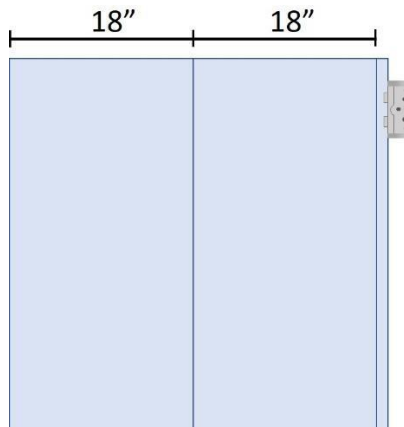

Attaching CERACLAD over Continuous Insulation and Non-Structural Substrates:

Vertically Oriented Panels



Overview:

With changes to energy and building codes, the exterior building envelope is also changing to incorporate continuous exterior insulation, additional gypsum sheathing, and other non-structural elements. This guide is meant to serve as a reference for attaching vertically oriented CERACLAD fiber cement panels and 10' corner products over various thicknesses of non-structural materials, such as insulation.



CERACLAD panels are 455mm wide (18"). The panels are fastened along the long edges with clips at the panel width interval (18"). When CERACLAD panels are oriented vertically, the panel size does not align with typical stud framing spacing (16" or 24"). Because of this, CERACLAD vertically oriented panels cannot be used over standard stud framing without a sub-framing or furring system.

The CERACLAD Vertical Starter Bar must go at the base of every vertical CERACLAD installation and accepts the full weight of the CERACLAD Panel. Starter Bar screws must be fastened back to the stud or a structural element directly fastened back to the framing. The Starter Bar cannot be attached directly to wood or gypsum sheathing.

Detailing Vertically oriented CERACLAD panels over Continuous Insulation

*Disclaimer: KMEW USA is not responsible for the engineering or ultimate design of the attachment support system (ie-furring) for CERACLAD over continuous insulation or any other non-structural substrates. It is important to consider all live and dead loads, insulation thickness, and the applicable building codes for your region when choosing an appropriate sub-framing system and fastening schedule. This guide is meant to help with the layout of the subframe or furring system to provide an adequate amount of attachment points for CERACLAD. Please consult your project architect or engineer for further direction.

Allowable attachment specifications for furring material:

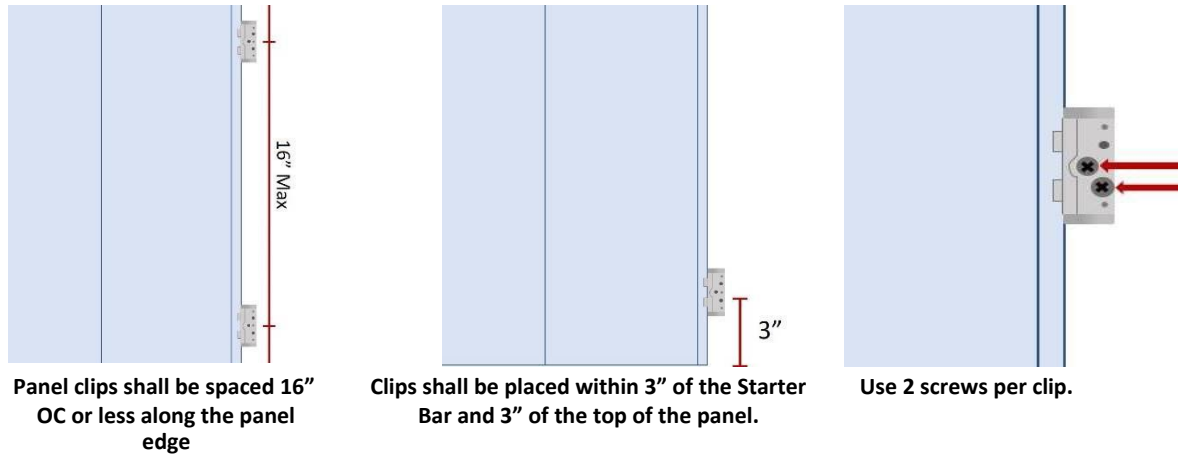
- Proprietary Exterior Insulation Attachment system (Ex: Knight Wall, NVELOPE, etc)
- Steel hat channel, rails, or Z shaped furring: 18-16 gauge
- Pressure Treated Wood or ½" min plywood
- Other material as approved by project engineer

This Technical Bulletin is meant to serve as a guide. For additional questions regarding CERACLAD products or detailing CERACLAD over continuous insulation, please contact the KMEW USA Technical Department: 425-883-9290

Attachment Requirements:




Clips

CERACLAD panels are attached to the wall via the proprietary CERACLAD clip. Clips fit into the grooved channel along the long edge of CERACLAD panels (shiplap) and attach to the wall with screws. Please follow the minimum attachment requirements for clips below.



