

10M INSTALLATION MANUAL // 02

SHIELD™

GABLE ACCESS WALL FOR 10M BUILDINGS

McGregor®

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01/ ACCESS WALL FRAMEWORK

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The access wall framework for 10m buildings. The estimated duration is 2.5 hours.

02/ ACCESS WALL

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The access wall cladding for 10m buildings. The estimated duration is 2.5 hours.

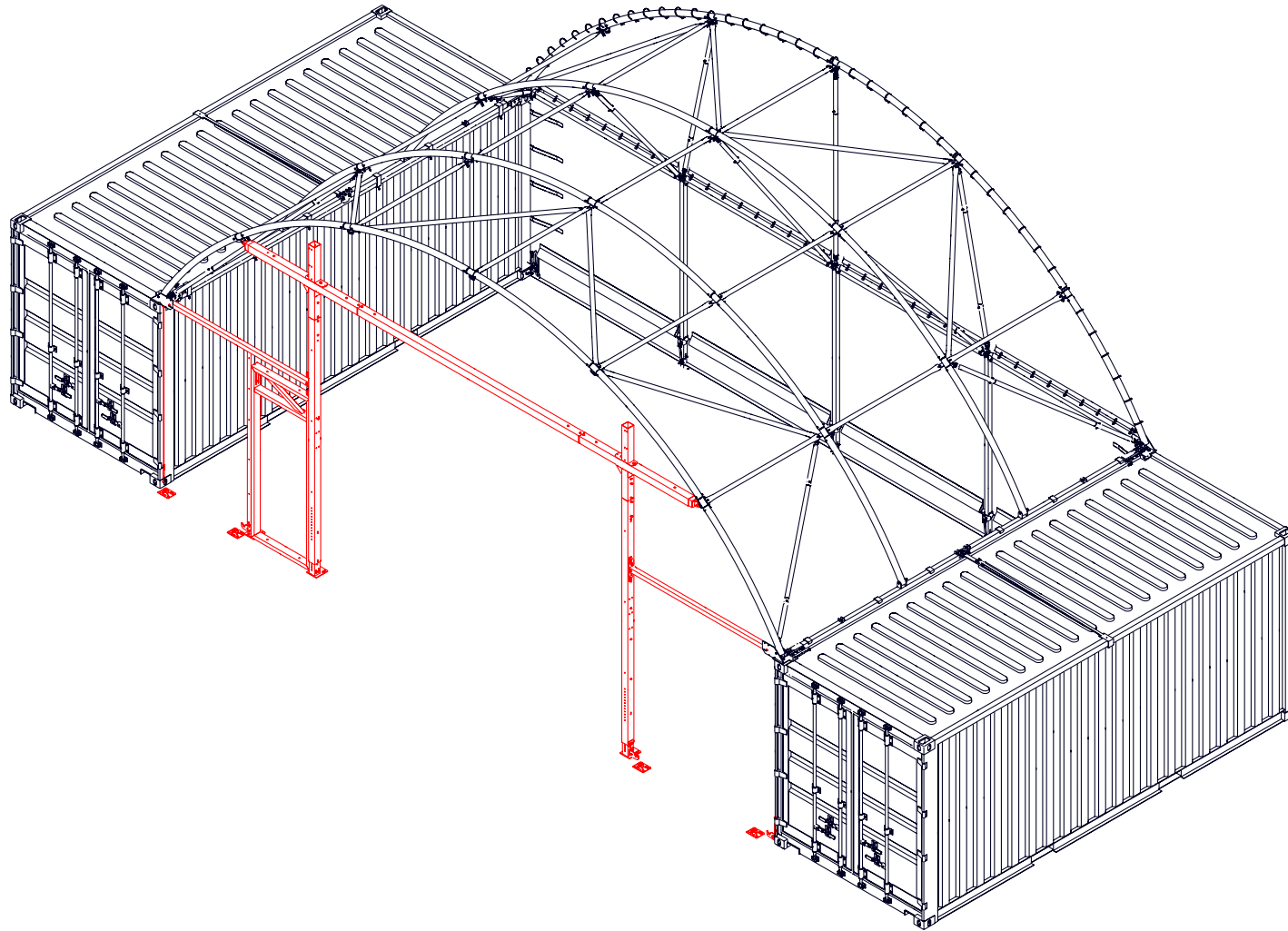
03/ PERSONNEL DOOR

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The personnel door installation for 10m buildings. The estimated duration is 1 hour.

01/ ACCESS WALL FRAMEWORK - INTRODUCTION

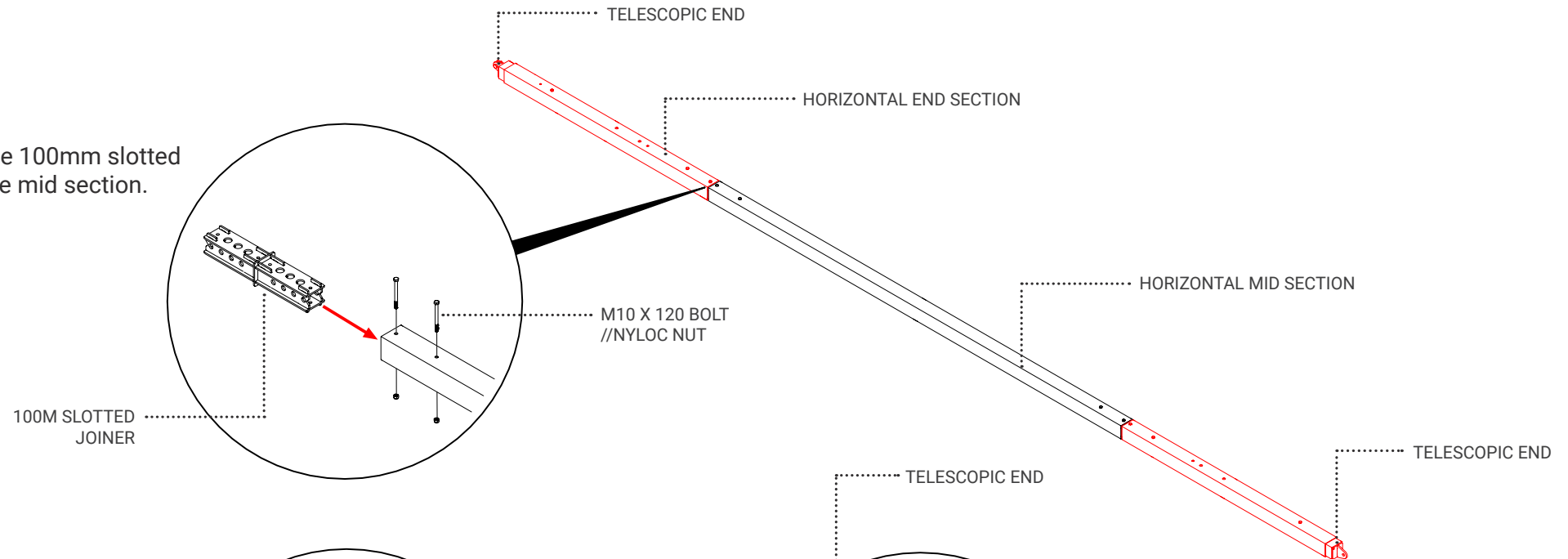
This manual provides instructions for installing the access wall for **10m buildings**.



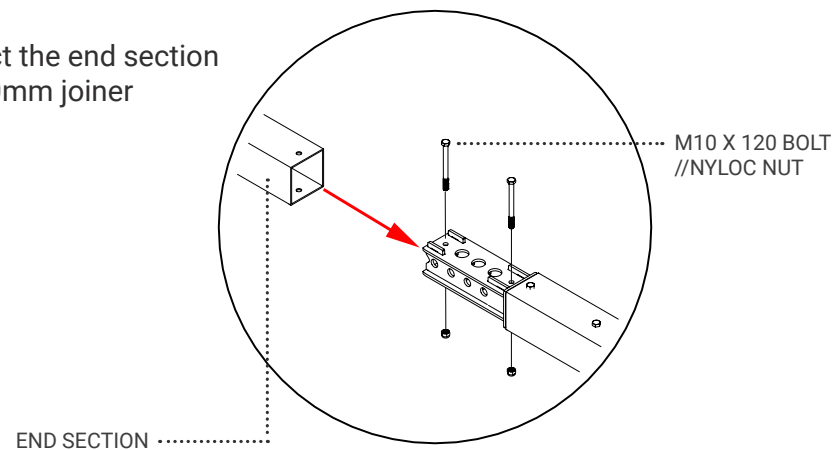
ACCESS WALL FRAMEWORK

Assemble the horizontal. When fitting the telescopic end section, do not completely tighten the bolt through the slotted hole; this allows the telescopic ends to move when attaching it to the structure.

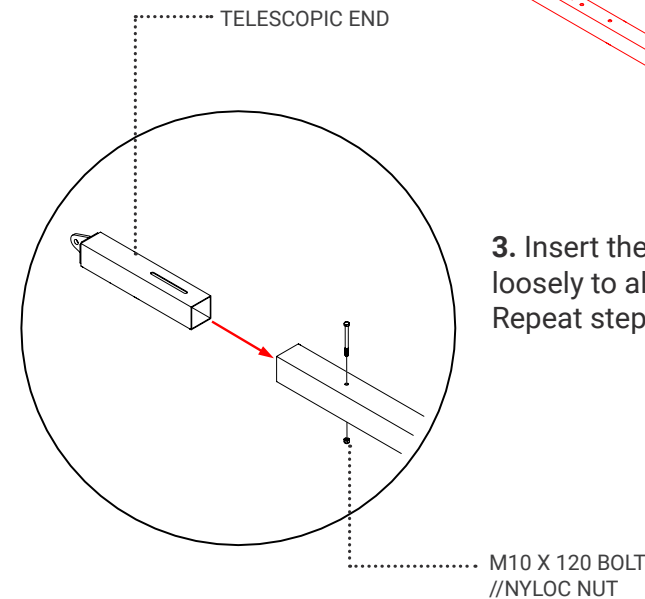
1. Insert the 100mm slotted joiner to the mid section.



2. Connect the end section to the 100mm joiner

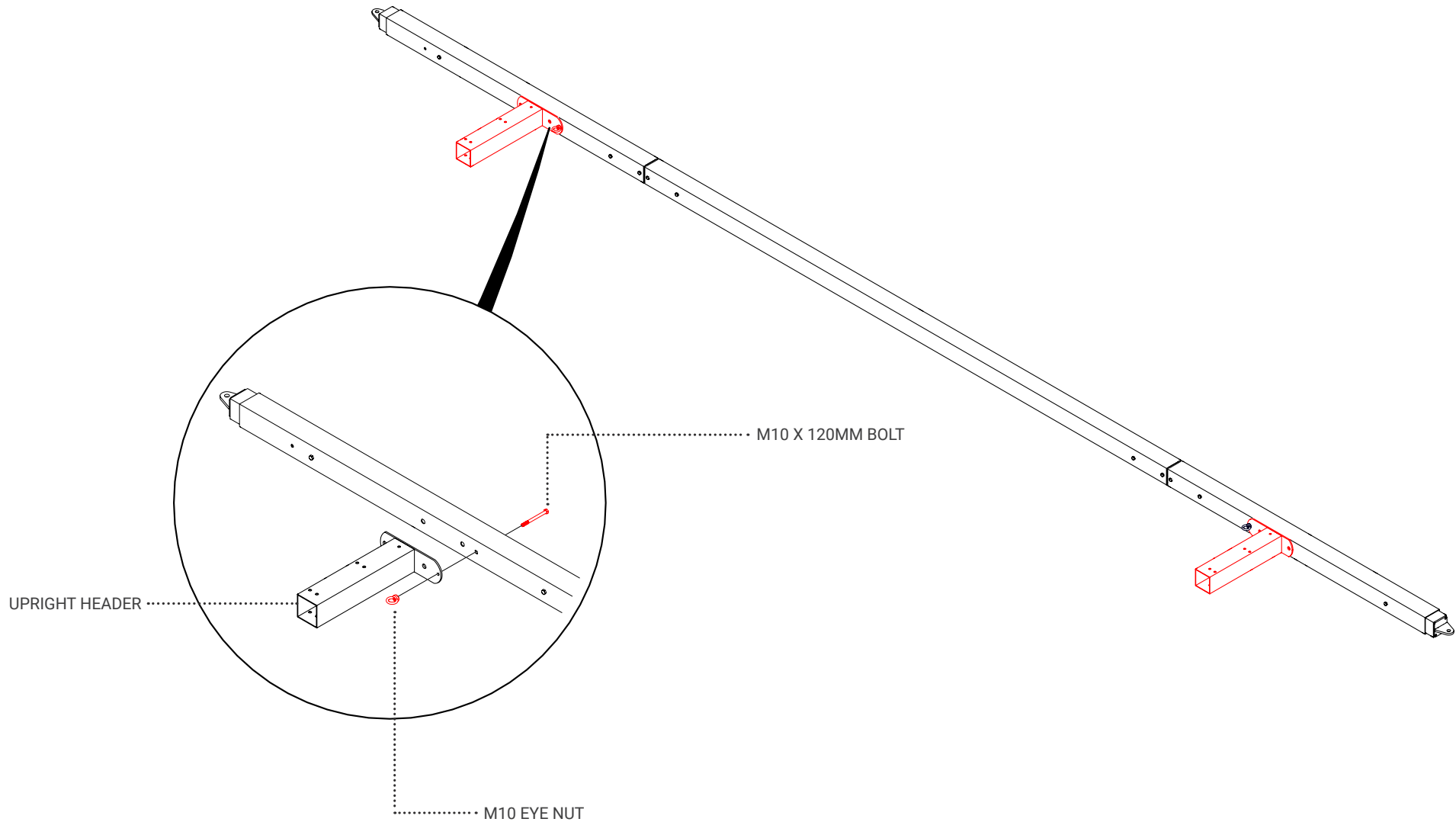


3. Insert the telescopic end loosely to allow them to slide. Repeat steps for both ends.



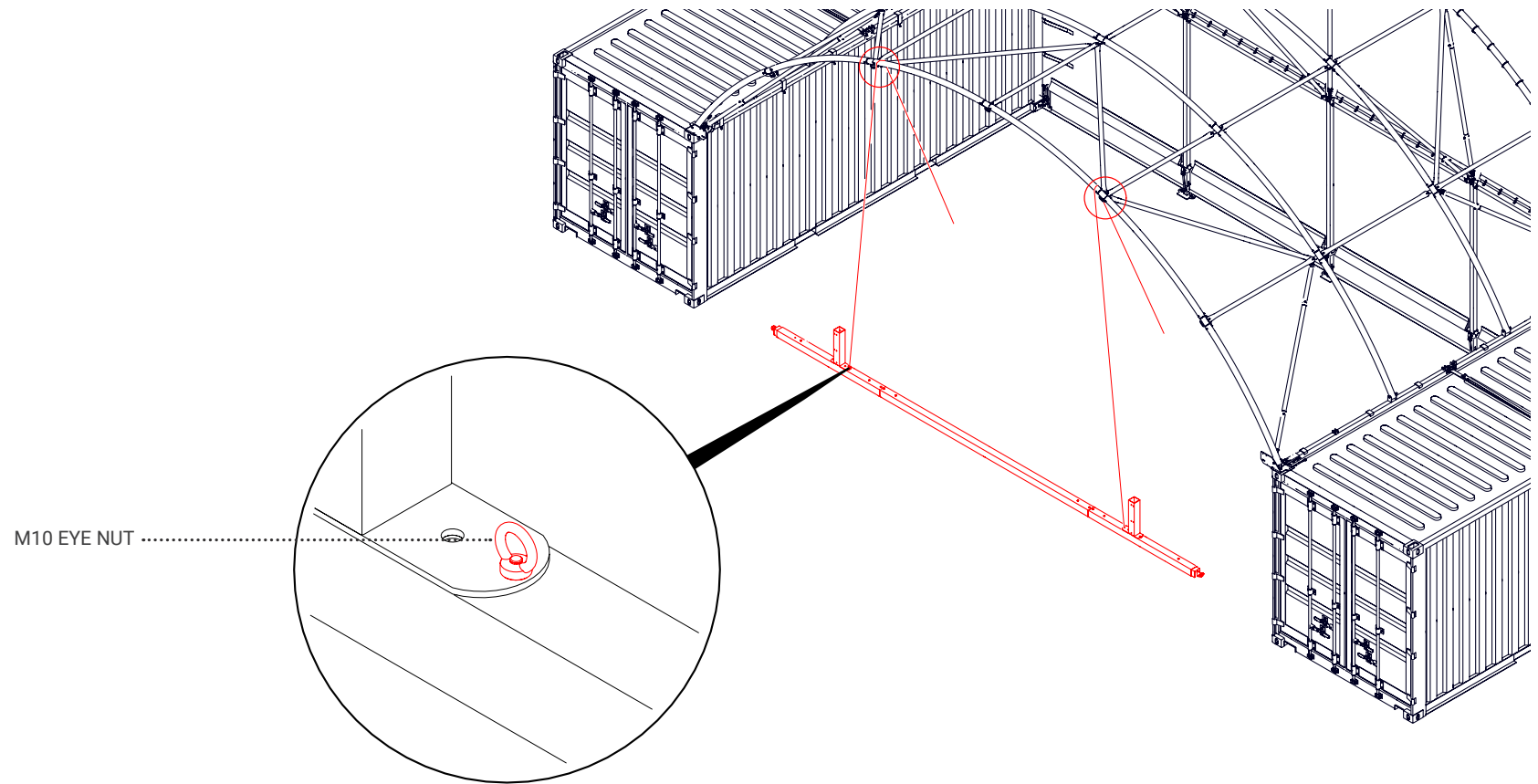
ACCESS WALL FRAMEWORK

Connect the upper attachment to the horizontal as shown below - Fit the eye nuts through the square holes in the horizontal end section (these eye nuts and bolts will be removed after lifting).



ACCESS WALL FRAMEWORK

Prepare the horizontal for lifting. Attach your lifting system between the eye nuts and hoop section using an appropriate lifting clamp or strop.



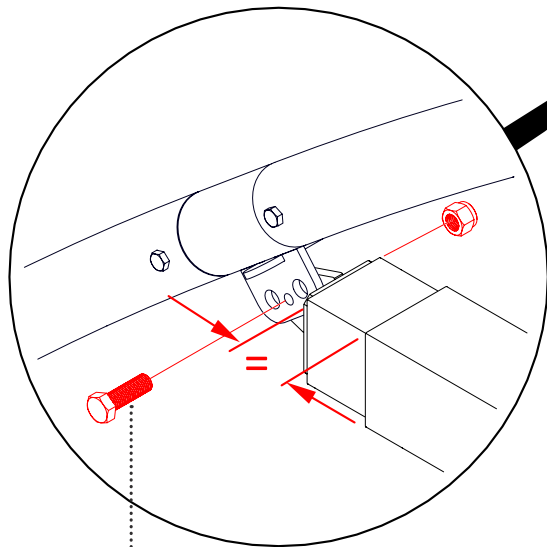
**LIFTING STEEL MEMBERS SHOULD BE UNDERTAKEN BY TRAINED PERSONNEL
WITH PRIOR KNOWLEDGE/ EXPERIENCE OF CHOSEN LIFTING EQUIPMENT.**

As a guide, a 7m chain block with a minimum load capacity of 250kg would be sufficient to perform the lift.

ACCESS WALL FRAMEWORK

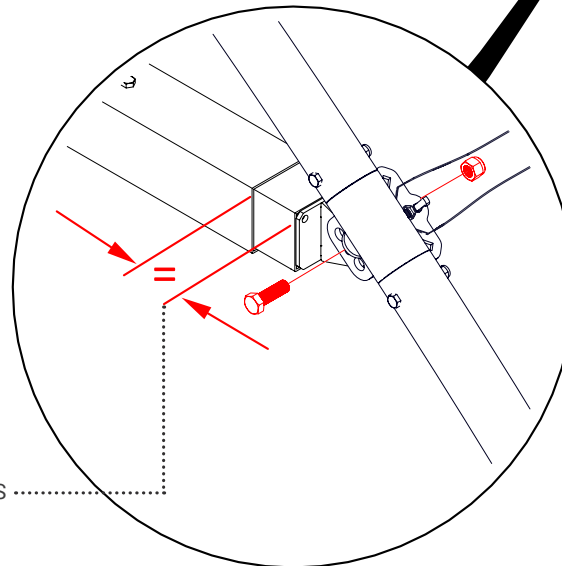
Raise the horizontal so that it is level with the first set of knuckles.

