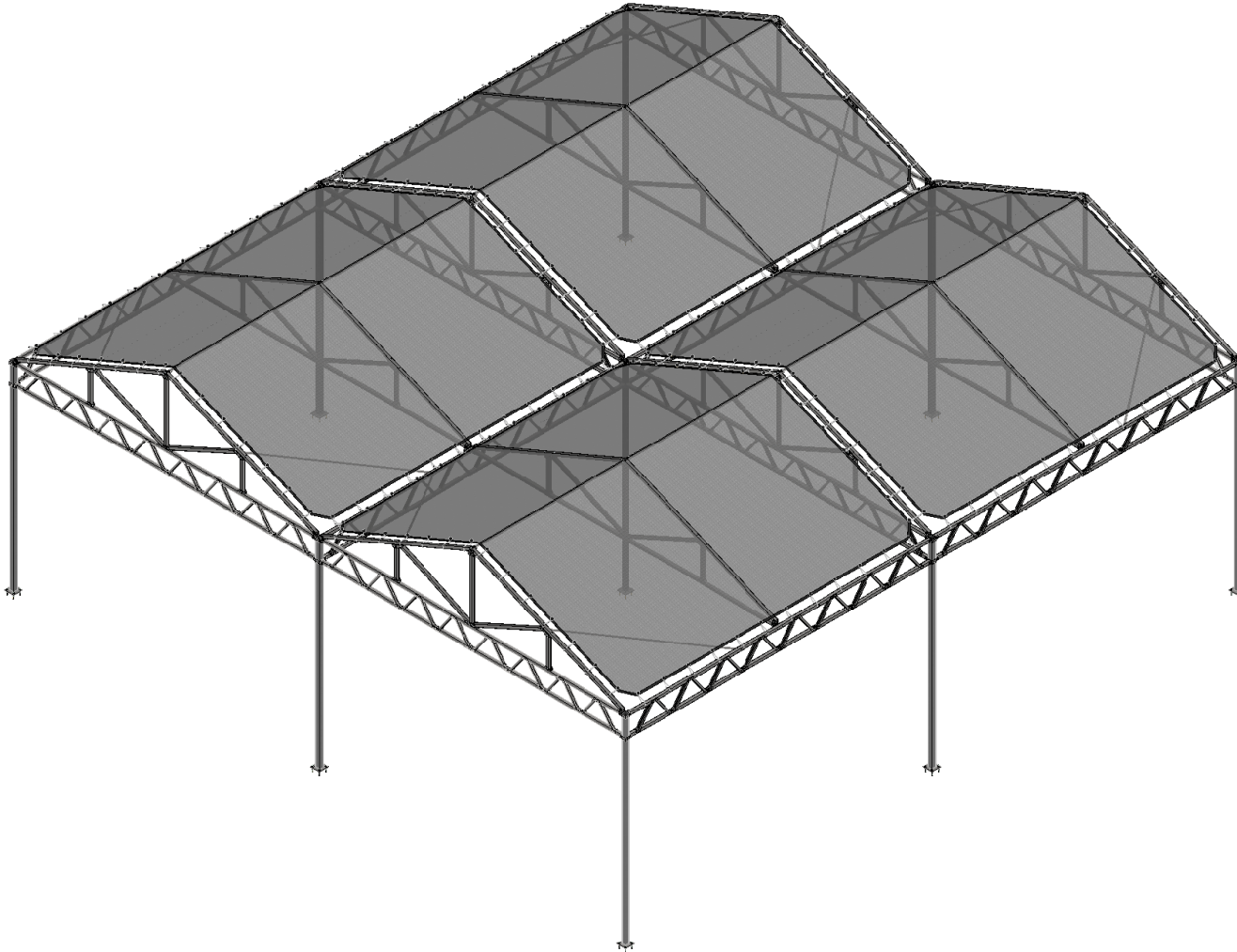


Peak W-Truss Shade Structure System

Assembly Instructions



P.O. Box 458 - 27725 Danville Avenue - Castle Rock, MN 55010 - www.poly-tex.com
U.S. & Canada Toll Free - 800-852-3443 - (651) 463-7009 - fax (651) 463-2479

REV: AD-210513

PLEASE READ THE INSTALLATION INSTRUCTIONS CAREFULLY BEFORE BEGINNING TO ASSEMBLE THE STRUCTURE. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

There is no guarantee of the load capacity of the structure or foundation for snow, wind, seismic, or other loads unless buyer has received certified engineering drawings with the structure, and Poly-Tex does not warrant that the frame or foundation will comply with local or state building codes in buyer's location.



This structure is intended to be self-supporting, provided it is constructed with all frames, hardware, sheathing, sheeting, bracing, cables, and membrane in place, and secured to the foundation as shown in the manual. Stability during construction, from winds and loads imposed during erection, is the sole responsibility of the installer. Observe safety codes required by the local jurisdiction, and relevant safety practices for working at heights. Avoid the risk of electrical shock from overhead lines or electrical storms. Poly-Tex recommends contracting a licensed electrician to perform electrical work. Eye protection is recommended under all circumstances and hearing protection is recommended when cutting components with power tools.



No part of this structure is engineered to function as an anchorage point for a fall arrest system. Use a safety net or work from a safe work platform (i.e. scaffolding). Select a calm day for work. Wind can be sufficient enough to knock materials or workers off a work platform or ladder, resulting in a potentially deadly fall.

Overview of assembly procedure

While each structure and site is unique, and may require special considerations, these instructions are for a tilt-up method (where frames are assembled on the ground and tilted onto ground stakes or anchor rods using ropes or lifts). If installer is not confident to erect the structure, Poly-Tex suggests hiring a general contractor, carpenter, or similar licensed business familiar with construction, to assemble and erect the structure.



Do not overload structure. Consult with a Poly-Tex representative prior to adding any amount of weight over the specified capacity of this structure. Basket purlins, shelving or any objects of significant weight shall not be hung, attached, or secured to roof or truss members in a manner that will overload the structure.



Do not walk on polycarbonate sheets. If structure is to be covered with polycarbonate sheets, always use scaffolding for the erection process to avoid damage to sheeting and to ensure safety. Polycarbonate sheeting has UV coating protected with vinyl film on the exterior surface. Install sheets with the film intact and toward the exterior. Remove film once the sheet has been fastened

Poly-TEX, Inc. Limited Warranty

Poly-TEX, Inc. warrants its products to be free from defects in material and workmanship for a period of (1) year from date of invoice. This warranty is provided to the original purchaser of the product and is not transferable. Poly-TEX does not warrant parts not manufactured by Poly-TEX, but does assign any transferable manufacturer or supplier warranties. Should any defect be found, full repair or replacement will be rendered to the customer at no cost following inspection by a Poly-TEX representative and the return of the defective product to our Castle Rock, MN factory. Expenses for removal or reinstallation of defective products will not be covered by the warranty. The sale of custom projects are final and are not eligible for refund.

POLY-TEX SHALL NOT BE HELD RESPONSIBLE FOR ANY SPECIAL OR CONSEQUENTIAL DAMAGES, OR FOR ANY DELAY IN PERFORMANCE OF THIS WARRANTY BEYOND OUR CONTROL. THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WHETHER IMPLIED, WRITTEN, OR ORAL INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

ADDITIONALLY, THERE IS NO GUARANTEE OF THE LOAD CAPACITY OF THE STRUCTURE FOR SNOW, WIND, SEISMIC, OR OTHER LOADS UNLESS BUYER HAS RECEIVED CERTIFIED ENGINEERING DRAWINGS WITH THE STRUCTURE AND POLY-TEX, INC DOES NOT WARRANT THAT FRAME WILL COMPLY WITH LOCAL OR STATE BUILDING CODES IN BUYERS LOCATION.

This warranty does not cover damage from customer abuse, misuse, improper installation, customer modifications, customer negligence in performing normal maintenance, damage resulting from acts of nature.

REV - 11/20

Sheet Index

- 2 Safety Guidelines
- 3 Warranty and Index
- 4 Part Identification
- 5 Part Identification
- 6 Structure Overview
- 7 Site Preparation
- 8 Fitting Installation
- 9 PWT Lower Truss Fitting Assembly
- 10 Truss Installation
- 11 Peak Truss Top Assembly
- 12 Peak Truss Assembly
- 13 Peak Bracing Installation
- 14 Intermediate Truss Chord Fitting Assembly
- 15 Floater Fitting Installation
- 16 Intermediate Truss Chord Installation
- 17 Intermediate Peak Assembly
- 18 Peak Purlin Installation
- 19 Shade Cloth Installation
- 20 Bungee Installation

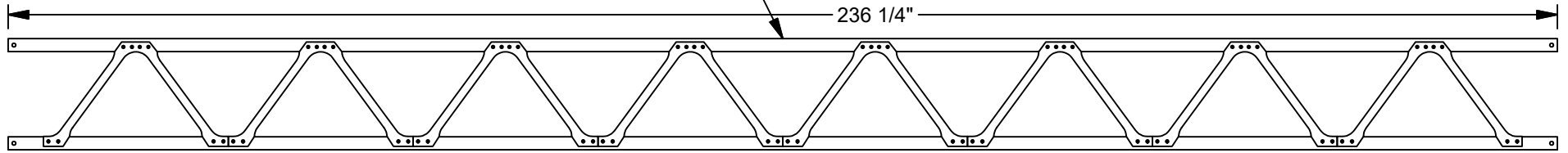
Tools Required

- Safety Glasses
- 30 Ft Tape Measure
- 9/16" Masonry Bit
- 1/2" Sheet Metal Bit
- Cordless Drill
- Ratchet
- 9/16" Socket
- 3/4" Socket
- Hammer

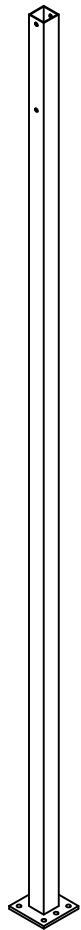
Part Identification

WT2276 PWT Lower Truss has 1/2" dia. holes in top chord for fitting attachments

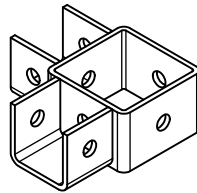
Note: Not all W-Truss kits will include all parts shown.



