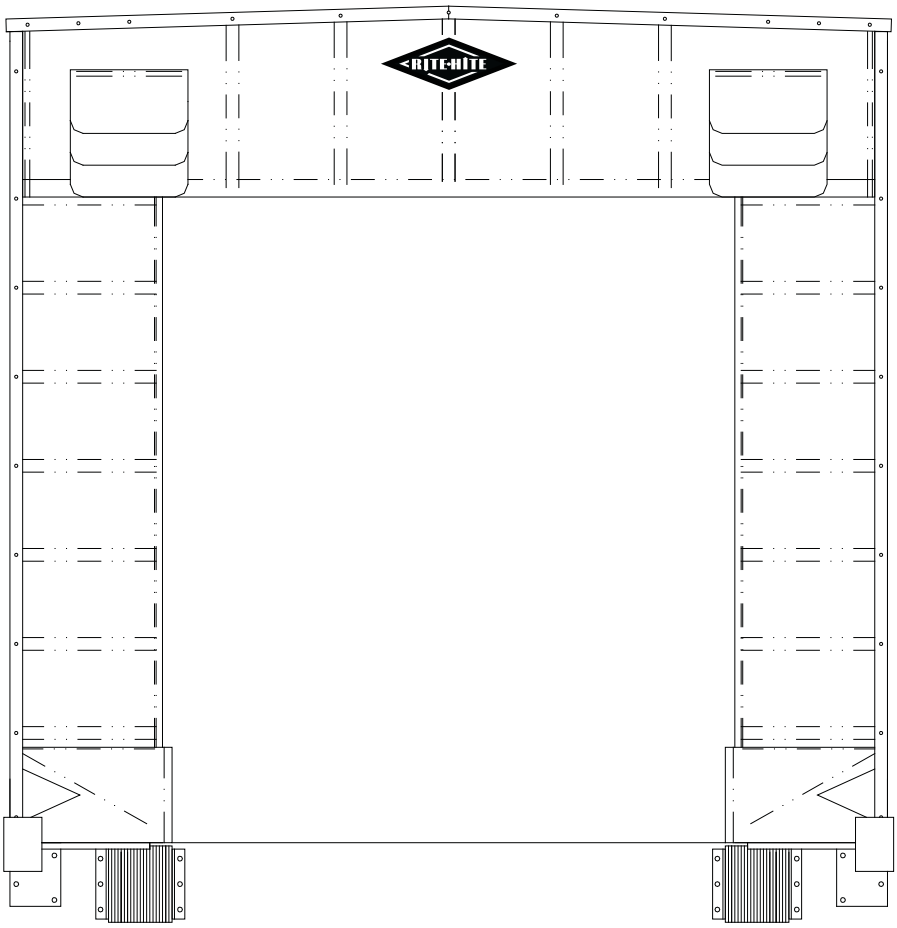
RITE-HITE®

WG410 RIGID FRAME DOCK SHELTER

WOOD FRAME UNIT

Installation Instructions & Owner's Manual



Date of Installation:

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RITE HITE®

ALWAYS LOOKING AHEAD

This Manual Covers All Units Shipped 05/08 to Date

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W4100003 REV. 5
JULY 2014

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File Information

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General Precautions

⚠ WARNING

Post safety warning and barricade work area, at dock level and ground level to prevent unauthorized use of the dock position while service work is being performed.

Introduction

Thank you for purchasing a Rite-Hite® WG410 Rigid Frame Dock Shelter. For other applications, please contact your local Rite-Hite Sales Representative.

The following installation instructions are complete for all standard applications of the WG410 Dock Shelter with standard wood framing. These instructions assume that the installer is outside the building facing the loading dock position.

Any application of the WG410 Dock Shelter that is outside of the normal application guidelines should be referred to Order Engineering for installation instructions.

Preparation

Remove all of the contents from the containers and check for damage. If any of the contents show signs of damage, contact Rite-Hite or your local sales representative.

Illustrations

Illustrations for this document are contained on drawing W410-0002

Care & Maintenance

No regular maintenance is required to keep the WG410 Dock Shelter operating efficiently. At times, it may be necessary to remove excess snow buildup from on top of the header.

All dock seal or shelter headers should be inspected periodically for damage and replaced when appropriate. Headers with the optional Firefighter™ system feature employ heat dissipating fabric technology. To ensure maximum effectiveness, the Firefighter system should be periodically inspected for damage or tears. The Firefighter header should be replaced in the event the outer Durathon™ fabric and/or inner foil layers are damaged and base fabric or header foam is exposed.

INSTALLATION INSTRUCTIONS

1. Steel Bumper Installation

Note: *The installation of the bumpers is the first step and accurate bumper placement is vital to the complete dock shelter installation.*

Measure the dock door opening. Divide this measurement in half and mark the centerline of opening at dock level, Figure 1.

Measure the head frame overall width and divide this measurement in half. Note: this measurement is taken from the wood frame, not the sheathing.

Measure from the door centerline half of the head frame width and mark the outside wall at the bottom of the door opening or at dock level, Figure 1. The outside edge of the first bumper is to be installed at this mark.

