

I. General

1. The following guidelines provide basic assembly and installation instructions for standard Nailor Extruded Aluminum Penthouses. Nailor penthouses are designed to resist a 25 psf wind load.
2. Consult with the Engineer of record for the size, type and quantity of anchors required to secure the penthouse to the surrounding condition.
3. Refer to job specific submittal drawings for additional details when provided.
4. Carefully lift penthouse sections by their frames or support members using multiple lifting points if necessary to avoid distortion, racking or damage.
WARNING: Do not apply excessive force to a single point and never lift units by louver blades to avoid racking or deformation of equipment and components. Take necessary precautions to prevent damaging the penthouse finish.
5. Caulk and anchors are by others. Proper isolation (by others) is recommended between aluminum penthouse components and steel building conditions to prevent corrosion.
6. Coordinate curb details (by others) based on Nailor Extruded Aluminum Penthouse specifications and installation instructions.

II. Receiving

Upon delivery, inspect shipping containers and contents closely. If containers are damaged, contents may also be damaged. Note any damage on freight carrier's delivery receipt. Contact the freight company within 24 hours to initiate a claim and schedule an inspection. All products ship F.O.B Nailor plant and the receiver of the shipment is responsible for filing freight claims with the freight company.

III. Storage

Store penthouses in a cool, dry, and safe location in an orderly manner away from construction sites, warehouse traffic, other materials, etc. to prevent damage. Do not expose penthouses to excessive heat. Cover with plastic sheeting to protect from excessive moisture, dirt and debris.

IV. Preparation

1. Penthouses and Hardware
 - a. Locate all crates, boxes, cartons, etc.
 - b. Remove penthouses from packaging, inspect for damage, confirm quantities and sizes with packing list and organize parts in order of installation. Small penthouses may be shipped fully assembled. Larger units will be shipped in sections and assembled at the job site.
 - c. Notify your Nailor sales representative immediately of any shortages should they occur.
2. Openings and Curb
 - a. Inspect openings and curb (by others), for damage. Repair as needed and remove obstructions and debris as required.
 - b. Verify that the penthouse will fit prior to installation.
 - a. For mitered corner penthouses (1600PHM), the louver HBSA (Hidden Blade Support Angle) should extend inside the curb for attachment, with the louver blades extending beyond the front of the curb.
 - b. For boxed corner penthouses (1600PHB), the louver sill frames rest on the curb with the HBSA extending inside the curb for attachment.

V. Single Section Penthouse Installation

1. If required for proper installation, remove the penthouse roof panel(s) from the assembly, taking care not to rack or deform the assembly.
2. Ensure the top of the curb is free from dirt and debris.
3. Place the penthouse assembly on the curb.
4. Anchor the penthouse to the curb. Clip angles and fasteners for clip angle/penthouse connection are provided by Nailor. Fasteners for clip angle/curb connection are **NOT** provided by Nailor. **See Fig. 1.1M and Fig. 1.1B.**
5. If required, re-install the roof panels to the penthouse assembly using the same fasteners provided from the factory.
6. Caulk around the entire perimeter of the roof panel(s), as required (caulk by others).
WARNING: Do not caulk between louver and sill flashing to allow for drainage.

