



PANEL REPAIRS

TECHNICAL BULLETIN

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SCRATCHES, DENTS AND PAINT DAMAGE REPAIR

How and if a repair needs to be conducted is dependent on how severe the damage is. It is important to remember the criteria and definition of the damage and what is acceptable can be subjective.

1. Minor scratches or dents: As a general rule if the damage is only aesthetic and cannot be seen from 8' or it's intended installed location under good light (which ever is greater), no repair is suggested. Minor dents will not affect the thermal and moisture performance of the panel.
2. Scratches penetrating the galvanized or Galvalume coating: These scratches need to be touched up.
3. Severe dents or penetration of the panel face: This type of damage requires repair. There are various options; a localized patch, overlay with a new panel skin or replacing the panel.
4. Paint damage: Damage to the panels topcoat, but does not penetrate to the galvanized or Galvalume base coating, is an aesthetic issue. Touching up this type of paint damage is difficult due to the gloss differences between the factory and field applied coating. The coating used to conduct these repairs will need to have the same weathering characteristics as the factory applied paint. Although there may be a gloss differential between factory and field applied coatings from this repair, the general rule is that, over time, the finishes are expected to blend quite well. Similar to item 1, the touchup of the panel face will not affect the thermal and moisture performance of the panel.

Caution note: to minimize visible color and gloss differences between the original paint and the touch-up paint, apply the touch-up paint point only within the actual scratch. Do not spread it beyond the scratch.

Note: Metl-Span does not provide-touch up paint for metallic finishes.

PANEL "HOLE" REPAIR PROCEDURE

This is a repair procedure for the damaged panels. This will require some skill and care to minimize the appearance of the repair, but the repair will still be visible. The quality of the repair and the viewing distance of these panels will determine if the repair will be noticeable.

1. Place a small piece of painters tape over the hole.
2. Using a sharp pointed blade such as an "X-acto" craft knife, cut away only the tape covering the hole.
3. Make sure the edge of the hole is clean, then fill the hole using a color matched one part polyurethane sealant.
4. Tool the sealant flat, and allow the sealant to set.
5. Carefully remove the painter tape, you may need to use the craft knife to remove excess sealant on the tape if the tape does not release from the sealant in the hole. If a color matched sealant is not available, then use touch up paint on the sealant after it has cured.
6. Before applying the touch up paint, use painter's tape to mask undamaged surfaces.
7. Only apply touch up paint on the sealant, as touch up paint will not weather as well as factory finishes.

PANEL PATCH REPAIR

To patch holes in the panels less than 12" in diameter, will require cover plates for both faces, color matched rivets, polyurethane foam, one-part polyurethane sealant, denatured alcohol, and painters tape.

First:

1. Make a cover plate large enough to cover the hole. The plate should overlap the surrounding edges of the hole by at least 1 ½". The plate should have a closed hem on all exposed edges.
2. Flatten any projecting or distorted metal which prevents cover plate from lying flat on wall surface. Clean the surface of the panel where the plate will be applied and the backside of the plate with denatured alcohol.

Next:

1. Dry fit the patch (exterior cover plate) to the panel face, mark where the edges of the patch will be located. Then drill the rivet holes. The rivets should be installed ¾ to 1" from the outer edges of the patch.
2. Apply painters tape along marks on the panel face and the edge of the plate. The painters tape will protect the exposed surface of the panel and plate from sealants that may extrude from behind the patch.
3. Apply a continuous ¼" diameter bead of polyurethane sealant along the interior edge of the patch. The bead should be located ¾" from the outer edge of the patch. Then apply the same size bead around the hole in the panel.
4. Apply the patch to the panel face and attach using rivets. Allow at least 30 minutes cure time before continuing with the next steps.

