

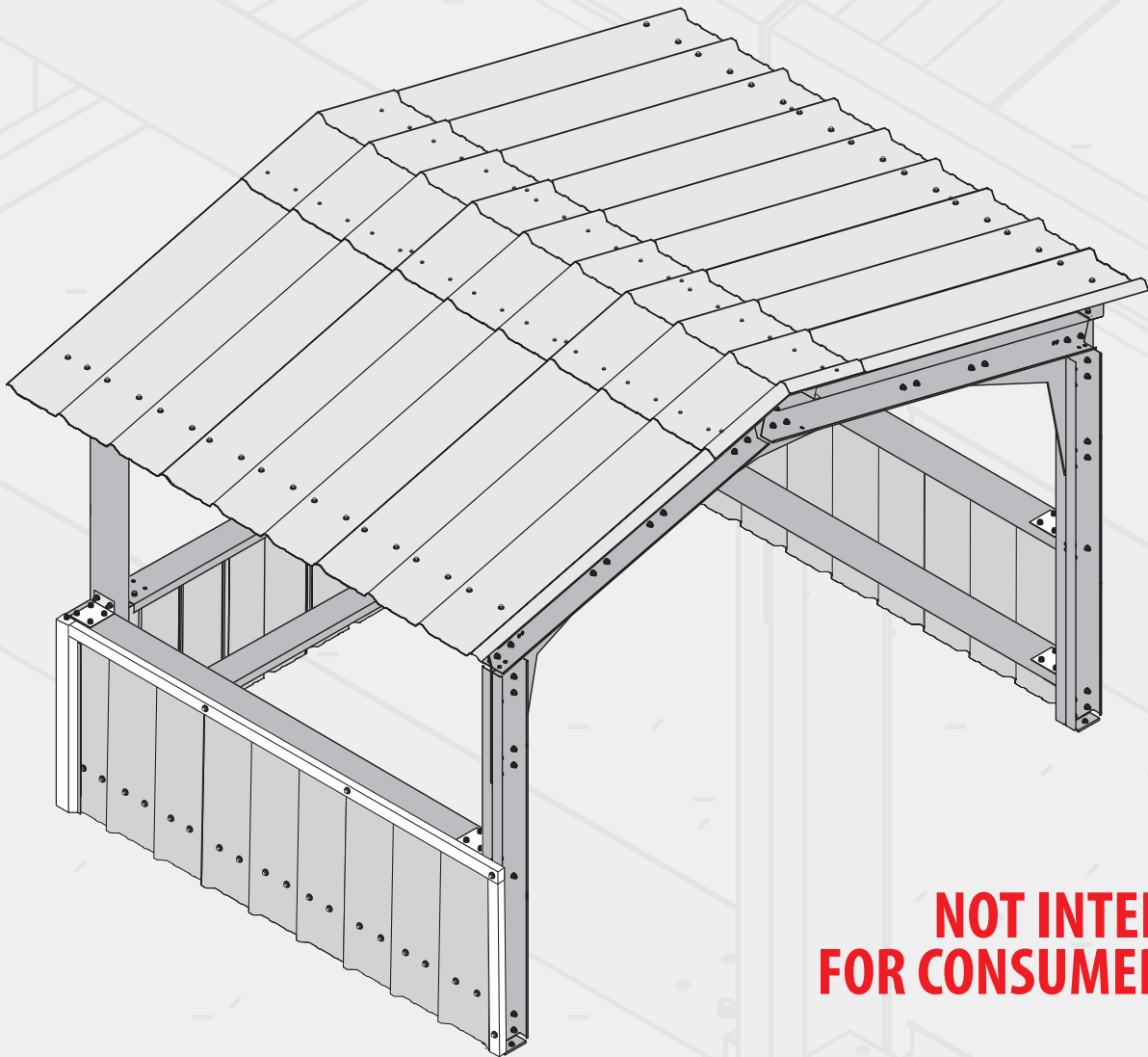


CENTRA™ SERIES

BOLT-UP STEEL BUILDINGS

DISPLAY MODEL ASSEMBLY INSTRUCTIONS

12_W X 9_L X 8_H



**NOT INTENDED
FOR CONSUMER USE**

NON-ENGINEERED DISPLAY MODEL FOR DISTRIBUTORS



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Notice: The application and detail drawings in this manual are strictly for illustration purposes and may not be applicable to all building designs or product installations. Projects should conform to local building codes. Central States Manufacturing is not responsible for the performance of the material if it is not installed correctly.

Information contained in this booklet was in effect at the time of publication and is subject to change without notice.

IMPORTANT INFORMATION

This manual contains suggestions and guidelines on how to erect your Centra Series building. The drawings in this guide are for illustration purposes only and may not apply to all building designs or product applications. The installation details shown are proven methods of construction, but are not intended to cover all instances, building requirements, designs, or codes. It is the responsibility of the designer/installer to ensure that the details meet particular building requirements. The details may require changes or revisions due to

each project's conditions. It is the buyer's responsibility to verify all applicable code requirements, check all measurements, and determine suitability of product for the job. Failure to comply with stated recommendations relieves the manufacturer of responsibility for any damage or deterioration of the product incurred and voids any applicable warranty. Central States Manufacturing reserves the right to modify, without notice, information in this guide.

SAFETY

Each job site presents different hazards; therefore it is the responsibility of the buyer/installer to determine the safest way to erect your Centra Series building based on the recommended instructions contained in this guide. Provide crew members working on the project with required safety railing, netting or safety lines. If you must walk on a metal roof, take great care.

Metal panels can become slippery, so always wear shoes with nonslip soles. Avoid working on metal roofs during wet conditions when the panels can become extremely slippery. If you must walk on the roof, always walk on the purlins, never between. OSHA safety regulations should be complied with at all times.

CAUTION

Always wear heavy gloves when working with steel panels to avoid cuts from sharp edges. When power cutting or drilling steel panels, always wear safety glasses to prevent eye injury from flying metal fragments.

CARE AND HANDLING

STAGE

Galvalume® steel sheets have a good service life when exposed to normal weather conditions however, to protect the appearance of panels and trims from damage, there are a few simple precautions that can be taken. The steel sheets are subject to stain when water sits upon, or becomes trapped between the sheets. If the Galvalume® sheets are to be stored for any period of time, they should be stored only in a dry place, preferably under a roof. Stand panels on end and fan them out at the bottom to provide air circulation and moisture run off. If space does not allow this, the panels should be separated, blocked off of the floor at least 12 inches to allow air flow, and stored at an incline to encourage drainage. The panels should then be covered, yet still have good air flow through the sheets to prevent condensation. Do not use a plastic cover, as this may cause the panels to sweat or condensation to occur.

CUTTING

A portable field shear is the ideal method for cutting panels. Nibblers or a power shear may also be used. Although we do not recommend it, if you decide to cut with a saw, it is very important that the panels be turned upside down during cutting so that hot shavings do not come in contact with the painted surface. Make sure all adjacent panels are covered so that shavings are not imbedded in these panels. If metal shavings become imbedded in the paint surface, they will quickly rust. To avoid this, panels should be thoroughly wiped of all filings on both sides of the panel. Failure to comply with the recommended cutting procedures releases the manufacturer of any responsibility. **Do not use a graphite pencil to mark on the panel. Graphite marks may be hard to remove and will lead to discoloration and corrosion.**

STORAGE

Failure to follow these steps may result in wet storage stains and premature rusting. The manufacturers warranty will be void at this time, and the manufacturer will not be responsible.

HANDLING

When unloading panels, extreme caution must be employed. Care needs to be used when unloading panels with a forklift. Panel edges and underside paint may become damaged if the forklift driver does not use caution. Once at the job site, care must be taken in order to protect the painted surface. When unbundling the panels, never drag them across the surface of one another. This may cause scratches across the underneath panels. It is recommended that the panels be “rolled” off the top of the bundle to prevent scratching. Never lift panels by the ends, instead lift the panels longitudinally and carry vertically.

Panel edges are very sharp, therefore, safety equipment should be worn by all workers handling the material.

DRILLING

Panels should not be drilled while stacked. This will cause shavings that will become imbedded in the paint surface.

INSTALLING WALL PANELS

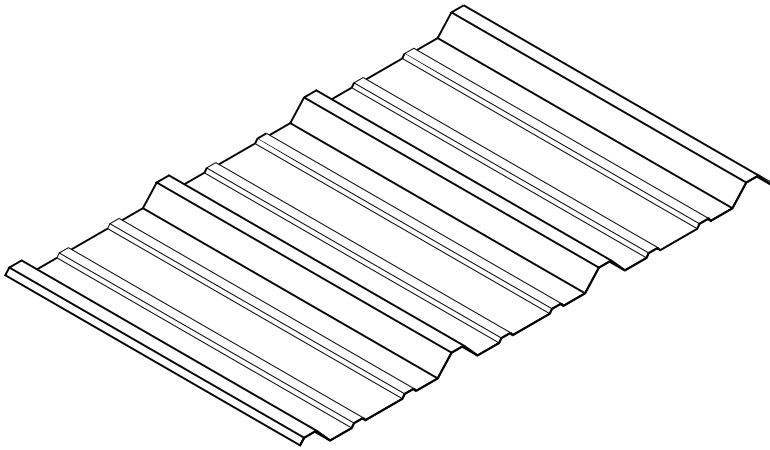
Panels and trim are subject to staining and premature rusting in conditions where moisture accumulates causing the exposed panel edge to stand in water. This may happen at the wainscot, head trim, or rat guard due to improper installation. Contractors should leave 1/8” space between wainscot trim and upper wall panel to prevent rusting and discoloration.

Shavings created by saw cutting or drilling may cause the panel to rust and will void warranties in affected areas.



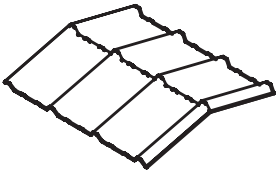
PARTS LIST PANELS

ASSEMBLY PART #	MANUFACTURER PART #	DESCRIPTION	QUANTITY	LENGTH
PANEL40	RL6(color)	Roof Panels	6	6' 5"
PANEL41	RL6(color)	Wall Panels	10	3' 6"

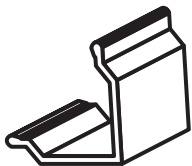


PARTS LIST TRIM

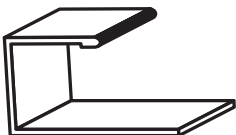
ASSEMBLY PART #	MANUFACTURER PART #	DESCRIPTION	QUANTITY	LENGTH
TRIM2	RLFRC36	Ridge Cap Panels for Roof	3	3'



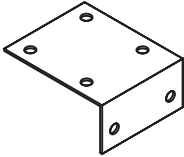
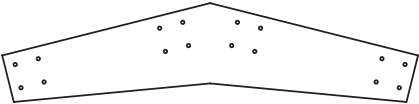
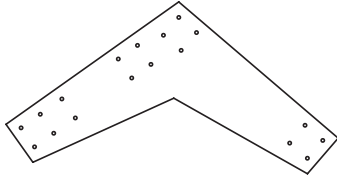
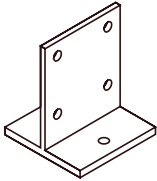
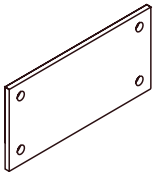
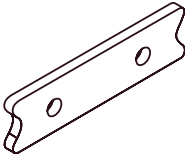
TRIM21	OU	Outside Corner Trim	2	10'2"
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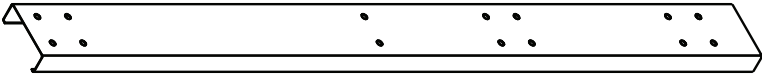
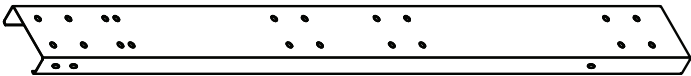
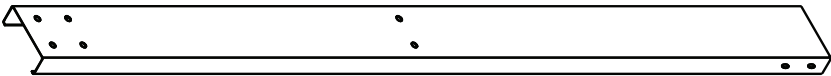
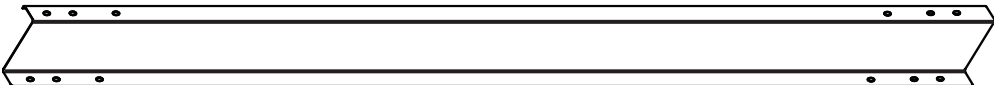
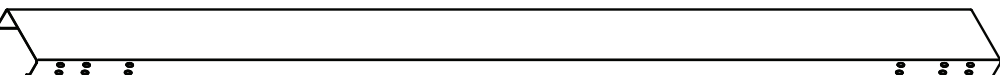
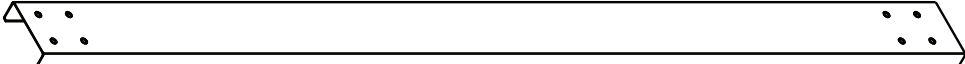
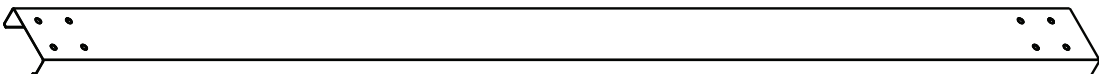

TRIM32	HE	Head Trim	3	12' 3"
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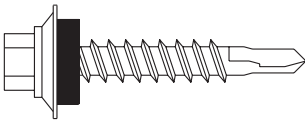
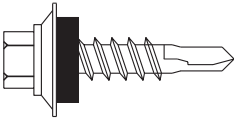
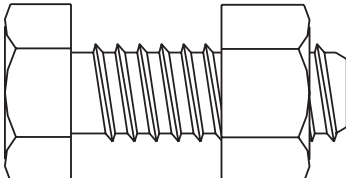
PARTS LIST PLATES

