

Item	PME	TM or other reference	SWL, dB(A)	No. of PME	% on time	Total SWL, dB(A)		
1	Zone 1							
	Activity 1 - D Walling							
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	2	30%	110		
	Air compressor, air flow > 30m3/min	CNP 003	104	2	100%	107		
	Piling, diaphragm wall, hydraulic extractor	CNP 163	90	1	60%	88		
	Excavator/ loader, wheeled/ tracked	CNP 081	112	1	60%	110		
	Grout Mixer	[1]	90	1	60%	88		
	Water pump, submersible (electric)	CNP 283	85	2	60%	86		
	Dump truck	CNP 067	117	1	30%	112		
	Concrete lorry mixer	CNP 044	109	1	30%	104		
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95		
	Total SWL, dB (A)					116		
	Activity 2 - Bored Piling							
	Group 1							
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	30%	107		
	Excavator/ loader, wheeled/ tracked	CNP 081	112	2	30%	110		
	Piling Rig	[2]	112	1	60%	110		
	Drill Rig	[1]	110	1	60%	108		
	Piling, large diameter bored, grab and chisel	CNP 164	115	1	60%	113		
	Piling, large diameter bored, reverse circulation drill	CNP 166	100	1	60%	98		
	Piling, large diameter bored, oscillator	CNP 165	115	1	60%	113		
	Air compressor, air flow > 30m3/min	CNP 003	104	1	100%	104		
	Grout Mixer	[1]	90	1	60%	88		
	Grout Pump	[1]	105	1	60%	103		
	Bar bender and cutter (electric)	CNP 021	90	1	60%	88		
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95		
	Dump truck	CNP 067	117	1	30%	112		
	Concrete lorry mixer	CNP 044	109	1	30%	104		
	Welding Set	[2]	78	2	60%	79		
	Total SWL, dB (A)					120		
	Group 2							
	Excavator/ loader, wheeled/ tracked	CNP 081	112	2	30%	105		
	Piling Rig	[2]	112	1	60%	100		
	Drill Rig	[1]	110	1	60%	98		
	Piling, large diameter bored, grab and chisel	CNP 164	115	1	60%	103		
	Piling, large diameter bored, reverse circulation drill	CNP 166	100	1	60%	88		
	Piling, large diameter bored, oscillator	CNP 165	115	1	60%	103		
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	30%	102		
	Grout Mixer	[1]	90	1	60%	78		
	Grout Pump	[1]	105	1	60%	93		
	Bar bender and cutter (electric)	CNP 021	90	1	60%	78		
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	85		
	Total SWL, dB (A)					110		
	Maximum SWL, dB (A) of Activity 2					120		
2	Zone 2							
	Activity 1 - D Walling							
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	2	60%	113		
	Air compressor, air flow > 30m3/min	CNP 003	104	2	100%	107		
	Piling, diaphragm wall, hydraulic extractor	CNP 163	90	1	60%	88		
	Excavator/ loader, wheeled/ tracked	CNP 081	112	2	60%	113		
	Grout Mixer	[1]	90	1	60%	88		
	Water pump, submersible (electric)	CNP 283	85	1	60%	83		
	Dump truck	CNP 067	117	1	30%	112		
	Concrete lorry mixer	CNP 044	109	1	60%	107		
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95		
	Total SWL, dB (A)					118		
	Activity 2 - Bored Piling							
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	2	60%	113		
	Excavator/ loader, wheeled/ tracked	CNP 081	112	2	30%	110		
	Piling Rig	[2]	112	2	60%	113		
	Drill Rig	[1]	110	2	60%	111		
	Excavator/ loader, wheeled/ tracked	CNP 081	112	2	60%	113		
	Piling, large diameter bored, grab and chisel	CNP 164	115	2	60%	116		
	Piling, large diameter bored, reverse circulation drill	CNP 166	100	2	60%	101		
	Piling, large diameter bored, oscillator	CNP 165	115	2	60%	116		
	Air compressor, air flow > 30m3/min	CNP 003	104	2	100%	107		
	Grout Mixer	[1]	90	2	60%	91		
	Grout Pump	[1]	105	2	60%	106		
	Bar bender and cutter (electric)	CNP 021	90	2	60%	91		
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	100%	98		
	Dump truck	CNP 067	117	1	30%	112		
	Concrete lorry mixer	CNP 044	109	1	60%	107		
	Welding Set	[2]	78	2	60%	79		
	Total SWL, dB (A)					123		
	3	Zone 3						
		Activity 1 - D Walling						
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	4	60%	116	
		Air compressor, air flow > 30m3/min	CNP 003	104	4	100%	110	
		Piling, diaphragm wall, hydraulic extractor	CNP 163	90	2	60%	91	
		Excavator/ loader, wheeled/ tracked	CNP 081	112	4	60%	116	
		Grout Mixer	[1]	90	2	60%	91	
		Water pump, submersible (electric)	CNP 283	85	3	60%	88	
		Dump truck	CNP 067	117	2	30%	115	
		Concrete lorry mixer	CNP 044	109	2	60%	110	
		Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	100%	98	
		Total SWL, dB (A)					121	
		4	Park Construction - Zone A					
			Activity 1 - Park Construction [3]					
Dump truck			CNP 067	117	2	60%	118	
Crane, mobile/ barge mounted (diesel)			CNP 048	112	2	60%	113	
Excavator/ loader, wheeled/ tracked	CNP 081		112	2	60%	113		
Generator, super silenced, 70 dB(A) at 7 m	CNP 103		95	2	100%	98		
Lorry	CNP 141	112	2	60%	113			
Total SWL, dB (A)					121			

Item	PME	TM or other reference	SWL, dB(A)	No. of PME	% on time	Total SWL, dB(A)	
	Activity 2 - Superstructure [3]						
	Crane, tower (electric)	CNP 049	95	1	50%	92	
	Crane, mobile	CNP 048	112	2	50%	112	
	Crane Lorry 5.5 tonne < gross vehicle weight =< 38 tonne	[1]	105	2	50%	105	
	Concrete pump, stationary/ lorry mounted	CNP 047	109	2	50%	109	
	Poker, vibratory, hand-held (electric)	[1]	102	5	50%	106	
	Bar bender and cutter (electric)	CNP 021	90	2	50%	90	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	3	100%	100	
	Air compressor, air flow > 30m3/min	CNP 003	104	1	100%	104	
	Concrete lorry mixer	CNP 044	109	2	50%	109	
	Drill/grinder, hand-held (electric)	CNP 065	98	5	30%	100	
	Water pump (electric)	CNP 281	88	3	30%	88	
	Excavator, wheeled/tracked	CNP 081	112	3	30%	112	
	Fork Lift Truck	[2]	104	3	30%	104	
	Hoist, passenger/ material (electric)	CNP 122	95	3	30%	95	
						Total SWL, dB (A)	118
						Maximum SWL, dB (A)	121
5	ICC Footbridge						
	Group 1						
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	1	100%	102	
	Breaker, hand-held, mass > 35kg	CNP 026	114	2	30%	112	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	100%	112	
	Crane Lorry 5.5 tonne < gross vehicle weight =< 38 tonne	[1]	105	1	70%	103	
	Bar bender and cutter (electric)	CNP 021	90	1	80%	89	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95	
						Total SWL, dB (A)	115
	Group 2						
	Breaker, hand-held, mass > 35kg	CNP 026	114	2	30%	112	
	Breaker, hand-held, mass > 10kg and < 20kg	CNP 024	108	1	30%	103	
	Concrete lorry mixer	CNP 044	109	1	50%	106	
	Poker, vibratory, hand-held (electric)	[1]	102	2	50%	102	
	Grout pump	[1]	105	1	20%	98	
	Saw, circular, wood	CNP 201	108	1	80%	107	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95	
					Total SWL, dB (A)	115	
					Maximum SWL, dB (A)	115	
6	East Concrete Batching Plant (Operation)						
	Group 1						
	Excavator/ loader, wheeled/ tracked	CNP 081	112	1	60%	110	
	Concrete mixer (electric)	CNP 045	96	1	60%	94	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	60%	96	
	Concrete mixer (petrol)	CNP 046	96	3	60%	99	
	Concrete lorry mixer	CNP 044	109	2	60%	110	
	Batching plant	CNP 022	108	1	60%	106	
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	60%	103	
	Tipper Lorry	BS 5228 Table D.3/112	113	1	30%	108	
						Total SWL, dB (A)	115
	Group 2						
	Excavator/ loader, wheeled/ tracked	CNP 081	112	1	60%	110	
	Concrete mixer (electric)	CNP 045	96	1	60%	94	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	60%	96	
	Concrete mixer (petrol)	CNP 046	96	3	60%	99	
	Concrete lorry mixer	CNP 044	109	2	60%	110	
Batching plant	CNP 022	108	1	60%	106		
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	60%	103		
Tipper Lorry	BS 5228 Table D.3/112	113	1	30%	108		
					Total SWL, dB (A)	115	
					Maximum SWL, dB (A)	115	
7	Barging Points						
	Derrick barge	CNP 061	104	1	60%	102	
	Tug boat	CNP 221	110	1	60%	108	
	Dump truck	CNP 067	117	6	30%	120	
	Excavator/ loader, wheeled/ tracked	CNP 081	112	1	60%	110	
	Conveyor belt	CNP 041	90	1	60%	88	
					Total SWL, dB (A)	120	
8/9	Pier Construction (Optional)						
	Group 1						
	Piling, large diameter bored, reverse circulation drill	CNP 166	100	1	100%	100	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110	
	Tug boat	CNP 221	110	1	60%	108	
						Total SWL, dB (A)	112
	Group 2						
	Concrete pump, stationary/ lorry mounted	CNP 047	109	2	100%	112	
	Concrete lorry mixer	CNP 044	109	4	60%	113	
	Water pump (electric)	CNP 281	88	4	100%	94	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	100%	98	
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	100%	105	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110	
	Tug boat	CNP 221	110	1	60%	108	
						Total SWL, dB (A)	117
	Group 3						
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110	
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	100%	105		
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	100%	98		
Concrete pump, stationary/ lorry mounted	CNP 047	109	2	100%	112		
Concrete lorry mixer	CNP 044	109	2	60%	110		
Poker, vibratory, hand-held (electric)	[1]	102	4	80%	107		
Tug boat	CNP 221	110	1	60%	108		
					Total SWL, dB (A)	117	
					Maximum SWL, dB (A)	117	
10	Viewing Platform (Optional)						
	Group 1						
	Piling, large diameter bored, reverse circulation drill	CNP 166	100	1	100%	100	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	80%	111	
	Tug boat	CNP 221	110	1	60%	108	
						Total SWL, dB (A)	113
	Group 2						
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	2	100%	115	
						Total SWL, dB (A)	115
						Maximum SWL, dB (A)	115

Note: [1] Details extracted from EPD website: http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[2] SWL of Welding Plant and Piling Rig are referred to the Appendix 5.1 of approved EIA Report of Hong Kong Section of Guangzhou - Shenzhen - Hong Kong Express Rail Link (AEIAR-143/2009)

[3] Activities Park Construction and Superstructure in Zone A are at same period but will not be carried out simultaneously.

Unmitigated Construction Noise Impact

NSR: HT1 (The Harbourside Tower 1)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2013			2014							
						10	11	12	1	2	3					
1) Zone 1																
Activity 1 - D Walling	116	476	-62	3	58		58	58	58	58						
Activity 2 - Bored Piling	120	476	-62	3	61					61	61	61				
2) Zone 2																
Activity 1 - D Walling																
Zone 2.1	118	79	-46	3	75					75	75	75				
Zone 2.2	118	79	-46	3	75					75	75	75				
Zone 2.3	118	203	-54	3	67					67	67	67				
Zone 2.4	118	277	-57	3	64					64	64	64				
Activity 2 - Bored Piling																
Zone 2.1	123	79	-46	3	80							80				
Zone 2.2	123	79	-46	3	80							80				
Zone 2.3	123	203	-54	3	72							72				
Zone 2.4	123	277	-57	3	69							69				
3) Zone 3																
Activity 1 - D Walling	121	272	-57	3	67							67				
4) Park Construction - Zone A																
	121	576	-63	3	61		61	61	61	61	61	61				
5) ICC Footbridge																
	115	211	-54	3	64		64	64	64	64	64	64				
6) East Concrete Batching Plant (Operation)																
	115	461	-61	3	57					57	57	57				
7) Barging Point (BP)																
BP4	120	307	-58	3	66		66	66	66	66	66	66				
BP5	120	327	-58	3	65		65	65	65	65	65	65				
BP6	120	506	-62	3	61		61	61	61	61	61	61				
BP7	120	616	-64	3	60		60	60	60	60	60	60				
8) West Pier (Optional)																
	117	846	-67	3	54		54	54	54	54	54	54				
9) South Pier (Optional)																
	117	347	-59	3	62		62	62	62	62	62	62				
10) Viewing Platform (Optional)																
	115	342	-59	3	59		59	59	59	59	59	59				
Predicted Noise Level of this Project, dB (A)							72	72	72	80	79	85				
Predicted Noise Level of Express Rail Link, dB(A)¹							70	66	62	70	65	62				
Predicted Noise Level of Road Works at West Kowloon, dB(A)²							70	70	70	70	70	70				
Overall Cumulative Noise Level, dB(A)																
													2013	2014		
													Min	Max	Min	Max
													74	76	80	85

Note: **Bold** figure in shaded box denotes exceedance of relevant construction noise criteria

- 1) Predicted Noise Levels are referred to NSR WK9 in Appendix 5.8 of approved EIA of Express Rail Link (AEIAR-143/2009). Delaying of 6 months of WKT construction programme in VEP have been included in predicted noise level.
- 2) Predicted Noise Levels are referred to NSR Arch4 in Appendix 3.13 of approved EIA of Road Works at West Kowloon (AEIAR-141/2009) for conservative approach.
- 3) Since the NSR is located out of the 300m assessment area of the construction works of "Proposed Road Improvement Works in West Kowloon Reclamation" project, the cumulative noise impact is predicted to be low and has insignificant contribution to the NSR, therefore, cumulative noise impact is not taken into account at this NSR.
- 4) Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.
- 5) Phase 1 Concrete Batching Plant in Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility will be handed over to WKCD starting from the year of 2014. Since the operation of concreting batching plants before 2014 and the operation and demolition of phase 2 concreting batching plant have already been included in the noise impact assessment of the XRL project, separate noise impact assessment will only be calculated after handing over the phase 1 concrete batching plant to WKCD starting from the year of 2014.

Unmitigated Construction Noise Impact

NSR: AST (The Arch - Sun Tower)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2013			2014					
						10	11	12	1	2	3			
1) Zone 1														
Activity 1 - D Walling	116	392	-60	3	59		59	59	59	59				
Activity 2 - Bored Piling	120	392	-60	3	63					63	63			
2) Zone 2														
Activity 1 - D Walling														
Zone 2.1	118	130	-50	3	71					71	71			
Zone 2.2	118	72	-45	3	76					76	76			
Zone 2.3	118	169	-53	3	68					68	68			
Zone 2.4	118	302	-58	3	63					63	63			
Activity 2 - Bored Piling														
Zone 2.1	123	130	-50	3	75						75			
Zone 2.2	123	72	-45	3	81						81			
Zone 2.3	123	169	-53	3	73						73			
Zone 2.4	123	302	-58	3	68						68			
3) Zone 3														
Activity 1 - D Walling	121	362	-59	3	65						65			
4) Park Construction - Zone A														
	121	651	-64	3	59		59	59	59	59	59			
5) ICC Footbridge														
	115	299	-58	3	61		61	61	61	61	61			
6) East Concrete Batching Plant (Operation)														
	115	377	-60	3	59					59	59			
7) Barging Point (BP)														
BP4	120	357	-59	3	64		64	64	64	64	64			
BP5	120	387	-60	3	64		64	64	64	64	64			
BP6	120	576	-63	3	60		60	60	60	60	60			
BP7	120	691	-65	3	59		59	59	59	59	59			
8) West Pier (Optional)														
	117	936	-67	3	53		53	53	53	53	53			
9) South Pier (Optional)														
	117	397	-60	3	60		60	60	60	60	60			
10) Viewing Platform (Optional)														
	115	297	-57	3	61		61	61	61	61	61			
Predicted Noise Level of this Project, dB (A)							71	71	71	79	79	84		
Predicted Noise Level of Express Rail Link, dB(A)¹							74	73	69	74	71	69		
Predicted Noise Level of Road Works at West Kowloon, dB(A)²							69	69	69	69	69	69		
Overall Cumulative Noise Level, dB(A)							77	76	74	80	80	84	74	77
													2013	2014
													Min	Max
													Min	Max
													80	84

Note: **Bold** figure in shaded box denotes exceedance of relevant construction noise criteria

- 1) Predicted Noise Levels are referred to NSR WK14 in Appendix 5.8 of approved EIA of Express Rail Link (AEIAR-143/2009). Delaying of 6 months of WKT construction programme in VEP have been included in predicted noise level.
- 2) Predicted Noise Levels are referred to NSR Arch2b in Appendix 3.13 of approved EIA of Road Works at West Kowloon (AEIAR-141/2009) for conservative approach.
- 3) Since the NSR is located out of the 300m assessment area of the construction works of "Proposed Road Improvement Works in West Kowloon Reclamation" project, the cumulative noise impact is predicted to be low and has insignificant contribution to the NSR, therefore, cumulative noise impact is not taken into account at this NSR.
- 4) Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.
- 5) Phase 1 Concrete Batching Plant in Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility will be handed over to WKCD starting from the year of 2014. Since the operation of concreting batching plants before 2014 and the operation and demolition of phase 2 concreting batching plant have already been included in the noise impact assessment of the XRL project, separate noise impact assessment will only be calculated after handing over the phase 1 concrete batching plant to WKCD starting from the year of 2014.

Unmitigated Construction Noise Impact

NSR: WOB (Wai On Building)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2013			2014							
						10	11	12	1	2	3					
1) Zone 1																
Activity 1 - D Walling	116	95	-48	3	72		72	72	72							
Activity 2 - Bored Piling	120	95	-48	3	75					75	75					
2) Zone 2																
Activity 1 - D Walling																
Zone 2.1	118	640	-64	3	57					57	57					
Zone 2.2	118	465	-61	3	60					60	60					
Zone 2.3	118	740	-65	3	56					56	56					
Zone 2.4	118	500	-62	3	59					59	59					
Activity 2 - Bored Piling																
Zone 2.1	123	640	-64	3	62						62					
Zone 2.2	123	465	-61	3	64						64					
Zone 2.3	123	740	-65	3	60						60					
Zone 2.4	123	500	-62	3	64						64					
3) Zone 3																
Activity 1 - D Walling	121	905	-67	3	57						57					
4) Park Construction - Zone A																
	121	1107	-69	3	55		55	55	55	55	55					
5) ICC Footbridge																
	115	840	-66	3	52		52	52	52	52	52					
6) East Concrete Batching Plant (Operation)																
	115	215	-55	3	63					63	63					
7) Barging Point (BP)																
BP4	120	805	-66	3	57		57	57	57	57	57					
BP5	120	850	-67	3	57		57	57	57	57	57					
BP6	120	1060	-69	3	55		55	55	55	55	55					
BP7	120	1160	-69	3	54		54	54	54	54	54					
8) West Pier (Optional)																
	117	1475	-71	3	49		49	49	49	49	49					
9) South Pier (Optional)																
	117	845	-67	3	54		54	54	54	54	54					
10) Viewing Platform (Optional)																
	115	508	-62	3	56		56	56	56	56	56					
Predicted Noise Level of this Project, dB (A)							72	72	72	78	76	77				
Predicted Noise Level of Express Rail Link, dB(A)¹							66	63	60	66	58	56				
Predicted Noise Level of Road Works at West Kowloon, dB(A)²							64	64	64	64	64		2013	2014		
Predicted Noise Level of Road Improvement Works in West Kowloon Reclamation, dB(A)³										46	63	Min	Max	Min	Max	
Overall Cumulative Noise Level, dB(A)							74	73	73	78	77	77	73	74	77	78

Note: **Bold** figure in shaded box denotes exceedance of relevant construction noise criteria

- 1) Predicted Noise Levels are referred to NSR WK5 in Appendix G of Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility.
- 2) Predicted Noise Levels are referred to NSR WN in Appendix 3.13 of approved EIA of Road Works at West Kowloon (AEIAR-141/2009).
- 3) Predicted Noise Levels are referred to NSR WOB in Appendix 2.4 of Preliminary Environmental Review Report - Scheme Q of Proposed Road Improvement Works in West Kowloon Reclamation for conservative approach. Delaying of 6 months of construction programme based on latest information have been included in predicted noise level.
- 4) Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.
- 5) Phase 1 Concrete Batching Plant in Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility will be handed over to WKCD starting from the year of 2014. Since the operation of concreting batching plants before 2014 and the operation and demolition of phase 2 concreting batching plant have already been included in the noise impact assessment of the XRL project, separate noise impact assessment will only be calculated after handing over the phase 1 concrete batching plant to WKCD starting from the year of 2014.

Unmitigated Construction Noise Impact

NSR: VT1 (The Victoria Towers - Tower 1)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2013			2014		
						10	11	12	1	2	3
1) Zone 1											
Activity 1 - D Walling	116	70	-45	3	74		74	74	74	74	
Activity 2 - Bored Piling	120	70	-45	3	78					78	78
2) Zone 2											
Activity 1 - D Walling											
Zone 2.1	118	626	-64	3	57					57	57
Zone 2.2	118	462	-61	3	60					60	60
Zone 2.3	118	462	-61	3	60					60	60
Zone 2.4	118	691	-65	3	56					56	56
Activity 2 - Bored Piling											
Zone 2.1	123	626	-64	3	62						62
Zone 2.2	123	462	-61	3	64						64
Zone 2.3	123	462	-61	3	64						64
Zone 2.4	123	691	-65	3	61						61
3) Zone 3											
Activity 1 - D Walling	121	886	-67	3	57						57
4) Park Construction - Zone A											
	121	1042	-68	3	55		55	55	55	55	55
5) ICC Footbridge											
	115	827	-66	3	52		52	52	52	52	52
6) East Concrete Batching Plant (Operation)											
	115	158	-52	3	66					66	66
7) Barging Point (BP)											
BP4	120	751	-66	3	58		58	58	58	58	58
BP5	120	799	-66	3	57		57	57	57	57	57
BP6	120	1001	-68	3	55		55	55	55	55	55
BP7	120	1093	-69	3	55		55	55	55	55	55
8) West Pier (Optional)											
	117	1451	-71	3	49		49	49	49	49	49
9) South Pier (Optional)											
	117	786	-66	3	54		54	54	54	54	54
10) Viewing Platform (Optional)											
	115	422	-61	3	58		58	58	58	58	58
Predicted Noise Level of this Project, dB (A)							75	75	75	80	79
Predicted Noise Level of Express Rail Link, dB(A)¹							68	65	64	67	61
Predicted Noise Level of Road Works at West Kowloon, dB(A)²							60	60	60	60	60
Predicted Noise Level of Road Improvement Works in West Kowloon Reclamation, dB(A)³										42	59
Overall Cumulative Noise Level, dB(A)							76	75	75	80	79
										75	76
										79	80
										2013	2014
										Min	Max
										Min	Max

Note: **Bold** figure in shaded box denotes exceedance of relevant construction noise criteria

- 1) Predicted Noise Levels are referred to NSR WK6 in Appendix G of Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility.
- 2) Predicted Noise Levels are referred to NSR VT2 in Appendix 3.13 of approved EIA of Road Works at West Kowloon (AEIAR-141/2009) for conservative approach.
- 3) Predicted Noise Levels are referred to NSR VT1 in Appendix 2.4 of Preliminary Environmental Review Report - Scheme Q of Proposed Road Improvement Works in West Kowloon Reclamation for conservative approach. Delaying of 6 months of construction programme based on latest information have been included in predicted noise level.
- 4) Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.
- 5) Phase 1 Concrete Batching Plant in Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility will be handed over to WKCDA starting from the year of 2014. Since the operation of concreting batching plants before 2014 and the operation and demolition of phase 2 concreting batching plant have already been included in the noise impact assessment of the XRL project, separate noise impact assessment will only be calculated after handing over the phase 1 concrete batching plant to WKCDA starting from the year of 2014.

