

# VERTEX SHADE SYSTEM

IMVX20

## Assembly Instructions



### Important!

Please read these instructions carefully before beginning to assemble this structure. Save these instructions for future reference.

Revision: AA-140924

## SAFETY GUIDELINES

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

### **WARNING**

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.

### **Foundations**

These instructions include minimum guidance for foundations based on the International Building Code. These minimums are suitable for some areas of the country but not all. Obtain a building permit if required in the local jurisdiction. Engineered and Certified foundation plans may be required by a building official before issuing a permit. Even if not required, seeking guidance from a qualified structural or civil engineer for the foundation design may improve the life of the structure.

### **DANGER**

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.

### **DANGER**

**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.

### **WARNING**

**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 in place.

**Assembly Instructions**

Bill of Materials.....Page 2  
Parts Identification.....Page 3  
Lay Out Parts.....Page 4  
End Gable and Ridge Assembly.....Page 5  
Section One Assembly.....Page 6  
Final Section Assembly.....Page 7  
Bracing Assembly.....Page 8  
Shade Installation.....Page 9  
Final Assembly.....Page 10

## Assembly Instructions

### VERTEX PART NUMBERS

% OF SHADE	COLOR	20'	30'	40'	50'	60'
30%	BLACK	VX2020-K30	VX2030-K30	VX2040-K30	VX2050-K30	VX2060-K30
40%	BLACK	VX2020-K40	VX2030-K40	VX2040-K40	VX2050-K40	VX2060-K40
50%	BLACK	VX2020-K50	VX2030-K50	VX2040-K50	VX2050-K50	VX2060-K50
60%	BLACK	VX2020-K60	VX2030-K60	VX2040-K60	VX2050-K60	VX2060-K60
	BLUE	VX2020-B60	VX2030-B60	VX2040-B60	VX2050-B60	VX2060-B60
	GREEN	VX2020-G60	VX2030-G60	VX2040-G60	VX2050-G60	VX2060-G60
70%	BLACK	VX2020-K70	VX2030-K70	VX2040-K70	VX2050-K70	VX2060-K70
80%	BLACK	VX2020-K70	VX2030-K70	VX2040-K70	VX2050-K70	VX2060-K70
90%	BLACK	VX2020-K90	VX2030-K90	VX2040-K90	VX2050-K90	VX2060-K90

### BILL OF MATERIALS

		20'	30'	40'	50'	60'	10' Ext
CH9006	END VERTICAL (1.163")	6	8	10	12	14	2
CH9007	BRACE CORNER	8	12	16	20	24	4
FT2079	LONG SPEED HOOK (2")	32	44	56	68	80	12
FT7002	2 WAY LONG SPEED HOOK (2 ")	8	12	16	20	24	4
FT7003	FITTING 3-WAY 2" VERTEX	6	6	6	6	6	0
FT7004	FITTING 4-WAY 2" VERTEX	3	6	9	12	15	3
HP3554	2X115 TUBE W/ SWAGES - SNAP	12	17	22	27	32	5
NB1832	CARRIAGE BOLT 5/16"x1-1/4" GRD	48	68	88	108	128	20
NB1862	LOCK WASHER 5/16" ZP	48	68	88	108	128	20
NB1872	HEX NUT 5/16" ZP	48	68	88	108	128	20

### BASIC POST WITH BALLAST PLATE

		20'	30'	40'	50'	60'	10' Ext
CH9018	VERTICAL TUBE 2" DIA W/BALLAST	6	8	10	12	14	2

### LEG STAND FOR CONCRETE ANCHOR OPTION

CH9019	POST 2" DIA 77	6	8	10	12	14	2
PT2433	LEG STAND 5x5x12 (9/16)	6	8	10	12	14	2
NB1929	EXPANSION ANCHOR 3/8 x 3 3/4"	24	32	40	48	56	8
NB1806	SELF-DRILL SCREW 1/4-14x3/4"	12	16	20	24	28	4




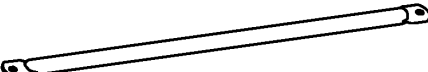







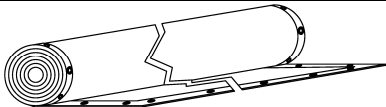

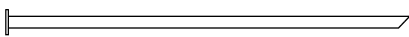
### GROUND STAKE FOR CONCRETE EMBEDMENT OPTION

CH9019	POST 2" DIA 77	6	8	10	12	14	2
GS2400	GROUND STAKE 1.66" x 3'	6	8	10	12	14	2
NB1806	SELF-DRILL SCREW 1/4-14x3/4"	12	16	20	24	28	4

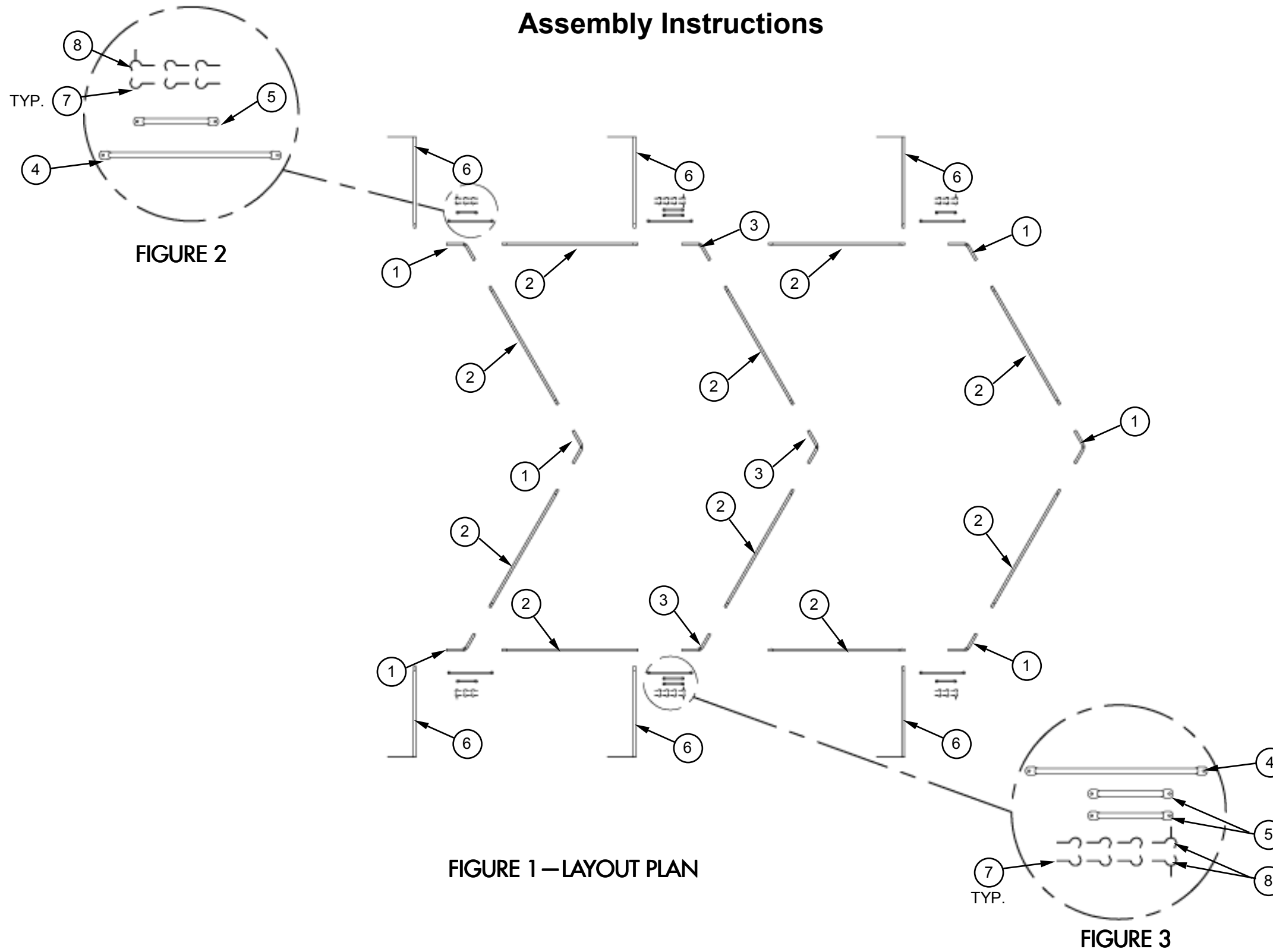
		20'	30'	40'	50'	60'	10' Ext
WTS232030K7	22'-4" x 19'-2" 30% BLACK HG	1		2	1		**
WTS232040K7	22'-4" x 19'-2" 40% BLACK HG						
WTS232050K7	22'-4" x 19'-2" 50% BLACK HG						
WTS232060K7	22'-4" x 19'-2" 60% BLACK HG						
WTS232060B7	22'-4" x 19'-2" 60% BLUE HG						
WTS232060G7	22'-4" x 19'-2" 60% GREEN HG						
WTS232070K7	22'-4" x 19'-2" 70% BLACK HG						
WTS232080K7	22'-4" x 19'-2" 80% BLACK HG						
WTS232090K7	22'-4" x 19'-2" 90% BLACK HG						
WTS233030K7	22'-4" x 29'-2" 30% BLACK HG	1	1	1	2	**	
WTS233040K7	22'-4" x 29'-2" 40% BLACK HG						
WTS233050K7	22'-4" x 29'-2" 50% BLACK HG						
WTS233060K7	22'-4" x 29'-2" 60% BLACK HG						
WTS233060B7	22'-4" x 29'-2" 60% BLUE HG						
WTS233060G7	22'-4" x 29'-2" 60% GREEN HG						
WTS233070K7	22'-4" x 29'-2" 70% BLACK HG						
WTS233080K7	22'-4" x 29'-2" 80% BLACK HG						
WTS233090K7	22'-4" x 29'-2" 90% BLACK HG						
PT2521	BUNGEE BALL 10"	66	79	128	141	154	

