

Appendix 4.8 Construction Plant Inventory (Unmitigated Scenario)

Scenario: Unmitigated

Site Formation1 - Site Clearance (per about 2 ha) [2]

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Backhoe	CNP 081	1	112	80%	0	111
Generator, Silenced	CNP 102	1	100	100%	0	100
Breaker, handheld	CNP 023	1	108	80%	0	107
Saw, circular, steel	CNP 201	1	108	70%	0	106
Bulldozer	CNP 030	1	115	80%	0	114
Dump Truck	CNP 067	2	117	30%	0	115
Total SWL						119

2 - Earthwork (Cut and Fill) (per about 2 ha) [2]

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Excavator	CNP 081	8	112	80%	0	120
Generator, Silenced	CNP 102	3	100	100%	0	105
Breaker, handheld	CNP 023	1	108	80%	0	107
Roller	CNP 185	1	108	90%	0	108
Dump Truck	CNP 067	4	117	30%	0	118
Water pump	CNP 281	4	88	100%	0	94
Total SWL						122

3 - Ground Treatment - High Arsenic Containing Soil (HAC)(per about 2 ha) [2]

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Backhoe for HAC	CNP 081	1	112	80%	0	111
Backhoe mounted with Stirring Rig for HAC	CNP 081	1	112	80%	0	111
Breaker, handheld for HAC	CNP 023	1	108	80%	0	107
Bulldozer for HAC	CNP 030	1	115	80%	0	114
Dump truck for HAC	CNP 067	4	117	30%	0	118
Excavator for HAC	CNP 081	2	112	80%	0	114
Generator for HAC	CNP 101	3	108	100%	0	113
Grout mixer for HAC	[1] OCUPME-021	1	90	80%	0	89
Roller for HAC	CNP 185	1	108	80%	0	107
Water pump for HAC	CNP 281	2	88	100%	0	91
Total SWL						122

4 - Ground Treatment - Deep Cement Mixing (DCM) (per about 2 ha) [2]

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Cement truck for DCM	CNP 067	1	117	30%	0	112
Excavator for DCM	CNP 081	1	112	80%	0	111
Generator for DCM	CNP 101	1	108	100%	0	108
Grout mixing plant for DCM	[1] OCUPME-021	1	90	80%	0	89
Land DCM Plant	CNP 167	1	114	80%	0	113
Soil pump for DCM	[1] OCUPME-037	1	103	80%	0	102
Total SWL						117

Appendix 4.8 Construction Plant Inventory (Unmitigated Scenario)

Scenario: Unmitigated

Site Development5 - Sub-Structure (per land lot) [3]

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Generator, Silenced	CNP 102	2	100	100%	0	103
Air compressor	CNP 002	2	102	100%	0	105
Piling, large diameter bored	CNP 166	2	100	50%	0	100
Excavator	CNP 081	2	112	80%	0	114
Bar bender, cutter	CNP 021	2	90	100%	0	93
Mobile crane	CNP 048	2	112	80%	0	114
Crane lorry	CNP 048	2	112	80%	0	114
Dump Truck	CNP 067	2	117	30%	0	115
Concrete lorry mixer	CNP 044	2	109	70%	0	110
Vibratory poker	CNP 170	8	113	70%	0	120
Concrete pump	CNP 047	2	109	70%	0	110
Water pump	CNP 281	2	88	100%	0	91
Total SWL						124

6 - Superstructure (per land lot) [3]

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Generator, Silenced	CNP 102	2	100	100%	0	103
Bar bender, cutter	CNP 021	2	90	100%	0	93
Mobile crane	CNP 048	2	112	80%	0	114
Concrete lorry mixer	CNP 044	2	109	70%	0	110
Vibratory poker	CNP 170	8	113	70%	0	120
Concrete pump	CNP 047	2	109	70%	0	110
Total SWL						122

7 - Landscape Works (per land lot) [3]

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Generator, Silenced	CNP 102	2	100	100%	0	103
Excavator	CNP 081	1	112	80%	0	111
Mobile crane	CNP 048	1	112	80%	0	111
Dump Truck	CNP 067	1	117	30%	0	112
Total SWL						116

