Appendix 3.3
Detailed Calculations of Construction Noise Levels

Construction Noise Level at Different Periods of Time

	2003					2004												2005												2006											
	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
YUEN LONG HIGHWAY																																									
ROUTE 10																																									
DEEP BAY LINK																																									
Construction Activities																																									
Boundary Crossing Facilities																																									
BCF - Site Formation																																									
BCF - Drainage																																									
BCF - Piling for Buildings																																									
BCF - Pile Cap & Foundations																																									
Southbound Vehicle Holding Area																																									
SVHA - Site Formation																																									
SVHA - Carriageway																																									
NVHA as Precasting Yard																																									
Northbound Vehicle Holding Area																																									
NVHA - Site Formation																																									
NVHA - Carriageway																																									
NVHA as Precasting Yard																																									
Lam Tei Interchange Work Sites																																									
Precasting Yard																																									
Concrete Batching Plant																																									
Noise due to transient Alignment Construction Activites with a duration of about 18 weeks																																									
NORTH WEST NEW TERRITORIES*																																									
Period 1 (Contract 1)																																									
Site formaion of Areas 1B, 1C, 4A																																									
Period 2 (Contracts 1, 2 and 4)																																									
Site formation of Areas 1B, 1C, 4A																																									
Site formation of Areas 1B, 1C remaining, 2A, 2B																																									
Road works, major drainage, sewerage and watermains at Roads D1 (depressed), D3, D5, L1, L3																																									
Road improvement																																									
Road P1																																									
Period 3 (Contract 2, 3, 4 and 5)																																									
Site formation of Areas 1B, 1C (remaining), 2A, 2B																																									
Road works, major drainage, sewerage and watermains at Roads D1 (depressed), D3, D5, L1, L3																																									
Road improvement																																									
Site formation of Areas 1A, 2B, 2C and 2D																																									
Road works, major drainage, sewerage and watermains at Roads D1, D2, D6, L1, L3, L4																																									
Road P1																																									
Site formation of Areas 2E, 2F and 5A																																									
Road P1 (remainder) including landscape berm in Area 5B (site formation works)																																									
Road widening, major drainage, sewerage and watermains at Tin Ha Road																																									
Local service reservior																																									
Building works in Areas 1B, 1C and 4A (G/IC)																																									
Building works in Areas 1B and 2A (HOS/RS/PSPS)																																									
HSK WR Station																																									

Note: * - The programmes for HSK SGA works are tentative only without commitment of government, and is under review

YLH	-	Yuen Long Highway Widening Construction Noise Level, DB(A)
DBL	-	Deep Bay Link Construction Noise Level, DB(A)
NWNT	-	NWNT HSK Development Construction Noise Level, DB(A)
Overall	-	Overall Construction Noise Level, DB(A)

	2003					2004					2005				
NSR	YLH	DBL	NWNT	Route 10	Overall	YLH	DBL	NWNT	Route	Overall	YLH	DBL	NWNT	Route	Overall
2	79	N.A.	N.A.	N.A.	79	81	N.A.	N.A.	N.A.	81	60	N.A.	N.A.	N.A.	60
3	78	N.A.	N.A.	N.A.	78	80	N.A.	N.A.	N.A.	80	60	N.A.	N.A.	N.A.	60
4	77	N.A.	N.A.	N.A.	77	79	N.A.	N.A.	N.A.	79	60	N.A.	N.A.	N.A.	60
5	73	N.A.	N.A.	N.A.	73	75	N.A.	N.A.	N.A.	75	63	N.A.	N.A.	N.A.	63
6	73	N.A.	N.A.	N.A.	73	75	74	N.A.	N.A.	78	62	74	N.A.	N.A.	74
7	83	N.A.	N.A.	N.A.	83	85	85	N.A.	N.A.	88	65	85	N.A.	N.A.	85
8	92	N.A.	N.A.	N.A.	92	94	84	N.A.	N.A.	94	67	84	N.A.	N.A.	84
10	70	N.A.	N.A.	N.A.	70	81	83	N.A.	62	85	81	83	N.A.	62	85
11	63	N.A.	N.A.	N.A.	63	80	91	58	N.A.	91	80	91	58	N.A.	91
14	69	N.A.	N.A.	N.A.	69	94	72	59	N.A.	94	94	72	N.A.	N.A.	94
15	71	N.A.	N.A.	N.A.	71	73	N.A.	N.A.	N.A.	73	73	N.A.	N.A.	N.A.	73
16	70	N.A.	N.A.	N.A.	70	71	N.A.	62	N.A.	72	71	N.A.	62	N.A.	72
17	79	N.A.	N.A.	N.A.	79	79	N.A.	N.A.	N.A.	79	77	N.A.	N.A.	N.A.	77
18	89	N.A.	N.A.	N.A.	89	89	N.A.	N.A.	N.A.	89	87	N.A.	N.A.	N.A.	87
19	77	N.A.	N.A.	N.A.	77	82	N.A.	N.A.	N.A.	82	76	N.A.	N.A.	N.A.	76
20	75	N.A.	N.A.	N.A.	75	80	N.A.	N.A.	N.A.	80	74	N.A.	N.A.	N.A.	74
21	77	N.A.	N.A.	N.A.	77	82	N.A.	N.A.	N.A.	82	76	N.A.	N.A.	N.A.	76
22	76	N.A.	N.A.	N.A.	76	81	N.A.	N.A.	N.A.	81	75	N.A.	N.A.	N.A.	75
23	70	N.A.	N.A.	N.A.	70	75	N.A.	N.A.	N.A.	75	69	N.A.	N.A.	N.A.	69
24	78	N.A.	N.A.	N.A.	78	83	N.A.	N.A.	N.A.	83	77	N.A.	N.A.	N.A.	77
25	86	N.A.	N.A.	N.A.	86	91	N.A.	N.A.	N.A.	91	85	N.A.	N.A.	N.A.	85
26	70	N.A.	N.A.	N.A.	70	76	N.A.	N.A.	N.A.	76	72	N.A.	N.A.	N.A.	72
27	62	N.A.	N.A.	N.A.	62	71	N.A.	N.A.	N.A.	71	70	N.A.	N.A.	N.A.	70
28	65	N.A.	N.A.	N.A.	65	85	N.A.	N.A.	N.A.	85	85	N.A.	N.A.	N.A.	85
29	62	N.A.	N.A.	N.A.	62	72	N.A.	N.A.	N.A.	72	71	N.A.	N.A.	N.A.	71
30	59	N.A.	N.A.	N.A.	59	71	N.A.	N.A.	N.A.	71	70	N.A.	N.A.	N.A.	70
31	60	N.A.	N.A.	N.A.	60	75	N.A.	N.A.	N.A.	75	75	N.A.	N.A.	N.A.	75
32	59	N.A.	N.A.	N.A.	59	81	N.A.	N.A.	N.A.	81	81	N.A.	N.A.	N.A.	81
33	56	N.A.	N.A.	N.A.	56	76	N.A.	N.A.	N.A.	76	76	N.A.	N.A.	N.A.	76
34	55	N.A.	N.A.	N.A.	55	82	N.A.	N.A.	N.A.	82	82	N.A.	N.A.	N.A.	82
35	54	N.A.	N.A.	N.A.	54	70	N.A.	N.A.	N.A.	70	70	N.A.	N.A.	N.A.	70
36	80	N.A.	N.A.	N.A.	80	82	N.A.	N.A.	N.A.	82	58	N.A.	N.A.	N.A.	58
37	72	N.A.	N.A.	N.A.	72	72	N.A.	N.A.	N.A.	72	72	N.A.	N.A.	N.A.	72
38	71	N.A.	N.A.	N.A.	71	72	N.A.	N.A.	N.A.	72	69	N.A.	N.A.	N.A.	69
A1	90	N.A.	N.A.	N.A.	90	92	72	N.A.	N.A.	92	62	72	N.A.	N.A.	72
A2	82	N.A.	N.A.	N.A.	82	84	N.A.	N.A.	N.A.	84	62	N.A.	N.A.	N.A.	62
B1	72	N.A.	N.A.	N.A.	72	74	N.A.	N.A.	N.A.	74	64	N.A.	N.A.	N.A.	64
B11	76	N.A.	N.A.	N.A.	76	78	88	N.A.	N.A.	88	65	88	N.A.	N.A.	88
D1	75	N.A.	N.A.	N.A.	75	77	N.A.	N.A.	N.A.	77	74	N.A.	N.A.	N.A.	74
D5	73	N.A.	N.A.	N.A.	73	74	N.A.	N.A.	N.A.	74	71	N.A.	N.A.	N.A.	71
E1	67	N.A.	N.A.	N.A.	67	81	N.A.	N.A.	N.A.	81	81	N.A.	N.A.	N.A.	81
E2	66	N.A.	N.A.	N.A.	66	77	N.A.	N.A.	N.A.	77	77	N.A.	N.A.	N.A.	77
F1	76	N.A.	N.A.	N.A.	76	81	N.A.	N.A.	N.A.	81	75	N.A.	N.A.	N.A.	75
F2	79	N.A.	N.A.	N.A.	79	84	N.A.	N.A.	N.A.	84	78	N.A.	N.A.	N.A.	78
F3	69	N.A.	N.A.	N.A.	69	74	N.A.	N.A.	N.A.	74	69	N.A.	N.A.	N.A.	69
G1	69	N.A.	N.A.	N.A.	69	74	N.A.	N.A.	N.A.	74	69	N.A.	N.A.	N.A.	69
G2	73	N.A.	N.A.	N.A.	73	78	N.A.	N.A.	N.A.	78	73	N.A.	N.A.	N.A.	73
G3	63	N.A.	N.A.	N.A.	63	76	N.A.	N.A.	N.A.	76	75	N.A.	N.A.	N.A.	75
H1	58	N.A.	N.A.	N.A.	58	75	N.A.	N.A.	N.A.	75	75	N.A.	N.A.	N.A.	75
H2	55	N.A.	N.A.	N.A.	55	71	N.A.	N.A.	N.A.	71	71	N.A.	N.A.	N.A.	71
H3	54	N.A.	N.A.	N.A.	54	66	N.A.	N.A.	N.A.	66	65	N.A.	N.A.	N.A.	65
J1	87	N.A.	N.A.	N.A.	87	89	N.A.	N.A.	N.A.	89	57	N.A.	N.A.	N.A.	57
J2	79	N.A.	N.A.	N.A.	79	81	N.A.	N.A.	N.A.	81	58	N.A.	N.A.	N.A.	58
L1	71	N.A.	N.A.	N.A.	71	73	N.A.	N.A.	N.A.	73	64	N.A.	N.A.	N.A.	64
L2	73	N.A.	N.A.	N.A.	73	75	N.A.	N.A.	N.A.	75	62	N.A.	N.A.	N.A.	62
L3	70	N.A.	N.A.	N.A.	70	72	N.A.	N.A.	N.A.	72	62	N.A.	N.A.	N.A.	62
M1	67	N.A.	N.A.	N.A.	67	70	76	N.A.	N.A.	77	63	76	N.A.	N.A.	76
M2	67	N.A.	N.A.	N.A.	67	70	N.A.	N.A.	N.A.	70	62	N.A.	N.A.	N.A.	62
N1	74	N.A.	N.A.	N.A.	74	76	N.A.	N.A.	N.A.	76	65	N.A.	N.A.	N.A.	65
N3	63	N.A.	N.A.	N.A.	63	76	N.A.	N.A.	N.A.	76	76	N.A.	N.A.	N.A.	76
N4	62	N.A.	N.A.	N.A.	62	74	N.A.	63	N.A.	74	74	N.A.	63	N.A.	74
N5	63	N.A.	N.A.	N.A.	63	77	N.A.	N.A.	N.A.	77	77	N.A.	N.A.	N.A.	77
O1	69	N.A.	N.A.	N.A.	69	77	N.A.	60	N.A.	78	77	N.A.	60	N.A.	78
O2	77	N.A.	N.A.	N.A.	77	77	N.A.	N.A.	N.A.	77	76	N.A.	N.A.	N.A.	76
O3	71	N.A.	N.A.	N.A.	71	71	N.A.	N.A.	N.A.	71	70	N.A.	N.A.	N.A.	70
P1	76	N.A.	N.A.	N.A.	76	76	N.A.	N.A.	N.A.	76	74	N.A.	N.A.	N.A.	74
P2	73	N.A.	N.A.	N.A.	73	74	N.A.	59	N.A.	74	72	N.A.	59	N.A.	72
Q1	85	N.A.	N.A.	N.A.	85	90	N.A.	N.A.	N.A.	90	84	N.A.	N.A.	N.A.	84
Q2	79	N.A.	N.A.	N.A.	79	84	N.A.	N.A.	N.A.	84	78	N.A.	N.A.	N.A.	78
Q3	70	N.A.	N.A.	N.A.	70	75	N.A.	N.A.	N.A.	75	70	N.A.	N.A.	N.A.	70
Q4	68	N.A.	N.A.	N.A.	68	72	N.A.	N.A.	N.A.	72	67	N.A.	N.A.	N.A.	67
Q5	67	N.A.	N.A.	N.A.	67	70	N.A.	N.A.	N.A.	70	66	N.A.	N.A.	N.A.	66
Q6	69	N.A.	N.A.	N.A.	69	72	N.A.	N.A.	N.A.	72	68	N.A.	N.A.	N.A.	68
Q7	71	N.A.	N.A.	N.A.	71	75	N.A.	N.A.	N.A.	75	70	N.A.	N.A.	N.A.	70
R1	85	N.A.	N.A.	N.A.	85	90	N.A.	N.A.	N.A.	90	84	N.A.	N.A.	N.A.	84
R2	80	N.A.	N.A.	N.A.	80	85	N.A.	N.A.	N.A.	85	79	N.A.	N.A.	N.A.	79
S1	56	N.A.	N.A.	N.A.	56	77	N.A.	N.A.	N.A.	77	77	N.A.	N.A.	N.A.	77
S2	55	N.A.	N.A.	N.A.	55	73	N.A.	N.A.	N.A.	73	73	N.A.	N.A.	N.A.	73
S3	54	N.A.	N.A.	N.A.	54	71	N.A.	N.A.	N.A.	71	71	N.A.	N.A.	N.A.	71
I1	78	N.A.	N.A.	N.A.	78	80	N.A.	N.A.	N.A.	80	58	N.A.	N.A.	N.A.	58
K1	74	N.A.	N.A.	N.A.	74	76	N.A.	N.A.	N.A.	76	59	N.A.	N.A.	N.A.	59
K2	74	N.A.	N.A.	N.A.	74	76	N.A.	N.A.	N.A.	76	59	N.A.	N.A.	N.A.	59

YLH - Yuen Long Highway Widening Construction Noise Level, DB(A)
DBL - Deep Bay Link Construction Noise Level, DB(A)
NWNT - NWNT HSK Development Construction Noise Level, DB(A)
Overall - Overall Construction Noise Level, DB(A)