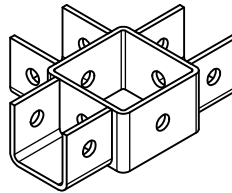
WT2000 and WT2276 (Or Custom Size)
Flat W-Truss and PWT Lower Truss



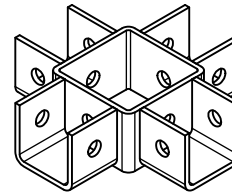
SU2005
Vertical Post



FT4010
2-Way Fitting



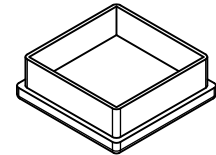
FT4011
3-Way Fitting



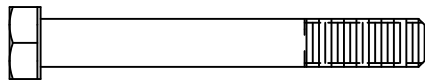
FT4012
4-Way Fitting



PT2521
Bungee



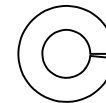
RS6020
Black Post Cap



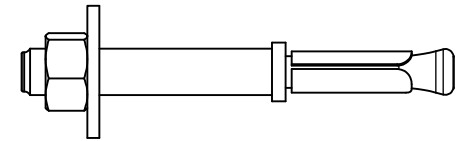
NB1934
Hex Bolt 1/2" X 4"



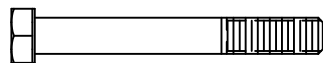
NB1936
Hex Nut 1/2"



NB1937
Lock Washer 1/2"



NB1930
Expansion Anchor 1/2" X 4-1/2"



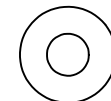
NB1757
Hex Bolt 3/8" X 3"



NB1874
Hex Nut 3/8"

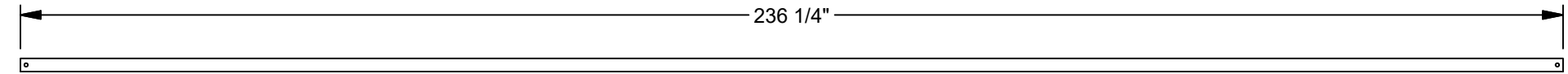


NB1864
Lock Washer 3/8"

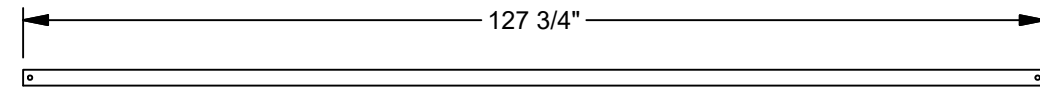


NB1863
Flat Washer 3/8"

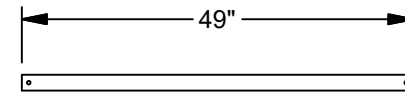
Part Identification



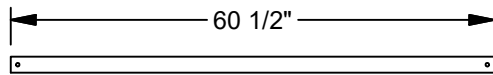
WT2012 (Or Custom Size)
Intermediate Truss Chord



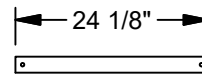
WT2288
Top Chord



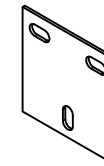
WT2289
Center Vertical Support



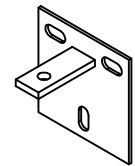
WT2290
Diagonal Support



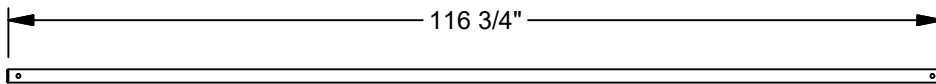
WT2291
Outside Vertical Support



FT1520
PWT Exterior Peak Plate



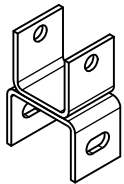
FT1521
PWT Interior Peak Plate



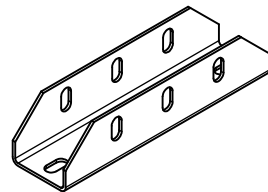
WT2306 (Or Custom Size)
Peak Purlin



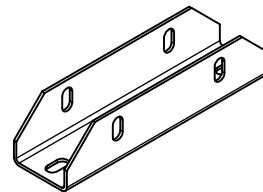
WT2250
Peak Brace



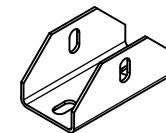
FT1510
PWT End Fitting



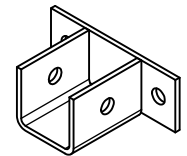
FT1511
PWT 3-Way Fitting



FT1512
PWT 2-Way Fitting



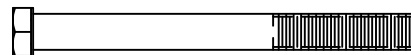
FT1513
PWT 1-Way Fitting



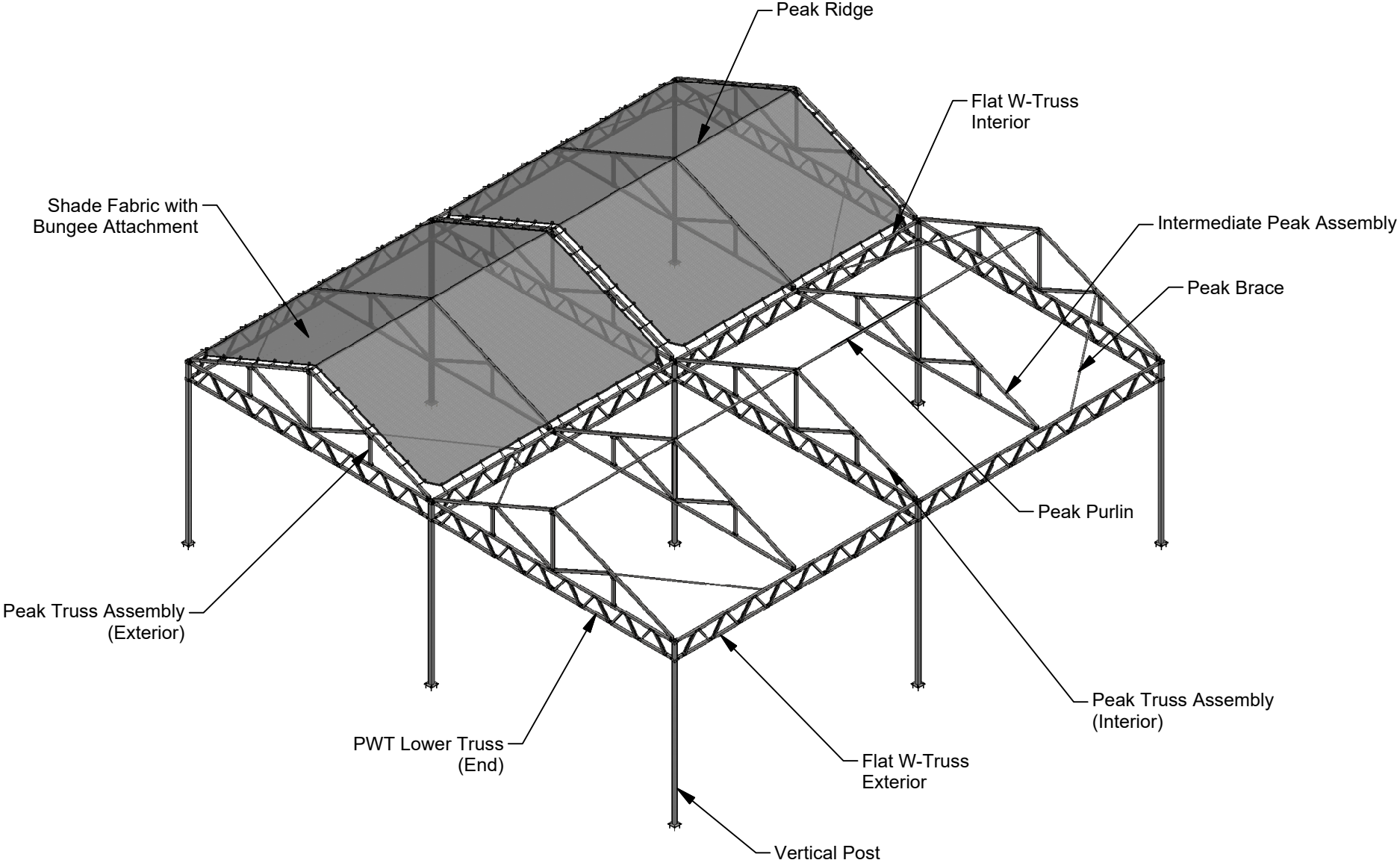
FT4017
PWT Floater Fitting



NB1841
Carriage Bolt 3/8" X 3"



NB1851
Hex Bolt 3/8" X 4"