Unmitigated Construction Noise Impact

NSR: VT2 (The Victoria Towers - Tower 2)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2013			2014							
						10	11	12	1	2	3					
1) Zone 1																
Activity 1 - D Walling	116	74	-45	3	74		74	74	74	74						
Activity 2 - Bored Piling	120	74	-45	3	78					78	78					
2) Zone 2																
Activity 1 - D Walling																
Zone 2.1	118	641	-64	3	57					57	57					
Zone 2.2	118	482	-62	3	59					59	59					
Zone 2.3	118	487	-62	3	59					59	59					
Zone 2.4	118	716	-65	3	56					56	56					
Activity 2 - Bored Piling																
Zone 2.1	123	641	-64	3	62						62					
Zone 2.2	123	482	-62	3	64						64					
Zone 2.3	123	487	-62	3	64						64					
Zone 2.4	123	716	-65	3	61						61					
3) Zone 3																
Activity 1 - D Walling	121	901	-67	3	57						57					
4) Park Construction - Zone A																
	121	1068	-69	3	55		55	55	55	55	55					
5) ICC Footbridge																
	115	846	-67	3	52		52	52	52	52	52					
6) East Concrete Batching Plant (Operation)																
	115	183	-53	3	65					65	65					
7) Barging Point (BP)																
BP4	120	781	-66	3	57		57	57	57	57	57					
BP5	120	831	-66	3	57		57	57	57	57	57					
BP6	120	1036	-68	3	55		55	55	55	55	55					
BP7	120	1131	-69	3	54		54	54	54	54	54					
8) West Pier (Optional)																
	117	1471	-71	3	49		49	49	49	49	49					
9) South Pier (Optional)																
	117	816	-66	3	54		54	54	54	54	54					
10) Viewing Platform (Optional)																
	115	462	-61	3	57		57	57	57	57	57					
Predicted Noise Level of this Project, dB (A)							74	74	74	80	78	79	74	74	78	80
Predicted Noise Level of Express Rail Link, dB(A)¹							68	65	64	67	61	59				
Predicted Noise Level of Road Works at West Kowloon, dB(A)²							60	60	60	60	60	60			2013	2014
Predicted Noise Level of Road Improvement Works in West Kowloon Reclamation, dB(A)³													43	58	Min	Max
Overall Cumulative Noise Level, dB(A)							75	75	75	80	78	79	75	75	78	80

Note: **Bold** figure in shaded box denotes exceedance of relevant construction noise criteria

- 1) Predicted Noise Levels are referred to NSR WK6 in Appendix G of Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility.
- 2) Predicted Noise Levels are referred to NSR VT2 in Appendix 3.13 of approved EIA of Road Works at West Kowloon (AEIAR-141/2009) for conservative approach.
- 3) Predicted Noise Levels are referred to NSR VT2 in Appendix 2.4 of Preliminary Environmental Review Report - Scheme Q of Proposed Road Improvement Works in West Kowloon Reclamation for conservative approach. Delaying of 6 months of construction programme based on latest information have been included in predicted noise level.
- 4) Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.
- 5) Phase 1 Concrete Batching Plant in Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility will be handed over to WKCDA starting from the year of 2014. Since the operation of concreting batching plants before 2014 and the operation and demolition of phase 2 concreting batching plant have already been included in the noise impact assessment of the XRL project, separate noise impact assessment will only be calculated after handing over the phase 1 concrete batching plant to WKCDA starting from the year of 2014.

Unmitigated Construction Noise Impact

NSR: LCS (Lai Chack Middle School)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2013			2014							
						10	11	12	1	2	3					
1) Zone 1																
Activity 1 - D Walling	116	75	-46	3	74		74	74	74							
Activity 2 - Bored Piling	120	75	-46	3	77				77	77	77					
2) Zone 2																
Activity 1 - D Walling																
Zone 2.1	118	640	-64	3	57					57	57	57				
Zone 2.2	118	475	-62	3	59					59	59	59				
Zone 2.3	118	465	-61	3	60					60	60	60				
Zone 2.4	118	685	-65	3	56					56	56	56				
Activity 2 - Bored Piling																
Zone 2.1	123	640	-64	3	62							62				
Zone 2.2	123	475	-62	3	64							64				
Zone 2.3	123	465	-61	3	64							64				
Zone 2.4	123	685	-65	3	61							61				
3) Zone 3																
Activity 1 - D Walling	121	900	-67	3	57							57				
4) Park Construction - Zone A																
	121	1046	-68	3	55		55	55	55	55	55	55				
5) ICC Footbridge																
	115	843	-67	3	52		52	52	52	52	52	52				
6) East Concrete Batching Plant (Operation)																
	115	160	-52	3	66					66	66	66				
7) Barging Point (BP)																
BP4	120	750	-66	3	58		58	58	58	58	58	58				
BP5	120	795	-66	3	57		57	57	57	57	57	57				
BP6	120	993	-68	3	55		55	55	55	55	55	55				
BP7	120	1083	-69	3	55		55	55	55	55	55	55				
8) West Pier (Optional)																
	117	1455	-71	3	49		49	49	49	49	49	49				
9) South Pier (Optional)																
	117	780	-66	3	55		55	55	55	55	55	55				
10) Viewing Platform (Optional)																
	115	398	-60	3	58		58	58	58	58	58	58				
Predicted Noise Level of this Project, dB (A)							74	74	74	80	78	79	74	74	78	80
Predicted Noise Level of Express Rail Link, dB(A)¹							67	62	62	66	60	58				
Predicted Noise Level of Road Works at West Kowloon, dB(A)²							60	60	60	60	60					
Predicted Noise Level of Road Improvement Works in West Kowloon Reclamation, dB(A)³													41	62	Min	Max
Overall Cumulative Noise Level, dB(A)							75	75	75	80	78	79	75	75	78	80

Note: **Bold** figure in shaded box denotes exceedance of relevant construction noise criteria

- 1) Predicted Noise Levels are referred to NSR WK7 in Appendix G of Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility.
- 2) Predicted Noise Levels are referred to NSR VT2 in Appendix 3.13 of approved EIA of Road Works at West Kowloon (AEIAR-141/2009) for conservative approach.
- 3) Predicted Noise Levels are referred to NSR LCS in Appendix 2.4 of Preliminary Environmental Review Report - Scheme Q of Proposed Road Improvement Works in West Kowloon Reclamation for conservative approach. Delaying of 6 months of construction programme based on latest information have been included in predicted noise level.
- 4) Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.
- 5) Phase 1 Concrete Batching Plant in Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility will be handed over to WKCDA starting from the year of 2014. Since the operation of concreting batching plants before 2014 and the operation and demolition of phase 2 concreting batching plant have already been included in the noise impact assessment of the XRL project, separate noise impact assessment will only be calculated after handing over the phase 1 concrete batching plant to WKCDA starting from the year of 2014.

Unmitigated Construction Noise Impact

NSR: CRGPS (Canton Road Government Primary School)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2013			2014					
						10	11	12	1	2	3			
1) Zone 1														
Activity 1 - D Walling	116	90	-47	3	72									
Activity 2 - Bored Piling	120	90	-47	3	76					76	76	76		
2) Zone 2														
Activity 1 - D Walling														
Zone 2.1	118	645	-64	3	57					57	57	57		
Zone 2.2	118	480	-62	3	59					59	59	59		
Zone 2.3	118	470	-61	3	60					60	60	60		
Zone 2.4	118	685	-65	3	56					56	56	56		
Activity 2 - Bored Piling														
Zone 2.1	123	645	-64	3	61							61		
Zone 2.2	123	480	-62	3	64							64		
Zone 2.3	123	470	-61	3	64							64		
Zone 2.4	123	685	-65	3	61							61		
3) Zone 3														
Activity 1 - D Walling	121	905	-67	3	57							57		
4) Park Construction - Zone A														
	121	1065	-69	3	55		55	55	55	55	55	55		
5) ICC Footbridge														
	115	847	-67	3	52		52	52	52	52	52	52		
6) East Concrete Batching Plant (Operation)														
	115	170	-53	3	65					65	65	65		
7) Barging Point (BP)														
BP4	120	745	-65	3	58		58	58	58	58	58	58		
BP5	120	795	-66	3	57		57	57	57	57	57	57		
BP6	120	993	-68	3	55		55	55	55	55	55	55		
BP7	120	1080	-69	3	55		55	55	55	55	55	55		
8) West Pier (Optional)														
	117	1455	-71	3	49		49	49	49	49	49	49		
9) South Pier (Optional)														
	117	775	-66	3	55		55	55	55	55	55	55		
10) Viewing Platform (Optional)														
	115	400	-60	3	58		58	58	58	58	58	58		
Predicted Noise Level of this Project, dB (A)							73	73	73	78	77	78		
Predicted Noise Level of Express Rail Link, dB(A)¹							67	62	62	66	60	58		
Predicted Noise Level of Road Works at West Kowloon, dB(A)²							60	60	60	60	60	60	2013	2014
Predicted Noise Level of Road Improvement Works in West Kowloon Reclamation, dB(A)³											41	60	Min	Max
Overall Cumulative Noise Level, dB(A)							74	73	73	78	77	78	73	74

Note: **Bold** figure in shaded box denotes exceedance of relevant construction noise criteria

- 1) Predicted Noise Levels are referred to NSR WK7 in Appendix G of Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility.
- 2) Predicted Noise Levels are referred to NSR VT2 in Appendix 3.13 of approved EIA of Road Works at West Kowloon (AEIAR-141/2009) for conservative approach.
- 3) Predicted Noise Levels are referred to NSR CGPS in Appendix 2.4 of Preliminary Environmental Review Report - Scheme Q of Proposed Road Improvement Works in West Kowloon Reclamation for conservative approach. Delaying of 6 months of construction programme based on latest information have been included in predicted noise level.
- 4) Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.
- 5) Phase 1 Concrete Batching Plant in Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility will be handed over to WKCD starting from the year of 2014. Since the operation of concreting batching plants before 2014 and the operation and demolition of phase 2 concreting batching plant have already been included in the noise impact assessment of the XRL project, separate noise impact assessment will only be calculated after handing over the phase 1 concrete batching plant to WKCD starting from the year of 2014.

Unmitigated Construction Noise Impact

NSR: FQ (Fire Services Department Staff Quarter)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2013			2014									
						10	11	12	1	2	3							
1) Zone 1																		
Activity 1 - D Walling	116	54	-43	3	77													
Activity 2 - Bored Piling	120	54	-43	3	80					80	80	80						
2) Zone 2																		
Activity 1 - D Walling																		
Zone 2.1	118	540	-63	3	58					58	58	58						
Zone 2.2	118	371	-59	3	62					62	62	62						
Zone 2.3	118	366	-59	3	62					62	62	62						
Zone 2.4	118	580	-63	3	58					58	58	58						
Activity 2 - Bored Piling																		
Zone 2.1	123	587	-63	3	62							62						
Zone 2.2	123	419	-60	3	65							65						
Zone 2.3	123	422	-61	3	65							65						
Zone 2.4	123	614	-64	3	62							62						
3) Zone 3																		
Activity 1 - D Walling	121	795	-66	3	58							58						
4) Park Construction - Zone A																		
	121	996	-68	3	56			56	56	56	56	56						
5) ICC Footbridge																		
	115	744	-65	3	53			53	53	53	53	53						
6) East Concrete Batching Plant (Operation)																		
	115	68	-45	3	73							73						
7) Barging Point (BP)																		
BP4	120	650	-64	3	59			59	59	59	59	59						
BP5	120	695	-65	3	58			58	58	58	58	58						
BP6	120	900	-67	3	56			56	56	56	56	56						
BP7	120	985	-68	3	55			55	55	55	55	55						
8) West Pier (Optional)																		
	117	1350	-71	3	50			50	50	50	50	50						
9) South Pier (Optional)																		
	117	680	-65	3	56			56	56	56	56	56						
10) Viewing Platform (Optional)																		
	115	291	-57	3	61			61	61	61	61	61						
Predicted Noise Level of this Project, dB (A)								77	77	77	83	81	82	77	77	81	83	
Predicted Noise Level of Express Rail Link, dB(A)¹								74	72	72	73	70	69					
Predicted Noise Level of Road Works at West Kowloon, dB(A)²								60	60	60	60	60	60					
Predicted Noise Level of Road Improvement Works in West Kowloon Reclamation, dB(A)³													41	62	Min	Max	Min	Max
Overall Cumulative Noise Level, dB(A)								79	78	78	83	82	82	78	79	82	83	

Note: **Bold** figure in shaded box denotes exceedance of relevant construction noise criteria

- 1) Predicted Noise Levels are referred to NSR WK7a in Appendix G of Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility.
- 2) Predicted Noise Levels are referred to NSR VT2 in Appendix 3.13 of approved EIA of Road Works at West Kowloon (AEIAR-141/2009) for conservative approach.
- 3) Predicted Noise Levels are referred to NSR LCS in Appendix 2.4 of Preliminary Environmental Review Report - Scheme Q of Proposed Road Improvement Works in West Kowloon Reclamation for conservative approach. Delaying of 6 months of construction programme based on latest information have been included in predicted noise level.
- 4) Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.
- 5) Phase 1 Concrete Batching Plant in Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility will be handed over to WKCDA starting from the year of 2014. Since the operation of concreting batching plants before 2014 and the operation and demolition of phase 2 concreting batching plant have already been included in the noise impact assessment of the XRL project, separate noise impact assessment will only be calculated after handing over the phase 1 concrete batching plant to WKCDA starting from the year of 2014.

Unmitigated Construction Noise Impact

NSR: CUL (The Cullirian I)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2013			2014								
						10	11	12	1	2	3						
1) Zone 1																	
Activity 1 - D Walling	116	676	-65	3	55		55	55	55	55							
Activity 2 - Bored Piling	120	675	-65	3	58					58	58	58					
2) Zone 2																	
Activity 1 - D Walling																	
Zone 2.1	118	337	-59	3	62					62	62	62					
Zone 2.2	118	337	-59	3	62					62	62	62					
Zone 2.3	118	511	-62	3	59					59	59	59					
Zone 2.4	118	476	-62	3	59					59	59	59					
Activity 2 - Bored Piling																	
Zone 2.1	123	336	-59	3	67							67					
Zone 2.2	123	336	-59	3	67							67					
Zone 2.3	123	510	-62	3	64							64					
Zone 2.4	123	475	-62	3	64							64					
3) Zone 3																	
Activity 1 - D Walling	121	347	-59	3	65							65					
4) Park Construction - Zone A																	
	121	675	-65	3	59		59	59	59	59	59	59					
5) ICC Footbridge																	
	115	272	-57	3	62		62	62	62	62	62	62					
6) East Concrete Batching Plant (Operation)																	
	115	703	-65	3	53					53	53	53					
7) Barging Point (BP)																	
BP4	120	451	-61	3	62		62	62	62	62	62	62					
BP5	120	461	-61	3	62		62	62	62	62	62	62					
BP6	120	611	-64	3	60		60	60	60	60	60	60					
BP7	120	726	-65	3	58		58	58	58	58	58	58					
8) West Pier (Optional)																	
	117	826	-66	3	54		54	54	54	54	54	54					
9) South Pier (Optional)																	
	117	476	-62	3	59		59	59	59	59	59	59					
10) Viewing Platform (Optional)																	
	115	561	-63	3	55		55	55	55	55	55	55					
Predicted Noise Level of this Project, dB (A)							69	69	69	72	72	75	69	69	72	75	
Predicted Noise Level of Express Rail Link, dB(A)¹																	
Predicted Noise Level of Road Works at West Kowloon, dB(A)²																	
Predicted Noise Level of Road Improvement Works in West Kowloon Reclamation, dB(A)³												72	72	Min	Max	Min	Max
Overall Cumulative Noise Level, dB(A)							69	69	69	72	75	77	69	69	72	77	

Note: **Bold** figure in shaded box denotes exceedance of relevant construction noise criteria

- 1) Since the NSR is located 270m apart from the site boundary and no direct line of sight of the construction works of "Express Rail Link" project, the cumulative noise impact is predicted to be low and has insignificant contribution to the NSR, therefore, cumulative noise impact is not taken into account at this NSR.
- 2) Since the NSR is located 270m apart from the site boundary and no direct line of sight of the construction works of "Road Works at West Kowloon" project, the cumulative noise impact is predicted to be low and has insignificant contribution to the NSR, therefore, cumulative noise impact is not taken into account at this NSR.
- 3) Predicted Noise Levels are referred to NSR SRT in Appendix 2.4 of Preliminary Environmental Review Report - Scheme H, I & J of Proposed Road Improvement Works in West Kowloon Reclamation for conservative approach. Delaying of 6 months of construction programme based on latest information have been included in predicted noise level.
- 4) Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.
- 5) Phase 1 Concrete Batching Plant in Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility will be handed over to WKCD starting from the year of 2014. Since the operation of concreting batching plants before 2014 and the operation and demolition of phase 2 concreting batching plant have already been included in the noise impact assessment of the XRL project, separate noise impact assessment will only be calculated after handing over the phase 1 concrete batching plant to WKCD starting from the year of 2014.

Item	PME	TM or other reference	SWL, dB(A)	No. of PME	% on time	Total SWL, dB(A)			
1	Zone 1								
	Activity 3 - Excavation								
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	2	60%	113			
	Air compressor, air flow > 30m3/min	CNP 003	104	2	100%	107			
	Excavator/ loader, wheeled/ tracked	CNP 081	112	2	60%	113			
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	100%	98			
	Dump truck	CNP 067	117	3	30%	117			
	Total SWL, dB (A)						119		
	Activity 4 - Basement and Underpass								
	Crane, tower (electric)	CNP 049	95	1	50%	92			
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	2	50%	112			
	Crane Lorry 5.5 tonne < gross vehicle weight =< 38 tonne	[1]	105	2	50%	105			
	Concrete pump, stationary/ lorry mounted	CNP 047	109	2	50%	109			
	Poker, vibratory, hand-held (electric)	[1]	102	10	50%	109			
	Bar bender and cutter (electric)	CNP 021	90	2	50%	90			
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	100%	98			
	Air compressor, air flow > 30m3/min	CNP 003	104	1	100%	104			
	Concrete lorry mixer	CNP 044	109	2	50%	109			
	Total SWL, dB (A)						117		
	Activity 5 - Superstructure								
	Crane, tower (electric)	CNP 049	95	1	50%	92			
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	2	50%	112			
	Crane Lorry 5.5 tonne < gross vehicle weight =< 38 tonne	[1]	105	2	50%	105			
	Concrete pump, stationary/ lorry mounted	CNP 047	109	2	50%	109			
	Poker, vibratory, hand-held (electric)	[1]	102	5	50%	106			
	Bar bender and cutter (electric)	CNP 021	90	2	50%	90			
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	3	100%	100			
	Air compressor, air flow > 30m3/min	CNP 003	104	1	100%	104			
	Concrete lorry mixer	CNP 044	109	2	50%	109			
	Drill/grinder, hand-held (electric)	CNP 065	98	5	30%	100			
	Water pump (electric)	CNP 281	88	3	30%	88			
	Excavator/ loader, wheeled/ tracked	CNP 081	112	3	30%	112			
	Fork Lift Truck	[2]	104	3	30%	104			
	Hoist, passenger/ material (electric)	CNP 122	95	3	30%	95			
	Total SWL, dB (A)						118		
	2a	Zone 2 (for area with less plant) [3]							
		Activity 1 - D Walling							
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110		
		Air compressor, air flow > 30m3/min	CNP 003	104	1	100%	104		
		Excavator/ loader, wheeled/ tracked	CNP 081	112	1	60%	110		
		Total SWL, dB (A)						113	
		Activity 2 - Bored Piling							
		Group 1							
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110		
		Excavator/ loader, wheeled/ tracked	CNP 081	112	1	30%	107		
		Piling Rig	[2]	112	1	60%	110		
		Drill Rig	[1]	110	1	60%	108		
		Excavator/ loader, wheeled/ tracked	CNP 081	112	1	60%	110		
		Piling, large diameter bored, grab and chisel	CNP 164	115	1	60%	113		
		Piling, large diameter bored, reverse circulation drill	CNP 166	100	1	60%	98		
		Piling, large diameter bored, oscillator	CNP 165	115	1	60%	113		
		Air compressor, air flow > 30m3/min	CNP 003	104	1	100%	104		
		Welding Set	[2]	78	1	60%	76		
		Total SWL, dB (A)						119	
		Group 2							
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110		
		Grout Mixer	[1]	90	1	60%	88		
		Grout Pump	[1]	105	1	60%	103		
		Bar bender and cutter (electric)	CNP 021	90	1	60%	88		
		Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95		
		Total SWL, dB (A)						111	
		Maximum SWL, dB (A) of Activity 2						119	
		Activity 3 - Excavation							
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110		
		Air compressor, air flow > 30m3/min	CNP 003	104	1	100%	104		
		Excavator/ loader, wheeled/ tracked	CNP 081	112	1	60%	110		
		Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95		
		Dump truck	CNP 067	117	1	30%	112		
		Total SWL, dB (A)						116	
		Activity 4 - Basement and Underpass							
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110		
		Crane Lorry 5.5 tonne < gross vehicle weight =< 38 tonne	[1]	105	1	60%	103		
		Concrete pump, stationary/ lorry mounted	CNP 047	109	1	60%	107		
		Poker, vibratory, hand-held (electric)	[1]	102	5	60%	107		
		Bar bender and cutter (electric)	CNP 021	90	1	60%	88		
		Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95		
		Concrete lorry mixer	CNP 044	109	1	60%	107		
		Total SWL, dB (A)						114	
		2b	Zone 2 (for area with more plant) [3]						
			Activity 1 - D Walling						
			Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110	
			Air compressor, air flow > 30m3/min	CNP 003	104	1	100%	104	
			Piling, diaphragm wall, hydraulic extractor	CNP 163	90	1	60%	88	
			Excavator/ loader, wheeled/ tracked	CNP 081	112	1	60%	110	
			Grout Mixer	[1]	90	1	60%	88	
			Water pump, submersible (electric)	CNP 283	85	1	60%	83	
			Dump truck	CNP 067	117	1	30%	112	
			Concrete lorry mixer	CNP 044	109	1	60%	107	
			Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95	
			Total SWL, dB (A)						116

