



Oldcastle BuildingEnvelope™

ICW-250 Inside Glazed Curtain Wall **INSTALLATION AND GLAZING MANUAL**

*Note: Installation and Glazing Manuals are product specific. **FOR REVIEW ONLY!***

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GENERAL INFORMATION:

The ICW-250 curtain wall systems is intended to be used by glazing professionals with appropriate experience. Sub contractors without this experience should employ a qualified person to provide field instruction and project management.

Oldcastle BuildingEnvelope does not control the application nor selection of its product configurations, sealant or glazing material and assumes no responsibility thereof. It is the responsibility of the owner, architect and installer to make these selections in strict compliance with applicable laws and building codes.

This manual contains extensive details of typical installation conditions. Oldcastle BuildingEnvelope also provides a standard sealant procedure sample on a project basis. These samples are intended as an additional aid for the installer.

Variations of the details shown are inevitable and are not the responsibility of Oldcastle BuildingEnvelope when drawn by others. Oldcastle BuildingEnvelope strongly encourages its customers to use its Engineering department for calculations and shop drawings.

PROTECTION AND STORAGE:

Handle the material carefully. Do not drop from the truck. Stack with adequate separation so that the material will not rub together. Store material off the ground. Protect against the elements and other construction hazards by using a well ventilated covering. Remove material from package if it is wet or is located in a damp area. Please also reference AAMA publication "Care and Handling of Architectural Aluminum From Shop to Site."

Check Material:

Check glass dimension for thickness. Some glass manufactures are very liberal with their quality control standards. Oldcastle BuildingEnvelope cannot be held responsible for gaskets that are not water tight due to extreme glass tolerances. However, given advanced notice, Oldcastle BuildingEnvelope will attempt to provide an alternate gasket for a nominal charge.

Check all material upon arrival for quality and to assure against shipping damage. Any visible damage must be noted on the freight bill at the time of receipt. If a claim is required, then the receiving party must process a claim with the freight company.

Completely check construction which will receive your material against contract documents. Notify the general contractor by letter of any discrepancies before proceeding with the work. Failure to do so constitutes acceptance of work by other trades.

Check shop drawings and installation instructions to become familiar with the project. The shop drawings take precedence and include specific details for the project. The installation instructions are of a general nature and cover the most common conditions. Due to varying job conditions, all sealants used should be approved by the sealant manufacture, to insure they will function for conditions shown on instructions and shop drawings. They must be compatible with all surfaces in which adhesion is required, including other sealant surfaces. Use primers where directed by manufacturer of sealants. Be sure to properly store sealants at recommended temperatures and check sealant for remainder of shelf life before using.

FIELD CONDITIONS:

All material to be installed plumb, level, and true. Aluminum to be placed in direct contact with masonry or incompatible material, should be isolated with a heavy coat of zinc-chromate or bituminous paint.

After sealant is set and a representative amount of the wall has been glazed (250 square feet or more) run a water hose to check installation. On large jobs hose test should be repeated during glazing operation. Test should be conducted in accordance with AAMA 501.2 specifications. In addition, prior to glazing it is often beneficial to temporarily plug the horizontal weep holes and flood the glazing pocket with water to check the sealant workmanship of the end dams.

Coordinate protection of intalled materials with general contractors and other trades.

CLEANING MATERIALS:

Cement, plaster, terrazzo, alkaline and acid based material used to clean masonry are very harmful to finishes and should be removed with water and a mild soap immediately or permanent staining will occur. A spot test is recommended before any cleaning agent is used.

EXPANSION JOINTS:

Expansion joints and perimeter seals shown in these instructions and in the shop drawings are shown at normal size. Actual dimensions may vary due to perimeter conditions and/or differences in metal temperature between the time of fabrication and time of installation. For example, a 12 foot unrestrained length of aluminum extrusion can expand or contract 3/32 of an inch over a 50°F change. Any movement potential should be accounted for at the time of the installation.

THERMAL IMPROVEMENT SUGGESTIONS:

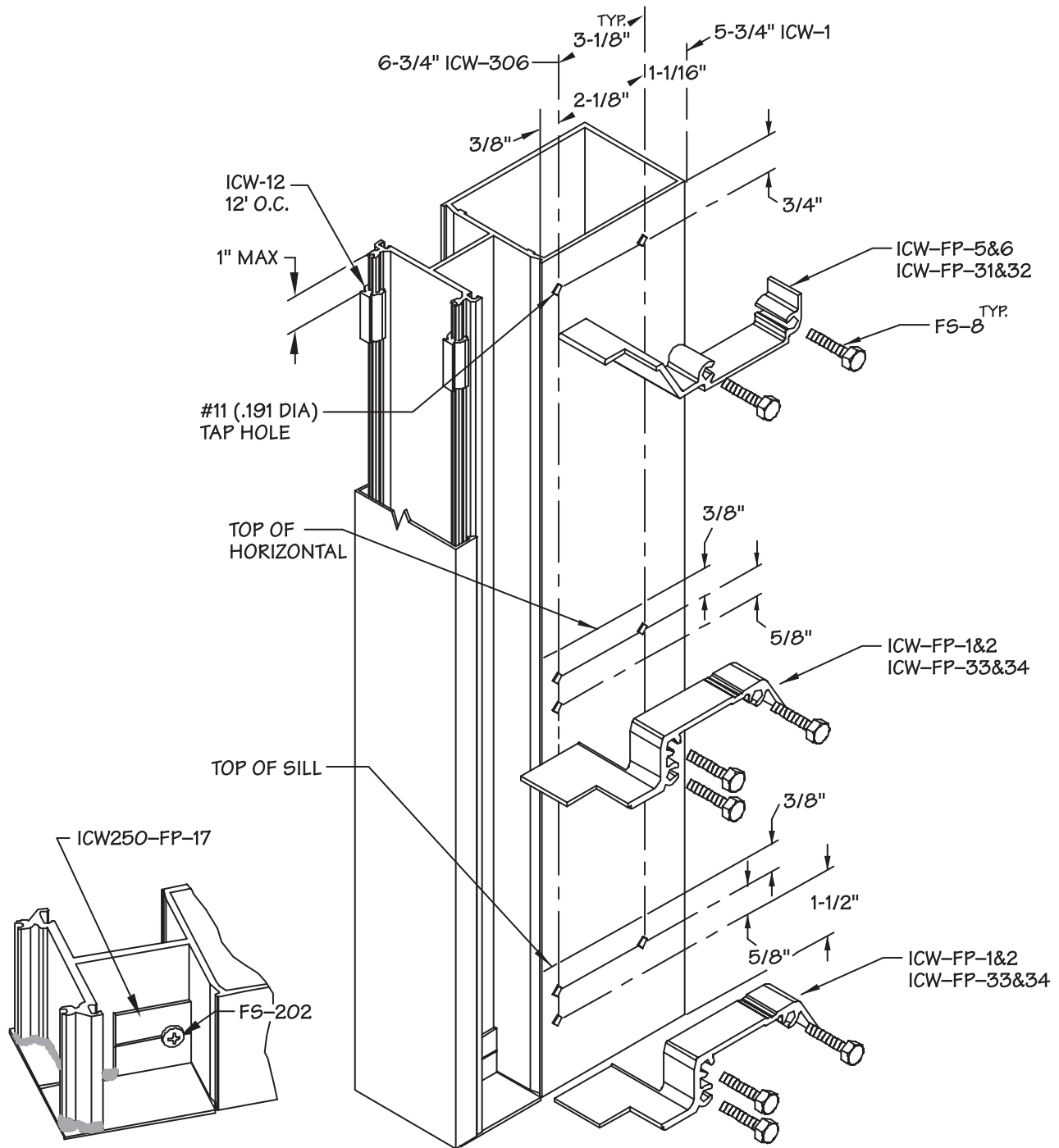
To maintain or improve your wall installation the following items should be considered.

- A. Blinds or drapes prevent warm air from washing the window.
- B. Warm air ventilators too far from the window will not adequately wash the window with air to prevent condensation.
- C. In extreme conditions the fan of the heating system should not cycle on and off, but should run continuously.
- D. Some heating systems have a water injection feature that can raise humidity levels. The higher the humidity level the more likely condensation or frost will form. Raising the temperature and reducing the humidity will usually solve the problem.
- E. On rare occasions an extremely cold storm may cause frost to appear on the glass or framing. A space heater and electric fan blowing along the plane of the window wall can reduce or eliminate this temporary condition.

Please note:

One or more items shown in this manual are patented IE., 4644717 or applied for.

MULLION FABRICATION AND SHEAR BLOCK INSTALLATION



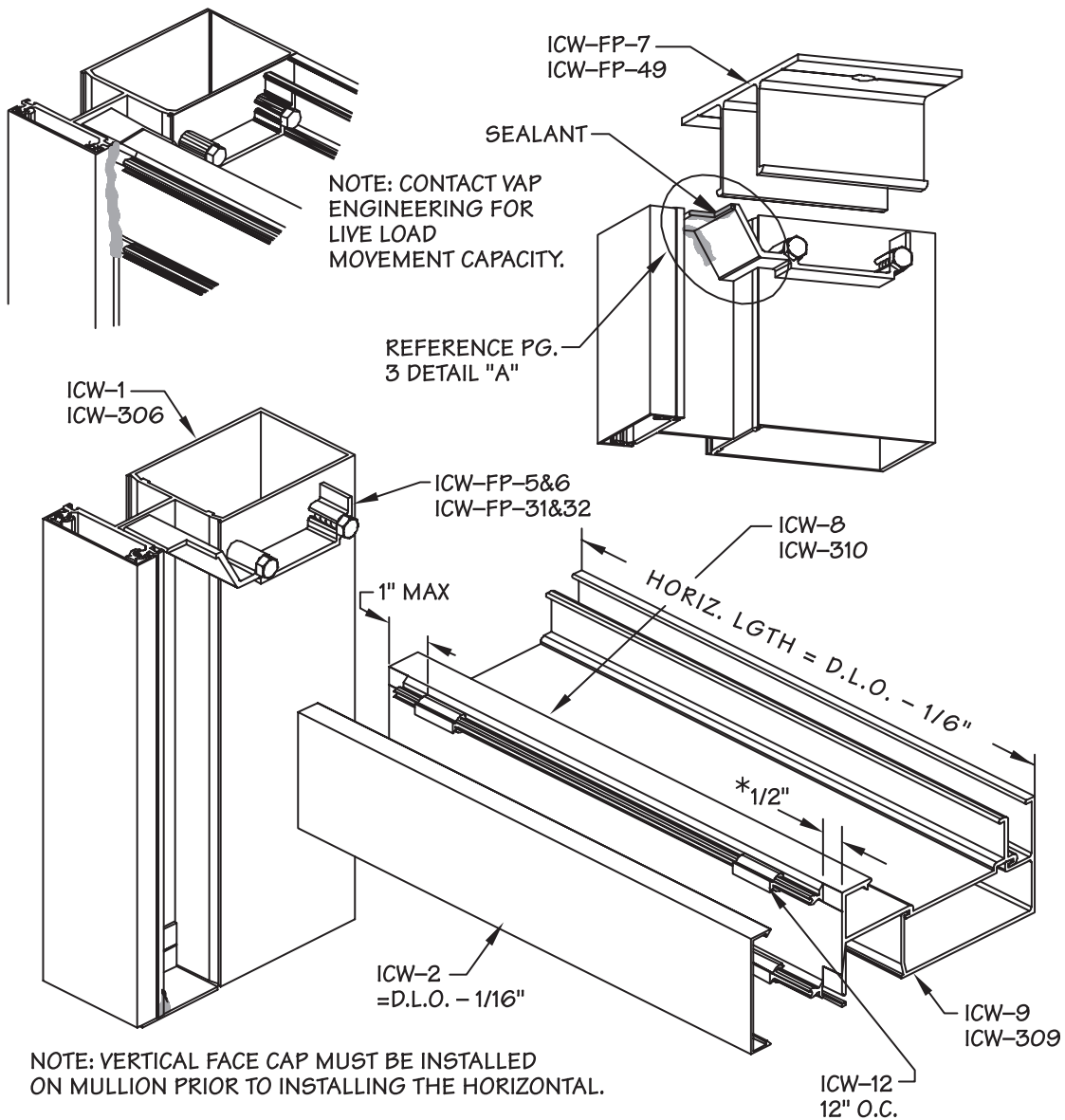
APPLY SEALANT TO END
OF MULLION FACE BEFORE
INSTALLING MULLION CAP.

NOTE: SHEAR BLOCK
NOT REQUIRED AT SILL
WHEN SILL CAN IS USED

HEAD SEALANT DETAIL

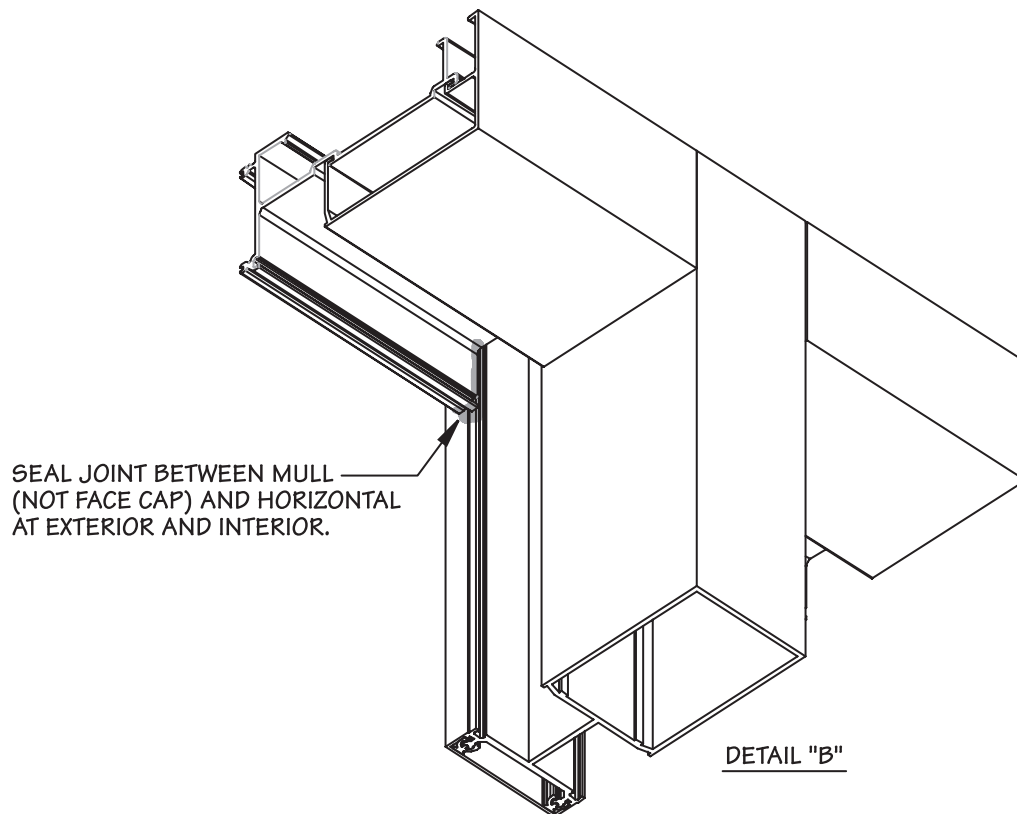
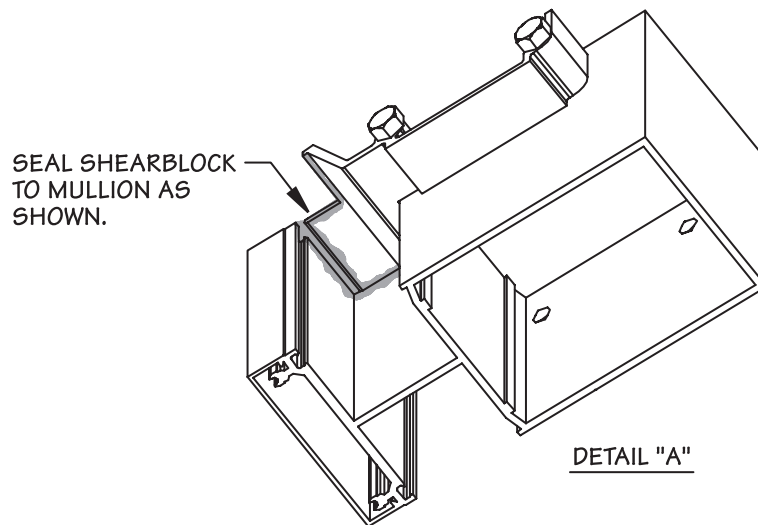
ANCHOR HOLE SIZE DETERMINED BY STRUCTURAL REQUIREMENTS.
REFERENCE PG. 12 FOR ANCHOR HOLE LOCATIONS.

NOTE: ENGAGE ICW-FP-7 OR 49 INTO VERTICAL MILLION
PRIOR TO INSTALLING SHEARBLOCK.

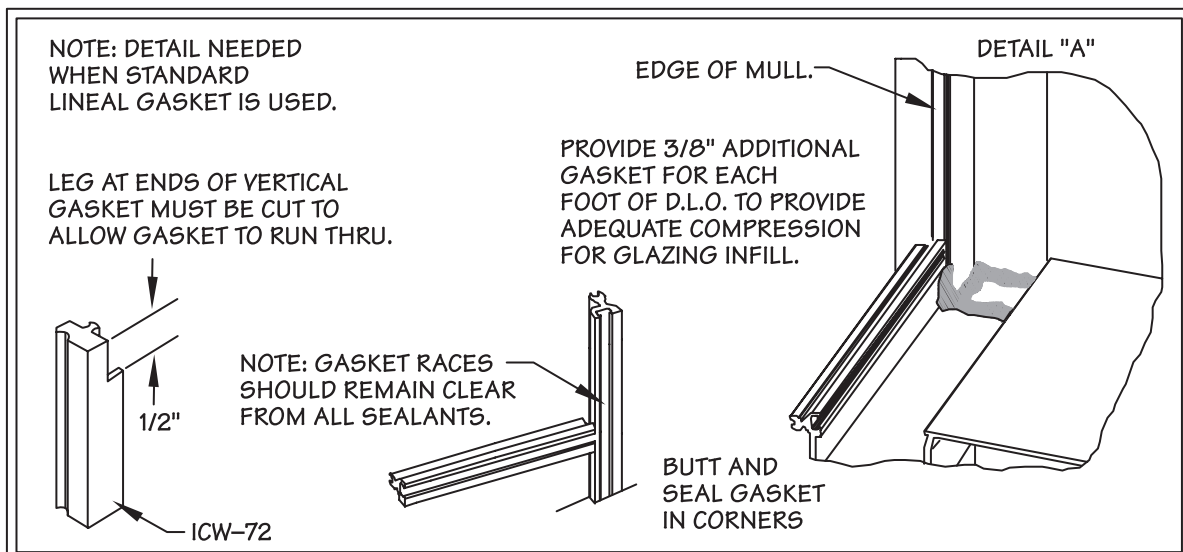
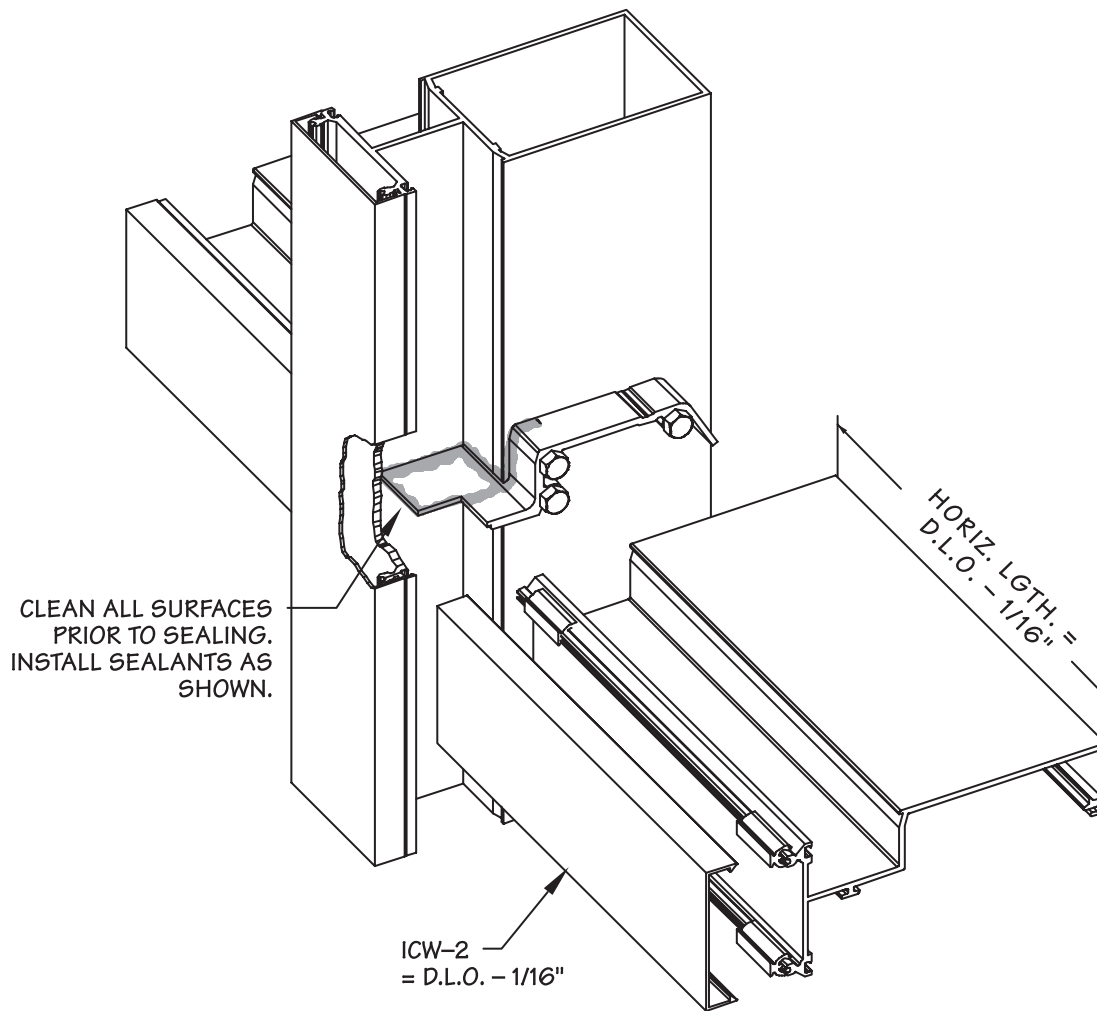


*1/2" NOTCH ON LEG OF HEAD PROVIDES SPACE TO ASSURE
A PROPER SEAL BETWEEN MULL (NOT FACE CAP) AND END OF
HEADER. ALSO SEAL BOTTOM HALF OF HEADER EDGE FROM INSIDE.
REFERENCE PG. 8 DETAIL "B" FOR SEALANT INFORMATION.

