD19	West	401	68	0	-60	3	>300m
NTD20	West	407	68	0	-60	3	>300m
NTD21	West	286	73	0	-57	3	19
NTD22	West	268	75	0	-57	3	21
NTD23	West	251	75	0	-56	3	22
NTD24	West	239	71	0	-56	3	18
NTD25	West	232	75	0	-55	3	23
NTD26	West	225	65	0	-55	3	13
NTD27	West	218	65	0	-55	3	13
NTD28	West	207	70	0	-54	3	19
NTD29	West	199	70	0	-54	3	19
NTD30	West	187	78	0	-53	3	28
NTD31	Southwest	175	75	0	-53	3	25
NTD32	Southwest	155	77	0	-52	3	28
NTD33	Southwest	121	76	0	-50	3	29
NTD34	Southwest	112	75	0	-49	3	29
NTD35	South	132	80	0	-50	3	33
NTD36	South	154	80	0	-52	3	31
NTD37	South	166	80	0	-52	3	31
NTD38	South	177	80	0	-53	3	30
NTD39	South	186	80	0	-53	3	30
NTD40	Top	191	75	-10	-54	3	14
NTD41	Southeast	193	70	-10	-54	3	9
NTD42	Southeast	206	70	-10	-54	3	9
NTD43	South	216	70	-10	-55	3	8
NTD44	East	246	70	-10	-56	3	7
NTD45	East	247	70	-10	-56	3	7
NTD46	East	249	70	-10	-56	3	7
NTD47	East	250	70	-10	-56	3	7
NTD48	East	253	65	-10	-56	3	2
NTD49	East	257	65	-10	-56	3	2
NTD50	East	259	65	-10	-56	3	2
NTD51	East	262	75	-10	-56	3	12
NTD52	East	264	68	-10	-56	3	5
NTD53	East	266	63	-10	-57	3	-1
NTD54	Northeast	276	68	-10	-57	3	4
NTD55	East	334	80	-10	-58	3	>300m
NTD56	East	349	67	-10	-59	3	>300m
NTD57	South	356	73	-10	-59	3	>300m
NTD58	South	361	68	-10	-59	3	>300m
NTD59	South	366	65	-10	-59	3	>300m
NTD60	South	373	64	-10	-59	3	>300m
NTD61	South	380	66	-10	-60	3	>300m
NTD62	South	386	75	-10	-60	3	>300m
NTD63	South	395	73	-10	-60	3	>300m
NTD64	South	405	67	-10	-60	3	>300m
NTD65	East	445	67	-10	-61	3	>300m
NTD66	East	451	69	-10	-61	3	>300m
NTD67	Northeast	457	68	-10	-61	3	>300m
NTD68	Northeast	457	70	-10	-61	3	>300m
NTD69	Northeast	457	65	-10	-61	3	>300m
NTD70	Northeast	457	70	-10	-61	3	>300m
NTD71	Northeast	456	70	-10	-61	3	>300m
NTD72	Northeast	454	73	-10	-61	3	>300m
NTD73	East	488	70	-10	-62	3	>300m
NTD74	East	491	70	-10	-62	3	>300m
NTD75	East	498	70	-10	-62	3	>300m
NTD76	East	502	70	-10	-62	3	>300m
NTD77	Southeast	589	72	-10	-63	3	>300m
NTD78	Northeast	602	70	-10	-64	3	>300m
NTD79	Northeast	604	71	-10	-64	3	>300m
NTD80	Northeast	608	70	-10	-64	3	>300m
NTD81	Northeast	609	70	-10	-64	3	>300m
NTD82	Northeast	611	70	-10	-64	3	>300m
NTD83	Northeast	615	70	-10	-64	3	>300m
NTD84	Northeast	616	70	-10	-64	3	>300m
NTD85	Northwest	611	70	-10	-64	3	>300m
NTD86	Northwest	592	72	-10	-63	3	>300m
NTD87	Northwest	577	70	-10	-63	3	>300m
NTD88	Northwest	571	69	-10	-63	3	>300m
NTD89	Northwest	550	68	-10	-63	3	>300m
NTD90	Northwest	545	67	-10	-63	3	>300m
NTD91	Northwest	535	70	-10	-63	3	>300m
NTD92	Northwest	525	69	-10	-62	3	>300m
NTD93	West	206	73	0	-54	3	22
NTD94	South	210	68	0	-54	3	17
NTD94a	South	212	68	0	-55	3	16
NTD95	South	216	68	0	-55	3	16
NTD96	South	219	69	0	-55	3	17
NTD97	Top	225	75	0	-55	3	23
NTD98	Top	230	75	0	-55	3	23
NTD99	Top	236	75	0	-55	3	23
NTD100	South	238	75	0	-56	3	22
NTD101	Northeast	122	75	-10	-50	3	18
NTD102	Northeast	137	70	-10	-51	3	12
NTD103	Northeast	142	70	-10	-51	3	12
NTD104	Northeast	156	78	-10	-52	3	19
NTD105	Southeast	169	68	-10	-53	3	8
NTD106	Southeast	176	70	-10	-53	3	10
NTD107	Southeast	175	67	-10	-53	3	7
NTD108	Southeast	171	77	-10	-53	3	17
NTD109	Southeast	161	77	-10	-52	3	18
NTD110	Southeast	151	80	0	-52	3	31
NTD111	Southwest	113	72	0	-49	3	26
NTD112	Southwest	156	72	-10	-52	3	13
NTD113	Southwest	161	72	-10	-52	3	13
NTD114	Southwest	136	80	0	-51	3	32
NTD115	Southwest	140	80	-10	-51	3	22

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-F07
 Description: Temporary Structure near Chun Shin Road

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ¹⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-F07	N01	Northwest	404	79	-10	-60	3	>300m		
	N02	Northwest	390	79	-10	-60	3	>300m		
	N03	Northwest	378	79	-10	-60	3	>300m		
	N04	Northwest	377	77	-10	-60	3	>300m		
	N05	Northwest	372	77	-10	-59	3	>300m		
	N06	Northwest	367	77	-10	-59	3	>300m		
	N07	Northwest	364	77	-10	-59	3	>300m		
	N08	Northwest	363	80	-10	-59	3	>300m		
	N09	Northwest	361	77	-10	-59	3	>300m		
	N10	Northwest	357	77	-10	-59	3	>300m		
	N11	Northwest	353	77	-10	-59	3	>300m		
	N12	Northwest	349	82	-10	-59	3	>300m		
	N12a	Northwest	344	78	-10	-59	3	>300m		
	N12b	Northwest	336	78	-10	-59	3	>300m		
	N12c	Northwest	325	78	-10	-58	3	>300m		
	N12d	Northwest	330	80	0	-58	3	>300m		
	N13	Top	347	80	0	-59	3	>300m		
	N14	Top	273	80	0	-57	3	26		
	N15	Northwest	271	77	-10	-57	3	13		
	N15a	Northwest	276	78	-10	-57	3	14		
	N16	Northwest	270	77	-10	-57	3	13		
	N17	Northwest	267	80	-10	-57	3	16		
	N18	Northwest	266	77	-10	-56	3	14		
	N19	Northwest	264	77	-10	-56	3	14		
	N20	Northwest	264	80	-10	-56	3	17		
	N20a	Northwest	255	78	-10	-56	3	15		
	N21	Northwest	248	77	-10	-56	3	14		
	N21a	Northwest	247	78	-10	-56	3	15		
	N22	Northwest	56	77	-10	-43	3	27		
	N23	Northwest	241	77	-10	-56	3	14		
	N24	Northwest	239	77	-10	-56	3	14		
	N25	Northwest	237	79	-10	-55	3	17		
	N26	Northwest	230	80	-10	-55	3	18		
	N27	Northwest	223	77	-10	-55	3	15		
	N28	Northwest	220	79	-10	-55	3	17		
	N29	Northwest	216	79	-10	-55	3	17		
	N30	Northwest	217	77	-10	-55	3	15		
	N30a	Northwest	213	78	-10	-55	3	16		
	N31	Northwest	208	79	0	-54	3	28		
	N31a	Northeast	205	82	0	-54	3	31		
	N31b	Northeast	196	82	0	-54	3	31		
	N31c	Northeast	206	82	0	-54	3	31		
	N31d	Northeast	197	82	0	-54	3	31		
	N32	Northeast	191	80	0	-54	3	29		
	N32a	Northeast	188	78	0	-53	3	28		
	N32b	Southeast	185	78	0	-53	3	28		
	N33	Southeast	190	80	0	-54	3	29		
	N34	Southeast	196	80	0	-54	3	29		
	N34a	Southeast	202	73	0	-54	3	22		
	N35	Southeast	211	82	0	-54	3	31		
	N36	Southeast	217	80	0	-55	3	28		
	N37	Southeast	224	80	-10	-55	3	18		
	N38	Southeast	224	68	0	-55	3	16		
	N39	Southeast	228	80	0	-55	3	28		
	N39a	Southeast	239	75	0	-56	3	22		
	N40	Southeast	249	78	0	-56	3	25		
	N40a	Southeast	253	78	0	-56	3	25		
	N40b	Southeast	267	82	-10	-57	3	18		
	N41	Southeast	317	75	0	-58	3	>300m		
	N41a	Southeast	339	72	0	-59	3	>300m		
	N43	Southeast	357	72	0	-59	3	>300m		
	N44	Southeast	364	76	0	-59	3	>300m		
	N45	Southeast	367	72	0	-59	3	>300m		
	N45a	Southeast	379	68	0	-60	3	>300m		
	N45b	Southeast	387	68	0	-60	3	>300m		
	N46	Southeast	397	76	0	-60	3	>300m		
	N46a	Southeast	409	75	0	-60	3	>300m		
	N47	Southwest	402	76	-10	-60	3	>300m		
	N47a	Southwest	414	75	-10	-60	3	>300m		
	N47b	West	415	75	-10	-60	3	>300m		
	N47c	West	413	75	-10	-60	3	>300m		
	N48	Northeast	371	79	0	-59	3	>300m		
	N49	Northeast	361	76	0	-59	3	>300m		
	N50	Northeast	238	81	-10	-56	3	18		
	N50a	Top	230	81	0	-55	3	29		
	N51	Southwest	234	81	-10	-55	3	19		
	N52	Southwest	236	78	-10	-55	3	16		
	N53	Northeast	345	79	0	-59	3	>300m		
	N54	Northeast	352	79	0	-59	3	>300m		
	N55	West	410	79	0	-60	3	>300m		
	N56	Southwest	404	79	-10	-60	3	>300m		
	NTD01	North	428	78	-10	-61	3	>300m		
	NTD02	North	424	76	-10	-61	3	>300m		
	NTD03	East	430	75	-10	-61	3	>300m		
	NTD04	East	441	75	-10	-61	3	>300m		
	NTD05	East	447	75	-10	-61	3	>300m		
	NTD06	East	450	76	-10	-61	3	>300m		
	NTD07	East	453	75	-10	-61	3	>300m		
	NTD08	East	460	75	-10	-61	3	>300m		
	NTD09	East	463	70	-10	-61	3	>300m		
	NTD10	East	464	70	-10	-61	3	>300m		
	NTD11	East	472	70	-10	-61	3	>300m		
	NTD12	West	491	75	-10	-62	3	>300m		
	NTD13	West	487	79	-10	-62	3	>300m		
	NTD14	West	483	77	-10	-62	3	>300m		
	NTD15	West	480	77	-10	-62	3	>300m		
	NTD15a	West	474	80	-10	-62	3	>300m		
	NTD16	West	465	80	-10	-61	3	>300m		

Appendix 4.11 Fixed Plant Noise Calculation

NTD16a	West	445	80	-10	-61	3	>300m
NTD17	West	439	77	-10	-61	3	>300m
NTD18	West	436	73	-10	-61	3	>300m
NTD19	West	434	73	-10	-61	3	>300m
NTD20	West	431	73	-10	-61	3	>300m
NTD21	West	499	78	-10	-62	3	>300m
NTD22	West	511	80	-10	-62	3	>300m
NTD23	West	522	80	-10	-62	3	>300m
NTD24	West	531	76	-10	-62	3	>300m
NTD25	West	535	80	-10	-63	3	>300m
NTD26	West	540	70	-10	-63	3	>300m
NTD27	West	545	70	-10	-63	3	>300m
NTD28	West	553	75	-10	-63	3	>300m
NTD29	West	559	75	-10	-63	3	>300m
NTD30	West	567	83	-10	-63	3	>300m
NTD31	Southwest	576	80	-10	-63	3	>300m
NTD32	Southwest	589	82	-10	-63	3	>300m
NTD33	Southwest	612	81	-10	-64	3	>300m
NTD34	Southwest	619	80	-10	-64	3	>300m
NTD35	South	627	85	-10	-64	3	>300m
NTD36	South	621	85	-10	-64	3	>300m
NTD37	South	617	85	-10	-64	3	>300m
NTD38	South	614	85	-10	-64	3	>300m
NTD39	South	612	85	-10	-64	3	>300m
NTD40	Top	606	80	-10	-64	3	>300m
NTD41	Southeast	603	75	-10	-64	3	>300m
NTD42	Southeast	582	75	-10	-63	3	>300m
NTD43	South	575	75	-10	-63	3	>300m
NTD44	East	565	75	0	-63	3	>300m
NTD45	East	561	75	0	-63	3	>300m
NTD46	East	558	75	0	-63	3	>300m
NTD47	East	554	75	0	-63	3	>300m
NTD48	East	547	70	0	-63	3	>300m
NTD49	East	538	70	0	-63	3	>300m
NTD50	East	532	70	0	-63	3	>300m
NTD51	East	527	80	0	-62	3	>300m
NTD52	East	522	73	0	-62	3	>300m
NTD53	East	518	68	0	-62	3	>300m
NTD54	Northeast	499	73	0	-62	3	>300m
NTD55	East	410	85	-10	-60	3	>300m
NTD56	East	393	72	-10	-60	3	>300m
NTD57	South	386	78	-10	-60	3	>300m
NTD58	South	383	73	-10	-60	3	>300m
NTD59	South	379	70	-10	-60	3	>300m
NTD60	South	375	69	-10	-59	3	>300m
NTD61	South	370	71	-10	-59	3	>300m
NTD62	South	366	80	-10	-59	3	>300m
NTD63	South	361	78	-10	-59	3	>300m
NTD64	South	354	72	-10	-59	3	>300m
NTD65	East	306	72	0	-58	3	>300m
NTD66	East	298	74	0	-57	3	20
NTD67	Northeast	289	73	0	-57	3	19
NTD68	Northeast	282	75	0	-57	3	21
NTD69	Northeast	280	70	0	-57	3	16
NTD70	Northeast	279	75	0	-57	3	21
NTD71	Northeast	279	75	0	-57	3	21
NTD72	Northeast	279	78	0	-57	3	24
NTD73	East	258	75	0	-56	3	22
NTD74	East	256	75	0	-56	3	22
NTD75	East	251	75	0	-56	3	22
NTD76	East	249	75	0	-56	3	22
NTD77	Southeast	194	77	0	-54	3	26
NTD78	Northeast	192	75	0	-54	3	24
NTD79	Northeast	195	76	0	-54	3	25
NTD80	Northeast	199	75	0	-54	3	24
NTD81	Northeast	200	75	0	-54	3	24
NTD82	Northeast	203	75	0	-54	3	24
NTD83	Northeast	208	75	0	-54	3	24
NTD84	Northeast	210	75	-10	-54	3	14
NTD85	Northwest	214	75	-10	-55	3	13
NTD86	Northwest	232	77	-10	-55	3	15
NTD87	Northwest	247	75	-10	-56	3	12
NTD88	Northwest	253	74	-10	-56	3	11
NTD89	Northwest	274	73	-10	-57	3	9
NTD90	Northwest	280	72	-10	-57	3	8
NTD91	Northwest	290	75	-10	-57	3	11
NTD92	Northwest	301	74	-10	-58	3	>300m
NTD93	West	592	78	-10	-63	3	>300m
NTD94	South	595	73	-10	-63	3	>300m
NTD94a	South	594	73	-10	-63	3	>300m
NTD95	South	593	73	-10	-63	3	>300m
NTD96	South	592	74	-10	-63	3	>300m
NTD97	Top	585	80	0	-63	3	>300m
NTD98	Top	584	80	0	-63	3	>300m
NTD99	Top	582	80	0	-63	3	>300m
NTD100	South	587	80	-10	-63	3	>300m
NTD101	Northeast	676	80	0	-65	3	>300m
NTD102	Northeast	673	75	0	-65	3	>300m
NTD103	Northeast	673	75	0	-65	3	>300m
NTD104	Northeast	671	83	0	-65	3	>300m
NTD105	Southeast	670	73	0	-65	3	>300m
NTD106	Southeast	671	75	0	-65	3	>300m
NTD107	Southeast	682	72	0	-65	3	>300m
NTD108	Southeast	688	82	0	-65	3	>300m
NTD109	Southeast	702	82	-10	-65	3	>300m
NTD110	Southeast	709	85	-10	-65	3	>300m
NTD111	Southwest	687	77	-10	-65	3	>300m
NTD112	Southwest	691	77	0	-65	3	>300m
NTD113	Southwest	691	77	0	-65	3	>300m
NTD114	Southwest	705	85	-10	-65	3	>300m
NTD115	Southwest	683	85	0	-65	3	>300m

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-F07	N01	Northwest	404	74	-10	-60	3	>300m		
	N02	Northwest	390	74	-10	-60	3	>300m		
	N03	Northwest	378	74	-10	-60	3	>300m		
	N04	Northwest	377	72	-10	-60	3	>300m		
	N05	Northwest	372	72	-10	-59	3	>300m		
	N06	Northwest	367	72	-10	-59	3	>300m		
	N07	Northwest	364	72	-10	-59	3	>300m		
	N08	Northwest	363	75	-10	-59	3	>300m		
	N09	Northwest	361	72	-10	-59	3	>300m		
	N10	Northwest	357	72	-10	-59	3	>300m		
	N11	Northwest	353	72	-10	-59	3	>300m		
	N12	Northwest	349	77	-10	-59	3	>300m		
	N12a	Northwest	344	73	-10	-59	3	>300m		
	N12b	Northwest	336	73	-10	-59	3	>300m		
	N12c	Northwest	325	73	-10	-58	3	>300m		
	N12d	Northwest	330	75	0	-58	3	>300m		
	N13	Top	347	75	0	-59	3	>300m		
	N14	Top	273	75	0	-57	3	21		
	N15	Northwest	271	72	-10	-57	3	8		
	N15a	Northwest	276	73	-10	-57	3	9		
	N16	Northwest	270	72	-10	-57	3	8		
	N17	Northwest	267	75	-10	-57	3	11		
	N18	Northwest	266	72	-10	-56	3	9		
	N19	Northwest	264	72	-10	-56	3	9		
	N20	Northwest	264	75	-10	-56	3	12		
	N20a	Northwest	255	73	-10	-56	3	10		
	N21	Northwest	248	72	-10	-56	3	9		
	N21a	Northwest	247	73	-10	-56	3	10		
	N22	Northwest	56	72	-10	-43	3	22		
	N23	Northwest	241	72	-10	-56	3	9		
	N24	Northwest	239	72	-10	-56	3	9		
	N25	Northwest	237	74	-10	-55	3	12		
	N26	Northwest	230	75	-10	-55	3	13		
	N27	Northwest	223	72	-10	-55	3	10		
	N28	Northwest	220	74	-10	-55	3	12		
	N29	Northwest	216	74	-10	-55	3	12		
	N30	Northwest	217	72	-10	-55	3	10		
	N30a	Northwest	213	73	-10	-55	3	11		
	N31	Northwest	208	74	0	-54	3	23		
	N31a	Northeast	205	77	0	-54	3	26		
	N31b	Northeast	196	77	0	-54	3	26		
	N31c	Northeast	206	77	0	-54	3	26		
	N31d	Northeast	197	77	0	-54	3	26		
	N32	Northeast	191	75	0	-54	3	24		
	N32a	Northeast	188	73	0	-53	3	23		
	N32b	Southeast	185	73	0	-53	3	23		
	N33	Southeast	190	75	0	-54	3	24		
	N34	Southeast	196	75	0	-54	3	24		
	N34a	Southeast	202	68	0	-54	3	17		
	N35	Southeast	211	77	0	-54	3	26		
N36	Southeast	217	75	0	-55	3	23			
N37	Southeast	224	75	-10	-55	3	13			
N38	Southeast	224	63	0	-55	3	11			
N39	Southeast	228	75	0	-55	3	23			
N39a	Southeast	239	70	0	-56	3	17			
N40	Southeast	249	73	0	-56	3	20			
N40a	Southeast	253	73	0	-56	3	20			
N40b	Southwest	267	77	-10	-57	3	13			
N41	Southeast	317	70	0	-58	3	>300m			
N41a	Southeast	339	67	0	-59	3	>300m			
N43	Southeast	357	67	0	-59	3	>300m			
N44	Southeast	364	71	0	-59	3	>300m			
N45	Southeast	367	67	0	-59	3	>300m			
N45a	Southeast	379	63	0	-60	3	>300m			
N45b	Southeast	387	63	0	-60	3	>300m			
N46	Southeast	397	71	0	-60	3	>300m			
N46a	Southeast	409	70	0	-60	3	>300m			
N47	Southwest	402	71	-10	-60	3	>300m			
N47a	Southwest	414	70	-10	-60	3	>300m			
N47b	West	415	70	-10	-60	3	>300m			
N47c	West	413	70	-10	-60	3	>300m			
N48	Northeast	371	74	0	-59	3	>300m			
N49	Northeast	361	71	0	-59	3	>300m			
N50	Northeast	238	76	-10	-56	3	13			
N50a	Top	230	76	0	-55	3	24			
N51	Southwest	234	76	-10	-55	3	14			
N52	Southwest	236	73	-10	-55	3	11			
N53	Northeast	345	74	0	-59	3	>300m			
N54	Northeast	352	74	0	-59	3	>300m			
N55	West	410	74	0	-60	3	>300m			
N56	Southwest	404	74	-10	-60	3	>300m			
NTD01	North	428	73	-10	-61	3	>300m			
NTD02	North	424	71	-10	-61	3	>300m			
NTD03	East	430	70	-10	-61	3	>300m			
NTD04	East	441	70	-10	-61	3	>300m			
NTD05	East	447	70	-10	-61	3	>300m			
NTD06	East	450	71	-10	-61	3	>300m			
NTD07	East	453	70	-10	-61	3	>300m			
NTD08	East	460	70	-10	-61	3	>300m			
NTD09	East	463	65	-10	-61	3	>300m			
NTD10	East	464	65	-10	-61	3	>300m			
NTD11	East	472	65	-10	-61	3	>300m			
NTD12	West	491	70	-10	-62	3	>300m			
NTD13	West	487	74	-10	-62	3	>300m			
NTD14	West	483	72	-10	-62	3	>300m			
NTD15	West	480	72	-10	-62	3	>300m			
NTD15a	West	474	75	-10	-62	3	>300m			
NTD16	West	465	75	-10	-61	3	>300m			
NTD16a	West	445	75	-10	-61	3	>300m			
NTD17	West	439	72	-10	-61	3	>300m			

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	436	68	-10	-61	3	>300m
NTD19	West	434	68	-10	-61	3	>300m
NTD20	West	431	68	-10	-61	3	>300m
NTD21	West	499	73	-10	-62	3	>300m
NTD22	West	511	75	-10	-62	3	>300m
NTD23	West	522	75	-10	-62	3	>300m
NTD24	West	531	71	-10	-62	3	>300m
NTD25	West	535	75	-10	-63	3	>300m
NTD26	West	540	65	-10	-63	3	>300m
NTD27	West	545	65	-10	-63	3	>300m
NTD28	West	553	70	-10	-63	3	>300m
NTD29	West	559	70	-10	-63	3	>300m
NTD30	West	567	78	-10	-63	3	>300m
NTD31	Southwest	576	75	-10	-63	3	>300m
NTD32	Southwest	589	77	-10	-63	3	>300m
NTD33	Southwest	612	76	-10	-64	3	>300m
NTD34	Southwest	619	75	-10	-64	3	>300m
NTD35	South	627	80	-10	-64	3	>300m
NTD36	South	621	80	-10	-64	3	>300m
NTD37	South	617	80	-10	-64	3	>300m
NTD38	South	634	80	-10	-64	3	>300m
NTD39	South	612	80	-10	-64	3	>300m
NTD40	Top	606	75	-10	-64	3	>300m
NTD41	Southeast	603	70	-10	-64	3	>300m
NTD42	Southeast	582	70	-10	-63	3	>300m
NTD43	South	575	70	-10	-63	3	>300m
NTD44	East	565	70	0	-63	3	>300m
NTD45	East	561	70	0	-63	3	>300m
NTD46	East	558	70	0	-63	3	>300m
NTD47	East	554	70	0	-63	3	>300m
NTD48	East	547	65	0	-63	3	>300m
NTD49	East	538	65	0	-63	3	>300m
NTD50	East	532	65	0	-63	3	>300m
NTD51	East	527	75	0	-62	3	>300m
NTD52	East	522	68	0	-62	3	>300m
NTD53	East	518	63	0	-62	3	>300m
NTD54	Northeast	499	68	0	-62	3	>300m
NTD55	East	410	80	-10	-60	3	>300m
NTD56	East	393	67	-10	-60	3	>300m
NTD57	South	386	73	-10	-60	3	>300m
NTD58	South	383	68	-10	-60	3	>300m
NTD59	South	379	65	-10	-60	3	>300m
NTD60	South	375	64	-10	-59	3	>300m
NTD61	South	370	66	-10	-59	3	>300m
NTD62	South	366	75	-10	-59	3	>300m
NTD63	South	361	73	-10	-59	3	>300m
NTD64	South	354	67	-10	-59	3	>300m
NTD65	East	306	67	0	-58	3	>300m
NTD66	East	298	69	0	-57	3	15
NTD67	Northeast	289	68	0	-57	3	14
NTD68	Northeast	282	70	0	-57	3	16
NTD69	Northeast	280	65	0	-57	3	11
NTD70	Northeast	279	70	0	-57	3	16
NTD71	Northeast	279	70	0	-57	3	16
NTD72	Northeast	279	73	0	-57	3	19
NTD73	East	258	70	0	-56	3	17
NTD74	East	256	70	0	-56	3	17
NTD75	East	251	70	0	-56	3	17
NTD76	East	249	70	0	-56	3	17
NTD77	Southeast	194	72	0	-54	3	21
NTD78	Northeast	192	70	0	-54	3	19
NTD79	Northeast	195	71	0	-54	3	20
NTD80	Northeast	199	70	0	-54	3	19
NTD81	Northeast	200	70	0	-54	3	19
NTD82	Northeast	203	70	0	-54	3	19
NTD83	Northeast	208	70	0	-54	3	19
NTD84	Northeast	210	70	-10	-54	3	9
NTD85	Northwest	214	70	-10	-55	3	8
NTD86	Northwest	232	72	-10	-55	3	10
NTD87	Northwest	247	70	-10	-56	3	7
NTD88	Northwest	253	69	-10	-56	3	6
NTD89	Northwest	274	68	-10	-57	3	4
NTD90	Northwest	280	67	-10	-57	3	3
NTD91	Northwest	290	70	-10	-57	3	6
NTD92	Northwest	301	69	-10	-58	3	>300m
NTD93	West	592	73	-10	-63	3	>300m
NTD94	South	595	68	-10	-63	3	>300m
NTD94a	South	594	68	-10	-63	3	>300m
NTD95	South	593	68	-10	-63	3	>300m
NTD96	South	592	69	-10	-63	3	>300m
NTD97	Top	585	75	0	-63	3	>300m
NTD98	Top	584	75	0	-63	3	>300m
NTD99	Top	582	75	0	-63	3	>300m
NTD100	South	587	75	-10	-63	3	>300m
NTD101	Northeast	676	75	0	-65	3	>300m
NTD102	Northeast	673	70	0	-65	3	>300m
NTD103	Northeast	673	70	0	-65	3	>300m
NTD104	Northeast	671	78	0	-65	3	>300m
NTD105	Southeast	670	68	0	-65	3	>300m
NTD106	Southeast	671	70	0	-65	3	>300m
NTD107	Southeast	682	67	0	-65	3	>300m
NTD108	Southeast	688	77	0	-65	3	>300m
NTD109	Southeast	702	77	-10	-65	3	>300m
NTD110	Southeast	709	80	-10	-65	3	>300m
NTD111	Southwest	687	72	-10	-65	3	>300m
NTD112	Southwest	691	72	0	-65	3	>300m
NTD113	Southwest	691	72	0	-65	3	>300m
NTD114	Southwest	705	80	-10	-65	3	>300m
NTD115	Southwest	683	80	0	-65	3	>300m