\*\* SELECT SHADE COMBINATION TO FIT LENGTH

## Assembly Instructions

IMAGE	TAG #	ITEM #	DESCRIPTION
	1	FT7003	FITTING 3-WAY 2" VERTEX
	2	HP3554	2x1 1/2 TUBE W/SWAGES—SNAP
	3	FT7004	FITTING 4-WAY 2" VERTEX
	4	CH9006	38 1/2" STRUT
	5	CH9007	BRACE CORNER
	6	CH9018	VERTICAL TUBE 2" DIA W/BALLAST PLATE
	7	FT2079	LONG SPEED HOOK (2")
	8	FT7002	2 WAY LONG SPEED HOOK (2")
	9	NB1832	CARRIAGE BOLT 5/16"x1-1/4" GRD
	10	NB1862	LOCK WASHER 5/16" ZP
	11	NB1872	HEX NUT 5/16" ZP
	12	Varies-See page 2	SHADE, VERTEX
	13	PT2521	BUNGEE BALL, 10"
	14	BMS1130	18' SPIKE (OPTIONAL)

## Assembly Instructions



**Tools Required:**

- Rubber Mallet
- Powered nut-drivers helpful

Refer to Page 3, "Parts Identification" for component information.

Lay out parts approximately where Structure is to be assembled (hardware 9,10, & 11 not shown).

