Installation Instructions
Navi-Trac Lite® Frame Tent
20’ Wide System
Non-Certified Installation

Please read all assembly / installation instructions before the installation or removal of this product.

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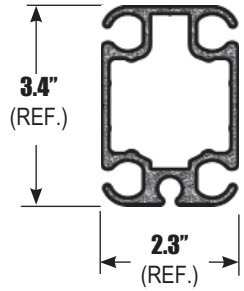

Navi-Trac Lite Beam

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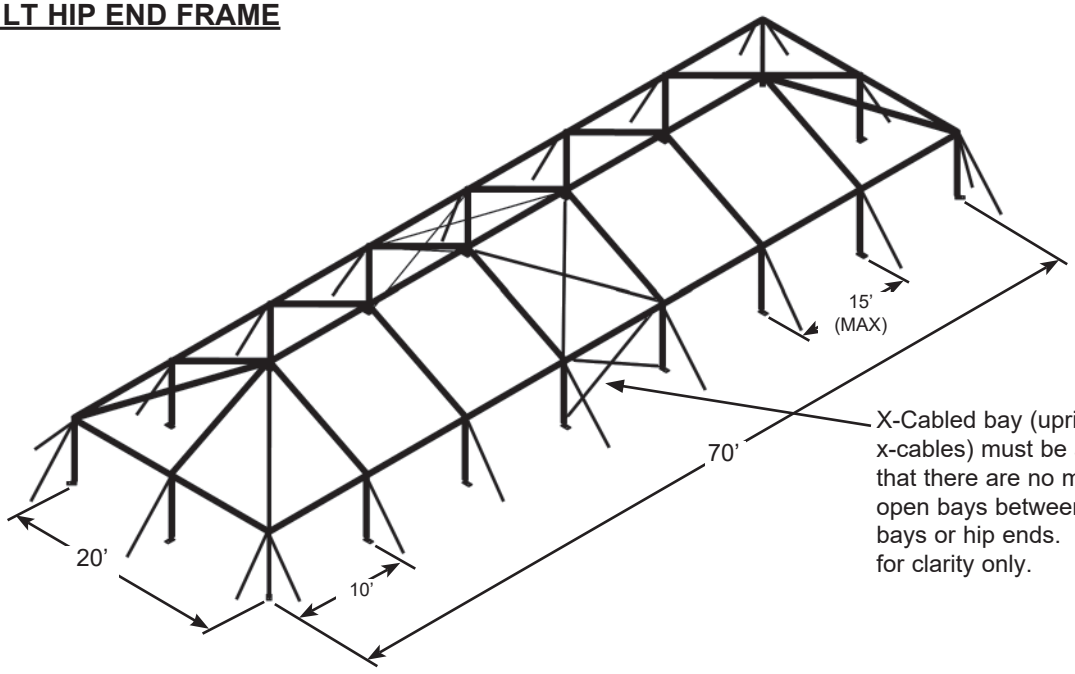
20’ NAVI-TRAC LT HIP END FRAME

1



X-Cabled bay (upright & rafter x-cables) must be added such that there are no more than 6 open bays between x-cabled bays or hip ends. Shown here for clarity only.

INTRODUCTION

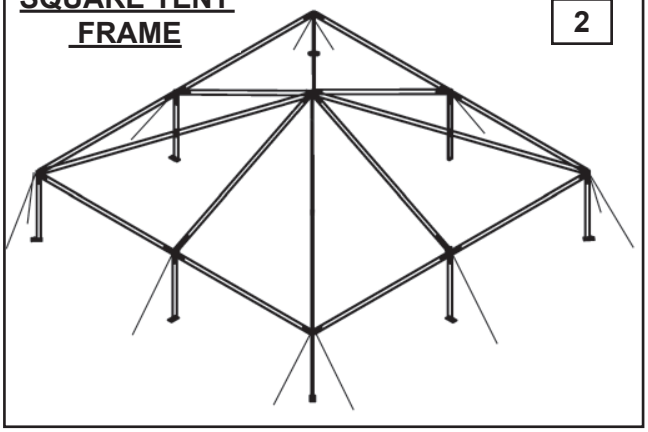
The NAVI-TRAC LT can be configured as a Hip End, Gabled End, or Clearspan unit, as described below:

20’ NAVI-TRAC LT HIP END UNITS

The 20’ wide NAVI-TRAC LT frame configuration is based on the hip roofed square tent shown at right. Hip bars connect corners to the peak, and rafters connect eave bars to the peak. The square tent can be extended into a rectangle by adding 10’ or 15’ bays consisting of parallel beams connected to the hip ends and to each other by ridge bars, purlins, and eave bars.

SQUARE TENT FRAME

2



20’ NAVI-TRAC LT GABLED END UNITS (AND HIP-GABLED & HEX-GABLED UNITS)

The 20’ LT can also be supplied and installed as a gabled end tent consisting of a series of parallel beams interconnected by ridge bars, purlins and eave bars (see the Appendix I). **The hip end, gabled end & hex end versions of the LT are guyed units** that depend on staked, ratcheted guy webs at legs and corners for their stability. All three versions are supplied with uprights adjustable from 8 ft to 10 ft high, with the gabled end unit requiring at least one bay of X-cabling.

20’ NAVI-TRAC LT CLEARSPAN (CS) UNITS (Gabled End Configuration only)

By adding appropriate additional X-cabling, and hinged Base Plates, the 20’ NAVI-TRAC LT can be converted into the 20 ft NAVI-TRAC CS, a clearspan unit which is installed without external guy webs (see Appendix 2).

20’ NAVI-TRAC LT COMPONENT ILLUSTRATIONS

(SEE PART LISTS ON PG #11 AND APPENDICES 1 AND 2)

EAVE WELDMENT (EW)

GABLED END WELDMENT “L” (GWL)

GABLED END WELDMENT “R” (GWR)

CORNER WELDMENT (CW)

RIDGE WELDMENT (RW)

(NOTE: FOR GABLED ENDS, THE BRACKET HARDWARE CAN BE REMOVED FROM ONE SIDE, IF DESIRED.)

UPRIGHT 8’ (U-8)

EAVE, 10’ (E-10)

GABLED END WING EAVE - 10’ (EW-10)

RIDGE, 10’ W/ HOOKS (RG-10) 9’-9 1 /2”

RAFTER, 20’ (R-20) 10’-6 1/2”

RAFTER, 20’ W/ HOOKS (RH-20) 10’-9”

GABLED END UPRIGHT W/ TOP FITTING (GU)

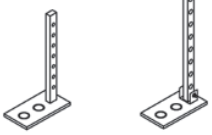
HIP, 20’ W/ HOOKS (H-20) 14’-2 1/2”

TENSION LOCK PIN (TP)

GFL GFR

GABLED END RAFTER FITTINGS (LEFT & RIGHT) W/ BOLT & NUT

2-HOLED PLATES for HIP & GBL UNITS



BASEPLATE ADJ (BA)

BASEPLATE, GABLED END, ADJ (BAG)

4-HOLED PLATES FOR CS

BASEPLATE HINGED (BH)

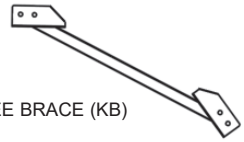
BASEPLATE, GABLED END, HINGED (BHG)

30” STAKE

(1) REQ’D PER BASE PLATE

42” STAKE

(1) REQ’D PER GUY



KNEE BRACE (KB)

WEB RATCHET (WR)

X-CABLING

NAVLT-BAY10 NAVLTCS-BAY10-U8 NAVLTCS-BAY10-U9 NAVLTCS-BAY10-U10

INSTALLATION SAFETY GUYS

LONG LIFTING BAR W/ CRADLE

SHORT LIFTING BAR W/ CRADLE

FABRIC PULL ROPES

PUSH POLE ASSEMBLY

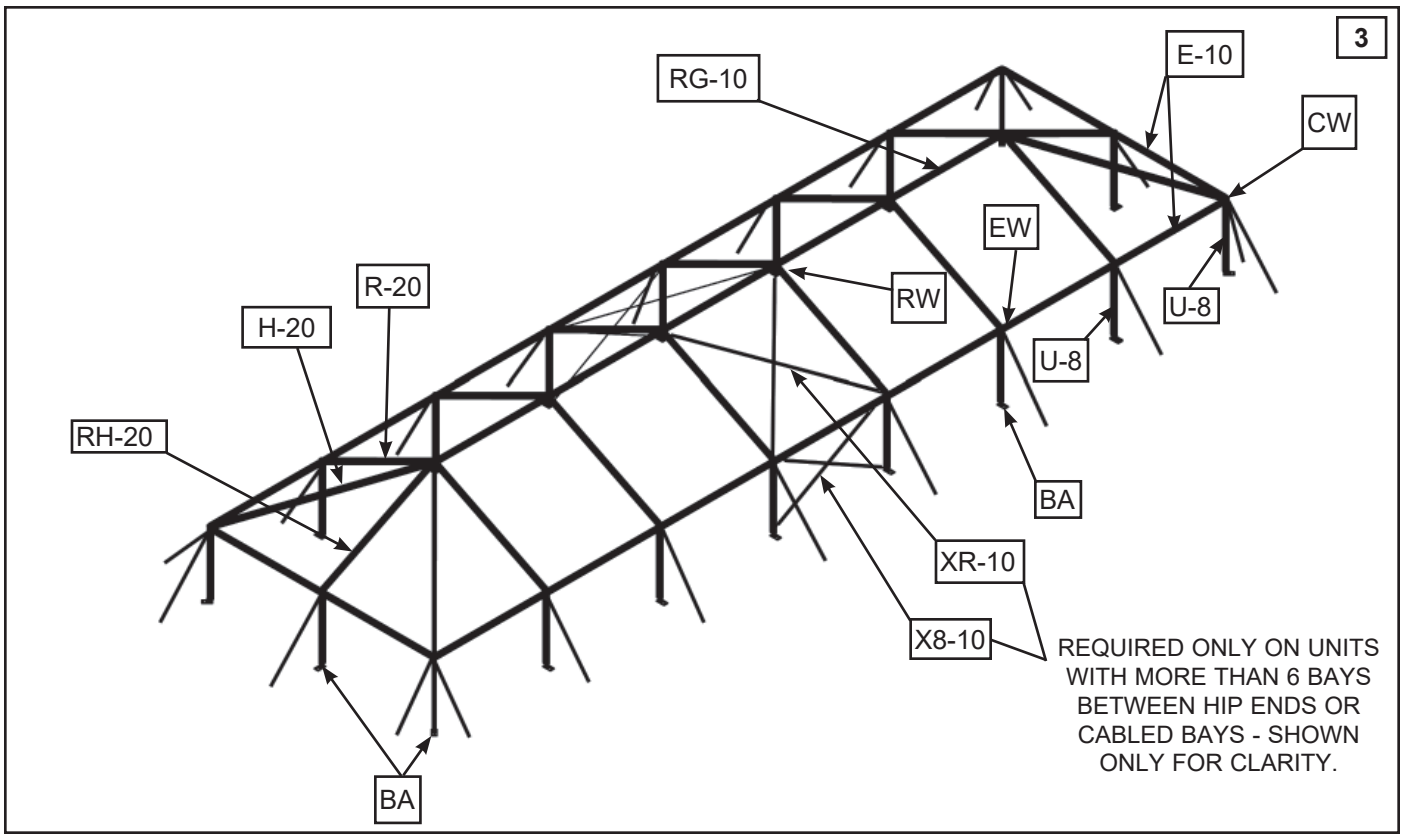
WHEELED PANEL GUIDES

WHEELED GUIDE BRACKETS

DROP CLOTH

FABRIC END FITTING (FOR PUSH POLE)

