MARIO ROMANO WALLS

Table of Contents

MARIO ROMANO | *WALLS*

Standard Installation Materials

Provided:
- Panels
- Installation Map/guide
- Levelers
- Corian Plugs

Available for purchase:
- Adhesive/Gun/Tips

Not Provided:
- 100% Clear Silicone
- Screws
- Countersink drill bit

Backlight Installation Materials

Provided: *Along with the materials included for Standard Installation, you will also receive:*
- LED Strips
- RGB Wire
- Low Voltage Wire
- Pigtails Driver
- Receiver
- Cable nuts
- RGB Controller
- Acrylic Stiffeners

Not Provided:
- Framing Wood

MARIO ROMANO WALLS

1. Check that the panels arrive in good condition

    - If not, take photos and immediately notify M.R. Walls of any damage or chipping.

2. Dry-fit the puzzle pieces, reference the install design map

    - To dry fit, assemble all panels on the floor, then the wall before applying any silicone or adhesive.

3. Press the panels together so that the seams disappear

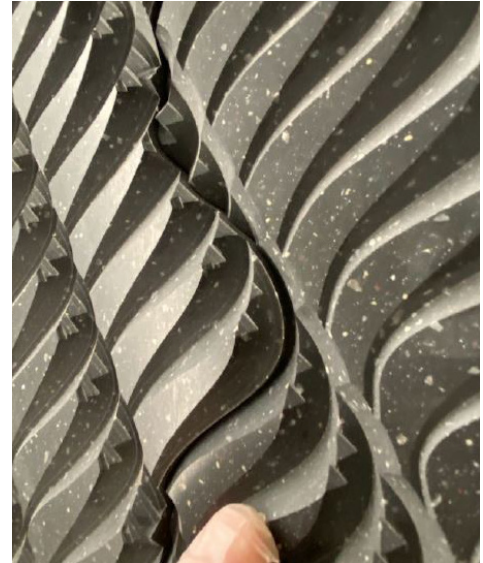   - If you notice bowing/cupping, this is normal.

4. Apply pressure to locations of bowing/cupping

    - Leveling techniques during installation will resolve this [pages 4-6].

5. *Optional:* Execute onsite routering

    - All cut outs for plumbing/electrical/niches can be done at this time [page 28].

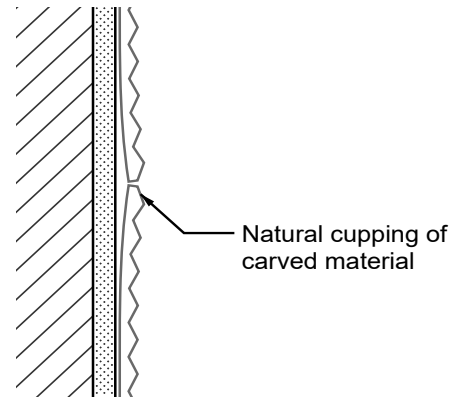**6. Take photos of the project and send it to M.R. Walls**

No Pressure

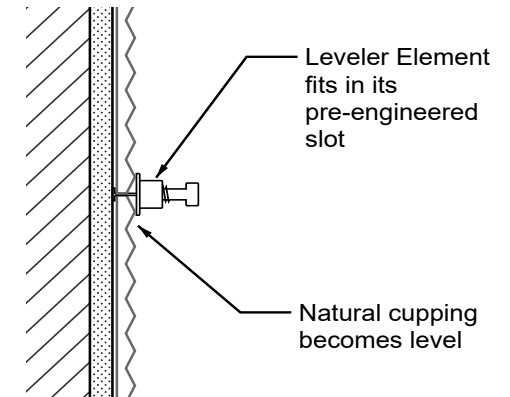*Pressure*

Leveler Technique:

- Levelers will help level the face of the project while installing.
- Pre-engineered slots are provided to guide leveler installation.
- For best results, level the panels with the lights on.

Important: Adhesive to be only be applied topically [pages 14-16].

Before:

Natural cupping of carved material

After:

Leveler Element fits in its pre-engineered slot

Natural cupping becomes level

Step 1: Bring together two panels. Identify leveler slots.

Step 2: Insert and twist the leveler so that the pin behind the surface is perpendicular to the seam. Hold and twist the leveler to tighten the seams together.

Step 3: Add a small bead of Corian to the seams. Corian Adhesive should ONLY be used topically.

Step 4: With a clean rag, wipe the excess adhesive on the seams.
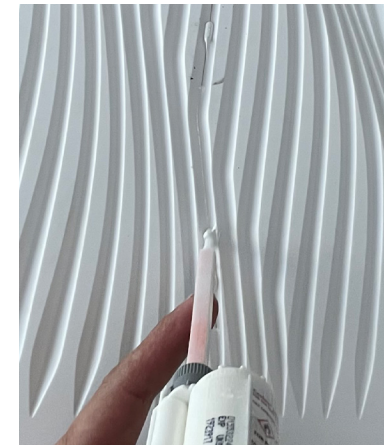
Step 5: Wait 15-20 minutes and once dry, remove the levelers and repeat Step 3 & 4 in the leveler slots. Wipe excess as needed.

MARIO ROMANO **WALLS**

Bracing Technique:

- Best for tight spaces with close opposing walls such as: showers, powder rooms, bathrooms, etc
- Bracing Technique allows you to apply pressure along the seams of the panels using adjustable poles.

Step 1: Place a flat material bridging both sides of the seams between the M.R. Wall and adjustable pole.
Step 2: Topically add adhesive to the seam [pages 14-16]
Step 3: Let dry and remove poles. Repeat on pole location.

Before:

Natural cupping of carved material

After:

Bracing element (use opposing surface to apply pressure)

Flat material bridging both sides of the seam (Corian, wood/metal shims)

MARIO ROMANO WALLS
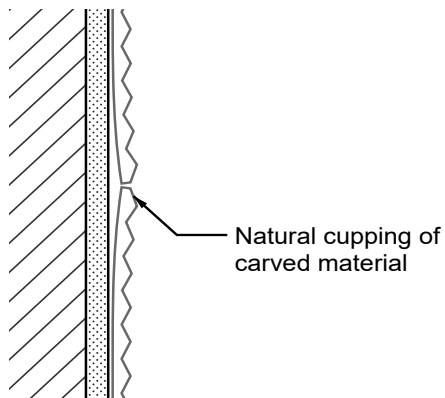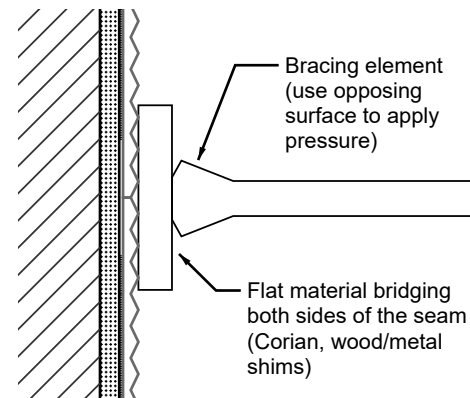
Stitching Technique:

- Stitching Technique allows you to apply pressure along the seams of the panels using hot glue and shims.

Step 1: Place a flat material bridging both sides of the seams and hot glue it to both surfaces.

Step 2: Topically add adhesive to the seam [pages 14-16]

Step 3: Let dry and remove shims. Repeat on pole location.

