

**Appendix 4.13 Construction Plant Inventory (Mitigated Scenario)**

Scenario: Mitigated

**Site Formation****1 - Site Clearance (per about 2 ha) [7]**

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Backhoe	EPD-13412	1	102	80%	-5	96
Generator, Silenced	EPD-13704	1	90	100%	-15	75
Breaker, handheld	[2][3] Bursting System	1	97	80%	-10	86
Saw, circular, steel	[2][4] Quieter type Blade Saw	1	104	70%	-10	92
Bulldozer	[6] Komatsu Model D21A-B 1	1	102	80%	-5	96
Dump Truck	[1] OCUPME-042	2	105	30%	-10	93
<b>Total SWL</b>						<b>101</b>

**2 - Earthwork (Cut and Fill) (per about 2 ha) [7]**

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Excavator	EPD-13412	8	102	80%	-5	105
Generator, Silenced	EPD-13704	3	90	100%	-15	80
Breaker, handheld	[2][3] Bursting System	1	97	80%	-10	86
Roller	EPD-13620	1	104	90%	-5	99
Dump Truck	[1] OCUPME-042	4	105	30%	-10	96
Water pump	CNP 281	4	88	100%	-10	84
<b>Total SWL</b>						<b>106</b>

**3 - Ground Treatment - High Arsenic Containing Soil(HAC) (per about 2 ha) [7]**

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Backhoe for HAC	EPD-13412	1	102	80%	-5	96
Backhoe mounted with Stirring Rig for HAC	EPD-13412	1	102	80%	-5	96
Breaker, handheld for HAC	[2][3] Bursting System	1	97	80%	-10	86
Bulldozer for HAC	[6] Komatsu Model D21A-B 1	1	102	80%	-5	96
Dump truck for HAC	[1] OCUPME-042	4	105	30%	-10	96
Excavator for HAC	EPD-13412	2	102	80%	-5	99
Generator for HAC	EPD-13704	3	90	100%	-15	80
Grout mixer for HAC	[1] OCUPME-021	1	90	80%	-15	74
Roller for HAC	EPD-13620	1	104	80%	-5	98
Water pump for HAC	CNP 281	2	88	100%	-10	81
<b>Total SWL</b>						<b>105</b>

**4 - Ground Treatment - Deep Cement Mixing (DCM) (per about 2 ha) [7]**

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Cement truck for DCM	[1] OCUPME-042	1	105	30%	-10	90
Excavator for DCM	EPD-13412	1	102	80%	-5	96
Generator for DCM	EPD-13704	1	90	100%	-15	75
Grout mixing plant for DCM	[1] OCUPME-021	1	90	80%	-15	74
Land DCM Plant	CNP 167	1	114	80%	-10	103
Soil pump for DCM	[1] OCUPME-037	1	103	80%	-15	87
<b>Total SWL</b>						<b>104</b>

**Appendix 4.13 Construction Plant Inventory (Mitigated Scenario)**

Scenario: Mitigated

**Site Development****5 - Sub-Structure (per land lot) [8]**

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Generator, Silenced	EPD-13704	2	90	100%	-15	78
Air compressor	EPD-11726	2	100	100%	-15	88
Piling, large diameter bored	[5] Silent Piling by Press-in Method	2	94	50%	-10	84
Excavator	EPD-13412	2	102	80%	-5	99
Bar bender, cutter	CNP 021	2	90	100%	-10	83
Mobile crane	EPD-09602	2	101	80%	-5	98
Crane lorry	EPD-09602	2	101	80%	-5	98
Dump Truck	[1] OCUPME-042	2	105	30%	-10	93
Concrete lorry mixer	CNP 044	2	109	70%	-10	100
Vibratory poker	[1] OCUPME-027	8	102	70%	-10	99
Concrete pump	CNP 047	2	109	70%	-15	95
Water pump	CNP 281	2	88	100%	-10	81
<b>Total SWL</b>						<b>107</b>

