MTR Corporation Limited

Shatin to Central Link – Tai Wai to Hung Hom Section

Construction Noise Mitigation Measures Plan (CNMMP)

Works Contract 1106 – Diamond Hill Station

(April 2015)

Verified by:	Fredrick Leong	An

Position: Independent Environmental Checker

Date: 13 April 2015

MTR Corporation Limited

Shatin to Central Link – Tai Wai to Hung Hom Section

Construction Noise Mitigation Measures Plan (CNMMP)

Works Contract 1106 – Diamond Hill Station

(April 2015)

Certified by: ______ Dr. Priscilla Choy

Position: Environmental Team Leader

Date: _____ 10th April 2015

Sembawang-Leader Joint Venture

Shatin to Central Link – Contract 1106 Diamond Hill Station

Construction Noise Mitigation Measures Plan

(Version 7.4)

April 2015

Approved By	Chuph
	(Contractor's Environmental Team Leader)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

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1 INTRODUCTION

Background

- 1.1 The Shatin to Central Link Tai Wai to Hung Hom Section (hereafter referred to as SCL (TAW-HUH)) is an approximately 11 km long extension of the Ma On Shan Line and links up with the West Rail Line at Hung Hom forming a strategic east-west rail corridor. It is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO).
- 1.2 The Environmental Impact Assessment (EIA) Report of the SCL (TAW-HUH) (Register No. AEIAR-167/2012) and SCL Stabling Sidings at Hung Hom Freight Yard (hereafter referred to as SCL (HHS)) (Register No. AEIAR-164/2012) were approved by the Environmental Protection Department (EPD) under the EIAO on 17 February 2012. An Environmental Permit (EP-438/2012) has been issued on 22 March 2012. The EP has been varied recently and a varied EP (EP-438/2012/H) was issued on 10 September 2014.
- 1.3 The construction of the SCL (TAW-HUH) and SCL (HHS) have been divided into a series of civil construction works contracts. This Works Contract 1106 covers the construction of SCL Diamond Hill Station (DIH) which is under the approved SCL (HHS) EIA Report. This construction contract was awarded to Sembawang-Leader Joint Venture (SLJV) in December 2012.

Purpose of this Construction Noise Mitigation Measures Plan

- 1.4 According to the Condition 2.9 of the EP-438/2012/H, to further reduce the air-borne construction noise impacts on the 19 noise sensitive receivers (NSRs) shown in Table 1 of the EP with exceedance after mitigation as predicted in the SCL (TAW-HUH) EIA Report (Register No. AEIAR-167/2012) and SCL (HHS) EIA Report (Register No. AEIAR-164/2012), the Permit Holder shall, no later than one month before the commencement of construction of the Project, submit to the Director of Environmental Protection (DEP) for approval four hard copies and one electronic copy of an updated Construction Noise Mitigation Measures Plan (CNMMP) and other initiatives proposed by the Permit Holder. The CNMMP shall include:
 - a schedule of construction works to be carried out at the works areas of the Project within 300m from the NSRs;
 - an updated construction methodology of the proposed construction works;
 - an updated powered mechanical equipment (PME) list for the proposed construction works;
 - an updated proposal of air-borne noise mitigation measures for the 19 NSRs as shown in Table 1 of this Permit, including the provision of noise barriers, enclosures and Indirect Technical Remedies;
 - an updated prediction of noise levels in accordance with the above updated information and mitigation proposals in place.
- 1.5 Before submission to the DEP, the CNMMP will be certified by the Environmental Team (ET) Leader and verified by the Independent Environmental Checker (IEC) as conforming to the relevant information and recommendations contained in the approved SCL (TAW-HUH) EIA Report (Register No. AEIAR-167/2012) and

SCL(HHS) EIA Report (Register No. AEIAR-164/2012). All measures recommended in the approved CNMMP will be fully and properly implemented during construction.

- 1.6 The CNMMP was first approved in February 2013 and the last version of the CNMMP was approved in February 2014.
- 1.7 Of the 19 NSRs with residual construction noise impacts identified in the Table 1 of EP-438/2012/H and required to be included in the CNMMP under the EP condition, 5 of them are relevant to Works Contract 1106. The locations of the NSRs covered in this CNMMP are shown in Appendix C.
- 1.8 This CNMMP is prepared to comply with the above-mentioned requirements. Due to programme updates that some activities will shift around from 4 months to 6 months while duration of some activities will be shortened.
- 1.9 The CNMMP is updated in order to include the provision of a Mobile Batching Machinery Equipment (MBME) and associated PMEs as assessed in the Environmental Review Report⁽¹⁾ as well as other recent update on construction schedule and PME list under Contract 1106.
- 1.10 In addition, it is also proposed to supply the spare concrete from the MBME to other SCL works sites/areas for supporting the construction of SCL Project. A review has been conducted to evaluate the potential environmental implications associated with this arrangement, and the findings are presented in **Appendix D**. No significant environmental impact will be resulted from the proposed off-site delivery of spare concrete to other SCL work areas, the proposed concrete supply arrangement would be acceptable.

⁽¹⁾ Environmental Review Report – Proposed Mobile Batching Machinery Equipment (ERR – MBME) at Diamond Hill (July 2014), AECOM Asia Consultant Limited. This ERR was submitted together with the application of Variation of the Environmental Permit of SCL (TAW-HUH) (EP No: EP-438/2012/F). The VEP application (Application No.: VEP-450/2014) was approved by Environmental Protection Department (EPD) with EP-438/2012/G issued by Director of Environmental Protection (DEP) on 14 August 2014.

2 DESCRIPTION OF CONSTRUCTION WORKS IN THE STUDY AREA

Noise Sensitive Receivers

2.1 The 300m study areas of the identified 5 NSRs with predicted residual construction noise impacts are shown in **Table 2.1**. The location of the 5 NSRs, the layout plan of worksites and their notional distance to works areas are depicted in **Appendix C**.

Table 2.1 NSRs with Predicted Residual Air-borne Construction Noise Impacts (Extracted from Table 1 of the EP)

NSR ID	NSR Description	Uses ^[1]	Criterion ^[2] dB(A)	Predicted Maximum Noise Level dB(A)	Predicted Residual Noise Impact dB(A)
DIH-9-1	Shek On Building	E + W	70 (65) [2]	70 (70)	0 (5) ⁽³⁾
DIH-13-1	Canossa Primary School	Е	70 (65) [2]	67(66)	0 (1) ⁽³⁾
DIH-14-1	Rhythm Garden Block 2	R	75	77	2
DIH-14-4	Canossa Primary School (San Po Kong)	Е	70 (65) ^[2]	69 (68)	0(3) ⁽³⁾
DIH-14-5	Rhythm Garden Block 1	R	75	78	3

Notes:

[1] R- Residential; E – Educational institution; W-Worship

- [2] Values in parentheses indicate the noise criterion during examination period (typical examination period in May, June, November and December) of educational institution.
- [3] Residual impact is only expected during the examination period (typical examination period in May, June, November and December) of the educational institution.

Construction Methodology

- 2.2 As mentioned in Section 1.3, the construction of SCL DIH is covered by SCL (HHS) EIA. The proposed construction methodology is generally following that presented in Section 3 of the approved SCL (HHS) EIA Report. The underground SCL DIH Station will employ bored piles and D-walls while the underground structure will be constructed by in-situ concreting.
- 2.3 A breakdown of the major construction activities in sequence to be carried out within the contract are provided in **Appendix A**.

Updated Construction Programme

2.4 The updated construction programme prepared by SLJV has been used in this CNMMP and has been presented on a monthly basis for the duration of the construction works in corresponding worksites. The construction schedule has been updated based on the latest information submitted under SCL(TAW-HUH) EP and adjusted such that to minimise concurrent construction works to be carried out in the vicinity as far as practicable. The updated construction programme for SCL DIH is provided in **Appendix A**. A highlighted version of construction programme is also included in **Appendix A** to highlight the updates.

Updated Powered Mechanical Equipment List

2.5 The updated Powered Mechanical Equipment (PME) list for the construction works is provided in **Table 3.1**. Only the provision of the MBME in worksite S10 is added. For other work sites, there would be no change in the number / items of PMEs but the percentage on-time for some works sites are reduced based on the latest construction programme. The percentage on time of the PMEs were amended as the engineering programme was updated and was confirmed by the Contractor. The Sound Power Levels (SWL) for the PMEs have been adopted from EPD's Technical Memorandum on Noise from Construction Work Other than Percussive Piling (GW-TM), list of SWLs of other commonly used PME⁽²⁾ or British Standard BS 5228–1:2009⁽³⁾. It should be noted that the PMEs proposed are commonly available in the Hong Kong market. The PMEs to be adopted for individual construction activities for SCL DIH are provided in **Appendix B**.

3 NOISE ASSESSMENT AND PROPOSED MITIGATION MEASURES

Assessment Methodology and Assumptions

- 3.1 The construction noise assessment has been carried out in accordance with the methodology used in the approved SCL (HHS) EIA Report (Register No. AEIAR-164/2012). Demarcation of the sub-works areas and notional source distances adopted in the calculations mainly follows those presented in the SCL(HHS) EIA Report with updates from the latest information submitted under SCL(TAW-HUH) EP, which are presented in **Appendix C**.
- 3.2 The percentage on-time for each PME has been estimated individually for each construction activity to ensure practicality.
- 3.3 The SLJV has confirmed that the programme and plant inventory are reasonable and practicable for completing the Works Contract 1106 within the scheduled timeframe.
- 3.4 Mitigation measures and their effectiveness proposed in the SCL (HHS) EIA Report including the use of temporary movable noise barrier, acoustic mat and quiet plant have been considered in this CNMMP, as shown in **Table 3.1**. Details of proposed mitigation measures for DIH are presented in **Appendix B**.
- 3.5 There are no concurrent projects (other than SCL) located in the vicinity of the works sites in DIH, and thus no cumulative impacts from the concurrent project(s) are anticipated.

 ⁽²⁾ "Sound power levels of other commonly used PME" prepared by the Noise Control Authority (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)
 ⁽³⁾ British Standard BS 5228:2009, Part 1 - Noise and Vibration Control on Construction and Open Sites

РМЕ	TM Ref. /Other Ref. ⁽⁴⁾ /BS5228 Ref. ⁽⁵⁾	SWL, dB(A)	Type of Noise Mitigation Measures	Noise Level Reduction, dB(A)
Air Compressor	CNP003	104	Barrier	-5
Asphalt Paver	CNP004	109	-	-
Bar Bender and Cutter	CNP021	90	-	-
Breaker (Pneumatic)	BS D2 10	110	Barrier	-5
Breaker, hand-held, mass > 10kg and < 20kg	CNP024	108	Barrier	-5
Bulldozer	BS C2 13	106	Barrier	-5
Concrete Lorry Mixer	BS D6 23	100	Barrier	-5
Concrete Pumping Lorry	CNP047	109	-	-
Crane Mobile	BS D7 114	101	Barrier	-5
Dump Truck	BS D3 60	110	Barrier	-5
Dump truck, with grab, 5.5 tonnes < gross vehicle wt. < 38 tonnes	CNP069 ⁽⁴⁾	105	Barrier	-5
Excavator/Loader, Wheeled/Tracked	BS D3 35	106	Barrier	-5
Grout Mixer	CNP105	90	Barrier	-5
Grout Pump	CNP106	105	Barrier	-5
Hand Held Breaker	CNP025	111	Barrier	-5
Lorry	BS D9 19	102	Barrier	-5
Lorry, crane /grab	CNP145	105	Barrier	-5
Lorry, 5.5 tonnes < gross vehicle wt. < 38 tonnes	CNP142 ⁽⁴⁾	105	-	-
Lorry, with crane, 5.5 tonnes < gross vehicle wt. < 38 tonnes	CNP145 ⁽⁴⁾	105	Barrier	-5
Lorry, with crane, gross wt. >38 tonnes	CNP144	112	Barrier	-5
Mini Backhoe	CNP082	94	Barrier	-5
Mobile Batching Machinery Equipment	CNP022	108	Barrier	-5
Paint Line Marker	CNP161	90	-	-
Piling Rig and Drilling Rig	BS D4 44	109	Acoustic Mat	-10
Piling, Diaphragm Wall, Bentonite Filtering Plant	CNP162	105	Barrier	-5
Piling, Diaphragm Wall, Hydraulic Extractor	CNP163	90	Barrier	-5
Piling, Large Dia. Bored, Oscillator	CNP165	115	Acoustic Mat	-10
Piling, Large Diameter Bored, Grab and Chisel	CNP164	115	Acoustic Mat	-10
Piling, large diameter bored, reverse circulation drill	CNP 166	100	Acoustic Mat	-10
Poker, Vibratory, Hand Held	BS D6 40	98	Barrier	-5
Roller	CNP185	108	Barrier	-5
Roller, Vibratory	CNP186	108	Barrier	-5
Saw, Chain, Hand-held	CNP202	114	-	-
Saw, Circular Wood	CNP201	108	-	-

Table 3.1PME List with Proposed Mitigation Measures Adopted under Works
Contract 1106

 ⁽⁴⁾ "Sound power levels of other commonly used PME" prepared by the Noise Control Authority (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)
 ⁽⁵⁾ British Standard BS 5228:2009, Part 1 - Noise and Vibration Control on Construction and Open Sites

Tower Crane	CNP049	95	-	-
Water Pump, Submersible (Electric)	CNP283	85	-	-
Welder/Generator, Portable	CNP107	100	Barrier	-5

Proposed Mitigation Strategy and Noise Assessment Results

- 3.6 The air-borne construction noise impacts for the construction activities under Works Contract 1106 have been assessed and summarised in **Table 3.2**. The cumulative construction noise levels in this CNMMP at identified NSRs (DIH-13-1, DIH-14-1, DIH-14-4, DIH-14-5) remained unchanged as compared with the previously approved CNMMP; and noise level at DIH 9-1 is lower than that in previous CNMMP The detailed assessment result for SCL DIH is presented in **Appendix B**. The proposed mitigation measures described above are included in the assessment and, as such, only the mitigated scenario has been presented.
- 3.7 With the implementation of quiet plant, temporary movable noise barrier and acoustic mat for the PMEs, and scheduling of PMEs at worksite as far as possible, no exceedances of noise criteria at all the identified NSRs are predicted. Residual impact is therefore not expected to be anticipated.

	Noise	SCL (TAW Predi	7-HUH) EIA ction ⁽²⁾	SCL (H Predi	(HS) EIA ction ⁽³⁾	CNMMP P	rediction ^{(4) (5)}
NSR	Criteria dB(A) ⁽¹⁾	Max Noise Level, dB(A) ⁽⁶⁾	Exceedance Duration (Month)	Max Noise Level, dB(A)	Exceedance Duration (Month)	Max Noise Level, dB(A) ⁽⁶⁾⁽⁷⁾	Exceedance Duration (Month)
DIH-9-1	70 (65)	70 (70)	0 (2)	63	-	65 (65)	-
DIH-13-1	70 (65)	67 (66)	0 (2)	61	-	62 (62)	-
DIH-14-1	75	77	5	66	-	69	-
DIH-14-4	70 (65)	69 (68)	0 (3)	64	-	66 (65)	-
DIH-14-5	75	78	1	65	-	68	-

Table 3.2Updated Mitigated Construction Noise Impact at Identified NSRs

Notes:

(1) Values in parentheses indicate the noise criterion during examination period of educational institution

(2) Extracted from Table 8.15 of SCL (TAW-HUH) EIA – Residual Impacts at Noise Sensitive Receivers

(3) Extracted from Table 8.13 of SCL (HHS) EIA – Predicted Maximum Mitigated Construction Noise Levels at Noise Sensitive Receivers

(4) Cumulative impact arisen from other SCL(TAW-HUH) contracts near SCL DIH is considered.

(5) Cumulative impact arisen from Tsz Wan Shan Pedestrian Link is not anticipated given the separation distance of >300m between the works sites and NSRs.

- (6) Values in parentheses indicate the predicted noise level during the examination period (typical examination periods in May, June, November and December) at the educational institutions: Shek On House [DIH-9-1], Canossa Primary School [DIH-13-1] and Canossa Primary School (San Po Kong) [DIH-14-4].
- (7) According to the schools' activity schedules for year 2014 to 2015 of Canossa Primary School [DIH-13-1] and Canossa Primary School (San Po Kong) [DIH-14-4], the examination periods were scheduled in November 2014, March and June 2015. Based on the schools' previous schedules and for the purpose of assessment, the typical examination periods were set in March, May, June, November and December.



