

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - Session: Southern Approach Tunnels, HUH Landfall and Hung Hom Station

Scenario: Unmitigated

Package: 15 HUH South Approach Tunnel (SAT)

Southern Approach Tunnels

Demolition of Freight Buidling
Demolition of Freight Buidling

(11/2014-01/2015)

| | PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|-----------------------------------|-----|-----------------------|--------------|--------------------|------------|-----------------------|---------------|
| Crane, mobile | | CNP 048 | 1 | 112 | 80% | 0 | 111 |
| Dump truck | | CNP 067 | 1 | 117 | 30% | 0 | 112 |
| Cutter, circular, steel | | CNP 056 | 1 | 112 | 30% | 0 | 107 |
| Lorry with crane/grab | | CNP 145 | 1 | 105 | 60% | 0 | 103 |
| Backhoe with Hydraulic Breaker | | CNP 028 | 2 | 122 | 30% | 0 | 120 |
| Overall Noise Level, dB(A) | | | | | | | 121 |

Package: 12 HUH Landfall

HUH landfall

Existing Fender Piles Removal, Cofferdam Wall Construction and Shear Pining

(01/2015-09/2015)

| | PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|-----|-----------------------|--------------|--------------------|------------|--|--------------------|---------------|
| Tug Boat | | CNP 221 | 1 | 110 | 30% | 0 | 0 | 105 |
| Derrick barges | | CNP 061 | 1 | 104 | 100% | 0 | 0 | 104 |
| Air compressor | | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | | CNP 282 | 2 | 103 | 80% | 0 | 0 | 105 |
| Crawler crane, mobile | | CNP 048 | 2 | 112 | 60% | 0 | 0 | 113 |
| Welding set | | CNP 107 | 2 | 100 | 30% | 0 | 0 | 98 |
| Excavator | | CNP 081 | 1 | 112 | 100% | 0 | 0 | 112 |
| Drill rig, rotary type | | CNP 072 | 1 | 110 | 70% | 0 | 0 | 108 |
| Grout mixer | | CNP 105 | 1 | 90 | 50% | 0 | 0 | 87 |
| Grout pump | | CNP 106 | 2 | 105 | 50% | 0 | 0 | 105 |
| Lorry with crane/grab | | CNP 145 | 1 | 105 | 30% | 0 | 0 | 100 |
| Overall Noise Level, dB(A) | | | | | | | | 118 |

Soft Ground Excavation

(10/2015-12/2015)

| | PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|-----|-----------------------|--------------|--------------------|------------|--|--------------------|---------------|
| In Shaft | | | | | | | | |
| Excavator | | CNP 081 | 2 | 112 | 100% | -10 | 0 | 105 |
| Breaker, excavator mounted (hydraulic) | | CNP 028 | 1 | 122 | 50% | -10 | 0 | 109 |
| Breaker, hand-held | | CNP 024 | 1 | 108 | 50% | -10 | 0 | 95 |
| Welding Set | | CNP 107 | 1 | 100 | 30% | -10 | 0 | 85 |
| Water Pump, submersible (electric) | | CNP 283 | 2 | 85 | 100% | -10 | 0 | 78 |
| At Surface | | | | | | | | |
| Crawler crane, mobile | | CNP 048 | 1 | 112 | 60% | 0 | 0 | 110 |
| Ventilation fans | | CNP 241 | 1 | 108 | 100% | 0 | 0 | 108 |
| Air compressor | | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water pump (electric) | | CNP 282 | 1 | 103 | 80% | 0 | 0 | 102 |
| Overall Noise Level, dB(A) | | | | | | | | 115 |

Excavation Work

(11/2015-04/2016)

| | PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|-----|-----------------------|--------------|--------------------|------------|--|--------------------|---------------|
| Hand held pneumatic breaker | | CNP 026 | 10 | 114 | 30% | 0 | 0 | 119 |
| Air compressor | | CNP 002 | 5 | 102 | 30% | 0 | 0 | 104 |
| Backhoe with hydraulic breaker | | CNP 028 | 4 | 122 | 50% | 0 | 0 | 125 |
| Excavator | | CNP 081 | 4 | 112 | 100% | 0 | 0 | 118 |
| Overall Noise Level, dB(A) | | | | | | | | 127 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - Session: Southern Approach Tunnels, HUH Landfall and Hung Hom Station

Scenario: Unmitigated

Tunnel Box Construction

(03/2016-05/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|------------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Bar bender and cutter (electric) | CNP 021 | 1 | 90 | 50% | 0 | 0 | 87 |
| Water Pump, submersible (electric) | CNP 283 | 2 | 85 | 100% | 0 | 0 | 88 |
| Compactor, vibratory | CNP 050 | 1 | 105 | 50% | 0 | 0 | 102 |
| At Surface | | | | | | | |
| Concrete lorry mixer | CNP 044 | 2 | 109 | 50% | 0 | 0 | 109 |
| Crawler crane, mobile | CNP 048 | 1 | 112 | 60% | 0 | 0 | 110 |
| Ventilation Fans | CNP 241 | 2 | 108 | 100% | 0 | 0 | 111 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 80% | 0 | 0 | 102 |
| Overall Noise Level, dB(A) | | | | | | | 115 |

E&M Installation

(06/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Drill, hand-held (electric) | CNP 064 | 1 | 103 | 100% | 0 | 0 | 103 |
| At Surface | | | | | | | |
| Crawler crane, mobile | CNP 048 | 1 | 112 | 60% | 0 | 0 | 110 |
| Ventilation Fans | CNP 241 | 2 | 108 | 100% | 0 | 0 | 111 |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 40% | 0 | 0 | 101 |
| Overall Noise Level, dB(A) | | | | | | | 114 |

Cofferdam Wall Removal and Fender Piles Reinstatement

(06/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Excavator | CNP 081 | 2 | 112 | 100% | -10 | 0 | 105 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 100% | -10 | 0 | 112 |
| Breaker, hand-held | CNP 024 | 1 | 108 | 50% | -10 | 0 | 95 |
| Welding Set | CNP 107 | 1 | 100 | 30% | -10 | 0 | 85 |
| Water Pump, submersible (electric) | CNP 283 | 2 | 85 | 100% | -10 | 0 | 78 |
| At Surface | | | | | | | |
| Ventilation Fans | CNP 241 | 1 | 108 | 100% | 0 | 0 | 108 |
| Tug Boat | CNP 221 | 1 | 110 | 30% | 0 | 0 | 105 |
| Derrick barges | CNP 061 | 1 | 104 | 100% | 0 | 0 | 104 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 80% | 0 | 0 | 102 |
| Overall Noise Level, dB(A) | | | | | | | 115 |

Backfilling and Reinstatement

(07/2016-11/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| On Sea | | | | | | | |
| Tug Boat | CNP 221 | 2 | 110 | 30% | 0 | 0 | 108 |
| Derrick barges | CNP 061 | 2 | 104 | 100% | 0 | 0 | 107 |
| Excavator | CNP 081 | 2 | 112 | 100% | 0 | 0 | 115 |
| Overall Noise Level, dB(A) | | | | | | | 116 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - Session: Southern Approach Tunnels, HUH Landfall and Hung Hom Station

Scenario: Unmitigated

HUH Freight Pier

Demolition of Existing Freight Pier

(09/2014-02/2015)

| | PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|-----|-----------------------|--------------|--------------------|------------|--|--------------------|---------------|
| On Sea | | | | | | | | |
| Drill, percussive, hand-held | | CNP 064 | 1 | 103 | 50% | 0 | 0 | 100 |
| Saw, concrete | | CNP 203 | 2 | 115 | 50% | 0 | 0 | 115 |
| Crawler crane, mobile | | CNP 048 | 1 | 112 | 50% | 0 | 0 | 109 |
| Derrick barges | | CNP 061 | 1 | 104 | 100% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | | 116 |

Piling Construction

(01/2018-03/2018)

| | PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|-----|-----------------------|--------------|--------------------|------------|--|--------------------|---------------|
| Generator, standard | | | | | | | | |
| Generator, standard | | CNP 101 | 2 | 108 | 80% | 0 | 0 | 110 |
| Crane lorry, mobile | | | | | | | | |
| Crane lorry, mobile | | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Crane, tower (electric) | | | | | | | | |
| Crane, tower (electric) | | CNP 049 | 1 | 95 | 30% | 0 | 0 | 90 |
| Air compressor | | | | | | | | |
| Air compressor | | CNP 002 | 1 | 102 | 40% | 0 | 0 | 98 |
| Welder/generator, portable | | | | | | | | |
| Welder/generator, portable | | CNP 107 | 1 | 100 | 30% | 0 | 0 | 95 |
| Rock drill, crawler mounted (hydraulic) | | | | | | | | |
| Rock drill, crawler mounted (hydraulic) | | CNP 182 | 2 | 123 | 40% | 0 | 0 | 122 |
| Dump truck | | | | | | | | |
| Dump truck | | CNP 067 | 1 | 117 | 30% | 0 | 0 | 112 |
| Lorry | | | | | | | | |
| Lorry | | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Overall Noise Level, dB(A) | | | | | | | | 123 |

Concrete Deck Construction and Marine Furniture

(04/2018-09/2018)

| | PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|-----|-----------------------|--------------|--------------------|------------|--|--------------------|---------------|
| Circular Saw | | | | | | | | |
| Circular Saw | | CNP 201 | 1 | 108 | 30% | 0 | 0 | 103 |
| Bar Bender | | | | | | | | |
| Bar Bender | | CNP 021 | 2 | 90 | 30% | 0 | 0 | 88 |
| Poker, vibrator, hand-held | | | | | | | | |
| Poker, vibrator, hand-held | | CNP 170 | 3 | 113 | 30% | 0 | 0 | 113 |
| Air Compressor | | | | | | | | |
| Air Compressor | | CNP 002 | 1 | 102 | 70% | 0 | 0 | 100 |
| Concrete lorry mixer | | | | | | | | |
| Concrete lorry mixer | | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Concrete pump | | | | | | | | |
| Concrete pump | | CNP 047 | 1 | 109 | 30% | 0 | 0 | 104 |
| Crane lorry, mobile | | | | | | | | |
| Crane lorry, mobile | | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Overall Noise Level, dB(A) | | | | | | | | 115 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - Session: Southern Approach Tunnels, HUH Landfall and Hung Hom Station

Scenario: Unmitigated 

Package: 13 NOV

NOV Construction

Site Clearance, Fencing & Hoarding

(12/2015)

| | PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|-----------------------------------|-----|-----------------------|--------------|--------------------|------------|-----------------------|---------------|
| Excavator | | CNP 081 | 1 | 112 | 70% | 0 | 110 |
| Saw, concrete | | CNP 203 | 2 | 115 | 30% | 0 | 113 |
| Crane lorry, mobile | | CNP 048 | 1 | 112 | 50% | 0 | 109 |
| Dump truck | | CNP 067 | 1 | 117 | 30% | 0 | 112 |
| Poker, vibrator, hand-held | | CNP 170 | 2 | 113 | 30% | 0 | 111 |
| Air Compressor | | CNP 002 | 1 | 102 | 70% | 0 | 100 |
| Concrete lorry mixer | | CNP 044 | 1 | 109 | 30% | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 118 |

Excavate Soft Material (+4.0mPD to -17.5mPD)

(01/2016-02/2016)

| | PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|-----------------------------------|-----|-----------------------|--------------|--------------------|------------|-----------------------|---------------|
| Crawler / Excavator Loader | | CNP 082 | 6 | 94 | 70% | 0 | 100 |
| Dump Truck | | CNP 067 | 6 | 117 | 30% | 0 | 120 |
| Crane, mobile | | CNP 048 | 3 | 112 | 30% | 0 | 112 |
| Overall Noise Level, dB(A) | | | | | | | 120 |

Construct NOV

(02/2016-05/2016)

| | PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|-----------------------------------|-----|-----------------------|--------------|--------------------|------------|-----------------------|---------------|
| Crane, mobile | | CNP 048 | 1 | 112 | 30% | 0 | 107 |
| Bar Bender and Cutter | | CNP 021 | 2 | 90 | 30% | 0 | 88 |
| Concrete Mixer Truck | | CNP 044 | 2 | 109 | 30% | 0 | 107 |
| Poker, vibrator, hand-held | | CNP 170 | 2 | 113 | 30% | 0 | 111 |
| Concrete Pump Truck | | CNP 047 | 1 | 109 | 30% | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 114 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - IMT Fabrication Casting Basin

Scenario:

Unmitigated 

Package: 11 IMT Session

Shek O Casting Basin

Formation of Casting Basin at Shek O

(09/2014-08/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|--------------------|------------|--------------------|---------------|
| Excavator | CNP 081 | 2 | 112 | 100% | 0 | 115.0103 |
| Dump Truck | CNP 067 | 3 | 117 | 30% | 0 | 117 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 30% | 0 | 117 |
| Water Pump (electric) | CNP 282 | 4 | 103 | 80% | 0 | 108 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | 0 | 108 |
| Air Compressor | CNP 002 | 1 | 102 | 100% | 0 | 102 |
| Overall Noise Level, dB(A) | | | | | | 121 |

Casting IMT units and Barging Point

(09/2015-03/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|--------------------|------------|--------------------|---------------|
| Bar bender and cutter (electric) | CNP 021 | 2 | 90 | 30% | 0 | 88 |
| Tower Crane | CNP 049 | 3 | 95 | 80% | 0 | 99 |
| Concrete Pump | CNP 047 | 4 | 109 | 30% | 0 | 110 |
| Concrete lorry mixer | CNP 044 | 4 | 109 | 30% | 0 | 110 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 107 |
| Derrick Barges | CNP 061 | 1 | 104 | 30% | 0 | 99 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | 0 | 108 |
| Air Compressor | CNP 002 | 2 | 102 | 100% | 0 | 105 |
| Poker, vibrator, hand-held | CNP 170 | 2 | 113 | 30% | 0 | 111 |
| Overall Noise Level, dB(A) | | | | | | 117 |

Concrete Batching Plant

(09/2015-03/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|--------------------|------------|--------------------|---------------|
| Concrete Batching Plant | CNP 022 | 1 | 108 | 50% | 0 | 105 |
| Wheel Loader | CNP 081 | 1 | 112 | 60% | 0 | 110 |
| Concrete Pump | CNP 047 | 4 | 109 | 30% | 0 | 110 |
| Concrete lorry mixer | CNP 044 | 4 | 109 | 30% | 0 | 110 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 107 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | 0 | 108 |
| Air Compressor | CNP 002 | 2 | 102 | 100% | 0 | 105 |
| Overall Noise Level, dB(A) | | | | | | 117 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - IMT to SOV - Construction of cut and cover tunnel section

Scenario: Unmitigated 

Package: 10 IMT to SOV POC

Construction of cut and cover tunnel section (outside breakwater - SCL 2)

Dredging (07/2015-08/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Tug Boat | CNP 221 | 2 | 110 | 30% | 0 | 0 | 108 |
| Derrick barges | CNP 061 | 2 | 104 | 100% | 0 | 0 | 107 |
| Dredger, chain bucket | CNP 062 | 1 | 118 | 100% | 0 | 0 | 118 |
| Dredger, grab | CNP 063 | 1 | 112 | 100% | 0 | 0 | 112 |
| Excavator | CNP 081 | 2 | 112 | 100% | 0 | 0 | 115 |
| Conveyor Belt (mounted on barges) | CNP 041 | 1 | 90 | 50% | 0 | 0 | 87 |
| Overall Noise Level, dB(A) | | | | | | | 121 |

Rockfill to Temporary Seawall (09/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Tug Boat | CNP 221 | 2 | 110 | 30% | 0 | 0 | 108 |
| Derrick barges | CNP 061 | 2 | 104 | 100% | 0 | 0 | 107 |
| Dredger, chain bucket | CNP 062 | 1 | 118 | 100% | 0 | 0 | 118 |
| Dredger, grab | CNP 063 | 1 | 112 | 100% | 0 | 0 | 112 |
| Excavator | CNP 081 | 2 | 112 | 100% | 0 | 0 | 115 |
| Conveyor Belt (mounted on barges) | CNP 041 | 1 | 90 | 50% | 0 | 0 | 87 |
| Overall Noise Level, dB(A) | | | | | | | 121 |

Temporary Seawall Construction (10/2015-11/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Tug Boat | CNP 221 | 2 | 110 | 30% | 0 | 0 | 108 |
| Derrick barges | CNP 061 | 2 | 104 | 100% | 0 | 0 | 107 |
| Dredger, chain bucket | CNP 062 | 1 | 118 | 100% | 0 | 0 | 118 |
| Dredger, grab | CNP 063 | 1 | 112 | 100% | 0 | 0 | 112 |
| Excavator | CNP 081 | 2 | 112 | 100% | 0 | 0 | 115 |
| Conveyor Belt (mounted on barges) | CNP 041 | 1 | 90 | 50% | 0 | 0 | 87 |
| Overall Noise Level, dB(A) | | | | | | | 121 |

Filling behind Temporary Seawall (12/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Tug Boat | CNP 221 | 2 | 110 | 30% | 0 | 0 | 108 |
| Derrick barges | CNP 061 | 2 | 104 | 100% | 0 | 0 | 107 |
| Dredger, chain bucket | CNP 062 | 1 | 118 | 100% | 0 | 0 | 118 |
| Dredger, grab | CNP 063 | 1 | 112 | 100% | 0 | 0 | 112 |
| Excavator | CNP 081 | 2 | 112 | 100% | 0 | 0 | 115 |
| Conveyor Belt (mounted on barges) | CNP 041 | 1 | 90 | 50% | 0 | 0 | 87 |
| Overall Noise Level, dB(A) | | | | | | | 121 |