1. Attach the telescopic end to the top hole on the knuckle, ensure horizontal is on the inside face.

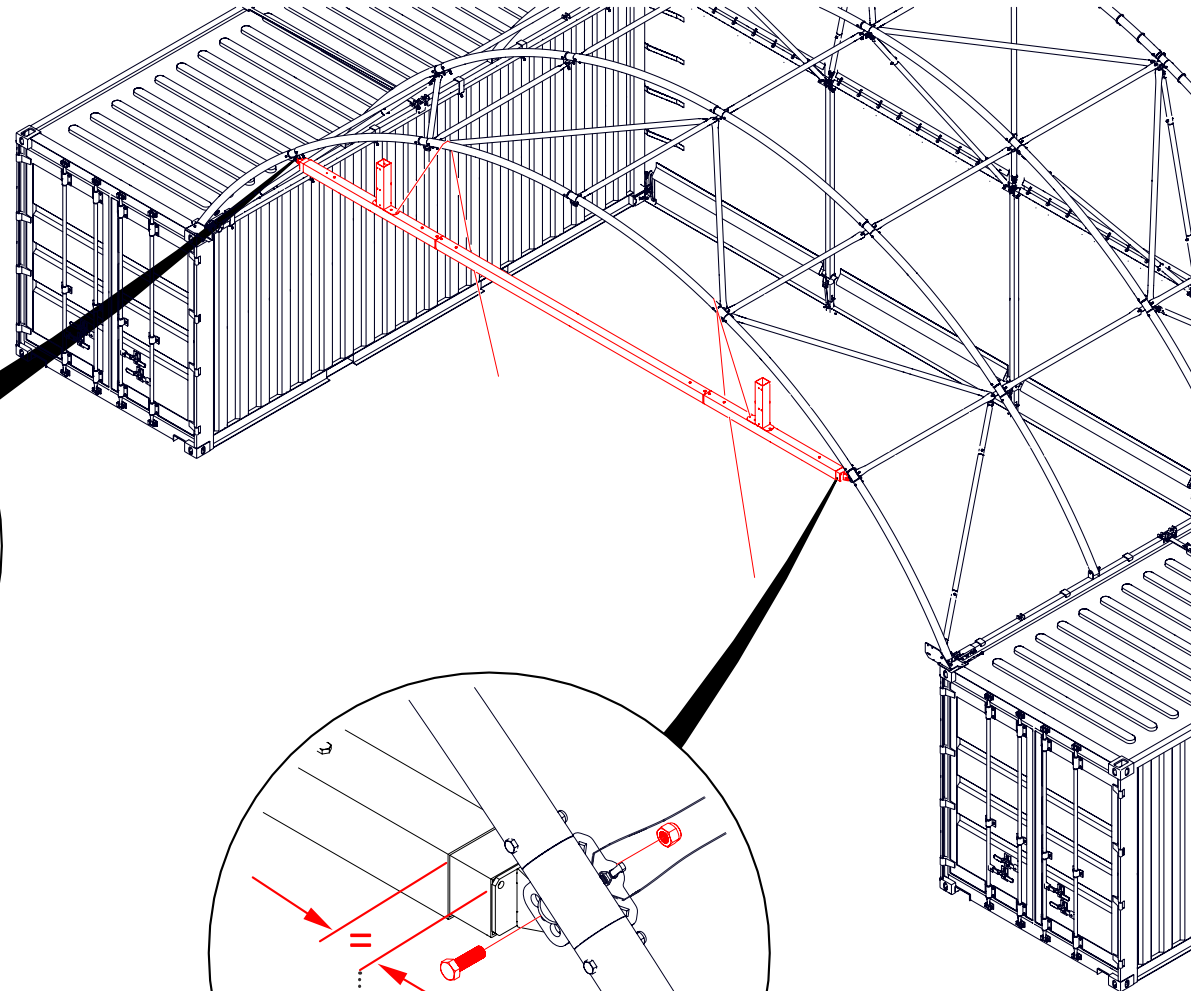


M16 X 50 SET
//NYLOC NUT

EQUAL SPACING ON BOTH ENDS

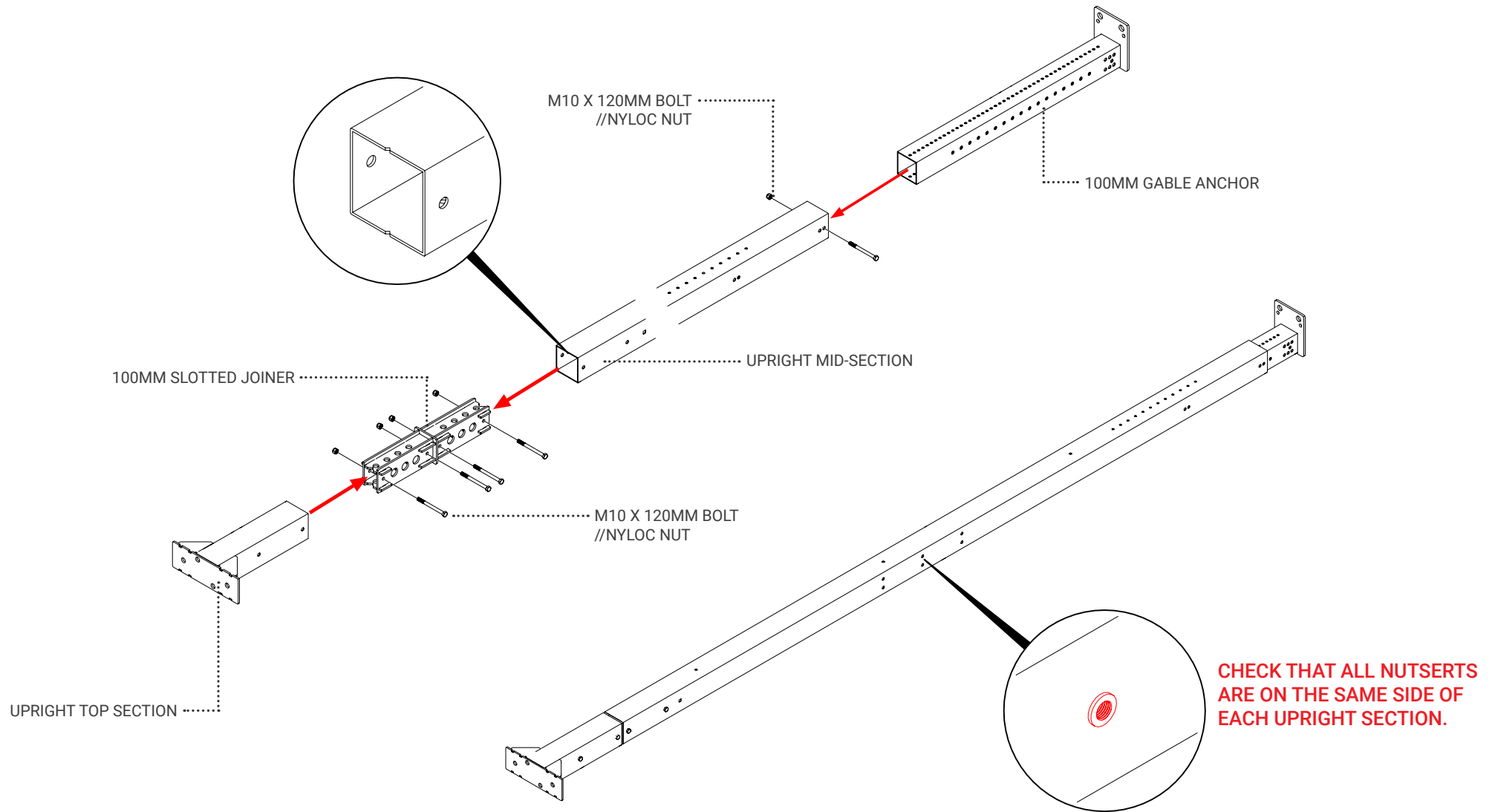


2. Measure the telescopic end length
ensure both ends are equal.



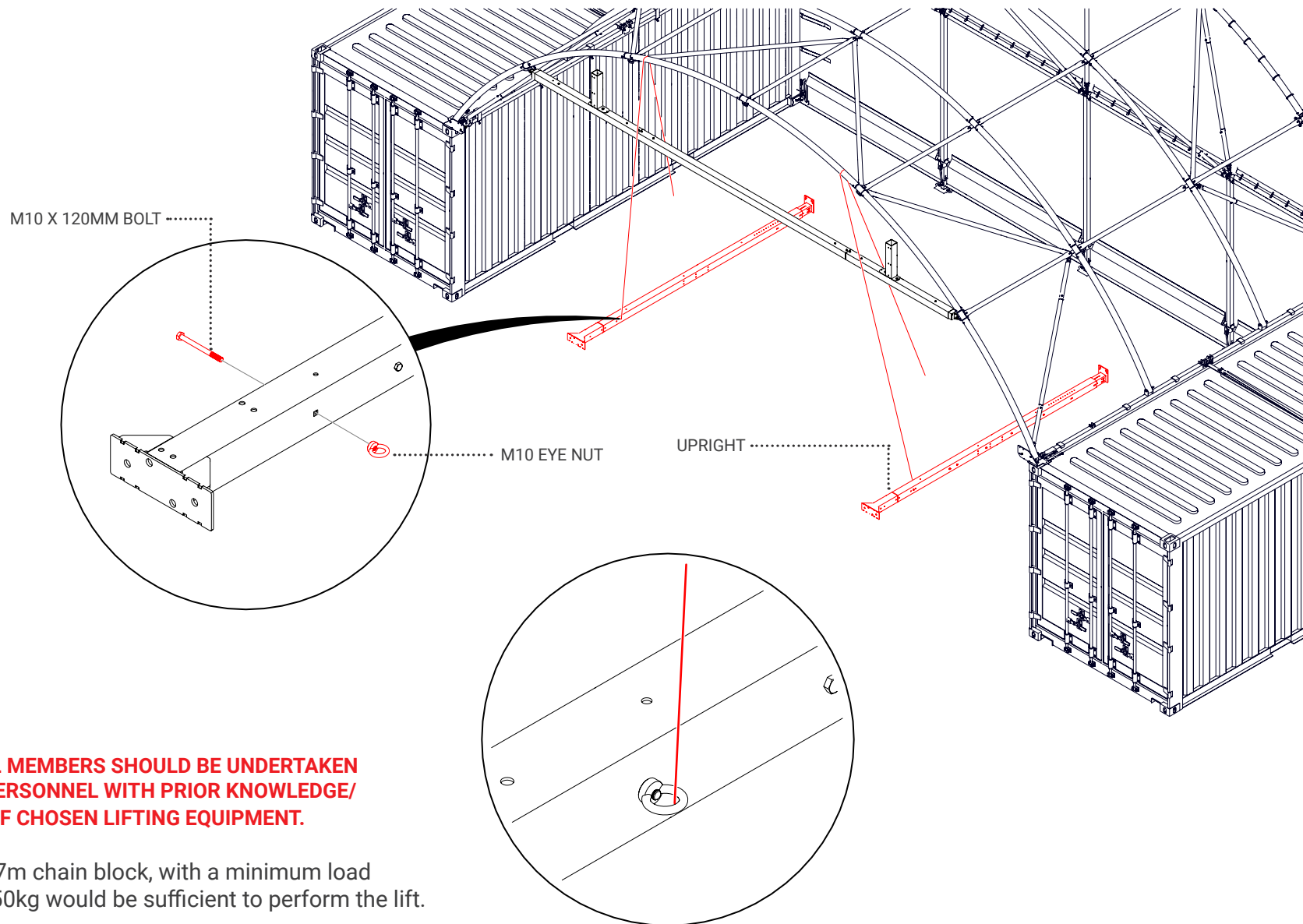
ACCESS WALL FRAMEWORK

Assemble the two uprights. It is important to orientate the parts correctly as after assembly the uprights become handed. A good reference is to check that all of the threaded nutserts are on the same side of the upright.



ACCESS WALL FRAMEWORK

Prepare each upright to be lifted. Attach eye nuts to the uprights - connect the eye nuts as shown through the square holes in the horizontal end section (these eye nuts and bolts will be removed after lifting). Attach your lifting system between the eye nuts and hoop section using an appropriate lifting clamp or strop.

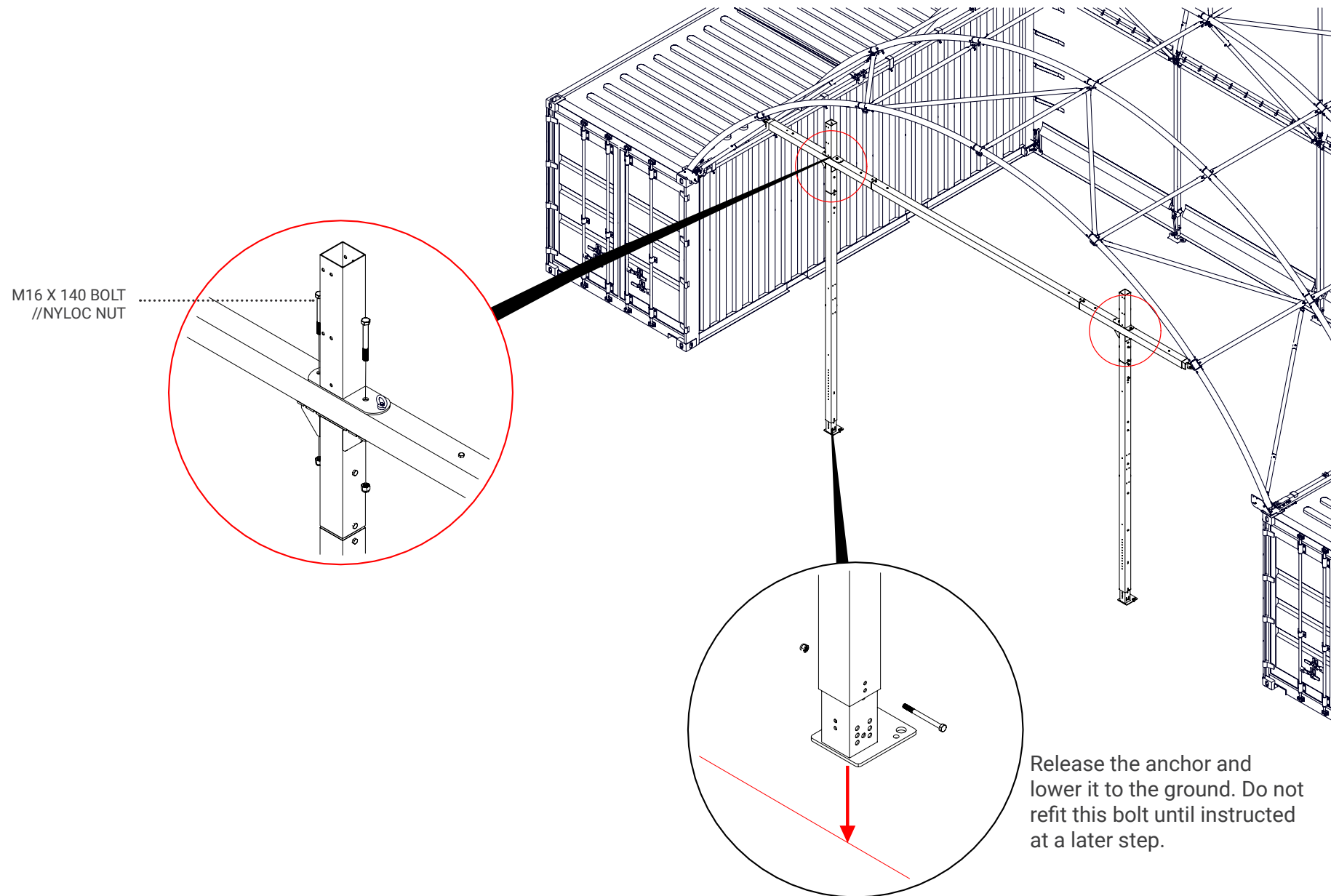


LIFTING STEEL MEMBERS SHOULD BE UNDERTAKEN BY TRAINED PERSONNEL WITH PRIOR KNOWLEDGE/ EXPERIENCE OF CHOSEN LIFTING EQUIPMENT.

As a guide, a 7m chain block, with a minimum load capacity of 250kg would be sufficient to perform the lift.

ACCESS WALL FRAMEWORK

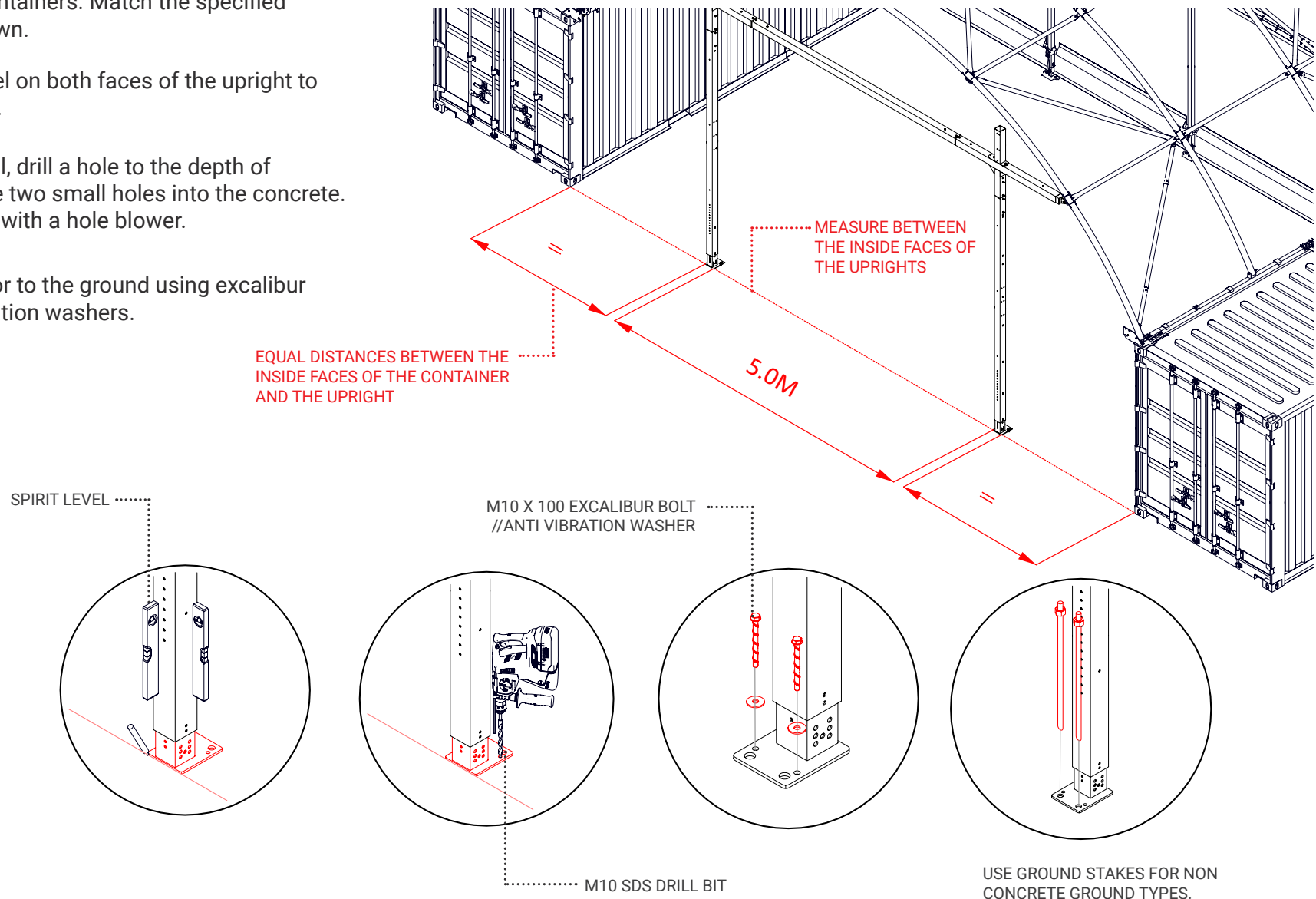
Lift each upright in turn and secure the upright through the top of the horizontal as shown below.



ACCESS WALL FRAMEWORK

The description below shows how to secure the anchor into concrete. For non concrete ground types use ground stakes in the two larger holes

1. Attach a tensioned string line to the container knuckles to ensure the uprights align with the front face of the containers. Match the specified dimensions as shown.
2. Place a spirit level on both faces of the upright to ensure it is straight.
3. Using an SDS drill, drill a hole to the depth of 130mm through the two small holes into the concrete. Remove any debris with a hole blower.
4. Secure the anchor to the ground using excalibur bolts with anti-vibration washers.



ACCESS WALL FRAMEWORK

Using a lever, raise the upright to its starting position. If your foundation has an angle, the uprights will need further lifting to become level. Lift the uprights until the horizontal is level ensuring the framework remains square.

