Hirepool

SHORING



CORNER SLIDE RAIL OPEN PIT INSTALLATION INSTRUCTIONS

Introduction
The double corner slide rail shoring system can be used for open pit excavations up to a 5m deep pit in various square or rectangular configurations up to 15m long x 4m wide. Pits can be configured using combinations of 2m, 3m and 4m long panels. intermediate parallel slide rails are used together with walers and restraining brackets
It is important to keep the corner rails vertical and the arrangement square. This can be achieved simply using a spirit level and by measuring diagonals.
We recommend a minimum excavator of 30 tonnes be used for the install of the system.

SAFETY
Lifting, handling, pulling, dragging
Handling should be carried out as close to the ground as possible.

Lifting chains must be chosen to suit the weight being handled and must be certified.

To prevent the accidental detachment of the load use only load hooks with safety catches.

The load must be slung in such a way that the shoring is kept in a horizontal position and swinging is kept to a minimum. Use a tag line to control the movement of gear.

Do not stand within the pivoting range of the excavator or crane or beneath suspended loads.

A load operator must stand to the front of the excavator and be in eye contact with the machine operator.
Checklist:

- Am I trained for the task?
- Am I wearing the correct PPE (Personal Protective Equipment) for this task?
- Do I require assistance from a licensed machinery operator- eg cranes?
- Do I have the correct tools for the task?
- What are the safety devices being used on site – eg chains etc?
- Is the work area cleared of debris, tools etc?

Measures to reduce hazards
The central frame should remain in place until all beams and brackets are in place and you are ready to install the tank

The safety of persons on site is paramount and should be enhanced with the aid of appropriate signs, cones, warning tapes and safety staff trained and deployed for the purpose of preventing accidents.

The risk of instability as a consequence of wind loads when setting up or using shoring must be considered.

Shoring must be secured against accidental impacts and set up in an area of sufficient size and on firm ground.

Care must be taken to look out for and avoid contact with overhead cables when handling, installing and removing shoring.

Where the ground is sloping or uneven, the shoring should be set up, if possible, at right angles to the slope.

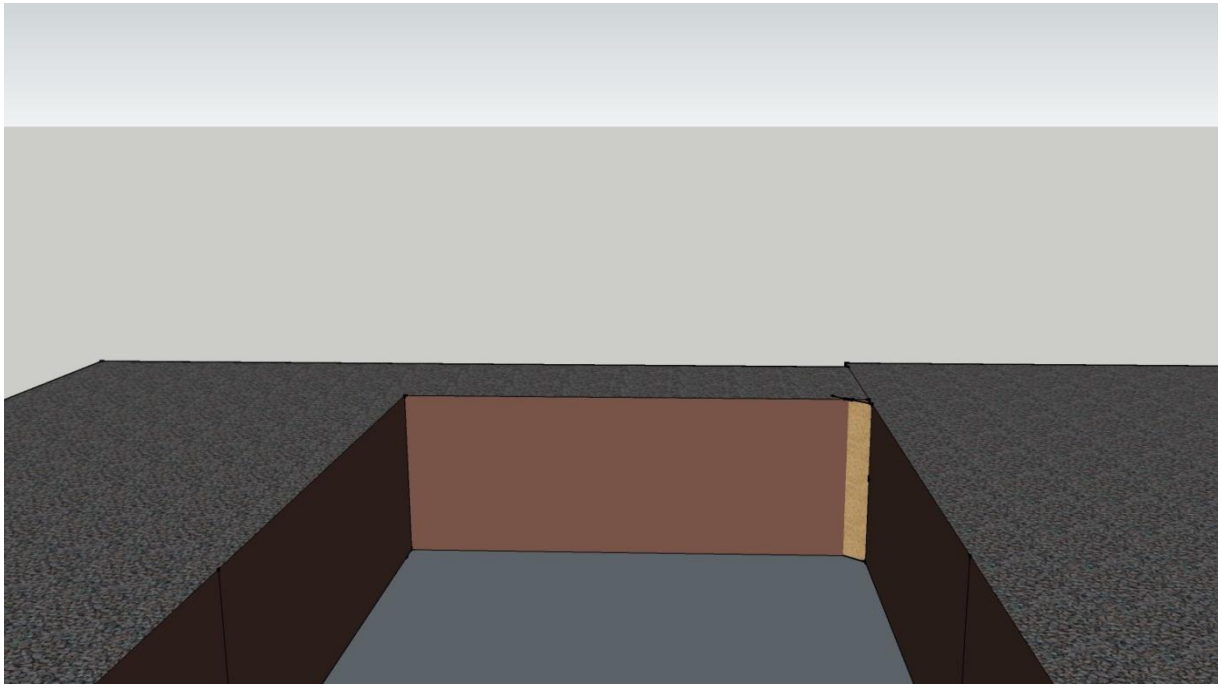
Damages on site
The contractor must notify TSNZ of any damage ASAP; TSNZ will assess the damage and advise whether it is safe to continue using the item. Repairs must be carried out by TSNZ or carried out by another party only when in authorised in writing by TSNZ.