Diaphragm Wall Construction (01/2016-03/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Air Compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 3 | 103 | 80% | 0 | 0 | 107 |
| Crawler crane, mobile | CNP 048 | 2 | 112 | 60% | 0 | 0 | 113 |
| Piling, diaphragm wall, benetonite filtering plant | CNP 162 | 1 | 105 | 100% | 0 | 0 | 105 |
| Piling, diaphragm wall, hydraulic extractor | CNP 163 | 1 | 90 | 100% | 0 | 0 | 90 |
| Bentonite Mixer | CNP 045 | 1 | 96 | 100% | 0 | 0 | 96 |
| Welding Set | CNP 107 | 2 | 100 | 30% | 0 | 0 | 98 |
| Bar bender and cutter (electric) | CNP 021 | 1 | 90 | 50% | 0 | 0 | 87 |
| Concrete lorry mixer | CNP 044 | 2 | 109 | 50% | 0 | 0 | 109 |
| Drill rig, rotary type | CNP 072 | 1 | 110 | 70% | 0 | 0 | 108 |
| Grout Mixer | CNP 105 | 1 | 90 | 50% | 0 | 0 | 87 |
| Grout Pump | CNP 106 | 2 | 105 | 50% | 0 | 0 | 105 |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 30% | 0 | 0 | 100 |
| Overall Noise Level, dB(A) | | | | | | | 117 |

Soil Excavation (04/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Excavator | CNP 081 | 2 | 112 | 100% | -10 | 0 | 105 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 50% | -10 | 0 | 109 |
| Breaker, hand-held | CNP 024 | 1 | 108 | 50% | -10 | 0 | 95 |
| Welding Set | CNP 107 | 1 | 100 | 30% | -10 | 0 | 85 |
| Water Pump, submersible (electric) | CNP 283 | 2 | 85 | 100% | -10 | 0 | 78 |
| At Surface | | | | | | | |
| Crawler crane, mobile | CNP 048 | 1 | 112 | 60% | 0 | 0 | 110 |
| Ventilation Fans | CNP 241 | 1 | 108 | 100% | 0 | 0 | 108 |
| Tug Boat | CNP 221 | 1 | 110 | 30% | 0 | 0 | 105 |
| Derrick barges | CNP 061 | 1 | 104 | 100% | 0 | 0 | 104 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 80% | 0 | 0 | 102 |
| Overall Noise Level, dB(A) | | | | | | | 116 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - IMT to SOV - Construction of cut and cover tunnel section

Scenario: Unmitigated ▼

Package: 10 IMT to SOV POC

Tunnel Box Construction

(05/2016-07/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|------------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Bar bender and cutter (electric) | CNP 021 | 1 | 90 | 50% | -10 | 0 | 77 |
| Water Pump, submersible (electric) | CNP 283 | 2 | 85 | 100% | -10 | 0 | 78 |
| Compactor, vibratory | CNP 050 | 1 | 105 | 50% | -10 | 0 | 92 |
| At Surface | | | | | | | |
| Concrete lorry mixer | CNP 044 | 2 | 109 | 50% | 0 | 0 | 109 |
| Crawler crane, mobile | CNP 048 | 1 | 112 | 60% | 0 | 0 | 110 |
| Ventilation Fans | CNP 241 | 2 | 108 | 100% | 0 | 0 | 111 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 80% | 0 | 0 | 102 |
| Overall Noise Level, dB(A) | | | | | | | 115 |

Backfilling

(08/2016-09/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| On Sea | | | | | | | |
| Tug Boat | CNP 221 | 2 | 110 | 30% | 0 | 0 | 108 |
| Derrick barges | CNP 061 | 2 | 104 | 100% | 0 | 0 | 107 |
| Excavator | CNP 081 | 2 | 112 | 100% | 0 | 0 | 115 |
| Overall Noise Level, dB(A) | | | | | | | 116 |

Diaphragm Wall Removal

(08/2016-09/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Excavator | CNP 081 | 2 | 112 | 100% | -10 | 0 | 105 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 100% | -10 | 0 | 112 |
| Concrete crusher, excavator mounted | CNP 055 | 1 | 103 | 100% | -10 | 0 | 93 |
| Breaker, hand-held | CNP 024 | 1 | 108 | 50% | -10 | 0 | 95 |
| Welding Set | CNP 107 | 1 | 100 | 30% | -10 | 0 | 85 |
| Water Pump, submersible (electric) | CNP 283 | 2 | 85 | 100% | -10 | 0 | 78 |
| At Surface | | | | | | | |
| Ventilation Fans | CNP 241 | 1 | 108 | 100% | 0 | 0 | 108 |
| Tug Boat | CNP 221 | 2 | 110 | 30% | 0 | 0 | 108 |
| Derrick barges | CNP 061 | 2 | 104 | 100% | 0 | 0 | 107 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 80% | 0 | 0 | 102 |
| Overall Noise Level, dB(A) | | | | | | | 116 |

Construction of cut and cover tunnel section (inside breakwater - SCL 3.1)

Dredging

(01/2016-02/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Tug Boat | CNP 221 | 2 | 110 | 30% | 0 | 0 | 108 |
| Derrick barges | CNP 061 | 2 | 104 | 100% | 0 | 0 | 107 |
| Dredger, chain bucket | CNP 062 | 1 | 118 | 100% | 0 | 0 | 118 |
| Dredger, grab | CNP 063 | 1 | 112 | 100% | 0 | 0 | 112 |
| Excavator | CNP 081 | 2 | 112 | 100% | 0 | 0 | 115 |
| Conveyor Belt (mounted on barges) | CNP 041 | 1 | 90 | 50% | 0 | 0 | 87 |
| Overall Noise Level, dB(A) | | | | | | | 121 |

Rockfill to Temporary Seawall

(03/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Derrick barges | CNP 061 | 2 | 104 | 100% | 0 | 0 | 107 |
| Tug boat | CNP 221 | 1 | 110 | 100% | 0 | 0 | 110 |
| Crane, mobile | CNP 048 | 2 | 101 | 100% | 0 | 0 | 104 |
| Barges | CNP 061 | 2 | 0 | 100% | 0 | 0 | 0 |
| Overall Noise Level, dB(A) | | | | | | | 112 |

Temporary Seawall Construction

(04/2016-05/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Tug Boat | CNP 221 | 2 | 110 | 30% | 0 | 0 | 108 |
| Derrick barges | CNP 061 | 2 | 104 | 100% | 0 | 0 | 107 |
| Dredger, chain bucket | CNP 062 | 1 | 118 | 100% | 0 | 0 | 118 |
| Dredger, grab | CNP 063 | 1 | 112 | 100% | 0 | 0 | 112 |
| Excavator | CNP 081 | 2 | 112 | 100% | 0 | 0 | 115 |
| Conveyor Belt (mounted on barges) | CNP 041 | 1 | 90 | 50% | 0 | 0 | 87 |
| Overall Noise Level, dB(A) | | | | | | | 121 |

Filling behind Temporary Seawall

(06/2016-07/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Derrick barges | CNP 061 | 2 | 104 | 100% | 0 | 0 | 107 |
| Dredger, grab | CNP 063 | 2 | 0 | 100% | 0 | 0 | 0 |
| Tug Boat | CNP 221 | 2 | 110 | 100% | 0 | 0 | 113 |
| Bulldozer | CNP 030 | 2 | 104 | 100% | 0 | 0 | 107 |
| Overall Noise Level, dB(A) | | | | | | | 114.8 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - IMT to SOV - Construction of cut and cover tunnel section

Scenario:

Unmitigated ▼

Package: 10 IMT to SOV POC

Diaphragm Wall Construction

(08/2016-12/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Air Compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 3 | 103 | 80% | 0 | 0 | 107 |
| Crawler Crane, mobile | CNP 048 | 2 | 112 | 60% | 0 | 0 | 113 |
| Piling, diaphragm wall, benetonite filtering plant | CNP 162 | 1 | 105 | 100% | 0 | 0 | 105 |
| Piling, diaphragm wall, hydraulic extractor | CNP 163 | 1 | 90 | 100% | 0 | 0 | 90 |
| Bentonite Mixer | CNP 045 | 1 | 96 | 100% | 0 | 0 | 96 |
| Welding Set | CNP 107 | 2 | 100 | 30% | 0 | 0 | 98 |
| Bar bender and cutter (electric) | CNP 021 | 1 | 90 | 50% | 0 | 0 | 87 |
| Concrete lorry mixer | CNP 044 | 2 | 109 | 50% | 0 | 0 | 109 |
| Drill rig, rotary type | CNP 072 | 1 | 110 | 70% | 0 | 0 | 108 |
| Grout Mixer | CNP 105 | 1 | 90 | 50% | 0 | 0 | 87 |
| Grout Pump | CNP 106 | 2 | 105 | 50% | 0 | 0 | 105 |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 30% | 0 | 0 | 100 |

Overall Noise Level, dB(A) 117

Soil Excavation

(01/2017-02/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Excavator | CNP 081 | 2 | 112 | 100% | -10 | 0 | 105 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 50% | -10 | 0 | 109 |
| Breaker, hand-held | CNP 024 | 1 | 108 | 50% | -10 | 0 | 95 |
| Welding Set | CNP 107 | 1 | 100 | 30% | -10 | 0 | 85 |
| Water Pump, submersible (electric) | CNP 283 | 2 | 85 | 100% | -10 | 0 | 78 |
| At Surface | | | | | | | |
| Crawler crane, mobile | CNP 048 | 1 | 112 | 60% | 0 | 0 | 110 |
| Ventilation Fans | CNP 241 | 1 | 108 | 100% | 0 | 0 | 108 |
| Tug Boat | CNP 221 | 1 | 110 | 30% | 0 | 0 | 105 |
| Derrick barges | CNP 061 | 1 | 104 | 100% | 0 | 0 | 104 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 80% | 0 | 0 | 102 |

Overall Noise Level, dB(A) 116

Tunnel Box Construction

(03/2017-07/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|------------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Bar bender and cutter (electric) | CNP 021 | 1 | 90 | 50% | -10 | 0 | 77 |
| Water Pump, submersible (electric) | CNP 283 | 2 | 85 | 100% | -10 | 0 | 78 |
| Compactor, vibratory | CNP 050 | 1 | 105 | 50% | -10 | 0 | 92 |
| At Surface | | | | | | | |
| Concrete lorry mixer | CNP 044 | 2 | 109 | 50% | 0 | 0 | 109 |
| Crawler crane, mobile | CNP 048 | 1 | 112 | 60% | 0 | 0 | 110 |
| Ventilation Fans | CNP 241 | 2 | 108 | 100% | 0 | 0 | 111 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 80% | 0 | 0 | 102 |

Overall Noise Level, dB(A) 115

Backfilling

(08/2017-10/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|----------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| On Sea | | | | | | | |
| Tug Boat | CNP 221 | 2 | 110 | 30% | 0 | 0 | 108 |
| Derrick barges | CNP 061 | 2 | 104 | 100% | 0 | 0 | 107 |
| Excavator | CNP 081 | 2 | 112 | 100% | 0 | 0 | 115 |

Overall Noise Level, dB(A) 116

Diaphragm Wall Removal

(08/2017-10/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Excavator | CNP 081 | 2 | 112 | 100% | -10 | 0 | 105 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 100% | -10 | 0 | 112 |
| Concrete crusher, excavator mounted | CNP 055 | 1 | 103 | 100% | -10 | 0 | 93 |
| Breaker, hand-held | CNP 024 | 1 | 108 | 50% | -10 | 0 | 95 |
| Welding Set | CNP 107 | 1 | 100 | 30% | -10 | 0 | 85 |
| Water Pump, submersible (electric) | CNP 283 | 2 | 85 | 100% | -10 | 0 | 78 |
| At Surface | | | | | | | |
| Ventilation Fans | CNP 241 | 1 | 108 | 100% | 0 | 0 | 108 |
| Tug Boat | CNP 221 | 2 | 110 | 30% | 0 | 0 | 108 |
| Derrick barges | CNP 061 | 2 | 104 | 100% | 0 | 0 | 107 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 80% | 0 | 0 | 102 |

Overall Noise Level, dB(A) 116

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - IMT to SOV - Construction of cut and cover tunnel section

Scenario: Unmitigated

Package: 10 IMT to SOV POC

Construction of cut and cover tunnel section (inside breakwater - SCL 3.2)

| | | | | | | | | (03/2017) |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|----------------------------------|
| | | | | | | | | Dredging |
| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL | |
| Tug Boat | CNP 221 | 2 | 110 | 30% | 0 | 0 | 108 | |
| Derrick barges | CNP 061 | 2 | 104 | 100% | 0 | 0 | 107 | |
| Dredger, chain bucket | CNP 062 | 1 | 118 | 100% | 0 | 0 | 118 | |
| Dredger, grab | CNP 063 | 1 | 112 | 100% | 0 | 0 | 112 | |
| Excavator | CNP 081 | 2 | 112 | 100% | 0 | 0 | 115 | |
| Conveyor Belt (mounted on barges) | CNP 041 | 1 | 90 | 50% | 0 | 0 | 87 | |
| Overall Noise Level, dB(A) | | | | | | | 121 | |
| | | | | | | | | (04/2017) |
| | | | | | | | | Rockfill to Temporary Seawall |
| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL | |
| Tug Boat | CNP 221 | 2 | 110 | 30% | 0 | 0 | 108 | |
| Derrick barges | CNP 061 | 2 | 104 | 100% | 0 | 0 | 107 | |
| Dredger, chain bucket | CNP 062 | 1 | 118 | 100% | 0 | 0 | 118 | |
| Dredger, grab | CNP 063 | 1 | 112 | 100% | 0 | 0 | 112 | |
| Excavator | CNP 081 | 2 | 112 | 100% | 0 | 0 | 115 | |
| Conveyor Belt (mounted on barges) | CNP 041 | 1 | 90 | 50% | 0 | 0 | 87 | |
| Overall Noise Level, dB(A) | | | | | | | 121 | |
| | | | | | | | | (05/2017-06/2017) |
| | | | | | | | | Temporary Seawall Construction |
| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL | |
| Tug Boat | CNP 221 | 2 | 110 | 30% | 0 | 0 | 108 | |
| Derrick barges | CNP 061 | 2 | 104 | 100% | 0 | 0 | 107 | |
| Dredger, chain bucket | CNP 062 | 1 | 118 | 100% | 0 | 0 | 118 | |
| Dredger, grab | CNP 063 | 1 | 112 | 100% | 0 | 0 | 112 | |
| Excavator | CNP 081 | 2 | 112 | 100% | 0 | 0 | 115 | |
| Conveyor Belt (mounted on barges) | CNP 041 | 1 | 90 | 50% | 0 | 0 | 87 | |
| Overall Noise Level, dB(A) | | | | | | | 121 | |
| | | | | | | | | (07/2017) |
| | | | | | | | | Filling behind Temporary Seawall |
| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL | |
| Tug Boat | CNP 221 | 2 | 110 | 30% | 0 | 0 | 108 | |
| Derrick barges | CNP 061 | 2 | 104 | 100% | 0 | 0 | 107 | |
| Dredger, chain bucket | CNP 062 | 1 | 118 | 100% | 0 | 0 | 118 | |
| Dredger, grab | CNP 063 | 1 | 112 | 100% | 0 | 0 | 112 | |
| Excavator | CNP 081 | 2 | 112 | 100% | 0 | 0 | 115 | |
| Conveyor Belt (mounted on barges) | CNP 041 | 1 | 90 | 50% | 0 | 0 | 87 | |
| Overall Noise Level, dB(A) | | | | | | | 121 | |
| | | | | | | | | (08/2017-11/2017) |
| | | | | | | | | Diaphragm Wall Construction |
| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL | |
| Air Compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 | |
| Water Pump (electric) | CNP 282 | 3 | 103 | 80% | 0 | 0 | 107 | |
| Crawler crane, mobile | CNP 048 | 2 | 112 | 60% | 0 | 0 | 113 | |
| Piling, diaphragm wall, benetonite filtering plant | CNP 162 | 1 | 105 | 100% | 0 | 0 | 105 | |
| Piling, diaphragm wall, hydraulic extractor | CNP 163 | 1 | 90 | 100% | 0 | 0 | 90 | |
| Bentonite Mixer | CNP 045 | 1 | 96 | 100% | 0 | 0 | 96 | |
| Welding Set | CNP 107 | 2 | 100 | 30% | 0 | 0 | 98 | |
| Bar bender and cutter (electric) | CNP 021 | 1 | 90 | 50% | 0 | 0 | 87 | |
| Concrete lorry mixer | CNP 044 | 2 | 109 | 50% | 0 | 0 | 109 | |
| Drill rig, rotary type | CNP 072 | 1 | 110 | 70% | 0 | 0 | 108 | |
| Grout Mixer | CNP 105 | 1 | 90 | 50% | 0 | 0 | 87 | |
| Grout Pump | CNP 106 | 2 | 105 | 50% | 0 | 0 | 105 | |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 30% | 0 | 0 | 100 | |
| Overall Noise Level, dB(A) | | | | | | | 117 | |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - IMT to SOV - Construction of cut and cover tunnel section

