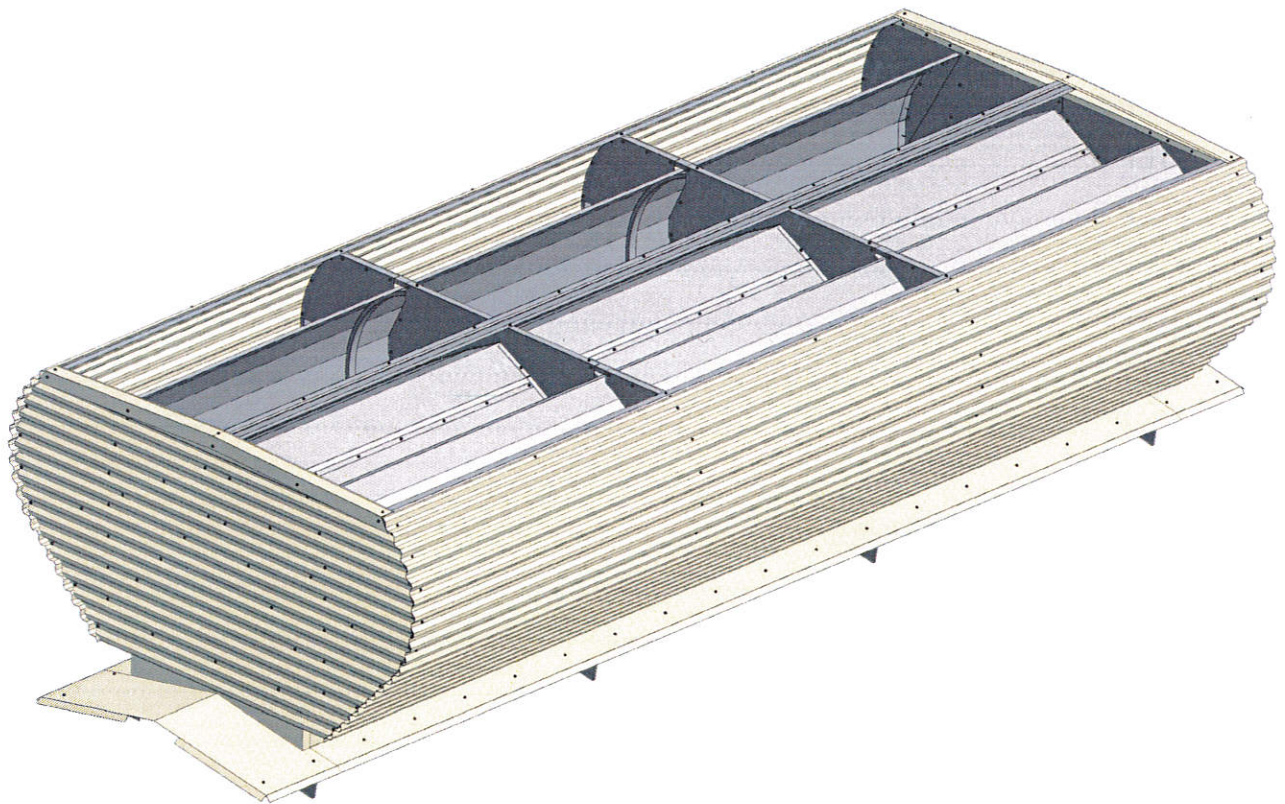


Airocle™



IVR Group T/as Airocle 3 Series
HIGH CAPACITY CONTINUOUS RIDGE VENTILATOR
3RV & 3SV 900 - 4500

ASSEMBLY INSTRUCTIONS

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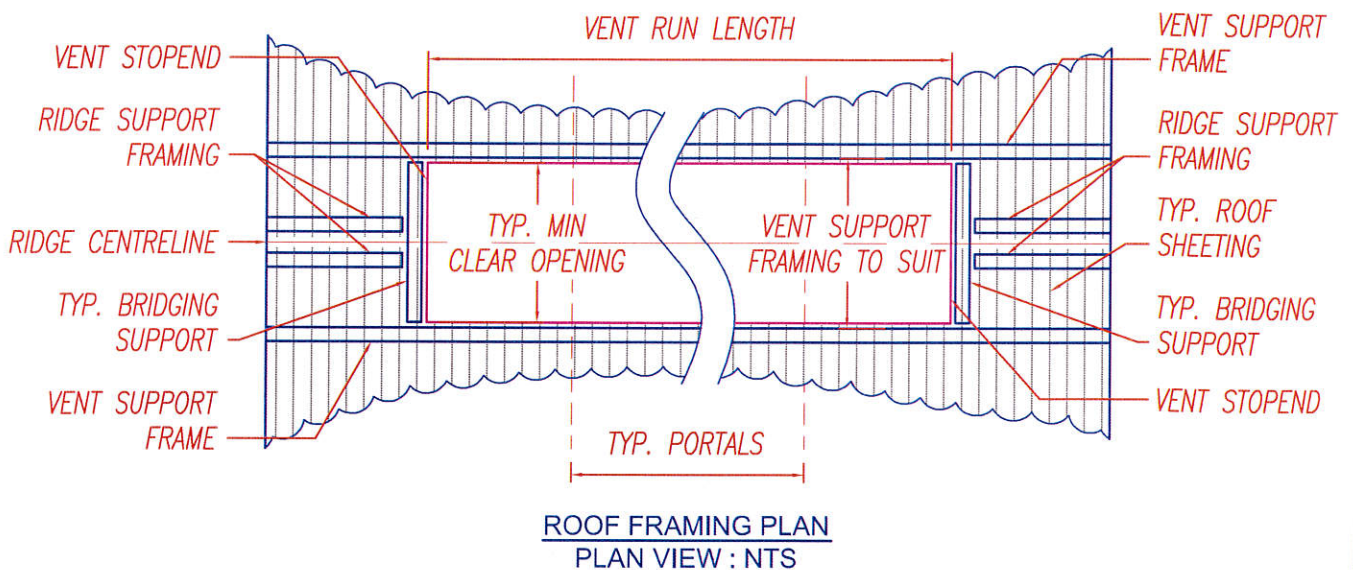
15 Redbank Place, Picton, NSW, 2571

Ph: 02 46 77 300

Fax: 02 46 77 0558

PRE-INSTALLATION CHECK LIST

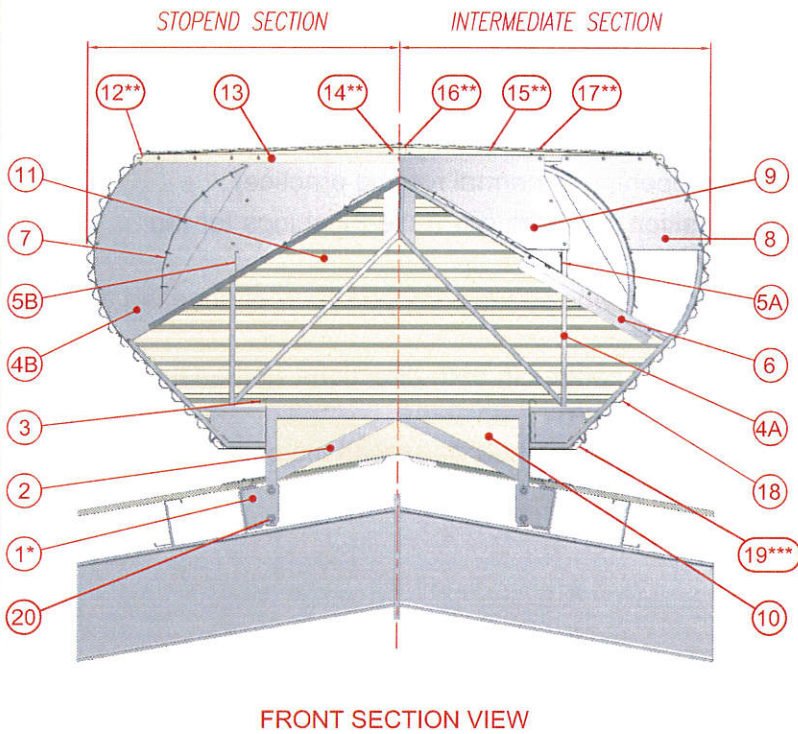
- Check the roof minimum clear opening conforms with the nominated ridge vent being installed.
- The opening is to be fully prepared by roofer (i.e. pans turned up and top of sheet pans fixed to purlin at every lap on both sides of ridge opening to normal roofing practice).
- Check that the purlins are in the correct position for fixing down the Flashings for the nominated vent (as per Roof Framing Plan).
- Ensure purlins beyond each stopend location provide suitable support for roof sheeting & ridge capping (as per Roof Framing Plan).
- Where cleats are pre installed by builder, check centres in both directions and ensure they conform with the cleat layout plan as provided by IVR.
- Where cleats are to be installed, refer the mounting method and locations conform with the cleat layout and connection plan as provided by IVR.



REMEMBER:

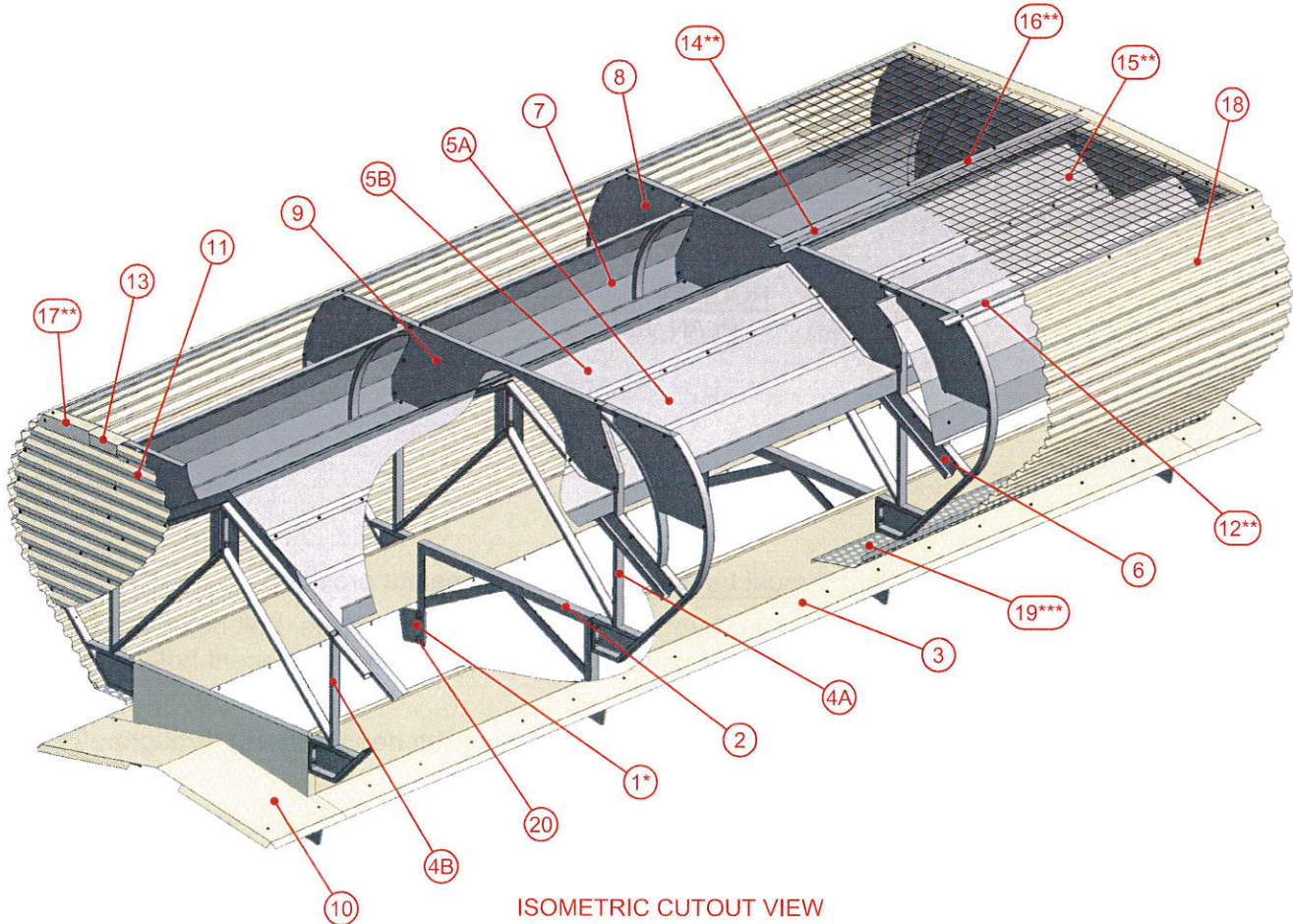
- All lap joints except Windband must be water tight using sealant provided.
- Laps of all components are governed by frame centres. In some cases, bolt holes may not appear to align between components. Ensure a podger is used in an adjacent hole to align for fixing.
- The ventilator is assembled using 20-14 x 20 tek screws (with neo washers) throughout, unless specified otherwise.
- Generally, no neo's are required for Windbands or Birdwire/Birdmesh supports & Trims.

