Annex 5-F

Construction Noise Assessment

Annex 5-F - Construction Noise Calculation

BLACK POINT OPTION

NSR: Village House at Lung Kwu Sheung Tan

Correction Factor

Distance from NSR N1 to Source *1600 m to the nearest site boundary* — *Distance Attenuation -72 dB(A)* — *Screening by headland*[1] *-20 dB(A)* — *Atmospheric absorption*[2] *-4 dB(A)* — *Facade 3 dB(A)*

Construction Item	Yr 1												Yr 2												Yr 3												Yr 4												Yr 5	
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29	M30	M31	M32	M33	M34	M35	M36	M37	M38	M39	M40	M41	M42	M43	M44	M45	M46	M47	M48	M49	M50
Land Based Works																																																		
Site Preparation Work																																																		
Site Clearance	0	0	0	128	128	128	128	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
Soil Compaction	0	0	0	118	118	118	118	118	118	118	118	118	118	118	118	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
Blasting and Excavation	0	0	0	0	0	0	0	135	135	135	135	135	135	135	135	135	135	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
Slope Stabilization and Drainage Works	0	0	0	0	0	0	0	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	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
Total SWL	*0*	*0*	*0*	*129*	*129*	*129*	*129*	*136*	*136*	*136*	*136*	*136*	*136*	*136*	*136*	*136*	*136*	*130*	*130*	*130*	*130*	*130*	*130*	*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*
Noise Level in dB(A)	**0**	**0**	**0**	**35**	**35**	**35**	**35**	**43**	**43**	**43**	**43**	**43**	**43**	**43**	**43**	**43**	**43**	**36**	**36**	**36**	**36**	**36**	**36**	**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**
Reclamation																																																		
Dredging	0	0	0	118	118	118	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
Seawall Construction																																																		
Placing Seawall Core	0	0	0	0	0	113	113	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
Placing Seawall Rock Armour	0	0	0	0	0	125	125	125	125	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
Placing Fill	0	0	0	0	0	0	0	131	131	131	131	131	131	131	131	131	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
Drainage Works																																																		
Install of Temporary Work	0	0	0	0	0	0	0	125	125	125	125	125	125	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
Laying of Drainage Pipes	0	0	0	0	0	0	0	119	119	119	119	119	119	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
Backfilling	0	0	0	0	0	0	0	0	116	116	116	116	116	116	116	116	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
Total SWL	*0*	*0*	*0*	*118*	*118*	*126*	*125*	*133*	*133*	*132*	*132*	*132*	*132*	*131*	*131*	*131*	*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*
Noise Level in dB(A)	**0**	**0**	**0**	**24**	**24**	**32**	**32**	**39**	**39**	**39**	**39**	**39**	**39**	**37**	**37**	**37**	**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**
Main Jetty																																																		
Ground Investigation	0	0	0	0	0	0	0	0	0	113	113	113	113	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
Jetties and Access Bridge																																																		
Steel Piles Construction	0	0	0	0	0	0	0	0	0	0	0	0	125	125	125	125	125	125	125	125	125	125	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
Concrete Caps, Slabs and Foundations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	125	125	125	125	125	125	125	125	125	125	125	125	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dredging of Approach Channel and Turning Basin	0	0	0	0	0	0	0	0	0	0	0	0	120	120	120	120	120	120	120	0	0	120	120	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
Intake and Outfall Construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	115	115	115	115	115	115	115	115	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
Total SWL	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*113*	*113*	*113*	*126*	*126*	*126*	*126*	*126*	*126*	*126*	*125*	*125*	*129*	*126*	*125*	*125*	*125*	*125*	*125*	*125*	*125*	*125*	*125*	*125*	*125*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Noise Level in dB(A)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**20**	**20**	**20**	**33**	**33**	**33**	**33**	**33**	**33**	**33**	**32**	**32**	**35**	**33**	**32**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
LNG Terminal, Civil, M&E Work																																																		
Terminal Civil, M&E Work	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133
Total SWL	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*	*133*
Noise Level in dB(A)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**
OVERALL NOISE LEVEL AT NSR (dB(A))	**0**	**0**	**0**	**35**	**35**	**37**	**37**	**44**	**44**	**44**	**44**	**44**	**44**	**44**	**44**	**44**	**43**	**42**	**42**	**42**	**42**	**42**	**42**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**

Note:

(1) A 20 dB(A) screening effect is taken into account for the NSR due to topography shielding by the high headland and no direct line of sight to the Project (Annex 5B).

(2) A sound absorption by the atmosphere (assumed at 500 Hz, 20°C, RH 80%) has been accounted for in accordance with ISO 9613-1 Acoustics – Attenuation of Sound During Propagation Outdoors – Part 1: Calculation of the Absorption of Sound by the Atmosphere.