

2022

# DEPLOYMENT & FITOUT GUIDE

VIOLET SERIES - EXPANDABLE

## **NOTICE**

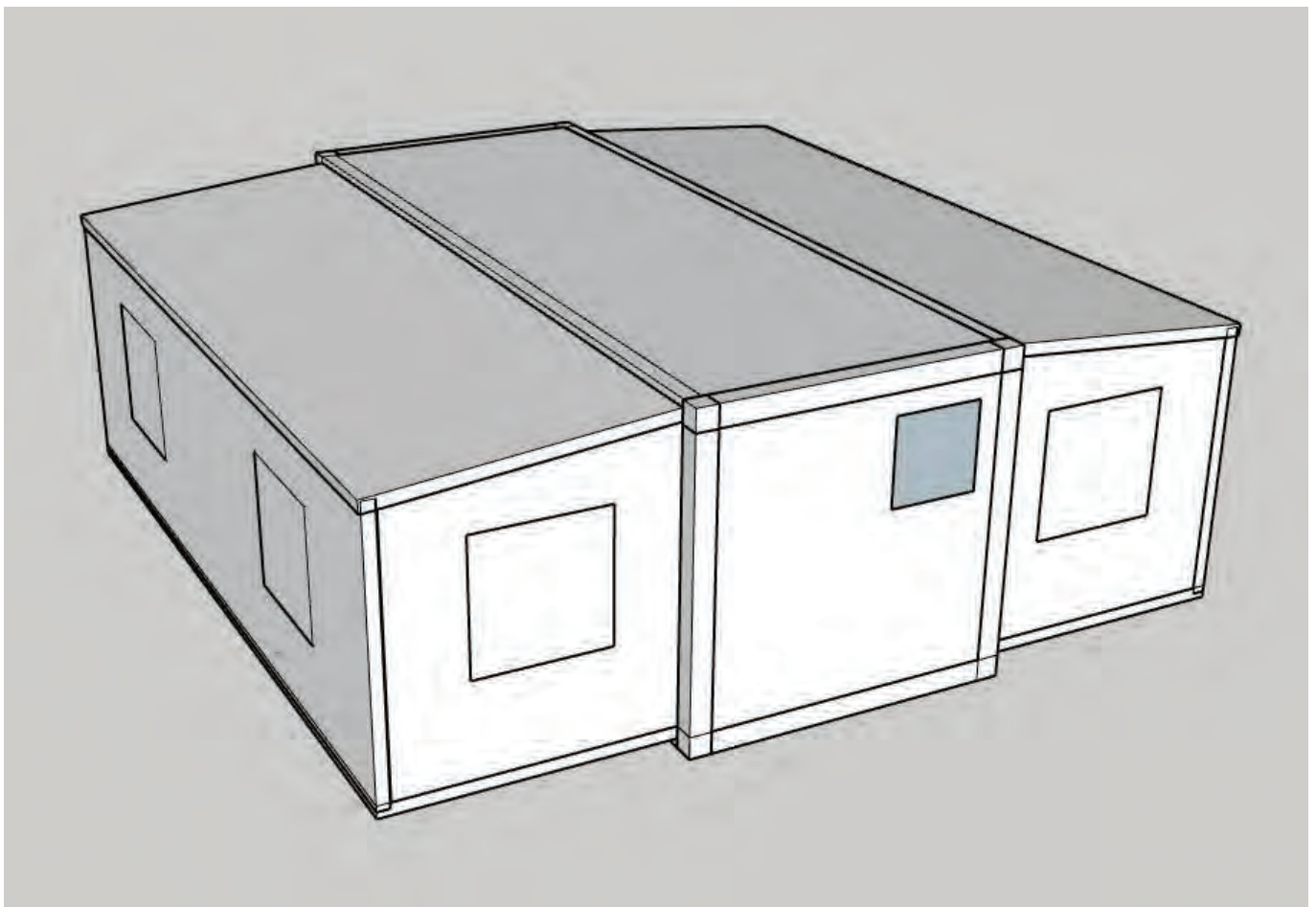
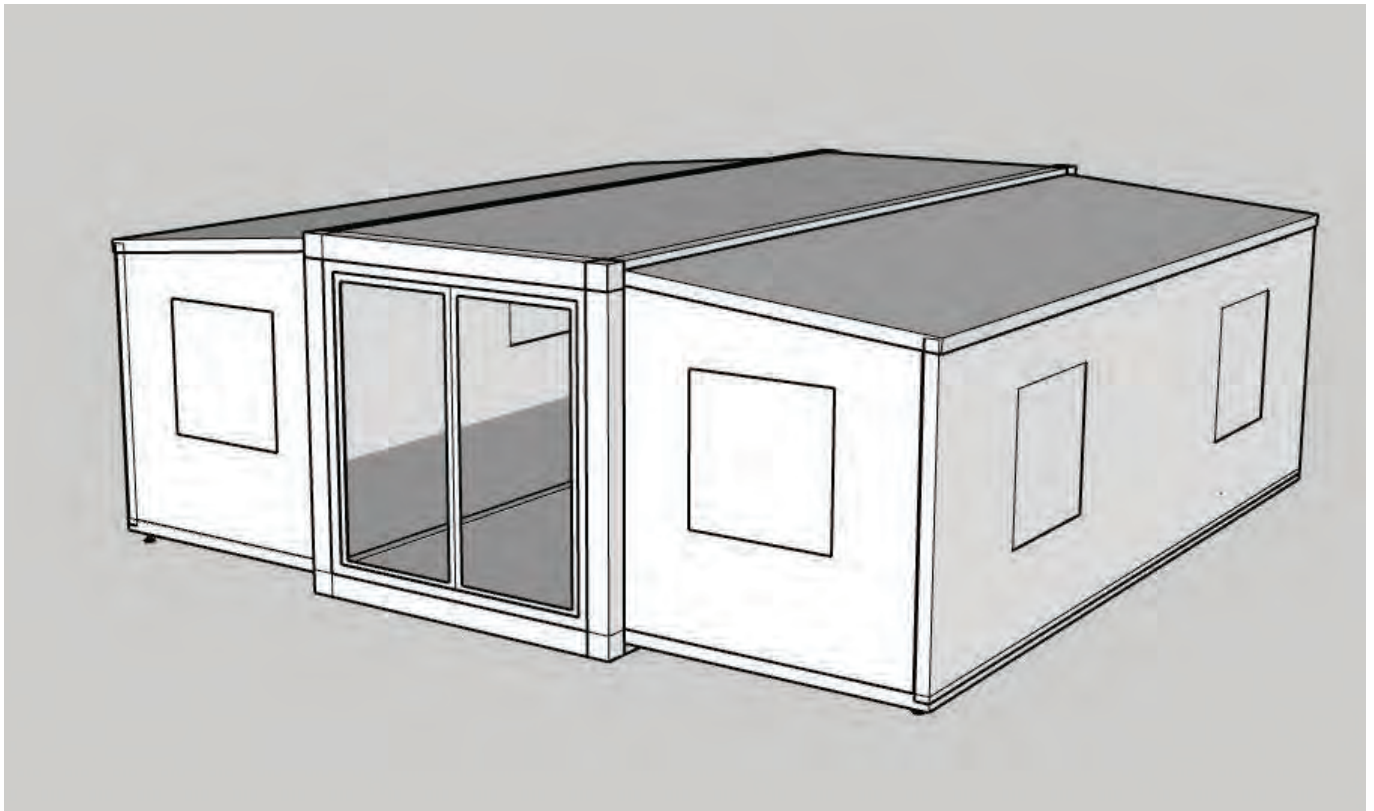
This installation guide should only be used to assist in the installation and deployment of your container home. This guide is not designed to replace the service or advice of trade professionals such as builders, electricians and plumbers. For installation and deployment of your container home, we strongly recommend employing appropriate trade professionals.

## **WARNING**

Installation of container homes is dangerous and can result in serious injury or death without the proper experience and personal protective equipment. Commence your installation at your own risk. HTC is not responsible for any damages or injuries that may occur during installation.

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## Installation Overview

### Installation Overview

1. Site preparation, footings construction; make level is very important for smooth install
2. Delivery and placement of VIOLET unit; remove interior & install components from inside
3. Expand each side of the container unit, raising the ceiling then lowering the floor/wall of east and west sections onto the footings (requires 4~5 people). Open up shorter north and south walls to enclose the unit on each side
4. Apply weather-sealing rubber tapes to ceiling, wall and floor connection points
5. Fasten roof and walls together with provided materials and fit partition walls for bedrooms
6. Finish interior edges; fit trim to skirting and cornices; fit floor trim and ceiling trim
7. Fitout kitchen interior using pre-built cabinets & wall cabinets, mount counter top, fit sink and silicon edges. Fit interior lighting, screw-in LED oyster lights
8. Connection to electrical, terminate main power input, air conditioning/hot water outlets; connection to plumbing; hot/cold water supply, grey water and waste/septic system

### Recommended Tools

- Tape measure, spirit level, plane laser or dumpy level
- Battery drill, driver bits, 50mm hole saw
- Angle grinder with cutting discs or circular/drop saw
- Pop rivet gun
- Stanley knife, screwdrivers, soft mallet
- Caulking guns with silicon and construction adhesive
- Bottle jack or trolley jack for levelling
- Tin snips for cutting flashing

### Protective Equipment

- Gloves to protect against sharp edges
- Hard hat to be worn during construction
- Protective goggles and ear muffs

### Cleaning Products

- Methylated spirits and turpentine
- Cloths and/or cleaning rags



## 1) Site Preparation and Delivery

The list below details the broad points required to undertake to ensure successful deployment and fitout of your VIOLET container home.

Read all points under each step before performing the instruction.

### Site & Delivery Preparation

- Ensure that site grounds are firm, level and have appropriate water drainage
- Ensure that there is good access to trucks or cranes for delivery of your VIOLET home
- Check for hazards such as overhead electrical lines, trees, awnings, other buildings, etc.
- Check that roads are suitable for heavy vehicles even in wet conditions; fully laden crane trucks weight approximately 25 tonnes and surfaces must be suitable
- Check that there is sufficient space for crane trucks or franna cranes with stabiliser feet extended - required footprint is 8m (width) x 13m (length).
- It is essential that crane trucks or franna cranes can get as close to the deployment location as possible. The VIOLET home is heavy and is difficult to lift over obstacles.

### Footings Construction

- **Build footings for your VIOLET home according to the footings plans in this guide.**
- Consider that the standard 20ft VIOLET container home weighs 4500kg (40ft weighs approximately 6800kg) and requires a prepared site with suitable footings
- Auger holes, build formwork and pour concrete piers with house stumps (image, right)
- Alternatively, you can create footings using a stack of besser blocks, capping tile and concrete; this process is described below
- Note: Besser blocks must be stacked
  - a. Using the footings guide, dig out a space to firm ground for the footings
  - b. Check for level of the footing spaces by using string lines, spirit levels or laser guides
  - c. Stack besser blocks vertically 2-by-2, using more blocks to reach desired height
  - d. Cap besser block with matching paver of same dimensions, optionally fill with concrete
  - e. As per the footings guide, make outer footings 100mm taller than centre footings if not using included screw-in feet
  - f. For a 2 x 2 x 2 stack, this makes approximately 390 x 380 x 380mm footings (L x W x H)
  - g. Check the footings for accuracy using a spirit level periodically to avoid any mistakes before they become permanent.
  - h. Using a crane truck or franna crane, carefully lower the unit onto the centre footings