## Assembly Instructions

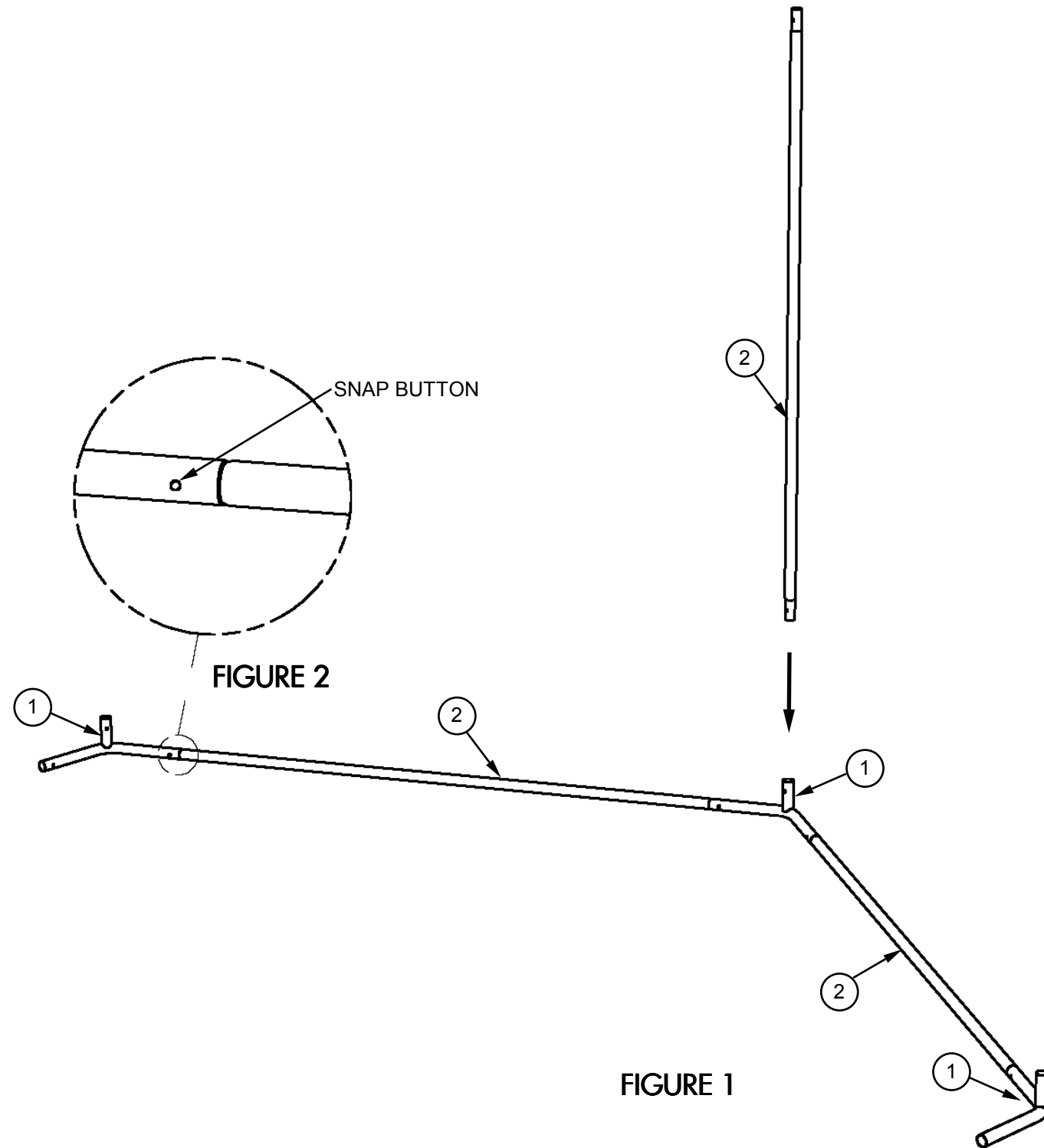


FIGURE 1

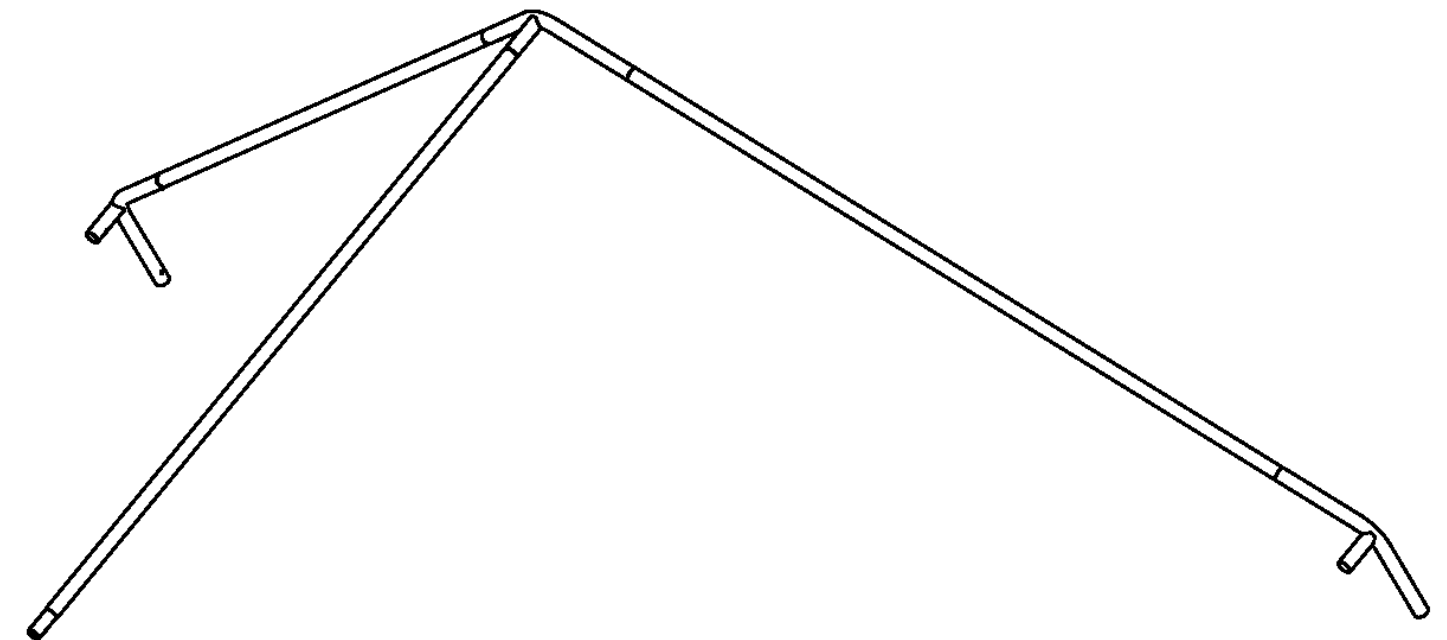


FIGURE 3

TAG #	QTY	ITEM #	DESCRIPTION
1	3	FT7003	FITTING 3-WAY 2" VERTEX
2	3	HP3554	2X1 1/2 TUBE W/SWAGES—SNAP

Snap together one Gable End Frame insuring that Snap Pins are engaged-see FIGURE 1.  
**WARNING:** Keep hands away from pinch points between all tubing. Insert a Ridge Tube, HP3554, into the top Fitting. Engage Snap Pin- see FIGURE 2. Raise the End Gable Frame and rest the free end of the Ridge on the ground- see FIGURE 3.