	2003					2004					2005				
NSR	YLH	DBL	NWNT	Route 10	Overall	YLH	DBL	NWNT	Route	Overall	YLH	DBL	NWNT	Route	Overall
K3	73	N.A.	N.A.	N.A.	73	75	N.A.	N.A.	N.A.	75	59	N.A.	N.A.	N.A.	59
K4	72	N.A.	N.A.	N.A.	72	74	N.A.	N.A.	N.A.	74	59	N.A.	N.A.	N.A.	59
K5	71	N.A.	N.A.	N.A.	71	73	N.A.	N.A.	N.A.	73	60	N.A.	N.A.	N.A.	60
K6	72	N.A.	N.A.	N.A.	72	74	N.A.	N.A.	N.A.	74	60	N.A.	N.A.	N.A.	60
K7	72	N.A.	N.A.	N.A.	72	74	N.A.	N.A.	N.A.	74	60	N.A.	N.A.	N.A.	60
K8	71	N.A.	N.A.	N.A.	71	73	N.A.	N.A.	N.A.	73	60	N.A.	N.A.	N.A.	60
K9	71	N.A.	N.A.	N.A.	71	73	N.A.	N.A.	N.A.	73	60	N.A.	N.A.	N.A.	60
K10	72	N.A.	N.A.	N.A.	72	74	N.A.	N.A.	N.A.	74	60	N.A.	N.A.	N.A.	60
K11	72	N.A.	N.A.	N.A.	72	74	N.A.	N.A.	N.A.	74	60	N.A.	N.A.	N.A.	60
K12	71	N.A.	N.A.	N.A.	71	73	N.A.	N.A.	N.A.	73	60	N.A.	N.A.	N.A.	60
K13	71	N.A.	N.A.	N.A.	71	73	N.A.	N.A.	N.A.	73	60	N.A.	N.A.	N.A.	60
K14	71	N.A.	N.A.	N.A.	71	73	N.A.	N.A.	N.A.	73	60	N.A.	N.A.	N.A.	60
K15	71	N.A.	N.A.	N.A.	71	73	N.A.	N.A.	N.A.	73	60	N.A.	N.A.	N.A.	60
K16	71	N.A.	N.A.	N.A.	71	73	N.A.	N.A.	N.A.	73	60	N.A.	N.A.	N.A.	60
K17	70	N.A.	N.A.	N.A.	70	72	N.A.	N.A.	N.A.	72	60	N.A.	N.A.	N.A.	60
K18	69	N.A.	N.A.	N.A.	69	71	N.A.	N.A.	N.A.	71	60	N.A.	N.A.	N.A.	60
95	62	N.A.	N.A.	N.A.	62	73	N.A.	62	N.A.	74	73	N.A.	62	N.A.	73
96	67	N.A.	N.A.	N.A.	67	80	N.A.	58	N.A.	80	80	N.A.	58	N.A.	80
97	64	N.A.	N.A.	N.A.	64	75	72	59	N.A.	77	75	72	59	N.A.	77
O4	76	N.A.	N.A.	N.A.	76	76	N.A.	N.A.	N.A.	76	74	N.A.	N.A.	N.A.	74
C	62	N.A.	N.A.	N.A.	62	72	N.A.	N.A.	N.A.	72	72	N.A.	N.A.	N.A.	72
39	75	N.A.	N.A.	N.A.	75	77	N.A.	N.A.	N.A.	77	58	N.A.	N.A.	N.A.	58
40	83	N.A.	N.A.	N.A.	83	85	71	N.A.	N.A.	85	61	71	N.A.	N.A.	71
41	74	N.A.	N.A.	N.A.	74	76	N.A.	N.A.	N.A.	76	61	N.A.	N.A.	N.A.	61
42	71	N.A.	N.A.	N.A.	71	74	84	N.A.	N.A.	84	66	84	N.A.	N.A.	84
43	66	N.A.	N.A.	N.A.	66	71	85	59	N.A.	85	70	85	59	N.A.	85
44	64	N.A.	N.A.	N.A.	64	71	82	58	N.A.	82	71	82	N.A.	N.A.	82
45	63	N.A.	N.A.	N.A.	63	78	83	61	N.A.	84	78	83	61	N.A.	84
46	68	N.A.	N.A.	N.A.	68	68	N.A.	63	N.A.	69	68	N.A.	63	N.A.	69
47	69	N.A.	N.A.	N.A.	69	70	N.A.	N.A.	N.A.	70	69	N.A.	N.A.	N.A.	69
48	69	N.A.	N.A.	N.A.	69	69	N.A.	65	N.A.	71	68	N.A.	65	N.A.	70
49	67	N.A.	N.A.	N.A.	67	69	N.A.	65	N.A.	70	66	N.A.	65	N.A.	69
50	69	N.A.	N.A.	N.A.	69	73	N.A.	N.A.	N.A.	73	68	N.A.	N.A.	N.A.	68
51	71	N.A.	N.A.	N.A.	71	76	N.A.	N.A.	N.A.	76	71	N.A.	N.A.	N.A.	71
52	75	N.A.	N.A.	N.A.	75	79	N.A.	N.A.	N.A.	79	74	N.A.	N.A.	N.A.	74
53	79	N.A.	N.A.	N.A.	79	84	N.A.	N.A.	N.A.	84	78	N.A.	N.A.	N.A.	78
54	67	N.A.	N.A.	N.A.	67	72	N.A.	N.A.	N.A.	72	67	N.A.	N.A.	N.A.	67
55	70	N.A.	N.A.	N.A.	70	75	N.A.	N.A.	N.A.	75	69	N.A.	N.A.	N.A.	69
56	66	N.A.	N.A.	N.A.	66	71	N.A.	N.A.	N.A.	71	66	N.A.	N.A.	N.A.	66
57	82	N.A.	N.A.	N.A.	82	82	N.A.	N.A.	N.A.	82	80	N.A.	N.A.	N.A.	80
58	70	N.A.	N.A.	N.A.	70	75	N.A.	N.A.	N.A.	75	70	N.A.	N.A.	N.A.	70
59	65	N.A.	N.A.	N.A.	65	74	N.A.	N.A.	N.A.	74	73	N.A.	N.A.	N.A.	73
60	60	N.A.	N.A.	N.A.	60	72	N.A.	N.A.	N.A.	72	71	N.A.	N.A.	N.A.	71
61	65	N.A.	N.A.	N.A.	65	86	N.A.	N.A.	N.A.	86	86	N.A.	N.A.	N.A.	86
62	62	N.A.	N.A.	N.A.	62	77	N.A.	N.A.	N.A.	77	76	N.A.	N.A.	N.A.	76
63	62	N.A.	N.A.	N.A.	62	83	N.A.	N.A.	N.A.	83	83	N.A.	N.A.	N.A.	83
64	60	N.A.	N.A.	N.A.	60	75	N.A.	N.A.	N.A.	75	75	N.A.	N.A.	N.A.	75
65	58	N.A.	N.A.	N.A.	58	77	N.A.	N.A.	N.A.	77	77	N.A.	N.A.	N.A.	77
66	55	N.A.	N.A.	N.A.	55	70	N.A.	N.A.	N.A.	70	70	N.A.	N.A.	N.A.	70
67	57	N.A.	N.A.	N.A.	57	83	N.A.	N.A.	N.A.	83	83	N.A.	N.A.	N.A.	83
68	54	N.A.	N.A.	N.A.	54	68	N.A.	N.A.	N.A.	68	67	N.A.	N.A.	N.A.	67
69	54	N.A.	N.A.	N.A.	54	64	N.A.	N.A.	N.A.	64	63	N.A.	N.A.	N.A.	63
70	53	N.A.	N.A.	N.A.	53	67	N.A.	N.A.	N.A.	67	67	N.A.	N.A.	N.A.	67
71	54	N.A.	N.A.	N.A.	54	73	N.A.	N.A.	N.A.	73	73	N.A.	N.A.	N.A.	73
72	66	N.A.	N.A.	N.A.	66	72	N.A.	N.A.	N.A.	72	67	N.A.	N.A.	N.A.	67
73	73	N.A.	N.A.	N.A.	73	78	N.A.	N.A.	N.A.	78	72	N.A.	N.A.	N.A.	72
74	68	N.A.	N.A.	N.A.	68	73	N.A.	N.A.	N.A.	73	68	N.A.	N.A.	N.A.	68
75	80	N.A.	N.A.	N.A.	80	85	N.A.	N.A.	N.A.	85	79	N.A.	N.A.	N.A.	79
76	79	N.A.	N.A.	N.A.	79	81	83	N.A.	61	85	68	83	N.A.	61	83
77	76	N.A.	N.A.	N.A.	76	77	N.A.	N.A.	N.A.	77	75	N.A.	N.A.	N.A.	75
78	56	N.A.	N.A.	N.A.	56	86	N.A.	N.A.	N.A.	86	86	N.A.	N.A.	N.A.	86
79	77	N.A.	N.A.	N.A.	77	84	N.A.	N.A.	N.A.	84	81	N.A.	N.A.	N.A.	81
80	54	N.A.	N.A.	N.A.	54	83	N.A.	N.A.	N.A.	83	83	N.A.	N.A.	N.A.	83
81	65	N.A.	N.A.	N.A.	65	79	77	59	N.A.	81	79	77	59	N.A.	81
82	64	N.A.	N.A.	N.A.	64	77	86	58	N.A.	87	77	86	58	N.A.	87
83*	71	N.A.	N.A.	N.A.	71	80	84	56	N.A.	85	80	84	56	N.A.	85
84	83	N.A.	N.A.	N.A.	83	85	N.A.	N.A.	N.A.	85	62	N.A.	N.A.	N.A.	62
85	77	N.A.	N.A.	N.A.	77	79	N.A.	N.A.	N.A.	79	63	N.A.	N.A.	N.A.	63
86	77	N.A.	N.A.	N.A.	77	79	N.A.	N.A.	N.A.	79	64	N.A.	N.A.	N.A.	64
87	79	N.A.	N.A.	N.A.	79	84	N.A.	N.A.	N.A.	84	78	N.A.	N.A.	N.A.	78
88	84	N.A.	N.A.	N.A.	84	89	N.A.	N.A.	N.A.	89	83	N.A.	N.A.	N.A.	83
89	88	N.A.	N.A.	N.A.	88	93	N.A.	N.A.	N.A.	93	87	N.A.	N.A.	N.A.	87
90	86	N.A.	N.A.	N.A.	86	91	N.A.	N.A.	N.A.	91	85	N.A.	N.A.	N.A.	85
91	77	N.A.	N.A.	N.A.	77	77	N.A.	N.A.	N.A.	77	75	N.A.	N.A.	N.A.	75
92	63	N.A.	N.A.	N.A.	63	89	88	58	N.A.	92	89	88	58	N.A.	92
93	81	N.A.	N.A.	N.A.	81	84	68	59	N.A.	84	84	68	59	N.A.	84
94	71	N.A.	N.A.	N.A.	71	82	70	58	N.A.	82	82	70	58	N.A.	82
9	64	N.A.	N.A.	N.A.	64	81	N.A.	N.A.	N.A.	81	81	N.A.	N.A.	N.A.	81
12	75	N.A.	N.A.	N.A.	75	79	N.A.	N.A.	N.A.	79	74	N.A.	N.A.	N.A.	74
13	82	N.A.	N.A.	N.A.	82	87	N.A.	N.A.	N.A.	87	81	N.A.	N.A.	N.A.	81
1	70	N.A.	N.A.	N.A.	70	75	N.A.	N.A.	N.A.	75	69	N.A.	N.A.	N.A.	69

YLH - Yuen Long Highway Widening Construction Noise Level, DB(A)
DBL - Deep Bay Link Construction Noise Level, DB(A)
NWNT - NWNT HSK Development Construction Noise Level, DB(A)
Overall - Overall Construction Noise Level, DB(A)