**Truck and trailer shipping for VIOLET unit**



**Crane truck shipping for VIOLET unit**



**Besser block footings with string lines**



**Dug-in besser blocks and concrete footing**

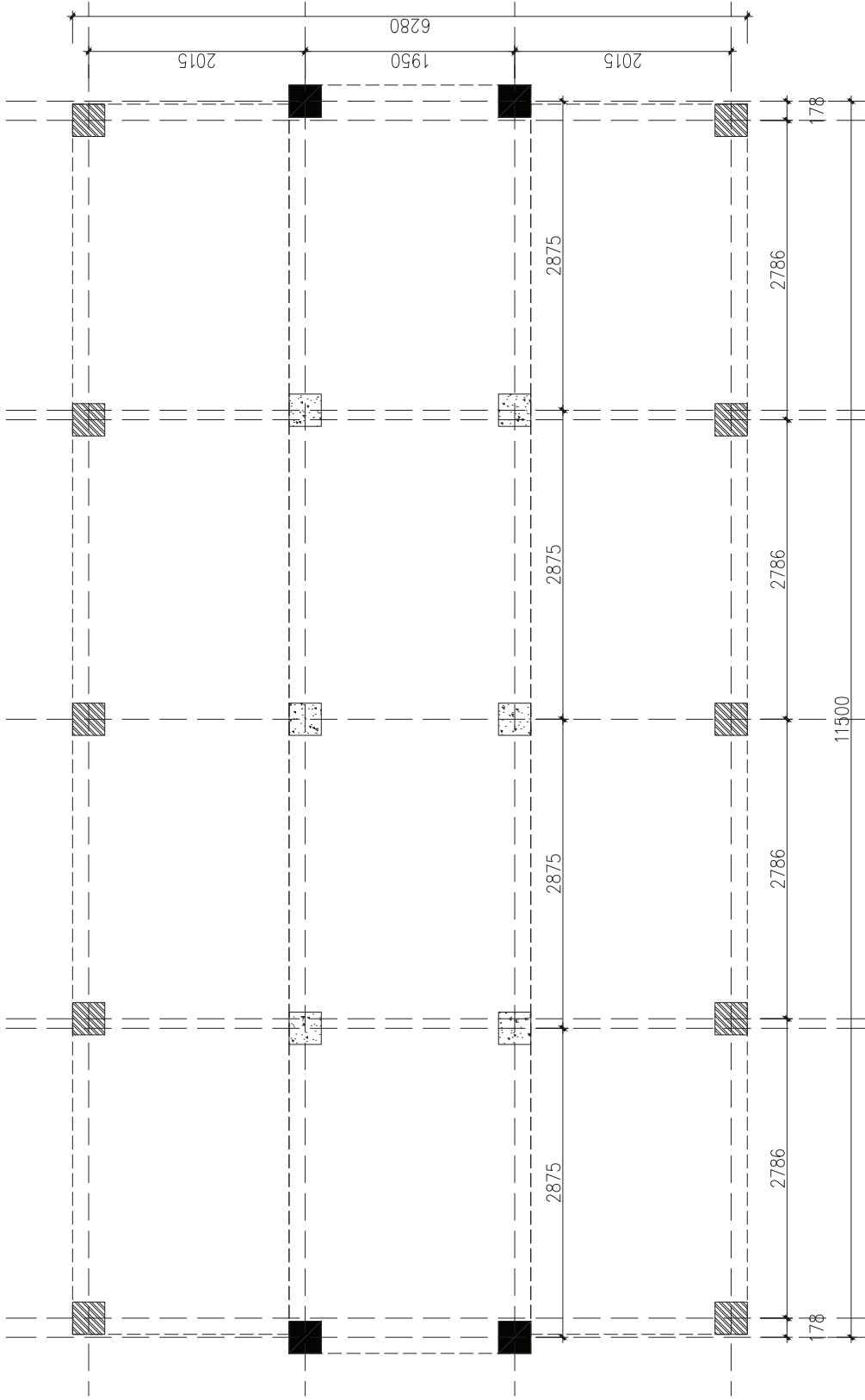


**Concrete pad and house stump footings**



**Crane truck preparing to lift-off unit**

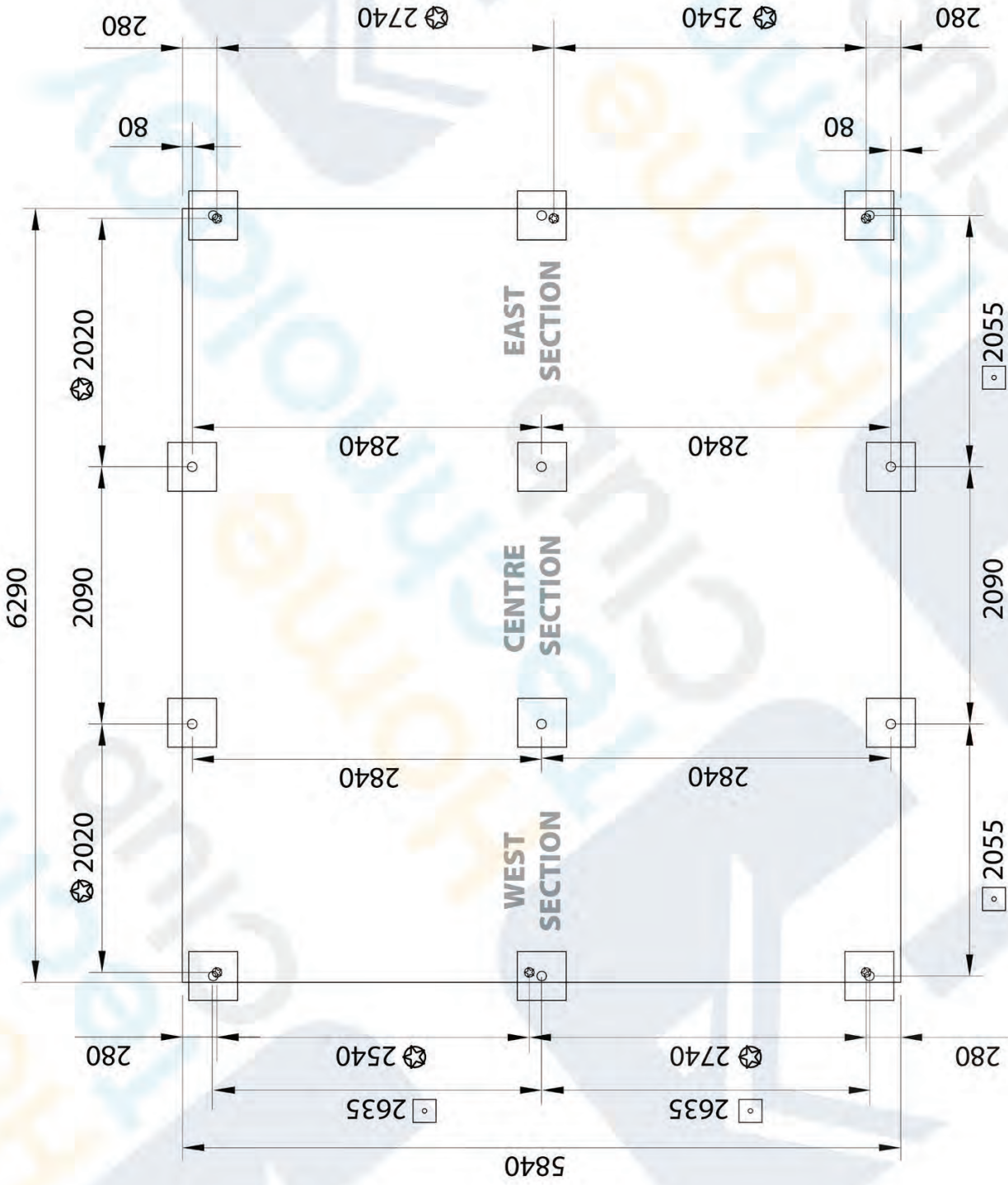
## VIOLET40 - FOOTINGS DIAGRAM



- 300\*300MM
- ▨ This type of footing is 18mm higher than
- ▩ 300\*300MM
- ▨ This type of footing is 100mm higher than



REAR HOUSE



**GUIDE FOR USE - FOOTINGS ONLY**



Denotes footing centres

Footings are based on 2 x 1 besser blocks, approx 390x390mm (L x W)

Make CENTRE SECTION footings level

Make EAST and WEST SECTION footings 100mm higher than CENTRE SECTION footings

Where necessary, shim the footings with thin, durable material to precisely level the container unit

**GUIDE FOR USE - SCREW-IN FEET**



Denotes screw-in feet locations



Denotes footing centres

Make CENTRE SECTION footings level

Build EAST and WEST SECTION footings to the same height as CENTRE SECTION footings

Add screw in feet to make precise level

\* Supplied screw-in feet may need to be cut to length. DO NOT over-tighten screw-in feet. Example feet below.



TITLE VIOLET20 FOOTINGS

DATE Q3-2022



## 2) Empty Unit and Make Level

### Empty Unit Contents

- Now that you have access to the unit, its contents should be emptied for expansion
- The free-moving half of the front sliding door can be removed for improved unit access
  - a. Carefully remove all installation materials, trim, cabinets, benchtop, rubber seals from the unit
  - b. Take extra precautions to not damaged fragile components; avoid standing on materials



**Fully loaded unit to be unpacked**



**Remove install materials from unit**

### Footing Adjustment and Make Level

- It is critical for the expansion and sealing steps that the container unit is level
- Using an extended spirit level, a plane laser or dumpy level is recommended
- To adjust the height of the unit, we recommend shimming with cement fibreboard pieces
- A bottle jack or trolley jack is useful for propping up of the unit to shim edges/corners; assistance via a crane, forklift or other machinery is also suitable
- Footings are likely to shift if not secured on firm and level ground, this will affect unit level
  - a. Using a plane laser or spirit level, check for unit level using the steel frame as reference
  - b. Using machinery, bottle jack or trolley jack, prop up side to be adjusted
  - c. Insert cement fibreboard shims underneath the frame to adjust level
  - d. Make or confirm level for long and short walls of the unit using this process
- We strongly recommend confirming unit level before proceeding to future steps



**Plane laser level on long edge**



**Plane laser on short edge**



**Plane laser level and fibreboard shims**



**Measuring against laser for unit frame level**



**Trolley jack to assist in raising unit edge**

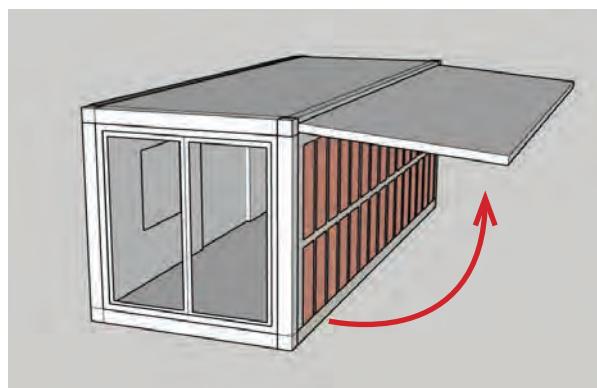
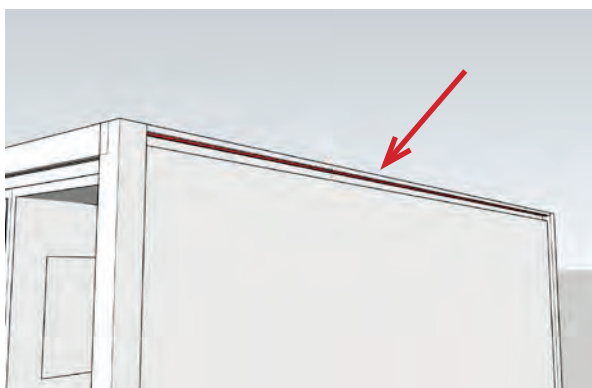


**Shim pieces between footings & unit**

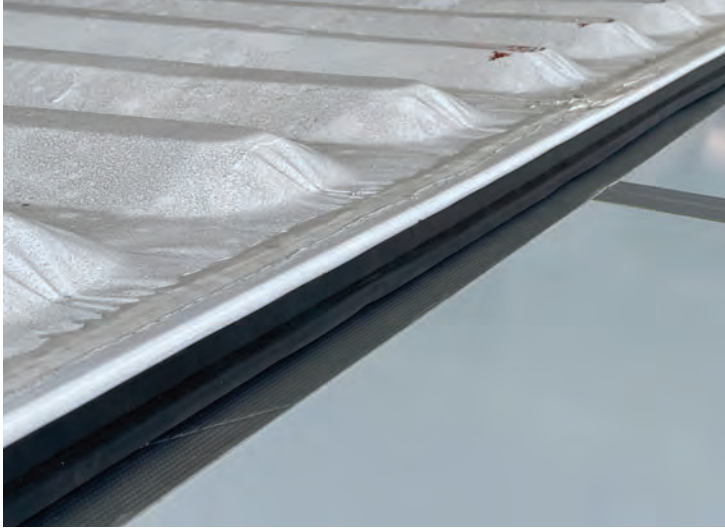
## 3) Raising and Supporting the Roof

### Folding Out the Roof

- Now the container unit is placed and level, the expansions steps can begin
  - The first step is to fold out and support the roof section so the wall/floor can be lowered
  - The roof is connected to the centre frame via multiple hinges; once extended, the ceiling rests on the exterior wall that will be lowered in a future step
  - It is made up of EPS sandwich panel sections and moves as a single piece; it is not exceptionally heavy but it is cumbersome - we recommend 2~4 people to move into place
  - There is a primary weather seal called the pinch mould that sits inside the gap between the centre section and the hinge of the roof; when elevated, the roof pinches this seal closed between its top surface and the frame of the centre section
  - The roof must be supported by acrow props, lifts or straps during future installation steps
  - Steps are repeated for the other side of the unit after lowering the wall/floor section
  - Do not lift the roof section beyond 90° as you will exceed the limit of the hinges
- a. Before raising the ceiling, confirm that the pinch mould has not been damaged in transport and is securely fitted to the inside of the unit frame centre section
  - b. Release the roof pin that fastens the roof to the centre section frame for transport
  - c. With 2~4 people slowly raise the roof section, but not beyond 90° to prevent damage
  - d. Support the roof with acrow props, lifts or straps, with assistance from machinery if possible
  - e. It is ideal to support the roof from the each of its sides as the next step is to lower the wall/floor section and you do not want the supports causing danger in this process
- It is critical that the roof is properly supported and safe to walk & operate underneath
  - **Serious injury or death may occur from the roof falling if not securely supported**