TYPICAL SECTIONS

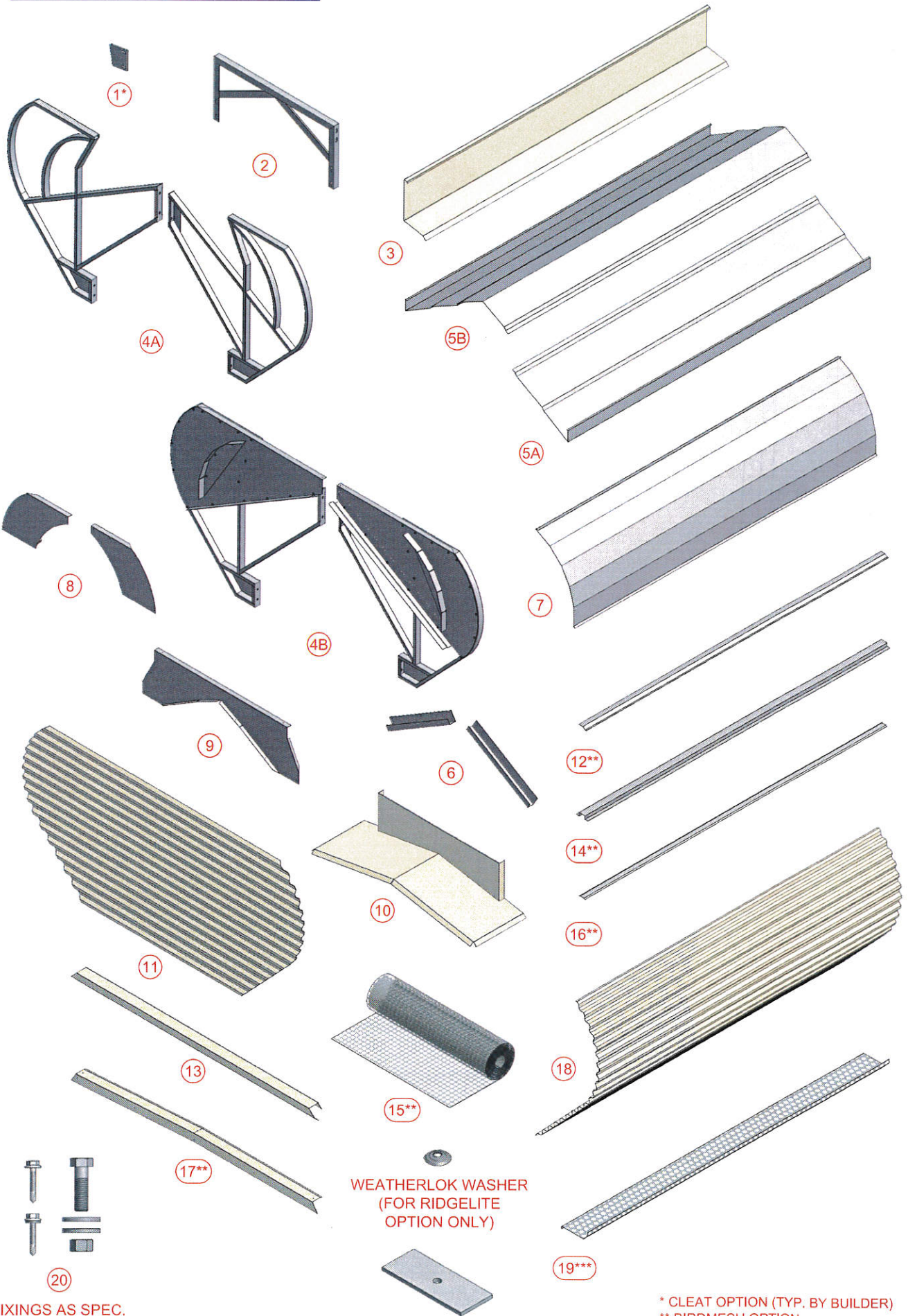


LRV-HC-900 TO 4500 PARTS LIST			
PART #	DESCRIPTION	MAT'L FINISH	QTY
1*	CONNECTION CLEAT	TO ENG DETAIL	2/ FRAME
2	BASE FRAME	AS SPEC.	1/ FRAME
3	STACK FLASHING	C/B or Z/A	REFER LAYOUT
4A	INTERMEDIATE WING (L&R)	AS SPEC.	2/ INTER FRAME
4B	STOPEND WING (L&R)	AS SPEC.	4/ RUN
5A	GUTTER	Z/A	REFER LAYOUT
5B	STACKCAP & GUTTER	Z/A	REFER LAYOUT
6	DRAIN	Z/A	2/ INTER FRAME
7	GUIDEVANE	Z/A	REFER LAYOUT
8	WINDJUMP SPANDREL (L&R)	Z/A	2/ INTER FRAME
9	WINDJUMP DIAPHRAGM	Z/A	1/ INTER FRAME
10	STOPEND SOAKER	C/B or Z/A	2/ RUN
11	STOPEND SHEETING	SPANDEK C/B or Z/A	TO SUIT
12**	BIRDWIRE WINDBAND TRIM	GAL	REFER LAYOUT
13	STOPEND CAPPING	C/B or Z/A	2/ RUN
14**	BIRDWIRE TOPHAT	C/B or Z/A	REFER LAYOUT
15**	BIRDWIRE MESH	AS SPEC.	REFER LAYOUT
16**	BIRDWIRE TOPHAT TRIM	C/B or Z/A	REFER LAYOUT
17**	BIRDWIRE STOPEND CAPPING	C/B or Z/A	2/ RUN
18	WINDBAND SHEETING	SPANDEK C/B or Z/A	REFER LAYOUT
19***	LOWER VERMIN MESH	AS SPEC.	REFER LAYOUT
20	FKINGS	AS SPEC.	TO SUIT

* CLEAT OPTION (TYP BY BUILDER)
 ** BIRDMESH OPTION
 *** LOWER VERMIN MESH OPTION



ITEMS IDENTIFICATION

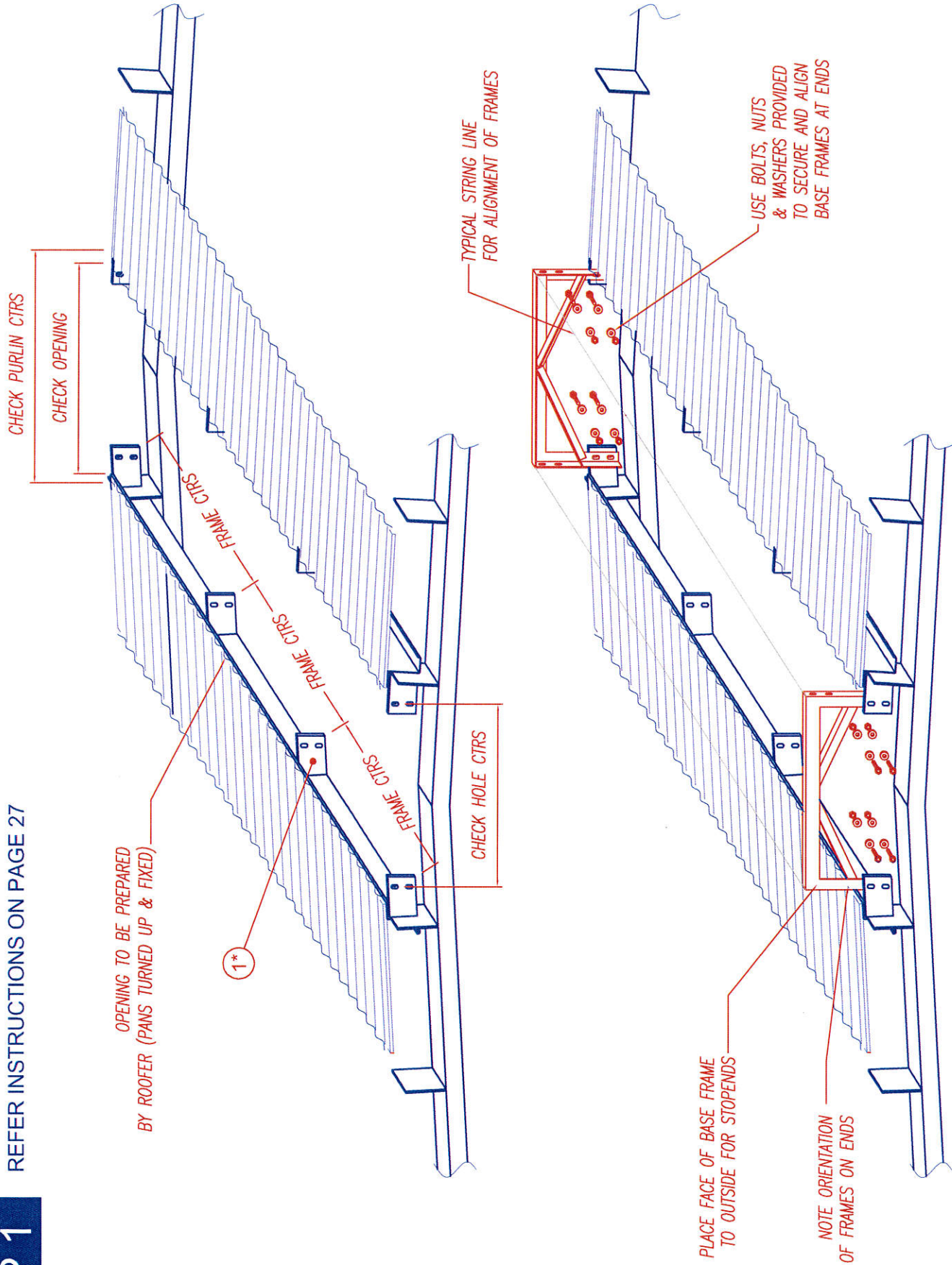


WEATHERLOK WASHER
(FOR RIDGELITE
OPTION ONLY)

UNDERSIDE FIXING STRAP
(FOR RIDGELITE OPTION ONLY)

FIXINGS AS SPEC.
PROVIDED BY IVR

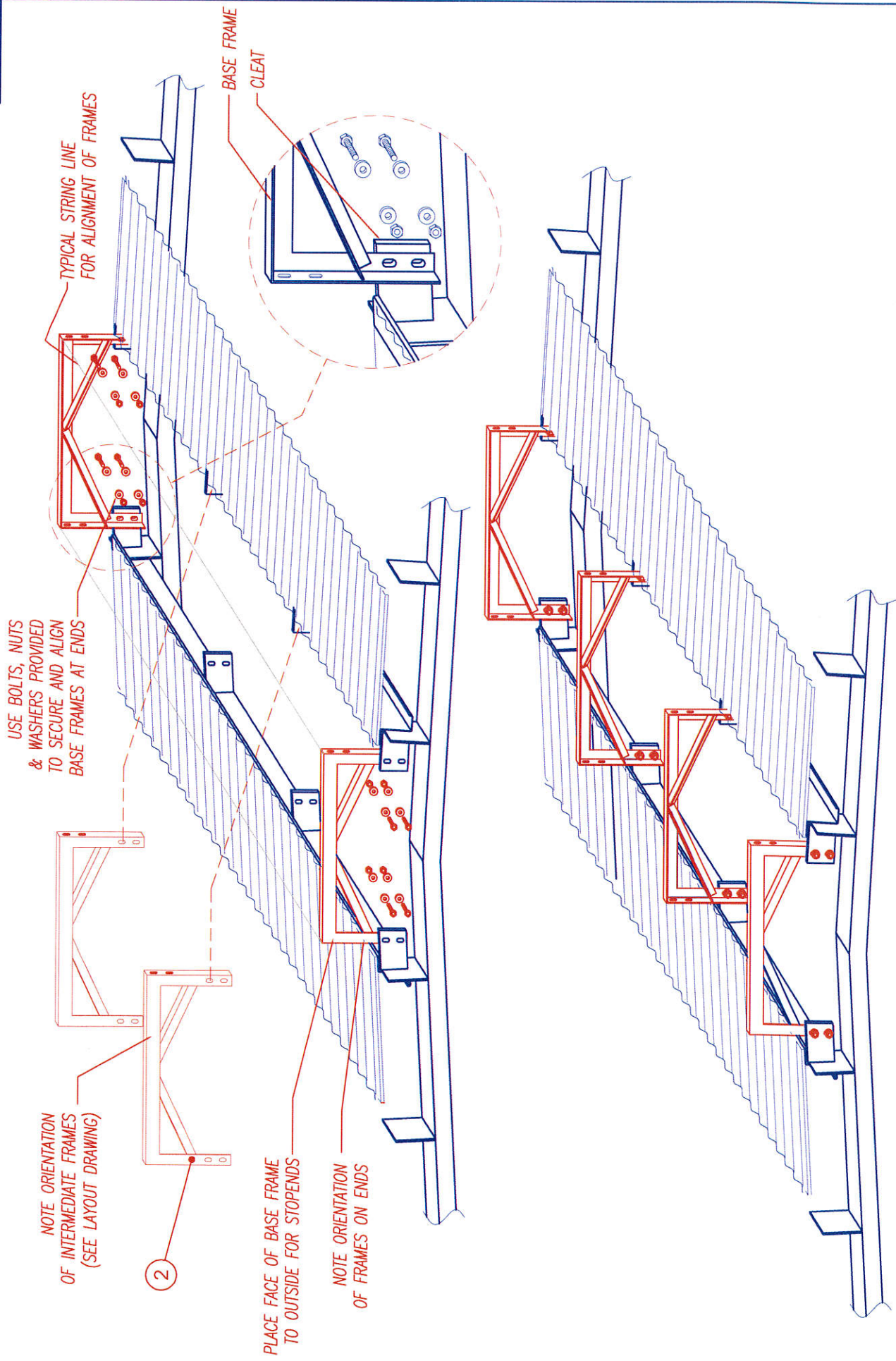
* CLEAT OPTION (TYP. BY BUILDER)
** BIRDMESH OPTION
*** LOWER VERMIN MESH OPTION