Measure from the first bumper mark all the way across the door opening to find the location of the second bumper. Outside edge of second bumper should measure the same as the measured head frame width. See Figure 1.

Fasten the bumpers to the building's foundation wall using a minimum of (3) fasteners on each I-Beam bumper and a minimum of (4) fasteners on each AM or B style bumper. Use 1/2" lag bolts with expansion shields, 1/2" one piece anchor bolts with expansion collar, or equivalent fastener. Refer to anchor manufacturer's recommended minimum anchor embedment to determine proper anchor length.

Note: *Reference the Product Application Form (PAF) or consult the sales representative for the appropriate mounting height of the steel bumpers and side frames. Typically, the bottom of the side frames (and top of the steel bumper mounting plates) would be mounted at dock height, but some applications may require mounting them below dock height.*

Caution: *No portion of the bumper mounting plates should be mounted above the foundation wall. Mounting any portion of the bumper mounting plates above the foundation wall could result in damage to the building wall.*

For "common member" applications refer to Figure 2.

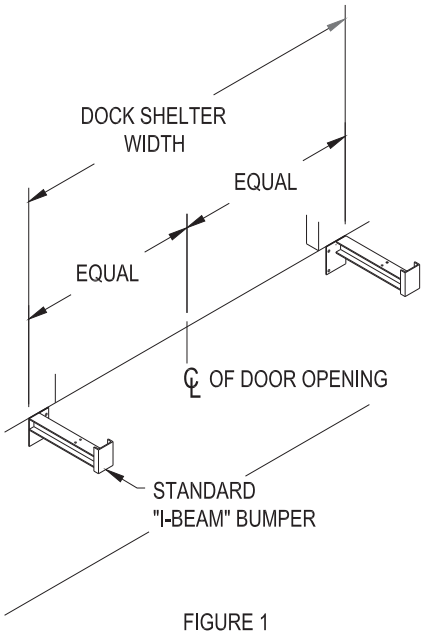


FIGURE 1

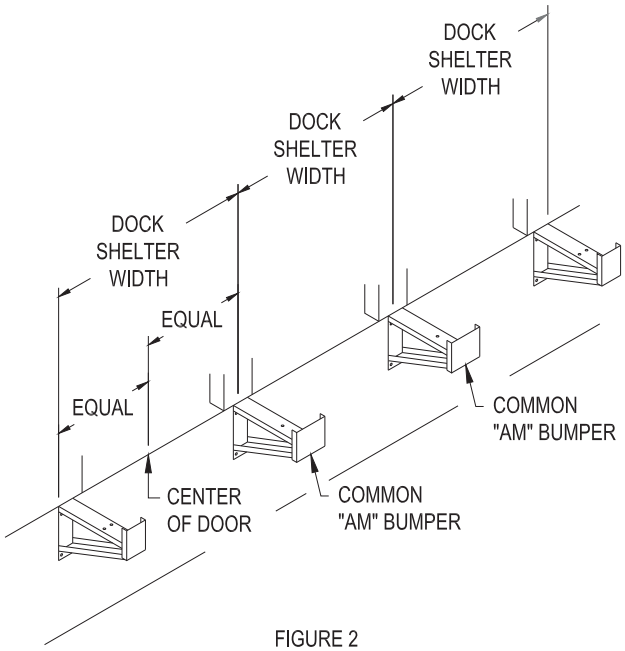


FIGURE 2

2. Attach Side Curtains to Side Frames

Note: *Before attaching side curtain to side frame make a mental note of where the "windstrap location" labels & pre-drilled holes are located on the side frame. (This is only required if the head curtain face height is over 30" tall.) This information will be required later in the installation.*

Stand the side frame on edge and temporarily fasten the side curtain to the front edge of the side frame. Do this by lining up the bottom of the side curtain flush with the bottom of the side frame and nailing in place with roofing nail provided. Now pull curtain taut along frame and add another nail at top of side curtain. Place the pre-punched side curtain trim over the side curtain and framing so that bottom of trim is flush with bottom of frame. (The pre-punched holes in the trim should match the location of the stays in the side curtain.) Fasten through each of the pre-punched trim angle holes & the aligned "stay" with (1) #14 x 1 1/4" hex head wood screw and stainless steel washer provided.

IMPORTANT NOTE:
Add a second screw through the upper-most "stay" to prevent sagging of side curtain. Locate as shown through center of "stay". See Figure 3.

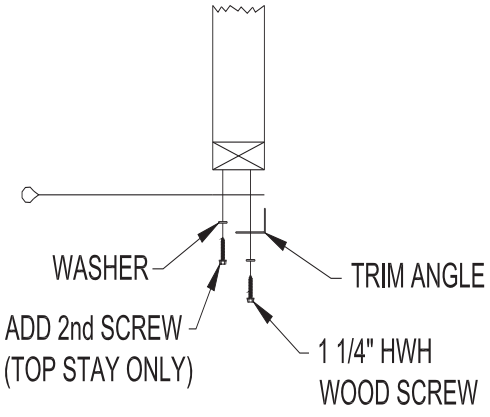


FIGURE 3

Use the same installation procedures for "common" side curtains except that the side curtains are overlapped on the "common" side frame and trimmed out with a pre-punched flat trim. 1/4" x 2" lag screws are used in place of the normal 1 1/4" HWH screws. See figure 4.