Scenario: Unmitigated 

Package: 10 IMT to SOV POC

Soil Excavation

(12/2017-01/2018)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Excavator | CNP 081 | 2 | 112 | 100% | -10 | 0 | 105 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 50% | -10 | 0 | 109 |
| Breaker, hand-held | CNP 024 | 1 | 108 | 50% | -10 | 0 | 95 |
| Welding Set | CNP 107 | 1 | 100 | 30% | -10 | 0 | 85 |
| Water Pump, submersible (electric) | CNP 283 | 2 | 85 | 100% | -10 | 0 | 78 |
| At Surface | | | | | | | |
| Crawler crane, mobile | CNP 048 | 1 | 112 | 60% | 0 | 0 | 110 |
| Ventilation Fans | CNP 241 | 1 | 108 | 100% | 0 | 0 | 108 |
| Tug Boat | CNP 221 | 1 | 110 | 30% | 0 | 0 | 105 |
| Derrick barges | CNP 061 | 1 | 104 | 100% | 0 | 0 | 104 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 80% | 0 | 0 | 102 |
| Overall Noise Level, dB(A) | | | | | | | 116 |

Tunnel Box Construction

(02/2018-05/2018)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|------------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Bar bender and cutter (electric) | CNP 021 | 1 | 90 | 50% | -10 | 0 | 77 |
| Water Pump, submersible (electric) | CNP 283 | 2 | 85 | 100% | -10 | 0 | 78 |
| Compactor, vibratory | CNP 050 | 1 | 105 | 50% | -10 | 0 | 92 |
| At Surface | | | | | | | |
| Concrete lorry mixer | CNP 044 | 2 | 109 | 50% | 0 | 0 | 109 |
| Crawler crane, mobile | CNP 048 | 1 | 112 | 60% | 0 | 0 | 110 |
| Ventilation Fans | CNP 241 | 2 | 108 | 100% | 0 | 0 | 111 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 80% | 0 | 0 | 102 |
| Overall Noise Level, dB(A) | | | | | | | 115 |

Backfilling

(06/2018-08/2018)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| On Sea | | | | | | | |
| Tug Boat | CNP 221 | 2 | 110 | 30% | 0 | 0 | 108 |
| Derrick barges | CNP 061 | 2 | 104 | 100% | 0 | 0 | 107 |
| Excavator | CNP 081 | 2 | 112 | 100% | 0 | 0 | 115 |
| Overall Noise Level, dB(A) | | | | | | | 116 |

Diaphragm Wall Removal

(06/2018-08/2018)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Excavator | CNP 081 | 2 | 112 | 100% | -10 | 0 | 105 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 100% | -10 | 0 | 112 |
| Concrete crusher, excavator mounted | CNP 055 | 1 | 103 | 100% | -10 | 0 | 93 |
| Breaker, hand-held | CNP 024 | 1 | 108 | 50% | -10 | 0 | 95 |
| Welding Set | CNP 107 | 1 | 100 | 30% | -10 | 0 | 85 |
| Water Pump, submersible (electric) | CNP 283 | 2 | 85 | 100% | -10 | 0 | 78 |
| At Surface | | | | | | | |
| Ventilation Fans | CNP 241 | 1 | 108 | 100% | 0 | 0 | 108 |
| Tug Boat | CNP 221 | 2 | 110 | 30% | 0 | 0 | 108 |
| Derrick barges | CNP 061 | 2 | 104 | 100% | 0 | 0 | 107 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 80% | 0 | 0 | 102 |
| Overall Noise Level, dB(A) | | | | | | | 116 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - Cut and Cover Tunnel, SOV and POC

Scenario: Unmitigated ▼

Package: 09 C&C Tunnel (CBTS to SOV), SOV & POC

SOV Construction

Installing Hoarding (10/2014-12/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|--------------------|---------------|
| Generator, super silenced | CNP 103 | 1 | 95 | 70% | 0 | 93 |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 60% | 0 | 103 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 107 |
| Overall Noise Level, dB(A) | | | | | | 108 |

Demolition of existing POC building (10/2014-12/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|--------------------|---------------|
| Saw, concrete | CNP 203 | 1 | 115 | 30% | 0 | 110 |
| Air Compressor | CNP 002 | 2 | 102 | 100% | 0 | 105 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 3 | 122 | 70% | 0 | 125 |
| Dump truck with grab | CNP 069 | 1 | 105 | 30% | 0 | 100 |
| Dump truck | CNP 067 | 3 | 117 | 30% | 0 | 117 |
| Overall Noise Level, dB(A) | | | | | | 126 |

Diaphragm Wall Construction (01/2015-04/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|--------------------|---------------|
| Piling, diaphragm wall, bentonite filtering plant | CNP 162 | 2 | 105 | 80% | 0 | 107 |
| Piling, diaphragm wall, hydraulic extractor | CNP 163 | 2 | 90 | 80% | 0 | 92 |
| Piling, diaphragm wall, grab and chisel | CNP 164 | 2 | 115 | 60% | 0 | 116 |
| Dumper Truck | CNP 067 | 4 | 117 | 60% | 0 | 121 |
| Concrete pump, stationary/lorry mounted | CNP 047 | 2 | 109 | 50% | 0 | 109 |
| Crane, mobile | CNP 048 | 2 | 112 | 50% | 0 | 112 |
| Bar Bender | CNP 021 | 1 | 90 | 80% | 0 | 89 |
| Air Compressor | CNP 002 | 2 | 102 | 100% | 0 | 105 |
| Concrete lorry mixer | CNP 044 | 4 | 109 | 30% | 0 | 110 |
| Overall Noise Level, dB(A) | | | | | | 123 |

Excavation work at SOV (05/2015-9/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|--------------------|---------------|
| Hand held pneumatic breaker | CNP 026 | 10 | 114 | 30% | 0 | 119 |
| Air Compressor | CNP 002 | 5 | 102 | 30% | 0 | 104 |
| Backhoe with hydraulic breaker | CNP 028 | 4 | 122 | 50% | 0 | 125 |
| Excavator | CNP 081 | 4 | 112 | 100% | 0 | 118 |
| Overall Noise Level, dB(A) | | | | | | 127 |

Construction of TBM launching shaft / SOV (10/2015-04/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|--------------------|---------------|
| Poker, vibrator, hand-held | CNP 170 | 3 | 113 | 30% | 0 | 113 |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 30% | 0 | 100 |
| Rock Drill | CNP 182 | 4 | 123 | 50% | 0 | 126 |
| Piling, large diameter bored, grab and chisel | CNP 164 | 1 | 115 | 50% | 0 | 112 |
| Air Compressor | CNP 002 | 1 | 102 | 100% | 0 | 102 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 104 |
| Concrete pump | CNP 047 | 1 | 109 | 30% | 0 | 104 |
| Crane, mobile | CNP 048 | 1 | 112 | 30% | 0 | 107 |
| Overall Noise Level, dB(A) | | | | | | 126 |

SOV Construction (05/2016-12/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|--------------------|---------------|
| Poker, vibrator, hand-held | CNP 170 | 3 | 113 | 30% | 0 | 113 |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 30% | 0 | 100 |
| Air Compressor | CNP 002 | 1 | 102 | 100% | 0 | 102 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 104 |
| Concrete pump | CNP 047 | 1 | 109 | 30% | 0 | 104 |
| Crane, mobile | CNP 048 | 1 | 112 | 30% | 0 | 107 |
| Overall Noise Level, dB(A) | | | | | | 115 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - Cut and Cover Tunnel, SOV and POC

Scenario:

Unmitigated 

Package: 09 C&C Tunnel (CBTS to SOV), SOV & POC

Construction of cut and cover tunnel section (SCL 1.4)

Diaphragm Wall Construction

(03/2015-05/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Air Compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 3 | 103 | 80% | 0 | 0 | 107 |
| Crawler crane, mobile | CNP 048 | 2 | 112 | 60% | 0 | 0 | 113 |
| Piling, diaphragm wall, benetonite filtering plant | CNP 162 | 1 | 105 | 100% | 0 | 0 | 105 |
| Piling, diaphragm wall, hydraulic extractor | CNP 163 | 1 | 90 | 100% | 0 | 0 | 90 |
| Bentonite Mixer | CNP 045 | 1 | 96 | 100% | 0 | 0 | 96 |
| Welding Set | CNP 107 | 2 | 100 | 30% | 0 | 0 | 98 |
| Bar bender and cutter (electric) | CNP 021 | 1 | 90 | 50% | 0 | 0 | 87 |
| Concrete lorry mixer | CNP 044 | 2 | 109 | 50% | 0 | 0 | 109 |
| Drill rig, rotary type | CNP 072 | 1 | 110 | 70% | 0 | 0 | 108 |
| Grout Mixer | CNP 105 | 1 | 90 | 50% | 0 | 0 | 87 |
| Grout Pump | CNP 106 | 2 | 105 | 50% | 0 | 0 | 105 |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 30% | 0 | 0 | 100 |
| Overall Noise Level, dB(A) | | | | | | | 117 |

Excavation Works

(06/2015-09/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Hand held pneumatic breaker | CNP 026 | 10 | 114 | 30% | 0 | 0 | 119 |
| Air Compressor | CNP 002 | 5 | 102 | 30% | 0 | 0 | 104 |
| Backhoe with hydraulic breaker | CNP 028 | 4 | 122 | 50% | 0 | 0 | 125 |
| Excavator | CNP 081 | 4 | 112 | 100% | 0 | 0 | 118 |
| Overall Noise Level, dB(A) | | | | | | | 127 |

Tunnel Box Construction

(10/2015-12/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|------------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Bar bender and cutter (electric) | CNP 021 | 1 | 90 | 50% | -10 | 0 | 77 |
| Water Pump, submersible (electric) | CNP 283 | 2 | 85 | 100% | -10 | 0 | 78 |
| Compactor, vibratory | CNP 050 | 1 | 105 | 50% | -10 | 0 | 92 |
| At Surface | | | | | | | |
| Concrete lorry mixer | CNP 044 | 2 | 109 | 50% | 0 | 0 | 109 |
| Crawler crane, mobile | CNP 048 | 1 | 112 | 60% | 0 | 0 | 110 |
| Ventilation Fans | CNP 241 | 2 | 108 | 100% | 0 | 0 | 111 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 80% | 0 | 0 | 102 |
| Overall Noise Level, dB(A) | | | | | | | 115 |

Backfilling

(01/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| On Sea | | | | | | | |
| Tug Boat | CNP 221 | 2 | 110 | 30% | 0 | 0 | 108 |
| Derrick barges | CNP 061 | 2 | 104 | 100% | 0 | 0 | 107 |
| Excavator | CNP 081 | 2 | 112 | 100% | 0 | 0 | 115 |
| Overall Noise Level, dB(A) | | | | | | | 116 |

Diaphragm Wall Removal

(02/2016-04/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Excavator | CNP 081 | 2 | 112 | 100% | -10 | 0 | 105 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 100% | -10 | 0 | 112 |
| Concrete crusher, excavator mounted | CNP 055 | 1 | 103 | 100% | -10 | 0 | 93 |
| Breaker, hand-held | CNP 024 | 1 | 108 | 50% | -10 | 0 | 95 |
| Welding Set | CNP 107 | 1 | 100 | 30% | -10 | 0 | 85 |
| Water Pump, submersible (electric) | CNP 283 | 2 | 85 | 100% | -10 | 0 | 78 |
| At Surface | | | | | | | |
| Ventilation Fans | CNP 241 | 1 | 108 | 100% | 0 | 0 | 108 |
| Tug Boat | CNP 221 | 2 | 110 | 30% | 0 | 0 | 108 |
| Derrick barges | CNP 061 | 2 | 104 | 100% | 0 | 0 | 107 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 80% | 0 | 0 | 102 |
| Overall Noise Level, dB(A) | | | | | | | 116 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - Cut and Cover Tunnel, SOV and POC

Scenario: Unmitigated

Package: 09 C&C Tunnel (CBTS to SOV), SOV & POC

New POC Construction

Piling: 610mm Diameter Pre-Bored H-Pile (Without SOV Basement) (01/2018-04/2018)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|--------------------|---------------|
| Crane, Mobile | CNP 048 | 1 | 112 | 30% | 0 | 107 |
| Piling, earth auger, auger | CNP 167 | 1 | 114 | 30% | 0 | 109 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 107 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | 113 |

Construction of new POC building (05/2018-11/2018)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|--------------------|---------------|
| Bar Bender | CNP 021 | 2 | 90 | 50% | 0 | 90 |
| Poker, vibrator, hand-held | CNP 170 | 3 | 113 | 30% | 0 | 113 |
| Air Compressor | CNP 002 | 1 | 102 | 100% | 0 | 102 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 104 |
| Concrete pump | CNP 047 | 1 | 109 | 30% | 0 | 104 |
| Crane, mobile | CNP 048 | 1 | 112 | 30% | 0 | 107 |
| Overall Noise Level, dB(A) | | | | | | 115 |

E&M Installation (11/2018-07/2019)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|--------------------|---------------|
| Crane, Mobile | CNP 048 | 1 | 112 | 30% | 0 | 107 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 107 |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 30% | 0 | 100 |
| Overall Noise Level, dB(A) | | | | | | 110 |

Dismantle Hoarding (08/2019)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|------------------------------------|--------------------|--------------|-----------------|------------|--------------------|---------------|
| Generator, super silenced | CNP 103 | 1 | 95 | 70% | 0 | 93 |
| Cutter circular, steel (electric) | CNP 056 | 1 | 112 | 70% | 0 | 110 |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 60% | 0 | 103 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 107 |
| Overall Noise Level, dB(A) | | | | | | 113 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - SOV to EXH

Scenario: Unmitigated ▼

Package: 08 TBM Tunnels SOV to EXH

* The Works Area with length to width ratio exceeding 5 : 1 is divided into Subareas.

Reconstruct of Percival Street Footbridge

Site Clearance and Hoarding and Utility diversion

(03/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 60% | 0 | 0 | 110 |
| Air Compressor | CNP 002 | 1 | 102 | 40% | 0 | 0 | 98 |
| Hand held breaker | CNP 025 | 2 | 111 | 40% | 0 | 0 | 110 |
| Dump truck with grab | CNP 069 | 1 | 105 | 60% | 0 | 0 | 103 |
| Welder/generator | CNP 107 | 1 | 100 | 40% | 0 | 0 | 96 |
| Overall Noise Level, dB(A) | | | | | | | 114 |

Construction of temporary footbridge

(04/2014-07/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Welder/generator, portable | CNP 107 | 1 | 100 | 70% | 0 | 0 | 98 |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 60% | 0 | 0 | 103 |
| Overall Noise Level, dB(A) | | | | | | | 104 |

Demolish of portion of existing footbridge

(08/2014-09/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Saw, concrete | CNP 203 | 1 | 115 | 30% | 0 | 0 | 110 |
| Air Compressor | CNP 002 | 1 | 102 | 40% | 0 | 0 | 98 |
| Hand held breaker | CNP 025 | 2 | 111 | 40% | 0 | 0 | 110 |
| Dump truck with grab | CNP 069 | 1 | 105 | 80% | 0 | 0 | 104 |
| Welder/generator | CNP 107 | 1 | 100 | 30% | 0 | 0 | 95 |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 60% | 0 | 0 | 103 |
| Excavator | CNP 081 | 1 | 112 | 60% | 0 | 0 | 110 |
| hydraulic breaker | CNP 028 | 1 | 122 | 60% | 0 | 0 | 120 |
| Overall Noise Level, dB(A) | | | | | | | 121 |

Removal of closed and potential closed piles

(10/2014-03/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Welder/generator, portable | CNP 107 | 1 | 100 | 30% | 0 | 0 | 95 |
| Poker, vibrator, hand-held | CNP 170 | 3 | 113 | 30% | 0 | 0 | 113 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Crane, mobile | CNP 048 | 1 | 112 | 70% | 0 | 0 | 110 |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 80% | 0 | 0 | 104 |
| concrete pump truck | CNP 047 | 1 | 109 | 30% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 116 |

Reconstruction of permanent footbridge

(04/2015-09/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Drill rig, rotary type | CNP 072 | 1 | 110 | 80% | 0 | 0 | 109 |
| Water pump (electric) | CNP 282 | 1 | 103 | 100% | 0 | 0 | 103 |
| Overall Noise Level, dB(A) | | | | | | | 110 |

Temporary Bridge Removal and Reinstate Landscaping

(10/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 40% | 0 | 0 | 108 |
| Dump truck | CNP 067 | 2 | 117 | 30% | 0 | 0 | 115 |
| Crane, mobile | CNP 048 | 1 | 112 | 90% | 0 | 0 | 112 |
| Welder/generator | CNP 107 | 1 | 100 | 40% | 0 | 0 | 96 |
| Overall Noise Level, dB(A) | | | | | | | 117 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - SOV to EXH

Scenario: ▼

Package: 08 TBM Tunnels SOV to EXH

* The Works Area with length to width ratio exceeding 5 : 1 is divided into Subareas.

