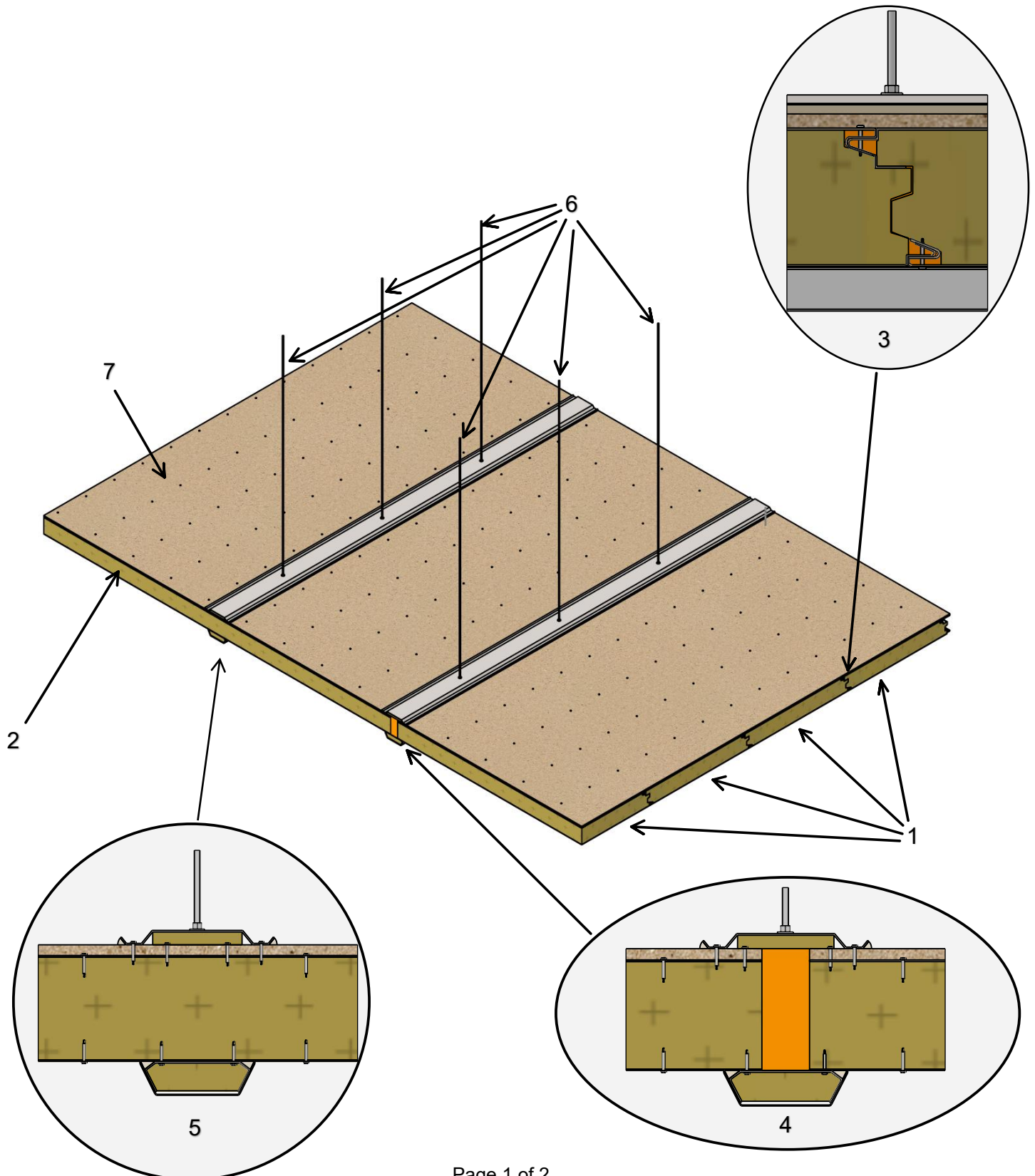


**QAI Design B1096-2d – Norbec Architectural – NOROC-L Mineral Wool Insulated Panel
CAN/ULC-S101/ASTM E119 – 2-Hour Non-Load Bearing Fire-Resistance Rated Floor/Ceiling Assembly**