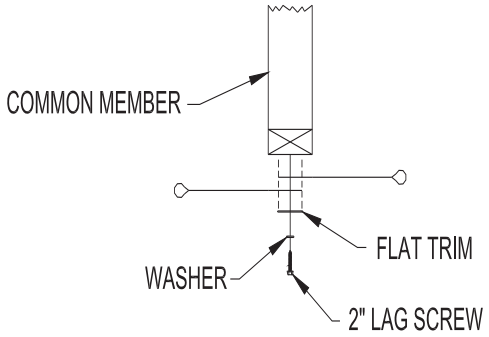


FIGURE 4

Once side curtain is installed, use an awl or other sharp instrument to make a small hole in the side curtain fabric so that the windstrap bolts can be pushed through later in the installation. Repeat for other side frame.

Note: *This is the preferred installation method. Installers preference or larger projection side frames may dictate that the side curtains be mounted after the side frames have been mounted to building wall.*

3. Install Side Frames

Using a carpenters level, plumb up the wall the full height of the side frame and mark the outside edge of the side frame on the building wall at the top of the side frame. Measure across the full width and mark the wall for the other side frame. Using a plumb bob or a carpenters level, make sure that the outside building wall is plumb from the highest point of the side frame down to dock level. If wall is not plumb, unit will need to be shimmed accordingly. Place the first side frame on top of and flush with the outside edge of the steel bumper. Shim the side frames as required, so that full contact is maintained between the side frame, the wall and the steel bumper.

Drill through and fasten the side frame to the building wall in a minimum of (3) places per the "Fastening Methods" section of these instructions. See Figure 5.

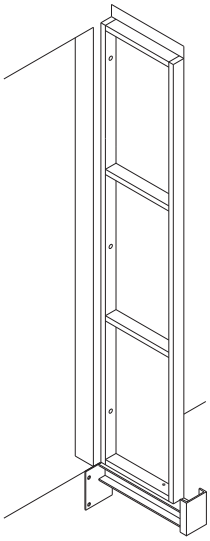
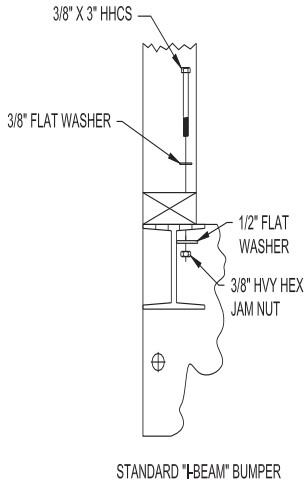


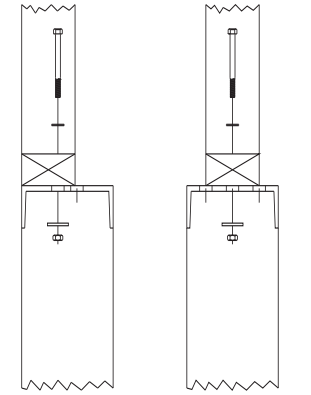
FIGURE 5

With the side frame now attached to the building wall, use the 3/8" x 3" bolts supplied to secure the side frames to the steel bumpers. Drill a 7/16" hole through the bottom of the wood side frame so that it aligns with the pre-drilled hole in the top of the steel bumper. Add the 3/8" flat washer to the 3/8" bolt and push it down through the side frame and steel bumper. Add the 1/2" flat washer and 3/8" jam nut on underside of steel bumper and tighten securely. See figure 6. Repeat for other side.

Caution: *Shim between the bumper and side frame as needed before tightening bolt to prevent damage to side frame or buckling of sheathing.*



STANDARD "I-BEAM" BUMPER



"AM" BUMPER OPTION

"COMMON" FRAME APPLICATION

FIGURE 6

MULTIPLE PROJECTION SIDE FRAMES

Multiple projection side frames install on top of the bumpers the same as single projection side frames except that they must be bolted to each other in at least (3) places per frame with the carriage bolts, washers and hex nuts provided. ((4) places on framing over 14'-0"). See Figure 7.

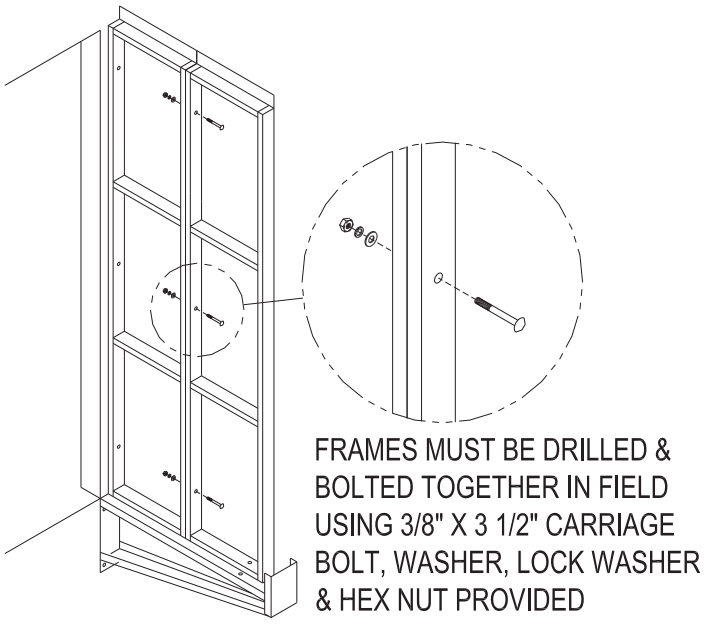


FIGURE 7

4. Install Head Frame

Lift up and align the head frame on top of the side frames, being careful not to break the sheathing that extends above the top of the side frames and past the ends of the head frame.