Item	PME	TM or other reference	SWL, dB(A)	No. of PME	% on time	Total SWL, dB(A)
Activity 2 - Bored Piling						
Group 1						
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110
	Excavator/ loader, wheeled/ tracked	CNP 081	112	1	30%	107
	Piling Rig	[2]	112	1	60%	110
	Drill Rig	[1]	110	1	60%	108
	Excavator/ loader, wheeled/ tracked	CNP 081	112	1	60%	110
	Piling, large diameter bored, grab and chisel	CNP 164	115	1	60%	113
	Piling, large diameter bored, reverse circulation drill	CNP 166	100	1	60%	98
	Piling, large diameter bored, oscillator	CNP 165	115	1	60%	113
	Air compressor, air flow > 30m3/min	CNP 003	104	1	100%	104
	Welding Set	[2]	78	1	60%	76
Total SWL, dB (A)						119
Group 2						
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110
	Grout Mixer	[1]	90	1	60%	88
	Grout Pump	[1]	105	1	60%	103
	Bar bender and cutter (electric)	CNP 021	90	1	60%	88
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95
	Dump truck	CNP 067	117	1	30%	112
	Concrete lorry mixer	CNP 044	109	1	60%	107
Total SWL, dB (A)						115
Maximum SWL, dB (A) of Activity 2						119
Activity 3 - Excavation						
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110
	Air compressor, air flow > 30m3/min	CNP 003	104	1	100%	104
	Excavator/ loader, wheeled/ tracked	CNP 081	112	1	60%	110
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95
	Dump truck	CNP 067	117	2	30%	115
Total SWL, dB (A)						117
Activity 4 - Basement and Underpass						
	Crane, tower (electric)	CNP 049	95	1	60%	93
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110
	Crane Lorry 5.5 tonne < gross vehicle weight =< 38 tonne	[1]	105	1	60%	103
	Concrete pump, stationary/ lorry mounted	CNP 047	109	1	60%	107
	Poker, vibratory, hand-held (electric)	[1]	102	5	60%	107
	Bar bender and cutter (electric)	CNP 021	90	1	60%	88
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95
	Air compressor, air flow > 30m3/min	CNP 003	104	1	100%	104
	Concrete lorry mixer	CNP 044	109	1	60%	107
Total SWL, dB (A)						115
3	Zone 3					
Activity 1 - D Walling						
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	4	60%	116
	Air compressor, air flow > 30m3/min	CNP 003	104	4	100%	110
	Piling, diaphragm wall, hydraulic extractor	CNP 163	90	2	60%	91
	Excavator/ loader, wheeled/ tracked	CNP 081	112	4	60%	116
	Grout Mixer	[1]	90	2	60%	91
	Water pump, submersible (electric)	CNP 283	85	3	60%	88
	Dump truck	CNP 067	117	2	30%	115
	Concrete lorry mixer	CNP 044	109	2	60%	110
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	100%	98
Total SWL, dB (A)						121
Activity 2 - Bored Piling						
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	4	60%	116
	Excavator/ loader, wheeled/ tracked	CNP 081	112	4	30%	113
	Piling Rig	[2]	112	4	60%	116
	Drill Rig	[1]	110	4	60%	114
	Excavator/ loader, wheeled/ tracked	CNP 081	112	4	60%	116
	Piling, large diameter bored, grab and chisel	CNP 164	115	4	60%	119
	Piling, large diameter bored, reverse circulation drill	CNP 166	100	4	60%	104
	Piling, large diameter bored, oscillator	CNP 165	115	4	60%	119
	Air compressor, air flow > 30m3/min	CNP 003	104	4	100%	110
	Grout Mixer	[1]	90	4	60%	94
	Grout Pump	[1]	105	4	60%	109
	Bar bender and cutter (electric)	CNP 021	90	4	60%	94
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	4	100%	101
	Dump truck	CNP 067	117	2	30%	115
	Concrete lorry mixer	CNP 044	109	2	60%	110
	Welding Set	[2]	78	4	60%	82
Total SWL, dB (A)						126
4	Park Construction - Zone A					
Activity 1 - Park Construction [4]						
	Dump truck	CNP 067	117	2	60%	118
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	2	60%	113
	Excavator/ loader, wheeled/ tracked	CNP 081	112	2	60%	113
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	100%	98
	Lorry	CNP 141	112	2	60%	113
Total SWL, dB (A)						121
Activity 2 - Superstructure [4]						
	Crane, tower (electric)	CNP 049	95	1	50%	92
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	2	50%	112
	Crane Lorry 5.5 tonne < gross vehicle weight =< 38 tonne	[1]	105	2	50%	105
	Concrete pump, stationary/ lorry mounted	CNP 047	109	2	50%	109
	Poker, vibratory, hand-held (electric)	[1]	102	5	50%	106
	Bar bender and cutter (electric)	CNP 021	90	2	50%	90
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	3	100%	100
	Air compressor, air flow > 30m3/min	CNP 003	104	1	100%	104
	Concrete lorry mixer	CNP 044	109	2	50%	109
	Drill/grinder, hand-held (electric)	CNP 065	98	5	30%	100
	Water pump (electric)	CNP 281	88	3	30%	88
	Excavator/ loader, wheeled/ tracked	CNP 081	112	3	30%	112
	Fork Lift Truck	[2]	104	3	30%	104
	Hoist, passenger/ material (electric)	CNP 122	95	3	30%	95
Total SWL, dB (A)						118
Maximum SWL, dB (A)						121

Item	PME	TM or other reference	SWL, dB(A)	No. of PME	% on time	Total SWL, dB(A)	
5/6	ICC Footbridge / Flyover						
	Group 1						
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	1	100%	102	
	Breaker, hand-held, mass > 35kg	CNP 026	114	2	30%	112	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	100%	112	
	Crane Lorry 5.5 tonne < gross vehicle weight <= 38 tonne	[1]	105	1	70%	103	
	Bar bender and cutter (electric)	CNP 021	90	1	80%	89	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95	
	Total SWL, dB (A)						115
	Group 2						
	Breaker, hand-held, mass > 35kg	CNP 026	114	2	30%	112	
	Breaker, hand-held, mass > 10kg and < 20kg	CNP 024	108	1	30%	103	
	Concrete lorry mixer	CNP 044	109	1	50%	106	
	Poker, vibratory, hand-held (electric)	[1]	102	2	50%	102	
	Grout pump	[1]	105	1	20%	98	
	Saw, circular, wood	CNP 201	108	1	80%	107	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95	
	Total SWL, dB (A)						115
	Maximum SWL, dB (A)						115
	7	East Concrete Batching Plant (Operation)					
		Group 1					
		Excavator/ loader, wheeled/ tracked	CNP 081	112	1	60%	110
Concrete mixer (electric)		CNP 045	96	1	60%	94	
Generator, super silenced, 70 dB(A) at 7 m		CNP 103	95	2	60%	96	
Concrete mixer (petrol)		CNP 046	96	3	60%	99	
Concrete lorry mixer		CNP 044	109	2	60%	110	
Batching plant		CNP 022	108	1	60%	106	
Air compressor, air flow > 10m3/min and <= 30m3/min		CNP 002	102	2	60%	103	
Tipper Lorry		BS 5228 Table D.3/112	113	1	30%	108	
Total SWL, dB (A)						115	
Group 2							
Excavator/ loader, wheeled/ tracked		CNP 081	112	1	60%	110	
Concrete mixer (electric)		CNP 045	96	1	60%	94	
Generator, super silenced, 70 dB(A) at 7 m		CNP 103	95	2	60%	96	
Concrete mixer (petrol)		CNP 046	96	3	60%	99	
Concrete lorry mixer		CNP 044	109	2	60%	110	
Batching plant		CNP 022	108	1	60%	106	
Air compressor, air flow > 10m3/min and <= 30m3/min		CNP 002	102	2	60%	103	
Tipper Lorry		BS 5228 Table D.3/112	113	1	30%	108	
Total SWL, dB (A)						115	
Maximum SWL, dB (A)						115	
8	Barging Points						
	Derrick barge	CNP 061	104	1	60%	102	
	Tug boat	CNP 221	110	1	60%	108	
	Dump truck	CNP 067	117	6	30%	120	
	Excavator/ loader, wheeled/ tracked	CNP 081	112	1	60%	110	
	Conveyor belt	CNP 041	90	1	60%	88	
Total SWL, dB (A)						120	
9/10	Pier Construction (Optional)						
	Group 1						
	Piling, large diameter bored, reverse circulation drill	CNP 166	100	1	100%	100	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110	
	Tug boat	CNP 221	110	1	60%	108	
	Total SWL, dB (A)						112
	Group 2						
	Concrete pump, stationary/ lorry mounted	CNP 047	109	2	100%	112	
	Concrete lorry mixer	CNP 044	109	4	60%	113	
	Water pump (electric)	CNP 281	88	4	100%	94	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	100%	98	
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	100%	105	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110	
	Tug boat	CNP 221	110	1	60%	108	
	Total SWL, dB (A)						117
	Group 3						
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110	
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	100%	105	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	100%	98	
	Concrete pump, stationary/ lorry mounted	CNP 047	109	2	100%	112	
	Concrete lorry mixer	CNP 044	109	2	60%	110	
	Poker, vibratory, hand-held (electric)	[1]	102	4	80%	107	
Tug boat	CNP 221	110	1	60%	108		
Total SWL, dB (A)						117	
Maximum SWL, dB (A)						117	
11	Viewing Platform (Optional)						
	Group 1						
	Piling, large diameter bored, reverse circulation drill	CNP 166	100	1	100%	100	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	80%	111	
	Tug boat	CNP 221	110	1	60%	108	
	Total SWL, dB (A)						113
	Group 2						
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	2	100%	115	
	Total SWL, dB (A)						115
	Maximum SWL, dB (A)						115

Note: [1] Details extracted from EPD website: http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf
 [2] SWL of Welding Plant and Piling Rig are referred to the Appendix 5.1 of approved EIA Report of Hong Kong Section of Guangzhou - Shenzhen - Hong Kong Express Rail Link (AEIAR-143/2009).
 [3] More plant have been assumed at the zones near the NSR for conservative approach.
 [4] Activities Park Construction and Superstructure in Zone A are at same period but will not be carried out simultaneously.

Unmitigated Construction Noise Impact

NSR: HT1 (The Harbourside Tower 1)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2014												2015			
						4	5	6	7	8	9	10	11	12	1	2	3				
1) Zone 1																					
Activity 3 - Excavation	119	481	-62	3	61	61	61	61	61												
Activity 4 - Basement and Underpass	117	481	-62	3	58			58	58	58	58										
Activity 5 - Superstructure	118	481	-62	3	59									59	59	59	59				
2) Zone 2																					
Activity 1 - D Walling																					
Zone 2.1	116	79	-46	3	73	73	73	73	73	73											
Zone 2.2	116	79	-46	3	73	73	73	73	73	73											
Zone 2.3	113	174	-53	3	64	64	64	64	64	64											
Zone 2.4	113	327	-58	3	58	58	58	58	58	58											
Zone 2.5	113	377	-60	3	57	57	57	57	57	57											
Zone 2.6	113	277	-57	3	59	59	59	59	59	59											
Zone 2.7	116	253	-56	3	63	63	63	63	63	63											
Zone 2.8	116	267	-57	3	63	63	63	63	63	63											
Activity 2 - Bored Piling																					
Zone 2.1	119	79	-46	3	76	76	76	76	76	76	76	76	76								
Zone 2.2	119	79	-46	3	76	76	76	76	76	76	76	76	76								
Zone 2.3	119	174	-53	3	69	69	69	69	69	69	69	69	69								
Zone 2.4	119	327	-58	3	64	64	64	64	64	64	64	64	64								
Zone 2.5	119	377	-60	3	63	63	63	63	63	63	63	63	63								
Zone 2.6	119	277	-57	3	65	65	65	65	65	65	65	65	65								
Zone 2.7	119	253	-56	3	66	66	66	66	66	66	66	66	66								
Zone 2.8	119	267	-57	3	66	66	66	66	66	66	66	66	66								
Activity 3 - Excavation																					
Zone 2.1	117	116	-49	3	71						71	71	71	71	71	71	71				
Zone 2.2	117	102	-48	3	72						72	72	72	72	72	72	72				
Zone 2.3	116	203	-54	3	65						65	65	65	65	65	65	65				
Zone 2.4	116	357	-59	3	60						60	60	60	60	60	60	60				
Zone 2.5	116	377	-60	3	59						59	59	59	59	59	59	59				
Zone 2.6	116	258	-56	3	62						62	62	62	62	62	62	62				
Zone 2.7	117	179	-53	3	67						67	67	67	67	67	67	67				
Zone 2.8	117	228	-55	3	65						65	65	65	65	65	65	65				
Activity 4 - Basement and Underpass																					
Zone 2.1	115	116	-49	3	68									68	68	68	68				
Zone 2.2	115	102	-48	3	69									69	69	69	69				
Zone 2.3	114	203	-54	3	63									63	63	63	63				
Zone 2.4	114	357	-59	3	58									58	58	58	58				
Zone 2.5	114	377	-60	3	58									58	58	58	58				
Zone 2.6	114	258	-56	3	61									61	61	61	61				
Zone 2.7	115	179	-53	3	65									65	65	65	65				
Zone 2.8	115	228	-55	3	62									62	62	62	62				
3) Zone 3																					
Activity 1 - D Walling																					
Activity 2 - Bored Piling	126	272	-57	3	72	72	72	72	72	72	72	72	72	72	72	72	72				
4) Park Construction - Zone A																					
Activity 1 - D Walling	121	576	-63	3	61	61	61	61	61	61	61	61	61	61	61	61	61				
5) ICC Footbridge																					
Activity 1 - D Walling	115	211	-54	3	64	64	64	64	64	64	64	64	64	64	64	64	64				
6) Flyover																					
Activity 1 - D Walling	115	287	-57	3	61						61	61	61	61	61	61	61				
7) East Concrete Batching Plant (Operation)																					
Activity 1 - D Walling	115	461	-61	3	57	57	57	57	57	57	57	57	57	57	57	57	57				
8) Barqing Point (BP)																					
BP4	120	307	-58	3	66	66	66	66	66	66	66	66	66	66	66	66	66				
BP5	120	327	-58	3	65	65	65	65	65	65	65	65	65	65	65	65	65				
BP6	120	506	-62	3	61	61	61	61	61	61	61	61	61	61	61	61	61				
BP7	120	616	-64	3	60	60	60	60	60	60	60	60	60	60	60	60	60				
9) West Pier (Optional)																					
Activity 1 - D Walling	117	846	-67	3	54	54	54	54	54	54	54	54	54	54	54	54	54				
10) South Pier (Optional)																					
Activity 1 - D Walling	117	347	-59	3	62	62	62	62	62	62	62	62	62	62	62	62	62				
11) Viewing Platform (Optional)																					
Activity 1 - D Walling	115	342	-59	3	59	59	59	59	59	59	59	59	59	59	59	59	59				
Predicted Noise Level of this Project, dB (A)																					
Predicted Noise Level of Express Rail Link, dB(A)¹																					
Predicted Noise Level of Road Works at West Kowloon, dB(A)²																					
Overall Cumulative Noise Level, dB(A)																					
														2014	2015						
														Min	Max	Min	Max				
														80	84	80	80				
														2014	2015						
														Min	Max	Min	Max				
														80	84	80	80				

Note: Bold figure in shaded box denotes exceedance of relevant construction noise criteria

- Predicted Noise Levels are referred to NSR WK9 in Appendix 5.8 of approved EIA of Express Rail Link (AEIAR-143/2009). Delaying of 6 months of WKT construction programme in VEP have been included in predicted noise level.
- Predicted Noise Levels are referred to NSR Arch4 in Appendix 3.13 of approved EIA of Road Works at West Kowloon (AEIAR-141/2009) for conservative approach.
- Since the NSR is located out of the 300m assessment area of the construction works of "Proposed Road Improvement Works in West Kowloon Reclamation" project, the cumulative noise impact is predicted to be low and has insignificant contribution to the NSR, therefore, cumulative noise impact is not taken into account at this NSR.
- Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.
- Phase 1 Concrete Batching Plant in Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility will be handed over to WKCD starting from the year of 2014. Since the operation of concreting batching plants before 2014 and the operation and demolition of phase 2 concreting batching plant have already been included in the noise impact assessment of the XRL project, separate noise impact assessment will only be calculated after handing over the phase 1 concrete batching plant to WKCD starting from the year of 2014.

Unmitigated Construction Noise Impact

NSR: AST (The Arch - Sun Tower)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2014												2015		
						4	5	6	7	8	9	10	11	12	1	2	3			
1) Zone 1																				
Activity 3 - Excavation	119	391	-60	3	63	63	63	63	63											
Activity 4 - Basement and Underpass	117	391	-60	3	60			60	60	60	60									
Activity 5 - Superstructure	118	391	-60	3	61										61	61	61	61	61	
2) Zone 2																				
Activity 1 - D Walling																				
Zone 2.1	116	130	-50	3	69	69	69	69	69	69										
Zone 2.2	116	73	-45	3	74	74	74	74	74	74										
Zone 2.3	116	96	-48	3	72	72	72	72	72	72										
Zone 2.4	113	228	-55	3	61	61	61	61	61	61										
Zone 2.5	113	312	-58	3	58	58	58	58	58	58										
Zone 2.6	113	247	-56	3	60	60	60	60	60	60										
Zone 2.7	116	252	-56	3	63	63	63	63	63	63										
Zone 2.8	113	302	-58	3	59	59	59	59	59	59										
Activity 2 - Bored Piling																				
Zone 2.1	119	130	-50	3	72	72	72	72	72	72	72	72	72							
Zone 2.2	119	73	-45	3	77	77	77	77	77	77	77	77	77							
Zone 2.3	119	96	-48	3	74	74	74	74	74	74	74	74	74							
Zone 2.4	119	228	-55	3	67	67	67	67	67	67	67	67	67							
Zone 2.5	119	312	-58	3	64	64	64	64	64	64	64	64	64							
Zone 2.6	119	247	-56	3	66	66	66	66	66	66	66	66	66							
Zone 2.7	119	252	-56	3	66	66	66	66	66	66	66	66	66							
Zone 2.8	119	302	-58	3	64	64	64	64	64	64	64	64	64							
Activity 3 - Excavation																				
Zone 2.1	117	178	-53	3	67						67	67	67	67	67	67	67	67	67	
Zone 2.2	117	92	-47	3	73						73	73	73	73	73	73	73	73	73	
Zone 2.3	117	139	-51	3	69						69	69	69	69	69	69	69	69	69	
Zone 2.4	116	257	-56	3	62						62	62	62	62	62	62	62	62	62	
Zone 2.5	116	302	-58	3	61						61	61	61	61	61	61	61	61	61	
Zone 2.6	116	203	-54	3	65						65	65	65	65	65	65	65	65	65	
Zone 2.7	117	188	-53	3	67						67	67	67	67	67	67	67	67	67	
Zone 2.8	116	282	-57	3	62						62	62	62	62	62	62	62	62	62	
Activity 4 - Basement and Underpass																				
Zone 2.1	115	178	-53	3	65										65	65	65	65	65	
Zone 2.2	115	92	-47	3	70										70	70	70	70	70	
Zone 2.3	115	139	-51	3	67										67	67	67	67	67	
Zone 2.4	114	257	-56	3	61										61	61	61	61	61	
Zone 2.5	114	302	-58	3	60										60	60	60	60	60	
Zone 2.6	114	203	-54	3	63										63	63	63	63	63	
Zone 2.7	115	188	-53	3	64										64	64	64	64	64	
Zone 2.8	114	282	-57	3	60										60	60	60	60	60	
3) Zone 3																				
Activity 1 - D Walling																				
Activity 2 - Bored Piling	126	362	-59	3	70						70	70	70	70	70	70	70	70	70	
4) Park Construction - Zone A																				
ICC Footbridge	115	298	-57	3	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	
Flyover	115	379	-60	3	59						59	59	59	59	59	59	59	59	59	
East Concrete Batching Plant (Operation)	115	377	-60	3	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	
8) Barqing Point (BP)																				
BP4	120	357	-59	3	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	
BP5	120	387	-60	3	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	
BP6	120	576	-63	3	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
BP7	120	691	-65	3	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	
9) West Pier (Optional)																				
South Pier (Optional)	117	936	-67	3	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	
10) South Pier (Optional)																				
Viewing Platform (Optional)	115	297	-57	3	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	

Predicted Noise Level of this Project, dB (A)	82	82	83	83	84	83	82	83	80	80	80	80	80	80	80	80	80	80	80
Predicted Noise Level of Express Rail Link, dB(A) ¹	69	69	69	64	64	63	63	69	69	69	69	69	69	69	69	69	69	69	69
Predicted Noise Level of Road Works at West Kowloon, dB(A) ²	69	67	67	67	67	67	67												
Overall Cumulative Noise Level, dB(A)	83	83	83	83	84	83	83	83	80	80	80	80	80	80	80	80	80	80	80

Note: Bold figure in shaded box denotes exceedance of relevant construction noise criteria

- Predicted Noise Levels are referred to NSR WK14 in Appendix 5.8 of approved EIA of Express Rail Link (AEIAR-143/2009). Delaying of 6 months of WKT construction programme in VEP have been included in predicted noise level.
- Predicted Noise Levels are referred to NSR Arch2b in Appendix 3.13 of approved EIA of Road Works at West Kowloon (AEIAR-141/2009) for conservative approach.
- Since the NSR is located out of the 300m assessment area of the construction works of "Proposed Road Improvement Works in West Kowloon Reclamation" project, the cumulative noise impact is predicted to be low and has insignificant contribution to the NSR, therefore, cumulative noise impact is not taken into account at this NSR.
- Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.
- Phase 1 Concrete Batching Plant in Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility will be handed over to WKCD starting from the year of 2014. Since the operation of concreting batching plants before 2014 and the operation and demolition of phase 2 concreting batching plant have already been included in the noise impact assessment of the XRL project, separate noise impact assessment will only be calculated after handing over the phase 1 concrete batching plant to WKCD starting from the year of 2014.

