

# PRODUCT DETAILS



## INTRODUCTION

The material here provides installation guidelines for the Urban Concrete® Panel System by Urban Concrete®. Urban Concrete®'s ultra-lightweight panel was inspired by the architectural need to provide an alternative to “cast in place” methods. The aesthetic, surface characteristics, and weight savings make our GFRG panels ideal for a wide variety of applications, providing a leading alternative for concrete design elements that are non-structural. Urban Concrete® Panel System features interior/exterior applications for commercial and residential purposes — benefiting the client with low maintenance, customizability, and easy installation of contemporary design panels. Create various design styles: panels can be cut and installed in any direction and pattern. The guidance and instructions in these documents generally apply to the Concrete® Panel System. They are not intended to replace the specifications and instructions supplied by a qualified Architect or Designer for your project. The Architect or Designer is responsible for using Urban Concrete® Panel System in compliance with local laws, building codes, and other requirements on moisture management, energy efficiency, or structural integrity.

### IMPORTANT

*Failure to follow Concrete® Panel System written installation instructions and comply with applicable building codes may violate local laws, affect building envelope performance, and may affect warranty coverage.*

*Failure to comply with all health and safety regulations when cutting and installing this product may result in personal injury. Before installation, confirm you are using the correct product instructions by visiting the website or calling 1-250-681-0913.*

*If you are a specifier or other responsible party for a project, ensure the information in these specifications is appropriate for the application you are planning and that you undertake the specific design and detailing for areas that fall outside the scope of these specifications.*

# MATERIAL

## MATERIAL DESCRIPTION

### What is GFR panel?

GFR panels are comprised of composite glass fiber concrete skin that is mechanically attached by flexible steel pins to a sturdy steel frame or wood structure.

- Interior or exterior application
- Weight 3.5lbs/sq ft
- Standard Thickness: 0.5in (1/16" - 3/16" tolerance)
- Noncombustible

### What is GFR made of?

GFR stands for Glass Fiber Reinforced Concrete. It is a composite comprised of Portland cement, fine aggregate, water, acrylic co-polymer, alkali resistant glass fiber reinforcement and additives.

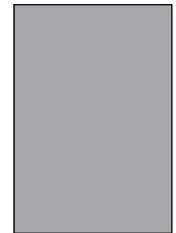
SIZES  
12"X72"



SIZES  
24"X72"

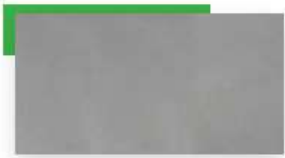


SIZES  
36"X72"



### BOARD FORM

Combines the rustic grain and texture of natural wood telegraphed onto the surface of the concrete. The final result exhibits a recognizable wood grain finish resembling natural wood.



### CLASSIC

The Classic finish delivers a clean, modern, smooth look to any surface.



### MOUNTAINEER

The Mountaineer finish is a distinctively beautiful concrete surface that showcases porosity and patina you would find in naturally aged concrete.



### CABLE

An industrial look with imitation cone ties in each corner. The holes emulate the holes left behind after wooden forms and steel rod support were removed from conventional "cast-in-place."



### CUSTOM

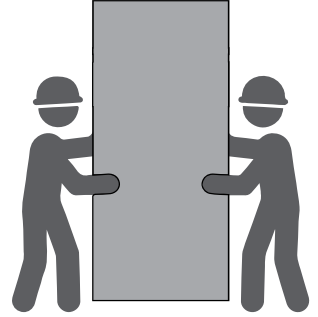
Customized veneers can be tailored to many sizes, shapes, textures, and colors to meet your specifications.

Premium panels are available in 3 colours.

# TRANSPORTATION AND STORAGE

## TRANSPORTATION

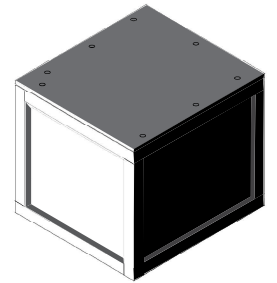
Urban Panel weighs 3.5lbs./sq ft. A 3 ft x 6 ft panel weighs 63 lbs; we recommend that two people carry and install panel products. Workers should hold the panel near each end and along the edge (vertically). Carry panels on their side, not flat. Corners and edges are fragile before installation.



