Noise Sensitive Receiver: WSH2 (Shatin Side)
ASR B

AJR	ь													
			No. of	Unit			Distance of	Distance		Barrier	Façade		Noise Criterion for	
	Reference		plant	SWL,	SWL,	Work	Work Zone to	Correction,		Correction,			Night-time Period	
Activity	Code (1)	PME (2)	item	dB(A)	dB(A)	Zone	NSRs, m (3)	dB(A)	Mitigation Measures (6)	dB(A)	dB(A)	dB(A)	(2300-0700), dB(A)	Compliance
	Group A:													
	EPD-05797	Mobile Crane	1	91	91		50	-42.0	Noise Barrier	-10	3	42	50	Yes
	Group B:													
Construction of Noise Barrier	Note (4)	Welding set	1	78	78	NW1	50	-42.0			3	39	50	Yes
Structures	Group C:					INVVI								
	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89		50	-42.0			3	50	50	Yes
	Group D:													
	Other PME	Aerial work platform, working height ≤ 13m	1	95	95		50	-42.0	Noise Barrier	-10	) 3	46	50	Yes
	Group A:													
	EPD-05797	Mobile Crane	1	91	91	Nearest	50	-42.0	Noise Barrier	-10	3	42	50	Yes
Demolition and Erection of Sign	Group B:					Sign								
Gantries	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89	Gantry	50	-42.0			3	50	50	Yes
	Group C:					Guiltry								
	Note (4)	Welding set	1	78	78		50	-42.0			3	39	50	Yes

Noise Sensitive Receiver: STTNV1 (Shatin Side)
ASR B

	Reference		No. of plant	Unit SWL,	SWL,	Work	Work Zone to	Distance Correction,		Correction,	Correction,	Noise Level,	Noise Criterion for Night-time Period	
Activity	Code (1)	PME (2)	item	dB(A)	dB(A)	Zone	NSRs, m (3)	dB(A)	Mitigation Measures (6)	dB(A)	dB(A)	dB(A)	(2300-0700), dB(A) C	ompliance
	Group A: EPD-05797 Group B:	Mobile Crane	1	91	91		41	-40.3	Noise Barrier	-10	3	44	50	Yes
Construction of Noise Barrier Structures	Note (4) Group C:	Welding set	1	78	78	NW1	41	-40.3	·		3	41	50	Yes
	Other PME Group D:	Electric Wrench (Drill, hand-held (battery)	1	89	89		41	-40.3	Noise Barrier	-10	3	42	50	Yes
	Other PME	Aerial work platform, working height ≤ 13m	1	95	95		41	-40.3	Noise Barrier	-10	3	48	50	Yes
	Group A: EPD-05797 Group B:	Mobile Crane	1	91	91	Nearest	41	-40.3	Noise Barrier	-10	3	44	50	Yes
Gantries	Other PME Group C:	Electric Wrench (Drill, hand-held (battery)	1	89	89	Sign Gantry	41	-40.3	Noise Barrier	-10	3	42	50	Yes
	Note (4)	Welding set	1	78	78		41	-40.3			3	41	50	Yes

Electric Wrench (Drill, hand-held (battery)

Welding set

Noise Sensitive Receiver: ASR	STTNV2	(Shatin Side)												
Activity	Reference Code (1)	PME (2)	No. of plant item	Unit SWL, dB(A)	SWL,	Work Zone		Distance Correction, dB(A)	Mitigation Measures (6)				Noise Criterion for Night-time Period (2300-0700), dB(A)	Compliance
	Group A: EPD-05797 Group B:	Mobile Crane	1	91			40	, ,	Noise Barrier	-10		3 44	50	
Construction of Noise Barrier Structures	Note (4) Group C:	Welding set	1	78	78	NW2	40	-40.0			3	41	50	Yes Yes
	Other PME Group D:	Electric Wrench (Drill, hand-held (battery)	1	89	89		40	-40.0	Noise Barrier	-10	3	42	2 50	Yes
	Other PME	Aerial work platform, working height ≤ 13m	1	95	95		40	-40.0	Noise Barrier	-10	3	48	50	Yes
	Group A: EPD-05797	Mobile Crane	1	91	91	Noarost	55	-42.8	Noise Barrier	-10	3	3 41	50	) Yes

Sign

Gantry

89

55

55

-42.8

-42.8

50

Yes

Yes

49

Noise Sensitive Receiver: STTNV5 (Shatin Side)

Group B:

Other PME

Group C: Note (4)

Demolition and Erection of Sign

Gantries

ASK	D													
			No. of	Unit			Distance of	Distance		Barrier			Noise Criterion for	
	Reference		plant	SWL,	SWL,	Work		Correction,					Night-time Period	
Activity	Code (1)	PME (2)	item	dB(A)	dB(A)	Zone	NSRs, m (3)	dB(A)	Mitigation Measures (6)	dB(A)	dB(A)	dB(A)	(2300-0700), dB(A)	Compliance
	Group A:													
	EPD-05797	Mobile Crane	1	91	91		50	-42.0	Noise Barrier	-10	3	42	50	Yes
	Group B:													
Construction of Noise Barrier	Note (4)	Welding set	1	78	78	NW2	50	-42.0			3	39	50	Yes
Structures	Group C:					INVVZ								
	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89		50	-42.0			3	50	50	Yes
	Group D:													
	Other PME	Aerial work platform, working height ≤ 13m	1	95	95		50	-42.0	Noise Barrier	-10	) 3	46	50	Yes
	Group A:													
	EPD-05797	Mobile Crane	1	91	91	Nearest	51	-42.2	Noise Barrier	-10	) 3	42	50	Yes
Demolition and Erection of Sign	Group B:					Sign								
Gantries	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89	Gantry	51	-42.2	!		3	50	50	Yes
	Group C:					Guiltry								
	Note (4)	Welding set	1	78	78		51	-42.2	!		3	39	50	Yes

