

Appendix 4.4.2

Detailed PME for each workfront

Title: Detailed PME for each Workfront

FM1 Mainlaying works along access road between NTM WTW & FWPSR by Open Cut Method

						Unmitigated			Mitigated					
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[2], [3], [4]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)	
Site Clearance and UU Diversion														
Site Clearance	Jan 2025 - Jun 2027	Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83	
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93	
		Generator	100	0	1	CNP102	100	100	EPD-13064	87				87
		Dump Truck, with grab	50	-3	1	CPME-047	105	102			Barrier	-5	97	
		Saw, chain, hand-held	50	-3	1	CNP202	114	111			Barrier	-10	101	
		Total SWL						115						Total SWL
Excavation & Shoring		Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83	
		Ventilation Fan	100	0	1	CNP241	108	108			Silencer	-15	93	
		Air Blower (electric)	50	-3	1	CPME-003	95	92			Barrier	-5	87	
		Generator	100	0	1	CNP102	100	100	EPD-13064	87				87
Total SWL					113							Total SWL	95	
Construction of Temporary Site Access														
Excavation	Jan 2025 - Jun 2027	Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83	
		Mobile Crane	100	0	1	CNP048	112	112	EPD-13684	101	Barrier	-5	96	
		Generator	100	0	1	CNP102	100	100	EPD-13064	87				87
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Lorry	100	0	1	CNP141	112	112	CPME-042	105	Barrier	-5	100	
		Total SWL					116							Total SWL
Compacting		Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-5	97	
		Generator	100	0	1	CNP101	108	108	EPD-13064	87				87
		Road Roller	70	-2	1	CNP185	108	106	EPD-09720	94	Barrier	-5	87	
Total SWL					111							Total SWL	98	
Excavation														
Surface Breaking	Jan 2025 - Jun 2027	Breaker, excavator mounted	70	-2	1	CNP028	122	120	QCM#	94	Barrier	-5	87	
		Total SWL					120						Total SWL	87
Sheet Pile Driving		Vibrating Hammer	70	-2	1	CPME-026	115	113	QCM#	94	Barrier	-10	82	
		Generator	100	0	1	CNP102	100	100	EPD-13064	87				87
		Power Rammer (Petrol)	70	-2	1	CNP169	108	106	EPD-09746	108	Barrier	-10	96	
Total SWL					114							Total SWL	97	
Excavation & Shoring		Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83	
		Ventilation Fan	100	0	1	CNP241	108	108			Silencer	-15	93	
		Concrete Lorry Mixer	60	-2	1	CNP044	109	107			Barrier	-5	102	
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93	
		Generator	70	-2	1	CNP102	100	98	EPD-13064	87				85
		Total SWL					115							Total SWL
Laying of pipes and reinstatement														
Pipelaying	Jan 2025 - Jun 2027	Concrete Lorry Mixer	40	-4	1	CNP044	109	105			Barrier	-5	100	
		Vibratory Poker	70	-2	1	CNP170	113	111	CPME-027	102	Barrier	-10	90	
		Bar Bender and Cutter	50	-3	1	CNP021	90	87			Barrier	-5	82	
		Mobile Crane	70	-2	1	CNP048	112	110	EPD-13684	101	Barrier	-5	94	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Total SWL					115							Total SWL
Manhole Construction		Saw, Circular, Wood	40	-4	1	CNP201	108	104	QCM#	107	Barrier	-10	93	
		Generator	100	0	1	CNP102	100	100	EPD-13064	87				87
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93	
		Concrete Lorry Mixer	50	-3	1	CNP044	109	106			Barrier	-5	101	
		Vibratory Poker	70	-2	1	CNP170	113	111	CPME-027	102	Barrier	-10	90	
		Bar Bender and Cutter	70	-2	1	CNP021	90	88			Barrier	-5	83	
Total SWL					115							Total SWL	103	
Backfilling and reinstatement		Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83	
		Road Roller	50	-3	1	CNP185	108	105	EPD-09720	94	Barrier	-5	86	
		Concrete Lorry Mixer	40	-4	1	CNP044	109	105			Barrier	-5	100	
		Bar Bender and Cutter	50	-3	1	CNP021	90	87			Barrier	-5	82	
		Vibratory Poker	70	-2	1	CNP170	113	111	CPME-027	102	Barrier	-10	90	
		Dump Truck, with grab	50	-3	1	CPME-047	105	102			Barrier	-5	97	
Total SWL					115							Total SWL	102	
Removal of Temporary Site Access and Reinstatement														
Excavation	Jan 2025 - Jun 2027	Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83	
		Breaker, excavator mounted	50	-3	1	CNP027	122	119	QCM#	94	Barrier	-5	86	
		Generator	100	0	1	CNP102	100	100	EPD-13064	87				87
		Mobile Crane	100	0	1	CNP048	112	112	EPD-13684	101	Barrier	-5	96	
		Lorry	100	0	1	CNP141	112	112	CPME-042	105	Barrier	-5	100	
		Total SWL					121							Total SWL
Compacting		Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-5	97	
		Generator	100	0	1	CNP101	108	108	EPD-13064	87				87
		Road Roller	70	-2	1	CNP185	108	106	EPD-09720	94	Barrier	-5	87	
Total SWL					111							Total SWL	98	
Maximum SWL ^[5]						121						Maximum SWL ^[5]	103	

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWL.pdf

[4] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

[5] As construction activities would not occur concurrently, the maximum SWL would be adopted.

Title: Detailed PME for each Workfront													
FM2 Mainlaying works between Ching Yau Road and San Tam Road (Within CA zone only) by Open Cut Method													
						Unmitigated			Mitigated				
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference [2], [3], [4] dB(A)	Single Unit QPME dB(A)	Mitigation Measures [5]	Correction dB(A)	Total SWL dB(A)
Site Clearance and UU Diversion													
Site Clearance	Jul 2027 - Mar 2028	Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-10	78
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-10	88
		Generator	100	0	1	CNP102	100	100	EPD-13064	87	Barrier	-10	77
		Dump Truck, with grab	50	-3	1	CPME-047	105	102			Barrier	-10	92
		Saw, chain, hand-held	50	-3	1	CNP202	114	111			Barrier	-10	101
		Total SWL					115					Total SWL	102
Excavation & Shoring		Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-10	78
		Ventilation Fan	100	0	1	CNP241	108	108			Silencer	-15	93
		Air Blower (electric)	50	-3	1	CPME-003	95	92			Barrier	-10	82
		Generator	100	0	1	CNP102	100	100	EPD-13064	87	Barrier	-10	77
		Total SWL					113					Total SWL	94
Construction of Temporary Site Access													
Excavation	Jul 2027 - Mar 2028	Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-10	78
		Mobile Crane	100	0	1	CNP048	112	112	EPD-13684	101	Barrier	-10	91
		Generator	100	0	1	CNP102	100	100	EPD-13064	87	Barrier	-10	77
		Water pump	100	0	1	CNP281	88	88			Barrier	-10	78
		Lorry	100	0	1	CNP141	112	112	CPME-042	105	Barrier	-10	95
		Total SWL					116					Total SWL	97
Compacting		Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-10	92
		Generator	100	0	1	CNP101	108	108	EPD-13064	87	Barrier	-10	77
		Road Roller	70	-2	1	CNP185	108	106	EPD-09720	94	Barrier	-10	82
		Total SWL					111					Total SWL	93
Excavation													
Surface Breaking	Jul 2027 - Mar 2028	Breaker, excavator mounted	70	-2	1	CNP028	122	120	QCM#	94	Barrier	-10	82
			Total SWL					120					Total SWL
Sheet Pile Driving		Vibrating Hammer	70	-2	1	CPME-026	115	113	QCM#	94	Barrier	-10	82
		Generator	100	0	1	CNP102	100	100	EPD-13064	87	Barrier	-10	77
		Power Rammer (Petrol)	70	-2	1	CNP169	108	106	EPD-09746	108	Barrier	-10	96
		Total SWL					114					Total SWL	97
Excavation & Shoring		Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-10	78
		Ventilation Fan	100	0	1	CNP241	108	108			Silencer	-15	93
		Concrete Lorry Mixer	60	-2	1	CNP044	109	107			Barrier	-10	97
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-10	88
		Generator	70	-2	1	CNP102	100	98	EPD-13064	87	Barrier	-10	75
		Total SWL					115					Total SWL	99
Laying of pipes and reinstatement													
Pipelaying	Jul 2027 - Mar 2028	Concrete Lorry Mixer	40	-4	1	CNP044	109	105			Barrier	-10	95
		Vibratory Poker	70	-2	1	CNP170	113	111	CPME-027	102	Barrier	-10	90
		Bar Bender and Cutter	50	-3	1	CNP021	90	87			Barrier	-10	77
		Mobile Crane	70	-2	1	CNP048	112	110	EPD-13684	101	Barrier	-10	89
		Water pump	100	0	1	CNP281	88	88			Barrier	-10	78
		Total SWL					115					Total SWL	97
Manhole Construction		Saw, Circular, Wood	40	-4	1	CNP201	108	104	QCM#	107	Barrier	-10	93
		Generator	100	0	1	CNP102	100	100	EPD-13064	87	Barrier	-10	77
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-10	88
		Concrete Lorry Mixer	50	-3	1	CNP044	109	106			Barrier	-10	96
		Vibratory Poker	70	-2	1	CNP170	113	111	CPME-027	102	Barrier	-10	90
		Bar Bender and Cutter	70	-2	1	CNP021	90	88			Barrier	-10	78
		Total SWL					115					Total SWL	99
Backfilling and reinstatement		Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-10	78
		Road Roller	50	-3	1	CNP185	108	105	EPD-09720	94	Barrier	-10	81
		Concrete Lorry Mixer	40	-4	1	CNP044	109	105			Barrier	-10	95
		Bar Bender and Cutter	50	-3	1	CNP021	90	87			Barrier	-10	77
		Vibratory Poker	70	-2	1	CNP170	113	111	CPME-027	102	Barrier	-10	90
		Dump Truck, with grab	50	-3	1	CPME-047	105	102			Barrier	-10	92
		Total SWL					115					Total SWL	98
Removal of Temporary Site Access and Reinstatement													
Excavation	Jul 2027 - Mar 2028	Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-10	78
		Breaker, excavator mounted	50	-3	1	CNP027	122	119	QCM#	94	Barrier	-10	81
		Generator	100	0	1	CNP102	100	100	EPD-13064	87	Barrier	-10	77
		Mobile Crane	100	0	1	CNP048	112	112	EPD-13684	101	Barrier	-10	91
		Lorry	100	0	1	CNP141	112	112	CPME-042	105	Barrier	-10	95
		Total SWL					121					Total SWL	97
Compacting		Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-10	92
		Generator	100	0	1	CNP101	108	108	EPD-13064	87	Barrier	-10	77
		Road Roller	70	-2	1	CNP185	108	106	EPD-09720	94	Barrier	-10	82
		Total SWL					111					Total SWL	93
		Maximum SWL^[5]					121					Maximum SWL^[5]	102