	2003					2004					2005				
NSR	YLH	DBL	NWNT	Route 10	Overall	YLH	DBL	NWNT	Route 10	Overall	YLH	DBL	NWNT	Route 10	Overall
2	60	N.A.	N.A.	N.A.	60	62	N.A.	N.A.	N.A.	62	41	N.A.	N.A.	N.A.	41
3	59	N.A.	N.A.	N.A.	59	61	N.A.	N.A.	N.A.	61	41	N.A.	N.A.	N.A.	41
4	58	N.A.	N.A.	N.A.	58	60	N.A.	N.A.	N.A.	60	41	N.A.	N.A.	N.A.	41
5	54	N.A.	N.A.	N.A.	54	56	N.A.	N.A.	N.A.	56	43	N.A.	N.A.	N.A.	43
6	54	N.A.	N.A.	N.A.	54	56	56	N.A.	N.A.	59	43	56	N.A.	N.A.	56
7	64	N.A.	N.A.	N.A.	64	66	69	N.A.	N.A.	71	46	69	N.A.	N.A.	69
8	73	N.A.	N.A.	N.A.	73	75	65	N.A.	N.A.	75	48	66	N.A.	N.A.	66
10	51	N.A.	N.A.	N.A.	51	63	65	N.A.	62	68	61	65	N.A.	62	68
11	45	N.A.	N.A.	N.A.	45	61	75	58	N.A.	75	60	75	58	N.A.	75
14	52	N.A.	N.A.	N.A.	52	75	53	59	N.A.	75	74	53	N.A.	N.A.	74
15	54	N.A.	N.A.	N.A.	54	56	N.A.	N.A.	N.A.	56	56	N.A.	N.A.	N.A.	56
16	53	N.A.	N.A.	N.A.	53	54	N.A.	62	N.A.	63	54	N.A.	62	N.A.	63
17	62	N.A.	N.A.	N.A.	62	62	N.A.	N.A.	N.A.	62	62	N.A.	N.A.	N.A.	62
18	72	N.A.	N.A.	N.A.	72	72	N.A.	N.A.	N.A.	72	72	N.A.	N.A.	N.A.	72
19	60	N.A.	N.A.	N.A.	60	64	N.A.	N.A.	N.A.	64	57	N.A.	N.A.	N.A.	57
20	58	N.A.	N.A.	N.A.	58	62	N.A.	N.A.	N.A.	62	56	N.A.	N.A.	N.A.	56
21	60	N.A.	N.A.	N.A.	60	64	N.A.	N.A.	N.A.	64	57	N.A.	N.A.	N.A.	57
22	59	N.A.	N.A.	N.A.	59	63	N.A.	N.A.	N.A.	63	56	N.A.	N.A.	N.A.	56
23	53	N.A.	N.A.	N.A.	53	57	N.A.	N.A.	N.A.	57	51	N.A.	N.A.	N.A.	51
24	61	N.A.	N.A.	N.A.	61	65	N.A.	N.A.	N.A.	65	58	N.A.	N.A.	N.A.	58
25	69	N.A.	N.A.	N.A.	69	73	N.A.	N.A.	N.A.	73	66	N.A.	N.A.	N.A.	66
26	53	N.A.	N.A.	N.A.	53	58	N.A.	N.A.	N.A.	58	54	N.A.	N.A.	N.A.	54
27	45	N.A.	N.A.	N.A.	45	53	N.A.	N.A.	N.A.	53	52	N.A.	N.A.	N.A.	52
28	48	N.A.	N.A.	N.A.	48	67	N.A.	N.A.	N.A.	67	67	N.A.	N.A.	N.A.	67
29	45	N.A.	N.A.	N.A.	45	54	N.A.	N.A.	N.A.	54	53	N.A.	N.A.	N.A.	53
30	42	N.A.	N.A.	N.A.	42	53	N.A.	N.A.	N.A.	53	52	N.A.	N.A.	N.A.	52
31	43	N.A.	N.A.	N.A.	43	57	N.A.	N.A.	N.A.	57	57	N.A.	N.A.	N.A.	57
32	42	N.A.	N.A.	N.A.	42	63	N.A.	N.A.	N.A.	63	63	N.A.	N.A.	N.A.	63
33	39	N.A.	N.A.	N.A.	39	58	N.A.	N.A.	N.A.	58	58	N.A.	N.A.	N.A.	58
34	38	N.A.	N.A.	N.A.	38	64	N.A.	N.A.	N.A.	64	64	N.A.	N.A.	N.A.	64
35	36	N.A.	N.A.	N.A.	36	52	N.A.	N.A.	N.A.	52	52	N.A.	N.A.	N.A.	52
36	61	N.A.	N.A.	N.A.	61	63	N.A.	N.A.	N.A.	63	39	N.A.	N.A.	N.A.	39
37	55	N.A.	N.A.	N.A.	55	56	N.A.	N.A.	N.A.	56	56	N.A.	N.A.	N.A.	56
38	54	N.A.	N.A.	N.A.	54	54	N.A.	N.A.	N.A.	54	54	N.A.	N.A.	N.A.	54
A1	71	N.A.	N.A.	N.A.	71	73	53	N.A.	N.A.	73	42	53	N.A.	N.A.	53
A2	63	N.A.	N.A.	N.A.	63	65	N.A.	N.A.	N.A.	65	43	N.A.	N.A.	N.A.	43
B1	53	N.A.	N.A.	N.A.	53	55	N.A.	N.A.	N.A.	55	45	N.A.	N.A.	N.A.	45
B11	57	N.A.	N.A.	N.A.	57	59	69	N.A.	N.A.	69	46	69	N.A.	N.A.	69
D1	58	N.A.	N.A.	N.A.	58	59	N.A.	N.A.	N.A.	59	58	N.A.	N.A.	N.A.	58
D5	56	N.A.	N.A.	N.A.	56	57	N.A.	N.A.	N.A.	57	56	N.A.	N.A.	N.A.	56
E1	50	N.A.	N.A.	N.A.	50	62	N.A.	N.A.	N.A.	62	61	N.A.	N.A.	N.A.	61
E2	49	N.A.	N.A.	N.A.	49	58	N.A.	N.A.	N.A.	58	58	N.A.	N.A.	N.A.	58
F1	59	N.A.	N.A.	N.A.	59	63	N.A.	N.A.	N.A.	63	56	N.A.	N.A.	N.A.	56
F2	62	N.A.	N.A.	N.A.	62	66	N.A.	N.A.	N.A.	66	59	N.A.	N.A.	N.A.	59
F3	52	N.A.	N.A.	N.A.	52	56	N.A.	N.A.	N.A.	56	51	N.A.	N.A.	N.A.	51
G1	52	N.A.	N.A.	N.A.	52	56	N.A.	N.A.	N.A.	56	51	N.A.	N.A.	N.A.	51
G2	56	N.A.	N.A.	N.A.	56	60	N.A.	N.A.	N.A.	60	55	N.A.	N.A.	N.A.	55
G3	46	N.A.	N.A.	N.A.	46	58	N.A.	N.A.	N.A.	58	57	N.A.	N.A.	N.A.	57
H1	41	N.A.	N.A.	N.A.	41	57	N.A.	N.A.	N.A.	57	57	N.A.	N.A.	N.A.	57
H2	38	N.A.	N.A.	N.A.	38	53	N.A.	N.A.	N.A.	53	53	N.A.	N.A.	N.A.	53
H3	36	N.A.	N.A.	N.A.	36	48	N.A.	N.A.	N.A.	48	47	N.A.	N.A.	N.A.	47
J1	68	N.A.	N.A.	N.A.	68	70	N.A.	N.A.	N.A.	70	38	N.A.	N.A.	N.A.	38
J2	60	N.A.	N.A.	N.A.	60	62	N.A.	N.A.	N.A.	62	39	N.A.	N.A.	N.A.	39
L1	52	N.A.	N.A.	N.A.	52	55	N.A.	N.A.	N.A.	55	45	N.A.	N.A.	N.A.	45
L2	54	N.A.	N.A.	N.A.	54	56	N.A.	N.A.	N.A.	56	42	N.A.	N.A.	N.A.	42
L3	51	N.A.	N.A.	N.A.	51	53	N.A.	N.A.	N.A.	53	42	N.A.	N.A.	N.A.	42
M1	48	N.A.	N.A.	N.A.	48	51	56	N.A.	N.A.	57	44	56	N.A.	N.A.	56
M2	48	N.A.	N.A.	N.A.	48	51	N.A.	N.A.	N.A.	51	42	N.A.	N.A.	N.A.	42
N1	55	N.A.	N.A.	N.A.	55	57	N.A.	N.A.	N.A.	57	46	N.A.	N.A.	N.A.	46
N3	45	N.A.	N.A.	N.A.	45	57	N.A.	N.A.	N.A.	57	56	N.A.	N.A.	N.A.	56
N4	44	N.A.	N.A.	N.A.	44	55	N.A.	63	N.A.	64	54	N.A.	63	N.A.	64
N5	45	N.A.	N.A.	N.A.	45	58	N.A.	N.A.	N.A.	58	57	N.A.	N.A.	N.A.	57
O1	52	N.A.	N.A.	N.A.	52	59	N.A.	60	N.A.	62	58	N.A.	60	N.A.	62
O2	60	N.A.	N.A.	N.A.	60	60	N.A.	N.A.	N.A.	60	60	N.A.	N.A.	N.A.	60
O3	54	N.A.	N.A.	N.A.	54	55	N.A.	N.A.	N.A.	55	54	N.A.	N.A.	N.A.	54
P1	59	N.A.	N.A.	N.A.	59	59	N.A.	N.A.	N.A.	59	59	N.A.	N.A.	N.A.	59
P2	56	N.A.	N.A.	N.A.	56	57	N.A.	59	N.A.	61	56	N.A.	59	N.A.	61
Q1	68	N.A.	N.A.	N.A.	68	72	N.A.	N.A.	N.A.	72	65	N.A.	N.A.	N.A.	65
Q2	62	N.A.	N.A.	N.A.	62	66	N.A.	N.A.	N.A.	66	59	N.A.	N.A.	N.A.	59
Q3	53	N.A.	N.A.	N.A.	53	57	N.A.	N.A.	N.A.	57	51	N.A.	N.A.	N.A.	51
Q4	51	N.A.	N.A.	N.A.	51	54	N.A.	N.A.	N.A.	54	49	N.A.	N.A.	N.A.	49
Q5	50	N.A.	N.A.	N.A.	50	53	N.A.	N.A.	N.A.	53	48	N.A.	N.A.	N.A.	48
Q6	52	N.A.	N.A.	N.A.	52	55	N.A.	N.A.	N.A.	55	50	N.A.	N.A.	N.A.	50
Q7	54	N.A.	N.A.	N.A.	54	57	N.A.	N.A.	N.A.	57	53	N.A.	N.A.	N.A.	53
R1	68	N.A.	N.A.	N.A.	68	72	N.A.	N.A.	N.A.	72	65	N.A.	N.A.	N.A.	65
R2	63	N.A.	N.A.	N.A.	63	67	N.A.	N.A.	N.A.	67	60	N.A.	N.A.	N.A.	60
S1	39	N.A.	N.A.	N.A.	39	59	N.A.	N.A.	N.A.	59	59	N.A.	N.A.	N.A.	59
S2	38	N.A.	N.A.	N.A.	38	55	N.A.	N.A.	N.A.	55	55	N.A.	N.A.	N.A.	55
S3	37	N.A.	N.A.	N.A.	37	53	N.A.	N.A.	N.A.	53	53	N.A.	N.A.	N.A.	53
I1	59	N.A.	N.A.	N.A.	59	61	N.A.	N.A.	N.A.	61	39	N.A.	N.A.	N.A.	39
K1	55	N.A.	N.A.	N.A.	55	57	N.A.	N.A.	N.A.	57	40	N.A.	N.A.	N.A.	40
K2	55	N.A.	N.A.	N.A.	55	57	N.A.	N.A.	N.A.	57	40	N.A.	N.A.	N.A.	40

YLH - Yuen Long Highway Widening Construction Noise Level, DB(A)
DBL - Deep Bay Link Construction Noise Level, DB(A)
NWNT - NWNT HSK Development Construction Noise Level, DB(A)
Overall - Overall Construction Noise Level, DB(A)

	2003					2004					2005				
NSR	YLH	DBL	NWNT	Route 10	Overall	YLH	DBL	NWNT	Route 10	Overall	YLH	DBL	NWNT	Route 10	Overall
K3	54	N.A.	N.A.	N.A.	54	56	N.A.	N.A.	N.A.	56	40	N.A.	N.A.	N.A.	40
K4	53	N.A.	N.A.	N.A.	53	55	N.A.	N.A.	N.A.	55	40	N.A.	N.A.	N.A.	40
K5	52	N.A.	N.A.	N.A.	52	54	N.A.	N.A.	N.A.	54	40	N.A.	N.A.	N.A.	40
K6	53	N.A.	N.A.	N.A.	53	55	N.A.	N.A.	N.A.	55	40	N.A.	N.A.	N.A.	40
K7	53	N.A.	N.A.	N.A.	53	55	N.A.	N.A.	N.A.	55	40	N.A.	N.A.	N.A.	40
K8	52	N.A.	N.A.	N.A.	52	54	N.A.	N.A.	N.A.	54	40	N.A.	N.A.	N.A.	40
K9	52	N.A.	N.A.	N.A.	52	54	N.A.	N.A.	N.A.	54	40	N.A.	N.A.	N.A.	40
K10	53	N.A.	N.A.	N.A.	53	55	N.A.	N.A.	N.A.	55	40	N.A.	N.A.	N.A.	40
K11	53	N.A.	N.A.	N.A.	53	55	N.A.	N.A.	N.A.	55	40	N.A.	N.A.	N.A.	40
K12	52	N.A.	N.A.	N.A.	52	54	N.A.	N.A.	N.A.	54	40	N.A.	N.A.	N.A.	40
K13	52	N.A.	N.A.	N.A.	52	54	N.A.	N.A.	N.A.	54	41	N.A.	N.A.	N.A.	41
K14	52	N.A.	N.A.	N.A.	52	54	N.A.	N.A.	N.A.	54	41	N.A.	N.A.	N.A.	41
K15	52	N.A.	N.A.	N.A.	52	54	N.A.	N.A.	N.A.	54	41	N.A.	N.A.	N.A.	41
K16	52	N.A.	N.A.	N.A.	52	54	N.A.	N.A.	N.A.	54	41	N.A.	N.A.	N.A.	41
K17	51	N.A.	N.A.	N.A.	51	53	N.A.	N.A.	N.A.	53	41	N.A.	N.A.	N.A.	41
K18	50	N.A.	N.A.	N.A.	50	52	N.A.	N.A.	N.A.	52	41	N.A.	N.A.	N.A.	41
95	45	N.A.	N.A.	N.A.	45	55	N.A.	62	N.A.	63	53	N.A.	62	N.A.	63
96	49	N.A.	N.A.	N.A.	49	61	N.A.	58	N.A.	63	60	N.A.	58	N.A.	62
97	47	N.A.	N.A.	N.A.	47	56	53	59	N.A.	62	56	53	59	N.A.	61
O4	59	N.A.	N.A.	N.A.	59	59	N.A.	N.A.	N.A.	59	59	N.A.	N.A.	N.A.	59
C	45	N.A.	N.A.	N.A.	45	54	N.A.	N.A.	N.A.	54	53	N.A.	N.A.	N.A.	53
39	56	N.A.	N.A.	N.A.	56	58	N.A.	N.A.	N.A.	58	39	N.A.	N.A.	N.A.	39
40	64	N.A.	N.A.	N.A.	64	66	51	N.A.	N.A.	66	41	51	N.A.	N.A.	51
41	55	N.A.	N.A.	N.A.	55	57	N.A.	N.A.	N.A.	57	41	N.A.	N.A.	N.A.	41
42	52	N.A.	N.A.	N.A.	52	55	67	N.A.	N.A.	67	47	67	N.A.	N.A.	67
43	47	N.A.	N.A.	N.A.	47	53	69	59	N.A.	70	50	69	59	N.A.	69
44	46	N.A.	N.A.	N.A.	46	53	65	58	N.A.	66	51	65	N.A.	N.A.	65
45	45	N.A.	N.A.	N.A.	45	59	66	61	N.A.	68	58	66	61	N.A.	68
46	50	N.A.	N.A.	N.A.	50	51	N.A.	63	N.A.	63	51	N.A.	63	N.A.	63
47	52	N.A.	N.A.	N.A.	52	53	N.A.	N.A.	N.A.	53	53	N.A.	N.A.	N.A.	53
48	51	N.A.	N.A.	N.A.	51	52	N.A.	65	N.A.	65	52	N.A.	65	N.A.	65
49	50	N.A.	N.A.	N.A.	50	51	N.A.	65	N.A.	65	50	N.A.	65	N.A.	65
50	52	N.A.	N.A.	N.A.	52	55	N.A.	N.A.	N.A.	55	51	N.A.	N.A.	N.A.	51
51	54	N.A.	N.A.	N.A.	54	58	N.A.	N.A.	N.A.	58	52	N.A.	N.A.	N.A.	52
52	58	N.A.	N.A.	N.A.	58	61	N.A.	N.A.	N.A.	61	55	N.A.	N.A.	N.A.	55
53	62	N.A.	N.A.	N.A.	62	66	N.A.	N.A.	N.A.	66	59	N.A.	N.A.	N.A.	59
54	50	N.A.	N.A.	N.A.	50	54	N.A.	N.A.	N.A.	54	48	N.A.	N.A.	N.A.	48
55	53	N.A.	N.A.	N.A.	53	57	N.A.	N.A.	N.A.	57	51	N.A.	N.A.	N.A.	51
56	49	N.A.	N.A.	N.A.	49	53	N.A.	N.A.	N.A.	53	47	N.A.	N.A.	N.A.	47
57	65	N.A.	N.A.	N.A.	65	65	N.A.	N.A.	N.A.	65	65	N.A.	N.A.	N.A.	65
58	53	N.A.	N.A.	N.A.	53	57	N.A.	N.A.	N.A.	57	51	N.A.	N.A.	N.A.	51
59	48	N.A.	N.A.	N.A.	48	56	N.A.	N.A.	N.A.	56	55	N.A.	N.A.	N.A.	55
60	42	N.A.	N.A.	N.A.	42	54	N.A.	N.A.	N.A.	54	53	N.A.	N.A.	N.A.	53
61	48	N.A.	N.A.	N.A.	48	68	N.A.	N.A.	N.A.	68	68	N.A.	N.A.	N.A.	68
62	45	N.A.	N.A.	N.A.	45	58	N.A.	N.A.	N.A.	58	58	N.A.	N.A.	N.A.	58
63	45	N.A.	N.A.	N.A.	45	65	N.A.	N.A.	N.A.	65	65	N.A.	N.A.	N.A.	65
64	42	N.A.	N.A.	N.A.	42	57	N.A.	N.A.	N.A.	57	57	N.A.	N.A.	N.A.	57
65	41	N.A.	N.A.	N.A.	41	59	N.A.	N.A.	N.A.	59	59	N.A.	N.A.	N.A.	59
66	38	N.A.	N.A.	N.A.	38	52	N.A.	N.A.	N.A.	52	52	N.A.	N.A.	N.A.	52
67	40	N.A.	N.A.	N.A.	40	65	N.A.	N.A.	N.A.	65	65	N.A.	N.A.	N.A.	65
68	37	N.A.	N.A.	N.A.	37	49	N.A.	N.A.	N.A.	49	49	N.A.	N.A.	N.A.	49
69	36	N.A.	N.A.	N.A.	36	46	N.A.	N.A.	N.A.	46	45	N.A.	N.A.	N.A.	45
70	36	N.A.	N.A.	N.A.	36	49	N.A.	N.A.	N.A.	49	49	N.A.	N.A.	N.A.	49
71	37	N.A.	N.A.	N.A.	37	55	N.A.	N.A.	N.A.	55	55	N.A.	N.A.	N.A.	55
72	49	N.A.	N.A.	N.A.	49	54	N.A.	N.A.	N.A.	54	48	N.A.	N.A.	N.A.	48
73	56	N.A.	N.A.	N.A.	56	60	N.A.	N.A.	N.A.	60	53	N.A.	N.A.	N.A.	53
74	51	N.A.	N.A.	N.A.	51	55	N.A.	N.A.	N.A.	55	49	N.A.	N.A.	N.A.	49
75	63	N.A.	N.A.	N.A.	63	67	N.A.	N.A.	N.A.	67	60	N.A.	N.A.	N.A.	60
76	60	N.A.	N.A.	N.A.	60	62	65	N.A.	61	68	48	65	N.A.	61	67
77	59	N.A.	N.A.	N.A.	59	60	N.A.	N.A.	N.A.	60	59	N.A.	N.A.	N.A.	59
78	39	N.A.	N.A.	N.A.	39	68	N.A.	N.A.	N.A.	68	68	N.A.	N.A.	N.A.	68
79	60	N.A.	N.A.	N.A.	60	65	N.A.	N.A.	N.A.	65	62	N.A.	N.A.	N.A.	62
80	37	N.A.	N.A.	N.A.	37	65	N.A.	N.A.	N.A.	65	65	N.A.	N.A.	N.A.	65
81	48	N.A.	N.A.	N.A.	48	60	60	59	N.A.	65	59	60	59	N.A.	64
82	47	N.A.	N.A.	N.A.	47	58	69	58	N.A.	70	57	69	58	N.A.	70
83*	52	N.A.	N.A.	N.A.	52	62	66	56	N.A.	68	60	66	56	N.A.	67
84	64	N.A.	N.A.	N.A.	64	66	N.A.	N.A.	N.A.	66	42	N.A.	N.A.	N.A.	42
85	58	N.A.	N.A.	N.A.	58	60	N.A.	N.A.	N.A.	60	44	N.A.	N.A.	N.A.	44
86	58	N.A.	N.A.	N.A.	58	60	N.A.	N.A.	N.A.	60	45	N.A.	N.A.	N.A.	45
87	62	N.A.	N.A.	N.A.	62	66	N.A.	N.A.	N.A.	66	59	N.A.	N.A.	N.A.	59
88	67	N.A.	N.A.	N.A.	67	71	N.A.	N.A.	N.A.	71	64	N.A.	N.A.	N.A.	64
89	71	N.A.	N.A.	N.A.	71	75	N.A.	N.A.	N.A.	75	68	N.A.	N.A.	N.A.	68
90	69	N.A.	N.A.	N.A.	69	73	N.A.	N.A.	N.A.	73	66	N.A.	N.A.	N.A.	66
91	60	N.A.	N.A.	N.A.	60	60	N.A.	N.A.	N.A.	60	60	N.A.	N.A.	N.A.	60
92	45	N.A.	N.A.	N.A.	45	70	72	58	N.A.	74	69	72	58	N.A.	74
93	64	N.A.	N.A.	N.A.	64	66	49	59	N.A.	67	66	49	59	N.A.	67
94	54	N.A.	N.A.	N.A.	54	63	51	58	N.A.	65	63	51	58	N.A.	64
9	46	N.A.	N.A.	N.A.	46	62	N.A.	N.A.	N.A.	62	61	N.A.	N.A.	N.A.	61
12	58	N.A.	N.A.	N.A.	58	61	N.A.	N.A.	N.A.	61	56	N.A.	N.A.	N.A.	56
13	65	N.A.	N.A.	N.A.	65	69	N.A.	N.A.	N.A.	69	62	N.A.	N.A.	N.A.	62
1	53	N.A.	N.A.	N.A.	53	57	N.A.	N.A.	N.A.	57	51	N.A.	N.A.	N.A.	51