Before:

Natural cupping of carved material

After:

Hot Glue

Bracing element (use opposing surface to apply pressure)

Flat material bridging both sides of the seam (Corian, wood/metal shims)
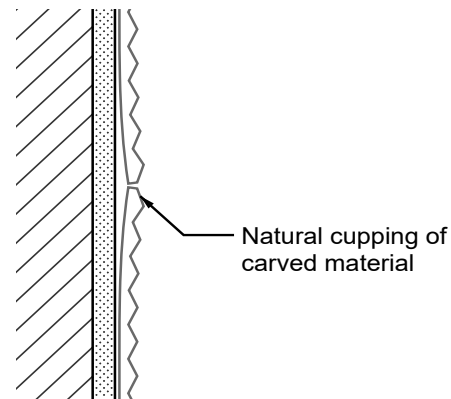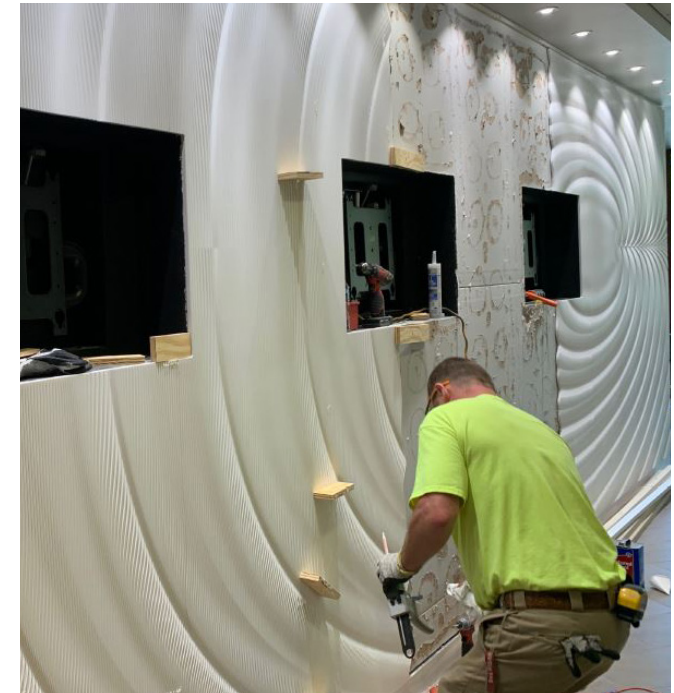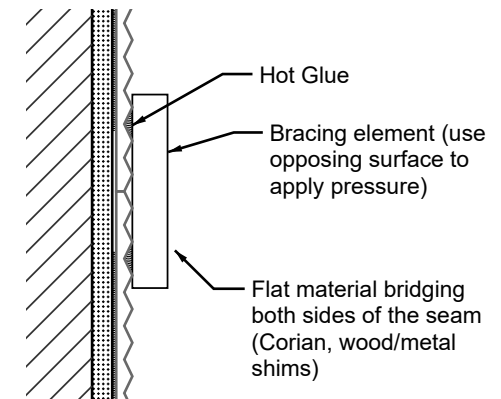
Attachment Methods:

There are 4 popular attachment methods when installing M.R. Walls, here is a guide to better perfect your install.

1. Silicone
2. Plug and Screw
3. Exposed Fastener
4. French Cleat

Attachment Requirements:

Level 3 or higher wall finishes are required for all M.R. Wall installations.

Silicone:

- 100% clear silicone is the most common form of attachement, Corian recommended.
- Follow the diagram below to apply silicone to the back of the M.R. Wall or front of substrate wall surface.

TABLE 2: SILICONE ADHESIVE BONDING GUIDELINES

Suggested Silicone Bead Diameters to Achieve Different Bond Line Thicknesses and Suggested Silicone Bead Lengths Per Area of Different Sheet Thicknesses.

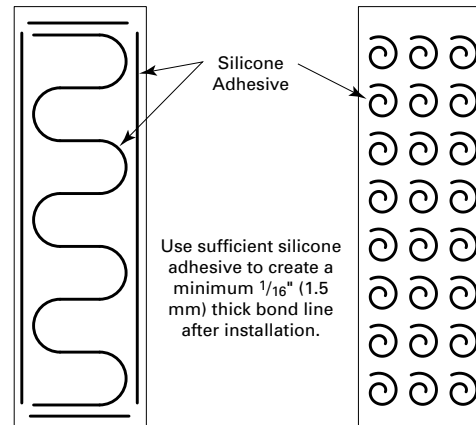| Sheet Thickness		Bead Diameter		Compressed Thickness		Bead Length Required / Unit Sheet Length		Bead Length Required / Unit Sheet Area	
(in.)	(mm)	(in.)	(mm)	(in.)	(mm)	(in./ft.)	(cm/m)	(in./ ft.²)	(cm/ m²)
¼	6	⅛	3.2	1/16	1.6	40	310	15	405
¼	6	¼	6.4	⅛	3.2	20	620	8	205
½	12	⅛	3.2	1/16	1.6	75	155	30	810
½	12	¼	6.4	⅛	3.2	40	310	15	410

Use a distributed silicone placement pattern to provide panel bonding near all panel edges and across spans to provide consistent dimensional gap support from the substrate (Reference Figure A-3). It is important not to create closed loops of silicone adhesive as silicone uses atmospheric moisture to cure. Closed loops create a barrier to moisture and will retard cure.

FIGURE A-3: SILICONE ADHESIVE PLACEMENT

Silicone Adhesive

Use sufficient silicone adhesive to create a minimum 1/16" (1.5 mm) thick bond line after installation.

B. HARD SEAMED WALL LENGTH LIMITATIONS

Long expanses of inconspicuous hard seamed cladding can be fabricated using Corian® solid surface sheets when 100% silicone is used for mounting. For 1/16" (1.5 mm) silicone bond lines the maximum suggested wall lengths versus the expected temperature change appear in Table 3. If desired wall dimensions exceed those suggested, thicker silicone bond lines can be used or an expansion joint is suggested (Reference Table 3).

TABLE 3: HARD-SEAMED WALL LENGTH LIMITS AS FUNCTION OF EXPECTED TEMPERATURE CHANGE FOR 100% SILICONE WITH 50% MOVEMENT CAPABILITY[2,3]

1/16" (1.6 mm) Silicone Thickness

ΔT (°F)	length limit (ft.)	ΔT (°C)	length limit (m)
±10	49	±5	16.7
±15	33	±10	8.3
±20	25	±15	5.6
±25	20	±20	4.2
±30	16	±25	3.3
±35	14		
±40	12		

1/8" (3.2 mm) Silicone Thickness

ΔT (°F)	length limit (ft.)	ΔT (°C)	length limit (m)
±10	115	±5	38.9
±15	77	±10	19.4
±20	57	±15	13.0
±25	46	±20	9.7
±30	38	±25	7.8
±35	33		
±40	29		

The temperature range used for design should be based on the expected deviation from the installation temperature and should include consideration for the construction phase as well as occupation. Plan the installation to minimize ambient temperature changes on site. If possible, the building should be heated prior to installation. Acclimate the materials and building to the design temperature for at least 48 hours with air circulation around the materials. The temperature needs to be controlled once installation is complete.

Plug and Screw Method:

- In addition to Silicone, screws and mechanical connections are required depending on project size, location, and/or application.
- M.R Walls will supply Corian Plugs that correspond to the counter sink drill bit purchasable **here.**
- See Plug and Screw install videos **here.**

Important: Minimum of 4 screws per panel, one on each corner.

Make sure to drill the countersink half way into the material

Plug to come out $\frac{1}{32}$" to $\frac{1}{16}$" from top of M.R. Wall

$\frac{3}{8}$

Corian Adhesive in between screw and plug

$\frac{1}{4}$
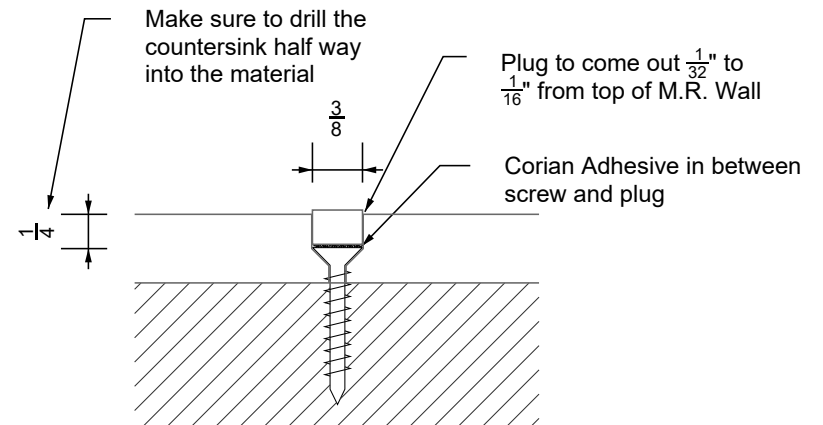
Step 1: Mark the location along the border where you want your screws to go. Make sure to mark an area where your screw will have a backing to screw into.