**6 - Superstructure (per land lot) [8]**

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Generator, Silenced	EPD-13704	2	90	100%	-15	78
Bar bender, cutter	CNP 021	2	90	100%	-10	83
Mobile crane	EPD-09602	2	101	80%	-5	98
Concrete lorry mixer	CNP 044	2	109	70%	-10	100
Vibratory poker	[1] OCUPME-027	8	102	70%	-10	99
Concrete pump	CNP 047	2	109	70%	-15	95
<b>Total SWL</b>						<b>105</b>

**7 - Landscape Works (per land lot) [8]**

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Generator, Silenced	EPD-13704	2	90	100%	-15	78
Excavator	EPD-13412	1	102	80%	-5	96
Mobile crane	EPD-09602	1	101	80%	-5	95
Dump Truck	[1] OCUPME-042	1	105	30%	-10	90
<b>Total SWL</b>						<b>99</b>

**Appendix 4.13 Construction Plant Inventory (Mitigated Scenario)**

Scenario: Mitigated

**Roads****8 - Site Clearance (per 200m) [7]**

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Backhoe	EPD-13412	1	102	80%	-5	96
Generator, Silenced	EPD-13704	1	90	100%	-15	75
Breaker, handheld	[2][3] Bursting System	1	97	80%	-10	86
Saw, circular, steel	[2][4] Quieter type Blade Saw	1	104	80%	-10	93
Bulldozer	[6] Komatsu Model D21A-B 1	1	102	80%	-5	96
Dump Truck	[1] OCUPME-042	1	105	30%	-10	90
<b>Total SWL</b>						<b>101</b>

**9 - Earthwork (Excavation and Backfill) (per 200m) [7]**

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Backhoe	EPD-13412	1	102	80%	-5	96
Generator, Silenced	EPD-13704	1	90	100%	-15	75
Roller	EPD-13620	1	104	90%	-5	99
Dump Truck	[1] OCUPME-042	1	105	30%	-10	90
<b>Total SWL</b>						<b>101</b>

**10 - Ground Treatment - High Arsenic Containing Soil (HAC) (per 200m) [7]**

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Backhoe f for HAC	EPD-13412	1	102	80%	-5	96
Backhoe mounted with Stirring Rig f for HAC	EPD-13412	1	102	80%	-5	96
Breaker, handheld f for HAC	[2][3] Bursting System	1	97	80%	-10	86
Bulldozer f for HAC	[6] Komatsu Model D21A-B 1	1	102	80%	-5	96
Dump truck f for HAC	[1] OCUPME-042	2	105	30%	-10	93
Excavator f for HAC	EPD-13412	1	102	80%	-5	96
Generator f for HAC	EPD-13704	2	90	100%	-15	78
Grout mixer f for HAC	[1] OCUPME-021	1	90	80%	-15	74
Roller for HAC	EPD-13620	1	104	80%	-5	98
Water pump for HAC	CNP 281	1	88	100%	-10	78
<b>Total SWL</b>						<b>104</b>

**11 - Roadwork (Utilities Laying) (per 200m) [7]**

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Excavator	EPD-13412	1	102	80%	-5	96
Crane Lorry	EPD-09602	1	101	80%	-5	95
Water pump	CNP 281	1	88	100%	-10	78
Saw, circular, steel	[2][4] Quieter type Blade Saw	1	104	80%	-10	93
Bulldozer	[6] Komatsu Model D21A-B 1	1	102	80%	-5	96
Dump Truck	[1] OCUPME-042	1	105	30%	-10	90
<b>Total SWL</b>						<b>102</b>

**12 - Roadwork (Paving) (per 200m) [7]**

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%	-10	97
Vibratory Poker	[1] OCUPME-027	1	102	70%	-10	90
Generator, Silenced	EPD-13704	1	90	100%	-15	75
Asphalt Paver	EPD-12854	1	104	80%	-10	93
Roller	EPD-13620	1	104	90%	-5	99
<b>Total SWL</b>						<b>102</b>