Unmitigated Construction Noise Impact

NSR: WOB (Wai On Building)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2014												2015			
						4	5	6	7	8	9	10	11	12	1	2	3				
1) Zone 1																					
Activity 3 - Excavation	119	100	-48	3	74	74	74	74	74												
Activity 4 - Basement and Underpass	117	100	-48	3	72			72	72	72	72										
Activity 5 - Superstructure	118	100	-48	3	73									73	73	73	73				
2) Zone 2																					
Activity 1 - D Walling																					
Zone 2.1	113	645	-64	3	52	52	52	52	52	52											
Zone 2.2	113	485	-62	3	55	55	55	55	55	55											
Zone 2.3	116	330	-58	3	61	61	61	61	61	61											
Zone 2.4	116	180	-53	3	66	66	66	66	66	66											
Zone 2.5	116	225	-55	3	64	64	64	64	64	64											
Zone 2.6	116	400	-60	3	59	59	59	59	59	59											
Zone 2.7	113	550	-63	3	54	54	54	54	54	54											
Zone 2.8	113	745	-65	3	51	51	51	51	51	51											
Activity 2 - Bored Piling																					
Zone 2.1	119	645	-64	3	58	58	58	58	58	58	58	58	58								
Zone 2.2	119	485	-62	3	60	60	60	60	60	60	60	60	60								
Zone 2.3	119	330	-58	3	64	64	64	64	64	64	64	64	64								
Zone 2.4	119	180	-53	3	69	69	69	69	69	69	69	69	69								
Zone 2.5	119	225	-55	3	67	67	67	67	67	67	67	67	67								
Zone 2.6	119	400	-60	3	62	62	62	62	62	62	62	62	62								
Zone 2.7	119	550	-63	3	59	59	59	59	59	59	59	59	59								
Zone 2.8	119	745	-65	3	57	57	57	57	57	57	57	57	57								
Activity 3 - Excavation																					
Zone 2.1	116	695	-65	3	54					54	54	54	54	54	54	54	54				
Zone 2.2	116	525	-62	3	56					56	56	56	56	56	56	56	56				
Zone 2.3	117	370	-59	3	61					61	61	61	61	61	61	61	61				
Zone 2.4	117	225	-55	3	65					65	65	65	65	65	65	65	65				
Zone 2.5	117	260	-56	3	64					64	64	64	64	64	64	64	64				
Zone 2.6	117	405	-60	3	60					60	60	60	60	60	60	60	60				
Zone 2.7	116	570	-63	3	56					56	56	56	56	56	56	56	56				
Zone 2.8	116	750	-66	3	53					53	53	53	53	53	53	53	53				
Activity 4 - Basement and Underpass																					
Zone 2.1	114	695	-65	3	52									52	52	52	52				
Zone 2.2	114	525	-62	3	55									55	55	55	55				
Zone 2.3	115	370	-59	3	58									58	58	58	58				
Zone 2.4	115	225	-55	3	63									63	63	63	63				
Zone 2.5	115	260	-56	3	61									61	61	61	61				
Zone 2.6	115	405	-60	3	57									57	57	57	57				
Zone 2.7	115	570	-63	3	54									54	54	54	54				
Zone 2.8	114	750	-66	3	52									52	52	52	52				
3) Zone 3																					
Activity 1 - D Walling	121	905	-67	3	57	57	57	57	57	57	57										
Activity 2 - Bored Piling	126	905	-67	3	62	62	62	62	62	62	62	62	62	62	62	62	62				
4) Park Construction - Zone A																					
5) ICC Footbridge	115	840	-66	3	52	52	52	52	52	52	52	52	52								
6) Flyover	115	922	-67	3	51					51	51	51	51	51	51	51	51				
7) East Concrete Batching Plant (Operation)	115	215	-55	3	63	63	63	63	63	63	63	63	63	63	63	63	63				
8) Barqing Point (BP)																					
BP4	120	805	-66	3	57	57	57	57	57	57	57	57	57	57	57	57	57				
BP5	120	850	-67	3	57	57	57	57	57	57	57	57	57	57	57	57	57				
BP6	120	1060	-69	3	55	55	55	55	55	55	55	55	55	55	55	55	55				
BP7	120	1160	-69	3	54	54	54	54	54	54	54	54	54	54	54	54	54				
9) West Pier (Optional)																					
10) South Pier (Optional)	117	1475	-71	3	49	49	49	49	49	49	49	49	49	49	49	49	49				
10) South Pier (Optional)																					
11) Viewing Platform (Optional)	117	845	-67	3	54	54	54	54	54	54	54	54	54	54	54	54	54				
11) Viewing Platform (Optional)																					
Predicted Noise Level of this Project, dB (A)						78	78	79	79	78	77	77	78	76	76	76	76	76			
Predicted Noise Level of Express Rail Link, dB(A) ¹						58	58	58	58	58	53	53	53	53	49	49	49	49			
Predicted Noise Level of Road Works at West Kowloon, dB(A) ²						64	63	63	63	63	63										
Predicted Noise Level of Road Improvement Works in West Kowloon Reclamation, dB(A) ³						63	66	63	70	69	69	69	70	63	63	46	46				
Overall Cumulative Noise Level, dB(A)						78	78	79	80	78	78	78	78	76	76	76	76				
														2014		2015					
														Min	Max	Min	Max				
														76	79	76	76				
														2014		2015					
														Min	Max	Min	Max				
														76	80	76	76				

Note: Bold figure in shaded box denotes exceedance of relevant construction noise criteria

- Predicted Noise Levels are referred to NSR WKS in Appendix G of Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility.
- Predicted Noise Levels are referred to NSR WN in Appendix 3.13 of approved EIA of Road Works at West Kowloon (AEIAR-141/2009).
- Predicted Noise Levels are referred to NSR WOB in Appendix 2.4 of Preliminary Environmental Review Report - Scheme Q of Proposed Road Improvement Works in West Kowloon Reclamation for conservative approach. Delaying of 6 months of construction programme based on latest information have been included in predicted noise level.
- Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.
- Phase 1 Concrete Batching Plant in Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility will be handed over to WKCD starting from the year of 2014. Since the operation of concreting batching plants before 2014 and the operation and demolition of phase 2 concreting batching plant have already been included in the noise impact assessment of the XRL project, separate noise impact assessment will only be calculated after handing over the phase 1 concrete batching plant to WKCD starting from the year of 2014.

Unmitigated Construction Noise Impact

NSR: VT1 (The Victoria Towers - Tower 1)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2014										2015			
						4	5	6	7	8	9	10	11	12	1	2	3		
1) Zone 1																			
Activity 3 - Excavation	119	74	-45	3	77	77	77	77	77										
Activity 4 - Basement and Underpass	117	74	-45	3	74			74	74	74									
Activity 5 - Superstructure	118	74	-45	3	75								75	75	75	75			
2) Zone 2																			
Activity 1 - D Walling																			
Zone 2.1	113	626	-64	3	52	52	52	52	52	52									
Zone 2.2	113	472	-61	3	55	55	55	55	55	55									
Zone 2.3	116	328	-58	3	61	61	61	61	61	61									
Zone 2.4	116	170	-53	3	67	67	67	67	67	67									
Zone 2.5	116	156	-52	3	67	67	67	67	67	67									
Zone 2.6	116	328	-58	3	61	61	61	61	61	61									
Zone 2.7	113	482	-62	3	55	55	55	55	55	55									
Zone 2.8	113	691	-65	3	52	52	52	52	52	52									
Activity 2 - Bored Piling																			
Zone 2.1	119	626	-64	3	58	58	58	58	58	58	58	58	58	58	58	58			
Zone 2.2	119	472	-61	3	61	61	61	61	61	61	61	61	61	61	61	61			
Zone 2.3	119	328	-58	3	64	64	64	64	64	64	64	64	64	64	64	64			
Zone 2.4	119	170	-53	3	69	69	69	69	69	69	69	69	69	69	69	69			
Zone 2.5	119	156	-52	3	70	70	70	70	70	70	70	70	70	70	70	70			
Zone 2.6	119	328	-58	3	64	64	64	64	64	64	64	64	64	64	64	64			
Zone 2.7	119	482	-62	3	60	60	60	60	60	60	60	60	60	60	60	60			
Zone 2.8	119	691	-65	3	57	57	57	57	57	57	57	57	57	57	57	57			
Activity 3 - Excavation																			
Zone 2.1	116	676	-65	3	54					54	54	54	54	54	54	54			
Zone 2.2	116	502	-62	3	57					57	57	57	57	57	57	57			
Zone 2.3	117	343	-59	3	61					61	61	61	61	61	61	61			
Zone 2.4	117	205	-54	3	66					66	66	66	66	66	66	66			
Zone 2.5	117	195	-54	3	66					66	66	66	66	66	66	66			
Zone 2.6	117	353	-59	3	61					61	61	61	61	61	61	61			
Zone 2.7	116	517	-62	3	56					56	56	56	56	56	56	56			
Zone 2.8	116	716	-65	3	54					54	54	54	54	54	54	54			
Activity 4 - Basement and Underpass																			
Zone 2.1	114	676	-65	3	53								53	53	53	53			
Zone 2.2	114	502	-62	3	55								55	55	55	55			
Zone 2.3	115	343	-59	3	59								59	59	59	59			
Zone 2.4	115	205	-54	3	63								63	63	63	63			
Zone 2.5	115	195	-54	3	64								64	64	64	64			
Zone 2.6	115	353	-59	3	59								59	59	59	59			
Zone 2.7	115	517	-62	3	55								55	55	55	55			
Zone 2.8	114	716	-65	3	52								52	52	52	52			
3) Zone 3																			
Activity 1 - D Walling																			
Activity 2 - Bored Piling	126	886	-67	3	62	57	57	57	57	57	57	57	62	62	62	62			
4) Park Construction - Zone A																			
Activity 1 - D Walling	121	1042	-68	3	55	55	55	55	55	55	55	55	55	55	55	55			
5) ICC Footbridge																			
Activity 1 - D Walling	115	827	-66	3	52	52	52	52	52	52	52	52	52	52	52	52			
6) Flyover																			
Activity 1 - D Walling	115	914	-67	3	51					51	51	51	51	51	51	51			
7) East Concrete Batching Plant (Operation)																			
Activity 1 - D Walling	115	158	-52	3	66	66	66	66	66	66	66	66	66	66	66	66			
8) Barqing Point (BP)																			
BP4	120	751	-66	3	58	58	58	58	58	58	58	58	58	58	58	58			
BP5	120	799	-66	3	57	57	57	57	57	57	57	57	57	57	57	57			
BP6	120	1001	-68	3	55	55	55	55	55	55	55	55	55	55	55	55			
BP7	120	1093	-69	3	55	55	55	55	55	55	55	55	55	55	55	55			
9) West Pier (Optional)																			
Activity 1 - D Walling	117	1451	-71	3	49	49	49	49	49	49	49	49	49	49	49	49			
10) South Pier (Optional)																			
Activity 1 - D Walling	117	786	-66	3	54	54	54	54	54	54	54	54	54	54	54	54			
11) Viewing Platform (Optional)																			
Activity 1 - D Walling	115	422	-61	3	58	58	58	58	58	58	58	58	58	58	58	58			
Predicted Noise Level of this Project, dB (A)						80	80	81	81	80	79	79	80	78	78	78	78		
Predicted Noise Level of Express Rail Link, dB(A)						60	60	60	60	60	58	58	59	59	56	56	56		
Predicted Noise Level of Road Works at West Kowloon, dB(A)						60	59	59	59	59	59	59	59						
Predicted Noise Level of Road Improvement Works in West Kowloon Reclamation, dB(A)						59	62	59	66	65	65	65	66	59	59	43	43		
Overall Cumulative Noise Level, dB(A)						80	80	81	81	80	79	79	80	78	78	78	78		
												2014	2015						
												Min	Max	Min	Max				

Note: Bold figure in shaded box denotes exceedance of relevant construction noise criteria

- Predicted Noise Levels are referred to NSR WK6 in Appendix G of Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility.
- Predicted Noise Levels are referred to NSR VT2 in Appendix 3.13 of approved EIA of Road Works at West Kowloon (AEIAR-141/2009) for conservative approach.
- Predicted Noise Levels are referred to NSR VT1 in Appendix 2.4 of Preliminary Environmental Review Report - Scheme Q of Proposed Road Improvement Works in West Kowloon Reclamation for conservative approach. Delaying of 6 months of construction programme based on latest information have been included in predicted noise level.
- Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.
- Phase 1 Concrete Batching Plant in Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility will be handed over to WKCD starting from the year of 2014. Since the operation of concreting batching plants before 2014 and the operation and demolition of phase 2 concreting batching plant have already been included in the noise impact assessment of the XRL project, separate noise impact assessment will only be calculated after handing over the phase 1 concrete batching plant to WKCD starting from the year of 2014.

Unmitigated Construction Noise Impact

NSR: VT2 (The Victoria Towers - Tower 2)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2014												2015			
						4	5	6	7	8	9	10	11	12	1	2	3				
1) Zone 1																					
Activity 3 - Excavation	119	78	-46	3	77	77	77	77	77												
Activity 4 - Basement and Underpass	117	78	-46	3	74			74	74	74	74										
Activity 5 - Superstructure	118	78	-46	3	75									75	75	75	75				
2) Zone 2																					
Activity 1 - D Walling																					
Zone 2.1	113	646	-64	3	52	52	52	52	52	52											
Zone 2.2	113	492	-62	3	54	54	54	54	54	54											
Zone 2.3	116	338	-59	3	61	61	61	61	61	61											
Zone 2.4	116	180	-53	3	66	66	66	66	66	66											
Zone 2.5	116	190	-54	3	66	66	66	66	66	66											
Zone 2.6	116	363	-59	3	60	60	60	60	60	60											
Zone 2.7	113	522	-62	3	54	54	54	54	54	54											
Zone 2.8	113	721	-65	3	51	51	51	51	51	51											
Activity 2 - Bored Piling																					
Zone 2.1	119	646	-64	3	58	58	58	58	58	58	58	58	58								
Zone 2.2	119	492	-62	3	60	60	60	60	60	60	60	60	60								
Zone 2.3	119	338	-59	3	63	63	63	63	63	63	63	63	63								
Zone 2.4	119	180	-53	3	69	69	69	69	69	69	69	69	69								
Zone 2.5	119	190	-54	3	68	68	68	68	68	68	68	68	68								
Zone 2.6	119	363	-59	3	63	63	63	63	63	63	63	63	63								
Zone 2.7	119	522	-62	3	60	60	60	60	60	60	60	60	60								
Zone 2.8	119	721	-65	3	57	57	57	57	57	57	57	57	57								
Activity 3 - Excavation																					
Zone 2.1	116	701	-65	3	54					54	54	54	54	54	54	54	54				
Zone 2.2	116	527	-62	3	56					56	56	56	56	56	56	56	56				
Zone 2.3	117	367	-59	3	61					61	61	61	61	61	61	61	61				
Zone 2.4	117	214	-55	3	66					66	66	66	66	66	66	66	66				
Zone 2.5	117	214	-55	3	66					66	66	66	66	66	66	66	66				
Zone 2.6	117	377	-60	3	61					61	61	61	61	61	61	61	61				
Zone 2.7	116	547	-63	3	56					56	56	56	56	56	56	56	56				
Zone 2.8	116	736	-65	3	53					53	53	53	53	53	53	53	53				
Activity 4 - Basement and Underpass																					
Zone 2.1	114	701	-65	3	52									52	52	52	52				
Zone 2.2	114	527	-62	3	55									55	55	55	55				
Zone 2.3	115	367	-59	3	58									58	58	58	58				
Zone 2.4	115	214	-55	3	63									63	63	63	63				
Zone 2.5	115	214	-55	3	63									63	63	63	63				
Zone 2.6	115	377	-60	3	58									58	58	58	58				
Zone 2.7	115	547	-63	3	55									55	55	55	55				
Zone 2.8	114	736	-65	3	52									52	52	52	52				
3) Zone 3																					
Activity 1 - D Walling																					
Activity 2 - Bored Piling	126	901	-67	3	62	62	62	62	62	62	62	62	62	62	62	62	62				
4) Park Construction - Zone A																					
Activity 1 - D Walling	121	1068	-69	3	55	55	55	55	55	55	55	55	55	55	55	55	55				
5) ICC Footbridge																					
Activity 1 - D Walling	115	846	-67	3	52	52	52	52	52	52	52	52	52	52	52	52	52				
6) Flyover																					
Activity 1 - D Walling	115	930	-67	3	51					51	51	51	51	51	51	51	51				
7) East Concrete Batching Plant (Operation)																					
Activity 1 - D Walling	115	183	-53	3	65	65	65	65	65	65	65	65	65	65	65	65	65				
8) Barqing Point (BP)																					
BP4	120	781	-66	3	57	57	57	57	57	57	57	57	57	57	57	57	57				
BP5	120	831	-66	3	57	57	57	57	57	57	57	57	57	57	57	57	57				
BP6	120	1036	-68	3	55	55	55	55	55	55	55	55	55	55	55	55	55				
BP7	120	1131	-69	3	54	54	54	54	54	54	54	54	54	54	54	54	54				
9) West Pier (Optional)																					
Activity 1 - D Walling	117	1471	-71	3	49	49	49	49	49	49	49	49	49	49	49	49	49				
10) South Pier (Optional)																					
Activity 1 - D Walling	117	816	-66	3	54	54	54	54	54	54	54	54	54	54	54	54	54				
11) Viewing Platform (Optional)																					
Activity 1 - D Walling	115	462	-61	3	57	57	57	57	57	57	57	57	57	57	57	57	57				
Predicted Noise Level of this Project, dB (A)						79	79	80	80	79	78	78	79	77	77	77	77				
Predicted Noise Level of Express Rail Link, dB(A)¹						60	60	60	60	60	58	58	59	59	56	56	56				
Predicted Noise Level of Road Works at West Kowloon, dB(A)²						60	59	59	59	59	59	59									
Predicted Noise Level of Road Improvement Works in West Kowloon Reclamation, dB(A)³						58	61	58	65	64	64	64	65	58	58	44	44				
Overall Cumulative Noise Level, dB(A)						79	79	81	81	79	78	78	79	78	78	78	78				
														2014		2015					
														Min	Max	Min	Max				

Note: Bold figure in shaded box denotes exceedance of relevant construction noise criteria

- Predicted Noise Levels are referred to NSR WK6 in Appendix G of Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility.
- Predicted Noise Levels are referred to NSR VT2 in Appendix 3.13 of approved EIA of Road Works at West Kowloon (AEIAR-141/2009) for conservative approach.
- Predicted Noise Levels are referred to NSR VT2 in Appendix 2.4 of Preliminary Environmental Review Report - Scheme Q of Proposed Road Improvement Works in West Kowloon Reclamation for conservative approach. Delaying of 6 months of construction programme based on latest information have been included in predicted noise level.
- Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.
- Phase 1 Concrete Batching Plant in Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility will be handed over to WKCD starting from the year of 2014. Since the operation of concreting batching plants before 2014 and the operation and demolition of phase 2 concreting batching plant have already been included in the noise impact assessment of the XRL project, separate noise impact assessment will only be calculated after handing over the phase 1 concrete batching plant to WKCD starting from the year of 2014.

Unmitigated Construction Noise Impact

NSR: LCS (Lai Chack Middle School)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2014										2015		
						4	5	6	7	8	9	10	11	12	1	2	3	
1) Zone 1																		
Activity 3 - Excavation	119	105	-48	3	74	74	74	74	74									
Activity 4 - Basement and Underpass	117	105	-48	3	71			71	71	71	71							
Activity 5 - Superstructure	118	105	-48	3	72								72	72	72	72		
2) Zone 2																		
Activity 1 - D Walling																		
Zone 2.1	113	640	-64	3	52	52	52	52	52	52								
Zone 2.2	113	480	-62	3	55	55	55	55	55	55								
Zone 2.3	116	340	-59	3	61	61	61	61	61	61								
Zone 2.4	116	160	-52	3	67	67	67	67	67	67								
Zone 2.5	116	150	-52	3	68	68	68	68	68	68								
Zone 2.6	116	315	-58	3	61	61	61	61	61	61								
Zone 2.7	113	480	-62	3	55	55	55	55	55	55								
Zone 2.8	113	690	-65	3	52	52	52	52	52	52								
Activity 2 - Bored Piling																		
Zone 2.1	119	640	-64	3	58	58	58	58	58	58	58	58						
Zone 2.2	119	480	-62	3	60	60	60	60	60	60	60	60						
Zone 2.3	119	340	-59	3	63	63	63	63	63	63	63	63						
Zone 2.4	119	160	-52	3	70	70	70	70	70	70	70	70						
Zone 2.5	119	150	-52	3	71	71	71	71	71	71	71	71						
Zone 2.6	119	315	-58	3	64	64	64	64	64	64	64	64						
Zone 2.7	119	480	-62	3	60	60	60	60	60	60	60	60						
Zone 2.8	119	690	-65	3	57	57	57	57	57	57	57	57						
Activity 3 - Excavation																		
Zone 2.1	116	685	-65	3	54					54	54	54	54	54	54	54		
Zone 2.2	116	505	-62	3	57					57	57	57	57	57	57	57		
Zone 2.3	117	355	-59	3	61					61	61	61	61	61	61	61		
Zone 2.4	117	205	-54	3	66					66	66	66	66	66	66	66		
Zone 2.5	117	195	-54	3	66					66	66	66	66	66	66	66		
Zone 2.6	117	350	-59	3	61					61	61	61	61	61	61	61		
Zone 2.7	116	515	-62	3	56					56	56	56	56	56	56	56		
Zone 2.8	116	720	-65	3	54					54	54	54	54	54	54	54		
Activity 4 - Basement and Underpass																		
Zone 2.1	114	685	-65	3	52								52	52	52	52		
Zone 2.2	114	505	-62	3	55								55	55	55	55		
Zone 2.3	115	355	-59	3	59								59	59	59	59		
Zone 2.4	115	205	-54	3	63								63	63	63	63		
Zone 2.5	115	195	-54	3	64								64	64	64	64		
Zone 2.6	115	350	-59	3	59								59	59	59	59		
Zone 2.7	115	515	-62	3	55								55	55	55	55		
Zone 2.8	114	720	-65	3	52								52	52	52	52		
3) Zone 3																		
Activity 1 - D Walling																		
Activity 2 - Bored Piling	126	900	-67	3	62	62	62	62	62	62	62	62	62	62	62	62		
4) Park Construction - Zone A																		
5) ICC Footbridge	115	843	-67	3	52	52	52	52	52	52	52	52	52	52	52	52		
6) Flyover	115	927	-67	3	51					51	51	51	51	51	51	51		
7) East Concrete Batching Plant (Operation)	115	160	-52	3	66	66	66	66	66	66	66	66	66	66	66	66		
8) Barqing Point (BP)																		
BP4	120	750	-66	3	58	58	58	58	58	58	58	58	58	58	58	58		
BP5	120	795	-66	3	57	57	57	57	57	57	57	57	57	57	57	57		
BP6	120	993	-68	3	55	55	55	55	55	55	55	55	55	55	55	55		
BP7	120	1083	-69	3	55	55	55	55	55	55	55	55	55	55	55	55		
9) West Pier (Optional)	117	1455	-71	3	49	49	49	49	49	49	49	49	49	49	49	49		
10) South Pier (Optional)	117	780	-66	3	55	55	55	55	55	55	55	55	55	55	55	55		
11) Viewing Platform (Optional)	115	398	-60	3	58	58	58	58	58	58	58	58	58	58	58	58		
Predicted Noise Level of this Project, dB (A)						79	79	80	80	79	78	78	79	77	77	77	77	
Predicted Noise Level of Express Rail Link, dB(A) ¹						60	60	60	60	60	58	58	55	55				
Predicted Noise Level of Road Works at West Kowloon, dB(A) ²						60	59	59	59	59	59	59						
Predicted Noise Level of Road Improvement Works in West Kowloon Reclamation, dB(A) ³						62	65	62	69	68	68	68	69	62	62	42	42	
Overall Cumulative Noise Level, dB(A)						79	79	80	80	79	79	78	79	77	77	77	77	
														2014		2015		
														Min	Max	Min	Max	

Note: Bold figure in shaded box denotes exceedance of relevant construction noise criteria

- Predicted Noise Levels are referred to NSR WK7 in Appendix G of Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility.
- Predicted Noise Levels are referred to NSR VT2 in Appendix 3.13 of approved EIA of Road Works at West Kowloon (AEIAR-141/2009) for conservative approach.
- Predicted Noise Levels are referred to NSR LCS in Appendix 2.4 of Preliminary Environmental Review Report - Scheme Q of Proposed Road Improvement Works in West Kowloon Reclamation for conservative approach. Delaying of 6 months of construction programme based on latest information have been included in predicted noise level.
- Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.
- Phase 1 Concrete Batching Plant in Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility will be handed over to WKCD starting from the year of 2014. Since the operation of concreting batching plants before 2014 and the operation and demolition of phase 2 concreting batching plant have already been included in the noise impact assessment of the XRL project, separate noise impact assessment will only be calculated after handing over the phase 1 concrete batching plant to WKCD starting from the year of 2014.