4 CONCLUSION

- 4.1 With the implementation of the proposed noise mitigation measures, updated construction programme and PME list, construction noise impacts at all identified NSRs would comply with the noise criterion of 75 dB(A) for residential premises and 70/65 dB(A) for educational institutions during normal or examination period respectively.
- 4.2 Where necessary, further review and update will be performed during the construction phase and liaison with affected parties is recommended to minimise the construction noise impacts as far as practicable.

APPENDIX A – Updated Construction Programme of Works Contract 1106

Appendix A :SCL Contract 1106 - Construction Programme (Rev. 7)

		2012 2013							2014							2015							2	016			2017									
No.	Activity Description	11 1	2 1	2 3	4 5	6 7	7 8	0 10	11 1	2 1 2	2 3	4 5	6 7	7 8 0	3 10	1 11 12 1	2	3 4 5	6	7 8	0	0 11 1	2 1	2 3	4	5 6	7 8	0 10	11 12	1 5	2 3	4 5	6 7	8 (101	11 12
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5	Entrance (A2) - Install ELS									X>	< X																									
6	Entrance (A2) - Install Pipe Pile Wall									X	< X																									
7	Entrance (A2) - Install ELS near Adit D1									X>	< X																									
8	Entrance (A2) - Demolish Subway										X																									
9	Entrance (A2) - Install ELS & Struts											XX																								
10	Install ELS & Struts (West End)											X	XX	x																						
11	Install Pine Pile Wall (West End)											X	XX	x																						
12	Install FLS poor Adit D1												x x	v v																				+		
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Appendix A :SCL Contract 1106 - Construction Programme (Rev. 7)

<u> </u>		2012 2013							2014					2015						2016						2017						
No.	Activity Description	11 1	2 1	23	4 5	6 7	8	9 10	11 12	2 1 2 3	3 4	5	6 7 8	3 9 10	11 12	1	2 3 4	5 6 7	8	9 10 11 12	123	4 5	6 7	7 8	9 10 1	1 12	1 2	3 4	1 5	3 7 8	9	10 11 12
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59	LCR W/B Deck Construction	-	-																Ŷ													
50	LCR W/B Diversion Traffic		_												-				^													
59	LCR W/B Diversion Hallic		-			+ +					-						_			<u> </u>					v				_			_
61	LCR W/B heinstatement		-			+ +					-						_						/		^				_			_
01	Nerkeite CO		_								_																		_		-	
60	WORKSINE So		_					V V	V V						_							_										
02	Interchange Adit - Construct Barettes		-				_	<u>^ ^</u>	<u> </u>		-																					
63	Interchange Adit - ELS (Part I)		_				_			XX		v												-						_		
64	Interchange Adit - Excavation (Part 1)		_								X	X	X																			
65	Interchange Adit - Structure (Part I)		_								_		× /					V V V														
66	Interchange Adit - ELS (Part 2)		_								_							XXX														
67	Interchange Adit - Excavation (Part 2)		_															X	X	x												
68	Interchange Adit - Structure (Part 2)																			XXX										_		
69	Interchange Adit - ELS (Part 3)																				XX	X										
70	Interchange Adit - Excavation (Part 3)																					X	X>									
71	Interchange Adit - Structure (Part 3)																							X	XX							
72	Interchange Adit - Backfill																									X						
73	Adit D1 - ELS																	XXX														
74	Adit D1 - Excavation																	X	Х	X												
75	Adit D1 - Structure																			X X X												
76	Adit D1 - ELS (Part 2)																				X X	X										
77	Adit D1 - Excavation (Part 2)																					X	X>	<								
78	Adit D1 - Structure (Part 2)																							X	XX							
79	Adit D1 - Backfill																									×						
80	MOE (near B1) - ELS																						X>	<								
81	MOE (near B1) - Excavation																							< X								
82	MOE (near B1) - Structure																							Х	XX							
83	Construction of Retrieval shaft at DIH Interchange/Adit														X		X	X														
	Worksite S9																															
84	Mobilisation					X	X																									
85	A1 Lift - Site Clearance and Hoarding Frection					X	X																									
86	A1 Lift - Pre-drilling and Pre-bored H Piles (6nos)		_						XX		<u> </u>																					
87	A1 Lift - Grouting Works								~ ^		× ·																					
88	A1 Lift - Sheet Piling works													X	X																	
89	A1 Lift - Excavation & ELS		-													Y																
90	A1 Lift - Wall strengthening Work		_												^	^	XX															
01	A1 Lift - Construct Lift Shaft wall & slab		-			+ +					-						^ ^	V V											_			_
51	Warkaita S10	-	-															<u>^ ^</u>														
102	Tomporany Gao Main Diversion		-			+ +			v	/	-						_												_			_
103	Seture of Makila Batabiaa Machinery Equipment (MDME)		_						^						V							_										
107		+	_	++	+	++				+++		+		+	×	V	V V V	V V V		V V V V	V V V	VV			V V				++		+	
108			+		+	+					+	$\left \right $		+ $+$ $+$		^	^ <u> </u>	X X X	^	<u>^ ^ X X</u>		^ X	<u> </u>		<u>^ </u>	~ X	V		++		+	
109	Demonition of Molive	\vdash	_	$\left \right $	++	+ +						+ +		+ $+$ $+$		+							+	+		+	^	_	++	+ +	+	
404	WORKSITE S11		_							V	-														_							
104	Temporary Gas Main Diversion		_				_			^														-						_		
92	Niobilisation	\vdash	_	++-	+	+ $+$	_			+ $+$ $+$	XX			+ $+$ $+$		+		+	+		+ $+$ $+$		+	++	-+				+		+	+++
93	Site Clearance		_								X	X																				
96	Operation of Steel Bending Facilities		_										XXX		XX	х	XXX	XXX	X	X X X X	XXX	XX	X)	(X	X X	X X						
97	Bored Piling Works [1]												XX																	_		
	Worksite S12			\square		+								+										$ \rightarrow $							+	
94	Utilities Diversion																										X	X)	K X I	< X		
	Worksite S13																															
95	A1 Lift - TTMs Temporary Traffic Diversion																			X												
	Worksite S15																															
105	Temporary Gas Main Diversion									X																						
98	Site Operation			X	XX		X	X X	XX		K X	X	X X)	(XX	XX	Х	X X X	XXX	Х	X X X X	X X X	XX	XX	< X	XX	X X						
110	Operation of Steel Bending Facilites			LT											X	Х	X X X	XXX	Х	X X X												
	Worksite S16																															
99	Initial Site Set Up		X	X																												
100	Site Reinstatement																										XX	XX	< X			
106	Temporany Gas Main Diversion	1	1		1 1	1 1			V							1			1													

Remark:

Appendix A :SCL Contract 1106 - Highlight of the updates on the construction programme (Rev. 7)

8		2012 2013				2014					2015					2016							2017										
No.	Activity Description	11	10 1	2 2	4	5 6	7 0	0 10 11	10 1	2 2		2014	00		1 12	1 2	2 4	5 6 7	0 0 10 1	1 12	1 2	2 4	5 6	710		10 11	10 1	22	1 5	6 7	00	10	11 12
	Doutimo Poriod		12 1	2 3	4	5 0	/ 0	9 10 11	12 1	2 3	4 5		0 3	9 10 1	1 12	1 2	3 4	5 0 7	0 9 10 1	1 12	1 2	3 4	5 0	1 1	5 9		12 1	2 3	4 0	0 /	0 2	, 10	11 12
-	Daytime Period	-	-				-	+ + + +				-	9 9	-	-	++	-			+ +		-		++		-+-+	_	+ + +		-		-	
	Shatin to Central Link - Diamond Hill Station, Entrances & Adits			18 12 1		4 3	-					2	5 <u>.</u> 2		-			-			- 15 C	-	2 4 3	++	_		_			1	6 0		
							_						0							+	10	_		\vdash		\rightarrow							
	Worksite S1																																
1	Landscape & Finish						-														2 2	X	XX	X	×								
2	Entrance (A2) Construction buld head wall, Temp acces, opening & Staircase		-	5.5			XX				-		3-15-								5	-	1									1.1	(
4	Partial demolish Entrance (A2)	1 1	1			1	1	XX	X					10.0							8- 19 1	100								1	1	10.00	
5	Entrance (A2) - Install ELS	1 1							X	XX					1																1 1		
6	Entrance (A2) - Install Pipe Pile Wall					1			X	XX			25 25. -																		1.		
7	Entrance (A2) - Install ELS near Adit D1								X	XX																							
8	Entrance (A2) - Demolish Subway	12 12		60 92 5		21 31				X	X	2	88 - 88 -		28		3				- 12 - 12	200	2 8 2								6 60	10.00	
9	Entrance (A2) - Install ELS & Struts										X >											-											
10	Install FLS & Struts (West End)					-	-						1				-				-	-			-		-						
11	Install Pipe Pile Wall (West End)					8 8	-			-			2		++	++				+ +	8	-		++		++							
10	Install FLS poor Adit D1		-				-	+ + + +			/		V			- +	-			+ +	10 10	+			2 2		-		-				
12	Fateras (A0) Construct Bulk Lload Walk partial flags alah and stainees		-			2 2	-		-	-		^ ^		-		-		-			6 6	-					-					-	
14	Entrance (A2) - Construct Bulk Head Wall, partial hour, siab and staircase	1	-	12 2 3			-					- C	3 - X		÷ ÷					+ +		-	1.1			- + +	_	+ + +		1	1	1.1	
15	Entrance (A2) - Install ELS & Struts		-	1 1 1	+	8 8	-	+ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$					2 10		× .	^				+ +		-		+	+ +	++	+	+ $+$ $+$		1		-	<u> </u>
16	Entrance (A2) - Demolish Subway & Install Struts	+			+		-	+	\vdash						+	X	×			+		-		\vdash		+	_	+					
17	Entrance (A2) - Excavation						-						5-12-						XX		5. Q		12 20 3						8 1 8	12 12	6 8		
18	Entrance (A2) - Structures																		XX														
19	DIH Structures - Base & Conc Slab, Mezz Slab, Columns, Access Slab, Roof Slab					1												X	XXXX	(X	XX	X X	XX	X	K				° 1				
20	Internal Structures - ALL levels						1																		K X	XX	X						
21	DIH - Ground Level Structures																								X X	XX	X						
22	DIH Tx Rooms Structures					8 8							2				1										X	X					
102	Temporary Gas Main Diversion	++	-				-		XX							+ +					+ +	-				++				1			-+-
	Workeite S2		-		+	-	-		~ ~						++	++				+ +		-				++	-						
22			-		+	-	-			-			100		+	++				+ +		V	V V		~	++	_	+					
20	Dill Structures Deer & Cree Cleb Mare Cleb Columns Access Cleb Deef Cleb		_				-											V V V	V V V V		VV			÷,			_						
25	DIA Structures - Base & Conc Siab, Mezz Siab, Columns, Access Siab, Rool Siab		_			-	-	+		_					+ +	++	_	<u> </u>		<u>+</u>						-		+		+ +		-	
26	Internal Structures - ALL levels		-			3 12					a 1.	-	S. 2		-		-	_	X		XX	XX	XX	X	x x	×	_				6	1.1	
	Worksite 53					-	_								+	\rightarrow						-						+			+		
27	Site Clearance		XX	X		1	_						2								_	-											
28	Hoardings		XX	X																		_											
29	Utility Diversions		XX	X									12 2								13 16		2. 20	_								5 8	
31	Landscape & Finish																					X X	XX	X	K								(
32	ALL D Wall	1		X	X	K X	XX	XXX	XX					0.0	0.0						9		55 5								S	12 12	
33	Excavation (From GL to -20.8m)					1					XX	X X X	XX	X X X																			
34	DIH Structures - Base & Conc Slab, Mezz Slab, Columns, Roof Slab													X >		XX	XX	XXX	X														
35	Internal Structures - ALL levels	1		0 18 8		2 2	-					2	88 - 88					XXX	XXXX		XX	1 2 3	12 88 2								1	14.12	
101	Tree Transplanting - DT1911		-			-	-	+ + + +		-	X		12 - C.	-	+ +	++						+					_						
	Worksite S4			- 12 - 2		-	-			-			S - 3			-	-			+ +		-	-			-+-+		+++		1			
27	Site Clearance		X X	Y			-									-										- 1							
2/	Userdian		÷÷	1 û		2 0		+					2 0		++	++				+ +		-	-			++	_	+++					
20	Hoardings		.	-	+ +		-	+ + + +	-			-	-	-	-					-		+				-+-+	_	+ + +					
29	Utility Diversions		^ ^	<u> </u>	+					-			2		-	-				+						\rightarrow	_						
31	Landscape & Finish		_			<u> </u>			× ×	× ×			2 2									XX	XX	X	×		_						
36	Dwall	+	_	×	X	XX	XX	XXX	XX	XX						+				+		-				+	_	+ $+$ $+$					\square
37	Tree Transplanting (CAT D) - D11885	+					_	XX	X							++				+		-		+	44	-							
38	Excavation to -1.2	+									X >				+	+				+	\rightarrow	_		+	+	\rightarrow					\vdash		$ \rightarrow $
39	Excavation to -20.8					1						XX	XX	×																			
40	DIH - Structure												X	X X X		XX	XX	XXX	XXXX		1												
	Worksite S5												13 13		3								10.00										
27	Site Clearance		XX	X																													
28	Hoardings		XX	X																													
29	Utility Diversions		XX	X		1 1															1												
31	Landscape & Finish																					xx	XX	X	x				-				
41	Dwall	2 0		50 - 12 - S		8 8	X X	X				2 2	88 - 88				2 5				- 12 - 12								8		10	S 8	
42	Dwall		-						-				2 8		-	-					5 3		8 8	++			-						
46	Dual		-	2 2 3	+		-	- <u>^</u>	V V	VV	V		5 8			-				+	-	-		++	+	++	-			1			
44	Dwall		-	10 10 10	++	51 34					÷.		83 83		4						- K - K	200	10.00	+	44	- + +	-	+	2		0	12 12	
45	Excavation to -20.8	+			+		_	+	XX	XX	X >											_		+	+	\rightarrow		+ $+$ $+$					
46	DIH - Structure						_					XX	XX	X X X		XX	XX	XXX	XXXX		XX												
	Worksite S6												12 12								12												
47	Watermain Diversion (LCR)	ΙT			IT										ΙT									ΙT									
49	LCR Diversion Embankment Fill			1 1			1					XX	X								8 - S												
50	LCB E/B Widening	+																	XXX								1						
51	LCB E/B Diversion Traffic					8 9	-						8 8								6 12		2.8		3 8		1		8				
50	LCR E/B Dainstatement	++		+	++		-							+ +	+	++				+ +							-1-	+ + +	-				
52		+	-		+	34 - 24	-	+												+	-	-							_			100	-+-
53	LCK E/B to Original Traffic	1		1	1		- 1			1			1 1				1 1				X	1		1		- I I		1		1 1	1		

Appendix A :SCL Contract 1106 - Highlight of the updates on the construction programme (Rev. 7)