Appendix 4.8 Construction Plant Inventory (Unmitigated Scenario)

Scenario: Unmitigated

Roads8 - Site Clearance (per 200m) [2]

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Backhoe	CNP 081	1	112	80%	0	111
Generator, Silenced	CNP 102	1	100	100%	0	100
Breaker, handheld	CNP 023	1	108	80%	0	107
Saw, circular, steel	CNP 201	1	108	80%	0	107
Bulldozer	CNP 030	1	115	80%	0	114
Dump Truck	CNP 067	1	117	30%	0	112
Total SWL						118

9 - Earthwork (Excavation and Backfill) (per 200m) [2]

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Backhoe	CNP 081	1	112	80%	0	111
Generator, Silenced	CNP 102	1	100	100%	0	100
Roller	CNP 185	1	108	90%	0	108
Dump Truck	CNP 067	1	117	30%	0	112
Total SWL						115

10 - Ground Treatment - High Arsenic Containing Soil (HAC) (per 200m) [2]

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Backhoe for HAC	CNP 081	1	112	80%	0	111
Backhoe mounted with Stirring Rig for HAC	CNP 081	1	112	80%	0	111
Breaker, handheld for HAC	CNP 023	1	108	80%	0	107
Bulldozer for HAC	CNP 030	1	115	80%	0	114
Dump truck for HAC	CNP 067	2	117	30%	0	115
Excavator for HAC	CNP 081	1	112	80%	0	111
Generator for HAC	CNP 101	2	108	100%	0	111
Grout mixer for HAC	[1] OCUPME-021	1	90	80%	0	89
Roller for HAC	CNP 185	1	108	80%	0	107
Water pump for HAC	CNP 281	1	88	100%	0	88
Total SWL						121

11 - Roadwork (Utilities Laying) (per 200m) [2]

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Excavator	CNP 081	1	112	80%	0	111
Crane Lorry	CNP 048	1	112	80%	0	111
Water pump	CNP 281	1	88	100%	0	88
Saw, circular, steel	CNP 201	1	108	80%	0	107
Bulldozer	CNP 030	1	115	80%	0	114
Dump Truck	CNP 067	1	117	30%	0	112
Total SWL						119

12 - Roadwork (Paving) (per 200m) [2]

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Concrete lorry mixer	CNP 044	1	109	70%	0	107
Vibratory Poker	CNP 170	1	113	70%	0	111
Generator, Silenced	CNP 102	1	100	100%	0	100
Asphalt Paver	CNP 004	1	109	80%	0	108
Roller	CNP 185	1	108	90%	0	108
Total SWL						115

Appendix 4.8 Construction Plant Inventory (Unmitigated Scenario)

Scenario: Unmitigated

Structures**13 - Sub-Structure for Elevated Road (per 200m) [2]**

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Generator, Silenced	CNP 102	1	100	100%	0	100
Air compressor	CNP 002	1	102	100%	0	102
Piling, large diameter bored	CNP 166	1	100	80%	0	99
Excavator	CNP 081	1	112	80%	0	111
Bar bender, cutter	CNP 021	1	90	100%	0	90
Mobile crane	CNP 048	1	112	80%	0	111
Crane lorry	CNP 048	1	112	80%	0	111
Dump Truck	CNP 067	1	117	30%	0	112
Concrete lorry mixer	CNP 044	1	109	70%	0	107
Vibratory poker	CNP 170	2	113	70%	0	114
Concrete pump	CNP 047	1	109	70%	0	107
Water pump	CNP 281	1	88	100%	0	88
Total SWL						120

14 - Superstructure for Elevated Road (per 200m) [2]

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Generator, Silenced	CNP 102	1	100	100%	0	100
Bar bender, cutter	CNP 021	1	90	100%	0	90
Mobile crane	CNP 048	1	112	80%	0	111
Concrete lorry mixer	CNP 044	1	109	70%	0	107
Vibratory poker	CNP 170	2	113	70%	0	114
Concrete pump	CNP 047	1	109	70%	0	107
Total SWL						117