Unmitigated Construction Noise Impact

NSR: CRGPS (Canton Road Government Primary School)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2014										2015		
						4	5	6	7	8	9	10	11	12	1	2	3	
1) Zone 1																		
Activity 3 - Excavation	119	120	-50	3	73	73	73	73	73									
Activity 4 - Basement and Underpass	117	120	-50	3	70					70	70	70						
Activity 5 - Superstructure	118	120	-50	3	71								71	71	71	71		
2) Zone 2																		
Activity 1 - D Walling																		
Zone 2.1	113	645	-64	3	52	52	52	52	52	52								
Zone 2.2	113	495	-62	3	54	54	54	54	54	54								
Zone 2.3	116	350	-59	3	60	60	60	60	60	60								
Zone 2.4	116	175	-53	3	66	66	66	66	66	66								
Zone 2.5	116	150	-52	3	68	68	68	68	68	68								
Zone 2.6	116	315	-58	3	61	61	61	61	61	61								
Zone 2.7	113	475	-62	3	55	55	55	55	55	55								
Zone 2.8	113	685	-65	3	52	52	52	52	52	52								
Activity 2 - Bored Piling																		
Zone 2.1	119	645	-64	3	58	58	58	58	58	58	58	58	58					
Zone 2.2	119	495	-62	3	60	60	60	60	60	60	60	60	60					
Zone 2.3	119	350	-59	3	63	63	63	63	63	63	63	63	63					
Zone 2.4	119	175	-53	3	69	69	69	69	69	69	69	69	69					
Zone 2.5	119	150	-52	3	71	71	71	71	71	71	71	71	71					
Zone 2.6	119	315	-58	3	64	64	64	64	64	64	64	64	64					
Zone 2.7	119	475	-62	3	61	61	61	61	61	61	61	61	61					
Zone 2.8	119	685	-65	3	57	57	57	57	57	57	57	57	57					
Activity 3 - Excavation																		
Zone 2.1	116	680	-65	3	54					54	54	54	54	54	54	54		
Zone 2.2	116	520	-62	3	56					56	56	56	56	56	56	56		
Zone 2.3	117	360	-59	3	61					61	61	61	61	61	61	61		
Zone 2.4	117	220	-55	3	65					65	65	65	65	65	65	65		
Zone 2.5	117	195	-54	3	66					66	66	66	66	66	66	66		
Zone 2.6	117	355	-59	3	61					61	61	61	61	61	61	61		
Zone 2.7	116	520	-62	3	56					56	56	56	56	56	56	56		
Zone 2.8	116	720	-65	3	54					54	54	54	54	54	54	54		
Activity 4 - Basement and Underpass																		
Zone 2.1	114	680	-65	3	53									53	53	53		
Zone 2.2	114	520	-62	3	55									55	55	55		
Zone 2.3	115	360	-59	3	58									58	58	58		
Zone 2.4	115	220	-55	3	63									63	63	63		
Zone 2.5	115	195	-54	3	64									64	64	64		
Zone 2.6	115	355	-59	3	59									59	59	59		
Zone 2.7	115	520	-62	3	55									55	55	55		
Zone 2.8	114	720	-65	3	52									52	52	52		
3) Zone 3																		
Activity 1 - D Walling																		
Activity 2 - Bored Piling	126	905	-67	3	62	57	57	57	57	57	57	57	57	62	62	62		
4) Park Construction - Zone A																		
5) ICC Footbridge	115	1065	-69	3	55	55	55	55	55	55	55	55	55	55	55	55		
6) Flyover	115	837	-67	3	52	52	52	52	52	52	52	52	52	52	52	52		
7) East Concrete Batching Plant (Operation)	115	933	-67	3	51					51	51	51	51	51	51	51		
8) Barqing Point (BP)	115	170	-53	3	65	65	65	65	65	65	65	65	65	65	65	65		
9) West Pier (Optional)																		
BP4	120	745	-65	3	58	58	58	58	58	58	58	58	58	58	58	58		
BP5	120	795	-66	3	57	57	57	57	57	57	57	57	57	57	57	57		
BP6	120	993	-68	3	55	55	55	55	55	55	55	55	55	55	55	55		
BP7	120	1080	-69	3	55	55	55	55	55	55	55	55	55	55	55	55		
10) South Pier (Optional)	117	1455	-71	3	49	49	49	49	49	49	49	49	49	49	49	49		
11) Viewing Platform (Optional)	117	775	-66	3	55	55	55	55	55	55	55	55	55	55	55	55		
11) Viewing Platform (Optional)	115	400	-60	3	58	58	58	58	58	58	58	58	58	58	58	58		
Predicted Noise Level of this Project, dB (A)						78	78	79	79	79	79	78	78	78	76	76	76	
Predicted Noise Level of Express Rail Link, dB(A) ¹						60	60	60	60	60	60	58	58	55	55			
Predicted Noise Level of Road Works at West Kowloon, dB(A) ²						60	59	59	59	59	59							
Predicted Noise Level of Road Improvement Works in West Kowloon Reclamation, dB(A) ³						60	63	60	66	65	65	65	66	60	60	42	42	
Overall Cumulative Noise Level, dB(A)						78	79	79	79	79	79	78	78	79	76	76	76	
														2014		2015		
														Min	Max	Min	Max	
														76	79	76	76	

Note: Bold figure in shaded box denotes exceedance of relevant construction noise criteria

- Predicted Noise Levels are referred to NSR WK7 in Appendix G of Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility.
- Predicted Noise Levels are referred to NSR VT2 in Appendix 3.13 of approved EIA of Road Works at West Kowloon (AEIAR-141/2009) for conservative approach.
- Predicted Noise Levels are referred to NSR CGPS in Appendix 2.4 of Preliminary Environmental Review Report - Scheme Q of Proposed Road Improvement Works in West Kowloon Reclamation for conservative approach. Delaying of 6 months of construction programme based on latest information have been included in predicted noise level.
- Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.
- Phase 1 Concrete Batching Plant in Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility will be handed over to WKCD starting from the year of 2014. Since the operation of concreting batching plants before 2014 and the operation and demolition of phase 2 concreting batching plant have already been included in the noise impact assessment of the XRL project, separate noise impact assessment will only be calculated after handing over the phase 1 concrete batching plant to WKCD starting from the year of 2014.

Unmitigated Construction Noise Impact

NSR: FQ (Fire Services Department Staff Quarter)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2014												2015			
						4	5	6	7	8	9	10	11	12	1	2	3				
1) Zone 1																					
Activity 3 - Excavation	119	82	-46	3	76	76	76	76	76												
Activity 4 - Basement and Underpass	117	82	-46	3	73			73	73	73	73										
Activity 5 - Superstructure	118	82	-46	3	74									74	74	74	74				
2) Zone 2																					
Activity 1 - D Walling																					
Zone 2.1	113	540	-63	3	54	54	54	54	54	54											
Zone 2.2	113	386	-60	3	57	57	57	57	57	57											
Zone 2.3	116	251	-56	3	63	63	63	63	63	63											
Zone 2.4	116	87	-47	3	72	72	72	72	72	72											
Zone 2.5	116	68	-45	3	75	75	75	75	75	75											
Zone 2.6	116	226	-55	3	64	64	64	64	64	64											
Zone 2.7	113	386	-60	3	57	57	57	57	57	57											
Zone 2.8	113	590	-63	3	53	53	53	53	53	53											
Activity 2 - Bored Piling																					
Zone 2.1	119	540	-63	3	59	59	59	59	59	59	59	59	59								
Zone 2.2	119	386	-60	3	62	62	62	62	62	62	62	62	62								
Zone 2.3	119	251	-56	3	66	66	66	66	66	66	66	66	66								
Zone 2.4	119	87	-47	3	75	75	75	75	75	75	75	75	75								
Zone 2.5	119	68	-45	3	77	77	77	77	77	77	77	77	77								
Zone 2.6	119	226	-55	3	67	67	67	67	67	67	67	67	67								
Zone 2.7	119	386	-60	3	62	62	62	62	62	62	62	62	62								
Zone 2.8	119	590	-63	3	59	59	59	59	59	59	59	59	59								
Activity 3 - Excavation																					
Zone 2.1	116	580	-63	3	55					55	55	55	55	55	55	55	55				
Zone 2.2	116	415	-60	3	58					58	58	58	58	58	58	58	58				
Zone 2.3	117	256	-56	3	64					64	64	64	64	64	64	64	64				
Zone 2.4	117	112	-49	3	71					71	71	71	71	71	71	71	71				
Zone 2.5	117	97	-48	3	72					72	72	72	72	72	72	72	72				
Zone 2.6	117	251	-56	3	64					64	64	64	64	64	64	64	64				
Zone 2.7	116	411	-60	3	58					58	58	58	58	58	58	58	58				
Zone 2.8	116	610	-64	3	55					55	55	55	55	55	55	55	55				
Activity 4 - Basement and Underpass																					
Zone 2.1	114	580	-63	3	54									54	54	54	54				
Zone 2.2	114	415	-60	3	57									57	57	57	57				
Zone 2.3	115	256	-56	3	61									61	61	61	61				
Zone 2.4	115	112	-49	3	69									69	69	69	69				
Zone 2.5	115	97	-48	3	70									70	70	70	70				
Zone 2.6	115	251	-56	3	62									62	62	62	62				
Zone 2.7	115	411	-60	3	57									57	57	57	57				
Zone 2.8	114	610	-64	3	53									53	53	53	53				
3) Zone 3																					
Activity 1 - D Walling																					
Activity 2 - Bored Piling	126	795	-66	3	63	58	58	58	58	58	58										
4) Park Construction - Zone A																					
Activity 1 - D Walling	121	996	-68	3	56	56	56	56	56	56	56	56	56	56	56	56	56				
5) ICC Footbridge																					
Activity 1 - D Walling	115	744	-65	3	53	53	53	53	53	53	53	53	53								
6) Flyover																					
Activity 1 - D Walling	115	828	-66	3	52					52	52	52	52	52	52	52	52				
7) East Concrete Batching Plant (Operation)																					
Activity 1 - D Walling	115	68	-45	3	73	73	73	73	73	73	73	73	73	73	73	73	73				
8) Barqing Point (BP)																					
BP4	120	650	-64	3	59	59	59	59	59	59	59	59	59	59	59	59	59				
BP5	120	695	-65	3	58	58	58	58	58	58	58	58	58	58	58	58	58				
BP6	120	900	-67	3	56	56	56	56	56	56	56	56	56	56	56	56	56				
BP7	120	985	-68	3	55	55	55	55	55	55	55	55	55	55	55	55	55				
9) West Pier (Optional)																					
Activity 1 - D Walling	117	1350	-71	3	50	50	50	50	50	50	50	50	50	50	50	50	50				
10) South Pier (Optional)																					
Activity 1 - D Walling	117	680	-65	3	56	56	56	56	56	56	56	56	56	56	56	56	56				
11) Viewing Platform (Optional)																					
Activity 1 - D Walling	115	291	-57	3	61	61	61	61	61	61	61	61	61	61	61	61	61				
Predicted Noise Level of this Project, dB (A)						83	83	84	84	84	83	83	83	81	81	81	81				
Predicted Noise Level of Express Rail Link, dB(A)¹						69	69	69	68	68	67	67	64	64	58	58	58				
Predicted Noise Level of Road Works at West Kowloon, dB(A)²						60	59	59	59	59	59	59									
Predicted Noise Level of Road Improvement Works in West Kowloon Reclamation, dB(A)³						62	65	62	69	68	68	68	69	62	62	42	42				
Overall Cumulative Noise Level, dB(A)						84	84	84	84	84	83	83	84	81	81	81	81				
												2014		2015							
												Min	Max	Min	Max						

Note: Bold figure in shaded box denotes exceedance of relevant construction noise criteria

- Predicted Noise Levels are referred to NSR WK7a in Appendix G of Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility.
- Predicted Noise Levels are referred to NSR VT2 in Appendix 3.13 of approved EIA of Road Works at West Kowloon (AEIAR-141/2009) for conservative approach.
- Predicted Noise Levels are referred to NSR LCS in Appendix 2.4 of Preliminary Environmental Review Report - Scheme Q of Proposed Road Improvement Works in West Kowloon Reclamation for conservative approach. Delaying of 6 months of construction programme based on latest information have been included in predicted noise level.
- Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.
- Phase 1 Concrete Batching Plant in Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility will be handed over to WKCD starting from the year of 2014. Since the operation of concreting batching plants before 2014 and the operation and demolition of phase 2 concreting batching plant have already been included in the noise impact assessment of the XRL project, separate noise impact assessment will only be calculated after handing over the phase 1 concrete batching plant to WKCD starting from the year of 2014.

Item	PME	TM or other reference	SWL, dB(A)	No. of PME	% on time	Total SWL, dB(A)	
1	Zone 1						
	Activity 5 - Superstructure						
	Group 1						
		Crane, tower (electric)	CNP 049	95	1	50%	92
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	50%	109
		Crane Lorry 5.5 tonne < gross vehicle weight =< 38 tonne	[1]	105	1	50%	102
		Concrete pump, stationary/ lorry mounted	CNP 047	109	1	50%	106
		Poker, vibratory, hand-held (electric)	[1]	102	3	50%	104
		Bar bender and cutter (electric)	CNP 021	90	1	50%	87
		Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	100%	98
		Air compressor, air flow > 30m3/min	CNP 003	104	1	100%	104
		Concrete lorry mixer	CNP 044	109	2	50%	109
		Drill/grinder, hand-held (electric)	CNP 065	98	5	30%	100
		Water pump (electric)	CNP 281	88	2	30%	86
		Excavator/ loader, wheeled/ tracked	CNP 081	112	2	30%	110
		Fork Lift Truck	[2]	104	2	30%	102
		Hoist, passenger/ material (electric)	CNP 122	95	2	30%	93
		Total SWL, dB (A)					116
		Group 2					
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	50%	109
		Crane Lorry 5.5 tonne < gross vehicle weight =< 38 tonne	[1]	105	1	50%	102
		Concrete pump, stationary/ lorry mounted	CNP 047	109	1	50%	106
		Poker, vibratory, hand-held (electric)	[1]	102	2	50%	102
		Bar bender and cutter (electric)	CNP 021	90	1	50%	87
		Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95
		Water pump (electric)	CNP 281	88	1	30%	83
		Excavator/ loader, wheeled/ tracked	CNP 081	112	1	30%	107
		Fork Lift Truck	[2]	104	1	30%	99
		Hoist, passenger/ material (electric)	CNP 122	95	1	30%	90
		Total SWL, dB (A)					113
		Maximum SWL, dB (A)					116
	2a	Zone 2 (for area with less plant) [3]					
		Activity 3 - Excavation					
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110
		Air compressor, air flow > 30m3/min	CNP 003	104	1	100%	104
		Excavator/ loader, wheeled/ tracked	CNP 081	112	1	60%	110
		Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95
		Dump truck	CNP 067	117	1	30%	112
		Total SWL, dB (A)					116
Activity 4 - Basement and Underpass							
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110
		Crane Lorry 5.5 tonne < gross vehicle weight =< 38 tonne	[1]	105	1	60%	103
		Concrete pump, stationary/ lorry mounted	CNP 047	109	1	60%	107
		Poker, vibratory, hand-held (electric)	[1]	102	5	60%	107
		Bar bender and cutter (electric)	CNP 021	90	1	60%	88
		Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95
		Concrete lorry mixer	CNP 044	109	1	60%	107
		Total SWL, dB (A)					114
2b		Zone 2 (for area with more plant) [3]					
	Activity 3 - Excavation						
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110
		Air compressor, air flow > 30m3/min	CNP 003	104	1	60%	102
		Excavator/ loader, wheeled/ tracked	CNP 081	112	1	60%	110
		Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95
		Dump truck	CNP 067	117	2	30%	115
		Total SWL, dB (A)					117
	Activity 4 - Basement and Underpass						
		Crane, tower (electric)	CNP 049	95	1	60%	93
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110
		Crane Lorry 5.5 tonne < gross vehicle weight =< 38 tonne	[1]	105	1	60%	103
		Concrete pump, stationary/ lorry mounted	CNP 047	109	1	60%	107
		Poker, vibratory, hand-held (electric)	[1]	102	5	60%	107
		Bar bender and cutter (electric)	CNP 021	90	1	60%	88
		Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95
		Air compressor, air flow > 30m3/min	CNP 003	104	1	100%	104
		Concrete lorry mixer	CNP 044	109	1	60%	107
	Total SWL, dB (A)					115	
2c	Zone 2 (for superstructure only)						
	Activity 5 - Superstructure						
		Crane, tower (electric)	CNP 049	95	4	50%	98
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	8	50%	118
		Crane Lorry 5.5 tonne < gross vehicle weight =< 38 tonne	[1]	105	8	50%	111
		Concrete pump, stationary/ lorry mounted	CNP 047	109	8	50%	115
		Poker, vibratory, hand-held (electric)	[1]	102	40	50%	115
		Bar bender and cutter (electric)	CNP 021	90	8	50%	96
		Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	9	100%	105
		Air compressor, air flow > 30m3/min	CNP 003	104	4	100%	110
		Concrete lorry mixer	CNP 044	109	8	50%	115
		Drill/grinder, hand-held (electric)	CNP 065	98	20	30%	106
		Water pump (electric)	CNP 281	88	14	30%	94
		Excavator/ loader, wheeled/ tracked	CNP 081	112	14	30%	118
		Fork Lift Truck	[2]	104	14	30%	110
		Hoist, passenger/ material (electric)	CNP 122	95	14	30%	101
		Total SWL, dB (A)					124

Item	PME	TM or other reference	SWL, dB(A)	No. of PME	% on time	Total SWL, dB(A)	
3	Zone 3						
	Activity 3 - Excavation						
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	4	60%	116	
	Air compressor, air flow > 30m3/min	CNP 003	104	4	100%	110	
	Excavator/ loader, wheeled/ tracked	CNP 081	112	4	60%	116	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	4	100%	101	
	Dump truck	CNP 067	117	6	30%	120	
	Total SWL, dB (A)						122
	Activity 4 - Basement and Underpass						
	Crane, tower (electric)	CNP 049	95	2	60%	96	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	4	60%	116	
	Crane Lorry 5.5 tonne < gross vehicle weight =< 38 tonne	[1]	105	4	60%	109	
	Concrete pump, stationary/ lorry mounted	CNP 047	109	4	60%	113	
	Poker, vibratory, hand-held (electric)	[1]	102	20	60%	113	
	Bar bender and cutter (electric)	CNP 021	90	4	60%	94	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	4	100%	101	
	Air compressor, air flow > 30m3/min	CNP 003	104	2	100%	107	
	Concrete lorry mixer	CNP 044	109	4	60%	113	
	Total SWL, dB (A)						120
	Activity 5 - Superstructure						
	Crane, tower (electric)	CNP 049	95	1	50%	92	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	2	50%	112	
	Crane Lorry 5.5 tonne < gross vehicle weight =< 38 tonne	[1]	105	2	50%	105	
	Concrete pump, stationary/ lorry mounted	CNP 047	109	2	50%	109	
	Poker, vibratory, hand-held (electric)	[1]	102	10	50%	109	
	Bar bender and cutter (electric)	CNP 021	90	2	50%	90	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	3	100%	100	
	Air compressor, air flow > 30m3/min	CNP 003	104	1	100%	104	
	Concrete lorry mixer	CNP 044	109	2	50%	109	
	Drill/grinder, hand-held (electric)	CNP 065	98	6	30%	101	
	Water pump (electric)	CNP 281	88	4	30%	89	
	Excavator/ loader, wheeled/ tracked	CNP 081	112	4	30%	113	
	Fork Lift Truck	[2]	104	4	30%	105	
	Hoist, passenger/ material (electric)	CNP 122	95	4	30%	96	
	Total SWL, dB (A)						118
	4	Park Construction - Zone A					
		Activity 1 - Park Construction					
		Dump truck	CNP 067	117	2	60%	118
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	2	60%	113
Excavator/ loader, wheeled/ tracked		CNP 081	112	2	60%	113	
Generator, super silenced, 70 dB(A) at 7 m		CNP 103	95	2	100%	98	
Lorry		CNP 141	112	2	60%	113	
Total SWL, dB (A)						121	
Activity 2 - Superstructure							
Crane, tower (electric)		CNP 049	95	1	50%	92	
Crane, mobile/ barge mounted (diesel)		CNP 048	112	2	50%	112	
Crane Lorry 5.5 tonne < gross vehicle weight =< 38 tonne		[1]	105	2	50%	105	
Concrete pump, stationary/ lorry mounted		CNP 047	109	2	50%	109	
Poker, vibratory, hand-held (electric)		[1]	102	5	50%	106	
Bar bender and cutter (electric)		CNP 021	90	2	50%	90	
Generator, super silenced, 70 dB(A) at 7 m		CNP 103	95	3	100%	100	
Air compressor, air flow > 30m3/min		CNP 003	104	1	100%	104	
Concrete lorry mixer		CNP 044	109	2	50%	109	
Drill/grinder, hand-held (electric)		CNP 065	98	5	30%	100	
Water pump (electric)		CNP 281	88	3	30%	88	
Excavator/ loader, wheeled/ tracked		CNP 081	112	3	30%	112	
Fork Lift Truck	[2]	104	3	30%	104		
Hoist, passenger/ material (electric)	CNP 122	95	3	30%	95		
Total SWL, dB (A)						118	
Maximum SWL, dB (A)						118	
5	Park Construction - Zone B						
	Dump truck	CNP 067	117	1	60%	115	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110	
	Excavator/ loader, wheeled/ tracked	CNP 081	112	1	60%	110	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95	
	Lorry	CNP 141	112	1	60%	110	
Total SWL, dB (A)						118	
6/7	ICC Footbridge / Flyover						
	Group 1						
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	1	100%	102	
	Breaker, hand-held, mass > 35kg	CNP 026	114	2	30%	112	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	100%	112	
	Crane Lorry 5.5 tonne < gross vehicle weight =< 38 tonne	[1]	105	1	70%	103	
	Bar bender and cutter (electric)	CNP 021	90	1	80%	89	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95	
	Total SWL, dB (A)						115
	Group 2						
	Breaker, hand-held, mass > 35kg	CNP 026	114	2	30%	112	
	Breaker, hand-held, mass > 10kg and < 20kg	CNP 024	108	1	30%	103	
	Concrete lorry mixer	CNP 044	109	1	50%	106	
	Poker, vibratory, hand-held (electric)	[1]	102	2	50%	102	
	Grout pump	[1]	105	1	20%	98	
	Saw, circular, wood	CNP 201	108	1	80%	107	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95	
	Total SWL, dB (A)						115
	Maximum SWL, dB (A)						115

