

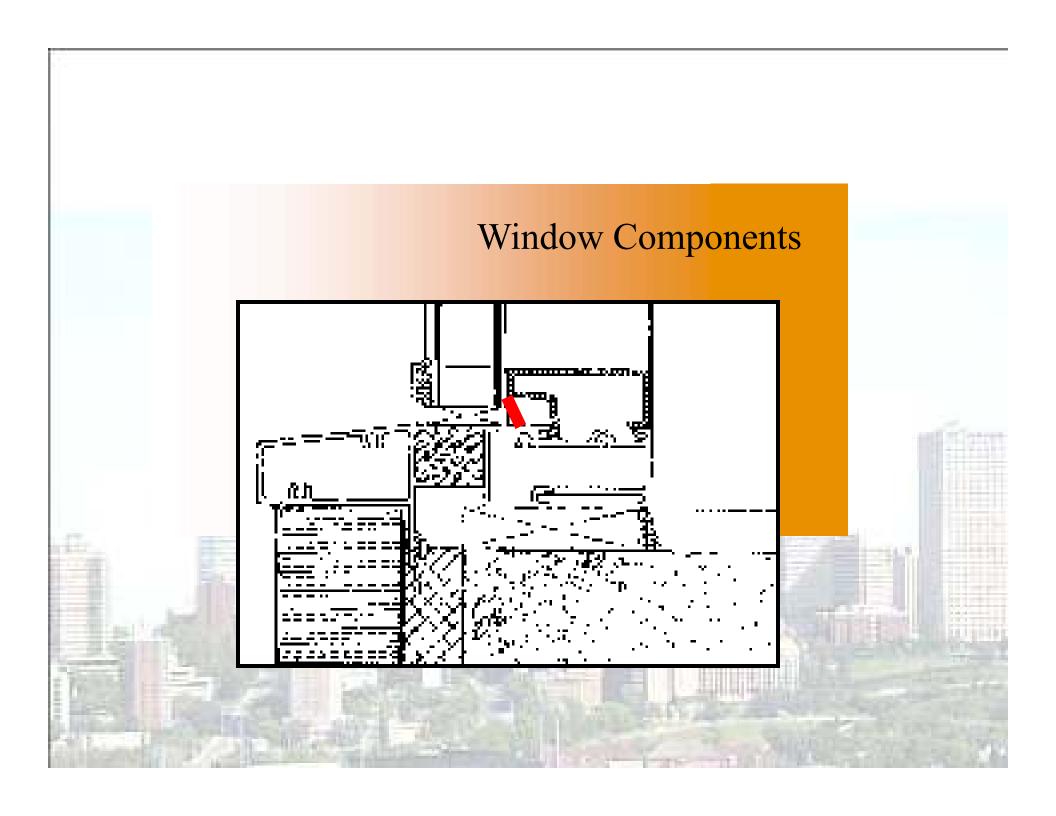
A shortened and modified version of Chris Makepeace's

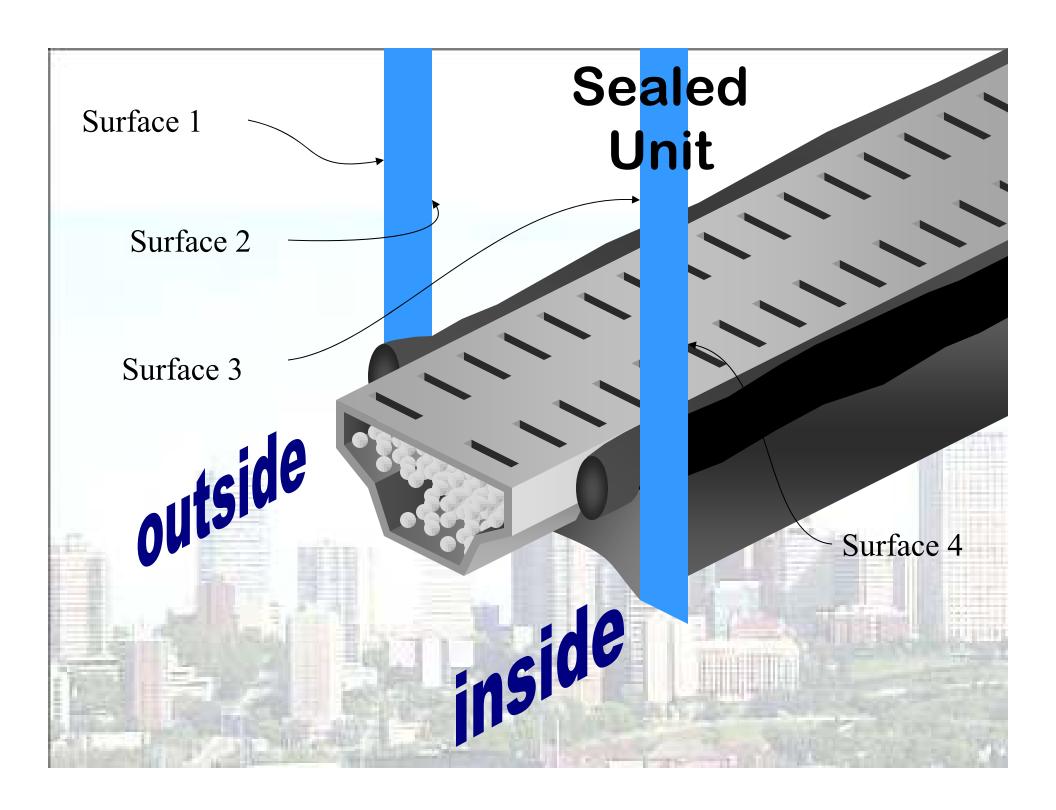
Presentation created by

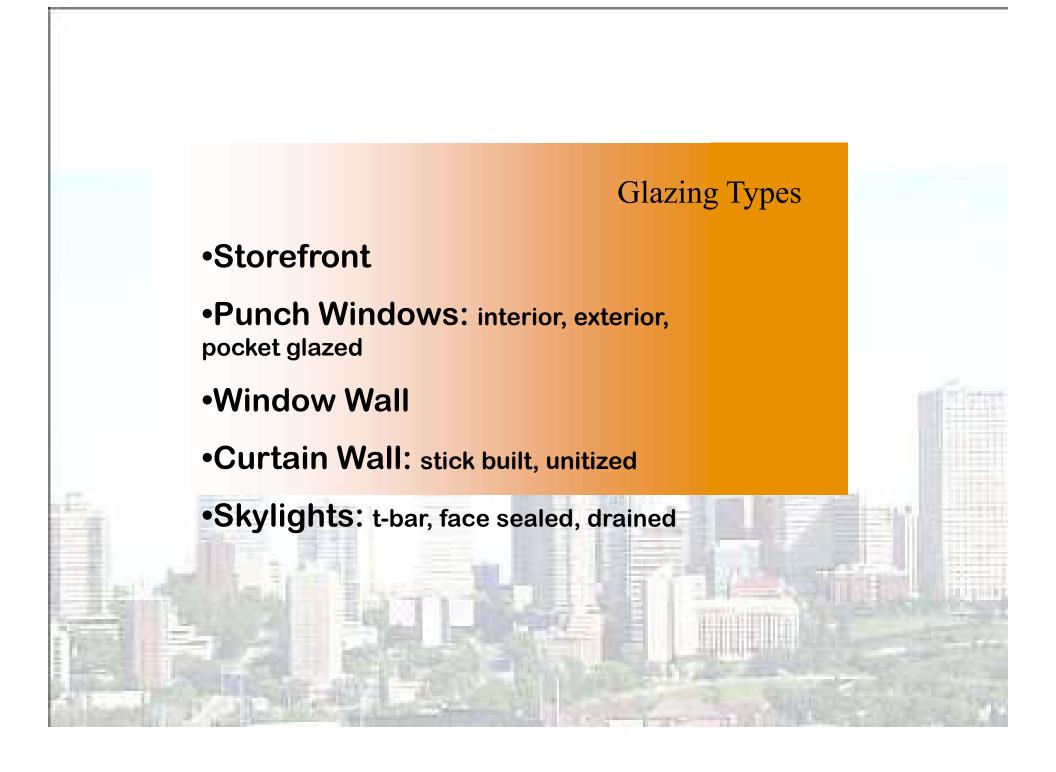
Alberta Infrastructure

Pierre-Michel Busque, P.Eng. Busque Engineering Ltd.

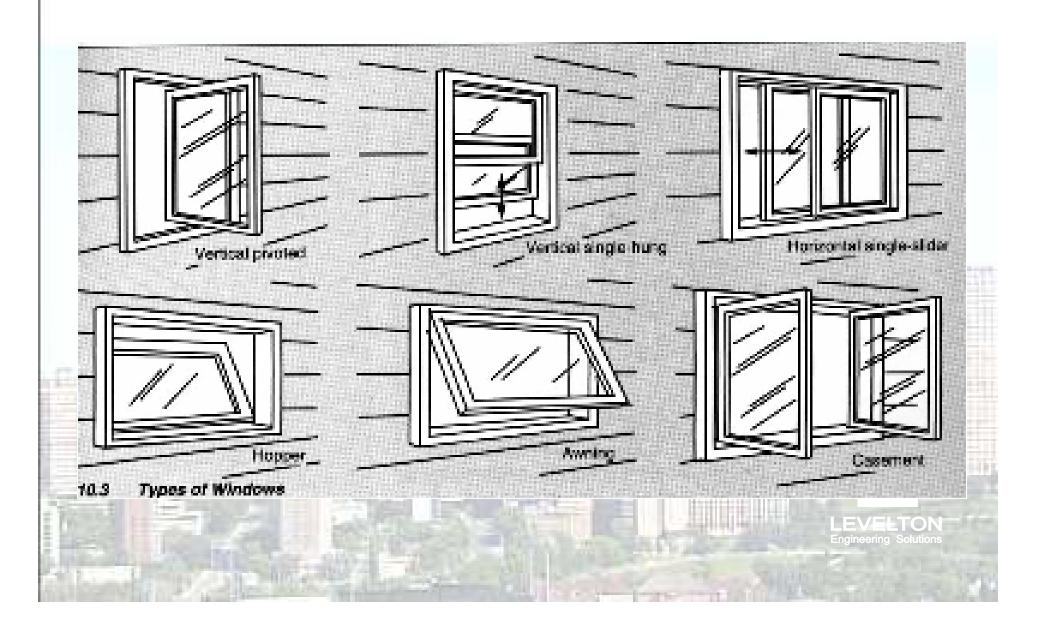


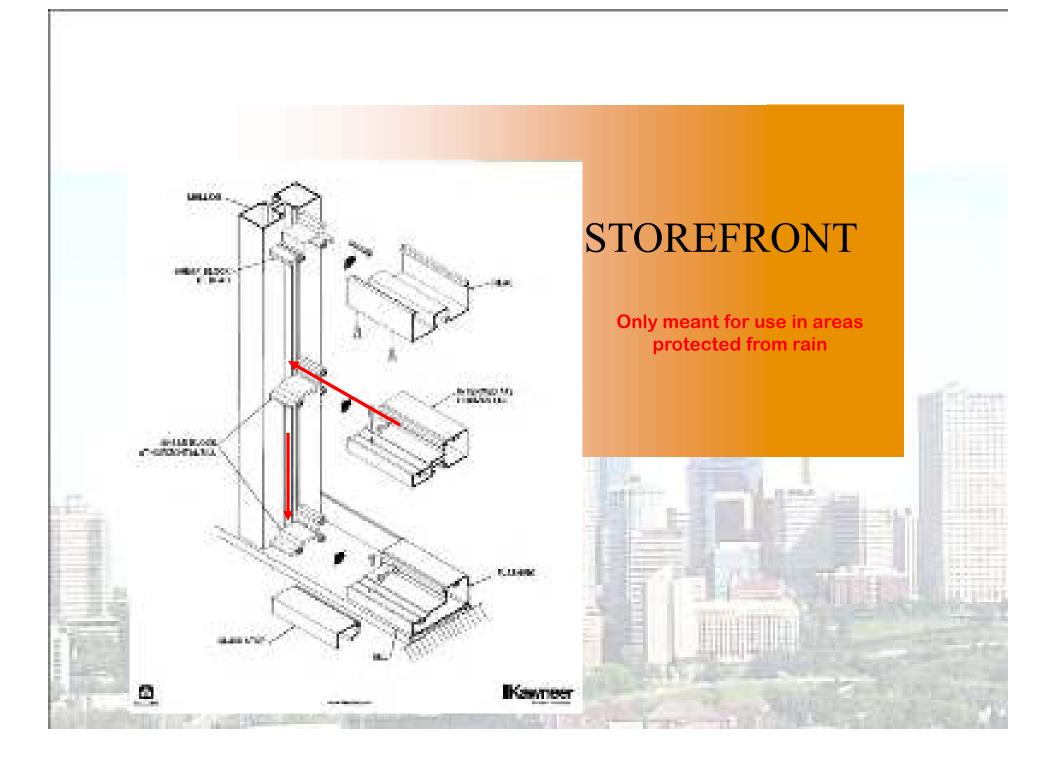


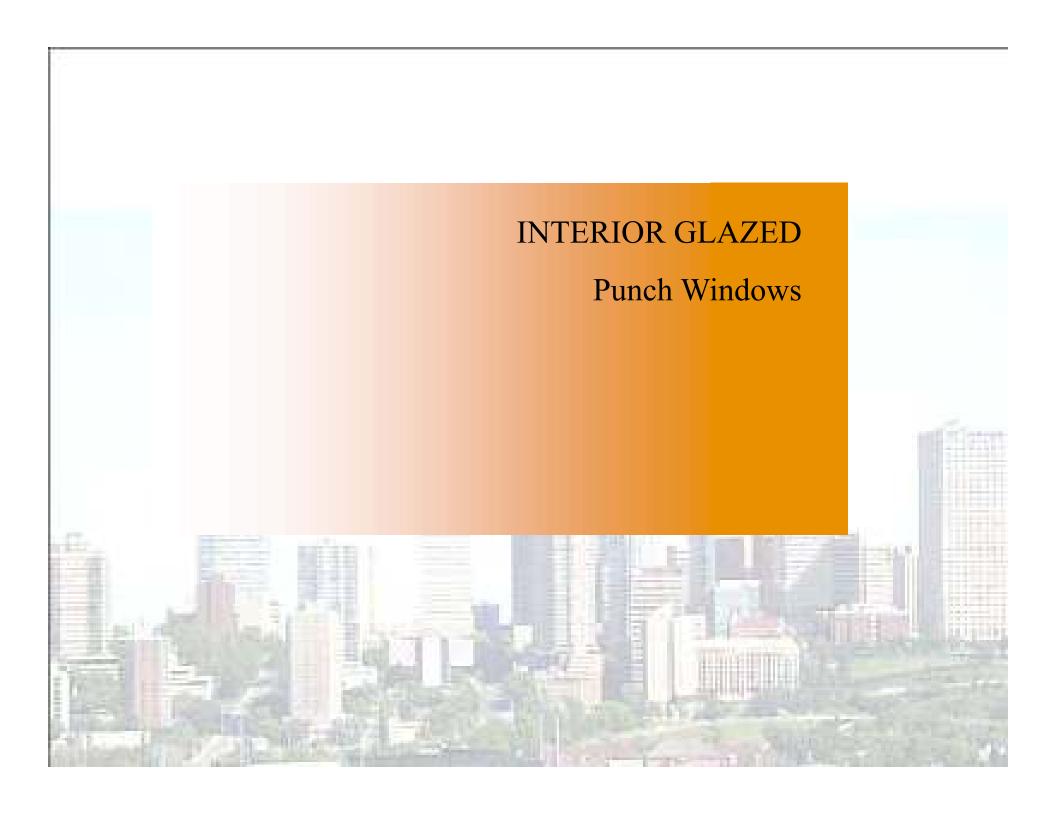


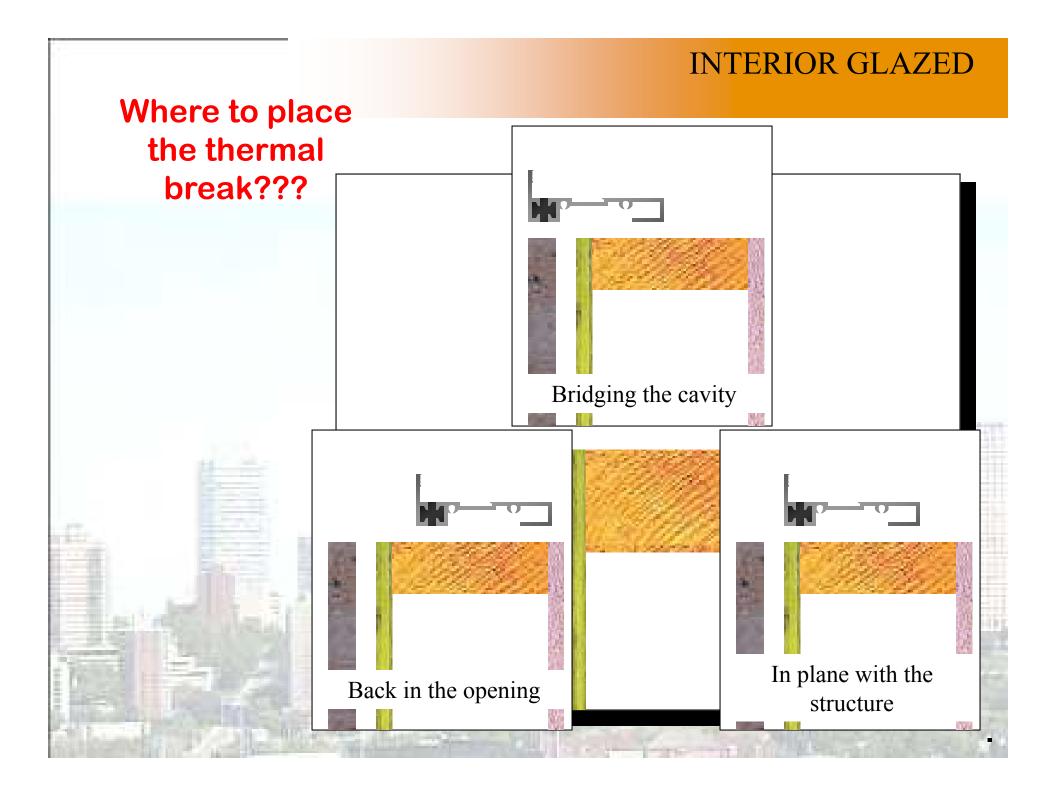


Types of Operable Lites

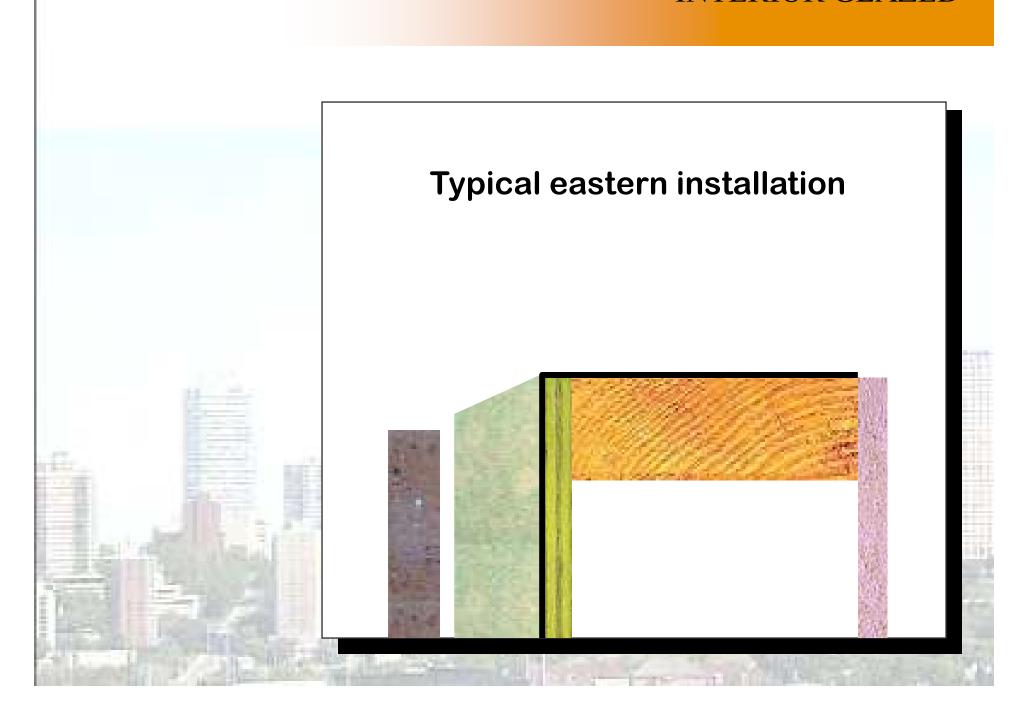








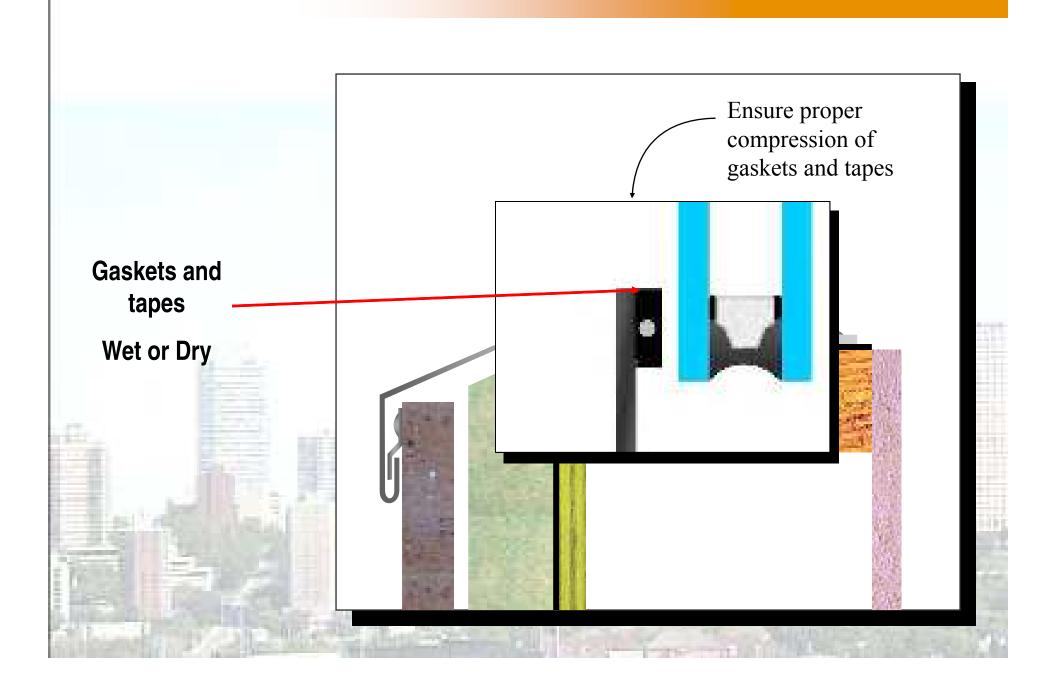
INTERIOR GLAZED Exterior

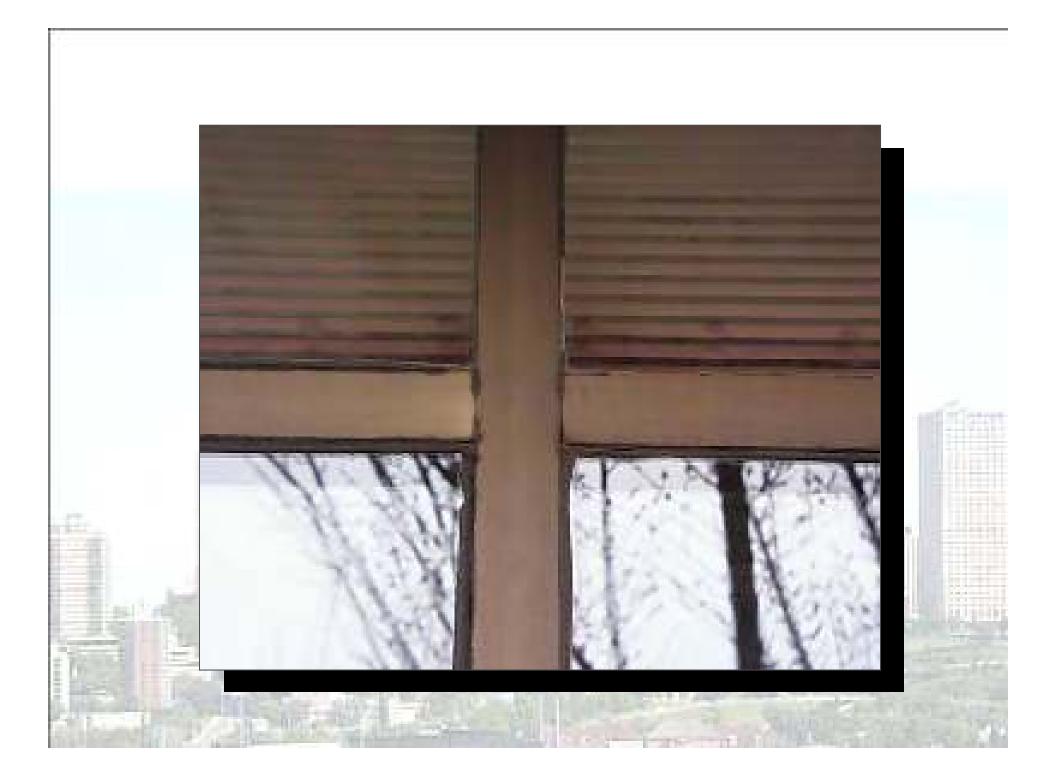


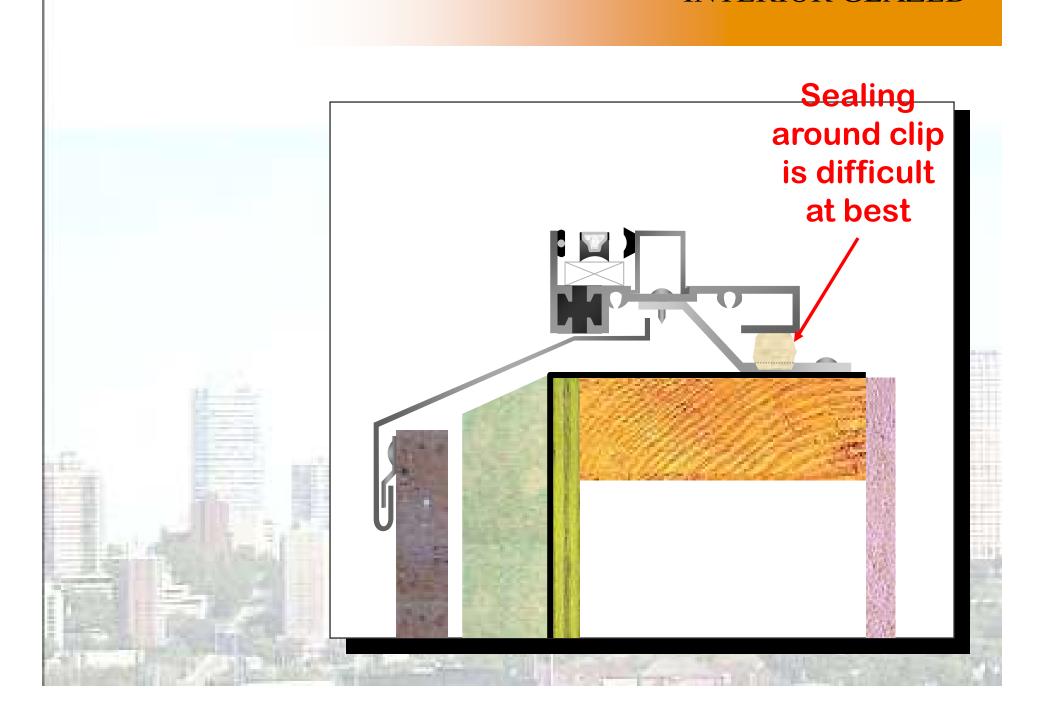
INTERIOR GLAZED Notch out shim to allow for flashing thickness