**Appendix 4.13 Construction Plant Inventory (Mitigated Scenario)**

Scenario: Mitigated

**Structures****13 - Sub-Structure for Elevated Road (per 200m) [7]**

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Generator, Silenced	EPD-13704	1	90	100%	-15	75
Air compressor	EPD-11726	1	100	100%	-15	85
Piling, large diameter bored	[5] Silent Piling by Press-in Method	1	94	80%	-10	83
Excavator	EPD-13412	1	102	80%	-5	96
Bar bender, cutter	CNP 021	1	90	100%	-10	80
Mobile crane	EPD-09602	1	101	80%	-5	95
Crane lorry	EPD-09602	1	101	80%	-5	95
Dump Truck	[1] OCUPME-042	1	105	30%	-10	90
Concrete lorry mixer	CNP 044	1	109	70%	-10	97
Vibratory poker	[1] OCUPME-027	2	102	70%	-10	93
Concrete pump	CNP 047	1	109	70%	-15	92
Water pump	CNP 281	1	88	100%	-10	78
<b>Total SWL</b>						<b>103</b>

**14 - Superstructure for Elevated Road (per 200m) [7]**

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Generator, Silenced	EPD-13704	1	90	100%	-15	75
Bar bender, cutter	CNP 021	1	90	100%	-10	80
Mobile crane	EPD-09602	1	101	80%	-5	95
Concrete lorry mixer	CNP 044	1	109	70%	-10	97
Vibratory poker	[1] OCUPME-027	2	102	70%	-10	93
Concrete pump	CNP 047	1	109	70%	-15	92
<b>Total SWL</b>						<b>101</b>

**15 - Common Utility Enclosure (per 200m) [7]**

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Generator, Silenced	EPD-13704	1	90	100%	-15	75
Air compressor	EPD-11726	1	100	100%	-15	85
Piling, large diameter bored	[5] Silent Piling by Press-in Method	1	94	80%	-10	83
Excavator	EPD-13412	1	102	80%	-5	96
Bar bender, cutter	CNP 021	1	90	100%	-10	80
Mobile crane	EPD-09602	1	101	80%	-5	95
Crane lorry	EPD-09602	1	101	80%	-5	95
Dump Truck	[1] OCUPME-042	1	105	30%	-10	90
Concrete lorry mixer	CNP 044	1	109	70%	-10	97
Vibratory poker	[1] OCUPME-027	2	102	70%	-10	93
Concrete pump	CNP 047	1	109	70%	-15	92
Water pump	CNP 281	1	88	100%	-10	78
<b>Total SWL</b>						<b>103</b>

**Appendix 4.13 Construction Plant Inventory (Mitigated Scenario)**

Scenario: Mitigated

**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	EPD-13412	1	102	80%	-5	96
Generator, Silenced	EPD-13704	1	90	100%	-15	75
Breaker, handheld	[2][3] Bursting System	1	97	80%	-10	86
Saw, circular, steel	[2][4] Quieter type Blade Saw	1	104	70%	-10	92
Bulldozer	[6] Komatsu Model D21A-B 1	1	102	80%	-5	96
Dump Truck	[1] OCUPME-042	2	105	30%	-10	93
<b>Total SWL</b>						<b>101</b>

**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	EPD-13412	1	102	80%	-5	96
Generator, Silenced	EPD-13704	1	90	100%	-15	75
Breaker, handheld	[2][3] Bursting System	1	97	80%	-10	86
Roller	EPD-13620	1	104	90%	-5	99
Dump Truck	[1] OCUPME-042	2	105	30%	-10	93
Water pump	CNP 281	2	88	100%	-10	81
<b>Total SWL</b>						<b>101</b>

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

(Except site A.2.1-1-1-0, A.2.1-2-1-1, A.2.1-2-1-2, A.5.3-0-1-1 and A.5.3-0-1-2)

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
Backhoe for HAC	EPD-13412	1	102	80%	-5	96
Backhoe mounted with Stirring Rig for HAC	EPD-13412	1	102	80%	-5	96
Breaker, handheld for HAC	[2][3] Bursting System	1	97	80%	-10	86
Bulldozer for HAC	[6] Komatsu Model D21A-B 1	1	102	80%	-5	96
Dump truck for HAC	[1] OCUPME-042	2	105	30%	-10	93
Excavator for HAC	EPD-13412	1	102	80%	-5	96
Generator for HAC	EPD-13704	1	90	100%	-15	75
Grout mixer for HAC	[1] OCUPME-021	1	90	80%	-15	74
Roller for HAC	EPD-13620	1	104	80%	-5	98
Water pump for HAC	CNP 281	2	88	100%	-10	81
<b>Total SWL</b>						<b>104</b>

