

Adjustment of Sound Attenuation for Traffic Noise Impact Assessment

Reference Case

Case ID	Acoustic Window/ Door System	SAM at 100mm gap	MPA	Air Gap, mm	Overlapping length, mm	Room area (RAref), m <sup>2</sup>	Ref. sound attenuation, dB(A)
BAL	AB(BT)-EPD PN	No	No	100	≥100	14	8.0

Case ID	Acoustic Window/ Door System	SAM at 100mm gap	MPA	Air Gap, mm	Overlapping length, mm	Room area (RAref), m <sup>2</sup>	Ref. sound attenuation, dB(A)
W	AW(BT)-EPD PN	No	No	100 to 175	≥100	8	6.0

Proposed Development							Reference Case					
NSRs with Acoustic Window / Balcony (Baffle Type)	Tower	Room	Referred Case ID	Max. Noise Level, dB(A)	Required Max. Sound Attenuation, dB(A)	Room area (RA), m <sup>2</sup>	Air Gap, mm	Overlapping length (Mullion Included), mm	Room area (RAref), m <sup>2</sup>	Ref. sound attenuation, dB(A)	Adjustment: 10xlog(RA/RAref)	Adjusted sound attenuation, dB(A)
N1-01	T1	LIV/DIN	BAL	74	3.6	17.5	100	≥100	14	8.0	0.0	8.0
N1-02	T1	MBR	W	74	3.9	6.2	100 to 175	≥100	8	6.0	-1.1	4.9
N1-03	T1	BR	W	73	2.2	4.5	100 to 175	≥100	8	6.0	-2.5	3.5
N1-04	T1	BR	W	72	1.7	4.5	100 to 175	≥100	8	6.0	-2.5	3.5
N1-05	T1	MBR	W	75	4.1	6.2	100 to 175	≥100	8	6.0	-1.1	4.9
N1-06	T1	LIV/DIN	BAL	75	4.2	16.4	100	≥100	14	8.0	0.0	8.0
N1-07	T1	LIV/DIN	BAL	73	2.9	10.3	100	≥100	14	8.0	-1.3	6.7
N1-08	T1	MBR	W	74	3.2	5.5	100 to 175	≥100	8	6.0	-1.6	4.4
N1-09	T1	MBR	W	74	3.2	5.5	100 to 175	≥100	8	6.0	-1.6	4.4
N1-10	T1	LIV/DIN	BAL	74	3.3	10.3	100	≥100	14	8.0	-1.3	6.7
N1-11	T1	LIV/DIN	BAL	74	3.5	10.3	100	≥100	14	8.0	-1.3	6.7
N1-12	T1	MBR	W	74	3.7	5.5	100 to 175	≥100	8	6.0	-1.6	4.4
N1-13	T1	MBR	W	74	3.7	5.5	100 to 175	≥100	8	6.0	-1.6	4.4
N1-14	T1	LIV/DIN	BAL	74	3.7	10.3	100	≥100	14	8.0	-1.3	6.7
N1-15	T1	LIV/DIN	BAL	74	3.9	10.3	100	≥100	14	8.0	-1.3	6.7
N1-16	T2	MBR	W	74	3.9	5.5	100 to 175	≥100	8	6.0	-1.6	4.4
N1-17	T2	BR	W	71	1.0	5.4	100 to 175	≥100	8	6.0	-1.7	4.3