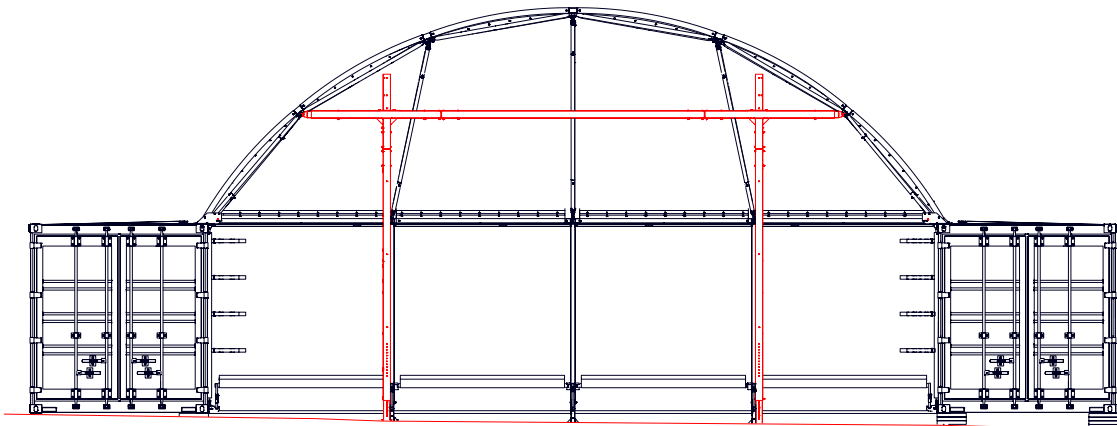
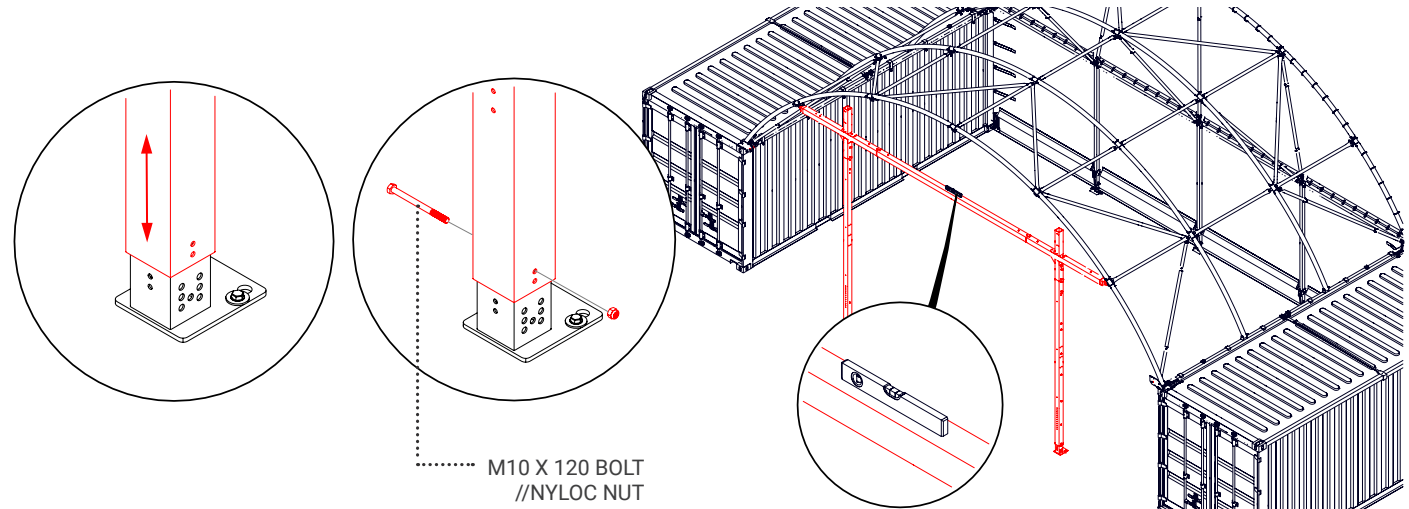


**IT IS CRUCIAL THAT THE HORIZONTAL IS PERFECTLY LEVEL.
FOR THE ROLLER DOOR TO OPERATE SAFELY AND EFFECTIVELY, THE GABLE FRAMEWORK MUST BE SQUARE.**

1. Using a lever, raise the upright 20mm to its starting position.

If there is no hole immediately available continue to raise the upright until a hole becomes available

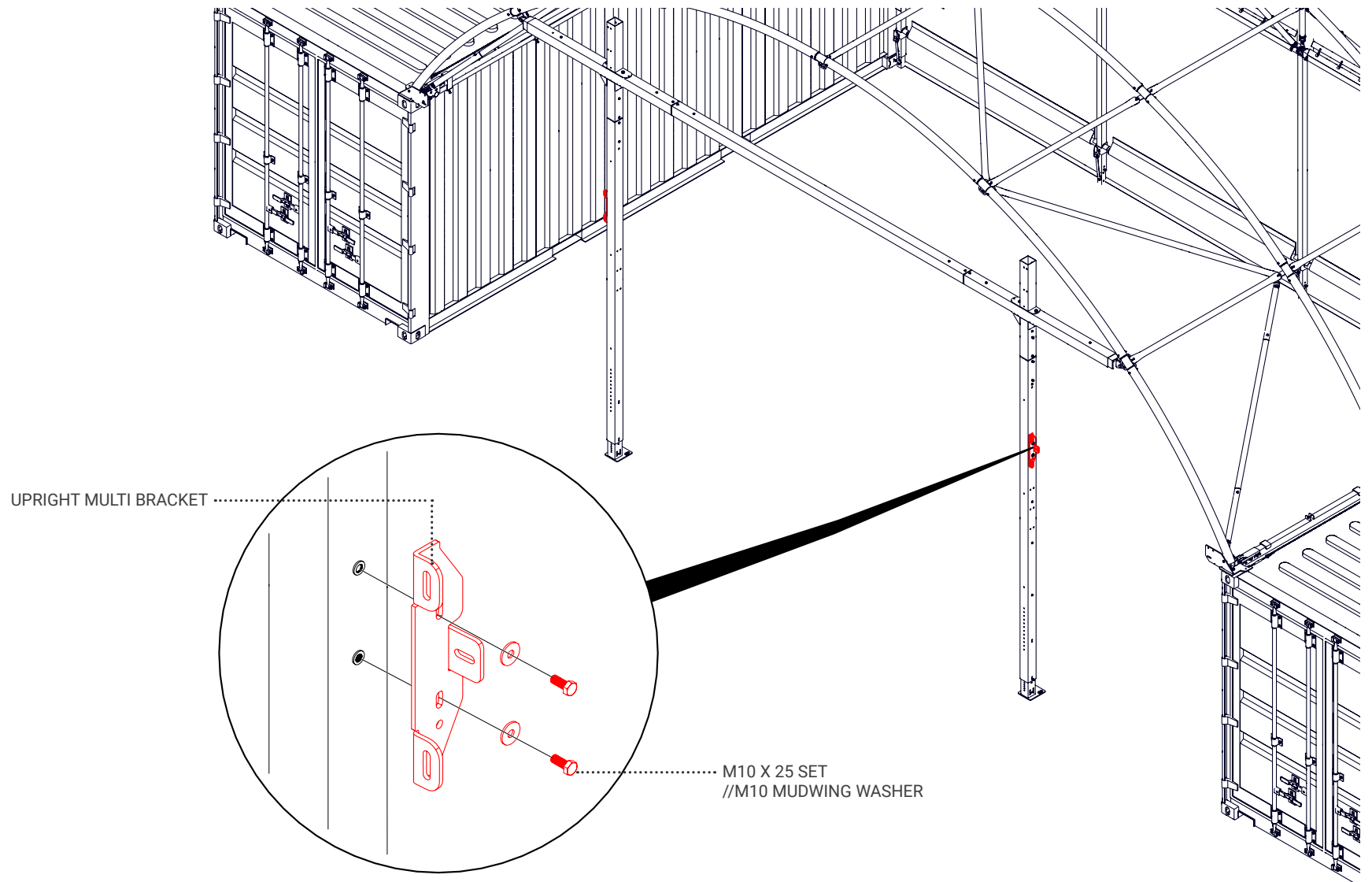
2. Fit the M10 x 120 bolt through this hole.



The anchors can tolerate a slope or localised drop of 300mm between the two containers. If there is any doubt that the drop is more than this, stop and run a string line between the base of the two containers to check. Refer to+ the site conformance document if it is greater than 300mm.

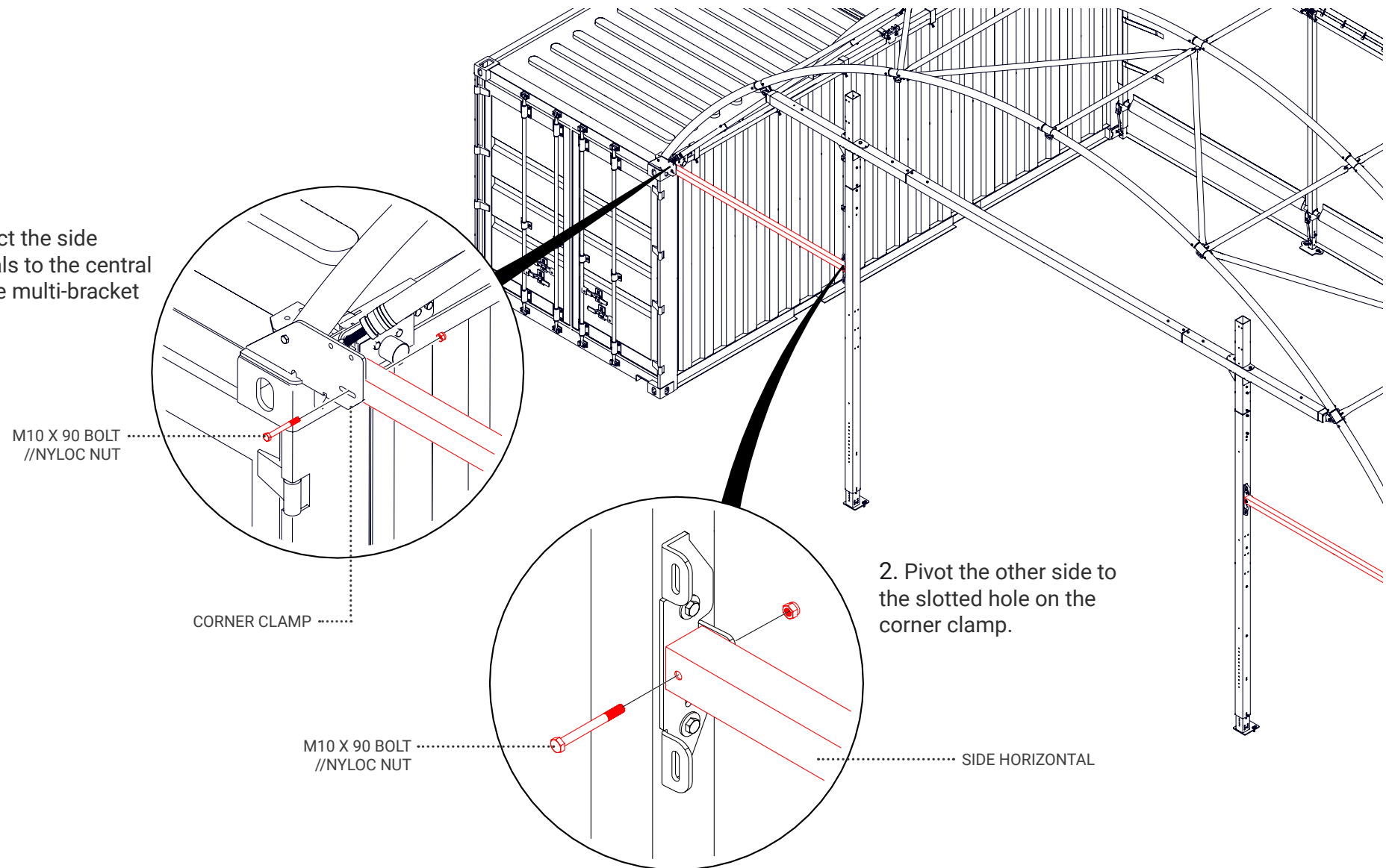
ACCESS WALL FRAMEWORK

Fit the multi bracket into the nutserts in the uprights as shown.



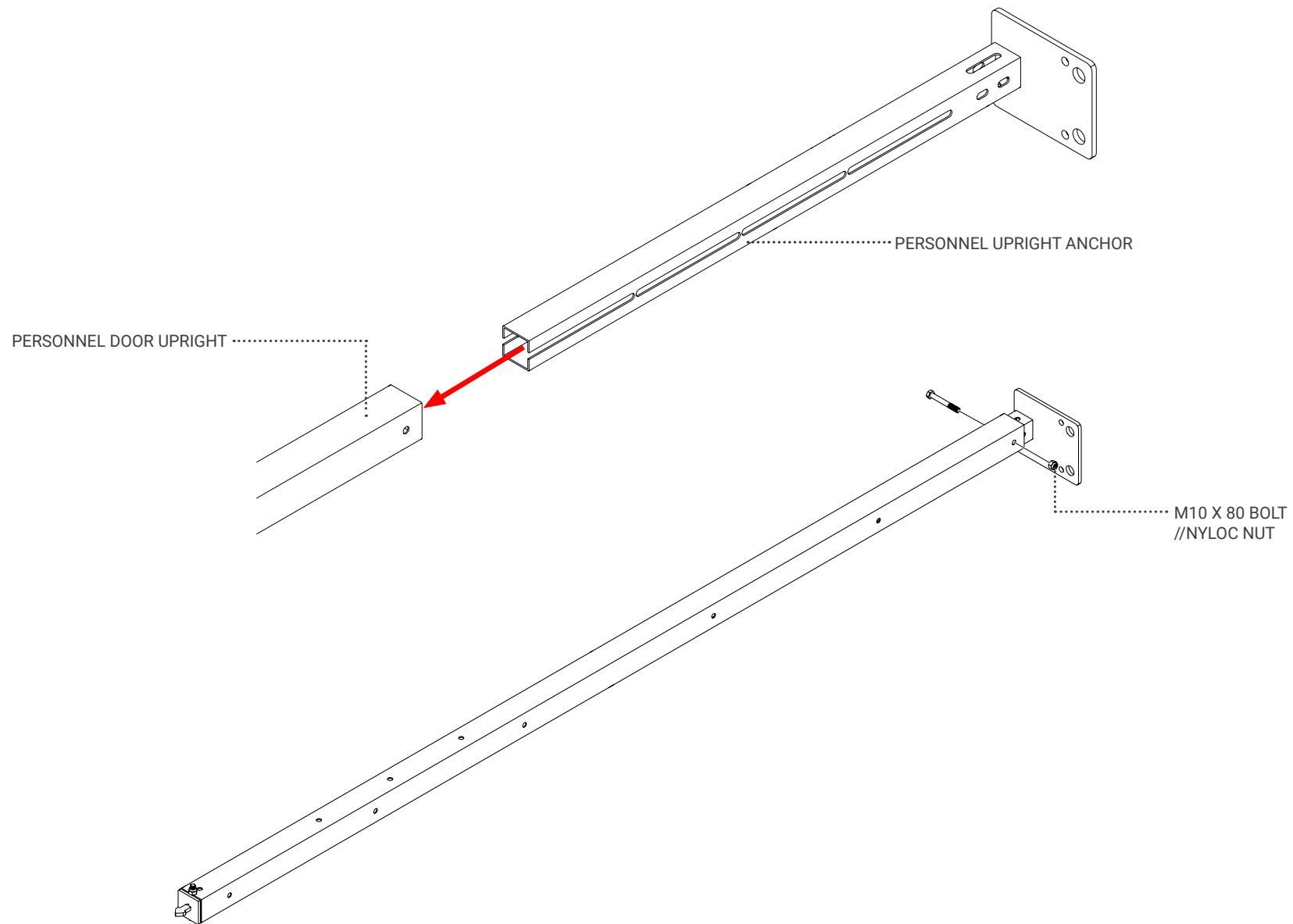
ACCESS WALL FRAMEWORK

Lift and fit the side horizontals.



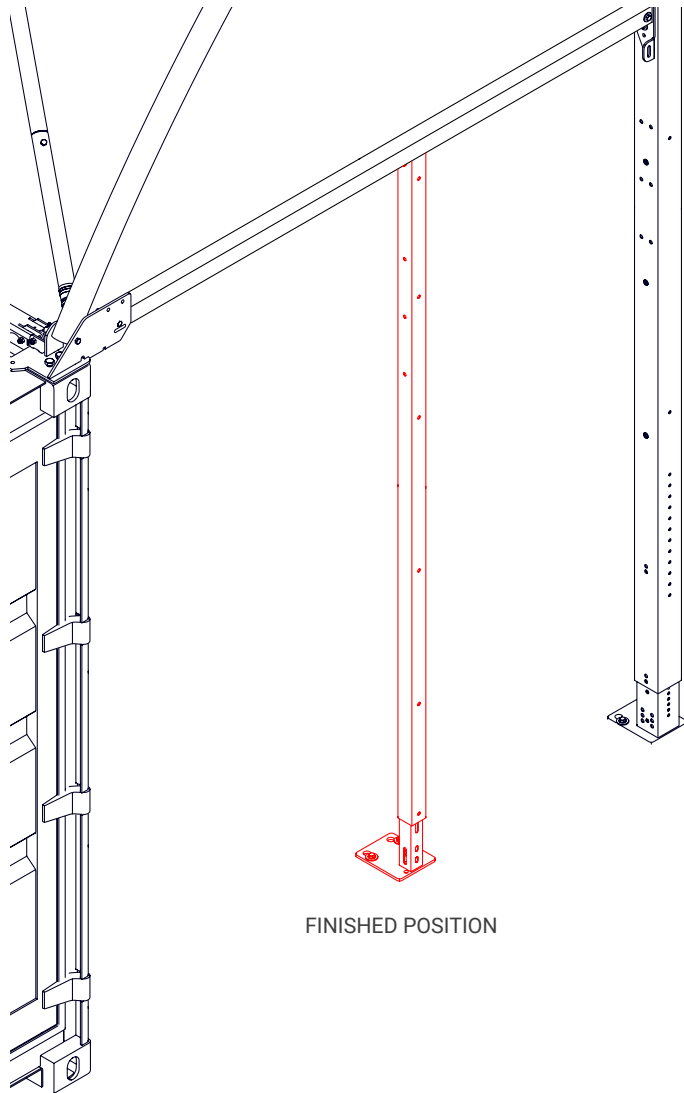
ACCESS WALL FRAMEWORK

Assemble the personnel door upright as shown below.

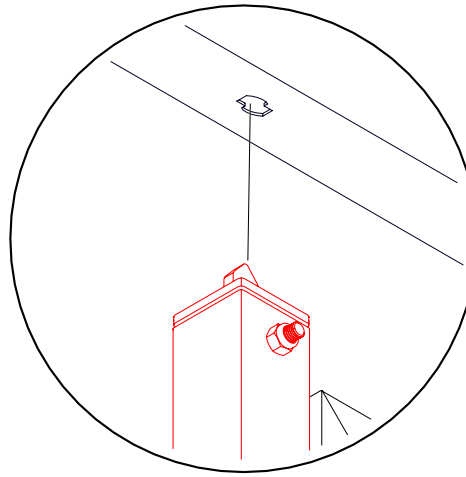


ACCESS WALL FRAMEWORK

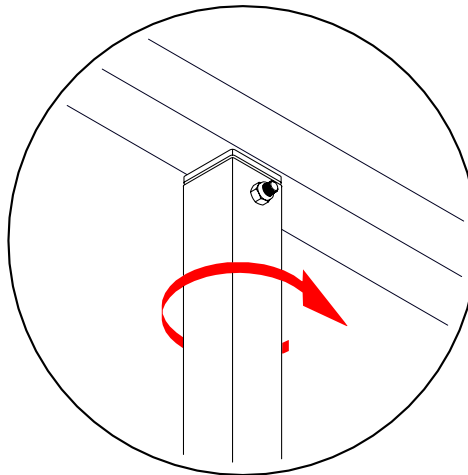
Fit the offset upright to the horizontal as shown below.



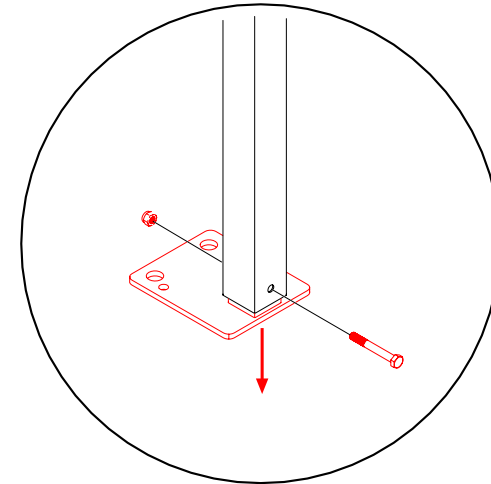
FINISHED POSITION



1. Lift the upright and push the key lug into the slot in the horizontal joiner



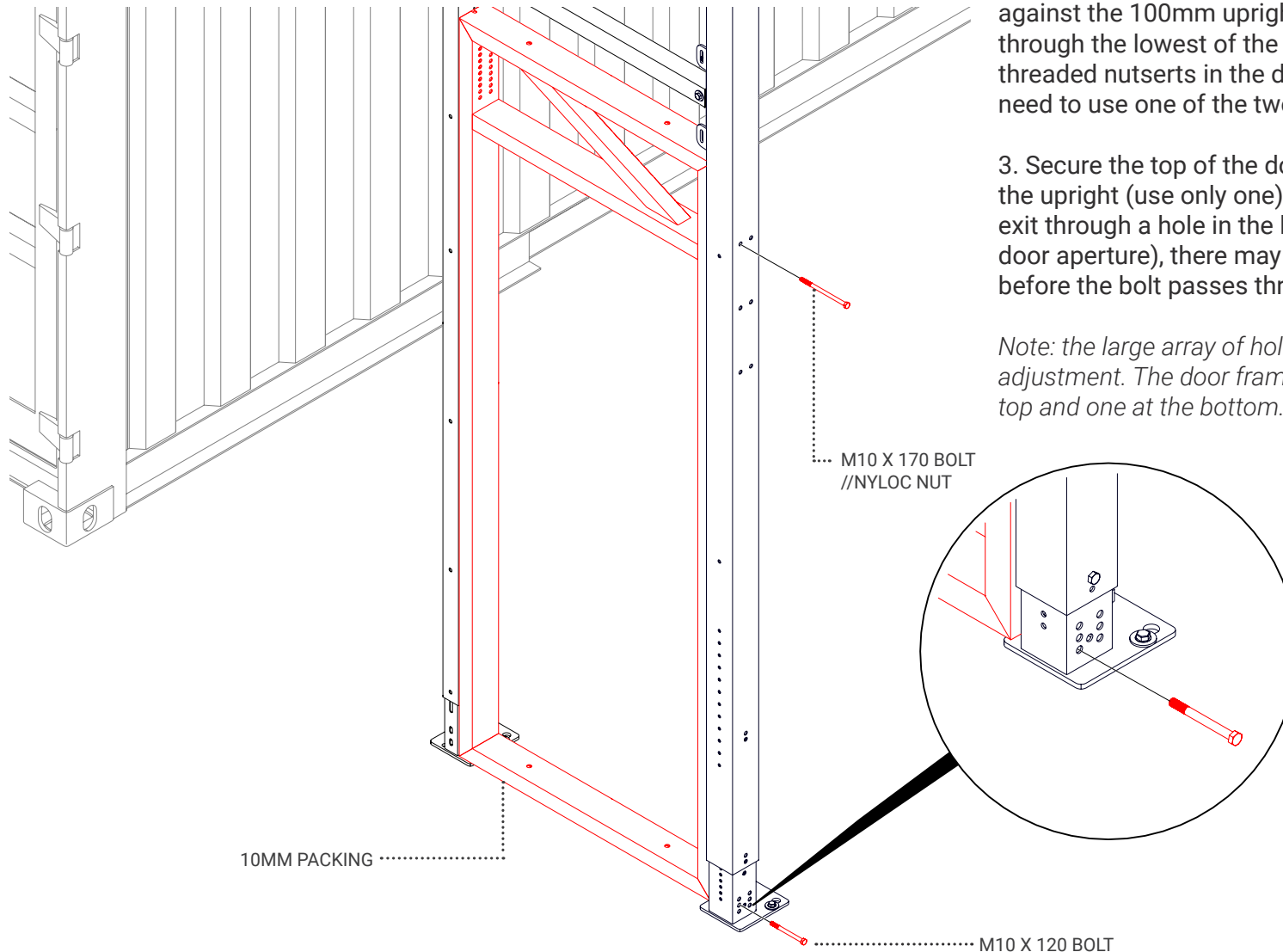
2. With the lug fully inserted, rotate the upright 90° as shown