ASSEMBLY PART #	MANUFACTURER PART #	DESCRIPTION	QUANTITY	LENGTH
PLATE35	GIRTCLIP	Girtclip	14	
				
PLATE41	RFPEAK	Rigid Frame Peak Plate	1	
				
PLATE42	RFHAUNCH	Rigid Frame Haunch Plate	2	
				
PLATE43	RFBASE	Rigid Frame Base Plate	2	
				
PLATE44	EWPEAK	Peak Plate for Endwall Frame	1	
				
PLATE45	RFSPACER	Spacer Plate	2	
				

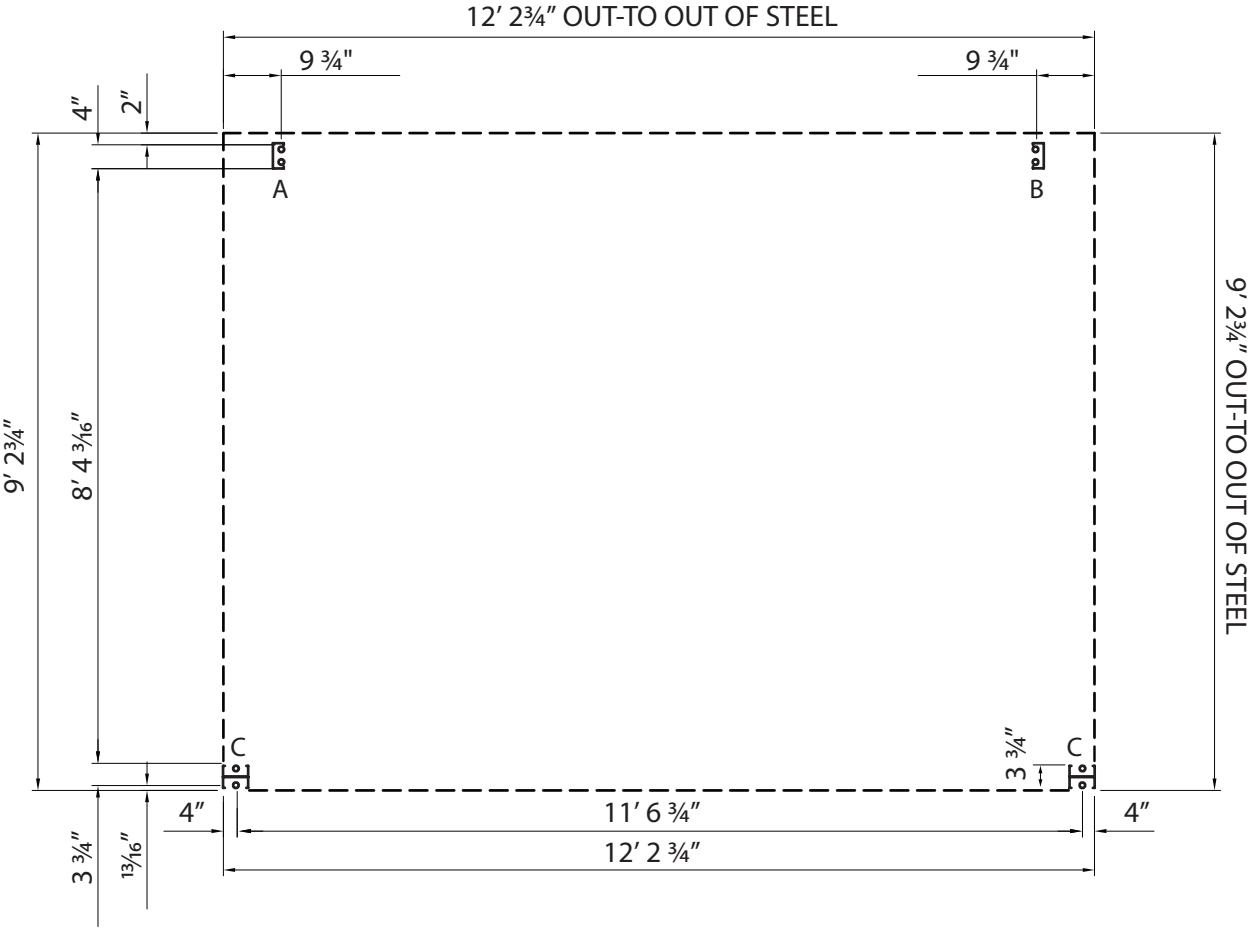
PARTS LIST PURLINS

ASSEMBLY PART #	MANUFACTURER PART #	PART MARK	QUANTITY	LENGTH
PURLIN55	C82514R	DISPLAY SIDE COLUMN	4	6' 7.75"
				
PURLIN57	C82514R	DISPLAY RAFTER	6	6' 1.125"
				
PURLIN56	C83516R	DISPLAY END COLUMN	2	7' 6.125"
				
PURLIN58	Z82516R	DISPLAY PURLIN	2	9' 2.75"
				
PURLIN59	E84316LR	DISPLAY EAVE STRUT	2	9' 2.75"
				
PURLIN60	C82516R	DISPLAY S-WALL	4	8' 7.3125"
				
PURLIN61	C82516R	DISPLAY ENDWALL	2	10' 2.125"
				
PURLIN62	B4216R	DISPLAY RAKE ANGLE	2	6' 3.75"
				

PARTS LIST FASTENERS

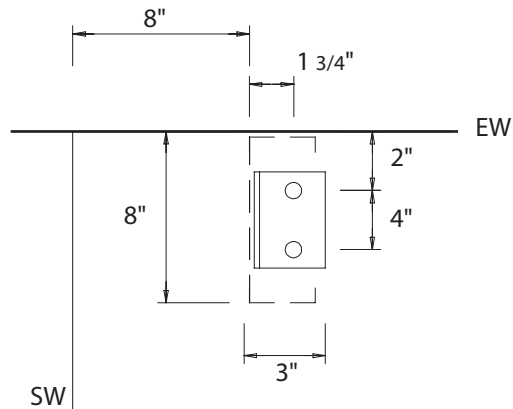
ASSEMBLY PART #	MANUFACTURER PART #	DESCRIPTION	QUANTITY	NOTE
FAST3	114(color)MM	Metal Screws in Roof color	250	
FAST12	114(color)MM	Metal Screws in Wall color	250	
				
FAST4	78(color)LAP	Lap Screws in Roof color	250	May have additional bags of 78LAP in multiple trim colors.
FAST23	78(color)LAP	Lap Screws in Trim color	250	
				
FAST54	112A325	.5" x 1.5" A325 Bolt with Nuts, 50 per Box	150	
				

THIS SECTION IS INTENDED FOR YOUR CONCRETE FOUNDATION SPECIALIST

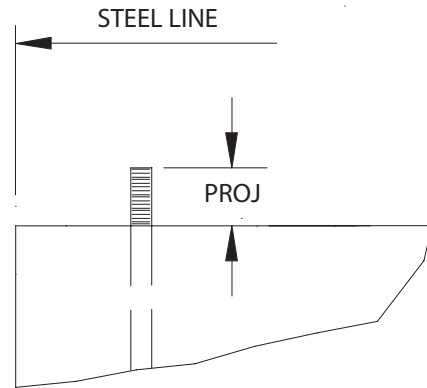


ANCHOR BOLTPLAN
NOTE: All Base Plates at 100'-0" (U.N.)

Dia = 1/2"

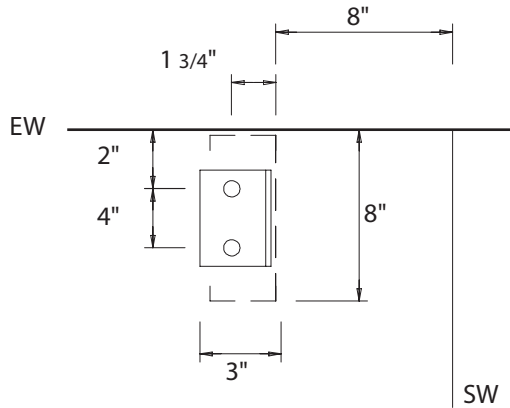


Detail A



ANCHOR BOLT PROJECTION

Dia = 1/2"

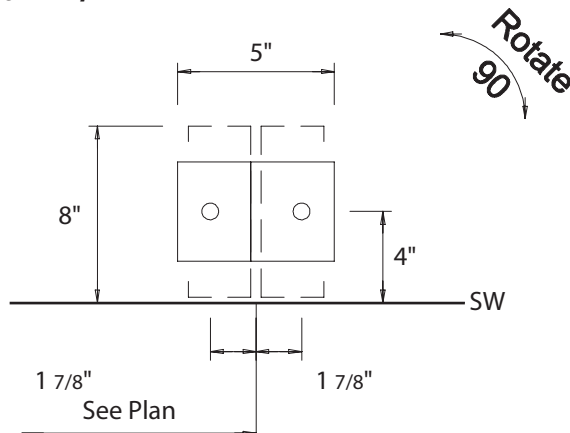


Detail B

1. The metal building manufacturer is responsible for the design of the anchor bolt diameter only to permit the transfer of forces between the base plate and the anchor bolt in shear, bearing and tension, but is not responsible for the anchor bolt embedment for transfer of forces to the foundation. The metal building manufacturer does not design and is not responsible for the design, material and construction of the foundation embedments. The end use customer should assure himself that adequate provisions are made in the foundation design for loads imposed by column reactions of the building, other imposed loads, and bearing capacity of the soil and other conditions of the building site. It is recommended that the anchorage and foundation of the professional engineer experienced in the design of such structures, (section a3 mbma 2006 metal building systems manual).

2. Bottom of all base plate are at the same elevation.
(Unless noted)

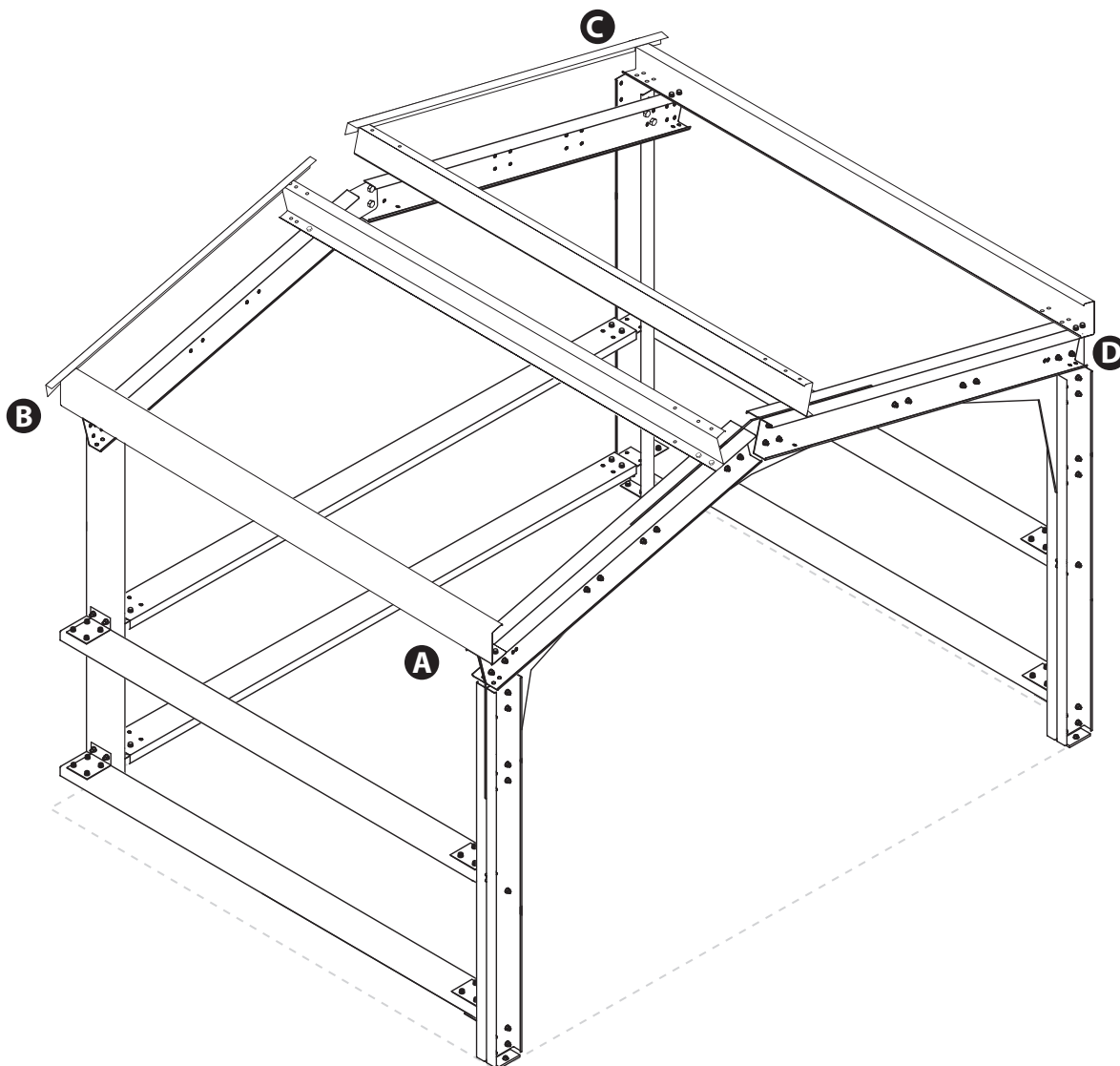
Dia = 1/2"



Detail C



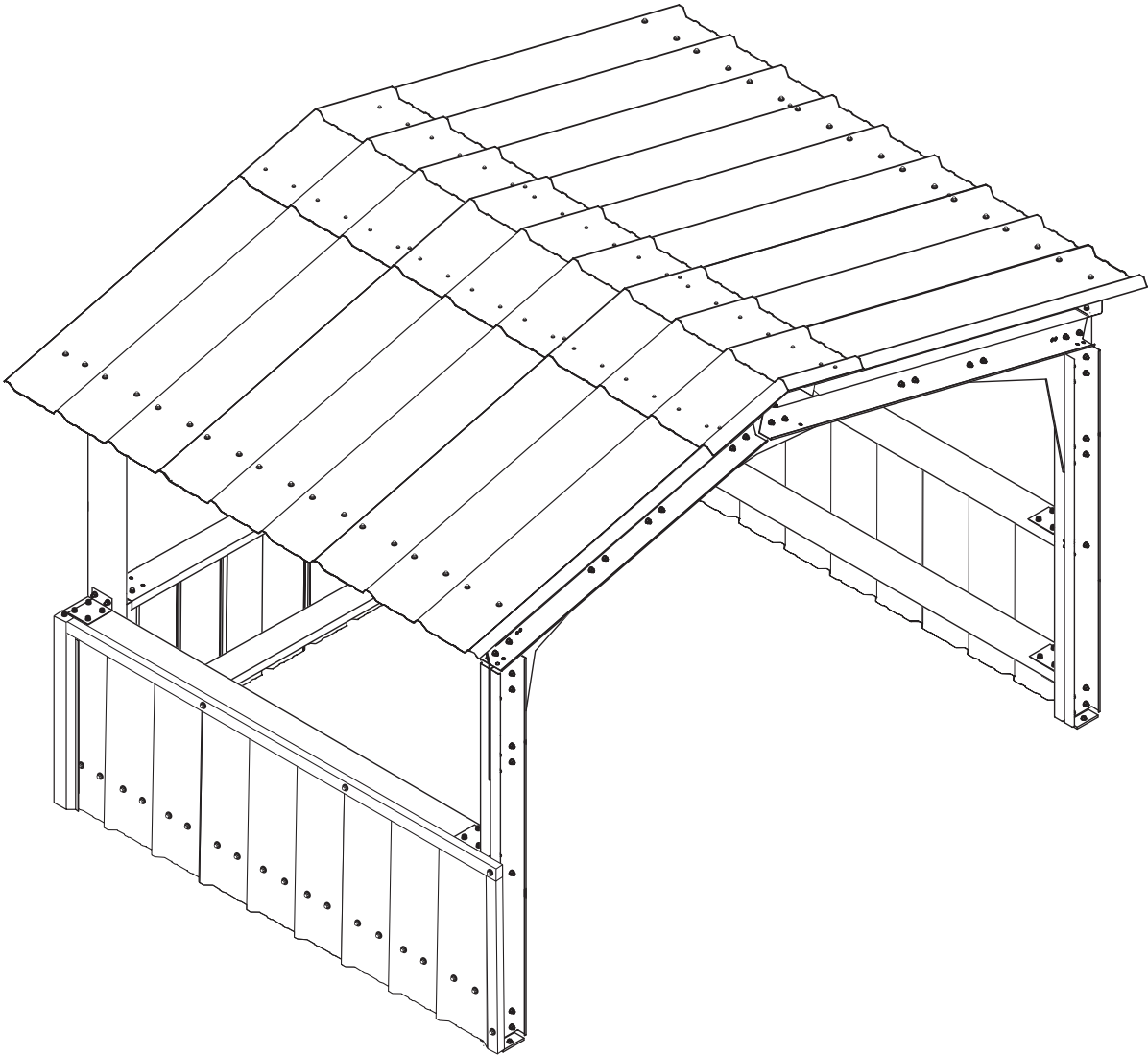
PROJECT OVERVIEW



Completed Frame Structure

The above drawing shows the completed frame structure and columns labeled. The columns will be called out periodically throughout the instructions.

