APPENDIX 3A

DETAILS OF CONSTRUCTION NOISE IMPACT ASSESSMENT

Table 3.1.1 Construction Programme

Packages	Desciption
WA11	Demolition of Buildings - Carpark
WA12	Demolition of Buildings - Terminal Bldg
WA13	Kai Tak Nullah Stage 1
WA14	Road D5 Stage 1
WA15	Bridges Over Prince Edward Road - Area 1/ Demolition of Existing Ramps
WA16	Bridges Over Prince Edward Road - Area 2
WA17	Roads & Drains - Area 1
WA18	Roads & Drains - Area 2
WA19	Sewerage Connection to TKWPTW
WA20	Sewerage Pumping Station in Area 1
WA21	Sewerage Pumping Station in Area 2
WA22	Hinterland Junction Improvement
WB11	Reclamation at Kai Tak Approach Channel
WB12	Reclamation of Kwun Tong Typhoon Shelter
WB13	Reclamation at Cha Kwa Ling PCWA
WB14	Kai Tak Nullah Stage 2
WB15	Trunk Drains in Area 4 and 5
WB16	Trunk Drains in Area 5 and 6
WB17	Relocation of Typhoon Shelter-Brkwater in KTTS
WB18	Temporary Relocation of PCWA
WB19	Permanent Relocation of PCWA
WB20	Reprovision of Vehicular Ferry Pier
WB21	Provision of Tourist Excursion Pier
WC11	Drainage Improvement at Hinterland/ Culvert F & Associated TTM/ Culverts A, B, C & D
WC12	Trunk Road T2/ Adjacent to Kai Fuk Road/ Underground Portion/Viaduct in Reclamation
WC13	Road D4 - Stage 1
WC14	Road D5 - Stage 2
WC15	Roads & Drains in Area 4 and 5
WC16	Roads & Drains in Area 5 and 6/Travellator Subway to Ngau Tau kok MTR Station
WC17	Roads & Drains at Area 6C/ Hoi Bun Road/ Bridge over outfall U/Remaining Roadworks in Cha Kwo Ling
WC18	Sewerage Pumping Station in Area 4 and 5
WC19	Sewerage Pumping Station in Area 5 and 6
WC20	Hinterland Junction Improvement
WC21	CKR/T2 Interchange
WD11	Reclamation at Kowloon Bay Stage 1/Earth Bund at Hoi Sum/ Temporary Drain Diversion/ Main Reclamation
WD12	Reclamation at Kowloon Bay Stage 2/ Temporary Drain Diversion/ Main Reclamtion
WD13	Kai Tak Nullah Stage 3
WD14	Trunk Drain Area 3 Stage 1/ Culvert S/ Culvert Q/ Culvert P2 on Earth Bund/Upstream of Culvert P2
WD15	Trunk Drain Area 3 Stage 2
WD16	Provision of Public Pier
WD17	Reprovision of Buoys
WD18	Drainage Improvement at Hinterland
WD19	Road D4 Stage 2
WD20	Roads & Drains at Area 3 - Stage 1
WD21	Roads & Drains at Area 3 - Stage 2/ Travellator Subway to Ma Tau Wai Station/ Roads & Drains at Area 3 - Stage 2
WD22	Sewerage Pumping Station in Area 3 Stage 1

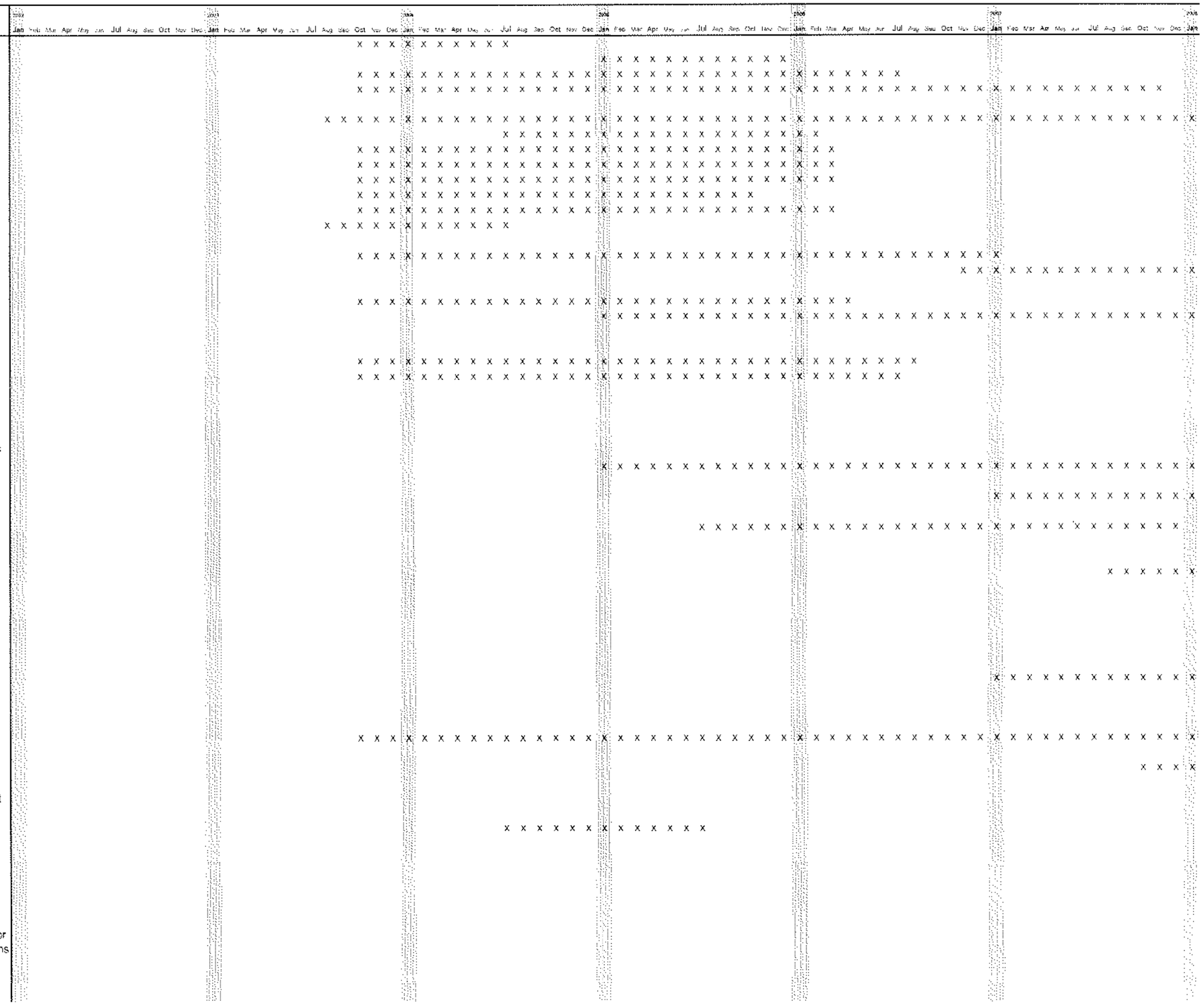
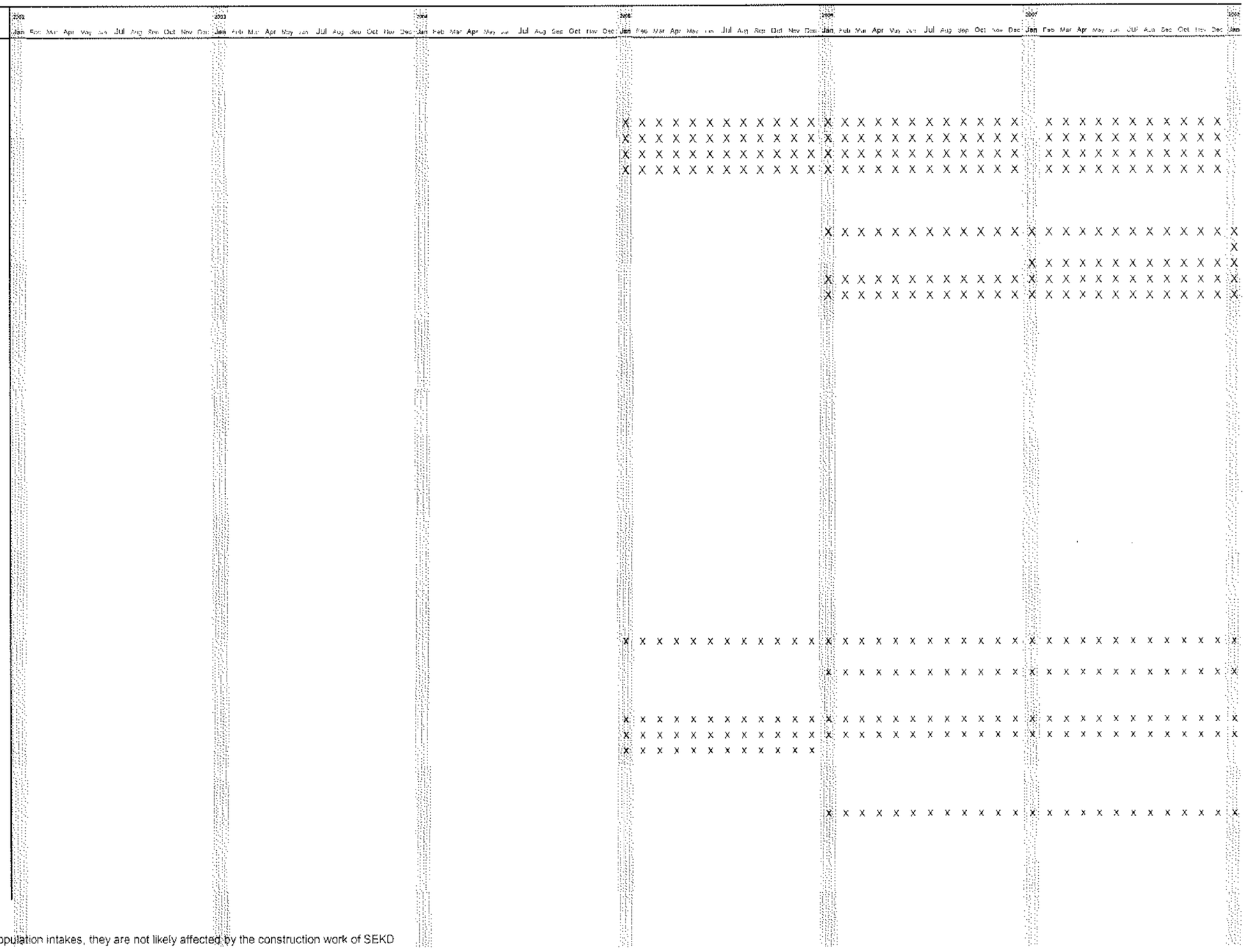


Table 3.1.1 Construction Programme

Packages	Desciption
WD23	Sewerage Pumping Station in Area 3 Stage 2
WD24	Hinterland Junctions Improvement
Future NSR in SEKD (expected occupied date)	
1A	2005
1B	2005
1C	2005
1D	2005
1E	2015
1K	**2014**
2A	2015
2B	2006
2C	2008
2D	**2007**
2E	2006
2F	2006
4A	2012
4B2	2012
4C	**2012**
4D	2012
4E	2012
4F	2012
4G	2014
4H	2014
4J	**2016**
4K2	**2012**
4S	2012
4L	2012
4M	2012
4R	**2012**
5A	2014
5C	2017
5E	2014
5G	**2015**
5H	2014
5J	2014
5K	2015
1G	2005
1L	**2012**
1Q	**2006**
5L	2014
6A	2013
1A(S)	**2005**
1C(S)	2005
1E(S)	2013
1L(S)	**2013**
1P(S)	2009
2A(s)	2014
2B(S)	2006
4E(S)	**2012**
4L(S)	2012
4N(S)	2012
5J(S)	**2014**
5L(S)	2014



Note:
NSRs in Hoi Sham Areas (Area 3) are the last stages of population intakes, they are not likely affected by the construction work of SEKD

AGREEMENT NO. CE.32/99 COMPREHENSIVE FEASIBILI
APPENDIX 3.1 CONSTRUCTION NOISE ASSESSMENT
Table 3.1.1 Construction Programme

Packages	Desciption
WA11	Demolition of Buildings - Carpark
WA12	Demolition of Buildings - Terminal Bldg
WA13	Kai Tak Nullah Stage 1
WA14	Road D5 Stage 1
	Bridges Over Prince Edward Road - Area 1/
WA15	Demolition of Existing Ramps
WA16	Bridges Over Prince Edward Road - Area 2
WA17	Roads & Drains - Area 1
WA18	Roads & Drains - Area 2
WA19	Sewerage Connection to TKWPTW
WA20	Sewerage Pumping Station in Area 1
WA21	Sewerage Pumping Station in Area 2
WA22	Hinterland Junction Improvement
WB11	Reclamation at Kai Tak Approach Channel
WB12	Reclamation of Kwun Tong Typhoon Shelter
WB13	Reclamation at Cha Kwa Ling PCWA
WB14	Kai Tak Nullah Stage 2
WB15	Trunk Drains in Area 4 and 5
WB16	Trunk Drains in Area 5 and 6
WB17	Relocation of Typhoon Shelter-Brkwater in KTTS
WB18	Temporary Relocation of PCWA
WB19	Permanent Relocation of PCWA
WB20	Reprovision of Vehicular Ferry Pier
WB21	Provision of Tourist Excursion Pier
WC11	Drainage Improvement at Hinterland/ Culvert F & Associated TTM/ Culverts A, B, C & D
WC12	Trunk Road T2/ Adjacent to Kai Fuk Road/ Underground Portion/Viaduct in Reclamation
WC13	Road D4 - Stage 1
WC14	Road D5 - Stage 2
WC15	Roads & Drains in Area 4 and 5
WC16	Roads & Drains in Area 5 and 6/Travellator Subway to Ngau Tau kok MTR Station
WC17	Roads & Drains at Area 6C/ Hoi Bun Road/ Bridge over outfall U/Remaining Roadworks in Cha Kwo Ling
WC18	Sewerage Pumping Station in Area 4 and 5
WC19	Sewerage Pumping Station in Area 5 and 6
WC20	Hinterland Junction Improvement
WC21	CKR/T2 interchange
WD11	Reclamation at Kowloon Bay Stage 1/Earth Bund at Hoi Sum/ Temporary Drain Diversion/ Main Reclamation
WD12	Reclamation at Kowloon Bay Stage 2/ Temporary Drain Diversion/ Main Reclamation
WD13	Kai Tak Nullah Stage 3
WD14	Trunk Drain Area 3 Stage 1/ Culvert S/ Culvert Q/ Culvert P2 on Earth Bund/Upstream of Culvert P2
WD15	Trunk Drain Area 3 Stage 2
WD16	Provision of Public Pier
WD17	Reprovision of Buoys
WD18	Drainage Improvement at Hinterland
WD19	Road D4 Stage 2
WD20	Roads & Drains at Area 3 - Stage 1
WD21	Roads & Drains at Area 3 - Stage 2/ Travellator Subway to Ma Tau Wai Station/ Roads & Drains at Area 3 - Stage 2
WD22	Sewerage Pumping Station in Area 3 Stage 1

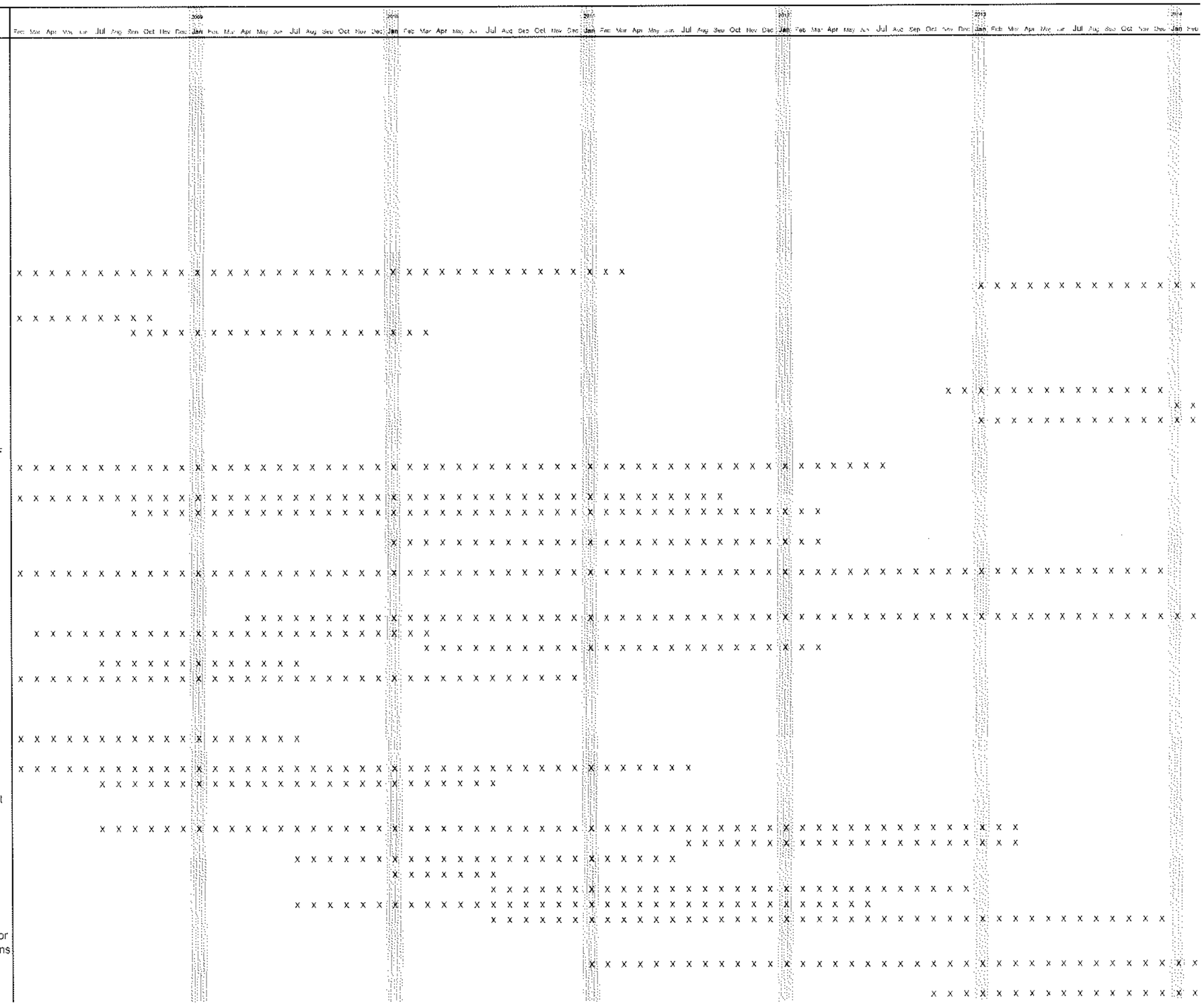


Table 3.1.1 Construction Programme

| Packages | Desciption | 2005 | | | | | | | | | | | | 2006 | | | | | | | | | | | | 2007 | | | | | | | | | | | | 2008 | | | | | | | | | | | | 2009 | | | | | | | | | | | | 2010 | | | | | | | | | | | | 2011 | | | | | | | | | | | | 2012 | | | | | | | | | | | | 2013 | | | | | | | | | | | | 2014 | |
|---|---|---

Table 3.1.1 Construction Programme

Packages	Desciption	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
WA11	Demolition of Buildings - Carpark																						
WA12	Demolition of Buildings - Terminal Bldg																						
WA13	Kai Tak Nullah Stage 1																						
WA14	Road D5 Stage 1																						
WA15	Bridges Over Prince Edward Road - Area 1/ Demolition of Existing Ramps																						
WA16	Bridges Over Prince Edward Road - Area 2																						
WA17	Roads & Drains - Area 1																						
WA18	Roads & Drains - Area 2																						
WA19	Sewerage Connection to TKWPTW																						
WA20	Sewerage Pumping Station in Area 1																						
WA21	Sewerage Pumping Station in Area 2																						
WA22	Hinterland Junction Improvement																						
WB11	Reclamation at Kai Tak Approach Channel																						
WB12	Reclamation of Kwun Tong Typhoon Shelter																						
WB13	Reclamation at Cha Kwa Ling PCWA	x	x	x	x	x	x	x	x	x	x												
WB14	Kai Tak Nullah Stage 2																						
WB15	Trunk Drains in Area 4 and 5																						
WB16	Trunk Drains in Area 5 and 6																						
WB17	Relocation of Typhoon Shelter-Brkwater in KTTS																						
WB18	Temporary Relocation of PCWA																						
WB19	Permanent Relocation of PCWA																						
WB20	Reprovision of Vehicular Ferry Pier	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
WB21	Provision of Tourist Excursion Pier	x	x	x	x	x	x	x	x	x	x												
WC11	Drainage Improvement at Hinterland/ Culvert F & Associated TTM/ Culverts A, B, C & D																						
WC12	Trunk Road T2/ Adjacent to Kai Fuk Road/ Underground Portion/Viaduct in Reclamation																						
WC13	Road D4 - Stage 1																						
WC14	Road D5 - Stage 2																						
WC15	Roads & Drains in Area 4 and 5																						
WC16	Roads & Drains in Area 5 and 6/Traveliator Subway to Ngau Tau kok MTR Station																						
WC17	Roads & Drains at Area 6C/ Hoi Bun Road/ Bridge over outfall U/Remaining Roadworks in Cha Kwo Ling	x	x	x	x	x	x	x	x	x	x												
WC18	Sewerage Pumping Station in Area 4 and 5																						
WC19	Sewerage Pumping Station in Area 5 and 6																						
WC20	Hinterland Junction Improvement																						
WC21	CKR/T2 Interchange																						
WD11	Reclamation at Kowloon Bay Stage 1/Earth Bund at Hoi Sum/ Temporary Drain Diversion/ Main Reclamation																						
WD12	Reclamation at Kowloon Bay Stage 2/ Temporary Drain Diversion/ Main Reclamtion																						
WD13	Kai Tak Nullah Stage 3																						
WD14	Trunk Drain Area 3 Stage 1/ Culvert S/ Culvert Q/ Culvert P2 on Earth Bund/Upstream of Culvert P2																						
WD15	Trunk Drain Area 3 Stage 2																						
WD16	Provision of Public Pier																						
WD17	Reprovision of Buoys																						
WD18	Drainage Improvement at Hinterland																						
WD19	Road D4 Stage 2																						
WD20	Roads & Drains at Area 3 - Stage 1																						
WD21	Roads & Drains at Area 3 - Stage 2/ Travellator Subway to Ma Tau Wai Station/ Roads & Drains at Area 3 - Stage 2	x	x	x	x	x	x	x	x														
WD22	Sewerage Pumping Station in Area 3 Stage 1	x	x	x	x	x	x	x	x														

Table 3.1.1 Construction Programme

Packages	Desciption	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2015 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
WD23	Sewerage Pumping Station in Area 3 Stage 2	x	x	x	x	x	x	x	x														
WD24	Hinterland Junctions Improvement																						
Future NSR in SEKD (expected occupied date)																							
1A	2005	X	X	X	X	X	X	X	X	X	X	x	x	x	x	x	x	x	x	x	x	x	x
1B	2005	X	X	X	X	X	X	X	X	X	X	x	x	x	x	x	x	x	x	x	x	x	x
1C	2005	X	X	X	X	X	X	X	X	X	X	x	x	x	x	x	x	x	x	x	x	x	x
1D	2005	X	X	X	X	X	X	X	X	X	X	x	x	x	x	x	x	x	x	x	x	x	x
1E	2015											x	x	x	x	x	x	x	x	x	x	x	x
1K	**2014**	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2A	2015											x	X	X	X	X	X	X	X	X	X	X	X
2B	2006	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2C	2008	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2D	**2007**	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2E	2006	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2F	2006	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4A	2012	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4B2	2012	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4C	**2012**	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4D	2012	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4E	2012	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4F	2012	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4G	2014	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4H	2014	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4J	**2016**																						
4K2	**2012**	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4S	2012	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4L	2012	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4M	2012	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4R	**2012**	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5A	2014	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5C	2017																						
5E	2014	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5G	**2015**											X	X	X	X	X	X	X	X	X	X	X	X
5H	2014	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5J	2014	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5K	2015											x	x	x	x	x	x	x	x	x	x	x	x
1G	2005	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
1L	**2012**	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
1Q	**2006**	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
5L	2014	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
6A	2013	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
1A(S)	**2005**	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
1C(S)	2005	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
1E(S)	2013	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
1L(S)	**2013**	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
1P(S)	2009	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2A(s)	2014	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2B(S)	2006	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4E(S)	**2012**	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4L(S)	2012	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4N(S)	2012	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
5J(S)	**2014**	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
5L(S)	2014	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

Note:
NSRs in Hoi Sham Areas (Area 3) are the last stages of popu

Table 3.1.2a Coordinates and Assessment Points of Existing Noise Sensitive Receivers

Existing Noise Sensitive Receivers	Assessment Points (Construction Noise/Traffic Noise)	Easting	Northing
Rhythm Gardens	E1/9305	838944	821830
Choi Hung Estate	E2/9309	839195	821775
Richlands Gardens	E3/9315	839218	821311
San Po Kong Area	E4/9504	838154	821425
	E5/9507	838207	821491
Kowloon City Area	E6/9204	837874	821128
	E7/9211	837537	820921
	E8/9216	837526	820600
Mok Cheong St.	E9/9118	837917	820291
Wyler Garden	E10/9111	837944	819871
	E11/9123	837927	819675
To Kwa Wan Area	E12/9120	837605	819418
Laguna City	E13/9401	841281	818570
Cha Kwo Ling	E14/9406	841585	818083
Laguna Verde	E15/9128	837877	818916

Table 3.1.2b Coordinates and Assessment Points of Future Noise Sensitive Receivers

Future Noise Sensitive Receivers	Assessment Points (Construction Noise/Traffic Noise)	Easting	Northing
4C & 4E	F1/8109	839008	819817
4C & 4E	F2/8153	839004	820021
4F & 4L	F3/8202	839208	819858
4F & 4L	F4/8295	839181	819642
4K	F5/8272	839231	819587
4M	F6/8304	839331	819746
4R	F7/8336	839500	819589
5J	F8/8672	840069	819175
5J	F9/8654	839948	819301
4S	F10/8369	839443	819386
4H	F11/8232	839109	819493
4G	F12/8212	839092	819599
4D	F13/8129	838890	819689
4A	F14/8001	838564	820124
4J	F15/8252	839383	819322
5A	F16/8404	839532	819208
5E	F17/8510	839674	819274
5G	F18/8568	839743	819112
5C	F19/8471	839765	818802
5C	F20/8434	839665	819013
4E(S)	F21/7001	839118	820134
5J(S)	F22/7304	839866	819368
5L(S)	F23/7404	840051	819554
4L(S)	F24/7102	839319	819941
4N(S)	F25/7207	839505	819760
5K	F26/8702	839795	819590
5K	F27/8731	839941	819607
1E	F28/8454	838616	821436
1E	F29/8401	838399	821293
1E(S)	F30/7311	838525	821565
1C(S)	F31/7102	838935	820992
2A	F32/8612	838117	821100
2A	F33/8667	837782	820794
2B	F34/8768	838158	820800
2C	F35/8808	838227	820488
2F	F36/8973	837971	820573
2E	F37/8932	838191	820468
2D	F38/8903	838750	820122
1K	F39/8532	838326	821225
1K	F40/8510	838221	821053
1K	F41/8505	838205	821102
2A(S)	F42/7602	837827	820860
2A(S)	F43/7611	837987	820994
2B(S)	F44/7707	838158	820655
1L(S)	F45/7401	838378	821056
1P(S)	F46/7509	838647	820488

Table 3.1.3 Contruction Noise Assessment - Coordinates of Notional Noise Sources (NNS)

Work Packages	Easting	Northing
WA11-1	837977	821210
WA11-2	838001	821146
WA13-1	838271	821335
WA13-2	838469	821128
WA13-3	838767	820819
WA13-4	838489	820122
WA13-5	838639	821033
WA13-6	838294	821294
WA14-1	838713	820958
WA14-2	838786	821411
WA14-3	838777	821721
WA15-1	838780	821925
WA15-2	838815	821622
WA16-1	838195	821360
WA16-2	838052	821328
WA16-3	837860	821012
WA17-1	839144	821274
WA17-2	839039	820923
WA17-3	838767	821085
WA17-4	838898	821405
WA17-5	839109	821695
WA17-6	838569	821622
WA17-7	838333	821443
WA17-8	837678	820846
WA17-9	838770	821428
WA18-1	838109	820578
WA18-2	837927	820638
WA18-3	838160	820884
WA18-4	838467	821252
WA18-5	838799	821529
WA18-6	838550	820562
WA20-1	838352	821351
WA20-2	839131	820980
WA21-1	837809	820926
WA21-2	837889	820520
WA21-3	838738	820616
WB11-1	838915	820045
WB11-2	839215	819757
WB11-3	839534	819450
WB12-1	840141	819400
WB12-2	840573	818994
WB13-1	840854	818619
WB13-2	841172	818225
WB14-1	838778	820063
WB15-1	839215	819913
WB15-2	839022	819725
WB-16	839841	819225
WB17-1	840741	818413
WB17-2	840916	818182
WB17-3	841067	817981
WB18,19-1	839827	818703
WB18,19-2	840112	818445
WB21	839828	818625
WC11-1	840678	818790
WC11-2	840142	819593
WC12-1	839067	820302
WC12-2	839325	820044
WC12-3	839565	819792
WC12-4	840032	819593
WC12-5	840287	819350
WC12-6	840543	819060
WC12-7	840727	818795
WC12-8	841036	818430
WC13-1	838876	819878
WC13-2	839103	819654
WC13-3	839333	819437
WC13-4	839573	819203
WC13-5	839754	819027
WC14-1	839103	820202
WC14-2	839384	819922

Table 3.1.3 Contruction Noise Assessment - Coordinates of Notional Noise Sources (NNS)

WC14-3	839652	819669
WC14-4	839851	819707
WC15-1	839110	819891
WC15-2	839305	819733
WC15-3	839486	819539
WC15-4	839629	820003
WC15-5	839744	819634
WC15-6	839361	820133
WC16-1	839864	819417
WC16-2	839716	819259
WC16-3	840025	819310
WC16-4	840030	819050
WC16-5	840060	818757
WC16-6	839840	819219
WC17-1	840951	818777
WC17-2	840734	818920
WC17-3	840540	819182
WC-18	839207	820039
WC19-1	840259	819333
WC19-2	840050	818914
WC21-1	838734	820362
WC21-2	838772	820388
WC21-3	838966	820630
WC21-4	839027	820426
WC21-5	839142	820350
WD11-1	838271	819405
WD11-2	838593	819600
WD11-3	838098	819777
WD12-1	838094	819132
WD12-2	838221	819060
WD13	838739	819637
WD14-1	838217	820256
WD14-2	838288	820094
WD14-3	838227	819740
WD14-4	838367	819480
WD14-5	838852	819562
WD14-6	838135	819320
WD14-7	837955	819443
WD14-8	838172	820056
WD15-1	837928	818917
WD15-2	837825	819104
WD16	838534	819510
WD17	838705	819070
WD18-1	837770	819132
WD18-2	837726	819265
WD18-3	837934	819702
WD18-4	837995	819821
WD19-1	838453	819917
WD19-2	838310	819736
WD19-3	838050	819647
WD20-1	838364	819627
WD20-2	838115	819429
WD20-3	837961	819163
WD20-4	838135	820310
WD20-5	838128	820026
WD20-6	838029	819819
WD20-7	837934	819586
WD20-8	837781	819463
WD20-9	837978	819805
WD20-10	837924	819655
WD20-11	838106	819750
WD20-12	837678	819286
WD21-1	838022	818947
WD21-2	837556	819562
WD22	837965	819514
WD23	837866	819203

Table 3.1.4 Contruction Noise Assessment - Equipment Lists and Predicted Noise Levels of Work Packages

SWL = Sound Power Level
PNL = Predicted Noise Level
Level 1 Mitigation = Use of Quiet Plants
Level 2 Mitigation = Use of Quiet Plants with Acoustic Barriers

Construction Equipment List			CNP No.	SWL	Ref. No.	SWL	SWL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
				dB(A)		dB(A)	dB(A)		dB(A)	dB(A)	dB(A)	128	121	117
WA11	*Carpark demolishment*													
	Q1 temporary works								123	115	110			
		Crane,mobile/barge mounted(diesel)	048	112	BS5228: T.10-118	99	94	1						
		Generator,silenced, 75dB(A) at 7m	102	100	102	100	90	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-10	110	105	2						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
	Q3 demolition of structures								129	121	117			
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	2						
		Crane,mobile/barge mounted(diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-10	110	105	4						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	3						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	3						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
	Temp road to Terminal building													
	Q3 Road formation/Services Excavation								124	114	112			
		Excavator/loader, wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
	Q4. Surfacing								117	113	108			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Asphalt paver	004	109	BS5228: T.11-26	108	103	1						
	Q5. Footway								118	109	105			
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
WA12	*Demolition of Kai Tak Terminal building (and associated services)*											130	121	118
	Q1 temporary works								123	115	112			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Generator,silenced, 75dB(A) at 7m	102	100	102	100	90	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-10	110	105	2						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Poker, vibratory, hand-held	170	112	BS5228: T.9-20	102	102	2						
	Q2 demolition of structures								130	121	118			
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	2						
		Crane,mobile/barge mounted(diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-10	110	105	4						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	4						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	4						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
WA13	*Trunk Drain - Kai Tak Nullah - Stage 1 Culvert R construction*											128	121	117
	Q1 Excavation and Formation for Culvert R								128	119	116			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	3						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	12						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
	Q2. Concreting for Culvert R								124	116	111			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	3						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	9						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	10						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	3						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	3						
	Q3. Surfacing /Services for Culvert R								127	119	117			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	3						
		Lorry	141	112	BS5228: T.7-59	105	105	3						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	3						
		Dump truck	067	117	BS5228: T.7-60	110	110	3						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	3						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	3						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	3						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	6						
	Q4 temporary works for demolishment of existing nullah								115	106	98			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Generator,silenced, 75dB(A) at 7m	102	100	102	100	90	2						
		Sheet Piling Plant		0		0	0	2						
	Q5 demolition of Nullah								128	121	117			
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	2						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-10	110	105	8						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
	Q6 demolition of Seawall								127	119	117			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	2						
		Derrick Barge	061	104	061	104	99	2						

Table 3.1.4 Contruction Noise Assessment - Equipment Lists and Predicted Noise Levels of Work Packages

SWL = Sound Power Level
PNL = Predicted Noise Level
Level 1 Mitigation = Use of Quiet Plants
Level 2 Mitigation = Use of Quiet Plants with Acoustic Barriers

Construction Equipment List			CNP No.	SWL	Ref. No.	SWL	SWL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
		Tug Boat	221	110	221	110	110	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
	Q7.DSD depot													
		i. excavation							**118**	**112**	**111**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		ii. placing concrete							**121**	**110**	**104**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
WA15	***Road D5 Stage 1***											**126**	**119**	**119**
	Q1. Diaphragm Walling Works for Road D5 tunnel section													
		i. excavation							**124**	**115**	**112**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Piling, diaphragm wall,bentonite filtering plant	162	105	162	105	100	2						
		Piling, diaphragm wall,hydraulic extractor	163	90	163	90	85	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.13-13	110	105	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		ii. placing concrete							**117**	**111**	**106**			
		Piling, diaphragm wall,bentonite filtering plant	162	105	162	105	100	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	5						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Q2 Excavation and Strutting								**126**	**119**	**119**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	6						
	Q3. Box Tunnel Construction for D5													
		i. Base Preparation							**119**	**115**	**111**			
		Lorry	141	112	BS5228: T.7-59	105	105	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Compactor,vibratory	050	105	050	105	100	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		ii. placing concrete							**123**	**113**	**107**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	8						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Q4 PIP Tunnel													
	i. Grouting under Kai Tak								**111**	**111**	**101**			
		Grout Mixer	BS5228: T.9-13	108	N/A	108	98	1						
		Grout Pump	BS5228: T.9-13	108	N/A	108	98	1						
	ii.Pipe Pile Construction (D5)								**119**	**115**	**110**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.9-18	109	104	1						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
		Grout Mixer	BS5228: T.9-13	108	N/A	108	98	1						
		Grout Pump	BS5228: T.9-13	108	N/A	108	98	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
	Q5. Backfilling/Surfacing /Services for D5 Tunnel								**125**	**118**	**116**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	3						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
	Q6. Piling Works for noise barrier													
		i. Piling							**112**	**103**	**95**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Small diameter bored, reverse circulation drilling r	166	100	N/A	100	90	1						
		ii. Grouting							**115**	**113**	**106**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.9-18	109	104	1						
		Grout Mixer	BS5228: T.9-13	108	N/A	108	98	1						
		Grout Pump	BS5228: T.9-13	108	N/A	108	98	1						
	Q7. Pile Cap Construction for noise barrier													
		i. excavation							**123**	**116**	**113**			
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-10	110	105	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
		ii. placing concrete							**121**	**111**	**105**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	5						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
	Q8. Noise Barrier Stem													
		i. Noise Barrier Erection							**115**	**106**	**105**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						

Table 3.1.4 Contruction Noise Assessment - Equipment Lists and Predicted Noise Levels of Work Packages

SWL = Sound Power Level
PNL = Predicted Noise Level
Level 1 Mitigation = Use of Quiet Plants
Level 2 Mitigation = Use of Quiet Plants with Acoustic Barriers

Construction Equipment List			CNP No.	SWL	Ref. No.	SWL	SWL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
		ii. placing concrete							**119**	**108**	**102**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
	Q9. Road Paving								**115**	**111**	**108**			
		Road roller	185	108	BS5228: T.11-27	104	99	1						
		Asphalt paver	004	109	BS5228: T.11-26	108	103	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
WA15	***Bridge over Prince Edward Road - Area 1 (Bridge B1, B2 FB3 and FB7)***											**127**	**122**	**117**
	Q1. Piling Works (Bridge B1, B2 FB3 and FB7)													
		i. Piling							**125**	**122**	**117**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.9-18	109	104	3						
		Piling, large diameter bored	164/165	115	N/A	115	105	3						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	3						
		Dump truck	067	117	BS5228: T.7-60	110	110	3						
		ii. placing concrete							**120**	**112**	**107**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	3						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	3						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	3						
	Q2. Pile Cap Construction													
		i. excavation							**127**	**121**	**117**			
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	3						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-10	110	105	6						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	3						
		Dump truck	067	117	BS5228: T.7-60	110	110	3						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	3						
		ii. placing concrete							**122**	**112**	**105**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	3						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	3						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	3						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	3						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	3						
	Q3. Bridge Pier Construction													
		i. temporary works							**117**	**104**	**99**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	3						
		ii. placing concrete							**123**	**114**	**108**			
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	3						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	3						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	3						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	3						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	3						
	Q4. Superstructure Construction													
		i. temporary works							**117**	**104**	**99**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	3						
		ii. placing concrete							**124**	**115**	**109**			
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	3						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	6						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	3						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	6						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	3						
	Q5. Carriageway Construction													
		i. placing asphalt							**118**	**114**	**111**			
		Road roller	185	108	BS5228: T.11-27	104	99	2						
		Asphalt paver	004	109	BS5228: T.11-26	108	103	2						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
		ii. Noise Barrier Erection							**118**	**109**	**108**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
	Q6 Road formation/Services Excavation for Road drain, sewer and water supply pipeworks at road D3 under bridges								**124**	**114**	**112**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	1						
	Q7. Laying of Drains and Services for Road drain, sewer and water supply pipeworks at road D3 under bridges								**120**	**112**	**108**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	1						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Compactor,vibratory	059	105	050	105	100	2						
WA16	***Bridge over Prince Edward Road - Area 2(Bridge B3/E, FB2 and B3/W)***											**124**	**116**	**114**
	Q1. Piling Works													
	i. excavation								**124**	**115**	**114**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Piling, large diameter bored	164/165	115		0	0	2						
		Excavator loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	3						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
	ii. placing concrete								**118**	**110**	**105**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	2						
	Q2. Pile Cap Construction													
	i. excavation								**123**	**116**	**113**			
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-10	110	105	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						

Table 3.1.4 Contruction Noise Assessment - Equipment Lists and Predicted Noise Levels of Work Packages

SWL = Sound Power Level
PNL = Predicted Noise Level
Level 1 Mitigation = Use of Quiet Plants
Level 2 Mitigation = Use of Quiet Plants with Acoustic Barriers

Construction Equipment List			CNP No.	SWL	Ref. No.	SWL	SWL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
		Water Pump (petrol)	282	103	BS5228: T 7-86	100	90	2						
	ii. placing concrete								**120**	**110**	**105**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Concrete lorry mixer	044	109	BS5228: T 9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T 9-20	102	97	2						
		Water Pump (petrol)	282	103	BS5228: T 9-20	102	97	2						
	Q3. Bridge Pier Construction													
	i. temporary works								**115**	**102**	**97**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
	ii. placing concrete								**121**	**112**	**107**			
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T 9-36	106	101	2						
		Concrete lorry mixer	044	109	BS5228: T 9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T 9-20	102	97	2						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
	Q4. Superstructure Construction													
	i. temporary works								**115**	**102**	**97**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
	ii. placing concrete													
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T 9-36	106	101	2						
		Concrete lorry mixer	044	109	BS5228: T 9-33	96	91	4						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T 9-20	102	97	4						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
	Q5. Carriageway Construction													
	i. placing asphalt								**118**	**114**	**111**			
		Road roller	185	108	BS5228: T.11-27	104	99	2						
		Asphalt paver	004	109	BS5228: T.11-26	108	103	2						
		Lorry	141	112	BS5228: T 7-59	105	105	2						
WA17	***Road and Drains at Area 1***											**130**	**121**	**118**
	Q1 Excavation and Formation for culvert V1, V1-V2 and V2								**129**	**120**	**117**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T 7-24	108	103	3						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	3						
		Dump truck	067	117	BS5228: T 7-60	110	110	3						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	12						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	3						
		Lorry	141	112	BS5228: T 7-59	105	105	1						
	Q2. Concreting for culvert V1, V1-V2 and V2								**124**	**117**	**113**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	3						
		Lorry	141	112	BS5228: T 7-59	105	105	3						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	9						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	12						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	2						
	Q3. Surfacing /Services for culvert V1, V1-V2 and V2								**126**	**119**	**116**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T 7-59	105	105	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
		Roller, vibratory	186	108	BS5228: T 7-116	106	101	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T 7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	8						
	Q4 Road formation/Services Excavation for D1, D2 and D3,etc.								**130**	**121**	**118**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	4						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	4						
		Dump truck	067	117	BS5228: T.7-60	110	110	4						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
	Q5. Laying of Drains and Services D1, D2 and D3,etc.								**127**	**118**	**114**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	4						
		Lorry	141	112	BS5228: T.7-59	105	105	4						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	4						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T 7-101	100	90	4						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	16						
		Compactor,vibratory	050	105	050	105	100	4						
	Q6. Surfacing D1, D2 and D3,etc.								**123**	**119**	**115**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	4						
		Lorry	141	112	BS5228: T.7-59	105	105	4						
		Roller, vibratory	186	108	BS5228: T 7-116	106	101	4						
		Asphalt paver	004	109	BS5228: T.11-26	108	103	4						
	Q7. Footway D1, D2 and D3,etc.								**125**	**115**	**113**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	4						
		Lorry	141	112	BS5228: T.7-59	105	105	4						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	4						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	4						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	8						
	Q8 Excavation and Formation for SW2 and SW3								**127**	**119**	**116**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	2						

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Construction Equipment List			CNP No.	SWL	Ref. No.	SWL	SWL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.9-18	109	104	2						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
	Q9. Concreting for SW2 and SW3								**123**	**114**	**110**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
		Concrete lorry mixer	044	109	BS5228: T.9-32	96	91	4						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
	Q10. Surfacing /Services for SW2 and SW3								**125**	**118**	**116**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	4						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
	Q11 E&M;Finish for SW2 and SW3								**118**	**109**	**108**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
	Q12. Piling Works for noise barrier													
		i. Piling							**118**	**109**	**101**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	4						
		Small diameter bored, reverse circulation drilling r	166	100	N/A	100	90	4						
		ii. placing concrete							**121**	**119**	**112**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.9-18	109	104	4						
		Grout Mixer	BS5228: T.9-13	108	N/A	108	98	4						
		Grout Pump	BS5228: T.9-13	108	N/A	108	98	4						
	Q13. Pile Cap Construction for noise barrier													
		i. excavation							**125**	**119**	**116**			
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-10	110	105	4						
		Excavator/loader,wheeled-tracked	081	112	BS5228: T.7-24	108	103	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
		ii. placing concrete							**122**	**111**	**105**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
	Q14. Noise Barrier Stem													
		i. Noise Barrier Erection							**118**	**109**	**108**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
		ii. placing concrete							**122**	**110**	**105**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
	Q15. Low Noise Road Surfacing to Prince edward Road East								**117**	**116**	**108**			
		Road planer or miller	184	111	184	111	96	2						
		Road Roller	185	108	BS5228: T.11-27	104	99	2						
		Asphalt paver	004	109	BS5228: T.11-26	108	103	2						
WA18	***Roads and Drains at Area 2***											**130**	**121**	**118**
	Q1 Excavation and Formation for culvert V4								**128**	**119**	**117**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	4						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
	Q2. Concreting for culvert V4								**122**	**114**	**109**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	3						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Q3. Surfacing /Services for culvert V4								**123**	**115**	**113**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
	Q4 Road formation/Services Excavation for D1 and D3,etc.								**130**	**121**	**118**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	4						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	4						
		Dump truck	067	117	BS5228: T.7-60	110	110	4						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						

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Construction Equipment List			CNP No.	SWL	Ref. No.	SWL	SWL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
	Q5. Laying of Drains and Services for D1 and D3,etc.								125	117	114			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	4						
		Lorry	141	112	BS5228: T.7-59	105	105	4						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	4						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	4						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	8						
		Compactor,vibratory	059	105	050	105	100	4						
	Q6. Surfacing for D1 and D3,etc.								123	119	115			
		Excavator-loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	4						
		Lorry	141	112	BS5228: T.7-59	105	105	4						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	4						
		Asphalt paver	004	109	BS5228: T.11-26	108	103	4						
	Q7. Footway for D1 and D3,etc.								125	115	113			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	4						
		Lorry	141	112	BS5228: T.7-59	105	105	4						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	4						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	4						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	8						
	Q8. Excavation and Formation for subway extension								124	115	113			
		Excavator-loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
	Q9. Concreting for subway extension								122	112	108			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	4						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
	Q10. Surfacing /Services for subway extension								122	115	113			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Excavator-loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
	Q11 E&M,Finish for subway extension								115	106	105			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
	Q12. Piling Works for noise barrier													
		i. Piling							117	107	100			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	3						
		Small diameter bored, reverse circulation drilling r	166	108	N/A	100	90	3						
		ii. placing concrete							119	116	107			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	3						
		Grout Mixer	BS5228: T.9-13	108	N/A	108	98	3						
		Grout Pump	BS5228: T.9-13	108	N/A	108	98	3						
	Q13. Pile Cap Construction for noise barrier													
		i. excavation							124	118	114			
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	3						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-10	110	105	3						
		Excavator-loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
		ii. placing concrete							121	111	105			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	3						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	3						
	Q14. Noise Barrier Stem													
		i. Noise Barrier Erection							118	107	106			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	3						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		ii. placing concrete							123	112	106			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	3						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	3						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	6						
	Q15. Low Noise Road Surfacing to Prince edward Road East								117	116	108			
		Road planer or miller	184	111	184	111	96	2						
		Road Roller	185	108	BS5228: T.11-37	104	99	2						
		Asphalt paver	004	109	BS5228: T.11-26	108	103	2						
WA19	***Sewerage connection to TKW treatment plant***													
	(plants can be at any location along the route)											**127**	**117**	**115**
	Q1 Excavation								127	117	115			
		Excavator-loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
	Q2. Laying of Drains and Services								122	113	110			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						

Table 3.1.4 Contruction Noise Assessment - Equipment Lists and Predicted Noise Levels of Work Packages

SWL = Sound Power Level
PNL = Predicted Noise Level
Level 1 Mitigation = Use of Quiet Plants
Level 2 Mitigation = Use of Quiet Plants with Acoustic Barriers

Construction Equipment List			CNP No.	SWL	Ref. No.	SWL	SWL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Compactor,vibratory	050	105	050	105	100	2						
	Q3. Surfacing								**120**	**116**	**112**			
		Excavator-loader,wheeled-tracked	081	112	BS5228: T.7-24	108	103	2						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	2						
		Asphalt paver	004	109	BS5228: T.11-26	108	103	2						
WA20,21	***Sewerage pumping station***													
	!!Plants listed are per pumping station!!											**123**	**117**	**113**
	Q1 temporary works								**112**	**99**	**94**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Sheet Piling Plant		0		0	0	1						
	Q2. Piling Works													
	i. excavation								**121**	**117**	**112**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Preboring, oscillatory	165	115	N/A	115	105	1						
		Excavator-loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
	ii. placing grout								**112**	**99**	**94**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Grout Mixer	BS5228: T.9-13	108	N/A	108	98							
		Grout Pump	BS5228: T.9-12	108	N/A	108	98							
	Q3. Pile Cap Construction													
	i. excavation								**123**	**116**	**113**			
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-10	110	105	2						
		Excavator-loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
	ii. placing concrete								**120**	**111**	**105**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
		Concrete pump, stationary-lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Q4. Superstructure Construction													
	i. temporary works								**112**	**99**	**94**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
	ii. placing concrete								**119**	**110**	**105**			
		Concrete pump, stationary-lorry mounted	047	109	BS5228: T.9-36	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
WA22	***Hinterland Junctions Improvement***													
	!!Plants listed are per junction!!											**124**	**114**	**108**
	Q1 Road Excavation								**124**	**114**	**107**			
		Excavator-loader,wheeled-tracked	081	112	BS5228: T.7-24	108	103	1						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	1						
		Dump truck	067	117	BS5228: T.7-60	110	90	1						
	Q2. Surfacing								**115**	**111**	**108**			
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Asphalt paver	004	109	BS5228: T.11-26	108	103	1						
	Q3. Footway								**118**	**109**	**106**			
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						

Table 3.1.4 Contruction Noise Assessment - Equipment Lists and Predicted Noise Levels of Work Packages

SWL = Sound Power Level
PNL = Predicted Noise Level
Level 1 Mitigation = Use of Quiet Plants
Level 2 Mitigation = Use of Quiet Plants with Acoustic Barriers

Construction Equipment List			CNP No.	SPL	Ref. No.	SPL	SPL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
				dB(A)		dB(A)	dB(A)		dB(A)	dB(A)	dB(A)	128	122	121
WB11	*Reclamation at Kai Tak Approach channel*													
	Q1 demolition of structures								126	118	114			
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	2						
		Breaker, hand-held (pneumatic)	022	117	BS5228: T.6-10	110	105	4						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-12	110	105	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
	Q2 demolition of taxiway bridges								126	118	115			
		Air compressor,standard	004	109	BS5228: T.7-101	100	90	2						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-10	110	105	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	1						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
	Q3 demolition of armour rock								111	111	110			
		Derrick barge	061	104	061	104	99	1						
		Tug Boat	221	110	221	110	110	1						
	Q4 Temporary Drain Diversion to R and S								124	117	115			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	3						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Q5. Reclamation at Kai Tak Approach Channel								128	122	121			
		Derrick barge	061	104	061	104	99	3						
		Tug Boat	221	110	221	110	110	2						
		Split Barge	061	104	061	104	99	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	10						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Roller, Vibratory	186	108	BS5228: T.7-116	106	101	2						
WB12	*Reclamation at Kwun Tong Typhoon shelter*											128	122	121
	Q1 demolition of structures								128	120	116			
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	2						
		Breaker, hand-held (pneumatic)	022	117	BS5228: T.6-10	110	105	4						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
	Q2 demolition of armour rock								111	111	110			
		Derrick barge	061	104	061	104	99	1						
		Tug Boat	221	110	221	110	110	1						
	Q3. Reclamation								128	122	121			
		Derrick barge	061	104	061	104	99	3						
		Tug Boat	221	110	221	110	110	2						
		Split Barge	061	104	061	104	99	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	10						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Roller, Vibratory	186	108	BS5228: T.7-116	106	101	2						
	Q4 Excavation and Fondation for Culvert T construction								127	119	116			
		Percussive Piling Plant	77	0		0	0	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	3						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
	Q2. Concreting for Culvert T construction								122	116	111			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-15	109	104	2						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-16	109	104	1						
	Q3. Surfacing /Services for Culvert T construction								123	115	113			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Excavator loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
WB13	*Reclamation at Cha Kwo Ling Public Cargo working Area*											128	122	121
	Q1 demolition of structures								127	119	116			
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	2						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-10	110	105	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
	Q2. Reclamation for RTS, PFBP and Cha Kwo Ling Area								128	122	121			
		Derrick barge	061	104	061	104	99	3						
		Tug Boat	221	110	221	110	110	2						
		Split Barge	061	104	061	104	99	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	10						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Roller, Vibratory	186	108	BS5228: T.7-116	106	101	2						
	Q2. Laying of Drains and Services to new seawall position								123	115	113			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Excavator loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						