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

[5] As construction activities would not occur concurrently, the maximum SWL would be adopted.

Title: Detailed PME for each Workfront								
G1 Mined Excavation for Combined Access Tunnel						Unmitigated		
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)
Mined Excavation for Combined Access Tunnel ^[2]	Jan 2026 - Mar 2029, Jul 2028 - Mar 2029, Jan 2029 - Sep 2029	Bar Bender and Cutter	100	0	1	CNP021	90	90
		Hand Held Breaker	100	0	1	CNP025	111	111
		Breaker, excavator mounted	100	0	1	CNP027	122	122
		Concrete Corer	100	0	1	CNP042	117	117
		Lorry, with crane/grab	100	0	1	CPME-043	112	112
		Drill, percussive, hand-held (electric)	100	0	1	CNP064	103	103
		Drill Rig	100	0	1	CPME-015	110	110
		Grinder	100	0	1	CNP065	98	98
		Grout Mixer	100	0	1	CPME-021	90	90
		Grout Pump	100	0	1	CPME-022	105	105
		Hoist	100	0	1	CNP122	95	95
		Lorry	100	0	1	CNP141	112	112
		Poker	100	0	1	CPME-027	102	102
		Rock Drill	100	0	1	CNP183	116	116
		Saw, Circular, Wood	100	0	1	CNP201	108	108
		Saw, chain, hand-held	100	0	1	CNP202	114	114
		Saw, Concrete	100	0	1	CNP203	115	115
		Ventilation Fan	100	0	1	CNP241	108	108
		Water pump	100	0	1	CNP281	88	88
		Water Pump, Submersible	100	0	1	CNP283	85	85
Total SWL								126

Note:

[1] Percentage on time within 30 minutes.

[2] Modification of Chamber G will be located underground, airborne construction noise is not anticipated.

Title: Detailed PME for each Workfront								
G2 Mined Excavation for Bypass 1/2						Unmitigated		
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)
Mined Excavation for Bypass 1/2 ^[2]	Jul 2026 - Mar 2027, Oct 2026 - Jun 2027	Bar Bender and Cutter	100	0	1	CNP021	90	90
		Hand Held Breaker	100	0	1	CNP025	111	111
		Breaker, excavator mounted	100	0	1	CNP027	122	122
		Concrete Corer	100	0	1	CNP042	117	117
		Drill, percussive, hand-held (electric)	100	0	1	CNP064	103	103
		Grinder	100	0	1	CNP065	98	98
		Grout Mixer	100	0	1	CPME-021	90	90
		Grout Pump	100	0	1	CPME-022	105	105
		Hoist	100	0	1	CNP122	95	95
		Lorry	100	0	1	CNP141	112	112
		Poker	100	0	1	CPME-027	102	102
		Rock Drill	100	0	1	CNP183	116	116
		Saw, Circular, Wood	100	0	1	CNP201	108	108
		Saw, chain, hand-held	100	0	1	CNP202	114	114
		Saw, Concrete	100	0	1	CNP203	115	115
		Ventilation Fan	100	0	1	CNP241	108	108
		Water pump	100	0	1	CNP281	88	88
		Water Pump, Submersible	100	0	1	CNP283	85	85
Total SWL							125	125

Note:

[1] Percentage on time within 30 minutes.

[2] Modification of Chamber G will be located underground, airborne construction noise is not anticipated.

Title: Detailed PME for each Workfront

G3 Construction of Chamber G2/G3/G4

Unmitigated

Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)
Construction of Chamber G2/G3/G4 ^[2]	Jan 2027 - Dec 2029, Apr 2027 - Sep 2030, Jul 2029 - Dec 2030	Bar Bender and Cutter	100	0	1	CNP021	90	90
		Hand Held Breaker	100	0	1	CNP025	111	111
		Breaker, excavator mounted	100	0	1	CNP027	122	122
		Concrete Corer	100	0	1	CNP042	117	117
		Drill, percussive, hand-held (electric)	100	0	1	CNP064	103	103
		Grinder	100	0	1	CNP065	98	98
		Grout Mixer	100	0	1	CPME-021	90	90
		Grout Pump	100	0	1	CPME-022	105	105
		Hoist	100	0	1	CNP122	95	95
		Lorry	100	0	1	CNP141	112	112
		Poker	100	0	1	CPME-027	102	102
		Rock Drill	100	0	1	CNP183	116	116
		Saw, Circular, Wood	100	0	1	CNP201	108	108
		Saw, chain, hand-held	100	0	1	CNP202	114	114
		Saw, Concrete	100	0	1	CNP203	115	115
		Ventilation Fan	100	0	1	CNP241	108	108
		Water pump	100	0	1	CNP281	88	88
		Water Pump, Submersible	100	0	1	CNP283	85	85
Total SWL							125	

Note:

[1] Percentage on time within 30 minutes.

[2] Modification of Chamber G will be located underground, airborne construction noise is not anticipated.

Title: Detailed PME for each Workfront														
AG1a Construction of Jacking/Launching Pit (under Preliminary Environmental Review)														
						Unmitigated			Mitigated					
Activity ^[2]	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[3], [4]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)	
Construction of Jacking/Launching Pit	Jan 2027 - Dec 2028	Air Compressor	50	-3	1	CNP003	104	101			Barrier	-5	96	
		Bar Bender and Cutter	50	-3	1	CNP021	90	87			Barrier	-5	82	
		Hand Held Breaker	70	-2	1	CNP025	111	109	EPD-12755	108	Barrier	-5	101	
		Breaker, excavator mounted	50	-3	1	CNP027	122	119	QCM#	94	Barrier	-5	86	
		Concrete Lorry Mixer	50	-3	1	CNP044	109	106			Barrier	-5	101	
		Concrete Pump	50	-3	1	CNP047	109	106			Enclosure	-15	91	
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93	
		Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-5	97	
		Dump Truck	50	-3	1	CNP067	117	114			Barrier	-5	109	
		Drill Rig	50	-3	1	CPME-015	110	107			Barrier	-5	102	
		Excavator	50	-3	1	CNP081	112	109	EPD-07150	90	Barrier	-5	82	
		Generator	100	0	1	CNP101	108	108	EPD-13064	87				87
		Grout Mixer	50	-3	1	CPME-021	90	87			Barrier	-10	77	
		Grout Pump	50	-3	1	CPME-022	105	102			Barrier	-10	92	
		Hoist	50	-3	1	CNP122	95	92			Barrier	-5	87	
		Poker	50	-3	1	CPME-027	102	99			Barrier	-5	94	
		Rock Drill	50	-3	1	CNP183	116	113			Barrier	-5	108	
		Saw, Circular, Wood	50	-3	1	CNP201	108	105	QCM#	107	Barrier	-10	94	
		Saw, chain, hand-held	50	-3	1	CNP202	114	111			Barrier	-10	101	
		Saw, Concrete	50	-3	1	CNP203	115	112			Barrier	-10	102	
		Ventilation Fan	100	0	1	CNP241	108	108			Silencer	-15	93	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
Water Pump, Submersible	100	0	1	CNP283	85	85			Barrier	-5	80			
Total SWL								123	Total SWL				114	

Note:

[1] Percentage on time within 30 minutes.

[2] Construction works would fall into the NTM WTW boundary, and hence this activity is considered as concurrent project under Preliminary Environmental Review.