INTERIOR GLAZED Straight through Metal bracket

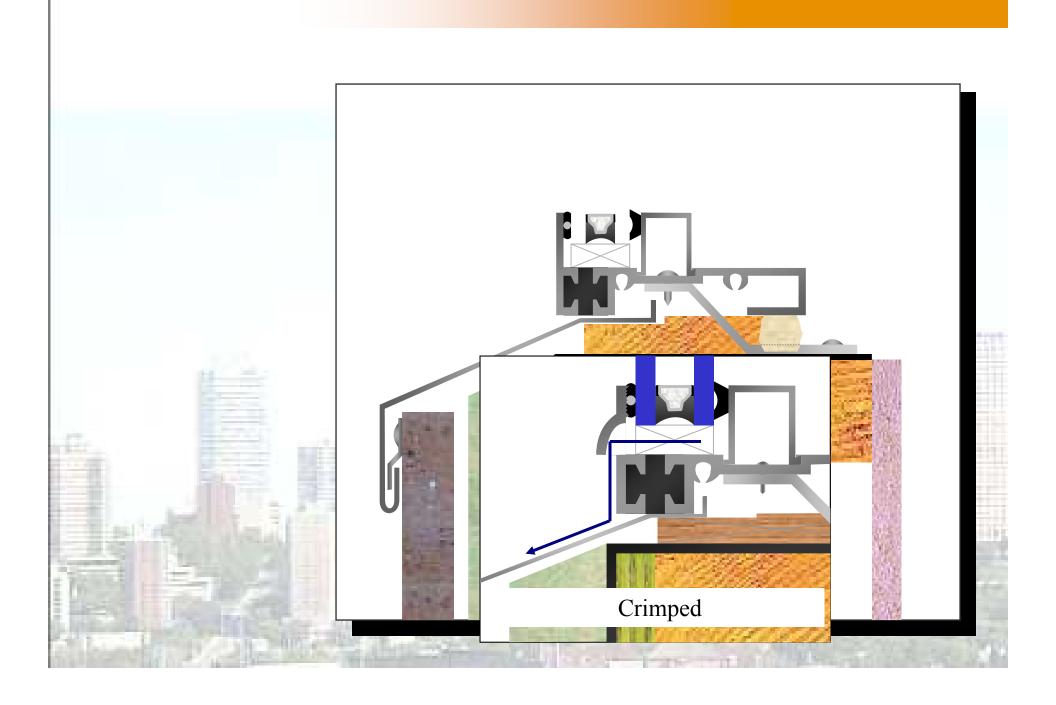
INTERIOR GLAZED Metal bracket

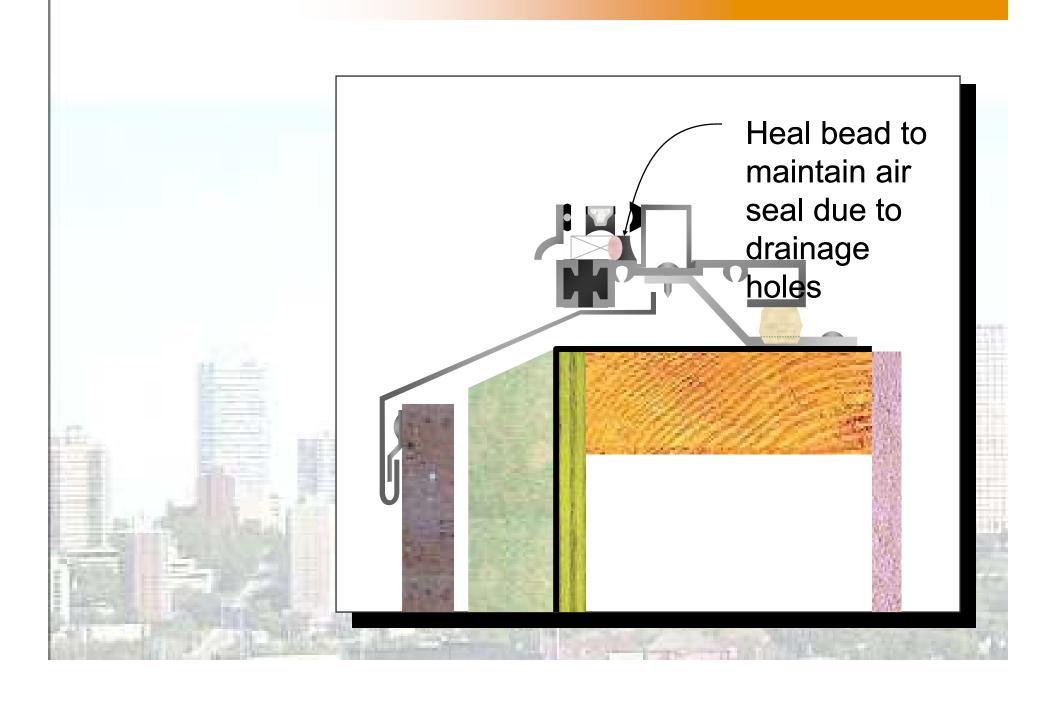






INTERIOR GLAZED Drainage Bottom drain Crimped



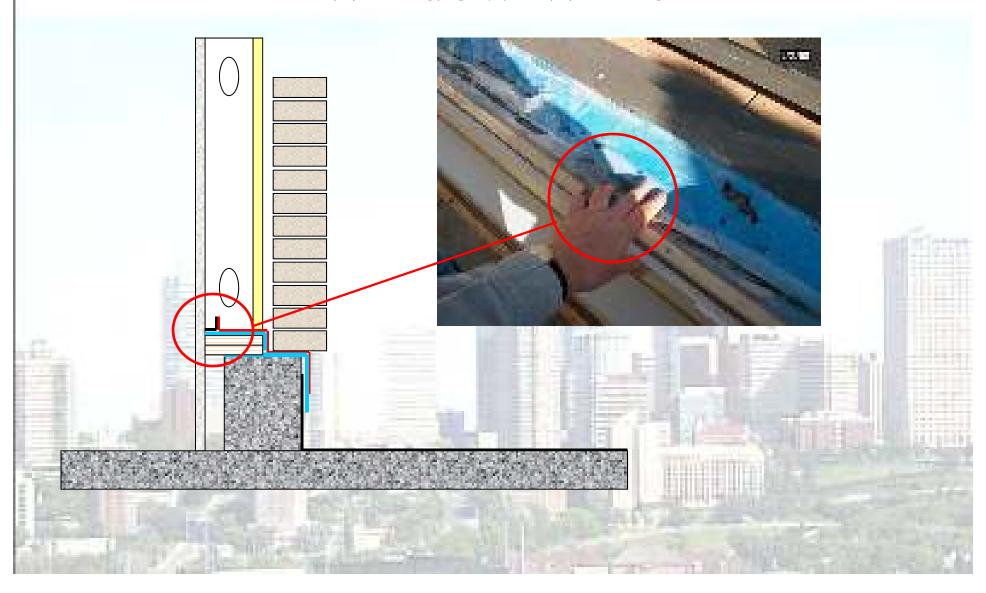


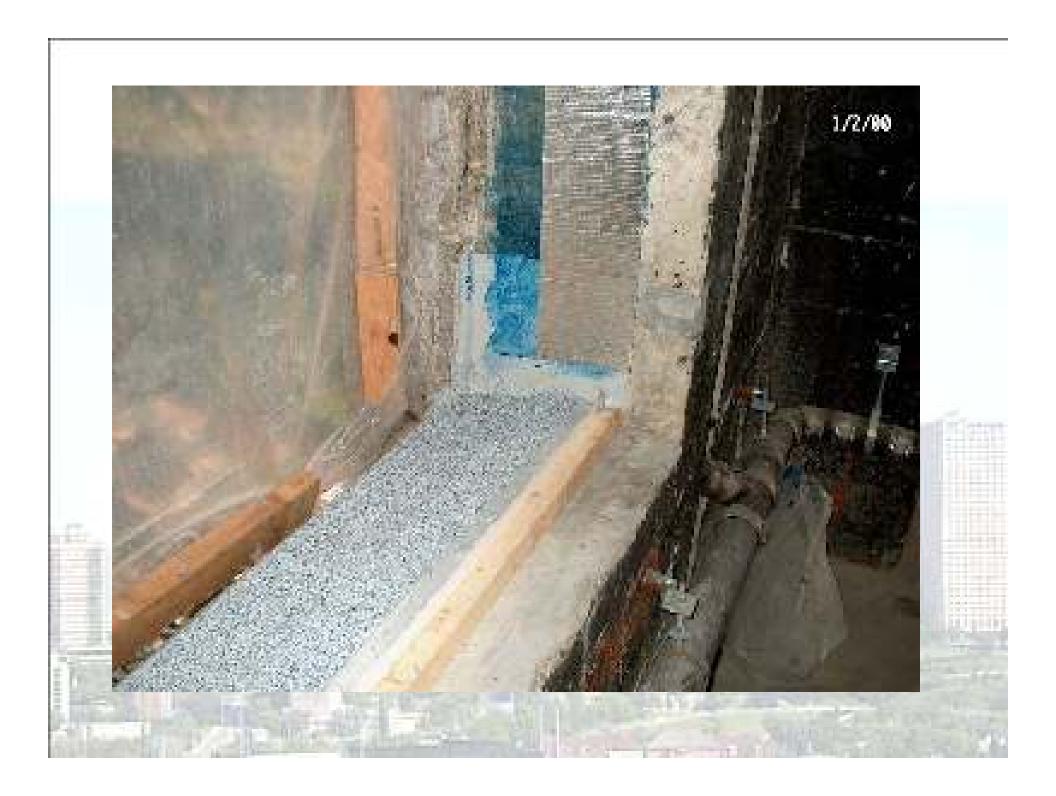


Vancouver Examples



Window Walls



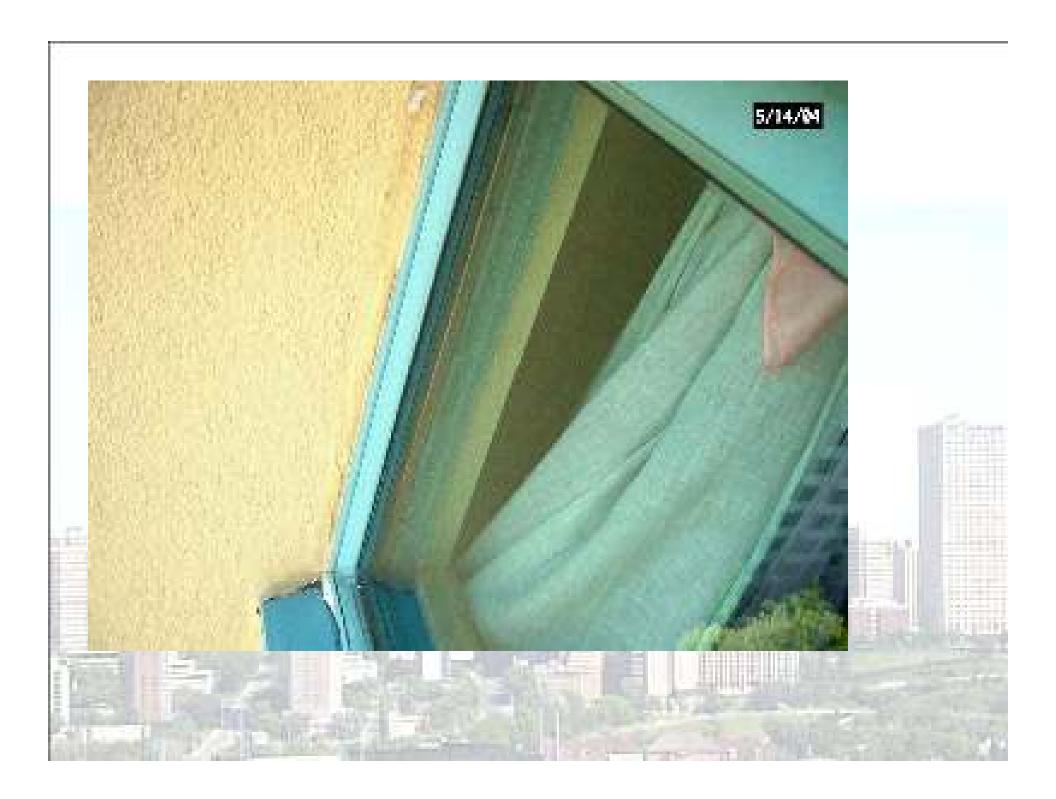




Sill Pan Flashings

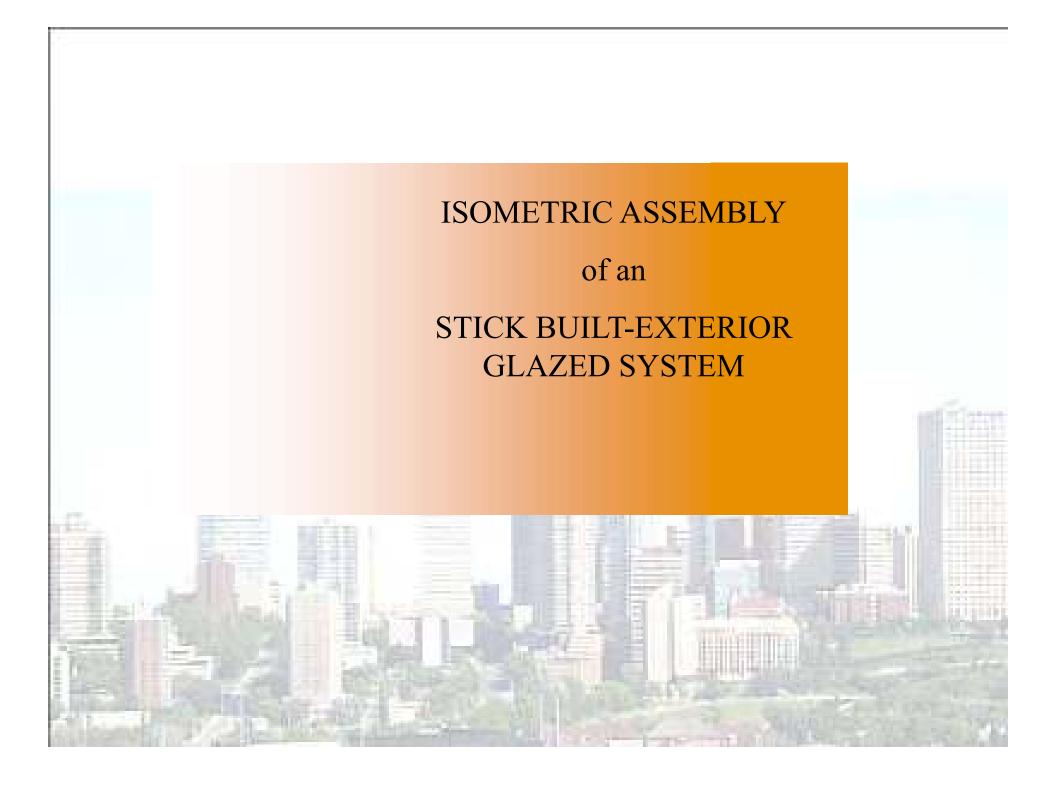
• The double edge sword......



