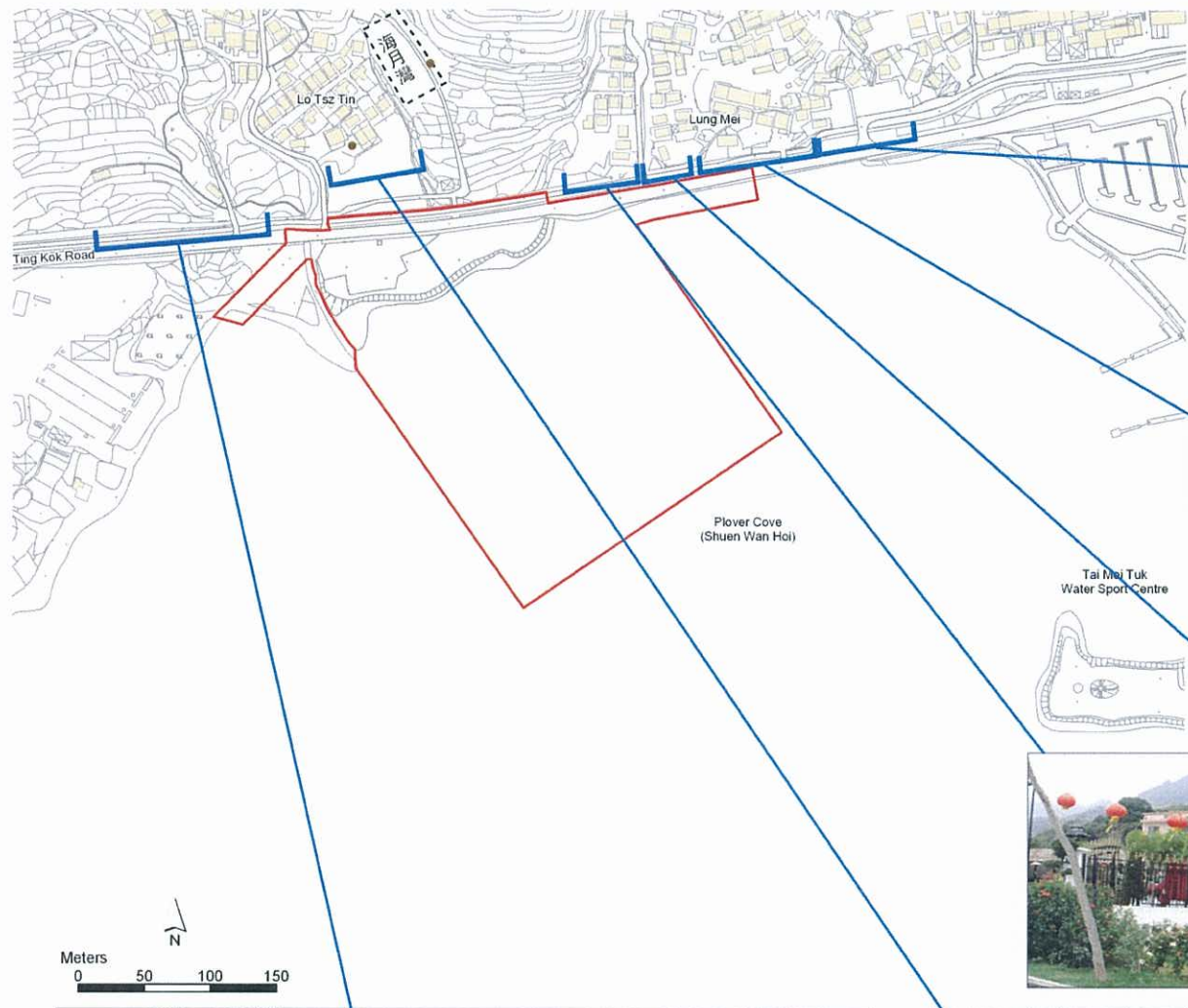


Appendix D

Noise Assessment Supporting Information

Appendix D1

Photographs showing the NSRs





N1 - No.165A Lung Mei



N2 - No.103 Lung Mei, N2a - No.101 Lung Me



N3 - No.70 Lo Tsz Tin



N4 - No.79 Lo Tsz Tin

Appendix D2

Construction Programme for Noise Assessment

Appendix D3

Construction Plant Inventory

Appendix D3 Construction Plant Inventory

ID	Activities	Plant	CNP/B55228 ref.	No. of PME	% of operating time	Correction, dB(A)			SWL, dB(A)	
						Operating time	No. of Plant	Barrier ⁽³⁾		
1	Construction Works on Land									
1a	<i>site Formation, construction of seawall, ramp, staircase, retaining walls, sump tanks for grey water system and superstructure foundation</i>									
	- construction of seawall & retaining wall	Mobile crane	CNP 048	1	80	112	-1	0	0	111
		Excavator	CNP 081	1	80	112	-1	0	0	111
		Lorry, 5.5ton<gross vehicle weight<38ton	... ⁽¹⁾	3	80	105	-1	5	0	109
								<i>Sub-Total SWL</i>		115
	- backfilling	Lorry, 5.5ton<gross vehicle weight<38ton	... ⁽¹⁾	3	80	105	-1	5	0	109
		Excavator	CNP 081	2	80	112	-1	3	0	114
		Roller, vibratory	CNP 186	1	50	108	-3	0	0	105
								<i>Sub-Total SWL</i>		116
	- construction of ramp, staircase, sump tanks for grey water system and superstructure foundation	Timber sawing machine	CNP 201	2	50	108	-3	3	0	108
		Bar bender and cutter (electric)	CNP 021	3	50	90	-3	5	0	92
		Electrical drill	CNP 065	5	50	98	-3	7	0	102
		Diesel generator	CNP 102	1	100	100	0	0	0	100
		Water pumps (electric)	CNP 281	2	100	88	0	3	0	91
		Vibratory Poker (electric)	... ⁽¹⁾	3	80	102	-1	5	0	106
		Concrete lorry mixers	CNP 044	1	80	109	-1	0	0	108
								<i>Sub-Total SWL</i>		113
								<i>Sub-Total SWL</i>		116
								MAXIMUM SWL FOR WORK ID 1a =		116
1b	<i>road widening at Ting Kok Road</i>									
	- breaking existing road surface	Excavator	CNP 081	2	100	112	0	3	0	115
								<i>Sub-Total SWL</i>		115
	- drainage channel construction	Silent Piler	... ⁽²⁾	1	80	100	-1	0	0	99
		Excavator	CNP 081	1	80	112	-1	0	0	111
		Mobile crane	CNP 048	1	80	112	-1	0	0	111
								<i>Sub-Total SWL</i>		114
	- manhole construction	Electrical drill	CNP 065	2	50	98	-3	3	0	98
		Diesel generator	CNP 102	2	100	100	0	3	0	103
		Timber sawing machine	CNP 201	1	50	108	-3	0	0	105
		Bar bender and cutter (electric)	CNP 021	1	50	90	-3	0	0	87
								<i>Sub-Total SWL</i>		108
	- concreting work	Concrete lorry mixers	CNP 044	1	80	109	-1	0	0	108
		Vibratory Poker (electric)	... ⁽¹⁾	2	80	102	-1	3	0	104
								<i>Sub-Total SWL</i>		109
	- backfilling and road formation	Compactor, vibratory	CNP 050	1	50	105	-3	0	0	102
		Road roller	CNP 185	1	50	108	-3	0	0	105
		Excavator	CNP 081	1	80	112	-1	0	0	111
								<i>Sub-Total SWL</i>		112
								MAXIMUM SWL FOR WORK ID 1b =		115
2	Car Park Paving									
	- backfilling	Lorry, 5.5ton<gross vehicle weight<38ton	... ⁽¹⁾	3	80	105	-1	5	0	109
		Excavator	CNP 081	2	80	112	-1	3	0	114
		Roller, vibratory	CNP 186	1	50	108	-3	0	0	105
								<i>Sub-Total SWL</i>		116
	- concreting work	Concrete lorry mixers	CNP 044	1	80	109	-1	0	0	108
		Vibratory Poker (electric)	... ⁽¹⁾	2	80	102	-1	3	0	104
								<i>Sub-Total SWL</i>		109
								MAXIMUM SWL FOR WORK ID 2 =		116
3	Building Works									
3a	<i>piling works</i>									
		Silent piler	... ⁽²⁾	2	80	100	-1	3	0	102
		Excavator	CNP 081	1	80	112	-1	0	0	111
								MAXIMUM SWL FOR WORK ID 3a =		112
3b	<i>foundation and tanking</i>									
		Mobile crane	CNP 048	1	80	112	-1	0	0	111
		Excavator	CNP 081	1	80	112	-1	0	0	111
		Timber sawing machine	CNP 201	2	50	108	-3	3	0	108
		Bar bender and cutter (electric)	CNP 021	3	50	90	-3	5	0	92
		Electrical drill	CNP 065	5	50	98	-3	7	0	102
		Diesel generator	CNP 102	1	100	100	0	0	0	100
		Water pumps (electric)	CNP 281	2	100	88	0	3	0	91
								<i>Sub-Total SWL</i>		113
								MAXIMUM SWL FOR WORK ID 3b =		113