PROJECT OVERVIEW



Completed Structure

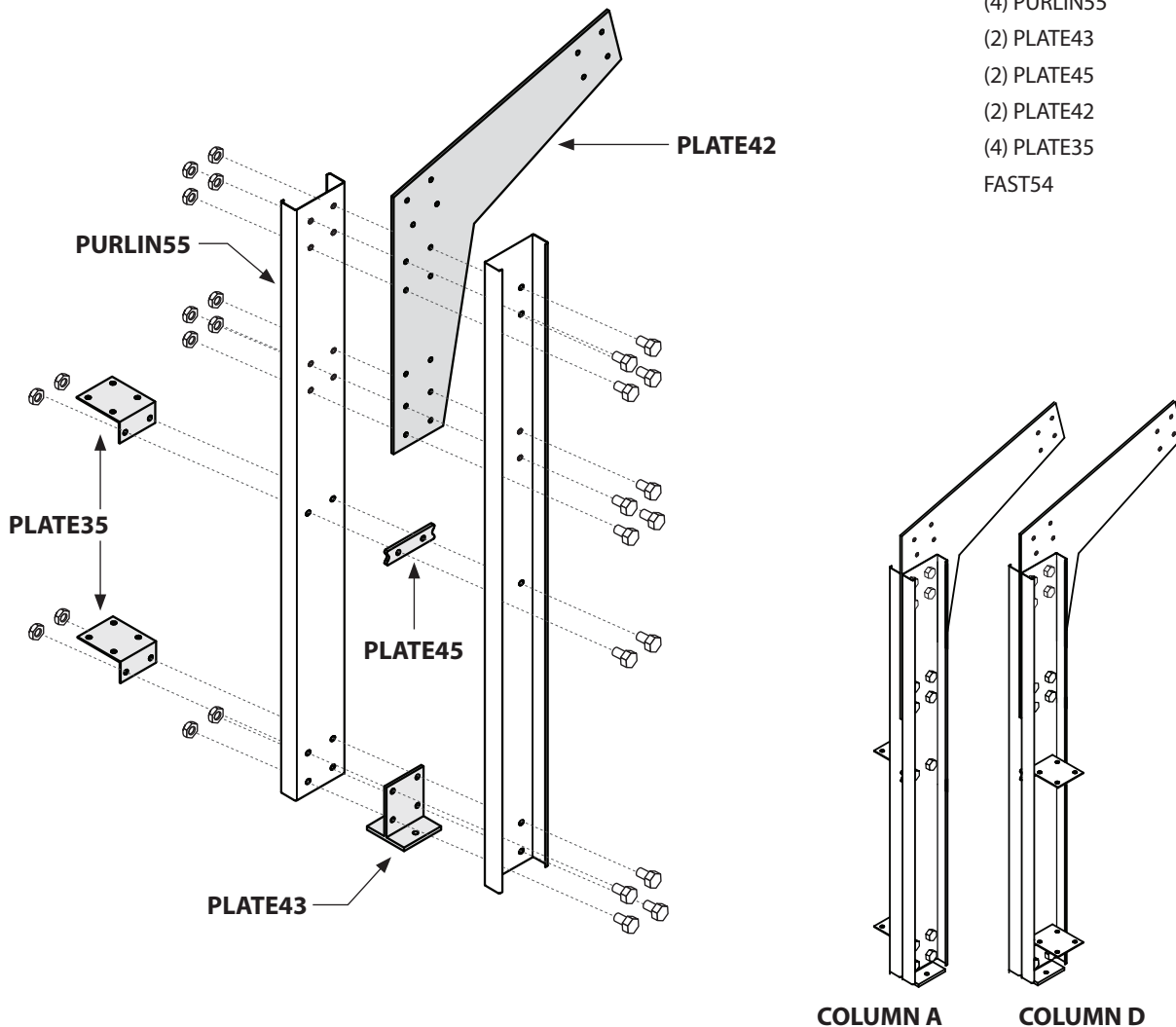
The following instructions are to assemble the display model as shown above.

STEP 1

Note: To ensure building is square, do not fully tighten bolts until after STEP 11.

REQUIRED PARTS

(4) PURLIN55
(2) PLATE43
(2) PLATE45
(2) PLATE42
(4) PLATE35
FAST54



DIRECTIONS

Assemble Columns A and D

Note: Place level on all girt clips throughout installation to ensure level girts.

1. Layout (2) PURLIN55 sidewall columns for column A.
2. Attach (1) PLATE35 with (1) PLATE43 between columns as shown using FAST54.
3. Attach (1) PLATE35 with PLATE45 between columns as shown using FAST54.
4. Attach (1) PLATE42 using FAST54 as shown.
5. Repeat these steps for Column D, but both PLATE35 should be flipped so that when the columns are finished PLATE42 points towards the peak, and both PLATE35 faces inward toward the endwall.
6. Set assembled columns aside for later use.

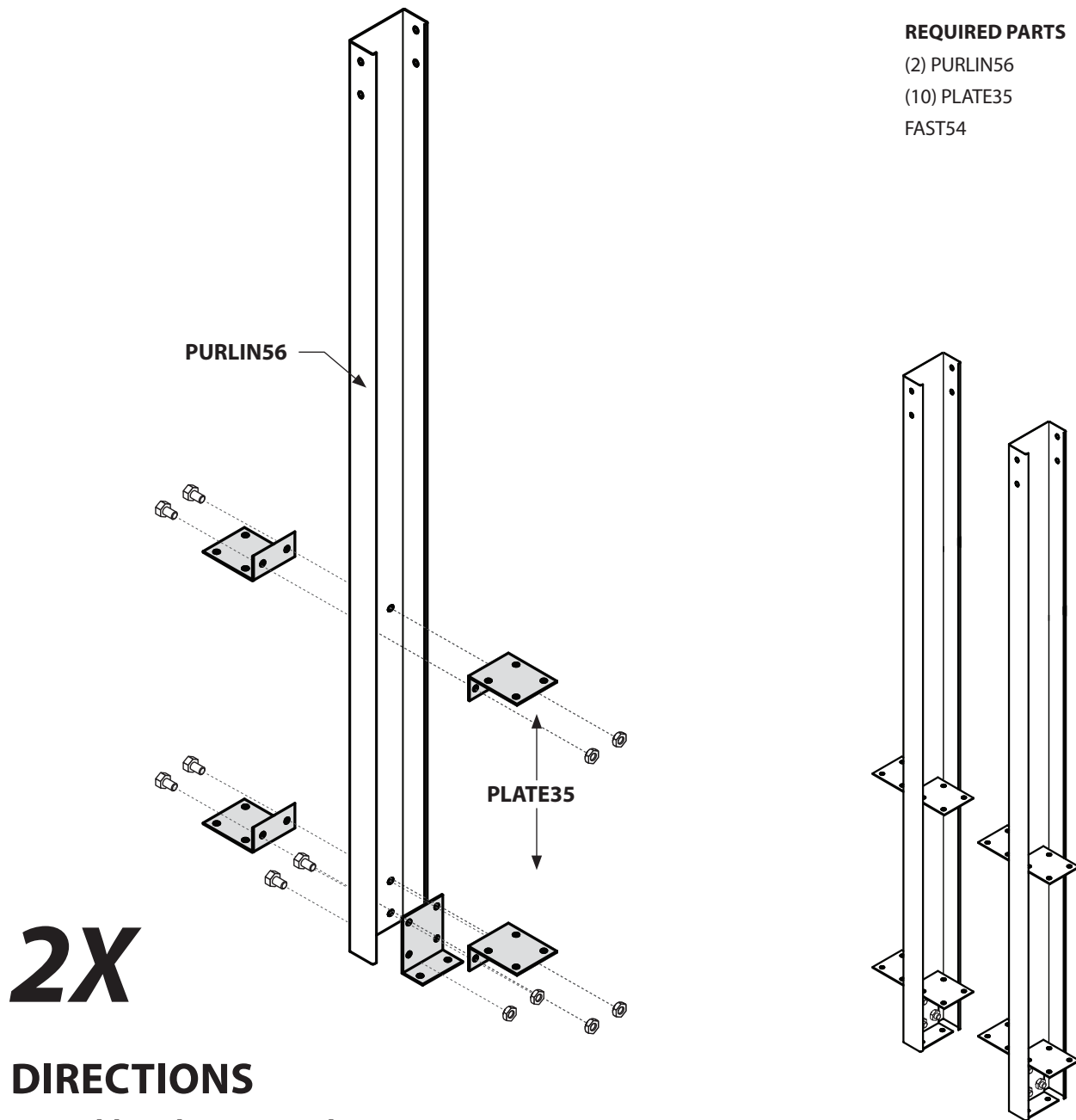
STEP 2

REQUIRED PARTS

(2) PURLIN56

(10) PLATE35

FAST54



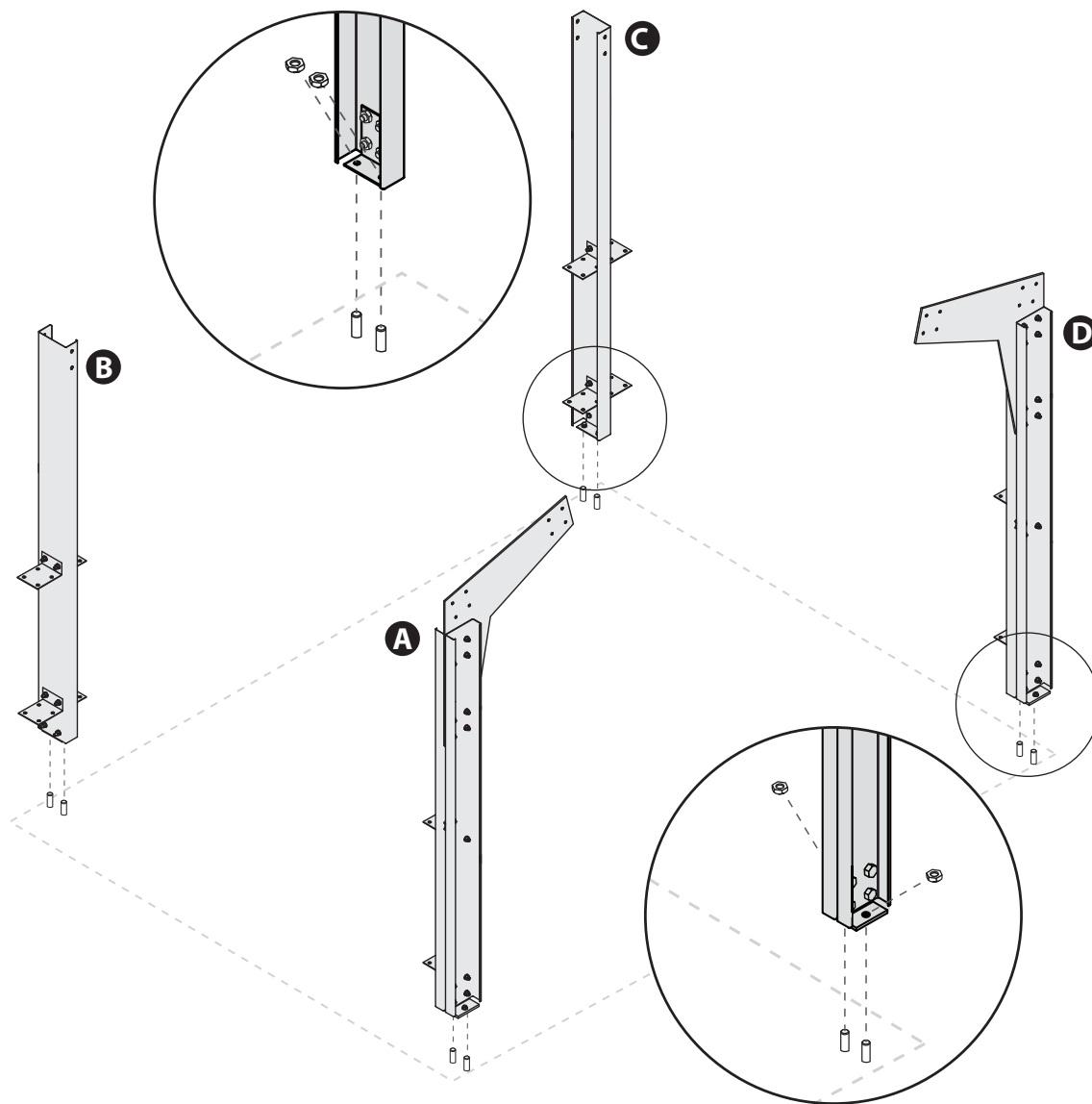
2X

DIRECTIONS

Assemble Columns B and C

1. Layout (1) PURLIN56 corner column for column B.
2. Attach (1) PLATE35 at bottom with (2) PLATE35 on both sides using FAST54.
3. Attach (2) PLATE35 at 3'7" using FAST54.
4. Repeat these steps for column C.
5. Set assembled columns aside for later use.

STEP 3

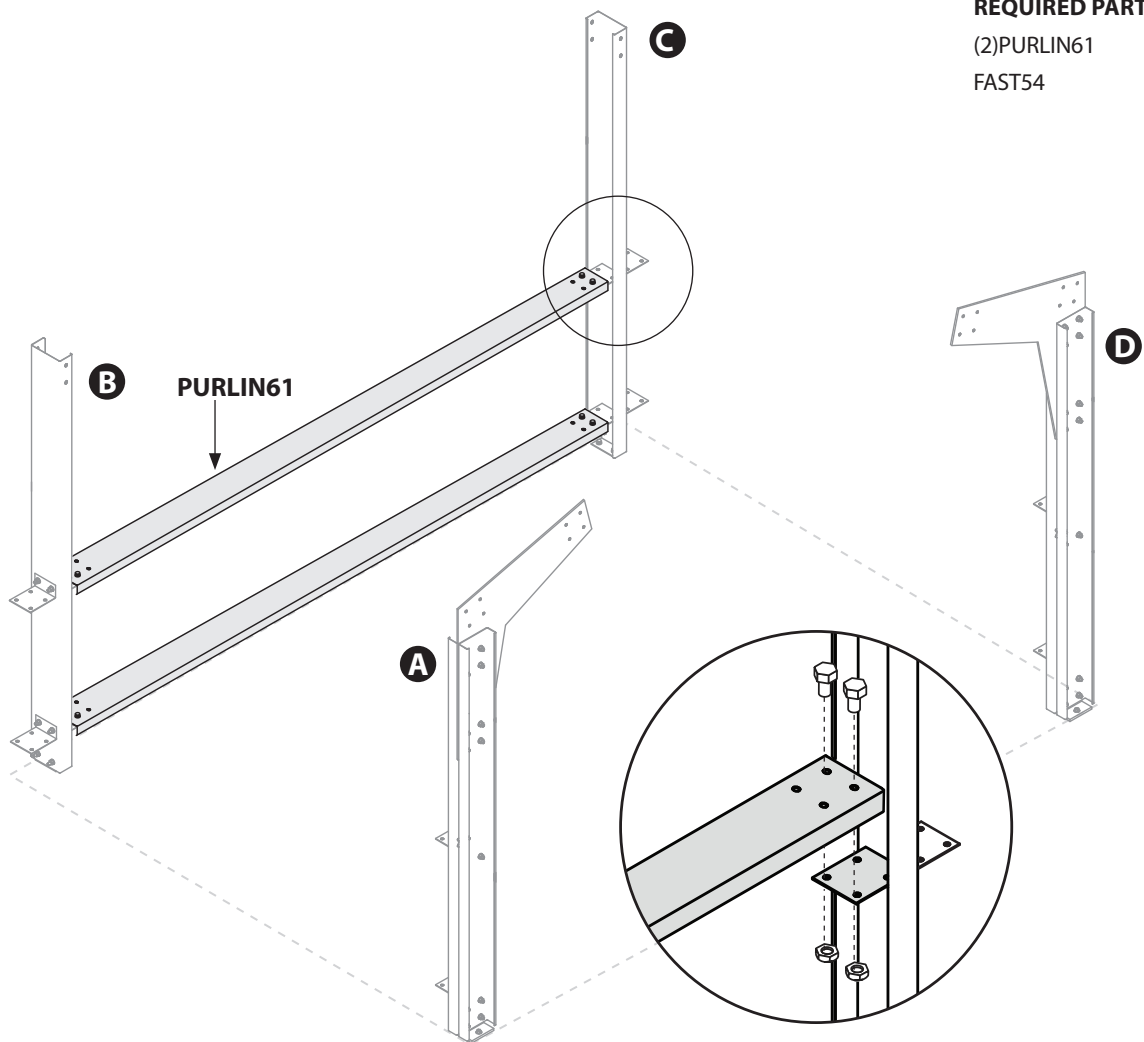


DIRECTIONS

Stand and Anchor Columns A, B, C, and D

Note: Anchor bolts and nuts are not included in building package. Anchor bolts are placed by your foundation specialist when laying foundation and corresponding nuts will be provided by your foundation specialist.