		2012				-	2013							2014						2	015		-			2016				T			2017		
No.	Activity Description	11 11			0 4	1510	2013	0 0	1011	1 10	1 0		1.0	2014		10111	110	1 0	0 4	E C			10 1		410	2010	7 0 0	110	44 40	1	0 0	145	2017	0 0	011110
	W 4 1 AT	11 14	2 1	2	3 4	5 0	0 /	8 9	10 1	1 12	1 2	3 4	+ 5	0 /	0 3	10 11	12	1 2	3 4	5 0	/ 8	9 10 11	12 1	2 3	4 5	6 /	8 9	10	11 12		2 3	3 4 5	0 /	8 9	0 11 12
	Worksite S7		-	-	_		-												_										_			-			
54	Watermain Diversion (LCR)	1.16		80 - 88	\$ 28 1 2	- 51	4 4			1					8 8	20.2							-	26 8 2	2.2.2	26 - 33			-		-	0	1 D	s (s (s	8 2 28 3
56	LCR Diversion Embankment Fill													XX	X																				_
57	LCR W/B Diversion Construction		1	1																	XX	XX				2									
58	LCR W/B Deck Construction																				X	XX													
59	LCR W/B Diversion Traffic		1	10	5 25 1 3	5	1								10 C C C C C C C C C C C C C C C C C C C	12.2						X		8 8 1		8									
60	LCB W/B Reinstatement																									X	X X X								
61	LCB W/B to Original Traffic		-								_	H	-	_					_				-	X					-						
	Worksite S9		-				-			-		++	-	_	2. 2			++		-			+	<u> </u>			-	+ +	+	+	-				
60	Intershange Adit Construct Parettee		-				-				V		-	-	2 2		++	-	-				-	S 2 3		-		-	-	+ +	-	-			
02	Interchange Aut - Construct Barettes	2 13	2	2 5	5 8 5 8	2	14 5	^	<u>^ ^</u>		A V		8 8	-	5 S	0.0 5			-		+ + +	8 6 8		5 5 3	2.2.2	0 0	1 1		-	-		-	2 (C. 1	2 2 2	
63	Interchange Adit - ELS (Part 1)				_					-	XX						+		_				_	-		-	_	+ +	\rightarrow		_	_			
64	Interchange Adit - Excavation (Part 1)												< X	X										0 0 0					_				1 I.		_
65	Interchange Adit - Structure (Part 1)													X	X)	<																			
66	Interchange Adit - ELS (Part 2)			E0 - 3%	4 88 8		- 2													XX				18 - 18 - 18 			1								
67	Interchange Adit - Excavation (Part 2)																				XX	X													
68	Interchange Adit - Structure (Part 2)											++	-					-				XX	X						-						
69	Interchange Adit - ELS (Part 3)	1		18 10	2 12 7 7		7 1			-		++	1	-	2 2			1	1 1				-	XX	X	0 0			-			12	C 10		0 0 0
70	Interchange Adit Execution (Part 2)		-									+	-						-				-	<u>^ ^</u>	<u> </u>		/		-		-				
70	Interchange Adit - LAGVALIUTI (Fall 3)				8 28 2 2	8			+			++			3 3		++			-	+		-	12 - 28 - 2	+		VV	V	-	+					
/1	interchange Adit - Structure (Part 3)		+		-		-			+		+	+				+	+			+	\rightarrow	_	1	+		XX	×		+	_				++
72	Interchange Adit - Backfill																+						_						X	+					+
73	Adit D1 - ELS																			XX	X														
74	Adit D1 - Excavation				6 89 8																XX	X													
75	Adit D1 - Structure																					XX	X	-											
76	Adit D1 - ELS (Part 2)																							XX	X										
77	Adit D1 - Excavation (Part 2)	1	-				8			-	-	+	-	-	8 - 8			++	-					10 12 1		XX	(-						
78	Adit D1 Structure (Part 2)			-	-				++	-		+	+ +				+ +	++			+ + +		+				V V	V	-		-				
70				2 8	0. 22 0. 3	2	1		++						2 2			-			+ + +			- 12 - 12 - 12 - 12 - 12 - 12 - 12 - 12		22 23	^ ^	^	V						
79	Adit D1 - Backfill		-		-		-			-		+	-	_	-		+	-			+ + +		_						X	-	_	-		-	
80	MOE (near B1) - ELS														8									2 2		XX	<	-	_		_				
81	MOE (near B1) - Excavation																									X	< X								_
82	MOE (near B1) - Structure			0																	1 1 1						XX	X							
83	Construction of Retrieval shaft at DIH Interchange/Adit		1	1			Ĩ.									X		X		X						8									
	Worksite S9																																		
84	Mobilisation			12 17	2 22 7 2		X	X				+	1		19 P			11						8 9 9		0.0			-						0 0 0
85	A1 Lift - Site Clearance and Hoarding Erection						X	X				++																	-						
90	A1 Lift Dre drilling and Bra harad H Biles (Spee)			2. N		- 2	~	~			V V			-									-						-			8			
00	At Life Creation Works						-		<u> </u>		^ ^	÷	-	_				-	-	-			_	5 8 5					-						
8/	AT LIT - Grouing Works			2 - 12	2 54 5		-	-		-	<u>^</u>	^		_	8. 2	1		++	-		++++		_	9 8 0		2 2			-				1 II.		- <u></u>
88	A1 Lift - Sheet Piling works				_				+		_	\vdash	+			XX							_											\rightarrow	_
89	A1 Lift - Excavation & ELS	1 11															X	X						10.00			1 1								
90	A1 Lift - Wall strenghtening Work			18 18										_				X	X							200 - 100 200 - 100									
91	A1 Lift - Construct Lift Shaft, wall & slab																			XX															
	Worksite S10			12																		· · · · · · · · · · · · · · · · · · ·		8 8 8		9 - N									
103	Temporary Gas Main Diversion				-					X																									
107	Setup of Mobile Batching Machinery Equipment (MBME)									-							X																		++
109	Operation of MPME			· ·						+					8 2				V V	V V		V V V	v v	V V				V	v v						
108	Demolition of MDME						-	\vdash	+ +	-		++	++						^ ^	^ ^			^ _ ^	^ ^				^	^ ^			-			
109								\vdash	+	-		++			2 2	+ + L														^					+
	Worksite 511						_																	-		-						_			_
104	Temporary Gas Main Diversion										X																								
92	Mobilisation											X	<																						
93	Site Clearance												< X																						
96	Operation of Steel Bending Facilites													XX	X)	(X X	X	X X	XX	XX		XXX	XX	XX	XX		< X X	X	XX						
97	Bored Piling Works [1]											+		XX					3 3				-	12 12 12					-			2			2 - 2 - 2
	Worksite S12						-			-		+		~ ~				-					+			-		+ +	-						
04	Litilities Diversion			2 2	2 84 5	8									S 2			-	-		+ + +		-	2 2 0		21			-		VV		VV		
94										-		++			3		+				+		-					+	-	+	× ×		<u>^ </u>		+
	Worksite S13										_												8								_				
95	A1 Lift - TTMs Temporary Traffic Diversion														a 2							X		1 12 S		49							1		
	Worksite S15																																		
105	Temporary Gas Main Diversion										X																								
98	Site Operation				XX	XX	XX	XX	XX		XX	X	< X	XX	X)	(X X	X	XX	XX	XX		XXX	XX	XX	XX		X X X	X	XX						
110	Operation of Steel Bending Facilites				-	1											X	x x	XX	XX	XX	XXX			T T										++
	Worksite S16											+			2									0 0 0					-	+					+++
00	Initial Site Set Up		V	V				\vdash	++	-		++	++				++	++			+		-				+	+ +		+	-	+ +-			+++
99	initial Site Set Up		~	~	-		-	\vdash	+			+									+		-	0.0		-		+	-		V				
100	Site Heinstatement				_					-																				X	XX				
106	Temporary Gas Main Diversion									X		L																1 1							

Remark:

APPENDIX B – Proposed Mitigation Measures and Detailed Noise Assessment

Area: Worksite S1

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
1	Landscape & Finish	Bar Bender and Cutter (CNP021)	1	20	90	83			98
		Poker, Vibratory, Hand Held (BS D6 40)	1	20	98	91	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Lorry (BS D9 19)	1	80	102	101	Barrier	-5	
2	Entrance (A2) Construction buld head wall, Temp access, opening & Staircase	Bar Bender and Cutter (CNP021)	1	50	90	87			104
		Saw, Circular Wood (CNP201)	1	30	108	103			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
		Tower Crane (CNP049)	1	60	95	93			
4	Partial demolish Entrance (A2)	Breaker (Pneumatic) (BS D2 10)	1	100	110	110	Barrier	-5	112
		Hand Held Breaker (CNP025)	1	100	111	111	Barrier	-5	
		Dump truck (BS D3 60)	2	40	110	109	Barrier	-5	
		Saw, Chain, Hand-held (CNP202)	1	30	114	109			
5	Entrance (A2) - Install ELS	Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	101
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Piling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	
6	Entrance (A2) - Install Pipe Pile Wall	Piling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	101
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	
		Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	1	90	85	85			
7	Entrance (A2) - Install ELS near Adit D1	Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	101
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Piling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	
8	Entrance (A2) - Demolish Subway	Breaker (Pneumatic) (BS D2 10)	1	100	110	110	Barrier	-5	111
		Hand Held Breaker (CNP025)	1	30	111	106	Barrier	-5	
		Dump truck (BS D3 60)	2	50	110	110	Barrier	-5	
		Saw, Chain, Hand-held (CNP202)	1	20	114	107			
9	Entrance (A2) - Install ELS & Struts	Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	101
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Piling Big and Drilling Big (BS D4 44)	1	100	109	109	Acoustic Mat	-10	

Note:

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.) (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

[2] The figures are rounded-up to a whole number.

Area: Worksite S1

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
10	Install ELS & Struts (West End)	Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	101
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Piling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	
11	Install Pine Pile Wall (West End)	Piling Big and Drilling Big (BS D4 44)	1	100	109	109	Acoustic Mat	-10	101
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	
		Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	1	90	85	85		-	
12	Install ELS near Adit D1	Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	101
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	-
		Piling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	
14	Entrance (A2) - Construct Bulk Head Wall, partial floor, slab and staircase	Bar Bender and Cutter (CNP021)	1	50	90	87			104
		Saw, Circular Wood (CNP201)	1	30	108	103			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
		Tower Crane (CNP049)	1	60	95	93			
15	Entrance (A2) - Install ELS & Struts	Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	101
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Piling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	
16	Entrance (A2) - Demolish Subway & Install Struts	Breaker (Pneumatic) (BS D2 10)	1	100	110	110	Barrier	-5	112
		Hand Held Breaker (CNP025)	1	30	111	106	Barrier	-5	
		Dump truck (BS D3 60)	2	50	110	110	Barrier	-5	
		Saw, Chain, Hand-held (CNP202)	1	30	114	109			
17	Entrance (A2) - Excavation	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	105
		Dump truck (BS D3 60)	1	50	110	107	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	1	100	85	85			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
18	Entrance (A2) - Structures	Bar Bender and Cutter (CNP021)	1	50	90	87			104
		Saw, Circular Wood (CNP201)	1	30	108	103			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
		Tower Crane (CNP049)	1 1	60	95	93	1	1	1

Note:

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.) (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

[2] The figures are rounded-up to a whole number.

Area: Worksite S1

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
19	DIH Structures - Base & Conc Slab, Mezz Slab, Columns, Access Slab, Roof Slab	Bar Bender and Cutter (CNP021)	1	50	90	87			104
		Saw, Circular Wood (CNP201)	1	30	108	103			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
		Tower Crane (CNP049)	1	60	95	93			
20	Internal Structures - ALL levels	Bar Bender and Cutter (CNP021)	1	50	90	87			104
		Saw, Circular Wood (CNP201)	1	30	108	103			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
		Tower Crane (CNP049)	1	60	95	93			
21	DIH - Ground Level Structures	Bar Bender and Cutter (CNP021)	1	50	90	87			105
		Saw, Circular Wood (CNP201)	1	30	108	103			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	
22	DIH Tx Rooms Structures	Bar Bender and Cutter (CNP021)	1	50	90	87			105
		Saw, Circular Wood (CNP201)	1	30	108	103			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	
102	Temporary Gas Main Diversion	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	100	106	106	Barrier	-5	104
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Hand Held Breaker (CNP025)	1	30	111	106	Barrier	-5	

Note:

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.) (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

[2] The figures are rounded-up to a whole number.

Area: Worksite S2

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
23	Landscape & Finish	Bar Bender and Cutter (CNP021)	1	20	90	83			98
		Poker, Vibratory, Hand Held (BS D6 40)	1	20	98	91	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Lorry (BS D9 19)	1	80	102	101	Barrier	-5	
25	DIH Structures - Base & Conc Slab, Mezz Slab, Columns,	Bar Bender and Cutter (CNP021)	1	50	90	87			104
	Access Slab, Roof Slab	Saw, Circular Wood (CNP201)	1	30	108	103			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
		Tower Crane (CNP049)	1	60	95	93			
26	Internal Structures - ALL levels	Bar Bender and Cutter (CNP021)	1	50	90	87			104
		Saw, Circular Wood (CNP201)	1	30	108	103			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
		Tower Crane (CNP049)	1	60	95	93			

Note:

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.) (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

[2] The figures are rounded-up to a whole number.

Area: Worksite S3 -S5

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
27	Site Clearance	Breaker (Pneumatic) (BS D2 10)	1	20	110	103	Barrier	-5	106
		Dump truck (BS D3 60)	2	30	110	108	Barrier	-5	
		Poker, Vibratory, Hand Held (BS D6 40)	2	30	98	96	Barrier	-5	
		Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
28	Hoardings	Lorry (BS D9 19)	1	70	102	100	Barrier	-5	101
		Bar Bender and Cutter (CNP021)	1	50	90	87			
		Breaker, hand-held, mass > 10kg and < 20kg (CNP024)	1	20	108	101	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	80	100	99	Barrier	-5	
		Poker, Vibratory, Hand Held (BS D6 40)	2	30	98	96	Barrier	-5	
29	Utility Diversions	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	100	106	106	Barrier	-5	108
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Bar Bender and Cutter (CNP021)	1	50	90	87			
		Poker, Vibratory, Hand Held (BS D6 40)	1	20	98	91	Barrier	-5	
		Saw, Chain, Hand-held (CNP202)	1	50	114	111	Barrier	-5	
		Hand Held Breaker (CNP023)	1	30	108	103	Barrier	-5	
31	Landscape & Finish	Bar Bender and Cutter (CNP021)	1	20	90	83			98
		Poker, Vibratory, Hand Held (BS D6 40)	1	20	98	91	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Lorry (BS D9 19)	1	80	102	101	Barrier	-5	

Note:

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.) (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

[2] The figures are rounded-up to a whole number.

Area: Worksite S3

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
32	ALL D Wall	Piling, Diaphragm Wall, Hydraulic Extractor (CNP163)	2	80	90	92	Barrier	-5	104
		Piling, Diaphragm Wall, Bentonite Filtering Plant (CNP162)	2	80	105	107	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	2	20	100	96	Barrier	-5	
		Crane Mobile (BS D7 114)	2	60	101	102	Barrier	-5	
		Bar Bender and Cutter (CNP021)	2	50	90	90			
		Water Pump, Submersible (Electric) (CNP283)	2	90	85	88			
33	Excavation (From GL to -20.8m)	Excavator/Loader, Wheeled/Tracked (BS D3 35)	2	80	106	108	Barrier	-5	108
		Dump truck (BS D3 60)	2	50	110	110	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	2	100	100	103	Barrier	-5	
34	DIH Structures - Base & Conc Slab, Mezz Slab, Columns, Roof Slab	Bar Bender and Cutter (CNP021)	1	50	90	87			106
		Saw, Circular Wood (CNP201)	1	50	108	105			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
		Tower Crane (CNP049)	1	60	95	93			
35	Internal Structures - ALL levels	Bar Bender and Cutter (CNP021)	1	50	90	87			106
		Saw, Circular Wood (CNP201)	1	50	108	105			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
		Tower Crane (CNP049)	1	60	95	93			
101	Tree Transplanting - DT1911	Lorry (BS D9 19)	1	20	102	95	Barrier	-5	102
		Crane Mobile (BS D7 114)	2	80	101	103	Barrier	-5	
		Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	

Note:

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.) (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

[2] The figures are rounded-up to a whole number.

Area: Worksite S4

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
36	Dwall	Piling, Diaphragm Wall, Hydraulic Extractor (CNP163)	2	80	90	92	Barrier	-5	104
		Piling, Diaphragm Wall, Bentonite Filtering Plant (CNP162)	2	80	105	107	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	2	20	100	96	Barrier	-5	
		Crane Mobile (BS D7 114)	2	60	101	102	Barrier	-5	
		Bar Bender and Cutter (CNP021)	2	50	90	90			
		Water Pump, Submersible (Electric) (CNP283)	2	90	85	88			
37	Tree Transplanting (CAT D) - DT1885	Lorry (BS D9 19)	1	20	102	95	Barrier	-5	102
		Crane Mobile (BS D7 114)	2	80	101	103	Barrier	-5	
		Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	
38	Excavation to -1.2	Excavator/Loader, Wheeled/Tracked (BS D3 35)	2	80	106	108	Barrier	-5	108
		Dump truck (BS D3 60)	2	50	110	110	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	2	100	100	103	Barrier	-5	
39	Excavation to -20.8	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	105
		Dump truck (BS D3 60)	1	50	110	107	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	1	100	85	85			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
40	DIH - Structure	Bar Bender and Cutter (CNP021)	1	50	90	87			107
		Saw, Circular Wood (CNP201)	1	50	108	105			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
		Tower Crane (CNP049)	2	60	95	96			

Note:

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.) (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

[2] The figures are rounded-up to a whole number.

