

Appendix 7.9 Calculation of Construction Noise Level During Normal Daytime Working Hours (With Mitigation Measures)

Staff Quarters of Cape Collinson Crematorium (SQ1)

ADVANCE WORK PRIOR TO PHASE 1 WORK

Task	SWL dB(A)	Horizontal Distance m	Distance Corr dB(A)	Screening Effect dB(A)	CNL dB(A)	Predicted Construction Noise Level, L _{eq} (00-min) dB(A)																			
						2010			2011			2012			2013			2014							
Tree Transplanting	114	93	-47.4		70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	
Overall Predicted Construction Noise Level						70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70

PHASE 1 DEVELOPMENT

Task	SWL dB(A)	Horizontal Distance m	Distance Corr dB(A)	Screening Effect dB(A)	CNL dB(A)	Predicted Construction Noise Level, L _{eq} (00-min) dB(A)																				
						2010			2011			2012			2013			2014								
Site formation Works																										
- Remove obstruction, expose and divert existing utilities	116	152	-51.6		68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	
- Re-divert utilities and Road surface reinstatement	113	152	-51.6		65	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	
- Slope and Wall Modification/Remedial Works	120	152	-51.6		68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	
- Installation of temporary walls and decking	119	152	-51.6		70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	
- Excavations and installation of lateral support	120	152	-51.6		71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	
Substructure works																										
- Superstructure works	119	152	-51.6		70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	
- Landscape works	114	152	-51.6		65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	
- Fitting-out works	116	152	-51.6		67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	
- Demolition of existing Chinese Service Hall	118	152	-51.6		69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	
Overall Predicted Construction Noise Level in Phase 1						74	74	73	73	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74

PHASE 2 DEVELOPMENT

Task	SWL dB(A)	Horizontal Distance m	Distance Corr dB(A)	Screening Effect dB(A)	CNL dB(A)	Predicted Construction Noise Level, L _{eq} (00-min) dB(A)																				
						2010			2011			2012			2013			2014								
Remove obstruction, expose and divert existing utilities																										
- Installation of temporary walls and decking	116	124	-49.9		70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	
- Demolition of existing crematoriums and services halls	119	124	-49.9		69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	
- Excavations and installation of lateral support works	120	124	-49.9		73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	
Slope and Wall Modification /Remedial Works (Part 1)																										
- Slope and Wall Modification /Remedial Works (Part 2)	119	124	-49.9		72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	
- Substructure works	120	124	-49.9		73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	
- Superstructure works	119	124	-49.9		72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	
- Construction of the New Transformer Room	118	117	-49.4	-10	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62		
- Landscape Works	114	124	-49.9		67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	
- Fitting-out works	116	124	-49.9		69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	
Overall Predicted Construction Noise Level in Phase 2						74	74	73	73	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74

Note:
* Noise reduction due to screening effect of topographical features according to GW-TM