Step 2: Once on the wall, use a #10 galvanized screw for the countersunk hole. Make sure not to over torque.

Step 3: Squeeze matching Corian adhesive into the countersunk hole and use a plug to fill the hole. Adhesive should squeeze out from all of the edges.

Step 5: With a clean rag wipe excess adhesive away.

Step 5: Sand down the 1/16" reveal left from the plug to create a level, discreet border.

Plug and Screw Method:

- If plug is sticking up higher than 1/32":

1. Use a grinder to shave down the exposed plug.
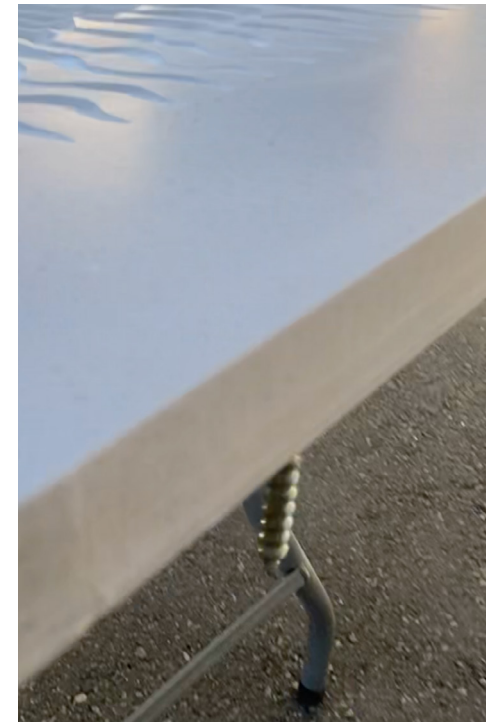**2.** Then finish with sanding.

Step 1: Plug sticking out more than 1/32".

Step 2: Use grinder to shave down the exposed plug.

Step 3: Use a high grit sander to finish the surface.

Step 4: Finished plug surface with screw below.

MARIO ROMANO | WALLS

Exposed Fastener Method:

- Exposed Fasteners allow you to screw directly through the panels.
- Unlike the plug and screw method, Exposed Fasteners are visible and removable.
- Exposed fasteners come in different sizes depending on the look you are trying to achieve.
- Best use for walls over 13'.

Typical Exposed Fastener

BioLegend, San Diego
- Typical Exposed Fastener close up shot, recessed

BioLegend, San Diego

10

French Cleat Method:
- A French Cleat is a hanging system where panels clip and interlock to the wall.
- Prefered applications are large exterior or interior walls that require back ventilation.

Example 1:
- Cleat Material: Corian cut at 45 degree angles.

Important: Attention to detail in matching the cleat's orientation to its counterpart

Example 1:
- Cleat Material: Pre-Fabricated Aluminum Channels
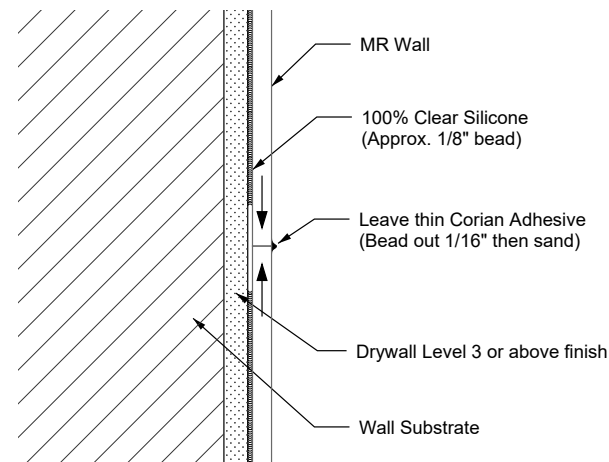 *can be purchase to fit your desired size.*

Important: Attention to detail in matching the cleat's orientation to its counterpart

11

Use this chart to determine which attachment method is best for your project.

	Bathrooms	Kitchens	Interior Walls	Backlight	Exterior Walls	Water Features	Walls over 13'
Silicone	X	X	X				
Plug and Screw			X	X	X	X	X
Exposed Fastener			X	X	X	X	X
French Cleat			X		X	X	X

- Use Corian adhesive to bond puzzle pieces.
- For all Border seams (Butt Joints) , apply adhesive **on the Panel Edge** and bring both panels together tightly. Let adhesive squeeze out then wipe with a rag. Let dry for 15-20 min
- **Do Not** apply adhesive along the groove edges. See pages 15-16 for topical groove application (to be done after border bonding).

MR Wall

100% Clear Silicone
(Approx. 1/8" bead)

Corian Adhesive
(Application on Edge)

Drywall Level 3 or above finish

Wall Substrate

MR Wall

100% Clear Silicone
(Approx. 1/8" bead)

Leave thin Corian Adhesive
(Bead out 1/16" then sand)

Drywall Level 3 or above finish

Wall Substrate
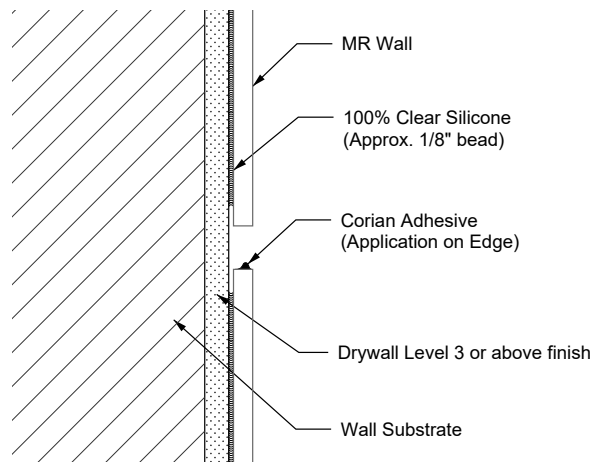
Texture will fade up to a flat border.

Apply Corian Adhesive along the border edge and bring panels together to let bead out. With a clean rag, wipe the excess adhesive away and sand once dry.

Do not apply adhesive on the groove edges.

13

MARIO ROMANO | WALLS
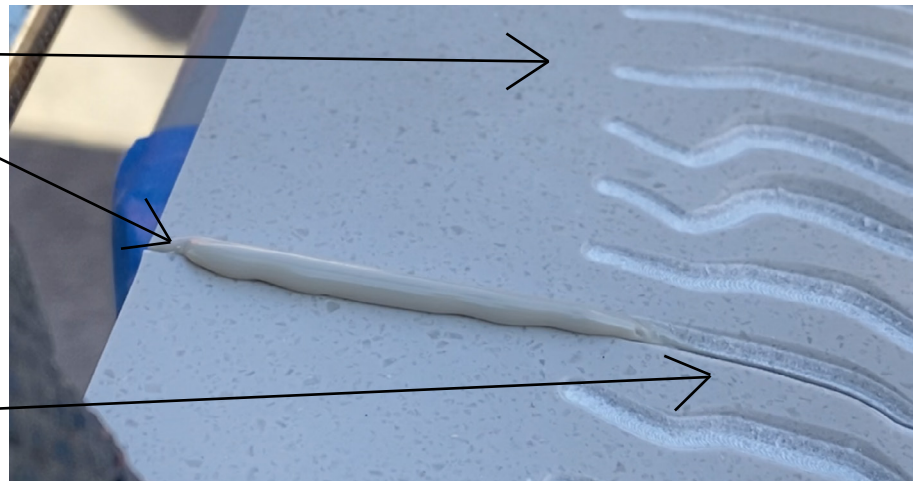
- Use Corian adhesive to bond puzzle pieces.
- ***TOPICALLY*** apply adhesive within the seam then wipe with a rag to remove excess adhesive. Let dry for 15-20 min.
- Remove your leveling technique and apply adhesive to the missing seam locations. Once dry, if necesary remove excess adhesive by sanding.

