	PME	TM or other reference	SWL, dB(A)	% on time
P	Site Formation	L	1	
	Stage 1 - Site Clearance			
	Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
	Breaker, excavator mounted (hydraulic)	CNP 028	122	80%
		•	Total SW	L, dB (A)
	0			
	Group 2 Excavator/ loader, wheeled/ tracked	CNP 081	112	80%
	Excavator loader, wheeled tracked	0141 001	112	0078
	Group 3	0110	1	
	Bulldozer	CNP 030	115	70%
	Lorry with crane/grab Dump truck	CNP 145 CNP 067	105 117	70% 70%
	Dump truck	CNF 067	Total SW	
		Max	kimum SW	
				, - ()
	Stage 2 - Site Formation Works			
	Group 1	0115	1 425	00-1
	Excavator/ loader, wheeled/ tracked Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 081	112	80%
	Generator, super silenced, 70 dB(A) at 7 m	CNP 002 CNP 103	102 95	70% 100%
	denotator, super shericeu, 70 ub(n) dt 7 III	UNF 100	33	10070
	Group 2			
	Piling, diaphragm wall, bentonite filtering plant	CNP 162	105	80%
	Piling, diaphragm wall, hydraulic extractor	CNP 163	90	80%
	Crane, mobile/ barge mounted (diesel)	CNP 048	112 95	80%
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	80%
	Group 3			
	Bulldozer	CNP 030	115	70%
	Compactor, vibratory	CNP 050	105	70%
	Dump truck	CNP 067	117	70%
		Max	Total SW kimum SW	
		With	amam Ott	L, ab (//)
	Stage 3 - Building Formation Works			
	Group 1	_		
	Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111	50%
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic)	CNP 028	122	30%
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 028 CNP 002	122 102	30% 70%
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic)	CNP 028	122	30% 70% 100%
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 028 CNP 002	122 102 95	30% 70% 100%
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2	CNP 028 CNP 002 CNP 103	122 102 95 Total SW	30% 70% 100% L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m	CNP 028 CNP 002 CNP 103	122 102 95 Total SW	30% 70% 100% L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164	122 102 95 Total SW 95 115	30% 70% 100% L, dB (A) 100%
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166	122 102 95 Total SW 95 115 100	30% 70% 100% L, dB (A) 100% 100% 70%
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164	122 102 95 Total SW 95 115	30% 70% 100% L, dB (A) 100% 100% 70% 80%
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric)	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166	122 102 95 Total SW 95 115 100 88	30% 70% 100% L, dB (A) 100% 100% 70% 80%
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric) Group 3	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 281	122 102 95 Total SW 95 115 100 88 Total SW	30% 70% 100% L, dB (A) 100% 100% 70% 80% L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Crane, mobile/ barge mounted (diesel)	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 281 CNP 281	122 102 95 Total SW 95 115 100 88 Total SW	30% 70% 100% L, dB (A) 100% 100% 70% 80% 80%
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, grab and chisel Water pump (electric) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 281 CNP 281	95 Total SW 95 115 100 88 Total SW 112 100 95 115 100 88 Total SW	30% 70% 100% L, dB (A) 100% 100% 70% 80% L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 281 CNP 281 CNP 048 CNP 047 CNP 044	95 Total SW 95 115 100 88 Total SW 112 109 109	30% 70% 100% L, dB (A) 100% 100% 70% 80% L, dB (A) 80% 40% 70%
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 281 CNP 048 CNP 047 CNP 044 CNP 170	122 102 95 Total SW 95 115 100 88 Total SW 112 109 109	30% 70% 100% L, dB (A) 100% 100% 70% L, dB (A) 80% 40% 70% 70%
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 281 CNP 281 CNP 048 CNP 047 CNP 044	122 102 95 Total SW 95 115 100 88 Total SW 112 109 109 113 95	30% 70% 100% L, dB (A) 100% 70% 80% 40% 70% 80%
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 281 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103	122 102 95 Total SW 95 115 100 88 Total SW 112 109 109	30% 70% 100% L, dB (A) 100% 100% 70% L, dB (A) 80% 40% 70% 70%
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 281 CNP 281 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 103 CNP 109	122 102 95 Total SW 95 115 100 88 Total SW 112 109 113 95 111 111 111 111 111	30% 70% 100% L, dB (A) 100% 70% 80% L, dB (A) 80% 40% 70% 80% 50% 80% 80%
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Breaker, hand-held, mass >= 20kg and <= 35kg Water pump (electric)	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 281 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 103 CNP 103 CNP 103 CNP 103 CNP 025 CNP 281	122 102 95 Total SW 95 115 100 88 Total SW 112 109 109 113 95 1111 88 90 Total SW	30% 70% 100% L, dB (A) 100% 70% 80% L, dB (A) 80% 40% 70% 80% 50% 80% 50% 80% L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Breaker, hand-held, mass >= 20kg and <= 35kg Water pump (electric)	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 281 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 103 CNP 103 CNP 103 CNP 103 CNP 025 CNP 281	122 102 95 Total SW 95 115 100 88 Total SW 112 109 113 95 111 111 111 111 111	30% 70% 100% L, dB (A) 100% 70% 80% L, dB (A) 80% 40% 70% 80% 50% 80% 50% 80% L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Breaker, hand-held, mass >= 20kg and <= 35kg Water pump (electric) Bar bender and cutter (electric)	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 281 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 103 CNP 103 CNP 103 CNP 103 CNP 025 CNP 281	122 102 95 Total SW 95 115 100 88 Total SW 112 109 109 113 95 1111 88 90 Total SW	30% 70% 100% L, dB (A) 100% 70% 80% L, dB (A) 80% 40% 70% 80% 50% 80% 50% 80% L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Breaker, hand-held, mass >= 20kg and <= 35kg Water pump (electric) Bar bender and cutter (electric) Stage 4 - Building Structures	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 281 CNP 047 CNP 047 CNP 044 CNP 170 CNP 103 CNP 103 CNP 103 CNP 103 CNP 025 CNP 025 CNP 025 CNP 021	122 102 95 Total SW 95 115 100 88 Total SW 112 109 113 95 111 111 95 1111 95 1111 S8 90 Total SW	30% 70% 100% L, dB (A) 100% 100% 80% L, dB (A) 80% 40% 70% 80% 50% 80% 80% L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Breaker, hand-held, mass >= 20kg and <= 35kg Water pump (electric) Bar bender and cutter (electric) Stage 4 - Building Structures Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 281 CNP 048 CNP 047 CNP 047 CNP 044 CNP 170 CNP 103 CNP 103 CNP 103 CNP 103 CNP 025 CNP 281 CNP 021	122 102 95 Total SW 95 115 100 88 Total SW 112 109 113 95 1111 111 95 1111 95 1111 95 1111 95 1111 95	30% 70% 100% L, dB (A) 100% 80% L, dB (A) 80% 40% 70% 80% 50% 80% 50% 80% L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Breaker, hand-held, mass >= 20kg and <= 35kg Water pump (electric) Bar bender and cutter (electric) Stage 4 - Building Structures	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 281 CNP 047 CNP 047 CNP 044 CNP 170 CNP 103 CNP 103 CNP 103 CNP 103 CNP 025 CNP 025 CNP 025 CNP 021	122 102 95 Total SW 95 115 100 88 Total SW 112 109 113 95 111 111 95 1111 95 1111 S8 90 Total SW	30% 70% 100% L, dB (A) 100% 100% 80% L, dB (A) 80% 40% 70% 80% 50% 80% 80% L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Breaker, hand-held, mass >= 20kg and <= 35kg Water pump (electric) Stage 4 - Building Structures Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 281 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 103 CNP 025 CNP 025 CNP 021 Max CNP 002 CNP 002 CNP 025	122 102 95 Total SW 95 115 100 88 Total SW 112 109 109 113 95 111 88 90 Total SW	30% 70% 100% 100% 1, dB (A) 100% 70% 80% L, dB (A) 80% 70% 80% 40% 70% 80% 80% L, dB (A) 100% 80% 80% 80% 80% L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Filing, large diameter bored, grab and chisel Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Breaker, hand-held, mass >= 20kg and <= 35kg Water pump (electric) Bar bender and cutter (electric) Stage 4 - Building Structures Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 281 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 025 CNP 021 Max CNP 025 CNP 025 CNP 025 CNP 025 CNP 025 CNP 025 CNP 027	122 102 95 Total SW 95 115 100 88 Total SW 112 109 109 113 95 111 111 88 90 Total SW	30% 70% 100% 100% 100% 100% 70% 80% L, dB (A) 80% 70% 80% 50% 80% 80% 50% 80% L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Breaker, hand-held, mass >= 20kg and <= 35kg Water pump (electric) Bar bender and cutter (electric) Stage 4 - Building Structures Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 166 CNP 281 CNP 047 CNP 044 CNP 170 CNP 103 CNP 025 CNP 025 CNP 025 CNP 044 CNP 047 CNP 044 CNP 047 CNP 048 CNP 049 CNP 048 CNP 048	122 102 95 Total SW 95 115 100 88 Total SW 109 109 113 95 111 88 90 Total SW	30% 70% 100% 100% 1, dB (A) 100% 70% 80% L, dB (A) 80% 70% 80% 80% 80% L, dB (A) 70% 80% 40% 70% 80% 40% 80% 50% 80% 50%
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Filing, large diameter bored, grab and chisel Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Breaker, hand-held, mass >= 20kg and <= 35kg Water pump (electric) Bar bender and cutter (electric) Stage 4 - Building Structures Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 281 CNP 047 CNP 025 CNP 025 CNP 025 CNP 025 CNP 026 CNP 044 CNP 070 CNP 0	122 102 95 Total SW 95 115 100 88 Total SW 112 109 109 113 95 111 88 90 Total SW 111 88 90 Total SW	30% 70% 100% 100% 100% 100% 80% L, dB (A) 80% 70% 80% 50% 80% 80% 40% 70% 80% 40% 70% 80% 50% 80% 70% 40% 70% 80% 70%
	Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Breaker, hand-held, mass >= 20kg and <= 35kg Water pump (electric) Bar bender and cutter (electric) Stage 4 - Building Structures Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 166 CNP 281 CNP 047 CNP 044 CNP 170 CNP 103 CNP 025 CNP 025 CNP 025 CNP 044 CNP 047 CNP 044 CNP 047 CNP 048 CNP 049 CNP 048 CNP 048	122 102 95 Total SW 95 115 100 88 Total SW 109 109 113 95 111 88 90 Total SW	30% 70% 100% 1, dB (100% 100% 100% 80% 80% 70% 80% 80% 40% 70% 80% 80% 40% 50% 50% 50% 50%

	PME	TM or other reference	SWL, dB(A)	%on time	Total of P
P	Site Formation				
	Stage 5 - Building E&M System	OND OO	400	700/	
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%	1 2
	Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025 CNP 044	111 109	40% 30%	2
	Concrete lorry mixer		112		
	Crane, mobile/ barge mounted (diesel)	CNP 048		50%	1 2
	Lorry with crane/grab	CNP 145	105	50%	
	Poker, vibratory, hand-held	CNP 170	113	20%	<u>2</u> 4
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%	
			Total Svv	L, dB (A)	11
	Stage 6 - Cross Boundary Bridges - Substructures				
	Group 1				
	Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111	50%	2
	Breaker, excavator mounted (hydraulic)	CNP 028	122	30%	1
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%	1
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%	1
	Excavator/ loader, wheeled/ tracked	CNP 081	112	80%	2
	Dump truck	CNP 067	117	70%	3
	, p. 1.1.			L, dB (A)	12
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%	2
		CNP 103			
	Piling, large diameter bored, grab and chisel		115	100%	
	Piling, large diameter bored, reverse circulation drill	CNP 166	100	70%	1
	Water pump (electric)	CNP 281	88	80%	4
			Total SW	L, dB (A)	11
	Group 3				
	Concrete pump, stationary/ lorry mounted	CNP 047	109	40%	1
	Concrete lorry mixer	CNP 044	109	70%	- 4
	Poker, vibratory, hand-held	CNP 170	113	70%	3
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	80%	2
	Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 103 CNP 025	111	50%	2
	Water pump (electric)	CNP 281	88	80%	4
	Bar bender and cutter (electric)	CNP 021	90	80%	3
		-2.22			
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	70%	
	Crane, mobile/ barge mounted (diesel)	•	Total SW	L, dB (A)	12
	Crane, mobile/ barge mounted (diesel)	•		L, dB (A)	12
	Stage 7 - Cross Boundary Bridges - Bridges Deck	Ma	Total SW ximum SW	/L, dB (A) /L, dB (A)	12 12
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min	Ma: CNP 002	Total SW ximum SW	/L, dB (A) /L, dB (A) 70%	12 12
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg	Ma. CNP 002 CNP 025	Total SW ximum SW	7L, dB (A) 7L, dB (A) 70% 40%	12 12
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min	Ma: CNP 002	Total SW ximum SW 102 111 109	/L, dB (A) /L, dB (A) 70%	12 12
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg	Ma. CNP 002 CNP 025	Total SW ximum SW 102 111	7L, dB (A) 7L, dB (A) 70% 40%	12 12
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer	CNP 002 CNP 025 CNP 044	Total SW ximum SW 102 111 109	7L, dB (A) 7L, dB (A) 70% 40% 70%	12 12 12 1 1 2 6
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted	CNP 002 CNP 025 CNP 044 CNP 047	Total SW ximum SW 102 111 109 109	70% 40% 40%	12 12 12 14 2 6 6 2 2
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab	CNP 002 CNP 025 CNP 044 CNP 047 CNP 048	Total SW ximum SW 102 111 109 109 112	70% 40% 70% 40% 40% 40%	12 12 12 14 2 2 2 2 2
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held	CNP 002 CNP 025 CNP 044 CNP 047 CNP 048 CNP 145 CNP 170	Total SW ximum SW 102 111 109 109 112 105 113	70% 40% 70% 40% 40% 50% 20%	12 12 12 12 12 12 12 12 12 12 12 12 12 1
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab	CNP 002 CNP 025 CNP 044 CNP 047 CNP 048 CNP 145	Total SW ximum SW 102 111 109 109 112 113 90	70% 40% 40% 40% 50%	12 12 12 14 15 16 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held Bar bender and cutter (electric)	CNP 002 CNP 025 CNP 044 CNP 047 CNP 048 CNP 145 CNP 170 CNP 021	Total SW ximum SW 102 111 109 109 112 113 90	70% 40% 70% 40% 40% 50% 20% 80%	12 12 12 13 14 16 16 16 22 22 22 23 33 33
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held Bar bender and cutter (electric) Stage 8 - Cross Boundary Bridges - Road Works & Faciliti	CNP 002 CNP 025 CNP 044 CNP 047 CNP 048 CNP 145 CNP 170 CNP 021	Total SW ximum SW 102 111 109 109 112 113 90	70% 40% 70% 40% 40% 50% 20% 80%	12 12 12 13 14 16 16 16 22 22 22 23 33 33
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held Bar bender and cutter (electric) Stage 8 - Cross Boundary Bridges - Road Works & Facilit Group 1	CNP 002 CNP 025 CNP 044 CNP 047 CNP 048 CNP 145 CNP 170 CNP 021	Total SW ximum SW 102 111 109 109 109 113 90 Total SW	70% 40% 70% 40% 50% 20% 80% 1L, dB (A)	12 12 12 14 22 24 24 25 33 31
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held Bar bender and cutter (electric) Stage 8 - Cross Boundary Bridges - Road Works & Facilit Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002 CNP 025 CNP 044 CNP 047 CNP 048 CNP 145 CNP 170 CNP 021	Total SW ximum SW 102 111 109 109 1113 90 Total SW	70% 40% 40% 40% 50% 20% 80% 70, dB (A)	12 12 12 2 2 2 2 2 3 3 11
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held Bar bender and cutter (electric) Stage 8 - Cross Boundary Bridges - Road Works & Facilit Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Dump truck	CNP 002 CNP 025 CNP 044 CNP 047 CNP 048 CNP 145 CNP 170 CNP 021	Total SW 2002 1111 109 1105 1113 90 Total SW 102 117	70% 40% 70% 40% 70% 40% 50% 20% 80% 70, dB (A)	12 12 12 2 2 2 2 3 3 11
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held Bar bender and cutter (electric) Stage 8 - Cross Boundary Bridges - Road Works & Facilit Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002 CNP 025 CNP 044 CNP 047 CNP 048 CNP 145 CNP 170 CNP 021	Total SW mm SW 102 1111 109 109 112 105 113 90 Total SW 1102 117 95	70% 40% 70% 40% 50% 80% 70% 50% 50% 100%	12 12 12 2 2 2 2 2 3 3 11 11
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held Bar bender and cutter (electric) Stage 8 - Cross Boundary Bridges - Road Works & Facilit Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Dump truck	CNP 002 CNP 025 CNP 044 CNP 047 CNP 048 CNP 145 CNP 170 CNP 021	Total SW 2002 1111 109 1105 1113 90 Total SW 102 117	70% 40% 70% 40% 50% 80% 70% 50% 50% 100%	12 12 12 2 2 2 2 2 3 3 11 11
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held Bar bender and cutter (electric) Stage 8 - Cross Boundary Bridges - Road Works & Facilit Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Dump truck Generator, super silenced, 70 dB(A) at 7 m	CNP 002 CNP 025 CNP 044 CNP 047 CNP 048 CNP 145 CNP 170 CNP 021	Total SW 200 Total	70% 40% 70% 40% 70% 40% 50% 20% 80% 10, dB (A) 70% 50%	122 12 12 12 2 2 2 2 2 2 3 3 3 11 11
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held Bar bender and cutter (electric) Stage 8 - Cross Boundary Bridges - Road Works & Facilit Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Dump truck Generator, super silenced, 70 dB(A) at 7 m Group 2 Roller, vibratory	CNP 002 CNP 025 CNP 044 CNP 047 CNP 048 CNP 145 CNP 170 CNP 021	Total SW 2002 1111 109 109 112 105 113 90 Total SW 1102 117 95 Total SW 108 108 108 108 108 108 108 108 108 108	70% 40% 70% 40% 50% 80% 70% 100% 100% 70% 100% 70% 80% 70% 70% 80% 70% 70% 70% 70% 70% 70% 70% 70% 70% 7	1 1 1 2 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held Bar bender and cutter (electric) Stage 8 - Cross Boundary Bridges - Road Works & Facilit Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Dump truck Generator, super silenced, 70 dB(A) at 7 m Group 2 Roller, vibratory Asphalt paver	CNP 002 CNP 025 CNP 044 CNP 047 CNP 047 CNP 145 CNP 175 CNP 175 CNP 175 CNP 021 CNP 021 CNP 067 CNP 103 CNP 103 CNP 106 CNP 106 CNP 107 CNP 108 CNP	Total SW 2011 102 111 109 109 105 112 105 113 90 Total SW 102 105 Total SW 108 109 109 109 109 109 109 109 109 109 109	70% 40% 70% 40% 70% 40% 50% 20% 80% 71, dB (A) 70% 50% 20% 50% 100% 70% 50% 40%	122 12 12 12 12 11 11 11 11 11 11 11
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held Bar bender and cutter (electric) Stage 8 - Cross Boundary Bridges - Road Works & Facilit Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Dump truck Generator, super silenced, 70 dB(A) at 7 m Group 2 Roller, vibratory Asphalt paver Concrete lorry mixer	CNP 002 CNP 025 CNP 044 CNP 047 CNP 048 CNP 145 CNP 170 CNP 021	Total SW 2002 1111 109 109 112 105 113 90 Total SW 1102 117 95 Total SW 108 108 108 108 108 108 108 108 108 108	70% 40% 50% 20% 10, dB (A) 70% 40% 50% 20% 20% 50% 100% 70, dB (A) 30% 40% 30%	122 12 12 12 2 2 2 2 2 2 3 3 3 11 11
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held Bar bender and cutter (electric) Stage 8 - Cross Boundary Bridges - Road Works & Facilit Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Dump truck Generator, super silenced, 70 dB(A) at 7 m Group 2 Roller, vibratory Asphalt paver	CNP 002 CNP 025 CNP 044 CNP 047 CNP 047 CNP 145 CNP 175 CNP 175 CNP 175 CNP 021 CNP 021 CNP 067 CNP 103 CNP 103 CNP 106 CNP 106 CNP 107 CNP 108 CNP	Total SW 2011 102 111 109 109 105 112 105 113 90 Total SW 102 105 Total SW 108 109 109 109 109 109 109 109 109 109 109	70% 40% 70% 40% 70% 40% 50% 20% 80% 71, dB (A) 70% 50% 20% 50% 100% 70% 50% 40%	122 12 12 12 12 11 11 11 11 11 11 11
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held Bar bender and cutter (electric) Stage 8 - Cross Boundary Bridges - Road Works & Facilit Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Dump truck Generator, super silenced, 70 dB(A) at 7 m Group 2 Roller, vibratory Asphalt paver Concrete lorry mixer	CNP 002 CNP 002 CNP 025 CNP 044 CNP 047 CNP 145 CNP 170 CNP 170 CNP 021 CNP 002 CNP 067 CNP 103 CNP 186 CNP 004 CNP 005 CNP	Total SW 2019 109 109 109 109 109 109 109 109 109	70% 40% 50% 20% 10, dB (A) 70% 40% 50% 20% 20% 50% 100% 70, dB (A) 30% 40% 30%	122 12 12 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held Bar bender and cutter (electric) Stage 8 - Cross Boundary Bridges - Road Works & Facilit Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Dump truck Generator, super silenced, 70 dB(A) at 7 m Group 2 Roller, vibratory Asphalt paver Concrete lorry mixer Generator, super silenced, 70 dB(A) at 7 m	CNP 002 CNP 025 CNP 044 CNP 103 CNP 021	Total SW mmm SW 102 1111 109 109 112 102 117 113 90 Total SW 108 109 109 109 109 109 109 109 109 109 109	70% 40% 70% 80% 100% 100% 100% 100% 100% 100% 100	122 12 12 12 12 22 22 22 23 33 33 111
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held Bar bender and cutter (electric) Stage 8 - Cross Boundary Bridges - Road Works & Facilit Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Dump truck Generator, super silenced, 70 dB(A) at 7 m Group 2 Roller, vibratory Asphalt paver Concrete lorry mixer Generator, super silenced, 70 dB(A) at 7 m	CNP 002 CNP 025 CNP 044 CNP 047 CNP 145 CNP 145 CNP 145 CNP 145 CNP 021 CNP 067 CNP 103 CNP 103 CNP 104 CNP 105 CNP	Total SW mmm SW 102 1111 109 109 112 102 117 113 90 Total SW 108 109 109 109 109 109 109 109 109 109 109	70% 40% 70% 40% 70% 40% 50% 20% 70% 10, dB (A) 70% 50% 10, dB (A) 70% 40% 30% 40% 30% 40% 30% 40%	122 122 122 122 122 122 122 122 122 122
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held Bar bender and cutter (electric) Stage 8 - Cross Boundary Bridges - Road Works & Facilit Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Dump truck Generator, super silenced, 70 dB(A) at 7 m Group 2 Roller, vibratory Asphalt paver Concrete lorry mixer Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric)	CNP 002 CNP 025 CNP 044 CNP 047 CNP 145 CNP 145 CNP 145 CNP 145 CNP 021 CNP 067 CNP 103 CNP 103 CNP 104 CNP 105 CNP	Total SW 2011 102 1109 109 109 109 109 109 109 109 109 10	70% 40% 70% 40% 70% 40% 50% 20% 70% 10, dB (A) 70% 50% 10, dB (A) 70% 40% 30% 40% 30% 40% 30% 40%	122 6 6 2 2 2 2 2 2 2 3 3 3 3 1 11 11 1 1 1 1 1
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held Bar bender and cutter (electric) Stage 8 - Cross Boundary Bridges - Road Works & Facilit Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Dump truck Generator, super silenced, 70 dB(A) at 7 m Group 2 Roller, vibratory Asphalt paver Concrete lorry mixer Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 9 - Cross Boundary Bridges - E&M System	CNP 002 CNP 025 CNP 044 CNP 047 CNP 145 CNP 021	Total SW mmm SW 102 1111 109 109 112 105 Total SW 108 109 109 109 109 109 109 109 109 109 109	70% 40% 70% 80% 70% 80% 70% 80% 70% 80% 70% 80% 70% 80% 70% 80% 70% 80% 70% 80% 70% 80% 70% 80% 70% 80% 70% 80% 70% 80% 70% 80% 80% 70% 80% 80% 80% 70% 80% 80% 80% 80% 80% 80% 80% 80% 80% 8	112 12 12 12 12 12 12 12 12 12 12 12 12
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held Bar bender and cutter (electric) Stage 8 - Cross Boundary Bridges - Road Works & Facilit Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Dump truck Generator, super silenced, 70 dB(A) at 7 m Group 2 Roller, vibratory Asphalt paver Concrete lorry mixer Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 9 - Cross Boundary Bridges - E&M System Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002 CNP 025 CNP 044 CNP 047 CNP 145 CNP 145 CNP 021	Total SW mmm SW 102 1111 109 109 109 109 109 109 109 109 10	70% 40% 70% 80% 70% 100% 100% 100% 100% 100% 100% 100	122 2 2 2 2 2 3 3 3 111 11 11 1 1 1 1 1
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held Bar bender and cutter (electric) Stage 8 - Cross Boundary Bridges - Road Works & Facilif Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Dump truck Generator, super silenced, 70 dB(A) at 7 m Group 2 Roller, vibratory Asphalt paver Concrete lorry mixer Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 9 - Cross Boundary Bridges - E&M System Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 002	Total SW 2 102 111 1 109 109 109 109 109 109 109 109 1	70% 40% 70% 40% 70% 40% 70% 40% 70% 100% 70% 70% 100% 70% 70% 100% 70% 70% 100% 70% 70% 70% 70% 70% 70% 70% 70% 70%	122 2 2 2 2 2 2 3 3 3 111 111 1 1 1 1 1
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held Bar bender and cutter (electric) Stage 8 - Cross Boundary Bridges - Road Works & Facilit Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Dump truck Generator, super silenced, 70 dB(A) at 7 m Group 2 Roller, vibratory Asphalt paver Concrete lorry mixer Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 9 - Cross Boundary Bridges - E&M System Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Lorry with crane/grab	CNP 002 CNP 025 CNP 044 CNP 021	Total SW 200 1102 1111 105 105 105 105 105 105 105 105 10	70% 40% 70% 80% 100% 100% 100% 100% 100% 100% 100	122 2 2 2 2 2 2 3 3 3 1 1 1 1 1 1 1 1 1
	Stage 7 - Cross Boundary Bridges - Bridges Deck Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held Bar bender and cutter (electric) Stage 8 - Cross Boundary Bridges - Road Works & Facilif Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Dump truck Generator, super silenced, 70 dB(A) at 7 m Group 2 Roller, vibratory Asphalt paver Concrete lorry mixer Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 9 - Cross Boundary Bridges - E&M System Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 002	Total SW ximum SW 102 1111 109 109 112 105 113 90 Total SW 109 109 95 95 Total SW ximum SW 102 111 1105 95	70% 40% 70% 40% 70% 40% 70% 40% 70% 100% 70% 70% 100% 70% 70% 100% 70% 70% 100% 70% 70% 70% 70% 70% 70% 70% 70% 70%	122 122 122 122 122 122 122 122 122 122

9 5	РМЕ	TM or other reference	SWL, dB(A)	%on time
- 1	Site Formation	•	•	•
-	Diama 40. Octobral Obell Wast			
	Stage 10 - General Civil Works and Utilities			
_	Group 1	CNP 002	100	70%
	Air compressor, air flow > 10m3/min and <= 30m3/min Compactor, vibratory	CNP 002 CNP 050	102 105	70%
	Dump truck	CNP 050 CNP 067	117	70%
	Excavator/ loader, wheeled/ tracked	CNP 087	112	70%
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
ľ	deficiator, super silenced, 70 db(A) at 7 m	CINE 103		/L, dB (A)
t			i otal OW	-, ub (A)
1	Group 2			
-	Concrete lorry mixer	CNP 044	109	75%
	Poker, vibratory, hand-held	CNP 170	113	70%
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
	Bar bender and cutter (electric)	CNP 021	90	90%
-	_orry with crane/grab	CNP 145	105	50%
t	7	•	Total SW	/L, dB (A)
E				
	Group 3			
	Roller, vibratory	CNP 186	108	30%
	Dump truck	CNP 067	117	50%
	Asphalt paver	CNP 004	109	40%
(Concrete lorry mixer	CNP 044	109	30%
Ĺ				/L, dB (A)
Ĺ		Ma	ximum SW	/L, dB (A)
Ļ				
	Stage 11 - Road Works			
-	Group 1	1		
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%
	Dump truck	CNP 067	117	50%
Ľ	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
ŀ			iotal SW	/L, dB (A)
L	Group 2			
Н	Group 2 Boller vibratory	CNP 186	108	200/
	Roller, vibratory	CNP 186 CNP 004	108	30% 40%
	Asphalt paver Concrete lorry mixer	CNP 004 CNP 044	109	30%
	Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 103	95	100%
Ľ	Generator, Super Silenceu, 70 UD(A) dt 7 III	UNP 103		/L, dB (A)
F		Ma	ximum SW	
r		IVIG		, JD (A)
h	Stage 12 - Lighting/E&M/TCSS			
Ш	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%
-				
4	Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111	40%
1	Breaker, hand-held, mass >= 20kg and <= 35kg			40% 30%
1	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer	CNP 025 CNP 044	111	
1	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel)	CNP 025 CNP 044 CNP 048	111 109	30%
1	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Lorry with crane/grab	CNP 025 CNP 044 CNP 048 CNP 145	111 109 112 105	30% 50% 50%
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel)	CNP 025 CNP 044 CNP 048	111 109 112	30% 50%
(Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170	111 109 112 105 113 95	30% 50% 50% 20%
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170	111 109 112 105 113 95	30% 50% 50% 20% 100%
7 - C	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170	111 109 112 105 113 95	30% 50% 50% 20% 100%
\	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, wibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant 13a Foundation Works	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170	111 109 112 105 113 95	30% 50% 50% 20% 100%
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant 13a Foundation Works Group 1	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170 CNP 103	111 109 112 105 113 95 Total SW	30% 50% 50% 20% 100% /L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant 13a Foundation Works Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170 CNP 103	111 109 112 105 113 95 Total SW	30% 50% 50% 20% 100% /L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant I3a Foundation Works Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic)	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170 CNP 103 CNP 103	111 109 112 105 113 95 Total SW	30% 50% 50% 20% 100% /L, dB (A) 50% 30%
; _ ; _ ; _ ; _ ;	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant 13a Foundation Works Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170 CNP 103 CNP 103	111 109 112 105 113 95 Total SW	30% 50% 50% 20% 100% /L, dB (A) 50% 30% 70%
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant I3a Foundation Works Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic)	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170 CNP 103 CNP 103	111 109 112 105 113 95 Total SW	30% 50% 50% 20% 100% /L, dB (A) 50% 30% 70% 100%
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant 13a Foundation Works Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170 CNP 103 CNP 103	111 109 112 105 113 95 Total SW	30% 50% 50% 20% 100% /L, dB (A) 50% 30% 70%
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant I3a Foundation Works Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170 CNP 103 CNP 103	111 109 112 105 113 95 Total SW	30% 50% 50% 20% 100% /L, dB (A) 50% 30% 70% 100%
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant 13a Foundation Works Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170 CNP 103 CNP 103 CNP 025 CNP 025 CNP 028 CNP 002 CNP 103	111 109 112 105 113 95 Total SW	30% 50% 50% 20% 20% /L, dB (A) 50% 30% 70% 100% /L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Corane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, wibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant 13a Foundation Works Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170 CNP 103 CNP 103 CNP 025 CNP 028 CNP 002 CNP 103 CNP 103	111 109 112 105 105 113 95 Total SW 111 111 122 102 95 Total SW	30% 50% 50% 20% 100% /L, dB (A) 50% 30% 70% 100%
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Group 1 Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170 CNP 103 CNP 103 CNP 025 CNP 028 CNP 002 CNP 103 CNP 103 CNP 103 CNP 103	111 109 112 105 113 95 Total SW	30% 50% 50% 20% 100% /L, dB (A) 50% 30% 70% 100% /L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant 13a Foundation Works Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170 CNP 103 CNP 103 CNP 025 CNP 028 CNP 002 CNP 103 CNP 103 CNP 103	111 109 112 105 113 95 Total SW	30% 50% 50% 20% 100% /L, dB (A) 50% 30% 70% 100% /L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Group 1 Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170 CNP 103 CNP 103 CNP 025 CNP 028 CNP 002 CNP 103 CNP 103 CNP 103 CNP 103	111 109 112 105 113 95 Total SW 111 122 102 95 Total SW 95 115 115	30% 50% 50% 20% 100% /L, dB (A) 50% 30% 70% 100% /L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant 13a Foundation Works Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170 CNP 103 CNP 103 CNP 025 CNP 028 CNP 002 CNP 103 CNP 103 CNP 103	111 109 112 105 113 95 Total SW 111 122 102 95 Total SW 95 115 115	30% 50% 50% 20% 100% /L, dB (A) 50% 30% 70% 100% /L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant 13a Foundation Works Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric)	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170 CNP 103 CNP 103 CNP 025 CNP 028 CNP 002 CNP 103 CNP 103 CNP 103	111 109 112 105 113 95 Total SW 111 122 102 95 Total SW 95 115 115	30% 50% 50% 20% 100% /L, dB (A) 50% 30% 70% 100% /L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant I3a Foundation Works Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric)	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170 CNP 103 CNP 103 CNP 025 CNP 028 CNP 002 CNP 103 CNP 103 CNP 103 CNP 104 CNP 105 CNP 107 CNP 108 CNP 108 CNP 108 CNP 108 CNP 109 C	111 109 112 105 113 95 Total SW 111 122 102 95 Total SW 95 115 100 88 Total SW	30% 50% 50% 20% 100% /L, dB (A) 50% 30% 70% 100% /L, dB (A) 100% 70% 80% /L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Corane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant 13a Foundation Works Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Pilling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Crane, mobile/ barge mounted (diesel)	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170 CNP 103 CNP 103 CNP 025 CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 281 CNP 048	111 109 112 105 113 95 Total SW 111 122 102 95 Total SW 95 Total SW 95 Total SW	30% 50% 50% 20% 100% /L, dB (A) 50% 30% 70% 100% /L, dB (A) 100% 80% 80%
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant 13a Foundation Works Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Pilling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170 CNP 103 CNP 025 CNP 025 CNP 028 CNP 002 CNP 103 CNP 103 CNP 103 CNP 104 CNP 164 CNP 166 CNP 281 CNP 048 CNP 047	111 109 112 105 113 95 Total SW 111 122 102 95 Total SW 95 115 100 88 Total SW	30% 50% 50% 20% 100% /L, dB (A) 50% 70% 100% 70% 100% 100% 70, dB (A) 100% 70, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant 13a Foundation Works Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Concrete pump, stationary/ lorry mounted Concrete lorry mixer	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170 CNP 103 CNP 025 CNP 028 CNP 002 CNP 103 CNP 103 CNP 103 CNP 104 CNP 104 CNP 166 CNP 281 CNP 048 CNP 047 CNP 044	111 109 112 105 113 95 Total SW 111 122 102 95 Total SW 95 Total SW 115 100 88 Total SW 112 109 109	30% 50% 50% 20% 100% /L, dB (A) 50% 30% 70% 100% /L, dB (A) 100% 80% /L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant 13a Foundation Works Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170 CNP 103 CNP 025 CNP 025 CNP 028 CNP 002 CNP 103 CNP 103 CNP 103 CNP 104 CNP 104 CNP 106 CNP 281	111 109 112 105 113 95 Total SW 111 122 102 95 Total SW 95 Total SW 115 100 88 Total SW 119 119 119 119 119	30% 50% 50% 20% 100% /L, dB (A) 50% 30% 70% 100% /L, dB (A) 100% 70% 80% /L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Corane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant I3a Foundation Works Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Pilling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170 CNP 103 CNP 103 CNP 025 CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 281 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103	111 109 112 105 113 95 Total SW 111 122 102 95 Total SW 95 Total SW 115 100 88 Total SW 112 109 109 109 109 109 109 113 95	30% 50% 50% 20% 100% /L, dB (A) 50% 30% 70% 100% /L, dB (A) 100% 80% /L, dB (A)
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant 13a Foundation Works Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Water pump (electric)	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170 CNP 103 CNP 025 CNP 025 CNP 028 CNP 002 CNP 103 CNP 103 CNP 103 CNP 164 CNP 166 CNP 281 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 103	111 109 112 105 113 95 Total SW 111 122 102 103 95 Total SW 115 100 88 Total SW	30% 50% 50% 20% 100% /L, dB (A) 50% 30% 70% 100% 100% 100% 70% 80% 40% 70% 80% 80%
	Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Corane, mobile/ barge mounted (diesel) Corry with crane/grab Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Stage 13 Sewage Treatment Plant I3a Foundation Works Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Pilling, large diameter bored, reverse circulation drill Water pump (electric) Group 3 Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m	CNP 025 CNP 044 CNP 048 CNP 145 CNP 170 CNP 103 CNP 103 CNP 025 CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 281 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103	111 109 112 105 113 95 Total SW 111 122 102 95 Total SW 95 Total SW 115 100 88 Total SW 112 109 109 109 109 109 109 113 95	30% 50% 50% 20% 100% /L, dB (A) 50% 30% 70% 100% /L, dB (A) 100% 80% /L, dB (A) 70% 80% 70% 80% 70% 80% 80% 80% 80% 80%