	Distance (m)						Distance Correction (dB(A))				
NSR	A	B	C	D	E		A	B	C	D	E
2	83	916	1939	2933	4748		46	67	74	77	82
3	88	868	1886	2905	4705		47	67	73	77	81
4	96	913	1946	2977	4758		48	67	74	77	82
5	160	615	1630	2664	4449		52	64	72	76	81
6	158	641	1726	2857	4489		52	64	73	77	81
7	52	468	1557	2700	4317		42	61	72	77	81
8	17	350	1433	2576	4200		33	59	71	76	80
10	215	68	1110	2279	3834		55	45	69	75	80
11	626	76	785	1936	3591		64	46	66	74	79
14	1158	15	255	1407	3112		69	32	56	71	78
15	1396	250	197	1164	2953		71	56	54	69	77
16	1444	316	225	1075	2943		71	58	55	69	77
17	1792	603	76	781	2566		73	64	46	66	76
18	2244	1079	25	238	2265		75	69	36	56	75
19	2857	1671	548	77	1685		77	72	63	46	73
20	2794	1604	502	98	1678		77	72	62	48	72
21	3344	2040	1107	81	1188		78	74	69	46	69
22	3236	1934	1021	93	1191		78	74	68	47	70
23	3709	2419	1537	180	965		79	76	72	53	68
24	3633	2397	1648	71	457		79	76	72	45	61
25	3789	2563	1828	28	294		80	76	73	37	57
26	3757	2719	1978	184	271		79	77	74	53	57
27	4276	3084	2334	473	294		81	78	75	61	57
28	4007	2986	2256	300	46		80	77	75	58	41
29	3892	2903	2214	446	215		80	77	75	61	55
30	4414	3399	2656	670	266		81	79	76	65	56
31	4210	3226	2524	584	135		80	78	76	63	51
32	4336	3362	2666	719	69		81	79	76	65	45
33	4706	3734	3023	1039	128		81	79	78	68	50
34	4677	3753	3033	1070	64		81	79	78	69	44
35	4947	4034	3313	1339	246		82	80	78	71	56
36	72	1067	2082	3048	4891		45	69	74	78	82
37	1455	309	183	1103	2910		71	58	53	69	77
38	2041	891	213	449	2484		74	67	55	61	76
A1	23	723	1761	2799	4567		35	65	73	77	81
A2	57	659	1705	2749	4505		43	64	73	77	81
B1	172	530	1579	2629	4376		53	62	72	76	81
B11	113	473	1535	2640	4321		49	61	72	76	81
D1	2299	1149	135	203	2293		75	69	51	54	75
D5	2333	1191	188	275	2292		75	70	53	57	75
E1	1160	70	333	1402	3140		69	45	58	71	78
E2	1201	115	343	1359	3125		70	49	59	71	78
F1	3618	2331	1464	90	895		79	75	71	47	67
F2	3643	2362	1514	64	811		79	75	72	44	66
F3	3759	2510	1720	205	566		79	76	73	54	63
G1	3759	2510	1720	205	566		79	76	73	54	63
G2	3939	2725	1996	129	302		80	77	74	50	58
G3	4167	3054	2284	380	142		80	78	75	60	51
H1	4496	3497	2768	774	149		81	79	77	66	51
H2	4761	3767	3031	1070	224		82	80	78	69	55
H3	5002	3999	3249	1341	456		82	80	78	71	61
J1	33	1251	2288	3281	5094		38	70	75	78	82
J2	79	1181	2215	3203	5021		46	69	75	78	82
L1	192	492	1522	2566	4330		54	62	72	76	81
L2	150	703	1711	2716	4526		52	65	73	77	81
L3	221	747	1736	2708	4548		55	65	73	77	81
M1	312	567	1544	2532	4357		58	63	72	76	81
M2	317	727	1693	2627	4492		58	65	73	76	81
N1	141	449	1494	2570	4292		51	61	71	76	81
N3	674	127	821	1830	3646		65	50	66	73	79
N4	763	162	812	1754	3604		66	52	66	73	79
N5	790	116	730	1713	3544		66	49	65	73	79
O1	1261	115	261	1302	3043		70	49	56	70	78
O2	1513	345	104	1053	2824		72	59	48	68	77
O3	1689	522	191	875	2689		73	62	54	67	77
P1	1940	779	115	567	2516		74	66	49	63	76
P2	2105	945	151	380	2400		74	67	52	60	76
Q1	3303	2005	1108	32	1098		78	74	69	38	69
Q2	3208	1904	981	63	1239		78	74	68	44	70
Q3	3040	1738	836	188	1302		78	73	66	53	70

	Distance (m)						Distance Correction (dB(A))				
NSR	A	B	C	D	E		A	B	C	D	E
Q4	2940	1641	772	250	1357		77	72	66	56	71
Q5	2737	1434	559	303	1616		77	71	63	58	72
Q6	2616	1311	430	247	1761		76	70	61	56	73
Q7	2567	1356	348	178	1841		76	71	59	53	73
R1	3303	2005	1108	32	1098		78	74	69	38	69
R2	3490	2208	1369	56	807		79	75	71	43	66
S1	4532	3619	2917	983	111		81	79	77	68	49
S2	4750	3841	3131	1176	186		82	80	78	69	53
S3	4940	4026	3305	1331	235		82	80	78	70	55
I1	89	1167	2201	3197	5009		47	69	75	78	82
K1	141	1021	2075	3113	4870		51	68	74	78	82
K2	140	1005	2057	3095	4854		51	68	74	78	82
K3	153	989	2044	3083	4838		52	68	74	78	82
K4	174	981	2041	3082	4830		53	68	74	78	82
K5	193	943	2006	3050	4792		54	67	74	78	82
K6	184	931	1995	3040	4780		53	67	74	78	82
K7	183	924	1990	3037	4773		53	67	74	78	82
K8	191	925	1994	3042	4774		54	67	74	78	82
K9	192	917	1988	3038	4766		54	67	74	78	82
K10	185	905	1977	3027	4753		53	67	74	78	82
K11	186	899	1972	3024	4746		53	67	74	78	82
K12	196	900	1976	3049	4747		54	67	74	78	82
K13	200	892	1971	3055	4739		54	67	74	78	81
K14	195	880	1960	3050	4727		54	67	74	78	81
K15	198	874	1956	3054	4720		54	67	74	78	81
K16	210	875	1960	3066	4721		54	67	74	78	81
K17	237	856	1950	3082	4699		55	67	74	78	81
K18	241	844	1940	3078	4687		56	67	74	78	81
95	872	175	712	1637	3495		67	53	65	72	79
96	1163	77	346	1399	3141		69	46	59	71	78
97	1060	140	476	1492	3261		68	51	62	71	78
O4	1850	685	112	711	2570		73	65	49	65	76
C	885	190	710	1627	3491		67	54	65	72	79
39	128	1072	2081	3025	4885		50	69	74	78	82
40	48	802	1825	2854	4642		42	66	73	77	81
41	147	824	1837	2825	4647		51	66	73	77	81
42	201	379	1381	2424	4198		54	60	71	76	80
43	388	253	1111	2150	3945		60	56	69	75	80
44	503	237	958	2031	3794		62	55	68	74	80
45	666	104	803	1869	3635		64	48	66	73	79
46	1691	563	314	803	2779		73	63	58	66	77
47	1737	591	249	752	2712		73	63	56	66	77
48	1813	686	274	688	2703		73	65	57	65	77
49	2170	1062	336	487	2524		75	69	59	62	76
50	2837	1675	466	223	1865		77	72	61	55	73
51	2958	1785	629	162	1673		77	73	64	52	72
52	2771	1602	390	114	1804		77	72	60	49	73
53	3234	1938	987	62	1282		78	74	68	44	70
54	3330	2130	1048	254	1354		78	75	68	56	71
55	3438	2145	1181	170	1272		79	75	69	53	70
56	3576	2288	1309	277	1342		79	75	70	57	71
57	2193	1008	59	379	2252		75	68	43	60	75
58	3719	2459	1652	170	635		79	76	72	53	64
59	4100	2950	2190	304	207		80	77	75	58	54
60	4369	3357	2622	626	223		81	79	76	64	55
61	4090	3057	2303	309	38		80	78	75	58	40
62	4214	3176	2410	469	129		80	78	76	61	50
63	4209	3191	2456	471	54		80	78	76	61	43
64	4348	3342	2613	626	138		81	78	76	64	51
65	4441	3454	2737	759	112		81	79	77	66	49
66	4777	3773	3028	1102	266		82	80	78	69	56
67	4522	3540	2825	846	57		81	79	77	67	43
68	4910	3910	3166	1246	367		82	80	78	70	59
69	5098	4085	3320	1427	568		82	80	78	71	63
70	5136	4205	3465	1477	336		82	80	79	71	59
71	4860	3944	3224	1254	181		82	80	78	70	53
72	3454	2226	1514	297	649		79	75	72	57	64
73	3219	1925	1054	126	1091		78	74	68	50	69
74	3106	1806	916	230	1225		78	73	67	55	70
75	2919	1721	647	55	1546		77	73	64	43	72

	Distance (m)						Distance Correction (dB(A))				
NSR	A	B	C	D	E		A	B	C	D	E
76	80	313	1517	2673	4249		46	58	72	77	81
77	2210	1056	112	277	2343		75	68	49	57	75
78	4541	3614	2898	947	42		81	79	77	68	40
79	3969	2836	2077	83	90		80	77	74	46	47
80	4831	3905	3177	1199	55		82	80	78	70	43
81	995	92	451	1566	3288		68	47	61	72	78
82	899	108	514	1664	3346		67	49	62	72	78
83*	207	84	1181	2337	3940		54	46	69	75	80
84	48	686	1727	2767	4531		42	65	73	77	81
85	98	554	1613	2693	4402		48	63	72	77	81
86	96	516	1604	2745	4365		48	62	72	77	81
87	3581	2294	1431	66	860		79	75	71	44	67
88	3619	2346	1521	37	674		79	75	72	39	65
89	3525	2246	1415	23	761		79	75	71	35	66
90	3056	1856	780	27	1471		78	73	66	37	71
91	2033	865	98	529	2413		74	67	48	62	76
92	702	28	712	1860	3528		65	37	65	73	79
93	1348	63	64	1225	2926		71	44	44	70	77
94	1213	66	194	1366	3023		70	44	54	71	78
9	516	67	890	2046	3672		62	45	67	74	79
12	2584	1390	327	110	1853		76	71	58	49	73
13	3400	2098	1178	47	1110		79	74	69	41	69
1	3691	2399	1511	185	992		79	76	72	53	68

Group 1 - Slope Excavation (G1)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP 081	112	C3/61	104	10	94	1
Dump truck	CNP 067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**118**		**107**		**97**	

Group 2 - Import Fill (G2)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Bulldozer	CNP 030	115	C3/62	109	10	99	1
Dump truck	CNP 067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**119**		**110**		**100**	

Group 3 - Reinfoced Strips and Slope (G3)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Bulldozer	CNP 030	115	C3/62	109	10	99	1
Dump Truck	CNP 067	117	C9/39	103	10	93	1
Vibratory Roller	CNP 186	108	C3/116	106	10	96	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
				0	0	0	0
	Total	**119**		**111**		**101**	

Group 4 - Slope Trimming (G4)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP 081	112	C3/61	104	10	94	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**104**		**94**	

Group 5 - Pile Driving Bridge 6 - Piling (G5)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Standard Bored Ocillatory	CNP165	115	C4/37	111	10	101	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**116**		**111**		**101**	

Group 6 - Bridge 6 Deck Construction (G6)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	C6/29	101	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP 044	109	C6/23	100	10	90	1
Air Compressor	CNP 003	104	C6/45	100	10	90	1
Vibratory Poker	CNP170	113	C6/32	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**115**		**106**		**96**	

Group 7 - Subway No.1 Widening - Excavation (G7)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP 081	112	C3/61	104	10	94	1
Dump Truck	CNP 067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**118**		**107**		**97**	

Group 8 - Subway No.2 Widening - Excavation (G8)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP 081	112	C3/61	104	10	94	1
Dump Truck	CNP 067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**118**		**107**		**97**	

Group 9 - Road Drainage Construction (G9)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP 081	112	C3/61	104	10	94	1
Vibratory roller	CNP 186	108	C3/116	106	10	96	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**113**		**108**		**98**	

Group 10 - Road Pavement Construction (G10)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Vibratory roller	CNP 186	108	C3/116	106	10	96	1
Dump Truck	CNP 067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**118**		**108**		**98**	

Group 11 - Pile Driving Bridge 6 - Concreting (G11)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Generator	CNP102	100	CNP102	100	10	90	1
Water Pump	CNP282	103	C3/86	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**106**		**96**	

Group 12 - Subway No. 1 Widening - Concreting (G12)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Generator	CNP102	100	CNP102	100	10	90	1
Water Pump	CNP282	103	C3/86	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**106**		**96**	

Group 13 - Subway No. 2 Widening - Concreting (G13)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Generator	CNP102	100	CNP102	100	10	90	1
Water Pump	CNP282	103	C3/86	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**106**		**96**	

Group 1 - Slope Excavation (G1)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
Dump truck	CNP067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**118**		**107**		**97**	

Group 2 - Import Fill (G2)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Bulldozer	CNP030	115	C3/62	109	10	99	1
Dump truck	CNP067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**119**		**110**		**100**	

Group 3 - Reinfoced Strips and Slope (G3)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Bulldozer	CNP030	115	C3/62	109	10	99	1
Dump Truck	CNP067	117	C9/39	103	10	93	1
Vibratory Roller	CNP186	108	C3/116	106	10	96	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
				0		0	0
	Total	**119**		**111**		**101**	

Group 4 - Slope Trimming (G4)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**104**		**94**	

Group 5 - Pile Driving Bridge 6A - Piling (G5)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Standard Bored Ocillatory	CNP165	115	C4/37	111	10	101	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**116**		**111**		**101**	

Group 6 - Pile Driving Bridge 7 - Piling (G6)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Standard Bored Ocillatory	CNP165	115	C4/37	111	10	101	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**116**		**111**		**101**	

Group 7 - Bridge 6A Deck Construction (G7)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	C6/29	101	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Air Compressor	CNP003	104	C6/45	100	10	90	1
Vibratory Poker	CNP170	113	C6/32	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**115**		**106**		**96**	

Group 8 - Bridge 7 Deck Construction (G8)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	C6/29	101	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Air Compressor	CNP003	104	C6/45	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**111**		**105**		**95**	

Group 9 - Subway No.3 Widening - Excavation (G9)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
Dump Truck	CNP067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**118**		**107**		**97**	