Area: Worksite S5

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
41	Dwall	Piling, Diaphragm Wall, Hydraulic Extractor (CNP163)	2	80	90	92	Barrier	-5	104
		Piling, Diaphragm Wall, Bentonite Filtering Plant (CNP162)	2	80	105	107	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	2	20	100	96	Barrier	-5	
		Crane Mobile (BS D7 114)	2	60	101	102	Barrier	-5	
		Bar Bender and Cutter (CNP021)	2	50	90	90		1	
		Water Pump, Submersible (Electric) (CNP283)	2	90	85	88			
42	Dwall	Piling, Diaphragm Wall, Hydraulic Extractor (CNP163)	3	80	90	94	Barrier	-5	106
		Piling, Diaphragm Wall, Bentonite Filtering Plant (CNP162)	3	80	105	109	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	3	20	100	98	Barrier	-5	
		Crane Mobile (BS D7 114)	3	60	101	104	Barrier	-5	
		Bar Bender and Cutter (CNP021)	3	50	90	92		1	
		Water Pump, Submersible (Electric) (CNP283)	3	90	85	89		1	

Note:

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.) (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

[2] The figures are rounded-up to a whole number.

Area: Worksite S5

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
44	Dwall	Piling, Diaphragm Wall, Hydraulic Extractor (CNP163)	2	80	90	92	Barrier	-5	104
		Piling, Diaphragm Wall, Bentonite Filtering Plant (CNP162)	2	80	105	107	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	2	20	100	96	Barrier	-5	
		Crane Mobile (BS D7 114)	2	60	101	102	Barrier	-5	
		Bar Bender and Cutter (CNP021)	2	50	90	90			
		Water Pump, Submersible (Electric) (CNP283)	2	90	85	88			
45	Excavation to -20.8	Excavator/Loader, Wheeled/Tracked (BS D3 35)	2	80	106	108	Barrier	-5	108
		Dump truck (BS D3 60)	2	50	110	110	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	2	100	100	103	Barrier	-5	
46	DIH - Structure	Bar Bender and Cutter (CNP021)	1	50	90	87			106
		Saw, Circular Wood (CNP201)	1	50	108	105			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
		Tower Crane (CNP049)	1	60	95	93			

Note:

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.) (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

[2] The figures are rounded-up to a whole number.

Area: Worksite S6 (Lung Cheung Road - EB)

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
47	Watermain Diversion (LCR)	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	100	106	106	Barrier	-5	112
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Bar Bender and Cutter (CNP021)	1	50	90	87			
		Poker, Vibratory, Hand Held (BS D6 40)	1	20	98	91	Barrier	-5	
		Saw, Chain, Hand-held (CNP202)	1	50	114	111			
		Hand Held Breaker (CNP025)	1	30	111	106	Barrier	-5	1
49	LCR Diversion Embankment Fill	Lorry (BS D9 19)	1	50	102	99	Barrier	-5	111
		Breaker (Pneumatic) (BS D2 10)	1	50	110	107	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
		Dump truck (BS D3 60)	1	20	110	103	Barrier	-5	
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	
		Bulldozer (BS C2 13)	1	100	106	106	Barrier	-5	
		Asphalt Paver (CNP004)	1	80	109	108			l
		Roller, Vibratory (CNP186)	1	100	108	108	Barrier	-5	

Note:

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.) (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

[2] The figures are rounded-up to a whole number.

Area: Worksite S6 (Lung Cheung Road - EB)

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
50	LCR E/B Widening	Lorry (BS D9 19)	1	50	102	99	Barrier	-5	110
		Breaker (Pneumatic) (BS D2 10)	1	50	110	107	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
		Dump truck (BS D3 60)	1	20	110	103	Barrier	-5	
		Crane Mobile (BS D7 114)	1	60	101	99	Barrier	-5	
		Bulldozer (BS C2 13)	1	60	106	104	Barrier	-5	
		Asphalt Paver (CNP004)	1	60	109	107			
		Roller, Vibratory (CNP186)	1	60	108	106	Barrier	-5	
51	LCR E/B Diversion Traffic	Lorry (BS D9 19)	1	50	102	99	Barrier	-5	110
		Breaker (Pneumatic) (BS D2 10)	1	50	110	107	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
		Dump truck (BS D3 60)	1	20	110	103	Barrier	-5	
		Crane Mobile (BS D7 114)	1	60	101	99	Barrier	-5	
		Bulldozer (BS C2 13)	1	60	106	104	Barrier	-5	
		Asphalt Paver (CNP004)	1	60	109	107			
		Roller, Vibratory (CNP186)	1	60	108	106	Barrier	-5	
52	LCR E/B Reinstatement	Lorry (BS D9 19)	1	50	102	99	Barrier	-5	106
		Breaker (Pneumatic) (BS D2 10)	1	40	110	106	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
		Dump truck (BS D3 60)	1	20	110	103	Barrier	-5	
		Crane Mobile (BS D7 114)	1	60	101	99	Barrier	-5	
		Bulldozer (BS C2 13)	1	30	106	101	Barrier	-5	
		Asphalt Paver (CNP004)	1	20	109	102	Barrier	-5	
		Roller, Vibratory (CNP186)	1	30	108	103	Barrier	-5	
53	LCR E/B to Original Traffic	Lorry (BS D9 19)	1	50	102	99	Barrier	-5	110
	-	Breaker (Pneumatic) (BS D2 10)	1	50	110	107	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
		Dump truck (BS D3 60)	1	20	110	103	Barrier	-5	
		Crane Mobile (BS D7 114)	1	60	101	99	Barrier	-5	
		Bulldozer (BS C2 13)	1	60	106	104	Barrier	-5	
		Asphalt Paver (CNP004)	1	60	109	107			
		Roller, Vibratory (CNP186)	1	60	108	106	Barrier	-5	

Note:

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.) (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

[2] The figures are rounded-up to a whole number.

Area: Worksite S7 (Lung Cheung Road - WB)

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
54	Watermain Diversion (LCR)	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	100	106	106	Barrier	-5	112
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Bar Bender and Cutter (CNP021)	1	50	90	87			1
		Poker, Vibratory, Hand Held (BS D6 40)	1	20	98	91	Barrier	-5	
		Saw, Chain, Hand-held (CNP202)	1	50	114	111			1
		Hand Held Breaker (CNP025)	1	30	111	106	Barrier	-5	1
56	LCR Diversion Embankment Fill	Lorry (BS D9 19)	1	50	102	99	Barrier	-5	111
		Breaker (Pneumatic) (BS D2 10)	1	50	110	107	Barrier	-5	1
		Roller (CNP185)	1	20	108	101	Barrier	-5	1
		Dump truck (BS D3 60)	1	20	110	103	Barrier	-5	
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	
		Bulldozer (BS C2 13)	1	100	106	106	Barrier	-5	1
		Asphalt Paver (CNP004)	1	80	109	108			i i
		Roller, Vibratory (CNP186)	1	100	108	108	Barrier	-5	i i

Note:

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.) (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

[2] The figures are rounded-up to a whole number.

Area: Worksite S7 (Lung Cheung Road - WB)

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
57	LCR W/B Diversion Construction	Lorry (BS D9 19)	1	50	102	99	Barrier	-5	108
		Breaker (Pneumatic) (BS D2 10)	1	50	110	107	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
		Dump truck (BS D3 60)	1	20	110	103	Barrier	-5	
		Crane Mobile (BS D7 114)	1	60	101	99	Barrier	-5	
		Bulldozer (BS C2 13)	1	60	106	104	Barrier	-5	
		Asphalt Paver (CNP004)	1	60	109	107	Barrier	-5	
		Roller, Vibratory (CNP186)	1	60	108	106	Barrier	-5	
58	LCR W/B Deck Construction	Lorry (BS D9 19)	1	50	102	99	Barrier	-5	110
		Breaker (Pneumatic) (BS D2 10)	1	50	110	107	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
		Dump truck (BS D3 60)	1	20	110	103	Barrier	-5	
		Crane Mobile (BS D7 114)	1	60	101	99	Barrier	-5	
		Bulldozer (BS C2 13)	1	60	106	104	Barrier	-5	
		Asphalt Paver (CNP004)	1	60	109	107			
		Roller, Vibratory (CNP186)	1	60	108	106	Barrier	-5	
59	LCR W/B Diversion Traffic	Lorry (BS D9 19)	1	50	102	99	Barrier	-5	110
		Breaker (Pneumatic) (BS D2 10)	1	50	110	107	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
		Dump truck (BS D3 60)	1	20	110	103	Barrier	-5	
		Crane Mobile (BS D7 114)	1	60	101	99	Barrier	-5	
		Bulldozer (BS C2 13)	1	60	106	104	Barrier	-5	
		Asphalt Paver (CNP004)	1	60	109	107			
		Roller, Vibratory (CNP186)	1	60	108	106	Barrier	-5	

Note:

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[2] The figures are rounded-up to a whole number.

Area: Worksite S7 (Lung Cheung Road - WB)

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
60	LCR W/B Reinstatement	Lorry (BS D9 19)	1	50	102	99	Barrier	-5	106
		Breaker (Pneumatic) (BS D2 10)	1	40	110	106	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
		Dump truck (BS D3 60)	1	20	110	103	Barrier	-5	
		Crane Mobile (BS D7 114)	1	60	101	99	Barrier	-5	
		Bulldozer (BS C2 13)	1	30	106	101	Barrier	-5	
		Asphalt Paver (CNP004)	1	20	109	102	Barrier	-5	
		Roller, Vibratory (CNP186)	1	30	108	103	Barrier	-5	
61	LCR W/B to Original Traffic	Lorry (BS D9 19)	1	50	102	99	Barrier	-5	110
		Breaker (Pneumatic) (BS D2 10)	1	50	110	107	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
		Dump truck (BS D3 60)	1	20	110	103	Barrier	-5	
		Crane Mobile (BS D7 114)	1	60	101	99	Barrier	-5	
		Bulldozer (BS C2 13)	1	60	106	104	Barrier	-5	
		Asphalt Paver (CNP004)	1	60	109	107			
		Roller, Vibratory (CNP186)	1	60	108	106	Barrier	-5	

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[2] The figures are rounded-up to a whole number.

Area: Worksite S8 (Lung Cheung Road - WB)

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
62	Interchange Adit - Construct Barettes	Piling, Large Diameter Bored, Grab and Chisel (CNP164)	1	80	115	114	Acoustic Mat	-10	110
		Piling, Large Dia. Bored, Oscillator (CNP165)	1	50	115	112	Acoustic Mat	-10	
		Crane Mobile (BS D7 114)	2	80	101	103			
		Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	2	20	100	96	Barrier	-5	
		Bar Bender and Cutter (CNP021)	1	50	90	87			
		Air Compressor (CNP003)	1	50	104	101	Barrier	-5	
		Dump truck (BS D3 60)	1	50	110	107	Barrier	-5	
63	Interchange Adit - ELS (Part 1)	Crane Mobile (BS D7 114)	1	80	101	100			103
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Pilling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	
64	Interchange Adit - Excavation (Part 1)	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	105
		Dump truck (BS D3 60)	1	50	110	107	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	1	100	85	85			
		Welder/Generator, Portable (CNP107)	1	70	100	98	Barrier	-5	
65	Interchange Adit - Structure (Part 1)	Bar Bender and Cutter (CNP021)	1	50	90	87			106
		Saw, Circular Wood (CNP201)	1	50	108	105			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/Generator, Portable (CNP107)	1	100	100	100	Barrier	-5	
		Tower Crane (CNP049)	1	60	95	93			
66	Interchange Adit - ELS (Part 2)	Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	101
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Pilling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	

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[2] The figures are rounded-up to a whole number.

Area: Worksite S8 (Lung Cheung Road - WB)

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
67	Interchange Adit - Excavation (Part 2)	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	105
		Dump truck (BS D3 60)	1	50	110	107	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	1	100	85	85			
		Welder/Generator, Portable (CNP107)	1	100	100	100	Barrier	-5	
68	Interchange Adit - Structure (Part 2)	Bar Bender and Cutter (CNP021)	1	50	90	87			105
		Saw, Circular Wood (CNP201)	1	30	108	103			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/Generator, Portable (CNP107)	1	100	100	100	Barrier	-5	
		Tower Crane (CNP049)	1	60	95	93			
69	Interchange Adit - ELS (Part 3)	Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	101
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Pilling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	
70	Interchange Adit - Excavation (Part 3)	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	105
		Dump truck (BS D3 60)	1	50	110	107	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	1	100	85	85			
		Welder/Generator, Portable (CNP107)	1	100	100	100	Barrier	-5	
71	Interchange Adit - Structure (Part 3)	Bar Bender and Cutter (CNP021)	1	50	90	87			106
		Saw, Circular Wood (CNP201)	1	50	108	105			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/Generator, Portable (CNP107)	1	100	100	100	Barrier	-5	
		Tower Crane (CNP049)	1	60	95	93			
72	Interchange Adit - Backfill	Bulldozer (BS C2 13)	1	100	106	106	Barrier	-5	105
		Roller, Vibratory (CNP186)	1	60	108	106	Barrier	-5	
		Lorry (BS D9 19)	1	80	102	101	Barrier	-5	
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	
73	Adit D1 - ELS	Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	101
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Pilling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	

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[2] The figures are rounded-up to a whole number.

Area: Worksite S8 (Lung Cheung Road - WB)

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
74	Adit D1 - Excavation	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	104
		Dump truck (BS D3 60)	1	50	110	107	Barrier	-5	i
		Water Pump, Submersible (Electric) (CNP283)	1	100	85	85			i i
		Welder/Generator, Portable (CNP107)	1	100	100	100	Barrier	-5	1
75	Adit D1 - Structure	Bar Bender and Cutter (CNP021)	1	50	90	87			105
		Saw, Circular Wood (CNP201)	1	30	108	103			1
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	i
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	i
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	1
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			1
		Welder/Generator, Portable (CNP107)	1	100	100	100	Barrier	-5	i
		Tower Crane (CNP049)	1	60	95	93			1
76	Adit D1 - ELS (Part 2)	Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	101
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	i
		Pilling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	i
77	Adit D1 - Excavation (Part 2)	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	105
		Dump truck (BS D3 60)	1	50	110	107	Barrier	-5	1
		Water Pump, Submersible (Electric) (CNP283)	1	100	85	85			1
		Welder/Generator, Portable (CNP107)	1	100	100	100	Barrier	-5	i
78	Adit D1 - Structure (Part 2)	Bar Bender and Cutter (CNP021)	1	50	90	87			106
		Saw, Circular Wood (CNP201)	1	50	108	105			1
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	i
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	1
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	1
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			i
		Welder/Generator, Portable (CNP107)	1	100	100	100	Barrier	-5	1
		Tower Crane (CNP049)	1	60	95	93			1
79	Adit D1 - Backfill	Bulldozer (BS C2 13)	1	100	106	106	Barrier	-5	105
		Roller, Vibratory (CNP186)	1	60	108	106	Barrier	-5	i i
		Lorry (BS D9 19)	1	80	102	101	Barrier	-5	1
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	1

Note:

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.) (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

[2] The figures are rounded-up to a whole number.

Area: Worksite S8 (Lung Cheung Road - WB)

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
80	MOE (near B1) - ELS	Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	101
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Pilling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	
81	MOE (near B1) - Excavation	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	105
		Dump truck (BS D3 60)	1	50	110	107	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	1	100	85	85			
		Welder/Generator, Portable (CNP107)	1	100	100	100	Barrier	-5	
82	MOE (near B1) - Structure	Bar Bender and Cutter (CNP021)	1	50	90	87			106
		Saw, Circular Wood (CNP201)	1	50	108	105			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/Generator, Portable (CNP107)	1	100	100	100	Barrier	-5	
		Tower Crane (CNP049)	1	60	95	93			
83	Construction of Retrieval shaft at DIH Interchange/Adit	Crane Mobile (BS D7 114)	1	10	101	91	Barrier	-5	86

Note:

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.) (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

[2] The figures are rounded-up to a whole number.