1	PME	TM or other reference	SWL, dB(A)	% on time	Total no. of PME
BCF	Site Formation				
	13b Superstructures				
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%	1
	Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111	40%	2
	Concrete lorry mixer	CNP 044	109	70%	3
	Concrete pump, stationary/ lorry mounted	CNP 047	109	40%	1
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	40%	1
	Lorry with crane/grab	CNP 145	105	50%	2
	Poker, vibratory, hand-held	CNP 170	113	20%	3
	Bar bender and cutter (electric)	CNP 021	90	80%	3
			Total SW	/L, dB (A)	117
	13c Road Works /Pipe Works Group 1				
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%	1
	Compactor, vibratory	CNP 050	105	70%	1
	Dump truck	CNP 067	117	70%	2
	Excavator/ loader, wheeled/ tracked	CNP 081	112	70%	1
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%	1
			Total SW	L. dB (A)	119
			Total SW	/L, dB (A)	119
	Group 2		Total SW	/L, dB (A)	119
	Group 2 Roller, vibratory	CNP 186	Total SW	/L, dB (A)	119
				, , ,	
	Roller, vibratory	CNP 186	108	30%	1
	Roller, vibratory Dump truck	CNP 186 CNP 067	108 117	30%	1 2
	Roller, vibratory Dump truck Asphalt paver	CNP 186 CNP 067 CNP 004	108 117 109 109	30% 50% 40%	1 2 1

Item	PME	TM or other reference	SWL, dB(A)	% on time	Total no. of PME
	Lin Ma Hang Road next to BCP (Grade Road)				
	Stage 1 - Site Clearance				
	Group 1				
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%	1
	Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111	70%	1
	Dump truck	CNP 067	117	80%	1
	Excavator/ loader, wheeled/ tracked	CNP 081	112	80%	1
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	1
			Total SW	L, dB (A)	118
	Group 2				
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%	1
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	40%	1
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	1
	Lorry with crane/grab	CNP 145	105	70%	1
	Water pump, submersible (electric)	CNP 283	85	100%	1
			Total SW	L, dB (A)	110
		Max	imum SW	L, dB (A)	118
	Stage 2 - Site Formation and Road Works				
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%	1
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	50%	1
l	Bulldozer	CNP 030	115	70%	1
	Asphalt paver	CNP 004	109	70%	1
	Road roller	CNP 185	108	70%	1
ĺ		<u> </u>	Total SW	L, dB (A)	115

tem	PME	TM or other reference	SWL, dB(A)	% on time	Total no. of PME
C	huk Yuen Village Access Road				
	Stage 1 - Site Clearance				
	Group 1				
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%	1
	Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111	70%	1
	Dump truck	CNP 067	117	80%	1
	Excavator/ loader, wheeled/ tracked	CNP 081	112	80%	1
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	1
	, , , , , , , , , , , , , , , , , , , ,		Total SW	L, dB (A)	118
				, - ()	
	Group 2				
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%	1
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	40%	1
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	1
	Lorry with crane/grab	CNP 145	105	70%	1
	Water pump, submersible (electric)	CNP 283	85	100%	1
	,		Total SW	L. dB (A)	110
		Max	imum SW	/L. dB (A)	118
				_, -, -,	7.0
	Stage 2 - Road Works				
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%	1
	Generator, standard	CNP 101	108	50%	1
	Asphalt paver	CNP 004	109	70%	1
		CNP 185	108	70%	1
	Road roller				

Road Improvement Works of Lin Ma Hang Road

	PME	TM or other reference	SWL, dB(A)	%on time	Tota of F
ad	improvement works of Lin Ma Hang Road	•	•		
ŀ	Stage 1 - Site Clearance				
	Group 1				
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%	
	Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111	70%	
	Dump truck	CNP 067	117	80%	
	Excavator/ loader, wheeled/ tracked	CNP 081	112	80%	
1	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	
ŀ			Total SW	/L, dB (A)	1
h	Group 2				
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	40%	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	
	Lorry with crane/grab	CNP 145	105	70%	
	Water pump, submersible (electric)	CNP 283	85	100%	
	· · · · · · · · · · · · · · · · · · ·	•	Total SW	/L, dB (A)	1
L		Ma	ximum SW	/L, dB (A)	1
ŀ	Stage 2 - Temporary Bridge - Piling				
	Group 1				
Н	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%	
	Excavator/ loader, wheeled/ tracked	CNP 081	112	50%	
н	Lorry	CNP 141	112	50%	
t	·			/L, dB (A)	1
ľ					
	Group 2				
	Piling, large diameter bored, reverse circulation drill	CNP 166	100	30%	
	Piling, large diameter bored, oscillator	CNP 165	115	70%	
-	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%	
Ĺ	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%	
ŀ			Total SW	/L, dB (A)	1
ļ	Group 3				
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%	
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 103 CNP 002	102	100%	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	50%	
	Poker, vibratory, hand-held	CNP 170	113	20%	
	Concrete pump, stationary/ lorry mounted	CNP 047	109	20%	
			1 109		
	Concrete lorry mixer	CNP 044	109		
	Concrete lorry mixer		109	20% /L, dB (A)	
	Concrete lorry mixer	CNP 044	109	20% /L, dB (A)	1
		CNP 044	109 Total SW	20% /L, dB (A)	1
	Stage 3 - Temporary Bridge - PileCaps	CNP 044	109 Total SW	20% /L, dB (A)	1
	Stage 3 - Temporary Bridge - PileCaps Group 1	CNP 044	109 Total SW eximum SW	20% /L, dB (A) /L, dB (A)	1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m	CNP 044 Ma CNP 103	109 Total SW eximum SW	20% /L, dB (A) /L, dB (A) 70%	1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 044 Ma CNP 103 CNP 002	109 Total SW eximum SW 95 102	20% /L, dB (A) /L, dB (A) /L, dB (A) 70% 50%	1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked	CNP 044 Ma CNP 103 CNP 002 CNP 081	109 Total SW eximum SW 95 102 112	20% /L, dB (A) /L, dB (A) /L, dB (A) 70% 50% 50%	1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 044 Ma CNP 103 CNP 002	95 102 112 112	20% /L, dB (A) /L, dB (A) /L, dB (A) 70% 50% 50% 50%	1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked	CNP 044 Ma CNP 103 CNP 002 CNP 081	95 102 112 112	20% /L, dB (A) /L, dB (A) /L, dB (A) 70% 50% 50%	1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked	CNP 044 Ma CNP 103 CNP 002 CNP 081	95 102 112 112	20% /L, dB (A) /L, dB (A) /L, dB (A) 70% 50% 50% 50%	1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric)	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141	95 102 112 112	20% /L, dB (A) /L, dB (A) /L, dB (A) 70% 50% 50% 50%	1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141	109 Total SW eximum SW 95 102 112 112 Total SW	20% /L, dB (A) /L, dB (A) /L, dB (A) 70% 50% 50% 50% /L, dB (A)	1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 281 CNP 103 CNP 002	95 102 112 112 Total SW	20% /L, dB (A) /L, dB (A) /L, dB (A) 50% 50% 50% /L, dB (A) 70% 50%	1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 103 CNP 002 CNP 002 CNP 0044	109 Total SW wximum SW 95 102 112 112 Total SW 88 95 102 109	20% /L, dB (A) /L, dB (A) /L, dB (A) 50% 50% 50% /L, dB (A) 70% 50% 50% 20%	1 1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 141 CNP 103 CNP 002 CNP 002 CNP 004 CNP 044 CNP 047	95 102 112 112 Total SW 88 95 102 119 110 110 110 100 109	20% /L, dB (A) /L, dB (A) /L, dB (A) /L, dB (A) 50% 50% 50% 70, dB (A) 70% 50% 20% 20%	1 1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel)	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 002 CNP 002 CNP 044 CNP 047 CNP 048	95 102 112 112 Total SW 88 95 102 109 109	70% 50% 50% 50% 50% 50% 70% 50% 70% 70% 50% 20% 100%	1 1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 141 CNP 103 CNP 002 CNP 002 CNP 004 CNP 044 CNP 047	109 Total SW 95 102 112 112 Total SW 88 95 102 109 109 109 109 1112 1113	20% /L, dB (A) /L, dB (A) /L, dB (A) 50% 50% 50% /L, dB (A) 70% 50% 20% 20% 20%	1 1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel)	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 103 CNP 002 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170	109 Total SW wximum SW 95 102 112 112 Total SW 88 95 102 109 109 111 113 Total SW	20% /L, dB (A) /L, dB (A) /L, dB (A) /L, dB (A) 70% 50% 50% 50% /L, dB (A) 70% 20% 20% 100% 20% /L, dB (A)	1 1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel)	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 103 CNP 002 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170	109 Total SW 95 102 112 112 Total SW 88 95 102 109 109 109 109 1112 1113	20% /L, dB (A) /L, dB (A) /L, dB (A) /L, dB (A) 70% 50% 50% 50% /L, dB (A) 70% 20% 20% 100% 20% /L, dB (A)	1 1 1 1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 103 CNP 002 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170	109 Total SW wximum SW 95 102 112 112 Total SW 88 95 102 109 109 111 113 Total SW	20% /L, dB (A) /L, dB (A) /L, dB (A) /L, dB (A) 70% 50% 50% 50% /L, dB (A) 70% 20% 20% 100% 20% /L, dB (A)	1 1 1 1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Temporary Bridge - Piers	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 002 CNP 004 CNP 044 CNP 047 CNP 048 CNP 170 Ma	109 Total SW xximum SW 95 102 112 112 Total SW 88 95 102 109 109 109 119 1113 Total SW xximum SW	20% /L, dB (A) /L, dB (A) /L, dB (A) /L, dB (A) 70% 50% 50% 50% /L, dB (A) 70% 50% 20% 20% 20% 100% 20% /L, dB (A)	1 1 1 1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Temporary Bridge - Piers Generator, super silenced, 70 dB(A) at 7 m	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 170	109 Total SW xximum SW 95 102 112 112 112 Total SW 88 95 102 109 109 119 1113 Total SW xximum SW	20% /L, dB (A) /L, dB (A) /L, dB (A) /L, dB (A) 70% 50% 50% 50% /L, dB (A) 70% 20% 20% 100% 20% /L, dB (A) /L, dB (A)	1 1 1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Temporary Bridge - Piers Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 141 CNP 103 CNP 002 CNP 004 CNP 044 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 103 CNP 170	95 102 112 112 Total SW 95 109 109 109 109 119 119 1112 1112 1112	20% /L, dB (A) /L, dB (A) /L, dB (A) /L, dB (A) 70% 50% 50% 50% 70% 20% 20% 100% 20% /L, dB (A) /L, dB (A)	1 1 1 1 1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Temporary Bridge - Piers Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 004 CNP 044 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 048 CNP 170 Ma	109 Total SW xximum SW 95 102 1112 1112 1112 Total SW 109 109 109 1109 1112 1113 Total SW xximum SW 95 102 1110 1110 1110 1110 1110 1110 1110	20% /L, dB (A) /L, dB (A) /L, dB (A) 50% 50% 50% 50% 70% 50% 20% 20% 20% 20% 20% /L, dB (A) /L, dB (A) 50% 50% 20% 20% 20% 20% 20% 20% 20% 20% 20% 2	11 11 11 11
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Temporary Bridge - Piers Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete lorry mixer Concrete lorry mixer	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 004 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 103 CNP 002 CNP 044 CNP 170	109 Total SW xximum SW 95 102 112 112 112 Total SW 88 95 102 109 109 119 1113 Total SW xximum SW	20% /L, dB (A) /L, dB (A) /L, dB (A) /L, dB (A) 70% 50% 50% 50% /L, dB (A) 70% 50% 20% 20% 100% 20% /L, dB (A)	11 11 11 11
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Temporary Bridge - Piers Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 004 CNP 044 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 048 CNP 170 Ma	109 Total SW xximum SW 95 102 1112 1112 1112 Total SW 109 109 109 1109 1112 1113 Total SW xximum SW 95 102 1110 1110 1110 1110 1110 1110 1110	20% /L, dB (A) /L, dB (A) /L, dB (A) 50% 50% 50% 50% 70% 50% 20% 20% 20% 20% 20% /L, dB (A) /L, dB (A) 50% 50% 20% 20% 20% 20% 20% 20% 20% 20% 20% 2	1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Temporary Bridge - Piers Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel)	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 004 CNP 044 CNP 047 CNP 103 CNP 103 CNP 048 CNP 170 Ma CNP 103 CNP 048 CNP 170 Ma	109 Total SW xximum SW 95 102 112 112 112 Total SW 88 95 102 109 109 1113 Total SW xximum SW 95 102 1109 1113 Total SW 1113	70% 50% 50% 20% 100% 20% 20% 20% 20% 20% 20% 20% 20% 20%	1 1 1 1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Temporary Bridge - Piers Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 004 CNP 044 CNP 047 CNP 103 CNP 103 CNP 048 CNP 170 Ma CNP 103 CNP 048 CNP 170 Ma	109 Total SW 95 102 112 113 109 109 109 109 112 113 103 109	70% 50% 50% 20% 100% 20% 20% 20% 20% 20% 20% 20% 20% 20%	1 1 1 1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Temporary Bridge - Piers Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 5 - Temporary Bridge - Bridge Decks	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 004 CNP 044 CNP 047 CNP 103 CNP 020 CNP 048 CNP 170 Ma CNP 002 CNP 044 CNP 170	109 Total SW wximum SW 95 102 112 112 112 Total SW 88 95 102 109 109 1113 Total SW wximum SW 95 102 113 Total SW 113	20% /L, dB (A) 70% 50% 50% 50% 70% 20% 20% 100% 20% /L, dB (A) /L, dB (A) 50% 50% 20% /L, dB (A)	1 1 1 1 1 1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Temporary Bridge - Piers Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 5 - Temporary Bridge - Bridge Decks Crane, mobile/ barge mounted (diesel)	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 141 CNP 103 CNP 002 CNP 004 CNP 044 CNP 047 CNP 170 Ma CNP 103 CNP 103 CNP 170 CNP 170 CNP 170 CNP 170 CNP 048 CNP 170 CNP 048 CNP 170	95 102 112 113 Total SW 25 102 109 109 112 113 Total SW 25 102 109 109 112 113 Total SW 25 102 109 109 109 109 111 113 Total SW 25 102 109 109 109 109 109 109 109 109 109 109	20% /L, dB (A) /L, dB (A) /L, dB (A) /L, dB (A) 70% 50% 50% 50% 70% 20% 20% 100% 20, dB (A) /L, dB (A) 50% 50% /L, dB (A) 50% 50% 50% 20% 20% 20% 20% 20% 20% 20% 50% 50% 50% 50% 50% 50%	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Temporary Bridge - Piers Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 5 - Temporary Bridge - Bridge Decks Crane, mobile/ barge mounted (diesel) Lorry	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 004 CNP 047 CNP 048 CNP 170 Ma CNP 170 Ma CNP 170 CNP 048 CNP 047 CNP 048 CNP 170 CNP 048 CNP 170 CNP 048 CNP 170 CNP 048 CNP 170	109 Total SW 95 102 112 112 112 Total SW 88 88 95 102 109 109 109 1109 1113 Total SW 112 113 Total SW	20% /L, dB (A) /L, dB (A) /L, dB (A) /L, dB (A) 70% 50% 50% 50% 70% 20% 20% 20% 20% 20% 20% 20% 20% 20% 4L, dB (A) /L, dB (A) /L, dB (A) 50% 50% 50% 50% 50% 50% 50% 50% 50% 50	1 1 1 1 1 1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Temporary Bridge - Piers Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 5 - Temporary Bridge - Bridge Decks Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 103 CNP 002 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 049 CNP 170 CNP 103 CNP 170 CNP 103 CNP 170 CNP 104 CNP 170 CNP 105 CNP 107 CNP 048 CNP 170 CNP 048 CNP 170 CNP 048 CNP 170 CNP 048 CNP 170	109 Total SW 255 102 112 112 112 112 Total SW 255 102 109 109 109 109 109 1109 1109 1109	20% /L, dB (A) /L, dB (A) /L, dB (A) /L, dB (A) 70% 50% 50% 50% 70% 50% 20% 20% 100% 20% /L, dB (A) /L, dB (A) /L, dB (A) 50% 20% 20% 7L, dB (A) 50% 50% 50% 50% 50% 50% 50% 50% 50% 50%	1 1 1 1 1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Temporary Bridge - Piers Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 5 - Temporary Bridge - Bridge Decks Crane, mobile/ barge mounted (diesel) Lorry	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 004 CNP 047 CNP 048 CNP 170 Ma CNP 170 Ma CNP 170 CNP 048 CNP 047 CNP 048 CNP 170 CNP 048 CNP 170 CNP 048 CNP 170 CNP 048 CNP 170	109 Total SW 95 102 112 112 112 Total SW 88 88 95 102 109 109 109 1109 1113 Total SW 112 113 Total SW	20% /L, dB (A) 70% 50% 50% 50% 50% 20% 20% 20% 20% /L, dB (A) /L, dB (A) 50% 50% 20% /L, dB (A) 50% 50% 20% 50% 50% 50% 20% 50% 50% 20% 50% 50% 20% 50% 50% 20% 50% 20% 50% 20% 50% 20% 50% 20% 50% 20% 50% 20% 50% 20% 50% 20% 50% 20% 50% 20% 50% 20% 50% 20% 50% 20%	1 1 1 1 1 1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Temporary Bridge - Piers Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 5 - Temporary Bridge - Bridge Decks Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Prestress Jack*	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 103 CNP 002 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 049 CNP 170 CNP 103 CNP 170 CNP 103 CNP 170 CNP 104 CNP 170 CNP 105 CNP 107 CNP 048 CNP 170 CNP 048 CNP 170 CNP 048 CNP 170 CNP 048 CNP 170	109 Total SW 95 102 112 112 113 Total SW 102 109 109 112 113 Total SW 103 104 105 10	20% /L, dB (A) 70% 50% 50% 50% 50% 20% 20% 20% 20% /L, dB (A) /L, dB (A) 50% 50% 20% /L, dB (A) 50% 50% 20% 50% 50% 50% 20% 50% 50% 20% 50% 50% 20% 50% 50% 20% 50% 20% 50% 20% 50% 20% 50% 20% 50% 20% 50% 20% 50% 20% 50% 20% 50% 20% 50% 20% 50% 20% 50% 20% 50% 20%	1 1 1 1 1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Temporary Bridge - Piers Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 5 - Temporary Bridge - Bridge Decks Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Prestress Jack* Stage 6 - Road Works	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 044 CNP 047 CNP 170 Ma CNP 103 CNP 170 CNP 103 CNP 170 CNP 170 CNP 103 CNP 170 CNP 104 CNP 170 CNP 103 CNP 170 CNP 103 CNP 170 CNP 103 CNP 170 CNP 103 CNP 103 CNP 170 CNP 103 CNP 104 CNP 170 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 048 CNP 170 CNP 048 CNP 170 CNP 048 CNP 141 CNP 002 CNP 002 CNP 002 CNP 048	109 Total SW xximum SW 95 102 112 112 112 Total SW 109 109 109 109 109 110 1113 Total SW 109 109 109 1109 1112 113 Total SW 1109 1109 1109 1109 1109 1109 1109 1109	20% /L, dB (A) 70% 50% 50% 50% 70% 650% 20% 20% 100% 20% /L, dB (A) /L, dB (A) /L, dB (A) 50% 20% 20% 50% 20% 50% 20% 50% 20% 7L, dB (A)	1 1 1 1 1 1 1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Temporary Bridge - Piers Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 5 - Temporary Bridge - Bridge Decks Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 5 - Temporary Bridge - Bridge Decks Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Prestress Jack* Stage 6 - Road Works Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 044 CNP 047 CNP 02 CNP 02 CNP 048 CNP 170 Ma CNP 02 CNP 048 CNP 047 CNP 048 CNP 047 CNP 048 CNP 047 CNP 048 CNP 047 CNP 048 CNP 170	109 Total SW wximum SW 95 102 112 112 112 Total SW 95 102 109 109 112 113 Total SW wximum SW 113 Total SW 113 Total SW 1113 Total SW 1112 112 113 Total SW 1112 1102 1102 1102 1102 1102 1102 1102	20% /L, dB (A) 70% 50% 50% 50% 50% 70% 20% 20% 100% 20% /L, dB (A) /L, dB (A) 50% 20% /L, dB (A) 50% 50% 20% 70, dB (A) 50% 50% 20% 50% 50% 20% 70, dB (A)	1 1 1 1 1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Temporary Bridge - Piers Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 5 - Temporary Bridge - Bridge Decks Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 5 - Temporary Bridge - Bridge Decks Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Prestress Jack* Stage 6 - Road Works Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 103 CNP 002 CNP 081 CNP 103 CNP 141 CNP 141 CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 Ma CNP 049 CNP 049 CNP 049 CNP 049 CNP 049 CNP 170 CNP 048 CNP 141 CNP 002 CNP 061	109 Total SW 255 T	20% /L, dB (A) /L, dB (A) /L, dB (A) /L, dB (A) 50% 50% 50% 50% 70% 20% 20% 20% 20% 20% 20% 20% 20% 4L, dB (A) 50% 50% 50% 60% 60% 60% 60% 60% 70% 60% 60% 60% 60% 60% 60% 60% 60% 60% 6	1 1 1 1 1 1
	Stage 3 - Temporary Bridge - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Water pump (electric) Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Temporary Bridge - Piers Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 5 - Temporary Bridge - Bridge Decks Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 5 - Temporary Bridge - Bridge Decks Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Prestress Jack* Stage 6 - Road Works Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 044 Ma CNP 103 CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 044 CNP 047 CNP 02 CNP 02 CNP 048 CNP 170 Ma CNP 02 CNP 048 CNP 047 CNP 048 CNP 047 CNP 048 CNP 047 CNP 048 CNP 047 CNP 048 CNP 170	109 Total SW wximum SW 95 102 112 112 112 Total SW 95 102 109 109 112 113 Total SW wximum SW 113 Total SW 113 Total SW 1113 Total SW 1112 112 113 Total SW 1112 1102 1102 1102 1102 1102 1102 1102	20% /L, dB (A) 70% 50% 50% 50% 50% 70% 20% 20% 100% 20% /L, dB (A) /L, dB (A) 50% 20% /L, dB (A) 50% 50% 20% 70, dB (A) 50% 50% 20% 50% 50% 20% 70, dB (A)	1 1 1 1 1 1 1 1

PME		TM or other	referenc	SWL, dB(A)	% on time
ver from BCP to Wo Keng Shan					
Stage 1 - Site Clearance & Haul Ro	ad				
Group 1 Breaker, hand-held, mass >= 20kg a	and <= 35kg	1 01	NP 025	111	30%
		•			VL, dB (A)
Group 2					
Excavator/ loader, wheeled/ tracked			NP 081	112	80%
Bulldozer		C	NP 030	Total SV	40% VL, dB (A)
				TOTAL OV	VL, GD (A)
Group 3 Dump truck			NP 067	117	80%
Dunip truck		Ci	NF U07		VL, dB (A)
				Maximum SV	VL, dB (A)
Stage 2 - Piling					
Group 1	at 7 m	1 6	JD 100	0.5	1000/
Generator, super silenced, 70 dB(A) Excavator/ loader, wheeled/ tracked	at / m		NP 103 NP 081	95 112	100% 40%
Lorry			VP 141	112	30%
				Total SV	VL, dB (A)
Group 2					
Piling, large diameter bored, reverse Piling, large diameter bored, oscillate			VP 166	100	40%
Generator, super silenced, 70 dB(A)		CI	NP 165 NP 103	115 95	40% 100%
Air compressor, air flow > 10m3/min			NP 002	102	100%
				Total SV	VL, dB (A)
Group 3			ID :		
Generator, super silenced, 70 dB(A) Air compressor, air flow > 10m3/min			NP 103 NP 002	95 102	100%
Crane, mobile/ barge mounted (diese		Cl	NP 048	112	50%
Poker, vibratory, hand-held Concrete pump, stationary/ lorry mou	unto d		NP 170 NP 047	113 109	20% 20%
Concrete lorry mixer	unted		VP 044	109	20%
					VL, dB (A
				Maximum SV	VL, UB (A
Stage 3 - PileCaps Group 1					
Generator, super silenced, 70 dB(A)	at 7 m	CI	NP 103	95	70%
Air compressor, air flow > 10m3/min	and <= 30m3/min		VP 002	102	50%
Excavator/ loader, wheeled/ tracked Lorry			NP 081 NP 141	112 112	50% 50%
				Total SV	VL, dB (A)
Group 2					
Water pump (electric)	at 7 m		VP 281	88	70%
Generator, super silenced, 70 dB(A) Air compressor, air flow > 10m3/min			NP 103 NP 002	95 102	70% 50%
Concrete lorry mixer			NP 044	109	20%
Concrete pump, stationary/ lorry mounted (diese			NP 047 NP 048	109 112	20% 100%
Poker, vibratory, hand-held			NP 170	113	20%
				Total SV Maximum SV	VL, dB (A
				amiiuiii 3V	. L, UD (A
Stage 4 - Piers Generator, super silenced, 70 dB(A)	at 7 m	C1	NP 103	95	50%
Air compressor, air flow > 10m3/min			VP 002	102	50%
Concrete lorry mixer	untad		VP 044	109	20%
Concrete pump, stationary/ lorry mou Crane, mobile/ barge mounted (diese			NP 047 NP 048	109 112	20% 50%
Poker, vibratory, hand-held			NP 170	113	20%
				iotal SV	VL, dB (A
Stage 5 - Bridge Decks			NP 048	112 112	50%
Crane, mobile/ barge mounted (diese	el)		VP 141		60%
Crane, mobile/ barge mounted (diese Lorry Air compressor, air flow > 10m3/min	•	Ct Ct	NP 141 NP 002	102	60% 50%
Crane, mobile/ barge mounted (diese Lorry	•	Ct Ct		102 110	50% 20%
Crane, mobile/ barge mounted (dies: Lorry Air compressor, air flow > 10m3/min Prestress Jack*	•	Ct Ct	NP 002	102 110	50%
Crane, mobile/ barge mounted (diese Lorry Air compressor, air flow > 10m3/min Prestress Jack* Stage 6 - Parapet & Surfacing	•	Ct Ct	NP 002	102 110	50% 20%
Crane, mobile/ barge mounted (diese Lorry Air compressor, air flow > 10m3/min Prestress Jack*	n and <= 30m3/min	Cr Cr	NP 002	102 110	50% 20%
Crane, mobile/ barge mounted (diest Lorry Air compressor, air flow > 10m3/min Prestress Jack* Stage 6 - Parapet & Surfacing Group 1 (Parapet) Crane, mobile/ barge mounted (diest Lorry)	n and <= 30m3/min	Cr Cr	NP 002 NP 261 NP 048 NP 141	102 110 Total SV	50% 20% VL, dB (A 30% 50%
Crane, mobile/ barge mounted (diesi- Lorry Air compressor, air flow > 10m3/min Prestress Jack* Stage 6 - Parapet & Surfacing Group 1 (Parapet) Crane, mobile/ barge mounted (diesi- Lorry Air compressor, air flow > 10m3/min	n and <= 30m3/min el) n and <= 30m3/min	CI C	NP 002 NP 261 NP 048 NP 141 NP 002	102 110 Total SV	50% 20% VL, dB (A
Crane, mobile/ barge mounted (diest Lorry Air compressor, air flow > 10m3/min Prestress Jack* Stage 6 - Parapet & Surfacing Group 1 (Parapet) Crane, mobile/ barge mounted (diest Lorry)	n and <= 30m3/min el) n and <= 30m3/min	CI C	NP 002 NP 261 NP 048 NP 141	102 110 Total SV 112 112 102 95	50% 20% VL, dB (A 30% 50% 50% 50%
Crane, mobile/ barge mounted (diest Lorry Air compressor, air flow > 10m3/min Prestress Jack* Stage 6 - Parapet & Surfacing Group 1 (Parapet) Crane, mobile/ barge mounted (diest Lorry Air compressor, air flow > 10m3/min Generator, super silenced, 70 dB(A)	n and <= 30m3/min el) n and <= 30m3/min	CI C	NP 002 NP 261 NP 048 NP 141 NP 002	102 110 Total SV 112 112 102 95	50% 20% VL, dB (A 30% 50% 50% 50%
Crane, mobile/ barge mounted (diesi- Lorry Air compressor, air flow > 10m3/min Prestress Jack* Stage 6 - Parapet & Surfacing Group 1 (Parapet) Crane, mobile/ barge mounted (diesi- Lorry Air compressor, air flow > 10m3/min	el) n and <= 30m3/min el) n and <= 30m3/min at 7 m	CI CI CI CI CI	NP 002 NP 261 NP 048 NP 141 NP 002	102 110 Total SV 112 112 102 95	50% 20% VL, dB (A 30% 50% 50% 50%
Crane, mobile/ barge mounted (diest Lorry Air compressor, air flow > 10m3/min Prestress Jack* Stage 6 - Parapet & Surfacing Group 1 (Parapet) Crane, mobile/ barge mounted (diest Lorry Air compressor, air flow > 10m3/min Generator, super silenced, 70 dB(A) Group 2 (Surfacing) Air compressor, air flow > 10m3/min Generator, super silenced, 70 dB(A)	el) a and <= 30m3/min el) a and <= 30m3/min at 7 m	Cri	NP 002 NP 261 NP 048 NP 141 NP 002 NP 103 NP 002 NP 103	102 110 Total SV 112 112 102 95 Total SV	50% 20% VL, dB (A 30% 50% 50% 50% VL, dB (A
Crane, mobile/ barge mounted (diest Lorry Air compressor, air flow > 10m3/min Prestress Jack* Stage 6 - Parapet & Surfacing Group 1 (Parapet) Crane, mobile/ barge mounted (diest Lorry Air compressor, air flow > 10m3/min Generator, super silenced, 70 dB(A) Group 2 (Surfacing) Air compressor, air flow > 10m3/min	el) a and <= 30m3/min el) a and <= 30m3/min at 7 m	C1 C1 C1 C1 C1 C1 C1 C1	NP 002 NP 261 NP 048 NP 141 NP 002 NP 103	102 110 Total SV 112 112 102 95 Total SV	50% 20% VL, dB (A 30% 50% 50% VL, dB (A

PME	TM or other reference	SWL, dB(A)	% on time
Yeung Interchange Section	•		
Stage 1 - Site Clearance			
Group 1			
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%
Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111	70%
Dump truck	CNP 067	117	60%
Excavator/ loader, wheeled/ tracked	CNP 081	112	80%
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95 Total SW	60% L, dB (A)
		rota. Ort	2, 32 (11)
Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%
Crane, mobile/ barge mounted (diesel)	CNP 048	112	40%
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%
Lorry with crane/grab	CNP 145	105	70%
Water pump, submersible (electric)	CNP 283	85	100%
	Max	Total SW	L, dB (A)
0. 0.00.5	· · ·		2, 02 (11)
Stage 2 - Site Formation Group 1			
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%
Excavator/ loader, wheeled/ tracked	CNP 081	112	80%
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%
Lorry with crane/grab	CNP 145	105 Total SW	70% L, dB (A)
Group 2			_, == (-,
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%
Bulldozer	CNP 030	115	70%
Dump truck	CNP 067	117	80%
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%
Water pump, submersible (electric)	CNP 283	85 Total SW	100% /L, dB (A)
Crawn 2			, - ()
Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%
Concrete lorry mixer	CNP 044	109	40%
Crane, mobile/ barge mounted (diesel)	CNP 048	112	100%
Compactor, vibratory	CNP 050	105	50%
Roller, vibratory	CNP 186	108	70%
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%
Poker, vibratory, hand-held	CNP 170	113	50% L, dB (A)
	Max	imum SW	
Stage 3 - Road Works			
Group 1			
Crane, mobile/ barge mounted (diesel)	CNP 048	112	30%
Lorry	CNP 141	112	50%
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95 Total SW	50% L, dB (A)
Crawn 0			7
Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	50%
Asphalt paver	CNP 103 CNP 004	109	70%
Road roller	CNP 185	108	70%
	JIVI 100		
		Total SW	L, ab (A)