Group 10 - Subway No. 4 Widening - Excavation (G10)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
Dump Truck	CNP067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**118**		**107**		**97**	

Group 11 - Road Drainage Construction (G11)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
Vibratory roller	CNP186	108	C3/116	106	10	96	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**113**		**108**		**98**	

Group 12 - Road Pavement Construction (G12)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Vibratory roller	CNP186	108	C3/116	106	10	96	1
Dump Truck	CNP067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**118**		**108**		**98**	

Group 13 - Pile Driving Bridge 6A - Concreting (G13)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Generator	CNP102	100	CNP102	100	10	90	1
Water Pump	CNP282	103	C3/86	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**106**		**96**	

Group 14 - Pile Driving Bridge 7 - Concreting (G14)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Generator	CNP102	100	CNP102	100	10	90	1
Water Pump	CNP282	103	C3/86	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**106**		**96**	

Group 15 - Subway No.3 Widening - Concreting (G14)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Generator	CNP102	100	CNP102	100	10	90	1
Water Pump	CNP282	103	C3/86	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**106**		**96**	

Group 16 - Subway No.4 Widening - Concreting (G16)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Generator	CNP102	100	CNP102	100	10	90	1
Water Pump	CNP282	103	C3/86	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**106**		**96**	

Group 1 - Slope Excavation (G1)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
Dump truck	CNP067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**118**		**107**		**97**	

Group 2 - Import Fill (G2)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Bulldozer	CNP030	115	C3/62	109	10	99	1
Dump truck	CNP067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**119**		**110**		**100**	

Group 3 - Reinfoced Strips and Slope (G3)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Bulldozer	CNP030	115	C3/62	109	10	99	1
Dump Truck	CNP067	117	C9/39	103	10	93	1
Vibratory Roller	CNP186	108	C3/116	106	10	96	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
				0	0	0	0
	Total	**119**		**111**		**101**	

Group 4 - Slope Trimming (G4)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**104**		**94**	

Group 5 - Pile Driving Bridge No. 8 - Piling (G5)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Standard Bored Ocillatory	CNP165	115	C4/37	111	10	101	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**116**		**111**		**101**	

Group 6 - Pile Driving Bridge No. 9 - Piling (G6)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Standard Bored Ocillatory	CNP165	115	C4/37	111	10	101	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**116**		**111**		**101**	

Group 7 - Bridge No. 8 Deck Construction (G7)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	C6/29	101	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Air Compressor	CNP003	104	C6/45	100	10	90	1
Vibratory Poker	CNP170	113	C6/32	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**115**		**106**		**96**	

Group 8 - Bridge No. 9 Deck Construction (G8)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	C6/29	101	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Air Compressor	CNP003	104	C6/45	100	10	90	1
Vibratory Poker	CNP170	113	C6/32	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**115**		**106**		**96**	

Group 9 - Road Drainage Construction (G9)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
Vibratory roller	CNP186	108	C3/116	106	10	96	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**113**		**108**		**98**	

Group 10 - Road Pavement Construction (G10)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Vibratory roller	CNP186	108	C3/116	106	10	96	1
Dump Truck	CNP067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**118**		**108**		**98**	

Group 11 - Excavation - Hard Material(G11)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	CNP081	112	10	102	1
Dump Truck	CNP067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**118**		**113**		**103**	

Group 12 - Pile Driving Bridge No. 8 - Concreting (G12)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Generator	CNP102	100	CNP102	100	10	90	1
Water Pump	CNP282	103	C3/86	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**106**		**96**	

Group 13 - Pile Driving Bridge No. 9 - Concreting (G13)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Generator	CNP102	100	CNP102	100	10	90	1
Water Pump	CNP282	103	C3/86	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**106**		**96**	

Group 1 - Slope Excavation (G1)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
Dump truck	CNP067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**118**		**107**		**97**	

Group 2 - Import Fill (G2)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Bulldozer	CNP030	115	C3/62	109	10	99	1
Dump truck	CNP067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**119**		**110**		**100**	

Group 3 - Reinfoced Strips and Slope (G3)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Bulldozer	CNP030	115	C3/62	109	10	99	1
Dump Truck	CNP067	117	C9/39	103	10	93	1
Vibratory Roller	CNP186	108	C3/116	106	10	96	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
				0	0	0	0
	Total	**119**		**111**		**101**	

Group 4 - Slope Trimming (G4)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**104**		**94**	

Group 5 - South Side RE Wall near Subway (G5)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
Vibratory Compactor	CNP050	105	CNP 050	105	10	95	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**113**		**108**		**98**	

Group 6 - North Side RE Wall near (G6)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
Vibratory Compactor	CNP050	105	CNP 050	105	10	95	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**113**		**108**		**98**	

Group 7 - South Side RE Wall near (G7)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
Vibratory Compactor	CNP050	105	CNP 050	105	10	95	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**113**		**108**		**98**	

Group 8 - Pile Driving Bridge 12 - Piling (G8)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Standard Bored Ocillatory	CNP165	115	C4/37	111	10	101	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**116**		**111**		**101**	

Group 9 - Pile Driving Bridge 13, 13B - Piling (G9)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Standard Bored Ocillatory	CNP165	115	C4/37	111	10	101	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**116**		**111**		**101**	

Group 10 - Bridge 12 Deck Construction (G10)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	C6/29	101	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Air Compressor	CNP003	104	C6/45	100	10	90	1
Vibratory Poker	CNP170	113	C6/32	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**115**		**106**		**96**	

Group 11 - Bridge 13, 13B Deck Construction (G11)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	C6/29	101	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Air Compressor	CNP003	104	C6/45	100	10	90	1
Vibratory Poker	CNP170	113	C6/32	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**115**		**106**		**96**	

Group 12 - Subway No. 7 Widening - Excavation (G12)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	
Excavator	CNP081	112	C3/61	104	10	94	1
Dump Truck	CNP067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**118**		**107**		**97**	

Group 13 - Subway No.1 Widening - Excavation (G13)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
Dump Truck	CNP067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**118**		**107**		**97**	

Group 14 - Subway No.2 Widening - Excavation (G14)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
Dump Truck	CNP067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**118**		**107**		**97**	

Group 15 - Subway No.3 Widening - Excavation (G15)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
Dump Truck	CNP067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**118**		**107**		**97**	

Group 16 - Road Drainage Construction (G16)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
Vibratory roller	CNP186	108	C3/116	106	10	96	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**113**		**108**		**98**	

Group 17 - Road Pavement Construction (G17)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Vibratory roller	CNP186	108	C3/116	106	10	96	1
Dump Truck	CNP067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**118**		**108**		**98**	

Group 18 - Piling Driving Bridge 12 - Concreting (G18)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Generator	CNP102	100	CNP102	100	10	90	1
Water Pump	CNP282	103	C3/86	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**106**		**96**	

Group 19 - Piling Driving Bridge 13 - Concreting (G19)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Generator	CNP102	100	CNP102	100	10	90	1
Water Pump	CNP282	103	C3/86	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**106**		**96**	

Group 20 - Subway No. 7 Widening - Concreting (G20)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Generator	CNP102	100	CNP102	100	10	90	1
Water Pump	CNP282	103	C3/86	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**106**		**96**	

Group 21 - Subway No. 1 Widening - Concreting (G21)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Generator	CNP102	100	CNP102	100	10	90	1
Water Pump	CNP282	103	C3/86	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**106**		**96**	

Group 22 - Subway No. 2 Widening - Concreting (G22)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Generator	CNP102	100	CNP102	100	10	90	1
Water Pump	CNP282	103	C3/86	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**106**		**96**	

Group 23 - Subway No. 3 Widening - Concreting (G23)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Generator	CNP102	100	CNP102	100	10	90	1
Water Pump	CNP282	103	C3/86	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**106**		**96**	

Group 1 - Slope Excavation (G1)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
Dump truck	CNP067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**118**		**107**		**97**	

Group 2 - Import Fill (G2)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Bulldozer	CNP030	115	C3/62	109	10	99	1
Dump truck	CNP067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**119**		**110**		**100**	

Group 3 - Reinfoced Strips and Slope (G3)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Bulldozer	CNP030	115	C3/62	109	10	99	1
Dump Truck	CNP067	117	C9/39	103	10	93	1
Vibratory Roller	CNP186	108	C3/116	106	10	96	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
				0	0	0	0
	Total	**119**		**111**		**101**	

Group 4 - Slope Trimming (G4)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**104**		**94**	

Group 5 - Pile Driving Structure No. 4 - Piling (G5)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Standard Bored Ocillatory	CNP165	115	C4/37	111	10	101	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**116**		**111**		**101**	

Group 6 - Pile Driving Structure No. 6 - Piling (G6)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Standard Bored Ocillatory	CNP165	115	C4/37	111	10	101	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**116**		**111**		**101**	

Group 7 - Structure No. 4 Deck Construction (G7)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	C6/29	101	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Air Compressor	CNP003	104	C6/45	100	10	90	1
Vibratory Poker	CNP170	113	C6/32	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**115**		**106**		**96**	

Group 8 - Structure No. 6 Deck Construction (G8)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	C6/29	101	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Air Compressor	CNP003	104	C6/45	100	10	90	1
Vibratory Poker	CNP170	113	C6/32	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**115**		**106**		**96**	

Group 9 - Subway No.5 Widening - Excavation (G9)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
Dump Truck	CNP067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**118**		**107**		**97**	

Group 10 - Subway No.7 Widening - Excavation (G10)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
Dump Truck	CNP067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**118**		**107**		**97**	

Group 11 - Subway No.7A Widening - Excavation (G11)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
Dump Truck	CNP067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**118**		**107**		**97**	

Group 12 - Road Drainage Construction (G12)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Excavator	CNP081	112	C3/61	104	10	94	1
Vibratory roller	CNP186	108	C3/116	106	10	96	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**113**		**108**		**98**	

Group 13 - Road Pavement Construction (G13)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Vibratory roller	CNP186	108	C3/116	106	10	96	1
Dump Truck	CNP067	117	C9/39	103	10	93	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**118**		**108**		**98**	

Group 14 - Piling Driving Structure No. 4 - Concreting (G14)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Generator	CNP102	100	CNP102	100	10	90	1
Water Pump	CNP282	103	C3/86	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**106**		**96**	

Group 15 - Piling Driving Structure No. 6 - Concreting (G15)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Generator	CNP102	100	CNP102	100	10	90	1
Water Pump	CNP282	103	C3/86	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**106**		**96**	

Group 16 - Subway No. 5 - Concreting (G16)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Generator	CNP102	100	CNP102	100	10	90	1
Water Pump	CNP282	103	C3/86	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**106**		**96**	

Group 17 - Subway No. 7 - Concreting (G17)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Generator	CNP102	100	CNP102	100	10	90	1
Water Pump	CNP282	103	C3/86	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**106**		**96**	

Group 18 - Subway No. 7A - Concreting (G18)

Equipment	EPD Ref.	Normal SWL (dBA)	Quiet Plant Ref	Quiet Plant SWL dB(A)	Barrier reduction	Quiet Plant + Barrier Reduction	Number
Tracked Crane	CNP048	106	C6/29	101	10	91	1
Concrete Lorry Mixer	CNP044	109	C6/23	100	10	90	1
Generator	CNP102	100	CNP102	100	10	90	1
Water Pump	CNP282	103	C3/86	100	10	90	1
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
						0	0
	Total	**112**		**106**		**96**	

Do-nothing Scenario

	2003									2004															2005									
Equipment	**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**
Group 1 - Slope Excavation (G1)					1	1																											
Group 2 - Import Fill (G2)																																	
Group 3 - Reinfoced Strips and Slope (G3)							1	1	1	1	1	1	1	1	1	1	1	1	1														
Group 4 - Slope Trimming (G4)																				1													
Group 5 - Pile Driving Bridge 6 - Piling (G5)										1	1	1	1																				
Group 6 - Bridge 6 Deck Construction (G6)														1	1	1	1	1															
Group 7 - Subway No.1 Widening - Excavation (G7)							1	1	1	1	1	1																					
Group 8 - Subway No.2 Widening - Excavation (G8)													1	1	1	1	1	1															
Group 9 - Road Drainage Construction (G9)																																	
Group 10 - Road Pavement Construction (G10)														1	1	1	1	1	1														
Group 11 - Pile Driving Bridge 6 - Concreting (G11)																																	
Group 12 - Subway No. 1 Widening - Concreting (G12)																																	
Group 13 - Subway No. 2 Widening - Concreting (G13)																																	
Sound power level	0	0	0	0	118	118	122	122	122	123	123	123	123	124	124	124	124	124	122	112	0	0	0	0	0	0	0	0	0	0	0	0	0

Quiet-Plant Scenario

	2003									2004															2005									
Equipment	**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**
Group 1 - Slope Excavation (G1)					1	1																											
Group 2 - Import Fill (G2)																																	
Group 3 - Reinfoced Strips and Slope (G3)							1	1	1	1	1	1	1	1	1	1	1	1	1														
Group 4 - Slope Trimming (G4)																				1													
Group 5 - Pile Driving Bridge 6 - Piling (G5)										1	1	1	1																				
Group 6 - Bridge 6 Deck Construction (G6)														1	1	1	1	1															
Group 7 - Subway No.1 Widening - Excavation (G7)							1	1	1	1	1	1																					
Group 8 - Subway No.2 Widening - Excavation (G8)													1	1	1	1	1	1															
Group 9 - Road Drainage Construction (G9)																																	
Group 10 - Road Pavement Construction (G10)														1	1	1	1	1	1														
Group 11 - Pile Driving Bridge 6 - Concreting (G11)																																	
Group 12 - Subway No. 1 Widening - Concreting (G12)																																	
Group 13 - Subway No. 2 Widening - Concreting (G13)																																	
Sound power level	0	0	0	0	107	107	113	113	113	115	115	115	115	115	115	115	115	115	113	104	0	0	0	0	0	0	0	0	0	0	0	0	0

Quiet-Plant and On-site Moveable Barrier Scenario

	2003									2004															2005									
Equipment	**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**
Group 1 - Slope Excavation (G1)					1	1																											
Group 2 - Import Fill (G2)																																	
Group 3 - Reinfoced Strips and Slope (G3)							1	1	1	1	1	1	1	1	1	1	1	1	1														
Group 4 - Slope Trimming (G4)																				1													
Group 5 - Pile Driving Bridge 6 - Piling (G5)										1	1	1	1																				
Group 6 - Bridge 6 Deck Construction (G6)														1	1	1	1	1															
Group 7 - Subway No.1 Widening - Excavation (G7)							1	1	1	1	1	1																					
Group 8 - Subway No.2 Widening - Excavation (G8)													1	1	1	1	1	1															
Group 9 - Road Drainage Construction (G9)																																	
Group 10 - Road Pavement Construction (G10)														1	1	1	1	1	1														
Group 11 - Pile Driving Bridge 6 - Concreting (G11)																																	
Group 12 - Subway No. 1 Widening - Concreting (G12)																																	
Group 13 - Subway No. 2 Widening - Concreting (G13)																																	
Sound power level	0	0	0	0	97	97	103	103	103	105	105	105	105	105	105	105	105	105	103	94	0	0	0	0	0	0	0	0	0	0	0	0	0

Do-nothing Scenario

	2003												2004																					
Equipment	**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**
Group 1 - Slope Excavation (G1)																																		
Group 2 - Import Fill (G2)																	1																	
Group 3 - Reinfoced Strips and Slope (G3)																		1																
Group 4 - Slope Trimming (G4)																			1	1	1	1	1	1	1	1	1	1	1					
Group 5 - Pile Driving Bridge 6A - Piling (G5)														1	1	1	1													1	1			
Group 6 - Pile Driving Bridge 7 - Piling (G6)																		1	1															
Group 7 - Bridge 6A Deck Construction (G7)																				1	1	1	1											
Group 8 - Bridge 7 Deck Construction (G8)																				1	1	1	1											
Group 9 - Subway No.3 Widening - Excavation (G9)																				1	1	1	1	1										
Group 10 - Subway No. 4 Widening - Excavation (G10)																									1	1	1							
Group 11 - Road Drainage Construction (G11)																																		
Group 12 - Road Pavement Construction (G12)																				1	1	1	1	1	1									
Group 13 - Pile Driving Bridge 6A - Concreting (G13)																																		
Group 14 - Pile Driving Bridge 7 - Concreting (G14)																																		
Group 15 - Subway No.3 Widening - Concreting (G14)																																		
Group 16 - Subway No.4 Widening - Concreting (G16)																																		
Sound power level	0	0	0	0	0	0	0	0	0	0	0	0	0	116	116	116	121	121	117	123	123	123	123	121	121	119	119	112	112	116	116	0	0