## Assembly Instructions

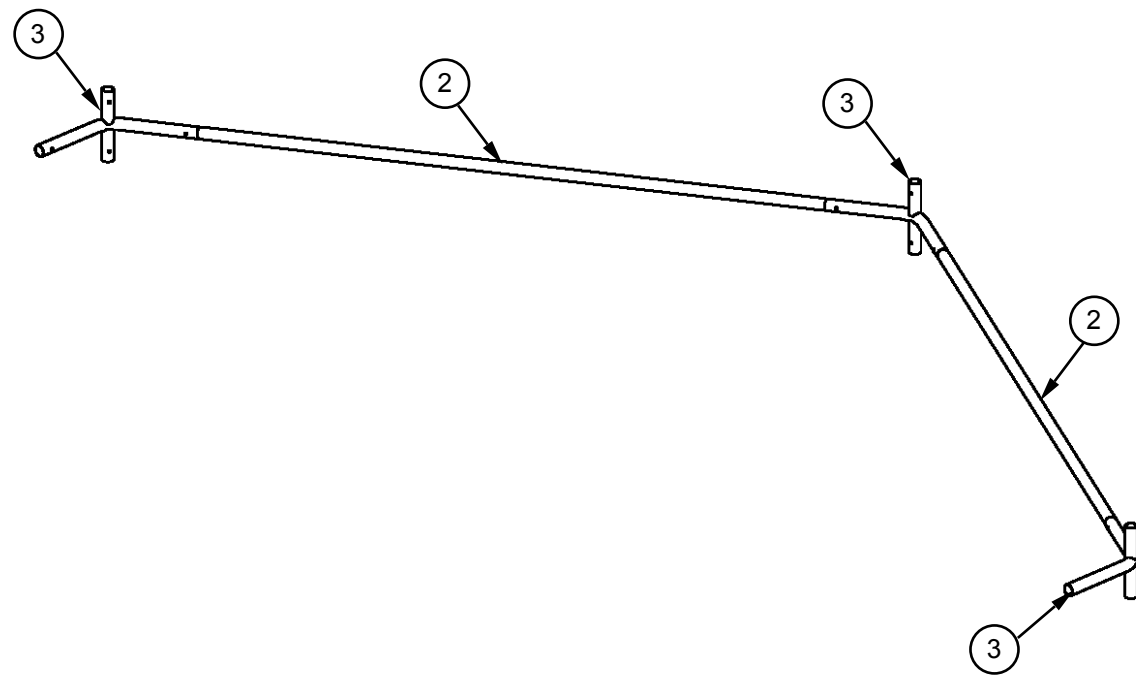


FIGURE 1

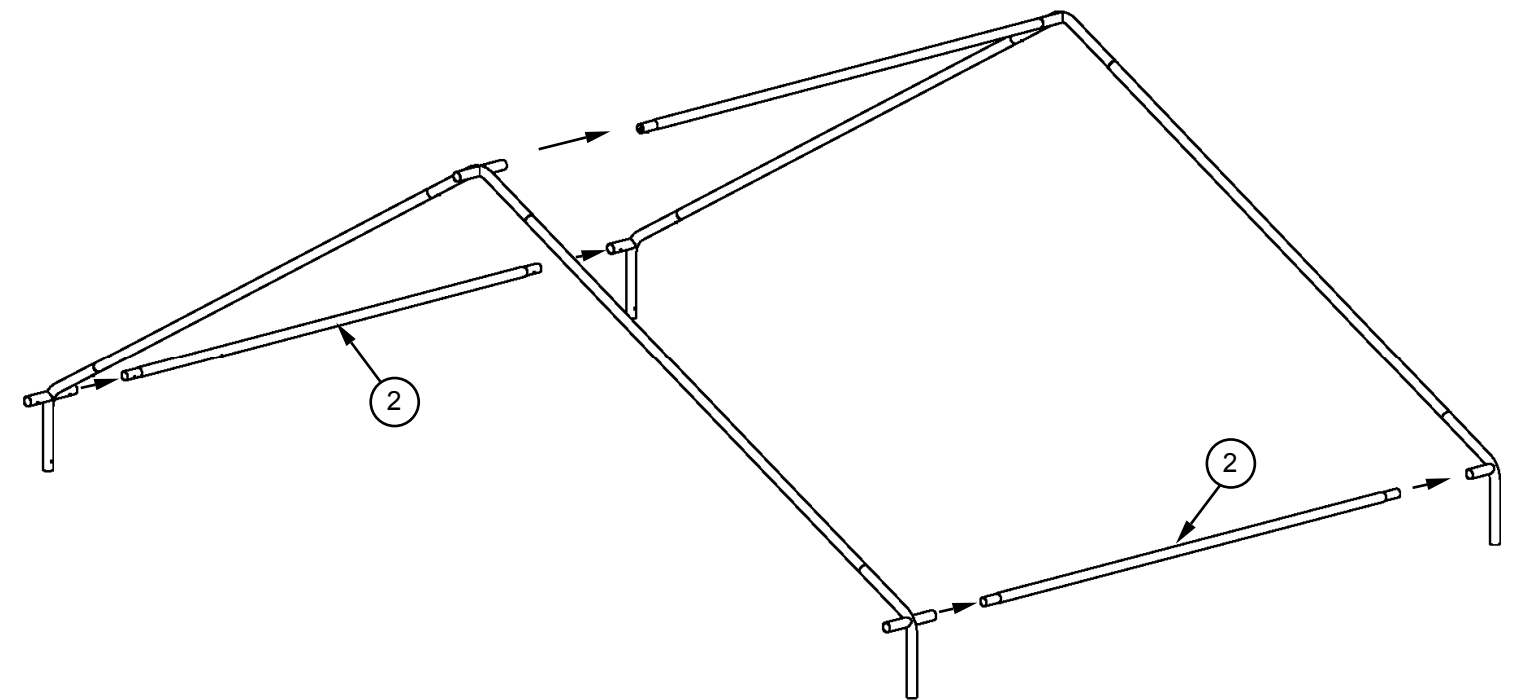


FIGURE 2

TAG #	QTY	ITEM #	DESCRIPTION
2	5	HP3554	2X11.5 TUBE W/SWAGES—SNAP
3	3	FT7004	FITTING 4-WAY 2" VERTEX

Assemble the Middle Gable Frame in a similar manner as the End Gable on page 5, "End Gable and Ridge Assembly"-see FIGURE 1. Join End and Middle Gable Assemblies with Ridge and Eave Tubes HP3554-see FIGURE 2. Insure that Snap Pins are engaged. Add additional Middle Gable Assemblies for a Structure larger than 20' x 20'.

## Assembly Instructions

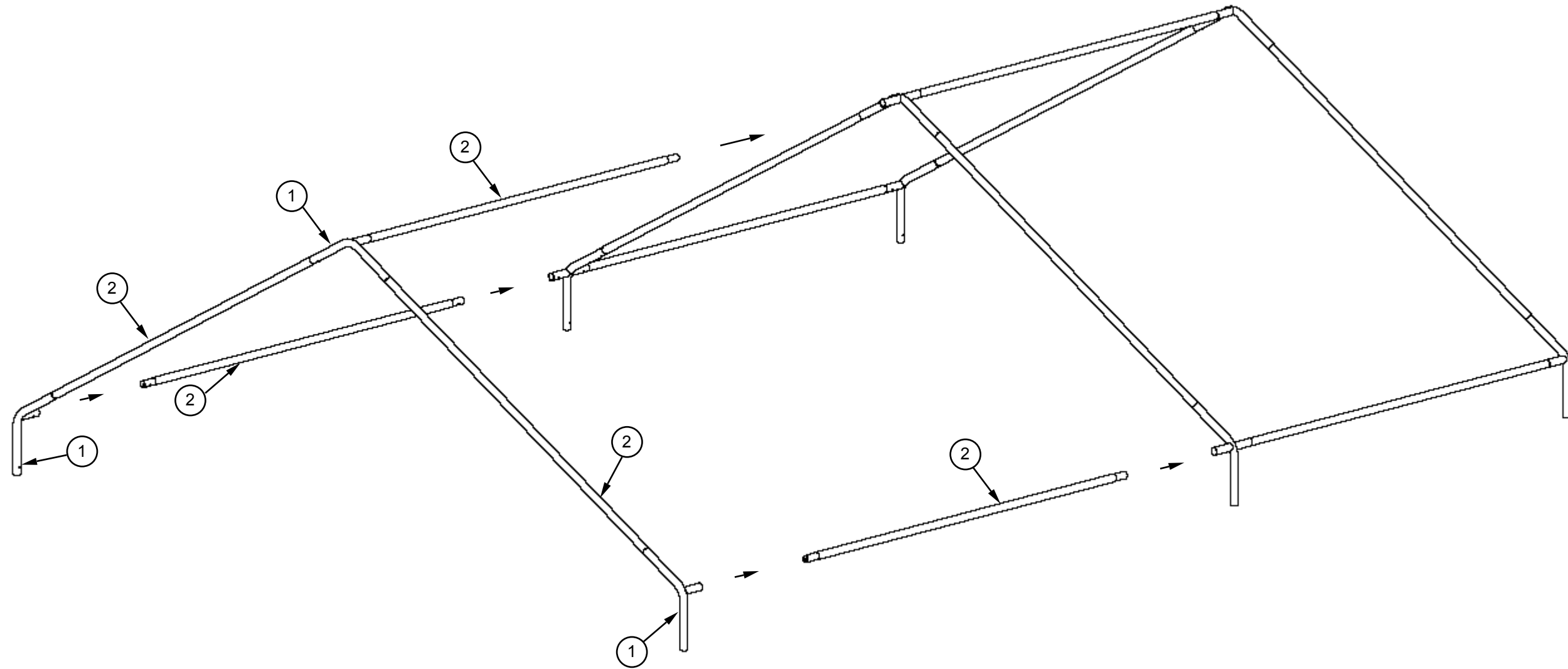


FIGURE 1

TAG #	QTY	ITEM #	DESCRIPTION
1	3	FT7003	FITTING 3-WAY 2" VERTEX
2	4	HP3554	2X1.5 TUBE W/SWAGES – SNAP

Join Final End Gable Frame to previously assembled Sections with Eave Tubes to complete the Gable system. Insure Snap Pins are engaged-See FIGURE 1.