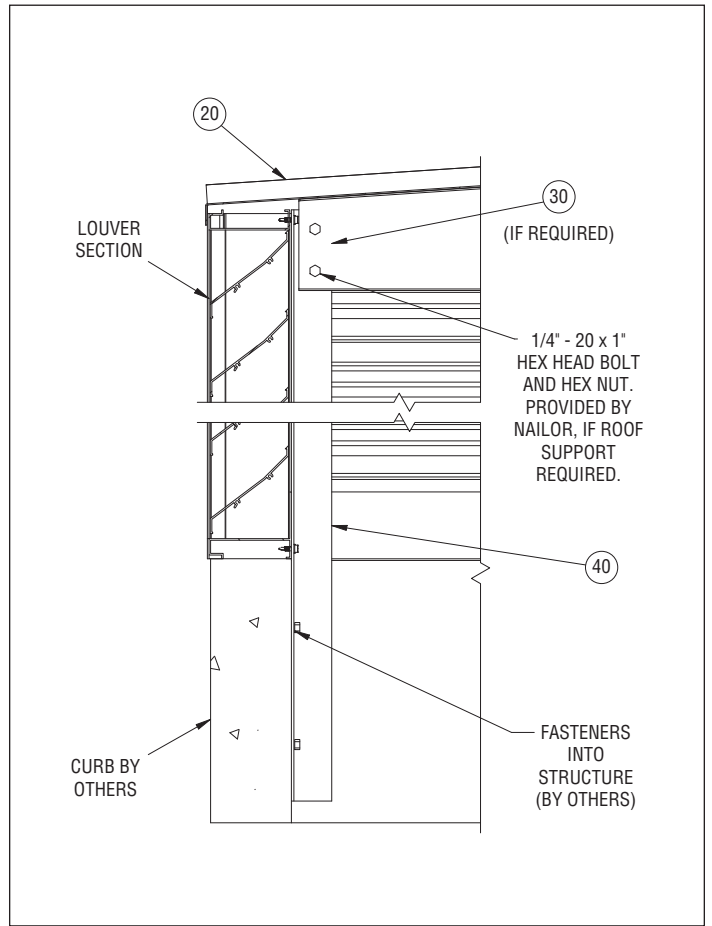
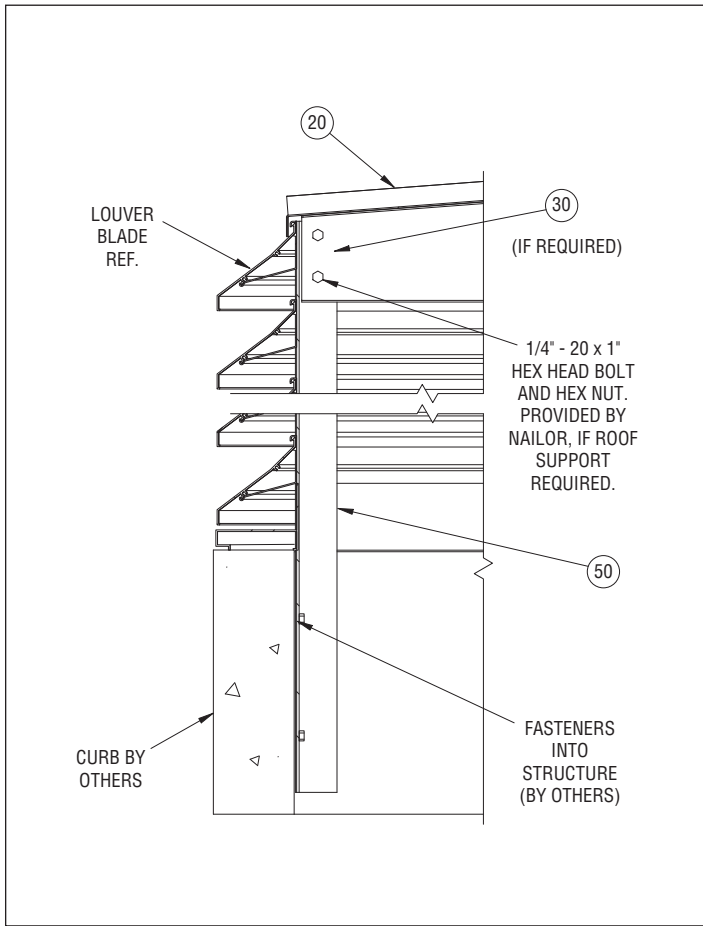


Fig. 1.1M

Fig. 1.1B

VI. Multiple Section Penthouse Installation

1. Ensure the top of the curb is free from dirt and debris.
2. Position the penthouse sections around curb as they will be installed. On large units with sides composed of multiple sections, locate the tag numbers on each section and place consecutive numbered sections in order. Reference any job specific drawings, if provided.
3. Assemble the short sides of the penthouse. On 1600PHM mitered corner units, assemble the corners to the short sides.
4. Reference **Fig. 2.1M** for 1600PHM section connection and **Fig. 2.1B** for 1600PHB connection.
 - a. **Note:** Short sides and corners may be provided from the factory pre-assembled in a "U" shape.