3. Release the anchor and lower it to the ground. The finished position will have the anchor facing inside the building

ACCESS WALL FRAMEWORK

Secure the personnel door frame to the 100mm box upright



1. Position the door frame against the upright, add 10mm of packing between the door frame and ground.

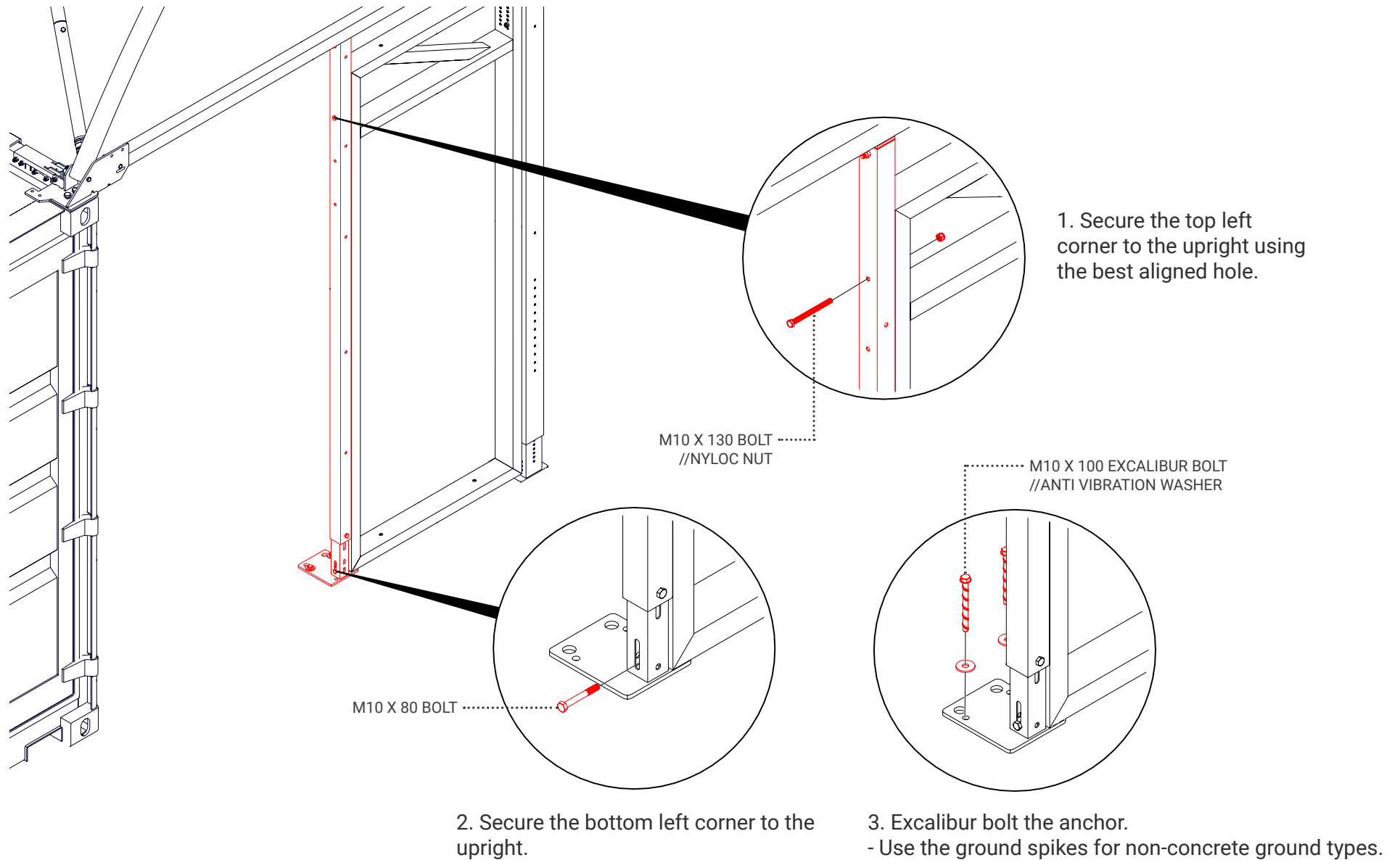
2. Fit the lower bolt first - temporarily grip or clamp the door frame against the 100mm upright. In most cases the bolt should pass through the lowest of the 3 holes in the anchor, fit the bolt into the threaded nutserts in the door frame. If your ground is uneven you may need to use one of the two holes above.

3. Secure the top of the door frame. There are three pairs of holes in the upright (use only one), the bolt will pass through the upright and exit through a hole in the braced section of the door frame (above the door aperture), there may need to be a small amount of adjustment before the bolt passes through freely.

Note: the large array of holes is to allow for a range of height adjustment. The door frame is only connected with 2 bolts - one at the top and one at the bottom.

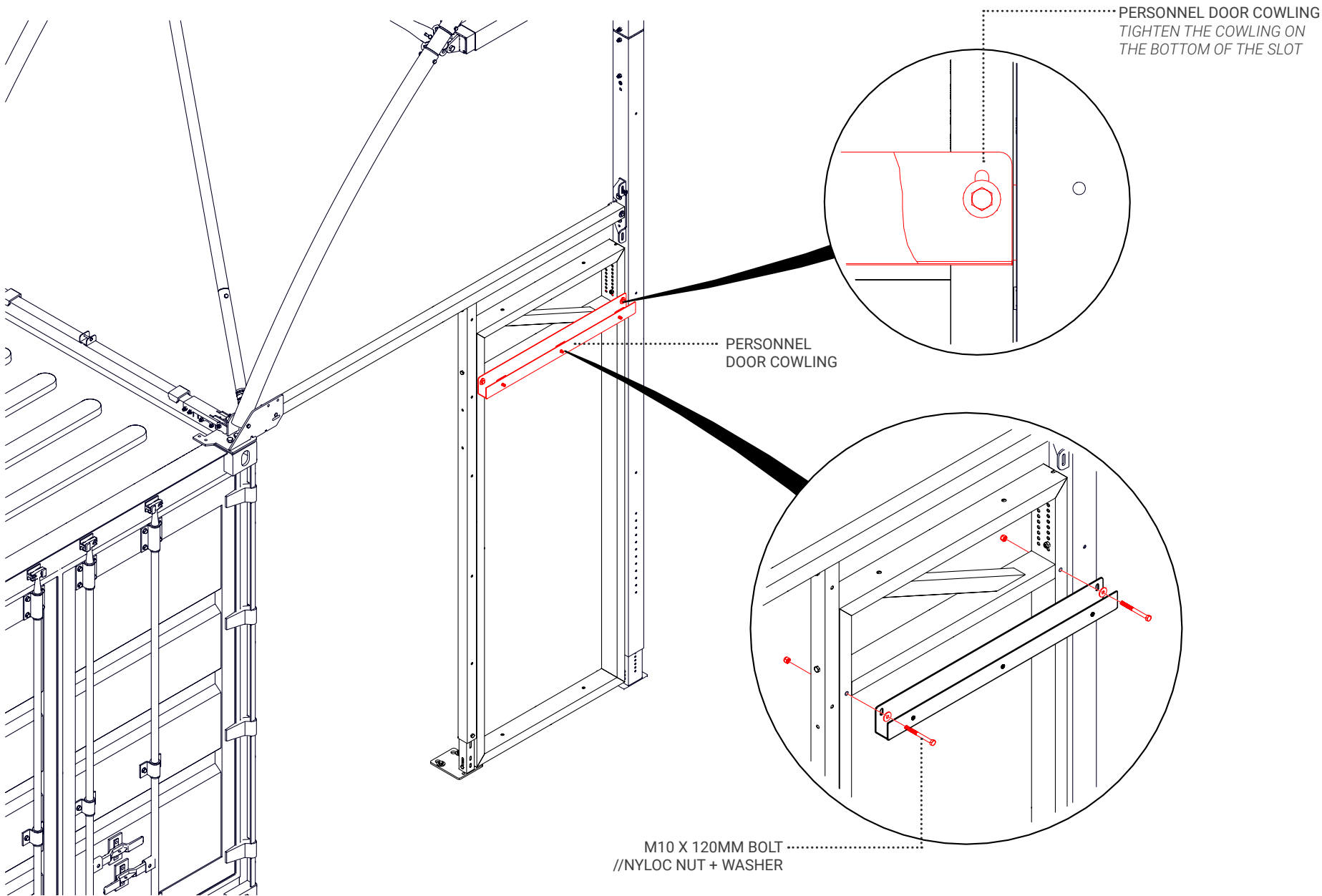
ACCESS WALL FRAMEWORK

Secure the personnel door frame to the upright.



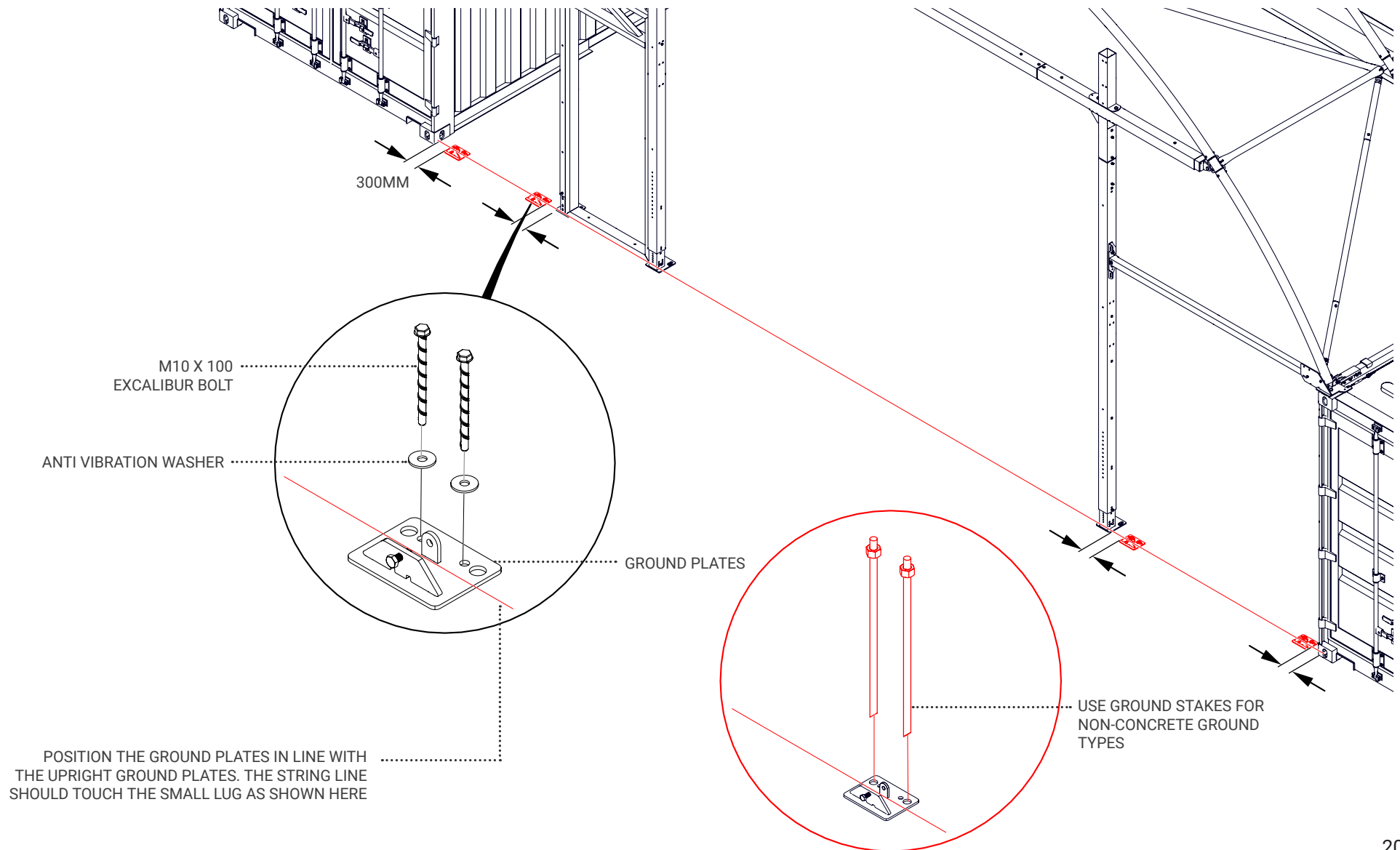
ACCESS WALL FRAMEWORK

Fit the personnel door cowling bracket. Ensure the cowling is on the bottom of the slotted hole.



ACCESS WALL FRAMEWORK

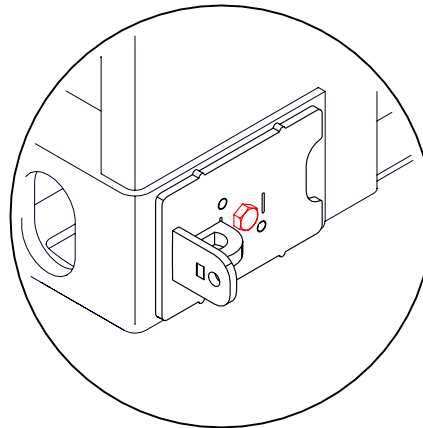
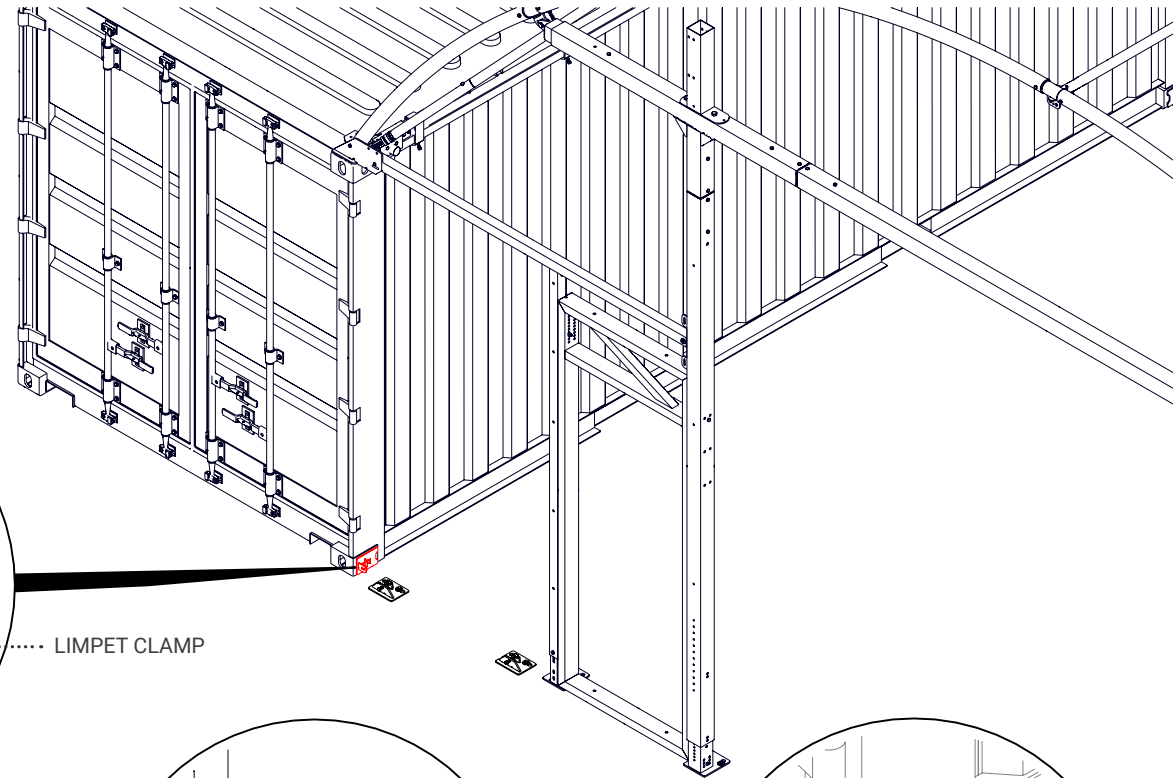
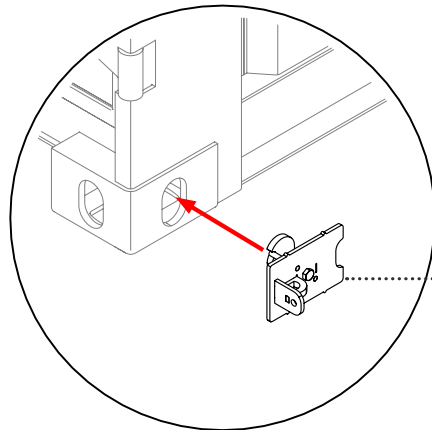
Attach a string line to the front face of the containers. Mark and drill the ground plates using the string line to guide its position, the string line should touch the small back lug as shown. Each ground plate should have a 300mm space between the container or upright that is bolted next to - measure from the outside of the plate edge.



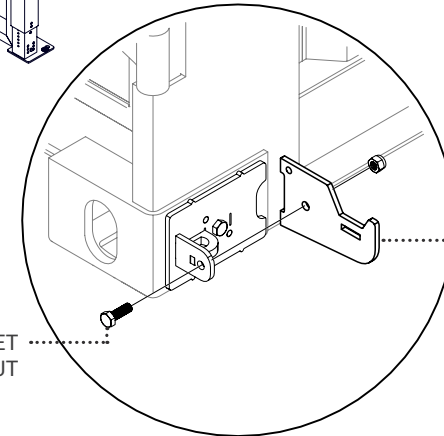
ACCESS WALL FRAMEWORK

Fit the limpet clamps to the lower corner castings on both containers as shown below. Then attach the side tension plate.

1. Push the limpet clamp into the container knuckle so the flat faces touch



2. Tighten the central bolt



M10 X 30 SET
// NYLOC NUT

3. Attach the side tension plate to the limpet clamp

ACCESS WALL FRAMEWORK

Fit the side tension plates using the two mounting plates.

1. Fit the flat mounting plate and side tension plate to inside of the personnel door upright. Detail view is shown from inside of the building

M10 X 70 BOLT// NYLOC NUT

M10 X 70 BOLT// NYLOC NUT

M10 X 30 SET// NYLOC NUT

FLAT MOUNTING PLATE

SIDE TENSION PLATE

2. Fit the angled mounting plate and the side tension plate to the 100mm anchor. Detail view is shown from outside of the building