Underpinning of Canal Road Flyover

Site Clearance and Hoarding and Utility diversion

(05/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 80% | 0 | 0 | 111 |
| Air Compressor | CNP 002 | 1 | 102 | 40% | 0 | 0 | 98 |
| Hand held breaker | CNP 025 | 2 | 111 | 40% | 0 | 0 | 110 |
| Dump truck with grab | CNP 069 | 1 | 105 | 60% | 0 | 0 | 103 |
| Welder/generator | CNP 107 | 1 | 100 | 40% | 0 | 0 | 96 |
| Overall Noise Level, dB(A) | | | | | | | 114 |

Excavation and Construction of pre-bored H-piles

(06/2015-02/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Crane, mobile | CNP 048 | 1 | 112 | 60% | 0 | 0 | 110 |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 40% | 0 | 0 | 101 |
| Rock Drill | CNP 182 | 1 | 123 | 30% | 0 | 0 | 118 |
| Air Compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Piling, large diameter bored, grab and chisel | CNP 164 | 1 | 115 | 70% | 0 | 0 | 113 |
| Welder/generator, portable | CNP 107 | 1 | 100 | 50% | 0 | 0 | 97 |
| Overall Noise Level, dB(A) | | | | | | | 120 |

Construct new pile cap and ground beams

(03/2016-09/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Poker, vibrator, hand-held | CNP 170 | 3 | 113 | 30% | 0 | 0 | 113 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Excavator | CNP 081 | 1 | 112 | 30% | 0 | 0 | 107 |
| Dump truck with grab | CNP 069 | 1 | 105 | 30% | 0 | 0 | 100 |
| Overall Noise Level, dB(A) | | | | | | | 114 |

Backfill and reinstatement

(10/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Mini backhoe | CNP 082 | 1 | 94 | 80% | 0 | 0 | 93 |
| Excavator | CNP 081 | 1 | 112 | 30% | 0 | 0 | 107 |
| Compactor, vibratory | CNP 050 | 1 | 105 | 30% | 0 | 0 | 100 |
| Overall Noise Level, dB(A) | | | | | | | 108 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - SOV to EXH

Scenario:

Unmitigated ▼

Package: 08 TBM Tunnels SOV to EXH

* The Works Area with length to width ratio exceeding 5 : 1 is divided into Subareas.

Diversion of Canal Road Culvert & Removal of Piles

Site Clearance and Hoarding and Utility diversion

(02/2014-03/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 40% | 0 | 0 | 108 |
| Air Compressor | CNP 002 | 1 | 102 | 50% | 0 | 0 | 99 |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 60% | 0 | 0 | 103 |
| Hand held breaker | CNP 025 | 1 | 111 | 50% | 0 | 0 | 108 |
| Dump truck with grab | CNP 069 | 1 | 105 | 60% | 0 | 0 | 103 |
| Welder/generator | CNP 107 | 1 | 100 | 40% | 0 | 0 | 96 |
| Overall Noise Level, dB(A) | | | | | | | 112 |

Culvert Diversion

(04/2014-04/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Mini Backhoe | CNP 082 | 1 | 94 | 50% | 0 | 0 | 91 |
| Dump Truck | CNP 067 | 1 | 117 | 30% | 0 | 0 | 112 |
| Bar Bender and Cutter | CNP 021 | 1 | 90 | 30% | 0 | 0 | 85 |
| Concrete Mixer Truck | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 112 |

Remove of piles

(09/2014-02/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Air Compressor | CNP 002 | 1 | 102 | 30% | 0 | 0 | 97 |
| Hand held breaker | CNP 025 | 2 | 111 | 30% | 0 | 0 | 109 |
| Dump truck with grab | CNP 069 | 1 | 105 | 30% | 0 | 0 | 100 |
| Welder/generator | CNP 107 | 1 | 100 | 30% | 0 | 0 | 95 |
| Crane, mobile | CNP 048 | 1 | 112 | 40% | 0 | 0 | 108 |
| Piling, large diameter bored, grab and chisel | CNP 164 | 1 | 115 | 60% | 0 | 0 | 113 |
| Overall Noise Level, dB(A) | | | | | | | 115 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - SOV to EXH

Scenario:

Unmitigated

Package: 08 TBM Tunnels SOV to EXH

* The Works Area with length to width ratio exceeding 5 : 1 is divided into Subareas.

Pile Removal at Wan Shing Street Footbridge

Site Clearance and Hoarding and Utility diversion

(02/2014-03/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 80% | 0 | 0 | 111 |
| Air Compressor | CNP 002 | 1 | 102 | 40% | 0 | 0 | 98 |
| Hand held breaker | CNP 025 | 2 | 111 | 40% | 0 | 0 | 110 |
| Dump truck with grab | CNP 069 | 1 | 105 | 60% | 0 | 0 | 103 |
| Welder/generator | CNP 107 | 1 | 100 | 40% | 0 | 0 | 96 |
| Overall Noise Level, dB(A) | | | | | | | 114 |

Construction of new footbridge

(04/2014-04/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Welder/generator, portable | CNP 107 | 1 | 100 | 30% | 0 | 0 | 95 |
| Piling, large diameter bored, grab and chisel | CNP 164 | 1 | 115 | 30% | 0 | 0 | 110 |
| Rock Drill | CNP 182 | 1 | 123 | 30% | 0 | 0 | 118 |
| Poker, vibrator, hand-held | CNP 170 | 3 | 113 | 40% | 0 | 0 | 114 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 40% | 0 | 0 | 105 |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 50% | 0 | 0 | 102 |
| Excavator | CNP 081 | 1 | 112 | 30% | 0 | 0 | 107 |
| Overall Noise Level, dB(A) | | | | | | | 120 |
| *Subarea Noise Level (Work Site 30401), dB(A) | | | | | | | 117 |
| *Subarea Noise Level (Work Site 30402), dB(A) | | | | | | | 117 |

Demolition of existing footbridge

(06/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Saw, concrete | CNP 203 | 1 | 115 | 30% | 0 | 0 | 110 |
| Air Compressor | CNP 002 | 1 | 102 | 50% | 0 | 0 | 99 |
| Hand held breaker | CNP 025 | 2 | 111 | 50% | 0 | 0 | 111 |
| Dump truck with grab | CNP 069 | 1 | 105 | 80% | 0 | 0 | 104 |
| Welder/generator | CNP 107 | 1 | 100 | 60% | 0 | 0 | 98 |
| Excavator | CNP 081 | 1 | 112 | 50% | 0 | 0 | 109 |
| hydraulic breaker | CNP 028 | 1 | 122 | 50% | 0 | 0 | 119 |
| Overall Noise Level, dB(A) | | | | | | | 121 |

Removal of piles for existing footbridge & abandoned box culvert

(07/2015-09/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Rock Drill Crawler | CNP 182 | 1 | 123 | 50% | 0 | 0 | 120 |
| Excavator | CNP 081 | 1 | 112 | 50% | 0 | 0 | 109 |
| Grout mixer | CNP 105 | 1 | 90 | 30% | 0 | 0 | 85 |
| Grout pump | CNP 106 | 1 | 105 | 30% | 0 | 0 | 100 |
| Air Compressor | CNP 002 | 1 | 102 | 50% | 0 | 0 | 99 |
| Dump truck with grab | CNP 069 | 1 | 105 | 40% | 0 | 0 | 101 |
| Welder/generator | CNP 107 | 1 | 100 | 30% | 0 | 0 | 95 |
| Crane, mobile | CNP 048 | 1 | 112 | 70% | 0 | 0 | 110 |
| Overall Noise Level, dB(A) | | | | | | | 121 |

Reinstatement

(10/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Welder/generator, portable | CNP 107 | 1 | 100 | 40% | 0 | 0 | 96 |
| Excavator | CNP 081 | 1 | 112 | 70% | 0 | 0 | 110 |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 30% | 0 | 0 | 100 |
| Overall Noise Level, dB(A) | | | | | | | 111 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - SOV to EXH

Scenario:

Unmitigated ▼

Package: 08 TBM Tunnels SOV to EXH

* The Works Area with length to width ratio exceeding 5 : 1 is divided into Subareas.

Underpinning of Pier of Causeway Flyover

Site Clearance and Hoarding and Utility diversion

(05/2015)

| | PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|-----|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator | | CNP 081 | 1 | 112 | 80% | 0 | 0 | 111 |
| Air Compressor | | CNP 002 | 1 | 102 | 40% | 0 | 0 | 98 |
| Hand held breaker | | CNP 025 | 2 | 111 | 40% | 0 | 0 | 110 |
| Dump truck with grab | | CNP 069 | 1 | 105 | 60% | 0 | 0 | 103 |
| Welder/generator | | CNP 107 | 1 | 100 | 40% | 0 | 0 | 96 |
| Overall Noise Level, dB(A) | | | | | | | | 114 |

Excavation and Construction of new piles

(06/2015-06/2016)

| | PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|-----|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Lorry with crane/grab | | CNP 145 | 1 | 105 | 30% | 0 | 0 | 100 |
| Rock Drill | | CNP 182 | 1 | 123 | 30% | 0 | 0 | 118 |
| Excavator | | CNP 081 | 1 | 112 | 60% | 0 | 0 | 110 |
| Piling, large diameter bored, grab and chisel | | CNP 164 | 1 | 115 | 40% | 0 | 0 | 111 |
| Welder/generator, portable | | CNP 107 | 1 | 100 | 80% | 0 | 0 | 99 |
| Overall Noise Level, dB(A) | | | | | | | | 119 |

Construct pile cap

(09/2015-07/2016)

| | PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|-----|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Poker, vibrator, hand-held | | CNP 170 | 2 | 113 | 30% | 0 | 0 | 111 |
| Excavator | | CNP 081 | 1 | 112 | 60% | 0 | 0 | 110 |
| Concrete lorry mixer | | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | | 114 |

Remove piles

(04/2016-09/2016)

| | PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|-----|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Air Compressor | | CNP 002 | 1 | 102 | 30% | 0 | 0 | 97 |
| Hand held breaker | | CNP 025 | 2 | 111 | 30% | 0 | 0 | 109 |
| Dump truck with grab | | CNP 069 | 1 | 105 | 30% | 0 | 0 | 100 |
| Welder/generator | | CNP 107 | 1 | 100 | 30% | 0 | 0 | 95 |
| Crane, mobile | | CNP 048 | 1 | 112 | 40% | 0 | 0 | 108 |
| Piling, large diameter bored, grab and chisel | | CNP 164 | 1 | 115 | 60% | 0 | 0 | 113 |
| Overall Noise Level, dB(A) | | | | | | | | 115 |

Backfill and reinstatement

(10/2016)

| | PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|-----|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Dump truck with grab | | CNP 069 | 1 | 105 | 30% | 0 | 0 | 100 |
| Mini backhoe | | CNP 082 | 1 | 94 | 60% | 0 | 0 | 92 |
| Compactor, vibratory | | CNP 050 | 1 | 105 | 30% | 0 | 0 | 100 |
| Overall Noise Level, dB(A) | | | | | | | | 103 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - SOV to EXH

Scenario:

Unmitigated ▼

Package: 08 TBM Tunnels SOV to EXH

* The Works Area with length to width ratio exceeding 5 : 1 is divided into Subareas.

Underpinning of Abutment of Causeway Flyover

Site Clearance and Hoarding and Utility diversion

(05/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 80% | 0 | 0 | 111 |
| Air Compressor | CNP 002 | 1 | 102 | 40% | 0 | 0 | 98 |
| Hand held breaker | CNP 025 | 2 | 111 | 40% | 0 | 0 | 110 |
| Dump truck with grab | CNP 069 | 1 | 105 | 60% | 0 | 0 | 103 |
| Welder/generator | CNP 107 | 1 | 100 | 40% | 0 | 0 | 96 |
| Overall Noise Level, dB(A) | | | | | | | 114 |

Excavation and Construction of new piles

(06/2015-06/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Lorry with crane/grab | CNP 145 | 1 | 105 | 30% | 0 | 0 | 100 |
| Rock Drill | CNP 182 | 1 | 123 | 30% | 0 | 0 | 118 |
| Excavator | CNP 081 | 1 | 112 | 60% | 0 | 0 | 110 |
| Piling, large diameter bored, grab and chisel | CNP 164 | 1 | 115 | 40% | 0 | 0 | 111 |
| Welder/generator, portable | CNP 107 | 1 | 100 | 80% | 0 | 0 | 99 |
| Overall Noise Level, dB(A) | | | | | | | 119 |

Construct pile cap

(09/2015-07/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Poker, vibrator, hand-held | CNP 170 | 2 | 113 | 30% | 0 | 0 | 111 |
| Excavator | CNP 081 | 1 | 112 | 60% | 0 | 0 | 110 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 114 |

Remove piles

(04/2016-09/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Air Compressor | CNP 002 | 1 | 102 | 30% | 0 | 0 | 97 |
| Hand held breaker | CNP 025 | 2 | 111 | 30% | 0 | 0 | 109 |
| Dump truck with grab | CNP 069 | 1 | 105 | 30% | 0 | 0 | 100 |
| Welder/generator | CNP 107 | 1 | 100 | 30% | 0 | 0 | 95 |
| Crane, mobile | CNP 048 | 1 | 112 | 40% | 0 | 0 | 108 |
| Piling, large diameter bored, grab and chisel | CNP 164 | 1 | 115 | 60% | 0 | 0 | 113 |
| Overall Noise Level, dB(A) | | | | | | | 115 |

Backfill and reinstatement

(10/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Dump truck with grab | CNP 069 | 1 | 105 | 30% | 0 | 0 | 100 |
| Mini backhoe | CNP 082 | 1 | 94 | 60% | 0 | 0 | 92 |
| Compactor, vibratory | CNP 050 | 1 | 105 | 30% | 0 | 0 | 100 |
| Overall Noise Level, dB(A) | | | | | | | 103 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - SOV to EXH

Scenario:

Unmitigated ▼

Package: 08 TBM Tunnels SOV to EXH

* The Works Area with length to width ratio exceeding 5 : 1 is divided into Subareas.

Grouting Work for DSD 1.8m Truck Sewers

Site Clearance and Hoarding and Utility diversion

(09/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Breaker, hand-held, mass > 35kg | CNP 026 | 1 | 114 | 30% | 0 | 0 | 109 |
| Excavator | CNP 081 | 1 | 112 | 30% | 0 | 0 | 107 |
| Crane lorry, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Dump truck | CNP 067 | 1 | 117 | 30% | 0 | 0 | 112 |
| Poker, vibrator, hand-held | CNP 170 | 1 | 113 | 30% | 0 | 0 | 108 |
| Air Compressor | CNP 002 | 1 | 102 | 30% | 0 | 0 | 97 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 116 |

Temp Access Shaft - Diaphragm wall

(10/2014-02/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Generator, standard | CNP 101 | 1 | 108 | 30% | 0 | 0 | 103 |
| Dump truck | CNP 067 | 1 | 117 | 30% | 0 | 0 | 112 |
| Crawler crane, mobile | CNP 048 | 1 | 112 | 35% | 0 | 0 | 107 |
| Piling, diaphragm wall, bentonite filtering plant | CNP 162 | 1 | 105 | 30% | 0 | 0 | 100 |
| Bar bender and cutter (electric) | CNP 021 | 1 | 90 | 30% | 0 | 0 | 85 |
| Crane lorry, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 115 |

Temp Access Shaft - Excavation

(03/2015-04/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|------------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 30% | -10 | 0 | 97 |
| Water Pump, submersible (electric) | CNP 283 | 1 | 85 | 30% | -10 | 0 | 70 |
| Ventilation Fans | CNP 241 | 1 | 108 | 30% | 0 | 0 | 103 |
| Dump Truck | CNP 067 | 1 | 117 | 30% | 0 | 0 | 112 |
| Overall Noise Level, dB(A) | | | | | | | 112 |

Grouting from within the shaft

(05/2015-06/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Drill rig, rotary type | CNP 072 | 1 | 110 | 35% | -10 | 0 | 95 |
| Grout Mixer | CNP 105 | 1 | 90 | 35% | 0 | 0 | 85 |
| Grout Pump | CNP 106 | 1 | 105 | 35% | 0 | 0 | 100 |
| Overall Noise Level, dB(A) | | | | | | | 102 |

Backfilling and Reinstatement

(07/2015-08/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|------------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 30% | -10 | 0 | 97 |
| Water Pump, submersible (electric) | CNP 283 | 1 | 85 | 30% | -10 | 0 | 70 |
| Crawler Crane, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Ventilation Fans | CNP 241 | 1 | 108 | 30% | 0 | 0 | 103 |
| Concrete Lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Dump Truck | CNP 067 | 1 | 117 | 30% | 0 | 0 | 112 |
| Overall Noise Level, dB(A) | | | | | | | 114 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - SOV to EXH

Scenario:

Unmitigated

Package: 08 TBM Tunnels SOV to EXH

* The Works Area with length to width ratio exceeding 5 : 1 is divided into Subareas.