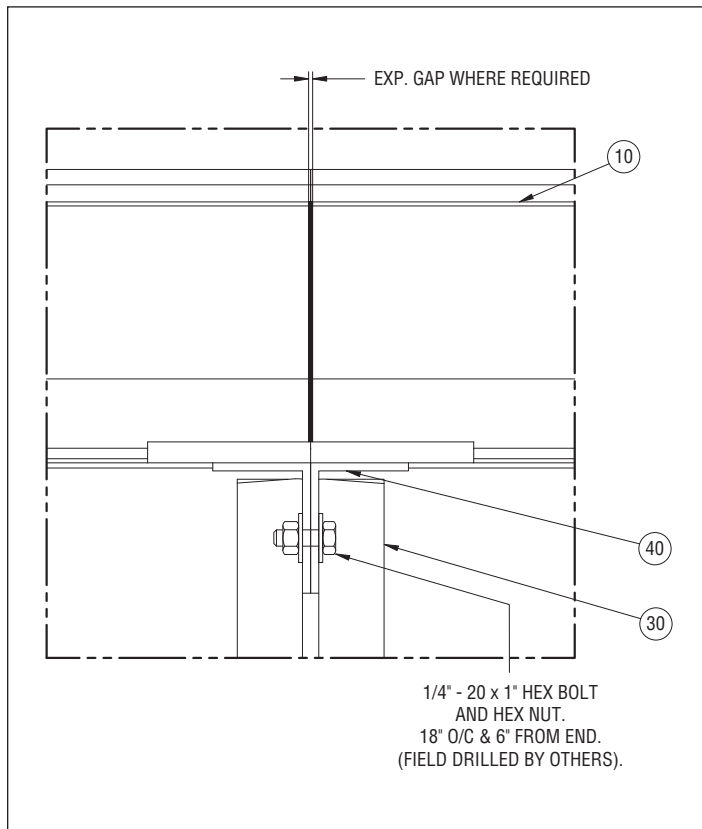


Fig. 2.1M

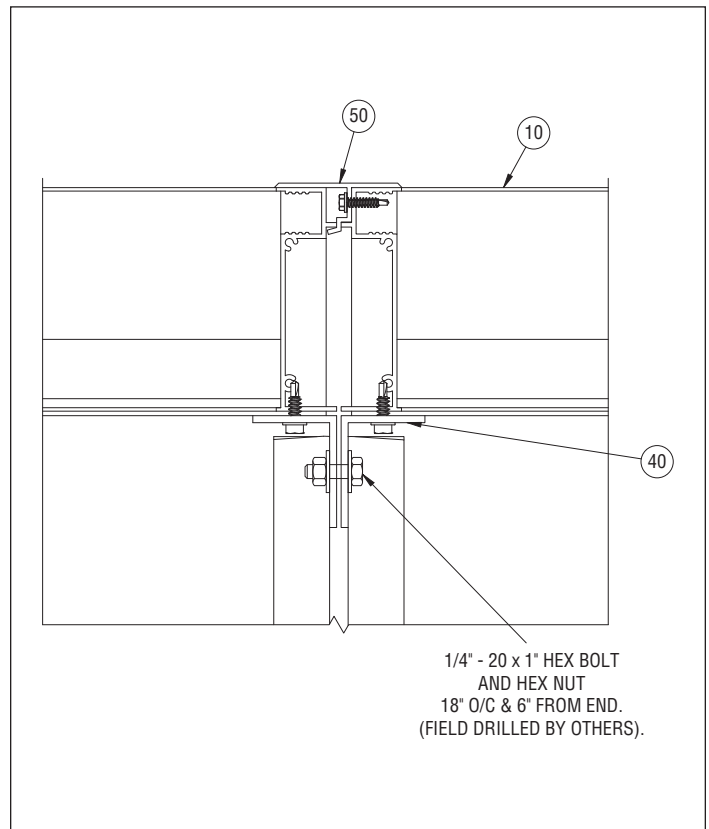


Fig. 2.1B

VI. Multiple Section Penthouse Installation (continued)

5. Assemble the long sides of the penthouse. Reference **Fig. 2.1M** for 1600PHM section connection and **Fig. 2.1B** for 1600PHB connection.
6. Place the short sides and mitered corners, if applicable, on the curb. Anchor the short sides and mitered corners, if applicable, to the curb. Clip angles and fasteners for clip angle/penthouse connection are provided by Nailor. Fasteners for clip angle/curb connection are **NOT** provided by Nailor. Reference **Fig. 1.1M** for 1600PHM and **Fig. 1.1B** for 1600PHB.
7. Place the long sides on the curb. Connect long sides to mitered corners, if applicable, or short side. Reference details identified above. Anchor the long sides to the curb. See Step #6 above.
8. On 1600PHB boxed corner penthouses, install corner cover angle to adjacent louver jamb frames with screws provided. **See Fig. 3.0B.**
9. Fasten roof panels with screws provided. Reference **Fig. 1.1M** for 1600PHM roof connection and **Fig. 1.1B** for 1600PHB roof connection. Reference any job specific drawings, if provided.
10. Caulk (by others) any exposed seams or joints in the roof that could allow water seepage.

WARNING: Do not apply excessive force to a single point and never lift units by louver blades, support angles, or splices.