M10 X 30 SET// NYLOC NUT

M10 X 110 BOLT// NYLOC NUT

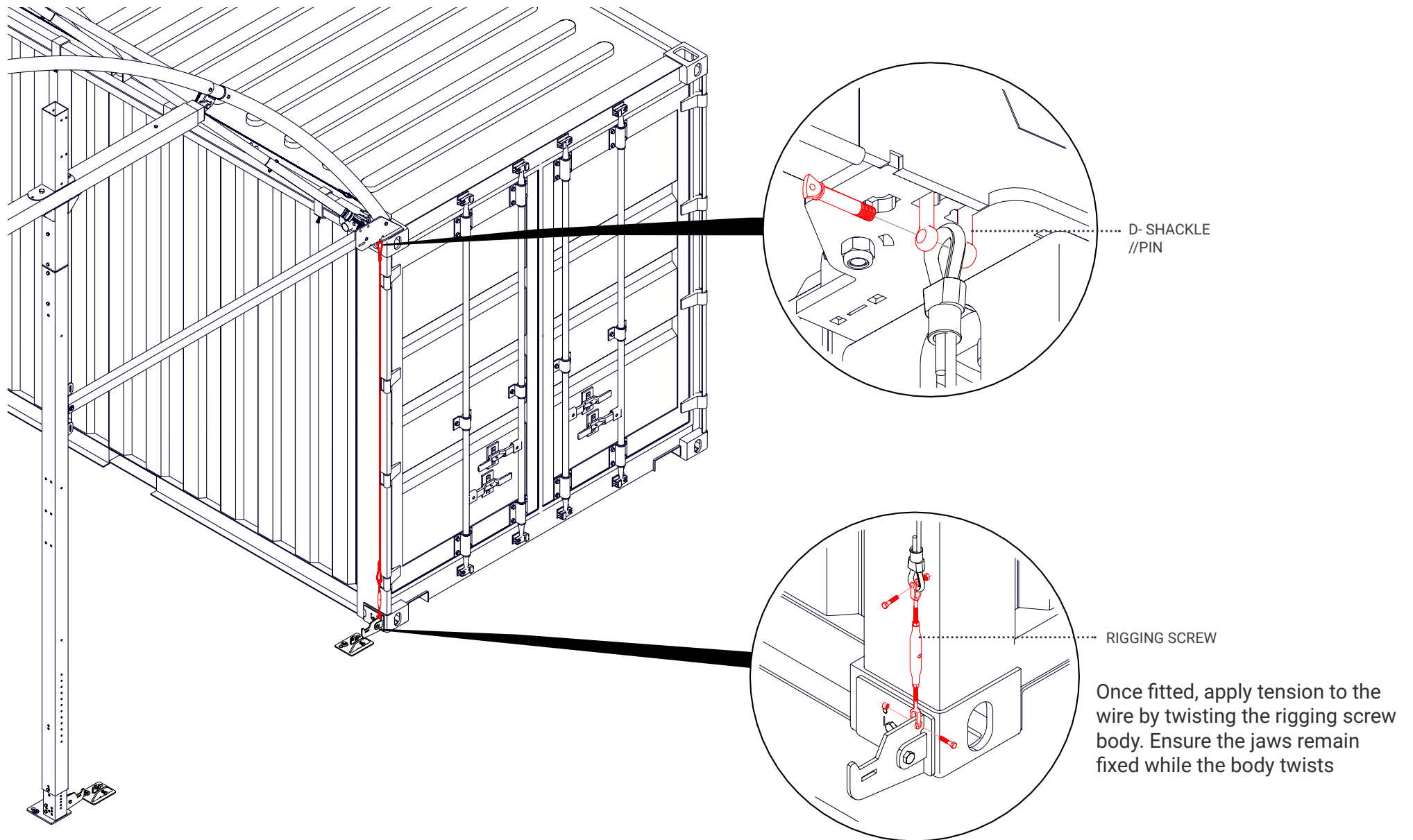
M10 X 110 BOLT// NYLOC NUT

ANGLED MOUNTING PLATE

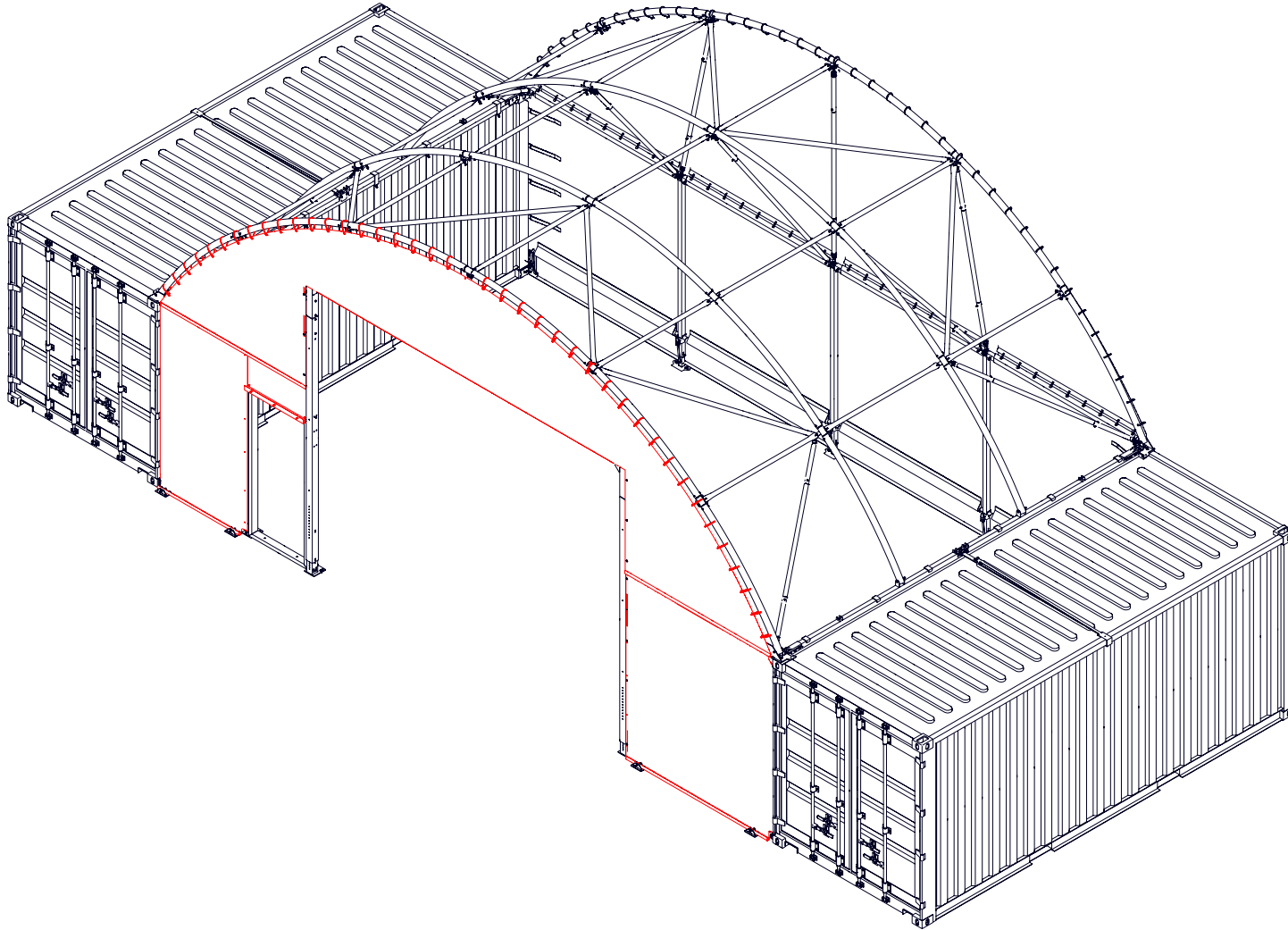
SIDE TENSION PLATE

ACCESS WALL FRAMEWORK

Fit the tension wire and rigging screw to the corner knuckle and side tension plate. Wires to fit high cube containers are also supplied.

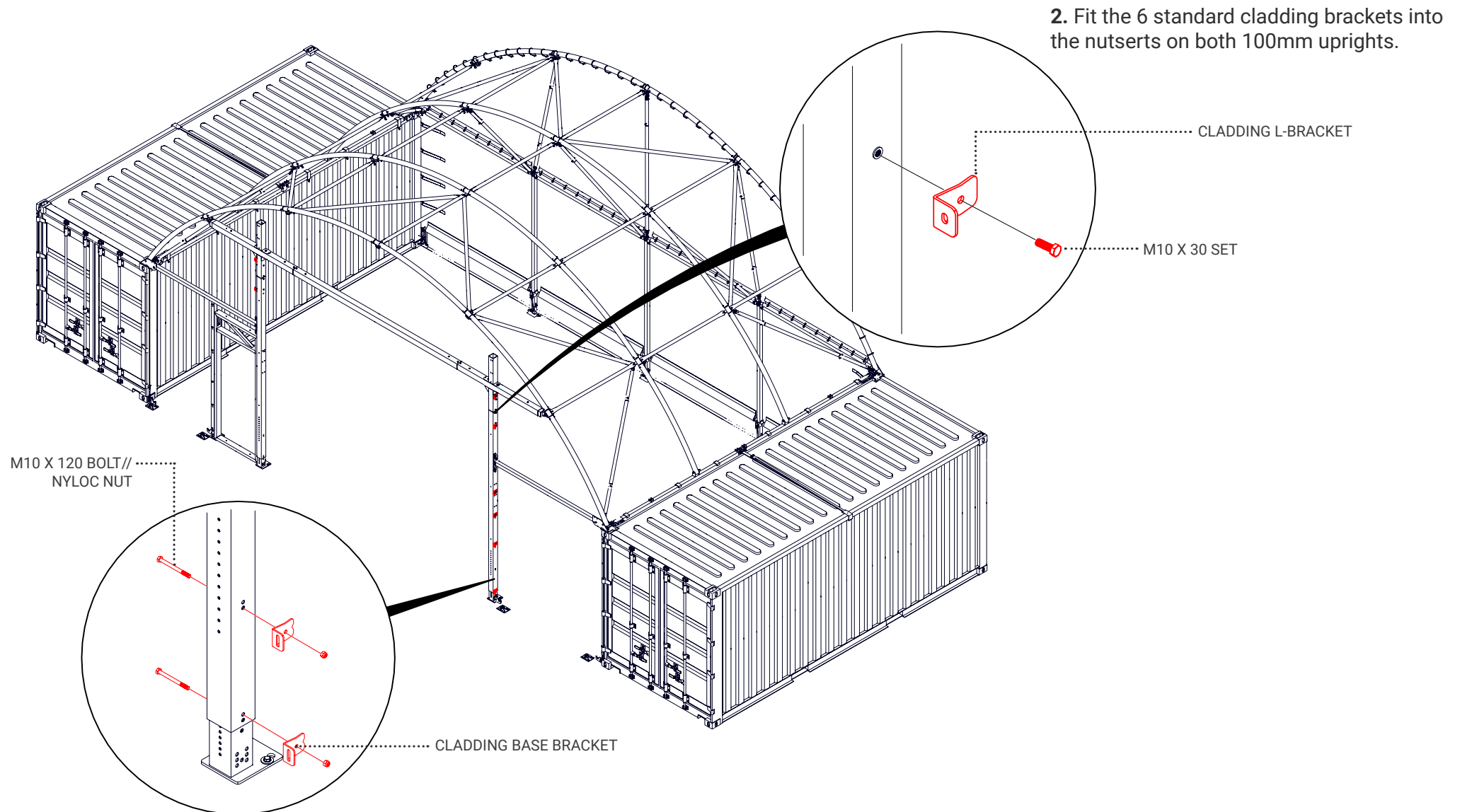


02/ INSTALLING THE ACCESS WALL SHEET - INTRODUCTION



ACCESS WALL

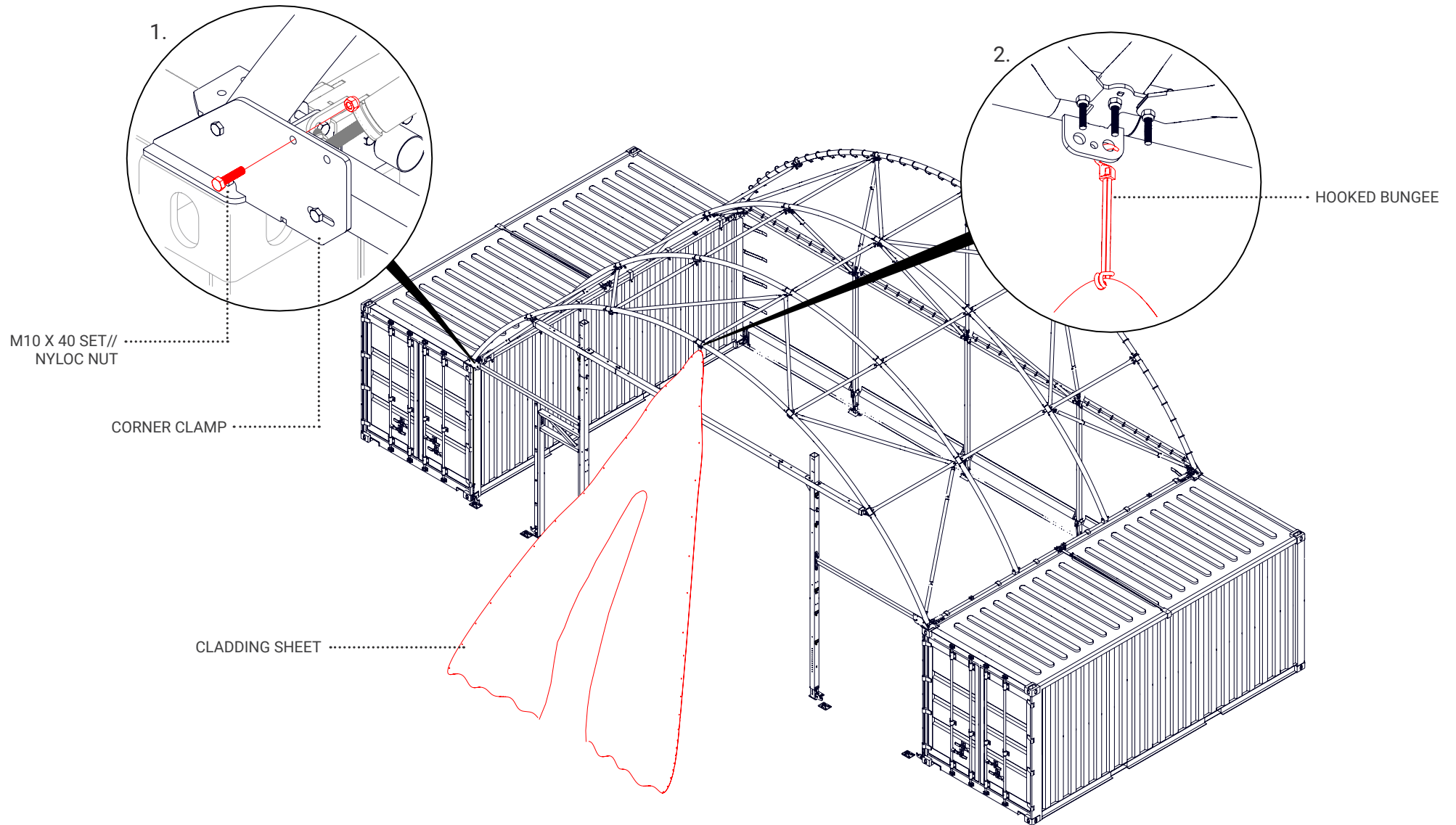
Bolt the cladding brackets to the uprights. There are two types of brackets detailed below.



1. Fit the 2 base brackets (marked with a V notch) to the upright lower section. The lower bolt is already fitted, remove nyloc and fit using this bolt.

ACCESS WALL

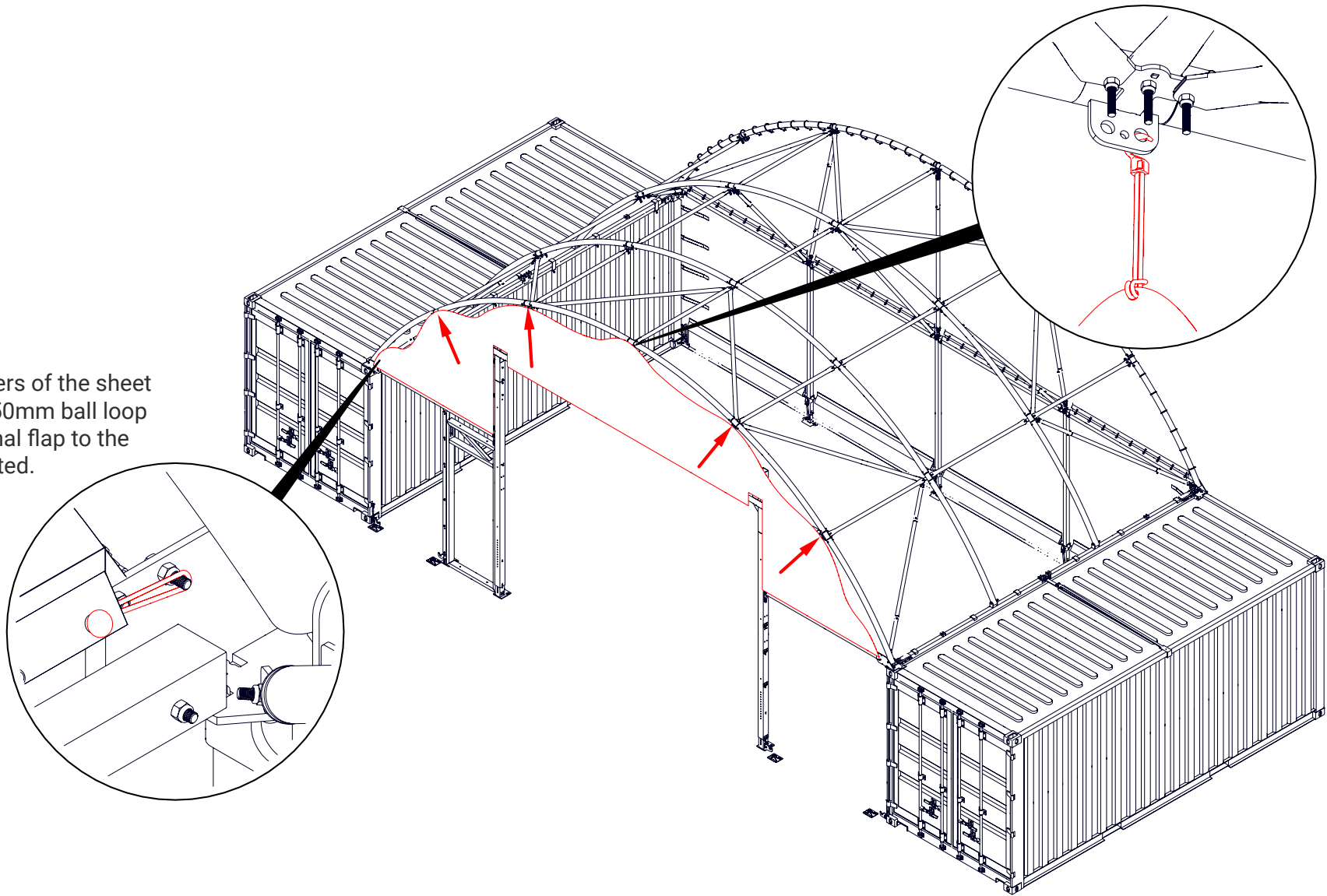
First fit the M10 x 40 Set to both corner clamps. Then, lift and hook the gable-D top sheet to the centre knuckle with a hooked bungee.



ACCESS WALL

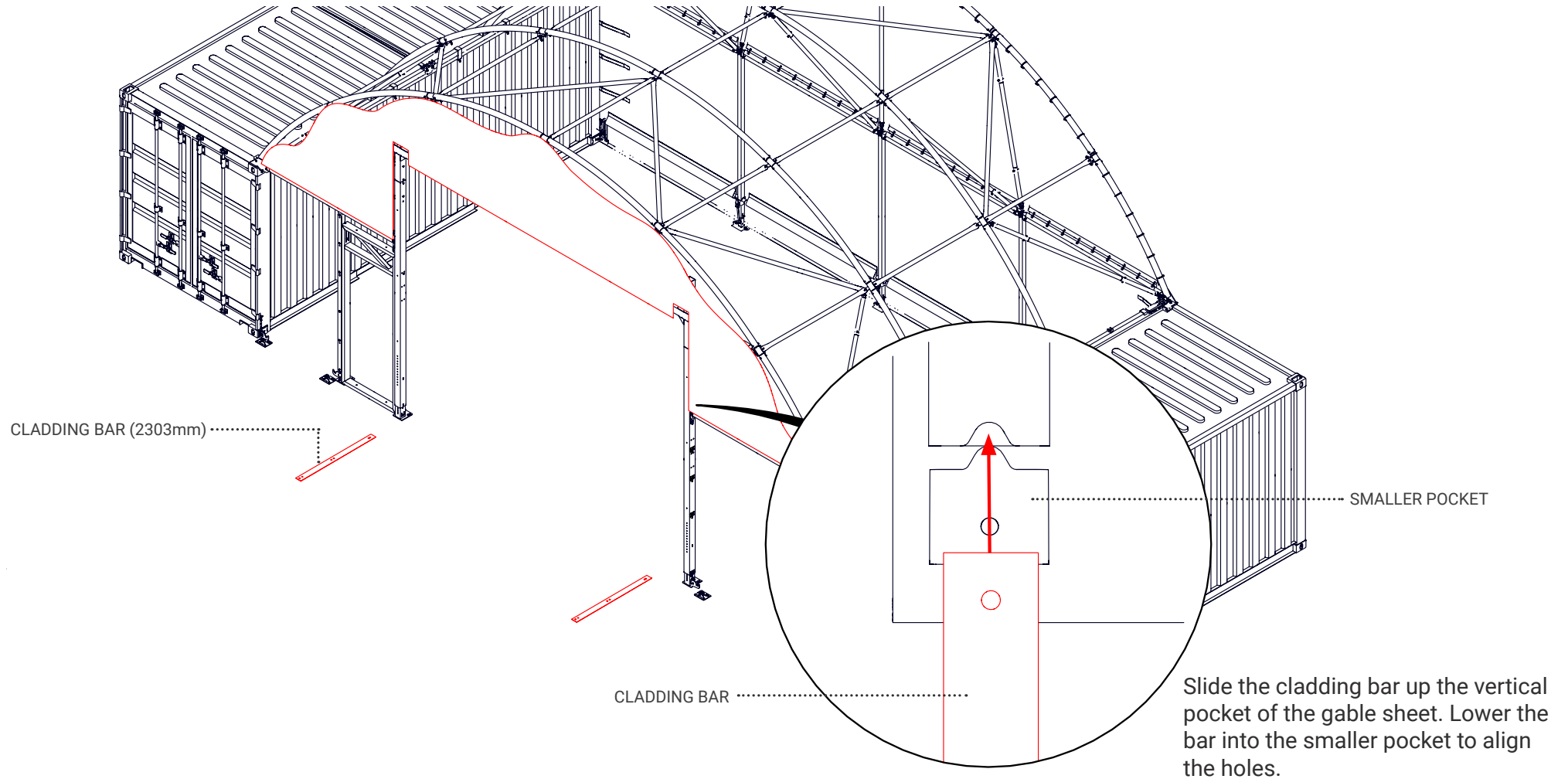
Working inside the building, hook the gable-D sheet to the remaining knuckles, this will balance the sheet before applying tension.

To pull both corners of the sheet into place, fit a 150mm ball loop through the internal flap to the bolt previously fitted.



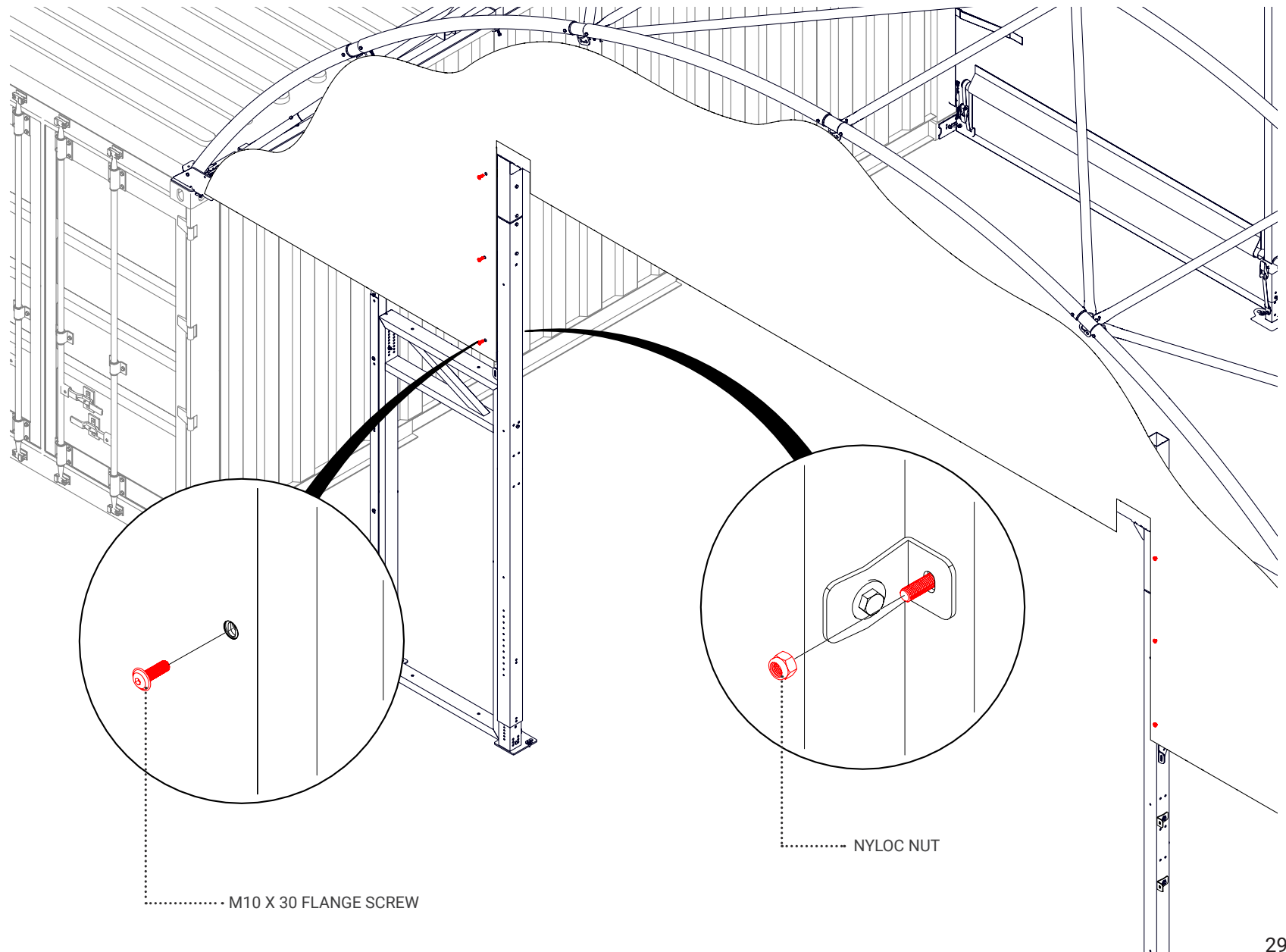
ACCESS WALL

Working inside the building, insert the two shorter cladding bars.