Screws

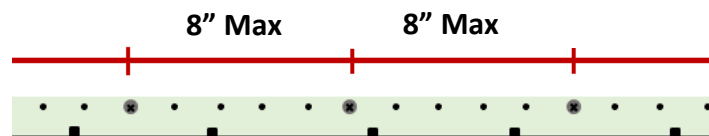
Screws should be **#8 Stainless Steel** unless otherwise noted. Screws must penetrate the following approved substrates by the given measurement or criteria.

	<u>Substrate</u>	<u>Screw Type</u>	<u>Minimum screw penetration</u>
	Steel, 18 or 16 ga	#8 self-tapping	3 full threads
	Wood framing	#8 wood screw	1" penetration
	Plywood/OSB, 1/2" min	#8 wood screw	Must penetrate through sheet with full diameter of the screw. *Starter bar cannot be screwed into only plywood. See below.

Vertical Starter Bar, Special Instructions

Vertically oriented CERACLAD panels are supported by the Vertical Starter Bar. The Vertical Starter Bar acts like a shelf that the panel rests on. The clips serve to secure the panel to the wall, but the majority of the weight of the panel is received by the Vertical Starter Bar. Because of this, the Starter Bar must be fastened to a structural element (stud, or furring attached back to the stud).

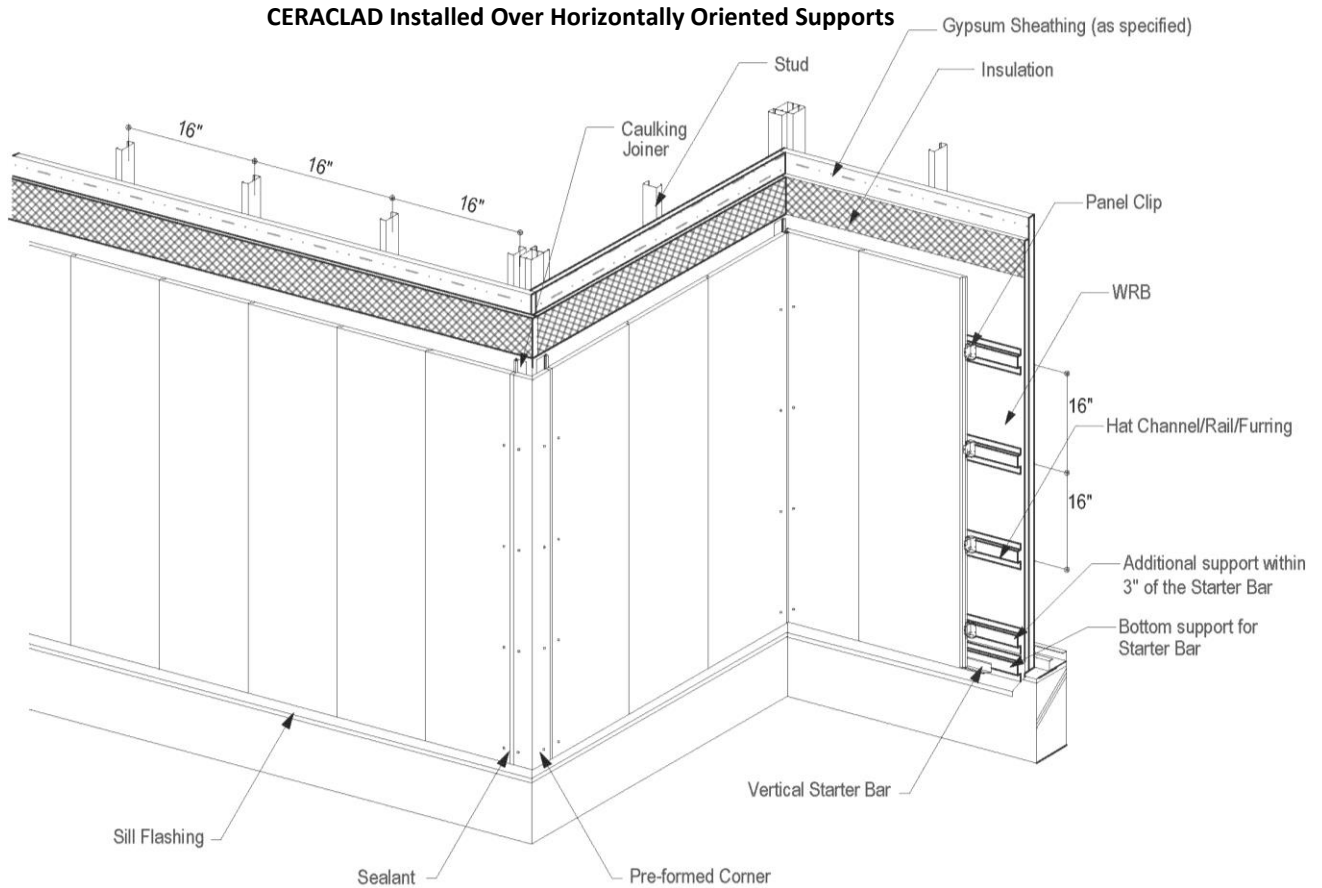
For attaching to 18 ga steel, decrease the fastener spacing in the Starter Bar from 16" to 8". For attaching into 16 ga steel, or wood studs, a standard 16" spacing is adequate.



