

INVISIRAIL RESIDENTIAL ENGINEERING

GLASS RAIL SYSTEM

GENERAL NOTES:

1. Design of the InvisiRail guard is in accordance with Section 9.8.8.2 of the 2024 Ontario Building Code (OBC) and 2020 National Building Code of Canada (NBCC) and SB-7 of the OBC.
2. Glass panels can carry a 225 lb (1.0 kN) horizontal concentrated load at any point.
3. A uniform vertical load of 100 PLF (1.5 kN/m) has been applied to the top of the guard.
4. The following horizontal loads have been applied to the guard: 0.5 kN/m (34 lb/ft) uniform load along top OR 1.0 kN (225 lb) concentrated load at any point, whichever governs.
5. These details are for use in houses and small building conforming to the requirements of Part 9 of the 2024 OBC and the 2020 NBCC. These details are for guards not serving more than two dwelling units and provide an alternative to the details given in SB-7 of the OBC.

COMPONENTS:

1. InvisiRail stainless steel connectors or InvisiRail Lite 10 nylon connectors.
2. 10mm thick InvisiRail tempered glass in accordance with CAN/CGSB-12.1-M with hole for upper connector and notch for bottom connector. All glass to be heat soaked in accordance with SB-13 of the OBC.
3. 3/8" thick InvisiRail Invisiposts in stainless steel and aluminum, fascia mount and surface mount, anchored to floor structure in accordance with details EB-5 to EB-6 of SB-7 of the OBC.
4. 2 1/4" square InvisiRail aluminum Visti posts, fascia mount and surface mount, anchored to floor structure in accordance with details EB-5 to EB-6 of SB-7 of the OBC.
5. Deckorators 2 1/2" square aluminum ALX Contemporary posts, anchored to floor structure in accordance with details EB-5 to EB-6 of SB-7 of the OBC.
6. 4X4 or larger wood posts, No.2 or better SPF PT or cedar, anchored to floor structure in accordance with details EB-5 to EB-6 of SB-7 of the OBC.

PROOF TESTING OF INVISIRAIL GLASS PANELS:

Extensive proof loading has been carried out on the InvisiRail glass guard system. The glass has been tested by loading a fully erected guard panel with posts spaced at 6' o/c. The loads that have been applied areas follows:

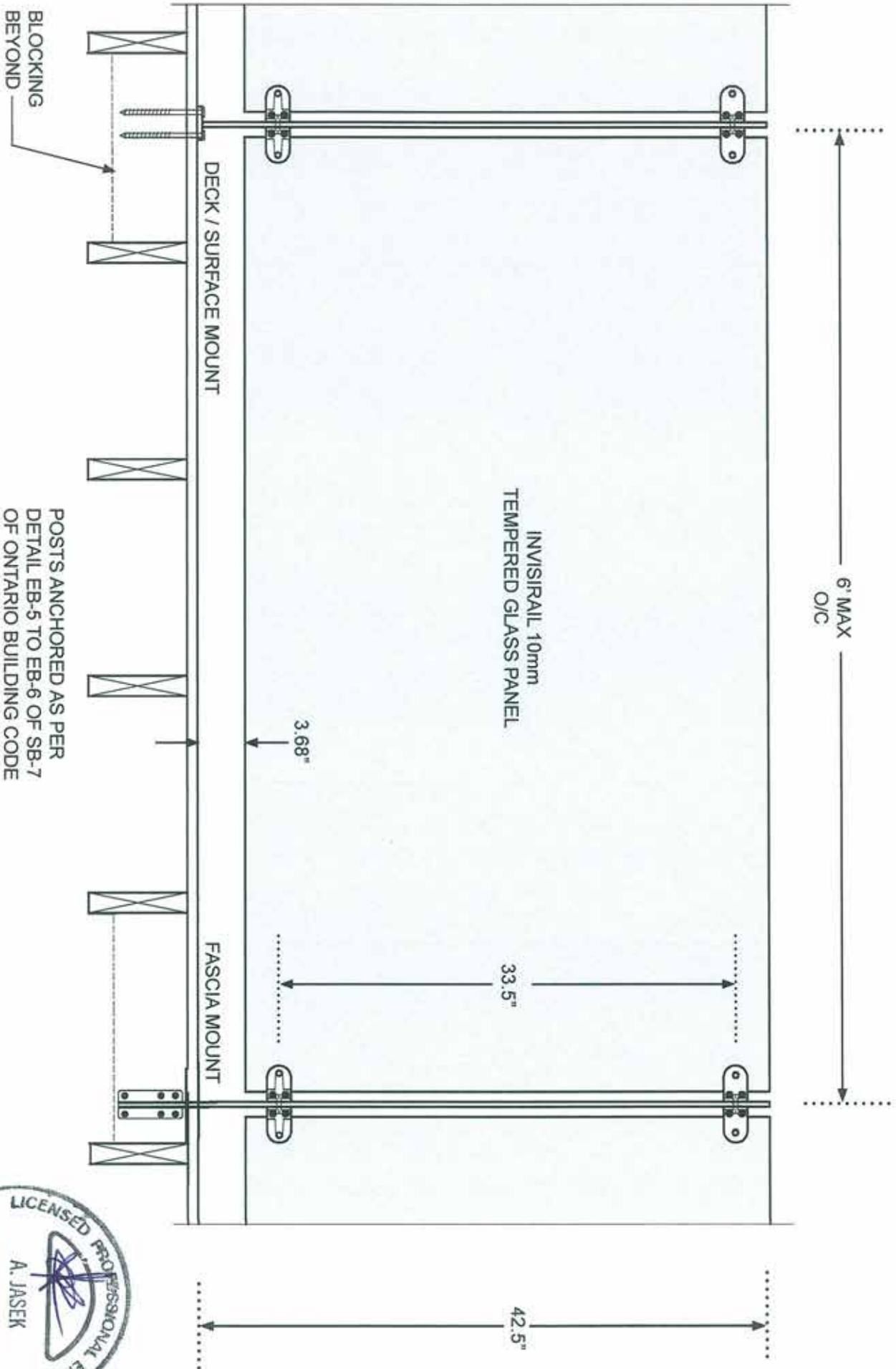
1. Proof loads of up to 538 lb have been applied horizontally to the top edge of the glass at mid-span without failure.
2. A proof load of 813 lb has been applied horizontally at the centre of the glass panel at mid-span without failure.

Additional tests have been carried out on the various connections and posts with a proof load of no less than 2 times the design live load as indicated in the design drawings