20’ NAVI-TRAC LT FRAME TERMINOLOGY



Component Chart					QTY	QTY
LABEL	**PARTS FOR HIP END UNITS**				**20’ x 20’**	**10’**
(LETTER	**(For Gabled End, see Appendix 1)**	**POSITION**	**ID**	**PART**	**HIP**	**EXTENSION**
ON DWG)	**COMPONENT DESCRIPTION**	**CODE**	**CODE**	**#**	**END**	**MID**
	TOP EXTRUSIONS WITH CHANNELS:					
E-10	EAVE - 10’			8004400	8	2
RG-10	RIDGE W/ HOOKS - 10’			8004405	0	1
R-20	RAFTER 20’			8004425	2	2
RH-20	RAFTER 20’ W/ HOOKS			8004430	2	0
H-20	HIP - 20’ W/ HOOKS			8004420	4	0
	UPRIGHTS:					
U-8	UPRIGHT - 8’			8004450	8	
	WELDMENTS, FITTINGS & PLATES:					
BA	BASEPLATES, ADJUSTABLE, 2-HOLED			8004505	8	2
CW	CORNER WELDMENTS W/ PINS			8004525	4	0
RW	RIDGE WELDMENTS W/ PINS			8004545	1	1
EW	EAVE WELDMENTS W/ PINS			8004530	4	2
	X-CABLES:					
X8-10	X-CABLE, 8’ UPRIGHT 10’ BAY	GREEN	NAVLTCS-BAY10-U8	8004550	0	4 (OVER 6 OPEN BAYS ONLY)
XR-10	X-CABLE, RAFTER 10’ BAY	BLUE	NAVLT-BAY10	8004565	0	4 (OVER 6 OPEN BAYS ONLY)
	INSTALLATION TOOLS:					
	LONG LIFTING BAR W/ CRADLE			80702		
	SHORT LIFTING BAR W/ CRADLE			80701		
	FABRIC PULL ROPES			80730		
	WHEELED PANEL GUIDE/ ASSEMBLIES			80731		
	PUSH POLE ASSEMBLY			80707		
	FABRIC END FITTING FOR PUSH POLE			80732		
	DROP CLOTH (8’ x 30’)			80705		

OTHER COMPONENT NOTES:
STAKES AND GUYS ARE NOT INCLUDED IN THIS TABLE. (1) 1” X 30” STAKE MUST BE USED FOR EACH BASE PLATE. EACH GUY REQUIRES THE USE OF A 1 1/8” X 42” STAKE.

NAVI-TRAC LT INSTALLATION SAFETY GUIDELINES

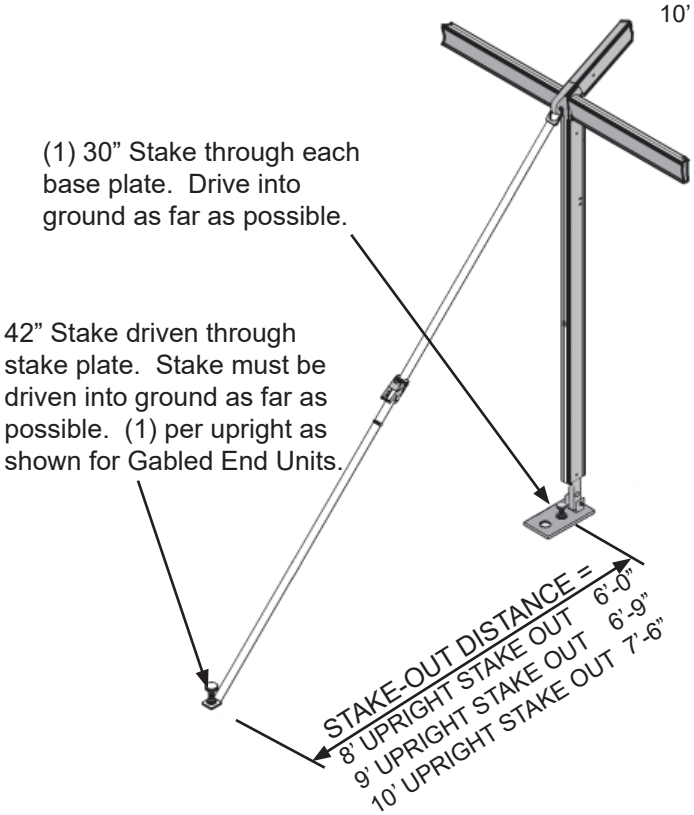
Your own installation techniques will evolve to fit the varied needs of your clients, the experience level of your installation crews, the nature of other tentage that may be common to the installation site being planned, and the equipment that you may have previously available or with which you feel most comfortable. Whatever techniques you adapt for your crews, we encourage you to keep safety utmost in mind.

Please read through this assembly manual completely before beginning your installation. Be sure the proper equipment, crew and safety precautions are in place. We hope that you enjoy the design features of the Navi-Trac Lite® each time the unit is installed.

1. It is recommended that workers wear safety shoes and hard-hats on site.
2. When moving frame sections by hand, use proper lifting techniques to protect the back, and avoid pinching fingers while making hardware connections.
3. Be sure all workers are cautious and attentive to the falling paths of frame sections being raised or lowered.
4. Be aware to avoid contact of frame sections with any overhead power lines near the site.
5. When anchoring the structure, avoid all underground power lines and gas lines or other utility easements.
6. Keep site clear of debris to avoid tripping, especially while carrying frame parts or bundles of fabric.
7. Do not drag bundles of fabric on concrete, asphalt, or ground as this can cause damage to the fabric from abrasion through the bag.
8. Do not climb onto the fabric “roof” of the structure. When necessary, work safely from a ladder of appropriate size.
9. When standing frame sections to vertical, or when lowering, use a smooth motion and have other workers “foot” the base of the section to avoid slippage along the ground.
10. When installing gabled end units, be sure all beams are stabilized either by safety guys or cross-cabling until connected to a section of the unit that is already stabilized in this manner.
11. Pay close attention to the proper use of the Navi-Trac Frame Jack (see Page 9). Use care in position the jack carefully to maintain proper balance points in relation to weight, wind, and terrain.
12. Before installing fabric, be sure the frame is safely guyed off against the windload the fabric will transfer to the frame (in the LT and Gabled LT). In the Clearspan (CS) units, be sure X-cabling is in place.
13. When liner ropes are installed on the frame during installation, leave these ropes partially coiled to avoid tangling in them during frame assembly and standing.
14. When assembling the LT Gabled End units or the Clearspan (CS) units, be sure to safely stabilize the first standing beam by using the safety guys supplied and the techniques described in Appendix page X-1b.
15. To meet design loads, x-cabled bays (upright and rafter x-cables) must be added such that there are no more than 6 open bays between x-cabled bays or hip ends.
16. Notice that the Clearspan configuration may not have bays over 10’ wide and that all inner beams are knee braced on both sides of the unit in order to supply the stability needed to omit external guying. Do not install standard Hip Lt or Gabled LT units without safely guying them out before fabric installation.
17. The installation method described here requires coordination of tasks between workers. A safe installation is dependent on that coordination. Please work cooperatively as a team.
18. **Inspect Site**! Consult your local utility locator service or the National Utility Locating Contractors Association (NULCA) prior to installation. Prior to actual tent assembly, be sure to look up, down, above & below for obstacles, pipes, wires, trouble, etc.
19. Anchor recommends a factor of safety of at least 2X be used to resist all loads.

WEB GUY - STAKING GUIDELINES

STAKE-OUT DISTANCE =
8’ UPRIGHT STAKE OUT 6’-0”
9’ UPRIGHT STAKE OUT 6’-9”
10’ UPRIGHT STAKE OUT 7’-6”



Corner staking is at 90º on hip ends.

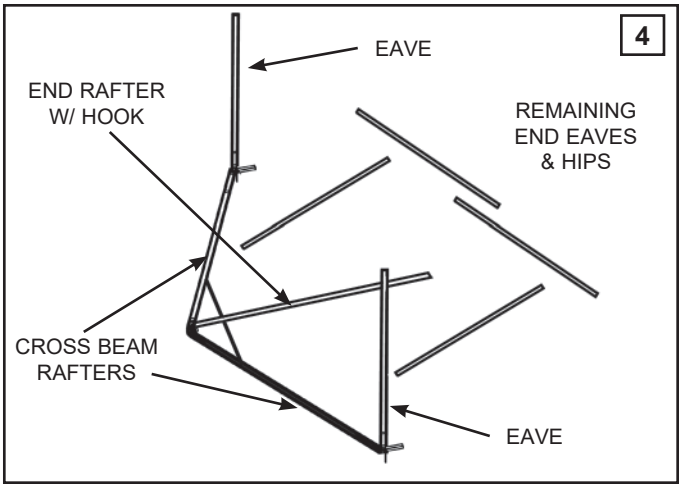
ASSEMBLING THE CROSS BEAM

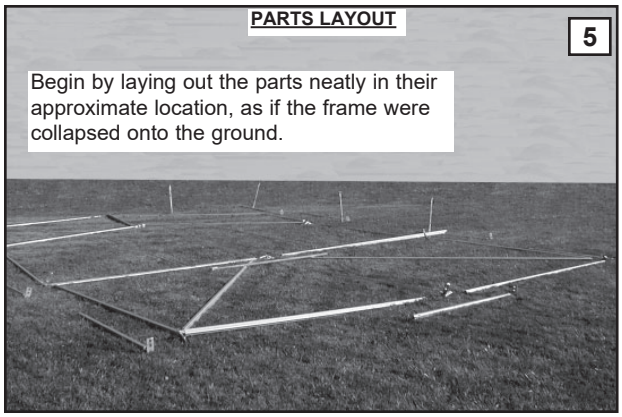
Begin the hip end installation by assembling the cross-beam section of the hip end framing with the eave bars connected, (see fig. 4)

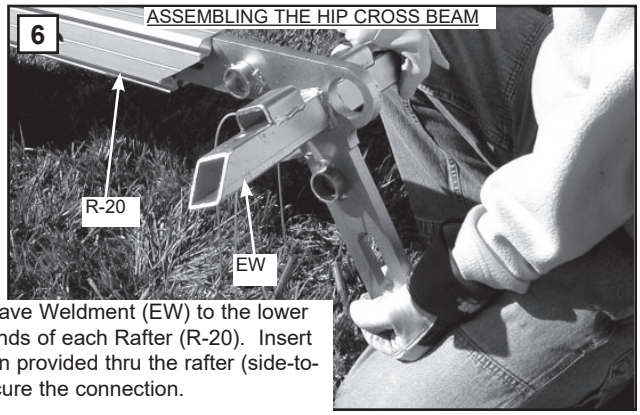
The following illustrations show details of each step to complete this assembly phase. Notice that the uprights (legs) are not installed at this time. They will be added with the help of a tent jack after the hip end upper frame is completely assembled.

