

Appendix 4.8A
**Mitigated Powered Mechanical
Equipment**

Item	PME	TM or other reference*	SWL, dB(A)	No. of PME	% on time	Barrier Correction	Total SWL, dB(A)
1	SCHEME H PART A (HOI PO ROAD TO WEST KOWLOON HIGHWAY)						
	Stage 1 - Site Preparation and Utility Diversion						
	Excavator/ loader, wheeled/tracked	EPD-01431	103	1	50%	0	100
	Lorry, <38 tonne	CNP 145	105	1	50%	-5	97
	Total SWL, dB(A)						102
	Stage 2 - Shifting of WKH and Lin Cheung Road						
	Excavator/ loader, wheeled/tracked	EPD-01431	103	1	50%	0	100
	Lorry, <38 tonne	CNP 145	105	2	50%	-5	100
	Asphalt paver	EPD-00097	106	1	50%	0	103
	Road roller	EPD-00108	104	1	50%	0	101
	Power rammer (petrol)	CNP 169	108	2	50%	0	108
	Total SWL, dB(A)						111
	Stage 3 - Pilling						
	Pilling, large diameter bored, reverse circulation drill	CNP 166	100	2	70%	0	101
	Generator, super silenced, 70 dB(A) at 7m	CNP 103	95	2	70%	0	96
	Air compressor, air flow> 10m3/min and <= 30m3/min	CNP 002	102	2	70%	0	103
	Excavator/ loader, wheeled/tracked	EPD-01431	103	1	50%	0	100
	Lorry, <38 tonne	CNP 145	105	2	50%	-5	100
	Crane, mobile/ barge mounted (diesel)	EPD-01477	104	1	50%	0	101
	Concrete pump, stationary/ lorry mounted	CNP 047	109	1	50%	-5	101
	Concrete lorry mixer	CNP 044	109	3	50%	-5	106
	Total SWL, dB(A)						111
	Stage 4 - Pile Caps						
	Generator, super silenced, 70 dB(A) at 7m	CNP 103	95	1	60%	0	93
	Air compressor, air flow> 10m3/min and <= 30m3/min	CNP 002	102	1	60%	0	100
	Concrete lorry mixer	CNP 044	109	3	50%	-5	106
	Concrete pump, stationary/ lorry mounted	CNP 047	109	1	50%	-5	101
	Crane, mobile/ barge mounted (diesel)	EPD-01477	104	1	50%	0	101
	Excavator/ loader, wheeled/tracked	EPD-01431	103	1	50%	0	100
	Poker, vibratory, hand-held (electric)	CNP 173	102	4	50%	-5	100
	Lorry, <38 tonne	CNP 145	105	3	50%	-5	102
	Bar bender and cutter (electric)	CNP 021	90	1	50%	0	87
	Total SWL, dB(A)						110
	Stage 5 - Piers						
	Generator, super silenced, 70 dB(A) at 7m	CNP 103	95	1	60%	0	93
	Air compressor, air flow> 10m3/min and <= 30m3/min	CNP 002	102	1	60%	0	100
	Concrete lorry mixer	CNP 044	109	3	50%	-5	106
	Concrete pump, stationary/ lorry mounted	CNP 047	109	1	50%	-5	101
	Crane, mobile/ barge mounted (diesel)	EPD-01477	104	1	50%	0	101
	Poker, vibratory, hand-held (electric)	CNP 173	102	3	50%	-5	99
	Bar bender and cutter (electric)	CNP 021	90	1	50%	0	87
	Total SWL, dB(A)						109