HEAD SEALANT PROCEDURE CONTINUED



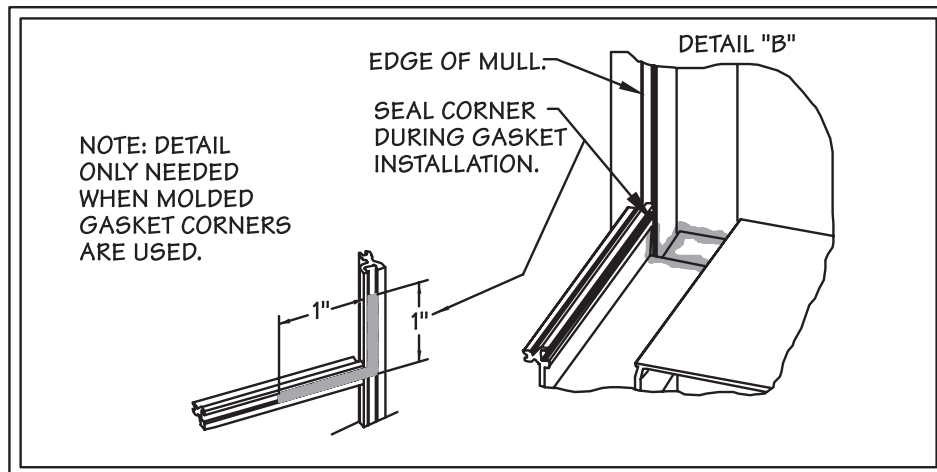
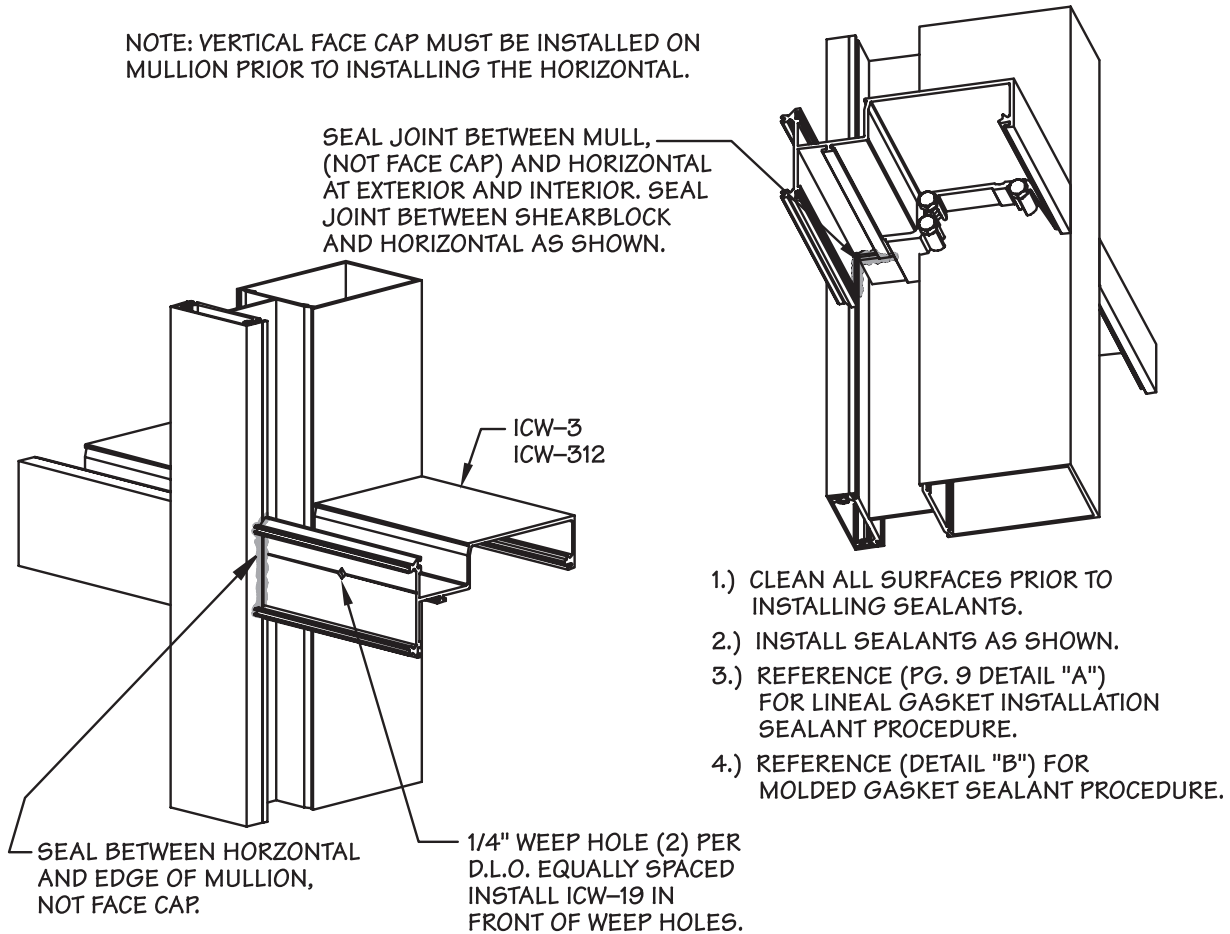
INTERMEDIATE HORIZONTAL SEALANT PROCEDURE



INTERMEDIATE HORIZONTAL SEALANT PROCEDURE CONTINUED

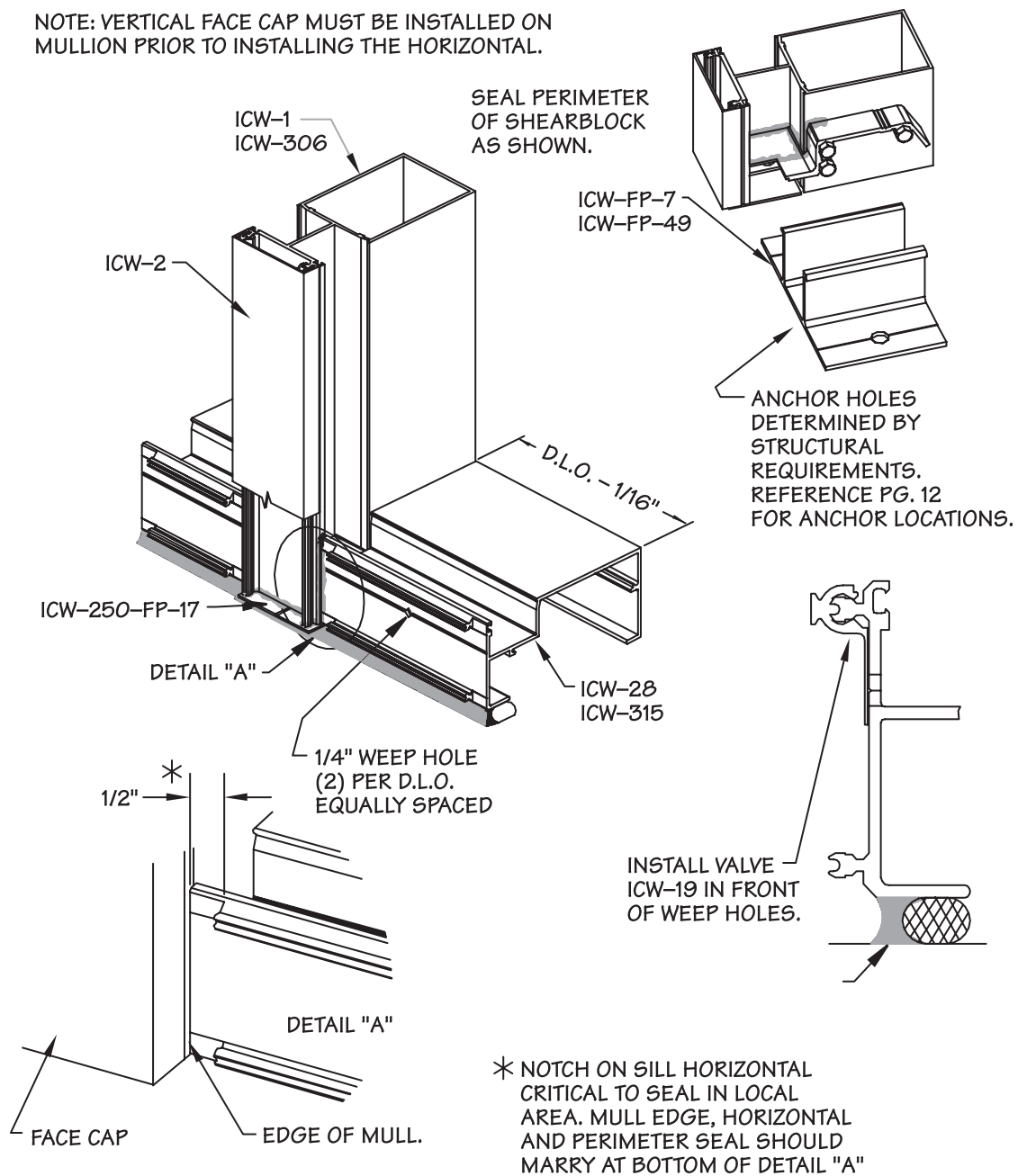
NOTE: VERTICAL FACE CAP MUST BE INSTALLED ON MULLION PRIOR TO INSTALLING THE HORIZONTAL.

SEAL JOINT BETWEEN MULL, (NOT FACE CAP) AND HORIZONTAL AT EXTERIOR AND INTERIOR. SEAL JOINT BETWEEN SHEARBLOCK AND HORIZONTAL AS SHOWN.

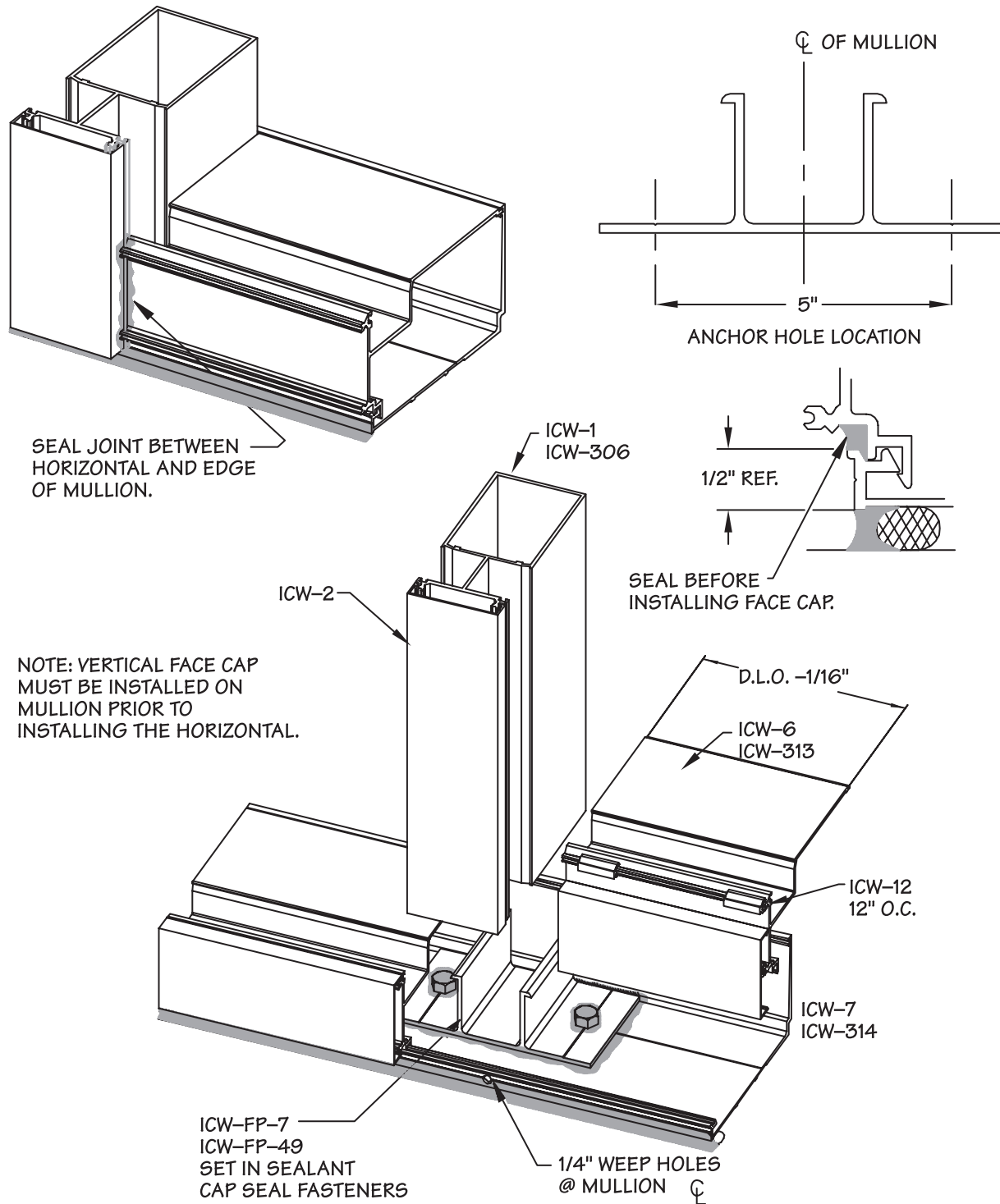


SEALANT DETAIL OF SILL WITHOUT FLASHING

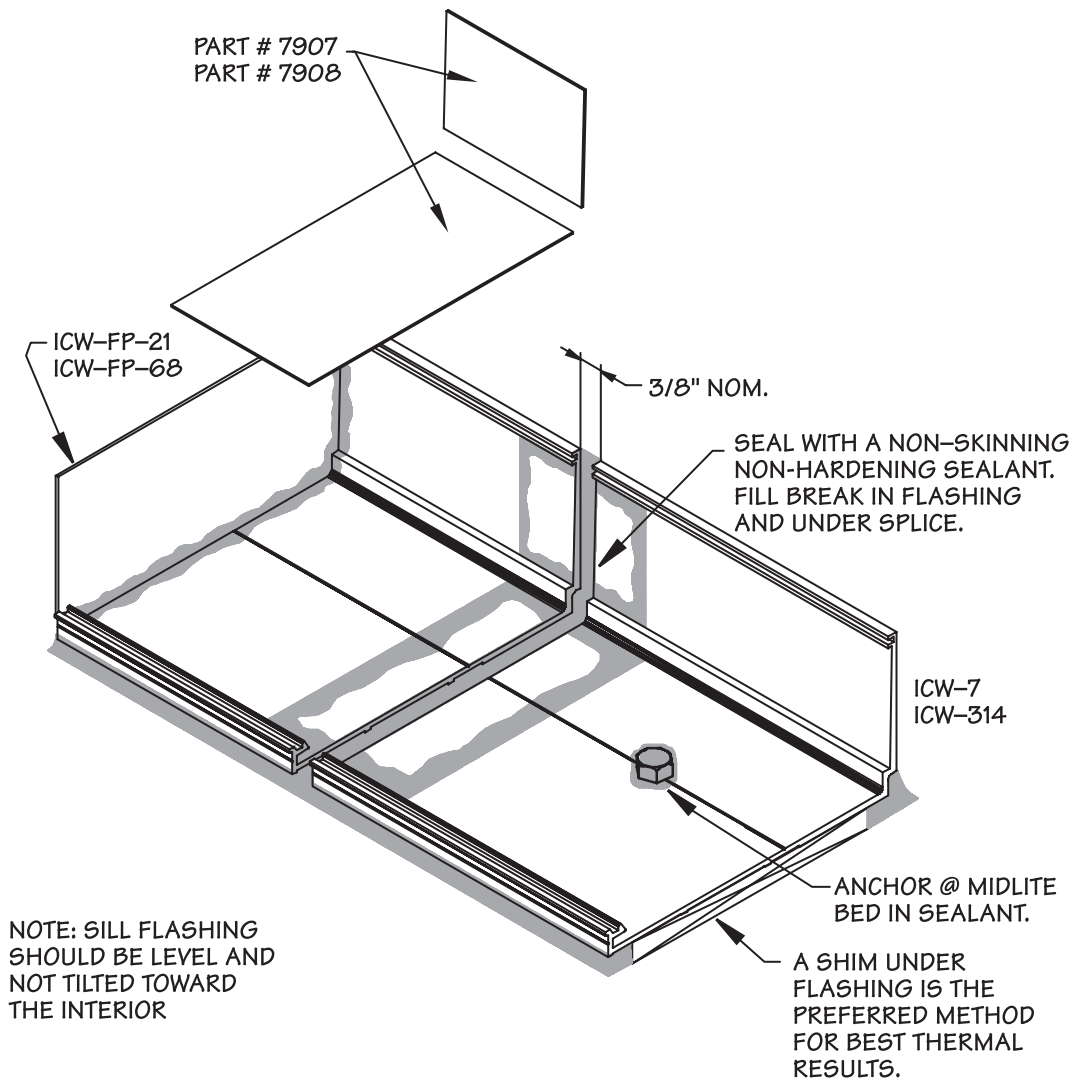
NOTE: VERTICAL FACE CAP MUST BE INSTALLED ON MULLION PRIOR TO INSTALLING THE HORIZONTAL.



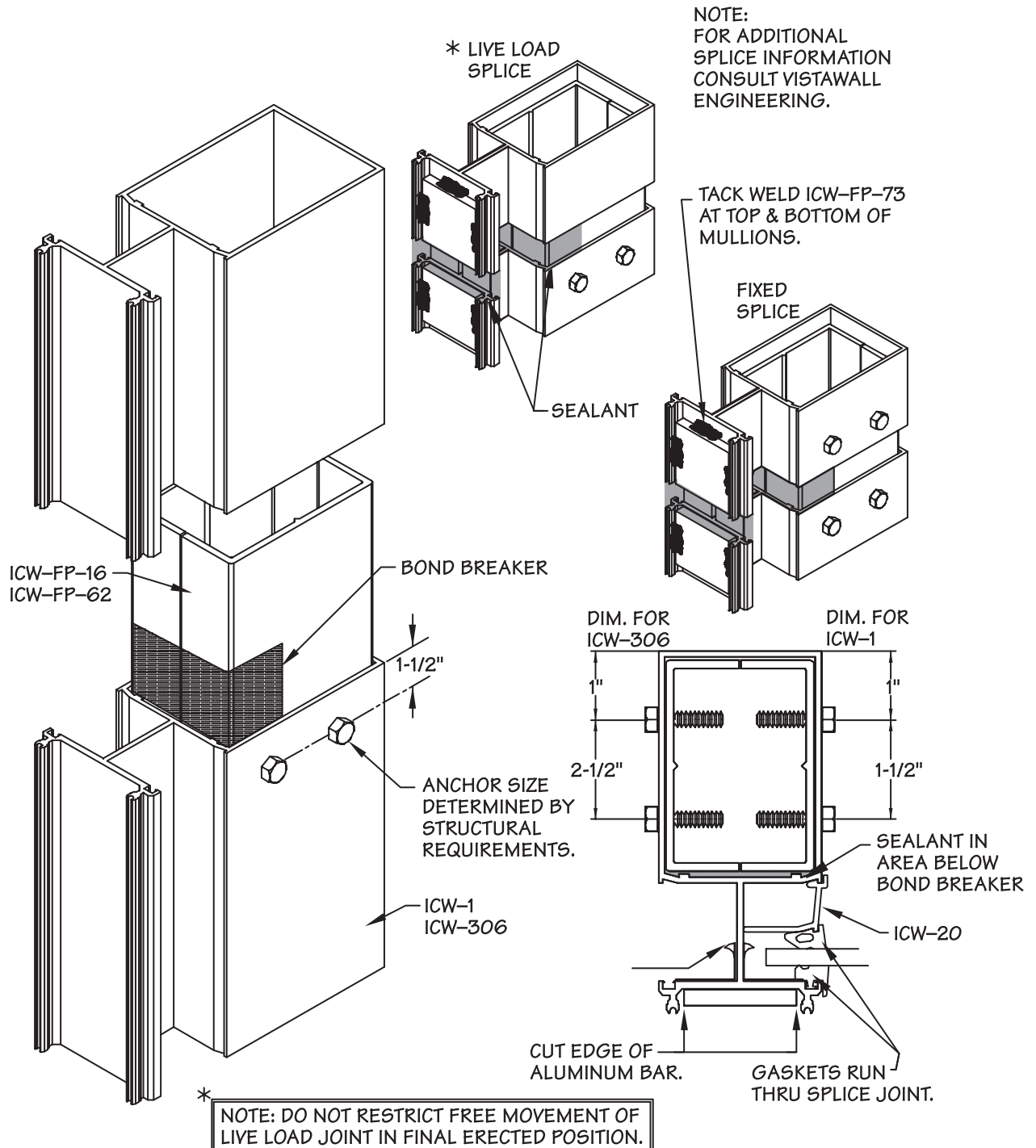
SEALANT DETAIL OF MULLION AND SILL WITH FLASHING



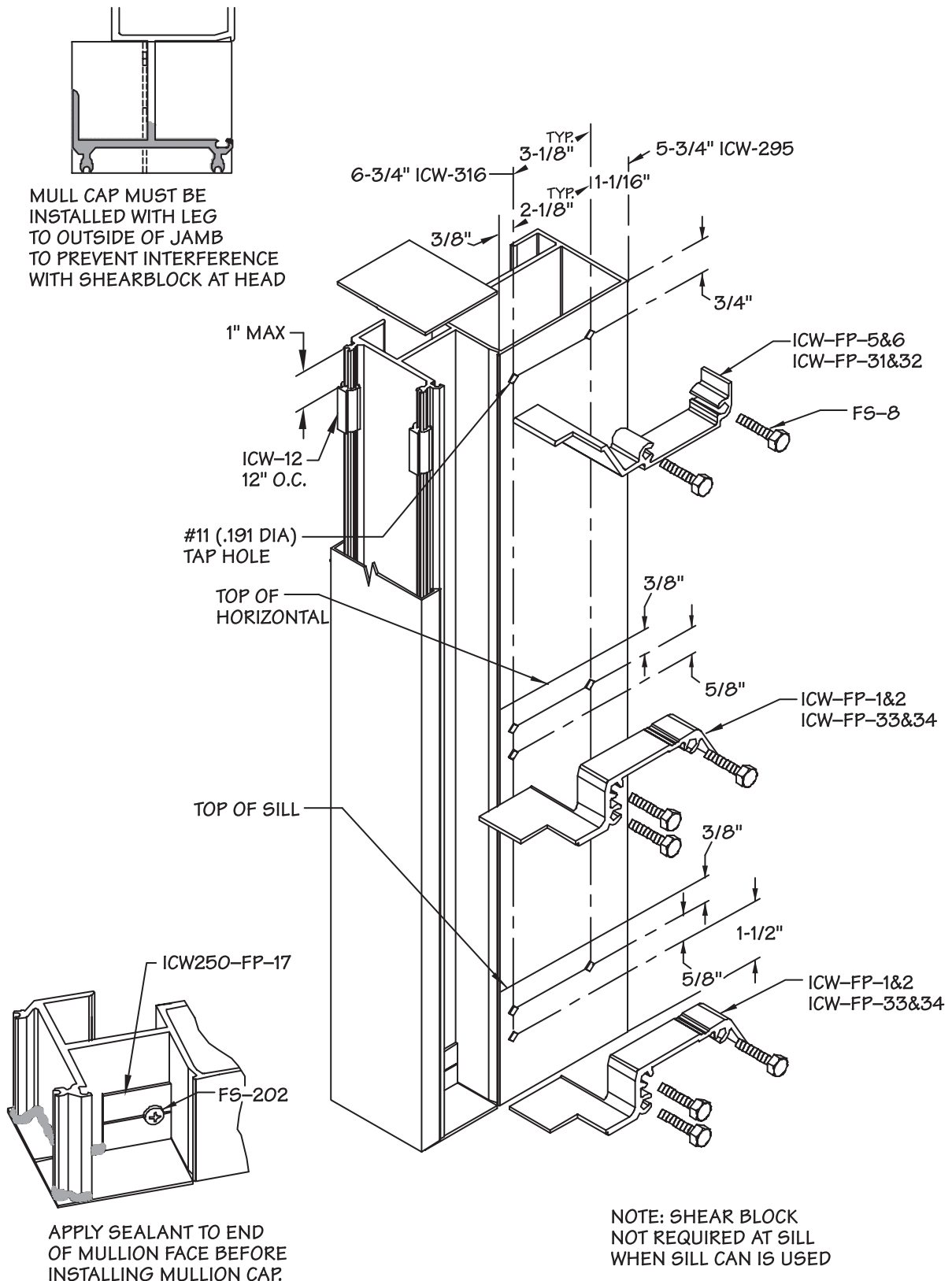
FLASHING SPLICE DETAIL



MULLION SPLICE DETAIL



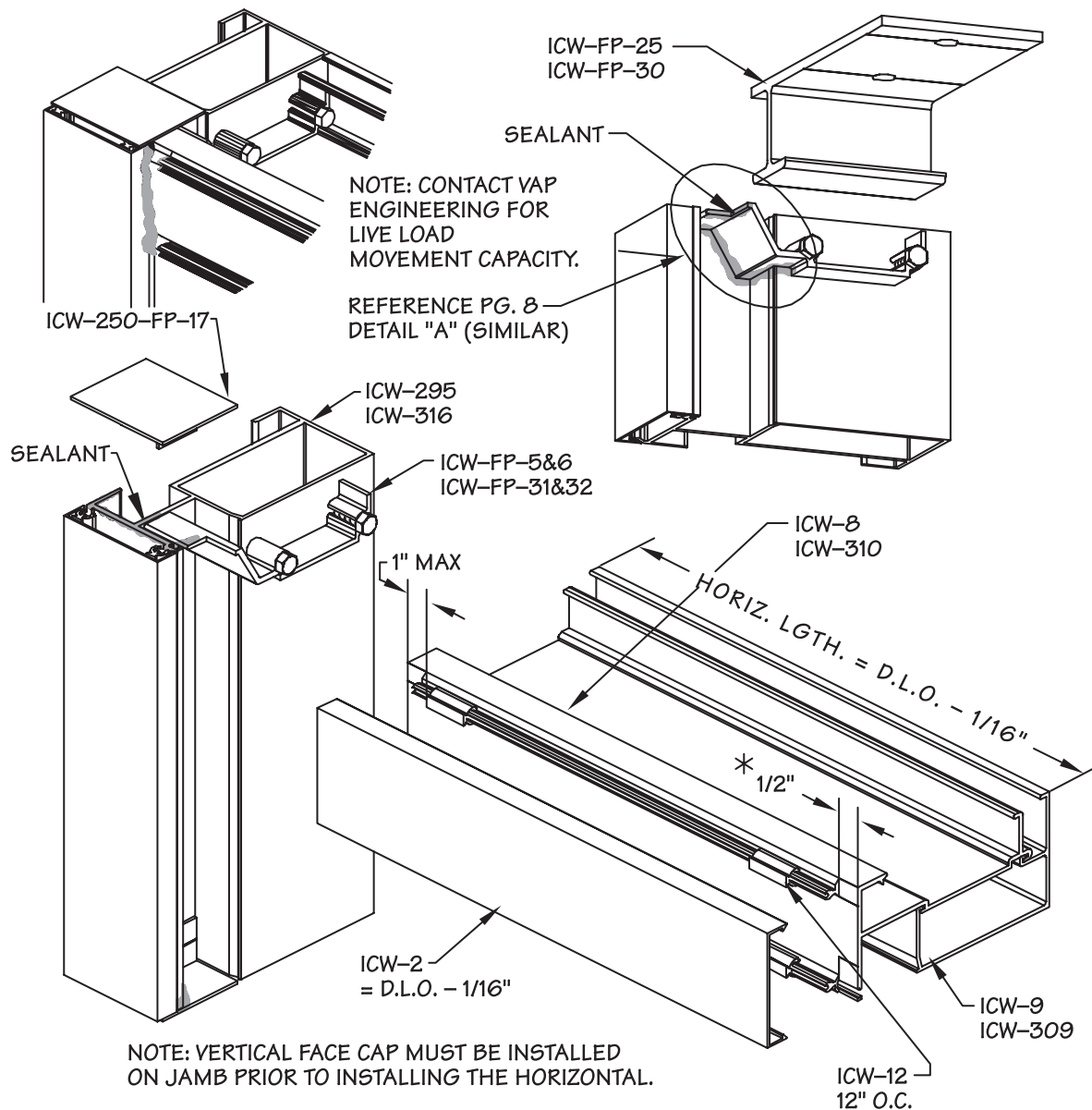
JAMB FABRICATION AND SHEAR BLOCK INSTALLATION



HEAD JAMB SEALANT DETAIL

ANCHOR SIZE DETERMINED BY STRUCTURAL REQUIREMENTS.
REFERENCE PG. 18 FOR ANCHOR HOLE LOCATIONS.