- For a video of how to apply adhesive click the following link: Standard Application
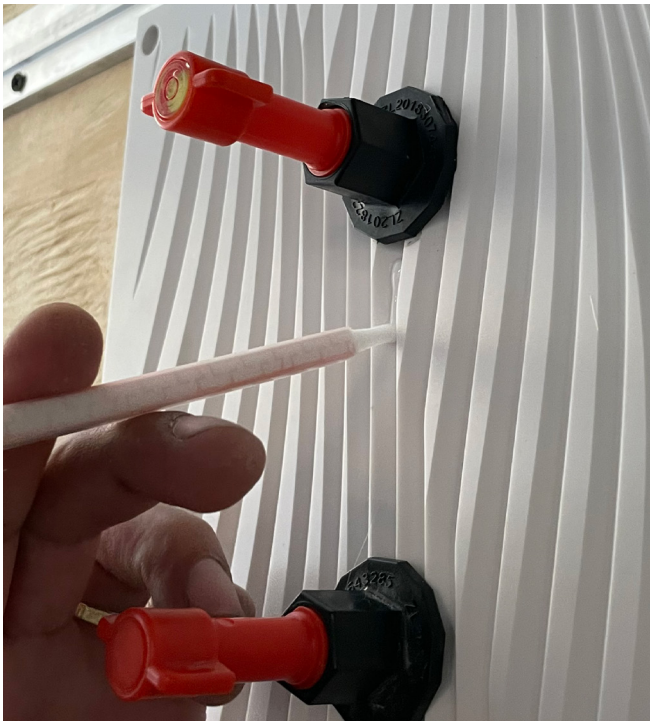
Step 1: Add the adhesive topically between the seams.

Step 2: With a clean rag, wipe excess adhesive, wait 15-20 min to dry.

Step 3: Remove levelers and repeat in missing locations.

- Use Corian adhesive to bond puzzle pieces.
- If Backlight, **ALWAYS** apply adhesive with the lights on to ensure not too much adhesive is applied.
- **TOPICALLY** apply adhesive within the seam then wipe with a rag to remove excess adhesive. Let dry for 15-20 min.
- Remove your leveling technique and apply adhesive to the missing seam locations. Once dry, if necesary, remove excess adhesive by sanding.

- For a video of how to apply adhesive click the following link: Backlight Application
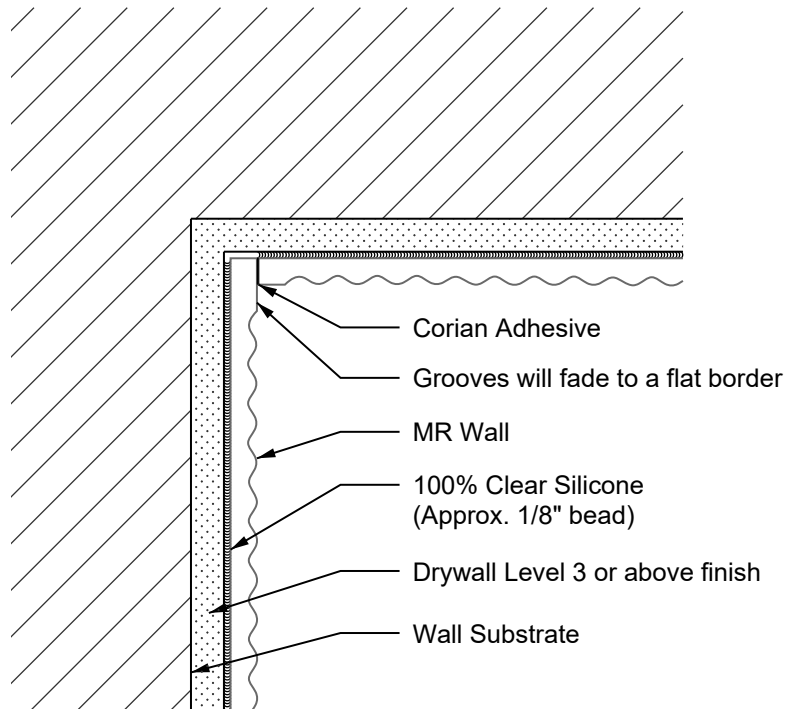

Add the adhesive topically between the seams.   Wipe excess adhesive, wait 15-20 min to dry.

15

MARIO ROMANO *WALLS*

Interior Corner Condition 1:
- M.R. Wall to M.R Wall

Corian Adhesive

Grooves will fade to a flat border

MR Wall

100% Clear Silicone
(Approx. 1/8" bead)

Drywall Level 3 or above finish

Wall Substrate

Interior Corner Condition 2:
- M.R. Wall to other flat finish

Color matching caulking

1/8" Gap for walls up to 20' in length
1/4" Gap for walls up tp 40' in length

Grooves will fade to a flat border

MR Wall

100% Clear Silicone (Approx. 1/8" bead)

Drywall Level 3 or above finish

Wall Substrate

16
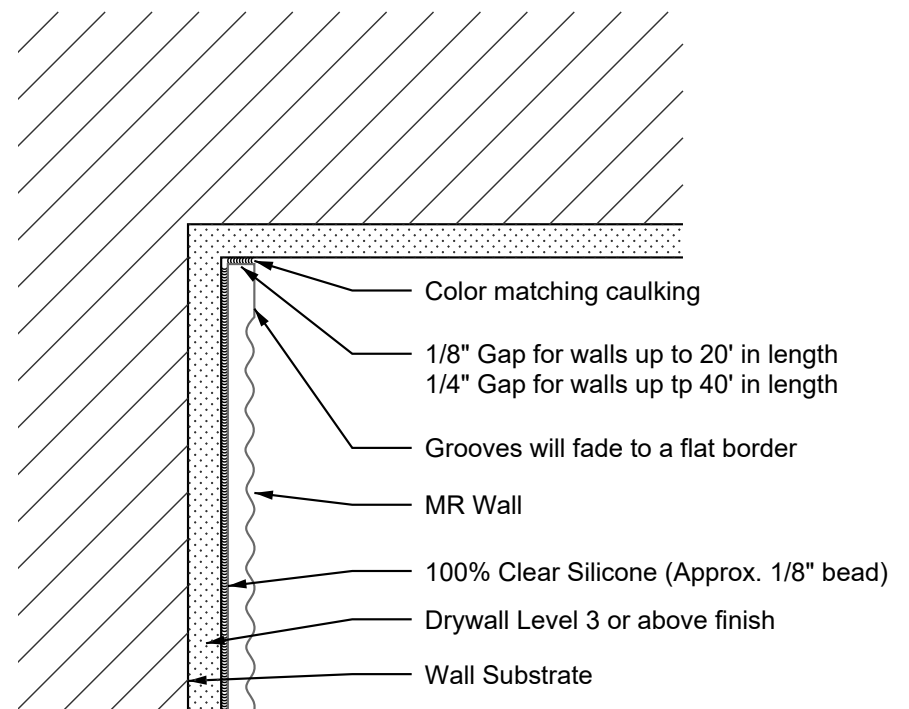
Outside Corner Condition 1:
- M.R. Wall to other flat finish