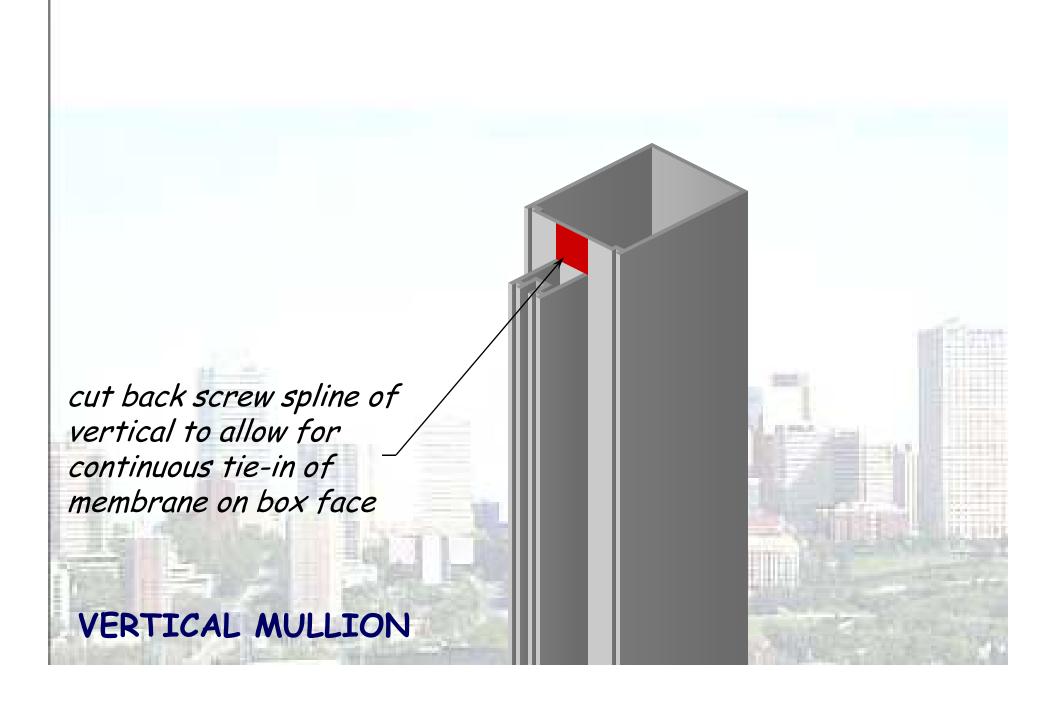


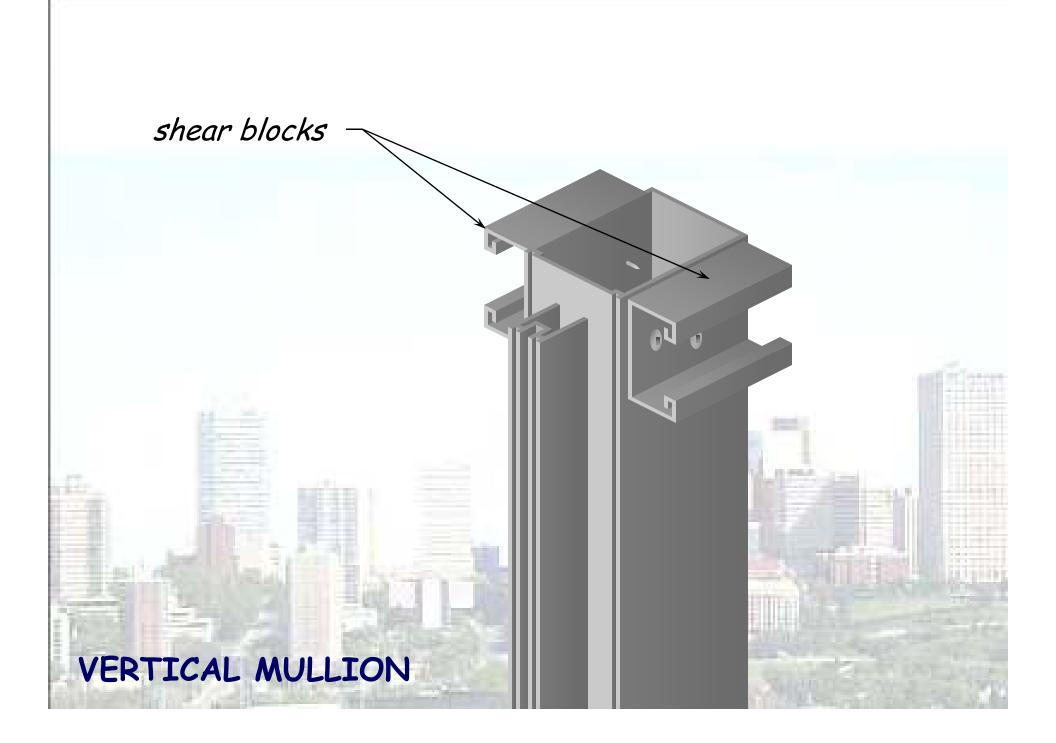








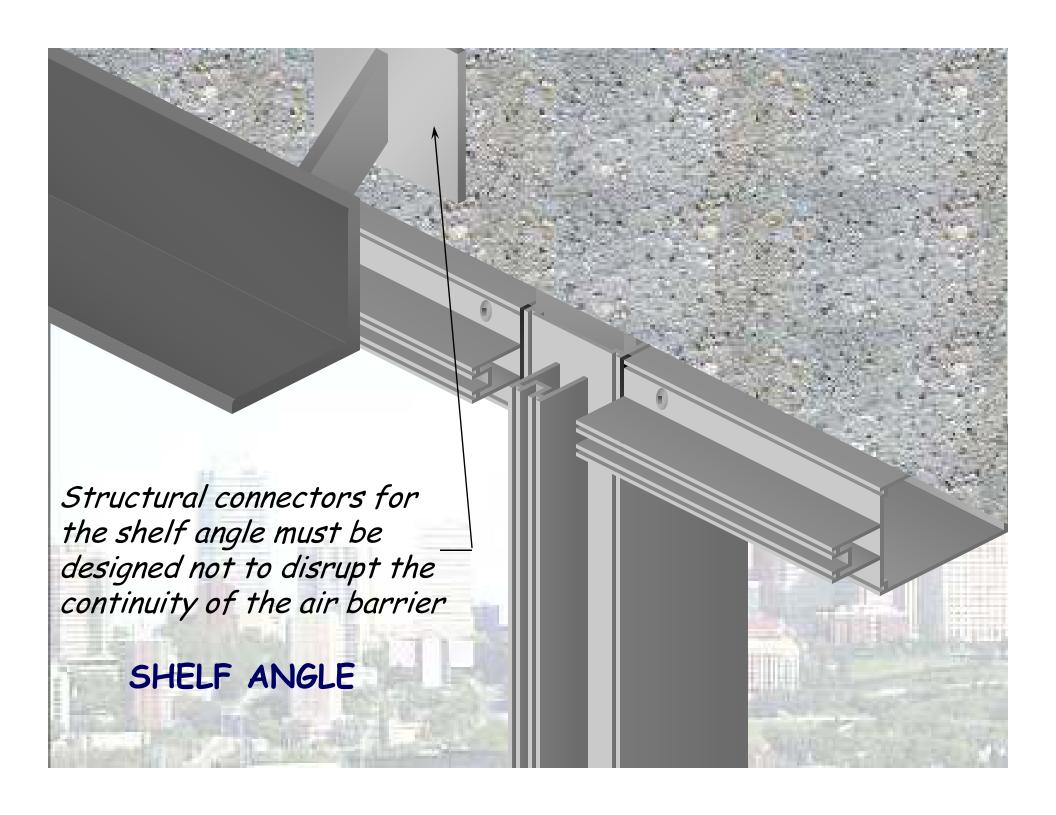




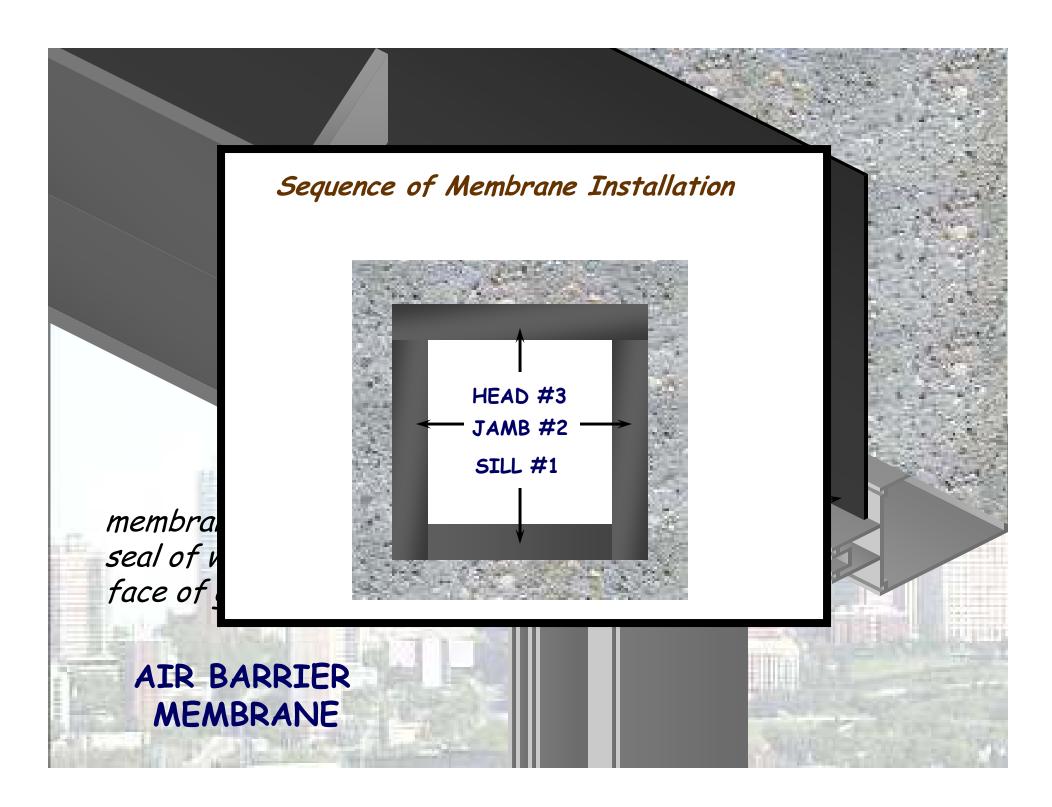




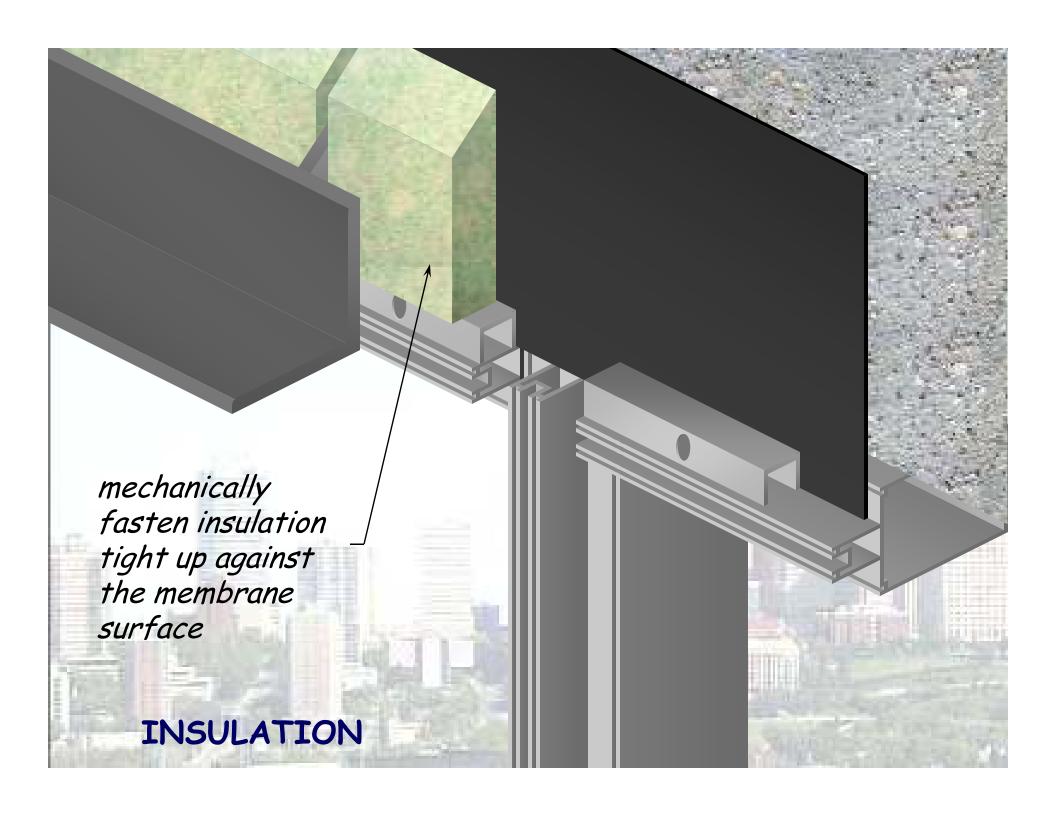


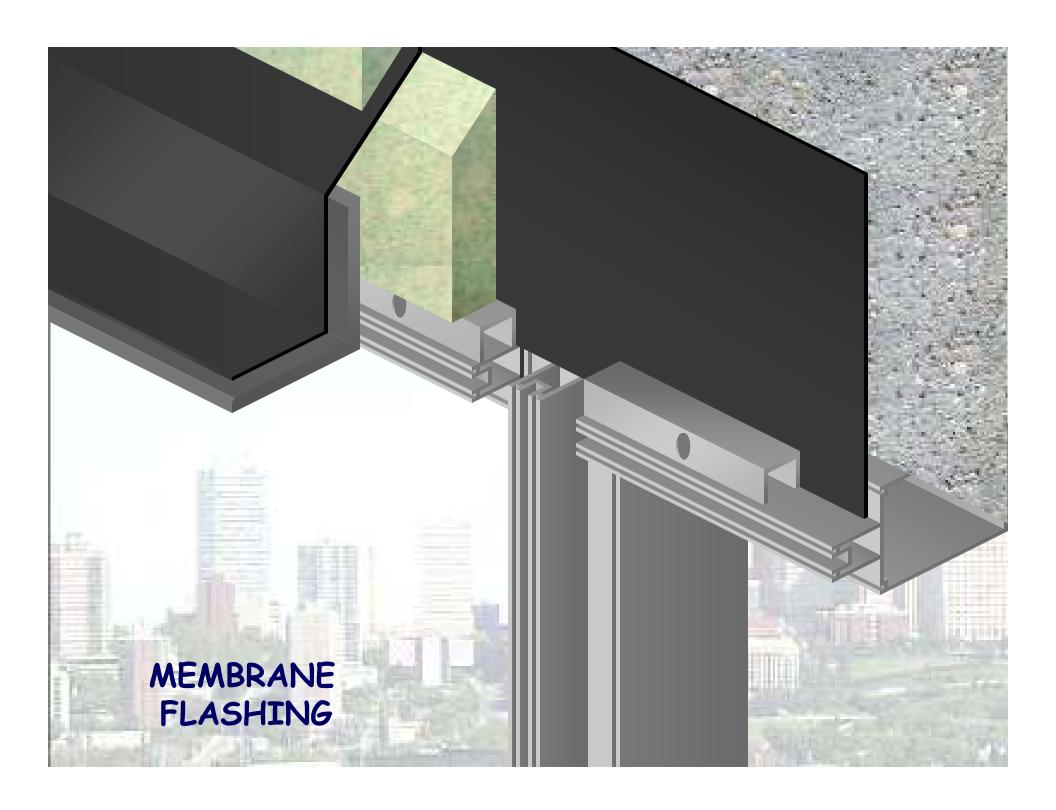


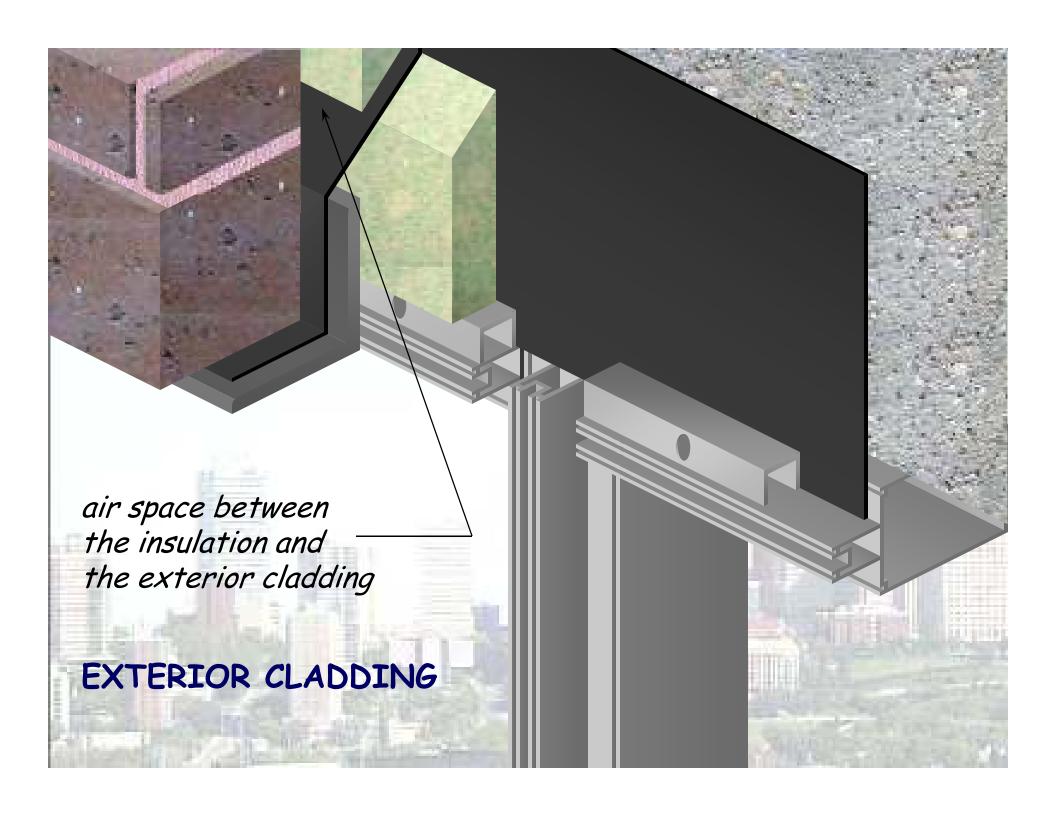


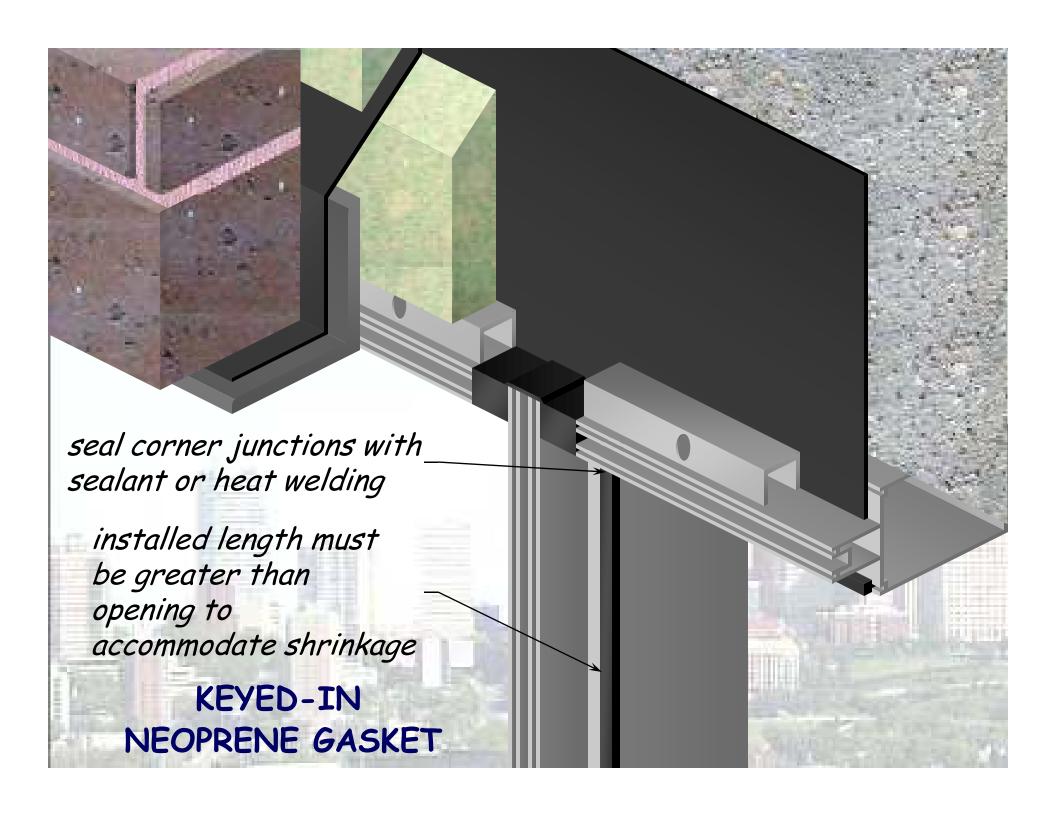


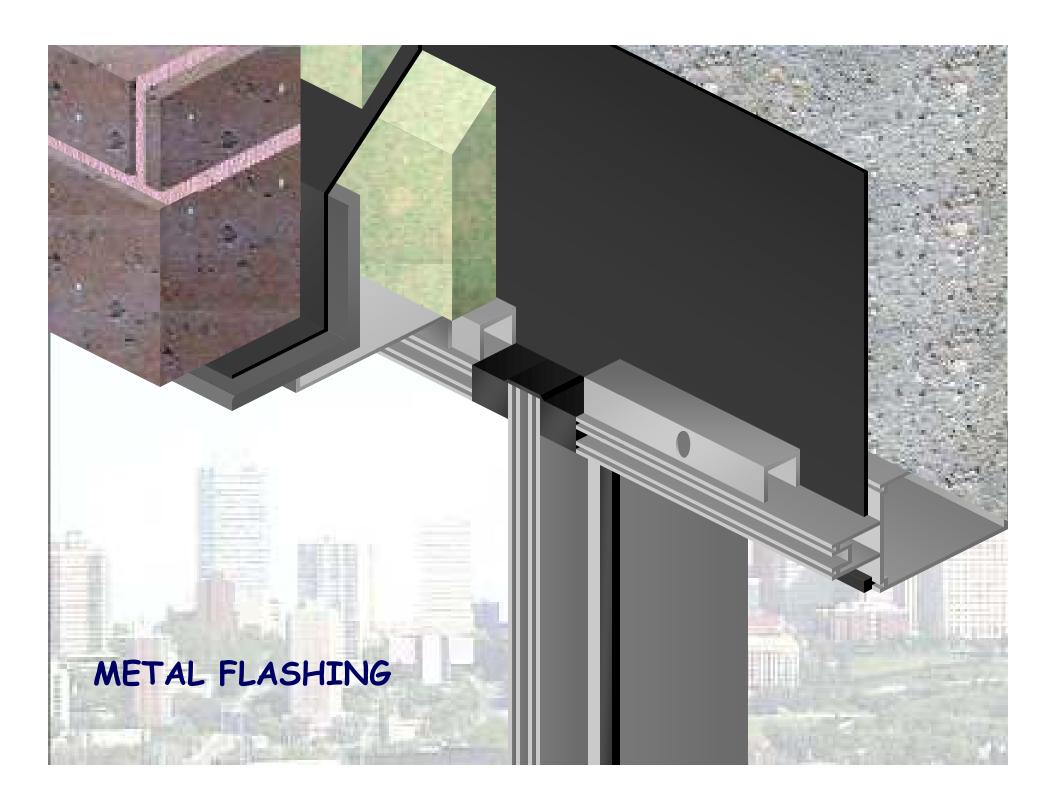


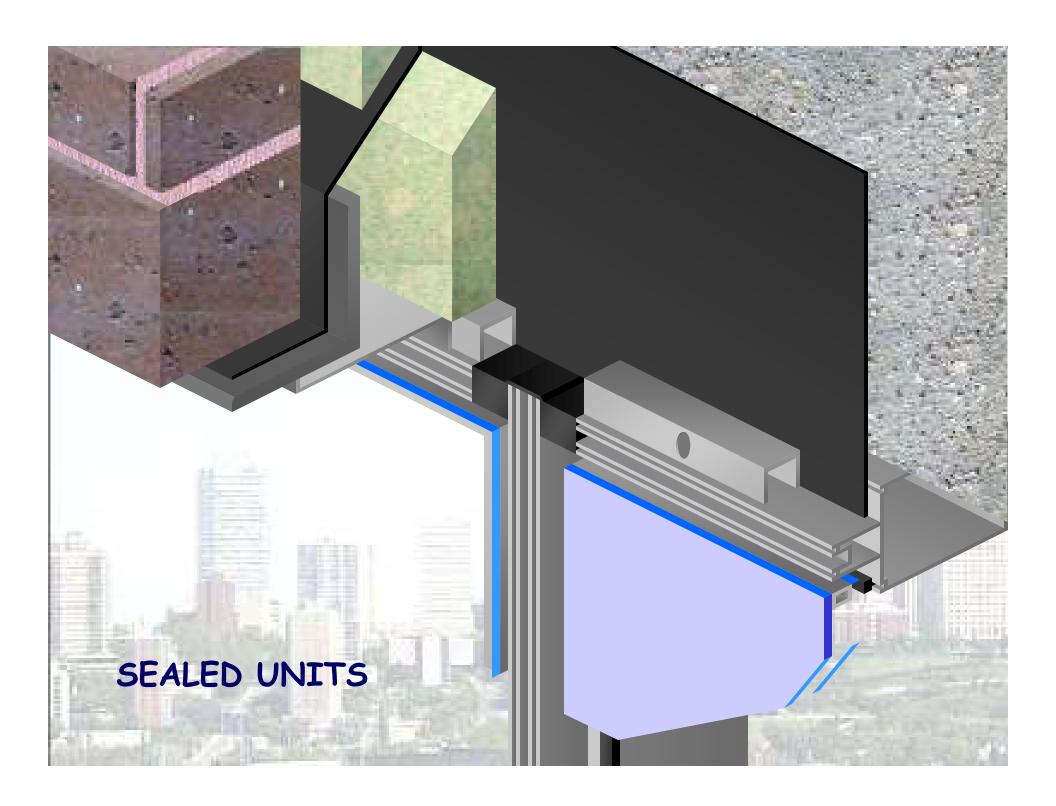


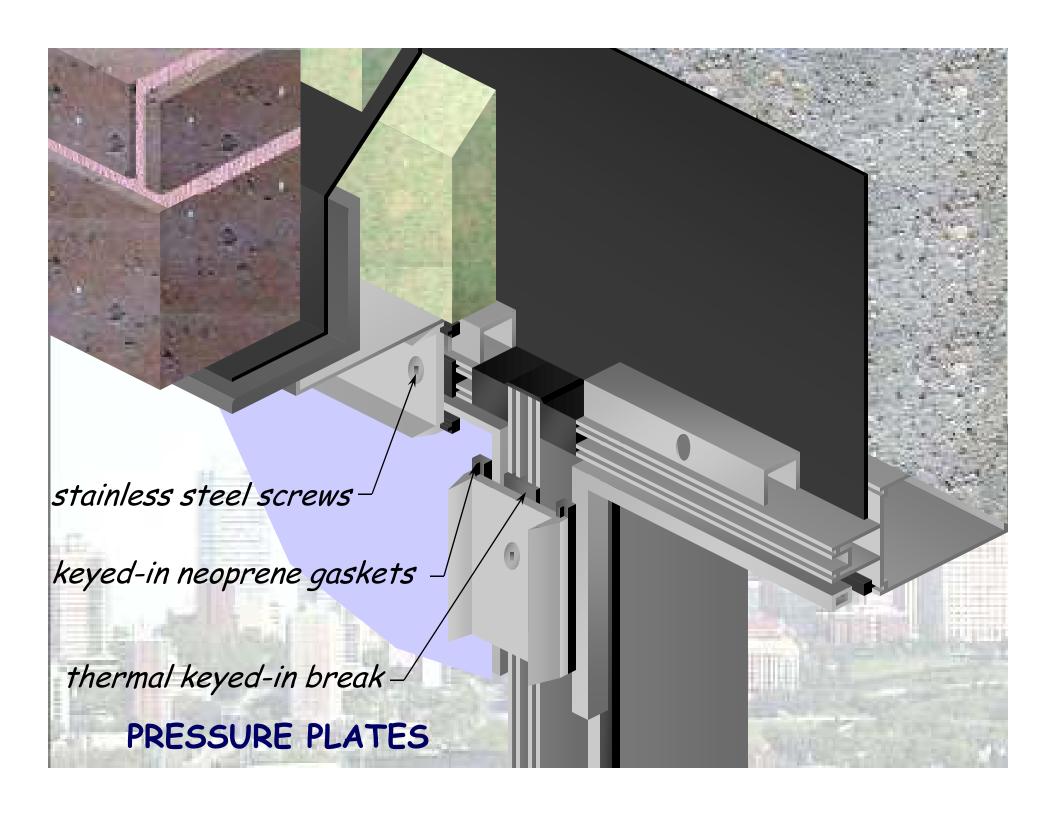


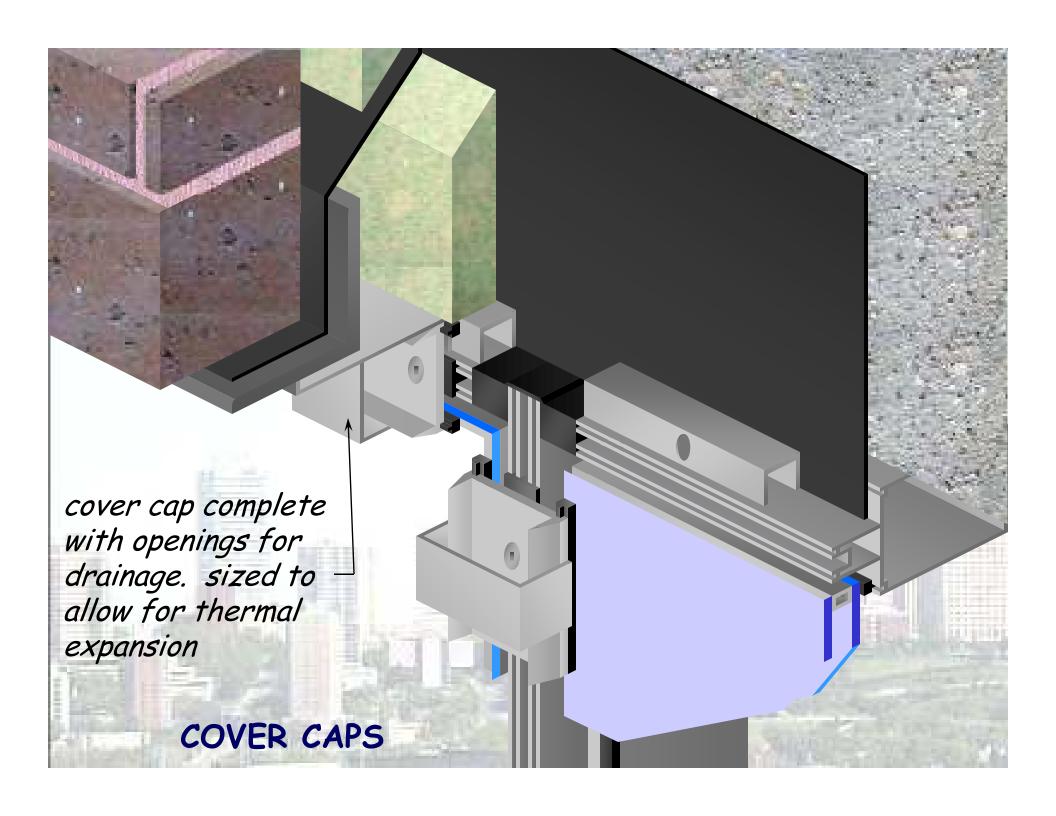


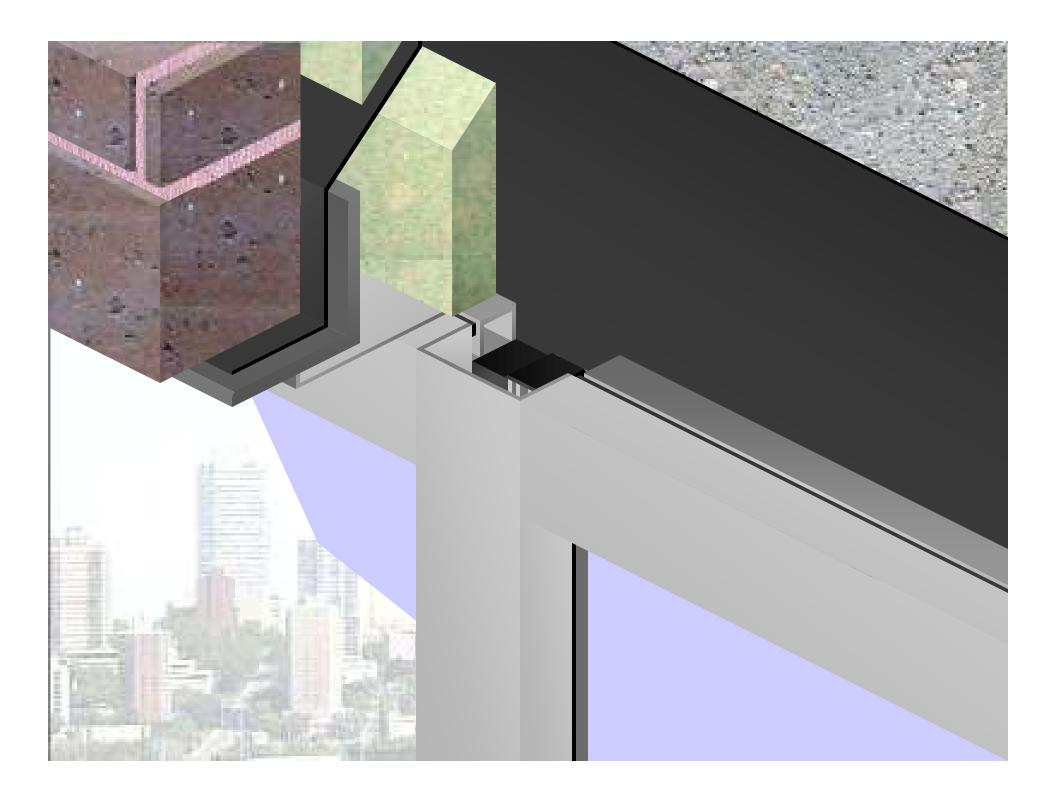








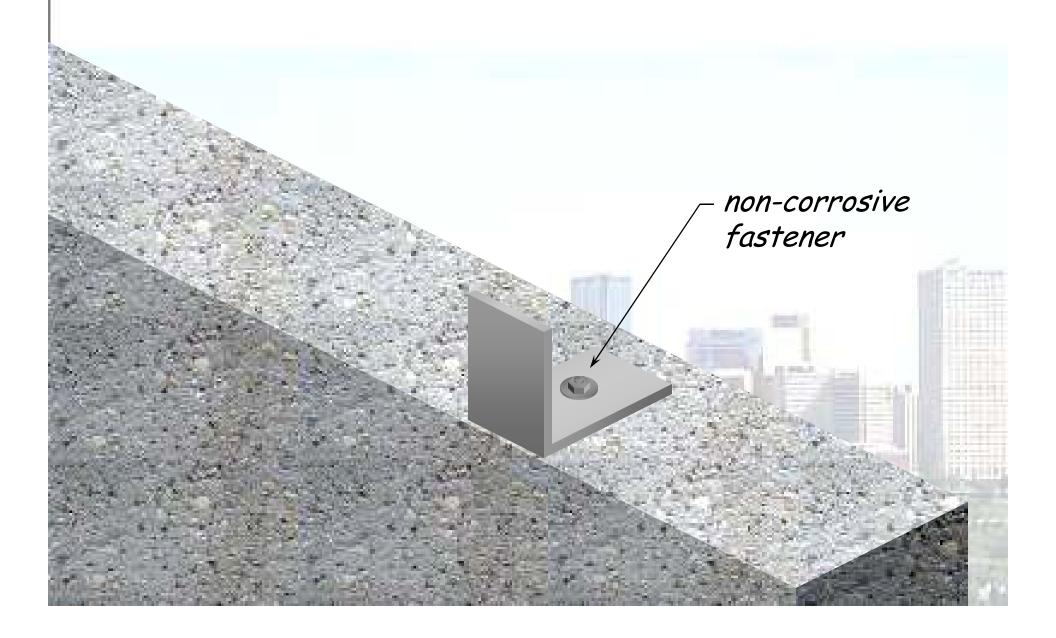


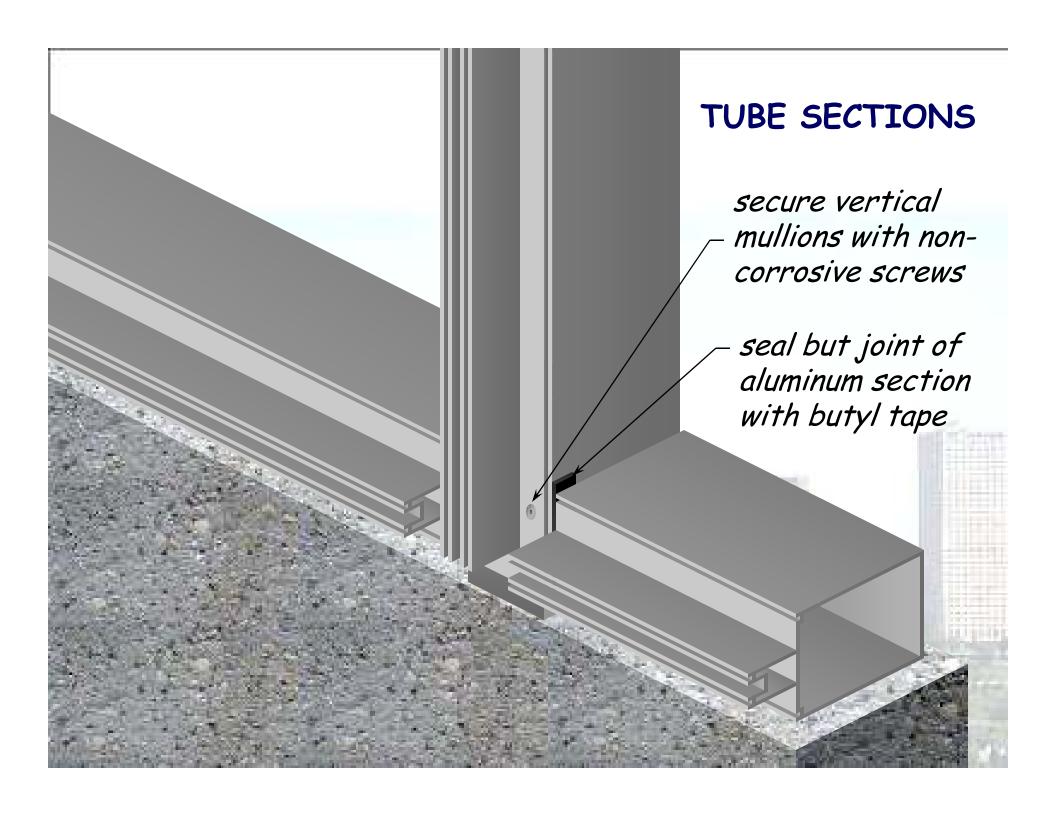


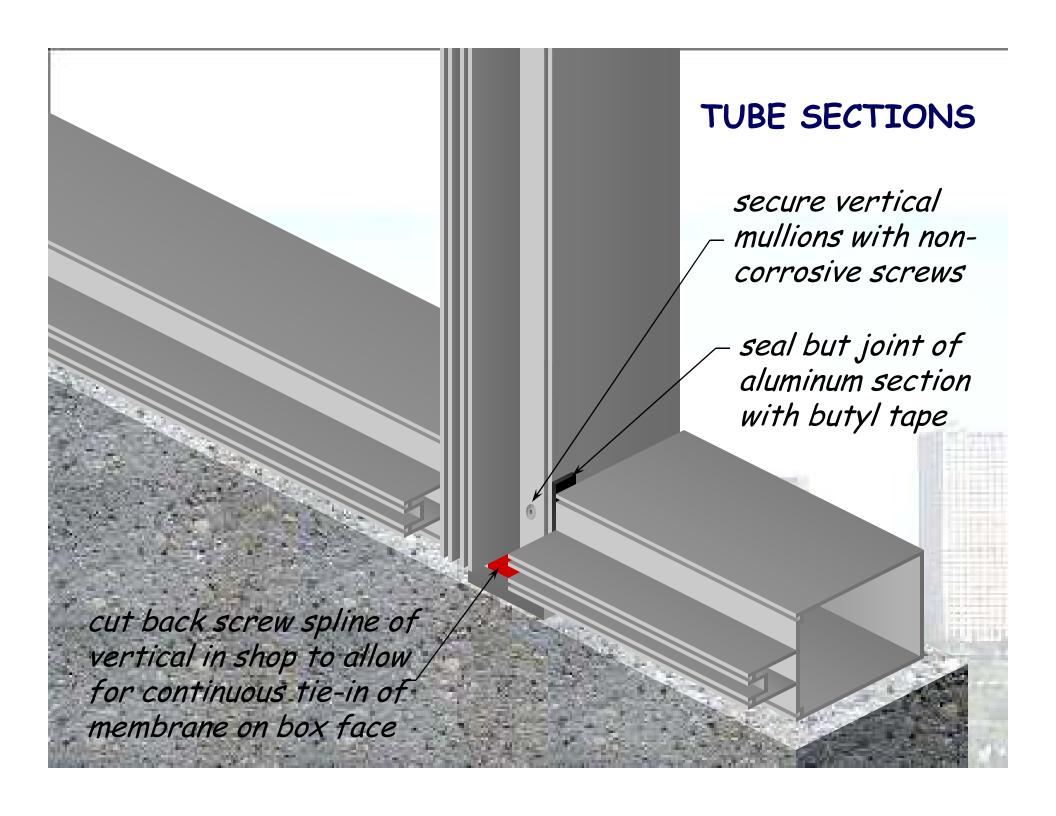
At Sill

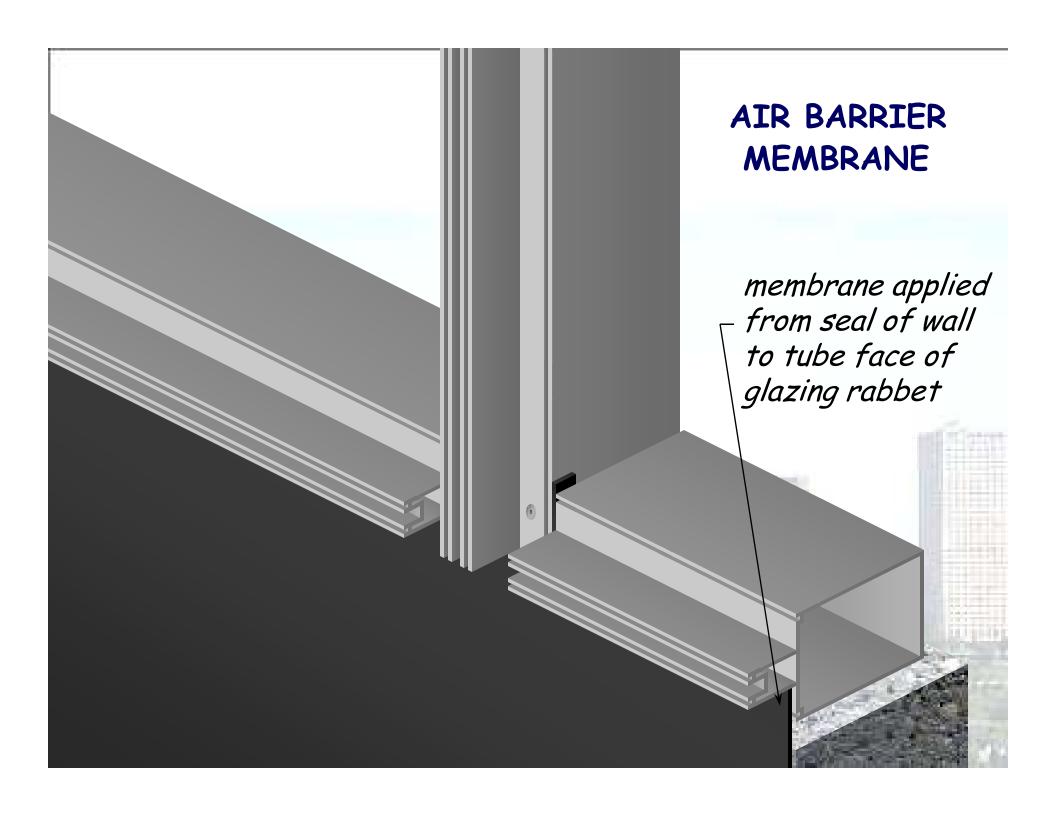


BASE PLATE ANCHOR



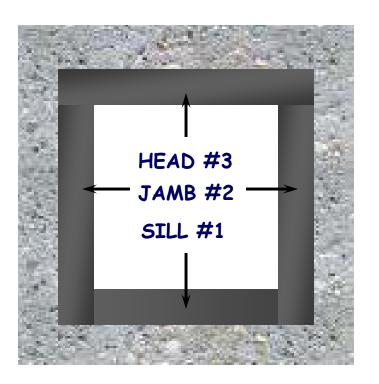




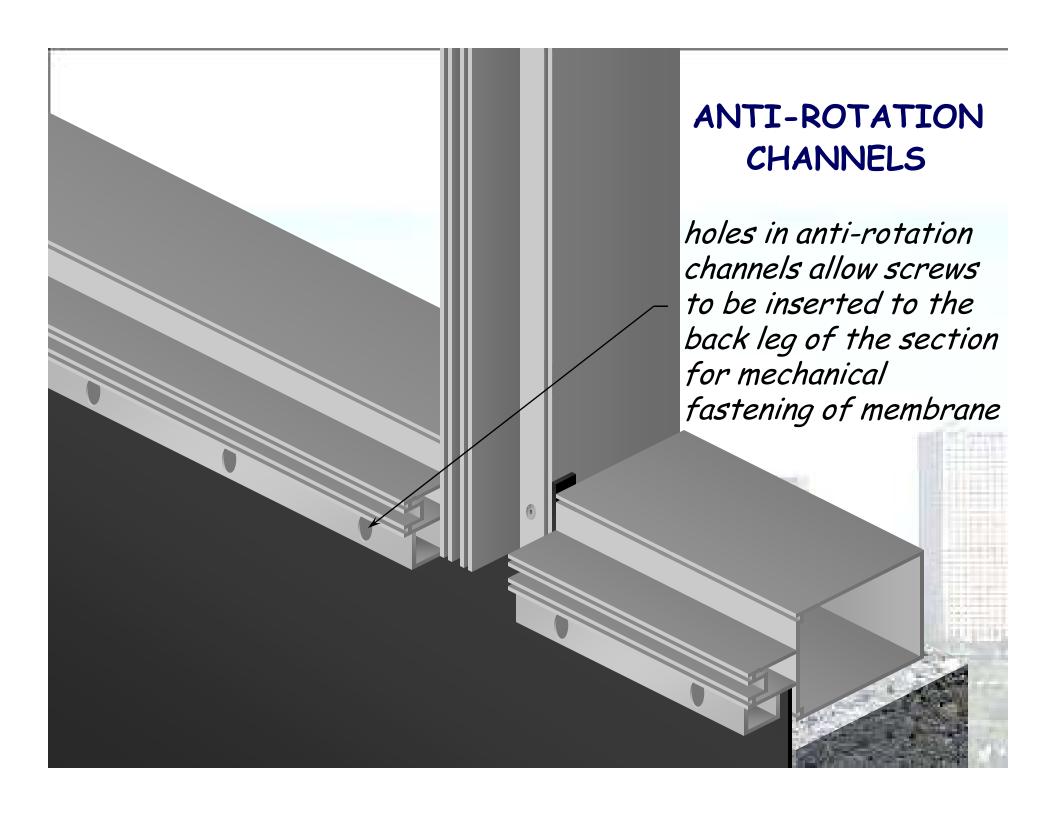


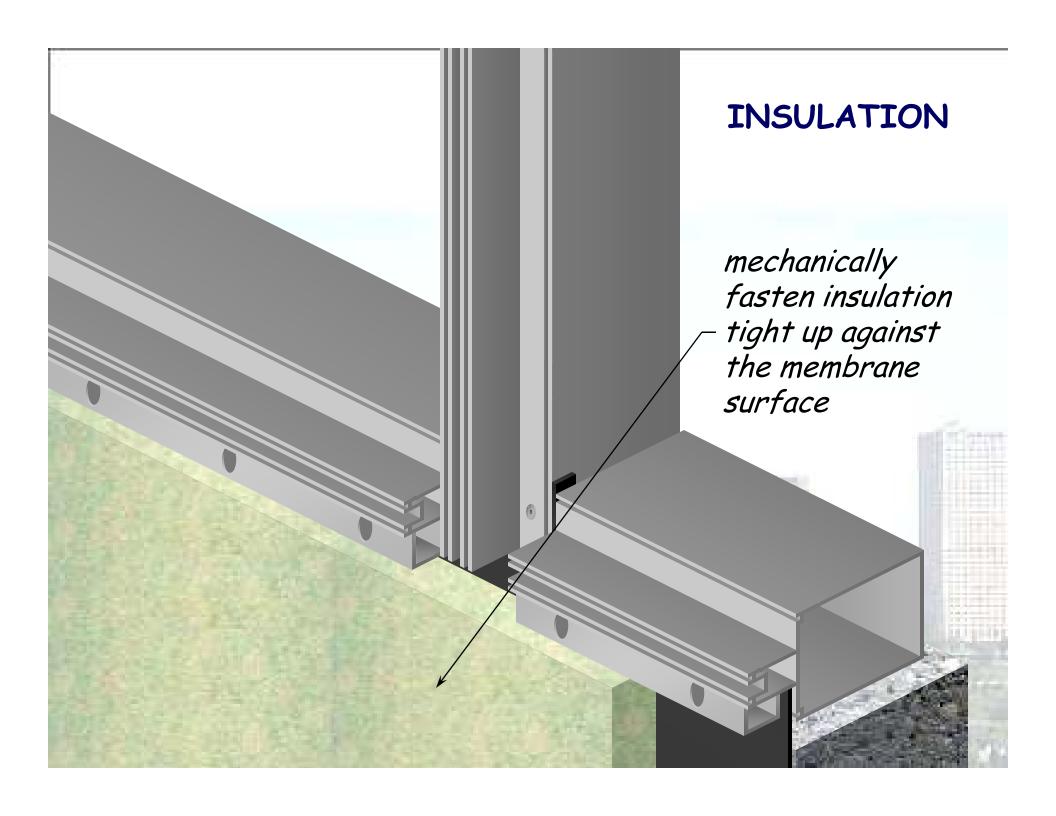
AIR BARRIER BRANE

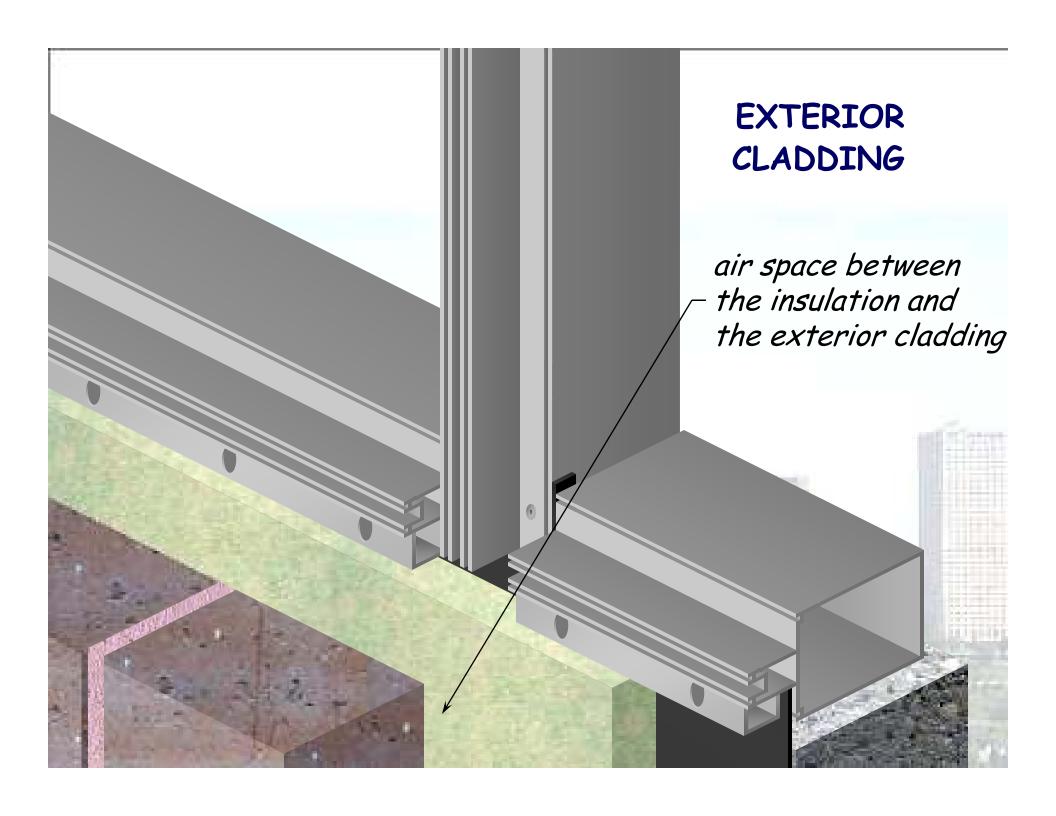
Sequence of Membrane Installation

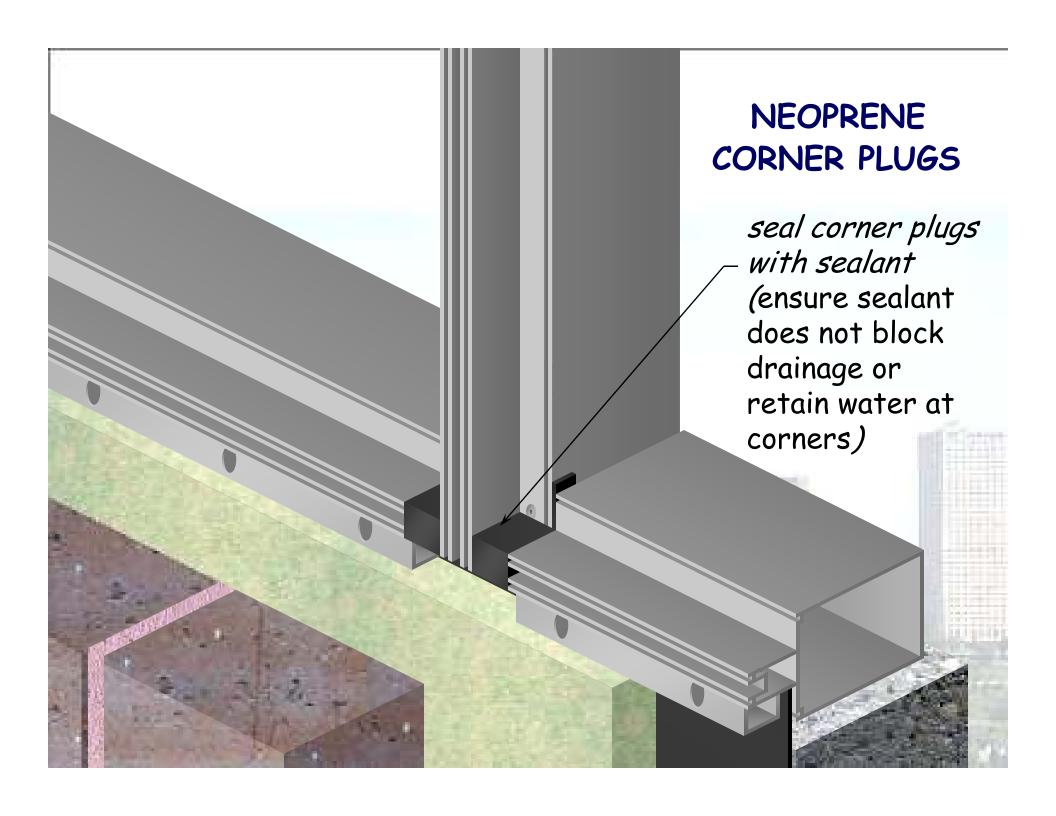


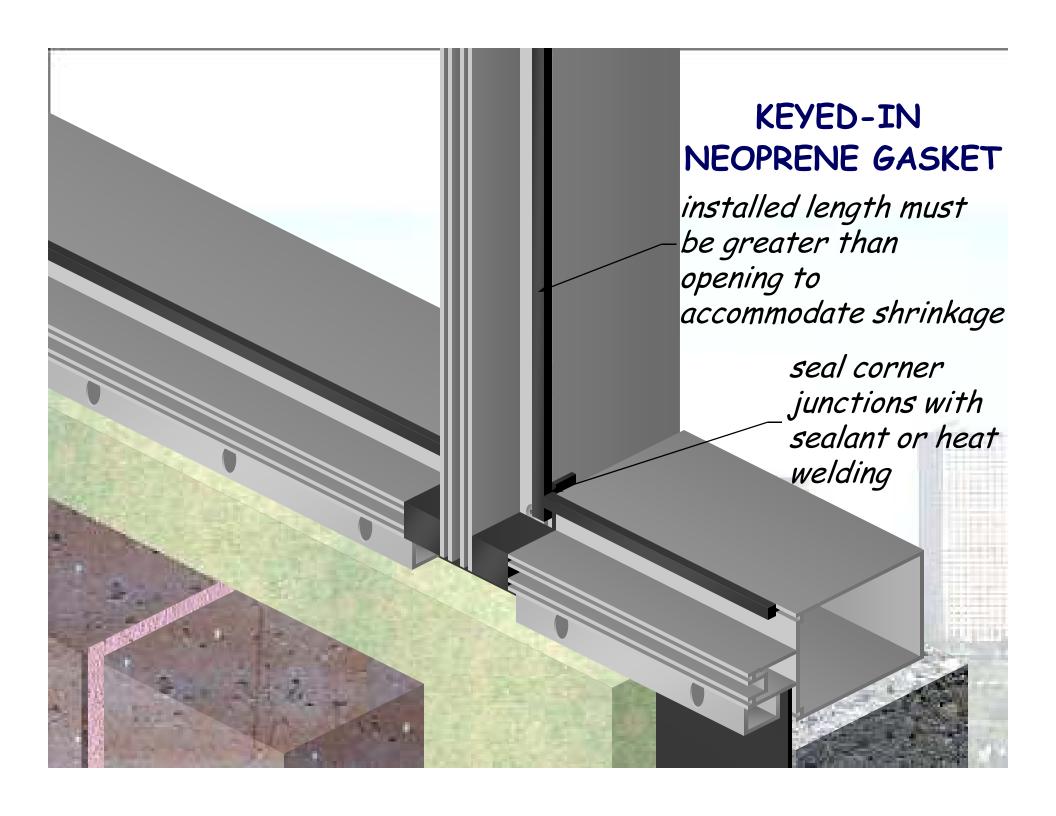
rane applied seal of wall e face of grabbet

