

THE FOLLOWING INSTRUCTIONS ARE FOR THE INSTALLATION OF THE KAWNEER VERSOLEIL SINGLE BLADE SUNSHADE. USE THESE INSTRUCTIONS IN CONJUNCTION WITH 1600 SYSTEM 5 CURTAIN WALL INSTALLATION INSTRUCTIONS (166972).

THE TERMS "INSIDE" AND "OUTSIDE" ARE USED EXTENSIVELY IN THESE INSTRUCTIONS. THESE TERMS DO NOT REFER TO THE INTERIOR AND EXTERIOR OF THE BUILDING. THE TERMS REFER TO THE RELATIVE POSITION OF WORK PERFORMED ON THE SUNSHADE FROM AN ELEVATION PERSPECTIVE. SIMILARLY, THE TERMS "RIGHT" AND "LEFT" ARE USED.

NOTE: A 3/4" PERIMETER JOINT IS REQUIRED FOR BOLT HEAD CLEARANCE AND BLADE INSTALLATION WHEN THE BUILDING CONDITION EXTENDS BEYOND THE BRACKET.

PREPARING THE VERTICAL MULLIONS BEFORE HANGING THE SUNSHADES

COMPLETE ALL STEPS AS OUTLINED IN THE STANDARD 1600 SYSTEM 5 INSTALLATION INSTRUCTION (166972). PLEASE NOTE THE FOLLOWING MODIFICATIONS. IF NO MODIFICATIONS ARE LISTED BELOW, FOLLOW THE STANDARD 1600 SYSTEM 5 INSTALLATION INSTRUCTIONS.

BRACKET ASSEMBLY

NOTE THAT STEPS 1-7 ARE FOR "STRAIGHT-LINE" SUNSHADES (NO CORNERS).

STEP 8 ILLUSTRATES THE INSTALLATION OF "INSIDE" CORNER SUNSHADES.

STEP 9 ILLUSTRATES THE INSTALLATION OF "OUTSIDE" CORNER SUNSHADES.

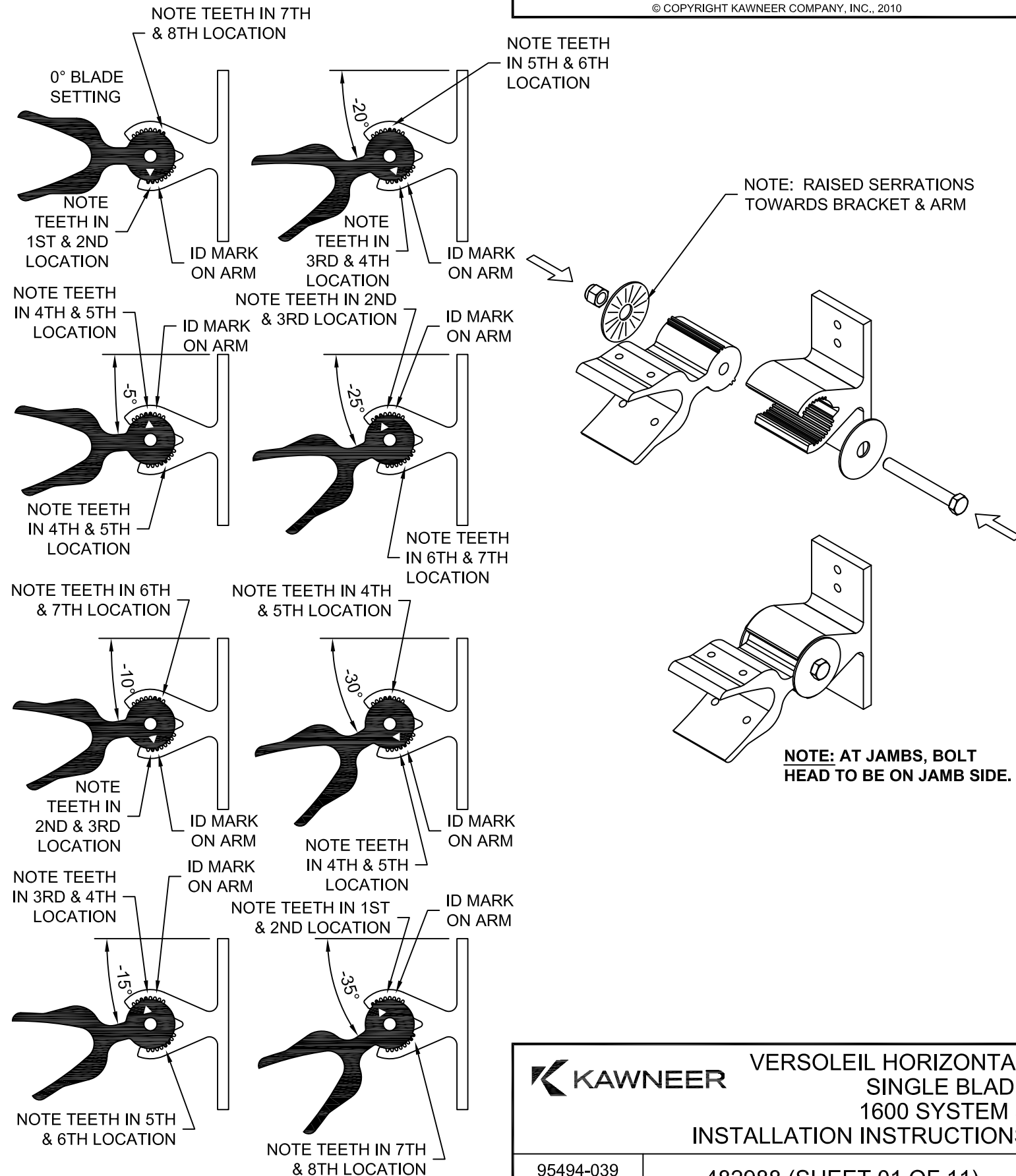
STEP 1 - ASSEMBLING MOUNTING BRACKETS & ARMS

ALIGN THE MOUNTING ARM (482262) AND THE MOUNTING BRACKET (482260) AT SPECIFIED ANGLE (REFERENCE BRACKET ANGLES IN NEXT COLUMN). SLIDE MOUNTING ARM INTO MOUNTING BRACKET AND FASTEN TOGETHER USING 3/8"-16 X 3" HHMS (128916), 3/8" LOCK NUT (128392), AND TWO (2) SERRATED WASHERS (128979) - NOTE: RAISED SERRATIONS ON WASHERS SHOULD BE FACING THE BRACKET AND ARM.

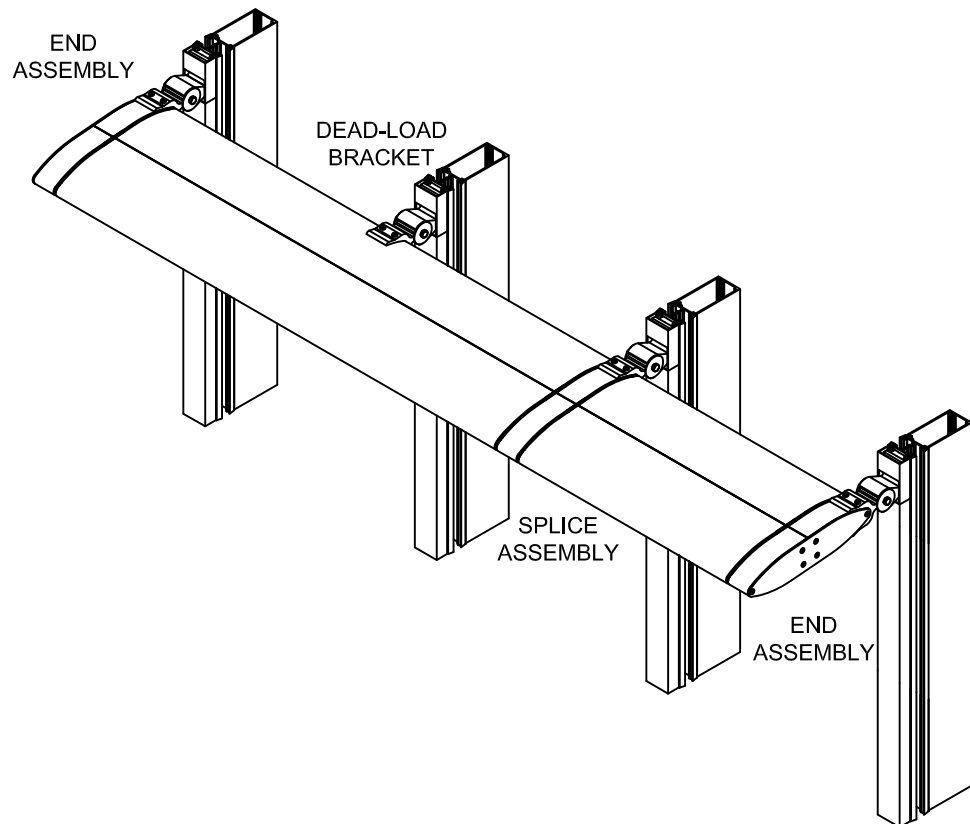
NOTE: BOLT AND LOCK NUT MUST BE TIGHTENED TO AN INITIAL TORQUE OF 200 IN-LBS (17 FT-LBS).

BRACKET ANGLES SHOWN BELOW.

CRITICAL NOTE: THE MOUNTING BRACKET AND ARM IS NOT SYMMETRICAL. PLEASE NOTE THE ID MARK LOCATION ON ARM AND ORIENTATION OF BRACKET.