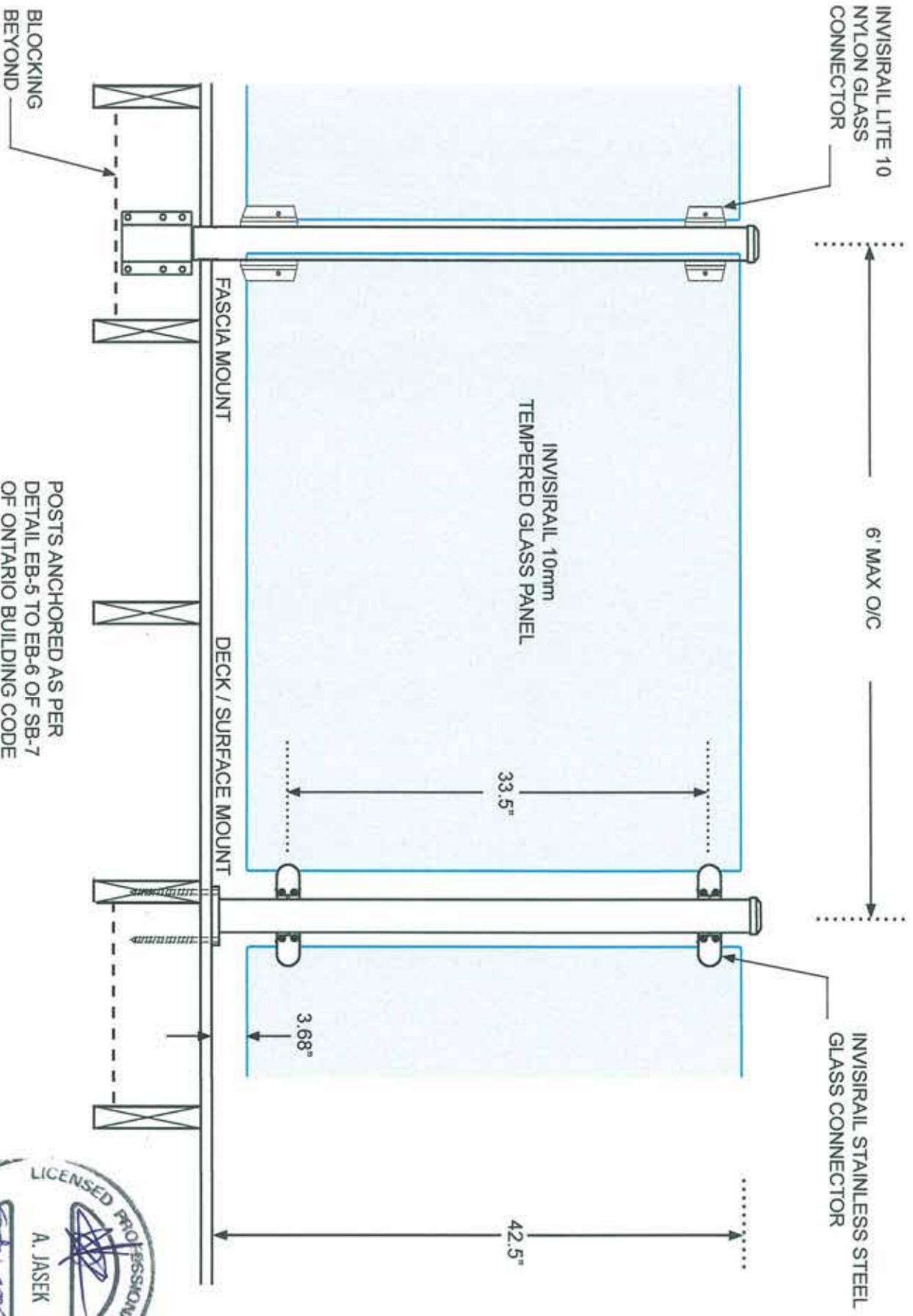


INVISIRAIL GLASS GUARD with SS and aluminum Invisipost

GLASS RAIL SYSTEM

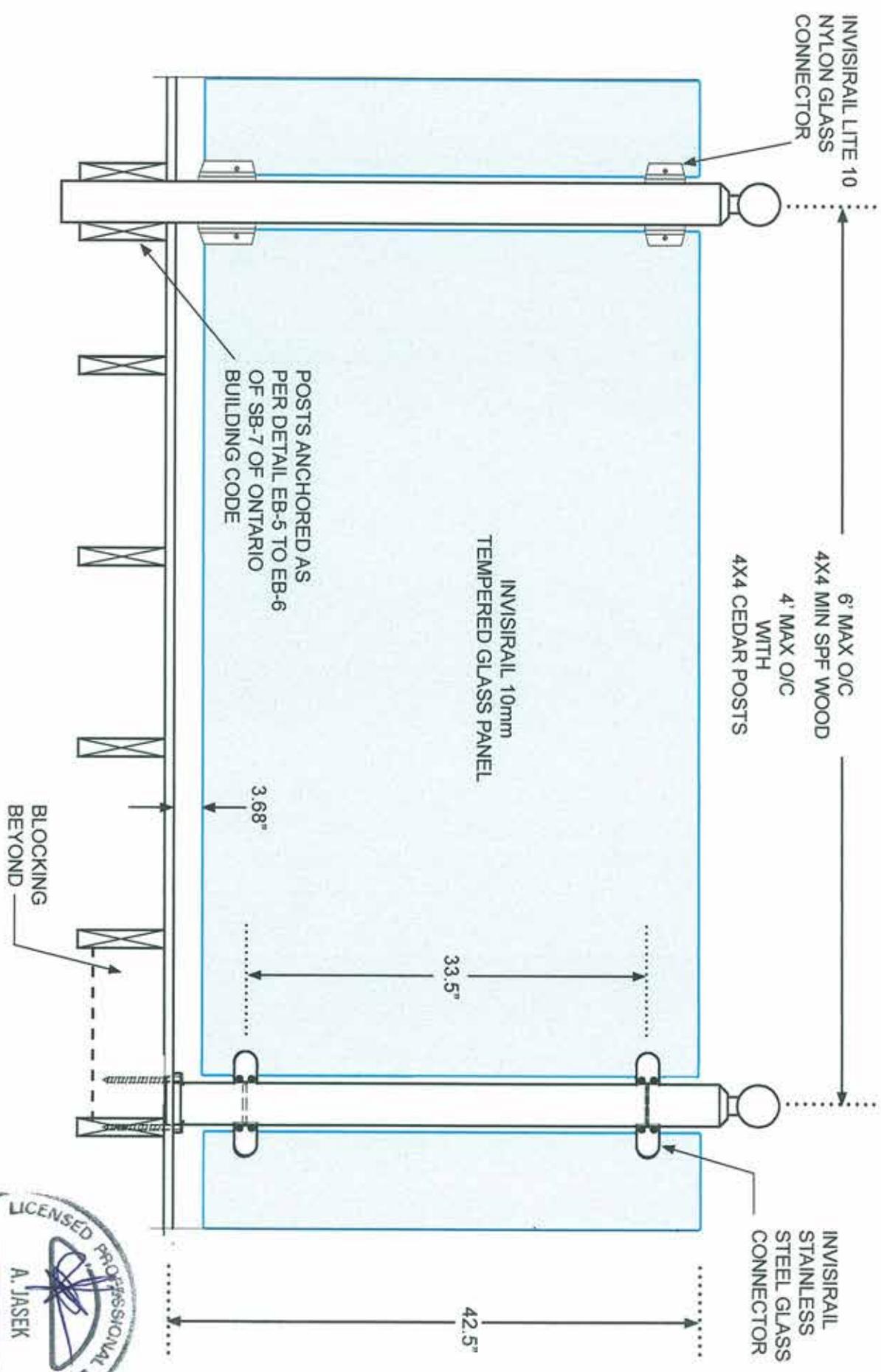


INVISIRAIL GLASS GUARD with square aluminum post

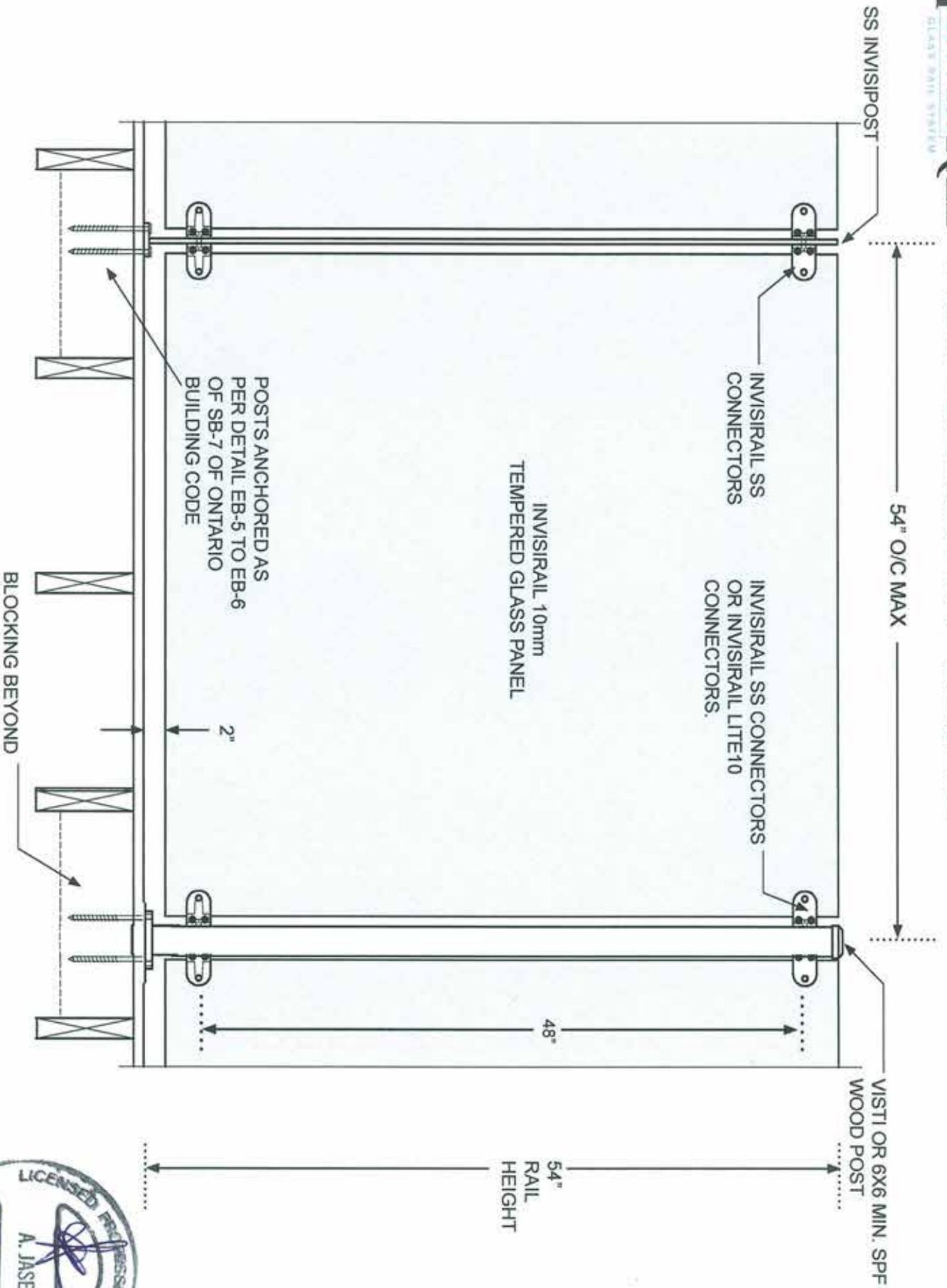


INVISIRAIL GLASS GUARD with wood posts