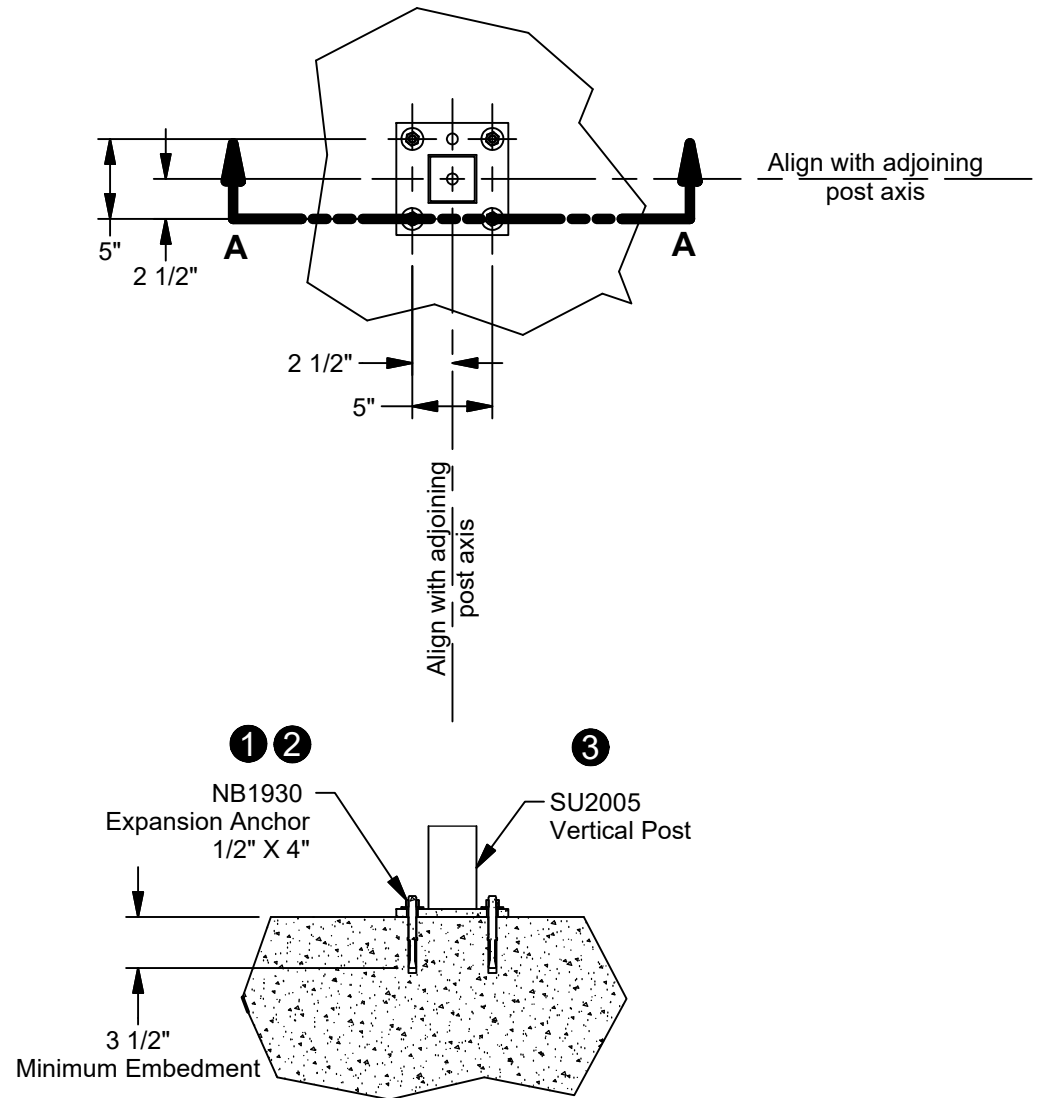
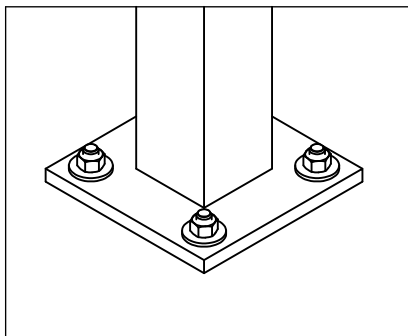


Site Preparation

1. At each post, mark the anchor locations and drill holes 3-1/2" deep using a 9/16" concrete masonry drill bit at each anchor location.
2. Install the **NB1930 Expansion Anchors** following the instructions for a 1/2" Hilti Kwik-Bolt III galvanized expansion anchor with 3-1/2" minimum embedment. Ensure the drilled holes are clear of debris or dust before installing anchors.
3. Install the **SU2005 Vertical Post**
4. Install the hardware as shown, ensuring the post is installed plumb.

Note:
Before installing the vertical posts please refer to the layout sheet that was provided for details regarding foundation and post locations. Failure to build according the layout sheet could result in a shortage of parts required to complete the installation.

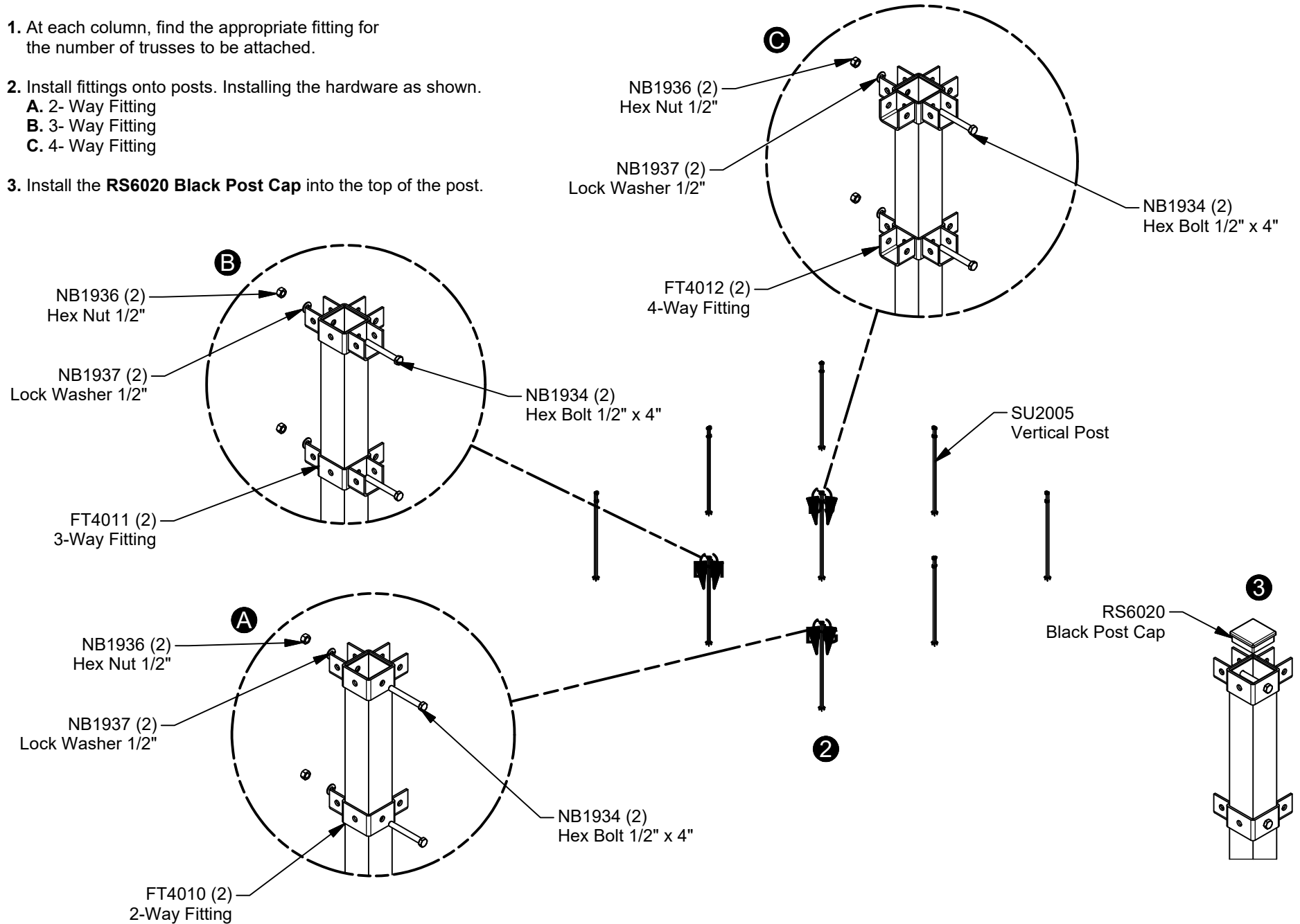
To ensure the structure is built square, ensure equal corner to corner dimensions of the structure and in each bay.