Drill through and fasten the head frame to the building wall in a minimum of (3) places per the "Fastening Methods" section of these instructions.

Caution: *When tightening fasteners, check to see if the sheathing on the unit begins to buckle. If so, it may be necessary to shim the backside of the header.*

Fasten the front of the head frame to the front of the side frames with the 4" 'L' brackets supplied. Secure the bracket with the screws provided, making sure that it is positioned so that the leg with the holes closest together is pointing down to avoid interference with the side frame joint. On "common" units, add the factory supplied "flashing tape" over the top of the joint where the two headers meet. Sheathing must be clean & dry before applying "flashing tape". Trim to length as needed and push down firmly all along joint. See figure 8.

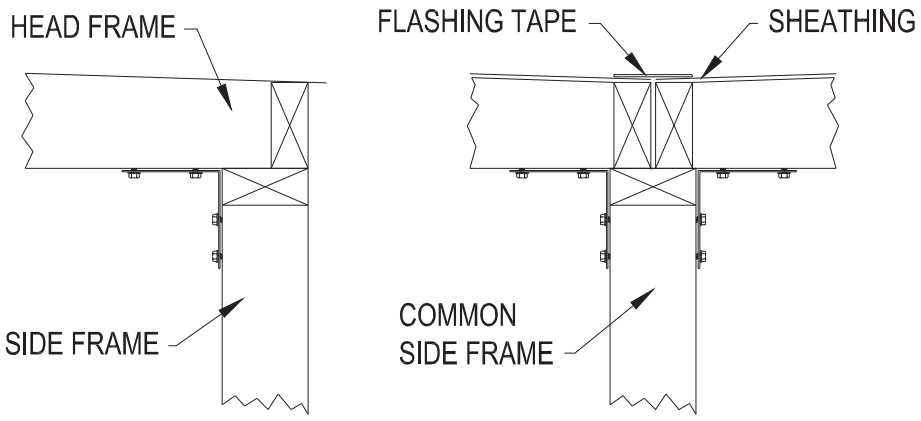


FIGURE 8

Caulk all along the top edge of the head frame where it meets the wall and down the sides of the side frames as needed. Use a good grade of flexible caulk and follow manufacturers recommendations when applying.

MULTIPLE PROJECTION HEAD FRAMES

Multiple projection head frames install on top of the side frames the same as the single projection head frame except that they must be bolted to each other in at least (3) places per frame with the carriage bolts, washers and hex nuts provided. ((4) places on framing over 14'-0"). The factory supplied "flashing tape" must also be applied all along the joint where one header section is bolted to the other. Sheathing must be clean & dry before applying "flashing tape". Trim to length as needed and push down firmly all along joint. See Figure 9.

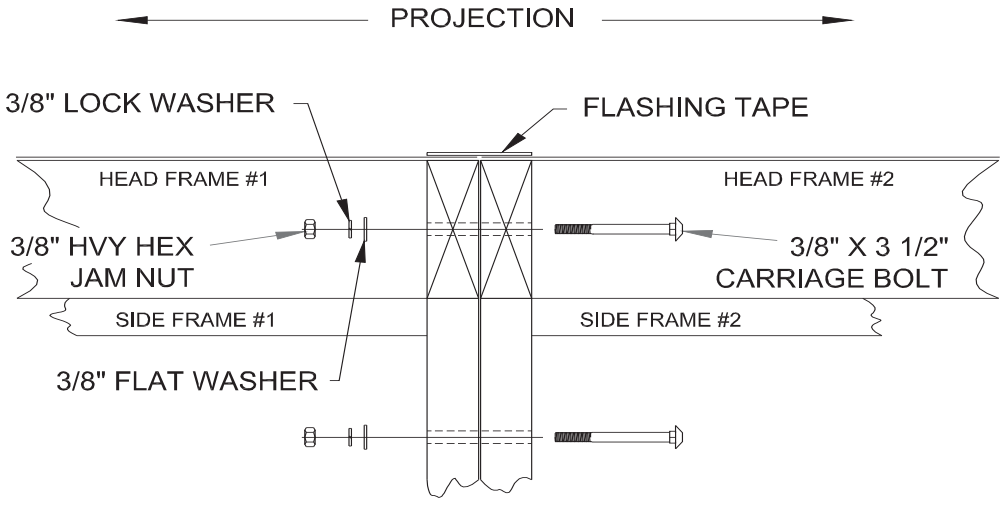


FIGURE 9

5. Install Head Curtain

Center the head curtain on the center of the head frame while keeping top edge of head curtain flush along top edge of head frame. Temporarily nail in place with the roofing nails supplied. Space nails evenly across width of head curtain.