STEP 4



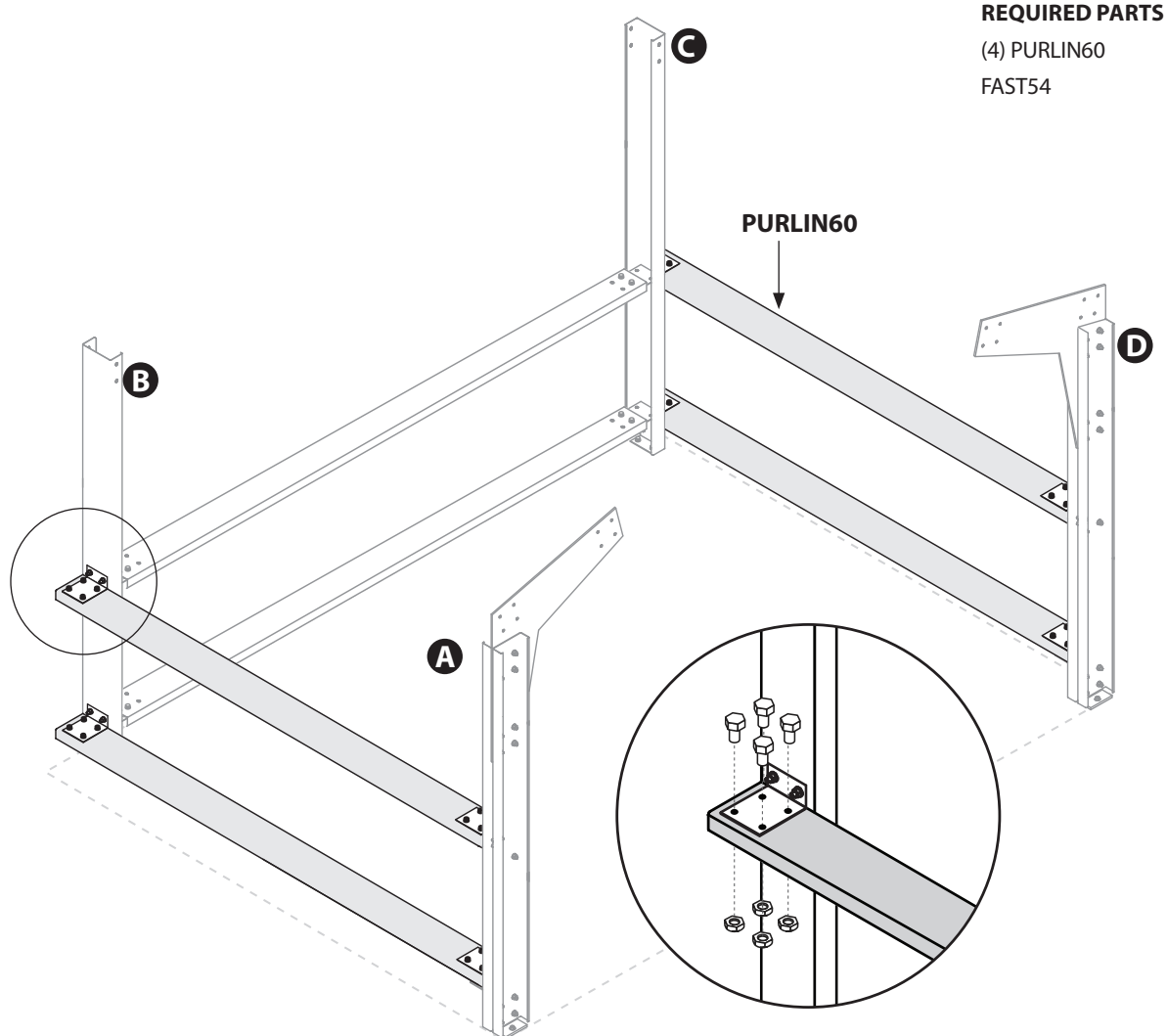
DIRECTIONS

Attaching Cee Girts

*Note: Do not overtighten bolts on wall girts until columns are vertically level. Then tighten bolts.
This applies throughout installation.*

1. Attach PURLIN61 between columns B & C using FAST54 as shown.

STEP 5



DIRECTIONS

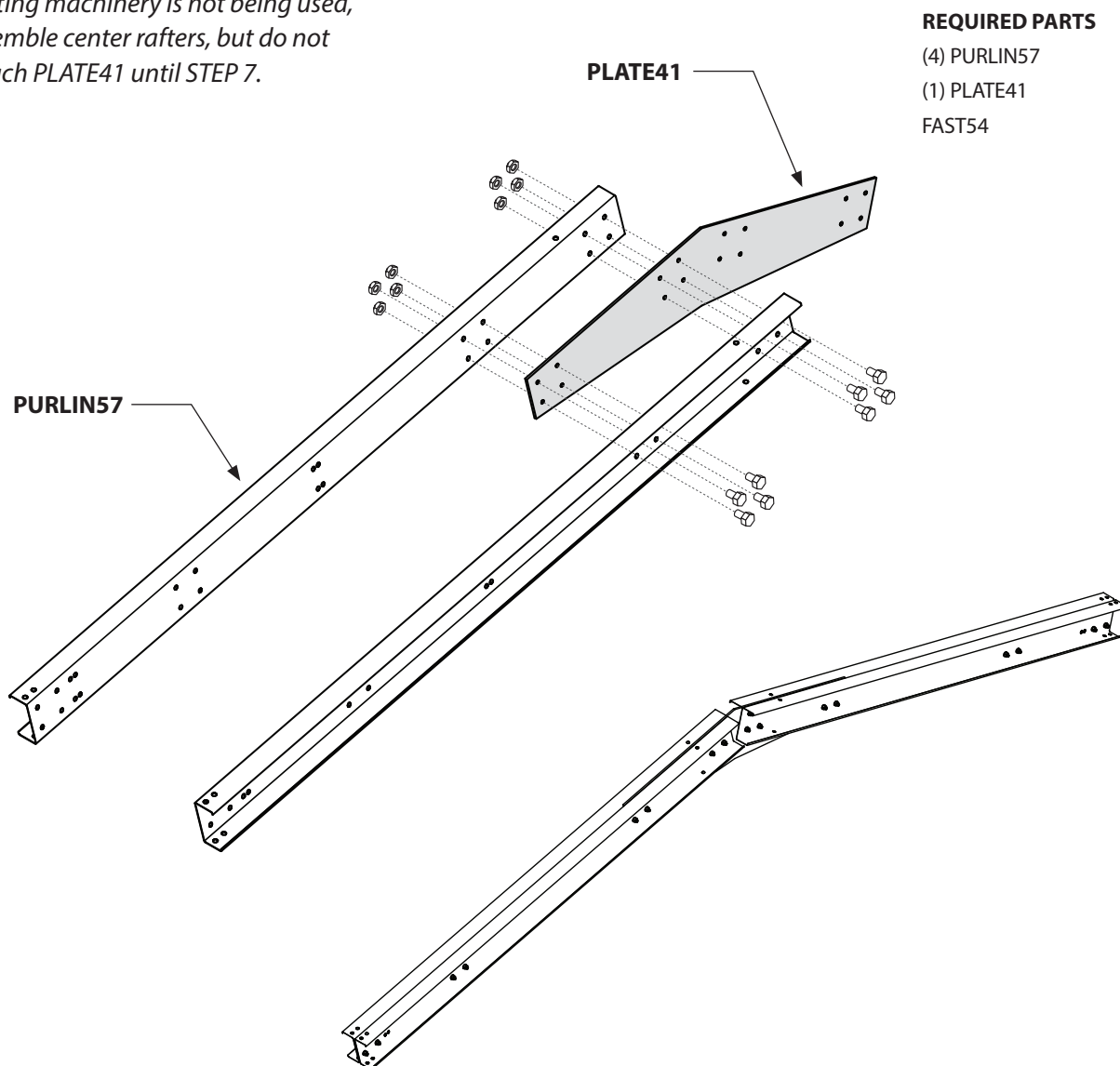
Attaching Cee Girts

1. Attach PURLIN60 between columns B and A and between columns C and D using FAST54 as shown.

STEP 6

DIY Alternate Method:

*If lifting machinery is not being used,
assemble center rafters, but do not
attach PLATE41 until STEP 7.*



DIRECTIONS

Assemble Center Rafters

1. Layout (2) PURLIN57 rafters.
2. Attach (1) PLATE41 peak plate using FAST54.
3. Attach (2) PURLIN57 rafters to opposite side of PLATE41 to complete center rafter assembly.

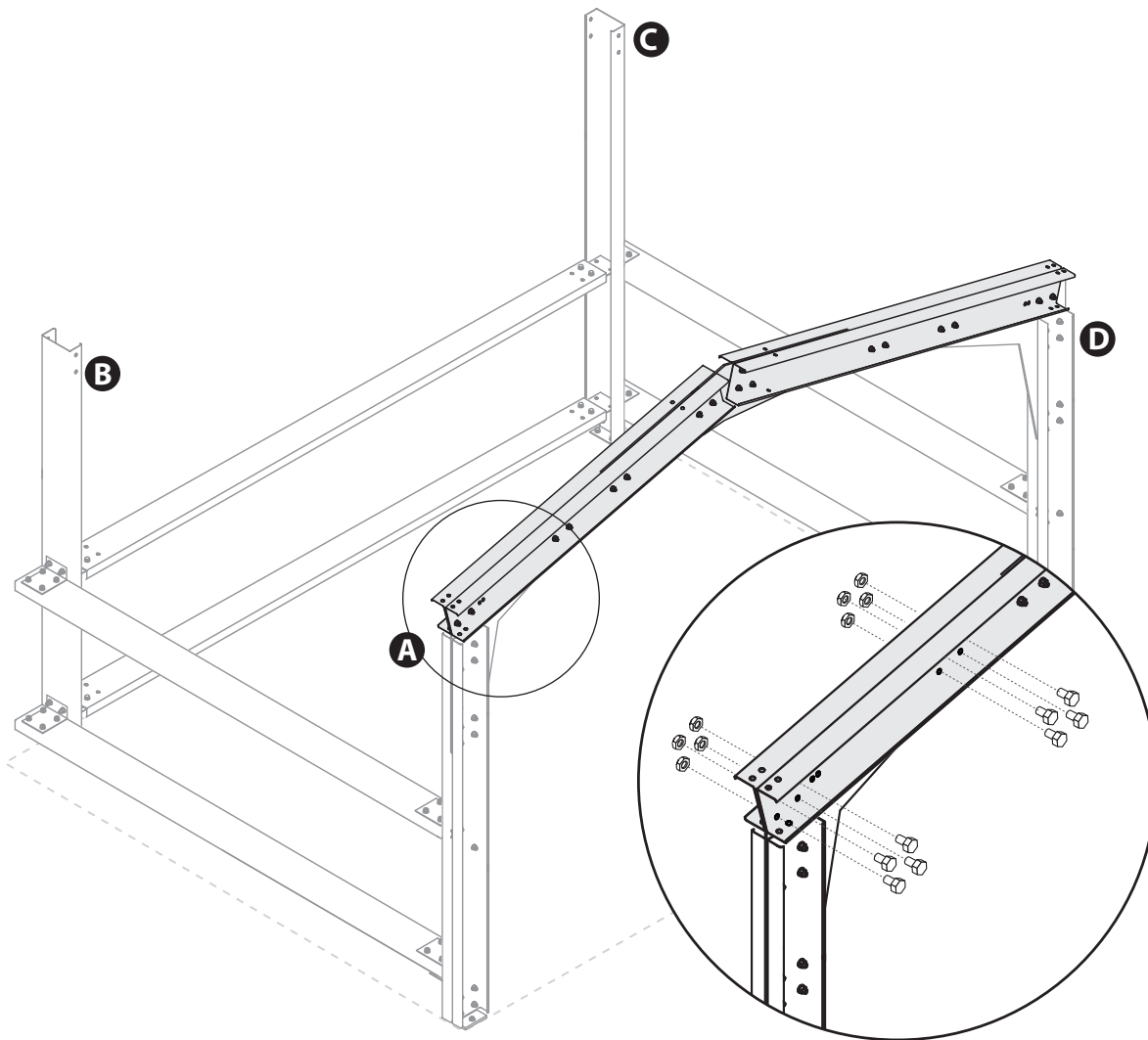
STEP 7

DIY Alternate Method:

If lifting machinery is not being used, stand center rafters and hold in place with 2x4 bracing. Then lift and install PLATE41. See instructional video for visualization.

REQUIRED PARTS

FAST54



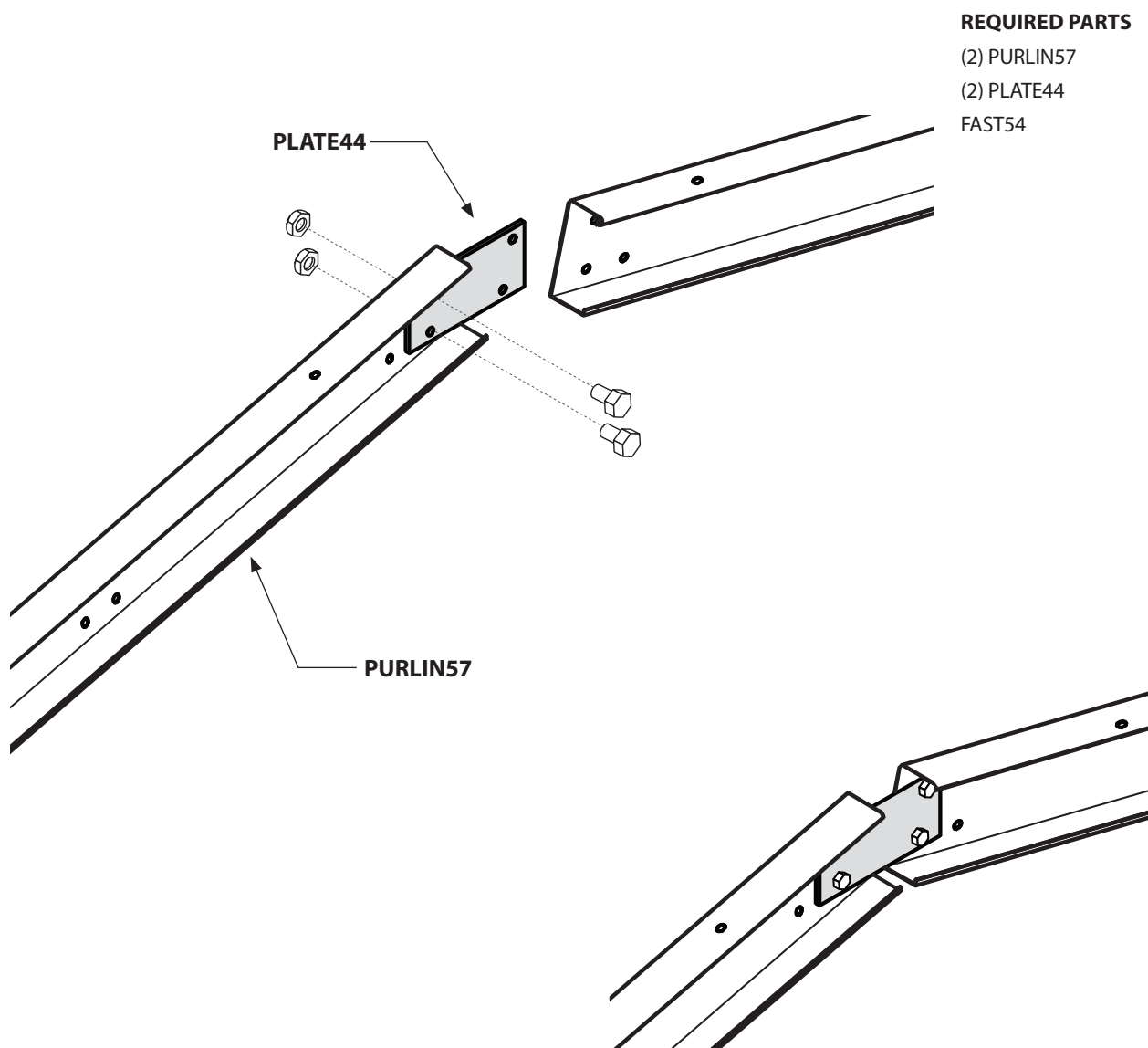
DIRECTIONS

Stand and Install Endwall Rafter Assembly

Note: This step will require lifting machinery due to height and weight of components. Follow OSHA safety requirements for your area.