Appropriate pins are attached to the weldments. **The long pins** pin vertically through the aluminum extrusions. **The short pins** pin horizontally through the aluminum extrusions.

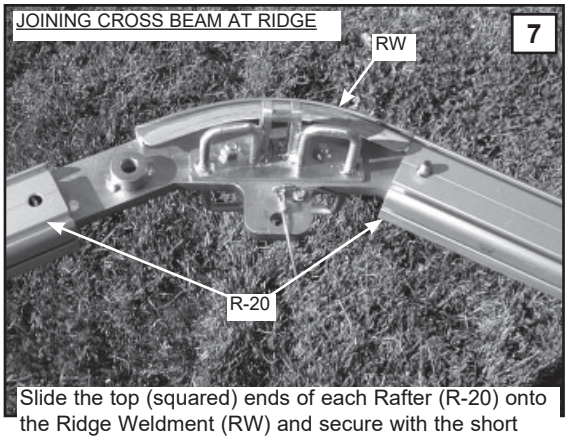
After completing each step on this page, the hip end frame should resemble the drawing to the right.



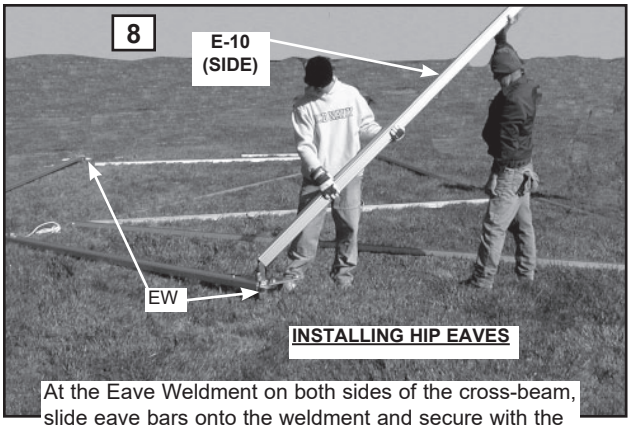




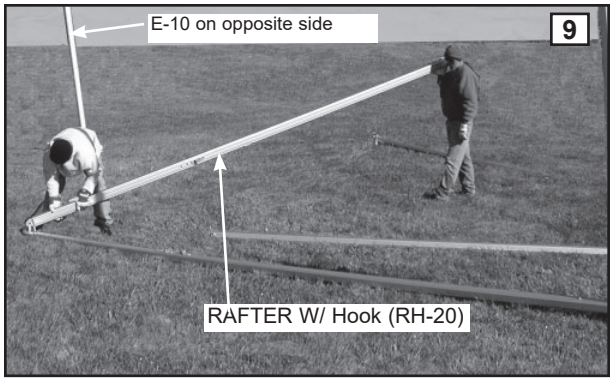
Install an Eave Weldment (EW) to the lower (tapered) ends of each Rafter (R-20). Insert the short pin provided thru the rafter (side-to-side) to secure the connection.



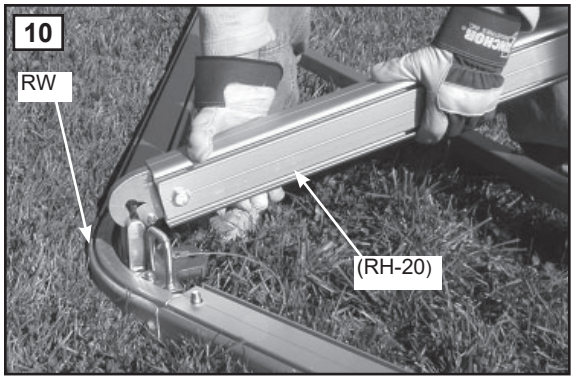
Slide the top (squared) ends of each Rafter (R-20) onto the Ridge Weldment (RW) and secure with the short pins provided on the weldment.



At the Eave Weldment on both sides of the cross-beam, slide eave bars onto the weldment and secure with the long pins, allowing the eaves to stand vertically.



Install the Rafter w/ Hook (RH-20) to the center bracket of the Ridge Weldment (RW), and let it lay on the ground until the cross-beam is pivoted.



Close-up of the Rafter w/ Hook (RH-20) being connected to the Ridge Weldment (RW). (Notice the pivoting latch of the Rafter Hook.)

At this time, the cross-beam portion of the hip end should be complete, with eave bars standing vertically, as shown (see fig. 4, above)

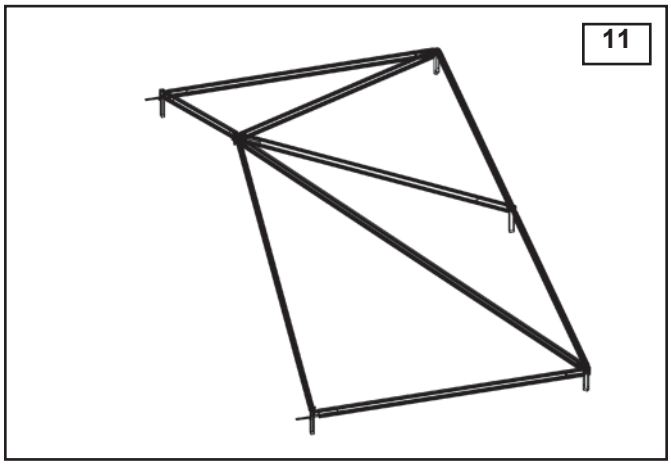
Caution: If you have attached liner ropes, they should be kept at least partially coiled to prevent them from becoming a trip hazard during the remaining steps of the installation.

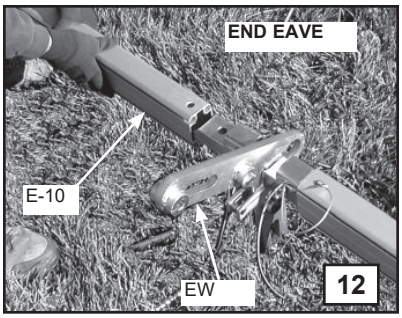
COMPLETING THE HIP END UPPER FRAME

In the following steps the upper frame of the hip end will be completed (see fig. 11 to the right). Following this sequence will result in a smooth assembly.

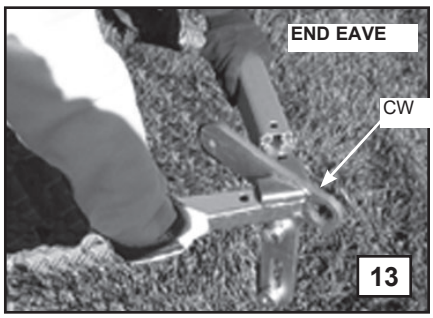
As this upper frame is completed, you should begin to position the hip end close to its intended position.

In addition to the long and short pins used above, the corner weldments have a **thicker short pin** that is used only for horizontal pinning through the lower end of the hip bar.

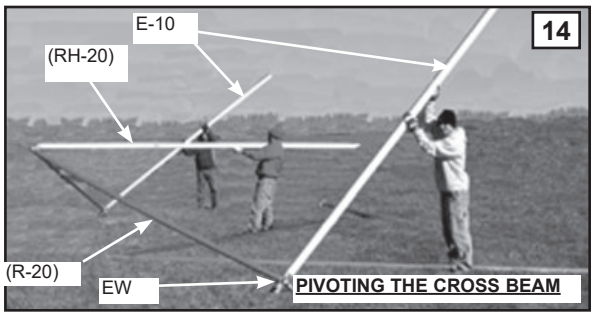




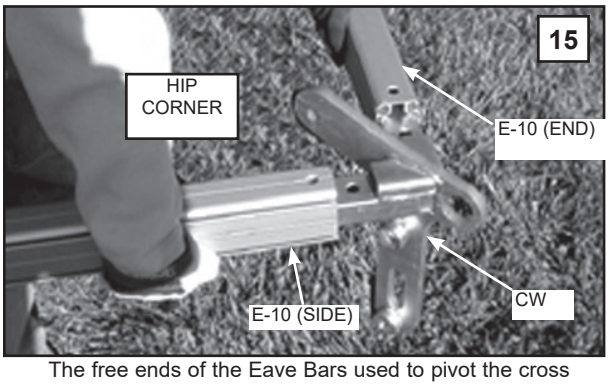
Complete the end eave by joining each Eave Bar (E-10) to the Eave Weldment (EW), as shown, and pin with long pins.



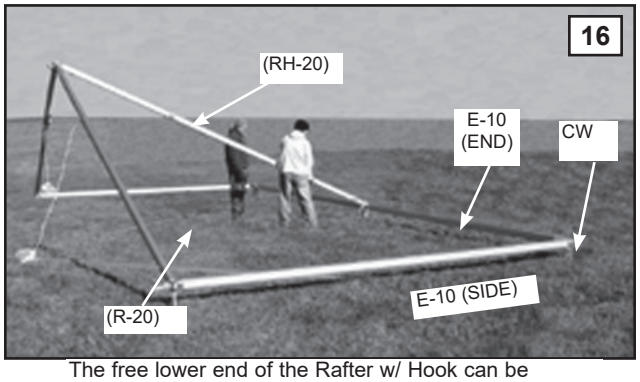
Insert a square arm of a Corner Weldment (CW) to each outer end of the Eave Bar (E-10) as shown and pin with a long pin.