Panel should not be rolled-off or dumped-off of the truck or delivery vehicle during delivery to the job site. We recommend using a forklift to offload material or unloading by hand.

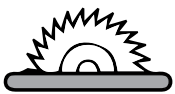
## STORAGE

The panel should be stored flat and kept dry in its original packaging in a garage, shed, or in some other covered area protected from the weather whenever possible. Keep the product covered on a pallet off the ground; never store in direct contact with the ground. Panels should always be covered from moisture and rain. Water or moisture between stacked panels will cause etching or staining of the face of the panel. Panels must be kept dry and clear of any water/moisture.



# TOOLS AND EQUIPMENT

## CUTTING TOOLS



**CARBIDE BLADE  
FOR CONCRETE**

## FASTENERS



### EXPOSED FASTENERS FOR WOOD

2" x 0.189" x 0.472"  
10-12 SS, T20W Torx  
Pan Head #8 GRK or  
equivalent

### FOR STEEL

1.25" x 0.189" T20W  
Torx Panhead

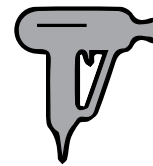
### COUNTERSUNK FASTENERS FOR WOOD

1 5/8" x 0.39"  
316 SS, bulge head  
square drive

### FOR STEEL

1 5/8" x 0.39" 410 SS,  
bulge head #2 square  
drive

## OTHER TOOLS



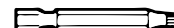
**PNEUMATIC FINISH  
PIN NAILER**  
To Steel furring only



**DRILL**



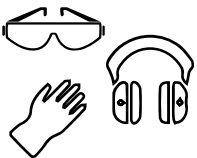
**DRILL BIT**



**T-20 TORX**  
For exposed fasteners

**#2 SQUARE**  
For Countersunk  
fasteners

## PROTECTION TOOLS



**PPE REQUIRED  
TOOLS**

# INSTALLATION PROCESS

## WALLS AND CEILINGS

### WALL PREPARATION

Structural attachment of furring, as the fastening substrate, is the design professional's responsibility. Design alternatives such as attachment to structural horizontal girts must maintain the minimum Urban Panel fastener schedule requirement. Before installing the panel, review and comply with all local building codes and regulations regarding wall construction.

Do not install siding over questionable wall construction. Irregularities in framing may become visible in the finished application. To minimize the effect of unevenness, shim the wall as necessary.

#### *Structural Sheathing & Non-Structural Sheathing*

Install pressure treated furring over plywood, OSB, or other approved rigid sheathing. Furring must be attached to structural framing to withstand all applicable loads.

#### *Concrete Block (CMU) Walls*

Follow local building codes for water-resistive barrier requirements. Attachment of furring direct to block requires suitable widths to accommodate joint and fastener locations. If shimming of furring cannot re-establish a suitable flat plane, then furring may be installed on horizontal girt secured to CMU.

#### *Continuous Foam Insulation Sheathing*

Where foam sheathing is used, furring must be secured to the framing structure and by design specifications to manage dead loads and traverse loads of the system.

### CEILINGS

Space joists, rafters, and fasteners must be a maximum of 24" (600 mm) O.C. Fasten panels perpendicular to joists to ensure that stress is distributed crosswise.

## CUTTING

### CUTTING PANELS

Measure and cut panels square and plumb with a tolerance of (+/-)1/16 in  
NEVER grind or cut with a power saw indoors. NEVER dry sweep dust; use wet dust suppression or vacuum to collect dust.

For best performance when cutting, use a circular saw with a continuous diamond concrete blade. When cutting panels, use a "track saw guide" to prevent the face of the panel from being scratched.

The pattern layout can be achieved using: a Snap 'blue' chalk line grid over panels, a peg board template, and T-square to make markings.