NOTE: ENGAGE ICW-FP25 OR 30 INTO JAMB
PRIOR TO INSTALLING SHEARBLOCK.

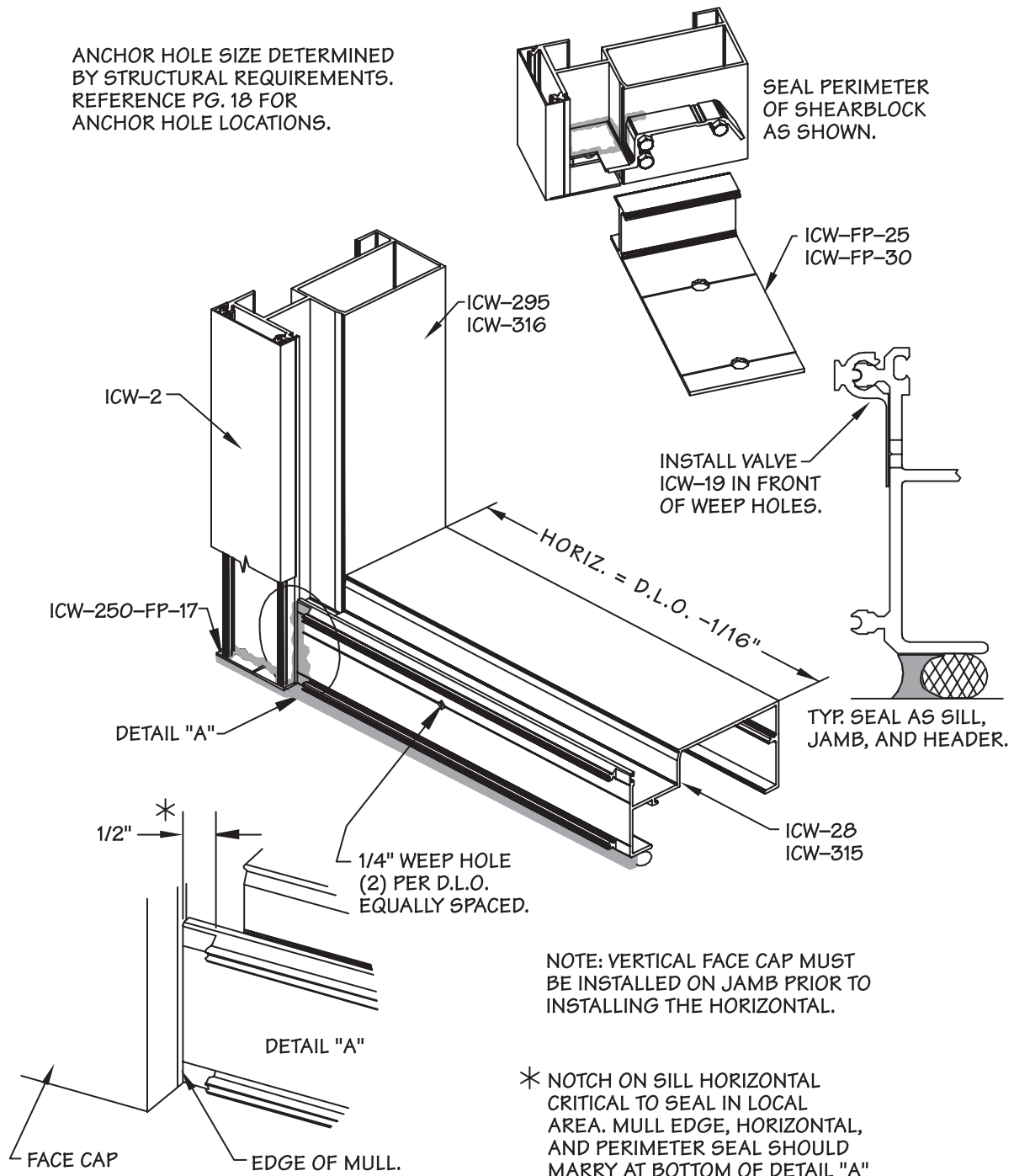


NOTE: VERTICAL FACE CAP MUST BE INSTALLED
ON JAMB PRIOR TO INSTALLING THE HORIZONTAL.

* 1/2" NOTCH ON LEG OF HEAD PROVIDES SPACE TO ASSURE
A PROPER SEAL BETWEEN MULL (NOT FACE CAP) AND END OF
HEADER. ALSO SEAL BOTTOM HALF OF HEADER EDGE FROM INSIDE.
REFERENCE PG. 8 DETAIL "B" FOR SEALANT INFORMATION. (SIMILAR)

SEALANT DETAIL OF JAMB AND SILL WITHOUT FLASHING

ANCHOR HOLE SIZE DETERMINED
BY STRUCTURAL REQUIREMENTS.
REFERENCE PG. 18 FOR
ANCHOR HOLE LOCATIONS.



SEALANT DETAIL OF JAMB AND SILL WITH FLASHING

*USE THIS AREA
FOR BACKER ROD
AND SEALANT.

NOTE: VERTICAL FACE CAP
MUST BE INSTALLED ON
MULLION PRIOR TO
INSTALLATION OF HORIZONTAL.

FORCE SEALANT THRU
CONTINUITY NOTCH AT
FRONT OF SILL CAN.

SEAL JOINT BETWEEN
HORIZONTAL AND EDGE
OF MULLION.

1/2" REF.

SEAL BEFORE
INSTALLING FACE CAP.

ICW-FP-25
ICW-FP-30
SET IN SEALANT
CAP SEAL FASTENERS

ICW-250-FP-21
ICW-250-FP-68
END DAM
SET IN SEALANT

NOTE: ANCHOR BOLT
SIZE DETERMINED BY
STRUCTURAL REQUIREMENTS.

1/4" WEEP HOLES
@ MULLION C

D.L.O. - 1/16"

ICW-6
ICW-313

ICW-12
12" O.C.

ICW-2

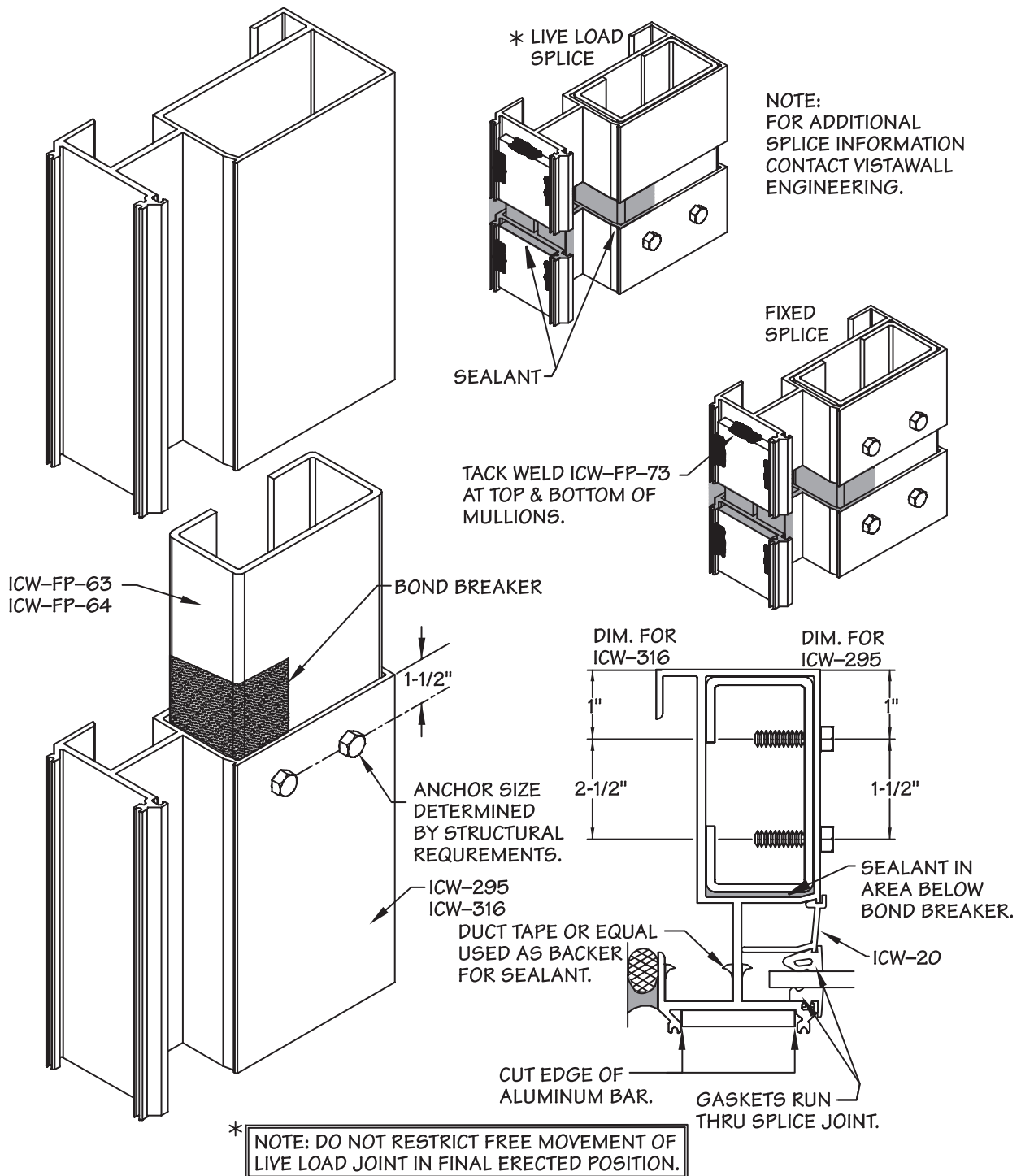
ICW-7
ICW-314

V GROOVE IS
C.L. FOR ANCHOR
BOLT.

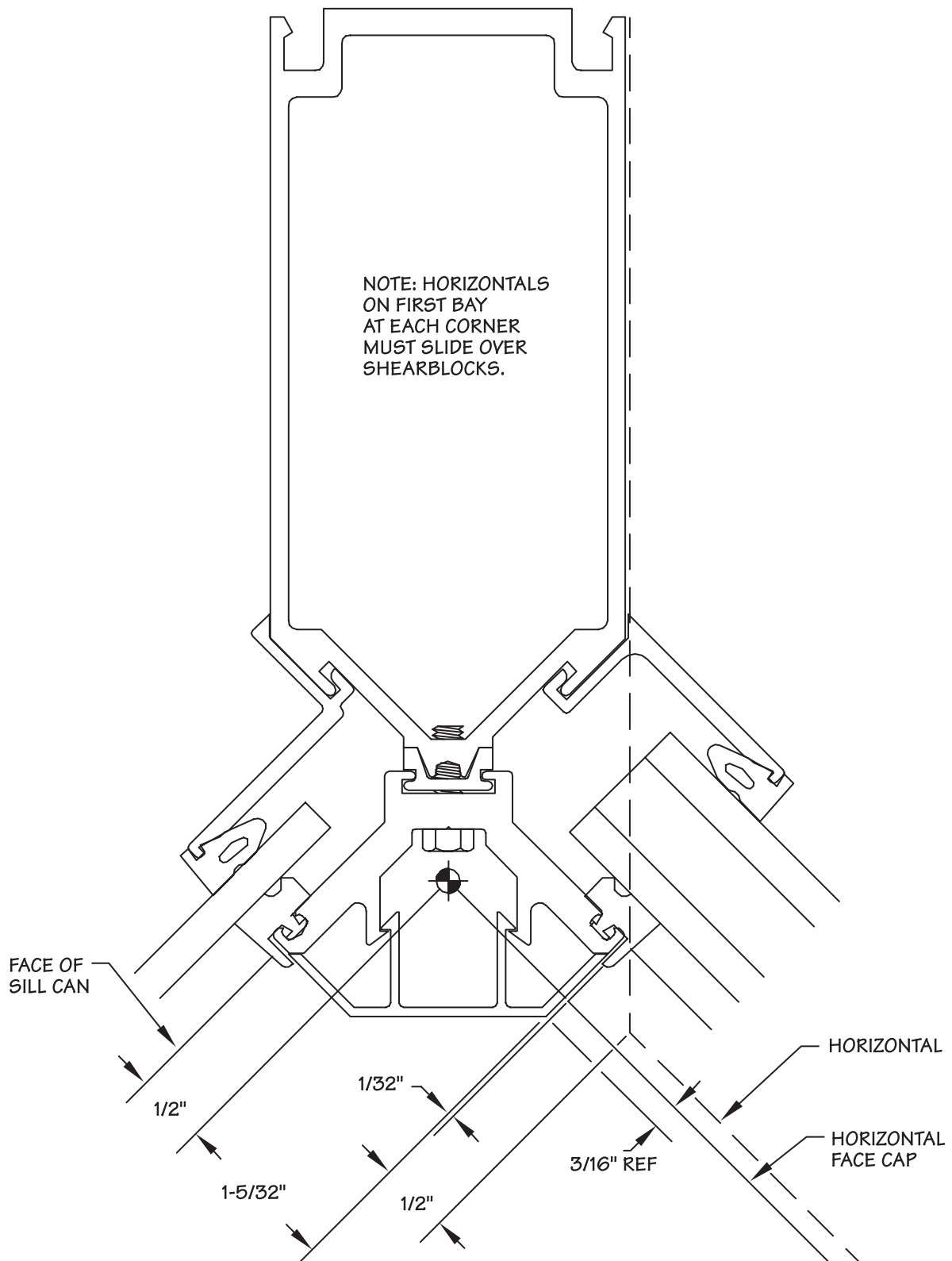
3-1/4"