Demolition & Reprovisioning of Cross Harbour Tunnel Footbridge

Site Clearance and Hoarding and Utility diversion

(10/2014-12/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 40% | 0 | 0 | 108 |
| Air Compressor | CNP 002 | 1 | 102 | 50% | 0 | 0 | 99 |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 60% | 0 | 0 | 103 |
| Hand held breaker | CNP 025 | 1 | 111 | 50% | 0 | 0 | 108 |
| Dump truck with grab | CNP 069 | 1 | 105 | 60% | 0 | 0 | 103 |
| Welder/generator | CNP 107 | 1 | 100 | 40% | 0 | 0 | 96 |
| Overall Noise Level, dB(A) | | | | | | | 112 |

Construction of temporary footbridge

(01/2015-03/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Welder/generator, portable | CNP 107 | 1 | 100 | 70% | 0 | 0 | 98 |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 60% | 0 | 0 | 103 |
| Overall Noise Level, dB(A) | | | | | | | 104 |

Demolish temporary footbridge

(04/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Saw, concrete | CNP 203 | 1 | 115 | 30% | 0 | 0 | 110 |
| Air Compressor | CNP 002 | 1 | 102 | 40% | 0 | 0 | 98 |
| Hand held breaker | CNP 025 | 2 | 111 | 40% | 0 | 0 | 110 |
| Dump truck with grab | CNP 069 | 1 | 105 | 80% | 0 | 0 | 104 |
| Welder/generator | CNP 107 | 1 | 100 | 30% | 0 | 0 | 95 |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 60% | 0 | 0 | 103 |
| Excavator | CNP 081 | 1 | 112 | 60% | 0 | 0 | 110 |
| hydraulic breaker | CNP 028 | 1 | 122 | 60% | 0 | 0 | 120 |
| Overall Noise Level, dB(A) | | | | | | | 121 |

TBM Assemble, First and Second Drive and Retrieval

TBM Assembly

(08/2016-11/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|------------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Welding Set | CNP 107 | 2 | 100 | 30% | -10 | 0 | 88 |
| Drill, hand-held (electric) | CNP 064 | 1 | 103 | 100% | -10 | 0 | 93 |
| Water Pump, submersible (electric) | CNP 283 | 1 | 85 | 100% | -10 | 0 | 75 |
| At Surface | | | | | | | |
| Crane, mobile | CNP 048 | 1 | 112 | 10% | 0 | 0 | 102 |
| Crawler crane, mobile | CNP 048 | 1 | 112 | 60% | 0 | 0 | 110 |
| Tractor | CNP 222 | 1 | 118 | 20% | 0 | 0 | 111 |
| Lorry | CNP 141 | 1 | 112 | 40% | 0 | 0 | 108 |
| Ventilation Fans | CNP 241 | 2 | 108 | 100% | 0 | 0 | 111 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 80% | 0 | 0 | 102 |
| Overall Noise Level, dB(A) | | | | | | | 117 |

1st Retrieval and reassembly TBM

(03/2017-07/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---------------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Above Ground | | | | | | | |
| Crane lorry, mobile | CNP 048 | 2 | 112 | 60% | 0 | 0 | 113 |
| Tractor | CNP 222 | 1 | 118 | 30% | 0 | 0 | 113 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Truck | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Mobile Crane | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Power pack for hand-held items of PME | CNP 168 | 1 | 100 | 30% | 0 | 0 | 95 |
| Drill, hand-held (electric) | CNP 064 | 1 | 103 | 40% | 0 | 0 | 99 |
| Ventilation fans | CNP 241 | 3 | 108 | 80% | 0 | 0 | 112 |
| Water pump, submersible (electric) | CNP 283 | 3 | 85 | 80% | 0 | 0 | 89 |
| Overall Noise Level, dB(A) | | | | | | | 118 |

2nd Retrieval of TBM

(11/2017-12/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---------------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Above Ground | | | | | | | |
| Crane lorry, mobile | CNP 048 | 2 | 112 | 60% | 0 | 0 | 113 |
| Tractor | CNP 222 | 1 | 118 | 30% | 0 | 0 | 113 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Truck | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Mobile Crane | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Power pack for hand-held items of PME | CNP 168 | 1 | 100 | 30% | 0 | 0 | 95 |
| Drill, hand-held (electric) | CNP 064 | 1 | 103 | 40% | 0 | 0 | 99 |
| Ventilation fans | CNP 241 | 3 | 108 | 80% | 0 | 0 | 112 |
| Water pump, submersible (electric) | CNP 283 | 3 | 85 | 80% | 0 | 0 | 89 |
| Overall Noise Level, dB(A) | | | | | | | 118 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - Convention Avenue Shaft to ADM

Scenario:

Unmitigated 

Package: 05 TBM Tunnels EXH to ADM

Demolition of Fleet Arcade

Site Clearance

(06/2014-07/2014)

| | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|--------------------|---------------|
| PME | | | | | | |
| Excavator | CNP 081 | 1 | 112 | 100% | 0 | 112 |
| Dump Truck with Grab | CNP 069 | 1 | 105 | 30% | 0 | 100 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 50% | 0 | 119 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 102 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | 0 | 108 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 30% | 0 | 98 |
| Saw, Concrete | CNP 203 | 1 | 115 | 30% | 0 | 110 |
| Overall Noise Level, dB(A) | | | | | | 121 |

Site Hoarding Erection

(08/2014)

| | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|--------------------|---------------|
| PME | | | | | | |
| Excavator | CNP 081 | 1 | 112 | 100% | 0 | 112 |
| Drill, hand-held (electric) | CNP 064 | 1 | 103 | 100% | 0 | 103 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | 0 | 108 |
| Lorry with Grab | CNP 145 | 1 | 105 | 50% | 0 | 102 |
| Welding Set | CNP 107 | 2 | 100 | 30% | 0 | 98 |
| Overall Noise Level, dB(A) | | | | | | 114 |

Demolition of Fleet Arcade

(09/2014-01/2015)

| | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|--------------------|---------------|
| PME | | | | | | |
| Excavator | CNP 081 | 1 | 112 | 100% | 0 | 112 |
| Water Pump, submersible (electric) | CNP 283 | 1 | 85 | 100% | 0 | 85 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 50% | 0 | 119 |
| Crawler crane, mobile | CNP 048 | 1 | 112 | 30% | 0 | 107 |
| Concrete Lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 104 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 40% | 0 | 99 |
| Dump Truck | CNP 067 | 1 | 117 | 60% | 0 | 115 |
| Overall Noise Level, dB(A) | | | | | | 121 |

Pile Removal

(02/2015)

| | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|--------------------|---------------|
| PME | | | | | | |
| Excavator | CNP 081 | 1 | 112 | 100% | 0 | 112 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 50% | 0 | 119 |
| Breaker, hand-held | CNP 024 | 1 | 108 | 50% | 0 | 105 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 102 |
| Drill rig, rotary type | CNP 072 | 1 | 110 | 70% | 0 | 108 |
| Piling, earth auger, auger | CNP 167 | 1 | 114 | 80% | 0 | 113 |
| Crawler crane, mobile | CNP 048 | 2 | 112 | 60% | 0 | 113 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | 0 | 108 |
| Overall Noise Level, dB(A) | | | | | | 122 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - Convention Avenue Shaft to ADM

Scenario: Unmitigated

Package: 05 TBM Tunnels EXH to ADM

Demolition of Pump House and Pile Removal at West Sewage Screening Plant

Site Formation (04/2014-05/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 100% | 0 | 112 |
| Dump Truck with Grab | CNP 069 | 1 | 105 | 30% | 0 | 100 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 50% | 0 | 119 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 102 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | 0 | 108 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 30% | 0 | 98 |
| Saw, Concrete | CNP 203 | 1 | 115 | 30% | 0 | 110 |
| Overall Noise Level, dB(A) | | | | | | 121 |

Site Hoarding Erection (06/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 100% | 0 | 112 |
| Drill, hand-held (electric) | CNP 064 | 1 | 103 | 100% | 0 | 103 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | 0 | 108 |
| Lorry with Grab | CNP 145 | 1 | 105 | 50% | 0 | 102 |
| Welding Set | CNP 107 | 2 | 100 | 30% | 0 | 98 |
| Overall Noise Level, dB(A) | | | | | | 114 |

Demolition of Pump House and Pile Removal (07/2014-09/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 100% | 0 | 112 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 50% | 0 | 119 |
| Breaker, hand-held | CNP 024 | 1 | 108 | 50% | 0 | 105 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 102 |
| Drill rig, rotary type | CNP 072 | 1 | 110 | 70% | 0 | 108 |
| Piling, earth auger, auger | CNP 167 | 1 | 114 | 80% | 0 | 113 |
| Crawler crane, mobile | CNP 048 | 2 | 112 | 60% | 0 | 113 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | 0 | 108 |
| Overall Noise Level, dB(A) | | | | | | 122 |

TTMS & Lung King Street Culvert Diversion & Associated Pile Removal & Reinstatement

Site Formation (07/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 100% | 0 | 112 |
| Dump Truck with Grab | CNP 069 | 1 | 105 | 30% | 0 | 100 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 50% | 0 | 119 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 102 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | 0 | 108 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 30% | 0 | 98 |
| Saw, Concrete | CNP 203 | 1 | 115 | 30% | 0 | 110 |
| Overall Noise Level, dB(A) | | | | | | 121 |

Site Hoarding Erection (08/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 100% | 0 | 112 |
| Drill, hand-held (electric) | CNP 064 | 1 | 103 | 100% | 0 | 103 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | 0 | 108 |
| Lorry with Grab | CNP 145 | 1 | 105 | 50% | 0 | 102 |
| Welding Set | CNP 107 | 2 | 100 | 30% | 0 | 98 |
| Overall Noise Level, dB(A) | | | | | | 114 |

Pile Removal and Reinstatement (09/2014-11/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 100% | 0 | 112 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 50% | 0 | 119 |
| Breaker, hand-held | CNP 024 | 1 | 108 | 50% | 0 | 105 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 102 |
| Drill rig, rotary type | CNP 072 | 1 | 110 | 70% | 0 | 108 |
| Piling, earth auger, auger | CNP 167 | 1 | 114 | 80% | 0 | 113 |
| Crawler crane, mobile | CNP 048 | 2 | 112 | 60% | 0 | 113 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | 0 | 108 |
| Overall Noise Level, dB(A) | | | | | | 122 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - Convention Avenue Shaft to ADM

Scenario:

Unmitigated

Package: 05 TBM Tunnels EXH to ADM

Reinstatement of Fleet Arcade

Foundation and Superstructure Construction

(01/2017-11/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Air Compressor | CNP 002 | 1 | 102 | 50% | 0 | 0 | 99 |
| Bar Bender | CNP 021 | 2 | 90 | 30% | 0 | 0 | 88 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 30% | 0 | 0 | 117 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Concrete pump | CNP 047 | 1 | 109 | 50% | 0 | 0 | 106 |
| Crane lorry, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Poker, vibrator, hand-held | CNP 170 | 2 | 113 | 50% | 0 | 0 | 113 |
| Overall Noise Level, dB(A) | | | | | | | 119 |

Convention Avenue Launching Shaft Construction

Site Formation

(03/2014-04/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 100% | 0 | 0 | 112 |
| Dump Truck with Grab | CNP 069 | 1 | 105 | 30% | 0 | 0 | 100 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 50% | 0 | 0 | 119 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | 0 | 0 | 108 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 30% | 0 | 0 | 98 |
| Saw, Concrete | CNP 203 | 1 | 115 | 30% | 0 | 0 | 110 |
| Overall Noise Level, dB(A) | | | | | | | 121 |

Site Hoarding Erection

(05/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 100% | 0 | 0 | 112 |
| Drill, hand-held (electric) | CNP 064 | 1 | 103 | 100% | 0 | 0 | 103 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | 0 | 0 | 108 |
| Lorry with Grab | CNP 145 | 1 | 105 | 50% | 0 | 0 | 102 |
| Welding Set | CNP 107 | 2 | 100 | 30% | 0 | 0 | 98 |
| Overall Noise Level, dB(A) | | | | | | | 114 |

Diaphragm Wall Excavation

(06/2014-10/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Air Compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 3 | 103 | 80% | 0 | 0 | 107 |
| Crawler crane, mobile | CNP 048 | 2 | 112 | 60% | 0 | 0 | 113 |
| Piling, diaphragm wall, benetonite filtering plant | CNP 162 | 1 | 105 | 100% | 0 | 0 | 105 |
| Piling, diaphragm wall, hydraulic extractor | CNP 163 | 1 | 90 | 100% | 0 | 0 | 90 |
| Bentonite Mixer | CNP 045 | 1 | 96 | 100% | 0 | 0 | 96 |
| Welding Set | CNP 107 | 2 | 100 | 30% | 0 | 0 | 98 |
| Overall Noise Level, dB(A) | | | | | | | 115 |

Diaphragm Wall Reinforcement Fixing and Concrete Casting

(06/2014-10/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 3 | 103 | 80% | 0 | 0 | 107 |
| Crawler crane, mobile | CNP 048 | 2 | 112 | 60% | 0 | 0 | 113 |
| Piling, diaphragm wall, benetonite filtering plant | CNP 162 | 1 | 105 | 100% | 0 | 0 | 105 |
| Piling, diaphragm wall, hydraulic extractor | CNP 163 | 1 | 90 | 100% | 0 | 0 | 90 |
| Bar bender and cutter (electric) | CNP 021 | 1 | 90 | 50% | 0 | 0 | 87 |
| Concrete lorry mixer | CNP 044 | 2 | 109 | 50% | 0 | 0 | 109 |
| Overall Noise Level, dB(A) | | | | | | | 116 |

Shaft Excavation

(11/2014-08/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Excavator | CNP 081 | 2 | 112 | 100% | -10 | 0 | 105 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 50% | -10 | 0 | 109 |
| Breaker, hand-held | CNP 024 | 1 | 108 | 50% | -10 | 0 | 95 |
| Welding Set | CNP 107 | 1 | 100 | 30% | -10 | 0 | 85 |
| Water Pump, submersible (electric) | CNP 283 | 2 | 85 | 100% | -10 | 0 | 78 |
| At Surface | | | | | | | |
| Gantry Crane (electric) | CNP 049 | 1 | 95 | 50% | 0 | 0 | 92 |
| Ventilation Fans | CNP 241 | 1 | 108 | 100% | 0 | 0 | 108 |
| Dump Truck | CNP 067 | 1 | 117 | 80% | 0 | 0 | 116 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 80% | 0 | 0 | 102 |
| Overall Noise Level, dB(A) | | | | | | | 118 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - Convention Avenue Shaft to ADM

Scenario:

Unmitigated

Package: 05 TBM Tunnels EXH to ADM

TBM Assembly

(05/2016-11/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|------------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Welding Set | CNP 107 | 2 | 100 | 30% | -10 | 0 | 88 |
| Drill, hand-held (electric) | CNP 064 | 1 | 103 | 100% | -10 | 0 | 93 |
| Water Pump, submersible (electric) | CNP 283 | 1 | 85 | 100% | -10 | 0 | 75 |
| At Surface | | | | | | | |
| Crane, mobile | CNP 048 | 1 | 112 | 10% | 0 | 0 | 102 |
| Crawler crane, mobile | CNP 048 | 1 | 112 | 60% | 0 | 0 | 110 |
| Tractor | CNP 222 | 1 | 118 | 20% | 0 | 0 | 111 |
| Lorry | CNP 141 | 1 | 112 | 40% | 0 | 0 | 108 |
| Ventilation Fans | CNP 241 | 2 | 108 | 100% | 0 | 0 | 111 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 80% | 0 | 0 | 102 |
| Overall Noise Level, dB(A) | | | | | | | 117 |

TWL protection works from U/Track

(09/2016-11/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Bar bender and cutter (electric) | CNP 021 | 1 | 90 | 50% | -10 | 0 | 77 |
| Water Pump, submersible (electric) | CNP 283 | 2 | 85 | 100% | -10 | 0 | 78 |
| Compactor, vibratory | CNP 050 | 1 | 105 | 50% | -10 | 0 | 92 |
| At Surface | | | | | | | |
| Welding Set | CNP 107 | 1 | 100 | 30% | 0 | 0 | 95 |
| Ventilation Fans | CNP 241 | 1 | 108 | 100% | 0 | 0 | 108 |
| Slurry Treatment Plant (similar to bentonite filtering) | CNP 162 | 1 | 105 | 100% | 0 | 0 | 105 |
| Wheel Loader | CNP 081 | 1 | 112 | 100% | 0 | 0 | 112 |
| Concrete lorry mixer | CNP 044 | 2 | 109 | 50% | 0 | 0 | 109 |
| Crawler crane, mobile | CNP 048 | 1 | 112 | 60% | 0 | 0 | 110 |
| Slurry Pump (similar to grout pump) | CNP 047 | 2 | 105 | 100% | 0 | 0 | 108 |
| Tower Crane | CNP 049 | 1 | 95 | 80% | 0 | 0 | 94 |
| Ventilation Fans | CNP 241 | 1 | 108 | 100% | 0 | 0 | 108 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 2 | 103 | 80% | 0 | 0 | 105 |
| Dump Truck | CNP 067 | 1 | 117 | 80% | 0 | 0 | 116 |
| Overall Noise Level, dB(A) | | | | | | | 120 |

Retrieve & reassemble TBM, Second Drive (D/Track), 2nd retrieval

(12/2016-09/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---------------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Crane lorry, mobile | CNP 048 | 2 | 112 | 60% | 0 | 0 | 113 |
| Tractor | CNP 222 | 1 | 118 | 30% | 0 | 0 | 113 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Truck | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Mobile Crane | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Power pack for hand-held items of PME | CNP 168 | 1 | 100 | 30% | 0 | 0 | 95 |
| Drill, hand-held (electric) | CNP 064 | 1 | 103 | 40% | 0 | 0 | 99 |
| Ventilation fans | CNP 241 | 3 | 108 | 80% | 0 | 0 | 112 |
| Water pump, submersible (electric) | CNP 283 | 3 | 85 | 80% | 0 | 0 | 89 |
| Overall Noise Level, dB(A) | | | | | | | 118 |

Completion of Structure after TBM retrieval

(10/2017-01/2018)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Drill, hand-held (electric) | CNP 064 | 1 | 103 | 100% | -10 | 0 | 93 |
| At Surface | | | | | | | |
| Crawler crane, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Ventilation Fans | CNP 241 | 2 | 108 | 100% | 0 | 0 | 111 |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 40% | 0 | 0 | 101 |
| Overall Noise Level, dB(A) | | | | | | | 113 |

Backfilling and Reinstatement

(02/2017-01/2018)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|------------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Excavator | CNP 081 | 1 | 112 | 100% | -10 | 0 | 102 |
| Water Pump, submersible (electric) | CNP 283 | 1 | 85 | 100% | -10 | 0 | 75 |
| At Surface | | | | | | | |
| Crawler crane, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Crawler crane, mobile | CNP 048 | 1 | 112 | 60% | 0 | 0 | 110 |
| Concrete Lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 40% | 0 | 0 | 99 |
| Dump Truck | CNP 067 | 1 | 117 | 60% | 0 | 0 | 115 |
| Overall Noise Level, dB(A) | | | | | | | 117 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - Hong Kong Park Ventilation Building (ADM Overrun Tunnel)