SECTION A-A

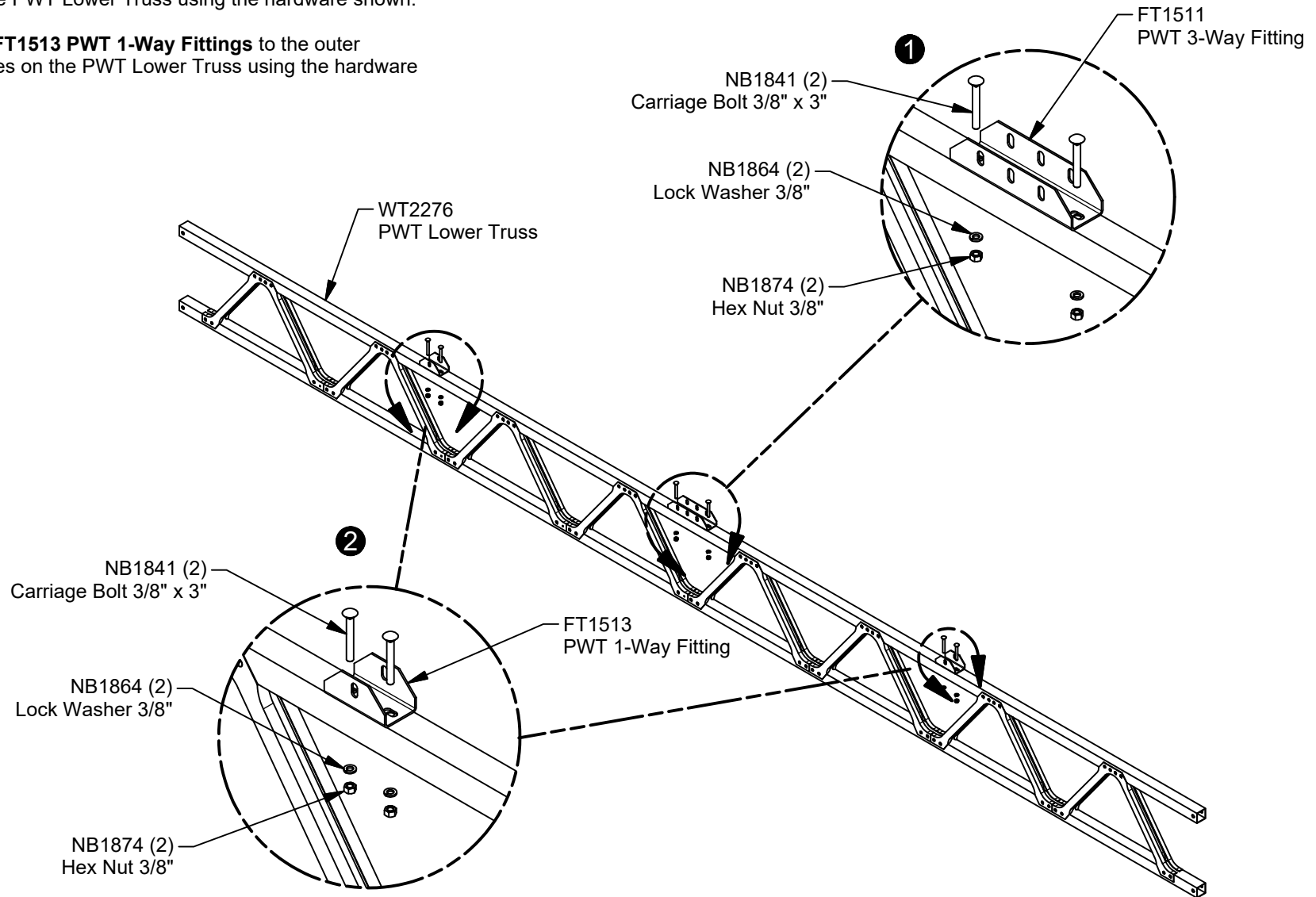
Fitting Installation

- At each column, find the appropriate fitting for the number of trusses to be attached.
- Install fittings onto posts. Installing the hardware as shown.
 - A. 2- Way Fitting
 - B. 3- Way Fitting
 - C. 4- Way Fitting
- Install the **RS6020 Black Post Cap** into the top of the post.



PWT Lower Truss Fitting Assembly

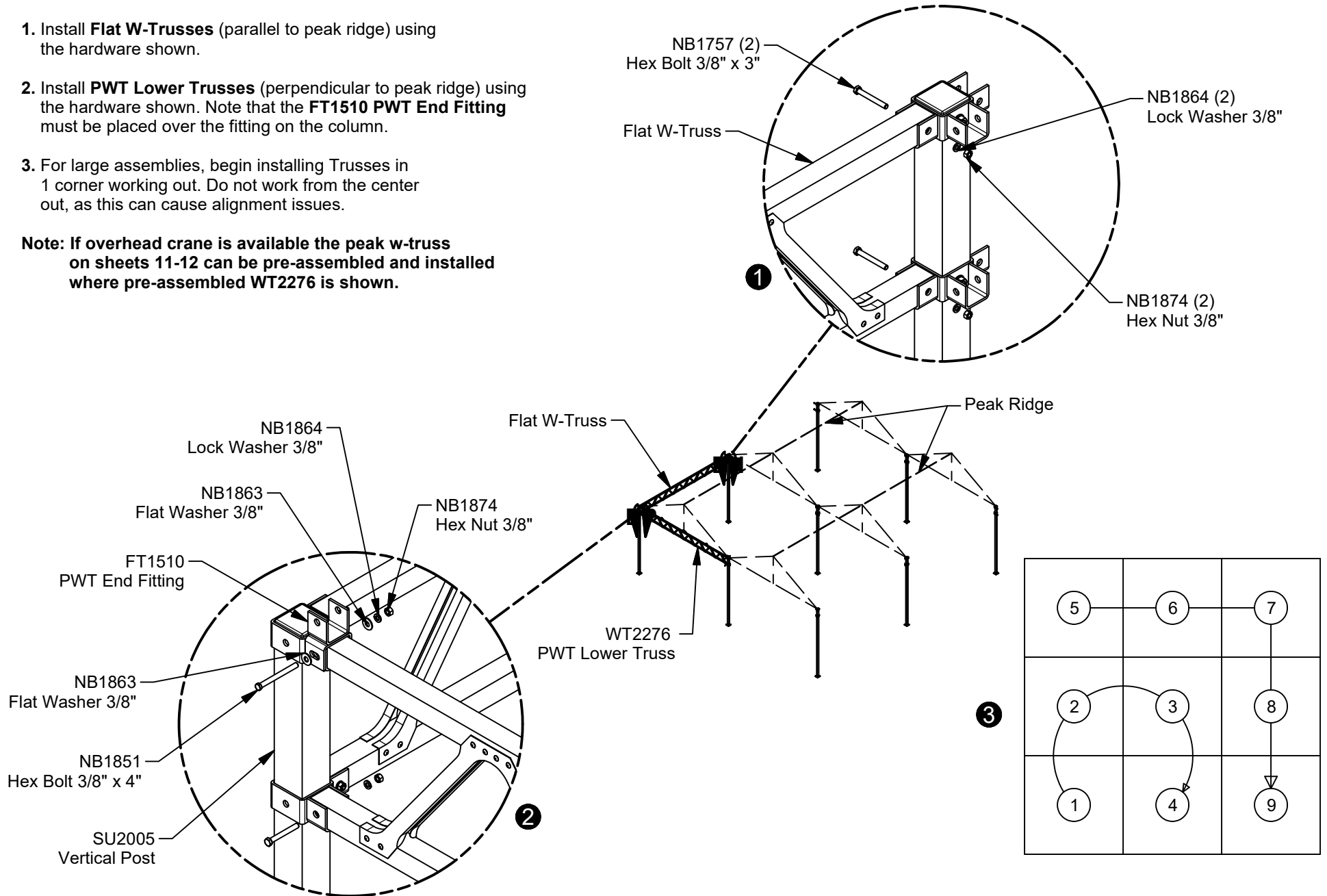
1. Attach 1x **FT1511 PWT 3-Way Fitting** to the center holes of the PWT Lower Truss using the hardware shown.
2. Attach 2x **FT1513 PWT 1-Way Fittings** to the outer sets of holes on the PWT Lower Truss using the hardware shown.



Truss Installation

1. Install **Flat W-Trusses** (parallel to peak ridge) using the hardware shown.
2. Install **PWT Lower Trusses** (perpendicular to peak ridge) using the hardware shown. Note that the **FT1510 PWT End Fitting** must be placed over the fitting on the column.
3. For large assemblies, begin installing Trusses in 1 corner working out. Do not work from the center out, as this can cause alignment issues.

Note: If overhead crane is available the peak w-truss on sheets 11-12 can be pre-assembled and installed where pre-assembled WT2276 is shown.