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Construction Equipment List			CNP No.	SPL	Ref. No.	SPL	SPL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
WB14	***Trunk Drains R - Stage 2***											**129**	**120**	**117**
	Q1. Diaphragm Walling Works													
		i. excavation							**127**	**118**	**115**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Piling, diaphragm wall,bentonite filtering plant	162	105	162	105	100	3						
		Piling, diaphragm wall,hydraulic extractor	163	90	163	90	85	3						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	3						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	3						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
		ii. placing concrete							**116**	**111**	**106**			
		Piling, diaphragm wall,bentonite filtering plant	162	105	162	105	100	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Q2 Excavation and Strutting								**125**	**119**	**117**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	4						
		Dump truck	067	117	BS5228: T.7-60	110	110	3						
	Q3. Box Tunnel Construction													
		i. Base Preparation							**119**	**115**	**111**			
		Lorry	141	112	BS5228: T.7-59	105	105	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Compactor,vibratory	050	105	050	105	100	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
		ii. placing concrete							**122**	**113**	**106**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	5						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Q4 Excavation and Foundation for culvert construction								**129**	**120**	**117**			
		Percussive Piling Plant	99	0	99	0	0	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	3						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	3						
		Dump truck	067	117	BS5228: T.7-60	110	110	3						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	12						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	3						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
	Q5. Concreting for culvert construction								**123**	**115**	**110**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	6						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	12						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	2						
	Q6. Surfacing /Services for culvert construction								**123**	**116**	**114**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T.9-15	109	109	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
	Q7. Backfilling to temporary open channel and reinstate the upstream connection								**125**	**119**	**117**			
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-10	110	105	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	3						
		Dump truck	067	117	BS5228: T.7-60	110	110	3						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	2						
WB15	***Trunk Drains in Area 4 and 5***											**128**	**119**	**117**
	Q1. Diaphragm Walling Works for Advance work of Road D4 Tunnel													
		i. excavation							**124**	**115**	**112**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Piling, diaphragm wall,bentonite filtering plant	162	105	162	105	100	1						
		Piling, diaphragm wall,hydraulic extractor	163	90	163	90	85	1						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		ii. placing concrete							**117**	**110**	**105**			
		Piling, diaphragm wall,bentonite filtering plant	162	105	162	105	100	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	5						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Q2 Excavation and Strutting								**123**	**117**	**116**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	3						
	Q3. Box Tunnel Construction for Advance work of Road D4 Tunnel													
		i. Base Preparation							**118**	**114**	**110**			
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Compactor,vibratory	050	105	050	105	100	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		ii. placing concrete							**122**	**113**	**107**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						

Table 3.1.4 Contruction Noise Assessment - Equipment Lists and Predicted Noise Levels of Work Packages

SWL = Sound Power Level
PNL = Predicted Noise Level
Level 1 Mitigation = Use of Quiet Plants
Level 2 Mitigation = Use of Quiet Plants with Acoustic Barriers

Construction Equipment List			CNP No.	SPL	Ref. No.	SPL	SPL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	5						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Q4. Excavation and Foundation for multicells box culvert S through KTAC and runway								**128**	**119**	**117**			
		Percussive Piling Plant	??	0	0	0	0	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	3						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	16						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
	Q5. Concreting for multicells box culvert S through KTAC and runway								**123**	**115**	**111**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	4						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	3						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	2						
	Q6. Surfacing /Services for multicells box culvert S through KTAC and runway								**123**	**115**	**113**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	112	BS5228: T.9-20	102	97	4						
	Q7. Backfilling to temporary open channel and reinstatement								**124**	**119**	**115**			
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-40	110	105	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	3						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	2						
WB16	***Trunk Drains in Area 5 and 6***											**129**	**120**	**118**
	Q1. Excavation and Foundation for box culvert								**129**	**120**	**118**			
		Percussive Piling Plant	??	0	??	0		1						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	3						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	3						
		Dump truck	067	117	BS5228: T.7-60	110	110	3						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	12						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	3						
		Lorry	141	112	BS5228: T.7-59	105	105	3						
	Q2. Concreting for box culvert								**124**	**117**	**113**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	3						
		Lorry	141	112	BS5228: T.7-59	105	105	3						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	6						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	3						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	12						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	3						
	Q3. Surfacing /Services for box culvert								**123**	**115**	**113**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
WB17	***Relocation of Typhoon shelter Breakwater in KTTS (Area 6B)***											**113**	**113**	**111**
									113	**113**	**111**			
		Derrick barge	061	104	061	104	99	4						
		Tug Boat	221	110	221	110	110	1						
WB18	***Temporary relocation of Public Cargo Working Area***											**124**	**115**	**112**
	Marine piling								**116**	**108**	**103**			
		Derrick Barge	061	104	061	104	99	2						
		Percussive Piling Plant(Land)	??	0	??	0		2						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
	Deck Construction								**123**	**115**	**110**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	6						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	3						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	3						
	Temporary road construction													
	Q1. Road formation/Services Excavation								**124**	**114**	**112**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
	Q2. Laying of Drains and Services								**121**	**113**	**109**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
		Compactor,vibratory	050	105	050	105	100	2						
	Q3. Surfacing								**117**	**113**	**109**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						

Table 3.1.4 Contruction Noise Assessment - Equipment Lists and Predicted Noise Levels of Work Packages

SWL = Sound Power Level
PNL = Predicted Noise Level
Level 1 Mitigation = Use of Quiet Plants
Level 2 Mitigation = Use of Quiet Plants with Acoustic Barriers

Construction Equipment List			CNP No.	SPL	Ref. No.	SPL	SPL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Asphalt paver	104	109	BS5228: T.11-26	108	103	1						
	Q4. Footway								**119**	**109**	**107**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
WB19	**Permanent relocation of Public Cargo Working Area**											**128**	**120**	**116**
	Demolition of temporary decking and foundation													
	Demolition of temporary decking and foundation								**128**	**120**	**116**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	2						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-10	110	105	4						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
	Reinstate the existing sloping seawall								**112**	**112**	**111**			
		Derrick barge	061	104	061	104	99	2						
		Tug Boat	221	110	221	110	110	1						
WB20	**Reprovision of Vehicular Ferry Pier**													
	REFER WB21 BELOW													
WB21	**Provision of Tourist Excursion Pier Activities**											**124**	**115**	**113**
	Marine piling								**117**	**110**	**105**			
		Derrick Barge	061	104	061	104	99	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
	Construction of Tourist Excursion Pier													
	Q1. Excavation and Formation								**124**	**114**	**112**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
	Q2. Concreting								**122**	**112**	**109**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	4						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Q3. Surfacing /Services								**122**	**115**	**113**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
	Q4 Road formation for road to pier								**123**	**115**	**112**			
		Excavator/loader, wheeled/tracked			BS5228: T.7-24	108	103	1						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
	Q5. Laying of Drains and Services for road to pier								**119**	**111**	**108**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Compactor,vibratory	050	105	050	105	100	1						
	Q6. Surfacing for road to pier								**117**	**113**	**109**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Asphalt paver	104	109	BS5228: T.11-26	108	103	1						
	Q7. Footway for road to pier								**119**	**109**	**107**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						

Table 3.1.4 Contruction Noise Assessment - Equipment Lists and Predicted Noise Levels of Work Packages

SWL = Sound Power Level
PNL = Predicted Noise Level
Level 1 Mitigation = Use of Quiet Plants
Level 2 Mitigation = Use of Quiet Plants with Acoustic Barriers

Construction Equipment List			CNP No.	SWL	Ref. No.	SWL	SWL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
WC11	*Drainage improvement at the Hotwland activities*			dB(A)		dB(A)	dB(A)		dB(A)	dB(A)	dB(A)	127	119	116
	Q1 Excavation and Formation								127	119	116			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	12						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.9-18	109	103	2						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
	Q2. Concreting								124	115	111			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	12						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	6						
	Q3. Surfacing /Services								122	115	113			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
	Q4. Surfacing for road widening								117	113	109			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Asphalt paver	004	109	BS5228: T.11-26	108	103	1						
	Q5. Footway for road widening								119	109	107			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
WC12	*Trunk road T2*											126	118	116
	Q1 Road formation/Services Excavation for Trunk Road T2								124	114	112			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
	Q2. Laying of Drains and Services for Trunk Road T2								119	111	108			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Compactor,vibratory	050	105	050	105	100	1						
	Q3. Surfacing for Trunk Road T2								117	113	109			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Asphalt paver	004	109	BS5228: T.11-26	108	103	1						
	Q4. Footway for Trunk Road T2								119	109	107			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
	Q5. Diaphragm Walling Works for T2 tunnel box													
	i. excavation								126	117	114			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Piling, diaphragm wall,bentonite filtering plant	162	105	162	105	100	2						
		Piling, diaphragm wall,hydraulic extractor	163	90	163	90	85	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
	ii. placing concrete								117	110	105			
		Piling, diaphragm wall,bentonite filtering plant	162	105	162	105	100	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	5						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Q6. Excavation and Strutting for T2 tunnel box								123	116	115			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
	Q7. Box Tunnel Construction for T2 tunnel box													
	i. Base Preparation								119	118	116			
		Lorry	141	112	141	112	112	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Compactor,vibratory	050	105	050	105	100	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
	ii. placing concrete								123	114	107			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	5						
		Air compressor,standard	003	109	BS5228: T.7-101	100	90	1						

Table 3.1.4 Contruction Noise Assessment - Equipment Lists and Predicted Noise Levels of Work Packages

SWL = Sound Power Level
PNL = Predicted Noise Level
Level 1 Mitigation = Use of Quiet Plants
Level 2 Mitigation = Use of Quiet Plants with Acoustic Barriers

Construction Equipment List			CNP No.	SWL	Ref. No.	SWL	SWL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Q8. Backfilling/Surfacing /Services for T2 tunnel box								125	118	116			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	3						
	Q9. Piling Works for noise barrier													
		i. Piling							112	103	95			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Small diameter bored, reverse circulation drilling rig	166	100	N/A	100	90	1						
		ii. Grouting							115	111	102			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Grout Mixer	BS5228: T.9-13	108	N/A	108	98	1						
		Grout Pump												
	Q10. Pile Cap Construction for noise barrier													
		i. excavation							123	116	113			
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-10	110	105	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
		ii. placing concrete							119	109	103			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
	Q11. Noise Barrier Stem/Decking													
		i. Noise Barrier Erection							115	106	105			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		ii. placing concrete							122	111	108			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
	Q12. Road Paving								115	111	108			
		Road roller	185	108	BS5228: T.11-27	104	99	1						
		Asphalt paver	004	109	BS5228: T.11-26	108	103	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
WC13	***Road D4 Tunnel - Stage 3***											**127**	**118**	**116**
	Q1. Diaphragm Walling Works for D4 tunnel box													
	i. excavation								127	118	115			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Piling, diaphragm wall,bentonite filtering plant	162	105	162	105	100	2						
		Piling, diaphragm wall,hydraulic extractor	162	90	162	90	85	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
	ii. placing concrete								118	112	107			
		Piling, diaphragm wall,bentonite filtering plant	162	105	162	105	100	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	5						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	2						
	Q2. Excavation and Strutting for tunnel box								124	118	116			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	3						
	Q3. Box Tunnel Construction for tunnel box													
	i. Base Preparation								119	115	111			
		Lorry	141	112	BS5228: T.7-59	105	105	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Compactor,vibratory	050	105	050	105	100	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
	ii. placing concrete								123	114	107			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	5						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Q4. Backfilling/Surfacing /Services for tunnel box								125	118	116			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
	Q5. LRT/Trolley Bus Deck													

Table 3.1.4 Contruction Noise Assessment - Equipment Lists and Predicted Noise Levels of Work Packages

SWL = Sound Power Level
PNL = Predicted Noise Level
Level 1 Mitigation = Use of Quiet Plants
Level 2 Mitigation = Use of Quiet Plants with Acoustic Barriers

Construction Equipment List			CNP No.	SWL	Ref. No.	SWL	SWL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
	Foundation													
	i. Piling								**121**	**117**	**112**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Piling, large diameter bored	164/165	115	N/A	115	105	1						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
	ii. placing concrete								**116**	**107**	**102**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Pile Cap Construction													
	i. excavation								**122**	**116**	**113**			
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Breaker, hand-held (pneumatic)	022	117	BS5228: T.6-10	110	105	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	1						
	ii. placing concrete								**119**	**108**	**102**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	1						
	Bridge Pier Construction													
	i. temporary works								**112**	**99**	**94**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
	ii. placing concrete								**119**	**114**	**113**			
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T.9-15	109	109	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
	Superstructure Construction													
	i. temporary works								**112**	**99**	**94**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
	ii. placing concrete								**120**	**111**	**105**			
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	3						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
	Q6. Road Paving								**115**	**111**	**108**			
		Road roller	185	108	BS5228: T.11-27	104	99	1						
		Asphalt paver	004	109	BS5228: T.11-26	108	103	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
WC14	***Road D5 - Stage 2***											**126**	**116**	**115**
	Q1. Diaphragm Walling Works for Road D5 tunnel													
	i. excavation								**124**	**115**	**112**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Piling, diaphragm wall,bentonite filtering plant	162	105	162	105	100	2						
		Piling, diaphragm wall,hydraulic extractor	163	90	163	90	85	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
	ii. placing concrete								**117**	**111**	**106**			
		Piling, diaphragm wall,bentonite filtering plant	162	105	162	105	100	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	5						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Q2 Excavation and Strutting for Road D5 tunnel								**123**	**116**	**115**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
	Q3. Box Tunnel Construction for Road D5 tunnel													
	i. Base Preparation								**116**	**112**	**108**			
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Compactor,vibratory	050	105	050	105	100	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
	ii. placing concrete								**121**	**112**	**106**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	5						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	3						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Q4. Backfilling/Surfacing /Services for Road D5 tunnel								**123**	**116**	**115**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
	Q5. Piling Works for noise barrier													
	i. Piling								**112**	**103**	**95**			
		Crane, mobile barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Small diameter bored, reverse circulation drilling rig	166	106	N/A	106	90	1						
	ii. Grouting								**115**	**111**	**102**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Grout Mixer	BS5228: T.9-43	108	N/A	108	98	1						
		Grout Pump	BS5228: T.9-43	108	N/A	108	98	1						
	Q6. Pile Cap Construction for noise barrier													
	i. excavation								**123**	**116**	**113**			

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Level 2 Mitigation = Use of Quiet Plants with Acoustic Barriers

Construction Equipment List			CNP No.	SWL	Ref. No.	SWL	SWL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-10	110	105	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
	ii. placing concrete								**119**	**109**	**103**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
	Q7. Noise Barrier Stem													
	i. Noise Barrier Erection								**115**	**106**	**105**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
	ii. placing concrete								**119**	**107**	**102**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
	Q8 Road formation/Services Excavation for D5 at grade road								**126**	**116**	**113**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
	Q9. Laying of Drains and Services for D5 at grade road								**121**	**113**	**109**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Compactor,vibratory	050	105	050	105	100	2						
	Q10. Surfacing for D5 at grade road								**119**	**116**	**111**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	2						
		Asphalt paver	004	109	BS5228: T.11-26	108	103	2						
	Q11. Footway for D5 at grade road								**121**	**111**	**109**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
WC15	***Roads and drains at area 4 and 5***											**126**	**120**	**115**
	Q1 Road formation/Services Excavation for Road L9 and L12								**126**	**116**	**113**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
	Q2. Laying of Drains and Services for Road L9 and L12								**121**	**113**	**109**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Compactor,vibratory	050	105	050	105	100	2						
	Q3. Surfacing for Road L9 and L12								**119**	**116**	**111**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	2						
		Asphalt paver	004	109	BS5228: T.11-26	108	103	2						
	Q4. Footway for Road L9 and L12								**121**	**110**	**107**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
	Group 1. Bridge Construction for FB17, FB18 and FB23													
	Q5. Piling Works													
	i. excavation								**124**	**120**	**115**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Piling, large diameter borer	164/165	115	N/A	115	105	2						
		Excavator loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
	ii. placing concrete								**119**	**110**	**105**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	2						
	Q6. Pile Cap Construction													
	i. excavation								**125**	**118**	**115**			
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-10	110	105	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
	ii. placing concrete								**121**	**111**	**105**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						

Table 3.1.4 Contruction Noise Assessment - Equipment Lists and Predicted Noise Levels of Work Packages

SWL = Sound Power Level
PNL = Predicted Noise Level
Level 1 Mitigation = Use of Quiet Plants
Level 2 Mitigation = Use of Quiet Plants with Acoustic Barriers

Construction Equipment List			CNP No.	SWL	Ref. No.	SWL	SWL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
	Q7. Bridge Pier Construction													
	i. temporary works								**115**	**102**	**97**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
	ii. placing concrete													
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	3						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	3						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
	Q8. Superstructure Construction													
	i. temporary works								**115**	**102**	**97**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
	ii. placing concrete								**122**	**113**	**108**			
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	4						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
WC16	***Roads and Drains at area 5 and 6***											**126**	**119**	**113**
	Group 3. Road Works D4, D5 and L10													
	Q1 Road formation/Services Excavation								**126**	**117**	**113**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	3						
	Q2. Laying of Drains and Services													
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2	**122**	**113**	**108**			
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	3						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	3						
		Compactor,vibratory	050	105	050	105	100	1						
	Q3. Surfacing								**119**	**116**	**111**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	2						
		Asphalt paver	004	109	BS5228: T.11-26	108	103	2						
	Q4. Footway								**121**	**111**	**107**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
	Bridge Construction for FB22, FB24 and also travellator to Ngan Tau Kok MTR station													
	Q5. Piling Works													
	i. excavation								**122**	**119**	**113**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Piling, large diameter bored	164/165	115	N/A	115	105	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
	ii. placing concrete								**118**	**110**	**105**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	3						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	2						
	Q6. Pile Cap Construction													
	i. excavation								**123**	**117**	**113**			
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-10	110	105	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
	ii. placing concrete								**120**	**110**	**103**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
	Q7. Bridge Pier Construction													
	i. temporary works								**115**	**102**	**97**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
	ii. placing concrete								**121**	**112**	**107**			
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
	Q8. Superstructure Construction													
	i. temporary works								**115**	**102**	**97**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
	ii. placing concrete								**122**	**112**	**107**			
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	3						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	3						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
	Q9. Travellator Subway													
	Excavation and Formation								**124**	**116**	**113**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						

Table 3.1.4 Contruction Noise Assessment - Equipment Lists and Predicted Noise Levels of Work Packages

SWL = Sound Power Level
PNL = Predicted Noise Level
Level 1 Mitigation = Use of Quiet Plants
Level 2 Mitigation = Use of Quiet Plants with Acoustic Barriers

Construction Equipment List			CNP No.	SWL	Ref. No.	SWL	SWL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
	Pipe Pile Tunnel Construction								**119**	**114**	**108**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
#NAME?		Grout Mixer	BS5228: T.9-13	108	N/A	108	98	1						
		Grout Pump	BS5228: T.9-13	108	N/A	108	98	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
	Bored Pile Wall													
		i. Piling							**119**	**112**	**111**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Bored piling, reverse circulation	166	100		0		1						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		ii. placing concrete							**115**	**107**	**102**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Concreting								**121**	**112**	**108**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
	Surfacing /Services								**122**	**115**	**113**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
	E&M:Finishing								**115**	**106**	**105**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
WC17	***Roads and Drains at Area 6C***											**126**	**118**	**115**
	Bridge Construction over existing Nullah and footbridge FB27													
	Q1. Piling Works													
	i. excavation								**124**	**115**	**114**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Piling, large diameter bored	164/165	115		0		2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
	ii. placing concrete								**118**	**110**	**105**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	2						
	Q2. Pile Cap Construction													
	i. excavation								**124**	**118**	**115**			
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-10	110	105	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
	ii. placing concrete								**120**	**110**	**111**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	108	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
	Q3. Bridge Pier Construction													
	i. temporary works								**115**	**102**	**97**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
	ii. placing concrete								**121**	**112**	**107**			
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
	Q4. Superstructure Construction													
	i. temporary works								**115**	**102**	**97**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
	ii. placing concrete								**122**	**112**	**107**			
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	3						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	3						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
	Q5. Carriageway Construction													
	i. placing asphalt								**115**	**114**	**113**			
		Road roller	185	108	BS5228: T.11-27	104	99	1						
		Asphalt paver	004	109	BS5228: T.11-36	108	103	1						
		Lorry	141	112	141	112	112	1						
	Road Works for local roads linking to Hoi Bun Road and Wai Yip street													
	Q6. Road formation/Services Excavation								**126**	**116**	**113**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-12	110	105	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
	Q7. Laying of Drains and Services								**122**	**113**	**109**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	3						
		Compactor,vibratory	050	105	050	105	100	2						

Table 3.1.4 Contruction Noise Assessment - Equipment Lists and Predicted Noise Levels of Work Packages

SWL = Sound Power Level
PNL = Predicted Noise Level
Level 1 Mitigation = Use of Quiet Plants
Level 2 Mitigation = Use of Quiet Plants with Acoustic Barriers

Construction Equipment List			CNP No.	SWL	Ref. No.	SWL	SWL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
	Q8. Surfacing								**119**	**115**	**111**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T 7-24	108	102	2						
		Lorry	141	112	BS5228: T 7-59	105	105	1						
		Roller, vibratory	186	108	BS5228 T.11-27	104	99	2						
		Asphalt paver	004	109	BS5228 T.11-26	108	102	2						
	Q9. Footway								**121**	**111**	**107**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T 7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T 9-33	96	91	2						
		Air compressor,standard	001	109	BS5228 T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T 9-20	102	97	3						
WC18	***Sewerage pumping station in Area 4 and 5***													
	!!Plant listed are per pumping station!!											**123**	**117**	**113**
	Q1 temporary works								**112**	**99**	**94**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
	Q2. Piling Works													
	i. excavation								**121**	**117**	**112**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Preboring, oscillatory	165	115	N/A	115	105	1						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T 7-24	108	102	1						
		Dump truck	067	117	BS5228: T 7-60	110	110	1						
	ii. placing grout								**115**	**111**	**102**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Grout Mixer	BS5228: T 9-13	108	N/A	108	98	1						
		Grout Pump	BS5228: T 9-13	108	N/A	108	98	1						
	Q3. Pile Cap Construction													
	i. excavation								**123**	**116**	**113**			
		Air compressor,standard	001	109	BS5228 T.7-101	100	90	1						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-19	110	105	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T 7-24	108	102	1						
		Dump truck	067	117	BS5228: T 7-60	110	110	1						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Water Pump (petrol)	282	103	BS5228: T 7-86	100	90	2						
	ii. placing concrete								**120**	**111**	**105**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Concrete lorry mixer	044	109	BS5228: T 9-33	96	91	2						
		Air compressor,standard	001	109	BS5228 T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T 9-20	102	97	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Q4. Superstructure Construction													
	i. temporary works								**112**	**99**	**94**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
	ii. placing concrete								**119**	**110**	**105**			
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228 T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
WC19	***Sewerage pumping station in Area 5 and 6***													
	!!Similar to WC18 above!!													
WC20	***Hinterland Junctions Improvement***													
	!!Similar to WA22!!													

AGREEMENT NO. CE.32/99 COMPREHENSIVE FEASIBILITY STUDY FOR THE REVISED SCHEME OF SOUTH EAST KOWLOON DEVELOPMENT

APPENDIX 3.1 CONSTRUCTION NOISE ASSESSMENT

Table 3.1.4 Contruction Noise Assessment - Equipment Lists and Predicted Noise Levels of Work Packages

SWL = Sound Power Level
PNL = Predicted Noise Level
Level 1 Mitigation = Use of Quiet Plants
Level 2 Mitigation = Use of Quiet Plants with Acoustic Barriers

Construction Equipment List			CNP No.	SWL	Ref. No.	SWL	SWL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
				dB(A)		dB(A)		dB(A)	dB(A)	dB(A)	dB(A)			
WD11	*Reclamation at Kowloon Bay - Stage 1*											128	119	118
	Q1 demolition of structures								128	119	116			
		Air compresser,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	2						
		Breaker, hand-held (pneumatic)	022	117	BS5228: T.6-10	110	105	3						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
	Q2 demolition of armour rock								111	111	110			
		Derrick barge	061	104	061	104	99	1						
		Tug Boat	221	110	221	110	110	1						
	Q3 Temporary Drain Diversion								123	116	112			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compresser,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	4						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Q4. Reclamation/Advance Earth Bund								125	119	118			
		Derrick barge	061	104	061	104	99	2						
		Tug Boat	221	110	221	110	110	1						
		Split Barge	061	104	061	104	99	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	5						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Roller, Vibratory	186	108	BS5228: T.7-116	106	101	2						
WD12	*Reclamation at Kowloon Bay - Stage 2*											125	119	118
	Q1 demolition of structures								125	117	113			
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Breaker, hand-held (pneumatic)	022	117	BS5228: T.6-10	110	105	2						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
	Q2 Temporary Drain Diversion								121	114	112			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Q3. Reclamation								125	119	118			
		Derrick barge	061	104	061	104	99	2						
		Tug Boat	221	110	221	110	110	1						
		Split Barge	061	104	061	104	99	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	5						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Roller, Vibratory	186	108	BS5228: T.7-116	106	101	1						
WD13	*Trunk Drain R - Stage 3*											127	119	116
	Q1 Excavation and Foundation for culvert construction								127	119	116			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	16						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.9-18	109	104	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
	Q2. Concreting for culvert construction								123	113	109			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	12						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Q3. Surfacing /Services for culvert construction								122	115	113			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
WD14	*Trunk Drains in Area 3 Stage 1*											126	117	113
	!!Plants listed are for culvert S only; other culverts are similar!!													
	!!A separate set of plants for culverts Q, P2 on earth bund and upstream of P2 are required!!													
	Q1 Excavation and Foundation for multicells box culvert S								125	116	111			
		Excavator loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	1						
		Dump truck	067	117	BS5228: T.12-59	103	103	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	12						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
	Q2. Concreting for multicells box culvert S								122	114	109			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	3						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	12						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	3						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Q3. Surfacing /Services for multicells box culvert S								122	115	113			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Excavator loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						

Table 3.1.4 Contruction Noise Assessment - Equipment Lists and Predicted Noise Levels of Work Packages

SWL = Sound Power Level
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Level 2 Mitigation = Use of Quiet Plants with Acoustic Barriers

Construction Equipment List			CNP No.	SWL	Ref. No.	SWL	SWL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silencod,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
	Q4. Backfilling to temporary open channel and reinstatement								124	117	112			
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T.6-10	110	105	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		Excavator-loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Dump truck	067	117	BS5228: T.12-39	103	105	2						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	2						
WD15	***Trunk Drains in Area 3 Stage 2***													
	!!Same as WD14 above!!													
WD16	**Provision of Public Pier**													
	!!Same as WD20,21!!													
WD17	**Reprovision of Buoys**											**124**	**115**	**113**
									111	111	110			
		Derrick Barge	061	104	061	104	99	1						
		Tug Boat	221	110	221	110	110	1						
	Q1. Excavation and Formation								124	115	113			
		Excavator-loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
	Q2. Concreting								120	112	108			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Q3. Surfacing /Services								122	115	113			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Excavator-loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
WD18	***Drainage improvement at hinterland***													
	!!1 set of plants listed as follow at each culvert location!!											**122**	**112**	**107**
	Q1. Excavation and Formation								122	112	107			
		Excavator-loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	1						
	Q2. Concreting								118	108	102			
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
	Q3. Surfacing /Services								118	111	106			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	102	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	1						
WD19	***Road D4 - Stage 2***											**127**	**118**	**115**
	Q1. Diaphragm Walling Works for D4 tunnel box													
	i. excavation													
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2	127	118	115			
		Piling, diaphragm wall,bentonite filtering plant	162	105	162	105	100	2						
		Piling, diaphragm wall,hydraulic extractor	163	90	163	90	85	2						
		Excavator loader,wheeled-tracked	081	112	BS5228: T.7-24	108	102	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
	ii. placing concrete								117	112	107			
		Piling, diaphragm wall,bentonite filtering plant	162	105	162	105	100	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	3						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	2						
	Q2. Excavation and Strutting for tunnel box								123	116	114			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	3						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Dump truck	067	117	BS5228: T.7-60	110	110	2						
	Q3. Box Tunnel Construction for tunnel box													
	i. Base Preparation													
		Lorry	141	112	BS5228: T.7-59	105	105	1	118	114	110			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Compactor,vibratory	050	105	050	105	100	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
	ii. placing concrete								122	113	107			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	3						

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Construction Equipment List			CNP No.	SWL	Ref. No.	SWL	SWL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	3						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	2						
	Q4. Backfilling/Surfacing /Services for tunnel box								**124**	**117**	**116**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	4						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	3						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
	Q5 Road formation/Services Excavation								**124**	**114**	**112**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-12	110	105	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	1						
	Q6. Laying of Drains and Services								**120**	**111**	**108**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Compactor,vibratory	050	105	050	105	100	1						
	Q7. Surfacing for Road								**117**	**113**	**109**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Asphalt paver	004	109	BS5228: T.11-26	108	103	1						
	Q8. Footway for Road								**118**	**108**	**106**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	1						
	Q9. Piling Works for noise barrier													
		i. Piling							**103**	**110**	**104**			
		Crane, mobile/barge mounted (diesel)	BS5228: T.10-118	99	94	109	104	1						
		Small diameter bored, reverse circulation drilling rig	166	100	N/A	100	90	1						
		ii. Grouting							**115**	**113**	**106**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.9-18	109	104	1						
		Grout Mixer	BS5228: T.9-13	108	N/A	108	98	1						
		Grout Pump	BS5228: T.9-13	108	N/A	108	98	1						
	Q10. Pile Cap Construction for noise barrier													
		i. excavation							**121**	**115**	**112**			
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Breaker, hand-held (pneumatic)	033	117	BS5228: T.6-10	110	105	1						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	1						
		ii. placing concrete							**119**	**109**	**103**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
	Q11. Noise Barrier Stem/Decking													
		i. Noise Barrier Erection							**115**	**106**	**105**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		ii. placing concrete							**119**	**109**	**107**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
WD28	***Roads and drains at area 3 - Stage 1***											**122**	**116**	**107**
	Q1 Road formation/Services Excavation for Road D1, L7 L15								**122**	**112**	**107**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	1						
	Q2. Laying of Drains and Services								**116**	**109**	**103**			
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	1						
		Compactor,vibratory	050	105	050	105	100	1						
	Q3. Surfacing								**115**	**112**	**107**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Asphalt paver	004	109	BS5228: T.11-26	108	103	1						
	Q4. Footway								**116**	**105**	**99**			
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	1						
	Bridge Construction for FB13 and FB14													

Table 3.1.4 Contruction Noise Assessment - Equipment Lists and Predicted Noise Levels of Work Packages

SWL = Sound Power Level
PNL = Predicted Noise Level
Level 1 Mitigation = Use of Quiet Plants
Level 2 Mitigation = Use of Quiet Plants with Acoustic Barriers

Construction Equipment List			CNP No.	SWL	Ref. No.	SWL	SWL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
	Q5. Piling Works													
	i. excavation								**117**	**116**	**107**			
		Piling, large diameter bored	164/165	115	N/A	115	105	1						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T 7-24	108	103	1						
	ii. placing concrete								**112**	**106**	**101**			
		Concrete lorry mixer	044	109	BS5228: T 9-33	96	91	1						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T 9-36	106	101	1						
	Q6. Pile Cap Construction													
	i. excavation								**119**	**113**	**107**			
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Breaker, hand-held (pneumatic)	023	117	BS5228: T 6-10	110	105	1						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T 7-24	108	103	1						
		Water Pump (petrol)	282	103	BS5228: T 7-86	100	90	1						
	ii. placing concrete								**116**	**106**	**99**			
		Concrete lorry mixer	044	109	BS5228: T 9-33	96	91	1						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T 9-20	102	97	1						
		Water Pump (petrol)	282	103	BS5228: T 7-86	100	90	1						
	Q7. Bridge Pier Construction													
	i. temporary works								**112**	**99**	**94**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
	ii. placing concrete								**116**	**108**	**103**			
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T 9-36	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T 9-33	96	91	1						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T 9-20	102	97	1						
	Q8. Superstructure Construction													
	i. temporary works								**112**	**99**	**94**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
	ii. placing concrete													
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T 9-36	106	101	1	**116**	**108**	**103**			
		Concrete lorry mixer	044	109	BS5228: T 9-33	96	91	1						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T 9-20	102	97	1						
	Q9. Travellator Subway													
	Excavation and Formation								**122**	**112**	**107**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T 7-24	108	103	1						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	1						
		Water Pump (petrol)	282	103	BS5228: T 7-86	100	90	1						
	Pipe Pile Tunnel Construction								**112**	**111**	**101**			
		Grout Mixer	BS5228: T 9-13	108	N/A	108	98	1						
		Grout Pump	BS5228: T 9-13	108	N/A	108	98	1						
		Water Pump (petrol)	282	103	BS5228: T 7-86	100	90	1						
	Bored Pile Wall													
		i. Piling							**112**	**109**	**103**			
		Bored piling, reverse circulation	166	100	N/A	100	90	1						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		ii. placing concrete												
		Concrete lorry mixer	044	109	BS5228: T 9-33	96	91	1						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Concreting								**115**	**106**	**99**			
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	1						
	Surfacing /Services								**117**	**111**	**106**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	1						
WD21	***Roads and Drains at Area 3 - Stage 2***											**127**	**118**	**116**
	Q1 Road formation/Services Excavation for Road D1, L7 L15(include roadwork above travellator)								**127**	**117**	**115**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	2						
		Dump truck	062	117	BS5228: T.7-60	110	110	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
	Q2. Laying of Drains and Services(include temporary diversion at travellator)								**121**	**113**	**109**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	3						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
		Compactor,vibratory	050	105	7/50	105	100	2						
	Q3. Surfacing(include roadwork above travellator)								**119**	**116**	**111**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	2						
		Asphalt paver	094	109	BS5228: T.11-26	108	102	2						
	Q4. Footway(include footway construction above travellator)								**121**	**111**	**107**			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	2						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	2						
		Air compressor,standard	001	109	BS5228: T.7-101	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	3						
	Q5. Travellator Subway													
	Excavation and Formation								**126**	**118**	**116**			
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	2						
		Breaker, excavator mounted (hydraulic)	028	122	BS5228: T.11-13	110	105	2						
		Dump truck	062	117	BS5228: T.7-60	110	110	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112		112	112	1						

Table 3.1.4 Contruction Noise Assessment - Equipment Lists and Predicted Noise Levels of Work Packages

SWL = Sound Power Level
PNL = Predicted Noise Level
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Level 2 Mitigation = Use of Quiet Plants with Acoustic Barriers

Construction Equipment List			CNP No.	SWL	Ref. No.	SWL	SWL		Predicted Noise Level			Max. Noise Level for Work Package		
Package	Description	Construction Equipment	Unmitigated		Level 1 Mitigation		Level 2 Mitigation	Number working simultaneously in 30min	Unmit.	L1 Mit.	L2 Mit.	Unmit.	L1 Mit.	L2 Mit.
	Pipe Pile Tunnel Construction								119	114	109			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	2						
		Grout Mixer	BS5228: T.9-13	108	N/A	108	98	1						
		Grout Pump	BS5228: T.9-12	108	N/A	108	98	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	8						
	Bored Pile Wall													
		i. Piling							119	113	111			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Bored piling, reverse circulation	166	100	N/A	100	90	1						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		ii. placing concrete							115	107	102			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Concrete pump, stationary/lorry mounted	047	109	BS5228: T.9-36	106	101	1						
	Concreting								119	110	107			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Water Pump (petrol)	282	103	BS5228: T.7-86	100	90	2						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
	Surfacing /Services								122	115	113			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
		Excavator/loader,wheeled/tracked	081	112	BS5228: T.7-24	108	103	1						
		Dump truck	067	117	BS5228: T.7-60	110	110	1						
		Roller, vibratory	186	108	BS5228: T.7-116	106	101	1						
		Concrete lorry mixer	044	109	BS5228: T.9-33	96	91	1						
		Air compressor,silenced,75dB(A) at 7m	002	100	BS5228: T.7-101	100	90	1						
		Poker, vibratory, hand-held	170	113	BS5228: T.9-20	102	97	2						
	E&M:Finishing								115	106	105			
		Crane, mobile/barge mounted (diesel)	048	112	BS5228: T.10-118	99	94	1						
		Lorry	141	112	BS5228: T.7-59	105	105	1						
WD22	***Sewerage pumping station in Area 3 - stage 1***													
	!!Similar to WC18!!(plants for laying of rising mains included in WD20)													
WD23	***Sewerage pumping station in Area 3 - stage 2***													
	!!Similar to WC18!!(plants for laying of rising mains included in WD21)													
WD24	***Hinterland Junctions Improvement***													
	!!Similar to WA22!!													

Table 3.1.5 - Unmitigated Scenario at Existing Noise Sensitive Receivers -Rytham Gardens (AP-E1)

Packages	SWL	WP Easting	WP Northing	Noise Sensive Receiver Easting	Noise Sensive Receiver Northing	Distance	Distance Correction	Façade Effect	CNL
Cumulative Impact									
WA11-Max									**63.1**
WA11-1	129	837977	821210	838944	821830	1148.8	-69.20	3	63.1
WA11-2	129	838001	821146	838944	821830	1164.8	-69.32	3	63.0
WA12	130	838090	821097	838944	821830	1125.6	-69.03	3	**64.1**
WA13-Max									**65.0**
WA13-1	128	838271	821335	838944	821830	835.6	-66.44	3	65.0
WA13-2	128	838469	821128	838944	821830	847.6	-66.56	3	64.9
WA13-3	128	838767	820819	838944	821830	1026.3	-68.23	3	63.2
WA13-4	128	838750	820122	838944	821830	1718.9	-72.70	3	58.7
WA13-5	128	838639	821033	838944	821830	853.1	-66.62	3	64.8
WA13-6	128	838294	821294	838944	821830	842.5	-66.51	3	64.9
WA14-Max									**74.9**
WA14-1	126	838713	820958	838944	821830	902.4	-67.11	3	61.8
WA14-2	126	838786	821411	838944	821830	447.5	-61.02	3	67.9
WA14-3	126	838777	821721	838944	821830	199.6	-54.00	3	74.9
WA15-Max									**76.7**
WA15-1	127	838780	821925	838944	821830	189.8	-53.57	3	76.7
WA15-2	127	838815	821622	838944	821830	244.7	-55.77	3	74.5
WA16-Max									**59.6**
WA16-1	124	838195	821360	838944	821830	883.8	-66.93	3	59.6
WA16-2	124	838052	821328	838944	821830	1023.7	-68.20	3	58.4
WA16-3	124	837860	821012	838944	821830	1357.9	-70.66	3	55.9
WA-17-Max									**78.0**
WA17-1	130	839144	821274	838944	821830	591.0	-63.43	3	69.2
WA17-2	130	839039	820923	838944	821830	912.4	-67.20	3	65.4
WA17-3	130	838767	821085	838944	821830	765.3	-65.68	3	66.9
WA17-4	130	838898	821405	838944	821830	427.6	-60.62	3	72.0
WA17-5	130	839109	821695	838944	821830	212.8	-54.56	3	78.0
WA17-6	130	838569	821622	838944	821830	428.7	-60.64	3	72.0
WA17-7	130	838333	821443	838944	821830	723.3	-65.19	3	67.4
WA17-8	130	837678	820846	838944	821830	1603.5	-72.10	3	60.5
WA17-9	130	838770	821428	838944	821830	438.0	-60.83	3	71.8
WA-18-Max									**56.6**
WA18-1	130	838109	820578	838944	818083	2630.6	-76.40	3	56.2
WA18-2	130	837927	820638	838944	818083	2750.2	-76.79	3	55.8
WA18-3	130	838160	820884	838944	818083	2908.8	-77.27	3	55.3
WA18-4	130	838467	821252	838944	818083	3204.2	-78.11	3	54.5
WA18-5	130	838799	821529	838944	818083	3449.4	-78.75	3	53.9
WA18-6	130	838550	820562	838944	818083	2609.8	-75.99	3	56.6
WA20-Max									**48.7**
WA20-1	123	838352	821351	838944	818083	3320.7	-78.42	3	47.5
WA20-2	123	839131	820980	838944	818083	2903.1	-77.26	3	48.7
WA21-1-Max									**49.9**
WA21-1	123	837809	820926	838944	818083	3061.0	-77.72	3	48.2
WA21-2	123	837889	820520	838944	818083	2655.7	-76.48	3	49.5
WA21-3	123	838738	820616	838944	818083	2541.3	-76.10	3	49.9
WB11-Max									**59.2**
WB11-1	128	838915	820045	838944	818083	1962.2	-73.85	3	56.8
WB11-2	128	839215	819757	838944	818083	1695.8	-72.59	3	58.0
WB11-3	128	839534	819450	838944	818083	1488.9	-71.46	3	59.2
WB12 Max									**58.1**
WB12-1	128	840141	819400	838944	818083	1779.7	-73.01	3	58.1
WB12-2	128	840573	818994	838944	818083	1866.4	-73.42	3	57.7
WB-13&20-Max									**56.7**
WB13&20-1	128	840854	818619	838944	818083	1983.6	-73.95	3	56.7
WB13&20-2	128	841172	818225	838944	818083	2232.5	-74.98	3	55.6
WB14-1	129	838778	820063	838944	818083	1986.9	-73.96	3	**57.8**
WB15-Max									**58.3**
WB15-1	128	839215	819913	838944	818083	1850.0	-73.34	3	57.3
WB15-2	128	839022	819725	838944	818083	1643.9	-72.32	3	58.3
WB-16	129	839841	819225	838944	818083	1452.2	-71.24	3	**60.7**
WB-17-Max									**42.8**
WB17-1	113	840741	818413	838944	818083	1827.0	-73.24	3	42.8
WB17-2	113	840916	818182	838944	818083	1974.5	-73.91	3	42.1
WB17-3	113	841067	817981	838944	818083	2125.4	-74.55	3	41.5

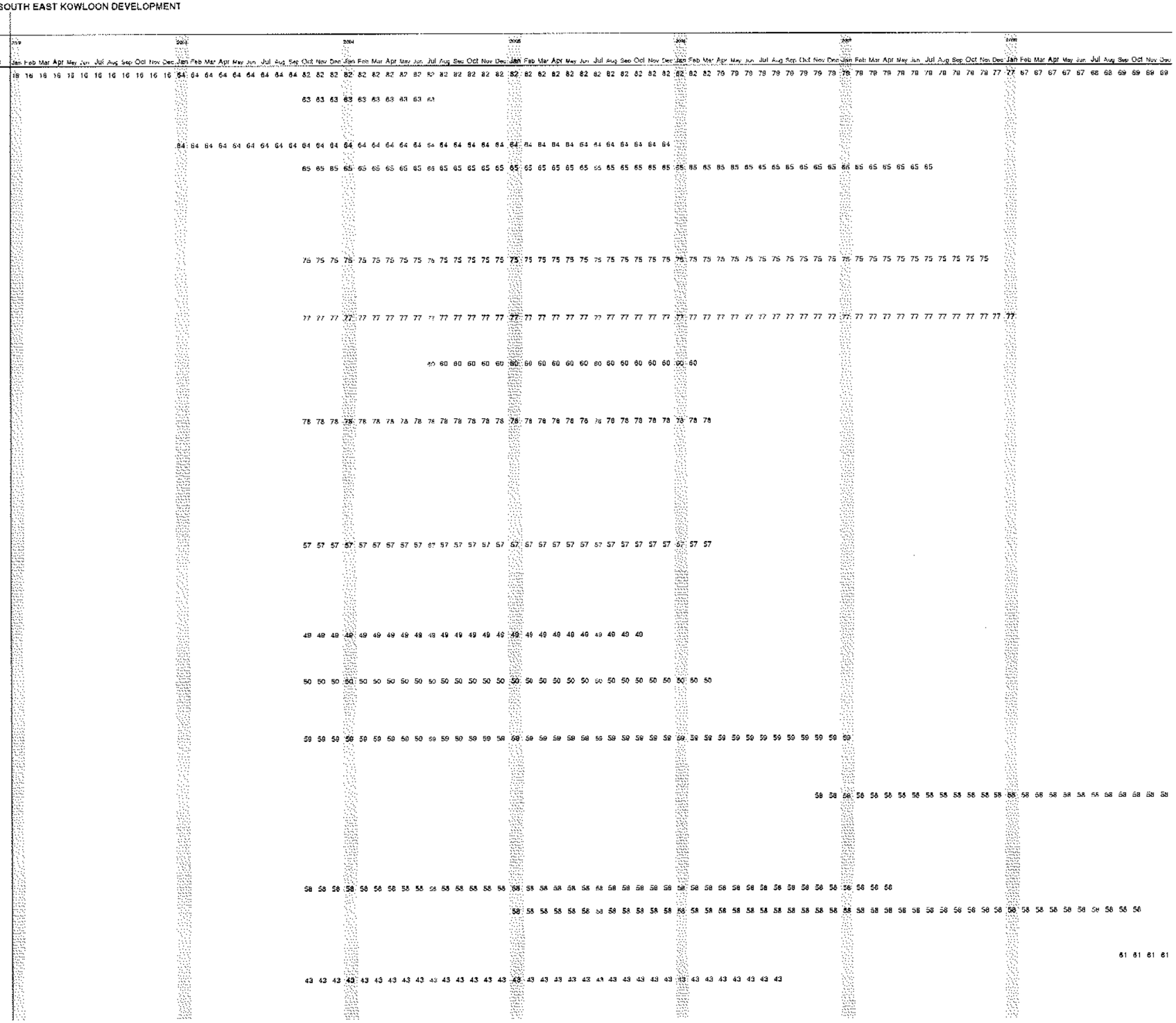


Table 3.1.5 - Unmitigated Scenario at Existing Noise Sensitive Receivers -Rytham Gardens (AP-E1)

Packages	SWL	WP Easting	WP Northing	Noise Sensive Receiver Easting	Noise Sensive Receiver Northing	Distance	Distance Correction	Façade Effect	CNL
Cumulative Impact									
WB18,19-1 - Max									**62.7**
WB18,19-1	128	839827	818703	838944	818083	1078.9	-68.66	3	62.7
WB18,19-2	128	840112	818445	838944	818083	1222.8	69.75	3	61.6
WB21	124	839828	818625	838944	818083	1036.9	-68.31	3	**58.2**
WC11-Max									**56.8**
WC11-1	127	840878	818790	838944	818083	1872.6	-73.45	3	56.8
WC11-2	127	840142	819593	838944	818083	1927.5	-73.70	3	56.6
WC12-Max									**56.2**
WC12-1	126	839067	820302	838944	818083	2222.4	-74.94	3	54.5
WC12-2	126	839325	820044	838944	818083	1997.7	-74.01	3	55.4
WC12-3	126	839565	819792	838944	818083	1818.3	-73.19	3	56.2
WC12-4	126	840032	819593	838944	818083	1851.1	-73.40	3	56.0
WC12-5	126	840287	819350	838944	818083	1846.3	-73.33	3	56.1
WC12-6	126	840543	819060	838944	818083	1873.9	-73.45	3	56.0
WC12-7	126	840727	818785	838944	818083	1919.9	-73.67	3	55.7
WC12-8	126	841036	818430	838944	818083	2120.6	-74.53	3	54.9
WC13-Max									**60.0**
WC13-1	127	838875	819878	838944	818083	1795.3	-73.09	3	56.8
WC13-2	127	839103	819654	838944	818083	1579.0	-71.97	3	57.9
WC13-3	127	839333	819437	838944	818083	1408.8	-70.98	3	58.9
WC13-4	127	839573	819203	838944	818083	1284.5	-70.17	3	59.7
WC13-5	127	839754	819027	838944	818083	1243.9	-69.90	3	60.0
WC14-Max									**56.3**
WC14-1	126	839103	820202	838944	818083	2125.0	-74.55	3	54.5
WC14-2	126	839384	819922	838944	818083	1890.9	-73.53	3	55.5
WC14-3	126	839652	819669	838944	818083	1736.9	-72.80	3	56.3
WC14-4	126	839851	819707	838944	818083	1860.1	-73.39	3	55.7
WC15-Max									**57.2**
WC15-1	126	839110	819891	838944	818083	1815.6	-73.18	3	55.9
WC15-2	126	839305	819733	838944	818083	1689.0	-72.55	3	56.5
WC15-3	126	839486	819539	838944	818083	1553.6	-71.83	3	57.2
WC15-4	126	839629	820003	838944	818083	2038.5	-74.19	3	54.9
WC15-5	126	839744	819634	838944	818083	1745.2	-72.84	3	56.2
WC15-6	126	839961	820133	838944	818083	2092.0	-74.41	3	54.6
WC16-Max									**58.8**
WC16-1	126	839664	819417	838944	818083	1620.5	-72.19	3	56.9
WC16-2	126	839716	819259	838944	818083	1406.8	-70.96	3	58.1
WC16-3	126	840025	819310	838944	818083	1635.3	-72.27	3	56.8
WC16-4	126	840030	819050	838944	818083	1454.1	-71.25	3	57.8
WC16-5	126	840060	818757	838944	818083	1303.7	-70.30	3	58.8
WC16-6	126	839840	819218	838944	818083	1446.8	-71.21	3	57.9
WC17-Max									**55.3**
WC17-1	126	840951	818777	838944	818083	2123.6	-74.54	3	54.5
WC17-2	126	840734	818920	838944	818083	1976.0	-73.92	3	55.1
WC17-3	126	840540	819182	838944	818083	1937.8	-73.75	3	55.3
WC-18	123	839207	820039	838944	818083	1973.6	-73.91	3	**52.0**
WC19-Max									**55.1**
WC19-1	123	840259	819333	838944	818083	1814.3	-73.17	3	52.7
WC19-2	123	840050	818914	838944	818083	1383.4	-70.82	3	55.1
WC21-Max									**53.9**
WC21-1	126	838734	820362	838944	818083	2288.7	-75.19	3	53.9
WC21-2	126	838772	820388	838944	818083	2311.4	-75.28	3	53.8
WC21-3	126	838966	820630	838944	818083	2547.1	-76.12	3	52.9
WC21-4	126	839027	820426	838944	818083	2344.5	-75.40	3	53.6
WC21-5	126	839142	820350	838944	818083	2275.6	-75.14	3	53.9
WD11-Max									**59.4**
WD11-1	128	838271	819405	838944	818083	1483.4	-71.43	3	59.4
WD11-2	128	838593	819600	838944	818083	1557.1	-71.85	3	58.9
WD11-3	128	838098	819777	838944	818083	1893.5	-73.55	3	57.2
WD12-Max									**58.4**
WD12-1	125	838094	819132	838944	818083	1350.1	-70.61	3	57.5
WD12-2	125	838221	819060	838944	818083	1215.4	-69.69	3	58.4
WD13	127	838739	819637	838944	818083	1567.5	-71.90	3	**58.2**
WD14-Max									**56.8**
WD14-1	125	838217	820256	838944	818083	2291.4	-75.20	3	53.0
WD14-2	125	838288	820094	838944	818083	2115.3	-74.51	3	53.7

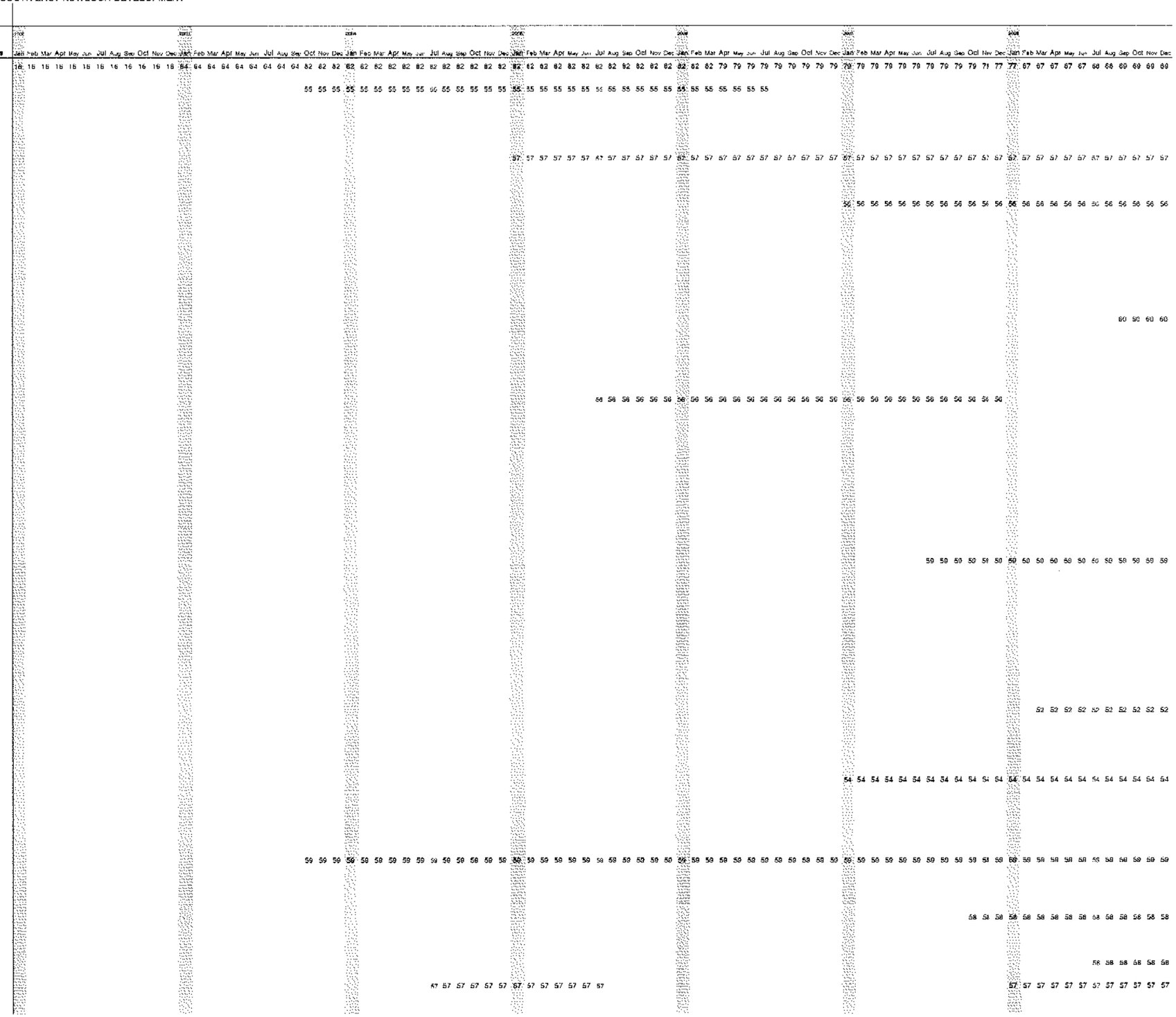


Table 3.1.5 - Unmitigated Scenario at Existing Noise Sensitive Receivers -Rytham Gardens (AP-E1)