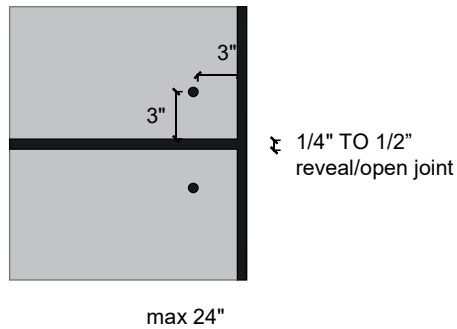
### **SILICA WARNING:**

**DANGER: inhaling dust from the product may cause cancer. Causes damage to the lungs and respiratory system through prolonged or repeated inhalation of dust from the product. Refer to the current product Safety Data Sheet before use.**

# ATTACHMENT TECHNIQUES

## EXPOSED FASTENING

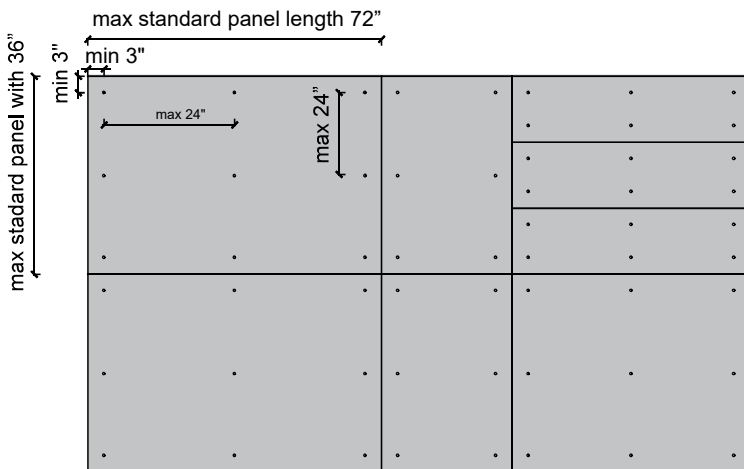
- Drive fasteners perpendicular and snug to siding and framing.
- Fasteners position may be no closer than 3" in from panel edge.
- Do not over-drive panel screws or drive at an angle. Fastener heads should fit snug against siding (no air space). Adjust fastening tools accordingly.
- If the fastener breaks, add a fastener near to site and use a cementitious compound to fill the hole.
- For exposed fastening, Pre-drill a larger hole. Pre-drill holes that are 5/64" (2 mm) larger than the diameter of the screws that will be used.



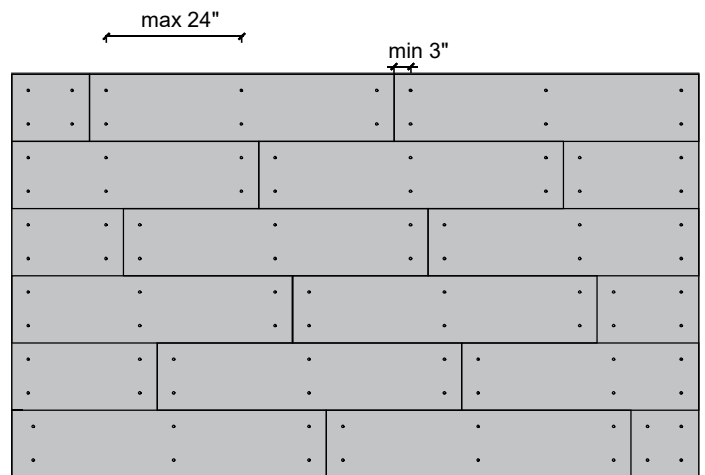
Max spacing between screws  
24" (609 mm)