1. Lift full rafter assembly from the previous step over columns A and D.
2. Bolt endwall rafter to PLATE42 at top of columns A and D using FAST54.

STEP 8



DIRECTIONS

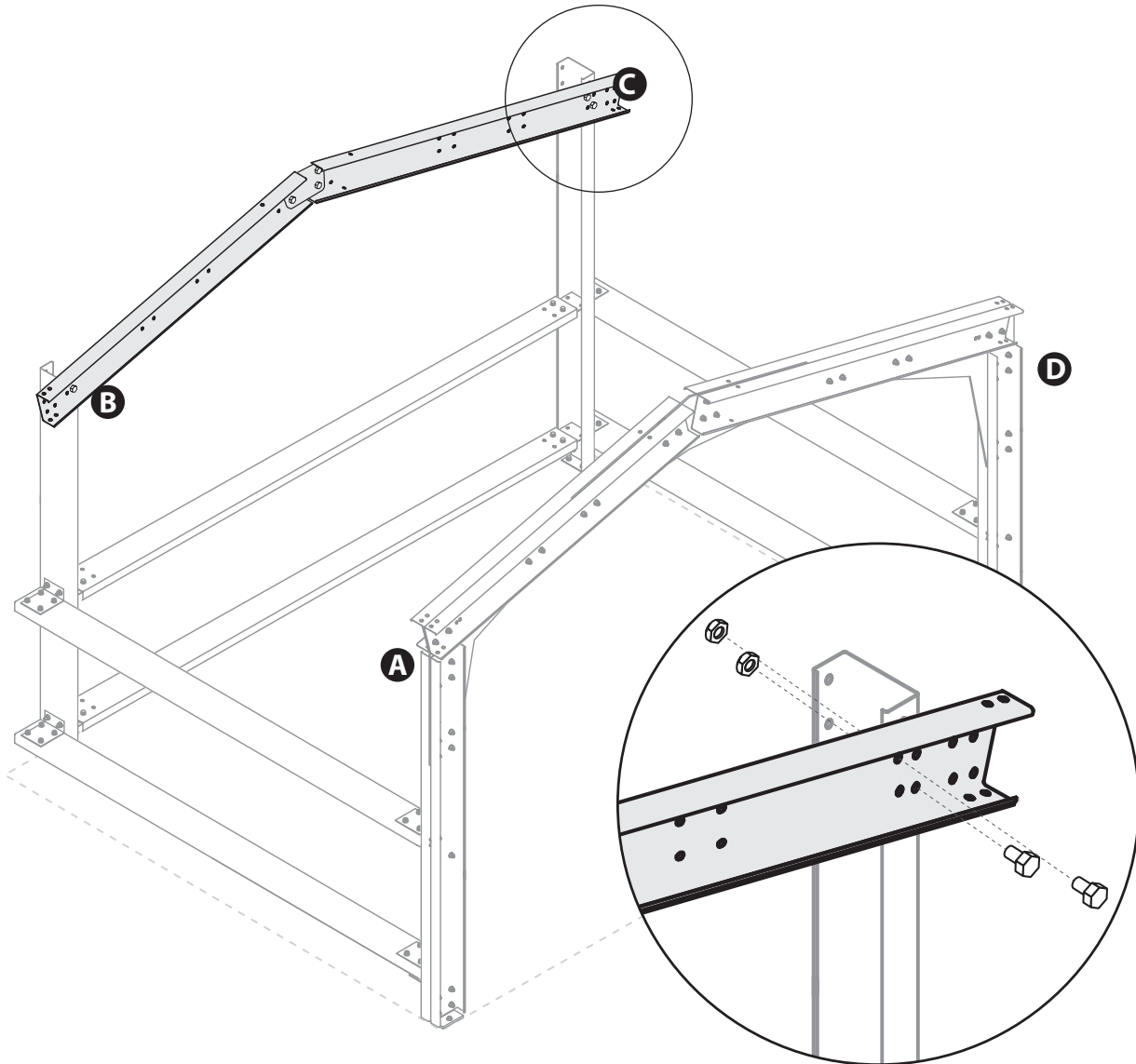
Assemble Endwall Rafter

1. Attach (1) PLATE44 to (2) PURLIN57 using FAST54.

STEP 9

REQUIRED PARTS

FAST54



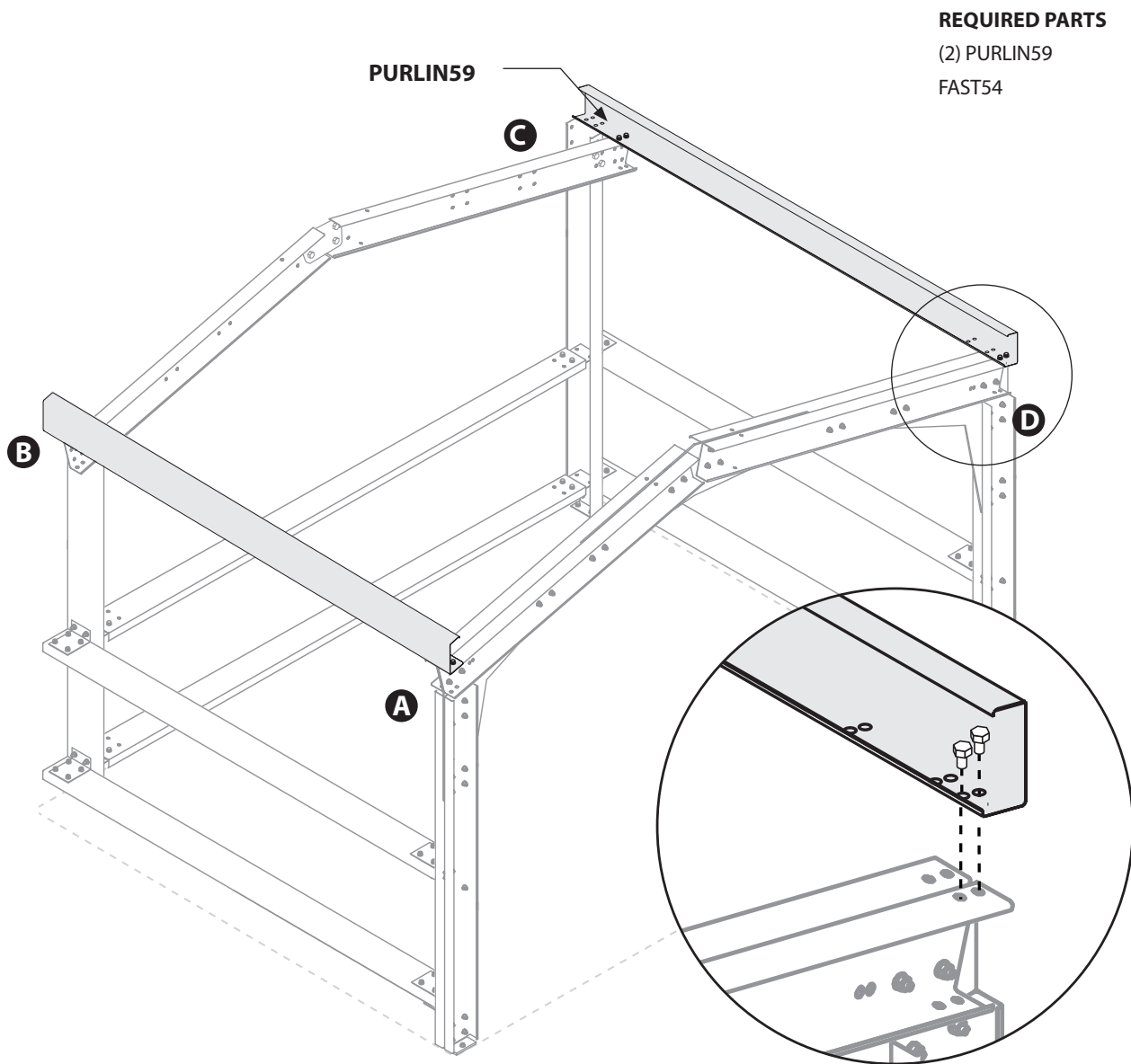
DIRECTIONS

Assemble and Install Endwall Rafters

Note: Keep PLATE44 facing interior of building.

1. Attach assembly from previous step to the top of columns B and C using FAST54.

STEP 10



DIRECTIONS

Install Eavestruts

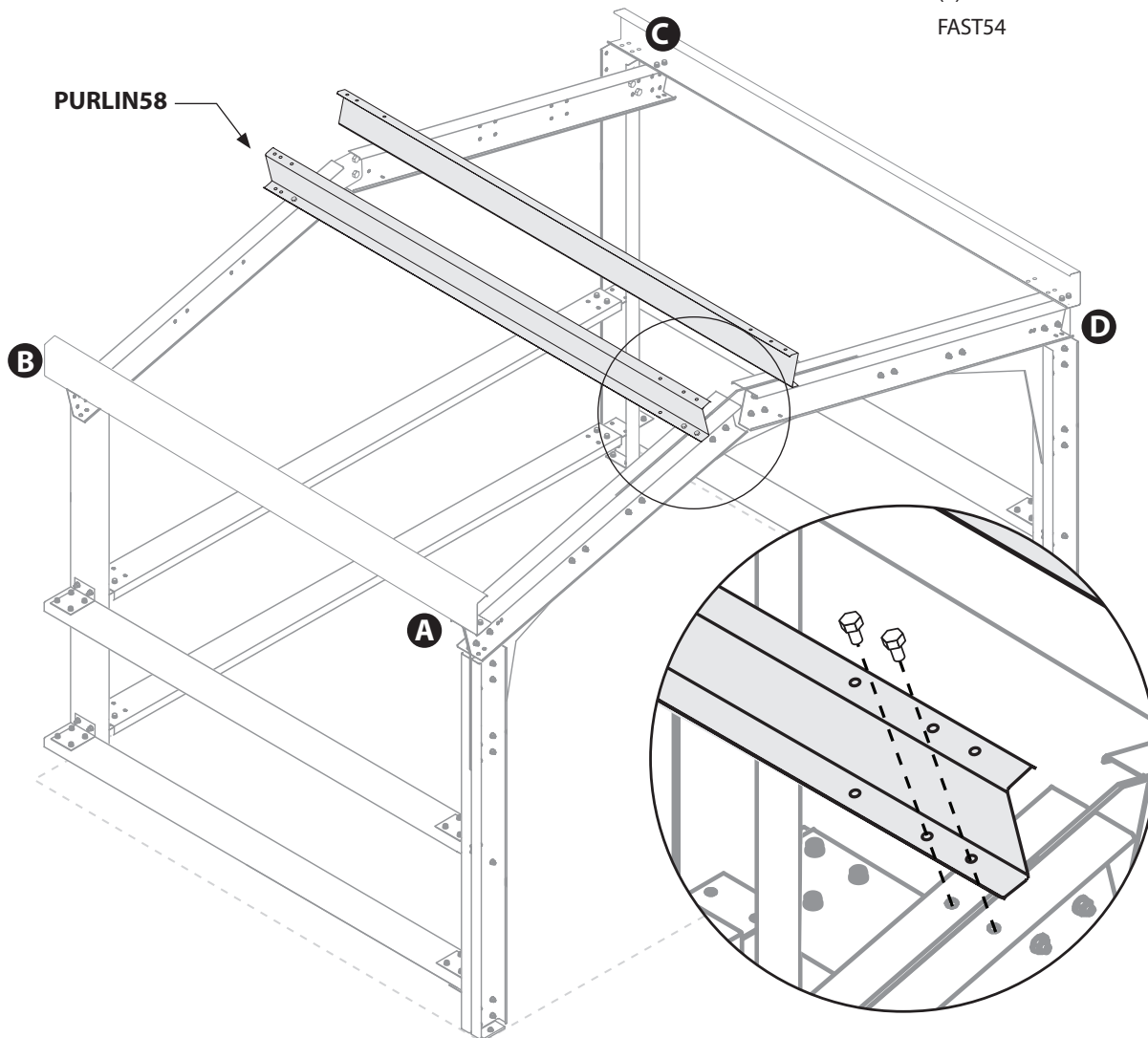
1. Bolt PURLIN59 on top of column C and D using FAST54 as shown above.
2. Repeat this installation over columns B and A.

STEP 11

REQUIRED PARTS

(2) PURLIN58

FAST54

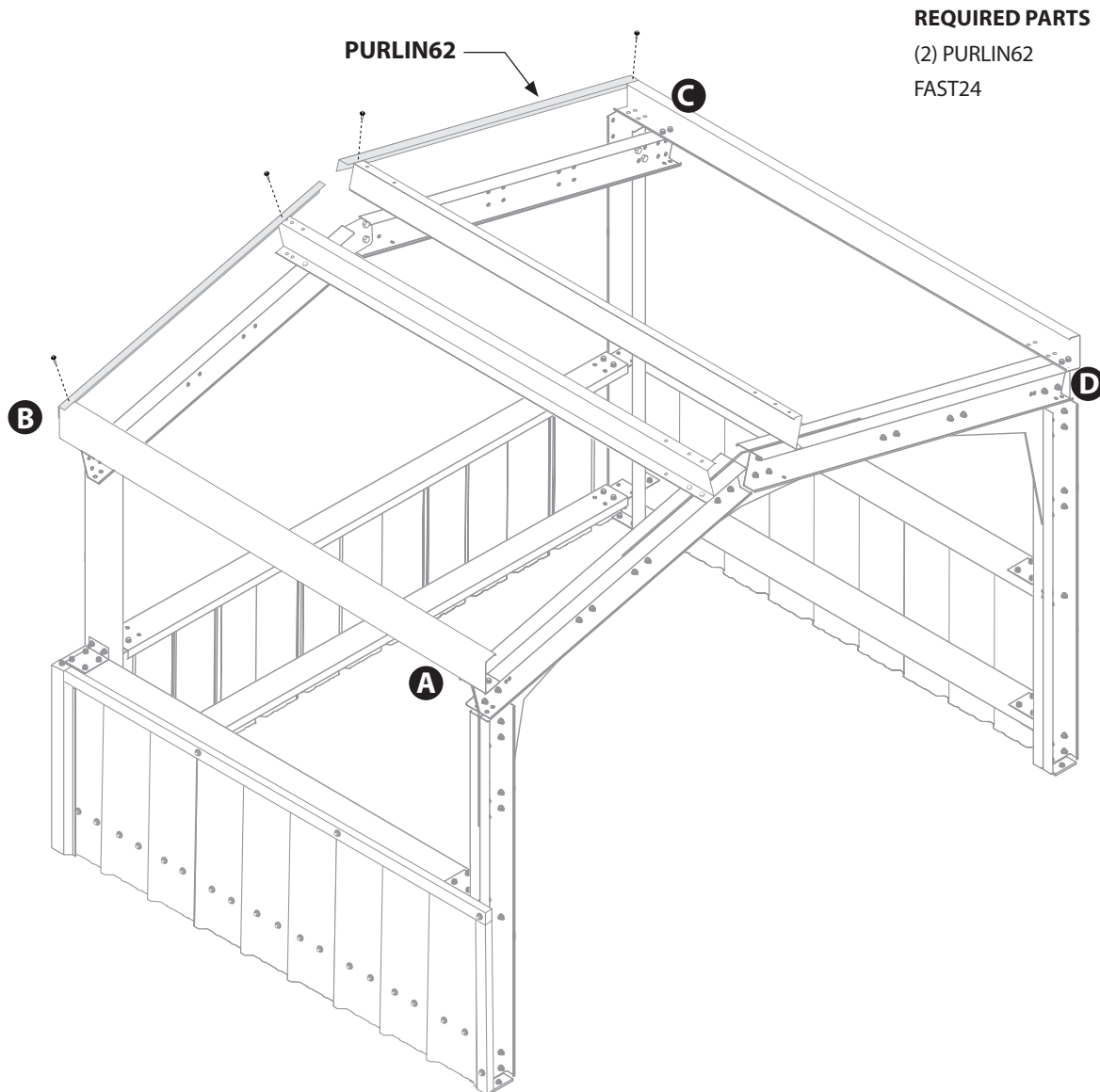


DIRECTIONS

Install Roof Purlins

Install (2) PURLIN58 between endwalls near the peak using FAST54 as shown above.