3

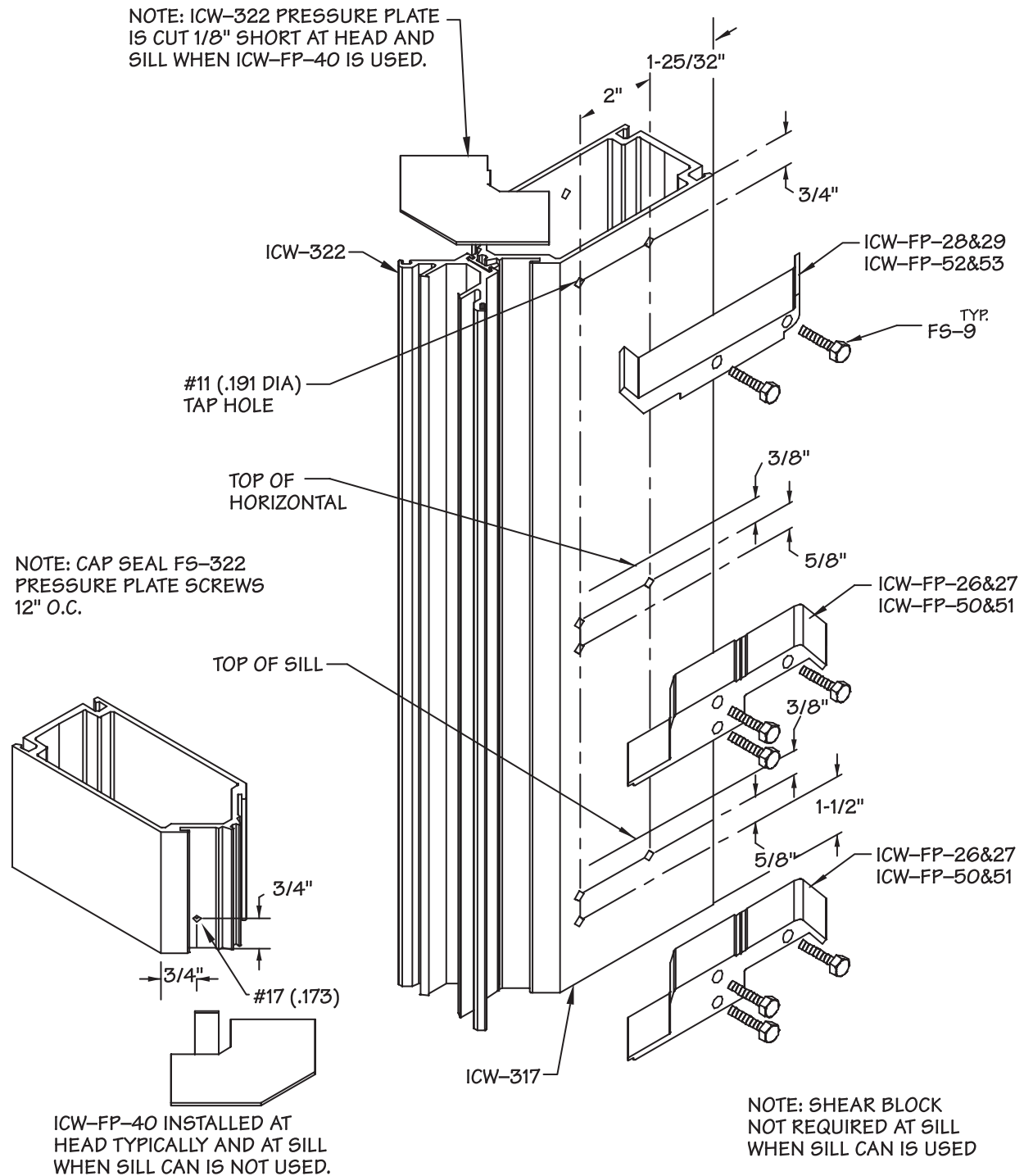
JAMB SPLICE DETAIL



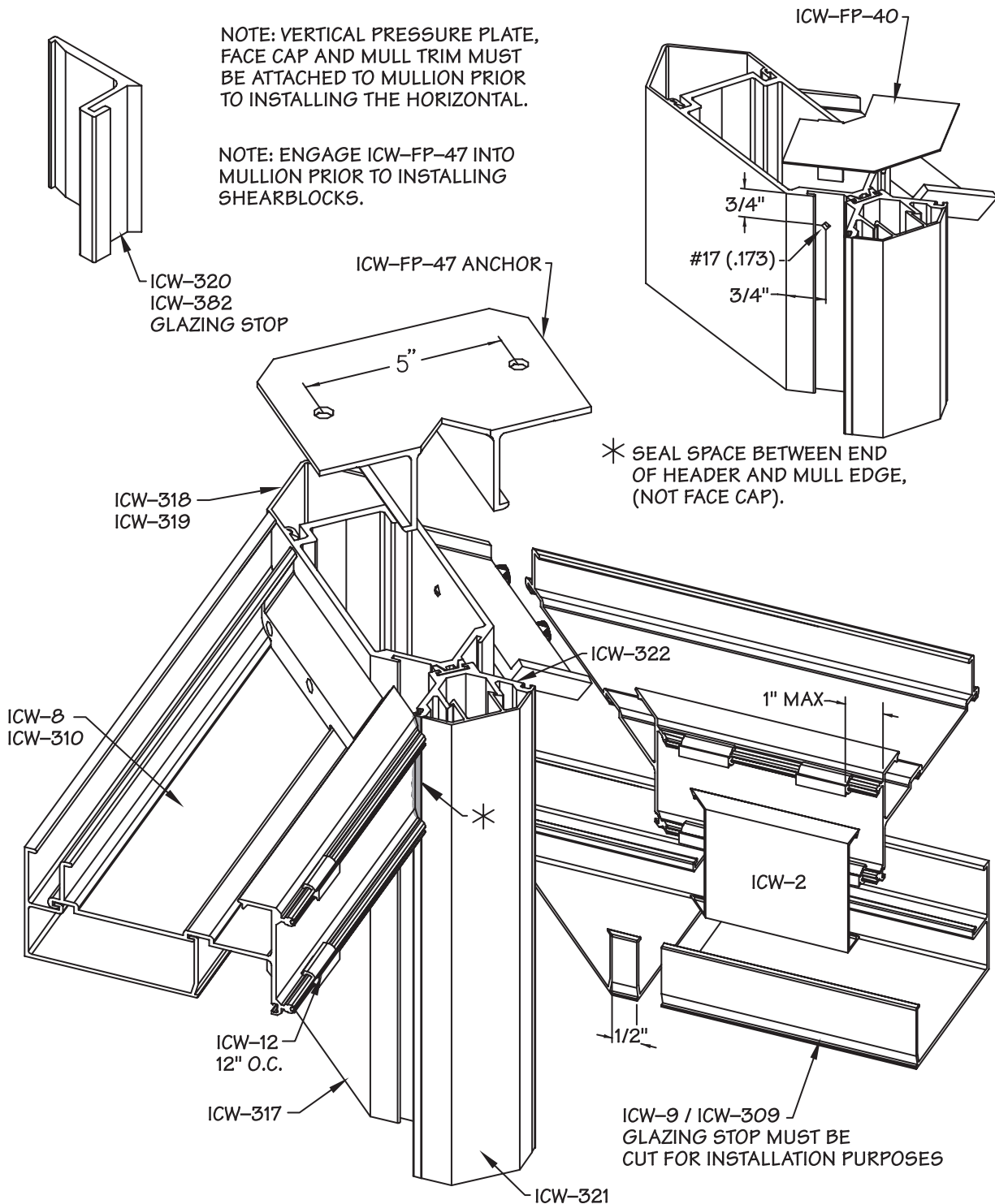
INSIDE CORNER DETAIL LAYOUT



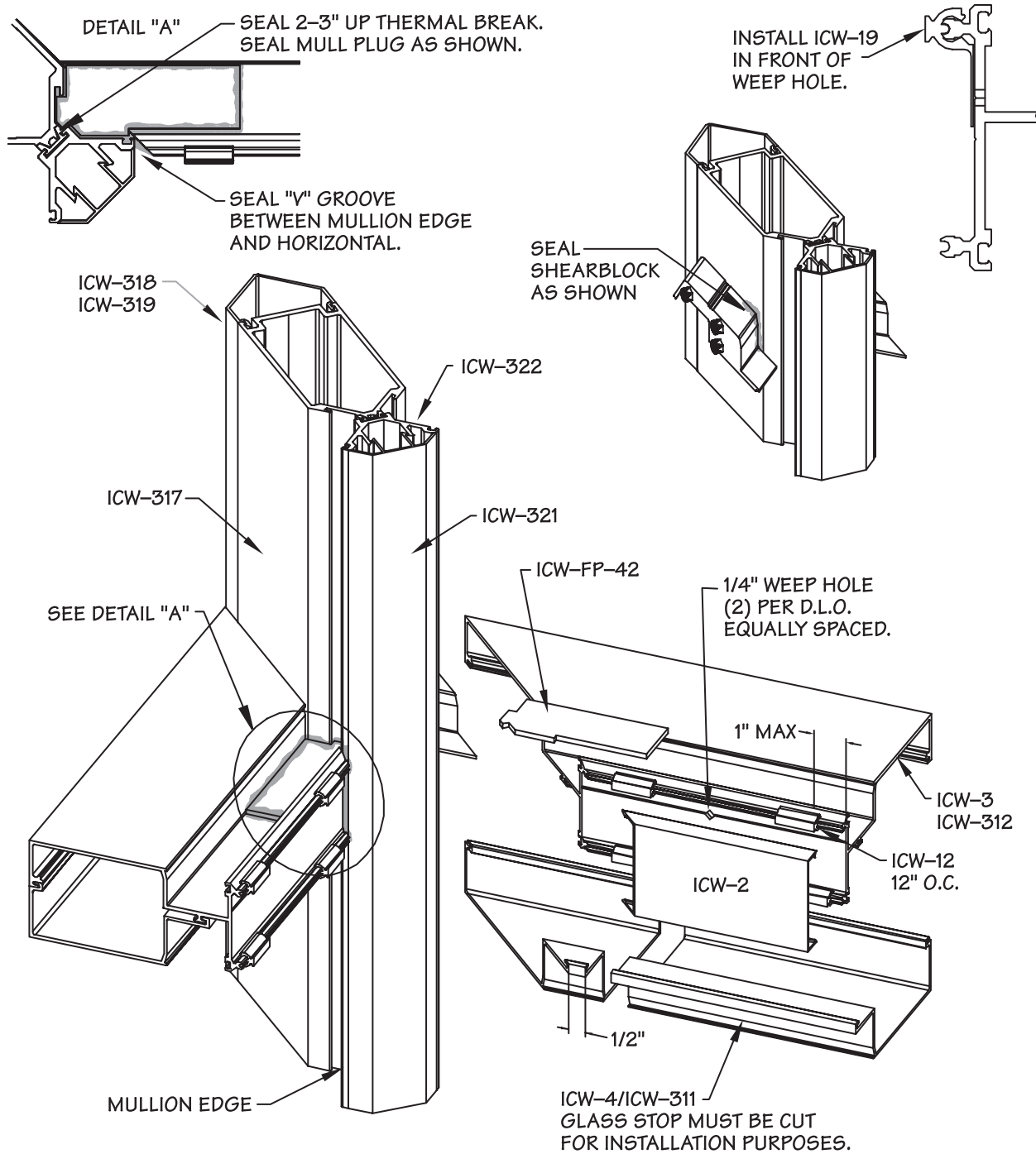
INSIDE CORNER MULLION FABRICATION AND SHEAR BLOCK INSTALLATION



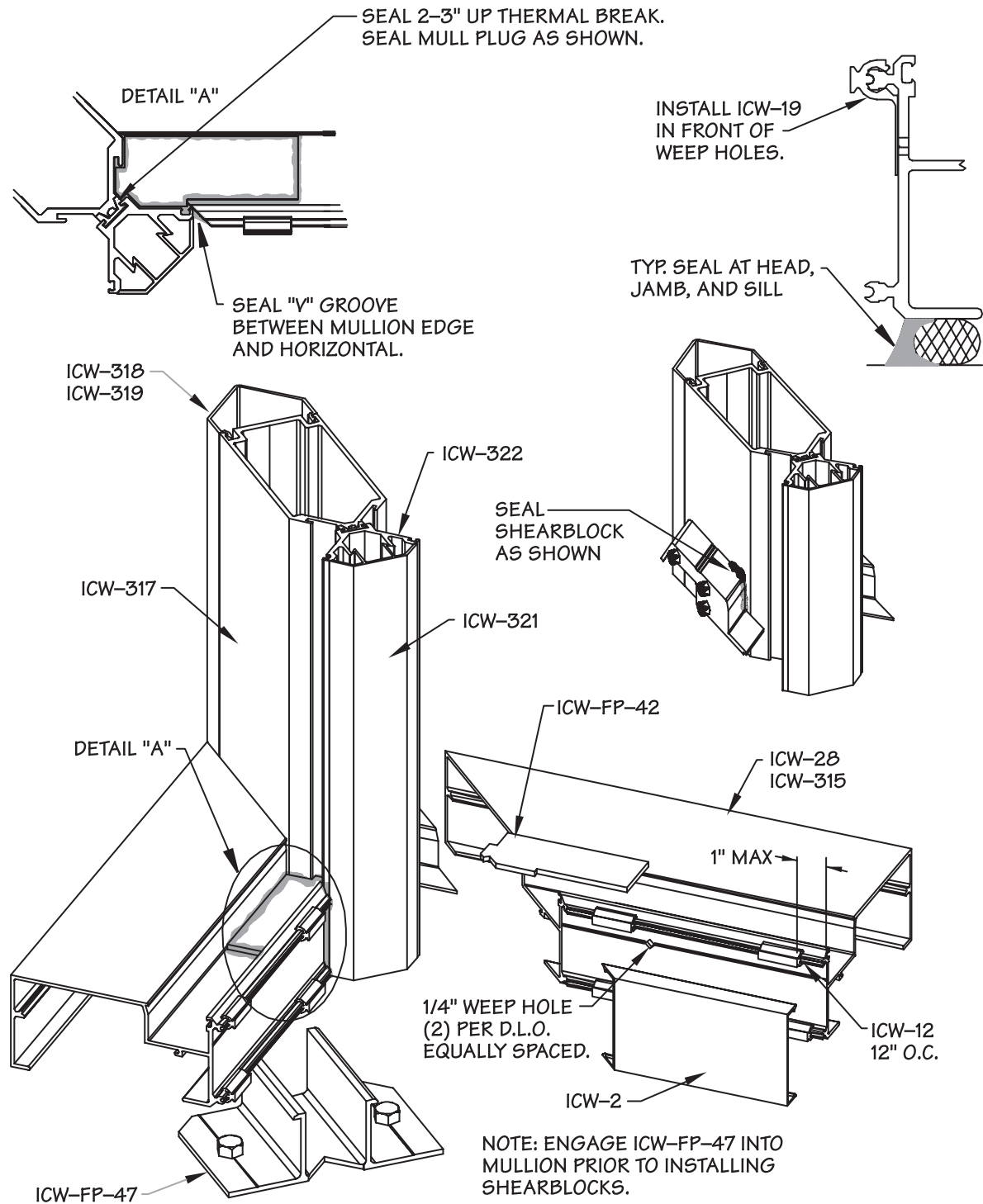
INSIDE CORNER HEAD DETAIL



INSIDE CORNER INTERMEDIATE HORIZONTAL

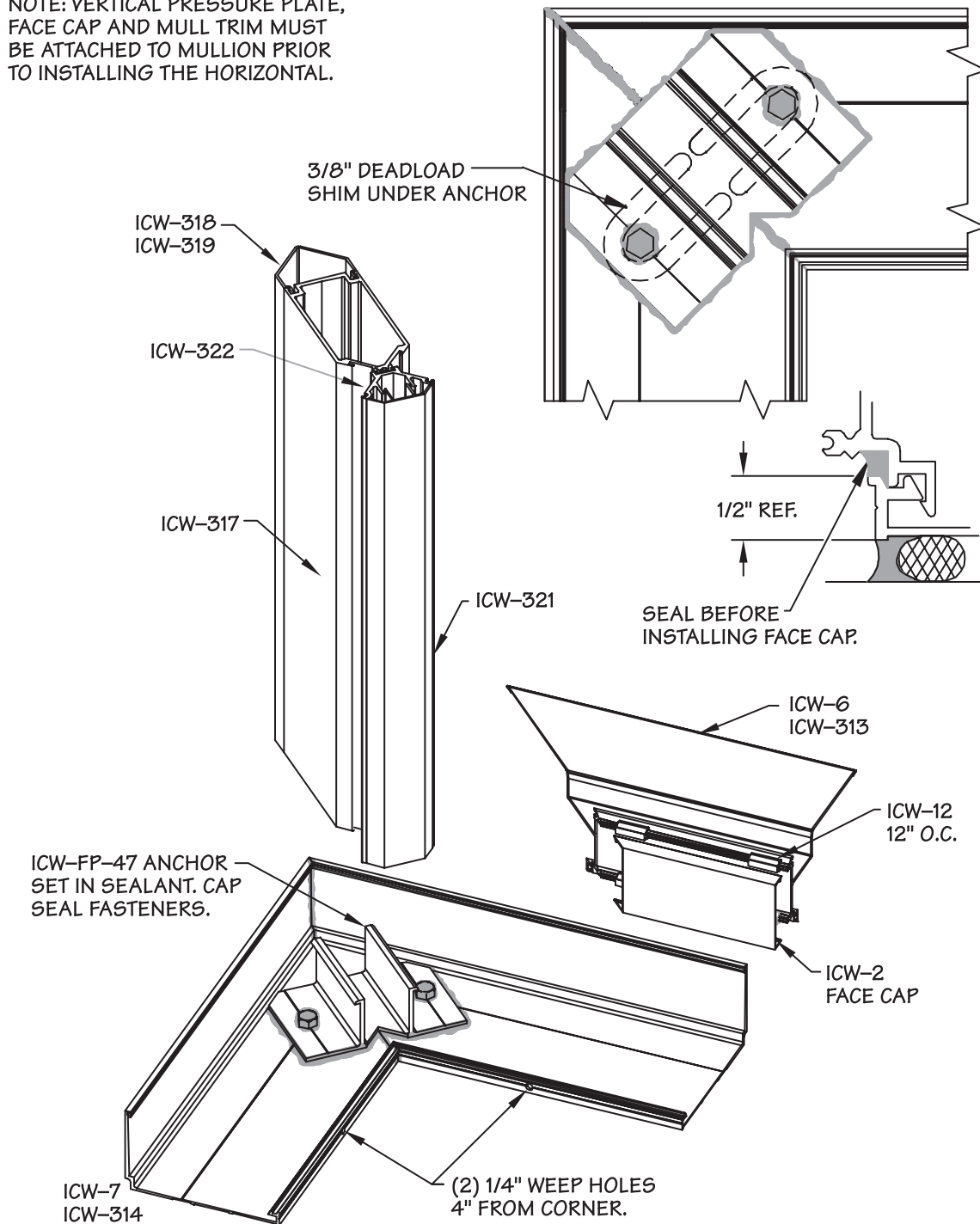


INSIDE CORNER SILL DETAIL W/O FLASHING

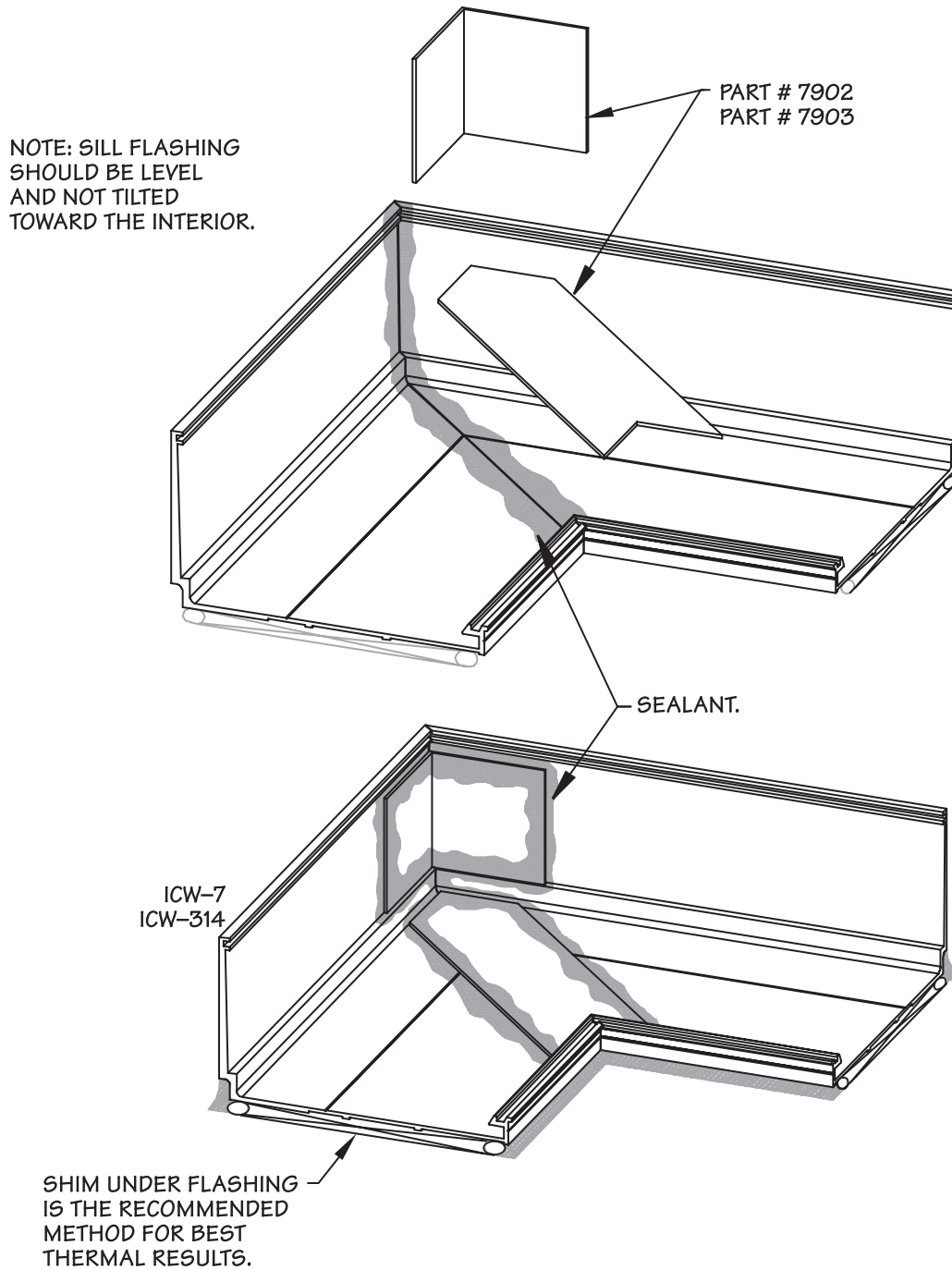


INSIDE CORNER SILL DETAIL WITH FLASHING

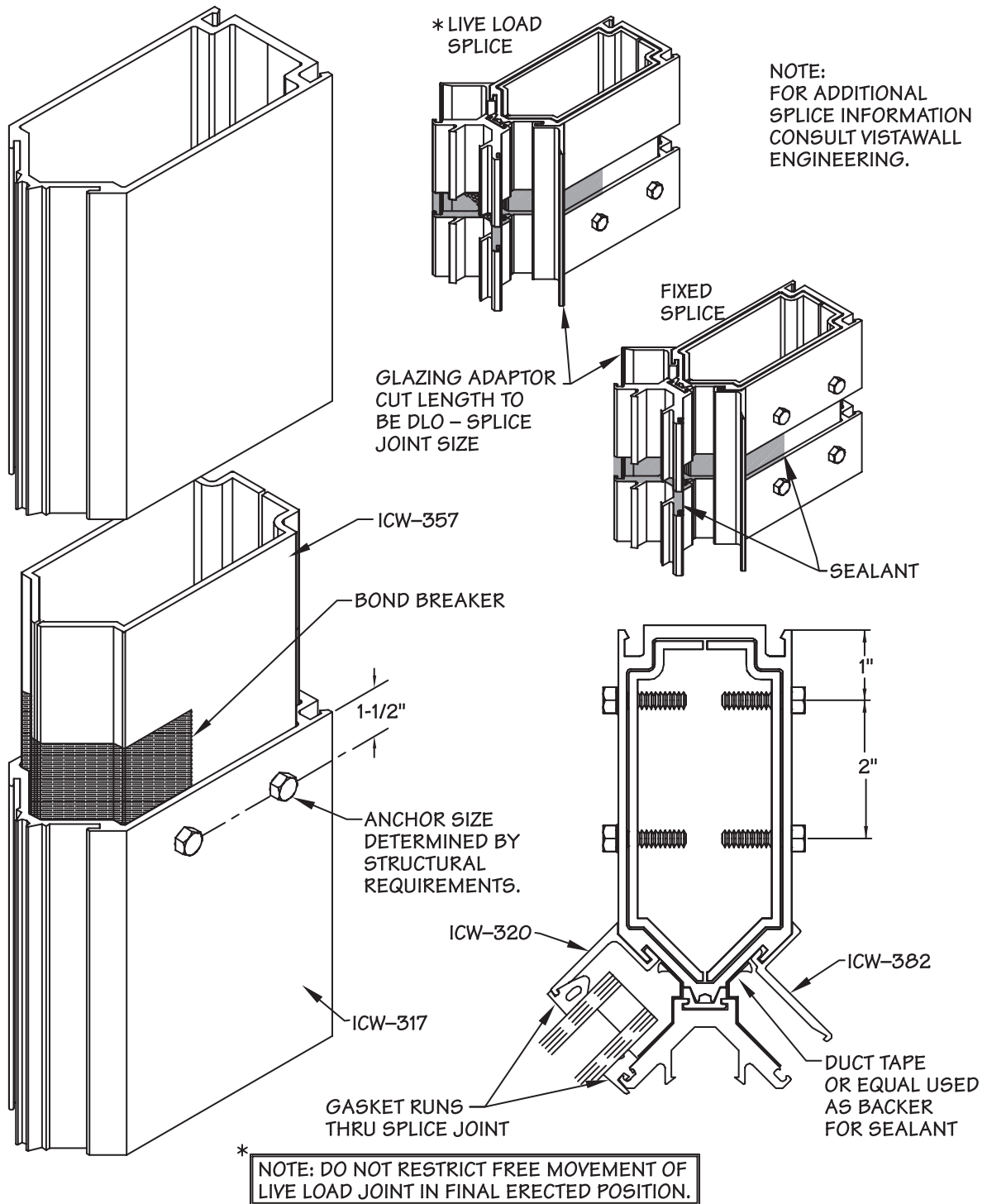
NOTE: VERTICAL PRESSURE PLATE, FACE CAP AND MULL TRIM MUST BE ATTACHED TO MULLION PRIOR TO INSTALLING THE HORIZONTAL.



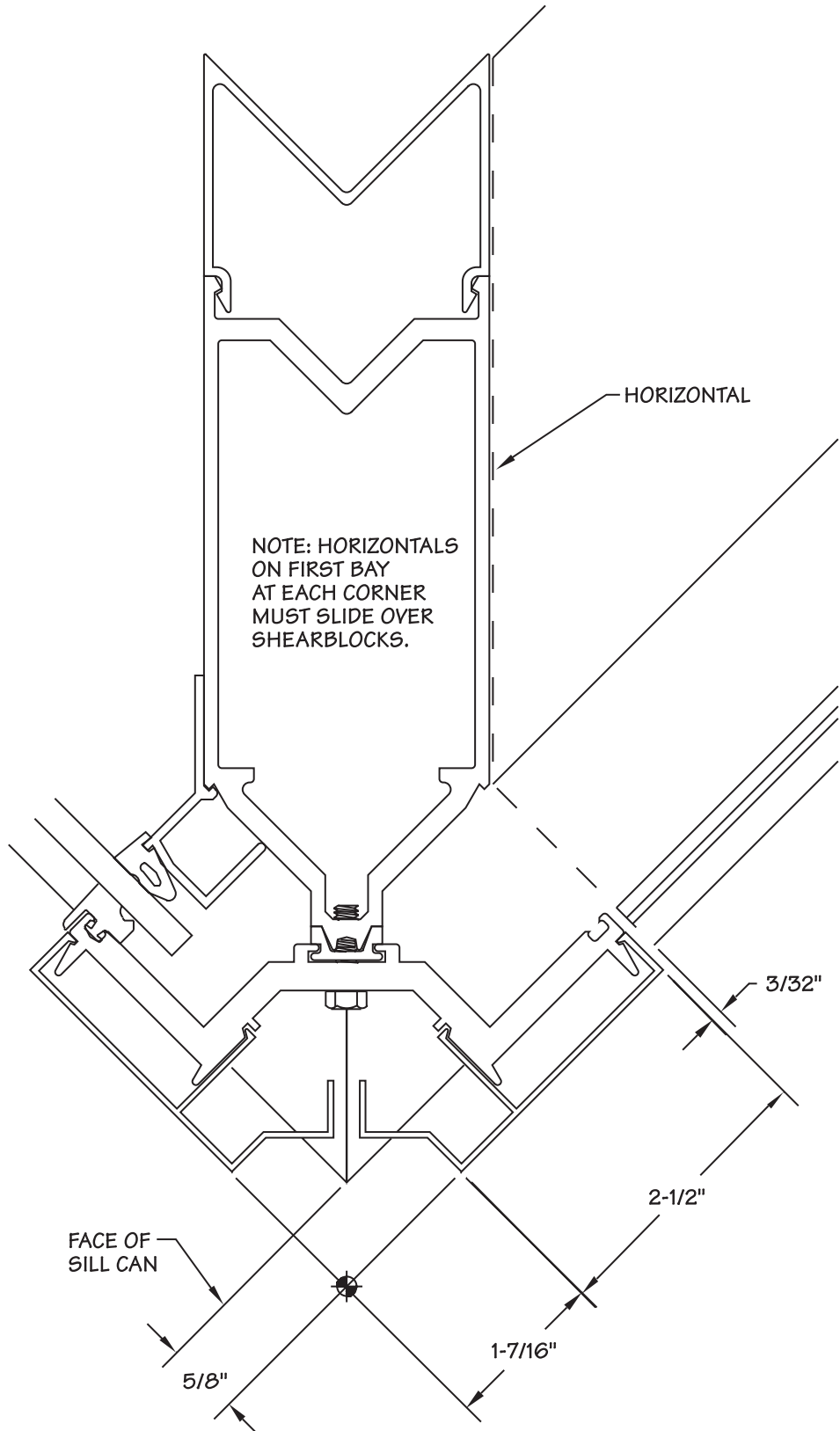
INSIDE CORNER FLASHING SPLICE DETAIL



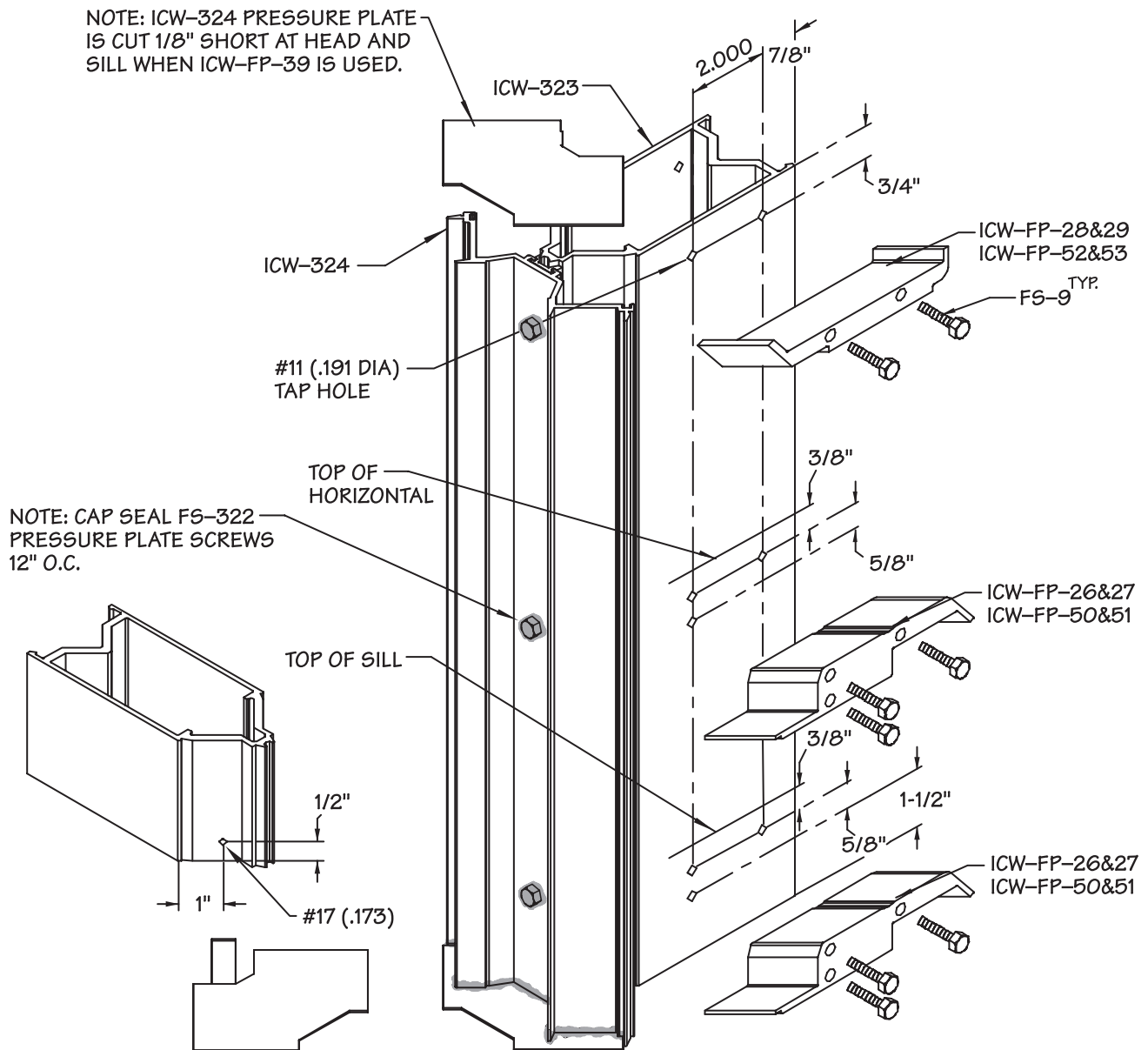
INSIDE CORNER SPLICE DETAIL



OUTSIDE CORNER DETAIL LAYOUT



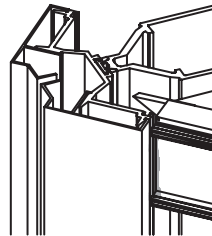
OUTSIDE CORNER MULLION FABRICATION AND SHEAR BLOCK INSTALLATION



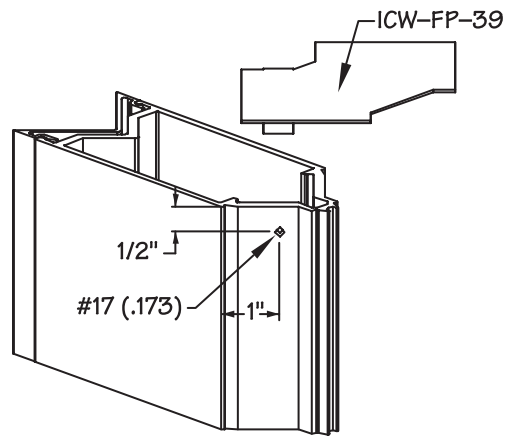
PRIOR TO ATTACHING PRESSURE PLATE.
ICW-FP-39 SHOULD BE INSTALLED AT
HEAD TYPICALLY AND AT SILL WHEN
SILL CAN IS NOT USED.