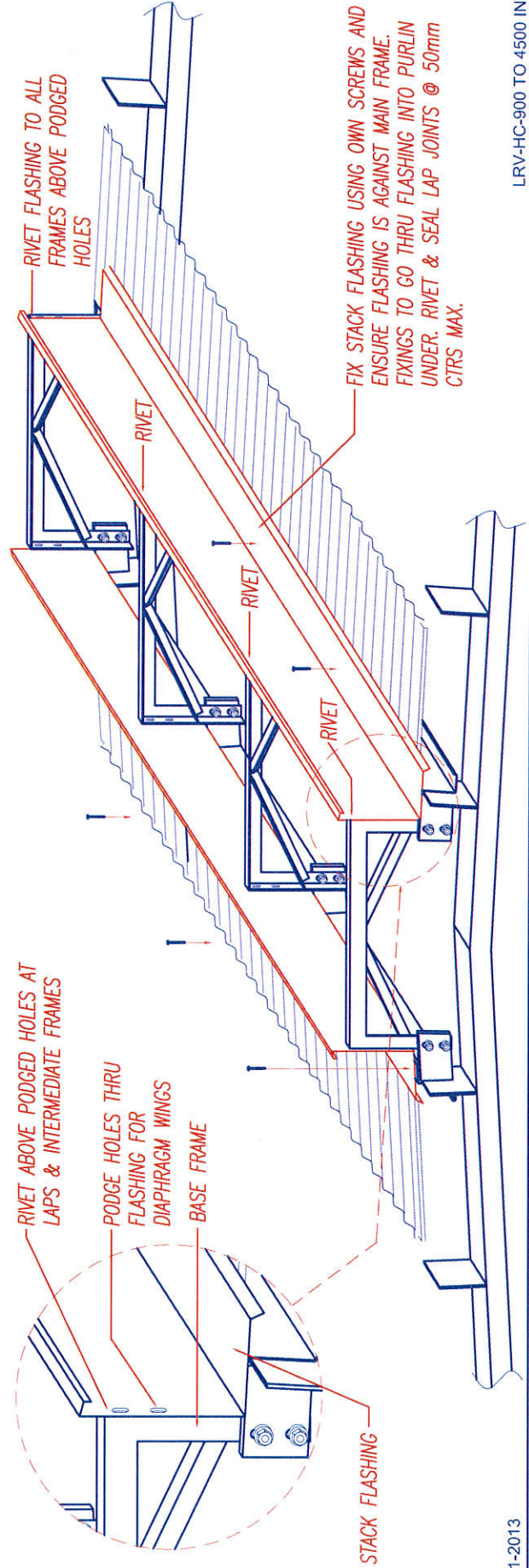
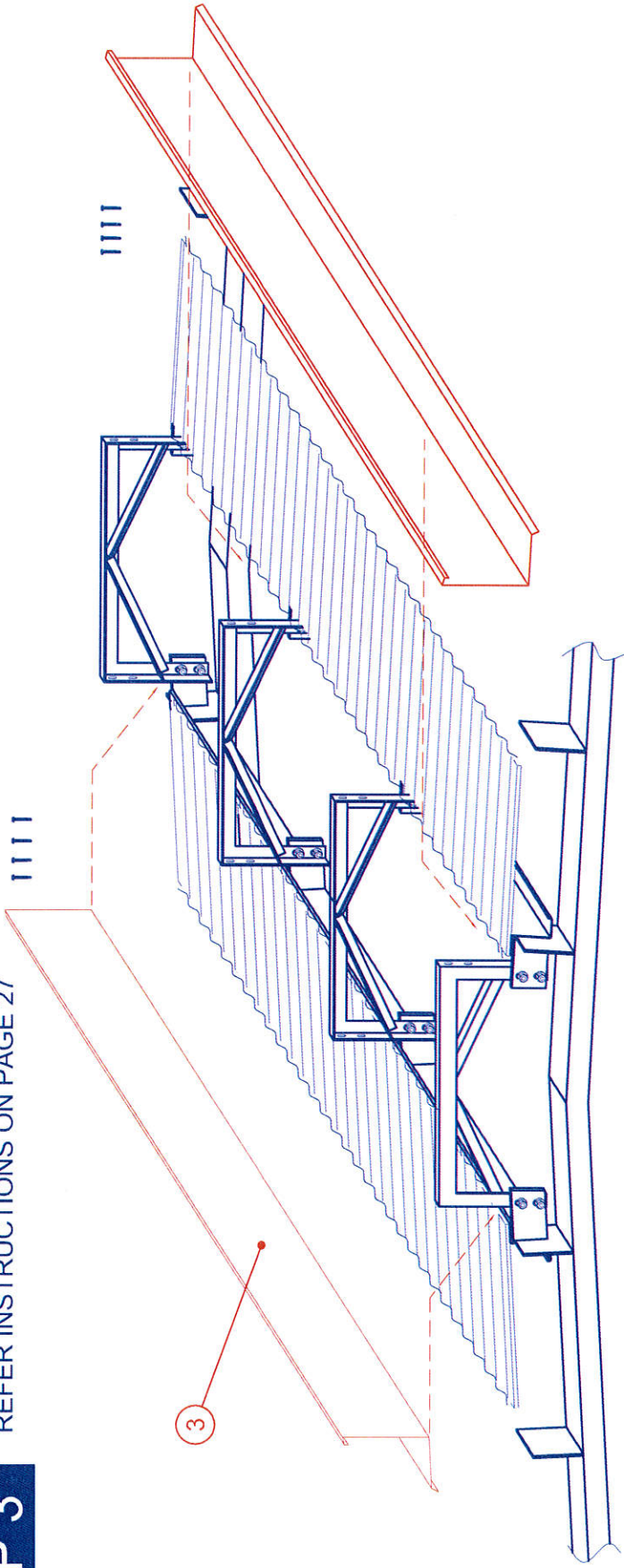


STEP 2

REFER INSTRUCTIONS ON PAGE 27

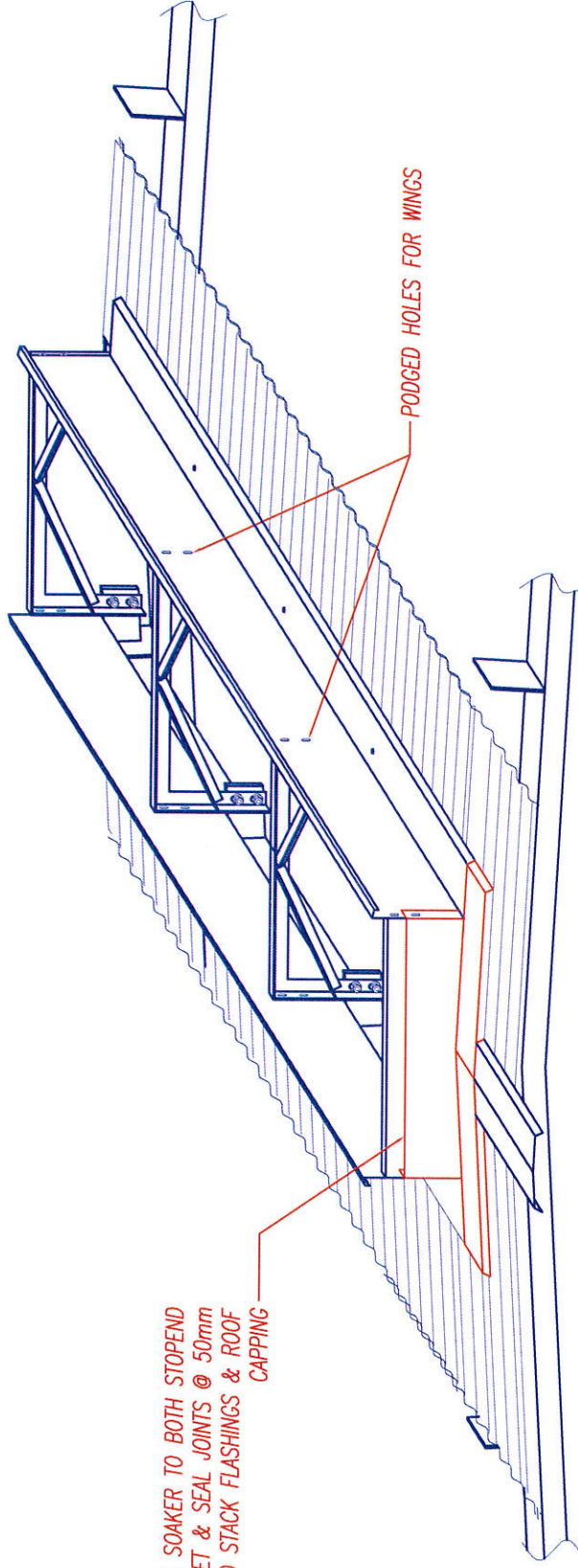
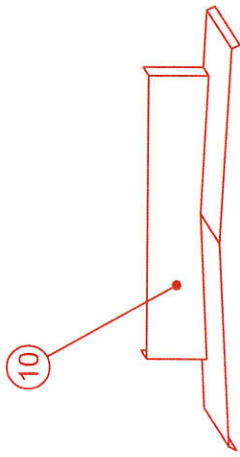
p7