Appendix D3 Construction Plant Inventory

ID	Activities	Plant	CNP/BS5228 ref.	No. of PME	% of operating time	Correction, dB(A)			SWL, dB(A)			
						SWL	Operating time	No. of Plant		Barrier ⁽³⁾		
3c	superstructure	- superstructure work	Mobile crane	CNP 048	1	80	112	-1	0	0	111	
			Timber sawing machine	CNP 201	3	50	108	-3	5	0	110	
			Bar bender and cutter (electric)	CNP 021	3	50	90	-3	5	0	92	
			Electrical drill	CNP 065	6	50	98	-3	8	0	103	
			Diesel generator	CNP 102	1	100	100	0	0	0	100	
										Sub-Total SWL	114	
	- concreting work	Concrete lorry mixers	CNP 044	1	80	109	-1	0	0	108		
		Vibratory Poker (electric)	...	5	80	102	-1	7	0	108		
										Sub-Total SWL	111	
	MAXIMUM SWL FOR WORK ID 3c = 114											
3d	building finishes & internal fitting-out	Mobile crane	CNP 048	1	80	112	-1	0	0	111		
		Timber sawing machine	CNP 201	1	50	108	-3	0	0	105		
		Electrical drill	CNP 065	6	50	98	-3	8	0	103		
		Diesel generator	CNP 102	1	100	100	0	0	0	100		
		TOTAL SWL FOR WORK ID 3d = 113										
4	Dredging of Groynes	Excavator	CNP 081	2	80	112	-1	3	0	114		
		Grab Dredger	CNP 063	1	100	112	0	0	0	112		
		Derrick lighter	CNP 061	1	100	104	0	0	0	104		
		TOTAL SWL FOR WORK ID 4 = 116										
5	Rock filling of Groynes	Lorry, 5.5ton<gross vehicle weight<38ton	...	3	80	105	-1	5	0	109		
		Excavator	CNP 081	2	80	112	-1	3	0	114		
		Derrick lighter	CNP 061	2	80	104	-1	3	0	106		
		TOTAL SWL FOR WORK ID 5 = 116										
6	Box Culvert Construction											
6a	construction of gabion channel	- excavation & leveling work	Silent piler	...	1	80	100	-1	0	0	99	
			Excavator	CNP 081	2	80	112	-1	3	0	114	
			Vibration compactor	CNP 186	1	50	108	-3	0	0	105	
											Sub-Total SWL	115
		- placing of gabion blocks	Lorry, 5.5ton<gross vehicle weight<38ton	...	1	80	105	-1	0	0	104	
			Mobile crane	CNP 048	1	80	112	-1	0	0	111	
											Sub-Total SWL	112
		- backfilling work	Vibratory compactor	CNP 050	1	50	105	-3	0	0	102	
			Lorry, 5.5ton<gross vehicle weight<38ton	...	1	80	105	-1	0	0	104	
			Excavator	CNP 081	2	80	112	-1	3	0	114	
									Sub-Total SWL	115		
MAXIMUM SWL FOR WORK ID 6a = 115												
6b	construction of western culvert	- excavation work	Silent piler	...	1	80	100	-1	0	0	99	
			Excavator	CNP 081	1	80	112	-1	0	0	111	
											Sub-Total SWL	111
		- construction of culvert	Timber sawing machine	CNP 201	1	50	108	-3	0	0	105	
			Electrical drill	CNP 065	2	50	98	-3	3	0	98	
			Diesel generator	CNP 102	2	100	100	0	3	0	103	
			Water pumps (electric)	CNP 281	1	100	88	0	0	0	88	
			Mobile crane	CNP 048	1	80	112	-1	0	0	111	
											Sub-Total SWL	113
		- demolition of existing culvert	Pneumatic Breaker	CNP 027	1	80	122	-1	0	0	121	
Excavator	CNP 081		1	80	112	-1	0	0	111			
									Sub-Total SWL	121		

Appendix D3 Construction Plant Inventory

ID	Activities	Plant	CNP/BSS228 ref.	No. of PME	% of operating time	Correction, dB(A)			SWL, dB(A)		
						SWL	Operating time	No. of Plant		Barrier ⁽³⁾	
	- construction of culvert top slab	Lorry, 5.5ton<gross vehicle weight<38ton	.. ⁽¹⁾	3	80	105	-1	5	0	109	
		Concrete lorry mixers	CNP 044	1	80	109	-1	0	0	108	
		Timber sawing machine	CNP 201	2	50	108	-3	3	0	108	
		Bar bender and cutter (electric)	CNP 021	2	50	90	-3	3	0	90	
		Vibratory Poker (electric)	.. ⁽¹⁾	2	80	102	-1	3	0	104	
	<i>Sub-Total SWL</i>									114	
	- slope reinstatement	Excavator	CNP 081	1	80	112	-1	0	0	111	
	<i>Sub-Total SWL</i>									111	
	MAXIMUM SWL FOR WORK ID 6b =									121	
	6c	-preparation of concrete slab surface	Electrical drill	CNP 065	2	50	98	-3	3	0	98
Diesel generator			CNP 102	2	100	100	0	3	0	103	
Water pumps (electric)			CNP 281	2	100	88	0	3	0	91	
<i>Sub-Total SWL</i>									104		
- concreting work		Concrete lorry mixers	CNP 044	1	80	109	-1	0	0	108	
		Vibratory Poker (electric)	.. ⁽¹⁾	1	80	102	-1	0	0	101	
<i>Sub-Total SWL</i>									109		
MAXIMUM SWL FOR WORK ID 6c =									109		
6d		- excavation work	Excavator	CNP 081	1	80	112	-1	0	0	111
			<i>Sub-Total SWL</i>								
	- erection of precast panel segment	Mobile crane	CNP 048	1	80	112	-1	0	0	111	
	<i>Sub-Total SWL</i>									111	
	- construction of top and bottom slab	Timber sawing machine	CNP 201	1	50	108	-3	0	0	105	
		Bar bender and cutter (electric)	CNP 021	1	50	90	-3	0	0	87	
		Electrical drill	CNP 065	2	50	98	-3	3	0	98	
		Diesel generator	CNP 102	2	100	100	0	3	0	103	
		<i>Sub-Total SWL</i>									108
	- concreting work	Vibratory Poker (electric)	.. ⁽¹⁾	2	80	102	-1	3	0	104	
		Concrete lorry mixers	CNP 044	1	80	109	-1	0	0	108	
	<i>Sub-Total SWL</i>									109	
	- screeding work	Concrete mixer	CNP 045	1	80	96	-1	0	0	95	
		Diesel generator	CNP 102	2	100	100	0	3	0	103	
	<i>Sub-Total SWL</i>									104	
- backfilling	Lorry, 5.5ton<gross vehicle weight<38ton	.. ⁽¹⁾	1	80	105	-1	0	0	104		
	Vibratory compactor	CNP 050	1	50	105	-3	0	0	102		
<i>Sub-Total SWL</i>									106		
MAXIMUM SWL FOR WORK ID 6d =									111		
7	Sand Filling	Pelican barge	CNP 061	1	100	104	0	0	0	104	
		Excavator	CNP 081	2	80	112	-1	3	0	114	
		Backhoe	CNP 081	2	80	112	-1	3	0	114	
MAXIMUM SWL FOR WORK ID 7 =									117		

Remarks

- (1) SWL refer to the document prepared by the Noise Control Authority (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)
- (3) Reference was made to MTRC Contract C4420 Tsim Sha Tsui Station Modification, Variation of Environmental Permit, Noise assessment of GIKEN silent piler system.
- (4) Barrier attenuation is obtained from site hoarding or movable noise barrier.

Appendix D4

Construction Noise Assessment (Unmitigated Scenario)