NOTE: SHEAR BLOCK
NOT REQUIRED AT SILL
WHEN SILL CAN IS USED

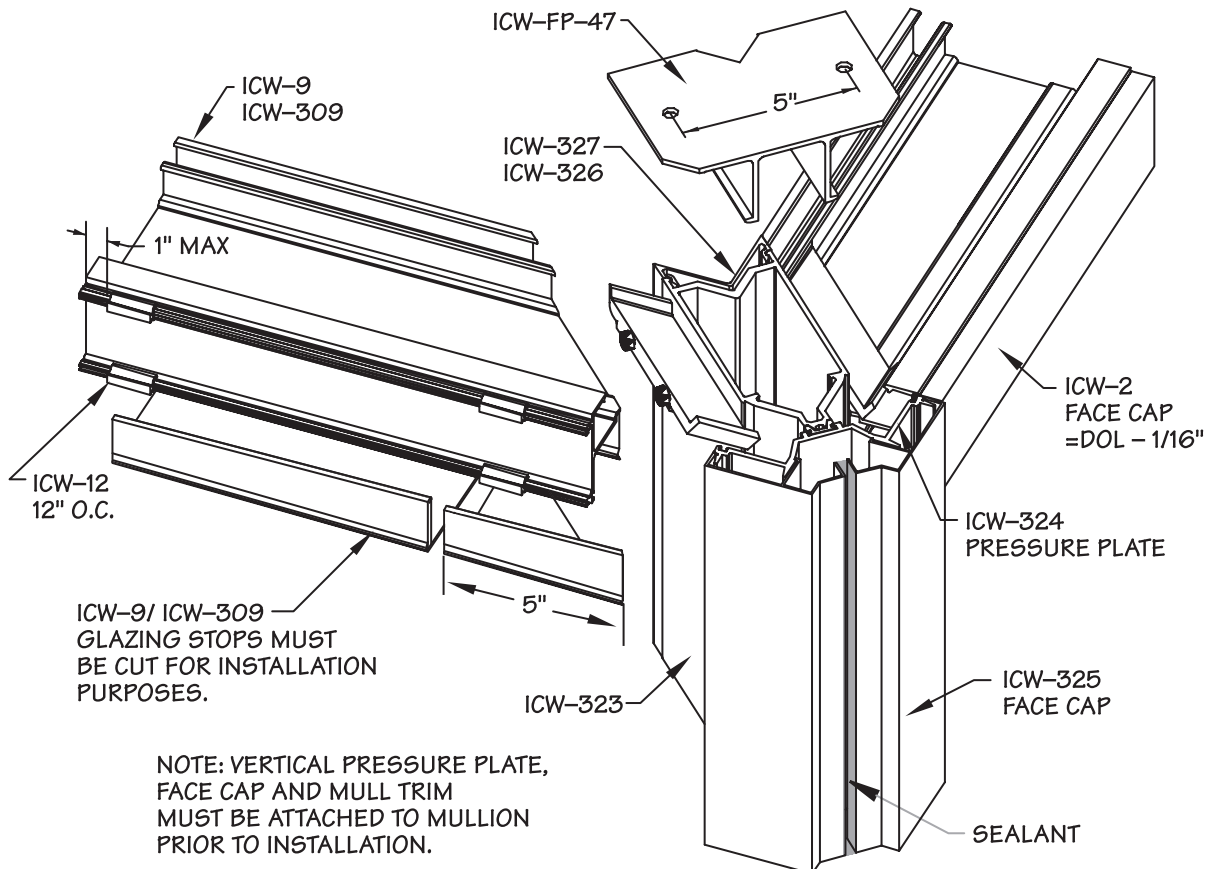
OUTSIDE CORNER HEAD DETAIL



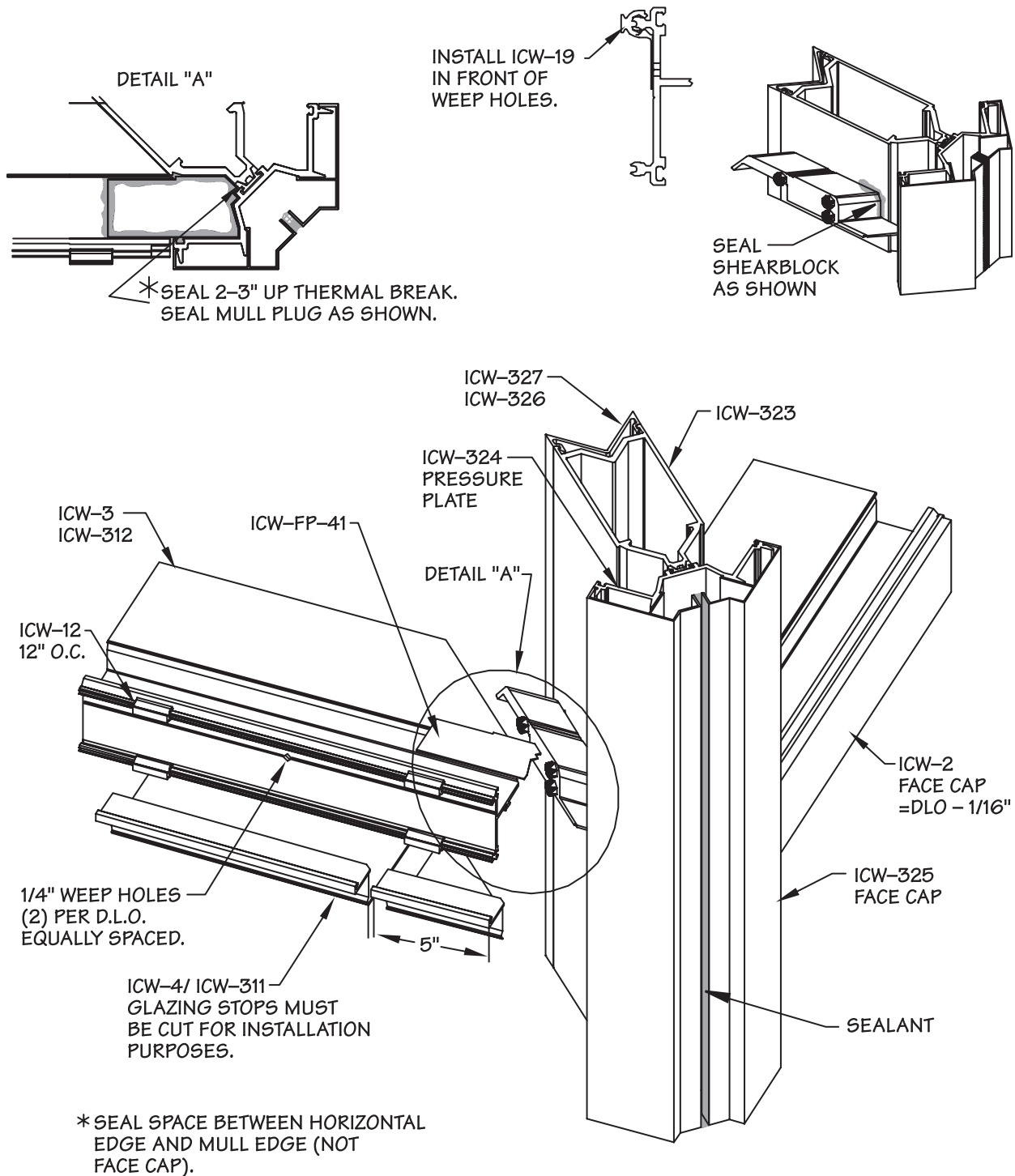
SEAL SPACE BETWEEN HEADER
EDGE AND MULL EDGE, (NOT
FACE CAP).



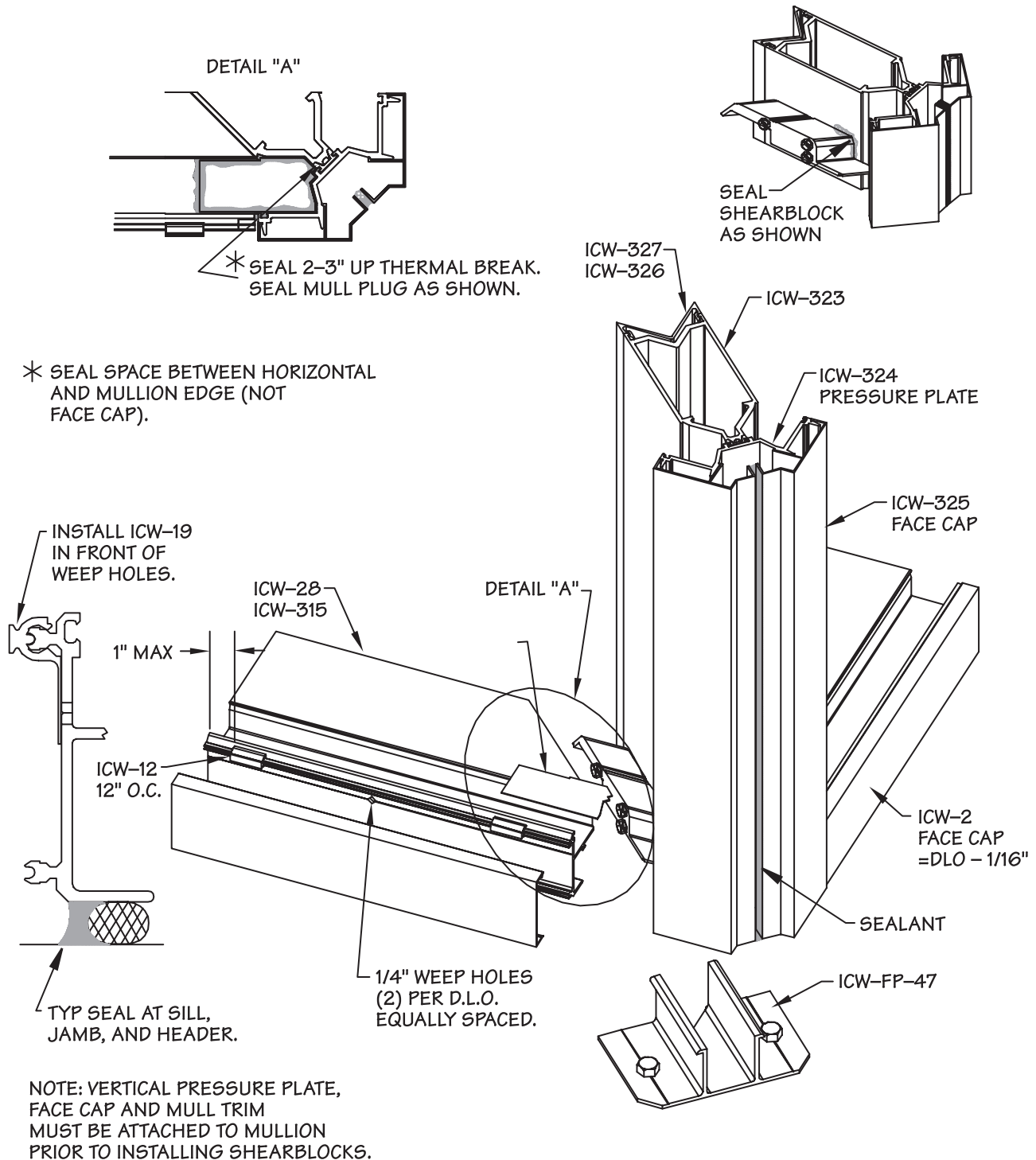
NOTE: ENGAGE ICW-FP-47
INTO MULLION PRIOR TO
ATTACHING SHEARBLOCKS.



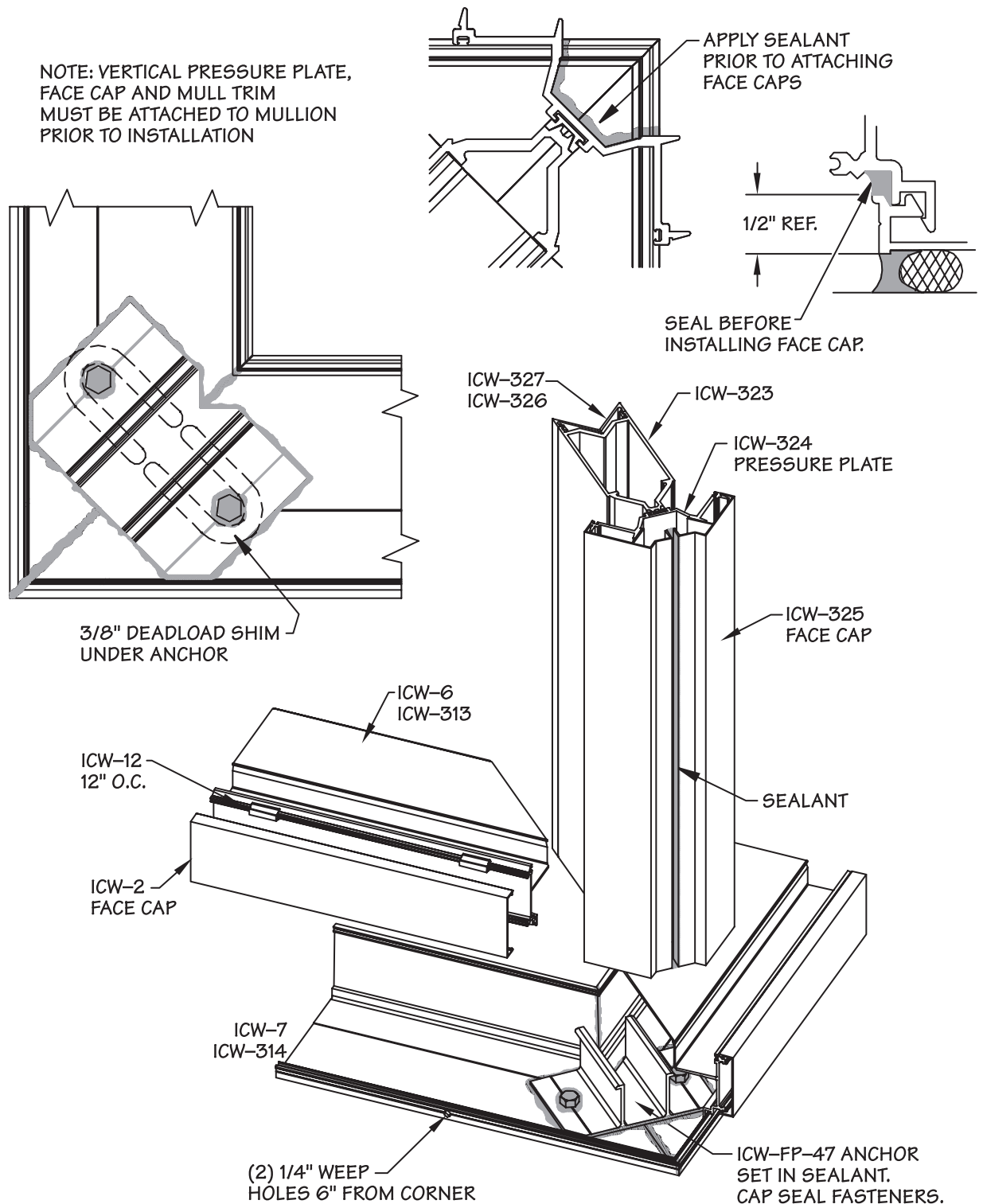
OUTSIDE CORNER INTERMEDIATE HORIZONTAL



OUTSIDE CORNER SEALANT DETAIL OF MULLION AND SILL W/O FLASHING

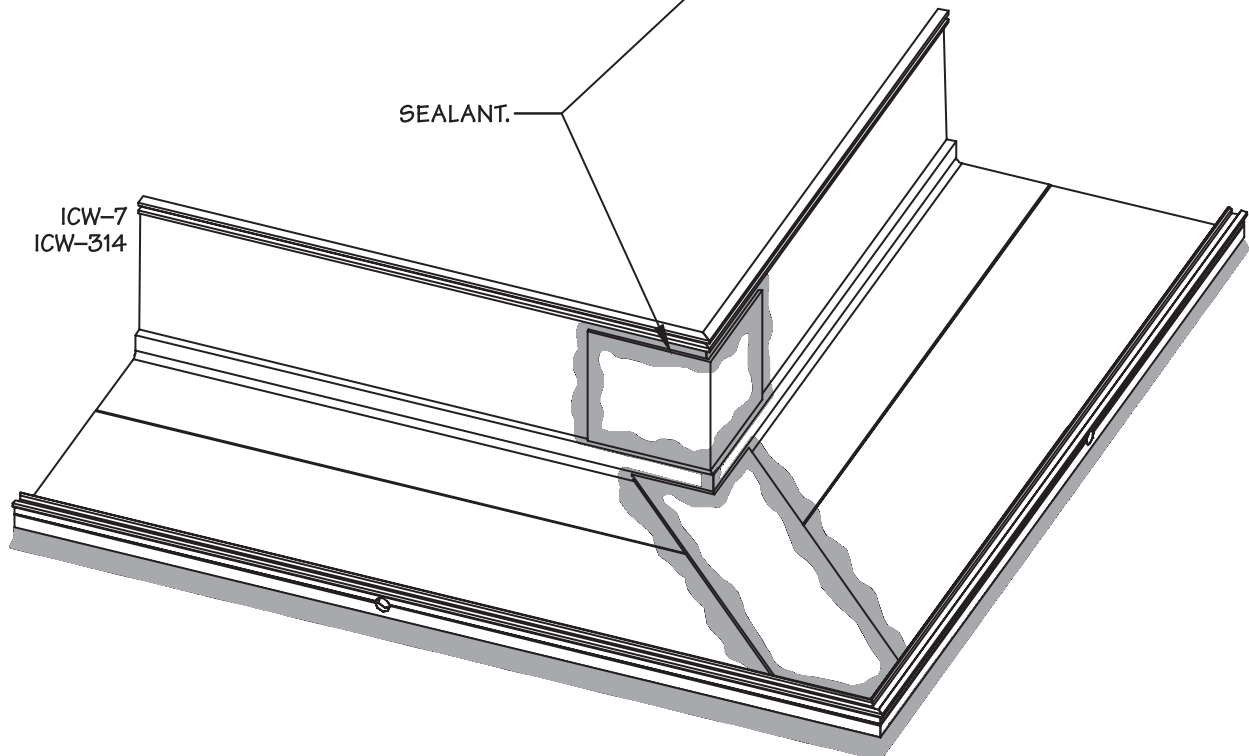
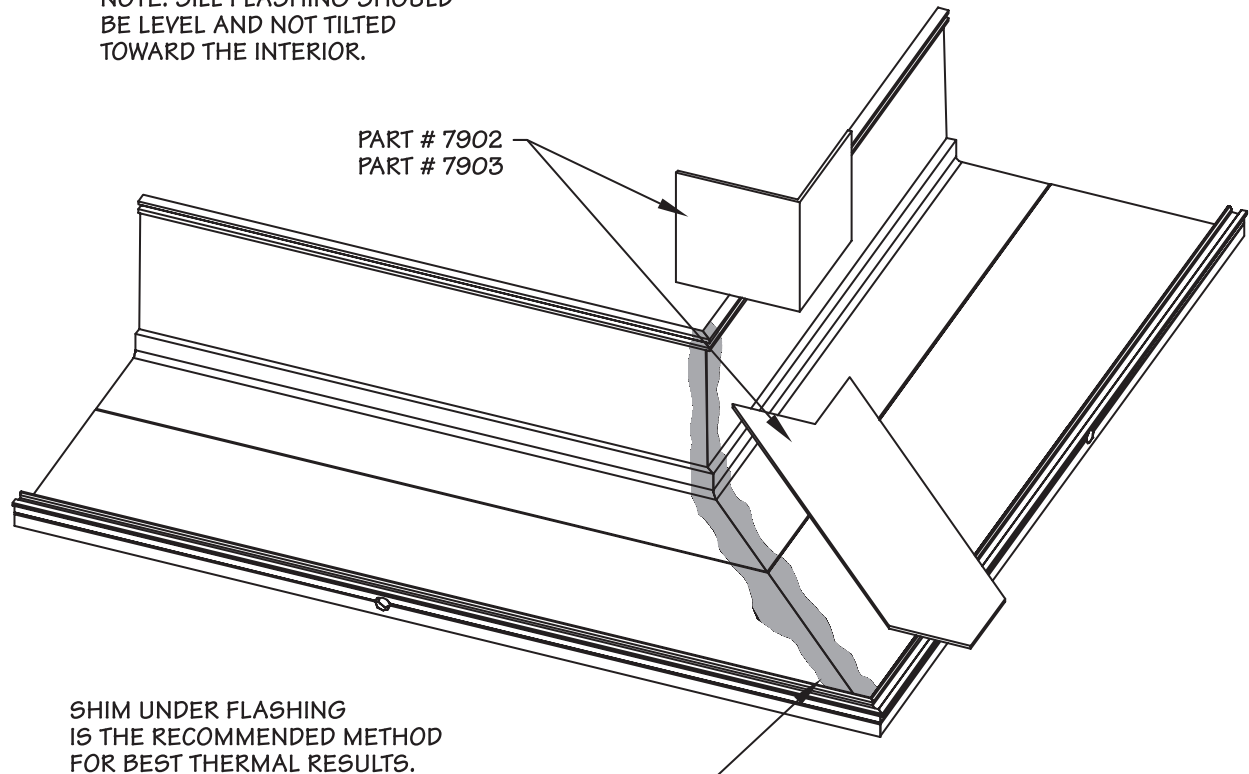


OUTSIDE CORNER SEALANT DETAIL OF MULLION AND SILL WITH FLASHING

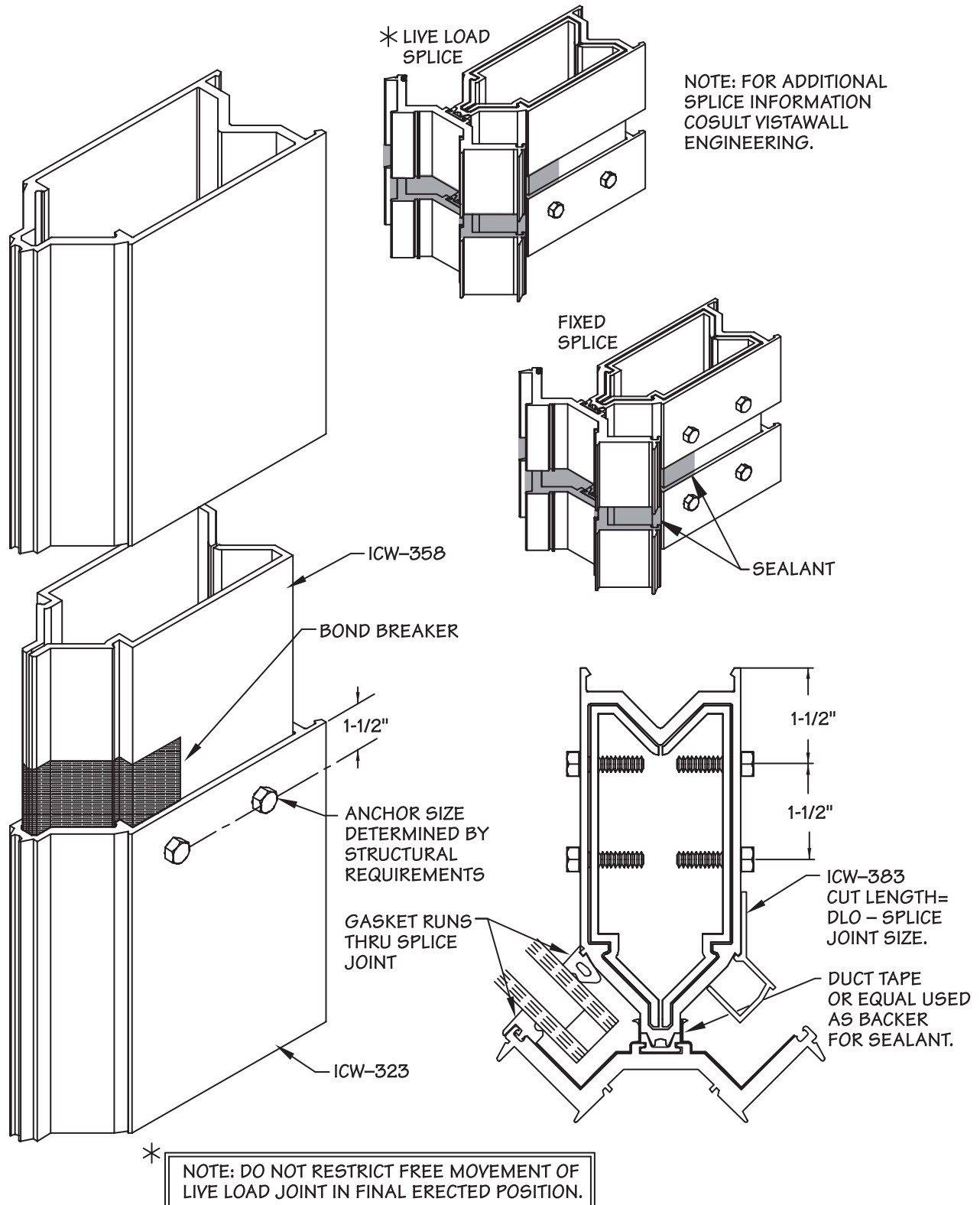


OUTSIDE CORNER FLASHING SPLICE DETAIL

NOTE: SILL FLASHING SHOULD
BE LEVEL AND NOT TILTED
TOWARD THE INTERIOR.



OUTSIDE CORNER SPLICE DETAIL



SSG MULLION FABRICATION AND SHEAR BLOCK INSTALLATION

NOTE: MULLION IS BACK SET
FROM HORIZONTAL DUE TO
STRUCTURAL SILICON
REQUIREMENTS.

FOR CORNER BUTTGLAZING
REFER TO EP.