15 - Common Utility Enclosure (per 200m) [2]

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Generator, Silenced	CNP 102	1	100	100%	0	100
Air compressor	CNP 002	1	102	100%	0	102
Piling, large diameter bored	CNP 166	1	100	80%	0	99
Excavator	CNP 081	1	112	80%	0	111
Bar bender, cutter	CNP 021	1	90	100%	0	90
Mobile crane	CNP 048	1	112	80%	0	111
Crane lorry	CNP 048	1	112	80%	0	111
Dump Truck	CNP 067	1	117	30%	0	112
Concrete lorry mixer	CNP 044	1	109	70%	0	107
Vibratory poker	CNP 170	2	113	70%	0	114
Concrete pump	CNP 047	1	109	70%	0	107
Water pump	CNP 281	1	88	100%	0	88
Total SWL						120

Appendix 4.8 Construction Plant Inventory (Unmitigated Scenario)

Scenario: Unmitigated

Site Formation**1 - Site Clearance (less than 0.25 ha)**

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Backhoe	CNP 081	1	112	80%	0	111
Generator, Silenced	CNP 102	1	100	100%	0	100
Breaker, handheld	CNP 023	1	108	80%	0	107
Saw, circular, steel	CNP 201	1	108	70%	0	106
Bulldozer	CNP 030	1	115	80%	0	114
Dump Truck	CNP 067	2	117	30%	0	115
Total SWL						119

2 - Earthwork (Cut and Fill) (less than 0.25 ha)

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Excavator	CNP 081	1	112	80%	0	111
Generator, Silenced	CNP 102	1	100	100%	0	100
Breaker, handheld	CNP 023	1	108	80%	0	107
Roller	CNP 185	1	108	90%	0	108
Dump Truck	CNP 067	2	117	30%	0	115
Water pump	CNP 281	2	88	100%	0	91
Total SWL						117

3 - Ground Treatment - High Arsenic Containing Soil (HAC)(less than 0.25 ha)

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Backhoe for HAC	CNP 081	1	112	80%	0	111
Backhoe mounted with Stirring Rig for HAC	CNP 081	1	112	80%	0	111
Breaker, handheld for HAC	CNP 023	1	108	80%	0	107
Bulldozer for HAC	CNP 030	1	115	80%	0	114
Dump truck for HAC	CNP 067	2	117	30%	0	115
Excavator for HAC	CNP 081	1	112	80%	0	111
Generator for HAC	CNP 101	1	108	100%	0	108
Grout mixer for HAC	[1] OCUPME-021	1	90	80%	0	89
Roller for HAC	CNP 185	1	108	80%	0	107
Water pump for HAC	CNP 281	2	88	100%	0	91
Total SWL						120

4 - Ground Treatment - Deep Cement Mixing (DCM) (less than 0.25 ha)

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Cement truck for DCM	CNP 067	1	117	30%	0	112
Excavator for DCM	CNP 081	1	112	80%	0	111
Generator for DCM	CNP 101	1	108	100%	0	108
Grout mixing plant for DCM	[1] OCUPME-021	1	90	80%	0	89
Land DCM Plant	CNP 167	1	114	80%	0	113
Soil pump for DCM	[1] OCUPME-037	1	103	80%	0	102
Total SWL						117

Note:

[1] Plants of Other Ref are on EPD's list https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_f_or_licences/guidance/files/OtherSWLe.pdf

[2] Construction sites are divided into sub-zones as shown in Figure 4.3 i.e. the extent of each sub-zone of road works is not greater than 2 ha and each sub-zone of road works is not greater than 200m in length.

[3] Large land lot (e.g. OU(I&T)1.1.1, OU(I&T)1.1.2 and OU(I&T)1.1.3) is divided into sub land lot as shown in Figure 4.3. For example, OU(I&T)1.1.1-0-A1-0 to OU(I&T)1.1.1-0-A7-0 are considered as one of sub land lot of OU(I&T)1.1.1. Each of the sub land lot will adopt one set of plant inventory for worst case assessment.