Loadings

Ensure that the loadings don't exceed the maximum SWL for the system. The SWL for the single corner slide rail is 47.2 kNm^2

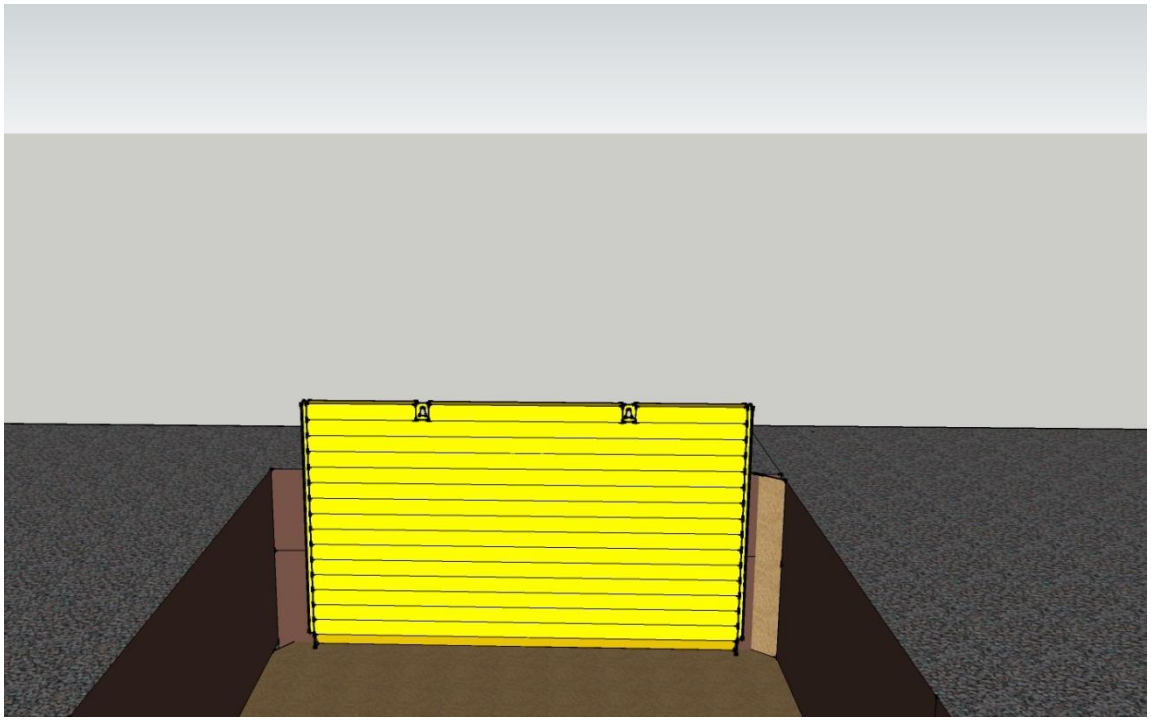
Step 1,

Pre dig a hole to the required size no more than 2m deep. Ensure that the sides are cut square and vertical.