## Example of fastening layout with

### Panels layout



### Staggered layout



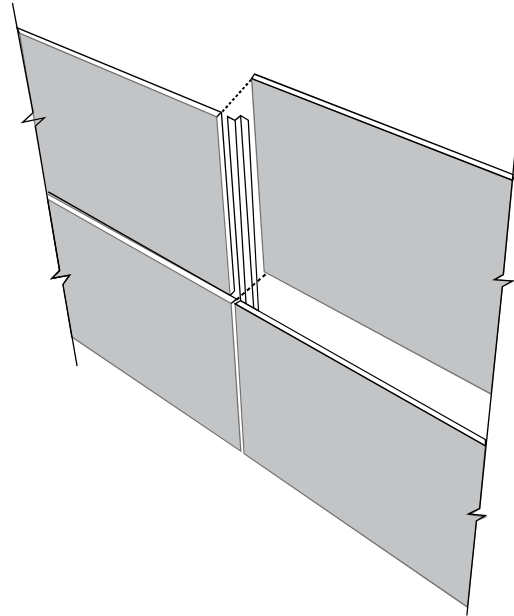
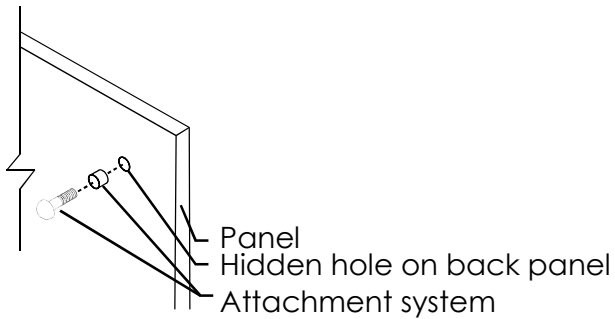
NOTE: The configurations shown above are for illustrative purposes only. Fastener schedule must meet configuration minimums as prescribed in the wind load tables applicable to your project.

## CONCEALED ANCHORING SYSTEM

Surface mounting by stainless steel screws. Opt for a touch-sensitive finish with flared screws or with round head screws. Fasteners are required at 600mm (24" O.C.) intervals.

Recommended attachment system:

- Gridworx <https://gridworxwalls.com/>
- Keil System <http://keilanchor.com/>



## ADHESIVE FASTENING

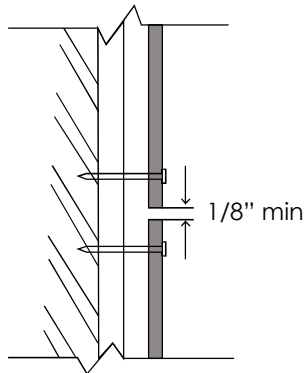
- Ensure panels are free from dust.
- Use a generous amounts of PL Fast Grab or M1 Polyether Adhesive-Chem Link or Stronghold Foam Adhesive.
- Use 2"x2" Plywood with screw thru middle for applying/holding the panel on the wall.
- Use color matched silicone at joint. Recommended Mapesil-T by Mapei or equivalent.



# PANEL JOINT

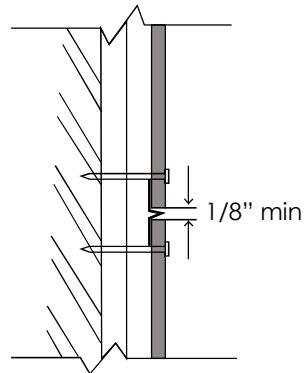
Always leave a space for expansion. Leave a minimum space of 1/8" to 1/2" (3mm to 13mm) between panels. If a flexible adhesive sealant is used, leave a minimum space of 1/16" (2 mm) along the width and along the length of the panels.

## Open Joint



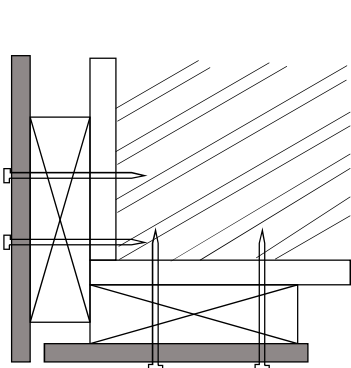
Leave a minimum space of 1/8" (3 mm) between panels.