**Pinch mould location (left) and depiction of raising ceiling**



**Pinch mould between centre & outer roof**



**Raising roof and placing props beneath**



**Acrow prop with holder for roof section**



**Acrow props with holder for roof section**



**Raising 40ft VIOLET unit roof with forklifts**

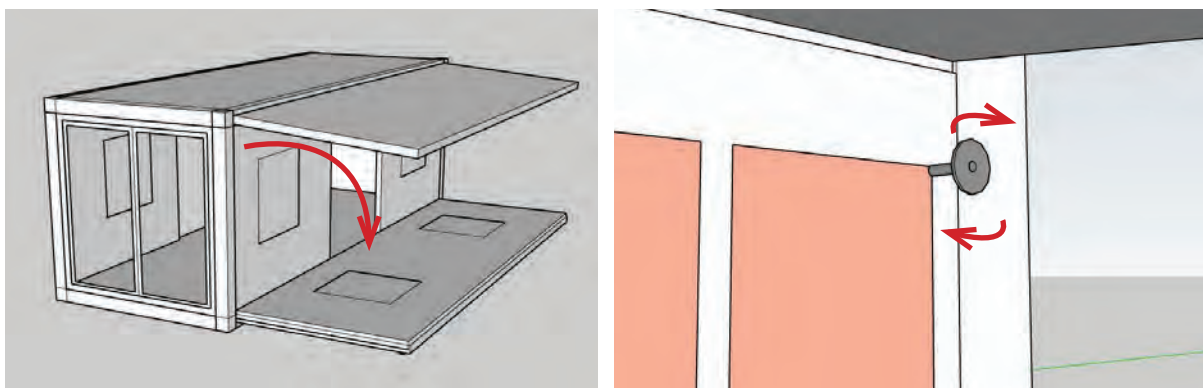


**Ceiling raised and supported by forklifts**

## 4) Lowering the Wall/Floor Section

### East & West Wall/Floor Section Expansion

- Now that the roof is securely opened, the wall/floor section is to be lowered onto footings
  - The wall/floor section includes both the floor of the unit and the long wall
  - The wall/floor is the heaviest section of the unit and will require 4~6 people to lower safely
  - Optional screw-in feet should be fitted before lowering the wall/floor section onto footings
  - **DANGER:** There must be sufficient space away from acrow props or other roof supports when lowering the unit so the supports are not accidentally knocked over during lowering
  - The wall/floor section is secured for transit by a series of brackets; the brackets must be removed before lowering the wall/floor section
  - Partition walls for splitting bedrooms are also fastened to the walls and must be released
  - Once all brackets are removed, spring pins must be released to lower the wall/floor section
  - Lowering the wall/floor section can be assisted with a crane and straps if required
  - There are four wall/floor sections for 40ft units; there are two wall/floor sections for 20ft units
- a. If using optional screw in feet, fit 3 feet to the outer-most threaded holes in the floor section
  - b. Using a drill with hex bit, remove the light metal flashing brackets securing the wall/floor section on the interior and exterior of the unit where applicable
  - c. With 4~6 people, brace against the wall/floor section before the spring pins are released - this will ensure a controlled lowering of the wall/floor and prevent the section falling after release
  - d. Release the two spring pins that fasten the wall/floor section to the centre section frame
  - e. With 4~6 people slowly lower the wall/floor section onto the outer footings
- DANGER:** There must be sufficient space away from acrow props or other roof supports when lowering the unit so the supports are not accidentally knocked over during lowering
- f. Once lowered, check the footings for level using a spirit level or plane laser level



**Lowering the heaviest section of the unit; fitting optional screw-in feet**



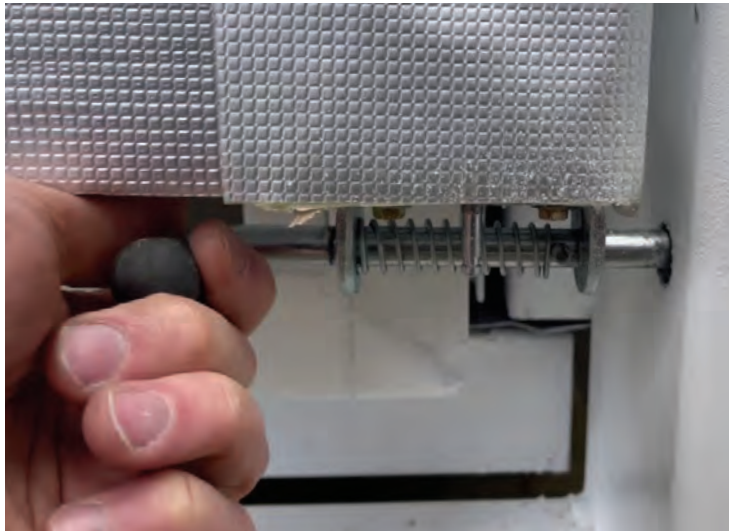
**Fitting screw in feet to floor before lowering**



**Removing interior brackets (20ft/40ft)**



**Removing exterior bracket (40ft)**



**Spring pins to release (roof pin shown)**



**Slowly lowering the floor section**



**Supports out of way of workpath as lowered**

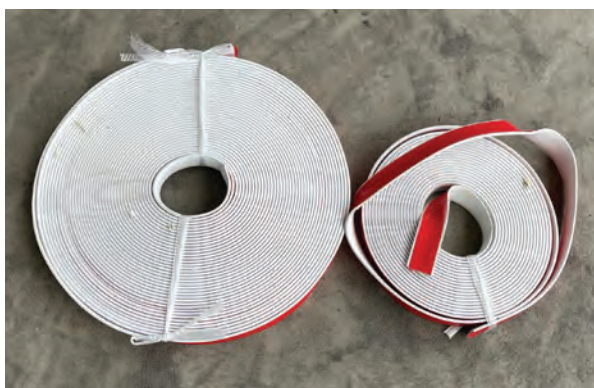
## 5) Sealing and Raising Long Wall

### Adding Flat Tape to Weather Seal Long Wall

- With the wall/floor section lowered, the next step is to raise the wall to meet the roof
  - Before this step, flat tape must be added to the top edge of the long wall for weather sealing
  - It is easiest to perform this step whilst the wall/floor section is at rest together
  - **Required:** Alcohol based cleaner to prepare surface and a trimming knife to cut tape to size
  - Stick the tape to the surface shortly after removing the red tape for the best bond
- a. Remove any bubble wrap on the long wall to prepare it for mating with roof section
  - b. Using methylated spirits or other alcohol based cleaner, clean the top surface of the long wall of dust; this is the part of the wall that will directly contact the roof section
  - c. Remove the red protective layer and apply flat tape to the top surface of the long wall; align the tape to the outermost edge of the long wall (the 'outdoors facing' edge)

### Raising Long Wall to Meet Roof Section

- Now the flat tape has been applied, the long wall can be raised to meeting the roof section
  - This will involve levering the wall at its hinge with the floor and lifting to 90°
  - The roof supports will be removed or lowered so the roof can rest on the long wall
  - It is important to guide the wall into place from inside and outside so as to prevent the roof or wall from falling; the wall should tuck into the lip of the roof section
- a. With 2~4 people, slowly raise the wall to meet the supported roof
  - b. Using 2 people on the interior & exterior sides of the wall, support the wall to stand vertical
  - c. With the wall supported, remove the roof supports & slowly contact the roof with the wall
  - d. Shuffle the wall section to fit snugly into the lip of the roof section

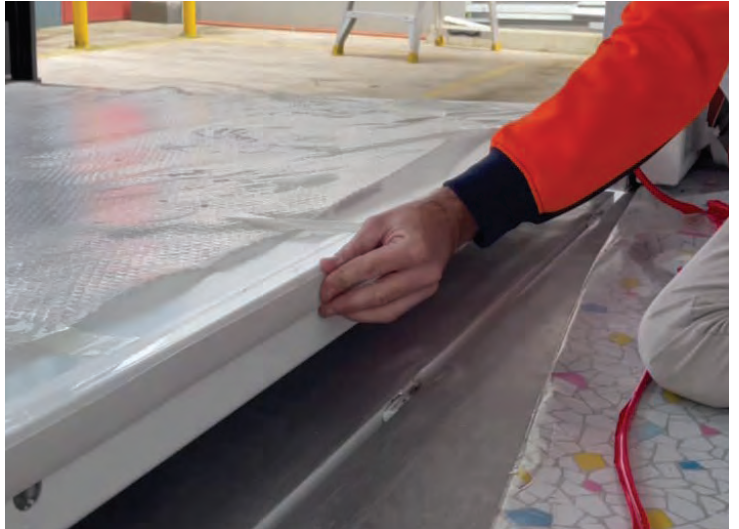


**Rubber flat tape with adhesive section protected by red plastic**





**Wall/floor section lowered ready for tape**



**Tape fitted to top surface of long wall**



**Tape fitted to outdoor-facing side of top edge**



**Tape fitted; preparing to raise long wall**



**Guide wall from both interior & exterior**

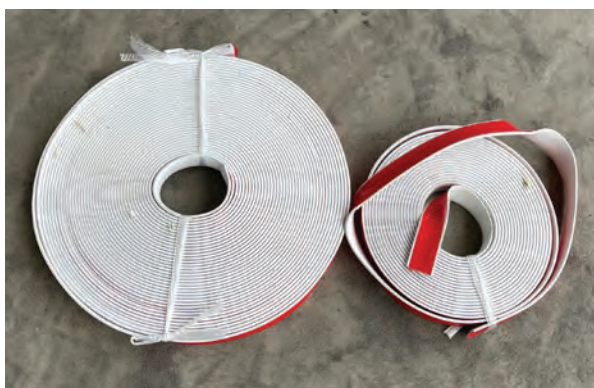


**Roof slowly lowered down, support removed**

## 6) Sealing and Expanding Short Walls

### Check for Level for Short Walls

- With the roof sitting securely atop the long wall, the short walls can be swung into place
  - Before doing so, they should be tested to confirm that they will fit properly
  - Should the short walls graze the ceiling or floor, this indicates the unit is out of level
  - Take care in testing these walls as they can damage the ceiling or PVC flooring
  - In most cases, if the short wall contacts the ceiling, the level needs to be raised; and if the short wall contacts the floor, the level needs to be lowered
- a. Remove any protective bubble wrap that may interfere with expansion of short walls
  - b. Test the fit of the short walls by slowly swinging it out towards the corner of the building - this is easiest to do from the interior of the unit, using the window frame as a handle
  - c. Be careful not to scratch or damage the ceiling or floor, the hinge should move freely
  - d. If the wall catches, immediately pull the wall back to the start and adjust level accordingly using a trolley or bottle jack - for 40ft units, ensure level between wall/floor sections as well
  - e. Once properly level, the short wall will contact the long wall and form the corner of the unit
  - f. Keep short wall ajar and prevent movement with cardboard or wooden chock underneath



**Rubber flat tape and d-mould tape for weather sealing short walls**



**Trolley jack & shims to adjust corner height**



**For safety, swing out walls from the interior**



**Slowly open the wall when made level**



**Short walls should close neatly in the corner**



**Detail short wall corner at base of unit**

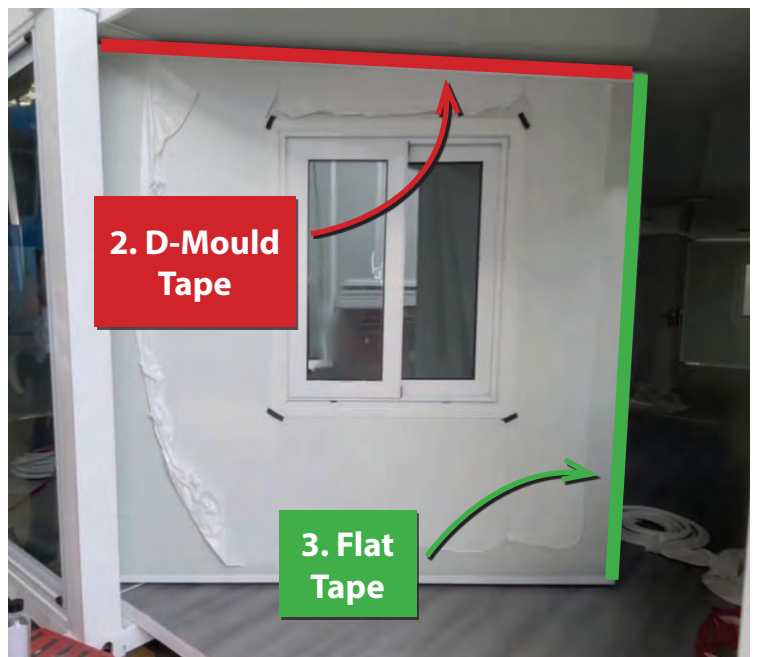
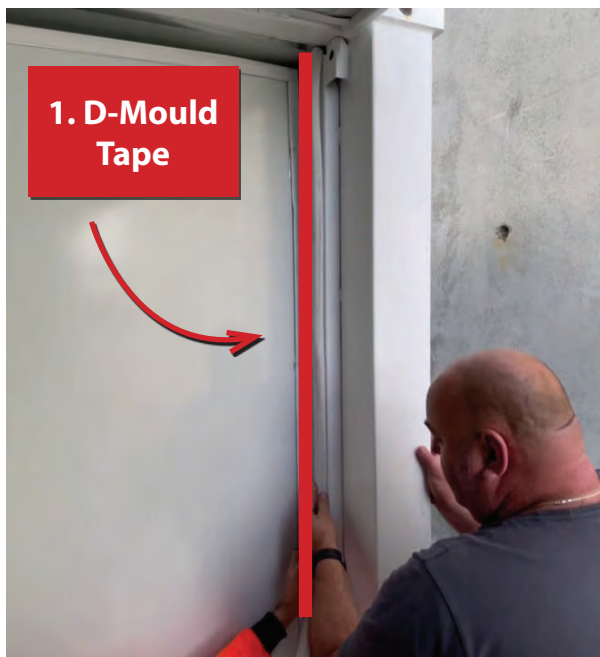