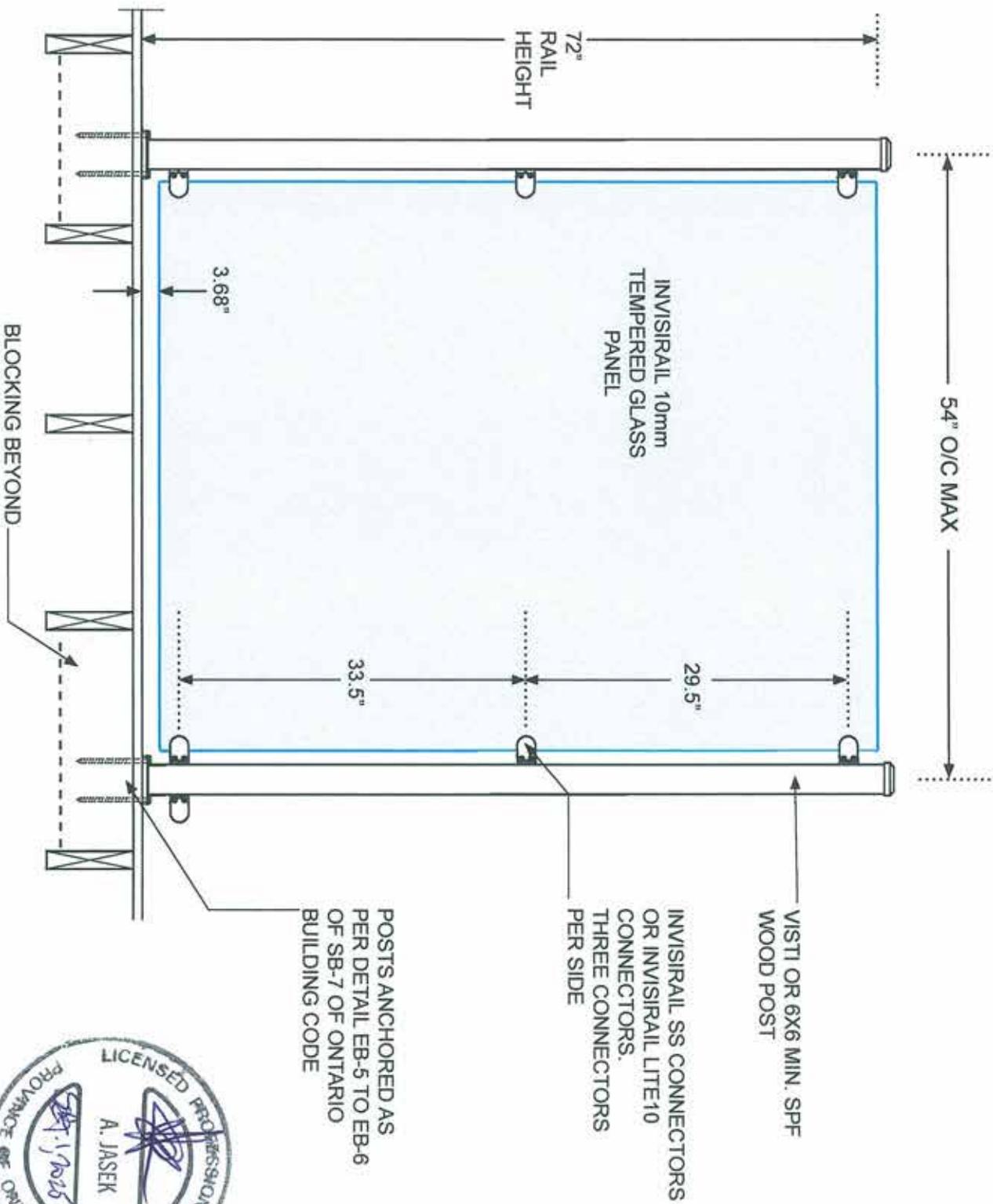
GLASS RAIL SYSTEM



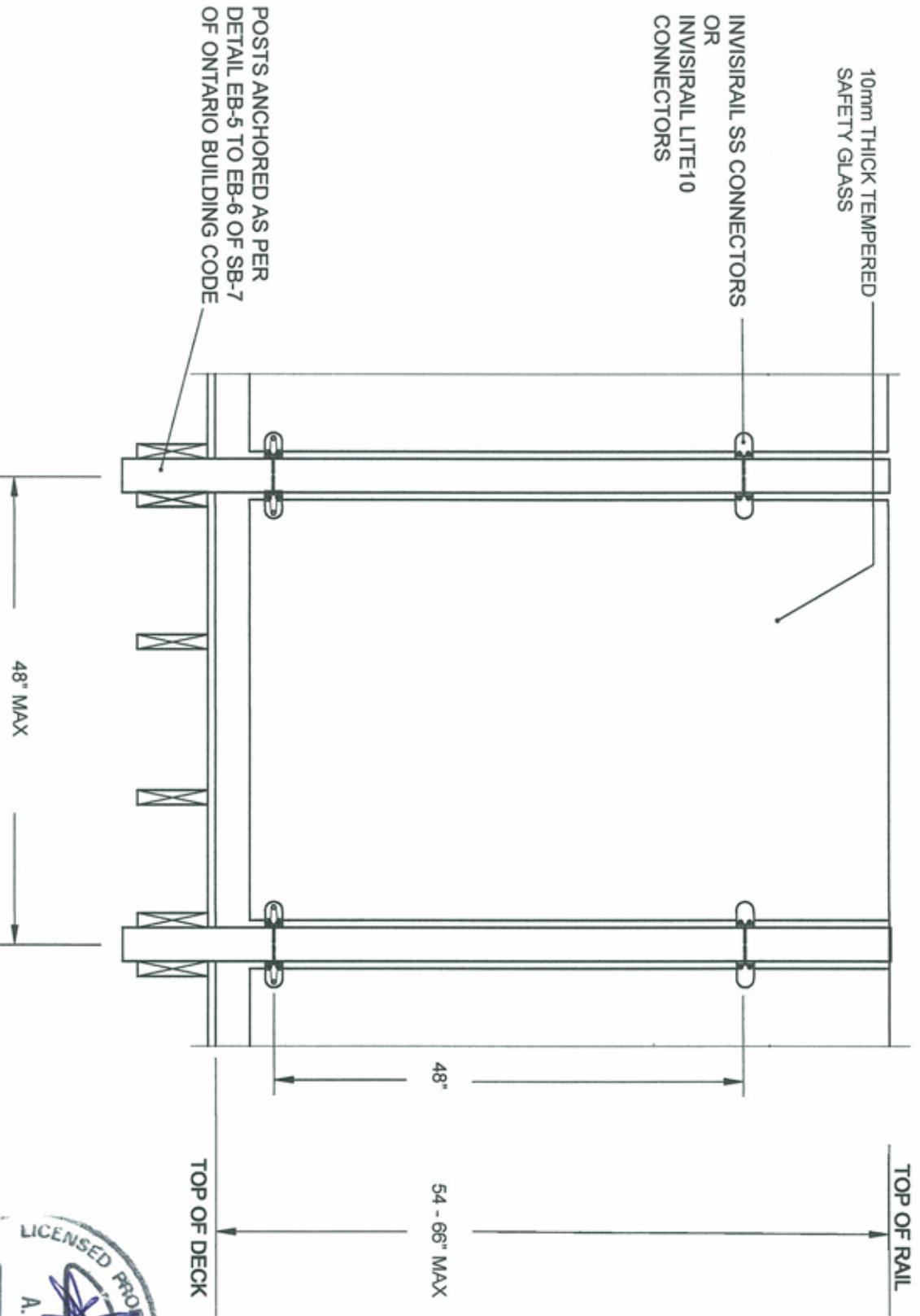
POOL HEIGHT 54" DETAIL



CUSTOM HEIGHT 72" DETAIL

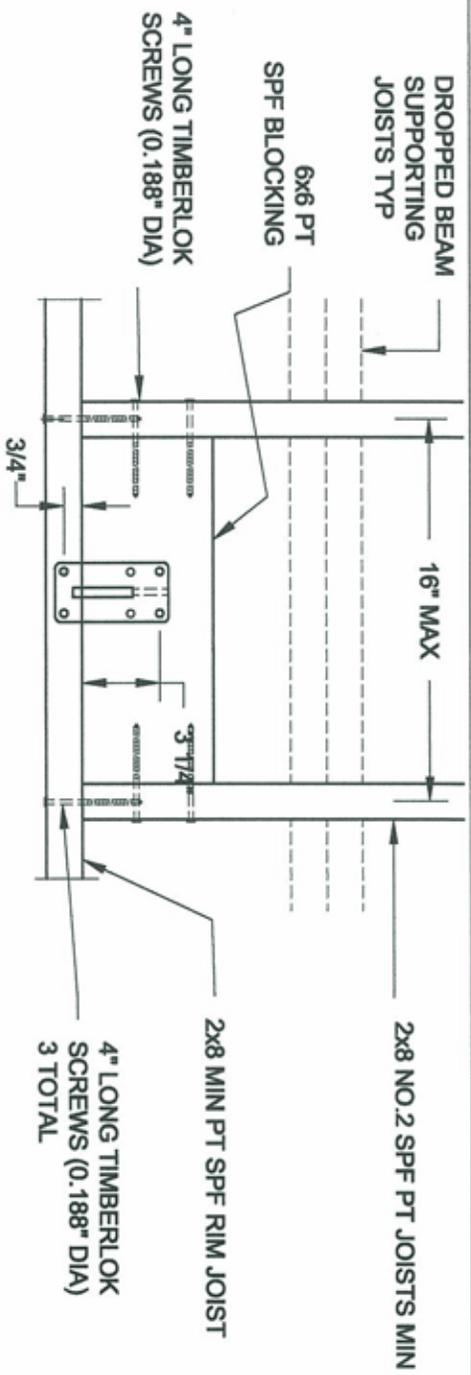


CUSTOM HEIGHT UP TO 66" DETAIL

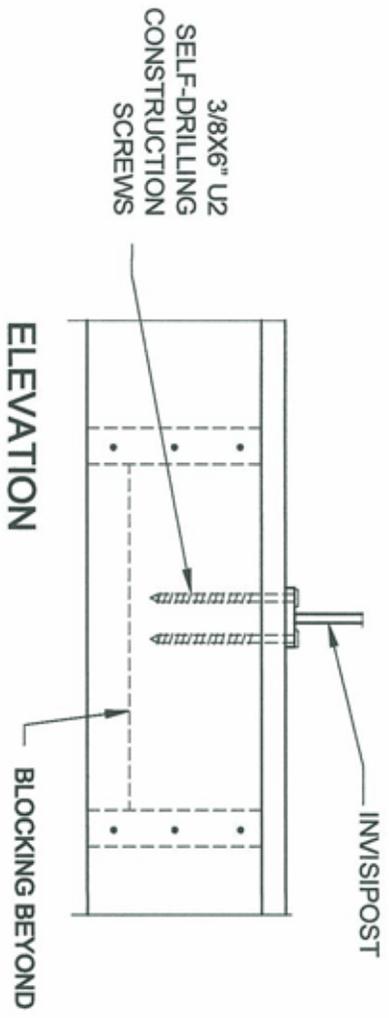