STEP 3

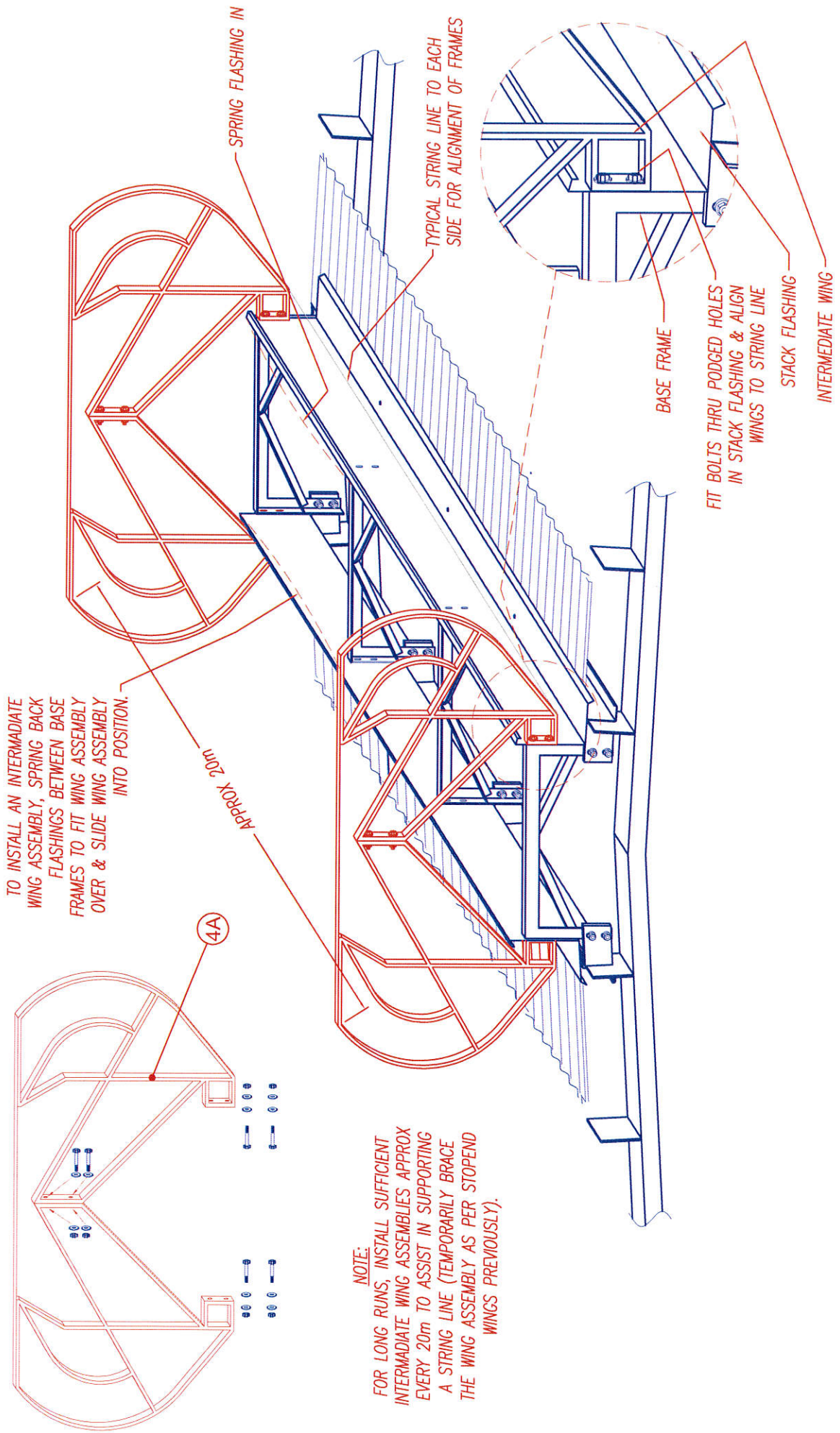
REFER INSTRUCTIONS ON PAGE 27

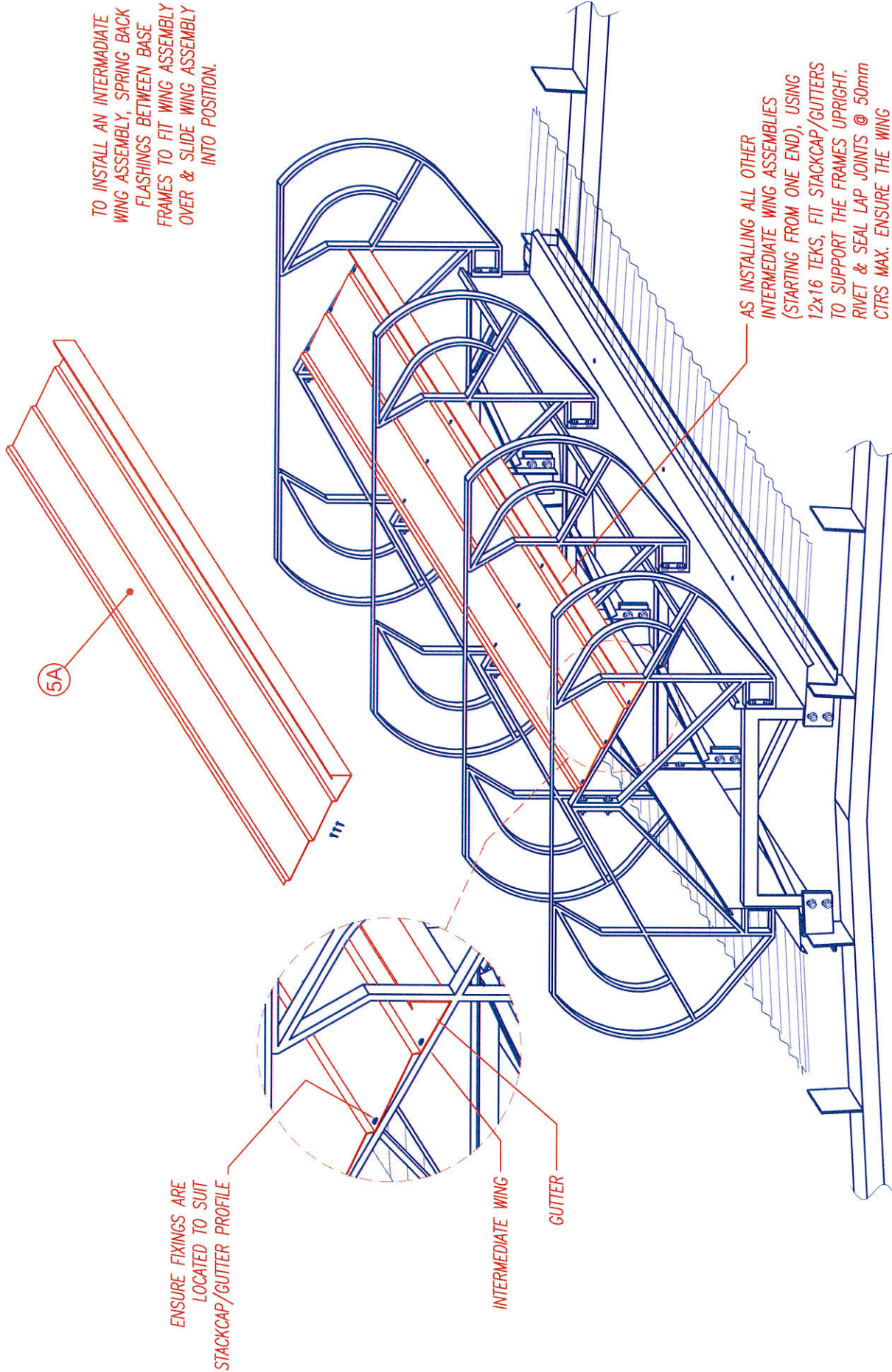


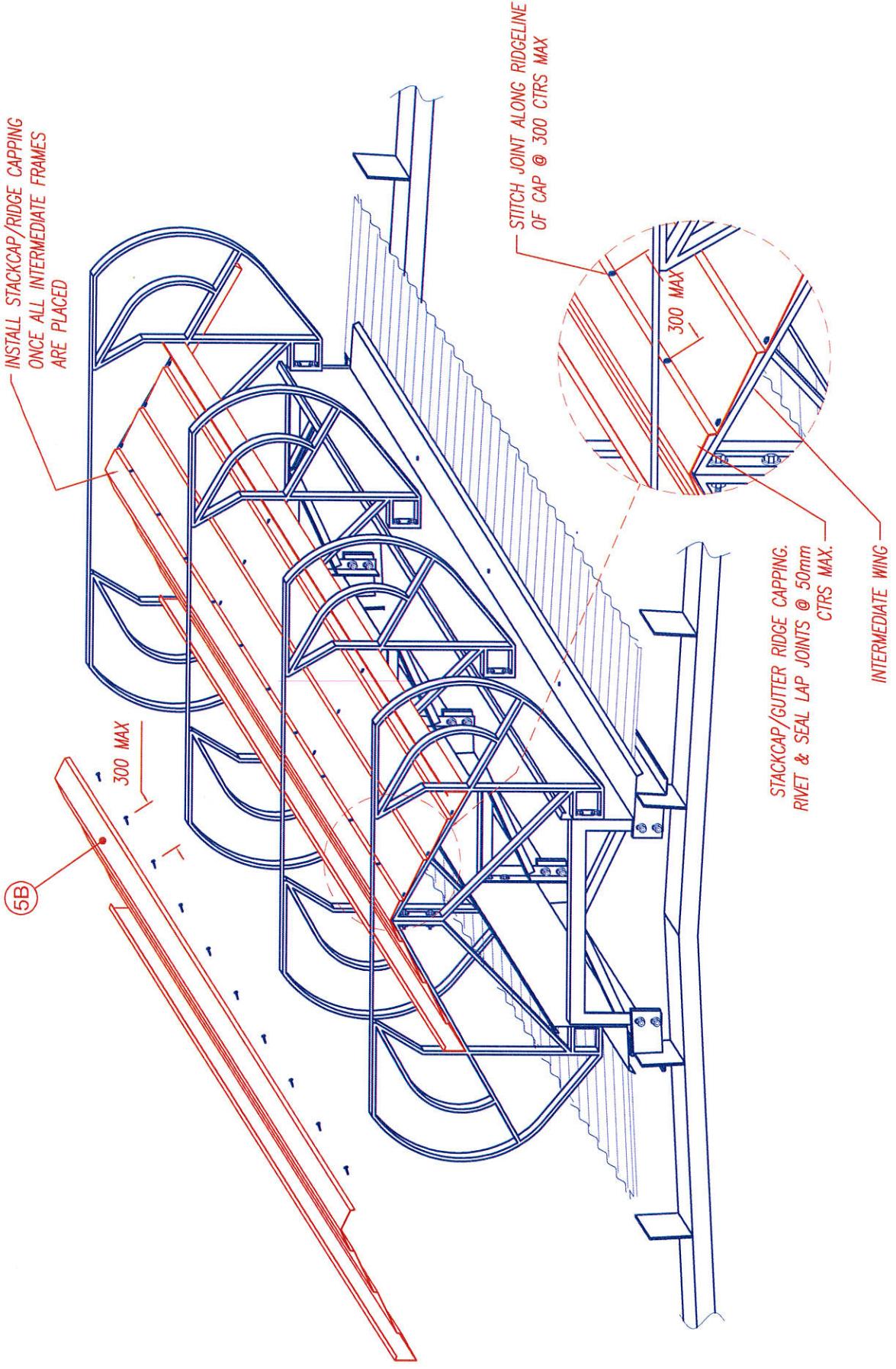
FIX STOPEND SOAKER TO BOTH STOPEND
FRAMES. RIVET & SEAL JOINTS @ 50mm
CENTERS MAX TO STACK FLASHINGS & ROOF
CAPPING

STEP 4

REFER INSTRUCTIONS ON PAGE 27



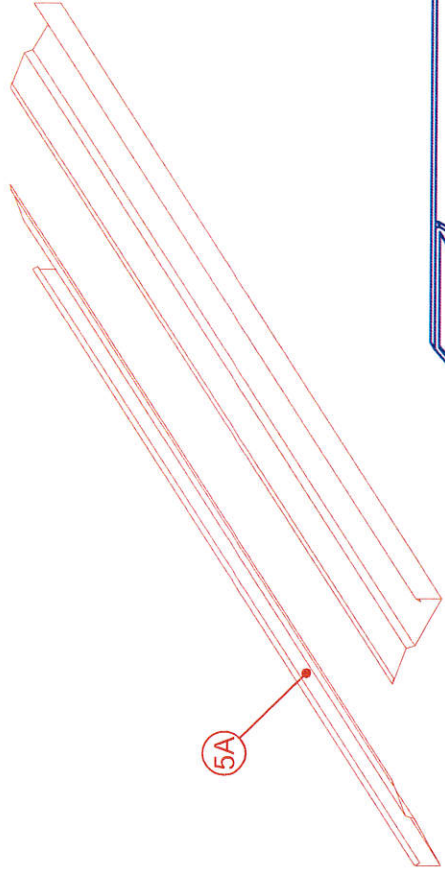




STEP 5A

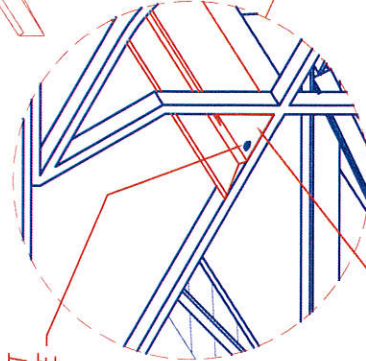
REFER INSTRUCTIONS ON PAGE 28

(FOR OPTIONAL RIDGELITE)

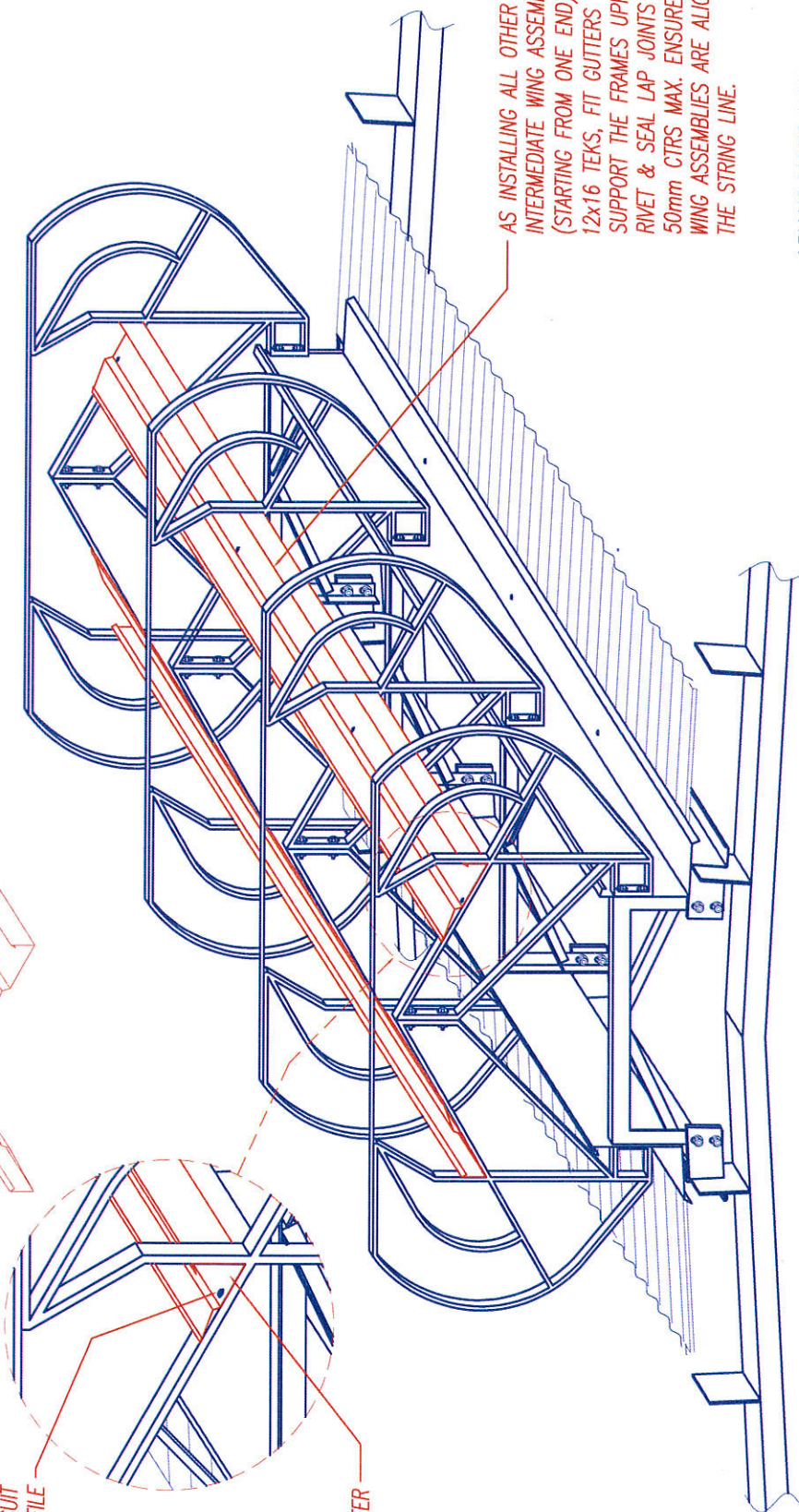


TO INSTALL AN INTERMEDIATE WING ASSEMBLY, SPRING BACK FLASHINGS BETWEEN BASE FRAMES TO FIT WING ASSEMBLY OVER & SLIDE WING ASSEMBLY INTO POSITION.

ENSURE FIXINGS ARE LOCATED TO SUIT GUTTER PROFILE



GUTTER

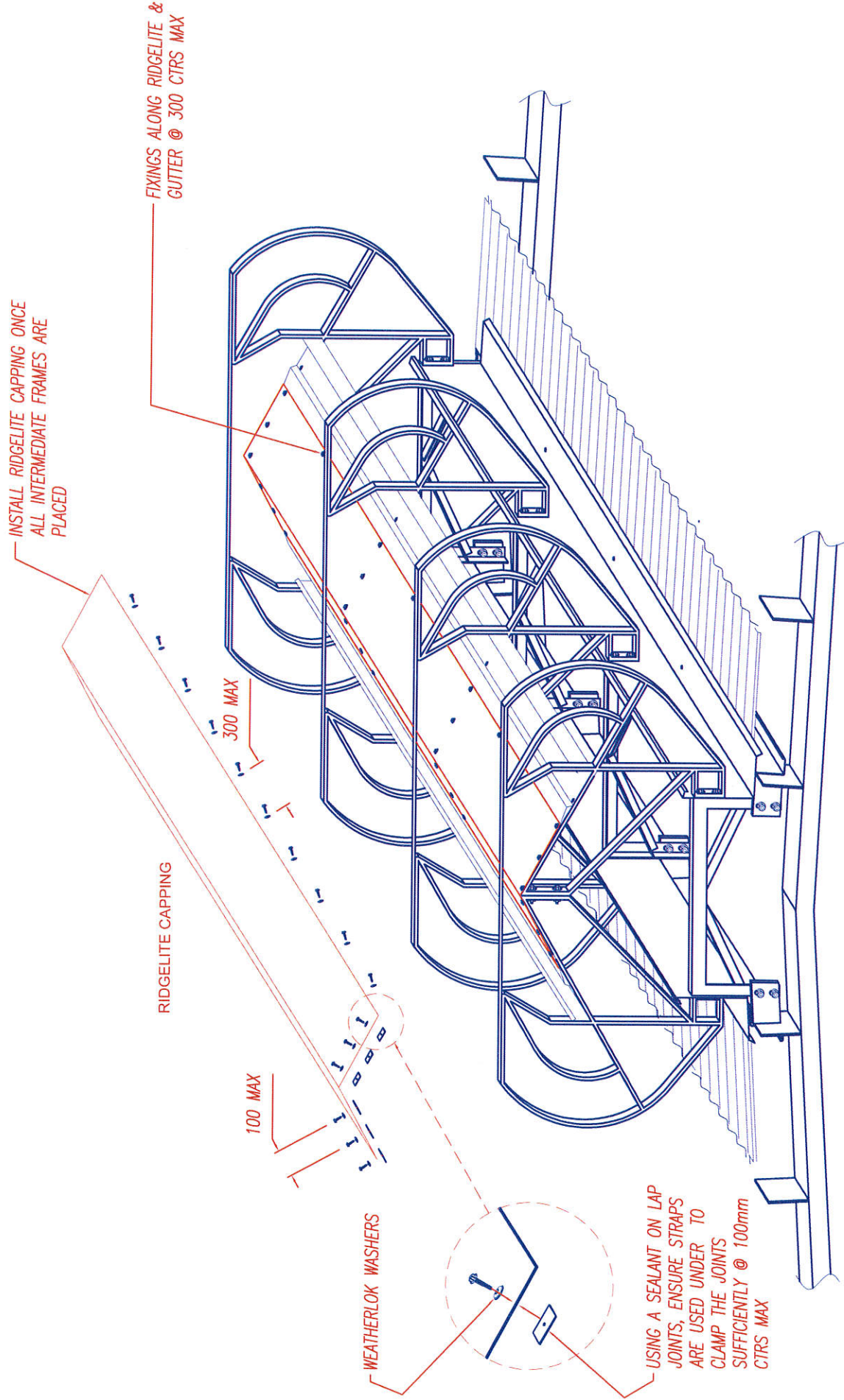


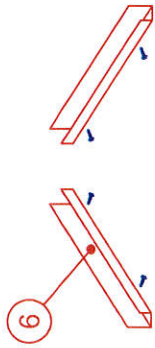
AS INSTALLING ALL OTHER INTERMEDIATE WING ASSEMBLIES (STARTING FROM ONE END), USING 12x16 TEKs, FIT GUTTERS TO SUPPORT THE FRAMES UPRIGHT. RIVET & SEAL LAP JOINTS @ 50mm CTRS MAX. ENSURE THE WING ASSEMBLIES ARE ALIGNED TO THE STRING LINE.