Noise Sensitive Receiver: STW2 (Shatin Side)
ASR B

			No. of	Unit			Distance of	Distance		Barrier	Façade	Predicted	Noise Criterion for	
	Reference		plant	SWL,	SWL,	Work	Work Zone to	Correction,		Correction,	Correction,	Noise Level,	Night-time Period	
Activity	Code (1)	PME (2)	item	dB(A)	dB(A)	Zone	NSRs, m (3)	dB(A)	Mitigation Measures (6)	dB(A)	dB(A)	dB(A)	(2300-0700), dB(A)	Compliance
	Group A:													
	EPD-05797	Mobile Crane	1	91	91		37	7 -39.4	Noise Barrier	-10	3	45	50	Ye
	Group B:													
Construction of Noise Barrier	Note (4)	Welding set	1	78	78	NW2	37	7 -39.4			3	42	50	Ye
Structures	Group C:					INVVZ								
	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89		37	7 -39.4	Noise Barrier	-10	3	43	50	Ye
	Group D:													
	Other PME	Aerial work platform, working height ≤ 13m	1	95	95		37	7 -39.4	Noise Barrier	-10	3	49	50	Ye
	Group A:													
	EPD-05797	Mobile Crane	1	91	91	Nearest	55	-42.8	Noise Barrier	-10	3	41	. 50	Ye
Demolition and Erection of Sign	Group B:													
Gantries	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89	Sign Gantry	55	-42.8	3		3	49	50	Ye
	Group C:					Gantry								
	Note (4)	Welding set	1	78	78		55	-42.8	3		3	38	50	Ye

Noise Sensitive Receiver: STW6 (Shatin Side)

ASR	В		No of	Hait			Distance of	Distance		Dannian	Fd-	Dundistad	Naine Cuiteuiau feu	
	Reference		No. of plant	Unit SWL,	SWL.	Work	Distance of Work Zone to	Distance Correction,		Barrier Correction,		Predicted	Noise Criterion for Night-time Period	
Activity	Code (1)	PME (2)	item	dB(A)	dB(A)	Zone	NSRs, m (3)		Mitigation Measures (6)			dB(A)	(2300-0700), dB(A) C	omnliance
7.000715	Group A:	(2)		45(74)	45(11)	20	110.10) (0)	45(71)	magaaan maaaa co (o)	u.s.(1.1)	u.b(/.i/	u.s.(/.)	(2300 0700)) 45(1)	op.i.a.i.cc
	EPD-05797	Mobile Crane	1	91	91		65	-44.3			3	50	50	Yes
	Group B:													
Construction of Noise Barrier	Note (4)	Welding set	1	78	78	NW2	65	-44.3			3	37	50	Yes
Structures	Group C:					14442								
	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89		65	-44.3			3	48	50	Yes
	Group D:													
	Other PME	Aerial work platform, working height ≤ 13m	1	95	95		65	-44.3	Noise Barrier	-10	3	44	50	Yes
	Group A:													
	EPD-05797	Mobile Crane	1	91	91	Nearest	88	-46.9			3	47	50	Yes
Demolition and Erection of Sign	Group B:					Sign								
Gantries	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89	Gantry	88	-46.9	1		3	45	50	Yes
	Group C:													
	Note (4)	Welding set	1	78	78		88	-46.9			3	34	50	Yes

Noise Sensitive Receiver: KTV2 (Shatin Side)
ASR B

			No. of	Unit			Distance of	Distance		Barrier			Noise Criterion for	
	Reference		plant	SWL,	SWL,	Work	Work Zone to	Correction,					Night-time Period	
Activity	Code (1)	PME (2)	item	dB(A)	dB(A)	Zone	NSRs, m (3)	dB(A)	Mitigation Measures (6)	dB(A)	dB(A)	dB(A)	(2300-0700), dB(A)	Compliance
	Group A:													
	EPD-05797	Mobile Crane	1	91	91		120	-49.6			3	44	50	Ye:
	Group B:													
Construction of Noise Barrier	Note (4)	Welding set	1	78	78	NW2	120	-49.6			3	31	50	Yes
Structures	Group C:					INVV2								
	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89		120	-49.6			3	42	50	Yes
	Group D:													
	Other PME	Aerial work platform, working height ≤ 13m	1	95	95		120	-49.6			3	48	50	Yes
	Group A:													
	EPD-05797	Mobile Crane	1	91	91		60	-43.6			3	50	50	Yes
Demolition and Erection of Sign	Group B:					Nearest								
Gantries	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89	Sign Gantry	60	-43.6			3	48	50	Yes
	Group C:					Galitry								
	Note (4)	Welding set	1	78	78		60	-43.6			3	37	50	Yes

Noise Sensitive Receiver: MWG1 (Shatin Side)
ASR B

Activity	Reference Code (1)	PME (2)	No. of plant item	Unit SWL, dB(A)	SWL, dB(A)	Work Zone	Distance of Work Zone to NSRs, m (3)	Distance Correction, dB(A)		orrection,	Façade Correction, dB(A)	Noise Level,	Noise Criterion for Night-time Period (2300-0700), dB(A)	Compliance
•	Group A: EPD-05797	Mobile Crane	1	91			223			-1: 7	3	39		Yes
Construction of Noise Barrier	Group B: Note (4) Group C:	Welding set	1	78	78	NW2	223	-55.0			3	26	50	Yes
	Other PME Group D: Other PME	Electric Wrench (Drill, hand-held (battery)  Aerial work platform, working height ≤ 13m	1	89 95			223				3	37	50	Yes Yes
	Group A: EPD-05797 Group B:	Mobile Crane	1	91			153				3	42	50	Yes
Gantries	Other PME Group C:	Electric Wrench (Drill, hand-held (battery)	1	89	89	Sign Gantry	153	-51.7	,		3	40	50	Yes
	Note (4)	Welding set	1	78	78		153	-51.7	,		3	29	50	Yes