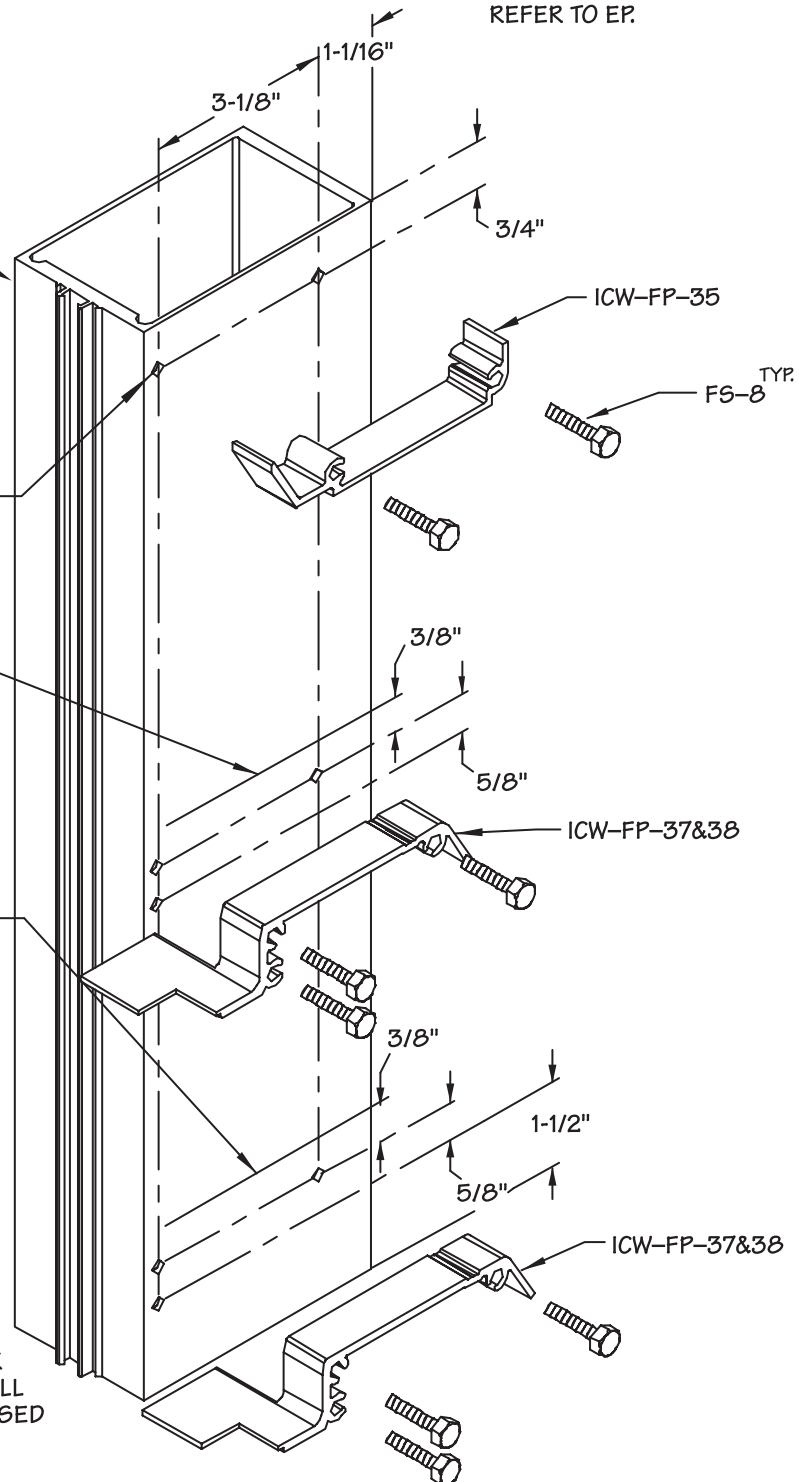
ICW-305
FIXED MULL
ICW-371
LIVE LOAD MULL

#11 (.191 DIA)
TAP HOLE

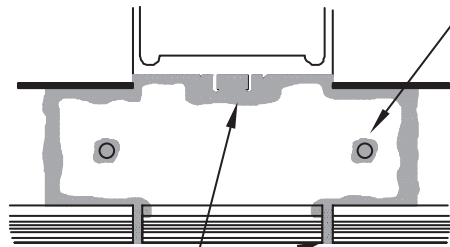
TOP OF
HORIZONTAL

TOP OF SILL

NOTE: SHEAR BLOCK
NOT REQUIRED AT SILL
WHEN SILL CAN IS USED



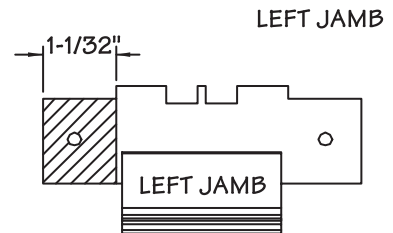
SSG HEAD DETAIL



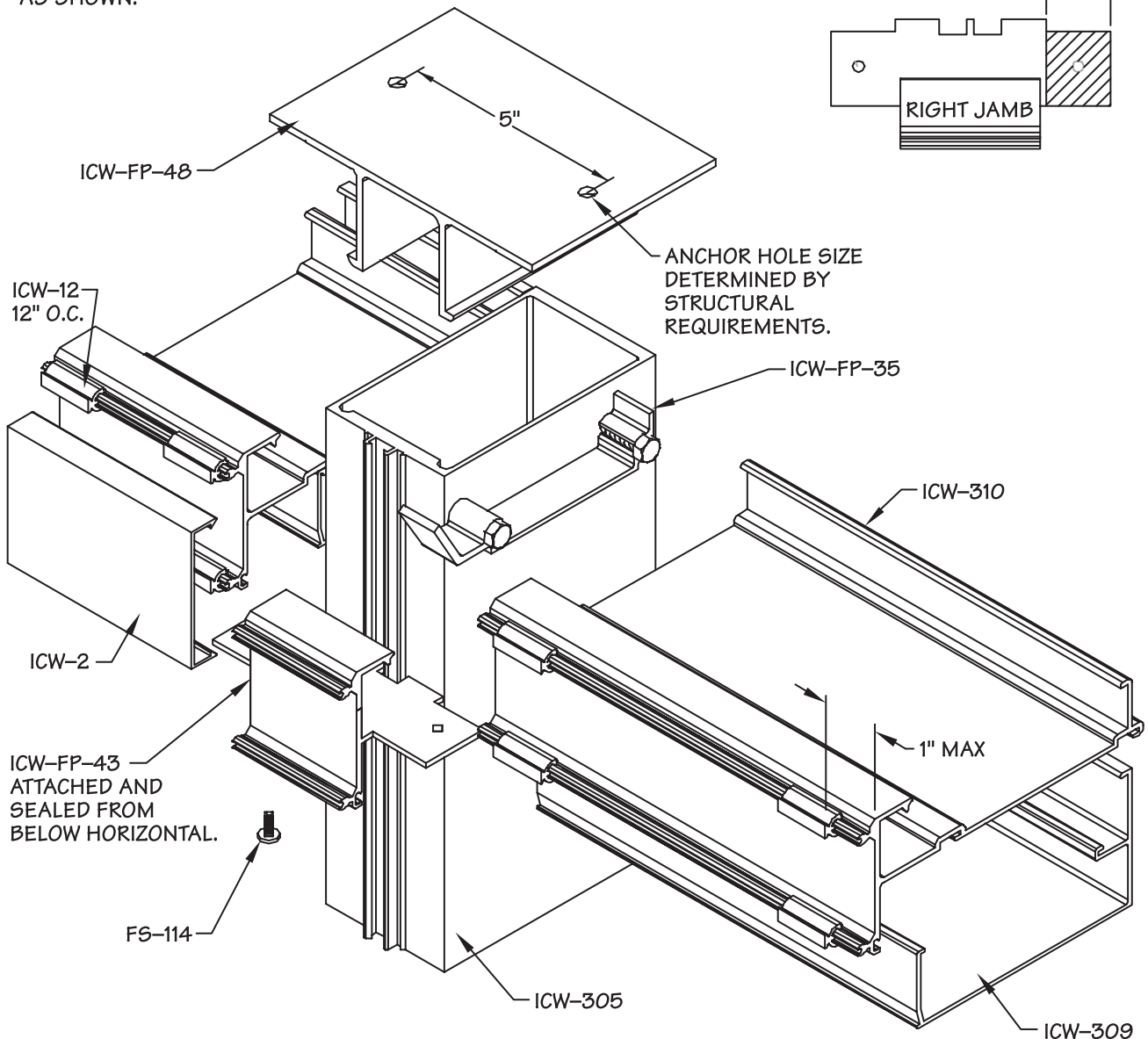
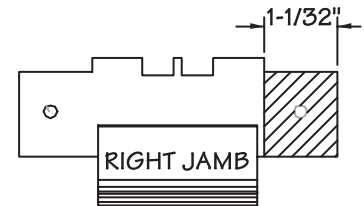
COMPLETELY
SEAL UNDER HORIZ.
AS SHOWN.

ONE FASTENER REQUIRED.
CAPSEAL UNUSED HOLE.

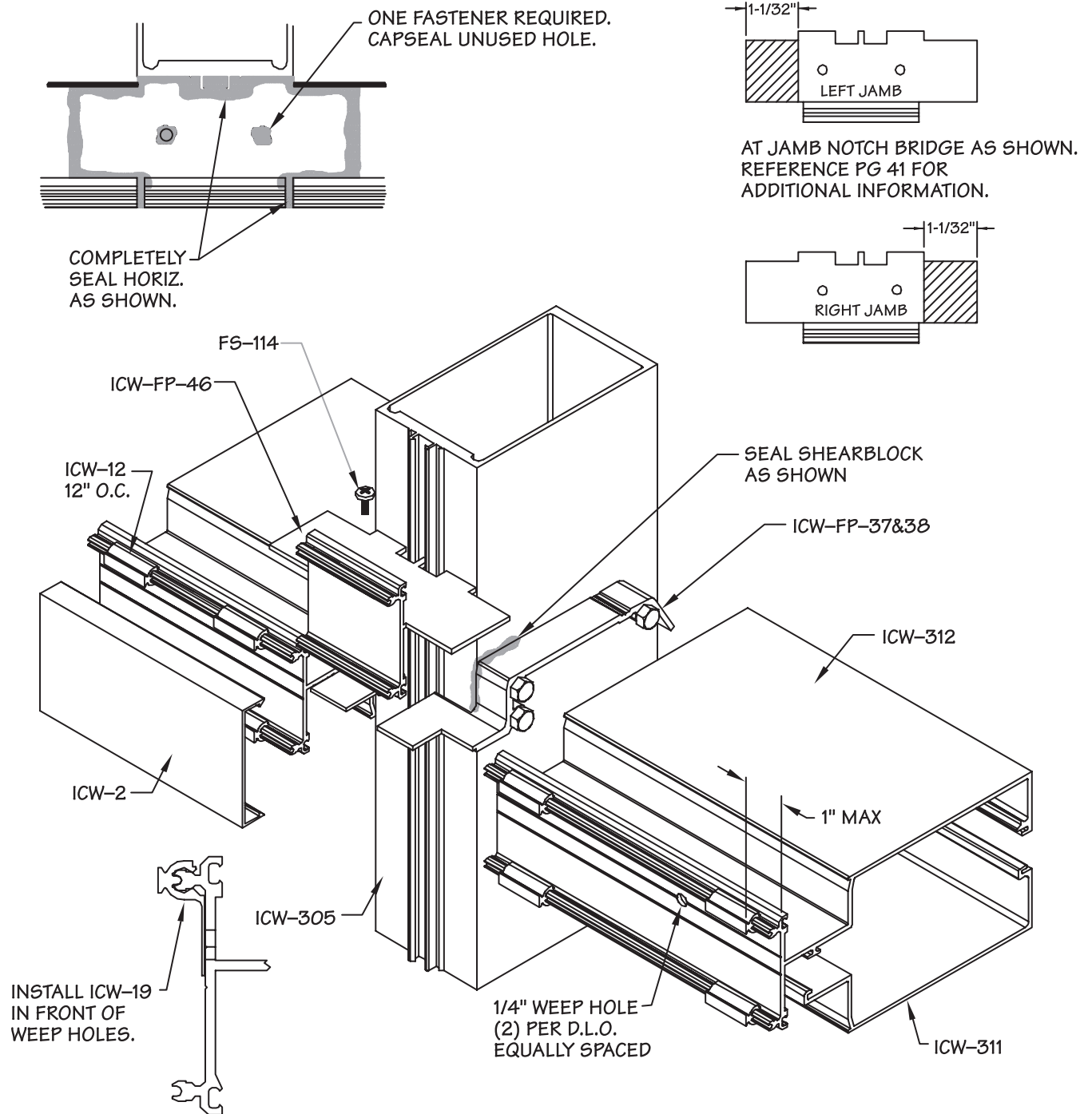
ENGAGE ICW-FP-48
INTO MULLION PRIOR TO
INSTALLING SHEARBLOCKS.



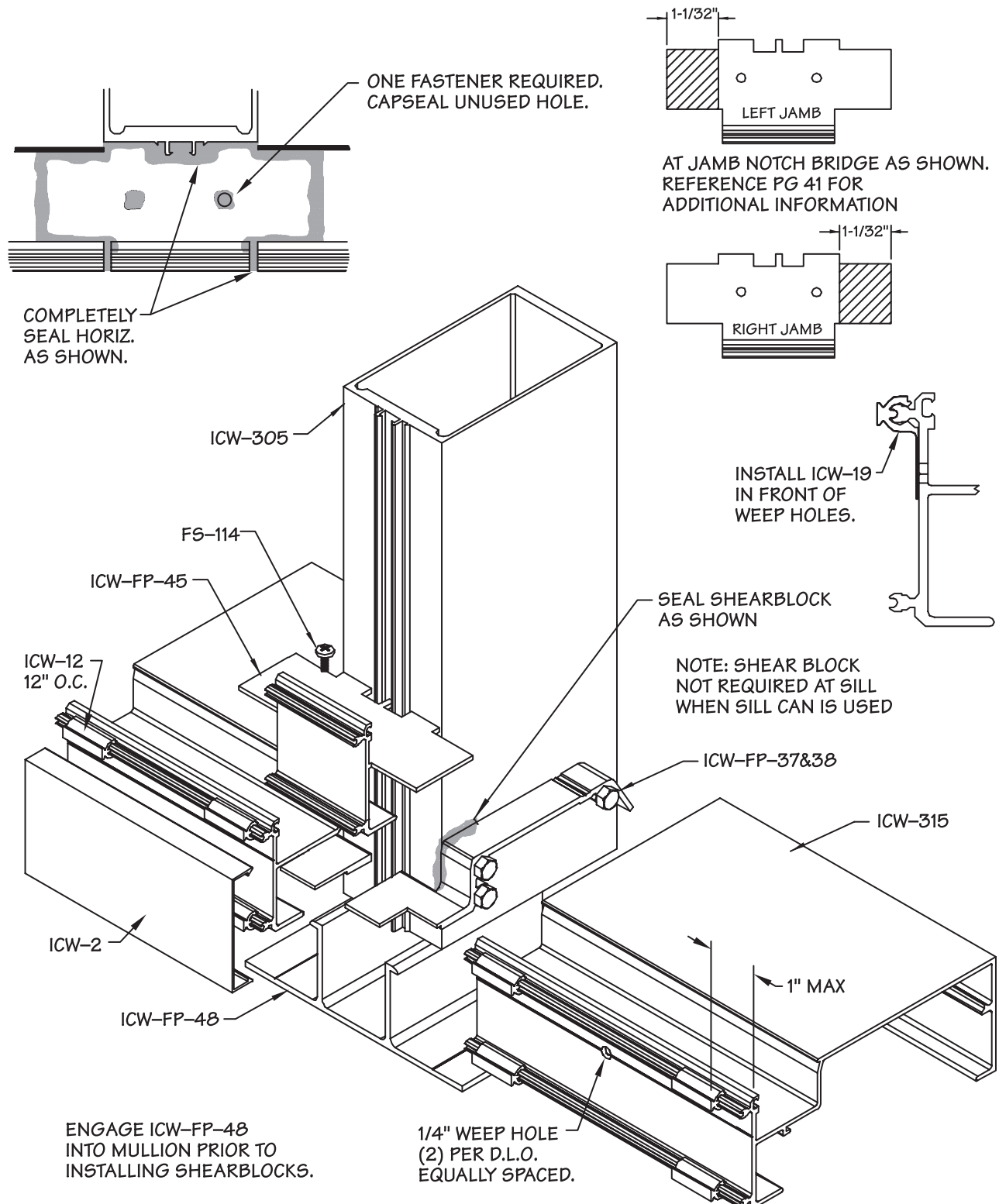
AT JAMB NOTCH BRIDGE AS SHOWN.
REFERENCE PG. 41 FOR
ADDITIONAL INFORMATION.



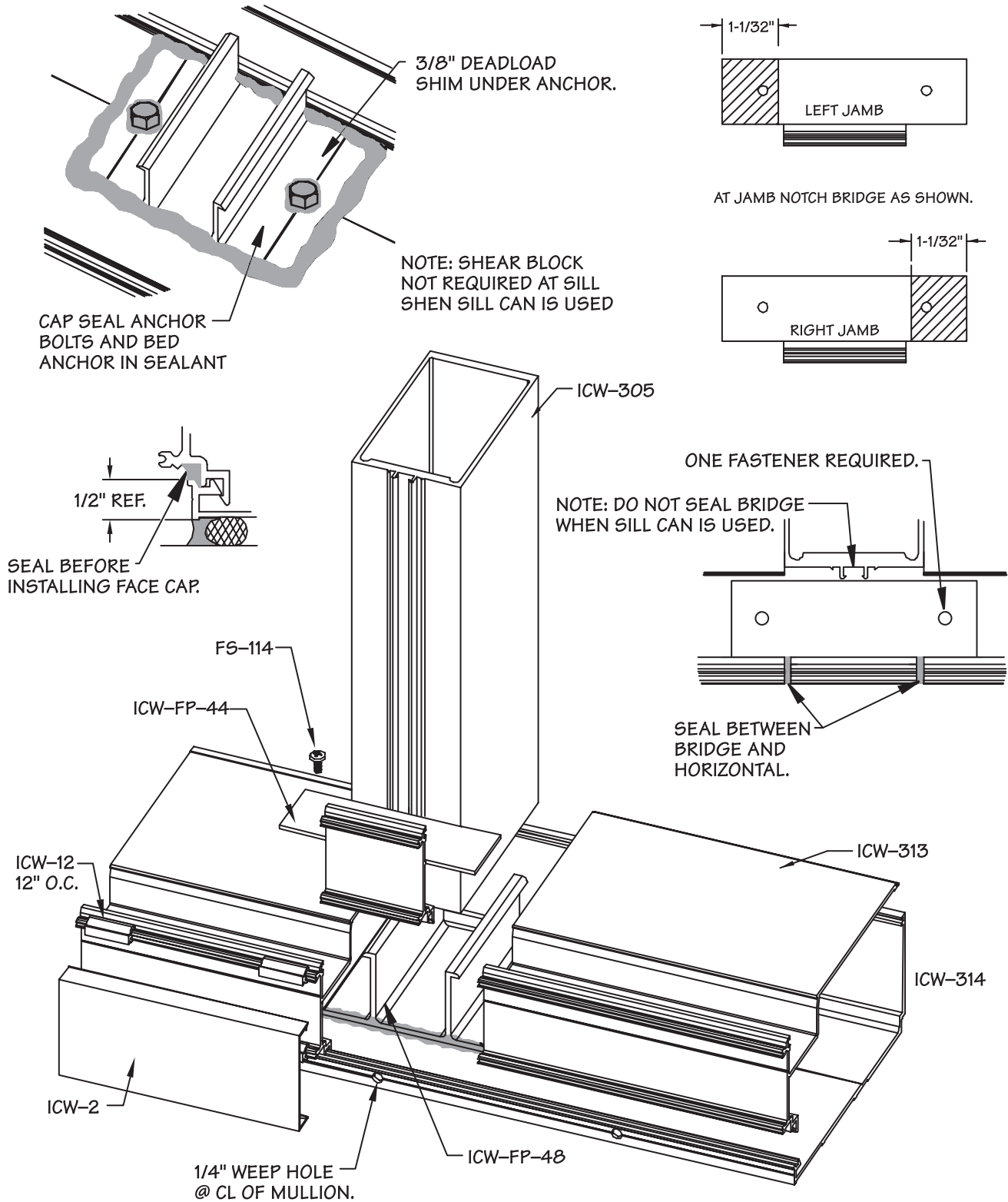
SSG INTERMEDIATE HORIZONTAL



SSG SILL DETAIL W/O FLASHING

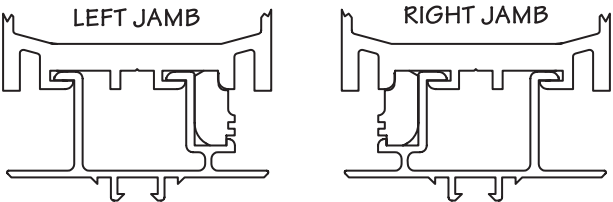


SSG MULLION INSTALLATION OF SILL W/FLASHING

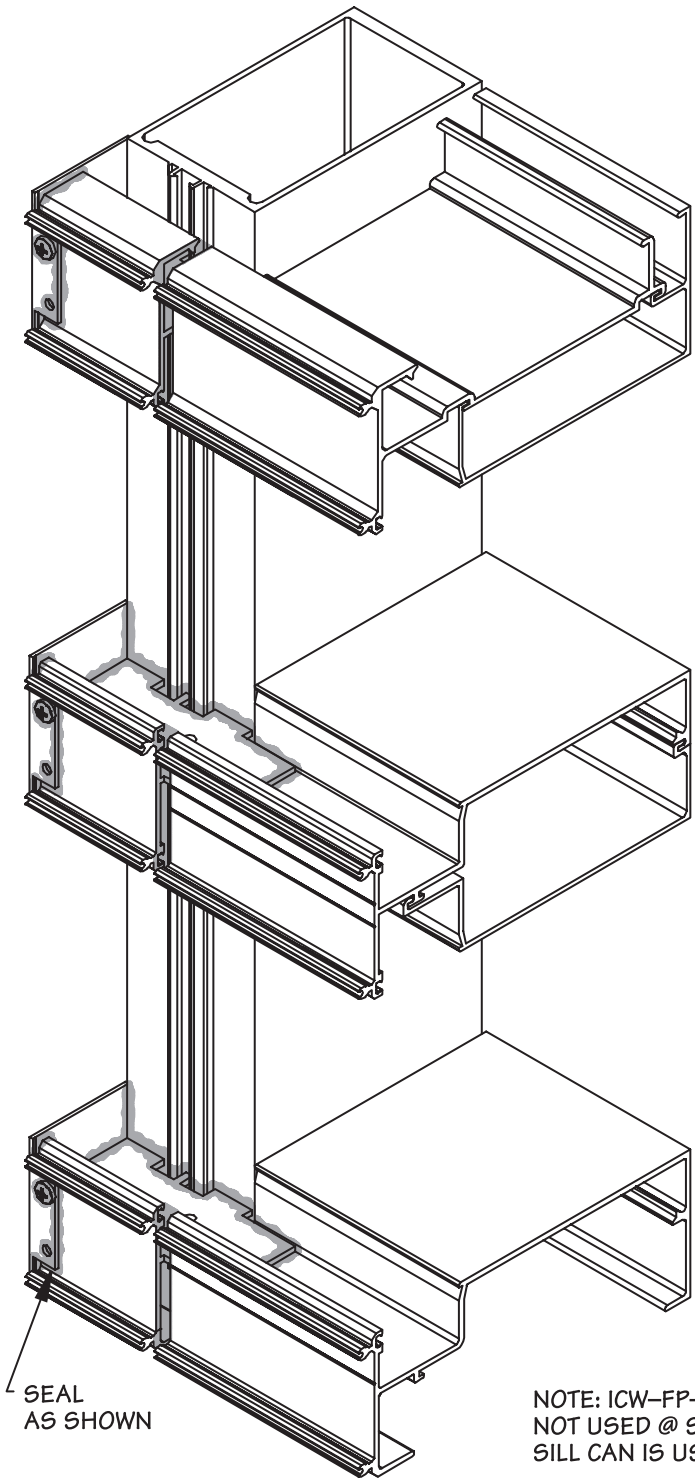


SSG JAMB DETAIL

REFERENCE PG 32-35
FOR SEALANT AND BRIDGE
MODIFICATION PROCESS.

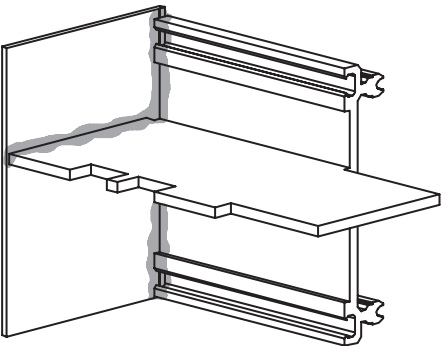


IMPORTANT
WHEN USING ICW-371 BUTTGLAZE MULLION.
JAM SHOULD BE INSTALLED TO ALLOW FOR
INSTALLATION OF ICW-374 CAM LOCK.