Item	PME	TM or other reference	SWL, dB(A)	No. of PME	% on time	Total SWL, dB(A)	
8	East Concrete Batching Plant (Operation)						
	Group 1						
		Excavator/ loader, wheeled/ tracked	CNP 081	112	1	60%	110
		Concrete mixer (electric)	CNP 045	96	1	60%	94
		Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	60%	96
		Concrete mixer (petrol)	CNP 046	96	3	60%	99
		Concrete lorry mixer	CNP 044	109	2	60%	110
		Batching plant	CNP 022	108	1	60%	106
		Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	60%	103
		Tipper Lorry	BS 5228 Table D.3/112	113	1	30%	108
		Total SWL, dB (A)					115
		Group 2					
		Excavator/ loader, wheeled/ tracked	CNP 081	112	1	60%	110
		Concrete mixer (electric)	CNP 045	96	1	60%	94
		Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	60%	96
		Concrete mixer (petrol)	CNP 046	96	3	60%	99
		Concrete lorry mixer	CNP 044	109	2	60%	110
		Batching plant	CNP 022	108	1	60%	106
		Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	60%	103
		Tipper Lorry	BS 5228 Table D.3/112	113	1	30%	108
		Maximum SWL, dB (A)					115
	9	Barging Points					
		Derrick barge	CNP 061	104	1	60%	102
		Tug boat	CNP 221	110	1	60%	108
		Dump truck	CNP 067	117	6	30%	120
		Excavator/ loader, wheeled/ tracked	CNP 081	112	1	60%	110
		Conveyor belt	CNP 041	90	1	60%	88
	Total SWL, dB (A)					120	
10	Modification of seawalls and construction of seawater outfalls						
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110
		Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	100%	105
		Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	100%	98
		Concrete pump, stationary/ lorry mounted	CNP 047	109	2	100%	112
		Concrete lorry mixer	CNP 044	109	2	60%	110
		Poker, vibratory, hand-held (electric)	[1]	102	4	80%	107
		Tug boat	CNP 221	110	1	60%	108
	Total SWL, dB (A)					117	
11/12	Pier Construction (Optional)						
	Group 1						
		Piling, large diameter bored, reverse circulation drill	CNP 166	100	1	100%	100
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110
		Tug boat	CNP 221	110	1	60%	108
		Total SWL, dB (A)					112
		Group 2					
		Concrete pump, stationary/ lorry mounted	CNP 047	109	2	100%	112
		Concrete lorry mixer	CNP 044	109	4	60%	113
		Water pump (electric)	CNP 281	88	4	100%	94
		Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	100%	98
		Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	100%	105
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110
		Tug boat	CNP 221	110	1	60%	108
		Total SWL, dB (A)					117
		Group 3					
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110
		Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	100%	105
		Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	100%	98
		Concrete pump, stationary/ lorry mounted	CNP 047	109	2	100%	112
		Concrete lorry mixer	CNP 044	109	2	60%	110
		Poker, vibratory, hand-held (electric)	[1]	102	4	80%	107
	Tug boat	CNP 221	110	1	60%	108	
	Total SWL, dB (A)					117	
	Maximum SWL, dB (A)					117	
13	Viewing Platform (Optional)						
	Group 1						
		Piling, large diameter bored, reverse circulation drill	CNP 166	100	1	100%	100
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	80%	111
		Tug boat	CNP 221	110	1	60%	108
		Total SWL, dB (A)					113
		Group 2					
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	2	100%	115
		Total SWL, dB (A)					115
		Maximum SWL, dB (A)					115

Note: [1] Details extracted from EPD website: http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[2] SWL of Welding Plant and Piling Rig are referred to the Appendix 5.1 of approved EIA Report of Hong Kong Section of Guangzhou - Shenzhen - Hong Kong Express Rail Link (AEIAR-143/2009)

[3] More plant have been assumed at the zones near the NSR for conservative approach.

Unmitigated Construction Noise Impact

NSR: HT1 (The Harbourside Tower 1)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2015												2016											
						4	5	6	7	8	9	10	11	12	1	2	3												
1) Zone 1																													
Activity 5 - Superstructure	116	481	-62	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57				
2) Zone 2																													
Activity 3 - Excavation																													
Zone 2.1	117	116	-49	3	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71				
Zone 2.2	117	102	-48	3	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72				
Zone 2.3	116	203	-54	3	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65				
Zone 2.4	116	357	-59	3	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60				
Zone 2.5	116	377	-60	3	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59				
Zone 2.6	116	258	-56	3	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62				
Zone 2.7	117	179	-53	3	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67				
Zone 2.8	117	228	-55	3	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65				
Activity 4 - Basement and Underpass																													
Zone 2.1	115	116	-49	3	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68				
Zone 2.2	115	102	-48	3	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69				
Zone 2.3	114	203	-54	3	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63				
Zone 2.4	114	357	-59	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58				
Zone 2.5	114	377	-60	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58				
Zone 2.6	114	258	-56	3	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61				
Zone 2.7	115	179	-53	3	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65				
Zone 2.8	115	228	-55	3	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62				
Activity 5 - Superstructure																													
Lyric Theatre	124	258	-56	3	71															71	71	71	71	71	71				
CCP	124	282	-57	3	70															70	70	70	70	70	70				
3) Zone 3																													
Activity 3 - Excavation	122	317	-58	3	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67				
Activity 4 - Basement and Underpass	120	317	-58	3	65															65	65	65	65	65	65				
Activity 5 - Superstructure	118	256	-56	3	65																				65				
4) Park Construction - Zone A																													
Zone A	118	264	-56	3	64			64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64				
6) ICC Footbridge																													
ICC Footbridge	115	211	-54	3	64																								
7) Flyover																													
Flyover	115	287	-57	3	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61				
8) East Concrete Batching Plant (Operation)																													
East Concrete Batching Plant (Operation)	115	461	-61	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57				
9) Barging Point (BP)																													
BP4	120	307	-58	3	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66				
BP5	120	327	-58	3	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65				
BP6	120	506	-62	3	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61				
BP7	120	616	-64	3	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60				
10) Modification of seawalls / construction of seawater outfalls																													
Outfall of WKCD DCWS	117	292	-57	3	63				63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63				
Outfall of Independent Cooling System for Freespace	117	761	-66	3	54				54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54				
11) West Pier (Optional)																													
West Pier (Optional)	117	846	-67	3	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54				
12) South Pier (Optional)																													
South Pier (Optional)	117	347	-59	3	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62				
13) Viewing Platform (Optional)																													
Viewing Platform (Optional)	115	342	-59	3	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59				
Predicted Noise Level of this Project, dB (A)						79	79	79	80	80	80	79	81	81	80	80	81	81	80	80	81	81	80	80	81				
Predicted Noise Level of Express Rail Link, dB(A)¹						63	63	61																					
Overall Cumulative Noise Level, dB(A)						84	80	80	80	80	80	79	81	81	80	80	81	81	80	80	81	81	80	80	81	81			
															2015		2016												
															Min	Max	Min	Max	Min	Max	Min	Max							
																	2015		2016										
															Min	Max	Min	Max	Min	Max	Min	Max							

Note: Bold figure in shaded box denotes exceedance of relevant construction noise criteria

- Predicted Noise Levels are referred to NSR WK9 in Appendix 5.8 of approved EIA of Express Rail Link (AEIAR-143/2009). Delaying of 6 months of WKT construction programme in VEP have been included in predicted noise level.
- Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.

Unmitigated Construction Noise Impact

NSR: HT3 (The Harbourside Tower 3)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2015												2016				
						4	5	6	7	8	9	10	11	12	1	2	3					
1) Zone 1																						
Activity 5 - Superstructure	116	576	-63	3	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56			
2) Zone 2																						
Activity 3 - Excavation																						
Zone 2.1	117	111	-49	3	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71			
Zone 2.2	117	169	-53	3	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68			
Zone 2.3	116	302	-58	3	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61			
Zone 2.4	116	446	-61	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58			
Zone 2.5	116	456	-61	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57			
Zone 2.6	116	342	-59	3	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60			
Zone 2.7	117	228	-55	3	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65			
Zone 2.8	117	208	-54	3	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66			
Activity 4 - Basement and Underpass																						
Zone 2.1	115	111	-49	3	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69			
Zone 2.2	115	169	-53	3	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65			
Zone 2.3	114	302	-58	3	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60			
Zone 2.4	114	446	-61	3	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56			
Zone 2.5	114	456	-61	3	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56			
Zone 2.6	114	342	-59	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58			
Zone 2.7	115	228	-55	3	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62			
Zone 2.8	115	208	-54	3	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63			
Activity 5 - Superstructure																						
Lyric Theatre	124	382	-60	3	68											68	68	68	68			
CCP	124	218	-55	3	73											73	73	73	73			
3) Zone 3																						
Activity 3 - Excavation	122	227	-55	3	70	70	70	70	70	70	70											
Activity 4 - Basement and Underpass	120	227	-55	3	68							68	68	68	68	68	68	68	68			
Activity 5 - Superstructure	118	180	-53	3	68														68			
4) Park Construction - Zone A																						
118	525	-62	3	58	58																	
5) Park Construction - Zone B																						
118	283	-57	3	64		64	64	64	64	64	64	64	64	64	64	64	64	64	64			
6) ICC Footbridge																						
115	125	-50	3	68																		
7) Flyover																						
115	198	-54	3	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65			
8) East Concrete Batching Plant (Operation)																						
115	554	-63	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55			
9) Barging Point (BP)																						
BP4	120	302	-58	3	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66			
BP5	120	312	-58	3	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65			
BP6	120	461	-61	3	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62			
BP7	120	576	-63	3	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60			
10) Modification of seawalls / construction of seawater outfalls																						
Outfall of WKCD DCWS	117	297	-57	3	63				63	63	63	63	63	63	63							
Outfall of Independent Cooling System for Freespace	117	701	-65	3	55				55	55	55	55	55	55	55							
11) West Pier (Optional)																						
117	756	-66	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55			
12) South Pier (Optional)																						
117	327	-58	3	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62			
13) Viewing Platform (Optional)																						
115	412	-60	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58			
Predicted Noise Level of this Project, dB (A)						79	79	79	79	79	79	79	79	79	79	80	80	80	80			
Predicted Noise Level of Express Rail Link, dB(A)¹						47	47	47														
Overall Cumulative Noise Level, dB(A)						83	79	79	79	79	79	79	79	79	80	80	80	80	80			
															2015		2016					
															Min	Max	Min	Max				
															2015				2016			
															Min	Max	Min	Max				

Note: **Bold** figure in shaded box denotes exceedance of relevant construction noise criteria

- 1) Predicted Noise Levels are referred to NSR WK10 in Appendix 5.8 of approved EIA of Express Rail Link (AEIAR-143/2009). Delaying of 6 months of WKT construction programme in VEP have been included in predicted noise level.
- 2) Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.

Unmitigated Construction Noise Impact

NSR: AST (The Arch - Sun Tower)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2015												2016			
						4	5	6	7	8	9	10	11	12	1	2	3				
1) Zone 1																					
Activity 5 - Superstructure	116	391	-60	3	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59		
2) Zone 2																					
Activity 3 - Excavation																					
Zone 2.1	117	178	-53	3	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67		
Zone 2.2	117	92	-47	3	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73		
Zone 2.3	116	139	-51	3	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68		
Zone 2.4	116	257	-56	3	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62		
Zone 2.5	116	302	-58	3	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61		
Zone 2.6	116	203	-54	3	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65		
Zone 2.7	117	188	-53	3	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67		
Zone 2.8	117	282	-57	3	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63		
Activity 4 - Basement and Underpass																					
Zone 2.1	115	178	-53	3	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65		
Zone 2.2	115	92	-47	3	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70		
Zone 2.3	114	139	-51	3	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66		
Zone 2.4	114	257	-56	3	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61		
Zone 2.5	114	302	-58	3	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60		
Zone 2.6	114	203	-54	3	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63		
Zone 2.7	115	188	-53	3	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64		
Zone 2.8	115	282	-57	3	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61		
Activity 5 - Superstructure																					
Lyric Theatre	124	337	-59	3	69											69	69	69	69		
CCP	124	203	-54	3	73											73	73	73	73		
3) Zone 3																					
Activity 3 - Excavation	122	411	-60	3	65	65	65	65	65	65	65										
Activity 4 - Basement and Underpass	120	411	-60	3	63							63	63	63	63	63	63	63	63		
Activity 5 - Superstructure	118	341	-59	3	63														63		
4) Park Construction - Zone A																					
118	650	-64	3	57	57																
5) Park Construction - Zone B																					
118	262	-66	3	64		64	64	64	64	64	64	64	64	64	64	64	64	64	64		
6) ICC Footbridge																					
115	298	-57	3	61																	
7) Flyover																					
115	379	-60	3	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59		
8) East Concrete Batching Plant (Operation)																					
115	377	-60	3	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59		
9) Barging Point (BP)																					
BP4	120	357	-59	3	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64		
BP5	120	387	-60	3	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64		
BP6	120	576	-63	3	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60		
BP7	120	691	-65	3	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59		
10) Modification of seawalls / construction of seawater outfalls																					
Outfall of WKCD DCWS	117	337	-59	3	61				61	61	61	61	61	61	61						
Outfall of Independent Cooling System for Freespace	117	836	-66	3	54				54	54	54	54	54	54	54						
11) West Pier (Optional)																					
117	936	-67	3	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53		
12) South Pier (Optional)																					
117	396	-60	3	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60		
13) Viewing Platform (Optional)																					
115	297	-57	3	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61		
Predicted Noise Level of this Project, dB (A)						79	79	79	79	79	80	79	81	81	81	81	81	81	81	81	
Predicted Noise Level of Express Rail Link, dB(A)¹						69	69	68													
Overall Cumulative Noise Level, dB(A)						84	80	80	79	79	80	79	81	81	81	81	81	81	81	81	81
															2015		2016				
															Min	Max	Min	Max			
															2015		2016				
															79	81	81	81			
															79	84	81	81			

Note: **Bold** figure in shaded box denotes exceedance of relevant construction noise criteria

- 1) Predicted Noise Levels are referred to NSR WK14 in Appendix 5.8 of approved EIA of Express Rail Link (AEIAR-143/2009). Delaying of 6 months of WKT construction programme in VEP have been included in predicted noise level.
- 2) Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.

Unmitigated Construction Noise Impact

NSR: RD (Residential Development next to Austin Station)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2015												2016		
						4	5	6	7	8	9	10	11	12	1	2	3			
1) Zone 1																				
Activity 5 - Superstructure	116	99	-48	3	71	71	71	71	71	71	71	71	71	71	71	71	71			
2) Zone 2																				
Activity 3 - Excavation																				
Zone 2.1	117	621	-64	3	56	56	56	56	56	56	56	56	56	56	56	56	56			
Zone 2.2	117	454	-61	3	59	59	59	59	59	59	59	59	59	59	59	59	59			
Zone 2.3	116	303	-58	3	61	61	61	61	61	61	61	61	61	61	61	61	61			
Zone 2.4	116	158	-52	3	67	67	67	67	67	67	67	67	67	67	67	67	67			
Zone 2.5	116	224	-55	3	64	64	64	64	64	64	64	64	64	64	64	64	64			
Zone 2.6	116	330	-58	3	60	60	60	60	60	60	60	60	60	60	60	60	60			
Zone 2.7	117	492	-62	3	58	58	58	58	58	58	58	58	58	58	58	58	58			
Zone 2.8	117	664	-64	3	56	56	56	56	56	56	56	56	56	56	56	56	56			
Activity 4 - Basement and Underpass																				
Zone 2.1	115	621	-64	3	54	54	54	54	54	54	54	54	54	54	54	54	54			
Zone 2.2	115	454	-61	3	56	56	56	56	56	56	56	56	56	56	56	56	56			
Zone 2.3	114	303	-58	3	60	60	60	60	60	60	60	60	60	60	60	60	60			
Zone 2.4	114	158	-52	3	65	65	65	65	65	65	65	65	65	65	65	65	65			
Zone 2.5	114	224	-55	3	62	62	62	62	62	62	62	62	62	62	62	62	62			
Zone 2.6	114	330	-58	3	59	59	59	59	59	59	59	59	59	59	59	59	59			
Zone 2.7	115	492	-62	3	56	56	56	56	56	56	56	56	56	56	56	56	56			
Zone 2.8	115	664	-64	3	53	53	53	53	53	53	53	53	53	53	53	53	53			
Activity 5 - Superstructure																				
Lyric Theatre	124	771	-66	3	62										62	62	62			
CCP	124	267	-57	3	71										71	71	71			
3) Zone 3																				
Activity 3 - Excavation	122	864	-67	3	59	59	59	59	59	59	59									
Activity 4 - Basement and Underpass	120	864	-67	3	57							57	57	57	57	57	57			
Activity 5 - Superstructure	118	822	-66	3	55												55			
4) Park Construction - Zone A																				
118	1036	-68	3	53	53															
5) Park Construction - Zone B																				
118	251	-56	3	65		65	65	65	65	65	65	65	65	65	65	65	65			
6) ICC Footbridge																				
115	759	-66	3	53																
7) Flyover																				
115	837	-66	3	52	52	52	52	52	52	52	52	52	52	52	52	52	52			
8) East Concrete Batching Plant (Operation)																				
115	165	-52	3	66	66	66	66	66	66	66	66	66	66	66	66	66	66			
9) Barging Point (BP)																				
BP4	120	731	-65	3	58	58	58	58	58	58	58	58	58	58	58	58	58			
BP5	120	776	-66	3	58	58	58	58	58	58	58	58	58	58	58	58	58			
BP6	120	986	-68	3	55	55	55	55	55	55	55	55	55	55	55	55	55			
BP7	120	1086	-69	3	55	55	55	55	55	55	55	55	55	55	55	55	55			
10) Modification of seawalls / construction of seawater outfalls																				
Outfall of WKCD DCWS	117	701	-65	3	55			55	55	55	55	55	55	55						
Outfall of Independent Cooling System for Freespace	117	1251	-70	3	50			50	50	50	50	50	50	50						
11) West Pier (Optional)																				
117	1391	-71	3	50	50	50	50	50	50	50	50	50	50	50	50	50	50			
12) South Pier (Optional)																				
117	771	-66	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55			
13) Viewing Platform (Optional)																				
115	447	-61	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57			
Predicted Noise Level of this Project, dB (A)						76	76	76	76	76	76	76	77	77	77	77	77			
Predicted Noise Level of Express Rail Link, dB(A)¹						68	68	66												
Overall Cumulative Noise Level, dB(A)						80	77	77	76	76	76	76	77	77	77	77	77			
															2015		2016			
															Min	Max	Min	Max		
															76	77	76	77		
															2015		2016			
															Min	Max	Min	Max		
															76	80	77	77		

Note: Bold figure in shaded box denotes exceedance of relevant construction noise criteria

- 1) Predicted Noise Levels are referred to NSR WK12 in Appendix G of Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility.
- 2) Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.

Unmitigated Construction Noise Impact

NSR: WOB (Wai On Building)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2015												2016																						
						4	5	6	7	8	9	10	11	12	1	2	3																							
1) Zone 1																																								
Activity 5 - Superstructure	116	100	-48	3	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71																
2) Zone 2																																								
Activity 3 - Excavation																																								
Zone 2.1	117	695	-65	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55																
Zone 2.2	117	525	-62	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58																
Zone 2.3	116	370	-59	3	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59																
Zone 2.4	116	225	-55	3	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64																
Zone 2.5	116	260	-56	3	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62																
Zone 2.6	116	405	-60	3	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59																
Zone 2.7	117	570	-63	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57																
Zone 2.8	117	750	-66	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55																
Activity 4 - Basement and Underpass																																								
Zone 2.1	115	695	-65	3	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53																
Zone 2.2	115	525	-62	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55																
Zone 2.3	114	370	-59	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58																
Zone 2.4	114	225	-55	3	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62																
Zone 2.5	114	260	-56	3	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61																
Zone 2.6	114	405	-60	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57																
Zone 2.7	115	570	-63	3	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54																
Zone 2.8	115	750	-66	3	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52																
Activity 5 - Superstructure																																								
Lyric Theatre	124	851	-67	3	61																61	61	61	61																
CCP	124	352	-59	3	68																68	68	68	68																
3) Zone 3																																								
Activity 3 - Excavation	122	946	-68	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58																
Activity 4 - Basement and Underpass	120	946	-68	3	56										56	56	56	56	56	56	56	56	56																	
Activity 5 - Superstructure	118	876	-67	3	55																		55																	
4) Park Construction - Zone A																																								
Zone A	118	1107	-69	3	52	52																																		
5) Park Construction - Zone B																																								
Zone B	118	282	-57	3	64		64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64																	
6) ICC Footbridge																																								
ICC Footbridge	115	840	-66	3	52																																			
7) Flyover																																								
Flyover	115	922	-67	3	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51																	
8) East Concrete Batching Plant (Operation)																																								
East Concrete Batching Plant (Operation)	115	215	-55	3	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63																	
9) Barging Point (BP)																																								
BP4	120	805	-66	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57																	
BP5	120	850	-67	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57																	
BP6	120	1060	-69	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55																	
BP7	120	1160	-69	3	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54																	
10) Modification of seawalls / construction of seawater outfalls																																								
Outfall of WKCD DCWS	117	775	-66	3	54				54	54	54	54	54	54	54	54	54	54	54	54	54	54	54																	
Outfall of Independent Cooling System for Freespace	117	1325	-70	3	50				50	50	50	50	50	50	50	50	50	50	50	50	50	50	50																	
11) West Pier (Optional)																																								
West Pier (Optional)	117	1475	-71	3	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49																	
12) South Pier (Optional)																																								
South Pier (Optional)	117	845	-67	3	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54																	
13) Viewing Platform (Optional)																																								
Viewing Platform (Optional)	115	508	-62	3	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56																	
Predicted Noise Level of this Project, dB (A)						75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75																
Predicted Noise Level of Express Rail Link, dB(A)¹						49	49	49																																
Overall Cumulative Noise Level, dB(A)						79	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75															
															2015		2016																							
															Min	Max	Min	Max																						
															75	76	76	76																						
															2015		2016																							
															Min	Max	Min	Max																						
															75	79	76	76																						

Note: Bold figure in shaded box denotes exceedance of relevant construction noise criteria

- 1) Predicted Noise Levels are referred to NSR WKS in Appendix G of Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility.
- 2) Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.

