

## Appendix 3.5 Total Sound Powered Levels for Various Construction Activities with the Use of Quiet PME and Movable Noise Barriers

Construction Activity	Equipment	Reference	Quantity	Assumed On-time %	SWL per Piece dBA	Barriers Attenuation	SWL per Piece dBA	Total SWL dBA	
Preliminary Works	Mobile crane	BS5228 C.7-110	1	70	106	5	101	105	
	Excavator	BS5228 C.3-97	1	90	105	5	100		
	Air compressor	BS5228 C.7-25	1	70	98	0	98		
	Hand-held breaker	BS5228 C.2-10	1	70	110	10	100		
Earthworks/Slope Works	Drilling	Rock drill, hand-held (pneumatic)	CNP183	1	70	116	5	111	109
	Breaking	Hydraulic Breaker, excavator mounted	BS5228 C.8-13	1	80	110	5	105	106
		Dump Truck	BS5228 C.9-29	1	50	109	5	104	
Road, Drainage and Utilities	Trenching	Excavator	BS5228 C.3-97	1	90	105	5	100	103
		Dump Truck	BS5228 C.9-29	1	50	109	5	104	
	Utilities/Pipe Laying	Mobile crane	BS5228 C.7-110	1	70	106	5	101	103
		Dump Truck	BS5228 C.9-29	1	50	109	5	104	
	Backfilling	Backhoe	BS5228 C.3-97	1	90	105	5	100	106
		Dump Truck	BS5228 C.9-29	1	50	109	5	104	
		Power rammer (petrol)	CNP169	1	70	108	5	103	
	Road Pavement Option 1	Concrete mixer truck	BS5228 C.6-35	1	100	100	0	100	103
		Poker Vibrator	BS5228 C.6-32	1	80	100	0	100	
	Road Pavement Option 2	Road roller	BS5228 C.8-27	1	80	104	0	104	105
Asphalt truck paver		BS5228 C.8-24	1	90	101	0	101		
Junction Improvement	Earthworks	Hydraulic Breaker, excavator mounted	BS5228 C.8-13	1	80	110	5	105	108
		Hand-held breaker	BS5228 C.2-10	1	70	110	10	100	
		Air compressor	BS5228 C.7-25	1	70	98	0	98	
		Dump Truck	BS5228 C.9-29	2	50	109	5	104	
	Road Pavement	Road roller	BS5228 C.8-27	1	80	104	0	104	105
		Asphalt truck paver	BS5228 C.8-24	1	90	101	0	101	
Footbridge	Piling	Large diameter bored piling rig (reverse circulation drill)		CNP 166	1	90	100	0	100
		Structure		Mobile crane	BS5228 C.7-110	1	70	106	0
			Concrete mixer truck	BS5228 C.6-35	1	100	100	0	100
			Poker Vibrator	BS5228 C.6-32	2	80	100	0	100

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Construction Activity		Equipment	Reference	Quantity	Assumed On-time %	SWL per Piece dB(A)	Barriers Attenuation	SWL per Piece dB(A)	Total SWL dB(A)
Underpass	Portal Construction	Hydraulic Breaker, excavator mounted	BS5228 C.8-13	1	80	110	5	105	107
		Concrete mixer truck	BS5228 C.6-35	1	100	100	0	100	
		Poker Vibrator	BS5228 C.6-32	2	80	100	10	90	
		Dump Truck	BS5228 C.9-29	1	50	109	5	104	
Retaining Wall	Piling	Large diameter bored piling rig (reverse circulation drill)	CNP 166	1	90	100	0	100	100
	Structure	Concrete mixer truck	CNP 044	1	100	109	0	109	
		Mobile crane	CNP 048	1	70	112	0	112	