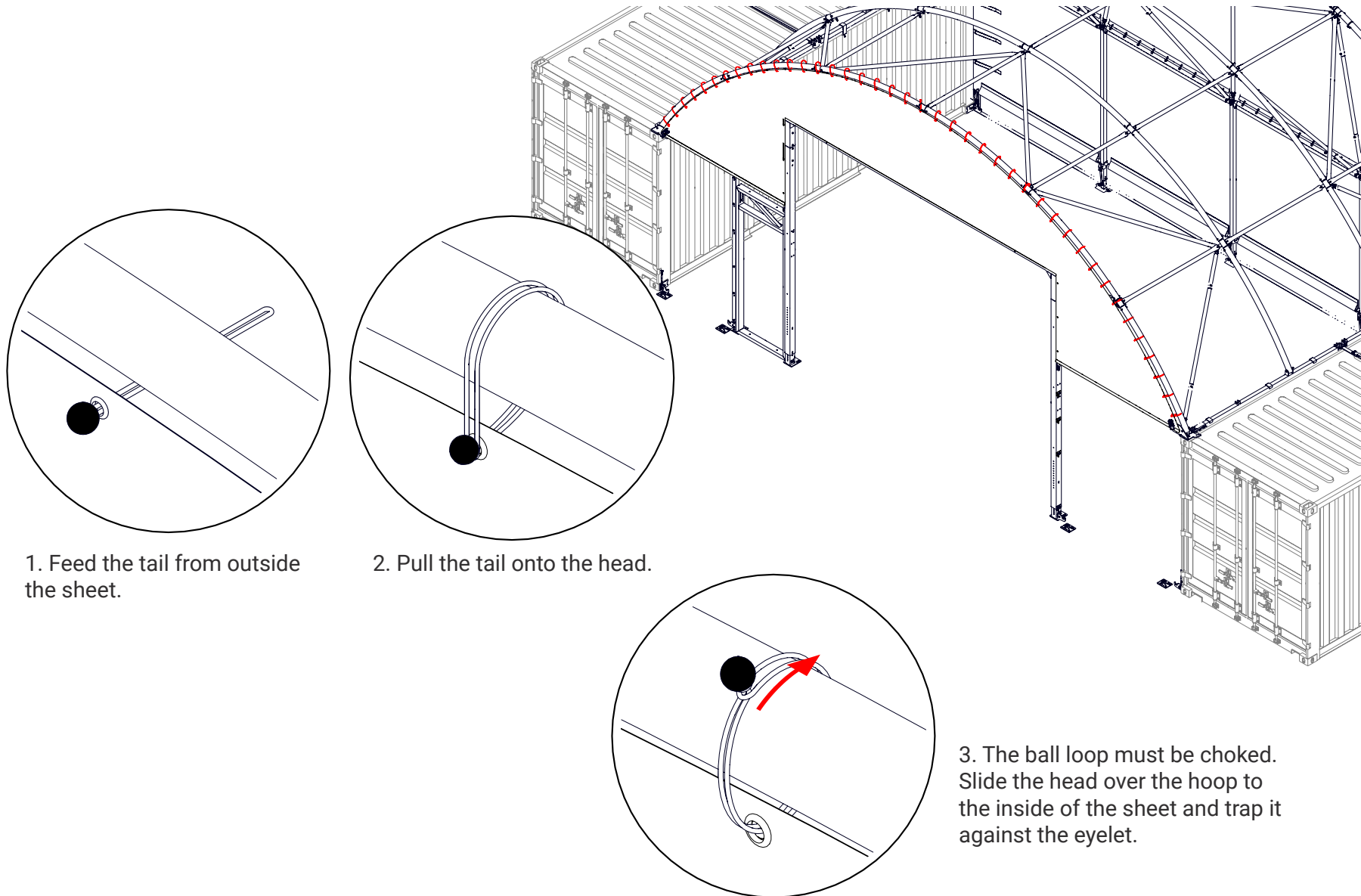
ACCESS WALL

Secure the cladding bar. Insert and finger tighten all five flange screws from the outside of the building. Do not fully tighten until all five are in, this will help manoeuvrability of the bar.



ACCESS WALL

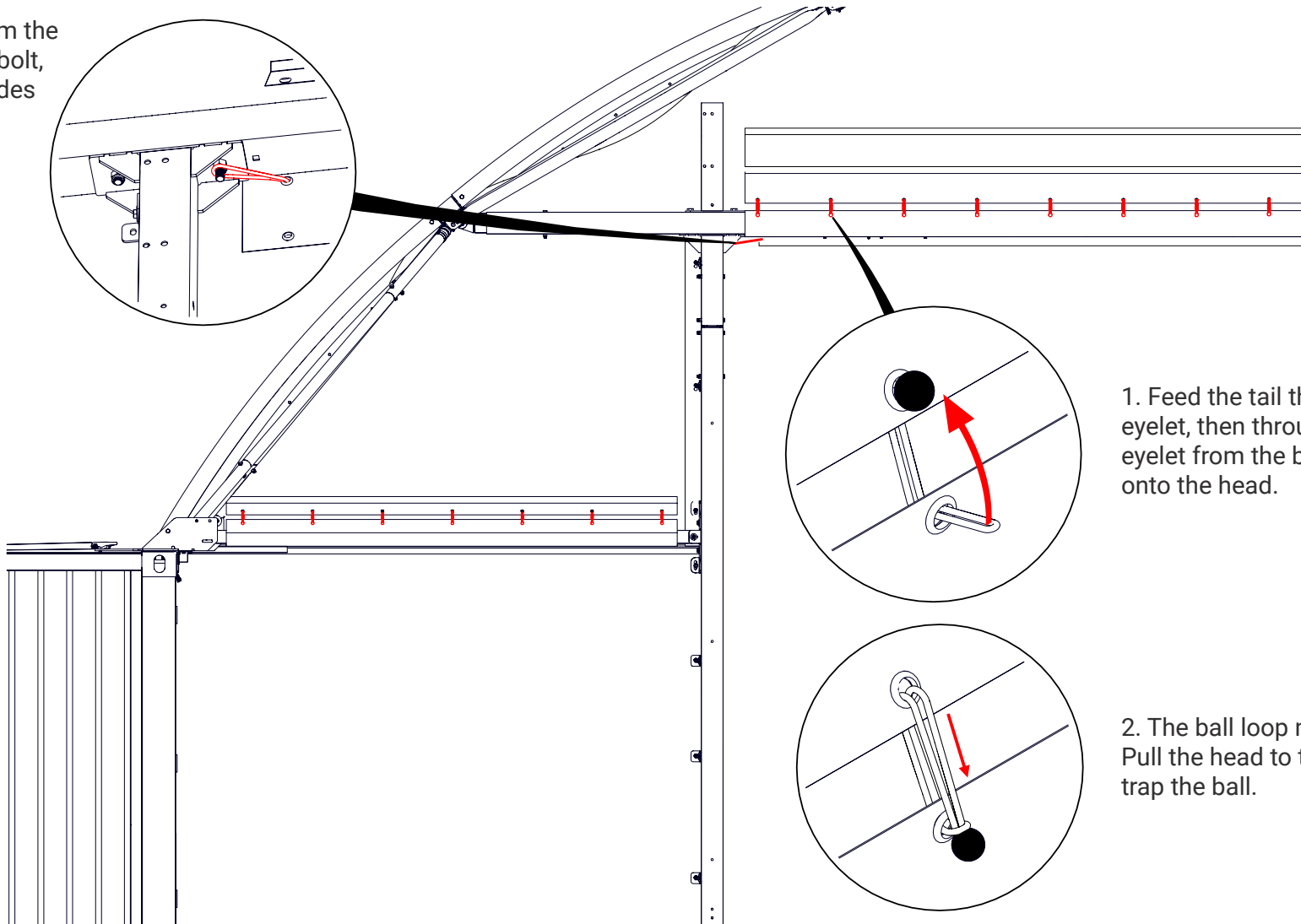
Fit the ball loops to tension the sheets around the hoop. Starting from the centre, follow the diagram below for the ball loop installation.



ACCESS WALL

Fit two bungees to the bolt shown below then fit the ball loops around the top horizontal. Next, fit the ball loops around the two lower horizontals. Follow the illustration below for the loop installation.

Feed the ball loop from the outside and onto the bolt, repeat this on both sides

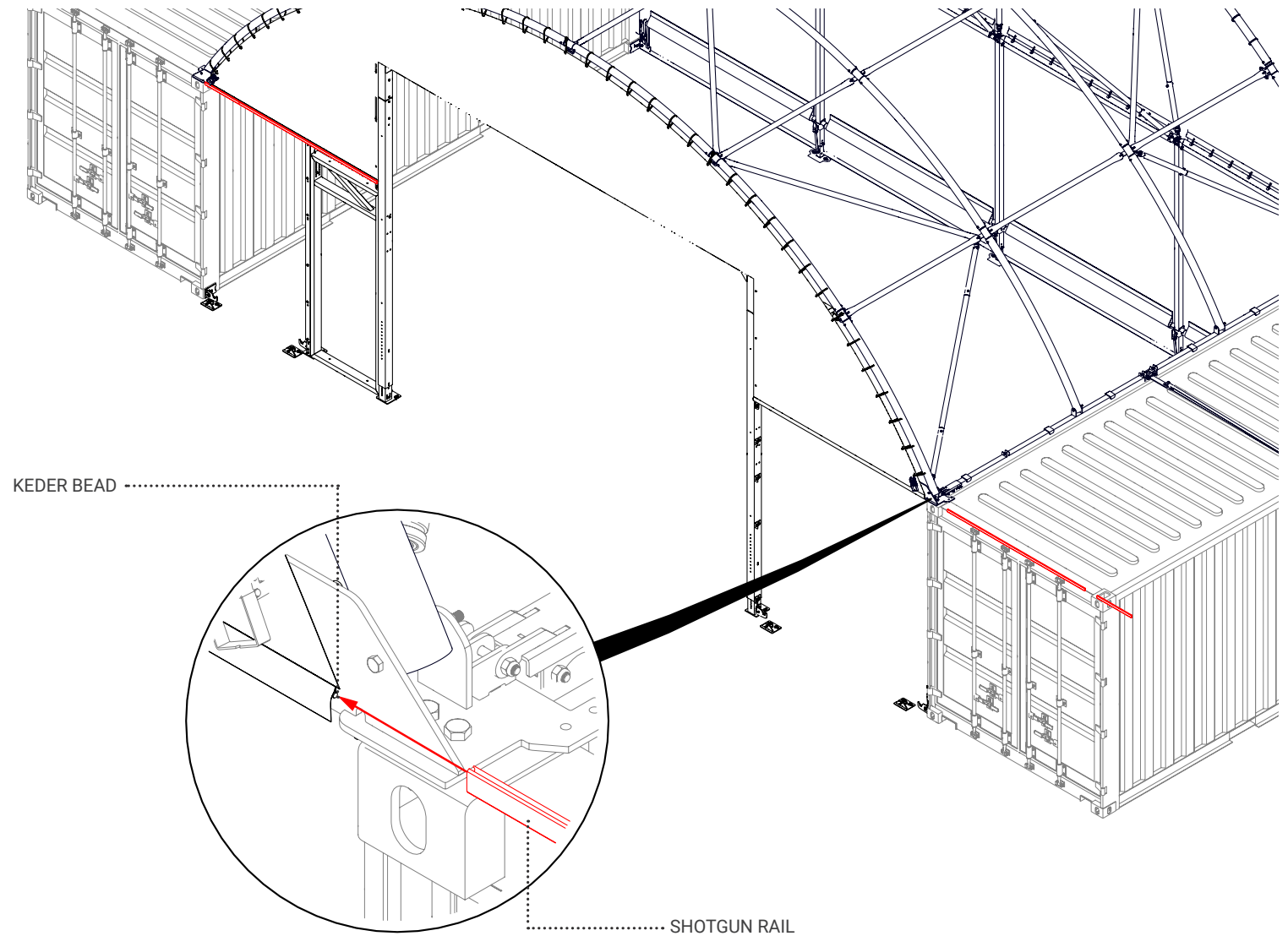


1. Feed the tail through the top eyelet, then through the lower eyelet from the back. Pull the tail onto the head.

2. The ball loop must be choked. Pull the head to the lower eyelet to trap the ball.

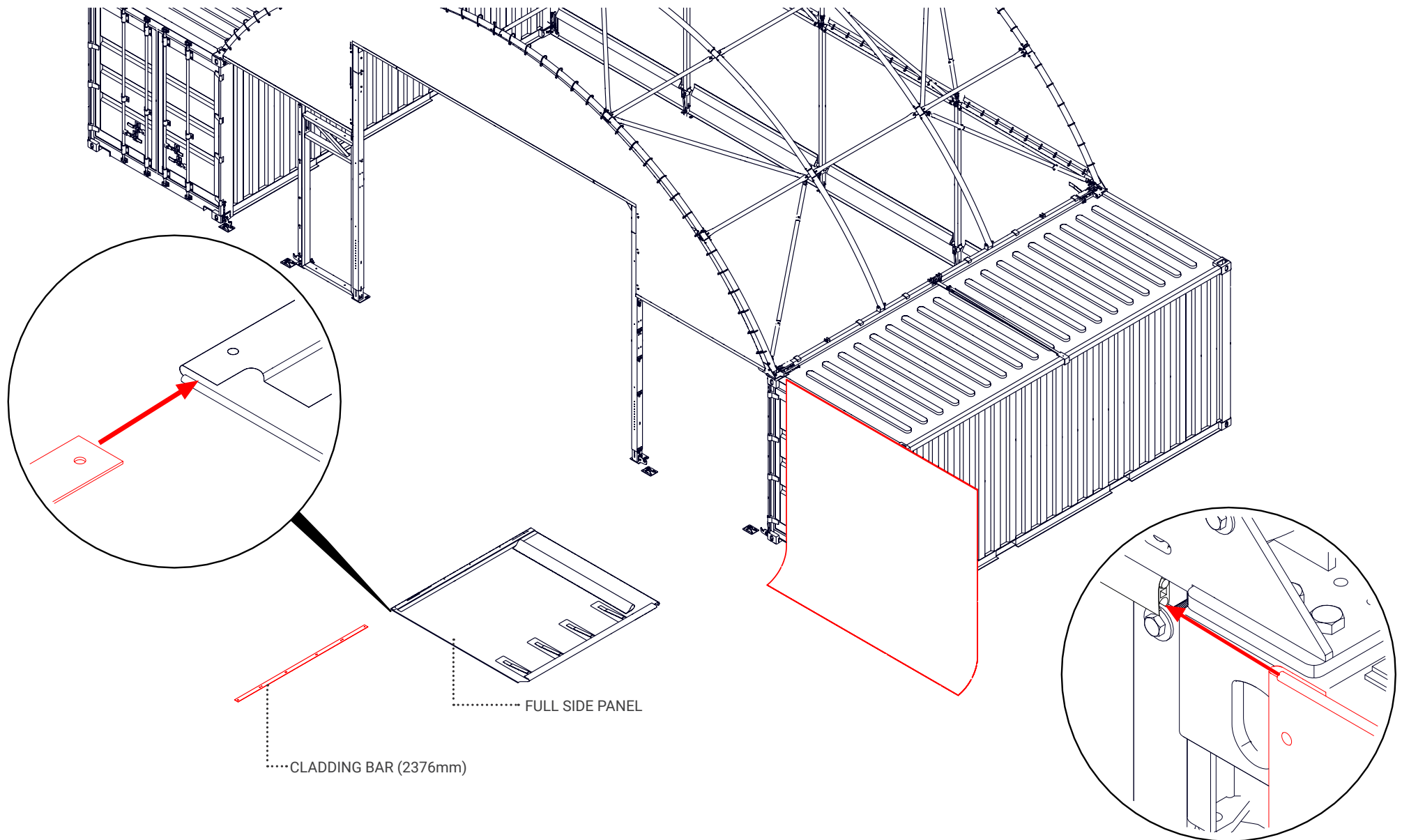
ACCESS WALL

Insert the aluminium shotgun rail into the keder bead on the sheet on both sides of the building. There will be a long and short section of aluminium shotgun rail on each side.



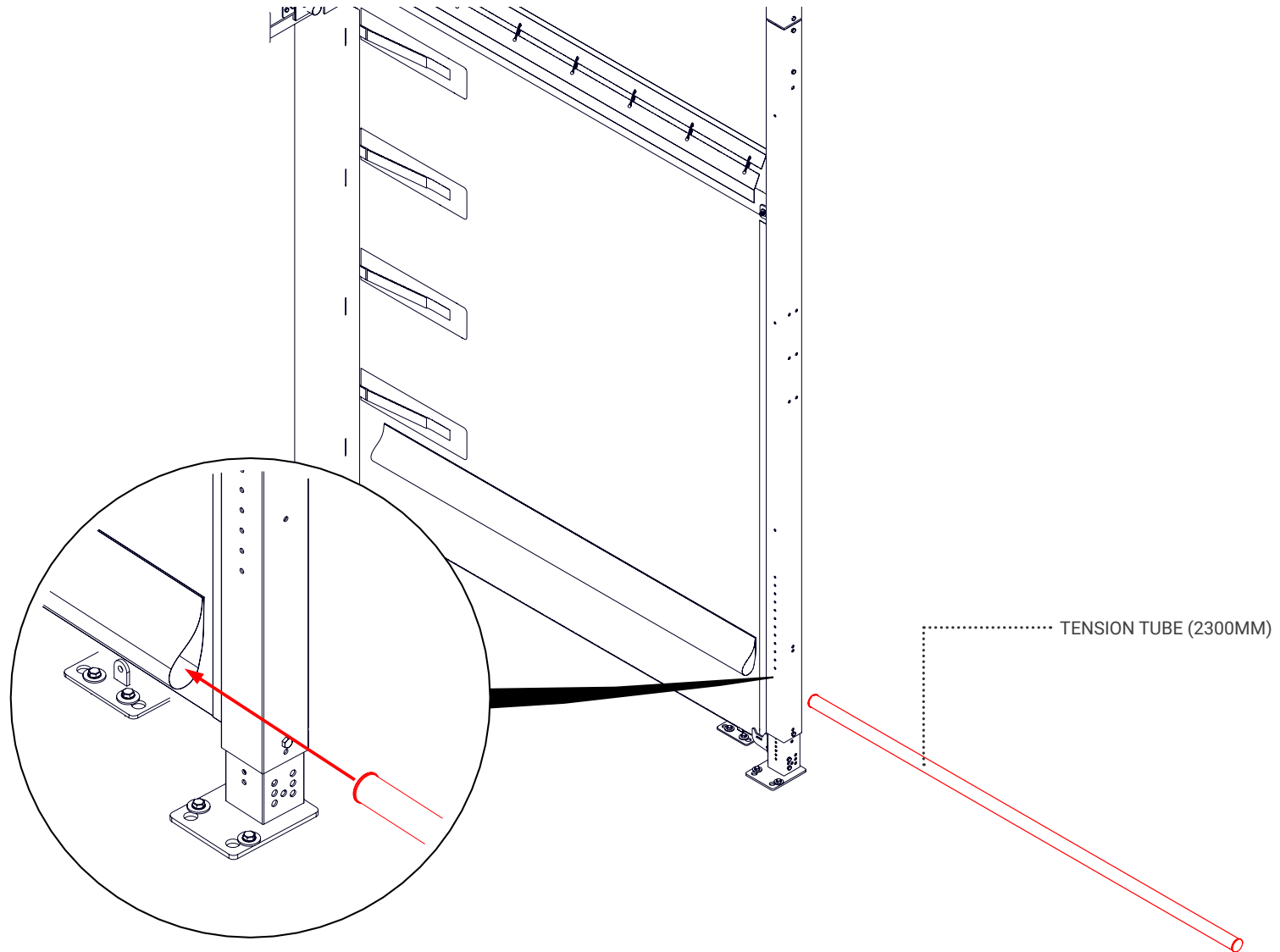
ACCESS WALL

Insert the lower cladding bar into the full side panel sheet. Slide the sheet onto the shotgun rail.