	PME	TM or other reference	SWL, dB(A)	% on time	To
o K	eng Shan Road Section	l			
ŀ	Stage 1 - Site Clearance				
ŀ	Group 1				
ı	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%	
	Breaker, hand-held breaker, 35kg	CNP D.2/10	110	70%	
	Dump truck	CNP 067	117	60%	
	Excavator/ loader, wheeled/ tracked	CNP 081	112	80%	
ŀ	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	
ı	contrator, super sheriood, 70 db(x) dt 7 m	0141 100		L, dB (A)	
[
	Group 2		1		
Į	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%	
ı	Crane, mobile/ barge mounted (diesel)	CNP 048	112	40%	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	
	Lorry with crane/grab	CNP 145	105	70%	
I	Water pump, submersible (electric)	CNP 283	85	100%	
ĺ		•	Total SW	L, dB (A)	
ĺ		Max	ximum SW	L, dB (A)	
ļ					
ŀ	Stage 2 - Site Formation				
ŀ	Group 1	CND 000	100	700/	
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%	
ļ	Excavator/ loader, wheeled/ tracked	CNP 081	112	80%	<u> </u>
ļ	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	
ļ	Lorry with crane/grab	CNP 145	105	70%	
ļ			Total SW	L, dB (A)	
ļ	Group 2				
-	Group 2	CND 000	100	700/	
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%	-
ļ	Bulldozer	CNP 030	115	70%	_
ļ	Dump truck	CNP 067	117	80%	
l	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	
ı	Water pump, submersible (electric)	CNP 283	85	100%	
ı			Total SW	L, dB (A)	
ļ					
	Group 3	OND OOD	100	700/	
ŀ	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%	
ļ	Concrete lorry mixer	CNP 044	109	40%	
ļ	Crane, mobile/ barge mounted (diesel)	CNP 048	112	100%	
ļ	Compactor, vibratory	CNP 050	105	50%	
	Roller, vibratory	CNP 186	108	70%	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	
ı					
	Poker, vibratory, hand-held	CNP 170	113	50%	
	Poker, vibratory, hand-held	•	Total SW	L, dB (A)	
	Poker, vibratory, hand-held	•		L, dB (A)	
	Poker, vibratory, hand-held Stage 3 - Bored Pile Wall	•	Total SW	L, dB (A)	
		•	Total SW	L, dB (A)	
	Stage 3 - Bored Pile Wall	•	Total SW	L, dB (A)	
	Stage 3 - Bored Pile Wall Group 1	Max	Total SW kimum SW	/L, dB (A) /L, dB (A)	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel)	Ma:	Total SW kimum SW	(L, dB (A) (L, dB (A) 40%	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric)	Ma: CNP 072 CNP 281	Total SW kimum SW 110 88	/L, dB (A) /L, dB (A) /L dB (A) /L dB (A)	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 072 CNP 281 CNP 002	Total SW simum SW 110 88 102 95	L, dB (A) (L, dB (A) 40% 100% 80%	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 072 CNP 281 CNP 002	Total SW simum SW 110 88 102 95	40% 100% 100%	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2	CNP 072 CNP 281 CNP 002 CNP 103	Total SW ximum SW 110 88 102 95 Total SW	40% 100% 80% 100% 100% 100%	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 072 CNP 281 CNP 002 CNP 103 CNP 103	Total SW dimum SW 110 88 102 95 Total SW	40% 100% 80% 100% 80% 100%	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Grane, mobile/ barge mounted (diesel)	CNP 072 CNP 281 CNP 002 CNP 103 CNP 002 CNP 002 CNP 002	Total SW dimum SW 110 88 102 95 Total SW 102 112	40% 100% 80% 100% 80% 100% 100%	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m	CNP 072 CNP 281 CNP 002 CNP 103 CNP 002 CNP 0048 CNP 103	Total SW kimum SW 110 88 102 95 Total SW 112 95	40% 100% 80% 100% 80% 100% 100% 100% 100%	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Grane, mobile/ barge mounted (diesel)	CNP 072 CNP 281 CNP 002 CNP 103 CNP 002 CNP 002 CNP 002	Total SW into	40% 100% 80% 100% 100% 100% 100% 100% 100	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m	CNP 072 CNP 281 CNP 002 CNP 103 CNP 002 CNP 0048 CNP 103	Total SW into	40% 100% 80% 100% 80% 100% 100% 100% 100%	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel	CNP 072 CNP 281 CNP 002 CNP 103 CNP 002 CNP 0048 CNP 103	Total SW Amum SW 110 88 102 95 Total SW 112 95 115	40% 100% 80% 100% 100% 100% 100% 100% 100	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Group 3	CNP 072 CNP 281 CNP 002 CNP 103 CNP 002 CNP 0048 CNP 103 CNP 104	Total SW 110	40% 100% 80% 100% 100% 100% 100% 100% 100	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 072 CNP 281 CNP 002 CNP 103 CNP 002 CNP 103 CNP 104 CNP 103 CNP 164	Total SW minum SW 110 88 102 95 Total SW 112 115 Total SW 115 Total SW 1102 1115 Total SW 1102 1102 1102 1102 1102 1102 1102 110	40% 100% 80% 100% 100% 100% 100% 100% 100	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 104 CNP 103 CNP 104 CNP 105 CNP 106 CNP 107 CNP 108 CNP 108 CNP 109 CNP 109 CNP 109 CNP 109	Total SW mmm SW 110	40% 100% 80% 100% 100% 100% 100% 100% 100	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer	CNP 072 CNP 281 CNP 002 CNP 103 CNP 002 CNP 103 CNP 104 CNP 104 CNP 105 CNP 106 CNP 106 CNP 107 CNP 108	Total SW mm SW 1100 88 8 1002 95 1015 Total SW 1102 95 1112 95 115 Total SW 1102 95 109 109	40% 100% 80% 100% 100% 100% 100% 100% 100	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 104 CNP 103 CNP 104 CNP 105 CNP 106 CNP 107 CNP 108 CNP 108 CNP 109 CNP 109 CNP 109 CNP 109	Total SW in the control of the contr	40% 100% 80% 100% 100% 100% 100% 100% 70% 100% 70% 100% 50% 50%	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer	CNP 072 CNP 281 CNP 002 CNP 103 CNP 002 CNP 103 CNP 164 CNP 103 CNP 164 CNP 002 CNP 104 CNP 002 CNP 104 CNP 105 CNP 107 CNP 002 CNP 107 CNP 002 CNP 108 CNP 109 CNP 109 CNP 109 CNP 109 CNP 109 CNP 044 CNP 047	Total SW mmm SW 110 88 102 95 Total SW 115 Total SW 115 Total SW 102 95 115 Total SW 102 95 109 109 Total SW Total SW 109 Total SW 109 Total SW 109 Total SW 109 Total SW	40% 100% 80% 100% 100% 100% 100% 100% 70% 70% 70, dB (A)	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer	CNP 072 CNP 281 CNP 002 CNP 103 CNP 002 CNP 103 CNP 164 CNP 103 CNP 164 CNP 002 CNP 104 CNP 002 CNP 104 CNP 105 CNP 107 CNP 002 CNP 107 CNP 002 CNP 108 CNP 109 CNP 109 CNP 109 CNP 109 CNP 109 CNP 044 CNP 047	Total SW in the control of the contr	40% 100% 80% 100% 100% 100% 100% 100% 70% 70% 70, dB (A)	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete pump, stationary/ lorry mounted	CNP 072 CNP 281 CNP 002 CNP 103 CNP 002 CNP 103 CNP 164 CNP 103 CNP 164 CNP 002 CNP 104 CNP 002 CNP 104 CNP 105 CNP 107 CNP 002 CNP 107 CNP 002 CNP 108 CNP 109 CNP 109 CNP 109 CNP 109 CNP 109 CNP 044 CNP 047	Total SW mmm SW 110 88 102 95 Total SW 115 Total SW 115 Total SW 102 95 115 Total SW 102 95 109 109 Total SW Total SW 109 Total SW 109 Total SW 109 Total SW 109 Total SW	40% 100% 80% 100% 100% 100% 100% 100% 70% 70% 70, dB (A)	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted	CNP 072 CNP 281 CNP 002 CNP 103 CNP 002 CNP 103 CNP 164 CNP 103 CNP 164 CNP 002 CNP 104 CNP 002 CNP 104 CNP 105 CNP 107 CNP 002 CNP 107 CNP 002 CNP 108 CNP 109 CNP 109 CNP 109 CNP 109 CNP 109 CNP 044 CNP 047	Total SW mmm SW 110 88 102 95 Total SW 115 Total SW 115 Total SW 102 95 115 Total SW 102 95 109 109 Total SW Total SW 109 Total SW 109 Total SW 109 Total SW	40% 100% 80% 100% 100% 100% 100% 100% 70% 70% 70, dB (A)	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Stage 4 - Road Works Group 1	CNP 072 CNP 281 CNP 002 CNP 103 CNP 002 CNP 103 CNP 164 CNP 103 CNP 164 CNP 002 CNP 104 CNP 002 CNP 104 CNP 105 CNP 107 CNP 002 CNP 107 CNP 002 CNP 108 CNP 109 CNP 109 CNP 109 CNP 109 CNP 109 CNP 044 CNP 047	Total SW mmm SW 110 88 102 95 Total SW 115 Total SW 115 Total SW 102 95 115 Total SW 102 95 109 109 Total SW Total SW 109 Total SW 109 Total SW 109 Total SW	40% 100% 80% 100% 100% 100% 100% 100% 70% 70% 70, dB (A)	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted	CNP 072 CNP 281 CNP 281 CNP 002 CNP 103 CNP 103 CNP 104 CNP 104 CNP 105 CNP 104 CNP 044 CNP 047 Ma:	110 88 102 95 Total SW 112 115 Total SW 102 110 110 110 110 110 110 110 110 110	40% 100% 80% 100% 100% 100% 100% 100% 100	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry	CNP 072 CNP 281 CNP 281 CNP 002 CNP 103 CNP 103 CNP 103 CNP 104 CNP 103 CNP 104 CNP 044 CNP 047 Ma: CNP 048 CNP 047	Total SW mm SW 110 88 8 102 95 Total SW 112 95 115 Total SW 109 109 Total SW 1102 95 1109 1109 Total SW mm SW mm SW 1112 1112 1112	40% 100% 100% 100% 100% 100% 100% 100% 1	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 072 CNP 281 CNP 002 CNP 103 CNP 048 CNP 103 CNP 104 CNP 047 Ma: CNP 048 CNP 047 Ma: CNP 048 CNP 047	Total SW minum SW 110 88 102 95 Total SW 1112 95 115 Total SW 109 109 109 Total SW minum SW m	40% 100% 80% 100% 100% 100% 70% 100% 70% 70% 70, dB (A) 100% 50% 50% 50% 10, dB (A)	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry	CNP 072 CNP 281 CNP 281 CNP 002 CNP 103 CNP 103 CNP 103 CNP 104 CNP 103 CNP 104 CNP 044 CNP 047 Ma: CNP 048 CNP 047	Total SW mm SW 110 88 8 102 95 Total SW 112 95 115 Total SW 109 109 Total SW 1102 95 1109 1109 Total SW mm SW mm SW 1112 1112 1112	40% 40% 100% 80% 100% 100% 100% 100% 70% 70% 70, dB (A) 100% 50% 50% 50% 50, dB (A)	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 072 CNP 281 CNP 002 CNP 103 CNP 048 CNP 103 CNP 104 CNP 047 Ma: CNP 048 CNP 047 Ma: CNP 048 CNP 047	Total SW mmm SW 110	40% 40% 100% 80% 100% 100% 100% 100% 70% 70% 70, dB (A) 100% 50% 50% 50% 50, dB (A)	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 072 CNP 281 CNP 002 CNP 103 CNP 048 CNP 103 CNP 104 CNP 047 Ma: CNP 048 CNP 047 Ma: CNP 048 CNP 047	Total SW mmm SW 110	40% 40% 100% 80% 100% 100% 100% 100% 70% 70% 70, dB (A) 100% 50% 50% 50% 50, dB (A)	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete pump, stationary/ lorry mounted	CNP 072 CNP 281 CNP 002 CNP 103 CNP 048 CNP 103 CNP 104 CNP 047 Ma: CNP 048 CNP 047 Ma: CNP 048 CNP 047	Total SW mmm SW 110	40% 40% 100% 80% 100% 100% 100% 100% 70% 70% 70, dB (A) 100% 50% 50% 50% 50, dB (A)	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 1 Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 072 CNP 281 CNP 002 CNP 103 CNP 048 CNP 103 CNP 164 CNP 002 CNP 103 CNP 104 CNP 047 Ma: CNP 048 CNP 047 Ma: CNP 048 CNP 048 CNP 047	Total SW mmm SW 110 88 102 95 Total SW 109 109 Total SW mmm SW 1112 112 102 95 Total SW mmm SW mmmm SW mmm SW mmmm SW mmmmm SW mmmm SW mmm SW mmmm SW mmm SW mmmm SW mmm SW mmmm SW mmm SW mmmm SW mmm SW mm SW mm SW mm SW mmm SW mm SW m	40% 100% 80% 100% 100% 100% 70% 100% 70% 100% 70% 100% 50% 50% 50% 50% 50% 50%	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 072 CNP 281 CNP 281 CNP 002 CNP 103 CNP 103 CNP 104 CNP 103 CNP 104 CNP 104 CNP 044 CNP 047 Ma: CNP 048 CNP 101 CNP 040 CNP 103 CNP 104 CNP 047 Ma: CNP 048 CNP 103 CNP 104 CNP 104 CNP 104 CNP 104 CNP 104 CNP 104	Total SW mmm SW 110	40% 40% 100% 80% 100% 100% 70% 100% 70% 100% 50% 50% 50% 50% 50% 50%	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete pump, stationary/ lorry mounted Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Asphalt paver	CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 104 CNP 104 CNP 104 CNP 104 CNP 104 CNP 105 CNP 107 Ma: CNP 048 CNP 108 CNP 109	Total SW mm SW 1102 95 109 109 109 102 112 112 112 102 95 Total SW mm SW	40% 100% 80% 100% 100% 100% 100% 100% 100	
	Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 072 CNP 281 CNP 281 CNP 002 CNP 103 CNP 103 CNP 104 CNP 103 CNP 104 CNP 104 CNP 044 CNP 047 Ma: CNP 048 CNP 101 CNP 040 CNP 103 CNP 104 CNP 047 Ma: CNP 048 CNP 103 CNP 104 CNP 104 CNP 104 CNP 104 CNP 104 CNP 104	Total SW mmm SW 110	40% 40% 100% 80% 100% 100% 100% 100% 100% 100	

Flyover Crossing Wo Keng Plant Inventory (Unmitigated) Shan Road (Viaduct)

ver Crossing Wo Keng	PME Shan Road	TM or other referen	ce SWL, dB(A)	% on time
Stage 1 - Site Clearar Group 1	ce & Haul Road			
	ass >= 20kg and <= 35kg	CNP 025	111	30%
			Total SV	VL, dB (A)
Group 2			1	
Excavator/ loader, whe Bulldozer	eled/ tracked	CNP 081 CNP 030	112 115	80% 40%
Bulldozei		CINF 030		VL, dB (A)
Group 3				
Dump truck		CNP 067	117	80%
			Total SV Maximum SV	VL, dB (A) VL, dB (A)
Stage 2 - Piling				
Group 1				
Generator, super silen Excavator/ loader, whe		CNP 103 CNP 081	95 112	100% 50%
Lorry	eieu/ trackeu	CNP 141	112	50%
-			Total SV	VL, dB (A)
Group 2			T :	
	pored, reverse circulation drill	CNP 166	100	50% 50%
Piling, large diameter l Generator, super silen		CNP 165 CNP 103	115 95	100%
	w > 10m3/min and <= 30m3/min	CNP 002	102	100%
			Total SV	VL, dB (A)
Group 3	and 70 dD/A) -+ 7 ···	OND 455		1000/
Generator, super silen Air compressor, air flor	ced, 70 dB(A) at 7 m w > 10m3/min and <= 30m3/min	CNP 103 CNP 002	95 102	100%
Crane, mobile/ barge r		CNP 048	112	50%
Poker, vibratory, hand-		CNP 170	113	20%
Concrete pump, station Concrete lorry mixer	nary/ lorry mounted	CNP 047 CNP 044	109	20%
Concrete long mixer			Total SV	VL, dB (A)
			Maximum SV	VL, dB (A)
Stage 3 - PileCaps				
Group 1 Generator, super silen	ced, 70 dB(A) at 7 m	CNP 103	95	70%
	w > 10m3/min and <= 30m3/min	CNP 002	102	50%
Excavator/ loader, whe Lorry	eled/ tracked	CNP 081 CNP 141	112 112	50% 50%
Lony		J CIVI 141		VL, dB (A)
Group 2				
Water pump (electric)		CNP 281	88	70%
Generator, super silen		CNP 103	95	70%
Concrete lorry mixer	w > 10m3/min and <= 30m3/min	CNP 002 CNP 044	102 109	50% 20%
Concrete pump, statio	nary/ lorry mounted	CNP 047	109	20%
Crane, mobile/ barge r		CNP 048	112	100%
Poker, vibratory, hand-	neia	CNP 170	113 Total SV	20% VL, dB (A)
			Maximum SV	VL, dB (A)
Stage 4 - Piers Generator, super silen	ced. 70 dB(A) at 7 m	CNP 103	95	50%
	w > 10m3/min and <= 30m3/min	CNP 103 CNP 002	102	50%
Concrete lorry mixer		CNP 044	109	20%
Concrete pump, station Crane, mobile/ barge r		CNP 047 CNP 048	109 112	20% 50%
Poker, vibratory, hand-		CNP 048 CNP 170	113	20%
				VL, dB (A)
Stage 5 - Bridge Deck				
Crane, mobile/ barge r	nounted (diesel)	CNP 048	112	50%
Lorry Air compressor, air flor	w > 10m3/min and <= 30m3/min	CNP 141 CNP 002	112 102	60% 50%
Prestress Jack*		CNP 261	110	20%
			Total SV	VL, dB (A)
Stage 6 - Parapet & S	urfacing			
Group 1 (Parapet) Crane, mobile/ barge r	nounted (diesel)	CNP 048	112	30%
Lorry		CNP 141	112	50%
	w > 10m3/min and <= 30m3/min	CNP 002	102	50%
Generator, super silen	eu, /u db(A) at / m	CNP 103	95 Total SV	50% VL, dB (A)
Group 2 (Surfacing)	w > 10m3/min and <= 30m3/min	CNP 002	102	50%
		CNP 103	95	50%
Air compressor, air flo Generator, super silen	ced, 70 dB(A) at 7 m		100	700/
Air compressor, air flor Generator, super silen Asphalt paver	ced, 70 dB(A) at 7 m	CNP 004	109 108	70% 70%
Air compressor, air flo Generator, super silen	ced, 70 dB(A) at 7 m	CNP 004 CNP 185	108	70% VL, dB (A)

	РМЕ	TM or other reference	SWL, dB(A)	%on time	Total r
g C	how Road Road Section				
	Stage 1 - Site Clearance				
	Group 1	OND OOD	100	1000/	
	Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 002 CNP 025	102 111	100% 70%	3
	Dump truck	CNP 067	117	60%	5
	Excavator/ loader, wheeled/ tracked	CNP 081	112	80%	5
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95 Total SW	60% 'L. dB (A)	1 124
				_, -, -, -, -, -, -, -, -, -, -, -, -, -,	
	Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%	3
	Crane, mobile/ barge mounted (diesel)	CNP 002 CNP 048	112	40%	1
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	1
	Lorry with crane/grab	CNP 145	105	70%	4
	Water pump, submersible (electric)	CNP 283	85 Total SW	100% 'L, dB (A)	4 113
		Ma	ximum SW		124
	Stage 2 - Site Formation				
	Group 1				
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%	3
	Excavator/ loader, wheeled/ tracked	CNP 081	112	80%	5
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab	CNP 103 CNP 145	95 105	60% 70%	4
		, 011 170		'L, dB (A)	119
	Group 2				
	Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%	3
	Bulldozer	CNP 030	115	70%	1
	Dump truck	CNP 067	117	80%	5
	Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric)	CNP 103 CNP 283	95 85	60% 100%	1
	a.s. parity, sautitoristicie (electric)	J GIAL 200	Total SW		124
	Group 3				
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%	3
	Concrete lorry mixer	CNP 044	109	40%	2
	Crane, mobile/ barge mounted (diesel) Compactor, vibratory	CNP 048 CNP 050	112 105	100% 50%	1
	Roller, vibratory	CNP 186	103	70%	3
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	1
	Poker, vibratory, hand-held	CNP 170	113	50%	5
		Ma	ximum SW	L, dB (A)	120 124
	Otana O Olana Otahiliastian				
	Stage 3 - Slope Stabilisation Group 1				
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%	2
	Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025			2
		CND 000	111	20%	
	Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m	CNP 028 CNP 103	122	80%	1
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab	CNP 028 CNP 103 CNP 145			
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	122 95 105	80% 50%	1 1 2
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2	CNP 103 CNP 145	122 95 105	80% 50% 50% (L, dB (A)	1 1 2 12
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 103 CNP 145	122 95 105 Total SW	80% 50% 50% (L, dB (A)	1 1 2 12
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel)	CNP 103 CNP 145 CNP 002 CNP 072	122 95 105 Total SW	80% 50% 50% 'L, dB (A) 100% 70%	1 1 2 12
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 103 CNP 145	122 95 105 Total SW	80% 50% 50% (L, dB (A)	1 1 2 121
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 145 CNP 002 CNP 002 CNP 072 CNP 103	122 95 105 Total SW 102 110 95 85	80% 50% 50% (L, dB (A)) 100% 70% 50%	1 1 2 121 2 2 2 1
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 145 CNP 002 CNP 002 CNP 072 CNP 103	122 95 105 Total SW 102 110 95 85	80% 50% 50% (L, dB (A)) 100% 70% 50% 100%	1 1 2 121 2 2 2 1 1
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 103 CNP 145 CNP 002 CNP 072 CNP 103 CNP 283 CNP 283	122 95 105 Total SW 102 110 95 85 Total SW	80% 50% 50% 50% 'L, dB (A) 100% 70% 50% 100% L, dB (A)	1 1 2 12 12 2 2 1 1 112
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel)	CNP 103 CNP 145 CNP 002 CNP 072 CNP 103 CNP 283 CNP 283 CNP 283	122 95 105 Total SW 102 110 95 85 Total SW 102 1102 1102	80% 50% 50% (L, dB (A) 100% 70% 100% (L, dB (A) 100% 70%	1 1 2 12 2 2 2 1 1 112
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 145 CNP 002 CNP 072 CNP 103 CNP 283 CNP 283 CNP 002 CNP 002 CNP 0048 CNP 103	122 95 105 Total SW 102 110 95 85 Total SW	80% 50% 50% (L, dB (A)) 100% 70% 50% (L, dB (A)) 100% 70% 50%	1 1 2 12 2 2 2 1 1 112 2 1 1 112
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel)	CNP 103 CNP 145 CNP 002 CNP 072 CNP 103 CNP 283 CNP 283 CNP 283	122 95 105 Total SW 102 110 95 85 Total SW 102 1102 1102	80% 50% 50% (L, dB (A) 100% 70% 100% (L, dB (A) 100% 70%	1 1 2 12 2 2 2 1 1 112
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Grout mixer	CNP 103 CNP 145 CNP 002 CNP 072 CNP 103 CNP 283 CNP 002 CNP 002 CNP 048 CNP 103 CNP 103 CNP 105	122 95 105 Total SW 102 110 95 85 Total SW 102 112 95 90 105 113	80% 50% 50% 50% 10, dB (A) 100% 70% 100% 100% 100% 70% 50% 40% 40% 50%	1 1 2 12 2 2 2 1 1 112 2 2 1 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Grout mixer Grout pump	CNP 103 CNP 145 CNP 002 CNP 072 CNP 103 CNP 283 CNP 283 CNP 002 CNP 048 CNP 103 CNP 105 CNP 105 CNP 106 CNP 170	122 95 105 Total SW 102 110 95 85 Total SW 102 112 95 90 105 113 Total SW	80% 50% 50% 50% 1L, dB (A) 100% 70% 50% 100% 100% 70% 50% 40% 40% 40% 50% 100%	1 1 2 121 2 2 2 1 1 112 2 1 1 1 1 1 2 1
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Grout mixer Grout pump Poker, vibratory, hand-held	CNP 103 CNP 145 CNP 002 CNP 072 CNP 103 CNP 283 CNP 283 CNP 002 CNP 048 CNP 103 CNP 105 CNP 105 CNP 106 CNP 170	122 95 105 Total SW 102 110 95 85 Total SW 102 112 95 90 105 113	80% 50% 50% 50% 1L, dB (A) 100% 70% 50% 100% 100% 70% 50% 40% 40% 40% 50% 100%	1 1 2 12 ¹ 2 2 2 1 1 112 2 1 1 1 1 1 2 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Grout mixer Grout pump Poker, vibratory, hand-held Stage 4 - Road Works	CNP 103 CNP 145 CNP 002 CNP 072 CNP 103 CNP 283 CNP 283 CNP 002 CNP 048 CNP 103 CNP 105 CNP 105 CNP 106 CNP 170	122 95 105 Total SW 102 110 95 85 Total SW 102 112 95 90 105 113 Total SW	80% 50% 50% 50% 1L, dB (A) 100% 70% 50% 100% 100% 70% 50% 40% 40% 40% 50% 100%	1 1 2 12 2 2 2 1 1 112 2 2 1 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Grout mixer Grout pump Poker, vibratory, hand-held	CNP 103 CNP 145 CNP 002 CNP 072 CNP 103 CNP 283 CNP 283 CNP 002 CNP 048 CNP 103 CNP 105 CNP 105 CNP 106 CNP 170	122 95 105 Total SW 102 110 95 85 Total SW 102 112 95 90 105 113 Total SW	80% 50% 50% 50% 1L, dB (A) 100% 70% 50% 100% 100% 70% 50% 40% 40% 40% 50% 100%	1 1 2 12: 2 2 1 1 11: 2 1 1 1 1 2 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Grout mixer Grout pump Poker, vibratory, hand-held Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry	CNP 103 CNP 145 CNP 002 CNP 072 CNP 103 CNP 283 CNP 283 CNP 002 CNP 002 CNP 005 CNP 105 CNP 106 CNP 170 Ma CNP 170 Ma CNP 108 CNP 170	122 95 Total SW 102 110 95 85 Total SW 102 112 95 90 105 113 Total SW	80% 50% 50% 50% 10, dB (A) 100% 70% 100% 100% 100% 100% 40% 50% 40% 50% 11, dB (A) 11, dB (A)	1 1 1 2 2 2 2 2 1 1 1 1 1 1 2 1 2 1
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Grout mixer Grout pump Poker, vibratory, hand-held Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 103 CNP 145 CNP 002 CNP 072 CNP 103 CNP 283 CNP 283 CNP 002 CNP 048 CNP 103 CNP 105 CNP 106 CNP 170 Ma CNP 106 CNP 170 Ma	122 95 105 Total SW 102 110 95 85 Total SW 112 95 90 113 Total SW ximum SW	80% 50% 50% 50% 1, dB (A) 100% 70% 50% 100% 70, dB (A) 100% 70% 50% 40% 40% 40% 40% 10, dB (A) 10, dB (A) 50% 50% 50% 50% 50% 50% 50% 50%	1 1 1 2 2 2 2 2 2 2 1 1 1 1 1 1 1 2 1 2
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Grout mixer Grout pump Poker, vibratory, hand-held Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry	CNP 103 CNP 145 CNP 002 CNP 072 CNP 103 CNP 283 CNP 283 CNP 002 CNP 002 CNP 005 CNP 105 CNP 106 CNP 170 Ma CNP 170 Ma CNP 108 CNP 170	122 95 105 Total SW 102 110 95 85 Total SW 102 112 95 90 105 113 Total SW ximum SW	80% 50% 50% 50% 1L, dB (A) 100% 70% 50% 100% 10, dB (A) 100% 50% 40% 50% 40% 50% L, dB (A) 40% 50% 10, dB (A) 10, dB (A)	1 1 1 2 2 2 2 2 2 2 2 2 2 1 1 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Grout mixer Grout pump Poker, vibratory, hand-held Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 145 CNP 002 CNP 072 CNP 103 CNP 283 CNP 283 CNP 002 CNP 048 CNP 103 CNP 105 CNP 106 CNP 170 Ma CNP 106 CNP 170 Ma	122 95 105 Total SW 102 110 95 85 Total SW 102 112 95 90 105 113 Total SW ximum SW	80% 50% 50% 50% 1, dB (A) 100% 70% 50% 100% 70, dB (A) 100% 70% 50% 40% 40% 40% 40% 10, dB (A) 10, dB (A) 50% 50% 50% 50% 50% 50% 50% 50%	1 1 1 2 2 2 2 2 2 2 2 2 2 1 1 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Grout mixer Grout pump Poker, vibratory, hand-held Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 1 Grane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 145 CNP 002 CNP 072 CNP 103 CNP 283 CNP 283 CNP 283 CNP 105 CNP 106 CNP 170 Ma CNP 107 Ma CNP 108 CNP 109 CNP 170 Ma	122 95 Total SW 102 110 95 85 Total SW 102 112 95 90 105 113 Total SW ximum SW	80% 50% 50% 1	1 1 1 2 2 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Grout mixer Grout pump Poker, vibratory, hand-held Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 145 CNP 002 CNP 072 CNP 103 CNP 283 CNP 283 CNP 002 CNP 048 CNP 103 CNP 105 CNP 106 CNP 170 Ma CNP 106 CNP 170 Ma	122 95 105 Total SW 102 110 95 85 Total SW 102 112 95 90 105 113 Total SW ximum SW	80% 50% 50% 50% 1L, dB (A) 100% 70% 50% 100% 10, dB (A) 100% 50% 40% 50% 40% 50% L, dB (A) 40% 50% 10, dB (A) 10, dB (A)	1 1 1 2 2 2 2 2 2 2 1 1 1 1 1 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Grout mixer Grout pump Poker, vibratory, hand-held Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Asphalt paver	CNP 103 CNP 145 CNP 002 CNP 072 CNP 103 CNP 283 CNP 283 CNP 283 CNP 105 CNP 106 CNP 106 CNP 170 Ma CNP 107 Ma CNP 108 CNP 109	122 95 Total SW 102 110 95 85 Total SW 102 112 105 113 Total SW 105 113 105 113 101 102 112 105 113 Total SW	80% 50% 50% 50% 10, dB (A) 100% 50% 100% 100% 1, dB (A) 100% 40% 40% 50% 40% 40, dB (A) 1, dB (A) 1, dB (A) 1, dB (A) 50% 50% 50% 50% 50% 50% 50% 50% 50% 70%	1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 1 1 1 2
	Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Grout mixer Grout pump Poker, vibratory, hand-held Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 145 CNP 002 CNP 072 CNP 103 CNP 283 CNP 002 CNP 0048 CNP 105 CNP 106 CNP 170 Ma CNP 106 CNP 170 CNP 107 CNP 108 CNP 109	122 95 Total SW 102 110 95 85 Total SW 102 112 95 90 105 113 Total SW 20 21 112 112 112 112 102 95 Total SW	80% 50% 50% 1	1 1 1 2 2 2 2 2 1 1 1 1 1 1 2 1 1 1 1 1