ELEVATION FRONT VIEW OF SINGLE BLADE SUNSHADE



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MODIFY STEP - FRAME ASSEMBLY

VERTICAL MULLIONS WILL BE LABELED DESIGNATING POSITION AND ORIENTATION. THESE DESIGNATIONS MUST BE IDENTIFIED AND MATCHED TO THE SHOP DRAWINGS BEFORE PROCEEDING WITH ANY ASSEMBLY. FAILURE TO PROPERLY ORIENT OR POSITION THE VERTICAL MULLIONS WILL PROHIBIT INSTALLATION OF THE SUNSHADE.

STEP 2 - ATTACH BRACKETS/SPACERS AND DEEP COVER PINNING CLIPS

INSTALL DEEP COVER PINNING CLIP (166315) AT THE SILL AND NEXT HORIZONTAL COVER ABOVE A VERTICAL EXPANSION SPLICE ONLY. CRIMP INTO PLACE AT CLIP BOTTOM.

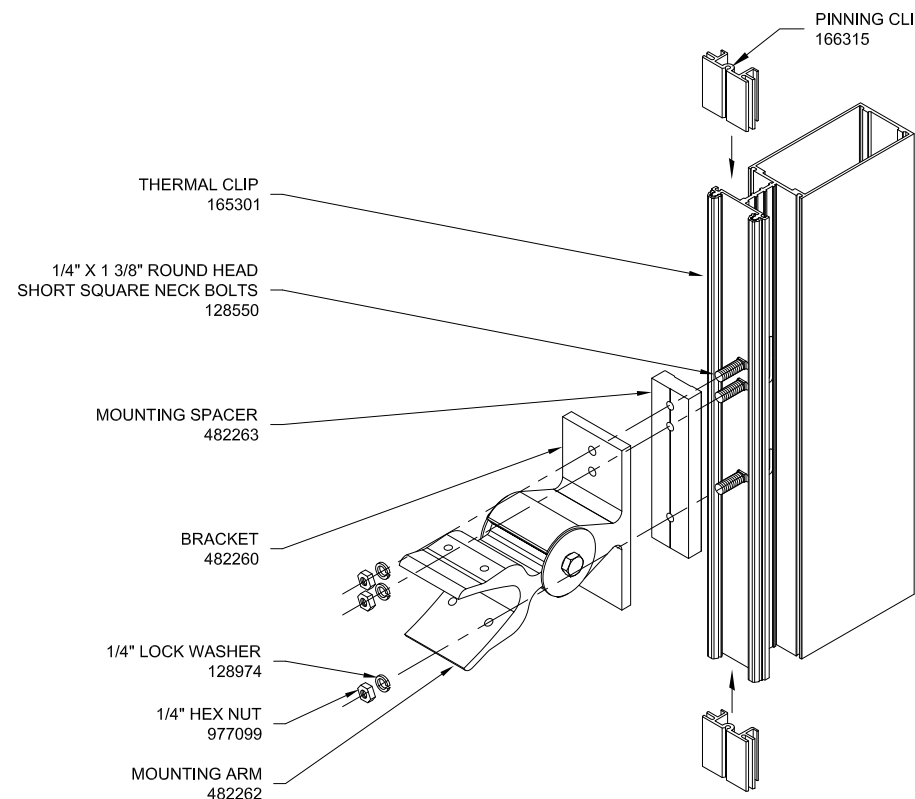
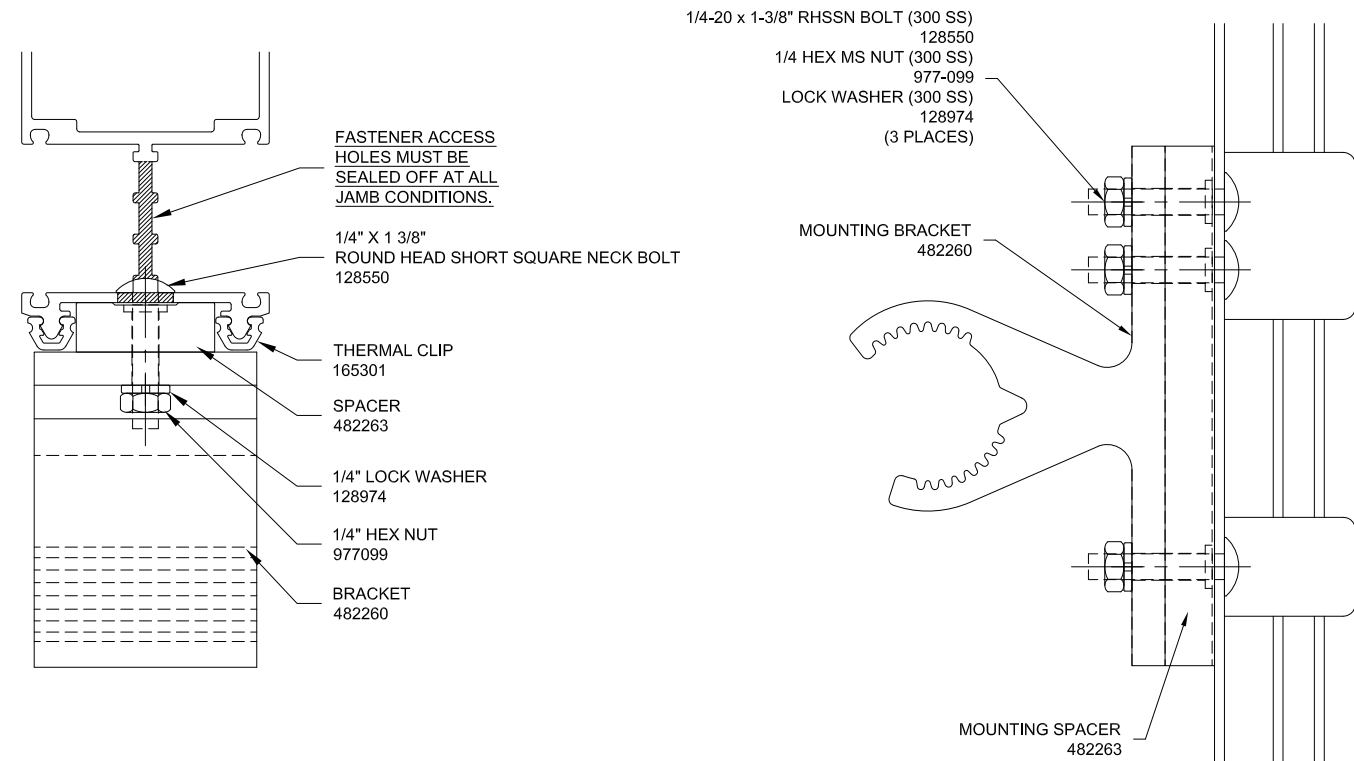
INSTALL ALL THERMAL CLIPS (165301) PRIOR TO APPLYING BRACKETS.

INSERT THREE (3) 1/4-20 x 1 3/8" ROUND HEAD SHORT SQUARE NECK BOLTS (128550) THROUGH THE SLOTS FROM INSIDE THE GLAZING POCKET. SEAT THE SQUARE NECK OF THE BOLT IN THE SLOT. ALIGN THE THREE (3) CLEAR HOLES IN THE SPACER, COUNTER BORE SIDE TOWARDS THE INTERIOR, AND APPLY SPACER (482263). NEXT APPLY THE MOUNTING BRACKET (482260). ATTACH ALL TOGETHER WITH THREE (3) LOCK WASHERS (128974) AND 1/4" NUTS (977099) AS SHOWN.

USING A STANDARD 3/8" SOCKET WRENCH, TIGHTEN TO A "SNUG" CONDITION. BE SURE THE SPRING TYPE LOCK WASHERS ARE COMPRESSED. THEN TIGHTEN APPROXIMATELY 1/2 TURN MORE.

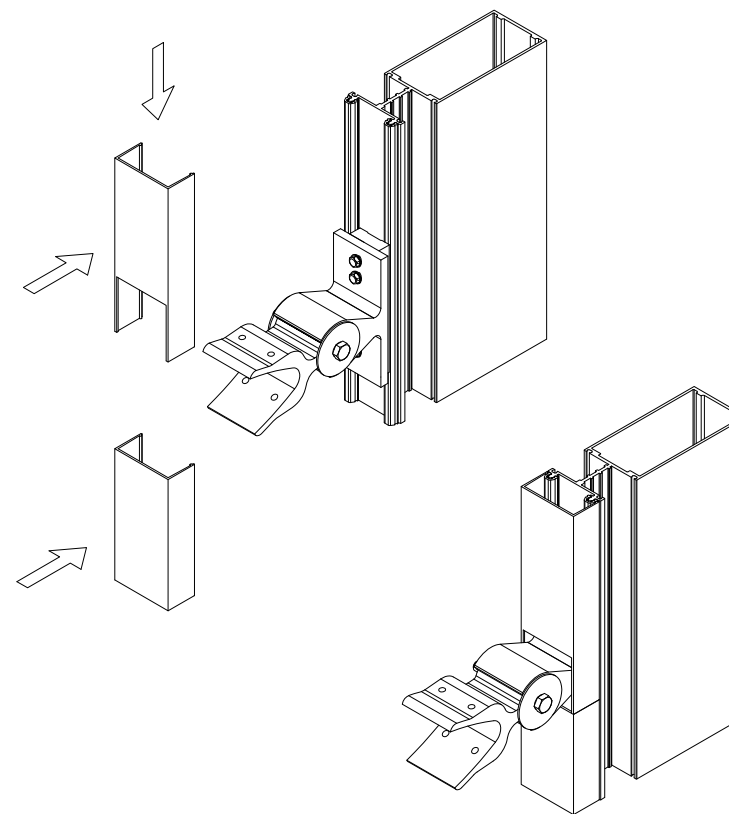
ATTACH ALL MOUNTING BRACKETS BEFORE PROCEEDING TO STEP 3.