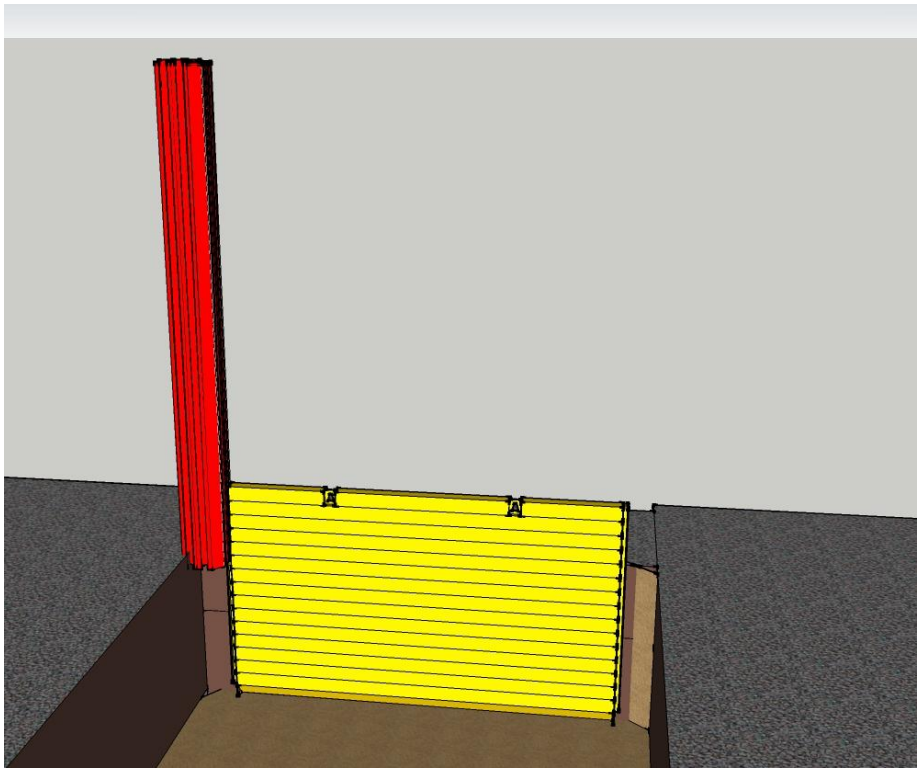
Step 2,

Place a base panel up in the hole at one end. You can hold this panel in place with a second machine if there is one available or lean the panel on a slight angle