Unmitigated Construction Noise Impact

NSR: VT1 (The Victoria Towers - Tower 1)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2015												2016											
						4	5	6	7	8	9	10	11	12	1	2	3												
1) Zone 1																													
Activity 5 - Superstructure	116	74	-45	3	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74				
2) Zone 2																													
Activity 3 - Excavation																													
Zone 2.1	117	676	-65	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55				
Zone 2.2	117	502	-62	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58					
Zone 2.3	116	343	-59	3	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60					
Zone 2.4	116	205	-54	3	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64					
Zone 2.5	116	195	-54	3	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65					
Zone 2.6	116	353	-59	3	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60					
Zone 2.7	117	517	-62	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58					
Zone 2.8	117	716	-65	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55					
Activity 4 - Basement and Underpass																													
Zone 2.1	115	676	-65	3	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53					
Zone 2.2	115	502	-62	3	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56					
Zone 2.3	114	343	-59	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58					
Zone 2.4	114	205	-54	3	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63					
Zone 2.5	114	195	-54	3	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63					
Zone 2.6	114	353	-59	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58					
Zone 2.7	115	517	-62	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55					
Zone 2.8	115	716	-65	3	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52					
Activity 5 - Superstructure																													
Lyric Theatre	124	811	-66	3	61															61	61	61	61	61					
CCP	124	312	-58	3	69															69	69	69	69	69					
3) Zone 3																													
Activity 3 - Excavation	122	917	-67	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58					
Activity 4 - Basement and Underpass	120	917	-67	3	56										56	56	56	56	56	56	56	56	56	56					
Activity 5 - Superstructure	118	855	-67	3	55																			55					
4) Park Construction - Zone A																													
4) Park Construction - Zone B	118	178	-53	3	68			68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68					
6) ICC Footbridge																													
6) ICC Footbridge	115	827	-66	3	52																								
7) Flyover																													
7) Flyover	115	914	-67	3	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51					
8) East Concrete Batching Plant (Operation)																													
8) East Concrete Batching Plant (Operation)	115	158	-52	3	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66					
9) Barging Point (BP)																													
BP4	120	751	-66	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58					
BP5	120	799	-66	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57					
BP6	120	1001	-68	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55					
BP7	120	1093	-69	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55					
10) Modification of seawalls / construction of seawater outfalls																													
Outfall of WKCD DCWS	117	726	-65	3	55				55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55					
Outfall of Independent Cooling System for Freespace	117	1251	-70	3	50				50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50					
11) West Pier (Optional)																													
11) West Pier (Optional)	117	1451	-71	3	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49					
12) South Pier (Optional)																													
12) South Pier (Optional)	117	786	-66	3	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54					
13) Viewing Platform (Optional)																													
13) Viewing Platform (Optional)	115	422	-61	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58					
Predicted Noise Level of this Project, dB (A)						77	77	77	77	77	77	77	77	77	78	78	78	78	78	78	78	78	78	78	78				
Predicted Noise Level of Express Rail Link, dB(A)¹						56	56	56																					
Overall Cumulative Noise Level, dB(A)						81	77	77	77	77	77	77	77	77	78	78	78	78	78	78	78	78	78	78	78	78			
															2015		2016												
															Min	Max	Min	Max											

Note: Bold figure in shaded box denotes exceedance of relevant construction noise criteria

- 1) Predicted Noise Levels are referred to NSR WK6 in Appendix G of Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility.
- 2) Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.

Unmitigated Construction Noise Impact

NSR: VT2 (The Victoria Towers - Tower 2)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2015												2016		
						4	5	6	7	8	9	10	11	12	1	2	3			
1) Zone 1																				
Activity 5 - Superstructure	116	78	-46	3	73	73	73	73	73	73	73	73	73	73	73	73	73			
2) Zone 2																				
Activity 3 - Excavation																				
Zone 2.1	117	701	-65	3	55	55	55	55	55	55	55	55	55	55	55	55	55			
Zone 2.2	117	527	-62	3	58	58	58	58	58	58	58	58	58	58	58	58	58			
Zone 2.3	116	367	-59	3	59	59	59	59	59	59	59	59	59	59	59	59	59			
Zone 2.4	116	214	-55	3	64	64	64	64	64	64	64	64	64	64	64	64	64			
Zone 2.5	116	214	-55	3	64	64	64	64	64	64	64	64	64	64	64	64	64			
Zone 2.6	116	377	-60	3	59	59	59	59	59	59	59	59	59	59	59	59	59			
Zone 2.7	117	547	-63	3	57	57	57	57	57	57	57	57	57	57	57	57	57			
Zone 2.8	117	736	-65	3	55	55	55	55	55	55	55	55	55	55	55	55	55			
Activity 4 - Basement and Underpass																				
Zone 2.1	115	701	-65	3	53	53	53	53	53	53	53	53	53	53	53	53	53			
Zone 2.2	115	527	-62	3	55	55	55	55	55	55	55	55	55	55	55	55	55			
Zone 2.3	114	367	-59	3	58	58	58	58	58	58	58	58	58	58	58	58	58			
Zone 2.4	114	214	-55	3	63	63	63	63	63	63	63	63	63	63	63	63	63			
Zone 2.5	114	214	-55	3	63	63	63	63	63	63	63	63	63	63	63	63	63			
Zone 2.6	114	377	-60	3	58	58	58	58	58	58	58	58	58	58	58	58	58			
Zone 2.7	115	547	-63	3	55	55	55	55	55	55	55	55	55	55	55	55	55			
Zone 2.8	115	736	-65	3	52	52	52	52	52	52	52	52	52	52	52	52	52			
Activity 5 - Superstructure																				
Lyric Theatre	124	841	-66	3	61										61	61	61			
CCP	124	342	-59	3	69										69	69	69			
3) Zone 3																				
Activity 3 - Excavation	122	939	-67	3	58	58	58	58	58	58	58									
Activity 4 - Basement and Underpass	120	939	-67	3	56							56	56	56	56	56	56			
Activity 5 - Superstructure	118	875	-67	3	55												55			
4) Park Construction - Zone A																				
118	1068	-69	3	52	52															
5) Park Construction - Zone B																				
118	223	-55	3	66		66	66	66	66	66	66	66	66	66	66	66	66			
6) ICC Footbridge																				
115	846	-67	3	52																
7) Flyover																				
115	930	-67	3	51	51	51	51	51	51	51	51	51	51	51	51	51	51			
8) East Concrete Batching Plant (Operation)																				
115	183	-53	3	65	65	65	65	65	65	65	65	65	65	65	65	65	65			
9) Barging Point (BP)																				
BP4	120	781	-66	3	57	57	57	57	57	57	57	57	57	57	57	57	57			
BP5	120	831	-66	3	57	57	57	57	57	57	57	57	57	57	57	57	57			
BP6	120	1036	-68	3	55	55	55	55	55	55	55	55	55	55	55	55	55			
BP7	120	1131	-69	3	54	54	54	54	54	54	54	54	54	54	54	54	54			
10) Modification of seawalls / construction of seawater outfalls																				
Outfall of WKCD DCWS	117	751	-66	3	54			54	54	54	54	54	54	54						
Outfall of Independent Cooling System for Freespace	117	1301	-70	3	50			50	50	50	50	50	50	50						
11) West Pier (Optional)																				
117	1471	-71	3	49	49	49	49	49	49	49	49	49	49	49	49	49	49			
12) South Pier (Optional)																				
117	816	-66	3	54	54	54	54	54	54	54	54	54	54	54	54	54	54			
13) Viewing Platform (Optional)																				
115	462	-61	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57			
Predicted Noise Level of this Project, dB (A)						76	77	77	77	77	77	77	77	77	77	77	77			
Predicted Noise Level of Express Rail Link, dB(A)¹						56	56	56												
Overall Cumulative Noise Level, dB(A)						80	77	77	77	77	77	77	77	77	77	77	77			
															2015		2016			
															Min	Max	Min	Max		
															76	77	77	77		
															2015		2016			
															Min	Max	Min	Max		
															77	80	77	77		

Note: **Bold** figure in shaded box denotes exceedance of relevant construction noise criteria

- 1) Predicted Noise Levels are referred to NSR WK6 in Appendix G of Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility.
- 2) Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.

Unmitigated Construction Noise Impact

NSR: LCS (Lai Chack Middle School)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2015												2016		
						4	5	6	7	8	9	10	11	12	1	2	3			
1) Zone 1																				
Activity 5 - Superstructure	116	105	-48	3	71	71	71	71	71	71	71	71	71	71	71	71	71			
2) Zone 2																				
Activity 3 - Excavation																				
Zone 2.1	117	685	-65	3	55	55	55	55	55	55	55	55	55	55	55	55	55			
Zone 2.2	117	505	-62	3	58	58	58	58	58	58	58	58	58	58	58	58	58			
Zone 2.3	116	355	-59	3	60	60	60	60	60	60	60	60	60	60	60	60	60			
Zone 2.4	116	205	-54	3	64	64	64	64	64	64	64	64	64	64	64	64	64			
Zone 2.5	116	195	-54	3	65	65	65	65	65	65	65	65	65	65	65	65	65			
Zone 2.6	116	350	-59	3	60	60	60	60	60	60	60	60	60	60	60	60	60			
Zone 2.7	117	515	-62	3	58	58	58	58	58	58	58	58	58	58	58	58	58			
Zone 2.8	117	720	-65	3	55	55	55	55	55	55	55	55	55	55	55	55	55			
Activity 4 - Basement and Underpass																				
Zone 2.1	115	685	-65	3	53	53	53	53	53	53	53	53	53	53	53	53	53			
Zone 2.2	115	505	-62	3	56	56	56	56	56	56	56	56	56	56	56	56	56			
Zone 2.3	114	355	-59	3	58	58	58	58	58	58	58	58	58	58	58	58	58			
Zone 2.4	114	205	-54	3	63	63	63	63	63	63	63	63	63	63	63	63	63			
Zone 2.5	114	195	-54	3	63	63	63	63	63	63	63	63	63	63	63	63	63			
Zone 2.6	114	350	-59	3	58	58	58	58	58	58	58	58	58	58	58	58	58			
Zone 2.7	115	515	-62	3	55	55	55	55	55	55	55	55	55	55	55	55	55			
Zone 2.8	115	720	-65	3	52	52	52	52	52	52	52	52	52	52	52	52	52			
Activity 5 - Superstructure																				
Lyric Theatre	124	816	-66	3	61										61	61	61			
CCP	124	327	-58	3	69										69	69	69			
3) Zone 3																				
Activity 3 - Excavation																				
Activity 4 - Basement and Underpass	122	923	-67	3	58	58	58	58	58	58	58									
Activity 5 - Superstructure	118	863	-67	3	56							56	56	56	56	56	56			
Activity 5 - Superstructure	118	1046	-68	3	55												55			
4) Park Construction - Zone A	118	150	-51	3	69		69	69	69	69	69	69	69	69	69	69	69			
5) Park Construction - Zone B	118	150	-51	3	69		69	69	69	69	69	69	69	69	69	69	69			
6) ICC Footbridge	115	843	-67	3	52															
7) Flyover	115	927	-67	3	51	66	66	66	66	66	66	66	66	66	66	66	66			
8) East Concrete Batching Plant (Operation)	115	160	-52	3	66	66	66	66	66	66	66	66	66	66	66	66	66			
9) Barging Point (BP)																				
BP4	120	750	-66	3	58	58	58	58	58	58	58	58	58	58	58	58	58			
BP5	120	795	-66	3	57	57	57	57	57	57	57	57	57	57	57	57	57			
BP6	120	993	-68	3	55	55	55	55	55	55	55	55	55	55	55	55	55			
BP7	120	1083	-69	3	55	55	55	55	55	55	55	55	55	55	55	55	55			
10) Modification of seawalls / construction of seawater outfalls																				
Outfall of WKCD DCWS	117	720	-65	3	55				55	55	55	55	55	55						
Outfall of Independent Cooling System for Freespace	117	1250	-70	3	50				50	50	50	50	50	50						
11) West Pier (Optional)	117	1455	-71	3	49	49	49	49	49	49	49	49	49	49	49	49	49			
12) South Pier (Optional)	117	780	-66	3	55	55	55	55	55	55	55	55	55	55	55	55	55			
13) Viewing Platform (Optional)	115	398	-60	3	58	58	58	58	58	58	58	58	58	58	58	58	58			
Predicted Noise Level of this Project, dB (A)						76	77	77	77	77	77	77	77	78	78	77	77	78		
Predicted Noise Level of Express Rail Link, dB(A)¹																				
Overall Cumulative Noise Level, dB(A)						80	77	77	77	77	77	77	77	78	78	77	77	78		
															2015		2016			
															Min	Max	Min	Max		
															2015		2016			
															Min	Max	Min	Max		

Note: Bold figure in shaded box denotes exceedance of relevant construction noise criteria

- 1) Predicted Noise Levels are referred to NSR WK7 in Appendix G of Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility.
- 2) Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.

Unmitigated Construction Noise Impact

NSR: CRGPS (Canton Road Government Primary School)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2015												2016																						
						4	5	6	7	8	9	10	11	12	1	2	3																							
1) Zone 1																																								
Activity 5 - Superstructure	116	120	-50	3	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69															
2) Zone 2																																								
Activity 3 - Excavation																																								
Zone 2.1	117	680	-65	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55															
Zone 2.2	117	520	-62	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58															
Zone 2.3	116	360	-59	3	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60															
Zone 2.4	116	220	-55	3	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64															
Zone 2.5	116	195	-54	3	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65															
Zone 2.6	116	355	-59	3	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60															
Zone 2.7	117	520	-62	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58															
Zone 2.8	117	720	-65	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55															
Activity 4 - Basement and Underpass																																								
Zone 2.1	115	680	-65	3	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53															
Zone 2.2	115	520	-62	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55															
Zone 2.3	114	360	-59	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58															
Zone 2.4	114	220	-55	3	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62															
Zone 2.5	114	195	-54	3	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63															
Zone 2.6	114	355	-59	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58															
Zone 2.7	115	520	-62	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55															
Zone 2.8	115	720	-65	3	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52															
Activity 5 - Superstructure																																								
Lyric Theatre	124	816	-66	3	61																61	61	61	61	61															
CCP	124	342	-59	3	69																69	69	69	69	69															
3) Zone 3																																								
Activity 3 - Excavation	122	926	-67	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58															
Activity 4 - Basement and Underpass	120	926	-67	3	56										56	56	56	56	56	56	56	56	56	56	56															
Activity 5 - Superstructure	118	866	-67	3	55																			55	55															
4) Park Construction - Zone A	118	1065	-69	3	52	52																																		
5) Park Construction - Zone B	118	146	-51	3	69			69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69															
6) ICC Footbridge	115	847	-67	3	52																																			
7) Flyover	115	933	-67	3	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51															
8) East Concrete Batching Plant (Operation)	115	170	-53	3	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65															
9) Barging Point (BP)																																								
BP4	120	745	-65	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58															
BP5	120	795	-66	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57															
BP6	120	993	-68	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55															
BP7	120	1080	-69	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55															
10) Modification of seawalls / construction of seawater outfalls																																								
Outfall of WKCD DCWS	117	750	-66	3	54					54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54															
Outfall of Independent Cooling System for Freespace	117	1250	-70	3	50					50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50															
11) West Pier (Optional)	117	1455	-71	3	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49															
12) South Pier (Optional)	117	775	-66	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55															
13) Viewing Platform (Optional)	115	400	-60	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58															
Predicted Noise Level of this Project, dB (A)						75	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76															
Predicted Noise Level of Express Rail Link, dB(A)¹																																								
Overall Cumulative Noise Level, dB(A)						79	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76														
																					2015		2016																	
																					Min	Max	Min	Max																
																					2015		2016																	
																					Min	Max	Min	Max																

Note: **Bold** figure in shaded box denotes exceedance of relevant construction noise criteria

- 1) Predicted Noise Levels are referred to NSR WK7 in Appendix G of Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility.
- 2) Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.

Unmitigated Construction Noise Impact

NSR: FQ (Fire Services Department Staff Quarter)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2015												2016											
						4	5	6	7	8	9	10	11	12	1	2	3												
1) Zone 1																													
Activity 5 - Superstructure	116	82	-46	3	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73				
2) Zone 2																													
Activity 3 - Excavation																													
Zone 2.1	117	580	-63	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57				
Zone 2.2	117	415	-60	3	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60				
Zone 2.3	116	256	-56	3	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63				
Zone 2.4	116	112	-49	3	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70				
Zone 2.5	116	97	-48	3	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71				
Zone 2.6	116	251	-56	3	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63				
Zone 2.7	117	411	-60	3	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60				
Zone 2.8	117	610	-64	3	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56				
Activity 4 - Basement and Underpass																													
Zone 2.1	115	580	-63	3	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54				
Zone 2.2	115	415	-60	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57				
Zone 2.3	114	256	-56	3	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61				
Zone 2.4	114	112	-49	3	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68				
Zone 2.5	114	97	-48	3	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69				
Zone 2.6	114	251	-56	3	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61				
Zone 2.7	115	411	-60	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57				
Zone 2.8	115	610	-64	3	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54				
Activity 5 - Superstructure																													
Lyric Theatre	124	716	-65	3	62																62	62	62	62	62				
CCP	124	233	-55	3	72																72	72	72	72	72				
3) Zone 3																													
Activity 3 - Excavation	122	824	-66	3	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59				
Activity 4 - Basement and Underpass	120	824	-66	3	57										57	57	57	57	57	57	57	57	57	57	57				
Activity 5 - Superstructure	118	761	-66	3	56																				56				
4) Park Construction - Zone A																													
4) Park Construction - Zone B	118	72	-45	3	76			76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76				
6) ICC Footbridge																													
6) ICC Footbridge	115	744	-65	3	53																								
7) Flyover																													
7) Flyover	115	828	-66	3	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52				
8) East Concrete Batching Plant (Operation)																													
8) East Concrete Batching Plant (Operation)	115	68	-45	3	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73				
9) Barging Point (BP)																													
BP4	120	650	-64	3	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59				
BP5	120	695	-65	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58				
BP6	120	900	-67	3	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56				
BP7	120	985	-68	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55				
10) Modification of seawalls / construction of seawater outfalls																													
Outfall of WKCD DCWS	117	625	-64	3	56				56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56				
Outfall of Independent Cooling System for Freespace	117	1170	-69	3	51				51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51				
11) West Pier (Optional)																													
11) West Pier (Optional)	117	1350	-71	3	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50				
12) South Pier (Optional)																													
12) South Pier (Optional)	117	680	-65	3	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56				
13) Viewing Platform (Optional)																													
13) Viewing Platform (Optional)	115	291	-57	3	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61				
Predicted Noise Level of this Project, dB (A)						80	81	81	81	81	81	81	81	81	81	82	82	82	82	82	82	82	82	82	82	82			
Predicted Noise Level of Express Rail Link, dB(A)¹						58	58	55																					
Overall Cumulative Noise Level, dB(A)						84	81	81	81	81	81	81	81	81	82	82	82	82	82	82	82	82	82	82	82	82	82		
															2015		2016												
															Min	Max	Min	Max											
															2015		2016												
															Min	Max	Min	Max											

Note: **Bold** figure in shaded box denotes exceedance of relevant construction noise criteria

- 1) Predicted Noise Levels are referred to NSR WK7a in Appendix G of Environmental Review for Proposed West Kowloon Terminus Concrete Batching Facility.
- 2) Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.

Unmitigated Construction Noise Impact

NSR: CUL (The Cullirian I)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB (A)	Distance (m)	Distance Correction, dB (A)	Facade Correction, dB(A)	Calculated SPL, dB(A)	2015												2016																					
						4	5	6	7	8	9	10	11	12	1	2	3																						
1) Zone 1																																							
Activity 5 - Superstructure	116	681	-65	3	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54															
2) Zone 2																																							
Activity 3 - Excavation																																							
Zone 2.1	117	829	-66	3	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54															
Zone 2.2	117	659	-64	3	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56															
Zone 2.3	116	499	-62	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57															
Zone 2.4	116	350	-59	3	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60															
Zone 2.5	116	345	-59	3	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60															
Zone 2.6	116	501	-62	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57															
Zone 2.7	117	672	-65	3	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56															
Zone 2.8	117	866	-67	3	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53															
Activity 4 - Basement and Underpass																																							
Zone 2.1	115	828	-66	3	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51															
Zone 2.2	115	659	-64	3	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53															
Zone 2.3	114	498	-62	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55															
Zone 2.4	114	348	-59	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58															
Zone 2.5	114	344	-59	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58															
Zone 2.6	114	500	-62	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55															
Zone 2.7	115	672	-65	3	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53															
Zone 2.8	115	865	-67	3	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51															
Activity 5 - Superstructure																																							
Lyric Theatre	124	471	-61	3	66																66	66	66	66															
CCP	124	526	-62	3	65																65	65	65	65															
3) Zone 3																																							
Activity 3 - Excavation	122	376	-59	3	66	66	66	66	66	66	66																												
Activity 4 - Basement and Underpass	120	376	-59	3	64									64	64	64	64	64	64	64	64	64	64																
Activity 5 - Superstructure	118	329	-58	3	63																		63																
4) Park Construction - Zone A																																							
118	675	-65	3	56	56																																		
5) Park Construction - Zone B																																							
118	433	-61	3	60		60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60																
6) ICC Footbridge																																							
115	272	-57	3	62																																			
7) Flyover																																							
115	317	-58	3	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60																
8) East Concrete Batching Plant (Operation)																																							
115	703	-65	3	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53																
9) Barging Point (BP)																																							
BP4	120	451	-61	3	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62																
BP5	120	461	-61	3	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62																
BP6	120	611	-64	3	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60																
BP7	120	726	-65	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58																
10) Modification of seawalls / construction of seawater outfalls																																							
Outfall of WKCD DCWS	117	561	-63	3	57					57	57	57	57	57	57	57	57	57	57	57	57	57	57																
Outfall of Independent Cooling System for Freespace	117	886	-67	3	53					53	53	53	53	53	53	53	53	53	53	53	53	53	53																
11) West Pier (Optional)																																							
117	826	-66	3	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54																
12) South Pier (Optional)																																							
117	476	-62	3	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59																
13) Viewing Platform (Optional)																																							
115	561	-63	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55																
Predicted Noise Level of this Project, dB (A)						73	73	73	73	73	74	73	74	74	74	74	74	74	74	74	74	74	74	74															
Predicted Noise Level of Express Rail Link, dB(A)¹																																							
Predicted Noise Level of Road Improvement Works in West Kowloon Reclamation, dB(A)²						73	73	70	67	56	56																												
Overall Cumulative Noise Level, dB(A)						76	76	75	74	73	74	73	74	74	74	74	74	74	74	74	74	74	74	74	74														
																				2015		2016																	
																				Min	Max	Min	Max																
																				2015		2016																	
																				Min	Max	Min	Max																

Note: **Bold** figure in shaded box denotes exceedance of relevant construction noise criteria

- 1) Since the NSR is located 270m apart from the site boundary and no direct line of sight of the construction works of "Express Rail Link" project, the cumulative noise impact is predicted to be low and has insignificant contribution to the NSR, therefore, cumulative noise impact is not taken into account at this NSR.
- 2) Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.
- 3) Predicted Noise Levels are referred to NSR SRT in Appendix 2.4 of Preliminary Environmental Review Report - Scheme H, I & J of Proposed Road Improvement Works in West Kowloon Reclamation for conservative approach. Delaying of 6 months of construction programme based on latest information have been included in predicted noise level.