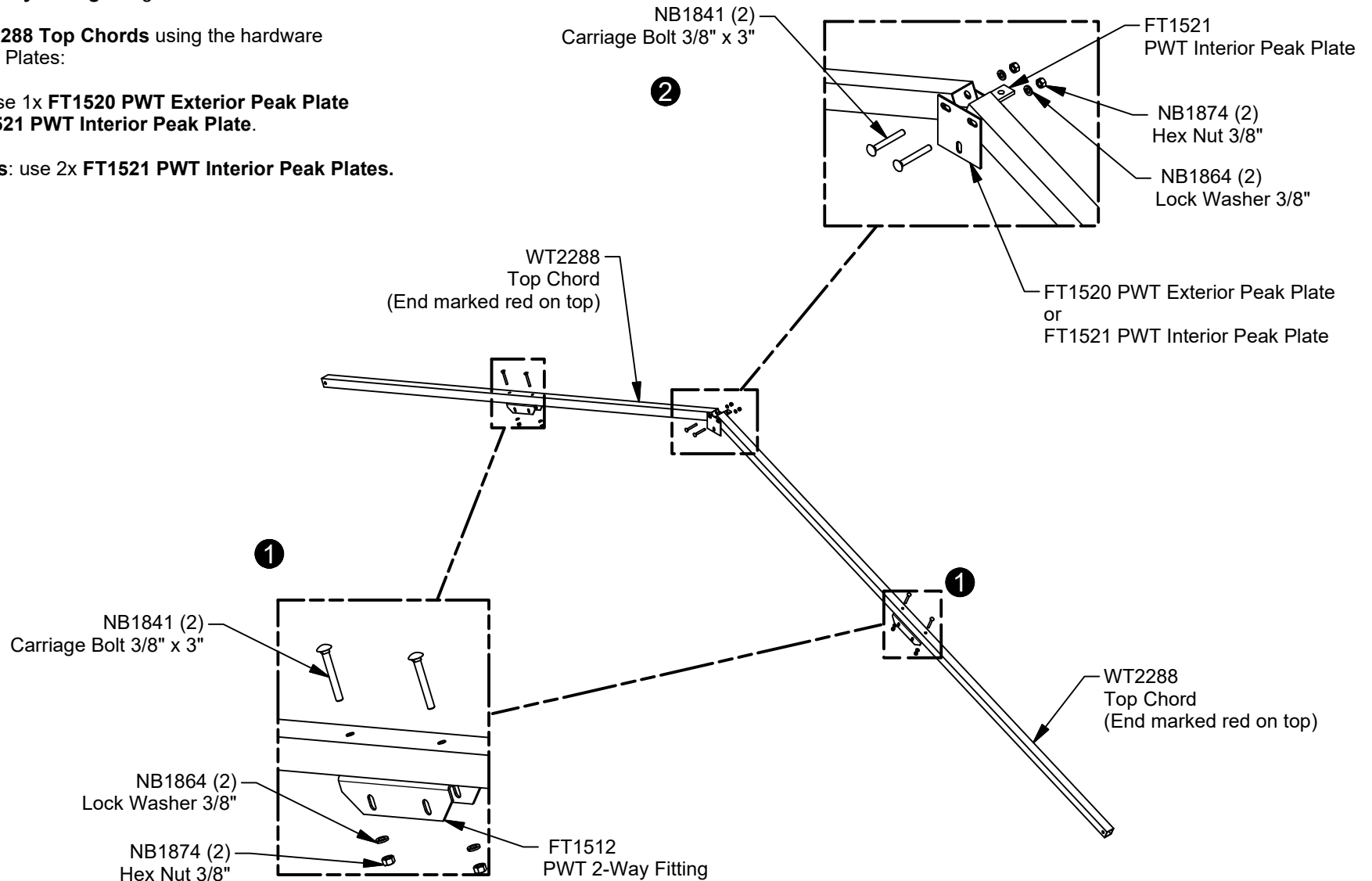
Peak Truss Top Assembly 1

1. At the middle of each **WT2288 Top Chord** attach 1x **FT1512 PWT 2-Way Fitting** using the hardware shown.

2. Connect 2x **WT2288 Top Chords** using the hardware shown and Peak Plates:

End Trusses: use 1x **FT1520 PWT Exterior Peak Plate** and 1x **FT1521 PWT Interior Peak Plate**.

Interior Trusses: use 2x **FT1521 PWT Interior Peak Plates**.

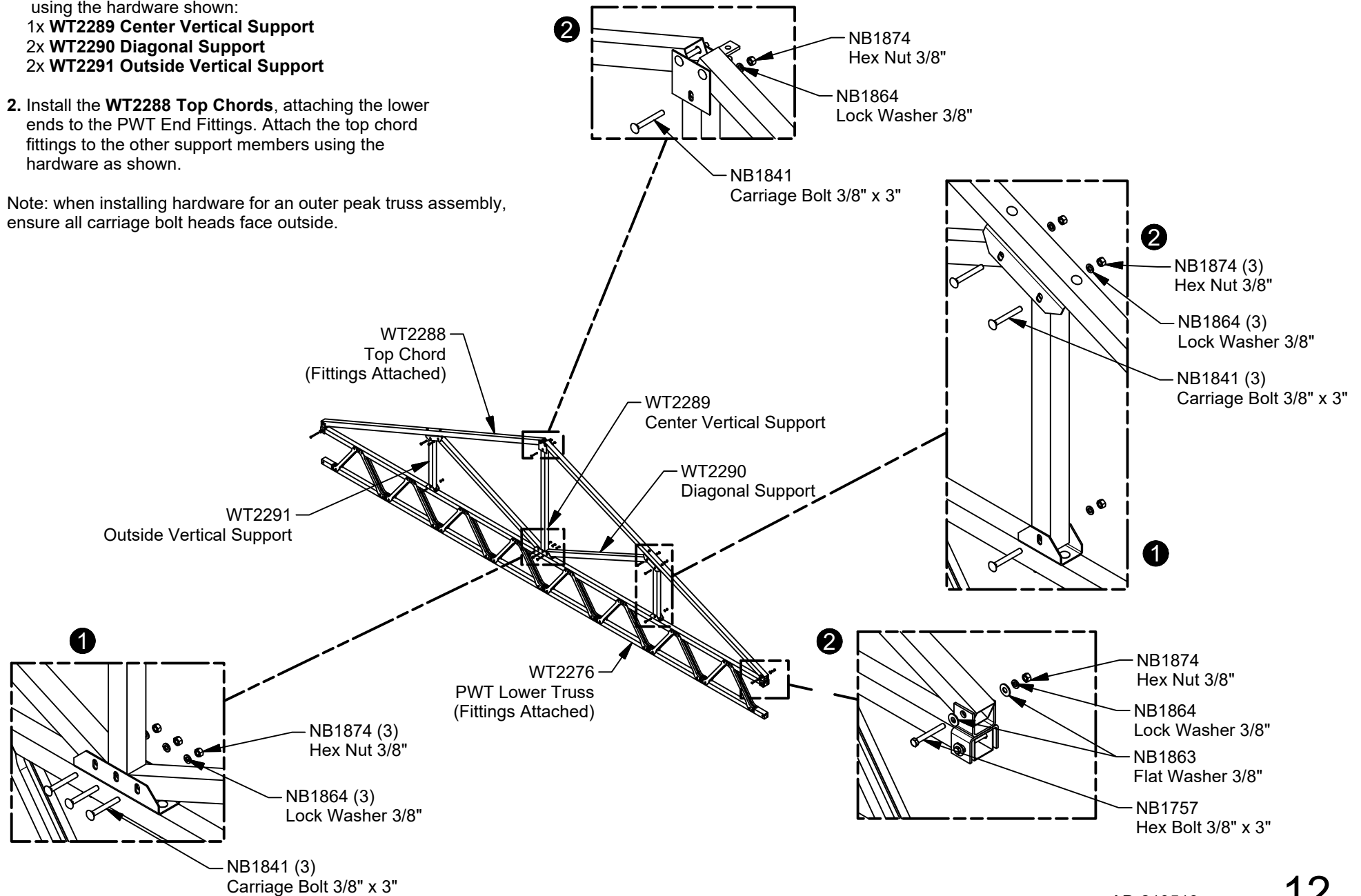


Peak Truss Assembly 2

1. Attach the following items to the PWT Lower Truss using the hardware shown:
 1x **WT2289 Center Vertical Support**
 2x **WT2290 Diagonal Support**
 2x **WT2291 Outside Vertical Support**

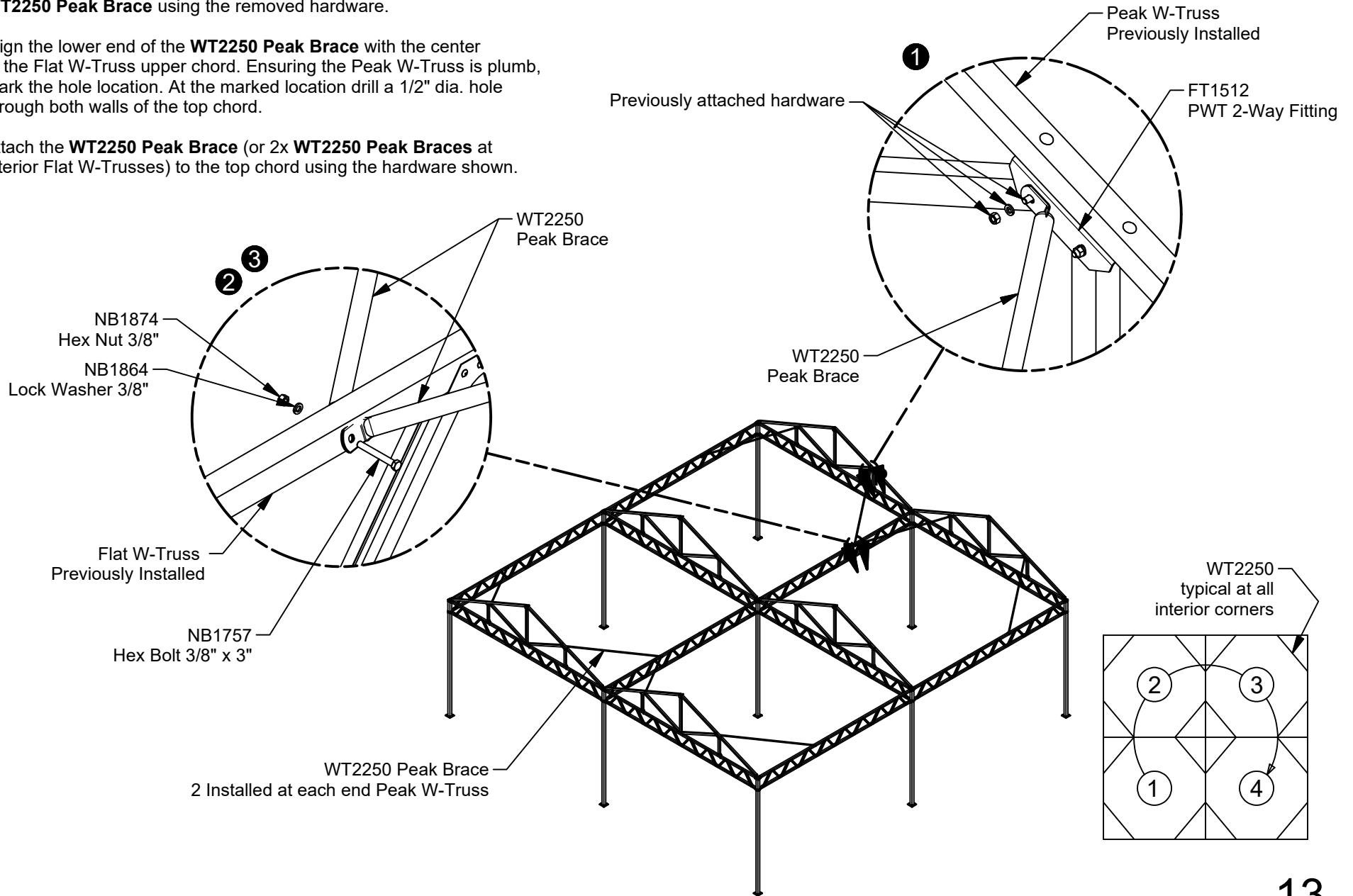
2. Install the **WT2288 Top Chords**, attaching the lower ends to the PWT End Fittings. Attach the top chord fittings to the other support members using the hardware as shown.