**Detail short wall corner at top of unit**

## 6) Sealing and Expanding Short Walls (continued)

### Applying Rubber Seals to Short Wall

- There are 2 types of rubber seals to seal the short walls - flat tape and D-mould tape
  - There are 3 locations the seals must be applied per wall - 1 x flat tape, 2 x D-mould tape
  - This must be repeated for each of the 4 short walls, in each corner of the VIOLET unit
  - The same cleaning process and cutting process from earlier flat tape steps is to be repeated
  - Follow the images (right) to apply the seals in the correct places
- a. Clean tape bonding surfaces with alcohol base cleaner and let dry before applying tape
  - b. Fit a vertical strip of D-mould tape to the inside of the centre frame section and short wall
  - c. Fit a horizontal strip of D-mould tape to the top-most edge of the outside-facing short wall
  - d. Fit a vertical strip of flat tape to the left-most edge of the outside-facing short wall



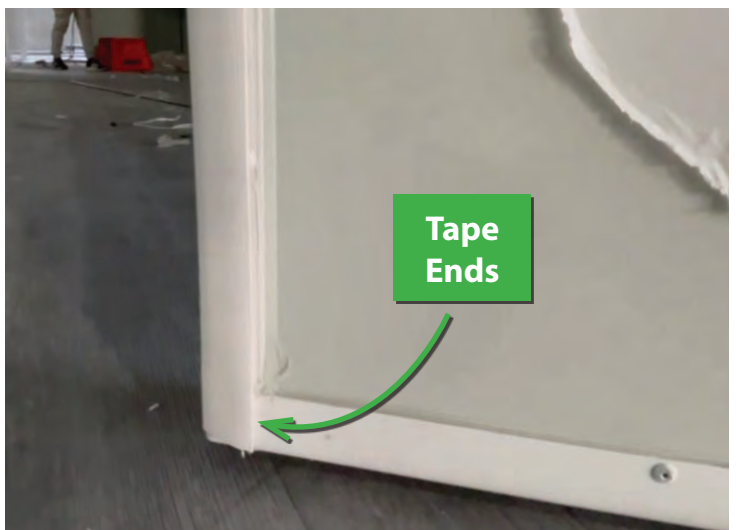
Rubber flat tape and D-mould tape for weather sealing short walls



**1. Vertical D-mould fits to the inside centre frame, butts up against closing short wall**



**2. Horizontal D-mould fits to outside-facing top edge of short wall, butts up against roof lip**



**3. Vertical flat tape fits to outside-facing outer edge of short wall, butts up against long wall**

## 7) Fastening the Expanded Sides

### Repeat Steps Before Fastening

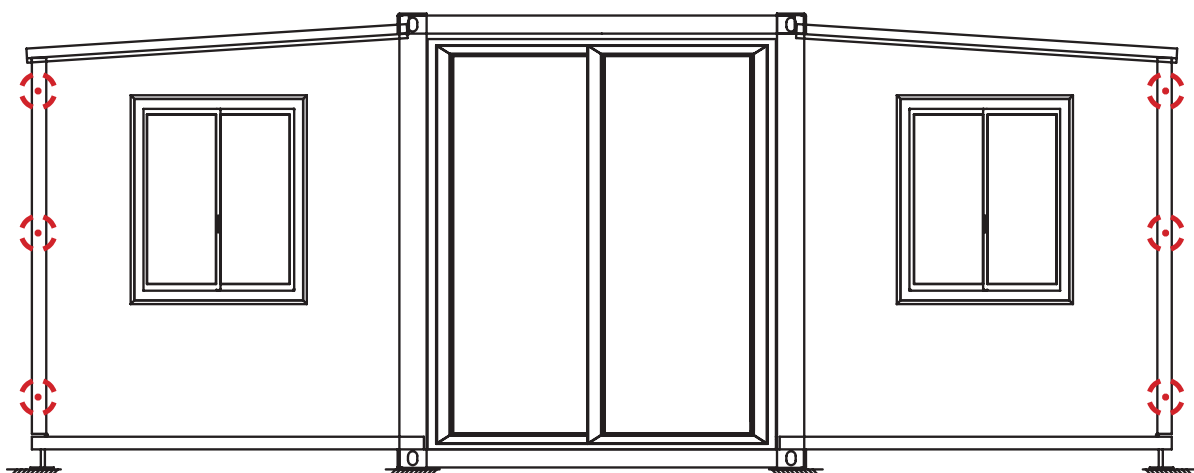
The steps leading up to this have expanded and weather sealed a single side of your container unit - now, the same steps can be repeated for additional sides before continuing

### Moving Partition Walls for Bedrooms

- Now that the seals are added to the short walls, your VIOLET unit can be fastened together
- Before this happens, you must move partition walls from the centre of the unit into the bedroom where they will be fitted
- Partition walls are too large to fit through the interior doors; they must exit through the front entry door and return through the opening of the short walls

### Fastening the Short and Long Walls Together

- To secure the walls together, we recommend fastening them together with tek screws
  - This improves the effectiveness of the weather seals and final fit of the container unit walls
  - The step is performed by driving a tek screw through the lip of long wall into the short wall
  - This should be performed on each of the 4 short walls; we recommend at least 3 x tek screws, evenly spaced, down the length of each short wall
  - Having an extra person push against the inside of the short wall may assist in this process
- a. Using an impact driver and hex tek screw, carefully drive through the short wall into the long wall, fastening the two together (it may be useful to drill a small pilot hole first)
  - b. Perform this process for all 4 short walls; see locations for tek screws in the diagram below



**Locations front side only, rear side must be included as well**



**Fastening tek screw at front of unit**



**Fitted through long wall lip into short wall**



**Front short wall fastener at top of unit**



**Fastening tek screw at rear of unit**



**Fitted through long wall lip into short wall**



**Rear short wall fastener at base of unit**

## 8) Fastening the Roof to the Walls

### Fasten the Roof to the Walls

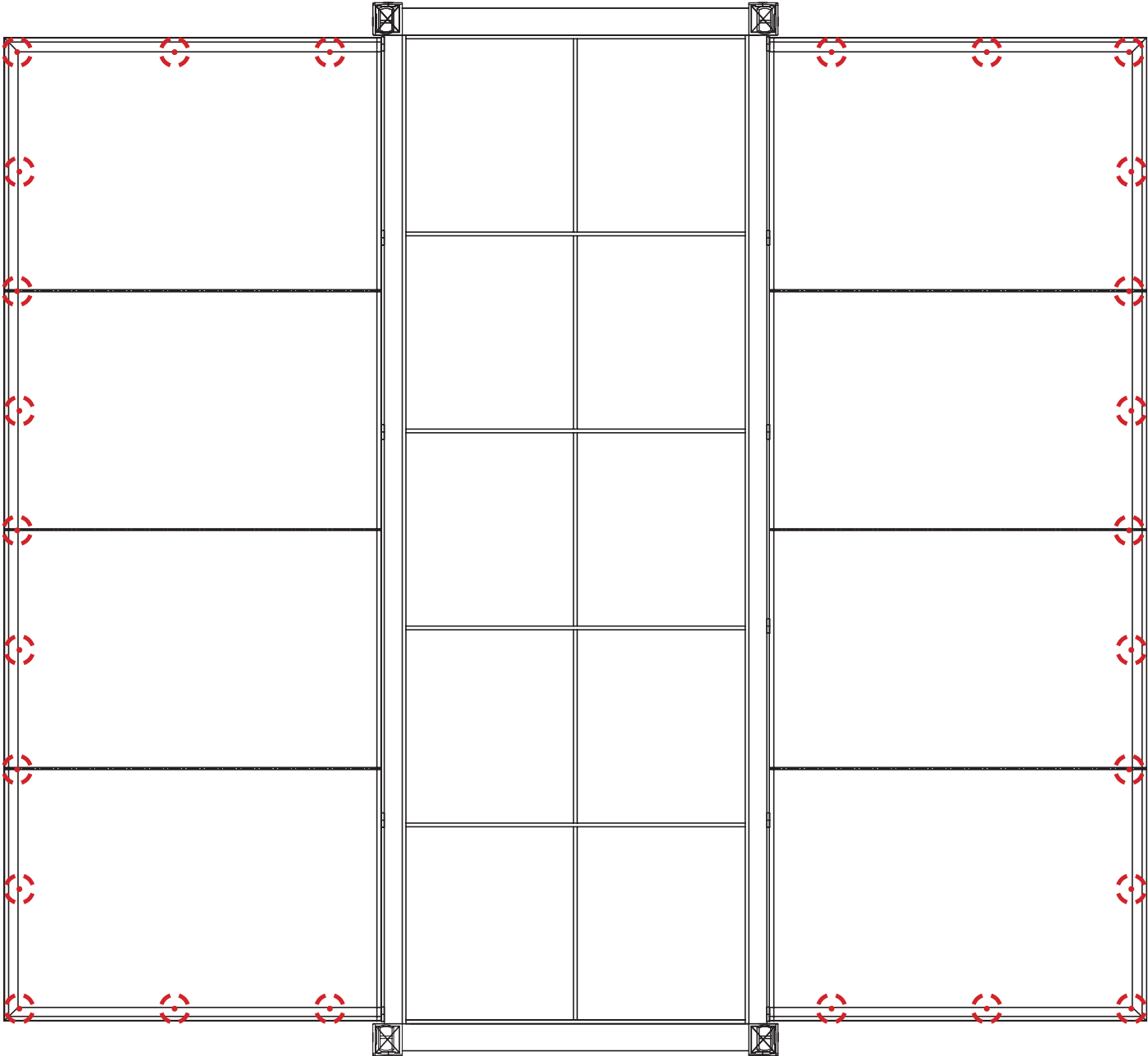
- The next step is to fasten the roof to the walls from the exterior of the container unit
  - This consists of driving supplied long tek screws down into the roof, through the roof section and into the long wall section
  - You will require a ladder to access the exterior of the roof section
  - Having another person inside the unit to push walls against the rubber seals whilst this step is being performed is recommended
  - This is a required process for short walls and long walls, see diagram for locations
  - Each screw should be weather sealed with a dab of silicon around the screw after fastening
- a. Mark out screw locations for short and long walls, evenly spacing screws apart
  - b. We recommend driving screws every 300~600mm to secure the roof (example right)
  - c. Screws should be approximately 25~35mm from the wall's edge.
  - d. Drive screws straight down into and through the roof and into the wall.
  - e. Weather seal screws with a dab of silicon after driving.