[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

Title: Detailed PME for each Workfront														
AG1b Construction of Water Main to NTM WTW Raw Water Pumping Station (under Preliminary Environmental Review)														
						Unmitigated			Mitigated					
Activity ^[2]	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[3], [4]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)	
Construction of Water Main to NTM WTW Raw Water Pumping Station	Jan 2029 - Sep 2029	Air Compressor	50	-3	1	CNP003	104	101			Barrier	-5	96	
		Bar Bender and Cutter	50	-3	1	CNP021	90	87			Barrier	-5	82	
		Hand Held Breaker	70	-2	1	CNP025	111	109	EPD-12755	108	Barrier	-5	101	
		Breaker, excavator mounted	50	-3	1	CNP027	122	119	QCM#	94	Barrier	-5	86	
		Concrete Lorry Mixer	50	-3	1	CNP044	109	106			Barrier	-5	101	
		Concrete Pump	50	-3	1	CNP047	109	106			Enclosure	-15	91	
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93	
		Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-5	97	
		Dump Truck	50	-3	1	CNP067	117	114			Barrier	-5	109	
		Drill Rig	50	-3	1	CPME-015	110	107			Barrier	-5	102	
		Excavator	50	-3	1	CNP081	112	109	EPD-07150	90	Barrier	-5	82	
		Generator	100	0	1	CNP101	108	108	EPD-13064	87				87
		Grout Mixer	50	-3	1	CPME-021	90	87			Barrier	-10	77	
		Grout Pump	50	-3	1	CPME-022	105	102			Barrier	-10	92	
		Hoist	50	-3	1	CNP122	95	92			Barrier	-5	87	
		Poker	50	-3	1	CPME-027	102	99			Barrier	-5	94	
		Rock Drill	50	-3	1	CNP183	116	113			Barrier	-5	108	
		Saw, Circular, Wood	50	-3	1	CNP201	108	105	QCM#	107	Barrier	-10	94	
		Saw, chain, hand-held	50	-3	1	CNP202	114	111			Barrier	-10	101	
		Saw, Concrete	50	-3	1	CNP203	115	112			Barrier	-10	102	
		Ventilation Fan	100	0	1	CNP241	108	108			Silencer	-15	93	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Water Pump, Submersible	100	0	1	CNP283	85	85			Barrier	-5	80	
Total SWL								123	Total SWL				114	

Note:

[1] Percentage on time within 30 minutes.

[2] Construction works would fall into the NTM WTW boundary, and hence this activity is considered as concurrent project under Preliminary Environmental Review.

[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

Title: Detailed PME for each Workfront														
AG1c Construction of Retaining Wall for Ventilation Building (under Preliminary Environmental Review)														
						Unmitigated			Mitigated					
Activity ^[2]	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[3], [4], [5]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)	
Excavation & Piling	Jan 2027 - Dec 2027	Hand Held Breaker	50	-3	1	CNP025	111	108	EPD-12755	108	Barrier	-5	100	
		Excavator	90	0	5	CNP081	112	119	EPD-07150	90	Barrier	-5	92	
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93	
		Generator	80	-1	1	CNP103	95	94	EPD-13064	87				86
		Air Compressor	50	-3	1	CNP003	104	101			Barrier	-5	96	
		Dump Truck, with grab	90	0	3	CPME-047	105	109			Barrier	-5	104	
		Drill Rig	60	-2	2	CPME-015	110	111			Barrier	-5	106	
		Rock Drill	50	-3	1	CNP181	128	125			Acoustic Mat	-10	115	
		Road Roller	80	-1	6	CNP185	108	115	EPD-09720	94	Barrier	-5	96	
		Hoist	50	-3	3	CNP123	104	106			Barrier	-5	101	
Compactor, vibratory	80	-1	6	CNP050	105	112			Barrier	-5	107			
Total SWL								127	Total SWL					117
Foundation & Deck Structure	Jan 2027 - Dec 2027	Drill Rig	70	-2	1	CPME-015	110	108			Barrier	-5	103	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94			
Total SWL								121	Total SWL					108
Maximum SWL ^[6]								127	Maximum SWL ^[6]					117

Note:

[1] Percentage on time within 30 minutes.

[2] Construction works would fall into the NTM WTW boundary, and hence this activity is considered as concurrent project under Preliminary Environmental Review.

[3] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[4] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[5] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

[6] As construction activities would not occur concurrently, the maximum SWL would be adopted.

Title: Detailed PME for each Workfront

AG1d Construction of Ventilation Building for Chamber G (under Preliminary Environmental Review)

						Unmitigated			Mitigated					
Activity ^[2]	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[3], [4], [5]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)	
Excavation & Piling	Jan 2028 - Dec 2029	Hand Held Breaker	50	-3	1	CNP025	111	108	EPD-12755	108	Barrier	-5	100	
		Excavator	90	0	5	CNP081	112	119	EPD-07150	90	Barrier	-5	92	
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93	
		Generator	80	-1	1	CNP103	95	94	EPD-13064	87				86
		Air Compressor	50	-3	1	CNP003	104	101			Barrier	-5	96	
		Dump Truck, with grab	90	0	3	CPME-047	105	109			Barrier	-5	104	
		Drill Rig	60	-2	2	CPME-015	110	111			Barrier	-5	106	
		Rock Drill	50	-3	1	CNP181	128	125			Acoustic Mat	-10	115	
		Road Roller	80	-1	6	CNP185	108	115	EPD-09720	94	Barrier	-5	96	
		Hoist	50	-3	3	CNP123	104	106			Barrier	-5	101	
Compactor, vibratory	80	-1	6	CNP050	105	112			Barrier	-5	107			
Total SWL								127	Total SWL					117
Foundation & Superstructure	Jan 2028 - Dec 2029	Drill Rig	70	-2	1	CPME-015	110	108			Barrier	-5	103	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94			
Compactor, vibratory	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94			
Total SWL								121	Total SWL					108
Superstructure & ABWF	Jan 2028 - Dec 2029	Drill Rig	70	-2	1	CPME-015	110	108			Barrier	-5	103	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	3	CNP081	112	117	EPD-07150	90	Barrier	-5	90	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94			
Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-5	97			
Total SWL								122	Total SWL					109
E&M + BS installation	Jan 2028 - Dec 2029	Drill Rig	70	-2	1	CPME-015	110	108			Barrier	-5	103	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	3	CNP081	112	117	EPD-07150	90	Barrier	-5	90	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94			
Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-5	97			
Total SWL								122	Total SWL					109
Maximum SWL ^[6]								127	Maximum SWL ^[6]					117

Note:
 [1] Percentage on time within 30 minutes.
 [2] Construction works would fall into the NTM WTW boundary, and hence this activity is considered as concurrent project under Preliminary Environmental Review.
 [3] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.
 [4] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

Title: Detailed PME for each Workfront														
AG1e Construction of Chamber G Portal (under Preliminary Environmental Review)														
						Unmitigated			Mitigated					
Activity ^[2]	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[3], [4], [5]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)	
Construction of Portal	Jan 2026 - Mar 2026	Lorry, with crane/grab	50	-3	1	CPME-043	112	109			Barrier	-5	104	
		Generator	100	0	1	CNP103	95	95	EPD-13064	87				87
		Excavator	50	-3	1	CNP081	112	109	EPD-07150	90	Barrier	-5	82	
		Concrete Pump	50	-3	1	CNP047	109	106			Enclosure	-15	91	
		Dump Truck	50	-3	1	CNP067	117	114			Barrier	-5	109	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Lorry	50	-3	1	CNP141	112	109	CPME-042	105	Barrier	-5	97	
		Bar Bender and Cutter	50	-3	1	CNP021	90	87			Barrier	-5	82	
		Vibrating Hammer	70	-2	1	CPME-026	115	113	QCM#	94				92
		Concrete Lorry Mixer	50	-3	1	CNP044	109	106			Barrier	-5	101	
		Grout Mixer	50	-3	1	CPME-021	90	87			Barrier	-10	77	
		Grout Pump	50	-3	1	CPME-022	105	102			Barrier	-10	92	
		Vibratory Poker	50	-3	1	CNP170	113	110	CPME-027	102	Barrier	-10	89	
		Total SWL								120				Total SWL
Paving Works for Construction of Retaining Wall	Jan 2026 - Mar 2026	Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Lorry	50	-3	1	CNP141	112	109	CPME-042	105	Barrier	-5	97	
		Bar Bender and Cutter	50	-3	1	CNP021	90	87			Barrier	-5	82	
		Vibrating Hammer	70	-2	1	CPME-026	115	113	QCM#	94	Barrier	-10	82	
		Concrete Lorry Mixer	50	-3	1	CNP044	109	106			Barrier	-5	101	
		Grout Mixer	50	-3	1	CPME-021	90	87			Barrier	-10	77	
		Grout Pump	50	-3	1	CPME-022	105	102			Barrier	-10	92	
		Vibratory Poker	50	-3	1	CNP170	113	110	CPME-027	102	Barrier	-10	89	
		Drill, percussive, hand-held (electric)	70	-2	1	CNP064	103	101			Barrier	-5	96	
		Generator	100	0	1	CNP103	95	95	EPD-13064	87				87
		Air Compressor	50	-3	1	CNP002	102	99			Barrier	-5	94	
Total SWL								117				Total SWL	104	
Maximum SWL [6]								120				Maximum SWL [6]	111	

Note:

[1] Percentage on time within 30 minutes.