No.	COMPONENT	DESCRIPTION
1	NOROC-L Panels	Manufacturer: Norbec Architectural Inc.
		Approved Product(s): NOROC-L Mineral Wool Core Insulated Metal Panels.
		Facers: Minimum 0.454 mm (26 Gauge) steel.
		Minimum Thickness: 152 mm (6 in.).
2	Core Insulation	Material: Non-combustible mineral wool.
		Minimum Thickness: 152 mm (6 in.).
		Minimum Density: 8.5 lbs/ft ³ (136 kg/m ³).
3	Panel Interlocking Joint	Description: Male-Female Interlocking Joint connection along panel edge.
		Maximum Joint Width: 8 mm (5/16 in.).
		Installation: Panels are interlocked and fastened 38 mm (1-1/2 in.) from the panel joint. The exterior/top face is fastened using #8 x 19 mm (3/4 in.) self-drilling pancake-head screws spaced 457 mm (18 in.) o.c. The interior/bottom face is fastened using #8 x 19 mm (3/4 in.) self-drilling screws spaced 813 mm (32 in.) o.c.
		Sealant: Fireblock flame-resistant foam sealant is applied 305 mm (12 in.) along each end of the panel joint at butt-joint locations. Silicone sealant is applied along the exterior/top panel joints.
4	Panel Edge-to-Edge Joint	Description: Panel Edge-to-Edge Butt Joint supported by galvanized steel trims and connected through threaded zinc hanger rods.
		Maximum Joint Width: 19 mm (3/4 in.).
		Installation: The exterior/top side of the panel joint is secured using a galvanized steel trim filled with mineral fiber insulation. The trim is installed over the Type X gypsum board and attached to the panels using #8 x 19 mm (3/4 in.) Tek screws spaced 356 mm (14 in.) o.c. The trim is secured at each threaded hanger rod using a 9.5 mm (3/8 in.) zinc flat washer and 9.5 mm (3/8 in.)-16 Grade 5 zinc hexagonal nut. The interior/bottom side of the joint is secured using a galvanized steel suspension support filled with mineral fiber insulation and fastened to the panels using #8 x 19 mm (3/4 in.) Tek screws spaced 356 mm (14 in.) o.c. The suspension support is secured to the threaded hanger rod using a 9.5 mm (3/8 in.)-16 Grade 5 zinc hexagonal nut. The suspension support is covered by a pre-painted finishing trim fastened using 3.2 mm Ø x 6.4 mm (1/8 in. Ø x 1/4 in.) pop-rivets.
		Sealant: The panel butt joint is filled with Fireblock flame-resistant foam sealant. Silicone sealant is applied along the edges of the galvanized steel trims on the exterior/top and interior/bottom faces of the assembly.
5	Linear Suspension Support	Description: Continuous galvanized steel suspension assembly located across the panel assembly and connected through the panels using threaded zinc hanger rods.
		Installation: The exterior/top side is secured using a galvanized steel trim filled with mineral fiber insulation. The trim is installed over the gypsum board and fastened using #8 x 19 mm (3/4 in.) Tek screws spaced 356 mm (14 in.) o.c. The trim is secured to each threaded hanger rod using a 9.5 mm (3/8 in.) zinc flat washer and 9.5 mm (3/8 in.)-16 Grade 5 zinc hexagonal nut. The interior/bottom side is secured using a galvanized steel suspension support filled with mineral fiber insulation and fastened using #8 x 19 mm (3/4 in.) Tek screws spaced 356 mm (14 in.) o.c. The suspension support is secured to the threaded rod using a 9.5 mm (3/8 in.)-16 Grade 5 zinc hexagonal nut and is covered by a pre-painted finishing trim fastened using 3.2 mm Ø x 6.4 mm (1/8 in. Ø x 1/4 in.) pop-rivets.
		Sealant: Silicone sealant is applied along the edges of the galvanized steel trims on the exterior/top and interior/bottom faces of the assembly.
6	Support Rods	Description: 9.5 mm (3/8 in.) zinc threaded hanger rods.
		Connection to Structure: Hanger rods are connected to the supporting structural members using 9.5 mm (3/8 in.) beam C-clamps and 9.5 mm (3/8 in.)-16 Grade 5 zinc hexagonal nuts.
		Spacing (Butt Joint): Three hanger rods located approximately 1980 mm (78 in.) from the panel edge and spaced approximately 1080 mm (42-1/2 in.) apart.
		Spacing (Linear Suspension): Three hanger rods located approximately 1900 mm (75 in.) from the panel edge and spaced approximately 1080 mm (42-1/2 in.) apart.
7	Gypsum Board Overlay	Description: Fire-rated Type X gypsum board installed over the exterior/top surface of the NOROC-L insulated metal panels.
		Minimum Thickness: 12.7 mm (1/2 in.).
		Installation: Gypsum boards are installed over the NOROC-L panels in the layout shown on the assembly drawings.
		Fastening: Gypsum board is mechanically fastened to the NOROC-L panels using #8 x 19 mm (3/4 in.) self-drilling pancake-head screws spaced 406 mm (16 in.) o.c. along the board length and 305 mm (12 in.) o.c. across the board width.
		Suspension Penetrations: Localized openings are permitted in the gypsum board for the 9.5 mm (3/8 in.) suspension rods. Gypsum board joints and field-cut boards are arranged in accordance with the specified installation sequence and assembly drawings.

Note: Resistance of this assembly to service loads, including pressure and seismic forces, is outside the scope of QAI's listing.