Item	PME	TM or other reference*	SWL, dB(A)	No. of PME	% on time	Barrier Correction	Total SWL, dB(A)
Stage 6 - Bridge Decks							
	Generator, super silenced, 70 dB(A) at 7m	CNP 103	95	1	60%	0	93
	Air compressor, air flow > 10m ³ /min and ≤ 30m ³ /min	CNP 002	102	1	60%	0	100
	Concrete lorry mixer	CNP 044	109	5	50%	-5	108
	Concrete pump, stationary/ lorry mounted	CNP 047	109	1	50%	-5	101
	Crane, mobile/ barge mounted (diesel)	EPD-01477	104	1	50%	0	101
	Poker, vibratory, hand-held (electric)	CNP 173	102	4	50%	-5	100
	Lorry, <38 tonne	CNP 145	105	1	50%	-5	97
	Bar bender and cutter (electric)	CNP 021	90	1	50%	0	87
						Total SWL, dB(A)	111
Stage 7 - Excavation for Retaining Walls							
	Excavator/ loader, wheeled/tracked	EPD-01431	103	1	90%	0	103
	Lorry, <38 tonne	CNP 145	105	3	90%	-5	104
						Total SWL, dB(A)	107
Stage 8 - Construction of Retaining Walls							
	Generator, super silenced, 70 dB(A) at 7m	CNP 103	95	1	50%	0	92
	Air compressor, air flow > 10m ³ /min and ≤ 30m ³ /min	CNP 002	102	1	50%	0	99
	Concrete lorry mixer	CNP 044	109	3	50%	-5	106
	Crane, mobile/ barge mounted (diesel)	EPD-01477	104	1	50%	0	101
	Poker, vibratory, hand-held (electric)	CNP 173	102	3	50%	-5	99
	Lorry, <38 tonne	CNP 145	105	1	50%	-5	97
	Bar bender and cutter (electric)	CNP 021	90	1	50%	0	87
						Total SWL, dB(A)	109
Stage 9 - Backfilling Retaining Walls							
	Lorry, <38 tonne	CNP 145	105	2	60%	0	106
	Excavator/ loader, wheeled/tracked	EPD-01431	103	1	60%	0	101
	Road roller	EPD-00108	104	1	50%	0	101
	Power rammer (petrol)	CNP 169	108	1	50%	0	105
						Total SWL, dB(A)	110
Stage 10 - Road Works							
	Lorry, <38 tonne	CNP 145	105	2	50%	-5	100
	Air compressor, air flow > 10m ³ /min and ≤ 30m ³ /min	CNP 002	102	1	50%	0	99
	Generator, super silenced, 70 dB(A) at 7m	CNP 103	95	1	50%	0	92
	Asphalt paver	EPD-00097	106	1	50%	0	103
	Road roller	EPD-00108	104	1	50%	0	101
	Power rammer (petrol)	CNP 169	108	2	50%	0	108
						Total SWL, dB(A)	111

Mobile noise barrier is provided so there is 5 dB(A) reduction for barrier correction.

* PME is for reference only, contractor can use other kinds of PME with same or lower SWL.