STEP 5A

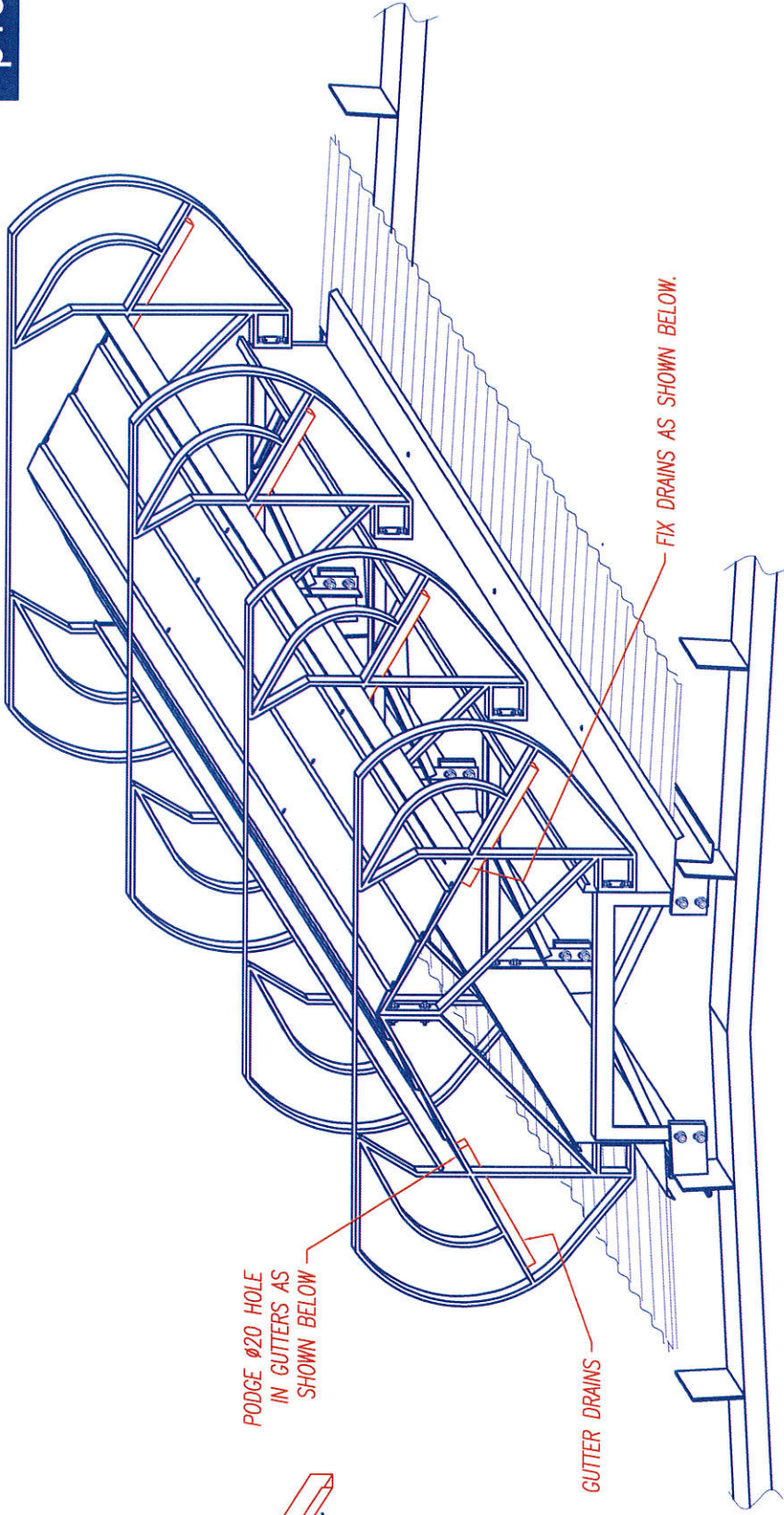
REFER INSTRUCTIONS ON PAGE 28

(FOR OPTIONAL RIDGELITE)

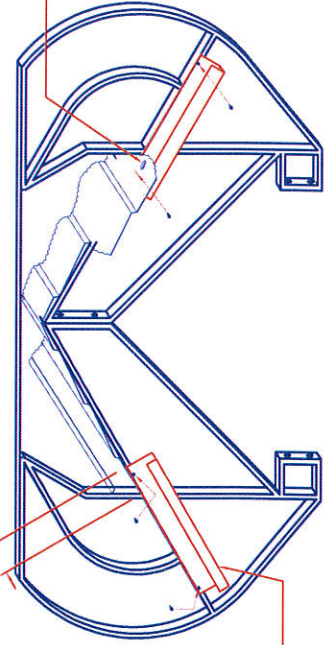




PODGE Ø20 HOLE
IN GUTTERS AS
SHOWN BELOW



ENSURE COVER

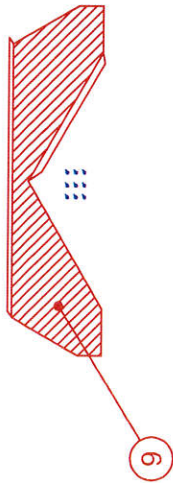


PODGE Ø20 MIN HOLE
THRU GUTTER, ABOVE
EVERY GUTTER DRAIN

FIT GUTTER DRAINS UNDER
GUTTERS TO EVERY FRAME
USING TEKS PROVIDED
(WITHOUT NEO WASHERS)

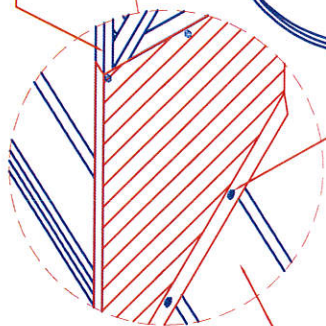
STEP 7

REFER INSTRUCTIONS ON PAGE 29



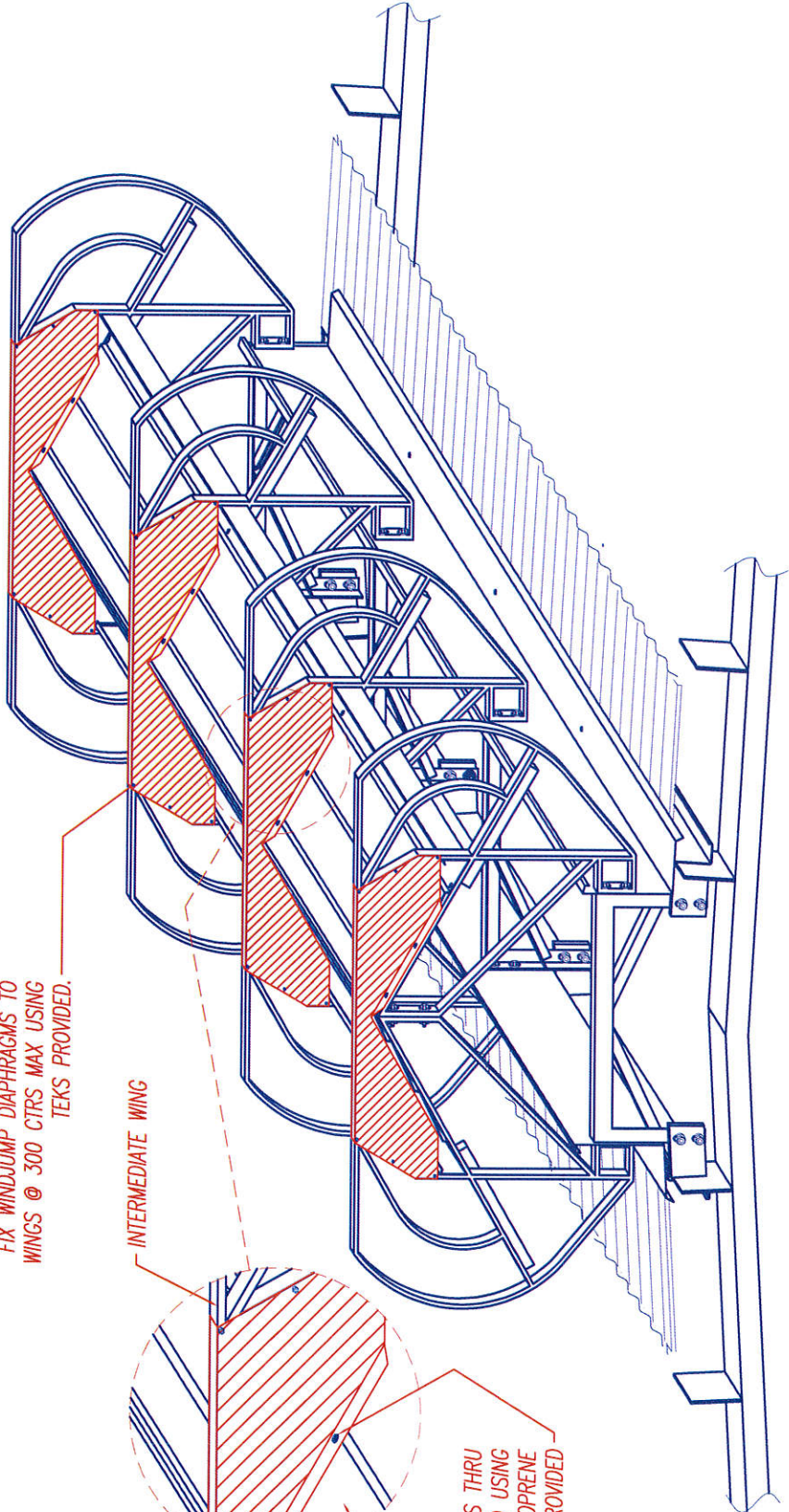
FIX WINDJUMP DIAPHRAGMS TO WINGS @ 300 CTRS MAX USING TEKS PROVIDED.

