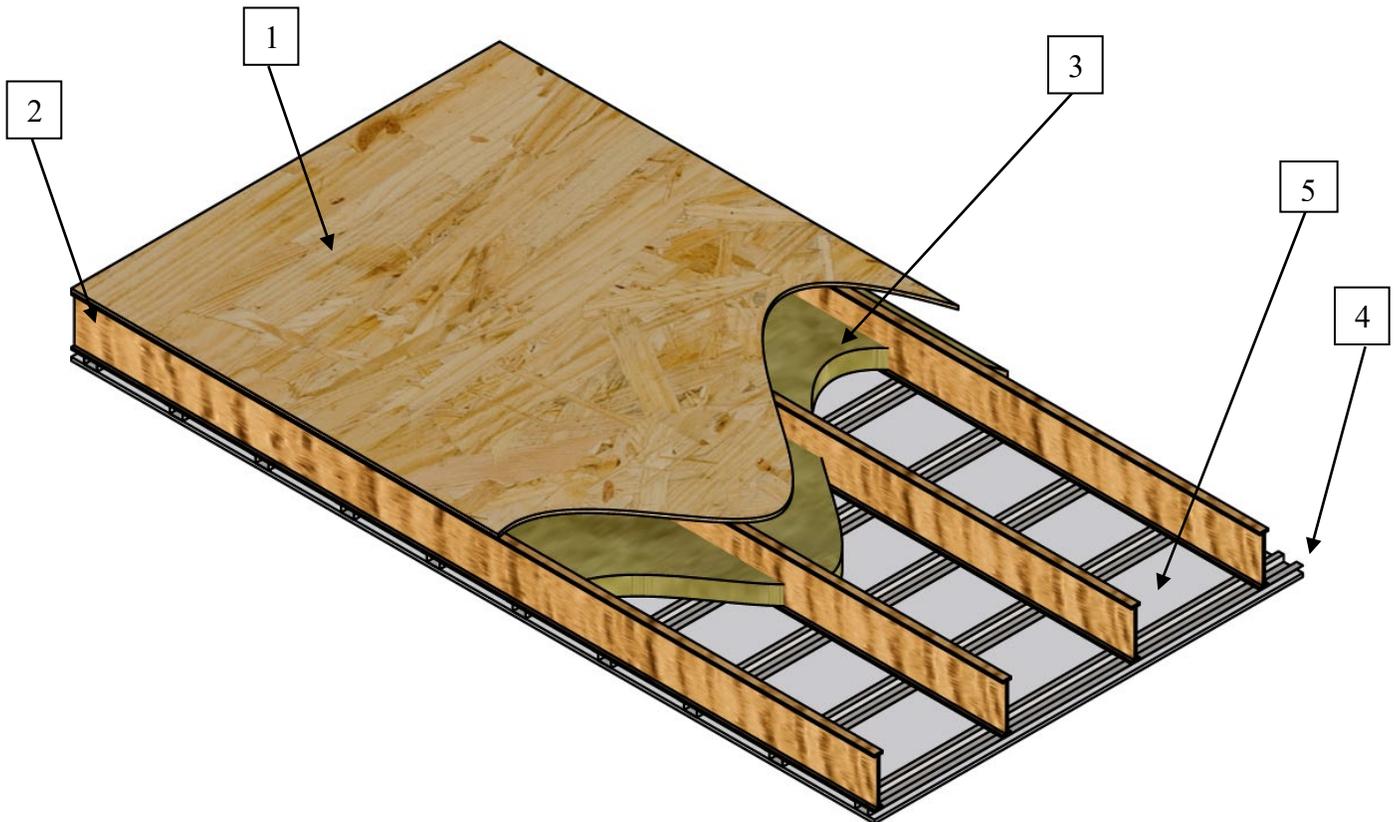


**QAI Design B1067-1o – ROXUL INC. dba ROCKWOOL – UNRESTRAINED RESTRICTED LOAD BEARING<sup>1</sup> FLOOR/CEILING**

STANDARDS	RATINGS	Minimum Thickness Inches (mm)
ASTM E119 / CAN/ULC S101	1-Hour Unrestrained Restricted Load Bearing	>10" (254 mm)



*Note: Blocking/Bridging not shown, install must follow applicable code and manufacturers installation instructions*

No.	COMPONENT	DESCRIPTION	
1	<b>Floor/Roof Coverings (Optional)</b>	Details	Floor or roof coverings are optional and eligible for installation over the underlying fire-resistance rated floor / ceiling assembly outlined below. The covering material including installation are to comply with the model codes and be approved for installation by the local authority having jurisdiction.
2	<b>I-joist</b>	Type:	Wood I-joist approved for use in 1-hour unrestrained restricted load bearing according to IBC
		Minimum Dimensions:	Wood I-joist shall have a minimum depth of 9 1/4-inches (235 mm) with a minimum flange depth of 1 1/2-inches (38 mm), minimum web thickness of 3/8-inch (10 mm), and a minimum flange cross-sectional area of 5.25 square inches (133 mm).
		Installation:	I-joists shall be installed at max 24-inch (610 mm) o.c. spacing. Installation is to be in accordance with the local codes and engineering design where applicable and is outside the scope of this listing.
3	<b>Mineral Board Insulation</b>	Manufacturer:	ROCKWOOL
		Type:	Safe 'n' Sound® nominal 2.5 lbs/ft <sup>3</sup> (40 kg/m <sup>3</sup> ) density.
		Minimum Thickness:	3-inches (76 mm).
		Installation:	Safe N' Sound® shall be installed to a minimum total thickness. The mineral board shall be installed resting on hat shaped furring channels.

4	<b>Hat-shaped furring channel</b>	Type:	Steel hat-channel
		Minimum Gauge:	23 Gauge (0.66 mm) 2.5" (64 mm) width 0.5" (13 mm) depth
		Installation:	Minimum 0.026-inch thick hat-shaped channel max 16-inch (406 mm) on center (channels doubled at wallboard end joints), placed perpendicular to the joist and attached to each joist by 1 ¼-inch (32 mm) Type S drywall screws.
5	<b>Ceiling Construction</b>	Type:	Type C gypsum wallboard
		Minimum Thickness:	5/8-inch (16 mm)
		Installation:	Gypsum wallboard applied perpendicular to the channel with end joints staggered and fastened with 1 1/8-inch (29 mm) Type S drywall screws spaced max 12-inch (305 mm) on center in the field and max 8-inch (203 mm) on center at the wallboard ends. Wallboard joints to be taped and covered with joint compound.

Note 1: The above floor / ceiling assembly is limited to 82% design load determined in accordance with the National Design Specification, based off Load Resistance Factor Design (LRFD) methodology when used in fire-resistance rated applications. Determination of the appropriate load restriction for jurisdictions adopting allowable stress design, or limit state design is required.

Note 2: Design based on 2004 International Building Code Section 721.1 (3) Item 24