## Assembly Instructions

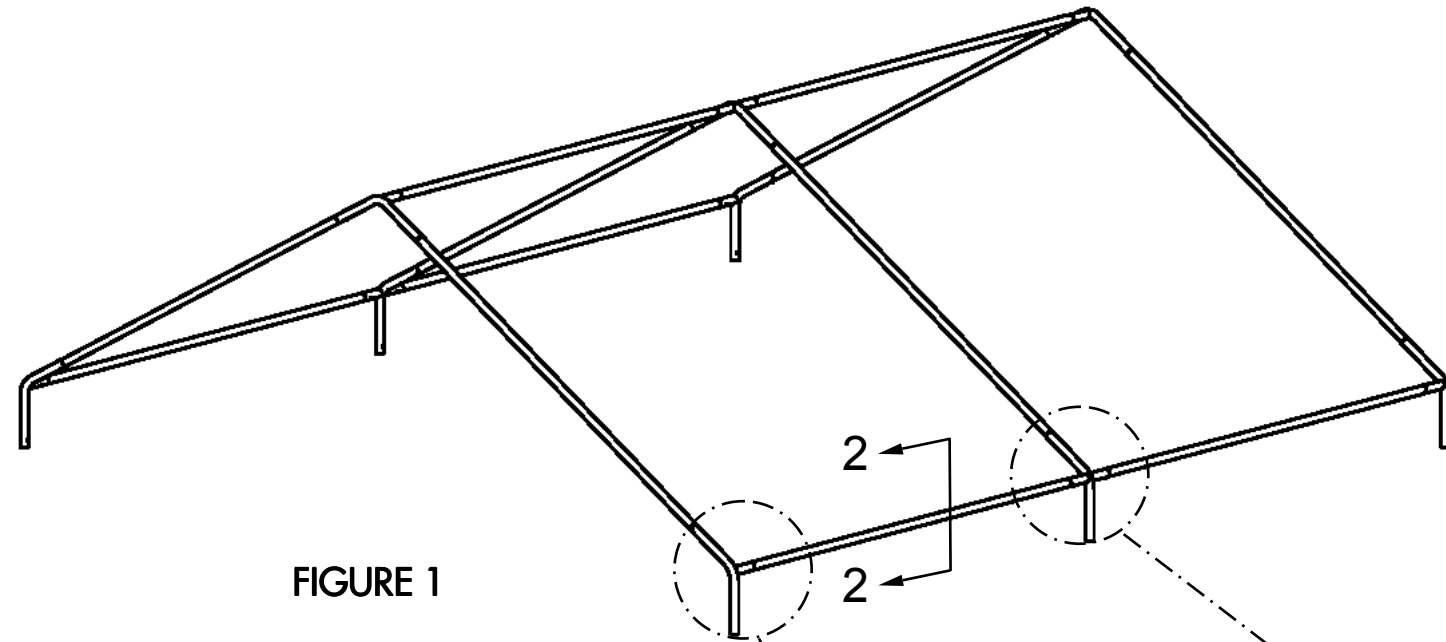


FIGURE 1

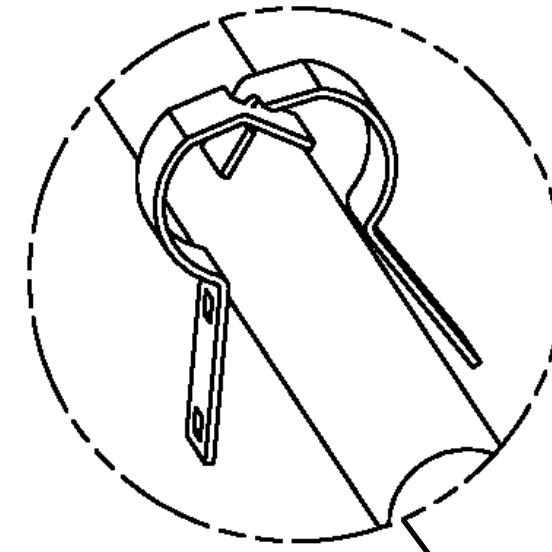


FIGURE 3

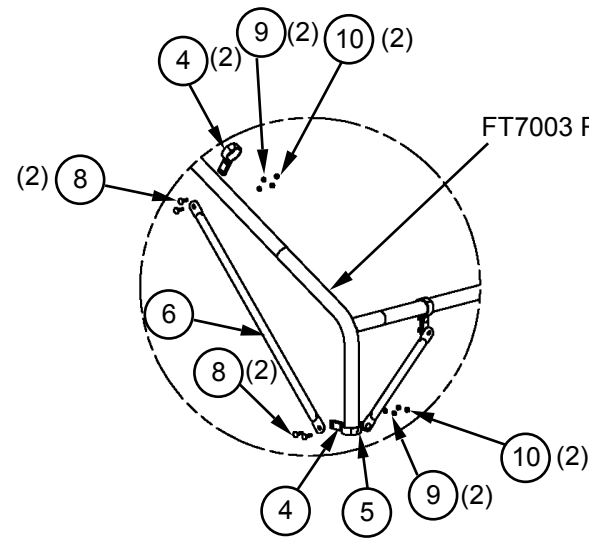


FIGURE 4 - END BRACE

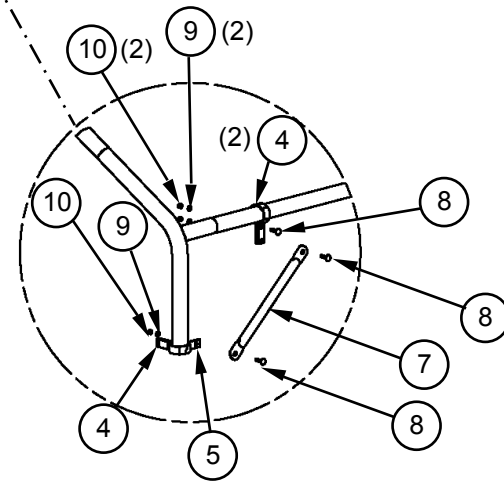


FIGURE 5 - SIDE BRACE

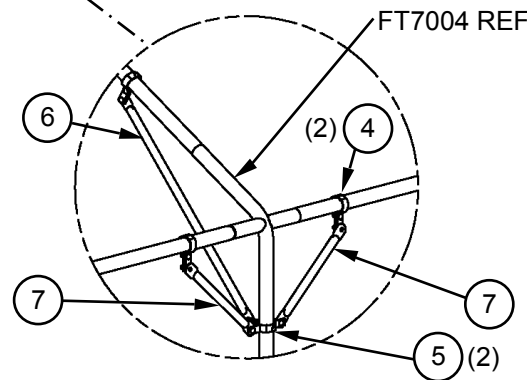


FIGURE 6 - MULTIPLE BRACES

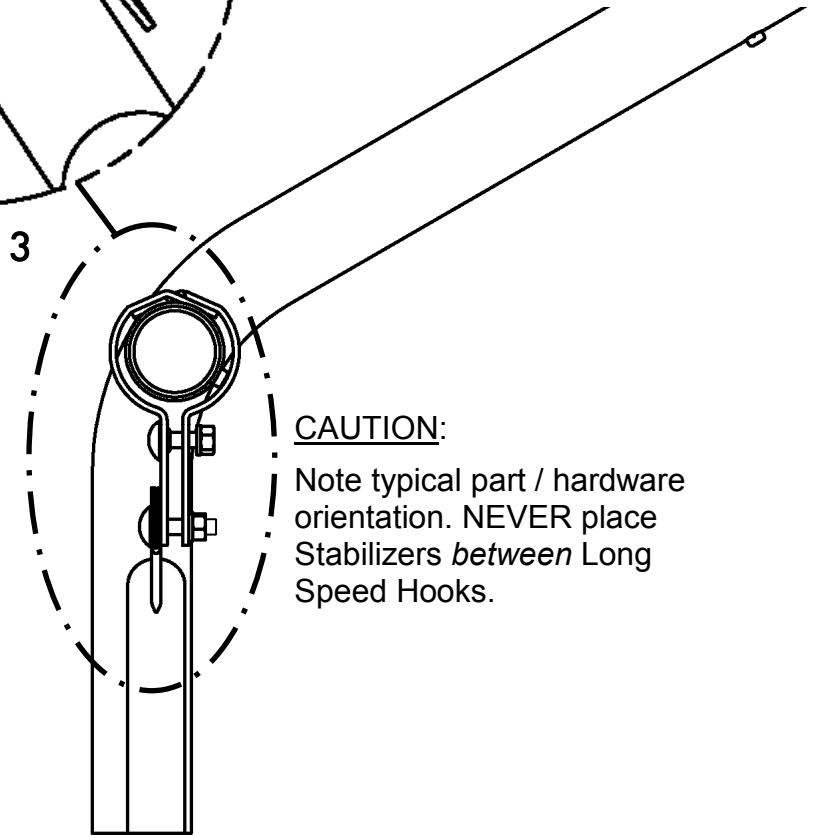


FIGURE 2

**CAUTION:**  
Note typical part / hardware orientation. NEVER place Stabilizers *between* Long Speed Hooks.

TAG #	QTY	ITEM #	DESCRIPTION
4	32	FT2079	LONG SPEED HOOK (2")
5	8	FT7002	2 WAY LONG SPEED HOOK (2")
6	6	CH9006	38 1/2" STRUT
7	8	CH9007	BRACE CORNER
8	48	NB1832	CARRIAGE BOLT 5/16"x1-1/4" GRD
9	48	NB1862	LOCK WASHER 5/16" ZP
10	48	NB1872	HEX NUT 5/16" ZP

Position lowest 2-way Long Speed Hooks approximately 1/4" from the bottom of fittings FT7002 and FT7004-see FIGURE 2. Attach Long Speed Hooks into position as shown in FIGURE 3. Loosely assemble hardware in the square holes of the Long Speed Hooks that are closest to the "hook" end (heads of bolt to outside), then continue to assemble Brace Corner CH9007 and 38 1/2" Strut, CH9006, as shown in FIGURES 4-6. Tighten all hardware.