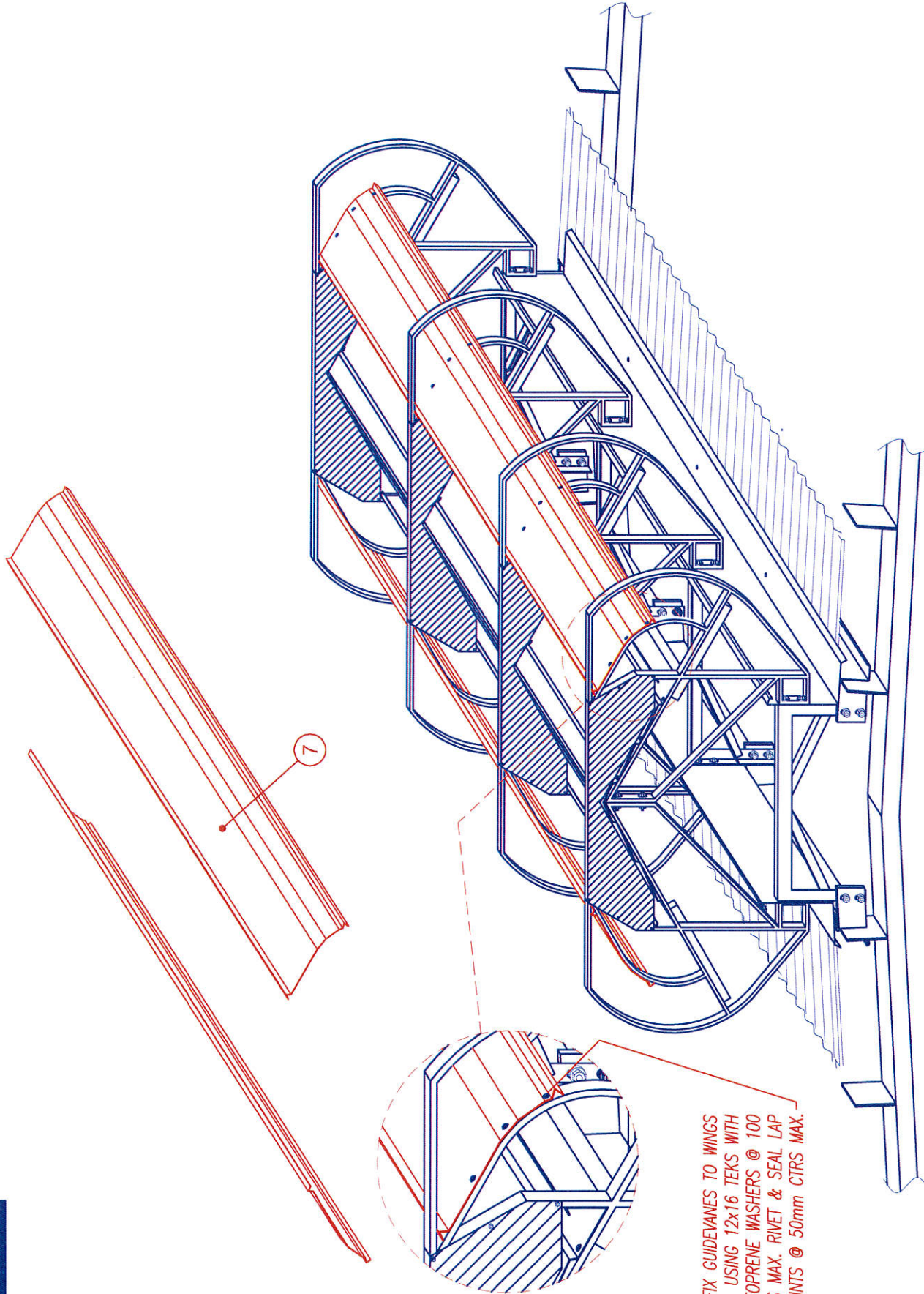
INTERMEDIATE WING



STACK CAP/ GUTTER

FIX DIAPHRAGM RETURNS THRU STACKCAP AS PROVIDED USING 12x16 TEKS WITH NEOPRENE WASHERS PROVIDED

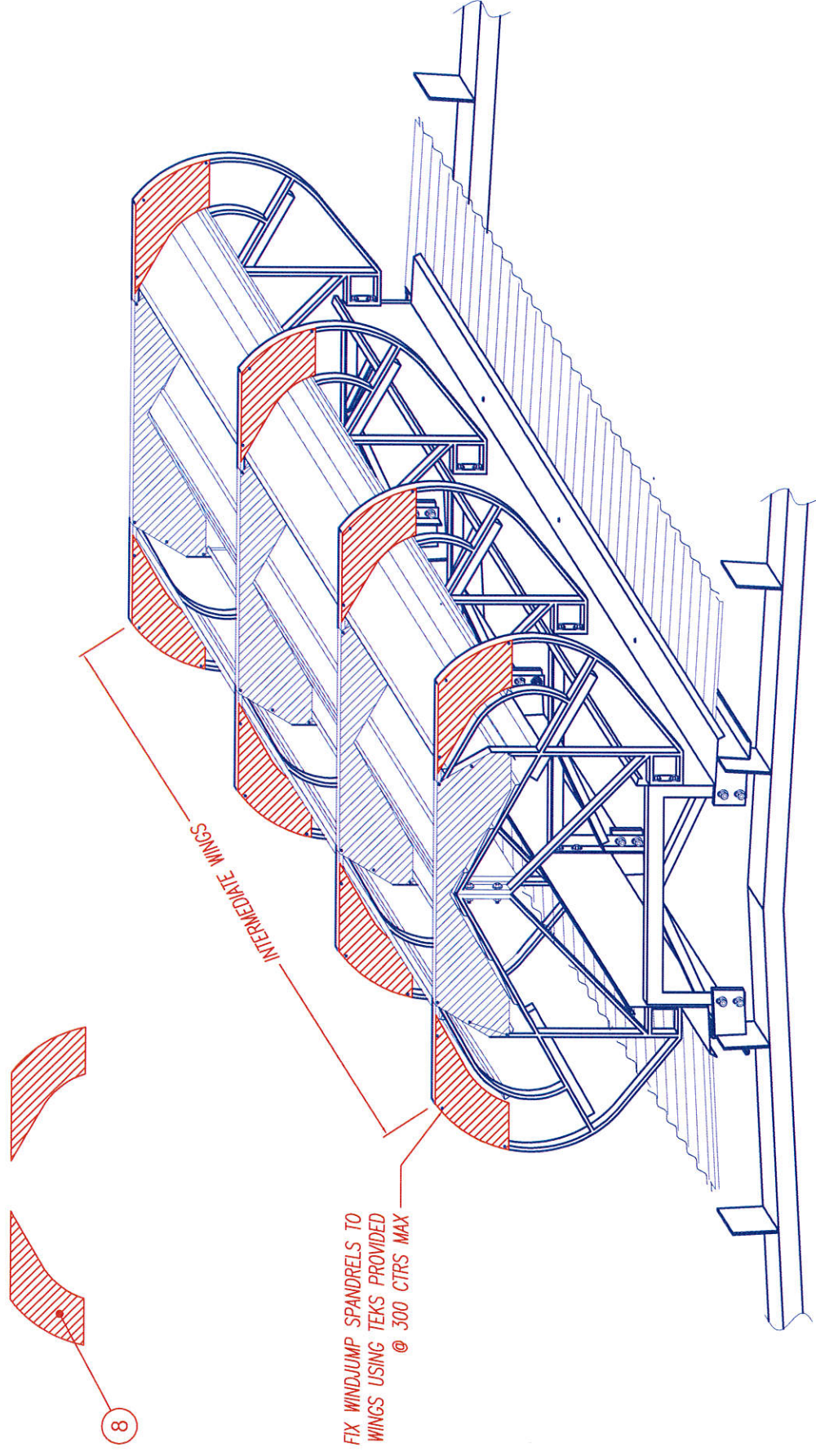


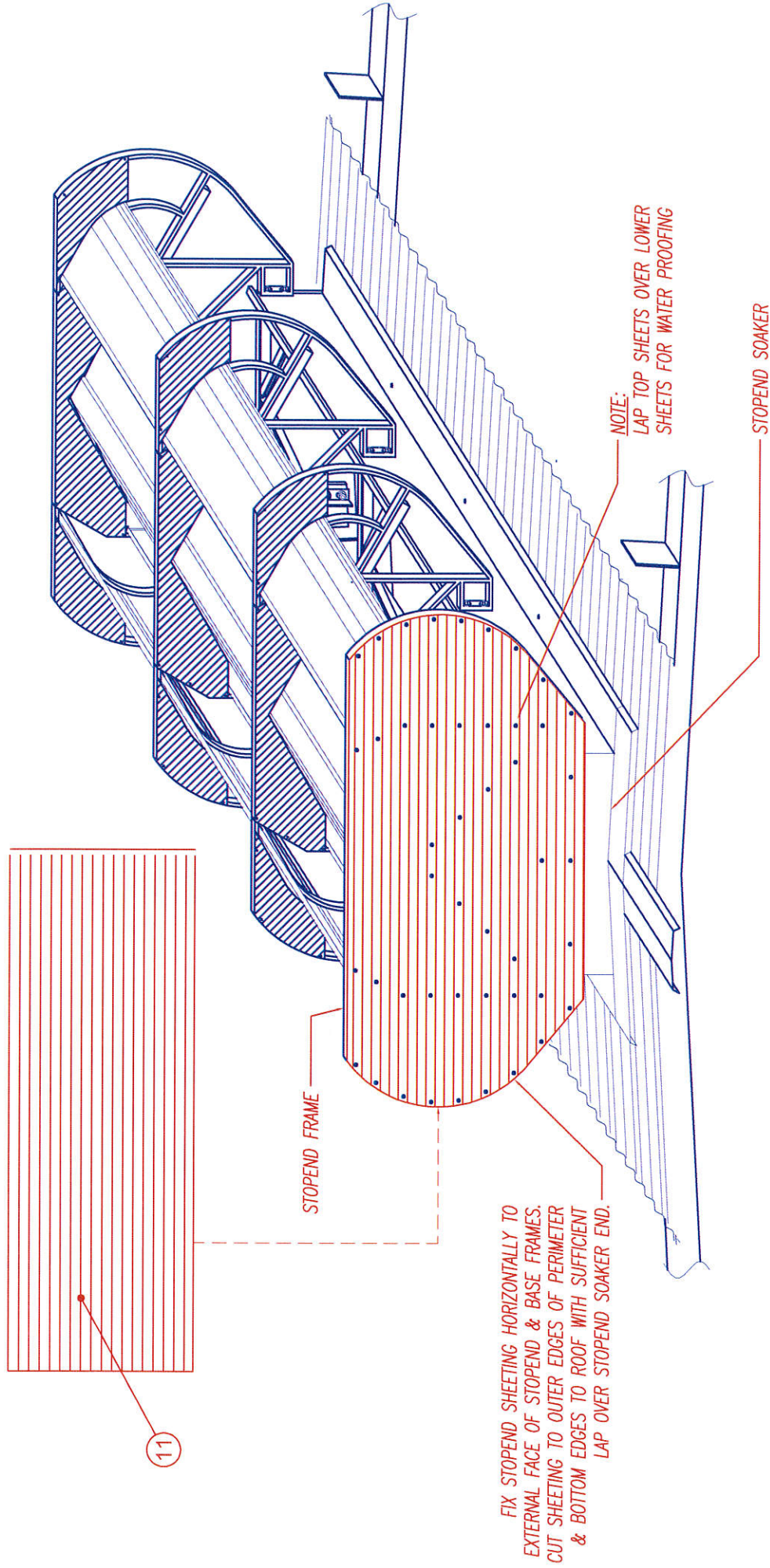


FIX GUIDEVANES TO WINGS
USING 12x16 TEKs WITH
NEOPRENE WASHERS @ 100
CTRS MAX. RIVET & SEAL LAP
JOINTS @ 50mm CTRS MAX.

STEP 7

REFER INSTRUCTIONS ON PAGE 29

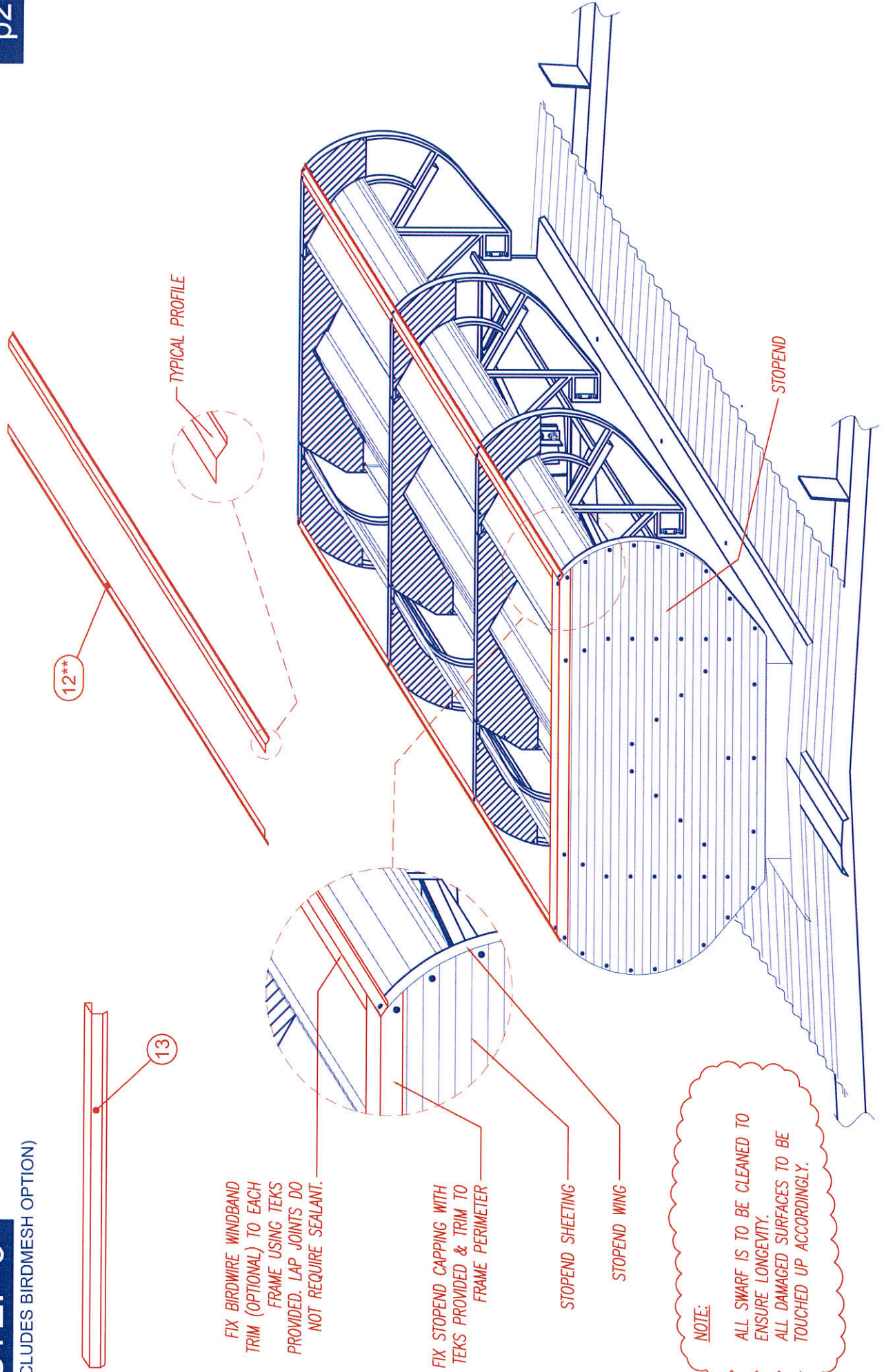




STEP 9

REFER INSTRUCTIONS ON PAGE 29

(INCLUDES BIRDMESH OPTION)

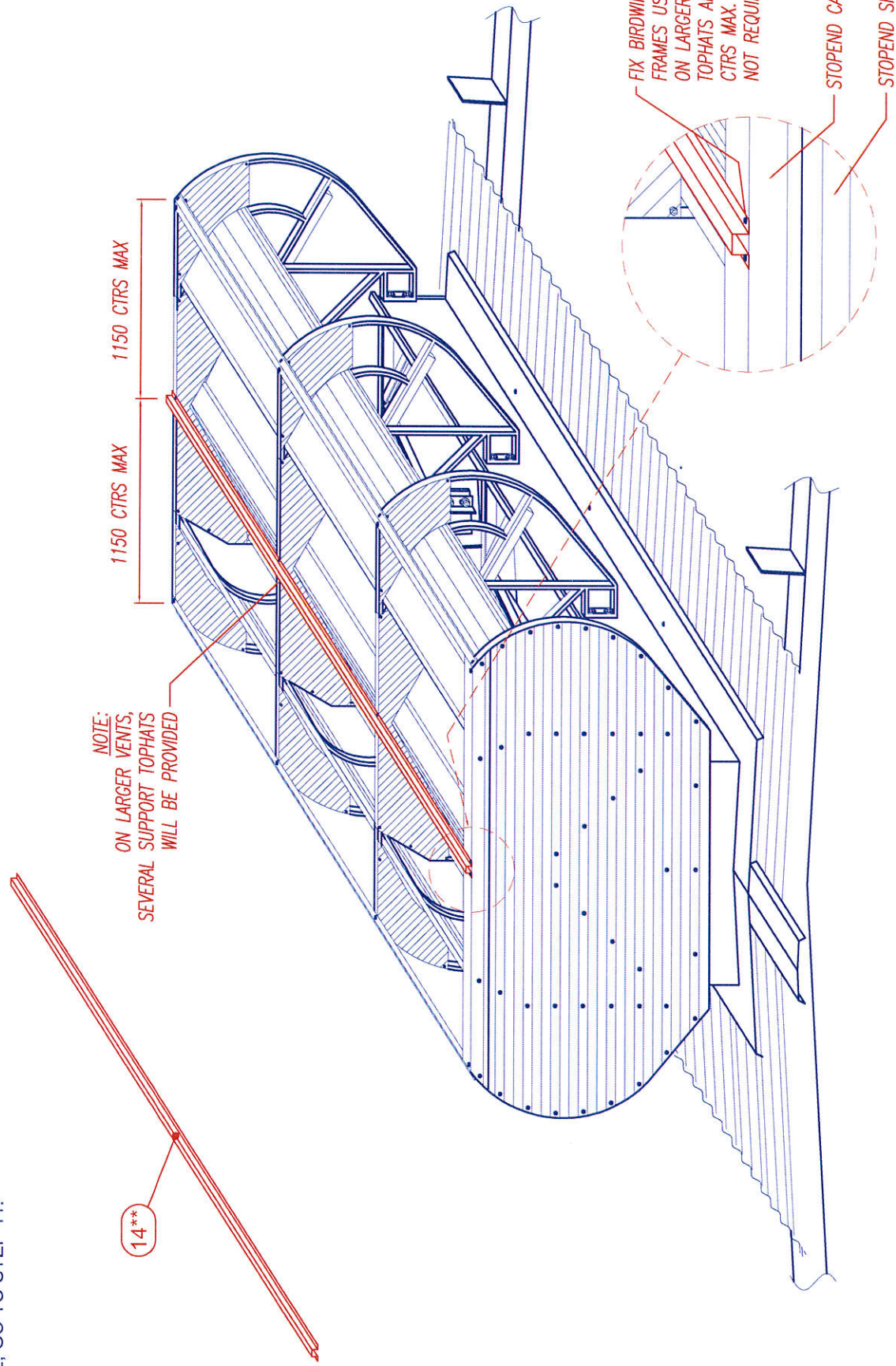


NOTE:
ALL SWarf IS TO BE CLEANED TO ENSURE LONGEVITY.
ALL DAMAGED SURFACES TO BE TOUCHED UP ACCORDINGLY.