**Partition wall L-channel fitted at base**

**Partition wall L-channel fitted at top**





Top view of 20ft unit showing locations for tek screw fasteners

## 9) Sealing the Wall/Floor Connection

### Fitting T-Mould to Seal Wall/Floor Connection

- With the container unit expansion performed and walls secured, there will be a gap around the perimeter of the unit; this is the join between the of the wall/floor sections
  - This gap should be approximately 18mm and if the unit is level, be consistent in width
  - Your unit comes with T-mould, a rubber seal like D-mould and flat tape; there are two sizes of T-mould shipped with your unit, one for this step and another for interior finishing
  - The next step is to fit **the larger size T-mould** to seal this gap using a rubber mallet
  - To fit around corners, the interior stem of the T-mould will need to be cut at 45°, do not cut the T-mould into pieces to fit (see photos, right)
  - There are two T-mould sections to be fitted for east and west sections of the unit
  - For 40ft units, T-mould must be fitted to seal the vertical gaps found where the individual wall/floor sections meet; T-mould will need to be fitted on the interior and exterior
  - a. Starting at a short wall either side of the front door of the unit, fit the T-mould around the perimeter of the unit by hammering it in with a rubber mallet
  - b. Clip the interior stem at a 45° angle to form a right angle around the corner of the unit
  - c. Fit the T-mould for the entire section, clipping again at the corner of the other side of the unit.
  - d. Repeat this for the other half of the container unit
  - e. After fitting, open the top lip of the T-mould and apply silicon to weather seal. Run a bead of silicon along the length of the T-mould. This sticks the T-mould to the wall and further prevents water ingress. The same can be performed above the T-mould as pictured right
- Note:** For a 40ft VIOLET unit, please follow the additional steps below
- f. On the exterior of the unit, fit T-mould to the gap in the long walls (both sides) with a mallet; to fit around other seals, cut the interior stem of one of the T-mould sections



The wall/floor gap to be sealed by T-mould



T-mould fitting in progress



**To fit around corners, cut the T-mould stem at a 45° angle and fit with rubber mallet**



**T-mould fitted to the front of the unit; silicon applied above the T-mould**

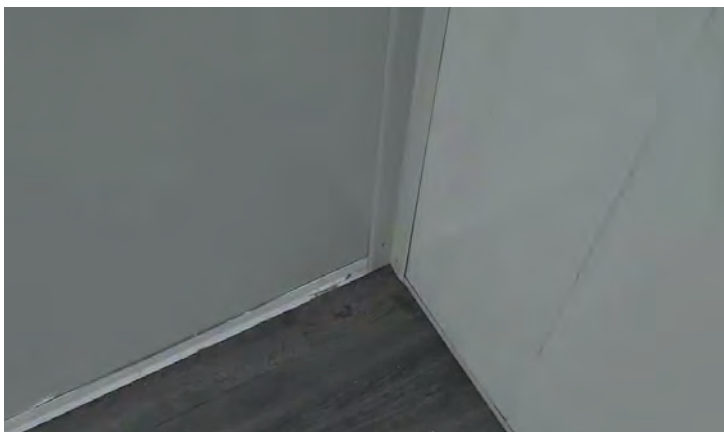


**T-mould fitted at long wall join for 40ft unit; T-mould stem cut to fit around other seals**

## 10) Fitting Partition Walls

### Fitting Partition Walls to Split the Bedrooms

- Partition walls, moved to the bedroom section in an earlier step, separate the bedrooms
  - They are fitted to the interior walls on their vertical edges only using L-channel steel
  - The L-channel steel is supplied and will need to be cut to size with an angle grinder
  - Partition walls can be placed anywhere to split the room, but you should take note furniture to be used and of the relative position of doors, lights, switches, powerpoints and windows that will affect the use of the room,
  - Move the partition wall to its desired location in the bedroom, taking note of the relative position of doors, lights, switches, powerpoints & windows that will affect the use of the room.
  - This step is easier with two people; one to brace the wall and one to affix fasteners
- a. Measure supplied L-channel and cut to size - 4pcs will be required in total per partition, with 2pcs to fit to the door-side interior wall and 2pcs to fit to the window-side interior wall
- Note:** You do not need to fasten L-channel to the floor or ceiling, only the vertical walls.
- b. Mark the final position of the partition wall on each side of the interior walls
  - c. On the door-side wall first, place the first L-channel steel against the markings, pilot drill holes through the L-channel, then rivet the L-channel to fasten it to the interior wall
  - d. Perform the same procedure with the second L-channel steel on the shorter, window-side interior wall
  - e. With another person applying pressure from the other side of the wall, brace the partition wall against the inside edge of the now attached L-channel
  - f. Drill pilot holes and fasten the wall to the L-channel using rivets
  - g. Perform the same procedure on the opposite side of the partition wall, first fastening L-channel to the wall and then fastening the partition wall to the L-channel



Partition wall L-channel fitted at base



Partition wall L-channel fitted at top

## 11) Fastening Walls - Interior Side

### Steps below can be performed later

As shown in the images below, fastening the interior side of the walls with L-channel can happen after fitting the skirt/cornice trim. This way, the L-channel can be flush against the skirt/cornice trim.

### Fasten Walls from the Inside

- To secure the expanded sections of the unit is to fasten the walls from the inside
- This is performed in a similar fashion to fitting the partition walls - wall sections are fastened together using L-channel steel, secured with rivets
- This must be performed on the vertical edges in all 4 corners of the unit.
- L-channel steel may need to be cut to size.
- The following shows steps to be repeated for all 4 corners of the unit.
- For ease of installation, rivet the L-channel to one of the walls first, then connect the two walls.
  - a. Butt L-channel flush up against the corner of the unit to connect short & long walls.
  - b. Drill pilot holes through the L-channel into the short wall.
  - c. Rivet the L-channel to the short wall.
  - d. Fasten the walls together by repeating this process for the adjacent long wall.
  - e. Repeat this step for each of the corners of the unit.



**Drilling pilot hole for rivets to secure walls**



**Fastening walls together with rivets**

## 12) Preparing and Fitting Windows

### **The latest VIOLET units arrive with windows fitted**

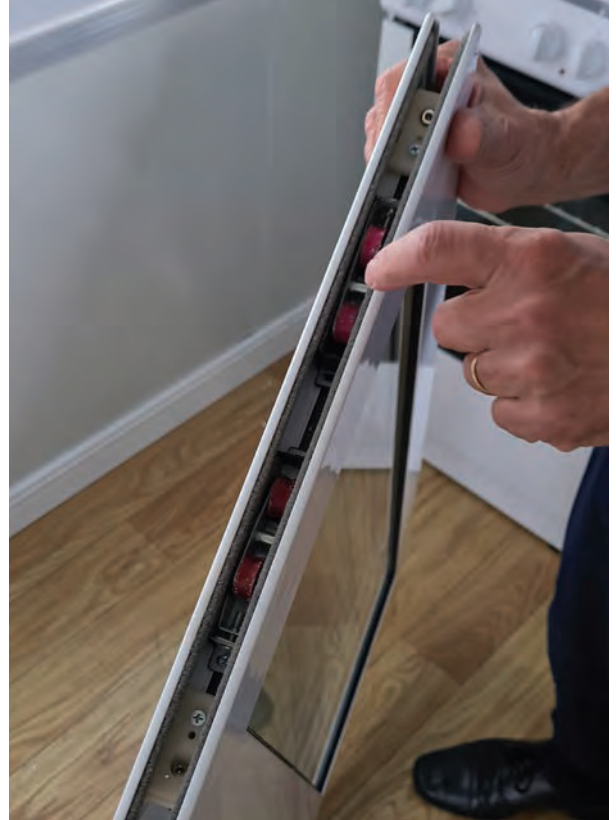
- The following steps are for units whose windows have not been pre-fitted
- If yours have been fitted, simply drop the window screen into the window frame

### **Window Assembly and Fitment**

- Windows are shipped inside the container home to protect them during travel and must be fitted to your container home.
- Windows come in 2 main pieces - window half with space for the lock and window half with latch clip already fitted; the lock will need to be fitted to the windows
- Your container home comes with pre-fitted window frames, weather-sealed into the walls
- Installation of windows involves 3 steps - fitting the window siding for each window, cutting window siding plastics to size, and attaching the window lock to the window
- There are 3 rails on the frames, 2 to seat each part of the window and 1 for the window screen
  - a. For the first window, find the latch window half piece and its matching siding
  - a. Identify the base of the window by locating the rollers on the bottom of the window piece
  - b. Place the latch window piece onto the outermost rail of a window frame; be sure to orient the window properly - the latch should be in the centre of the window
  - c. Take the window siding and applying pressure, clip in the window siding to the window piece; the window siding plastic seals may need to be cut to ensure smooth rolling on rollers
  - d. Locate the lock-side window half piece and its siding, identifying the base as done previously
    - \* The window lock assembly is not yet fitted to this window half, this will be performed later
  - e. Place the window piece onto the middle rail of the window frame
  - f. Fit the window siding to the lock window piece. This siding will have the lock attached to it and should face the centre of the window, alongside the latch
  - g. Upon confirmation of the window sidings fitment, remove the lock window half from the frame in preparation to fit the window lock assembly
  - h. Using the supplied window lock assembly holes as a guide, drill pilot holes for 2 screws into the window piece siding
  - i. Using a screwdriver, fasten the window lock assembly to the window siding
  - j. Place the lock window half with fitted lock back into the window frame and test lock
  - k. Place the window screen in place on the innermost rail of the window frame
  - l. Drop in window screen into final rail and repeat for other windows



**Fitting the window siding to the window**



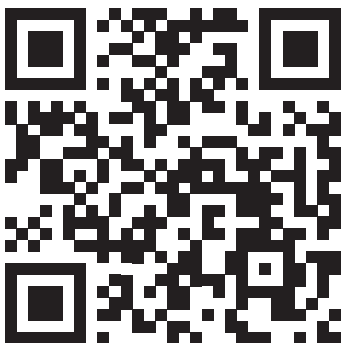
**Drop in window with rollers at bottom**



**Fitting window latch with screwdriver**



**Gap cut in siding plastics to suit rails**



- For video detailing the process for assembly and fitting of windows, scan the QR code and watch online
- Alternatively, visit this link:

<https://youtu.be/geabeet-QWM>

## 13) Interior Floor Trim and Ceiling T-mould

### Covering Ceiling Gaps

- Gaps in the ceiling and floor left by unit expansion are covered by T-mould and floor trim
- T-mould was used earlier in sealing the exterior gap between the wall/floor sections
- It is important you **use the smaller T-mould** for this step
- T-mould is fitted by pressing into the gap and tapping with a soft mallet; to fit around hinges, the interior stem must be trimmed to 45°
  - a. Measure and cut a length of T-mould to run the entire length of the unit
  - b. Begin to fit by pressing the T-mould into the gap and tapping with a rubber mallet
  - c. Where the hinge interferes with the hole, cut the interior stem of the T-mould with a knife at 45° and fit around the hinge
  - d. Repeat this step for each side of the unit (east and west ceiling gaps)

### Covering Floor Gaps

- Floor trim is a metal extrusion that comes in multiple pieces; it is fitted by using adhesive to glue the trim pieces to the floor; it may need to be cut to size to fit the length of your unit
- **Important:** At this stage, we recommend fitting the floor trim to the area covered by installation of the kitchen cabinet only. This way, the kitchen cabinets can be fitted with the floor trim sealed
- **Important:** Do not install floor trim for other areas of the unit until partition walls and skirting trim pieces have been fitted to avoid improper fit of floor trim
- **Return to this step after the “Fitting Trim” step**
  - a. To fit the floor trim, apply Selleys construction adhesive to the underside of the floor trim and to the floor face immediately next to the floor gap
  - b. Press the floor trim into the floor to cover the gap
  - c. Clean up adhesive overspill immediately with mineral turpentine and leave to cure





**Ceiling gap to be sealed by T-mould**



**Cut T-mould stem to fit over hinges**



**Ceiling T-mould fitted to cover the gap**



**Adhesive on floor trim and floor gap**



**Preparing to stick down the floor trim**



**Floor trim fitted after fitting skirting trim**

## 14) Kitchen Cabinet Setup

**This guide shows kitchen cabinets included with the 40ft VIOLET unit. 20ft units will differ in cabinet size, but the installation process is the same.**

### Mounting Wall Cabinets

- Cabinets are partially assembled in various modules, shipped inside your VIOLET unit
  - Cabinets and walls come with pre-fitted hooks and latches for mounting the wall cabinets
  - Wall cabinets are first hooked onto the hooks, then fastened using the pre-fitted guide blocks
  - Handles are fitted inside the cabinet for safe transport and must be switched to the front
  - Wall cabinets can be optionally fastened to one another for extra stability once made level
  - It may be easier with two people to comfortably lift cabinets onto the wall hooks
  - **The bathroom mirror cabinet is fastened to the wall in a similar fashion to this cabinet**
- a. Hook the cabinets to the wall using the pre-fitted wall hooks and cabinet latches, ensuring that the cabinet is properly seated in the hook
  - b. Using included screws and a drill, fasten the cabinets to the wall via the guide blocks, located in the interior upper corners of each cabinet module; check for cabinet level
  - c. Unscrew and switch cabinet handles to the front of the cabinets
  - d. Optionally, fasten cabinet modules together to improve rigidity against natural movement



**Fitted wall cabinet unit for 40ft VIOLET shown (20ft units differs)**



**Pre-fitted hooks for mounting wall cabinets**



**Mounting first cabinet to wall hooks**



**Ensure a good connection to hooks**



**First cabinet mounted on wall hooks**



**Pre-fitted guide block to assist in fastening**



**Fastening cabinet assembly to the wall**

## 14) Kitchen Cabinet Setup (continued)

**This guide shows kitchen cabinets included with the 40ft VIOLET unit. 20ft units will differ in cabinet size, but the installation process is the same.**