Noise Sensitive Receiver: KTV5 (Shatin Side)
ASR B

iji.	ь												
	Reference		No. of plant	Unit SWL,	SWL,	Work	Distance of Work Zone to	Distance Correction,				Noise Criterion for Night-time Period	
Activity	Code (1)	PME (2)	item	dB(A)	dB(A)	_	NSRs, m (3)		Mitigation Measures (6)		dB(A)	(2300-0700), dB(A)	Compliance
•	Group A:								. ,				
	EPD-05797	Mobile Crane	1	91	91		148	-51.4		3	43	50	Yes
	Group B:												
Construction of Noise Barrier	Note (4)	Welding set	1	78	78	NW3	148	-51.4		3	30	50	Yes
Structures	Group C:					14443							
	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89		148	-51.4		3	41	. 50	Yes
	Group D:												
	Other PME	Aerial work platform, working height ≤ 13m	1	95	95		148	-51.4		3	47	50	Yes
	Group A:												
	EPD-05797	Mobile Crane	1	91	91	Nearest	74	-45.4		3	49	50	Yes
Demolition and Erection of Sign	Group B:					Sign							
Gantries	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89	Gantry	74	-45.4		3	47	50	Yes
	Group C:												
	Note (4)	Welding set	1	78	78		74	-45.4		3	36	50	Yes

Noise Sensitive Receiver: HMKR1 (Shatin Side)

ASR	В						1						_	,	
		N	No. of	Unit			Distance of	Distance		Barrier	Façade	Predicted	Noise Criterion for		
	Reference	l p	plant	SWL,	SWL,	Work	Work Zone to	Correction,		Correction,	Correction,	Noise Level,	Night-time Period		
Activity	Code (1)	PME (2)	item	dB(A)	dB(A)	Zone	NSRs, m (3)	dB(A)	Mitigation Measures (6)	dB(A)	dB(A)	dB(A)	(2300-0700), dB(A)	Compliance	
	Group A:														
	EPD-05797	Mobile Crane	1	91	91		52	-42.3	Noise Barrier	-10	3	42	50		Yes
	Group B:														
Construction of Noise Barrier	Note (4)	Welding set	1	78	78	NW3	52	-42.3			3	39	50		Yes
Structures	Group C:					14443									
	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89		52	-42.3			3	50	50		Yes
	Group D:														
	Other PME	Aerial work platform, working height ≤ 13m	1	95	95		52	-42.3	Noise Barrier	-10	3	46	50		Yes
	Group A:														
	EPD-05797	Mobile Crane	1	91	91	Nearest	137	-50.7	1		3	43	50		Yes
Demolition and Erection of Sign	Group B:					Sign									
Gantries	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89	Gantry	137	-50.7	1		3	41	. 50		Yes
	Group C:					Guiltry									
	Note (4)	Welding set	1	78	78		137	-50.7			3	30	50		Yes

Appendix 4.11 Calculation of Construction Noise Levels during Restricted Hours (Mitigated Scenario)

Noise Sensitive Receiver: WWG5 (Shatin Side)
ASR B

AJN	ь													
			No. of	Unit			Distance of	Distance		Barrier			Noise Criterion for	
	Reference		plant	SWL,	SWL,	Work	Work Zone to	Correction,		Correction,			Night-time Period	
Activity	Code (1)	PME (2)	item	dB(A)	dB(A)	Zone	NSRs, m (3)	dB(A)	Mitigation Measures (6)	dB(A)	dB(A)	dB(A)	(2300-0700), dB(A)	Compliance
	Group A:													
	EPD-05797	Mobile Crane	1	91	91		21	-34.4	Noise Barrier	-10	) 3	50	50	Yes
	Group B:													
Construction of Noise Barrier	Note (4)	Welding set	1	78	78	NW3	15	-31.5			3	49	50	Yes
Structures	Group C:					14443								
	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89		15	-31.5	Noise Barrier	-10	) 3	50	50	Yes
	Group D:													
	Other PME	Aerial work platform, working height ≤ 13m	1	95	95		30	-37.5	Noise Barrier	-10	) 3	50	50	Yes
	Group A:													
	EPD-05797	Mobile Crane	1	91	91	Nearest	24	-35.6	Noise Barrier	-10	) 3	48	50	Yes
Demolition and Erection of Sign	Group B:					Sign								
Gantries	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89	Gantry	24	-35.6	Noise Barrier	-10	) 3	46	50	Yes
	Group C:					Cantry								
	Note (4)	Welding set	1	78	78		24	-35.6			3	45	50	Yes

<sup>\*</sup> Minimum separation distances of 21 m and 30 m should be maintained for mobile crane and aerial work platform respectively.

Noise Sensitive Receiver: WWG8 (Shatin Side)

ASR	В .		o. of	Unit				Distance		Barrier			Noise Criterion for		
	Reference			SWL,	SWL,	Work	Work Zone to	Correction,					Night-time Period	C !!	
Activity	Code (1)	PME (2) it	tem	dB(A)	dB(A)	Zone	NSRs, m (3)	dB(A)	Mitigation Measures (6)	ar(A)	dB(A)	dB(A)	(2300-0700), dB(A)	Compliance	
	Group A:														
	EPD-05797	Mobile Crane	1	91	91		21	-34.4	Noise Barrier	-10	1 3	50	50		Yes
	Group B:														
Construction of Noise Barrier	Note (4)	Welding set	1	78	78	NW3	15	-31.5			3	49	50		Yes
Structures	Group C:														
	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89		15	-31.5	Noise Barrier	-10	3	50	50		Yes
	Group D:														
	Other PME	Aerial work platform, working height ≤ 13m	1	95	95		30	-37.5	Noise Barrier	-10	3	50	50		Yes
	Group A:														
	EPD-05797	Mobile Crane	1	91	91	Neces	24	-35.6	Noise Barrier	-10	3	48	50		Yes
Demolition and Erection of Sign	Group B:					Nearest									
Gantries	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89	Sign Gantry	24	-35.6	Noise Barrier	-10	3	46	50		Yes
	Group C:					Galitiy									
	Note (4)	Welding set	1	78	78		24	-35.6	5		3	45	50		Yes

<sup>\*</sup> Minimum separation distances of 21 m and 30 m should be maintained for mobile crane and aerial work platform respectively.