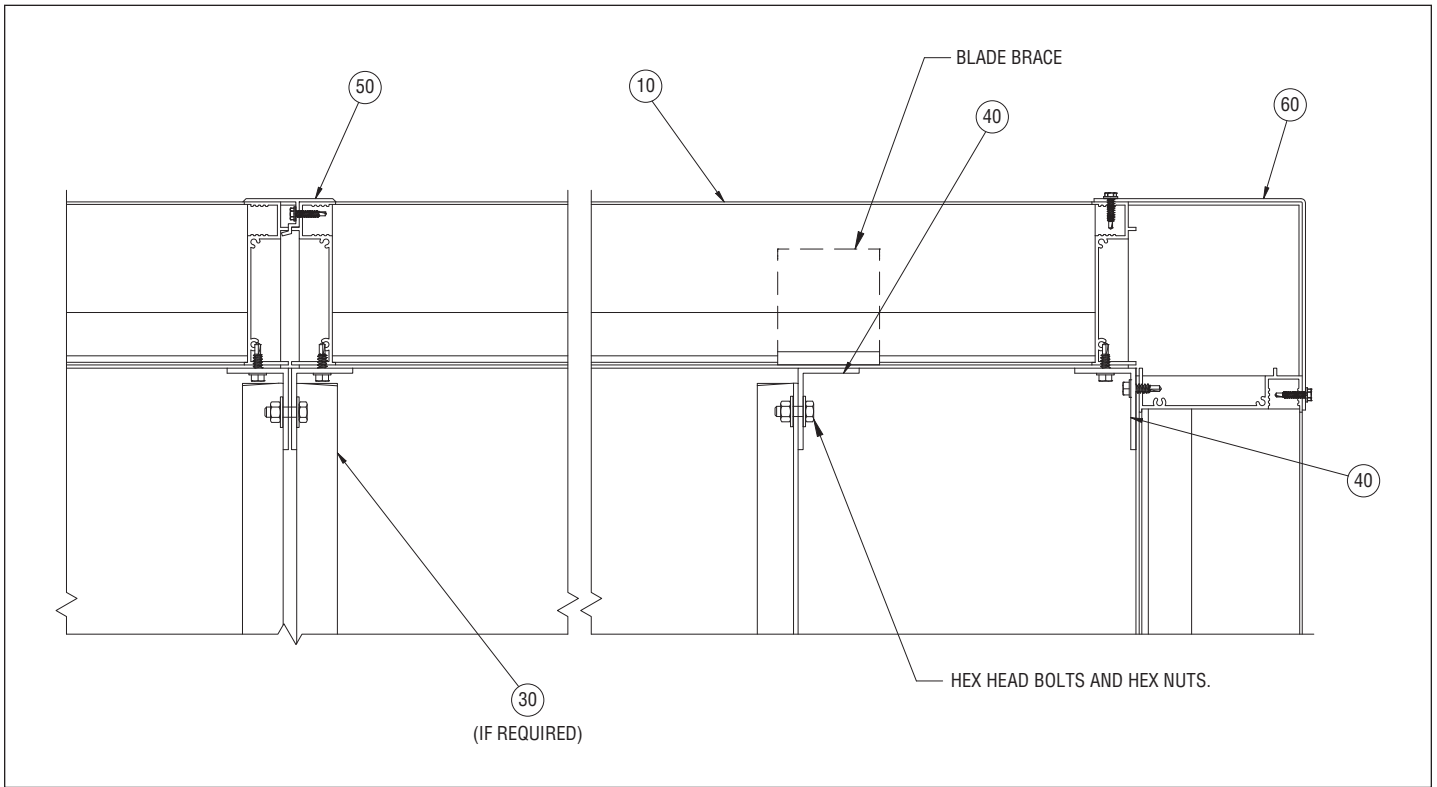


Fig. 3.0B

VII. Protecting and Repairing the Finish

Today's high quality painted and anodized finishes are extremely durable and despite this fact, even the best finishes require maintenance. Even with the most careful treatment of penthouses during shipment, installation and daily use, occasional damage may occur.

1. Care & Cleaning: Powder Coat Finishes

- a. When selecting a cleaning solution, use mild soap solutions that are safe for use with your bare hands and are not caustic or corrosive. Avoid the use of strong acid or alkali cleaners as they may damage the finish.
- b. Solvents equivalent to denatured alcohol or mineral spirits may be used to remove sealants, grease, or other materials. Never mix cleaners and/ or solvents as the resultant mixture can cause harmful results.
- c. Do not use abrasive cleaners or abrasive materials (i.e. steel wool, steel brushes, etc.) which can also harm the finish.
- d. Once sealant, grease, or other materials are removed, the mild soap solution can be applied with a soft sponge, cloth, or brush.
- e. Rinse the surface thoroughly with clean water and let air dry.

2. Care & Cleaning: Anodized Finishes

- a. Follow steps a through c above.
- b. Once sealant, grease, or other materials are removed, the mild soap solution can be applied with a soft sponge, cloth, or brush.
- c. Scuffmarks and Rub marks may be removed using a mildly abrasive pad (i.e. Scotch-Brite pad). Use the pad to remove the mark, and then follow steps d and e above.

After installation of your penthouse, field touch up work (by others) may be required to remedy any damages during shipping, handling or installation.

3. Field Touch Up

- a. Minor painted surface damage can be sanded prior to touchup painting with excellent results. For superficial scratches and gouges, use a relatively course grit sandpaper to remove the damage, then use progressively finer grit paper to remove the sanding marks, finishing with a 180 to 220 grit paper.

WARNING: Sanding of Anodized surfaces prior to touchup painting is **NOT** recommended.

- b. Touchup paint can be ordered by contacting your Nailor representative. It is intended to cover up small blemishes or to touchup exposed ends on fabricated parts. The color will closely match the factory applied painted or anodized finish, however the touchup finish will not be as durable as the original finish.