Packages	SWL	WP Easting	WP Northing	Noise Sensive Receiver Easting	Noise Sensive Receiver Northing	Distance	Distance Correction	Façade Effect	CNL
Cumulative Impact									
WD14-3	125	838227	819740	838944	818083	1805.5	-73.13	3	55.1
WD14-4	125	838367	819480	838944	818083	1511.5	-71.59	3	56.6
WD14-5	125	838852	819562	838944	818083	1481.9	-71.42	3	56.8
WD14-6	125	838135	819320	838944	818083	1478.1	-71.39	3	56.8
WD14-7	125	837955	819443	838944	818083	1681.6	-72.51	3	55.7
WD14-8	125	838172	820056	838944	818083	2118.7	-74.52	3	53.7
WD15-Max									**57.8**
WD15-1	125	837928	818917	838944	818083	1314.5	-70.37	3	57.8
WD15-2	125	837825	819104	838944	818083	1514.5	-71.61	3	56.6
WD16	124	838534	819510	838944	818083	1484.7	-71.43	3	**55.1**
WD17	124	838705	819070	838944	818083	1015.5	-68.13	3	**59.0**
WD18-Max									**53.5**
WD18-1	122	837770	819132	838944	818083	1574.4	-71.94	3	53.5
WD18-2	122	837726	819265	838944	818083	1697.2	-72.59	3	52.9
WD18-3	122	837934	819702	838944	818083	1908.2	-73.61	3	51.9
WD18-4	122	837995	819821	838944	818083	1980.2	-73.93	3	51.5
WD19-Max									**56.9**
WD19-1	127	838453	819917	838944	818083	1898.5	-73.57	3	56.3
WD19-2	127	838310	819736	838944	818083	1770.4	-72.96	3	56.9
WD19-3	127	838050	819647	838944	818083	1801.5	-73.11	3	56.8
WD20-Max									**54.2**
WD20-1	122	838364	819627	838944	818083	1649.3	-72.35	3	53.1
WD20-2	122	838115	819429	838944	818083	1580.8	-71.98	3	53.5
WD20-3	122	837961	819163	838944	818083	1460.4	-71.29	3	54.2
WD20-4	122	838135	820310	838944	818083	2369.4	-75.49	3	50.0
WD20-5	122	838128	820026	838944	818083	2107.4	-74.47	3	51.0
WD20-6	122	838029	819819	838944	818083	1962.4	73.86	3	51.6
WD20-7	122	837934	819586	838944	818083	1810.8	-73.16	3	52.3
WD20-8	122	837781	819463	838944	818083	1804.7	-73.13	3	52.3
WD20-9	122	837978	819805	838944	818083	1974.4	-73.91	3	51.6
WD20-10	122	837924	819655	838944	818083	1873.9	-73.46	3	52.0
WD20-11	122	838106	819750	838944	818083	1865.8	-73.42	3	52.0
WD20-12	122	837678	819286	838944	818083	1746.4	-72.84	3	52.6
WD21-Max									**59.5**
WD21-1	127	838022	818947	838944	818083	1263.6	-70.03	3	59.5
WD21-2	127	837556	819562	838944	818083	2028.3	-74.14	3	55.4
WD22	123	837965	819514	838944	818083	1733.8	-72.78	3	**53.1**
WD23	123	837866	819203	838944	818083	1554.5	-71.83	3	**54.0**

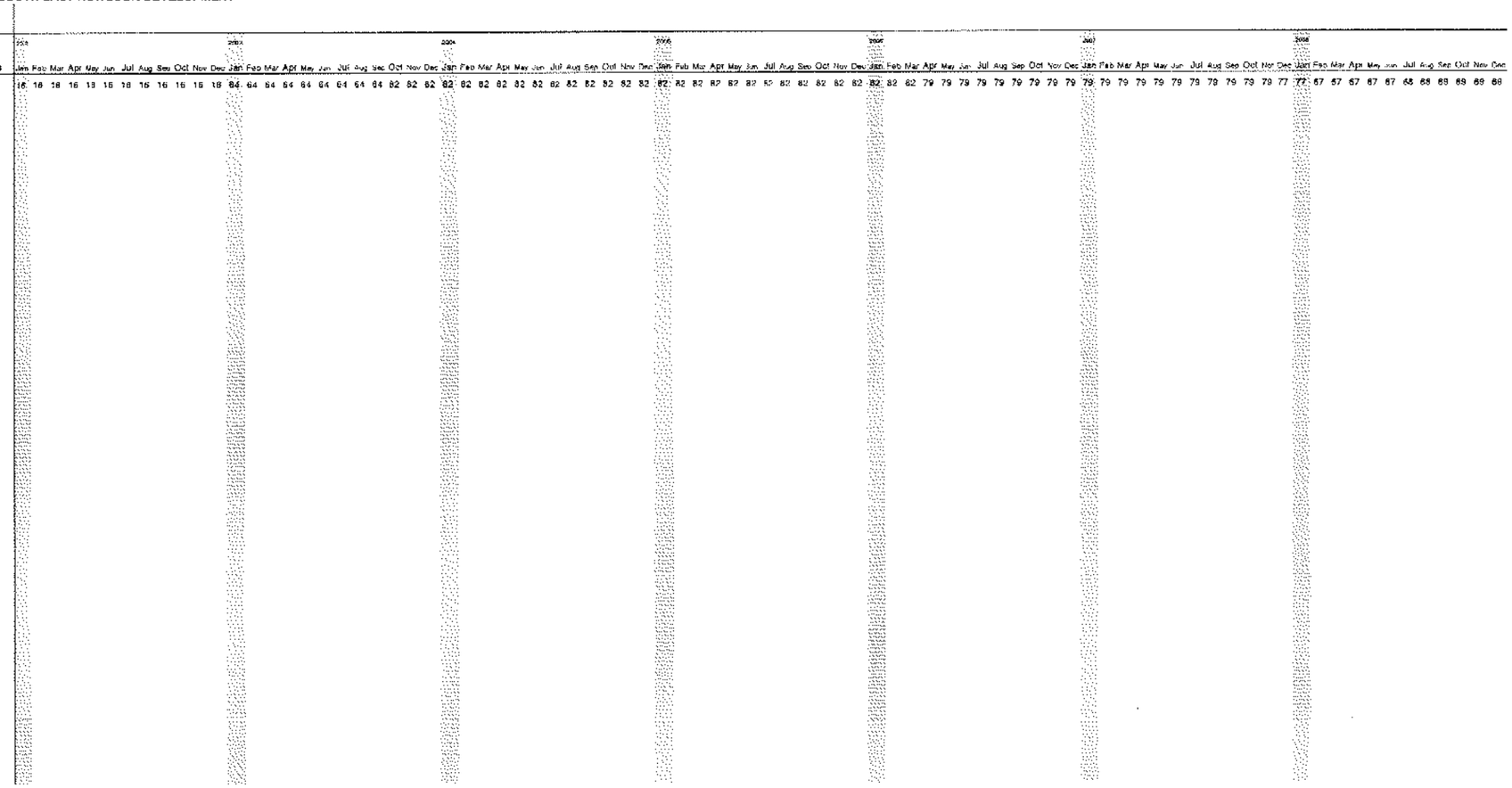


Table 3.1.5 - Unmitigated Scenario at Existing Noise Sensitive Receivers -Rytham Gardens (AP-E1)

		WP		Noise Sensive Receiver					
Packages	**SWL**	**Easting**	**Northing**	**Easting**	**Northing**	**Distance**	**Distance Correction**	**Façade Effect**	**CNL**
Cumulative Impact									
WA11-Max									**63.1**
WA11-1	129	837977	821210	838944	821830	1148.8	-69.20	3	63.1
WA11-2	129	838001	821146	838944	821830	1164.8	-69.32	3	63.0
WA12	130	838090	821097	838944	821830	1125.6	-69.03	3	**64.1**
WA13-Max									**65.0**
WA13-1	128	838271	821335	838944	821830	835.6	-66.44	3	65.0
WA13-2	128	838469	821128	838944	821830	847.6	-66.56	3	64.9
WA13-3	128	838767	820819	838944	821830	1026.3	-68.23	3	63.2
WA13-4	128	838750	820122	838944	821830	1718.9	-72.70	3	58.7
WA13-5	128	838639	821033	838944	821830	853.1	-66.62	3	64.8
WA13-6	128	838294	821294	838944	821830	842.5	-66.51	3	64.9
WA14-Max									**74.9**
WA14-1	126	838713	820958	838944	821830	902.4	-67.11	3	61.8
WA14-2	126	838786	821411	838944	821830	447.5	-61.02	3	67.9
WA14-3	126	838777	821721	838944	821830	199.6	-54.00	3	74.9
WA15-Max									**76.7**
WA15-1	127	838780	821925	838944	821830	189.8	-53.57	3	76.7
WA15-2	127	838815	821822	838944	821830	244.7	-55.77	3	74.5
WA16-Max									**59.6**
WA16-1	124	838195	821360	838944	821830	883.8	-68.93	3	59.6
WA16-2	124	838052	821328	838944	821830	1023.7	-68.20	3	58.4
WA16-3	124	837860	821012	838944	821830	1357.9	-70.66	3	55.9
WA-17-Max									**78.0**
WA17-1	130	839144	821274	838944	821830	591.0	-63.43	3	69.2
WA17-2	130	839039	820923	838944	821830	912.4	-67.20	3	65.4
WA17-3	130	838767	821085	838944	821830	765.3	-65.68	3	66.9
WA17-4	130	838898	821405	838944	821830	427.6	-60.62	3	72.0
WA17-5	130	839109	821695	838944	821830	212.8	-54.56	3	78.0
WA17-6	130	838569	821622	838944	821830	428.7	-60.64	3	72.0
WA17-7	130	838333	821443	838944	821830	723.3	-65.19	3	67.4
WA17-8	130	837678	820846	838944	821830	1603.5	-72.10	3	60.5
WA17-9	130	838770	821428	838944	821830	438.0	-60.83	3	71.8
WA-18-Max									**56.6**
WA18-1	130	838109	820578	838944	818083	2630.6	-76.40	3	56.2
WA18-2	130	837927	820638	838944	818083	2750.2	-76.79	3	55.8
WA18-3	130	838160	820884	838944	818083	2909.8	-77.27	3	55.3
WA18-4	130	838467	821252	838944	818083	3204.2	-78.11	3	54.5
WA18-5	130	838799	821529	838944	818083	3449.4	-78.75	3	53.9
WA18-6	130	838550	820562	838944	818083	2509.8	-75.99	3	56.6
WA20-Max									**48.7**
WA20-1	123	838352	821351	838944	818083	3320.7	-78.42	3	47.5
WA20-2	123	839131	820980	838944	818083	2903.1	-77.26	3	48.7
WA21-1-Max									**49.9**
WA21-1	123	837809	820926	838944	818083	3061.0	-77.72	3	48.2
WA21-2	123	837889	820520	838944	818083	2655.7	-76.48	3	49.5
WA21-3	123	838738	820616	838944	818083	2541.3	-76.10	3	49.9
WB11-Max									**59.2**
WB11-1	128	838915	820045	838944	818083	1962.2	-73.85	3	56.6
WB11-2	128	839216	819757	838944	818083	1695.8	-72.59	3	58.0
WB11-3	128	839534	819450	838944	818083	1488.9	-71.46	3	59.2
WB12-Max									**58.1**
WB12-1	128	840141	819400	838944	818083	1779.7	-73.01	3	58.1
WB12-2	128	840573	818994	838944	818083	1866.4	-73.42	3	57.7
WB-13&20-Max									**56.7**
WB13&20-1	128	840854	818619	838944	818083	1983.8	-73.95	3	56.7
WB13&20-2	128	841172	818225	838944	818083	2232.5	-74.98	3	55.6
WB14-1	129	838778	820063	838944	818083	1986.9	-73.95	3	**57.8**
WB15-Max									**58.3**
WB15-1	128	839215	819913	838944	818083	1850.0	-73.34	3	57.3
WB15-2	128	839022	819725	838944	818083	1643.9	-72.32	3	58.3
WB-16	129	839841	819226	838944	818083	1452.2	-71.24	3	**60.7**
WB-17-Max									**42.8**
WB17-1	113	840741	818413	838944	818083	1827.0	-73.24	3	42.8
WB17-2	113	840916	818182	838944	818083	1974.5	-73.91	3	42.1
WB17-3	113	841067	817981	838944	818083	2125.4	-74.55	3	41.5

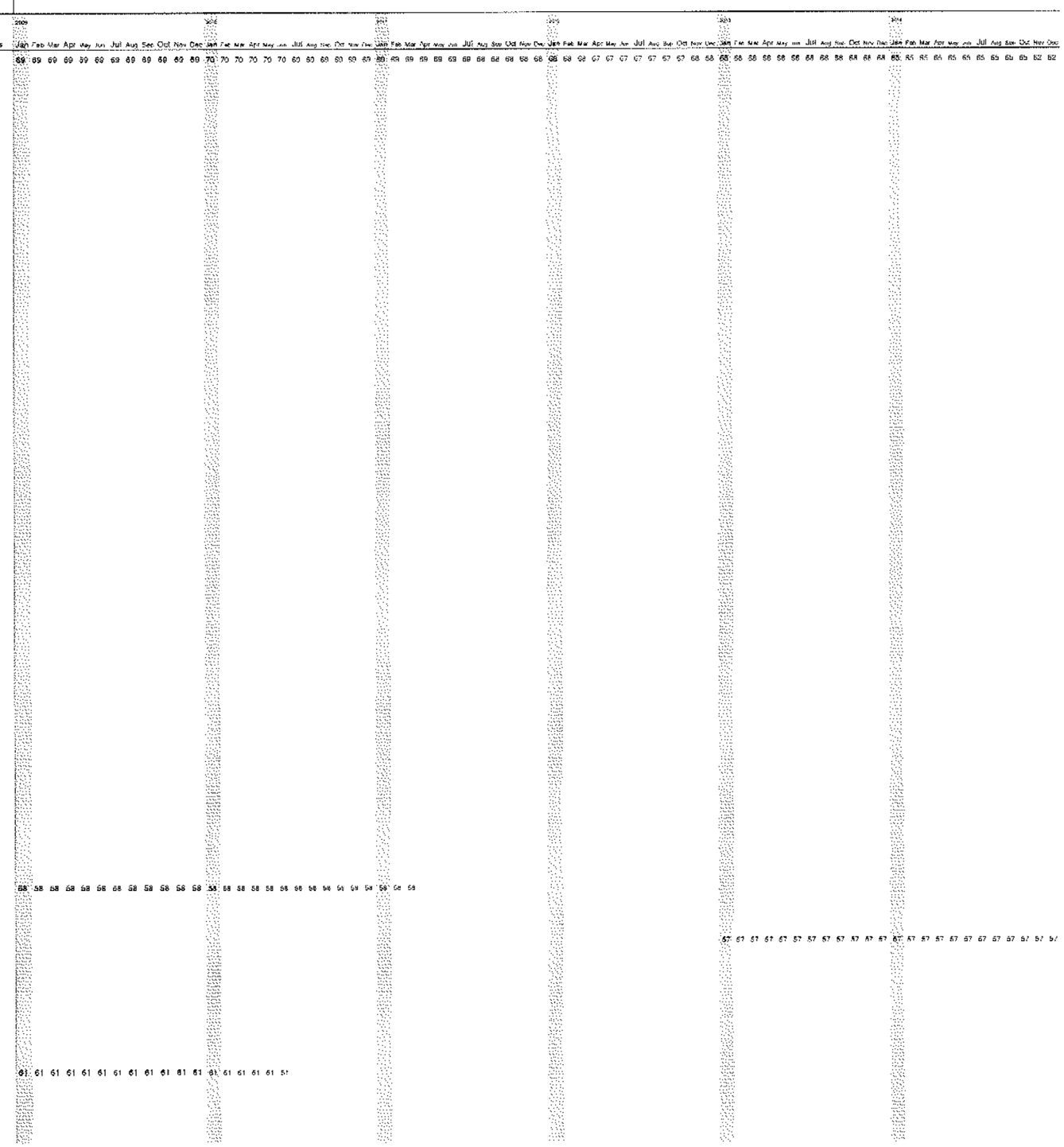


Table 3.1.5 - Unmitigated Scenario at Existing Noise Sensitive Receivers -Rytham Gardens (AP-E1)

Packages	SWL	WP Easting	WP Northing	Noise Sensive Receiver Easting	Noise Sensive Receiver Northing	Distance	Distance Correction	Façade Effect	CNL
Cumulative Impact									
WB18,19-1 - Max									**62.7**
WB18,19-1	128	839827	818703	838944	818083	1078.9	-68.66	3	62.7
WB18,19-2	128	840112	818445	838944	818083	1222.8	-69.75	3	61.6
WB21	124	839828	818625	838944	818083	1036.9	-68.31	3	**58.2**
WC11 Max									**56.8**
WC11-1	127	840678	818790	838944	818083	1872.6	-73.45	3	56.8
WC11-2	127	840142	819593	838944	818083	1927.5	-73.70	3	56.6
WC12-Max									**56.2**
WC12-1	126	839067	820302	838944	818083	2222.4	-74.94	3	54.5
WC12-2	126	839325	820044	838944	818083	1997.7	-74.01	3	55.4
WC12-3	126	839565	819792	838944	818083	1818.3	-73.19	3	56.2
WC12-4	126	840032	819593	838944	818083	1861.1	-73.40	3	56.0
WC12-5	126	840287	819350	838944	818083	1846.3	-73.33	3	56.1
WC12-6	126	840543	819060	838944	818083	1873.9	-73.45	3	56.0
WC12-7	126	840727	818795	838944	818083	1919.9	-73.67	3	55.7
WC12-8	126	841036	818430	838944	818083	2120.6	-74.53	3	54.9
WC13-Max									**60.0**
WC13-1	127	838876	819878	838944	818083	1796.3	-73.09	3	56.8
WC13-2	127	839103	819654	838944	818083	1579.0	-71.97	3	57.9
WC13-3	127	839333	819437	838944	818083	1408.8	-70.98	3	58.9
WC13-4	127	839573	819203	838944	818083	1284.5	-70.17	3	59.7
WC13-5	127	839754	819027	838944	818083	1243.9	-69.90	3	60.0
WC14-Max									**56.3**
WC14-1	126	839103	820202	838944	818083	2125.0	-74.55	3	54.5
WC14-2	126	839384	819922	838944	818083	1890.9	-73.53	3	55.5
WC14-3	126	839652	819669	838944	818083	1736.9	-72.80	3	56.3
WC14-4	126	839851	819707	838944	818083	1860.1	-73.39	3	55.7
WC15-Max									**57.2**
WC15-1	126	839110	819891	838944	818083	1815.6	-73.18	3	55.9
WC15-2	126	839305	819733	838944	818083	1689.0	-72.55	3	56.5
WC15-3	126	839488	819539	838944	818083	1553.6	-71.83	3	57.2
WC15-4	126	839629	820003	838944	818083	2038.5	-74.19	3	54.9
WC15-5	126	839744	819634	838944	818083	1745.2	-72.84	3	56.2
WC15-6	126	839361	820133	838944	818083	2092.0	-74.41	3	54.6
WC16-Max									**58.8**
WC16-1	126	839864	819417	838944	818083	1620.5	-72.19	3	56.9
WC16-2	126	839716	819259	838944	818083	1406.8	-70.96	3	58.1
WC16-3	126	840025	819310	838944	818083	1635.3	-72.27	3	56.8
WC16-4	126	840030	819050	838944	818083	1454.1	-71.25	3	57.8
WC16-5	126	840060	818757	838944	818083	1303.7	-70.30	3	58.8
WC16-6	126	839840	819219	838944	818083	1446.8	-71.21	3	57.9
WC17-Max									**55.3**
WC17-1	126	840951	818777	838944	818083	2123.6	-74.54	3	54.5
WC17-2	126	840734	818920	838944	818083	1976.0	-73.92	3	55.1
WC17-3	126	840540	819182	838944	818083	1937.8	-73.75	3	55.3
WC-18	123	839207	820039	838944	818083	1973.6	-73.91	3	**52.0**
WC19-Max									**55.1**
WC19-1	123	840259	819333	838944	818083	1814.3	-73.17	3	52.7
WC19-2	123	840050	818914	838944	818083	1383.4	-70.82	3	55.1
WC21-Max									**53.9**
WC21-1	126	838734	820362	838944	818083	2288.7	-75.19	3	53.9
WC21-2	126	838772	820388	838944	818083	2311.4	-75.28	3	53.8
WC21-3	126	838966	820630	838944	818083	2547.1	-76.12	3	52.9
WC21-4	126	839027	820428	838944	818083	2344.5	-75.40	3	53.6
WC21-5	126	839142	820350	838944	818083	2275.6	-75.14	3	53.9
WD11-Max									**59.4**
WD11-1	128	838271	819405	838944	818083	1483.4	-71.43	3	59.4
WD11-2	128	838593	819600	838944	818083	1557.1	-71.85	3	58.9
WD11-3	128	838098	819777	838944	818083	1893.5	-73.55	3	57.2
WD12-Max									**58.4**
WD12-1	125	838094	819132	838944	818083	1350.1	-70.61	3	57.5
WD12-2	125	838221	819060	838944	818083	1215.4	-69.69	3	58.4
WD13	127	838739	819637	838944	818083	1567.5	-71.90	3	**58.2**
WD14-Max									**56.8**
WD14-1	125	838217	820256	838944	818083	2291.4	-75.20	3	53.0
WD14-2	125	838288	820094	838944	818083	2115.3	-74.51	3	53.7

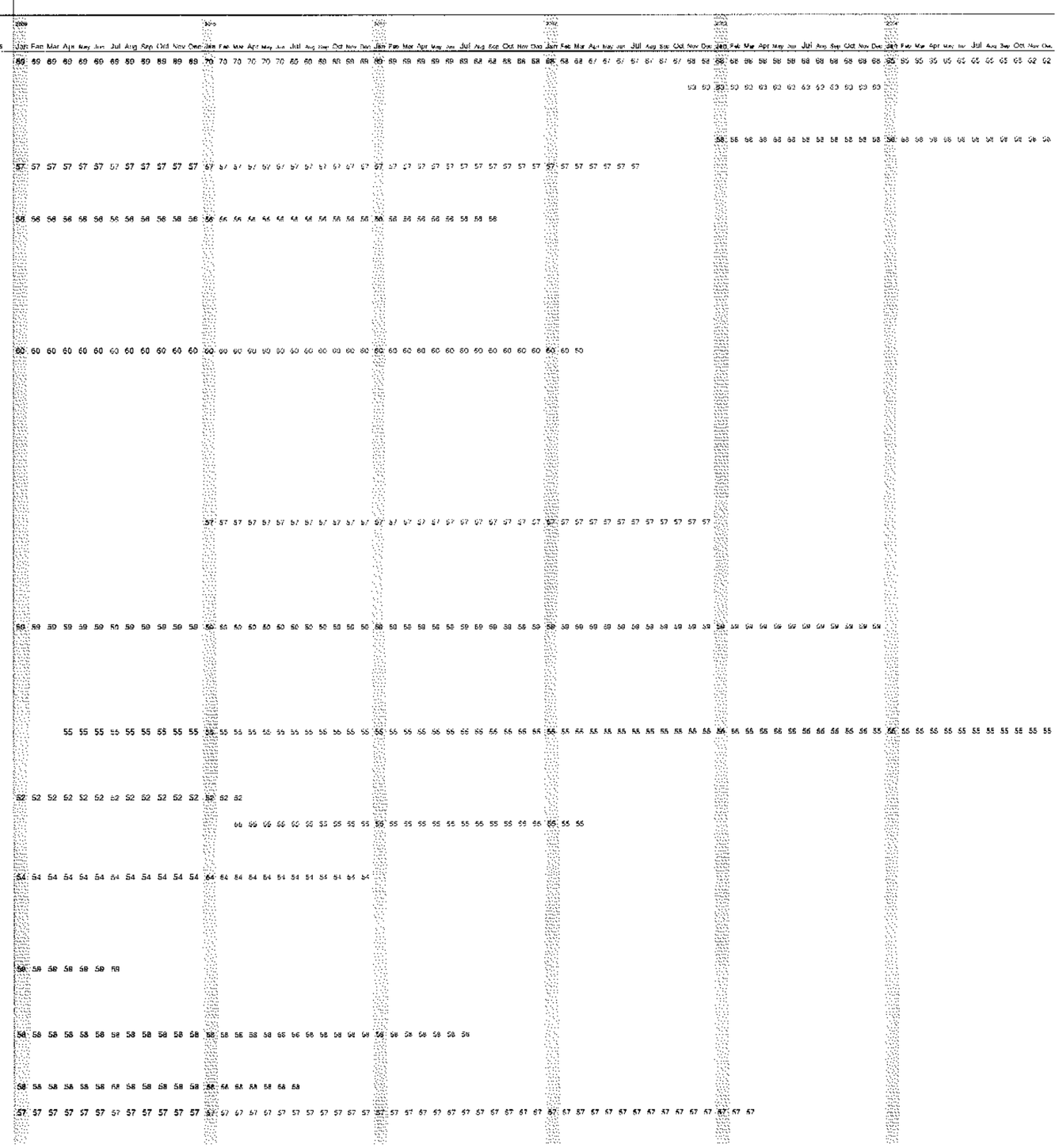


Table 3.1.5 - Unmitigated Scenario at Existing Noise Sensitive Receivers -Rytham Gardens (AP-E1)

Packages	SWL	WP Easting	WP Northing	Noise Sensive Receiver Easting	Noise Sensive Receiver Northing	Distance	Distance Correction	Façade Effect	CNL
Cumulative Impact									
WD14-3	125	838227	819740	838944	818083	1805.5	-73.13	3	55.1
WD14-4	125	838367	819480	838944	818083	1511.5	-71.59	3	56.6
WD14-5	125	838852	819562	838944	818083	1481.9	-71.42	3	56.8
WD14-6	125	838135	819320	838944	818083	1478.1	-71.39	3	56.8
WD14-7	125	837955	819443	838944	818083	1681.6	-72.51	3	55.7
WD14-8	125	838172	820056	838944	818083	2118.7	-74.52	3	53.7
WD15-Max									**57.8**
WD15-1	125	837928	818917	838944	818083	1314.5	-70.37	3	57.8
WD15-2	125	837825	819104	838944	818083	1514.8	-71.61	3	56.6
WD16	124	838534	819510	838944	818083	1484.7	-71.43	3	**55.1**
WD17	124	838705	819070	838944	818083	1015.5	-68.13	3	**59.0**
WD18-Max									**53.5**
WD18-1	122	837770	819132	838944	818083	1574.4	-71.94	3	53.5
WD18-2	122	837726	819265	838944	818083	1697.2	-72.59	3	52.9
WD18-3	122	837934	819702	838944	818083	1908.2	-73.61	3	51.9
WD18-4	122	837995	819821	838944	818083	1990.2	-73.93	3	51.5
WD19-Max									**56.9**
WD19-1	127	838453	819917	838944	818083	1898.6	-73.57	3	56.3
WD19-2	127	838310	819736	838944	818083	1770.4	-72.96	3	56.9
WD19-3	127	838050	819647	838944	818083	1801.5	-73.11	3	56.8
WD20-Max									**54.2**
WD20-1	122	838364	819527	838944	818083	1649.3	-72.35	3	53.1
WD20-2	122	838115	819429	838944	818083	1580.8	-71.98	3	53.5
WD20-3	122	837961	819163	838944	818083	1460.4	-71.29	3	54.2
WD20-4	122	838135	820310	838944	818083	2369.4	-75.49	3	50.0
WD20-5	122	838128	820026	838944	818083	2107.4	-74.47	3	51.0
WD20-6	122	838029	819819	838944	818083	1962.4	-73.86	3	51.6
WD20-7	122	837934	819586	838944	818083	1810.8	-73.16	3	52.3
WD20-8	122	837781	819463	838944	818083	1804.7	-73.13	3	52.3
WD20-9	122	837978	819805	838944	818083	1974.4	-73.91	3	51.6
WD20-10	122	837924	819655	838944	818083	1873.9	-73.46	3	52.0
WD20-11	122	838106	819750	838944	818083	1865.8	-73.42	3	52.0
WD20-12	122	837678	819286	838944	818083	1746.4	-72.84	3	52.6
WD21-Max									**59.5**
WD21-1	127	838022	818947	838944	818083	1263.6	-70.03	3	59.5
WD21-2	127	837556	819562	838944	818083	2028.3	-74.14	3	55.4
WD22	123	837965	819514	838944	818083	1793.6	-72.78	3	**53.1**
WD23	123	837866	819203	838944	818083	1554.5	-71.83	3	**54.0**

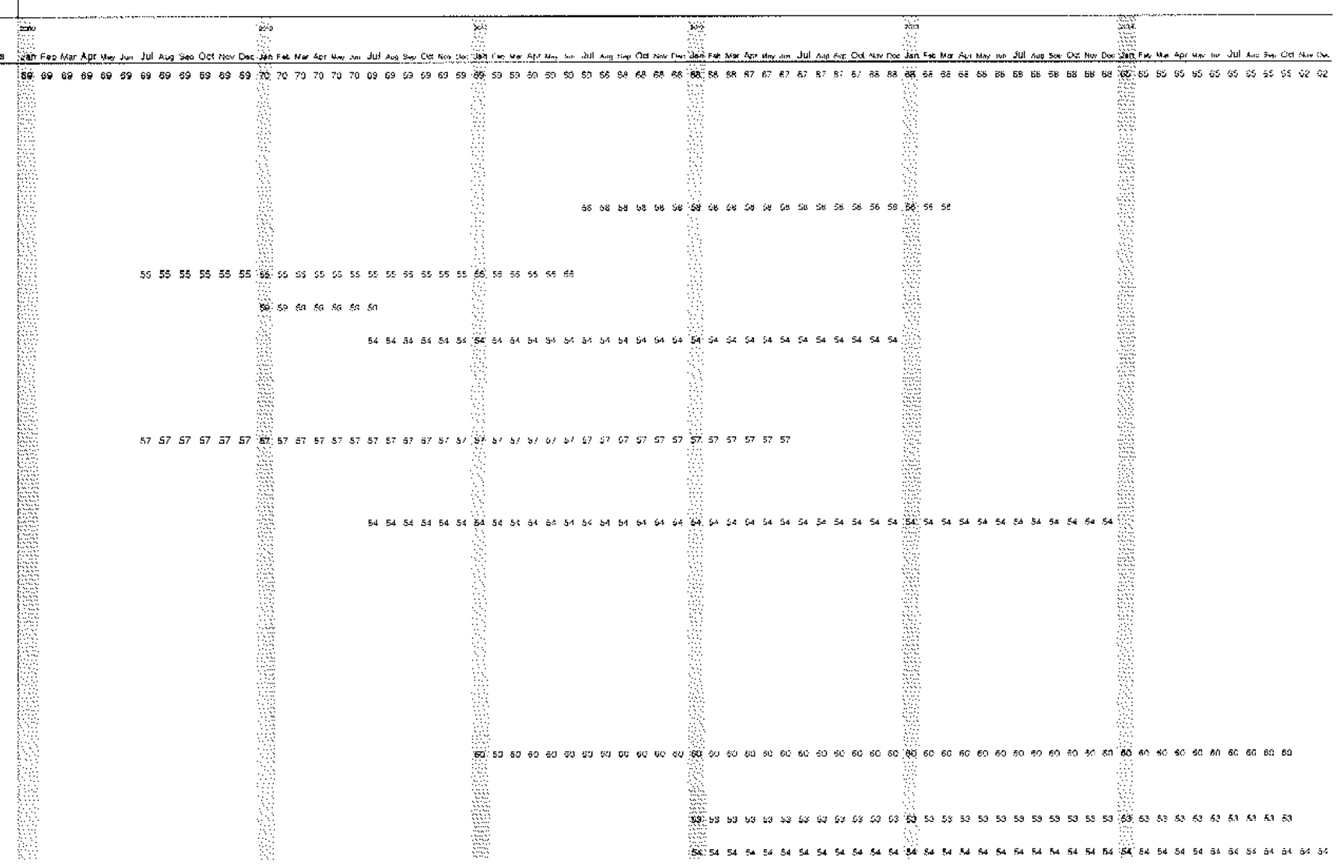
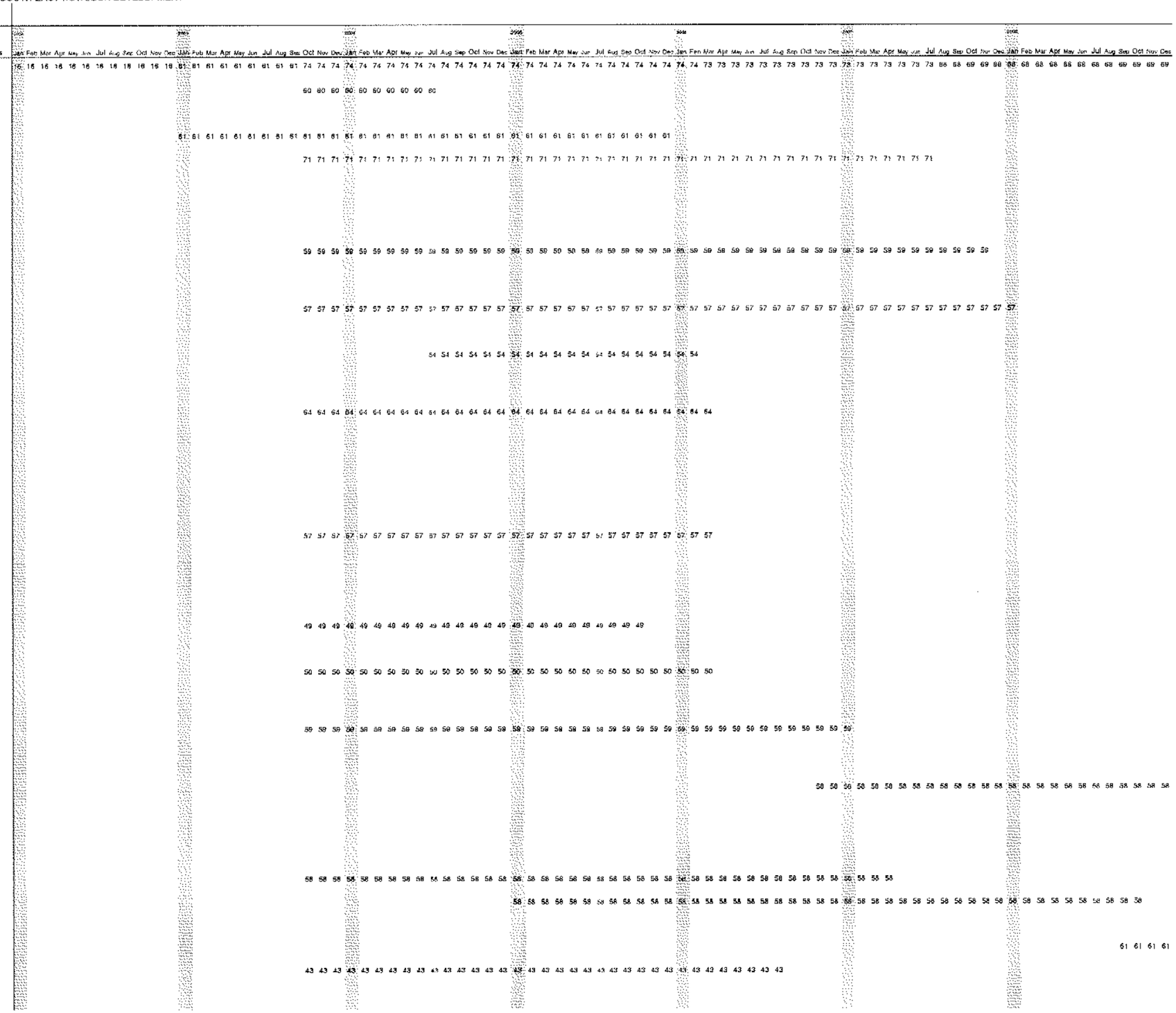


Table 3.1.6 - Unmitigated Scenario for Future Noise Sensitive Receivers- Site 4C &4E (AP-F1)

Packages	SWL	WP Easting	WP Northing	Noise Sensive Receiver Easting	Noise Sensive Receiver Northing	Distance	Distance Correction	Façade Effect	CNL
Cumulative Impact									
WA11-Max									**59.9**
WA11-1	129	837977	821210	839008	819817	1732.5	-72.77	3	59.6
WA11-2	129	838001	821146	839008	819817	1666.8	-72.44	3	59.9
WA12	130	838090	821097	839008	819817	1575.4	-71.95	3	**61.2**
WA13-Max									**71.4**
WA13-1	128	838271	821335	839008	819817	1687.9	-72.55	3	58.9
WA13-2	128	838469	821128	839008	819817	1417.4	-71.03	3	60.4
WA13-3	128	838767	820819	839008	819817	1030.7	-68.26	3	63.2
WA13-4	128	838750	820122	839008	819817	399.6	-60.03	3	71.4
WA13-5	128	838639	821033	839008	819817	1271.2	-70.08	3	61.3
WA13-6	128	838294	821294	839008	819817	1640.5	-72.30	3	59.1
WA14-Max									**59.5**
WA14-1	126	838713	820958	839008	819817	1178.3	-69.42	3	59.5
WA14-2	126	838786	821411	839008	819817	1609.6	-72.13	3	56.8
WA14-3	126	838777	821721	839008	819817	1918.0	-73.66	3	55.2
WA15-Max									**57.1**
WA15-1	127	838780	821925	839008	819817	2120.7	-74.53	3	55.7
WA15-2	127	838815	821622	839008	819817	1815.3	-73.18	3	57.1
WA16-Max									**54.2**
WA16-1	124	838195	821360	839008	819817	1744.0	-72.83	3	53.7
WA16-2	124	838052	821328	839008	819817	1788.3	-73.05	3	53.5
WA16-3	124	837860	821012	839008	819817	1657.0	-72.39	3	54.2
WA-17-Max									**63.7**
WA17-1	130	839144	821274	839008	819817	1463.2	-71.31	3	61.3
WA17-2	130	839039	820923	839008	819817	1106.0	-68.87	3	63.7
WA17-3	130	838767	821085	839008	819817	1291.1	-70.22	3	62.4
WA17-4	130	838898	821405	839008	819817	1591.6	-72.04	3	60.6
WA17-5	130	839109	821695	839008	819817	1881.2	-73.49	3	59.1
WA17-6	130	838569	821622	839008	819817	1857.6	-73.38	3	59.2
WA17-7	130	838338	821443	839008	819817	1760.8	-72.91	3	59.7
WA17-8	130	837678	820846	839008	819817	1681.5	-72.51	3	60.1
WA17-9	130	838770	821428	839008	819817	1628.5	-72.24	3	60.4
WA-18 Max									**56.6**
WA18-1	130	838109	820578	839008	818083	2651.6	-76.47	3	56.1
WA18-2	130	837927	820638	839008	818083	2774.5	-76.86	3	55.7
WA18-3	130	838150	820884	839008	818083	2926.7	-77.33	3	55.3
WA18-4	130	838467	821252	839008	818083	3214.4	-78.14	3	54.5
WA18-5	130	838799	821529	839008	818083	3452.7	-78.76	3	53.8
WA18-6	130	838550	820562	839008	818083	2520.7	-76.03	3	56.6
WA20-Max									**48.7**
WA20-1	123	838352	821351	839008	818083	3332.7	-78.46	3	47.5
WA20-2	123	839131	820980	839008	818083	2899.7	-77.25	3	48.7
WA21-1-Max									**49.8**
WA21-1	123	837809	820926	839008	818083	3085.3	-77.79	3	48.2
WA21-2	123	837889	820520	839008	818083	2681.8	-76.57	3	49.4
WA21-3	123	838738	820616	839008	818083	2547.3	-76.12	3	49.8
WB11-Max									**59.3**
WB11-1	128	838915	820045	839008	818083	1964.2	-73.86	3	56.8
WB11-2	128	839215	819757	839008	818083	1686.7	-72.54	3	58.1
WB11-3	128	839534	819450	839008	818083	1464.7	-71.32	3	59.3
WB12-Max									**58.3**
WB12-1	128	840141	819400	839008	818083	1737.3	-72.80	3	58.3
WB12-2	128	840573	818994	839008	818083	1810.8	-73.16	3	58.0
WB-13&20-Max									**56.9**
WB13&20-1	128	840854	818619	839008	818083	1922.2	-73.68	3	56.9
WB13&20-2	128	841172	818225	839008	818083	2168.7	-74.72	3	55.9
WB14-1	129	838778	820063	839008	818083	1993.3	-73.99	3	**57.8**
WB15-Max									**58.3**
WB15-1	128	839215	819913	839008	818083	1841.7	-73.30	3	57.3
WB15-2	128	839022	819725	839008	818083	1642.1	-72.31	3	58.3
WB-16	129	839841	819225	839008	818083	1413.5	-71.01	3	**61.0**
WB-17-Max									**43.1**
WB17-1	113	840741	818413	839008	818083	1764.1	-72.93	3	43.1
WB17-2	113	840916	818182	839008	818083	1910.6	-73.62	3	42.4
WB17-3	113	841067	817981	839008	818083	2061.5	-74.28	3	41.7



AGRREMENT NO. CE.32/99 COMPREHENSIVE FEASIBILITY STUDY FOR THE REVISED SCHEME OF SOUTH EAST KOWLOON DEVELOPMENT
APPENDIX 3.1 CONSTRUCTION NOISE ASSESSMENT
Table 3.1.6 - Unmitigated Scenario for Future Noise Sensitive Receivers- Site 4C &4E (AP-F1)

Packages	SWL	WP Easting	WP Northing	Noise Sensive Receiver Easting	Noise Sensive Receiver Northing	Distance	Distance Correction	Façade Effect	CNL
Cumulative Impact									
WB18,19-1 - Max									**63.1**
WB18,19-1	126	839827	818703	839008	818083	1027.2	-68.23	3	63.1
WB18,19-2	126	840112	818445	839008	818083	1161.8	-69.30	3	62.0
WB21	124	839828	818625	839008	818083	982.9	-67.85	3	**58.7**
WC11-Max									**57.1**
WC11-1	127	840678	818790	839008	818083	1813.5	-73.17	3	57.1
WC11-2	127	840142	819593	839008	818083	1888.4	-73.52	3	56.8
WC12-Max									**56.3**
WC12-1	126	839067	820302	839008	818083	2219.8	-74.93	3	54.5
WC12-2	126	839325	820044	839008	818083	1986.5	-73.96	3	55.4
WC12-3	126	839565	819792	839008	818083	1797.5	-73.09	3	56.3
WC12-4	126	840032	819593	839008	818083	1824.5	-73.22	3	56.2
WC12-5	126	840287	819350	839008	818083	1800.3	-73.11	3	56.3
WC12-6	126	840543	819060	839008	818083	1819.5	-73.20	3	56.2
WC12-7	126	840727	818795	839008	818083	1860.6	-73.39	3	56.0
WC12-8	126	841036	818430	839008	818083	2057.5	-74.27	3	55.1
WC13-Max									**60.3**
WC13-1	127	838876	819876	839008	818083	1799.8	-73.10	3	56.8
WC13-2	127	839103	819654	839008	818083	1573.9	-71.94	3	57.9
WC13-3	127	839333	819437	839008	818083	1392.5	-70.88	3	59.0
WC13-4	127	839573	819203	839008	818083	1254.4	-69.97	3	59.9
WC13-5	127	839754	819027	839008	818083	1203.2	-69.61	3	60.3
WC14-Max									**58.4**
WC14-1	126	839103	820202	839008	818083	2121.1	-74.53	3	54.5
WC14-2	126	839384	819922	839008	818083	1877.0	-73.47	3	55.6
WC14-3	126	839652	819669	839008	818083	1711.8	-72.67	3	56.4
WC14-4	126	839851	819707	839008	818093	1929.8	-73.25	3	55.8
WC15-Max									**57.3**
WC15-1	126	839110	819891	839008	818083	1810.9	-73.16	3	55.9
WC15-2	126	839305	819733	839008	818083	1676.5	-72.49	3	56.6
WC15-3	126	839486	819539	839008	818083	1592.5	-71.71	3	57.3
WC15-4	126	839629	820003	839008	818083	2017.9	-74.10	3	55.0
WC15-5	126	839744	819634	839008	818083	1716.8	-72.69	3	56.4
WC15-6	126	839361	820133	839008	818083	2080.2	-74.36	3	54.7
WC16-Max									**59.1**
WC16-1	126	839864	819417	839008	818083	1585.0	-72.00	3	57.1
WC16-2	126	839716	819259	839008	818083	1372.7	-70.75	3	58.3
WC16-3	126	840025	819310	839008	818083	1593.7	-72.05	3	57.0
WC16-4	126	840030	819050	839008	818083	1407.0	-70.97	3	58.1
WC16-5	126	840060	818757	839008	818083	1249.4	-69.93	3	59.1
WC16-6	126	839840	819219	839008	818083	1408.1	-70.97	3	58.1
WC17-Max									**55.5**
WC17-1	126	840951	818777	839008	818083	2069.2	-74.29	3	54.8
WC17-2	126	840734	818920	839008	818083	1918.2	-73.66	3	55.4
WC17-3	126	840540	819182	839008	818083	1885.4	-73.51	3	55.5
WC-18	123	839207	820039	839008	818083	1966.1	-73.87	3	**52.0**
WC19-Max									**55.4**
WC19-1	123	840259	819333	839008	818083	1768.5	-72.95	3	52.9
WC19-2	123	840050	818914	839008	818083	1332.8	-70.50	3	55.4
WC21-Max									**53.9**
WC21-1	126	838734	820362	839008	818083	2295.4	-75.22	3	53.8
WC21-2	126	838772	820388	839008	818083	2317.1	-75.30	3	53.8
WC21-3	126	838966	820630	839008	818083	2547.3	-76.12	3	52.9
WC21-4	126	839027	820426	839008	818083	2343.1	-75.40	3	53.7
WC21-5	126	839142	820350	839008	818083	2271.0	-75.12	3	53.9
WD11-Max									**59.2**
WD11-1	128	838271	819405	839008	818083	1513.6	-71.60	3	59.2
WD11-2	128	838593	819600	839008	818083	1572.7	-71.93	3	58.9
WD11-3	128	838096	819777	839008	818083	1922.9	-73.68	3	57.1
WD12-Max									**60.3**
WD12-1	125	838094	819132	839008	818083	1391.3	-70.87	3	57.3
WD12-2	125	839008	819060	839008	818083	977.0	-67.80	3	60.3
WD13	127	838739	819637	839008	818083	1577.1	-71.96	3	**58.1**
WD14-Max									**56.7**
WD14-1	125	838217	820258	839008	818083	2312.5	-75.28	3	52.9
WD14-2	125	838288	820094	839008	818083	2136.0	-74.59	3	53.6

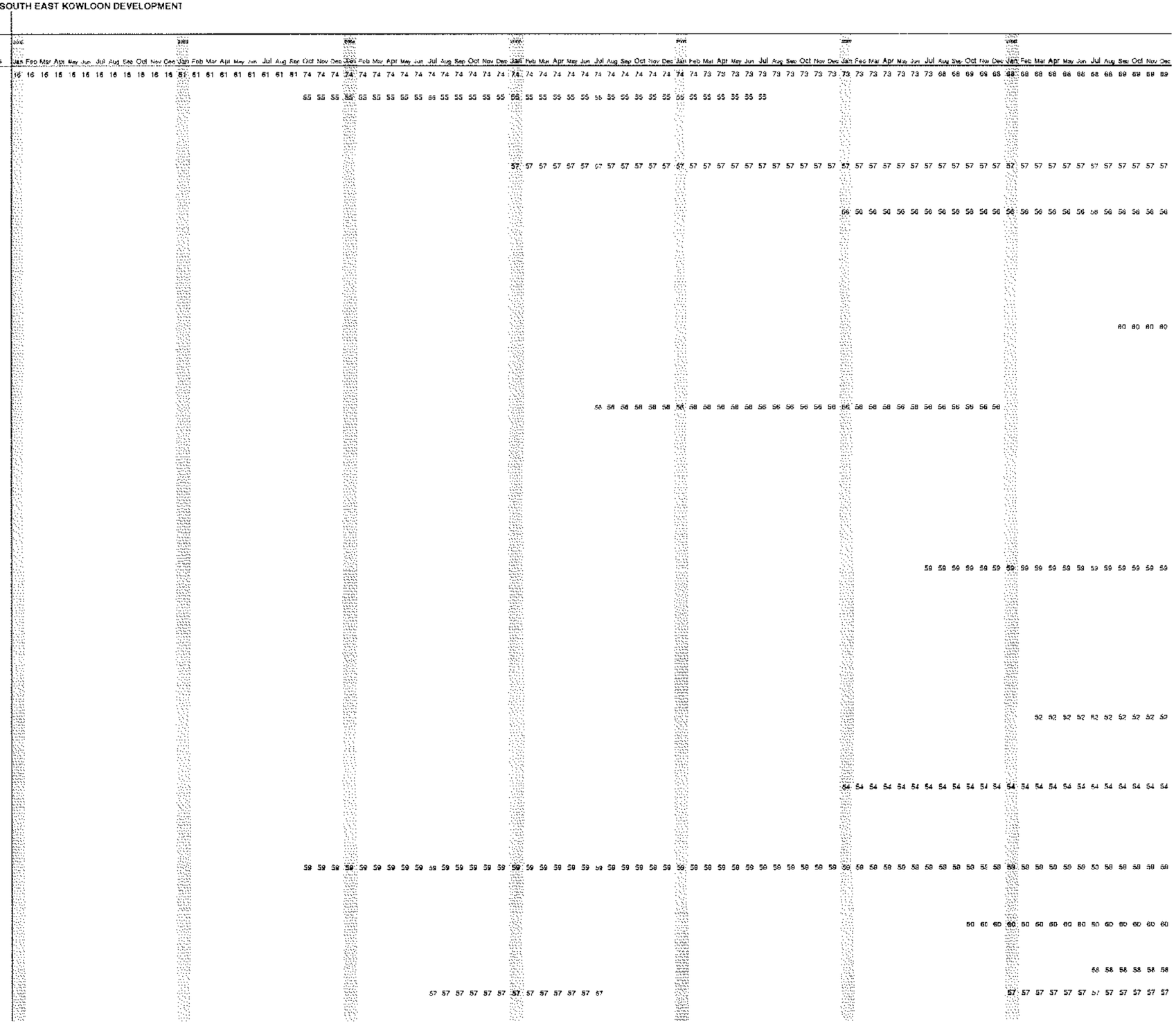
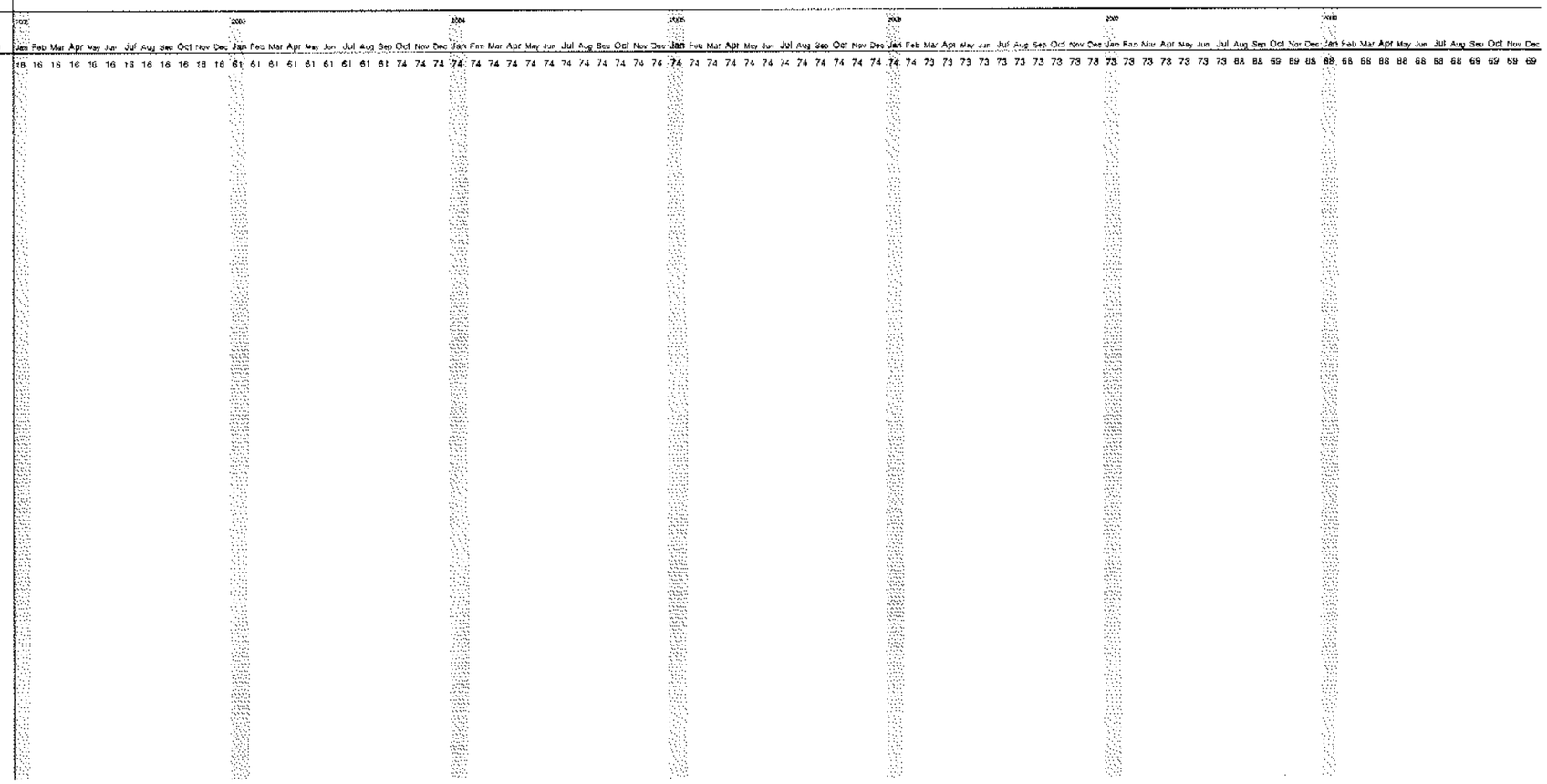