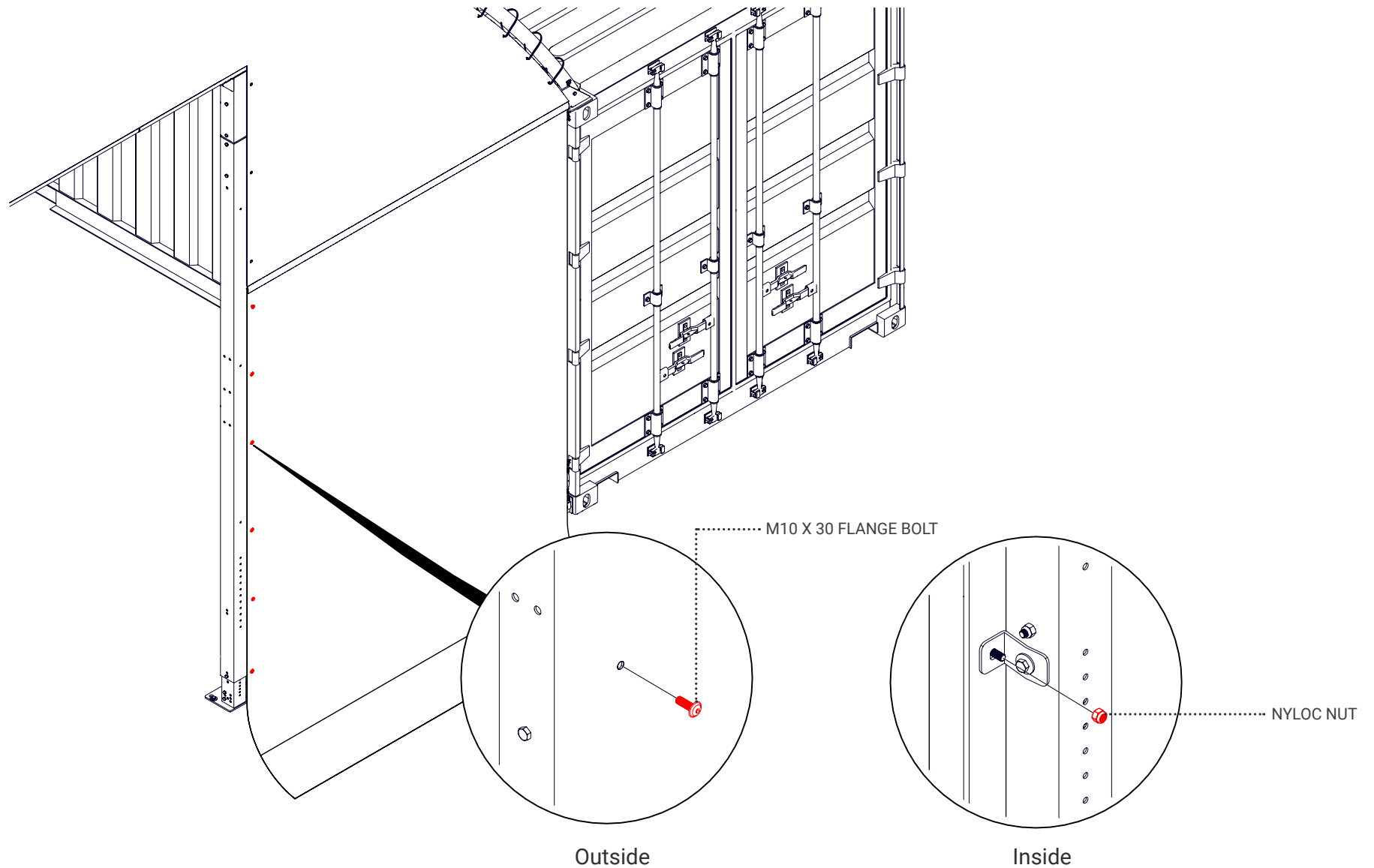
ACCESS WALL

Insert the tension tube into the sheet pocket.



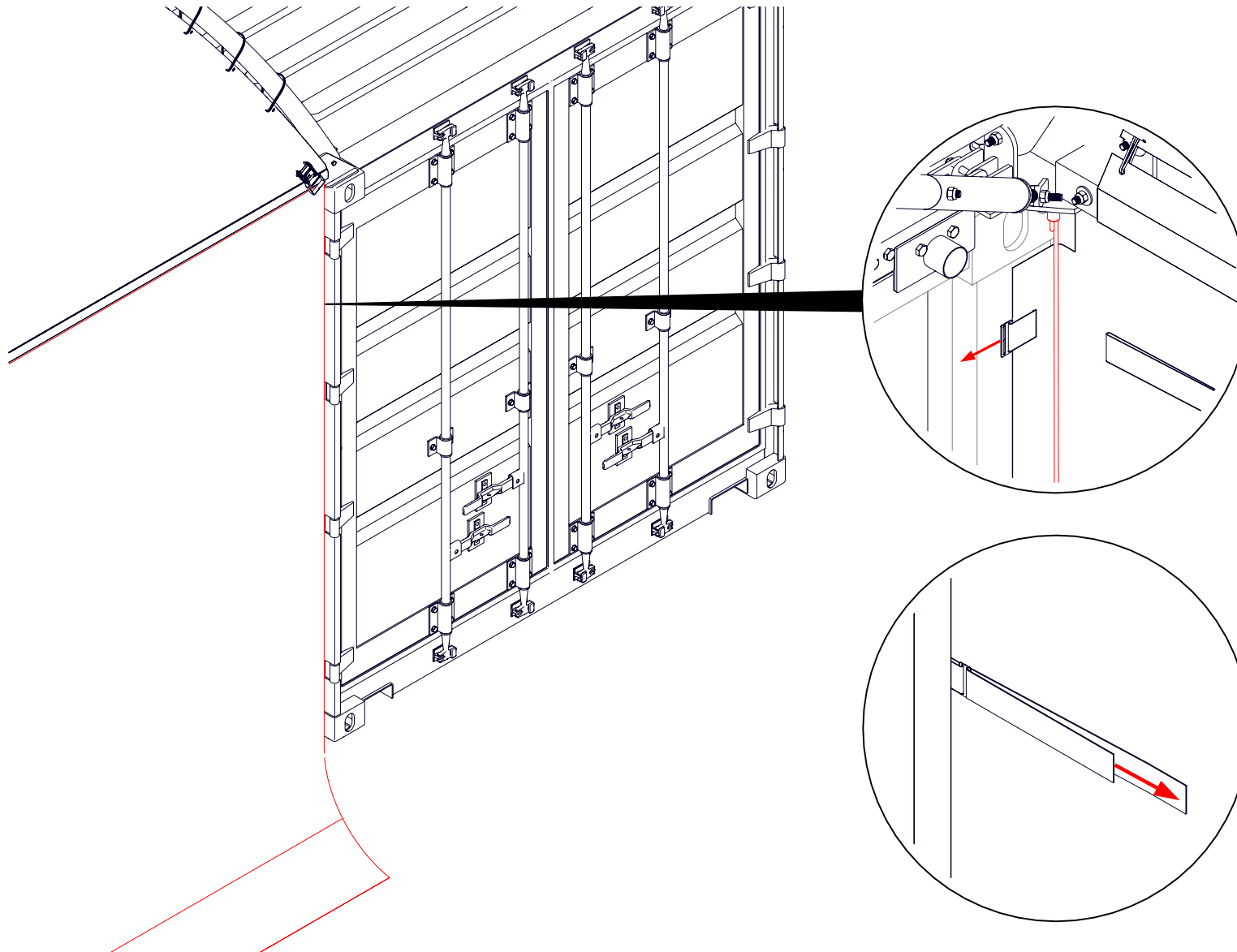
ACCESS WALL

Secure the cladding bar. To help installation, fit all five flange bolts loosely first. Once all flange bolts are in position tighten fully.



ACCESS WALL

Wrap the sheet behind the wire and use the Velcro straps passed through the buckles to tension the sheet.

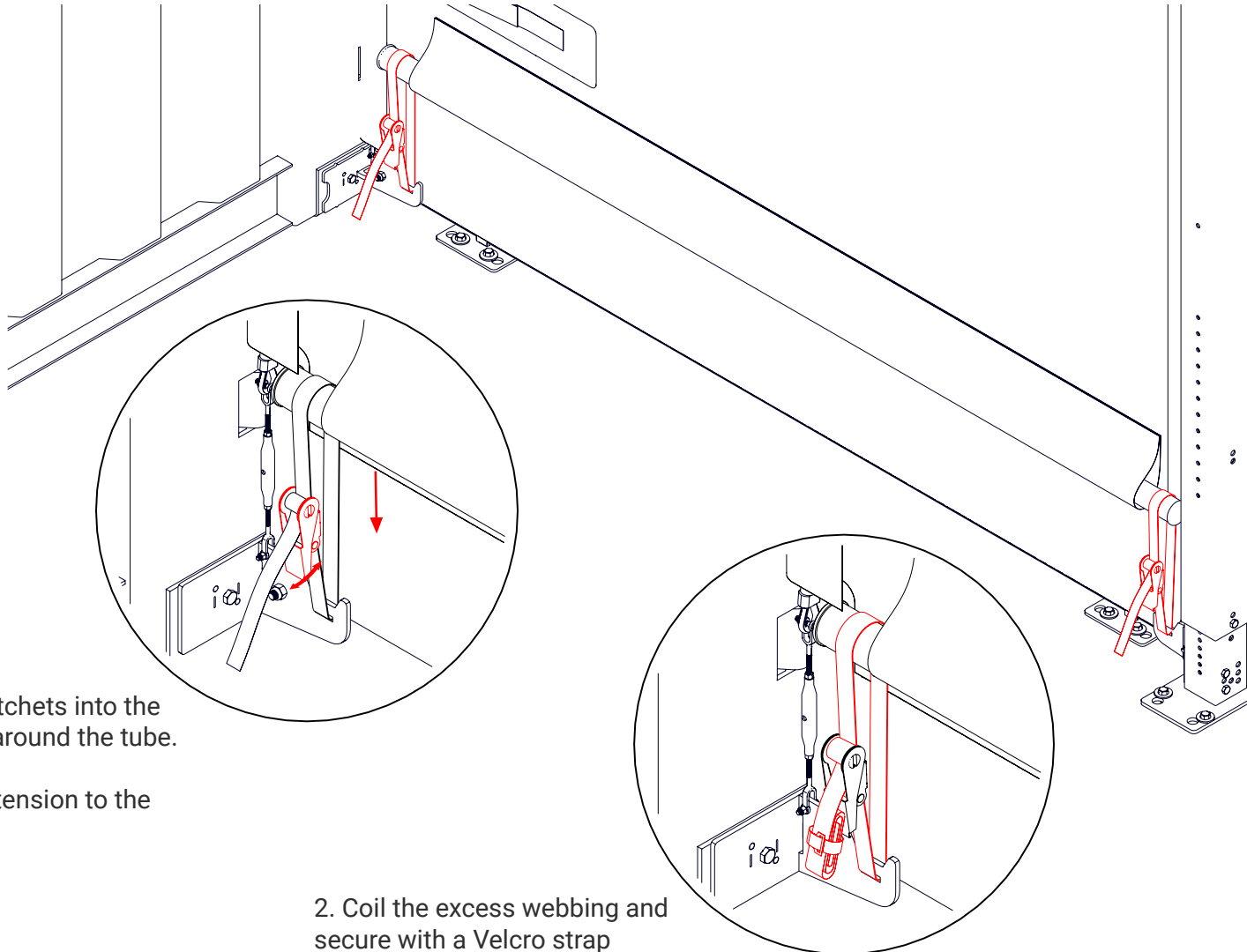


ACCESS WALL

Fit the side ratchets and apply light tension to the sheet - after removing the slack in the webbing **give the ratchet 2 clicks, check the sheet and give a further 2 clicks, careful no to over-tension.** Over tensioning the lower sheet will pull down the gable-D. A good visual guide, is to watch the aluminium shotgun rail that joins the lower sheet to the gable-D sheet - this aluminium rail should sit level, just below the horizontal.



DO NOT OVER TIGHTEN THE LOWER SHEET AS THIS WILL PULL DOWN THE GABLE-D TOO FAR.



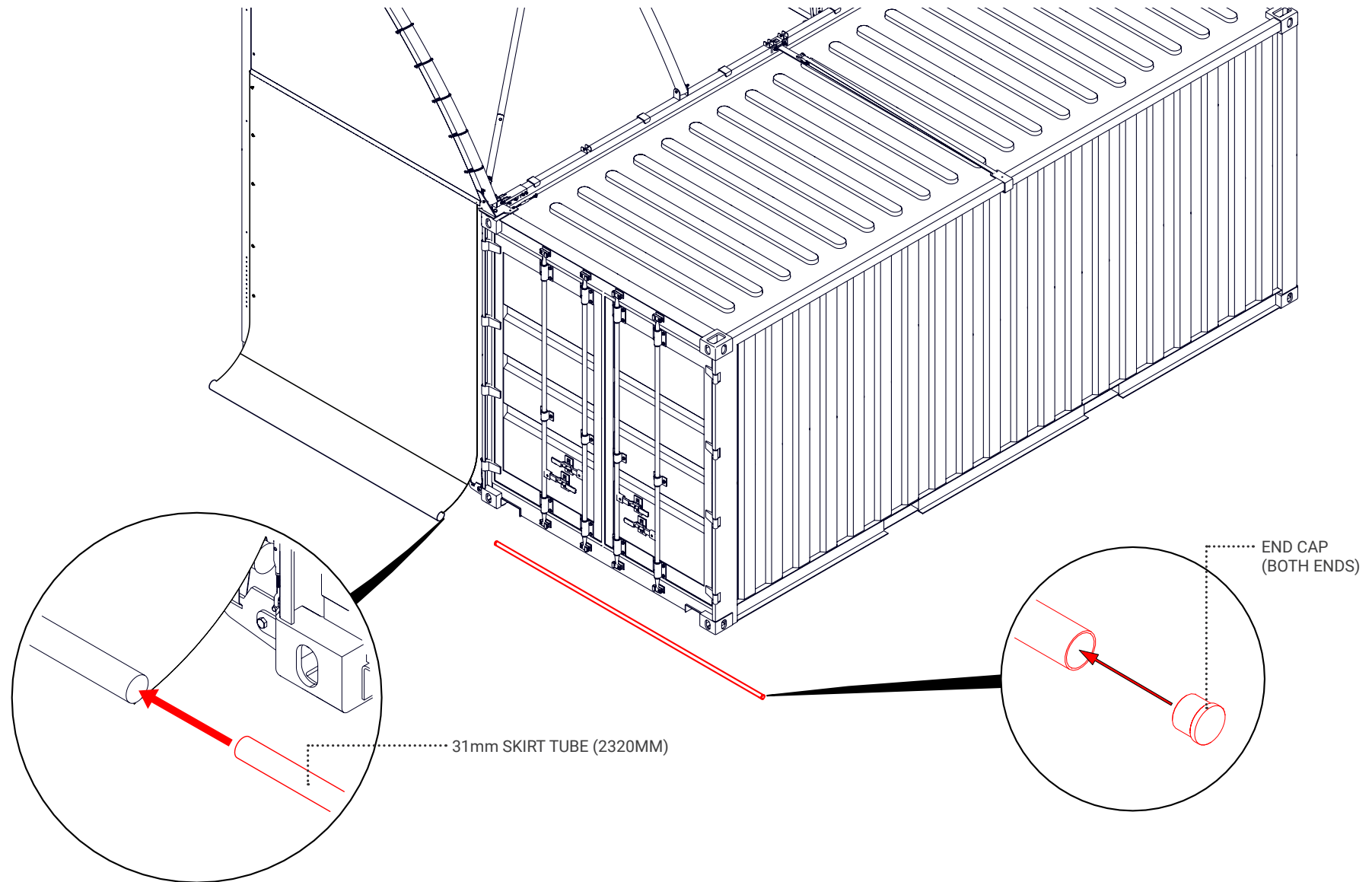
1. Feed the side ratchets into the tension plate and around the tube.

Gently apply even tension to the sheet

2. Coil the excess webbing and secure with a Velcro strap

ACCESS WALL

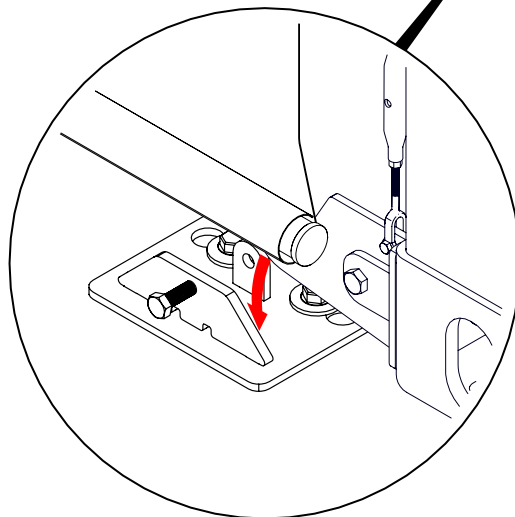
Insert the 31mm skirt tensioning tube into the lower pocket in the rear wall. Fit the end caps as shown.



ACCESS WALL

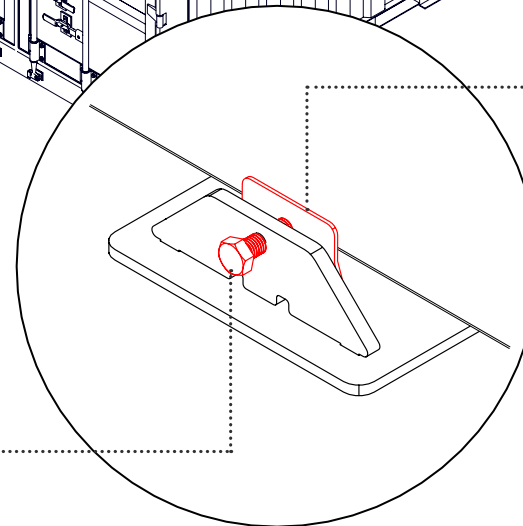
Roll the sheet skirt under tension and apply downward pressure to hold it into the ground plate. While holding the skirt in tension, secure it in place by pushing a sheet catch between the rolled sheet and the lug on the anchor, then tighten the set bolt until it bights into the catch.

1. Roll the sheet with tension and place into the ground plate.



SHEET CATCH

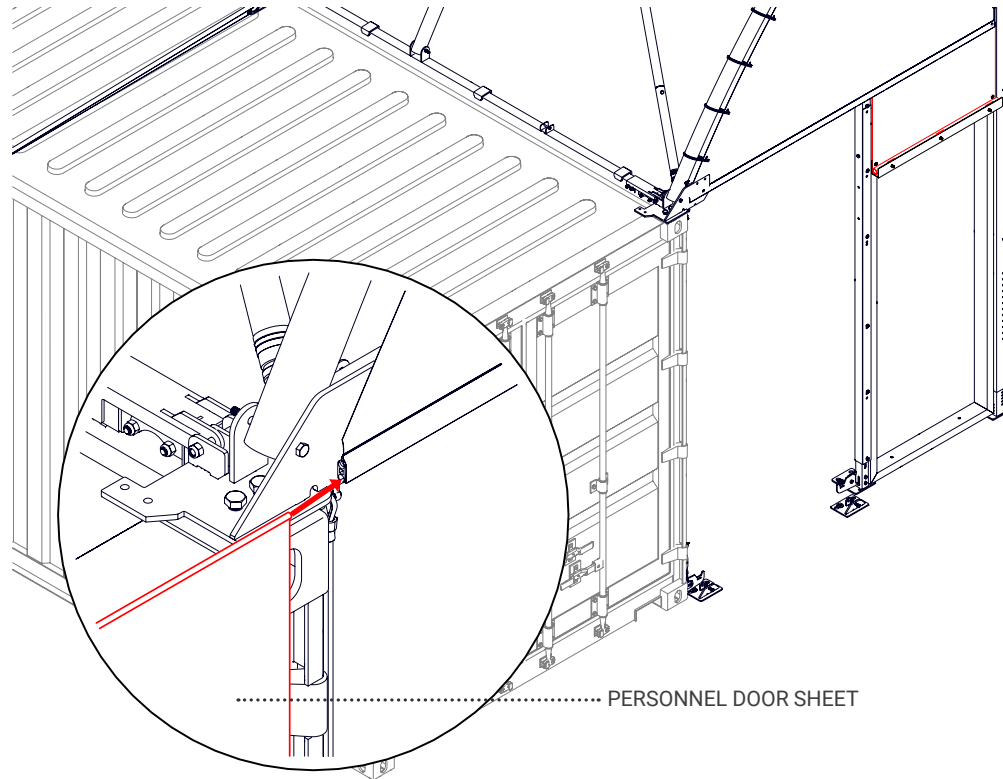
2. Secure the tube in place with the rear wall trap.



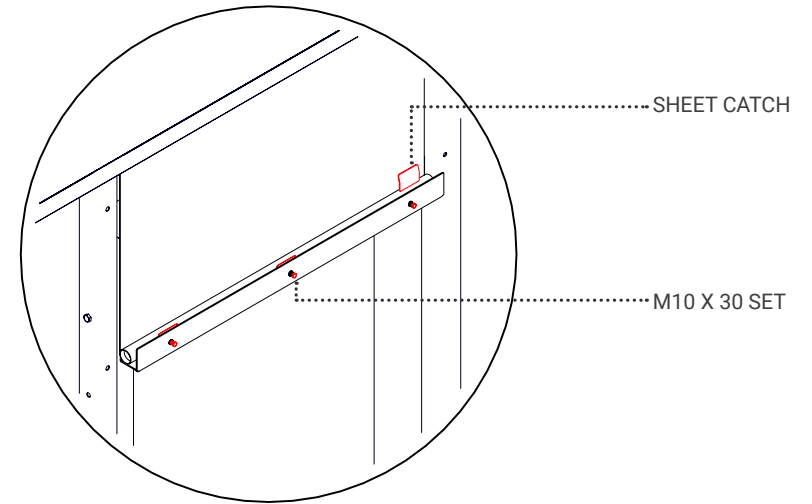
M10 X 30 SET

ACCESS WALL

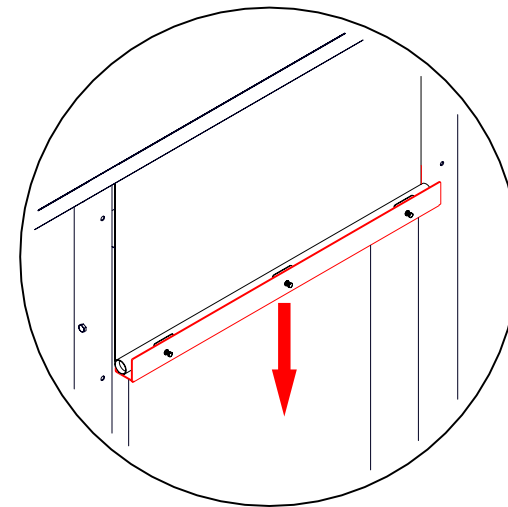
Fit the door sheet above the personnel door.