[2] Construction works would fall into the NTM WTW boundary, and hence this activity is considered as concurrent project under Preliminary Environmental Review.

[3] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[4] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[5] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

[6] As construction activities would not occur concurrently, the maximum SWL would be adopted.

Title: Detailed PME for each Workfront													
AG1f Civil Works and E&M Installation and Testing & Commissioning (under Preliminary Environmental Review)													
						Unmitigated			Mitigated				
Activity ^[2]	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[3], [4], [5]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)
Civil Works	Jul 2029 - Dec 2030	Water pump	100	0	1	CNP281	88	88			Barrier	-5	83
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95
		Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94
Total SWL								121	Total SWL				107
E&M Installation	Jul 2029 - Dec 2030	Water pump	100	0	1	CNP281	88	88			Barrier	-5	83
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95
		Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94
Total SWL								121	Total SWL				107
Maximum SWL ^[6]								121	Maximum SWL ^[6]				107

Note:

[1] Percentage on time within 30 minutes.

[2] Modification of Chamber G will be located underground, airborne construction noise is not anticipated.

[3] PME with code "EPD-XXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[4] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[5] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

[6] As construction activities would not occur concurrently, the maximum SWL would be adopted.

Title: Detailed PME for each Workfront														
S1 Site Clearance and Mobilisation (under Preliminary Environmental Review)						Unmitigated			Mitigated					
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[2], [3]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)	
Site Clearance and Mobilisation	Jul 2025 - Sep 2025	Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83	
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93	
		Generator	100	0	1	CNP102	100	100	EPD-13064	87				87
		Dump Truck, with grab	50	-3	1	CPME-047	105	102			Barrier	-5	97	
		Saw, chain, hand-held	50	-3	1	CNP202	114	111			Barrier	-10	101	
Total SWL								115	Total SWL				103	

Note:
[1] Percentage on time within 30 minutes.
[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.
[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

Title: Detailed PME for each Workfront

A1 New Filter Building (DAF, PBF, SRGF), Chem Bldg, CLP Substation (under Preliminary Environmental Review)

						Unmitigated			Mitigated					
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[2], [3], [4]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)	
A1-1 Excavation & Piling	Oct 2025 - Sep 2027	Hand Held Breaker	50	-3	1	CNP025	111	108	EPD-12755	108	Barrier	-5	100	
		Excavator	90	0	5	CNP081	112	119	EPD-07150	90	Barrier	-5	92	
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93	
		Generator	80	-1	1	CNP103	95	94	EPD-13064	87				86
		Air Compressor	50	-3	1	CNP003	104	101			Barrier	-5	96	
		Dump Truck, with grab	90	0	3	CPME-047	105	109			Barrier	-5	104	
		Drill Rig	60	-2	2	CPME-015	110	111			Barrier	-5	106	
		Rock Drill	50	-3	1	CNP181	128	125			Acoustic Mat	-10	115	
		Road Roller	80	-1	6	CNP185	108	115	EPD-09720	94	Barrier	-5	96	
		Hoist	50	-3	3	CNP123	104	106			Barrier	-5	101	
		Compactor, vibratory	80	-1	6	CNP050	105	112			Barrier	-5	107	
Total SWL								127	Total SWL					117
A1-2 Foundation & Superstructure	Apr 2026 - Mar 2028	Drill Rig	70	-2	1	CPME-015	110	108			Barrier	-5	103	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
		Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94	
Total SWL								121	Total SWL					108
A1-3 Superstructure & ABWF	Apr 2027 - Sep 2029	Drill Rig	70	-2	1	CPME-015	110	108			Barrier	-5	103	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	3	CNP081	112	117	EPD-07150	90	Barrier	-5	90	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
		Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94	
Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-5	97			
Total SWL								122	Total SWL					109
A1-4 E&M + BS installation	Oct 2027 - Mar 2030	Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	3	CNP081	112	117	EPD-07150	90	Barrier	-5	90	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
		Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94	
Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-5	97			
Total SWL								122	Total SWL					107
A1-5 E&M Installation for CLP Substation	Jan 2028 - Dec 2028	Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	3	CNP081	112	117	EPD-07150	90	Barrier	-5	90	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
		Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94	
Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-5	97			
Total SWL								122	Total SWL					107

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWL.pdf

[4] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

Title: Detailed PME for each Workfront														
A2 New Chlorine Contact Tank and Clear Water Tank (under Preliminary Environmental Review)														
						Unmitigated			Mitigated					
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[2], [3], [4]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)	
A2-1 Excavation & Piling	Oct 2027 - Sep 2028	Hand Held Breaker	50	-3	1	CNP025	111	108	EPD-12755	108	Barrier	-5	100	
		Excavator	90	0	5	CNP081	112	119	EPD-07150	90	Barrier	-5	92	
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93	
		Generator	80	-1	1	CNP103	95	94	EPD-13064	87				86
		Air Compressor	50	-3	1	CNP003	104	101			Barrier	-5	96	
		Dump Truck, with grab	90	0	3	CPME-047	105	109			Barrier	-5	104	
		Drill Rig	60	-2	2	CPME-015	110	111			Barrier	-5	106	
		Road Roller	80	-1	6	CNP185	108	115	EPD-09720	94	Barrier	-5	96	
		Hoist	50	-3	3	CNP123	104	106			Barrier	-5	101	
		Compactor, vibratory	80	-1	6	CNP050	105	112			Barrier	-5	107	
Total SWL								122	Total SWL				112	
A2-2 Foundation & Superstructure	Jul 2028 - Mar 2029	Drill Rig	70	-2	1	CPME-015	110	108			Barrier	-5	103	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94			
Total SWL								121	Total SWL				108	
A2-3 E&M installation	Apr 2029 - Sep 2029	Drill Rig	70	-2	1	CPME-015	110	108			Barrier	-5	103	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94			
Total SWL								121	Total SWL				108	

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

Title: Detailed PME for each Workfront

A3 Ozone Building, Lamella Settler (under Preliminary Environmental Review)

						Unmitigated			Mitigated					
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[2], [3], [4]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)	
A3-1 Excavation & Piling	Oct 2027 - Sep 2028	Hand Held Breaker	50	-3	1	CNP025	111	108	EPD-12755	108	Barrier	-5	100	
		Excavator	90	0	5	CNP081	112	119	EPD-07150	90	Barrier	-5	92	
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93	
		Generator	80	-1	1	CNP103	95	94	EPD-13064	87				86
		Air Compressor	50	-3	1	CNP003	104	101			Barrier	-5	96	
		Dump Truck, with grab	90	0	3	CPME-047	105	109			Barrier	-5	104	
		Drill Rig	60	-2	2	CPME-015	110	111			Barrier	-5	106	
		Rock Drill	50	-3	1	CNP181	128	125			Acoustic Mat	-10	115	
		Road Roller	80	-1	6	CNP185	108	115	EPD-09720	94	Barrier	-5	96	
		Hoist	50	-3	3	CNP123	104	106			Barrier	-5	101	
Compactor, vibratory	80	-1	6	CNP050	105	112			Barrier	-5	107			
Total SWL								127	Total SWL					117
A3-2 Foundation & Superstructure	Apr 2028 - Mar 2029	Drill Rig	70	-2	1	CPME-015	110	108			Barrier	-5	103	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94			
Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-5	97			
Total SWL								121	Total SWL					108
A3-3 Superstructure & ABWF	Jan 2029 - Dec 2029	Drill Rig	70	-2	1	CPME-015	110	108			Barrier	-5	103	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	3	CNP081	112	117	EPD-07150	90	Barrier	-5	90	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94			
Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-5	97			
Total SWL								122	Total SWL					109
A3-4 E&M + BS installation	Apr 2029 - Sep 2030	Drill Rig	70	-2	1	CPME-015	110	108			Barrier	-5	103	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	3	CNP081	112	117	EPD-07150	90	Barrier	-5	90	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94			
Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-5	97			
Total SWL								122	Total SWL					109

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

Title: Detailed PME for each Workfront

A4 Washwater Equalisation Tanks & Pump Chamber (under Preliminary Environmental Review)						Unmitigated			Mitigated					
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[2], [3], [4]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)	
A4-1 Excavation	Oct 2028 - Mar 2029	Hand Held Breaker	50	-3	1	CNP025	111	108	EPD-12755	108	Barrier	-5	100	
		Excavator	90	0	5	CNP081	112	119	EPD-07150	90	Barrier	-5	92	
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93	
		Generator	100	0	1	CNP103	95	95	EPD-13064	87				87
		Air Compressor	50	-3	1	CNP003	104	101			Barrier	-5	96	
		Dump Truck, with grab	90	0	3	CPME-047	105	109			Barrier	-5	104	
		Drill Rig	60	-2	2	CPME-015	110	111			Barrier	-5	106	
		Road Roller	80	-1	6	CNP185	108	115	EPD-09720	94	Barrier	-5	96	
		Hoist	50	-3	3	CNP123	104	106			Barrier	-5	101	
Compactor, vibratory	80	-1	6	CNP050	105	112			Barrier	-5	107			
Total SWL								122	Total SWL				112	
A4-2 Foundation & Superstructure	Apr 2029 - Mar 2030	Drill Rig	70	-2	1	CPME-015	110	108			Barrier	-5	103	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94			
Total SWL								121	Total SWL				108	
A4-3 E&M installation	Oct 2029 - Sep 2030	Drill Rig	70	-2	1	CPME-015	110	108			Barrier	-5	103	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94			
Total SWL								121	Total SWL				108	