Noise Sensitive Receiver: JG4 (Shatin Side)
ASR B

	Reference		No. of plant	Unit SWL,	SWL,	Work	Distance of Work Zone to	Distance Correction,		Correction,	Correction,	Noise Level,	Noise Criterion for Night-time Period	
Activity	Code (1)	PME (2)	item	dB(A)	dB(A)	Zone	NSRs, m (3)	dB(A)	Mitigation Measures (6)	dB(A)	dB(A)	dB(A)	(2300-0700), dB(A)	Compliance
	Group A: EPD-05797 Group B:	Mobile Crane	1	91	91		44	-40.9	Noise Barrier	-10	3	43	50	Yes
Construction of Noise Barrier Structures	Note (4) Group C:	Welding set	1	78	78	NW3	44	-40.9			3	40	50	Yes
	Other PME Group D:	Electric Wrench (Drill, hand-held (battery)	1	89	89		44	-40.9	Noise Barrier	-10	3	41	. 50	Yes
	Other PME	Aerial work platform, working height ≤ 13m	1	95	95		44	-40.9	Noise Barrier	-10	3	47	50	Yes
Demolition and Erection of Sign	Group A: EPD-05797 Group B:	Mobile Crane	1	91	91	Nearest	229	-55.2			3	39	50	Yes
Gantries	Other PME Group C:	Electric Wrench (Drill, hand-held (battery)	1	89	89	Sign Gantry	229	-55.2			3	37	50	Yes
	Note (4)	Welding set	1	78	78		229	-55.2			3	26	50	Yes

Noise Sensitive Receiver: HP1 (Shatin Side)

ASR	Reference		lo. of plant	Unit SWL,	SWL,	Work	Distance of Work Zone to	Distance Correction,					Noise Criterion for Night-time Period	
Activity	Code (1)	PME (2)	item	dB(A)	dB(A)	Zone	NSRs, m (3)	dB(A)	Mitigation Measures (6)	dB(A)	dB(A)	dB(A)	(2300-0700), dB(A)	Compliance
	Group A: EPD-05797 Group B:	Mobile Crane	1	91	91		49	-41.8	Noise Barrier	-10	3	42	50	Yes
Construction of Noise Barrier	Note (4) Group C:	Welding set	1	78	78	NW3	49	-41.8	:		3	39	50	Yes
	Other PME Group D:	Electric Wrench (Drill, hand-held (battery)	1	89	89		49	-41.8	<b>,</b>		3	50	50	Yes
	Other PME	Aerial work platform, working height ≤ 13m	1	95	95		49	-41.8	Noise Barrier	-10	3	46	50	Yes
	Group A: EPD-05797 Group B:	Mobile Crane	1	91	91	Nearest	55	-42.8	Noise Barrier	-10	3	41	50	Yes
Gantries		Electric Wrench (Drill, hand-held (battery)	1	89	89	Sign Gantry	55	-42.8			3	49	50	Yes
	Note (4)	Welding set	1	78	78		55	-42.8	3		3	38	50	Yes

Noise Sensitive Receiver: UC1 (Shatin Side)
ASR B

	Reference		No. of plant	Unit SWL,	SWL,			Distance Correction,		Barrier Correction,		Noise Level,	Noise Criterion for Night-time Period	
Activity	Code (1)	PME (2)	item	dB(A)	dB(A)	Zone	NSRs, m (3)	dB(A)	Mitigation Measures (6)	dB(A)	dB(A)	dB(A)	(2300-0700), dB(A)	Compliance
	Group A: EPD-05797 Group B:	Mobile Crane	1	91	91		112	-49.0			3	45	50	Yes
Construction of Noise Barrier	Note (4)	Welding set	1	78	78	NW3	112	-49.0			3	32	50	Yes
Structures	Group C: Other PME Group D:	Electric Wrench (Drill, hand-held (battery)	1	89	89	NW3	112				3	43		
	Other PME	Aerial work platform, working height ≤ 13m	1	95	95		112	-49.0	)		3	49	50	Yes
Demolition and Erection of Sign	Group A: EPD-05797 Group B:	Mobile Crane	1	91	91	Nearest	95	-47.6	5		3	46	50	Yes
_	Other PME Group C:	Electric Wrench (Drill, hand-held (battery)	1	89	89	Sign Gantry	95	-47.6	6		3	44	50	Yes
	Note (4)	Welding set	1	78	78		95	-47.6	;		3	33	50	Yes

Noise Sensitive Receiver: KSC1 (Shatin Side)

ASR	В														
Activity	Reference Code (1)	PME (2)	No. of plant item	Unit SWL, dB(A)	SWL, dB(A)	Work Zone	Distance of Work Zone to NSRs, m (3)	Distance Correction, dB(A)		Correction,		Noise Level,	Noise Criterion for Night-time Period (2300-0700), dB(A)	Compliance	
,	Group A:			(,	(,				and the second second	(-,		(-7	(Lect tropy and try	- Compilation	$\exists$
	EPD-05797	Mobile Crane	1	91	91		195	-53.8			3	40	50	)	Yes
	Group B:	Woodle Craffe	-	31	71		133	33.0					3.		
Construction of Noise Barrier	Note (4)	Welding set	1	78	78		195	-53.8			3	27	50	)	Yes
Structures	Group C:		-	,,,	,,	NW3	133	33.0					3.		
	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89		195	-53.8			3	38	50		Yes
	Group D:	, , , , , , , , , , , , , , , , , , , ,													
	Other PME	Aerial work platform, working height ≤ 13m	1	95	95		195	-53.8			3	44	50		Yes
	Group A:														
	EPD-05797	Mobile Crane	1	91	91		148	-51.4			3	43	50		Yes
Demolition and Erection of Sign	Group B:					Nearest									
Gantries	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89	Sign Gantry	148	-51.4			3	41	50		Yes
	Group C:					Guiltry									
	Note (4)	Welding set	1	78	78		148	-51.4			3	30	50	)	Yes
	Group A:														
	EPD-05797	Mobile Crane	1	91	91		164	-52.3			3	42	50		Yes
	Group B:														
Construction of New Vehicular Cross-	CNP 064	Drill, percussive, hand-held (electric)	1	103	103	NW4	164	-52.3	Noise Barrier	-10	3	44	50		Yes
	Group C:														
	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89		164	-52.3			3	40	50		Yes
	Group D:														
	Note (4)	Welding set	1	78	78		164	-52.3			3	29	50		Yes