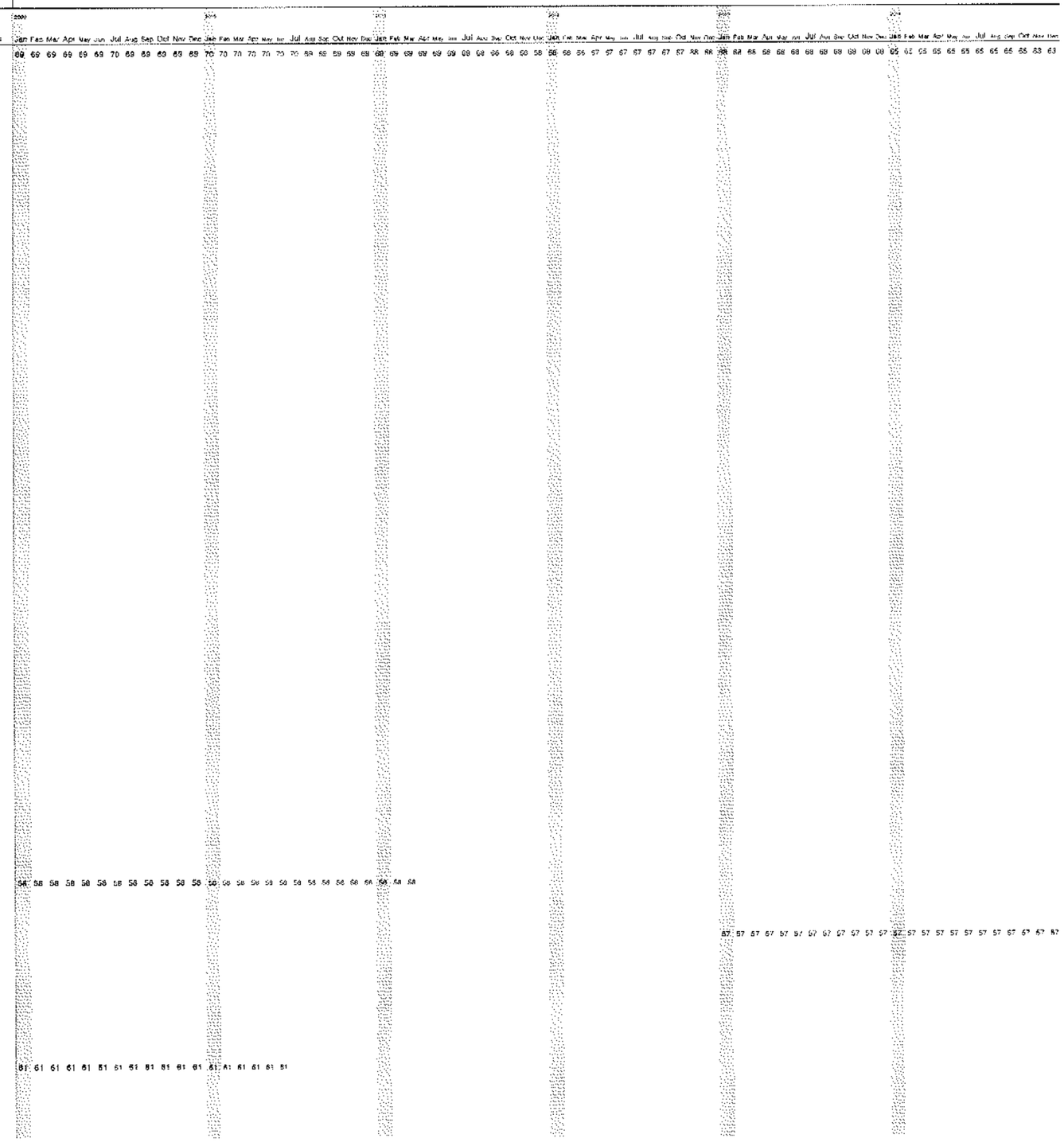
Table 3.1.6 - Unmitigated Scenario for Future Noise Sensitive Receivers- Site 4C &4E (AP-F1)

		WP		Noise Sensitive Receiver						
Packages	SWL	Easting	Northing	Easting	Northing	Distance	Distance Correction	Facade Effect	CNL	Packages
Cumulative Impact										
WD14-3	125	839008	819740	839008	818083	1657.0	-72.39	3	55.8	
WD14-4	125	838367	819480	839008	818083	1537.0	-71.73	3	56.5	
WD14-5	125	838852	819562	839008	818083	1487.2	-71.45	3	56.7	
WD14-6	125	838135	819320	839008	818083	1514.0	-71.60	3	56.6	
WD14-7	125	837955	819443	839008	818083	1720.0	-72.71	3	55.5	
WD14-8	125	838172	820056	839008	818083	2142.8	-74.62	3	53.6	
WD15-Max									**57.5**	WD15
WD15-1	125	837928	818917	839008	818083	1364.5	-70.70	3	57.5	
WD15-2	125	837825	819104	839008	818083	1562.7	-71.88	3	56.3	
WD16	124	838534	819510	839008	818083	1503.7	-71.54	3	**55.0**	WD16
WD17	124	838705	819070	839008	818083	1032.5	-68.28	3	**58.9**	WD17
WD18-Max									**53.3**	WD18
WD18-1	122	837770	819132	839008	818083	1622.7	-72.20	3	53.3	
WD18-2	122	837726	819265	839008	818083	1743.7	-72.83	3	52.6	
WD18-3	122	837934	819702	839008	818083	1942.8	-73.77	3	51.7	
WD18-4	122	837995	819821	839008	818083	2011.7	-74.07	3	51.4	
WD19-Max									**56.8**	WD19
WD19-1	127	838453	819917	839008	818083	1916.1	-73.65	3	56.2	
WD19-2	127	838310	819736	839008	818083	1794.3	-73.08	3	56.8	
WD19-3	127	838050	819647	839008	818083	1834.1	-73.27	3	56.6	
WD20-Max									**53.9**	WD20
WD20-1	122	838364	819627	839008	818083	1672.9	-72.47	3	53.0	
WD20-2	122	838115	819429	839008	818083	1615.3	-72.17	3	53.3	
WD20-3	122	837961	819163	839008	818083	1504.2	-71.55	3	53.9	
WD20-4	122	838135	820310	839008	818083	2392.0	-75.58	3	49.9	
WD20-5	122	838128	820026	839008	818083	2133.0	-74.58	3	50.9	
WD20-6	122	838029	819819	839008	818083	1993.0	-73.99	3	51.5	
WD20-7	122	837934	819586	839008	818083	1847.3	-73.33	3	52.1	
WD20-8	122	837781	819463	839008	818083	1846.6	-73.33	3	52.1	
WD20-9	122	837978	819605	839008	818083	2006.5	-74.05	3	51.4	
WD20-10	122	837924	819655	839008	818083	1909.5	-73.62	3	51.8	
WD20-11	122	838106	819750	839008	818083	1895.4	-73.55	3	51.9	
WD20-12	122	837578	819286	839008	818083	1793.4	-73.07	3	52.4	
WD21-Max									**59.2**	WD21
WD21-1	127	838022	818947	839008	818083	1311.0	-70.35	3	59.2	
WD21-2	127	837556	819562	839008	818083	2072.6	-74.33	3	55.2	
WD22	123	837965	819514	839008	818083	1770.8	-72.96	3	**52.9**	WD22
WD23	123	837866	819203	839008	818083	1599.6	-72.08	3	**53.8**	WD23



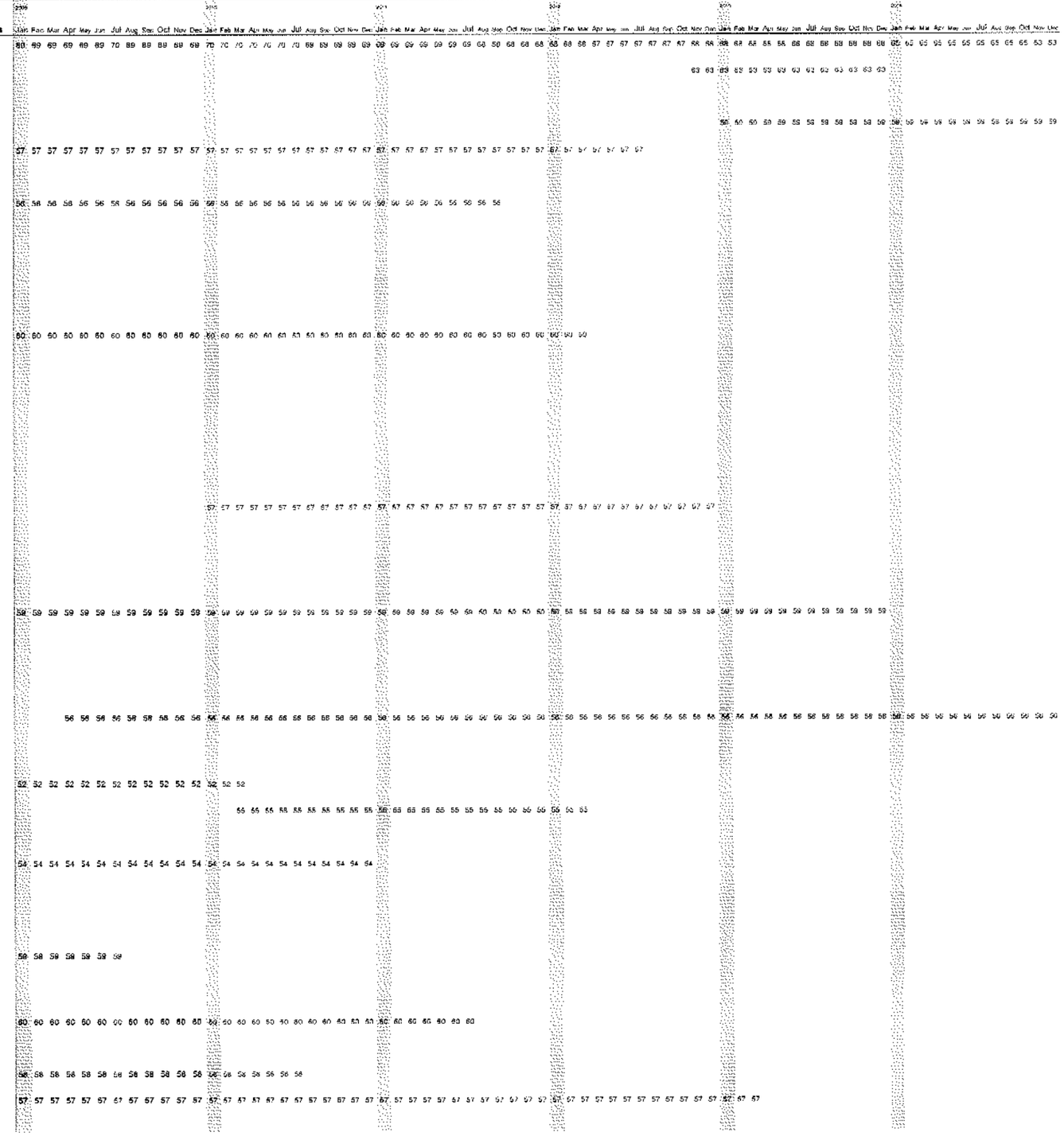
AGREEMENT NO. CE.32/99 COMPREHENSIVE FEASIBILITY STUDY FOR THE REVISED SCHEME OF SO
APPENDIX 3.1 CONSTRUCTION NOISE ASSESSMENT
Table 3.1.6 - Unmitigated Scenario for Future Noise Sensitive Receivers- Site 4C &4E (AP-F1)

		WP		Noise Sensive Receiver					
Packages	SWL	Easting	Northing	Easting	Northing	Distance	Distance Correction	Façade Effect	CNL
Cumulative Impact									
WA11-Max									**59.9**
WA11-1	129	837977	821210	839008	819817	1732.5	-72.77	3	59.6
WA11-2	129	838001	821146	839008	819817	1666.8	-72.44	3	59.9
WA12	130	838090	821097	839008	819817	1575.4	-71.95	3	**61.2**
WA13-Max									**71.4**
WA13-1	128	838271	821335	839008	819817	1687.9	-72.55	3	58.9
WA13-2	128	838469	821128	839008	819817	1417.4	-71.03	3	60.4
WA13-3	128	838767	820819	839008	819817	1030.7	-68.26	3	63.2
WA13-4	128	838750	820122	839008	819817	399.6	-60.03	3	71.4
WA13-5	128	838539	821033	839008	819817	1271.2	-70.08	3	61.3
WA13-6	128	838294	821294	839008	819817	1640.5	-72.30	3	59.1
WA14-Max									**59.5**
WA14-1	126	838713	820958	839008	819817	1178.3	-69.42	3	59.5
WA14-2	126	838786	821411	839008	819817	1609.6	-72.13	3	56.8
WA14-3	126	838777	821721	839008	819817	1918.0	-73.66	3	55.2
WA15-Max									**57.1**
WA15-1	127	838780	821925	839008	819817	2120.7	-74.53	3	55.7
WA15-2	127	838815	821622	839008	819817	1815.3	-73.18	3	57.1
WA16-Max									**54.2**
WA16-1	124	838195	821360	839008	819817	1744.0	-72.83	3	53.7
WA16-2	124	838052	821328	839008	819817	1788.3	-73.05	3	53.5
WA16-3	124	837860	821012	839008	819817	1857.0	-72.39	3	54.2
WA-17-Max									**63.7**
WA17-1	130	839144	821274	839008	819817	1463.2	-71.31	3	61.3
WA17-2	130	839039	820923	839008	819817	1106.0	-68.87	3	63.7
WA17-3	130	838767	821085	839008	819817	1291.1	-70.22	3	62.4
WA17-4	130	838898	821405	839008	819817	1591.6	-72.04	3	60.6
WA17-5	130	839109	821595	839008	819817	1881.2	-73.49	3	59.1
WA17-6	130	838569	821622	839008	819817	1857.6	-73.38	3	59.2
WA17-7	130	838333	821443	839008	819817	1760.8	-72.91	3	59.7
WA17-8	130	837678	820846	839008	819817	1681.5	-72.51	3	60.1
WA17-9	130	838770	821428	839008	819817	1628.5	-72.24	3	60.4
WA-18-Max									**56.6**
WA18-1	130	838109	820578	839008	818083	2651.6	-76.47	3	56.1
WA18-2	130	837927	820638	839008	818083	2774.5	-76.86	3	55.7
WA18-3	130	838160	820884	839008	818083	2926.7	-77.33	3	55.3
WA18-4	130	838467	821252	839008	818083	3214.4	-78.14	3	54.5
WA18-5	130	838799	821529	839008	818083	3452.7	-78.76	3	53.8
WA18-6	130	838550	820562	839008	818083	2520.7	-76.03	3	56.6
WA20-Max									**48.7**
WA20-1	123	838352	821351	839008	818083	3332.7	-78.46	3	47.5
WA20-2	123	839131	820980	839008	818083	2899.7	-77.25	3	48.7
WA21-1-Max									**49.8**
WA21-1	123	837809	820926	839008	818083	3085.3	-77.79	3	48.2
WA21-2	123	837889	820520	839008	818083	2681.8	-76.57	3	49.4
WA21-3	123	838738	820616	839008	818083	2547.3	-76.12	3	49.8
WB11-Max									**59.3**
WB11-1	128	838915	820045	839008	818083	1964.2	-73.86	3	56.8
WB11-2	128	839215	819757	839008	818083	1686.7	-72.54	3	58.1
WB11-3	128	839534	819450	839008	818083	1464.7	-71.32	3	59.3
WB12-Max									**58.3**
WB12-1	128	840141	819400	839008	818083	1737.3	-72.80	3	58.3
WB12-2	128	840573	818994	839008	818083	1810.8	-73.16	3	58.0
WB-13&20-Max									**56.9**
WB13&20-1	128	840854	818619	839008	818083	1922.2	-73.68	3	56.9
WB13&20-2	128	841172	818225	839008	818083	2168.7	-74.72	3	55.9
WB14-1	129	838778	820063	839008	818083	1993.3	-73.99	3	**57.8**
WB15-Max									**58.3**
WB15-1	128	839215	819913	839008	818083	1841.7	-73.30	3	57.3
WB15-2	128	839022	819725	839008	818083	1642.1	-72.31	3	58.3
WB-16	129	839641	819225	839008	818083	1413.5	-71.01	3	**61.0**
WB-17-Max									**43.1**
WB17-1	113	840741	818413	839008	818083	1764.1	-72.93	3	43.1
WB17-2	113	840916	818182	839008	818083	1910.6	-73.62	3	42.4
WB17-3	113	841067	817981	839008	818083	2061.5	-74.28	3	41.7



AGRREMENT NO. CE.32/99 COMPREHENSIVE FEASIBILITY STUDY FOR THE REVISED SCHEME OF SO
APPENDIX 3.1 CONSTRUCTION NOISE ASSESSMENT
Table 3.1.6 - Unmitigated Scenario for Future Noise Sensitive Receivers- Site 4C &4E (AP-F1)

Packages	SWL	WP Easting	WP Northing	Noise Sensive Receiver Easting	Noise Sensive Receiver Northing	Distance	Distance Correction	Facade Effect	CNL
Cumulative impact									
WB18,19-1 - Max									63.1
WB18,19-1	128	839827	818703	839008	818083	1027.2	-68.23	3	63.1
WB18,19-2	128	840112	818445	839008	818083	1161.8	-69.30	3	62.0
WB21	124	839828	818625	839008	818083	982.9	67.85	3	58.7
WC11-Max									57.1
WC11-1	127	840678	818790	839008	818083	1813.5	-73.17	3	57.1
WC11-2	127	840142	819593	839008	818083	1888.4	-73.52	3	56.8
WC12-Max									56.3
WC12-1	126	839067	820302	839008	818083	2219.8	-74.93	3	54.5
WC12-2	126	839325	820044	839008	818083	1986.5	-73.96	3	55.4
WC12-3	126	839565	819792	839008	818083	1787.5	-73.09	3	56.3
WC12-4	126	840032	819593	839008	818083	1824.5	-73.22	3	56.2
WC12-5	126	840287	819350	839008	818083	1800.3	-73.11	3	56.3
WC12-6	126	840543	819060	839008	818083	1819.5	-73.20	3	56.2
WC12-7	126	840727	818795	839008	818083	1860.6	-73.39	3	56.0
WC12-8	126	841036	818430	839008	818083	2057.5	-74.27	3	55.1
WC13-Max									60.3
WC13-1	127	838876	819878	839008	818083	1799.8	73.10	3	56.8
WC13-2	127	839103	819654	839008	818083	1573.9	-71.94	3	57.9
WC13-3	127	839333	819437	839008	818083	1392.5	-70.88	3	59.0
WC13-4	127	839573	819203	839008	818083	1254.4	-69.97	3	59.9
WC13-5	127	839754	819027	839008	818083	1203.2	-69.61	3	60.3
WC14-Max									56.4
WC14-1	126	839103	820202	839008	818083	2121.1	-74.53	3	54.5
WC14-2	126	839384	819922	839008	818083	1877.0	-73.47	3	55.6
WC14-3	126	839652	819669	839008	818083	1711.8	-72.67	3	56.4
WC14-4	126	839851	819707	839008	818083	1829.8	-73.25	3	55.8
WC15-Max									57.3
WC15-1	126	839110	819891	839008	818083	1810.9	-73.16	3	55.9
WC15-2	126	839305	819733	839008	818083	1676.5	-72.49	3	56.6
WC15-3	126	839486	819539	839008	818083	1592.5	71.71	3	57.3
WC15-4	126	839629	820003	839008	818083	2017.9	-74.10	3	55.0
WC15-5	126	839744	819634	839008	818083	1716.8	-72.59	3	56.4
WC15-6	126	839361	820133	839008	818083	2080.2	-74.36	3	54.7
WC16-Max									59.1
WC16-1	126	839864	819417	839008	818083	1585.0	-72.00	3	57.1
WC16-2	126	839716	819259	839008	818083	1372.7	-70.75	3	58.3
WC16-3	126	840025	819310	839008	818083	1593.7	-72.05	3	57.0
WC16-4	126	840030	819050	839008	818083	1407.0	-70.97	3	58.1
WC16-5	126	840060	818757	839008	818083	1249.4	-69.93	3	59.1
WC16-6	126	839840	819219	839008	818083	1408.1	-70.97	3	58.1
WC17-Max									55.5
WC17-1	126	840951	818777	839008	818083	2063.2	-74.29	3	54.8
WC17-2	126	840734	818920	839008	818083	1918.2	-73.66	3	55.4
WC17-3	126	840540	819182	839008	818083	1885.4	-73.51	3	55.5
WC-18	123	839207	820039	839008	818083	1966.1	-73.87	3	52.0
WC19-Max									55.4
WC19-1	123	840259	819333	839008	818083	1768.5	-72.95	3	52.9
WC19-2	123	840050	818914	839008	818083	1332.8	-70.50	3	55.4
WC21-Max									53.9
WC21-1	126	838734	820362	839008	818083	2295.4	-75.22	3	53.8
WC21-2	126	838772	820388	839008	818083	2317.1	-75.30	3	53.8
WC21-3	126	838966	820630	839008	818083	2547.3	-76.12	3	52.9
WC21-4	126	839027	820426	839008	818083	2343.1	-75.40	3	53.7
WC21-5	126	839142	820350	839008	818083	2271.0	-75.12	3	53.9
WD11-Max									59.2
WD11-1	128	838271	819405	839008	818083	1513.6	-71.60	3	59.2
WD11-2	128	838593	819600	839008	818083	1572.7	-71.93	3	58.9
WD11-3	128	838098	819777	839008	818083	1922.9	-73.68	3	57.1
WD12-Max									60.3
WD12-1	125	838094	819132	839008	818083	1391.3	-70.87	3	57.3
WD12-2	125	839008	819060	839008	818083	977.0	-67.80	3	60.3
WD13	127	838739	819637	839008	818083	1577.1	-71.96	3	58.1
WD14-Max									56.7
WD14-1	125	838217	820256	839008	818083	2312.5	-75.28	3	52.9
WD14-2	125	838288	820094	839008	818083	2136.0	-74.59	3	53.6



AGRREMENT NO. CE.32/99 COMPREHENSIVE FEASIBILITY STUDY FOR THE REVISED SCHEME OF SO
APPENDIX 3.1 CONSTRUCTION NOISE ASSESSMENT
Table 3.1.6 - Unmitigated Scenario for Future Noise Sensitive Receivers- Site 4C &4E (AP-F1)

		WP		Noise Sensive Receiver					
Packages	SWL	Easting	Northing	Easting	Northing	Distance	Distance Correction	Façade Effect	CNL
Cumulative Impact									
WD14-3	125	839008	819740	839008	818083	1657.0	-72.39	3	55.8
WD14-4	125	838967	819480	839008	818083	1537.0	-71.73	3	56.5
WD14-5	125	838852	819562	839008	818083	1487.2	-71.45	3	56.7
WD14-6	125	838135	819320	839008	818083	1514.0	-71.60	3	56.6
WD14-7	125	837955	819443	839008	818083	1720.0	-72.71	3	55.5
WD14-8	125	838172	820056	839008	818083	2142.8	-74.62	3	53.6
WD15-Max									**57.5**
WD15-1	125	837928	818917	839008	818083	1364.5	-70.70	3	57.5
WD15-2	125	837825	819104	839008	818083	1562.7	-71.88	3	56.3
WD16	124	838534	819510	839008	818083	1503.7	-71.54	3	**55.0**
WD17	124	838705	819070	839008	818083	1032.5	-68.28	3	**58.9**
WD18-Max									**53.3**
WD18-1	122	837770	819132	839008	818083	1622.7	-72.20	3	53.3
WD18-2	122	837726	819265	839008	818083	1743.7	-72.83	3	52.6
WD18-3	122	837934	819702	839008	818083	1942.8	-73.77	3	51.7
WD18-4	122	837995	819821	839008	818083	2011.7	-74.07	3	51.4
WD19-Max									**56.8**
WD19-1	127	838453	819917	839008	818083	1916.1	-73.65	3	56.2
WD19-2	127	838310	819736	839008	818083	1794.3	-73.08	3	56.8
WD19-3	127	838050	819647	839008	818083	1834.1	-73.27	3	56.6
WD20-Max									**53.9**
WD20-1	122	838364	819627	839008	818083	1672.9	-72.47	3	53.0
WD20-2	122	838115	819429	839008	818083	1615.3	72.17	3	53.3
WD20-3	122	837961	819163	839008	818083	1504.2	-71.55	3	53.9
WD20-4	122	838135	820310	839008	818083	2392.0	-75.58	3	49.9
WD20-5	122	838128	820026	839008	818083	2133.0	-74.58	3	50.9
WD20-6	122	838029	819819	839008	818083	1993.0	-73.99	3	51.5
WD20-7	122	837934	819586	839008	818083	1847.3	-73.33	3	52.1
WD20-8	122	837781	819463	839008	818083	1846.6	-73.33	3	52.1
WD20-9	122	837978	819805	839008	818083	2006.5	-74.05	3	51.4
WD20-10	122	837924	819655	839008	818083	1909.5	-73.62	3	51.8
WD20-11	122	838106	819750	839008	818083	1895.4	-73.55	3	51.9
WD20-12	122	837678	819286	839008	818083	1793.4	-73.07	3	52.4
WD21-Max									**59.2**
WD21-1	127	838022	818947	839008	818083	1311.0	-70.35	3	59.2
WD21-2	127	837556	819562	839008	818083	2072.6	-74.33	3	55.2
WD22	123	837985	819514	839008	818083	1770.8	-72.96	3	**52.8**
WD23	123	837866	819203	839008	818083	1599.6	-72.08	3	**53.8**

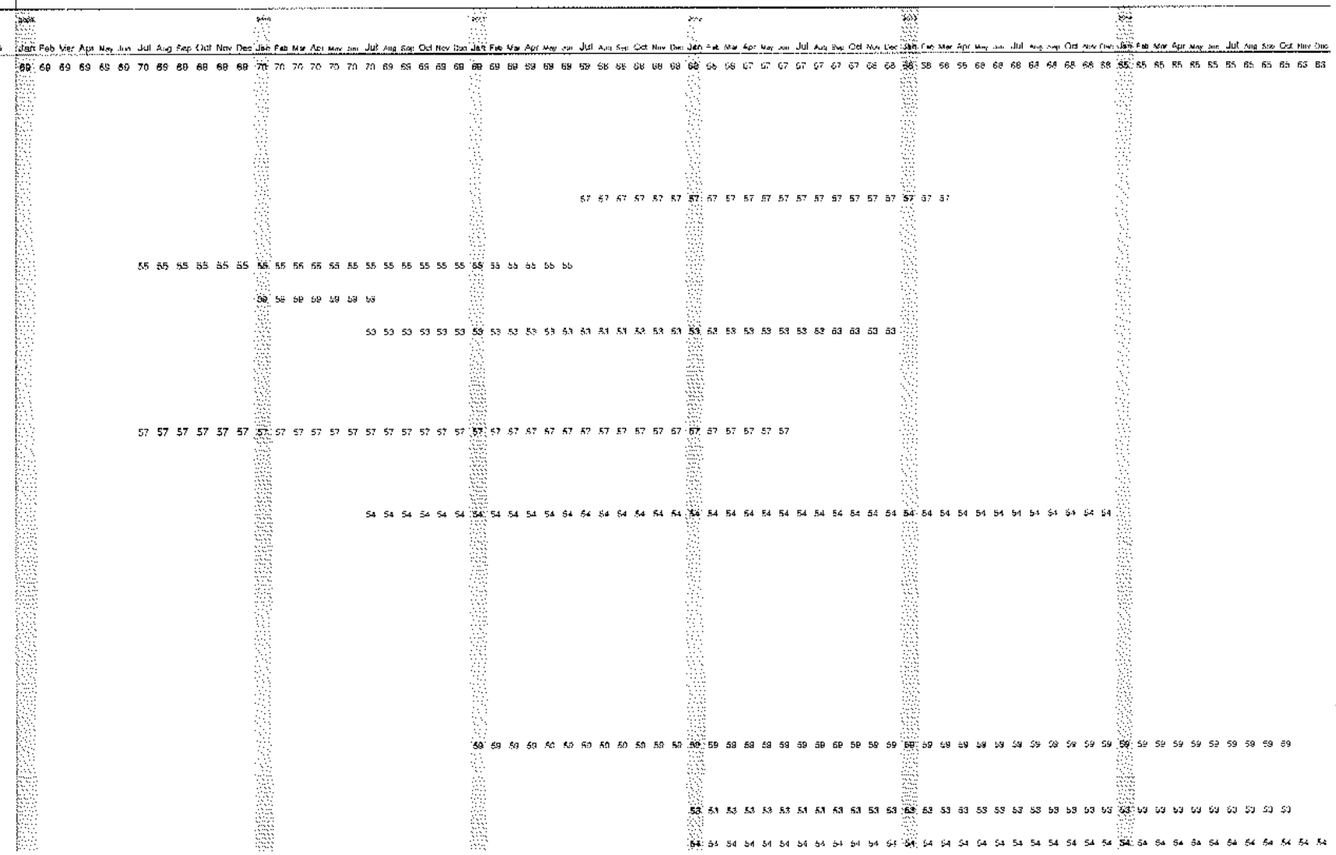


Table 3.1.7 - Mitigated Scenario (Level 1) at Exisiting Noise Sensitive Receivers - Rhythm Gardens (AP-E1)

Packages	SWL	WP Easting	WP Northing	Noise Sensive Receiver Easting	Noise Sensive Receiver Northing	Distance	Distance Correction	Facade Effect	CNL
Cumulative Impact									
WA11-Max									**54.4**
WA11-1	121	837977	821210	838944	821830	1148.8	-69.20	3	54.4
WA11-2	121	838001	821146	838944	821830	1164.8	-69.32	3	54.3
WA12	121	838090	821097	838044	821830	1125.6	-69.03	3	**55.2**
WA13-Max									**57.3**
WA13-1	121	838271	821335	838944	821830	835.8	-68.44	3	57.3
WA13-2	121	838469	821128	838944	821830	847.6	-66.56	3	57.2
WA13-3	121	838767	820819	838944	821830	1026.3	-68.23	3	55.5
WA13-4	121	838750	820122	838944	821830	1718.9	-72.70	3	51.0
WA13-5	121	838639	821033	838944	821830	853.1	-66.62	3	57.1
WA13-6	121	838294	821294	838944	821830	842.5	-66.51	3	57.2
WA14-Max									**68.2**
WA14-1	119	838713	820958	838944	821830	902.4	-67.11	3	55.1
WA14-2	119	838786	821411	838944	821830	447.5	-61.02	3	61.2
WA14-3	119	838777	821721	838944	821830	199.6	-54.00	3	68.2
WA15-Max									**71.7**
WA15-1	122	838780	821925	838944	821830	189.8	-53.57	3	71.7
WA15-2	122	838815	821622	838944	821830	244.7	-55.77	3	69.5
WA16-Max									**52.1**
WA16-1	116	838195	821360	838944	821830	883.8	-66.93	3	52.1
WA16-2	116	838052	821328	838944	821830	1023.7	-68.20	3	50.9
WA16-3	116	837860	821012	838944	821830	1357.9	-70.86	3	48.4
WA-17-Max									**69.0**
WA17-1	121	839144	821274	838944	821830	591.0	-63.43	3	60.1
WA17-2	121	839039	820923	838944	821830	912.4	-67.20	3	56.3
WA17-3	121	838767	821085	838944	821830	765.3	-65.68	3	57.9
WA17-4	121	838898	821405	838944	821830	427.6	-60.62	3	62.9
WA17-5	121	839109	821695	838944	821830	212.8	-54.56	3	69.0
WA17-6	121	838569	821622	838944	821830	428.7	-60.64	3	62.9
WA17-7	121	838333	821443	838944	821830	723.3	-65.19	3	58.4
WA17-8	121	837678	820846	838944	821830	1603.5	-72.10	3	51.4
WA17-9	121	838770	821428	838944	821830	438.0	-60.83	3	62.7
WA-18-Max									**47.5**
WA18-1	121	838109	820578	838944	818083	2630.6	-76.40	3	47.1
WA18-2	121	837927	820638	838944	818083	2750.2	-76.79	3	46.8
WA18-3	121	838160	820884	838944	818083	2908.6	-77.27	3	46.3
WA18-4	121	838467	821252	838944	818083	3204.2	-78.11	3	45.4
WA18-5	121	838799	821529	838944	818083	3449.4	-78.75	3	44.8
WA18-6	121	838550	820562	838944	818083	2509.8	-75.99	3	47.5
WA20-Max									**42.6**
WA20-1	117	838352	821351	838944	818083	3320.7	-78.42	3	41.5
WA20-2	117	839131	820980	838944	818083	2903.1	-77.26	3	42.6
WA21-1-Max									**43.8**
WA21-1	117	837809	820926	838944	818083	3061.0	-77.72	3	42.2
WA21-2	117	837889	820520	838944	818083	2655.7	-76.48	3	43.4
WA21-3	117	838738	820616	838944	818083	2541.3	-76.10	3	43.8
WB11-Max									**53.4**
WB11-1	122	838915	820046	838944	818083	1962.2	-73.85	3	51.0
WB11-2	122	839215	819757	838944	818083	1695.6	-72.59	3	52.3
WB11-3	122	839534	819450	838944	818083	1488.9	-71.46	3	53.4
WB12-Max									**51.8**
WB12-1	122	840141	819400	838944	818083	1779.7	73.01	3	51.8
WB12-2	122	840573	818994	838944	818083	1866.4	-73.42	3	51.4
WB-13&20-Max									**50.9**
WB13&20-1	122	840654	818619	838944	818083	1983.6	-73.95	3	50.9
WB13&20-2	122	841172	818225	838944	818083	2232.5	-74.98	3	49.9
WB14-1	120	838778	820063	838944	818083	1986.9	-73.96	3	**48.9**
WB15-Max									**49.9**
WB15-1	119	839215	819913	838944	818083	1850.0	-73.34	3	48.9
WB15-2	119	839022	819725	838944	818083	1643.9	-72.32	3	49.9
WB-16	120	839641	819225	838944	818083	1452.2	-71.24	3	**51.9**
WB-17-Max									**42.8**
WB17-1	113	840741	818413	838944	818083	1827.0	-73.24	3	42.8
WB17-2	113	840916	818182	838944	818083	1974.5	-73.91	3	42.1
WB17-3	113	841067	817981	838944	818083	2125.4	-74.55	3	41.5

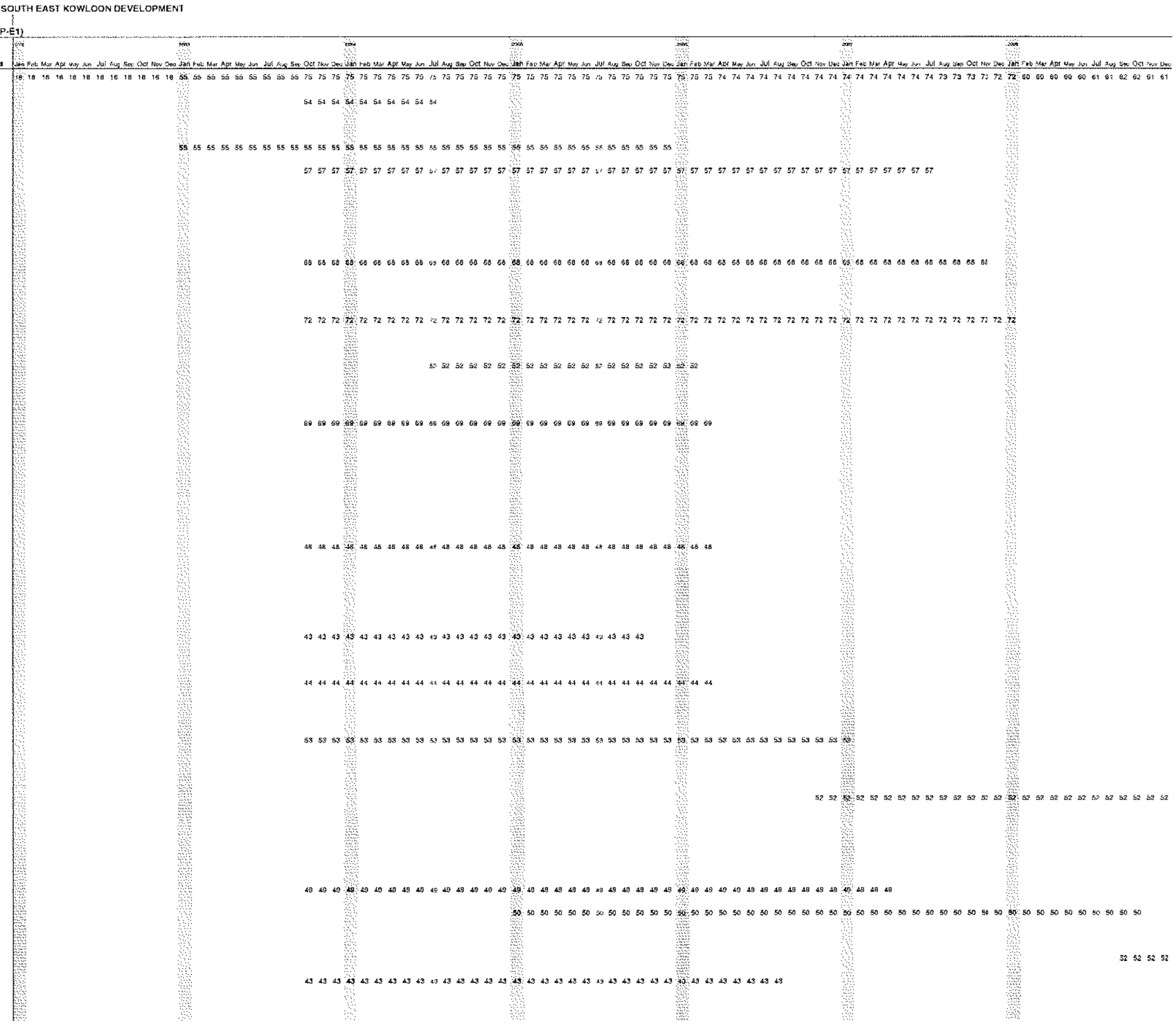


Table 3.1.7 - Mitigated Scenario (Level 1) at Existing Noise Sensitive Receivers - Rhythm Gardens (AP-E1)

		WP		Noise Sensitive Receiver						
Packages	SWL	Easting	Northing	Easting	Northing	Distance	Distance Correction	Façade Effect	CNL	Packages
Cumulative Impact										
WB18,19-1 - Max									**54.2**	WB18
WB18,19-1	120	839827	818703	838944	818083	1078.9	-68.66	3	54.2	
WB18,19-2	120	840112	818445	838944	818083	1222.8	-69.75	3	53.1	
WB21	115	839828	818625	838944	818083	1036.9	-68.31	3	**49.5**	WB21
WC11-Max									**48.9**	WC11
WC11-1	119	840678	818790	838944	818083	1872.6	-73.45	3	48.9	
WC11-2	119	840142	819593	838944	818083	1927.5	-73.70	3	48.7	
WC12-Max									**47.9**	WC12
WC12-1	118	839067	820302	838944	818083	2222.4	-74.94	3	46.1	
WC12-2	118	839325	820044	838944	818083	1997.7	-74.01	3	47.1	
WC12-3	118	839565	819792	838944	818083	1818.3	-73.19	3	47.9	
WC12-4	118	840032	819593	838944	818083	1861.1	-73.40	3	47.7	
WC12-5	118	840287	819350	838944	818083	1846.3	-73.33	3	47.7	
WC12-6	118	840543	819060	838944	818083	1873.9	-73.45	3	47.6	
WC12-7	118	840727	818795	838944	818083	1919.9	73.67	3	47.4	
WC12-8	118	841036	818430	838944	818083	2120.6	-74.53	3	46.5	
WC13-Max									**51.2**	WC13
WC13-1	118	838876	819678	838944	818083	1796.3	-73.09	3	48.0	
WC13-2	118	839103	819654	838944	818083	1579.0	-71.97	3	49.1	
WC13-3	118	839333	819437	838944	818083	1408.8	-70.98	3	50.1	
WC13-4	118	839573	819203	838944	818083	1284.5	-70.17	3	50.9	
WC13-5	118	839754	819027	838944	818083	1243.9	-69.90	3	51.2	
WC14-Max									**46.7**	WC14
WC14-1	116	839103	820202	838944	818083	2125.0	-74.55	3	44.9	
WC14-2	116	839384	819922	838944	818083	1890.9	-73.53	3	46.0	
WC14-3	116	839652	819669	838944	818083	1736.9	-72.80	3	46.7	
WC14-4	116	839851	819707	838944	818083	1860.1	-73.39	3	46.1	
WC15-Max									**51.1**	WC15
WC15-1	120	839110	819891	838944	818083	1815.6	-73.18	3	49.7	
WC15-2	120	839305	819733	838944	818083	1689.0	-72.55	3	50.3	
WC15-3	120	839486	819539	838944	818083	1553.6	-71.83	3	51.1	
WC15-4	120	839629	820003	838944	818083	2038.5	-74.19	3	48.7	
WC15-5	120	839744	819634	838944	818083	1745.2	-72.84	3	50.1	
WC15-6	120	839961	820133	838944	818083	2092.0	-74.41	3	48.5	
WC16-Max									**52.1**	WC16
WC16-1	119	839864	819417	838944	818083	1620.5	-72.19	3	50.2	
WC16-2	119	839716	819259	838944	818083	1406.8	-70.96	3	51.5	
WC16-3	119	840025	819310	838944	818083	1635.3	-72.27	3	50.1	
WC16-4	119	840030	819050	838944	818083	1454.1	-71.25	3	51.2	
WC16-5	119	840060	818757	838944	818083	1303.7	-70.30	3	52.1	
WC16-6	119	839840	819219	838944	818083	1446.8	-71.21	3	51.2	
WC17-Max									**46.8**	WC17
WC17-1	118	840951	818777	838944	818083	2123.8	-74.54	3	46.0	
WC17-2	118	840734	818920	838944	818083	1976.0	-73.92	3	46.6	
WC17-3	118	840540	819182	838944	818083	1937.8	-73.75	3	46.8	
WC-18	117	839207	820039	838944	818083	1973.6	-73.91	3	**46.0**	WC18
WC19-Max									**49.1**	WC19
WC19-1	117	840259	819333	838944	818083	1814.3	-73.17	3	46.7	
WC19-2	117	840050	818914	838944	818083	1383.4	-70.82	3	49.1	
WC21-Max									**47.7**	WC21
WC21-1	120	838734	820362	838944	818083	2288.7	-75.19	3	47.7	
WC21-2	120	838772	820388	838944	818083	2311.4	-75.28	3	47.6	
WC21-3	120	838965	820630	838944	818083	2547.1	-76.12	3	46.8	
WC21-4	120	839027	820426	838944	818083	2344.5	-75.40	3	47.5	
WC21-5	120	839142	820350	838944	818083	2275.6	-75.14	3	47.7	
WD11-Max									**51.0**	WD11
WD11-1	119	838271	819405	838944	818083	1483.4	-71.43	3	51.0	
WD11-2	119	838593	819600	838944	818083	1557.1	-71.85	3	50.6	
WD11-3	119	838096	819777	838944	818083	1893.5	-73.55	3	48.9	
WD12-Max									**52.4**	WD12
WD12-1	119	838094	819132	838944	818083	1350.1	-70.61	3	51.4	
WD12-2	119	838221	819060	838944	818083	1215.4	-69.69	3	52.4	
WD13	119	838739	819637	838944	818083	1567.5	-71.90	3	**50.1**	WD13
WD14-Max									**49.8**	WD14
WD14-1	118	838217	820256	838944	818083	2291.4	-75.20	3	46.0	
WD14-2	118	838288	820094	838944	818083	2115.3	-74.51	3	46.7	

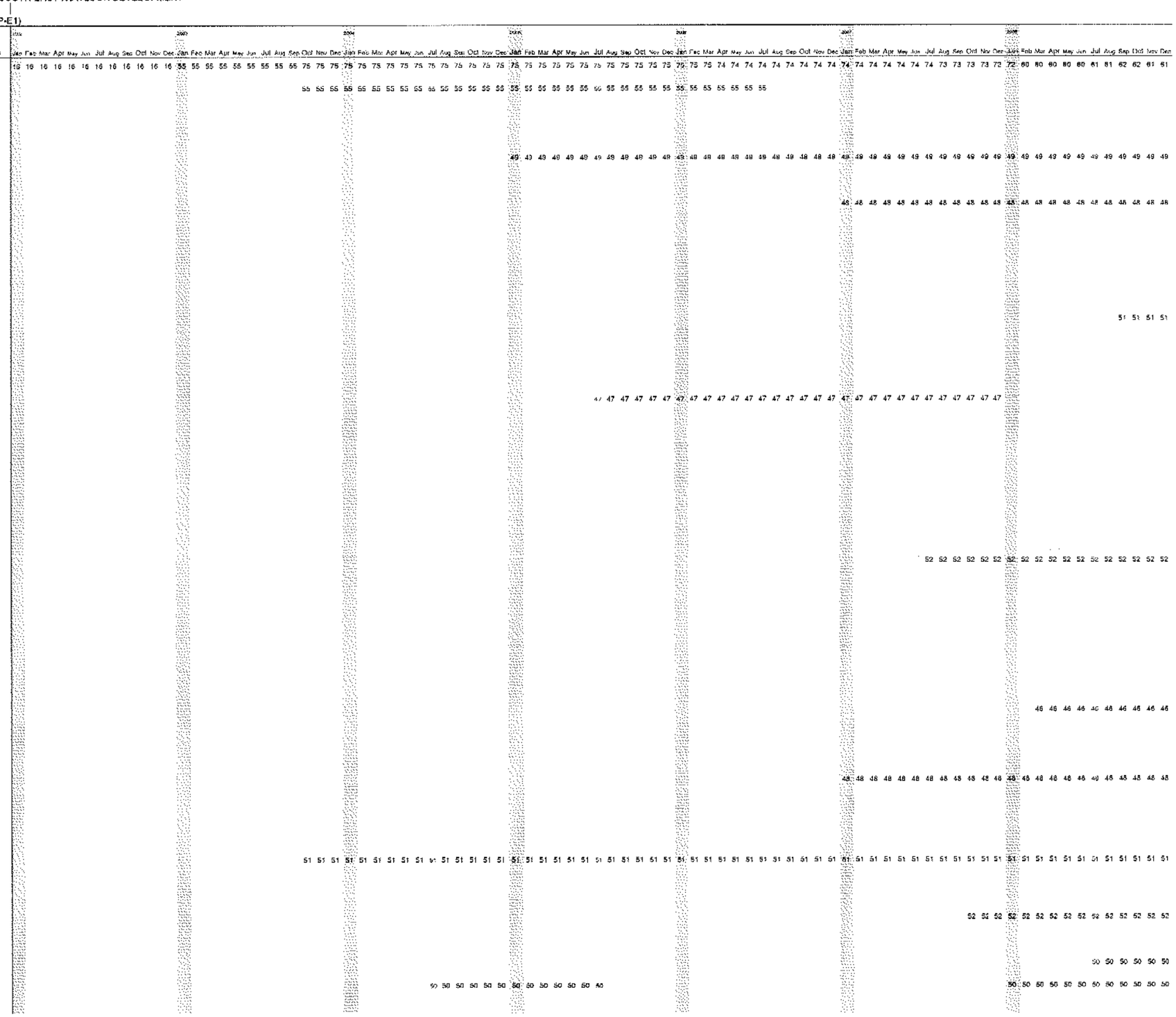


Table 3.1.7 - Mitigated Scenario (Level 1) at Existing Noise Sensitive Receivers - Rhythm Gardens (AP-E1)

		WP		Noise Sensive Receiver						
Packages	SWL	Easting	Northing	Easting	Northing	Distance	Distance Correction	Façade Effect	CNL	Packages
Cumulative Impact										
WD14-3	118	838227	819740	838944	818083	1805.5	-73.13	3	46.0	
WD14-4	118	838367	819480	838944	818083	1511.5	-71.59	3	49.6	
WD14-5	118	838852	819562	838944	818083	1481.9	-71.42	3	49.8	
WD14-6	118	838135	819320	838944	818083	1478.1	-71.39	3	49.8	
WD14-7	118	837955	819443	838944	818083	1681.6	-72.51	3	48.7	
WD14-8	118	838172	820056	838944	818083	2118.7	-74.52	3	46.6	
WD15-Max									**50.8**	WD15
WD15-1	118	837928	818917	838944	818083	1314.5	-70.37	3	50.8	
WD15-2	118	837825	819104	838944	818083	1514.8	-71.61	3	49.6	
WD16	115	838534	819510	838944	818083	1484.7	-71.43	3	**46.4**	WD16
WD17	115	838706	819070	838944	818083	1015.5	-68.13	3	**50.0**	WD17
WD18-Max									**43.4**	WD18
WD18-1	112	837770	819132	838944	818083	1574.4	-71.94	3	43.4	
WD18-2	112	837726	819265	838944	818083	1697.2	-72.59	3	42.8	
WD18-3	112	837934	819702	838944	818083	1908.2	-73.61	3	41.8	
WD18-4	112	837995	819821	838944	818083	1980.2	-73.93	3	41.4	
WD19-Max									**47.9**	WD19
WD19-1	118	838453	819917	838944	818083	1898.6	-73.57	3	47.3	
WD19-2	118	838310	819736	838944	818083	1770.4	-72.96	3	47.9	
WD19-3	118	838050	819647	838944	818083	1801.5	-73.11	3	47.7	
WD20-Max									**47.5**	WD20
WD20-1	116	838364	819627	838944	818083	1649.3	-72.35	3	46.4	
WD20-2	116	838115	819429	838944	818083	1580.8	-71.98	3	46.8	
WD20-3	116	837961	819163	838944	818083	1460.4	-71.29	3	47.5	
WD20-4	116	838135	820310	838944	818083	2369.4	-75.49	3	43.3	
WD20-5	116	838128	820026	838944	818083	2107.4	-74.47	3	44.3	
WD20-6	116	838029	819819	838944	818083	1962.4	-73.86	3	44.9	
WD20-7	116	837934	819586	838944	818083	1810.8	-73.16	3	45.6	
WD20-8	116	837781	819463	838944	818083	1804.7	-73.13	3	45.7	
WD20-9	116	837978	819805	838944	818083	1974.4	-73.91	3	44.9	
WD20-10	116	837924	819655	838944	818083	1873.9	-73.46	3	45.3	
WD20-11	116	838106	819750	838944	818083	1865.8	-73.42	3	45.4	
WD20-12	116	837678	819286	838944	818083	1746.4	-72.84	3	45.9	
WD21-Max									**51.2**	WD21
WD21-1	118	838022	818947	838944	818083	1263.6	-70.03	3	51.2	
WD21-2	118	837555	819562	838944	818083	2028.3	-74.14	3	47.1	
WD22	117	837965	819514	838944	818083	1733.8	-72.78	3	**47.1**	WD22
WD23	117	837866	819203	838944	818083	1554.5	-71.83	3	**48.0**	WD23

Packages	2002 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2003 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2004 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2005 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2006 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2007 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2008 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cumulative Impact	16	16	16	16	16	16	16	16	16	16	16	16	55	55	55	55	55	55	55	55	55	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	74	74	74	74	74	74	74	74	74	74	74	74	74	74	73	73	73	73	72	72	72	60	60	60	60	60	61	61	62	62	61	61
WD14-3																																																																																						
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WD14-5																																																																																							
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WD21-2																																																																																							
WD22																																																																																							
WD23																																																																																							

Table 3.1.7 - Mitigated Scenario (Level 1) at Existing Noise Sensitive Receivers - Rhythm Gardens (AP-E