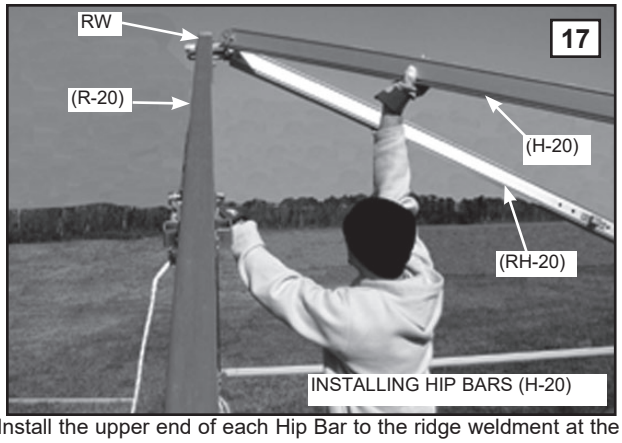
Using the Rafter w/ Hook (RH-20) and the Eave Bars (E-10) for leverage, pivot the cross beam to a vertical position, lining up the Eave Bars with the Corner Weldments at each end of the end Eave Bar assembled in the preceding steps.



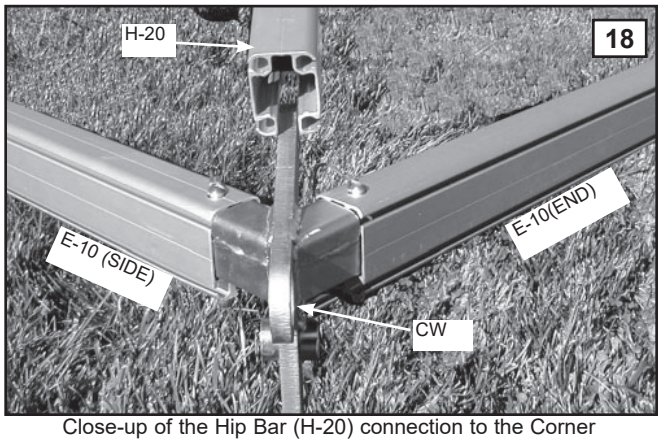
The free ends of the Eave Bars used to pivot the cross beam can now be attached to the Corner Weldments and pinned vertically with a long pin.



The free lower end of the Rafter w/ Hook can be attached to the Eave Weldment (EW) at the center of the end eave. Secure vertically with a long pin.



Install the upper end of each Hip Bar to the ridge weldment at the top of the cross beam. To do this, **first align the Hip Bar straight in** along side the Rafter w/ Hook, then swing the lower end of the Hip Bar outward to the Corner Weldments and pin with the short, **thick** pin.



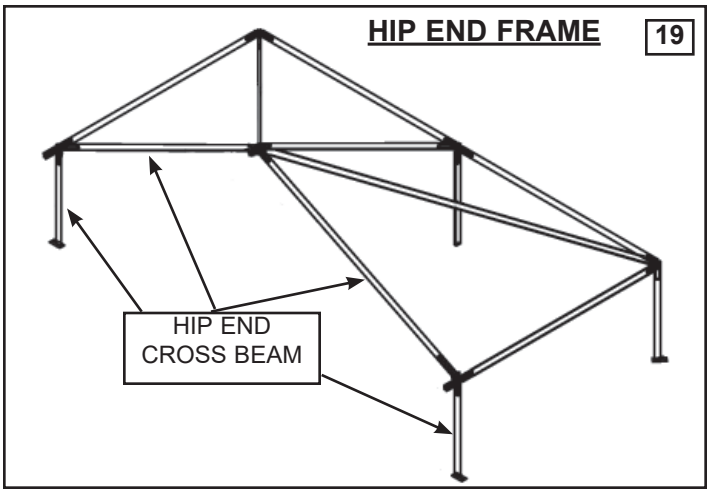
Close-up of the Hip Bar (H-20) connection to the Corner Weldment (CW). Notice the slotted underside of the hip bar designed to drop over the top arm of the Corner Weldment.

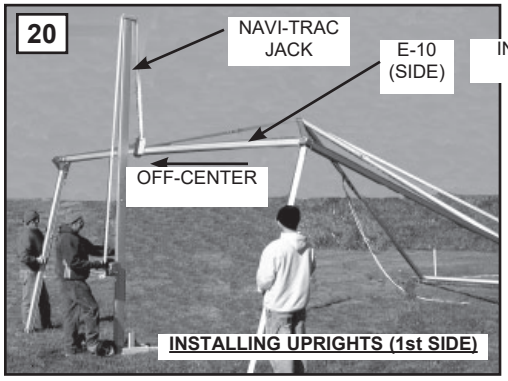
INSTALLING UPRIGHTS UNDER THE UPPER HIP FRAME.

Using the method shown, you should be able to install the NAVI-TRAC LT using only one NAVI-TRAC JACK.

You will lift one side of the Hip End and insert and pin the Uprights onto the under fitting of each weldment. Then, move the jack to the opposite side and install the remaining Uprights.

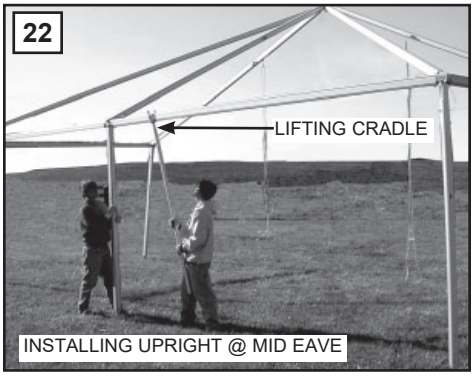
NOTE: To achieve proper balance, the NAVI-TRAC JACK should be positioned 1 ft off center on the side Eave Bar (E-10) in the direction of the peak of the frame (see fig. 20). Be attentive to the balance of the frame should uneven terrain require a slight shifting of this balance point.





Use the NAVI-TRAC JACK at 1 ft off-center of the Eave Bar (in the direction of the peak) to lift one side of the hip end upper frame. Insert the uprights onto the bottom fitting of each weldment and secure horizontally with a short pin.

Repeat this procedure on the opposite side Eave Bar (again 1 ft off-center in the direction of the peak), and install the opposite side Uprights.



To install an upright under the Eave Weldment on the end eave, simply use a Lifting Cradle to lift the Eave as shown.

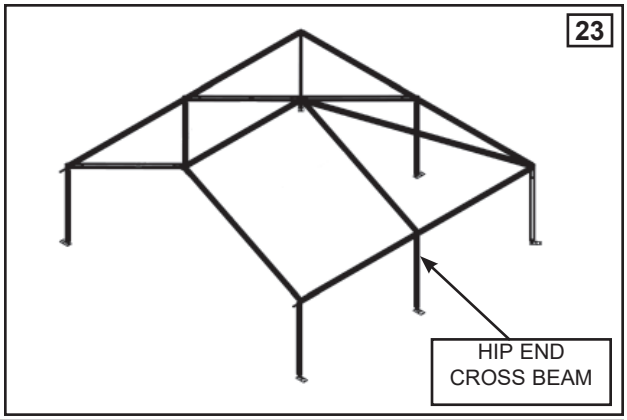
ADDING MIDDLE BAYS TO FORM A RECTANGULAR UNIT

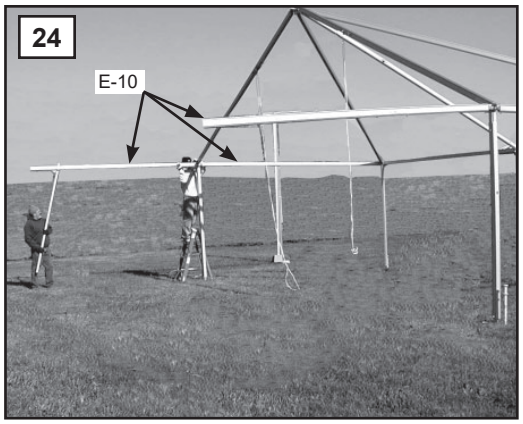
The NAVI-TRAC LT hip end unit can be extended into a rectangle by adding parallel middle bays as shown (fig. 23).

Each middle beam is constructed the same as the hip end cross beam, except that uprights are attached before standing the beam to vertical. Also, the connecting parts (Ridge, Eaves, etc) are first installed on the standing beam, and the new middle beam is stood and then joined to them in the air.

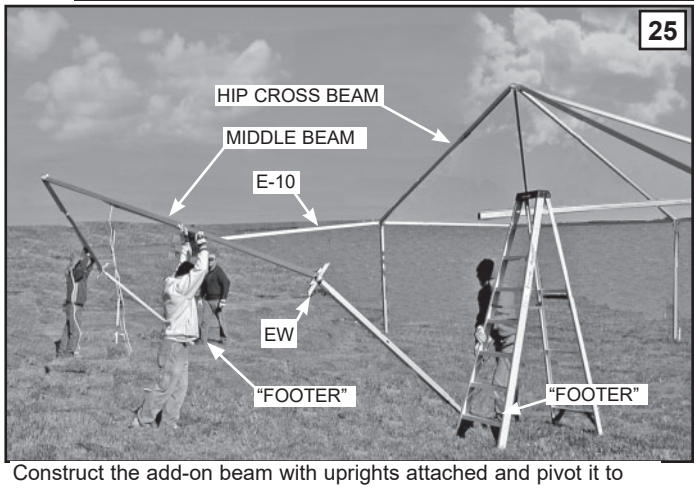
Unlimited middle bays can be added, but when the unit exceeds 60' in length, and for each each additional 60' of overall length, an X-cabled bay must be included (see Appendix 1, fig. 50, 51 & 52 for a description of the X-cabling).

This assembly section describes units with hip ends on both ends of the unit. (For hip end-gabled end or purely gabled end units, see Appendix 1).

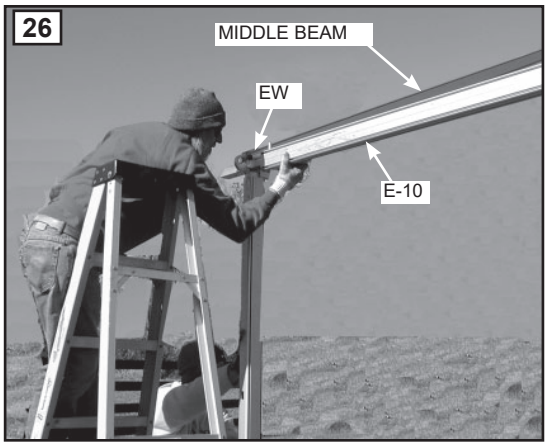




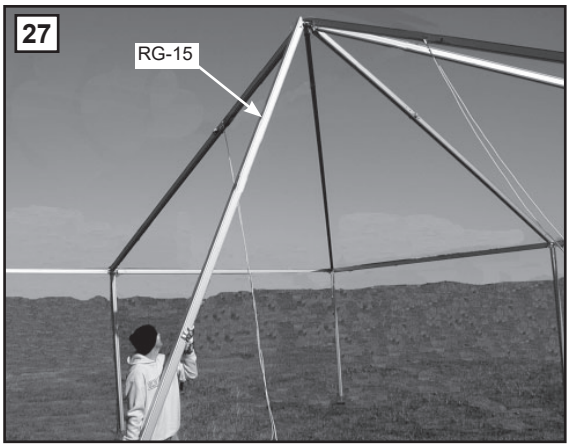
Install Eave Bars (E-10) to the Eave Weldments of the standing beam. Let the Eave Bars simply hang in a horizontal position as shown above.