Note: when installing hardware for an outer peak truss assembly, ensure all carriage bolt heads face outside.



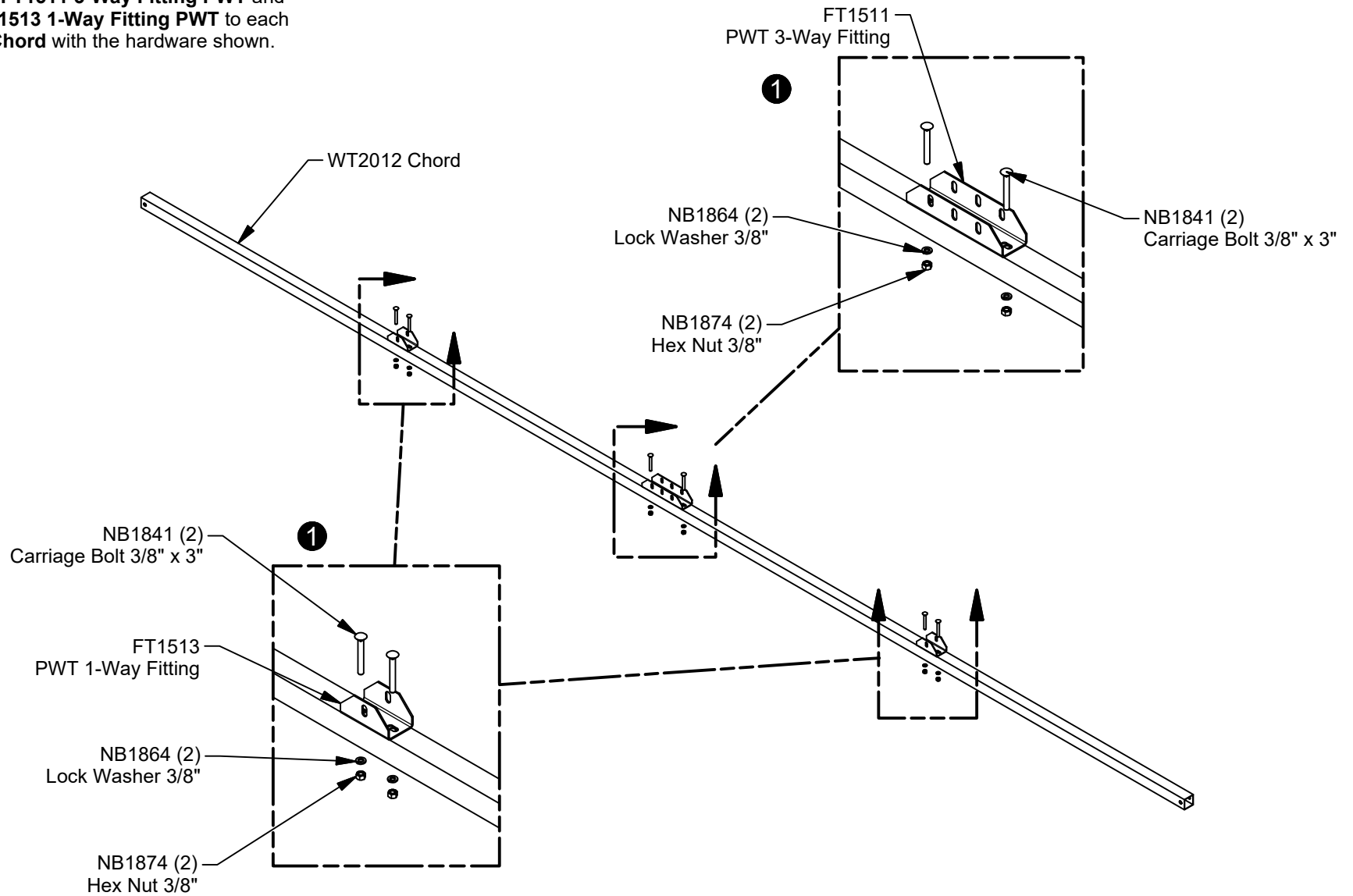
Peak Bracing Installation

1. At each exterior truss, temporarily remove hardware as shown from **FT1512 PWT 2-Way Fitting** and attach one end of the **WT2250 Peak Brace** using the removed hardware.
2. Align the lower end of the **WT2250 Peak Brace** with the center of the Flat W-Truss upper chord. Ensuring the Peak W-Truss is plumb, mark the hole location. At the marked location drill a 1/2" dia. hole through both walls of the top chord.
3. Attach the **WT2250 Peak Brace** (or 2x **WT2250 Peak Braces** at interior Flat W-Trusses) to the top chord using the hardware shown.



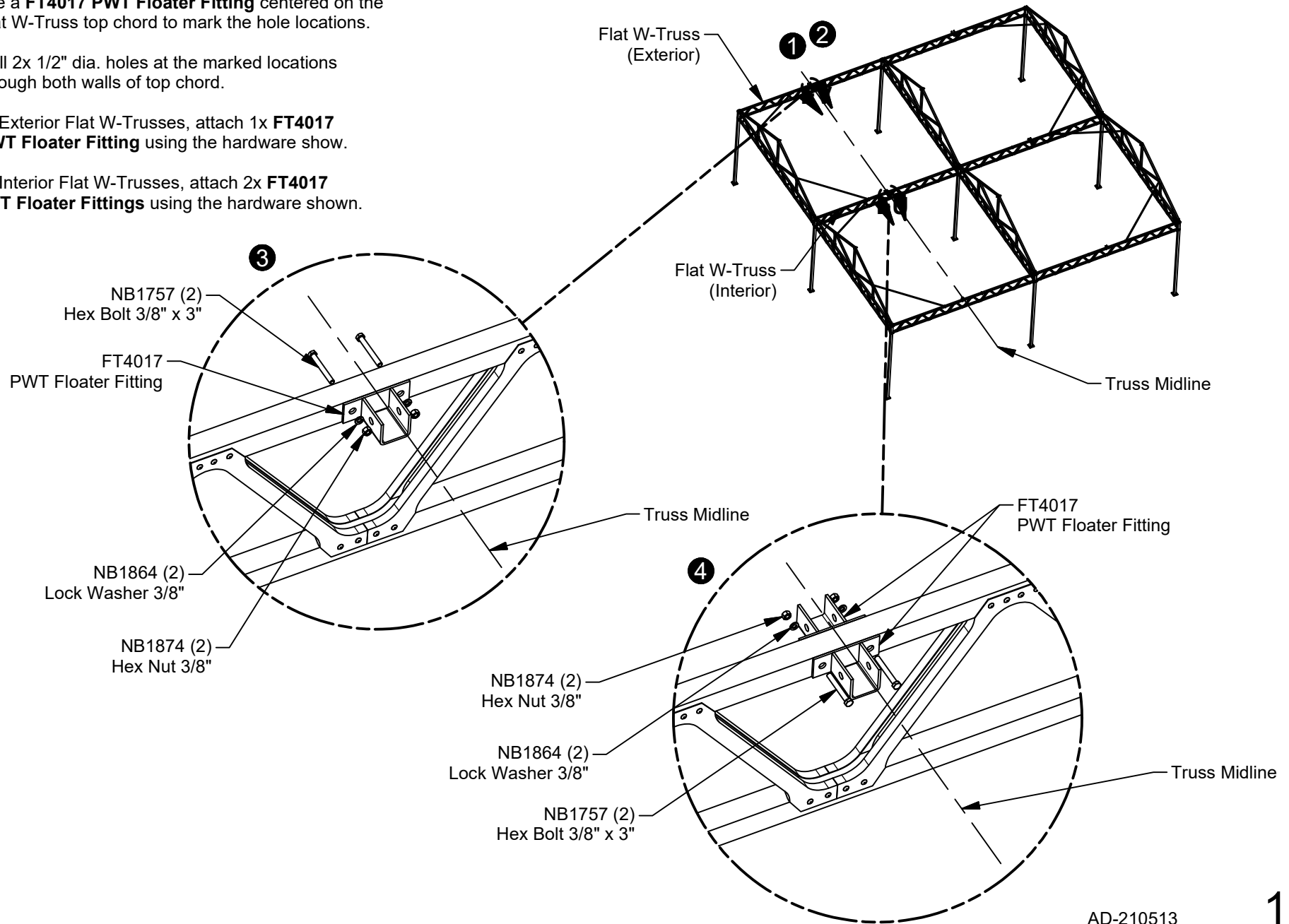
Intermediate Truss Chord Fitting Assembly