Noise Sensitive Receiver: KATC 1 (Shatin Side)

ASR			No. of	Unit			Distance of	Distance		Barrier	Façade	Predicted	Noise Criterion for	
	Reference		plant	SWL,	SWL,	Work	Work Zone to	Correction,				Noise Level,	Night-time Period	
Activity	Code (1)	PME (2)	item	-	dB(A)	Zone	NSRs, m (3)	dB(A)	Mitigation Measures (6)	dB(A)	dB(A)	dB(A)	(2300-0700), dB(A)	Compliance
Construction of Noise Barrier		•	· · · · · · · · · · · · · · · · · · ·	\A/a-d	7			the NCD	•				*	•
Structures				WOI	zone is	located b	eyond 300m from	the MSK						
	Group A:													
	EPD-05797	Mobile Crane	1	91	91	Nearest	286	-57.1			3	37	7 5	50
Demolition and Erection of Sign	Group B:													
Gantries	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89	Sign Gantry	286	-57.1			3	35	5	50
	Group C:					Guiltry								
	Note (4)	Welding set	1	78	78		286	-57.1			3	3 24	1 5	50
	Group A:													
	EPD-05797	Mobile Crane	1	91	91		207	-54.3			3	40	5	50
	Group B:													
Construction of New Vehicular Cross-	CNP 064	Drill, percussive, hand-held (electric)	1	103	103	NW4	207	-54.3	Noise Barrier	-10	3	42	2 5	50
over Bridge at Shatin Portal	Group C:													
	Other PME	Electric Wrench (Drill, hand-held (battery)	1	89	89		207	-54.3			3	38	5	50
	Group D:													
	Note (4)	Welding set	1	78	78		207				3	27		50
	EIA Ref 2	Tunnel Boring Machine	1	88	88		391			-10		21		
	CNP 041	Conveyor belt	1	90	90		391			-15		18		
	CNP 262	Winch (electric)	1	95	95		391			-5		33		
	EPD-09720	Roller, vibratory	2	94	97		391			-5		35		
	EPD-09366	Loader, wheeled	1	100	100		391			-5		38		
	OCUPME-016	Welder/Generator, portable	3	100	105		391			-10	3	38		
	CNP 283	Water pump, submersible (electric)	2	85	88		391				3	31		
	CNP 021	Bar bender and cutter (electric)	2	90	93		391			-10		3 26		
Construction of New Middle Third	OCUPME-020	Power pack (diesel)	2	100	103	Zone 6a	391			-10		36		
Tunnel	OCUPME-002	Air blower	5	95	102	(Note 5)	391			-10		35		
	OCUPME-040	Aerial work platform, working height ≤ 13m	3	95	100		391			-5		38		
	CNP 241	Ventilation fan (at Shatin Side only)	2	108	111		391			-15		39		
	CNP 141	Multi-service vehicle Generator	1	112	112		391			-10		3 45		
	EPD-03347 OCUPME-014		2	93	96 93		391 391					36		
	EPD-09710	Grout Mixer Air Compressor	2	90 94	93		391					3 40		
	EPD-09710 EPD-10780	Excavator, wheeled/tracked	2	97	97		391			-5		35		
	OCUPME-031	Water jetting unit (diesel), standard	1	107	107		391			-10		3 40		
	OCOFIVIE-031	water jetting unit (diesel), standard		107	107		391	33.0	IVIOVADIE IVOISE BAITIEI	10	Total CNL			50
Enlargement of Existing Kowloon						Zone 6b					TOTAL CIVE		1	
bound Tunnel	CNP 241	Ventilation fan (at Shatin Side only)	2	108		(Note 5)	378	-59.5	Noise Enclosure	-15		39		
bound runner				100	111	(Note 5)	370	55.5	Noise Enclosure	13	Total CNL			50
	EPD-10780	Excavator, wheeled/tracked	1	97	97		428	-60.6	i			39		
	CNP 241	Ventilation fan (at Shatin Side only)	2	108	111		428			-15		38		
	OCUPME-028	Saw, wire	1	101	101		428					43		
	CNP 064	Drill, percussive, hand-held (electric)	1	103	103	Work	428			-5		40		
Rehabilitation of Existing Shatin	EPD-09366	Loader, wheeled	1	100	100	Zone 6c	428					42		
Bound Tunnel	OCUPME-036	Lorry, with crane/grab, 5.5 tonne < gross vehicle weight ≤ 38 tonne	1	105	105	Note (5)	428			-5		42		
	OCUPME-040	Aerial work platform, working height ≤ 13m	1	95	95		428					37		
	EPD-03347	Generator	1	93	93		428				3	35		
	EPD-09710	Air Compressor	1	94	94		428					36		
		*									Total CNL			50