SEAL FASTENER ACCESS HOLES AT JAMBS BY APPLYING TAPE TO ONE SIDE OF "TONGUE" AND APPLYING SEALANT TO OTHER, TOOLING SEALANT ONTO "TONGUE" TO PROVIDE WATER-TIGHT SEAL.

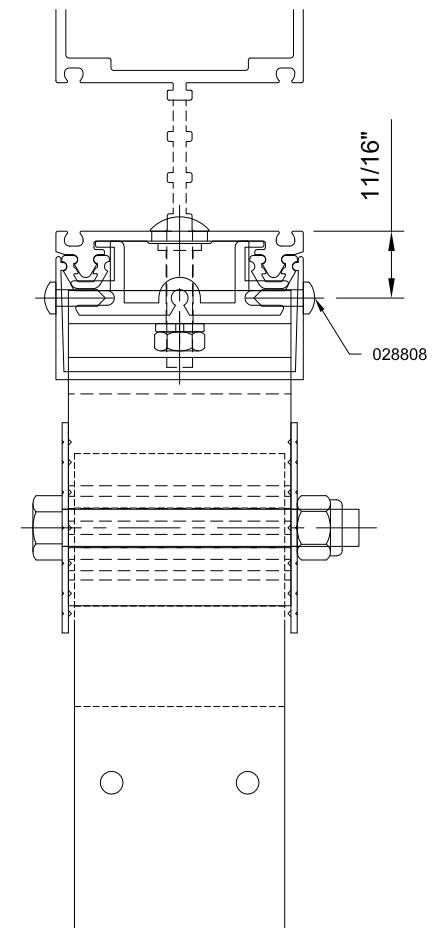


STEP 3 - INSTALLING PRESSURE PLATE COVERS

COVERS SHOULD BE INSTALLED AFTER THE MOUNTING BRACKETS / MOUNTING SPACERS ARE INSTALLED.



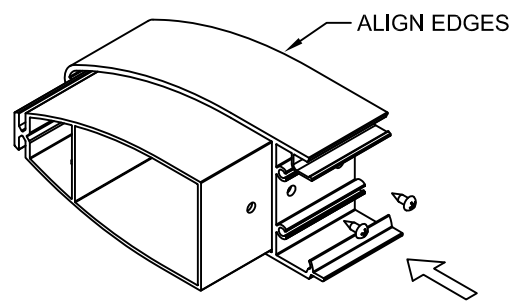
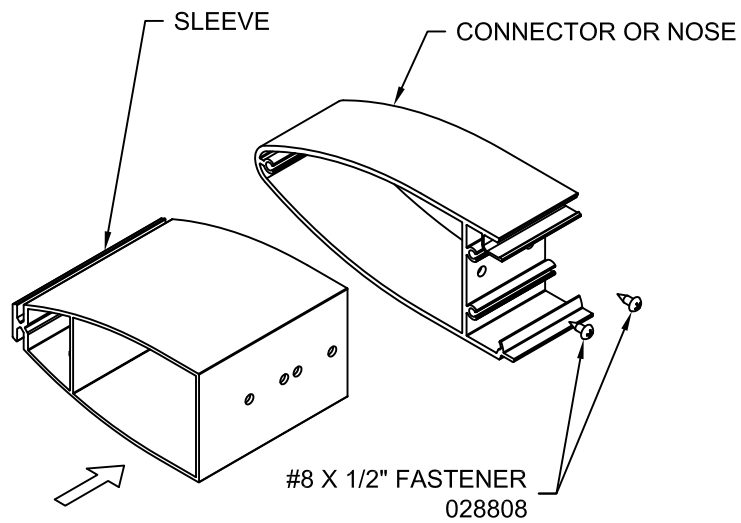
PIN BOTH SIDES OF THE VERTICAL COVERS. DRILL A .177" DIAMETER HOLE (#16 DRILL) AT PINNING CLIP LOCATIONS - AT SILL AND NEXT HORIZONTAL COVER ABOVE A VERTICAL EXPANSION SPLICE, 11/16" FROM THE INSIDE SURFACE OF THE PRESSURE PLATE. INSTALL #8 x 1/2" PAN HEAD SCREWS (028808) THROUGH COVER AND INTO PINNING CLIP (166315) AS SHOWN. SNUG PINNING SCREW INTO PLACE. DO NOT OVER TIGHTEN.



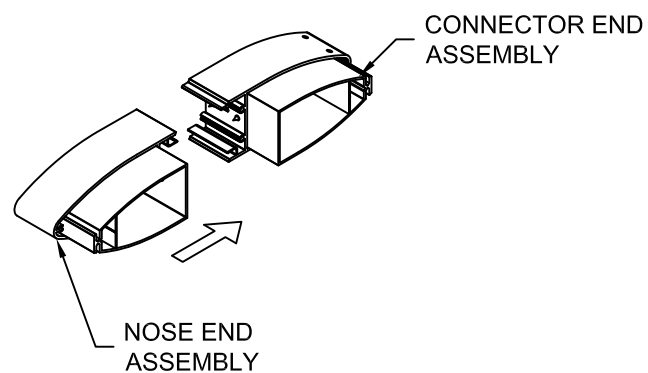
BLADE, END & SPLICE ASSEMBLIES

STEP 4 - END ASSEMBLY

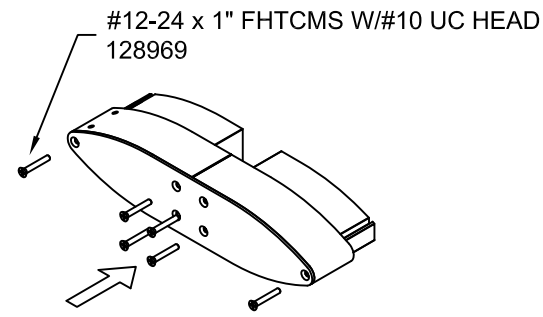
SLIDE SLEEVE INTO CONNECTOR OR NOSE, ALIGN MOUNTING HOLES AND SLEEVE EDGE WITH CONNECTOR OR NOSE EDGE. ATTACH USING TWO (2) #8 X 1/2" FASTENERS (028808).



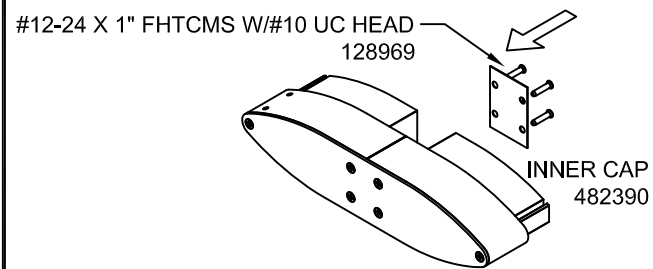
SNAP CONNECTOR END ASSEMBLY (WITH HOLES) AND NOSE END ASSEMBLY TOGETHER



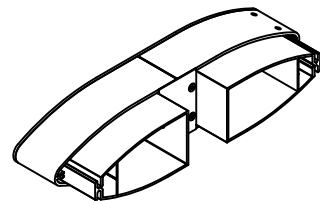
ATTACH ENDCAP TO END ASSEMBLY USING SIX (6) #12-24 X 1" FHTCMS "F" W/#10 UC HEAD (128969) FASTENERS



ATTACH INNER CAP (482390) TO END ASSEMBLY USING FOUR (4) #12-24 X 1" FHTCMS "F" W/#10 UC HEAD (128969) FASTENERS

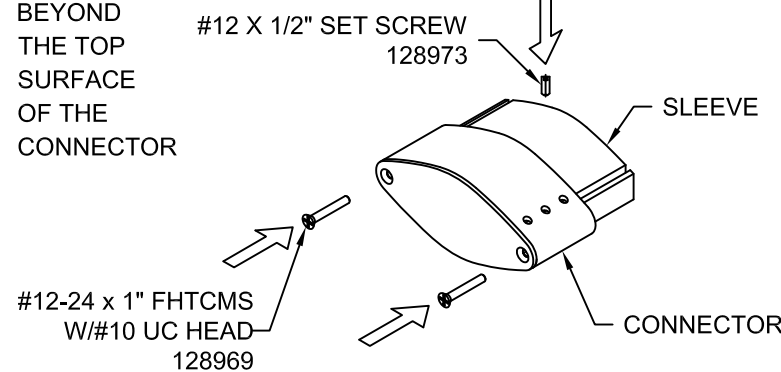


NOTE THAT END ASSEMBLY CAN BE USED AT LEFT JAMB OR RIGHT JAMB (BY ROTATING ASSEMBLY OVER)