1. Slide the sheet onto the rail, once above the door, roll the excess material and drop it into the cowling bracket



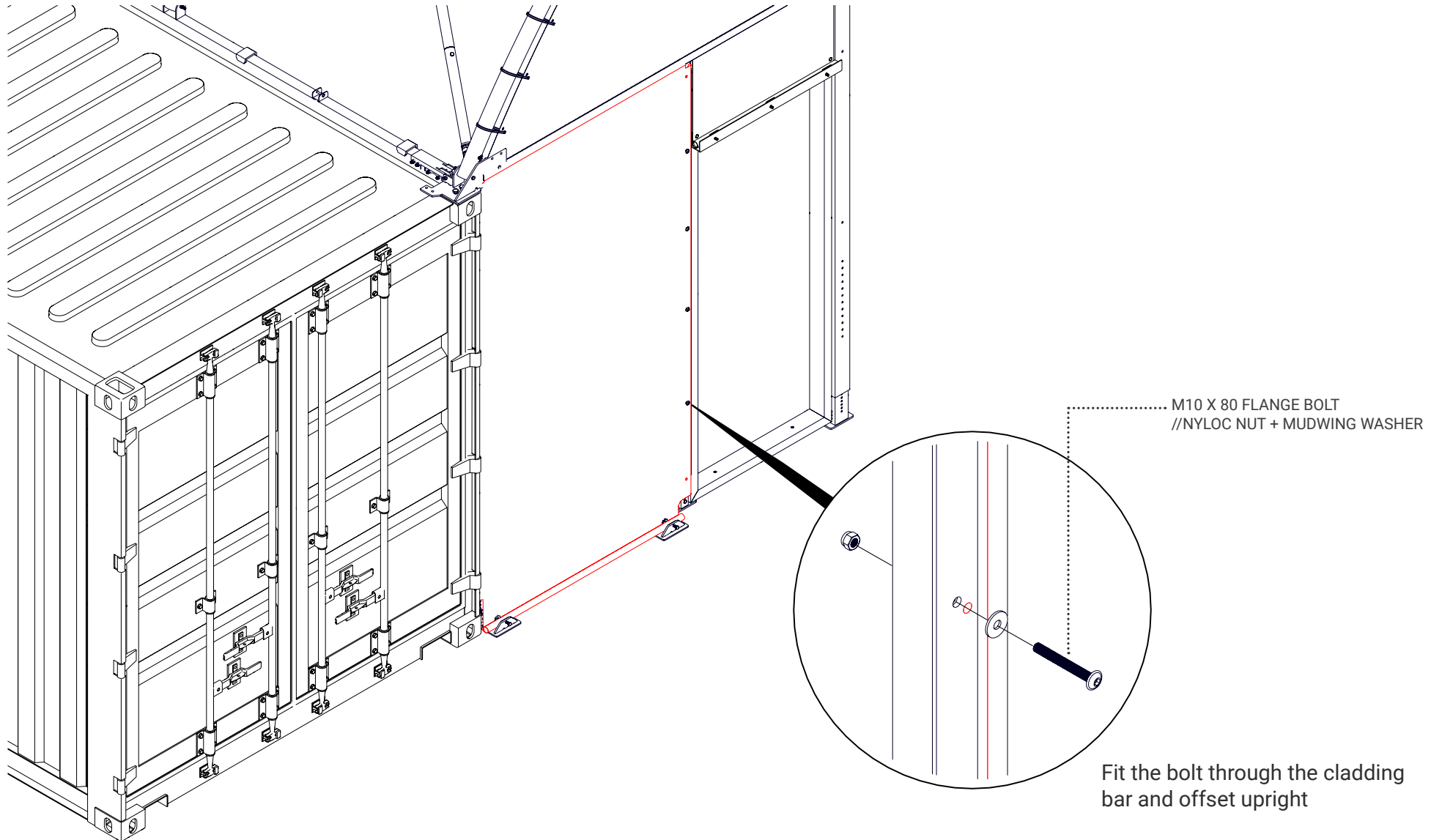
2. Trap the sheet in place with the sheet catch



3. Apply the final tension to the sheet - Loosen the cowling's nylocs, press down on the cowling, moving the bolt within the slotted hole. Re-tighten the nuts to hold the position.

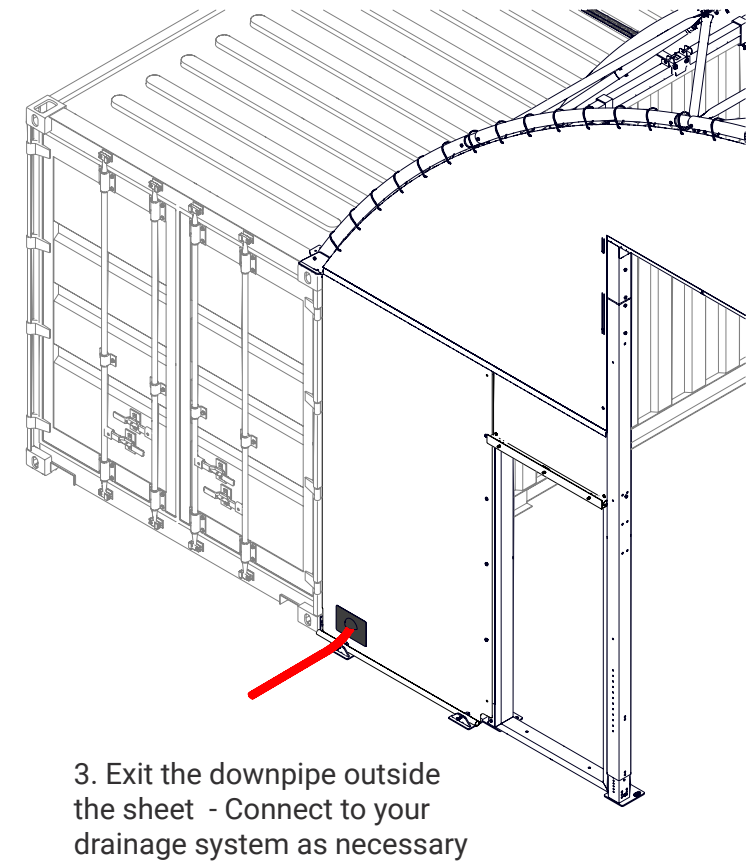
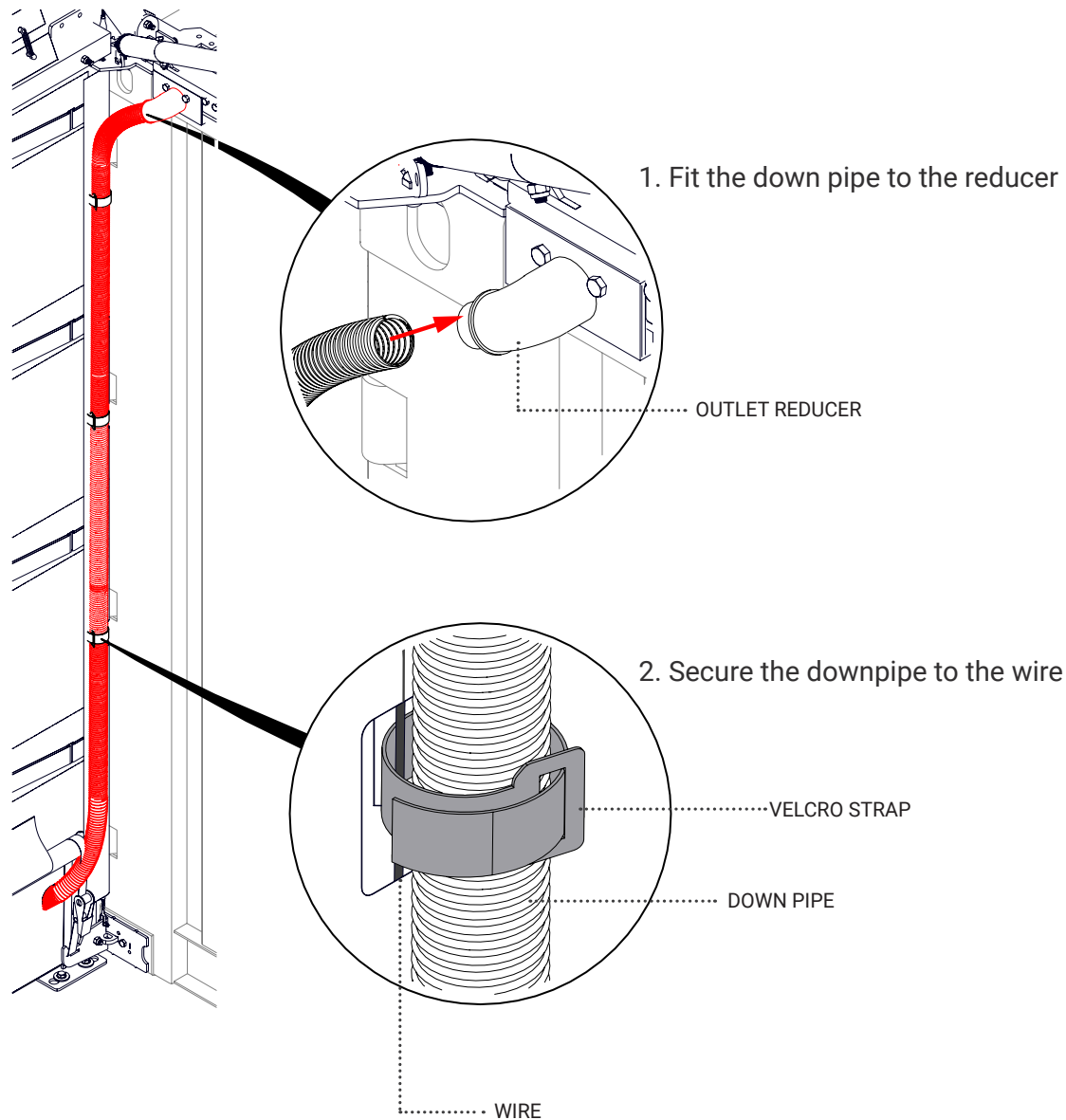
ACCESS WALL

Repeat the sheet installation process to the personnel side panel.

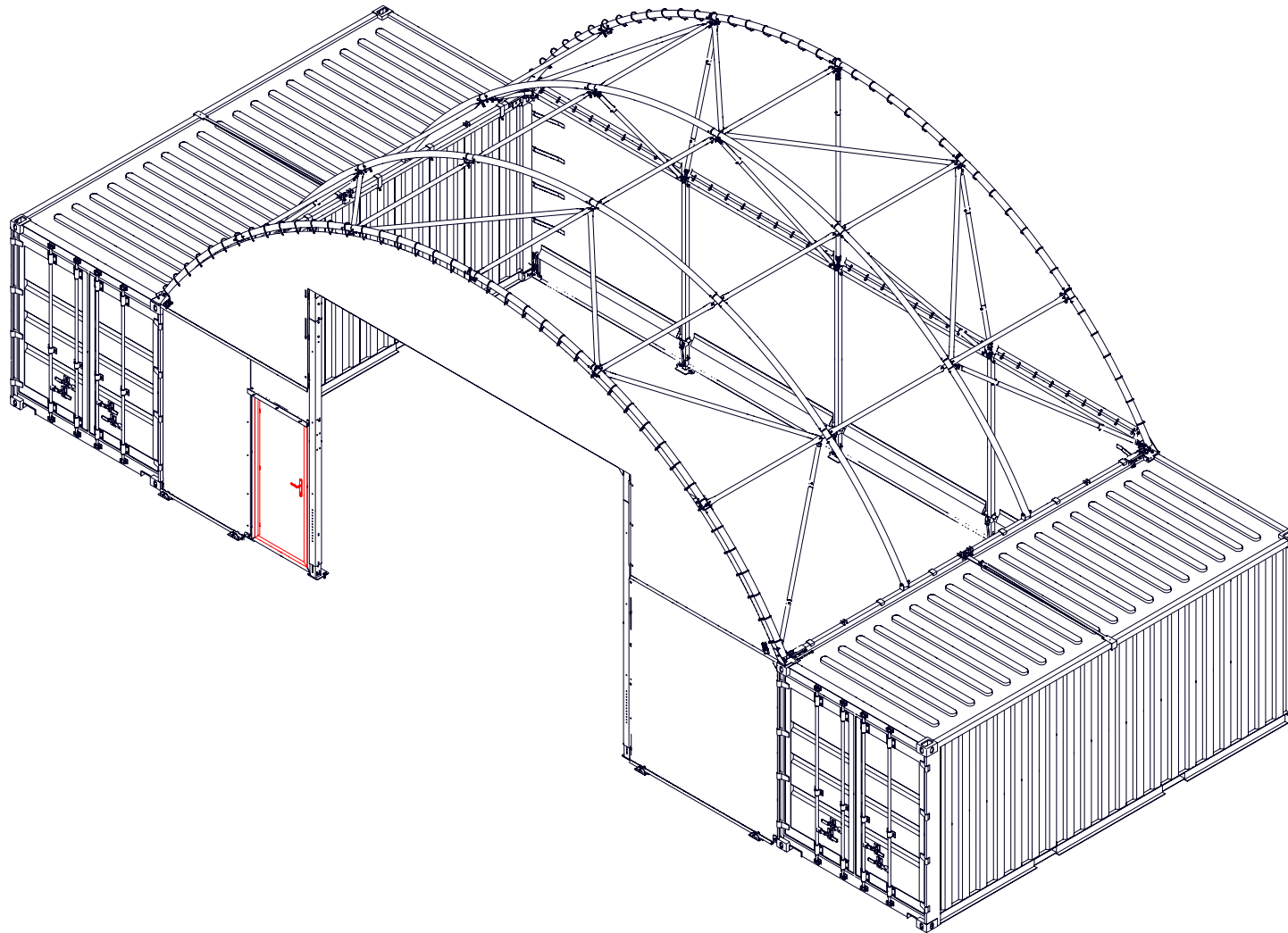


ACCESS WALL

If a drainage pipe is needed for the access wall, install it to the appropriate corner. If not required, proceed to the next step. If a drainage pipe is not required, block the outlet reducer using the rubber bung.

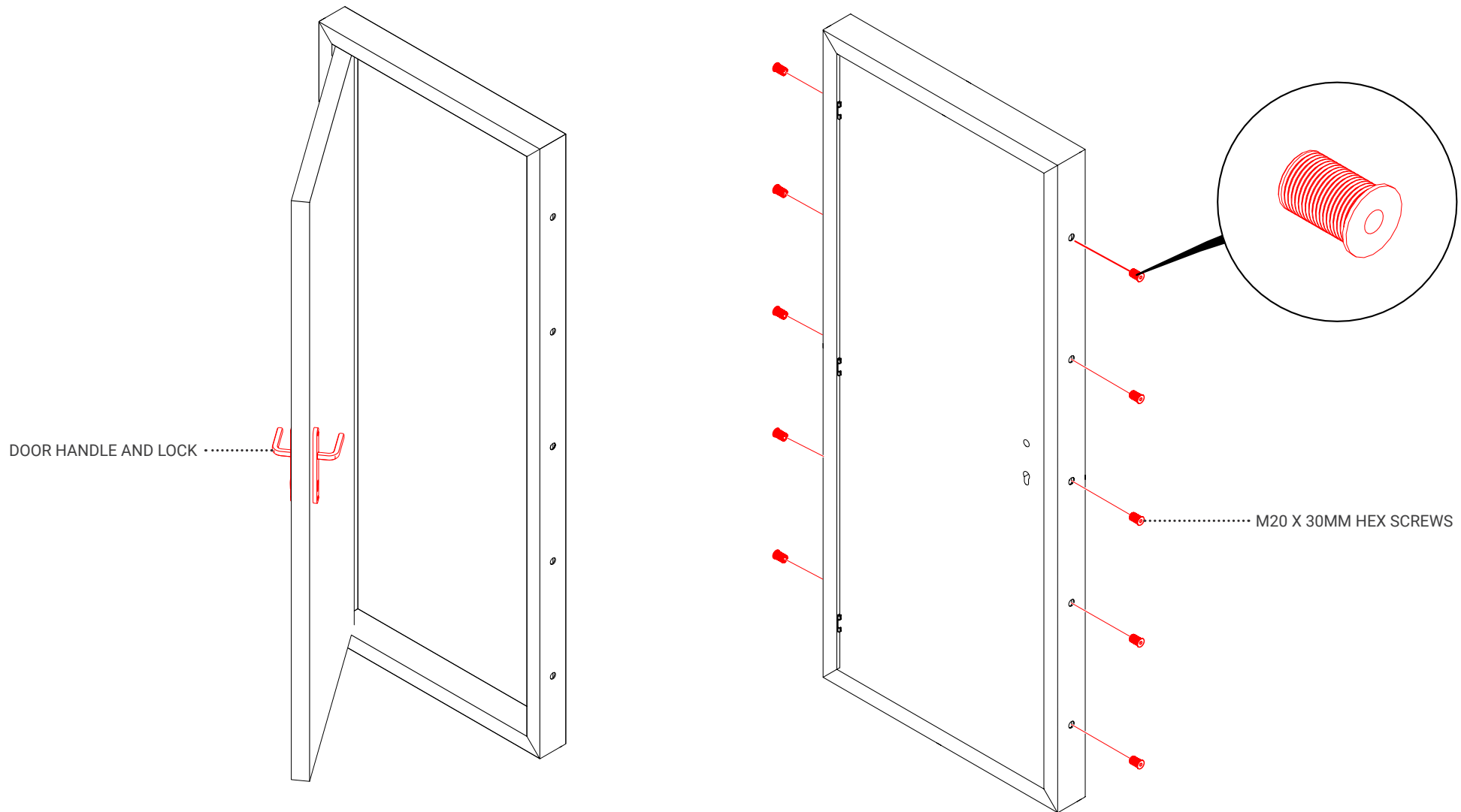


PERSONNEL DOOR - INTRODUCTION



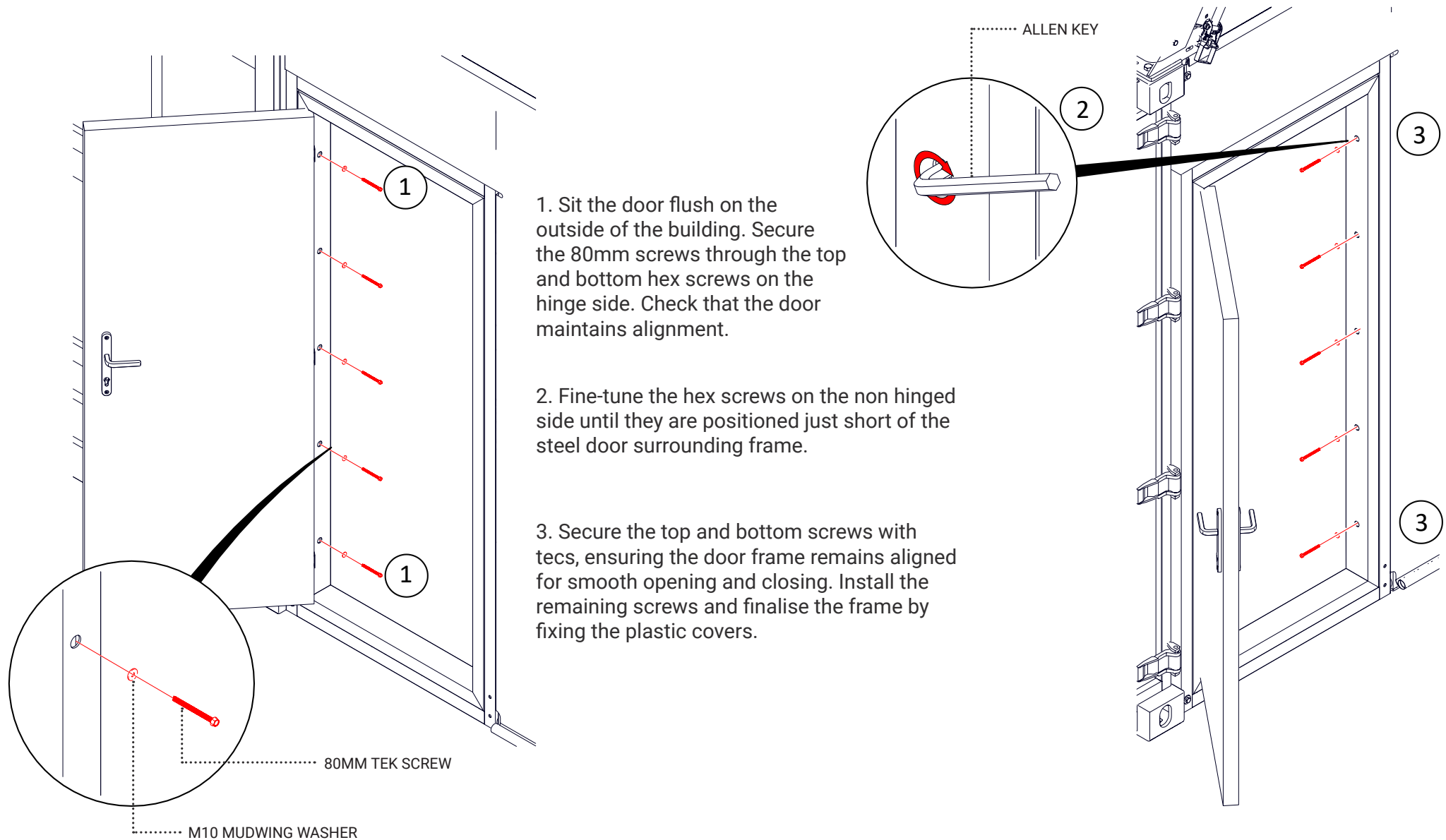
PERSONNEL DOOR

Install the door handle and lock following the instructions included with the door kit. Fit all the hollowed M20 x 30mm hex screws into the door as shown below. Position the door within the steel frame and ensure that the front faces are aligned, creating a flush appearance.



PERSONNEL DOOR

Secure the door frame, ensure the front faces of both frames have a flush finish.



PERSONNEL DOOR

The access wall has been completed.

