TECHNOTES

Mitered Sash Corner Window Weight Support

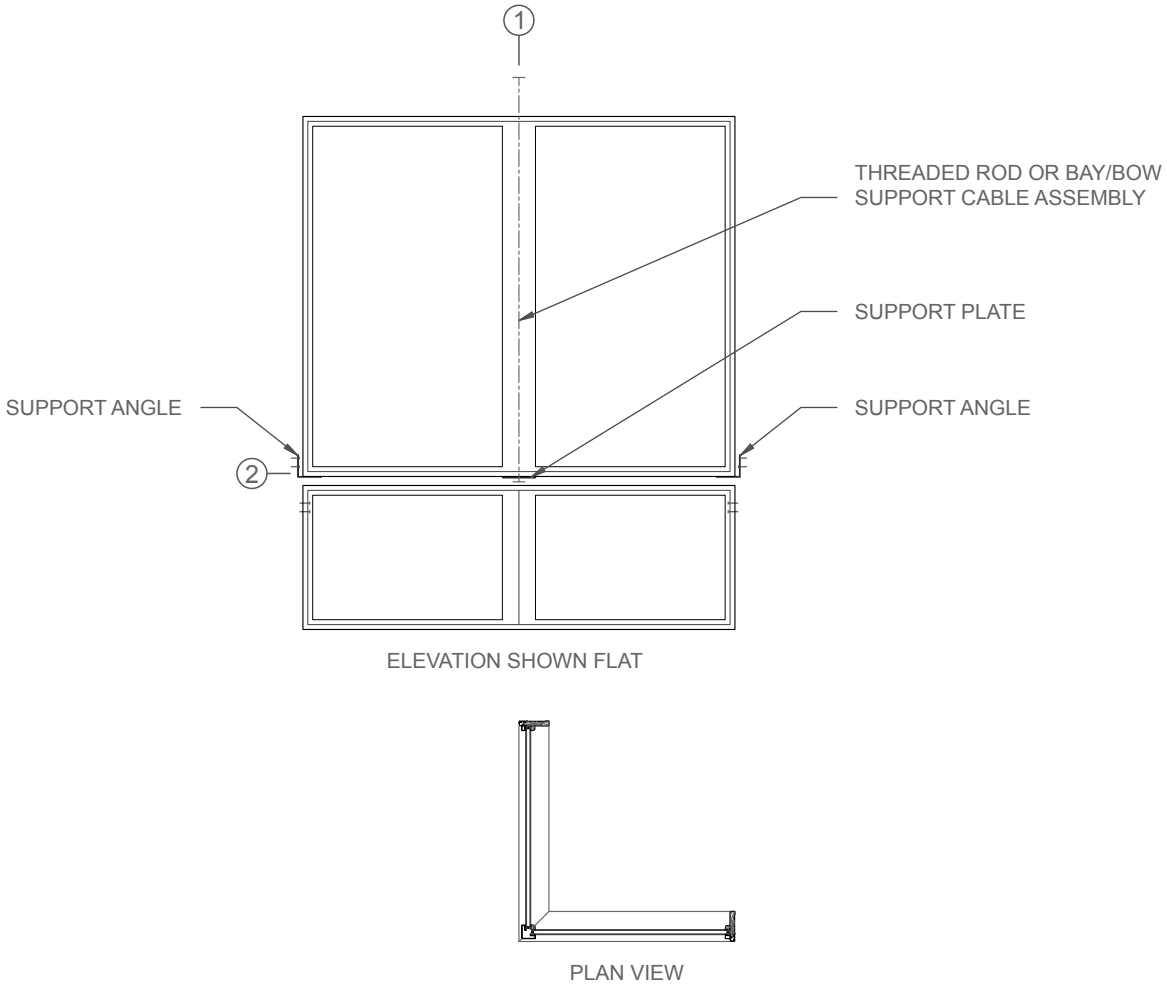
When a building design demands a corner window with minimal site lines then a mitered sash fixed casement window can become a consideration. Size restrictions, weight and shipping limitations affect how mitered sash corner windows can be combined. The following represents the limitations associated with the manufacturing and stacking of mitered corner window units:

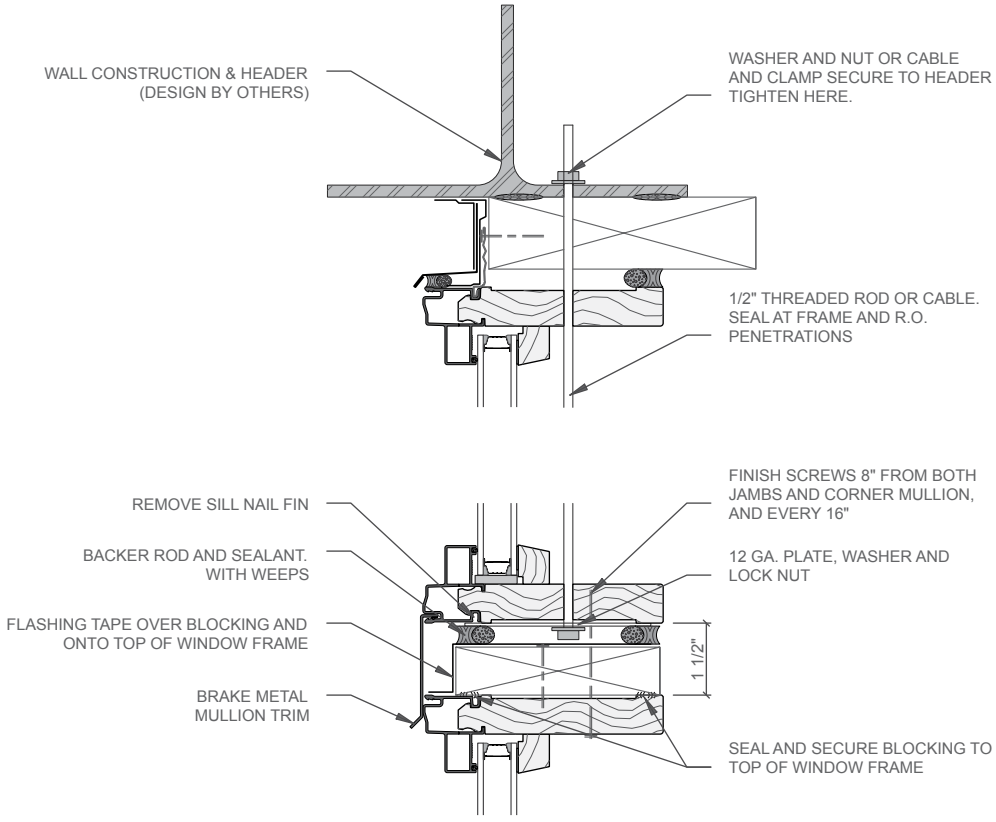
1. Mitered Cornered Product limitations
    - Anything larger than a 56" x 56" x 72" requires variance for availability and to confirm limitations on performance.
    - A 56" x 56" x 72" unit has been tested structurally at a DP50 with tempered glass or 5mm annealed. A 37.25" x 37.25" x 108" size unit has a calculated structural value of DP50, as does a 60" x 60" x 44.5" size unit. A 60" x 60" x 67.25" size unit has a calculated structural value of DP40.
    - Anything over 99" frame height is shipped laying down.
    - Current maximum total square footage is 56 (28 square feet per side).
    - Maximum total glass weight is 255 lbs.

2. Mitered Cornered Stacking limitations
    - Maximum glass weight for the top unit on a direct mulled (stacked) composite is 100 lbs.