		WP		Noise Sensive Receiver					
Packages	SWL	Easting	Northing	Easting	Northing	Distance	Distance Correction	Façade Effect	CNL
Cumulative Impact									
WA11-Max									**54.4**
WA11-1	121	837977	821210	838944	821830	1148.8	-69.20	3	54.4
WA11-2	121	838001	821146	838944	821830	1164.8	-69.32	3	54.3
WA12	121	838090	821097	838944	821830	1125.6	-69.03	3	**55.2**
WA13-Max									**57.3**
WA13-1	121	838271	821335	838944	821830	835.6	-66.44	3	57.3
WA13-2	121	838469	821128	838944	821830	847.6	-66.56	3	57.2
WA13-3	121	838767	820819	838944	821830	1025.3	-68.23	3	55.5
WA13-4	121	838750	820122	838944	821830	1718.9	-72.70	3	51.0
WA13-5	121	838639	821033	838944	821830	853.1	-66.62	3	57.1
WA13-6	121	838294	821294	838944	821830	842.5	-66.51	3	57.2
WA14-Max									**68.2**
WA14-1	119	838713	820958	838944	821830	902.4	-67.11	3	65.1
WA14-2	119	838786	821413	838944	821830	447.5	-61.02	3	61.2
WA14-3	119	838777	821721	838944	821830	199.6	-54.00	3	68.2
WA15-Max									**71.7**
WA15-1	122	838780	821925	838944	821830	189.8	-53.57	3	71.7
WA15-2	122	838815	821622	838944	821830	244.7	-55.77	3	69.5
WA16-Max									**52.1**
WA16-1	116	838195	821360	838944	821830	883.8	-66.93	3	52.1
WA16-2	116	838052	821328	838944	821830	1023.7	-68.20	3	50.9
WA16-3	116	837860	821012	838944	821830	1357.9	-70.66	3	48.4
WA-17-Max									**69.0**
WA17-1	121	839144	821274	838944	821830	591.0	-63.43	3	60.1
WA17-2	121	839039	820923	838944	821830	912.4	-67.20	3	56.3
WA17-3	121	838767	821086	838944	821830	765.3	-65.68	3	57.9
WA17-4	121	838898	821405	838944	821830	427.6	-60.62	3	62.9
WA17-5	121	839109	821695	838944	821830	212.8	-54.56	3	69.0
WA17-6	121	838569	821622	838944	821830	428.7	-60.64	3	62.9
WA17-7	121	838333	821443	838944	821830	723.3	-65.19	3	58.4
WA17-8	121	837678	820846	838944	821830	1603.5	-72.10	3	51.4
WA17-9	121	838770	821428	838944	821830	438.0	-60.83	3	62.7
WA-18-Max									**47.5**
WA18-1	121	838109	820575	838944	818083	2630.6	-76.40	3	47.1
WA18-2	121	837927	820638	838944	818083	2750.2	-76.79	3	46.8
WA18-3	121	838160	820884	838944	818083	2908.8	-77.27	3	46.3
WA18-4	121	838467	821252	838944	818083	3204.2	-78.11	3	45.4
WA18-5	121	838799	821529	838944	818083	3449.4	-78.75	3	44.8
WA18-6	121	838550	820552	838944	818083	2509.8	-75.99	3	47.5
WA20-Max									**42.6**
WA20-1	117	838352	821351	838944	818083	3320.7	-78.42	3	41.5
WA20-2	117	839131	820980	838944	818083	2903.1	-77.26	3	42.6
WA21-1-Max									**43.8**
WA21-1	117	837809	820926	838944	818083	3061.0	-77.72	3	42.2
WA21-2	117	837889	820520	838944	818083	2655.7	-76.48	3	43.4
WA21-3	117	838738	820616	838944	818083	2541.3	-76.10	3	43.8
WB11-Max									**53.4**
WB11-1	122	838915	820045	838944	818083	1962.2	-73.85	3	51.0
WB11-2	122	839215	819757	838944	818083	1695.8	-72.59	3	52.3
WB11-3	122	839534	819450	838944	818083	1488.9	-71.46	3	53.4
WB12-Max									**51.8**
WB12-1	122	840141	819400	838944	818083	1779.7	-73.01	3	51.8
WB12-2	122	840573	818994	838944	818083	1866.4	-73.42	3	51.4
WB-13&20-Max									**50.9**
WB13&20-1	122	840854	818619	838944	818083	1983.8	-73.95	3	50.9
WB13&20-2	122	841172	818225	838944	818083	2232.5	-74.98	3	49.9
WB14-1	120	838778	820063	838944	818083	1986.9	-73.96	3	**48.9**
WB15-Max									**49.9**
WB15-1	119	839215	819913	838944	818083	1850.0	-73.34	3	48.9
WB15-2	119	839022	819725	838944	818083	1643.9	-72.32	3	49.9
WB-16	120	839841	819225	838944	818083	1452.2	-71.24	3	**51.9**
WB-17-Max									**42.8**
WB17-1	113	840741	818413	838944	818083	1827.0	-73.24	3	42.8
WB17-2	113	840919	818182	838944	818083	1974.5	-73.91	3	42.1
WB17-3	113	841067	817981	838944	818083	2125.4	-74.55	3	41.5

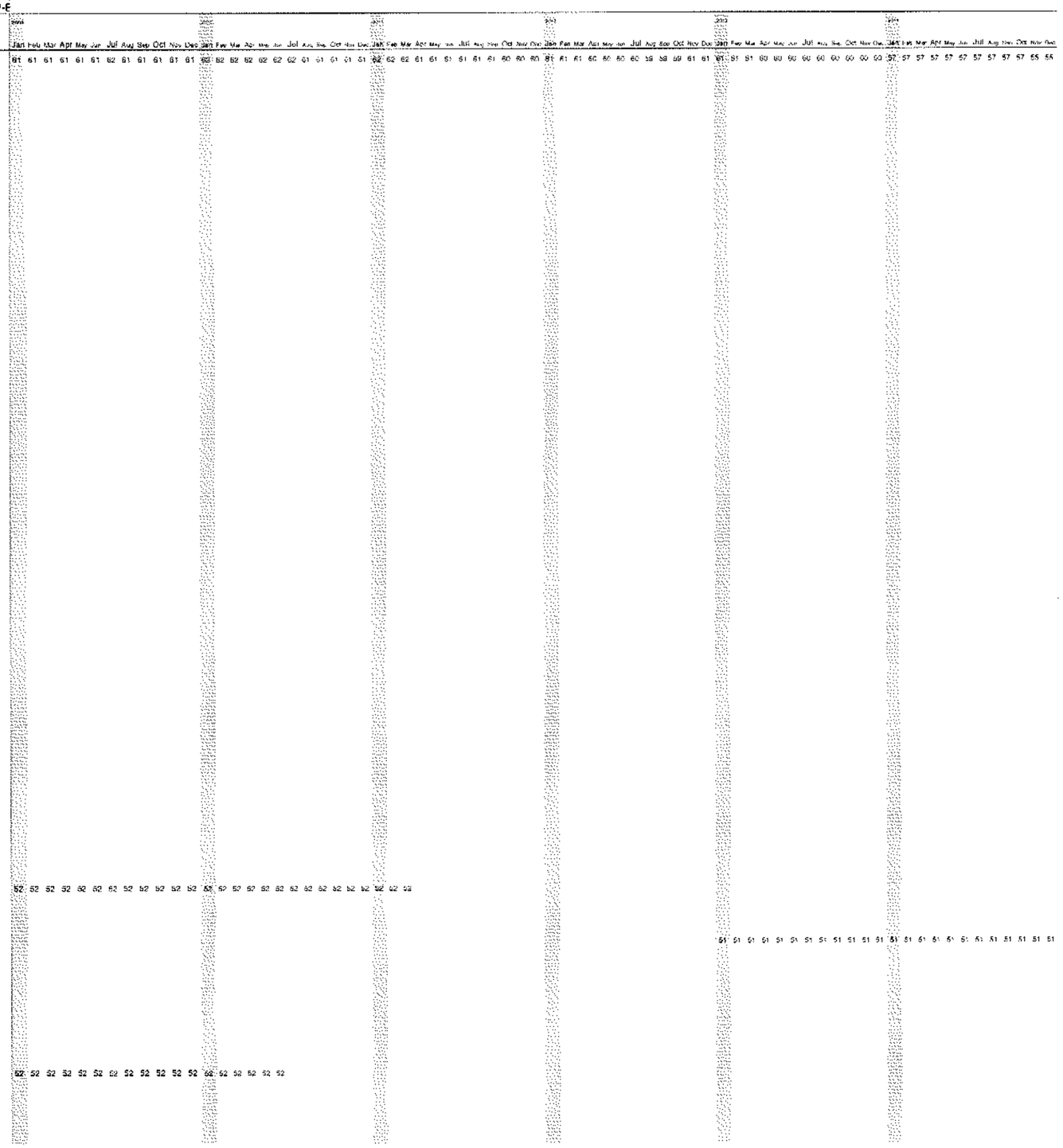


Table 3.1.7 - Mitigated Scenario (Level 1) at Existing Noise Sensitive Receivers - Rhythm Gardens (AP-E

		WP		Noise Sensive Receiver					
Packages	SWL	Easting	Northing	Easting	Northing	Distance	Distance Correction	Façade Effect	CNL
Cumulative Impact									
WB18,19-1 - Max									**54.2**
WB18,19-1	120	839827	818703	838944	818083	1078.9	-68.66	3	54.2
WB18,19-2	120	840112	818445	838944	818083	1222.9	-69.75	3	53.1
WB21	115	839828	818625	838944	818083	1036.9	-68.31	3	**49.5**
WC11-Max									**48.9**
WC11-1	119	840678	818790	838944	818083	1872.6	-73.45	3	48.9
WC11-2	119	840142	819593	838944	818083	1927.5	-73.70	3	48.7
WC12-Max									**47.9**
WC12-1	118	839067	820302	838944	818083	2222.4	-74.94	3	46.1
WC12-2	118	839325	820044	838944	818083	1997.7	-74.01	3	47.1
WC12-3	118	839565	819792	838944	818083	1818.3	-73.19	3	47.9
WC12-4	118	840032	819593	838944	818083	1861.1	-73.40	3	47.7
WC12-5	118	840287	819350	838944	818083	1846.3	-73.33	3	47.7
WC12-6	118	840543	819060	838944	818083	1873.9	-73.45	3	47.6
WC12-7	118	840727	818795	838944	818083	1919.9	-73.67	3	47.4
WC12-8	118	841036	818430	838944	818083	2120.6	-74.53	3	46.5
WC13-Max									**51.2**
WC13-1	118	838878	819878	838944	818083	1796.3	-73.09	3	48.0
WC13-2	118	839103	819654	838944	818083	1579.0	-71.97	3	49.1
WC13-3	118	839333	819437	838944	818083	1408.8	-70.98	3	50.1
WC13-4	118	839573	819203	838944	818083	1284.5	-70.17	3	50.9
WC13-5	118	839754	819027	838944	818083	1243.9	-69.90	3	51.2
WC14-Max									**46.7**
WC14-1	116	839103	820202	838944	818083	2125.0	-74.55	3	44.9
WC14-2	116	839384	819922	838944	818083	1890.9	-73.53	3	46.0
WC14-3	116	839652	819669	838944	818083	1736.9	72.80	3	46.7
WC14-4	116	839851	819707	838944	818083	1860.1	-73.39	3	46.1
WC15 Max									**51.1**
WC15-1	120	839110	819891	838944	818083	1815.6	-73.18	3	49.7
WC15-2	120	839305	819733	838944	818083	1689.0	-72.55	3	50.3
WC15-3	120	839486	819539	838944	818083	1553.6	-71.83	3	51.1
WC15-4	120	839629	820003	838944	818083	2038.5	-74.19	3	48.7
WC15-5	120	839744	819634	838944	818083	1745.2	-72.84	3	50.1
WC15-6	120	839961	820133	838944	818083	2092.0	-74.41	3	48.5
WC16-Max									**52.1**
WC16-1	119	839864	819417	838944	818083	1620.5	-72.19	3	50.2
WC16-2	119	839716	819259	838944	818083	1406.8	-70.96	3	51.5
WC16-3	119	840025	819310	838944	818083	1635.3	-72.27	3	50.1
WC16-4	119	840030	819050	838944	818083	1454.1	-71.25	3	51.2
WC16-5	119	840060	818757	838944	818083	1303.7	-70.30	3	52.1
WC16-6	119	839840	819219	838944	818083	1446.8	-71.21	3	51.2
WC17-Max									**46.8**
WC17-1	118	840951	818777	838944	818083	2123.6	-74.54	3	46.0
WC17-2	118	840734	818920	838944	818083	1976.0	-73.92	3	46.6
WC17-3	118	840540	819182	838944	818083	1937.8	-73.75	3	46.8
WC-18	117	839207	820039	838944	818083	1973.6	-73.91	3	**46.0**
WC19-Max									**49.1**
WC19-1	117	840259	819333	838944	818083	1814.3	-73.17	3	46.7
WC19-2	117	840050	818914	838944	818083	1383.4	-70.82	3	49.1
WC21-Max									**47.7**
WC21-1	120	838734	820362	838944	818083	2288.7	-75.19	3	47.7
WC21-2	120	838772	820388	838944	818083	2311.4	-75.28	3	47.6
WC21-3	120	838966	820630	838944	818083	2547.1	-76.12	3	46.6
WC21-4	120	839027	820426	838944	818083	2344.5	-75.40	3	47.5
WC21-5	120	839142	820350	838944	818083	2275.6	-75.14	3	47.7
WD11-Max									**51.0**
WD11-1	119	838271	819405	838944	818083	1483.4	-71.43	3	51.0
WD11-2	119	838593	819600	838944	818083	1557.1	-71.85	3	50.6
WD11-3	119	838098	819777	838944	818083	1893.6	-73.55	3	48.9
WD12-Max									**52.4**
WD12-1	119	838094	819132	838944	818083	1350.1	-70.61	3	51.4
WD12-2	119	838221	819060	838944	818083	1215.4	-69.69	3	52.4
WD13	119	838739	819637	838944	818083	1567.5	-71.90	3	**50.1**
WD14-Max									**49.8**
WD14-1	118	838217	820256	838944	818083	2291.4	-75.20	3	46.0
WD14-2	118	838288	820094	838944	818083	2115.3	-74.51	3	46.7

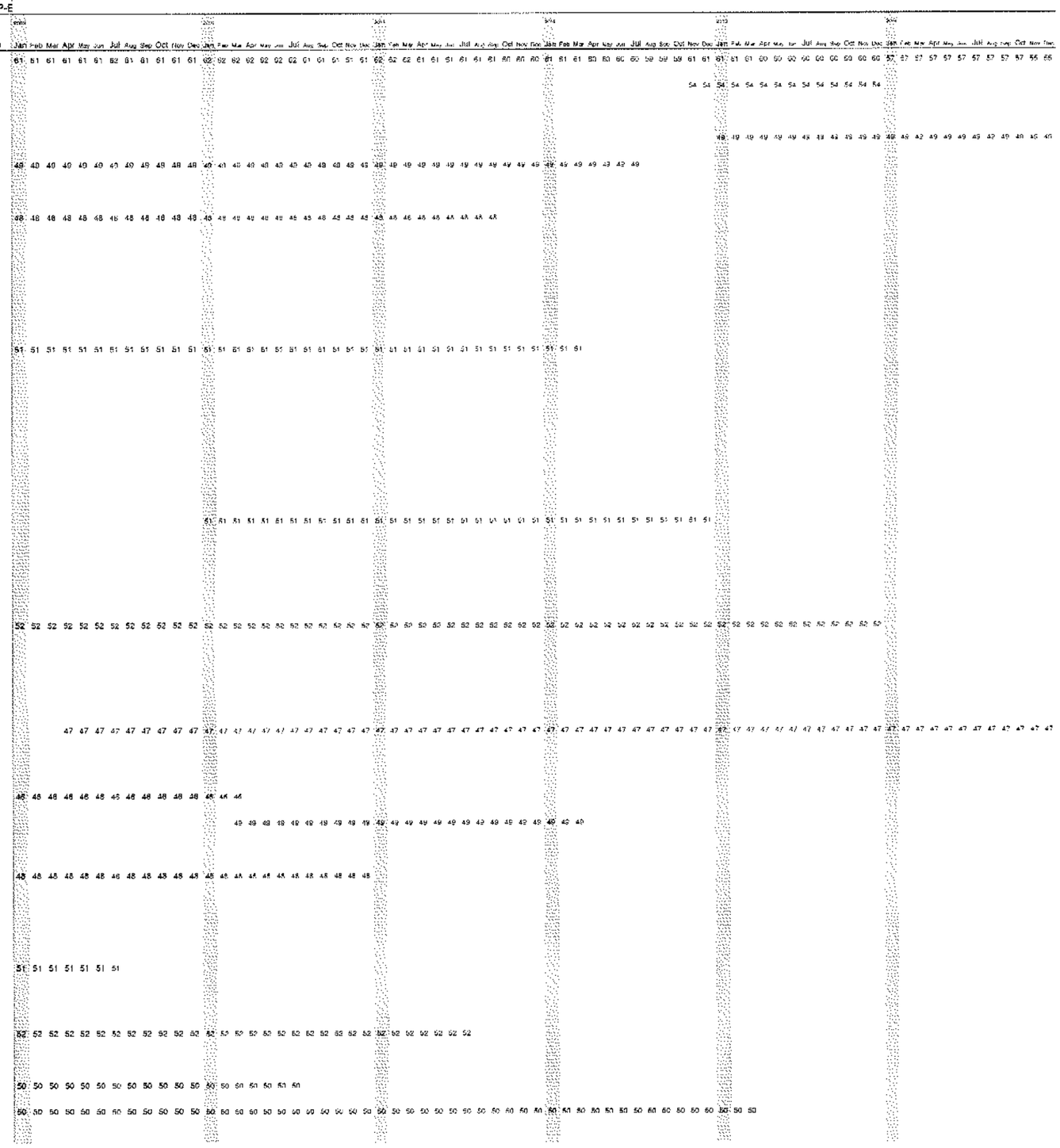


Table 3.1.7 - Mitigated Scenario (Level 1) at Exisiting Noise Sensitiva Receivers - Rhythm Gardens (AP-E

		WP		Noise Sensive Receiver					
Packages	SWL	Easting	Northing	Easting	Northing	Distance	Distance Correction	Façade Effect	CNL
Cumulative Impact									
WD14-3	118	838227	819740	838944	818083	1905.5	-73.13	3	48.0
WD14-4	118	838367	819480	838944	818083	1511.5	-71.59	3	49.6
WD14-5	118	838852	819562	838944	818083	1481.9	-71.42	3	49.8
WD14-6	118	838135	819320	838944	818083	1478.1	-71.39	3	49.8
WD14-7	118	837955	819443	838944	818083	1581.6	-72.51	3	48.7
WD14-8	118	838172	820056	838944	818083	2118.7	-74.52	3	46.6
WD15-Max									**50.8**
WD15-1	118	837928	819917	838944	818083	1314.5	-70.37	3	50.8
WD15-2	118	837825	819104	838944	818083	1514.8	-71.61	3	49.5
WD16	115	838534	819510	838944	818083	1484.7	-71.43	3	**46.4**
WD17	115	838705	819070	838944	818083	1015.5	-68.13	3	**50.0**
WD18-Max									**43.4**
WD18-1	112	837770	819132	838944	818083	1574.4	-71.94	3	43.4
WD18-2	112	837726	819265	838944	818083	1697.2	-72.59	3	42.8
WD18-3	112	837934	819702	838944	818083	1908.2	-73.61	3	41.8
WD18-4	112	837995	819821	838944	818083	1980.2	-73.93	3	41.4
WD19-Max									**47.9**
WD19-1	118	838453	819917	838944	818083	1808.6	-73.57	3	47.3
WD19-2	118	838310	819736	838944	818083	1770.4	72.96	3	47.9
WD19-3	118	838050	819647	838944	818083	1801.5	-73.11	3	47.7
WD20-Max									**47.5**
WD20-1	116	838364	819627	838944	818083	1649.3	-72.35	3	46.4
WD20-2	116	838115	819429	838944	818083	1580.8	-71.98	3	46.8
WD20-3	116	837961	819163	838944	818083	1450.4	-71.29	3	47.5
WD20-4	116	838135	820310	838944	818083	2369.4	-75.49	3	43.3
WD20-5	116	838128	820026	838944	818083	2107.4	-74.47	3	44.3
WD20-6	116	838029	819819	838944	818083	1962.4	-73.86	3	44.9
WD20-7	116	837934	819586	838944	818083	1810.8	-73.16	3	45.6
WD20-8	116	837781	819463	838944	818083	1804.7	-73.13	3	45.7
WD20-9	116	837978	819805	838944	818083	1974.4	-73.91	3	44.9
WD20-10	116	837924	819655	838944	818083	1873.9	-73.46	3	45.3
WD20-11	116	838106	819750	838944	818083	1865.8	-73.42	3	45.4
WD20-12	116	837678	819286	838944	818083	1746.4	-72.84	3	45.9
WD21-Max									**51.2**
WD21-1	118	838022	818947	838944	818083	1263.8	-70.03	3	51.2
WD21-2	118	837556	819562	838944	818083	2028.3	-74.14	3	47.1
WD22	117	837965	819514	838944	818083	1733.8	-72.78	3	**47.1**
WD23	117	837866	819203	838944	818083	1554.5	-71.83	3	**48.0**

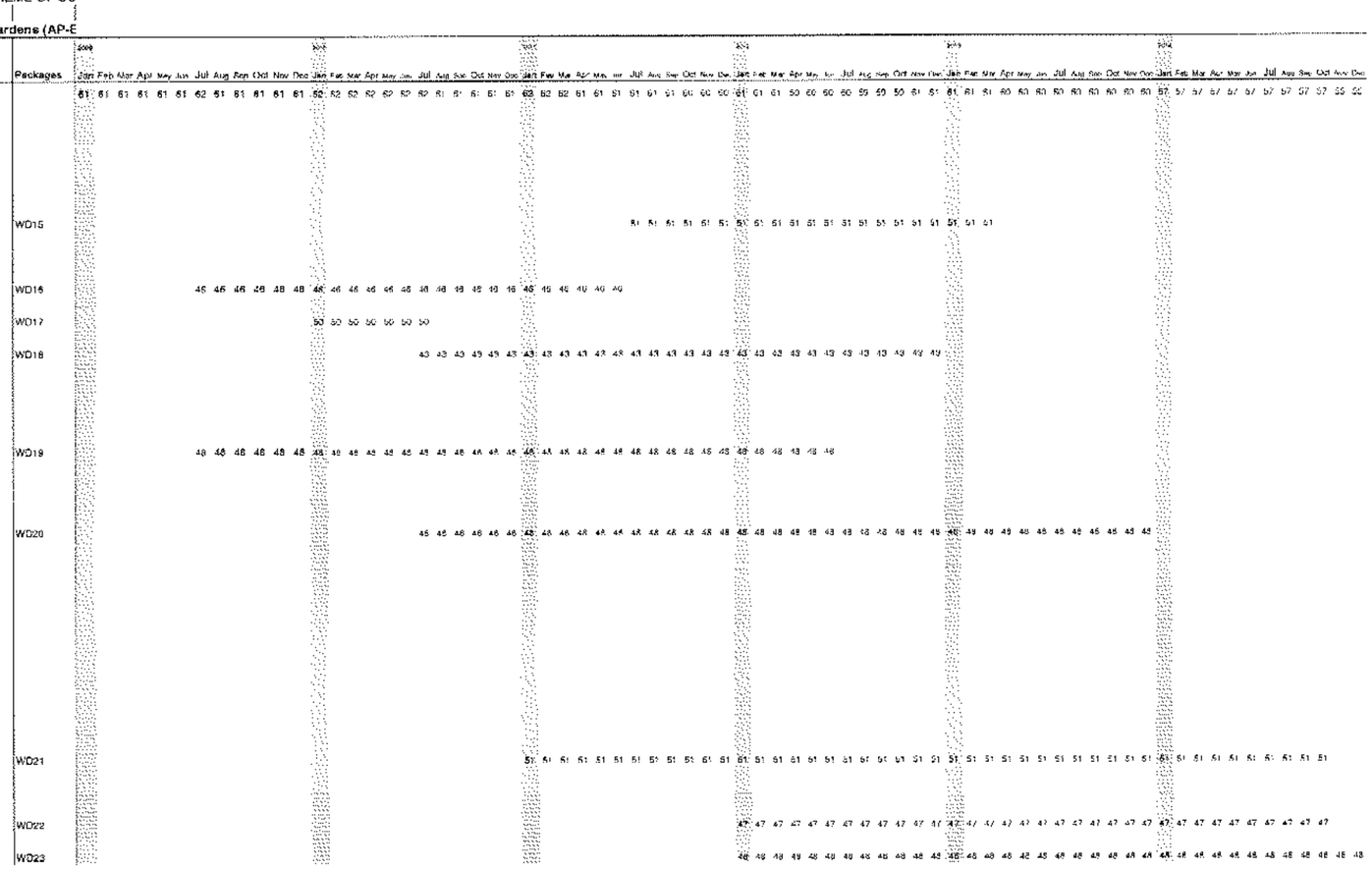


Table 3.1.8 - Mitigated Scenario (Level 1) for Future Noise Sensitive Receivers- Site 1P(S) (AP-F46)

Packages	SWL	WP Easting	WP Northing	Noise Sensive Receiver Easting	Noise Sensive Receiver Northing	Distance	Distance Correction	Façade Effect	CNL
Cumulative Impact									
WA11-Max									**56.3**
WA11-1	121	837977	821210	838647	820488	984.4	-67.86	3	55.7
WA11-2	121	838001	821146	838647	820488	921.5	-67.29	3	56.3
WA12	121	838090	821097	838647	820488	825.6	-66.33	3	**57.8**
WA13-Max									**64.8**
WA13-1	121	838271	821335	838647	820488	927.1	-67.34	3	56.4
WA13-2	121	838469	821128	838647	820488	664.2	64.45	3	59.3
WA13-3	121	838767	820819	838647	820488	352.2	-58.94	3	64.8
WA13-4	121	838750	820122	838647	820488	380.1	-59.60	3	64.1
WA13-5	121	838639	821033	838647	820488	545.4	-62.73	3	61.0
WA13-6	121	838294	821294	838647	820488	879.9	-66.89	3	56.8
WA14-Max									**60.7**
WA14-1	119	838713	820958	838647	820488	474.3	61.52	3	60.7
WA14-2	119	838786	821411	838647	820488	933.7	-67.40	3	54.8
WA14-3	119	838777	821721	838647	820488	1239.8	-69.87	3	52.4
WA15-Max									**56.1**
WA15-1	122	838780	821925	838647	820488	1443.6	-71.19	3	54.1
WA15-2	122	838815	821622	838647	820488	1146.4	-69.19	3	56.1
WA16-Max									**51.5**
WA16-1	116	838195	821360	838647	820488	982.1	-67.84	3	51.2
WA16-2	116	838052	821328	838647	820488	1029.7	-68.25	3	50.8
WA16-3	116	837860	821012	838647	820488	945.4	-67.51	3	51.5
WA-17-Max									**60.2**
WA17-1	121	839144	821274	838647	820488	929.9	-67.37	3	56.2
WA17-2	121	839039	820923	838647	820488	585.0	-63.34	3	60.2
WA17-3	121	838767	821085	838647	820488	609.4	-63.70	3	59.8
WA17-4	121	838898	821405	838647	820488	950.6	-67.56	3	56.0
WA17-5	121	839109	821695	838647	820488	1292.8	-70.23	3	53.3
WA17-6	121	838569	821622	838647	820488	1136.7	-69.11	3	54.4
WA17-7	121	838333	821443	838647	820488	1005.5	-68.05	3	55.5
WA17-8	121	837678	820846	838647	820488	1032.9	-68.28	3	55.3
WA17-9	121	838770	821428	838647	820488	948.0	-67.54	3	56.0
WA-18-Max									**47.6**
WA18-1	121	838109	820578	838647	818083	2551.9	-76.14	3	47.4
WA18-2	121	837927	820638	838647	818083	2654.8	-76.48	3	47.1
WA18-3	121	838160	820884	838647	818083	2843.2	-77.08	3	46.5
WA18-4	121	838467	821252	838647	818083	3173.6	-78.03	3	45.5
WA18-5	121	838799	821529	838647	818083	3449.8	-78.76	3	44.8
WA18-6	121	838550	820562	838647	818083	2480.6	-75.89	3	47.6
WA20-Max									**42.5**
WA20-1	117	838352	821351	838647	818083	3280.8	-78.32	3	41.6
WA20-2	117	839131	820980	838647	818083	2937.2	-77.36	3	42.5
WA21-1-Max									**43.8**
WA21-1	117	837809	820926	838647	818083	2963.7	-77.44	3	42.4
WA21-2	117	837889	820520	838647	818083	2552.3	-76.14	3	43.7
WA21-3	117	838738	820616	838647	818083	2534.6	-76.08	3	43.8
WB11-Max									**52.6**
WB11-1	122	838915	820045	838647	818083	1980.2	-73.93	3	50.9
WB11-2	122	839215	819757	838647	818083	1767.7	-72.95	3	51.9
WB11-3	122	839534	819450	838647	818083	1629.6	-72.24	3	52.6
WB12-Max									**50.9**
WB12-1	122	840141	819400	838647	818083	1991.6	-73.98	3	50.9
WB12-2	122	840573	818994	838647	818083	2130.6	-74.57	3	50.3
WB-13&20-Max									**49.7**
WB13&20-1	122	840854	818619	838647	818083	2271.2	-75.12	3	49.7
WB13&20-2	122	841172	818225	838647	818083	2529.0	-76.06	3	48.8
WB14-1	120	838778	820063	838647	818083	1984.3	-73.95	3	**48.9**
WB15-Max									**49.7**
WB15-1	119	839215	819913	838647	818083	1916.1	-73.65	3	48.6
WB15-2	119	839022	819725	838647	818083	1684.3	-72.53	3	49.7
WB-16	120	839841	819225	838647	818083	1652.2	-72.36	3	**50.8**
WB-17-Max									**41.5**
WB17-1	113	840741	818413	838647	818083	2119.8	-74.53	3	41.5
WB17-2	113	840916	818182	838647	818083	2271.2	-75.12	3	40.9
WB17-3	113	841067	817981	838647	818083	2422.1	-75.68	3	40.3

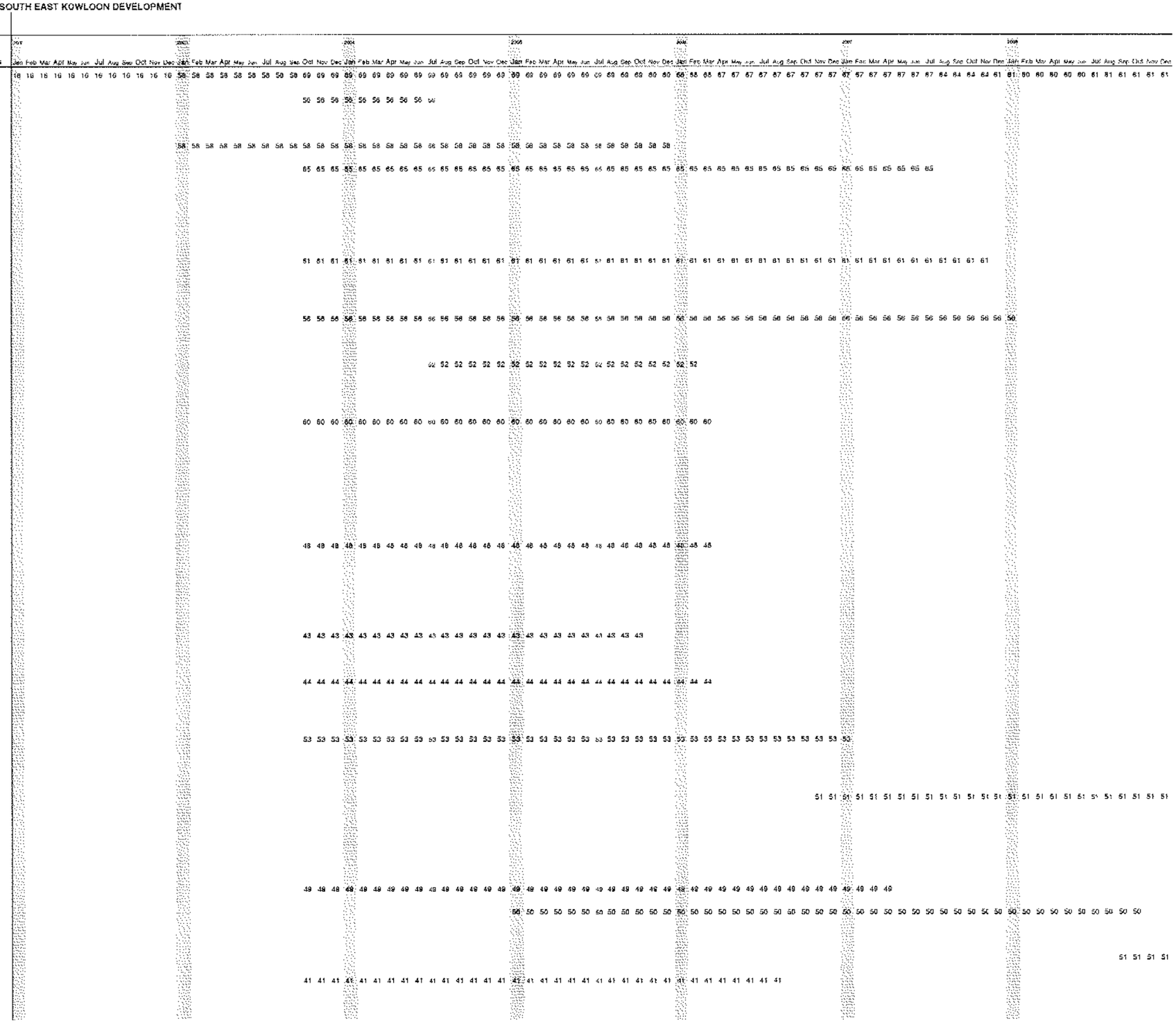


Table 3.1.8 - Mitigated Scenario (Level 1) for Future Noise Sensitive Receivers- Site 1P(S) (AP-F46)

Packages	SWL	WP Easting	WP Northing	Noise Sensive Receiver Easting	Noise Sensive Receiver Northing	Distance	Distance Correction	Facade Effect	CNL
Cumulative Impact									
WB18,19-1 - Max									**52.3**
WB18,19-1	120	839827	818703	838647	818083	1333.0	-70.50	3	52.3
WB18,19-2	120	840112	818445	838647	818083	1509.1	-71.57	3	51.3
WB21	115	839828	818625	838647	818083	1299.4	-70.28	3	**47.5**
WC11-Max									**47.8**
WC11-1	119	840578	818790	838647	818083	2150.5	-74.65	3	47.7
WC11-2	119	840142	819593	838647	818083	2124.9	-74.55	3	47.8
WC12-Max									**47.3**
WC12-1	118	839067	820302	838647	818083	2258.4	-75.08	3	46.0
WC12-2	118	839325	820044	838647	818083	2074.9	-74.34	3	46.7
WC12-3	118	839565	819792	838647	818083	1939.9	-73.76	3	47.3
WC12-4	118	840032	819593	838647	818083	2049.0	-74.23	3	46.8
WC12-5	118	840287	819350	838647	818083	2072.4	-74.33	3	46.7
WC12-6	118	840543	819060	838647	818083	2132.9	-74.58	3	46.5
WC12-7	118	840727	818795	838647	818083	2198.5	-74.84	3	46.2
WC12-8	118	841036	818430	838647	818083	2414.1	-75.65	3	45.4
WC13-Max									**49.9**
WC13-1	118	838876	819878	838647	818083	1809.5	-73.15	3	48.0
WC13-2	118	839103	819654	838647	818083	1635.8	-72.27	3	48.8
WC13-3	118	839333	819437	838647	818083	1517.9	-71.62	3	49.5
WC13-4	118	839573	819203	838647	818083	1453.2	-71.25	3	49.9
WC13-5	118	839754	819027	838647	818083	1454.8	-71.26	3	49.8
WC14-Max									**46.0**
WC14-1	116	839103	820202	838647	818083	2167.5	-74.72	3	44.8
WC14-2	116	839384	819922	838647	818083	1981.2	-73.94	3	45.6
WC14-3	116	839652	819669	838647	818083	1877.6	-73.47	3	46.0
WC14-4	116	839851	819707	838647	818083	2021.6	-74.11	3	45.4
WC15-Max									**50.4**
WC15-1	120	839110	819891	838647	818083	1866.3	-73.42	3	49.5
WC15-2	120	839305	819733	838647	818083	1776.4	-72.99	3	49.9
WC15-3	120	839486	819539	838647	818083	1680.4	-72.51	3	50.4
WC15-4	120	839629	820003	838647	818083	2156.6	-74.68	3	48.2
WC15-5	120	839744	819634	838647	818083	1899.7	-73.57	3	49.3
WC15-6	120	839961	820133	838647	818083	2170.8	-74.73	3	48.2
WC16-Max									**50.5**
WC16-1	119	839864	819417	838647	818083	1805.7	-73.13	3	49.3
WC16-2	119	839716	819259	838647	818083	1589.3	-72.02	3	50.4
WC16-3	119	840025	819310	838647	818083	1845.1	-73.32	3	49.1
WC16-4	119	840030	819050	838647	818083	1687.5	-72.55	3	49.9
WC16-5	119	840060	818757	838647	818083	1565.5	-71.89	3	50.5
WC16-6	119	839840	819219	838647	818083	1647.3	-72.34	3	50.1
WC17-Max									**45.7**
WC17-1	118	840951	818777	838647	818083	2406.3	-75.63	3	44.9
WC17-2	118	840734	818920	838647	818083	2248.6	-75.04	3	45.5
WC17-3	118	840540	819182	838647	818083	2188.9	-74.80	3	45.7
WC-18	117	839207	820039	838647	818083	2034.6	-74.17	3	**45.7**
WC19-Max									**47.6**
WC19-1	117	840259	819333	838647	818083	2039.9	-74.19	3	45.7
WC19-2	117	840050	818914	838647	818083	1630.0	-72.25	3	47.6
WC21-Max									**47.7**
WC21-1	120	838734	820362	838647	818083	2280.7	75.16	3	47.7
WC21-2	120	838772	820388	838647	818083	2308.4	-75.27	3	47.6
WC21-3	120	838966	820630	838647	818083	2566.9	-76.19	3	46.7
WC21-4	120	839027	820426	838647	818083	2373.6	-75.51	3	47.4
WC21-5	120	839142	820350	838647	818083	2320.4	-75.31	3	47.6
WD11-Max									**51.7**
WD11-1	119	838271	819405	838647	818083	1374.4	-70.76	3	51.7
WD11-2	119	838593	819600	838647	818083	1518.0	-71.63	3	50.8
WD11-3	119	838098	819777	838647	818083	1780.7	-73.01	3	49.4
WD12-Max									**53.5**
WD12-1	119	838094	819132	838647	818083	1185.8	-69.48	3	52.6
WD12-2	119	838221	819060	838647	818083	1065.8	-68.55	3	53.5
WD13	119	838739	819637	838647	818083	1556.7	-71.84	3	**50.2**
WD14-Max									**50.6**
WD14-1	118	838217	820256	838647	818083	2215.1	-74.91	3	46.3
WD14-2	118	838288	820094	838647	818083	2042.8	-74.20	3	47.0

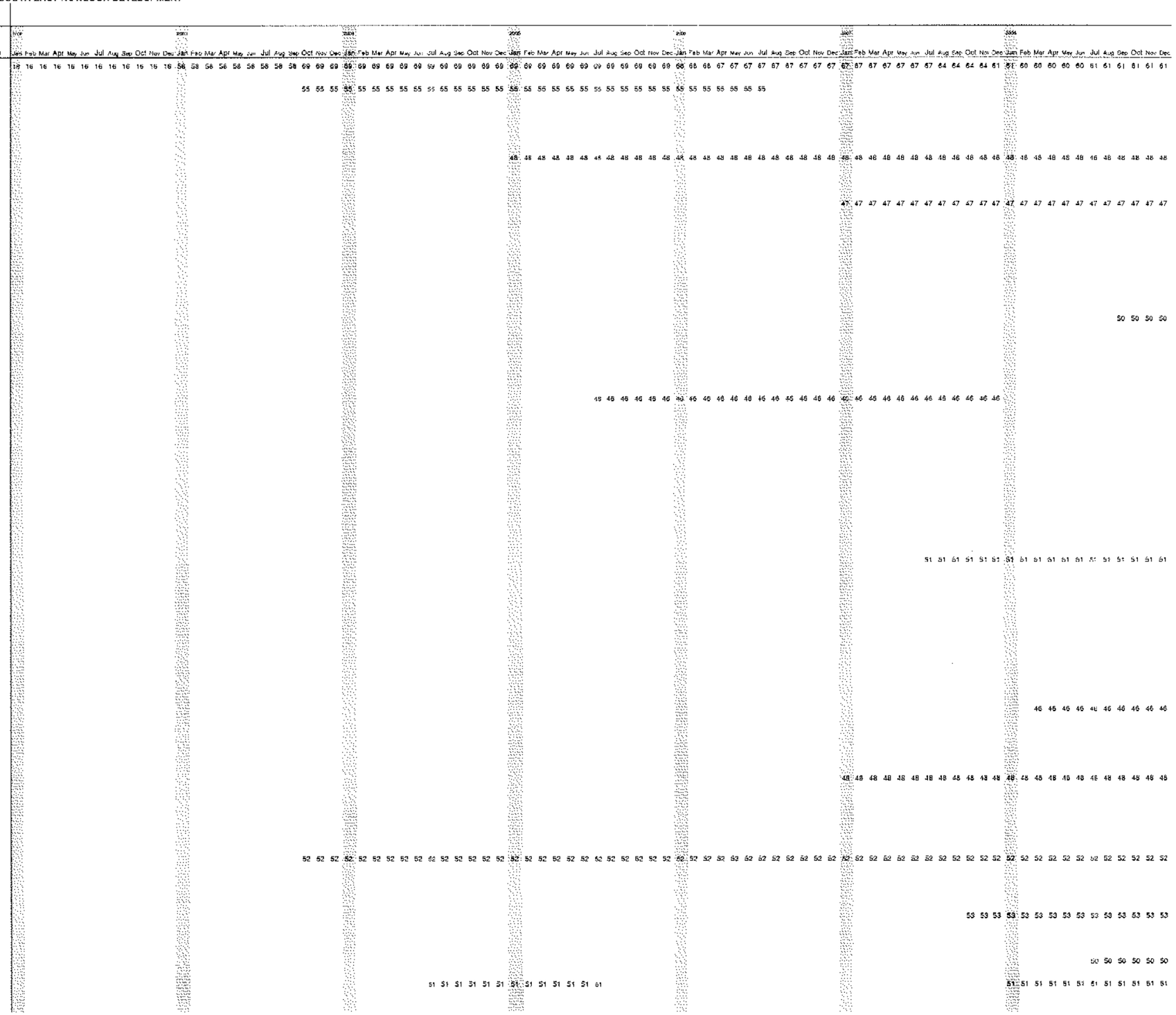


Table 3.1.8 - Mitigated Scenario (Level 1) for Future Noise Sensitive Receivers- Site 1P(S) (AP-F46)

Packages	SWL	WP Easting	WP Northing	Noise Sensitive Receiver Easting	Noise Sensitive Receiver Northing	Distance	Distance Correction	Façade Effect	CNL
Cumulative Impact									
WD14-3	118	838227	819740	838647	818083	1709.4	-72.66	3	48.5
WD14-4	118	838367	819480	838647	818083	1424.8	-71.07	3	50.1
WD14-5	118	838352	819562	838647	818083	1493.1	-71.48	3	49.7
WD14-6	118	838135	819320	838647	818083	1338.8	-70.53	3	50.6
WD14-7	118	837955	819443	838647	818083	1525.9	-71.67	3	49.5
WD14-8	118	838172	820056	838647	818083	2029.4	-74.15	3	47.0
WD15-Max									**52.3**
WD15-1	118	837928	818917	838647	818083	1101.1	-68.84	3	52.3
WD15-2	118	837825	819104	838647	818083	1310.8	-70.35	3	50.8
WD16	115	838534	819510	838647	818083	1431.5	-71.12	3	**46.7**
WD17	115	839705	819070	838647	818083	988.7	-67.90	3	**50.2**
WD18-Max									**44.7**
WD18-1	112	837770	819132	838647	818083	1367.3	-70.72	3	44.7
WD18-2	112	837726	819265	838647	818083	1498.5	-71.51	3	43.9
WD18-3	112	837934	819702	838647	818083	1769.0	-72.95	3	42.4
WD18-4	112	837995	819821	838647	818083	1856.3	-73.37	3	42.0
WD19-Max									**48.4**
WD19-1	118	838453	819917	838647	818083	1844.2	-73.32	3	47.5
WD19-2	118	838310	819736	838647	818083	1687.0	-72.54	3	48.3
WD19-3	118	838050	819647	838647	818083	1674.1	-72.48	3	48.4
WD20-Max									**48.6**
WD20-1	116	838364	819627	838647	818083	1569.7	-71.92	3	46.9
WD20-2	116	838115	819429	838647	818083	1447.3	-71.21	3	47.6
WD20-3	116	837961	819163	838647	818083	1279.5	-70.14	3	48.6
WD20-4	116	838135	820310	838647	818083	2285.1	-75.18	3	43.6
WD20-5	116	839128	820028	838647	818083	2011.1	-74.07	3	44.7
WD20-6	116	838029	819819	838647	818083	1842.7	-73.31	3	45.5
WD20-7	116	837934	819586	838647	818083	1663.5	-72.42	3	46.4
WD20-8	116	837781	819463	838647	818083	1629.2	-72.24	3	46.6
WD20-9	116	837978	819805	838647	818083	1847.4	-73.33	3	45.5
WD20-10	116	837924	819655	838647	818083	1730.3	-72.76	3	46.0
WD20-11	116	838106	819750	838647	818083	1752.6	-72.87	3	45.9
WD20-12	116	837678	819286	838647	818083	1544.7	-71.78	3	47.0
WD21-Max									**52.7**
WD21-1	118	838022	818947	838647	818083	1066.4	-68.56	3	52.7
WD21-2	118	837556	819562	838647	818083	1837.9	-73.29	3	48.0
WD22	117	837965	819514	838647	818083	1585.2	-72.00	3	**47.9**
WD23	117	837866	819203	838647	818083	1365.4	-70.71	3	**49.2**

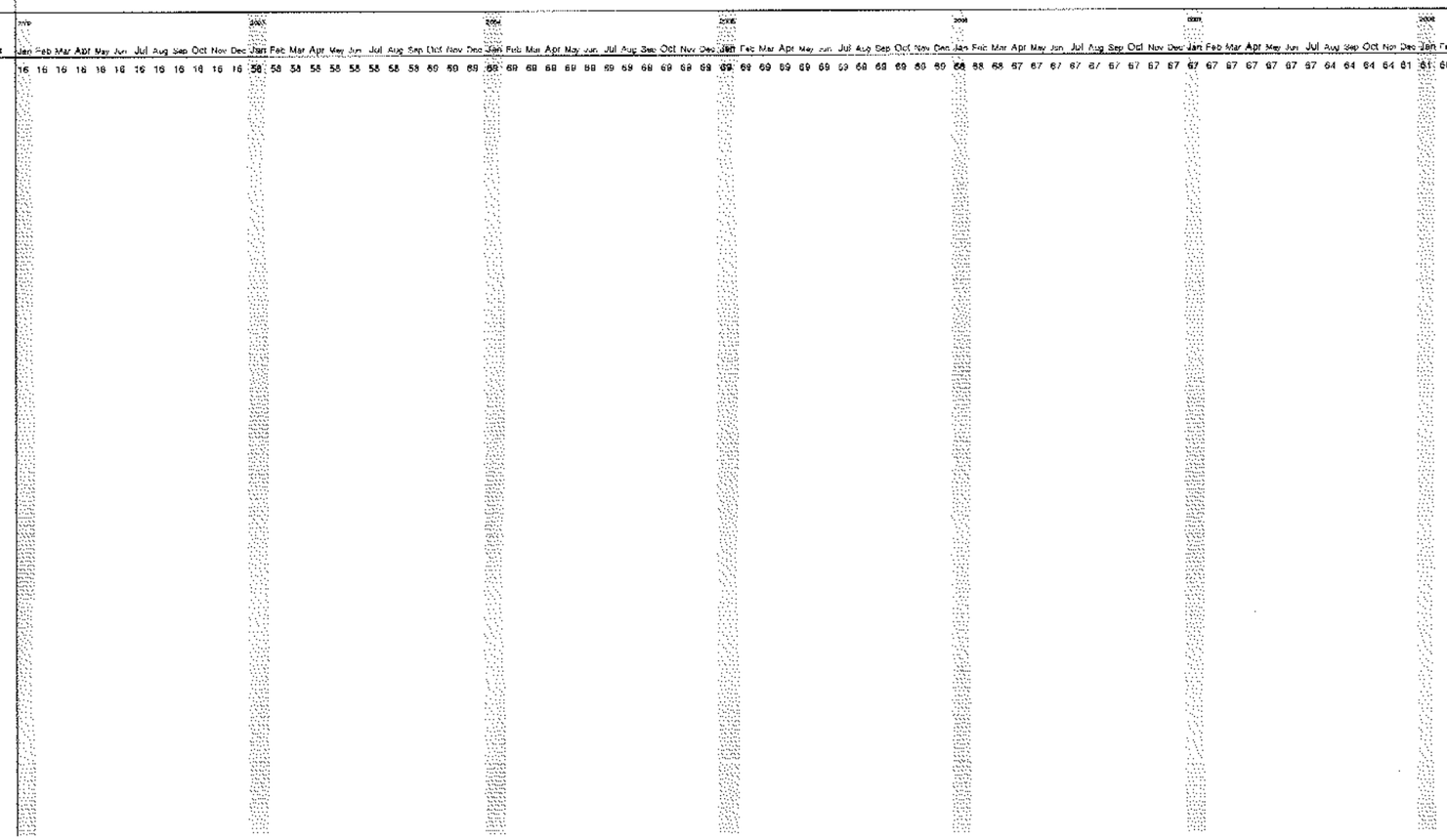


Table 3.1.8 - Mitigated Scenario (Level 1) for Future Noise Sensitive Receivers- Site 1P(S) (AP-F46)

		WP		Noise Sensive Receiver					
Packages	SWL	Easting	Northing	Easting	Northing	Distance	Distance Correction	Façade Effect	CNL
Cumulative Impact									
WA11-Max									56.3
WA11-1	121	837977	821210	838647	820488	984.4	-67.86	3	55.7
WA11-2	121	838001	821146	838647	820488	921.5	-67.29	3	56.3
WA12	121	838090	821097	838647	820488	825.6	-66.33	3	57.8
WA13-Max									64.8
WA13-1	121	838271	821335	838647	820488	927.1	-67.34	3	56.4
WA13-2	121	838469	821128	838647	820488	664.2	-64.45	3	59.3
WA13-3	121	838767	820819	838647	820488	352.2	-58.94	3	64.8
WA13-4	121	838750	820122	838647	820488	380.1	-59.60	3	64.1
WA13-5	121	838639	821033	838647	820488	545.4	-62.73	3	61.0
WA13-6	121	838294	821294	838647	820488	879.9	-66.89	3	56.8
WA14-Max									60.7
WA14-1	119	838713	820958	838647	820488	474.3	-61.52	3	60.7
WA14-2	119	838786	821411	838647	820488	933.7	-67.40	3	54.8
WA14-3	119	838777	821721	838647	820488	1239.8	-69.87	3	52.4
WA15-Max									56.1
WA15-1	122	838780	821925	838647	820488	1443.6	-71.19	3	54.1
WA15-2	122	838815	821622	838647	820488	1146.4	-69.19	3	56.1
WA16-Max									51.5
WA16-1	116	838195	821360	838647	820488	982.1	-67.84	3	51.3
WA16-2	116	838052	821328	838647	820488	1029.7	-68.25	3	50.8
WA16-3	116	837860	821012	838647	820488	945.4	-67.51	3	51.5
WA-17-Max									60.2
WA17-1	121	839144	821274	838647	820488	929.9	-67.37	3	56.2
WA17-2	121	839039	820923	838647	820488	585.0	-63.34	3	60.2
WA17-3	121	838767	821085	838647	820488	609.4	-63.70	3	59.8
WA17-4	121	838898	821405	838647	820488	950.6	-67.56	3	56.0
WA17-5	121	839109	821695	838647	820488	1292.8	-70.23	3	53.3
WA17-6	121	838569	821622	838647	820488	1136.7	-69.11	3	54.4
WA17-7	121	838333	821443	838647	820488	1005.5	-68.05	3	55.5
WA17-8	121	837678	820840	838647	820488	1032.9	-68.28	3	55.3
WA17-9	121	838770	821428	838647	820488	948.0	-67.54	3	56.0
WA-18-Max									47.6
WA18-1	121	838109	820578	838647	818083	2551.9	-76.14	3	47.4
WA18-2	121	837927	820638	838647	818083	2654.8	-76.48	3	47.1
WA18-3	121	838160	820884	838647	818083	2843.2	-77.08	3	46.5
WA18-4	121	838467	821252	838647	818083	3178.6	-78.03	3	45.5
WA18-5	121	838799	821529	838647	818083	3449.8	-78.76	3	44.8
WA18-6	121	838550	820562	838647	818083	2480.6	-75.89	3	47.6
WA20-Max									42.5
WA20-1	117	838352	821351	838647	818083	3280.8	-78.32	3	41.6
WA20-2	117	839131	820980	838647	818083	2937.2	-77.36	3	42.5
WA21-1-Max									43.8
WA21-1	117	837809	820926	838647	818083	2963.7	-77.44	3	42.4
WA21-2	117	837889	820520	838647	818083	2552.3	-76.14	3	43.7
WA21-3	117	838738	820616	838647	818083	2534.6	-76.08	3	43.8
WB11-Max									52.6
WB11-1	122	838915	820045	838647	818083	1980.2	-73.93	3	50.9
WB11-2	122	839215	819757	838647	818083	1767.7	-72.95	3	51.9
WB11-3	122	839534	819450	838647	818083	1629.6	-72.24	3	52.6
WB12-Max									50.9
WB12-1	122	840141	819400	838647	818083	1991.6	-73.98	3	50.9
WB12-2	122	840573	818994	838647	818083	2130.6	-74.57	3	50.3
WB-13&20-Max									49.7
WB13&20-1	122	840854	818619	838647	818083	2271.2	-75.12	3	49.7
WB13&20-2	122	841172	818225	838647	818083	2529.0	-76.06	3	48.8
WB14-1	120	838778	820063	838647	818083	1984.3	-73.95	3	48.9
WB15-Max									49.7
WB15-1	119	839215	819913	838647	818083	1916.1	-73.65	3	48.6
WB15-2	119	839022	819725	838647	818083	1684.3	-72.53	3	49.7
WB-16	120	839841	819225	838647	818083	1652.2	-72.36	3	50.8
WB-17-Max									41.5
WB17-1	113	840741	818413	838647	818083	2119.8	-74.53	3	41.5
WB17-2	113	840916	818182	838647	818083	2271.2	-75.12	3	40.9
WB17-3	113	841067	817981	838647	818083	2422.1	-75.68	3	40.3