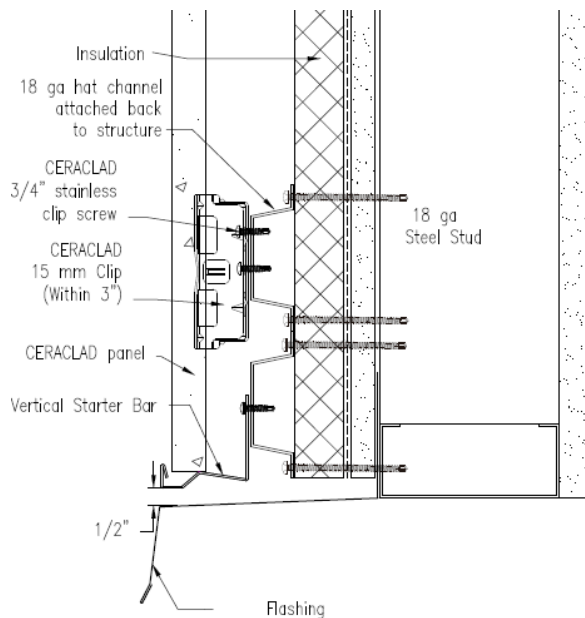
Vertical Starter screw spacing into 18 ga steel

Sub-frame layout for vertically oriented panels

For vertically oriented CERACLAD panels, furring or attachment points should be oriented horizontally every 16" to align with clip spacing. Additional supports are necessary at the top and bottom of the panel for the Starter Bar and first and last clip. See diagram below.



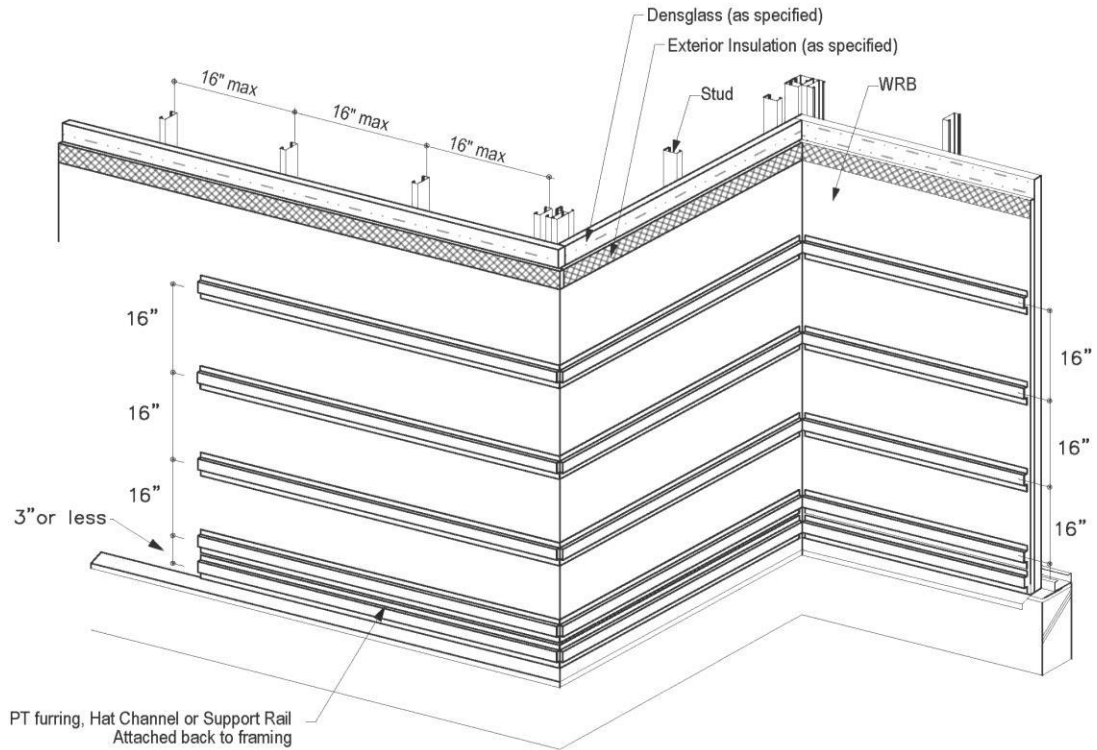
Base of Wall Detail (example)



An additional support, or a wider support, is required at the base of the wall to support the Vertical Starter bar and the first clip within 3" of the Starter Bar.

Vertical Subframe layout

General subframe layout and spacing for vertically oriented panels installed over continuous exterior insulation



Corner Detail

A series of spacer blocks can be used to provide a backing for face screws at the edge of the panel and preformed corner. For metal corners, an alternative solution may be necessary, such as an L shaped metal piece, to provide sufficient backing