STEP 12



REQUIRED PARTS

(2) PURLIN62

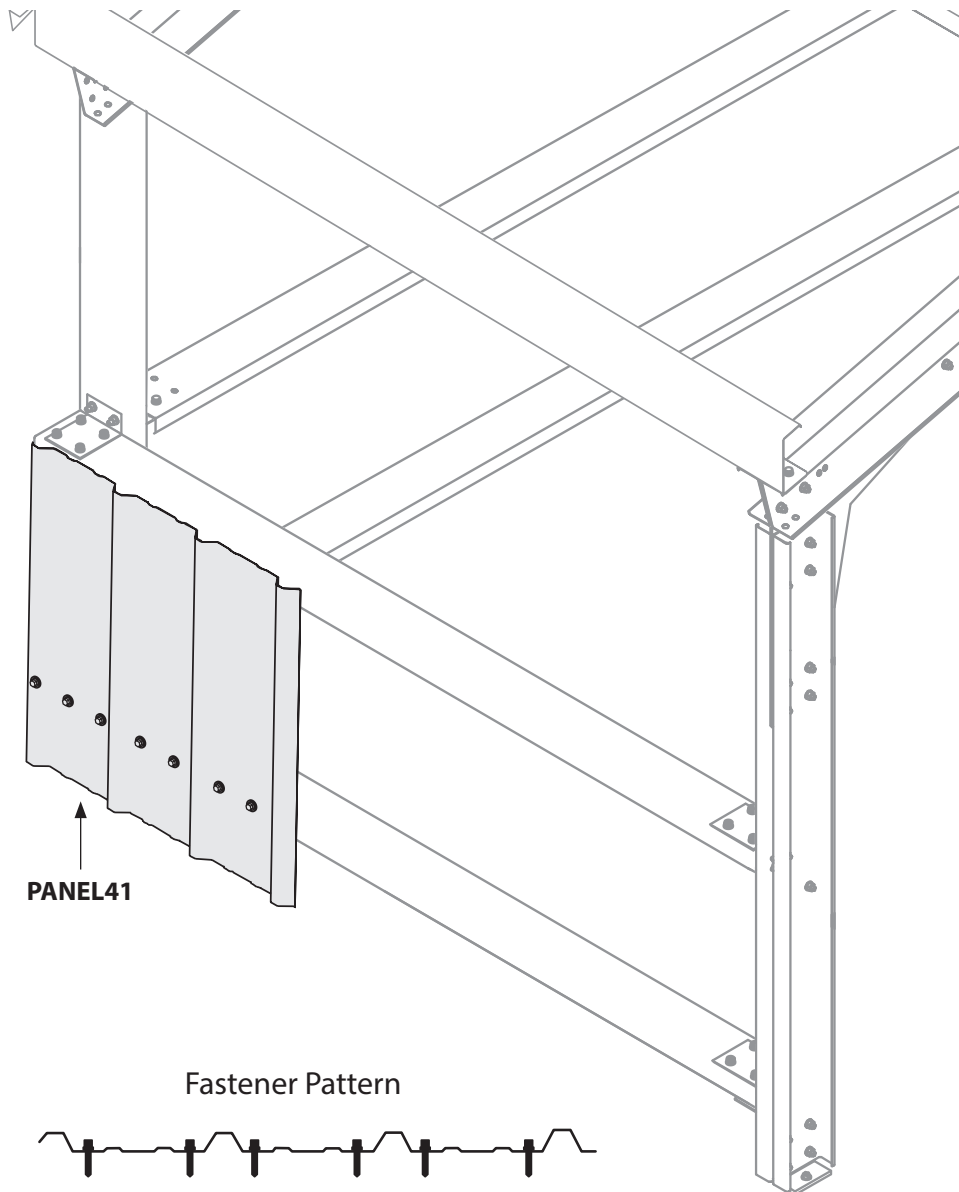
FAST24

DIRECTIONS

Install Rake Angle

Install PURLIN62 above endwall rafter using FAST24 as shown above.

STEP 13



REQUIRED PARTS

(1) PANEL41
FAST12

DIRECTIONS

Install Wall Sheeting

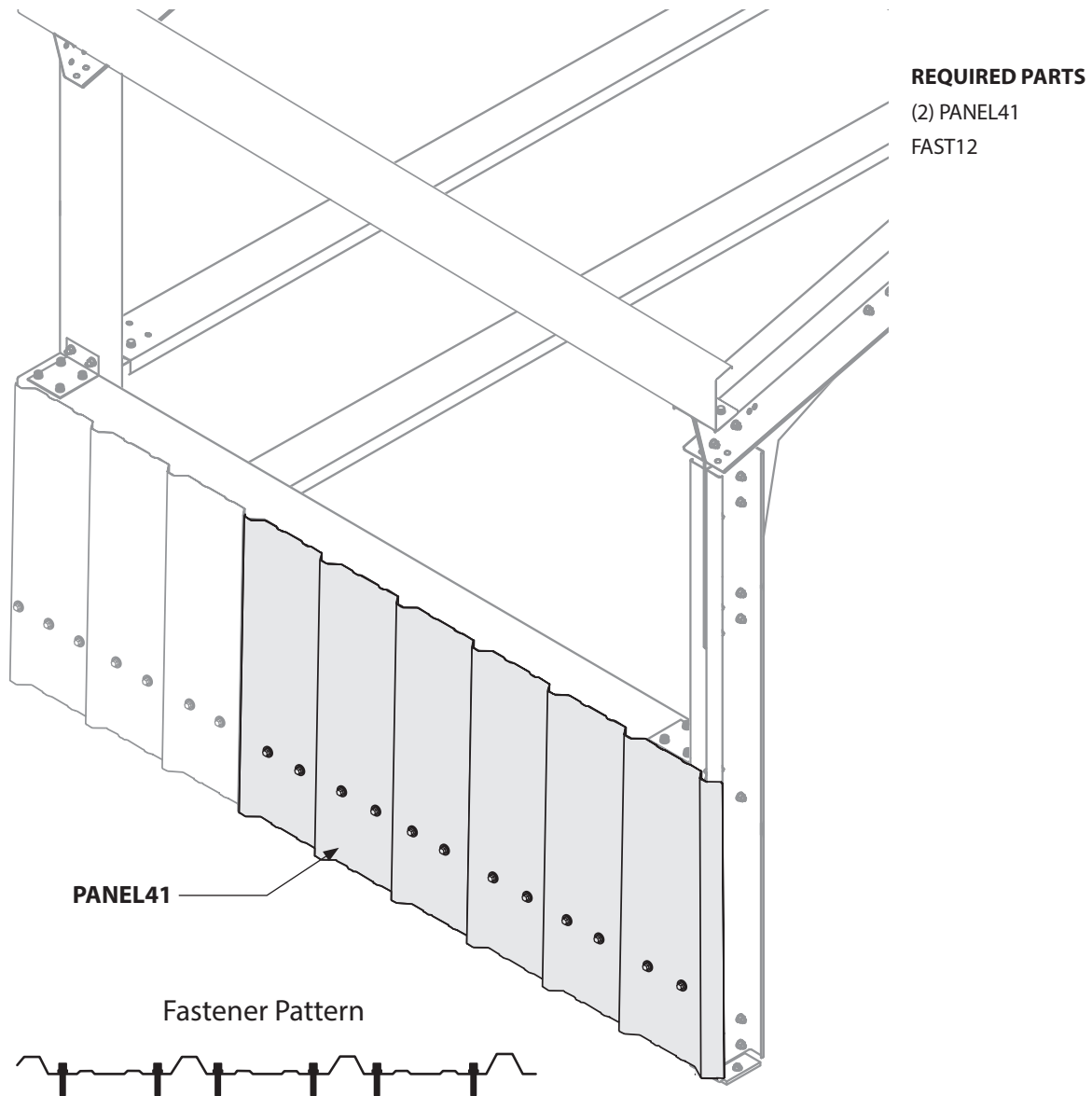
Note: Before installing, take note to which direction the prevailing winds come from at your location. You will want to begin installing panels on the end that is farthest away from the prevailing wind direction. This will allow the panel overlaps to not be exposed to the highest wind. (For example, if the strongest wind typically comes from the West, begin installing panels on the East end of your wall. Begin on the sidewall with the least amount of framed openings.)

1. Install one sheet of PANEL41 at the edge of your sidewall. Fasten PANEL41 to the cee girts using FAST12.

Be careful to note the under lap and the overlap side of the panel.

2. Follow the diagram for fastener pattern at bottom of panel to the sidewall. Do not fasten the top of the panel.

STEP 14



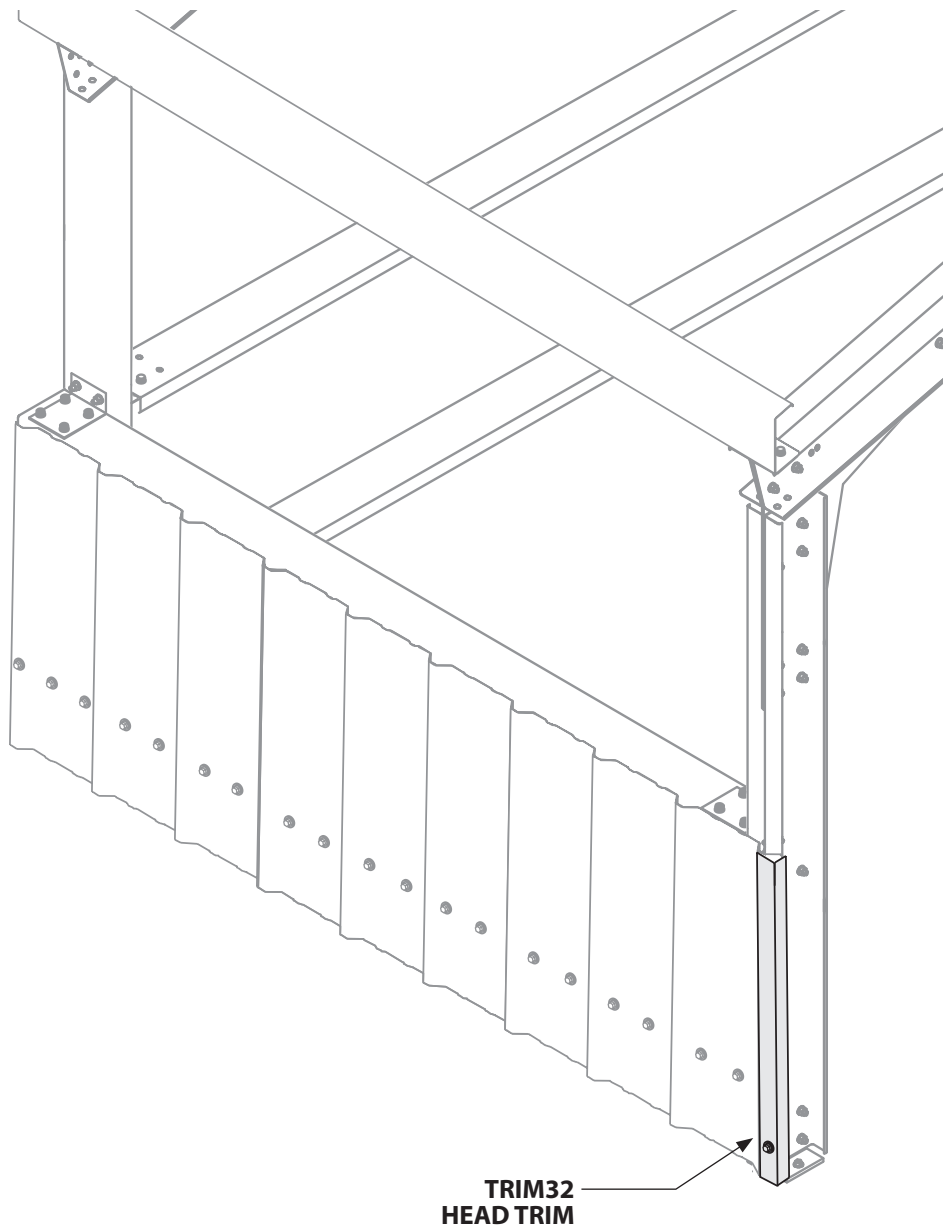
DIRECTIONS

Install Wall Sheeting

Also, some panels may be overlapped more than 1 rib to avoid cutting. If necessary, panel may be cut long ways at ending edge of sidewall.

1. Repeat STEP 13 for the 2 remaining panels of the sidewall, overlapping panels as shown in the diagram.
2. Use FAST12 to secure the panels to the purlins.