INVISIRAIL WOOD CONNECTION - surface mount Invisipost

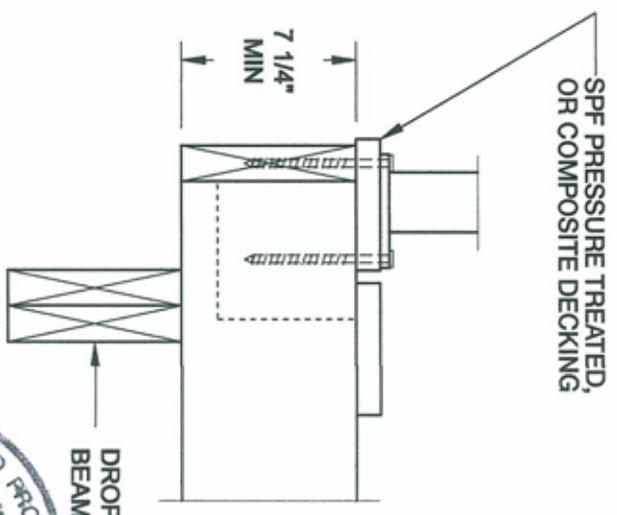
GLASS RAIL SYSTEM



PLAN VIEW



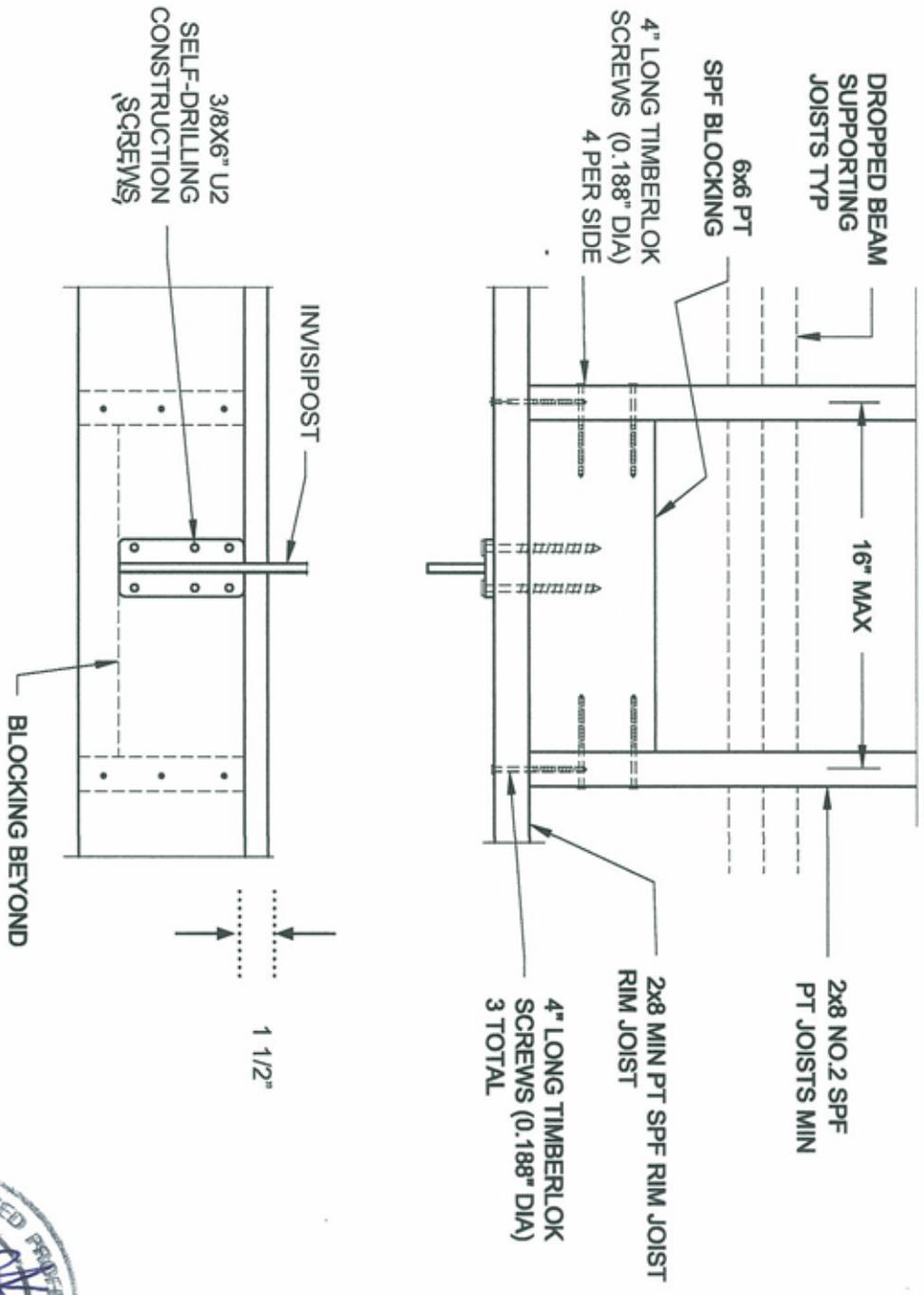
ELEVATION



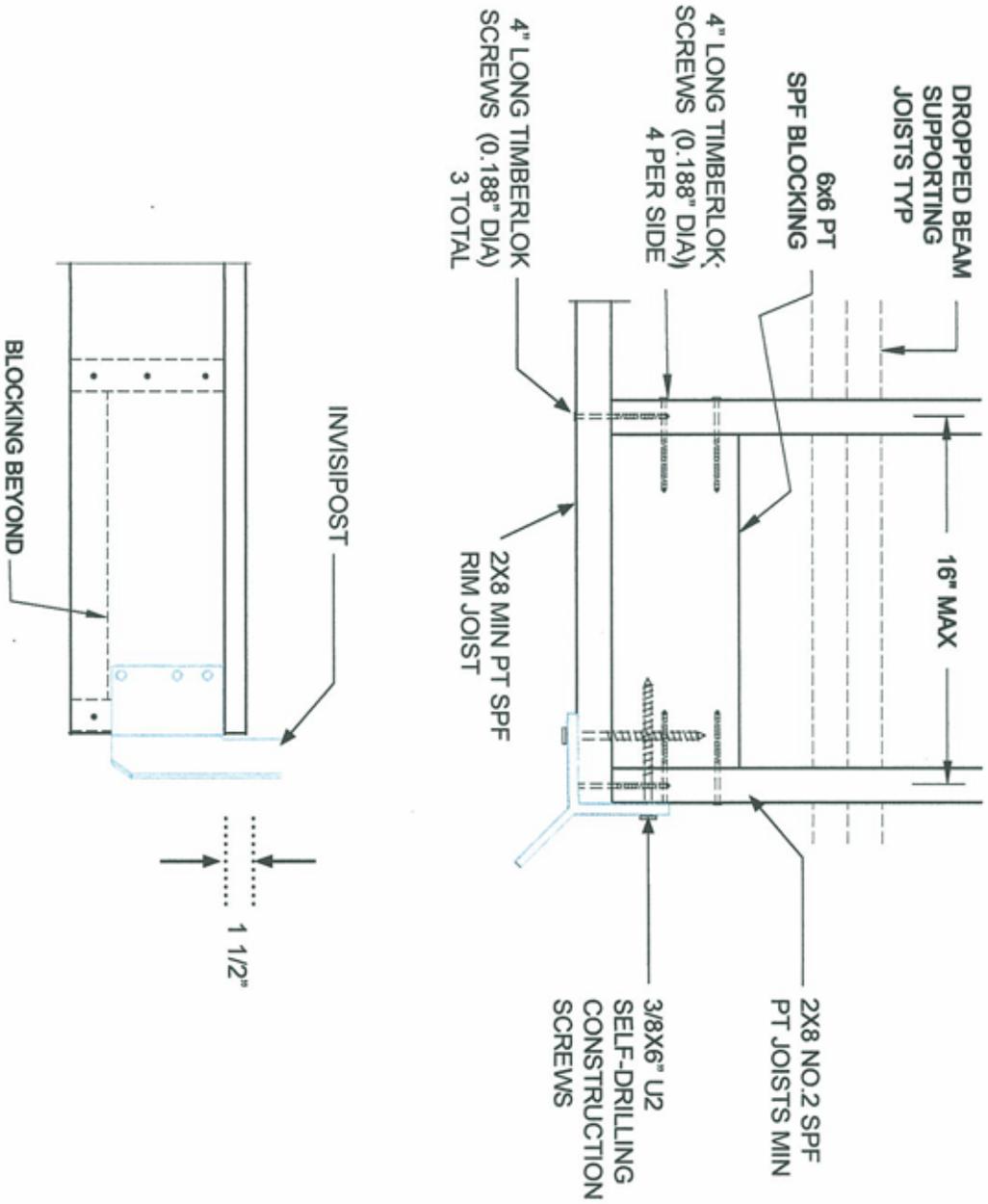
SECTION



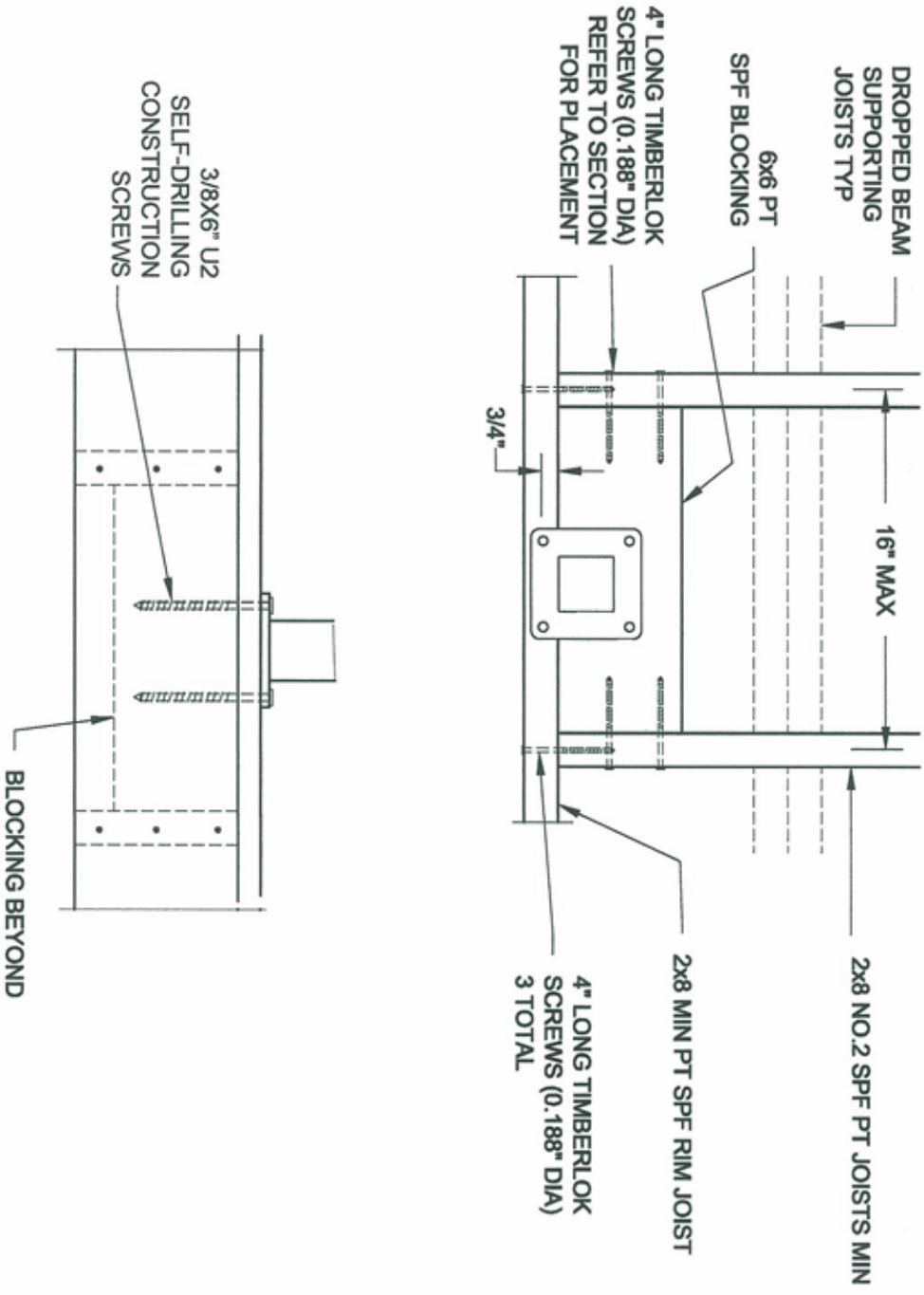
WOOD CONNECTION - fascia mount Invisipost