Appendix D4 - Construction Noise Assessment - Unmitigated Scenario

NSR: N1, Village House - No.165A Lung Mei																													
<u>Distance from NSR to Notional Source Position</u>		<u>Correction Factor</u>																											
Distance from NSR to Work Site ID 1	106 m	Distance Attenuation = -49 dB(A)				Facade = 3 dB(A)				Barrier Correction = 0 dB(A)																			
Distance from NSR to Work Site ID 2	176 m	Distance Attenuation = -53 dB(A)				Facade = 3 dB(A)				Barrier Correction = 0 dB(A)																			
Distance from NSR to Work Site ID 3	118 m	Distance Attenuation = -49 dB(A)				Facade = 3 dB(A)				Barrier Correction = 0 dB(A)																			
Distance from NSR to Work Site ID 4	124 m	Distance Attenuation = -50 dB(A)				Facade = 3 dB(A)				Barrier Correction = 0 dB(A)																			
Distance from NSR to Work Site ID 5	65 m	Distance Attenuation = -45 dB(A)				Facade = 3 dB(A)				Barrier Correction = 0 dB(A)																			
Distance from NSR to Work Site ID 6a & 6b	290 m	Distance Attenuation = -57 dB(A)				Facade = 3 dB(A)				Barrier Correction = 0 dB(A)																			
Distance from NSR to Work Site ID 6c & 6d	29 m	Distance Attenuation = -37 dB(A)				Facade = 3 dB(A)				Barrier Correction = 0 dB(A)																			
Distance from NSR to Work Site ID 7	124 m	Distance Attenuation = -50 dB(A)				Facade = 3 dB(A)				Barrier Correction = 0 dB(A)																			
<u>Construction Item</u>		2008								2009								2010											
ID	Activity	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
1	Construction Works on Land																												
1a	site formation, construction of seawall	0	0	116	116	116	116	115.6	115.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	road widening at Ting Kok Road	0	0	115	115	115	115	115	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SWL	0	0	118	118	118	118	118	118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Noise Level at NSR (dB(A))	0	0	73	73	73	73	73	73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	Car Park Paving																												
	Car Park Paving	0	0	0	0	0	0	0	0	116	116	116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Total SWL	0	0	0	0	0	0	0	0	116	116	116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	66	66	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	Building Works																												
3a	piling works	0	0	0	0	0	0	0	0	112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3b	foundation and tanking	0	0	0	0	0	0	0	0	0	113	113	113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3c	superstructure	0	0	0	0	0	0	0	0	0	0	0	0	114	114	114	114	0	0	0	0	0	0	0	0	0	0	0	
3d	building finishes & internal fitting-out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	113	113	113	113	113	113	113	113	113	113	113	0	
	Total SWL	0	0	0	0	0	0	0	0	112	113	113	113	114	114	114	114	113	113	113	113	113	113	113	113	113	113	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	65	67	67	67	68	68	68	68	66	66	66	66	66	66	66	66	66	66	0	
4	Dredging of Groynes																												
	Dredging of Groynes	0	0	0	0	0	0	0	0	0	0	0	0	116	116	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Total SWL	0	0	0	0	0	0	0	0	0	0	0	0	116	116	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	70	70	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	Rock filling of Groynes																												
	Rock filling of Groynes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	116	116	116	0	0	0	0	0	0	0	0	0	0	
	Total SWL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	116	116	116	0	0	0	0	0	0	0	0	0	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	74	74	74	0	0	0	0	0	0	0	0	0	0	
6	Box Culvert Construction																												
6a	construction of gabion channel	0	0	0	0	0	115	115	115	115	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	60	60	60	60	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6b	construction of western culvert	0	0	0	0	0	0	0	0	0	121	121	121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	67	67	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6c	construction of eastern culvert	0	0	0	0	0	0	0	0	0	0	0	0	109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6d	construction of 90m box culvert	0	0	0	0	0	0	0	0	0	0	0	0	0	111	111	111	111	111	111	111	111	111	111	111	111	0		
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	77	77	77	77	77	77	77	77	77	77	77	77	0	0	
7	Sand Filling																												
	Sand Filling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	117	117	117	117	117	117	117	117	117	117	0	0	
	Total SWL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	117	117	117	117	117	117	117	117	117	117	0	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	70	70	70	70	70	70	70	70	70	0	0	
OVERALL NOISE LEVEL AT NSR (dB(A))		0	0	73	73	73	73	73	73	69	71	71	70	75	78	78	79	79	79	78	78	72	66	66	66	66	66	0	

Appendix D4 - Construction Noise Assessment - Unmitigated Scenario

NSR: N2, Village House - No.103 Lung Mei

Distance from NSR to Notional Source Position		Correction Factor			
Distance from NSR to Work Site ID 1	80 m	Distance Attenuation =	-46 dB(A)	Facade = 3 dB(A)	Barrier Correction = 0 dB(A)
Distance from NSR to Work Site ID 2	128 m	Distance Attenuation =	-50 dB(A)	Facade = 3 dB(A)	Barrier Correction = 0 dB(A)
Distance from NSR to Work Site ID 3	94 m	Distance Attenuation =	-47 dB(A)	Facade = 3 dB(A)	Barrier Correction = 0 dB(A)
Distance from NSR to Work Site ID 4	135 m	Distance Attenuation =	-51 dB(A)	Facade = 3 dB(A)	Barrier Correction = 0 dB(A)
Distance from NSR to Work Site ID 5	90 m	Distance Attenuation =	-47 dB(A)	Facade = 3 dB(A)	Barrier Correction = 0 dB(A)
Distance from NSR to Work Site ID 6a & 6b	246 m	Distance Attenuation =	-56 dB(A)	Facade = 3 dB(A)	Barrier Correction = 0 dB(A)
Distance from NSR to Work Site ID 6c & 6d	70 m	Distance Attenuation =	-45 dB(A)	Facade = 3 dB(A)	Barrier Correction = 0 dB(A)
Distance from NSR to Work Site ID 7	135 m	Distance Attenuation =	-51 dB(A)	Facade = 3 dB(A)	Barrier Correction = 0 dB(A)

Construction Item		2008												2009												2010											
ID	Activity	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D									
1	Construction Works on Land																																				
1a	site formation, construction of seawall	0	0	116	116	116	116	116	115.6	115.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
1b	road widening at Ting Kok Road	0	0	115	115	115	115	115	115	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
	Total SWL	0	0	118	118	118	118	118	118	118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
	Noise Level at NSR (dB(A))	0	0	75	75	75	75	75	75	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
2	Car Park Paving																																				
	Total SWL	0	0	0	0	0	0	0	0	0	116	116	116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	68	68	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
3	Building Works																																				
3a	piling works	0	0	0	0	0	0	0	0	0	112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
3b	foundation and tanking	0	0	0	0	0	0	0	0	0	0	113	113	113	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
3c	superstructure	0	0	0	0	0	0	0	0	0	0	0	0	0	114	114	114	114	0	0	0	0	0	0	0	0	0	0									
3d	building finishes & internal fitting-out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	113	113	113	113	113	113	113	113	113	113	0									
	Total SWL	0	0	0	0	0	0	0	0	0	112	113	113	113	114	114	114	114	113	113	113	113	113	113	113	113	113	0									
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	67	69	69	69	70	70	70	70	68	68	68	68	68	68	68	68	68	0									
4	Dredging of Groynes																																				
	Total SWL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	116	116	0	0	0	0	0	0	0	0	0	0	0									
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	69	0	0	0	0	0	0	0	0	0	0	0									
5	Rock filling of Groynes																																				
	Total SWL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	116	116	116	0	0	0	0	0	0	0	0	0									
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72	72	72	0	0	0	0	0	0	0	0	0									
6	Box Culvert Construction																																				
6a	construction of gabion channel	0	0	0	0	0	115	115	115	115	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
	Noise Level at NSR (dB(A))	0	0	0	0	0	62	62	62	62	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
6b	construction of western culvert	0	0	0	0	0	0	0	0	0	0	121	121	121	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	69	69	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
6c	construction of eastern culvert	0	0	0	0	0	0	0	0	0	0	0	0	0	109	0	0	0	0	0	0	0	0	0	0	0	0	0									
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	0	0									
6d	construction of 90m box culvert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	111	111	111	111	111	111	111	111	111	111	111	0	0									
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	69	69	69	69	69	69	69	69	69	69	69	69	0	0									
7	Sand Filling																																				
	Total SWL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	117	117	117	117	117	117	117	117	0	0	0									
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	70	70	70	70	70	70	70	0	0	0									
	OVERALL NOISE LEVEL AT NSR (dB(A))	0	0	75	75	75	75	75	75	75	71	73	73	72	71	74	74	75	75	76	74	74	72	68	68	68	68	0									

Appendix D4 - Construction Noise Assessment - Unmitigated Scenario

NSR: N2a, House - No.101 Lung Mei																													
<u>Distance from NSR to Notional Source Position</u>		<u>Correction Factor</u>																											
Distance from NSR to Work Site ID 1	77 m	Distance Attenuation =	-46 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
Distance from NSR to Work Site ID 2	140 m	Distance Attenuation =	-51 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
Distance from NSR to Work Site ID 3	89 m	Distance Attenuation =	-47 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
Distance from NSR to Work Site ID 4	122 m	Distance Attenuation =	-50 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
Distance from NSR to Work Site ID 5	90 m	Distance Attenuation =	-47 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
Distance from NSR to Work Site ID 6a & 6b	261 m	Distance Attenuation =	-56 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
Distance from NSR to Work Site ID 6c & 6d	55 m	Distance Attenuation =	-43 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
Distance from NSR to Work Site ID 7	122 m	Distance Attenuation =	-50 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
<u>Construction Item</u>		2008						2009						2010															
ID	Activity	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
1 Construction Works on Land																													
1a	site formation, construction of seawall	0	0	116	116	116	116	116	115.6	115.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	road widening at Ting Kok Road	0	0	115	115	115	115	115	115	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SWL	0	0	118	118	118	118	118	118	118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Noise Level at NSR (dB(A))	0	0	76	76	76	76	76	76	76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2 Car Park Paving																													
	Total SWL	0	0	0	0	0	0	0	0	0	116	116	116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	68	68	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3 Building Works																													
3a	piling works	0	0	0	0	0	0	0	0	0	112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3b	foundation and tanking	0	0	0	0	0	0	0	0	0	0	113	113	113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3c	superstructure	0	0	0	0	0	0	0	0	0	0	0	0	0	114	114	114	114	0	0	0	0	0	0	0	0	0	0	
3d	building finishes & internal fitting-out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	113	113	113	113	113	113	113	113	113	113	0	
	Total SWL	0	0	0	0	0	0	0	0	0	112	113	113	113	114	114	114	114	113	113	113	113	113	113	113	113	113	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	68	69	69	69	70	70	70	70	69	69	69	69	69	69	69	69	69	0	
4 Dredging of Groynes																													
	Total SWL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	116	116	0	0	0	0	0	0	0	0	0	0	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	70	0	0	0	0	0	0	0	0	0	0	0	
5 Rock filling of Groynes																													
	Total SWL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	116	116	116	0	0	0	0	0	0	0	0	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72	72	72	0	0	0	0	0	0	0	0	0	
6 Box Culvert Construction																													
6a	construction of gabion channel	0	0	0	0	0	115	115	115	115	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	61	61	61	61	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6b	construction of western culvert	0	0	0	0	0	0	0	0	0	0	121	121	121	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	68	68	68	0	0	0	0	0	0	0	0	0	0	0	0	0		
6c	construction of eastern culvert	0	0	0	0	0	0	0	0	0	0	0	0	0	109	0	0	0	0	0	0	0	0	0	0	0	0		
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	69	0	0	0	0	0	0	0	0	0	0	0	0		
6d	construction of 90m box culvert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	111	111	111	111	111	111	111	111	111	111	0	0		
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	71	71	71	71	71	71	71	71	71	71	0	0		
7 Sand Filling																													
	Total SWL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	117	117	117	117	117	117	117	117	0	0		
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	71	71	71	71	71	71	71	71	0	0		
OVERALL NOISE LEVEL AT NSR (dB(A))		0	0	76	76	76	76	76	76	76	71	73	73	72	73	75	75	76	75	77	75	75	73	69	69	69	69	0	