Scenario:

Unmitigated ▼

Package: 03 Hong Kong Park Ventilation Building (ADM Overrun Tunnel)

Overrun Tunnel

ADM overrun tunnel (drill and blast)

(07/15-11/16)

| | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| PME | | | | | | | |
| Rock Crusher | Note [1] | 1 | 118 | 100% | -10 | 0 | 108 |
| Rock drill, crawler mounted (hydraulic) | CNP 182 | 2 | 123 | 30% | -10 | 0 | 111 |
| Breaker, hand-held | CNP 024 | 4 | 108 | 50% | -10 | 0 | 101 |
| Rock drill | CNP 182 | 1 | 123 | 50% | -10 | 0 | 110 |
| Excavator | CNP 081 | 2 | 112 | 50% | -10 | 0 | 102 |
| Backhoe with hydraulic breaker | CNP 028 | 2 | 122 | 50% | -10 | 0 | 112 |
| Front end loader | BS D3/97 | 1 | 105 | 100% | -10 | 0 | 95 |
| Dump Truck | CNP 067 | 6 | 117 | 50% | 0 | 0 | 122 |
| Air Compressor | CNP 002 | 1 | 102 | 100% | -10 | 0 | 92 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | -10 | 0 | 98 |
| Overall Noise Level, dB(A) | | | | | | | 123 |

ADM overrun tunnel lining works

(11/16-06/17)

| | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| PME | | | | | | | |
| Crane, mobile | CNP 048 | 2 | 112 | 100% | -10 | 0 | 105 |
| Gantry Crane (electric) | CNP 049 | 1 | 95 | 100% | -10 | 0 | 85 |
| Concrete lorry mixer | CNP 044 | 4 | 109 | 100% | -10 | 0 | 105 |
| Poker, vibrator, hand-held | CNP 170 | 4 | 113 | 100% | -10 | 0 | 109 |
| Air Compressor | CNP 002 | 1 | 102 | 100% | -10 | 0 | 92 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | -10 | 0 | 98 |
| Overall Noise Level, dB(A) | | | | | | | 112 |


Aboveground works and reinstatement

(06/17-03/18)

| | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| PME | | | | | | | |
| Generator, standard | CNP 101 | 2 | 108 | 100% | 0 | 0 | 111 |
| Air compressor | CNP 002 | 2 | 102 | 100% | 0 | 0 | 105 |
| Front end loader | BS D3/97 | 2 | 105 | 100% | 0 | 0 | 108 |
| Crane, mobile | CNP 048 | 1 | 112 | 100% | 0 | 0 | 112 |
| Crane lorry, mobile | CNP 048 | 1 | 112 | 100% | 0 | 0 | 112 |
| Dump Truck | CNP 067 | 8 | 117 | 100% | 0 | 0 | 126 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 100% | 0 | 0 | 109 |
| Lorry | CNP 141 | 4 | 112 | 100% | 0 | 0 | 118 |
| Overall Noise Level, dB(A) | | | | | | | 127 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - EXH

Scenario: Unmitigated 

Package: 07 EXH

Temporary PTI Construction

Temporary PTI Construction

(07/2013-09/2013)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| At all areas within Temporary PTI | | | | | | | |
| Asphalt paver | CNP 004 | 1 | 109 | 60% | 0 | 0 | 107 |
| Roller, vibratory | CNP 186 | 1 | 108 | 80% | 0 | 0 | 107 |
| Overall Noise Level, dB(A) | | | | | | | 110 |

EXH Structure

(i) At Harbour Road Sports Centre / Wan Chai Swimming Pool

Site Hoarding Erection

(06/2013)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 100% | 0 | 0 | 112 |
| Drill, hand-held (electric) | CNP 064 | 1 | 103 | 100% | 0 | 0 | 103 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | 0 | 0 | 108 |
| Lorry with Grab | CNP 145 | 1 | 105 | 50% | 0 | 0 | 102 |
| Welding Set | CNP 107 | 2 | 100 | 30% | 0 | 0 | 98 |
| Overall Noise Level, dB(A) | | | | | | | 114 |

Demolition of staircase & relocation of oil tank

(07/2013)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Saw, concrete | CNP 203 | 1 | 115 | 30% | 0 | 0 | 110 |
| Air Compressor | CNP 002 | 1 | 102 | 40% | 0 | 0 | 98 |
| Hand held breaker | CNP 025 | 1 | 111 | 40% | 0 | 0 | 107 |
| Dump truck with grab | CNP 069 | 1 | 105 | 80% | 0 | 0 | 104 |
| Welder/generator | CNP 107 | 1 | 100 | 30% | 0 | 0 | 95 |
| Crane, mobile | CNP 048 | 1 | 112 | 40% | 0 | 0 | 108 |
| Excavator | CNP 081 | 1 | 112 | 60% | 0 | 0 | 110 |
| hydraulic breaker | CNP 028 | 1 | 122 | 60% | 0 | 0 | 120 |
| Overall Noise Level, dB(A) | | | | | | | 121 |

Demolition of staircase of existing FB linking Causeway Center and Harbour Centre

(07/2013)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Saw, concrete | CNP 203 | 1 | 115 | 30% | 0 | 0 | 110 |
| Air Compressor | CNP 002 | 1 | 102 | 40% | 0 | 0 | 98 |
| Hand held breaker | CNP 025 | 1 | 111 | 40% | 0 | 0 | 107 |
| Dump truck with grab | CNP 069 | 1 | 105 | 80% | 0 | 0 | 104 |
| Welder/generator | CNP 107 | 1 | 100 | 30% | 0 | 0 | 95 |
| Crane, mobile | CNP 048 | 1 | 112 | 40% | 0 | 0 | 108 |
| Excavator | CNP 081 | 1 | 112 | 60% | 0 | 0 | 110 |
| Hydraulic breaker | CNP 028 | 1 | 122 | 60% | 0 | 0 | 120 |
| Overall Noise Level, dB(A) | | | | | | | 121 |

Demolition of elevated walkway to Harbour Road Sports Centre

(07/2013)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Breaker, excavator mounted (hydraulic) | CNP 028 | 2 | 122 | 70% | 0 | 0 | 123 |
| Dump Truck | CNP 067 | 2 | 117 | 30% | 0 | 0 | 115 |
| Overall Noise Level, dB(A) | | | | | | | 124 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - EXH

Scenario: Unmitigated 

Package: 07 EXH

Temporary filtration plant room construction

(07/2013-04/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator, tracked | CNP 081 | 1 | 112 | 30% | 0 | 0 | 107 |
| Dump Truck | CNP 067 | 2 | 117 | 30% | 0 | 0 | 115 |
| Overall Noise Level, dB(A) | | | | | | | 115 |

Demolition of staircase of existing FB across Harbour Road near Sun Hung Kei Centre

(07/2013)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Saw, concrete | CNP 203 | 1 | 115 | 30% | 0 | 0 | 110 |
| Air Compressor | CNP 002 | 1 | 102 | 40% | 0 | 0 | 98 |
| Hand held breaker | CNP 025 | 1 | 111 | 40% | 0 | 0 | 107 |
| Dump truck with grab | CNP 069 | 1 | 105 | 80% | 0 | 0 | 104 |
| Welder/generator | CNP 107 | 1 | 100 | 30% | 0 | 0 | 95 |
| Crane, mobile | CNP 048 | 1 | 112 | 40% | 0 | 0 | 108 |
| Excavator | CNP 081 | 1 | 112 | 60% | 0 | 0 | 110 |
| hydraulic breaker | CNP 028 | 1 | 122 | 60% | 0 | 0 | 120 |
| Overall Noise Level, dB(A) | | | | | | | 121 |

Piling works for Phase 1 structure

(07/2013-11/2013)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Piling, large diameter bored, grab and chisel | CNP 164 | 1 | 115 | 50% | 0 | 0 | 112 |
| Piling, large diameter bored, oscillator | CNP 165 | 1 | 115 | 50% | 0 | 0 | 112 |
| Piling, bentonite filtering plant | CNP 162 | 1 | 105 | 50% | 0 | 0 | 102 |
| Piling, hydraulic extractor | CNP 163 | 1 | 90 | 50% | 0 | 0 | 87 |
| Crane, mobile | CNP 048 | 2 | 112 | 50% | 0 | 0 | 112 |
| Generator, super silenced | CNP 103 | 2 | 95 | 80% | 0 | 0 | 97 |
| Dump Truck | CNP 067 | 4 | 117 | 40% | 0 | 0 | 119 |
| Bar Bender | CNP 021 | 1 | 90 | 30% | 0 | 0 | 85 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 121 |

Superstructure for Phase 1 structure

(12/2013-12/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Bar Bender | CNP 021 | 1 | 90 | 30% | 0 | 0 | 85 |
| Poker, vibrator, hand-held | CNP 170 | 2 | 113 | 30% | 0 | 0 | 116 |
| Air Compressor | CNP 002 | 2 | 102 | 70% | 0 | 0 | 103 |
| Concrete lorry mixer | CNP 044 | 6 | 109 | 30% | 0 | 0 | 112 |
| Concrete pump | CNP 047 | 2 | 109 | 30% | 0 | 0 | 107 |
| Crane, tower (electric) | CNP 049 | 1 | 95 | 36% | 0 | 0 | 91 |
| Overall Noise Level, dB(A) | | | | | | | 118 |

Piling works for Phase 2 structure

(06/2014-07/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Piling, large diameter bored, grab and chisel | CNP 164 | 1 | 115 | 50% | 0 | 0 | 112 |
| Piling, large diameter bored, oscillator | CNP 165 | 1 | 115 | 50% | 0 | 0 | 112 |
| Piling, bentonite filtering plant | CNP 162 | 1 | 105 | 50% | 0 | 0 | 102 |
| Piling, hydraulic extractor | CNP 163 | 1 | 90 | 50% | 0 | 0 | 87 |
| Crane, mobile | CNP 048 | 2 | 112 | 50% | 0 | 0 | 112 |
| Generator, super silenced | CNP 103 | 2 | 95 | 80% | 0 | 0 | 97 |
| Dump Truck | CNP 067 | 4 | 117 | 40% | 0 | 0 | 119 |
| Bar Bender | CNP 021 | 1 | 90 | 30% | 0 | 0 | 85 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 121 |

Superstructure for Phase 2 structure

(08/2014-02/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Bar Bender | CNP 021 | 1 | 90 | 30% | 0 | 0 | 85 |
| Poker, vibrator, hand-held | CNP 170 | 2 | 113 | 30% | 0 | 0 | 111 |
| Air Compressor | CNP 002 | 2 | 102 | 70% | 0 | 0 | 103 |
| Concrete lorry mixer | CNP 044 | 4 | 109 | 30% | 0 | 0 | 110 |
| Concrete pump | CNP 047 | 2 | 109 | 30% | 0 | 0 | 107 |
| Crane, tower (electric) | CNP 049 | 1 | 95 | 36% | 0 | 0 | 91 |
| Overall Noise Level, dB(A) | | | | | | | 115 |

Roof Truss Installation

(02/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Welder/Generator | CNP 107 | 2 | 100 | 50% | 0 | 0 | 100 |
| Crane, mobile | CNP 048 | 2 | 112 | 36% | 0 | 0 | 111 |
| Overall Noise Level, dB(A) | | | | | | | 111 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - EXH

Scenario: Unmitigated 

Package: 07 EXH

Roof Truss Erection

(02/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Generator, super silenced | CNP 103 | 1 | 95 | 50% | 0 | 0 | 92 |
| Crane, mobile | CNP 048 | 1 | 112 | 36% | 0 | 0 | 108 |
| Overall Noise Level, dB(A) | | | | | | | 108 |

E&M Installation

(10/2014-09/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Crane, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 30% | 0 | 0 | 100 |
| Overall Noise Level, dB(A) | | | | | | | 110 |

Installing Hoarding

(11/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Generator, super silenced | CNP 103 | 1 | 95 | 70% | 0 | 0 | 93 |
| Lorry with crane/grab | CNP 145 | 1 | 105 | 60% | 0 | 0 | 103 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Overall Noise Level, dB(A) | | | | | | | 108 |

Demolition of Harbour Road Sports Centre & Wan Chai Swimming Pool

(12/2015-01/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Breaker, excavator mounted (hydraulic) | CNP 028 | 2 | 122 | 70% | 0 | 0 | 123 |
| Dump Truck | CNP 067 | 2 | 117 | 30% | 0 | 0 | 115 |
| Overall Noise Level, dB(A) | | | | | | | 124 |

Pile Removal

(01/2016-02/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 100% | 0 | 0 | 112 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 50% | 0 | 0 | 119 |
| Breaker, hand-held | CNP 024 | 1 | 108 | 50% | 0 | 0 | 105 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Drill rig, rotary type | CNP 072 | 1 | 110 | 70% | 0 | 0 | 108 |
| Piling, earth auger, auger | CNP 167 | 1 | 114 | 80% | 0 | 0 | 113 |
| Crawler Crane, mobile | CNP 048 | 2 | 112 | 60% | 0 | 0 | 113 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | 0 | 0 | 108 |
| Overall Noise Level, dB(A) | | | | | | | 122 |

Diaphragm Wall Construction

(01/2016-04/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Above Ground | | | | | | | |
| Generator, standard | CNP 101 | 1 | 108 | 30% | 0 | 0 | 103 |
| Dump truck | CNP 067 | 1 | 117 | 30% | 0 | 0 | 112 |
| Piling, diaphragm wall, bentonite filtering plant | CNP 162 | 1 | 105 | 40% | 0 | 0 | 101 |
| Bar bender and cutter (electric) | CNP 021 | 2 | 90 | 30% | 0 | 0 | 88 |
| Crane, tower (electric) | CNP 049 | 1 | 95 | 60% | 0 | 0 | 93 |
| Crane lorry, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Poker, vibrator, hand-held | CNP 170 | 2 | 113 | 30% | 0 | 0 | 111 |
| Air Compressor | CNP 002 | 1 | 102 | 30% | 0 | 0 | 97 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Concrete pump | CNP 047 | 1 | 109 | 30% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 116 |

Excavation

(05/2016-09/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Underground | | | | | | | |
| Crane lorry, mobile | CNP 048 | 2 | 112 | 60% | 0 | 0 | 113 |
| Generator, standard | CNP 101 | 2 | 108 | 80% | 0 | 0 | 110 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Rock drill, crawler mounted (pneumatic) | CNP 181 | 1 | 128 | 30% | 0 | 0 | 123 |
| Ventilation fans | CNP 241 | 2 | 108 | 70% | 0 | 0 | 109 |
| Power pack for hand-held items of PME | CNP 168 | 1 | 100 | 30% | 0 | 0 | 95 |
| dump truck | CNP 067 | 2 | 117 | 50% | 0 | 0 | 117 |
| Water pump (electric) | CNP 282 | 2 | 103 | 80% | 0 | 0 | 105 |
| Welder/ generator, portable | CNP 107 | 1 | 100 | 30% | 0 | 0 | 95 |
| Overall Noise Level, dB(A) | | | | | | | 125 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - EXH

Scenario: Unmitigated 

Package: 07 EXH

Construction of Internal Structures of Box Station

(10/2016-01/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Underground | | | | | | | |
| Crane lorry, mobile | CNP 048 | 2 | 112 | 60% | 0 | 0 | 113 |
| Generator, standard | CNP 101 | 2 | 108 | 80% | 0 | 0 | 110 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Rock drill, crawler mounted (pneumatic) | CNP 181 | 1 | 128 | 30% | 0 | 0 | 123 |
| Ventilation fans | CNP 241 | 2 | 108 | 70% | 0 | 0 | 109 |
| Power pack for hand-held items of PME | CNP 168 | 1 | 100 | 30% | 0 | 0 | 95 |
| dump truck | CNP 067 | 2 | 117 | 50% | 0 | 0 | 117 |
| Water pump (electric) | CNP 282 | 2 | 103 | 80% | 0 | 0 | 105 |
| Welder/ generator, portable | CNP 107 | 1 | 100 | 30% | 0 | 0 | 95 |
| Overall Noise Level, dB(A) | | | | | | | 125 |

Construction of Station Box Roof Slab

(12/2016-02/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Above Ground | | | | | | | |
| Generator, standard | CNP 101 | 1 | 108 | 30% | 0 | 0 | 103 |
| Dump truck | CNP 067 | 1 | 117 | 30% | 0 | 0 | 112 |
| Crane lorry, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Poker, vibrator, hand-held | CNP 170 | 3 | 113 | 30% | 0 | 0 | 113 |
| Air Compressor | CNP 002 | 1 | 102 | 30% | 0 | 0 | 97 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Concrete pump | CNP 047 | 1 | 109 | 30% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 117 |

Construction of Entrance and Vent Shafts

(01/2017-03/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Above Ground | | | | | | | |
| Generator, standard | CNP 101 | 1 | 108 | 30% | 0 | 0 | 103 |
| Dump truck | CNP 067 | 2 | 117 | 30% | 0 | 0 | 115 |
| Crane lorry, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Poker, vibrator, hand-held | CNP 170 | 2 | 113 | 30% | 0 | 0 | 111 |
| Air Compressor | CNP 002 | 1 | 102 | 30% | 0 | 0 | 97 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Concrete pump | CNP 047 | 1 | 109 | 30% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 117 |