Construct the add-on beam with uprights attached and pivot it to vertical as shown above. **Note: workers must "foot" the base-plates to prevent the baseplates from sliding out.**



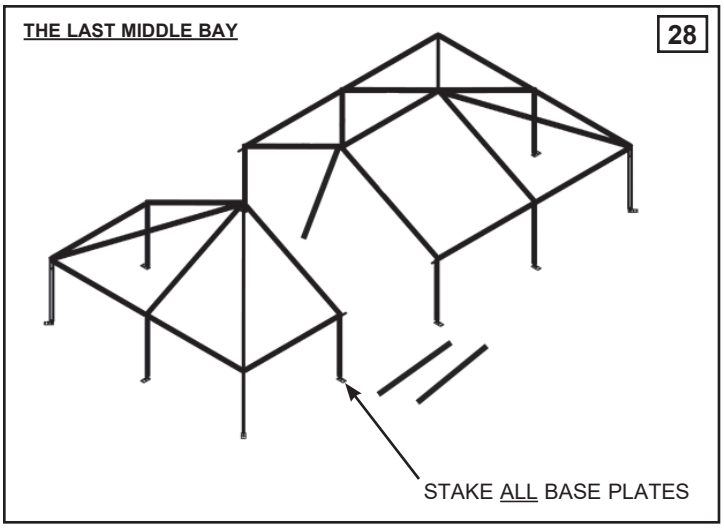
Secure the new middle beam by attaching the Eave Bars (E-10) from the standing beam to the mid beam's Eave Weldment as shown above.



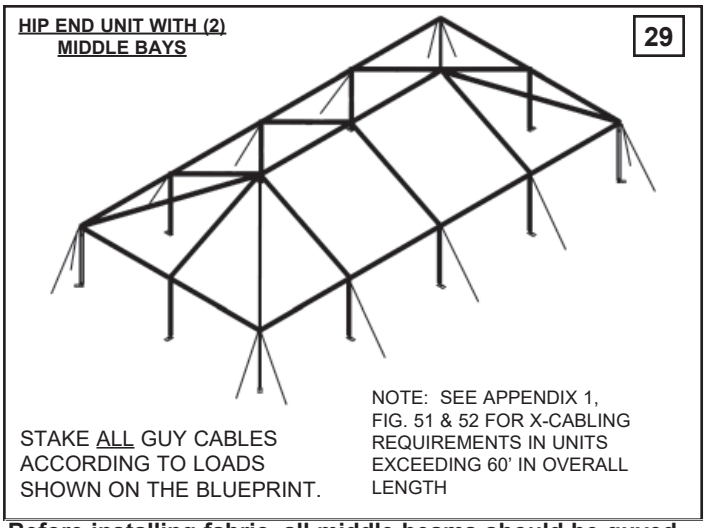
Repeat this process with the Ridge w/Hooks (RG-10) as shown above. Again, use the long Eave Bar Cradle to attach the opposite end.

COMPLETING AND STAKING THE HIP END FRAME

The final middle bay joins with the cross beam of the opposite hip end (see fig. 28 & 29). Position the second (facing) hip end 10' from the last middle beam, and use Eave Bars (E-10), and Ridge Bars w/ Hooks (RH-10) to connect it to the standing frame structure.



To finish out the unit, position a second, facing, hip end spaced 10' from the last parallel middle beam and connect the purlins, ridge, and eave bars just as in the preceding bay. Consult the blue print for loading data for each baseplate location. Stakes alone may not meet the loading requirement. **It is the customer's responsibility to provide adequate anchoring to meet the loads.**



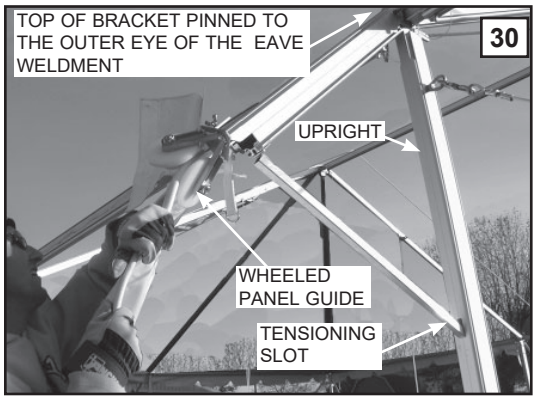
Before installing fabric, all middle beams should be guyed off, as shown. All guys are staked out from the upright at a distance equal to the height of the upright. If the breeze is strong, the corner uprights should be guyed off as well. Later, the corner guys will be temporarily released while the fabric hip end is being tensioned.

FABRIC GUIDE BRACKET

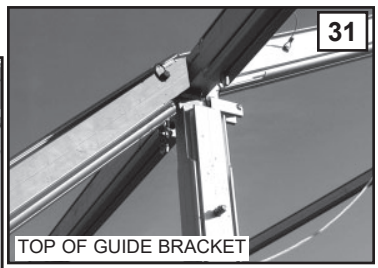
Fabric is installed using the fabric wheeled guide brackets and pull ropes thrown over the purlins and eave bars from one side of the tent to the other (see fig. 30).

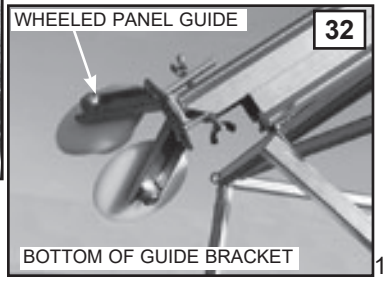
To install the hinged Wheeled Guide Bracket, slide the top over the external eye of the eave weldment and pin in place using a Tension Lock Pin. Spread the hinged bottom brace until the lower end lodges in the tensioning slot of the upright leg, as shown to the right (see fig. 31).

Using the butterfly set screws attach the Navi-Trac Wheeled Panel Guide wheels into the open end of the bracket at the hinged angle, as shown (see fig. 32).



Fabric Kedar being fed between the angled wheels of the panel guide.





INSTALLING THE HIP END PANEL

To install the hip end fabric panel, first install the Fabric guide bracket on one side of the hip end cross beam, with the wheeled guide facing toward the end of the unit (fig. 33).

From side to side, throw the snap end of one pull rope up and over the hip end top framing so that the snap hangs near the Fabric Guide Bracket.

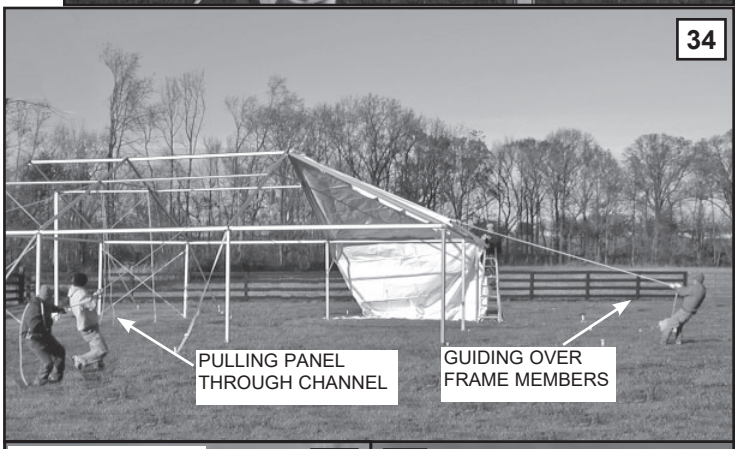
If possible, position the Guide Bracket and the hip end fabric bundle on the downwind side so that the direction of pull will be into the wind. This way the breeze can help lift the fabric over the hip end frame members.

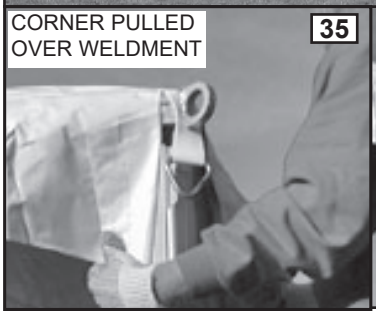
Snap the pull rope to the pull web loop at the end of the kedar strip on the hip end fabric panel (see diagram at bottom of this page.) This rope will be pulled in line with with the cross beam, from the opposite side of the tent (fig. 34).

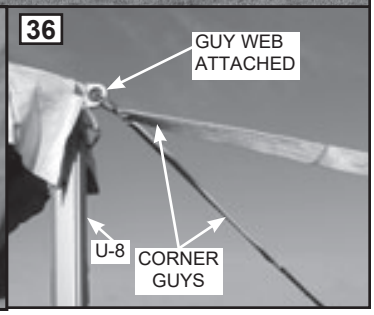
Snap a second pull rope to the tension ring at the corner of the fabric panel. This rope will help guide the fabric and prevent it from riding up the hips and rafters as the panel is pulled across the frame (fig.34).

Insert the leading edge of the kedar between the guide wheels and pull the panel up and over.

When the leading edge of the kedar reaches the eave weldment on the opposite side, pull the corners of the fabric down over the eye on the out side of the Corner Weldment, and install or re-install the guy webs at both corners to protect the tent from the wind load the hip panel will now exert on the frame (fig. 35 & 36).