1. Mount 1x FT1511 3-Way Fitting PWT and 2x FT1513 1-Way Fitting PWT to each WT2012 Chord with the hardware shown.



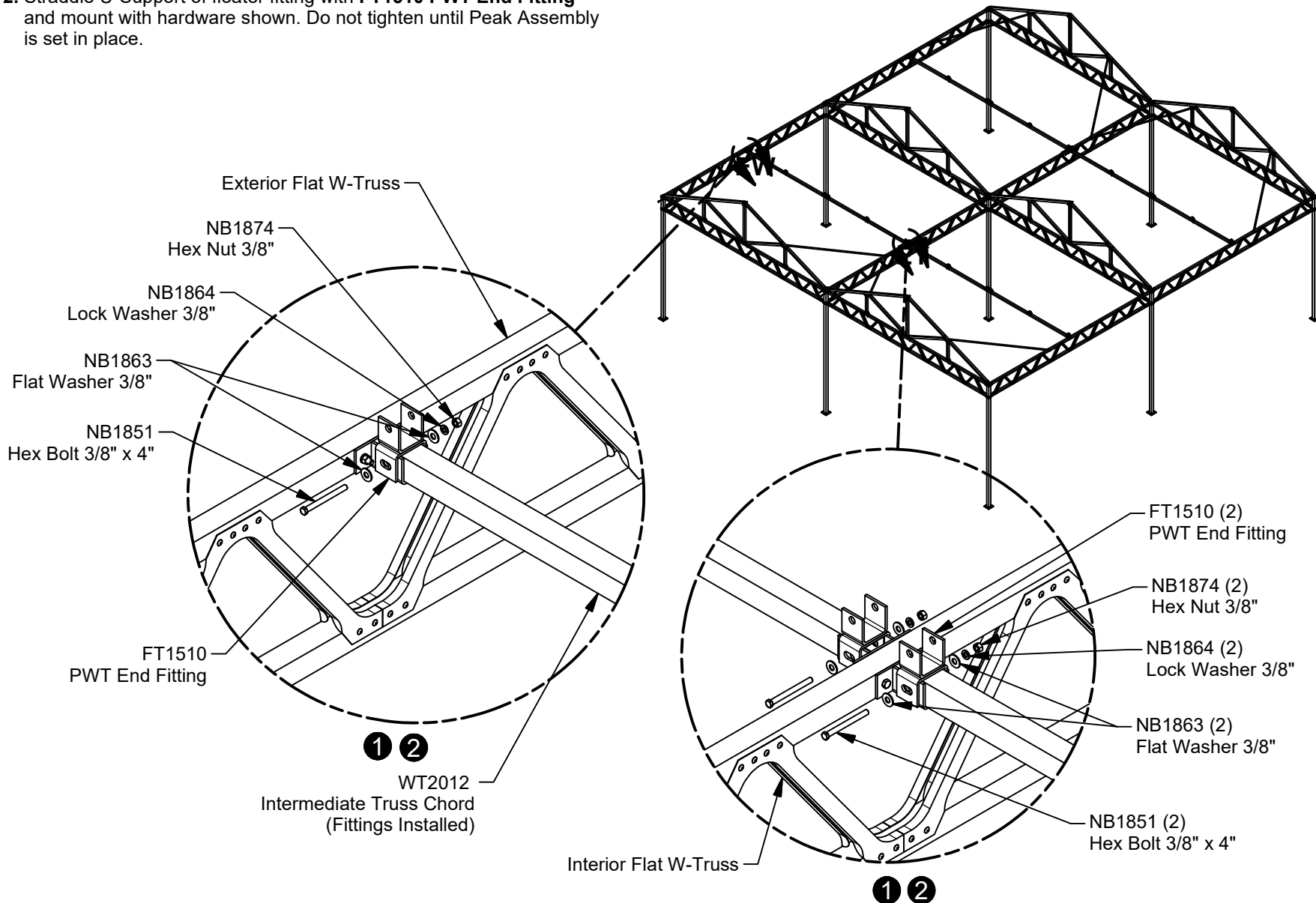
Floater Fitting Installation

1. Midway between the Peak W-Truss Assemblies, use a **FT4017 PWT Floater Fitting** centered on the Flat W-Truss top chord to mark the hole locations.
2. Drill 2x 1/2" dia. holes at the marked locations through both walls of top chord.
3. At Exterior Flat W-Trusses, attach 1x **FT4017 PWT Floater Fitting** using the hardware shown.
4. At Interior Flat W-Trusses, attach 2x **FT4017 PWT Floater Fittings** using the hardware shown.



Intermediate Truss Chord Installation

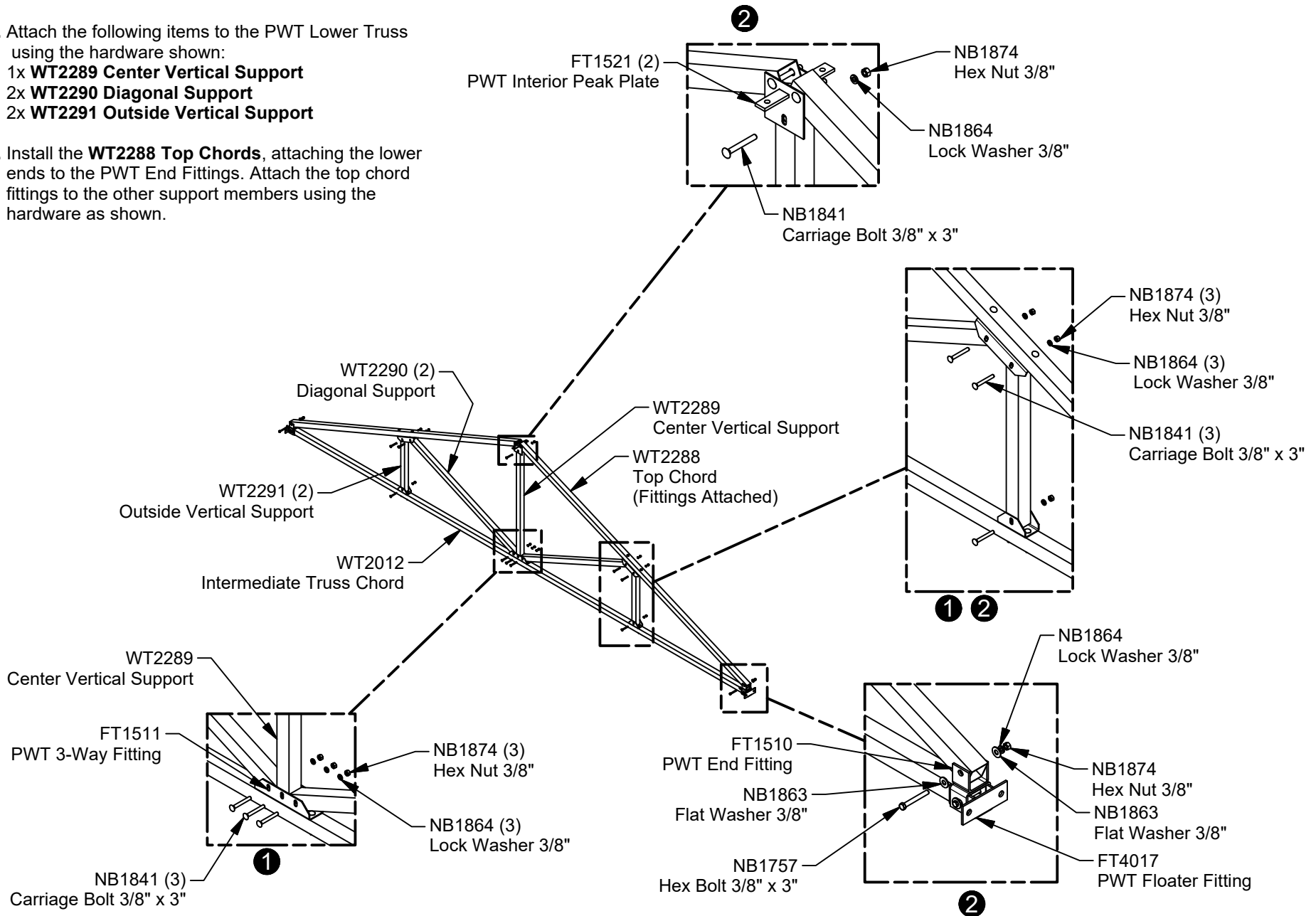
1. Place **WT2012 Intermediate Truss Chord** (Fittings Installed) into U-Support of floater fitting.
2. Straddle U-Support of floater fitting with **FT1510 PWT End Fitting** and mount with hardware shown. Do not tighten until Peak Assembly is set in place.