### Installing Floor Cabinets

- Like the wall cabinets, floor cabinets come partially assembled; the cabinet and benchtop will need to be fitted
  - Floor cabinets form an L-shape, butting up against the centre wall
  - Cabinet feet fit into connectors that come pre-fitted to the base of the cabinets
  - Cabinet leg height can be set via adjustable screw feet to make the cabinets level
  - Cabinets do not require fastening to one another as the benchtop will perform this role
- a. Press in the legs and screw feet to the pre-fitted connectors on the base of each cabinet
  - b. Fit cabinets up against one another using the image below as a guide
  - c. Ensure cabinets are level, using screw adjustment on feet to make adjustments



**Floor cabinets for 40ft VIOLET unit, butted up against one another**



**Push in cabinet feet and add screw base**



**Layout cabinets, take note of inlets/outlets**



**Move each cabinet into place, butting cabinets up against one another**



**Make level with feet screw adjustment**



**Fitted kitchen cabinets for 40ft unit**

## 14) Kitchen Cabinet Setup (continued)

### Mounting and Sealing Benchtop

- Now the cabinets are positioned, the benchtop can be attached to the cabinets
  - The benchtop is fitted using construction adhesive
  - The benchtop is in 2 pieces, a small piece and long piece with cutout for the sink
  - There is a rough edge on each piece to indicate where they are joined; there is also a lip on each piece that indicates the orientation of the benchtop when mounted
- a. Add construction adhesive in daubs along the top of the cabinet for the small benchtop piece
  - b. Fit the small benchtop piece with the rough edge facing the rest of the cabinetry
  - c. Add construction adhesive to the top of the cabinet and to the rough edge of small benchtop piece in preparation for the large benchtop piece
  - d. With 2~3 people, gently fit the large benchtop piece to the top of the cabinets



**Carefully remove the benchtop from the wooden crate, the small piece will be fitted first**



**Adhesive for small benchtop piece**



**Place in piece, note bench lip & rough edge**



**Adhesive for large benchtop piece**



**Benchtop join rough edge with adhesive**



**2~3 people to for large top placement**

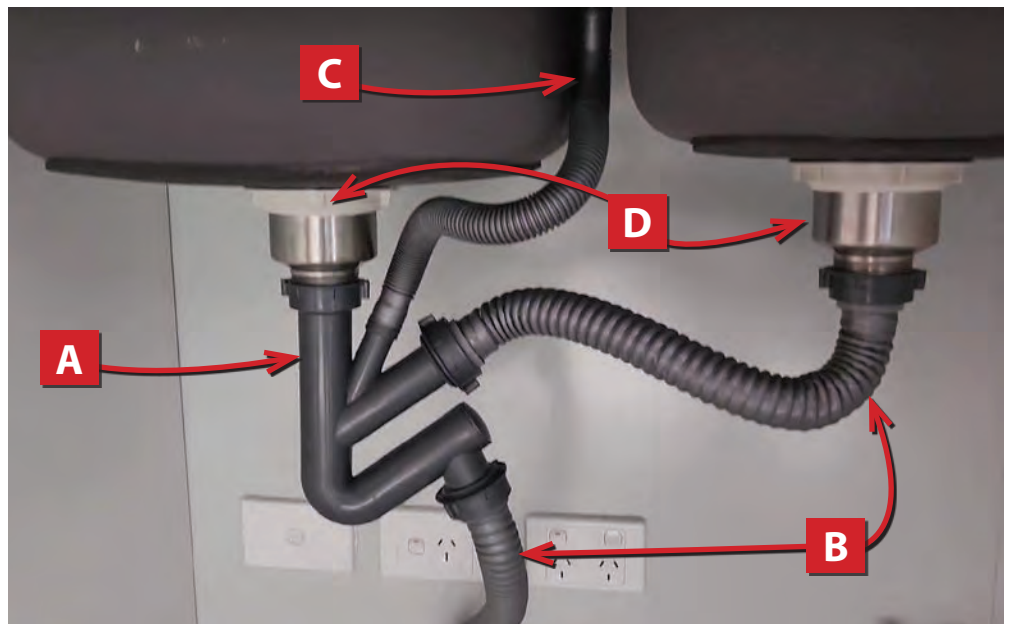


**Benchtop fitted, excess adhesive cleaned**

## 14) Kitchen Cabinet Setup (continued)

### Drop-in Sink & Fit Drain Plugs

- Silicon is required to assemble the sink, fit the drain plugs and add the mixer tap
  - The sink components include (some pictured below):
    - **Sink** with large and small basins, with cutouts for mixer tap and drain plugs
    - **(A) - Drain Collector**, hard plastic part fits to the large basin, connects drain hoses together
    - **(B) - 2 x Large Flex-hoses** to drain small basin and for grey water drain
    - **(C) - Overflow Flex-hose** with rectangular overflow inlet and screw for sink overflow
    - **(D) - Drain Plugs** with white screw connector, washer and plugs, for big & small basins
    - **Mixer Tap** in its own box with accompanying accessories inside
    - **Hot & Cold Plumbing Taps**, chrome with screw fit inlet for mixer taps
    - Rubber washers/seals to fit around flex-hoses
- a. To fit the sink, silicon around the sink cutout and drop in; apply pressure for a good bond
  - b. To prepare for drain plugs, add a bead of silicon around the drain plug cutout for each basin
  - c. Locate the drain plugs package and remove rubber washer and white screw connector
  - d. Fit drain plug assembly for both drains; apply pressure for a good bond
  - e. Fit washer to the underside of the drain plug; screw on connector to secure washer in place



**Sink components including drain plugs (D), drain collector (A), and flex-hoses (B/C)**





**Apply silicon to countertop sink cutout**



**Drop-in sink and apply pressure to bond**



**Take rubber washer from plug, fit to underside and screw on connector to secure**



**Drain fitted over silicon bead, pressure applied, plastic nut screwed on underneath**



## 14) Kitchen Cabinet Setup (continued)

### Connecting Sink Hoses

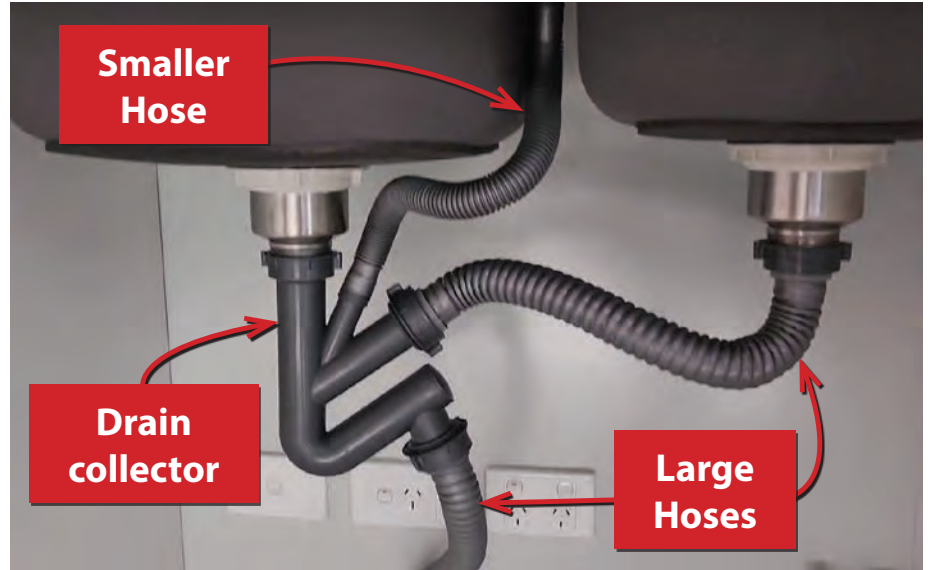
- The drain collector acts as an S-bend and fits to the larger of the two sink basins
- The cabinet base must be drilled through with a hole saw to access the pre-fitted plumbing
- After finishing the sink, an extension is fitted to the greywater drain using supplied PVC pipe
  - a. To fit the overflow inlet connector, fasten the inlet connector using the included screw; the connector fits to the inside of the overflow drain grill on the inner-side of the larger sink basin
  - b. Connect drain collector to the large basin's drain plug; every other drain flex-hose will connect to the drain collect - proceed to connect the overflow hose, small-basin hose and grey water hose to the drain collector
  - c. Take out the stops for the hot and cold water inlets and fit the supplied taps
  - d. To run the greywater hose from the sink into the main greywater drain, you will need to cut a Ø50mm hole in the base of the cabinet with a hole saw; make this hole exactly above the pre-fitted plumbing. Additionally, cut a hole for power access for kitchen appliances
  - e. Pipe is supplied to extend the length of the main greywater drain; cut to length (approx 300mm), slip inside the pre-fitted pipe, through your cut hole; seal pipes with PVC cement

### Fitting the Mixer Tap

- a. To install the mixer tap, fit the braided hose lines through the cutout in the sink
- b. Fit the washers and screw connector to the underside of the sink by threading through the braided hose lines; fasten the tap to the sink by tightening the screw connector
- c. Connect the hot/cold braided hoses from the mixer tap to the hot/cold shutoff valves under the sink (hand fastening is sufficient); next, connect the outlet line to itself via blue clip



**Fastening overflow connector with included screw through the overflow grill on the sink**



**Fitting the drain collector, overflow flex-hose, small basin flex-hose and greywater flex-hose**



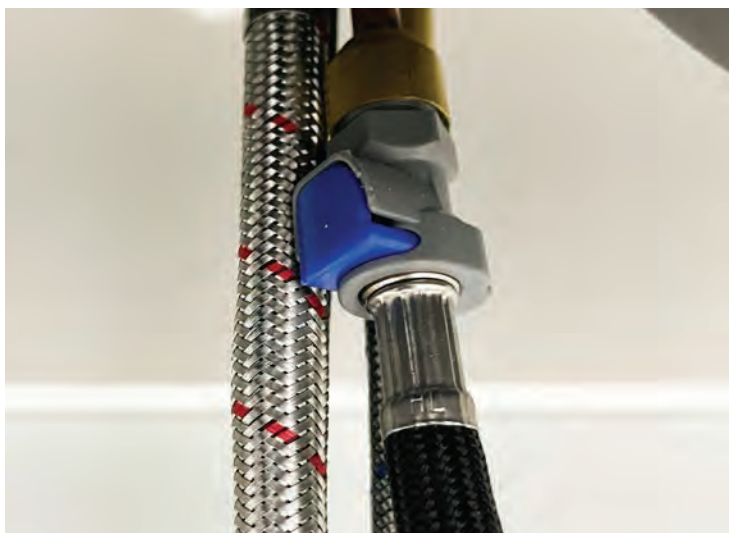
**Holes cut for greywater drain with extension**



**Remove stops and connect taps for hot/cold**



**Mixer tap being fitted through sink cutout**



**Extensible tap outlet line connection**

## 14) Kitchen Cabinet Setup (continued)

### Fitting Benchtop Splashback

- The benchtop assembly includes thin strips of stone benchtop to be used as a splashback
  - These pieces are fitted to the walls with construction adhesive and sealed with silicon
  - The splashback pieces are to be fitted either side of a piece of corner trim
  - The corner trim covers the hinge gap at the north end of the kitchen
  - The corner trim sits between the top of the benchtop and base of the wall cabinets and is butted up against the hinge gap at a 45° angle
  - Splashback pieces can be cut with an angle grinder; please ensure that you wear appropriate eye, ear and lung protection when cutting the benchtop
- a. Lay splashback pieces along the top of the benchtop for sizing; note the finished edges and visible faces and consider cuts and arrangement based on these
  - b. Measure the vertical gap between the base of the wall cabinets and the benchtop
  - c. Take a section of corner trim and cut to the size measured above
  - d. Fasten to the wall using supplied tek screws and cover by clipping in trim covering
  - e. Dry-fit the splashback pieces against the corner trim, using it as a guide to mark for cutting
  - f. Cut splashback to size - make cuts on edges that will be hidden; preserve finished faces/edges
  - g. Glue splashback to the benchtop using a small amount of construction adhesive
  - h. Seal top edges, side edges and bottom edges of the splashback with silicon
  - i. Repeat steps for all remaining splashback pieces



**Corner trim location and cut-to-size corner trim being inserted into place**



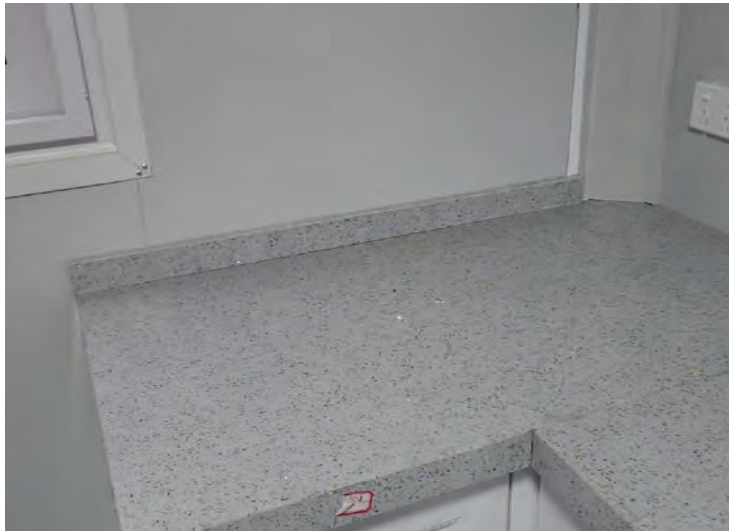
**Fitted corner trim piece at 45° angle**