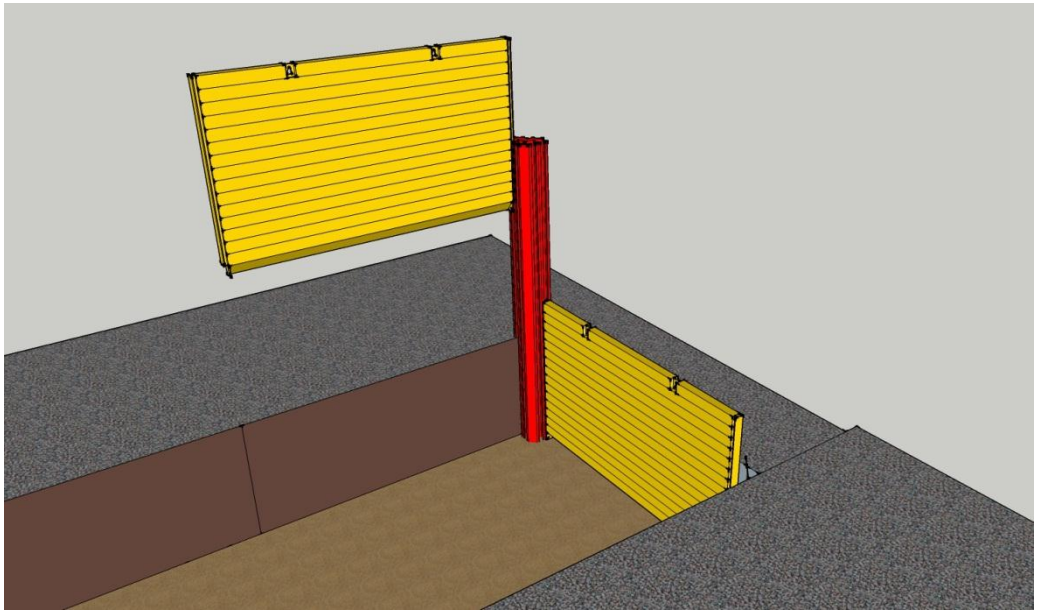
Step 3,

Slide a post onto the panel make sure it remains straight 90 degrees



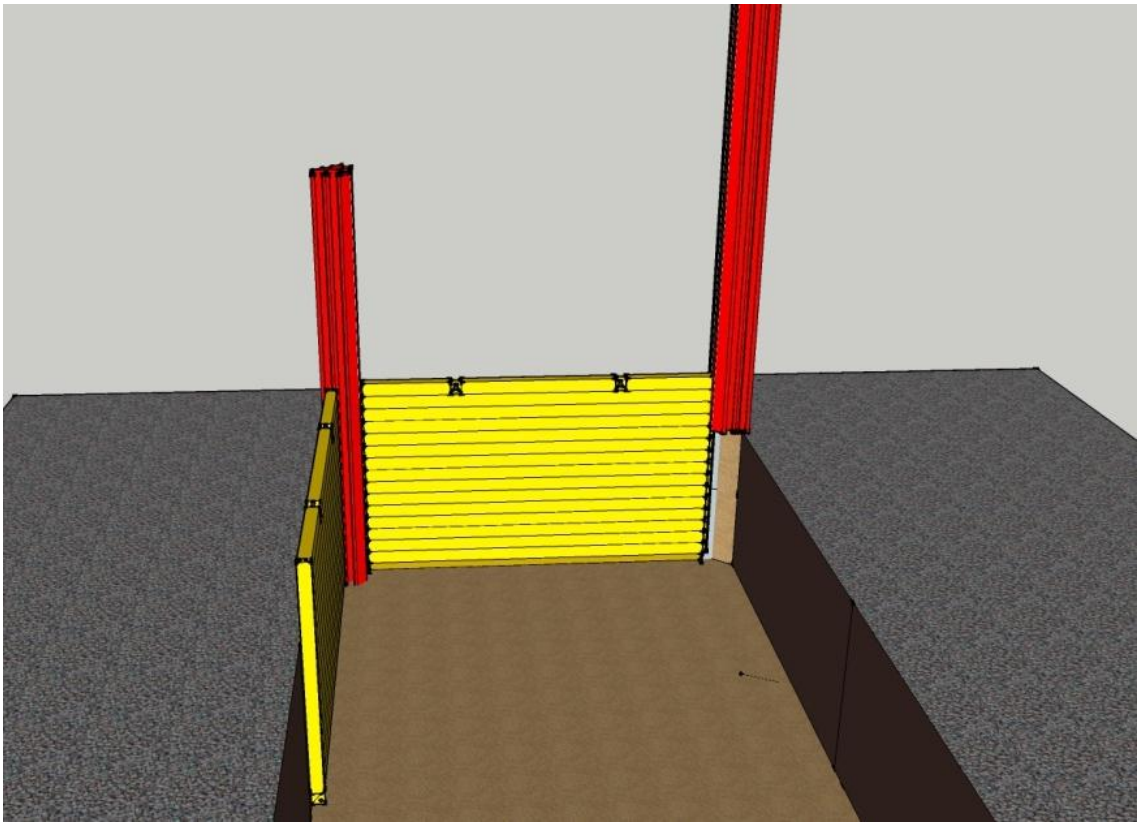
Step 4,

Slide a 2nd panel into the post forming a 90˚ corner. This will make it safe and will not fall over.