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
84	Mobilisation	Lorry, with crane grab, gross wt. >38 tonnes (CNP144)	1	50	112	109	Barrier	-5	104
		Mini Backhoe (CNP082)	1	100	94	94	Barrier	-5	
85	A1 Lift - Site Clearance and Hoarding Erection	Lorry (BS D9 19)	1	70	102	100	Barrier	-5	100
		Breaker, hand held, mass >10kg and <20kg (CNP024)	1	20	108	101	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	80	100	99	Barrier	-5	
		Poker, Vibratory, Hand Held (BS D6 40)	1	30	98	93	Barrier	-5	
86	A1 Lift - Pre-drilling and Pre-bored H Piles (6nos)	Piling Rig & Drilling Rig (BS D4 44)	1	60	109	107	Acoustic Mat	-10	99
		Crane Mobile (BS D7 114)	1	70	101	99	Barrier	-5	
87	A1 Lift - Grouting Works	Piling Rig & Drilling Rig (BS D4 44)	1	50	109	106	Acoustic Mat	-10	100
	-	Lorry, crane /grab (CNP145)	1	50	105	102	Barrier	-5	
		Grout Mixer (CNP105)	1	20	90	83	Barrier	-5	
		Grout Pump (CNP106)	1	20	105	98	Barrier	-5	
88	A1 Lift - Sheet Piling works	Piling Rig & Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	107
		Lorry, with crane grab, gross wt. >38 tonnes (CNP144)	1	80	112	111	Barrier	-5	
89	A1 Lift - Excavation & ELS	Lorry, with crane grab, gross wt. >38 tonnes (CNP144)	1	50	112	109	Barrier	-5	106
		Exacavator/ Loader, Wheeled/ Tracked (BS D3 35)	1	80	106	105	Barrier	-5	
		Dump truck with grab (CNP069)	1	80	105	104	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	1	60	85	83			
90	A1 Lift - Wall strenghtening Work	Lorry, with crane grab, gross wt. >38 tonnes (CNP144)	1	20	112	105	Barrier	-5	103
		Poker, Vibratory, Hand Held (BS D6 40)	1	20	98	91	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Concrete Pumping Lorry (CNP047)	1	20	109	102	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
91	A1 Lift - Construct Lift Shaft, wall & slab	Lorry, with crane grab, gross wt. >38 tonnes (CNP144)	1	50	112	109	Barrier	-5	107
		Poker, Vibratory, Hand Held (BS D6 40)	1	20	98	91	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Concrete Pumping Lorry (CNP047)	1	20	109	102			
		Roller (CNP185)	1	20	108	101	Barrier	-5	

Note:

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.) (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

[2] The figures are rounded-up to a whole number.

Area: Worksite S10

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
103	Temporary Gas Main Diversion	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	100	106	106	Barrier	-5	104
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Hand Held Breaker (CNP025)	1	30	111	106	Barrier	-5	
107	Setup of Mobile Batching Machinery Equipment (MBME)	Lorry, with crane, 5.5 tonnes < gross vehicle wt. < 38 tonnes (CNP145[1])	1	80	105	104			109
		Lorry, 5.5 tonnes < gross vehicle wt. < 38 tonnes (CNP142[1])	2	80	105	107			
108	Operation of MBME	Dump truck, with grab, 5.5 tonnes < gross vehicle wt. < 38 tonnes (CNP069[1])	3	80	105	109			110
		Concrete Lorry Mixer (BS D6 23)	2	80	100	102			
		Mobile Batching Machinery Equipment (CNP022)	1	100	108	108	Barrier	-5	
109	Demolition of MBME	Lorry, with crane, 5.5tonnes < gross vehicle wt. < 38 tonnes (CNP145[1])	1	80	105	104			109
		Lorry, 5.5 tonnes < gross vehicle wt. < 38 tonnes (CNP142[1])	2	80	105	107			

Note:

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.) (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

[2] The figures are rounded-up to a whole number.

Area: Worksite S11 - Haul Road East

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
92	Mobilisation	Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	103
		Exacavator/ Loader, Wheeled/ Tracked (BS D3 35)	1	100	106	106	Barrier	-5	
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	
		Poker, Vibratory, Hand Held (BS D6 40)	1	20	98	91	Barrier	-5	
93	Site Clearance	Dump truck, with grab, 5.5 tonne < gross vehicle weight < 38 tonne (CNP069)	1	80	105	104	Barrier	-5	104
		Exacavator/ Loader, Wheeled/ Tracked (BS D3 35)	1	80	106	105	Barrier	-5	
		Lorry, with crane, 5.5 tonne < gross vehicle weight < 38 tonne (CNP145[1])	1	80	105	104	Barrier	-5	
96	Operation of Steel Bending Facilites	Bar bender and cutter (electric) (CNP021)	6	80	90	97			97
97	Bored Piling Works [4]	Crane Mobile (BS D7 114)	2	60	101	102	Barrier	-5	106
		Air Compressor (CNP003)	1	50	104	101	Barrier	-5	
		Piling, large diameter bored, oscillator (CNP165)	2	40	115	114	Acoustic Mat	-10	
		Piling, large diameter bored, reverse circulation drill (CNP 166)	1	70	100	98	Acoustic Mat	-10	
		Concrete Lorry Mixer (BS D6 23)	2	20	100	96	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	50	100	97	Barrier	-5	
104	Temporary Gas Main Diversion	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	100	106	106	Barrier	-5	104
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	1
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	1
		Hand Held Breaker (CNP025)	1	30	111	106	Barrier	-5	1

Note:

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.) (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012) Enclosure for movable plant : -5dB(A) Enclosure for relatively static plant : -10dB(A) Barrier for movable plant : -5 dB(A) Barrier for relatively static plant : -10dB(A) Acoustic mat : -10dB(A)

[4] Bored piling works entrusted by Planning Department

Area: Worksite S12 - DIH Drainage Construction

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
94	Utilities Diversion	Concrete Lorry Mixer (BS D6 23)	1	100	100	100	Barrier	-5	108
		Exacavator/ Loader, Wheeled/ Tracked (BS D3 35)	1	20	106	99	Barrier	-5	
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	
		Bar Bender & Cutter (CNP021)	1	50	90	87			
		Poker, Vibratory, Hand Held (BS D6 40)	1	20	98	91	Barrier	-5	
		Saw, Chain, Hand Held (CNP202)	1	50	114	111	Barrier	-5	
		Hand Held Breaker (CNP025)	1	30	111	106	Barrier	-5	

Note:

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.) (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

[2] The figures are rounded-up to a whole number.

Area: Worksite S13 - Entrance A1 Disable Lift Corridor

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
95	A1 Lift - TTMs Temporary Traffic Diversion	Roller (CNP185)	1	20	108	101	Barrier	-5	103
		Exacavator/ Loader, Wheeled/ Tracked (BS D3 35)	1	60	106	104	Barrier	-5	
		Lorry, with crane grab, gross wt. >38 tonnes (CNP144)	1	20	112	105	Barrier	-5	
		Paint Line Marker (CNP161)	1	60	90	88			

Note:

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.) (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

[2] The figures are rounded-up to a whole number.

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
98	Site Operation	Dump truck, with grab, 5.5 tonne < gross vehicle weight < 38 tonne (CNP069)	2	30	105	103			103
105	Temporary Gas Main Diversion	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	100	106	106	Barrier	-5	104
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Hand Held Breaker (CNP025)	1	30	111	106	Barrier	-5	
110	Operation of Steel Bending Facilites	Bar bender and cutter (electric) (CNP021)	5	70	90	95			95

Note:

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.) (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

[2] The figures are rounded-up to a whole number.

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
99	Initial Site Set Up	Dump truck, with grab, 5.5 tonne < gross vehicle weight < 38 tonne (CNP069)	1	80	105	104	Barrier	-5	104
		Exacavator/ Loader, Wheeled/ Tracked (BS D3 35)	1	80	106	105	Barrier	-5	
		Lorry, with crane, 5.5 tonne < gross vehicle weight < 38 tonne (CNP145[1])	1	80	105	104	Barrier	-5	
100	Site Reinstatement	Lorry, with crane, 5.5 tonne < gross vehicle weight < 38 tonne (CNP145[1])	2	65	105	106			106
106	Temporary Gas Main Diversion	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	100	106	106	Barrier	-5	104
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Hand Held Breaker (CNP025)	1	30	111	106	Barrier	-5	

Note:

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.) (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

[2] The figures are rounded-up to a whole number.

Appendix B2 :Noise Contribution from Works Contract 1106

	Astivity Description	201	2		2013						2	2014				2015	5							201	16						1	2017		
NO.	Activity Description	11 1	12 1 2	2 3 4 5	6 7 8	9 '	10 11	12 1	1 2	3 4	5 6	3 7 8 9	10 11 12	1 2 3	4	5 6 7	78	9 10	D 11	12 1	2	3 4	1 5	6	7 8	9	10 11	12	1 2	3	4 5 /	6 7	8 9 10) 11 12
	Doutimo Boriod																														++	\rightarrow		+-
	Shatin to Control Link Diamond Hill Station Entrances & Adits		_	+ + +																		_									+++	-+-+	-+-+-	+
	Shatin to Central Link - Diamond Hill Station, Entrances & Adits		_	+ + +																		_									+++	-+-+	-+-+-	+
	Worksite 61		_	+ + +																		_									+++	-+-+	-+-+-	+
1	Landecape & Finish																			-			0 00	00	00 00						++	\rightarrow	-+	++-
2	Entrance (A2) Construction huld head wall. Temp acces opening & Staircase				104 10	1 104														-		3	0 30	30	30 30						++	\rightarrow	-+	++-
4	Partial demolish Entrance (A2)					104	12 112	112												-											++	\rightarrow	-+	
5	Entrance (A2) - Install ELS							10	1 101	101										-											++	\rightarrow	-+	++-
6	Entrance (A2) - Install ELO							10	1 101	101										-											++	\rightarrow	-+	++-
7	Entrance (A2) - Install FLS near Adit D1							10	1 101	101										-											++	\rightarrow	-+	++-
,	Entrance (A2) - Install ELS field Adit D1									111 111										-											++	\rightarrow	-+	++-
0	Entrance (A2) - Install ELS & Struts									101	101									-											++	\rightarrow	-+	++-
10	Install ELS & Strute (West End)		_	+ + +						101	101 10	1 101										_									+++	-+-+	-+-+-	+
11	Install ELO & Gridis (West End)										101 10	1 101								-											++	\rightarrow	-+	++-
12	Install FLS near Adit D1										101 10	1 101 101								-											++	\rightarrow	-+	++-
14	Entrance (A2) Construct Bulk Head Wall, partial floor, alab and staircase			+ + +							10		104 104										-								+	-+-+	-+	+
14	Entrance (A2) - constituct buik Head Wall, partial hoor, sido and stancase		_	+ + +									104 104	101								_									+++	-+-+	-+-+-	+
10	Entrance (A2) - Inisiali ELS & Struis		_	+ + +										110 110								_									+++	-+-+	-+-+-	+
17	Entrance (A2) - Demonstri Subway & Install Struts		_	+ + +													105	105				_									+++	-+-+	-+-+-	+
17	Entrance (A2) - Excavation						_										105	105		_											++		++	++-
10	DIL Structures - Structures						_										104	104	4 404	104 10	4 404	104 4	1 10	104	101 10						++		++	+
19	Internal Structures ALL Joyala		_	+ + +													J4 104	104 104	4 104	104 10	4 104	104 10	J4 104	104	104 10	4	104 10	1 104			+++	-+-+	-+-+-	+
20	DILL Creund Level Structures						_													_					104	4 104	104 104	104			++		++	+
21	DIH - Ground Level Structures						_													_					10	5 105	105 10:	105	105 105		++		++	+
22	DIA 1X Rooms Structures						_	104 10												_									105 105		++		++	+
102	Temporary Gas Main Diversion				101 10	104	40 440	104 10	14	110 111	100 10	100 101	104 100	101 110 110			14 400	100 10	4 404	104 10	4 404	104 11	10	105	105 111	100	400 400	100	105 105					
	Verkeite CO				104 104	104		113 10	001 00	112 111	100 10		104 106				109	109 104	4 104	104 10	4 104	104 10	5 10:	0 100	105 11	0 106	100 100	5 100	105 105		4+			4
00	WORKSILE 32						_													_			0 00	00	00 00						++		++	+
23	DILL Structures Ross & Cons Slob Mozz Slob Columns Accoss Slob Rost Slob								_							04 404 40	1 101	104 10	4 404	104 10	4 404	404 44	0 50	30	30 30	4 404					++-		-+	+
25	DIA Structures - Base & Conc Siab, Mezz Siab, Columns, Access Siab, Aoor Siab						_									04 104 10	J4 104	104 104	4 104	104 10	4 104	104 10	104	104	104 10	4 104	104				++		++	+
20	Total SWIL from Worksite S2														1	04 104 10	104	104 10	7 107	107 10	7 107	107 10	102	104	109 10	9 107	104							
	Worksite S2															04 104 10	J4 104	104 10	1 107	107 10	107	107 10	100	5 100	100 100	5 107	104							4
27	Site Clearance		06 106 10																			_									+++	-+-+	-+-+-	+
27	Heardinge		01 101 10																			_									+++	-+-+	-+-+-	+
20	Hidronigs		00 100 10																			_									+++	-+-+	-+-+-	+
29	Landesana & Finish		00 100 10	<mark>~</mark>					_								_			_		00 0	0 00	00	00 00						++-		-+	+
31				101 101 101	101 101 10		04 404	104 10												_		98 9	0 90	98	90 90	•					++		++	++-
32	ALL D Wall Execution (From CL to 20.9m)			104 104 104		104 1	104 104	104 10	J 4	100	100 10		100 100							_											++		++	++-
33	DILL Structures Base & Cane Sich Mazz Sich Columna Bast Sich								_	108	108 10		100 100 100	100 100 100	100 1		100			_			-								++-		-+	+
34	DIA Structures - Base & Cond Siab, Mezz Siab, Columns, Root Siab						_						106 106 106	106 106 106	106 1	06 106 10	106	100 100	0 400	100 10	400										++		++	++-
35	Tree Trepenlepting DT1011						_			100							001 00	106 10	0 100	106 10	00100										++		++	++-
101	Total SWI from Worksite Ca		11 111 44	1 104 104 104	104 104 10	1 104	04 104	104 10	14	102	100 10	100 100 100	110 110 100	106 106 100	106 1	00 100 10	100	106 100	6 100	106 11	6 100	00 0	0 00	0.0	00 00									
	Total SWL from Worksite 53	1	11 111 11	11 104 104 104	104 104 104	104 1	104 104	104 10	J4	109	108 10	108 108 108 108	3 110 110 106	106 106 106	106 1	09 109 10	109	106 100	6 106	106 10	106	98 9	8 98	98	98 98						4			4
07	WORKSITE 54		00 100 11																														-+-+-	+
27	Site Clearance	1	06 106 10	<u>, , , , , , , , , , , , , , , , , , , </u>																													-+-+-	+
28	Tuarunings	1	01 101 10		+++	+ $+$			_					+ + +	+	++	_	\vdash	+				_	+		+		+			++	++	++-	++-
29	Utility Diversions	1	08 108 10	8	+++	+			_						\vdash	+	_	\square	+	_		-	0 0-	00	00 00						++	\rightarrow		+
31		+		101 101				101							\vdash		_	$\left \right $	+		+	98 9	8 98	98	98 98			+			++	++		+
36	Uwali Tree Trees lesting (OAT D) DT4005		++	104 104 104	104 104 104	104 1	104 104	104 10	104	104				+ + +	+	++	_	\vdash	+				_	+		+		+			++	++	++-	+
37	Free Transplanting (CAT D) - D11885	+	+		+++	1	102 102	102	_				+ $+$ $+$	+ + -	\vdash	+	_	\vdash	+	_		_	_	+		+				++	++	++		+
38	Excavation to -1.2		++	+ + +	+++	+			_	108	108			\vdash			_		+					$\left \right $		+					++	\rightarrow	++	++-
39	Excavation to -20.8				+++	+					10	105 105 105 105				_												+			++	\rightarrow		++-
40	DIH - Structure											107	107 107 107	107 107 107	107 1	07 107 10	107	107 10	7 107				-											
	I otal SWL from Worksite S4	1	11 111 11	11 104 104 104	104 104 104	104 1	106 106	106 10	104	104 108	108 10	105 105 105 109	107 107 107	107 107 107	107 1	07 107 10	107	107 10	/ 107			98 9	8 98	98	98 98	5								