GLASS RAIL SYSTEM
INVISIRAIL
WOOD CONNECTION - corner fascia mount Invisipost

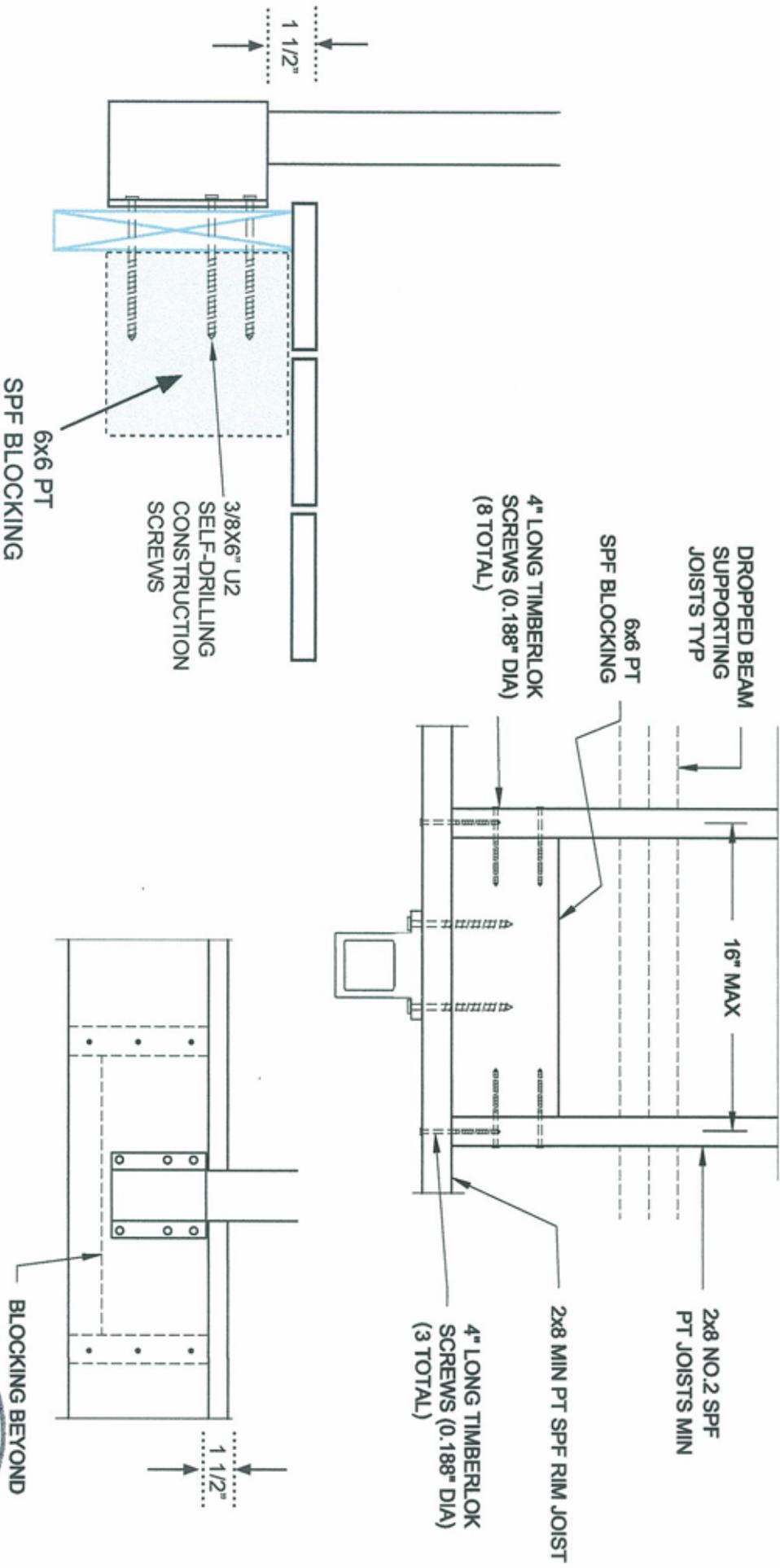


INVISIRAIL WOOD CONNECTION - surface mount Visti & ALX
GLASS RAIL SYSTEM

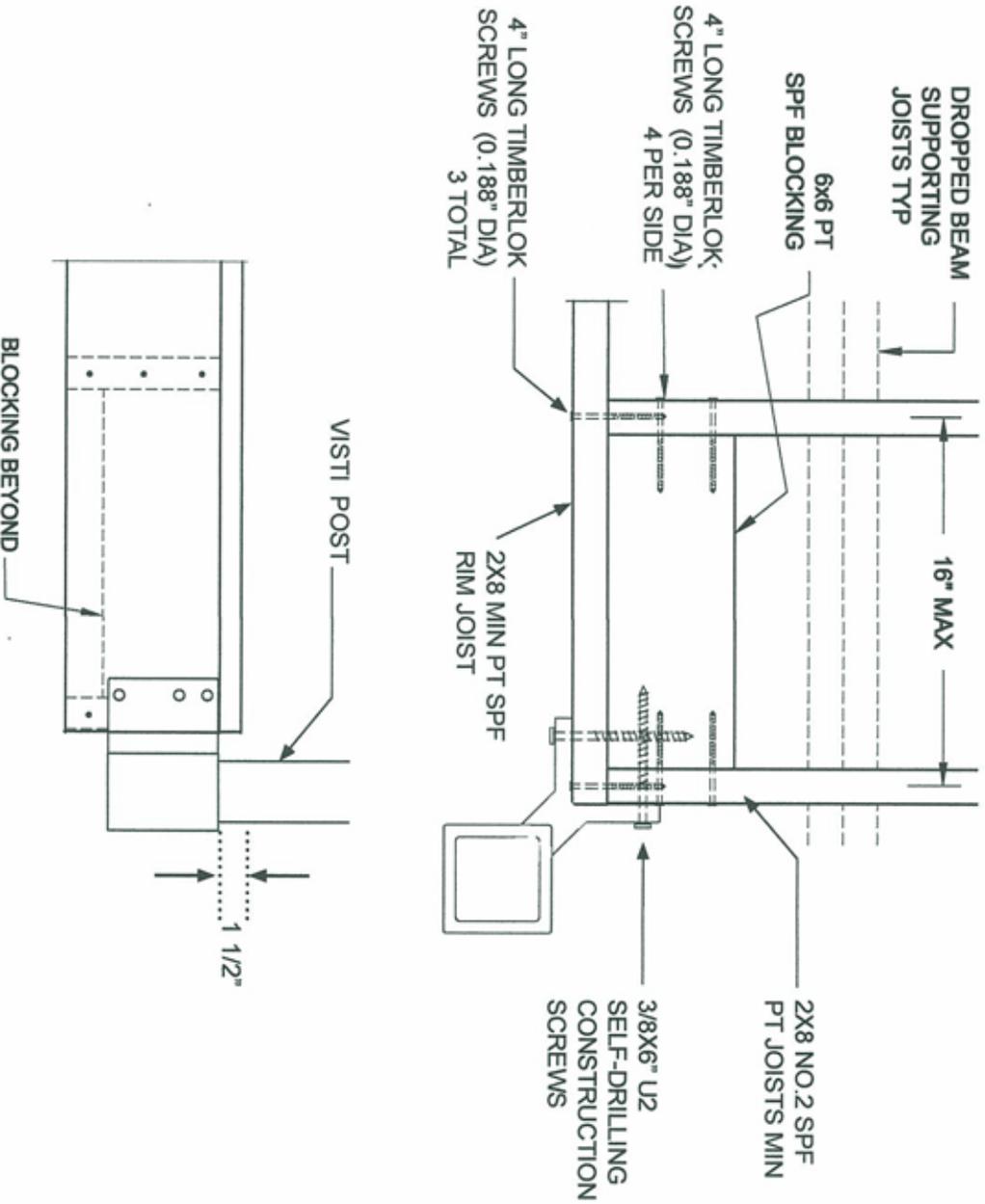


INVISIRAIL WOOD CONNECTION - fascia mount Visti post

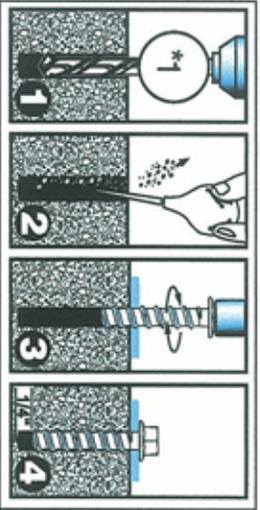
GLASS RAIL SYSTEM



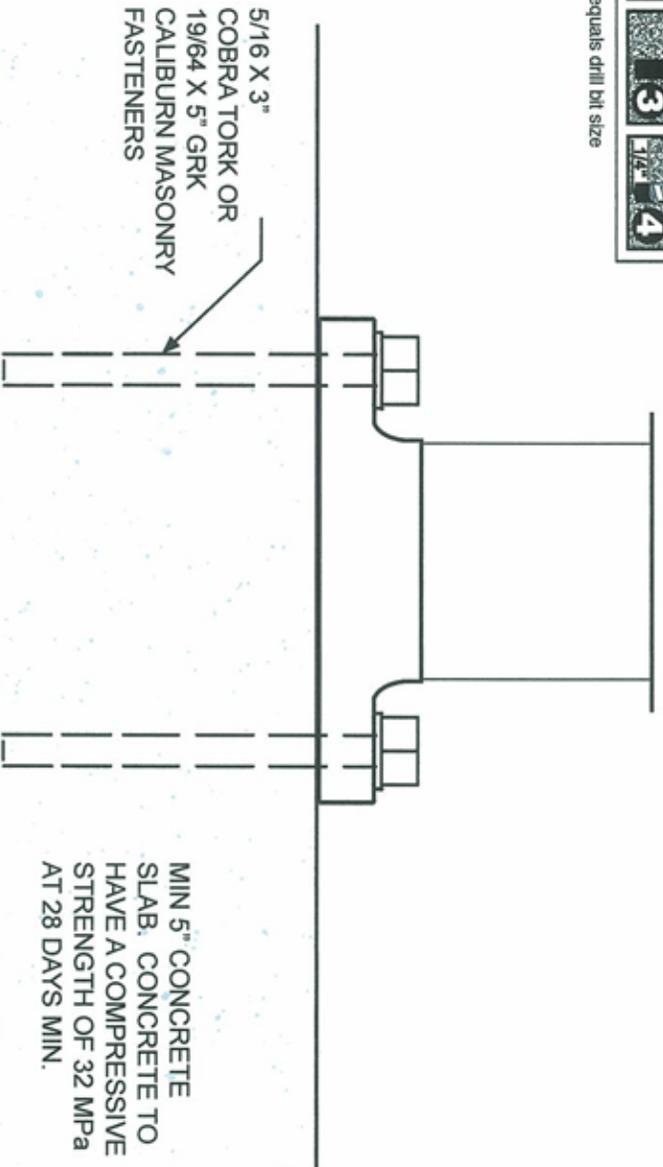
WOOD CONNECTION - corner fascia mount Visti post