	РМЕ	TM or other reference	SWL, dB(A)	% on time
ver	Crossing over Ng Chow Road			_
	age 1 - Site Clearance & Haul Road			
_	oup 1 eaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111	30%
Die	saker, nand-neid, mass >= 20kg and <= 00kg	J 0141 023	Total SW	
C=	0			
	oup 2 cavator/ loader, wheeled/ tracked	CNP 081	112	80%
	lldozer	CNP 030	115	40%
			Total SW	L, dB (A)
Gr	oup 3			
Du	mp truck	CNP 067	117	80%
		M	Total SW aximum SW	
			a, a	2, 02 (11)
	age 2 - Piling oup 1			
	nerator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
	cavator/ loader, wheeled/ tracked	CNP 081	112	50%
Lo	rry	CNP 141	112 Total SW	50% L. dB (A)
			. 3.0 011	., (/1)
	oup 2 ing, large diameter bored, reverse circulation drill	CNP 166	100	50%
	ing, large diameter bored, reverse circulation drilling, large diameter bored, oscillator	CNP 165	115	50%
Ge	nerator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
Air	compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102 Total SW	100%
E			i Jiai 3VV	_, ub (A)
	oup 3	CND 100	OF.	1000/
	nerator, super silenced, 70 dB(A) at 7 m compressor, air flow > 10m3/min and <= 30m3/min	CNP 103 CNP 002	95 102	100%
Cra	ane, mobile/ barge mounted (diesel)	CNP 048	112	50%
	ker, vibratory, hand-held ncrete pump, stationary/ lorry mounted	CNP 170 CNP 047	113 109	20% 20%
	ncrete lorry mixer	CNP 044	109	20%
	•		Total SW	
		Ma	aximum SW	L, dB (A
	age 3 - PileCaps			
	oup 1 nerator, super silenced, 70 dB(A) at 7 m	CNP 103	95	70%
Air	compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%
Lo	cavator/ loader, wheeled/ tracked	CNP 081 CNP 141	112 112	50% 50%
LU	19	J 0141	Total SW	
Gr	oup 2			
	ater pump (electric)	CNP 281	88	70%
	nerator, super silenced, 70 dB(A) at 7 m	CNP 103	95	70%
	compressor, air flow > 10m3/min and <= 30m3/min ncrete lorry mixer	CNP 002 CNP 044	102 109	50% 20%
Со	ncrete pump, stationary/ lorry mounted	CNP 047	109	20%
	ane, mobile/ barge mounted (diesel) ker, vibratory, hand-held	CNP 048 CNP 170	112 113	100% 20%
	ker, vibratory, nand-neid	ON 170	Total SW	
		Ma	aximum SW	L, dB (A)
Sta	age 4 - Piers			
	nerator, super silenced, 70 dB(A) at 7 m	CNP 103	95	50%
Air	compressor, air flow > 10m3/min and <= 30m3/min	CNP 103 CNP 002 CNP 044	95 102 109	50% 50% 20%
Air Co Co	compressor, air flow > 10m3/min and <= 30m3/min ncrete lorry mixer ncrete pump, stationary/ lorry mounted	CNP 002 CNP 044 CNP 047	102 109 109	50% 20% 20%
Air Co Co Cra	compressor, air flow > 10m3/min and <= 30m3/min ncrete lorry mixer ncrete pump, stationary/ lorry mounted ane, mobile/ barge mounted (diesel)	CNP 002 CNP 044 CNP 047 CNP 048	102 109 109 112	50% 20% 20% 50%
Air Co Co Cra	compressor, air flow > 10m3/min and <= 30m3/min ncrete lorry mixer ncrete pump, stationary/ lorry mounted	CNP 002 CNP 044 CNP 047	102 109 109	50% 20% 20% 50% 20%
Air Co Cra Po	compressor, air flow > 10m3/min and <= 30m3/min ncrete lorry mixer ncrete pump, stationary/ lorry mounted ane, mobile/ barge mounted (diesel) ker, vibratory, hand-held	CNP 002 CNP 044 CNP 047 CNP 048	102 109 109 112 113	50% 20% 20% 50% 20%
Air Co Co Cra Po	compressor, air flow > 10m3/min and <= 30m3/min ncrete lorry mixer ncrete pump, stationary/ lorry mounted ane, mobile/ barge mounted (diesel) ker, vibratory, hand-held age 5 - Bridge Decks	CNP 002 CNP 044 CNP 047 CNP 048 CNP 170	102 109 109 112 113 Total SW	50% 20% 20% 50% 20% L, dB (A)
Air Co Cra Po Sta Cra Lo	compressor, air flow > 10m3/min and <= 30m3/min ncrete lorry mixer ncrete pump, stationary/ lorry mounted ane, mobile/ barge mounted (diesel) ker, vibratory, hand-held age 5 - Bridge Decks ane, mobile/ barge mounted (diesel) rry	CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 048 CNP 141	102 109 109 112 113 Total SW	50% 20% 20% 50% 50% L, dB (A) 50% 60%
Air Co Cra Po Sta Cra Lo	compressor, air flow > 10m3/min and <= 30m3/min ncrete lorry mixer ncrete pump, stationary/ lorry mounted ane, mobile/ barge mounted (diesel) ker, vibratory, hand-held age 5 - Bridge Decks ane, mobile/ barge mounted (diesel) rry compressor, air flow > 10m3/min and <= 30m3/min	CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 048 CNP 170	102 109 109 112 113 Total SW	50% 20% 20% 50% 20% (L, dB (A) 50% 60% 50%
Air Co Cra Po Sta Cra Lo	compressor, air flow > 10m3/min and <= 30m3/min ncrete lorry mixer ncrete pump, stationary/ lorry mounted ane, mobile/ barge mounted (diesel) ker, vibratory, hand-held age 5 - Bridge Decks ane, mobile/ barge mounted (diesel) rry	CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 048 CNP 141	102 109 109 112 113 Total SW	50% 20% 20% 50% 20% L, dB (A) 50% 60% 50% 20%
Air Co Cra Po Sta Cra Lo Air	compressor, air flow > 10m3/min and <= 30m3/min ncrete lorry mixer ncrete pump, stationary/ lorry mounted ane, mobile/ barge mounted (diesel) ker, vibratory, hand-held age 5 - Bridge Decks ane, mobile/ barge mounted (diesel) rry compressor, air flow > 10m3/min and <= 30m3/min estress Jack*	CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 048 CNP 170	102 109 109 112 113 Total SW 112 112 112 102 110	50% 20% 20% 50% 20% L, dB (A) 50% 60% 50% 20%
Air Co Co Cra Po Sta Cra Lo Air Pre	compressor, air flow > 10m3/min and <= 30m3/min ncrete lorry mixer ncrete pump, stationary/ lorry mounted ane, mobile/ barge mounted (diesel) ker, vibratory, hand-held age 5 - Bridge Decks ane, mobile/ barge mounted (diesel) rry compressor, air flow > 10m3/min and <= 30m3/min	CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 048 CNP 170	102 109 109 112 113 Total SW 112 112 112 102 110	50% 20% 20% 50% 20% L, dB (A) 50% 60% 50% 20%
Sta Gr Sta Gr Cra Cra Lo Air Pre Gr Cra	compressor, air flow > 10m3/min and <= 30m3/min ncrete lorry mixer ncrete pump, stationary/ lorry mounted ane, mobile/ barge mounted (diesel) ker, vibratory, hand-held age 5 - Bridge Decks ane, mobile/ barge mounted (diesel) rry compressor, air flow > 10m3/min and <= 30m3/min pastress Jack* age 6 - Parapet & Surfacing oup 1 (Parapet) ane, mobile/ barge mounted (diesel)	CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 170 CNP 048 CNP 141 CNP 002 CNP 261 CNP 261	102 109 109 112 113 Total SW 112 112 102 110 Total SW	50% 20% 50% 20% 50% L, dB (A) 50% 60% 50% 20% L, dB (A)
Sta Cra Lo Sta Gr Cra Lo	compressor, air flow > 10m3/min and <= 30m3/min ncrete lorry mixer ncrete pump, stationary/ lorry mounted ane, mobile/ barge mounted (diesel) ker, vibratory, hand-held age 5 - Bridge Decks ane, mobile/ barge mounted (diesel) rry compressor, air flow > 10m3/min and <= 30m3/min astress Jack* age 6 - Parapet & Surfacing oup 1 (Parapet) ane, mobile/ barge mounted (diesel) rry ane, mobile/ barge mounted (diesel)	CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 048 CNP 141 CNP 002 CNP 261 CNP 261	102 109 109 112 113 Total SW 112 112 110 110 Total SW	50% 20% 20% 50% 20% 20% L, dB (A) 50% 60% 50% 20% L, dB (A)
Sta Cra Cra Cra Cra Cra Cra Cra Cra Cra Cr	compressor, air flow > 10m3/min and <= 30m3/min ncrete lorry mixer ncrete pump, stationary/ lorry mounted ane, mobile/ barge mounted (diesel) ker, vibratory, hand-held age 5 - Bridge Decks ane, mobile/ barge mounted (diesel) rry compressor, air flow > 10m3/min and <= 30m3/min pastress Jack* age 6 - Parapet & Surfacing oup 1 (Parapet) ane, mobile/ barge mounted (diesel)	CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 170 CNP 048 CNP 141 CNP 002 CNP 261 CNP 261	102 109 109 112 113 Total SW 112 112 102 110 Total SW	50% 20% 20% 50% 50% 50% L, dB (A) 50% 50% 20% L, dB (A)
Sta Cra Cra Cra Cra Cra Cra Cra Cra Cra Cr	compressor, air flow > 10m3/min and <= 30m3/min ncrete lorry mixer ncrete pump, stationary/ lorry mounted ane, mobile/ barge mounted (diesel) ker, vibratory, hand-held age 5 - Bridge Decks ane, mobile/ barge mounted (diesel) rry compressor, air flow > 10m3/min and <= 30m3/min estress Jack* age 6 - Parapet & Surfacing oup 1 (Parapet) ane, mobile/ barge mounted (diesel) rry compressor, air flow > 10m3/min and <= 30m3/min estress Jack*	CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 048 CNP 141 CNP 002 CNP 261 CNP 048 CNP 141 CNP 002 CNP 261	102 109 109 112 113 Total SW 112 112 112 102 110 Total SW	50% 20% 20% 50% 50% 50% L, dB (A) 50% 50% 20% L, dB (A)
Sta Cra Lo Air Pre Sta Gr Cra Lo Air Gr Gr	compressor, air flow > 10m3/min and <= 30m3/min ncrete lorry mixer ncrete pump, stationary/ lorry mounted ane, mobile/ barge mounted (diesel) ker, vibratory, hand-held age 5 - Bridge Decks ane, mobile/ barge mounted (diesel) rry compressor, air flow > 10m3/min and <= 30m3/min estress Jack* age 6 - Parapet & Surfacing oup 1 (Parapet) ane, mobile/ barge mounted (diesel) rry compressor, air flow > 10m3/min and <= 30m3/min estress Jack* age 6 - Parapet & Surfacing oup 1 (Parapet) ane, mobile/ barge mounted (diesel) rry compressor, air flow > 10m3/min and <= 30m3/min nerator, super silenced, 70 dB(A) at 7 m oup 2 (Surfacing)	CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 048 CNP 141 CNP 002 CNP 261 CNP 048 CNP 141 CNP 002 CNP 261	102 109 109 112 113 Total SW 112 112 102 110 Total SW	50% 20% 20% 50% 50% 50% L, dB (A) 50% 50% 20% L, dB (A)
Sta Cra Lo Air Pre Sta Gr Cra Lo Air Air Air Air	compressor, air flow > 10m3/min and <= 30m3/min ncrete lorry mixer ncrete pump, stationary/ lorry mounted ane, mobile/ barge mounted (diesel) ker, vibratory, hand-held age 5 - Bridge Decks ane, mobile/ barge mounted (diesel) rry compressor, air flow > 10m3/min and <= 30m3/min setress Jack* age 6 - Parapet & Surfacing oup 1 (Parapet) ane, mobile/ barge mounted (diesel) rry compressor, air flow > 10m3/min and <= 30m3/min nerator, super silenced, 70 dB(A) at 7 m oup 2 (Surfacing) compressor, air flow > 10m3/min and <= 30m3/min	CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 170 CNP 048 CNP 141 CNP 002 CNP 261 CNP 048 CNP 141 CNP 002 CNP 103	102 109 109 112 113 Total SW 112 112 102 110 Total SW 112 110 110 110 112 112 102 95 Total SW	50% 20% 20% 20% 50% 50% L, dB (A) 50% 50% L, dB (A) 30% 50% 50% 50% 50%
Sta Gr Cra Air Ge	compressor, air flow > 10m3/min and <= 30m3/min ncrete lorry mixer ncrete pump, stationary/ lorry mounted ane, mobile/ barge mounted (diesel) ker, vibratory, hand-held age 5 - Bridge Decks ane, mobile/ barge mounted (diesel) rry compressor, air flow > 10m3/min and <= 30m3/min pastress Jack* age 6 - Parapet & Surfacing oup 1 (Parapet) ane, mobile/ barge mounted (diesel) rry compressor, air flow > 10m3/min and <= 30m3/min nerator, super silenced, 70 dB(A) at 7 m oup 2 (Surfacing) compressor, air flow > 10m3/min and <= 30m3/min nerator, super silenced, 70 dB(A) at 7 m	CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 170 CNP 048 CNP 141 CNP 002 CNP 261 CNP 048 CNP 141 CNP 002 CNP 103	102 109 109 112 113 Total SW 112 112 102 110 Total SW 112 110 110 110 112 112 102 95 Total SW	50% 20% 20% 20% 50% 50% 50% 60% 50% 20% L, dB (A) 30% 50% 50% 50% 50% 50% 50%
Sta Cra Lo Air Pre Sta Gr Cra Lo Air Ge Air Ge As	compressor, air flow > 10m3/min and <= 30m3/min ncrete lorry mixer ncrete pump, stationary/ lorry mounted ane, mobile/ barge mounted (diesel) ker, vibratory, hand-held age 5 - Bridge Decks ane, mobile/ barge mounted (diesel) rry compressor, air flow > 10m3/min and <= 30m3/min setress Jack* age 6 - Parapet & Surfacing oup 1 (Parapet) ane, mobile/ barge mounted (diesel) rry compressor, air flow > 10m3/min and <= 30m3/min nerator, super silenced, 70 dB(A) at 7 m oup 2 (Surfacing) compressor, air flow > 10m3/min and <= 30m3/min	CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 170 CNP 048 CNP 141 CNP 002 CNP 261 CNP 048 CNP 141 CNP 002 CNP 103	102 109 109 112 113 Total SW 112 112 102 110 Total SW 112 110 110 110 112 112 102 95 Total SW	50% 20% 20% 20% 50% 20% L, dB (A) 50% 50% 20% L, dB (A) 30% 50% 50% 50% 50% 50% 50% 50% 70%

PM	E	TM or other reference	SWL, dB(A)	% on time
Portal of North Tunnel and	Ventilation Building	'	1	
Stage 1 - Site Clearance				
Group 1				
Air compressor, air flow > 10	m3/min and <= 30m3/min	CNP 002	102	100%
Breaker, hand-held, mass >=	20kg and <= 35kg	CNP 025	111	70%
Dump truck		CNP 067	117	60%
Excavator/ loader, wheeled/ t		CNP 081	112	80%
Generator, super silenced, 70) dB(A) at 7 m	CNP 103	95	60%
			Total SW	'L, dB (A)
Group 2				
Air compressor, air flow > 10	m3/min and <= 30m3/min	CNP 002	102	100%
Crane, mobile/ barge mounte		CNP 048	112	40%
Generator, super silenced, 70) dB(A) at 7 m	CNP 103	95	60%
Lorry with crane/grab		CNP 145	105	70%
Water pump, submersible (el	ectric)	CNP 283	85	100%
		Mo	Iotal SW ximum SW	L, dB (A)
		IVId	XIIIIUIII SVV	L, UD (A)
Stage 2 - Portal Formation				
Group 1				
Air compressor, air flow > 10		CNP 002	102	80%
Excavator/ loader, wheeled/ t		CNP 081	112	80%
Generator, super silenced, 70 Lorry with crane/grab) 0B(A) at / m	CNP 103 CNP 145	95 105	60% 70%
Lorry with crane/grab	_	CNP 145		L, dB (A)
			TOTAL SVV	L, GD (A)
Group 2				
Air compressor, air flow > 10	m3/min and <= 30m3/min	CNP 002	102	80%
Bulldozer		CNP 030	115	70%
Dump truck	10(4)	CNP 067	117	60%
Generator, super silenced, 70		CNP 103	95	60% 100%
Water pump, submersible (el	ectric)	CNP 283	85 Total SW	'L, dB (A)
			1014.011	L, GD (71)
Group 3				
Air compressor, air flow > 10	m3/min and <= 30m3/min	CNP 002	102	80%
Concrete lorry mixer	-l (-l:l)	CNP 044	109	40%
Crane, mobile/ barge mounte	a (alesei)	CNP 048 CNP 050	112	100%
Compactor, vibratory Roller, vibratory		CNP 050 CNP 186	105 108	60%
Generator, super silenced, 70) dR(A) at 7 m	CNP 103	95	
	TOD(A) at 7 III			
				60% 50%
Poker, vibratory, hand-held		CNP 170	113	50% L, dB (A)
		CNP 170	113	50% 'L, dB (A)
Poker, vibratory, hand-held		CNP 170	113 Total SW	50% 'L, dB (A)
Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1		CNP 170	113 Total SW	50% 'L, dB (A) 'L, dB (A)
Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel)		CNP 170 Ma CNP 072	113 Total SW ximum SW	50% (L, dB (A) (L, dB (A) 40%
Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig., rotary type (diesel) Water pump (electric)		CNP 170 Ma CNP 072 CNP 281	113 Total SW ximum SW 110 88	50% (L, dB (A) (L, dB (A) (L, dB (A) (L, dB (A))
Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10		CNP 170 Ma CNP 072 CNP 281 CNP 002	113 Total SW ximum SW 110 88 102	50% (L, dB (A) (L, dB (A) (L, dB (A) (L) dB (A) (L) dB (A) (L) dB (A) (L) dB (A) (L) dB (A)
Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig., rotary type (diesel) Water pump (electric)		CNP 170 Ma CNP 072 CNP 281	113 Total SW ximum SW 110 88 102 95	50% (L, dB (A) (L, dB (A) 40% 100% 80% 100%
Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10		CNP 170 Ma CNP 072 CNP 281 CNP 002	113 Total SW ximum SW 110 88 102 95	50% (L, dB (A) (L, dB (A) 40% 100% 80% 100%
Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10 Generator, super silenced, 70 Group 2	0 dB(A) at 7 m	CNP 170 Ma CNP 072 CNP 281 CNP 002 CNP 103	113 Total SW ximum SW 110 88 102 95 Total SW	50% (L, dB (A) (L, dB (A) 40% 100% 80% 100% (L, dB (A)
Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10 Generator, super silenced, 70 Group 2 Air compressor, air flow > 10	0 dB(A) at 7 m m3/min and <= 30m3/min	CNP 170 Ma CNP 072 CNP 281 CNP 002 CNP 103	113 Total SW ximum SW 110 88 102 95 Total SW	50% (L, dB (A) (L, dB (A) 40% 100% 80% 100% (L, dB (A)
Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10 Generator, super silenced, 70 Group 2 Air compressor, air flow > 10 Crane, mobile/ barge mounte	D dB(A) at 7 m m3/min and <= 30m3/min ad (diesel)	CNP 170 Ma CNP 072 CNP 281 CNP 002 CNP 103 CNP 002 CNP 002 CNP 002 CNP 002	113 Total SW mmm SW 110 88 102 95 Total SW	50% (L, dB (A) (L, dB (A) (L, dB (A) 100% 80% 100% 80% 100%
Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10 Generator, super silenced, 70 Group 2 Air compressor, air flow > 10 Crane, mobile/ barge mounte Generator, super silenced, 70	0 dB(A) at 7 m m3/min and <= 30m3/min id (diesel) 0 dB(A) at 7 m	CNP 170 Ma CNP 072 CNP 281 CNP 002 CNP 103 CNP 002 CNP 002 CNP 008 CNP 008 CNP 008 CNP 008 CNP 008	113 Total SW 110 110 88 102 95 Total SW	50% L, dB (A) L, dB (A) 100% 80% 100% 1, dB (A) 80% 100% 100% 100%
Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10 Generator, super silenced, 70 Group 2 Air compressor, air flow > 10 Crane, mobile/ barge mounte	0 dB(A) at 7 m m3/min and <= 30m3/min id (diesel) 0 dB(A) at 7 m	CNP 170 Ma CNP 072 CNP 281 CNP 002 CNP 103 CNP 002 CNP 002 CNP 002 CNP 002	113 Total SW 110 88 102 95 Total SW	50% (L, dB (A) (L, dB
Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10 Generator, super silenced, 70 Group 2 Air compressor, air flow > 10 Crane, mobile/ barge mounte Generator, super silenced, 70	0 dB(A) at 7 m m3/min and <= 30m3/min id (diesel) 0 dB(A) at 7 m	CNP 170 Ma CNP 072 CNP 281 CNP 002 CNP 103 CNP 002 CNP 002 CNP 008 CNP 008 CNP 008 CNP 008	113 Total SW 110 88 102 95 Total SW	50% (L, dB (A) (L, dB
Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10 Generator, super silenced, 70 Group 2 Air compressor, air flow > 10 Crane, mobile/ barge mounte Generator, super silenced, 77 Pilling, large diameter bored, Group 3	m3/min and <= 30m3/min ad (diesel) 0 dB(A) at 7 m grab and chisel	CNP 170 Ma CNP 072 CNP 281 CNP 002 CNP 103 CNP 002 CNP 103 CNP 103 CNP 1048 CNP 103 CNP 164	113 Total SW ximum SW 110 88 102 95 Total SW 1102 112 95 115 Total SW	50% L, dB (A) L, dB (A) L, dB (A) 40% 100% 80% 100% 100% L, dB (A) 100% 70% L, dB (A)
Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10 Generator, super silenced, 70 Group 2 Air compressor, air flow > 10 Crane, mobile/ barge mounte Generator, super silenced, 70 Piling, large diameter bored, Group 3 Air compressor, air flow > 10	m3/min and <= 30m3/min d (diesel) O dB(A) at 7 m grab and chisel m3/min and <= 30m3/min	CNP 170 Ma CNP 072 CNP 281 CNP 002 CNP 103 CNP 004 CNP 048 CNP 103 CNP 164 CNP 104	113 Total SW ximum SW 110 88 102 95 Total SW 102 95 115 Total SW	50% I'L, dB (A) I'L, dB (A) 40% 100% 80% 100% 100% 100% 70, dB (A) 100% 70% I, dB (A)
Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10 Generator, super silenced, 70 Group 2 Air compressor, air flow > 10 Crane, mobile/ barge mounte Generator, super silenced, 70 Piling, large diameter bored, Group 3 Air compressor, air flow > 10 Generator, super silenced, 70 Generator, super silenced, 70 Generator, super silenced, 70 Generator, super silenced, 70	m3/min and <= 30m3/min d (diesel) O dB(A) at 7 m grab and chisel m3/min and <= 30m3/min	CNP 170 Ma CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 104 CNP 103 CNP 164 CNP 105 CNP 106 CNP 107 CNP 108 CNP 109 CNP 109 CNP 109 CNP 109 CNP 109	113 Total SW ximum SW 110 88 102 95 Total SW 112 95 115 Total SW	50% 'L, dB (A) 'S (A)
Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10 Generator, super silenced, 70 Group 2 Air compressor, air flow > 10 Crane, mobile/ barge mounte Generator, super silenced, 70 Pilling, large diameter bored, Group 3 Air compressor, air flow > 10 Group 3 Generator, super silenced, 70 Generator, super silenced, 70 Generator, super silenced, 70 Concrete lorry mixer	m3/min and <= 30m3/min d (diesel) D dB(A) at 7 m grab and chisel m3/min and <= 30m3/min 0 dB(A) at 7 m 0 dB(A) at 7 m	CNP 170 Ma CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 104 CNP 105 CNP 106 CNP 107 CNP 108 CNP 109 CNP 109	113 Total SW ximum SW 110 110 88 102 95 Total SW 102 112 95 115 Total SW	50% 'L, dB (A) 'S (A) 'L, dB (A) 'S (A) 'L, dB (A) 'S (A) '
Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10 Generator, super silenced, 70 Group 2 Air compressor, air flow > 10 Crane, mobile/ barge mounte Generator, super silenced, 70 Piling, large diameter bored, Group 3 Air compressor, air flow > 10 Generator, super silenced, 70 Generator, super silenced, 70 Generator, super silenced, 70 Generator, super silenced, 70	m3/min and <= 30m3/min d (diesel) D dB(A) at 7 m grab and chisel m3/min and <= 30m3/min 0 dB(A) at 7 m 0 dB(A) at 7 m	CNP 170 Ma CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 104 CNP 103 CNP 164 CNP 105 CNP 106 CNP 107 CNP 108 CNP 109 CNP 109 CNP 109 CNP 109 CNP 109	113 Total SW ximum SW 110 88 102 95 Total SW 102 115 Total SW 102 95 115 Total SW	50% 'L, dB (A) 'S (A)

	PME	TM or other reference	SWL, dB(A)	% on time	Total of P
Nor	th Portal of North Tunnel and Ventilation Building		l		
	Stage 4 - Road Works				
	Group 1				
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	30%	2
	Lorry	CNP 141	112	50%	2
		CNP 002	102		2
	Air compressor, air flow > 10m3/min and <= 30m3/min			50%	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95 Total SM	50% /L, dB (A)	11
			TOTAL SW	L, ub (A)	- 11
	Group 2				
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%	2
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	50%	2
	Asphalt paver	CNP 004	109	70%	1
	Road roller	CNP 185	108	70%	3
				/L, dB (A)	11
		Max	kimum SW		11
	Stage 5 - Building Foundation Works				
	Group 1				
	Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111	30%	2
	Breaker, excavator mounted (hydraulic)	CNP 028	122	30%	1
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	70%	1
	Generator, super silenced, 70 dB(A) at 7 m	OND 400	0.5	100%	1
	deficiator, super silenced, 70 db(A) at 7 m	CNP 103	95		
	Generator, Super Shericeu, 70 db(A) at 7 m	CNP 103		/L, dB (A)	
		[CNP 103			
	Group 2		Total SW	/L, dB (A)	11
	Group 2 Generator, super silenced, 70 dB(A) at 7 m	CNP 103	Total SW	/L, dB (A)	11
	Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel	CNP 103 CNP 164	95 115	/L, dB (A) 100% 90%	11
	Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill	CNP 103 CNP 164 CNP 166	95 115 100	100% 90% 40%	11 11 11 11
	Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel	CNP 103 CNP 164	95 115 100 103	100% 90% 40% 80%	11 11 11 11 11 11 11 11 11 11 11 11 11
	Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill	CNP 103 CNP 164 CNP 166	95 115 100 103	100% 90% 40%	11 11 11 11 11 11 11 11 11 11 11 11 11
	Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill	CNP 103 CNP 164 CNP 166	95 115 100 103	100% 90% 40% 80%	11 11 11 11 11 11 11 11 11 11 11 11 11
	Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3	CNP 103 CNP 164 CNP 166	95 115 100 103	100% 90% 40% 80%	11 11 1 1 4
	Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol)	CNP 103 CNP 164 CNP 166 CNP 282	95 115 100 103 Total SW	100% 90% 40% 80% /L, dB (A)	11 11 11 14 11
	Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel)	CNP 103 CNP 164 CNP 166 CNP 282	95 115 100 103 Total SW	100% 90% 40% 80% /L, dB (A)	11 11 11 14 11 11
	Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer	CNP 103 CNP 164 CNP 166 CNP 282 CNP 282	95 115 100 103 Total SW	100% 90% 40% 80% /L, dB (A) 80% 40% 50%	11 11 11 4 11 11
	Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held	CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170	95 115 100 103 Total SW	100% 90% 40% 80% /L, dB (A) 80% 50% 20%	11 11 11 14 11 11 14 22
	Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer	CNP 103 CNP 164 CNP 166 CNP 282 CNP 282 CNP 048 CNP 047 CNP 044	95 115 100 103 Total SW 112 109 109	100% 90% 40% 80% /L, dB (A) 80% 40% 50%	11 11 11 4 11 11 11 4 2
	Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103	Total SW 95 115 100 103 Total SW 112 109 109 109 95 90	100% 90% 40% 80% 1L, dB (A) 80% 20% 80% 80% 80%	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021	Total SW 95 115 100 103 Total SW 112 109 109 109 95 90	100% 90% 40% 80% /L, dB (A) 80% 40% 50% 20% 80% /L, dB (A)	11 1 1 1 1 1 1 1 1 2 2 2 3 3
	Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021	70tal SW 95 115 100 103 Total SW 112 109 109 113 95 90 Total SW	100% 90% 40% 80% /L, dB (A) 80% 40% 50% 20% 80% /L, dB (A)	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021	70tal SW 95 115 100 103 Total SW 112 109 109 113 95 90 Total SW	100% 90% 40% 80% /L, dB (A) 80% 40% 50% 20% 80% /L, dB (A)	11 1 1 1 1 1 1 1 1 2 2 2 3 3
	Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 6 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Ma:	95 115 100 103 Total SW 112 109 109 113 95 90 Total SW dimum SW	100% 90% 40% 80% /L, dB (A) 80% 40% 50% 20% 80% /L, dB (A)	11 11 11 11 11 11 12 22 23 31 111
	Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 6 - Building Structures	CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Ma:	95 115 100 103 Total SW 112 109 109 113 95 90 Total SW	100% 90% 40% 80% 7L, dB (A) 80% 40% 50% 20% 80% 7L, dB (A)	111 11 11 11 11 11 11 11 11 11 11 11 11
	Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 6 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Ma:	95 115 100 103 Total SW 112 109 109 113 95 90 Total SW dimum SW	100% 90% 40% 80% /L, dB (A) 50% 20% 80% /L, dB (A) 100%	111 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 6 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer	CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Ma: CNP 025 CNP 044	70tal SW 95 115 100 103 Total SW 112 109 109 113 95 90 Total SW 4 4 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	100% 90% 40% 80% /L, dB (A) 50% 20% 80% /L, dB (A) 1, dB (A)	111 111 111 111 111 111 111 111 111
	Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 6 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted	CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Ma: CNP 025 CNP 044 CNP 044 CNP 049	70tal SW 95 115 100 103 Total SW 112 109 109 113 95 90 Formum SW 111 111 109 109 109 109	100% 90% 40% 80% 7L, dB (A) 80% 40% 50% 20% 80% 80% 7L, dB (A) 7L, dB (A) 7L, dB (A) 7L, dB (A) 7L, dB (A)	111 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 6 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel)	CNP 103 CNP 164 CNP 166 CNP 186 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Ma: CNP 025 CNP 044 CNP 047 CNP 045 CNP 047 CNP 047 CNP 047 CNP 048	95 115 100 100 115 115 100 100 100 100 10	100% 90% 40% 80% 40% 50% 20% 80% 7L, dB (A) 10, dB (A) 40% 50% 80% 7L, dB (A) 7L, dB (A) 7L, dB (A) 80% 80% 80% 80% 80% 80%	111 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 6 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab	CNP 103 CNP 164 CNP 166 CNP 186 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Ma: CNP 025 CNP 044 CNP 047 CNP 044 CNP 047 CNP 048 CNP 047 CNP 048 CNP 047	70tal SW 95 115 100 1003 Total SW 112 109 109 1113 95 Total SW 1111 109 109 109 109 109 109 109 109 10	100% 90% 40% 80% /L, dB (A) 50% 20% 80% /L, dB (A) 10% 50% 40% 50% 40% 80% /L, dB (A) 10% 50% 40% 80% /L, dB (A)	11 11 11 11 11 11 11 11 11 11 11 11 11

	РМЕ	TM or other reference	SWL, dB(A)	% on time
ιt	h Portal of North Tunnel and Ventilation Building	'	ı	
	Stage 1 -Site Clearance			
	Group 1			
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%
	Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111	70%
	Dump truck	CNP 067	117	60%
	Excavator/ loader, wheeled/ tracked	CNP 081	112	80%
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95 Total SW	60% L, dB (A)
				_, == (+,)
	Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	40%
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%
	Lorry with crane/grab	CNP 145	105	70%
	Water pump, submersible (electric)	CNP 283	85	100%
				L, dB (A)
		Max	ximum SW	L, dB (A)
	Stage 2 - Portal Formation			
	Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%
	Excavator/ loader, wheeled/ tracked	CNP 002	112	80%
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%
	Lorry with crane/grab	CNP 145	105	70%
				L, dB (A)
	Group 2			
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%
	Bulldozer	CNP 030	115	70%
	Dump truck	CNP 067	117	80%
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%
	Water pump, submersible (electric)	CNP 283	85	100%
			Total SW	
			Total SW	L, dB (A)
	Group 3 Air compressor air flow > 10m3/min and <= 30m3/min	CNP 002		, ,
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer	CNP 044	102 109	70% 40%
	Air compressor, air flow > 10m3/min and <= 30m3/min		102	70%
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel)	CNP 044 CNP 048	102 109 112	70% 40% 100%
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory	CNP 044 CNP 048 CNP 050	102 109 112 105	70% 40% 100% 50%
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 103 CNP 170	102 109 112 105 95 113 Total SW	70% 40% 100% 50% 60% 50% /L, dB (A)
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held	CNP 044 CNP 048 CNP 050 CNP 103 CNP 170	102 109 112 105 95 113	70% 40% 100% 50% 60% 50% /L, dB (A)
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation	CNP 044 CNP 048 CNP 050 CNP 103 CNP 170	102 109 112 105 95 113 Total SW	70% 40% 100% 50% 60% 50% /L, dB (A)
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held	CNP 044 CNP 048 CNP 050 CNP 103 CNP 170	102 109 112 105 95 113 Total SW	70% 40% 100% 50% 60% 50% /L, dB (A)
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 044 CNP 048 CNP 050 CNP 103 CNP 170	102 109 112 105 95 113 Total SW kimum SW	70% 40% 100% 50% 60% 50% (L, dB (A)
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic)	CNP 044 CNP 048 CNP 050 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028	102 109 112 105 95 113 Total SW kimum SW	70% 40% 100% 50% 60% 50% (L, dB (A) (L, dB (A)) 100% 20% 80%
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103	102 109 112 105 95 113 Total SW kimum SW	70% 40% 100% 50% 60% 50% (L, dB (A) (L, dB (A)) 100% 20% 80% 50%
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic)	CNP 044 CNP 048 CNP 050 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028	102 109 112 105 95 113 Total SW ximum SW	70% 40% 100% 50% 60% /L, dB (A) /L, dB (A) 100% 20% 80% 50% 50%
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103	102 109 112 105 95 113 Total SW ximum SW	70% 40% 100% 50% 60% 50% (L, dB (A) (L, dB (A)) 100% 20% 80% 50%
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2	CNP 044 CNP 048 CNP 050 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145	102 109 112 105 95 113 Total SW 200 111 102 111 122 95 105 Total SW	70% 40% 100% 50% 60% 50, dB (A) /L, dB (A) 100% 20% 80% 50% 50% (L, dB (A)
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 044 CNP 048 CNP 050 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 104 CNP 105 CNP 026 CNP 027 CNP 028 CNP 103 CNP 103 CNP 145	102 109 112 105 95 113 Total SW ximum SW 102 111 112 95 105 Total SW	70% 40% 100% 50% 60% 50% (L, dB (A) (L, dB (A)) 100% 20% 80% 50% 50% (L, dB (A))
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel)	CNP 044 CNP 048 CNP 050 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 104 CNP 105 CNP 107 CNP 002 CNP 002 CNP 002 CNP 002 CNP 002 CNP 002 CNP 103 CNP 1045	102 109 112 105 95 113 Total SW kimum SW 102 111 122 95 Total SW	70% 40% 100% 50% 60% 50% 7L, dB (A) 100% 20% 80% 50% 50% 50% 50% 100% 70%
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 103 CNP 145	102 109 112 105 95 113 Total SW simum SW 102 111 122 95 105 Total SW	70% 40% 100% 50% 60% 50% (L, dB (A) 100% 20% 80% 50% 50% (L, dB (A)
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel)	CNP 044 CNP 048 CNP 050 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 104 CNP 105 CNP 107 CNP 002 CNP 002 CNP 002 CNP 002 CNP 002 CNP 002 CNP 103 CNP 1045	102 109 112 105 95 113 Total SW 200 111 122 95 105 Total SW 110 102	70% 40% 100% 50% 60% 50% (L, dB (A) 100% 20% 80% 50% 50% 100% 100% 100% 100%
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 103 CNP 145	102 109 112 105 95 113 Total SW 200 111 122 95 105 Total SW 110 102	70% 40% 100% 50% 60% 50% (L, dB (A) 100% 20% 80% 50% 50% (L, dB (A)
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Dill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3	CNP 044 CNP 048 CNP 050 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 103 CNP 145	102 109 112 105 95 113 Total SW simum SW 102 111 122 95 105 Total SW 102 110 95 85 Total SW	70% 40% 100% 50% 60% 50% (L, dB (A) 100% 20% 80% 50% (J, dB (A) 100% 50% 100% 50% 100% 100% 100% 100%
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 044 CNP 048 CNP 050 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 103 CNP 145 CNP 028 CNP 103 CNP 145 CNP 072 CNP 072 CNP 072 CNP 072 CNP 072 CNP 103 CNP 103 CNP 108	102 109 112 105 95 113 Total SW 201 102 111 122 95 105 Total SW 102 110 95 85 Total SW	70% 40% 100% 50% 60% 50% (L, dB (A) 100% 20% 80% 50% 50% 50% 100% 70, dB (A) 100% 100%
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel)	CNP 044 CNP 048 CNP 050 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 025 CNP 028 CNP 103 CNP 145 CNP 103 CNP 145 CNP 283 CNP 002 CNP 028 CNP 028 CNP 103 CNP 283 CNP 103 CNP 103 CNP 103 CNP 109	102 109 112 105 95 113 Total SW ximum SW 102 111 122 95 105 Total SW 110 95 105 Total SW	70% 40% 100% 50% 60% 50% (L, dB (A) 100% 50% 50% (L, dB (A) 100% 50% 50% 50% 50% 50% (L, dB (A) 100% 70% 50% 100% 70% 100% 70% 100% 70%
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 103 CNP 145 CNP 022 CNP 283 CNP 103	102 109 1112 105 95 113 Total SW kimum SW 102 111 122 95 Total SW 102 110 95 85 Total SW	70% 40% 100% 50% 60% 50% (L, dB (A) 100% 20% 80% 50% 50% 50% 100% 70% 50% 100% 70% 50% 100% 70% 50%
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 025 CNP 103 CNP 145 CNP 103 CNP 145 CNP 104 CNP 022 CNP 028 CNP 103 CNP 145 CNP 002 CNP 072 CNP 103 CNP 283	102 109 112 105 95 113 Total SW simum SW 102 111 122 95 105 Total SW 102 110 95 85 Total SW	70% 40% 100% 50% 60% 50% (L, dB (A) 100% 20% 80% 50% 50% 50% 100% 50% 100% 50% 100% 50% 100% 50% 60%
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Grout mixer Grout pump	CNP 044 CNP 048 CNP 050 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 025 CNP 103 CNP 145 CNP 103 CNP 145 CNP 028 CNP 103 CNP 145 CNP 002 CNP 028 CNP 072 CNP 103 CNP 103 CNP 103 CNP 105 CNP 105 CNP 105	102 109 112 105 95 113 Total SW mmm SW 102 111 122 95 105 Total SW 102 110 95 85 Total SW	70% 40% 100% 50% 60% 50% (L, dB (A) 100% 20% 80% 50% 50% 50% 100% 70% 100% 70% 60% 60%
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Grout mixer	CNP 044 CNP 048 CNP 050 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 025 CNP 103 CNP 145 CNP 103 CNP 145 CNP 104 CNP 022 CNP 028 CNP 103 CNP 145 CNP 002 CNP 072 CNP 103 CNP 283	102 109 112 105 95 113 Total SW simum SW 102 111 122 95 105 Total SW 102 110 95 85 Total SW	70% 40% 100% 50% 60% 50% (L, dB (A) 100% 50% 80% 50% 50% 50% 50% 50% 100% 70% 50% 100% 70% 50% 60% 60% 50%