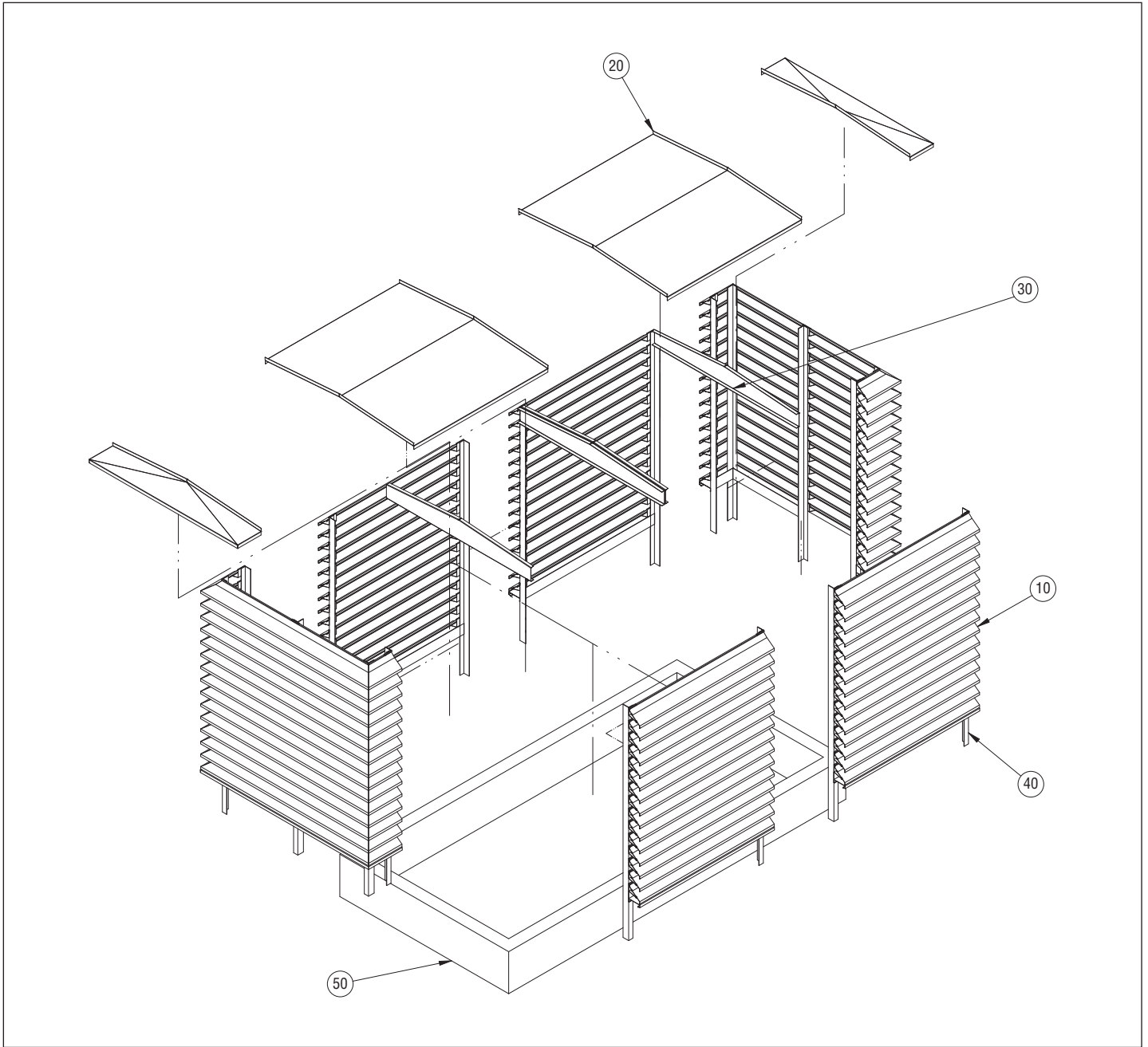


Fig. 4.0M

ITEM	DESCRIPTION
10	Louver Section
20	Roof Panel - Size and Thickness Vary (Ship Loose)
30	Roof Support (If Required) Refer to Job Specific Dwgs
40	Vertical Hidden Blade Support Angle (HBSA)
50	Curb (By Others)

Dimensions are in inches (mm).