CONCRETE SURFACE POST CONNECTION



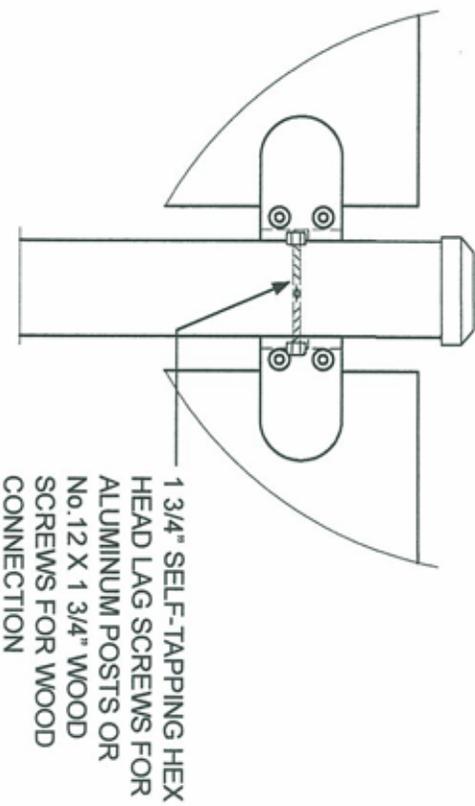
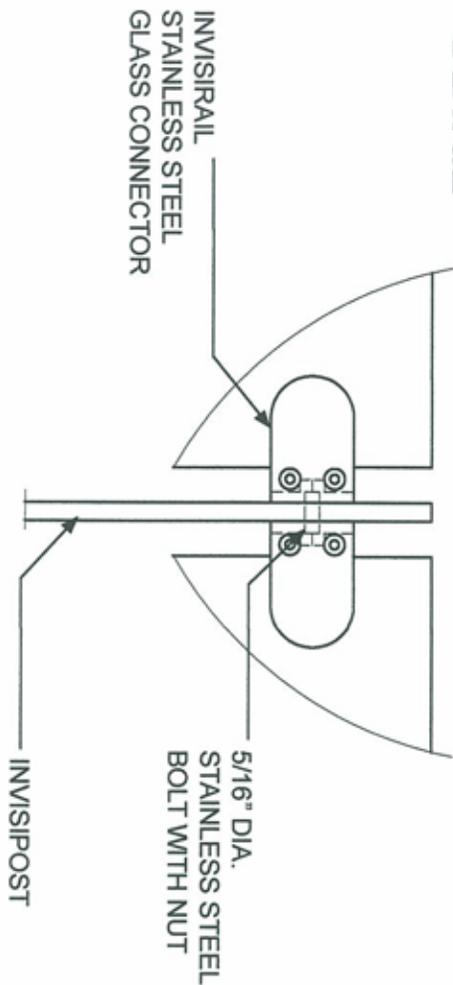
*1 : Anchor nominal diameter equals drill bit size



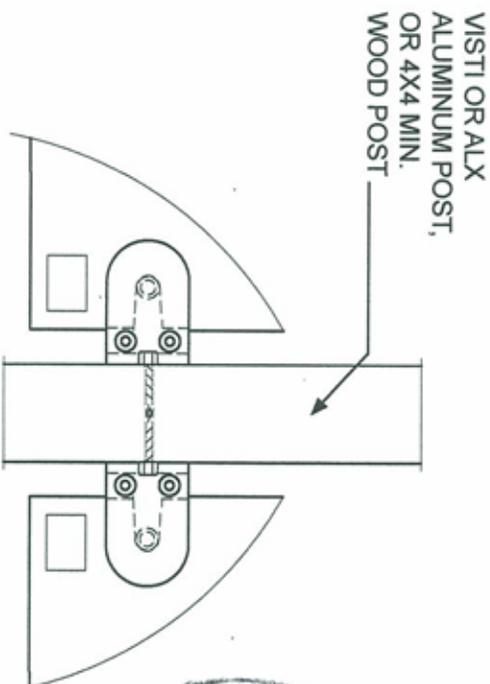
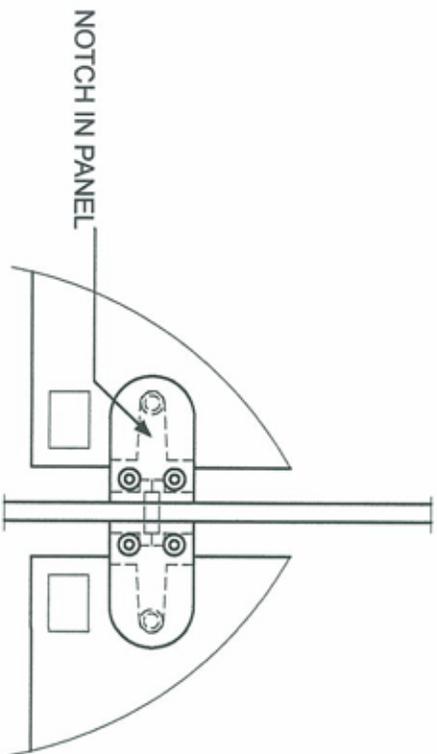
INVISIRAIL GLASS CONNECTION - SS connectors