Quiet-Plant Scenario

	2003												2004																					
Equipment	**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**
Group 1 - Slope Excavation (G1)																																		
Group 2 - Import Fill (G2)																	1																	
Group 3 - Reinfoced Strips and Slope (G3)																		1																
Group 4 - Slope Trimming (G4)																			1	1	1	1	1	1	1	1	1	1	1					
Group 5 - Pile Driving Bridge 6A - Piling (G5)														1	1	1	1													1	1			
Group 6 - Pile Driving Bridge 7 - Piling (G6)																		1	1															
Group 7 - Bridge 6A Deck Construction (G7)																				1	1	1	1											
Group 8 - Bridge 7 Deck Construction (G8)																				1	1	1	1											
Group 9 - Subway No.3 Widening - Excavation (G9)																				1	1	1	1	1										
Group 10 - Subway No. 4 Widening - Excavation (G10)																									1	1	1							
Group 11 - Road Drainage Construction (G11)																																		
Group 12 - Road Pavement Construction (G12)																				1	1	1	1	1	1									
Group 13 - Pile Driving Bridge 6A - Concreting (G13)																																		
Group 14 - Pile Driving Bridge 7 - Concreting (G14)																																		
Group 15 - Subway No.3 Widening - Concreting (G14)																																		
Group 16 - Subway No.4 Widening - Concreting (G16)																																		
Sound power level	0	0	0	0	0	0	0	0	0	0	0	0	0	111	111	111	114	114	112	113	113	113	113	111	111	108	108	104	104	111	111	0	0

Quiet-Plant and On-site Moveable Barrier Scenario

	2003												2004																					
Equipment	**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**
Group 1 - Slope Excavation (G1)																																		
Group 2 - Import Fill (G2)																	1																	
Group 3 - Reinfoced Strips and Slope (G3)																		1																
Group 4 - Slope Trimming (G4)																			1	1	1	1	1	1	1	1	1	1	1					
Group 5 - Pile Driving Bridge 6A - Piling (G5)														1	1	1	1													1	1			
Group 6 - Pile Driving Bridge 7 - Piling (G6)																		1	1															
Group 7 - Bridge 6A Deck Construction (G7)																				1	1	1	1											
Group 8 - Bridge 7 Deck Construction (G8)																				1	1	1	1											
Group 9 - Subway No.3 Widening - Excavation (G9)																				1	1	1	1	1										
Group 10 - Subway No. 4 Widening - Excavation (G10)																									1	1	1							
Group 11 - Road Drainage Construction (G11)																																		
Group 12 - Road Pavement Construction (G12)																				1	1	1	1	1	1									
Group 13 - Pile Driving Bridge 6A - Concreting (G13)																																		
Group 14 - Pile Driving Bridge 7 - Concreting (G14)																																		
Group 15 - Subway No.3 Widening - Concreting (G14)																																		
Group 16 - Subway No.4 Widening - Concreting (G16)																																		
Sound power level	0	0	0	0	0	0	0	0	0	0	0	0	0	101	101	101	104	104	102	103	103	103	103	101	101	98	98	94	94	101	101	0	0

Do-nothing Scenario

	2003												2004														2005						
Equipment	**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**
Group 1 - Slope Excavation (G1)						1																											
Group 2 - Import Fill (G2)																																	
Group 3 - Reinfoced Strips and Slope (G3)							1	1	1	1	1	1																					
Group 4 - Slope Trimming (G4)																																	
Group 5 - Pile Driving Bridge No. 8 - Piling (G5)																				1	1	1	1	1									
Group 6 - Pile Driving Bridge No. 9 - Piling (G6)																									1	1							
Group 7 - Bridge No. 8 Deck Construction (G7)																																	
Group 8 - Bridge No. 9 Deck Construction (G8)																																	
Group 9 - Road Drainage Construction (G9)																																	
Group 10 - Road Pavement Construction (G10)																											1	1	1	1	1	1	
Group 11 - Excavation - Hard Material(G11)						1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1							
Group 12 - Pile Driving Bridge No. 8 - Concreting (G12)																																	
Group 13 - Pile Driving Bridge No. 9 - Concreting (G13)																																	
Sound power level	0	0	0	0	0	121	122	122	122	122	122	122	118	118	118	118	118	118	118	120	120	120	120	120	120	120	118	118	118	118	118	118	0

Quiet-Plant Scenario

	2003												2004														2005						
Equipment	**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**
Group 1 - Slope Excavation (G1)						1																											
Group 2 - Import Fill (G2)																																	
Group 3 - Reinfoced Strips and Slope (G3)							1	1	1	1	1	1																					
Group 4 - Slope Trimming (G4)																																	
Group 5 - Pile Driving Bridge No. 8 - Piling (G5)																				1	1	1	1	1									
Group 6 - Pile Driving Bridge No. 9 - Piling (G6)																									1	1							
Group 7 - Bridge No. 8 Deck Construction (G7)																																	
Group 8 - Bridge No. 9 Deck Construction (G8)																																	
Group 9 - Road Drainage Construction (G9)																																	
Group 10 - Road Pavement Construction (G10)																											1	1	1	1	1	1	
Group 11 - Excavation - Hard Material(G11)						1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1							
Group 12 - Pile Driving Bridge No. 8 - Concreting (G12)																																	
Group 13 - Pile Driving Bridge No. 9 - Concreting (G13)																																	
Sound power level	0	0	0	0	0	113	115	115	115	115	115	115	113	113	113	113	113	113	113	115	115	115	115	115	115	115	108	108	108	108	108	108	0

Quiet-Plant and On-site Moveable Barrier Scenario

	2003												2004														2005						
Equipment	**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**
Group 1 - Slope Excavation (G1)						1																											
Group 2 - Import Fill (G2)																																	
Group 3 - Reinfoced Strips and Slope (G3)							1	1	1	1	1	1																					
Group 4 - Slope Trimming (G4)																																	
Group 5 - Pile Driving Bridge No. 8 - Piling (G5)																				1	1	1	1	1									
Group 6 - Pile Driving Bridge No. 9 - Piling (G6)																									1	1							
Group 7 - Bridge No. 8 Deck Construction (G7)																																	
Group 8 - Bridge No. 9 Deck Construction (G8)																																	
Group 9 - Road Drainage Construction (G9)																																	
Group 10 - Road Pavement Construction (G10)																											1	1	1	1	1	1	
Group 11 - Excavation - Hard Material(G11)						1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1							
Group 12 - Pile Driving Bridge No. 8 - Concreting (G12)																																	
Group 13 - Pile Driving Bridge No. 9 - Concreting (G13)																																	
Sound power level	0	0	0	0	0	103	105	105	105	105	105	105	103	103	103	103	103	103	103	105	105	105	105	105	105	105	98	98	98	98	98	98	0

Do-nothing Scenario

	2003									2004															2005								
Equipment	**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**
Group 1 - Slope Excavation (G1)						1																											
Group 2 - Import Fill (G2)							1																										
Group 3 - Reinfoced Strips and Slope (G3								1	1	1	1	1	1	1	1	1	1	1	1														
Group 4 - Slope Trimming (G4)																				1													
Group 5 - South Side RE Wall near Subway (G5)							1	1	1	1	1	1																					
Group 6 - North Side RE Wall near (G6)													1	1	1																		
Group 7 - South Side RE Wall near (G7)																1																	
Group 8 - Pile Driving Bridge 12 - Piling (G8																1	1																
Group 9 - Pile Driving Bridge 13, 13B - Piling (G9										1	1	1	1	1	1																		
Group 10 - Bridge 12 Deck Construction (G10																		1	1	1	1	1											
Group 11 - Bridge 13, 13B Deck Construction (G11																1	1																
Group 12 - Subway No. 7 Widening - Excavation (G12										1	1	1	1	1	1																		
Group 13 - Subway No.1 Widening - Excavation (G13																1	1	1	1	1													
Group 14 - Subway No.2 Widening - Excavation (G14										1	1	1	1	1	1																		
Group 15 - Subway No.3 Widening - Excavation (G15																1	1	1	1	1													
Group 16 - Road Drainage Construction (G16																1	1	1	1	1													
Group 17 - Road Pavement Construction (G17																					1	1	1										
Group 18 - Piling Driving Bridge 12 - Concreting (G18																																	
Group 19 - Piling Driving Bridge 13 - Concreting (G19																																	
Group 20 - Subway No. 7 Widening - Concreting (G20																																	
Group 21 - Subway No. 1 Widening - Concreting (G21																																	
Group 22 - Subway No. 2 Widening - Concreting (G22																																	
Group 23 - Subway No. 3 Widening - Concreting (G23																																	
Sound power level	0	0	0	0	0	118	120	120	120	124	124	124	124	124	124	125	125	124	124	123	119	119	118	0	0	0	0	0	0	0	0	0	0

Quiet-Plant Scenario

	2003									2004															2005								
Equipment	**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**
Group 1 - Slope Excavation (G1)						1																											
Group 2 - Import Fill (G2)							1																										
Group 3 - Reinfoced Strips and Slope (G3								1	1	1	1	1	1	1	1	1	1	1	1														
Group 4 - Slope Trimming (G4)																				1													
Group 5 - South Side RE Wall near Subway (G5)							1	1	1	1	1	1																					
Group 6 - North Side RE Wall near (G6)													1	1	1																		
Group 7 - South Side RE Wall near (G7)																1																	
Group 8 - Pile Driving Bridge 12 - Piling (G8																1	1																
Group 9 - Pile Driving Bridge 13, 13B - Piling (G9										1	1	1	1	1	1																		
Group 10 - Bridge 12 Deck Construction (G10																		1	1	1	1	1											
Group 11 - Bridge 13, 13B Deck Construction (G11																1	1																
Group 12 - Subway No. 7 Widening - Excavation (G12										1	1	1	1	1	1																		
Group 13 - Subway No.1 Widening - Excavation (G13																1	1	1	1	1													
Group 14 - Subway No.2 Widening - Excavation (G14										1	1	1	1	1	1																		
Group 15 - Subway No.3 Widening - Excavation (G15																1	1	1	1	1													
Group 16 - Road Drainage Construction (G16																1	1	1	1	1													
Group 17 - Road Pavement Construction (G17																					1	1	1										
Group 18 - Piling Driving Bridge 12 - Concreting (G18																																	
Group 19 - Piling Driving Bridge 13 - Concreting (G19																																	
Group 20 - Subway No. 7 Widening - Concreting (G20																																	
Group 21 - Subway No. 1 Widening - Concreting (G21																																	
Group 22 - Subway No. 2 Widening - Concreting (G22																																	
Group 23 - Subway No. 3 Widening - Concreting (G23																																	
Sound power level	0	0	0	0	0	107	112	113	113	116	116	116	116	116	116	117	117	115	115	113	110	110	108	0	0	0	0	0	0	0	0	0	0

Quiet-Plant and On-site Moveable Barrier Scenario

	2003									2004															2005								
Equipment	**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**
Group 1 - Slope Excavation (G1)						1																											
Group 2 - Import Fill (G2)							1																										
Group 3 - Reinfoced Strips and Slope (G3								1	1	1	1	1	1	1	1	1	1	1	1														
Group 4 - Slope Trimming (G4)																				1													
Group 5 - South Side RE Wall near Subway (G5)							1	1	1	1	1	1																					
Group 6 - North Side RE Wall near (G6)													1	1	1																		
Group 7 - South Side RE Wall near (G7)																1																	
Group 8 - Pile Driving Bridge 12 - Piling (G8																1	1																
Group 9 - Pile Driving Bridge 13, 13B - Piling (G9										1	1	1	1	1	1																		
Group 10 - Bridge 12 Deck Construction (G10																		1	1	1	1	1											
Group 11 - Bridge 13, 13B Deck Construction (G11																1	1																
Group 12 - Subway No. 7 Widening - Excavation (G12										1	1	1	1	1	1																		
Group 13 - Subway No.1 Widening - Excavation (G13																1	1	1	1	1													
Group 14 - Subway No.2 Widening - Excavation (G14										1	1	1	1	1	1																		
Group 15 - Subway No.3 Widening - Excavation (G15																1	1	1	1	1													
Group 16 - Road Drainage Construction (G16																1	1	1	1	1													
Group 17 - Road Pavement Construction (G17																					1	1	1										
Group 18 - Piling Driving Bridge 12 - Concreting (G18																																	
Group 19 - Piling Driving Bridge 13 - Concreting (G19																																	
Group 20 - Subway No. 7 Widening - Concreting (G20																																	
Group 21 - Subway No. 1 Widening - Concreting (G21																																	
Group 22 - Subway No. 2 Widening - Concreting (G22																																	
Group 23 - Subway No. 3 Widening - Concreting (G23																																	
Sound power level	0	0	0	0	0	97	102	103	103	106	106	106	106	106	106	107	107	105	105	103	100	100	98	0	0	0	0	0	0	0	0	0	0

Do-nothing Scenario

	2003												2004																							
Equipment	**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**
Group 1 - Slope Excavation (G1)														1	1	1	1	1	1	1													
Group 2 - Import Fill (G2)																																	
Group 3 - Reinforced Strips and Slope (G3)																					1	1	1	1	1	1	1	1	1	1			
Group 4 - Slope Trimming (G4)																															1	1	
Group 5 - Pile Driving Structure No. 4 - Piling (G5)												1	1	1	1																		
Group 6 - Pile Driving Structure No. 6 - Piling (G6)																1	1	1	1	1													
Group 7 - Structure No. 4 Deck Construction (G7)														1	1	1	1	1															
Group 8 - Structure No. 6 Deck Construction (G8)																				1	1	1	1	1	1								
Group 9 - Subway No.5 Widening - Excavation (G9)															1	1	1	1	1	1													
Group 10 - Subway No.7 Widening - Excavation (G10)																					1	1	1										
Group 11 - Subway No.7A Widening - Excavation (G11)																								1	1								
Group 12 - Road Drainage Construction (G12)																		1	1	1	1	1	1	1	1								
Group 13 - Road Pavement Construction (G13)																										1	1	1	1	1	1	1	1
Group 14 - Piling Driving Structure No. 4 - Concreting (G14)																																	
Group 15 - Piling Driving Structure No. 6 - Concreting (G15)																																	
Group 16 - Subway No. 5 - Concreting (G16)																																	
Group 17 - Subway No. 7 - Concreting (G17)																																	
Group 18 - Subway No. 7A - Concreting (G18)																																	
Sound power level	0	0	0	0	0	0	0	0	0	0	0	116	116	121	123	123	123	123	123	123	123	123	123	123	123	122	122	122	122	122	119	119	118

Quiet-Plant Scenario

	2003												2004																							
Equipment	**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**
Group 1 - Slope Excavation (G1)														1	1	1	1	1	1	1													
Group 2 - Import Fill (G2)																																	
Group 3 - Reinforced Strips and Slope (G3)																					1	1	1	1	1	1	1	1	1	1			
Group 4 - Slope Trimming (G4)																															1	1	
Group 5 - Pile Driving Structure No. 4 - Piling (G5)												1	1	1	1																		
Group 6 - Pile Driving Structure No. 6 - Piling (G6)																1	1	1	1	1													
Group 7 - Structure No. 4 Deck Construction (G7)														1	1	1	1	1															
Group 8 - Structure No. 6 Deck Construction (G8)																				1	1	1	1	1	1								
Group 9 - Subway No.5 Widening - Excavation (G9)															1	1	1	1	1	1													
Group 10 - Subway No.7 Widening - Excavation (G10)																					1	1	1										
Group 11 - Subway No.7A Widening - Excavation (G11)																								1	1								
Group 12 - Road Drainage Construction (G12)																		1	1	1	1	1	1	1	1								
Group 13 - Road Pavement Construction (G13)																										1	1	1	1	1	1	1	1
Group 14 - Piling Driving Structure No. 4 - Concreting (G14)																																	
Group 15 - Piling Driving Structure No. 6 - Concreting (G15)																																	
Group 16 - Subway No. 5 - Concreting (G16)																																	
Group 17 - Subway No. 7 - Concreting (G17)																																	
Group 18 - Subway No. 7A - Concreting (G18)																																	
Sound power level	0	0	0	0	0	0	0	0	0	0	0	111	111	114	114	114	114	115	115	115	115	115	115	115	115	113	113	113	113	113	109	109	108