SAFE ATTACHMENT OF PULL ROPES TO FABRIC

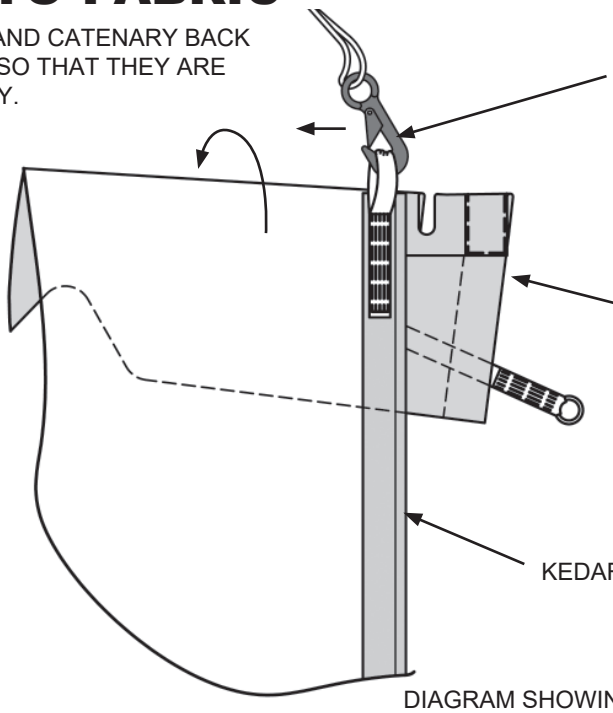
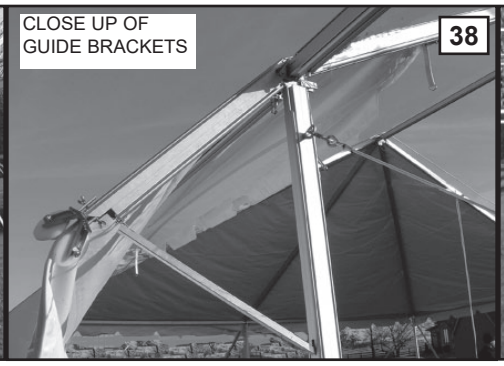


DIAGRAM SHOWING UNDER SIDE OF FABRIC AT EAVE.

NOTE: TO ENSURE THAT MID FABRIC GOES IN SMOOTHLY AND TO MINIMIZE CHANCE OF DAMAGE TO FABRIC, ALWAYS USE THE WHEELED PANEL GUIDE TO FEED KEDAR INTO FRAME CHANNELS AND ALWAYS SNAP PULL ROPE TO FABRIC AS SHOWN HERE.



INSTALLING THE MID PANELS

To install the mid panel, first attach Fabric Guide Brackets to both beams of the middle bay with the guide wheel assemblies of the two brackets facing toward each other (fig. 37).

Throw the snap ends of (2) pull ropes up and over the frame from one side of the tent to the other, so that the snaps hang near the Fabric Guide Brackets.

Feed the leading edge of each Middle Panel kedar through the gap in the guide wheels on each side of the Middle Panel and snap the pull ropes to the pull web (See diagram at bottom of previous page and fig. 37 & 38). As the panel is pulled, the kedar will feed itself if the fabric bundle is free of tangles (fig. 39).

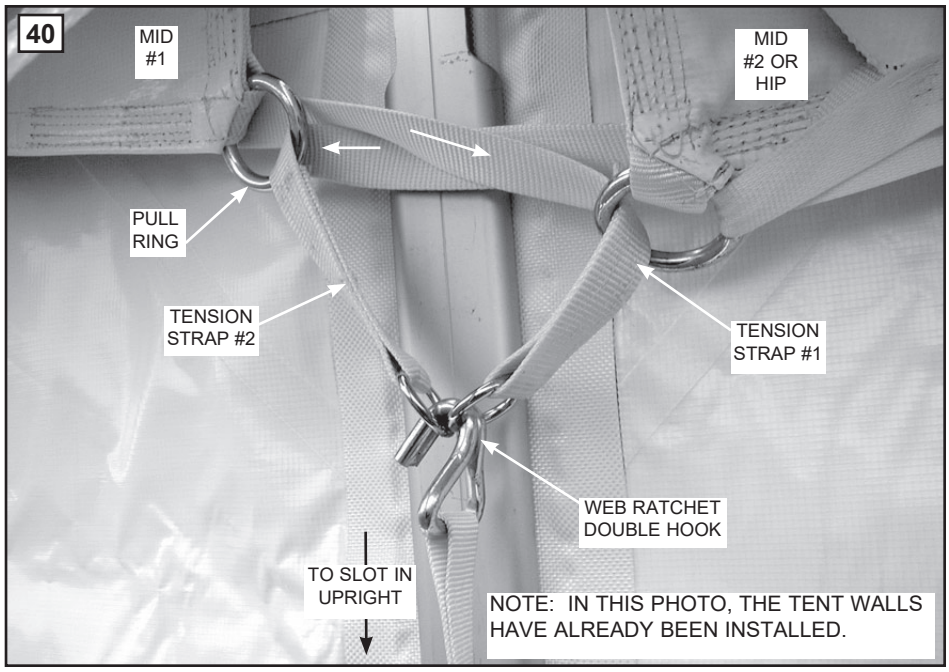
FABRIC TENSIONING

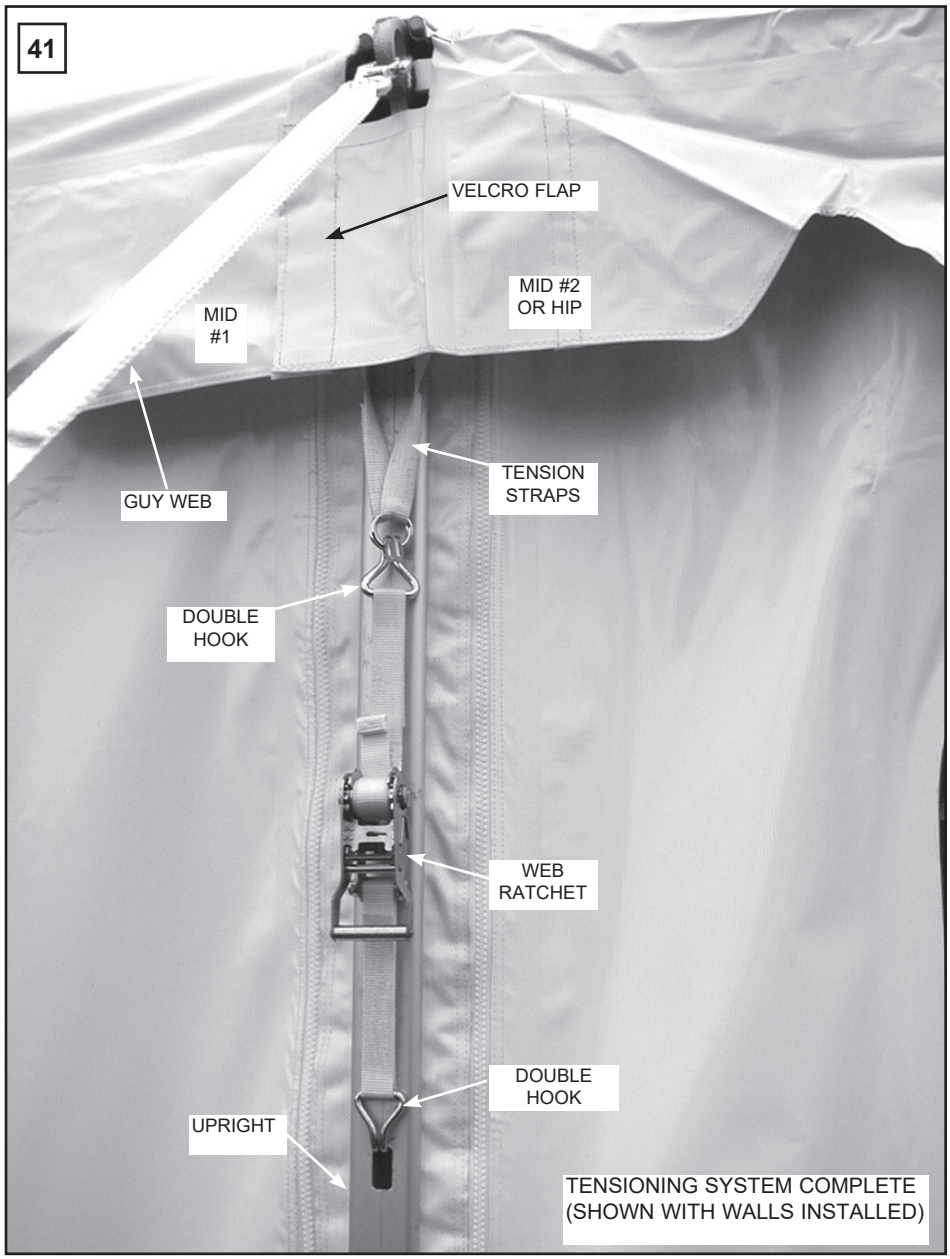
Adjacent top fabric panels are tensioned together at each upright (leg) of the tent.

As shown at the right, the tension straps of each catenary tensioning arch interlink through the pull ring of the adjacent fabric panel (fig. 40). Both tension straps then join at the top double hook of a web ratchet strap. The bottom of the web ratchet strap is then hooked into a slot in the upright and ratcheted so that the catenaries of both top panels are tensioned at once (fig. 41).

When tensioning a panel, be sure that it is secured by the web ratchets on both sides of the tent before beginning to ratchet either of the catenaries tight, otherwise the panel may simply move toward the opposite side.

After the catenary is tensioned, velcro the adjacent valances together (fig. 42).





With the hip end tent complete, adjust the guy webs for even tightness. Note: See the page 7 for web guy staking guidelines.
Walls are optional, but in the wind, the tent is safest when the walls are either **all** closed or **all** open.

The Navi-Trac LT can also be configured in the following ways:

1. As a Guyed Unit With (2) Gabled Ends
2. As a Guyed Unit With (1) Gabled End and (1) Hip End
3. As a Guyed Unit With (2) Hex Ends
4. As a Guyed Unit With (1) Hex End and (1) Gabled or Hip End
3. As a Clearspan Unit with no Guys

For Proper Configuration of these frame variations, see Appendices 1 and 2.

APPENDIX #1
(GABLED-HIP) AND (GABLED-GABLED) END UNITS

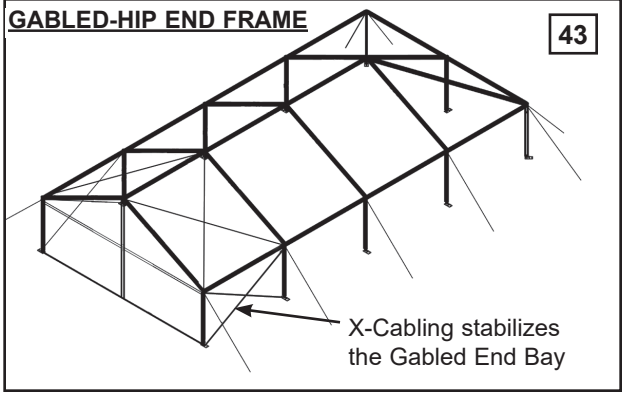
GABLED-HIP END UNITS

In the Hip-Gable construction, you should build the hip end first to provide stability to the structure. Then, using the same techniques as shown earlier, continue standing middle beams as desired.