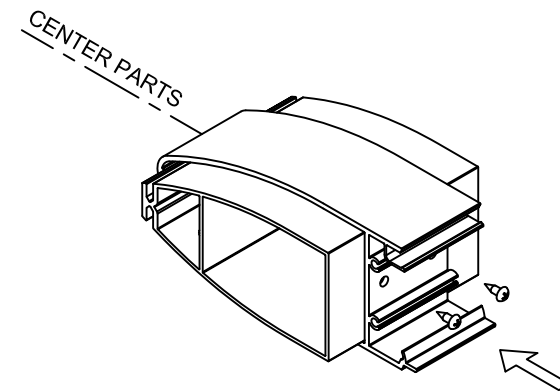
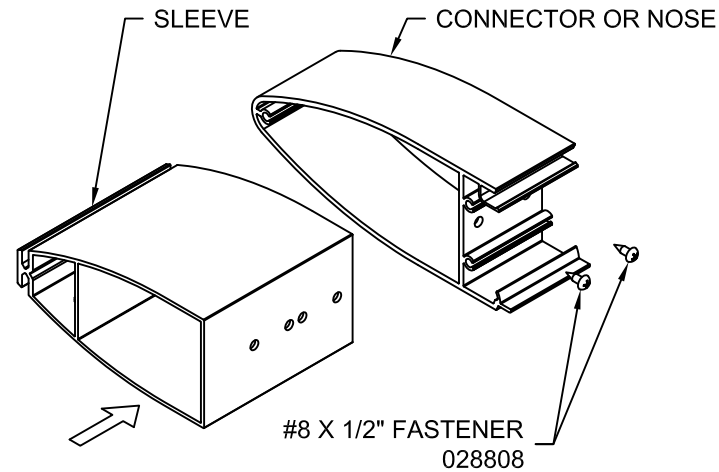
FOR ONE-PIECE-BLADE END ASSEMBLIES, ATTACH ENDCAP TO CONNECTOR USING TWO (2) #12-24 X 1" FHTCMS "F" W/#10 UC HEAD FASTENERS (128969)

NOTE: SLIDE SLEEVE INTO CONNECTOR AND FASTEN WITH ONE (1) #12 X 1/2" SET SCREW (128973) AT CENTER HOLE. SET SCREW MUST NOT EXTEND BEYOND THE TOP SURFACE OF THE CONNECTOR

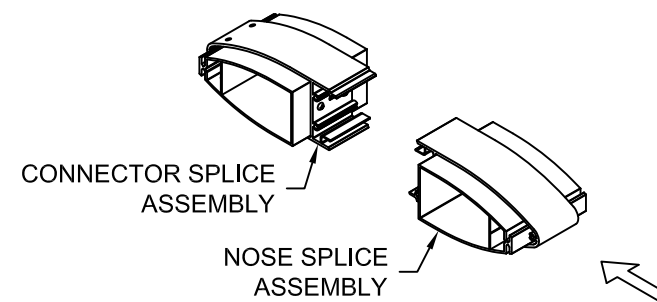


STEP 5 - SPLICE ASSEMBLY

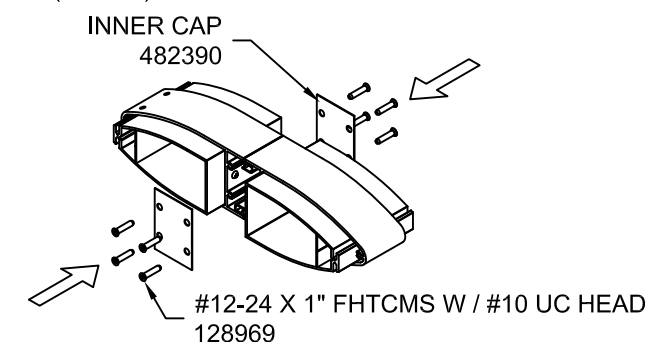
SLIDE SLEEVE INTO CONNECTOR OR NOSE. ALIGN SLEEVE CENTER ON CONNECTOR OR NOSE CENTER. ATTACH USING TWO (2) #8 X 1/2" FASTENERS (028808).



SNAP CONNECTOR SPLICE ASSEMBLY (WITH HOLES) AND NOSE SPLICE ASSEMBLY TOGETHER



ATTACH INNER CAP (482390) TO SPLICE ASSEMBLY ON EACH SIDE USING FOUR (4) #12-24 X 1" FHTCMS W/#10 UC HEAD (128969) FASTENERS

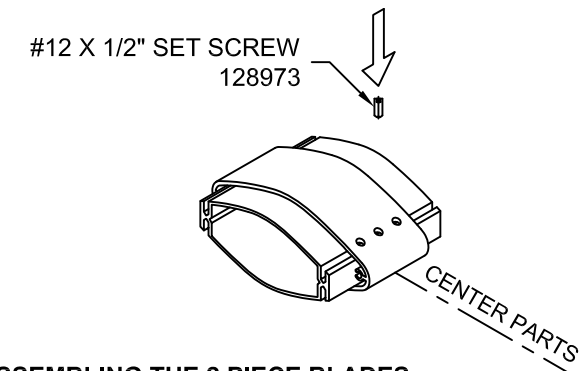


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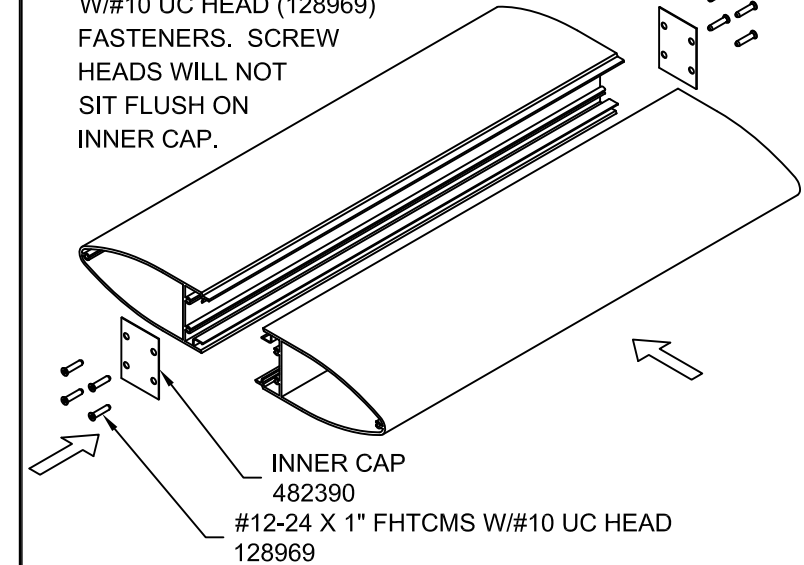
FOR ONE-PIECE-BLADE SPLICE ASSEMBLIES, CENTER SLEEVE IN CONNECTOR AND FASTEN WITH ONE (1) #12 X 1/2" SET SCREW (128973) AT CENTER HOLE.

NOTE: SET SCREW MUST NOT EXTEND BEYOND THE TOP SURFACE OF THE CONNECTOR.



STEP 6 - ASSEMBLING THE 2 PIECE BLADES

SNAP TWO (2) BLADE PIECES TOGETHER (BLADES TO BE CUT TO LENGTH BEFORE ASSEMBLY). THEN ATTACH INNER CAP (482390) TO BLADE ASSEMBLY ON EACH SIDE USING FOUR (4) #12-24 X 1" FHTCMS W/#10 UC HEAD (128969) FASTENERS. SCREW HEADS WILL NOT SIT FLUSH ON INNER CAP.



NOTE: IF SUNSHADE CONDITION HAS CORNERS, INSTALL CORNER ENDCAPS TO MITERED ENDS OF CORNER BLADE ASSEMBLIES USING #12-24 X 1" FHTCMS "F" FASTENERS (128934) AS REQUIRED. SCREW HEADS WILL NOT SIT FLAT ON END CAP.

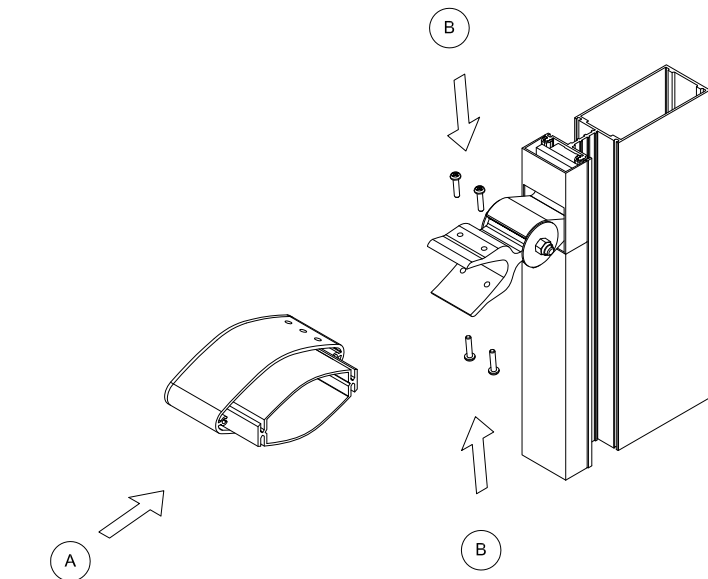
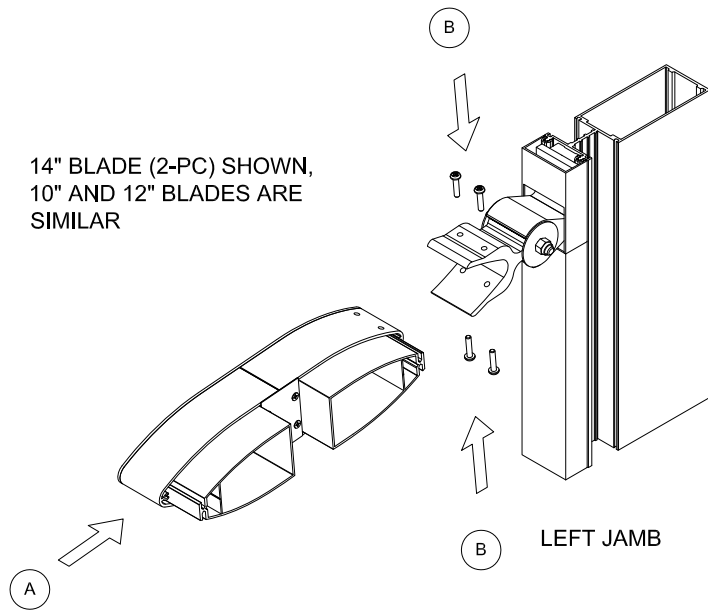
KAWNEER VERSOLEIL HORIZONTAL SINGLE BLADE 1600 SYSTEM 5 INSTALLATION INSTRUCTIONS