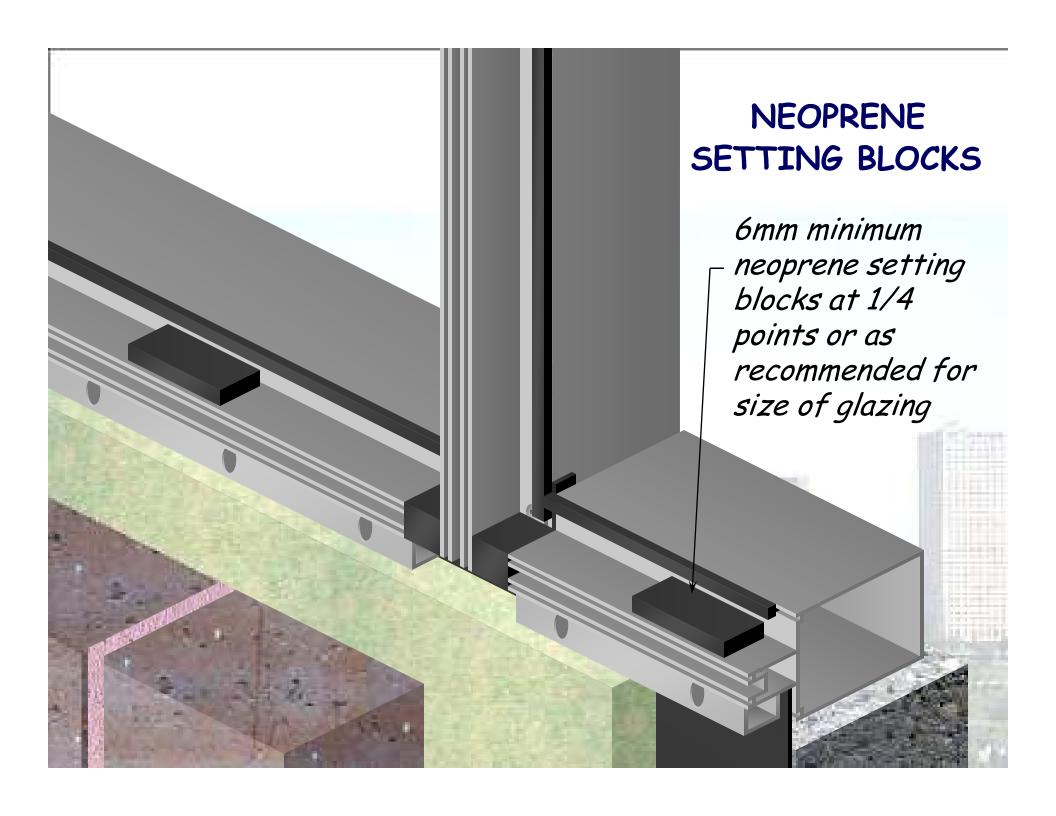


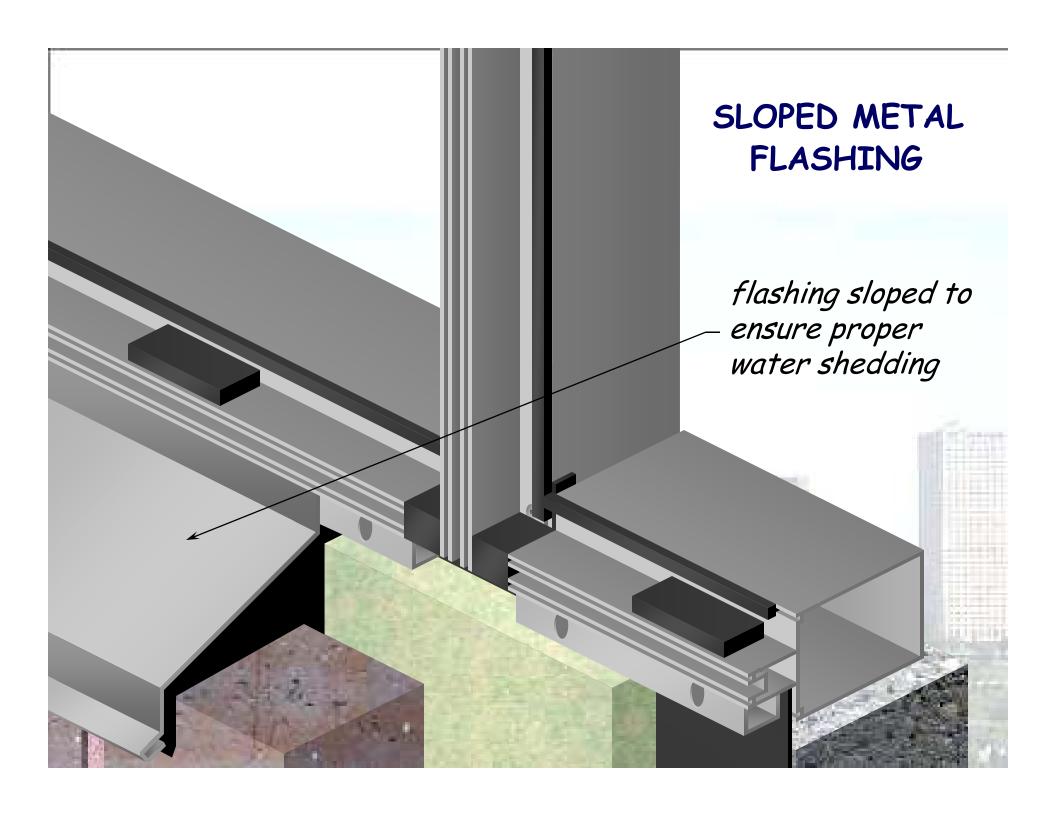


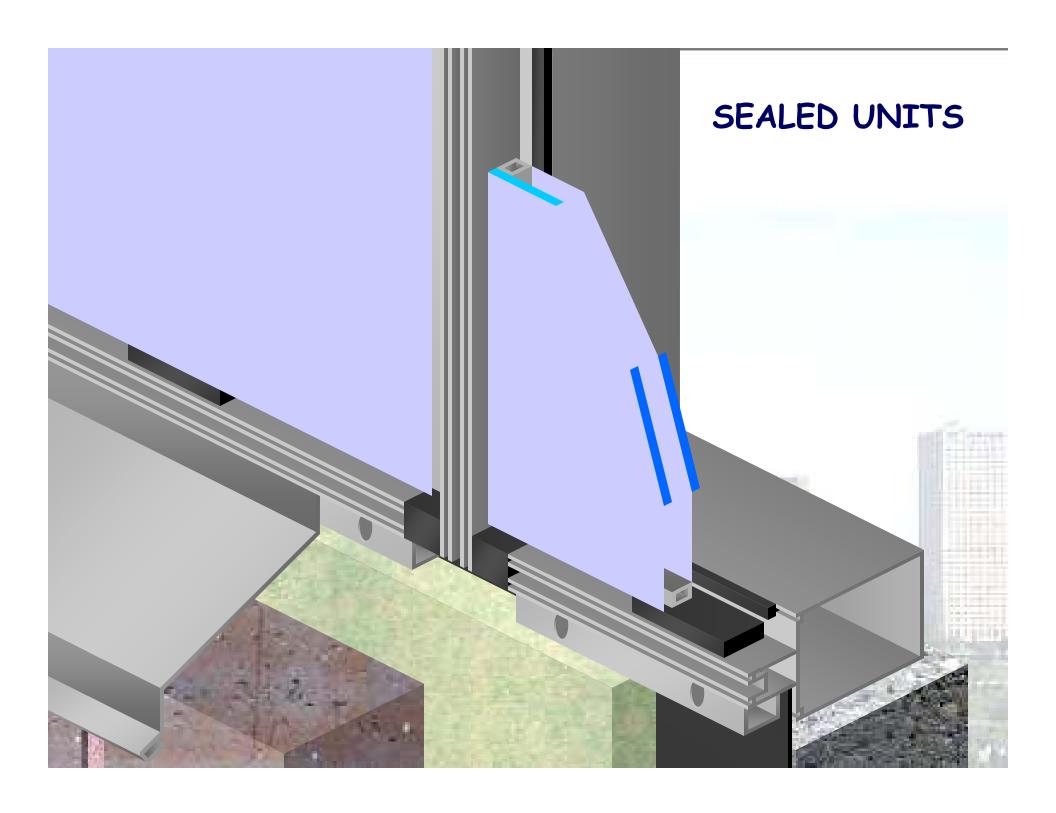


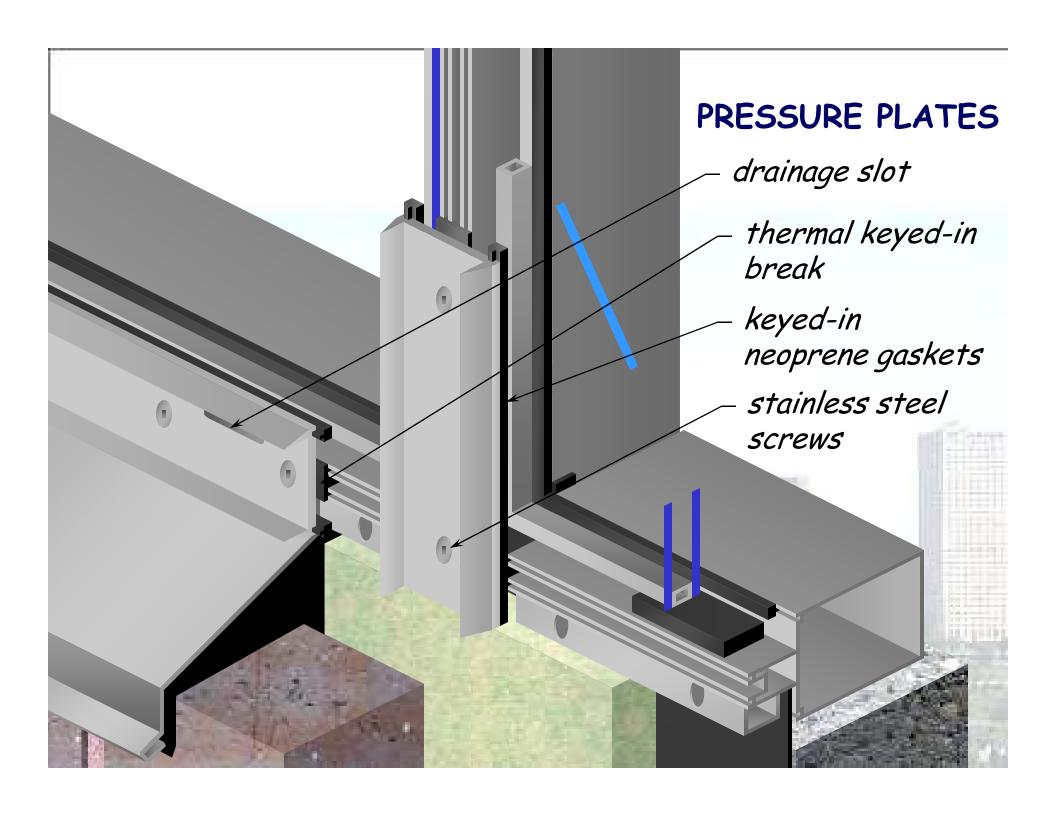














– drainage slot

Horizontal Pressure Plate

stainless steel screw

drainage slot

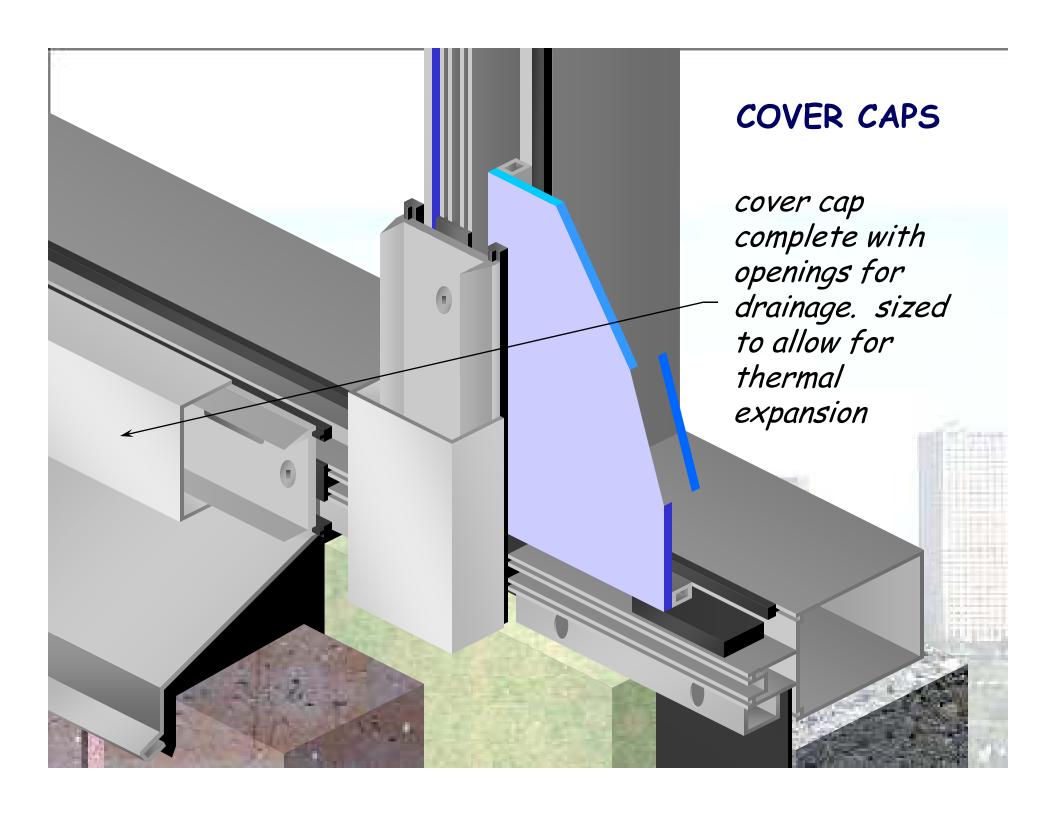
-three drainage slots per horizontal (no holes or drainage slots in vertical pressure plates)

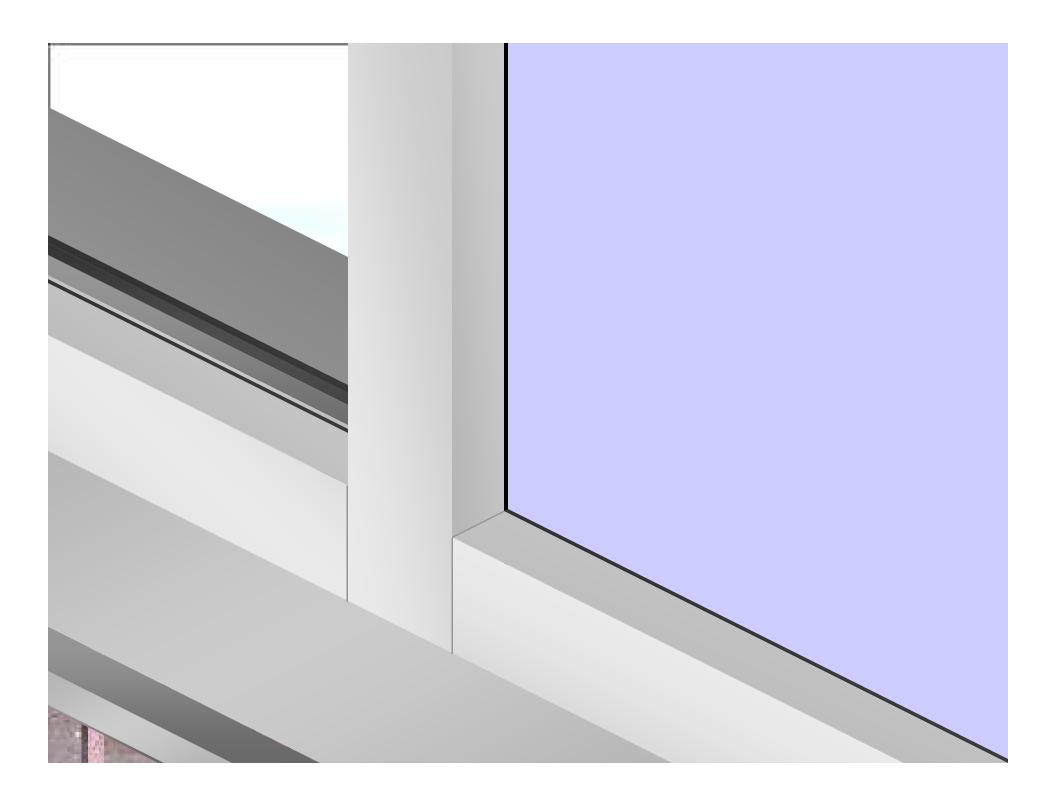
-thermal brake of screw spline should just be visible through drainage holes so that holes are low enough to drain the glazing rabbet