**Measuring splashback against corner trim**



**Splashback piece cut to size**



**Short piece splash back fitted**



**Mixer tap being fitted through sink cutout**



**Finished kitchen sink and splashback**

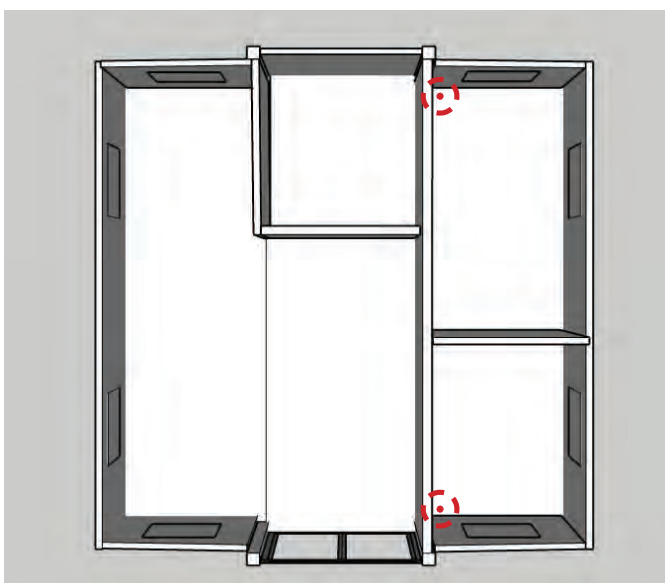
## 15) Fitting Trim

### Fitting Corner Trim to Cover Hinges

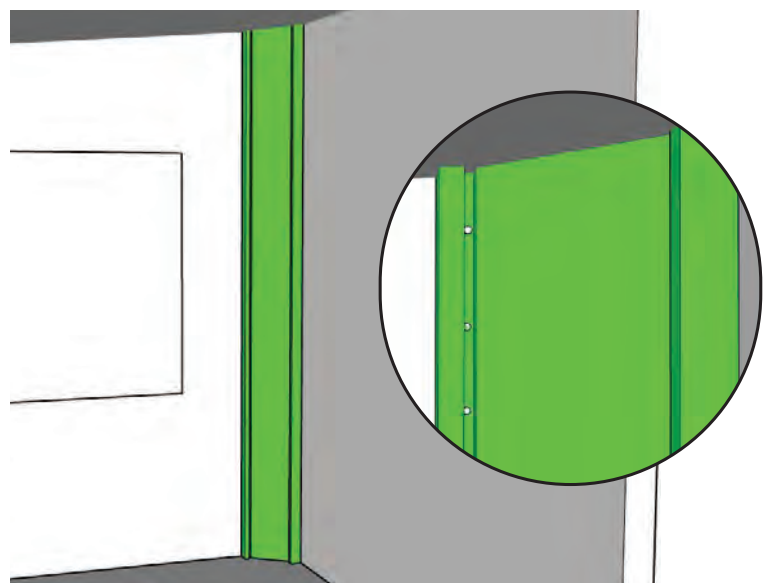
- To finish the unit and cover hinges, corner trim is supplied
  - This is the same as the piece used earlier to complete the kitchen benchtop splashback
  - Corner trim covers the hinge gap in the bedrooms by butting up against the walls at a 45° angle, fastened by tek screws or rivets and then covered with supplied capping trim
  - **Note:** Corner trim should be fitted before fitting any skirt/cornice trim pieces
- a. Measure and cut corner trim to size to the bedroom height, it should reach floor and ceiling
  - b. Fit the corner trim against the corner of the bedroom long & short walls
  - c. Tek screw or rivet the corner trim to fasten it to each of the walls
  - d. Cover the fastener channel with the capping trim to complete
  - e. Repeat process for other corner trim location

### Interior Flashing for 30ft and 40ft Container Units

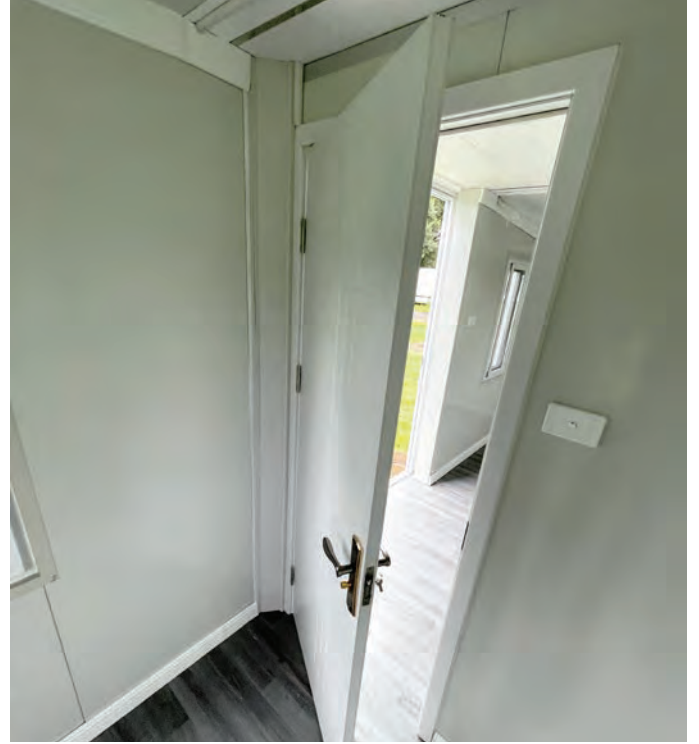
- There is metal flashing that is provided to cover the connection in wall sections for larger 30ft and 40ft VIOLET Series units; the exterior was sealed with T-mould in an earlier step
  - This is fitted by rivets or tek screws and covers the gap in the long wall
- a. Cut flashing to size and fit over the interior gap in long walls
  - b. Drill pilot holes and then fasten to wall with rivets or tek screws to cover the gap



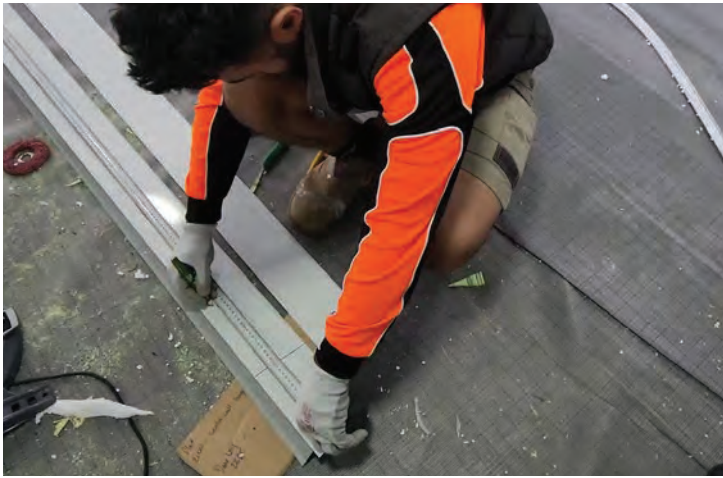
Remaining locations for corner trim



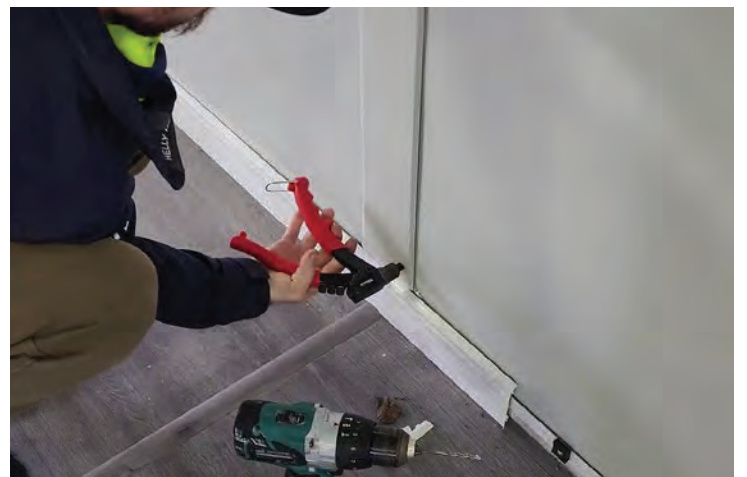
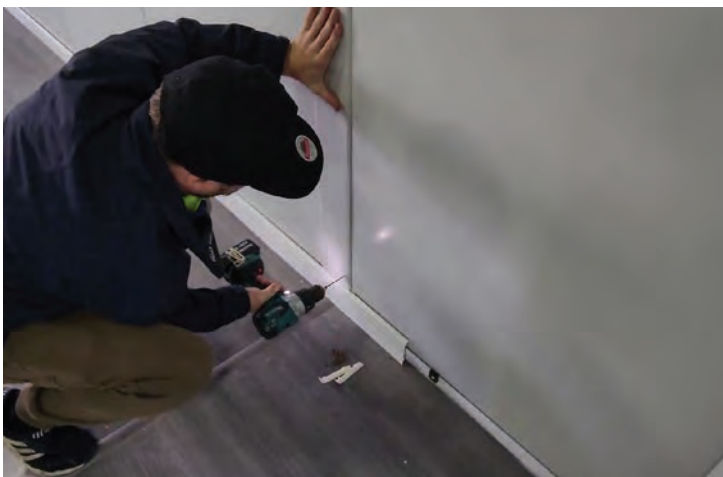
Using trim piece with hole as a drill jig



**Corner trim pieces fitted to cover hinges in bedrooms (shown with skirting trim fitted)**



**30ft/40ft unit interior flashing measured and cut to size using tin snips**



**30ft/40ft unit fitting interior flashing, pilot hole and rivet assembly**

## 15) Fitting Trim (continued)

### Fitting Skirting and Cornice Trim

- Your unit includes skirting/cornice trim pieces with clips and fasteners to attach it to the wall
  - The skirting/cornice will need to be cut to size to fit to the walls in the unit
  - Clips are first fastened to the walls and then the skirting/cornice is pressed or slid onto the clips
  - The process is the same for both floor skirting and cornices, but cornices are rotated 180°
  - To fit the clips, it is useful to make a jig by first cutting a short section of trim; then, drill a hole between the two backside rails; slide on a wall clip and test by holding up against the wall/floor
  - Included are plastic connectors for joining trim pieces & plastic endcaps for finishing trim; there are standard connectors and corner connectors that clip in between trim/cornice pieces
  - Once the trim has been fitted, it should not attempt to be pulled off the clips as it may crack; for any adjustments, we suggest sliding the trim off the clips
  - Note: Trim for cornice and skirting fits to the outer walls and bedrooms (including partitions) but is not supplied for the kitchen (where cabinets will be positioned), nor the living-room-side of the interior wall, as indicated by drawing (right)
- a. Create the jig for fitting wall clips as described above and shown below
  - b. Attach the clips to the walls using the jig, a battery drill and included hex tek screws
  - c. Slide on the trim pieces to the clips or gently press them into the clips to fit
  - d. Cut pieces to size as necessary; fit connectors to join lengths and finish corners
  - e. Repeat this process for skirting and cornices as indicated by drawing (right)