Then:

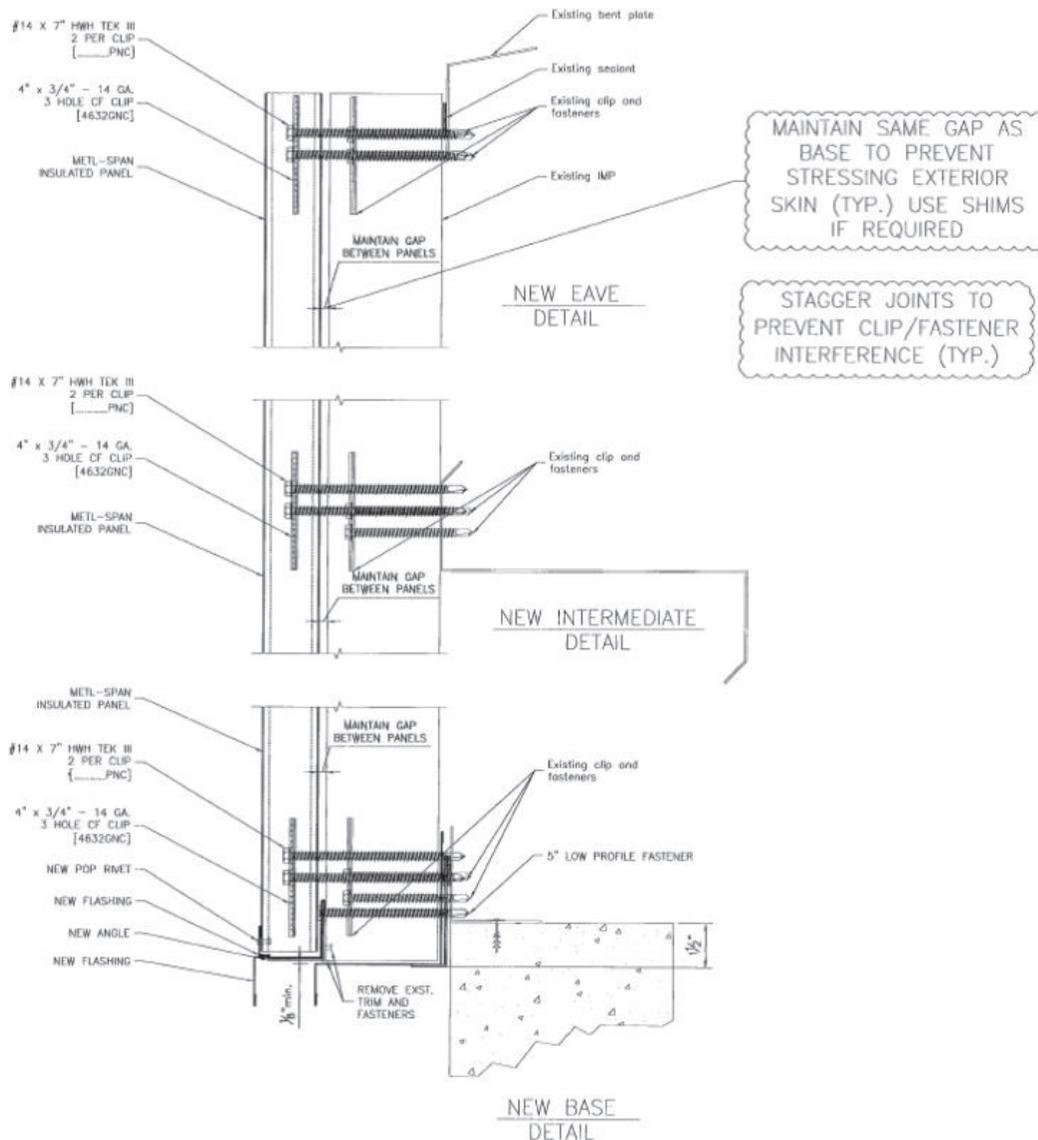
1. Mask interior panel surface from foam spillage.
2. Repeat steps above for the interior patch (interior cover plate).
3. Inject the field applied polyurethane foam. Be careful not to inject too much foam as the foam will continue to rise and increase in volume for several minutes. It may be wise to test to determine how much foam is needs to be injected. Shave off excess flush with wall surface.

PANEL PATCH REPAIR

Final:

Install interior cover plate using the same steps provided for the exterior cover plate.