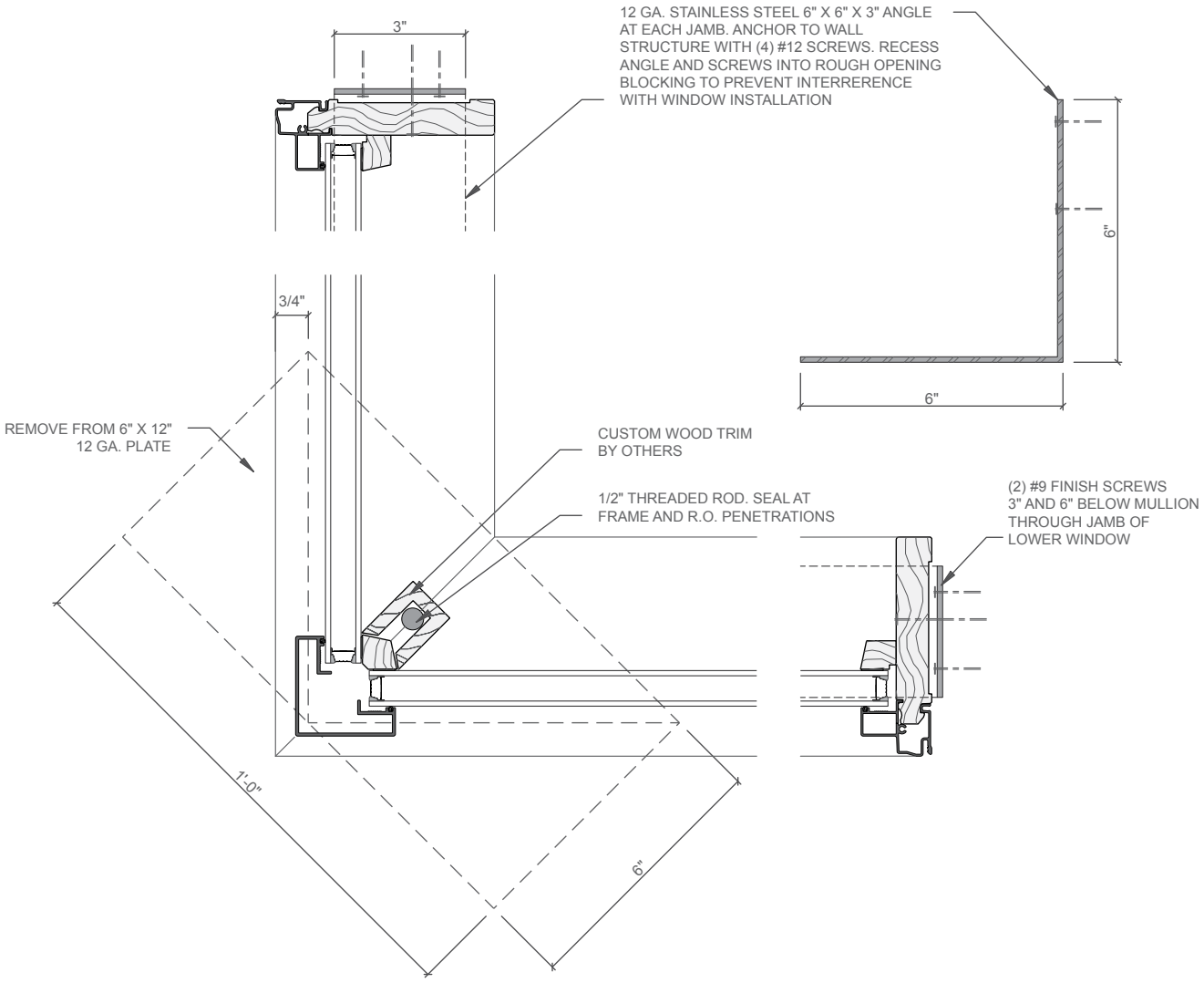
One way to overcome the maximum dead load stacking limitation of 100 lbs. is to introduce a structural support at the horizontal mullion in the way of clip angles, a threaded rod or bay/bow support cable assembly and steel plate to support the upper mitered sash corner unit as illustrated below. Submit a request for a Design Analysis and Preliminary Drawings from Pella Architectural Solutions (PAS) if you choose to pursue this as a potential design solution.

Mitered Sash Corner





1	HEAD AND HORIZONTAL MULLION SECTION



2 CORNER/JAMB SECTION