Backfilling and Reinstatement

(04/2017-11/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 100% | 0 | 0 | 112 |
| Crawler Crane, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Ventilation Fans | CNP 241 | 1 | 108 | 60% | 0 | 0 | 106 |
| Concrete Lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 40% | 0 | 0 | 99 |
| Dump Truck | CNP 067 | 1 | 117 | 60% | 0 | 0 | 115 |
| Overall Noise Level, dB(A) | | | | | | | 118 |

(ii) At PTI Area

Site Hoarding Erection and utility diversion

(05/2013-06/2013)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 100% | 0 | 0 | 112 |
| Drill, hand-held (electric) | CNP 064 | 1 | 103 | 100% | 0 | 0 | 103 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | 0 | 0 | 108 |
| Lorry with Grab | CNP 145 | 1 | 105 | 50% | 0 | 0 | 102 |
| Mini Backhoe | CNP 082 | 1 | 94 | 50% | 0 | 0 | 91 |
| Dump Truck | CNP 067 | 1 | 117 | 30% | 0 | 0 | 112 |
| Welding Set | CNP 107 | 2 | 100 | 30% | 0 | 0 | 98 |
| Overall Noise Level, dB(A) | | | | | | | 116 |

Construction of temporary Wan Chai Ferry Pier footbridge

(07/2013-11/2013)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Welder/generator, portable | CNP 107 | 1 | 100 | 60% | 0 | 0 | 98 |
| Piling, large diameter bored, grab and chisel | CNP 164 | 1 | 115 | 40% | 0 | 0 | 111 |
| Rock Drill | CNP 182 | 1 | 123 | 30% | 0 | 0 | 118 |
| Poker, vibrator, hand-held | CNP 170 | 3 | 113 | 30% | 0 | 0 | 113 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Excavator | CNP 081 | 1 | 112 | 30% | 0 | 0 | 107 |
| Overall Noise Level, dB(A) | | | | | | | 120 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - EXH

Scenario: Unmitigated 

Package: 07 EXH

Demolition of existing Wan Chai Ferry Pier footbridge

(12/2013)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Saw, concrete | CNP 203 | 1 | 115 | 30% | 0 | 0 | 110 |
| Air Compressor | CNP 002 | 1 | 102 | 60% | 0 | 0 | 100 |
| Hand held breaker | CNP 025 | 4 | 111 | 60% | 0 | 0 | 115 |
| Dump truck with grab | CNP 069 | 1 | 105 | 70% | 0 | 0 | 103 |
| Welder/generator | CNP 107 | 1 | 100 | 40% | 0 | 0 | 96 |
| Excavator | CNP 081 | 1 | 112 | 50% | 0 | 0 | 109 |
| hydraulic breaker | CNP 028 | 1 | 122 | 50% | 0 | 0 | 119 |
| Overall Noise Level, dB(A) | | | | | | | 121 |

Diaphragm Wall Construction

(10/2013-07/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Above Ground | | | | | | | |
| Generator, standard | CNP 101 | 1 | 108 | 30% | 0 | 0 | 103 |
| Dump truck | CNP 067 | 1 | 117 | 30% | 0 | 0 | 112 |
| Piling, diaphragm wall, bentonite filtering plant | CNP 162 | 1 | 105 | 40% | 0 | 0 | 101 |
| Bar bender and cutter (electric) | CNP 021 | 2 | 90 | 30% | 0 | 0 | 88 |
| Crane, tower (electric) | CNP 049 | 1 | 95 | 50% | 0 | 0 | 92 |
| Crane lorry, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Poker, vibrator, hand-held | CNP 170 | 3 | 113 | 30% | 0 | 0 | 113 |
| Air Compressor | CNP 002 | 1 | 102 | 30% | 0 | 0 | 97 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Concrete pump | CNP 047 | 1 | 109 | 30% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 117 |

Roof Slab Construction

(08/2014-07/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Above Ground | | | | | | | |
| Generator, standard | CNP 101 | 1 | 108 | 30% | 0 | 0 | 103 |
| Dump truck | CNP 067 | 1 | 117 | 30% | 0 | 0 | 112 |
| Crane lorry, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Poker, vibrator, hand-held | CNP 170 | 3 | 113 | 30% | 0 | 0 | 113 |
| Air Compressor | CNP 002 | 1 | 102 | 30% | 0 | 0 | 97 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Concrete pump | CNP 047 | 1 | 109 | 30% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 117 |

Excavation

(05/2015-12/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Underground | | | | | | | |
| Crane lorry, mobile | CNP 048 | 2 | 112 | 60% | 0 | 0 | 113 |
| Generator, standard | CNP 101 | 2 | 108 | 80% | 0 | 0 | 110 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Rock drill, crawler mounted (pneumatic) | CNP 181 | 1 | 128 | 30% | 0 | 0 | 123 |
| Ventilation fans | CNP 241 | 2 | 108 | 70% | 0 | 0 | 109 |
| Power pack for hand-held items of PME | CNP 168 | 1 | 100 | 30% | 0 | 0 | 95 |
| dump truck | CNP 067 | 2 | 117 | 50% | 0 | 0 | 117 |
| Water pump (electric) | CNP 282 | 2 | 103 | 80% | 0 | 0 | 105 |
| Welder/ generator, portable | CNP 107 | 1 | 100 | 30% | 0 | 0 | 95 |
| Overall Noise Level, dB(A) | | | | | | | 125 |


Construction of Internal Structures of Box Station

(01/2016-05/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Underground | | | | | | | |
| Crane lorry, mobile | CNP 048 | 2 | 112 | 60% | 0 | 0 | 113 |
| Generator, standard | CNP 101 | 2 | 108 | 80% | 0 | 0 | 110 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Rock drill, crawler mounted (pneumatic) | CNP 181 | 1 | 128 | 30% | 0 | 0 | 123 |
| Ventilation fans | CNP 241 | 2 | 108 | 70% | 0 | 0 | 109 |
| Power pack for hand-held items of PME | CNP 168 | 1 | 100 | 30% | 0 | 0 | 95 |
| dump truck | CNP 067 | 2 | 117 | 50% | 0 | 0 | 117 |
| Water pump (electric) | CNP 282 | 2 | 103 | 80% | 0 | 0 | 105 |
| Welder/ generator, portable | CNP 107 | 1 | 100 | 30% | 0 | 0 | 95 |
| Overall Noise Level, dB(A) | | | | | | | 125 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - EXH

Scenario: Unmitigated 

Package: 07 EXH

Construction of Entrance and Vent Shafts

(04/2016-07/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Above Ground | | | | | | | |
| Generator, standard | CNP 101 | 1 | 108 | 30% | 0 | 0 | 103 |
| Dump truck | CNP 067 | 2 | 117 | 30% | 0 | 0 | 115 |
| Crane lorry, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Poker, vibrator, hand-held | CNP 170 | 2 | 113 | 30% | 0 | 0 | 111 |
| Air Compressor | CNP 002 | 1 | 102 | 30% | 0 | 0 | 97 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Concrete pump | CNP 047 | 1 | 109 | 30% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 117 |

Construction of Station Box Roof Slab

(06/2016-09/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Above Ground | | | | | | | |
| Generator, standard | CNP 101 | 1 | 108 | 30% | 0 | 0 | 103 |
| Dump truck | CNP 067 | 1 | 117 | 30% | 0 | 0 | 112 |
| Crane lorry, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Poker, vibrator, hand-held | CNP 170 | 3 | 113 | 30% | 0 | 0 | 113 |
| Air Compressor | CNP 002 | 1 | 102 | 30% | 0 | 0 | 97 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Concrete pump | CNP 047 | 1 | 109 | 30% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 117 |

Backfilling and Reinstatement

(11/2017-03/2018)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 100% | 0 | 0 | 112 |
| Crawler crane, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Ventilation Fans | CNP 241 | 1 | 108 | 60% | 0 | 0 | 106 |
| Concrete Lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 40% | 0 | 0 | 99 |
| Dump Truck | CNP 067 | 1 | 117 | 60% | 0 | 0 | 115 |
| Overall Noise Level, dB(A) | | | | | | | 118 |

Site Hoarding Erection and utility diversion

(06/2017-07/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 100% | 0 | 0 | 112 |
| Drill, hand-held (electric) | CNP 064 | 1 | 103 | 100% | 0 | 0 | 103 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | 0 | 0 | 108 |
| Lorry with Grab | CNP 145 | 1 | 105 | 50% | 0 | 0 | 102 |
| Mini Backhoe | CNP 082 | 1 | 94 | 50% | 0 | 0 | 91 |
| Dump Truck | CNP 067 | 1 | 117 | 30% | 0 | 0 | 112 |
| Welding Set | CNP 107 | 2 | 100 | 30% | 0 | 0 | 98 |
| Overall Noise Level, dB(A) | | | | | | | 116 |


Piles, pile cap and column construction for new FB linking to existing Wan Chai elevated walkway system

(08/2017-10/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Crane, mobile | CNP 048 | 2 | 112 | 30% | 0 | 0 | 110 |
| Lorry with crane/grab | CNP 145 | 2 | 105 | 30% | 0 | 0 | 103 |
| Rock Drill | CNP 182 | 2 | 123 | 30% | 0 | 0 | 121 |
| Air Compressor | CNP 002 | 2 | 102 | 30% | 0 | 0 | 100 |
| Piling, large diameter bored, grab and chisel | CNP 164 | 2 | 115 | 50% | 0 | 0 | 115 |
| Poker, vibrator, hand-held | CNP 170 | 4 | 113 | 30% | 0 | 0 | 114 |
| Concrete lorry mixer | CNP 044 | 2 | 109 | 30% | 0 | 0 | 107 |
| Welder/generator, portable | CNP 107 | 2 | 100 | 60% | 0 | 0 | 101 |
| Overall Noise Level, dB(A) | | | | | | | 123 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - EXH

Scenario: Unmitigated 

Package: 07 EXH

Deck construction for new FB linking to existing Wan Chai elevated walkway system (11/2017-12/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Air Compressor | CNP 002 | 2 | 102 | 50% | 0 | 0 | 102 |
| Welder/generator | CNP 107 | 2 | 100 | 40% | 0 | 0 | 99 |
| Crane, mobile | CNP 048 | 2 | 112 | 80% | 0 | 0 | 114 |
| Lorry with crane/grab | CNP 145 | 2 | 105 | 40% | 0 | 0 | 104 |
| Poker, vibrator, hand-held | CNP 170 | 6 | 113 | 40% | 0 | 0 | 117 |
| Concrete lorry mixer | CNP 044 | 2 | 109 | 40% | 0 | 0 | 108 |
| Overall Noise Level, dB(A) | | | | | | | 119 |

Backfilling and Reinstatement (01/2018)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 100% | 0 | 0 | 112 |
| Crawler crane, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Ventilation Fans | CNP 241 | 1 | 108 | 60% | 0 | 0 | 106 |
| Concrete Lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 40% | 0 | 0 | 99 |
| Dump Truck | CNP 067 | 1 | 117 | 60% | 0 | 0 | 115 |
| Overall Noise Level, dB(A) | | | | | | | 118 |

(iii) At Fleming Road Site Hoarding Erection (08/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 100% | 0 | 0 | 112 |
| Drill, hand-held (electric) | CNP 064 | 1 | 103 | 100% | 0 | 0 | 103 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | 0 | 0 | 108 |
| Lorry with Grab | CNP 145 | 1 | 105 | 50% | 0 | 0 | 102 |
| Welding Set | CNP 107 | 2 | 100 | 30% | 0 | 0 | 98 |
| Overall Noise Level, dB(A) | | | | | | | 114 |

Diaphragm Wall Construction (09/2016-01/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Above Ground | | | | | | | |
| Generator, standard | CNP 101 | 1 | 108 | 30% | 0 | 0 | 103 |
| Dump truck | CNP 067 | 1 | 117 | 30% | 0 | 0 | 112 |
| Piling, diaphragm wall, bentonite filtering plant | CNP 162 | 1 | 105 | 40% | 0 | 0 | 101 |
| Bar bender and cutter (electric) | CNP 021 | 2 | 90 | 30% | 0 | 0 | 88 |
| Crane, tower (electric) | CNP 049 | 1 | 95 | 50% | 0 | 0 | 92 |
| Crane lorry, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Poker, vibrator, hand-held | CNP 170 | 3 | 113 | 30% | 0 | 0 | 113 |
| Air Compressor | CNP 002 | 1 | 102 | 30% | 0 | 0 | 97 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Concrete pump | CNP 047 | 1 | 109 | 30% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 117 |

Roof Slab Construction (02/2017-07/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Above Ground | | | | | | | |
| Generator, standard | CNP 101 | 1 | 108 | 30% | 0 | 0 | 103 |
| Dump truck | CNP 067 | 1 | 117 | 30% | 0 | 0 | 112 |
| Crane lorry, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Poker, vibrator, hand-held | CNP 170 | 3 | 113 | 30% | 0 | 0 | 113 |
| Air Compressor | CNP 002 | 1 | 102 | 30% | 0 | 0 | 97 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Concrete pump | CNP 047 | 1 | 109 | 30% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 117 |

Utility diversion (08/2017-11/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Mini Backhoe | CNP 082 | 1 | 94 | 50% | 0 | 0 | 91 |
| Dump Truck | CNP 067 | 1 | 117 | 30% | 0 | 0 | 112 |
| Overall Noise Level, dB(A) | | | | | | | 112 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - EXH

Scenario: Unmitigated 

Package: 07 EXH

Excavation (12/2017-03/2018)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Underground | | | | | | | |
| Crane lorry, mobile | CNP 048 | 2 | 112 | 60% | 0 | 0 | 113 |
| Generator, standard | CNP 101 | 2 | 108 | 80% | 0 | 0 | 110 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Rock drill, crawler mounted (pneumatic) | CNP 181 | 1 | 128 | 30% | 0 | 0 | 123 |
| Ventilation fans | CNP 241 | 2 | 108 | 70% | 0 | 0 | 109 |
| Power pack for hand-held items of PME | CNP 168 | 1 | 100 | 30% | 0 | 0 | 95 |
| dump truck | CNP 067 | 2 | 117 | 50% | 0 | 0 | 117 |
| Water pump (electric) | CNP 282 | 2 | 103 | 80% | 0 | 0 | 105 |
| Welder/ generator, portable | CNP 107 | 1 | 100 | 30% | 0 | 0 | 95 |
| Overall Noise Level, dB(A) | | | | | | | 125 |

Construction of Internal Structures of Box Station (04/2018-07/2018)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Underground | | | | | | | |
| Crane lorry, mobile | CNP 048 | 2 | 112 | 60% | 0 | 0 | 113 |
| Generator, standard | CNP 101 | 2 | 108 | 80% | 0 | 0 | 110 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Rock drill, crawler mounted (pneumatic) | CNP 181 | 1 | 128 | 30% | 0 | 0 | 123 |
| Ventilation fans | CNP 241 | 2 | 108 | 70% | 0 | 0 | 109 |
| Power pack for hand-held items of PME | CNP 168 | 1 | 100 | 30% | 0 | 0 | 95 |
| dump truck | CNP 067 | 2 | 117 | 50% | 0 | 0 | 117 |
| Water pump (electric) | CNP 282 | 2 | 103 | 80% | 0 | 0 | 105 |
| Welder/ generator, portable | CNP 107 | 1 | 100 | 30% | 0 | 0 | 95 |
| Overall Noise Level, dB(A) | | | | | | | 125 |

Construction of Entrance and Vent Shafts (06/2018-08/2018)


| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Above Ground | | | | | | | |
| Generator, standard | CNP 101 | 1 | 108 | 30% | 0 | 0 | 103 |
| Dump truck | CNP 067 | 2 | 117 | 30% | 0 | 0 | 115 |
| Crane lorry, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Poker, vibrator, hand-held | CNP 170 | 2 | 113 | 30% | 0 | 0 | 111 |
| Air Compressor | CNP 002 | 1 | 102 | 30% | 0 | 0 | 97 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Concrete pump | CNP 047 | 1 | 109 | 30% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 117 |

Construction of Station Box Roof Slab (07/2018-09/2018)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Above Ground | | | | | | | |
| Generator, standard | CNP 101 | 1 | 108 | 30% | 0 | 0 | 103 |
| Dump truck | CNP 067 | 1 | 117 | 30% | 0 | 0 | 112 |
| Crane lorry, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Poker, vibrator, hand-held | CNP 170 | 3 | 113 | 30% | 0 | 0 | 113 |
| Air Compressor | CNP 002 | 1 | 102 | 30% | 0 | 0 | 97 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Concrete pump | CNP 047 | 1 | 109 | 30% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 117 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - EXH

Scenario: Unmitigated 

Package: 07 EXH

(iv) At Wan Chai Sports Ground/ Tonnochy Road Area
Site Clearance, Fencing and Hoarding

(04/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Above Ground | | | | | | | |
| Breaker, hand-held, mass > 35kg | CNP 026 | 1 | 114 | 30% | 0 | 0 | 109 |
| Crane lorry, mobile | CNP 048 | 1 | 112 | 50% | 0 | 0 | 109 |
| Dump truck | CNP 067 | 1 | 117 | 30% | 0 | 0 | 112 |
| Poker, vibrator, hand-held | CNP 170 | 2 | 113 | 30% | 0 | 0 | 111 |
| Air Compressor | CNP 002 | 1 | 102 | 30% | 0 | 0 | 97 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Overall Noise Level, dB(A) | | | | | | | 117 |

Demolition & temp re-provision of grandstand

(05/2014-09/2014)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Above Ground | | | | | | | |
| Drill, percussive, hand-held | CNP 064 | 1 | 103 | 50% | 0 | 0 | 100 |
| Saw, concrete | CNP 203 | 2 | 115 | 50% | 0 | 0 | 115 |
| Excavator | CNP 081 | 1 | 112 | 50% | 0 | 0 | 109 |
| Crane lorry, mobile | CNP 048 | 1 | 112 | 50% | 0 | 0 | 109 |
| Dump truck | CNP 067 | 1 | 117 | 30% | 0 | 0 | 112 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Overall Noise Level, dB(A) | | | | | | | 118 |