Item	PME	TM or other reference*	SWL, dB(A)	No. of PME	% on time	Barrier Correction	Total SWL, dB(A)
2	SCHEME H PART B (WIDENING OF ELEVATED NGA CHEUNG ROAD)						
Stage 1 - Site Preparation and Utility Diversion							
	Excavator/ loader, wheeled/tracked	EPD-01431	103	1	50%	0	100
	Lorry, <38 tonne	CNP 145	105	2	50%	-5	100
Total SWL, dB(A)							103
Stage 2 - Pilling							
	Pilling, large diameter bored, reverse circulation drill	CNP 166	100	2	70%	0	101
	Generator, super silenced, 70 dB(A) at 7m	CNP 103	95	2	70%	0	96
	Air compressor, air flow> 10m3/min and <= 30m3/min	CNP 002	102	2	70%	0	103
	Excavator/ loader, wheeled/tracked	EPD-01431	103	1	50%	0	100
	Lorry, <38 tonne	CNP 145	105	2	50%	-5	100
	Crane, mobile/ barge mounted (diesel)	EPD-01477	104	1	50%	0	101
	Concrete pump, stationary/ lorry mounted	CNP 047	109	1	50%	-5	101
	Concrete lorry mixer	CNP 044	109	3	50%	-5	106
Total SWL, dB(A)							111
Stage 3 - Pile Caps							
	Generator, super silenced, 70 dB(A) at 7m	CNP 103	95	1	60%	0	93
	Air compressor, air flow> 10m3/min and <= 30m3/min	CNP 002	102	1	60%	0	100
	Concrete lorry mixer	CNP 044	109	3	50%	-5	106
	Concrete pump, stationary/ lorry mounted	CNP 047	109	1	50%	-5	101
	Crane, mobile/ barge mounted (diesel)	EPD-01477	104	1	50%	0	101
	Excavator/ loader, wheeled/tracked	EPD-01431	103	1	50%	0	100
	Poker, vibratory, hand-held (electric)	CNP 173	102	4	50%	-5	100
	Lorry, <38 tonne	CNP 145	105	3	50%	-5	102
	Bar bender and cutter (electric)	CNP 021	90	1	50%	0	87
Total SWL, dB(A)							110
Stage 4 - Piers							
	Generator, super silenced, 70 dB(A) at 7m	CNP 103	95	1	60%	0	93
	Air compressor, air flow> 10m3/min and <= 30m3/min	CNP 002	102	1	60%	0	100
	Concrete lorry mixer	CNP 044	109	3	50%	-5	106
	Concrete pump, stationary/ lorry mounted	CNP 047	109	1	50%	-5	101
	Crane, mobile/ barge mounted (diesel)	EPD-01477	104	1	50%	0	101
	Poker, vibratory, hand-held (electric)	CNP 173	102	3	50%	-5	99
	Bar bender and cutter (electric)	CNP 021	90	1	50%	0	87
Total SWL, dB(A)							109
Stage 5 - Bridge Decks							
	Generator, super silenced, 70 dB(A) at 7m	CNP 103	95	1	60%	0	93
	Air compressor, air flow> 10m3/min and <= 30m3/min	CNP 002	102	1	60%	0	100
	Concrete lorry mixer	CNP 044	109	3	50%	-5	106
	Concrete pump, stationary/ lorry mounted	CNP 047	109	1	50%	-5	101
	Crane, mobile/ barge mounted (diesel)	EPD-01477	104	1	50%	0	101
	Poker, vibratory, hand-held (electric)	CNP 173	102	3	50%	-5	99
	Bar bender and cutter (electric)	CNP 021	90	1	50%	0	87
Total SWL, dB(A)							109

Item	PME	TM or other reference*	SWL, dB(A)	No. of PME	% on time	Barrier Correction	Total SWL, dB(A)	
	Stage 6 - Road Works							
	Lorry, <38 tonne	CNP 145	105	2	50%	-5	100	
	Air compressor, air flow > 10m ³ /min and ≤ 30m ³ /min	CNP 002	102	1	50%	0	99	
	Generator, super silenced, 70 dB(A) at 7m	CNP 103	95	1	50%	0	92	
	Asphalt paver	EPD-00097	106	1	50%	0	103	
	Road roller	EPD-00108	104	1	50%	0	101	
	Power rammer (petrol)	CNP 169	108	2	50%	0	108	
	Total SWL, dB(A)							111

Mobile noise barrier is provided so there is 5 dB(A) reduction for barrier correction.

* PME is for reference only, contractor can use other kinds of PME with same or lower SWL.