Carefully center the pre-punched trim angle over the head curtain and framing making sure that the (5) stays in the head curtain line up with the pre-punched holes. (Be careful not to disturb the factory installed foam tape barrier on the top of the header.)

Fasten through trim angle, "stay" and head curtain using #14 x 1 1/4" wood screw and stainless steel washer provided. Start at the center stay and work to the outside. Fasten through each of the remaining pre-punched trim angle holes with the remaining hardware. See Figure 10.

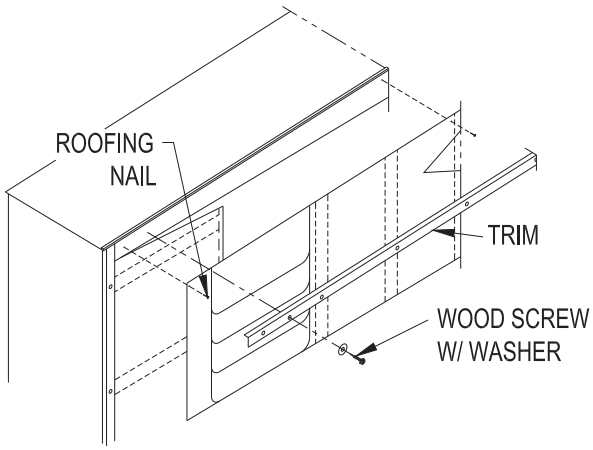


FIGURE 10

6. Install Head Curtain Windstraps

Note: *This installation step is only required on head curtain face heights over 30".*

The rubber windstraps are installed through fabric loops on the head curtain at the factory.

Fasten the top of the windstrap through the pre-drilled hole near the top of the side frame and the hole that was made in the side curtain in Step 2. Each end of windstrap is to be fastened with one 5/16" x 2 1/2" full thread bolt supplied. The flat washer and locking hex nut should be applied to the full thread bolt on the inside of the side frame.

Repeat this same procedure for the bottom end of the windstrap. Bottom windstrap hole should be located at approx. 3" up from the bottom edge of the head curtain. See Figure 11. (This procedure is the same for "common" units.)

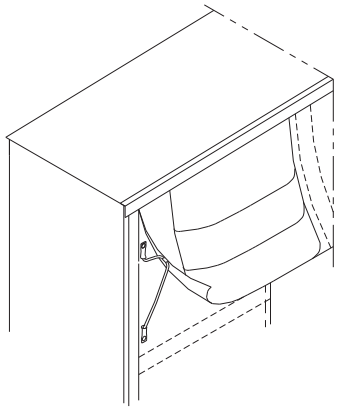


FIGURE 11

Warning: *Fastening the windstraps to the side frame in any location other than the prescribed location will be detrimental to the function of the head curtain. It will also result in premature wear of the head curtain and will void all warranties.*

7. Install Bottom Draft Pads

Note: *Standard units up to and including 24" projection are supplied with Pyramid draft pads. Unit projections over 24" are supplied with the 400 style draft pads. Both instructions are included here*

PYRAMID STYLE DRAFT PADS:

Secure the top of the pyramid style draft pad at 17" from the bottom of the side frame using the screw provided. Fasten through the grommet near the top of the draft pad.

Now secure the bottom of the pyramid style draft pad using the grommet located near the base of the draft pad. Pull draft pad down tight between grommets to take up excess fabric before fastening with screw provided.

Finish the installation by nailing the fabric flap to the side frame, while pulling the cover tight along the pad's projection. See Figure 12.

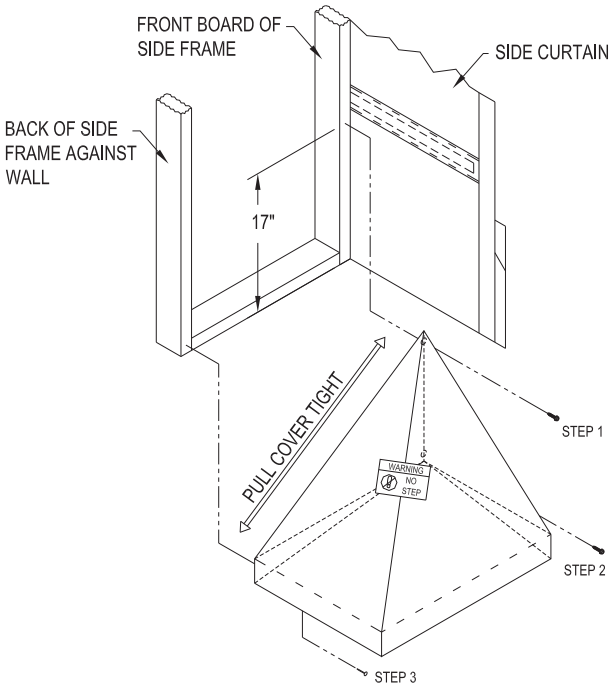


FIGURE 12

400 STYLE DRAFT PADS:

400 style draft pads slip into "U" shaped channels near the bottom of the side frame. These "U" shaped channels are attached to the bottom of the side frames at the factory on single projection side frames. On "multiple projection" and "common" side frames they are shipped loose in a hardware bag and installed in the field. See Figure 13.