Note:
 [1] Percentage on time within 30 minutes.
 [2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.
 [3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf
 [4] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

Title: Detailed PME for each Workfront

A5 Sludge Thickening Tanks & Dog House (under Preliminary Environmental Review)														
						Unmitigated			Mitigated					
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[2], [3], [4]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)	
A5-1 Excavation	Oct 2028 - Mar 2029	Hand Held Breaker	50	-3	1	CNP025	111	108	EPD-12755	108	Barrier	-5	100	
		Excavator	90	0	5	CNP081	112	119	EPD-07150	90	Barrier	-5	92	
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93	
		Generator	100	0	1	CNP103	95	95	EPD-13064	87				87
		Air Compressor	50	-3	1	CNP003	104	101			Barrier	-5	96	
		Dump Truck, with grab	90	0	3	CPME-047	105	109			Barrier	-5	104	
		Drill Rig	50	-3	2	CPME-015	110	110			Barrier	-5	105	
		Rock Drill	80	-1	1	CNP181	128	127			Acoustic Mat	-10	117	
		Road Roller	80	-1	6	CNP185	108	115	EPD-09720	94	Barrier	-5	96	
		Hoist	50	-3	3	CNP123	104	106			Barrier	-5	101	
Compactor, vibratory	80	-1	6	CNP050	105	112			Barrier	-5	107			
Total SWL								128	Total SWL				118	
A5-2 Foundation & Superstructure	Jan 2029 - Dec 2029	Drill Rig	70	-2	1	CPME-015	110	108			Barrier	-5	103	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94			
Total SWL								121	Total SWL				108	
A5-3 E&M installation	Oct 2029 - Sep 2030	Drill Rig	70	-2	1	CPME-015	110	108			Barrier	-5	103	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94			
Total SWL								121	Total SWL				108	

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

Title: Detailed PME for each Workfront														
A6 Dewatering Building & Thickened Sludge Holding Tanks (under Preliminary Environmental Review)						Unmitigated			Mitigated					
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[2], [3], [4]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)	
A6-1 Excavation	Apr 2029 - Jun 2029	Hand Held Breaker	50	-3	1	CNP025	111	108	EPD-12755	108	Barrier	-5	100	
		Excavator	90	0	3	CNP081	112	116	EPD-07150	90	Barrier	-5	89	
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93	
		Generator	100	0	1	CNP103	95	95	EPD-13064	87				87
		Air Compressor	50	-3	1	CNP002	102	99			Barrier	-5	94	
		Dump Truck, with grab	90	0	3	CPME-047	105	109			Barrier	-5	104	
Total SWL								118	Total SWL					106
A6-2 Foundation & Substructure	Jul 2029 - Dec 2029	Piling, Large Dia Bored, Reverse Circulation Drill	70	-2	1	CNP166	100	98			Barrier	-5	93	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94			
Total SWL								121	Total SWL					107
A6-3 Civil/ Structure modification	Oct 2029 - Dec 2029	Drill Rig	70	-2	1	CPME-015	110	108			Barrier	-5	103	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94			
Total SWL								121	Total SWL					108
A6-4 E&M Installation	Oct 2029 - Sep 2030	Drill Rig	70	-2	1	CPME-015	110	108			Barrier	-5	103	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94			
Total SWL								121	Total SWL					108

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

Title: Detailed PME for each Workfront

A7 Chlorine Building (under Preliminary Environmental Review)													
						Unmitigated			Mitigated				
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[2], [3], [4]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)
A7-1 Civil/ Structure Modification	Jan 2026 - Jun 2027	Drill Rig	70	-2	1	CPME-015	110	108			Barrier	-5	103
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95
		Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94
Total SWL								121	Total SWL				108
A7-2 E&M Installation	Jan 2027 - Dec 2028	Drill Rig	70	-2	1	CPME-015	110	108			Barrier	-5	103
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95
		Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94
Total SWL								121	Total SWL				108

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

Title: Detailed PME for each Workfront

A8 Raw Water Pumping Station (under Preliminary Environmental Review)													
						Unmitigated			Mitigated				
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[2], [3], [4]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)
A8-1 Civil/Structure Modification	Jul 2027 - Dec 2027	Piling, Large Dia Bored, Reverse Circulation Drill	70	-2	1	CNP166	100	98			Barrier	-5	93
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95
		Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94
Total SWL								121	Total SWL				107
A8-2 E&M Installation	Jan 2028 - Jun 2028	Piling, Large Dia Bored, Reverse Circulation Drill	70	-2	1	CNP166	100	98			Barrier	-5	93
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95
		Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94
Total SWL								121	Total SWL				107

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

Title: Detailed PME for each Workfront

A9 Freshwater Pumping Station (under Preliminary Environmental Review)

						Unmitigated			Mitigated					
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[2], [3], [4]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)	
A9-1 Civil/ structure modification	Jan 2028 - Jun 2028	Hand Held Breaker	30	-5	1	CNP025	111	106	EPD-12755	108	Barrier	-5	98	
		Excavator	90	0	4	CNP081	112	118	EPD-07150	90	Barrier	-5	91	
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93	
		Generator	100	0	1	CNP103	95	95	EPD-13064	87				87
		Air Compressor	50	-3	1	CNP003	104	101			Barrier	-5	96	
		Dump Truck, with grab	90	0	3	CPME-047	105	109			Barrier	-5	104	
		Road Roller	80	-1	6	CNP185	108	115	EPD-09720	94	Barrier	-5	96	
		Hoist	50	-3	3	CNP123	104	106			Barrier	-5	101	
		Compactor, vibratory	80	-1	6	CNP050	105	112			Barrier	-5	107	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94			
Total SWL								124	Total SWL				112	
A9-1 E&M Installation	Jul 2028 - Dec 2028	Hand Held Breaker	30	-5	1	CNP025	111	106	EPD-12755	108	Barrier	-5	98	
		Excavator	90	0	3	CNP081	112	116	EPD-07150	90	Barrier	-5	89	
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93	
		Generator	100	0	1	CNP103	95	95	EPD-13064	87			87	
		Air Compressor	50	-3	1	CNP003	104	101			Barrier	-5	96	
		Dump Truck, with grab	90	0	3	CPME-047	105	109			Barrier	-5	104	
		Road Roller	80	-1	6	CNP185	108	115	EPD-09720	94	Barrier	-5	96	
		Hoist	50	-3	3	CNP123	104	106			Barrier	-5	101	
		Compactor, vibratory	80	-1	6	CNP050	105	112			Barrier	-5	107	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94			
Total SWL								124	Total SWL				112	

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

Title: Detailed PME for each Workfront														
A10 Administration Building & Existing Chemical Building (under Preliminary Environmental Review)														
						Unmitigated			Mitigated					
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[2], [3]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)	
A10-1 Civil/Structure Modification	Jul 2028 - Dec 2028	Piling, Large Dia Bored, Reverse Circulation Drill	70	-2	1	CNP166	100	98			Barrier	-5	93	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
		Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94	
Total SWL								121	Total SWL					107
A10-2 E&M Installation	Jan 2029 - Jun 2029	Piling, Large Dia Bored, Reverse Circulation Drill	70	-2	1	CNP166	100	98			Barrier	-5	93	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
		Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94	
Total SWL								121	Total SWL					107

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

Title: Detailed PME for each Workfront													
A11 Trunk Main/Utilities/Sitewide Works within WTW (under Preliminary Environmental Review)													
						Unmitigated			Mitigated				
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[2], [3]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)
Mainlaying - Earthwork	Jan 2027 - Dec 2028	Generator	100	0	1	CNP103	95	95	EPD-13064	87			87
		Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-5	97
		Excavator	50	-3	2	CNP081	112	112	EPD-07150	90	Barrier	-5	85
		Hand Held Breaker	70	-2	1	CNP025	111	109	EPD-12755	108	Barrier	-5	101
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99
						Total SWL	116					Total SWL	104
Mainlaying - Box Culvert Structure	Jan 2027 - Dec 2028	Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93
		Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-5	97
		Bar Bender and Cutter	50	-3	1	CNP021	90	87			Barrier	-5	82
		Generator	100	0	1	CNP103	95	95	EPD-13064	87			87
		Air Compressor	50	-3	1	CNP002	102	99			Barrier	-5	94
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83
						Total SWL	110					Total SWL	100
Mainlaying - Paving	Jan 2027 - Dec 2028	Concrete Lorry Mixer	50	-3	1	CNP044	109	106			Barrier	-5	101
		Generator	100	0	1	CNP101	108	108	EPD-13064	87			87
		Asphalt Paver	40	-4	1	CNP004	109	105	EPD-01226R	104	Barrier	-5	95
		Road Roller	50	-3	1	CNP185	108	105	EPD-09720	94	Barrier	-5	86
		Vibratory Poker	50	-3	1	CNP170	113	110	CPME-027	102	Barrier	-10	89
						Total SWL	114					Total SWL	102
Mainlaying - Landscaping	Jan 2027 - Dec 2028	Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-5	97
		Excavator	50	-3	2	CNP081	112	112	EPD-07150	90	Barrier	-5	85
						Total SWL	112					Total SWL	97
						Maximum SWL ^[4]	116					Maximum SWL ^[4]	104

Note:
[1] Percentage on time within 30 minutes.
[2] PME with code "EPD-XXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.
[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf
[4] As construction activities would not occur concurrently, the maximum SWL would be adopted.