Finished Wall/Paint
Scribe with router
1
MR Wall
100% Clear Silicone (Approx. 1/8" bead)
Drywall Level 3 finish or above
Wall Substrate
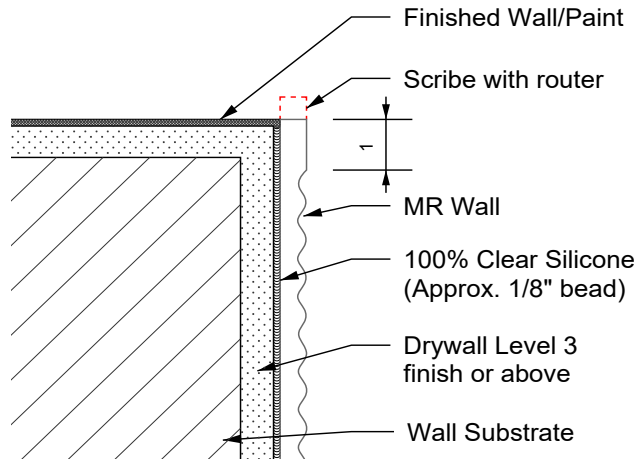
Outside Corner Condition 2:
- M.R. Wall to M.R. Wall

MR Wall
1
Scribe with router
Corian Adhesive
1
MR Wall
100% Clear Silicone (Approx. 1/8" bead)
Drywall Level 3 finish or above
Wall Substrate
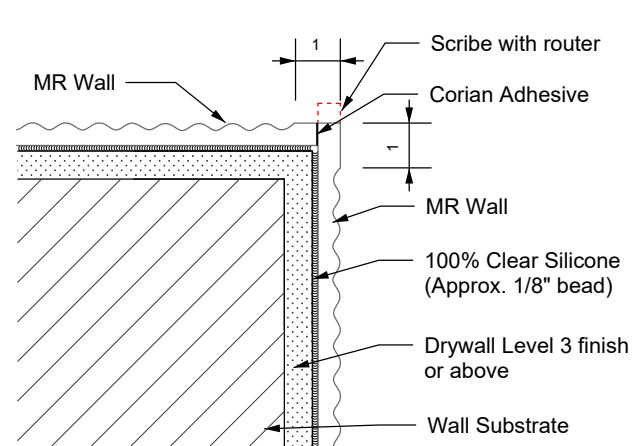
Outside Corner Condition 2 Example:

- M.R. Wall to M.R. Wall

Add same colored corian adhesive to the butt joint seam.
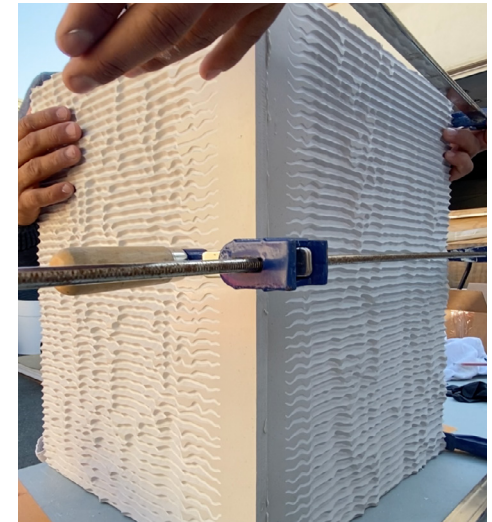
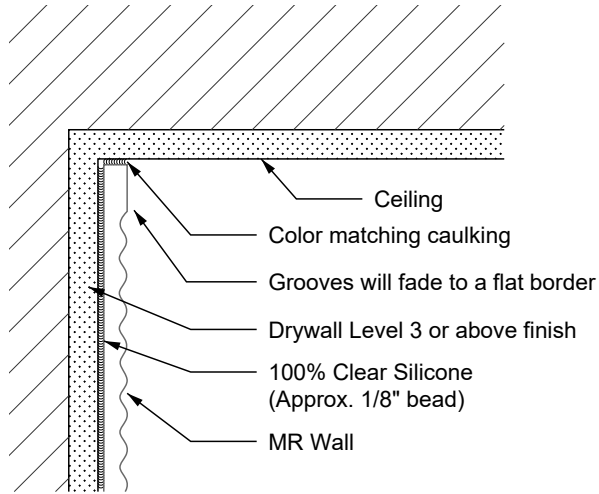Squeeze butt joint together until adhesive beads out.

Tighten butt joint seam with pressure. With a rag wipe the excess adhesive.
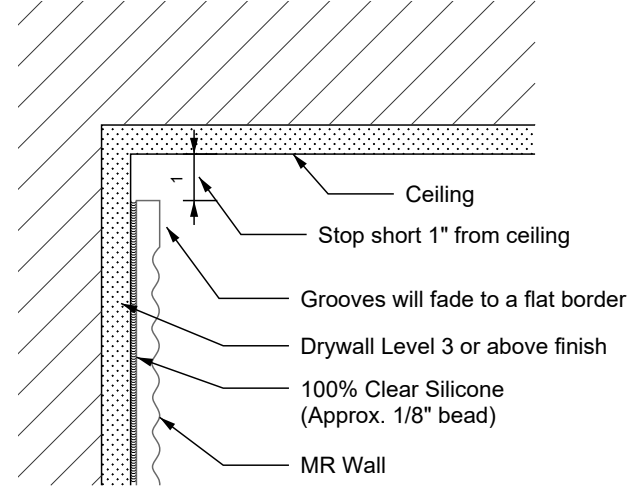
17

Top Edge Condition 1
- M.R. Wall to Ceiling

Ceiling
Color matching caulking
Grooves will fade to a flat border
Drywall Level 3 or above finish
100% Clear Silicone (Approx. 1/8" bead)
MR Wall

Top Edge Condition 2:
- Floating M.R. Wall

Ceiling
Stop short 1" from ceiling
Grooves will fade to a flat border
Drywall Level 3 or above finish
100% Clear Silicone (Approx. 1/8" bead)
MR Wall

Top Edge Condition 3:
- M.R. Wall with Light Fixture

LED
Ceiling
LED Light Fixture to be <6" away from M.R. Wall
Stop short 1" from ceiling
Grooves will fade to a flat border
Drywall Level 3 or above finish
100% Clear Silicone (Approx. 1/8" bead)
MR Wall
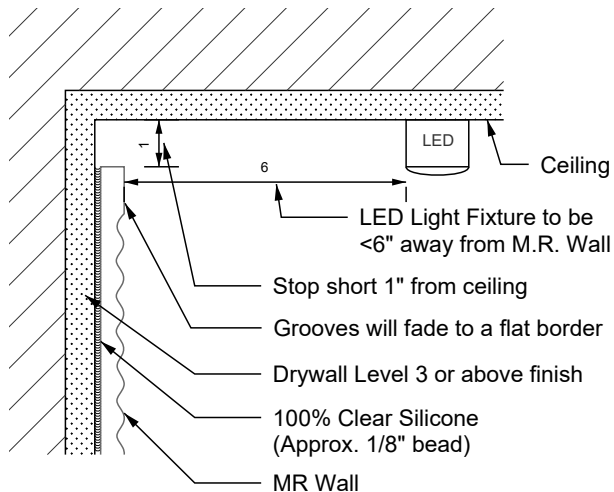
Top Edge Condition 4:
- M.R. Wall with Cove

Ceiling
Stop short 1" from ceiling
Grooves will fade to a flat border
Drywall Level 3 or above finish
100% Clear Silicone (Approx. 1/8" bead)
MR Wall