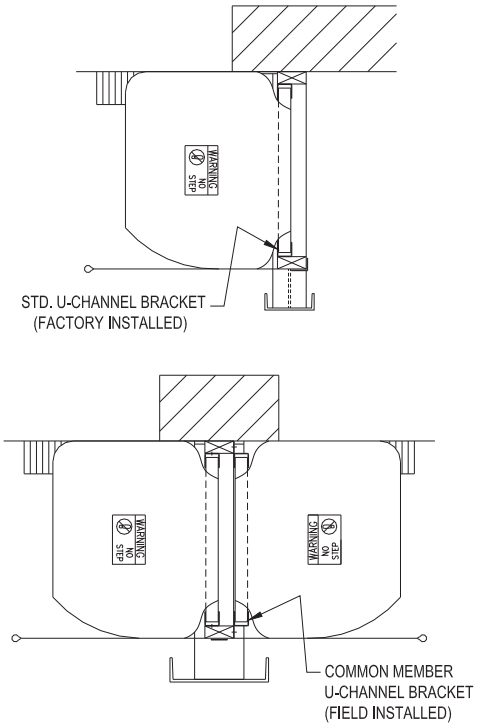


FIGURE 13

When sliding the backer board of the draft pad into the "U" channels, make sure that the rounded edge of the draft pad is toward the front of the unit and the "No Step" label is facing up.

Draft pads can be secured in the "U" channels by adding a small #8 x 3/4" screw through the security hole provided in the "U" channel.
See Figure 14.

If side curtain width is greater than or equal to 30", support rope(s) are supplied which are to be attached to the cross member of the side frame to prevent the draft pad from sagging. Attach rope to cross member by wrapping or tying off to extra wood screw supplied with draft pad. See Figure 14.

FASTENING METHODS

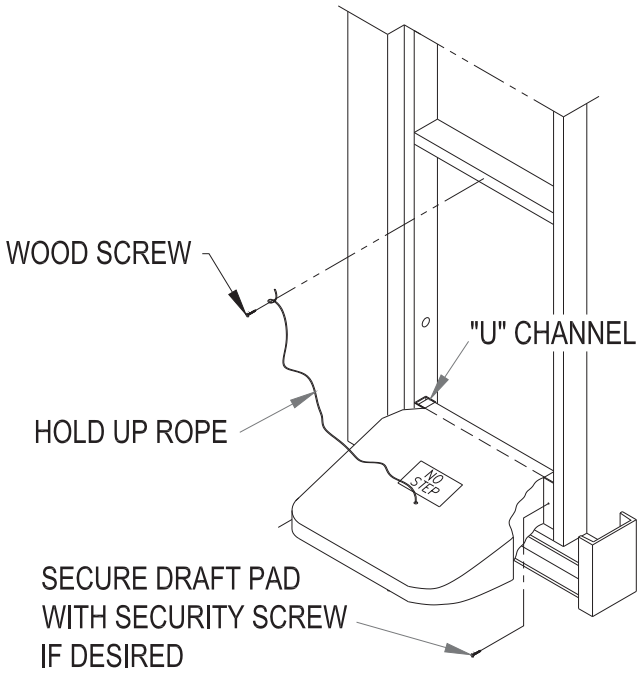


FIGURE 14

Fastening Methods

Concrete Block or Brick Wall
Through bolt fastening is required. Bore a hole through the building wall. Use a 3/8" diameter threaded rod with a washer, nut, and jam nut on each end - it will be necessary to install a back-up plate inside the building wall when the wall will not support the bolt.