Intermediate Peak Assembly

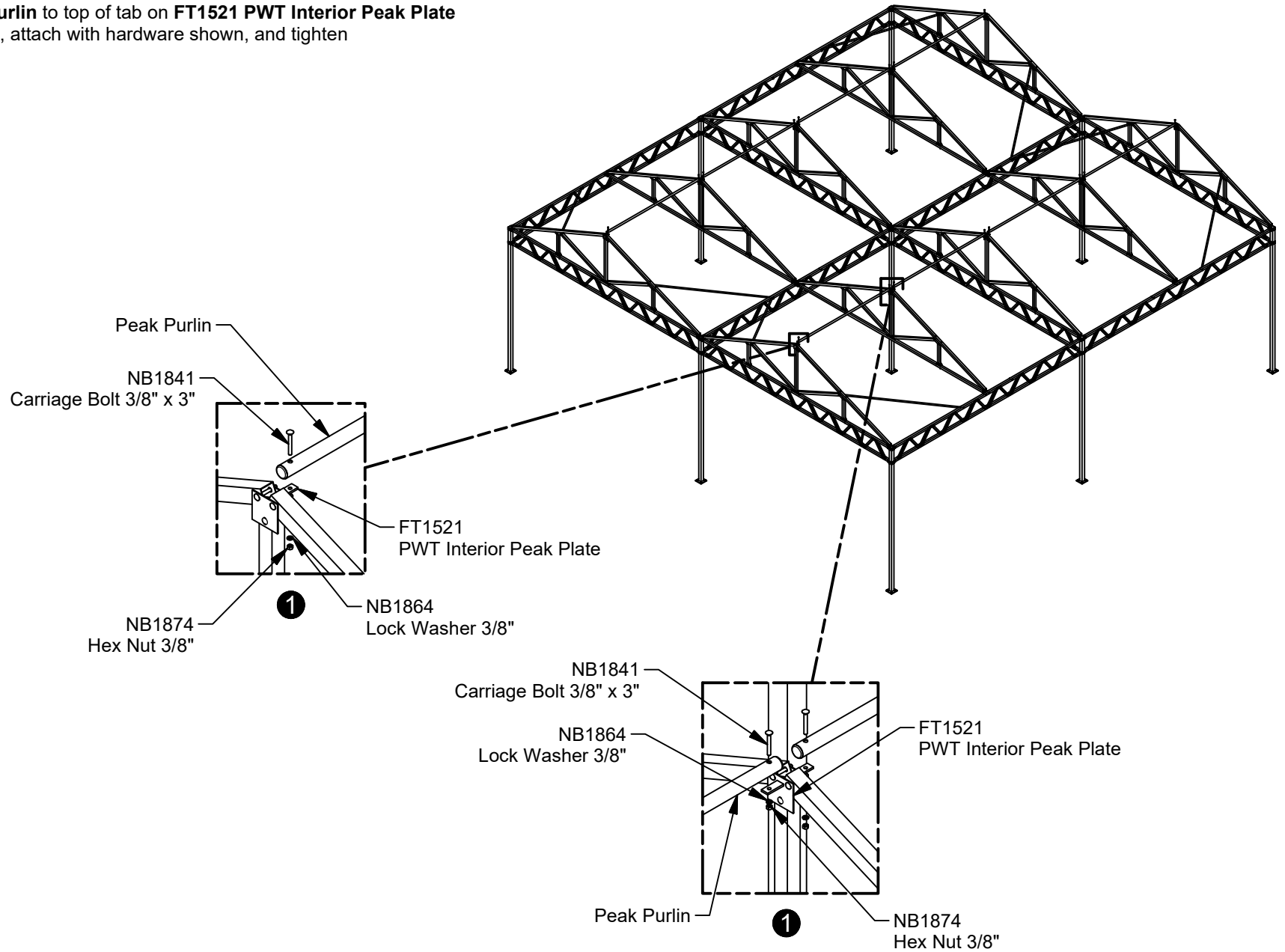
1. Attach the following items to the PWT Lower Truss using the hardware shown:
 using the hardware shown:
 1x **WT2289 Center Vertical Support**
 2x **WT2290 Diagonal Support**
 2x **WT2291 Outside Vertical Support**

2. Install the **WT2288 Top Chords**, attaching the lower ends to the PWT End Fittings. Attach the top chord fittings to the other support members using the hardware as shown.



Peak Purlin Installation

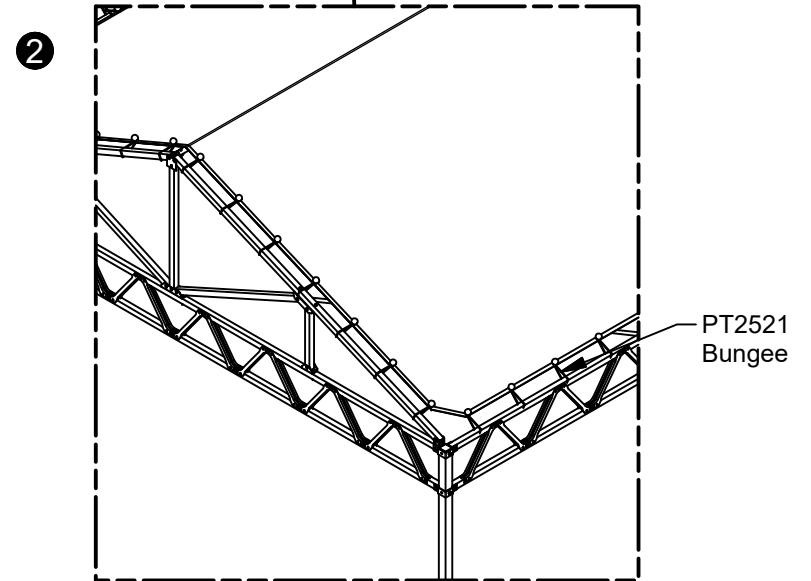
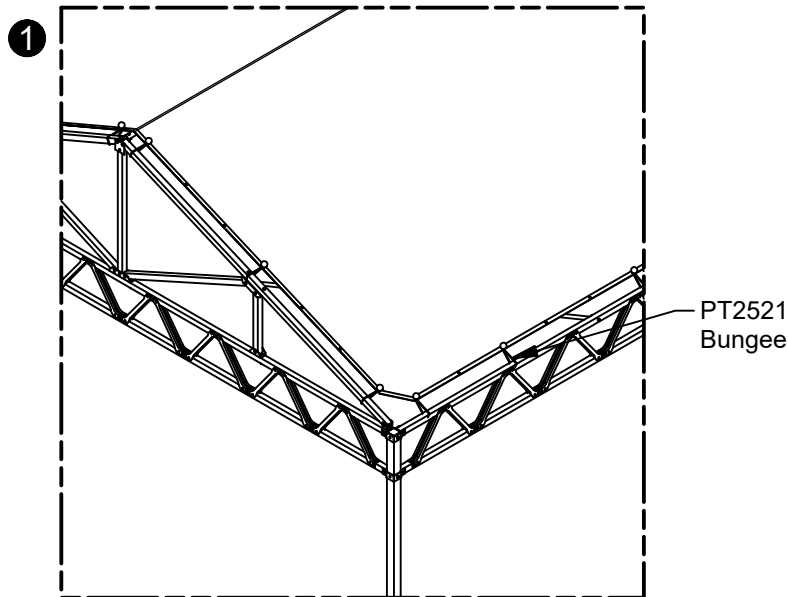
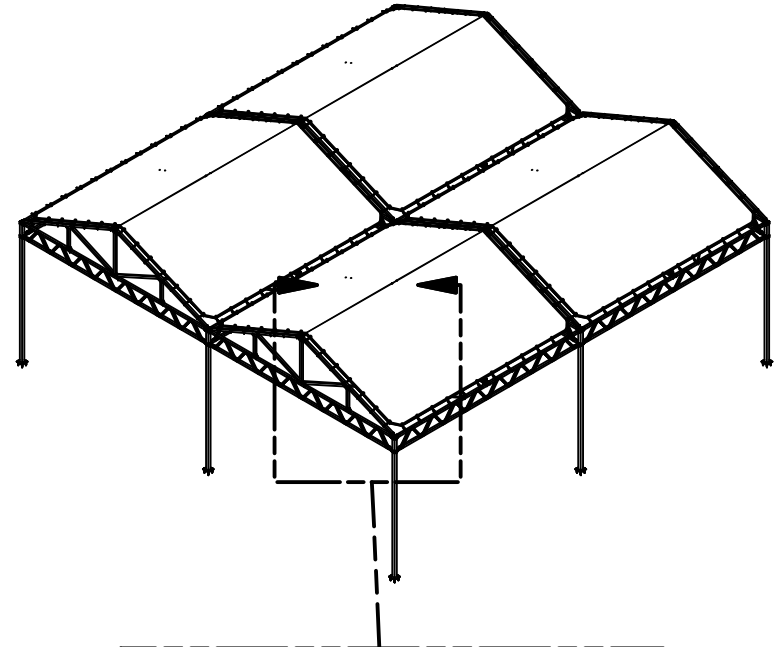
1. Attach **Peak Purlin** to top of tab on **FT1521 PWT Interior Peak Plate**
Align the holes, attach with hardware shown, and tighten in place.



Shade Cloth Installation

WARNING: This product was not designed to support ANY amount of snow. Be sure all chances of snow accumulation have passed before installing the shade cloth. If by chance snow does accumulate on top of the shade cloth, IMMEDIATELY remove the bungee balls securing the shade cloth to allow snow to fall to the ground.

1. Install all shade fabric panels, using only a few **PT2521 Bungees** in the corners and at every third grommet in between. (See the next page for instructions on bungee installation). Installing too many bungees initially can make installing other panels very difficult or may lead to damaging the shade fabric.
2. Working from 1 corner of the structure, install the remaining **PT2521 Bungees**.



Bungee Installation

Caution: Wear eye protection when installing bungee cords.

1. Insert bungee cord through grommet in fabric.
2. Wrap cord around support.
3. Insert ball through loop.
4. Once in place, move bungee so ball is over the grommet as shown.

If assembling multiple assemblies (cubes) it is best to attach the bungee cords at every other grommet and then go back and do the rest.

A bungee may slip off if not installed properly. Occasionally check installation to ensure all bungee cords remain attached.

When reinstalling, inspect bungee cords for wear or damage, **do not use damaged bungees.**

For adjacent shade panels, use one bungee ball per grommet. **Do not double up on the grommets per bungee cord.**