## Assembly Instructions

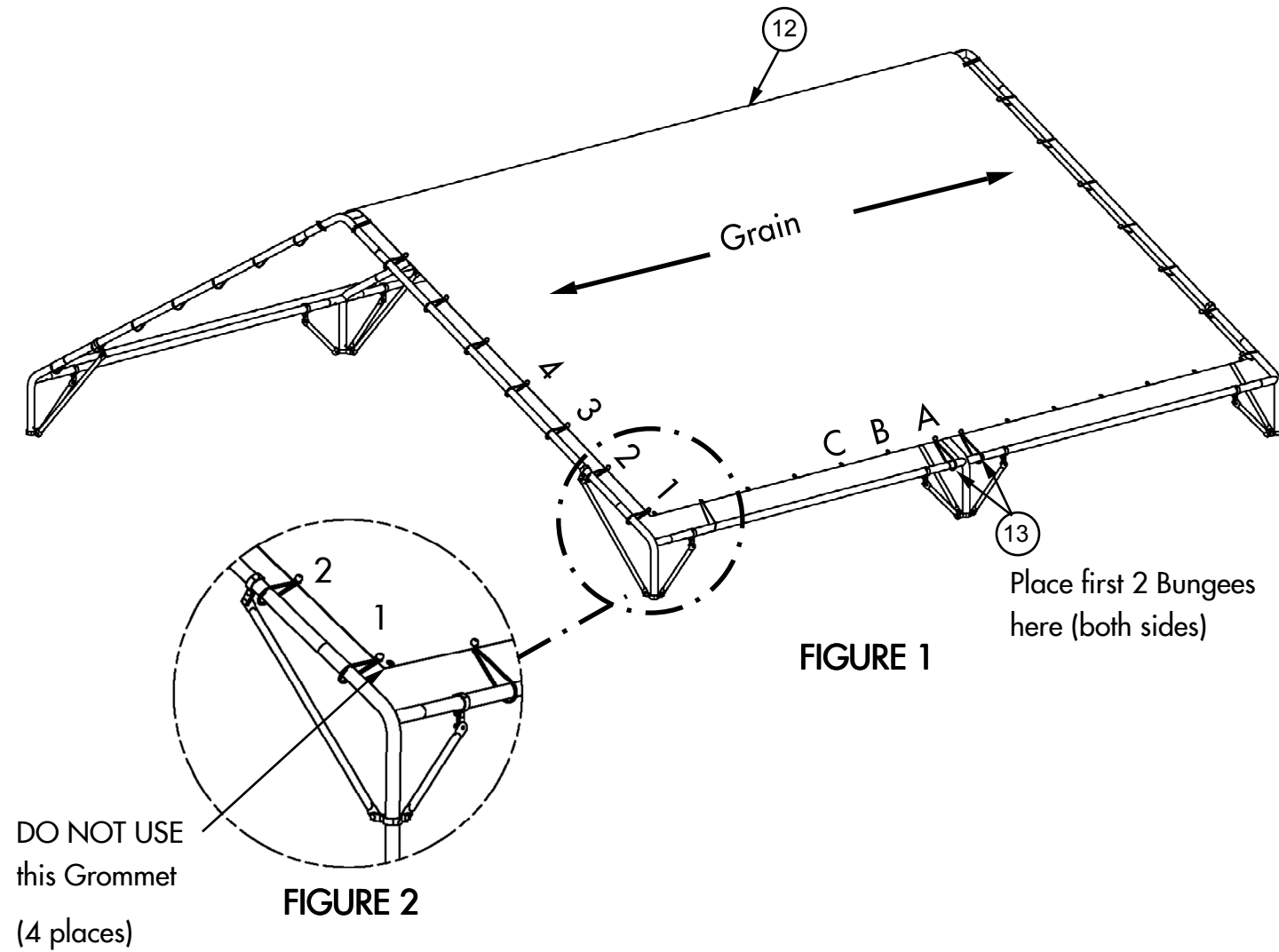


FIGURE 1

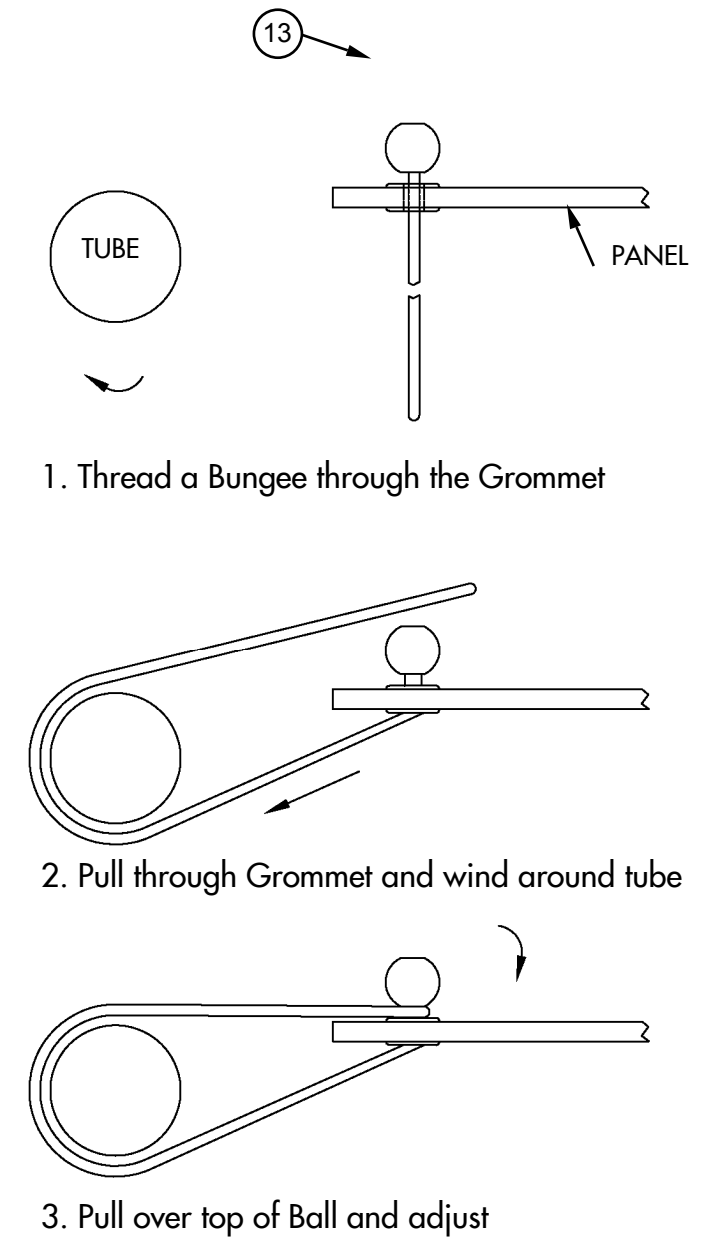
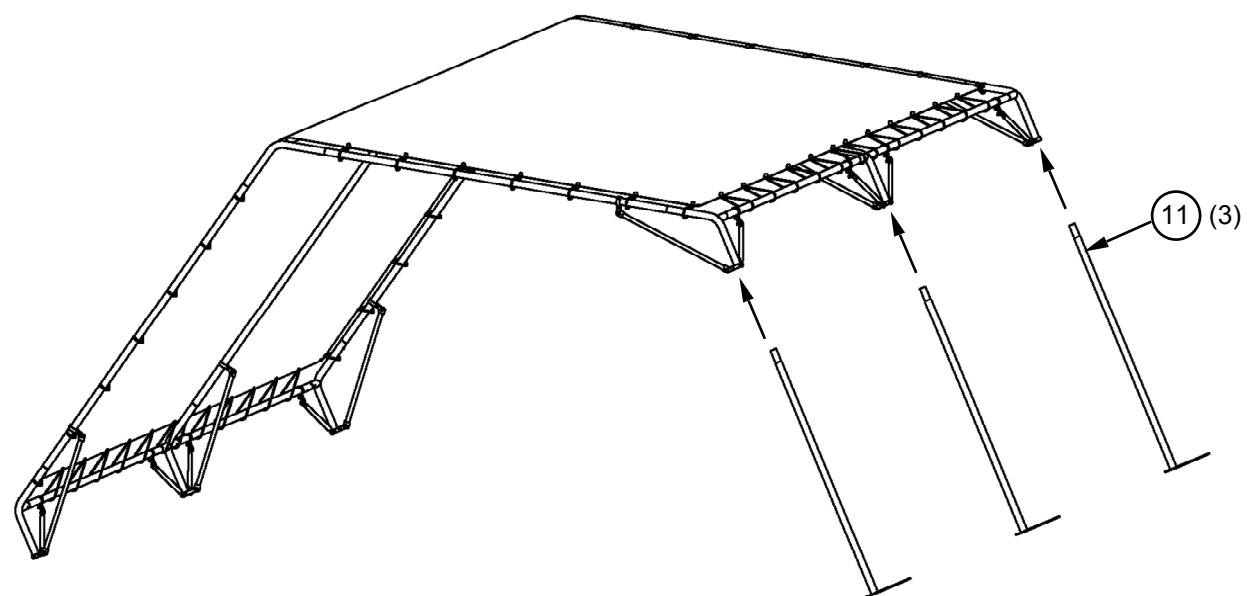


