Figure A2.4 - Summary of Construction Noise Level at Individual NSRs

Construction Activities		Unmitigated SWL, dB(A)	Mitigated SWL, dB(A)	Distance from Sources, m				Unmitigated Predicted Noise Levels, dB(A)				Mitigated Predicted Noise Levels, dB(A)		
				NSR-1	NSR-2	NSR-3		NSR-1	NSR-2	NSR-3		NSR-1	NSR-2	NSR-3
A - Land Viaduct/Approach Roads Sect														
A2	Drainage diversion	122.1	107.5	50	123	158		80.1	72.3	70.1		65.5	57.7	55.5
A3	Site formation	119.6	106.8	50	123	158		77.6	69.8	67.6		64.8	57.0	54.8
A4	Piles and caps	124.2	107.7	50	123	158		82.2	74.4	72.2		65.7	57.9	55.7
A5	Columns	119.7	104.9	50	123	158		77.7	69.9	67.7		62.9	55.1	52.9
A6	Deck fabrication	-	-	50	123	158		-	-	-		-	-	-
A7	Deck construction	119.5	105.2	50	123	158		77.5	69.7	67.5		63.2	55.4	53.2
A8	Finishing	117.2	110.7	50	123	158		75.2	67.4	65.2		68.7	60.9	58.7
B - River Crossing														
B2	Mobilisation	116.5	103.1	155	375	410		64.7	57.0	56.3		51.3	43.6	42.9
B3	Construction of cofferdams	116.5	112.8	155	375	410		64.7	57.0	56.3		61.0	53.3	52.6
B4	Piles and caps	124.2	109.4	155	375	410		72.4	64.7	64.0		57.6	49.9	49.2
B5	Columns	119	106.7	155	375	410		67.2	59.5	58.8		54.9	47.2	46.5
B6	Deck fabrication	-	-	155	375	410		-	-	-		-	-	-
B7	Deck construction	120.4	106.3	155	375	410		68.6	60.9	60.2		54.5	46.8	46.1
B8	Finishing	117.2	111.5	155	375	410		65.4	57.7	57.0		59.7	52.0	51.3
*Note - results prior to taking into account the façade effect														

Figure A2.4 - Summary of Construction Noise at Individual NSRs

Unmitigated

Source Noise Levels
1. Activities A2+A3+B3

Activity	NSR-1 Noise Levels	NSR-2 Noise Levels	NSR-3 Noise Levels
A2	80.1	72.3	70.1
A3	77.6	69.8	67.6
B3	64.7	57	56.3
Total Noise Level	82.1	74.3	72.2

2. Activities A3 + B4

Activity	NSR-1 Noise Levels	NSR-2 Noise Levels	NSR-3 Noise Levels
A3	77.6	69.8	67.6
B4	72.4	64.7	64
Total Noise Level	78.7	71.0	69.2

3. Activities A4 + B4

Activity	NSR-1 Noise Levels	NSR-2 Noise Levels	NSR-3 Noise Levels
A4	82.2	74.4	72.2
B4	72.4	64.7	64
Total Noise Level	82.6	74.8	72.8

4. Activities A4 + B5

Activity	NSR-1 Noise Levels	NSR-2 Noise Levels	NSR-3 Noise Levels
A4	82.2	74.4	72.2
B5	67.2	59.5	58.8
Total Noise Level	82.3	74.5	72.4

5. Activities A5 + B5

Activity	NSR-1 Noise Levels	NSR-2 Noise Levels	NSR-3 Noise Levels
A5	77.7	69.9	67.7
B5	67.2	59.5	58.8
Total Noise Level	78.1	70.3	68.2

6. Activities A5 + B7

Activity	NSR-1 Noise Levels	NSR-2 Noise Levels	NSR-3 Noise Levels
A5	77.7	69.9	67.7
B7	68.6	60.9	60.2
Total Noise Level	78.2	70.4	68.4

7. Activities A7 + B7

Activity	NSR-1 Noise Levels	NSR-2 Noise Levels	NSR-3 Noise Levels
A7	77.5	69.7	67.5
B7	68.6	60.9	60.2
Total Noise Level	78.0	70.2	68.2

8. Activities A8 + B8

Activity	NSR-1 Noise Levels	NSR-2 Noise Levels	NSR-3 Noise Levels
A8	75.2	67.4	65.2
B8	65.4	57.7	57
Total Noise Level	75.6	67.8	65.8

*Note - summation of Noise level using: Total = 10 x Log($\Sigma 10^{n1/10} + 10^{n2/10} + ..$)

Mitigated

Source Noise Levels
1. Activities A2+A3+B3

Activity	NSR-1 Noise Levels	NSR-2 Noise Levels	NSR-3 Noise Levels
A2	65.5	57.7	55.5
A3	64.8	57	54.8
B3	61	53.5	52.6
Total Noise Level	68.9	61.2	59.2

2. Activities A3 + B4

Activity	NSR-1 Noise Levels	NSR-2 Noise Levels	NSR-3 Noise Levels
A3	64.8	57	54.8
B4	57.6	49.9	49.2
Total Noise Level	65.6	57.8	55.9

3. Activities A4 + B4

Activity	NSR-1 Noise Levels	NSR-2 Noise Levels	NSR-3 Noise Levels
A4	65.7	57.9	55.7
B4	57.6	49.9	49.2
Total Noise Level	66.3	58.5	56.6

4. Activities A4 + B5

Activity	NSR-1 Noise Levels	NSR-2 Noise Levels	NSR-3 Noise Levels
A4	65.7	57.9	55.7
B5	54.9	47.2	46.5
Total Noise Level	66.0	58.3	56.2

5. Activities A5 + B5

Activity	NSR-1 Noise Levels	NSR-2 Noise Levels	NSR-3 Noise Levels
A5	62.9	55.1	52.9
B5	54.9	47.2	46.5
Total Noise Level	63.5	55.8	53.8

6. Activities A5 + B7

Activity	NSR-1 Noise Levels	NSR-2 Noise Levels	NSR-3 Noise Levels
A5	62.9	55.1	52.9
B7	54.5	46.8	46.1
Total Noise Level	63.5	55.7	53.7

7. Activities A7 + B7

Activity	NSR-1 Noise Levels	NSR-2 Noise Levels	NSR-3 Noise Levels
A7	63.2	55.4	53.2
B7	54.5	46.8	46.1
Total Noise Level	63.7	56.0	54.0

8. Activities A8 + B8

Activity	NSR-1 Noise Levels	NSR-2 Noise Levels	NSR-3 Noise Levels
A8	68.7	60.9	58.7
B8	59.7	52	51.3
Total Noise Level	69.2	61.4	59.4

*Note - summation of Noise level using: Total = 10 x Log($\Sigma 10^{n1/10} + 10^{n2/10} + ..$)