38

38

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (NTM Station & NTD)

NAP: NTM-F08
 Description: Village House near Chuk Yau Road

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
NTM-F08	N01	Northwest	334	79	-10	-58	3	>300m		
	N02	Northwest	329	79	-10	-58	3	>300m		
	N03	Northwest	324	79	-10	-58	3	>300m		
	N04	Northwest	324	77	-10	-58	3	>300m		
	N05	Northwest	322	77	-10	-58	3	>300m		
	N06	Northwest	321	77	-10	-58	3	>300m		
	N07	Northwest	320	77	-10	-58	3	>300m		
	N08	Northwest	320	80	-10	-58	3	>300m		
	N09	Northwest	319	77	-10	-58	3	>300m		
	N10	Northwest	319	77	-10	-58	3	>300m		
	N11	Northwest	317	77	-10	-58	3	>300m		
	N12	Northwest	316	82	-10	-58	3	>300m		
	N12a	Northwest	315	78	-10	-58	3	>300m		
	N12b	Northwest	314	78	-10	-58	3	>300m		
	N12c	Northwest	312	78	-10	-58	3	>300m		
	N12d	Northwest	293	80	-10	-57	3	16		
	N13	Top	306	80	-10	-58	3	>300m		
	N14	Top	303	80	-10	-58	3	>300m		
	N15	Northwest	313	77	-10	-58	3	>300m		
	N15a	Northwest	312	78	-10	-58	3	>300m		
	N16	Northwest	313	77	-10	-58	3	>300m		
	N17	Northwest	313	80	-10	-58	3	>300m		
	N18	Northwest	314	77	-10	-58	3	>300m		
	N19	Northwest	314	77	-10	-58	3	>300m		
	N20	Northwest	314	80	-10	-58	3	>300m		
	N20a	Northwest	316	78	-10	-58	3	>300m		
	N21	Northwest	318	77	-10	-58	3	>300m		
	N21a	Northwest	318	78	-10	-58	3	>300m		
	N22	Northwest	303	77	-10	-58	3	>300m		
	N23	Northwest	319	77	-10	-58	3	>300m		
	N24	Northwest	321	77	-10	-58	3	>300m		
	N25	Northwest	319	79	-10	-58	3	>300m		
	N26	Northwest	324	80	-10	-58	3	>300m		
	N27	Northwest	328	77	-10	-58	3	>300m		
	N28	Northwest	326	79	-10	-58	3	>300m		
	N29	Northwest	329	79	-10	-58	3	>300m		
	N30	Northwest	331	77	-10	-58	3	>300m		
	N30a	Northwest	334	78	-10	-58	3	>300m		
	N31	Northwest	325	79	-10	-58	3	>300m		
	N31a	Northeast	327	82	-10	-58	3	>300m		
	N31b	Northeast	317	82	-10	-58	3	>300m		
	N31c	Northeast	328	82	-10	-58	3	>300m		
	N31d	Northeast	318	82	-10	-58	3	>300m		
	N32	Northeast	304	80	-10	-58	3	>300m		
	N32a	Northeast	307	78	-10	-58	3	>300m		
	N32b	Southeast	300	78	-10	-58	3	>300m		
	N33	Southeast	298	80	-10	-57	3	16		
	N34	Southeast	295	80	-10	-57	3	16		
	N34a	Southeast	291	73	-10	-57	3	9		
	N35	Southeast	288	82	-10	-57	3	18		
	N36	Southeast	285	80	-10	-57	3	16		
	N37	Southeast	289	80	-10	-57	3	16		
	N38	Southeast	283	68	-10	-57	3	4		
	N39	Southeast	282	80	-10	-57	3	16		
	N39a	Southeast	279	75	-10	-57	3	11		
	N40	Southeast	277	78	-10	-57	3	14		
	N40a	Southeast	277	78	-10	-57	3	14		
	N40b	Southeast	294	82	-10	-57	3	18		
	N41	Southeast	278	75	-10	-57	3	11		
	N41a	Southeast	283	72	-10	-57	3	8		
	N43	Southeast	288	72	-10	-57	3	8		
	N44	Southeast	290	76	-10	-57	3	12		
	N45	Southeast	292	72	-10	-57	3	8		
	N45a	Southeast	296	68	-10	-57	3	4		
	N45b	Southeast	300	68	-10	-58	3	3		
	N46	Southeast	302	76	-10	-58	3	>300m		
	N46a	Southeast	308	75	-10	-58	3	>300m		
	N47	Southwest	310	76	-10	-58	3	>300m		
	N47a	Southwest	317	75	-10	-58	3	>300m		
	N47b	West	325	75	-10	-58	3	>300m		
	N47c	West	328	75	-10	-58	3	>300m		
	N48	Northeast	317	79	-10	-58	3	>300m		
	N49	Northeast	293	76	-10	-57	3	12		
	N50	Northeast	294	81	-10	-57	3	17		
	N50a	Top	295	81	0	-57	3	27		
	N51	Southwest	303	81	-10	-58	3	>300m		
	N52	Southwest	313	78	-10	-58	3	>300m		
	N53	Northeast	287	79	-10	-57	3	15		
	N54	Northeast	303	79	-10	-58	3	>300m		
	N55	West	335	79	-10	-58	3	>300m		
	N56	Southwest	326	79	-10	-58	3	>300m		
	NTD01	North	304	78	-10	-58	3	>300m		
	NTD02	North	299	76	-10	-58	3	11		
	NTD03	East	292	75	-10	-57	3	11		
	NTD04	East	289	75	-10	-57	3	11		
	NTD05	East	288	75	-10	-57	3	11		
	NTD06	East	288	76	-10	-57	3	12		
	NTD07	East	288	75	-10	-57	3	11		
	NTD08	East	292	75	-10	-57	3	11		
	NTD09	East	292	70	-10	-57	3	6		
	NTD10	East	289	70	-10	-57	3	6		
	NTD11	East	289	70	-10	-57	3	6		
	NTD12	West	301	75	-10	-58	3	>300m		
	NTD13	West	300	79	-10	-58	3	>300m		
	NTD14	West	300	77	-10	-58	3	12		

Appendix 4.11 Fixed Plant Noise Calculation

NTD15	West	299	77	-10	-58	3	12
NTD15a	West	299	80	-10	-58	3	15
NTD16	West	298	80	-10	-57	3	16
NTD16a	West	300	80	-10	-58	3	>300m
NTD17	West	302	77	-10	-58	3	>300m
NTD18	West	303	73	-10	-58	3	>300m
NTD19	West	304	73	-10	-58	3	>300m
NTD20	West	305	73	-10	-58	3	>300m
NTD21	West	303	78	-10	-58	3	>300m
NTD22	West	307	80	-10	-58	3	>300m
NTD23	West	312	80	-10	-58	3	>300m
NTD24	West	316	76	-10	-58	3	>300m
NTD25	West	318	80	-10	-58	3	>300m
NTD26	West	320	70	-10	-58	3	>300m
NTD27	West	323	70	-10	-58	3	>300m
NTD28	West	327	75	-10	-58	3	>300m
NTD29	West	330	75	-10	-58	3	>300m
NTD30	West	334	83	-10	-58	3	>300m
NTD31	Southwest	340	80	-10	-59	3	>300m
NTD32	Southwest	348	82	-10	-59	3	>300m
NTD33	Southwest	359	81	-10	-59	3	>300m
NTD34	Southwest	362	80	-10	-59	3	>300m
NTD35	South	356	85	-10	-59	3	>300m
NTD36	South	347	85	-10	-59	3	>300m
NTD37	South	342	85	-10	-59	3	>300m
NTD38	South	338	85	-10	-59	3	>300m
NTD39	South	335	85	-10	-59	3	>300m
NTD40	Top	330	80	-10	-58	3	>300m
NTD41	Southeast	326	75	-10	-58	3	>300m
NTD42	Southeast	306	75	-10	-58	3	>300m
NTD43	South	298	75	-10	-57	3	11
NTD44	East	287	75	-10	-57	3	11
NTD45	East	283	75	-10	-57	3	11
NTD46	East	280	75	-10	-57	3	11
NTD47	East	276	75	-10	-57	3	11
NTD48	East	269	70	-10	-57	3	6
NTD49	East	260	70	-10	-56	3	7
NTD50	East	254	70	-10	-56	3	7
NTD51	East	249	80	-10	-56	3	17
NTD52	East	244	73	-10	-56	3	10
NTD53	East	240	68	-10	-56	3	5
NTD54	Northeast	222	73	-10	-55	3	11
NTD55	East	138	85	-10	-51	3	27
NTD56	East	123	72	-10	-50	3	15
NTD57	South	115	78	-10	-49	3	22
NTD58	South	111	73	-10	-49	3	17
NTD59	South	106	70	-10	-49	3	14
NTD60	South	100	69	-10	-48	3	14
NTD61	South	94	71	-10	-47	3	17
NTD62	South	89	80	-10	-47	3	26
NTD63	South	83	78	-10	-46	3	25
NTD64	South	76	72	-10	-46	3	19
NTD65	East	28	72	0	-37	3	38
NTD66	East	21	74	0	-35	3	42
NTD67	Northeast	16	73	0	-32	3	44
NTD68	Northeast	29	75	0	-37	3	41
NTD69	Northeast	39	70	0	-40	3	33
NTD70	Northeast	42	75	0	-40	3	38
NTD71	Northeast	46	75	0	-41	3	37
NTD72	Northeast	53	78	0	-42	3	39
NTD73	East	150	75	0	-52	3	26
NTD74	East	153	75	0	-52	3	26
NTD75	East	158	75	0	-52	3	26
NTD76	East	161	75	0	-52	3	26
NTD77	Southeast	227	77	0	-55	3	25
NTD78	Northeast	241	75	-10	-56	3	12
NTD79	Northeast	246	76	-10	-56	3	13
NTD80	Northeast	253	75	-10	-56	3	12
NTD81	Northeast	256	75	-10	-56	3	12
NTD82	Northeast	261	75	-10	-56	3	12
NTD83	Northeast	270	75	-10	-57	3	11
NTD84	Northeast	272	75	-10	-57	3	11
NTD85	Northwest	270	75	-10	-57	3	11
NTD86	Northwest	266	77	-10	-56	3	14
NTD87	Northwest	263	75	-10	-56	3	12
NTD88	Northwest	262	74	-10	-56	3	11
NTD89	Northwest	261	73	-10	-56	3	10
NTD90	Northwest	261	72	-10	-56	3	9
NTD91	Northwest	262	75	-10	-56	3	12
NTD92	Northwest	263	74	-10	-56	3	11
NTD93	West	315	78	-10	-58	3	>300m
NTD94	South	317	73	-10	-58	3	>300m
NTD94a	South	317	73	-10	-58	3	>300m
NTD95	South	315	73	-10	-58	3	>300m
NTD96	South	314	74	-10	-58	3	>300m
NTD97	Top	308	80	-10	-58	3	>300m
NTD98	Top	306	80	-10	-58	3	>300m
NTD99	Top	304	80	-10	-58	3	>300m
NTD100	South	309	80	-10	-58	3	>300m
NTD101	Northeast	402	80	0	-60	3	>300m
NTD102	Northeast	398	75	0	-60	3	>300m
NTD103	Northeast	397	75	0	-60	3	>300m
NTD104	Northeast	395	83	0	-60	3	>300m
NTD105	Southeast	393	73	0	-60	3	>300m
NTD106	Southeast	393	75	0	-60	3	>300m
NTD107	Southeast	405	72	0	-60	3	>300m
NTD108	Southeast	411	82	0	-60	3	>300m
NTD109	Southeast	425	82	-10	-61	3	>300m
NTD110	Southeast	432	85	-10	-61	3	>300m
NTD111	Southwest	414	77	-10	-60	3	>300m
NTD112	Southwest	415	77	0	-60	3	>300m
NTD113	Southwest	414	77	0	-60	3	>300m
NTD114	Southwest	430	85	-10	-61	3	>300m
NTD115	Southwest	407	85	0	-60	3	>300m

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ¹ , dB(A)	Distance Correction of Point Source, dB(A)	Facade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NTM-F08	N01	Northwest	334	74	-10	-58	3	>300m		
	N02	Northwest	329	74	-10	-58	3	>300m		
	N03	Northwest	324	74	-10	-58	3	>300m		
	N04	Northwest	324	72	-10	-58	3	>300m		
	N05	Northwest	322	72	-10	-58	3	>300m		
	N06	Northwest	321	72	-10	-58	3	>300m		
	N07	Northwest	320	72	-10	-58	3	>300m		
	N08	Northwest	320	75	-10	-58	3	>300m		
	N09	Northwest	319	72	-10	-58	3	>300m		
	N10	Northwest	319	72	-10	-58	3	>300m		
	N11	Northwest	317	72	-10	-58	3	>300m		
	N12	Northwest	316	77	-10	-58	3	>300m		
	N12a	Northwest	315	73	-10	-58	3	>300m		
	N12b	Northwest	314	73	-10	-58	3	>300m		
	N12c	Northwest	312	73	-10	-58	3	>300m		
	N12d	Northwest	293	75	-10	-57	3	11		
	N13	Top	306	75	-10	-58	3	>300m		
	N14	Top	303	75	-10	-58	3	>300m		
	N15	Northwest	313	72	-10	-58	3	>300m		
	N15a	Northwest	312	73	-10	-58	3	>300m		
	N16	Northwest	313	72	-10	-58	3	>300m		
	N17	Northwest	313	75	-10	-58	3	>300m		
	N18	Northwest	314	72	-10	-58	3	>300m		
	N19	Northwest	314	72	-10	-58	3	>300m		
	N20	Northwest	314	75	-10	-58	3	>300m		
	N20a	Northwest	316	73	-10	-58	3	>300m		
	N21	Northwest	318	72	-10	-58	3	>300m		
	N21a	Northwest	318	73	-10	-58	3	>300m		
	N22	Northwest	303	72	-10	-58	3	>300m		
	N23	Northwest	319	72	-10	-58	3	>300m		
	N24	Northwest	321	72	-10	-58	3	>300m		
	N25	Northwest	319	74	-10	-58	3	>300m		
	N26	Northwest	324	75	-10	-58	3	>300m		
	N27	Northwest	328	72	-10	-58	3	>300m		
	N28	Northwest	326	74	-10	-58	3	>300m		
	N29	Northwest	329	74	-10	-58	3	>300m		
	N30	Northwest	331	72	-10	-58	3	>300m		
	N30a	Northwest	334	73	-10	-58	3	>300m		
	N31	Northwest	325	74	-10	-58	3	>300m		
	N31a	Northeast	327	77	-10	-58	3	>300m		
	N31b	Northeast	317	77	-10	-58	3	>300m		
	N31c	Northeast	328	77	-10	-58	3	>300m		
	N31d	Northeast	318	77	-10	-58	3	>300m		
	N32	Northeast	304	75	-10	-58	3	>300m		
	N32a	Northeast	307	73	-10	-58	3	>300m		
	N32b	Southeast	300	73	-10	-58	3	>300m		
	N33	Southeast	298	75	-10	-57	3	11		
	N34	Southeast	295	75	-10	-57	3	11		
	N34a	Southeast	291	68	-10	-57	3	4		
	N35	Southeast	288	77	-10	-57	3	13		
	N36	Southeast	285	75	-10	-57	3	11		
	N37	Southeast	289	75	-10	-57	3	11		
	N38	Southeast	283	63	-10	-57	3	-1		
	N39	Southeast	282	75	-10	-57	3	11		
	N39a	Southeast	279	70	-10	-57	3	6		
	N40	Southeast	277	73	-10	-57	3	9		
	N40a	Southeast	277	73	-10	-57	3	9		
	N40b	Southwest	294	77	-10	-57	3	13		
	N41	Southeast	278	70	-10	-57	3	6		
	N41a	Southeast	283	67	-10	-57	3	3		
	N43	Southeast	288	67	-10	-57	3	3		
	N44	Southeast	290	71	-10	-57	3	7		
	N45	Southeast	292	67	-10	-57	3	3		
	N45a	Southeast	296	63	-10	-57	3	-1		
	N45b	Southeast	300	63	-10	-58	3	-2		
	N46	Southeast	302	71	-10	-58	3	>300m		
	N46a	Southeast	308	70	-10	-58	3	>300m		
	N47	Southwest	310	71	-10	-58	3	>300m		
	N47a	Southwest	317	70	-10	-58	3	>300m		
	N47b	West	325	70	-10	-58	3	>300m		
	N47c	West	328	70	-10	-58	3	>300m		
	N48	Northeast	317	74	-10	-58	3	>300m		
	N49	Northeast	293	71	-10	-57	3	7		
	N50	Northeast	294	76	-10	-57	3	12		
	N50a	Top	295	76	0	-57	3	22		
	N51	Southwest	303	76	-10	-58	3	>300m		
	N52	Southwest	313	73	-10	-58	3	>300m		
	N53	Northeast	287	74	-10	-57	3	10		
	N54	Northeast	303	74	-10	-58	3	>300m		
	N55	West	335	74	-10	-58	3	>300m		
	N56	Southwest	326	74	-10	-58	3	>300m		
	NTD01	North	304	73	-10	-58	3	>300m		
	NTD02	North	299	71	-10	-58	3	6		
	NTD03	East	292	70	-10	-57	3	6		
	NTD04	East	289	70	-10	-57	3	6		
	NTD05	East	288	70	-10	-57	3	6		
	NTD06	East	288	71	-10	-57	3	7		
	NTD07	East	288	70	-10	-57	3	6		
	NTD08	East	292	70	-10	-57	3	6		
	NTD09	East	292	65	-10	-57	3	1		
	NTD10	East	289	65	-10	-57	3	1		
	NTD11	East	289	65	-10	-57	3	1		
	NTD12	West	301	70	-10	-58	3	>300m		
	NTD13	West	300	74	-10	-58	3	>300m		
	NTD14	West	300	72	-10	-58	3	7		
	NTD15	West	299	72	-10	-58	3	7		
	NTD15a	West	299	75	-10	-58	3	10		
	NTD16	West	298	75	-10	-57	3	11		
	NTD16a	West	300	75	-10	-58	3	>300m		
	NTD17	West	302	72	-10	-58	3	>300m		

Appendix 4.11 Fixed Plant Noise Calculation

NTD18	West	303	68	-10	-58	3	>300m
NTD19	West	304	68	-10	-58	3	>300m
NTD20	West	305	68	-10	-58	3	>300m
NTD21	West	303	73	-10	-58	3	>300m
NTD22	West	307	75	-10	-58	3	>300m
NTD23	West	312	75	-10	-58	3	>300m
NTD24	West	316	71	-10	-58	3	>300m
NTD25	West	318	75	-10	-58	3	>300m
NTD26	West	320	65	-10	-58	3	>300m
NTD27	West	323	65	-10	-58	3	>300m
NTD28	West	327	70	-10	-58	3	>300m
NTD29	West	330	70	-10	-58	3	>300m
NTD30	West	334	78	-10	-58	3	>300m
NTD31	Southwest	340	75	-10	-59	3	>300m
NTD32	Southwest	348	77	-10	-59	3	>300m
NTD33	Southwest	359	76	-10	-59	3	>300m
NTD34	Southwest	362	75	-10	-59	3	>300m
NTD35	South	356	80	-10	-59	3	>300m
NTD36	South	347	80	-10	-59	3	>300m
NTD37	South	342	80	-10	-59	3	>300m
NTD38	South	338	80	-10	-59	3	>300m
NTD39	South	335	80	-10	-59	3	>300m
NTD40	Top	330	75	-10	-58	3	>300m
NTD41	Southeast	326	70	-10	-58	3	>300m
NTD42	Southeast	306	70	-10	-58	3	>300m
NTD43	South	298	70	-10	-57	3	6
NTD44	East	287	70	-10	-57	3	6
NTD45	East	283	70	-10	-57	3	6
NTD46	East	280	70	-10	-57	3	6
NTD47	East	276	70	-10	-57	3	6
NTD48	East	269	65	-10	-57	3	1
NTD49	East	260	65	-10	-56	3	2
NTD50	East	254	65	-10	-56	3	2
NTD51	East	249	75	-10	-56	3	12
NTD52	East	244	68	-10	-56	3	5
NTD53	East	240	63	-10	-56	3	0
NTD54	Northeast	222	68	-10	-55	3	6
NTD55	East	138	80	-10	-51	3	22
NTD56	East	123	67	-10	-50	3	10
NTD57	South	115	73	-10	-49	3	17
NTD58	South	111	68	-10	-49	3	12
NTD59	South	106	65	-10	-49	3	9
NTD60	South	100	64	-10	-48	3	9
NTD61	South	94	66	-10	-47	3	12
NTD62	South	89	75	-10	-47	3	21
NTD63	South	83	73	-10	-46	3	20
NTD64	South	76	67	-10	-46	3	14
NTD65	East	28	67	0	-37	3	33
NTD66	East	21	69	0	-35	3	37
NTD67	Northeast	16	68	0	-32	3	39
NTD68	Northeast	29	70	0	-37	3	36
NTD69	Northeast	39	65	0	-40	3	28
NTD70	Northeast	42	70	0	-40	3	33
NTD71	Northeast	46	70	0	-41	3	32
NTD72	Northeast	53	73	0	-42	3	34
NTD73	East	150	70	0	-52	3	21
NTD74	East	153	70	0	-52	3	21
NTD75	East	158	70	0	-52	3	21
NTD76	East	161	70	0	-52	3	21
NTD77	Southeast	227	72	0	-55	3	20
NTD78	Northeast	241	70	-10	-56	3	7
NTD79	Northeast	246	71	-10	-56	3	8
NTD80	Northeast	253	70	-10	-56	3	7
NTD81	Northeast	256	70	-10	-56	3	7
NTD82	Northeast	261	70	-10	-56	3	7
NTD83	Northeast	270	70	-10	-57	3	6
NTD84	Northeast	272	70	-10	-57	3	6
NTD85	Northwest	270	70	-10	-57	3	6
NTD86	Northwest	266	72	-10	-56	3	9
NTD87	Northwest	263	70	-10	-56	3	7
NTD88	Northwest	262	69	-10	-56	3	6
NTD89	Northwest	261	68	-10	-56	3	5
NTD90	Northwest	261	67	-10	-56	3	4
NTD91	Northwest	262	70	-10	-56	3	7
NTD92	Northwest	263	69	-10	-56	3	6
NTD93	West	315	73	-10	-58	3	>300m
NTD94	South	317	68	-10	-58	3	>300m
NTD94a	South	317	68	-10	-58	3	>300m
NTD95	South	315	68	-10	-58	3	>300m
NTD96	South	314	69	-10	-58	3	>300m
NTD97	Top	308	75	-10	-58	3	>300m
NTD98	Top	306	75	-10	-58	3	>300m
NTD99	Top	304	75	-10	-58	3	>300m
NTD100	South	309	75	-10	-58	3	>300m
NTD101	Northeast	402	75	0	-60	3	>300m
NTD102	Northeast	398	70	0	-60	3	>300m
NTD103	Northeast	397	70	0	-60	3	>300m
NTD104	Northeast	395	78	0	-60	3	>300m
NTD105	Southeast	393	68	0	-60	3	>300m
NTD106	Southeast	393	70	0	-60	3	>300m
NTD107	Southeast	405	67	0	-60	3	>300m
NTD108	Southeast	411	77	0	-60	3	>300m
NTD109	Southeast	425	77	-10	-61	3	>300m
NTD110	Southeast	432	80	-10	-61	3	>300m
NTD111	Southwest	414	72	-10	-60	3	>300m
NTD112	Southwest	415	72	0	-60	3	>300m
NTD113	Southwest	414	72	0	-60	3	>300m
NTD114	Southwest	430	80	-10	-61	3	>300m
NTD115	Southwest	407	80	0	-60	3	>300m

44

48

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (SAT Station)

NAP:

SAT-PF01a

Description:

Potential Housing Development in San Tin / Lok Ma Chau Development Node

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ^[2] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
SAT-PF01a	S01	Southwest	199	88	0	-54	3	37		
	S02	Southwest	196	88	0	-54	3	37		
	S03	Southwest	194	88	0	-54	3	37		
	S04	Southwest	192	88	0	-54	3	37		
	S05	Southwest	190	88	0	-54	3	37		
	S06	Southwest	186	88	0	-53	3	38		
	S07	Southwest	184	88	0	-53	3	38		
	S08	Southwest	183	88	0	-53	3	38		
	S09	Southwest	179	88	0	-53	3	38		
	S09a	Southwest	175	88	0	-53	3	38		
	S09b	Southwest	172	93	0	-53	3	43		
	S10	Southwest	163	89	0	-52	3	40		
	S10a	Southwest	162	88	0	-52	3	39		
	S11	Southwest	155	96	0	-52	3	47		
	S12	South	229	86	-10	-55	3	24		
	S13	South	225	85	-10	-55	3	23		
	S14	South	214	85	-10	-55	3	23		
	S14a	South	204	83	-10	-54	3	22		
	S14b	Northwest	354	81	0	-59	3	>300m		
	S14c	Northwest	355	81	0	-59	3	>300m		
	S15	Northwest	358	87	0	-59	3	>300m		
	S15a	Northwest	361	80	0	-59	3	>300m		
	S15b	Northwest	370	80	0	-59	3	>300m		
	S16	Northwest	372	88	0	-59	3	>300m		
	S16a	Northwest	377	78	0	-60	3	>300m		
	S17	Northwest	390	85	0	-60	3	>300m		
	S18	Northwest	400	85	0	-60	3	>300m		
	S19	Northwest	418	84	0	-60	3	>300m		
	S20	Northwest	420	86	0	-60	3	>300m		
	S20a	Top	417	88	0	-60	3	>300m	52	58

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ^[2] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
SAT-PF01a	S01	Southwest	199	80	0	-54	3	29		
	S02	Southwest	196	80	0	-54	3	29		
	S03	Southwest	194	80	0	-54	3	29		
	S04	Southwest	192	80	0	-54	3	29		
	S05	Southwest	190	80	0	-54	3	29		
	S06	Southwest	186	80	0	-53	3	30		
	S07	Southwest	184	80	0	-53	3	30		
	S08	Southwest	183	80	0	-53	3	30		
	S09	Southwest	179	80	0	-53	3	30		
	S09a	Southwest	175	80	0	-53	3	30		
	S09b	Southwest	172	85	0	-53	3	35		
	S10	Southwest	163	81	0	-52	3	32		
	S10a	Southwest	162	80	0	-52	3	31		
	S11	Southwest	155	88	0	-52	3	39		
	S12	South	229	78	-10	-55	3	16		
	S13	South	225	77	-10	-55	3	15		
	S14	South	214	77	-10	-55	3	15		
	S14a	South	204	75	-10	-54	3	14		
	S14b	Northwest	354	73	0	-59	3	>300m		
	S14c	Northwest	355	73	0	-59	3	>300m		
	S15	Northwest	358	79	0	-59	3	>300m		
	S15a	Northwest	361	72	0	-59	3	>300m		
	S15b	Northwest	370	72	0	-59	3	>300m		
	S16	Northwest	372	80	0	-59	3	>300m		
	S16a	Northwest	377	70	0	-60	3	>300m		
	S17	Northwest	390	77	0	-60	3	>300m		
	S18	Northwest	400	77	0	-60	3	>300m		
	S19	Northwest	418	76	0	-60	3	>300m		
	S20	Northwest	420	78	0	-60	3	>300m		
	S20a	Top	417	77	0	-60	3	>300m	44	50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (SAT Station)

NAP:

SAT-PF01b

Description:

Potential Housing Development in San Tin / Lok Ma Chau Development Node

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ^[2] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
SAT-PF01b	S01	Southwest	161	88	0	-52	3	39		
	S02	Southwest	161	88	0	-52	3	39		
	S03	Southwest	161	88	0	-52	3	39		
	S04	Southwest	161	88	0	-52	3	39		
	S05	Southwest	161	88	0	-52	3	39		
	S06	Southwest	161	88	0	-52	3	39		
	S07	Southwest	161	88	0	-52	3	39		
	S08	Southwest	161	88	0	-52	3	39		
	S09	Southwest	161	88	0	-52	3	39		
	S09a	Southwest	162	88	0	-52	3	39		
	S09b	Southwest	163	93	0	-52	3	44		
	S10	Southwest	165	89	0	-52	3	40		
	S10a	Southwest	166	88	0	-52	3	39		
	S11	Southwest	169	96	0	-53	3	46		
	S12	South	190	86	0	-54	3	35		
	S13	South	185	85	0	-53	3	35		
	S14	South	175	85	0	-53	3	35		
	S14a	South	164	83	0	-52	3	34		
	S14b	Northwest	408	81	-10	-60	3	>300m		
	S14c	Northwest	409	81	-10	-60	3	>300m		
	S15	Northwest	412	87	-10	-60	3	>300m		
	S15a	Northwest	415	80	-10	-60	3	>300m		
	S15b	Northwest	425	80	-10	-61	3	>300m		
	S16	Northwest	427	88	-10	-61	3	>300m		
	S16a	Northwest	433	78	-10	-61	3	>300m		
	S17	Northwest	447	85	-10	-61	3	>300m		
	S18	Northwest	456	85	-10	-61	3	>300m		
	S19	Northwest	476	84	-10	-62	3	>300m		
	S20	Northwest	478	86	-10	-62	3	>300m		
	S20a	Top	473	88	0	-62	3	>300m	52	58

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ^[2] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
SAT-PF01b	S01	Southwest	161	80	0	-52	3	31		
	S02	Southwest	161	80	0	-52	3	31		
	S03	Southwest	161	80	0	-52	3	31		
	S04	Southwest	161	80	0	-52	3	31		
	S05	Southwest	161	80	0	-52	3	31		
	S06	Southwest	161	80	0	-52	3	31		
	S07	Southwest	161	80	0	-52	3	31		
	S08	Southwest	161	80	0	-52	3	31		
	S09	Southwest	161	80	0	-52	3	31		
	S09a	Southwest	162	80	0	-52	3	31		
	S09b	Southwest	163	85	0	-52	3	36		
	S10	Southwest	165	81	0	-52	3	32		
	S10a	Southwest	166	80	0	-52	3	31		
	S11	Southwest	169	88	0	-53	3	38		
	S12	South	190	78	0	-54	3	27		
	S13	South	185	77	0	-53	3	27		
	S14	South	175	77	0	-53	3	27		
	S14a	South	164	75	0	-52	3	26		
	S14b	Northwest	408	73	-10	-60	3	>300m		
	S14c	Northwest	409	73	-10	-60	3	>300m		
	S15	Northwest	412	79	-10	-60	3	>300m		
	S15a	Northwest	415	72	-10	-60	3	>300m		
	S15b	Northwest	425	72	-10	-61	3	>300m		
	S16	Northwest	427	80	-10	-61	3	>300m		
	S16a	Northwest	433	70	-10	-61	3	>300m		
	S17	Northwest	447	77	-10	-61	3	>300m		
	S18	Northwest	456	77	-10	-61	3	>300m		
	S19	Northwest	476	76	-10	-62	3	>300m		
	S20	Northwest	478	78	-10	-62	3	>300m		
	S20a	Top	473	77	0	-62	3	>300m	44	50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (SAT Station)

NAP:

SAT-PF01c

Description:

Potential Housing Development in San Tin / Lok Ma Chau Development Node

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ^[2] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
SAT-PF01c	S01	Southwest	145	88	-10	-51	3	30	48	58
	S02	Southwest	141	88	-10	-51	3	30		
	S03	Southwest	139	88	-10	-51	3	30		
	S04	Southwest	136	88	-10	-51	3	30		
	S05	Southwest	134	88	-10	-51	3	30		
	S06	Southwest	128	88	-10	-50	3	31		
	S07	Southwest	126	88	-10	-50	3	31		
	S08	Southwest	124	88	-10	-50	3	31		
	S09	Southwest	119	88	-10	-50	3	31		
	S09a	Southwest	114	88	-10	-49	3	32		
	S09b	Southwest	109	93	-10	-49	3	37		
	S10	Southwest	97	89	-10	-48	3	34		
	S10a	Southwest	95	88	-10	-48	3	33		
	S11	Southwest	84	96	-10	-46	3	43		
	S12	South	160	86	-10	-52	3	27		
	S13	South	158	85	-10	-52	3	26		
	S14	South	153	85	-10	-52	3	26		
	S14a	South	149	83	-10	-51	3	25		
	S14b	Northwest	206	81	0	-54	3	30		
	S14c	Northwest	207	81	0	-54	3	30		
	S15	Northwest	210	87	0	-54	3	36		
	S15a	Northwest	213	80	0	-55	3	28		
	S15b	Northwest	223	80	0	-55	3	28		
	S16	Northwest	224	88	0	-55	3	36		
	S16a	Northwest	229	78	0	-55	3	26		
	S17	Northwest	243	85	0	-56	3	32		
	S18	Northwest	252	85	0	-56	3	32		
	S19	Northwest	271	84	0	-57	3	30		
	S20	Northwest	273	86	0	-57	3	32		
	S20a	Top	269	88	0	-57	3	34		

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ^[2] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
SAT-PF01c	S01	Southwest	145	80	-10	-51	3	22	40	50
	S02	Southwest	141	80	-10	-51	3	22		
	S03	Southwest	139	80	-10	-51	3	22		
	S04	Southwest	136	80	-10	-51	3	22		
	S05	Southwest	134	80	-10	-51	3	22		
	S06	Southwest	128	80	-10	-50	3	23		
	S07	Southwest	126	80	-10	-50	3	23		
	S08	Southwest	124	80	-10	-50	3	23		
	S09	Southwest	119	80	-10	-50	3	23		
	S09a	Southwest	114	80	-10	-49	3	24		
	S09b	Southwest	109	85	-10	-49	3	29		
	S10	Southwest	97	81	-10	-48	3	26		
	S10a	Southwest	95	80	-10	-48	3	25		
	S11	Southwest	84	88	-10	-46	3	35		
	S12	South	160	78	-10	-52	3	19		
	S13	South	158	77	-10	-52	3	18		
	S14	South	153	77	-10	-52	3	18		
	S14a	South	149	75	-10	-51	3	17		
	S14b	Northwest	206	73	0	-54	3	22		
	S14c	Northwest	207	73	0	-54	3	22		
	S15	Northwest	210	79	0	-54	3	28		
	S15a	Northwest	213	72	0	-55	3	20		
	S15b	Northwest	223	72	0	-55	3	20		
	S16	Northwest	224	80	0	-55	3	28		
	S16a	Northwest	229	70	0	-55	3	18		
	S17	Northwest	243	77	0	-56	3	24		
	S18	Northwest	252	77	0	-56	3	24		
	S19	Northwest	271	76	0	-57	3	22		
	S20	Northwest	273	78	0	-57	3	24		
	S20a	Top	269	77	0	-57	3	23		

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (SAT Station)

NAP: SAT-PF01d

Description: Potential Housing Development in San Tin / Lok Ma Chau Development Node

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
SAT-PF01d	S01	Southwest	67	88	-10	-44	3	37		
	S02	Southwest	69	88	-10	-45	3	36		
	S03	Southwest	70	88	-10	-45	3	36		
	S04	Southwest	72	88	-10	-45	3	36		
	S05	Southwest	73	88	-10	-45	3	36		
	S06	Southwest	77	88	-10	-46	3	35		
	S07	Southwest	78	88	-10	-46	3	35		
	S08	Southwest	79	88	-10	-46	3	35		
	S09	Southwest	83	88	-10	-46	3	35		
	S09a	Southwest	87	88	-10	-47	3	34		
	S09b	Southwest	91	93	-10	-47	3	39		
	S10	Southwest	101	89	-10	-48	3	34		
	S10a	Southwest	102	88	-10	-48	3	33		
	S11	Southwest	112	96	-10	-49	3	40		
	S12	South	35	86	0	-39	3	50		
	S13	South	40	85	0	-40	3	48		
	S14	South	51	85	0	-42	3	46		
	S14a	South	62	83	0	-44	3	42		
	S14b	Northwest	236	81	-10	-55	3	19		
	S14c	Northwest	237	81	-10	-55	3	19		
	S15	Northwest	239	87	-10	-56	3	24		
	S15a	Northwest	243	80	-10	-56	3	17		
	S15b	Northwest	252	80	-10	-56	3	17		
	S16	Northwest	253	88	-10	-56	3	25		
	S16a	Northwest	258	78	-10	-56	3	15		
	S17	Northwest	271	85	-10	-57	3	21		
	S18	Northwest	280	85	-10	-57	3	21		
	S19	Northwest	299	84	-10	-58	3	19		
	S20	Northwest	300	86	-10	-58	3	>300m		
	S20a	Top	295	88	0	-57	3	34	54	58

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
SAT-PF01d	S01	Southwest	67	80	-10	-44	3	29		
	S02	Southwest	69	80	-10	-45	3	28		
	S03	Southwest	70	80	-10	-45	3	28		
	S04	Southwest	72	80	-10	-45	3	28		
	S05	Southwest	73	80	-10	-45	3	28		
	S06	Southwest	77	80	-10	-46	3	27		
	S07	Southwest	78	80	-10	-46	3	27		
	S08	Southwest	79	80	-10	-46	3	27		
	S09	Southwest	83	80	-10	-46	3	27		
	S09a	Southwest	87	80	-10	-47	3	26		
	S09b	Southwest	91	85	-10	-47	3	31		
	S10	Southwest	101	81	-10	-48	3	26		
	S10a	Southwest	102	80	-10	-48	3	25		
	S11	Southwest	112	88	-10	-49	3	32		
	S12	South	35	78	0	-39	3	42		
	S13	South	40	77	0	-40	3	40		
	S14	South	51	77	0	-42	3	38		
	S14a	South	62	75	0	-44	3	34		
	S14b	Northwest	236	73	-10	-55	3	11		
	S14c	Northwest	237	73	-10	-55	3	11		
	S15	Northwest	239	79	-10	-56	3	16		
	S15a	Northwest	243	72	-10	-56	3	9		
	S15b	Northwest	252	72	-10	-56	3	9		
	S16	Northwest	253	80	-10	-56	3	17		
	S16a	Northwest	258	70	-10	-56	3	7		
	S17	Northwest	271	77	-10	-57	3	13		
	S18	Northwest	280	77	-10	-57	3	13		
	S19	Northwest	299	76	-10	-58	3	11		
	S20	Northwest	300	78	-10	-58	3	>300m		
	S20a	Top	295	77	0	-57	3	23	46	50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (SAT Station)

NAP:

SAT-PF01e

Description:

Potential Housing Development in San Tin / Lok Ma Chau Development Node

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ^[2] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
SAT-PF01e	S01	Southwest	317	88	-10	-58	3	>300m	56	58
	S02	Southwest	314	88	-10	-58	3	>300m		
	S03	Southwest	313	88	-10	-58	3	>300m		
	S04	Southwest	311	88	-10	-58	3	>300m		
	S05	Southwest	310	88	-10	-58	3	>300m		
	S06	Southwest	307	88	-10	-58	3	>300m		
	S07	Southwest	306	88	-10	-58	3	>300m		
	S08	Southwest	304	88	-10	-58	3	>300m		
	S09	Southwest	302	88	-10	-58	3	>300m		
	S09a	Southwest	299	88	-10	-58	3	23		
	S09b	Southwest	296	93	-10	-57	3	29		
	S10	Southwest	290	89	-10	-57	3	25		
	S10a	Southwest	289	88	-10	-57	3	24		
	S11	Southwest	284	96	-10	-57	3	32		
	S12	South	307	86	-10	-58	3	>300m		
	S13	South	308	85	-10	-58	3	>300m		
	S14	South	312	85	-10	-58	3	>300m		
	S14a	South	317	83	-10	-58	3	>300m		
	S14b	Northwest	63	81	0	-44	3	40		
	S14c	Northwest	63	81	0	-44	3	40		
	S15	Northwest	61	87	0	-44	3	46		
	S15a	Northwest	59	80	0	-43	3	40		
	S15b	Northwest	54	80	0	-43	3	40		
	S16	Northwest	53	88	0	-42	3	49		
	S16a	Northwest	51	78	0	-42	3	39		
	S17	Northwest	48	85	0	-42	3	46		
	S18	Northwest	49	85	0	-42	3	46		
	S19	Northwest	56	84	0	-43	3	44		
	S20	Northwest	56	86	0	-43	3	46		
	S20a	Top	57	88	0	-43	3	48		

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ^[2] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
SAT-PF01e	S01	Southwest	317	80	-10	-58	3	>300m	47	50
	S02	Southwest	314	80	-10	-58	3	>300m		
	S03	Southwest	313	80	-10	-58	3	>300m		
	S04	Southwest	311	80	-10	-58	3	>300m		
	S05	Southwest	310	80	-10	-58	3	>300m		
	S06	Southwest	307	80	-10	-58	3	>300m		
	S07	Southwest	306	80	-10	-58	3	>300m		
	S08	Southwest	304	80	-10	-58	3	>300m		
	S09	Southwest	302	80	-10	-58	3	>300m		
	S09a	Southwest	299	80	-10	-58	3	15		
	S09b	Southwest	296	85	-10	-57	3	21		
	S10	Southwest	290	81	-10	-57	3	17		
	S10a	Southwest	289	80	-10	-57	3	16		
	S11	Southwest	284	88	-10	-57	3	24		
	S12	South	307	78	-10	-58	3	>300m		
	S13	South	308	77	-10	-58	3	>300m		
	S14	South	312	77	-10	-58	3	>300m		
	S14a	South	317	75	-10	-58	3	>300m		
	S14b	Northwest	63	73	0	-44	3	32		
	S14c	Northwest	63	73	0	-44	3	32		
	S15	Northwest	61	79	0	-44	3	38		
	S15a	Northwest	59	72	0	-43	3	32		
	S15b	Northwest	54	72	0	-43	3	32		
	S16	Northwest	53	80	0	-42	3	41		
	S16a	Northwest	51	70	0	-42	3	31		
	S17	Northwest	48	77	0	-42	3	38		
	S18	Northwest	49	77	0	-42	3	38		
	S19	Northwest	56	76	0	-43	3	36		
	S20	Northwest	56	78	0	-43	3	38		
	S20a	Top	57	77	0	-43	3	37		

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (SAT Station)

NAP: SAT-PF01f
 Description: Potential Housing Development in San Tin / Lok Ma Chau Development Node

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ^[2] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
SAT-PF01f	S01	Southwest	288	88	-10	-57	3	24	54	58
	S02	Southwest	284	88	-10	-57	3	24		
	S03	Southwest	283	88	-10	-57	3	24		
	S04	Southwest	282	88	-10	-57	3	24		
	S05	Southwest	280	88	-10	-57	3	24		
	S06	Southwest	276	88	-10	-57	3	24		
	S07	Southwest	275	88	-10	-57	3	24		
	S08	Southwest	274	88	-10	-57	3	24		
	S09	Southwest	271	88	-10	-57	3	24		
	S09a	Southwest	268	88	-10	-57	3	24		
	S09b	Southwest	265	93	-10	-56	3	30		
	S10	Southwest	258	89	-10	-56	3	26		
	S10a	Southwest	257	88	-10	-56	3	25		
	S11	Southwest	252	96	-10	-56	3	33		
	S12	South	280	86	-10	-57	3	22		
	S13	South	281	85	-10	-57	3	21		
	S14	South	284	85	-10	-57	3	21		
	S14a	South	288	83	-10	-57	3	19		
	S14b	Northwest	56	81	0	-43	3	41		
	S14c	Northwest	56	81	0	-43	3	41		
	S15	Northwest	56	87	0	-43	3	47		
	S15a	Northwest	55	80	0	-43	3	40		
	S15b	Northwest	57	80	0	-43	3	40		
	S16	Northwest	57	88	0	-43	3	48		
	S16a	Northwest	58	78	0	-43	3	38		
	S17	Northwest	64	85	0	-44	3	44		
	S18	Northwest	69	85	0	-45	3	43		
	S19	Northwest	83	84	0	-46	3	41		
	S20	Northwest	84	86	0	-47	3	42		
	S20a	Top	83	88	0	-46	3	45		

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ^[2] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
SAT-PF01f	S01	Southwest	288	80	-10	-57	3	16	46	50
	S02	Southwest	284	80	-10	-57	3	16		
	S03	Southwest	283	80	-10	-57	3	16		
	S04	Southwest	282	80	-10	-57	3	16		
	S05	Southwest	280	80	-10	-57	3	16		
	S06	Southwest	276	80	-10	-57	3	16		
	S07	Southwest	275	80	-10	-57	3	16		
	S08	Southwest	274	80	-10	-57	3	16		
	S09	Southwest	271	80	-10	-57	3	16		
	S09a	Southwest	268	80	-10	-57	3	16		
	S09b	Southwest	265	85	-10	-56	3	22		
	S10	Southwest	258	81	-10	-56	3	18		
	S10a	Southwest	257	80	-10	-56	3	17		
	S11	Southwest	252	88	-10	-56	3	25		
	S12	South	280	78	-10	-57	3	14		
	S13	South	281	77	-10	-57	3	13		
	S14	South	284	77	-10	-57	3	13		
	S14a	South	288	75	-10	-57	3	11		
	S14b	Northwest	56	73	0	-43	3	33		
	S14c	Northwest	56	73	0	-43	3	33		
	S15	Northwest	56	79	0	-43	3	39		
	S15a	Northwest	55	72	0	-43	3	32		
	S15b	Northwest	57	72	0	-43	3	32		
	S16	Northwest	57	80	0	-43	3	40		
	S16a	Northwest	58	70	0	-43	3	30		
	S17	Northwest	64	77	0	-44	3	36		
	S18	Northwest	69	77	0	-45	3	35		
	S19	Northwest	83	76	0	-46	3	33		
	S20	Northwest	84	78	0	-47	3	34		
	S20a	Top	83	77	0	-46	3	34		

Remarks:

- [1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.
- [2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (SAT Station)

NAP: SAT-PF01h
 Description: Potential Housing Development in San Tin / Lok Ma Chau Development Node

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ^[2] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
SAT-PF01h	S01	Southwest	324	88	-10	-58	3	>300m	49	58
	S02	Southwest	321	88	-10	-58	3	>300m		
	S03	Southwest	320	88	-10	-58	3	>300m		
	S04	Southwest	318	88	-10	-58	3	>300m		
	S05	Southwest	317	88	-10	-58	3	>300m		
	S06	Southwest	313	88	-10	-58	3	>300m		
	S07	Southwest	312	88	-10	-58	3	>300m		
	S08	Southwest	311	88	-10	-58	3	>300m		
	S09	Southwest	308	88	-10	-58	3	>300m		
	S09a	Southwest	305	88	-10	-58	3	>300m		
	S09b	Southwest	302	93	-10	-58	3	>300m		
	S10	Southwest	296	89	-10	-57	3	25		
	S10a	Southwest	295	88	-10	-57	3	24		
	S11	Southwest	290	96	-10	-57	3	32		
	S12	South	314	86	0	-58	3	>300m		
	S13	South	315	85	0	-58	3	>300m		
	S14	South	319	85	0	-58	3	>300m		
	S14a	South	324	83	0	-58	3	>300m		
	S14b	Northwest	71	81	-10	-45	3	29		
	S14c	Northwest	70	81	-10	-45	3	29		
	S15	Northwest	68	87	-10	-45	3	35		
	S15a	Northwest	66	80	-10	-44	3	29		
	S15b	Northwest	61	80	-10	-44	3	29		
	S16	Northwest	60	88	-10	-44	3	37		
	S16a	Northwest	58	78	-10	-43	3	28		
	S17	Northwest	54	85	-10	-43	3	35		
	S18	Northwest	54	85	-10	-43	3	35		
	S19	Northwest	58	84	-10	-43	3	34		
	S20	Northwest	59	86	-10	-43	3	36		
	S20a	Top	60	88	0	-44	3	47		

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m (1)	SWL, dB(A)	Correction for line of sight ^[2] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
SAT-PF01h	S01	Southwest	324	80	-10	-58	3	>300m	39	50
	S02	Southwest	321	80	-10	-58	3	>300m		
	S03	Southwest	320	80	-10	-58	3	>300m		
	S04	Southwest	318	80	-10	-58	3	>300m		
	S05	Southwest	317	80	-10	-58	3	>300m		
	S06	Southwest	313	80	-10	-58	3	>300m		
	S07	Southwest	312	80	-10	-58	3	>300m		
	S08	Southwest	311	80	-10	-58	3	>300m		
	S09	Southwest	308	80	-10	-58	3	>300m		
	S09a	Southwest	305	80	-10	-58	3	>300m		
	S09b	Southwest	302	85	-10	-58	3	>300m		
	S10	Southwest	296	81	-10	-57	3	17		
	S10a	Southwest	295	80	-10	-57	3	16		
	S11	Southwest	290	88	-10	-57	3	24		
	S12	South	314	78	0	-58	3	>300m		
	S13	South	315	77	0	-58	3	>300m		
	S14	South	319	77	0	-58	3	>300m		
	S14a	South	324	75	0	-58	3	>300m		
	S14b	Northwest	71	73	-10	-45	3	21		
	S14c	Northwest	70	73	-10	-45	3	21		
	S15	Northwest	68	79	-10	-45	3	27		
	S15a	Northwest	66	72	-10	-44	3	21		
	S15b	Northwest	61	72	-10	-44	3	21		
	S16	Northwest	60	80	-10	-44	3	29		
	S16a	Northwest	58	70	-10	-43	3	20		
	S17	Northwest	54	77	-10	-43	3	27		
	S18	Northwest	54	77	-10	-43	3	27		
	S19	Northwest	58	76	-10	-43	3	26		
	S20	Northwest	59	78	-10	-43	3	28		
	S20a	Top	60	77	0	-44	3	36		

Remarks:

- [1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.
- [2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Existing Fixed Plant Noise Impact Assessment for EAP 3

Assessment Point	Reference Measurement Location ^{[1],[2]}	Measurement Distance between Reference Measurement Location and EAP 3, m ^[1]	Measured Noise Level dB(A) at Reference Location	Separation Distance between EAP3 and the NSR, m	Façade Correction, dB(A)	Distance Correction, dB(A) ^[3]	Predicted SPL at NSR, dB(A)
KTU-PF01a	Due to the large separation distance (i.e. more than 300m) between the NSR and the EAP3, the noise impact to the NSR is relatively small and is considered as negligible						
KTU-PF01b							
KTU-PF01c	G	165	35	272	3	-4.3	34
KTU-PF02a	G	165	35	295	3	-5.1	33
KTU-PF02b	G	165	35	259	3	-3.9	34
KTU-PF03a	G	165	35	143	3	1.3	39
KTU-PF03b	G	165	35	119	3	2.8	41
KTU-PF04a	G	165	35	180	3	-0.8	37
KTU-PF04b	G	165	35	140	3	1.4	39
KTU-PF05a	M	30	44	76	3	-8.1	39
KTU-PF05b	M	30	44	78	3	-8.2	39
KTU-PF06a	E	23	44	87	3	-11.5	35
KTU-PF06b	E	23	44	58	3	-8.0	39
KTU-PF06c	E	23	44	72	3	-9.9	37

Note:

[1] The reference measurement location and the measurement distance is referenced to the Appendix 4.25 of the approved NENT NDA EIA report (Register No.: AEIAR-175/2013).