MOUNTING THE SUNSHADES

STEP 7 - INSTALLING END / SPLICE / BLADE ASSEMBLIES

A) SLIDE END ASSEMBLY INTO MOUNTING ARM, ALIGNING MOUNTING HOLES IN BLADE AND MOUNTING HOLES IN MOUNTING ARM

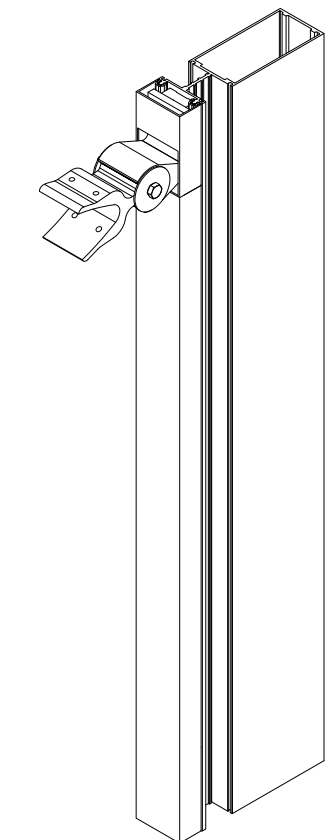
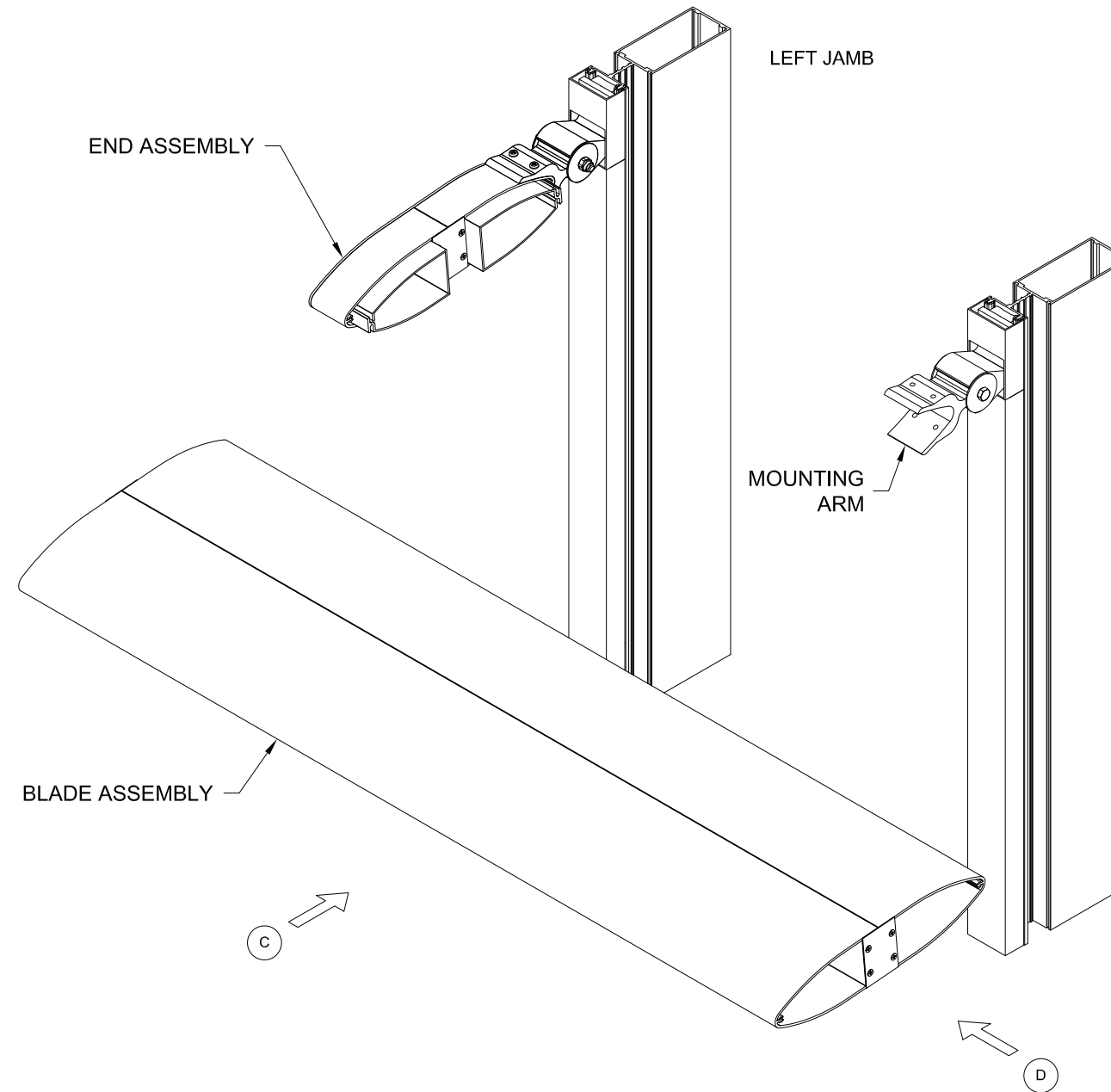
B) FASTEN END ASSEMBLY TO MOUNTING ARM USING FOUR (4) #12 X 1" PHTF "AB" FASTENERS (128267)



C) SLIDE BLADE (ASSEMBLY, IF TWO-PIECE) INTO MOUNTING ARMS

D) SLIDE BLADE OVER SLEEVE IN THE END ASSEMBLY

E) TEMPORARILY HOLD BLADE IN PLACE UNTIL NEXT STEP (F) IS COMPLETE. ASSISTANCE MAY BE REQUIRED



STEP 7 - INSTALLING END / SPLICE / BLADE ASSEMBLIES

F) SLIDE SPLICE ASSEMBLY INTO MOUNTING ARM
(SLEEVE SHOULD SLIDE INTO BLADE ASSEMBLY)

G) ALIGN MOUNTING HOLES IN SPLICE ASSEMBLY AND
MOUNTING HOLES IN MOUNTING ARM

H) FASTEN SPLICE ASSEMBLY TO MOUNTING ARM USING
FOUR (4) #12 X 1" PHTF "AB" FASTENERS (128267)

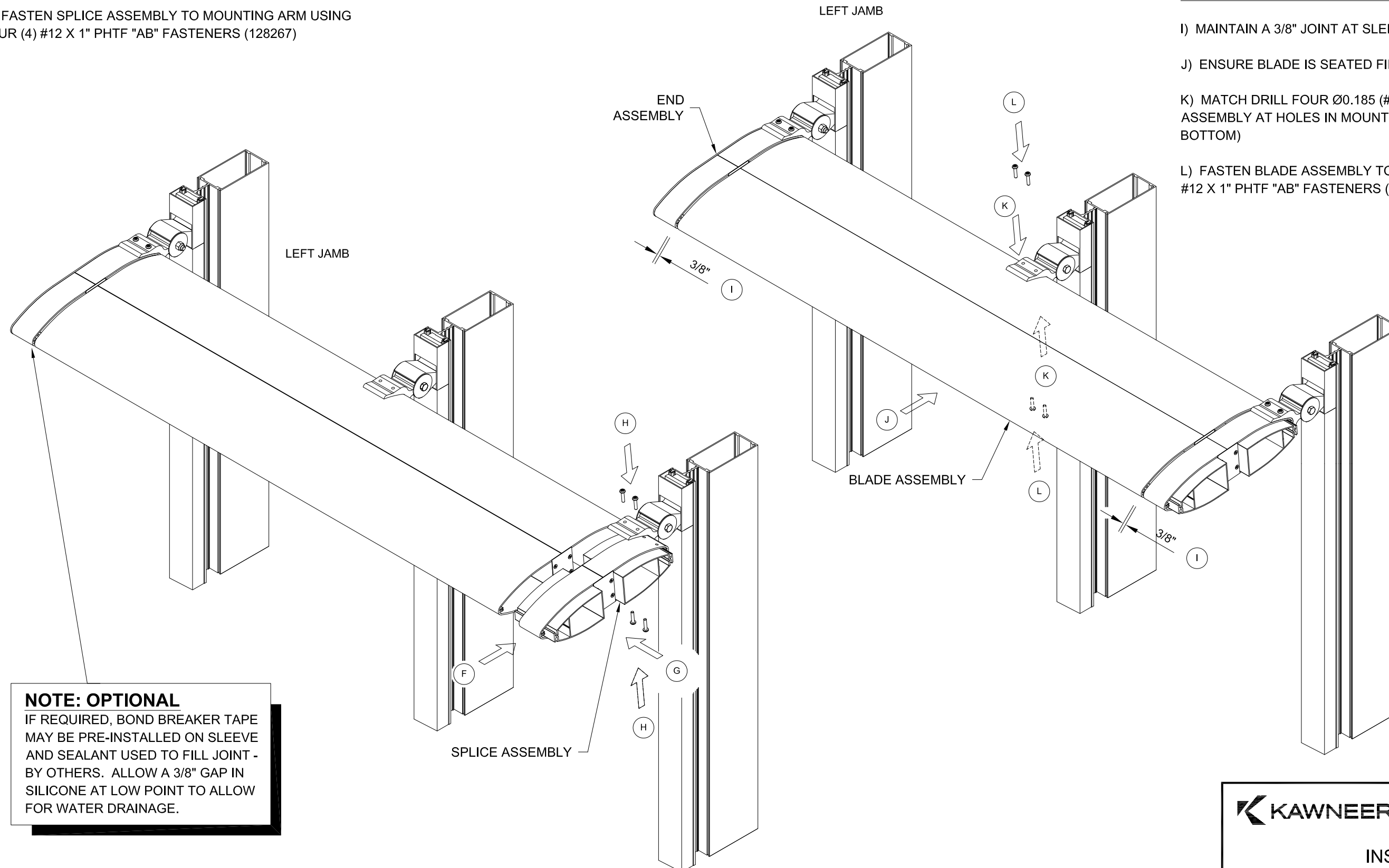
STEP 7 - INSTALLING END / SPLICE / BLADE ASSEMBLIES