d-in

kets

el

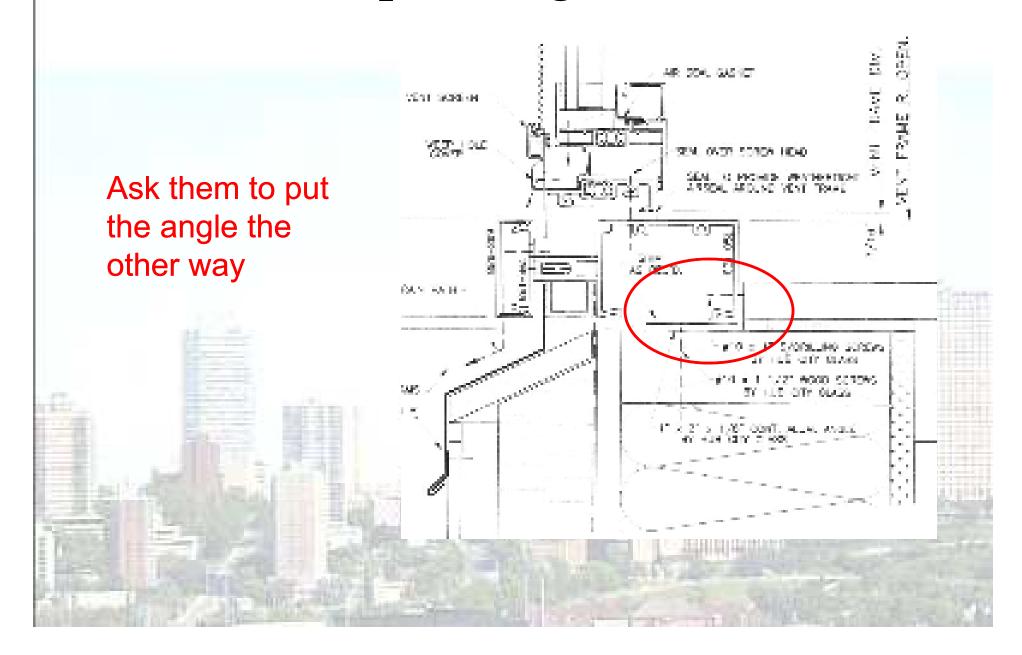


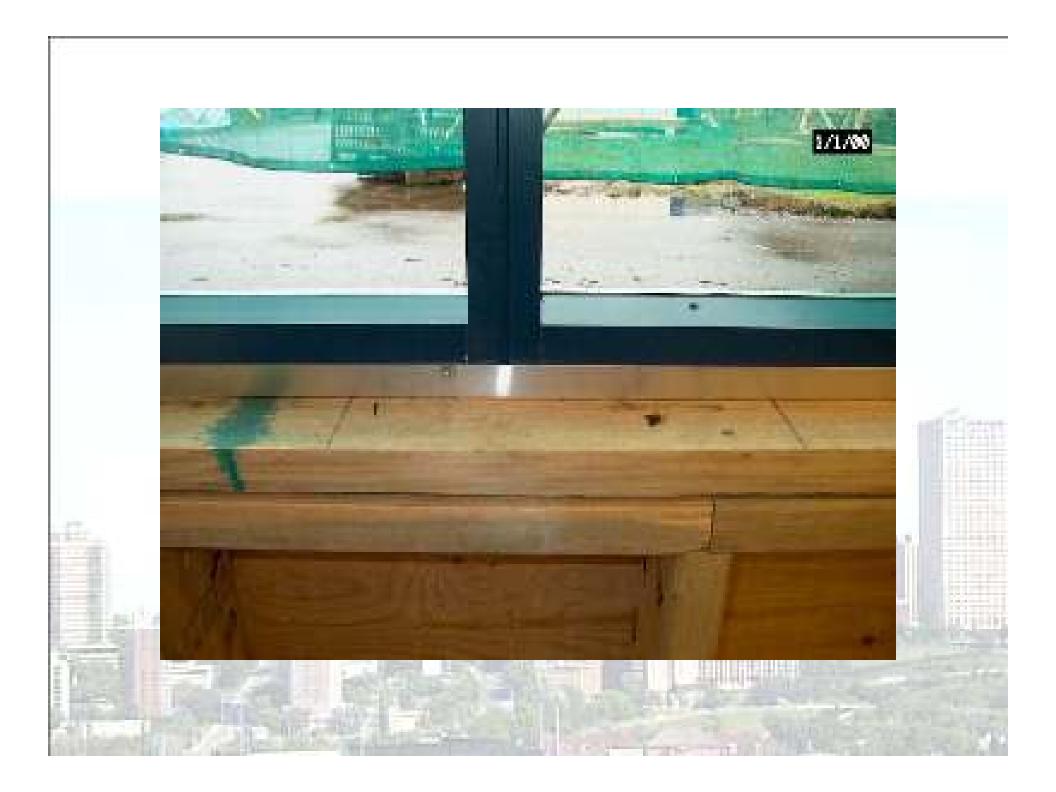


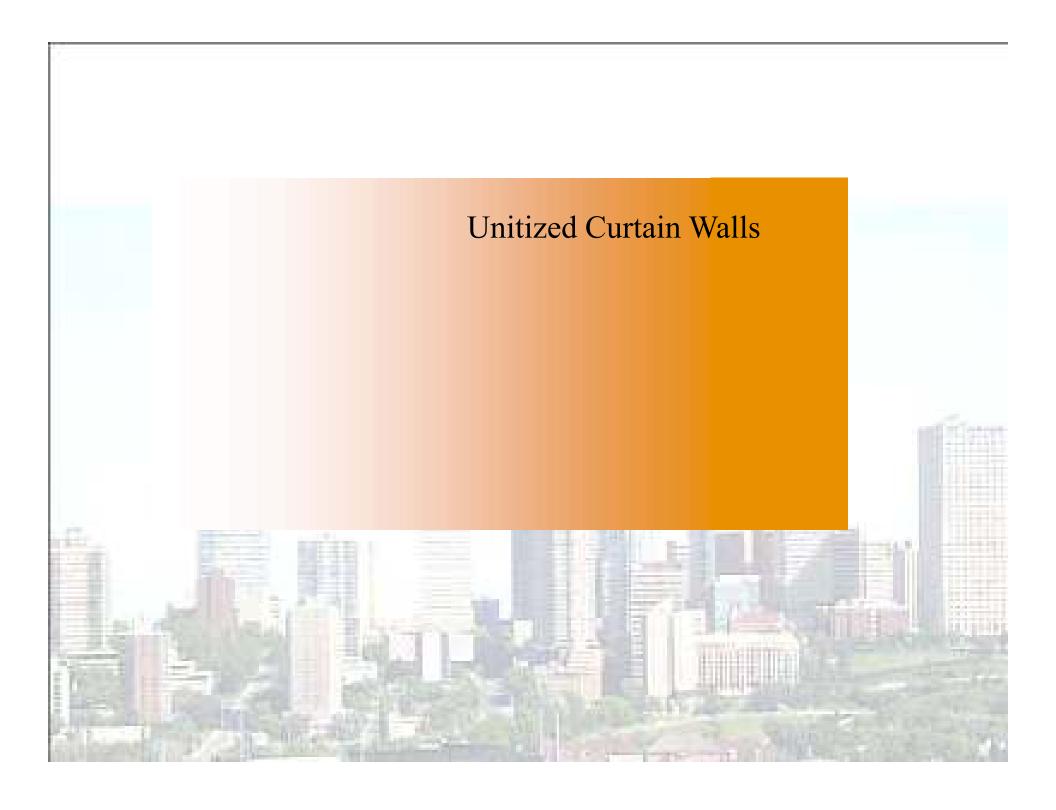
Curtain Walls

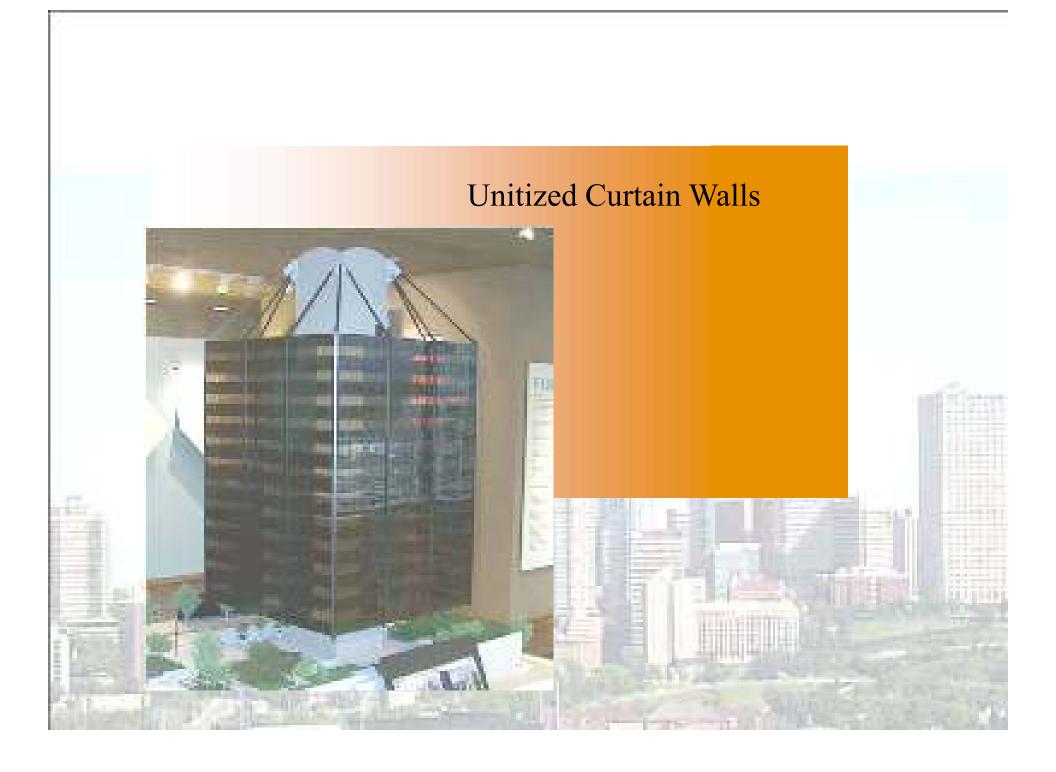


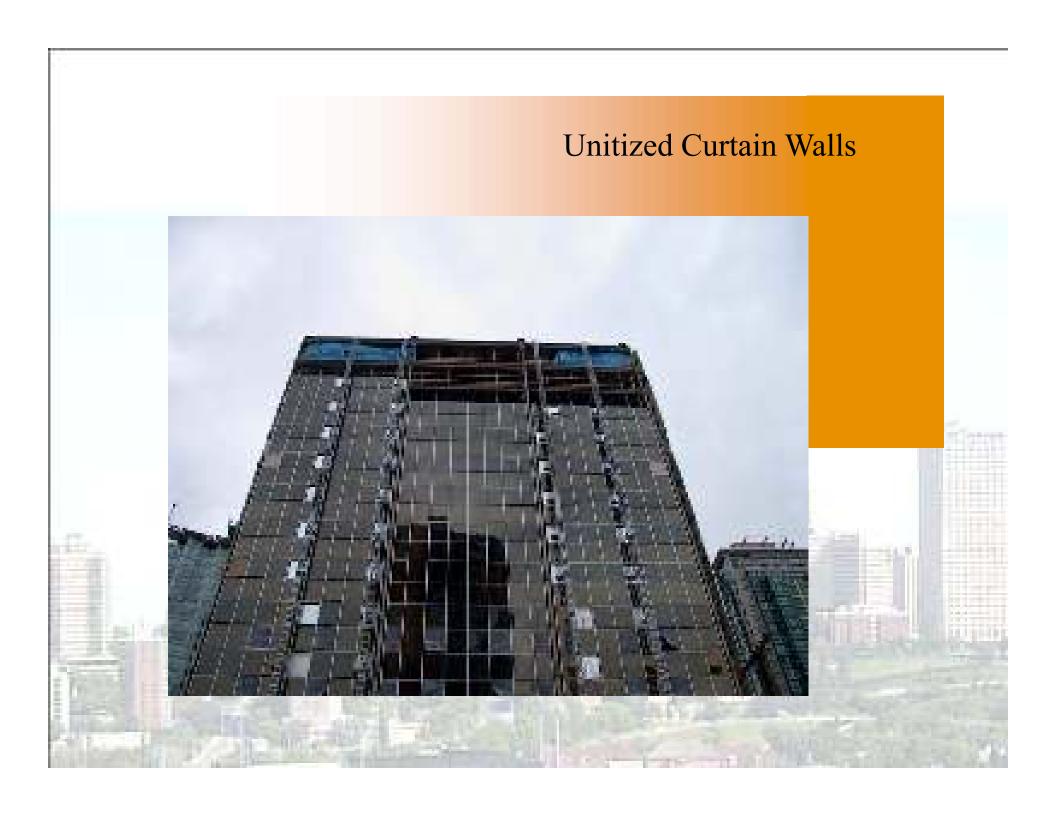
Deep Thoughts

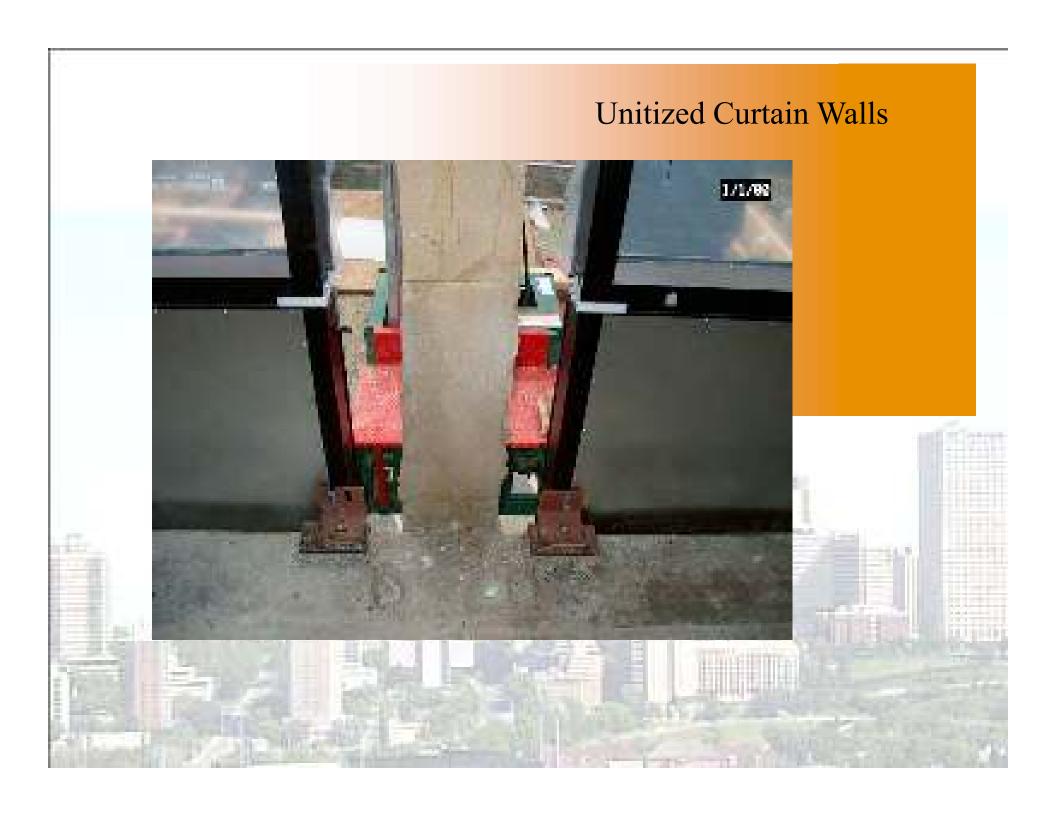


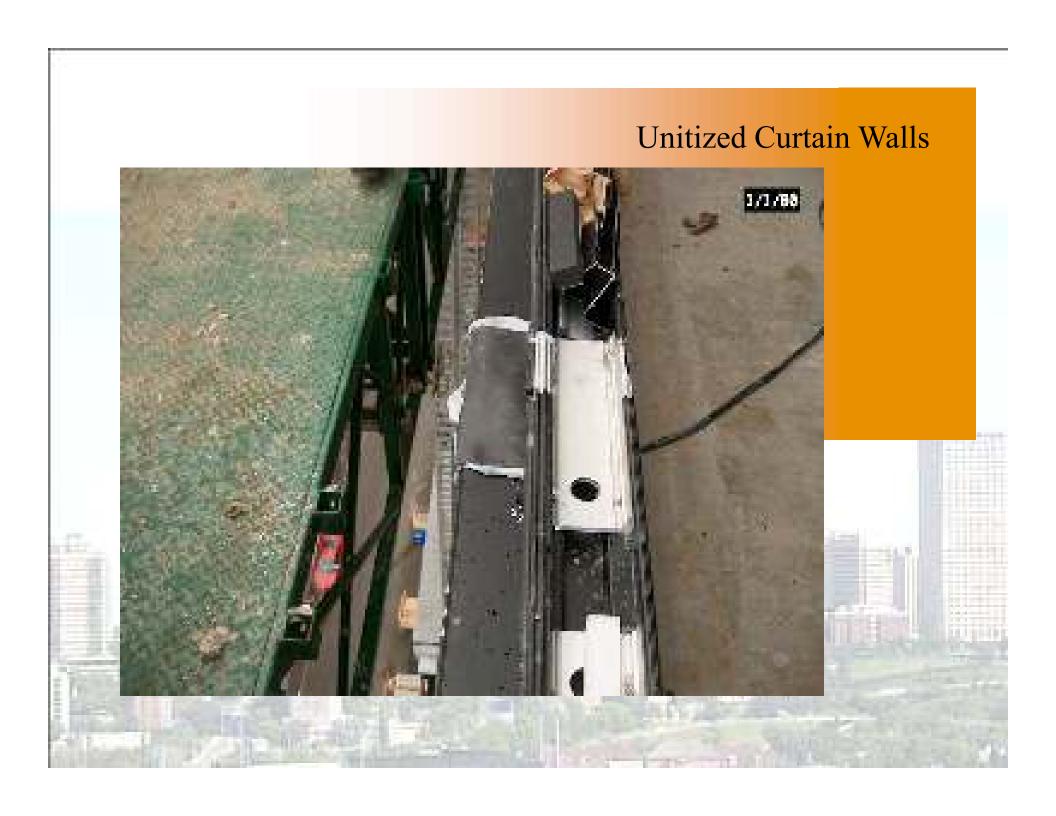


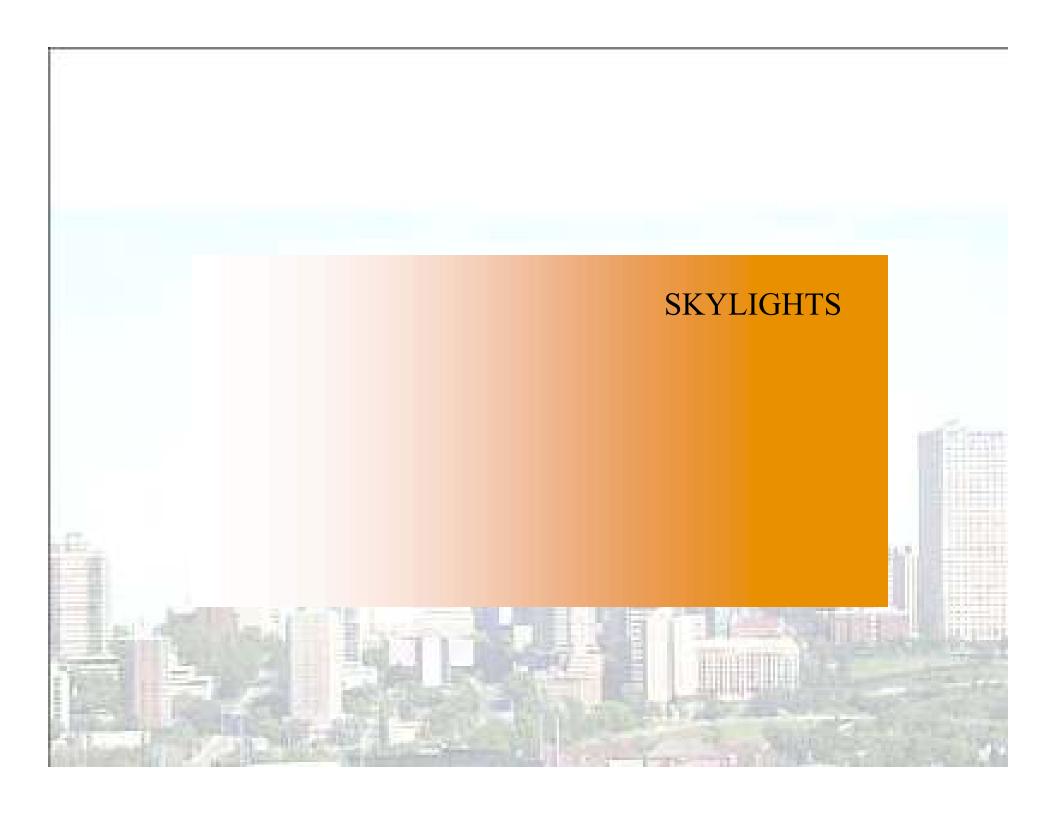


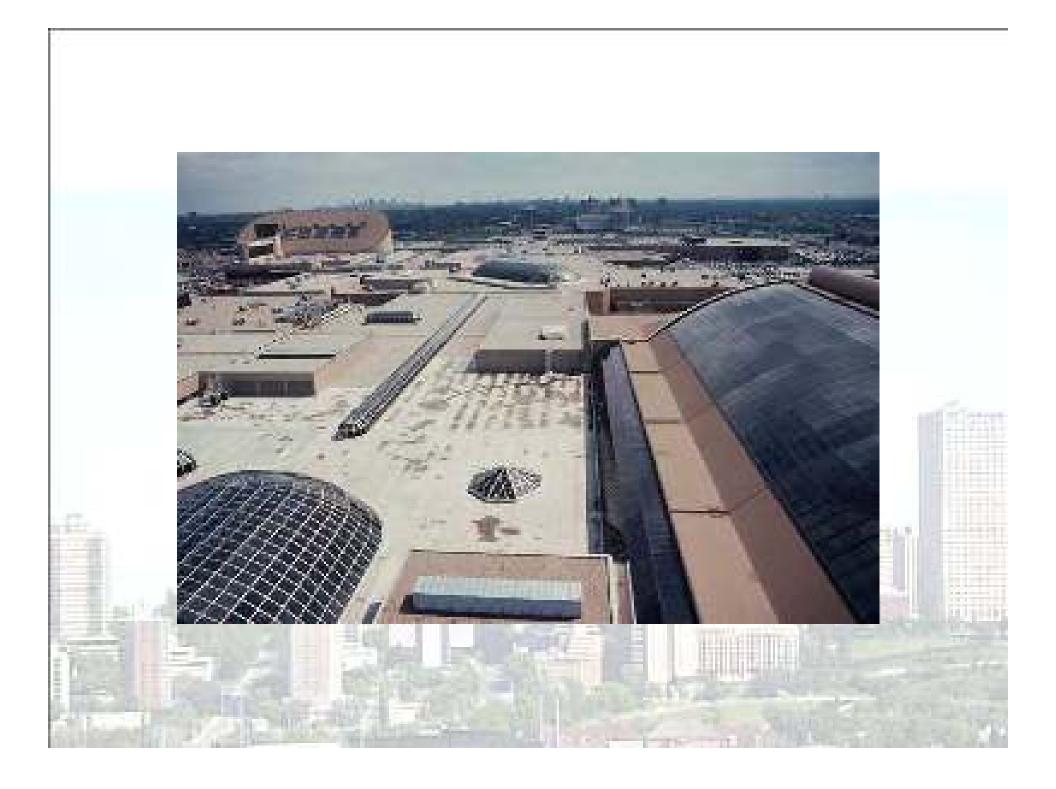


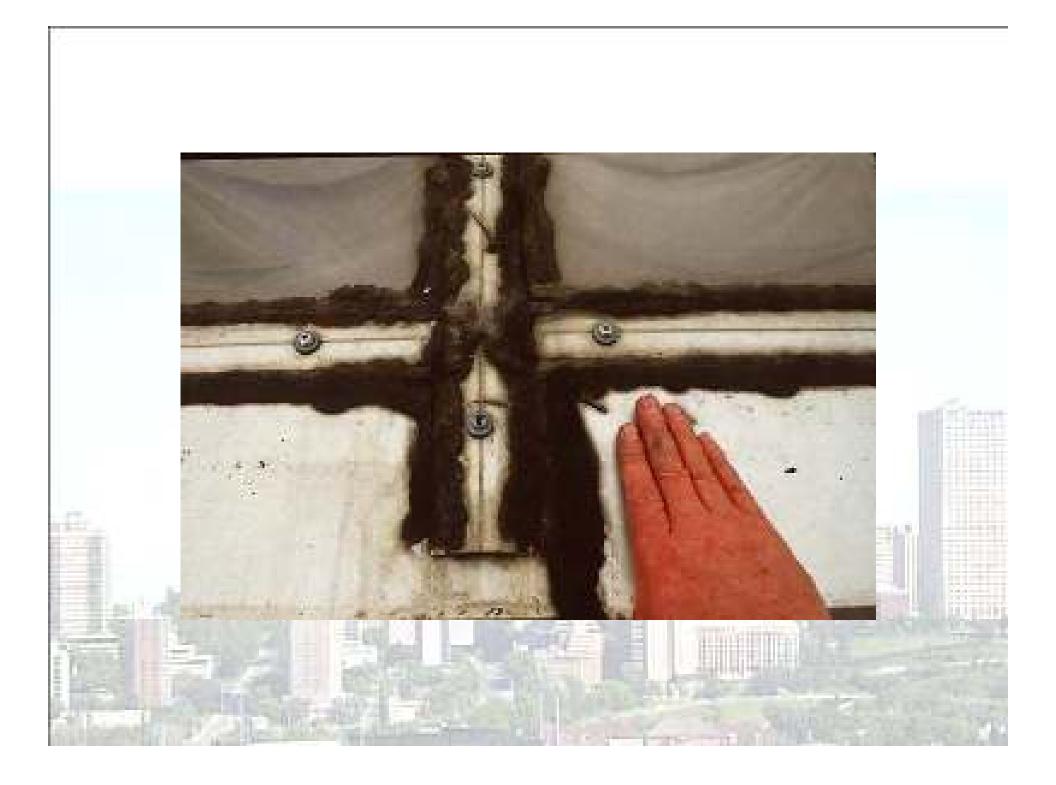


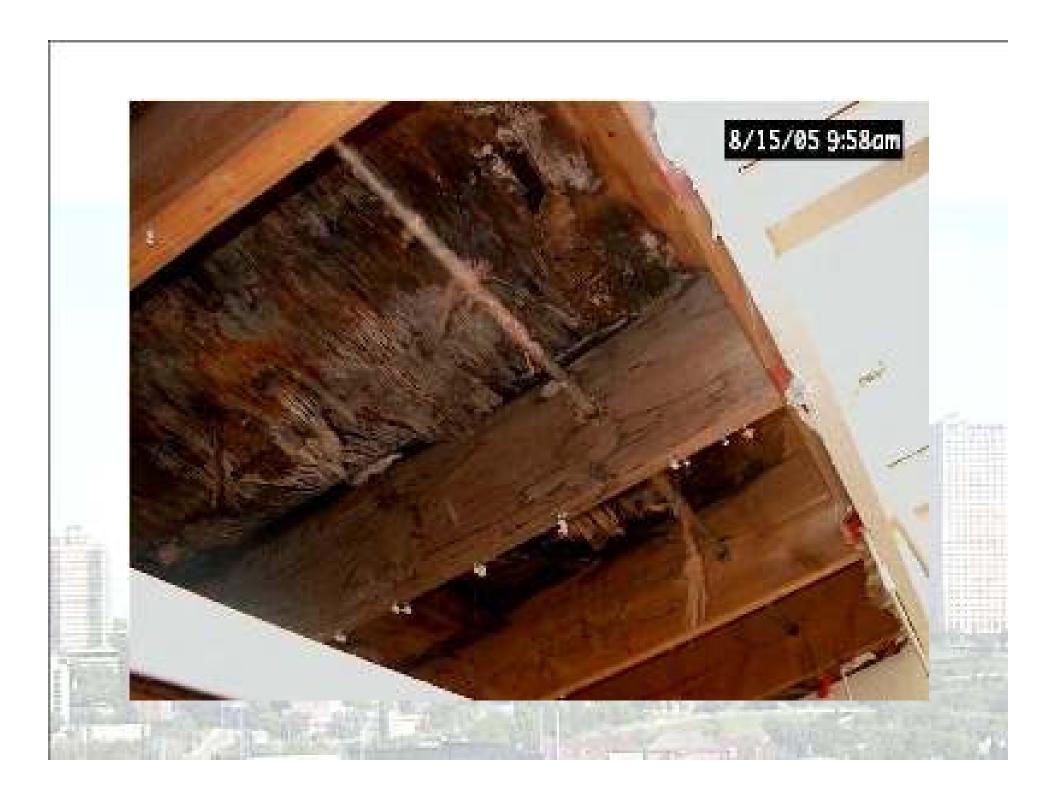


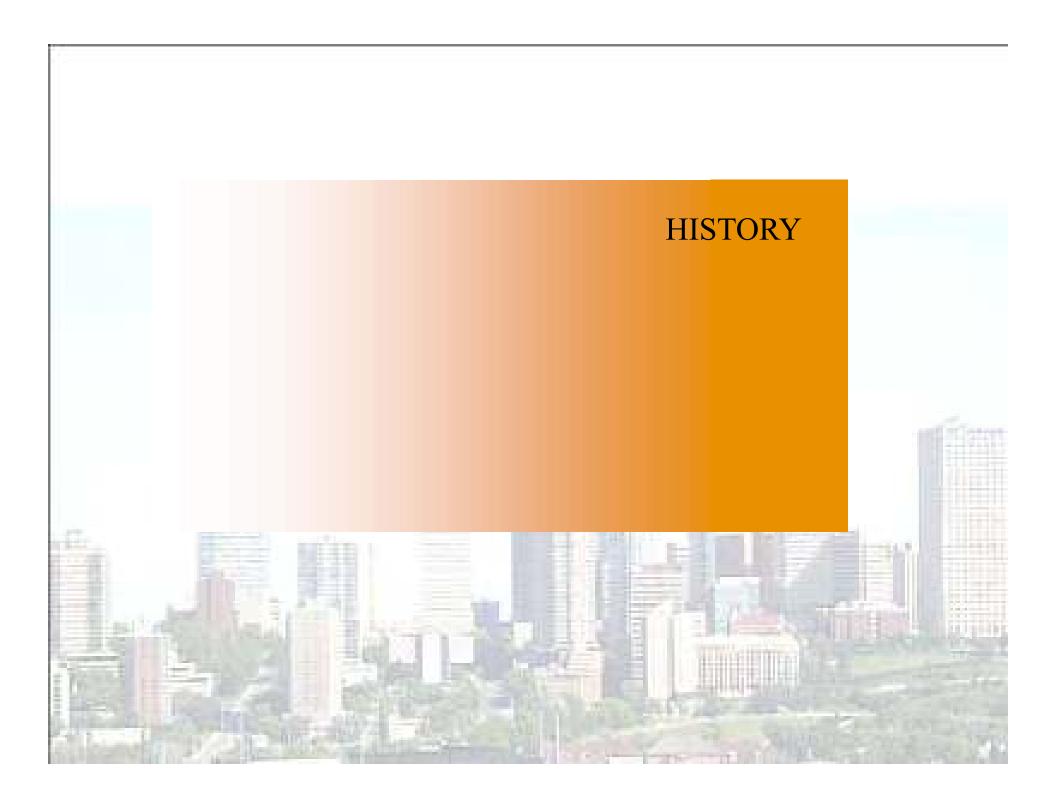








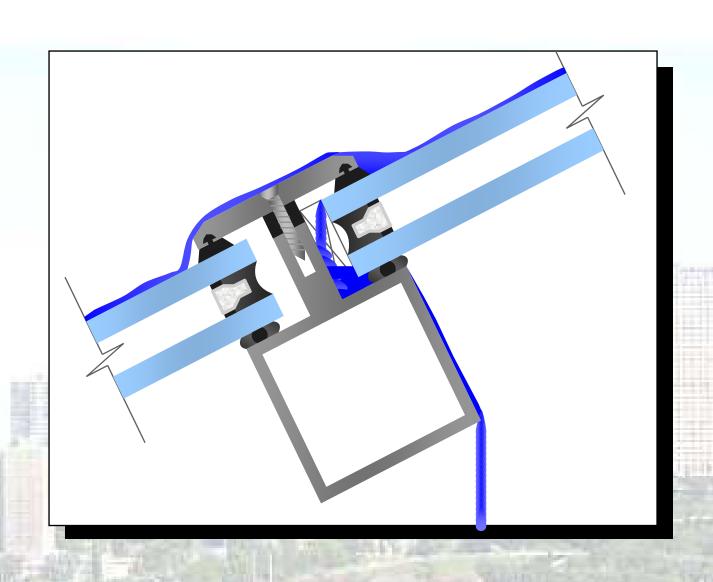




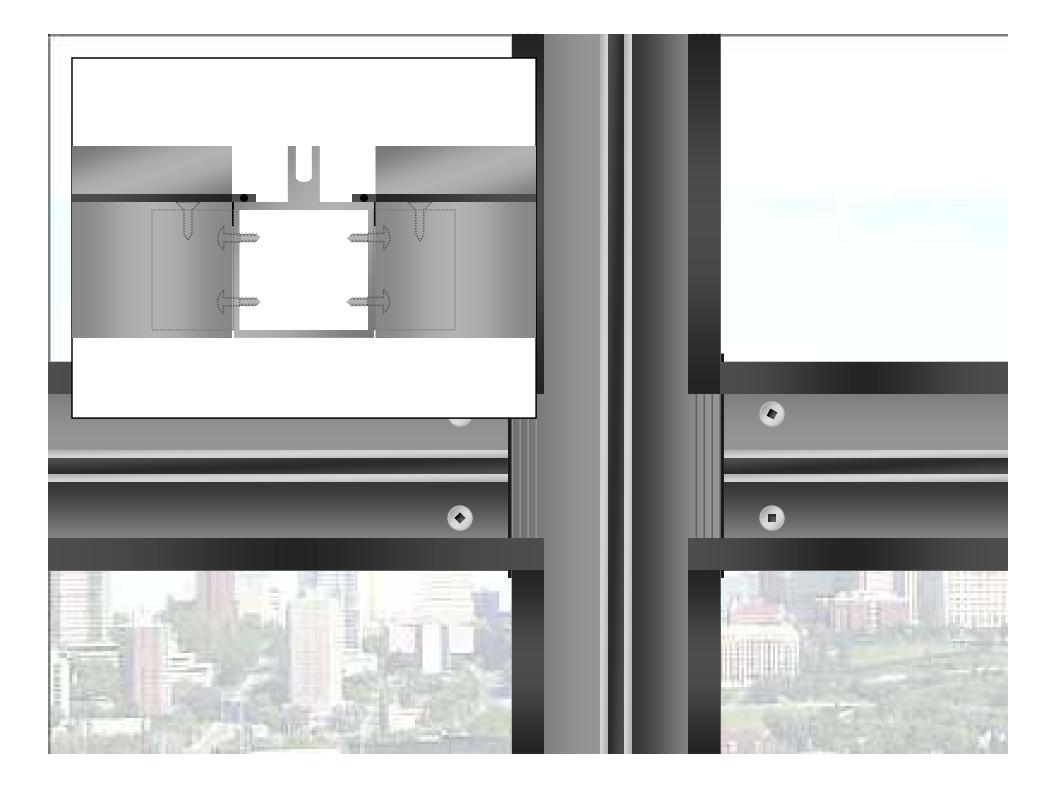
FACE SEAL

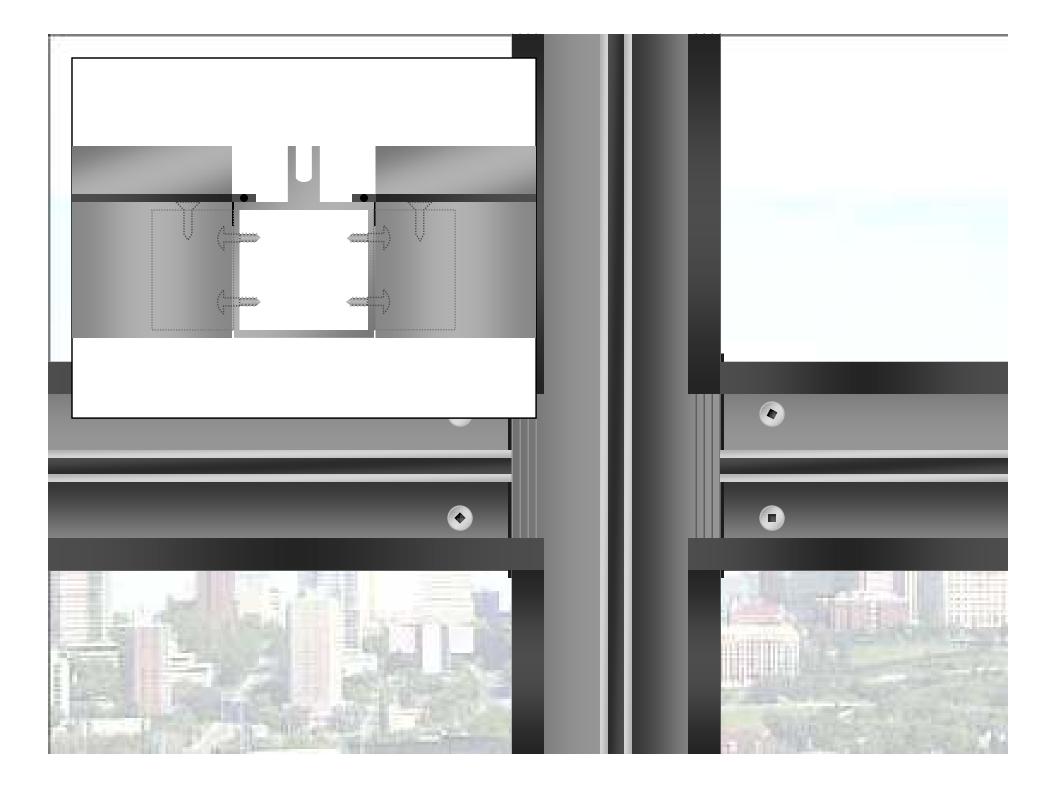
Exterior seals have to be 100% perfect!

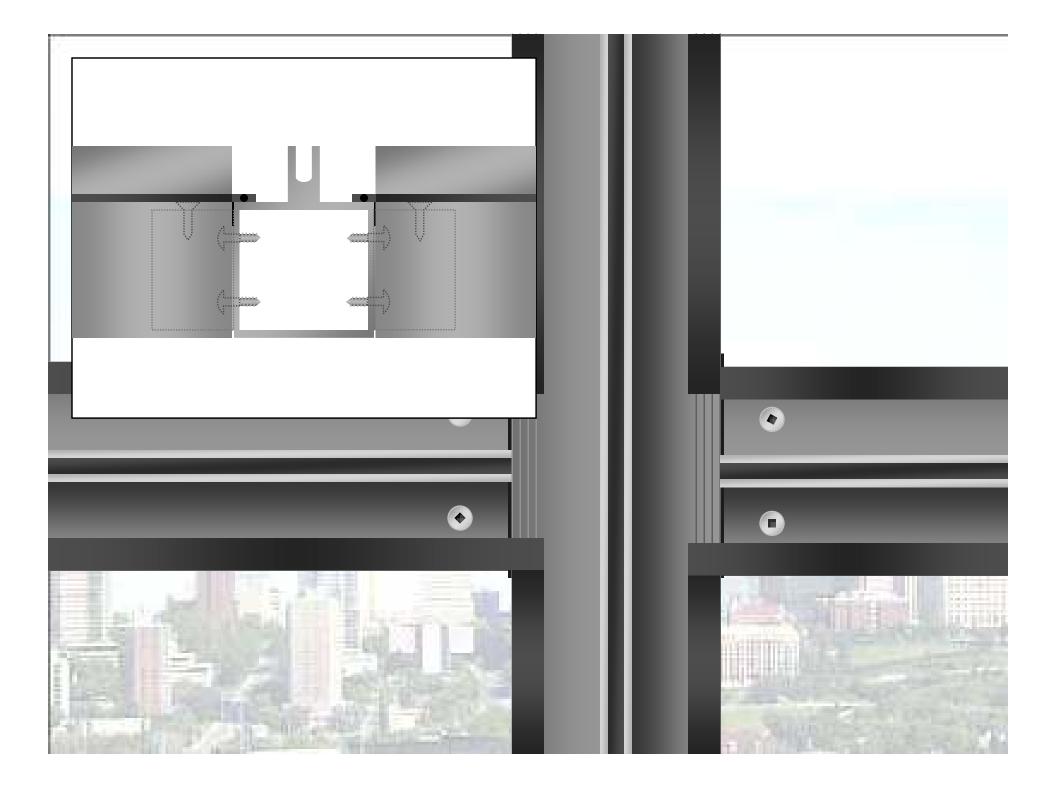
Sealed units and joints are exposed to water which penetrates the face seal.