Appendix D4 - Construction Noise Assessment - Unmitigated Scenario

NSR: N3, Village House - No.70 Lo Tsz Tin																												
Distance from NSR to Notional Source Position		Correction Factor																										
Distance from NSR to Work Site ID 1	122 m	Distance Attenuation =	-50 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																					
Distance from NSR to Work Site ID 2	85 m	Distance Attenuation =	-47 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																					
Distance from NSR to Work Site ID 3	70 m	Distance Attenuation =	-45 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																					
Distance from NSR to Work Site ID 4	167 m	Distance Attenuation =	-52 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																					
Distance from NSR to Work Site ID 5	172 m	Distance Attenuation =	-53 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																					
Distance from NSR to Work Site ID 6a & 6b	106 m	Distance Attenuation =	-49 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																					
Distance from NSR to Work Site ID 6c & 6d	212 m	Distance Attenuation =	-55 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																					
Distance from NSR to Work Site ID 7	167 m	Distance Attenuation =	-52 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																					
Construction Item		2008								2009								2010										
ID	Activity	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
1 Construction Works on Land																												
1a	site formation, construction of seawall	0	0	116	116	116	116	116	115.6	115.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	road widening at Ting Kok Road	0	0	115	115	115	115	115	115	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total SWL		0	0	118	118	118	118	118	118	118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Noise Level at NSR (dB(A))		0	0	72	72	72	72	72	72	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2 Car Park Paving																												
Total SWL		0	0	0	0	0	0	0	0	0	116	116	116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Noise Level at NSR (dB(A))		0	0	0	0	0	0	0	0	0	72	72	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3 Building Works																												
3a	piling works	0	0	0	0	0	0	0	0	0	112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3b	foundation and tanking	0	0	0	0	0	0	0	0	0	0	113	113	113	0	0	0	0	0	0	0	0	0	0	0	0	0	
3c	superstructure	0	0	0	0	0	0	0	0	0	0	0	0	0	114	114	114	114	0	0	0	0	0	0	0	0	0	
3d	building finishes & internal fitting-out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	113	113	113	113	113	113	113	113	113	
Total SWL		0	0	0	0	0	0	0	0	0	112	113	113	113	114	114	114	114	113	113	113	113	113	113	113	113	113	
Noise Level at NSR (dB(A))		0	0	0	0	0	0	0	0	0	70	71	71	71	72	72	72	72	71	71	71	71	71	71	71	71	71	
4 Dredging of Groynes																												
Total SWL		0	0	0	0	0	0	0	0	0	0	0	0	0	0	116	116	0	0	0	0	0	0	0	0	0	0	
Noise Level at NSR (dB(A))		0	0	0	0	0	0	0	0	0	0	0	0	0	0	67	67	0	0	0	0	0	0	0	0	0	0	
5 Rock filling of Groynes																												
Total SWL		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	116	116	116	0	0	0	0	0	0	0	0	
Noise Level at NSR (dB(A))		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66	66	66	0	0	0	0	0	0	0	0	
6 Box Culvert Construction																												
6a	construction of gabion channel	0	0	0	0	0	115	115	115	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Noise Level at NSR (dB(A))		0	0	0	0	0	69	69	69	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6b	construction of western culvert	0	0	0	0	0	0	0	0	0	0	121	121	121	0	0	0	0	0	0	0	0	0	0	0	0		
Noise Level at NSR (dB(A))		0	0	0	0	0	0	0	0	0	0	76	76	76	0	0	0	0	0	0	0	0	0	0	0	0	0	
6c	construction of eastern culvert	0	0	0	0	0	0	0	0	0	0	0	0	0	109	0	0	0	0	0	0	0	0	0	0	0		
Noise Level at NSR (dB(A))		0	0	0	0	0	0	0	0	0	0	0	0	0	57	0	0	0	0	0	0	0	0	0	0	0	0	
6d	construction of 90m box culvert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	111	111	111	111	111	111	111	111	0	0	0	0	
Noise Level at NSR (dB(A))		0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	60	60	60	60	60	60	60	0	0	0	0	
7 Sand Filling																												
Total SWL		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	117	117	117	117	117	0	0	0	0	
Noise Level at NSR (dB(A))		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	68	68	68	68	0	0	0	0	
OVERALL NOISE LEVEL AT NSR (dB(A))		0	0	72	72	72	74	74	74	74	75	78	78	77	72	73	73	73	72	74	73	73	73	71	71	71	0	

Appendix D5

Construction Noise Assessment (Mitigated Scenario)

Appendix D5 Construction Plant Inventory - Mitigated Scenario

ID	Activities	Plant	CNP/BS5228 ref.	No. of PME	% of operating time	SWL, dB(A)	Correction, dB(A)			SWL, dB(A)
							Operating time	No. of Plant	Barrier ⁽³⁾	
1	Construction Works on Land									
1a	<i>site Formation, construction of seawall, ramp, staircase, retaining walls, sump tanks for grey water system and superstructure foundation</i>									
	- construction of seawall & retaining wall	Mobile crane	...	1	80	107	-1	0	-5	101
		Excavator	BS TC3-97	1	80	105	-1	0	-5	99
		Lorry, 5.5ton<gross vehicle weight<38ton	...	3	80	105	-1	5	0	109
										Sub-Total SWL 110
	- backfilling	Lorry, 5.5ton<gross vehicle weight<38ton	...	3	80	105	-1	5	0	109
		Excavator	BS TC3-97	2	80	105	-1	3	-5	102
		Roller, vibratory	CNP 186	1	50	108	-3	0	0	105
										Sub-Total SWL 111
	- construction of ramp, staircase, sump tanks for grey water system and superstructure foundation	Timber sawing machine	CNP 201	2	50	108	-3	3	-5	103
		Bar bender and cutter (electric)	CNP 021	3	50	90	-3	5	0	92
		Electrical drill	CNP 065	5	50	98	-3	7	0	102
		Diesel generator	CNP 102	1	100	100	0	0	0	100
		Water pumps (electric)	CNP 281	2	100	88	0	3	0	91
		Vibratory Poker (electric)	...	3	80	102	-1	5	0	106
		Concrete lorry mixers	BS TC6-23	1	80	100	-1	0	-5	94
										Sub-Total SWL 109
										MAXIMUM SWL FOR WORK ID 1a = 111
1b	<i>road widening at Ting Kok Road</i>									
	- breaking existing road surface	Excavator	BS TC3-97	2	100	105	0	3	-5	103
										Sub-Total SWL 103
	- drainage channel construction	Silent Piler	...	1	80	100	-1	0	0	99
		Excavator	BS TC3-97	1	80	105	-1	0	-5	99
		Mobile crane	...	1	80	107	-1	0	-5	101
										Sub-Total SWL 105
	- manhole construction	Electrical drill	CNP 065	2	50	98	-3	3	0	98
		Diesel generator	CNP 102	2	100	100	0	3	0	103
		Timber sawing machine	CNP 201	1	50	108	-3	0	-5	100
		Bar bender and cutter (electric)	CNP 021	1	50	90	-3	0	0	87
										Sub-Total SWL 106
	- concreting work	Concrete lorry mixers	BS TC6-23	1	80	100	-1	0	0	99
		Vibratory Poker (electric)	...	2	80	102	-1	3	0	104
										Sub-Total SWL 105
	- backfilling and road formation	Compactor, vibratory	CNP 050	1	50	105	-3	0	0	102
		Road roller	CNP 185	1	50	108	-3	0	0	105
		Excavator	BS TC3-97	1	80	105	-1	0	-5	99
										Sub-Total SWL 107
										MAXIMUM SWL FOR WORK ID 1b = 107
2	Car Park Paving									
	- backfilling	Lorry, 5.5ton<gross vehicle weight<38ton	...	3	80	105	-1	5	0	109
		Excavator	BS TC3-97	2	80	105	-1	3	-5	102
		Roller, vibratory	CNP 186	1	50	108	-3	0	0	105
										Sub-Total SWL 111
	- concreting work	Concrete lorry mixers	BS TC6-23	1	80	100	-1	0	0	99
		Vibratory Poker (electric)	...	2	80	102	-1	3	0	104
										Sub-Total SWL 105
										MAXIMUM SWL FOR WORK ID 2 = 111
3	Building Works									
3a	<i>piling works</i>									
		Silent piler	...	2	80	100	-1	3	0	102
		Excavator	BS TC3-97	1	80	105	-1	0	0	104
										MAXIMUM SWL FOR WORK ID 3a = 106
3b	<i>foundation and tanking</i>									
		Mobile crane	...	1	80	107	-1	0	-5	101
		Excavator	BS TC3-97	1	80	105	-1	0	-5	99
		Timber sawing machine	CNP 201	2	50	108	-3	3	-5	103
		Bar bender and cutter (electric)	CNP 021	3	50	90	-3	5	0	92
		Electrical drill	CNP 065	5	50	98	-3	7	0	102
		Diesel generator	CNP 102	1	100	100	0	0	0	100
		Water pumps (electric)	CNP 281	2	100	88	0	3	0	91
										Sub-Total SWL 108
										MAXIMUM SWL FOR WORK ID 3b = 108

