

Appendix 9.6 - Calculation of Fixed Plant Noise during Daytime and Evening Time

NSR No.	Description	Plant item	Direction Facing	Distance, m	SWL, dB(A)	Correction for line of sight ⁽¹⁾ , dB(A)	Distance Correction, dB(A)	Facade Correction, dB(A)	SPL, dB(A)	Total SPL, dB(A)	Daytime Design Target, dB(A)
North Ventilation Building, Plant Rooms and Emergency Access (NOV)											
HH9b											
HH9b	Harbourfront Horizon	HUH VS1 - Exhaust	East	529	104	-10	-62	3	35	60	60
		HUH VS2 - Intake/ Exhaust	North	522	104	-10	-62	3	35		
		HUH VS3 - Intake/ Exhaust	North	514	104	-10	-62	3	35		
		HUH VS4 - Exhaust	North	507	104	-10	-62	3	35		
		HUH VS5 - Intake	North	503	104	-10	-62	3	35		
		HUH VS6 - Exhaust	North	500	104	-10	-62	3	35		
		HUH VS7 - Exhaust	North	497	104	-10	-62	3	35		
		HUH VS8 - Intake	South	245	99	0	-56	3	46		
		HUH VS9 - Exhaust	South	237	99	0	-55	3	47		
		HUH VS10 - Intake/ Exhaust	South	228	99	0	-55	3	47		
		HUH VS11 - Intake/ Exhaust	South	220	99	0	-55	3	47		
		HUH VS12 - Exhaust	South	212	99	0	-55	3	47		
		HUH VS13 - Intake	South	204	99	0	-54	3	48		
		HUH VS14 - Exhaust	South	197	99	0	-54	3	48		
		HUH VS15 - Exhaust	South	189	99	0	-54	3	48		
	Cooling Tower	North_1	307	101	-10	-58	3	36			
		Top_1	309	104	0	-58	3	49			
		Top_2	311	104	0	-58	3	49			
		Top_3	311	104	0	-58	3	49			
		Top_4	312	104	0	-58	3	49			
	Top_5	313	104	0	-58	3	49				
	East_1	305	101	0	-58	3	46				
	NOV VS1	Top	237	100	0	-55	3	48			
	NOV VS2	Top	227	100	0	-55	3	48			
South Ventilation Shafts, Plant Rooms and Emergency Access (SOV)											
CH1											
CH1	Hoi Deen Court, 276 - 279, Gloucester Road, Causeway Bay,	SOV VS1	South	112	98	0	-49	3	52	61	65
		SOV VS2	South	102	98	0	-48	3	53		
		SOV VS3	South	92	98	0	-47	3	54		
			North	96	98	-10	-48	3	43		
		Transformer Room 1	South	118	98	0	-49	3	52		
		Transformer Room 2	South	124	98	0	-50	3	51		
		Provisional Cooling Tower 1	-	138	102	0	-51	3	54		
		Provisional Cooling Tower 2	-	140	102	0	-51	3	54		
		Electrical Room 1	-	127	65	0	-50	3	18		
		Electrical Room 2	-	128	65	0	-50	3	18		
CH2											
CH2	Hoi Kung Court, 264 - 268, Gloucester Road, Causeway Bay,	SOV VS1	South	67	98	0	-44	3	57	65	65
		SOV VS2	South	61	98	0	-44	3	57		
		SOV VS3	South	56	98	0	-43	3	58		
			North	63	98	-10	-44	3	47		
		Transformer Room 1	South	71	98	0	-45	3	56		
		Transformer Room 2	South	76	98	0	-46	3	55		
		Provisional Cooling Tower 1	-	94	102	0	-47	3	58		
		Provisional Cooling Tower 2	-	95	102	0	-48	3	57		
		Electrical Room 1	-	88	65	0	-47	3	21		
		Electrical Room 2	-	90	65	0	-47	3	21		
CH3											
CH3	Elizabeth House, Block C, 250 - 254, Gloucester Road, Causeway Bay, Hong Kong	SOV VS1	South	127	98	0	-50	3	51	61	65
		SOV VS2	South	136	98	0	-51	3	50		
		SOV VS3	South	145	98	0	-51	3	50		
			North	150	98	-10	-51	3	40		
		Transformer Room 1	South	123	98	0	-50	3	51		
		Transformer Room 2	South	119	98	0	-50	3	51		
		Provisional Cooling Tower 1	-	129	102	0	-50	3	55		
		Provisional Cooling Tower 2	-	125	102	0	-50	3	55		
		Electrical Room 1	-	140	65	0	-51	3	17		
		Electrical Room 2	-	142	65	0	-51	3	17		