Appendix B2 :Noise Contribution from Works Contract 1106

		2012					2013					20	014						2015							2016						2017			
No.	Activity Description	11 12	2 1	2 3	3 4	5	6 7 8	9 10	11 12	2 1	2 3	4 5 6	78	B 9	10 11	12	1 2 3	4 5	6 7	8	9 1	0 11 12	2 1	2 3	4 5	6 7	8	9 10 1	12	1 2 3	4 5	6 7 8	39	10 11	1 12
	Worksite S5																																		-
27	Site Clearance	10	6 106	106																															
28	Hoardings	10	1 101	101																															
29	Utility Diversions	10	8 108	108																															
31	Landscape & Finish																							98	98 98	98 98	98								
41	Dwall						104 104	104																											
42	Dwall							106	106																										
44	Dwall								104 10	4 104 1	04 104	104																							
45	Excavation to -20.8								10	8 108 1	08 108	8 108 108																							
46	DIH - Structure											106	106 10	06 106	106 106	106 1	06 106 106	106 10	6 106 106	106	106 1	06 106 10	6 106 1	06											
	Total SWL from Worksite S5	11	1 111	111			104 104	104 106	108 10	9 109 1	09 109	109 108 106	106 10	06 106	106 106	106 1	06 106 106	106 10	5 106 106	106	106 1	06 106 10	6 106 1	06 98	98 98	98 98	98								
	Worksite S6																																		
47	Watermain Diversion (LCR)											112																							
49	LCR Diversion Embankment Fill											111	111 1	11																					
50	LCR E/B Widening																			110	110 1	10													
51	LCR E/B Diversion Traffic																					110													
52	LCR E/B Reinstatement																			11						106	106 1	106							
53	LCR E/B to Original Traffic																						1	10											
	Total SWL from Worksite S6											112 111	111 1	11						110	110 1	10 110	1	10		106	106 1	106							
	Worksite S7																																		
54	Watermain Diversion (LCR)											112																							
56	LCR Diversion Embankment Fill											111	111 1	11																					
57	LCR W/B Diversion Construction																		108	108	108 1	08													
58	LCR W/B Deck Construction																			110	110 1	10													
59	LCR W/B Diversion Traffic																					110													
60	LCR W/B Reinstatement																									106	106 1	106							
61	LCR W/B to Original Traffic																						1	10								_			
	Total SWL from Worksite S7											112 111	111 1	11					108	112	112 1	12 110	1	10		106	106 1	106							
	Worksite S8																																		-
62	Interchange Adit - Construct Barettes							110 110	110 11	0 110																									
63	Interchange Adit - ELS (Part 1)									103 1	03																								
64	Interchange Adit - Excavation (Part 1)											105 105 105	5																						
65	Interchange Adit - Structure (Part 1)												106 10	06 106																					-
66	Interchange Adit - ELS (Part 2)																	10	1 101 101																-
67	Interchange Adit - Excavation (Part 2)																		105	105	105														
68	Interchange Adit - Structure (Part 2)																				1	05 105 10	5												
69	Interchange Adit - ELS (Part 3)																						1	01 101	01										
70	Interchange Adit - Excavation (Part 3)																								105	105 105									
71	Interchange Adit - Structure (Part 3)																										106 1	106 106							
72	Interchange Adit - Backfill																											10	5						
73	Adit D1 - ELS																	10	1 101 101													_			
74	Adit D1 - Excavation																		104	104	104											_			
75	Adit D1 - Structure																				1	05 105 10	5									_			
76	Adit D1 - ELS (Part 2)																						1	01 101	01							_			
77	Adit D1 - Excavation (Part 2)												++												105	105 105						++			\top
78	Adit D1 - Structure (Part 2)																			11							106 1	106 106							+
79	Adit D1 - Backfill																			11			\uparrow					10	5						+
80	MOE (near B1) - ELS												++			++		++					++			101 101						++			+
81	MOE (near B1) - Excavation																									105	105							-	+
82	MOE (near B1) - Structure												++			++		++					++				106 1	106 106	+			++			+
83	Construction of Retrieval shaft at DIH Interchange/Adit														86		86	86																-	+
	Total SWL from Worksite S8							110 110	110 11	0 111 1	03	105 105 105	106 10	06 106	86		86	104	104 109	107	107 1	08 108 10	8 1	04 104	04 108	109 110	112 1	111 111 10	8						

Appendix B2 :Noise Contribution from Works Contract 1106

		201	12				2013						2014						2015			1			2016	;			Т			201	7		
NO.	Activity Description	11	12 1	1 2	3 4	5	6 7	8 9	9 10 11 1	2 1	2 3	4 5	6 7	8	9 10	11 12	1 2 3	4 5	567	89	10 11 1	2 1	2 3 4	5	6 7	8	9 10) 11 1	2 1	2 :	3 4 5	6	78	9 10 11	12
	Worksite S9																																		
84	Mobilisation						104 1	104																											
85	A1 Lift - Site Clearance and Hoarding Erection						100 1	100																											
86	A1 Lift - Pre-drilling and Pre-bored H Piles (6nos)								99 9	9 99	99 99	9																							
87	A1 Lift - Grouting Works										100 10	0																							
88	A1 Lift - Sheet Piling works														107	107																			
89	A1 Lift - Excavation & ELS															106	106															-			
90	A1 Lift - Wall strenghtening Work																103 103	3																	
91	A1 Lift - Construct Lift Shaft, wall & slab																	10	07 107										-			-			
	Total SWL from Worksite S9						106 1	106	99 9	9 99	103 10	3			107	107 106	106 103 103	3 10	07 107																/
	Worksite S10																																		1
103	Temporary Gas Main Diversion								10)4																									
107	Setup of Mobile Batching Machinery Equipment (MBME)															109																			
108	Operation of MBME																110 110 110	0 110 11	10 110 110	110 11	0 110 110 1	10 110	110 110 110	110 1	110 11	0 110	110 11	0 110 1	10						
109	Demolition of MBME																												109						
	Total SWL from Worksite S10								10	04						109	110 110 110	0 110 11	10 110 110	110 11	0 110 110 1	10 110	110 110 110	110 1	110 11	0 110	110 11	0 110 1	10 109	1					
	Worksite S11																																		
104	Temporary Gas Main Diversion									104																									1
92	Mobilisation										10	3 103																							1
93	Site Clearance											104 104																							1
96	Operation of Steel Bending Facilites												97 97	97 9	97 97	97 97	97 97 97	97 9	7 97 97	97 97	7 97 97 9	7 97	97 97 97	97	97 97	7 97	97 97	97 9	<mark>97</mark>						
97	Bored Piling Works [1]												106 106																						
	Total SWL from Worksite S11									104	10	3 107 104 1	106 106	97 9	97 97	97 97	97 97 97	97 9	7 97 97	97 97	7 97 97 9	7 97	97 97 97	97	97 97	7 97	97 97	97 9	37			1			1
	Worksite S12																																		
94	Utilities Diversion																													108 1/	08 108 10	8 108 1	08		
	Total SWL from Worksite S12																													108 1	08 108 10	8 108 1	08		
	Worksite S13																																		
95	A1 Lift - TTMs Temporary Traffic Diversion																				103														
	Total SWL from Worksite S13																				103									1					
	Worksite S15																							ΙT											
98	Site Operation			1	03 10	3 103 1	03 103 1	103 10	03 103 103 10	03 103	103 10	3 103 103 1	103 103	103 1	103 103	103 103	103 103 103	3 103 10	03 103 103	103 10	3 103 103 1	03 103	103 103 103	103 1	103 10	3 103	103 10	3 103 1	03						
105	Temporary Gas Main Diversion									104																									
110	Operation of Steel Bending Facilites															95	95 95 95	95 9	5 95 95	95 95	5 95 95														
	Total SWL from Worksite S15			1	03 10	3 103 1	03 103 1	103 10	03 103 103 10	03 107	103 10	3 103 103 1	103 103	103 1	103 103	103 104	104 104 104	4 104 10	04 104 104	104 10	4 104 104 1	03 103	103 103 103	103 1	103 10	3 103	103 103	3 103 1	03						
	Worksite S16																																		
99	Initial Site Set Up		10	04 104																															
100	Site Reinstatement																												106	106 1	06 106 10	ô			
106	Temporary Gas Main Diversion								10)4																									
	Total SWL from Worksite S16		10	04 104					10)4																			106	106 1	06 106 10	8			

 Remark:

 • indicates construction works in progress

 [1]
 - Bored Piling Works on Worksite S11 (Activity No. 97) is entrusted by Planning Department

Appendix B3 :Noise Contribution from Concurrent Works

Table B3.1 - Noise Contribution from other works area under SCL Works Contract 1103 (The figures are extracted from the latest CNMMP of Works Contract 1103)

Warks Area/Tatal SWI (dB(A))	2012	2					20)13												20	14												20	15												201	6											2	2017	7					
WORKS Area/Total SWL (UB(A))	11 1	2 1	2	3	4	5	6	7	8	9	1() 1	1 1	2 1	1 1	2	3	4	5	6	7	8	9	1() 1	1 1	2 1	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	5 (6	7	8	9	10	11	12	1	2	3	4	. 5	5 6	3 7	7 ;	8	9 .	10 1	11	12
Worksite S1	110 11	10 110	111	111	111	111	111	111	111	11	1 11	1 11	1 1	11 11	11 1	09 1	09 1	108	108	100	100	100	0 10	0 10	0 10	0 10	00 00)	0.	109	109	0	0	0	0	0	0	0	112	112	0	0	0	0) (0	0	0	0	0	0	0	0	0	0	0	0) () (0	0	0	0	0	0
Worksite S2	110 11	10 110) 111	111	111	111	111	111	111	11	1 11	1 11	1 1	11 11	11 1	09 1	09 1	108	108	100	100	100	0 10	0 10	0 10	0 10	00 0)	0.	109	109	0	0	0	0	0	0	0	112	112	0	0	0	0) (0	0	0	0	0	0	0	0	0	0	0	0) () (0	0	0	0	0	0
Worksite S10	110 11	10 110	0	0	0	0	0	0	0	0	0	C	() ()	0	0	0	0	0	0	0	0	0	0	(0 0)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0)	0	0	0	0	0	0	0	0	0	0	0	0) () (0	0	0	0	0	0

Table B3.2 - Noise Contribution from other works area under SCL Works Contract 1107 (The figures are extracted from the latest CNMMP of Works Contract 1107)

Warks Ares/Total SWI (dB(A))	20	2						1	201	3											20)14											201	5											201	6											20'	17					
WORKS Area/Total SWL (dB(A))	11	12	1	2	3	4		5 (ŝ	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9 1	0 1	1 1	2 1	2	2 :	3 4	4	5	6	7	8	9 1	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Worksite S3a	0	0	0	0	0	0	()	0	0	0	0	15	115	115	115	115	115	115	0	109	109	109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	D 0	(0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worksite S14	0	0	0	0	0	0	()	0	0	0	0	801	108	108	101	101	101	101	0	0	0	0	0	0	103	103	103	103	0	0	0	0	0	0	0	0	0 () ((0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Remark:

Cumulative impact arisen from Tsz Wan Shan Pedestrian Link (i.e. Worksite S21 & S22 in Appendix C) is not anticipated given the separation distance of >300m between the works sites and NSRs.

Appendix B4 : Accumulated Noise Contribution from each Worksite

Table D4 Assumbted Naise	Contribution from Works Contract 1106	Warks Contract 1102 . Warks	Contract 1107 . Ton Wen	Chan Dedectrion Link
Table B4 - Accumilated Noise	Contribution from works Contract 1106	+ works Contract 1103 + works	Contract 1107 + 1sz wan	Shah Pedestrian Link

Works Area/Total SWI (dB(A))	2	012						201	3									2	2014										1	2015	;									201	16										20	17					٦
WORKS Alea/Total SWL (UB(A))	11	12	1	2	3	4	5	6	7 8	8 9	9 10) 11	12	1	2	3	4 5	5 6	3 7	8	9	10	11	12	1	2	3	4 5	56	3 7	' 8	9	10	11	12	1 2	2 3	3 4	5	6	7	8	9 .	10 1	11 1	2 1	2	3	4	5	6	7	8	9 1	0 1	1 12	2
Worksite S1	11	110	110	111	111	111	111	111 1	12 1	12 11	2 11	5 115	115	113	111	114 1	13 11	0 10	07 10	7 104	100	100	106	107	101	112	114 1	09 (0 (0 10	4 109	9 109	104	104 1	113	113 1	04 10	14 10	5 105	105	105	110	108 1	108	08 1	08 10	10	5 0	0	0	0	0	0	0	0 0) O	
Worksite S2	11	0 110	110	111	111	111	111	111 1	111 1	11 11	1 11	1 111	111	111	109	109 1	08 10	08 10	00 10	0 100	0 100	100	100	100	0	0	109 1	09 10	04 10	04 10	4 104	4 104	107	107 1	113	113 1	07 10	7 10	8 108	108	108	108	107 1	04	0	0 0	0	0	0	0	0	0	0	0	0 0) 0	
Worksite S3	0	111	111	111	104	104	104	104 1	04 10	04 10	04 104	4 104	104	104	0	0 1	09 10	08 10	08 10	B 108	3 108	110	110	106	106	106	106 1	06 10	09 10	09 10	9 109	9 106	106	106 1	106	106 1	06 9	B 98	98	98	98	98	0	0	0	0 0	0	0	0	0	0	0	0	0	0 0) 0	
Worksite S3a	0	0	0	0	0	0	0	0	0 (0 0) 11	5 115	115	115	115	115 1	15 () 10	09 10	9 109	9 0	0	0	0	0	0	0	0 (0 (0 0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0 0	0 0	0	0	0	0	0	0	0	0 0) O	
Worksite S4	0	111	111	111	104	104	104	104 1	04 10	04 10	04 10	6 106	106	104	104	104 1	08 10	08 10	05 10	5 105	5 109	107	107	107	107	107	107 1	07 10	07 10	07 10	7 10	7 107	107	107	0	0	09	B 98	98	98	98	98	0	0	0	0 0	0	0	0	0	0	0	0	0	0 0) 0	
Worksite S5	0	111	111	111	0	0	0	0 1	04 10	04 10	04 10	6 108	109	109	109	109 1	09 10	08 10	06 10	6 106	5 106	106	106	106	106	106	106 1	06 10	06 10	06 10	6 10	6 106	106	106 1	106	106 1	06 9	B 98	98	98	98	98	0	0	0	0 0	0	0	0	0	0	0	0	0	0 0) 0	
Worksite S6	0	0	0	0	0	0	0	0	0 0	0 0) 0	0	0	0	0	0	0 11	2 11	1 11	1 111	0	0	0	0	0	0	0	0 (0 () (110	0 110	110	110	0	0 1	10 0	0	0	0	106	106	106	0	0	0 0	0	0	0	0	0	0	0	0	0 0) 0	
Worksite S7	0	0	0	0	0	0	0	0	0 (0 0) ()	0	0	0	0	0 1	12 () 11	1 11	1 111	0	0	0	0	0	0	0	0 (0 (0 10	8 112	2 112	112	110	0	0 1	10 0	0	0	0	106	106	106	0	0	0 0	0 0	0	0	0	0	0	0	0	0 0) O	
Worksite S8	0	0	0	0	0	0	0	0	0 (0 11	0 11	0 110	110	111	103	0 1	05 10	05 10	05 10	6 106	5 106	0	86	0	0	86	0	0 10	04 10	04 10	9 10	7 107	108	108 1	108	0 1	04 10	4 10	4 108	109	110	112	111 1	111 1	08	0 0	0	0	0	0	0	0	0	0	0 0) 0	
Worksite S9	0	0	0	0	0	0	0	0 1	06 10	06 0) ()	99	99	99	103	103	0 0) () ()	0	0	107	107	106	106	103	103	0 10	07 10	07 0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0 0) 0	
Worksite S10	11) 110	110	0	0	0	0	0	0 0	0 0) 0	0	104	0	0	0	0 0) () 0	0	0	0	0	109	110	110	110 1	10 1	10 1	10 11	0 110	0 110	110	110 1	110	110 1	10 11	0 11	0 110	110	110	110	110 1	110 1	10 1	10 10	9 0	0	0	0	0	0	0	0	0 0) 0	
Worksite S11	0	0	0	0	0	0	0	0	0 0	0 0) ()	0	0	104	0	103 1	07 10	04 10	06 10	6 97	97	97	97	97	97	97	97 9	97 9	7 9	7 9	7 97	97	97	97	97	97 9	7 9	7 97	97	97	97	97	97	97 9	97 9	97 (0 0	0	0	0	0	0	0	0	0 0) O	
Worksite S12	0	0	0	0	0	0	0	0	0 0	0 0) ()	0	0	0	0	0	0 0) () ()	0	0	0	0	0	0	0	0	0 0	0 (0 0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0 0	10	8 10	8 108	108	108	108	0	0	0 0) O	
Worksite S13	0	0	0	0	0	0	0	0	0 0	0 0) 0	0	0	0	0	0	0 0) () 0	0	0	0	0	0	0	0	0	0 0	0 () (0	0	0	103	0	0	0 0	0	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0 0) 0	
Worksite S14	0	0	0	0	0	0	0	0	0 0	0 0) 10	B 108	108	101	101	101 1	01 0) () 0	0	0	0	103	103	103	103	0	0 (0 () (0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0 0) 0	
Worksite S15	0	0	0	0	103	103	103	103 1	03 10	03 10	03 10	3 103	103	107	103	103 1	03 10	03 10	03 10	3 103	3 103	103	103	104	104	104	104 1	04 10	04 10	04 10	104	104	104	104 1	103	103 1	03 10	3 10	3 103	103	103	103	103 1	03 1	03 1	03 0	0 0	0	0	0	0	0	0	0	0 0) O	
Worksite S16	0	0	104	104	0	0	0	0	0 (0 0) 0	0	104	0	0	0	0 0) () 0	0	0	0	0	0	0	0	0	0 (0 () (0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0 10	6 10	6 10	6 106	106	0	0	0	0	0 0) 0	