Appendix D5 Construction Plant Inventory - Mitigated Scenario

ID	Activities	Plant	CNP/BS5228 ref.	No. of PME	% of operating time	SWL, dB(A)	Correction, dB(A)			SWL, dB(A)	
							Operating time	No. of Plant	Barrier ⁽¹⁾		
	- construction of culvert top slab	Lorry, 5.5ton<gross vehicle weight<38ton	...(1)	3	80	105	-1	5	0	109	
		Concrete lorry mixers	BS TC6-23	1	80	100	-1	0	-5	94	
		Timber sawing machine	CNP 201	2	50	108	-3	3	0	108	
		Bar bender and cutter (electric)	CNP 021	2	50	90	-3	3	0	90	
		Vibratory Poker (electric)	...(1)	2	80	102	-1	3	0	104	
									Sub-Total SWL	112	
	- slope reinstatement	Excavator		BS TC3-97	1	80	105	-1	0	0	104
	MAXIMUM SWL FOR WORK ID 6b = 112										
	6c	- preparation of concrete slab surface	Electrical drill	CNP 065	2	50	98	-3	3	0	98
Diesel generator			CNP 102	2	100	100	0	3	0	103	
Water pumps (electric)			CNP 281	2	100	88	0	3	0	91	
									Sub-Total SWL	104	
- concreting work		Concrete lorry mixers		BS TC6-23	1	80	100	-1	0	-5	94
									Sub-Total SWL	102	
MAXIMUM SWL FOR WORK ID 6c = 104											
6d		- excavation work	Excavator	BS TC3-97	1	80	105	-1	0	-5	99
	- erection of precast panel segment	Mobile crane		...(2)	1	80	107	-1	0	-5	101
	- construction of top and bottom slab	Timber sawing machine	CNP 201	1	50	108	-3	0	-5	100	
		Bar bender and cutter (electric)	CNP 021	1	50	90	-3	0	-5	82	
		Electrical drill	CNP 065	2	50	98	-3	3	-5	93	
		Diesel generator	CNP 102	2	100	100	0	3	-5	98	
										Sub-Total SWL	103
	- concreting work	Vibratory Poker (electric)	...(1)	2	80	102	-1	3	-5	99	
		Concrete lorry mixers	CNP 044	1	80	100	-1	0	-5	94	
									Sub-Total SWL	100	
	- screeding work	Concrete mixer	CNP 045	1	80	96	-1	0	-5	90	
		Diesel generator	CNP 102	2	100	100	0	3	-5	98	
									Sub-Total SWL	99	
- backfilling	Lorry, 5.5ton<gross vehicle weight<38ton	...(1)	1	80	105	-1	0	-5	99		
	Vibratory compactor	CNP 050	1	50	105	-3	0	-5	97		
								Sub-Total SWL	101		
MAXIMUM SWL FOR WORK ID 6d = 103											
7	Sand Filling	Pelican barge	CNP 061	1	100	104	0	0	0	104	
		Excavator	BS TC3-97	2	80	105	-1	3	-5	102	
		Tracked Loader	BS TC3-16	2	80	104	-1	3	0	106	
MAXIMUM SWL FOR WORK ID 7 = 109											

Remarks

- (1) SWL refer to the document prepared by the Noise Control Authority (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)
- (2) SWL refer to data base of quality powered mechanical equipment prepared by the Noise Control Authority (http://www.epd.gov.hk/cgi-bin/npg/qpmpe/search_gen.pl?lang=eng&st=sim&smtype=0)
- (3) Reference was made to MTRC Contract C4420 Tsim Sha Tsui Station Modification, Variation of Environmental Permit, Noise assessment of GIKEN silent piler system.
- (4) Barrier attenuation is obtained from site hoarding or movable noise barrier.

Appendix D5 - Construction Noise Assessment - Mitigated Scenario

NSR: N2, Village House - No.103 Lung Mei																													
<u>Distance from NSR to Notional Source Position</u>		<u>Correction Factor</u>																											
Distance from NSR to Work Site ID 1	80 m	Distance Attenuation = -46 dB(A)		Facade = 3 dB(A)				Barrier Correction = 0 dB(A)																					
Distance from NSR to Work Site ID 2	128 m	Distance Attenuation = -50 dB(A)		Facade = 3 dB(A)				Barrier Correction = 0 dB(A)																					
Distance from NSR to Work Site ID 3	94 m	Distance Attenuation = -47 dB(A)		Facade = 3 dB(A)				Barrier Correction = 0 dB(A)																					
Distance from NSR to Work Site ID 4	135 m	Distance Attenuation = -51 dB(A)		Facade = 3 dB(A)				Barrier Correction = 0 dB(A)																					
Distance from NSR to Work Site ID 5	90 m	Distance Attenuation = -47 dB(A)		Facade = 3 dB(A)				Barrier Correction = 0 dB(A)																					
Distance from NSR to Work Site ID 6a & 6b	246 m	Distance Attenuation = -56 dB(A)		Facade = 3 dB(A)				Barrier Correction = 0 dB(A)																					
Distance from NSR to Work Site ID 6c & 6d	79 m	Distance Attenuation = -45 dB(A)		Facade = 3 dB(A)				Barrier Correction = 0 dB(A)																					
Distance from NSR to Work Site ID 7	135 m	Distance Attenuation = -51 dB(A)		Facade = 3 dB(A)				Barrier Correction = 0 dB(A)																					
<u>Construction Item</u>		2008								2009								2010											
ID	Activity	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
1	Construction Works on Land																												
1a	site formation, construction of seawall	0	0	111	111	111	111	111	110.9	110.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	road widening at Ting Kok Road	0	0	107	107	107	107	107	107	107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	<i>Total SWL</i>	0	0	113	113	113	113	113	113	113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Noise Level at NSR (dB(A))	0	0	69	69	69	69	69	69	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	Car Park Paving																												
	<i>Total SWL</i>	0	0	0	0	0	0	0	0	0	111	111	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	64	64	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	Building Works																												
3a	piling works	0	0	0	0	0	0	0	0	0	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3b	foundation and tanking	0	0	0	0	0	0	0	0	0	0	108	108	108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3c	superstructure	0	0	0	0	0	0	0	0	0	0	0	0	0	109	109	109	109	0	0	0	0	0	0	0	0	0	0	
3d	building finishes & internal fitting-out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	109	109	109	109	109	109	109	109	109	0	
	<i>Total SWL</i>	0	0	0	0	0	0	0	0	0	106	108	108	108	109	109	109	109	109	109	109	109	109	109	109	109	109	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	62	63	63	63	64	64	64	64	64	64	64	64	64	64	64	64	64	0	
4	Dredging of Groynes																												
	<i>Total SWL</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	114	114	0	0	0	0	0	0	0	0	0	0	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66	66	0	0	0	0	0	0	0	0	0	0	0	
5	Rock filling of Groynes																												
	<i>Total SWL</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	110	110	110	0	0	0	0	0	0	0	0	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66	66	66	0	0	0	0	0	0	0	0	0	
6	Box Culvert Construction																												
6a	construction of gabion channel	0	0	0	0	0	110	110	110	110	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	57	57	57	57	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6b	construction of western culvert	0	0	0	0	0	0	0	0	0	0	112	112	112	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	59	59	59	0	0	0	0	0	0	0	0	0	0	0	0	0		
6c	construction of eastern culvert	0	0	0	0	0	0	0	0	0	0	0	0	0	104	0	0	0	0	0	0	0	0	0	0	0	0		
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	63	0	0	0	0	0	0	0	0	0	0	0	0		
6d	construction of 90m box culvert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	103	103	103	103	103	103	103	103	103	0	0	0		
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	61	61	61	61	61	61	61	61	0	0	0		
7	Sand Filling																												
	<i>Total SWL</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	109	109	109	109	109	0	0	0		
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	61	61	61	61	0	0	0		
OVERALL NOISE LEVEL AT NSR (dB(A))		0	0	69	69	69	70	70	70	70	66	67	67	65	66	69	69	69	69	70	67	67	66	64	64	64	64	0	