[2] A tonal correction of +3dBA was applied to the measured noise level for the reference measurement location 'G' based on the measurement results provided in the approved NENT NDA EIA report.

[3] The distance correction is based on the formula:

$$-20 \cdot \log(D2/D1)$$

where

D1 is the measurement distance between measurement location and EAP3;

D2 is the separation distance between EAP3 and NSR in metres

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KTU Station)

NAP:

KTU-PF01a

Description: Planned Housing Development at Kwu Tung North NDA

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight, dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
KTU-PF01a	KT1	North	102	82	-10	-48	3	27		
	KT2	North	102	82	-10	-48	3	27		
	KT3	North	104	82	-10	-48	3	27		
	KT4	North	105	82	-10	-48	3	27		
	KT5	North	106	82	-10	-49	3	26		
	KT6	North	107	82	-10	-49	3	26		
	KT7	North	110	82	-10	-49	3	26		
	KT8	North	110	82	-10	-49	3	26		
	KT9	North	120	82	-10	-50	3	25		
	KT10	East	138	82	-10	-51	3	24		
	KT11	South	88	85	0	-47	3	41		
	KT12	South	88	85	0	-47	3	41		
	KT13	West	106	80	-10	-49	3	24		
	KT14	West	109	80	-10	-49	3	24		
	KT15	North	100	80	-10	-48	3	25		
	KT16	North	99	81	-10	-48	3	26		
	KT17	North	99	81	-10	-48	3	26		
	KT18	North	112	80	-10	-49	3	24		
	KT19	North	116	80	-10	-49	3	24		
	KT20	North	118	80	-10	-49	3	24		
	KT21	North	123	80	-10	-50	3	23		
	KT22	North	130	80	-10	-50	3	23		
	KT23	North	134	80	-10	-51	3	22		
	KT24	North	136	80	-10	-51	3	22		
	KT25	East	137	80	-10	-51	3	22		
	KT26	East	134	80	-10	-51	3	22		
	KT27	South	84	85	0	-47	3	41		
	KT28	South	96	85	0	-48	3	40		
	KT29	South	86	85	0	-47	3	41		
	KT30	South	82	85	0	-46	3	42		
	KT31	West	89	85	0	-47	3	41		
	KT32	West	93	85	0	-47	3	41		
	KT33	Top	98	80	0	-48	3	35		
	KT34	Top	103	80	0	-48	3	35		
	KT35	Top	86	80	0	-47	3	36		
	KT36	Top	113	80	0	-49	3	34		
	KT37	Top	118	80	0	-49	3	34		
	KT38	Top	126	80	0	-50	3	33		
	KT39	Top	99	80	0	-48	3	35		
	KT40	North	344	80	-10	-59	3	>300m		
	KT41	North	345	80	-10	-59	3	>300m		
	KT42	North	351	80	-10	-59	3	>300m		
	KT43	North	352	80	-10	-59	3	>300m		
	KT44	North	356	80	-10	-59	3	>300m		
	KT45	North	358	80	-10	-59	3	>300m		
	KT46	North	364	80	-10	-59	3	>300m		
	KT47	North	365	80	-10	-59	3	>300m		
	KT48	East	368	80	-10	-59	3	>300m		
	KT49	South	363	85	0	-59	3	>300m		
	KT50	South	347	85	0	-59	3	>300m		
	KT51	East	322	85	-10	-58	3	>300m		
	KT52	West	287	85	0	-57	3	31		
	KT53	South	363	80	0	-59	3	>300m		
	KT54	South	348	83	0	-59	3	>300m		
	KT55	South	344	85	0	-59	3	>300m		
	KT56	South	337	85	0	-59	3	>300m		
	KT57	South	332	85	0	-58	3	>300m		
	KT58	North	294	85	-10	-57	3	21		
	KT59	North	296	85	-10	-57	3	21		
	KT60	North	302	81	-10	-58	3	>300m		
	KT61	North	310	81	-10	-58	3	>300m		
	KT62	North	316	81	-10	-58	3	>300m		
	KT63	North	322	80	-10	-58	3	>300m		
	KT64	West	290	80	0	-57	3	26		
	KT65	West	291	80	0	-57	3	26		
	KT66	North	325	80	-10	-58	3	>300m		
	KT67	North	333	80	-10	-58	3	>300m		
	KT68	Top	308	82	0	-58	3	>300m		
	KT69	Top	313	81	0	-58	3	>300m		
	KT70	Top	325	81	0	-58	3	>300m		
	KT71	Top	349	81	0	-59	3	>300m		
	KT72	Top	373	81	0	-59	3	>300m		
	KT73	Top	371	81	0	-59	3	>300m		
	KT74	Top	336	81	0	-59	3	>300m	51	60

Appendix 4.11 Fixed Plant Noise Calculation

Night-time									Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)		
KTU-PFD1a	KT1	North	102	70	-10	-48	3	15	42	50
	KT2	North	102	70	-10	-48	3	15		
	KT3	North	104	70	-10	-48	3	15		
	KT4	North	105	70	-10	-48	3	15		
	KT5	North	106	70	-10	-49	3	14		
	KT6	North	107	70	-10	-49	3	14		
	KT7	North	110	70	-10	-49	3	14		
	KT8	North	110	70	-10	-49	3	14		
	KT9	North	120	70	-10	-50	3	13		
	KT10	East	138	70	-10	-51	3	12		
	KT11	South	88	75	0	-47	3	31		
	KT12	South	88	75	0	-47	3	31		
	KT13	West	106	70	-10	-49	3	14		
	KT14	West	109	70	-10	-49	3	14		
	KT15	North	100	70	-10	-48	3	15		
	KT16	North	99	72	-10	-48	3	17		
	KT17	North	99	72	-10	-48	3	17		
	KT18	North	112	71	-10	-49	3	15		
	KT19	North	116	71	-10	-49	3	15		
	KT20	North	118	70	-10	-49	3	14		
	KT21	North	123	68	-10	-50	3	11		
	KT22	North	130	68	-10	-50	3	11		
	KT23	North	134	68	-10	-51	3	10		
	KT24	North	136	68	-10	-51	3	10		
	KT25	East	137	68	-10	-51	3	10		
	KT26	East	134	70	-10	-51	3	12		
	KT27	South	84	75	0	-47	3	31		
	KT28	South	96	76	0	-48	3	31		
	KT29	South	86	76	0	-47	3	32		
	KT30	South	82	76	0	-46	3	33		
	KT31	West	89	75	0	-47	3	31		
	KT32	West	93	75	0	-47	3	31		
	KT33	Top	98	72	0	-48	3	27		
	KT34	Top	103	72	0	-48	3	27		
	KT35	Top	86	72	0	-47	3	28		
	KT36	Top	113	72	0	-49	3	26		
	KT37	Top	118	72	0	-49	3	26		
	KT38	Top	126	72	0	-50	3	25		
	KT39	Top	99	71	0	-48	3	26		
	KT40	North	344	71	-10	-59	3	>300m		
	KT41	North	345	69	-10	-59	3	>300m		
	KT42	North	351	69	-10	-59	3	>300m		
	KT43	North	352	69	-10	-59	3	>300m		
	KT44	North	356	68	-10	-59	3	>300m		
	KT45	North	358	68	-10	-59	3	>300m		
	KT46	North	364	68	-10	-59	3	>300m		
	KT47	North	365	68	-10	-59	3	>300m		
	KT48	East	368	74	-10	-59	3	>300m		
	KT49	South	363	75	0	-59	3	>300m		
	KT50	South	347	75	0	-59	3	>300m		
	KT51	East	322	75	-10	-58	3	>300m		
	KT52	West	287	75	0	-57	3	21		
	KT53	South	363	70	0	-59	3	>300m		
	KT54	South	348	73	0	-59	3	>300m		
	KT55	South	344	75	0	-59	3	>300m		
	KT56	South	337	75	0	-59	3	>300m		
	KT57	South	332	75	0	-58	3	>300m		
	KT58	North	294	75	-10	-57	3	11		
	KT59	North	296	75	-10	-57	3	11		
	KT60	North	302	71	-10	-58	3	>300m		
	KT61	North	310	71	-10	-58	3	>300m		
	KT62	North	316	71	-10	-58	3	>300m		
	KT63	North	322	70	-10	-58	3	>300m		
	KT64	West	290	70	0	-57	3	16		
	KT65	West	291	70	0	-57	3	16		
	KT66	North	325	70	-10	-58	3	>300m		
	KT67	North	333	70	-10	-58	3	>300m		
	KT68	Top	308	72	0	-58	3	>300m		
	KT69	Top	313	71	0	-58	3	>300m		
	KT70	Top	325	71	0	-58	3	>300m		
	KT71	Top	349	70	0	-59	3	>300m		
	KT72	Top	373	70	0	-59	3	>300m		
	KT73	Top	371	71	0	-59	3	>300m		
	KT74	Top	336	71	0	-59	3	>300m		

Remarks:
 [1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.
 [2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Cumulative Fixed Plant Noise Impact Assessment

Daytime/ Evening			
NAP	Project	Predicted Noise Level, dB(A)	Daytime/ Evening Criterion, dB(A)
KTU-PF01a	NL - KTU Station	51	
	Existing EAP 3 ^[1] [2]	-	
	EAL - KTU Station ^[3]	60	
	Total	61	
			65

Night-time			
NAP	Project	Predicted Noise Level, dB(A)	Night-time Criterion, dB(A)
KTU-PF01a	NL - KTU Station	42	
	Existing EAP 3 ^[1] [2]	-	
	EAL - KTU Station ^[3]	50	
	Total	51	
			55

Notes:
 [1] Noise level was calculated based on the measurement result provided in Appendix 4.25 of the approved NENT NDA EIA report (Register No.: AEIAR 175/2013). Detailed calculation can be referred to the Existing Fixed Plant Noise Impact Assessment for EAP 3.
 [2] It is noted that KTU (EAL) Station shall comply with the noise criteria of ANL -G with ASR of "B" in the fixed plant noise assessment based on the Environmental Review Report of Sheung Shui to Lok Ma Chau Spur Line conducted in Nov 2021. As such a noise level of 60 / 50 for daytime & evening time/ night time was adopted for conservative approach.
 [3] Due to the large separation distance (i.e. more than 300m) between the NAP and the EAP/EEP 3, the noise impact to the NAP is insignificant.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KTU Station)

NAP: KTU-PF01b
 Description: Planned Housing Development at Kwu Tung North NDA

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight, dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
KTU-PF01b	KT1	North	99	82	-10	-48	3	27		
	KT2	North	99	82	-10	-48	3	27		
	KT3	North	99	82	-10	-48	3	27		
	KT4	North	99	82	-10	-48	3	27		
	KT5	North	100	82	-10	-48	3	27		
	KT6	North	100	82	-10	-48	3	27		
	KT7	North	101	82	-10	-48	3	27		
	KT8	North	102	82	-10	-48	3	27		
	KT9	North	108	82	-10	-49	3	26		
	KT10	East	121	82	-10	-50	3	25		
	KT11	South	80	85	0	-46	3	42		
	KT12	South	80	85	0	-46	3	42		
	KT13	West	94	80	-10	-47	3	26		
	KT14	West	97	80	-10	-48	3	25		
	KT15	North	99	80	-10	-48	3	25		
	KT16	North	99	81	-10	-48	3	26		
	KT17	North	100	81	-10	-48	3	26		
	KT18	North	102	80	-10	-48	3	25		
	KT19	North	105	80	-10	-48	3	25		
	KT20	North	105	80	-10	-48	3	25		
	KT21	North	109	80	-10	-49	3	24		
	KT22	North	114	80	-10	-49	3	24		
	KT23	North	118	80	-10	-49	3	24		
	KT24	North	120	80	-10	-50	3	23		
	KT25	East	119	80	-10	-50	3	23		
	KT26	East	117	80	-10	-49	3	24		
	KT27	South	79	85	0	-46	3	42		
	KT28	South	84	85	0	-47	3	41		
	KT29	South	80	85	0	-46	3	42		
	KT30	South	79	85	0	-46	3	42		
	KT31	West	90	85	-10	-47	3	31		
	KT32	West	94	85	-10	-47	3	31		
	KT33	Top	96	80	0	-48	3	35		
	KT34	Top	95	80	0	-48	3	35		
	KT35	Top	85	80	0	-47	3	36		
	KT36	Top	100	80	0	-48	3	35		
	KT37	Top	103	80	0	-48	3	35		
	KT38	Top	110	80	0	-49	3	34		
	KT39	Top	87	80	0	-47	3	36		
	KT40	North	320	80	-10	-58	3	>300m		
	KT41	North	321	80	-10	-58	3	>300m		
	KT42	North	327	80	-10	-58	3	>300m		
	KT43	North	328	80	-10	-58	3	>300m		
	KT44	North	332	80	-10	-58	3	>300m		
	KT45	North	334	80	-10	-58	3	>300m		
	KT46	North	340	80	-10	-59	3	>300m		
	KT47	North	341	80	-10	-59	3	>300m		
	KT48	East	343	80	-10	-59	3	>300m		
	KT49	South	338	85	0	-59	3	>300m		
	KT50	South	323	85	0	-58	3	>300m		
	KT51	East	298	85	-10	-57	3	21		
	KT52	West	263	85	0	-56	3	32		
	KT53	South	338	80	0	-59	3	>300m		
	KT54	South	324	83	0	-58	3	>300m		
	KT55	South	320	85	0	-58	3	>300m		
	KT56	South	312	85	0	-58	3	>300m		
	KT57	South	308	85	0	-58	3	>300m		
	KT58	North	270	85	-10	-57	3	21		
	KT59	North	273	85	-10	-57	3	21		
	KT60	North	278	81	-10	-57	3	17		
	KT61	North	286	81	-10	-57	3	17		
	KT62	North	292	81	-10	-57	3	17		
	KT63	North	298	80	-10	-57	3	16		
	KT64	West	267	80	0	-57	3	26		
	KT65	West	268	80	0	-57	3	26		
	KT66	North	301	80	-10	-58	3	>300m		
	KT67	North	309	80	-10	-58	3	>300m		
	KT68	Top	284	82	0	-57	3	28		
	KT69	Top	289	81	0	-57	3	27		
	KT70	Top	301	81	0	-58	3	>300m		
	KT71	Top	325	81	0	-58	3	>300m		
	KT72	Top	348	81	0	-59	3	>300m		
	KT73	Top	347	81	0	-59	3	>300m		
	KT74	Top	312	81	0	-58	3	>300m	51	60

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m [1]	SWL, dB(A)	Correction for line of sight [2], dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KTU-PF01b	KT1	North	99	70	-10	-48	3	15		
	KT2	North	99	70	-10	-48	3	15		
	KT3	North	99	70	-10	-48	3	15		
	KT4	North	99	70	-10	-48	3	15		
	KT5	North	100	70	-10	-48	3	15		
	KT6	North	100	70	-10	-48	3	15		
	KT7	North	101	70	-10	-48	3	15		
	KT8	North	102	70	-10	-48	3	15		
	KT9	North	108	70	-10	-49	3	14		
	KT10	East	121	70	-10	-50	3	13		
	KT11	South	80	75	0	-46	3	32		
	KT12	South	80	75	0	-46	3	32		
	KT13	West	94	70	-10	-47	3	16		
	KT14	West	97	70	-10	-48	3	15		
	KT15	North	99	70	-10	-48	3	15		
	KT16	North	99	72	-10	-48	3	17		
	KT17	North	100	72	-10	-48	3	17		
	KT18	North	102	71	-10	-48	3	16		
	KT19	North	105	71	-10	-48	3	16		
	KT20	North	105	70	-10	-48	3	15		
	KT21	North	109	68	-10	-49	3	12		
	KT22	North	114	68	-10	-49	3	12		
	KT23	North	118	68	-10	-49	3	12		
	KT24	North	120	68	-10	-50	3	11		
	KT25	East	119	68	-10	-50	3	11		
	KT26	East	117	70	-10	-49	3	14		
	KT27	South	79	75	0	-46	3	32		
	KT28	South	84	76	0	-47	3	32		
	KT29	South	80	76	0	-46	3	33		
	KT30	South	79	76	0	-46	3	33		
	KT31	West	90	75	-10	-47	3	21		
	KT32	West	94	75	-10	-47	3	21		
	KT33	Top	96	72	0	-48	3	27		
	KT34	Top	95	72	0	-48	3	27		
	KT35	Top	85	72	0	-47	3	28		
	KT36	Top	100	72	0	-48	3	27		
	KT37	Top	103	72	0	-48	3	27		
	KT38	Top	110	72	0	-49	3	26		
	KT39	Top	87	71	0	-47	3	27		
	KT40	North	320	71	-10	-58	3	>300m		
	KT41	North	321	69	-10	-58	3	>300m		
	KT42	North	327	69	-10	-58	3	>300m		
	KT43	North	328	69	-10	-58	3	>300m		
	KT44	North	332	68	-10	-58	3	>300m		
	KT45	North	334	68	-10	-58	3	>300m		
	KT46	North	340	68	-10	-59	3	>300m		
	KT47	North	341	68	-10	-59	3	>300m		
	KT48	East	343	74	-10	-59	3	>300m		
	KT49	South	338	75	0	-59	3	>300m		
	KT50	South	323	75	0	-58	3	>300m		
	KT51	East	298	75	-10	-57	3	11		
	KT52	West	263	75	0	-56	3	22		
	KT53	South	338	70	0	-59	3	>300m		
	KT54	South	324	73	0	-58	3	>300m		
	KT55	South	320	75	0	-58	3	>300m		
	KT56	South	313	75	0	-58	3	>300m		
	KT57	South	308	75	0	-58	3	>300m		
	KT58	North	270	75	-10	-57	3	11		
	KT59	North	273	75	-10	-57	3	11		
	KT60	North	278	71	-10	-57	3	7		
	KT61	North	286	71	-10	-57	3	7		
	KT62	North	292	71	-10	-57	3	7		
	KT63	North	298	70	-10	-57	3	6		
	KT64	West	267	70	0	-57	3	16		
	KT65	West	268	70	0	-57	3	16		
	KT66	North	301	70	-10	-58	3	>300m		
	KT67	North	309	70	-10	-58	3	>300m		
	KT68	Top	284	72	0	-57	3	18		
	KT69	Top	289	71	0	-57	3	17		
	KT70	Top	301	71	0	-58	3	>300m		
	KT71	Top	325	70	0	-58	3	>300m		
	KT72	Top	348	70	0	-59	3	>300m		
	KT73	Top	347	71	0	-59	3	>300m		
	KT74	Top	312	71	0	-58	3	>300m		

42

50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.

Appendix 4.11 Fixed Plant Noise Calculation

Cumulative Fixed Plant Noise Impact Assessment

Daytime/ Evening

NAP	Project	Predicted Noise Level, dB(A)	Daytime/ Evening Criterion, dB(A)
KTU-PF01b	NL - KTU Station	51	
	Existing EAP 3 ^[1] [3]	-	
	EAL - KTU Station ^[2]	60	
	Total	61	
			65

Night-time

NAP	Project	Predicted Noise Level, dB(A)	Night-time Criterion, dB(A)
KTU-PF01b	NL - KTU Station	42	
	Existing EAP 3 ^[1] [3]	-	
	EAL - KTU Station ^[2]	50	
	Total	51	
			55

Notes:

- [1] Noise level was calculated based on the measurement result provided in Appendix 4.25 of the approved NENT NDA EIA report (Register No.: AEIAR-175/2013). Detailed calculation can be referred to the Existing Fixed Plant Noise Impact Assessment for EAP 3.
- [2] It is noted that KTU (EAL) Station shall comply with the noise criteria of ANL -G with ASR of "B" in the fixed plant noise assessment based on the Environmental Review Report of Sheung Shui to Lok Ma Chau Spur Line conducted in Nov 2021. As such a noise level of 60/ 50 for daytime & evening time/ night-time was adopted for conservative approach.
- [3] Due to the large separation distance (i.e. more than 300m) between the NAP and the EAP/EEP 3, the noise impact to the NAP is insignificant.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KTU Station)

NAP:

KTU-PF01c

Description: Planned Housing Development at Kwu Tung North NDA

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight, dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
KTU-PF01c	KT1	North	112	82	-10	-49	3	26		
	KT2	North	112	82	-10	-49	3	26		
	KT3	North	109	82	-10	-49	3	26		
	KT4	North	108	82	-10	-49	3	26		
	KT5	North	106	82	-10	-48	3	27		
	KT6	North	105	82	-10	-48	3	27		
	KT7	North	102	82	-10	-48	3	27		
	KT8	North	102	82	-10	-48	3	27		
	KT9	North	96	82	-10	-48	3	27		
	KT10	East	88	82	-10	-47	3	28		
	KT11	South	89	85	0	-47	3	41		
	KT12	South	88	85	0	-47	3	41		
	KT13	West	85	80	-10	-47	3	26		
	KT14	West	89	80	-10	-47	3	26		
	KT15	North	117	80	-10	-49	3	24		
	KT16	North	120	81	-10	-50	3	24		
	KT17	North	123	81	-10	-50	3	24		
	KT18	North	100	80	-10	-48	3	25		
	KT19	North	98	80	-10	-48	3	25		
	KT20	North	92	80	-10	-47	3	26		
	KT21	North	90	80	-10	-47	3	26		
	KT22	North	90	80	-10	-47	3	26		
	KT23	North	90	80	-10	-47	3	26		
	KT24	North	90	80	-10	-47	3	26		
	KT25	East	89	80	-10	-47	3	26		
	KT26	East	85	80	-10	-47	3	26		
	KT27	South	95	85	0	-48	3	40		
	KT28	South	82	85	0	-46	3	42		
	KT29	South	93	85	0	-47	3	41		
	KT30	South	101	85	0	-48	3	40		
	KT31	West	114	85	-10	-49	3	29		
	KT32	West	118	85	-10	-49	3	29		
	KT33	Top	112	80	0	-49	3	34		
	KT34	Top	96	80	0	-48	3	35		
	KT35	Top	108	80	0	-49	3	34		
	KT36	Top	87	80	0	-47	3	36		
	KT37	Top	85	80	0	-47	3	36		
	KT38	Top	84	80	0	-46	3	37		
	KT39	Top	81	80	0	-46	3	37		
	KT40	North	257	80	-10	-56	3	17		
	KT41	North	259	80	-10	-56	3	17		
	KT42	North	264	80	-10	-56	3	17		
	KT43	North	266	80	-10	-56	3	17		
	KT44	North	270	80	-10	-57	3	16		
	KT45	North	271	80	-10	-57	3	16		
	KT46	North	277	80	-10	-57	3	16		
	KT47	North	279	80	-10	-57	3	16		
	KT48	East	280	80	-10	-57	3	16		
	KT49	South	275	85	0	-57	3	31		
	KT50	South	259	85	0	-56	3	32		
	KT51	East	235	85	-10	-55	3	23		
	KT52	West	202	85	0	-54	3	34		
	KT53	South	275	80	0	-57	3	26		
	KT54	South	261	83	0	-56	3	30		
	KT55	South	257	85	0	-56	3	32		
	KT56	South	250	85	0	-56	3	32		
	KT57	South	245	85	0	-56	3	32		
	KT58	North	209	85	-10	-54	3	24		
	KT59	North	212	85	-10	-55	3	23		
	KT60	North	217	81	-10	-55	3	19		
	KT61	North	224	81	-10	-55	3	19		
	KT62	North	231	81	-10	-55	3	19		
	KT63	North	236	80	-10	-55	3	18		
	KT64	West	205	80	0	-54	3	29		
	KT65	West	207	80	0	-54	3	29		
	KT66	North	239	80	-10	-56	3	17		
	KT67	North	247	80	-10	-56	3	17		
	KT68	Top	222	82	0	-55	3	30		
	KT69	Top	226	81	0	-55	3	29		
	KT70	Top	239	81	0	-56	3	28		
	KT71	Top	263	81	0	-56	3	28		
	KT72	Top	286	81	0	-57	3	27		
	KT73	Top	283	81	0	-57	3	27		
	KT74	Top	250	81	0	-56	3	28	51	60

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KTU-PF01c	KT1	North	112	70	-10	-49	3	14		
	KT2	North	112	70	-10	-49	3	14		
	KT3	North	109	70	-10	-49	3	14		
	KT4	North	108	70	-10	-49	3	14		
	KT5	North	106	70	-10	-48	3	15		
	KT6	North	105	70	-10	-48	3	15		
	KT7	North	102	70	-10	-48	3	15		
	KT8	North	102	70	-10	-48	3	15		
	KT9	North	96	70	-10	-48	3	15		
	KT10	East	88	70	-10	-47	3	16		
	KT11	South	89	75	0	-47	3	31		
	KT12	South	88	75	0	-47	3	31		
	KT13	West	85	70	-10	-47	3	16		
	KT14	West	89	70	-10	-47	3	16		
	KT15	North	117	70	-10	-49	3	14		
	KT16	North	120	72	-10	-50	3	15		
	KT17	North	123	72	-10	-50	3	15		
	KT18	North	100	71	-10	-48	3	16		
	KT19	North	98	71	-10	-48	3	16		
	KT20	North	92	70	-10	-47	3	16		
	KT21	North	90	68	-10	-47	3	14		
	KT22	North	90	68	-10	-47	3	14		
	KT23	North	90	68	-10	-47	3	14		
	KT24	North	90	68	-10	-47	3	14		
	KT25	East	89	68	-10	-47	3	14		
	KT26	East	85	70	-10	-47	3	16		
	KT27	South	95	75	0	-48	3	30		
	KT28	South	82	76	0	-46	3	33		
	KT29	South	93	76	0	-47	3	32		
	KT30	South	101	76	0	-48	3	31		
	KT31	West	114	75	-10	-49	3	19		
	KT32	West	118	75	-10	-49	3	19		
	KT33	Top	112	72	0	-49	3	26		
	KT34	Top	96	72	0	-48	3	27		
	KT35	Top	108	72	0	-49	3	26		
	KT36	Top	87	72	0	-47	3	28		
	KT37	Top	85	72	0	-47	3	28		
	KT38	Top	84	72	0	-46	3	29		
	KT39	Top	81	71	0	-46	3	28		
	KT40	North	257	71	-10	-56	3	8		
	KT41	North	259	69	-10	-56	3	6		
	KT42	North	264	69	-10	-56	3	6		
	KT43	North	266	69	-10	-56	3	6		
	KT44	North	270	68	-10	-57	3	4		
	KT45	North	271	68	-10	-57	3	4		
	KT46	North	277	68	-10	-57	3	4		
	KT47	North	279	68	-10	-57	3	4		
	KT48	East	280	74	-10	-57	3	10		
	KT49	South	275	75	0	-57	3	21		
	KT50	South	259	75	0	-56	3	22		
	KT51	East	235	75	-10	-55	3	13		
	KT52	West	202	75	0	-54	3	24		
	KT53	South	275	70	0	-57	3	16		
	KT54	South	261	73	0	-56	3	20		
	KT55	South	257	75	0	-56	3	22		
	KT56	South	250	75	0	-56	3	22		
	KT57	South	245	75	0	-56	3	22		
	KT58	North	209	75	-10	-54	3	14		
	KT59	North	212	75	-10	-55	3	13		
	KT60	North	217	71	-10	-55	3	9		
	KT61	North	224	71	-10	-55	3	9		
	KT62	North	231	71	-10	-55	3	9		
	KT63	North	236	70	-10	-55	3	8		
	KT64	West	205	70	0	-54	3	19		
	KT65	West	207	70	0	-54	3	19		
	KT66	North	239	70	-10	-56	3	7		
	KT67	North	247	70	-10	-56	3	7		
	KT68	Top	222	72	0	-55	3	20		
	KT69	Top	226	71	0	-55	3	19		
	KT70	Top	239	71	0	-56	3	18		
	KT71	Top	263	70	0	-56	3	17		
	KT72	Top	286	70	0	-57	3	16		
	KT73	Top	283	71	0	-57	3	17		
	KT74	Top	250	71	0	-56	3	18	42	50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the louvers totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the louvers.

