

Appendix 4.3 Construction Plant Inventory

Work Front of Kam Tin Road and Lam Kam Road

Works Stage	PME Item No.	PME	Unmitigated Scenario					Mitigated Scenario										
			CNP Ref.	Unit	SWL, dB(A)	On-time percentage	Sub-total SWL, dB(A)	Total SWL, dB(A)	Quiet Plant Ref.	Unit	SWL, dB(A)	On-time percentage	Sub-total SWL, dB(A)	Noise Barrier/Enclosure/	Sub-total SWL, dB(A)	Total SWL, dB(A)		
A	Site Clearance & Utility Diversion	A1	Breaker, hand-held, mass> 10kg and <20kg	CNP 024	1	108	80%	107	113	EPD-06880	1	108	80%	107	Enclosure	15	92	97
		A2	Dump Truck, gross vehicle weight>5.5tonne and <=38tonne	[1]	1	105	30%	100		[1]	1	105	30%	100	Barrier	5	95	
		A3	Excavator/ Loader, wheeled/ tracked	CNP 081	1	112	80%	111		EPD-02667	1	92	80%	91	Barrier	5	86	
		A4	Generator, portable	[1]	1	100	100%	100		EPD-08242	1	90	100%	90	Enclosure	15	75	
Bi	Road Upgrading Works (Breaking)	B1	Breaker, hand-held, mass> 10kg and <20kg	CNP 024	1	108	80%	107	108	EPD-06880	1	108	80%	107	Enclosure	15	92	92
		B6	Generator, portable	[1]	1	100	100%	100		EPD-08242	1	90	100%	90	Enclosure	15	75	
Bii	Road Upgrading Works (Backfill)	B3	Dump Truck, gross vehicle weight>5.5tonne and <=38tonne	[1]	1	105	40%	101	111	[1]	1	105	40%	101	Barrier	5	96	96
		B4	Excavator/ Loader, wheeled/ tracked	CNP 081	1	112	80%	111		EPD-02667	1	92	80%	91	Barrier	5	86	
Biii	Road Upgrading Works (Reinstatement works)	B2	Asphalt paver	CNP 004	1	109	50%	106	109	EPD-04278	1	105	50%	102	Barrier	5	97	97
		B5	Roller, vibratory	CNP 186	1	108	50%	105		EPD-03754	1	94	50%	91	Barrier	5	86	
C	Street Furniture & Soft Landscape Works	C1	Lorry, gross vehicle weight>5.5tonne and <=38tonne	[1]	1	105	50%	102	102	[1]	1	105	50%	102	Barrier	5	97	97
Di	ELS Works (Excavation Works)	D2	Breaker, excavator mounted (pneumatic)	CNP 027	1	122	80%	121	121	EPD-06880 [2]	1	108	80%	107	Enclosure	15	92	92
		D5	Generator, portable	[1]	1	100	100%	100		EPD-08242	1	90	100%	90	Enclosure	15	75	
Dii	ELS Works (Sheet Piling Works)	D1	Piling, vibrating hammer	[1]	1	115	80%	114	116	[3]	1	94	80%	93	Noise insulation fabric	10	83	97
		D3	Dump Truck, gross vehicle weight>5.5tonne and <=38tonne	[1]	1	105	40%	101		[1]	1	105	40%	101	Barrier	5	96	
		D4	Excavator/ Loader, wheeled/ tracked	CNP 081	1	112	80%	111		EPD-02667	1	92	80%	91	Barrier	5	86	
E1	Foundation and Substructure Works including Retaining Structure (Rebar Fixing and Concreting Works) in Kam Tin Road	E1.1	Concrete lorry mixer	CNP 044	1	109	80%	108	113	CNP 044 / CNP 045 [4]	1	109 / 96	80%	109 / 96	Barrier	5	104 / 91	104 / 92
		E1.2	Excavator/ Loader, wheeled/ tracked	CNP 081	1	112	80%	111		EPD-02667	1	92	80%	91	Barrier	5	86	
E2	Foundation and Substructure Works including Retaining Structure (Rebar Fixing and Concreting Works) in Lam Kam Road	E2.1	Drill rig	[1]	1	110	60%	108	114	[1]	1	110	60%	108	Noise insulation fabric	10	98	103
		E2.2	Concrete lorry mixer	CNP 044	1	109	50%	106		CNP 044	1	109	50%	106	Barrier	5	101	
		E2.3	Excavator/ Loader, wheeled/ tracked	CNP 081	1	112	80%	111		EPD-02667	1	92	80%	91	Barrier	5	86	
F1i	Geotechnical Works (Slope Nail Works)	F1.1	Air Compressor,air flow>10m3/min and <=30m3/min	CNP 002	1	102	80%	101	109	EPD-08976	1	98	80%	97	Barrier	10	87	98
		F1.2	Concrete pump, stationary/lorry mounted	CNP 047	1	109	80%	108		CNP 047 [5]	1	109	80%	108	Barrier	10	98	
F1ii	Geotechnical Works (Slope Nail Works)	F1.3	Crane, mobile/barge mounted (diesel)	CNP 048	1	112	80%	111	116	EPD-07648	1	104	80%	103	Barrier	5	98	105
		F1.4	Rock drill, hand-held (pneumatic)	CNP 183	1	116	60%	114		CNP 183	1	116	60%	114	Noise insulation fabric	10	104	
F2i	Geotechnical Works	F2.1	Air Compressor,air flow>10m3/min and <=30m3/min	CNP 002	1	102	80%	101	108	EPD-08976	1	98	80%	97	Barrier	10	87	97
		F2.2	Concrete pump, stationary/lorry mounted	CNP 047	1	109	60%	107		CNP 047 [5]	1	109	60%	107	Barrier	10	97	
F2ii	Geotechnical Works	F2.3	Crane, mobile/barge mounted (diesel)	CNP 048	1	112	60%	110	110	EPD-07648	1	104	60%	102	Barrier	5	97	97
G	Construction of Superstructure Works (Noise Mitigation Works)	G1	Crane, mobile/barge mounted (diesel)	CNP 048	1	112	80%	111	111	EPD-07648	1	104	80%	103	Barrier	5	98	100
		G2	Dump Truck, gross vehicle weight>5.5tonne and <=38tonne	[1]	1	105	40%	101		[1]	1	105	40%	101	Barrier	5	96	

Remarks:

- [1] Extracted from EPD document namely, "Sound Power Levels of Other Commonly Used PME"
https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf
- [2] Hand-held breaker is proposed as alternative construction equipment for excavator mounted breaker in mitigated scenario and the practicability is confirmed by the Project Engineer.
- [3] Silent Piling by Press-in Method, extracted from EPD website namely, "Quieter Construction Methods"
https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/foundation-works/item/27-press-in-method.html
- [4] It is recommended that in-situ concrete mixing method using concrete mixer (electric) should be adopted for works at work front Zone 23A (as shown in Figure 2.5) which construction noise level to the nearest NSR (i.e. N11) exceeds the construction noise criteria though the recommended measures mentioned in Sections 4.5.4.3 to 4.5.4.9 of EIA Report have been implemented.
- [5] Stationary concrete pump is proposed in mitigated scenario and the practicability is confirmed by the Project Engineer.

Notes:

- [i] Group E1 refers to the proposed PMEs used for rebar fixing and concreting works in the work front along Kam Tin Road, while Group E2 is the proposed PMEs used in work front along Lam Kam Road.
- [ii] Group F1 refers to the proposed PMEs used for geotechnical works including slope nail works, while Group F2 is the proposed PMEs used for general geotechnical works.