GLASS RAIL SYSTEM

SS TOP CONNECTION DETAIL

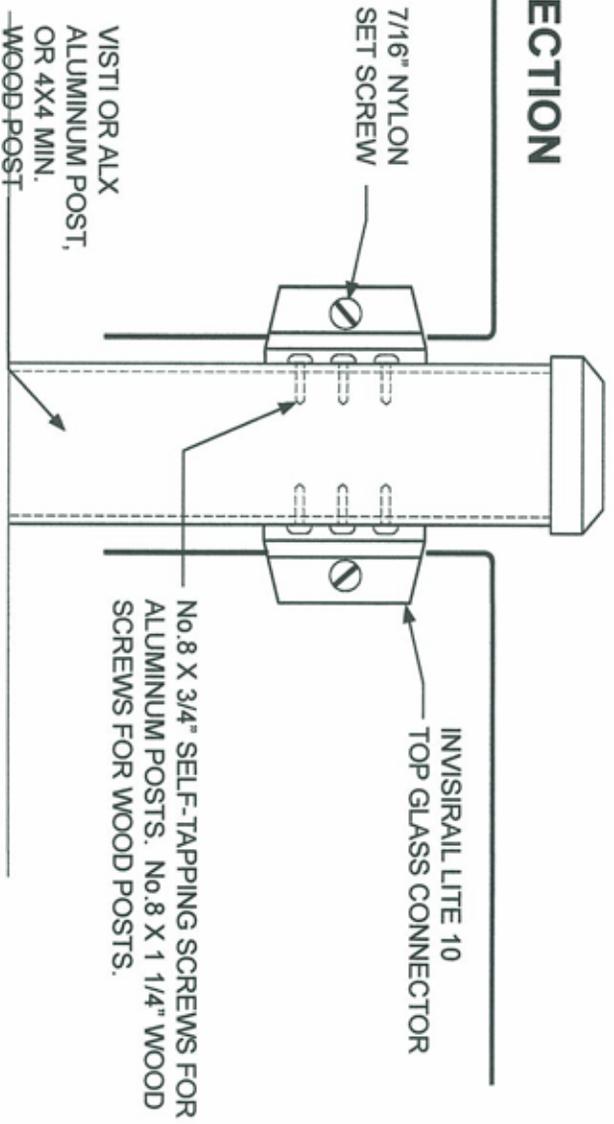


SS BOTTOM CONNECTION DETAIL

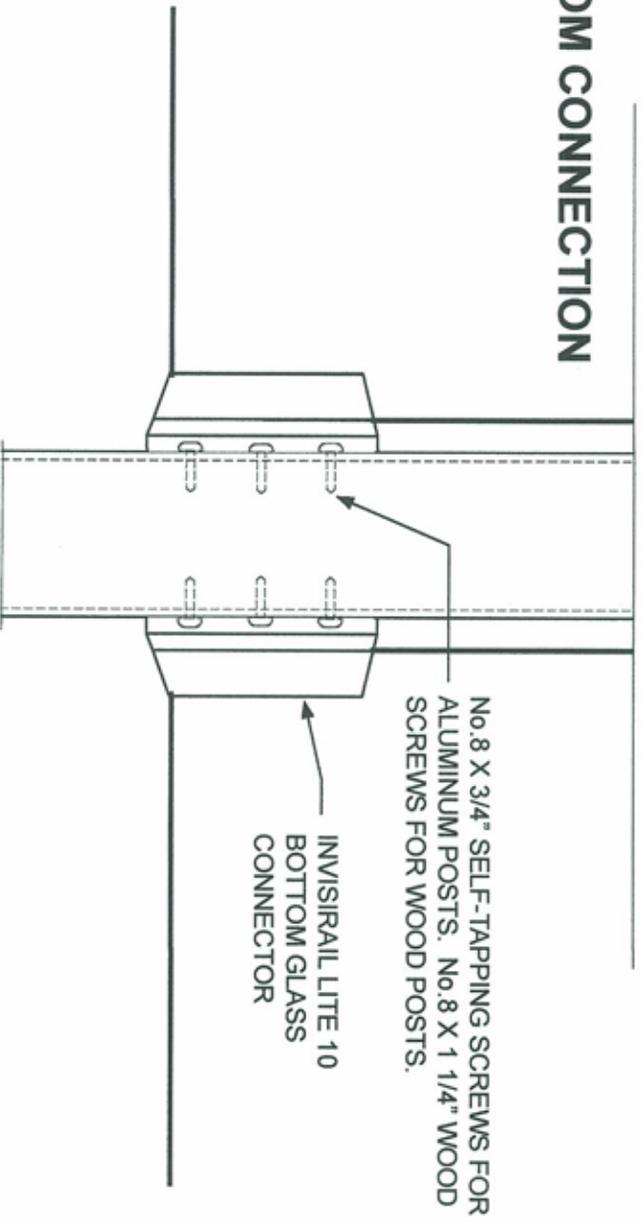


INVISIRAIL GLASS RAIL SYSTEM **GLASS CONNECTION - Lite 10 (nylon) connectors**

**LITE 10 TOP CONNECTION
DETAIL**



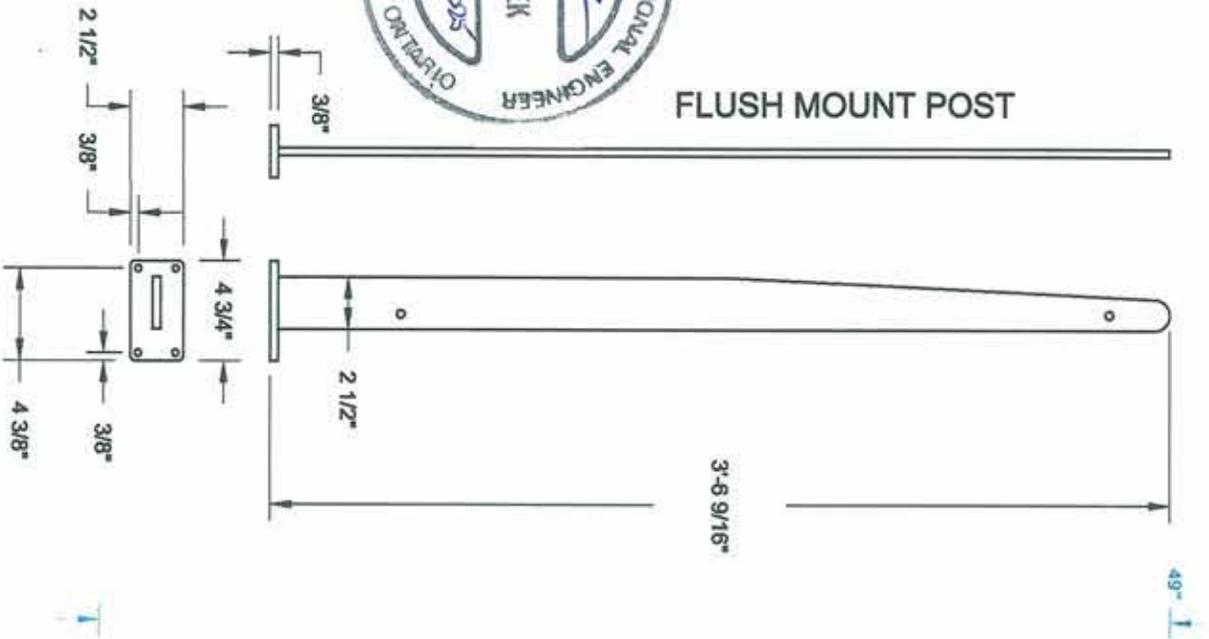
**LITE 10 BOTTOM CONNECTION
DETAIL**



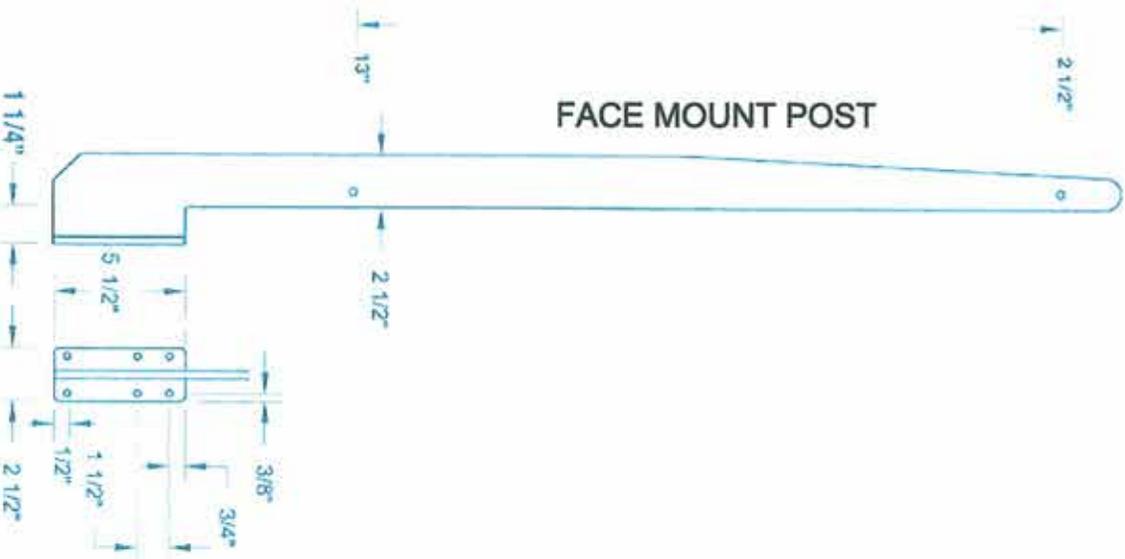
5/16" thick brushed stainless steel
3/8" thick powder-coated aluminum