Quiet-Plant and On-site Moveable Barrier Scenario

	2003												2004																							
Equipment	**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**
Group 1 - Slope Excavation (G1)														1	1	1	1	1	1	1													
Group 2 - Import Fill (G2)																																	
Group 3 - Reinforced Strips and Slope (G3)																					1	1	1	1	1	1	1	1	1	1			
Group 4 - Slope Trimming (G4)																															1	1	
Group 5 - Pile Driving Structure No. 4 - Piling (G5)												1	1	1	1																		
Group 6 - Pile Driving Structure No. 6 - Piling (G6)																1	1	1	1	1													
Group 7 - Structure No. 4 Deck Construction (G7)														1	1	1	1	1															
Group 8 - Structure No. 6 Deck Construction (G8)																				1	1	1	1	1	1								
Group 9 - Subway No.5 Widening - Excavation (G9)															1	1	1	1	1	1													
Group 10 - Subway No.7 Widening - Excavation (G10)																					1	1	1										
Group 11 - Subway No.7A Widening - Excavation (G11)																								1	1								
Group 12 - Road Drainage Construction (G12)																		1	1	1	1	1	1	1	1								
Group 13 - Road Pavement Construction (G13)																										1	1	1	1	1	1	1	1
Group 14 - Piling Driving Structure No. 4 - Concreting (G14)																																	
Group 15 - Piling Driving Structure No. 6 - Concreting (G15)																																	
Group 16 - Subway No. 5 - Concreting (G16)																																	
Group 17 - Subway No. 7 - Concreting (G17)																																	
Group 18 - Subway No. 7A - Concreting (G18)																																	
Sound power level	0	0	0	0	0	0	0	0	0	0	0	101	101	104	104	104	104	105	105	105	105	105	105	105	105	103	103	103	103	103	99	99	98

NSR	8				
Description	Village House in Tsoi Yuen Tsuen				
Period	Apr 2004				
Work Area	A	B	C	D	E
Total SWL, dB(A)	123	0	118	124	116
Distance from worksite	17	350	1433	2576	4200
Distance correction	33	59	71	76	80
Facde correction	3	3	3	3	3
SPL, dB(A)	93	0	50	51	39
Total SPL, dB(A)	93				

NSR	20				
Description	Village House beside Ton Tai Road				
Period	Nov 2004				
Work Area	A	B	C	D	E
Total SWL, dB(A)	112	123	120	123	123
Distance from worksite	2794	1604	502	98	1678
Distance correction	77	72	62	48	72
Facde correction	3	3	3	3	3
SPL, dB(A)	38	54	61	78	54
Total SPL, dB(A)	78				

NSR	28				
Description	Village House in Sham Chung Tsuen				
Period	Apr 2005				
Area	A	B	C	D	E
Total SWL, dB(A)	0	121	120	0	123
Distance from worksite	4007	2986	2256	300	46
Distance correction	80	77	75	58	41
Facde correction	3	3	3	3	3
SPL, dB(A)	0	47	48	0	85
Total SPL, dB(A)	85				

NSR	8				
Description	Village House in Tsoi Yuen Tsuen				
Period	Apr 2004				
Work Area	A	B	C	D	E
Total SWL, dB(A), Quiet Plant	105	0	103	106	101
Distance from worksite	17	350	1433	2576	4200
Distance correction	33	59	71	76	80
Facde correction	3	3	3	3	3
SPL, dB(A)	72	0	35	33	24
Total SPL, dB(A)	72				

NSR	20				
Description	Village House beside Ton Tai Road				
Period	Nov 2004				
Work Area	A	B	C	D	E
Total SWL, dB(A)	94	103	105	103	105
Distance from worksite	2794	1604	502	98	1678
Distance correction	77	72	62	48	72
Facde correction	3	3	3	3	3
SPL, dB(A)	20	34	46	58	36
Total SPL, dB(A)	58				

NSR	28				
Description	Village House in Sham Chung Tsuen				
Period	Apr 2005				
Area	A	B	C	D	E
Total SWL, dB(A), Quiet Plant	0	101	105	0	105
Distance from worksite	4007	2986	2256	300	46
Distance correction	80	77	75	58	41
Facde correction	3	3	3	3	3
SPL, dB(A)	0	27	33	0	67
Total SPL, dB(A)	67				

Plant Inventroy of Powered Mechanical Equipment for Construction Activities (Do-nothing Scenario)

Construction of Bridge by Cast-insitu Method

Bridge	Activity	Proposed Construction Plants	Nos	CNP No.	SPL
Piling	Excavation	Crane, mobile	1	CNP048	112
		Large diameter Bored, oscillatory	2	CNP165	115
		Excavator	1	CNP081	112
		Dump truck	1	CNP067	117
		Air compressor	1	CNP002	100
		Generator	1	CNP102	100
		Water pump	2	CNP282	103
		Breaker	1	CNP025	111
				TOTAL	122
				Buffer distance (m)	126
	Concreting	Crane, mobile	1	CNP048	112
		Large diameter Bored, oscillatory	1	CNP165	115
		Concrete lorry mixer	1	CNP044	109
		Generator	1	CNP102	100
		Water Pump	1	CNP282	103
				TOTAL	118
				Buffer distance (m)	79
Pile Cap	Excavation	Air compressor	1	CNP002	100
		Breaker, hand held	2	CNP023	117
		Ecavator	1	CNP081	112
		Dump truck	1	CNP067	117
		Generator	1	CNP102	100
		Water pump	2	CNP282	103
				TOTAL	122
				Buffer distance (m)	126
	Concreting	Crane, mobile	1	CNP048	112
		Concrete lorry mixer	1	CNP044	109
		Generator	1	CNP102	100
		Poker, vibratory, hand held	2	CNP170	113
				TOTAL	118
				Buffer distance (m)	79
Pier	Temporary Works	Crane, mobile	2	CNP048	112
		Generator	1	CNP102	100
				TOTAL	115
				Buffer distance (m)	56
	Concreting	Concrete pump, stationery	1	CNP047	109
		Concrete lorry mixer	1	CNP044	109
		Generator	1	CNP102	100
		Poker, vibratory, hand held	2	CNP170	113
				TOTAL	118
				Buffer distance (m)	79
Superstructure (cast in-situ)	Temporary Works	Crane, mobile	2	CNP048	112
		Generator	1	CNP102	100
				TOTAL	115
				Buffer distance (m)	56
	Concreting	Concrete pump, stationery	1	CNP047	109
		Concrete lorry mixer	1	CNP044	109
		Generator	1	CNP102	100
		Poker, vibrators	2	CNP170	113
		Generator	1	CNP102	100
		Lorry	1	CNP141	112
				TOTAL	119
				Buffer distance (m)	89

Note:
This table is for a typical dual 3-lane 4 span bridge of 150m long
The Fabrication yard however is for one production line.
Number of equipment represents the naximum number in 30 minutes' time

Plant Inventroy of Powered Mechanical Equipment for Construction Activities (Mitigated Scenario)

Construction of Bridge by Cast-insitu Method

Bridge	Activity	Proposed Construction Plants	Nos	CNP No.	SPL	Quiet Plant BS5228	SPL	Correction for movable barrier	SPL
Piling	Excavation	Crane, mobile	1	CNP048	112	Tab 10 Ref no.112	102	-10	92
		Large diameter Bored, oscillatory	1	CNP165	115	n/a	115	-10	105
		Excavator	1	CNP081	112	C3/61	104	-10	94
		Dump truck	1	CNP067	117	C9/39	103	-10	93
		Air compressor	1	CNP002	100	Tab 7 Ref no.17	90	-10	80
		Generator	1	CNP102	100	Tab 10 Ref no.54	89	-10	79
		Water pump	2	CNP282	103	Tab 10 Ref no.74	100	-10	90
		Breaker	1	CNP025	111	C3/101	100	-10	90
				TOTAL	121	TOTAL	116	TOTAL	106
				Buffer distance (m)	126	Buffer distance (m)	100	Buffer distance (m)	32
	Concreting	Crane, mobile	1	CNP048	112	Tab 10 Ref no.112	102	-10	92
		Large diameter Bored, oscillatory	1	CNP165	115	n/a	115	-10	105
		Concrete lorry mixer	1	CNP044	109	n/a	109	-10	99
		Generator	1	CNP102	100	Tab 10 Ref no.54	89	-10	79
		Water Pump	1	CNP282	103	Tab 10 Ref no.74	100	-10	90
				TOTAL	118	TOTAL	116	TOTAL	106
				Buffer distance (m)	79	Buffer distance (m)	63	Buffer distance (m)	20
Pile Cap	Excavation	Air compressor	1	CNP002	100	Tab 7 Ref no.17	90	-10	80
		Breaker, hand held	1	CNP023	117	C3/101	100	-10	90
		Ecavator	1	CNP081	112	C3/61	104	-10	94
		Dump truck	1	CNP067	117	C9/39	103	-10	93
		Generator	1	CNP102	100	Tab 10 Ref no.54	89	-10	79
		Water pump	2	CNP282	103	Tab 10 Ref no.74	100	-10	90
				TOTAL	121	TOTAL	109	TOTAL	99
				Buffer distance (m)	126	Buffer distance (m)	79	Buffer distance (m)	25
	Concreting	Crane, mobile	1	CNP048	112	Tab 10 Ref no.112	102	-10	92
		Concrete lorry mixer	1	CNP044	109	C6/23	100	-10	90
		Generator	1	CNP102	100	Tab 10 Ref no.54	89	-10	79
		Poker, vibratory, hand held	2	CNP170	113	Tab 9 Ref no.40	98	-10	88
				TOTAL	118	TOTAL	106	TOTAL	96
				Buffer distance (m)	79	Buffer distance (m)	32	Buffer distance (m)	10

Pier	Temporary Works	Crane, mobile	2	CNP048	112	Tab 10 Ref no.112	102	-10	92
		Generator	1	CNP102	100	Tab 10 Ref no.54	89	-10	79
				TOTAL	115	TOTAL	105	TOTAL	95
				Buffer distance (m)	56	Buffer distance (m)	18	Buffer distance (m)	6
	Concreting	Concrete pump, stationery	1	CNP047	109	n/a	109	-10	99
		Concrete lorry mixer	1	CNP044	109	C6/23	100	-10	90
		Generator	1	CNP102	100	Tab 10 Ref no.54	89	-10	79
		Poker, vibratory, hand held	2	CNP170	113	Tab 9 Ref no.40	98	-10	88
				TOTAL	118	TOTAL	110	TOTAL	100
				Buffer distance (m)	79	Buffer distance (m)	40	Buffer distance (m)	13
Superstructure (cast in-situ)	Temporary Works	Crane, mobile	2	CNP048	112	Tab 10 Ref no.112	102	-10	92
		Generator	1	CNP102	100	Tab 10 Ref no.54	89	-10	79
				TOTAL	115	TOTAL	105	TOTAL	95
				Buffer distance (m)	56	Buffer distance (m)	18	Buffer distance (m)	6
	Concreting	Concrete pump, stationery	1	CNP047	109	n/a	109	-10	99
		Concrete lorry mixer	1	CNP044	109	C6/23	100	-10	90
		Generator	1	CNP102	100	Tab 10 Ref no.54	89	-10	79
		Poker, vibrators	2	CNP170	113	Tab 9 Ref no.40	98	-10	88
		Generator	1	CNP102	100	Tab 10 Ref no.54	89	-10	79
		Lorry	1	CNP141	112	Tab 11 Ref no.25	96	-10	86
				TOTAL	119	TOTAL	110	TOTAL	100
				Buffer distance (m)	89	Buffer distance (m)	45	Buffer distance (m)	14

Note:
This table is for a typical dual 3-lane 4 span bridge of 150m long.
The fabrication yard however is for one production line.
Number of equipment represents the maximum number in 30 minutes' time.

Plant Inventroy of Powered Mechanical Equipment for Construction Activities

Fabrication Yard Activities

Bridge Fabrication Yard	Activity	Proposed Construction Plants	Nos	CNP No.	SWL	MITIGATION LEVEL 1 Quiet Plant BS5229	SWL	MITIGATION LEVEL 2 Correction for barrier	SWL
Concreting	Fabrication yard	Concrete lorry mixer	8	CNP044	109	C6/23	100	-10	90
		Generator	8	CNP102	100	Tab 10 Ref no.54	89	-10	79
		Compressor	8	CNP002	100	Tab 10 Ref no.17	90	-10	80
		Vibration plate, stationery	8	CNP170	113	Tab 9 Ref no.40	98	-10	88
		Poker, vibrators	16	CNP170	113	Tab 9 Ref no.40	98	-10	88
				TOTAL	127	TOTAL	114	TOTAL	104
				Buffer distance (m)	224	Buffer distance (m)	89	Buffer distance (m)	28
	Batching Plant	Batching plant - stationery	1	CNP022	108	Tab 9 Ref no.10	106	-10	96
		Tower crane	1	CNP049	95	n/a	95	-10	85
		Concrete lorry mixer	10	CNP044	109	C6/23	100	-10	90
		Cement Lorry	1	CNP044	109	Tab 11 Ref no.25	96	-10	86
		Aggregate Lorry	2	CNP044	109	Tab 11 Ref no.25	96	-10	86
		Water pump	1	CNP282	103	Tab 10 Ref no.74	100	-10	90
				TOTAL	120	TOTAL	112	TOTAL	102
				Buffer distance (m)	100	Buffer distance (m)	89	Buffer distance (m)	28

Note:
The fabrication yard as shown above is for one production line.
Four to Six production lines may be required, however this may not be cast at the same period
It is understand that each production line can produce a segment in 2 days

Period	No. of production lines required
8/2003 to 8/2004	4
8/2004 to 2/2005	6
2/2005 to 8/2005	4
8/2005 to 6/2005	2

Construction Noise Calculation From Alignment Construction (Do-nothing Scenario)

NSR	Nearest Distance to Brige	SWL for construction work by using Quiet Plant in specific usage time				Distance to construction work at subsequent bridge piers (m)**				Distance Correction (dB(A))				PNL from each subsequent bridge pier (dB(A))				Cumulative Impact due to alignment construction dB(A)
										D1	D2	D3	D4	D1	D2	D3	D4	
		Piling	Pile Cap	Pier	Superstructure	Piling	Pile Cap	Pier	Superstructure	Piling	Pile Cap	Pier	Superstructure	Piling	Pile Cap	Pier	Superstructure	
14	272	122	122	118	119	272	332	417	445	57	58	60	61	68	67	61	61	71
96	283	122	122	118	119	283	345	437	510	57	59	61	62	68	66	60	60	71
45	60	122	122	118	119	60	95	177	248	44	48	53	56	81	77	68	66	83
11	20	122	122	118	119	20	68	142	202	34	45	51	54	91	80	70	68	91
44	63	122	122	118	119	63	163	214	272	44	52	55	57	81	73	66	65	82
43	40	122	122	118	119	40	147	247	315	40	51	56	58	85	74	65	64	85
10	65	122	122	118	119	65	103	173	250	44	48	53	56	81	77	68	66	82
42	54	122	122	118	119	54	97	150	210	43	48	52	54	82	77	69	68	83
M1	217	122	122	118	119	217	265	325	372	55	56	58	59	70	69	63	63	73
76	66	122	122	118	119	66	143	221	302	44	51	55	58	81	74	66	64	82
7	42	122	122	118	119	42	210	289	365	40	54	57	59	85	71	64	63	85
6	212	122	122	118	119	212	376	456	534	55	59	61	63	70	66	60	59	72
40	414	122	122	118	119	414	578	654	721	60	63	64	65	65	62	57	57	68
8	72	122	122	118	119	72	118	186	253	45	49	53	56	80	76	68	66	82
B11	42	122	122	118	119	42	106	180	236	40	48	53	55	85	77	68	67	86
A1	310	122	122	118	119	310	470	634	710	58	61	64	65	67	64	57	57	69
81	126	122	122	118	119	126	185	269	390	50	53	57	60	75	72	64	62	77
82	42	122	122	118	119	42	94	177	296	40	47	53	57	85	78	68	65	86
83	62	122	122	118	119	62	129	172	200	44	50	53	54	81	75	68	68	82
92	27	122	122	118	119	27	97	186	237	37	48	53	55	88	77	68	67	88
93	487	122	122	118	119	487	546	605	751	62	63	64	65	63	62	57	57	67
94	361	122	122	118	119	361	416	498	615	59	60	62	64	66	65	59	58	69