At the final end beam, be sure to attach the Gabled End Rafter Fittings and the End Uprights themselves **before** standing the beam (see fig. 44)

Notice that all Gabled ends require the X-cabling of the end bay (see fig. 43). Parts for the Gabled End construction are listed below. For assembly procedure, see the bottom of this page. **Additionally, X-Cabled bays (upright and rafter x-cables) are required such that there are no more than 6 open bays between x-cabled bays or hip ends. (see fig. 52)**

GABLED-HIP END FRAME 43



LABEL (LETTER ON DWG)	PARTS FOR 20' HIP-GABLED OR GABLED-GABLED UNITS (GABLED COMPONENTS IN ITALICS) COMPONENT DESCRIPTION	POSITION CODE	ID CODE	PART #	PER 20' GBL END KIT (#1351)	PER 10' EXTENSION MID KIT (#1350)
	TOP EXTRUSIONS WITH CHANNELS:					
E-10	EAVE - 10'			8004400	0	2
RG-10	RIDGE W/ HOOKS - 10'			8004405	0	1
R-20	RAFTER 20'			8004425	0	2
GWE	GABLED END WING EAVE - 10'			8004460	2	0
GU	GABLED END UPRIGHT W/ TOP FITTING			8004465	1	0
	PURLINS AND BRACES:					
K8	KNEE BRACE (FOR CLEARSPANS ONLY)			3580650	0	[2]
	UPRIGHTS:					
U-8	UPRIGHT - 8'			8004450	0	2
	WELDMENTS, FITTINGS & PLATES:					
BA	BASEPLATES, ADJUSTABLE, 2-HOLED			8004505	0	2
BAG	*BASE PLATE, GABLED END, ADJ, 2-HOLED*			8004510	1	0
RW	RIDGE WELDMENTS ASSEMBLY			8004545	0	1
EW	EAVE WELDMENT W/ PINS			8004530	0	2
GWL	GABLED END WELDMENT (L)			8004535	1	0
GWR	GABLED END WELDMENT (R)			8004540	1	0
	CABLES					
X8-10	X-CABLE, 8' UPRIGHT 10' BAY	GREEN	NAVLTCS-BAY10-U8	8004550	4	0 (unless over 6 open bays)
X9-10	X-CABLE, 9' UPRIGHT 10' BAY (FOR CS ONLY)	GREEN	NAVLTCS-BAY10-U9	8004585	[4]	0
X10-10	X-CABLE, 10' UPRIGHT 10' BAY (FOR CS ONLY)	GREEN	NAVLTCS-BAY 10-U10	8004495	[4]	0
XR-10	X-CABLE, RAFTER, 10' BAY	BLUE	NAVLT-BAY10	8004565	4	0 (unless over 6 open bays)

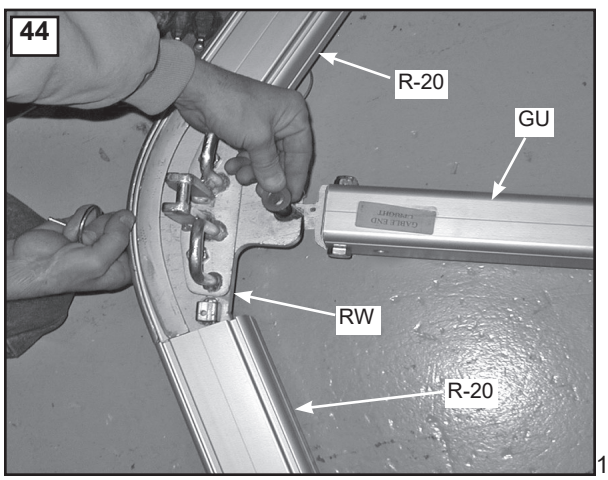
NOTE: See pages 7 through 12 for staking and guying requirements.

Gabled End Frames

If you plan to use the gabled end frame on either end of the unit, it will be easier to install the Gabled End Upright (GU) while that end beam is still on the ground. To install, pin the Gabled End Top Fitting to the Tab at the bottom of the Ridge Weldment. Note: if desired the hardware brackets on the outside of the Ridge Weldment can be removed to give a cleaner outer appearance.

Caution: If you will be using Gabled Ends on both ends of your unit, please refer to the section on Frame safety for Gabled Ends on page 18.

44



Gabled End Frame Assembly

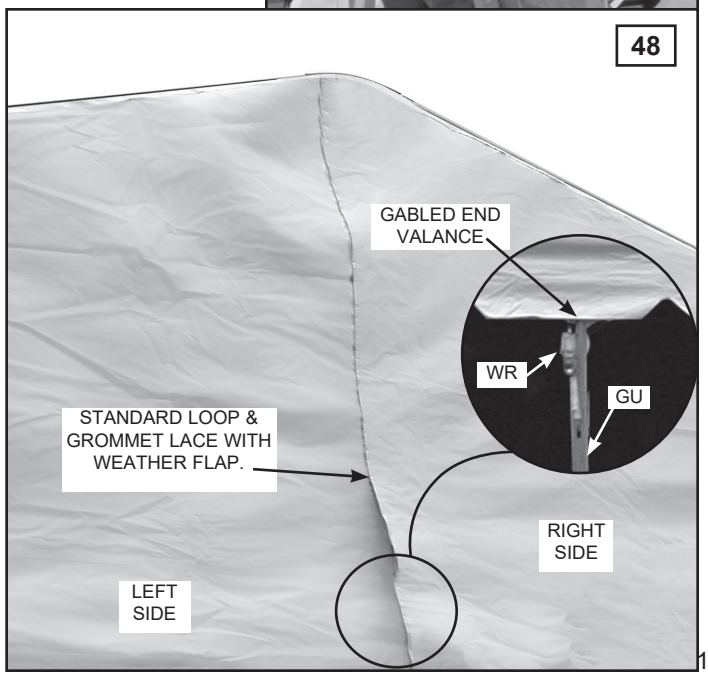
If the End Upright was not installed to the Gabled End Weldment while the end beam was on the ground, it will have to be installed from a ladder. (See fig. 44 for correct installation of the End Rafter Fittings).

Next, install the hooked bar end connector of the wing eave bar into the corner upright bracket (fig. 45). Then, drop in the angled end on the remaining bracket of the end upright (fig. 46). Repeat this process for the opposite end wing eave bar, then stake down the uprights.

Installation of Gabled End Fabric Panels

To install the gabled end fabric, first insert one of the wheeled panel guides and bracket on the end beam with the wheels facing out. Insert the fabric kedar of one half the end into the upper channel and use the push pole to slide the half panel to the peak (fig. 47). Repeat this from the other side of the structure. Then join the two half panels at the peak using the carabiner to fasten the rings and lace down the center line using a standard loop and grommet tent lacing pattern.

Attach the web ratchet to the triangular metal ring and to the tension hole in the end upright and ratchet into tension (fig. 48).



UNITS WITH 2 GABLED ENDS - FRAME SAFETY

A structure with (2) Gabled Ends lacks the initial stability normally provided by the hip end frame during installation of the first middle beams. To compensate for this, we have provided Installation Safety Guys to stabilize the first standing beam until additional beams are connected to it. (see fig. 49)

Notice that the first beam raised is actually the second beam of the frame system (fig. 49). In this way, the first beam raised can be safely guyed to the base plates of the adjacent beams on each side.

Next, the first beam of the layout is raised and joined to the second (fig. 50). When X-cabling has been installed in this first bay, the structure is secure for standing the remaining beams in the same way previously shown for standing middle beams (fig. 51).

Caution: While standing beams, be sure to "foot" the baseplate so that the beam does not slide out from under the workers pushing it up.

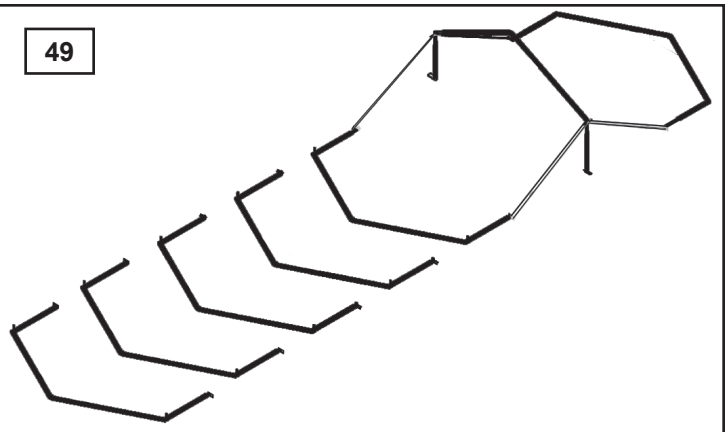
After the first bay has been X-cabled, the installation safety guys can be removed.

Gabled Ends are installed in the same way as the Hip-Gabled units described above.

As before, be sure to guy out the frame before installing fabric.

Note: To meet design loads, **X-Cabled bays (upright and rafter x-cables) shall be added such that there are no more than 6 open bays between x-cabled bays or hip ends.** (see fig. 52)

49



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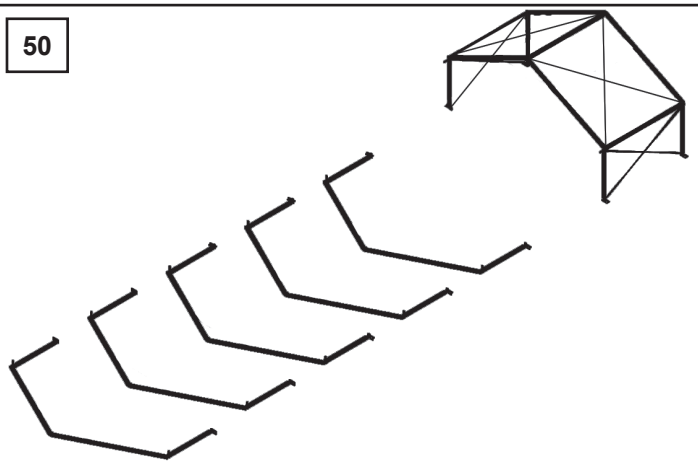
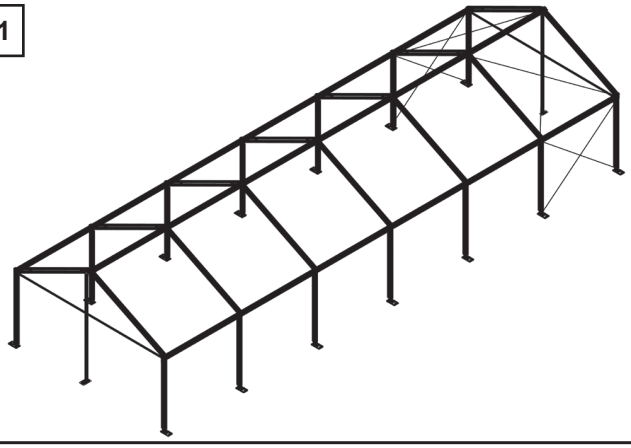
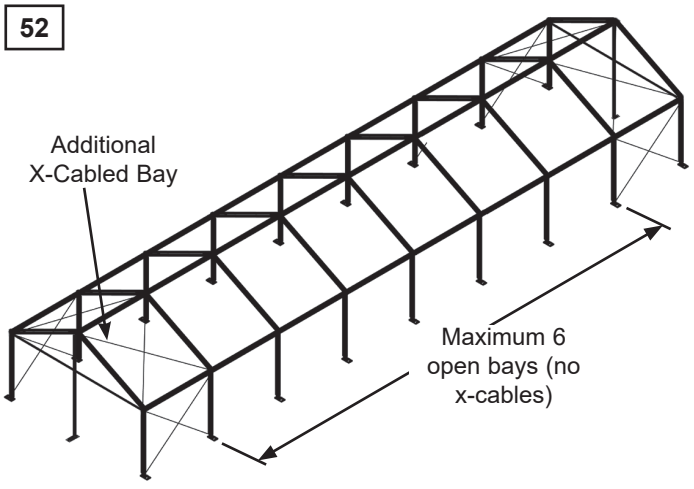