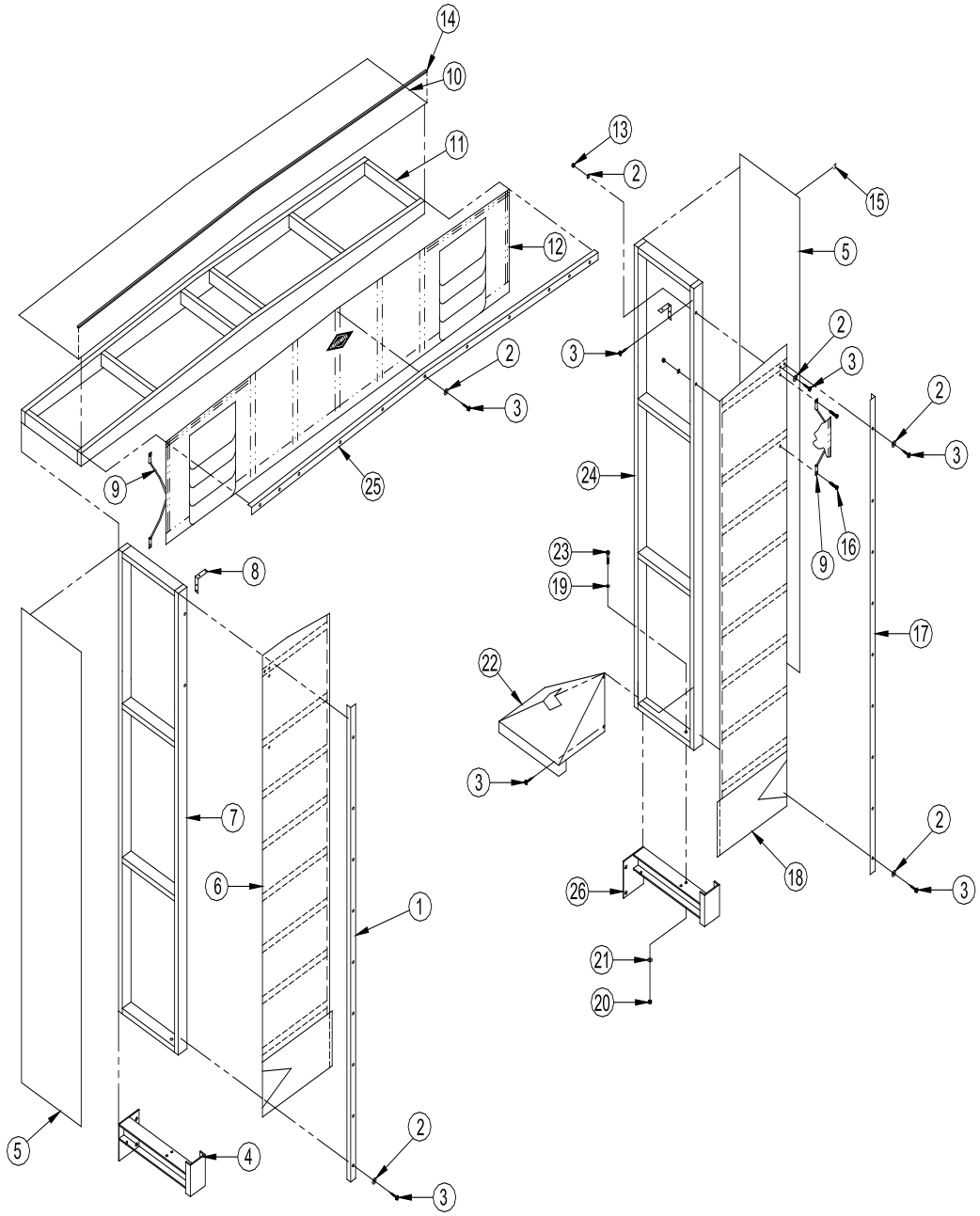
Concrete Tilt-Up Walls (Precast)
Use 3/8" lag bolts with expansion shields, 3/8" one piece anchor bolts with expansion collar, or equivalent fastener. If building wall is too thin to effectively hold the lag bolt or anchor bolt, the through bolt method of attachment is required.

* See anchor manufacturer's recommendation for minimum anchor embedment to determine appropriate anchor length.

Metal Sided Building
Through bolt method of attachment is required for this building style. It will be necessary to install a back-up plate that is fastened directly to structural members when it is not possible to fasten directly to structural building members. Use a 3/8” diameter bolt with a washer and lock nut to fasten the unit to the structural members of the building or to the back-up plates. If necessary, use a 3/8” diameter threaded rod with a washer and lock nut on each end.

EXPLODED VIEW

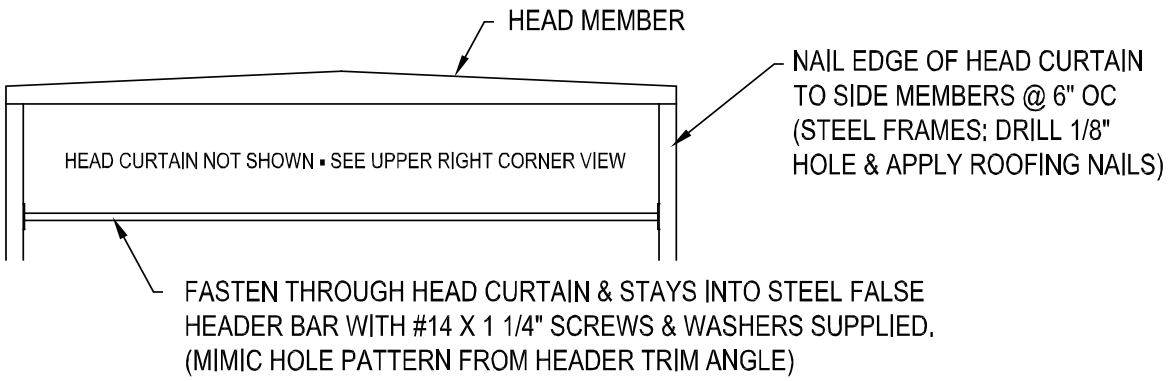
1. TRIM ANGLE, LEFT SIDE CURTAIN
2. WASHER, FLAT, S/S, 5/16"
3. SCREW, #14 X 1 1/4"
4. I-BEAM, STEEL BUMPER, LEFT
5. FIBERGLASS SHEATHING, SIDES
6. SIDE CURTAIN, LEFT SIDE
7. SIDE FRAME, LEFT SIDE (WOOD)
8. 4" CORNER BRACKET, "L"
9. WINDSTRAP, HEAD CURTAIN
10. FIBERGLASS SHEATHING, HDR
11. HEAD FRAME, RAKED (WOOD)
12. HEAD CURTAIN
13. 5/16” HEX NUT, NYLOK
14. FOAM TAPE, ADHESIVE BACK
15. 3/4" X 1" STAPLES, (TYP ALL SIDES)
16. 5/16” X 2 1/2” HHCS FULL THREAD
17. TRIM ANGLE, RIGHT SIDE CURTAIN
18. SIDE CURTAIN, RIGHT SIDE
19. 3/8" FLAT WASHER, ZINC
20. 3/8" HEAVY HEX JAM NUT
21. 1/2" FLAT WASHER, ZINC
22. PYRAMID PAD, (LEFT NOT SHOWN)
23. 3/8" X 3" HHCS, ZINC
24. SIDE FRAME, RIGHT SIDE (WOOD)
25. TRIM ANGLE, HEAD CURTAIN
26. I-BEAM, STEEL BUMPER, RIGHT