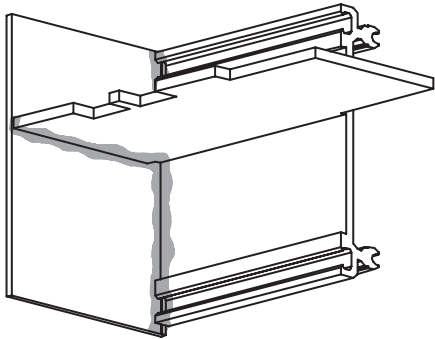
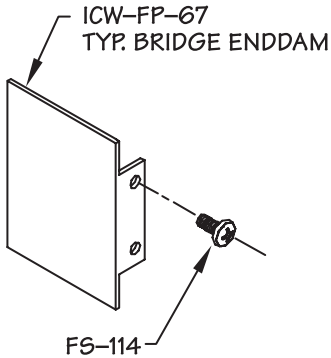


SEAL
AS SHOWN

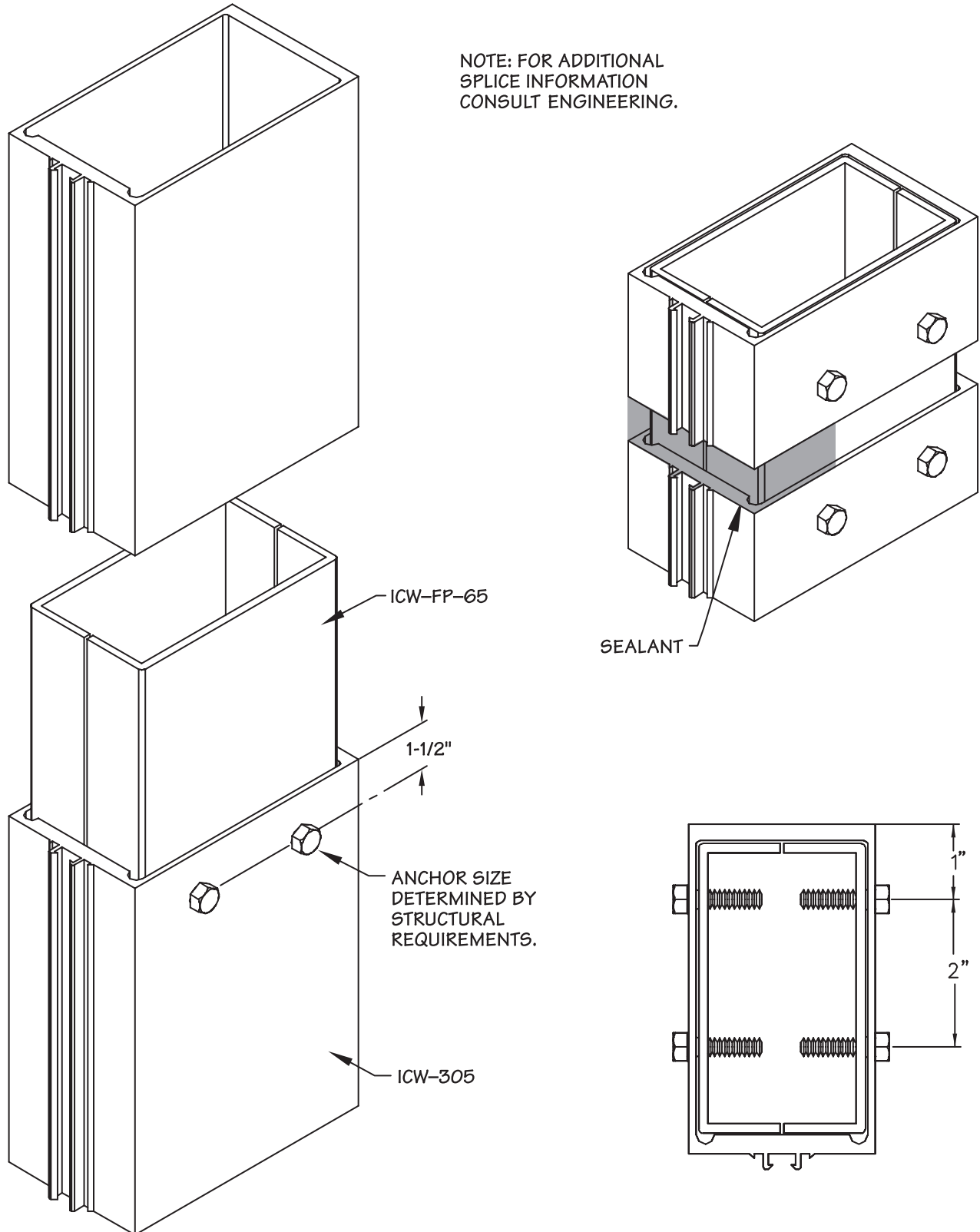
NOTE: ICW-FP-67
NOT USED @ SILL WHEN
SILL CAN IS USED.



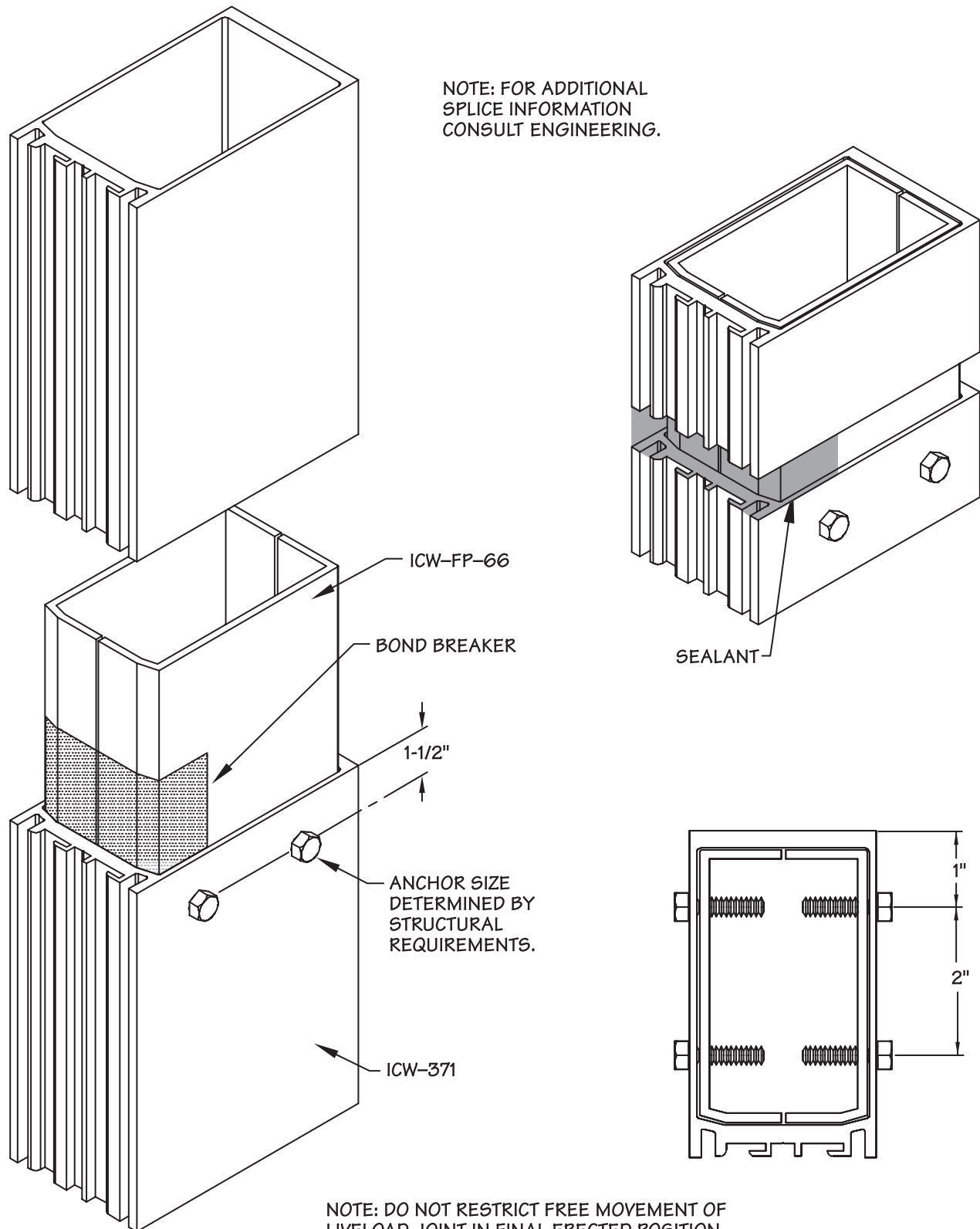
ATTACH ENDAM TO MODIFIED
BRIDGE AND SEAL, PRIOR TO
INSTALLING ON HORIZONTAL.



SSG MULLION FIXED SPLICE DETAIL



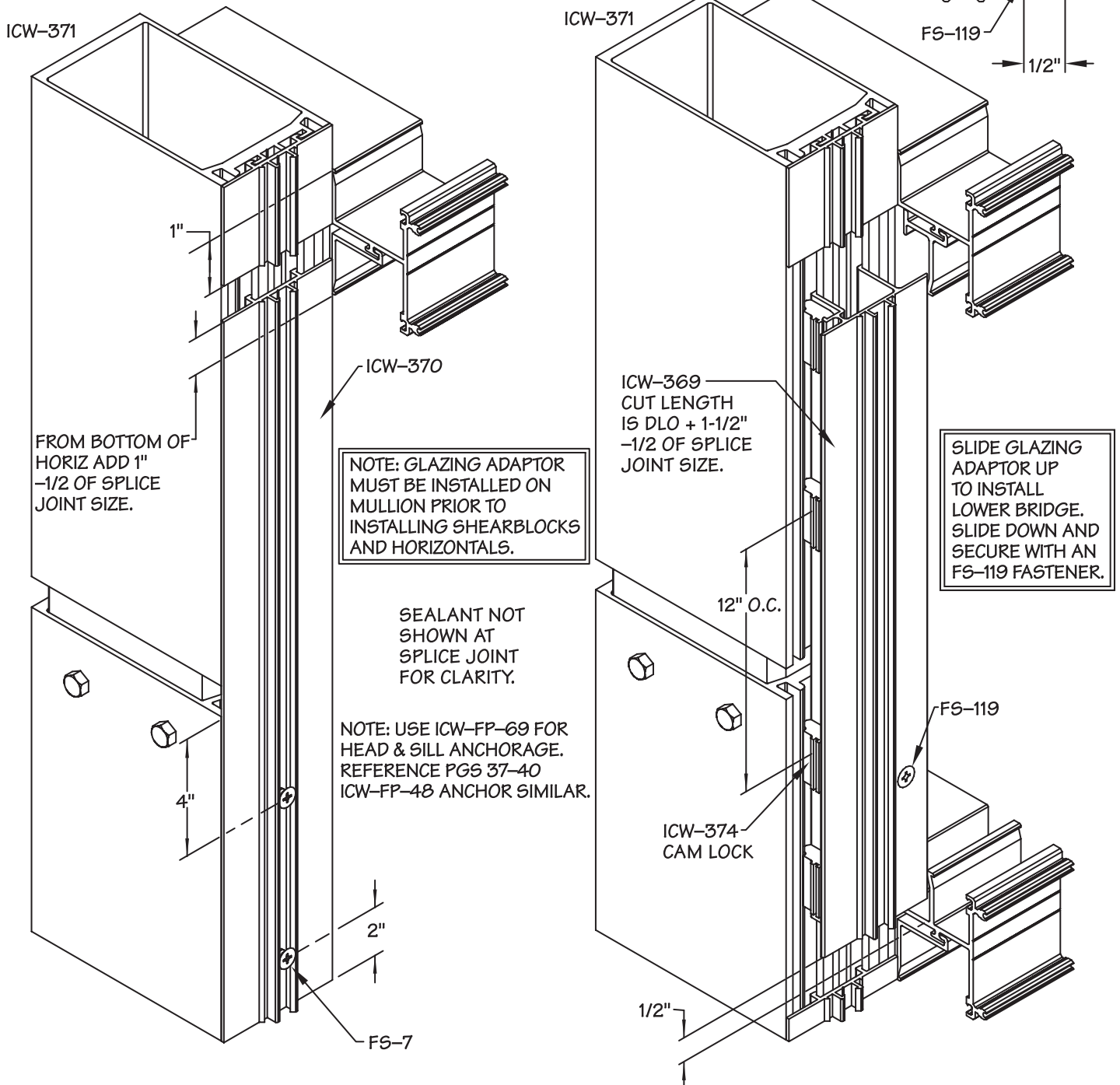
SSG MULLION LIVE LOAD SPLICE DETAIL



SSG MULLION LIVE LOAD SPLICE DETAIL

NOTE: REFERENCE PG. 43 FOR
ADDITIONAL SPLICE INFORMATION.

AREA SHOULD REMAIN
CLEAR OF ALL SEALANTS.



GLASS INSTALLATION IN SPANDREL AREA

STEP 1

Lower lite of glass between back of mullion and face of slab.

STEP 2

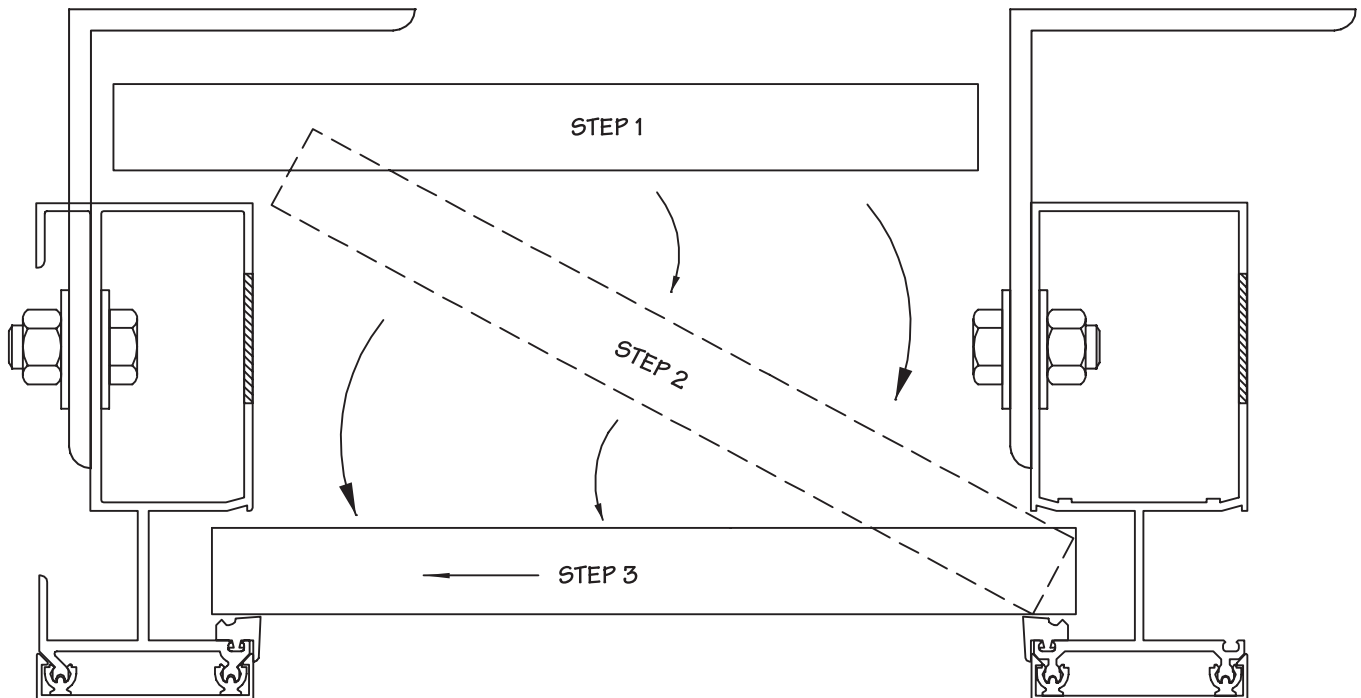
Rotate glass into one side of the mullion, once glass is in the glass pocket ensure that the glass is in the pocket deep enough to provide adequate space for the opposite edge of glass to rotate into adjacent mullion.

STEP 3

Position lite of glass in the opening to provide a 1/2" glass bite around the perimeter of glass.

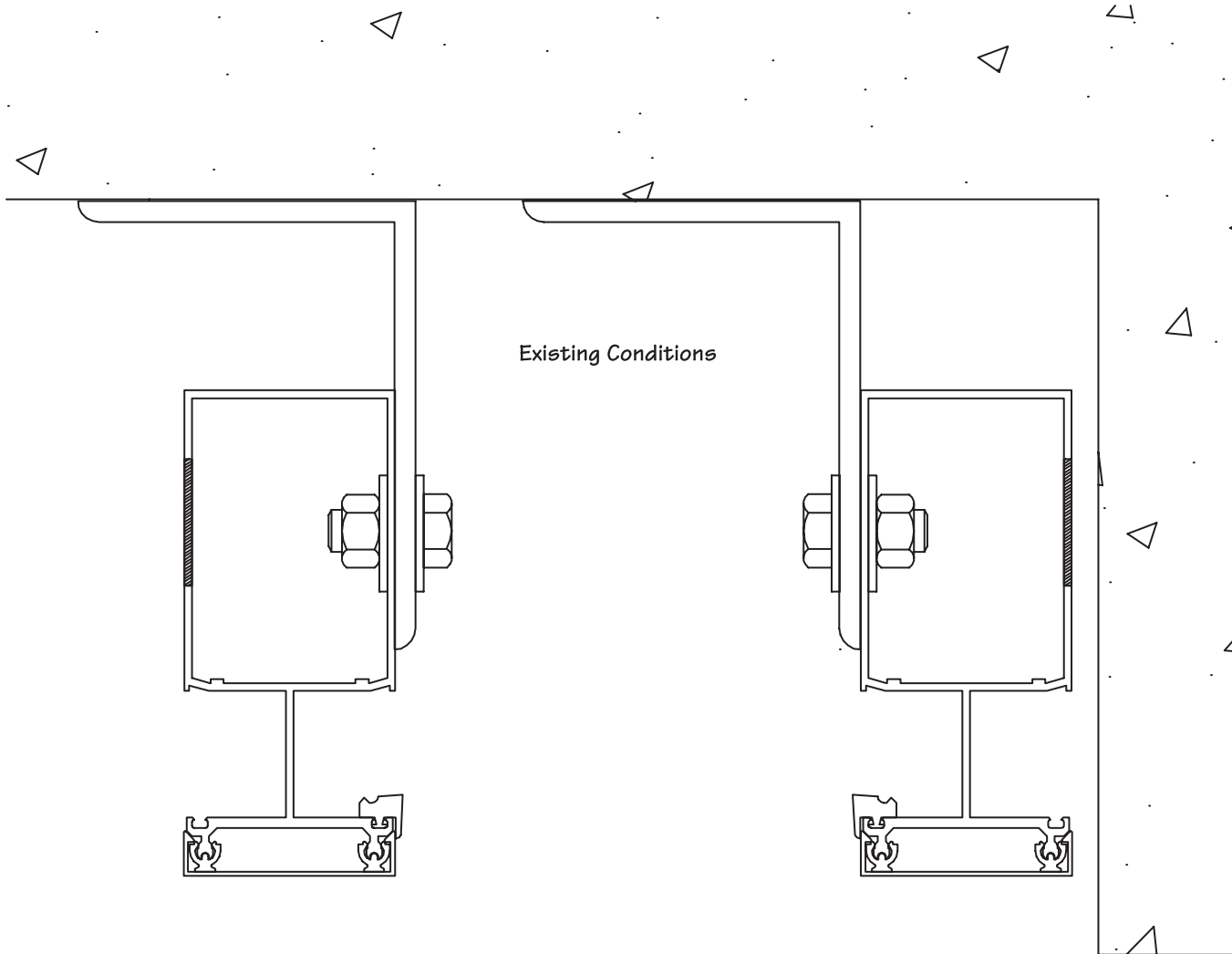
STEP 4

Ensure that the exterior gasket has not been displaced during the glazing operation.



DROP GLAZING ANCHOR DETAIL

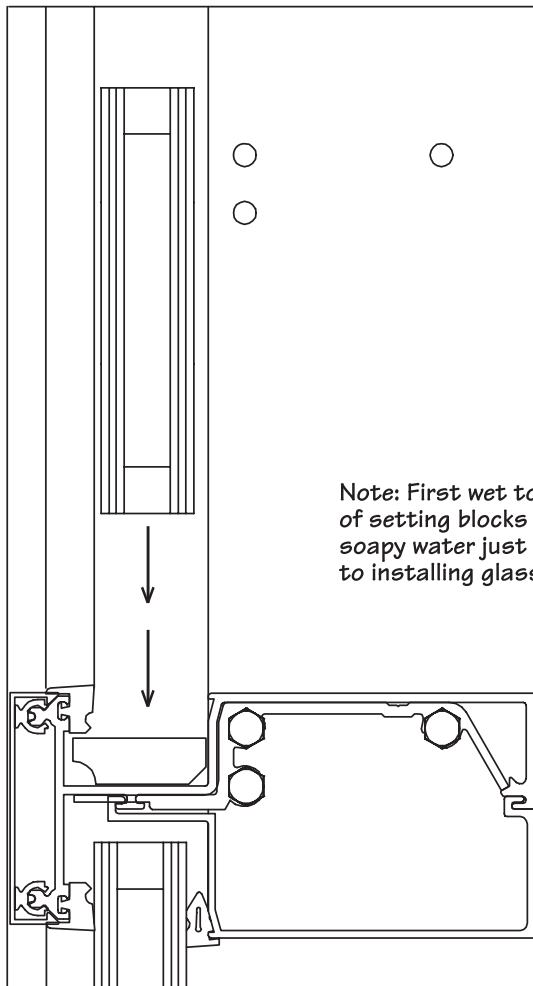
Drop glazing procedure, used when anchors interfere with the inside glazing procedure.



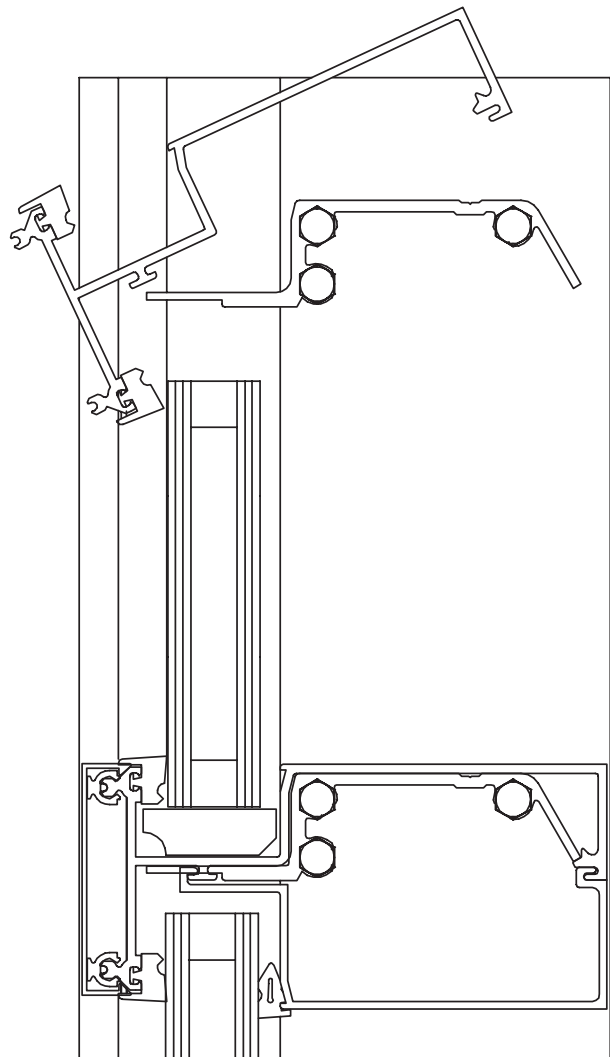
See glazing instructions

DROP GLAZING INSTRUCTIONS

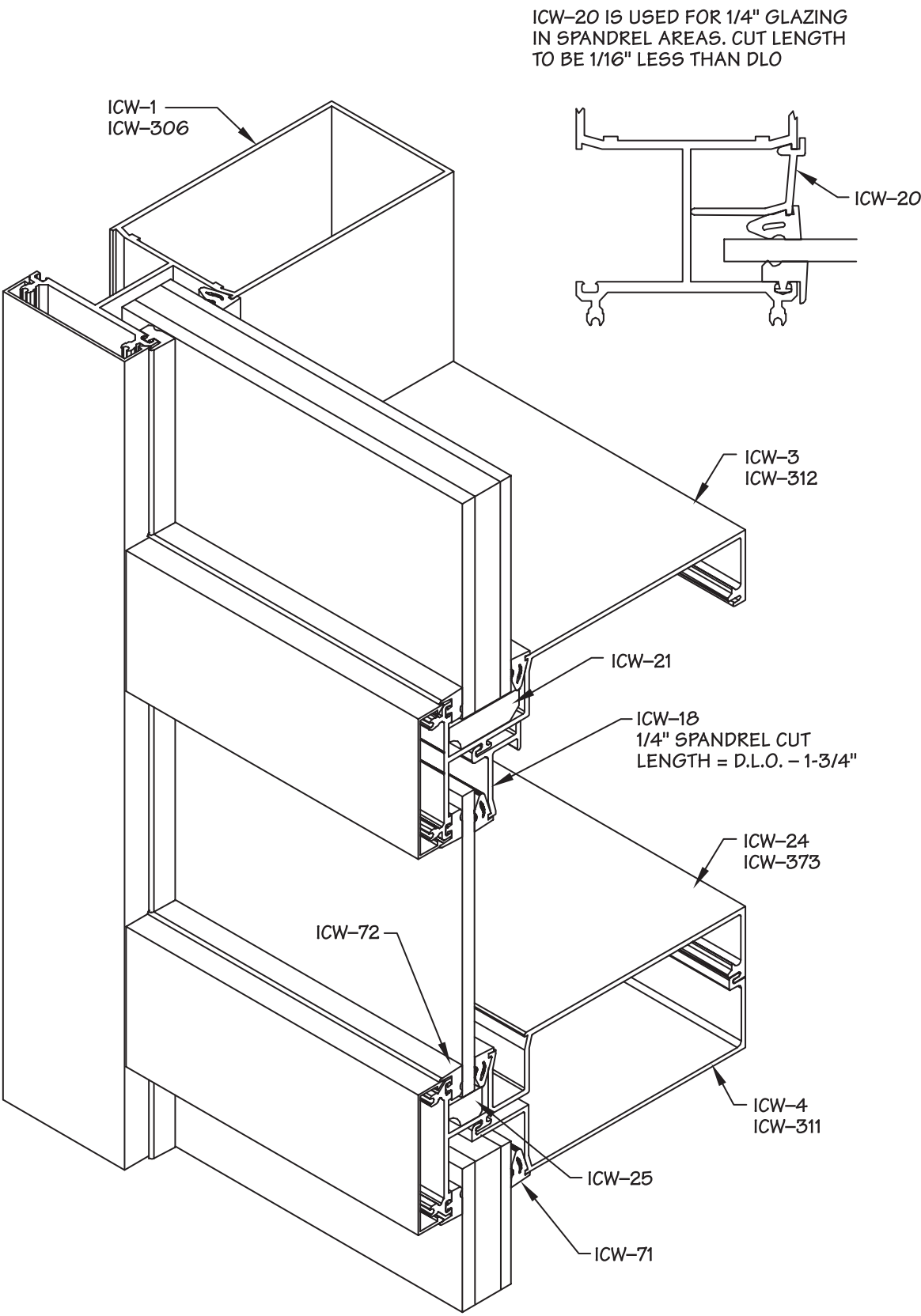
1. Do not install upper horizontal or shearblock.
2. Lower horizontal and exterior gaskets to be installed prior to setting glass.
3. Glass is lowered vertically from above floor slab, into vertical pockets in spandrel area. (Carefully avoiding contact between gasket and glass while lowering lite into pocket.)
4. Attach shearblock to mullion following normal sealant instructions *see pgs. 8&9.*
5. Install exterior gaskets to upper horizontal, then carefully rotate horizontal over shearblock.
6. Install interior wedge gaskets in spandrel areas.