## With flashing

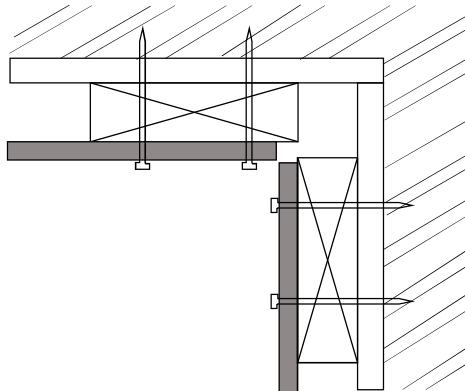


4" to 6" flashing behind joint

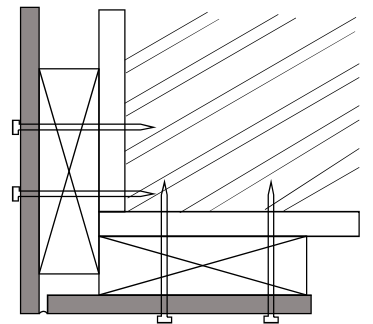
## Outside / inside Corner with open joint



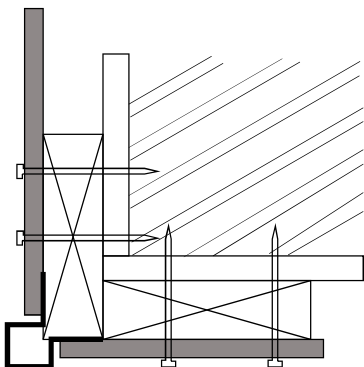
Leave a minimum space of 2 mm between panels.



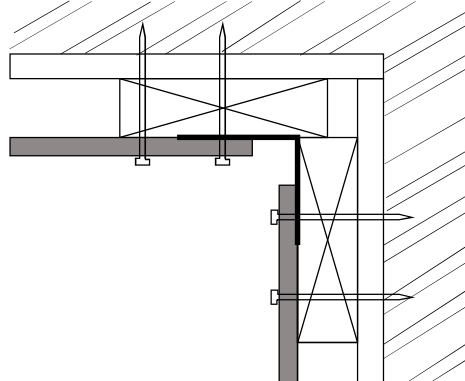
## Butt joint



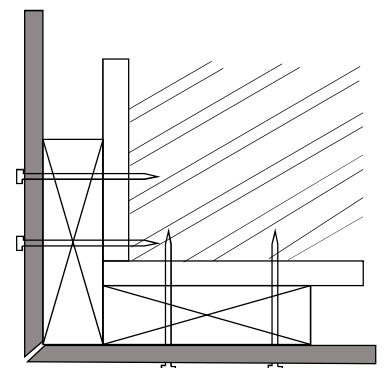
## Outside / inside Corner with corner profile