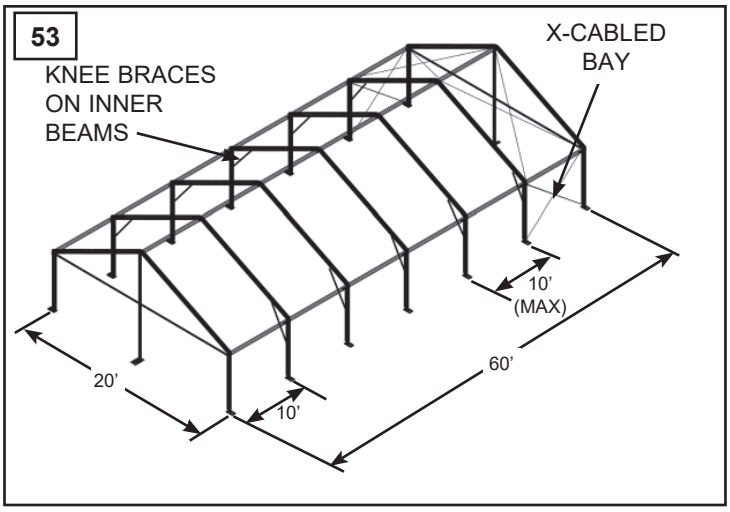
51



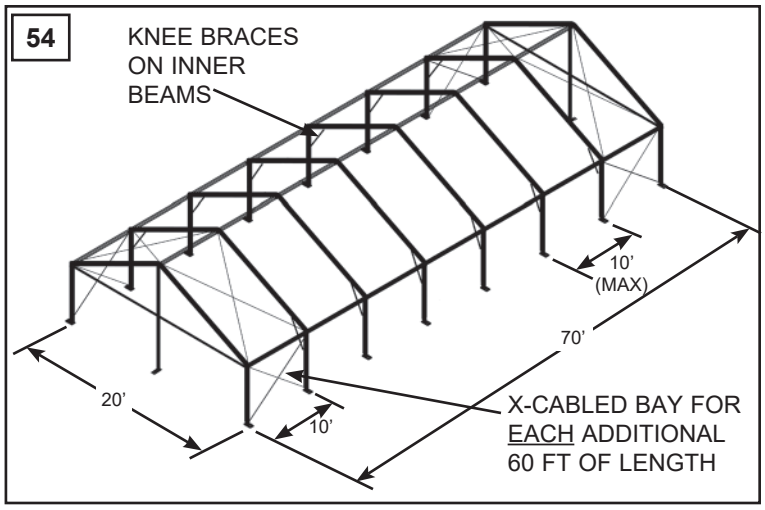
52



Appendix #2
20’ Navi-Trac LT Clearspan



CLEARSPAN UNITS UP TO 60 FT IN LENGTH



CLEARSPAN UNITS EXCEEDING 60 FT IN LENGTH

ASSEMBLY OF 20’ NAVI-TRAC CLEARSPAN (CS) UNITS

NAVI-TRAC LT Clearspan (CS) units are installed with the same procedure as the Gabled-Gabled End or Hip styles previously described, except that the baseplates are hinged, allowing the beams to be pivoted to vertical. For this reason, the Clearspan footprint can be laid out ahead of time, with baseplates positioned and anchored to the ground. The 20’ Clearspan units differ from the LT (Lite) unit in the following important ways:

1. The 20’ Clearspan units have no external guy webs.

2. All inner beams are Knee Braced on both sides of the unit (see fig. 53).

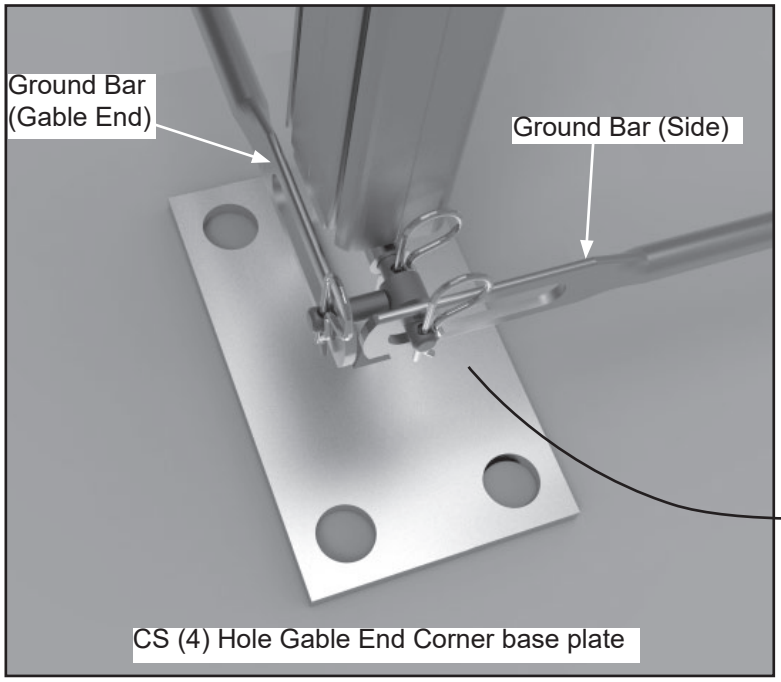
3. The baseplates of all uprights (legs) are hinged (see parts # BH & BHG on page 4), so that the beam can be pivoted to vertical **after** the baseplate has been secured to the ground or to appropriate footings. Additionally, the base plate has (4) holes for staking or anchoring.

4. Uprights are non-adjustable and have a maximum eave height of 8’-0”.

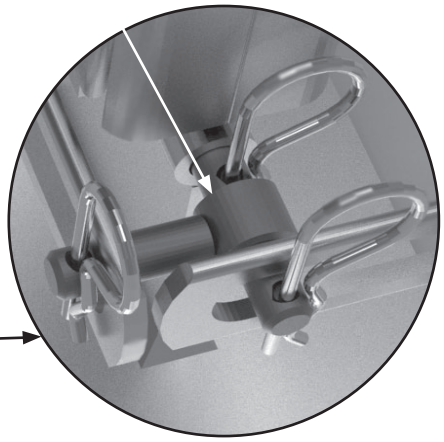
The Gabled End technique of standing the second beam of the unit first and stabilizing it with safety guys should still be used in installing the Clearspan units in order to provide a safe procedure in the initial stages of assembly before the first bay is stabilized.

NOTE: (2) 1” x 30” steel stakes are provided for each baseplate. The actual loading may require additional stakes or other anchoring methods to properly meet the loads defined on the blue print or the summary of engineering analysis. It is the customer’s responsibility to insure that proper anchoring is used to meet the required loads.

To Attach Ground Bars At Gable End Corner of CS NT-LT



Gable end ground bar pin fits onto end of L-pin for attachment of Gable end ground bar.



ANCHOR® INDUSTRIES INC.
EVANSVILLE, INDIANA

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Anchor products are of superior design and operate best within the parameters of these instructions. It is imperative that the instructions be carefully read and **COMPLETELY FOLLOWED**. Please read installation instructions before the installation or removal of this product. Installation instructions are available online at **www.anchorinc.com** or by calling 1-800-544-4445.

⚠ WARNING

1. For each installation, the installer is solely responsible for evaluating the site and the proper securing method determined. Some soils require different staking or securing than that provided with the tent. Due to this variety of soil conditions, these are the manufacturer's suggested sequence of installation procedures. Anchor's responsibility is limited to the manufacture of the tent parts and materials. We are not responsible for methods that installers may choose to erect and secure the tent to the ground.

2. The number of stakes suggested in the installation instructions do not necessarily meet all or any relevant codes on the site of the tent installation. The number of stakes suggested **will, in many cases, keep the tent erected,** however, due to various soil conditions; these stakes will be insufficient **to keep the tent secure in high winds**. It is the tent installer's responsibility, not the manufacturer, to determine the appropriate number of stakes to meet the necessary wind loads on the site. Regardless of the number of stakes we suggest, we make no representation or warranty as to whether this specific number of stakes will meet the local tent code. Anchor does not, nor can it make any suggestions, representation, or warranties about the adequate staking required at each specific installation site. Staking information provided in the installation instructions **is not a suggestion about what is necessary to meet a site-specific load.**

   For additional important information, consult: "The IFAI Procedural Handbook For the Safe Installation and Maintenance of Tentage" and the IFAI Pocket Guide "Pullout Capacity of Tent Stakes", both available from the IFAI Tent Rental Division on their website (www.ifai.com).

   3. Inasmuch as the weather is unpredictable, good judgment and common sense must be incorporated within installation guidelines. It is the responsibility of the tent installer/maintainer to determine the severity of the weather, proper time and method of installation and/or erection and disassembly. **Note: We recommend that snow and ice be removed from the tent surface as soon as possible because accumulation will damage the tent or fabric structure. Please consult with our Engineering Department about the maximum loads for each product.**

   This product has been manufactured for use as a temporary structure. For the safety of all occupants, evacuation is recommended if threatening weather occurs, or if there is any doubt concerning the safe use of this product.

4. Proper safety equipment should be used at all times to insure a safe installation and take down. We suggest a careful evaluation be made to determine safety equipment needed, such as hard hats, steel-toe shoes, safety glasses and other as required. It is our desire that all installations are safe. Please be aware of hidden dangers both underground, i.e., gas lines, water lines, electrical lines, etc. and above the tent such as power lines and telephone lines.

5. Anchor stands behind its products in accordance with its standard Terms and Conditions of sale. A copy of our Terms and Conditions of Sale can be obtained by contacting Anchor at the telephone number and/or address on this document.