18

MARIO ROMANO WALLS
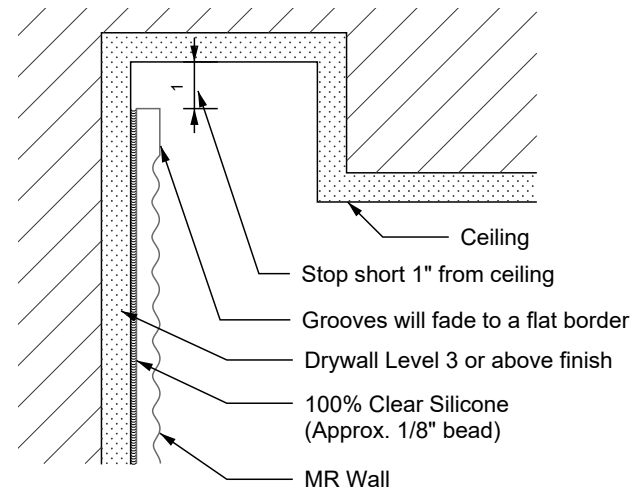
Bottom Edge Condition 1:
- M.R. Wall to Level floor

Drywall Level 3 or above finish

MR Wall

100% Clear Silicone
(Approx. 1/8" bead)

Grooves will fade to a flat border

Color matching caulking

Level Finished Floor
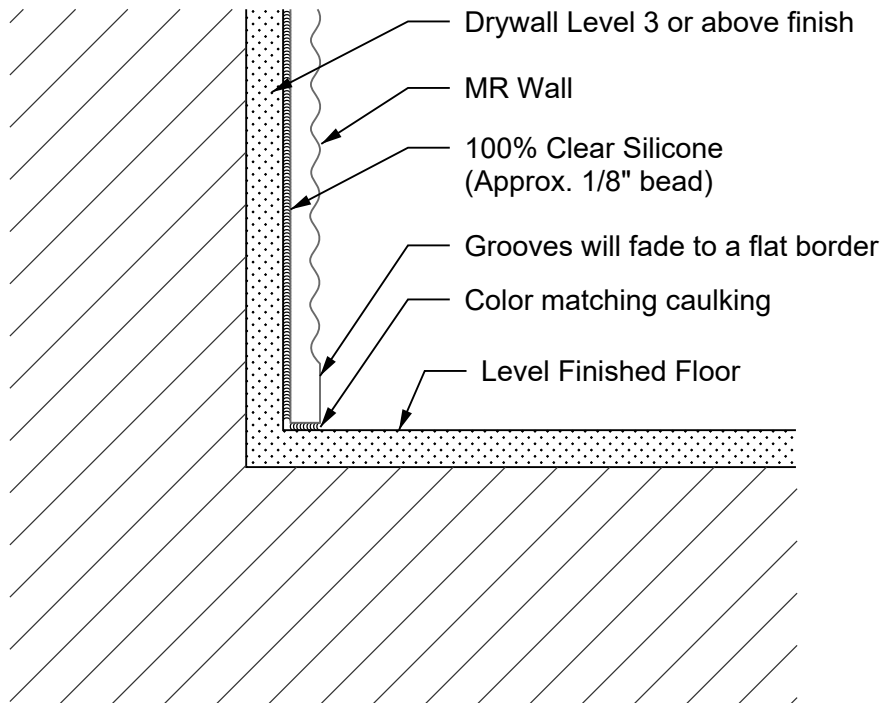
Bottom Edge Condition 2:
- Elevated M.R. Wall using J Mold

Drywall Level 3 or above finish

MR Wall

100% Clear Silicone
(Approx. 1/8" bead)

Grooves will fade to a flat border

J Molding (5/8") screwed into backing

Level Finished Floor

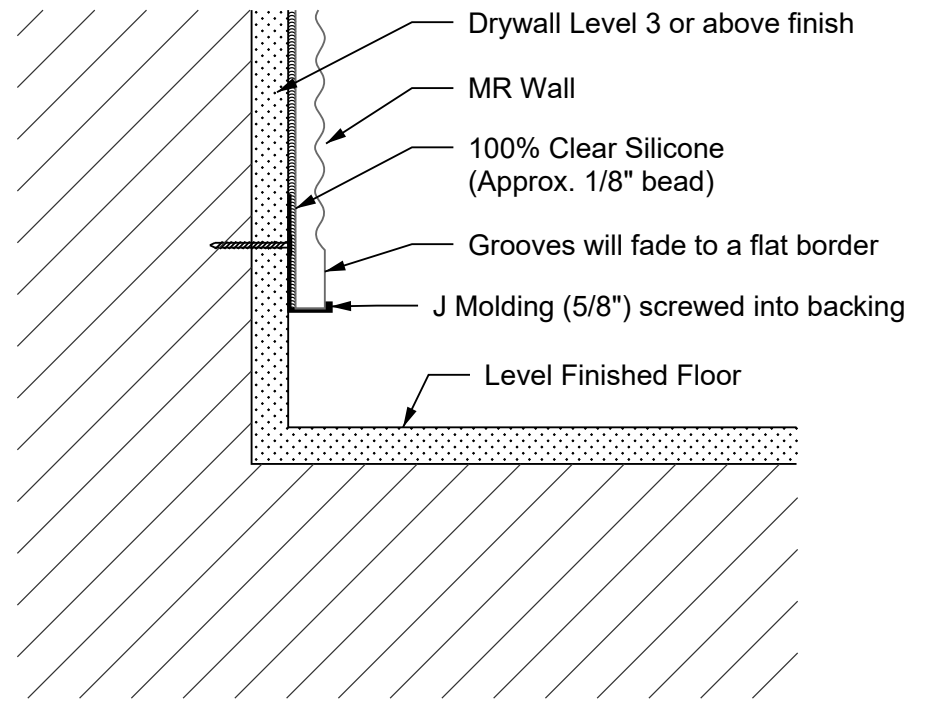**19**

1.
2"x4" Build out
2"x4" Build out

2.
2"x4" Build out

Build Frame with 3" gap on top and bottom for LED access and ventilation

2"x4" Build out

3.
LED Strips 5" off center and 5" offset from project edge

Keep LED lights ON Throughout entire install.

4.
Clear Acrylic Stiffeners

5.
Attach Panels Countersink screws

A

Access to wiring from top

Access to wiring from bottom

B

A

B

6.
Tack weld seams using. Solid surface adhesive (Matching color)

In the case where your panels run horizontally instead of vertically, the frame will be orientated left to right instead of bottom to top. LED layout will stay the same, vertically.

Diagram labels (top to bottom):
- 3.00
- 3" Gap from ceiling to M.R. Wall for LED access and ventilation
- Stud
- Airflow
- LED Strip at 5" apart [Refer to Wiring Diagram]
- 1/2" thick M.R. Wall
- Project Wall Scope Height
- M.R. Wall Height
- 90.00
- 96.00
- 3.00
- M.R. Wall to be 3" away from wall for proper light diffusion
- 3" Gap from finished florr to M.R. Wall for LED access and ventilation
- 3.00
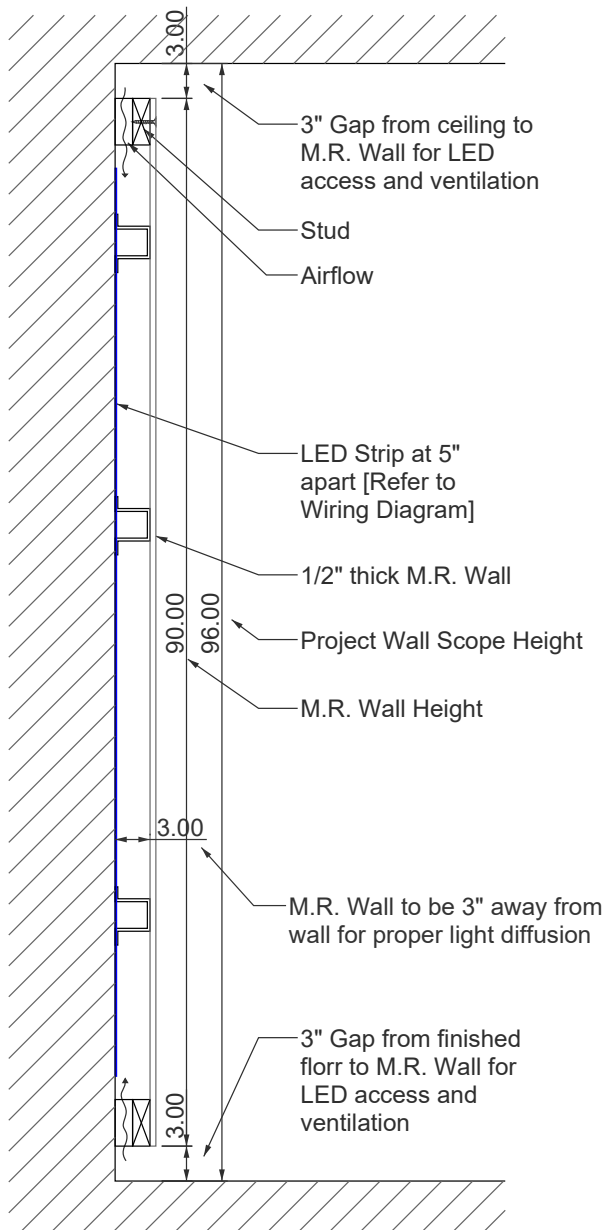
Access and Ventilation