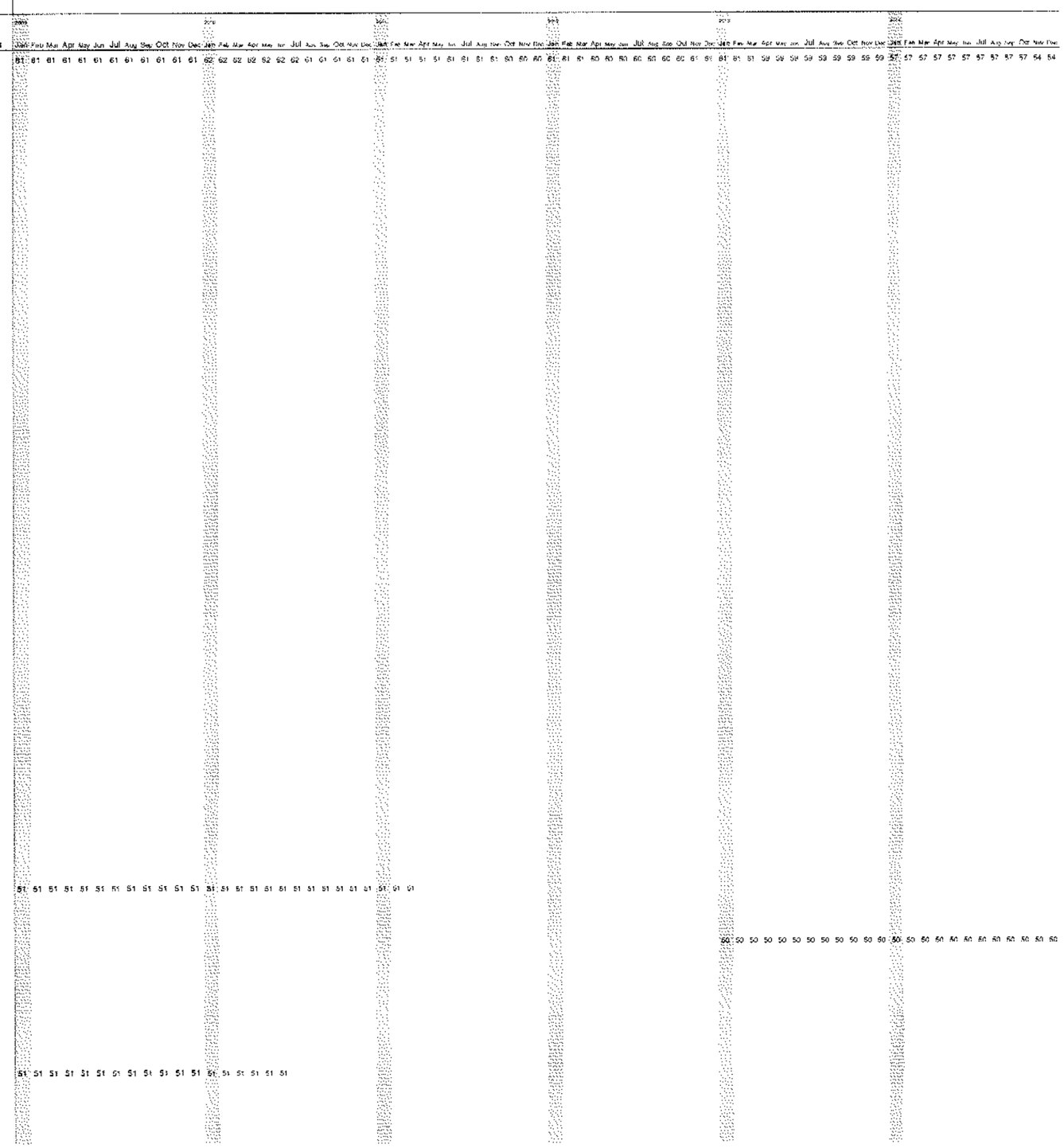
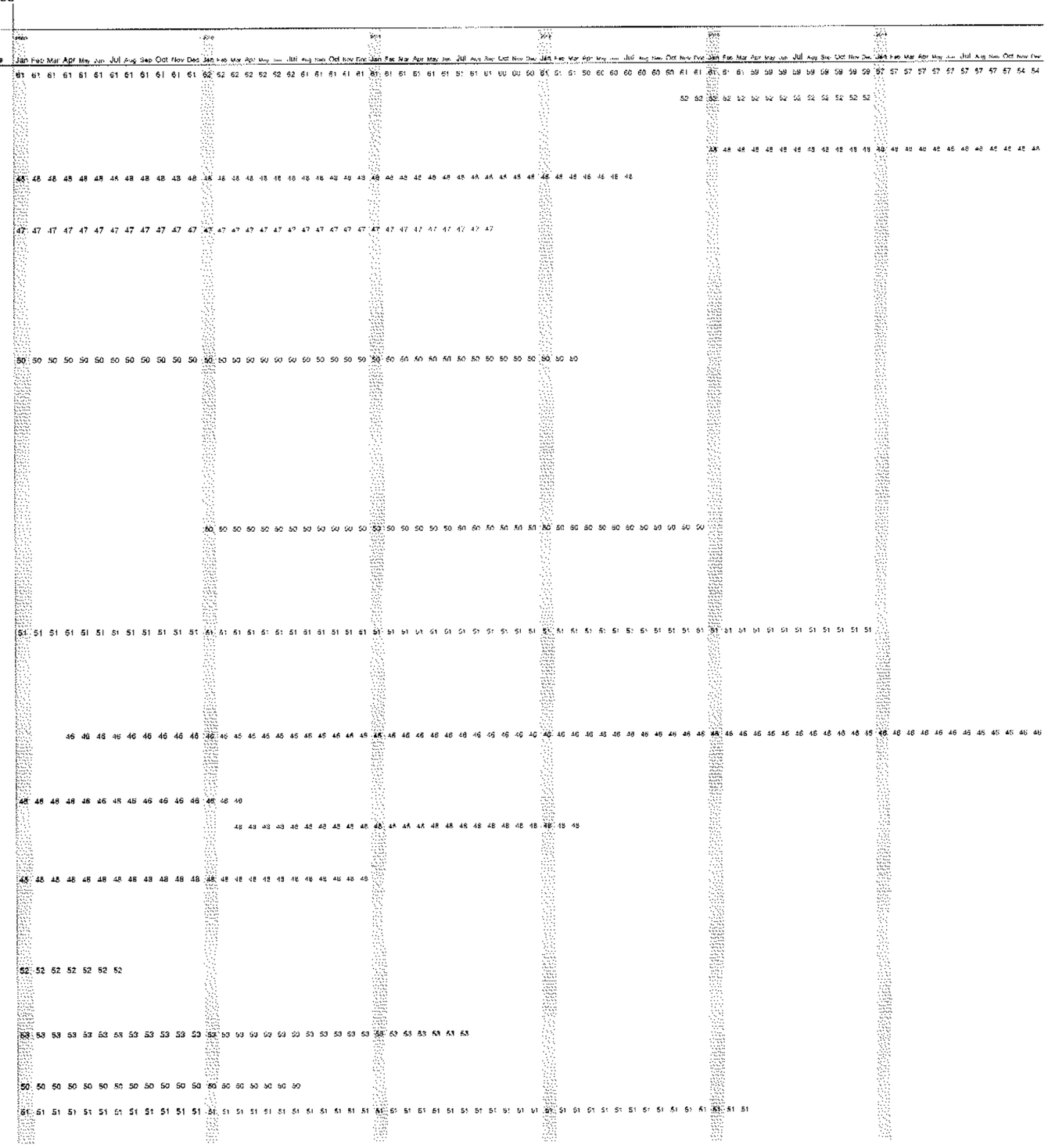


Table 3.1.8 - Mitigated Scenario (Level 1) for Future Noise Sensitive Receivers- Site 1P(S) (AP-F46)

		WP		Noise Sensive Receiver					
Packages	**SWL**	**Easting**	**Northing**	**Easting**	**Northing**	**Distance**	**Distance Correction**	**Façade Effect**	**CNL**
Cumulative Impact									
WB18,19-1 - Max									**52.3**
WB18,19-1	120	839827	818706	838647	818083	1333.0	-70.50	3	52.3
WB18,19-2	120	840112	818445	838647	818083	1509.1	-71.57	3	51.3
WB21	115	839828	818625	838647	818083	1299.4	-70.28	3	**47.5**
WC11-Max									**47.8**
WC11-1	119	840678	818790	838647	818083	2150.5	-74.65	3	47.7
WC11-2	119	840142	819590	838647	818083	2124.9	-74.55	3	47.8
WC12-Max									**47.3**
WC12-1	118	839067	820302	838647	818083	2258.4	-75.08	3	46.0
WC12-2	118	839325	820044	838647	818083	2074.9	-74.34	3	46.7
WC12-3	118	839585	819792	838647	818083	1939.9	-73.76	3	47.3
WC12-4	118	840032	819593	838647	818083	2049.0	-74.23	3	46.8
WC12-5	118	840287	819350	838647	818083	2072.4	-74.33	3	46.7
WC12-6	118	840543	819060	838647	818083	2132.9	-74.58	3	46.5
WC12-7	118	840727	818795	838647	818083	2196.5	-74.84	3	46.2
WC12-8	118	841036	818430	838647	818083	2414.1	-75.65	3	45.4
WC13-Max									**49.9**
WC13-1	118	838876	819878	838647	818083	1809.5	-73.15	3	48.0
WC13-2	118	839103	819654	838647	818083	1635.8	-72.27	3	48.8
WC13-3	118	839333	819437	838647	818083	1517.9	-71.62	3	49.5
WC13-4	118	839573	819203	838647	818083	1453.2	-71.25	3	49.9
WC13-5	118	839754	819027	838647	818083	1454.8	-71.25	3	49.8
WC14-Max									**46.0**
WC14-1	116	839103	820202	838647	818083	2167.5	-74.72	3	44.8
WC14-2	116	839384	819922	838647	818083	1981.2	-73.94	3	45.6
WC14-3	116	839652	819669	838647	818083	1877.6	-73.47	3	46.0
WC14-4	116	839851	819707	838647	818083	2021.6	-74.11	3	45.4
WC15-Max									**50.4**
WC15-1	120	839110	819891	838647	818083	1866.3	-73.42	3	49.5
WC15-2	120	839305	819733	838647	818083	1776.4	72.99	3	49.9
WC15-3	120	839486	819539	838647	818083	1680.4	-72.51	3	50.4
WC15-4	120	839629	820003	838647	818083	2156.6	-74.68	3	48.2
WC15-5	120	839744	819634	838647	818083	1899.7	-73.57	3	49.3
WC15-6	120	839361	820133	838647	818083	2170.8	-74.73	3	48.2
WC16-Max									**50.5**
WC16-1	119	839864	819417	838647	818083	1805.7	-73.13	3	49.3
WC16-2	119	839716	819259	838647	818083	1589.3	-72.02	3	50.4
WC16-3	119	840025	819310	838647	818083	1845.1	-73.32	3	49.1
WC16-4	119	840030	819050	838647	818083	1687.5	-72.55	3	49.9
WC16-5	119	840060	818757	838647	818083	1565.5	-71.89	3	50.5
WC16-6	119	839840	819219	838647	818083	1647.3	-72.34	3	50.1
WC17-Max									**45.7**
WC17-1	118	840951	818777	838647	818083	2406.3	-75.63	3	44.9
WC17-2	118	840734	818920	838647	818083	2248.6	-75.04	3	45.5
WC17-3	118	840540	819182	838647	818083	2188.9	-74.80	3	45.7
WC-18	117	839207	820039	838647	818083	2034.6	-74.17	3	**45.7**
WC19-Max									**47.6**
WC19-1	117	840259	819333	838647	818083	2039.9	-74.19	3	45.7
WC19-2	117	840050	818914	838647	818083	1880.6	-72.25	3	47.6
WC21-Max									**47.7**
WC21-1	120	838734	820362	838647	818083	2280.7	-75.16	3	47.7
WC21-2	120	838772	820388	838647	818083	2308.4	-75.27	3	47.6
WC21-3	120	838966	820630	838647	818083	2566.9	-76.19	3	46.7
WC21-4	120	839027	820426	838647	818083	2373.6	-75.51	3	47.4
WC21-5	120	839142	820350	838647	818083	2320.4	-75.31	3	47.6
WD11-Max									**51.7**
WD11-1	119	838271	819405	838647	818083	1374.4	-70.76	3	51.7
WD11-2	119	838593	819600	838647	818083	1518.0	-71.63	3	50.8
WD11-3	119	838098	819777	838647	818083	1780.7	-73.01	3	49.4
WD12-Max									**53.5**
WD12-1	119	838094	819132	838647	818083	1185.8	-69.48	3	52.6
WD12-2	119	838221	819060	838647	818083	1065.8	-68.55	3	53.5
WD13	119	838739	819637	838647	818083	1556.7	-71.84	3	**50.2**
WD14-Max									**50.6**
WD14-1	118	838217	820256	838647	818083	2215.1	-74.91	3	46.3
WD14-2	118	838288	820094	838647	818083	2042.8	-74.20	3	47.0



AGRREMENT NO. CE.32/99 COMPREHENSIVE FEASIBILITY STUDY FOR THE REVISED SCHEME OF SO
APPENDIX 3.1 CONSTRUCTION NOISE ASSESSMENT
Table 3.1.8 - Mitigated Scenario (Level 1) for Future Noise Sensitive Receivers- Site 1P(S) (AP-F46)

		WP		Noise Sensive Receiver					
Packages	SWL	Easting	Northing	Easting	Northing	Distance	Distance Correction	Façade Effect	CNL
Cumulative Impact									
WD14-3	118	838227	819740	838647	818083	1709.4	-72.66	3	48.5
WD14-4	118	838367	819480	838647	818083	1424.8	-71.07	3	50.1
WD14-5	118	838852	819562	838647	818083	1493.1	-71.48	3	49.7
WD14-6	118	838135	819320	838647	818083	1338.8	-70.53	3	50.6
WD14-7	118	837955	819443	838647	818083	1525.9	-71.67	3	49.5
WD14-8	118	838172	820056	838647	818083	2029.4	-74.15	3	47.0
WD15-Max									**52.3**
WD15-1	118	837928	818917	838647	818083	1101.1	-68.84	3	52.3
WD15-2	118	837825	819104	838647	818083	1310.8	-70.35	3	50.8
WD16	115	838534	819510	838647	818083	1431.5	-71.12	3	**46.7**
WD17	115	838705	819070	838647	818083	988.7	-67.90	3	**50.2**
WD18-Max									**44.7**
WD18-1	112	837770	819132	838647	818083	1367.3	-70.72	3	44.7
WD18-2	112	837726	819265	838647	818083	1498.5	-71.51	3	43.9
WD18-3	112	837934	819702	838647	818083	1769.0	-72.95	3	42.4
WD18-4	112	837995	819821	838647	818083	1856.3	-73.37	3	42.0
WD19-Max									**48.4**
WD19-1	118	838453	819917	838647	818083	1844.2	-73.32	3	47.5
WD19-2	118	838310	819736	838647	818083	1687.0	-72.54	3	48.3
WD19-3	118	838050	819647	838647	818083	1674.1	-72.48	3	48.4
WD20-Max									**48.6**
WD20-1	116	838364	819627	838647	818083	1569.7	-71.92	3	46.9
WD20-2	116	838115	819429	838647	818083	1447.3	-71.21	3	47.6
WD20-3	116	837961	819153	838647	818083	1279.5	-70.14	3	48.6
WD20-4	116	838135	820310	838647	818083	2285.1	-75.18	3	43.6
WD20-5	116	838128	820026	838647	818083	2011.1	74.07	3	44.7
WD20-6	116	838029	819819	838647	818083	1842.7	-73.31	3	45.5
WD20-7	116	837934	819586	838647	818083	1663.5	-72.42	3	46.4
WD20-8	116	837781	819463	838647	818083	1629.2	-72.24	3	46.6
WD20-9	116	837978	819805	838647	818083	1847.4	-73.33	3	45.5
WD20-10	116	837924	819655	838647	818083	1730.3	-72.76	3	46.0
WD20-11	116	838106	819750	838647	818083	1752.6	-72.87	3	45.9
WD20-12	116	837878	819286	838647	818083	1544.7	-71.78	3	47.0
WD21-Max									**52.7**
WD21-1	118	838022	818947	838647	818083	1066.4	-68.56	3	52.7
WD21-2	118	837556	819562	838647	818083	1837.9	-73.29	3	48.0
WD22	117	837965	819514	838647	818083	1585.2	-72.00	3	**47.9**
WD23	117	837866	819203	838647	818083	1365.4	-70.71	3	**49.2**

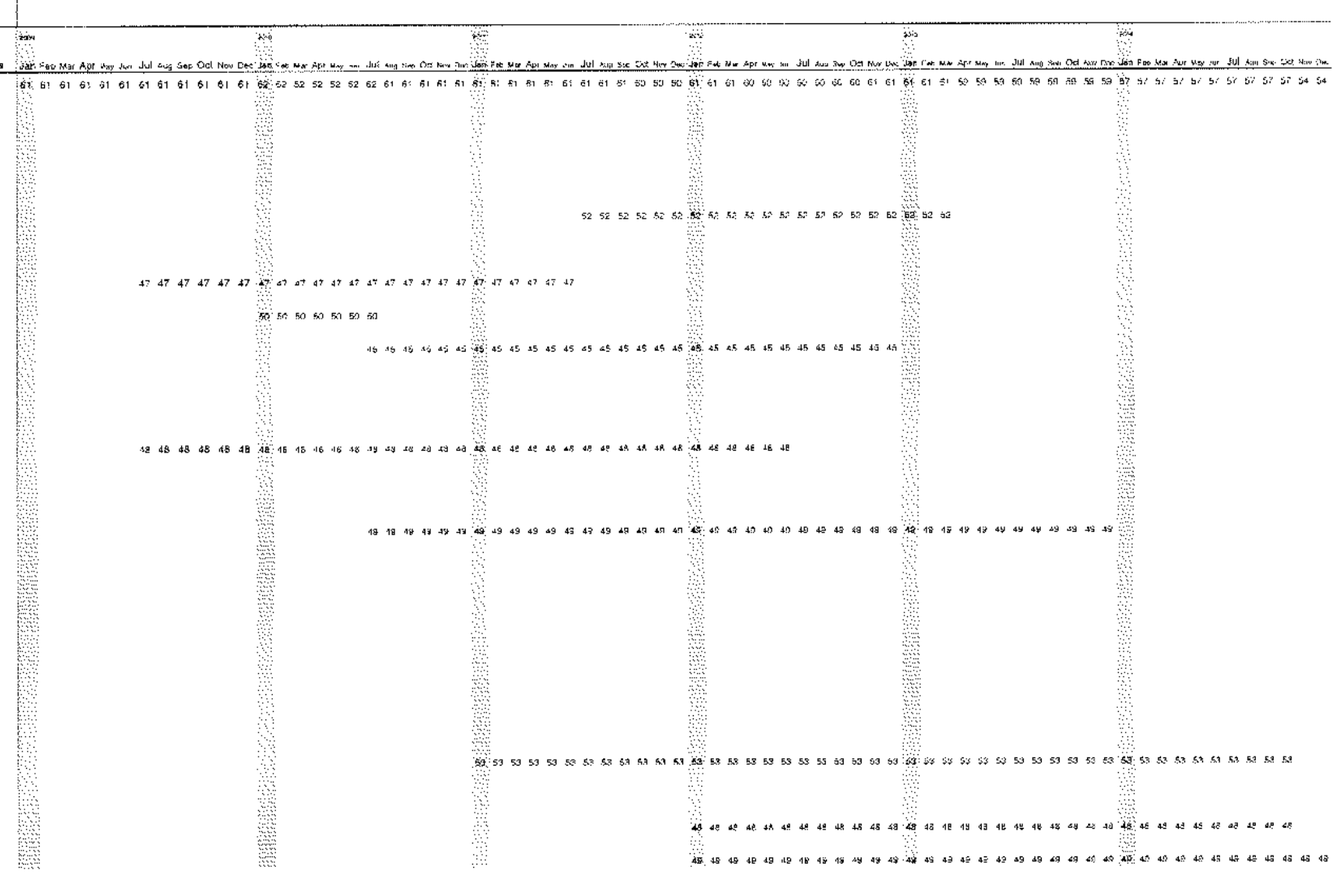


Table 3.1.9 - Mitigated Scenario (Level 2) at Existing Noise Sensitive Receivers - Rhythm Gardens (AP-E1)

Packages	SWL	WP Easting	WP Northing	Noise Sensive Receiver Easting	Noise Sensive Receiver Northing	Distance	Distance Correction	Façade Effect	CNL
Cumulative Impact									
WA11-Max									**50.9**
WA11-1	117	837977	821210	838944	821830	1148.8	-69.20	3	50.9
WA11-2	117	838001	821146	838944	821830	1164.8	-69.32	3	50.8
WA12	118	838090	821097	838944	821830	1125.6	-69.03	3	**51.5**
WA13-Max									**53.9**
WA13-1	117	838271	821335	838944	821830	835.6	-66.44	3	53.9
WA13-2	117	838459	821128	838944	821830	847.6	-66.56	3	53.7
WA13-3	117	838767	820819	838944	821830	1026.3	-68.23	3	52.1
WA13-4	117	838750	820122	838944	821830	1718.9	-72.70	3	47.6
WA13-5	117	838639	821033	838944	821830	853.1	-66.62	3	53.7
WA13-6	117	838294	821294	838944	821830	842.5	-66.51	3	53.8
WA14-Max									**67.5**
WA14-1	119	838713	820958	838944	821830	902.4	-67.11	3	54.4
WA14-2	119	838786	821411	838944	821830	447.5	-61.02	3	60.5
WA14-3	119	838777	821721	838944	821830	199.6	-54.00	3	67.5
WA15-Max									**66.9**
WA15-1	117	838780	821925	838944	821830	189.8	-53.57	3	66.9
WA15-2	117	838815	821622	838944	821830	244.7	-55.77	3	64.7
WA16-Max									**50.0**
WA16-1	114	838195	821360	838944	821830	883.8	-66.93	3	50.0
WA16-2	114	838052	821328	838944	821830	1023.7	-68.20	3	48.7
WA16-3	114	837860	821012	838944	821830	1357.9	-70.66	3	46.2
WA-17-Max									**66.3**
WA17-1	118	839144	821274	838944	821830	591.0	-63.43	3	57.5
WA17-2	118	839039	820923	838944	821830	912.4	-67.20	3	53.7
WA17-3	118	838767	821085	838944	821830	765.3	-65.68	3	55.2
WA17-4	118	838898	821405	838944	821830	427.6	-60.62	3	60.3
WA17-5	118	839109	821695	838944	821830	212.8	-54.56	3	66.3
WA17-6	118	838569	821622	838944	821830	428.7	-60.64	3	60.2
WA17-7	118	838333	821443	838944	821830	723.3	-65.19	3	55.7
WA17-8	118	837678	820846	838944	821830	1603.5	-72.10	3	46.8
WA17-9	118	838770	821428	838944	821830	438.0	-60.83	3	60.1
WA-18-Max									**44.9**
WA18-1	118	838109	820578	838944	818083	2630.6	-76.40	3	44.5
WA18-2	118	837927	820638	838944	818083	2750.2	-76.79	3	44.1
WA18-3	118	838160	820884	838944	818083	2908.8	-77.27	3	43.6
WA18-4	118	838467	821252	838944	818083	3204.2	-78.11	3	42.8
WA18-5	118	838799	821529	838944	818083	3449.4	-78.75	3	42.1
WA18-6	118	838550	820562	838944	818083	2509.8	-75.99	3	44.9
WA20-Max									**38.5**
WA20-1	113	838352	821351	838944	818083	3320.7	-78.42	3	37.4
WA20-2	113	839131	820980	838944	818083	2903.1	-77.26	3	38.5
WA21-1-Max									**39.7**
WA21-1	113	837809	820926	838944	818083	3061.0	-77.72	3	38.1
WA21-2	113	837889	820520	838944	818083	2655.7	-76.48	3	39.3
WA21-3	113	838738	820616	838944	818083	2541.3	-76.10	3	39.7
WB11-Max									**52.7**
WB11-1	121	838915	820045	838944	818083	1962.2	-73.85	3	50.3
WB11-2	121	839215	819757	838944	818083	1695.6	-72.59	3	51.6
WB11-3	121	839534	819450	838944	818083	1488.9	-71.48	3	52.7
WB12-Max									**51.1**
WB12-1	121	840141	819400	838944	818083	1779.7	-73.01	3	51.1
WB12-2	121	840573	818994	838944	818083	1866.4	-73.42	3	50.7
WB-13&20-Max									**50.2**
WB13&20-1	121	840854	818619	838944	818083	1983.8	-73.95	3	50.2
WB13&20-2	121	841172	818225	838944	818083	2232.5	-74.98	3	49.2
WB14-1	117	838778	820063	838944	818083	1986.9	-73.96	3	**46.1**
WB15-Max									**47.3**
WB15-1	117	839215	819913	838944	818083	1850.0	-73.34	3	46.2
WB15-2	117	839022	819725	838944	818083	1643.9	-72.32	3	47.3
WB-16	118	839841	819225	838944	818083	1452.2	-71.24	3	**49.3**
WB-17-Max									**41.0**
WB17-1	111	840741	818413	838944	818083	1827.0	-73.24	3	41.0
WB17-2	111	840916	818182	838944	818083	1974.5	-73.91	3	40.3
WB17-3	111	841067	817981	838944	818083	2125.4	-74.55	3	39.6

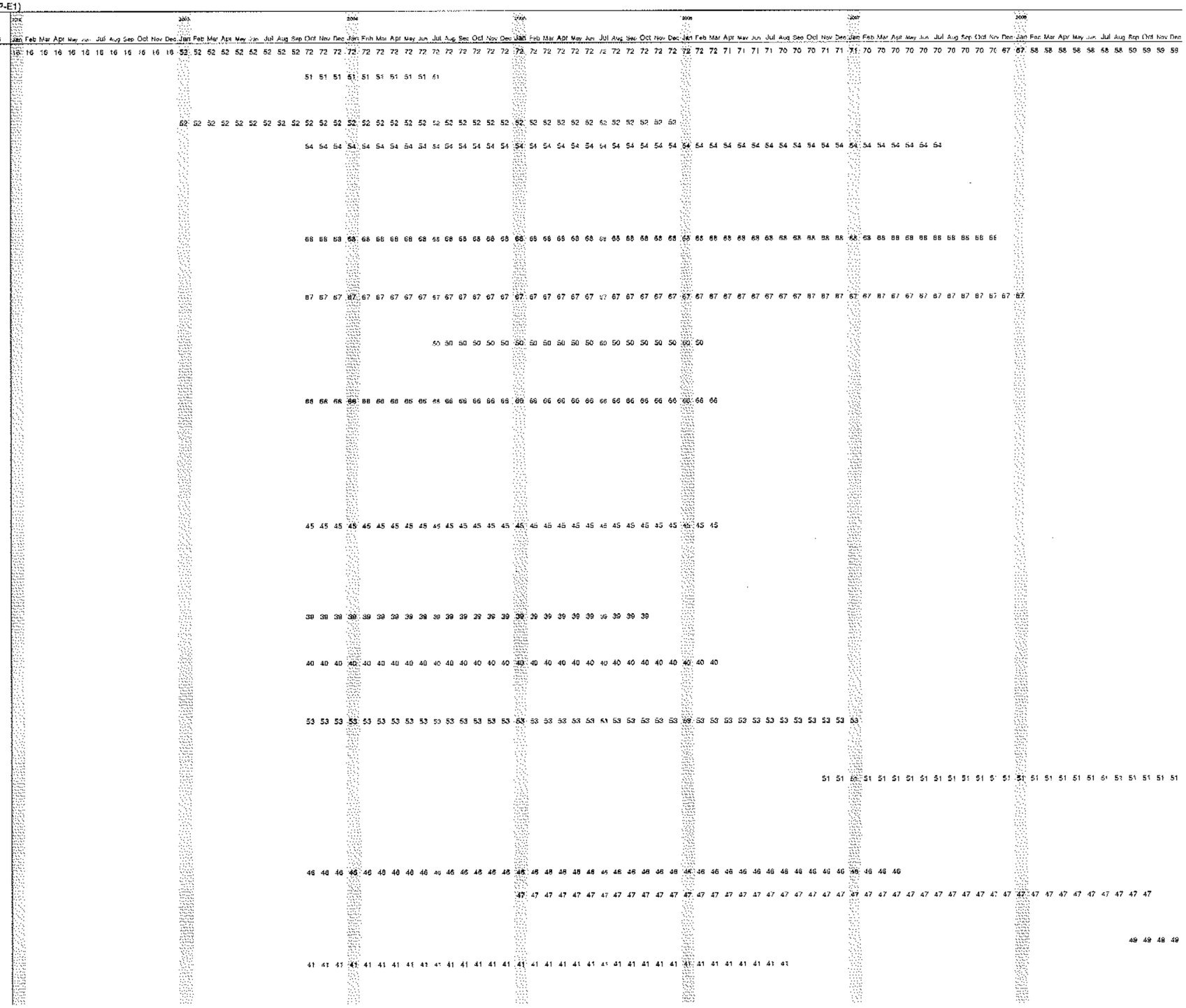


Table 3.1.9 - Mitigated Scenario (Level 2) at Exisiting Noise Sensitive Receivers - Rhythm Gardens (AP-E1)

Packages	SWL	WP Easting	WP Northing	Noise Sensive Receiver Easting	Noise Sensive Receiver Northing	Distance	Distance Correction	Façade Effect	CNL
Cumulative Impact									
WB18,19-1 - Max									**50.7**
WB18,19-1	116	839827	818703	838944	818083	1078.9	-68.66	3	50.7
WB18,19-2	116	840112	818445	838944	818083	1222.8	-69.75	3	49.7
WB21	113	839828	818625	838944	818083	1036.9	-68.31	3	**47.2**
WC11-Max									**45.8**
WC11-1	116	840678	818790	838944	818083	1872.6	-73.45	3	45.8
WC11-2	116	840142	819593	838944	818083	1927.5	-73.70	3	45.5
WC12-Max									**45.7**
WC12-1	116	839067	820302	838944	818083	2222.4	-74.94	3	43.9
WC12-2	116	839325	820044	838944	818083	1997.7	-74.01	3	44.8
WC12-3	116	839565	819792	838944	818083	1818.3	-73.19	3	45.7
WC12-4	116	840032	819583	838944	818083	1861.1	-73.40	3	45.5
WC12-5	116	840287	819350	838944	818083	1846.3	-73.33	3	45.5
WC12-6	116	840543	819060	838944	818083	1873.9	-73.45	3	45.4
WC12-7	116	840727	818795	838944	818083	1919.9	-73.67	3	45.2
WC12-8	116	841036	818430	838944	818083	2120.6	-74.53	3	44.3
WC13-Max									**49.3**
WC13-1	116	838876	819878	838944	818083	1796.3	-73.09	3	46.1
WC13-2	116	839103	819654	838944	818083	1579.0	-71.97	3	47.2
WC13-3	116	839333	819437	838944	818083	1408.8	-70.98	3	48.2
WC13-4	116	839573	819203	838944	818083	1284.5	-70.17	3	49.0
WC13-5	116	839754	819027	838944	818083	1243.9	-69.90	3	49.3
WC14-Max									**45.1**
WC14-1	115	839103	820202	838944	818083	2125.0	-74.55	3	43.4
WC14-2	115	839384	819922	838944	818083	1890.9	-73.53	3	44.4
WC14-3	115	839652	819689	838944	818083	1736.9	-72.80	3	45.1
WC14-4	115	839851	819707	838944	818083	1860.1	-73.39	3	44.5
WC15 Max									**46.5**
WC15-1	115	839110	819891	838944	818083	1815.6	-73.18	3	45.1
WC15-2	115	839305	819733	838944	818083	1689.0	-72.55	3	45.7
WC15-3	115	839486	819539	838944	818083	1553.6	-71.83	3	46.5
WC15-4	115	839629	820003	838944	818083	2038.5	-74.19	3	44.1
WC15-5	115	839744	819634	838944	818083	1745.2	-72.84	3	45.5
WC15-6	115	839361	820133	838944	818083	2092.0	-74.41	3	43.9
WC16-Max									**45.9**
WC16-1	113	839864	819417	838944	818083	1620.5	-72.19	3	44.0
WC16-2	113	839716	819259	838944	818083	1406.8	-70.96	3	45.2
WC16-3	113	840025	819310	838944	818083	1635.3	-72.27	3	43.9
WC16-4	113	840030	819050	838944	818083	1454.1	-71.25	3	44.9
WC16-5	113	840060	818757	838944	818083	1303.7	-70.30	3	45.9
WC16-6	113	839840	819219	838944	818083	1446.8	-71.21	3	45.0
WC17-Max									**44.1**
WC17-1	115	840951	818777	838944	818083	2123.6	-74.54	3	43.3
WC17-2	115	840734	818920	838944	818083	1976.0	-73.92	3	44.0
WC17-3	115	840540	819182	838944	818083	1937.8	-73.75	3	44.1
WC-18	113	839207	820039	838944	818083	1973.6	-73.91	3	**41.9**
WC19-Max									**44.9**
WC19-1	113	840259	819333	838944	818083	1814.3	-73.17	3	42.6
WC19-2	113	840050	818914	838944	818083	1383.4	-70.82	3	44.9
WC21-Max									**43.2**
WC21-1	115	838734	820362	838944	818083	2288.7	-75.19	3	43.1
WC21-2	115	838772	820388	838944	818083	2311.4	-75.28	3	43.0
WC21-3	115	838968	820630	838944	818083	2547.1	-76.12	3	42.2
WC21-4	115	839027	820426	838944	818083	2344.5	-75.40	3	42.9
WC21-5	115	839142	820350	838944	818083	2275.6	-75.14	3	43.2
WD11-Max									**50.0**
WD11-1	118	838271	819405	838944	818083	1483.4	-71.43	3	50.0
WD11-2	118	838593	819600	838944	818083	1557.1	-71.85	3	49.5
WD11-3	118	838098	819777	838944	818083	1893.5	-73.55	3	47.9
WD12-Max									**51.5**
WD12-1	118	838094	819132	838944	818083	1350.1	-70.61	3	50.6
WD12-2	118	838221	819060	838944	818083	1215.4	-69.69	3	51.5
WD13	116	838739	819637	838944	818083	1567.5	-71.90	3	**46.8**
WD14-Max									**46.8**
WD14-1	115	838217	820256	838944	818083	2291.4	-75.20	3	43.0
WD14-2	115	838288	820094	838944	818083	2115.3	-74.51	3	43.7

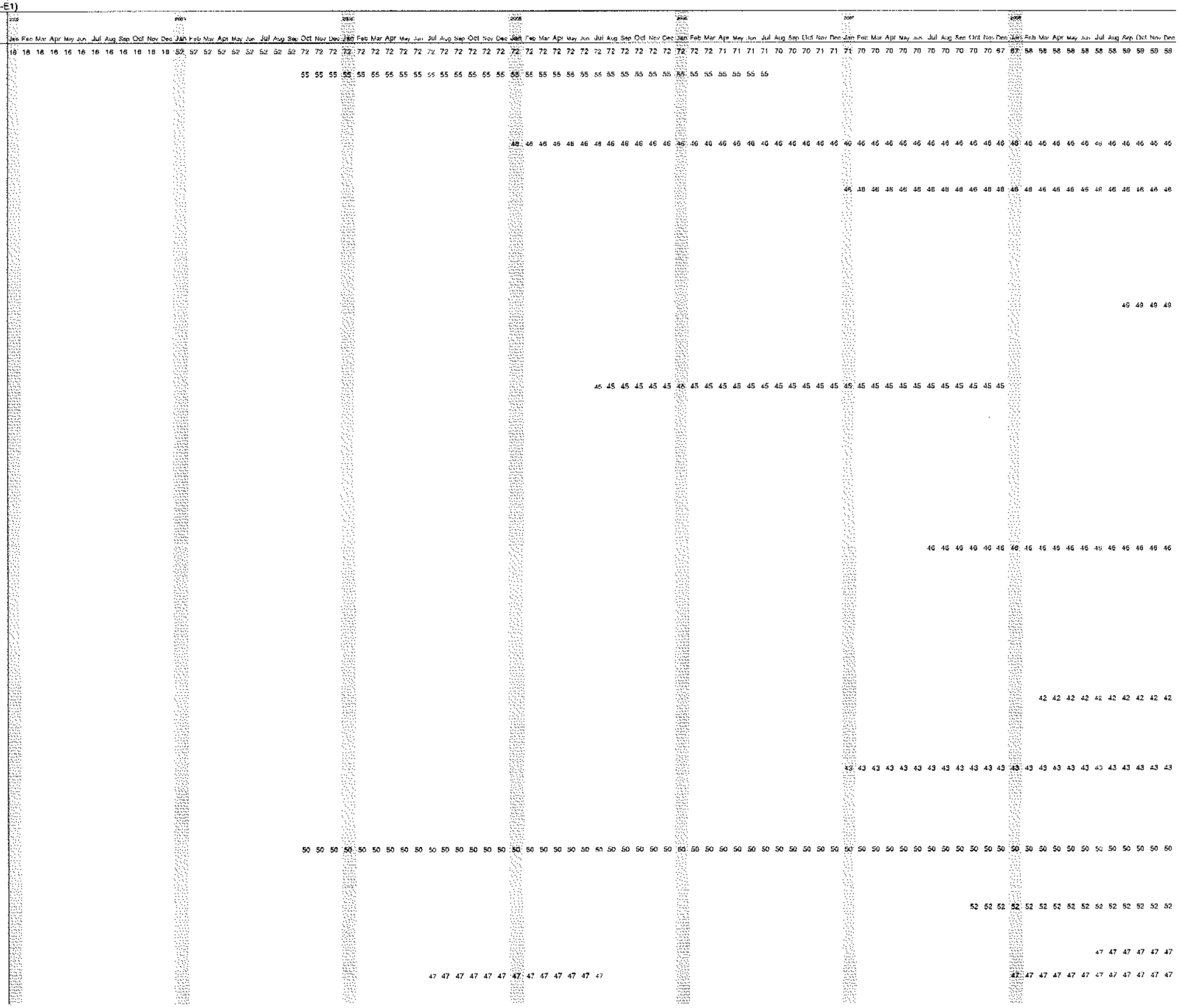


Table 3.1.9 - Mitigated Scenario (Level 2) at Exisiting Noise Sensitive Receivers - Rhythm Gardens (AP-E1)

		WP		Noise Sensitive Receiver						
Packages	SWL	Easting	Northing	Easting	Northing	Distance	Distance Correction	Façade Effect	CNL	Packages
Cumulative Impact										
WD14-3	115	838227	819740	838944	818083	1805.5	-73.13	3	45.1	
WD14-4	115	838367	819480	838944	818083	1511.5	-71.59	3	46.6	
WD14-5	115	838852	819562	838944	818083	1481.9	-71.42	3	46.8	
WD14-6	115	838135	819320	838944	818083	1478.1	-71.39	3	46.8	
WD14-7	115	837955	819443	838944	818083	1681.6	-72.51	3	45.7	
WD14-8	115	838172	820056	838944	818083	2118.7	-74.52	3	43.7	
WD15-Max									**47.9**	WD15
WD15-1	115	837928	818917	838944	818083	1314.5	-70.37	3	47.9	
WD15-2	115	837825	819104	838944	818083	1514.8	-71.61	3	46.6	
WD16	113	838534	819510	838944	818083	1484.7	-71.43	3	**44.1**	WD16
WD17	113	838705	819070	838944	818083	1015.5	-68.13	3	**47.6**	WD17
WD18-Max									**38.3**	WD18
WD18-1	107	837770	819132	838944	818083	1574.4	-71.94	3	38.3	
WD18-2	107	837726	819265	838944	818083	1697.2	-72.59	3	37.6	
WD18-3	107	837934	819702	838944	818083	1909.2	-73.61	3	36.6	
WD18-4	107	837995	819821	838944	818083	1980.2	-73.93	3	36.3	
WD19-Max									**45.9**	WD19
WD19-1	116	838453	819917	838944	818083	1898.6	-73.57	3	45.3	
WD19-2	116	838310	819736	838944	818083	1770.4	-72.96	3	45.9	
WD19-3	116	838050	819647	838944	818083	1801.5	-73.11	3	45.7	
WD20-Max									**39.0**	WD20
WD20-1	107	838364	819627	838944	818083	1649.3	-72.35	3	37.9	
WD20-2	107	838115	819429	838944	818083	1580.8	-71.98	3	38.3	
WD20-3	107	837961	819163	838944	818083	1460.4	-71.29	3	39.0	
WD20-4	107	838135	820310	838944	818083	2369.4	-75.49	3	34.8	
WD20-5	107	838128	820026	838944	818083	2107.4	-74.47	3	35.8	
WD20-6	107	838029	819819	838944	818083	1962.4	-73.88	3	36.4	
WD20-7	107	837934	819586	838944	818083	1810.8	-73.18	3	37.1	
WD20-8	107	837781	819463	838944	818083	1804.7	-73.13	3	37.2	
WD20-9	107	837978	819805	838944	818083	1974.4	-73.91	3	36.4	
WD20-10	107	837924	819655	838944	818083	1873.9	-73.46	3	36.8	
WD20-11	107	838106	819750	838944	818083	1865.8	-73.42	3	36.9	
WD20-12	107	837678	819286	838944	818083	1746.4	-72.84	3	37.4	
WD21-Max									**48.7**	WD21
WD21-1	116	838022	818947	838944	818083	1263.6	-70.03	3	48.7	
WD21-2	116	837556	819562	838944	818083	2028.3	-74.14	3	44.6	
WD22	113	837965	819514	838944	818083	1733.8	-72.78	3	**43.0**	WD22
WD23	113	837866	819203	838944	818083	1554.5	-71.83	3	**43.9**	WD23

Packages	2003 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2004 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2005 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2006 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2007 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2008 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cumulative Impact	16	16	16	16	16	16	16	16	16	16	16	16	52	52	52	52	52	52	52	52	52	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	71	71	71	71	70	70	70	70	70	70	70	70	70	71	71	71	70	70	70	70	70	70	70	70	70	71	67	67	58	58	58	58	58	58	58	59	59	59
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WD23																																																																								

Table 3.1.9 - Mitigated Scenario (Level 2) at Existing Noise Sensitive Receivers - Rhythm Gardens (AP-E

		WP		Noise Sensive Receiver						
Packages	SWL	Easting	Northing	Easting	Northing	Distance	Distance Correction	Façade Effect	CNL	Packages
Cumulative impact										
WA11-Max									**50.9**	WA11
WA11-1	117	837977	821210	838944	821830	1148.8	-69.20	3	50.9	
WA11-2	117	838001	821146	838944	821830	1154.8	-69.32	3	50.8	
WA12	118	838090	821097	838944	821830	1125.6	-69.03	3	**51.5**	WA12
WA13-Max									**53.9**	WA13
WA13-1	117	838271	821335	838944	821830	835.6	-66.44	3	53.9	
WA13-2	117	838469	821128	838944	821830	847.6	-66.56	3	53.7	
WA13-3	117	838767	820819	838944	821830	1026.3	-68.23	3	52.1	
WA13-4	117	838750	820122	838944	821830	1718.9	-72.70	3	47.6	
WA13-5	117	838539	821033	838944	821830	853.1	-66.62	3	53.7	
WA13-6	117	838204	821294	838944	821830	842.5	-66.51	3	53.8	
WA14-Max									**67.5**	WA14
WA14-1	119	838713	820958	838944	821830	902.4	-67.11	3	54.4	
WA14-2	119	838786	821411	838944	821830	447.5	-61.02	3	60.5	
WA14-3	119	838777	821721	838944	821830	199.6	-54.00	3	67.5	
WA15-Max									**66.9**	WA15
WA15-1	117	838780	821925	838944	821830	189.8	-53.57	3	66.9	
WA15-2	117	838815	821622	838944	821830	244.7	-55.77	3	64.7	
WA16-Max									**50.0**	WA16
WA16-1	114	839195	821360	838944	821830	883.8	-66.93	3	50.0	
WA16-2	114	839052	821328	838944	821830	1023.7	-68.20	3	48.7	
WA16-3	114	837860	821012	838944	821830	1357.9	-70.66	3	46.2	
WA-17-Max									**66.3**	WA17
WA17-1	118	839144	821274	838944	821830	591.0	-63.43	3	57.5	
WA17-2	118	839039	820923	838944	821830	912.4	-67.20	3	53.7	
WA17-3	118	838767	821085	838944	821830	765.3	-65.68	3	55.2	
WA17-4	118	838898	821405	838944	821830	427.6	-60.62	3	60.3	
WA17-5	118	839109	821695	838944	821830	212.8	-54.56	3	66.3	
WA17-6	118	838569	821622	838944	821830	428.7	-60.64	3	60.2	
WA17-7	118	838333	921443	838944	821830	723.3	-65.19	3	55.7	
WA17-8	118	837678	820846	838944	821830	1603.5	-72.10	3	48.8	
WA17-9	118	838770	921428	838944	821830	438.0	-60.83	3	60.1	
WA-18-Max									**44.9**	WA18
WA18-1	118	838109	820578	838944	818083	2630.6	-76.40	3	44.5	
WA18-2	118	837927	820638	838944	818083	2750.2	-76.79	3	44.1	
WA18-3	118	838160	820884	838944	818083	2908.8	-77.27	3	43.6	
WA18-4	118	838467	821252	838944	818083	3204.2	-78.11	3	42.8	
WA18-5	118	838799	821529	838944	818083	3449.4	-78.75	3	42.1	
WA18-6	118	838550	820562	838944	818083	2509.8	-75.99	3	44.9	
WA20-Max									**38.5**	WA20
WA20-1	113	838352	821351	838944	818083	3320.7	-78.42	3	37.4	
WA20-2	113	839131	820980	838944	818083	2903.1	-77.26	3	38.5	
WA21-1-Max									**39.7**	WA21
WA21-1	113	837809	820926	838944	818083	3061.0	-77.72	3	38.1	
WA21-2	113	837889	820520	838944	818083	2655.7	-76.48	3	39.3	
WA21-3	113	838738	820616	838944	818083	2541.3	-76.10	3	39.7	
WB11-Max									**52.7**	WB11
WB11-1	121	839915	820045	838944	818083	1962.2	-73.85	3	50.3	
WB11-2	121	839215	819757	838944	818083	1695.8	-72.59	3	51.6	
WB11-3	121	839534	819450	838944	818083	1488.9	-71.46	3	52.7	
WB12-Max									**51.1**	WB12
WB12-1	121	840141	819400	838944	818083	1779.7	-73.01	3	51.1	
WB12-2	121	840573	818994	838944	818083	1866.4	-73.42	3	50.7	
WB-13&20-Max									**50.2**	WB13
WB13&20-1	121	840854	818619	838944	818083	1983.8	-73.95	3	50.2	
WB13&20-2	121	841172	818225	838944	818083	2232.5	-74.98	3	49.2	
WB14-1	117	838776	820063	838944	818083	1986.9	-73.96	3	**46.1**	WB14
WB15-Max									**47.3**	WB15
WB15-1	117	839215	819913	838944	818083	1850.0	-73.34	3	46.2	
WB15-2	117	839022	819725	838944	818083	1643.9	-72.32	3	47.3	
WB-16	118	839841	819225	838944	818083	1452.2	-71.24	3	**49.3**	WB16
WB-17-Max									**41.0**	WB17
WB17-1	111	840741	818413	838944	818083	1827.0	-73.24	3	41.0	
WB17-2	111	840916	818182	838944	818083	1974.5	-73.91	3	40.3	
WB17-3	111	841067	817981	838944	818083	2125.4	-74.55	3	39.6	

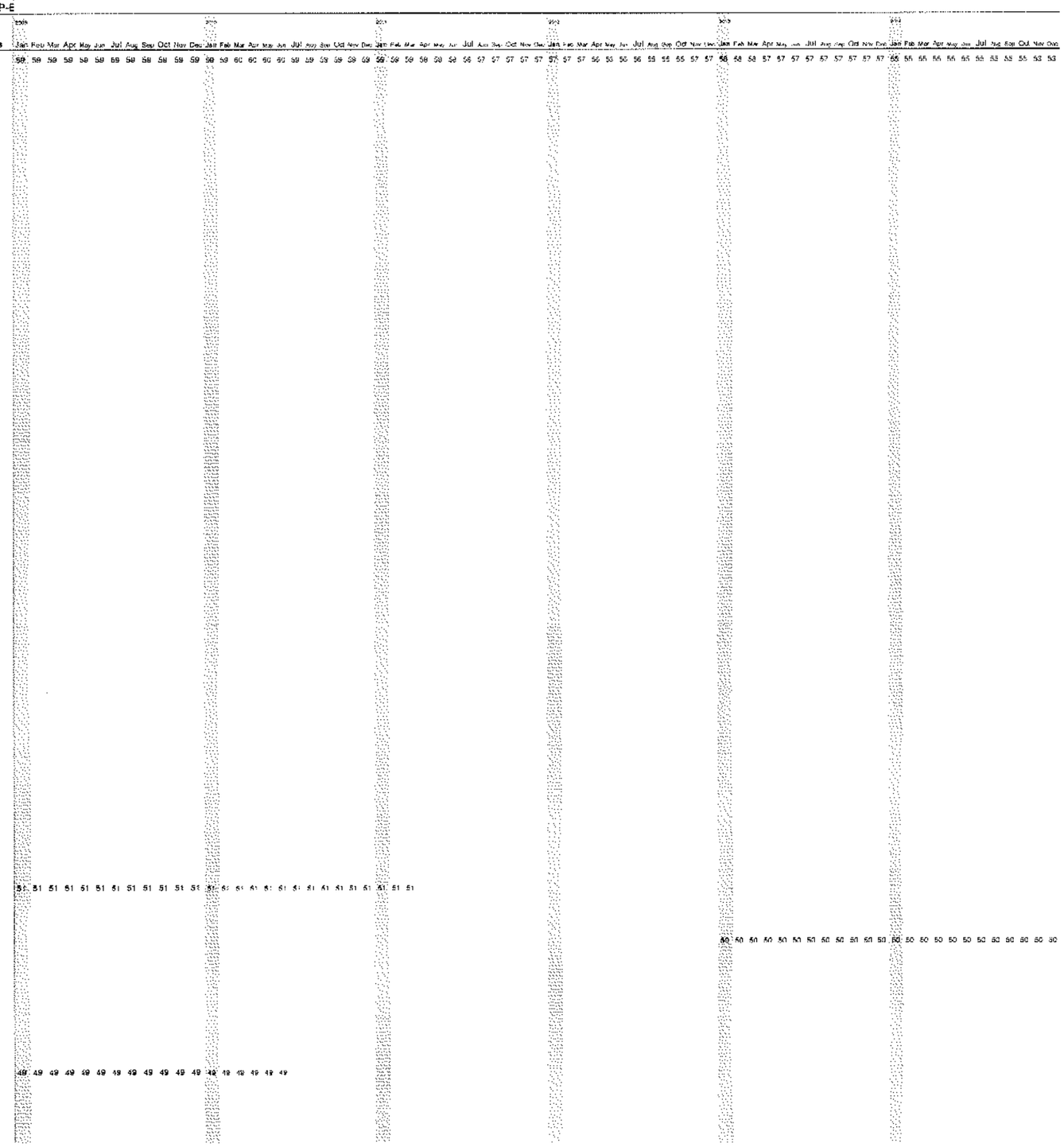


Table 3.1.9 - Mitigated Scenario (Level 2) at Exisiting Noise Sensitive Receivers - Rhythm Gardens (AP-E