	PME	TM or other reference	SWL, dB(A)	%on time
utl	Portal of North Tunnel and Ventilation Building	-		ı
	Stage 4 - Bored Pile Wall			
	Group 1			
	Drill rig, rotary type (diesel)	CNP 072	110	40%
	Water pump (electric)	CNP 281	88	100%
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	80%
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
		•	Total SW	/L, dB (A)
	Group 2			
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	80%
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	100%
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
	Piling, large diameter bored, grab and chisel	CNP 164	115	70%
			Total SW	/L, dB (A)
	0			
	Group 3	OND OOD	100	000/
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	80%
ı	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
	Concrete lorry mixer	CNP 044	109	50%
	Concrete pump, stationary/ lorry mounted	CNP 047	109	50%
		Ma	ximum SW	/L, dB (A)
		IVId	XIIIIUIII SW	L, ub (A)
	Stage 5 - Road Works			
	Group 1			
١	Crane, mobile/ barge mounted (diesel)	CNP 048	112	30%
	Lorry	CNP 141	112	50%
Į	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	50%
	and the second s	, 0111 100		/L, dB (A)
ļ				
Į	Group 2			
J	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	50%
	Asphalt paver	CNP 004	109	70%
	Road roller	CNP 185	108	70%
1			Total SW	L, dB (A)
J		Ma	ximum SW	/L, dB (A)
ļ	0. 0.0 111 5 111			
	Stage 6 - Building Foundation Works			
	Group 1	CNP 025	111	20%
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111	30%
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic)	CNP 028	122	30%
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 028 CNP 002	122 102	30% 70%
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic)	CNP 028	122 102 95	30% 70% 100%
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 028 CNP 002	122 102 95	30% 70%
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 028 CNP 002	122 102 95	30% 70% 100%
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 028 CNP 002	122 102 95	30% 70% 100%
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2	CNP 028 CNP 002 CNP 103	122 102 95 Total SW	30% 70% 100% /L, dB (A)
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m	CNP 028 CNP 002 CNP 103	122 102 95 Total SW	30% 70% 100% /L, dB (A)
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164	122 102 95 Total SW 95 115	30% 70% 100% /L, dB (A) 100% 90%
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166	122 102 95 Total SW 95 115 100 103	30% 70% 100% /L, dB (A) 100% 90% 40%
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166	122 102 95 Total SW 95 115 100 103	30% 70% 100% /L, dB (A) 100% 90% 40% 80%
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Pilling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 282	122 102 95 Total SW 95 115 100 103 Total SW	30% 70% 100% /L, dB (A) 100% 90% 40% 80% /L, dB (A)
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol)	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166	122 102 95 Total SW 95 115 100 103	30% 70% 100% /L, dB (A) 100% 90% 40% 80%
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Pilling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 282 CNP 048 CNP 047	122 102 95 Total SW 95 115 100 103 Total SW	30% 70% 100% /L, dB (A) 100% 90% 40% 80% /L, dB (A)
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel)	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 282	122 102 95 Total SW 95 115 100 103 Total SW	30% 70% 100% /L, dB (A) 100% 90% 40% 80% /L, dB (A)
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Grane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 282 CNP 048 CNP 047	122 102 95 Total SW 95 115 100 103 Total SW	30% 70% 100% /L, dB (A) 100% 90% 40% 80% /L, dB (A)
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044	122 102 95 Total SW 95 115 100 103 Total SW	30% 70% 100% /L, dB (A) 100% 90% 40% 80% /L, dB (A)
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Pilling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170	122 102 95 Total SW 95 115 100 103 Total SW	30% 70% 100% /L, dB (A) 100% 90% 40% 80% /L, dB (A) 80% 40% 50% 20%
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 170	95 Total SW 95 115 100 103 Total SW 112 109 109 113 95 96	30% 70% 100% /L, dB (A) 100% 40% 80% 40% 80% 40% 50% 80%
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 104 CNP 170 CNP 103	95 Total SW 95 115 100 103 Total SW 112 109 109 113 95 96	30% 70% 100% /L, dB (A) 100% 90% 40% 80% /L, dB (A) 50% 20% 80% /L, dB (A)
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric)	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 104 CNP 170 CNP 103	122 102 95 Total SW 95 115 100 103 Total SW 112 109 109 113 95 90 Total SW	30% 70% 100% /L, dB (A) 100% 90% 40% 80% /L, dB (A) 50% 20% 80% /L, dB (A)
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Grane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 7 - Building Structures	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 104 CNP 104 CNP 105 CNP 104 CNP 107 CNP 108 CNP 108 CNP 108 CNP 109 CNP 108 CNP 108 CNP 108 CNP 108	122 102 95 Total SW 95 115 100 103 Total SW 112 109 109 109 109 1113 95 90 Total SW	30% 70% 100% /L, dB (A) 100% 40% 80% /L, dB (A) 80% 40% 50% 80% 80% 80% L, dB (A)
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Pilling, large diameter bored, grab and chisel Pilling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 7 - Building Structures Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Ma	122 102 95 Total SW 95 115 100 103 Total SW 112 109 109 113 95 90 Total SW	30% 70% 100% 100% 100% 90% 40% 80% 40% 50% 40% 50% 50% 80% /L, dB (A)
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Pilling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 7 - Building Structures Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 103 CNP 044 CNP 103 CNP 103 CNP 021 Ma	122 102 95 Total SW 95 115 100 103 Total SW 112 109 113 95 95 Total SW	30% 70% 100% 100% 100% 90% 40% 80% 40% 50% 40% 50% 40% 50% 1, dB (A)
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 7 - Building Structures Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 047 CNP 044 CNP 170 CNP 103 CNP 103 CNP 103 CNP 103 CNP 021	122 102 95 Total SW 95 115 100 103 Total SW 112 109 109 113 95 90 Total SW ximum SW	30% 70% 100% /L, dB (A) 90% 40% 80% /L, dB (A) 80% 20% 80% 20% 80% /L, dB (A) /L, dB (A) /L, dB (A)
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Grane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 7 - Building Structures Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 103 CNP 021 Ma CNP 025 CNP 044 CNP 047	122 102 95 Total SW 95 115 100 103 Total SW 112 109 109 113 95 90 Total SW ximum SW	30% 70% 100% 100% 90% 40% 80% /L, dB (A) 80% /L, dB (A) 50% 80% /L, dB (A) 50% 40% 50% 40% 50% 40%
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Pilling, large diameter bored, grab and chisel Pilling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 7 - Building Structures Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel)	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Ma CNP 025 CNP 044 CNP 044 CNP 045 CNP 045 CNP 046	122 102 95 Total SW 95 115 100 103 Total SW 112 109 109 113 95 90 Total SW 113 95 100 114 115 100 103 115 100 103 115 100 103 103 103 103 104 105 105 105 105 105 105 105 105 105 105	30% 70% 100% 100% 90% 40% 80% 40% 50% 20% 80% /L, dB (A) 50% 40% 50% 40% 50% 40% 80% /L, dB (A)
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Pilling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 7 - Building Structures Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Concrete pump, stationary/ lorry mounted Corane, mobile/ barge mounted (diesel) Lorry with crane/grab	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 103 CNP 103 CNP 044 CNP 103 CNP 104 CNP 103 CNP 103 CNP 021 Ma CNP 021 CNP 025 CNP 044 CNP 047 CNP 044 CNP 047 CNP 048 CNP 048 CNP 145	122 102 95 Total SW 95 115 100 103 Total SW 112 109 113 95 90 Total SW ximum SW 102 111 109 109 111 109	30% 70% 100% 100% 90% 40% 80% /L, dB (A) 80% /L, dB (A) 50% 80% /L, dB (A) 50% 40% 50% 40% 50% 40%
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 7 - Building Structures Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab Poker, vibratory, hand-held	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Ma CNP 025 CNP 044 CNP 047 CNP 044 CNP 07 CNP 044 CNP 170 CNP 092 CNP 0925 CNP 044 CNP 047 CNP 048 CNP 145 CNP 170	122 102 95 Total SW 95 1115 100 103 Total SW 119 109 109 1113 95 90 Total SW ximum SW 1102 1111 109 109 1110 109 1111 109 109	30% 70% 100% 100% 100% 40% 80% 40% 40% 80% 20% 80% 1L, dB (A) 20% 80% 40% 50% 40% 50% 40% 50% 40% 50% 40%
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Pilling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 7 - Building Structures Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Concrete pump, stationary/ lorry mounted Corane, mobile/ barge mounted (diesel) Lorry with crane/grab	CNP 028 CNP 002 CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 103 CNP 103 CNP 044 CNP 103 CNP 104 CNP 103 CNP 103 CNP 021 Ma CNP 021 CNP 025 CNP 044 CNP 047 CNP 044 CNP 047 CNP 048 CNP 048 CNP 145	122 102 95 Total SW 95 115 100 103 Total SW 112 109 113 95 90 Total SW ximum SW 102 111 109 109 111 109	30% 70% 100% 100% 100% 90% 40% 80% 40% 50% 20% 80% 80% 40% 50% 40% 50% 40% 50% 40% 50% 50% 50%

n	PME	TM or other reference	SWL, dB(A)	% on time	Total r
Ad	ministration Building	1	ı		
	Chara 1 Cita Classanas				
	Stage 1 - Site Clearance	CNP 002	100	1000/	
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002 CNP 025	102	100%	1
	Breaker, hand-held, mass >= 20kg and <= 35kg		111	60%	<u>1</u> 1
	Dump truck	CNP 067	117	50%	
	Excavator/ loader, wheeled/ tracked	CNP 081	112	50%	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	1
	Lorry with crane/grab	CNP 145	105	50%	1_
	Water pump, submersible (electric)	CNP 283	85	100%	1
			Total SW	/L, dB (A)	116
	Stage 2 - Building Foundation Works				
	Group 1		,		
	Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111	30%	2
	Breaker, excavator mounted (hydraulic)	CNP 028	122	30%	1
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%	1
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%	1
			Total SW	/L, dB (A)	118
	Group 2				
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%	1
	Piling, large diameter bored, grab and chisel	CNP 164	115	90%	1
	Piling, large diameter bored, reverse circulation drill	CNP 166	100	40%	1
	Water pump (petrol)	CNP 282	103	80%	4
			Total SW	/L, dB (A)	116
	Group 3				
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	80%	1
	Concrete pump, stationary/ lorry mounted	CNP 047	109	40%	1
	Concrete lorry mixer	CNP 044	109	50%	4
	Poker, vibratory, hand-held	CNP 170	113	20%	2
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	80%	2
				80%	3
	Bar bender and cutter (electric)	CNP 021	90	00 /0	
	Bar bender and cutter (electric)	CNP 021			
	Bar bender and cutter (electric)	•		/L, dB (A)	116
		•	Total SW	/L, dB (A)	116
	Stage 3 - Building Structures	Max	Total SW	/L, dB (A)	116
	Stage 3 - Building Structures Air compressor, air flow > 10m3/min and <= 30m3/min	Max CNP 002	Total SW kimum SW	/L, dB (A) /L, dB (A) 50%	116
	Stage 3 - Building Structures Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 002 CNP 025	Total SW ximum SW 102 111	/L, dB (A) /L, dB (A) 50% 40%	116
	Stage 3 - Building Structures Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer	CNP 002 CNP 025 CNP 044	Total SW ximum SW 102 111 109	/L, dB (A) /L, dB (A) 50% 40% 50%	116 118 1 1 2 3
	Stage 3 - Building Structures Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted	CNP 002 CNP 025 CNP 044 CNP 047	Total SW kimum SW 102 111 109 109	/L, dB (A) /L, dB (A) /L, dB (A) 50% 40% 50% 40%	116 118 1 1 2 3 1
	Stage 3 - Building Structures Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel)	CNP 002 CNP 025 CNP 044 CNP 047 CNP 048	Total SW simum SW 102 111 109 109 112	/L, dB (A) /L, dB (A) 50% 40% 50% 40% 80%	116 118 1 1 2 3 1 1
	Stage 3 - Building Structures Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab	CNP 002 CNP 025 CNP 044 CNP 047 CNP 048 CNP 145	Total SW simum SW 102 111 109 109 112 105	/L, dB (A) /L, dB (A) 50% 40% 50% 40% 80% 50%	116 118 1 1 2 3 1 1 1
	Stage 3 - Building Structures Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel)	CNP 002 CNP 025 CNP 044 CNP 047 CNP 048	Total SW simum SW 102 111 109 109 112	/L, dB (A) /L, dB (A) 50% 40% 50% 40% 80%	116 118 1 1 2 3 1 1

Flyover Crossing Sha Tau Kok Road Interchange (Viaduct)

P	ME	TM or other referen	ce SWL, dB(A)	%on time
er Crossing Sha Tau Kok	Road Interchange	•	•	
Stage 1 - Site Clearance &	Haul Road			
Group 1 Breaker, hand-held, mass >	- 20kg and s- 25kg	CNP 025	111	30%
breaker, fland-fleid, filass >	= 20kg and <= 55kg	GNF 025		/L, dB (A
0				
Group 2 Excavator/ loader, wheeled/	/ tracked	CNP 081	112	80%
Bulldozer		CNP 030	115	40%
			Total SV	/L, dB (A
Group 3				
Dump truck		CNP 067	117	
	_		Total SW Maximum SW	/L, dB (A)
				2, 02 (/)
Stage 2 - Piling Group 1				
Generator, super silenced,	70 dB(A) at 7 m	CNP 103	95	100%
Excavator/ loader, wheeled/	tracked	CNP 081	112	50%
Lorry		CNP 141	112 Total SW	50% /L, dB (A
				, == , ,
Group 2 Piling, large diameter bored	reverse circulation drill	CNP 166	100	50%
Piling, large diameter bored		CNP 165	115	50%
Generator, super silenced,	70 dB(A) at 7 m	CNP 103	95	100%
Air compressor, air flow > 1	0m3/min and <= 30m3/min	CNP 002	102 Total SW	100% /L, dB (A
			TOTAL OV	, ub (A
Group 3 Generator, super silenced,	70 dB(A) at 7 m	CNP 103	95	100%
	0m3/min and <= 30m3/min	CNP 103	102	100%
Crane, mobile/ barge moun		CNP 048	112	50%
Poker, vibratory, hand-held Concrete pump, stationary/	lorry mounted	CNP 170 CNP 047	113 109	20% 20%
Concrete lorry mixer	iony mountou	CNP 044	109	20%
			Total SW Maximum SW	/L, dB (A
			Waximum OV	re, ab (A
Stage 3 - PileCaps Group 1				
Generator, super silenced,		CNP 103	95	70%
Air compressor, air flow > 1 Excavator/ loader, wheeled/	0m3/min and <= 30m3/min	CNP 002 CNP 081	102 112	50% 50%
Lorry	tracked	CNP 141	112	50%
			Total SW	/L, dB (A
Group 2				
Water pump (electric)	70 dP(A) at 7	CNP 281 CNP 103	88 95	70% 70%
Generator, super silenced, Air compressor, air flow > 1	0m3/min and <= 30m3/min	CNP 103 CNP 002	102	50%
Concrete lorry mixer		CNP 044	109	20%
Concrete pump, stationary/ Crane, mobile/ barge moun		CNP 047 CNP 048	109 112	20% 100%
Poker, vibratory, hand-held	ted (diesei)	CNP 170	113	20%
		•		L, dB (A
			Maximum SW	L, UB (A
Stage 4 - Piers Generator, super silenced,	70 dB(A) at 7 m	CNP 103	95	50%
	0m3/min and <= 30m3/min	CNP 103 CNP 002	102	50%
Concrete lorry mixer		CNP 044	109	20%
Concrete pump, stationary/ Crane, mobile/ barge moun		CNP 047 CNP 048	109 112	20% 50%
Poker, vibratory, hand-held		CNP 170	113	20%
			Total SW	/L, dB (A
Stage 5 - Bridge Decks				
Crane, mobile/ barge moun	ted (diesel)	CNP 048	112	50%
Lorry Air compressor, air flow > 1	0m3/min and <= 30m3/min	CNP 141 CNP 002	112 102	60% 50%
Prestress Jack*	2 2.10 3- 00110/11111	CNP 261	110	20%
			Total SW	/L, dB (A)
Stage 6 - Parapet & Surfac	ing			
Group 1 (Parapet) Crane, mobile/ barge moun	ted (diesel)	CNP 048	112	30%
Crane, mobile/ barge moun Lorry	teu (ulesei)	CNP 048 CNP 141	112	50%
	0m3/min and <= 30m3/min	CNP 002	102	50%
Generator, super silenced,	/U dB(A) at / m	CNP 103	95 Total SW	50% /L, dB (A
				, == , ,
	0 m 0 /m in a m d	CNP 002	102	50%
Group 2 (Surfacing) Air compressor, air flow > 1	'Um3/mm and <= 30m3/mm			
Air compressor, air flow > 1 Generator, super silenced,		CNP 103	95	50%
Air compressor, air flow > 1			95 109 108	50% 70% 70%

	PME	TM or other reference	SWL, dB(A)	% on time	Total i
na T	Tau Kok Road (Road Section)		1		
	Stage 1 - Site Clearance				
	Group 1	T 0110 242			
	Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 002	102	100%	3
	Dump truck	CNP 025 CNP 067	111 117	70%	4 2
	Excavator/ loader, wheeled/ tracked	CNP 067 CNP 081	112	80% 80%	3
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	2
	Generator, Super Silenced, 70 db(A) at 7 m	CNF 103		L, dB (A)	122
	Group 2				
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%	3
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	40%	1
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	2
	Lorry with crane/grab	CNP 145	105	70%	3
	Water pump, submersible (electric)	CNP 283	85	100%	4
	Trates pamp, east-relate (electric)	0111 200	Total SW		113
		Max	ximum SW	L, dB (A)	122
	Stage 2 - Site Formation				
	Group 1	_			
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%	4
	Excavator/ loader, wheeled/ tracked	CNP 081	112	80%	3
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	2
	Lorry with crane/grab	CNP 145	105	70%	3
			Total SW	L, dB (A)	11
	Group 2				
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%	4
	Bulldozer	CNP 030	115	60%	2
	Dump truck	CNP 067	117	80%	3
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	2
	Water pump, submersible (electric)	CNP 283	85	100%	8
		•	Total SW	L, dB (A)	12:
Į	Group 3				
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%	4
	Concrete lorry mixer	CNP 044	109	40%	1
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	100%	2
	Compactor, vibratory	CNP 050	105	60%	2
		CNP 186	108	60%	3
	Roller, vibratory	OINI 100	100		
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	
			95 113	60% 50%	2 5
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 170	95 113 Total SW	60% 50% /L, dB (A)	2 5 120
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 170	95 113	60% 50% /L, dB (A)	2 5
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall	CNP 103 CNP 170	95 113 Total SW	60% 50% /L, dB (A)	2 5 12
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1	CNP 103 CNP 170 Ma:	95 113 Total SW ximum SW	60% 50% /L, dB (A) /L, dB (A)	2 5 12 12
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel)	CNP 103 CNP 170 Ma:	95 113 Total SW ximum SW	60% 50% /L, dB (A) /L, dB (A)	2 5 12 12
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric)	CNP 103 CNP 170 Ma:	95 113 Total SW ximum SW 110 88	60% 50% /L, dB (A) /L, dB (A) 40% 100%	2 5 12 12 2 3
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 103 CNP 170 Ma:	95 113 Total SW ximum SW	60% 50% /L, dB (A) /L, dB (A)	2 5 120
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric)	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002	95 113 Total SW ximum SW 110 88 102 95	60% 50% /L, dB (A) /L, dB (A) /L, dB (A) 100% 80%	2 5 12 12 12 2 3 1 1
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002	95 113 Total SW ximum SW 110 88 102 95	60% 50% /L, dB (A) /L, dB (A) /L, dB (A) 100% 80% 100%	2 5 12 12 12 2 3 1 1
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002	95 113 Total SW ximum SW 110 88 102 95	60% 50% /L, dB (A) /L, dB (A) /L, dB (A) 100% 80% 100%	2 5 12 12 2 3 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103 CNP 103	95 113 Total SW ximum SW 110 88 102 95 Total SW	60% 50% /L, dB (A) /L, dB (A) /L, dB (A) 100% 80% 100% /L, dB (A)	2 5 12 12 2 3 1 1 1 11
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103	95 113 Total SW ximum SW 110 88 102 95 Total SW	60% 50% /L, dB (A) /L, dB (A) /L, dB (A) 40% 100% 80% 100% /L, dB (A)	2 5 12 12 3 1 1 11
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel)	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 002 CNP 104	95 113 Total SW kimum SW 110 88 102 95 Total SW	60% 50% (L, dB (A) (L, dB (A)) 40% 100% 80% 100% (L, dB (A)) 80% 100%	2 5 12 12 3 1 1 1 11 1 1
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103 CNP 103	95 113 Total SW kimum SW 110 88 102 95 Total SW 102 95 112 112 112	60% 50% (L, dB (A) (L, dB (A)) 100% 80% 100% (L, dB (A)) 80% 100% 100%	2 5 12 12 2 3 1 1 1 11 11 2
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103 CNP 103	95 113 Total SW kimum SW 110 88 102 95 Total SW 102 95 112 112 112	60% 50% (L, dB (A) (L, dB (A)) (L, dB (A)) 40% 100% 80% 100% (L, dB (A)) 80% 100% 70%	2 5 12 12 3 1 1 1 1 1 1 1 2
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103 CNP 103	95 113 Total SW kimum SW 110 88 102 95 Total SW 102 95 112 112 112	60% 50% (L, dB (A) (L, dB (A)) (L, dB (A)) 40% 100% 80% 100% (L, dB (A)) 80% 100% 70%	2 5 12 12 3 1 1 1 1 1 1 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 048 CNP 103 CNP 164 CNP 164	95 113 Total SW kimum SW 110 88 102 95 Total SW 102 112 95 115 Total SW	60% 50% /L, dB (A) /L, dB (A) /L, dB (A) 100% 80% 100% /L, dB (A) 100% 70% /L, dB (A)	2 5 12 12 2 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 103 CNP 104 CNP 104 CNP 105 CNP 106	95 113 Total SW kimum SW 110 88 102 95 Total SW 102 112 95 115 Total SW	60% 50% /L, dB (A) /L, dB (A) /L, dB (A) 100% 80% 100% 100% 100% 70, dB (A) 80% 100%	2 5 12 12 2 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 104 CNP 103 CNP 104 CNP 105 CNP 105 CNP 106 CNP 107 CNP 108	95 113 Total SW kimum SW 110 88 102 95 Total SW 102 112 95 115 Total SW	60% 50% (L, dB (A) (L, dB (A)) (L, dB (A)) 40% 100% 80% 100% (L, dB (A)) 80% 70% (L, dB (A)) (L, dB (A))	2 2 2 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Concrete lory mixer	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 1048 CNP 103 CNP 164 CNP 104 CNP 105 CNP 105 CNP 107 CNP 107 CNP 108 CNP 108 CNP 109 CNP	95 113 Total SW wimm SW 110 88 102 95 Total SW 102 112 95 115 Total SW 102 95 109 109 Total SW	60% 50% /L, dB (A) /L, dB (A) /L, dB (A) 100% 80% 100% 70, dB (A) 100% 70% /L, dB (A) 80% 100% 70% /L, dB (A)	2 2 3 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Concrete lory mixer	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 1048 CNP 103 CNP 164 CNP 104 CNP 105 CNP 105 CNP 107 CNP 107 CNP 108 CNP 108 CNP 109 CNP	95 113 Total SW 110 88 102 95 Total SW 112 95 115 Total SW	60% 50% /L, dB (A) /L, dB (A) /L, dB (A) 100% 80% 100% 70, dB (A) 100% 70% /L, dB (A) 80% 100% 70% /L, dB (A)	2 5 12 12: 12: 2 3 1
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Concrete lory mixer	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 1048 CNP 103 CNP 164 CNP 104 CNP 105 CNP 105 CNP 107 CNP 107 CNP 108 CNP 108 CNP 109 CNP	95 113 Total SW wimm SW 110 88 102 95 Total SW 102 112 95 115 Total SW 102 95 109 109 Total SW	60% 50% /L, dB (A) /L, dB (A) /L, dB (A) 100% 80% 100% 70, dB (A) 100% 70% /L, dB (A) 80% 100% 70% /L, dB (A)	2 5 12 12 2 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Stage 4 - Road Works Group 1	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 1048 CNP 103 CNP 164 CNP 104 CNP 104 CNP 105 CNP 107 CNP 108 CNP 108 CNP 108 CNP 108 CNP 109 CNP	95 113 Total SW 110 88 102 95 Total SW 102 95 Total SW 102 95 115 Total SW 109 109 Total SW	60% 50% /L, dB (A) /L, dB (A) /L, dB (A) 100% 80% 100% /L, dB (A) 100% 70% 100% 70% /L, dB (A) 80% 100% 70% /L, dB (A) /L, dB (A)	2 5 12 12 2 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel)	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 104 CNP 103 CNP 104 CNP 104 CNP 104 CNP 002 CNP 104 CNP 105 CNP 106 CNP 107 CNP 108 CNP 10	95 113 Total SW ximum SW 110 88 102 95 Total SW 112 95 115 Total SW 102 95 115 Total SW	60% 50% (L, dB (A) (L, dB (A) 100% 80% 100% 100% 100% 70% (L, dB (A) 100% 50% 50% 50% 50% (L, dB (A) 100%	2 2 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Concrete lory mixer Concrete lory mixer Concrete pump, stationary/ lorry mounted Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 103 CNP 104 CNP 103 CNP 104 CNP 104 CNP 002 CNP 103 CNP 104 CNP 105 CNP 106 CNP 107 CNP 108	95 113 Total SW 110 88 102 95 Total SW 1102 95 115 Total SW 109 109 Total SW 1112 112 112 112 112	60% 50% (L, dB (A) (L, dB (A) 100% 80% 100% 100% 100% 70% 100% 70% (L, dB (A) 50% 50% (L, dB (A) 30% 50%	2 2 3 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Grane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete pump, stationary/ lorry mounted Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 103 CNP 104 CNP 104 CNP 104 CNP 104 CNP 104 CNP 105 CNP 106 CNP 107 CNP 108 CNP 108 CNP 108 CNP 108 CNP 109 CNP 10	95 113 Total SW 110 88 102 95 Total SW 112 95 115 Total SW 102 95 119 109 Total SW	60% 50% (1c, dB (A) (1c, dB (A	2 2 3 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Concrete lory mixer Concrete lory mixer Concrete pump, stationary/ lorry mounted Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 103 CNP 104 CNP 103 CNP 104 CNP 104 CNP 002 CNP 103 CNP 104 CNP 105 CNP 106 CNP 107 CNP 108	95 113 Total SW 110 88 102 95 Total SW 1102 95 115 Total SW 109 109 Total SW 1112 112 112 112 112	60% 50% (L, dB (A)	2 2 2 3 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorny mixer Concrete lorny mixer Concrete pump, stationary/ lorry mounted Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 103 CNP 104 CNP 104 CNP 104 CNP 104 CNP 104 CNP 105 CNP 106 CNP 107 CNP 108 CNP 108 CNP 108 CNP 108 CNP 109 CNP 10	95 113 Total SW in the second of the second	60% 50% (L, dB (A)	2 2 2 3 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 103 CNP 104 CNP 105 CNP 106 CNP 107 CNP 108 CNP 108 CNP 109	95 113 Total SW 110 88 102 95 Total SW 1102 95 115 Total SW 102 95 115 Total SW 102 95 1109 109 Total SW 102 95 Total SW	60% 50% (1c, dB (A) (1c, dB (A	2 2 2 3 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 103 CNP 104 CNP 103 CNP 104 CNP 002 CNP 104 CNP 105 CNP 105 CNP 107 CNP 108 CNP 109	95 113 Total SW 110 88 102 95 Total SW 112 95 115 Total SW 102 95 115 Total SW 102 95 115 Total SW 102 95 Total SW 102 95 Total SW	60% 50% /L, dB (A)	2 2 3 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 103 CNP 104 CNP 103 CNP 104 CNP 104 CNP 044 CNP 047 Ma: CNP 048 CNP 103 CNP 104 CNP 103 CNP 104 CNP 047 Ma: CNP 048 CNP 104 CNP 105 CNP 106 CNP 107 Ma: CNP 002 CNP 103 CNP 103 CNP 104 CNP 002 CNP 103	95 113 Total SW imm SW 110 88 102 95 Total SW 102 112 95 115 Total SW 109 109 109 Total SW 1102 95 109 109 Total SW 1102 95 Total SW	60% 50% (/L, dB (A)	2 2 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete pump, stationary/ lorry mounted Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Asphalt paver	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 103 CNP 104 CNP 103 CNP 104 CNP 044 CNP 047 Ma: CNP 048 CNP 103 CNP 044 CNP 047	95 113 Total SW 110 88 102 95 Total SW 1102 95 115 Total SW 109 109 Total SW 112 95 109 109 Total SW 112 102 95 Total SW	60% 50% (/L, dB (A) (/L, dB (A) (/L, dB (A) 100% 80% 100% 100% 100% 70% (/L, dB (A) 100% 50% 50% 50% (/L, dB (A) 50% 50% 50% 50% 50% 50% 50% 50% 50% 50%	2 2 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Bored Pile Wall Group 1 Drill rig, rotary type (diesel) Water pump (electric) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Pilling, large diameter bored, grab and chisel Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Stage 4 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 170 Ma: CNP 072 CNP 281 CNP 002 CNP 103 CNP 103 CNP 103 CNP 104 CNP 103 CNP 104 CNP 104 CNP 044 CNP 047 Ma: CNP 048 CNP 103 CNP 104 CNP 103 CNP 104 CNP 047 Ma: CNP 048 CNP 104 CNP 105 CNP 106 CNP 107 Ma: CNP 002 CNP 103 CNP 103 CNP 104 CNP 002 CNP 103	95 113 Total SW 110 88 102 95 Total SW 1102 95 115 Total SW 102 95 109 109 Total SW 102 95 Total SW	60% 50% (/L, dB (A)	2 2 5 5 12 12 12 12 12 12 12 12 12 12 12 12 12

РМЕ	TM or other reference	SWL, dB(A)	% on time
Portal of South Tunnel and Ventilation Building			•
Stage 1 - Site Clearance			
Group 1			
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%
Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111	70%
Dump truck	CNP 067	117	80%
Excavator/ loader, wheeled/ tracked	CNP 081	112	80%
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95 Total SW	60% /L, dB (A)
_			
Group 2	OND one	100	1000/
Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel)	CNP 002	102 112	100% 40%
Generator, super silenced, 70 dB(A) at 7 m	CNP 048 CNP 103	95	60%
Lorry with crane/grab	CNP 103	105	70%
Water pump, submersible (electric)	CNP 283	85	100%
Trater pamp, submersible (dicetine)	ON 200		/L, dB (A)
	Ma	ximum SW	/L, dB (A)
Stage 2 - Portal Formation			
Group 1			
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%
Excavator/ loader, wheeled/ tracked	CNP 081	112	80%
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%
Lorry with crane/grab	CNP 145	105	70%
		Total SW	/L, dB (A)
Group 2			
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%
Bulldozer	CNP 030	115	70%
Dump truck	CNP 067	117	80%
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%
Water pump, submersible (electric)	CNP 283	85	100%
		Total SW	/L, dB (A)
Group 3		Total SW	/L, dB (A)
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	Total SW	70%
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer	CNP 044	102 109	70% 40%
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel)	CNP 044 CNP 048	102 109 112	70% 40% 100%
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory	CNP 044 CNP 048 CNP 050	102 109 112 105	70% 40% 100% 50%
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory	CNP 044 CNP 048 CNP 050 CNP 186	102 109 112 105 108	70% 40% 100% 50% 40%
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103	102 109 112 105 108 95	70% 40% 100% 50% 40% 60%
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory	CNP 044 CNP 048 CNP 050 CNP 186	102 109 112 105 108 95 113	70% 40% 100% 50% 40% 60% 50%
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170	102 109 112 105 108 95 113	70% 40% 100% 50% 40% 60% 50% /L, dB (A)
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170	102 109 112 105 108 95 113 Total SW	70% 40% 100% 50% 40% 60% 50% /L, dB (A)
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170	102 109 112 105 108 95 113 Total SW	70% 40% 100% 50% 40% 60% 50% /L, dB (A)
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma:	102 109 1112 105 108 95 113 Total SW	70% 40% 100% 50% 40% 60% 50% /L, dB (A) /L, dB (A)
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025	102 109 112 105 108 95 113 Total SW	70% 40% 100% 50% 40% 60% 50% /L, dB (A) /L, dB (A)
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic)	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028	102 109 112 105 108 95 113 Total SW kimum SW	70% 40% 100% 50% 40% 60% 50% /L, dB (A) 7/L, dB (A)
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103	102 109 112 105 108 95 113 Total SW kimum SW	70% 40% 100% 50% 40% 60% 50% /L, dB (A) /L, dB (A) 100% 20% 80%
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic)	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028	102 109 112 105 108 95 113 Total SW dimum SW	70% 40% 100% 50% 40% 50% 50% 7/L, dB (A) 100% 20% 80% 50%
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103	102 109 112 105 108 95 113 Total SW dimum SW	70% 40% 100% 50% 40% 60% 50% /L, dB (A) /L, dB (A) 100% 20% 80%
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145	102 109 112 105 108 95 113 Total SW kimum SW 102 111 122 95 105 Total SW	70% 40% 100% 50% 40% 60% 50% /L, dB (A) 100% 20% 80% 50% 50% /L, dB (A)
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145	102 109 112 105 108 95 113 Total SW mmm SW 102 111 122 95 105 Total SW	70% 40% 100% 50% 60% 50% /L, dB (A) 100% 20% 80% 50% /L, dB (A)
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel)	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 002 CNP 028 CNP 103 CNP 145	102 109 112 105 108 95 113 Total SW dimum SW 102 111 122 95 Total SW	70% 40% 100% 50% 60% 50% L, dB (A) 7L, dB (A) 7L, dB (A) 7L, dB (A) 100% 50% 100% 100% 100% 70%
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 103 CNP 103 CNP 103 CNP 105 CNP 107 CNP 002 CNP 002 CNP 002 CNP 002 CNP 002 CNP 103	102 109 112 105 108 95 113 Total SW dimum SW 102 111 122 95 Total SW 102 110 95	70% 40% 100% 50% 40% 60% 50% /L, dB (A) /L, dB (A) 100% 20% 80% 50% 50% 50% 50% 50% 50% 50% 50% 50% 5
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel)	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 002 CNP 028 CNP 103 CNP 145	102 109 112 105 108 95 113 Total SW kimum SW 102 111 122 95 105 Total SW 105 Total SW	70% 40% 100% 50% 40% 60% 50% /L, dB (A) /L, dB (A) /L, dB (A) 100% 80% 50% 50% 50% 70% 100%
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 103 CNP 103 CNP 103 CNP 105 CNP 107 CNP 002 CNP 002 CNP 002 CNP 002 CNP 002 CNP 103	102 109 112 105 108 95 113 Total SW kimum SW 102 111 122 95 105 Total SW 105 Total SW	70% 40% 100% 50% 40% 60% 50% /L, dB (A) /L, dB (A) 100% 20% 80% 50% 50% 50% 50% 50% 50% 50% 50% 50% 5
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric)	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 103 CNP 145	102 109 112 105 108 95 113 Total SW dimum SW 102 111 122 95 105 Total SW 102 110 95 85 Total SW	70% 40% 100% 50% 40% 60% 50% /L, dB (A) /L, dB (A) 100% 50% 80% 50% 50% 50% 50% 100% 70% 50% 100% /L, dB (A)
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 025 CNP 103 CNP 145 CNP 103 CNP 145 CNP 026 CNP 028 CNP 103 CNP 145 CNP 029	102 109 112 105 108 95 113 Total SW simum SW 102 111 122 95 105 Total SW 102 110 95 85 Total SW	70% 40% 100% 50% 40% 60% 50% /L, dB (A) /L, dB (A) 100% 50% 50% 50% 50% 50% 50% 100% 50% 100%
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel)	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 025 CNP 028 CNP 103 CNP 145 CNP 103 CNP 145 CNP 028 CNP 283 CNP 283 CNP 028 CNP 029 CNP 029 CNP 029 CNP 029 CNP 030 CNP 145	102 109 1112 105 108 95 113 Total SW kimum SW 102 111 122 95 105 Total SW 110 95 110 95 105 Total SW	100% 100% 50% 40% 50% 60% 50% 7/L, dB (A) 100% 80% 50% 100% 50% 70% 50% 70% 50% 100% 70% 50% 100% 1
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 025 CNP 028 CNP 145 CNP 103 CNP 145 CNP 002 CNP 028 CNP 103 CNP 145 CNP 002 CNP 072 CNP 072 CNP 103 CNP 283	102 109 112 105 108 95 113 Total SW dimum SW 1102 111 122 95 Total SW 102 110 95 85 Total SW	70% 40% 100% 50% 40% 60% 50% L, dB (A) 7L, dB (A) 70% 80% 50% 100% 70% 100% 70% 100% 70% 50%
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 103 CNP 145 CNP 002 CNP 022 CNP 028 CNP 028 CNP 103 CNP 145 CNP 002 CNP 072 CNP 103 CNP 103 CNP 103 CNP 103 CNP 103 CNP 105	102 109 112 105 108 95 113 Total SW dimum SW 102 111 122 95 105 Total SW 102 110 95 85 Total SW	70% 40% 100% 50% 40% 60% 50% /L, dB (A) /L, dB (A) /L, dB (A) 100% 50% 50% 50% 100% 70% 50% 100% 70% 50% 100% 40%
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Grout mixer Grout mixer Grout pump	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 025 CNP 103 CNP 145 CNP 103 CNP 145 CNP 026 CNP 028 CNP 103 CNP 145 CNP 029 CNP 020 CNP 103 CNP 103 CNP 103 CNP 103 CNP 105 CNP 105 CNP 106	102 109 112 105 108 95 113 Total SW dimum SW dimum SW 102 111 122 95 105 Total SW 102 110 95 85 Total SW 102 1110 95 85 Total SW 110 95 1110 95 105 105 105 105 105 105 105 105 105 10	70% 40% 100% 50% 40% 50% 50% 100% 50% 50% 50% 50% 50% 50% 50% 100% 50% 100% 70% 50% 100% 40% 40%
Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 103 CNP 145 CNP 002 CNP 022 CNP 028 CNP 028 CNP 103 CNP 145 CNP 002 CNP 072 CNP 103 CNP 103 CNP 103 CNP 103 CNP 103 CNP 105	102 109 1112 105 108 95 1113 Total SW kimum SW 102 1111 122 95 105 Total SW 110 95 85 Total SW	70% 40% 100% 50% 40% 60% 50% /L, dB (A) /L, dB (A) /L, dB (A) 100% 50% 50% 50% 100% 70% 50% 100% 70% 50% 100% 40%