- For all M.R. Walls Backlight walls, a 3" gap is required for access and ventilation.
- 3" on top and bottom is enough spacing between the ceiling and finished floor for you to be able to reach behind the M.R. Wall in case a light needs to be replaced.

Finishing Details

- If prefered, the top and bottom gaps can be capped using a ***removable*** thin material such as: 1/8" White coated APC or a thin piece of Plywood.
- If prefered, on the left and right returns a 3" Corian returns can be used to cap the

21

Framing:

- Backlight Framing needs to allow the M.R. Wall panels to float 3" from the surface

- Use Block Studs, evenly spaced out and a long horizontal stud to bring forward the M.R. Wall Surface. It is very important that the block studs and long horizontal stud add up to 3".

- Block Studs allow the top and bottom to have access and ventilation if needed.

Step 1: Screw in block stud to wall

Step 2: Spacing between block studs can vary depending on wall size

Step 3: Screw in long horizontal stud to wood studs to create access and ventilation gap

LED Strip at 5" apart [Refer to wiring diagram]

24"

5.00

3.00   3.00

0.50   0.50

Wood Stud Block to raise surface from wall and give access to LED strips and for ventilation

Long Wood Stud to allow MR Wall to drilled into

Leave 1/2" from M.R. Wall edge to studs to allow for the install of a Corian return strip
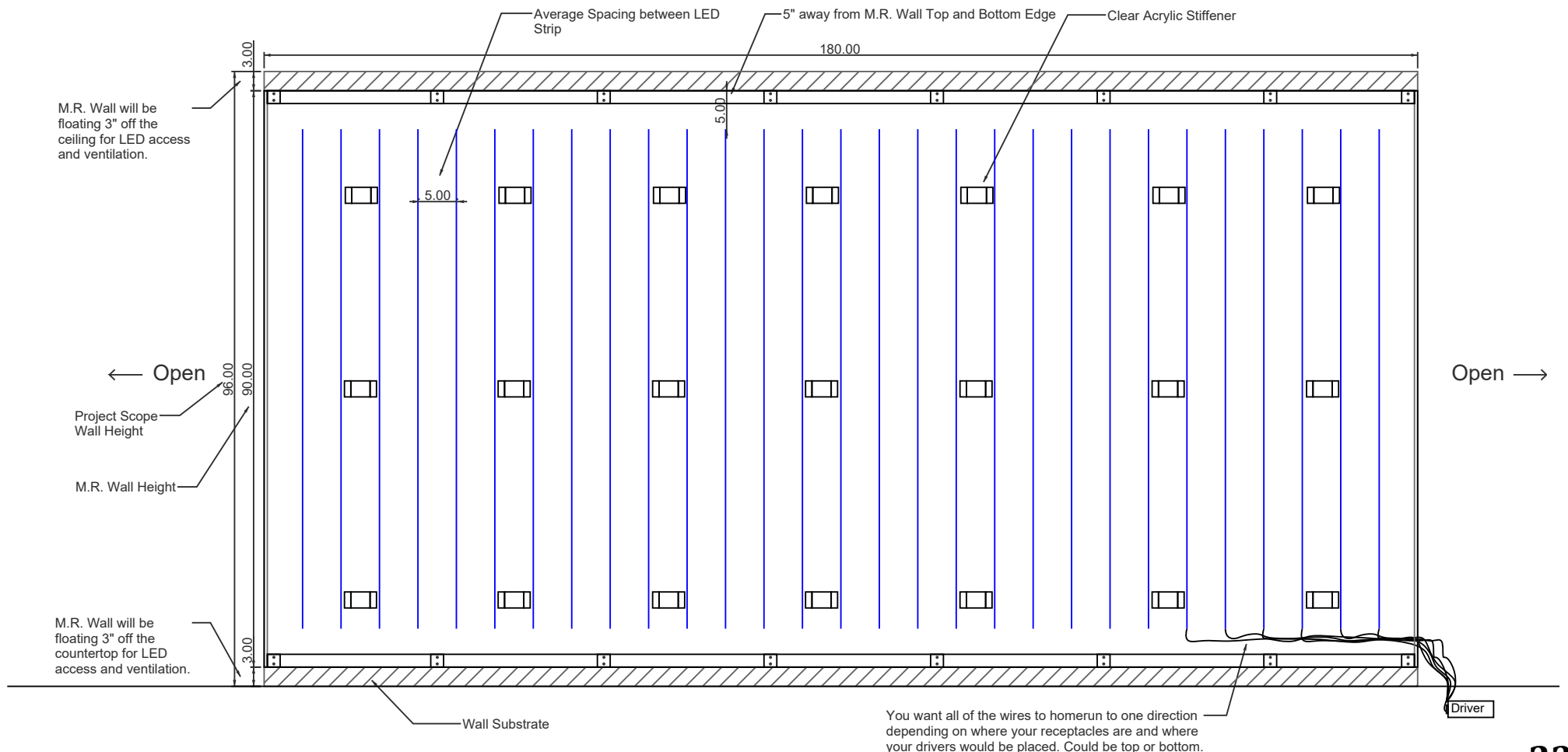
Clear Acrylic Stiffeners:

- Similar to the backlight framing, Clear Acrylic Stiffeners are meant to support M.R. Wall Panels exactly 3" from the back wall.

- Acrylic Stiffeners should be placed along the seams for additional support.

- Will be supplied by M.R. Walls.

LED Spacing

- Each LED strip should be placed 5" on center away from each other to allow for a balanced backlight.

- Each LED strip should be placed 5" away from all M.R. Wall Edges.

- Acrylic Stiffeners will be supplied by M.R. Walls.

Average Spacing between LED Strip

5" away from M.R. Wall Top and Bottom Edge

Clear Acrylic Stiffener

180.00

3.00

M.R. Wall will be floating 3" off the ceiling for LED access and ventilation.

5.00

5.00

← Open

Open →

96.00   90.00

Project Scope Wall Height

M.R. Wall Height

3.00

M.R. Wall will be floating 3" off the countertop for LED access and ventilation.

Wall Substrate

You want all of the wires to homerun to one direction depending on where your receptacles are and where your drivers would be placed. Could be top or bottom.

Driver

23

In Progress Backlight Installation

- Acrylic Stiffeners are fabricated to support M.R. Wall
  Panels exactly 3" from the back wall.
- LED Strips are placed 5" on center away from
  each other.
- Puzzle Pieces are horizontal: framing is built out on the
  left and right.
- Panels are floating 3" on bottom and top to allow for
  LED access and Ventilation.