		WP		Noise Sensitive Receiver					
Packages	**SWL**	**Easting**	**Northing**	**Easting**	**Northing**	**Distance**	**Distance Correction**	**Façade Effect**	**CNL**
Cumulative Impact									
WB18,19-1 - Max									**50.7**
WB18,19-1	116	839827	818703	838944	818083	1076.9	-68.66	3	50.7
WB18,19-2	116	840112	818445	838944	818083	1222.6	-69.75	3	49.7
WB21	113	839828	818625	838944	818083	1036.9	-68.31	3	**47.2**
WC11-Max									**45.8**
WC11-1	116	840678	818790	838944	818083	1872.6	-73.45	3	45.8
WC11-2	116	840142	819593	838944	818083	1927.5	-73.70	3	45.5
WC12-Max									**45.7**
WC12-1	116	839067	820302	838944	818083	2222.4	-74.94	3	43.9
WC12-2	116	839325	820044	838944	818083	1997.7	-74.01	3	44.8
WC12-3	116	839565	819792	838944	818083	1818.3	-73.19	3	45.7
WC12-4	116	840032	819593	838944	818083	1861.1	-73.40	3	45.5
WC12-5	116	840287	819350	838944	818083	1846.3	-73.33	3	45.5
WC12-6	116	840543	819060	838944	818083	1873.9	-73.45	3	45.4
WC12-7	116	840727	818795	838944	818083	1919.9	-73.67	3	45.2
WC12-8	116	841036	818430	838944	818083	2120.6	-74.53	3	44.3
WC13-Max									**49.3**
WC13-1	116	838876	819878	838944	818083	1796.3	-73.09	3	46.1
WC13-2	116	839103	819654	838944	818083	1579.0	-71.97	3	47.2
WC13-3	116	839333	819437	838944	818083	1408.8	-70.98	3	48.2
WC13-4	116	839573	819203	838944	818083	1284.5	-70.17	3	49.0
WC13-5	116	839754	819027	838944	818083	1243.9	-69.90	3	49.3
WC14-Max									**45.1**
WC14-1	115	839103	820202	838944	818083	2125.0	-74.55	3	43.4
WC14-2	115	839384	819922	838944	818083	1890.9	-73.53	3	44.4
WC14-3	115	839652	819669	838944	818083	1736.9	-72.80	3	45.1
WC14-4	115	839851	819707	838944	818083	1880.1	-73.39	3	44.5
WC15-Max									**46.5**
WC15-1	115	839110	819891	838944	818083	1815.6	-73.18	3	45.1
WC15-2	115	839305	819733	838944	818083	1689.0	-72.55	3	45.7
WC15-3	115	839486	819539	838944	818083	1553.6	-71.83	3	46.5
WC15-4	115	839629	820003	838944	818083	2038.5	-74.19	3	44.1
WC15-5	115	839744	819634	838944	818083	1745.2	-72.84	3	45.5
WC15-6	115	839361	820133	838944	818083	2092.0	-74.41	3	43.9
WC16-Max									**45.9**
WC16-1	113	839664	819417	838944	818083	1620.6	-72.19	3	44.0
WC16-2	113	839716	819259	838944	818083	1406.8	-70.96	3	45.2
WC16-3	113	840025	819310	838944	818083	1635.3	-72.27	3	43.9
WC16-4	113	840030	819050	838944	818083	1454.1	-71.25	3	44.9
WC16-5	113	840060	818757	838944	818083	1303.7	-70.30	3	45.9
WC16-6	113	839840	819219	838944	818083	1446.8	-71.21	3	45.0
WC17-Max									**44.1**
WC17-1	115	840951	818777	838944	818083	2123.6	-74.54	3	43.3
WC17-2	115	840734	818920	838944	818083	1976.0	-73.92	3	44.0
WC17-3	115	840540	819182	838944	818083	1937.8	-73.75	3	44.1
WC-18	113	839207	820099	838944	818083	1973.6	-73.91	3	**41.9**
WC19-Max									**44.9**
WC19-1	113	840259	819333	838944	818083	1814.3	-73.17	3	42.6
WC19-2	113	840050	818914	838944	818083	1383.4	-70.82	3	44.9
WC21-Max									**43.2**
WC21-1	115	838734	820362	838944	818083	2288.7	-75.19	3	43.1
WC21-2	115	838772	820388	838944	818083	2311.4	-75.28	3	43.0
WC21-3	115	838966	820630	838944	818083	2547.1	-76.12	3	42.2
WC21-4	115	839027	820426	838944	818083	2344.5	-75.40	3	42.9
WC21-5	115	839142	820350	838944	818083	2275.8	-75.14	3	43.2
WD11-Max									**50.0**
WD11-1	118	838271	819405	838944	818083	1483.4	-71.43	3	50.0
WD11-2	118	838593	819600	838944	818083	1557.1	-71.85	3	49.5
WD11-3	118	838098	819777	838944	818083	1893.5	-73.55	3	47.8
WD12-Max									**51.5**
WD12-1	118	838094	819132	838944	818083	1350.1	-70.61	3	50.6
WD12-2	118	838221	819060	838944	818083	1215.4	-69.69	3	51.5
WD13	116	838739	819637	838944	818083	1567.5	-71.90	3	**46.8**
WD14-Max									**46.8**
WD14-1	115	838217	820256	838944	818083	2291.4	-75.20	3	43.0
WD14-2	115	838288	820094	838944	818083	2115.3	-74.51	3	43.7

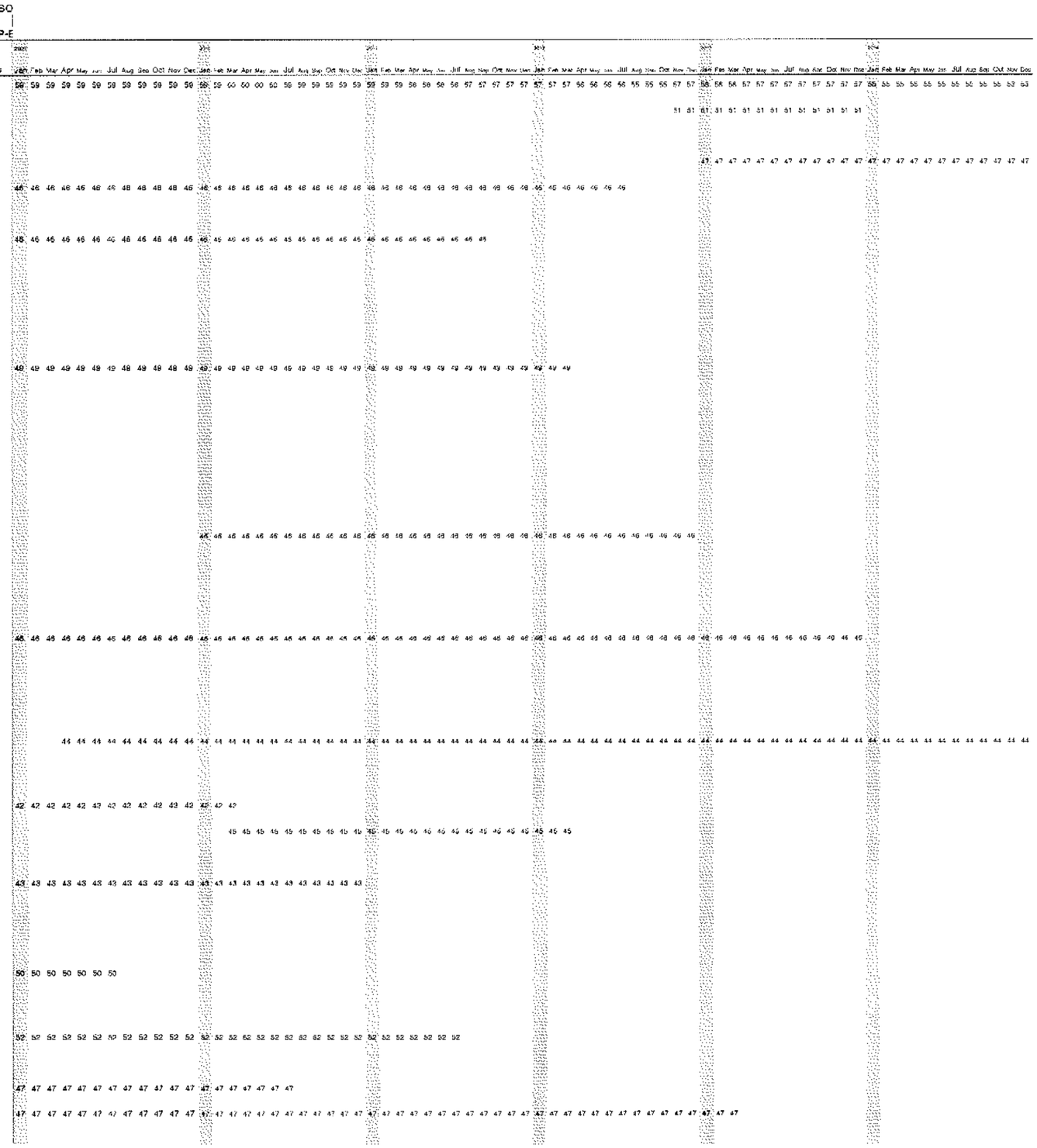


Table 3.1.9 - Mitigated Scenario (Level 2) at Exisiting Noise Sensitive Receivers - Rhythm Gardens (AP-E

		WP		Noise Sensive Receiver					
Packages	**SWL**	**Easting**	**Northing**	**Easting**	**Northing**	**Distance**	**Distance Correction**	**Façade Effect**	**CNL**
Cumulative Impact									
WD14-3	115	838227	819740	838944	818083	1805.5	-73.13	3	45.1
WD14-4	115	838367	819480	838944	818083	1511.5	-71.59	3	46.6
WD14-5	115	838852	819562	838944	818083	1481.9	-71.42	3	46.8
WD14-6	115	838135	819320	838944	818083	1478.1	-71.39	3	46.8
WD14-7	115	837955	819443	838944	818083	1681.6	-72.51	3	45.7
WD14-8	115	838172	820056	838944	818083	2118.7	-74.52	3	43.7
WD15-Max									**47.9**
WD15-1	115	837928	818917	838944	818083	1314.5	-70.37	3	47.9
WD15-2	115	837825	819104	838944	818083	1514.8	-71.61	3	46.6
WD16	113	838534	819510	838944	818083	1484.7	-71.43	3	**44.1**
WD17	113	838705	819070	838944	818083	1015.5	-68.13	3	**47.6**
WD18-Max									**38.3**
WD18-1	107	837770	819132	838944	818083	1574.4	-71.94	3	38.3
WD18-2	107	837726	819265	838944	818083	1597.2	-72.59	3	37.6
WD18-3	107	837934	819702	838944	818083	1908.2	-73.61	3	36.6
WD18-4	107	837885	819821	838944	818083	1980.2	-73.93	3	36.3
WD19-Max									**45.9**
WD19-1	116	838453	819917	838944	818083	1898.6	-73.57	3	46.3
WD19-2	116	838310	819736	838944	818083	1770.4	-72.96	3	45.9
WD19-3	116	838050	819647	838944	818083	1801.5	-73.11	3	45.7
WD20-Max									**39.0**
WD20-1	107	838364	819827	838944	818083	1649.3	-72.35	3	37.9
WD20-2	107	838115	819429	838944	818083	1580.6	-71.98	3	38.3
WD20-3	107	837961	819163	838944	818083	1460.4	-71.29	3	39.0
WD20-4	107	838135	820310	838944	818083	2369.4	-75.49	3	34.8
WD20-5	107	838128	820025	838944	818083	2107.4	-74.47	3	35.8
WD20-6	107	838029	819819	838944	818083	1962.4	-73.86	3	36.4
WD20-7	107	837934	819586	838944	818083	1810.8	-73.16	3	37.1
WD20-8	107	837781	819463	838944	818083	1804.7	-73.13	3	37.2
WD20-9	107	837978	819805	838944	818083	1974.4	-73.91	3	36.4
WD20-10	107	837924	819655	838944	818083	1873.9	-73.46	3	36.8
WD20-11	107	838106	819750	838944	818083	1865.8	-73.42	3	36.9
WD20-12	107	837678	819286	838944	818083	1746.4	-72.84	3	37.4
WD21-Max									**48.7**
WD21-1	116	838022	818947	838944	818083	1263.6	-70.03	3	48.7
WD21-2	116	837556	819562	838944	818083	2028.3	-74.14	3	44.6
WD22	113	837965	819514	838944	818083	1733.8	-72.78	3	**43.0**
WD23	113	837868	819203	838944	818083	1554.5	-71.83	3	**43.9**

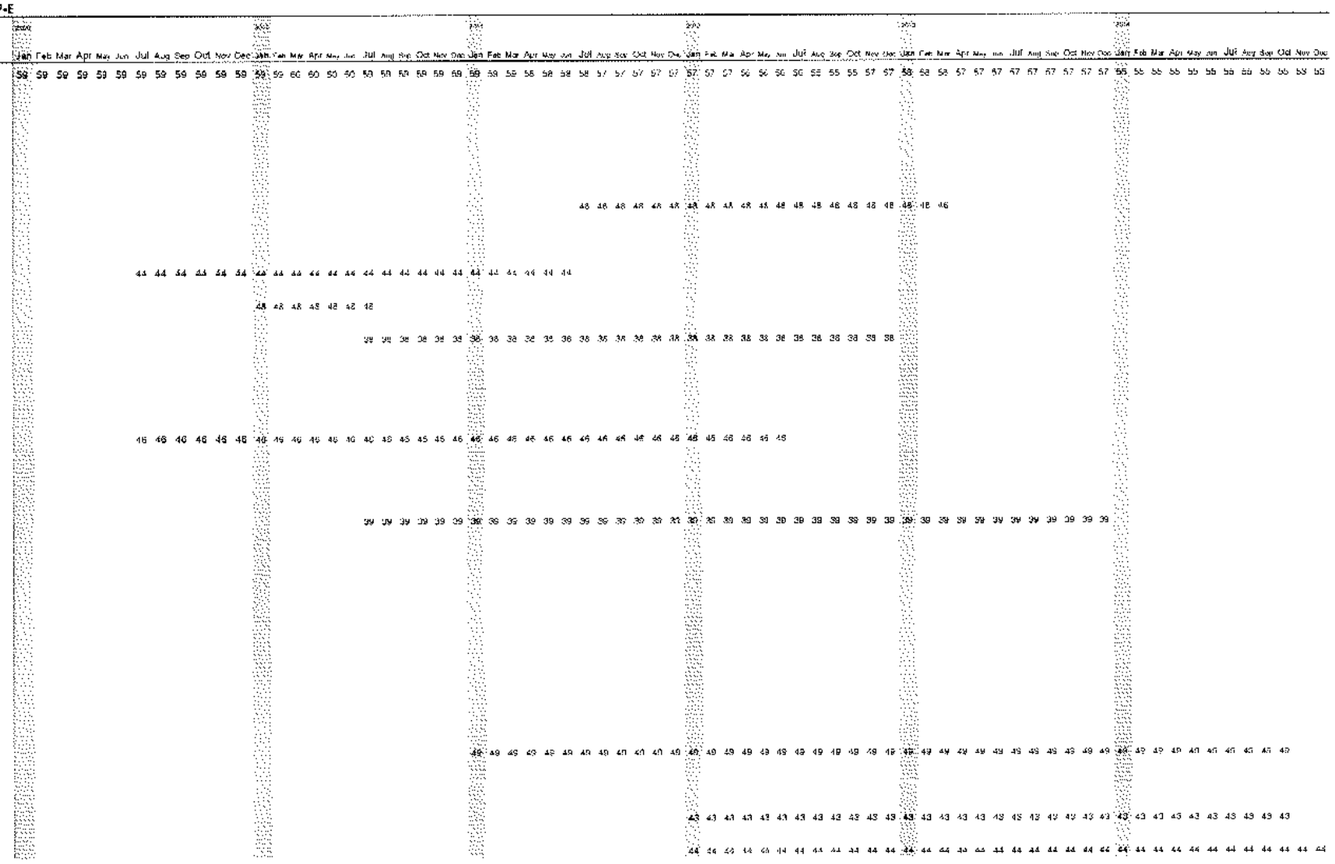
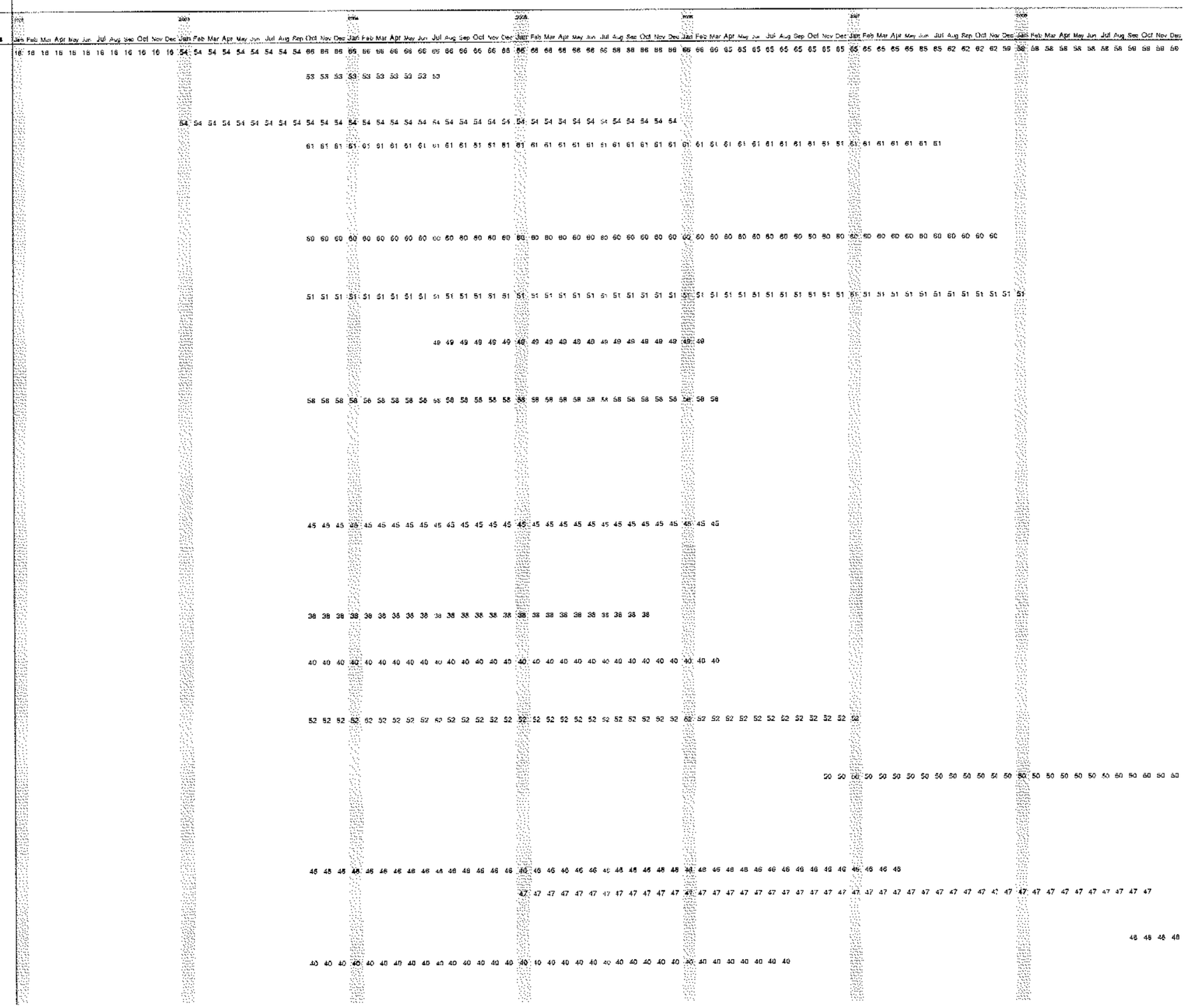


Table 3.1.10 - Mitigated Scenario (Level 2) for Future Noise Sensitive Receivers- Site 1P(S) (AP-F46)

Packages	SWL	WP Easting	WP Northing	Noise Sensitive Receiver Easting	Noise Sensitive Receiver Northing	Distance	Distance Correction	Façade Effect	CNL
Cumulative Impact									
WA11-Max									**52.8**
WA11-1	117	837977	821210	838647	820488	984.4	-67.86	3	52.3
WA11-2	117	838001	821146	838647	820488	921.5	-67.28	3	52.8
WA12	118	838090	821097	838647	820488	825.6	-66.33	3	**54.2**
WA13-Max									**61.4**
WA13-1	117	838271	821335	838647	820488	927.1	-67.34	3	53.0
WA13-2	117	838469	821128	838647	820488	664.2	-64.45	3	55.9
WA13-3	117	838767	820819	838647	820488	352.2	-58.94	3	61.4
WA13-4	117	838750	820122	838647	820488	380.1	-59.60	3	60.7
WA13-5	117	838639	821033	838647	820488	545.4	-62.73	3	57.6
WA13-6	117	838294	821294	838647	820488	879.9	-66.89	3	53.4
WA14-Max									**60.0**
WA14-1	119	838713	820958	838647	820488	474.3	-61.52	3	60.0
WA14-2	119	838786	821411	838647	820488	933.7	-67.40	3	54.1
WA14-3	119	838777	821721	838647	820488	1239.8	-69.87	3	51.6
WA15-Max									**51.3**
WA15-1	117	838780	821925	838647	820488	1443.6	-71.19	3	49.3
WA15-2	117	838815	821622	838647	820488	1146.4	-69.19	3	51.3
WA16-Max									**49.4**
WA16-1	114	838195	821360	838647	820488	982.1	-67.84	3	49.0
WA16-2	114	838052	821328	838647	820488	1029.7	-68.25	3	48.6
WA16-3	114	837860	821012	838647	820488	945.4	-67.51	3	49.4
WA-17-Max									**57.5**
WA17-1	118	839144	821274	838647	820488	929.9	-67.37	3	53.5
WA17-2	118	839039	820923	838647	820488	585.0	-63.34	3	57.5
WA17-3	118	838767	821085	838647	820488	609.4	-63.70	3	57.2
WA17-4	118	838898	821405	838647	820488	950.6	-67.56	3	53.3
WA17-5	118	839109	821695	838647	820488	1292.8	-70.23	3	50.7
WA17-6	118	838569	821622	838647	820488	1136.7	-69.11	3	51.8
WA17-7	118	838333	821443	838647	820488	1005.5	-68.05	3	52.8
WA17-8	118	837678	820846	838647	820488	1032.9	-68.28	3	52.6
WA17-9	118	838770	821428	838647	820488	948.0	-67.54	3	53.3
WA-18-Max									**45.0**
WA18-1	118	838109	820578	838647	818083	2551.9	-76.14	3	44.7
WA18-2	118	837927	820638	838647	818083	2654.8	-76.48	3	44.4
WA18-3	118	838160	820884	838647	818083	2843.2	-77.08	3	43.8
WA18-4	118	838467	821252	838647	818083	3173.6	-78.03	3	42.9
WA18-5	118	838799	821529	838647	818083	3449.8	-78.76	3	42.1
WA18-6	118	838550	820562	838647	818083	2480.6	-75.89	3	45.0
WA20-Max									**38.4**
WA20-1	113	838352	821351	838647	818083	3280.8	-78.32	3	37.5
WA20-2	113	839131	820980	838647	818083	2937.2	-77.36	3	38.4
WA21-1-Max									**39.7**
WA21-1	113	837809	820926	838647	818083	2963.7	-77.44	3	38.4
WA21-2	113	837889	820520	838647	818083	2552.3	-76.14	3	39.7
WA21-3	113	838738	820616	838647	818083	2534.6	-76.08	3	39.7
WB11-Max									**51.9**
WB11-1	121	838915	820045	838647	818083	1980.2	-73.93	3	50.2
WB11-2	121	839215	819757	838647	818083	1767.7	-72.95	3	51.2
WB11-3	121	839534	819450	838647	818083	1629.6	-72.24	3	51.9
WB12-Max									**50.2**
WB12-1	121	840141	819400	838647	818083	1991.6	-73.98	3	50.2
WB12-2	121	840573	818994	838647	818083	2130.6	-74.57	3	49.6
WB-13&20-Max									**49.0**
WB13&20-1	121	840854	818619	838647	818083	2271.2	-75.12	3	49.0
WB13&20-2	121	841172	818225	838647	818083	2529.0	-76.06	3	48.1
WB14-1	117	838778	820063	838647	818083	1984.3	-73.95	3	**46.1**
WB15-Max									**47.1**
WB15-1	117	839215	819913	838647	818083	1916.1	-73.65	3	45.9
WB15-2	117	839022	819725	838647	818083	1684.3	-72.53	3	47.1
WB-16	118	839841	819225	838647	818083	1652.2	-72.36	3	**48.2**
WB-17-Max									**39.7**
WB17-1	111	840741	818413	838647	818083	2119.8	-74.53	3	39.7
WB17-2	111	840916	818182	838647	818083	2271.2	-75.12	3	39.1
WB17-3	111	841067	817981	838647	818083	2422.1	-75.68	3	38.5



AGREEMENT NO. CE.32/99 COMPREHENSIVE FEASIBILITY STUDY FOR THE REVISED SCHEME OF SOUTH EAST KOWLOON DEVELOPMENT
APPENDIX 3.1 CONSTRUCTION NOISE ASSESSMENT
Table 3.1.10 - Mitigated Scenario (Level 2) for Future Noise Sensitive Receivers- Site 1P(S) (AP-F46)

Packages	SWL	WP Easting	WP Northing	Noise Sensive Receiver Easting	Noise Sensive Receiver Northing	Distance	Distance Correction	Façade Effect	CNL
Cumulative Impact									
WB18,19-1 - Max									**48.9**
WB18,19-1	116	839827	818703	838647	818083	1333.0	-70.50	3	48.9
WB18,19-2	116	840112	818445	838647	818083	1509.1	-71.57	3	47.8
WB21	113	839828	818625	838647	818083	1299.4	-70.28	3	45.3
WC11-Max									**44.7**
WC11-1	116	840678	818790	838647	818083	2150.5	-74.65	3	44.6
WC11-2	116	840142	819593	838647	818083	2124.9	-74.55	3	44.7
WC12-Max									**45.1**
WC12-1	116	839067	820302	838647	818083	2258.4	-75.08	3	43.6
WC12-2	116	839395	820044	838647	818083	2074.9	-74.34	3	44.5
WC12-3	116	839565	819792	838647	818083	1939.9	-73.76	3	45.1
WC12-4	116	840032	819593	838647	818083	2049.0	-74.23	3	44.6
WC12-5	116	840287	819350	838647	818083	2072.4	-74.33	3	44.5
WC12-6	116	840543	819060	838647	818083	2132.9	-74.58	3	44.3
WC12-7	116	840727	818795	838647	818083	2198.5	-74.84	3	44.0
WC12-8	116	841036	818430	838647	818083	2414.1	-75.65	3	43.2
WC13-Max									**47.9**
WC13-1	116	838876	819878	838647	818083	1809.5	-73.15	3	46.0
WC13-2	116	839103	819654	838647	818083	1635.8	-72.27	3	46.9
WC13-3	116	839333	819437	838647	818083	1517.9	-71.62	3	47.6
WC13-4	116	839573	819203	838647	818083	1453.2	-71.25	3	47.9
WC13-5	116	839754	819027	838647	818083	1454.8	-71.26	3	47.9
WC14-Max									**44.4**
WC14-1	115	839103	820202	838647	818083	2167.5	-74.72	3	43.2
WC14-2	115	839384	819922	838647	818083	1981.2	-73.94	3	44.0
WC14-3	115	839652	819669	838647	818083	1877.6	-73.47	3	44.4
WC14-4	115	839851	819707	838647	818083	2021.6	-74.11	3	43.8
WC15-Max									**45.8**
WC15-1	115	839110	819891	838647	818083	1866.3	-73.42	3	44.9
WC15-2	115	839305	819733	838647	818083	1776.4	-72.99	3	45.3
WC15-3	115	839486	819539	838647	818083	1680.4	-72.51	3	45.8
WC15-4	115	839629	820003	838647	818083	2156.6	-74.68	3	43.6
WC15-5	115	839744	819634	838647	818083	1899.7	-73.57	3	44.7
WC15-6	115	839961	820133	838647	818083	2170.8	-74.73	3	43.6
WC16-Max									**44.3**
WC16-1	113	839864	819417	838647	818083	1805.7	-73.13	3	43.1
WC16-2	113	839716	819259	838647	818083	1589.3	-72.02	3	44.2
WC16-3	113	840025	819310	838647	818083	1845.1	-73.32	3	42.9
WC16-4	113	840030	819050	838647	818083	1687.5	-72.55	3	43.6
WC16-5	113	840060	818757	838647	818083	1565.5	-71.89	3	44.3
WC16-6	113	839840	819219	838647	818083	1647.3	-72.34	3	43.8
WC17-Max									**43.1**
WC17-1	115	840961	818777	838647	818083	2406.3	-75.63	3	42.2
WC17-2	115	840734	818920	838647	818083	2248.6	-75.04	3	42.8
WC17-3	115	840540	819182	838647	818083	2188.9	-74.80	3	43.1
WC-18	113	839207	820039	838647	818083	2034.6	-74.17	3	**41.5**
WC19-Max									**43.5**
WC19-1	113	840259	819333	838647	818083	2039.9	-74.19	3	41.6
WC19-2	113	840050	818914	838647	818083	1630.6	-72.25	3	43.5
WC21-Max									**43.1**
WC21-1	115	838734	820362	838647	818083	2280.7	-75.16	3	43.1
WC21-2	115	838772	820388	838647	818083	2308.4	-75.27	3	43.0
WC21-3	115	838966	820630	838647	818083	2586.9	-76.19	3	42.1
WC21-4	115	839027	820426	838647	818083	2373.6	-75.51	3	42.8
WC21-5	115	839142	820350	838647	818083	2320.4	-75.31	3	43.0
WD11-Max									**50.6**
WD11-1	118	838271	819405	838647	818083	1374.4	-70.76	3	50.6
WD11-2	118	838593	819600	838647	818083	1518.0	-71.63	3	49.8
WD11-3	118	838098	819777	838647	818083	1780.7	-73.01	3	48.4
WD12-Max									**52.7**
WD12-1	118	838094	819132	838647	818083	1185.8	-69.48	3	51.7
WD12-2	118	838221	819060	838647	818083	1065.8	-68.55	3	52.7
WD13	116	838739	819637	838647	818083	1556.7	-71.84	3	**46.9**
WD14-Max									**47.7**
WD14-1	115	838217	820256	838647	818083	2215.1	-74.91	3	43.3
WD14-2	115	838288	820094	838647	818083	2042.8	-74.20	3	44.0

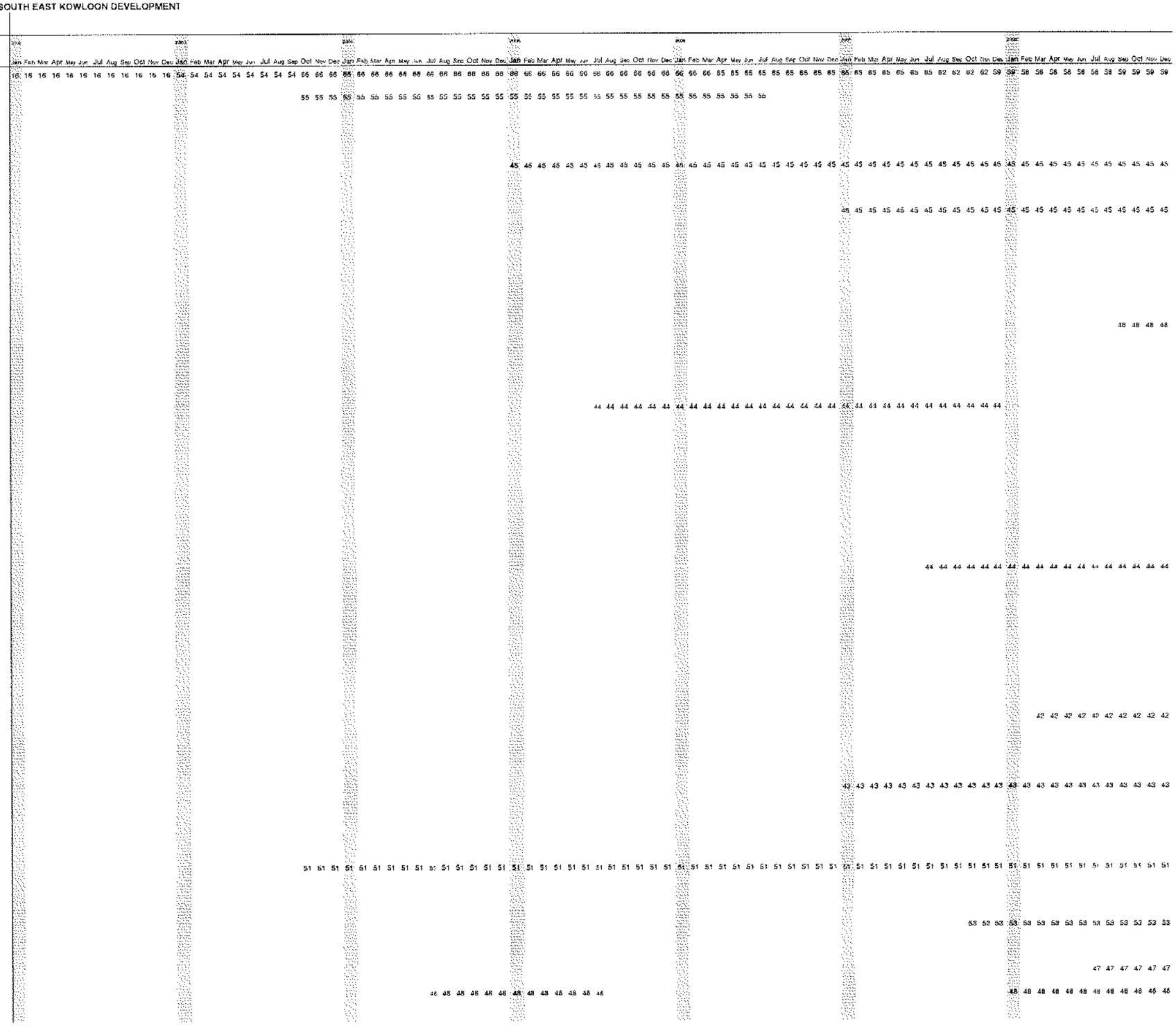
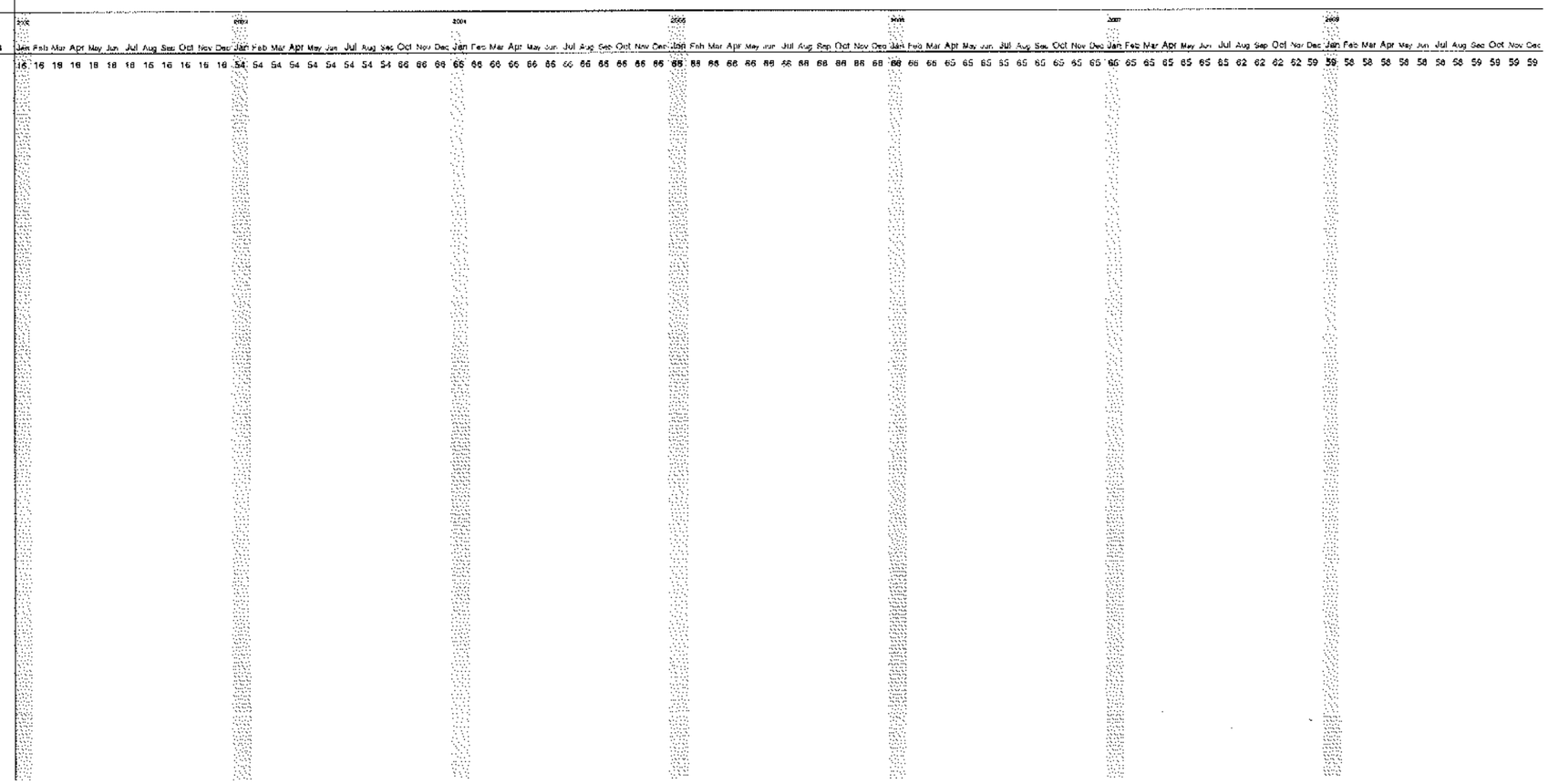


Table 3.1.10 - Mitigated Scenario (Level 2) for Future Noise Sensitive Receivers- Site 1P(S) (AP-F46)

		WP		Noise Sensitive Receiver						
Packages	**SWL**	**Easting**	**Northing**	**Easting**	**Northing**	**Distance**	**Distance Correction**	**Façade Effect**	**CNL**	**Packages**
Cumulative impact										
WD14-3	115	838227	819740	838647	818083	1709.4	-72.66	3	45.6	
WD14-4	115	838367	819480	838647	818083	1424.8	-71.07	3	47.2	
WD14-5	115	838852	819562	838647	818083	1493.1	-71.48	3	46.7	
WD14-6	115	838135	819320	838647	818083	1338.8	-70.53	3	47.7	
WD14-7	115	837955	819443	838647	818083	1525.9	-71.67	3	46.6	
WD14-8	115	838172	820056	838647	818083	2029.4	74.15	3	44.1	
WD15-Max									**49.4**	WD15
WD15-1	115	837928	818917	838647	818083	1101.1	-68.84	3	49.4	
WD15-2	115	837825	819104	838647	818083	1310.8	-70.35	3	47.9	
WD16	113	838534	819510	838647	818083	1431.5	-71.12	3	**44.4**	WD16
WD17	113	838705	819070	838647	818083	988.7	-67.90	3	**47.8**	WD17
WD18-Max									**39.5**	WD18
WD18-1	107	837770	819132	838647	818083	1387.3	-70.72	3	39.5	
WD18-2	107	837726	819265	838647	818083	1498.6	-71.51	3	38.7	
WD18-3	107	837934	819702	838647	818083	1769.0	-72.95	3	37.3	
WD18-4	107	837995	819821	838647	818083	1856.3	-73.37	3	36.8	
WD19-Max									**46.4**	WD19
WD19-1	116	838453	819917	838647	818083	1844.2	73.32	3	45.5	
WD19-2	116	838310	819736	838647	818083	1687.0	-72.54	3	46.3	
WD19-3	116	838050	819647	838647	818083	1674.1	-72.48	3	46.4	
WD20-Max									**40.1**	WD20
WD20-1	107	838364	819627	838647	818083	1569.7	-71.92	3	38.4	
WD20-2	107	838115	819429	838647	818083	1447.3	-71.21	3	39.1	
WD20-3	107	837961	819163	838647	818083	1279.5	-70.14	3	40.1	
WD20-4	107	838135	820310	838647	818083	2285.1	-75.18	3	35.1	
WD20-5	107	838128	820026	838647	818083	2011.1	-74.07	3	36.2	
WD20-6	107	838029	819819	838647	818083	1842.7	73.31	3	37.0	
WD20-7	107	837934	819586	838647	818083	1653.5	-72.42	3	37.9	
WD20-8	107	837781	819463	838647	818083	1629.2	-72.24	3	38.1	
WD20-9	107	837978	819805	838647	818083	1847.4	-73.33	3	37.0	
WD20-10	107	837924	819655	838647	818083	1730.3	-72.75	3	37.5	
WD20-11	107	838106	819750	838647	818083	1752.6	-72.97	3	37.4	
WD20-12	107	837678	819286	838647	818083	1544.7	-71.78	3	38.5	
WD21-Max									**50.1**	WD21
WD21-1	116	838022	818947	838647	818083	1066.4	-68.56	3	50.1	
WD21-2	116	837556	819562	838647	818083	1837.9	-73.29	3	45.4	
WD22	113	837965	819514	838647	818083	1585.2	-72.00	3	**43.8**	WD22
WD23	113	837866	819203	838647	818083	1365.4	-70.71	3	**45.1**	WD23



AGREEMENT NO. CE.32/99 COMPREHENSIVE FEASIBILITY STUDY FOR THE REVISED SCHEME OF SC
APPENDIX 3.1 CONSTRUCTION NOISE ASSESSMENT
Table 3.1.10 - Mitigated Scenario (Level 2) for Future Noise Sensitive Receivers- Site 1P(S) (AP-F46)

		WP		Noise Sensive Receiver					
Packages	SWL	Easting	Northing	Easting	Northing	Distance	Distance Correction	Façade Effect	CNL
Cumulative impact									
WA11-Max									52.8
WA11-1	117	837977	821210	838647	820488	984.4	-67.86	3	52.3
WA11-2	117	838001	821146	838647	820488	921.5	-67.29	3	52.8
WA12	118	838090	821097	838647	820488	825.6	-66.33	3	54.2
WA13-Max									61.4
WA13-1	117	838271	821335	838647	820488	927.1	-67.34	3	53.0
WA13-2	117	838469	821128	838647	820488	664.2	-64.45	3	55.9
WA13-3	117	838767	820819	838647	820488	352.2	-58.94	3	61.4
WA13-4	117	838750	820122	838647	820488	380.1	-59.60	3	60.7
WA13-5	117	838639	821033	838647	820488	545.4	-62.73	3	57.6
WA13-6	117	838294	821294	838647	820488	879.9	-68.89	3	53.4
WA14-Max									60.0
WA14-1	119	838713	820958	838647	820488	474.3	-61.52	3	60.0
WA14-2	119	838786	821411	838647	820488	933.7	-67.40	3	54.1
WA14-3	119	838777	821721	838647	820488	1239.8	-69.87	3	51.6
WA15-Max									51.3
WA15-1	117	838780	821925	838647	820488	1443.6	-71.19	3	49.3
WA15-2	117	838815	821822	838647	820488	1146.4	-69.19	3	51.3
WA16-Max									49.4
WA16-1	114	838195	821360	838647	820488	982.1	-67.84	3	49.0
WA16-2	114	838052	821328	838647	820488	1029.7	-68.25	3	48.6
WA16-3	114	837860	821012	838647	820488	945.4	-67.51	3	49.4
WA-17-Max									57.5
WA17-1	118	839144	821274	838647	820488	929.9	-67.37	3	53.5
WA17-2	118	839039	820923	838647	820488	585.0	-63.34	3	57.5
WA17-3	118	838767	821085	838647	820488	609.4	-63.70	3	57.2
WA17-4	118	838898	821405	838647	820488	950.6	-67.56	3	53.3
WA17-5	118	839109	821695	838647	820488	1292.8	-70.23	3	50.7
WA17-6	118	838569	821622	838647	820488	1136.7	-69.11	3	51.8
WA17-7	118	838333	821443	838647	820488	1005.5	-68.05	3	52.8
WA17-8	118	837678	820846	838647	820488	1032.9	-68.28	3	52.6
WA17-9	118	838770	821428	838647	820488	948.0	-67.54	3	53.3
WA-18-Max									45.0
WA18-1	118	839109	820578	838647	818083	2551.9	-76.14	3	44.7
WA18-2	118	837927	820638	838647	818083	2654.8	-76.48	3	44.4
WA18-3	118	838160	820884	838647	818083	2843.2	-77.08	3	43.8
WA18-4	118	838467	821252	838647	818083	3173.6	-78.03	3	42.9
WA18-5	118	838799	821529	838647	818083	3449.8	-78.76	3	42.1
WA18-6	118	838550	820562	838647	818083	2480.6	-75.89	3	45.0
WA20-Max									38.4
WA20-1	113	838352	821351	838647	818083	3280.8	-78.32	3	37.5
WA20-2	113	839131	820980	838647	818083	2937.2	-77.36	3	38.4
WA21-1-Max									39.7
WA21-1	113	837809	820926	838647	818083	2963.7	-77.44	3	38.4
WA21-2	113	837889	820520	838647	818083	2552.3	-76.14	3	39.7
WA21-3	113	838738	820616	838647	818083	2534.6	-76.08	3	39.7
WB11-Max									51.9
WB11-1	121	838915	820045	838647	818083	1980.2	-73.93	3	50.2
WB11-2	121	839215	819757	838647	818083	1767.7	-72.95	3	51.2
WB11-3	121	839534	819450	838647	818083	1629.6	-72.24	3	51.9
WB12-Max									50.2
WB12-1	121	840141	819400	838647	818083	1991.6	-73.98	3	50.2
WB12-2	121	840573	818994	838647	818083	2130.6	-74.57	3	49.6
WB-13&20-Max									49.0
WB13&20-1	121	840854	818619	838647	818083	2271.2	-75.12	3	49.0
WB13&20-2	121	841172	818225	838647	818083	2529.0	-76.06	3	48.1
WB14-1	117	838778	820063	838647	818083	1984.3	-73.95	3	46.1
WB15-Max									47.1
WB15-1	117	839215	819913	838647	818083	1916.1	-73.65	3	45.9
WB15-2	117	839022	819725	838647	818083	1684.3	-72.53	3	47.1
WB-16	118	839841	819225	838647	818083	1652.2	-72.36	3	48.2
WB-17-Max									39.7
WB17-1	111	840741	818413	838647	818083	2118.8	-74.53	3	39.7
WB17-2	111	840916	818182	838647	818083	2271.2	-75.12	3	39.1
WB17-3	111	841067	817981	838647	818083	2422.1	-75.68	3	38.5

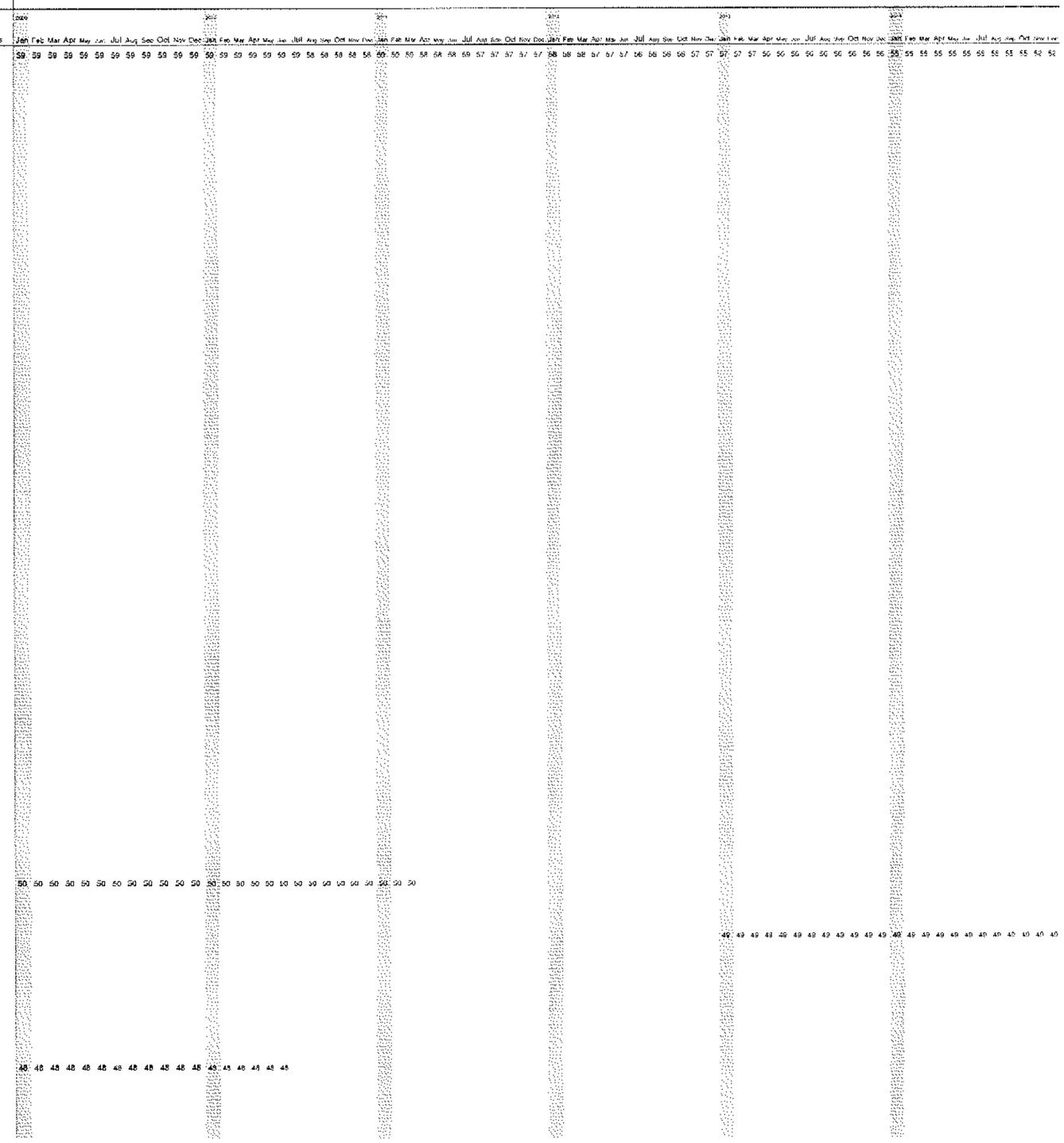


Table 3.1.10 - Mitigated Scenario (Level 2) for Future Noise Sensitive Receivers- Site 1P(S) (AP-F46)