Item	PME	TM or other reference	SWL, dB(A)	No. of PME	% on time	Total SWL, dB(A)	
1	Zone 1						
	Activity 5 - Superstructure						
	Crane, tower (electric)	CNP 049	95	1	50%	92	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	2	50%	112	
	Crane Lorry 5.5 tonne < gross vehicle weight =< 38 tonne	[1]	105	2	50%	105	
	Concrete pump, stationary/ lorry mounted	CNP 047	109	2	50%	109	
	Poker, vibratory, hand-held (electric)	[1]	102	5	50%	106	
	Bar bender and cutter (electric)	CNP 021	90	2	50%	90	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	3	100%	100	
	Air compressor, air flow > 30m3/min	CNP 003	104	1	100%	104	
	Concrete lorry mixer	CNP 044	109	2	50%	109	
	Drill/grinder, hand-held (electric)	CNP 065	98	5	30%	100	
	Water pump (electric)	CNP 281	88	3	30%	88	
	Excavator/ loader, wheeled/ tracked	CNP 081	112	3	30%	112	
	Fork Lift Truck	[2]	104	3	30%	104	
	Hoist, passenger/ material (electric)	CNP 122	95	3	30%	95	
	Total SWL, dB (A)						118
2a	Zone 2 (for area with less plant) [3]						
	Activity 4 - Basement and Underpass						
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110	
	Crane Lorry 5.5 tonne < gross vehicle weight =< 38 tonne	[1]	105	1	60%	103	
	Concrete pump, stationary/ lorry mounted	CNP 047	109	1	60%	107	
	Poker, vibratory, hand-held (electric)	[1]	102	5	60%	107	
	Bar bender and cutter (electric)	CNP 021	90	1	60%	88	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95	
	Concrete lorry mixer	CNP 044	109	1	60%	107	
	Total SWL, dB (A)						114
	Activity 5 - Superstructure						
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	50%	109	
	Crane Lorry 5.5 tonne < gross vehicle weight =< 38 tonne	[1]	105	1	50%	102	
	Concrete pump, stationary/ lorry mounted	CNP 047	109	1	50%	106	
	Poker, vibratory, hand-held (electric)	[1]	102	5	50%	106	
	Bar bender and cutter (electric)	CNP 021	90	1	50%	87	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	100%	98	
Concrete lorry mixer	CNP 044	109	1	50%	106		
Drill/grinder, hand-held (electric)	CNP 065	98	2	30%	96		
Water pump (electric)	CNP 281	88	2	30%	86		
Excavator/ loader, wheeled/ tracked	CNP 081	112	2	30%	110		
Fork Lift Truck	[2]	104	2	30%	102		
Hoist, passenger/ material (electric)	CNP 122	95	2	30%	93		
Total SWL, dB (A)						115	
2b	Zone 2 (for area with more plant) [3]						
	Activity 4 - Basement and Underpass						
	Crane, tower (electric)	CNP 049	95	1	60%	93	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110	
	Crane Lorry 5.5 tonne < gross vehicle weight =< 38 tonne	[1]	105	1	60%	103	
	Concrete pump, stationary/ lorry mounted	CNP 047	109	1	60%	107	
	Poker, vibratory, hand-held (electric)	[1]	102	5	60%	107	
	Bar bender and cutter (electric)	CNP 021	90	1	60%	88	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95	
	Air compressor, air flow > 30m3/min	CNP 003	104	1	100%	104	
	Concrete lorry mixer	CNP 044	109	1	60%	107	
	Total SWL, dB (A)						115
	Activity 5 - Superstructure						
	Crane, tower (electric)	CNP 049	95	1	50%	92	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	50%	109	
	Crane Lorry 5.5 tonne < gross vehicle weight =< 38 tonne	[1]	105	1	50%	102	
	Concrete pump, stationary/ lorry mounted	CNP 047	109	1	50%	106	
Poker, vibratory, hand-held (electric)	[1]	102	5	50%	106		
Bar bender and cutter (electric)	CNP 021	90	1	50%	87		
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	100%	98		
Air compressor, air flow > 30m3/min	CNP 003	104	1	100%	104		
Concrete lorry mixer	CNP 044	109	1	50%	106		
Drill/grinder, hand-held (electric)	CNP 065	98	3	30%	98		
Water pump (electric)	CNP 281	88	2	30%	86		
Excavator/ loader, wheeled/ tracked	CNP 081	112	2	30%	110		
Fork Lift Truck	[2]	104	2	30%	102		
Hoist, passenger/ material (electric)	CNP 122	95	2	30%	93		
Total SWL, dB (A)						116	
3	Zone 3						
	Activity 4 - Basement and Underpass						
	Crane, tower (electric)	CNP 049	95	2	60%	96	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	4	60%	116	
	Crane Lorry 5.5 tonne < gross vehicle weight =< 38 tonne	[1]	105	4	60%	109	
	Concrete pump, stationary/ lorry mounted	CNP 047	109	4	60%	113	
	Poker, vibratory, hand-held (electric)	[1]	102	20	60%	113	
	Bar bender and cutter (electric)	CNP 021	90	4	60%	94	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	4	100%	101	
	Air compressor, air flow > 30m3/min	CNP 003	104	2	100%	107	
Concrete lorry mixer	CNP 044	109	4	60%	113		
Total SWL, dB (A)						120	

Item	PME	TM or other reference	SWL, dB(A)	No. of PME	% on time	Total SWL, dB(A)	
	Activity 5 - Superstructure						
	Crane, tower (electric)	CNP 049	95	1	50%	92	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	2	50%	112	
	Crane Lorry 5.5 tonne < gross vehicle weight =<= 38 tonne	[1]	105	2	50%	105	
	Concrete pump, stationary/ lorry mounted	CNP 047	109	2	50%	109	
	Poker, vibratory, hand-held (electric)	[1]	102	10	50%	109	
	Bar bender and cutter (electric)	CNP 021	90	2	50%	90	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	3	100%	100	
	Air compressor, air flow > 30m3/min	CNP 003	104	1	100%	104	
	Concrete lorry mixer	CNP 044	109	2	50%	109	
	Drill/grinder, hand-held (electric)	CNP 065	98	6	30%	101	
	Water pump (electric)	CNP 281	88	4	30%	89	
	Excavator/ loader, wheeled/ tracked	CNP 081	112	4	30%	113	
	Fork Lift Truck	[2]	104	4	30%	105	
	Hoist, passenger/ material (electric)	CNP 122	95	4	30%	96	
	Total SWL, dB (A)						118
	4	Zone 4					
	Activity 1 - D Walling						
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	6	60%	118	
	Air compressor, air flow > 30m3/min	CNP 003	104	6	100%	112	
	Piling, diaphragm wall, hydraulic extractor	CNP 163	90	3	60%	93	
	Excavator/ loader, wheeled/ tracked	CNP 081	112	6	60%	118	
	Grout Mixer	[1]	90	3	60%	93	
	Water pump, submersible (electric)	CNP 283	85	4	60%	89	
	Dump truck	CNP 067	117	3	30%	117	
	Concrete lorry mixer	CNP 044	109	3	60%	112	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	3	100%	100	
	Total SWL, dB (A)						123
		Activity 2 - Bored Piling					
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	6	60%	118
		Excavator/ loader, wheeled/ tracked	CNP 081	112	6	30%	115
		Piling Rig	[2]	112	6	60%	118
		Drill Rig	[1]	110	6	60%	116
		Excavator/ loader, wheeled/ tracked	CNP 081	112	6	60%	118
Piling, large diameter bored, grab and chisel		CNP 164	115	6	60%	121	
Piling, large diameter bored, reverse circulation drill		CNP 166	100	6	60%	106	
Piling, large diameter bored, oscillator		CNP 165	115	6	60%	121	
Air compressor, air flow > 30m3/min		CNP 003	104	6	100%	112	
Grout Mixer		[1]	90	6	60%	96	
Grout Pump		[1]	105	6	60%	111	
Bar bender and cutter (electric)		CNP 021	90	6	60%	96	
Generator, super silenced, 70 dB(A) at 7 m		CNP 103	95	6	100%	103	
Dump truck		CNP 067	117	3	30%	117	
Concrete lorry mixer		CNP 044	109	3	60%	112	
Welding Set		[2]	78	6	60%	84	
Total SWL, dB (A)						127	
	Activity 3 - Excavation						
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	6	60%	118	
	Air compressor, air flow > 30m3/min	CNP 003	104	6	60%	110	
	Excavator/ loader, wheeled/ tracked	CNP 081	112	6	60%	118	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	6	100%	103	
	Dump truck	CNP 067	117	9	30%	121	
	Total SWL, dB (A)						124
		Activity 4 - Basement					
		Crane, tower (electric)	CNP 049	95	4	60%	99
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	8	60%	119
		Crane Lorry	[1]	105	8	60%	112
		Concrete pump, stationary/ lorry mounted	CNP 047	109	8	60%	116
		Poker, vibratory, hand-held (electric)	[1]	102	40	60%	116
		Bar bender and cutter (electric)	CNP 021	90	8	60%	97
		Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	8	100%	104
		Air compressor, air flow > 30m3/min	CNP 003	104	4	100%	110
		Concrete lorry mixer	CNP 044	109	8	60%	116
Total SWL, dB (A)						123	
5		Park Construction - Zone B					
		Dump truck	CNP 067	117	1	60%	115
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110
		Excavator/ loader, wheeled/ tracked	CNP 081	112	1	60%	110
		Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95
		Lorry	CNP 141	112	1	60%	110
Total SWL, dB (A)						118	
6	Flyover						
	Group 1						
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	1	100%	102	
	Breaker, hand-held, mass > 35kg	CNP 026	114	2	30%	112	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	100%	112	
	Crane Lorry 5.5 tonne < gross vehicle weight =<= 38 tonne	[1]	105	1	70%	103	
	Bar bender and cutter (electric)	CNP 021	90	1	80%	89	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95	
	Total SWL, dB (A)						115
		Group 2					
		Breaker, hand-held, mass > 35kg	CNP 026	114	2	30%	112
		Breaker, hand-held, mass > 10kg and < 20kg	CNP 024	108	1	30%	103
		Concrete lorry mixer	CNP 044	109	1	50%	106
		Poker, vibratory, hand-held (electric)	[1]	102	2	50%	102
		Grout pump	[1]	105	1	20%	98
		Saw, circular, wood	CNP 201	108	1	80%	107
		Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	95
		Total SWL, dB (A)					
Maximum SWL, dB (A)						115	

Item	PME	TM or other reference	SWL, dB(A)	No. of PME	% on time	Total SWL, dB(A)	
7/9	East / West Concrete Batching Plant (Operation)						
	Group 1						
	Excavator/ loader, wheeled/ tracked	CNP 081	112	1	60%	110	
	Concrete mixer (electric)	CNP 045	96	1	60%	94	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	60%	96	
	Concrete mixer (petrol)	CNP 046	96	3	60%	99	
	Concrete lorry mixer	CNP 044	109	2	60%	110	
	Batching plant	CNP 022	108	1	60%	106	
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	60%	103	
	Tipper Lorry	BS 5228 Table D.3/112	113	1	30%	108	
	Total SWL, dB (A)					115	
	Group 2						
	Excavator/ loader, wheeled/ tracked	CNP 081	112	1	60%	110	
	Concrete mixer (electric)	CNP 045	96	1	60%	94	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	60%	96	
	Concrete mixer (petrol)	CNP 046	96	3	60%	99	
	Concrete lorry mixer	CNP 044	109	2	60%	110	
	Batching plant	CNP 022	108	1	60%	106	
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	60%	103	
	Tipper Lorry	BS 5228 Table D.3/112	113	1	30%	108	
	Total SWL, dB (A)					115	
	Maximum SWL, dB (A)						115
	8	East Concrete Batching Plant (Demolition)					
Tracked crane (30kW)		BS 5228 Table D.7/105	108	2	60%	109	
Generator, super silenced, 70 dB(A) at 7 m		CNP 103	95	2	60%	96	
Welding set		[2]	78	2	60%	79	
Total SWL, dB (A)					109		
10	West Concrete Batching Plant (Construction)						
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	4	60%	99	
	Excavator/ loader, wheeled/ tracked	CNP 081	112	2	60%	113	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	2	60%	113	
	Dump truck	CNP 067	117	2	30%	115	
	Poker, vibratory, hand-held (electric)	[1]	102	4	60%	106	
	Breaker, hand-held, mass > 35kg	CNP 026	114	1	60%	112	
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	60%	103	
	Concrete lorry mixer	CNP 044	109	2	60%	110	
	Total SWL, dB (A)					120	
11	Barging Points						
	Derrick barge	CNP 061	104	1	60%	102	
	Tug boat	CNP 221	110	1	60%	108	
	Dump truck	CNP 067	117	6	30%	120	
	Excavator/ loader, wheeled/ tracked	CNP 081	112	1	60%	110	
	Conveyor belt	CNP 041	90	1	60%	88	
Total SWL, dB (A)					120		
12/13	Pier Construction (Optional)						
	Group 1						
	Piling, large diameter bored, reverse circulation drill	CNP 166	100	1	100%	100	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110	
	Tug boat	CNP 221	110	1	60%	108	
	Total SWL, dB (A)					112	
	Group 2						
	Concrete pump, stationary/ lorry mounted	CNP 047	109	2	100%	112	
	Concrete lorry mixer	CNP 044	109	4	60%	113	
	Water pump (electric)	CNP 281	88	4	100%	94	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	100%	98	
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	100%	105	
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110	
	Tug boat	CNP 221	110	1	60%	108	
	Total SWL, dB (A)					117	
	Group 3						
	Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	60%	110	
	Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	100%	105	
	Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	100%	98	
	Concrete pump, stationary/ lorry mounted	CNP 047	109	2	100%	112	
	Concrete lorry mixer	CNP 044	109	2	60%	110	
	Poker, vibratory, hand-held (electric)	[1]	102	4	80%	107	
	Tug boat	CNP 221	110	1	60%	108	
	Total SWL, dB (A)					117	
	Maximum SWL, dB (A)						117
	14	Viewing Platform (Optional)					
		Group 1					
		Piling, large diameter bored, reverse circulation drill	CNP 166	100	1	100%	100
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	1	80%	111
		Tug boat	CNP 221	110	1	60%	108
		Total SWL, dB (A)					113
		Group 2					
		Crane, mobile/ barge mounted (diesel)	CNP 048	112	2	100%	115
Total SWL, dB (A)					115		
Maximum SWL, dB (A)						115	

Note: [1] Details extracted from EPD website: http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[2] SWL of Welding Plant and Piling Rig are referred to the Appendix 5.1 of approved EIA Report of Hong Kong Section of Guangzhou - Shenzhen - Hong Kong Express Rail Link (AEIAR-143/2009)

[3] More plant have been assumed at the zones near the NSR for conservative approach.

Unmitigated Construction Noise Impact

NSR: WOB (Wai On Building)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB	Distance (m)	Distance Correction, dB	Facade Correction,	Calculated SPL,	2016												2017											
						4	5	6	7	8	9	10	11	12	1	2	3												
1) Zone 1																													
Activity 5 - Superstructure	118	100	-48	3	73	73																							
2) Zone 2																													
Activity 4 - Basement and Underpass																													
Zone 2.1	114	695	-65	3	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52			
Zone 2.2	114	525	-62	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55			
Zone 2.3	115	370	-59	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58			
Zone 2.4	115	225	-55	3	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63			
Zone 2.5	115	260	-56	3	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61			
Zone 2.6	115	405	-60	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57			
Zone 2.7	114	570	-63	3	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54			
Zone 2.8	114	750	-66	3	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52			
Activity 5 - Superstructure																													
Zone 2.1	115	695	-65	3	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53			
Zone 2.2	115	525	-62	3	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56			
Zone 2.3	116	370	-59	3	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59			
Zone 2.4	116	225	-55	3	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64			
Zone 2.5	116	260	-56	3	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62			
Zone 2.6	116	405	-60	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58			
Zone 2.7	115	570	-63	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55			
Zone 2.8	115	750	-66	3	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53			
3) Zone 3																													
Activity 4 - Basement and Underpass																													
Activity 5 - Superstructure	118	915	-67	3	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54			
4) Zone 4																													
Activity 1 - D Walling	123	1206	-70	3	56		56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56			
Activity 2 - Bored Piling	127	1206	-70	3	61							61	61	61	61	61	61	61	61	61	61	61	61	61	61				
Activity 3 - Excavation	124	1296	-70	3	57								57	57	57	57	57	57	57	57	57	57	57	57	57				
Activity 4 - Basement	123	1206	-70	3	57																57	57	57	57	57				
5) Park Construction - Zone B																													
6) Flyover	115	922	-67	3	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51			
7) East Concrete Batching Plant (Operation)	115	215	-55	3	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63			
8) East Concrete Batching Plant (Demolition)	109	215	-55	3	57																	57	57	57	57				
9) West Concrete Batching Plant (Construction)	120	1140	-69	3	54							54	54	54	54	54	54	54	54	54	54	54	54	54	54				
10) West Concrete Batching Plant (Operation)	115	1140	-69	3	49																	49	49	49	49				
11) Barging Point (BP)																													
BP4	120	805	-66	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57			
BP5	120	850	-67	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57			
BP6	120	1060	-69	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55			
BP7	120	1160	-69	3	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54			
12) West Pier (Optional)	117	1475	-71	3	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49			
13) South Pier (Optional)	117	845	-67	3	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54			
14) Viewing Platform (Optional)	115	508	-62	3	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56			
Predicted Noise Level of the Project, dB(A)						76	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73		
																					2016		2017						
																					Min	Max	Min	Max					
																					73	76	73	73					

Note: Bold figure in shaded box denotes exceedance of relevant construction noise criteria

No concurrent project is identified in and after 2016. Hence, no cumulative construction noise impact is assessed.

Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.

Unmitigated Construction Noise Impact

NSR: VT2 (The Victoria Towers - Tower 2)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB	Distance (m)	Distance Correction, dB	Facade Correction,	Calculated SPL,	2016												2017											
						4	5	6	7	8	9	10	11	12	1	2	3												
1) Zone 1																													
Activity 5 - Superstructure	118	78	-46	3	75	75																							
2) Zone 2																													
Activity 4 - Basement and Underpass																													
Zone 2.1	114	701	-65	3	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52			
Zone 2.2	114	527	-62	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55			
Zone 2.3	115	367	-59	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58			
Zone 2.4	115	214	-55	3	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63			
Zone 2.5	115	214	-55	3	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63			
Zone 2.6	115	377	-60	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58			
Zone 2.7	114	547	-63	3	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54			
Zone 2.8	114	736	-65	3	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52			
Activity 5 - Superstructure																													
Zone 2.1	115	701	-65	3	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53			
Zone 2.2	115	527	-62	3	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56			
Zone 2.3	116	367	-59	3	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59			
Zone 2.4	116	214	-55	3	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64			
Zone 2.5	116	214	-55	3	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64			
Zone 2.6	116	377	-60	3	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59			
Zone 2.7	115	547	-63	3	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56			
Zone 2.8	115	736	-65	3	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53			
3) Zone 3																													
Activity 4 - Basement and Underpass																													
Activity 5 - Superstructure	118	916	-67	3	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54			
4) Zone 4																													
Activity 1 - D Walling	123	1208	-70	3	56		56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56			
Activity 2 - Bored Piling	127	1208	-70	3	61							61	61	61	61	61	61	61	61	61	61	61	61	61	61				
Activity 3 - Excavation	124	1292	-70	3	57							57	57	57	57	57	57	57	57	57	57	57	57	57	57				
Activity 4 - Basement	123	1208	-70	3	57																57	57	57	57	57				
5) Park Construction - Zone B																													
6) Flyover	115	930	-67	3	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51			
7) East Concrete Batching Plant (Operation)	115	183	-53	3	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65			
8) East Concrete Batching Plant (Demolition)	109	183	-53	3	59																	59	59	59	59				
9) West Concrete Batching Plant (Construction)	120	1151	-69	3	54							54	54	54	54	54	54	54	54	54	54	54	54	54	54				
10) West Concrete Batching Plant (Operation)	115	1151	-69	3	49																	49	49	49	49				
11) Barging Point (BP)																													
BP4	120	781	-66	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57			
BP5	120	831	-66	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57			
BP6	120	1036	-68	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55			
BP7	120	1131	-69	3	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54			
12) West Pier (Optional)	117	1471	-71	3	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49			
13) South Pier (Optional)	117	816	-66	3	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54			
14) Viewing Platform (Optional)	115	462	-61	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57			
Predicted Noise Level of the Project, dB(A)						77	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	73	74	73	74			

Note: Bold figure in shaded box denotes exceedance of relevant construction noise criteria

No concurrent project is identified in and after 2016. Hence, no cumulative construction noise impact is assessed.

Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.

Unmitigated Construction Noise Impact

NSR: FQ (Fire Services Department Staff Quarter)

Construction Programme with Predicted Noise Level (dB, (A))	Total SWL, dB	Distance (m)	Distance Correction, dB	Facade Correction,	Calculated SPL,	2016												2017											
						4	5	6	7	8	9	10	11	12	1	2	3												
1) Zone 1																													
Activity 5 - Superstructure	118	82	-46	3	74	74																							
2) Zone 2																													
Activity 4 - Basement and Underpass																													
Zone 2.1	114	580	-63	3	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54			
Zone 2.2	114	415	-60	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57			
Zone 2.3	115	256	-56	3	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61			
Zone 2.4	115	112	-49	3	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69			
Zone 2.5	115	82	-46	3	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71			
Zone 2.6	115	251	-56	3	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62			
Zone 2.7	114	411	-60	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57			
Zone 2.8	114	610	-64	3	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53			
Activity 5 - Superstructure																													
Zone 2.1	115	580	-63	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55			
Zone 2.2	115	415	-60	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58			
Zone 2.3	116	256	-56	3	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62			
Zone 2.4	116	112	-49	3	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70			
Zone 2.5	116	82	-46	3	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72			
Zone 2.6	116	251	-56	3	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63			
Zone 2.7	115	411	-60	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58			
Zone 2.8	115	610	-64	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55			
3) Zone 3																													
Activity 4 - Basement and Underpass																													
Activity 5 - Superstructure	118	800	-66	3	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57			
4) Zone 4																													
Activity 1 - D Walling	123	1100	-69	3	57																								
Activity 2 - Bored Piling	127	1100	-69	3	62																								
Activity 3 - Excavation	124	1179	-69	3	58																								
Activity 4 - Basement	123	1100	-69	3	58																								
5) Park Construction - Zone B																													
6) Flyover	115	828	-66	3	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52			
7) East Concrete Batching Plant (Operation)	115	68	-45	3	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73			
8) East Concrete Batching Plant (Demolition)	109	68	-45	3	67																								
9) West Concrete Batching Plant (Construction)	120	1050	-68	3	55																								
10) West Concrete Batching Plant (Operation)	115	1050	-68	3	50																								
11) Barging Point (BP)																													
BP4	120	650	-64	3	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59			
BP5	120	695	-65	3	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58			
BP6	120	900	-67	3	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56			
BP7	120	985	-68	3	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55			
12) West Pier (Optional)	117	1350	-71	3	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50			
13) South Pier (Optional)	117	680	-65	3	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56			
14) Viewing Platform (Optional)	115	291	-57	3	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61			
Predicted Noise Level of the Project, dB(A)						82	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81		
																								2016		2017			
																								Min	Max	Min	Max		

Note: Bold figure in shaded box denotes exceedance of relevant construction noise criteria

No concurrent project is identified in and after 2016. Hence, no cumulative construction noise impact is assessed.

Distances between NSR and the activities are different in same zone since worst case scenario of their notional point have been adopted.

