

APPENDIX B3

20-21 King's Mews, Holborn, London

BS5228 CALCULATIONS OF ACTIVITY NOISE

Source: Demolition/Construction Site Receiver: Rear Nearest Noise Sensitive façade - No. 1 Northington Street	Frequency, Hz								dB(A)
	63	125	250	500	1k	2k	4k	8k	
Site set-up									
Soft strip									
Removal of fixtures and fittings, disconnecting services removal floor and wall finishes									
Handheld crowbar (Sound Pressure Level at 10m)	66	66	68	68	63	67	55	51	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to on- time on (45%)	-3	-3	-3	-3	-3	-3	-3	-3	
Attenuation provided by the building envelope	-7	-9	-12	-14	-17	-20	-20	-20	
Total	63	61	60	58	50	51	39	35	59
Skip Lorry delivery and collection									
Delivery vehicles (Sound Pressure Level at 10m)	73	78	78	78	74	73	68	66	
Distance correction (min. 24m)	-28	-28	-28	-28	-28	-28	-28	-28	
Correction due to on- time (4%)	-14	-14	-14	-14	-14	-14	-14	-14	
Attenuation provided by the building envelope	-10	-12	-15	-19	-23	-25	-35	-36	
Total	21	24	21	17	9	6	-9	-12	18
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade	64	62	61	59	51	52	40	36	59
Demolition phase									
Hand-held pneumatic breaker (Sound Pressure Level at 10m)	83	83	81	74	73	76	78	77	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to on- time (50%)	-3	-3	-3	-3	-3	-3	-3	-3	
Attenuation provided by the building envelope	-7	-9	-12	-14	-17	-20	-20	-20	
Total	81	79	74	65	61	61	63	62	71
Skip Lorry delivery and collection									
Delivery vehicles (Sound Pressure Level at 10m)	73	78	78	78	74	73	68	66	
Distance correction (min. 24m)	-28	-28	-28	-28	-28	-28	-28	-28	
Correction due to on- time (5%)	-14	-14	-14	-14	-14	-14	-14	-14	
Attenuation provided by the building envelope	-10	-12	-15	-19	-23	-25	-35	-36	
Total	31	36	36	36	32	31	26	24	38
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade	81	79	74	65	61	61	63	62	71
Construction of new house, demolition									
<i>Excavating Basement Foundation, Concreting, Building new walls</i>									
Hand-held pneumatic breaker (Sound Pressure Level at 10m)	83	83	81	74	73	76	78	77	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to on- time (40%)	-4	-4	-4	-4	-4	-4	-4	-4	
Attenuation provided by the building envelope	-7	-9	-12	-14	-17	-20	-20	-20	
Total	80	78	73	64	60	60	62	61	70
Cordless Drill (Sound Pressure Level at 10m)	63	65	65	66	65	69	64	61	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to time on (20%)	-7	-7	-7	-7	-7	-7	-7	-7	
Attenuation provided by the building envelope	-7	-9	-12	-14	-17	-20	-20	-20	
Total	57	57	54	53	49	50	45	42	56
8 wheel ready mix concrete truck - Volvo FMX420 8x4 Concrete Mixer (Sound Pressure Level at 10m)	81	71	63	63	67	75	60	55	
Distance correction (min. 24m)	-28	-28	-28	-28	-28	-28	-28	-28	
Attenuation provided by the building envelope	-10	-12	-15	-19	-23	-25	-35	-36	
Correction due to on- time on (2.5%)	-16	-16	-16	-16	-16	-16	-16	-16	
Total	27	15	4	0	0	6	-19	-25	10
Pumping concrete									
Towed concrete pump - Schwing BP 550HD-18 (Sound Pressure Level at 10m)	84	76	70	71	73	73	66	58	
Distance correction (min. 24m)	-28	-28	-28	-28	-28	-28	-28	-28	
Attenuation provided by the building envelope	-10	-12	-15	-19	-23	-25	-35	-36	
Correction due to on- time on (2.5%)	-16	-16	-16	-16	-16	-16	-16	-16	
Total	30	20	11	8	6	4	-13	-22	13