Noise Sensitive Receiver:	PHD1	(Kowloon Side)
ASR	В	

Activity Construction of Noise Barrier	Reference Code (1)	PME (2)	No. of plant item	Unit SWL, dB(A)	SWL, dB(A)	Work Zones	Distance of Work Zone to NSRs, m (3)	Distance Correction, dB(A)	Mitigation Measures (6)	Correction,	Façade Correction, dB(A)	Predicted Noise Level, dB(A)	Noise Criterion for Night-time Period (2300-0700), dB(A)	Compliance	
Structures				No barr	ier / en	closure wil	be provided at K	owloon side							
Demolition and Erection of Sign Gantries	Group A: EPD-05797 Group B: Other PME	Mobile Crane  Electric Wrench (Drill, hand-held (battery)	1	91 89	91	Nearest Sign	78				3	3 48	5 5		'es
	Group C: Note (4)	Welding set	1	78	78	Gantry	78				į .	3 35	5 5		'es
Construction of New Middle Third Tunnel		The tunnel will be constructed by TBM fr	om Shatin sde, h	nence, airbo	orne no	ise impact	from the construc	tion of new m	iddle third tunnel will not	affect the NSR	ts at Kowlooi	n side			
Enlargement of Existing Kowloon	CNP 028	Breaker, excavator mounted (hydraulic)	4	122	128	7 Ch	162		Acoustic tunnel door	-30		3 49			
bound Tunnel	CNP 081 CNP 030	Excavator/loader, wheeled/tracked Bulldozer	4 2	112 115	118 118	Noto (E)	162 162		/ CITCIOSUI C	-30 -30		3 39			
											Total CNL	: 50	5	0 Y	'es
	EPD-10780	Excavator/loader, wheeled/tracked	1	97	97		122			-15		3 35			
	OCUPME-028	Saw, wire	1	101	101		122			-15		39			
	CNP 064	Drill, percussive, hand-held (electric)	1	103	103	l Work	122		Acoustic tunnel door	-15		3 41			
Rehabilitation of Existing Shatin	EPD-09366 OCUPME-036	Loader, wheeled  Lorry, with crane/grab, 5.5 tonne < gross vehicle weight ≤ 38 tonne	1	100 105	100	Zone 60	122		/enclosure	-15 -15		3 38			
Bound Tunnel	OCUPME-036	Aerial work platform, working height ≤ 13m	1	95	105 95	Note (3)	122		/enclosure	-15		3 33			
	EPD-03347	Generator	1	93	93		122			-15		3 31			
	EPD-09710	Air Compressor	1	94	94		122			-15		3 32			
		•		-			+				Total CNL	: 48	5	0 Y	'es
	Group A: EPD-05797	Mobile Crane	1	91	91		115	-49.2			3	3 45	5 5	0 Y	'es
Construction of New Vehicular Bridge next to Existing K7A	Group B: CNP 064 Group C:	Drill, percussive, hand-held (electric)	1	103	103	NW5	115	-49.2	Noise Barrier	-10	3	3 47	7 5	0 Y	'es
Vehicular Bridge	Other PME Group D:	Electric Wrench (Drill, hand-held (battery)	1	89	89		115	-49.2			3	3 43	5	0 Y	'es
	Note (4)	Welding set	1	78	78		115	-49.2			3	3 32	2 5	0 Y	'es

Other PME

Group D:

Note (4)

Electric Wrench (Drill, hand-held (battery)