Title: Detailed PME for each Workfront													
A12 Demolition of Existing CLP Sub-station (under Preliminary Environmental Review)													
						Unmitigated			Mitigated				
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[2], [3], [4]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)
Civil/Structure Modification	Oct 2030 - Dec 2030	Drill Rig	70	-2	1	CPME-015	110	108			Barrier	-5	103
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99
		Bar Bender and Cutter	100	0	2	CNP021	90	93			Barrier	-5	88
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85
		Concrete Lorry Mixer	50	-3	2	CNP044	109	109			Barrier	-5	104
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95
		Vibratory Poker	50	-3	3	CNP170	113	115	CPME-027	102	Barrier	-10	94
Total SWL								121	Total SWL				108

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

Title: Detailed PME for each Workfront

A13 Extension of NTM FWPSR (under Preliminary Environmental Review)														
						Unmitigated			Mitigated					
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[2], [3], [4]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)	
A13-1 Site Clearance and Mobilisation	Oct 2024 - Dec 2024	Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83	
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93	
		Generator	100	0	1	CNP102	100	100	EPD-13064	87				87
		Dump Truck, with grab	50	-3	1	CPME-047	105	102			Barrier	-5	97	
		Saw, chain, hand-held	50	-3	1	CNP202	114	111			Barrier	-10	101	
		Total SWL								115				Total SWL
A13-2 Excavation	Jul 2025 - Dec 2026	Hand Held Breaker	50	-3	1	CNP025	111	108	EPD-12755	108	Barrier	-5	100	
		Excavator	90	0	3	CNP081	112	116	EPD-07150	90	Barrier	-5	89	
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93	
		Generator	80	-1	1	CNP103	95	94	EPD-13064	87				86
		Air Compressor	50	-3	1	CNP002	102	99			Barrier	-5	94	
		Dump Truck, with grab	90	0	3	CPME-047	105	109			Barrier	-5	104	
		Drill Rig	60	-2	2	CPME-015	110	111			Barrier	-5	106	
		Rock Drill	50	-3	1	CNP181	128	125			Acoustic Mat	-10	115	
		Road Roller	80	-1	6	CNP185	108	115	EPD-09720	94	Barrier	-5	96	
		Hoist	50	-3	3	CNP123	104	106			Barrier	-5	101	
		Compactor, vibratory	80	-1	6	CNP050	105	112			Barrier	-5	107	
Total SWL								126				Total SWL	117	
A13-3 Foundation & Substructure	Apr 2026 - Mar 2027	Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93	
		Vibratory Poker	50	-3	5	CNP170	113	117	CPME-027	102	Barrier	-10	96	
		Compactor, vibratory	50	-3	2	CNP050	105	105			Barrier	-5	100	
		Bar Bender and Cutter	100	0	4	CNP021	90	96			Barrier	-5	91	
		Concrete Lorry Mixer	50	-3	4	CNP044	109	112			Barrier	-5	107	
		Generator	100	0	1	CNP103	95	95	EPD-13064	87				87
		Air Compressor	50	-3	2	CNP002	102	102			Barrier	-5	97	
		Drill Rig	70	-2	1	CPME-015	110	108			Barrier	-5	103	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
Total SWL								123				Total SWL	111	
A13-4 Superstructure	Apr 2027 - Dec 2027	Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93	
		Vibratory Poker	50	-3	5	CNP170	113	117	CPME-027	102	Barrier	-10	96	
		Compactor, vibratory	50	-3	2	CNP050	105	105			Barrier	-5	100	
		Bar Bender and Cutter	100	0	4	CNP021	90	96			Barrier	-5	91	
		Concrete Lorry Mixer	50	-3	4	CNP044	109	112			Barrier	-5	107	
		Generator	100	0	1	CNP103	95	95	EPD-13064	87				87
		Air Compressor	50	-3	2	CNP002	102	102			Barrier	-5	97	
		Drill Rig	70	-2	1	CPME-015	110	108			Barrier	-5	103	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Excavator	100	0	1	CNP081	112	112	EPD-07150	90	Barrier	-5	85	
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99	
		Vibrating Hammer	70	-2	2	CPME-026	115	116	QCM#	94	Barrier	-10	85	
		Concrete Pump	100	0	2	CNP047	109	112			Enclosure	-15	97	
		Grout Mixer	100	0	1	CPME-021	90	90			Barrier	-10	80	
		Grout Pump	100	0	1	CPME-022	105	105			Barrier	-10	95	
Total SWL								123				Total SWL	111	

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

Title: Detailed PME for each Workfront													
A14 Slope Works, Sitewide/Utilities/Mainlaying/Road works within FWPSR (under Preliminary Environmental Review)						Unmitigated			Mitigated				
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[2], [3]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)
Slope Works, Sitewide/Utilities/Mainlaying/Road works within FWPSR	Jan 2025 - Jun 2025, Jan 2027 - Dec 2027	Generator	100	0	1	CNP103	95	95	EPD-13064	87			87
		Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-5	97
		Excavator	50	-3	2	CNP081	112	112	EPD-07150	90	Barrier	-5	85
		Hand Held Breaker	70	-2	1	CNP025	111	109	EPD-12755	108	Barrier	-5	101
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93
		Bar Bender and Cutter	50	-3	1	CNP021	90	87			Barrier	-5	82
		Air Compressor	50	-3	1	CNP002	102	99			Barrier	-5	94
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83
		Concrete Lorry Mixer	50	-3	1	CNP044	109	106			Barrier	-5	101
		Asphalt Paver	40	-4	1	CNP004	109	105	EPD-01226R	104	Barrier	-5	95
		Road Roller	50	-3	1	CNP185	108	105	EPD-09720	94	Barrier	-5	86
		Vibratory Poker	50	-3	1	CNP170	113	110	CPME-027	102	Barrier	-10	89
Total SWL								118				Total SWL	107

Note:
[1] Percentage on time within 30 minutes.
[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.
[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