Appendix D5 - Construction Noise Assessment - Mitigated Scenario

NSR: N2a, House - No.101 Lung Mei																													
<u>Distance from NSR to Notional Source Position</u>		<u>Correction Factor</u>																											
Distance from NSR to Work Site ID 1	77 m	Distance Attenuation =	-46 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
Distance from NSR to Work Site ID 2	140 m	Distance Attenuation =	-51 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
Distance from NSR to Work Site ID 3	89 m	Distance Attenuation =	-47 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
Distance from NSR to Work Site ID 4	122 m	Distance Attenuation =	-50 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
Distance from NSR to Work Site ID 5	90 m	Distance Attenuation =	-47 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
Distance from NSR to Work Site ID 6a & 6b	261 m	Distance Attenuation =	-56 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
Distance from NSR to Work Site ID 6c & 6d	55 m	Distance Attenuation =	-43 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
Distance from NSR to Work Site ID 7	122 m	Distance Attenuation =	-50 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
<u>Construction Item</u>		2008								2009								2010											
ID	Activity	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
1 Construction Works on Land																													
1a	site formation, construction of seawall	0	0	111	111	111	111	111	110.9	110.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	road widening at Ting Kok Road	0	0	107	107	107	107	107	107	107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SWL	0	0	113	113	113	113	113	113	113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Noise Level at NSR (dB(A))	0	0	70	70	70	70	70	70	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2 Car Park Paving																													
	Total SWL	0	0	0	0	0	0	0	0	0	111	111	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	63	63	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3 Building Works																													
3a	piling works	0	0	0	0	0	0	0	0	0	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3b	foundation and tanking	0	0	0	0	0	0	0	0	0	0	108	108	108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3c	superstructure	0	0	0	0	0	0	0	0	0	0	0	0	0	109	109	109	109	0	0	0	0	0	0	0	0	0	0	
3d	building finishes & internal fitting-out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	109	109	109	109	109	109	109	109	109	0	
	Total SWL	0	0	0	0	0	0	0	0	0	106	108	108	108	109	109	109	109	109	109	109	109	109	109	109	109	109	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	62	64	64	64	65	65	65	65	65	65	65	65	65	65	65	65	65	0	
4 Dredging of Groynes																													
	Total SWL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	114	114	0	0	0	0	0	0	0	0	0	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67	67	0	0	0	0	0	0	0	0	0		
5 Rock filling of Groynes																													
	Total SWL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	110	110	110	0	0	0	0	0	0	0		
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66	66	66	0	0	0	0	0	0	0		
6 Box Culvert Construction																													
6a	construction of gabion channel	0	0	0	0	0	110	110	110	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Noise Level at NSR (dB(A))	0	0	0	0	0	56	56	56	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6b	construction of western culvert	0	0	0	0	0	0	0	0	0	0	112	112	112	0	0	0	0	0	0	0	0	0	0	0	0			
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	59	59	59	0	0	0	0	0	0	0	0	0	0	0	0			
6c	construction of eastern culvert	0	0	0	0	0	0	0	0	0	0	0	0	0	104	0	0	0	0	0	0	0	0	0	0	0			
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	65	0	0	0	0	0	0	0	0	0	0	0			
6d	construction of 90m box culvert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	103	103	103	103	103	103	103	103	103	0			
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63	63	63	63	63	63	63	63	63	0			
7 Sand Filling																													
	Total SWL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	109	109	109	109	109	109	109	0			
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62	62	62	62	62	62	62	0			
OVERALL NOISE LEVEL AT NSR (dB(A))		0	0	70	70	70	70	70	70	70	66	67	67	65	68	70	70	70	70	68	68	67	65	65	65	65	0		

Appendix D5 - Construction Noise Assessment - Mitigated Scenario

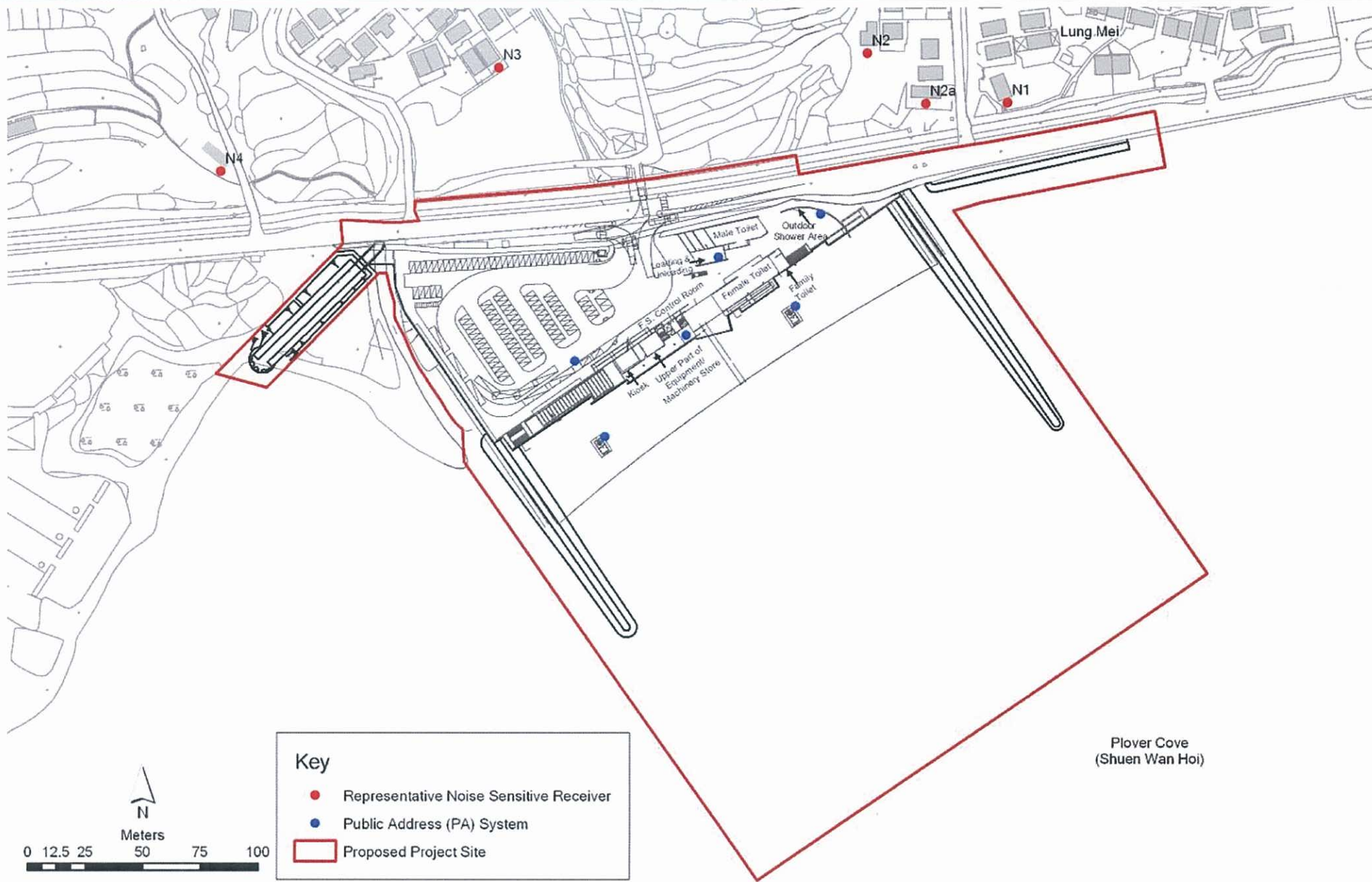
NSR: N3, Village House - No.70 Lo Tsz Tin																													
<u>Distance from NSR to Notional Source Position</u>		<u>Correction Factor</u>																											
Distance from NSR to Work Site ID 1	122 m	Distance Attenuation =	-50 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
Distance from NSR to Work Site ID 2	85 m	Distance Attenuation =	-47 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
Distance from NSR to Work Site ID 3	70 m	Distance Attenuation =	-45 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
Distance from NSR to Work Site ID 4	162 m	Distance Attenuation =	-52 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
Distance from NSR to Work Site ID 5	172 m	Distance Attenuation =	-53 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
Distance from NSR to Work Site ID 6a & 6b	106 m	Distance Attenuation =	-49 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
Distance from NSR to Work Site ID 6c & 6d	212 m	Distance Attenuation =	-55 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
Distance from NSR to Work Site ID 7	167 m	Distance Attenuation =	-52 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																						
<u>Construction Item</u>		2008						2009						2010															
ID	Activity	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
1 Construction Works on Land																													
1a	site formation, construction of seawall	0	0	111	111	111	111	111	110.9	110.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1b	road widening at Ting Kok Road	0	0	107	107	107	107	107	107	107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total SWL	0	0	113	113	113	113	113	113	113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Noise Level at NSR (dB(A))	0	0	66	66	66	66	66	66	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2 Car Park Paving																													
	Total SWL	0	0	0	0	0	0	0	0	0	111	111	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	67	67	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3 Building Works																													
3a	piling works	0	0	0	0	0	0	0	0	0	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3b	foundation and tanking	0	0	0	0	0	0	0	0	0	0	108	108	108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3c	superstructure	0	0	0	0	0	0	0	0	0	0	0	0	0	109	109	109	109	0	0	0	0	0	0	0	0	0	0	
3d	building finishes & internal fitting-out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	109	109	109	109	109	109	109	109	109	0	
	Total SWL	0	0	0	0	0	0	0	0	0	106	108	108	108	109	109	109	109	109	109	109	109	109	109	109	109	109	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	64	66	66	66	67	67	67	67	67	67	67	67	67	67	67	67	67	0	
4 Dredging of Groynes																													
	Total SWL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	114	114	0	0	0	0	0	0	0	0	0	0	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64	64	0	0	0	0	0	0	0	0	0	0	0	
5 Rock filling of Groynes																													
	Total SWL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	110	110	110	0	0	0	0	0	0	0	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	60	60	0	0	0	0	0	0	0	0	
6 Box Culvert Construction																													
6a	construction of gabion channel	0	0	0	0	0	110	110	110	110	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Noise Level at NSR (dB(A))	0	0	0	0	0	64	64	64	64	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6b	construction of western culvert	0	0	0	0	0	0	0	0	0	0	112	112	112	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	67	67	67	0	0	0	0	0	0	0	0	0	0	0	0	0		
6c	construction of eastern culvert	0	0	0	0	0	0	0	0	0	0	0	0	0	104	0	0	0	0	0	0	0	0	0	0	0	0		
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	53	0	0	0	0	0	0	0	0	0	0	0	0		
6d	construction of 90m box culvert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	103	103	103	103	103	103	103	103	0	0	0	0		
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	51	51	51	51	51	51	51	51	0	0	0	0	0		
7 Sand Filling																													
	Total SWL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	109	109	109	109	109	0	0	0	0		
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	60	60	60	60	0	0	0	0		
OVERALL NOISE LEVEL AT NSR (dB(A))		0	0	66	66	66	68	68	68	68	70	71	71	69	67	69	69	68	68	68	68	68	68	67	67	67	67	0	