Appendix 4.11 Fixed Plant Noise Calculation

Cumulative Fixed Plant Noise Impact Assessment

Daytime/ Evening

NAP	Project	Predicted Noise Level, dB(A)	Daytime/ Evening Criterion, dB(A)
KTU-PF01c	NL - KTU Station ^[1]	51	
	Existing EAP 3 ^[1]	34	
	EAL - KTU Station ^[2]	60	
	Total	61	
			65

Night-time

NAP	Project	Predicted Noise Level, dB(A)	Night-time Criterion, dB(A)
KTU-PF01c	NL - KTU Station	42	
	Existing EAP 3 ^[1]	34	
	EAL - KTU Station ^[2]	50	
	Total	51	
			55

Notes:

[1] Noise level was calculated based on the measurement result provided in Appendix 4.25 of the approved NENT NDA EIA report (Register No.: AEIAR-175/2013). Detailed calculation can be referred to the Existing Fixed Plant Noise Impact Assessment for EAP 3.
 [2] It is noted that KTU (EAL) Station shall comply with the noise criteria of ANL -G with ASR of "B" in the fixed plant noise assessment based on the Environmental Review Report of Sheung Shui to Lok Ma Chau Spur Line conducted in Nov 2021. As such a noise level of 60 / 50 for daytime & evening time/ night-time was adopted for conservative approach.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KTU Station)

NAP: KTU-PF02a
 Description: Planned Housing Development at Kwu Tung North NDA

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
KTU-PF02a	KT1	North	40	82	0	-40	3	45		
	KT2	North	39	82	0	-40	3	45		
	KT3	North	35	82	0	-39	3	46		
	KT4	North	35	82	0	-39	3	46		
	KT5	North	33	82	0	-38	3	47		
	KT6	North	32	82	0	-38	3	47		
	KT7	North	31	82	0	-38	3	47		
	KT8	North	30	82	0	-38	3	47		
	KT9	North	35	82	0	-39	3	46		
	KT10	East	64	82	-10	-44	3	31		
	KT11	South	52	85	-10	-42	3	36		
	KT12	South	52	85	-10	-42	3	36		
	KT13	West	44	80	0	-41	3	42		
	KT14	West	40	80	0	-40	3	43		
	KT15	North	45	80	0	-41	3	42		
	KT16	North	49	81	0	-42	3	42		
	KT17	North	52	81	0	-42	3	42		
	KT18	North	30	80	0	-38	3	45		
	KT19	North	31	80	0	-38	3	45		
	KT20	North	39	80	0	-40	3	43		
	KT21	North	44	80	0	-41	3	42		
	KT22	North	51	80	0	-42	3	41		
	KT23	North	55	80	0	-43	3	40		
	KT24	North	57	80	0	-43	3	40		
	KT25	East	60	80	-10	-44	3	29		
	KT26	East	62	80	-10	-44	3	29		
	KT27	South	55	85	-10	-43	3	35		
	KT28	South	50	85	-10	-42	3	36		
	KT29	South	53	85	-10	-43	3	35		
	KT30	South	59	85	-10	-43	3	35		
	KT31	West	57	85	-10	-43	3	35		
	KT32	West	56	85	-10	-43	3	35		
	KT33	Top	44	80	0	-41	3	42		
	KT34	Top	37	80	0	-39	3	44		
	KT35	Top	57	80	0	-43	3	40		
	KT36	Top	43	80	0	-41	3	42		
	KT37	Top	47	80	0	-41	3	42		
	KT38	Top	55	80	0	-43	3	40		
	KT39	Top	50	80	0	-42	3	41		
	KT40	North	278	80	0	-57	3	26		
	KT41	North	280	80	0	-57	3	26		
	KT42	North	286	80	0	-57	3	26		
	KT43	North	287	80	0	-57	3	26		
	KT44	North	291	80	0	-57	3	26		
	KT45	North	293	80	0	-57	3	26		
	KT46	North	299	80	0	-58	3	25		
	KT47	North	301	80	0	-58	3	>300m		
	KT48	East	310	80	-10	-58	3	>300m		
	KT49	South	306	85	-10	-58	3	>300m		
	KT50	South	289	85	-10	-57	3	21		
	KT51	East	261	85	-10	-56	3	22		
	KT52	West	223	85	0	-55	3	33		
	KT53	South	305	80	-10	-58	3	>300m		
	KT54	South	291	83	-10	-57	3	19		
	KT55	South	287	85	-10	-57	3	21		
	KT56	South	280	85	-10	-57	3	21		
	KT57	South	275	85	-10	-57	3	21		
	KT58	North	228	85	0	-55	3	33		
	KT59	North	231	85	0	-55	3	33		
	KT60	North	236	81	0	-55	3	29		
	KT61	North	245	81	0	-56	3	28		
	KT62	North	251	81	0	-56	3	28		
	KT63	North	257	80	0	-56	3	27		
	KT64	West	227	80	0	-55	3	28		
	KT65	West	226	80	0	-55	3	28		
	KT66	North	259	80	0	-56	3	27		
	KT67	North	267	80	0	-57	3	26		
	KT68	Top	245	82	0	-56	3	29		
	KT69	Top	252	81	0	-56	3	28		
	KT70	Top	261	81	0	-56	3	28		
	KT71	Top	285	81	0	-57	3	27		
	KT72	Top	309	81	0	-58	3	>300m		
	KT73	Top	311	81	0	-58	3	>300m		
	KT74	Top	273	81	0	-57	3	27		

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KTU-PF02a	KT1	North	40	70	0	-40	3	33		
	KT2	North	39	70	0	-40	3	33		
	KT3	North	35	70	0	-39	3	34		
	KT4	North	35	70	0	-39	3	34		
	KT5	North	33	70	0	-38	3	35		
	KT6	North	32	70	0	-38	3	35		
	KT7	North	31	70	0	-38	3	35		
	KT8	North	30	70	0	-38	3	35		
	KT9	North	35	70	0	-39	3	34		
	KT10	East	64	70	-10	-44	3	19		
	KT11	South	52	75	-10	-42	3	26		
	KT12	South	52	75	-10	-42	3	26		
	KT13	West	44	70	0	-41	3	32		
	KT14	West	40	70	0	-40	3	33		
	KT15	North	45	70	0	-41	3	32		
	KT16	North	49	72	0	-42	3	33		
	KT17	North	52	72	0	-42	3	33		
	KT18	North	30	71	0	-38	3	36		
	KT19	North	31	71	0	-38	3	36		
	KT20	North	39	70	0	-40	3	33		
	KT21	North	44	68	0	-41	3	30		
	KT22	North	51	68	0	-42	3	29		
	KT23	North	55	68	0	-43	3	28		
	KT24	North	57	68	0	-43	3	28		
	KT25	East	60	68	-10	-44	3	17		
	KT26	East	62	70	-10	-44	3	19		
	KT27	South	55	75	-10	-43	3	25		
	KT28	South	50	76	-10	-42	3	27		
	KT29	South	53	76	-10	-43	3	26		
	KT30	South	59	76	-10	-43	3	26		
	KT31	West	57	75	-10	-43	3	25		
	KT32	West	56	75	-10	-43	3	25		
	KT33	Top	44	72	0	-41	3	34		
	KT34	Top	37	72	0	-39	3	36		
	KT35	Top	57	72	0	-43	3	32		
	KT36	Top	43	72	0	-41	3	34		
	KT37	Top	47	72	0	-41	3	34		
	KT38	Top	55	72	0	-43	3	32		
	KT39	Top	50	71	0	-42	3	32		
	KT40	North	278	71	0	-57	3	17		
	KT41	North	290	69	0	-57	3	15		
	KT42	North	286	69	0	-57	3	15		
	KT43	North	287	69	0	-57	3	15		
	KT44	North	291	68	0	-57	3	14		
	KT45	North	293	68	0	-57	3	14		
	KT46	North	299	68	0	-58	3	13		
	KT47	North	301	68	0	-58	3	>300m		
	KT48	East	310	74	-10	-58	3	>300m		
	KT49	South	306	75	-10	-58	3	>300m		
	KT50	South	289	75	-10	-57	3	11		
	KT51	East	261	75	-10	-56	3	12		
	KT52	West	223	75	0	-55	3	23		
	KT53	South	305	70	-10	-58	3	>300m		
	KT54	South	291	73	-10	-57	3	9		
	KT55	South	287	75	-10	-57	3	11		
	KT56	South	280	75	-10	-57	3	11		
	KT57	South	275	75	-10	-57	3	11		
	KT58	North	228	75	0	-55	3	23		
	KT59	North	231	75	0	-55	3	23		
	KT60	North	236	71	0	-55	3	19		
	KT61	North	245	71	0	-56	3	18		
	KT62	North	251	71	0	-56	3	18		
	KT63	North	257	70	0	-56	3	17		
	KT64	West	227	70	0	-55	3	18		
	KT65	West	226	70	0	-55	3	18		
	KT66	North	259	70	0	-56	3	17		
	KT67	North	267	70	0	-57	3	16		
	KT68	Top	245	72	0	-56	3	19		
	KT69	Top	252	71	0	-56	3	18		
	KT70	Top	261	71	0	-56	3	18		
	KT71	Top	285	70	0	-57	3	16		
	KT72	Top	309	70	0	-58	3	>300m		
	KT73	Top	311	71	0	-58	3	>300m		
	KT74	Top	273	71	0	-57	3	17	48	50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the louvers totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the louvers.

Appendix 4.11 Fixed Plant Noise Calculation

Cumulative Fixed Plant Noise Impact Assessment

Daytime/ Evening

NAP	Project	Predicted Noise Level, dB(A)	Daytime/ Evening Criterion, dB(A)
KTU-PF02a	NL - KTU Station ^[1]	59	
	Existing EAP 3 ^[1]	33	
	EAL - KTU Station ^[2]	60	
	Total	62	
			65

Night-time

NAP	Project	Predicted Noise Level, dB(A)	Night-time Criterion, dB(A)
KTU-PF02a	NL - KTU Station	48	
	Existing EAP 3 ^[1]	33	
	EAL - KTU Station ^[2]	50	
	Total	52	
			55

Notes:

[1] Noise level was calculated based on the measurement result provided in Appendix 4.25 of the approved NENT NDA EIA report (Register No.: AEIAR-175/2013). Detailed calculation can be referred to the Existing Fixed Plant Noise Impact Assessment for EAP 3.
 [2] It is noted that KTU (EAL) Station shall comply with the noise criteria of ANL -G with ASR of "B" in the fixed plant noise assessment based on the Environmental Review Report of Sheung Shui to Lok Ma Chau Spur Line conducted in Nov 2021. As such a noise level of 60 / 50 for daytime & evening time/ night-time was adopted for conservative approach.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KTU Station)

NAP: KTU-PF02b
 Description: Planned Housing Development at Kwu Tung North NDA

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
KTU-PF02b	KT1	North	77	82	0	-46	3	39		
	KT2	North	76	82	0	-46	3	39		
	KT3	North	70	82	0	-45	3	40		
	KT4	North	69	82	0	-45	3	40		
	KT5	North	65	82	0	-44	3	41		
	KT6	North	64	82	0	-44	3	41		
	KT7	North	57	82	0	-43	3	42		
	KT8	North	56	82	0	-43	3	42		
	KT9	North	40	82	0	-40	3	45		
	KT10	East	33	82	0	-38	3	47		
	KT11	South	76	85	-10	-46	3	32		
	KT12	South	74	85	-10	-45	3	33		
	KT13	West	54	80	-10	-43	3	30		
	KT14	West	51	80	-10	-42	3	31		
	KT15	North	84	80	0	-47	3	36		
	KT16	North	90	81	0	-47	3	37		
	KT17	North	93	81	0	-47	3	37		
	KT18	North	53	80	0	-43	3	40		
	KT19	North	47	80	0	-41	3	42		
	KT20	North	42	80	0	-40	3	43		
	KT21	North	36	80	0	-39	3	44		
	KT22	North	32	80	0	-38	3	45		
	KT23	North	30	80	0	-38	3	45		
	KT24	North	30	80	0	-37	3	46		
	KT25	East	31	80	0	-38	3	45		
	KT26	East	35	80	0	-39	3	44		
	KT27	South	84	85	-10	-46	3	32		
	KT28	South	64	85	-10	-44	3	34		
	KT29	South	81	85	-10	-46	3	32		
	KT30	South	91	85	-10	-47	3	31		
	KT31	West	95	85	-10	-48	3	30		
	KT32	West	96	85	-10	-48	3	30		
	KT33	Top	82	80	0	-46	3	37		
	KT34	Top	61	80	0	-44	3	39		
	KT35	Top	92	80	0	-47	3	36		
	KT36	Top	46	80	0	-41	3	42		
	KT37	Top	42	80	0	-40	3	43		
	KT38	Top	37	80	0	-39	3	44		
	KT39	Top	60	80	0	-44	3	39		
	KT40	North	230	80	0	-55	3	28		
	KT41	North	232	80	0	-55	3	28		
	KT42	North	238	80	0	-56	3	27		
	KT43	North	239	80	0	-56	3	27		
	KT44	North	243	80	0	-56	3	27		
	KT45	North	245	80	0	-56	3	27		
	KT46	North	252	80	0	-56	3	27		
	KT47	North	253	80	0	-56	3	27		
	KT48	East	263	80	-10	-56	3	17		
	KT49	South	258	85	-10	-56	3	22		
	KT50	South	242	85	-10	-56	3	22		
	KT51	East	214	85	-10	-55	3	23		
	KT52	West	176	85	0	-53	3	35		
	KT53	South	258	80	-10	-56	3	17		
	KT54	South	243	83	-10	-56	3	20		
	KT55	South	239	85	-10	-56	3	22		
	KT56	South	232	85	-10	-55	3	23		
	KT57	South	227	85	-10	-55	3	23		
	KT58	North	180	85	0	-53	3	35		
	KT59	North	183	85	0	-53	3	35		
	KT60	North	188	81	0	-53	3	31		
	KT61	North	197	81	0	-54	3	30		
	KT62	North	203	81	0	-54	3	30		
	KT63	North	209	80	0	-54	3	29		
	KT64	West	179	80	0	-53	3	30		
	KT65	West	178	80	0	-53	3	30		
	KT66	North	211	80	0	-54	3	29		
	KT67	North	219	80	0	-55	3	28		
	KT68	Top	197	82	0	-54	3	31		
	KT69	Top	204	81	0	-54	3	30		
	KT70	Top	213	81	0	-55	3	29		
	KT71	Top	237	81	0	-55	3	29		
	KT72	Top	261	81	0	-56	3	28		
	KT73	Top	263	81	0	-56	3	28		
	KT74	Top	226	81	0	-55	3	29	57	60

Appendix 4.11 Fixed Plant Noise Calculation

Night-time									Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)		
KTU-PF02b	KT1	North	77	70	0	-46	3	27	47	50
	KT2	North	76	70	0	-46	3	27		
	KT3	North	70	70	0	-45	3	28		
	KT4	North	69	70	0	-45	3	28		
	KT5	North	65	70	0	-44	3	29		
	KT6	North	64	70	0	-44	3	29		
	KT7	North	57	70	0	-43	3	30		
	KT8	North	56	70	0	-43	3	30		
	KT9	North	40	70	0	-40	3	33		
	KT10	East	33	70	0	-38	3	35		
	KT11	South	76	75	-10	-46	3	22		
	KT12	South	74	75	-10	-45	3	23		
	KT13	West	54	70	-10	-43	3	20		
	KT14	West	51	70	-10	-42	3	21		
	KT15	North	84	70	0	-47	3	26		
	KT16	North	90	72	0	-47	3	28		
	KT17	North	93	72	0	-47	3	28		
	KT18	North	53	71	0	-43	3	31		
	KT19	North	47	71	0	-41	3	33		
	KT20	North	42	70	0	-40	3	33		
	KT21	North	36	68	0	-39	3	32		
	KT22	North	32	68	0	-38	3	33		
	KT23	North	30	68	0	-38	3	33		
	KT24	North	30	68	0	-37	3	34		
	KT25	East	31	68	0	-38	3	33		
	KT26	East	35	70	0	-39	3	34		
	KT27	South	84	75	-10	-46	3	22		
	KT28	South	64	76	-10	-44	3	25		
	KT29	South	81	76	-10	-46	3	23		
	KT30	South	91	76	-10	-47	3	22		
	KT31	West	95	75	-10	-48	3	20		
	KT32	West	96	75	-10	-48	3	20		
	KT33	Top	82	72	0	-46	3	29		
	KT34	Top	61	72	0	-44	3	31		
	KT35	Top	92	72	0	-47	3	28		
	KT36	Top	46	72	0	-41	3	34		
	KT37	Top	42	72	0	-40	3	35		
	KT38	Top	37	72	0	-39	3	36		
	KT39	Top	60	71	0	-44	3	30		
	KT40	North	230	71	0	-55	3	19		
	KT41	North	232	69	0	-55	3	17		
	KT42	North	238	69	0	-56	3	16		
	KT43	North	239	69	0	-56	3	16		
	KT44	North	243	68	0	-56	3	15		
	KT45	North	245	68	0	-56	3	15		
	KT46	North	252	68	0	-56	3	15		
	KT47	North	253	68	0	-56	3	15		
	KT48	East	263	74	-10	-56	3	11		
	KT49	South	258	75	-10	-56	3	12		
	KT50	South	242	75	-10	-56	3	12		
	KT51	East	214	75	-10	-55	3	13		
	KT52	West	176	75	0	-53	3	25		
	KT53	South	258	70	-10	-56	3	7		
	KT54	South	243	73	-10	-56	3	10		
	KT55	South	239	75	-10	-56	3	12		
	KT56	South	232	75	-10	-55	3	13		
	KT57	South	227	75	-10	-55	3	13		
	KT58	North	180	75	0	-53	3	25		
	KT59	North	183	75	0	-53	3	25		
	KT60	North	188	71	0	-53	3	21		
	KT61	North	197	71	0	-54	3	20		
	KT62	North	203	71	0	-54	3	20		
	KT63	North	209	70	0	-54	3	19		
	KT64	West	179	70	0	-53	3	20		
	KT65	West	178	70	0	-53	3	20		
	KT66	North	211	70	0	-54	3	19		
	KT67	North	219	70	0	-55	3	18		
	KT68	Top	197	72	0	-54	3	21		
	KT69	Top	204	71	0	-54	3	20		
	KT70	Top	213	71	0	-55	3	19		
	KT71	Top	237	70	0	-55	3	18		
	KT72	Top	261	70	0	-56	3	17		
	KT73	Top	263	71	0	-56	3	18		
	KT74	Top	226	71	0	-55	3	19		

Remarks:
 [1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.
 [2] A negative correction of 10 dB(A) has been adopted to the direction facing of the louvers totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the louvers.

Appendix 4.11 Fixed Plant Noise Calculation

Cumulative Fixed Plant Noise Impact Assessment

Daytime/ Evening

NAP	Project	Predicted Noise Level, dB(A)	Daytime/ Evening Criterion, dB(A)
KTU-PF02b	NL - KTU Station ^[1]	37	
	Existing EAP 3 ^[1]	34	
	EAL - KTU Station ^[2]	60	
	Total	62	
			65

Night-time

NAP	Project	Predicted Noise Level, dB(A)	Night-time Criterion, dB(A)
KTU-PF02b	NL - KTU Station	47	
	Existing EAP 3 ^[1]	34	
	EAL - KTU Station ^[2]	50	
	Total	52	
			55

Notes:

[1] Noise level was calculated based on the measurement result provided in Appendix 4.25 of the approved NENT NDA EIA report (Register No.: AEIAR-175/2013). Detailed calculation can be referred to the Existing Fixed Plant Noise Impact Assessment for EAP 3.
 [2] It is noted that KTU (EAL) Station shall comply with the noise criteria of ANL -G with ASR of "B" in the fixed plant noise assessment based on the Environmental Review Report of Sheung Shui to Lok Ma Chau Spur Line conducted in Nov 2021. As such a noise level of 60 / 50 for daytime & evening time/ night-time was adopted for conservative approach.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KTU Station)

NAP:

KTU-PF03a

Description: Planned Housing Development at Kwu Tung North NDA

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight, dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
KTU-PF03a	KT1	North	220	82	-10	-55	3	20		
	KT2	North	219	82	-10	-55	3	20		
	KT3	North	213	82	-10	-55	3	20		
	KT4	North	212	82	-10	-55	3	20		
	KT5	North	208	82	-10	-54	3	21		
	KT6	North	207	82	-10	-54	3	21		
	KT7	North	201	82	-10	-54	3	21		
	KT8	North	200	82	-10	-54	3	21		
	KT9	North	184	82	-10	-53	3	22		
	KT10	East	151	82	0	-52	3	33		
	KT11	South	199	85	0	-54	3	34		
	KT12	South	198	85	0	-54	3	34		
	KT13	West	183	80	-10	-53	3	20		
	KT14	West	185	80	-10	-53	3	20		
	KT15	North	226	80	-10	-55	3	18		
	KT16	North	231	81	-10	-55	3	19		
	KT17	North	235	81	-10	-55	3	19		
	KT18	North	197	80	-10	-54	3	19		
	KT19	North	191	80	-10	-54	3	19		
	KT20	North	180	80	-10	-53	3	20		
	KT21	North	173	80	-10	-53	3	20		
	KT22	North	165	80	-10	-52	3	21		
	KT23	North	160	80	-10	-52	3	21		
	KT24	North	158	80	-10	-52	3	21		
	KT25	East	156	80	0	-52	3	31		
	KT26	East	153	80	0	-52	3	31		
	KT27	South	209	85	0	-54	3	34		
	KT28	South	187	85	0	-53	3	35		
	KT29	South	206	85	0	-54	3	34		
	KT30	South	216	85	0	-55	3	33		
	KT31	West	229	85	-10	-55	3	23		
	KT32	West	233	85	-10	-55	3	23		
	KT33	Top	222	80	0	-55	3	28		
	KT34	Top	198	80	0	-54	3	29		
	KT35	Top	223	80	0	-55	3	28		
	KT36	Top	178	80	0	-53	3	30		
	KT37	Top	172	80	0	-53	3	30		
	KT38	Top	161	80	0	-52	3	31		
	KT39	Top	182	80	0	-53	3	30		
	KT40	North	151	80	-10	-52	3	21		
	KT41	North	152	80	-10	-52	3	21		
	KT42	North	156	80	-10	-52	3	21		
	KT43	North	157	80	-10	-52	3	21		
	KT44	North	160	80	-10	-52	3	21		
	KT45	North	162	80	-10	-52	3	21		
	KT46	North	167	80	-10	-52	3	21		
	KT47	North	168	80	-10	-52	3	21		
	KT48	East	163	80	-10	-52	3	21		
	KT49	South	158	85	0	-52	3	36		
	KT50	South	145	85	0	-51	3	37		
	KT51	East	128	85	-10	-50	3	28		
	KT52	West	109	85	0	-49	3	39		
	KT53	South	158	80	0	-52	3	31		
	KT54	South	146	83	0	-51	3	35		
	KT55	South	143	85	0	-51	3	37		
	KT56	South	137	85	0	-51	3	37		
	KT57	South	133	85	0	-50	3	38		
	KT58	North	116	85	-10	-49	3	29		
	KT59	North	118	85	-10	-49	3	29		
	KT60	North	120	81	-10	-50	3	24		
	KT61	North	125	81	-10	-50	3	24		
	KT62	North	130	81	-10	-50	3	24		
	KT63	North	133	80	-10	-50	3	23		
	KT64	West	111	80	0	-49	3	34		
	KT65	West	114	80	0	-49	3	34		
	KT66	North	137	80	-10	-51	3	22		
	KT67	North	143	80	-10	-51	3	22		
	KT68	Top	122	82	0	-50	3	35		
	KT69	Top	122	81	0	-50	3	34		
	KT70	Top	135	81	0	-51	3	33		
	KT71	Top	154	81	0	-52	3	32		
	KT72	Top	173	81	0	-53	3	31		
	KT73	Top	168	81	0	-52	3	32		
	KT74	Top	142	81	0	-51	3	33	50	60

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KTU-PF03a	KT1	North	220	70	-10	-55	3	8		
	KT2	North	219	70	-10	-55	3	8		
	KT3	North	213	70	-10	-55	3	8		
	KT4	North	212	70	-10	-55	3	8		
	KT5	North	208	70	-10	-54	3	9		
	KT6	North	207	70	-10	-54	3	9		
	KT7	North	201	70	-10	-54	3	9		
	KT8	North	200	70	-10	-54	3	9		
	KT9	North	184	70	-10	-53	3	10		
	KT10	East	151	70	0	-62	3	21		
	KT11	South	199	75	0	-54	3	24		
	KT12	South	198	75	0	-54	3	24		
	KT13	West	183	70	-10	-53	3	10		
	KT14	West	185	70	-10	-53	3	10		
	KT15	North	226	70	-10	-55	3	8		
	KT16	North	231	72	-10	-55	3	10		
	KT17	North	235	72	-10	-55	3	10		
	KT18	North	197	71	-10	-54	3	10		
	KT19	North	191	71	-10	-54	3	10		
	KT20	North	180	70	-10	-53	3	10		
	KT21	North	173	68	-10	-53	3	8		
	KT22	North	165	68	-10	-52	3	9		
	KT23	North	160	68	-10	-52	3	9		
	KT24	North	158	68	-10	-52	3	9		
	KT25	East	156	68	0	-52	3	19		
	KT26	East	153	70	0	-52	3	21		
	KT27	South	209	75	0	-54	3	24		
	KT28	South	187	76	0	-53	3	26		
	KT29	South	206	76	0	-54	3	25		
	KT30	South	216	76	0	-55	3	24		
	KT31	West	229	75	-10	-55	3	13		
	KT32	West	233	75	-10	-55	3	13		
	KT33	Top	222	72	0	-55	3	20		
	KT34	Top	198	72	0	-54	3	21		
	KT35	Top	223	72	0	-55	3	20		
	KT36	Top	178	72	0	-53	3	22		
	KT37	Top	172	72	0	-53	3	22		
	KT38	Top	161	72	0	-52	3	23		
	KT39	Top	182	71	0	-53	3	21		
	KT40	North	151	71	-10	-52	3	12		
	KT41	North	152	69	-10	-52	3	10		
	KT42	North	156	69	-10	-52	3	10		
	KT43	North	157	69	-10	-52	3	10		
	KT44	North	160	68	-10	-52	3	9		
	KT45	North	162	68	-10	-52	3	9		
	KT46	North	167	68	-10	-52	3	9		
	KT47	North	168	68	-10	-52	3	9		
	KT48	East	163	74	-10	-52	3	15		
	KT49	South	158	75	0	-52	3	26		
	KT50	South	145	75	0	-51	3	27		
	KT51	East	128	75	-10	-50	3	18		
	KT52	West	109	75	0	-49	3	29		
	KT53	South	158	70	0	-52	3	21		
	KT54	South	146	73	0	-51	3	25		
	KT55	South	143	75	0	-51	3	27		
	KT56	South	137	75	0	-51	3	27		
	KT57	South	133	75	0	-50	3	28		
	KT58	North	116	75	-10	-49	3	19		
	KT59	North	118	75	-10	-49	3	19		
	KT60	North	120	71	-10	-50	3	14		
	KT61	North	125	71	-10	-50	3	14		
	KT62	North	130	71	-10	-50	3	14		
	KT63	North	133	70	-10	-50	3	13		
	KT64	West	111	70	0	-49	3	24		
	KT65	West	114	70	0	-49	3	24		
	KT66	North	137	70	-10	-51	3	12		
	KT67	North	143	70	-10	-51	3	12		
	KT68	Top	122	72	0	-50	3	25		
	KT69	Top	122	71	0	-50	3	24		
	KT70	Top	135	71	0	-51	3	23		
	KT71	Top	154	70	0	-52	3	21		
	KT72	Top	173	70	0	-53	3	20		
	KT73	Top	168	71	0	-52	3	22		
	KT74	Top	142	71	0	-51	3	23	40	50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the louvers totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the louvers.