FIGURE 3-TYPICAL BUNGEE INSTALLATION

Have a couple of Bungee available to initially hold the Shade to the Assembly. Pick a calm day to install the Shade. Unroll Shade Panel. Keep it off the ground as much as possible to keep it from getting soiled. Align the grain of the Shade parallel to the ridge. Center Shade and tension ends while installing Bungees around Gable Tubes. Apply Bungees as shown in each corner according to FIGURE 2. Install Gable Bungees moving up from each corner. Install eave Bungees beginning at the center of the Structure length. DO NOT place a Bungee where shown in each of the 4 corners, as it will cause tearing. Adjust Shade to be taut evenly.

TAG #	QTY	ITEM #	DESCRIPTION
12	1	Varies	SHADE
13	Varies	PT2521	BUNGEE BALL, 10"

## Assembly Instructions



NOTE: Direction of Ballast Plates

FIGURE 1

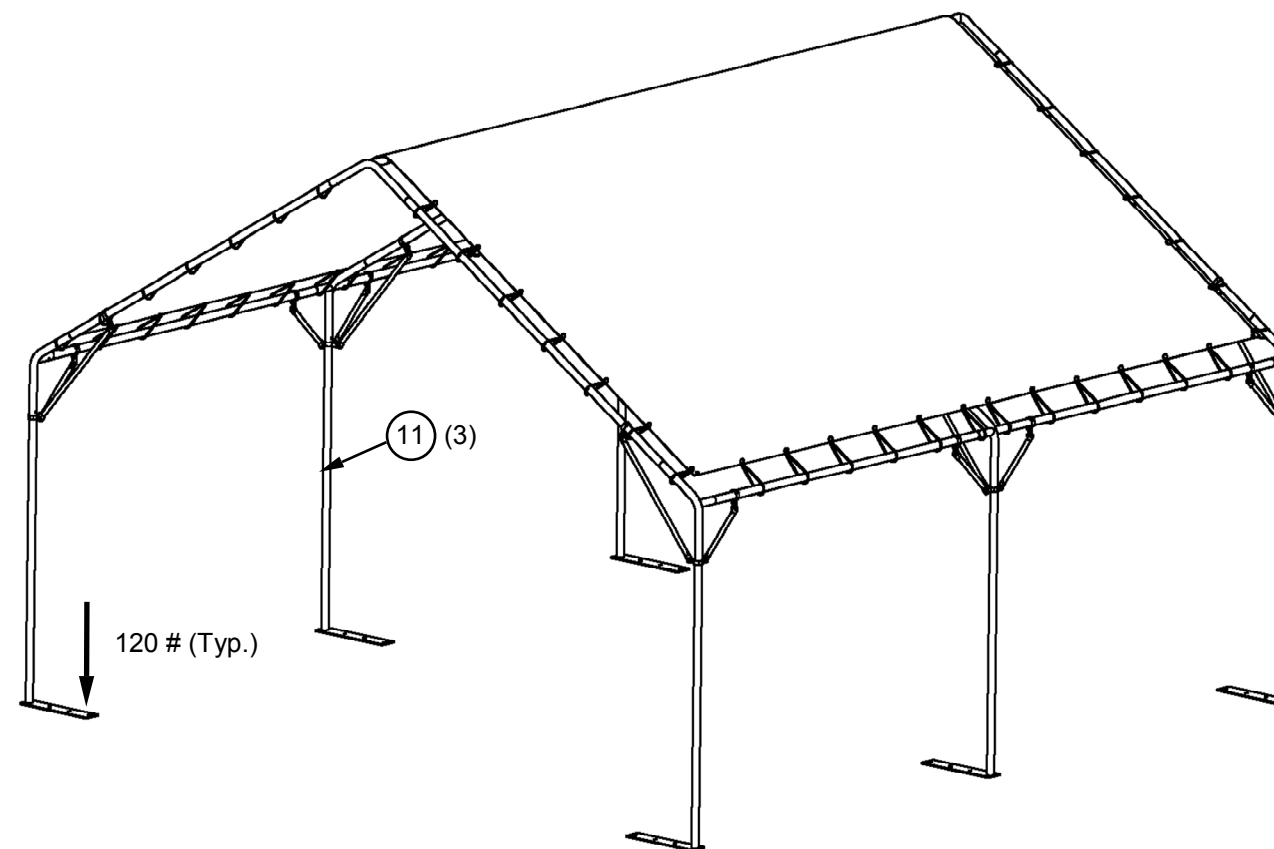


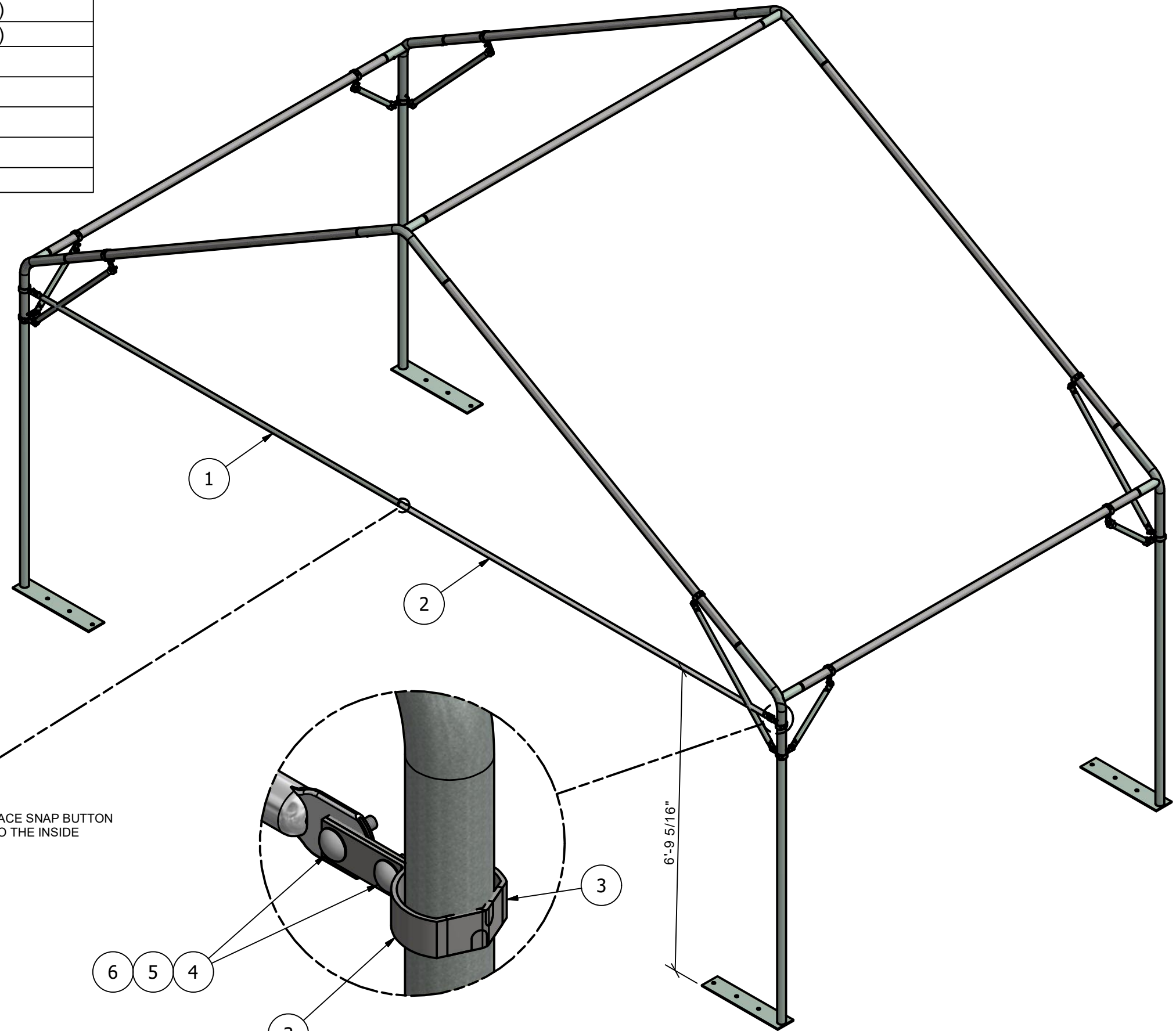
FIGURE 2

Tip unit up and insert Legs CH9018 on one side-see FIGURE 1. Ensure the Ballast Plates are pointing parallel to the eave. Snap buttons should *not* be snapped in at this time. Raise other side of Assembly and insert remaining Legs CH9018. Turn the Ballast Plates towards the interior of the Structure and engage Snap buttons. Place a minimum of 120 lbs. of weight on each Plate or use Stakes (if provided)-see FIGURE 2.