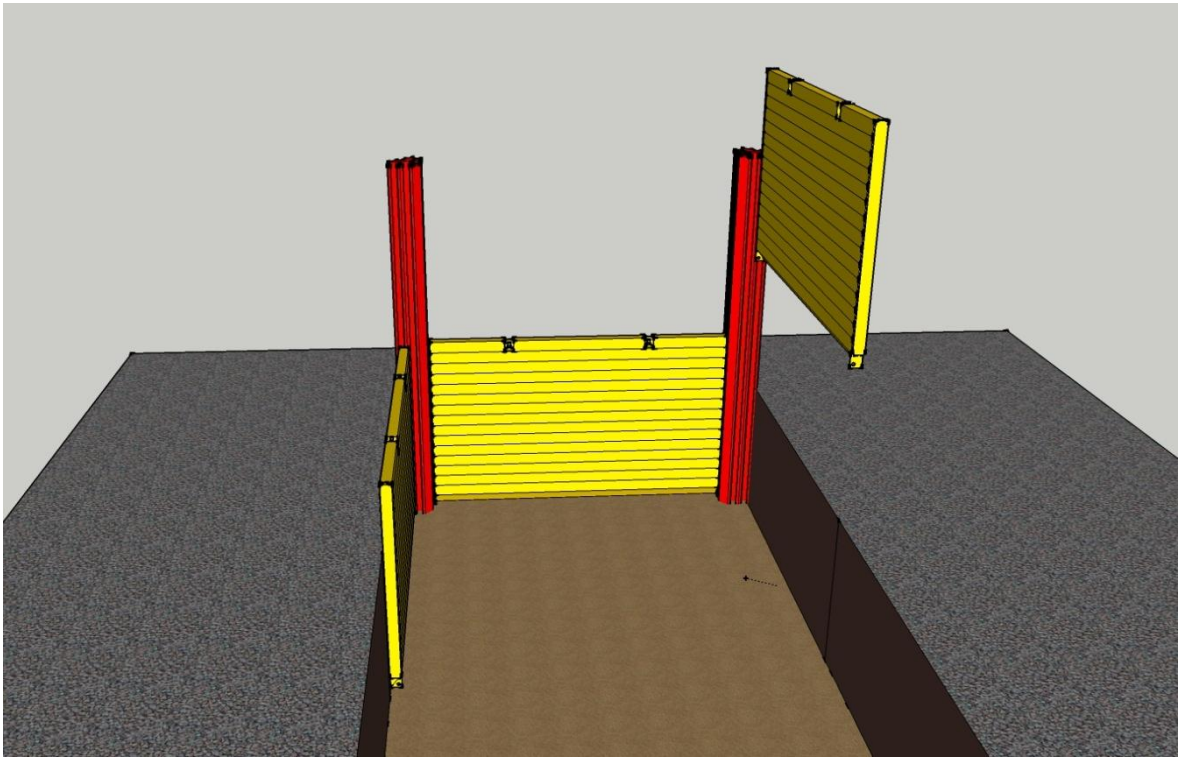
Step 5,

Slide a second post onto the other end of the first panel



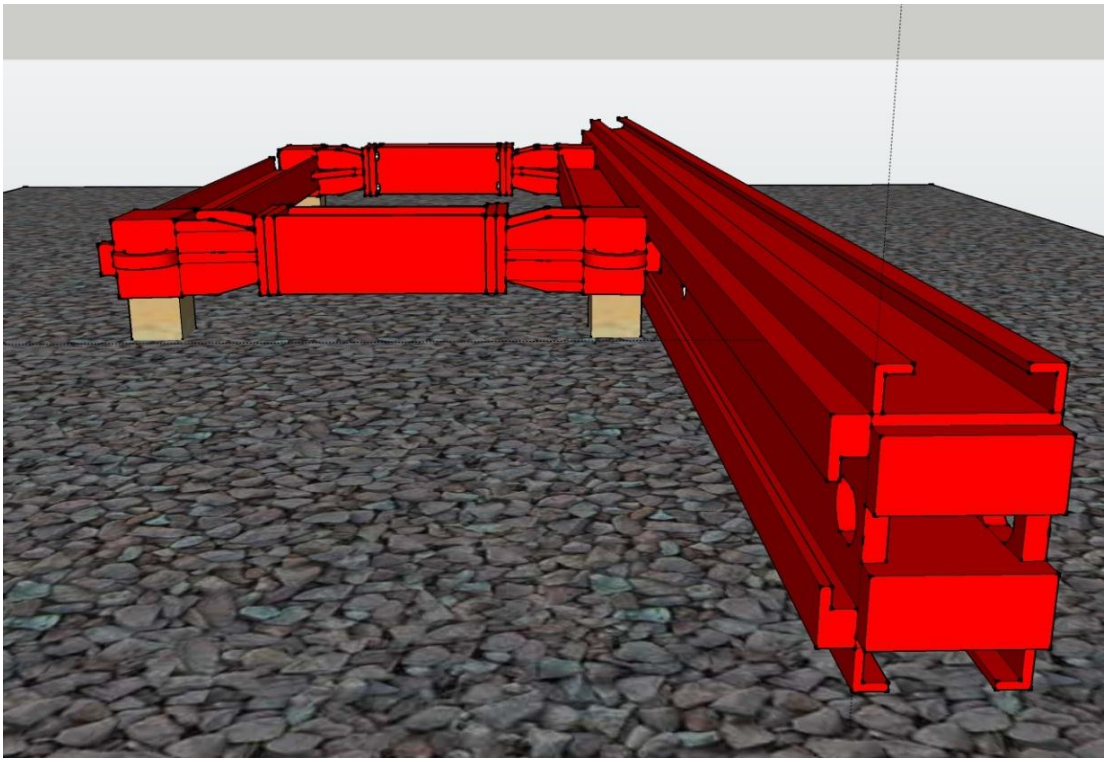
Step 6,

Slide a 3rd panel into the 2nd post from the top



