

APPENDIX B2

20-21 King's Mews, Holborn, London

BS5228 CALCULATIONS OF ACTIVITY NOISE

| Source: Demolition/Construction Site Receiver: Adjoining building at No. 5 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. 8m) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| Correction due to on- time on (45%) | -3 | -3 | -3 | -3 | -3 | -3 | -3 | -3 | |
| Attenuation provided by the building envelope | -10 | -12 | -15 | -17 | -20 | -23 | -27 | -27 | |
| Total | 54 | 52 | 51 | 49 | 41 | 42 | 26 | 22 | 50 |
| Skip Lorry delivery and collection | | | | | | | | | |
| Delivery vehicles (Sound Pressure Level at 10m) | 73 | 78 | 78 | 78 | 74 | 73 | 68 | 66 | |
| Distance correction (min. 4m) | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | |
| Correction due to on- time (4%) | -14 | -14 | -14 | -14 | -14 | -14 | -14 | -14 | |
| Total | 67 | 72 | 72 | 72 | 68 | 67 | 62 | 60 | 74 |
| Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade | 67 | 72 | 72 | 72 | 68 | 67 | 62 | 60 | 74 |
| Demolition phase | | | | | | | | | |
| Hand-held pneumatic breaker (Sound Pressure Level at 10m) | 83 | 83 | 81 | 74 | 73 | 76 | 78 | 77 | |
| Distance correction (min. 8m) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| Correction due to on- time (50%) | -3 | -3 | -3 | -3 | -3 | -3 | -3 | -3 | |
| Attenuation provided by the building envelope | -10 | -12 | -15 | -17 | -20 | -23 | -27 | -27 | |
| Total | 72 | 70 | 65 | 56 | 52 | 52 | 50 | 49 | 62 |
| Skip Lorry delivery and collection | | | | | | | | | |
| Delivery vehicles (Sound Pressure Level at 10m) | 73 | 78 | 78 | 78 | 74 | 73 | 68 | 66 | |
| Distance correction (min. 4m) | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | |
| Correction due to on- time (5%) | -14 | -14 | -14 | -14 | -14 | -14 | -14 | -14 | |
| Total | 67 | 72 | 72 | 72 | 68 | 67 | 62 | 60 | 74 |
| Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade | 73 | 74 | 73 | 72 | 68 | 67 | 62 | 60 | 74 |
| 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. 8m) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| Correction due to on- time (40%) | -4 | -4 | -4 | -4 | -4 | -4 | -4 | -4 | |
| Attenuation provided by the building envelope | -10 | -12 | -15 | -17 | -20 | -23 | -27 | -27 | |
| Total | 71 | 69 | 64 | 55 | 51 | 51 | 49 | 48 | 61 |
| 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 | -10 | -12 | -15 | -17 | -20 | -23 | -27 | -27 | |
| Total | 54 | 54 | 51 | 50 | 46 | 47 | 38 | 35 | 53 |
| 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. 4m) | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | |
| Attenuation provided by portable acoustic barrier system | -5 | -5 | -5 | -5 | -5 | -5 | -5 | -5 | |
| Correction due to on- time on (2.5%) | -16 | -16 | -16 | -16 | -16 | -16 | -16 | -16 | |
| Total | 68 | 58 | 50 | 50 | 54 | 62 | 47 | 42 | 64 |
| 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. 4m) | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | |
| Attenuation provided by portable acoustic barrier system | -5 | -5 | -5 | -5 | -5 | -5 | -5 | -5 | |
| Correction due to on- time on (2.5%) | -16 | -16 | -16 | -16 | -16 | -16 | -16 | -16 | |
| Total | 71 | 63 | 57 | 58 | 60 | 60 | 53 | 45 | 65 |

APPENDIX B2 (Cont.)

20-21 King's Mews, Holborn, London

BS5228 CALCULATIONS OF ACTIVITY NOISE

| | | | | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Correction due to time on (3%) | -15 | -15 | -15 | -15 | -15 | -15 | -15 | -15 | |
| Total | 66 | 71 | 71 | 71 | 67 | 66 | 61 | 59 | 73 |
| Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade | 66 | 71 | 71 | 71 | 67 | 66 | 61 | 59 | 73 |
| Decoration | | | | | | | | | |
| handheld sanders Makita BO 4556 (Sound Pressure Level at 10m) | 57 | 51 | 52 | 60 | 70 | 77 | 73 | 73 | |
| Distance correction (min. 8m) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| Correction due to on- time on (20%) | -7 | -7 | -7 | -7 | -7 | -7 | -7 | -7 | |
| Attenuation provided by the building envelope | -10 | -12 | -15 | -17 | -20 | -23 | -27 | -27 | |
| Total | 42 | 34 | 32 | 38 | 45 | 49 | 41 | 41 | 52 |
| Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade | 42 | 34 | 32 | 38 | 45 | 49 | 41 | 41 | 52 |
| 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. 8m) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| Correction due to time on (40%) | -4 | -4 | -4 | -4 | -4 | -4 | -4 | -4 | |
| Attenuation provided by the building envelope | -10 | -12 | -15 | -17 | -20 | -23 | -27 | -27 | |
| Total | 51 | 51 | 48 | 47 | 43 | 44 | 35 | 32 | 50 |
| Dust Hoover Makita 4461(Sound Pressure Level at 10m) | 65 | 65 | 67 | 67 | 63 | 57 | 55 | 51 | |
| Distance correction (min. 8m) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| Correction due to time on (40%) | -4 | -4 | -4 | -4 | -4 | -4 | -4 | -4 | |
| Attenuation provided by the building envelope | -10 | -12 | -15 | -17 | -20 | -23 | -27 | -27 | |
| Total | 53 | 51 | 50 | 48 | 41 | 32 | 26 | 22 | 48 |
| Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade | 55 | 54 | 52 | 51 | 45 | 44 | 36 | 32 | 52 |