Appendix 9.6 - Calculation of Fixed Plant Noise during Daytime and Evening Time

NSR No.	Description	Plant item	Direction Facing	Distance, m	SWL, dB(A)	Correction for line of sight ⁽¹⁾ , dB(A)	Distance Correction, dB(A)	Facade Correction, dB(A)	SPL, dB(A)	Total SPL, dB(A)	Daytime Design Target, dB(A)
Exhibition Station (EXH)											
EX1											
EX1	Causeway Centre, Block A, 28, Harbour Road, Wan Chai, Hong	EXH VS1	Top opening	301	103	-10	-58	3	38	60	60
		EXH VS2	Top opening	294	103	-10	-57	3	39		
		EXH VS3	Top opening	284	103	-10	-57	3	39		
		EXH VS4	Top opening	274	103	-10	-57	3	39		
		EXH VS5	North	217	103	-10	-55	3	41		
		EXH VS6	West	212	103	-10	-55	3	41		
		EXH VS7	North	203	103	-10	-54	3	42		
		EXH VS8	South	201	103	-10	-54	3	42		
		EXH VS9	West	187	99	-10	-53	3	39		
		EXH VS10	West	185	99	-10	-53	3	39		
		EXH VS11	South	178	99	-10	-53	3	39		
		EXH VS12	North	175	99	-10	-53	3	39		
		EXH VS12	East	175	99	-10	-53	3	39		
		EXH VS13	South	173	99	-10	-53	3	39		
		EXH VS14	South	178	99	-10	-53	3	39		
		EXH VS15	East	81	98	-5	-46	3	50		
		EXH VS16	West	100	94	0	-48	3	49		
		EXH VS17	Top opening	126	95	0	-50	3	48		
		EXH VS18	Top opening	115	95	0	-49	3	49		
		EXH VS19	Top opening	105	94	0	-48	3	49		
		EXH VS20	South	106	94	0	-48	3	49		
		EXH VS21	North	139	99	-10	-51	3	41		
		EXH VS21	Northeast	132	99	-10	-50	3	42		
		EXH VS22	East	126	100	-5	-50	3	48		
		EXH VS23	East	119	100	-5	-50	3	48		
		EXH VS24	East	113	100	-5	-49	3	49		
	EXH VS25	East	107	100	-5	-49	3	49			
	EXH VS26	East	116	100	-5	-49	3	49			
Admiralty Station (ADM)											
AD1											
AD1	Ching Yi To Barrack Paget House	ADM VS1	North	236	100	-10	-55	3	38	59	59
		ADM VS1	East	227	100	-10	-55	3	38		
		ADM VS1	South	222	100	0	-55	3	48		
		ADM VS1	West	225	100	-10	-55	3	38		
		ADM VS2	East	221	100	0	-55	3	48		
		ADM VS3	North	222	101	-10	-55	3	39		
		ADM VS3	South	218	100	0	-55	3	48		
		ADM VS3	West	216	100	-5	-55	3	43		
		ADM VS4	North	214	102	-10	-55	3	40		
		ADM VS4	East	210	102	-5	-54	3	46		
		ADM VS4	South	210	99	0	-54	3	48		
		ADM VS5	Top opening	208	99	0	-54	3	48		
		ADM VS6	North	225	102	-10	-55	3	40		
		ADM VS6	Northeast	222	102	-10	-55	3	40		
		ADM VS6	Southeast	201	99	0	-54	3	48		
		ADM VS6	Southwest	200	99	0	-54	3	48		
		ADM VS6	West	215	102	-10	-55	3	40		
		ADM VS6	Northwest	221	102	-10	-55	3	40		
		ADM VS7	Top opening	194	100	0	-54	3	49		
		ADM VS8	Northeast	183	100	-10	-53	3	40		
		ADM VS8	Southwest	181	99	0	-53	3	49		
		Cooling Tower	Top opening	223	100	0	-55	3	48		
		Transformer Bay	North	234	100	-10	-55	3	38		
			South	225	100	-10	-55	3	38		
			West	227	100	-10	-55	3	38		
Hong Kong Park Ventilation Building (HKB)											
AD2											
AD2	Regent on the Park	HKB VS1	Northeast	81	98	-10	-46	3	45	57	57
		HKB VS1	Southeast	79	96	0	-46	3	53		
		HKB VS2	Northeast	86	98	-10	-47	3	44		
		HKB VS2	Northwest	87	98	-10	-47	3	44		
		HKB VS3	Southeast	68	96	0	-45	3	54		
AD3											
AD3	Jockey Club New Life Hostel	HKB VS1	Northeast	134	98	-10	-51	3	40	53	57
		HKB VS1	Southeast	133	96	-10	-50	3	39		
		HKB VS2	Northeast	114	98	-10	-49	3	42		
		HKB VS2	Northwest	112	98	0	-49	3	52		
		HKB VS3	Southeast	129	96	-10	-50	3	39		

Remark:

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

[2] Ventilation shafts HUH VS2, HUH VS3, HUH VS10 and HUH VS11 will be operated on switch mode, only 1 louver will be on at one time (either intake or exhaust).