I) MAINTAIN A 3/8" JOINT AT SLEEVES

J) ENSURE BLADE IS SEATED FIRMLY AGAINST MOUNTING ARM

K) MATCH DRILL FOUR Ø0.185 (#13 DRILL) HOLES INTO BLADE
ASSEMBLY AT HOLES IN MOUNTING ARMS (TWO IN TOP AND TWO IN
BOTTOM)

L) FASTEN BLADE ASSEMBLY TO MOUNTING ARM USING FOUR (4)
#12 X 1" PHTF "AB" FASTENERS (128267)



NOTE: OPTIONAL

IF REQUIRED, BOND BREAKER TAPE
MAY BE PRE-INSTALLED ON SLEEVE
AND SEALANT USED TO FILL JOINT -
BY OTHERS. ALLOW A 3/8" GAP IN
SILICONE AT LOW POINT TO ALLOW
FOR WATER DRAINAGE.

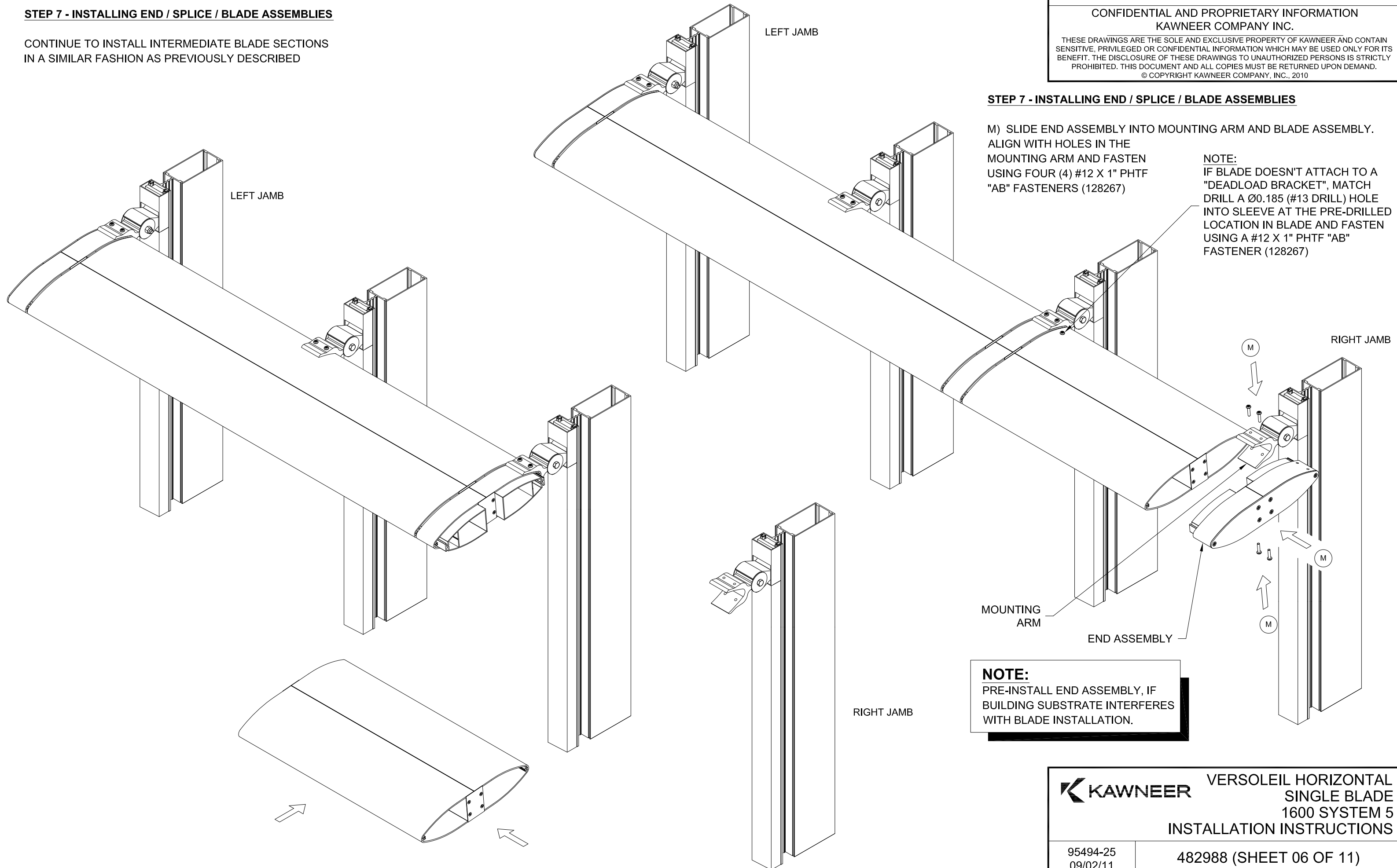
STEP 7 - INSTALLING END / SPLICE / BLADE ASSEMBLIES

CONTINUE TO INSTALL INTERMEDIATE BLADE SECTIONS IN A SIMILAR FASHION AS PREVIOUSLY DESCRIBED

STEP 7 - INSTALLING END / SPLICE / BLADE ASSEMBLIES

M) SLIDE END ASSEMBLY INTO MOUNTING ARM AND BLADE ASSEMBLY. ALIGN WITH HOLES IN THE MOUNTING ARM AND FASTEN USING FOUR (4) #12 X 1" PHTF "AB" FASTENERS (128267)

NOTE:
IF BLADE DOESN'T ATTACH TO A "DEADLOAD BRACKET", MATCH DRILL A Ø0.185 (#13 DRILL) HOLE INTO SLEEVE AT THE PRE-DRILLED LOCATION IN BLADE AND FASTEN USING A #12 X 1" PHTF "AB" FASTENER (128267)



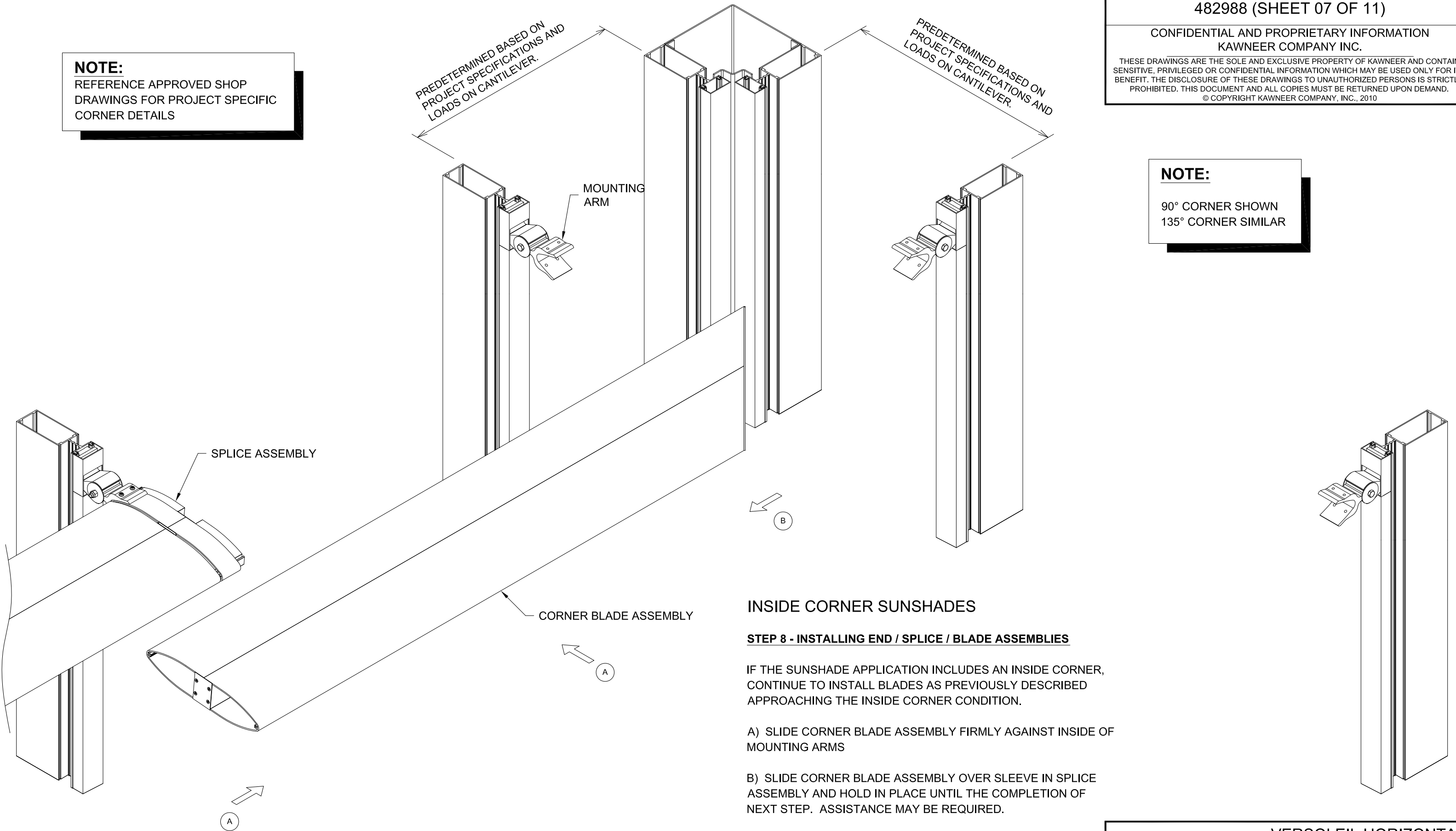
NOTE:
PRE-INSTALL END ASSEMBLY, IF BUILDING SUBSTRATE INTERFERES WITH BLADE INSTALLATION.