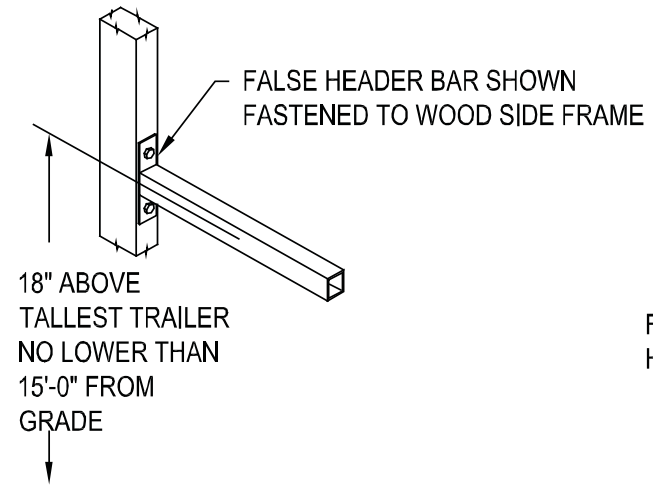
FALSE HEADER

WG410
FALSE HEADER INSTALLATION :

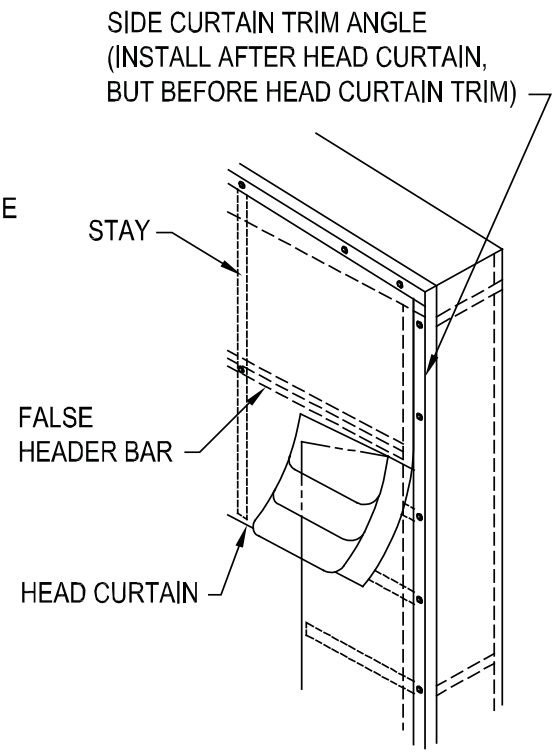
(Refer to complete WG410 Installation Instructions for all other aspects of installation not covered here.)



FRONT ELEVATION OF HEADER & FALSE HEADER



FALSE HEADER AT SIDE FRAME



UPPER RIGHT CORNER

NOTE:
REFER TO INSTALLATION WG4100009 FOR SIDE CURTAIN WIDTHS OVER 30"

W4100010 9/8/05
REV. B 1/10/07

NOTES

NOTES

NOTES

WARRANTY POLICY

Rite-Hite warrants that a **WG410 Rigid Frame Dock Shelter** will be free of defects in design, materials and workmanship for a period of 365 days from the date of shipment. All claims for breach of this warranty must be made within 30 days after the defect is or can, with reasonable care, be detected and in no event more than 395 days after shipment. In order to be entitled to the benefits of this warranty, the product must have been properly installed, maintained, operated within its rated capacity, and not otherwise abused.

Rite-Hite expressly disclaims all implied warranties including the implied warranties of merchantabililty and fitness.

In the event of any defects covered by this warranty, Rite-Hite will remedy such defects by repairing or replacing any defective parts, bearing only the cost of the parts and transportation of those parts. This shall be the exclusive remedy for all claims whether based on contracts, negligence, or strict liability.

Rite-Hite shall not in any event be liable for any loss of use of any equipment or incidental or consequential damages of any kind.

“Our mission is to improve industrial safety, security and productivity worldwide through quality and innovation.”

ALWAYS LOOKING AHEAD

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