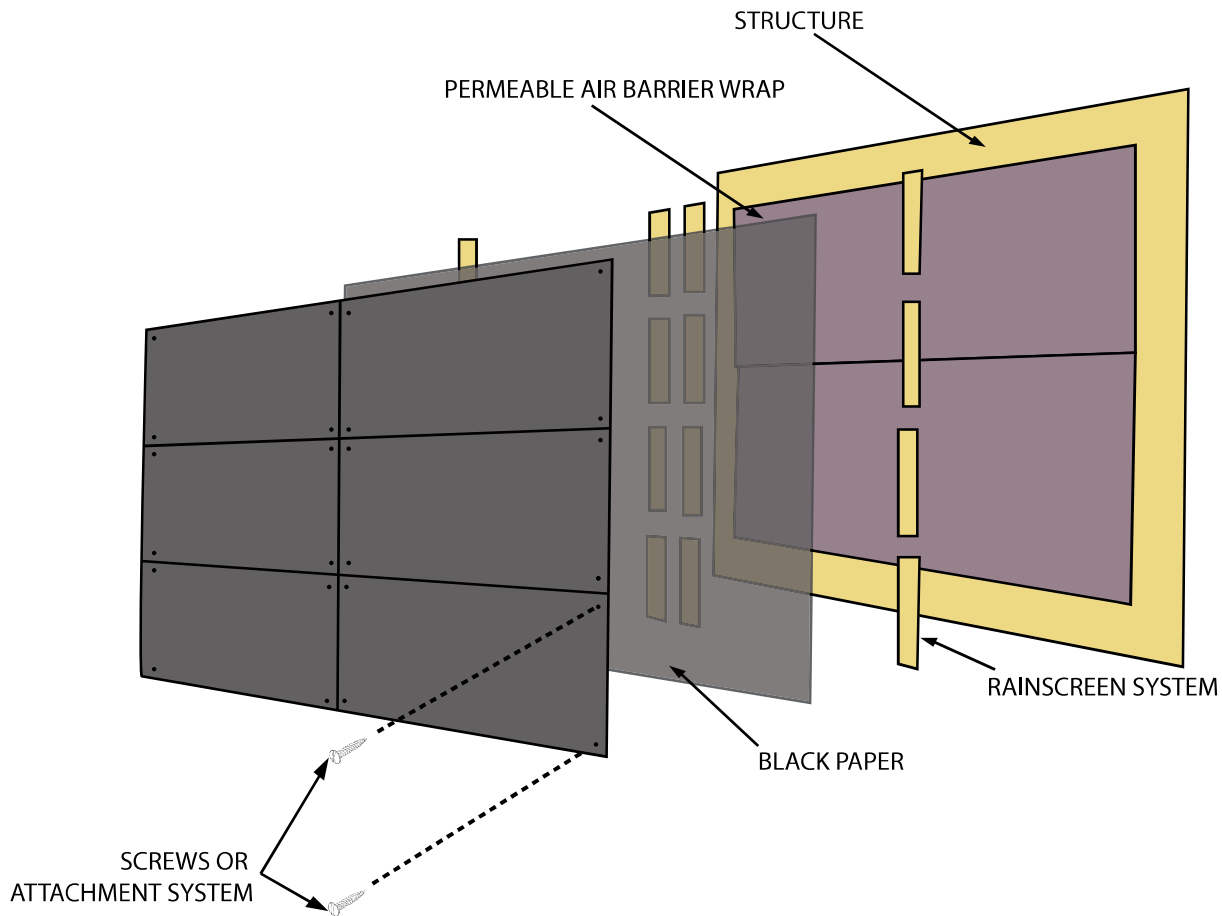
Leave a minimum space of 2 mm between panels.