Diaphragm Wall Construction

(10/2014-04/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Above Ground | | | | | | | |
| Generator, standard | CNP 101 | 1 | 108 | 30% | 0 | 0 | 103 |
| Dump truck | CNP 067 | 1 | 117 | 30% | 0 | 0 | 112 |
| Piling, diaphragm wall, bentonite filtering plant | CNP 162 | 1 | 105 | 40% | 0 | 0 | 101 |
| Bar bender and cutter (electric) | CNP 021 | 2 | 90 | 30% | 0 | 0 | 88 |
| Crane lorry, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Poker, vibrator, hand-held | CNP 170 | 2 | 113 | 30% | 0 | 0 | 111 |
| Air Compressor | CNP 002 | 1 | 102 | 30% | 0 | 0 | 97 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Concrete pump | CNP 047 | 1 | 109 | 30% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 116 |

King Post Construction

(05/2015-07/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Above Ground | | | | | | | |
| Generator, standard | CNP 101 | 1 | 108 | 30% | 0 | 0 | 103 |
| Crane lorry, mobile | CNP 048 | 1 | 112 | 40% | 0 | 0 | 108 |
| Welder/ generator, portable | CNP 107 | 1 | 100 | 30% | 0 | 0 | 95 |
| Power rammer | CNP 169 | 1 | 108 | 80% | 0 | 0 | 107 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Overall Noise Level, dB(A) | | | | | | | 113 |

Excavation

(08/2015-11/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Underground | | | | | | | |
| Crane lorry, mobile | CNP 048 | 2 | 112 | 60% | 0 | 0 | 113 |
| Generator, standard | CNP 101 | 2 | 108 | 80% | 0 | 0 | 110 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Rock drill, crawler mounted (pneumatic) | CNP 181 | 1 | 128 | 30% | -10 | 0 | 113 |
| Ventilation fans | CNP 241 | 2 | 108 | 70% | -10 | 0 | 99 |
| Power pack for hand-held items of PME | CNP 168 | 1 | 100 | 30% | -10 | 0 | 85 |
| dump truck | CNP 067 | 2 | 117 | 50% | -10 | 0 | 107 |
| Water pump (electric) | CNP 282 | 2 | 103 | 80% | -10 | 0 | 95 |
| Welder/ generator, portable | CNP 107 | 1 | 100 | 30% | -10 | 0 | 85 |
| Overall Noise Level, dB(A) | | | | | | | 118 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - EXH

Scenario: Unmitigated 

Package: 07 EXH

Retrieval of TBM (1st drive)

(11/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---------------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Above Ground | | | | | | | |
| Crane lorry, mobile | CNP 048 | 2 | 112 | 60% | 0 | 0 | 113 |
| Tractor | CNP 222 | 1 | 118 | 30% | 0 | 0 | 113 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Truck | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Mobile Crane | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Power pack for hand-held items of PME | CNP 168 | 1 | 100 | 30% | 0 | 0 | 95 |
| Drill, hand-held (electric) | CNP 064 | 1 | 103 | 40% | 0 | 0 | 99 |
| Ventilation fans | CNP 241 | 3 | 108 | 80% | 0 | 0 | 112 |
| Water pump, submersible (electric) | CNP 283 | 3 | 85 | 80% | 0 | 0 | 89 |
| Overall Noise Level, dB(A) | | | | | | | 118 |

Retrieval of TBM (2nd drive)

(08/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---------------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Above Ground | | | | | | | |
| Crane lorry, mobile | CNP 048 | 2 | 112 | 60% | 0 | 0 | 113 |
| Tractor | CNP 222 | 1 | 118 | 30% | 0 | 0 | 113 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Truck | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Mobile Crane | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Power pack for hand-held items of PME | CNP 168 | 1 | 100 | 30% | 0 | 0 | 95 |
| Drill, hand-held (electric) | CNP 064 | 1 | 103 | 40% | 0 | 0 | 99 |
| Ventilation fans | CNP 241 | 3 | 108 | 80% | 0 | 0 | 112 |
| Water pump, submersible (electric) | CNP 283 | 3 | 85 | 80% | 0 | 0 | 89 |
| Overall Noise Level, dB(A) | | | | | | | 118 |

Construction of Station Box Roof Slab

(09/2017-12/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Above Ground | | | | | | | |
| Generator, standard | CNP 101 | 1 | 108 | 30% | 0 | 0 | 103 |
| Dump truck | CNP 067 | 1 | 117 | 30% | 0 | 0 | 112 |
| Crane lorry, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Poker, vibrator, hand-held | CNP 170 | 3 | 113 | 30% | 0 | 0 | 113 |
| Air Compressor | CNP 002 | 1 | 102 | 30% | 0 | 0 | 97 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Concrete pump | CNP 047 | 1 | 109 | 30% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 117 |

Construction of Internal Structures of Box Station

(01/2018-04/2018)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Underground | | | | | | | |
| Crane lorry, mobile | CNP 048 | 2 | 112 | 60% | 0 | 0 | 113 |
| Generator, standard | CNP 101 | 2 | 108 | 80% | 0 | 0 | 110 |
| Lorry | CNP 141 | 1 | 112 | 30% | 0 | 0 | 107 |
| Rock drill, crawler mounted (pneumatic) | CNP 181 | 1 | 128 | 30% | -10 | 0 | 113 |
| Ventilation fans | CNP 241 | 2 | 108 | 70% | -10 | 0 | 99 |
| Power pack for hand-held items of PME | CNP 168 | 1 | 100 | 30% | -10 | 0 | 85 |
| dump truck | CNP 067 | 2 | 117 | 50% | -10 | 0 | 107 |
| Water pump (electric) | CNP 282 | 2 | 103 | 80% | -10 | 0 | 95 |
| Welder/ generator, portable | CNP 107 | 1 | 100 | 30% | -10 | 0 | 85 |
| Overall Noise Level, dB(A) | | | | | | | 118 |

Re-provision of WCSP grandstand

(05/2018-08/2018)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Generator, standard | CNP 101 | 1 | 108 | 30% | 0 | 0 | 103 |
| Dump truck | CNP 067 | 1 | 117 | 30% | 0 | 0 | 112 |
| Crane lorry, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Poker, vibrator, hand-held | CNP 170 | 3 | 113 | 30% | 0 | 0 | 113 |
| Air Compressor | CNP 002 | 1 | 102 | 30% | 0 | 0 | 97 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 30% | 0 | 0 | 104 |
| Concrete pump | CNP 047 | 1 | 109 | 30% | 0 | 0 | 104 |
| Overall Noise Level, dB(A) | | | | | | | 117 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - EXH to Convention Avenue Shaft - Construction of cut and cover tunnel

Scenario: Unmitigated ▼

Package: 06 EXH to Shaft

Tunnel at West to EXH

Site Formation (02/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 100% | 0 | 0 | 112 |
| Dump Truck with Grab | CNP 069 | 1 | 105 | 30% | 0 | 0 | 100 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 50% | 0 | 0 | 119 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | 0 | 0 | 108 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 20% | 0 | 0 | 96 |
| Saw, Concrete | CNP 203 | 1 | 115 | 20% | 0 | 0 | 108 |
| Overall Noise Level, dB(A) | | | | | | | 120 |

Site Hoarding Erection (02/2015)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Excavator | CNP 081 | 1 | 112 | 100% | 0 | 0 | 112 |
| Drill, hand-held (electric) | CNP 064 | 1 | 103 | 100% | 0 | 0 | 103 |
| Generator, standard | CNP 101 | 1 | 108 | 100% | 0 | 0 | 108 |
| Lorry with Grab | CNP 145 | 1 | 105 | 50% | 0 | 0 | 102 |
| Welding Set | CNP 107 | 2 | 100 | 30% | 0 | 0 | 98 |
| Overall Noise Level, dB(A) | | | | | | | 114 |

Excavation inside SCL tunnels protection works (09/2015-04/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Excavator | CNP 081 | 2 | 112 | 100% | -10 | 0 | 105 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 50% | -10 | 0 | 109 |
| Breaker, hand-held | CNP 024 | 1 | 108 | 50% | -10 | 0 | 95 |
| Welding Set | CNP 107 | 1 | 100 | 30% | -10 | 0 | 85 |
| Water Pump, submersible (electric) | CNP 283 | 2 | 85 | 100% | -10 | 0 | 78 |
| At Surface | | | | | | | |
| Gantry Crane (electric) | CNP 049 | 1 | 95 | 50% | 0 | 0 | 92 |
| Ventilation Fans | CNP 241 | 1 | 108 | 100% | 0 | 0 | 108 |
| Dump Truck | CNP 067 | 1 | 117 | 80% | 0 | 0 | 116 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 80% | 0 | 0 | 102 |
| Overall Noise Level, dB(A) | | | | | | | 118 |

Tunnel Box Structure Construction (05/2016-10/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|------------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Bar bender and cutter (electric) | CNP 021 | 1 | 90 | 50% | -10 | 0 | 77 |
| Water Pump, submersible (electric) | CNP 283 | 2 | 85 | 100% | -10 | 0 | 78 |
| Compactor, vibratory | CNP 050 | 1 | 105 | 50% | -10 | 0 | 92 |
| At Surface | | | | | | | |
| Concrete lorry mixer | CNP 044 | 2 | 109 | 50% | 0 | 0 | 109 |
| Crawler crane, mobile | CNP 048 | 1 | 112 | 60% | 0 | 0 | 110 |
| Ventilation Fans | CNP 241 | 2 | 108 | 100% | 0 | 0 | 111 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 80% | 0 | 0 | 102 |
| Overall Noise Level, dB(A) | | | | | | | 115 |

Diaphragm Wall Construction (03/2015-10/2016)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|---|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Generator, standard | CNP 101 | 1 | 108 | 30% | 0 | 0 | 103 |
| Dump truck | CNP 067 | 1 | 117 | 20% | 0 | 0 | 110 |
| Piling, diaphragm wall, bentonite filtering plant | CNP 162 | 1 | 105 | 40% | 0 | 0 | 101 |
| Bar bender and cutter (electric) | CNP 021 | 2 | 90 | 20% | 0 | 0 | 86 |
| Crane, tower (electric) | CNP 049 | 1 | 95 | 50% | 0 | 0 | 92 |
| Crane lorry, mobile | CNP 048 | 1 | 112 | 20% | 0 | 0 | 105 |
| Poker, vibrator, hand-held | CNP 170 | 3 | 113 | 10% | 0 | 0 | 108 |
| Air Compressor | CNP 002 | 1 | 102 | 10% | 0 | 0 | 92 |
| Concrete lorry mixer | CNP 044 | 1 | 109 | 20% | 0 | 0 | 102 |
| Concrete pump | CNP 047 | 1 | 109 | 20% | 0 | 0 | 102 |
| Overall Noise Level, dB(A) | | | | | | | 114 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - EXH to Convention Avenue Shaft - Construction of cut and cover tunnel

Scenario: Unmitigated 

Package: 06 EXH to Shaft

Excavation (07/2015-02/2017)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|--|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Excavator | CNP 081 | 2 | 112 | 100% | -10 | 0 | 105 |
| Breaker, excavator mounted (hydraulic) | CNP 028 | 1 | 122 | 50% | -10 | 0 | 109 |
| Breaker, hand-held | CNP 024 | 1 | 108 | 50% | -10 | 0 | 95 |
| Welding Set | CNP 107 | 1 | 100 | 30% | -10 | 0 | 85 |
| Water Pump, submersible (electric) | CNP 283 | 2 | 85 | 100% | -10 | 0 | 78 |
| At Surface | | | | | | | |
| Gantry Crane (electric) | CNP 049 | 1 | 95 | 50% | 0 | 0 | 92 |
| Ventilation Fans | CNP 241 | 1 | 108 | 100% | 0 | 0 | 108 |
| Dump Truck | CNP 067 | 1 | 117 | 80% | 0 | 0 | 116 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 80% | 0 | 0 | 102 |
| Overall Noise Level, dB(A) | | | | | | | 118 |

Tunnel Box Structure Construction (03/2017-01/2018)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|------------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Bar bender and cutter (electric) | CNP 021 | 1 | 90 | 50% | -10 | 0 | 77 |
| Water Pump, submersible (electric) | CNP 283 | 2 | 85 | 100% | -10 | 0 | 78 |
| Compactor, vibratory | CNP 050 | 1 | 105 | 50% | -10 | 0 | 92 |
| At Surface | | | | | | | |
| Concrete lorry mixer | CNP 044 | 2 | 109 | 50% | 0 | 0 | 109 |
| Crawler crane, mobile | CNP 048 | 1 | 112 | 60% | 0 | 0 | 110 |
| Ventilation Fans | CNP 241 | 2 | 108 | 100% | 0 | 0 | 111 |
| Air compressor | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 80% | 0 | 0 | 102 |
| Overall Noise Level, dB(A) | | | | | | | 115 |

Backfilling and Superstructure (including EAP) Stage 1 Stage 2 (10/2016-04/2017) (02/2018)

| PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|------------------------------------|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| In Shaft | | | | | | | |
| Excavator | CNP 081 | 1 | 112 | 100% | -10 | 0 | 102 |
| Water Pump, submersible (electric) | CNP 283 | 1 | 85 | 100% | -10 | 0 | 75 |
| At Surface | | | | | | | |
| Crawler crane, mobile | CNP 048 | 1 | 112 | 30% | 0 | 0 | 107 |
| Ventilation Fans | CNP 241 | 1 | 108 | 60% | 0 | 0 | 106 |
| Concrete Lorry mixer | CNP 044 | 1 | 109 | 50% | 0 | 0 | 106 |
| Water Pump (electric) | CNP 282 | 1 | 103 | 40% | 0 | 0 | 99 |
| Dump Truck | CNP 067 | 1 | 117 | 60% | 0 | 0 | 115 |
| Overall Noise Level, dB(A) | | | | | | | 117 |

Appendix 9.2 Construction Plant Inventory for SCL (HUH-ADM) - Unmitigated Scenario

Plant Inventory for Construction Noise Assessment - ADM Works for SCL

Scenario: Unmitigated ▼

Contract 1124 - ADM Works for SCL

ADM Works

Spoil Removal

| | PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|-----|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Dump Truck | | CNP 067 | 6 | 117 | 100% | 0 | 0 | 125 |
| Overall Noise Level, dB(A) | | | | | | | | 125 |

Aboveground works and reinstatement

| | PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|-----|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Crane, mobile | | CNP 048 | 1 | 112 | 100% | 0 | 0 | 112 |
| Air Compressor | | CNP 002 | 1 | 102 | 100% | 0 | 0 | 102 |
| Generator, standard | | CNP 101 | 1 | 108 | 100% | 0 | 0 | 108 |
| Breaker, hand-held | | CNP 024 | 2 | 108 | 100% | 0 | 0 | 111 |
| Poker, vibrator, hand-held | | CNP 170 | 2 | 113 | 100% | 0 | 0 | 116 |
| Concrete pump | | CNP 047 | 1 | 109 | 100% | 0 | 0 | 109 |
| Dump Truck | | CNP 067 | 1 | 117 | 100% | 0 | 0 | 117 |
| Concrete lorry mixer | | CNP 044 | 1 | 109 | 100% | 0 | 0 | 109 |
| Lorry | | CNP 141 | 1 | 112 | 100% | 0 | 0 | 112 |
| Overall Noise Level, dB(A) | | | | | | | | 122 |

Demolition of Ventilation Shaft X

(04/2016-08/2016)

| | PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Correction for Underground Works | Barrier Correction | Sub-total SWL |
|-----------------------------------|-----|--------------------|--------------|-----------------|------------|----------------------------------|--------------------|---------------|
| Crane, mobile | | CNP 048 | 1 | 112 | 100% | 0 | 0 | 112 |
| Excavator | | CNP 081 | 1 | 112 | 100% | 0 | 0 | 112 |
| Breaker, hand-held | | CNP 024 | 6 | 108 | 100% | 0 | 0 | 116 |
| Saw, concrete | | CNP 203 | 1 | 115 | 100% | 0 | 0 | 115 |
| Air compressor | | CNP 002 | 2 | 102 | 100% | 0 | 0 | 105 |
| Generator, standard | | CNP 101 | 1 | 108 | 100% | 0 | 0 | 108 |
| Dump truck | | CNP 067 | 2 | 117 | 100% | 0 | 0 | 120 |
| Overall Noise Level, dB(A) | | | | | | | | 123 |

Plant Inventory for Construction Noise Assessment - Barging Point

Scenario:

Unmitigated ▼

Package: Barging Point

Barging Point at Wan Chai Ex-PCWA

Spoil Disposal

(01/2015 - 09/2018)

| | PME | TM Ref./ other Ref | No. of Items | SWL/ Item dB(A) | On- time % | Barrier Correction | Sub-total SWL |
|------------------|-----|--------------------|--------------|--------------------|------------|-----------------------------------|---------------|
| Conveyor belts | | CNP 041 | 1 | 90 | 100% | 0 | 90 |
| Barges | | CNP 061 | 1 | 104 | 30% | 0 | 99 |
| Truck | | CNP 141 | 9 | 112 | 60% | 0 | 119 |
| Front end loader | | BS D3/97 | 1 | 105 | 30% | 0 | 100 |
| | | | | | | Overall Noise Level, dB(A) | 119 |