РМЕ	TM or other reference	SWL, dB(A)	% on time
h Portal of South Tunnel and Ventilation Building	•	ı	
Stage 4 - Bored Pile Wall			
Group 1 Drill rig, rotary type (diesel)	CNP 072	110	40%
Water pump (electric)	CNP 072	88	100%
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	80%
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
denerator, super silenced, 70 db(A) at 7 m	0141 100		L, dB (A)
Cream 2			
Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	80%
Crane, mobile/ barge mounted (diesel)	CNP 048	112	100%
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
Piling, large diameter bored, grab and chisel	CNP 164	115	70%
ming, rarge diameter borea, grab and omser	0111 104		L, dB (A)
Group 3			
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	80%
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
Concrete lorry mixer	CNP 044	109	50%
Concrete pump, stationary/ lorry mounted	CNP 047	109	50%
, , , , , , , , , , , , , , , , , , ,		Total SW	L, dB (A)
	Max	kimum SW	
Stage 5 - Building Foundation Works			
Group 1			
Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111	30%
Breaker, excavator mounted (hydraulic)	CNP 028	122	30%
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95 Total SW	100% /L, dB (A)
			, - ()
Group 2	0.15	T	
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
Piling, large diameter bored, grab and chisel	CNP 164	115	90%
Piling, large diameter bored, reverse circulation drill Water pump (petrol)	CNP 166	100	40%
	CNP 282	103	80%
Water pump (petror)		Total SW	L. dB (A)
		Total SW	¹ L, dB (A)
Group 3	CNP 048		, , ,
Group 3 Crane, mobile/ barge mounted (diesel)	CNP 048 CNP 047	112 109	80% 40%
Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted	CNP 047	112	80%
Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer	CNP 047 CNP 044	112 109 109	80% 40% 50%
Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held	CNP 047 CNP 044 CNP 170	112 109 109 113	80%
Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m	CNP 047 CNP 044	112 109 109	80% 40% 50% 20%
Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held	CNP 047 CNP 044 CNP 170 CNP 103	112 109 109 113 95 90	80% 40% 50% 20% 80%
Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m	CNP 047 CNP 044 CNP 170 CNP 103 CNP 021	112 109 109 113 95 90	80% 40% 50% 20% 80% 80% /L, dB (A)
Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m	CNP 047 CNP 044 CNP 170 CNP 103 CNP 021	112 109 109 113 95 90 Total SW	80% 40% 50% 20% 80% 80% /L, dB (A)
Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric)	CNP 047 CNP 044 CNP 170 CNP 103 CNP 021	112 109 109 113 95 90 Total SW	80% 40% 50% 20% 80% 80% /L, dB (A) /L, dB (A)
Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 6 - Building Structures	CNP 047 CNP 044 CNP 170 CNP 103 CNP 021	112 109 109 113 95 90 Total SW	80% 40% 50% 20% 80% 80% (L, dB (A)
Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 6 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Ma: CNP 025 CNP 044 CNP 047	112 109 109 113 95 90 Total SW	80% 40% 50% 80% 80% (L, dB (A) (L, dB (A) 40% 50%
Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 6 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer	CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Ma: CNP 025 CNP 044 CNP 047 CNP 048	112 109 109 113 95 90 Total SW kimum SW	80% 40% 50% 20% 80% 80% (L, dB (A) (L, dB (A) (L, dB (A))
Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 6 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab	CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Ma: CNP 025 CNP 044 CNP 047 CNP 048 CNP 145	112 109 109 113 95 90 Total SW kimum SW	80% 40% 50% 20% 80% 80% (L, dB (A) (L, dB (A) 40% 50% 40% 50%
Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 6 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel)	CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Ma: CNP 025 CNP 044 CNP 047 CNP 048	112 109 109 113 95 90 Total SW kimum SW	80% 40% 50% 20% 80% 80% /L, dB (A) /L, dB (A) 40% 50% 40% 80%

	РМЕ	TM or other reference	SWL, dB(A)	% on time
١	entilation Building	•	•	
	Stage 1 - Site Clearance	CNP 002	100	1000/
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002 CNP 025	102	100% 60%
	Breaker, hand-held, mass >= 20kg and <= 35kg		111 117	50%
	Dump truck Excavator/ loader, wheeled/ tracked	CNP 067 CNP 081	112	50%
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%
	Lorry with crane/grab	CNP 103	105	50%
	Water pump, submersible (electric)	CNP 145 CNP 283	85	100%
	water pump, submersible (electric)	CINF 203		/L, dB (A)
				, , , , ,
	Stage 2 - Shaft Construction			
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%
	Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111	60%
	Dump truck	CNP 067	117	50%
	Excavator/ loader, wheeled/ tracked	CNP 081	112	50%
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%
	Crane, tower (electric)	CNP 049	95	50%
	Piling, diaphragm wall, bentonite filtering plant	CNP 162	105	100%
	Piling, diaphragm wall, hydraulic extractor	CNP 163	90	100%
	Drill rig, rotary type (diesel)	CNP 072	110	100%
	Water pump, submersible (electric)	CNP 283	85	100%
			TOTAL SW	/L, dB (A)
	Stage 3 - Building Foundation Works			
	Group 1			
	Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111	30%
	Breaker, excavator mounted (hydraulic)	CNP 028	122	30%
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
			Total SW	/L, dB (A)
	Group 2			
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
	Piling, large diameter bored, grab and chisel	CNP 164	115	90%
	i ililig, large diameter bored, grab and criser			
	Piling, large diameter bored, grab and criser Piling, large diameter bored, reverse circulation drill	CNP 166	100	40%
			100	40% 80%
	Piling, large diameter bored, reverse circulation drill	CNP 166	103	
	Piling, large diameter bored, reverse circulation drill Water pump (petrol)	CNP 166	103	80%
	Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3	CNP 166 CNP 282	103 Total SW	80% /L, dB (A)
	Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel)	CNP 166	103	80%
	Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3	CNP 166 CNP 282	103 Total SW	80% /L, dB (A) 80%
	Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted	CNP 166 CNP 282 CNP 048 CNP 047	103 Total SW 112 109	80% /L, dB (A) 80% 40%
	Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer	CNP 166 CNP 282 CNP 048 CNP 047 CNP 044	103 Total SW 112 109 109	80% /L, dB (A) 80% 40% 50%
	Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held	CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170	103 Total SW 112 109 109 113	80% /L, dB (A) 80% 40% 50% 20%
	Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m	CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 170	103 Total SW 112 109 109 113 95 90	80% /L, dB (A) 80% 40% 50% 20% 80%
	Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m	CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021	103 Total SW 112 109 109 113 95 90	80% /L, dB (A) 80% 40% 50% 20% 80% 80% /L, dB (A)
	Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric)	CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021	103 Total SW 112 109 109 113 95 90 Total SW	80% /L, dB (A) 80% 40% 50% 20% 80% 80% /L, dB (A)
	Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 4 - Building Structures	CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Max	103 Total SW 112 109 109 113 95 90 Total SW simum SW	80% /L, dB (A) 80% 40% 50% 20% 80% 80% /L, dB (A) /L, dB (A)
	Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 4 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Max	103 Total SW 112 109 109 113 95 90 Total SW dimum SW	80% /L, dB (A) 80% 40% 50% 20% 80% 80% /L, dB (A) /L, dB (A)
	Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 4 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer	CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Max CNP 025 CNP 044	103 Total SW 112 109 109 113 95 90 Total SW dimum SW	80% /L, dB (A) 80% 40% 50% 20% 80% 80% /L, dB (A) /L, dB (A) 40% 50%
	Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 4 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted	CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Max CNP 025 CNP 044 CNP 047	103 Total SW 112 109 109 113 95 90 Total SW dimum SW	80% /L, dB (A) 80% 40% 50% 20% 80% 80% /L, dB (A) /L, dB (A) 40% 50% 40%
	Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 4 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel)	CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Max CNP 025 CNP 044 CNP 044 CNP 044 CNP 045 CNP 047 CNP 048	103 Total SW 112 109 109 109 109 Total SW dimum SW	80% /L, dB (A) 80% 40% 50% 20% 80% /L, dB (A) /L, dB (A) 40% 50% 40% 80%
	Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 4 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Lorry with crane/grab	CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Max CNP 025 CNP 044 CNP 047 CNP 047 CNP 047 CNP 048 CNP 145	103 Total SW 112 109 109 109 111 111 109 109 1111 111 109 112 105	80% /L, dB (A) 80% 40% 50% 20% 80% 80% /L, dB (A) /L, dB (A) /L, dB (A) 50% 40% 50% 80%
	Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 4 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel)	CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Max CNP 025 CNP 044 CNP 044 CNP 044 CNP 045 CNP 047 CNP 048	103 Total SW 112 109 109 109 109 Total SW dimum SW	80% /L, dB (A) 80% 40% 50% 20% 80% /L, dB (A) /L, dB (A) 40% 50% 40% 80%

	РМЕ	TM or other reference	SWL, dB(A)	% on time	Total no. of PME
ut	Portal of South Tunnel and Ventilation Building			I.	
	Stage 1 - Site Clearance				
	Group 1				
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%	3
	Breaker, hand-held, mass >= 20kg and <= 35kg Dump truck	CNP 025 CNP 067	111	70% 80%	3 4
	Excavator/ loader, wheeled/ tracked	CNP 081	112	80%	4
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	1
			Total SW	/L, dB (A)	124
	Group 2				
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%	3
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	40%	1
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	1
	Lorry with crane/grab	CNP 145	105	70%	2
	Water pump, submersible (electric)	CNP 283	85 Total SW	100% /L, dB (A)	4 112
		Max	kimum SW		124
				, - ()	
	Stage 2 - Portal Formation				
	Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%	3
	Excavator/ loader, wheeled/ tracked	CNP 002 CNP 081	112	70% 80%	5
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	1
	Lorry with crane/grab	CNP 145	105	70%	2
			Total SW	/L, dB (A)	119
	Group 2				
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%	3
	Bulldozer	CNP 030	115	70%	1
	Dump truck	CNP 067	117	80%	5
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	60%	1
	Water pump, submersible (electric)	CNP 283	85 Total SW	100% /L, dB (A)	4 124
			Total Off	L, ab (71)	12-7
	Group 3	_			
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	70%	3
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer	CNP 044	109	40%	1
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel)	CNP 044 CNP 048	109 112	40% 100%	1
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer	CNP 044	109	40%	1
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103	109 112 105 108 95	40% 100% 50% 20% 60%	1 1 1 1
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory	CNP 044 CNP 048 CNP 050 CNP 186	109 112 105 108 95 113	40% 100% 50% 20% 60% 50%	1 1 1 1 1 5
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170	109 112 105 108 95 113 Total SW	40% 100% 50% 20% 60% 50% /L, dB (A)	1 1 1 1 1 5 119
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170	109 112 105 108 95 113	40% 100% 50% 20% 60% 50% /L, dB (A)	1 1 1 1 1 1 5
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170	109 112 105 108 95 113 Total SW	40% 100% 50% 20% 60% 50% /L, dB (A)	1 1 1 1 1 5 119
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma:	109 112 105 108 95 113 Total SW	40% 100% 50% 20% 60% 50% /L, dB (A)	1 1 1 1 1 1 5 119 124
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma:	109 112 105 108 95 113 Total SW	40% 100% 50% 20% 60% 50% /L, dB (A) /L, dB (A)	1 1 1 1 1 1 5 119 124
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma:	109 112 105 108 95 113 Total SW	40% 100% 50% 20% 60% 50% /L, dB (A)	1 1 1 1 1 1 5 119 124
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025	109 112 105 108 95 113 Total SW simum SW	40% 100% 50% 20% 60% 50% /L, dB (A) /L, dB (A)	1 1 1 1 1 5 119 124
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic)	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028	109 112 105 108 95 113 Total SW kimum SW 102 111 111 122 95	40% 100% 50% 20% 60% 50% /L, dB (A) /L, dB (A) 100% 20% 80% 50%	1 1 1 1 1 5 119 124
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103	109 112 105 108 95 113 Total SW kimum SW 102 111 111 122 95	40% 100% 50% 20% 60% 50% /L, dB (A) /L, dB (A) 100% 20% 80% 50%	1 1 1 1 1 5 119 124
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103	109 112 105 108 95 113 Total SW kimum SW 102 111 111 122 95	40% 100% 50% 20% 60% 50% /L, dB (A) /L, dB (A) 100% 20% 80% 50%	1 1 1 1 1 5 119 124
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103	109 112 105 108 95 113 Total SW kimum SW 102 111 111 122 95	40% 100% 50% 20% 60% 50% /L, dB (A) /L, dB (A) 100% 20% 80% 50%	1 1 1 1 1 5 119 124
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel)	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 104 CNP 028 CNP 105 CNP 107 CNP 002 CNP 028 CNP 105 CNP 107	109 112 105 108 95 113 Total SW kimum SW 102 111 122 95 Total SW	40% 100% 50% 60% 50% /L, dB (A) /L, dB (A) 100% 20% 80% 50% /L, dB (A)	1 1 1 1 1 5 119 124
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 103 CNP 103 CNP 103 CNP 105 CNP 107 CNP 002 CNP 002 CNP 002 CNP 002 CNP 103	109 112 105 108 95 113 Total SW kimum SW 102 111 122 95 Total SW	40% 100% 50% 60% 50% /L, dB (A) /L, dB (A) /L, dB (A) 0% 20% 80% 50% 50% 50% 70, dB (A)	1 1 1 1 1 1 5 119 124 2 2 2 1 1 1 2 2 121
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel)	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 104 CNP 028 CNP 105 CNP 107 CNP 002 CNP 028 CNP 105 CNP 107	109 112 105 108 95 113 Total SW simum SW 102 111 122 95 105 Total SW	100% 50% 60% 50% 7L, dB (A) 7L, dB (A) 100% 20% 80% 50% 50% 50% 100% 70% 100%	1 1 1 1 1 1 5 119 124 2 2 2 1 1 1 2 121
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 103 CNP 103 CNP 103 CNP 105 CNP 107 CNP 002 CNP 002 CNP 002 CNP 002 CNP 103	109 112 105 108 95 113 Total SW simum SW 102 111 122 95 105 Total SW	40% 100% 50% 60% 50% /L, dB (A) /L, dB (A) /L, dB (A) 0% 20% 80% 50% 50% 50% 70, dB (A)	1 1 1 1 1 1 5 119 124 2 2 2 1 1 1 2 2 121
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 103 CNP 103 CNP 103 CNP 105 CNP 107 CNP 002 CNP 002 CNP 002 CNP 002 CNP 103	109 112 105 108 95 113 Total SW simum SW 102 111 122 95 105 Total SW	100% 50% 60% 50% 7L, dB (A) 7L, dB (A) 100% 20% 80% 50% 50% 50% 100% 70% 100%	1 1 1 1 1 1 5 119 124 2 2 2 1 1 1 2 121
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric)	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 103 CNP 103 CNP 103 CNP 145	109 112 105 108 95 113 Total SW simum SW 102 111 122 95 105 Total SW	100% 50% 60% 50% 7L, dB (A) 7L, dB (A) 100% 20% 80% 50% 50% 50% 100% 70% 100%	1 1 1 1 1 1 5 119 124 2 2 2 1 1 1 2 121
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel)	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 025 CNP 028 CNP 145 CNP 103 CNP 145 CNP 283 CNP 103 CNP 283 CNP 103 CNP 108 CNP 109	109 112 105 108 95 113 Total SW imm SW 102 111 122 95 105 Total SW 102 1110 95 Total SW	100% 50% 60% 50% /L, dB (A) /L, dB (A) 100% 20% 80% 50% 50% (L, dB (A) 100% 70% 50% /L, dB (A)	1 1 1 1 1 5 5 119 124
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 025 CNP 028 CNP 145 CNP 103 CNP 103 CNP 145 CNP 002 CNP 288 CNP 028 CNP 028 CNP 103 CNP 103 CNP 103 CNP 103 CNP 103 CNP 283	109 112 105 108 95 113 Total SW imm SW 102 111 122 95 105 Total SW 102 110 95 Total SW	100% 50% 60% 50% 7L, dB (A) 100% 20% 80% 20% 80% 50% 70% 50% 100% 70% 50% 100% 70% 50%	1 1 1 1 1 5 119 124
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Grout mixer	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 103 CNP 145 CNP 028 CNP 103 CNP 145 CNP 028 CNP 028 CNP 103 CNP 105 CNP 072 CNP 072 CNP 072 CNP 072 CNP 072 CNP 103 CNP 103 CNP 105	109 112 105 108 95 113 Total SW imm SW 102 111 122 95 Total SW 102 110 95 85 Total SW	100% 50% 50% 50% 50% 7L, dB (A) 100% 20% 80% 50% 50% 50% 70% 100% 70% 50% 100% 70% 50% 100% 70% 50%	1 1 1 1 1 5 119 124 2 2 2 1 1 1 1 2 2 121
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Grout mixer Grout mixer Grout pump	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 025 CNP 103 CNP 145 CNP 103 CNP 145 CNP 103 CNP 145 CNP 026 CNP 028 CNP 103 CNP 145 CNP 103 CNP 104 CNP 103 CNP 105 CNP 108 CNP 106	109 112 105 108 95 113 Total SW 4 102 1111 122 95 105 Total SW 102 110 110 95 85 Total SW	100% 50% (L, dB (A) /L, dB (A) /L, dB (A) /L, dB (A) 100% 20% 80% 50% 50% /L, dB (A) 100% 70% 100% 100% 70% 50% 100% 70% 50% 100% 70% 50% 100% 70% 50% 100% 100% 100% 100% 100% 100% 100	1 1 1 1 1 5 119 124 2 2 1 1 1 2 121 2 2 1 1 1 1 2 1 1 1 2 1
	Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Crane, mobile/ barge mounted (diesel) Compactor, vibratory Roller, vibratory Generator, super silenced, 70 dB(A) at 7 m Poker, vibratory, hand-held Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min Breaker, hand-held, mass >= 20kg and <= 35kg Breaker, excavator mounted (hydraulic) Generator, super silenced, 70 dB(A) at 7 m Lorry with crane/grab Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min Drill rig, rotary type (diesel) Generator, super silenced, 70 dB(A) at 7 m Water pump, submersible (electric) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel) Generator, super silenced, 70 dB(A) at 7 m Grout mixer	CNP 044 CNP 048 CNP 050 CNP 186 CNP 103 CNP 170 Ma: CNP 002 CNP 025 CNP 028 CNP 103 CNP 145 CNP 103 CNP 145 CNP 028 CNP 103 CNP 145 CNP 028 CNP 028 CNP 103 CNP 105 CNP 072 CNP 072 CNP 072 CNP 072 CNP 072 CNP 103 CNP 103 CNP 105	109 112 105 108 95 113 Total SW imm SW 102 111 122 95 105 Total SW 102 1110 95 Total SW	100% 50% 50% 50% 50% 7L, dB (A) 100% 20% 80% 50% 50% 50% 70% 100% 70% 50% 100% 70% 50% 100% 70% 50%	1 1 1 1 1 5 119 124 2 2 2 1 1 1 1 2 2 121

Air compressor, air flow > 10m3/min and <= 30m3/min	ut	РМЕ	TM or other reference	SWL, dB(A)	% on time
Group 2		n Portal of South Tunnel and Ventilation Building			
Group 2		Stage 4 - Bored Pile Wall			
Daill dg, rotary type (diesel)					
Air compressor, air flow > 10m3/min and <= 30m3/min			CNP 072	110	40%
Generator, super silenced, 70 dB(A) at 7 m		Water pump (electric)	CNP 281	88	100%
Total SWL, dB (# Air compressor, air flow > 10m3/min and <= 90m3/min CNP 002 102 80%		Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	80%
Air compressor, air flow > 10m3/min and <= 30m3/min		Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
Air compressor, air flow > 10m3/min and <= 90m3/min CNP 042 102 80% Crane, mobile barge mounted (diesel) CNP 048 112 100% CNP 103 95 100% CNP 104 115 70% Total SWL, dB (/// CNP 104 115 70% CNP 104 TOTAL SWL, dB (/// CNP 104 115 70% CNP 104 TOTAL SWL, dB (/// CNP 104 115 70% CNP 104 TOTAL SWL, dB (/// CNP 104 109 50% CNP 104 TOTAL SWL, dB (/// CNP 104 109 50% CNP 104 TOTAL SWL, dB (/// CNP 104 109 50% CNP 104 TOTAL SWL, dB (/// CNP 104 109 50% CNP 104 TOTAL SWL, dB (/// CNP 104 109 50% CNP 104 TOTAL SWL, dB (/// CNP 104 109 50% CNP 104 TOTAL SWL, dB (/// CNP 104 109 50% CNP 104 TOTAL SWL, dB (/// CNP 104 109 50% CNP 104 TOTAL SWL, dB (/// CNP				Total SW	'L, dB (A)
Came, mobile/ barge mounted (diesel)		Group 2			
Generator, super silenced, 70 dB(A) at 7 m		Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	80%
Piling, large diameter bored, grab and chisel		Crane, mobile/ barge mounted (diesel)	CNP 048	112	100%
Total SWL, dB (# Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min CNP 002 102 80% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 100% CNP 104 109 50% CNP 104 CNP 104 109 50% CNP 104 109 50% CNP 104 109 50% CNP 104 CNP 105		Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
Air compressor, air flow > 10m3/min and <= 30m3/min		Piling, large diameter bored, grab and chisel	CNP 164		
Air compressor, air flow > 10m3/min and <= 30m3/min CNP 002 102 80% Generator, super silenced, 70 dB(A) at 7 m CNP 044 109 50% Concrete pump, stationary/ lorry mounted CNP 047 109 50% CNP 047 109 50% Total SWL, dB (/ Maximum SWL, dB (/ Stage 5 - Road Works Group 1 CNP 048 112 30% Carne, mobile/ barge mounted (diesel) CNP 048 112 30% Concrete pump, stationary/ lorry mounted CNP 048 112 30% CNP 141 112 50% Air compressor, air flow > 10m3/min and <= 30m3/min CNP 103 95 50% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 50% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 50% Road roller CNP 048 112 30% CNP 103 95 50% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 50% Road roller CNP 104 109 70% Road roller CNP 105 108 70% Road roller CNP 106 109 109 109 109 109 109 109 109 109 109				Total SW	L, dB (A)
Generator, super silenced, 70 dB(A) at 7 m Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted CNP 044 109 50% Total SWL, dB (# Maximum SWL, dB (# Stage 5 - Road Works Group 1 Crane, mobile/ barge mounted (diesel) Lorry Crane, mobile/ barge mounted (diesel) CNP 141 112 50% CNP 141 112 50% CNP 141 112 50% CNP 103 95 50% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 50% Total SWL, dB (# Maximum SWL, dB (# Group 2 Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 100% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 100% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 100% Group 4 Group 5 Group 6 Group 7 Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 100% Total SWL, dB (# Group 8 Group 1 Group 9 Group 1 Group 9 Group 1 Group 9 Group 4 Group 9 Group 1 Group 9 Group 1 Group 9 Group 4 Group 9 Group 9 Group 9 Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 100% Group 9			CND 000	100	000/
Concrete lorry mixer					
Concrete pump, stationary/ lorry mounted					
Total SWL, dB (# Maximum SWL,					
Stage 5 - Road Works Group 1 CNP 048 112 30%		concrete pump, stationary/ iony mounted	CIVI U47		
Group 1 Crane, mobile/ barge mounted (diesel) CNP 048 112 30% Lory CNP 141 112 50% Air compressor, air flow > 10m3/min and <= 30m3/min			Max		
Group 1 Crane, mobile/ barge mounted (diesel) CNP 048 112 30% Lory CNP 141 112 50% Air compressor, air flow > 10m3/min and <= 30m3/min		Stage 5 - Road Works			
Lorry		Group 1			
Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 50% Total SWL, dB (ℓ Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min CNP 002 102 50% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 50% Asphalt paver CNP 103 195 50% Asphalt paver CNP 103 195 50% Asphalt paver CNP 104 109 70% Total SWL, dB (ℓ Maximum SWL, dB (ℓ Maximum SWL, dB (ℓ Stage 6 - Building Foundation Works Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg CNP 025 1111 30% Generator, super silenced, 70 dB(A) at 7 m CNP 002 102 70% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 100% Total SWL, dB (ℓ Group 2 Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 100% Total SWL, dB (ℓ Group 2 Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 100% Total SWL, dB (ℓ Group 3 Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 100% Total SWL, dB (ℓ Group 3 Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 100% Total SWL, dB (ℓ Group 3 Group 4 Group 5 Group 6 Group 7 Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 100% Total SWL, dB (ℓ Group 8 Group 9 Generator, super silenced, 70 dB(A) at 7 m CNP 104 115 90% Total SWL, dB (ℓ Maximum SWL, d		Crane, mobile/ barge mounted (diesel)			
Generator, super silenced, 70 dB(A) at 7 m		,			50%
Group 2					
Group 2		Generator, super silenced, 70 dB(A) at 7 m	CNP 103		
Air compressor, air flow > 10m3/min and <= 30m3/min				Total SW	L, dB (A)
Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 50% Asphalt paver Road roller CNP 004 109 70% Total SWL, dB (# Maximum SWL, dB (# STage 4					
Asphalt paver					
Road roller					
Stage 6 - Building Foundation Works					
Stage 6 - Building Foundation Works		Road roller	CNP 185		
Stage 6 - Building Foundation Works Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg CNP 025 111 30% Breaker, excavator mounted (hydraulic) CNP 028 122 30% Air compressor, air flow > 10m3/min and <= 30m3/min			Max		
Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg CNP 025 111 30% and 3					, \ \
Breaker, hand-held, mass >= 20kg and <= 35kg CNP 025 111 30% Breaker, excavator mounted (hydraulic) CNP 028 122 30% Air compressor, air flow > 10m3/min and <= 30m3/min					
Breaker, excavator mounted (hydraulic) CNP 028 122 30% Air compressor, air flow > 10m3/min and <= 30m3/min			CNP 025	111	30%
Air compressor, air flow > 10m3/min and <= 30m3/min			CNP 028	122	30%
Generator, super silenced, 70 dB(A) at 7 m					
Group 2 Compain (a) CNP 103 95 100% Piling, large diameter bored, grab and chisel CNP 164 115 90% Piling, large diameter bored, reverse circulation drill CNP 166 100 40% Water pump (petrol) CNP 282 103 80% Total SWL, dB (# Group 3 Crane, mobile/ barge mounted (diesel) CNP 048 112 80% Concrete pump, stationary/ lorry mounted CNP 047 109 40% Concrete pump, stationary/ lorry mounted CNP 044 109 50% Poker, vibratory, hand-held CNP 044 109 50% Poker, vibratory, hand-held CNP 103 95 80% Bar bender and cutter (electric) CNP 103 95 80% Bar bender and cutter (electric) GNP 021 90 80% Total SWL, dB (# Maximum SWL, dB (# Stage 7 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg			CIVI 002	102	70%
Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 100%		Generator, super silenced, 70 dB(A) at 7 m		95	100%
Piling, large diameter bored, grab and chisel CNP 164 115 90% Piling, large diameter bored, reverse circulation drill CNP 166 100 40% Water pump (petrol) CNP 282 103 80% Total SWL, dB (// Group 3 Crane, mobile/ barge mounted (diesel) CNP 048 112 80% Concrete pump, stationary/ lorry mounted CNP 047 109 40% Concrete lorry mixer CNP 044 109 50% Poker, vibratory, hand-held CNP 170 113 20% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 80% Bar bender and cutter (electric) CNP 021 90 80% Total SWL, dB (// Maximum				95	100%
Piling, large diameter bored, reverse circulation drill CNP 166 100 40% Water pump (petrol) CNP 282 103 80% Total SWL, dB (A Group 3 Crane, mobile/ barge mounted (diesel) CNP 048 112 80% Concrete pump, stationary/ lorry mounted CNP 047 109 40% Concrete lorry mixer CNP 044 109 50% Poker, vibratory, hand-held CNP 170 113 20% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 80% Bar bender and cutter (electric) CNP 021 90 80% Total SWL, dB (A Maximum SWL, dB (A Stage 7 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg		Group 2	CNP 103	95 Total SW	100% 'L, dB (A)
Value Pump (petrol) CNP 282 103 80% Total SWL, dB (#*)		Group 2 Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95 Total SW	100% 'L, dB (A) 100%
Crane, mobile/ barge mounted (diesel) CNP 048 112 80%		Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel	CNP 103 CNP 103 CNP 164	95 Total SW 95 115	100% 'L, dB (A) 100% 90%
Crane, mobile/ barge mounted (diesel) CNP 048 112 80% Concrete pump, stationary/ lorry mounted CNP 047 109 40% Concrete lorry mixer CNP 044 109 50% Poker, vibratory, hand-held CNP 170 113 20% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 80% Bar bender and cutter (electric) CNP 021 90 80% Total SWL, dB (/ Maximum SWL, dB (/ Stage 7 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg		Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill	CNP 103 CNP 103 CNP 164 CNP 166	95 Total SW 95 115 100	100% (L, dB (A)) 100% 90% 40%
Crane, mobile/ barge mounted (diesel) CNP 048 112 80% Concrete pump, stationary/ lorry mounted CNP 047 109 40% Concrete lorry mixer CNP 044 109 50% Poker, vibratory, hand-held CNP 170 113 20% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 80% Bar bender and cutter (electric) CNP 021 90 80% Total SWL, dB (/ Maximum SWL, dB (/ Stage 7 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg		Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill	CNP 103 CNP 103 CNP 164 CNP 166	95 Total SW 95 115 100 103	100% (L, dB (A)) 100% 90% 40% 80%
Concrete pump, stationary/ lorry mounted CNP 047 109 40% Concrete lorry mixer CNP 044 109 50% Poker, vibratory, hand-held CNP 170 113 20% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 80% Bar bender and cutter (electric) CNP 021 90 80% Total SWL, dB (A Maximum SWL, dB (A Stage 7 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg		Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol)	CNP 103 CNP 103 CNP 164 CNP 166	95 Total SW 95 115 100 103	100% (L, dB (A)) 100% 90% 40% 80%
Concrete lorry mixer CNP 044 109 50% Poker, vibratory, hand-held CNP 170 113 20% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 80% Bar bender and cutter (electric) CNP 021 90 80% Total SWL, dB (A Maximum SWL, dB (A Stage 7 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg		Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3	CNP 103 CNP 103 CNP 164 CNP 166 CNP 282	95 Total SW 95 115 100 103 Total SW	100% (L, dB (A) 100% 90% 40% 80% (L, dB (A)
Poker, vibratory, hand-held		Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel)	CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 048	95 Total SW 95 115 100 103 Total SW	100% (L, dB (A) 100% 90% 40% 80% (L, dB (A)
Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 80% Bar bender and cutter (electric) CNP 021 90 80% Total SWL, dB (A Maximum SWL, dB (A Stage 7 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg		Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted	CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 282 CNP 048 CNP 047	95 Total SW 95 115 100 103 Total SW	100% (L, dB (A) 100% 90% 40% 80% (L, dB (A) 80% 40%
Bar bender and cutter (electric) CNP 021 90 80% Total SWL, dB (A Maximum SWL, dB (A Stage 7 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg		Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer	CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 282 CNP 048 CNP 047 CNP 044	95 Total SW 95 115 100 103 Total SW 112 109 109	100% 100% 90% 40% 80% 11, dB (A) 80% 40% 50%
Total SWL, dB (A Maximum S		Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held	CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170	95 Total SW 95 115 100 103 Total SW 112 109 109	100% 'L, dB (A) 100% 90% 40% 80% 'L, dB (A) 80% 40% 50% 20%
Stage 7 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg		Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103	95 Total SW 95 115 100 103 Total SW 112 109 109 113 95	100% L, dB (A) 100% 90% 40% 80% L, dB (A) 80% 40% 50% 20% 80%
Breaker, hand-held, mass >= 20kg and <= 35kg CNP 025 111 40% Concrete lorry mixer CNP 044 109 50% Concrete pump, stationary/ lorry mounted CNP 047 109 40% Crane, mobile/ barge mounted (diesel) CNP 048 112 80% Lorry with crane/grab CNP 145 105 50% Poker, vibratory, hand-held CNP 170 113 20%		Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 103	95 Total SW 95 115 100 103 Total SW 112 109 109 113 95 90 Total SW	100% 'L, dB (A) 100% 90% 40% 80% 40% 50% 20% 80% 100% 80% 100% 80% 100% 80% 100% 80% 100% 80% 100%
Breaker, hand-held, mass >= 20kg and <= 35kg CNP 025 111 40% Concrete lorry mixer CNP 044 109 50% Concrete pump, stationary/ lorry mounted CNP 047 109 40% Crane, mobile/ barge mounted (diesel) CNP 048 112 80% Lorry with crane/grab CNP 145 105 50% Poker, vibratory, hand-held CNP 170 113 20%		Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 103	95 Total SW 95 115 100 103 Total SW 112 109 109 113 95 90 Total SW	100% 'L, dB (A) 100% 90% 40% 80% 40% 50% 20% 80% 100% 80% 100% 80% 100% 80% 100% 80% 100% 80% 100%
Concrete pump, stationary/ lorry mounted CNP 047 109 40% Crane, mobile/ barge mounted (diesel) CNP 048 112 80% Lorry with crane/grab CNP 145 105 50% Poker, vibratory, hand-held CNP 170 113 20%		Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric)	CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 103	95 Total SW 95 115 100 103 Total SW 112 109 109 113 95 90 Total SW	100% 'L, dB (A) 100% 90% 40% 80% 40% 50% 20% 80% 100% 80% 100% 80% 100% 80% 100% 80% 100% 80% 100%
Crane, mobile/ barge mounted (diesel) CNP 048 112 80% Lorry with crane/grab CNP 145 105 50% Poker, vibratory, hand-held CNP 170 113 20%		Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 7 - Building Structures	CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 170 CNP 103 CNP 021	95 Total SW 95 115 100 103 Total SW 112 109 109 113 95 90 Total SW	100% L, dB (A) 100% 90% 40% 80% L, dB (A) 80% 40% 50% 80% 80% L, dB (A)
Lorry with crane/grab CNP 145 105 50% Poker, vibratory, hand-held CNP 170 113 20%		Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 7 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 103 CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Max CNP 025	95 Total SW 95 115 100 103 Total SW 112 109 109 113 95 90 Total SW dimum SW	100% 'L, dB (A) 100% 90% 40% 80% L, dB (A) 80% 40% 50% 20% 80% L, dB (A) 1'L, dB (A)
Poker, vibratory, hand-held CNP 170 113 20%		Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 7 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer	CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 103 CNP 021 Max CNP 025 CNP 044	95 Total SW 95 115 100 103 Total SW 112 109 109 113 95 90 Total SW dimum SW	100% L, dB (A) 100% 90% 40% 80% L, dB (A) 80% 40% 50% 80% L, dB (A) 40% 50% 50% 50%
Poker, vibratory, hand-held CNP 170 113 20%		Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 7 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted	CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 103 CNP 044 CNP 103 CNP 103 CNP 025 CNP 025 CNP 044 CNP 044	95 Total SW 95 115 100 103 Total SW 112 109 109 109 101 113 95 90 Total SW 1111 111 109 109	100% L, dB (A) 100% 90% 40% 80% L, dB (A) 80% 40% 50% 80% 80% 1L, dB (A) 40% 50% 40% 40% 40%
		Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 7 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel)	CNP 103 CNP 103 CNP 104 CNP 164 CNP 166 CNP 282 CNP 047 CNP 047 CNP 103 CNP 103 CNP 103 CNP 021 Max CNP 025 CNP 044 CNP 047 CNP 046	95 Total SW 95 115 100 103 Total SW 112 109 109 113 95 90 Total SW 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	100% 'L, dB (A) 100% 90% 40% 80% 'L, dB (A) 80% 40% 50% 80% 80% 'L, dB (A)
Dai Donata and Jakon (Digotho) UNI UZ 1 90 00%		Group 2 Generator, super silenced, 70 dB(A) at 7 m Piling, large diameter bored, grab and chisel Piling, large diameter bored, reverse circulation drill Water pump (petrol) Group 3 Crane, mobile/ barge mounted (diesel) Concrete pump, stationary/ lorry mounted Concrete lorry mixer Poker, vibratory, hand-held Generator, super silenced, 70 dB(A) at 7 m Bar bender and cutter (electric) Stage 7 - Building Structures Breaker, hand-held, mass >= 20kg and <= 35kg Concrete pump, stationary/ lorry mounted Concrete pump, stationary/ lorry mounted Concrete pump, stationary/ lorry mounted Corane, mobile/ barge mounted (diesel) Lorry with crane/grab	CNP 103 CNP 103 CNP 103 CNP 164 CNP 166 CNP 282 CNP 048 CNP 047 CNP 044 CNP 170 CNP 103 CNP 021 Max CNP 025 CNP 044 CNP 047 CNP 048 CNP 047 CNP 048 CNP 047 CNP 048 CNP 048 CNP 145	95 Total SW 95 115 100 103 Total SW 112 109 109 113 95 90 Total SW 305 307 308 308 308 308 308 308 308 308 308 308	100% L, dB (A) 100% 90% 40% 80% L, dB (A) 80% 20% 80% 1L, dB (A) 40% 50% 80% 40% 50% 40% 50% 40% 50% 40% 80% 50% 40%