## Mitered joint



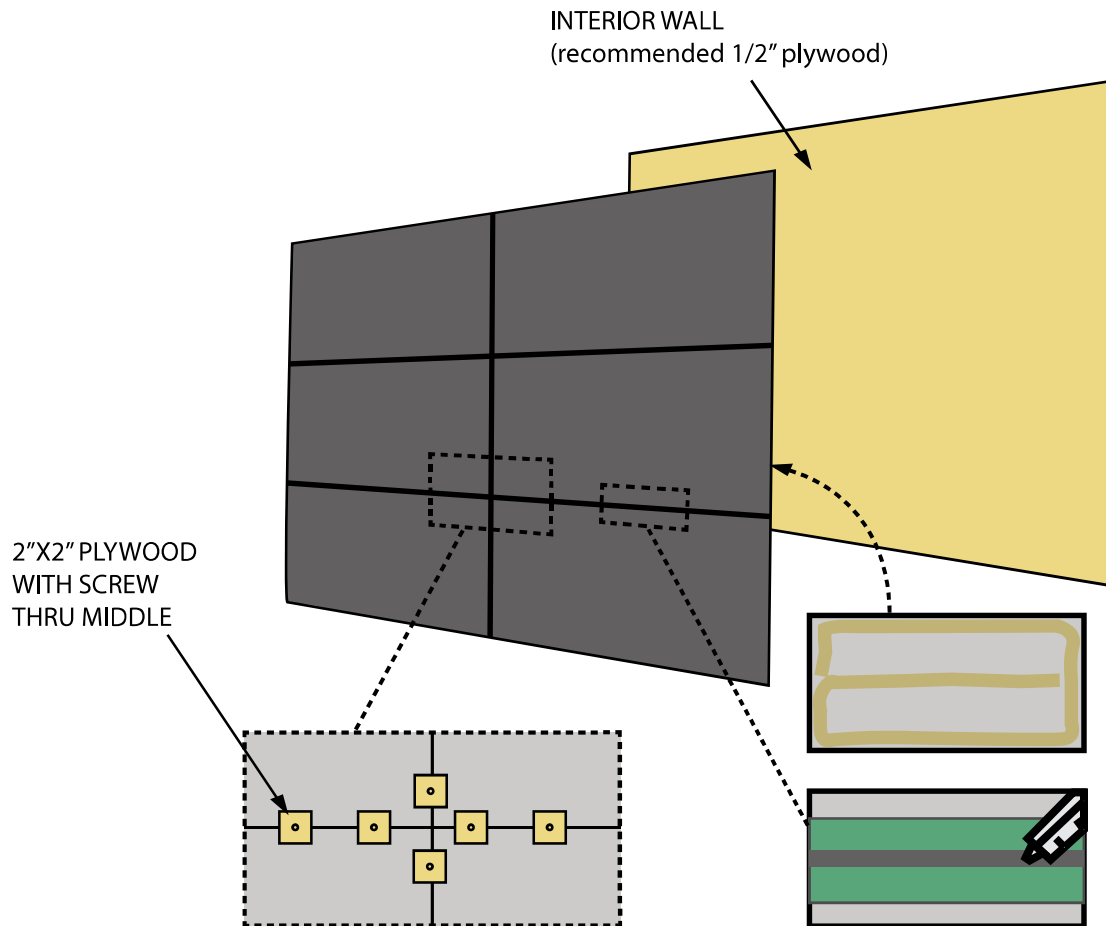
# INSTALLATION - exterior



1. Prepare existing framing and sheathing. Level and plumb, tolerance within 1/8" over 8'.
2. Plan your panel layout, consider full panel size while paying attention to the desired joint space between each panel. Reveal size is based on preference (typically a 1/4" to 1/2" is used). Behind the reveal use color match flashing or black flashing (3" - 5" width).
3. Predrill holes in panel 2 mm larger than the diameter of the screw being used, 3" from the edges and approx 24" from each other.
4. After drilling holes and any cutting of a panel - brush off the face from any/all dust before securing to substrate. When cutting use a track saw guide to prevent the panel from being scratched.
5. Place the panel with 2 screws adjusting unit level, then install the remaining screws.
6. When it is raining the assembly of an open tent cover, is recommended to ensure dry working conditions.



# INSTALLATION - interior



1. Ensure the back of the panels are free from dust.
2. Plan your panel layout; consider full panel size while paying attention to the desired joint space between each panel (recommended 1/8").  
When cutting panels, use a track saw guide to prevent the panel from being scratched.
3. Place a 1/8" diameter screw through the center of a 2"x2" piece of plywood. You can also use a Trim Head Screw or other material that allows for a narrower seam between the panels. Maintain a minimum space of no less than 1/16" for substrate movement.
4. Apply a generous amount of PL FAST GRAB or M1 Polyether Construction Adhesive Chem Link to the back of the panel. Stronghold Foam. Adhesive can also be used, purchased from Urban Concrete®.
5. Place the panel with 2 screws, adjust the unit level, install more screws, and block as needed. Install the panels maintaining 1/8" space between panels.
6. Install masking tape to gather any excess sealant, and apply color-matched silicone (Recommended Mapei Mapesil-T or equivalent). Ensure that the panel edges are clean and dry. Remove any dust with a brush and a dry cloth before the application of the flexible adhesive sealant.



<http://www.urbanconcretedesign.com/>

**Showroom (Klad)**  
**+1 250.681.0913**

**info@klad.ca**