Appendix D5 - Construction Noise Assessment - Mitigated Scenario

NSR: N4, Village House - No.79 Lo Tsz Tin																																					
Distance from NSR to Notional Source Position		Correction Factor																																			
Distance from NSR to Work Site ID 1	135 m	Distance Attenuation =	-51 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																														
Distance from NSR to Work Site ID 2	135 m	Distance Attenuation =	-51 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																														
Distance from NSR to Work Site ID 3	106 m	Distance Attenuation =	-49 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																														
Distance from NSR to Work Site ID 4	225 m	Distance Attenuation =	-55 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																														
Distance from NSR to Work Site ID 5	180 m	Distance Attenuation =	-53 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																														
Distance from NSR to Work Site ID 6a & 6b	68 m	Distance Attenuation =	-45 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																														
Distance from NSR to Work Site ID 6c & 6d	322 m	Distance Attenuation =	-58 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																														
Distance from NSR to Work Site ID 7	225 m	Distance Attenuation =	-55 dB(A)	Facade =	3 dB(A)	Barrier Correction =	0 dB(A)																														
Construction Item		2008												2009												2010											
ID	Activity	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D									
1	Construction Works on Land																																				
1a	site formation, construction of seawall	0	0	111	111	111	111	111	110.9	110.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
1b	road widening at Ting Kok Road	0	0	107	107	107	107	107	107	107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
	Total SWL	0	0	113	113	113	113	113	113	113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
	Noise Level at NSR (dB(A))	0	0	65	65	65	65	65	65	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
2	Car Park Paving																																				
	Total SWL	0	0	0	0	0	0	0	0	0	111	111	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	63	63	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
3	Building Works																																				
3a	piling works	0	0	0	0	0	0	0	0	0	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
3b	foundation and tanking	0	0	0	0	0	0	0	0	0	0	108	108	108	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
3c	superstructure	0	0	0	0	0	0	0	0	0	0	0	0	0	109	109	109	109	0	0	0	0	0	0	0	0	0	0									
3d	building finishes & internal fitting-out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	109	109	109	109	109	109	109	109	109	109	0								
	Total SWL	0	0	0	0	0	0	0	0	0	106	108	108	108	109	109	109	109	109	109	109	109	109	109	109	109	109	109	0								
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	61	62	62	62	63	63	63	63	63	63	63	63	63	63	63	63	63	63	0								
4	Dredging of Groynes																																				
	Total SWL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	114	114	0	0	0	0	0	0	0	0	0	0	0								
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62	62	0	0	0	0	0	0	0	0	0	0									
5	Rock filling of Groynes																																				
	Total SWL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	110	110	110	0	0	0	0	0	0	0	0	0								
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	60	60	0	0	0	0	0	0	0	0	0								
6	Box Culvert Construction																																				
6a	construction of gabion channel	0	0	0	0	0	110	110	110	110	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
	Noise Level at NSR (dB(A))	0	0	0	0	0	68	68	68	68	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
6b	construction of western culvert	0	0	0	0	0	0	0	0	0	0	112	112	112	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	71	71	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
6c	construction of eastern culvert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	104	0	0	0	0	0	0	0	0	0	0	0									
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49	0	0	0	0	0	0	0	0	0	0	0									
6d	construction of 90m box culvert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	103	103	103	103	103	103	103	103	103	103	103	0									
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48	48	48	48	48	48	48	48	48	48	48	0									
7	Sand Filling																																				
	Total SWL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	109	109	109	109	109	109	109	109	0									
	Noise Level at NSR (dB(A))	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	57	57	57	57	57	57	57	0									
OVERALL NOISE LEVEL AT NSR (dB(A))		0	0	65	65	65	70	70	70	70	70	72	72	71	63	66	66	65	65	66	64	64	64	64	63	63	63	63	0								

Appendix D6

Operational Noise Assessment



Plover Cove
(Shuen Wan Hoi)

Key

- Representative Noise Sensitive Receiver
- Public Address (PA) System
- ▭ Proposed Project Site

Client



CEDD
CIVIL ENGINEERING
AND DEVELOPMENT
DEPARTMENT

Consulting Engineer



Halcrow
Halcrow China Ltd.



ERM
Environmental
Resources
Management
as sub-consultant

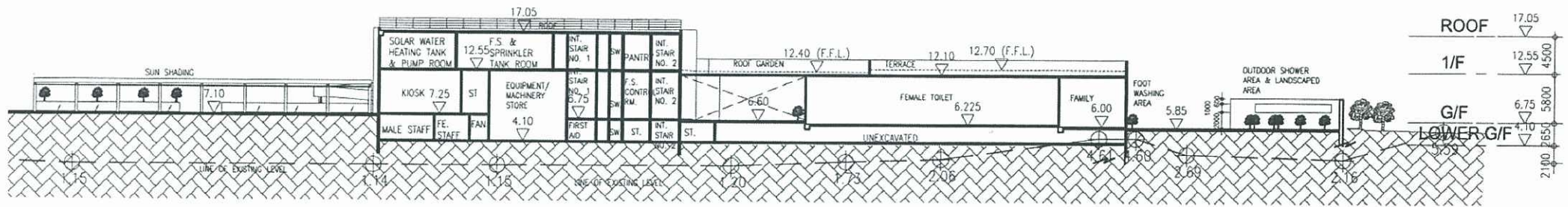
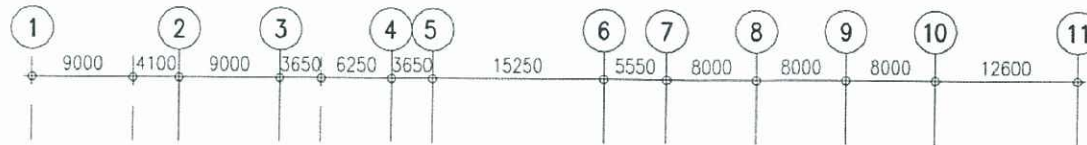
Agreement No.: CE 59/2005(EP)

Project Title:
**DEVELOPMENT OF A BATHING
BEACH AT LUNG MEI, TAI PO**

ENVIRONMENTAL IMPACT ASSESSMENT REPORT

Figure Title:
PRELIMINARY LAYOUT PLAN

APPENDIX D6 - FIGURE 1		
Checked	Scale	Rev.
-	AS SHOWN	3
Designed	Drawn	Date
-	KK	06/07/2007



Client



CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

Consulting Engineer



Halcrow China Ltd.



Environmental Resources Management as sub-consultant

Agreement No.: CE 59/2005(EP)

Project Title: DEVELOPMENT OF A BATHING BEACH AT LUNG MEI, TAI PO

ENVIRONMENTAL IMPACT ASSESSMENT REPORT

Figure Title: SECTION A - A

APPENDIX D6 - FIGURE 2

Checked	Scale	Rev.
PS	AS SHOWN	2
Designed	Drawn	Date
-	KK	06/07/2007

Appendix D6 Operational Noise Assessment

NSR: N1, Village House - No.165A Lung Mei

Location	Plant Item	Reference	No. of Plant	SWL, dB(A)	Distance to the source, m	Correction, dB(A)				Corrected Noise Level, dB(A)	
						No. of plant	Distance	Operating Period ⁽¹⁾	Barrier ⁽²⁾		Facade
Lift Machine Room	Mechanical fan	- ⁽³⁾	1	88	160	0	-52	0	0	3	39
Plant Room	Mechanical fan	- ⁽³⁾	1	88	180	0	-53	0	0	3	38
	Pump	- ⁽³⁾	3	92	180	5	-53	0	-10	3	37
Water Tank & Pump Room	Mechanical fan	- ⁽³⁾	1	88	160	0	-52	0	0	3	39
	Pump	- ⁽³⁾	3	92	160	5	-52	0	-10	3	38
Generator Room	Mechanical fan	- ⁽³⁾	1	88	160	0	-52	0	0	3	39
	Generator	CNP 101	1	100	160	0	-52	0	-10	3	41
Pump & Sump Tank Room	Mechanical fan	- ⁽³⁾	1	88	100	0	-48	0	0	3	43
	Pump	- ⁽³⁾	3	92	100	5	-48	0	-10	3	42
Car Park	Loudspeaker cluster	- ⁽³⁾	1	100	218	0	-55	-9	0	3	39
	Loudspeaker cluster	- ⁽³⁾	1	100	222	0	-55	-9	0	3	39
Bathing beach (safeguard lookout)	Loudspeaker cluster	- ⁽³⁾	1	100	126	0	-50	-9	0	3	44
	Loudspeaker cluster	- ⁽³⁾	1	98	95	0	-48	-9	0	3	45
Facility building	Loudspeaker cluster	- ⁽³⁾	1	98	142	0	-51	-9	0	3	41
	Loudspeaker cluster	- ⁽³⁾	1	98	167	0	-52	-9	-5	3	35
<i>Predicted Operational Noise Level at the NSR</i>											
52											