Fanling Highway Connection Flyovers - Temporary Access Bridge (Viaduct)

	РМЕ	TM or other reference	SWL, dB(A)	% on time	Total no of PME
ıli	ing Highway Connection Flyovers - Temporary Access Brid	dge			
	Stage 1 - Site Clearance & Haul Road				
	Group 1 Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111	30%	2
	Broaker, manuficial, mass >= 20kg and <= 00kg	0111 020		/L, dB (A)	109
	Group 2				
	Excavator/ loader, wheeled/ tracked	CNP 081	112	40%	2
	Bulldozer	CNP 030	115 Total SW	40% /L, dB (A)	2 116
	Group 3				
	Dump truck	CNP 067	117	80%	4
		Ma	Total SW ximum SW	/L, dB (A)	122 122
		17702	,a 0 11	2, 32 (1)	122
	Stage 2 - Piling Group 1				
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%	4
	Excavator/ loader, wheeled/ tracked Lorry	CNP 081 CNP 141	112 112	40% 30%	2 4
	Lony	I CINF 141		/L, dB (A)	115
	Group 2				
	Piling, large diameter bored, reverse circulation drill	CNP 166	100	30%	4
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%	4
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102 Total SW	100% /L, dB (A)	109
	Croup 2				
	Group 3 Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%	4
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%	4
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	50% 20%	4
	Poker, vibratory, hand-held Concrete pump, stationary/ lorry mounted	CNP 170 CNP 047	113 109	20%	2
	Concrete lorry mixer	CNP 044	109	20%	6
		Ma	Total SW ximum SW	/L, dB (A) /L dB (A)	118 118
				, - ()	
	Stage 3 - PileCaps Group 1				
	Stage 3 - PileCaps Group 1 Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	70%	4
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%	4
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked				
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002 CNP 081	102 112	50% 50% 50%	4 2
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked	CNP 002 CNP 081	102 112 112	50% 50% 50%	4 2 2
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m	CNP 002 CNP 081 CNP 141	102 112 112 Total SW	50% 50% 50% /L, dB (A)	4 2 2 116
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002 CNP 081 CNP 141 CNP 103 CNP 002	102 112 112 Total SW 95 102	50% 50% 50% /L, dB (A) 70% 50%	4 2 2 116 4 4
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m	CNP 002 CNP 081 CNP 141	102 112 112 Total SW	50% 50% 50% /L, dB (A)	4 2 2 116
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel)	CNP 002 CNP 081 CNP 141 CNP 103 CNP 002 CNP 002 CNP 044 CNP 047 CNP 048	102 112 112 Total SW 95 102 109 109	50% 50% 50% 7L, dB (A) 70% 50% 20% 20% 100%	4 2 2 116 4 4 4 2 4
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted	CNP 002 CNP 081 CNP 141 CNP 103 CNP 002 CNP 004 CNP 044 CNP 047	102 112 112 Total SW 95 102 109 109 112 113	50% 50% 50% /L, dB (A) 70% 50% 20%	4 2 2 116 4 4 4 2
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel)	CNP 002 CNP 081 CNP 141 CNP 103 CNP 002 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170	102 112 112 Total SW 95 102 109 109 112 113	50% 50% 50% /L, dB (A) 70% 50% 20% 20% 100% 20% /L, dB (A)	4 2 2 116 4 4 4 2 4 2
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel)	CNP 002 CNP 081 CNP 141 CNP 103 CNP 002 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170	102 112 112 Total SW 95 102 109 109 112 113 Total SW	50% 50% 50% /L, dB (A) 70% 50% 20% 20% 100% 20% /L, dB (A)	4 2 2 116 4 4 4 4 2 4 2 119
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Piers Generator, super silenced, 70 dB(A) at 7 m	CNP 002 CNP 081 CNP 141 CNP 103 CNP 002 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 Ma CNP 103	95 109 1113 Total SW imm SW imm SW	50% 50% 50% 50% /L, dB (A) 70% 50% 20% 100% 20% /L, dB (A) /L, dB (A)	4 2 2 116 4 4 4 2 2 119 119
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Piers Generator, super silenced, 70 dB(A) at 7 m Crane, mobile/ barge mounted (diesel)	CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 103 CNP 103	95 102 109 109 112 113 Total SW 1142 109 109 115 113 Total SW 115 115 115 115 115 115 115 115 115 11	50% 50% 50% 50% 7L, dB (A) 70% 20% 20% 100% 20, dB (A) 7L, dB (A) 7L, dB (A)	4 2 2 1116 4 4 4 4 2 119 119
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Piers Generator, super silenced, 70 dB(A) at 7 m	CNP 002 CNP 081 CNP 141 CNP 103 CNP 002 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 Ma CNP 103	95 102 112 112 Total SW 95 102 109 109 112 113 Total SW ximum SW	50% 50% 50% 50% /L, dB (A) 70% 50% 20% 100% 20% /L, dB (A) /L, dB (A)	4 2 2 116 4 4 4 2 2 119 119
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Piers Generator, super silenced, 70 dB(A) at 7 m Crane, mobile/ barge mounted (diesel) Lorry	CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 103 CNP 103	95 102 112 112 Total SW 95 102 109 109 112 113 Total SW ximum SW	50% 50% 50% 50% /L, dB (A) 70% 20% 100% 20% /L, dB (A) /L, dB (A) 50% 50%	4 2 2 1116 4 4 4 4 2 4 119 119
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Piers Generator, super silenced, 70 dB(A) at 7 m Crane, mobile/ barge mounted (diesel)	CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 103 CNP 103	95 102 112 112 Total SW 95 102 109 109 112 113 Total SW ximum SW	50% 50% 50% 50% /L, dB (A) 70% 20% 100% 20% /L, dB (A) /L, dB (A) 50% 50%	4 2 2 1116 4 4 4 4 2 4 119 119
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Piers Generator, super silenced, 70 dB(A) at 7 m Crane, mobile/ barge mounted (diesel) Lorry Stage 5 - Bridge Decks Crane, mobile/ barge mounted (diesel) Lorry	CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 170 Ma CNP 104 CNP 104 CNP 141	102 112 112 Total SW 95 102 109 109 1112 113 Total SW ximum SW 112 112 Total SW	50% 50% 50% 50% /L, dB (A) 	4 2 2 1116 4 4 4 4 2 119 119 2 2 2 113
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Piers Generator, super silenced, 70 dB(A) at 7 m Crane, mobile/ barge mounted (diesel) Lorry Stage 5 - Bridge Decks Crane, mobile/ barge mounted (diesel)	CNP 002 CNP 081 CNP 103 CNP 103 CNP 002 CNP 004 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 170 CNP 170 CNP 103 CNP 141 CNP 104 CNP 141	102 112 112 Total SW 95 102 109 109 113 Total SW ximum SW 95 112 112 Total SW	50% 50% 50% 50% 70% 20% 20% 100% 20% 100% 20% 100% 20% 100% 20% 100% 20% 100% 20% 100% 20% 100% 20% 100% 20% 100% 20% 100%	4 2 2 1116 4 4 4 4 2 4 2 119 119
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Piers Generator, super silenced, 70 dB(A) at 7 m Crane, mobile/ barge mounted (diesel) Lorry Stage 5 - Bridge Decks Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 170 Ma CNP 104 CNP 104 CNP 141	102 112 112 Total SW 95 102 109 109 113 Total SW ximum SW 95 112 112 Total SW	50% 50% 50% 50% 50% 70% 50% 20% 100% 20% 20% 100% 20% /L, dB (A) /L, dB (A) 50% 20% 1, dB (A) 50% 50% 50% 50% 50% 50% 50% 50%	4 2 2 1116 4 4 4 4 2 2 119 119 2 2 2 113
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Piers Generator, super silenced, 70 dB(A) at 7 m Crane, mobile/ barge mounted (diesel) Lorry Stage 5 - Bridge Decks Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 170 Ma CNP 104 CNP 104 CNP 141	102 112 112 Total SW 95 102 109 109 113 Total SW ximum SW 95 112 112 Total SW	50% 50% 50% 50% 50% 70% 50% 20% 100% 20% 20% 100% 20% /L, dB (A) /L, dB (A) 50% 20% 1, dB (A) 50% 50% 50% 50% 50% 50% 50% 50%	4 2 2 1116 4 4 4 4 2 2 119 119 2 2 2 2 113
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Piers Generator, super silenced, 70 dB(A) at 7 m Crane, mobile/ barge mounted (diesel) Lorry Stage 5 - Bridge Decks Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 104 CNP 170 CNP 103 CNP 104 CNP 170 CNP 103 CNP 104 CNP 141 CNP 048 CNP 141 CNP 048 CNP 141 CNP 002	102 112 112 Total SW 95 102 109 109 113 Total SW ximum SW 95 112 112 Total SW	50% 50% 50% 50% 50% 70% 50% 20% 100% 20% 20% 100% 20% /L, dB (A) /L, dB (A) 50% 20% 1, dB (A) 50% 50% 50% 50% 50% 50% 50% 50%	4 2 2 1116 4 4 4 4 2 119 119 2 2 2 1113 118
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Piers Generator, super silenced, 70 dB(A) at 7 m Crane, mobile/ barge mounted (diesel) Lorry Stage 5 - Bridge Decks Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Stage 6 - Parapet & Surfacing Group 1 (Parapet) Crane, mobile/ barge mounted (diesel) Lorry Crane, mobile/ barge mounted (diesel)	CNP 002 CNP 081 CNP 103 CNP 103 CNP 002 CNP 004 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 048 CNP 141 CNP 048 CNP 141 CNP 048 CNP 141 CNP 002	102 112 112 Total SW 95 102 109 109 112 113 Total SW ximum SW 95 112 112 112 Total SW	50% 50% 50% 50% 7L, dB (A) 70% 50% 20% 20% 20% 20% 7L, dB (A) 7L, dB (A) 7L, dB (A) 50% 50% 50% 50% 50% 50% 50% 50%	4 2 2 116 4 4 4 4 2 119 119 2 2 2 113 4 4 4 118
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Piers Generator, super silenced, 70 dB(A) at 7 m Crane, mobile/ barge mounted (diesel) Lorry Stage 5 - Bridge Decks Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Stage 6 - Parapet & Surfacing Group 1 (Parapet) Crane, mobile/ barge mounted (diesel)	CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 170 Ma CNP 103 CNP 170 CNP 103 CNP 141 CNP 048 CNP 141 CNP 002	95 102 109 109 112 112 Total SW 112 112 102 Total SW 112 112 102 Total SW 112 112 112 102 Total SW 112 112 112 112 112 112 112 112 112 11	50% 50% 50% 50% 70% 50% 20% 20% 20% 100% 20% 7L, dB (A) 7L, dB (A) 30% 50% 20% 7L, dB (A) 30% 50% 20% 7L, dB (A)	4 2 2 1116 4 4 4 4 2 119 119 2 2 2 2 113 113
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Piers Generator, super silenced, 70 dB(A) at 7 m Crane, mobile/ barge mounted (diesel) Lorry Stage 5 - Bridge Decks Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Stage 6 - Parapet & Surfacing Group 1 (Parapet) Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002 CNP 081 CNP 103 CNP 103 CNP 002 CNP 004 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 048 CNP 141 CNP 048 CNP 141 CNP 048 CNP 141 CNP 002	102 112 112 102 112 112 102 112 112 112 102 112 112 112 102 112 112 102 112 112 102 112 112 102 103 104 105	50% 50% 50% 50% 50% 7L, dB (A) 20% 20% 100% 20% 7L, dB (A) 30% 50% 7L, dB (A) 50% 60% 50% 7L, dB (A)	4 2 2 1116 4 4 4 4 2 119 119 2 2 2 113 2 4 4 4 118
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Piers Generator, super silenced, 70 dB(A) at 7 m Crane, mobile/ barge mounted (diesel) Lorry Stage 5 - Bridge Decks Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Stage 6 - Parapet & Surfacing Group 1 (Parapet) Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 170 Ma CNP 103 CNP 170 CNP 103 CNP 141 CNP 048 CNP 141 CNP 002	102 112 112 102 112 112 102 112 112 112 102 112 112 112 102 112 112 102 112 112 102 112 112 102 103 104 105	50% 50% 50% 50% 50% 50% 20% 20% 100% 20% 20% /L, dB (A) /L, dB (A) 50% 20% /L, dB (A) 30% 50% 20% /L, dB (A) 50% 50% 50% 50% 50% 50% 50% 50%	4 2 2 1116 4 4 4 4 4 2 2 1119 1119 2 2 2 2 4 4 1118
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Piers Generator, super silenced, 70 dB(A) at 7 m Crane, mobile/ barge mounted (diesel) Lorry Stage 5 - Bridge Decks Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 (Surfacing) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 104	102 112 112 102 112 112 102 112 112 102 112 112 102 105 102 105	50% 50% 50% 50% 50% 70% 50% 20% 20% 20% 20% 7L, dB (A) 30% 50% 20% 7L, dB (A) 30% 50% 50% 50% 50% 50% 50% 50% 5	4 2 2 1116 4 4 4 4 4 2 2 1119 1119 2 2 2 2 1118 1118
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Piers Generator, super silenced, 70 dB(A) at 7 m Crane, mobile/ barge mounted (diesel) Lorry Stage 5 - Bridge Decks Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Stage 6 - Parapet & Surfacing Group 1 (Parapet) Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 (Surfacing) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 004 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 141 CNP 048 CNP 141 CNP 048 CNP 141 CNP 002 CNP 103 CNP 103 CNP 103 CNP 103 CNP 103 CNP 104 CNP 103 CNP 104 CNP 103 CNP 103 CNP 103 CNP 103	102 112 112 Total SW 95 102 109 109 109 1112 1113 Total SW 95 112 1112 112 Total SW 112 112 102 Total SW	50% 50% 50% 50% 7L, dB (A) 70% 50% 20% 20% 20% 20% 20% 7L, dB (A) 7L, dB (A) 50% 50% 50% 50% 50% 50% 50% 50%	4 2 2 2 1116 4 4 4 4 2 2 1119 1119 2 2 2 2 1113 118
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Piers Generator, super silenced, 70 dB(A) at 7 m Crane, mobile/ barge mounted (diesel) Lorry Stage 5 - Bridge Decks Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 (Surfacing) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 104	102 112 112 102 112 112 102 112 112 102 112 112 102 105 102 105	50% 50% 50% 50% 50% 70% 50% 20% 20% 20% 20% 7L, dB (A) 30% 50% 20% 7L, dB (A) 30% 50% 50% 50% 50% 50% 50% 50% 5	4 2 2 1116 4 4 4 4 4 2 2 119 119 2 2 2 2 113 118
	Group 1 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Excavator/ loader, wheeled/ tracked Lorry Group 2 Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min Concrete lorry mixer Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held Stage 4 - Piers Generator, super silenced, 70 dB(A) at 7 m Crane, mobile/ barge mounted (diesel) Lorry Stage 5 - Bridge Decks Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Stage 6 - Parapet & Surfacing Group 1 (Parapet) Crane, mobile/ barge mounted (diesel) Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 (Surfacing) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Asphalt paver	CNP 002 CNP 081 CNP 141 CNP 141 CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 Ma CNP 103 CNP 104	102 112 112 102 113 102 103 104 SW 105	50% 50% 50% 50% 50% 50% 50% 20% 20% 20% 20% 20% /L, dB (A) 30% 50% 20% /L, dB (A) 30% 50% 50% 50% 50% 50% 50% 50% 50% 50% 5	4 2 2 116 4 4 4 4 2 119 119 2 2 2 113 4 4 4 118 118

Fanling Highway Connection Flyovers - Link Road 1 (Viaduct)

	PME	TM or other reference	SWL, dB(A)	% on time
nlin	g Highway Connection Flyovers - Link Road 1		GB(A)	ume
	Stage 1 - Site Clearance & Haul Road			
C	aroup 1			
E	reaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111 Total SW	30% /L, dB (A)
			Total OTT	2, 02 (7.)
	xcavator/ loader, wheeled/ tracked	CNP 081	112	40%
	Sulldozer	CNP 030	115	40%
			Total SW	L, dB (A)
(Group 3			
	Dump truck	CNP 067	117	
H		Ma	Total SW aximum SW	L, dB (A)
	stage 2 - Piling Group 1			
C	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
_	xcavator/ loader, wheeled/ tracked orry	CNP 081 CNP 141	112 112	40% 30%
Ė	ony	ON 141	Total SW	
_	Prouin 9			
	aroup 2 riling, large diameter bored, reverse circulation drill	CNP 166	100	40%
F	iling, large diameter bored, oscillator	CNP 165	115	40%
	Generator, super silenced, 70 dB(A) at 7 m oir compressor, air flow > 10m3/min and <= 30m3/min	CNP 103 CNP 002	95 102	100%
É	process, and a romanian and x- demonstra	0.11 002		L, dB (A)
•	aroup 3			
(Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
F	ir compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%
	crane, mobile/ barge mounted (diesel) boker, vibratory, hand-held	CNP 048 CNP 170	112 113	50% 20%
C	Concrete pump, stationary/ lorry mounted	CNP 047	109	20%
C	Concrete lorry mixer	CNP 044	109 Total SW	20% /L, dB (A)
L		Ma	ximum SW	
c	stage 3 - PileCaps			
C	aroup 1			
	Generator, super silenced, 70 dB(A) at 7 m oir compressor, air flow > 10m3/min and <= 30m3/min	CNP 103 CNP 002	95 102	70% 50%
	excavator/ loader, wheeled/ tracked	CNP 002 CNP 081	112	50%
L	orry	CNP 141	112 Total SW	50%
t			TOTAL SW	L, UD (A)
	Group 2	CND 004	00	700/
	Vater pump (electric) Generator, super silenced, 70 dB(A) at 7 m	CNP 281 CNP 103	88 95	70% 70%
A	ir compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%
	Concrete lorry mixer Concrete pump, stationary/ lorry mounted	CNP 044 CNP 047	109	20% 20%
	Grane, mobile/ barge mounted (diesel)	CNP 048	112	100%
F	oker, vibratory, hand-held	CNP 170	113	
			Total CIM	20%
L		Ma	Total SW aximum SW	L, dB (A)
ç	stage 4 - Piers	Ma		L, dB (A)
C	itage 4 - Piers enerator, super silenced, 70 dB(A) at 7 m	CNP 103	aximum SW 95	(L, dB (A) (L, dB (A) 50%
P	senerator, super silenced, 70 dB(A) at 7 m sir compressor, air flow > 10m3/min and <= 30m3/min	CNP 103 CNP 002	95 102	(L, dB (A) (L, dB (A) 50%
<i>F</i>	Renerator, super silenced, 70 dB(A) at 7 m ir compressor, air flow > 10m3/min and <= 30m3/min concrete lorry mixer concrete pump, stationary/ lorry mounted	CNP 103	aximum SW 95	(L, dB (A) (L, dB (A) 50%
<i>F</i>	Renerator, super silenced, 70 dB(A) at 7 m ir compressor, air flow > 10m3/min and <= 30m3/min concrete lorry mixer concrete pump, stationary/ lorry mounted brane, mobile/ barge mounted (diesel)	CNP 103 CNP 002 CNP 044 CNP 047 CNP 048	95 102 109 109	50% 50% 20% 50%
<i>F</i>	Renerator, super silenced, 70 dB(A) at 7 m ir compressor, air flow > 10m3/min and <= 30m3/min concrete lorry mixer concrete pump, stationary/ lorry mounted	CNP 103 CNP 002 CNP 044 CNP 047	95 102 109 109 112 113	L, dB (A) (L, dB (A) 50% 50% 20% 20%
	Renerator, super silenced, 70 dB(A) at 7 m ir compressor, air flow > 10m3/min and <= 30m3/min concrete lorry mixer concrete pump, stationary/ lorry mounted grane, mobile/ barge mounted (diesel) oker, vibratory, hand-held	CNP 103 CNP 002 CNP 044 CNP 047 CNP 048	95 102 109 109 112 113	50% 50% 20% 20% 20%
	Renerator, super silenced, 70 dB(A) at 7 m ir compressor, air flow > 10m3/min and <= 30m3/min concrete lorry mixer concrete pump, stationary/ lorry mounted brane, mobile/ barge mounted (diesel)	CNP 103 CNP 002 CNP 044 CNP 047 CNP 048	95 102 109 109 112 113	50% 50% 20% 20% 20%
	denerator, super silenced, 70 dB(A) at 7 m ir compressor, air flow > 10m3/min and <= 30m3/min concrete lorry mixer concrete pump, stationary/ lorry mounted crane, mobile/ barge mounted (diesel) coker, vibratory, hand-held citage 5 - Bridge Decks crane, mobile/ barge mounted (diesel) corry	CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 048 CNP 141	95 102 109 109 112 113 Total SW	L, dB (A) /L, dB (A) 50% 50% 20% 50% 20% (L, dB (A)
	Renerator, super silenced, 70 dB(A) at 7 m if compressor, air flow > 10m3/min and <= 30m3/min concrete lorry mixer concrete pump, stationary/ lorry mounted brane, mobile/ barge mounted (diesel) coker, vibratory, hand-held stage 5 - Bridge Decks trane, mobile/ barge mounted (diesel) orry if compressor, air flow > 10m3/min and <= 30m3/min	CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 170 CNP 048 CNP 141 CNP 002	95 102 109 109 112 113 Total SW	50% 50% 20% 20% 20% 20% 40% 40%
	denerator, super silenced, 70 dB(A) at 7 m ir compressor, air flow > 10m3/min and <= 30m3/min concrete lorry mixer concrete pump, stationary/ lorry mounted crane, mobile/ barge mounted (diesel) coker, vibratory, hand-held citage 5 - Bridge Decks crane, mobile/ barge mounted (diesel) corry	CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 048 CNP 141	95 102 109 109 112 113 Total SW	L, dB (A) /L, dB (A) 50% 50% 20% 50% 20% (L, dB (A)
	denerator, super silenced, 70 dB(A) at 7 m ir compressor, air flow > 10m3/min and <= 30m3/min concrete lorry mixer concrete pump, stationary/ lorry mounted frane, mobile/ barge mounted (diesel) loker, vibratory, hand-held stage 5 - Bridge Decks frane, mobile/ barge mounted (diesel) orry ir compressor, air flow > 10m3/min and <= 30m3/min trestress Jack*	CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 170 CNP 048 CNP 141 CNP 002	95 102 109 109 112 113 Total SW	50% 50% 20% 20% 20% 50% 20% 50% 40% 40% 20%
	denerator, super silenced, 70 dB(A) at 7 m ir compressor, air flow > 10m3/min and <= 30m3/min concrete lorry mixer concrete pump, stationary/ lorry mounted drane, mobile/ barge mounted (diesel) coker, vibratory, hand-held diage 5 - Bridge Decks drane, mobile/ barge mounted (diesel) orane, mobile/ barge mounted (diesel)	CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 170 CNP 048 CNP 141 CNP 002 CNP 261	95 102 109 109 112 113 Total SW	50% 50% 20% 20% 20% 50% 20% 50% 40% 40% 20%
	denerator, super silenced, 70 dB(A) at 7 m ir compressor, air flow > 10m3/min and <= 30m3/min concrete lorry mixer concrete pump, stationary/ lorry mounted crane, mobile/ barge mounted (diesel) coker, vibratory, hand-held crane, mobile/ barge mounted (diesel) crane, mobile/ barge mounted (diesel) crane, mobile/ barge mounted (diesel) cry citage 5 - Bridge Decks crane, mobile/ barge mounted (diesel) cry citage 6 - Parapet & Surfacing croup 1 (Parapet) crane, mobile/ barge mounted (diesel) crane, mobile/ barge mounted (diesel)	CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 048 CNP 141 CNP 002 CNP 261 CNP 261	95 102 109 109 112 113 Total SW	50% 50% 50% 20% 20% 20% (L, dB (A) 50% 20% (L, dB (A) 30%
	denerator, super silenced, 70 dB(A) at 7 m ir compressor, air flow > 10m3/min and <= 30m3/min concrete lorry mixer concrete lorry mixer concrete pump, stationary/ lorry mounted crane, mobile/ barge mounted (diesel) coker, vibratory, hand-held crane, mobile/ barge mounted (diesel) crane, mobile/ barge mounted (diesel) corry cir compressor, air flow > 10m3/min and <= 30m3/min crestress Jack* crane, mobile/ barge mounted (diesel) corry	CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 048 CNP 141 CNP 002 CNP 261 CNP 261 CNP 048 CNP 141	95 102 109 109 112 113 Total SW	50% 50% 20% 20% 50% 20% 7L, dB (A) 50% 20% 7L, dB (A) 40% 40% 20% 7L, dB (A)
	denerator, super silenced, 70 dB(A) at 7 m ir compressor, air flow > 10m3/min and <= 30m3/min concrete lorry mixer concrete pump, stationary/ lorry mounted crane, mobile/ barge mounted (diesel) coker, vibratory, hand-held crane, mobile/ barge mounted (diesel) crane, mobile/ barge mounted (diesel) crane, mobile/ barge mounted (diesel) cry citage 5 - Bridge Decks crane, mobile/ barge mounted (diesel) cry citage 6 - Parapet & Surfacing croup 1 (Parapet) crane, mobile/ barge mounted (diesel) crane, mobile/ barge mounted (diesel)	CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 048 CNP 141 CNP 002 CNP 261 CNP 261	95 102 109 109 112 113 Total SW 112 112 110 Total SW	50% 50% 50% 20% 20% 20% 20% 40% 40% 20% 7L, dB (A) 30% 50% 50%
	denerator, super silenced, 70 dB(A) at 7 m if compressor, air flow > 10m3/min and <= 30m3/min concrete lorry mixer concrete pump, stationary/ lorry mounted crane, mobile/ barge mounted (diesel) coker, vibratory, hand-held diage 5 - Bridge Decks crane, mobile/ barge mounted (diesel) orry air compressor, air flow > 10m3/min and <= 30m3/min crestress Jack* diage 6 - Parapet & Surfacing croup 1 (Parapet) crane, mobile/ barge mounted (diesel) orry ir compressor, air flow > 10m3/min and <= 30m3/min crestress Jack*	CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 048 CNP 141 CNP 002 CNP 261 CNP 048 CNP 141 CNP 002 CNP 261	95 102 109 109 112 113 Total SW 112 112 110 Total SW	50% 50% 20% 20% 20% 20% 40% 40% 20% 40% 30% 50% 50%
	denerator, super silenced, 70 dB(A) at 7 m if compressor, air flow > 10m3/min and <= 30m3/min concrete lorry mixer concrete pump, stationary/ lorry mounted drane, mobile/ barge mounted (diesel) roker, vibratory, hand-held diage 5 - Bridge Decks drane, mobile/ barge mounted (diesel) orry air compressor, air flow > 10m3/min and <= 30m3/min drestress Jack* drage 6 - Parapet & Surfacing droup 1 (Parapet) drane, mobile/ barge mounted (diesel) orry air compressor, air flow > 10m3/min and <= 30m3/min drestress Jack* drage 6 - Parapet & Surfacing droup 1 (Parapet) drane, mobile/ barge mounted (diesel) orry air compressor, air flow > 10m3/min and <= 30m3/min denerator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 048 CNP 141 CNP 002 CNP 261 CNP 048 CNP 141 CNP 002 CNP 261	95 102 109 119 1112 113 Total SW 1102 110 Total SW 1112 110 110 Total SW 1112 110 102 95 Total SW	50% 50% 20% 20% 20% 20% 40% 40% 20% 40% 50% 50% 50% 50% 50% 50% 50% 50%
0 C C C C C C C C C C C C C C C C C C C	denerator, super silenced, 70 dB(A) at 7 m ir compressor, air flow > 10m3/min and <= 30m3/min concrete pump, stationary/ lorry mounted brane, mobile/ barge mounted (diesel) coker, vibratory, hand-held diage 5 - Bridge Decks brane, mobile/ barge mounted (diesel) corry air compressor, air flow > 10m3/min and <= 30m3/min trestress Jack* diage 6 - Parapet & Surfacing droup 1 (Parapet) brane, mobile/ barge mounted (diesel) corry dir compressor, air flow > 10m3/min and <= 30m3/min denerator, super silenced, 70 dB(A) at 7 m dir compressor, air flow > 10m3/min and <= 30m3/min denerator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 048 CNP 141 CNP 002 CNP 261 CNP 048 CNP 141 CNP 002 CNP 141 CNP 002 CNP 141 CNP 002 CNP 141 CNP 002 CNP 103	95 102 109 109 112 113 Total SW 112 112 110 Total SW 110 Total SW	50% 50% 50% 20% 20% 20% 20% 20% 20% 20% 7L, dB (A) 30% 50% 50% 50% 50%
C C C C C C C C C C	Renerator, super silenced, 70 dB(A) at 7 m ir compressor, air flow > 10m3/min and <= 30m3/min concrete lorry mixer concrete pump, stationary/ lorry mounted trane, mobile/ barge mounted (diesel) coker, vibratory, hand-held rane, mobile/ barge mounted (diesel) corry cir compressor, air flow > 10m3/min and <= 30m3/min restress Jack* rane, mobile/ barge mounted (diesel) corry cir compressor, air flow > 10m3/min and <= 30m3/min restress Jack* rane, mobile/ barge mounted (diesel) corry cir compressor, air flow > 10m3/min and <= 30m3/min restress diagree for your silenced, 70 dB(A) at 7 m restroup 2 (Surfacing) ir compressor, air flow > 10m3/min and <= 30m3/min restroup 2 (Surfacing) ir compressor, air flow > 10m3/min and <= 30m3/min restroup 2 (Surfacing) ir compressor, air flow > 10m3/min and <= 30m3/min restroup 2 (Surfacing) ir compressor, air flow > 10m3/min and <= 30m3/min restroup 2 (Surfacing) restroup 3 die flow > 10m3/min and <= 30m3/min restroup 4 die flow > 10m3/min and <= 30m3/min restroup 5 die flow > 10m3/min and <= 30m3/min restroup 6 die flow > 10m3/min and <= 30m3/min restroup 7 die flow > 10m3/min and <= 30m3/min restroup 8 die flow > 10m3/min and <= 30m3/min restroup 9 die flow > 10m3/min and <= 30m3/min restroup 9 die flow > 10m3/min and <= 30m3/min restroup 9 die flow > 10m3/min and <= 30m3/min restroup 9 die flow > 10m3/min and <= 30m3/min restroup 9 die flow > 10m3/min and <= 30m3/min restroup 9 die flow > 10m3/min and <= 30m3/min restroup 9 die flow > 10m3/min and <= 30m3/min restroup 9 die flow > 10m3/min and <= 30m3/min restroup 9 die flow > 10m3/min and <= 30m3/min restroup 9 die flow > 10m3/min and <= 30m3/min restroup 9 die flow > 10m3/min and <= 30m3/min restroup 9 die flow > 10m3/min and <= 30m3/min restroup 9 die flow > 10m3/min and <= 30m3/min restroup 9 die flow > 10m3/min and <= 30m3/min restroup 9 die flow > 10m3/min and <= 30m3/min restroup 9 die flow > 10m3/min and <= 30m3/min restroup 9 die flow > 10m3/min and <= 30m3/min restroup 9 die flow > 10m3/min and <= 30m3/min restro	CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 048 CNP 141 CNP 002 CNP 261 CNP 141 CNP 002 CNP 103 CNP 103 CNP 004	95 102 109 109 1112 113 Total SW 1112 110 110 Total SW 1112 102 95 95 109 109	50% 50% 20% 20% 20% 50% 20% 40% 40% 40% 50% 50% 50% 50% 50% 50% 50% 50% 50% 5
C C C C C C C C C C C C C C C C C C C	denerator, super silenced, 70 dB(A) at 7 m ir compressor, air flow > 10m3/min and <= 30m3/min concrete pump, stationary/ lorry mounted brane, mobile/ barge mounted (diesel) coker, vibratory, hand-held diage 5 - Bridge Decks brane, mobile/ barge mounted (diesel) corry ir compressor, air flow > 10m3/min and <= 30m3/min trestress Jack* diage 6 - Parapet & Surfacing diroup 1 (Parapet) brane, mobile/ barge mounted (diesel) corry ir compressor, air flow > 10m3/min and <= 30m3/min directress Jack* diage 6 - Parapet & Surfacing diroup 1 (Parapet) brane, mobile/ barge mounted (diesel) corry directressor, air flow > 10m3/min and <= 30m3/min denerator, super silenced, 70 dB(A) at 7 m denerator, super silenced, 70 dB(A) at 7 m denerator, super silenced, 70 dB(A) at 7 m	CNP 103 CNP 002 CNP 044 CNP 047 CNP 048 CNP 170 CNP 048 CNP 141 CNP 002 CNP 261 CNP 048 CNP 141 CNP 002 CNP 103	95 102 109 119 1112 113 Total SW 1112 1102 1102 95 Total SW 109 109 109 109 109 109 108 108 108 108 108 108 108 108 108 108	50% 50% 50% 20% 20% 20% (L, dB (A) 50% 40% 40% 20% (L, dB (A) 50% 50% 50% 50% 50% 50% 50% 50% 50%