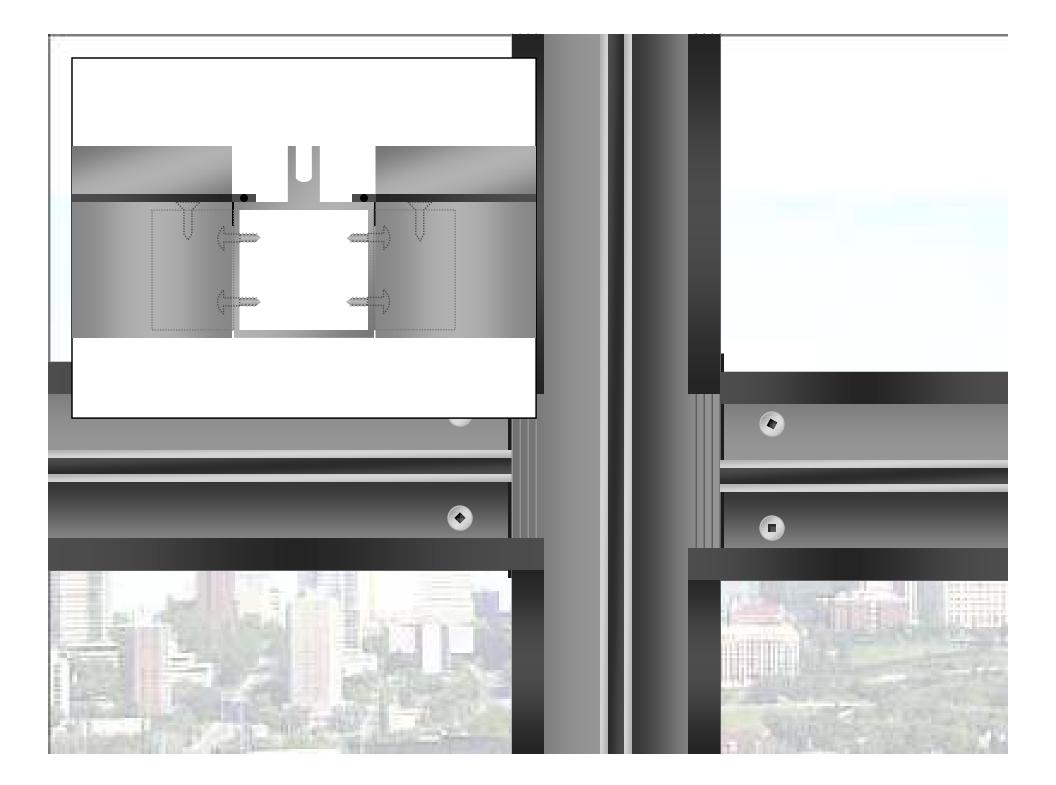


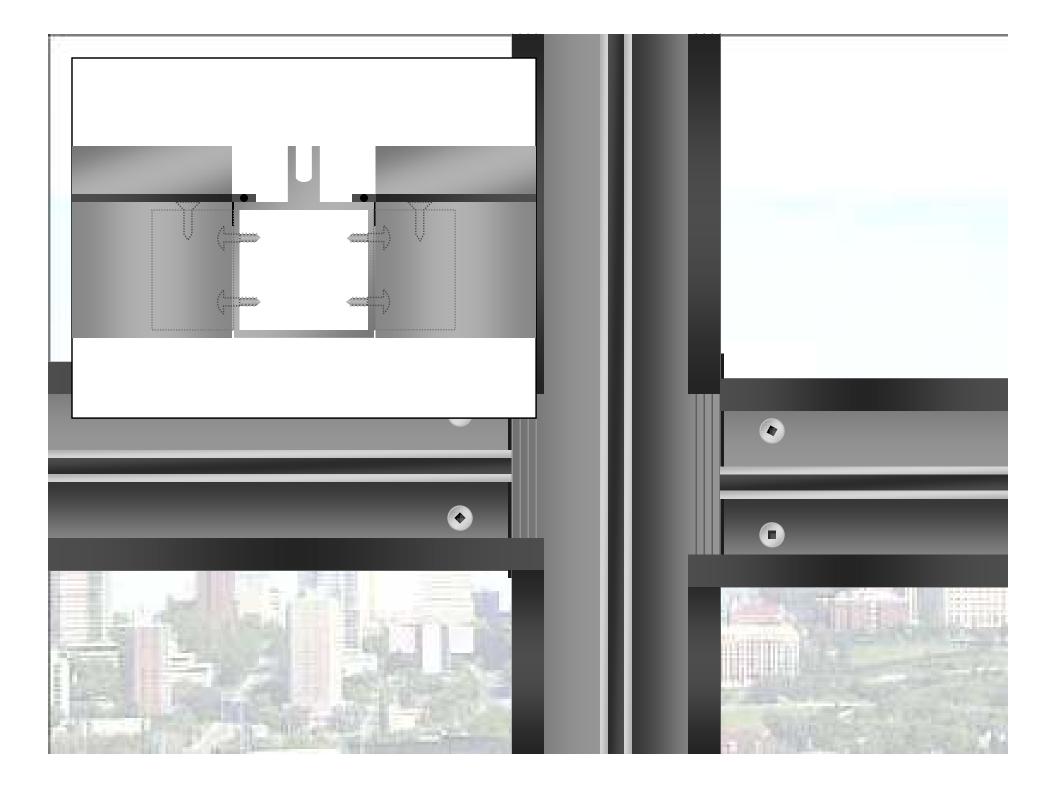


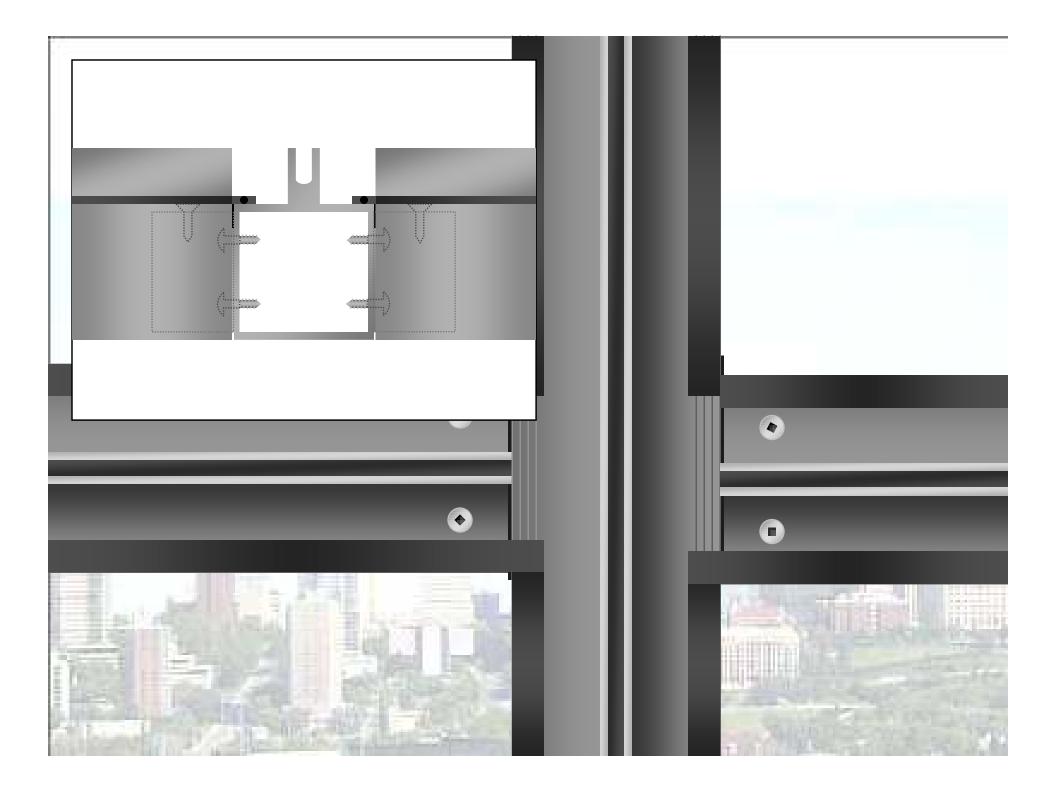


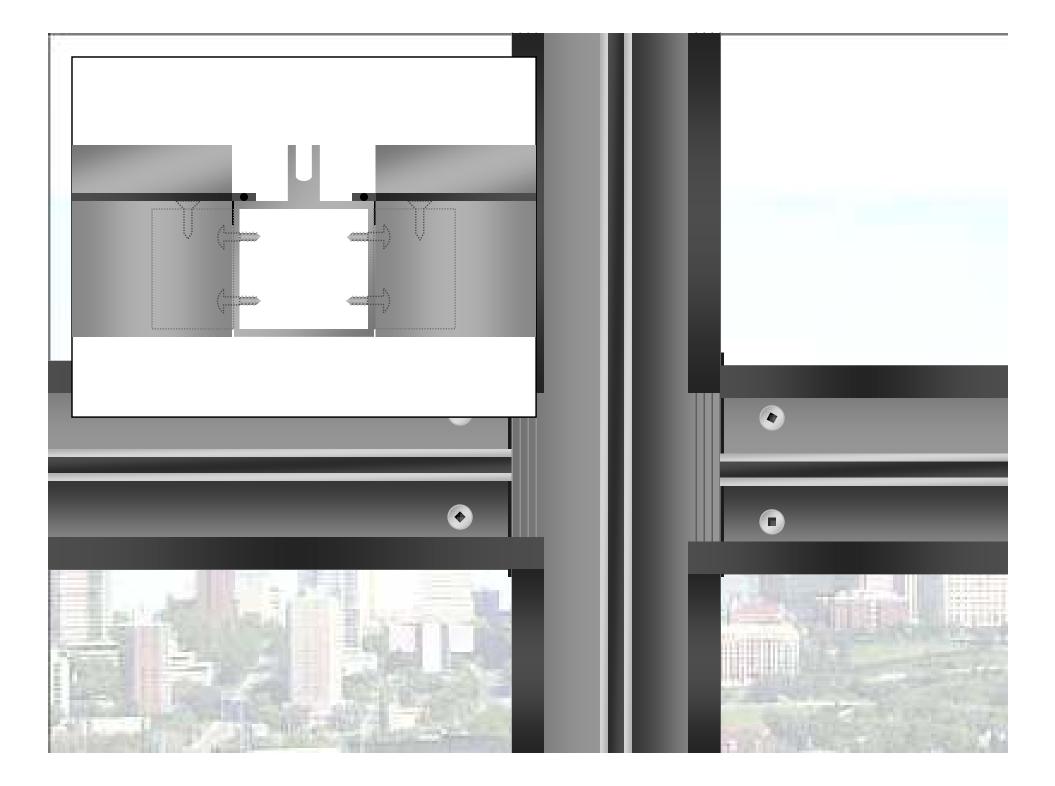


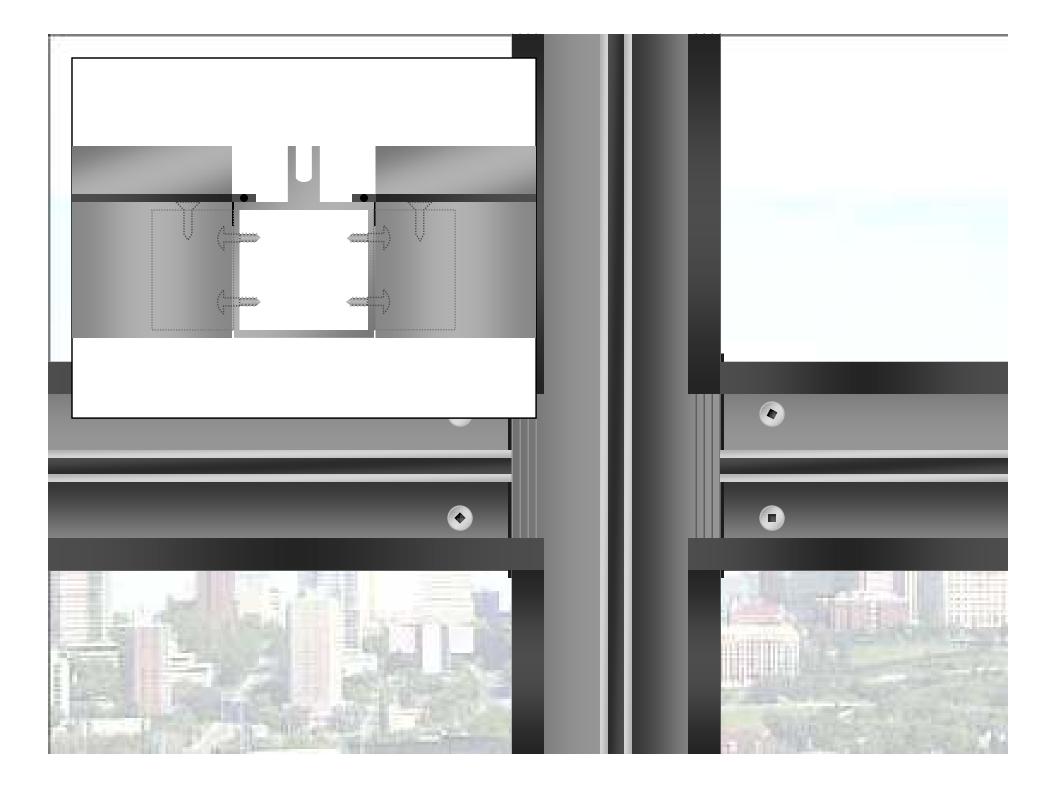


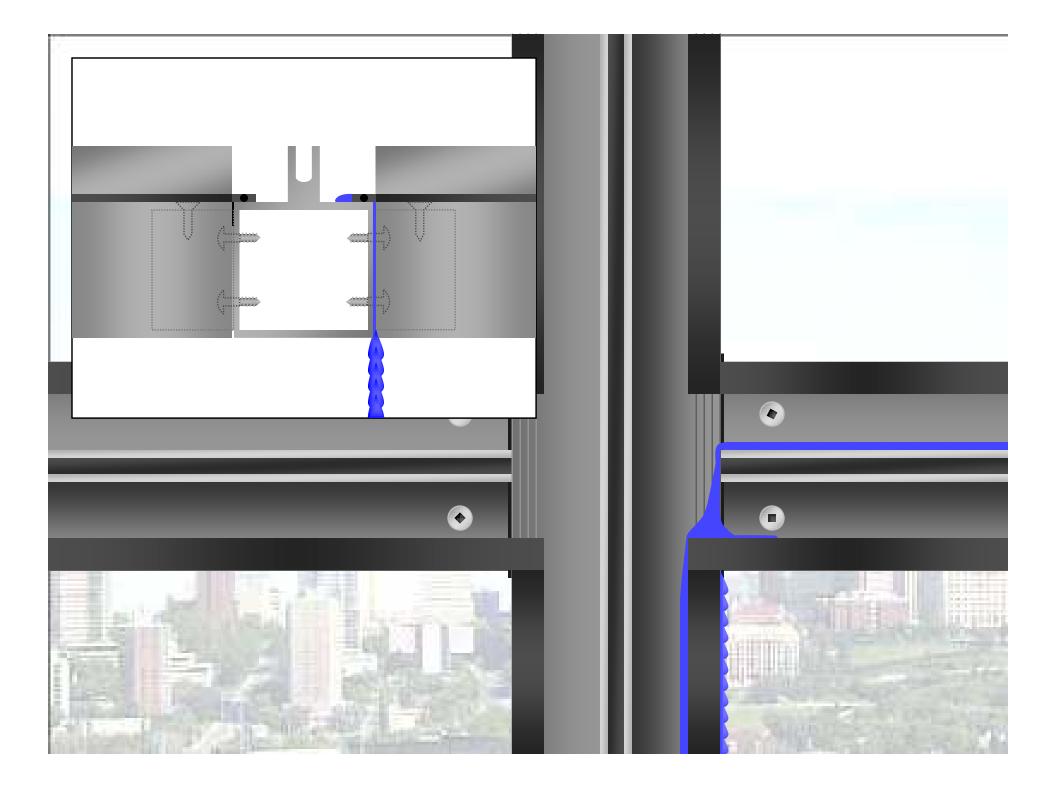








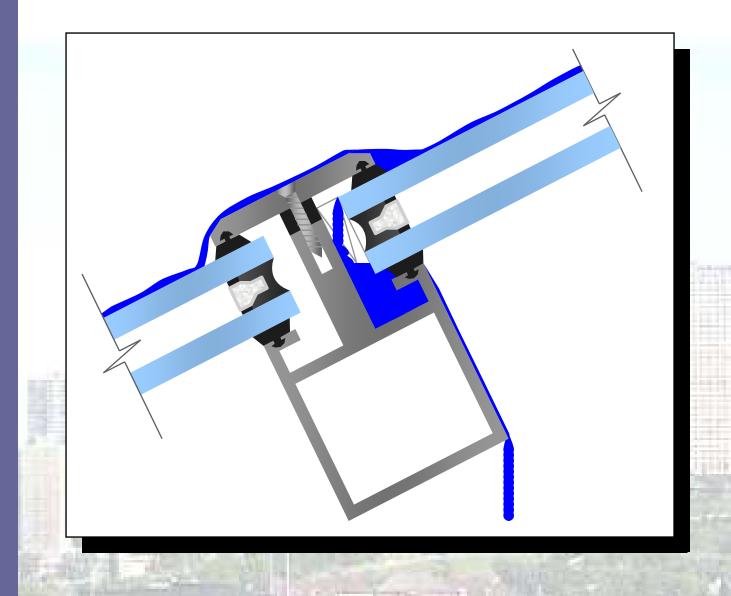




RAISED LEG

Design accepts some water entry.

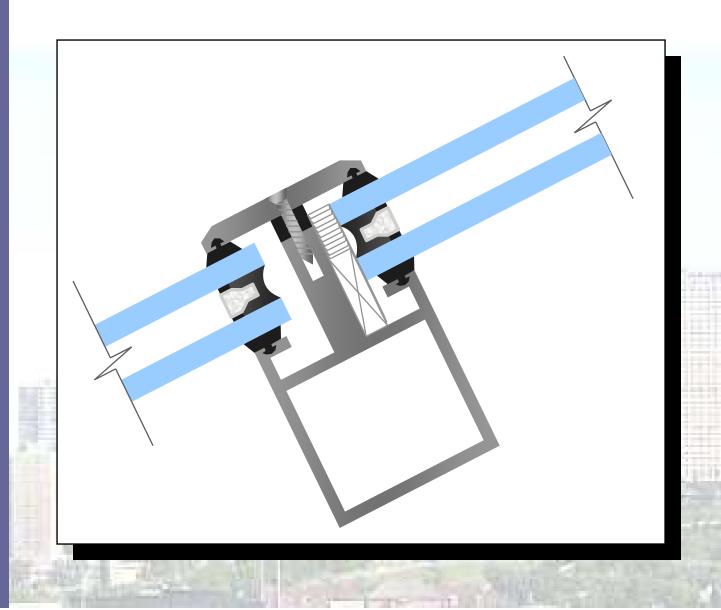
Drainage could be easily blocked between setting blocks and overlaps of framing.





RAISED LEG

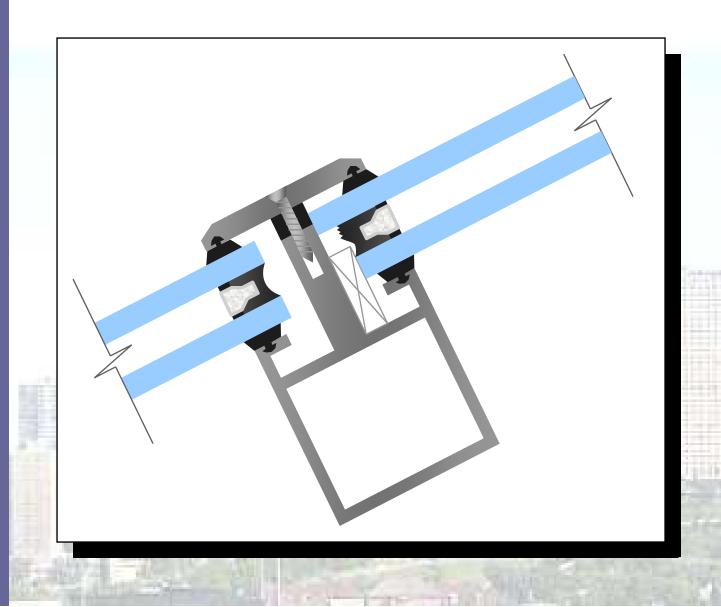
Setting blocks were positioned to increase drainage.





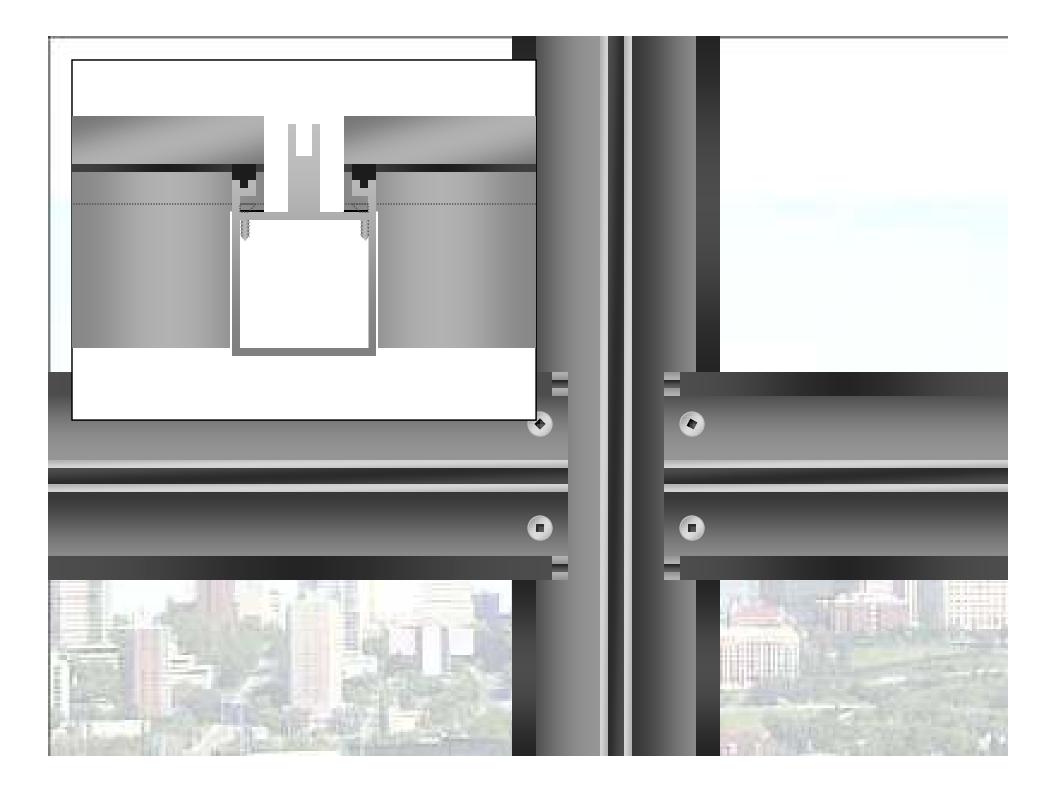
RAISED LEG

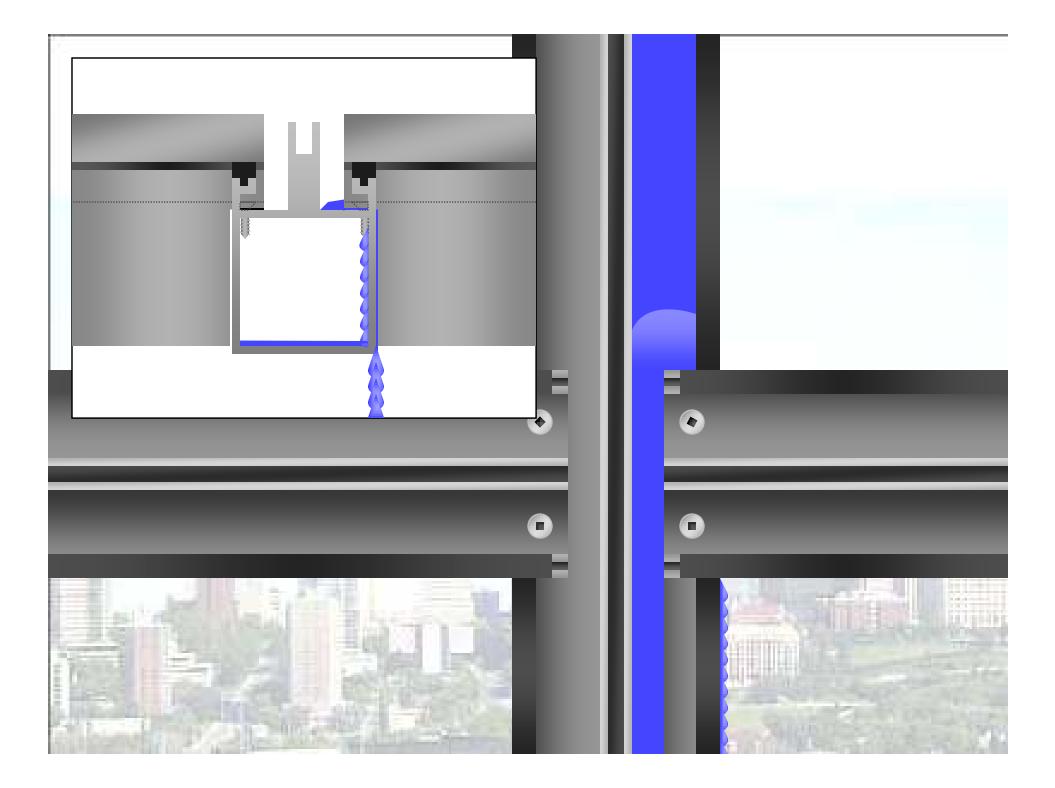
Setting blocks were positioned to increase drainage.





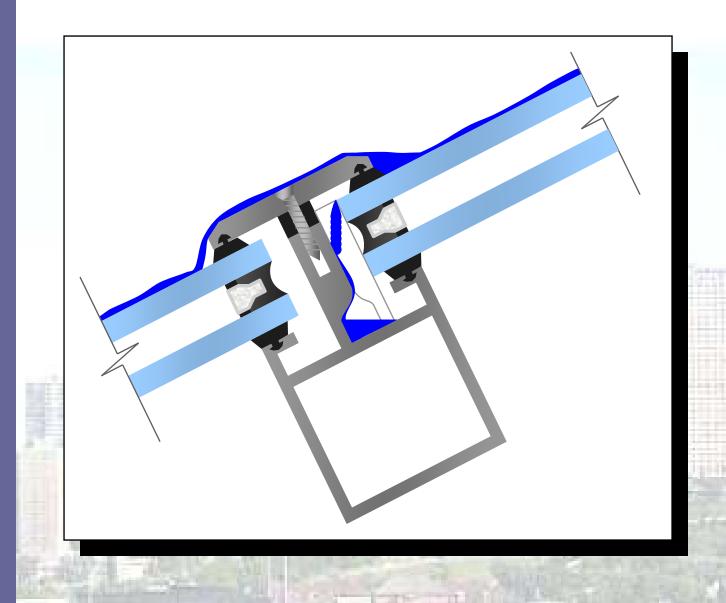






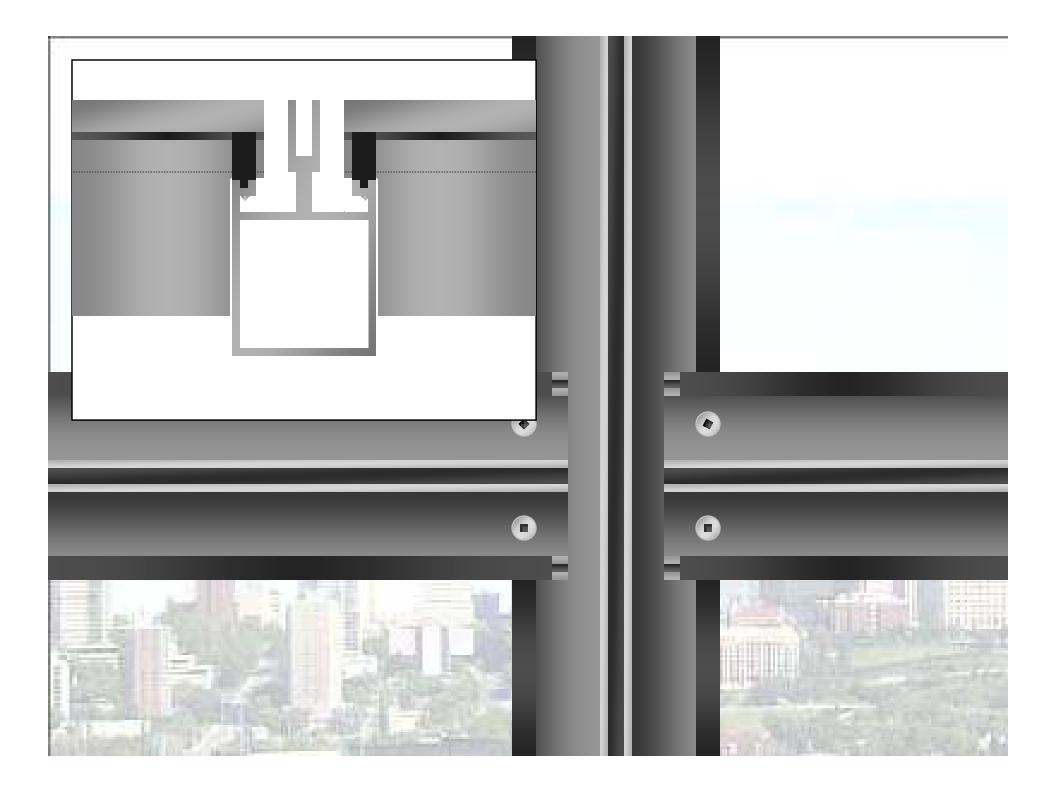
RAISED LEG OVERLAP

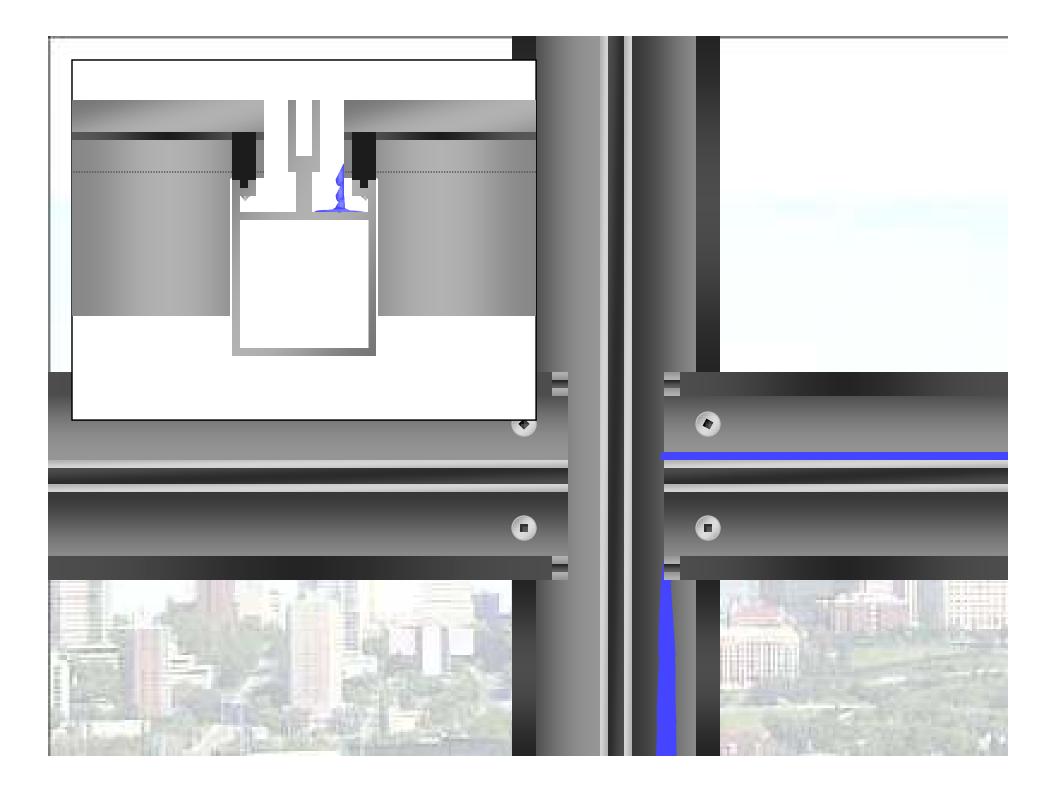
Drainage of these systems minimizes blockage potential and ensures free flow of water out of the system to the exterior.



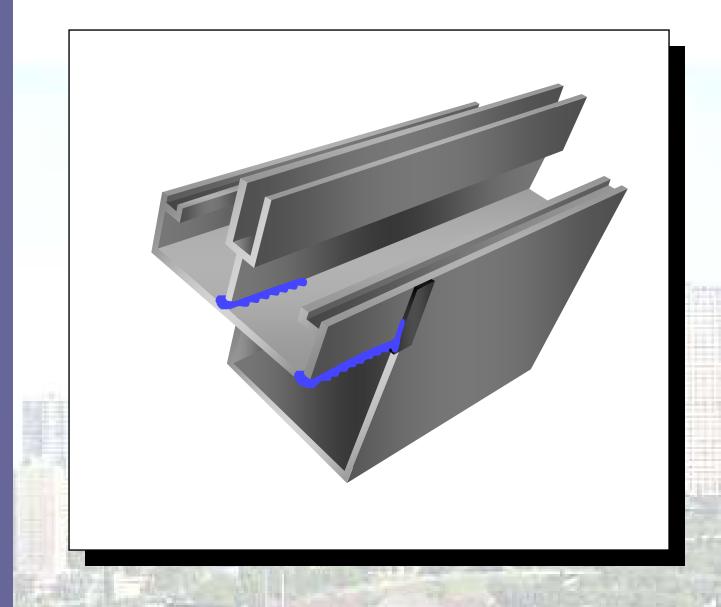






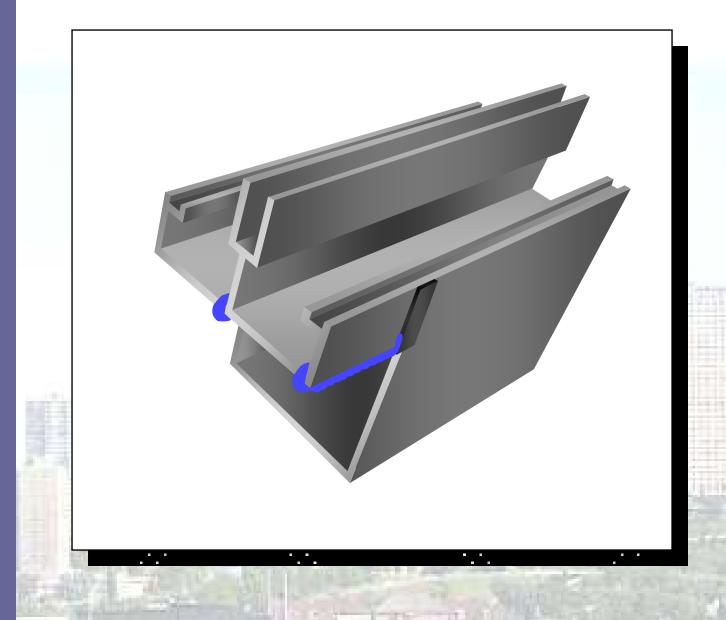


Surface tension will cause a small amount of water to cling to the other side of the gutter.



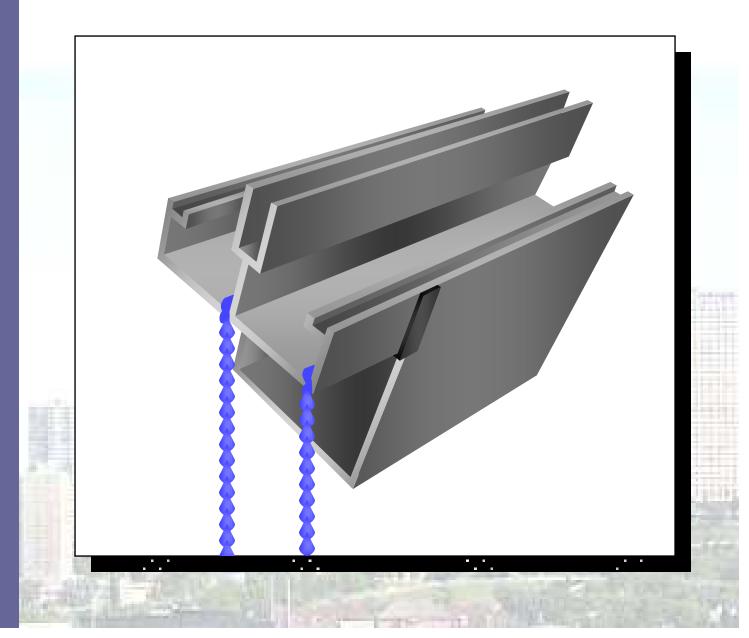


A slightly larger amount of water will cling to the under side of the drip edge.