STEP 9

REFER INSTRUCTIONS ON PAGE 29

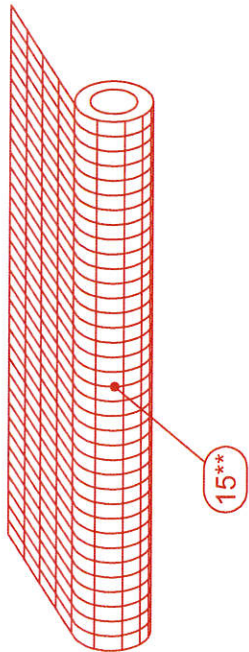
(FOR BIRDMESH OPTION** ONLY)
OTHERWISE, GO TO STEP 11.



STEP 10

REFER INSTRUCTIONS ON PAGE 29

(FOR BIRDMESH OPTION** ONLY)
OTHERWISE, GO TO STEP 11.

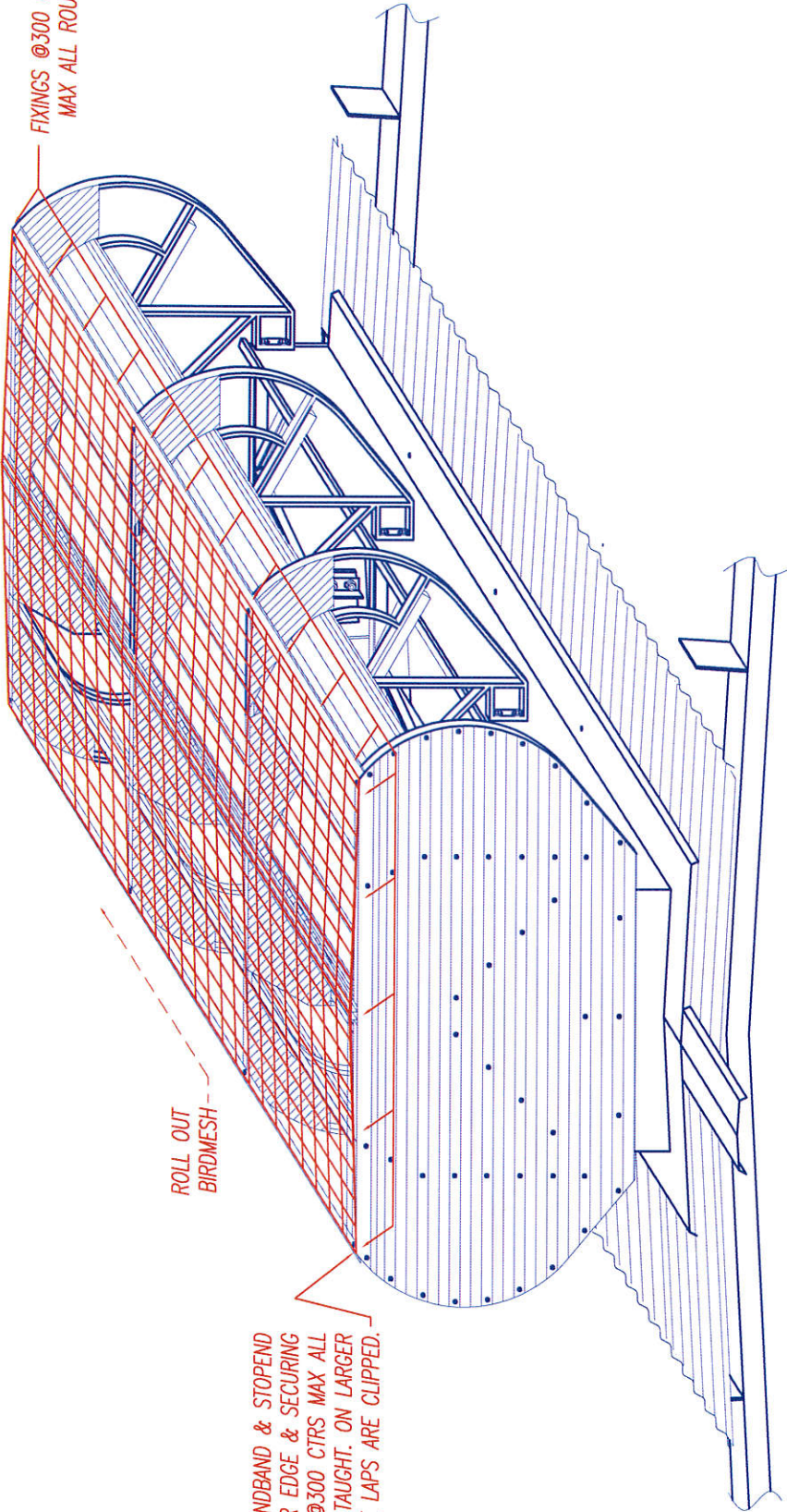


ON LARGER VENTS, ENSURE
LAPS OF BIRDMESH ARE FIXED
TO TOPHAT SUPPORTS

FIXINGS @300 CTRS
MAX ALL ROUND

ROLL OUT
BIRDMESH

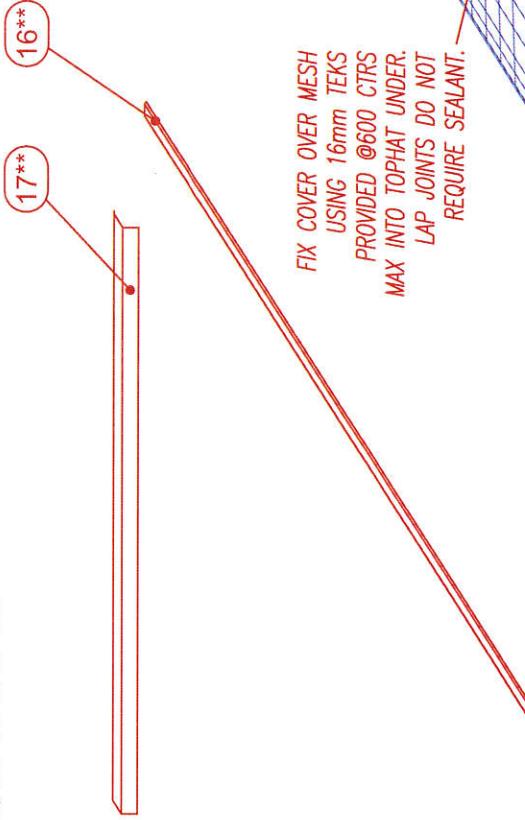
FIX BIRDMESH TO WINDBAND & STOPEND
TRIMS BY EXTENDING OVER EDGE & SECURING
WITH TEKS PROVIDED @300 CTRS MAX ALL
ROUND. ENSURE MESH IS TAUGHT. ON LARGER
VENTS ENSURE LAPS ARE CLIPPED.



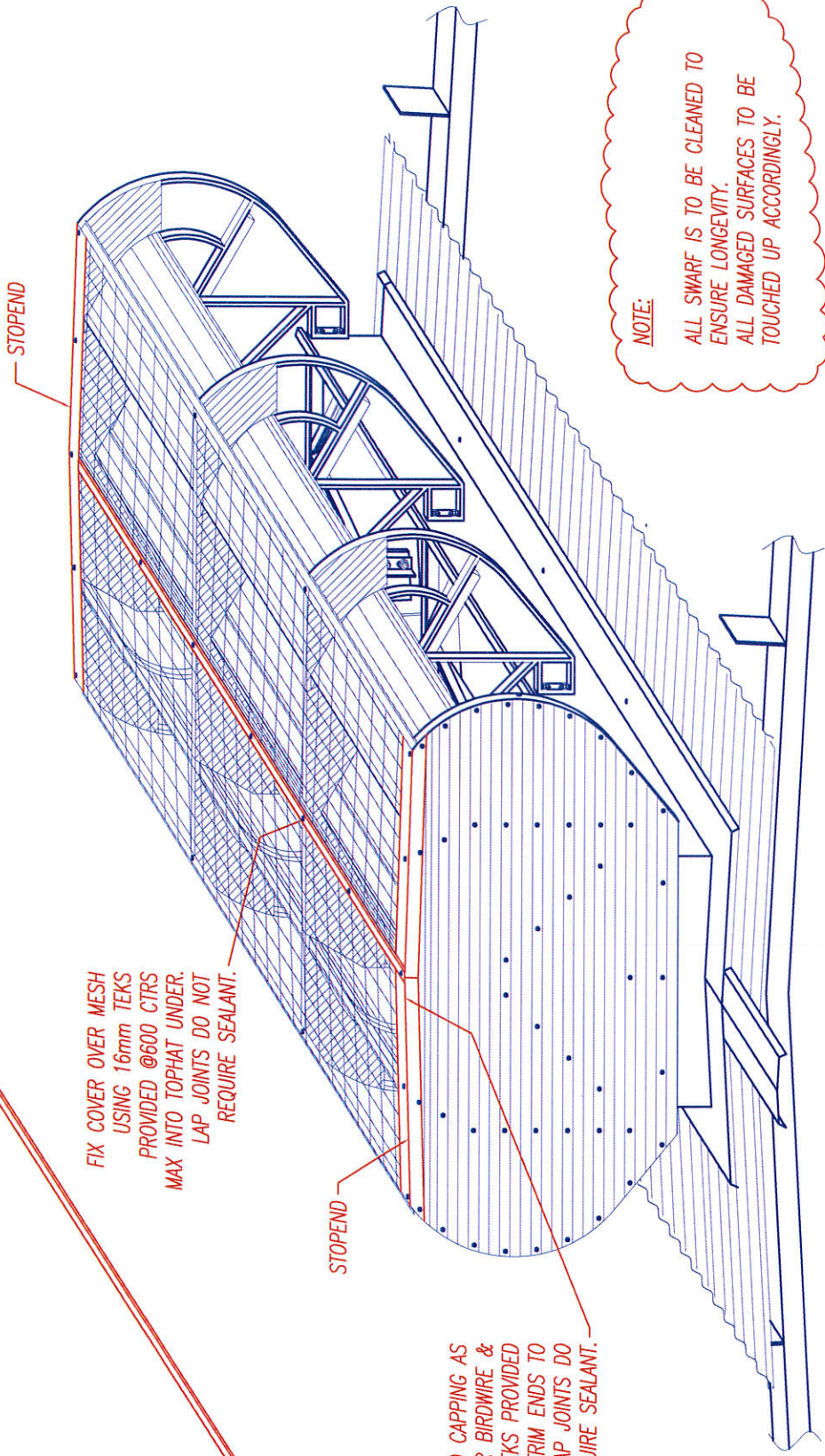
STEP 10

REFER INSTRUCTIONS ON PAGE 29

(FOR BIRDMESH OPTION** ONLY)
OTHERWISE, GO TO STEP 11.



FIX COVER OVER MESH
USING 16mm TEKS
PROVIDED @600 CTRS
MAX INTO TOPHAT UNDER.
LAP JOINTS DO NOT
REQUIRE SEALANT.



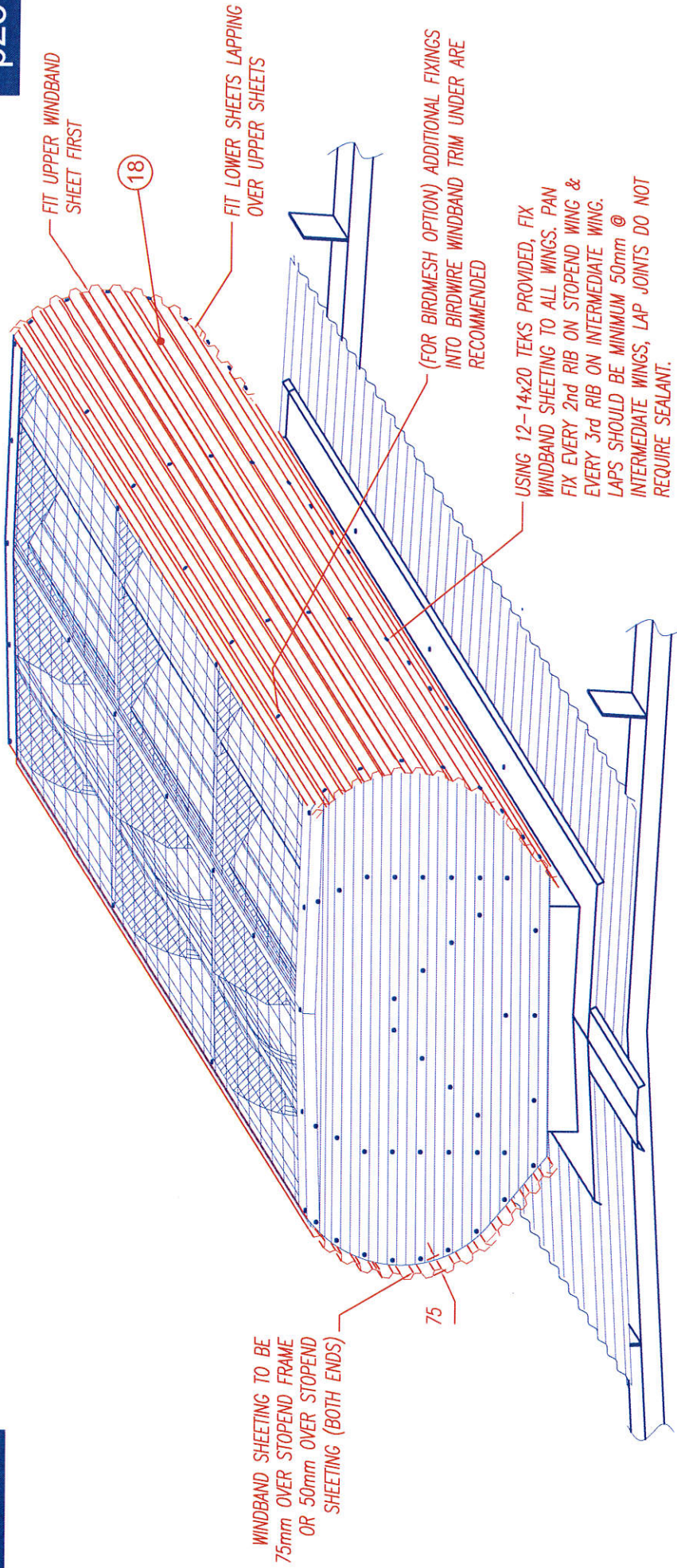
NOTCH BIRDWIRE STOPEND CAPPING AS
NECESSARY & FIX OVER BIRDWIRE &
STOPENDS. USE 16mm TEKS PROVIDED
@ 600 CTRS MAX & TRIM ENDS TO
FRAME PERIMETER. LAP JOINTS DO
NOT REQUIRE SEALANT.