Light Switch Detail

- Offset edge with a fade to untextured border

- Offset edge can vary upon request

- Can be routed out in the field or pre-programmed
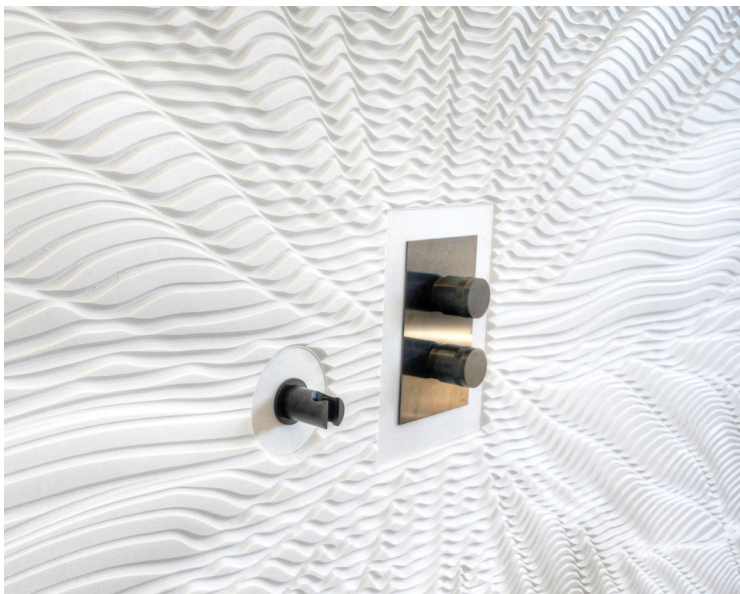
- Recommend to do in the field

Outlet Detail

- No offset edge or border

- Can be routed out in the field or pre-programmed

- Recommend to do in the field

Recessed Shower Glass Trim

- Can be routed out in the field or pre-programmed

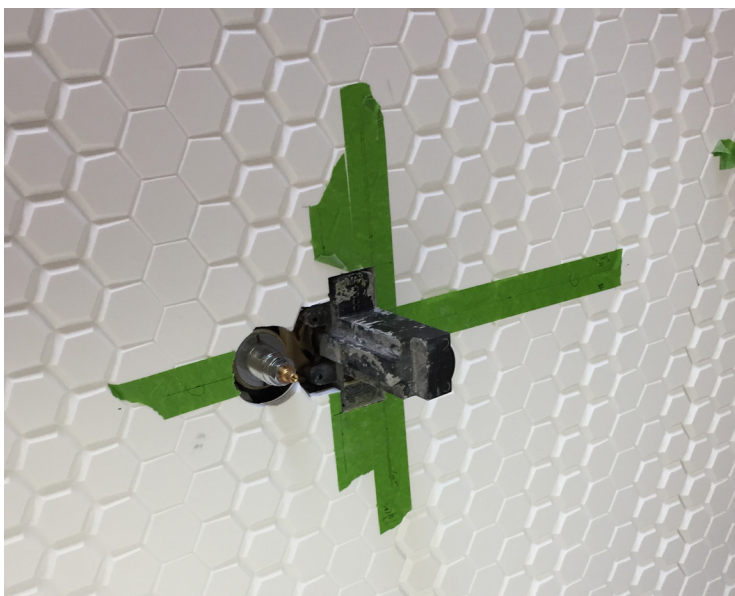- Recommend to do in the field

Plumbing Fixture

- Recessed Border

- Can be routed out in the field or pre-programmed

- Recommend to do in the field

Shower Fixture Cut Out

- Template your M.R. Wall using tape.
- Can be routed out in the field with regular wood working tools or pre-programmed.
- Recommend to do in the field.

Shower Fixture Cut Out

- Template your M.R. Wall using tape.
- Tip: Mark your surface with a cross pattern to make sure you are cutting level.
- Can be routed out in the field with regular wood working tools or pre-programmed.
- Recommend to do in the field
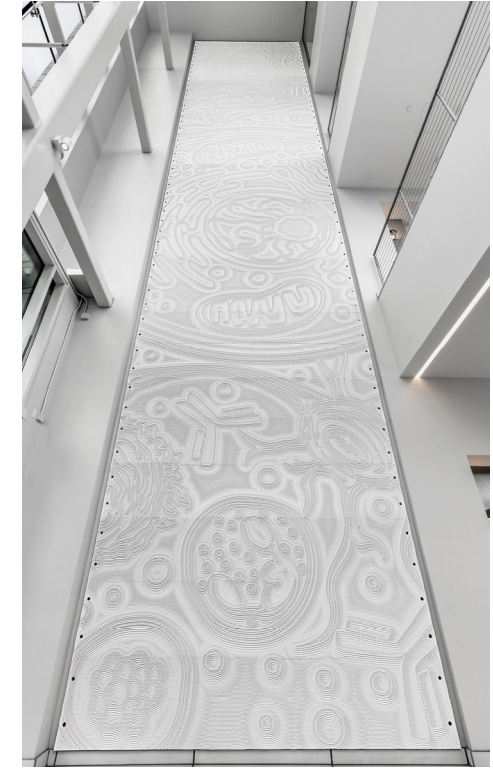
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- Always carry panels vertically to avoid snapping towards the middle.

- Always carry panels with two people

- Make sure to dry-fit panels before installing. This step will help you see how the seams come together and disapear.

- Previous to install it is important to Wall Prep. Make sure that your final surface is a Level 3 finish or above.

- Method of attachments: Exposed Fastener

- For walls over 13', install using a *Vented Rain Screen* to allow for ventilation.

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Leveling the faces using the stitching method

- Tip: You can use blue tape between the panel and flat bracing material to remove hot glue easier
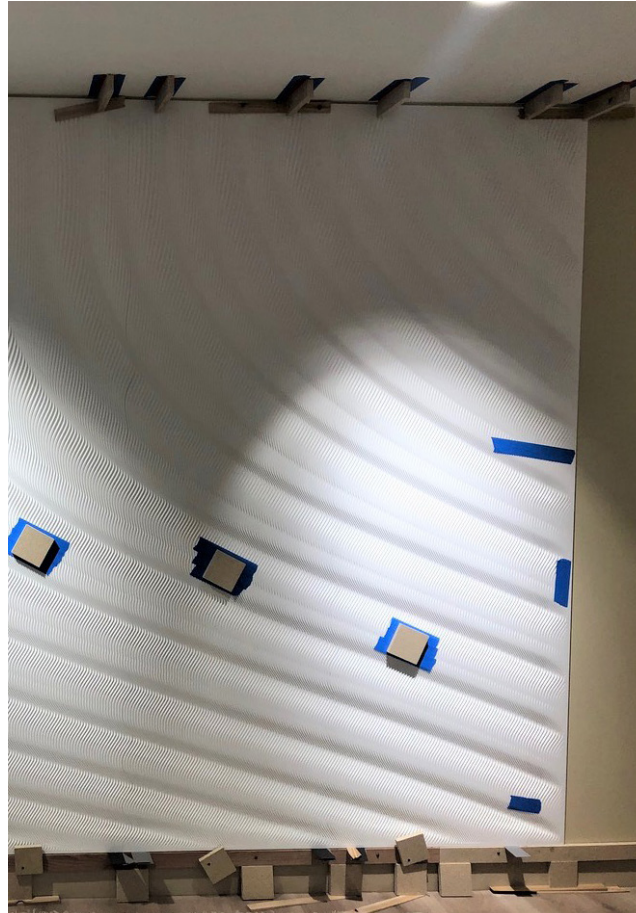
Install with the lights on. Harsh light brings out the unleveled seams

Panels are floating off the floor using a long level piece of wood

Panels are also held up on top with wood shims to apply pressure above.

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Video Links:

Attachment Methods

- Plug and Screw

Adhesive and Wipe

- Backlight

- Standard

Backlight Installation

- Full Backlight Install Video

- LED Wiring Guide

Standard Installation

- Quick 6 piece shower Install Video

- Large Wall Installation