STEP 15



REQUIRED PARTS

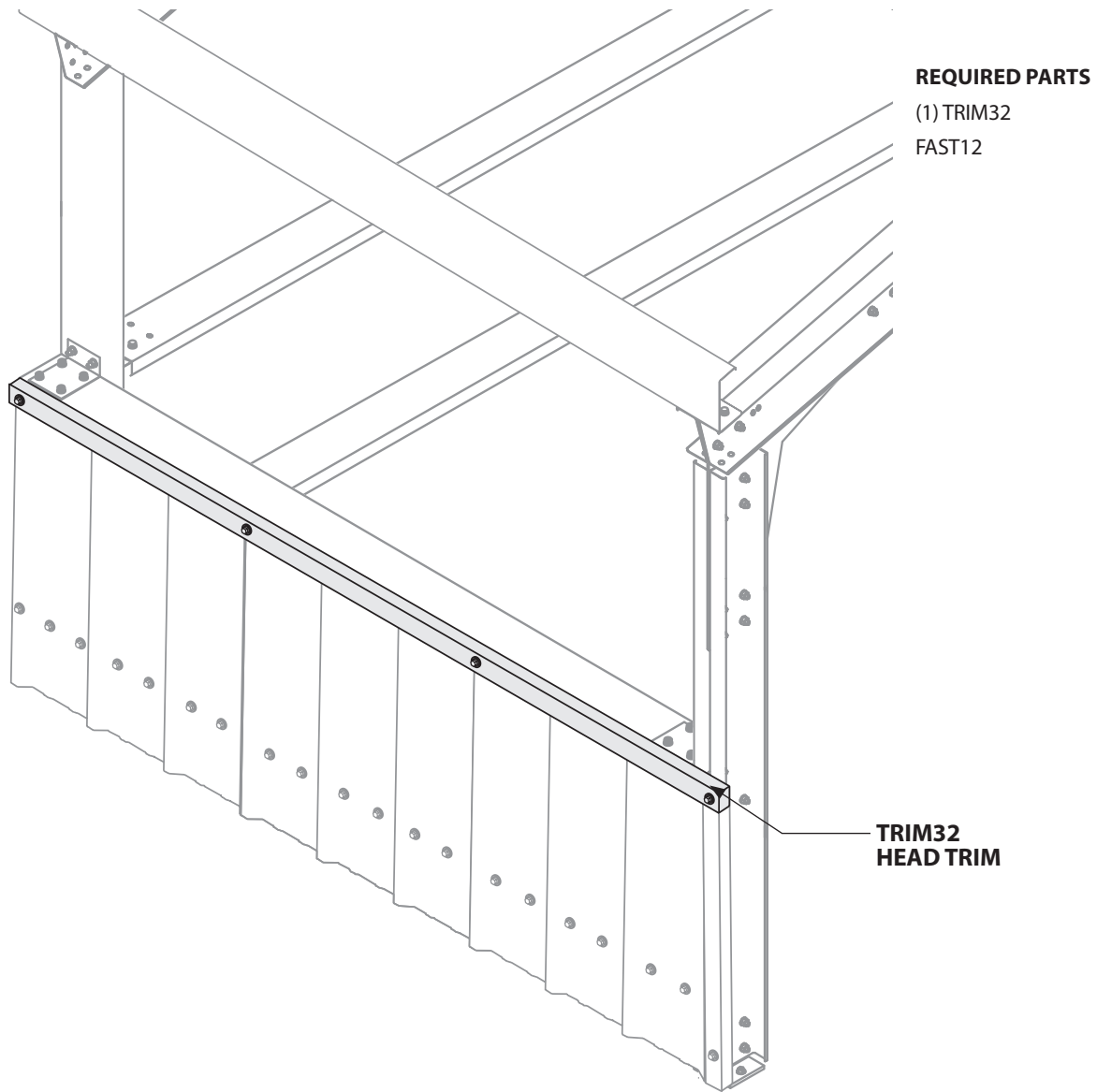
(1) TRIM32
FAST12

DIRECTIONS

Install Wall Sheeting

1. Cut (1) TRIM32 into two pieces, creating one head trim that is 3' and one that is 9'.
2. Fasten the 3' piece of TRIM32 at the bottom, covering the end of the panel. The longer side of the trim should face outward and the shorter leg behind the panel.

STEP 16



DIRECTIONS

Install Wall Sheeting

1. Use the 9' piece of TRIM32 you created in the previous step to top of the panel, capping it off. The short leg should fall behind the panel. The end can be cut and folded down to make a clean edge. Fasten at the ends and panel laps.
2. Use FAST12 to secure the head trim and wall panels to the sidewall girts.

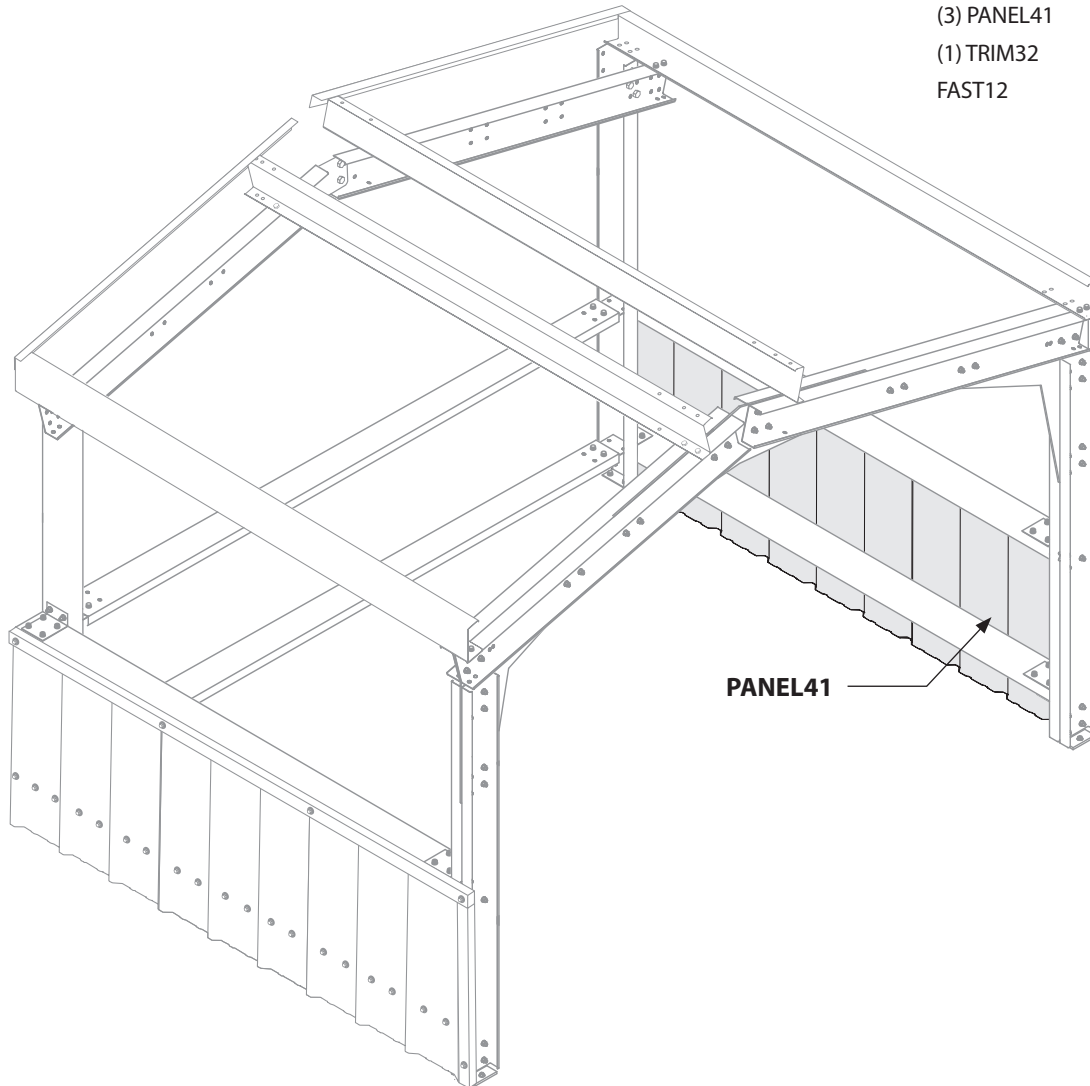
STEP 17

REQUIRED PARTS

(3) PANEL41

(1) TRIM32

FAST12

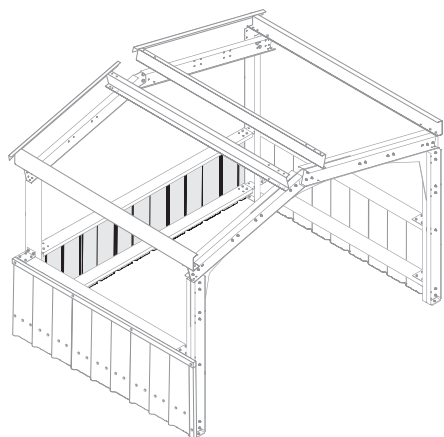


DIRECTIONS

Install Wall Sheeting

1. Repeat steps 15-18 for the other sidewall, capping the panel with TRIM32 as in previous steps.

STEP 18

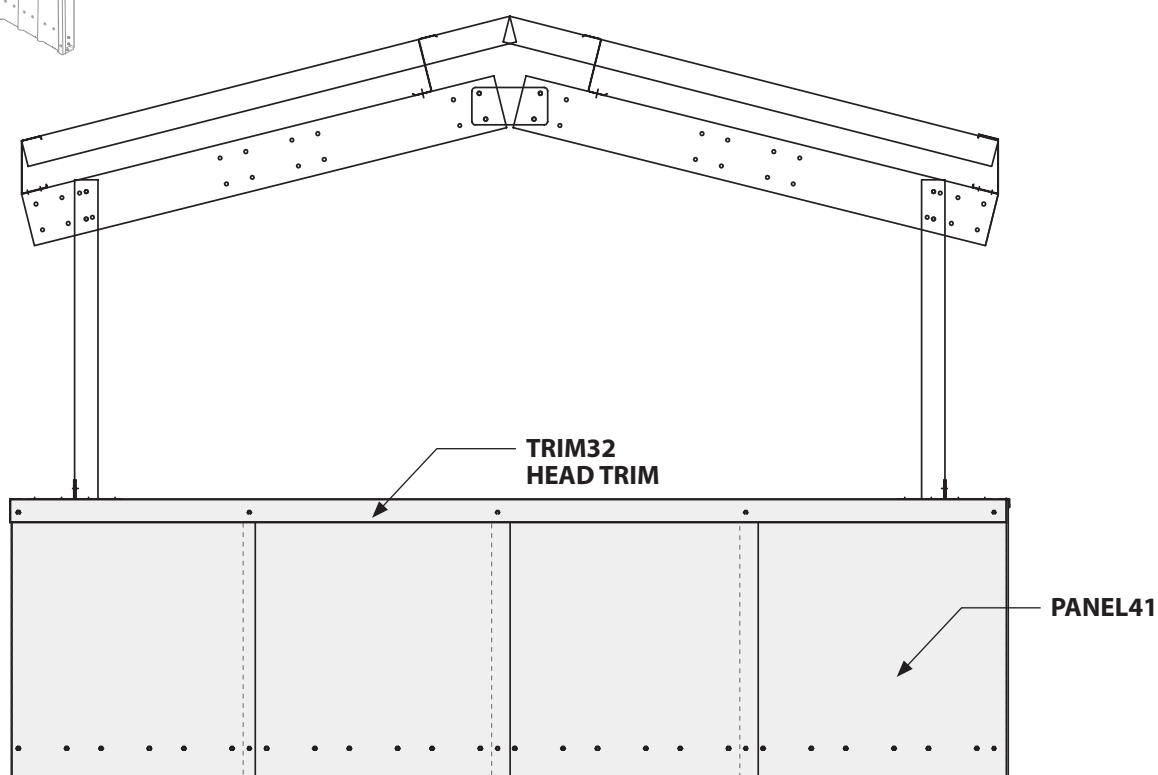


REQUIRED PARTS

(4) PANEL41

(1) TRIM32

FAST12

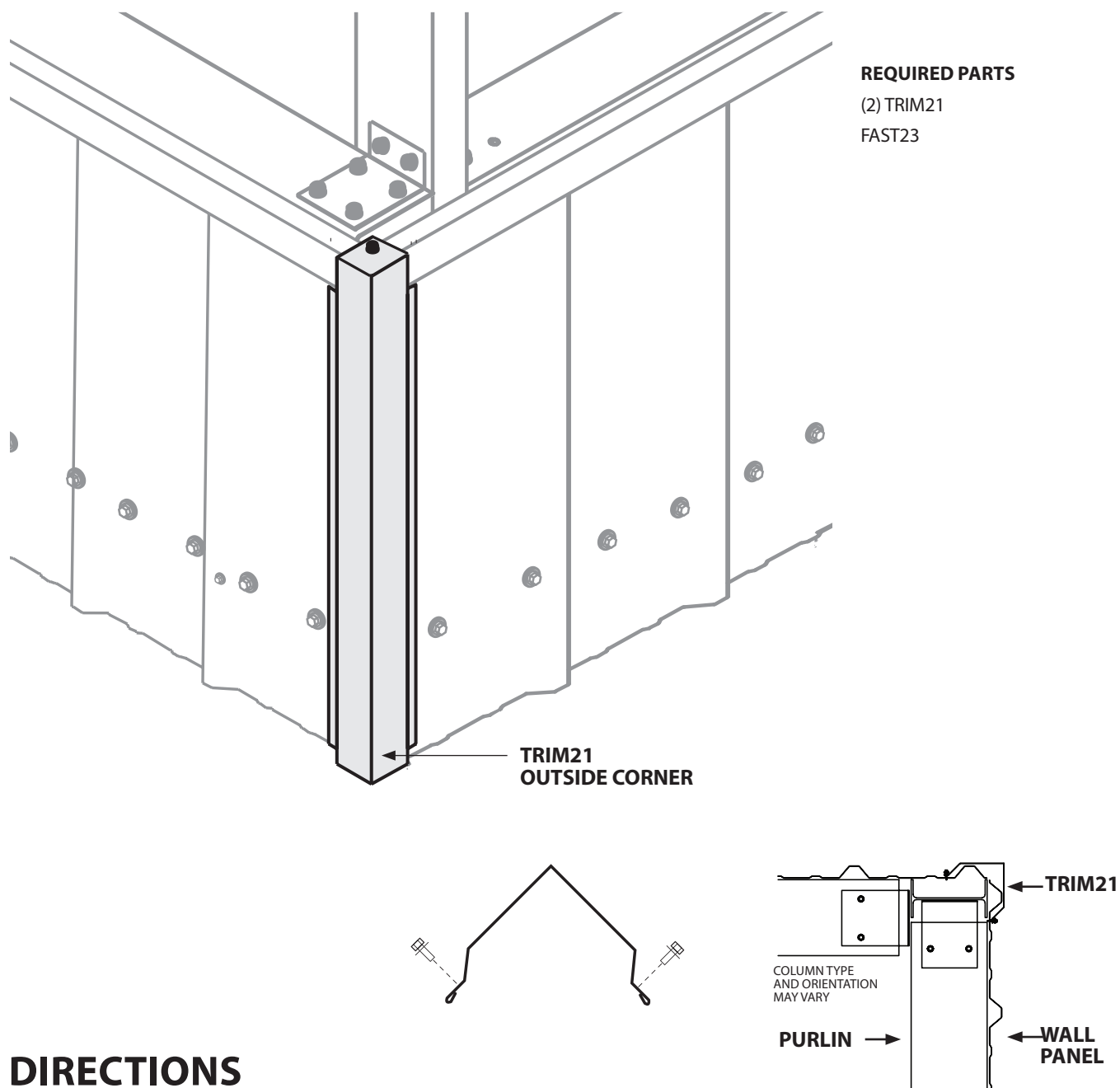


DIRECTIONS

Install Wall Sheeting

1. Assemble the panels shown above for the end wall, capping the panel with TRIM32 as in previous steps.

STEP 19



DIRECTIONS

Install TRIM21

Install two TRIM21 with FAST23 along the corners of the endwall panels. Place fasteners to match fastener line on wall panels (do not overtighten). The above diagram shows the fastener placement location. You can finish the trim by cutting the folding.