NOTE:
ALL SWARF IS TO BE CLEANED TO
ENSURE LONGEVITY.
ALL DAMAGED SURFACES TO BE
TOUCHED UP ACCORDINGLY.

STEP 11

REFER INSTRUCTIONS ON PAGE 30

p25



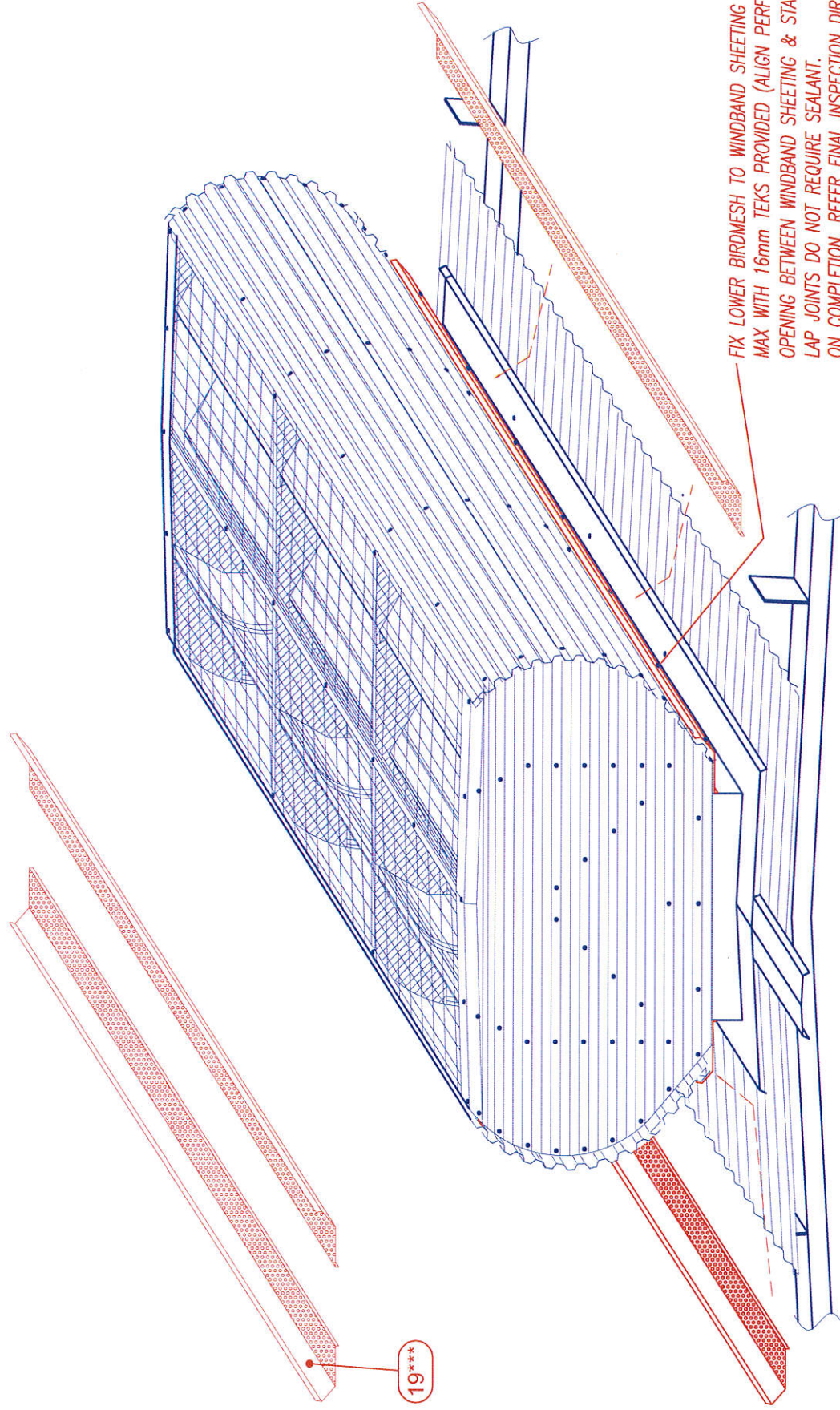
FINAL INSPECTION
CONDUCT FINAL INSTALLATION INSPECTION OF LRV HIGH CAPACITY RIDGE VENT, INCLUDING:

- ALL SCREWS ARE CORRECTLY FIXED.
- ALL JOINTS & LAPS WHICH REQUIRE WATER TIGHTNESS ARE SEALED ACCORDINGLY.
- ALL PANELS ARE CORRECTLY FITTED & LAPPED.
- ALL PANELS ARE PROPERLY INSTALLED.
- ALL SWARF IS CLEANED AS TO NORMAL ROOFING PRACTICE.
- ALL DAMAGED SURFACES ARE TOUCHED UP APPROPRIATELY.

STEP 12

REFER INSTRUCTIONS ON PAGE 30

(FOR LOWER VERMIN MESH OPTION*** ONLY)



FIX LOWER BIRDMESH TO WINDBAND SHEETING @600 CTRS
MAX WITH 16mm TEKS PROVIDED (ALIGN PERFORATIONS WITH
OPENING BETWEEN WINDBAND SHEETING & STACK FLASHING).
LAP JOINTS DO NOT REQUIRE SEALANT.
ON COMPLETION, REFER FINAL INSPECTION DIRECTIONS ON
PREVIOUS PAGE.

INSTRUCTIONS DESCRIPTIONS

STEP 1: PRE-INSTALLATION CHECK LIST (SEE PAGE 3)

STEP 2: BASE FRAME

- Place two Base Frames (item #2), one at each end of ridge vent run length.
- Ensure frames are orientated according to Base Frame Layout Plan (flat face of base frame is to face outwards for stopends).
- Use four bolts / nuts and two washers per bolt supplied to fit Base Frames to cleats on building frame.
- Adjust Base Frames to be level across the top and centred (along ridge centreline) using the slots provided.
- Align and adjust all frames via slots provided in both horizontal and vertical to string lines.

NOTE: Ensure orientation of frames as required from one end (i.e. all frames will face in the same direction except one last frame, as indicated on the job layout drawings).

STEP 3: STACK FLASHING & STOPEND SOAKERS

- Fix Stack Flashing (item #3) using your own roof screws over roof sheeting to purlins under at 600 CRTs max. Ensure upturn of Stack Flashing is against Base Frame (item #2). Notch turndown to suit roof type as necessary.
- Seal and rivet lap joints @50mm CTRs. Laps should be minimum 50mm (material lengths should typically allow 100mm lap).
- Pin outer edge of flashing to roof.
- Rivet upper edge of flashing to Base Frame at a position above the bolt holes provided in the upper section of the Base Frame.
- Punch through Stack Flashing using a podger where all bolts will pass through the Base Frame for the Diaphragm Wings (items #4A & 4B).
- Fit Stopend Soaker (item #10) to stopend frames & seal / rivet to Stack Flashings each end @ 50mm CTRs max (also, seal / rivet Stopend Soaker to roof ridge / barge capping as applicable).

STEP 4: STOPEND & INTERMEDIATE WINGS

- Using bolts/nuts and washers provided, fit together a set of Intermediate Wings (item # 4A).
- Fit Stopend Wings (item # 4B) to each end of vent run.
- Place Intermediate Wing over top edge of Stack Flashing (item #3) at a location between the Base Frame (item #2), spring back the Stack Flashing, set wing down and slide along to align with podged holes thru flashing at Base Frame.
- Fix the wings (items #4A & 4B) to the Base Frame (item #2), and sandwich the Stack Flashing (item #3) using the bolts/nuts and washers provided.
- Set the frame true horizontally and vertically and temporarily brace the assembly (on longer runs, install additional Intermediate Wings to assist in alignment).
- Assemble remaining sets of wings (item # 4A) ready for fixing.

NOTE: Ensure a method of alignment (such as string line) is used to ensure the following components will align in the following stages of assembly.

STEP 5: RIDGE/ GUTTER (FOR RIDGELITE OPTION, GO TO STEP 5A)

- As each set of Intermediate Wings (item # 4A) are fixed to Base Frame (item #2), the Stackcap/ Gutter (item # 5A & 5B) should be fixed to wings (item 4A & 4B) to prop the frames upright using 12-16 teks with neoprene washers provided.
- The lap joints of the Stackcap/Gutter are to be sealed and riveted @ 50mm CTRs max.
- The centre cap lap along the ridgeline is to be stitched @ 300mm CTRs max using 12-16 teks with neoprene washers provided.
- End gutters (to Stopend Wings), may have to be trimmed down in length to fit, & fix to stopend gutters with sealant under.
- Ensure stopend gutter on Stopend Wing (item #4B) is sealed.
- When completed go to step 6.

STEP 5A: (FOR RIDGELITE OPTION)On smaller Ridgelite vents (900 to 1200):

The Gutters, Ridgelite/Capping will be provided.

- As each set of wings (item 4A & 4B) are fixed to Base Frame (item #2), the side Gutters (item #5A) should be fixed to wings to prop the frames upright using 12-16 teks with neoprene washers provided.
- The lap joints of the Gutters are to be sealed and riveted @ 75mm CTRs max.
- The Ridgelite should then be installed, fixed @ 100mm CTRs max & sealed using the weatherlok washers provided.

On larger Ridgelite vents (1350 to 4500):

The Gutters, Ridgelite (custom orb), Expansion Joints , Weatherlok Straps & Stack Capping will be provided.

- The Expansion Joints will only be necessary at selected frames for larger vents. The Material Layout Plan will indicate these locations.
- The Ridgelite will be custom orb profile and require the Expansion Joints.
- Install the Expansion Joints at required frames. install the Ridgelite sheets fitting ends into the Expansion Joints & fixing the Ridgelite (every 2nd rib minimum) at Intermediate frames with Weatherlok Washers provided.

On all Ridgelite vents (900 to 4500):

- The Stack Capping may now be installed over with sealed lap joints (75mm max fixing CTRs).
- The Stack Capping along the ridgeline is to be stitched to the Ridgelite sheeting @300mm CTRs max using 12-16 teks with fixings provided (neoprene washers, Weatherloks & Straps under), to ensure the fixings clamp the joints sufficiently.
- End Ridgelite & Gutters (to Stopend Wings), may have to be trimmed down in length to fit, & fix to stopend gutters with sealant under.

STEP 6: DRAINS

- Fix a Drain (item #6) to every Intermediate Wing (part # 4A, L&R) with 12-16mm teks provided, and pierce a Ø20mm drain hole in Stackcap/Gutter (item # 5A & 5B) over the Drain as indicated.

STEP 7: WINDJUMP SPANDRELS & GUIDEVANES (FOR FIXED GUIDEVANE)

- Fix Windjump Diaphragms (item #9) to Intermediate Wings (item #4A) as shown using teks provided @ 300mm CTRs max.
- Fix Guidevanes (item #7) to wings in location shown with 12-16 teks with neoprene washers provided @ 100mm CTRs max (use sealant under tabs).
- End Guidevanes may have to be trimmed down in length to fit.
- Fix Windjump Spandrels (item #8, L&R) to Intermediate Wings (item #4A) as shown using teks provided @ 300mm CTRs max.

NOTE: At this stage, all swarf should be cleaned to normal roofing practice as access may be difficult at later stages.

STEP 8: STOPEND SHEETING

- Fit Stopend Sheeting (item #11) horizontally to external face of stopends.
- Cut outer edges to frame perimeter.
- Cut bottom edges of sheeting to projected line of roof or flashings, with sufficient lap.
- Fix sheeting using teks with neoprene washers provided every second pan to the wings and base frame.

NOTE: Lap top sheets over lower sheets for water proofing.

STEP 9: BIRDWIRE & SUPPORTS (OPTIONAL)

- Fix Birdwire Windband Trim (item #12) to outside edge of wings as shown using 12-16 teks provided.
- Fix Stopend Capping (item #13) to Stopend Wings over Stopend Sheeting.
- Fix Birdwire Tophat (item #14) along centreline of top face of wings as shown using 12-16 teks provided (on larger vents ensure the Tophats are @1150mm CTRs max).
- Lap joints do not require sealant.

STEP 10: BIRDWIRE MESH (OPTIONAL)

- Fit Birdwire Mesh (item #15) to top openings, i.e. width of mesh to one edge of vent top (and where necessary on larger vents, a second strip to opposite side). Mesh is to be stretched taut and overlap clipped together.
- Birdwire otherwise is secured to sides and stopend tops as necessary using teks provided.
- Fix Birdwire Tophat Trim (item #16) over Tophat (item #14) as shown using 12-16 teks provided.
- Fix Birdwire Stopend Capping (item #17) over Stopend Capping (item #13) and notch as necessary over Tophat & Trim (items #14 & 16).

STEP 11: WINDBAND SHEETING

NOTE: Before installing Windband, ensure all swarf is cleaned to ensure longevity and all damaged surfaces are touched up accordingly.

- Fit outer Windband Sheeting (item #18) in the lengths and positions shown with 12-16 teks provided (six minimum each side per wing). Keep horizontally straight and overlap at wings (laps to be 50mm min).
- overhang Windband Sheeting by 40-50mm past ribs of Stopend Sheeting (or 75mm past wing frame).

NOTE: to prevent discoloration of outer surfaces, lap lower sheets over upper sheets. For quantities and lengths, see layout drawing. Lap joints do not require sealant.

STEP 12: LOWER VERMIN MESH (OPTIONAL)

- For Lower Vermin Mesh option, perforated folded sections will be provided to suit customer requirements.
- Fit Lower Vermin Mesh (item #19) to outer bottom edge of Windband Sheeting with 12-16 teks provided @600 CTRs max (align perforations with opening between Windband Sheeting & Stack Flashing). Lap joints do not require sealant.

FINAL INSPECTION

Conduct final installation inspection of vent, including:

- All screws are correctly fixed.
- All joints & laps which require water tightness are sealed accordingly.
- All panels are correctly fitted & lapped.
- All panels are properly installed.
- All swarf is cleaned as to normal roofing practice.
- All damaged surfaces are touched up appropriately.