City of Edmonton 3rd Floor, Edmonton Tower 10111 104 Avenue Edmonton, AB T5J 0J4

## PRINT, READ, SIGN AND SUBMIT THIS LETTER WITH THE BUILDING PERMIT APPLICATION WHERE REQUIRED SOUND SEPARATION STRATEGY OR DETAILS ARE NOT INDICATED ON THE FLOOR PLANS OF SECTIONS

**NBC-2019(AE):B:9.11 SOUND TRANSMISSION** for 9.10.14.&9.10.15 residential buildings including but not limited to Semi-Detached House and 3-4 unit Row House with/without secondary suite, Single Detached house with secondary suite.

TO: City of Edmonton Safety Codes Permits and Inspections 3<sup>rd</sup> Floor, 10111 – 104 AVE NW Edmonton, AB T5J 0J4 DATE:

RE: PROJECT ADDRESS (or LEGAL DESCRIPTION OF CITY FILE NO.)

SELECT $\checkmark \downarrow$	<b>Dwe</b> whic	elling sound separation from another same-buildin th noise may be generatedexcept see below for se	g dwelling and o condary suite so	ther in-building sp und separation op	aces in otions	
	Engi / sin	Engineer-stamped acoustic design and details for minimum ASTC 47 of walls and floors by detailed / simplified calculation per NBC(AE):B:5.8.1.4. / 5.8.1.5 is submitted with this application.				
	Mea engi occu	Measurements between finished dwelling units (after construction completion) by acoustical engineer in stamped report form will be submitted for review prior to final building inspection for occupancy, demonstrating minimum ASTC47 is achieved.				
	Pres equi info	Prescriptive method, using an assembly with minimum STC50 derived through <u>NRC Soundpaths</u> or equivalent sources. Explain clearly the source of the assembly STC value or supplementary information may be needed.				
SELECT	<ul> <li>Prescriptive method, using the appropriate minimum STC 50 assemblies per NBC(AE):B: Tables</li> <li>9.10.3.1A &amp; 9.10.3.1B including applicable Table footnote requirements, together with the requirements of NBC(AE):B:9.11.1.4. to address flanking sound, and considering Note A-9.11.1.4., resulting construction deemed equivalent to ASTC 47.</li> <li>IF THIS PRESCRIPTIVE METHOD OF COMPLIANCE IS SELECTED, CHOOSE AN ASSEMBLY FROM THE FOLLOWING LIST OF MOST-COMMONLY USED PARTY WALLS. CONSULT AND COPY FROM NBC(AE):B:Table 9.10.3.1A or 9.10.3.1B ANY OTHER PREFERRED WALL ASSEMBLY OR ANY DUPLEX FLOOR ASSEMBLY FOR THE PROJECT NOT FOUND IN THIS LIST.</li> </ul>					
	Wall #	Description	Load-bearing	Non-Load-bearing	STC <sup>(2)(4)(5)</sup>	
	W13	2 rows 2x4@16oc or 24oc on Separate 2x4 plates set 1″ apart <b>1 layer gypsum board each side</b>				
	W13a	<b>3½"</b> batts each side <sup>(6)(10)</sup> / ን‰" Type X gypsum board <sup>(7)</sup>	1h	1h	57	
	W14	2 rows 2x4@16oc or 24oc on Separate 2x4 plates set 1" apart <b>2 layers gypsum board one side; 1 layer gypsum bd other</b>		GG0004EA		
	W14a	<b>3½"</b> batts <b>each</b> side <sup>(6)(10)</sup> / all <sup>5</sup> ⁄ <sub>8</sub> " Type X gypsum board <sup>(7)</sup>	1h	1h	61	
	W14c	<b>3½"</b> batts <b>one</b> side <sup>(6)(10)</sup> / <b>all ¾"</b> Type X gypsum board <sup>(7)</sup>	1h	1h	57	

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W15	2 rows 2x4@16oc or 24oc on Separate 2x4 plates set 1" apart <b>2 layers gypsum board each side</b>			
W15b	3½" batts <b>each</b> side <sup>(6)(10)</sup> / all ½" Type X gypsum board <sup>(7)</sup>	1 h	1½ h	65
W15e	3½" batts one side <sup>(6)(10)</sup> / all ½" Type X gypsum board <sup>(7)</sup>	1 h	1½ h	60
W15h	No batts / all ½" Type X gypsum board <sup>(7)</sup>	1 h	1½ h	55

## Abridged footnotes (See NBC-(AE) for complete footnotes and Table contents)

(2) FRR and STC ratings for 2x4, or 2x6 with 5½" batts; also to HRA-finger-joined lumber (See A-9.23.10.4.(1).)
(3) For all fire-resistance ratings, the given spacing for framing is a maximum value.

(4) STC per installation details required by gypsum board in CSA A82.31-M. Assemblies with STC of 50 or more require acoustical sealant around electrical boxes and other openings, and at the junction of intersecting walls and floors. Gasket-flanged boxes may be exempted.

(5) There can be no visible cracks/ voids on surfaces.

(6) Sound absorptive material includes fibre processed from rock, slag, glass or cellulose fibre filling at least 90% of the **cavity** thickness but NOT overfilling to point of causing outward pressure on the finishes.

(7) ½" regular , ½" Type X, ¾" Type X gypsum board must conform to 9.29.5.2.; fastener type/spacing per 9.29.5. or CSA A82.31-M. Surface gypsum board layer on both sides of the wall must have its **joints taped and finished**.

(8) Absorptive material required for the higher fire-resistance rating is rockwool ; mass of at least 4.8 kg/m<sup>2</sup> for 5½" thickness or 2.8 kg/m<sup>2</sup> for 3½" thickness in the stud cavities on both sides and completely filling the wall cavity,

SELECT ↓	Secondary suite sound separation from another same-building dwelling and other in-building
	spaces in which noise may be generated.
	Prescriptive method: sound absorbing material(batts) and resilient channel installation to walls and
	floor-ceiling assemblies as required. Min 6" in ceiling; do not block return air runs; fill wall cavities.
	Prescriptive method, using the appropriate minimum STC 43 assemblies per NBC(AE):B: Tables
	9.10.3.1A & 9.10.3.1.B including applicable Table footnote requirements.
	Prescriptive method, using the applicable minimum STC 43 value per NBC(AE):B: Tables 9.10.3.1A
	& 9.10.3.1.B including applicable Table footnote requirements, together with the requirements of
	NBC(AE):B:9.11.1.4. to address flanking sound, for construction deemed equivalent to ASTC 40.
	Stamped acoustic design for minimum ASTC 40 of walls and floors by detailed or simplified
	calculation per NBC(AE):B:5.8.1.4. or 5.8.1.5 is submitted with this permit application.
	Measurements between finished dwelling units by acoustical engineer, with stamped report will be
	submitted for review prior to final building inspection for occupancy, proving ASTC 40 achieved.

I will notify the Building Permit issuer if the construction intention is modified during the project.

SIGNATURE OF BUILDING PERMIT APPLICANT

PRINT NAME