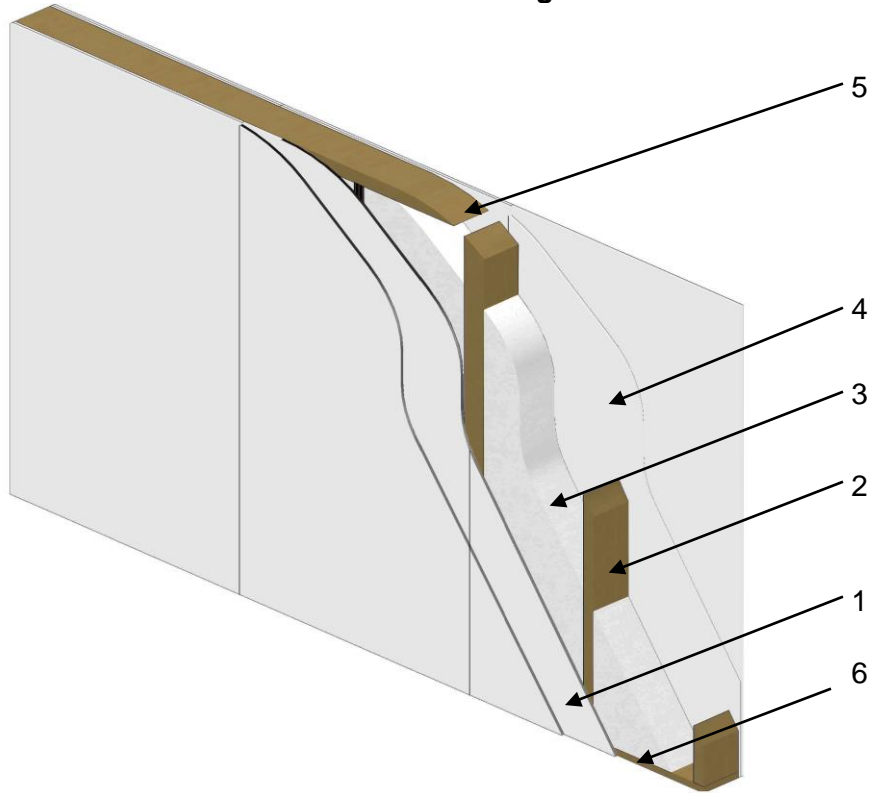


**QAI Design B1073-1b – ReThinking Construction - MEGCRETe™ Prefabricated Wall Assembly
CAN/ULC-S101/ASTM E119 - 1.5 Hour Restricted* -Load Bearing Fire-Resistance-Rated Wall Assembly**



No.	COMPONENT	DESCRIPTION
1	Exterior Sheathing	Manufacturer: MBP-IP
		Product Name: MEGCRETe™ MBP-IP MgO (Listed and Labeled by Underwriters Laboratories (UL))
		Minimum Thickness: 2 layers of 1/2 inch (12 mm)
		Applications: First sheet adhered to the EPS Insulation/ LVL Splines. Second sheet is bonded to the first sheet.
		Adhesive: Dow Chemical Model MOR-AD M-657, one-part urethane adhesive (ICC-ES AC05 approved)
		Fasteners: GRK #9 x 3-1/8 inch (80 mm) screws fastened around the spaced 6 inch (150 mm) on center, holes were pre-drilled with a 9/64 inch (3.6 mm) bit
		Panel Joints: Polyurethane sealant
2	Spline	Size: 2 inch by 7-1/4 inch (50 mm x 184 mm)
		Type: Laminated Veneer Lumber (LVL)
		Spacing: Maximum 24 inch (610 mm)
		Grade: 2900fb Grade: 2.0e MR
		Laminated Spline: Two LVL studs are laminated together with polyurethane adhesive and 3 spiral shanked nails every 6 inches down the LVL.
		Installation: A single LVL is installed at the factory while panels are being adhered together in between the EPS boards. A laminated LVL is installed at each panel connection.
3	Insulation	Product: Approved and Labeled Expanded Polystyrene (EPS) Insulation Board – Type 1 per CAN/ULC-S701
		Thickness: 7-1/4 inch maximum
		Maximum Density: 18 kg/m ³ (1.15 lb/ft ³)
		Installation: Adhered in between the sheathing on either side of the middle LVL spline.
4	Interior Sheathing	Manufacturer: MBP-IP
		Product Name: MEGCRETe™ MBP-IP MgO (Listed and Labeled by Underwriters Laboratories (UL))
		Minimum Thickness: 2 layers of 1/2 inch (12 mm)
		Applications: First sheet adhered to the EPS Insulation/ LVL Splines. Second sheet is bonded to the first sheet
		Adhesive: Dow Chemical Model MOR-AD M-657, one-part urethane adhesive (ICC-ES AC05 approved)
		Fasteners: GRK #9 x 3-1/8 inch (80 mm) screws fastened around the spaced 6 inch OC, holes were pre-drilled with a 9/64 inch (3.6 mm) bit
5	Top Plate	Type: Double Layer – 2 inch x 8 inch (38 mm x 184 mm) lumber
6	Bottom Plate	Type: Single Layer – 2 inch x 8 inch (38 mm x 184 mm) lumber

* Maximum allowable load of 3700 pounds per linear foot