Welding set

Reference   Contruction of Notes Barriers   Contruction of Note Middle Interval   Contruction of Notes Barrier   Contruction of No	3 3 3	wel, Night-time Period (2300-0700), dB(A) Comp  46 50 44 50 33 50	mpliance
Construction of Note Searier   Turcticures     Construction of Note Searier   Turcticures   Construction of Note Male   Pop 0.5797   Construction of Note Male   Electric Wrench (Drill, hand-heid (battery)   1 89 89   Sainty   100 4.80	3 3	46 50 44 50	
	3	44 50	
Demolition and Erection of Sign Gantries   Court PME   Electric Wrench (Drill, hand-held (battery)   1   89   89   89   89   78   100   48.0	3	44 50	
Po 0.5797   Construction of New Vehicular Bridge Receiver:   Mote (A)   Mobile Crane   Mobile	3	44 50	
Demolition and Erection of Sign Gardines   Carring Statistics   Carrin	3	44 50	
Other PME   Sicroup C: Note (4)   Welding set   The tunnel will be constructed by TBM from Shatins de, Nemce, airborne noise impact from the construction of New Middle Tainel   The tunnel will be constructed by TBM from Shatins de, Nemce, airborne noise impact from the construction of new middle third tunnel will not affect the NSRs at Kow Tunnel   The tunnel will be constructed by TBM from Shatins de, Nemce, airborne noise impact from the construction of new middle third tunnel will not affect the NSRs at Kow Tunnel   The tunnel will be constructed by TBM from Shatins de, Nemce, airborne noise impact from the construction of new middle third tunnel will not affect the NSRs at Kow Tunnel   The tunnel will not affect the NSRs at Kow Tunnel   The tunnel will be constructed by TBM from Shatins de, Nemce, airborne noise impact from the construction of new windle third tunnel will not affect the NSRs at Kow Tunnel   The tunnel will not affect	3		
Scoup C: Note (4)   Welding set   1   78   78   Gaintry   100   48.0	3		
Note (4)   Welding set   The tunnel will be constructed by TBM from Shatin sde,   Note (4)   The tunnel will be constructed by TBM from Shatin sde,   Note (4)   The tunnel will be constructed by TBM from Shatin sde,   Note (4)   Note (4)   The tunnel will be constructed by TBM from Shatin sde,   Note (4)   The tunnel will be constructed by TBM from Shatin sde,   Note (4)   The tunnel will be constructed by TBM from Shatin sde,   Note (4)   The tunnel will be constructed by TBM from Shatin sde,   Note (4)   The tunnel will be constructed by TBM from Shatin sde,   Note (4)   The tunnel will be constructed by TBM from Shatin sde,   Note (4)   The tunnel will be constructed by TBM from Shatin sde,   Note (4)   The tunnel will be constructed by TBM from Shatin sde,   Note (4)   The tunnel will be constructed by TBM from Shatin sde,   Note (4)   The tunnel will be constructed by TBM from Shatin sde,   Note (4)   The tunnel will be constructed by TBM from Shatin sde,   Note (4)   The tunnel will be constructed by TBM from Shatin sde,   Note (4)   The tunnel will be constructed by TBM from Shatin sde,   Note (4)   The tunnel will be constructed by TBM from Shatin sde,   Note (4)   The tunnel will be constructed by TBM from Shatin sde,   Note (4)   The tunnel will be constructed by TBM from Shatin sde,   Note (4)   The tunnel will be provided at tunnel will not all tunne		33 50	
The tunnel will be constructed by TBM from Shatin sde, hence, airborne noise impact from the construction of new middle third tunnel will not affect the NSRs at Now Tunnel Final Transport of Existing Kowloon Bound Tunnel Rehabilitation of Existing Shatin Bound Tunnel Rehabilitation of Existing Shatin Bound Tunnel Final Transport of Existing Shatin Bound Tunnel Final Transport of New Mork Zone is located beyond 300m from the NSR			
Tunnel   Enlargement of Existing Kowloon   Dound Tunnel   Surface   Surfac	Kowloon side		
Enlargement of Existing Kowloon   bound Tunnel   Consumer Name   State   Sta			
Sembliditation of Existing Shatin   Bound Tunnel   FPO-05797   Mobile Crane   FPO-05797   Construction of New Vehicular Bridge next to Existing KYA, Vehicular Bridge   Po-05797   Note (4)   Welding set   Po-05797   Note (4)   Po-05797   Note (500 pt.)   Po-05797   Note (6)   Po-05797   Note (700 pt.)   Po-05797   Po-0579			
Rehabilitation of Existing Shating Bound Tunnel   Group A:   EPO-05797   Mobile Crane   FOR 1   FOR			
Sound Tunnel   Soun			
Construction of New Vehicular Bridge next to Existing K7A Vehicular Bridge next to Existing K7A Vehicular Bridge next to Existing K7A Vehicular Bridge (CNP 064 Group E: Other PME (Electric Wrench (Drill, hand-held (battery))			
Construction of New Vehicular Bridge next to Existing K7A Vehicular Bridge next to Existing K7A Vehicular Bridge next to Existing K7A Vehicular Bridge (CNP 064 Group C: Other PME Electric Wrench (Drill, hand-held (battery) 1 89 89 89 71 4-45.0 Next 1 45.0 Next 2 1 71 4-45.0 Next 2 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1	I		
Construction of New Venicular Bridge ext to Existing KTA Vehicular Bridge (CNP 064 Group C: Other PME Group D: Note (4) Welding set (Note (A) February (Note (A) Febr	3	49 50	
CNP 064   Drill, percussive, hand-held (electric)   1   103   103   NW5   71   -45.0   Acoustic Shed   -15   Comp C: Other PME   Electric Wrench (Drill, hand-held (battery)   1   89   89   89   71   -45.0   Acoustic Shed   -15   Acoustic Sh			
Vehicular Bridge  Other PME Group D: Note (4) Welding set  MC1 (Kowloon Side)  SR  Reference Activity Code (1) PME (2)  Demolition and Erection of Sign Gantries  Mobile Crane  Demolition and Erection of Sign Gantries  Other PME (500 B: Code (1) Welding set  Figure 1	3	46 50	
Other PME Group D: Note (4) Welding set 1 89 89 71 -45.0  Note (4) Welding set 1 78 78 78 71 -45.0  Other PME Group D: Note (4) Welding set 1 78 78 78 78 78 78 78 78 78 78 78 78 78			
Note (4) Welding set 1 78 78 78 71 -45.0	3	47 50	
No. of plant structures  Reference Code (1)  PME (2)  No. of plant item dB(A)  No. barrier / enclosure will be provided at Kowloon side  No. barrier / enclosure will be provided at Kowloon side  No. barrier / enclosure will be provided at Kowloon side  No. barrier / enclosure will be provided at Kowloon side  Reference Code (1)  No. of plant SWL, dB(A)  No. barrier / enclosure will be provided at Kowloon side  No. barrier / enclosure will be provided at Kowloon side  No. barrier / enclosure will be provided at Kowloon side  Reference Correction, dBarrier (Correction, dB(A)  No. barrier / enclosure will be provided at Kowloon side  Reference Correction, dB(A)  No. barrier / enclosure will be provided at Kowloon side  Reference Correction, dB(A)  No. barrier / enclosure will be provided at Kowloon side  Reference Correction, dB(A)  No. barrier / enclosure will be provided at Kowloon side  Reference Correction, dB(A)  No. barrier / enclosure will be provided at Kowloon side  Reference Correction, dB(A)  No. barrier / enclosure will be provided at Kowloon side  Reference Correction, dB(A)  No. barrier / enclosure will be provided at Kowloon side  Reference Correction, dB(A)  No. barrier / enclosure will be provided at Kowloon side  Reference Correction, dB(A)  No. barrier / enclosure will be provided at Kowloon side  Reference Correction, dB(A)  No. barrier / enclosure will be provided at Kowloon side  Reference Correction, dB(A)  No. barrier / enclosure will be provided at Kowloon side  Reference Correction, dB(A)  No. barrier / enclosure will be provided at Kowloon side  Reference Correction, dB(A)  No. barrier / enclosure will be provided at Kowloon side  Reference Correction, dB(A)  No. barrier / enclosure will be provided at Kowloon side  Reference Correction, dB(A)  No. barrier / enclosure will be provided at Kowloon side  Reference Correction, dB(A)  No. barrier / enclosure will be provided at Kowloon side  Reference Correction, dB(A)  No. barrier / enclosure will be provided at Kowloon side  Reference Corre			
Reference Code (1) PME (2) PME (2) PME (2) PME (2) Sult, dB(A) Sul	3	36 50	
Reference Code (1) PME (2) PME (2) PME (2) PME (2) Sult, dB(A) Sul			
Reference Code (1)  Reference Code (2)  PME (2)  Reference Code (3)  Reference Code (1)  Reference Code (1)  Reference Code (1)  Reference Code (1)  Reference Code (2)  Reference Code (3)  Reference Code (3)  Reference Code (3)  Reference Code (4)  Reference Code (3)  Reference Code (4)  Reference Code (5)  Reference Code (1)  Reference Code (1			
Reference Code (1) PME (2) PME (3) PME (4) PME (4) PME (5) PME (4) PME (5) PME			
Activity Code (1) PME (2) item dB(A) dB(A) Zones NSRs, m (3) dB(A) Mitigation Measures (6) dB(A) dB(A) dB(A) construction of Noise Barrier tructures    Construction of Noise Barrier tructures			
Construction of Noise Barrier Actructures    Coop A: EPD-05797   Mobile Crane   1   91   91   Nearest   138   -50.8		(2300-0700), dB(A) Comp	mnliance
Comp A:   FPD-05797   Mobile Crane   1   91   91   Nearest   Sign   Gantry   First   Sign   Gantry   First   Sign   Gantry   First	ij ub(A)	(2300-0700), db(A)   comp	пришисс
EPD-05797   Mobile Crane   1   91   91   Nearest   138   -50.8			
EPD-05797   Mobile Crane   1   91   91   Nearest   138   -50.8			
Demolition and Erection of Sign Gantries  Other PME Group C: Note (4)  Welding set  Nearest Sign Gantry 1 89 89  Nearest Sign Gantry 1 89 89  Nearest Sign Gantry 1 1 1 89 89  Nearest Sign Gantry 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3	43 50	
Other PME   Electric Wrench (Drill, hand-held (battery)   1   89   89   Gantry   138   -50.8			
Group C:         Note (4)         Welding set         1         78         78         138         -50.8	3	41 50	
	3	30 50	
Construction of New Middle Third  The tunnel will be constructed by TBM from Shatin sde, hence, airborne noise impact from the construction of new middle third tunnel will not affect the NSRs at Kowl	Cowloon side		
Tunnel			
Enlargement of Existing Kowloon Work Zone is located beyond 300m from the NSR			
bound Tunnel			
Rehabilitation of Existing Shatin  Work Zone is located beyond 300m from the NSR			
Bound Tunnel			
Group A:			
EPD-05797         Mobile Crane         1         91         91         139         -50.9	_	43 50	
Construction of New Vehicular Group B:	3	40	
Bridge next to Existing K7A CNP 064 Drill, percussive, hand-held (electric) 1 103 103 NWS 139 -50.9 Acoustic Shed -15		40 50	
Vehicular Bridge Other DMS Electric Wrench (Drill hand hold (hatter)) 1 90 90 130 50.0			