		WP		Noise Sensive Receiver					
Packages	SWL	Easting	Northing	Easting	Northing	Distence	Distance Correction	Façade Effect	CNL
Cumulative Impact									
WB18,19-1 - Max									**48.9**
WB18,19-1	116	839827	818703	838647	818083	1333.0	-70.50	3	48.9
WB18,19-2	116	840112	818445	838647	818083	1509.1	-71.57	3	47.8
WB21	113	839828	818625	838647	818083	1299.4	-70.28	3	**45.3**
WC11-Max									**44.7**
WC11-1	116	840678	819790	838647	818083	2150.5	-74.65	3	44.6
WC11-2	116	840142	819593	838647	818083	2124.9	-74.55	3	44.7
WC12-Max									**45.1**
WC12-1	116	839067	820302	838647	818083	2258.4	-75.08	3	43.8
WC12-2	116	839325	820044	838647	818083	2074.9	-74.34	3	44.5
WC12-3	116	839585	819792	838647	818083	1939.9	-73.76	3	45.1
WC12-4	116	840032	819593	838647	818083	2049.0	-74.23	3	44.8
WC12-5	116	840287	819350	838647	818083	2072.4	-74.33	3	44.5
WC12-6	116	840543	819060	838647	818083	2132.9	-74.58	3	44.3
WC12-7	116	840727	818795	838647	818083	2195.5	-74.84	3	44.0
WC12-8	116	841036	818430	838647	818083	2414.1	-75.65	3	43.2
WC13-Max									**47.9**
WC13-1	116	838876	819878	838647	818083	1809.5	-73.15	3	46.0
WC13-2	116	839103	819654	838647	818083	1635.8	-72.27	3	46.9
WC13-3	116	839333	819437	838647	818083	1517.9	-71.62	3	47.6
WC13-4	116	839573	819203	838647	818083	1453.2	-71.25	3	47.9
WC13-5	116	839754	819027	838647	818083	1454.8	-71.26	3	47.9
WC14-Max									**44.4**
WC14-1	115	839103	820202	838647	818083	2167.5	-74.72	3	43.2
WC14-2	115	839354	819922	838647	818083	1981.2	-73.94	3	44.0
WC14-3	115	839652	819669	838647	818083	1877.6	-73.47	3	44.4
WC14-4	115	839851	819707	838647	818083	2021.6	-74.11	3	43.8
WC15-Max									**45.8**
WC15-1	115	839110	819891	838647	818083	1866.3	-73.42	3	44.9
WC15-2	115	839305	819733	838647	818083	1776.4	-72.99	3	45.3
WC15-3	115	839486	819539	838647	818083	1680.4	-72.51	3	45.8
WC15-4	115	839629	820003	838647	818083	2156.6	-74.68	3	43.5
WC15-5	115	839744	819634	838647	818083	1898.7	-73.57	3	44.7
WC15-6	115	839961	820133	838647	818083	2170.8	-74.73	3	43.6
WC16-Max									**44.3**
WC16-1	113	839864	819417	838647	818083	1805.7	-73.13	3	43.1
WC16-2	113	839716	819259	838647	818083	1589.3	-72.02	3	44.2
WC16-3	113	840025	819310	838647	818083	1845.1	-73.32	3	42.9
WC16-4	113	840030	819050	838647	818083	1687.5	-72.55	3	43.6
WC16-5	113	840060	818757	838647	818083	1565.5	-71.89	3	44.3
WC16-6	113	839840	819219	838647	818083	1647.3	-72.34	3	43.8
WC17-Max									**43.1**
WC17-1	115	840951	818777	838647	818083	2406.3	-75.63	3	42.2
WC17-2	115	840734	818920	838647	818083	2248.6	75.04	3	42.8
WC17-3	115	840540	819182	838647	818083	2188.9	-74.80	3	43.1
WC-18	113	839207	820039	838647	818083	2034.6	-74.17	3	**41.6**
WC19-Max									**43.5**
WC19-1	113	840259	819333	838647	818083	2039.9	-74.19	3	41.6
WC19-2	113	840050	818914	838647	818083	1630.6	-72.25	3	43.5
WC21-Max									**43.1**
WC21-1	115	838734	820362	838647	818083	2280.7	-75.16	3	43.1
WC21-2	115	838772	820388	838647	818083	2308.4	-75.27	3	43.0
WC21-3	115	838966	820630	838647	818083	2566.9	-76.19	3	42.1
WC21-4	115	839027	820426	838647	818083	2373.6	-75.51	3	42.8
WC21-5	115	839142	820350	838647	818083	2320.4	-75.31	3	43.0
WD11-Max									**50.6**
WD11-1	118	838271	819405	838647	818083	1374.4	-70.76	3	50.6
WD11-2	118	838593	819600	838647	818083	1518.0	-71.63	3	49.8
WD11-3	118	838098	819777	838647	818083	1780.7	-73.01	3	48.4
WD12-Max									**52.7**
WD12-1	118	838094	819132	838647	818083	1185.8	-69.48	3	51.7
WD12-2	118	838221	819060	838647	818083	1065.8	-68.55	3	52.7
WD13	116	838739	819637	838647	818083	1556.7	-71.84	3	**46.9**
WD14-Max									**47.7**
WD14-1	115	838217	820256	838647	818083	2215.1	-74.91	3	43.3
WD14-2	115	838288	820094	838647	818083	2042.8	-74.20	3	44.0

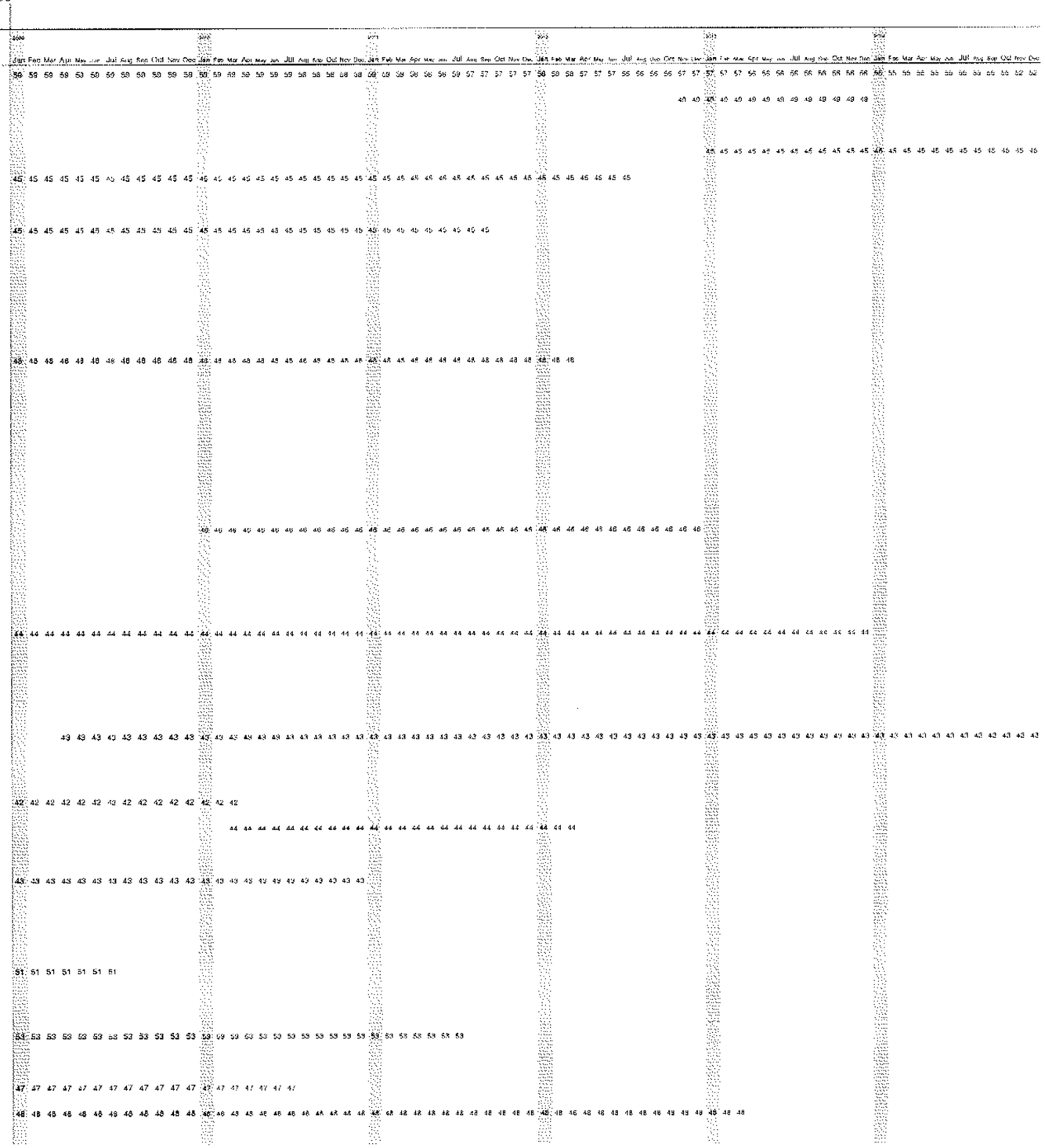


Table 3.1.10 - Mitigated Scenario (Level 2) for Future Noise Sensitive Receivers- Site 1P(S) (AP-F46)

Packages	SWL	WP Easting	WP Northing	Noise Sensive Receiver Easting	Noise Sensive Receiver Northing	Distance	Distance Correction	Façade Effect	CNL
Cumulative Impact									
WD14-3	115	838227	819740	838647	818083	1709.4	-72.66	3	45.6
WD14-4	115	838367	819480	838647	818083	1424.8	-71.07	3	47.2
WD14-5	115	838852	819562	838647	818083	1493.1	-71.48	3	46.7
WD14-6	115	838135	819320	838647	818083	1338.8	-70.53	3	47.7
WD14-7	115	837955	819443	838647	818083	1525.9	-71.67	3	46.6
WD14-8	115	838172	820056	838647	818083	2029.4	-74.15	3	44.1
WD15-Max									**49.4**
WD15-1	115	837928	818917	838647	818083	1101.1	-68.84	3	49.4
WD15-2	115	837825	819104	838647	818083	1310.8	-70.35	3	47.9
WD16	113	838534	819510	838647	818083	1431.5	-71.12	3	**44.4**
WD17	113	838705	819070	838647	818083	988.7	-67.90	3	**47.8**
WD18-Max									**39.5**
WD18-1	107	837770	819132	838647	818083	1367.3	-70.72	3	39.5
WD18-2	107	837726	819265	838647	818083	1498.5	-71.51	3	38.7
WD18-3	107	837934	819702	838647	818083	1769.0	-72.96	3	37.3
WD18-4	107	837995	819821	838647	818083	1856.3	-73.37	3	36.8
WD19-Max									**46.4**
WD19-1	116	838453	819917	838647	818083	1844.2	-73.32	3	45.5
WD19-2	116	838310	819736	838647	818083	1687.0	-72.54	3	46.3
WD19-3	116	838050	819647	838647	818083	1574.1	-72.48	3	46.4
WD20-Max									**40.1**
WD20-1	107	838364	819627	838647	818083	1569.7	-71.92	3	38.4
WD20-2	107	838115	819429	838647	818083	1447.3	-71.21	3	39.1
WD20-3	107	837961	819163	838647	818083	1279.5	-70.14	3	40.1
WD20-4	107	838135	820310	838647	818083	2285.1	-75.18	3	35.1
WD20-5	107	838128	820026	838647	818083	2011.1	-74.07	3	36.2
WD20-6	107	838029	819819	838647	818083	1842.7	-73.31	3	37.0
WD20-7	107	837934	819586	838647	818083	1663.5	-72.42	3	37.9
WD20-8	107	837781	819463	838647	818083	1629.2	-72.24	3	38.1
WD20-9	107	837978	819805	838647	818083	1847.4	-73.33	3	37.0
WD20-10	107	837924	819655	838647	818083	1730.3	-72.76	3	37.5
WD20-11	107	838106	819750	838647	818083	1752.6	-72.87	3	37.4
WD20-12	107	837678	819286	838647	818083	1544.7	-71.78	3	38.5
WD21-Max									**50.1**
WD21-1	116	838022	818947	838647	818083	1058.4	-68.58	3	50.1
WD21-2	116	837556	819562	838647	818083	1837.9	-73.29	3	45.4
WD22	113	837965	819514	838647	818083	1585.2	-72.00	3	**43.8**
WD23	113	837866	819203	838647	818083	1365.4	-70.71	3	**45.1**

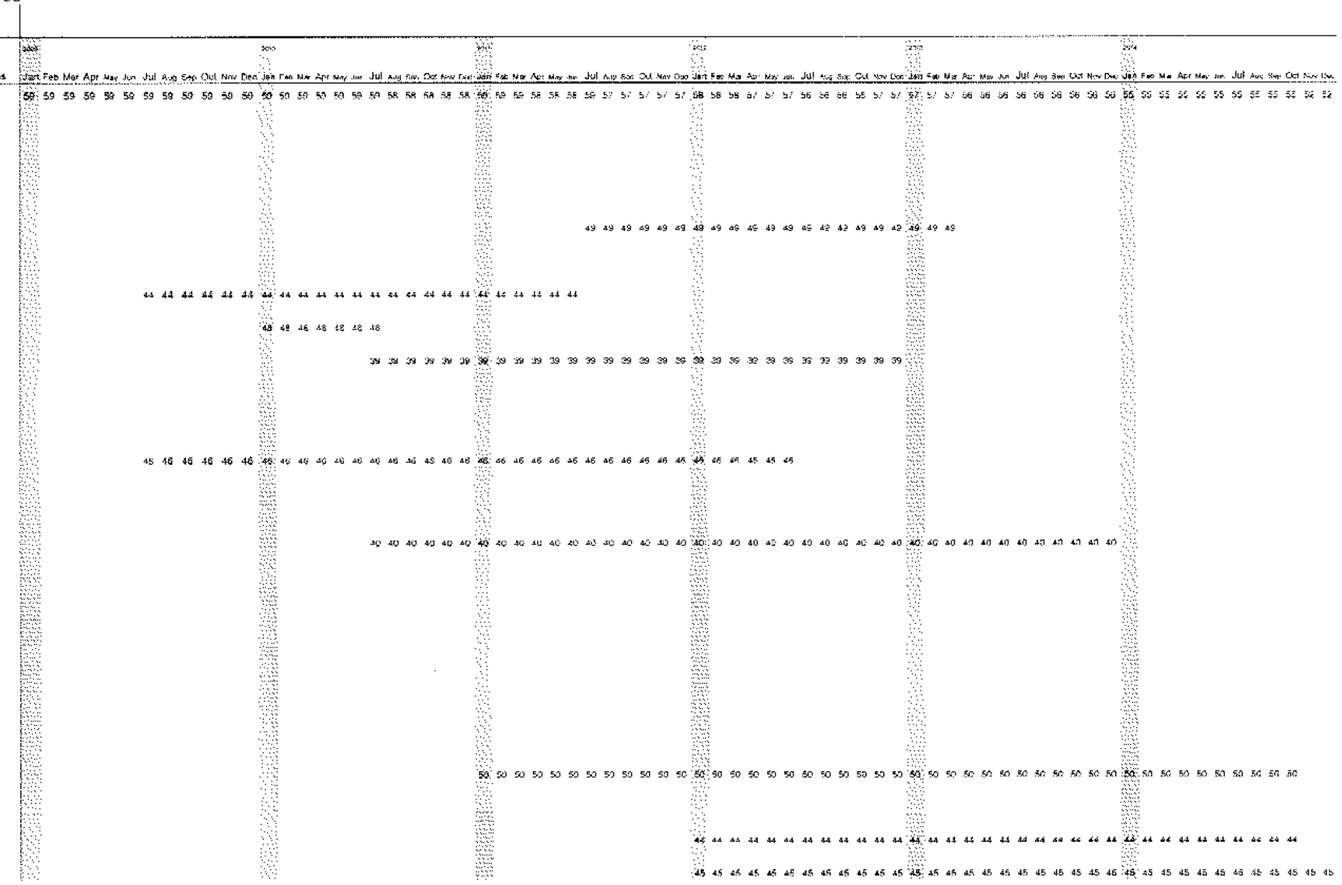


Table 3.1.11 - Construction Noise Assessment - Summary

Unmitigated Scenario

shaded area = unoccupied by future NSRs

Receivers	Points (APs)	2002 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2003 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2004 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2005 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2006 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2007 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Existing NSRs																																																																										
Rhythm Gardens	E1	16	16	16	16	16	16	16	16	16	16	16	16	64	64	64	64	64	64	64	64	64	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	77
Choi Hung Estate	E2	16	16	16	16	16	16	16	16	16	16	16	16	63	63	63	63	63	63	63	63	67	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	72
Richlands Gardens	E3	16	16	16	16	16	16	16	16	16	16	16	16	64	64	64	64	64	64	64	64	64	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	71
San Po Kong Area	E4	16	16	16	16	16	16	16	16	16	16	16	16	75	75	75	75	75	75	75	75	75	84	84	84	84	84	84	84	84	84	86	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	69
	E5	16	16	16	16	16	16	16	16	16	16	16	16	73	73	73	73	73	73	73	73	73	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	79	79	79	79	79	79	79	79	80	80	80	80	80	80	80	80	80	80	69
Kowloon City Area	E6	16	16	16	16	16	16	16	16	16	16	16	16	78	78	78	78	78	78	78	78	78	84	84	84	84	84	84	84	84	84	85	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	80	76	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	68
	E7	16	16	16	16	16	16	16	16	16	16	16	16	70	70	70	70	70	70	70	70	70	81	81	81	81	81	81	81	81	81	82	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	83	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
	E8	16	16	16	16	16	16	16	16	16	16	16	16	68	68	68	68	68	68	68	68	68	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	76	76	76	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
Mok Cheong St.	E9	16	16	16	16	16	16	16	16	16	16	16	16	67	67	67	67	67	67	67	67	67	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	73	73	72	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
Wyler Garden	E10	16	16	16	16	16	16	16	16	16	16	16	16	63	63	63	63	63	63	63	63	63	71	71	71	71	71	71	71	72	71	71	71	71	71	71	71	71	71	71	71	71	72	71	71	71	71	71	71	71	71	71	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
	E11	16	16	16	16	16	16	16	16	16	16	16	16	62	62	62	62	62	62	62	62	62	70	70	70	70	70	70	70	71	70	70	70	70	70	70	70	71	71	71	71	71	71	71	71	70	70	70	70	70	70	70	70	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
To Kwa Wan Area	E12	16	16	16	16	16	16	16	16	16	16	16	16	60	60	60	60	60	60	60	60	60	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	67	67	67	67	66	66	66	66	67	67	67	67	66	66	66	66	66
Laguna City	E13	16	16	16	16	16	16	16	16	16	16	16	16	53	53	53	53	53	53	53	53	53	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	67	67	67	67	67	67	66	66	67	67	71	71	71	71	71	71	71	71	71
Cha Kwo Ling	E14	16	16	16	16	16	16	16	16	16	16	16	16	52	52	52	52	52	52	52	52	52	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	66	66	66	66	66	66	66	66	66	66	66	66	66	66	65	65	65	65	65	64	64	66	66	69	68	68	68	68	68	69	68	68	69	69	68
Laguna Verde	E15	16	16	16	16	16	16	16	16	16	16	16	16	58	58	58	58	58	58	58	58	58	71	71	71	71	71	71	71	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	71	71	71	70	70	70	70	70	70	70	70	70	70	70	70	70	69	69	73	73	73
Future NSRs																																																																										
4C & 4E	F1	16	16	16	16	16	16	16	16	16	16	16	16	61	61	61	61	61	61	61	61	61	73	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	69
4C & 4E	F2	16	16	16	16	16	16	16	16	16	16	16	16	62	62	62	62	62	62	62	62	62	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	69
4F & 4L	F3	16	16	16	16	16	16	16	16	16	16	16	16	61	61	61	61	61	61	61	61	61	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	73	73	73	73	73	73	73	73	73	73	73	73	73	73	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	69
4F & 4L	F4	16	16	16	16	16	16	16	16	16	16	16	16	60	60	60	60	60	60	60	60	60	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	72	72	72	72	72	72	72	72	72	72	72	72	72	72	71	71	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68	68	69
4K	F5	16	16	16	16	16	16	16	16	16	16	16	16	60	60	60	60	60	60	60	60	60	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	70	70	70	70	70	70	70	70	70	70	70	70	68	68	69	69	69
4M	F6	16	16	16	16	16	16	16	16	16	16	16	16	60	60	60	60	60	60	60	60	60	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	70	70	70	70	70	70	70	70	70	70	70	70	68	68	69	69	69
4R	F7	16	16	16	16	16	16	16	16	16	16	16	16	59	59	59	59	59	59	59	59	59	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	68	68	69	69	69
5J	F8	16	16	16	16	16	16	16	16	16	16	16	16	56	56	56	56	56	56	56	56	56	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	71	71	70
5J	F9	16	16	16	16	16	16	16	16	16	16	16	16	57	57	57	57	57	57	57	57	57	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	70	70	70
4S	F10	16	16	16	16	16	16	16	16	16	16	16	16	58	58	58	58	58	58	58	58	58	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
4H	F11	16	16	16	16	16	16	16	16	16	16	16	16	60	60	60	60	60	60	60	60	60	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	70	70	70	70	70	70	70	70	70	70	70	70	68	68	69	69	69
4G	F12	16	16	16	16	16	16	16	16	16	16	16	16	62	62	62	62	62	62	62	62	62	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	70	70	69	69	69	69	69	69	69	69	69	69	69	69	68	68	67	67	67
4D	F13	16	16	16	16	16	16	16	16	16	16	16	16	61	61	61	61	61	61	61	61	61	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	72	72	72	72	72	72	72	72	72	72	72	72	67	67	69	69	69
4A	F14	16	16	16	16	16	16	16	16	16	16	16	16	64	64	64	64	64	64	64	64	64	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
4J	F15	16	16	16	16	16	16	16	16	16	16	16	16	58	58	58	58	58	58	58	58	58	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
5A	F16	16	16	16	16	16	16	16	16	16	16	16	16	58	58	58	58	58	58	58	58	58	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	69	69	69
5E	F17	16	16	16	16	16	16	16	16	16	16	16	16	57	57	57	57	57	57	57	57	57	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	69	69	69
5G	F18	16	16	16	16	16	16	16	16	16	16	16	16	57	57	57	57	57	57	57	57	57	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	70	70	70
5C	F19	16	16	16	16	16	16	16	16	16	16	16	16	56	56	56	56	56	56	56	56	56	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	69	69	70	70	70
5C	F20	16	16	16	16	16	16	16	16	16	16	16	16	57	57	57	57	57	57	57	57	57	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	70	70	70
4E(S)	F21	16	16	16	16	16	16	16	16	16	16	16	16	62	62	62	62	62	62	62	62	62	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	69
5J(S)	F22	16	16	16	16	16	16	16	16	16	16	16	16	57	57	57	57	57	57	57	57	57	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	70	70	70
5L(S)	F23	16	16	16	16	16	16	16	16	16	16	16	16	57	57	57	57	57	57	57	57	57	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	70	70	70
4L(S)	F24	16	16	16	16	16	16	16	16	16	16	16	16	61	61	61	61	61	61	61	61	61	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	70	70	69
4N(S)	F25	16	16	16	16	16	16	16	16	16	16	16	16	59	59	59	59	59	59	59	59	59	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	71	71	71	71	71	71	71	71	71	71	71	71	71	71	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	69
5K	F26	16	16	16	16	16	16	16	16	16	16	16	16	58	58	58	58	58	58	58	58	58	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	70	70	70	70	70	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	70	70	70
5K	F27	16	16	16	16	16	16	16	16	16	16	16	16	58	58	58	58	58	58	58	58	58	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	70	70	70	70	70	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	70	70	70
1E	F28	16	16	16	16	16	16	16	16	16	16	16	16	69	69	69	69	69	69	69	69	69	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	74
1E	F29	16	16	16	16	16	16	16	16	16	16	16	16	74	74	74	74	74	74	74	74	74	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	74
1E(S)	F30	16	16	16	16	16	16	16	16	16	16	16	16	69	69	69	69	69	69	69	69	69	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	74
1C(S)	F31	16	16	16	16	16	16	16	16	16	16	16	16	67	67	67	67	67	67	67	67	67	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	79	78	78	78	78	78	78	78	78	78	78	78	75	75	75	75	70	70
2A	F32	16	16	16	16	16	16	16	16	16	16	16	16	96	96	96	96	96	96	96	96	96	97	97	97	97	97	97	97	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	69
2A	F33	16	16	16	16	16	16	16	16	16	16	16	16	72	72	72	72	72	72	72	72	72	83	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	69
2B	F34	16	16	16	16	16	16	16	16	16	16	16	16	75	75	75	75	75	75	75	75	75	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	76	76	73	73	73	73	73	73	73	73	73	73	73	73	69	69	70	70	68
2C	F35	16	16	16	16	16	16	16	16	16	16	16	16	69	69	69	69	69	69	69	69	69	74	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	69
2F	F36	16	16	16	16	16	16	16	16	16	16	16	16	71	71	71	71	71	71	71	71	71	77	77	77	77	77	77	77	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	75	75	75	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	67
2E	F37	16	16	16	16	16	16	16	16	16	16	16	16	69	69	69	69	69	69	69	69	69	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	73	73	73	71	71	71	71	71	71	71	71	71	71	71	68	68	69	69	67
2D	F38	16	16	16	16	16	16	16	16	16	16	16	16	65	65	65	65	65	65	65	65	65	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76

Table 3.1.11 - Construction Noise Assessm

Unmitigated Scenario

Receivers	Points (APs)	2008												2009												2010												2011												2012												2013											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Existing NSRs																																																																							
Rhythm Gardens	E1	77	67	67	67	67	67	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	68	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68	68
Choi Hung Estate	E2	72	67	68	68	68	68	68	68	70	70	69	69	69	69	69	69	69	69	70	69	69	69	69	69	70	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	69	69	69	67	67	67	67	66	66	66	69	69	69	69	69	69	69	69	69	69	69
Richlands Gardens	E3	71	68	68	68	68	68	68	68	70	70	69	69	69	69	69	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	69	69	69	67	67	67	67	66	66	66	69	69	69	69	69	69	69	69	69	69	69
San Po Kong Area	E4	69	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	69	68	68	68	68	68	69	69	69	69	69	69	69	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68
	E5	70	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68	68	69	68	68	68	68	68	69	69	69	69	69	69	69	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68
Kowloon City Area	E6	68	66	66	66	66	66	67	67	68	68	67	67	67	67	67	67	67	67	68	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68	68	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66
	E7	66	65	66	66	66	66	66	67	67	66	66	66	66	66	66	67	67	67	67	66	66	66	66	66	67	67	67	67	67	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68	68	68	68	67	67	67	66	66	66	66	66	66	66	67	67	67	66	66	66	66	66	66	66
	E8	66	65	66	66	66	66	66	67	67	66	66	66	66	66	66	66	66	66	67	66	66	66	66	66	67	67	67	67	67	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68	68	68	68	67	67	67	66	66	66	66	66	66	66	67	67	67	66	66	66	66	66	66	66
Mok Cheong St.	E9	67	66	67	67	67	67	67	67	68	68	67	67	67	67	67	68	68	68	68	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68
Wyler Garden	E10	67	67	67	67	67	67	67	67	68	68	67	67	67	67	67	68	68	68	68	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68
	E11	67	66	67	67	67	67	67	67	68	68	67	67	67	67	67	68	68	68	68	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68
To Kwa Wan Area	E12	66	66	66	66	66	66	66	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	68	67	67	67	67	67	68	68	68	68	68	68	69	68	68	68	68	68	68	68	68	68	68	66	66	66	66	66	66	66	68	68	68	68	68	68	68	68	68	68	68
Laguna City	E13	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	71	71	71	72	71	71	68	68	68	68	68	68	68	68	67	66	66	66	67	67	78	78	78	78	78	78	78	78	78	78	78
Cha Kwo Ling	E14	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	66	66	66	67	67	67	67	66	66	66	66	64	64	64	65	65	71	71	71	71	71	71	71	71	71	71	71
Laguna Verde	E15	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	75	74	74	74	74	74	74	74	74	74	74	74	76	76	76	76	76	76	80	80	80	80	80	80	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87
Future NSRs																																																																					
4C & 4E	F1	68	68	68	68	68	68	68	68	68	68	68	68	69	68	68	68	68	68	70	68	68	68	68	68	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68
4C & 4E	F2	68	68	68	68	68	68	68	68	68	68	68	68	69	68	68	68	68	68	70	68	68	68	68	68	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68
4F & 4L	F3	68	68	68	68	68	68	68	68	68	68	68	68	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	67	67	67	67	66	66	66	69	69	69	69	69	69	69	69	69	69	69
4F & 4L	F4	68	68	68	68	68	68	68	68	68	68	68	68	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	67	67	67	67	66	66	66	69	69	69	69	69	69	69	69	69	69	69
4K	F5	68	68	68	68	68	68	68	68	68	68	68	68	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	67	67	67	67	66	66	66	69	69	69	69	69	69	69	69	69	69	69
4M	F6	68	68	68	68	68	68	68	68	68	68	68	68	70	70	70	70	70	70	70	70	70	70	70	70	71	71	71	71	71	71	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	67	67	67	67	66	66	66	69	69	70	70	70	69	69	69	69	69	69
4R	F7	69	68	68	68	68	68	68	68	71	71	70	70	70	70	70	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	67	67	67	67	70	70	70	70	70	70	70	70	70	70	70
5J	F8	70	70	70	70	70	70	71	71	71	71	71	71	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	71	71	71	71	71	71	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
5J	F9	70	70	70	70	70	70	70	71	71	71	71	71	71	71	71	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	71	71	71	71	71	71	71	71	71	70	70	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
4S	F10	69	69	69	69	69	69	69	69	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	71	71	71	71	71	71	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	67	67	67	67	69	69	70	70	70	70	70	70	70	70	70
4H	F11	68	68	68	68	68	68	68	68	70	70	68	68	69	69	69	70	70	70	70	69	70	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68
4G	F12	67	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68
4D	F13	68	67	68	68	68	68	68	68	68	68	68	68	69	68	68	68	68	68	70	68	68	68	68	68	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68
4A	F14	68	67	67	67	67	67	68	68	69	69	68	68	68	68	68	68	68	68	69	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69
4J	F15	68	68	68	68	68	68	68	68	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	71	71	71	71	71	71	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	70	70	70	70	70	70	70	70	70	70	70
5A	F16	69	68	68	68	68	68	68	68	70	70	70	70	70	70	70	71	71	71	71	70	70	70	70	70	71	71	71	71	71	71	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69
5E	F17	69	68	68	68	68	68	68	68	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	70	70	70	70	70	70	70	70	70	70	70	69	69	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69
5G	F18	69	68	68	68	68	68	70	70	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69
5C	F19	70	68	68	68	68	68	70	70	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	72	72	72	72	72	72	71	71	71	71	71	71	71	71	71	70	70	70	70	70	70	70	70	70	70	70	69	69	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69
5C	F20	69	68	68	68	68	68	68	68	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69
4E(S)	F21	68	68	68	68	68	68	68	68	70	70	68	68	69	69	69	70	70	70	70	69	70	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	67	67	67	67	66	66	66	68	68	69	69	69	68	68	68	68	68	68
5J(S)	F22	70	70	70	70	70	70	70	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	72	72	72	72	72	72	71	71	71	71	71	71	71	71	71	70	70	70	70	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	69	70	70	70	70	70	70	70	70	70	70	70
5L(S)	F23	70	70	70	70	70	70	70	70	71	71	71	71	71	71	71	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	71	71	71	71	71	71	71	71	71	71	71	70	70	69	69	69	69	69	69	69	70	70	70	70	70	70	70	70	70	70	70
4L(S)	F24	68	68	68	68	68	68	68	68	70	70	68	68	70	70	70	70	70	70	70	70	70	70	70	70	71	71	71	71	71	71	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	67	67	67	67	66	66	66	69	69	70	70	70	69	69	69	69	69	69
4N(S)	F25	69	68	68	68	68	68	68	68	70	70	68	68	70	70	70	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	70	70	70	70	70	70	70	70	70	70	70
5K	F26	70	70	70	70	70	70	70	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	72	72	72	72	72	72	71	71	71	71	71	71	71	71	71	70	70	70	70	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	69	72	72	72	72	72	72	72	72	72	72	72
5K	F27	70	70	70	70	70	70	70	71	71	71	71	71	71	71	71	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	71	71	71	71	71	71	71	71	71	70	70	70	70	70	70	70	70	70	70	70	70	70	69	69	69	69	69	69	69	73	73	73	73	73	73	73	73	73	73	73
1E	F28	74	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
1E	F29	70	69	69	69	69	69	69	69	69	69	69	69	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
1E(S)	F30	74	69	69	69	69	69	69	69	69	69	69	69	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68
1C(S)	F31	70	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	70	69	69	69	69	69	70	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68
2A	F32	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68
2A	F33	67	68	68	68	68	68	68	67	68	68	67	67	67	67	67	67	67	67	67	67	67	67	67	67	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68
2B	F34	68	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	69	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	69	69	68	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68
2C	F35	68	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68	68	69	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68
2F	F36	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68
2E	F37	68	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68	69	68	68	68	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	69	69	68	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	68	68	68
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Table 3.1.11 - Construction Noise Assessm

Unmitigated Scenario

Receivers	Points (APs)	2024 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Existing NSRs													
Rhythm Gardens	E1	65	65	65	65	65	65	65	65	65	65	62	62
Choi Hung Estate	E2	65	65	65	65	65	65	65	65	65	65	64	64
Richlands Gardens	E3	65	65	65	65	65	65	65	65	65	65	64	64
San Po Kong Area	E4	65	65	65	65	65	65	65	65	65	65	60	60
	E5	65	65	65	65	65	65	65	65	65	65	61	61
Kowloon City Area	E6	65	65	65	65	65	65	65	65	65	65	60	60
	E7	64	64	64	64	64	64	64	64	64	64	59	59
	E8	64	64	64	64	64	64	64	64	64	64	59	59
Mok Cheong St.	E9	65	65	65	65	65	65	65	65	65	65	60	60
Wyler Garden	E10	65	65	65	65	65	65	65	65	65	65	60	60
	E11	65	65	65	65	65	65	65	65	65	65	60	60
To Kwa Wan Area	E12	64	64	64	64	64	64	64	64	64	64	60	60
Laguna City	E13	78	78	78	78	78	78	78	78	78	78	78	78
Cha Kwo Ling	E14	71	71	71	71	71	71	71	71	71	71	71	71
Laguna Verde	E15	79	79	79	79	79	79	79	79	79	79	69	69
Future NSRs													
4C & 4E	F1	65	65	65	65	65	65	65	65	65	65	63	63
4C & 4E	F2	65	65	65	65	65	65	65	65	65	65	63	63
4F & 4L	F3	65	65	65	65	65	65	65	65	65	65	64	64
4F & 4L	F4	65	65	65	65	65	65	65	65	65	65	63	63
4K	F5	65	65	65	65	65	65	65	65	65	65	64	64
4M	F6	65	65	65	65	65	65	65	65	65	65	64	64
4R	F7	66	66	66	66	66	66	66	66	66	66	65	65
5J	F8	68	68	68	68	68	68	68	68	68	68	67	67
5J	F9	67	67	67	67	67	67	67	67	67	67	67	67
4S	F10	66	66	66	66	66	66	66	66	66	66	65	65
4H	F11	65	65	65	65	65	65	65	65	65	65	63	63
4G	F12	65	65	65	65	65	65	65	65	65	65	60	60
4D	F13	64	64	64	64	64	64	64	64	64	64	62	62
4A	F14	65	65	65	65	65	65	65	65	65	65	61	61
4J	F15	66	66	66	66	66	66	66	66	66	66	65	65
5A	F16	66	66	66	66	66	66	66	66	66	66	65	65
5E	F17	67	67	67	67	67	67	67	67	67	67	66	66
5G	F18	67	67	67	67	67	67	67	67	67	67	66	66
5C	F19	67	67	67	67	67	67	67	67	67	67	67	67
5C	F20	67	67	67	67	67	67	67	67	67	67	66	66
4E(S)	F21	65	65	65	65	65	65	65	65	65	65	63	63
5J(S)	F22	67	67	67	67	67	67	67	67	67	67	67	67
5L(S)	F23	67	67	67	67	67	67	67	67	67	67	67	67
4L(S)	F24	65	65	65	65	65	65	65	65	65	65	64	64
4N(S)	F25	66	66	66	66	66	66	66	66	66	66	65	65
5K	F26	67	67	67	67	67	67	67	67	67	67	67	67
5K	F27	67	67	67	67	67	67	67	67	67	67	67	67
1E	F28	65	65	65	65	65	65	65	65	65	65	61	61
1E	F29	65	65	65	65	65	65	65	65	65	65	61	61
1E(S)	F30	65	65	65	65	65	65	65	65	65	65	61	61
1C(S)	F31	64	64	64	64	64	64	64	64	64	64	62	62
2A	F32	65	65	65	65	65	65	65	65	65	65	60	60
2A	F33	65	65	65	65	65	65	65	65	65	65	60	60
2B	F34	65	65	65	65	65	65	65	65	65	65	60	60
2C	F35	65	65	65	65	65	65	65	65	65	65	61	61
2F	F36	65	65	65	65	65	65	65	65	65	65	60	60
2E	F37	65	65	65	65	65	65	65	65	65	65	61	61
2D	F38	65	65	65	65	65	65	65	65	65	65	61	61
1K	F39	65	65	65	65	65	65	65	65	65	65	61	61
1K	F40	65	65	65	65	65	65	65	65	65	65	61	61
1K	F41	65	65	65	65	65	65	65	65	65	65	61	61
2A(S)	F42	65	65	65	65	65	65	65	65	65	65	60	60
2A(S)	F43	65	65	65	65	65	65	65	65	65	65	60	60
2B(S)	F44	65	65	65	65	65	65	65	65	65	65	60	60
1L(S)	F45	65	65	65	65	65	65	65	65	65	65	61	61
1P(S)	F46	65	65	65	65	65	65	65	65	65	65	61	61

Table 3.1.11 - Construction Noise Assessment - Summary

Level 1 Mitigated Scenario

shaded area = unoccupied by future NSRs

| Receivers | Points (APs) | 2002 Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 2003 Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 2004 Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 2005 Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 2006 Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 2007 Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 2008 Jan | Feb | Mar |
|---|---|---

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Table 3.1.11 - Construction Noise Assessm
Level 1 Mitigated Scenario

Receivers	Points (APs)	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2000 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2001 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2002 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2003 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2004 Jan	Feb	Mar	Apr	May	Jun
Existing NSRs																																																																		
Rhythm Gardens	E1	60	60	60	61	61	62	62	61	61	61	61	61	61	61	61	62	61	61	61	61	61	62	62	62	62	62	62	62	61	61	61	61	61	62	62	62	61	61	61	61	61	61	60	60	60	61	61	61	60	60	60	60	59	59	59	61	61	61	61	61	60	60	60	57
Choi Hung Estate	E2	60	60	60	61	61	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	63	63	63	63	62	62	62	62	62	62	62	62	62	61	61	61	62	61	61	61	61	61	61	61	61	60	60	60	60	59	59	59	61	61	61	61	61	61	61	61	57
Richlands Gardens	E3	61	61	61	61	61	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	63	63	63	63	62	62	62	62	62	62	62	62	62	61	61	61	62	61	61	61	61	61	61	61	61	60	60	60	60	59	59	59	61	61	62	62	62	61	61	61	57
San Po Kong Area	E4	60	60	60	60	60	61	61	60	60	60	60	60	61	61	61	61	60	60	60	60	60	61	61	61	61	61	61	61	61	61	61	61	61	61	62	62	62	61	61	61	61	61	61	61	61	61	61	61	59	59	59	59	59	59	59	59	59	58	58	58	58	58	58	58
	E5	60	60	60	60	60	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	62	62	62	62	61	61	61	61	61	61	61	61	61	61	61	59	59	59	59	59	59	59	59	59	58	58	58	58	58	58	58
Kowloon City Area	E6	59	59	59	60	60	60	60	60	60	60	60	60	60	60	61	60	60	60	60	60	60	61	60	61	60	60	60	61	60	60	60	60	60	61	61	61	61	61	61	62	61	61	61	61	61	61	61	61	59	59	59	59	59	59	59	59	59	58	58	58	58	58	58	58
	E7	58	58	58	59	59	59	59	59	59	59	59	59	59	59	59	60	59	59	59	59	59	60	60	60	60	60	60	60	59	59	59	59	59	60	60	60	60	60	60	61	60	60	60	60	60	61	61	61	60	60	60	60	60	60	60	60	60	60	60	58	58	58	58	58
	E8	58	58	58	59	59	59	59	59	59	59	59	59	59	59	59	60	59	59	59	59	59	59	59	60	59	59	59	60	59	59	59	59	59	60	60	60	60	60	60	61	60	60	60	60	60	61	61	61	60	60	60	60	60	60	60	60	60	60	60	58	58	58	58	58
Mok Cheong St.	E9	59	59	59	60	60	60	60	60	60	60	60	60	60	60	60	61	60	60	60	60	60	61	61	61	61	61	61	61	60	60	60	60	60	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	59	59	59	59	59	59	59	59	59	58	58	58	58	58	58	58
Wyler Garden	E10	59	59	59	60	60	60	60	60	60	60	60	60	60	60	60	61	60	60	60	60	60	61	61	61	61	61	61	61	60	60	60	60	60	61	61	61	61	61	61	62	61	61	61	61	61	61	61	61	59	59	59	59	59	59	59	59	59	58	58	58	58	58	58	58
	E11	59	59	59	60	60	60	60	60	60	60	60	60	60	60	60	61	60	60	60	60	60	61	61	61	61	61	61	61	60	60	60	60	60	61	61	61	61	61	61	62	61	61	61	61	61	61	61	61	59	59	59	59	59	59	59	59	59	58	58	58	58	58	58	58
To Kwa Wan Area	E12	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	60	59	59	59	59	59	60	60	60	60	60	60	60	60	60	60	60	60	61	61	61	61	61	61	61	60	60	60	60	60	60	60	60	58	58	58	58	58	58	58	58	58	57	57	57	57	57	57	57
Laguna City	E13	63	63	63	63	63	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	63	63	63	63	63	63	63	60	60	60	60	60	60	60	60	60	60	58	58	58	59	59	72	72	72	72	72	72	72
Cha Kwo Ling	E14	61	61	61	61	61	61	61	61	61	61	61	61	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	61	61	61	61	61	61	61	59	59	59	59	59	58	58	58	58	56	56	56	58	58	65	65	65	65	65	65	65
Laguna Verde	E15	67	67	67	67	67	67	67	67	67	67	67	67	67	67	68	67	67	67	67	67	67	67	67	67	67	67	67	69	69	69	69	69	69	72	72	72	72	72	72	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	71	71	71	71	71
Future NSRs																																																																	
4C & 4E	F1	61	61	61	61	61	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	61	61	61	61	61	61	61	61	61	61	61	61	60	60	60	60	59	59	59	61	61	61	61	61	60	60	60	57
4C & 4E	F2	61	61	61	61	61	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	61	61	61	61	61	61	61	61	61	61	61	61	60	60	60	60	59	59	59	61	61	61	61	61	60	60	60	57
4F & 4L	F3	61	61	61	61	61	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	61	61	61	61	61	61	61	61	61	61	61	61	60	60	60	60	59	59	59	61	61	61	61	61	61	61	61	57
4F & 4L	F4	61	61	61	61	61	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	61	61	61	61	61	61	61	61	61	61	61	61	60	60	60	60	59	59	59	61	61	61	61	61	61	61	61	57
4K	F5	61	61	61	61	61	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	61	61	61	61	61	61	61	61	61	61	61	61	60	60	60	60	59	59	59	61	61	62	62	62	61	61	61	58
4M	F6	61	61	61	61	61	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	61	61	61	61	61	61	61	61	61	61	61	61	60	60	60	60	59	59	59	61	61	62	62	62	61	61	61	58
4R	F7	62	62	62	62	62	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	62	62	62	62	62	62	62	62	62	62	62	62	60	60	60	60	60	60	60	62	62	63	63	63	62	62	62	58
5J	F8	63	63	63	63	63	63	63	63	63	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	63	63	63	63	63	63	63	63	63	63	63	63	62	62	62	62	61	61	61	62	62	66	66	66	66	66	66	60
5J	F9	63	63	63	63	63	63	63	63	63	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	63	63	63	63	63	63	63	63	63	63	63	63	62	62	62	62	61	61	61	62	62	66	66	66	66	66	66	60
4S	F10	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	62	62	62	60	60	60	60	60	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	58	58	58	58	58
4H	F11	61	61	61	61	61	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	61	61	61	61	61	61	61	61	61	61	61	61	60	60	60	60	60	60	60	61	61	61	61	61	61	61	61	57
4G	F12	61	61	61	61	61	61	61	61	61	60	60	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	62	62	62	61	61	61	61	61	61	61	61	61	61	61	61	59	59	59	59	59	59	59	59	59	58	58	58	58	58	58	58
4D	F13	61	61	61	61	61	61	61	61	61	61	61	61	61	61	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	61	61	61	60	60	60	60	60	60	61	61	61	60	60	60	60	60	60	60	60	60	57	57	57	57	57	57	57
4A	F14	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	61	61	61	61	61	60	60	60	60	61	61	61	61	61	61	59	59	59	59	59	59	59	59	57	57	57	57	57
4J	F15	61	61	61	61	61	61	61	61	61	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	58	58	58	58	58
5A	F16	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	59	59	59	59	59
5E	F17	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	64	64	59	59	59	59	59
5G	F18	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	64	64	59	59	59	59	59
5C	F19	63	63	63	63	63	63	63	63	63	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	64	64	59	59	59	59	59
5C	F20	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	64	64	59	59	59	59	59
4E(S)	F21	61	61	61	61	61	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	61	61	61	60	60	60	60	59	59	59	61	61	61	61	61	61	61	61	61	61	61	57	57	57	57	57	57	57
5J(S)	F22	63	63	63	63	63	63	63	63	63	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	63	63	63	63	63	63	63	63	63	63	63	63	62	62	62	62	62	62	62	62	62	65	65	60	60	60	60	60
5L(S)	F23	63	63	63	63	63	63	63	63	63	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	63	63	63	63	63	63	63	63	63	63	63	63	62	62	62	62	62	62	62	62	62	66	66	60	60	60	60	60
4L(S)	F24	61	61	61	61	61	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	61	61	61	60	60	60	60	59	59	59	61	61	61	61	61	61	61	61	61	61	61	58	58	58	58	58	58	58
4N(S)	F25	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	62	62	62	60	60	60	60	60	60	60	62	62	62	62	62	62	62	62	62	62	62	63	63	58	58	58	58	58
5K	F26	63	63	63	63	63	63	63	63	63	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	65	65	65	65	65	65	65
5K	F27	63	63	63	63	63	63	63	63	63	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	66	66	62	62	62	62	62
1E	F28	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	57	57	57	57	57
1E	F29	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	57	57	57	57	57
1E(S)	F30	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	61	61	61	61	61	61	61	61	61	61	61	61	59	59	59	59	59	59	59	59	59	57	57	57	57	57	57	57
1C(S)	F31	61	61	61	61	61	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	61	61	61	61	61	62	61	61	60	60	60	61	61	61	60	60	60	59	59	59	61	61	61	61	61	60	60	60	57
2A	F32	61	61	61	61	61	61	61	61	61	60	60	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	62	62	62	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	58	58	58	58	58
2A	F33	61	61	61	61	61	61	61	61	61	60	60	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	62	62	62	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	57	57	57	57	57
2B	F34	60	60	60	60	60	61	61	61	61	61	61	61	61	61	61	60	60	60	60	60	60	61	61	61	61	61	61	61	61	61	61	61	61	62	62	62	61	61	61	61	61	61	61	61	61	61	61	61	59	59	59	59	59	59	59	59	59	58	58	58	58	58	58	58
2C	F35	60	60	60	60	60	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	62	62	62	61	61	61	61	61	61	61	61	61	61	61	61	59	59	59	59	59	59	59	59	59	58	58	58	58	58	58	58
2F	F36	60	60	60	60	60	61	61	60	60	60	60	60	60	60	61	60	60	60	60	60	60	61	61	61	61	61	61	61	60	60	60	60	60	61	61	61	61	61	61	62	61	61	61	61	61	61	61	61	59	59	59	59	59	59	59	59	59	58	58	58	58	58	58	58
2E	F37	60	60	60	60	60	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	62	62	62	61	61	61	61	61	61	61	61	61	61	61	61	59	59	59	59	59	59	59	59	59	58	58	58	58	58	58	58
2D	F38	60	60	60	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	62	62	62	62	62	62	62	61	61	61	61	61	62	62	62	61	61	61	61	61	61	61	61	61	61	61	61	59	59	59	59	59	59	59	59	59	57	57	57	57	57	57	57
1K	F39	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	58	58	58	58	58
1K	F40	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	58	58	58	58	58
1K	F41	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	62	62	62	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	58	58	58	58	58
2A(S)	F42	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	61	61	61	61	61	61	61	61	61	61	61	61	62	62	62	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	58	58	58	58	58
2A(S)	F43	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	61	61

Table 3.1.11 - Construction Noise Assessm

Level 1 Mitigated Scenario

Receivers	Points (APs)	Jul	Aug	Sep	Oct	Nov	Dec
Existing NSRs							
Rhythm Gardens	E1	57	57	57	57	55	55
Choi Hung Estate	E2	57	57	57	57	56	56
Richlands Gardens	E3	57	57	57	57	56	56
San Po Kong Area	E4	58	58	58	58	54	54
	E5	58	58	58	58	54	54
Kowloon City Area	E6	58	58	58	58	53	53
	E7	57	57	57	57	53	53
	E8	57	57	57	57	53	53
Mok Cheong St	E9	58	58	58	58	53	53
Wyler Garden	E10	58	58	58	58	54	54
	E11	58	58	58	58	54	54
To Kwa Wan Area	E12	57	57	57	57	53	53
Laguna City	E13	72	72	72	72	72	72
Cha Kwo Ling	E14	64	64	64	64	64	64
Laguna Verde	E15	71	71	71	71	63	63
Future NSRs							
4C & 4E	F1	57	57	57	57	55	55
4C & 4E	F2	57	57	57	57	55	55
4F & 4L	F3	57	57	57	57	56	56
4F & 4L	F4	57	57	57	57	56	56
4K	F5	58	58	58	58	56	56
4M	F6	58	58	58	58	57	57
4R	F7	58	58	58	58	58	58
5J	F8	60	60	60	60	60	60
5J	F9	60	60	60	60	60	60
4S	F10	58	58	58	58	57	57
4H	F11	57	57	57	57	56	56
4G	F12	58	58	58	58	54	54
4D	F13	57	57	57	57	55	55
4A	F14	57	57	57	57	54	54
4J	F15	58	58	58	58	57	57
5A	F16	59	59	59	59	58	58
5E	F17	59	59	59	59	59	59
5G	F18	54	54	54	54	54	54
5C	F19	54	54	54	54	54	54
5C	F20	54	54	54	54	54	54
4E(S)	F21	57	57	57	57	56	56
5J(S)	F22	60	60	60	60	59	59
5L(S)	F23	60	60	60	60	60	60
4L(S)	F24	58	58	58	58	57	57
4N(S)	F25	58	58	58	58	58	58
5K	F26	54	54	54	54	54	54
5K	F27	54	54	54	54	54	54
1E	F28	54	54	54	54	54	54
1E	F29	54	54	54	54	54	54
1E(S)	F30	57	57	57	57	54	54
1C(S)	F31	57	57	57	57	55	55
2A	F32	54	54	54	54	54	54
2A	F33	54	54	54	54	54	54
2B	F34	58	58	58	58	54	54
2C	F35	58	58	58	58	54	54
2F	F36	58	58	58	58	54	54
2E	F37	58	58	58	58	54	54
2D	F38	57	57	57	57	54	54
1K	F39	58	58	58	58	54	54
1K	F40	58	58	58	58	54	54
1K	F41	58	58	58	58	54	54
2A(S)	F42	58	58	58	58	53	53
2A(S)	F43	58	58	58	58	54	54
2B(S)	F44	58	58	58	58	54	54
1L(S)	F45	57	57	57	57	54	54
1P(S)	F46	57	57	57	57	54	54

Table 3.1.11 - Construction Noise Assessment - Summary

Level 2 Mitigated Scenario

shaded area = unoccupied by future NSRs

| Receivers | Points (APs) | 2002 Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 2003 Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 2004 Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 2005 Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 2006 Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 2007 Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 2008 Jan | Feb | Mar |
|---|---|---

Table 3.1.11 - Construction Noise Assessm

Level 2 Mitigated Scenario

| Receivers | Points (APs) | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 2009 Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 2010 Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 2011 Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 2012 Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 2013 Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | 2014 Jan | Feb | Mar | Apr | May | Jun |
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APPENDIX 3.1 CONSTRUC
Table 3.1.11 - Construction Noise Assessm
Level 2 Mitigated Scenario

Receivers	Points (APs)	Jul	Aug	Sep	Oct	Nov	Dec
Existing NSRs							
Rhythm Gardens	E1	64	64	64	64	64	64
Choi Hung Estate	E2	55	55	55	55	54	54
Richlands Gardens	E3	55	55	55	55	54	54
San Po Kong Area	E4	55	55	55	55	51	51
	E5	55	55	55	55	51	51
Kowloon City Area	E6	55	55	55	55	51	51
	E7	54	54	54	54	50	50
	E8	54	54	54	54	50	50
Mok Cheong St	E9	55	55	55	55	51	51
Wyler Garden	E10	55	55	55	55	51	51
	E11	55	55	55	55	51	51
To Kwa Wan Area	E12	54	54	54	54	50	50
Laguna City	E13	71	71	71	71	71	71
Cha Kwo Ling	E14	64	64	64	64	64	64
Laguna Verde	E15	68	68	68	68	59	59
Future NSRs							
4C & 4E	F1	55	55	55	55	53	53
4C & 4E	F2	55	55	55	55	53	53
4F & 4L	F3	55	55	55	55	54	54
4F & 4L	F4	55	55	55	55	54	54
4K	F5	55	55	55	55	54	54
4M	F6	56	56	56	56	55	55
4R	F7	57	57	57	57	56	56
5J	F8	59	59	59	59	59	59
5J	F9	58	58	58	58	58	58
4S	F10	56	56	56	56	56	56
4H	F11	55	55	55	55	54	54
4G	F12	55	55	55	55	51	51
4D	F13	55	55	55	55	53	52
4A	F14	55	55	55	55	52	52
4J	F15	56	56	56	56	55	55
5A	F16	57	57	57	57	56	56
5E	F17	57	57	57	57	57	57
5G	F18	56	56	56	56	56	56
5C	F19	56	56	56	56	56	56
5C	F20	56	56	56	56	56	56
4E(S)	F21	55	55	55	55	54	54
5J(S)	F22	58	58	58	58	58	58
5L(S)	F23	59	59	59	59	58	58
4L(S)	F24	56	56	56	56	55	55
4N(S)	F25	57	57	57	57	56	56
5K	F26	56	56	56	56	56	56
5K	F27	56	56	56	56	56	56
1E	F28	56	56	56	56	56	56
1E	F29	56	56	56	56	56	56
1E(S)	F30	55	55	55	55	52	52
1C(S)	F31	55	55	55	55	53	53
2A	F32	56	56	56	56	56	56
2A	F33	56	56	56	56	56	56
2B	F34	55	55	55	55	51	51
2C	F35	55	55	55	55	51	51
2F	F36	55	55	55	55	51	51
2E	F37	55	55	55	55	51	51
2D	F38	55	55	55	55	52	52
1K	F39	55	55	55	55	51	51
1K	F40	55	55	55	55	51	51
1K	F41	55	55	55	55	51	51
2A(S)	F42	55	55	55	55	51	51
2A(S)	F43	55	55	55	55	51	51
2B(S)	F44	55	55	55	55	51	51
1L(S)	F45	55	55	55	55	52	52
1P(S)	F46	55	55	55	55	52	52