Appendix 4.11 Fixed Plant Noise Calculation

Cumulative Fixed Plant Noise Impact Assessment

Daytime/ Evening

NAP	Project	Predicted Noise Level, dB(A)	Daytime/ Evening Criterion, dB(A)
KTU-PF03a	NL - KTU Station ^[1]	50	
	Existing EAP 3 ^[1]	39	
	EAL - KTU Station ^[2]	60	
	Total	60	
			65

Night-time

NAP	Project	Predicted Noise Level, dB(A)	Night-time Criterion, dB(A)
KTU-PF03a	NL - KTU Station	40	
	Existing EAP 3 ^[1]	39	
	EAL - KTU Station ^[2]	50	
	Total	51	
			55

Notes:

[1] Noise level was calculated based on the measurement result provided in Appendix 4.25 of the approved NENT NDA EIA report (Register No.: AEIAR-175/2013). Detailed calculation can be referred to the Existing Fixed Plant Noise Impact Assessment for EAP 3.
 [2] It is noted that KTU (EAL) Station shall comply with the noise criteria of ANL -G with ASR of "B" in the fixed plant noise assessment based on the Environmental Review Report of Sheung Shui to Lok Ma Chau Spur Line conducted in Nov 2021. As such a noise level of 60 / 50 for daytime & evening time/ night-time was adopted for conservative approach.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KTU Station)

NAP:

KTU-PF03b

Description:

Planned Housing Development at Kwu Tung North NDA

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight, dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
KTU-PF03b	KT1	North	246	82	-10	-56	3	19		
	KT2	North	245	82	-10	-56	3	19		
	KT3	North	240	82	-10	-56	3	19		
	KT4	North	238	82	-10	-56	3	19		
	KT5	North	235	82	-10	-55	3	20		
	KT6	North	233	82	-10	-55	3	20		
	KT7	North	227	82	-10	-55	3	20		
	KT8	North	226	82	-10	-55	3	20		
	KT9	North	209	82	-10	-54	3	21		
	KT10	East	176	82	0	-53	3	32		
	KT11	South	227	85	0	-55	3	33		
	KT12	South	225	85	0	-55	3	33		
	KT13	West	209	80	-10	-54	3	19		
	KT14	West	211	80	-10	-54	3	19		
	KT15	North	253	80	-10	-56	3	17		
	KT16	North	258	81	-10	-56	3	18		
	KT17	North	262	81	-10	-56	3	18		
	KT18	North	223	80	-10	-55	3	18		
	KT19	North	216	80	-10	-55	3	18		
	KT20	North	206	80	-10	-54	3	19		
	KT21	North	198	80	-10	-54	3	19		
	KT22	North	190	80	-10	-54	3	19		
	KT23	North	185	80	-10	-53	3	20		
	KT24	North	182	80	-10	-53	3	20		
	KT25	East	180	80	0	-53	3	30		
	KT26	East	178	80	0	-53	3	30		
	KT27	South	236	85	0	-55	3	33		
	KT28	South	214	85	0	-55	3	33		
	KT29	South	233	85	0	-55	3	33		
	KT30	South	244	85	0	-56	3	32		
	KT31	West	256	85	-10	-56	3	22		
	KT32	West	260	85	-10	-56	3	22		
	KT33	Top	248	80	0	-56	3	27		
	KT34	Top	224	80	0	-55	3	28		
	KT35	Top	250	80	0	-56	3	27		
	KT36	Top	204	80	0	-54	3	29		
	KT37	Top	198	80	0	-54	3	29		
	KT38	Top	186	80	0	-53	3	30		
	KT39	Top	209	80	0	-54	3	29		
	KT40	North	134	80	-10	-51	3	22		
	KT41	North	135	80	-10	-51	3	22		
	KT42	North	138	80	-10	-51	3	22		
	KT43	North	139	80	-10	-51	3	22		
	KT44	North	142	80	-10	-51	3	22		
	KT45	North	143	80	-10	-51	3	22		
	KT46	North	148	80	-10	-51	3	22		
	KT47	North	149	80	-10	-51	3	22		
	KT48	East	141	80	-10	-51	3	22		
	KT49	South	137	85	0	-51	3	37		
	KT50	South	125	85	0	-50	3	38		
	KT51	East	113	85	-10	-49	3	29		
	KT52	West	101	85	0	-48	3	40		
	KT53	South	137	80	0	-51	3	32		
	KT54	South	126	83	0	-50	3	36		
	KT55	South	123	85	0	-50	3	38		
	KT56	South	118	85	0	-49	3	39		
	KT57	South	115	85	0	-49	3	39		
	KT58	North	108	85	-10	-49	3	29		
	KT59	North	109	85	-10	-49	3	29		
	KT60	North	110	81	-10	-49	3	25		
	KT61	North	114	81	-10	-49	3	25		
	KT62	North	116	81	-10	-49	3	25		
	KT63	North	119	80	-10	-50	3	23		
	KT64	West	102	80	0	-48	3	35		
	KT65	West	106	80	0	-48	3	35		
	KT66	North	123	80	-10	-50	3	23		
	KT67	North	127	80	-10	-50	3	23		
	KT68	Top	109	82	0	-49	3	36		
	KT69	Top	108	81	0	-49	3	35		
	KT70	Top	120	81	0	-50	3	34		
	KT71	Top	137	81	0	-51	3	33		
	KT72	Top	153	81	0	-52	3	32		
	KT73	Top	147	81	0	-51	3	33		
	KT74	Top	125	81	0	-50	3	34	50	60

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KTU-PF03b	KT1	North	246	70	-10	-56	3	7		
	KT2	North	245	70	-10	-56	3	7		
	KT3	North	240	70	-10	-56	3	7		
	KT4	North	238	70	-10	-56	3	7		
	KT5	North	235	70	-10	-55	3	8		
	KT6	North	233	70	-10	-55	3	8		
	KT7	North	227	70	-10	-55	3	8		
	KT8	North	226	70	-10	-55	3	8		
	KT9	North	209	70	-10	-54	3	9		
	KT10	East	176	70	0	-53	3	20		
	KT11	South	227	75	0	-55	3	23		
	KT12	South	225	75	0	-55	3	23		
	KT13	West	209	70	-10	-54	3	9		
	KT14	West	211	70	-10	-54	3	9		
	KT15	North	253	70	-10	-56	3	7		
	KT16	North	258	72	-10	-56	3	9		
	KT17	North	262	72	-10	-56	3	9		
	KT18	North	223	71	-10	-55	3	9		
	KT19	North	216	71	-10	-55	3	9		
	KT20	North	206	70	-10	-54	3	9		
	KT21	North	198	68	-10	-54	3	7		
	KT22	North	190	68	-10	-54	3	7		
	KT23	North	185	68	-10	-53	3	8		
	KT24	North	182	68	-10	-53	3	8		
	KT25	East	180	68	0	-53	3	18		
	KT26	East	178	70	0	-53	3	20		
	KT27	South	236	75	0	-55	3	23		
	KT28	South	214	76	0	-55	3	24		
	KT29	South	233	76	0	-55	3	24		
	KT30	South	244	76	0	-56	3	23		
	KT31	West	256	75	-10	-56	3	12		
	KT32	West	260	75	-10	-56	3	12		
	KT33	Top	248	72	0	-56	3	19		
	KT34	Top	224	72	0	-55	3	20		
	KT35	Top	250	72	0	-56	3	19		
	KT36	Top	204	72	0	-54	3	21		
	KT37	Top	198	72	0	-54	3	21		
	KT38	Top	186	72	0	-53	3	22		
	KT39	Top	209	71	0	-54	3	20		
	KT40	North	134	71	-10	-51	3	13		
	KT41	North	135	69	-10	-51	3	11		
	KT42	North	138	69	-10	-51	3	11		
	KT43	North	139	69	-10	-51	3	11		
	KT44	North	142	68	-10	-51	3	10		
	KT45	North	143	68	-10	-51	3	10		
	KT46	North	148	68	-10	-51	3	10		
	KT47	North	149	68	-10	-51	3	10		
	KT48	East	141	74	-10	-51	3	16		
	KT49	South	137	75	0	-51	3	27		
	KT50	South	125	75	0	-50	3	28		
	KT51	East	113	75	-10	-49	3	19		
	KT52	West	101	75	0	-48	3	30		
	KT53	South	137	70	0	-51	3	22		
	KT54	South	126	73	0	-50	3	26		
	KT55	South	123	75	0	-50	3	28		
	KT56	South	118	75	0	-49	3	29		
	KT57	South	115	75	0	-49	3	29		
	KT58	North	108	75	-10	-49	3	19		
	KT59	North	109	75	-10	-49	3	19		
	KT60	North	110	71	-10	-49	3	15		
	KT61	North	114	71	-10	-49	3	15		
	KT62	North	116	71	-10	-49	3	15		
	KT63	North	119	70	-10	-50	3	13		
	KT64	West	102	70	0	-48	3	25		
	KT65	West	106	70	0	-48	3	25		
	KT66	North	123	70	-10	-50	3	13		
	KT67	North	127	70	-10	-50	3	13		
	KT68	Top	109	72	0	-49	3	26		
	KT69	Top	108	71	0	-49	3	25		
	KT70	Top	120	71	0	-50	3	24		
	KT71	Top	137	70	0	-51	3	22		
	KT72	Top	153	70	0	-52	3	21		
	KT73	Top	147	71	0	-51	3	23		
	KT74	Top	125	71	0	-50	3	24	40	50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the receiver totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the receiver.

Appendix 4.11 Fixed Plant Noise Calculation

Cumulative Fixed Plant Noise Impact Assessment

Daytime/ Evening

NAP	Project	Predicted Noise Level, dB(A)	Daytime/ Evening Criterion, dB(A)
KTU-PF03b	NL - KTU Station	50	
	Existing EAP 3 ^[1]	41	
	EAL - KTU Station ^[2]	60	
	Total	60	
			65

Night-time

NAP	Project	Predicted Noise Level, dB(A)	Night-time Criterion, dB(A)
KTU-PF03b	NL - KTU Station	40	
	Existing EAP 3 ^[1]	41	
	EAL - KTU Station ^[2]	50	
	Total	51	
			55

Notes:

[1] Noise level was calculated based on the measurement result provided in Appendix 4.25 of the approved NENT NDA EIA report (Register No.: AEIAR-175/2013). Detailed calculation can be referred to the Existing Fixed Plant Noise Impact Assessment for EAP 3.
 [2] It is noted that KTU (EAL) Station shall comply with the noise criteria of ANL -G with ASR of "B" in the fixed plant noise assessment based on the Environmental Review Report of Sheung Shui to Lok Ma Chau Spur Line conducted in Nov 2021. As such a noise level of 60 / 50 for daytime & evening time/ night-time was adopted for conservative approach.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KTU Station)

NAP:

KTU-PF04a

Description:

Planned Housing Development at Kwu Tung North NDA

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
KTU-PF04a	KT1	North	161	82	0	-52	3	33		
	KT2	North	160	82	0	-52	3	33		
	KT3	North	154	82	0	-52	3	33		
	KT4	North	153	82	0	-52	3	33		
	KT5	North	148	82	0	-51	3	34		
	KT6	North	147	82	0	-51	3	34		
	KT7	North	140	82	0	-51	3	34		
	KT8	North	139	82	0	-51	3	34		
	KT9	North	120	82	0	-50	3	35		
	KT10	East	91	82	0	-47	3	38		
	KT11	South	155	85	-10	-52	3	26		
	KT12	South	154	85	-10	-52	3	26		
	KT13	West	131	80	-10	-50	3	23		
	KT14	West	130	80	-10	-50	3	23		
	KT15	North	169	80	0	-53	3	30		
	KT16	North	174	81	0	-53	3	31		
	KT17	North	178	81	0	-53	3	31		
	KT18	North	136	80	0	-51	3	32		
	KT19	North	128	80	0	-50	3	33		
	KT20	North	120	80	0	-50	3	33		
	KT21	North	112	80	0	-49	3	34		
	KT22	North	103	80	0	-48	3	35		
	KT23	North	97	80	0	-48	3	35		
	KT24	North	95	80	0	-48	3	35		
	KT25	East	94	80	0	-47	3	36		
	KT26	East	96	80	0	-48	3	35		
	KT27	South	164	85	-10	-52	3	26		
	KT28	South	141	85	-10	-51	3	27		
	KT29	South	161	85	-10	-52	3	26		
	KT30	South	172	85	-10	-53	3	25		
	KT31	West	179	85	-10	-53	3	25		
	KT32	West	180	85	-10	-53	3	25		
	KT33	Top	166	80	0	-52	3	31		
	KT34	Top	142	80	0	-51	3	32		
	KT35	Top	175	80	0	-53	3	30		
	KT36	Top	123	80	0	-50	3	33		
	KT37	Top	116	80	0	-49	3	34		
	KT38	Top	105	80	0	-48	3	35		
	KT39	Top	136	80	0	-51	3	32		
	KT40	North	149	80	0	-51	3	32		
	KT41	North	151	80	0	-52	3	31		
	KT42	North	156	80	0	-52	3	31		
	KT43	North	158	80	0	-52	3	31		
	KT44	North	162	80	0	-52	3	31		
	KT45	North	163	80	0	-52	3	31		
	KT46	North	170	80	0	-53	3	30		
	KT47	North	171	80	0	-53	3	30		
	KT48	East	183	80	-10	-53	3	20		
	KT49	South	179	85	-10	-53	3	25		
	KT50	South	163	85	-10	-52	3	26		
	KT51	East	135	85	-10	-51	3	27		
	KT52	West	99	85	0	-48	3	40		
	KT53	South	178	80	-10	-53	3	20		
	KT54	South	165	83	-10	-52	3	24		
	KT55	South	160	85	-10	-52	3	26		
	KT56	South	154	85	-10	-52	3	26		
	KT57	South	149	85	-10	-51	3	27		
	KT58	North	102	85	0	-48	3	40		
	KT59	North	104	85	0	-48	3	40		
	KT60	North	109	81	0	-49	3	35		
	KT61	North	117	81	0	-49	3	35		
	KT62	North	124	81	0	-50	3	34		
	KT63	North	129	80	0	-50	3	33		
	KT64	West	102	80	0	-48	3	35		
	KT65	West	100	80	0	-48	3	35		
	KT66	North	130	80	0	-50	3	33		
	KT67	North	138	80	0	-51	3	32		
	KT68	Top	119	82	0	-49	3	36		
	KT69	Top	126	81	0	-50	3	34		
	KT70	Top	134	81	0	-51	3	33		
	KT71	Top	156	81	0	-52	3	32		
	KT72	Top	180	81	0	-53	3	31		
	KT73	Top	183	81	0	-53	3	31		
	KT74	Top	146	81	0	-51	3	33	52	60

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KTU-FF04a	KT1	North	161	70	0	-52	3	21		
	KT2	North	160	70	0	-52	3	21		
	KT3	North	154	70	0	-52	3	21		
	KT4	North	153	70	0	-52	3	21		
	KT5	North	148	70	0	-51	3	22		
	KT6	North	147	70	0	-51	3	22		
	KT7	North	140	70	0	-51	3	22		
	KT8	North	139	70	0	-51	3	22		
	KT9	North	120	70	0	-50	3	23		
	KT10	East	91	70	0	-47	3	26		
	KT11	South	155	75	-10	-52	3	16		
	KT12	South	154	75	-10	-52	3	16		
	KT13	West	131	70	-10	-50	3	13		
	KT14	West	130	70	-10	-50	3	13		
	KT15	North	169	70	0	-53	3	20		
	KT16	North	174	72	0	-53	3	22		
	KT17	North	178	72	0	-53	3	22		
	KT18	North	136	71	0	-51	3	23		
	KT19	North	128	71	0	-50	3	24		
	KT20	North	120	70	0	-50	3	23		
	KT21	North	112	68	0	-49	3	23		
	KT22	North	103	68	0	-48	3	22		
	KT23	North	97	68	0	-48	3	23		
	KT24	North	95	68	0	-48	3	23		
	KT25	East	94	68	0	-47	3	24		
	KT26	East	96	70	0	-48	3	25		
	KT27	South	164	75	-10	-52	3	16		
	KT28	South	141	76	-10	-51	3	18		
	KT29	South	161	76	-10	-52	3	17		
	KT30	South	172	76	-10	-53	3	16		
	KT31	West	179	75	-10	-53	3	15		
	KT32	West	180	75	-10	-53	3	15		
	KT33	Top	166	72	0	-52	3	23		
	KT34	Top	142	72	0	-51	3	24		
	KT35	Top	175	72	0	-53	3	22		
	KT36	Top	123	72	0	-50	3	25		
	KT37	Top	116	72	0	-49	3	26		
	KT38	Top	105	72	0	-48	3	27		
	KT39	Top	136	71	0	-51	3	23		
	KT40	North	149	71	0	-51	3	23		
	KT41	North	151	69	0	-52	3	20		
	KT42	North	156	69	0	-52	3	20		
	KT43	North	158	69	0	-52	3	20		
	KT44	North	162	68	0	-52	3	19		
	KT45	North	163	68	0	-52	3	19		
	KT46	North	170	68	0	-53	3	18		
	KT47	North	171	68	0	-53	3	18		
	KT48	East	183	74	-10	-53	3	14		
	KT49	South	179	75	-10	-53	3	15		
	KT50	South	163	75	-10	-52	3	16		
	KT51	East	135	75	-10	-51	3	17		
	KT52	West	99	75	0	-48	3	30		
	KT53	South	178	70	-10	-53	3	10		
	KT54	South	165	73	-10	-52	3	14		
	KT55	South	160	75	-10	-52	3	16		
	KT56	South	154	75	-10	-52	3	16		
	KT57	South	149	75	-10	-51	3	17		
	KT58	North	102	75	0	-48	3	30		
	KT59	North	104	75	0	-48	3	30		
	KT60	North	109	71	0	-49	3	25		
	KT61	North	117	71	0	-49	3	25		
	KT62	North	124	71	0	-50	3	24		
	KT63	North	129	70	0	-50	3	23		
	KT64	West	102	70	0	-48	3	25		
	KT65	West	100	70	0	-48	3	25		
	KT66	North	130	70	0	-50	3	23		
	KT67	North	138	70	0	-51	3	22		
	KT68	Top	119	72	0	-49	3	26		
	KT69	Top	126	71	0	-50	3	24		
	KT70	Top	134	71	0	-51	3	23		
	KT71	Top	156	70	0	-52	3	21		
	KT72	Top	180	70	0	-53	3	20		
	KT73	Top	183	71	0	-53	3	21		
	KT74	Top	146	71	0	-51	3	23	41	50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the louvers totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the louvers.

Appendix 4.11 Fixed Plant Noise Calculation

Cumulative Fixed Plant Noise Impact Assessment

Daytime/ Evening

NAP	Project	Predicted Noise Level, dB(A)	Daytime/ Evening Criterion, dB(A)
KTU-PF04a	NL - KTU Station ^[1]	52	
	Existing EAP 3 ^[1]	37	
	EAL - KTU Station ^[2]	60	
	Total	61	
			65

Night-time

NAP	Project	Predicted Noise Level, dB(A)	Night-time Criterion, dB(A)
KTU-PF04a	NL - KTU Station	41	
	Existing EAP 3 ^[1]	37	
	EAL - KTU Station ^[2]	50	
	Total	51	
			55

Notes:

[1] Noise level was calculated based on the measurement result provided in Appendix 4.25 of the approved NENT NDA EIA report (Register No.: AEIAR-175/2013). Detailed calculation can be referred to the Existing Fixed Plant Noise Impact Assessment for EAP 3.
 [2] It is noted that KTU (EAL) Station shall comply with the noise criteria of ANL -G with ASR of "B" in the fixed plant noise assessment based on the Environmental Review Report of Sheung Shui to Lok Ma Chau Spur Line conducted in Nov 2021. As such a noise level of 60 / 50 for daytime & evening time/ night-time was adopted for conservative approach.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KTU Station)

NAP:

KTU-PF04b

Description:

Planned Housing Development at Kwu Tung North NDA

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
KTU-PF04b	KT1	North	201	82	0	-54	3	31		
	KT2	North	200	82	0	-54	3	31		
	KT3	North	194	82	0	-54	3	31		
	KT4	North	192	82	0	-54	3	31		
	KT5	North	188	82	0	-53	3	32		
	KT6	North	187	82	0	-53	3	32		
	KT7	North	180	82	0	-53	3	32		
	KT8	North	178	82	0	-53	3	32		
	KT9	North	159	82	0	-52	3	33		
	KT10	East	127	82	0	-50	3	35		
	KT11	South	193	85	-10	-54	3	24		
	KT12	South	191	85	-10	-54	3	24		
	KT13	West	169	80	-10	-53	3	20		
	KT14	West	168	80	-10	-52	3	21		
	KT15	North	208	80	0	-54	3	29		
	KT16	North	214	81	0	-55	3	29		
	KT17	North	218	81	0	-55	3	29		
	KT18	North	175	80	0	-53	3	30		
	KT19	North	168	80	0	-52	3	31		
	KT20	North	159	80	0	-52	3	31		
	KT21	North	150	80	0	-52	3	31		
	KT22	North	141	80	0	-51	3	32		
	KT23	North	134	80	0	-51	3	32		
	KT24	North	132	80	0	-50	3	33		
	KT25	East	131	80	0	-50	3	33		
	KT26	East	132	80	0	-50	3	33		
	KT27	South	202	85	-10	-54	3	24		
	KT28	South	179	85	-10	-53	3	25		
	KT29	South	199	85	-10	-54	3	24		
	KT30	South	210	85	-10	-54	3	24		
	KT31	West	218	85	-10	-55	3	23		
	KT32	West	219	85	-10	-55	3	23		
	KT33	Top	205	80	0	-54	3	29		
	KT34	Top	181	80	0	-53	3	30		
	KT35	Top	213	80	0	-55	3	28		
	KT36	Top	161	80	0	-52	3	31		
	KT37	Top	154	80	0	-52	3	31		
	KT38	Top	142	80	0	-51	3	32		
	KT39	Top	173	80	0	-53	3	30		
	KT40	North	108	80	0	-49	3	34		
	KT41	North	109	80	0	-49	3	34		
	KT42	North	115	80	0	-49	3	34		
	KT43	North	116	80	0	-49	3	34		
	KT44	North	120	80	0	-50	3	33		
	KT45	North	122	80	0	-50	3	33		
	KT46	North	128	80	0	-50	3	33		
	KT47	North	130	80	0	-50	3	33		
	KT48	East	142	80	-10	-51	3	22		
	KT49	South	137	85	-10	-51	3	27		
	KT50	South	122	85	-10	-50	3	28		
	KT51	East	95	85	-10	-48	3	30		
	KT52	West	61	85	0	-44	3	44		
	KT53	South	137	80	-10	-51	3	22		
	KT54	South	124	83	-10	-50	3	26		
	KT55	South	120	85	-10	-50	3	28		
	KT56	South	113	85	-10	-49	3	29		
	KT57	South	109	85	-10	-49	3	29		
	KT58	North	62	85	0	-44	3	44		
	KT59	North	64	85	0	-44	3	44		
	KT60	North	69	81	0	-45	3	39		
	KT61	North	77	81	0	-46	3	38		
	KT62	North	83	81	0	-46	3	38		
	KT63	North	88	80	0	-47	3	36		
	KT64	West	63	80	0	-44	3	39		
	KT65	West	61	80	0	-44	3	39		
	KT66	North	89	80	0	-47	3	36		
	KT67	North	97	80	0	-48	3	35		
	KT68	Top	78	82	0	-46	3	39		
	KT69	Top	86	81	0	-47	3	37		
	KT70	Top	92	81	0	-47	3	37		
	KT71	Top	114	81	0	-49	3	35		
	KT72	Top	138	81	0	-51	3	33		
	KT73	Top	141	81	0	-51	3	33		
	KT74	Top	104	81	0	-48	3	36	53	60

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KTU-FF04b	KT1	North	201	70	0	-54	3	19		
	KT2	North	200	70	0	-54	3	19		
	KT3	North	194	70	0	-54	3	19		
	KT4	North	192	70	0	-54	3	19		
	KT5	North	188	70	0	-53	3	20		
	KT6	North	187	70	0	-53	3	20		
	KT7	North	180	70	0	-53	3	20		
	KT8	North	178	70	0	-53	3	20		
	KT9	North	159	70	0	-52	3	21		
	KT10	East	127	70	0	-60	3	23		
	KT11	South	193	75	-10	-54	3	14		
	KT12	South	191	75	-10	-54	3	14		
	KT13	West	169	70	-10	-53	3	10		
	KT14	West	168	70	-10	-52	3	11		
	KT15	North	208	70	0	-54	3	19		
	KT16	North	214	72	0	-55	3	20		
	KT17	North	218	72	0	-55	3	20		
	KT18	North	175	71	0	-53	3	21		
	KT19	North	168	71	0	-52	3	22		
	KT20	North	159	70	0	-52	3	21		
	KT21	North	150	68	0	-52	3	19		
	KT22	North	141	68	0	-51	3	20		
	KT23	North	134	68	0	-51	3	20		
	KT24	North	132	68	0	-50	3	21		
	KT25	East	131	68	0	-50	3	21		
	KT26	East	132	70	0	-50	3	23		
	KT27	South	202	75	-10	-54	3	14		
	KT28	South	179	76	-10	-53	3	16		
	KT29	South	199	76	-10	-54	3	15		
	KT30	South	210	76	-10	-54	3	15		
	KT31	West	218	75	-10	-55	3	13		
	KT32	West	219	75	-10	-55	3	13		
	KT33	Top	205	72	0	-54	3	21		
	KT34	Top	181	72	0	-53	3	22		
	KT35	Top	213	72	0	-55	3	20		
	KT36	Top	161	72	0	-52	3	23		
	KT37	Top	154	72	0	-52	3	23		
	KT38	Top	142	72	0	-51	3	24		
	KT39	Top	173	71	0	-53	3	21		
	KT40	North	108	71	0	-49	3	25		
	KT41	North	109	69	0	-49	3	23		
	KT42	North	115	69	0	-49	3	23		
	KT43	North	116	69	0	-49	3	23		
	KT44	North	120	68	0	-50	3	21		
	KT45	North	122	68	0	-50	3	21		
	KT46	North	128	68	0	-50	3	21		
	KT47	North	130	68	0	-50	3	21		
	KT48	East	142	74	-10	-51	3	16		
	KT49	South	137	75	-10	-51	3	17		
	KT50	South	122	75	-10	-50	3	18		
	KT51	East	95	75	-10	-48	3	20		
	KT52	West	61	75	0	-44	3	34		
	KT53	South	137	70	-10	-51	3	12		
	KT54	South	124	73	-10	-50	3	16		
	KT55	South	120	75	-10	-50	3	18		
	KT56	South	113	75	-10	-49	3	19		
	KT57	South	109	75	-10	-49	3	19		
	KT58	North	62	75	0	-44	3	34		
	KT59	North	64	75	0	-44	3	34		
	KT60	North	69	71	0	-45	3	29		
	KT61	North	77	71	0	-46	3	28		
	KT62	North	83	71	0	-46	3	28		
	KT63	North	88	70	0	-47	3	26		
	KT64	West	63	70	0	-44	3	29		
	KT65	West	61	70	0	-44	3	29		
	KT66	North	89	70	0	-47	3	26		
	KT67	North	97	70	0	-48	3	25		
	KT68	Top	78	72	0	-46	3	29		
	KT69	Top	86	71	0	-47	3	27		
	KT70	Top	92	71	0	-47	3	27		
	KT71	Top	114	70	0	-49	3	24		
	KT72	Top	138	70	0	-51	3	22		
	KT73	Top	141	71	0	-51	3	23		
	KT74	Top	104	71	0	-48	3	26	43	50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the louvers totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the louvers.