139

-50.9

-50.9

Yes

Noise Sensitive Receiver:	PH2	(Kowloon Side)												
ASR	В													
Activity	Reference Code (1)		No. of plant item		SWL, dB(A)	Work Zones	Distance of Work Zone to NSRs, m (3)	Distance Correction, dB(A)	Mitigation Measures (6)	Barrier Correction, dB(A)	Façade Correction, dB(A)	Predicted Noise Level, dB(A)	Noise Criterion for Night-time Period (2300-0700), dB(A)	Compliance
Construction of Noise Barrier Structures				No barrie	er / end	losure will	be provided at Ko	owloon side						
Demolition and Erection of Sign Gantries	Group A: EPD-05797 Group B: Other PME	Mobile Crane Electric Wrench (Drill, hand-held (battery)	1	91	91 89	Nearest Sign	214				:	39 39		
	Group C: Note (4)	Welding set	1	78	78	Gantry	214	-54.6	,		:	3 26	5 5	0 Yes
Construction of New Middle Third Tunnel		The tunnel will be constructed by TBM from Shatin sde, hence, airborne noise impact from the construction of new middle third tunnel will not affect the NSRs at Kowloon side												
Enlargement of Existing Kowloon bound Tunnel				Work	Zone is	located b	eyond 300m from	the NSR						
Rehabilitation of Existing Shatin Bound Tunnel				Work	Zone is	located b	eyond 300m from	the NSR						
Construction of New Vehicular	Group A: EPD-05797 Group B:	Mobile Crane	1	91	91		172	52.7	,		:	3 41	1 5	0 Yes
Bridge next to Existing K7A  Vehicular Bridge	CNP 064 Group C:	Drill, percussive, hand-held (electric)	1	103	103	NW5	172	-52.7	' Acoustic Shed	-15	5	38	5	0 Yes
veniculai briuge	Other PME Group D:	Electric Wrench (Drill, hand-held (battery)	1	89	89		172	-52.7	'		3	39	5	0 Yes
	Note (4)	Welding set	1	78	78		172	-52.7	,		3	28	5	0 Yes

### Note

- (1) Reference is made to the PME listed in the GW-TM or the QPME or "other commonly used PME" listed in EPD web pages
- (2) PME in separated groups will not be operated at the same time
- (3) For conservative approach, the shortest distance between the work zone and the NSR is assumed for noise assessment.
- (4) The SWL of Welding Set refer to the approved EIA Report of Sheung Shui to Lok Ma Chau Spur Line (AEIAR-052/2002)
- (5) For work zones inside tunnel, distance between tunnel portal and NSR is adopted for the noise assessment.
- (6) Purpose-built barrier should be used. For the design of noise barrier, guidelines from EPD web pages (https://www.epd.gov.hk/epd/misc/construction\_noise/contents/index.php/en/road-works/item/74-mitigation-measures/157-construction-noise-barrier.html) should be followed.
- (7) For each type of construction activity, only one group of the PMEs will be concurrently in use at the site.

-WIRE MESH -50 - 100mm THICK ROCKWOOL -2.0 - 3.0mm THICK STEEL PLATE

> TYPICAL NOISE PANEL N.T.S.

# -TENTATIVE OPENING AREA FOR VENTILATION AREA AND SILENCER 3.5m (H) X 7m (W) TENTATIVE MAIN GATE 6.2m (W) x 6.75m (H) -TENTATIVE MAN GATE 1m (W) x 3m (H)

SCHEMATIC DRAWING OF ACOUSTIC DOOR INSTALLED AT PORTAL AT KOWLOON BOUND TUNNEL AND SHATIN BOUND TUNNEL FRONT VIEW

SCALE 1 : 100

## NOTES:

- THE DRAWING IS TENTATIVE ONLY AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FINAL DESIGN OF THE ACOUSTIC DOOR IN ACCORDANCE WITH THE STATUTORY REQUIREMENT (FOR STRUCTURAL DESIGN) AND ACTUAL SITE CONDITION DURING CONSTRUCTION PHASE.
- TYPICAL NOISE PANEL FOR ACOUSTIC DOOR COMPRISES OF 2.0mm 3.0mm THICK STEEL PLATE LINED WITH ACOUSTIC ABSORPTION MATERIAL (E.G ROCKWOOL) INTERNALLY.

# **AECOM**

PROJECT

IMPROVEMENT OF LION ROCK TUNNEL -**INVESTIGATION** 

CLIENT

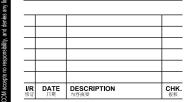


CONSULTANT

AECOM Asia Company Ltd.

SUB-CONSULTANTS

### ISSUE/REVISION



STATUS

A3 AS SHOWN

KEY PLAN

PROJECT NO.

AGREEMENT NO.

DIMENSION UNIT

60604728

CE 48/2018(HY)

SHEET TITLE

SCHEMATIC DRAWING OF ACOUSTIC DOOR

SHEET NUMBER

60604728/SK7140