(For site A.2.1-1-1-0, A.2.1-2-1-1, A.2.1-2-1-2, A.5.3-0-1-1 and A.5.3-0-1-2)

PME	TM Ref./ other Ref	No. of Items	SWL/ Item dB(A)	On- time %	Barrier Correction	Sub-total SWL
<b>Group A [9]</b>						
Backhoe for HAC	EPD-13412	1	102	80%	-5	96
Backhoe mounted with Stirring Rig for HAC	EPD-13412	1	102	80%	-5	96
Bulldozer for HAC	[6] Komatsu Model D21A-B 1	1	102	80%	-5	96
Breaker, handheld for HAC	[2][3] Bursting System	1	97	80%	-10	86
Dump truck for HAC	[1] OCUPME-042	2	105	30%	-10	93
Generator for HAC	EPD-13704	1	90	100%	-15	75
Grout mixer for HAC	[1] OCUPME-021	1	90	80%	-15	74
Water pump for HAC	CNP 281	2	88	100%	-10	81
<b>Total SWL</b>						<b>102</b>

**Group B [9]**

Excavator for HAC	EPD-13412	1	102	80%	-5	96
Roller for HAC	EPD-13620	1	104	80%	-5	98
Breaker, handheld for HAC	[2][3] Bursting System	1	97	80%	-10	86
Dump truck for HAC	[1] OCUPME-042	2	105	30%	-10	93
Generator for HAC	EPD-13704	1	90	100%	-15	75
Grout mixer for HAC	[1] OCUPME-021	1	90	80%	-15	74
Water pump for HAC	CNP 281	2	88	100%	-10	81
<b>Total SWL</b>						<b>101</b>
<b>Maximum Total SWL</b>						<b>102</b>

**Appendix 4.13 Construction Plant Inventory (Mitigated Scenario)**

Scenario: Mitigated

**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	[1] OCUPME-042	1	105	30%	-10	90
Excavator for DCM	EPD-13412	1	102	80%	-5	96
Generator for DCM	EPD-13704	1	90	100%	-15	75
Grout mixing plant for DCM	[1] OCUPME-021	1	90	80%	-15	74
Land DCM Plant	CNP 167	1	114	80%	-10	103
Soil pump for DCM	[1] OCUPME-037	1	103	80%	-15	87
<b>Total SWL</b>						<b>104</b>

Note:

- [1] Reference of OCUPME, refer to EPD's guidance "Sound power levels of other commonly used PME".  
([https://www.epd.gov.hk/epd/sites/default/files/epd/english/application\\_f\\_or\\_licences/guidance/files/OtherSWLe.pdf](https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_f_or_licences/guidance/files/OtherSWLe.pdf))
- [2] Quieter construction method includes the bursting system and quieter type blade saw will be adopted to replace traditional handheld percussive breakers and traditional blade saw for concrete breaking/removal activities.
- [3] Reference of Bursting System, refer to EPD website on "Quiet Construction Method".  
([https://www.epd.gov.hk/epd/misc/construction\\_noise/contents/index.php/en/home2/quieter-construction-methods.html](https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/home2/quieter-construction-methods.html))
- [4] Reference of Quieter type Blade Saw, refer to EPD website on "Quiet Construction Method".  
([https://www.epd.gov.hk/epd/misc/construction\\_noise/contents/index.php/en/home2/quieter-construction-methods.html](https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/home2/quieter-construction-methods.html))
- [5] Reference of Silent Piling by Press-in Method, refer to "Quiet Construction Method".  
([https://www.epd.gov.hk/epd/misc/construction\\_noise/contents/index.php/en/home2/quieter-construction-methods.html](https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/home2/quieter-construction-methods.html))
- [6] Reference is made to the Approved EIA report (AEIAR-203/2016).
- [7] 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).
- [8] 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.
- [9] Only one group of PME will be operated at the same period.