Appendix 4.11 Fixed Plant Noise Calculation

Cumulative Fixed Plant Noise Impact Assessment

Daytime/ Evening

NAP	Project	Predicted Noise Level, dB(A)	Daytime/ Evening Criterion, dB(A)
KTU-PF04b	NL - KTU Station ^[1]	53	
	Existing EAP 3 ^[1]	39	
	EAL - KTU Station ^[2]	60	
	Total	61	
			65

Night-time

NAP	Project	Predicted Noise Level, dB(A)	Night-time Criterion, dB(A)
KTU-PF04b	NL - KTU Station	43	
	Existing EAP 3 ^[1]	39	
	EAL - KTU Station ^[2]	50	
	Total	51	
			55

Notes:

[1] Noise level was calculated based on the measurement result provided in Appendix 4.25 of the approved NENT NDA EIA report (Register No.: AEIAR-175/2013). Detailed calculation can be referred to the Existing Fixed Plant Noise Impact Assessment for EAP 3.
 [2] It is noted that KTU (EAL) Station shall comply with the noise criteria of ANL -G with ASR of "B" in the fixed plant noise assessment based on the Environmental Review Report of Sheung Shui to Lok Ma Chau Spur Line conducted in Nov 2021. As such a noise level of 60 / 50 for daytime & evening time/ night-time was adopted for conservative approach.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KTU Station)

NAP: KTU-PF05a
 Description: Planned Housing Development at Kwu Tung North NDA

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight, dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
KTU-PF05a	KT1	North	326	82	-10	-58	3	>300m		
	KT2	North	324	82	-10	-58	3	>300m		
	KT3	North	319	82	-10	-58	3	>300m		
	KT4	North	317	82	-10	-58	3	>300m		
	KT5	North	313	82	-10	-58	3	>300m		
	KT6	North	312	82	-10	-58	3	>300m		
	KT7	North	306	82	-10	-58	3	>300m		
	KT8	North	304	82	-10	-58	3	>300m		
	KT9	North	286	82	-10	-57	3	18		
	KT10	East	252	82	0	-56	3	29		
	KT11	South	307	85	0	-58	3	>300m		
	KT12	South	305	85	0	-58	3	>300m		
	KT13	West	288	80	-10	-57	3	16		
	KT14	West	289	80	-10	-57	3	16		
	KT15	North	333	80	-10	-58	3	>300m		
	KT16	North	338	81	-10	-59	3	>300m		
	KT17	North	341	81	-10	-59	3	>300m		
	KT18	North	301	80	-10	-58	3	>300m		
	KT19	North	294	80	-10	-57	3	16		
	KT20	North	294	80	-10	-57	3	16		
	KT21	North	276	80	-10	-57	3	16		
	KT22	North	267	80	-10	-57	3	16		
	KT23	North	261	80	-10	-56	3	17		
	KT24	North	258	80	-10	-56	3	17		
	KT25	East	256	80	0	-56	3	27		
	KT26	East	255	80	0	-56	3	27		
	KT27	South	317	85	0	-58	3	>300m		
	KT28	South	293	85	0	-57	3	31		
	KT29	South	313	85	0	-58	3	>300m		
	KT30	South	324	85	0	-58	3	>300m		
	KT31	West	337	85	-10	-59	3	>300m		
	KT32	West	340	85	-10	-59	3	>300m		
	KT33	Top	328	80	0	-58	3	>300m		
	KT34	Top	303	80	0	-58	3	>300m		
	KT35	Top	330	80	0	-58	3	>300m		
	KT36	Top	282	80	0	-57	3	26		
	KT37	Top	276	80	0	-57	3	26		
	KT38	Top	264	80	0	-56	3	27		
	KT39	Top	289	80	0	-57	3	26		
	KT40	North	118	80	-10	-49	3	24		
	KT41	North	118	80	-10	-49	3	24		
	KT42	North	119	80	-10	-49	3	24		
	KT43	North	119	80	-10	-49	3	24		
	KT44	North	119	80	-10	-50	3	23		
	KT45	North	119	80	-10	-50	3	23		
	KT46	North	120	80	-10	-50	3	23		
	KT47	North	120	80	-10	-50	3	23		
	KT48	East	103	80	-10	-48	3	25		
	KT49	South	102	85	0	-48	3	40		
	KT50	South	99	85	0	-48	3	40		
	KT51	East	107	85	-10	-49	3	29		
	KT52	West	124	85	-10	-50	3	28		
	KT53	South	102	80	0	-48	3	35		
	KT54	South	100	83	0	-48	3	38		
	KT55	South	99	85	0	-48	3	40		
	KT56	South	99	85	0	-48	3	40		
	KT57	South	99	85	0	-48	3	40		
	KT58	North	126	85	-10	-50	3	28		
	KT59	North	125	85	-10	-50	3	28		
	KT60	North	123	81	-10	-50	3	24		
	KT61	North	120	81	-10	-50	3	24		
	KT62	North	119	81	-10	-49	3	25		
	KT63	North	117	80	-10	-49	3	24		
	KT64	West	123	80	-10	-50	3	23		
	KT65	West	126	80	-10	-50	3	23		
	KT66	North	120	80	-10	-50	3	23		
	KT67	North	119	80	-10	-50	3	23		
	KT68	Top	116	82	0	-49	3	36		
	KT69	Top	110	81	0	-49	3	35		
	KT70	Top	115	81	0	-49	3	35		
	KT71	Top	117	81	0	-49	3	35		
	KT72	Top	120	81	0	-50	3	34		
	KT73	Top	110	81	0	-49	3	35		
	KT74	Top	112	81	0	-49	3	35	50	60

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KTU-PF05a	KT1	North	326	70	-10	-58	3	>300m		
	KT2	North	324	70	-10	-58	3	>300m		
	KT3	North	319	70	-10	-58	3	>300m		
	KT4	North	317	70	-10	-58	3	>300m		
	KT5	North	313	70	-10	-58	3	>300m		
	KT6	North	312	70	-10	-58	3	>300m		
	KT7	North	306	70	-10	-58	3	>300m		
	KT8	North	304	70	-10	-58	3	>300m		
	KT9	North	286	70	-10	-57	3	6		
	KT10	East	252	70	0	-56	3	17		
	KT11	South	307	75	0	-58	3	>300m		
	KT12	South	305	75	0	-58	3	>300m		
	KT13	West	288	70	-10	-57	3	6		
	KT14	West	289	70	-10	-57	3	6		
	KT15	North	333	70	-10	-58	3	>300m		
	KT16	North	338	72	-10	-59	3	>300m		
	KT17	North	341	72	-10	-59	3	>300m		
	KT18	North	301	71	-10	-58	3	>300m		
	KT19	North	294	71	-10	-57	3	7		
	KT20	North	284	70	-10	-57	3	6		
	KT21	North	276	68	-10	-57	3	4		
	KT22	North	267	68	-10	-57	3	4		
	KT23	North	261	68	-10	-56	3	5		
	KT24	North	258	68	-10	-56	3	5		
	KT25	East	256	68	0	-56	3	15		
	KT26	East	255	70	0	-56	3	17		
	KT27	South	317	75	0	-58	3	>300m		
	KT28	South	293	76	0	-57	3	22		
	KT29	South	313	76	0	-58	3	>300m		
	KT30	South	324	76	0	-58	3	>300m		
	KT31	West	337	75	-10	-59	3	>300m		
	KT32	West	340	75	-10	-59	3	>300m		
	KT33	Top	328	72	0	-58	3	>300m		
	KT34	Top	303	72	0	-58	3	>300m		
	KT35	Top	330	72	0	-58	3	>300m		
	KT36	Top	282	72	0	-57	3	18		
	KT37	Top	276	72	0	-57	3	18		
	KT38	Top	264	72	0	-56	3	19		
	KT39	Top	289	71	0	-57	3	17		
	KT40	North	118	71	-10	-49	3	15		
	KT41	North	118	69	-10	-49	3	13		
	KT42	North	119	69	-10	-49	3	13		
	KT43	North	119	69	-10	-49	3	13		
	KT44	North	119	68	-10	-50	3	11		
	KT45	North	119	68	-10	-50	3	11		
	KT46	North	120	68	-10	-50	3	11		
	KT47	North	120	68	-10	-50	3	11		
	KT48	East	103	74	-10	-48	3	19		
	KT49	South	102	75	0	-48	3	30		
	KT50	South	99	75	0	-48	3	30		
	KT51	East	107	75	-10	-49	3	19		
	KT52	West	124	75	-10	-50	3	18		
	KT53	South	102	70	0	-48	3	25		
	KT54	South	100	73	0	-48	3	28		
	KT55	South	99	75	0	-48	3	30		
	KT56	South	99	75	0	-48	3	30		
	KT57	South	99	75	0	-48	3	30		
	KT58	North	126	75	-10	-50	3	18		
	KT59	North	125	75	-10	-50	3	18		
	KT60	North	123	71	-10	-50	3	14		
	KT61	North	120	71	-10	-50	3	14		
	KT62	North	119	71	-10	-49	3	15		
	KT63	North	117	70	-10	-49	3	14		
	KT64	West	123	70	-10	-50	3	13		
	KT65	West	126	70	-10	-50	3	13		
	KT66	North	120	70	-10	-50	3	13		
	KT67	North	119	70	-10	-50	3	13		
	KT68	Top	116	72	0	-49	3	26		
	KT69	Top	110	71	0	-49	3	25		
	KT70	Top	115	71	0	-49	3	25		
	KT71	Top	117	70	0	-49	3	24		
	KT72	Top	120	70	0	-50	3	23		
	KT73	Top	110	71	0	-49	3	25		
	KT74	Top	112	71	0	-49	3	25	40	50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the louvers totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the louvers.

Appendix 4.11 Fixed Plant Noise Calculation

Cumulative Fixed Plant Noise Impact Assessment

Daytime/ Evening

NAP	Project	Predicted Noise Level, dB(A)	Daytime/ Evening Criterion, dB(A)
KTU-PF05a	NL - KTU Station ^[1]	50	
	Existing EAP 3 ^[1]	39	
	EAL - KTU Station ^[2]	60	
	Total	60	
			65

Night-time

NAP	Project	Predicted Noise Level, dB(A)	Night-time Criterion, dB(A)
KTU-PF05a	NL - KTU Station	40	
	Existing EAP 3 ^[1]	39	
	EAL - KTU Station ^[2]	50	
	Total	51	
			55

Notes:

[1] Noise level was calculated based on the measurement result provided in Appendix 4.25 of the approved NENT NDA EIA report (Register No.: AEIAR-175/2013). Detailed calculation can be referred to the Existing Fixed Plant Noise Impact Assessment for EAP 3.
 [2] It is noted that KTU (EAL) Station shall comply with the noise criteria of ANL -G with ASR of "B" in the fixed plant noise assessment based on the Environmental Review Report of Sheung Shui to Lok Ma Chau Spur Line conducted in Nov 2021. As such a noise level of 60 / 50 for daytime & evening time/ night-time was adopted for conservative approach.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KTU Station)

NAP:

KTU-PF05b

Description: Planned Housing Development at Kwu Tung North NDA

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight, dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
KTU-PF05b	KT1	North	358	82	-10	-59	3	>300m		
	KT2	North	357	82	-10	-59	3	>300m		
	KT3	North	351	82	-10	-59	3	>300m		
	KT4	North	350	82	-10	-59	3	>300m		
	KT5	North	346	82	-10	-59	3	>300m		
	KT6	North	344	82	-10	-59	3	>300m		
	KT7	North	338	82	-10	-59	3	>300m		
	KT8	North	337	82	-10	-59	3	>300m		
	KT9	North	319	82	-10	-58	3	>300m		
	KT10	East	284	82	0	-57	3	28		
	KT11	South	340	85	0	-59	3	>300m		
	KT12	South	338	85	0	-59	3	>300m		
	KT13	West	320	80	-10	-58	3	>300m		
	KT14	West	322	80	-10	-58	3	>300m		
	KT15	North	365	80	-10	-59	3	>300m		
	KT16	North	370	81	-10	-59	3	>300m		
	KT17	North	374	81	-10	-59	3	>300m		
	KT18	North	334	80	-10	-58	3	>300m		
	KT19	North	327	80	-10	-58	3	>300m		
	KT20	North	316	80	-10	-58	3	>300m		
	KT21	North	308	80	-10	-58	3	>300m		
	KT22	North	299	80	-10	-57	3	16		
	KT23	North	293	80	-10	-57	3	16		
	KT24	North	290	80	-10	-57	3	16		
	KT25	East	288	80	0	-57	3	26		
	KT26	East	287	80	0	-57	3	26		
	KT27	South	350	85	0	-59	3	>300m		
	KT28	South	326	85	0	-58	3	>300m		
	KT29	South	346	85	0	-59	3	>300m		
	KT30	South	357	85	0	-59	3	>300m		
	KT31	West	370	85	-10	-59	3	>300m		
	KT32	West	373	85	-10	-59	3	>300m		
	KT33	Top	361	80	0	-59	3	>300m		
	KT34	Top	336	80	0	-59	3	>300m		
	KT35	Top	363	80	0	-59	3	>300m		
	KT36	Top	315	80	0	-58	3	>300m		
	KT37	Top	308	80	0	-58	3	>300m		
	KT38	Top	296	80	0	-57	3	26		
	KT39	Top	321	80	0	-58	3	>300m		
	KT40	North	127	80	-10	-50	3	23		
	KT41	North	127	80	-10	-50	3	23		
	KT42	North	125	80	-10	-50	3	23		
	KT43	North	125	80	-10	-50	3	23		
	KT44	North	124	80	-10	-50	3	23		
	KT45	North	124	80	-10	-50	3	23		
	KT46	North	123	80	-10	-50	3	23		
	KT47	North	123	80	-10	-50	3	23		
	KT48	East	103	80	0	-48	3	35		
	KT49	South	103	85	0	-48	3	40		
	KT50	South	106	85	0	-49	3	39		
	KT51	East	122	85	-10	-50	3	28		
	KT52	West	145	85	-10	-51	3	27		
	KT53	South	103	80	0	-48	3	35		
	KT54	South	106	83	0	-48	3	38		
	KT55	South	107	85	0	-49	3	39		
	KT56	South	109	85	0	-49	3	39		
	KT57	South	111	85	0	-49	3	39		
	KT58	North	147	85	-10	-51	3	27		
	KT59	North	145	85	-10	-51	3	27		
	KT60	North	142	81	-10	-51	3	23		
	KT61	North	137	81	-10	-51	3	23		
	KT62	North	134	81	-10	-51	3	23		
	KT63	North	132	80	-10	-50	3	23		
	KT64	West	144	80	-10	-51	3	22		
	KT65	West	147	80	-10	-51	3	22		
	KT66	North	134	80	-10	-51	3	22		
	KT67	North	131	80	-10	-50	3	23		
	KT68	Top	134	82	0	-51	3	34		
	KT69	Top	126	81	0	-50	3	34		
	KT70	Top	129	81	0	-50	3	34		
	KT71	Top	124	81	0	-50	3	34		
	KT72	Top	120	81	0	-50	3	34		
	KT73	Top	110	81	0	-49	3	35		
	KT74	Top	122	81	0	-50	3	34	49	60

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KTU-PF05b	KT1	North	358	70	-10	-59	3	>300m		
	KT2	North	357	70	-10	-59	3	>300m		
	KT3	North	351	70	-10	-59	3	>300m		
	KT4	North	350	70	-10	-59	3	>300m		
	KT5	North	346	70	-10	-59	3	>300m		
	KT6	North	344	70	-10	-59	3	>300m		
	KT7	North	338	70	-10	-59	3	>300m		
	KT8	North	337	70	-10	-59	3	>300m		
	KT9	North	319	70	-10	-58	3	>300m		
	KT10	East	284	70	0	-57	3	16		
	KT11	South	340	75	0	-59	3	>300m		
	KT12	South	338	75	0	-59	3	>300m		
	KT13	West	320	70	-10	-58	3	>300m		
	KT14	West	322	70	-10	-58	3	>300m		
	KT15	North	365	70	-10	-59	3	>300m		
	KT16	North	370	72	-10	-59	3	>300m		
	KT17	North	374	72	-10	-59	3	>300m		
	KT18	North	334	71	-10	-58	3	>300m		
	KT19	North	327	71	-10	-58	3	>300m		
	KT20	North	316	70	-10	-58	3	>300m		
	KT21	North	308	68	-10	-58	3	>300m		
	KT22	North	299	68	-10	-57	3	4		
	KT23	North	293	68	-10	-57	3	4		
	KT24	North	290	68	-10	-57	3	4		
	KT25	East	288	68	0	-57	3	14		
	KT26	East	287	70	0	-57	3	16		
	KT27	South	350	75	0	-59	3	>300m		
	KT28	South	326	76	0	-58	3	>300m		
	KT29	South	346	76	0	-59	3	>300m		
	KT30	South	357	76	0	-59	3	>300m		
	KT31	West	370	75	-10	-59	3	>300m		
	KT32	West	373	75	-10	-59	3	>300m		
	KT33	Top	361	72	0	-59	3	>300m		
	KT34	Top	336	72	0	-59	3	>300m		
	KT35	Top	363	72	0	-59	3	>300m		
	KT36	Top	315	72	0	-58	3	>300m		
	KT37	Top	308	72	0	-58	3	>300m		
	KT38	Top	296	72	0	-57	3	18		
	KT39	Top	321	71	0	-58	3	>300m		
	KT40	North	127	71	-10	-50	3	14		
	KT41	North	127	69	-10	-50	3	12		
	KT42	North	125	69	-10	-50	3	12		
	KT43	North	125	69	-10	-50	3	12		
	KT44	North	124	68	-10	-50	3	11		
	KT45	North	124	68	-10	-50	3	11		
	KT46	North	123	68	-10	-50	3	11		
	KT47	North	123	68	-10	-50	3	11		
	KT48	East	103	74	0	-48	3	29		
	KT49	South	103	75	0	-48	3	30		
	KT50	South	106	75	0	-49	3	29		
	KT51	East	122	75	-10	-50	3	18		
	KT52	West	145	75	-10	-51	3	17		
	KT53	South	103	70	0	-48	3	25		
	KT54	South	106	73	0	-48	3	28		
	KT55	South	107	75	0	-49	3	29		
	KT56	South	109	75	0	-49	3	29		
	KT57	South	111	75	0	-49	3	29		
	KT58	North	147	75	-10	-51	3	17		
	KT59	North	145	75	-10	-51	3	17		
	KT60	North	142	71	-10	-51	3	13		
	KT61	North	137	71	-10	-51	3	13		
	KT62	North	134	71	-10	-51	3	13		
	KT63	North	132	70	-10	-50	3	13		
	KT64	West	144	70	-10	-51	3	12		
	KT65	West	147	70	-10	-51	3	12		
	KT66	North	134	70	-10	-51	3	12		
	KT67	North	131	70	-10	-50	3	13		
	KT68	Top	134	72	0	-51	3	24		
	KT69	Top	126	71	0	-50	3	24		
	KT70	Top	129	71	0	-50	3	24		
	KT71	Top	124	70	0	-50	3	23		
	KT72	Top	120	70	0	-50	3	23		
	KT73	Top	110	71	0	-49	3	25		
	KT74	Top	122	71	0	-50	3	24	39	50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the louvers totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the louvers.