Title: Detailed PME for each Workfront

AF1 Mainlaying works along access road between NTM WTW & FWPSR by Open Cut Method (under Preliminary Environmental Review)														
						Unmitigated			Mitigated					
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference [2], [3], [4] dB(A)	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)	
Site Clearance and UU Diversion														
Site Clearance	Jul 2024 - Jun 2025	Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83	
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93	
		Generator	100	0	1	CNP102	100	100	EPD-13064	87			87	
		Dump Truck, with grab	50	-3	1	CPME-047	105	102			Barrier	-5	97	
		Saw, chain, hand-held	50	-3	1	CNP202	114	111			Barrier	-10	101	
							Total SWL	115					Total SWL	103
Excavation & Shoring			Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83
			Ventilation Fan	100	0	1	CNP241	108	108			Silencer	-15	93
			Air Blower (electric)	50	-3	1	CPME-003	95	92			Barrier	-5	87
			Generator	100	0	1	CNP102	100	100	EPD-13064	87			87
						Total SWL	113					Total SWL	95	
Construction of Temporary Site Access														
Excavation	Jul 2024 - Jun 2025	Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83	
		Mobile Crane	100	0	1	CNP048	112	112	EPD-13684	101	Barrier	-5	96	
		Generator	100	0	1	CNP102	100	100	EPD-13064	87			87	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
		Lorry	100	0	1	CNP141	112	112	CPME-042	105	Barrier	-5	100	
							Total SWL	116					Total SWL	102
Compacting			Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-5	97
			Generator	100	0	1	CNP101	108	108	EPD-13064	87			87
			Road Roller	70	-2	1	CNP185	108	106	EPD-09720	94	Barrier	-5	87
							Total SWL	111					Total SWL	98
Excavation														
Surface Breaking	Jul 2024 - Jun 2025	Breaker, excavator mounted	70	-2	1	CNP028	122	120	QCM#	94	Barrier	-5	87	
							Total SWL	120					Total SWL	87
Sheet Pile Driving			Vibrating Hammer	70	-2	1	CPME-026	115	113	QCM#	94	Barrier	-10	82
			Generator	100	0	1	CNP102	100	100	EPD-13064	87			87
			Power Rammer (Petrol)	70	-2	1	CNP169	108	106	EPD-09746	108	Barrier	-10	96
							Total SWL	114					Total SWL	97
Excavation & Shoring			Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83
			Ventilation Fan	100	0	1	CNP241	108	108			Silencer	-15	93
			Concrete Lorry Mixer	60	-2	1	CNP044	109	107			Barrier	-5	102
			Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93
		Generator	70	-2	1	CNP102	100	98	EPD-13064	87			85	
						Total SWL	115					Total SWL	103	
Laying of pipes and reinstatement														
Pipelaying	Jul 2024 - Jun 2025	Concrete Lorry Mixer	50	-3	1	CNP044	109	106			Barrier	-5	101	
		Vibratory Poker	70	-2	1	CNP170	113	111	CPME-027	102	Barrier	-10	90	
		Bar Bender and Cutter	50	-3	1	CNP021	90	87			Barrier	-5	82	
		Mobile Crane	70	-2	1	CNP048	112	110	EPD-13684	101	Barrier	-5	94	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
							Total SWL	115					Total SWL	102
Manhole Construction			Saw, Circular, Wood	40	-4	1	CNP201	108	104	QCM#	107	Barrier	-10	93
			Generator	100	0	1	CNP102	100	100	EPD-13064	87			87
			Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93
			Concrete Lorry Mixer	50	-3	1	CNP044	109	106			Barrier	-5	101
		Vibratory Poker	70	-2	1	CNP170	113	111	CPME-027	102	Barrier	-10	90	
		Bar Bender and Cutter	70	-2	1	CNP021	90	88			Barrier	-5	83	
						Total SWL	115					Total SWL	103	
Backfilling and reinstatement		Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83	
		Road Roller	50	-3	1	CNP185	108	105	EPD-09720	94	Barrier	-5	86	
		Concrete Lorry Mixer	40	-4	1	CNP044	109	105			Barrier	-5	100	
		Bar Bender and Cutter	50	-3	1	CNP021	90	87			Barrier	-5	82	
		Vibratory Poker	70	-2	1	CNP170	113	111	CPME-027	102	Barrier	-10	90	
		Dump Truck, with grab	40	-4	1	CPME-047	105	101			Barrier	-5	96	
						Total SWL	115					Total SWL	102	
Removal of Temporary Site Access and Reinstatement														
Excavation	Jul 2024 - Jun 2025	Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83	
		Breaker, excavator mounted	50	-3	1	CNP027	122	119	QCM#	94	Barrier	-5	86	
		Generator	100	0	1	CNP102	100	100	EPD-13064	87			87	
		Mobile Crane	100	0	1	CNP048	112	112	EPD-13684	101	Barrier	-5	96	
		Lorry	100	0	1	CNP141	112	112	CPME-042	105	Barrier	-5	100	
							Total SWL	121					Total SWL	102
Compacting			Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-5	97
			Generator	100	0	1	CNP101	108	108	EPD-13064	87			87
			Road Roller	70	-2	1	CNP185	108	106	EPD-09720	94	Barrier	-5	87
							Total SWL	111					Total SWL	98
						Maximum SWL^[5]	121					Maximum SWL^[5]	103	

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

[5] As construction activities would not occur concurrently, the maximum SWL would be adopted.

Title: Detailed PME for each Workfront														
AF2 Laying of Fresh Water Trunk Mains along Ching Yau Road by Open Cut Method (under Preliminary Environmental Review)														
						Unmitigated			Mitigated					
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[2], [3], [4]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)	
Excavation														
Surface Breaking	Jul 2024 - Mar 2028	Breaker, excavator mounted	70	-2	1	CNP028	122	120	QCM#	94	Barrier	-5	87	
							Total SWL	120					Total SWL	87
Sheet Pile Driving		Vibrating Hammer	70	-2	1	CPME-026	115	113	QCM#	94	Barrier	-10	82	
		Generator	100	0	1	CNP102	100	100	EPD-13064	87			87	
		Power Rammer (Petrol)	70	-2	1	CNP169	108	106	EPD-09746	108	Barrier	-10	96	
							Total SWL	114					Total SWL	97
Excavation & Shoring		Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83	
		Ventilation Fan	100	0	1	CNP241	108	108			Silencer	-15	93	
		Lorry	50	-3	1	CNP141	112	109	CPME-042	105	Barrier	-5	97	
		Bar Bender and Cutter	70	-2	1	CNP021	90	88			Barrier	-5	83	
	Generator	100	0	1	CNP102	100	100	EPD-13064	87			87		
						Total SWL	114					Total SWL	99	
Laying of pipes and reinstatement														
Pipelaying	Jul 2024 - Mar 2028	Concrete Lorry Mixer	40	-4	1	CNP044	109	105			Barrier	-5	100	
		Vibratory Poker	70	-2	1	CNP170	113	111	CPME-027	102	Barrier	-10	90	
		Mobile Crane	70	-2	1	CNP048	112	110	EPD-13684	101	Barrier	-5	94	
		Bar Bender and Cutter	100	0	1	CNP021	90	90			Barrier	-5	85	
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83	
							Total SWL	115					Total SWL	102
Manhole Construction		Saw, Circular, Wood	50	-3	1	CNP201	108	105	QCM#	107	Barrier	-10	94	
		Concrete Lorry Mixer	40	-4	1	CNP044	109	105			Barrier	-5	100	
		Vibratory Poker	70	-2	1	CNP170	113	111	CPME-027	102	Barrier	-10	90	
		Generator	100	0	1	CNP102	100	100	EPD-13064	87			87	
	Mobile Crane	60	-2	1	CNP048	112	110	EPD-13684	101	Barrier	-5	94		
	Bar Bender and Cutter	70	-2	1	CNP021	90	88			Barrier	-5	83		
						Total SWL	115					Total SWL	102	
Backfilling and reinstatement	Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83		
	Road Roller	50	-3	1	CNP185	108	105	EPD-09720	94	Barrier	-5	86		
	Concrete Lorry Mixer	40	-4	1	CNP044	109	105			Barrier	-5	100		
	Vibratory Poker	70	-2	1	CNP170	113	111	CPME-027	102	Barrier	-10	90		
	Bar Bender and Cutter	100	0	1	CNP021	90	90			Barrier	-5	85		
	Dump Truck, with grab	40	-4	1	CPME-047	105	101			Barrier	-5	96		
						Total SWL	115					Total SWL	102	
						Maximum SWL ^[5]	120					Maximum SWL ^[5]	102	

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

[5] As construction activities would not occur concurrently, the maximum SWL would be adopted.

Title: Detailed PME for each Workfront

AF3-a Mainlaying works between Ching Yau Road and San Tam Road (Non-CA zone) by Open Cut Method (under Preliminary Environmental Review)

						Unmitigated			Mitigated				
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference [2], [3], [4] dB(A)	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)
Site Clearance and UU Diversion													
Site Clearance	Jan 2025 - Oct 2026	Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93
		Generator	100	0	1	CNP102	100	100	EPD-13064	87			87
		Dump Truck, with grab	50	-3	1	CPME-047	105	102			Barrier	-5	97
		Saw, chain, hand-held	50	-3	1	CNP202	114	111			Barrier	-10	101
		Total SWL						115					
Excavation & Shoring		Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83
		Ventilation Fan	100	0	1	CNP241	108	108			Silencer	-15	93
		Air Blower (electric)	50	-3	1	CPME-003	95	92			Barrier	-5	87
		Generator	100	0	1	CNP102	100	100	EPD-13064	87			87
Total SWL					113							Total SWL	94
Construction of Temporary Site Access													
Excavation	Jan 2025 - Oct 2026	Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83
		Mobile Crane	100	0	1	CNP048	112	112	EPD-13684	101	Barrier	-5	96
		Generator	100	0	1	CNP102	100	100	EPD-13064	87			87
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83
		Lorry	100	0	1	CNP141	112	112	CPME-042	105	Barrier	-5	100
		Total SWL					116						
Compacting		Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-5	97
		Generator	100	0	1	CNP101	108	108	EPD-13064	87			87
		Road Roller	70	-2	1	CNP185	108	106	EPD-09720	94	Barrier	-5	87
Total SWL					111							Total SWL	98
Excavation													
Surface Breaking	Jan 2025 - Oct 2026	Breaker, excavator mounted	70	-2	1	CNP028	122	120	QCM#	94	Barrier	-5	87
		Total SWL					120						Total SWL
Sheet Pile Driving		Vibrating Hammer	70	-2	1	CPME-026	115	113	QCM#	94	Barrier	-5	87
		Generator	100	0	1	CNP102	100	100	EPD-13064	87			87
		Power Rammer (Petrol)	70	-2	1	CNP169	108	106	EPD-09746	108	Barrier	-10	96
Total SWL					114							Total SWL	97
Excavation & Shoring		Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83
		Ventilation Fan	100	0	1	CNP241	108	108			Silencer	-15	93
		Concrete Lorry Mixer	60	-2	1	CNP044	109	107			Barrier	-5	102
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93
		Generator	70	-2	1	CNP102	100	98	EPD-13064	87			85
Total SWL					115							Total SWL	103
Laying of pipes and reinstatement													
Pipelaying	Jan 2025 - Oct 2026	Concrete Lorry Mixer	40	-4	1	CNP044	109	105			Barrier	-5	100
		Vibratory Poker	70	-2	1	CNP170	113	111	CPME-027	102	Barrier	-10	90
		Bar Bender and Cutter	50	-3	1	CNP021	90	87			Barrier	-5	82
		Mobile Crane	70	-2	1	CNP048	112	110	EPD-13684	101	Barrier	-5	94
		Water pump	100	0	1	CNP281	88	88			Barrier	-5	83
		Total SWL					115						
Manhole Construction		Saw, Circular, Wood	40	-4	1	CNP201	108	104	QCM#	107	Barrier	-10	93
		Generator	100	0	1	CNP102	100	100	EPD-13064	87			87
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-5	93
		Concrete Lorry Mixer	50	-3	1	CNP044	109	106			Barrier	-5	101
		Vibratory Poker	70	-2	1	CNP170	113	111	CPME-027	102	Barrier	-10	90
		Bar Bender and Cutter	70	-2	1	CNP021	90	88			Barrier	-5	83
Total SWL					115							Total SWL	103
Backfilling and reinstatement		Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83
		Road Roller	50	-3	1	CNP185	108	105	EPD-09720	94	Barrier	-5	86
		Concrete Lorry Mixer	40	-4	1	CNP044	109	105			Barrier	-5	100
		Bar Bender and Cutter	50	-3	1	CNP021	90	87			Barrier	-5	82
		Vibratory Poker	70	-2	1	CNP170	113	111	CPME-027	102	Barrier	-10	90
		Dump Truck, with grab	40	-4	1	CPME-047	105	101			Barrier	-5	96
Total SWL					115							Total SWL	102
Removal of Temporary Site Access and Reinstatement													
Excavation	Jan 2025 - Oct 2026	Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-5	83
		Breaker, excavator mounted	50	-3	1	CNP027	122	119	QCM#	94	Barrier	-5	86
		Generator	100	0	1	CNP102	100	100	EPD-13064	87			87
		Mobile Crane	100	0	1	CNP048	112	112	EPD-13684	101	Barrier	-5	96
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-5	99
		Total SWL					121						
Compacting		Compactor, vibratory	70	-2	1	CNP050	105	103			Barrier	-5	98
		Generator	100	0	1	CNP101	108	108	EPD-13064	87			87
		Road Roller	70	-2	1	CNP185	108	106	EPD-09720	94	Barrier	-5	87
Total SWL					111							Total SWL	99
Maximum SWL^[5]					121							Maximum SWL^[5]	103