Fanling Highway Connection Flyovers - Link Road 2 (Viaduct)

	PME	TM or other reference	SWL, dB(A)	% on time
lin	g Highway Connection Flyovers - Link Road 2	•		
,	Stage 1 - Site Clearance & Haul Road			
(Group 1		1 1	
E	Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111 Total SW	30% L dB (A)
r			TOTAL OVV	L, 4D (A)
	Group 2	1	1	
	Excavator/ loader, wheeled/ tracked Bulldozer	CNP 081 CNP 030	112 115	40% 40%
-	sulluozei	CINF 030	Total SW	
L				_, -, -, -, -,
	Group 3	OND 007	1 447 1	000/
۲	Dump truck	CNP 067	117 Total SW	80% L dB (A
L		Ma	aximum SW	
Ļ	Otana O. Billian			
	Stage 2 - Piling Group 1			
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
Н	Excavator/ loader, wheeled/ tracked	CNP 081	112	40%
Ľ	Lorry	CNP 141	112 Total SW	30% L dB (A
r			TOTAL OVV	L, GD (A
	Group 2			
	Piling, large diameter bored, reverse circulation drill Piling, large diameter bored, oscillator	CNP 166 CNP 165	100 115	40% 40%
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%
F			Total SW	L, dB (A
(Group 3			
(Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	100%
	Crane, mobile/ barge mounted (diesel) Poker, vibratory, hand-held	CNP 048 CNP 170	112 113	50% 20%
	Concrete pump, stationary/ lorry mounted	CNP 047	109	20%
(Concrete lorry mixer	CNP 044	109	20%
-		M	Total SW aximum SW	
L		1710	axiiii O VV	L, ab (r
	Stage 3 - PileCaps			
_	Group 1 Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	70%
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%
Н	Excavator/ loader, wheeled/ tracked	CNP 081 CNP 141	112 112	50%
ľ	_orry	CINF 141	Total SW	50% L, dB (A
Ī				
	Group 2 Water pump (electric)	CNP 281	88	70%
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	70%
A	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%
	Concrete lorry mixer	CNP 044	109	20%
	Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel)	CNP 047 CNP 048	109 112	20% 100%
	Poker, vibratory, hand-held	CNP 170	113	20%
L			Total SW	
F		Mi	aximum SW	L, dB (A
	Stage 4 - Piers			
	Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 103 CNP 002	95 102	50% 50%
	Concrete lorry mixer	CNP 002	102	20%
(Concrete pump, stationary/ lorry mounted	CNP 047	109	20%
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	50%
۲	Poker, vibratory, hand-held	CNP 170	113 Total SW	20% L, dB (A
Ĺ				
	Stage 5 - Bridge Decks Crane, mobile/ barge mounted (diesel)	CNP 048	112	50%
		CNP 141	112	40%
(Lorry			
L	orry Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	40%
L	Lorry		110	20%
L	orry Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002		20%
(F	Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Prestress Jack* Stage 6 - Parapet & Surfacing	CNP 002	110	20%
C L	Corry Air compressor, air flow > 10m3/min and <= 30m3/min Prestress Jack* Stage 6 - Parapet & Surfacing Group 1 (Parapet)	CNP 002 CNP 261	110 Total SW	20% L, dB (A
C L	Lorry Air compressor, air flow > 10m3/min and <= 30m3/min Prestress Jack* Stage 6 - Parapet & Surfacing	CNP 002	110	20%
	Corry Air compressor, air flow > 10m3/min and <= 30m3/min Prestress Jack* Stage 6 - Parapet & Surfacing Group 1 (Parapet) Crane, mobile/ barge mounted (diesel) Corry Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002 CNP 261 CNP 048 CNP 141 CNP 002	110 Total SW	20% L, dB (A 30% 50% 50%
C L A	Corry Air compressor, air flow > 10m3/min and <= 30m3/min Prestress Jack* Stage 6 - Parapet & Surfacing Group 1 (Parapet) Crane, mobile/ barge mounted (diesel) Corry	CNP 002 CNP 261 CNP 048 CNP 141	110 Total SW 112 112 102 95	20% L, dB (A 30% 50% 50% 50%
C L A	Corry Air compressor, air flow > 10m3/min and <= 30m3/min Prestress Jack* Stage 6 - Parapet & Surfacing Group 1 (Parapet) Crane, mobile/ barge mounted (diesel) Corry Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002 CNP 261 CNP 048 CNP 141 CNP 002	110 Total SW	20% L, dB (A 30% 50% 50% 50%
	Corry Air compressor, air flow > 10m3/min and <= 30m3/min Prestress Jack* Stage 6 - Parapet & Surfacing Group 1 (Parapet) Corane, mobile/ barge mounted (diesel) Corry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 (Surfacing)	CNP 002 CNP 261 CNP 048 CNP 141 CNP 002 CNP 103	110 Total SW 112 112 102 95 Total SW	20% L, dB (A 30% 50% 50% 50% L, dB (A
O L A C	Corry Air compressor, air flow > 10m3/min and <= 30m3/min Prestress Jack* Stage 6 - Parapet & Surfacing Group 1 (Parapet) Corane, mobile/ barge mounted (diesel) Corry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 (Surfacing) Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002 CNP 261 CNP 048 CNP 141 CNP 002 CNP 103	110 Total SW 112 112 102 95 Total SW	20% L, dB (A 30% 50% 50% 50% L, dB (A
O L	Corry Strage 6 - Parapet & Surfacing Group 1 (Parapet) Crane, mobile/ barge mounted (diesel) Corry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 (Surfacing) Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m	CNP 002 CNP 261 CNP 048 CNP 141 CNP 002 CNP 103 CNP 002 CNP 103	110 Total SW 112 112 112 102 95 Total SW	20% L, dB (A 30% 50% 50% 50% L, dB (A
	Corry Air compressor, air flow > 10m3/min and <= 30m3/min Prestress Jack* Stage 6 - Parapet & Surfacing Group 1 (Parapet) Corane, mobile/ barge mounted (diesel) Corry Air compressor, air flow > 10m3/min and <= 30m3/min Generator, super silenced, 70 dB(A) at 7 m Group 2 (Surfacing) Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002 CNP 261 CNP 048 CNP 141 CNP 002 CNP 103	110 Total SW 112 112 102 95 Total SW	20% L, dB (A 30% 50% 50% 50% L, dB (A

Fanling Highway Connection Flyovers - Link Road 3 (Viaduct)

	РМЕ	TM or other reference	SWL, dB(A)	% on time
lin	g Highway Connection Flyovers - Link Road 3			
5	Stage 1 - Site Clearance & Haul Road			
_	Group 1	OND OOF		000/
냳	Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111 Total SW	30% L. dB (A)
Ĺ			10141 011	2, 02 (1)
	Group 2	OND one	140	400/
	xcavator/ loader, wheeled/ tracked Bulldozer	CNP 081 CNP 030	112 115	40% 40%
۴	dilidozei	CIVI 030	Total SW	
L				_, -, -,
	Group 3	0.15	T	
L	Oump truck	CNP 067	117 Total SW	80%
H		Ma	aximum SW	
Ī				, - ()
	Stage 2 - Piling			
	Group 1 Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
	excavator/ loader, wheeled/ tracked	CNP 081	112	40%
L	orry	CNP 141	112	30%
L			Total SW	L, dB (A)
-	Group 2			
	Piling, large diameter bored, reverse circulation drill	CNP 166	100	40%
F	Piling, large diameter bored, oscillator	CNP 165	115	40%
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
ľ	sir compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102 Total SW	100%
H			iolai SW	∟, ub (A)
	Group 3			
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
	vir compressor, air flow > 10m3/min and <= 30m3/min Crane, mobile/ barge mounted (diesel)	CNP 002 CNP 048	102 112	100% 50%
	Poker, vibratory, hand-held	CNP 170	113	20%
	Concrete pump, stationary/ lorry mounted	CNP 047	109	20%
(Concrete lorry mixer	CNP 044	109	20%
L			Total SW	
H		Ma	aximum SW	L, dB (A
5	Stage 3 - PileCaps			
_	Group 1			
	Generator, super silenced, 70 dB(A) at 7 m Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 103 CNP 002	95 102	70% 50%
	excavator/ loader, wheeled/ tracked	CNP 002 CNP 081	112	50%
_	orry	CNP 141	112	50%
L			Total SW	L, dB (A)
Ļ	Proup 2			
	Group 2 Vater pump (electric)	CNP 281	88	70%
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	70%
_	sir compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%
	Concrete lorry mixer	CNP 044	109	20%
	Concrete pump, stationary/ lorry mounted Crane, mobile/ barge mounted (diesel)	CNP 047 CNP 048	109 112	20% 100%
	Poker, vibratory, hand-held	CNP 170	113	20%
		•	Total SW	
F		Ma	aximum SW	L, dB (A
۶	Stage 4 - Piers			
(Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	50%
	sir compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%
	Concrete lorry mixer Concrete pump, stationary/ lorry mounted	CNP 044 CNP 047	109 109	20%
	Crane, mobile/ barge mounted (diesel)	CNP 047	112	50%
	Poker, vibratory, hand-held	CNP 170	113	20%
-			Total SW	L, dB (A
L				
	stane 5 - Bridge Decks			
	Stage 5 - Bridge Decks Crane, mobile/ barge mounted (diesel)	CNP 048	112	50%
(itage 5 - Bridge Decks Crane, mobile/ barge mounted (diesel) orry	CNP 048 CNP 141	112 112	50% 40%
L	Crane, mobile/ barge mounted (diesel) corry sir compressor, air flow > 10m3/min and <= 30m3/min	CNP 141 CNP 002	112 102	40% 40%
L	crane, mobile/ barge mounted (diesel) orry	CNP 141	112 102 110	40% 40% 20%
L	Crane, mobile/ barge mounted (diesel) corry sir compressor, air flow > 10m3/min and <= 30m3/min	CNP 141 CNP 002	112 102	40% 40% 20%
L F	Crane, mobile/ barge mounted (diesel) corry sir compressor, air flow > 10m3/min and <= 30m3/min	CNP 141 CNP 002	112 102 110	40% 40% 20%
E S	crane, mobile/ barge mounted (diesel) orry orry in compressor, air flow > 10m3/min and <= 30m3/min restress Jack* stage 6 - Parapet & Surfacing Group 1 (Parapet)	CNP 141 CNP 002 CNP 261	112 102 110 Total SW	40% 40% 20% L, dB (A
C L A	Crane, mobile/ barge mounted (diesel) orry orry orrompressor, air flow > 10m3/min and <= 30m3/min orrestress Jack* Stage 6 - Parapet & Surfacing Group 1 (Parapet) Orane, mobile/ barge mounted (diesel)	CNP 141 CNP 002 CNP 261	112 102 110 Total SW	40% 40% 20% L, dB (A
C L A F	Crane, mobile/ barge mounted (diesel) orry ir compressor, air flow > 10m3/min and <= 30m3/min Prestress Jack* Stage 6 - Parapet & Surfacing Group 1 (Parapet) Crane, mobile/ barge mounted (diesel) orry	CNP 141 CNP 002 CNP 261 CNP 261	112 102 110 Total SW	40% 40% 20% L, dB (A 30% 50%
C L A	orane, mobile/ barge mounted (diesel) orry sit compressor, air flow > 10m3/min and <= 30m3/min orestress Jack* Stage 6 - Parapet & Surfacing Group 1 (Parapet) Orane, mobile/ barge mounted (diesel) orry sit compressor, air flow > 10m3/min and <= 30m3/min	CNP 141 CNP 002 CNP 261 CNP 048 CNP 141 CNP 002	112 102 110 Total SW	40% 40% 20% L, dB (A 30% 50% 50%
E C L	Crane, mobile/ barge mounted (diesel) orry ir compressor, air flow > 10m3/min and <= 30m3/min Prestress Jack* Stage 6 - Parapet & Surfacing Group 1 (Parapet) Crane, mobile/ barge mounted (diesel) orry	CNP 141 CNP 002 CNP 261 CNP 261	112 102 110 Total SW	40% 40% 20% L, dB (A 30% 50% 50% 50%
C L A	Crane, mobile/ barge mounted (diesel) orry orry orrestress Jack* Stage 6 - Parapet & Surfacing Group 1 (Parapet) Orry orry orry orry orrestressor, air flow > 10m3/min and <= 30m3/min orrestress Jack* Stage 6 - Parapet & Surfacing Group 1 (Parapet) Orrane, mobile/ barge mounted (diesel) orry orry orry orry orry orry orrestressor, air flow > 10m3/min and <= 30m3/min orrestressor, super silenced, 70 dB(A) at 7 m	CNP 141 CNP 002 CNP 261 CNP 048 CNP 141 CNP 002	112 102 110 Total SW 112 112 102 95	40% 40% 20% L, dB (A 30% 50% 50% 50%
	Crane, mobile/ barge mounted (diesel) orry sir compressor, air flow > 10m3/min and <= 30m3/min crestress Jack* Graup 1 (Parapet) Crane, mobile/ barge mounted (diesel) orry sir compressor, air flow > 10m3/min and <= 30m3/min denerator, super silenced, 70 dB(A) at 7 m	CNP 141 CNP 002 CNP 261 CNP 048 CNP 141 CNP 002 CNP 103	112 102 110 Total SW 112 112 102 95 Total SW	40% 40% 20% L, dB (A 30% 50% 50% 50% L, dB (A
	Crane, mobile/ barge mounted (diesel) orry in compressor, air flow > 10m3/min and <= 30m3/min Prestress Jack* Stage 6 - Parapet & Surfacing Group 1 (Parapet) Crane, mobile/ barge mounted (diesel) orry in compressor, air flow > 10m3/min and <= 30m3/min Group 2 (Surfacing) Stroup 3 (Surfacing) Stroup 3 (Surfacing) Stroup 3 (Surfacing) Stroup 3 (Surfacing) Stroup 4 (Surfacing) Stroup 5 (Surfacing) Stroup 5 (Surfacing) Stroup 6 (Surfacing) Stroup 7 (Surfacing) Stroup 8 (Surfacing) Stroup 9	CNP 141 CNP 002 CNP 261 CNP 048 CNP 141 CNP 002 CNP 103	112 102 110 Total SW 112 112 102 95 Total SW	40% 40% 20% L, dB (A 30% 50% 50% 50% L, dB (A
	Crane, mobile/ barge mounted (diesel) orry sir compressor, air flow > 10m3/min and <= 30m3/min crestress Jack* Graup 1 (Parapet) Crane, mobile/ barge mounted (diesel) orry sir compressor, air flow > 10m3/min and <= 30m3/min denerator, super silenced, 70 dB(A) at 7 m	CNP 141 CNP 002 CNP 261 CNP 048 CNP 141 CNP 002 CNP 103	112 102 110 Total SW 112 112 102 95 Total SW	40% 40% 20% L, dB (A 30% 50% 50% 50% L, dB (A
	Crane, mobile/ barge mounted (diesel) orry orry dir compressor, air flow > 10m3/min and <= 30m3/min orestress Jack* Stage 6 - Parapet & Surfacing Group 1 (Parapet) Orane, mobile/ barge mounted (diesel) orry orry orry orry orry orry orry orr	CNP 141 CNP 002 CNP 261 CNP 048 CNP 141 CNP 002 CNP 103	112 102 110 Total SW 112 112 102 95 Total SW	40% 40% 20% L, dB (A 30% 50% 50% 50% L, dB (A 50% 70% 70%

Fanling Highway Connection Flyovers - Link Road 4 (Viaduct)

	PME	TM or other reference	SWL, dB(A)	% on time
ling Hi	ghway Connection Flyovers - Link Road 4	•	•	
Stag	e 1 - Site Clearance & Haul Road			
Grou		01/0.005		000/
Brea	ker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111 Total SW	30% 'L. dB (A)
				_, -, -,
Grou		CND 001	110	400/
	vator/ loader, wheeled/ tracked lozer	CNP 081 CNP 030	112 115	40% 40%
Bane	10201	0 000	Total SW	
Grou	p truck	CNP 067	117	80%
Duili	p truck	CINF 007	Total SW	
		Ma	ximum SW	
Stan	e 2 - Piling			
Grou				
	erator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
Lorry	vator/ loader, wheeled/ tracked	CNP 081 CNP 141	112 112	40% 30%
LOTTY		0141 141	Total SW	
Grou Pilin	up 2 g, large diameter bored, reverse circulation drill	CNP 166	100	40%
	g, large diameter bored, reverse circulation drill g, large diameter bored, oscillator	CNP 165	115	40%
Gene	erator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
Air c	ompressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102 Total SW	100%
-			างเลา SW	∟, aʁ (A
Grou				
	erator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
	ompressor, air flow > 10m3/min and <= 30m3/min e, mobile/ barge mounted (diesel)	CNP 002 CNP 048	102 112	100% 50%
	er, vibratory, hand-held	CNP 170	113	20%
	crete pump, stationary/ lorry mounted	CNP 047	109	20%
Cond	crete lorry mixer	CNP 044	109 Total SW	20%
		Ma	ximum SW	
Cham	a 2 BilaCama			
Grou	e 3 - PileCaps ip 1			
	erator, super silenced, 70 dB(A) at 7 m	CNP 103	95	70%
	ompressor, air flow > 10m3/min and <= 30m3/min avator/ loader, wheeled/ tracked	CNP 002 CNP 081	102 112	50% 50%
Lorry	,	CNP 141	112	50%
			Total SW	L, dB (A)
Grou	ın 2			
Wate	er pump (electric)	CNP 281	88	70%
	erator, super silenced, 70 dB(A) at 7 m ompressor, air flow > 10m3/min and <= 30m3/min	CNP 103 CNP 002	95 102	70% 50%
	crete lorry mixer	CNP 002	102	20%
	crete pump, stationary/ lorry mounted	CNP 047	109	20%
	e, mobile/ barge mounted (diesel)	CNP 048	112	100%
Poke	er, vibratory, hand-held	CNP 170	113 Total SW	20% I dB (A
		Ma	ximum SW	
Stor	e 4 - Piers			
	erator, super silenced, 70 dB(A) at 7 m	CNP 103	95	50%
Air c	ompressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%
	crete lorry mixer crete pump, stationary/ lorry mounted	CNP 044 CNP 047	109 109	20%
	e, mobile/ barge mounted (diesel)	CNP 047 CNP 048	112	50%
	er, vibratory, hand-held	CNP 170	113	20%
-			Total SW	L, dB (A
Stag	e 5 - Bridge Decks			
Cran	e, mobile/ barge mounted (diesel)	CNP 048	112	50%
Lorry		CNP 141	112 102	40%
	ompressor, air flow > 10m3/min and <= 30m3/min tress Jack*	CNP 002 CNP 261	102	40% 20%
			Total SW	
Stor	e 6 - Parapet & Surfacing			
	e 6 - Parapet & Surfacing ip 1 (Parapet)			
Cran	e, mobile/ barge mounted (diesel)	CNP 048	112	30%
Lorry		CNP 141	112	50%
	ompressor, air flow > 10m3/min and <= 30m3/min erator, super silenced, 70 dB(A) at 7 m	CNP 002 CNP 103	102 95	50% 50%
	, p		Total SW	
Cra	un 2 (Surfacina)			
	up 2 (Surfacing) ompressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%
Gene	erator, super silenced, 70 dB(A) at 7 m	CNP 103	95	50%
A a a k	nalt paver	CNP 004	109	70%
		('ND 195	108	70%
	d roller	CNP 185	Total SW	

Fanling Highway Connection Flyovers - Link Road 5 (Viaduct)

	РМЕ	TM or other reference	SWL, dB(A)	% on time
ling Hig	hway Connection Flyovers - Link Road 5			
Stage	1 - Site Clearance & Haul Road			
Group		CND OOF	111	200/
вгеаке	er, hand-held, mass >= 20kg and <= 35kg	CNP 025	111 Total SW	30% L, dB (A)
Group	ator/ loader, wheeled/ tracked	CNP 081	112	40%
Bulldo		CNP 030	115	40% 40%
Ballaci		0.11 000	Total SW	
Group		CNP 067	117	80%
Dump	IIUCK	CINF 067	Total SW	
		Ma	aximum SW	
Chama	O Biling			
Group	2 - Piling 1			
	ator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
	ator/ loader, wheeled/ tracked	CNP 081	112	40%
Lorry		CNP 141	112 Total SW	30%
			TOTAL SVV	L, UB (A
Group				
	large diameter bored, reverse circulation drill	CNP 166	100	40%
	large diameter bored, oscillator ator, super silenced, 70 dB(A) at 7 m	CNP 165 CNP 103	115 95	40% 100%
	npressor, air flow > 10m3/min and <= 30m3/min	CNP 103 CNP 002	102	100%
			Total SW	
0				
Genera	ator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%
	npressor, air flow > 10m3/min and <= 30m3/min	CNP 103	102	100%
Crane,	mobile/ barge mounted (diesel)	CNP 048	112	50%
	vibratory, hand-held	CNP 170	113	20%
	ete pump, stationary/ lorry mounted ete lorry mixer	CNP 047 CNP 044	109 109	20%
Concre	ne lony mixer	UNF 044	Total SW	
		Ma	aximum SW	
Chama	2 BileCome			
Group	3 - PileCaps			
	ator, super silenced, 70 dB(A) at 7 m	CNP 103	95	70%
	npressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%
Lorry	ator/ loader, wheeled/ tracked	CNP 081 CNP 141	112 112	50% 50%
LOTTY		ONI 141	Total SW	
Group	pump (electric)	CNP 281	88	70%
	ator, super silenced, 70 dB(A) at 7 m	CNP 103	95	70%
	npressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%
	ete lorry mixer	CNP 044	109	20%
	ete pump, stationary/ lorry mounted mobile/ barge mounted (diesel)	CNP 047 CNP 048	109 112	20% 100%
	vibratory, hand-held	CNP 170	113	20%
		•	Total SW	
		Ma	aximum SW	L, dB (A
Stage	4 - Piers			
Genera	ator, super silenced, 70 dB(A) at 7 m	CNP 103	95	50%
	npressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%
	ete lorry mixer ete pump, stationary/ lorry mounted	CNP 044 CNP 047	109 109	20% 20%
	mobile/ barge mounted (diesel)	CNP 048	112	50%
	vibratory, hand-held	CNP 170	113	20%
-			Total SW	L, dB (A)
Stage	5 - Bridge Decks			
	mobile/ barge mounted (diesel)	CNP 048	112	50%
Lorry		CNP 141	112	40%
	npressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	40%
riestre	ess Jack*	CNP 261	110 Total SW	20% L, dB (A)
				., (/(
	6 - Parapet & Surfacing			
	1 (Parapet)	CND 040	110	200/
Lorry	mobile/ barge mounted (diesel)	CNP 048 CNP 141	112 112	30% 50%
	npressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%
	ator, super silenced, 70 dB(A) at 7 m	CNP 103	95	50%
			Total SW	L, dB (A
Group	2 (Surfacing)			
	npressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%
	ator, super silenced, 70 dB(A) at 7 m	CNP 103	95	50%
Genera		OND OOA	109	70%
Genera Aspha	It paver	CNP 004		
Genera		CNP 185	108 Total SW	70%

Stage 1 - Site Clearance Group 1		TM or other refere	ence SWL, dB(A)	% on time	Total r
Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min CNP 002 102 100%		•	•		
Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min CNP 002 102 100%					
Air compressor, air flow > 10m3/min and <= 30m3/min CNP 002 102 100%					
Dump truck	<= 30m3/min	CNP 002	102	100%	3
Exavator/ loader, wheeled/ tracked Gnerator, super silenced, 70 dB(A) at 7 m CNP 103 95 60% Total SWL, dB (A) Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min CNP 002 102 100% Crane, mobile/ barge mounted (diesel) CNP 048 111 40% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 60% CNP 103 95 60% CNP 104 105 105 70% CNP 104 105 105 105 105 105 105 105 105 105 105	= 35kg	CNP 025	111	70%	3
Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 60%					4
Total SWL, dB (A)					8
Air compressor, air flow > 10m3/min and <= 30m3/min	n	CNP 103			1 125
Air compressor, air flow > 10m3/min and <= 30m3/min					
Crane, mobile/ barge mounted (diesel)	<= 30m3/min	CNP 002	102	100%	3
Cupy with crane/grab Cup 145 105 70%		CNP 048	112	40%	1
Stage 2 - Site Formation Group 1 Total SWL, dB (A)	n	CNP 103	95	60%	1
Stage 2 - Site Formation		CNP 145	105	70%	2
Stage 2 - Site Formation Group 1		CNP 283			4
Stage 2 - Site Formation Group 1					112 125
Caroup 1 Air compressor, air flow > 10m3/min and <= 30m3/min CNP 002 102 60%			Widalinain OV	* L, ab (* t)	120
Air compressor, air flow > 10m3/min and <= 30m3/min CNP 002 102 60%					
Exavator/ loader, wheeled/ tracked	<= 30m3/min	CNP 002	102	60%	3
Cenerator, super silenced, 70 dB(A) at 7 m					5
Group 2	n	CNP 103	95	50%	1
Air compressor, air flow > 10m3/min and <= 30m3/min CNP 002 102 70%	-		105		4
Air compressor, air flow > 10m3/min and <= 30m3/min CNP 002 102 70%			Total SV	VL, dB (A)	117
Bulldozer					
Dump truck CNP 067 117 80%	<= 30m3/min			70%	3
Generator, super silenced, 70 dB(A) at 7 m					1
Mater pump, submersible (electric)					5
Total SWL, dB (A)	n				1 4
Air compressor, air flow > 10m3/min and <= 30m3/min		CINP 283			124
Air compressor, air flow > 10m3/min and <= 30m3/min					
Crane, mobile/ barge mounted (diesel) CNP 048 112 100% Compactor, vibratory CNP 050 105 50% Roller, vibratory CNP 186 108 70% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 60% Poker, vibratory, hand-held CNP 170 113 50% Total SWL, dB (A) Maximum SWL, dB (A) Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min	<= 30m3/min	CNP 002	102	70%	3
Compactor, vibratory		CNP 044	109	40%	2
Roller, vibratory		CNP 048	112	100%	1
Generator, super silenced, 70 dB(A) at 7 m					3
Poker, vibratory, hand-held					3
Total SWL, dB (A) Maximum SWL, dB (A)	n				1
Stage 3 - Slope Stabilisation Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min CNP 002 102 100% Breaker, hand-held, mass >= 20kg and <= 35kg		CNP 1/0			5
Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min CNP 002 102 100% Breaker, hand-held, mass >= 20kg and <= 35kg					120 124
Group 1 Air compressor, air flow > 10m3/min and <= 30m3/min CNP 002 102 100% Breaker, hand-held, mass >= 20kg and <= 35kg					
Breaker, hand-held, mass >= 20kg and <= 35kg CNP 025 111 20% Breaker, excavator mounted (hydraulic) CNP 028 122 80% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 50% Lorry with crane/grab CNP 145 105 40% Total SWL, dB (A) Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min				1	
Breaker, excavator mounted (hydraulic) CNP 028 122 80% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 50% Lorry with crane/grab CNP 145 105 40% Total SWL, dB (A) Group 2 Air compressor, air flow > 10m3/min and <= 30m3/min					2
Compage	= 35Kg				2
CNP 145	n				1
Total SWL, dB (A)	II				2
Air compressor, air flow > 10m3/min and <= 30m3/min CNP 002 102 100% Drill rig, rotary type (diesel) CNP 072 110 70% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 50% Water pump, submersible (electric) CNP 283 85 100% Total SWL, dB (A) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min		UNF 145			
Air compressor, air flow > 10m3/min and <= 30m3/min CNP 002 102 100% Drill rig, rotary type (diesel) CNP 072 110 70% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 50% Water pump, submersible (electric) CNP 283 85 100% Total SWL, dB (A) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min					
Drill rig, rotary type (diesel) CNP 072 110 70% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 50% Water pump, submersible (electric) CNP 283 85 100% Total SWL, dB (A) Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min	<= 30m3/min	CNP 002	102	100%	2
Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 50%	. 555/11111				2
Group 3 Air compressor, air flow > 10m3/min and <= 30m3/min CNP 002 102 100% Crane, mobile/ barge mounted (diesel) CNP 002 102 100% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 50% Grout mixer CNP 105 90 40% Grout pump CNP 106 105 40% Poker, vibratory, hand-held CNP 170 113 50%	n				1
Total SWL, dB (A)					1
Air compressor, air flow > 10m3/min and <= 30m3/min CNP 002 102 100% Crane, mobile/ barge mounted (diesel) CNP 048 112 70% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 50% Grout mixer CNP 105 90 40% Grout pump CNP 106 105 40% Poker, vibratory, hand-held CNP 170 113 50%					112
Air compressor, air flow > 10m3/min and <= 30m3/min CNP 002 102 100% Crane, mobile/ barge mounted (diesel) CNP 048 112 70% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 50% Grout mixer CNP 105 90 40% Grout pump CNP 106 105 40% Poker, vibratory, hand-held CNP 170 113 50%					
Crane, mobile/ barge mounted (diesel) CNP 048 112 70% Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 50% Grout mixer CNP 105 90 40% Grout pump CNP 106 105 40% Poker, vibratory, hand-held CNP 170 113 50%	<= 30m3/min	CNP 002	102	100%	2
Generator, super silenced, 70 dB(A) at 7 m CNP 103 95 50% Grout mixer CNP 105 90 40% Grout pump CNP 106 105 40% Poker, vibratory, hand-held CNP 170 113 50%					1
Grout pump CNP 106 105 40% Poker, vibratory, hand-held CNP 170 113 50%	n			50%	1
Poker, vibratory, hand-held CNP 170 113 50%					1
					1
Total SWI dR (A)		CNP 170			2
Maximum SWL, dB (A)					116 121

1	PME	TM or other reference	SWL, dB(A)	% on time	Total n
Far	nling Road Section	L	L		
	Stage 4 - Bored Pile Wall				
	Group 1				
	Drill rig, rotary type (diesel)	CNP 072	110	40%	2
	Water pump (electric)	CNP 281	88	100%	3
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	80%	1
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%	1
			Total SW	/L, dB (A)	110
	Group 2				
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	80%	1
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	100%	1
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	100%	1
	Piling, large diameter bored, grab and chisel	CNP 164	115	70%	2
	r innig, large diameter bored, grab and criser	CNI 104		/L, dB (A)	118
	0				
	Group 3	OND OOD	400	000/	
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002 CNP 103	102 95	80%	1
	Generator, super silenced, 70 dB(A) at 7 m			100%	
	Concrete lorry mixer	CNP 044 CNP 047	109	50% 50%	1
	Concrete pump, stationary/ lorry mounted	CNP 047	109		
		Ma:	rotal SV ximum SV	/L, dB (A) /L, dB (A)	110
				, - ()	
	Stage 5 - Road Works				
	Group 1				
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	30%	2
	Lorry	CNP 141	112	50%	2
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%	2
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95 Total SM	50% /L, dB (A)	114
			Total OV	re, ab (A)	117
	Group 2	T			
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	50%	2
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	50%	2
	Asphalt paver	CNP 004	109	70%	1
	Road roller	CNP 185	108	70%	3
				/L, dB (A)	113
		Ma	ximum SV	/L, dB (A)	114