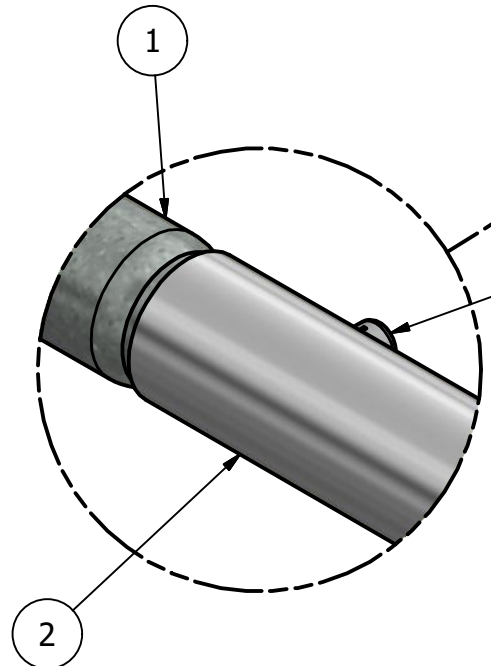
**IMPORTANT!** Structure is not designed for snow. The Shade fabric is to be removed before the snow season. In the event of an unseasonable snow event, remove two adjacent sides of the fabric attachment to remove any snow as soon as possible. Failure to do this will void the warranty. See quote for terms of the warranty.

TAG #	QTY	ITEM #	DESCRIPTION
11	6	CH9018	VERTICAL TUBE 2" DIA W/BALLAST PLATE

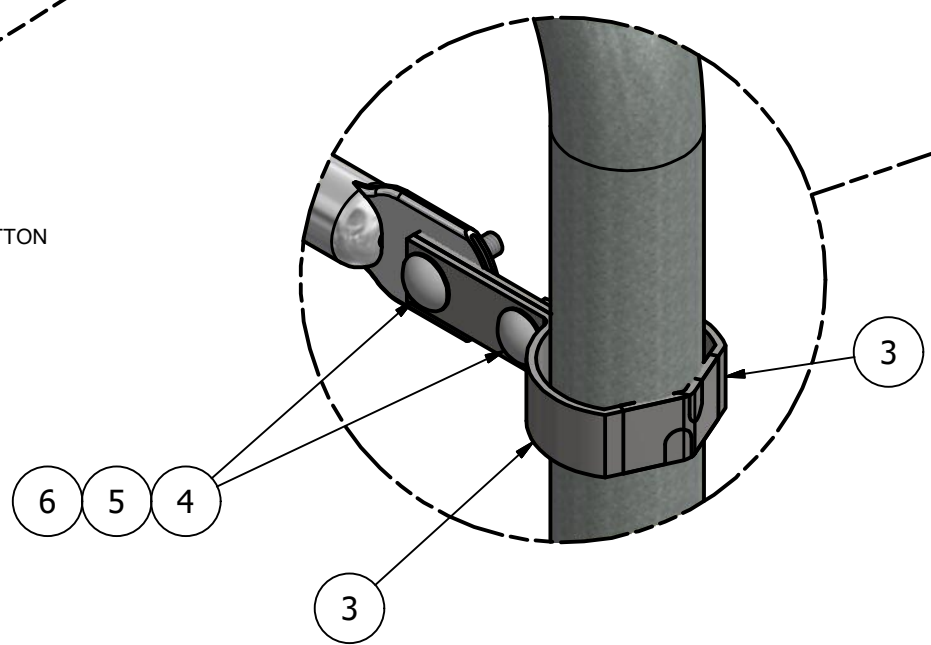
BILL OF MATERIALS			
TAG	QTY	PART #	DESCRIPTION
1	1	RC1325	1.163" x 17GA TUBE GALV (1" EMT)
2	1	RC1326	1.163" x 17GA TUBE GALV (1" EMT)
3	4	FT2079	LONG SPEED HOOK (2")
4	4	NB1832	CARRIAGE BOLT 5/16"x1-1/4" GRD
5	4	NB1862	LOCK WASHER 5/16" ZP
6	4	NB1872	HEX NUT 5/16" ZP
7	1		PANEL, GABLE, SHADE CLOTH



**\*\*\* OPTIONAL \*\*\***



FACE SNAP BUTTON TO THE INSIDE



6'-9 5/16"



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REV.	DATE
	MM/DD/YYYY

PROJECT & LOCATION: **VERTEX SHADE STRUCTURE GABLE PANEL KIT FRAMING**

SHEET TITLE: **ASSEMBLY**

DRAWING #:	VERTEX
DRAWN BY:	V. HANSON
RELEASE DATE:	9/28/2017
SCALE:	N/A
SHEET #:	1 OF 1