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Attenuation provided by the building envelope	-7	-9	-10	-12	-15	-18	-18	-20	
Total	66	70	71	66	60	56	60	53	68
Cordless Drill Hilti SFH 22-A (Sound Pressure Level at 10m)	63	65	65	66	65	69	64	61	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to time on (40%)	-4	-4	-4	-4	-4	-4	-4	-4	
Attenuation provided by the building envelope	-7	-9	-12	-14	-17	-20	-20	-20	
Total	60	60	57	56	52	53	48	45	59
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade									
67 70 71 66 61 58 60 54 69									
Stairs installation									
Installing prefabricated stairs									
Handheld circular skill saw: Makita HS7601 110V (Sound Pressure Level at 10m)	69	75	77	74	71	70	74	69	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to on- time on (50%)	-3	-3	-3	-3	-3	-3	-3	-3	
Attenuation provided by the building envelope	-7	-9	-12	-14	-17	-20	-20	-20	
Total	67	71	70	65	59	55	59	54	67
Cordless Drill Hilti SFH 22-A (Sound Pressure Level at 10m)	63	65	65	66	65	69	64	61	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to time on (50%)	-3	-3	-3	-3	-3	-3	-3	-3	
Attenuation provided by the building envelope	-7	-9	-12	-14	-17	-20	-20	-20	
Total	61	61	58	57	53	54	49	46	60
Delivery Vehicle with lifting arm (Sound Pressure Level at 10m)	81	78	76	74	72	69	64	56	
Distance correction (min. 24m)	-28	-28	-28	-28	-28	-28	-28	-28	
Correction due to time on (3%)	-15	-15	-15	-15	-15	-15	-15	-15	
Attenuation provided by the building envelope	-10	-12	-15	-19	-23	-25	-35	-36	
Total	28	23	18	12	6	1	-14	-23	15
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade									
68 71 70 66 60 58 59 55 68									
Wall and floor finishes									
Handheld circular skill saw: Makita HS7601 110V (Sound Pressure Level at 10m)	69	75	77	74	71	70	74	69	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to on- time on (25%)	-6	-6	-6	-6	-6	-6	-6	-6	
Attenuation provided by the building envelope	-7	-9	-12	-14	-17	-20	-20	-20	
Total	64	68	67	62	56	52	56	51	64
Cordless Drill Hilti SFH 22-A (Sound Pressure Level at 10m)	63	65	65	66	65	69	64	61	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to time on (25%)	-6	-6	-6	-6	-6	-6	-6	-6	
Attenuation provided by the building envelope	-7	-9	-12	-14	-17	-20	-20	-20	
Total	58	58	55	54	50	51	46	43	57
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade									
65 68 67 63 57 55 56 52 65									
Furniture fitting									
Handheld circular skill saw: Makita HS7601 110V (Sound Pressure Level at 10m)	69	75	77	74	71	70	74	69	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to on- time on (20%)	-7	-7	-7	-7	-7	-7	-7	-7	
Attenuation provided by the building envelope	-7	-9	-12	-14	-17	-20	-20	-20	
Total	63	67	66	61	55	51	55	50	64
Cordless Drill Hilti SFH 22-A (Sound Pressure Level at 10m)	63	65	65	66	65	69	64	61	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to time on (20%)	-7	-7	-7	-7	-7	-7	-7	-7	
Attenuation provided by the building envelope	-7	-9	-12	-14	-17	-20	-20	-20	

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Total	57	57	54	53	49	50	45	42	56
Delivery vehicles (Sound Pressure Level)	73	78	78	78	74	73	68	66	
Distance correction (min. 24m)	-28	-28	-28	-28	-28	-28	-28	-28	
Correction due to time on (3%)	-15	-15	-15	-15	-15	-15	-15	-15	
Attenuation provided by the building envelope	-10	-12	-15	-19	-23	-25	-35	-36	
Total	20	23	20	16	8	5	-10	-13	17
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade	57	57	54	53	49	50	45	42	56
Decoration									
Handheld sanders Makita BO 4556 (Sound Pressure Level at 10m)	57	51	52	60	70	77	73	73	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to on- time on (20%)	-7	-7	-7	-7	-7	-7	-7	-7	
Attenuation provided by the building envelope	-7	-9	-12	-14	-17	-20	-20	-20	
Total	51	43	41	47	54	58	54	54	62
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade	51	43	41	47	54	58	54	54	62
Site clearance and cleaning									
Desmounting hoardind , general builders cleaning									
Cordless Drill Hilti SFH 22-A (Sound Pressure Level at 10m)	63	65	65	66	65	69	64	61	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to time on (40%)	-4	-4	-4	-4	-4	-4	-4	-4	
Attenuation provided by the building envelope	-7	-9	-12	-14	-17	-20	-20	-20	
Total	60	60	57	56	52	53	48	45	59
Dust Hoover Makita 4461(Sound Pressure Level at 10m)	65	65	67	67	63	57	55	51	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to time on (40%)	-4	-4	-4	-4	-4	-4	-4	-4	
Attenuation provided by the building envelope	-7	-9	-12	-14	-17	-20	-20	-20	
Total	62	60	59	57	50	41	39	35	57
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade	64	63	61	60	54	53	49	45	61