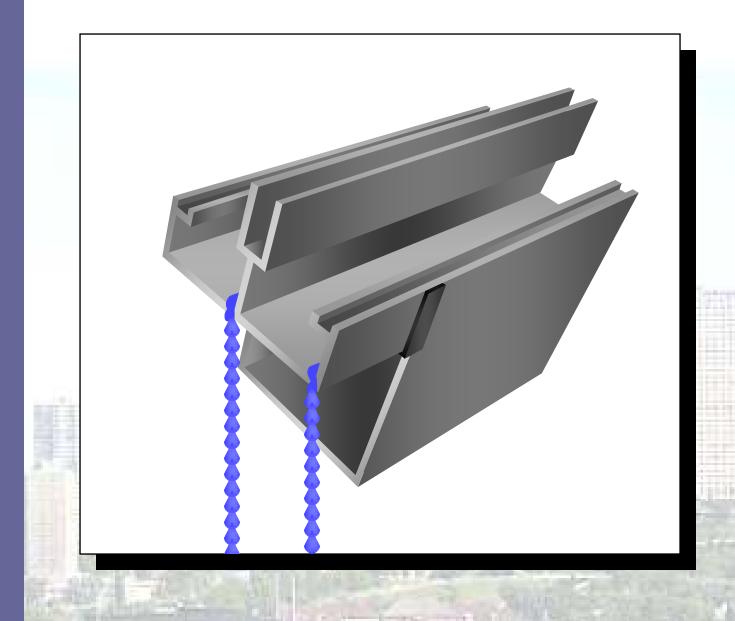


Only with sufficient water does the system drain properly.

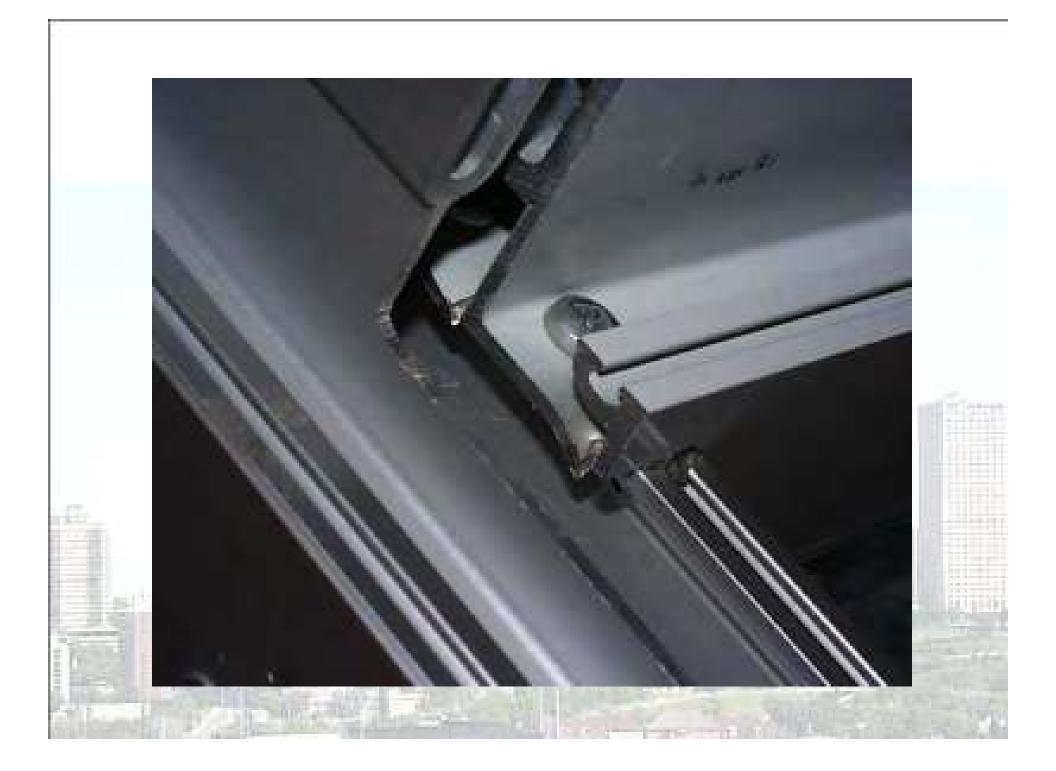


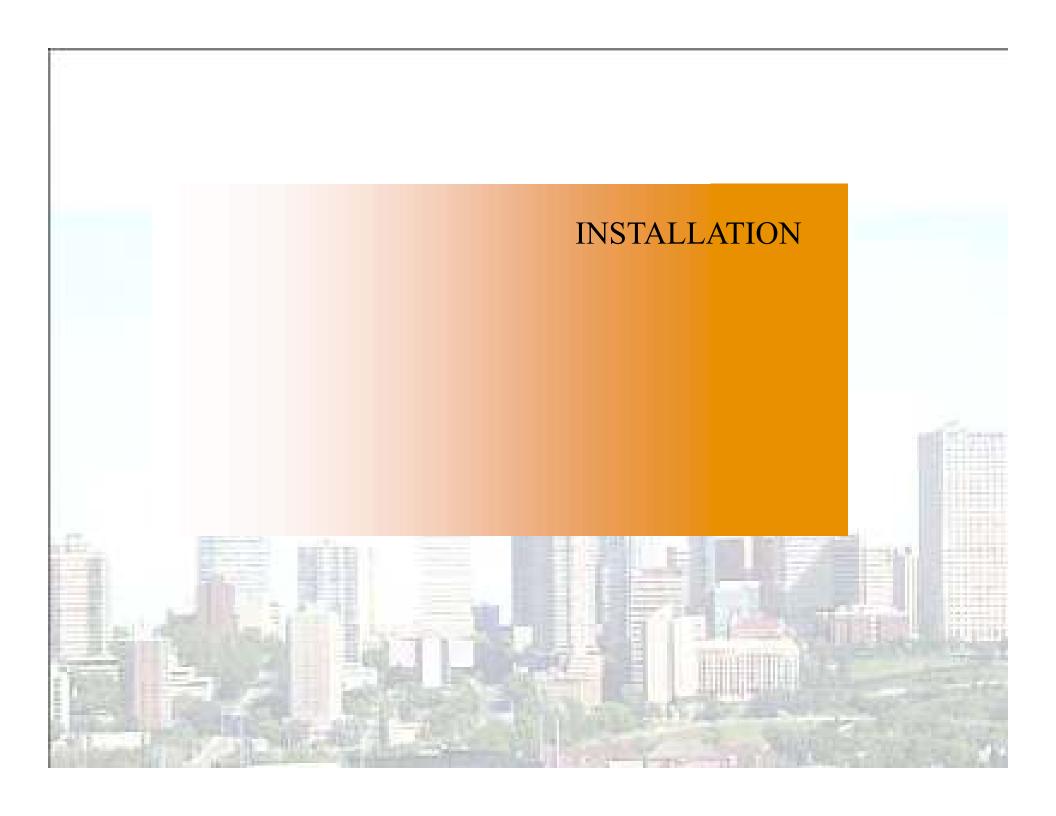


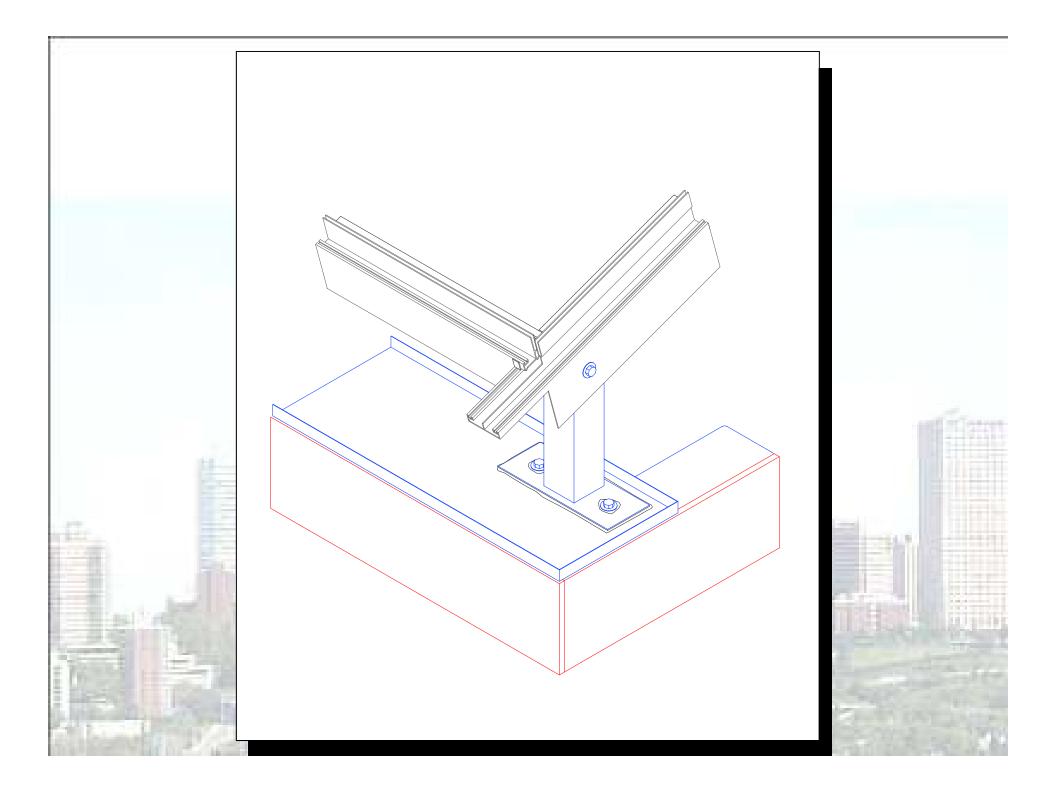
Only with sufficient water does the system drain properly.