Item	PME	TM or other reference*	SWL, dB(A)	No. of PME	% on time	Barrier Correction	Total SWL, dB(A)
3	SCHEME I (U TURN TO WEST HARBOUR CROSSING)						
	Stage 1 - Site Preparation and Utility Diversion						
	Excavator/ loader, wheeled/tracked	EPD-01431	103	1	50%	0	100
	Lorry, <38 tonne	CNP 145	105	2	50%	-5	100
	Total SWL, dB(A)						103
	Stage 2 - Shifting the Approach Roads and Close the Fast Lane of WHC						
	Excavator/ loader, wheeled/tracked	EPD-01431	103	1	50%	0	100
	Lorry, <38 tonne	CNP 145	105	2	50%	-5	100
	Asphalt paver	EPD-00097	106	1	50%	0	103
	Road roller	EPD-00108	104	1	50%	0	101
	Power rammer (petrol)	CNP 169	108	2	50%	0	108
	Total SWL, dB(A)						111
	Stage 3 - Pilling						
	Pilling, large diameter bored, reverse circulation drill	CNP 166	100	1	70%	0	98
	Generator, super silenced, 70 dB(A) at 7m	CNP 103	95	1	70%	0	93
	Air compressor, air flow> 10m3/min and <= 30m3/min	CNP 002	102	1	70%	0	100
	Excavator/ loader, wheeled/tracked	EPD-01431	103	1	50%	0	100
	Lorry, <38 tonne	CNP 145	105	2	50%	-5	100
	Crane, mobile/ barge mounted (diesel)	EPD-01477	104	1	50%	0	101
	Concrete pump, stationary/ lorry mounted	CNP 047	109	1	50%	-5	101
	Concrete lorry mixer	CNP 044	109	2	50%	-5	104
	Total SWL, dB(A)						110
	Stage 4 - Pile Caps						
	Generator, super silenced, 70 dB(A) at 7m	CNP 103	95	1	60%	0	93
	Air compressor, air flow> 10m3/min and <= 30m3/min	CNP 002	102	1	60%	0	100
	Concrete lorry mixer	CNP 044	109	2	50%	-5	104
	Concrete pump, stationary/ lorry mounted	CNP 047	109	1	50%	-5	101
	Crane, mobile/ barge mounted (diesel)	EPD-01477	104	1	50%	0	101
	Excavator/ loader, wheeled/tracked	EPD-01431	103	1	50%	0	100
	Poker, vibratory, hand-held (electric)	CNP 173	102	3	50%	-5	99
	Lorry, <38 tonne	CNP 145	105	2	50%	-5	100
	Bar bender and cutter (electric)	CNP 021	90	1	50%	0	87
	Total SWL, dB(A)						110
	Stage 5 - Piers						
	Generator, super silenced, 70 dB(A) at 7m	CNP 103	95	1	60%	0	93
	Air compressor, air flow> 10m3/min and <= 30m3/min	CNP 002	102	1	60%	0	100
	Concrete lorry mixer	CNP 044	109	3	50%	-5	106
	Concrete pump, stationary/ lorry mounted	CNP 047	109	1	50%	-5	101
	Crane, mobile/ barge mounted (diesel)	EPD-01477	104	1	50%	0	101
	Poker, vibratory, hand-held (electric)	CNP 173	102	3	50%	-5	99
	Bar bender and cutter (electric)	CNP 021	90	1	50%	0	87
	Total SWL, dB(A)						109

Stage 6 - Bridge Decks						
Generator, super silenced, 70 dB(A) at 7m	CNP 103	95	1	60%	0	93
Air compressor, air flow > 10m ³ /min and ≤ 30m ³ /min	CNP 002	102	1	60%	0	100
Concrete lorry mixer	CNP 044	109	3	50%	-5	106
Concrete pump, stationary/ lorry mounted	CNP 047	109	1	50%	-5	101
Crane, mobile/ barge mounted (diesel)	EPD-01477	104	1	50%	0	101
Poker, vibratory, hand-held (electric)	CNP 173	102	3	50%	-5	99
Bar bender and cutter (electric)	CNP 021	90	1	50%	0	87
Total SWL, dB(A)						109
Stage 7 - Road Works						
Lorry, <38 tonne	CNP 145	105	2	50%	-5	100
Air compressor, air flow > 10m ³ /min and ≤ 30m ³ /min	CNP 002	102	1	50%	0	99
Generator, super silenced, 70 dB(A) at 7m	CNP 103	95	1	50%	0	92
Asphalt paver	EPD-00097	106	1	50%	0	103
Road roller	EPD-00108	104	1	50%	0	101
Power rammer (petrol)	CNP 169	108	2	50%	0	108
Total SWL, dB(A)						111

Mobile noise barrier is provided so there is 5 dB(A) reduction for barrier correction.