VERSOLEIL HORIZONTAL
SINGLE BLADE
1600 SYSTEM 5
INSTALLATION INSTRUCTIONS

NOTE:
REFERENCE APPROVED SHOP DRAWINGS FOR PROJECT SPECIFIC CORNER DETAILS

NOTE:
90° CORNER SHOWN
135° CORNER SIMILAR



INSIDE CORNER SUNSHADES

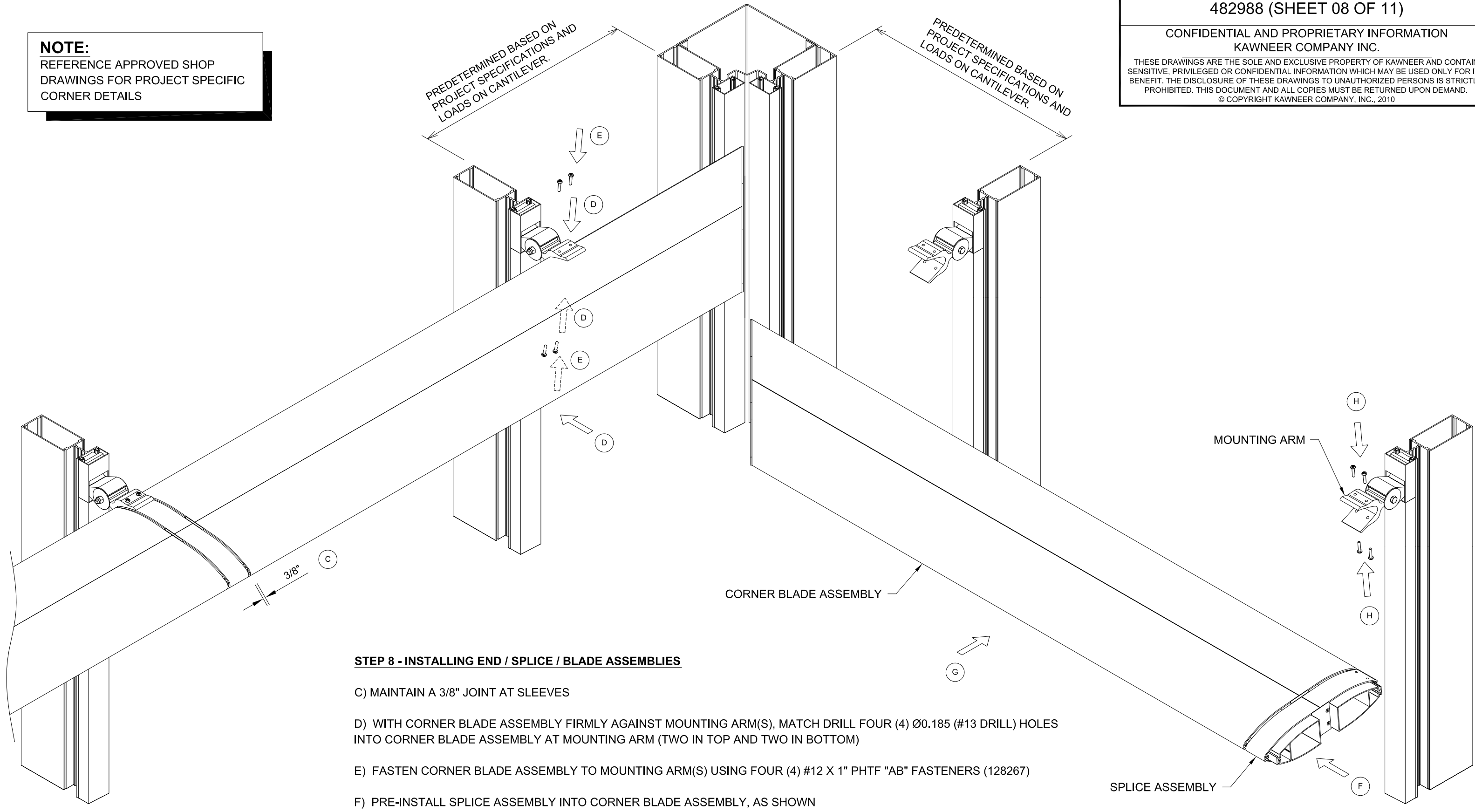
STEP 8 - INSTALLING END / SPLICE / BLADE ASSEMBLIES

IF THE SUNSHADE APPLICATION INCLUDES AN INSIDE CORNER, CONTINUE TO INSTALL BLADES AS PREVIOUSLY DESCRIBED APPROACHING THE INSIDE CORNER CONDITION.

A) SLIDE CORNER BLADE ASSEMBLY FIRMLY AGAINST INSIDE OF MOUNTING ARMS

B) SLIDE CORNER BLADE ASSEMBLY OVER SLEEVE IN SPLICE ASSEMBLY AND HOLD IN PLACE UNTIL THE COMPLETION OF NEXT STEP. ASSISTANCE MAY BE REQUIRED.

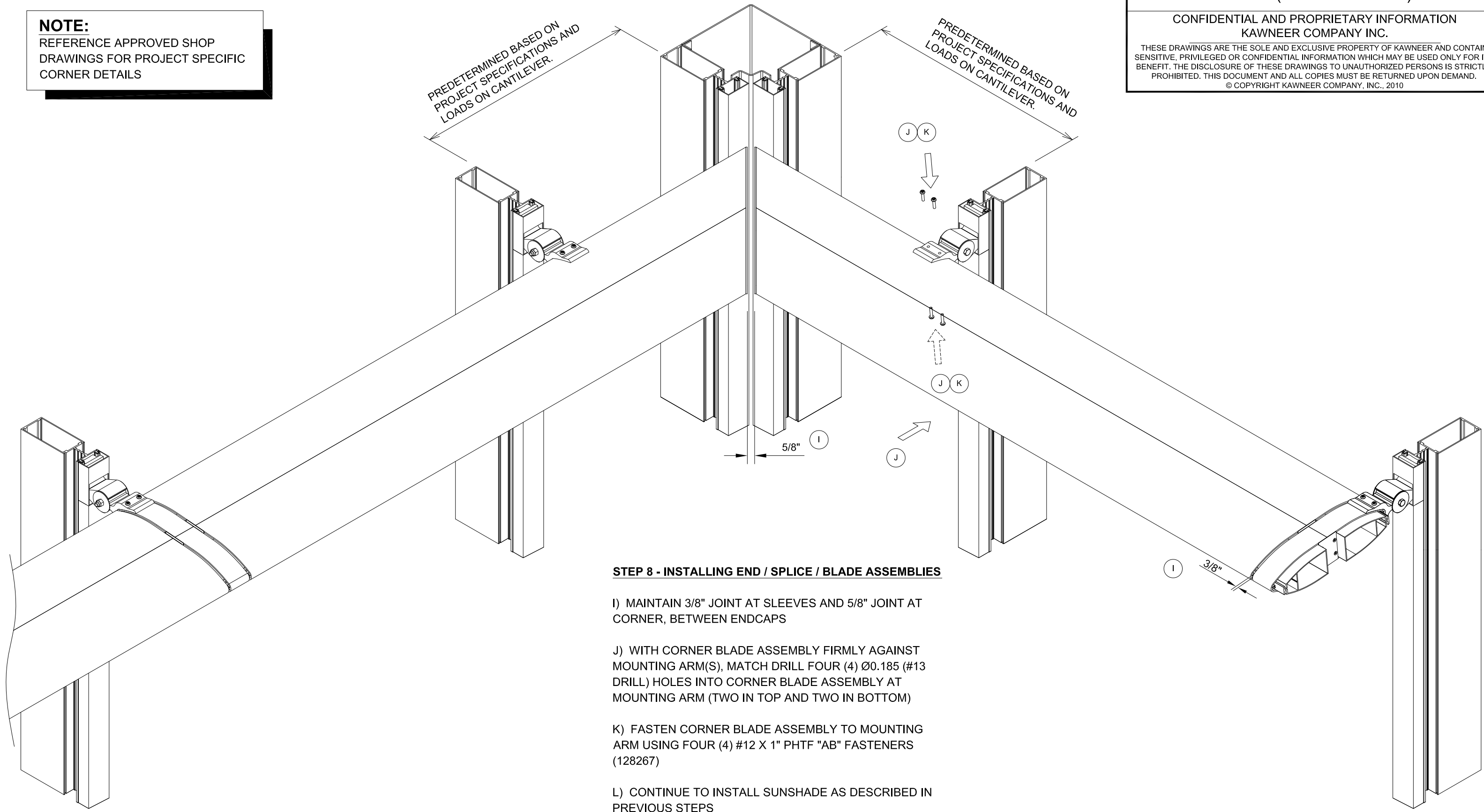
NOTE:
REFERENCE APPROVED SHOP DRAWINGS FOR PROJECT SPECIFIC CORNER DETAILS



STEP 8 - INSTALLING END / SPLICE / BLADE ASSEMBLIES

- C) MAINTAIN A 3/8" JOINT AT SLEEVES
- D) WITH CORNER BLADE ASSEMBLY FIRMLY AGAINST MOUNTING ARM(S), MATCH DRILL FOUR (4) Ø0.185 (#13 DRILL) HOLES INTO CORNER BLADE ASSEMBLY AT MOUNTING ARM (TWO IN TOP AND TWO IN BOTTOM)
- E) FASTEN CORNER BLADE ASSEMBLY TO MOUNTING ARM(S) USING FOUR (4) #12 X 1" PHTF "AB" FASTENERS (128267)
- F) PRE-INSTALL SPLICE ASSEMBLY INTO CORNER BLADE ASSEMBLY, AS SHOWN
- G) SLIDE ASSEMBLY INTO THE MOUNTING ARM(S), ALIGNING HOLES IN THE SPLICE ASSEMBLY WITH THE HOLES IN THE MOUNTING ARM - ASSISTANCE MAY BE REQUIRED
- H) FASTEN SPLICE ASSEMBLY TO MOUNTING ARM USING FOUR (4) #12 X 1" PHTF "AB" FASTENERS (128267)