1. Remove painters tape. If the sealant has bonded to the tape, using light pressure run a sharp blade along the edge of the patch.
2. If needed, use a color matched touch up paint on any exposed sealants. The sealant will need to have cured for 24 hours before applying touch up paint. Use painters tape to protect and limit where the touch up is applied.

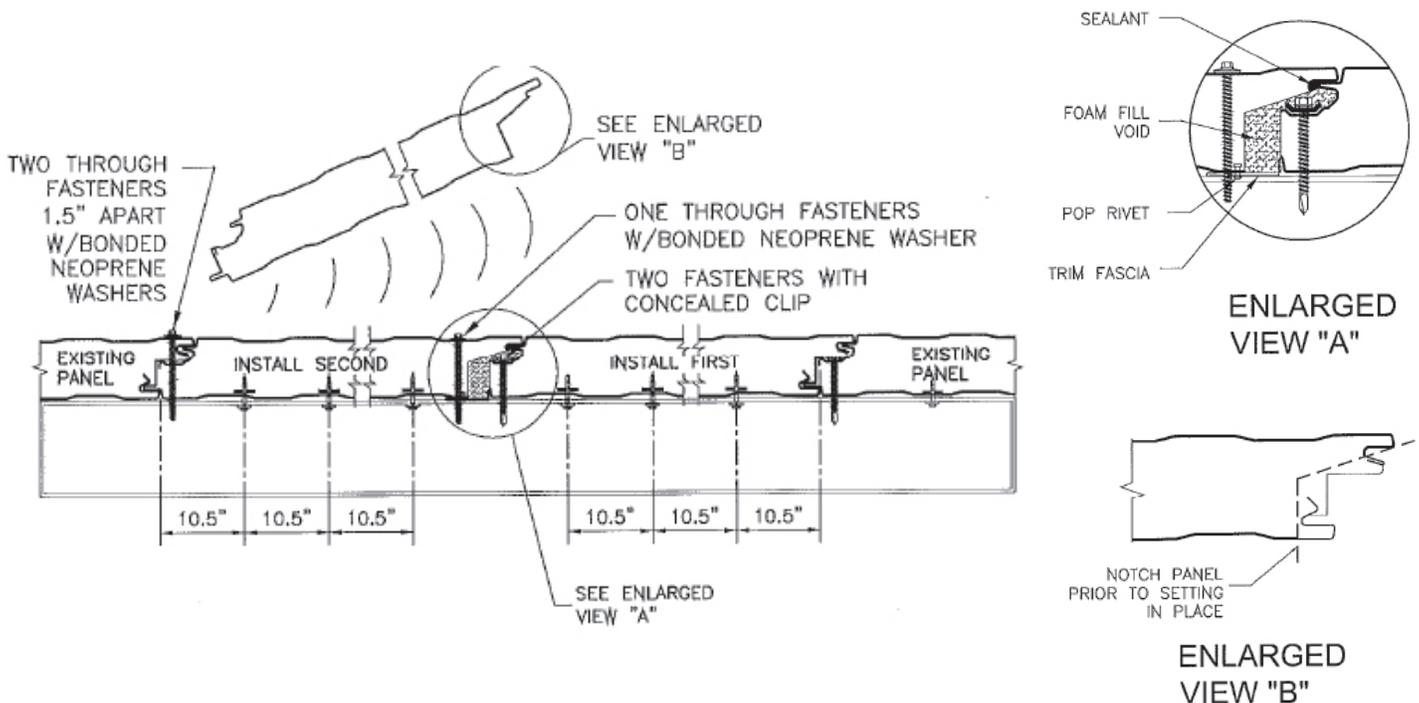


REPAIR OF MID-SPAN PANEL

A Mid-span panel repair requires the removal of two insulated metal panels. This requires removal of the damaged panel (panel #1) and removal of the next consecutive panel (panel #2) in order of application, which is typically left-to-right. Reverse the process if panels were installed right-to-left.