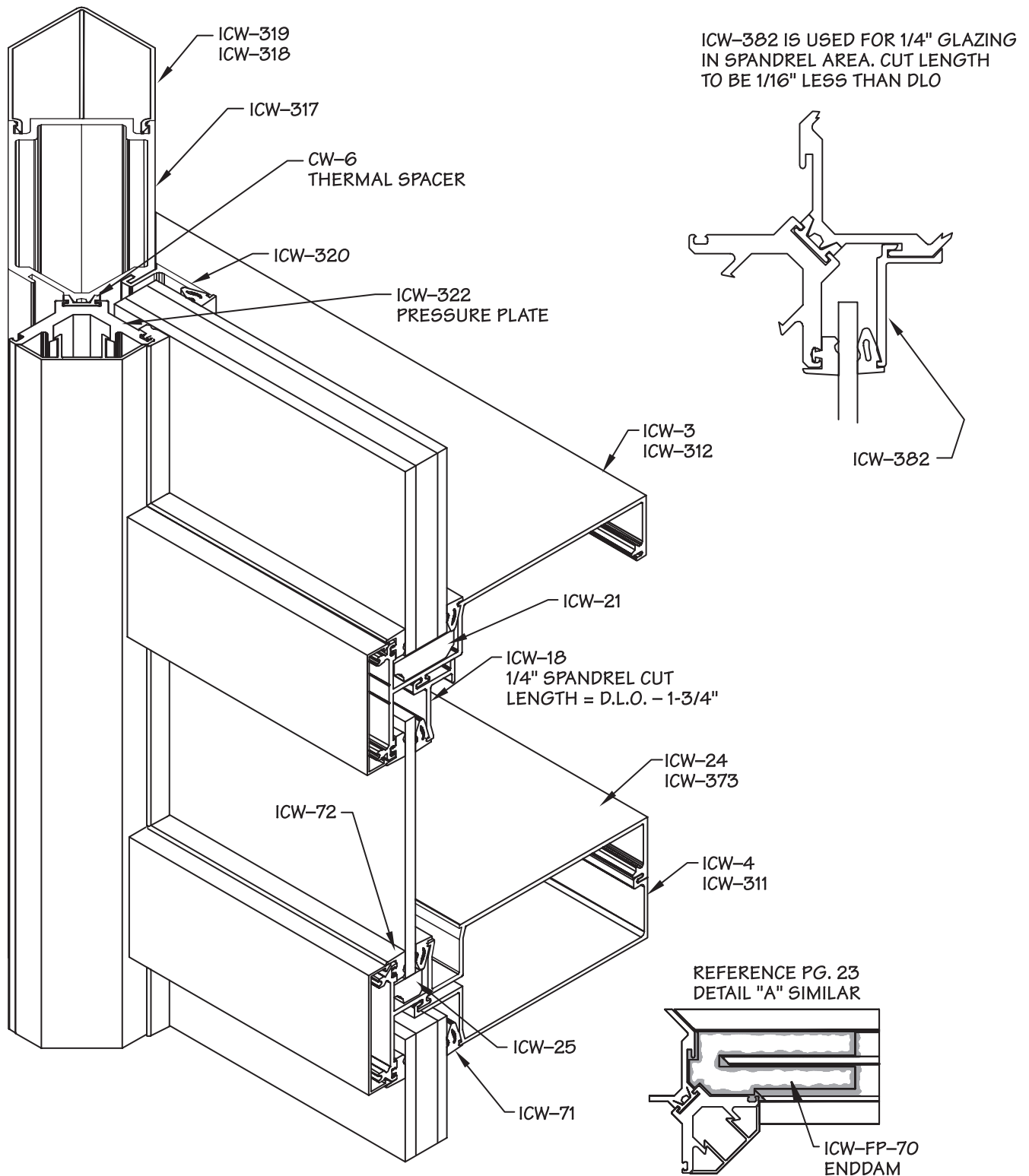
Note: First wet top of setting blocks with soapy water just prior to installing glass.



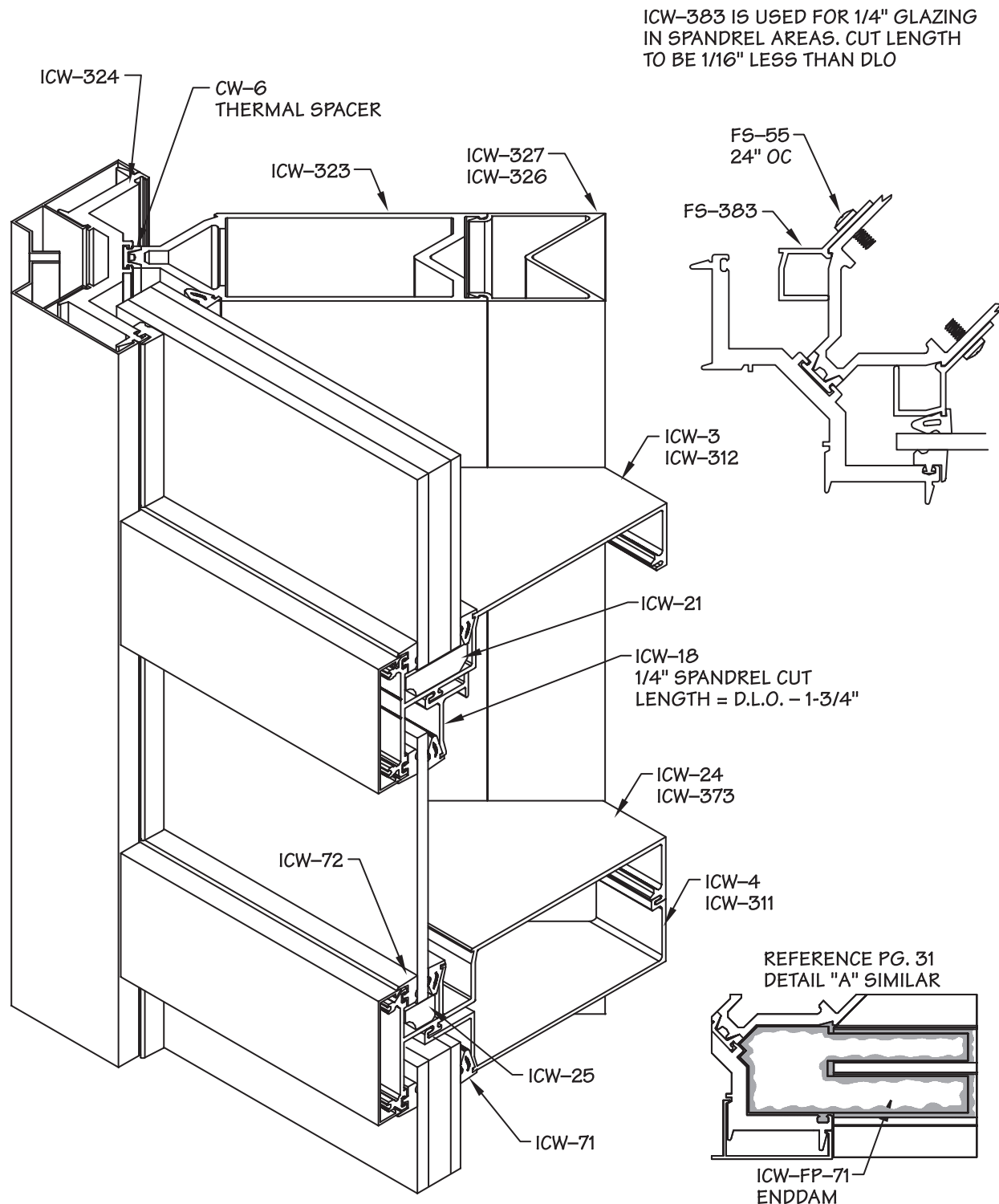
VISION AND SPANDREL GLAZING DETAIL



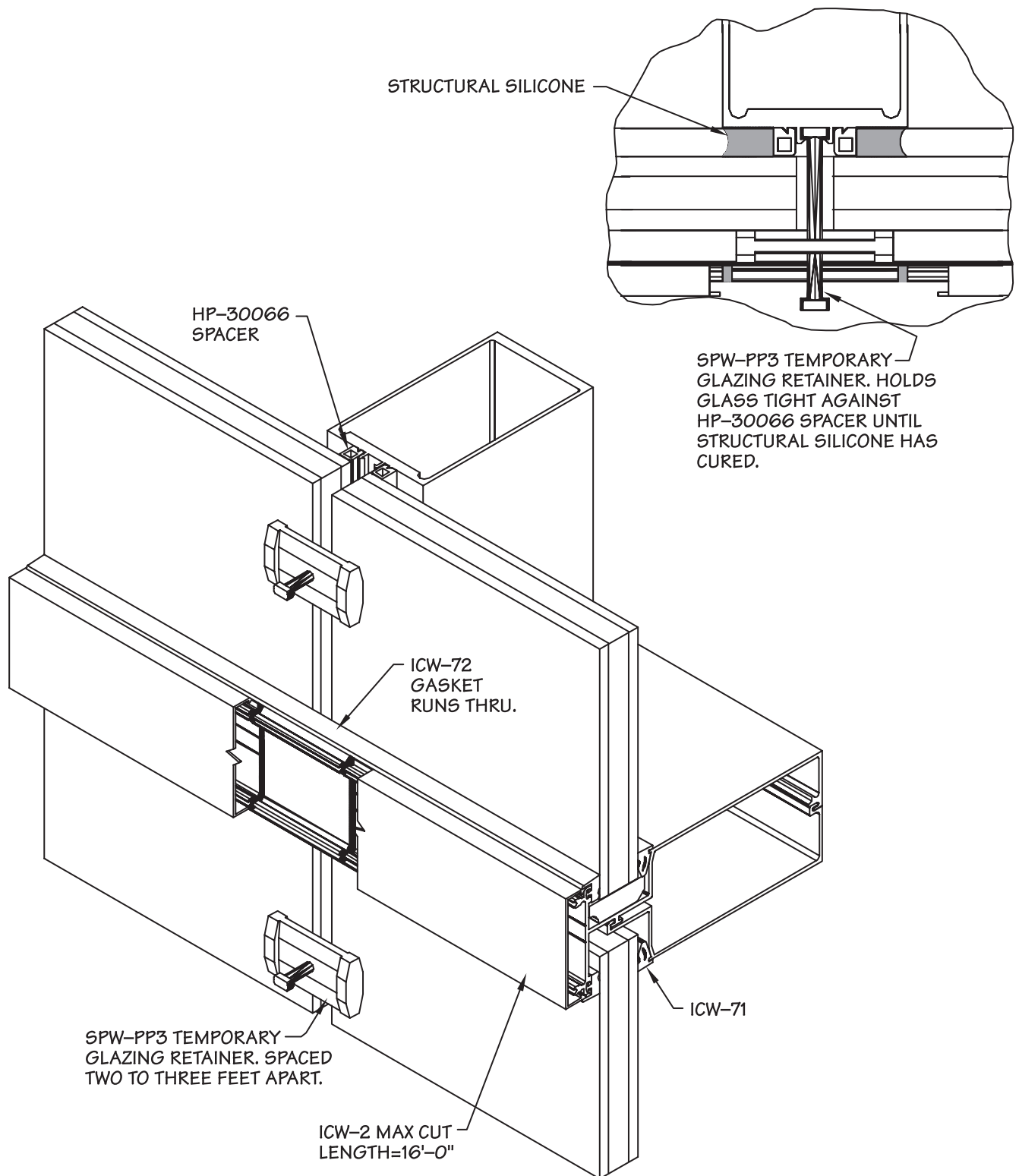
INSIDE CORNER VISION & SPANDREL GLAZING DETAIL



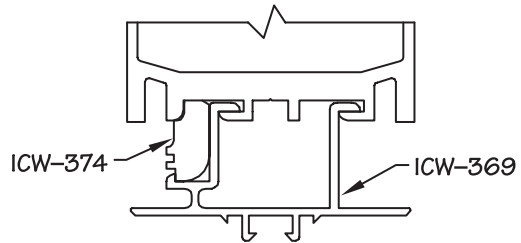
OUTSIDE CORNER VISION & SPANDREL GLAZING DETAIL



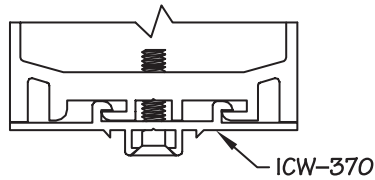
VERTICAL BUTT GLAZE GLAZING DETAIL



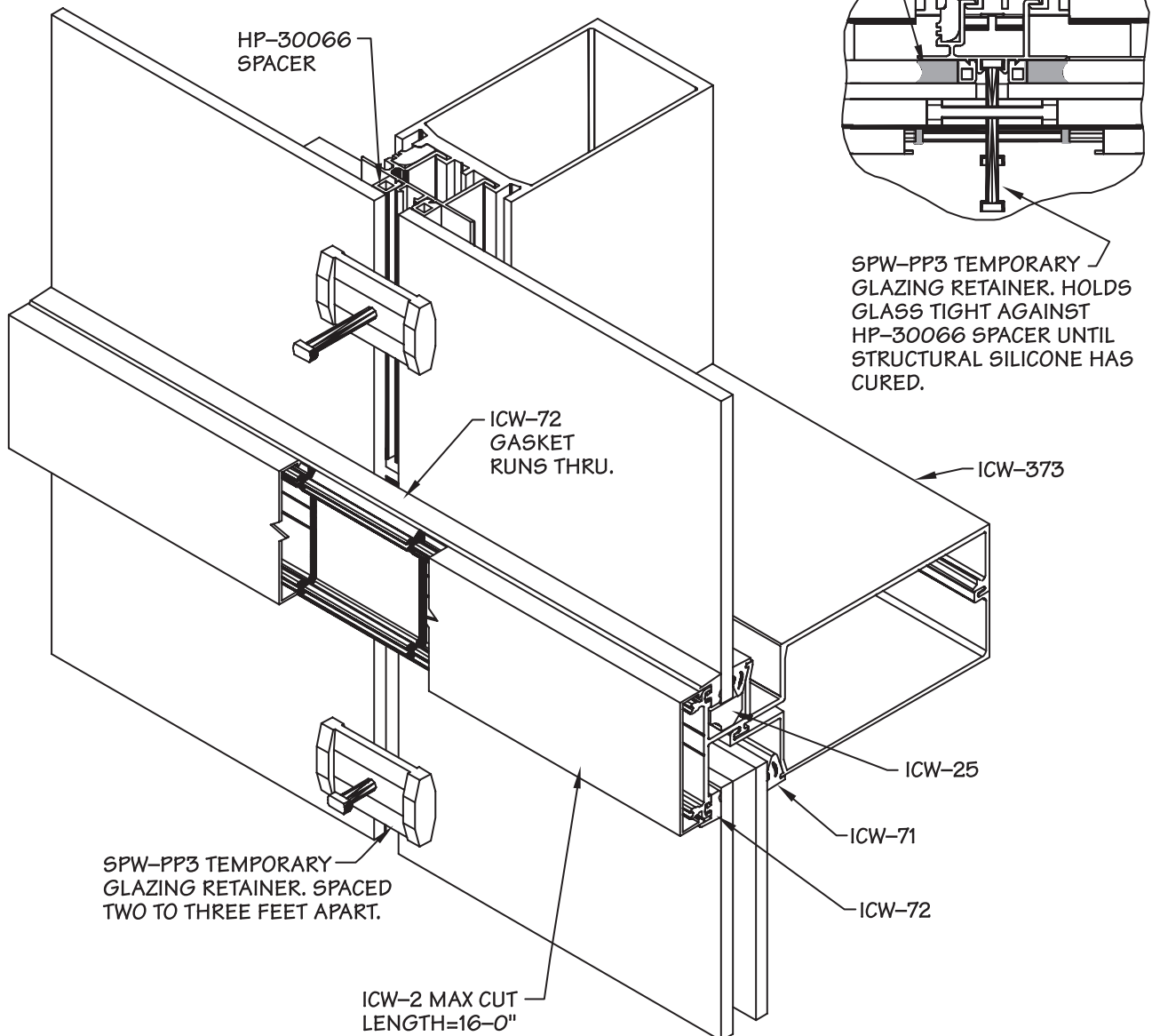
LIVE LOAD VERTICAL BUTT GLAZING DETAIL



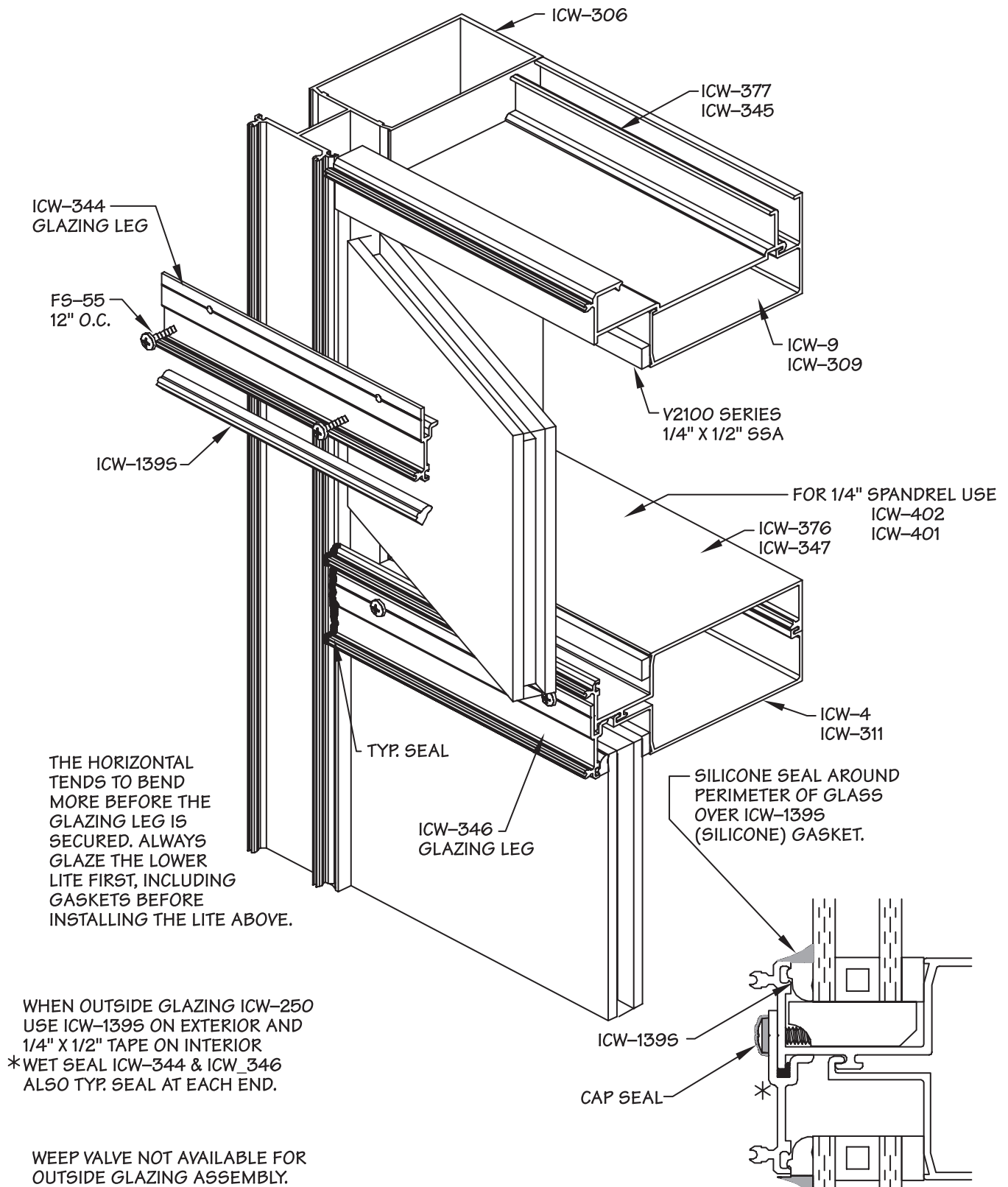
IN 1/4" SPANDREL
AREA ICW-369 GLAZING
ADAPTOR IS USED. ATTACH WITH
ICW-374 CAM LOCK 12" OC



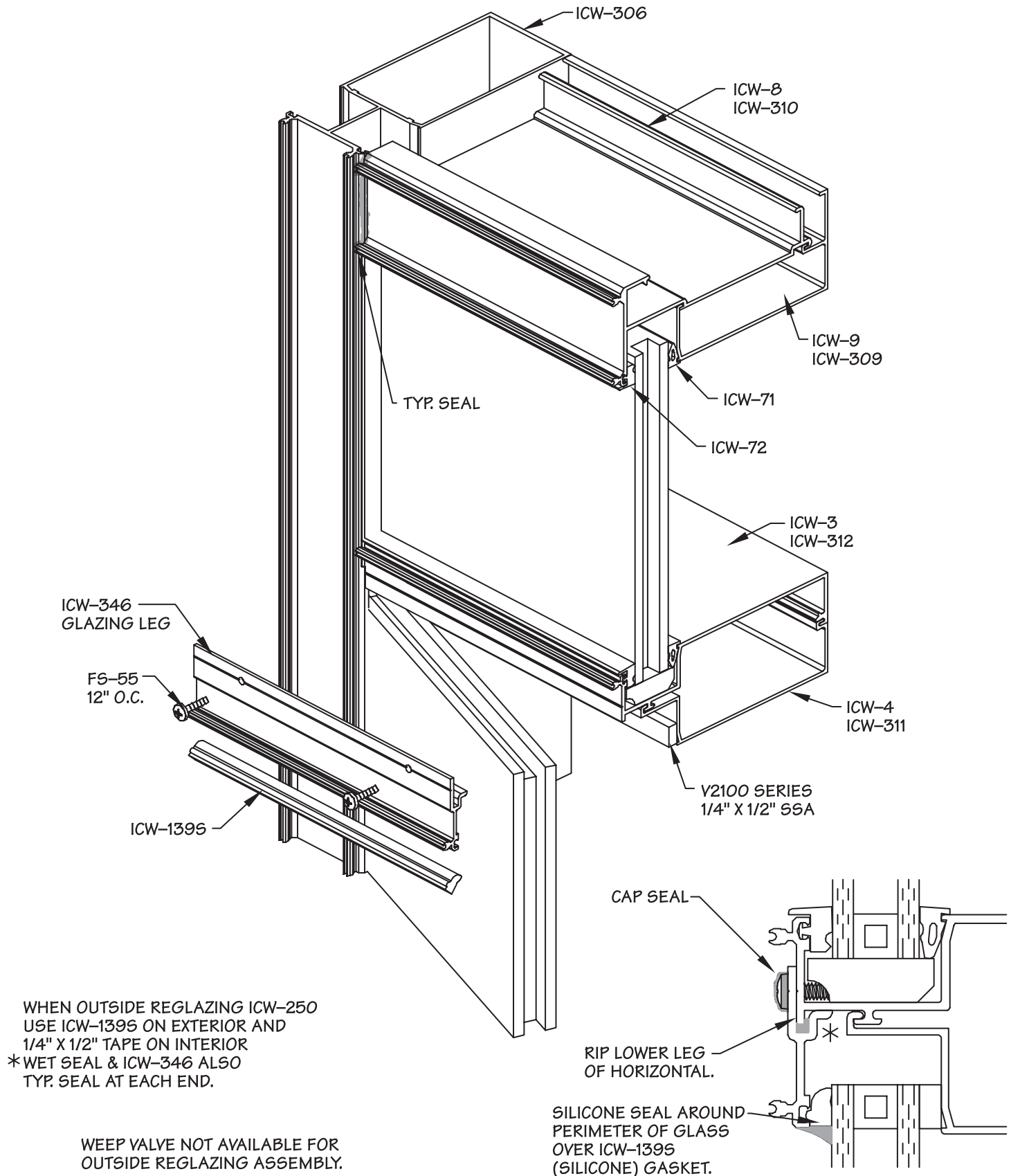
WITH 1" GLASS ICW-370
GLAZING ADAPTOR IS USED.
ATTACH WITH FS-7 3 PER D.L.O.



OUTSIDE GLAZING ASSEMBLY



OUTSIDE REGLAZING ASSEMBLY



ICW-250 DOOR FRAME FABRICATION

NOTE: USE LCN CONCEALED CLOSER ONLY, OTHER CONCEALED CLOSERS REQUIRE ADDITIONAL DOOR HEADER. MAY USE ANY SURFACE CLOSER.