Appendix 4.11 Fixed Plant Noise Calculation

Cumulative Fixed Plant Noise Impact Assessment

Daytime/ Evening

NAP	Project	Predicted Noise Level, dB(A)	Daytime/ Evening Criterion, dB(A)
KTU-PF05b	NL - KTU Station ^[1]	39	
	Existing EAP 3 ^[1]	39	
	EAL - KTU Station ^[2]	60	
	Total	60	
			65

Night-time

NAP	Project	Predicted Noise Level, dB(A)	Night-time Criterion, dB(A)
KTU-PF05b	NL - KTU Station	39	
	Existing EAP 3 ^[1]	39	
	EAL - KTU Station ^[2]	50	
	Total	51	
			55

Notes:

[1] Noise level was calculated based on the measurement result provided in Appendix 4.25 of the approved NENT NDA EIA report (Register No.: AEIAR-175/2013). Detailed calculation can be referred to the Existing Fixed Plant Noise Impact Assessment for EAP 3.
 [2] It is noted that KTU (EAL) Station shall comply with the noise criteria of ANL -G with ASR of "B" in the fixed plant noise assessment based on the Environmental Review Report of Sheung Shui to Lok Ma Chau Spur Line conducted in Nov 2021. As such a noise level of 60 / 50 for daytime & evening time/ night-time was adopted for conservative approach.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KTU Station)

NAP:

KTU-PF06a

Description:

Planned Housing Development at Kwu Tung North NDA

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
KTU-PF06a	KT1	North	260	82	0	-56	3	29		
	KT2	North	259	82	0	-56	3	29		
	KT3	North	253	82	0	-56	3	29		
	KT4	North	251	82	0	-56	3	29		
	KT5	North	247	82	0	-56	3	29		
	KT6	North	245	82	0	-56	3	29		
	KT7	North	239	82	0	-56	3	29		
	KT8	North	237	82	0	-56	3	29		
	KT9	North	218	82	0	-55	3	30		
	KT10	East	184	82	0	-53	3	32		
	KT11	South	250	85	-10	-56	3	22		
	KT12	South	249	85	-10	-56	3	22		
	KT13	West	226	80	-10	-55	3	18		
	KT14	West	226	80	-10	-55	3	18		
	KT15	North	268	80	0	-57	3	26		
	KT16	North	273	81	0	-57	3	27		
	KT17	North	277	81	0	-57	3	27		
	KT18	North	234	80	0	-55	3	28		
	KT19	North	226	80	0	-55	3	28		
	KT20	North	217	80	0	-55	3	28		
	KT21	North	208	80	0	-54	3	29		
	KT22	North	199	80	0	-54	3	29		
	KT23	North	192	80	0	-54	3	29		
	KT24	North	190	80	0	-54	3	29		
	KT25	East	188	80	0	-53	3	30		
	KT26	East	189	80	0	-54	3	29		
	KT27	South	260	85	-10	-56	3	22		
	KT28	South	236	85	-10	-55	3	23		
	KT29	South	257	85	-10	-56	3	22		
	KT30	South	268	85	-10	-57	3	21		
	KT31	West	276	85	-10	-57	3	21		
	KT32	West	278	85	-10	-57	3	21		
	KT33	Top	264	80	0	-56	3	27		
	KT34	Top	239	80	0	-56	3	27		
	KT35	Top	272	80	0	-57	3	26		
	KT36	Top	219	80	0	-55	3	28		
	KT37	Top	211	80	0	-55	3	28		
	KT38	Top	199	80	0	-54	3	29		
	KT39	Top	231	80	0	-55	3	28		
	KT40	North	49	80	0	-42	3	41		
	KT41	North	51	80	0	-42	3	41		
	KT42	North	56	80	0	-43	3	40		
	KT43	North	57	80	0	-43	3	40		
	KT44	North	61	80	0	-44	3	39		
	KT45	North	63	80	0	-44	3	39		
	KT46	North	69	80	0	-45	3	38		
	KT47	North	70	80	0	-45	3	38		
	KT48	East	85	80	-10	-47	3	26		
	KT49	South	81	85	-10	-46	3	32		
	KT50	South	68	85	-10	-45	3	33		
	KT51	East	44	85	-10	-41	3	37		
	KT52	West	36	85	0	-39	3	49		
	KT53	South	81	80	-10	-46	3	27		
	KT54	South	69	83	-10	-45	3	31		
	KT55	South	66	85	-10	-44	3	34		
	KT56	South	60	85	-10	-44	3	34		
	KT57	South	57	85	-10	-43	3	35		
	KT58	North	29	85	0	-37	3	51		
	KT59	North	28	85	0	-37	3	51		
	KT60	North	28	81	0	-37	3	47		
	KT61	North	29	81	0	-37	3	47		
	KT62	North	32	81	0	-38	3	46		
	KT63	North	35	80	0	-39	3	44		
	KT64	West	34	80	0	-39	3	44		
	KT65	West	31	80	0	-38	3	45		
	KT66	North	34	80	0	-39	3	44		
	KT67	North	40	80	0	-40	3	43		
	KT68	Top	33	82	0	-38	3	47		
	KT69	Top	40	81	0	-40	3	44		
	KT70	Top	39	81	0	-40	3	44		
	KT71	Top	56	81	0	-43	3	41		
	KT72	Top	78	81	0	-46	3	38		
	KT73	Top	83	81	0	-46	3	38		
	KT74	Top	49	81	0	-42	3	42	59	60

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KTU-PF06a	KT1	North	260	70	0	-56	3	17		
	KT2	North	259	70	0	-56	3	17		
	KT3	North	253	70	0	-56	3	17		
	KT4	North	251	70	0	-56	3	17		
	KT5	North	247	70	0	-56	3	17		
	KT6	North	245	70	0	-56	3	17		
	KT7	North	239	70	0	-56	3	17		
	KT8	North	237	70	0	-56	3	17		
	KT9	North	218	70	0	-55	3	18		
	KT10	East	184	70	0	-53	3	20		
	KT11	South	250	75	-10	-56	3	12		
	KT12	South	249	75	-10	-56	3	12		
	KT13	West	226	70	-10	-55	3	8		
	KT14	West	226	70	-10	-55	3	8		
	KT15	North	268	70	0	-57	3	16		
	KT16	North	273	72	0	-57	3	18		
	KT17	North	277	72	0	-57	3	18		
	KT18	North	234	71	0	-55	3	19		
	KT19	North	226	71	0	-55	3	19		
	KT20	North	217	70	0	-55	3	18		
	KT21	North	208	68	0	-54	3	17		
	KT22	North	199	68	0	-54	3	17		
	KT23	North	192	68	0	-54	3	17		
	KT24	North	190	68	0	-54	3	17		
	KT25	East	188	68	0	-53	3	18		
	KT26	East	189	70	0	-54	3	19		
	KT27	South	260	75	-10	-56	3	12		
	KT28	South	236	76	-10	-55	3	14		
	KT29	South	257	76	-10	-56	3	13		
	KT30	South	268	76	-10	-57	3	12		
	KT31	West	276	75	-10	-57	3	11		
	KT32	West	278	75	-10	-57	3	11		
	KT33	Top	264	72	0	-56	3	19		
	KT34	Top	239	72	0	-56	3	19		
	KT35	Top	272	72	0	-57	3	18		
	KT36	Top	219	72	0	-55	3	20		
	KT37	Top	211	72	0	-55	3	20		
	KT38	Top	199	72	0	-54	3	21		
	KT39	Top	231	71	0	-55	3	19		
	KT40	North	49	71	0	-42	3	32		
	KT41	North	51	69	0	-42	3	30		
	KT42	North	56	69	0	-43	3	29		
	KT43	North	57	69	0	-43	3	29		
	KT44	North	61	68	0	-44	3	27		
	KT45	North	63	68	0	-44	3	27		
	KT46	North	69	68	0	-45	3	26		
	KT47	North	70	68	0	-45	3	26		
	KT48	East	85	74	-10	-47	3	20		
	KT49	South	81	75	-10	-46	3	22		
	KT50	South	68	75	-10	-45	3	23		
	KT51	East	44	75	-10	-41	3	27		
	KT52	West	36	75	0	-39	3	39		
	KT53	South	81	70	-10	-46	3	17		
	KT54	South	69	73	-10	-45	3	21		
	KT55	South	66	75	-10	-44	3	24		
	KT56	South	60	75	-10	-44	3	24		
	KT57	South	57	75	-10	-43	3	25		
	KT58	North	29	75	0	-37	3	41		
	KT59	North	28	75	0	-37	3	41		
	KT60	North	28	71	0	-37	3	37		
	KT61	North	29	71	0	-37	3	37		
	KT62	North	32	71	0	-38	3	36		
	KT63	North	35	70	0	-39	3	34		
	KT64	West	34	70	0	-39	3	34		
	KT65	West	31	70	0	-38	3	35		
	KT66	North	34	70	0	-39	3	34		
	KT67	North	40	70	0	-40	3	33		
	KT68	Top	33	72	0	-38	3	37		
	KT69	Top	40	71	0	-40	3	34		
	KT70	Top	39	71	0	-40	3	34		
	KT71	Top	56	70	0	-43	3	30		
	KT72	Top	78	70	0	-46	3	27		
	KT73	Top	83	71	0	-46	3	28		
	KT74	Top	49	71	0	-42	3	32	49	50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the louvers totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the louvers.

Appendix 4.11 Fixed Plant Noise Calculation

Cumulative Fixed Plant Noise Impact Assessment

Daytime/ Evening

NAP	Project	Predicted Noise Level, dB(A)	Daytime/ Evening Criterion, dB(A)
KTU-PF06a	NL - KTU Station ^[1]	59	
	Existing EAP 3 ^[1]	35	
	EAL - KTU Station ^[2]	60	
	Total	63	
			65

Night-time

NAP	Project	Predicted Noise Level, dB(A)	Night-time Criterion, dB(A)
KTU-PF06a	NL - KTU Station	49	
	Existing EAP 3 ^[1]	35	
	EAL - KTU Station ^[2]	50	
	Total	53	
			55

Notes:

[1] Noise level was calculated based on the measurement result provided in Appendix 4.25 of the approved NENT NDA EIA report (Register No.: AEIAR-175/2013). Detailed calculation can be referred to the Existing Fixed Plant Noise Impact Assessment for EAP 3.
 [2] It is noted that KTU (EAL) Station shall comply with the noise criteria of ANL -G with ASR of "B" in the fixed plant noise assessment based on the Environmental Review Report of Sheung Shui to Lok Ma Chau Spur Line conducted in Nov 2021. As such a noise level of 60 / 50 for daytime & evening time/ night-time was adopted for conservative approach.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KTU Station)

NAP: KTU-PF06b
 Description: Planned Housing Development at Kwu Tung North NDA

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
KTU-PF06b	KT1	North	324	82	0	-58	3	>300m		
	KT2	North	322	82	0	-58	3	>300m		
	KT3	North	316	82	0	-58	3	>300m		
	KT4	North	315	82	0	-58	3	>300m		
	KT5	North	310	82	0	-58	3	>300m		
	KT6	North	309	82	0	-58	3	>300m		
	KT7	North	302	82	0	-58	3	>300m		
	KT8	North	301	82	0	-58	3	>300m		
	KT9	North	281	82	0	-57	3	28		
	KT10	East	247	82	0	-56	3	29		
	KT11	South	313	85	-10	-58	3	>300m		
	KT12	South	312	85	-10	-58	3	>300m		
	KT13	West	289	80	-10	-57	3	16		
	KT14	West	289	80	-10	-57	3	16		
	KT15	North	331	80	0	-58	3	>300m		
	KT16	North	336	81	0	-59	3	>300m		
	KT17	North	340	81	0	-59	3	>300m		
	KT18	North	298	80	0	-57	3	26		
	KT19	North	290	80	0	-57	3	26		
	KT20	North	290	80	0	-57	3	26		
	KT21	North	272	80	0	-57	3	26		
	KT22	North	262	80	0	-56	3	27		
	KT23	North	255	80	0	-56	3	27		
	KT24	North	253	80	0	-56	3	27		
	KT25	East	251	80	0	-56	3	27		
	KT26	East	252	80	0	-56	3	27		
	KT27	South	323	85	-10	-58	3	>300m		
	KT28	South	299	85	-10	-58	3	20		
	KT29	South	320	85	-10	-58	3	>300m		
	KT30	South	331	85	-10	-58	3	>300m		
	KT31	West	340	85	-10	-59	3	>300m		
	KT32	West	341	85	-10	-59	3	>300m		
	KT33	Top	327	80	0	-58	3	>300m		
	KT34	Top	303	80	0	-58	3	>300m		
	KT35	Top	335	80	0	-58	3	>300m		
	KT36	Top	282	80	0	-57	3	26		
	KT37	Top	274	80	0	-57	3	26		
	KT38	Top	262	80	0	-56	3	27		
	KT39	Top	293	80	0	-57	3	26		
	KT40	North	32	80	0	-38	3	45		
	KT41	North	31	80	0	-38	3	45		
	KT42	North	27	80	0	-37	3	46		
	KT43	North	27	80	0	-36	3	47		
	KT44	North	25	80	0	-36	3	47		
	KT45	North	25	80	0	-36	3	47		
	KT46	North	24	80	0	-36	3	47		
	KT47	North	24	80	0	-36	3	47		
	KT48	East	44	80	-10	-41	3	32		
	KT49	South	43	85	-10	-41	3	37		
	KT50	South	45	85	-10	-41	3	37		
	KT51	East	54	85	-10	-43	3	35		
	KT52	West	84	85	-10	-46	3	32		
	KT53	South	43	80	-10	-41	3	32		
	KT54	South	44	83	-10	-41	3	35		
	KT55	South	46	85	-10	-41	3	37		
	KT56	South	49	85	-10	-42	3	36		
	KT57	South	51	85	-10	-42	3	36		
	KT58	North	77	85	0	-46	3	42		
	KT59	North	74	85	0	-45	3	43		
	KT60	North	69	81	0	-45	3	39		
	KT61	North	61	81	0	-44	3	40		
	KT62	North	55	81	0	-43	3	41		
	KT63	North	51	80	0	-42	3	41		
	KT64	West	81	80	-10	-46	3	27		
	KT65	West	79	80	-10	-46	3	27		
	KT66	North	47	80	0	-41	3	42		
	KT67	North	40	80	0	-40	3	43		
	KT68	Top	64	82	0	-44	3	41		
	KT69	Top	61	81	0	-44	3	40		
	KT70	Top	48	81	0	-42	3	42		
	KT71	Top	29	81	0	-37	3	47		
	KT72	Top	28	81	0	-37	3	47		
	KT73	Top	38	81	0	-40	3	44		
	KT74	Top	40	81	0	-40	3	44	59	60

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KTU-FF06b	KT1	North	324	70	0	-58	3	>300m		
	KT2	North	322	70	0	-58	3	>300m		
	KT3	North	316	70	0	-58	3	>300m		
	KT4	North	315	70	0	-58	3	>300m		
	KT5	North	310	70	0	-58	3	>300m		
	KT6	North	309	70	0	-58	3	>300m		
	KT7	North	302	70	0	-58	3	>300m		
	KT8	North	301	70	0	-58	3	>300m		
	KT9	North	281	70	0	-57	3	16		
	KT10	East	247	70	0	-56	3	17		
	KT11	South	313	75	-10	-58	3	>300m		
	KT12	South	312	75	-10	-58	3	>300m		
	KT13	West	289	70	-10	-57	3	6		
	KT14	West	289	70	-10	-57	3	6		
	KT15	North	331	70	0	-58	3	>300m		
	KT16	North	336	72	0	-59	3	>300m		
	KT17	North	340	72	0	-59	3	>300m		
	KT18	North	298	71	0	-57	3	17		
	KT19	North	290	71	0	-57	3	17		
	KT20	North	280	70	0	-57	3	16		
	KT21	North	272	68	0	-57	3	14		
	KT22	North	262	68	0	-56	3	15		
	KT23	North	255	68	0	-56	3	15		
	KT24	North	253	68	0	-56	3	15		
	KT25	East	251	68	0	-56	3	15		
	KT26	East	252	70	0	-56	3	17		
	KT27	South	323	75	-10	-58	3	>300m		
	KT28	South	299	76	-10	-58	3	11		
	KT29	South	320	76	-10	-58	3	>300m		
	KT30	South	331	76	-10	-58	3	>300m		
	KT31	West	340	75	-10	-59	3	>300m		
	KT32	West	341	75	-10	-59	3	>300m		
	KT33	Top	327	72	0	-58	3	>300m		
	KT34	Top	303	72	0	-58	3	>300m		
	KT35	Top	335	72	0	-58	3	>300m		
	KT36	Top	282	72	0	-57	3	18		
	KT37	Top	274	72	0	-57	3	18		
	KT38	Top	262	72	0	-56	3	19		
	KT39	Top	293	71	0	-57	3	17		
	KT40	North	32	71	0	-38	3	36		
	KT41	North	31	69	0	-38	3	34		
	KT42	North	27	69	0	-37	3	35		
	KT43	North	27	69	0	-36	3	36		
	KT44	North	25	68	0	-36	3	35		
	KT45	North	25	68	0	-36	3	35		
	KT46	North	24	68	0	-36	3	35		
	KT47	North	24	68	0	-36	3	35		
	KT48	East	44	74	-10	-41	3	26		
	KT49	South	43	75	-10	-41	3	27		
	KT50	South	45	75	-10	-41	3	27		
	KT51	East	54	75	-10	-43	3	25		
	KT52	West	84	75	-10	-46	3	22		
	KT53	South	43	70	-10	-41	3	22		
	KT54	South	44	73	-10	-41	3	25		
	KT55	South	46	75	-10	-41	3	27		
	KT56	South	49	75	-10	-42	3	26		
	KT57	South	51	75	-10	-42	3	26		
	KT58	North	77	75	0	-46	3	32		
	KT59	North	74	75	0	-45	3	33		
	KT60	North	69	71	0	-45	3	29		
	KT61	North	61	71	0	-44	3	30		
	KT62	North	55	71	0	-43	3	31		
	KT63	North	51	70	0	-42	3	31		
	KT64	West	81	70	-10	-46	3	17		
	KT65	West	79	70	-10	-46	3	17		
	KT66	North	47	70	0	-41	3	32		
	KT67	North	40	70	0	-40	3	33		
	KT68	Top	64	72	0	-44	3	31		
	KT69	Top	61	71	0	-44	3	30		
	KT70	Top	48	71	0	-42	3	32		
	KT71	Top	29	70	0	-37	3	36		
	KT72	Top	28	70	0	-37	3	36		
	KT73	Top	38	71	0	-40	3	34		
	KT74	Top	40	71	0	-40	3	34	48	50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the louvers totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the louvers.

Appendix 4.11 Fixed Plant Noise Calculation

Cumulative Fixed Plant Noise Impact Assessment

Daytime/ Evening

NAP	Project	Predicted Noise Level, dB(A)	Daytime/ Evening Criterion, dB(A)
KTU-PF06b	NL - KTU Station ^[1]	39	
	Existing EAP 3 ^[1]	39	
	EAL - KTU Station ^[2]	60	
	Total	62	
			65

Night-time

NAP	Project	Predicted Noise Level, dB(A)	Night-time Criterion, dB(A)
KTU-PF06b	NL - KTU Station	48	
	Existing EAP 3 ^[1]	39	
	EAL - KTU Station ^[2]	50	
	Total	52	
			55

Notes:

[1] Noise level was calculated based on the measurement result provided in Appendix 4.25 of the approved NENT NDA EIA report (Register No.: AEIAR-175/2013). Detailed calculation can be referred to the Existing Fixed Plant Noise Impact Assessment for EAP 3.
 [2] It is noted that KTU (EAL) Station shall comply with the noise criteria of ANL -G with ASR of "B" in the fixed plant noise assessment based on the Environmental Review Report of Sheung Shui to Lok Ma Chau Spur Line conducted in Nov 2021. As such a noise level of 60 / 50 for daytime & evening time/ night-time was adopted for conservative approach.

Appendix 4.11 Fixed Plant Noise Calculation

Fixed Plant Noise Calculation (KTU Station)

NAP:

KTU-PF06c

Description: Planned Housing Development at Kwu Tung North NDA

Daytime / Evening

NAP	Plant Item	Direction Facing	Horizontal Distance, m (l)	SWL, dB(A)	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Daytime Noise Criteria, dB(A)
KTU-PF06c	KT1	North	367	82	0	-59	3	>300m		
	KT2	North	365	82	0	-59	3	>300m		
	KT3	North	359	82	0	-59	3	>300m		
	KT4	North	358	82	0	-59	3	>300m		
	KT5	North	354	82	0	-59	3	>300m		
	KT6	North	352	82	0	-59	3	>300m		
	KT7	North	345	82	0	-59	3	>300m		
	KT8	North	344	82	0	-59	3	>300m		
	KT9	North	325	82	0	-58	3	>300m		
	KT10	East	291	82	0	-57	3	28		
	KT11	South	357	85	-10	-59	3	>300m		
	KT12	South	356	85	-10	-59	3	>300m		
	KT13	West	333	80	-10	-58	3	>300m		
	KT14	West	333	80	-10	-58	3	>300m		
	KT15	North	374	80	0	-59	3	>300m		
	KT16	North	380	81	0	-60	3	>300m		
	KT17	North	383	81	0	-60	3	>300m		
	KT18	North	341	80	0	-59	3	>300m		
	KT19	North	333	80	0	-58	3	>300m		
	KT20	North	324	80	0	-58	3	>300m		
	KT21	North	315	80	0	-58	3	>300m		
	KT22	North	305	80	0	-58	3	>300m		
	KT23	North	299	80	0	-58	3	25		
	KT24	North	296	80	0	-57	3	26		
	KT25	East	295	80	0	-57	3	26		
	KT26	East	296	80	0	-57	3	26		
	KT27	South	367	85	-10	-59	3	>300m		
	KT28	South	343	85	-10	-59	3	>300m		
	KT29	South	364	85	-10	-59	3	>300m		
	KT30	South	375	85	-10	-59	3	>300m		
	KT31	West	383	85	-10	-60	3	>300m		
	KT32	West	385	85	-10	-60	3	>300m		
	KT33	Top	371	80	0	-59	3	>300m		
	KT34	Top	346	80	0	-59	3	>300m		
	KT35	Top	379	80	0	-60	3	>300m		
	KT36	Top	325	80	0	-58	3	>300m		
	KT37	Top	318	80	0	-58	3	>300m		
	KT38	Top	306	80	0	-58	3	>300m		
	KT39	Top	338	80	0	-59	3	>300m		
	KT40	North	76	80	0	-46	3	37		
	KT41	North	74	80	0	-45	3	38		
	KT42	North	70	80	0	-45	3	38		
	KT43	North	68	80	0	-45	3	38		
	KT44	North	65	80	0	-44	3	39		
	KT45	North	64	80	0	-44	3	39		
	KT46	North	59	80	0	-43	3	40		
	KT47	North	58	80	0	-43	3	40		
	KT48	East	70	80	0	-45	3	38		
	KT49	South	72	85	-10	-45	3	33		
	KT50	South	82	85	-10	-46	3	32		
	KT51	East	98	85	-10	-48	3	30		
	KT52	West	130	85	-10	-50	3	28		
	KT53	South	73	80	-10	-45	3	28		
	KT54	South	81	83	-10	-46	3	30		
	KT55	South	84	85	-10	-46	3	32		
	KT56	South	89	85	-10	-47	3	31		
	KT57	South	89	85	-10	-47	3	31		
	KT58	North	123	85	0	-50	3	38		
	KT59	North	120	85	0	-50	3	38		
	KT60	North	115	81	0	-49	3	35		
	KT61	North	107	81	0	-49	3	35		
	KT62	North	101	81	0	-48	3	36		
	KT63	North	96	80	0	-48	3	35		
	KT64	West	126	80	-10	-50	3	23		
	KT65	West	125	80	-10	-50	3	23		
	KT66	North	92	80	0	-47	3	36		
	KT67	North	85	80	0	-47	3	36		
	KT68	Top	109	82	0	-49	3	36		
	KT69	Top	106	81	0	-49	3	35		
	KT70	Top	93	81	0	-47	3	37		
	KT71	Top	71	81	0	-45	3	39		
	KT72	Top	55	81	0	-43	3	41		
	KT73	Top	63	81	0	-44	3	40		
	KT74	Top	84	81	0	-47	3	37	52	60

Appendix 4.11 Fixed Plant Noise Calculation

Night-time

NAP	Plant Item	Direction Facing	Horizontal Distance, m	SWL, dB(A)	Correction for line of sight ^[1] , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Predicted SPL, dB(A)	Total SPL, dB(A)	Night-time Noise Criteria, dB(A)
KTU-PF06c	KT1	North	367	70	0	-59	3	>300m		
	KT2	North	365	70	0	-59	3	>300m		
	KT3	North	359	70	0	-59	3	>300m		
	KT4	North	358	70	0	-59	3	>300m		
	KT5	North	354	70	0	-59	3	>300m		
	KT6	North	352	70	0	-59	3	>300m		
	KT7	North	345	70	0	-59	3	>300m		
	KT8	North	344	70	0	-59	3	>300m		
	KT9	North	325	70	0	-58	3	>300m		
	KT10	East	291	70	0	-57	3	16		
	KT11	South	357	75	-10	-59	3	>300m		
	KT12	South	356	75	-10	-59	3	>300m		
	KT13	West	333	70	-10	-58	3	>300m		
	KT14	West	333	70	-10	-58	3	>300m		
	KT15	North	374	70	0	-59	3	>300m		
	KT16	North	380	72	0	-60	3	>300m		
	KT17	North	383	72	0	-60	3	>300m		
	KT18	North	341	71	0	-59	3	>300m		
	KT19	North	333	71	0	-58	3	>300m		
	KT20	North	324	70	0	-58	3	>300m		
	KT21	North	315	68	0	-58	3	>300m		
	KT22	North	305	68	0	-58	3	>300m		
	KT23	North	299	68	0	-58	3	13		
	KT24	North	296	68	0	-57	3	14		
	KT25	East	295	68	0	-57	3	14		
	KT26	East	296	70	0	-57	3	16		
	KT27	South	367	75	-10	-59	3	>300m		
	KT28	South	343	76	-10	-59	3	>300m		
	KT29	South	364	76	-10	-59	3	>300m		
	KT30	South	375	76	-10	-59	3	>300m		
	KT31	West	383	75	-10	-60	3	>300m		
	KT32	West	385	75	-10	-60	3	>300m		
	KT33	Top	371	72	0	-59	3	>300m		
	KT34	Top	346	72	0	-59	3	>300m		
	KT35	Top	379	72	0	-60	3	>300m		
	KT36	Top	325	72	0	-58	3	>300m		
	KT37	Top	318	72	0	-58	3	>300m		
	KT38	Top	306	72	0	-58	3	>300m		
	KT39	Top	338	71	0	-59	3	>300m		
	KT40	North	76	71	0	-46	3	28		
	KT41	North	74	69	0	-45	3	27		
	KT42	North	70	69	0	-45	3	27		
	KT43	North	68	69	0	-45	3	27		
	KT44	North	65	68	0	-44	3	27		
	KT45	North	64	68	0	-44	3	27		
	KT46	North	59	68	0	-43	3	28		
	KT47	North	58	68	0	-43	3	28		
	KT48	East	70	74	0	-45	3	32		
	KT49	South	72	75	-10	-45	3	23		
	KT50	South	82	75	-10	-46	3	22		
	KT51	East	98	75	-10	-48	3	20		
	KT52	West	130	75	-10	-50	3	18		
	KT53	South	73	70	-10	-45	3	18		
	KT54	South	81	73	-10	-46	3	20		
	KT55	South	84	75	-10	-46	3	22		
	KT56	South	89	75	-10	-47	3	21		
	KT57	South	93	75	-10	-47	3	21		
	KT58	North	123	75	0	-50	3	28		
	KT59	North	120	75	0	-50	3	28		
	KT60	North	115	71	0	-49	3	25		
	KT61	North	107	71	0	-49	3	25		
	KT62	North	101	71	0	-48	3	26		
	KT63	North	96	70	0	-48	3	25		
	KT64	West	126	70	-10	-50	3	13		
	KT65	West	125	70	-10	-50	3	13		
	KT66	North	92	70	0	-47	3	26		
	KT67	North	85	70	0	-47	3	26		
	KT68	Top	109	72	0	-49	3	26		
	KT69	Top	106	71	0	-49	3	25		
	KT70	Top	93	71	0	-47	3	27		
	KT71	Top	71	70	0	-45	3	28		
	KT72	Top	55	70	0	-43	3	30		
	KT73	Top	63	71	0	-44	3	30		
	KT74	Top	84	71	0	-47	3	27	42	50

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the louvers totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the louvers.

Appendix 4.11 Fixed Plant Noise Calculation

Cumulative Fixed Plant Noise Impact Assessment

Daytime/ Evening

NAP	Project	Predicted Noise Level, dB(A)	Daytime/ Evening Criterion, dB(A)
KTU-PF06c	NL - KTU Station ^[1]	52	
	Existing EAP 3 ^[1]	37	
	EAL - KTU Station ^[2]	60	
	Total	61	
			65

Night-time

NAP	Project	Predicted Noise Level, dB(A)	Night-time Criterion, dB(A)
KTU-PF06c	NL - KTU Station	42	
	Existing EAP 3 ^[1]	37	
	EAL - KTU Station ^[2]	50	
	Total	51	
			55

Notes:

[1] Noise level was calculated based on the measurement result provided in Appendix 4.25 of the approved NENT NDA EIA report (Register No.: AEIAR-175/2013). Detailed calculation can be referred to the Existing Fixed Plant Noise Impact Assessment for EAP 3.
 [2] It is noted that KTU (EAL) Station shall comply with the noise criteria of ANL -G with ASR of "B" in the fixed plant noise assessment based on the Environmental Review Report of Sheung Shui to Lok Ma Chau Spur Line conducted in Nov 2021. As such a noise level of 60 / 50 for daytime & evening time/ night-time was adopted for conservative approach.