1. The concealed clip fasteners and any Fab-lok type fasteners and girt clips are removed or cut, to free the panels, from their supports. Panel #1 is then removed and discarded. Panel #2 is then carefully removed and set aside to be reused.
2. The first replacement panel is then installed according to the original panel installation procedures and fastening patterns stated on the project's installation drawings or according to the panel and wind analysis from Metl-Span or the project's engineer of record using concealed clips and fasteners. (Fab-lok type fasteners as required.)
3. Panel #2 must be notched before attempting to install. (See diagram)
4. Panel #2 is then set in place (male edge first) and fastened at each support with through fasteners with bonded neoprene washers. (see diagram) (Fab-lok type fasteners as required.)
5. Trim fascia should be installed with pop rivets and the void left between Panel #1 and Panel #2, due to notching Panel #2, should be foam filled with FIP insulation.

Any questions, concerns, or comments regarding this procedure should be directed to Metl-Span's Technical Service Department prior to attempting any repairs.



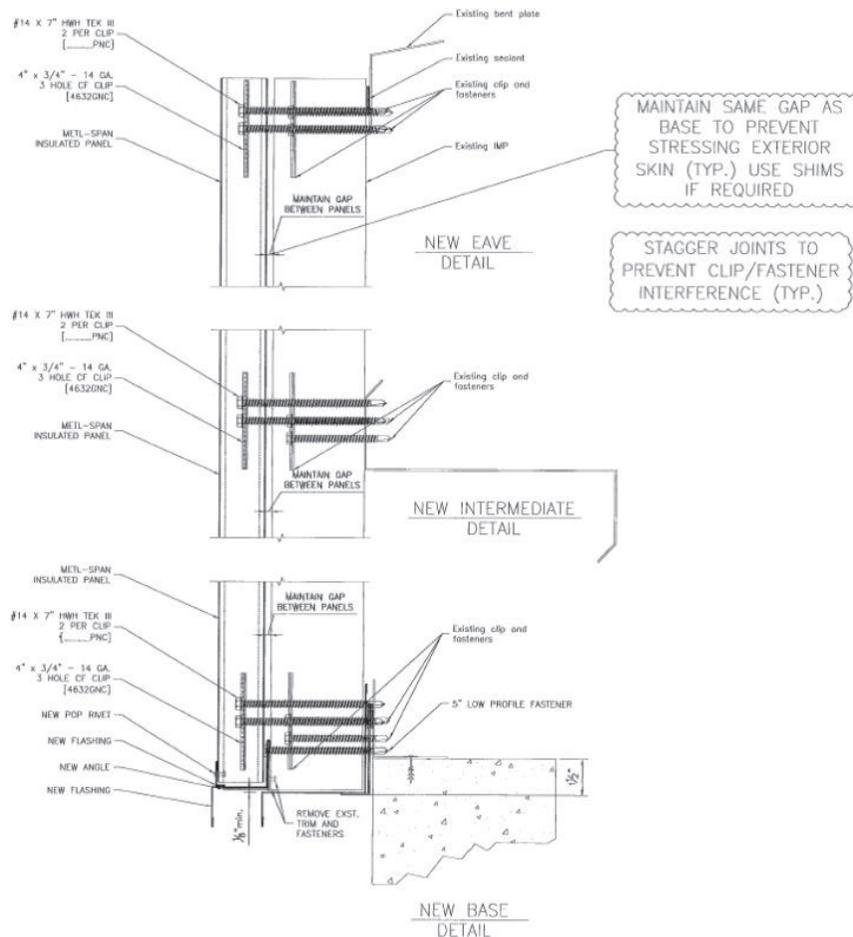
PANEL OVERLAY

Metl-Span has furnished insulated metal wall panels that have been successfully installed over product that has been considered aesthetically or structurally unacceptable. This bulletin applies to conditions where new wall panels are applied over existing wall panels.

Depending on project requirements, through fastening or panel side joint clips and hidden fasteners may be utilized. Fastening options must be analyzed to make certain they meet the project's wind pressure requirements.

Depending on interior operating temperatures and job site climatic conditions, condensation may occur in the gaps between the existing product and the overlay panels. The project will have to be detailed to minimize condensation and to allow for drainage of any moisture to ensure structural and thermal integrity of the installation is not compromised.

Metl-Span will furnish details for all conditions involved in the overlay procedure. The details below represent one example of the overlay details Metl-Span may furnish. These details may be modified to fit specific project requirements.





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