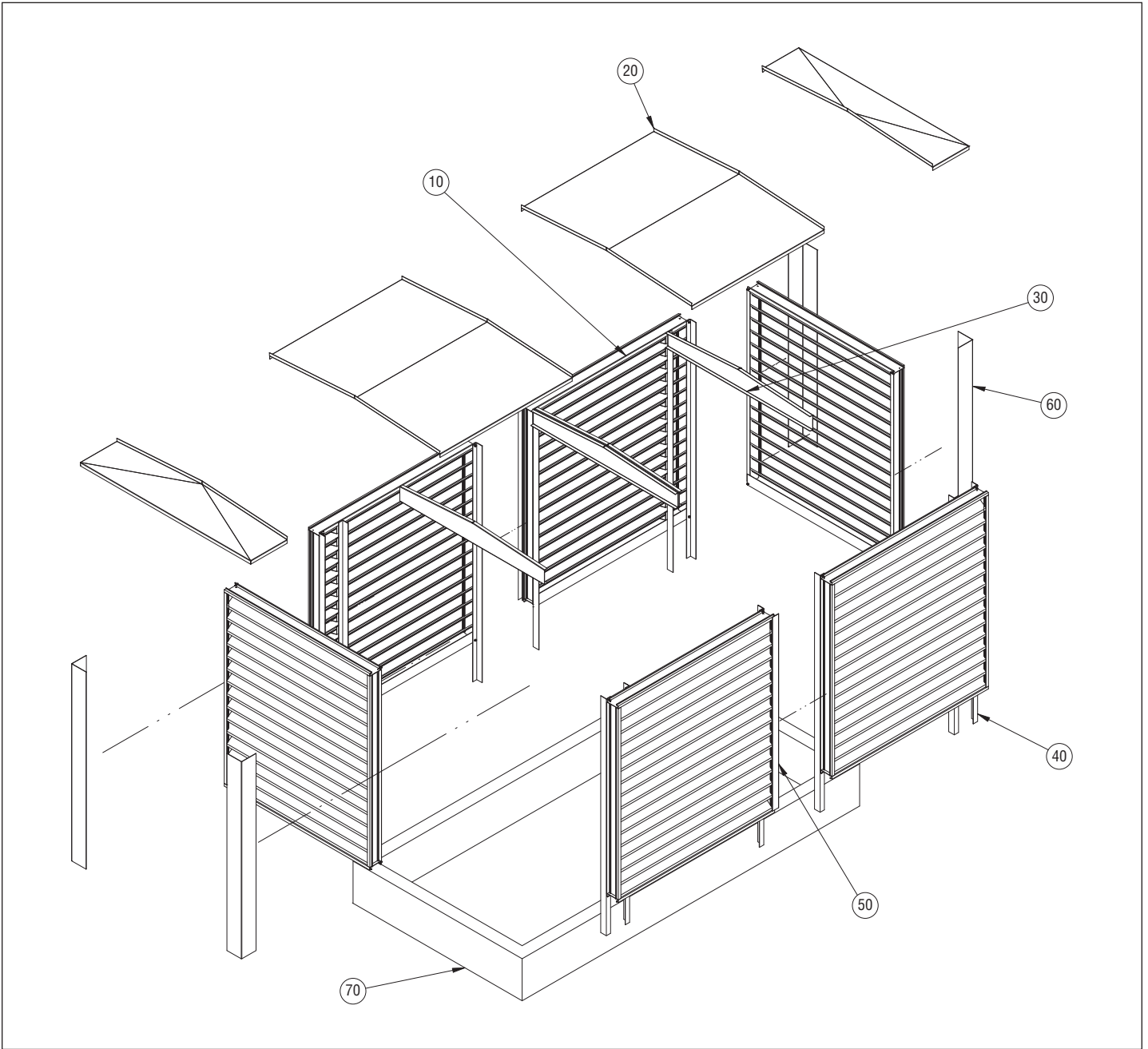


Fig. 4.0B

ITEM	DESCRIPTION
10	Louver Section
20	Roof Panel - Size and Thickness Vary (Ship Loose)
30	Roof Support (If Required) Refer to Job Specific Dwgs
40	Vertical Hidden Blade Support Angle (HBSA)
50	Mullion Cover
60	Corner Panel
70	Curb (By Others)

Dimensions are in inches (mm).



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