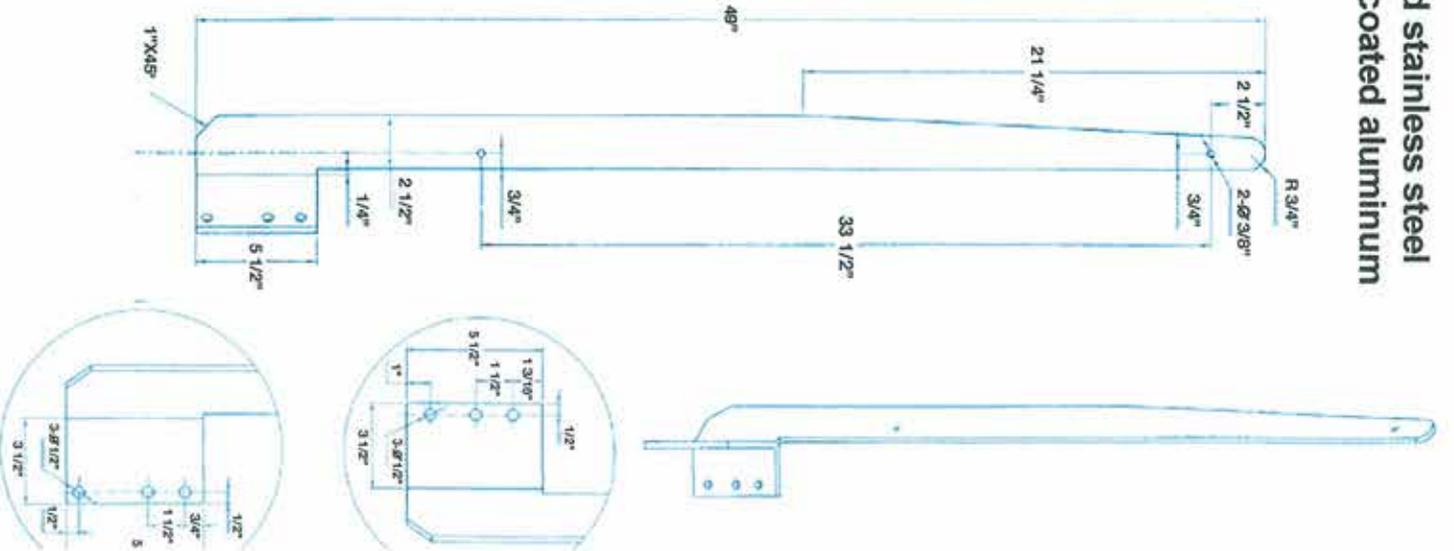
FLUSH MOUNT POST



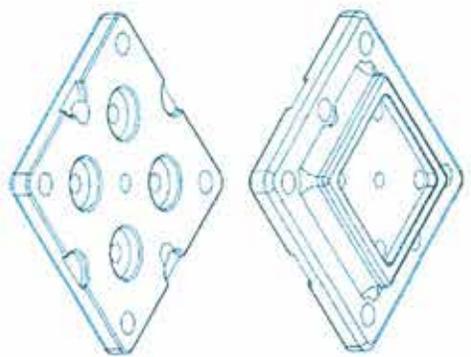
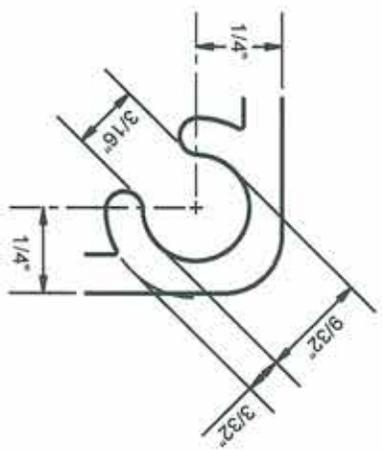
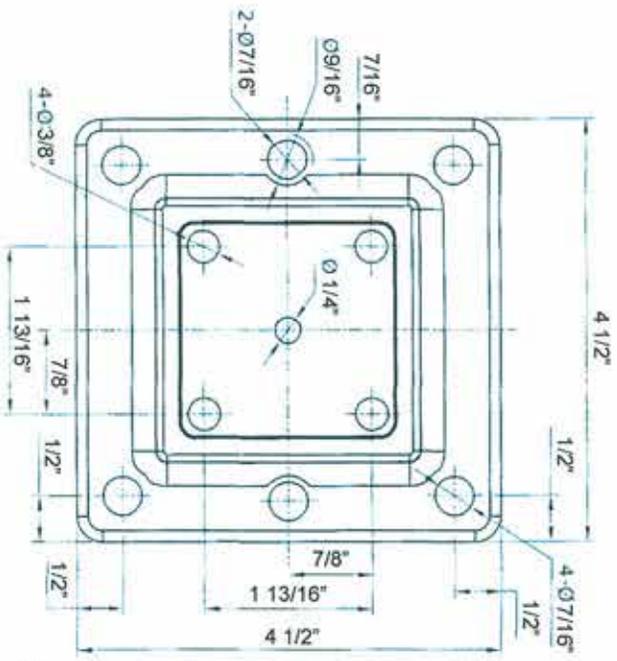
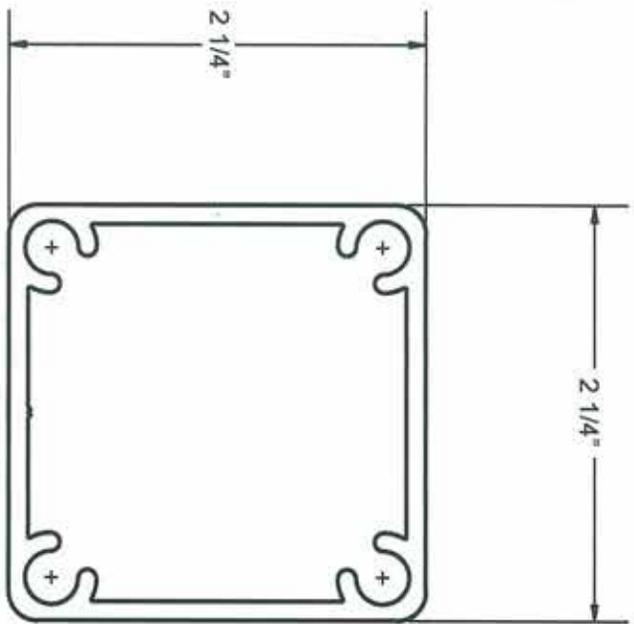
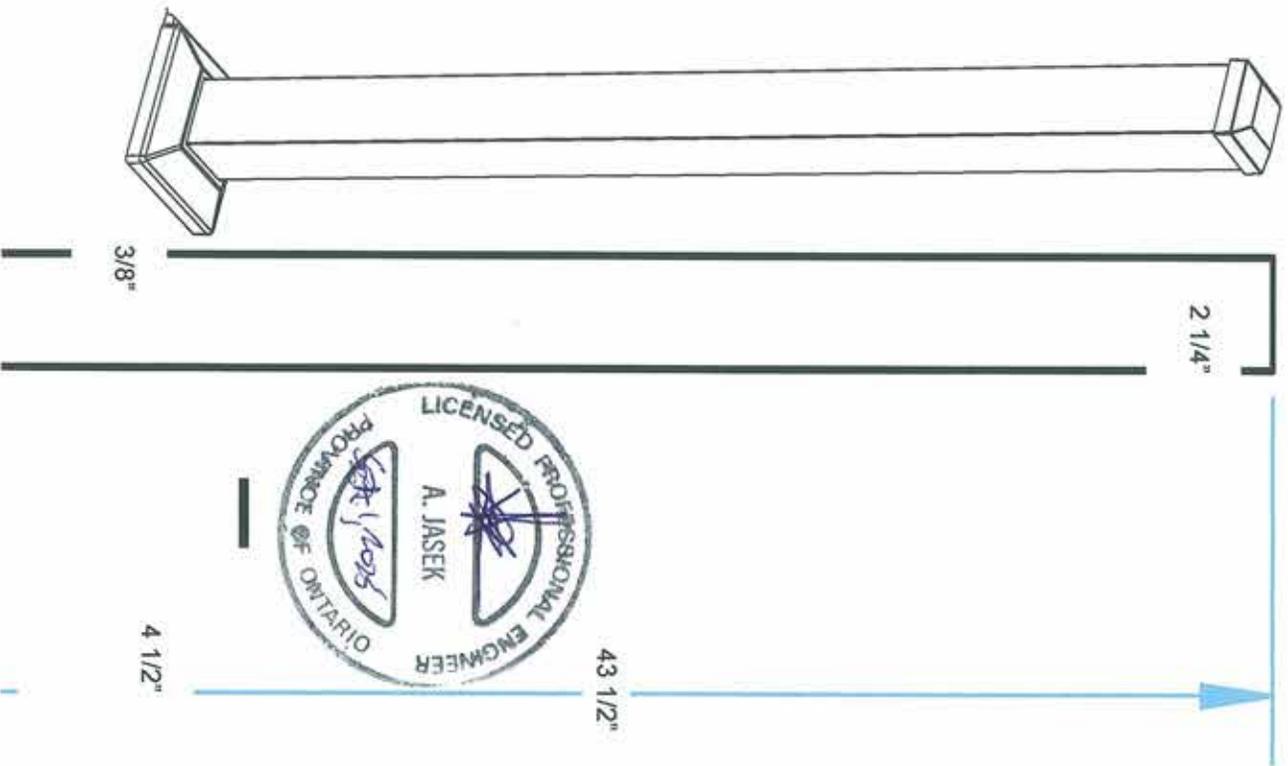
FACE MOUNT POST



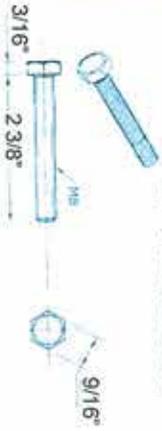
CORNER FACE MOUNT POST



ALUMINUM VISTI POST DETAIL - flush mount post

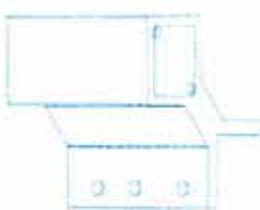
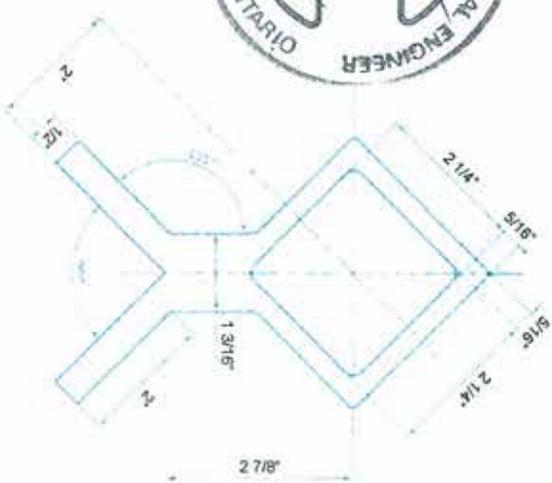
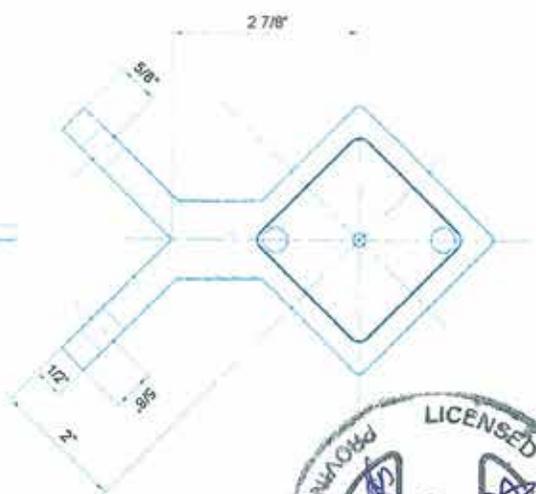
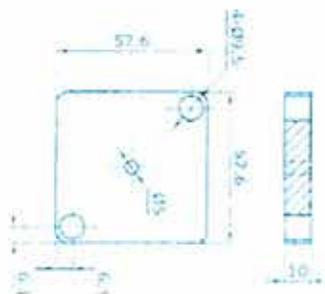
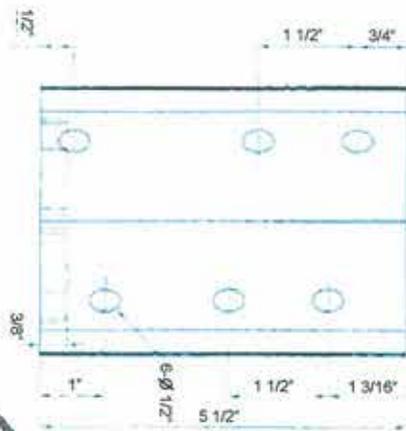


DIE-CAST ALUMINUM BASE
W/ STEEL BOLTS

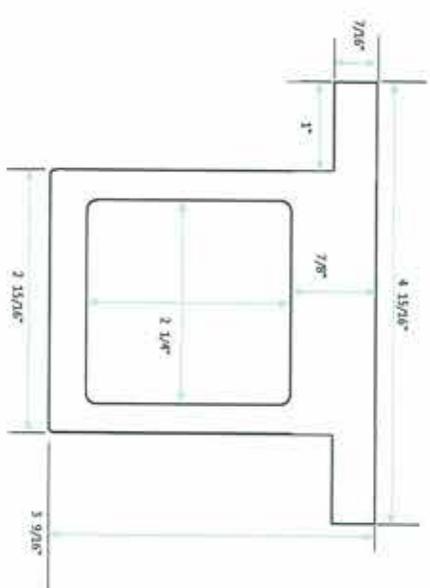
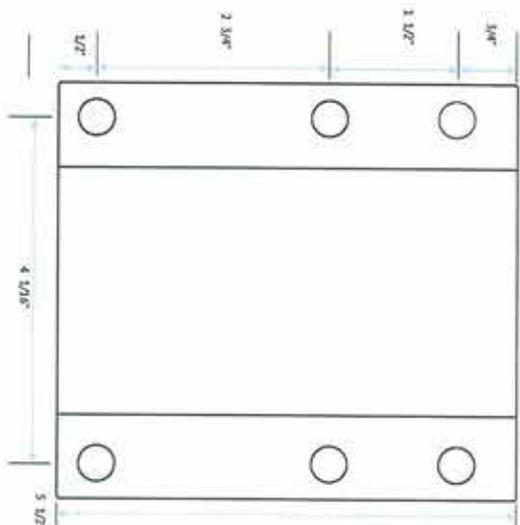
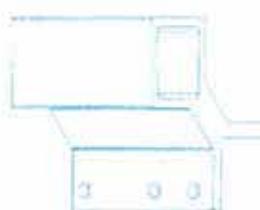


INVISIRAIL ALUMINUM VISTI POST DETAIL - fascia mount post base

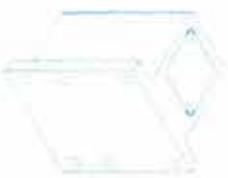
GLASS RAIL REVIEW



corner base



line base



ALUMINUM ALX POST DETAIL