** Note:
Assumed an average span of 40m
With reference to the bridge construction programme
worst-case would be:
the nearest pier doing piling work
the third pier doing pier cap work
the fifth poer doing the pier construction work
the seventh pier doing the superstructural work

Construction Noise Calculation From Precasting Yard (Unmitigated Scenario)

Notional Noise Sources used for Assessment
Easting Northing
817050 830920

AP	Coordinates		SWL	Distance	Distance Correction	Façade Effect	PNL
	Easting	Northing					
14	817748	831690	127	1039	68	3	62
96	817592	831680	127	934	67	3	63
45	817310	831387	127	534	63	3	67
11	817407	831284	127	509	62	3	68
44	817193	831261	127	370	59	3	71
43	817065	831176	127	256	56	3	74
10	817317	830934	127	267	57	3	73
42	816885	830970	127	173	53	3	77
M1	816695	830995	127	363	59	3	71
76	816985	830679	127	250	56	3	74
7	816888	830712	127	264	56	3	74
6	816745	830616	127	431	61	3	69
40	816509	830728	127	574	63	3	67
8	816968	830806	127	140	51	3	79
B3	817005	830830	127	101	48	3	82
A1	816595	830725	127	495	62	3	68
81	817596	831600	127	872	67	3	63
82	817578	831496	127	781	66	3	64
83	817188	830947	127	141	51	3	79
92	817446	831348	127	583	63	3	67
93	817900	831814	127	1233	70	3	60
94	817850	831680	127	1103	69	3	61

Construction Noise Calculation From Concrete Batching (Unmitigated Scenario)

Notional Noise Sources used for Assessment
Easting Northing
817013 830950

NSR	Coordinates		SWL	Distance	Distance Correction	Façade Effect	PNL
	Easting	Northing					
14	817748	831690	120	1043	68	3	55
96	817592	831680	120	932	67	3	56
45	817310	831387	120	528	62	3	61
11	817407	831284	120	516	62	3	61
44	817193	831261	120	359	59	3	64
43	817065	831176	120	232	55	3	68
10	817317	830934	120	304	58	3	65
42	816885	830970	120	130	50	3	73
M1	816695	830995	120	321	58	3	65
76	816985	830679	120	273	57	3	66
7	816888	830712	120	270	57	3	66
6	816745	830616	120	429	61	3	62
40	816509	830728	120	551	63	3	60
8	816968	830806	120	151	52	3	71
B11	816837	830794	120	235	55	3	68
A1	816595	830725	120	495	62	3	61
81	817596	831600	120	872	67	3	56
82	817578	831496	120	781	66	3	57
83	817188	830947	120	141	51	3	72
92	817446	831348	120	583	63	3	60
93	817900	831814	120	1233	70	3	53
94	817850	831680	120	1103	69	3	54

Construction Noise Calculation - Summary (Do-nothing Scenario)

NSR	Construction Noise From			Overall
	Alignment Construction	Precasting Yard	Concrete Batching	
14	71	62	55	72
96	71	63	56	72
45	83	67	61	83
11	91	68	61	91
44	82	71	64	82
43	85	74	68	85
10	82	73	65	83
42	83	77	73	84
M1	73	71	65	76
76	82	74	66	83
7	85	74	66	85
6	72	69	62	74
40	68	67	60	71
8	82	79	71	84
B11	86	82	68	88
A1	69	68	61	72
81	77	63	56	77
82	86	64	57	86
83	82	79	72	84
92	88	67	60	88
93	67	60	53	68
94	69	61	54	70

Construction Noise Calculation From Alignment Construction (Mitigated Scenario)

NSR	Nearest Distance to Brige	SWL for construction work by using Quiet Plant in specific usage time				Distance to construction work at subsequent bridge piers (m)**				Distance Correction (dB(A))				PNL from each subsequent bridge pier (dB(A))				Cumulative Impact due to alignment construction dB(A)
										D1	D2	D3	D4	D1	D2	D3	D4	
		Piling	Pile Cap	Pier	Superstructure	Piling	Pile Cap	Pier	Superstructure	Piling	Pile Cap	Pier	Superstructure	Piling	Pile Cap	Pier	Superstructure	
14	272	106	99	100	100	272	332	417	445	57	58	60	61	52	44	43	42	53
96	283	106	99	100	100	283	345	437	510	57	59	61	62	52	43	42	41	53
45	60	106	99	100	100	60	95	177	248	44	48	53	56	65	54	50	47	66
11	20	106	99	100	100	20	68	142	202	34	45	51	54	75	57	52	49	75
44	63	106	99	100	100	63	163	214	272	44	52	55	57	65	50	48	46	65
43	40	106	99	100	100	40	147	247	315	40	51	56	58	69	51	47	45	69
10	65	106	99	100	100	65	103	173	250	44	48	53	56	65	54	50	47	65
42	54	106	99	100	100	54	97	150	210	43	48	52	54	66	54	51	49	66
M1	217	106	99	100	100	217	265	325	372	55	56	58	59	54	46	45	44	55
76	66	106	99	100	100	66	143	221	302	44	51	55	58	65	51	48	45	65
7	42	106	99	100	100	42	210	289	365	40	54	57	59	69	48	46	44	69
6	212	106	99	100	100	212	376	456	534	55	59	61	63	54	43	42	40	55
40	414	106	99	100	100	414	578	654	721	60	63	64	65	49	39	39	38	50
8	72	106	99	100	100	72	118	186	253	45	49	53	56	64	53	50	47	65
B11	42	106	99	100	100	42	106	180	236	40	48	53	55	69	54	50	48	69
A1	310	106	99	100	100	310	470	634	710	58	61	64	65	51	41	39	38	52
81	126	106	99	100	100	126	185	269	390	50	53	57	60	59	49	46	43	60
82	42	106	99	100	100	42	94	177	296	40	47	53	57	69	55	50	46	69
83	62	106	99	100	100	62	129	172	200	44	50	53	54	65	52	50	49	65
92	27	106	99	100	100	27	97	186	237	37	48	53	55	72	54	50	48	72
93	487	106	99	100	100	487	546	605	751	62	63	64	65	47	39	39	38	49
94	361	106	99	100	100	361	416	498	615	59	60	62	64	50	42	41	39	51

** Note:
Assumed an average span of 40m
With reference to the bridge construction programme
worst-case would be:
the nearest pier doing piling work
the third pier doing pier cap work
the fifth poer doing the pier construction work
the seventh pier doing the superstructural work

Construction Noise Calculation From Precasting Yard (Mitigated Scenario)

Notional Noise Sources used for Assessment
Easting Northing
817050 830920

NSR	Coordinates		SWL	Distance	Distance Correction	Façade Effect	PNL
	Easting	Northing					
14	817748	831690	104	1039	68	3	39
96	817592	831680	104	934	67	3	40
45	817310	831387	104	534	63	3	44
11	817407	831284	104	509	62	3	45
44	817193	831261	104	370	59	3	48
43	817065	831176	104	256	56	3	51
10	817317	830934	104	267	57	3	50
42	816885	830970	104	173	53	3	54
M1	816695	830995	104	363	59	3	48
76	816985	830679	104	250	56	3	51
7	816888	830712	104	264	56	3	51
6	816745	830616	104	431	61	3	46
40	816509	830728	104	574	63	3	44
8	816968	830806	104	140	51	3	56
B3	817005	830830	104	101	48	3	59
A1	816595	830725	104	495	62	3	45
81	817596	831600	104	872	67	3	40
82	817578	831496	104	781	66	3	41
83	817188	830947	104	141	51	3	56
92	817446	831348	104	583	63	3	44
93	817900	831814	104	1233	70	3	37
94	817850	831680	104	1103	69	3	38

Construction Noise Calculation From Concrete Batching (Mitigated Scenario)

Notional Noise Sources used for Assessment
Easting Northing
817013 830950

NSR	Coordinates		SWL	Distance	Distance Correction	Façade Effect	PNL
	Easting	Northing					
14	817748	831690	102	1043	68	3	37
96	817592	831680	102	932	67	3	38
45	817310	831387	102	528	62	3	43
11	817407	831284	102	516	62	3	43
44	817193	831261	102	359	59	3	46
43	817065	831176	102	232	55	3	50
10	817317	830934	102	304	58	3	47
42	816885	830970	102	130	50	3	55
M1	816695	830995	102	321	58	3	47
76	816985	830679	102	273	57	3	48
7	816888	830712	102	270	57	3	48
6	816745	830616	102	429	61	3	44
40	816509	830728	102	551	63	3	42
8	816968	830806	102	151	52	3	53
B11	816837	830794	102	235	55	3	50
A1	816595	830725	102	495	62	3	43
81	817596	831600	102	872	67	3	38
82	817578	831496	102	781	66	3	39
83	817188	830947	102	141	51	3	54
92	817446	831348	102	583	63	3	42
93	817900	831814	102	1233	70	3	35
94	817850	831680	102	1103	69	3	36

Construction Noise Calculation - Summary (Mitigated Scenario)

NSR	Construction Noise From			Overall
	Alignment Construction	Precasting Yard	Concrete Batching	
14	53	39	37	54
96	53	40	38	53
45	66	44	43	66
11	75	45	43	75
44	65	48	46	65
43	69	51	50	69
10	65	50	47	65
42	66	54	55	67
M1	55	48	47	57
76	65	51	48	66
7	69	51	48	69
6	55	46	44	56
40	50	44	42	52
8	65	56	53	65
B11	69	59	50	70
A1	52	45	43	53
81	60	40	38	60
82	69	41	39	69
83	65	56	54	66
92	72	44	42	72
93	49	37	35	49
94	51	38	36	52

Construction Equipment and Associated Sound Power Level

General Site Formation Works

Equipment	Reference CNP Code	Number of Equipment	SWL dB(A)	Summation of SWL	Total SWL	Maximum Noise Level
Cut and Fill Operation						120.3
Air compressor	001	3	100	105	120.3	
Bulldozer	030	2	115	118		
Road roller	185	1	108	108		
Excavator, tracked	081	2	112	115		
Generator, silenced, 75 dB(A) at 7m	102	3	100	105		
Water pump (electric)	281	5	88	95		
Dumping of Materials						
Dump truck	067	2	117	120	120.0	

Roadworks, Drains & Sewers (Main Roads)

Equipment	Reference CNP Code	Number of Equipment	SWL dB(A)	Summation of SWL	Total SWL	Maximum Noise Level
Provision of Drains and Sewers						118.6
Crane, mobile mounted (diesel)	048	1	112	112	116.8	
Excavator, tracked	081	1	112	112		
Lorry	141	1	112	112		
Levelling of New Road						
Bulldozer	030	1	115	115	117.1	
Grader	104	1	113	113		
Laying Base and Sub-base						
Dump truck	067	1	117	117	118.6	
Excavator, tracked	048	1	112	112		
Road roller	185	1	108	108		
Concreting of Road Surface						
Concrete lorry mixer	044	1	109	109	116.8	
Poker, vibratory, hand-held	170	2	113	116		
Resurfacing Works (for asphalt surface)						
Asphalt paver	004	2	109	112	117.8	
Lorry	141	2	112	115		
Road roller	185	2	108	111		

General Building Construction Works

Equipment	Reference CNP Code	Number of Equipment	SWL dB(A)	Summation of SWL	Total SWL	Maximum Noise Level
Frameworking of Building Works						119.1
Bar bender and cutter	021	3	90	95	118.6	
Crane, mobile mounted (diesel)	048	1	112	112		
Crane, tower (electric)	049	4	95	101		
Generator, silenced	102	4	100	106		
Lorry	141	2	112	115		
Saw, circular, wood	201	3	108	113		
Concreting of Building Works						
Concrete lorry mixer	044	2	109	112	119.1	
Crane, tower (electric)	049	4	95	101		
Generator, silenced	102	4	100	106		
Poker, vibratory, hand-held	170	3	113	118		

Note:
SWL = Sound Power Level of a specific Powered Mechanical Equipment (PME)

Construction Noise Calculation

	Duration	NSR	Minimum Distance Between NSRs and Works Area (m)	SWL (dB(A))	Distance Correction (dB(A))	Façade effect (dB(A))	PNL (dB(A))
Period 1	5/2004 to 11/2004	44	715	120	65	3	58
		45	630	120	64	3	59
		96	650	120	64	3	59
		49	429	120	61	3	62
		43	637	120	64	3	59
		N4	559	120	63	3	60
		U	598	120	64	3	59
		T	767	120	66	3	57
		O1	761	120	66	3	57
		16	735	120	65	3	58
		46	715	120	65	3	58
		11	858	120	67	3	56
		14	858	120	67	3	56
		P2	715	120	65	3	58
		81	761	120	66	3	57
		82	845	120	67	3	56
		83	910	120	67	3	56
		92	858	120	67	3	56
		93	871	120	67	3	56
		94	930	120	67	3	56
Period 2	12/2004 to 3/2005	49	325	120	58	3	65
		48	310	120	58	3	65
		96	618	120	64	3	59
		45	520	120	62	3	61
		43	637	120	64	3	59
		N4	416	120	60	3	63
		U	429	120	61	3	62
		T	735	120	65	3	58
		O1	540	120	63	3	60
		16	468	120	61	3	62
		46	384	120	60	3	63
		11	709	120	65	3	58
		14	663	120	64	3	59

	Duration	NSR	Minimum Distance Between NSRs and Works Area (m)	SWL (dB(A))	Distance Correction (dB(A))	Façade effect (dB(A))	PNL (dB(A))
		P2	618	120	64	3	59
		81	623	120	64	3	59
		82	689	120	65	3	58
		83	891	120	67	3	56
		92	709	120	65	3	58
		93	624	120	64	3	59
		94	715	120	65	3	58
Period 3	4/2005 to 12/2005	49	325	120	58	3	65
		48	310	120	58	3	65
		96	618	120	64	3	59
		45	520	120	62	3	61
		43	637	120	64	3	59
		N4	416	120	60	3	63
		U	429	120	61	3	62
		T	735	120	65	3	58
		O1	540	120	63	3	60
		16	468	120	61	3	62
		46	384	120	60	3	63
		11	709	120	65	3	58
		14	663	120	64	3	59
		P2	618	120	64	3	59
		81	623	120	64	3	59
		82	689	120	65	3	58
		83	891	120	67	3	56
		92	709	120	65	3	58
		93	624	120	64	3	59
		94	715	120	65	3	58

Route 10 Construction Plant Inventory

Toll Plaza	Proposed Construction Plants	Nos	UNMITIGATED CNP No.	SWL	MITIGATED Correction for barrier	SWL	sub-SWL
Portal Formation	Generator	2	CNP101	108	0	108	111
	Air Compressor	2	CNP001	100	0	100	103
	Rock drill	2	CNP182	123	0	123	126
	Excavator	2	CNP081	112	0	112	115
	Loader	2	CNO081	112	0	112	115
	Breaker, excavator mounted	2	CNP027	122	0	122	125
	Dump Truck	2	CNP067	117	0	117	120
	Lorry	4	CNP141	112	0	112	118
							130
Removal of Spoil by Haul Road	Lorry	52	C8/6	108	-5	103	120
							120

Construction Noise Calculation From Portal Formation

AP	Coordinates		SWL	Distance	Distance Correction	Topography Screen Correction	Façade Effect	PNL
	Easting	Northing						
10	817317	830934	130	632	64	10	3	59
76	816985	830679	130	711	65	10	3	58

Construction Noise Calculation From Removal of Spoil by Haul Road

AP	Coordinates		SWL	Distance	Distance Correction	Topography Screen Correction	Façade Effect	PNL
	Easting	Northing						
10	817317	830934	120	632	64	0	3	59
76	816985	830679	120	711	65	0	3	58