Appendix B5 : Accumulated Noise Level on NSRs

NSR ID	NSR Description	Distance, m	Corr. for Distance,	Facade Correction,	Total Correction,	2012			2011						201	14		Pr	edicted C	onstruc	tion No	oise Lev	el dB(A)	1		0	016			Γ			2017			Mi Cl	ax. NL,
			UB (A)	UB(A)	UD(A)	11 12	2 1 2	3 4	5 6 7	7 8 9	10 11	12	1 2 3	3 4	5 6	7 8	9 10	11 12	1 2	3 4 5	5 6 7	, 7 8 9	10 11 1	2 1 2	3 4	5 6	7 8	9 10	11 12	1 2	3	4 5	6 7	8 9	10 11	12	(A)
DIH 9-1	Shek On Building							<u> </u>		1.1.				- I - I				1			- 1 - 1 -	1-1-				1-1-	1 - 1 -								1.01.1.1		
	Worksite S1	210	-54.4	3	-51.4	59 59	59 60 6	60 60 6	0 60 6	0 60 60	63 63	64 6	61 59 62	2 62	59 56	56 52	49 49	54 56	50 60 6	2 58 0	0 5	3 58 58	53 53 6	61 53	53 54	54 54	54 58	56 56	56 56	54 54	0	0 0	0 0	0 0	0 0	0	
	Worksite S2	260	-56.3	3	-53.3	57 57	57 58 5	58 58 5	8 58 5	8 58 58	58 58	58 5	8 56 56	6 55	55 47	47 47	47 47	47 47	0 0 5	6 56 5	1 51 5	1 51 51	54 54 60	0 60 54	54 55	55 55	55 55	54 51	0 0	0 0	0 (0 0	0 0	0 0	0 0	0	
	Worksite S3							_							_																+++	\square	'	\square	+		
	Worksite S3a		-																												++		'				
	Worksite S4																														+++	\rightarrow	'	\vdash	+	<u> </u>	
	Worksite S6	285	-57.1	3	-54.1	0 0	0 0	0 0 0		0.0	0 0	0 0		0	58 57	57 57	0 0	0 0	0 0 0			56 56	56 56 0	0 56		0 0	52 53	52 0	0 0	0 0	0	0 0	0 0	0 0	0.0	0	
	Worksite S7	245	-55.8	3	-52.8	0 0	0 0			0 0	0 0	0 0		59	0 58	58 58	0 0	0 0	0 0 0		0 0 5	5 59 59	59 57 0	0 57	0 0	0 0	54 54	54 0	0 0	0 0	0	0 0	0 0	0 0	0 0	0	
	Worksite S8	275	-56.8	3	-53.8	0 0	0 0	0 0 0	0 0 0	0 56	56 56	56 5	7 49 0	51	51 51	53 53	53 0	32 0	0 32 0	0 0 5	1 51 5	5 54 54	54 54 54	1 0 51	51 51	54 55	56 58	57 57	54 0	0 0	0	0 0	0 0	0 0	0 0	0	
	Worksite S9	275	-56.8	3	-53.8	0 0	0 0	0 0 0	0 5	2 52 0	0 45	45 4	5 49 49	9 0	0 0	0 0	0 53	53 53	53 49 4	9 0 5	3 53 0	0 0	0 0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 /	0 0	0 0	0 0	0 0	0	
	Worksite S10	275	-56.8	3	-53.8	56 56	56 0	0 0 0	0 0	0 0	0 0	50 (0 0 0	0	0 0	0 0	0 0	0 55	57 57 5	7 57 5	7 57 5	7 57 57	57 57 57	7 57 57	57 57	57 57	57 57	57 57	57 57	55 0	0 /	0 0	0 0	0 0	0 0	0	
	Worksite S11																																				
	Worksite S12																																<u> </u>				
	Worksite S13	285	-57.1	3	-54.1	0 0	0 0	0 0 0	0 0 0	0 0	0 0	0 (0 0 0	0	0 0	0 0	0 0	0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 49 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 (0 0	0 0	0 0	0 0	0	
	Worksite S14																														+++		'	++	+		
	Worksite S15																														++	\rightarrow	'		+		
	WOLKSILE STO		Predicted	Noise Level	at NSR (dB(A)) 62 62	62 62 6	62 62 6	2 62 6	3 63 63	65 65	65 6	4 61 63	3 64	62 62	62 62	55 55	57 60	59 62 6	4 62 6	0 60 6	2 64 64	64 63 65	5 65 63	60 61	61 61	63 64	63 62	61 60	57 54	0	0 0	0 0	0 0	0 0	0	65
DIH 13-1	Canossa Primary School																																				
	Worksite S1	265	-56.4	3	-53.4	57 57	57 58 5	58 58 5	8 58 5	8 58 58	61 61	62 5	9 57 60	0 60	57 54	54 50	47 47	52 54	48 58 6	0 56 0	0 5	1 56 56	51 51 59	9 59 51	51 52	52 52	52 56	54 54	54 54	52 52	0 (0 0	0 0	0 0	0 0	0	
	Worksite S2														_																++		'		+	<u> </u>	
	Worksite S3												_	_	_						_						+				+++		r'	+	+	<u> </u>	
	Worksite S3a																														++				+		
	Worksite S5																														+++						
	Worksite S6																																				
	Worksite S7	295	-57.4	3	-54.4	0 0	0 0	0 0 0	0 0	0 0	0 0	0 (0 0 0	57	0 57	57 57	0 0	0 0	0 0 0	0 0 0	0 5	4 58 58	58 56 0	0 56	6 0 0	0 0	52 52	52 0	0 0	0 0	0 (0 0	0 0	0 0	0 0	0	
	Worksite S8																														+	\rightarrow	<u> </u>				
	Worksite S9																														+++		'	++	+		
	Worksite S10																														++		'		+	-	
	Worksite S12																														++	-+-+		++-	+-+-		
	Worksite S13																														+++						
	Worksite S14																																				
	Worksite S15																																<u> </u>				
	Worksite S16		Ducalistad	Maine Level															10 50 0																	_	~~~
DIH 1/1-1	Phythm Carden Block 2		Predicted	Noise Level	al NSR (db(A)	0 57 57	57 58	58 58 5	8 58 5	58 58	61 61	62 5	9 57 60	J 62	57 58	58 58	4/ 4/	52 54	48 58 6	0 56 0	0 0 5	6 60 60	59 57 5	9 59 57	51 52	52 52	55 58	56 54	54 54	52 52		0 0	0 0	0 0		0	62
	Worksite S1	<u> </u>	1	1	1			<u> </u>			TT									<u> </u>							TT		<u> </u>		TT	<u> </u>	í 	ET E	TTT		
	Worksite S2																														+++						
	Worksite S3																																				
	Worksite S3a	270	-56.6	3	-53.6	0 0	0 0	0 0 0	0 0	0 0	62 62	62 6	62 62	2 62	0 56	56 56	0 0	0 0	0 0 0	0 0	0 0	0 0	0 0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 (0 0	0 0	0 0	0 0	0	
	Worksite S4	275	-56.8	3	-53.8	0 57	57 57 5	50 50 5	0 50 5	0 50 50	52 52	52 5	0 50 50	54	54 51	51 51	55 53	53 53	53 53 5	3 53 5	3 53 5	3 53 53	53 53 0	0 0	45 45	45 45	45 45	0 0	0 0	0 0	0 (0 0	0 0	0 0	0 0	0	
	Worksite S5	225	-55.0	3	-52.0	0 58	58 58	0 0 0	0 0 5	2 52 52	54 56	57 5	7 57 57	7 57	56 54	54 54	54 54	54 54	54 54 5	4 54 54	4 54 5	4 54 54	54 54 54	1 54 54	46 46	46 46	46 46	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0	
	Worksite S7	290	-57.2	3	-54.2	0 0	0 0	0 0 0	0 0	0 0	0 0	0 0	0 0 0	58	0 57	57 57	0 0	0 0	0 0 0		0 5	4 58 58	58 56 0	0 56	0 0	0 0	52 52	52 0	0 0	0 0	0	0 0	0 0	0 0	0 0	0	
	Worksite S8	200	07.2	Ŭ	01.2																										+ +		<u> </u>			-	
	Worksite S9																															-					
	Worksite S10																																\square			\square	
	Worksite S11	167	-52.4	3	-49.4	0 0	0 0	0 0 0	0 0	0 0	0 0	0 5	5 0 54	4 57	55 57	57 47	47 47	47 47	47 47 4	7 47 4	7 47 4	7 47 47	47 47 4	7 47 47	47 47	47 47	47 47	47 47	47 47	0 0	0 (0 0	0 0	0 0	0 0	0	
	Worksite S12	145	-51.2	3	-48.2	0 0	0 0	0 0 0) 0 C	0 0	0 0	0 (0 0 0	0	0 0	U 0	0 0	0 0	0 0 0	0 0 0	0 0	0 0	0 0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 60	60 6	50 60	60 60	0 0	0 0	U	
	Worksite S13	60	-43.5	3	-40.5	0 0	0 0	0 0 0		0 0	68 68	68 6	0 60 60	0 60	0 0	0 0	0 0	63 63	63 63 0				0 0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0	0 0	0 0	0 0	0 0	0	
	Worksite S15	198	-53.9	3	-50.9	0 0	0 0 5	52 52 5	2 52 5	2 52 52	52 52	52 5	6 52 52	2 52	52 52	52 52	52 52	52 53	53 53 5	3 53 5	3 53 5	3 53 53	53 53 53	2 52 52	52 52	52 52	52 52	52 52	52 52	0 0	0	0 0	0 0	0 0	0 0	0	
	Worksite S16	110	-48.8	3	-45.8	0 0	58 58	0 0 0	0 0	0 0	0 0	58 (0 0 0	0	0 0	0 0	0 0	0 0	0 0 0	0 0 0	0 0	0 0	0 0 0	0 0	0 0	0 0	0 0	0 0	0 0	60 60	60 E	30 60	0 0	0 0	0 0	0	
			Predicted	Noise Level	at NSR (dB(A)) 0 61	63 63 5	54 54 5	4 54 5	6 56 56	69 69	69 6	6 65 65	5 67	60 63	63 62	59 58	64 64	64 64 5	8 58 5	8 58 6	0 61 61	61 60 5	57 59	54 54	54 54	56 56	56 53	53 53	60 63	63 E	63 63	60 60	0 0	0 0	0	69