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

[5] As construction activities would not occur concurrently, the maximum SWL would be adopted.

Title: Detailed PME for each Workfront													
AF3-b Mainlaying works between Ching Yau Road and San Tam Road (Non-CA zone) by Open Cut Method (under Preliminary Environmental Review)													
						Unmitigated			Mitigated				
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[2], [3], [4]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)
Site Clearance and UU Diversion													
Site Clearance	Jan 2025 - Oct 2026	Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-10	78
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-10	88
		Generator	100	0	1	CNP102	100	100	EPD-13064	87	Barrier	-10	77
		Dump Truck, with grab	50	-3	1	CPME-047	105	102			Barrier	-10	92
		Total SWL						113					
Excavation & Shoring		Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-10	78
		Ventilation Fan	100	0	1	CNP241	108	108			Silencer	-15	93
		Air Blower (electric)	50	-3	1	CPME-003	95	92			Barrier	-10	82
		Generator	100	0	1	CNP102	100	100	EPD-13064	87	Barrier	-10	77
Total SWL						113						93	
Construction of Temporary Site Access													
Excavation	Jan 2025 - Oct 2026	Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-10	78
		Mobile Crane	100	0	1	CNP048	112	112	EPD-13684	101	Barrier	-10	91
		Generator	100	0	1	CNP102	100	100	EPD-13064	87	Barrier	-10	77
		Water pump	100	0	1	CNP281	88	88			Barrier	-10	78
		Lorry	100	0	1	CNP141	112	112	CPME-042	105	Barrier	-10	95
		Total SWL						116					
Compacting		Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-10	92
		Generator	100	0	1	CNP101	108	108	EPD-13064	87	Barrier	-10	77
		Road Roller	70	-2	1	CNP185	108	106	EPD-09720	94	Barrier	-10	82
Total SWL						111						93	
Excavation													
Surface Breaking	Jan 2025 - Oct 2026	Breaker, excavator mounted	70	-2	1	CNP028	122	120	QCM#	94	Barrier	-10	82
		Total SWL						120					82
Sheet Pile Driving		Vibrating Hammer	70	-2	1	CPME-026	115	113	QCM#	94	Barrier	-10	82
		Generator	100	0	1	CNP102	100	100	EPD-13064	87	Barrier	-10	77
		Power Rammer (Petrol)	70	-2	1	CNP169	108	106	EPD-09746	108	Barrier	-10	96
Total SWL						114						97	
Excavation & Shoring		Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-10	78
		Ventilation Fan	100	0	1	CNP241	108	108			Silencer	-15	93
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-10	88
		Generator	70	-2	1	CNP102	100	98	EPD-13064	87	Barrier	-10	75
Total SWL						114						94	
Laying of pipes and reinstatement													
Pipelaying	Jan 2025 - Oct 2026	Vibratory Poker	70	-2	1	CNP170	113	111	CPME-027	102	Barrier	-10	90
		Bar Bender and Cutter	50	-3	1	CNP021	90	87			Barrier	-10	77
		Mobile Crane	70	-2	1	CNP048	112	110	EPD-13684	101	Barrier	-10	89
		Water pump	100	0	1	CNP281	88	88			Barrier	-10	78
Total SWL						114						93	
Manhole Construction		Saw, Circular, Wood	40	-4	1	CNP201	108	104	QCM#	107	Barrier	-10	93
		Generator	100	0	1	CNP102	100	100	EPD-13064	87	Barrier	-10	77
		Mobile Crane	50	-3	1	CNP048	112	109	EPD-13684	101	Barrier	-10	88
		Vibratory Poker	70	-2	1	CNP170	113	111	CPME-027	102	Barrier	-10	90
		Bar Bender and Cutter	70	-2	1	CNP021	90	88			Barrier	-10	78
Total SWL						114						96	
Backfilling and reinstatement		Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-10	78
		Road Roller	50	-3	1	CNP185	108	105	EPD-09720	94	Barrier	-10	81
		Bar Bender and Cutter	50	-3	1	CNP021	90	87			Barrier	-10	77
		Vibratory Poker	70	-2	1	CNP170	113	111	CPME-027	102	Barrier	-10	90
		Dump Truck, with grab	40	-4	1	CPME-047	105	101			Barrier	-10	91
Total SWL						115						94	
Removal of Temporary Site Access and Reinstatement													
Excavation	Jan 2025 - Oct 2026	Excavator	70	-2	1	CNP081	112	110	EPD-07150	90	Barrier	-10	78
		Breaker, excavator mounted	50	-3	1	CNP027	122	119	QCM#	94	Barrier	-10	81
		Generator	100	0	1	CNP102	100	100	EPD-13064	87	Barrier	-10	77
		Mobile Crane	100	0	1	CNP048	112	112	EPD-13684	101	Barrier	-10	91
		Lorry	80	-1	1	CNP141	112	111	CPME-042	105	Barrier	-10	94
Total SWL						121						96	
Compacting		Compactor, vibratory	50	-3	1	CNP050	105	102			Barrier	-10	92
		Generator	100	0	1	CNP101	108	108	EPD-13064	87	Barrier	-10	77
		Road Roller	70	-2	1	CNP185	108	106	EPD-09720	94	Barrier	-10	82
Total SWL						111						93	
Maximum SWL ^[5]						121						97	

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

[5] As construction activities would not occur concurrently, the maximum SWL would be adopted.

Title: Detailed PME for each Workfront															
AF3-c Mainlaying works between Ching Yau Road and San Tam Road (Non-CA zone) by Open Cut Method (under Preliminary Environmental Review)															
						Unmitigated			Mitigated						
Activity	Months	PME	% Operating Time ^[1]	Time Correction dB(A)	Units	PME Reference	Single Unit PME dB(A)	Total SWL dB(A)	QPME Reference ^{[2], [3], [4]}	Single Unit QPME dB(A)	Mitigation Measures	Correction dB(A)	Total SWL dB(A)		
Excavation															
Excavation & Shoring	Jan 2025 - Oct 2026	Concrete Lorry Mixer	60	-2	1	CNP044	109	107			Barrier	-5	102		
								Total SWL	107					Total SWL	102
Laying of pipes and reinstatement															
Pipelaying	Jan 2025 - Oct 2026	Concrete Lorry Mixer	40	-4	1	CNP044	109	105			Barrier	-5	100		
								Total SWL	105					Total SWL	100
Manhole Construction		Concrete Lorry Mixer	50	-3	1	CNP044	109	106			Barrier	-5	101		
								Total SWL	106					Total SWL	101
Backfilling and reinstatement		Concrete Lorry Mixer	40	-4	1	CNP044	109	105			Barrier	-5	100		
								Total SWL	105					Total SWL	100
								Maximum SWL ^[5]	107					Maximum SWL ^[5]	102

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[3] The SWL of quiet plant with code "CPME#" are based on SWLs of other commonly used PME from https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[4] The SWL of quiet plant with code "QCM#" are based on SPL at 7m from equipment of quieter construction methods from https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/index.html. Distance correction of + 20log(D) + 8 is applied to the referenced SPL.

[5] As construction activities would not occur concurrently, the maximum SWL would be adopted.