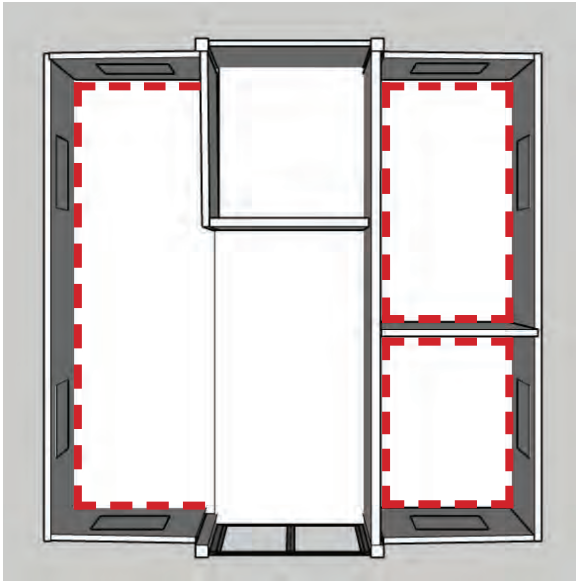


**Back of trim piece with trim wall clips slid on**

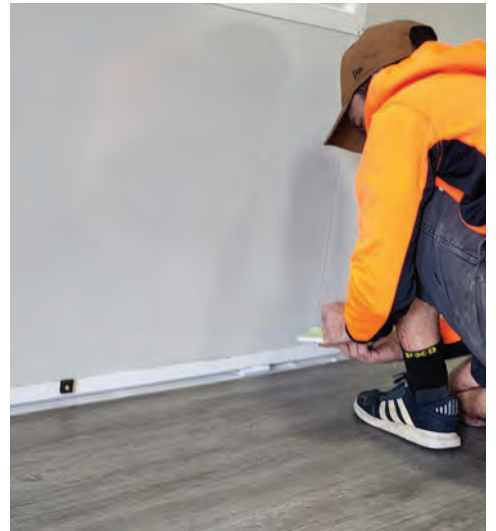


**Using trim piece with hole as a drill jig**





**Trim piece locations; Cornice trim wall clips fitted; End cap on trim at door jamb**



**Fitting the trim clips to the wall using the jig**



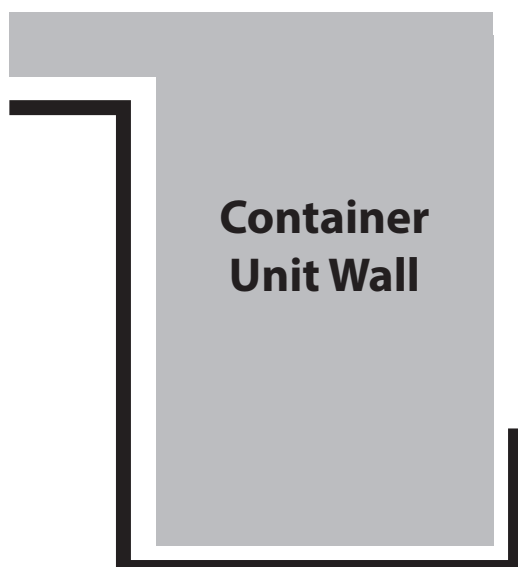
**Trim connector pieces clip in between straight pieces and in corners**

## 16) Fitting Trim (continued)

Now the skirting/cornice trim has been fitted, you can return to fit the metal extrusion floor trim pieces.

### Covering Entrance Hinge Point

- Included in your unit is a covering for the entrance hinge
  - It is made from pressed galvanised steel metal flashing and is to be riveted to the wall
  - The flashing may need to be trimmed to size using tin snips
  - Be careful in fitting this, use gloves to protect hands from sharp edges
- a. Whilst wearing protective gloves, measure the flashing and cut to size using tin snips
  - b. Dry fit the flashing over the hinge to the left of the entry way - there should be sufficient
  - c. Drill pilot holes and then pop rivet the flashing to the inside of the unit
  - d. Rivet from top, middle and bottom on the doorway and short wall sides to fasten



Profile view of flashing and hinge covering



**Fitting flashing over entry hinge**



**Flashing dry fitted over entry hinge**



**Pilot hole, top of doorway side**



**Rivet, top of doorway side**



**Pilot hole, bottom of doorway side**



**Rivet, bottom of doorway side**

## 17) Electrical

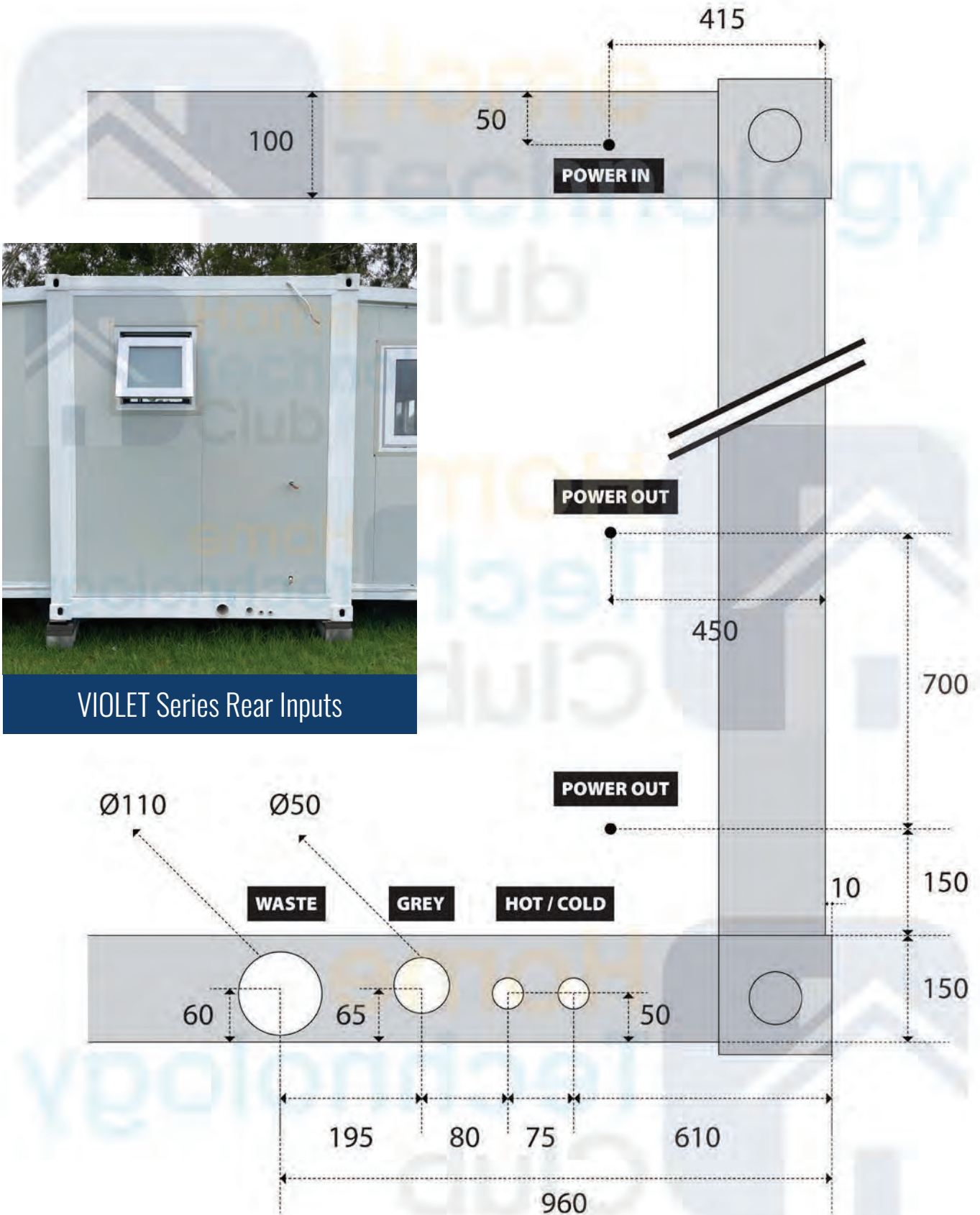
**For connecting electrical and plumbing, please use qualified, professional plumbers and electricians**

### Electrical

- VIOLET Series units have a primary electrical input at the top-rear of the container unit
- Your unit includes a 5-pin 50A electrical plug and socket that must be fitted by an electrician
- Electrical is run from this input to the breaker switchboard in the centre of unit
- Unlike cavity wall buildings, all electrical wiring is run through conduit inside the sandwich panel walls; it is run in a straight line from the ceiling down to the electrical outlet/switch
- Shared walls, such as that shared by the kitchen and bathroom, will have electrical wires running down from the ceiling through the sandwich panel; this is especially important to note if fastening anything to the walls to avoid damaging any electrical wiring
- **Important:** Pay attention to connections that may be on the opposite side wall when choosing to fasten anything to the walls to avoid damaging any electrical wiring
- There are unterminated power outlets at the rear to make connecting electric hot water and air conditioning more convenient; these will need to be fitted by qualified electricians and air conditioning installers - 1000mm from the base of the unit is a 32A outlet suitable for an isolator switch for electrical hot water; below that, 500mm from the base of the unit is a 15A outlet suitable for an outdoor GPO for air conditioning
- The kitchen electrical features 2 x 10A dual GPOs for benchtop kitchen appliances; inside the kitchen cabinet, there is a dedicated 15A single GPO for oven with 32A oven switch, and a 10A dual GPO for the refrigerator
- LED oysters light bases are already installed; screw in supplied lights to install



**2 x 10A benchtop dual GPO, 32A oven switch, 15A oven single GPO, 10A fridge dual GPO**



VIOLET Series Rear Inputs

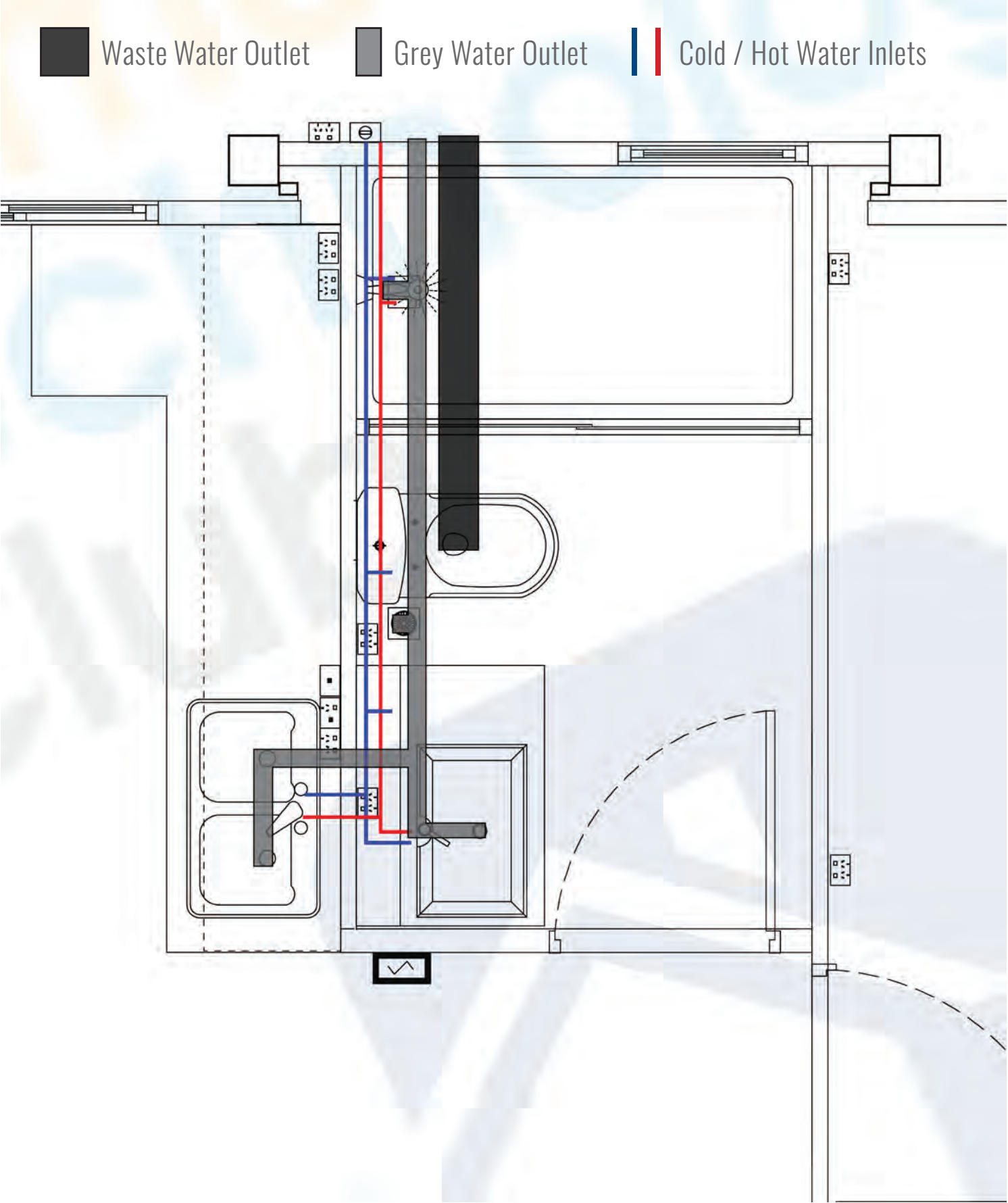
Rear diagram showing connections for plumbing and electrical

## 18) Plumbing

**For connecting electrical and plumbing, please use qualified, professional plumbers and electricians**

### **Plumbing**

- VIOLET Series units have their plumbing pre-fitted
- The plumbing layout shared by each unit features separate waste water and grey water outlets
- Hot and cold water inlets are pre-fitted and there is facility to connect cold water to the washing machine in the washer-basin
- We recommend using a licensed plumber to connect to water supply, hot water system and sewage system
- All plumbing is routed from underneath the unit and through the walls of the unit
- If adding macerator to the septic system, it must be installed below the floor of the unit to prevent backflow



**Plumbing map for standard design VIOLET Series container units**



**For more information,  
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[www.hometechnologyclub.com.au](http://www.hometechnologyclub.com.au)**