Appendix B5 : Accumulated Noise Level on NSRs

NSR ID	NSR Description	Distance,	Corr. for Distance,	Facade Correction,	Total Correction,														Pr	edicte	d Cons	tructio	n Nois	e Leve	dB(A)														Max. CNL,
			dB (A)	dB(A)	dB(A)	2012			2	2013						2014							2015						201	6						2017				JB(A)
						11 12	2 1 2	2 3	4 5 6	6 7 8	3 9 1	0 11	12 1	2 3	3 4 5	6 7	8 9	9 10	11 12	1 2	2 3 4	4 5	6 7	8 9	10 11	1 12 1	2 3	4 5	i 6	7 8	9 10	11 12	1 2	3 /	4 5	6 7	8 9	10 11	12	
	Canossa Primary School																																							-
DIH 14-4	(San Po Kong)																																							
	Worksite S1		1		1																													TT	<u> </u>			T		
	Worksite S2																																							
	Worksite S3	250	-55.9	3	-52.9	0 58	58 5	3 51	51 51 51	1 51 5	1 51 5	1 51 5	51 51	0 0	0 56 55	55 55	5 55 5	5 57 5	57 53	53 53	3 53 5	3 56 5	6 56	56 53	53 53	53 53	3 53 45	45 45	5 45 4	5 45	0 0	0 0	0 0	0 /	0 0	0 0	0 0	0 0	0	
	Worksite S3a			-														-												-										
	Worksite S4	205	-54.2	3	-51.2	0 59	59 59	9 53	53 53 53	3 53 53	3 53 5	5 55 5	55 53	53 5	3 56 56	53 53	3 53 5	8 55 5	55 55	55 55	5 55 5	5 55 5	5 55	55 55	55 55		0 47	47 47	7 47 4	7 47	0 0	0 0	0 0	0 /	0 0	0 0	0 0	0 0	0	
	Worksite S5	180	-53.1	3	-50.1	0 60	60 60	0 0	0 0 0	54 5	4 54 5	5 58 5	59 59	59 5	9 59 58	56 56	56 5	6 56 4	56 56	56 56	6 56 5	6 56 5	6 56	56 56	56 56	56 5	56 48	48 48	3 48 4	8 48	0 0	0 0	0 0	0 /	0 0	0 0	0 0	0 0	0	
	Worksite S6	280	-56.9	3	-53.9	0 0	0 0	0	0 0 0	0 0	0 0	0 0	0 0	0 0	0 58	57 57	7 57 0) 0	0 0	0 0			0 0	56 56	56 56	0 0	56 0	0 0	0.5	2 52 5	52 0	0 0	0 0	0 /	0 0	0 0	0 0	0 0	0	
	Worksite S7	250	-55.9	3	-52.9	0 0	0 0	0	0 0 0	0 0		0 0	0 0	0 0	0 59 0	58 58	3 58 0) 0	0 0	0 0			0 55	59 59	59 57	0 0	57 0	0 0	0.5	3 53 5	53 0	0 0	0 0	0 /	0 0	0 0	0 0	0 0	0	
	Worksite S8	280	-56.9	3	-53.9	0 0	0 0	0	0 0 0	0 0	56 5	6 56 5	56 57	49 0	51 51	51 52	52 5	2 0 3	32 0	0 32	2 0 0	50 5	0 55	54 54	54 54	54 0	50 50	50 54	1 55 5	6 58 5	57 57	54 0	0 0	0 /	0 0	0 0	0 0	0 0	0	
	Worksite S9	200	00.0	0	00.0																													+					-	
	Worksite S10	245	-55.8	3	-52.8	57 57	57 0	0	0 0 0	0.0		0 5	51 0	0 0		0 0	0 0		0 56	58 58	8 58 5	8 58 5	8 58	58 58	58 58	58 5	1 58 58	58 58	3 58 5	8 58 9	58 58	58 58	56 0	0 /	0 0	0 0	0 0	0 0	0	
	Worksite S11	154	-51.7	3	-48.7	0 0	0 0	0	0 0 0	0 0			0 55	0 5	4 58 55	58 58	3 48 4	8 48 4	48 48	48 48	8 48 4	8 48 4	8 48	48 48	48 48	48 49	3 48 48	48 48	3 48 4	8 48 4	48 48	48 48	0 0	0 /	0 0	0 0	0 0	0 0	0	
	Worksite S12	105	-48.4	3	-45.4	0 0	0 0	0	0 0 0	0 0		0 0	0 0	0 0	0 0 0	0 0	0 0	0 0	0 0	0 0	0 0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0	0 0	0 0	0 0	0 62	2 62 6	32 62	62 62	0 0	0 0	0	
	Worksite S13		10.1	0	10.1			-																														+	<u> </u>	
	Worksite S14	200	-54.0	3	-51.0	0 0	0 0	0	0 0 0	0.0	0 5	7 57 5	57 50	50 5	0 50 0	0 0	0 0		52 52	52 52	200		0 0	0 0	0 0	0 0	0 0	0 0	0		0 0	0 0	0 0	0 /	0 0	0 0	0 0	0 0	0	
	Worksite S15	136	-50.7	3	-47 7	0 0	0 0	55	55 55 59	5 55 5	5 55 5	5 55 5	55 59	55 5	5 55 55	55 55	5 55 5	5 55	55 56	56 56	6 56 5	6 56 5	6 56	56 56	56 56	55 5	5 55 55	55 59	5 55 5	5 55 5	55 55	55 55	0 0	0	0 0	0 0	0 0	0 0	0	
	Worksite S16	148	-51.4	3	-48.4	0 0	56 5	6 0	0 0 0			0 0 5	56 0	0 0		0 0	0 0		0 0	0 0				0 0	0 0	0 0	0 0	0 0	0		0 0	0 0	58 58	3 58 5	58 58	0 0	0 0	0 0	0	
		. 10	Predicted	Noise Level a	t NSR (dB(A)	57 65	65 6	5 58	58 58 58	3 59 5	9 61 6	3 64 6	5 64	62 6	2 66 64	65 65	64 6	3 62 0	63 63	63 65	3 63 6	3 64 6	4 65	66 65	65 65	63 6	64 61	61 61	1 62 6	3 63 6	63 62	61 60	60 64	1 64 F	64 64	62 62	0 0	0 0	0	66
DIH 14-5	Bhythm Garden Block 1				(42(7)	, 0. 00					• •. •			02 0				0 02 0	00 00	00 00		0 01 0	. 00		00 00				. 02 0		00 02	0.00				102 102			<u> </u>	
DITTYS	Worksite S1		1	1	1				<u> </u>	1 1						TT			1			<u> </u>			1	1	1 1	TT	1 1	- T T	- 1	1 1		<u>+</u>		<u></u>	<u></u>	<u>+</u>	-	
	Worksite S2																									-								+		+	+-+-	++	+	
	Worksite S2	205	-57.4	3	-54.4	0 56	56 50	a 40	10 10 10	10 4	0 40 4	0 10 /	10 10	0 0	54 53	52 53	52 5	2 56 1	56 52	52 51	2 52 5	2 55 5	5 55	55 52	52 53	52 5	52 44	44 44	1 44 4	4 44	0 0	0 0	0 0	0.0	0 0	0 0	0 0	0 0	0	
	Worksite S3a	200	57.4	0	54.4	0 50	50 5	5 45	45 45 40	5 45 4.	5 45 4	5 45 4	13 13		5 54 55	00 00	, 55 5	0 00 .	50 52	52 52	2 52 5	2 00 0	10 00	00 02	52 52	. 52 54	. 52 4		7 77 7		0 0	0 0	0 0	+	5 0		00		-	
	Worksite S3a	235	-55 4	3	-52.4	0 58	58 5	8 51	51 51 51	1 51 5	1 51 5	A 54 F	54 51	51 5	1 55 55	52 52	52 5	6 54	54 54	54 54	4 54 5	4 54 5	1 54	54 54	54 54	0.0	0 46	46 46	3 46 4	6 46	0 0	0 0	0 0	0.0	0 0	0 0	0 0	0 0	0	
	Worksite S5	190	-53.1	3	-52.4	0 60	60 60		0 0 0	54 5	1 51 5	5 59 5	50 50	50 5	0 50 50	56 56	56 5	6 56 1	56 56	56 50	- 5- 5 6 56 5	- 5- 5 6 56 5	6 56	56 56	56 56	56 50	56 49	10 10	0 10 1	0 40	0 0	0 0	0 0		0 0	0 0	0 0	0 0	0	
	Worksite S6	200	-57.2	3	-54.2	0 00	00 0			0 0			0 0	0 0		57 57	7 57 0		0 0	0 0				50 50	56 56		56 0		0 6	2 52 6	52 0	0 0	0 0		0 0	0 0	0 0	0 0	0	
	Worksite S7	250	-57.2	3	-52.0	0 0	0 0								590	58 58	2 58 0		0 0	0 0			0 55	50 50	59 57		57 0	0 0	0 5	3 53 6	53 0	0 0	0 0		0 0	0 0	0 0	0 0	0	
	Worksite S8	200	-57.2	3	-54.2	0 0	0 0				56 5	6 56 5	56 56	19 0	50 50	50 50	52 5	2 0 '	32 0	0 33		50 5	0 55	53 53	54 54	54 0	50 50	50 53	3 54 5	6 58 6	57 57	54 0	0 0		0 0	0 0	0 0	0 0	0	
	Worksite S0	230	-51.2	5	-34.2	0 0	0 0		0 0 0		, 50 5	0 00 0	50 50	-5 0	5 50 50	50 52	. 52 5.	2 0 0	02 0	0 02		, 30 3	10 55	55 55	34 34	, 34 0	50 50	00 00	5 54 5	0 50 5	5/ 5/	54 0	0 0		-		00		Ŭ	
	Worksite S10																									-								+		+	+-+-	++	+	
	Worksite S10	124	-10.0	3	-16.9	0 0	0.0	0	0 0 0	0.0			0 57	0 5	6 60 57	50 50	50 5	0 50 4	50 50	50 50	0 50 5	0 50 5	0 50	50 50	50 50	50 50	50 50	50 50	50 5	0 50 6	50 50	50 50	0 0	0.0	0 0	0 0	0 0	0 0	0	
	Worksite S12	100	-48.0	3	-45.0	0 0	0 0	0	0 0 0				0 0	0 0		0 0	0 0		0 0	0 0			0 0	0 0	0 0	0 0					0 0	0 0	0 63	3 63 6	3 63	63 63	0 0	0 0	0	
	Worksite S12	100	40.0	о 	+0.0	- v			0 0								Ť		-							1	-										+ · ·	+ -	Ť	
	Worksite S13	95	47.5	3	-44.5	0 0	0 0	0	0 0 0	0.0	0 6	1 64 6	34 56	56 5	6 56 0	0 0	0 0		50 50	59 50				0 0	0 0	0.0	0 0	0 0			0 0	0 0	0 0			0 0	0 0	0 0	0	
	Worksite S14	151	-47.5	3	-44.5	0 0	0 0	54	54 54 54	1 54 5	4 54 5	4 54 5	54 58	54 5	4 54 54	54 54	54 5	1 54	54 55	55 54	5 55 5	5 55 5	5 55	55 55	55 55	54 5	54 54	54 5/	1 54 5	4 54 6	54 54	54 54	0 0		0 0	0 0	0 0	0 0	0	
	Worksite S15	70	-44.9	3	-40.0	0 0	62 6	2 0	0 0 0			- 04	s2 0	0 0		0 0		1 0	0 0	0 0			0 0	0 0	0 0	, , , ,	0 0	0 0	0	- 04	0 0	0 0	64 64	1 64 6	34 64	0 0	0 0	0 0	0	
	Workshe Ore		Predicted	Noise Level a	t NSR (dB(A)) 0 63	66 6	6 57	57 57 57	7 59 5	9 60 6	6 66 6	68 65	62 6	3 66 64	65 65	64 6	2 62 0	63 63	63 63	3 61 6	1 62 6	2 63	64 64	64 64	61 6	63 58	58 59	9 59 6	1 62 6	61 59	58 56	64 67	67 6	57 67	63 63	0 0	0 0	0	68

Appendix B6 :SCL Contract 1106 - Summary of Predicted Accumulated Noise Levels from Construction at NSRs

	EIAO-TM	201	12					2013										2014	4									2015	5								2	016									2	2017				
NCR agation [NCR D]	Noise																																																			
NSH LOCALION [NSH ID]	Criteria, dB	11	12	1 2	3	4	5	6 7	8	9	10 1	1 12	2 1	2	3	4	5	6 7	78	9	10	11 1	12	1 2	3	4	5	6 7	7 8	9	10 1	11	2 1	2	3	4 5	56	7	8	9 '	10 1	1 12	1	2	3	4	5 6	5 7	8	9	10 1	1 12
	(A)*																																																			
Shek On Building [DIH-9-1]	70 (65)	62	62 6	62 63	2 62	62	62 6	62 63	3 63	63	65 6	5 6	5 64	1 61	63	64	62 6	62 6	2 62	2 55	55	57 6	50 5	9 62	2 64	62	60	60 6	2 64	64	64 6	636	5 65	63	60	61 6	1 61	1 63	64	63 6	626	1 60	57	54	0	0	0 0) 0	0	0	0) O
Canossa Primary School [DIH-13-1]	70 (65)	57	57 5	57 5	8 58	58	58 \$	58 58	3 58	58	61 6	1 6	2 59	9 57	60	62	57 5	58 5	8 58	3 47	47	52 5	54 4	8 58	3 60	56	0	0 5	6 60	60	59 5	57 5	9 59	57	51	52 5	2 52	2 55	58	56 5	54 5	4 54	52	52	0	0	0 0) ()	0	0	0) O
Rhythm Garden Block 2 [DIH-14-1]	75	0	61 6	63 63	3 54	54	54 5	54 56	56	56	69 6	9 6	9 66	65	65	67	60 6	63 6	3 62	2 59	58	64 6	64 6	4 64	1 58	58	58	58 6	0 61	61	61 6	60 5	7 57	59	54	54 5	4 54	1 56	56	56 5	53 5	3 53	60	63	63 (63 6	63 6	0 60	0	0	0	J 0
Canossa Primary School (San Po Kong) [DIH-14-4]	70 (65)	57	65 6	65 6	5 58	58	58 \$	58 59	9 59	61	63 6	4 6	5 64	1 62	62	66	64 6	65 6	5 64	63	62	63 6	63 6	3 63	3 63	63	64	64 6	5 66	65	65 6	65	3 62	64	61	61 6	1 62	2 63	63	63 6	62 6	1 60	60	64	64	64 6	64 6	2 62	0	0	0) O
Rhythm Garden Block 1 [DIH-14-5]	75	0	63 6	66 66	6 57	57	57 5	57 59	9 59	60	66 6	6 6	8 65	5 62	63	66	64 6	65 6	5 64	62	62	63 6	63 6	3 63	61	61	62	62 6	3 64	64	64 6	64 6	1 60	63	58	58 5	9 59	9 61	62	61 5	59 5	8 56	64	67	67	67 6	676	3 63	0	0	0	J 0

Remarks:

* Values in parentheses indicate the noise criterion during the examination period (typical examination periods in May, June, November and December) at the educational institutions: Shek On House [DIH-9-1], Canossa Primary School [DIH-13-1] and Canossa Primary School (San Po Kong) [DIH-14-4].

According to the schools' activity schedules for year 2014 to 2015 of Canossa Primary School [DIH-13-1] and Canossa Primary School (San Po Kong) [DIH-14-4], the examination periods were scheduled in November 2014, March and June 2015. Based on the schools' previous schedules and for the purpose of assessment, the typical examination periods were set in March, May, June, November and December.

APPENDIX C – Location and Notional Distance from Works Areas of NSRs

Notional Distance from Construction Sites to NSRs (in meter)

[Extracted from Appendix 8.10H of approved SCL (HHS) EIA Report except for Worksites S3a, S11, S15 & S16]

									Work	site							
							Norka (Contract	+ 1102 0	1106						SCL V	Vorks
						SUL	WOIKS C	Jontrac	1103 0	1100						Contra	ct 1107
NSRs	S1	S2	S3	S 4	S5	S6	S 7	S8	S9	S10	S11 ⁽²⁾	S12	S13	S15 ⁽³⁾	S16 ⁽³⁾	S3a ⁽¹⁾	S14
DIH-9-1	210	260				285	245	275	275	275			285				
DIH-13-1	265						295										
DIH-14-1				275	225		290				167	145		198	110	270	60
DIH-14-4			250	205	180	280	250	280		245	154	105		136	148		200
DIH-14-5			295	235	180	290	250	290			124	100		151	70		95

Note:

(1) Worksite S3a is under SCL Works Contract 1107 but not included in the approved SCL (HHS) EIA Report.

(2) Worksite S11 is re-delineated due to extended works area based on the latest information submitted under the SCL(TAW-HUH) EP and hence notional distances are updated accordingly.

⁽³⁾ Worksites S15 & S16 are extended works areas based on the latest information submitted under the SCL(TAW-HUH) EP which are not included in the approved SCL (HHS) EIA Report.



APPENDIX D – Environmental Review Note

1. Background

In January 2014, Construction Noise Mitigation Measures Plan (CNMMP) for Shatin to Central Link - Tai Wai to Hung Hom Section [(SCL(TAW-HUH)] was revised according to latest construction programme and plant inventory for SCL(TAW-HUH). This CNMMP was approved by Director of Environmental Protection (DEP) in February 2014 under EP Condition 2.9.

MTR Corporation Limited (MTR) proposed in mid 2014 to provide a Mobile Batching Machinery Equipment (MBME) at Shatin to Central Link (SCL) - Diamond Hill works site (DIH) (attached figure refers) to support the construction works of SCL Project. An Environmental Review Report (ERR) was therefore prepared to identify and assess the likely environmental issues pertinent to the proposed MBME, and to identify any additional environmental mitigation measures that may be required for compliance with environmental standards. This ERR was submitted together with the application of Variation of the Environmental Permit of SCL (TAW-HUH) (EP No: EP-438/2012/F). The VEP application (Application No.: VEP-450/2014) was approved by Environmental Protection Department (EPD) with EP-438/2012/G issued by Director of Environmental Protection (DEP) on 14 August 2014.

This Note summarizes the findings of the ERR, the proposed supply arrangement and the potential environmental implications associated with this arrangement. This Note will also be used to support the update of the CNMMP to include the provision of a MBME as well as the proposed arrangement.

2. Summary of ERR Findings

As mentioned in the ERR, the provision of an on-site MBME at DIH could reduce the road-based traffic impact given that the number of delivery trips of concrete lorry mixers from the offsite, distant concrete batching plant (which is situated at Tin Wan) to DIH could be minimized.

Based on the findings of the environmental review, the operation of MBME would not induce unacceptable impacts related to air quality, air-borne noise, water quality, waste management, visual and landscape resources, ecological resources, land contamination and cultural heritage resources, with the adoption of standard good site practice and recommended mitigation measures as presented in the approved Environmental Impact Assessment Reports (Register No.: AEIAR-167/2012 and Register No.: AEIAR-164/2012), and ERR – MBME¹ (July 2014).

¹ Environmental Review Report – Proposed Mobile Batching Machinery Equipment (ERR – MBME) at Diamond Hill (July 2014), AECOM Asia Consultant Limited.

3. Proposed Arrangement and Its Benefit

During the preliminary review for the provision of MBME at DIH as conducted in the preparation of the ERR – MBME¹, it was anticipated that concrete produced from this MBME would be fully utilized for the construction works at DIH only. A recent review of the concrete usage and production has been conducted and it is expected that spare concrete could be provided to SCL works sites in Kai Tak or other SCL works areas for supporting the construction of SCL Project. It is estimated that the spare concrete generated from the MBME would be about 2 mixer trucks per hour. The provision of spare concrete to other works areas is only a re-arrangement of source of concrete and there is no change to the SCL construction method in the various SCL works areas / works sites due to such re-arrangement.

With the provision of spare concrete from DIH MBME, the amount of concrete supply required from concrete batching plants at distant areas including Tin Wan, Sai Kung, Tsing Yi, Anderson Road or Yau Tong to Kai Tak or other SCL works areas under SCL works contracts could be reduced, in addition to relatively shorter delivery route from DIH to Kai Tak and other areas. The potential environmental impacts associated with the distant delivery routes and pressure on road networks in both Hong Kong and Kowloon side could therefore be reduced.

4. Potential Environmental Implications

The provision of spare concrete from DIH MBME to other works sites will not alter the original design of the MBME. In addition, the plant inventory and percentage on time remain unchanged under the proposed arrangement. As such, air quality and air-borne noise emissions would not be increased due to the on-site operation of MBME with the implementation of the recommended mitigation measures as in the approved EIA Reports and ERR.

The only concern associated with the concrete supply to other works sites would be the offsite delivery trips from DIH to other SCL works sites. It is estimated that the offsite delivery trips would be about 4 trips per hour from and back to DIH (i.e. with each mixer truck running in and out of the site, and thus the total no. of trips would be 4 for 2 mixer trucks per hour) via Choi Hung Road. Conversely, the number of mixer trucks travelling from Tin Wan, Sai Kung, Tsing Yi, Anderson Road or Yau Tong to Kai Tak or other SCL works areas under SCL works contracts will be reduced. In view of heavily trafficked Choi Hung Road, the additional truck trips (only 4 truck trips per hour) would not induce adverse dust and air-borne noise impacts to local sensitive receivers.

5. Conclusion

An environmental review has been conducted to identify any potential impact arising from the provision of spare concrete from DIH MBME to SCL works sites in Kai Tak or other SCL works areas.

Supplying spare concrete from DIH MBME not only ease pressure on road networks in both Hong Kong and Kowloon side by reducing number of mixer trucks travelling from the distant concrete batching plants as indicated above, but also minimize the associated environmental impact.

There would be no change in the design of the DIH MBME as a result of supplying spare concrete to other works sites. There would also be limited additional delivery trips generated from the proposed supply arrangement from DIH to the works sites in Kai Tak or other SCL works areas. As such, no adverse air quality and air-borne noise impacts resulting from the proposed off-site delivery on the local sensitive receivers are anticipated. The environmental performance requirements set out in the approved EIA would not be violated.

With no significant environmental impact resulting from the proposed off-site delivery of spare concrete to other SCL works areas, the proposed concrete supply arrangement would be acceptable. Such proposed concrete supply arrangement will also be reported in the monthly EM&A Report of SCL(TAW-HUH).





PROJECT _{项目}

1106 MBME ERR

CLIENT

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