NSR: N2, Village House - No.103 Lung Mei

Location	Plant Item	Reference	No. of Plant	SWL, dB(A)	Distance to the source, m	Correction, dB(A)				Corrected Noise Level, dB(A)	
						No. of plant	Distance	Operating Period ⁽¹⁾	Barrier ⁽²⁾		Facade
Lift Machine Room	Mechanical fan	- ⁽³⁾	1	88	132	0	-50	0	0	3	41
Plant Room	Mechanical fan	- ⁽³⁾	1	88	152	0	-52	0	0	3	39
	Pump	- ⁽³⁾	3	92	152	5	-52	0	-10	3	38
Water Tank & Pump Room	Mechanical fan	- ⁽³⁾	1	88	132	0	-50	0	0	3	41
	Pump	- ⁽³⁾	3	92	132	5	-50	0	-10	3	39
Generator Room	Mechanical fan	- ⁽³⁾	1	88	132	0	-50	0	0	3	41
	Generator	CNP 101	1	100	132	0	-50	0	-10	3	43
Pump & Sump Tank Room	Mechanical fan	- ⁽³⁾	1	88	78	0	-46	0	0	3	45
	Pump	- ⁽³⁾	3	92	78	5	-46	0	-10	3	44
Car Park	Loudspeaker cluster	- ⁽³⁾	1	100	186	0	-53	-9	0	3	41
	Loudspeaker cluster	- ⁽³⁾	1	100	197	0	-54	-9	-5	3	35
Bathing beach (safeguard lookout)	Loudspeaker cluster	- ⁽³⁾	1	100	110	0	-49	-9	-5	3	40
	Loudspeaker cluster	- ⁽³⁾	1	98	74	0	-45	-9	0	3	47
Facility building	Loudspeaker cluster	- ⁽³⁾	1	98	107	0	-49	-9	-5	3	39
	Loudspeaker cluster	- ⁽³⁾	1	98	142	0	-51	-9	-5	3	36
<i>Predicted Operational Noise Level at the NSR</i>											
53											

NSR: N2a, House - No.101 Lung Mei

Location	Plant Item	Reference	No. of Plant	SWL, dB(A)	Distance to the source, m	Correction, dB(A)				Corrected Noise Level, dB(A)	
						No. of plant	Distance	Operating Period ⁽¹⁾	Barrier ⁽²⁾		Facade
Lift Machine Room	Mechanical fan	- ⁽³⁾	1	88	147	0	-51	0	0	3	40
Plant Room	Mechanical fan	- ⁽³⁾	1	88	158	0	-52	0	0	3	39
	Pump	- ⁽³⁾	3	92	158	5	-52	0	-10	3	38
Water Tank & Pump Room	Mechanical fan	- ⁽³⁾	1	88	147	0	-51	0	0	3	40
	Pump	- ⁽³⁾	3	92	147	5	-51	0	-10	3	38
Generator Room	Mechanical fan	- ⁽³⁾	1	88	147	0	-51	0	0	3	40
	Generator	CNP 101	1	100	147	0	-51	0	-10	3	42
Pump & Sump Tank Room	Mechanical fan	- ⁽³⁾	1	88	64	0	-44	0	0	3	47
	Pump	- ⁽³⁾	3	92	64	5	-44	0	-10	3	46
Car Park	Loudspeaker cluster	- ⁽³⁾	1	100	184	0	-53	-9	0	3	41
	Loudspeaker cluster	- ⁽³⁾	1	100	196	0	-54	-9	-5	3	35
Bathing beach (safeguard lookout)	Loudspeaker cluster	- ⁽³⁾	1	100	102	0	-48	-9	-5	3	41
	Loudspeaker cluster	- ⁽³⁾	1	98	64	0	-44	-9	0	3	48
Facility building	Loudspeaker cluster	- ⁽³⁾	1	98	109	0	-49	-9	-5	3	39
	Loudspeaker cluster	- ⁽³⁾	1	98	140	0	-51	-9	-5	3	36
<i>Predicted Operational Noise Level at the NSR</i>											
54											

NSR: N3, Village House - No.70 Lo Tsz Tin

Location	Plant Item	Reference	No. of Plant	SWL, dB(A)	Distance to the source, m	Correction, dB(A)				Corrected Noise Level, dB(A)	
						No. of plant	Distance	Operating Period ⁽¹⁾	Barrier ⁽²⁾		Facade
Lift Machine Room	Mechanical fan	- ⁽³⁾	1	88	130	0	-50	0	0	3	41
Plant Room	Mechanical fan	- ⁽³⁾	1	88	130	0	-50	0	0	3	41
	Pump	- ⁽³⁾	3	92	130	5	-50	0	-10	3	40
Water Tank & Pump Room	Mechanical fan	- ⁽³⁾	1	88	130	0	-50	0	0	3	41
	Pump	- ⁽³⁾	3	92	130	5	-50	0	-10	3	40
Generator Room	Mechanical fan	- ⁽³⁾	1	88	130	0	-50	0	0	3	41
	Generator	CNP 101	1	100	130	0	-50	0	-10	3	43
Pump & Sump Tank Room	Mechanical fan	- ⁽³⁾	1	88	140	0	-51	0	0	3	40
	Pump	- ⁽³⁾	3	92	140	5	-51	0	-10	3	39
Car Park	Loudspeaker cluster	- ⁽³⁾	1	100	130	0	-50	-9	0	3	44
	Loudspeaker cluster	- ⁽³⁾	1	100	162	0	-52	-9	0	3	42
Bathing beach (safeguard lookout)	Loudspeaker cluster	- ⁽³⁾	1	100	162	0	-52	-9	-5	3	37
	Loudspeaker cluster	- ⁽³⁾	1	98	152	0	-52	-9	0	3	41
Facility building	Loudspeaker cluster	- ⁽³⁾	1	98	121	0	-50	-9	-5	3	38
	Loudspeaker cluster	- ⁽³⁾	1	98	137	0	-51	-9	-5	3	37
<i>Predicted Operational Noise Level at the NSR</i>											
52											

NSR: N4, Village House - No.79 Lo Tsz Tin

Location	Plant Item	Reference	No. of Plant	SWL, dB(A)	Distance to the source, m	Correction, dB(A)				Corrected Noise Level, dB(A)	
						No. of plant	Distance	Operating Period ⁽¹⁾	Barrier ⁽²⁾		Facade
Lift Machine Room	Mechanical fan	- ⁽³⁾	1	88	195	0	-54	0	0	3	37
Plant Room	Mechanical fan	- ⁽³⁾	1	88	185	0	-53	0	0	3	38
	Pump	- ⁽³⁾	3	92	185	5	-53	0	-10	3	36
Water Tank & Pump Room	Mechanical fan	- ⁽³⁾	1	88	195	0	-54	0	0	3	37
	Pump	- ⁽³⁾	3	92	195	5	-54	0	-10	3	36
Generator Room	Mechanical fan	- ⁽³⁾	1	88	195	0	-54	0	0	3	37
	Generator	CNP 101	1	100	195	0	-54	0	-10	3	39
Pump & Sump Tank Room	Mechanical fan	- ⁽³⁾	1	88	240	0	-56	0	0	3	35
	Pump	- ⁽³⁾	3	92	240	5	-56	0	-10	3	34
Car Park	Loudspeaker cluster	- ⁽³⁾	1	100	170	0	-53	-9	0	3	42
	Loudspeaker cluster	- ⁽³⁾	1	100	197	0	-54	-9	0	3	40
Bathing beach (safeguard lookout)	Loudspeaker cluster	- ⁽³⁾	1	100	251	0	-56	-9	-5	3	33
	Loudspeaker cluster	- ⁽³⁾	1	98	258	0	-56	-9	-5	3	31
Facility building	Loudspeaker cluster	- ⁽³⁾	1	98	213	0	-55	-9	-5	3	33
	Loudspeaker cluster	- ⁽³⁾	1	98	208	0	-54	-9	-5	3	33
<i>Predicted Operational Noise Level at the NSR</i>											
49											

Note:

- (1) Maximum Sound Power Levels of the equipment will be specified in the Tender Specification
- (2) The PA system will be used occasionally. According to the information provided by LCSD, the operating time of the PA system will be 4 minutes in every 30 minutes.
- (3) Negative correction factor of 10dB(A) has been applied in the assessment for the equipment located within a building and 5dB(A) for the NSR with no direct line of sight to the equipment.