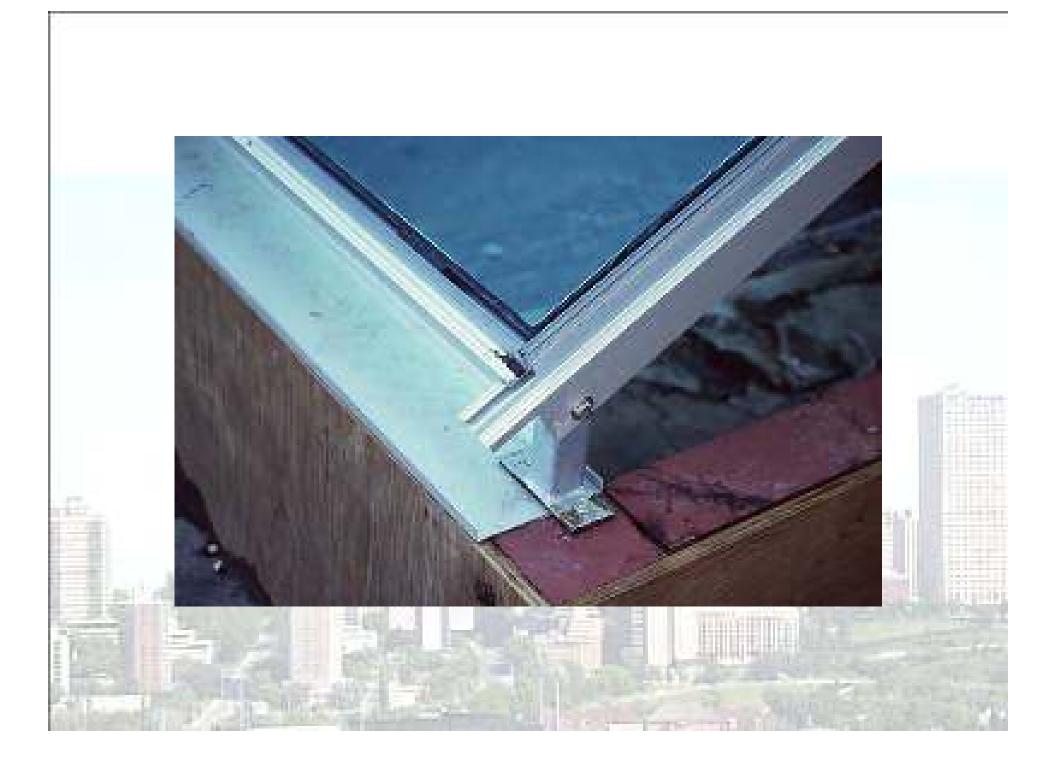


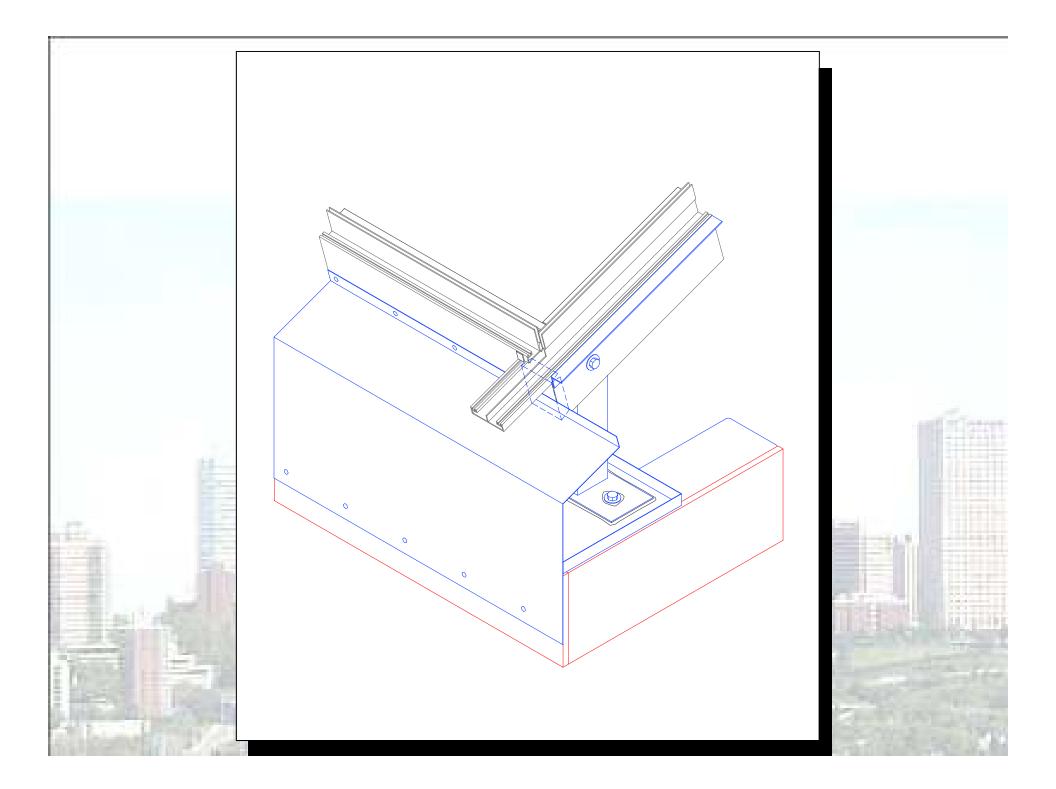


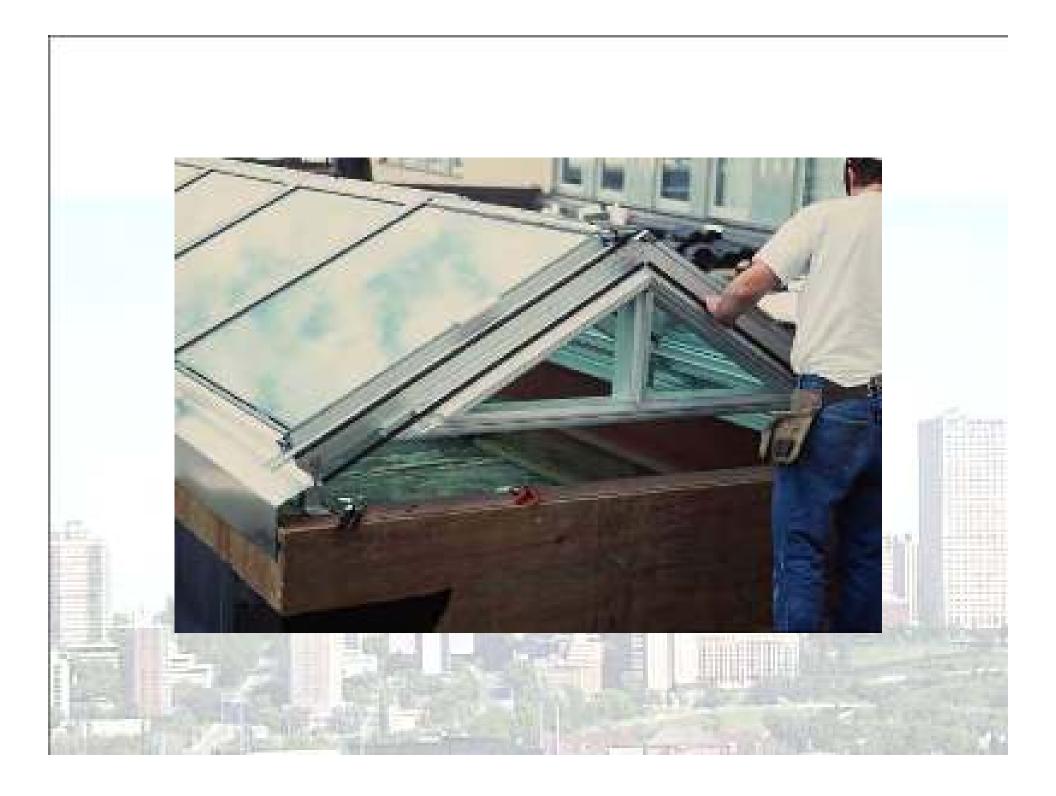


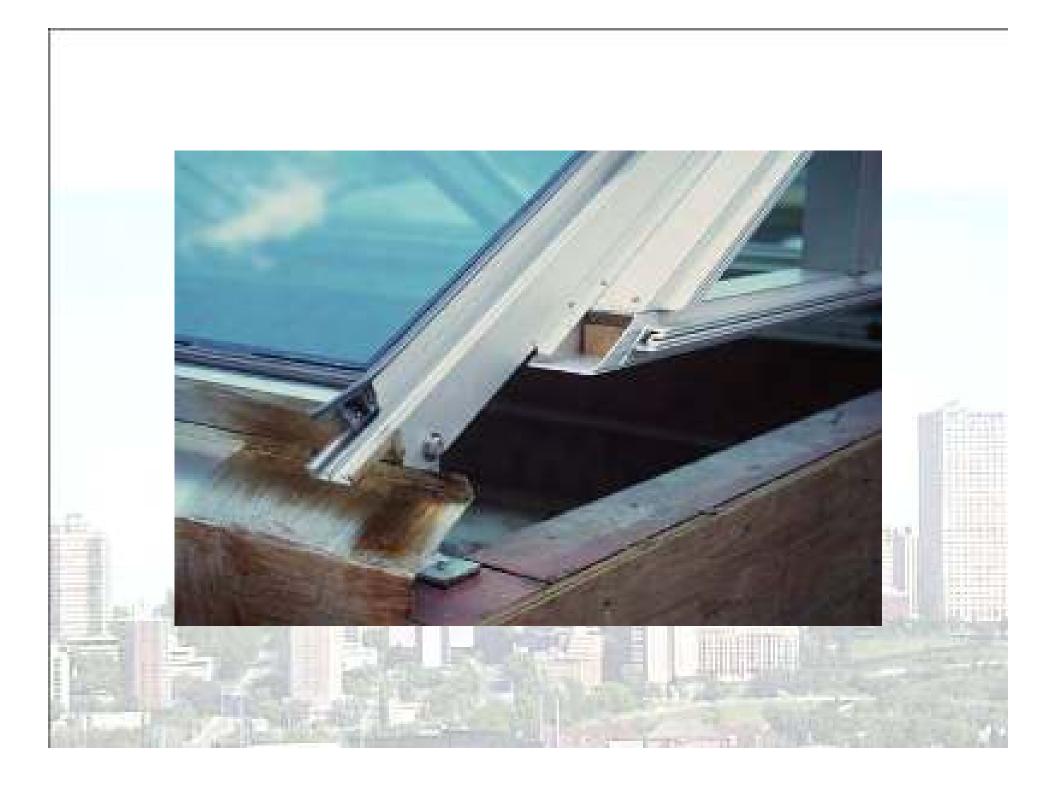


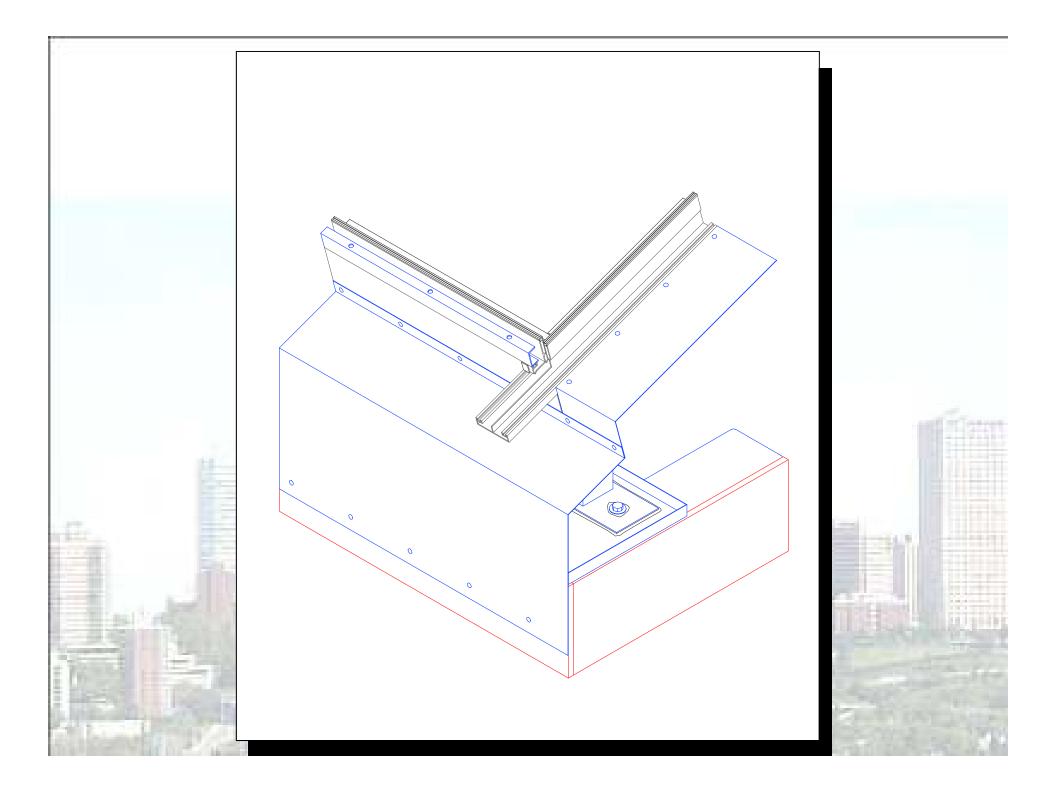


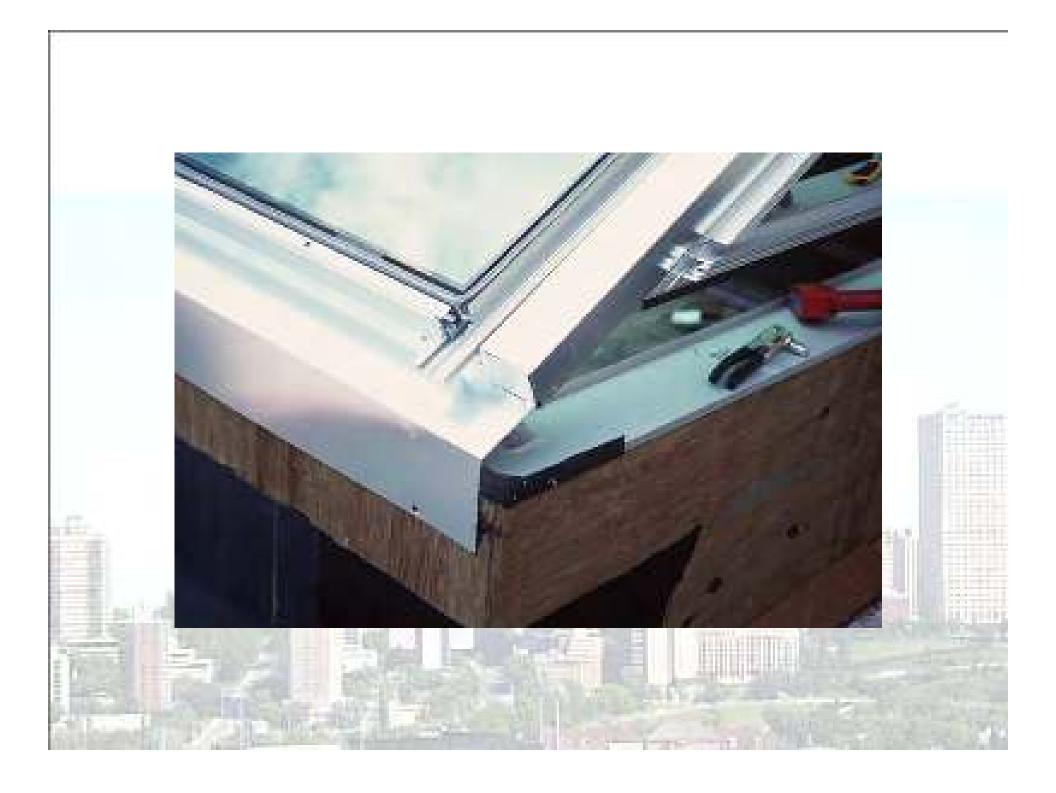


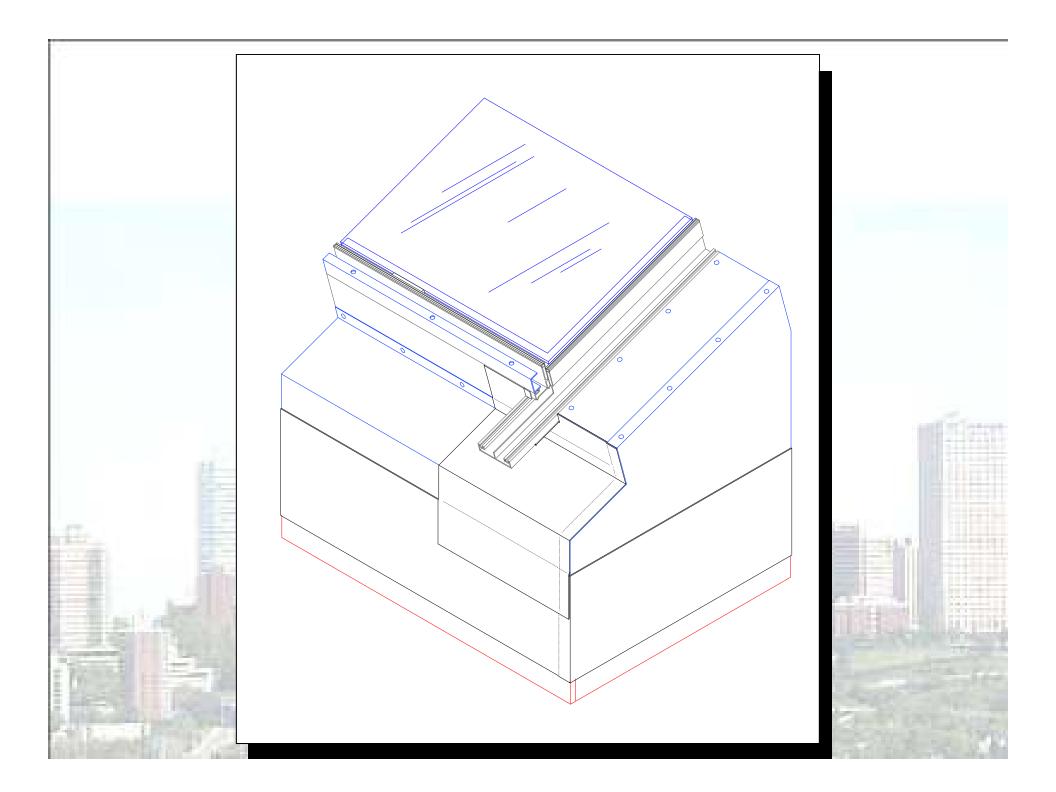


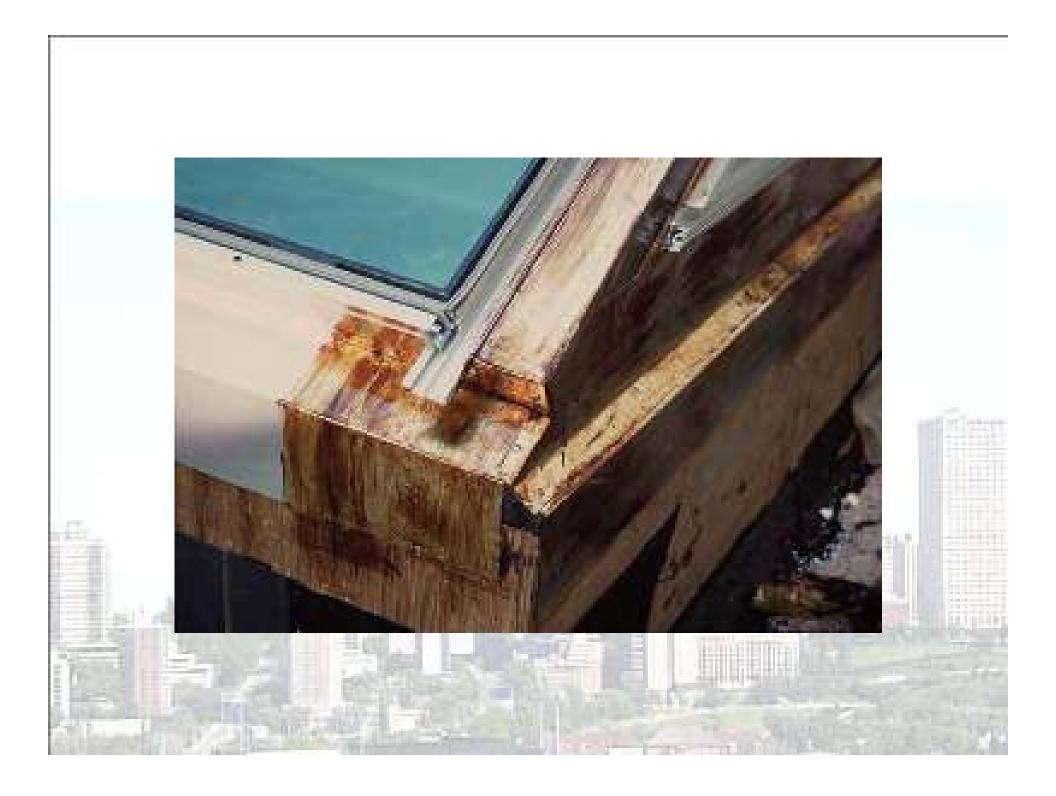


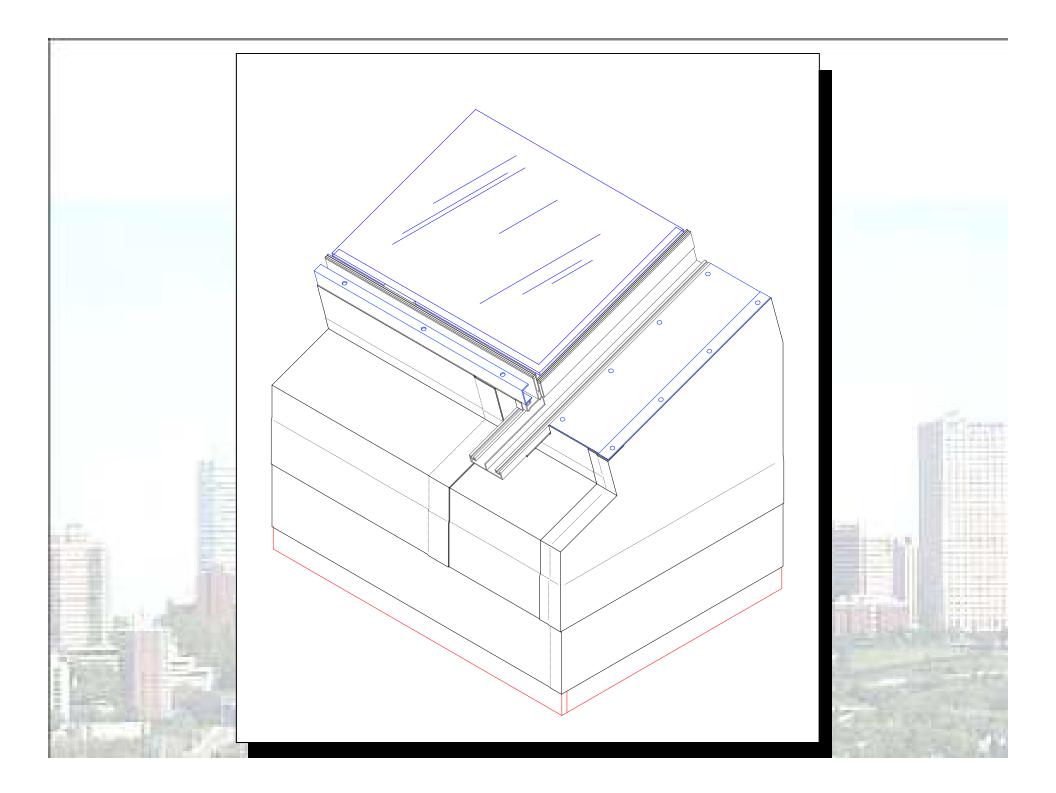


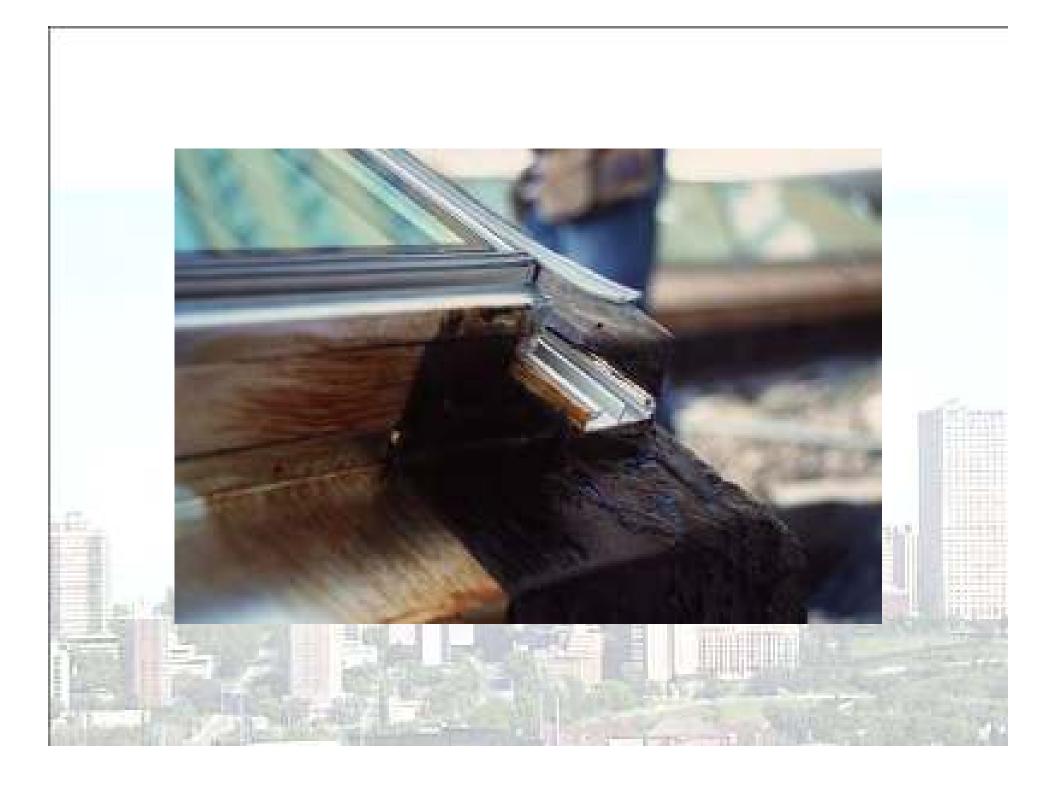


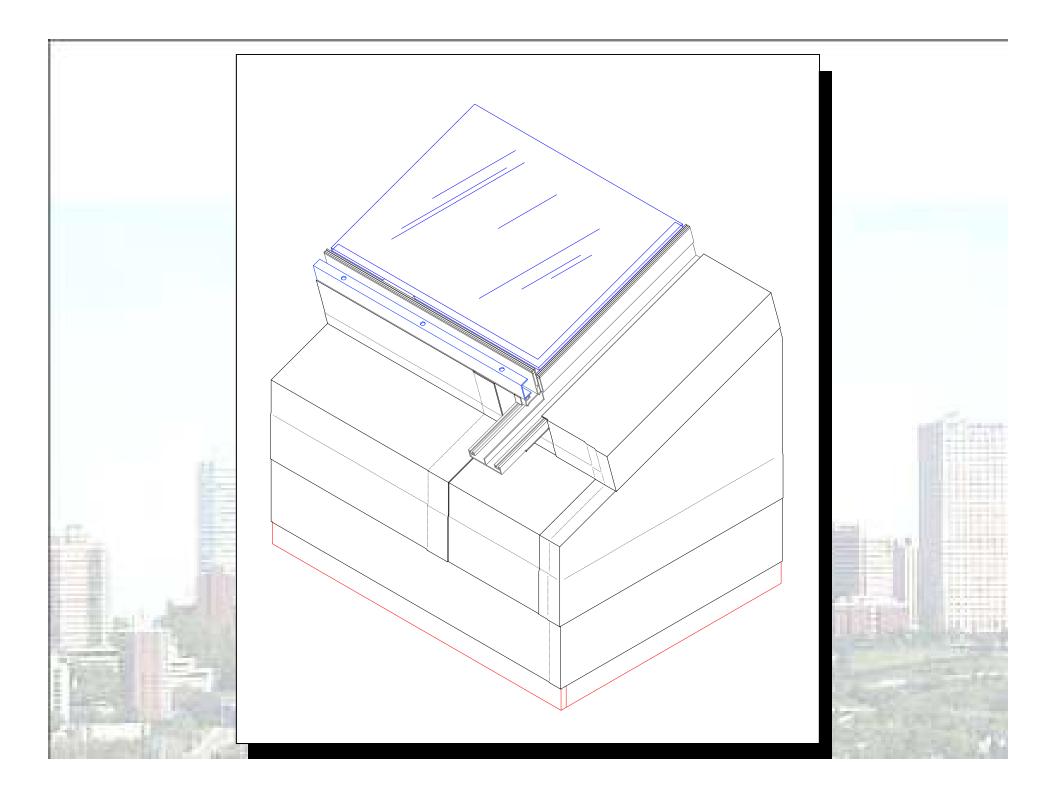


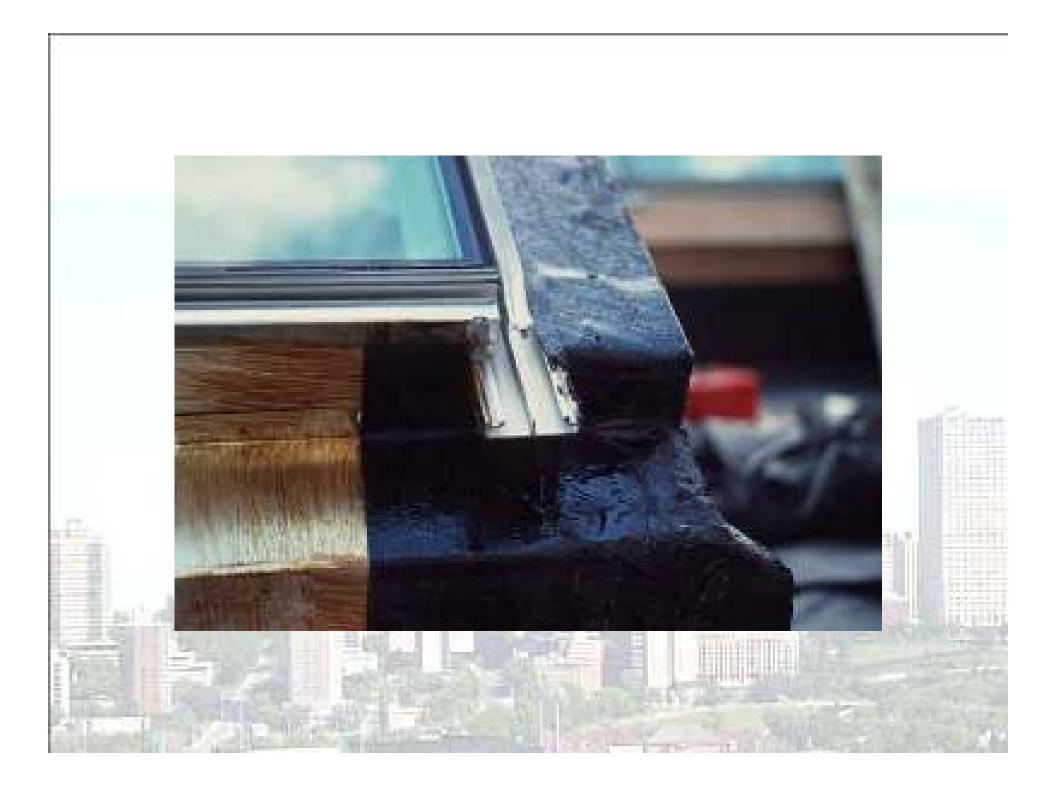


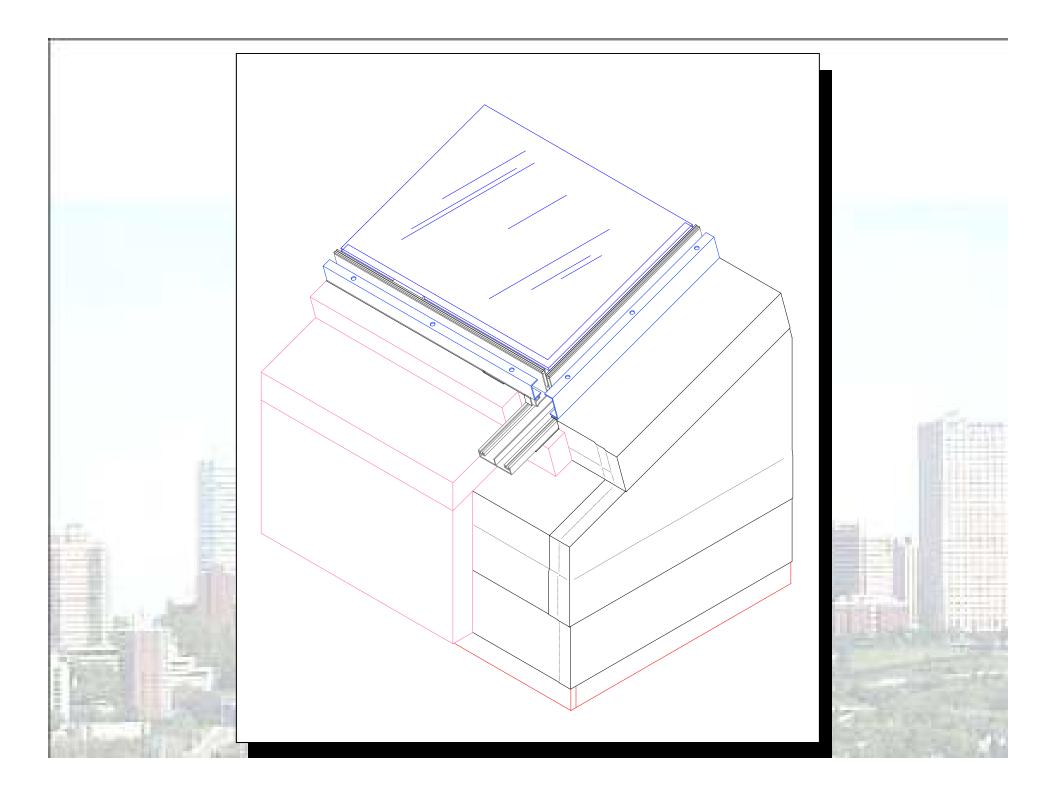


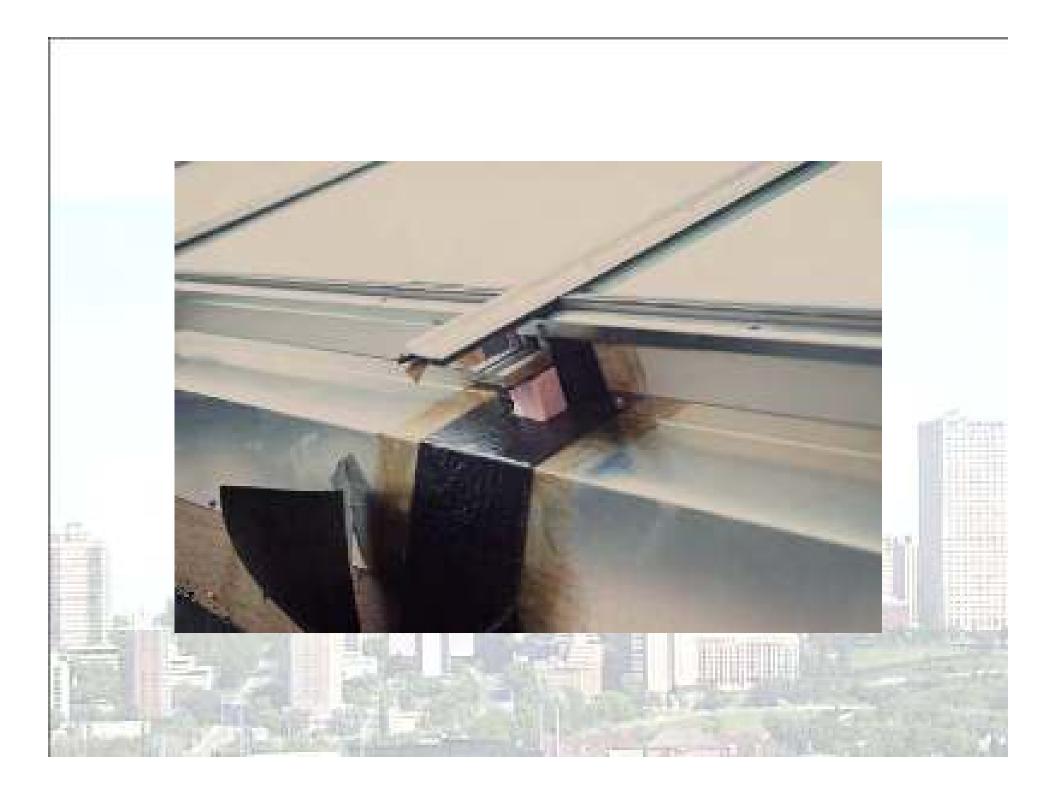


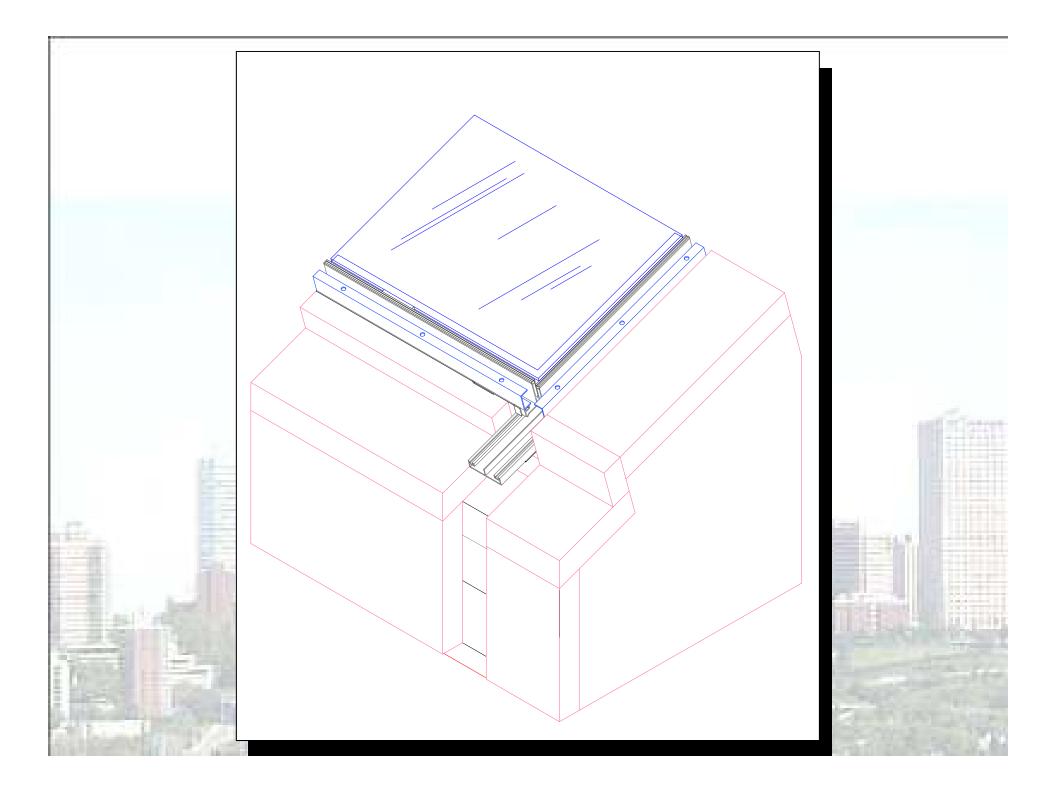


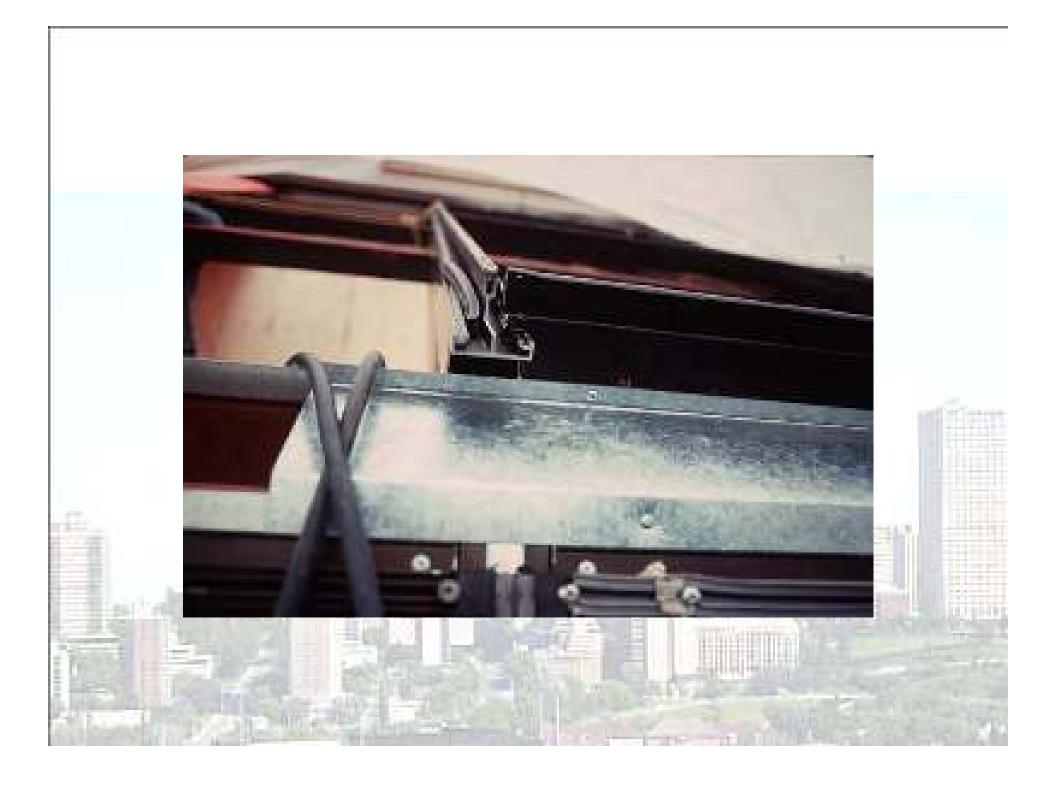


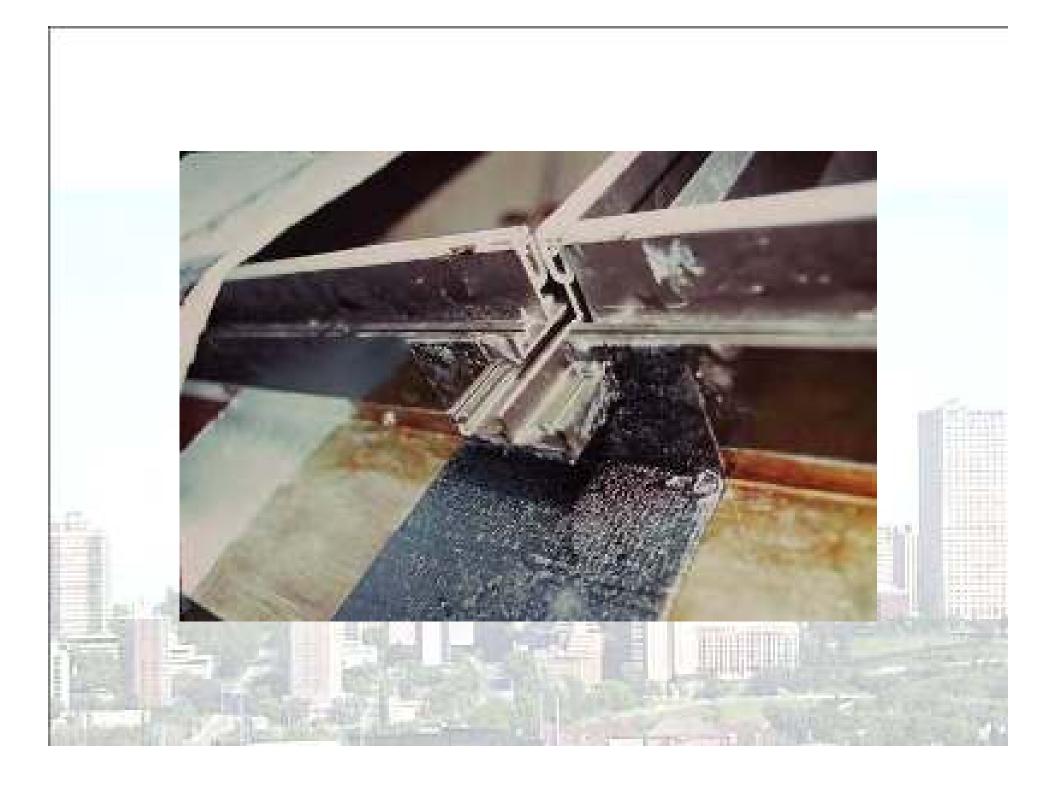










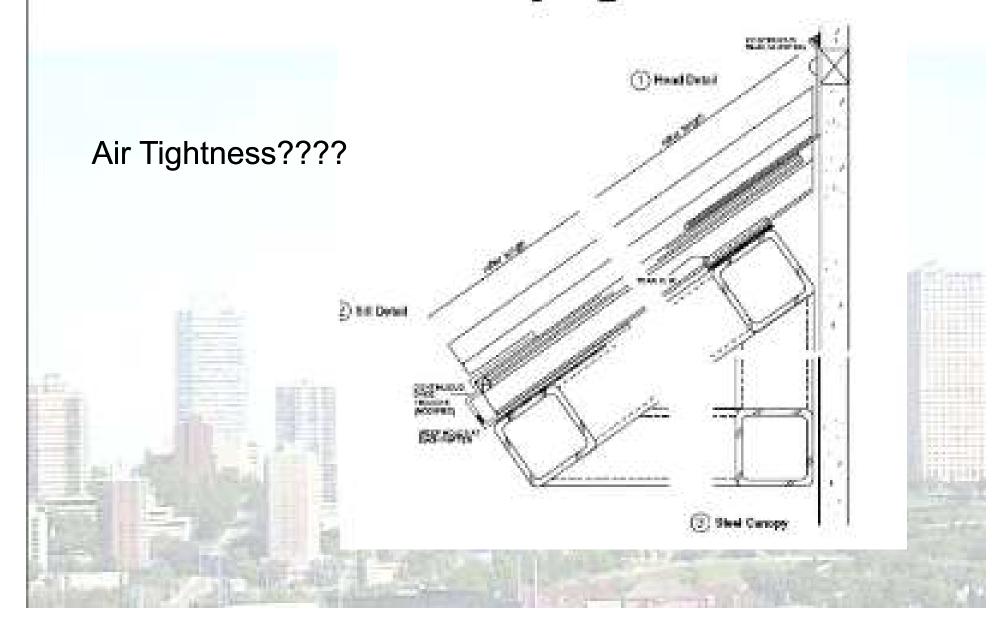


T-Bar Skylights

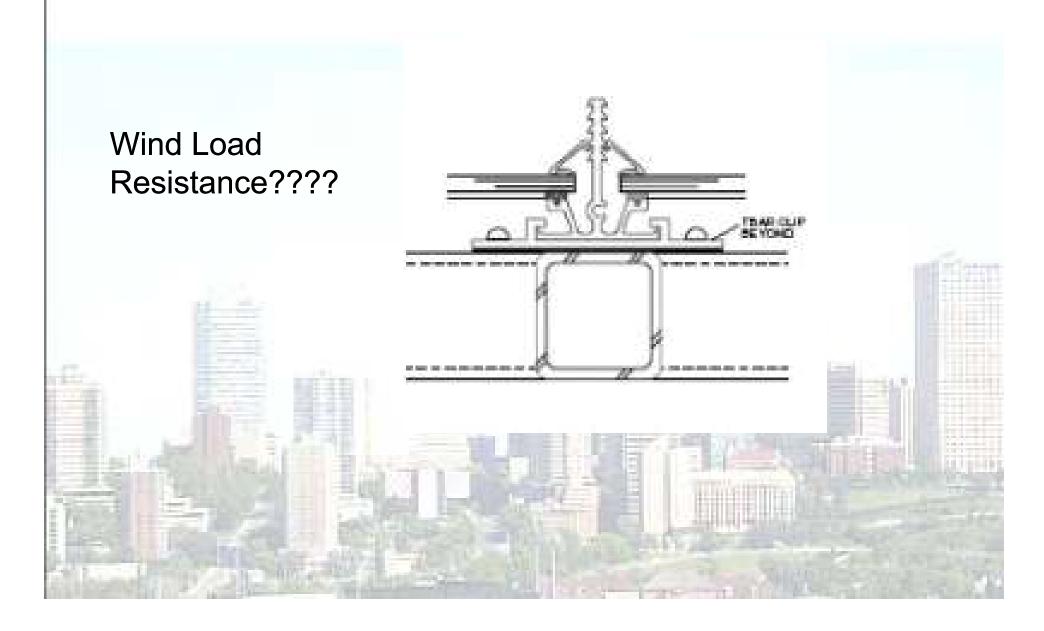


Dumb-sloping a flashing toward a wall AND not realizing that the horizontal coupler of the skylight is the cause of the leak

T-Bar Skylights

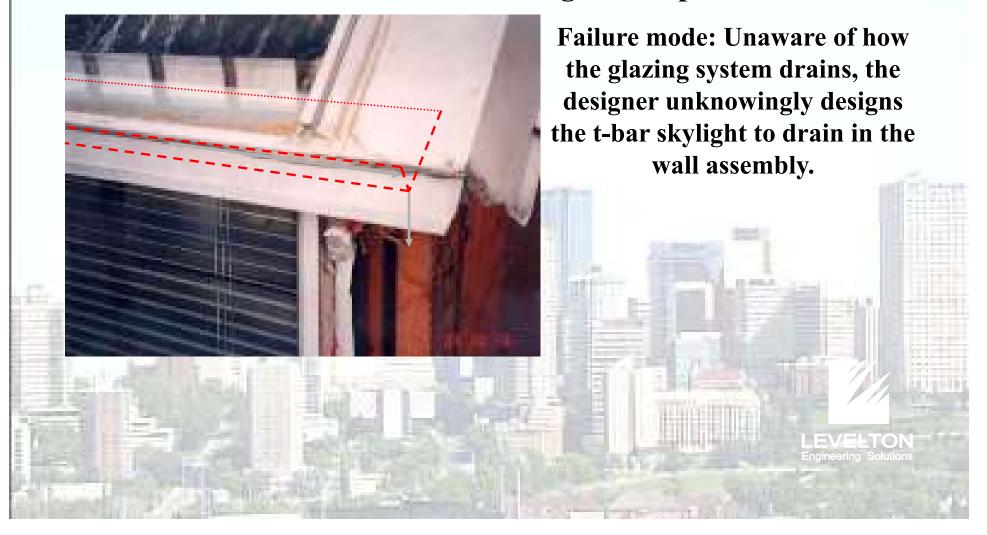


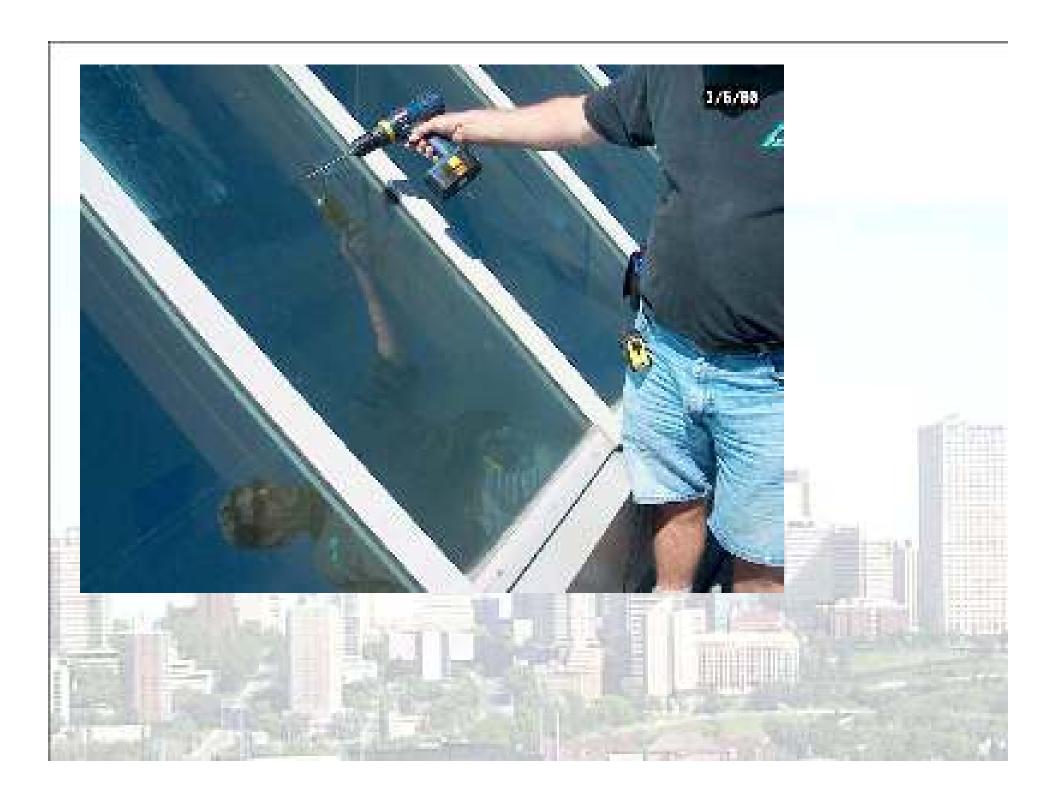
T-Bar Skylights

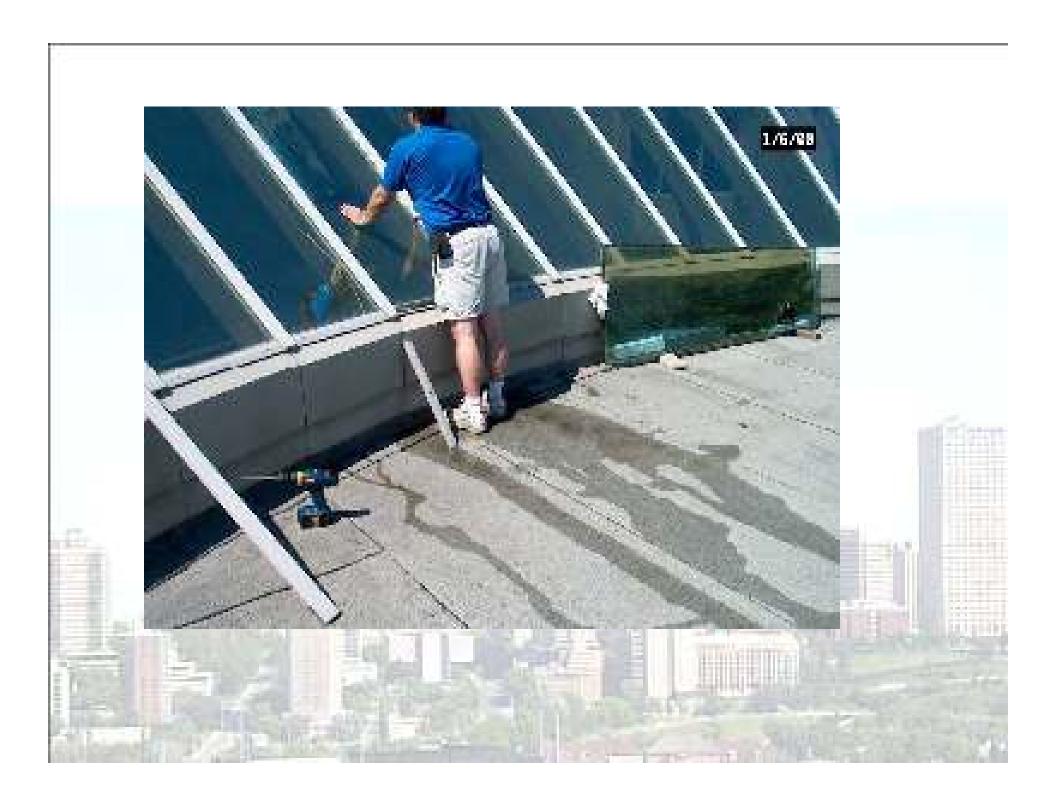


Thinking like a Pessimist

Building Envelope Professional







Equation