NOTE:
REFERENCE APPROVED SHOP DRAWINGS FOR PROJECT SPECIFIC CORNER DETAILS



STEP 8 - INSTALLING END / SPLICE / BLADE ASSEMBLIES

I) MAINTAIN 3/8" JOINT AT SLEEVES AND 5/8" JOINT AT CORNER, BETWEEN ENDCAPS

J) WITH CORNER BLADE ASSEMBLY FIRMLY AGAINST MOUNTING ARM(S), MATCH DRILL FOUR (4) Ø.185 (#13 DRILL) HOLES INTO CORNER BLADE ASSEMBLY AT MOUNTING ARM (TWO IN TOP AND TWO IN BOTTOM)

K) FASTEN CORNER BLADE ASSEMBLY TO MOUNTING ARM USING FOUR (4) #12 X 1" PHTF "AB" FASTENERS (128267)

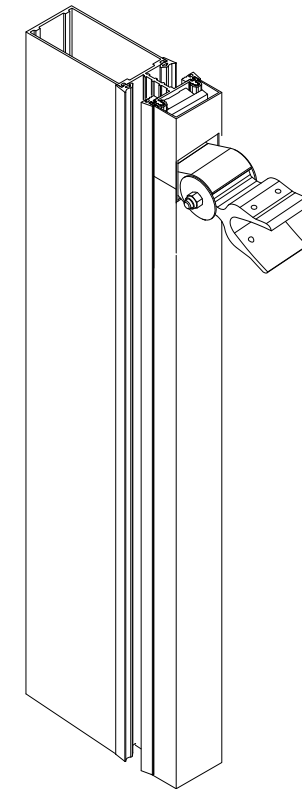
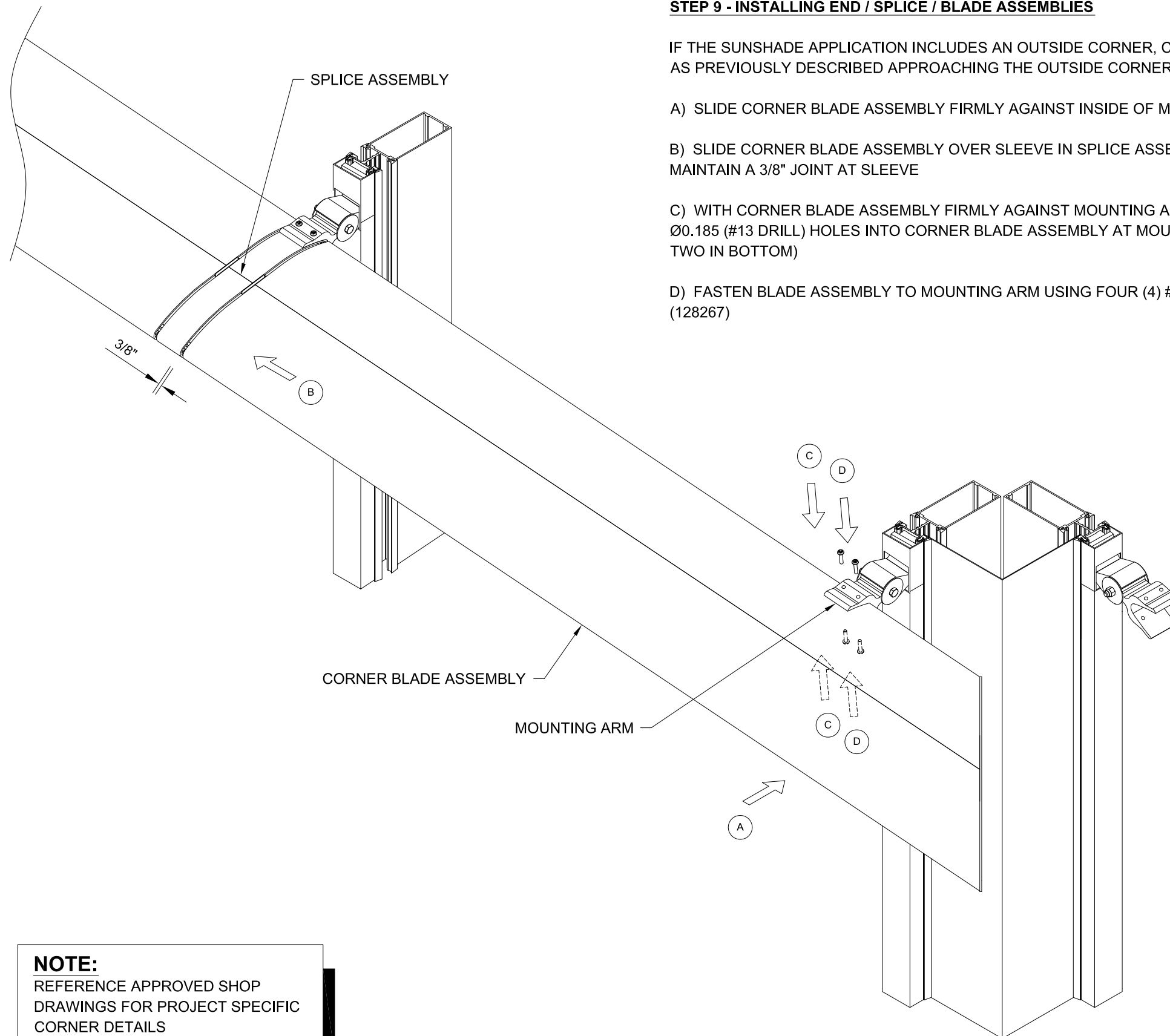
L) CONTINUE TO INSTALL SUNSHADE AS DESCRIBED IN PREVIOUS STEPS

OUTSIDE CORNER SUNSHADES

STEP 9 - INSTALLING END / SPLICE / BLADE ASSEMBLIES

IF THE SUNSHADE APPLICATION INCLUDES AN OUTSIDE CORNER, CONTINUE TO INSTALL BLADES AS PREVIOUSLY DESCRIBED APPROACHING THE OUTSIDE CORNER CONDITION.

- A) SLIDE CORNER BLADE ASSEMBLY FIRMLY AGAINST INSIDE OF MOUNTING ARM
- B) SLIDE CORNER BLADE ASSEMBLY OVER SLEEVE IN SPLICE ASSEMBLY, MAKING SURE TO MAINTAIN A 3/8" JOINT AT SLEEVE
- C) WITH CORNER BLADE ASSEMBLY FIRMLY AGAINST MOUNTING ARM(S), MATCH DRILL FOUR (4) Ø0.185 (#13 DRILL) HOLES INTO CORNER BLADE ASSEMBLY AT MOUNTING ARM (TWO IN TOP AND TWO IN BOTTOM)
- D) FASTEN BLADE ASSEMBLY TO MOUNTING ARM USING FOUR (4) #12 X 1" PHTF "AB" FASTENERS (128267)



NOTE:
90° CORNER SHOWN
135° CORNER SIMILAR

NOTE:
REFERENCE APPROVED SHOP DRAWINGS FOR PROJECT SPECIFIC CORNER DETAILS

NOTE:
REFERENCE APPROVED SHOP
DRAWINGS FOR PROJECT SPECIFIC
CORNER DETAILS

STEP 9 - INSTALLING END / SPLICE / BLADE ASSEMBLIES

E) PRE-INSTALL SPLICE ASSEMBLY INTO CORNER BLADE ASSEMBLY, AS SHOWN

F) SLIDE SPLICE ASSEMBLY AND CORNER BLADE ASSEMBLY INTO MOUNTING ARM(S), ALIGNING HOLES IN THE SPLICE ASSEMBLY WITH THE HOLES IN THE MOUNTING ARM - ASSISTANCE MAY BE REQUIRED

G) FASTEN SPLICE ASSEMBLY TO MOUNTING ARM USING FOUR (4) #12 X 1" PHTF "AB" FASTENERS (128267)

H) ENSURE CORNER BLADE ASSEMBLY IS PUSHED FIRMLY AGAINST THE MOUNTING ARM, MAINTAINING A 3/8" JOINT AT THE SLEEVE AND 5/8" AT CORNER. MATCH DRILL FOUR (4) Ø0.185 (#13 DRILL) HOLES INTO CORNER BLADE ASSEMBLY (TWO AT TOP AND TWO AT BOTTOM)

I) FASTEN BLADE TO MOUNTING ARM USING FOUR (4) #12 X 1" PHTF "AB" FASTENERS (128267)

CONTINUE TO INSTALL SUNSHADE AS DESCRIBED IN PREVIOUS STEPS