* PME is for reference only, contractor can use other kinds of PME with same or lower SWL.

Item	PME	TM or other reference*	SWL, dB(A)	No. of PME	% on time	Barrier Correction	Total SWL, dB(A)
4	SCHEME J (LIN CHEUNG ROAD TO NGA CHEUNG ROAD)						
	Stage 1 - Site Preparation and Utility Diversion						
	Excavator/ loader, wheeled/tracked	EPD-01431	103	1	50%	0	100
	Lorry, <38 tonne	CNP 145	105	2	50%	-5	100
	Total SWL, dB(A)						103
	Stage 2 - Modification of Lin Cheung Road Slip Roads						
	Excavator/ loader, wheeled/tracked	EPD-01431	103	1	50%	0	100
	Lorry, <38 tonne	CNP 145	105	2	50%	-5	100
	Asphalt paver	EPD-00097	106	1	50%	0	103
	Road roller	EPD-00108	104	1	50%	0	101
	Power rammer (petrol)	CNP 169	108	2	50%	0	108
	Total SWL, dB(A)						111
	Stage 3 - U Structures						
	Water pump (electric)	CNP 281	88	4	50%	0	91
	Generator, super silenced, 70 dB(A) at 7m	CNP 103	95	1	60%	0	93
	Air compressor, air flow> 10m3/min and <= 30m3/min	CNP 002	102	1	60%	0	100
	Concrete lorry mixer	CNP 044	109	2	50%	-5	104
	Concrete pump, stationary/ lorry mounted	CNP 047	109	1	50%	-5	101
	Crane, mobile/ barge mounted (diesel)	EPD-01477	104	1	50%	0	101
	Excavator/ loader, wheeled/tracked	EPD-01431	103	1	50%	0	100
	Poker, vibratory, hand-held (electric)	CNP 173	102	3	50%	-5	99
	Lorry, <38 tonne	CNP 145	105	2	50%	-5	100
	Bar bender and cutter (electric)	CNP 021	90	1	50%	0	87
	Total SWL, dB(A)						110
	Stage 4 - Road Works						
	Lorry, <38 tonne	CNP 145	105	2	50%	-5	100
	Air compressor, air flow> 10m3/min and <= 30m3/min	CNP 002	102	1	50%	0	99
	Generator, super silenced, 70 dB(A) at 7m	CNP 103	95	1	50%	0	92
	Asphalt paver	EPD-00097	106	1	50%	0	103
	Road roller	EPD-00108	104	1	50%	0	101
	Power rammer (petrol)	CNP 169	108	2	50%	0	108
	Total SWL, dB(A)						111

Mobile noise barrier is provided so there is 5 dB(A) reduction for barrier correction.

* PME is for reference only, contractor can use other kinds of PME with same or lower SWL.

Item	PME	TM or other reference*	SWL, dB(A)	No. of PME	% on time	Barrier Correction	Total SWL, dB(A)
5	SCHEME Q and Improvement Works at the Junction of CR/FS/JR						
	Stage 1 - Road Surface Removal						
	Excavator/ loader, wheeled/tracked	EPD-01431	103	1	70%	-5	96
	Generator, super silenced, 70 dB(A) at 7m	CNP 103	95	1	100%	0	95
	Breaker, hand-held	CNP 024	108	1	50%	-5	100
	Total SWL, dB(A)						102
	Stage 2 - Road Surface Cleaning						
	Road Sweeper	@	107	1	100%	-5	102
	Total SWL, dB(A)						102
	Stage 3 - Road Surface Paving						
	Asphalt paver	EPD-01226	104	1	100%	-5	99
	Total SWL, dB(A)						99
	Stage 4 - Road Surface Compaction						
	Road roller	EPD-00244	99	1	100%	-5	94
	Total SWL, dB(A)						94

Mobile noise barrier is provided so there is 5 dB(A) reduction for barrier correction.

* PME is for reference only, contractor can use other kinds of PME with same or lower SWL.

@ The SWL is referred to "Sound power levels of other commonly used PME" in EPD website