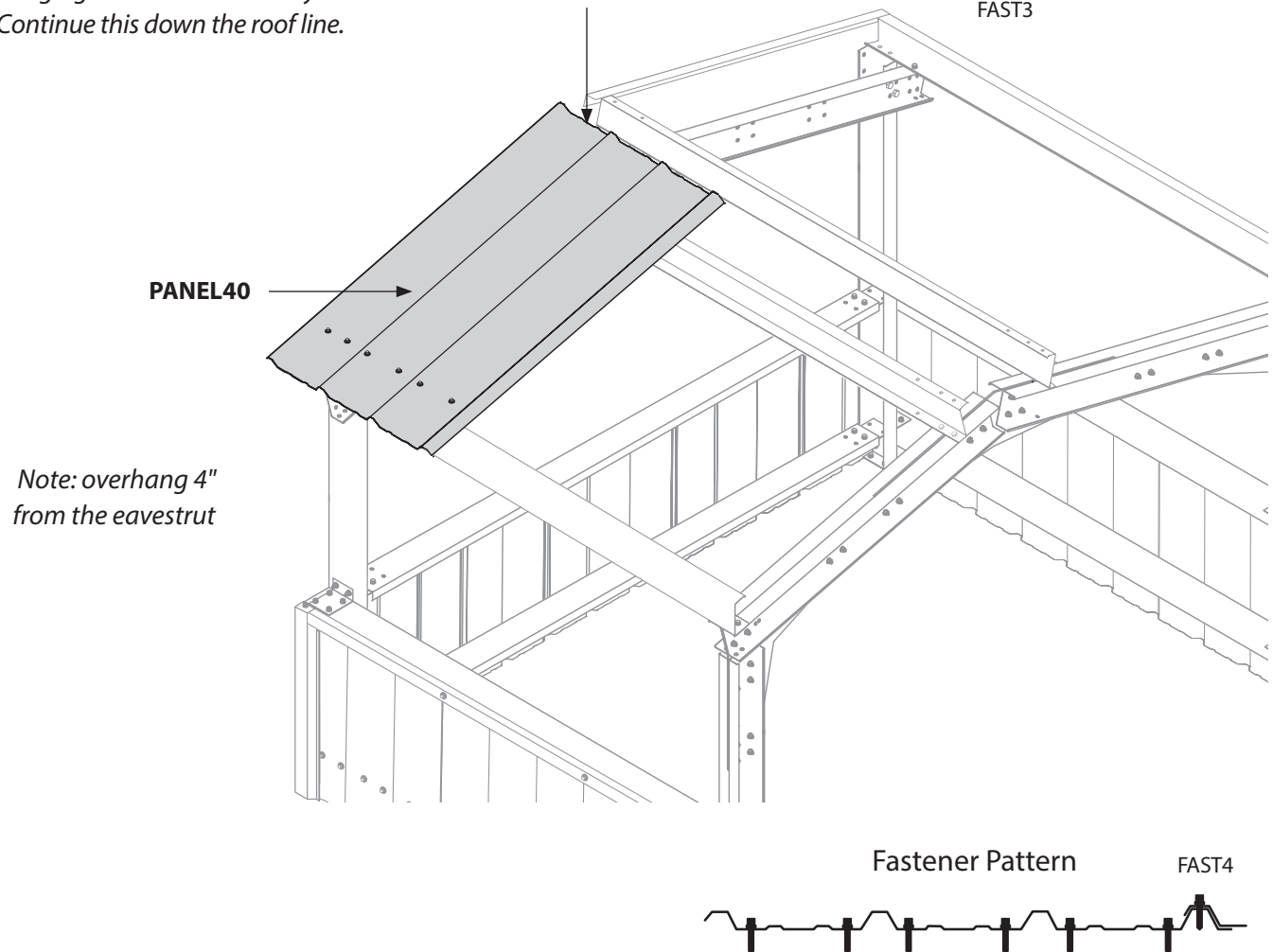
STEP 20

Tip: Squareness is key on this first panel. Start by aligning the panel along the rake angle. Then measure that each side is hanging over the eave trim by 3". Continue this down the roof line.

Note: Do not fasten top row. Will be fastened in STEP 22.

REQUIRED PARTS

(1) PANEL40
FAST3



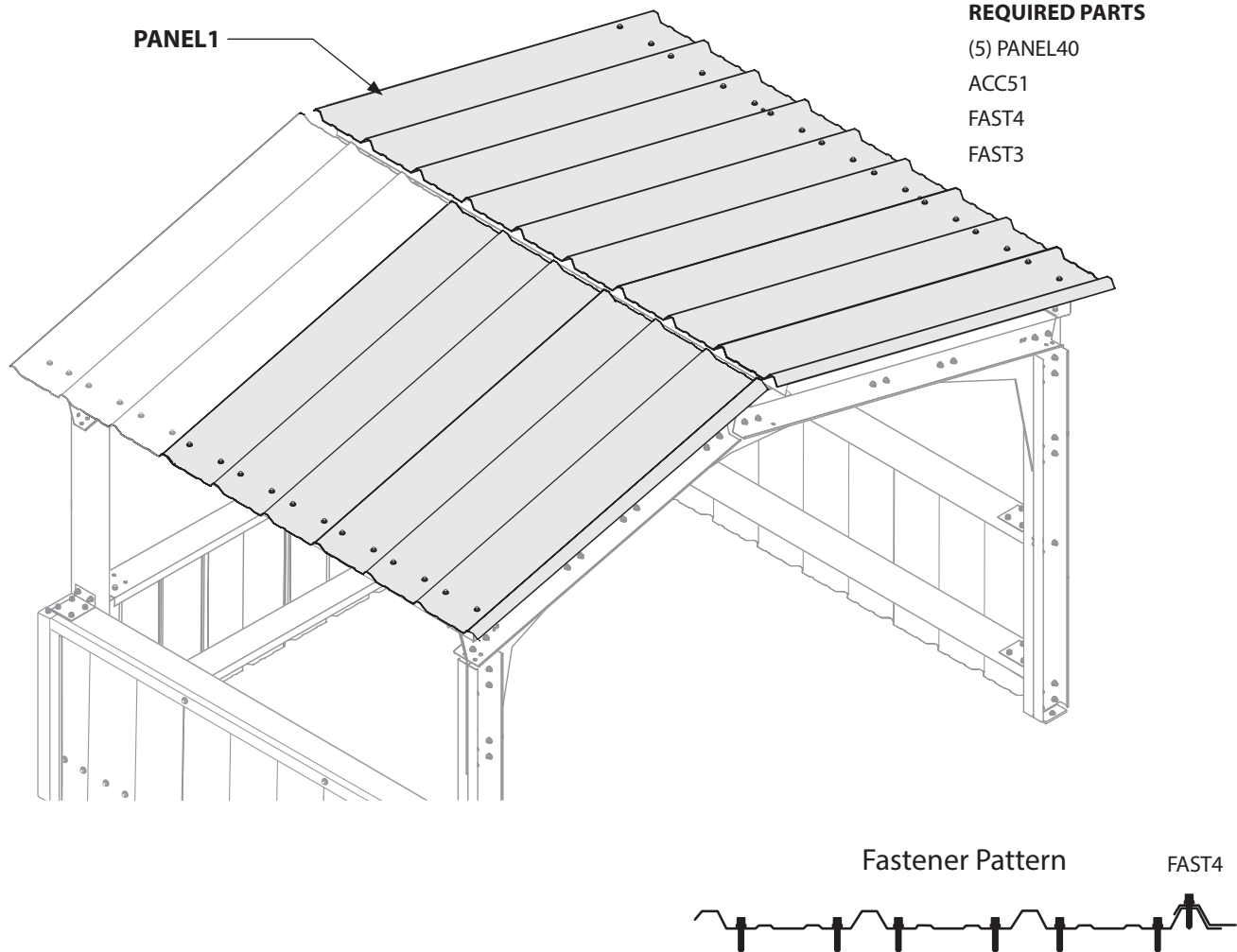
DIRECTIONS

Begin Sheeting the Roof

Note: Before sheeting the roof take note of the direction the prevailing winds come from. Start with the end that is opposite from your prevailing wind direction.

1. Use the above diagram for the fastener patterns when installing panels using FAST3.
2. Let the panel hang 3" over the eave strut.
3. Do not fasten at the ridge. This will be fastened when installing the ridgecap.

STEP 21



DIRECTIONS

Finish Sheeting the Roof

1. Use FAST3 to secure panels to the purlins. Use FAST4 when securing the panels together.
2. Do not overlap roof panel more than one rib. PANEL40 has a 38" overall coverage, so three panels should fit perfectly on the roof.
3. Install all of one side then in the same direction, install the opposite side. Ensure every panel installed on the opposite side is directly across from an equal rib. This will allow the formed ridge cap to be easily installed.

STEP 22

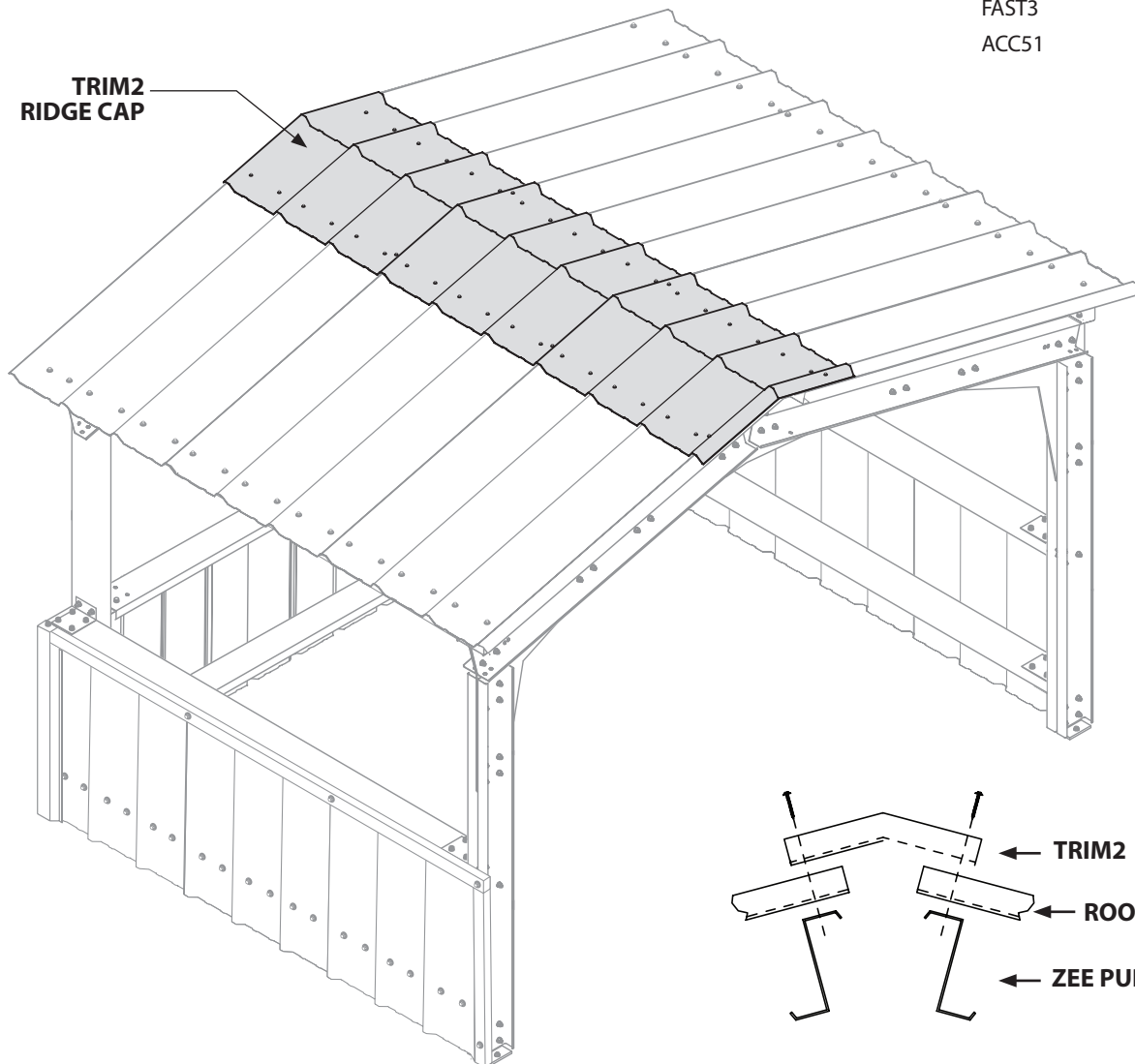
REQUIRED PARTS

(3) TRIM2

FAST3

ACC51

TRIM2
RIDGE CAP



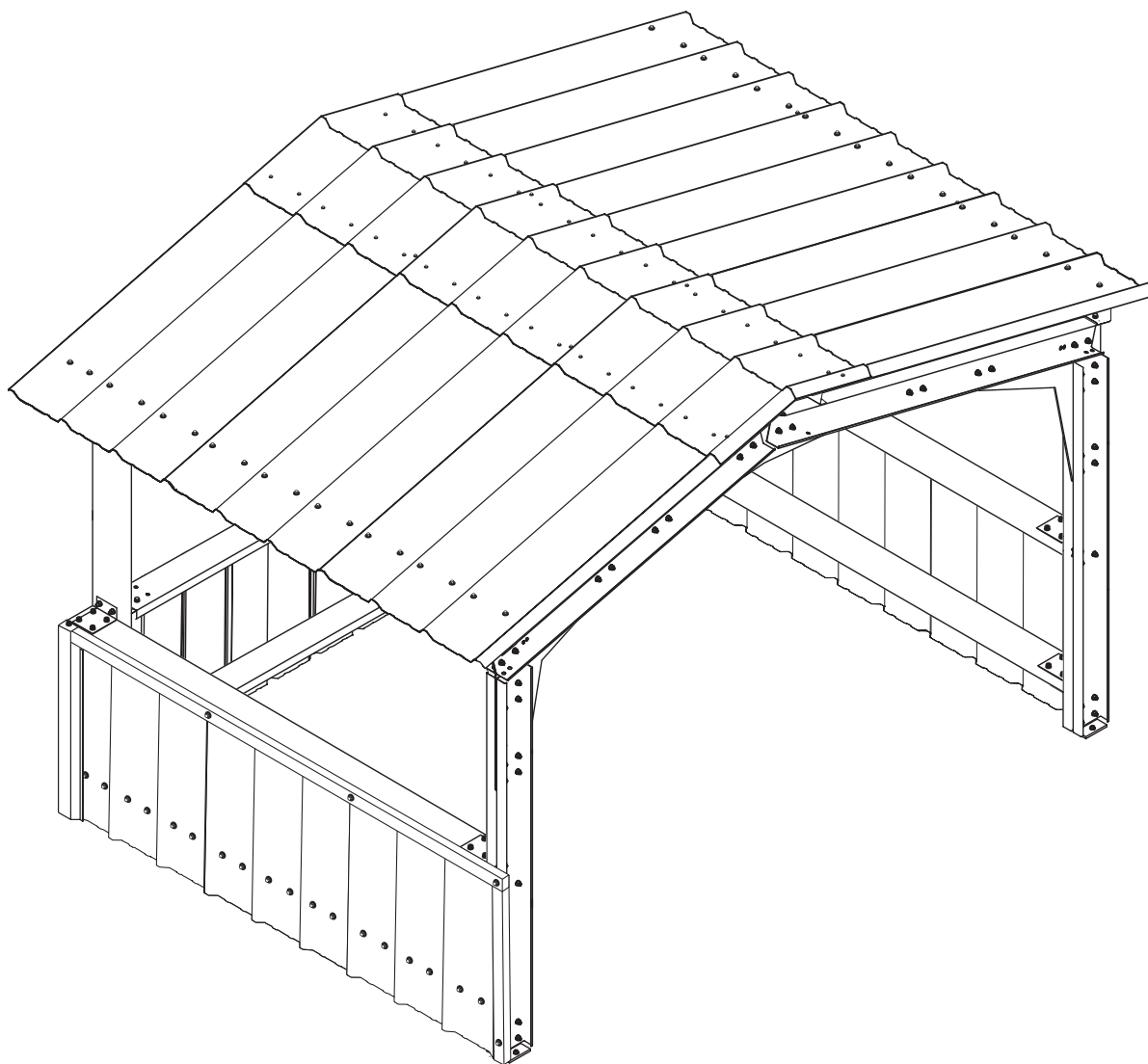
DIRECTIONS

Install the Ridge Cap

1. Once all of the roof panels are installed then you may begin installing your roof formed ridge caps.
2. Fasten TRIM2 to roof panels and purlins using FAST3.

Tip: To locate the center of ridge on building, use two levels to meet in the middle to determine apex.

STEP 23



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