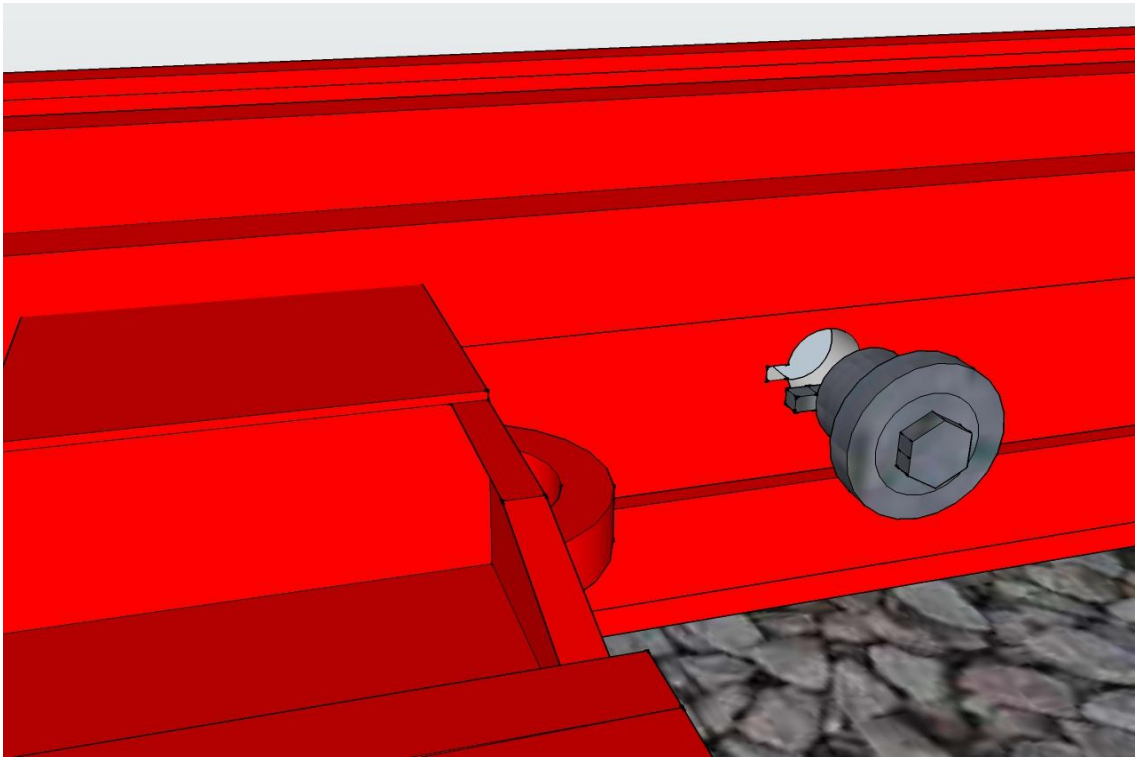
Step 7,

Set up the Central H frame by placing the frame onto blocks, slide the posts onto the T section of the frame lifting eye of the post to the same end as the lifting eye on frame.



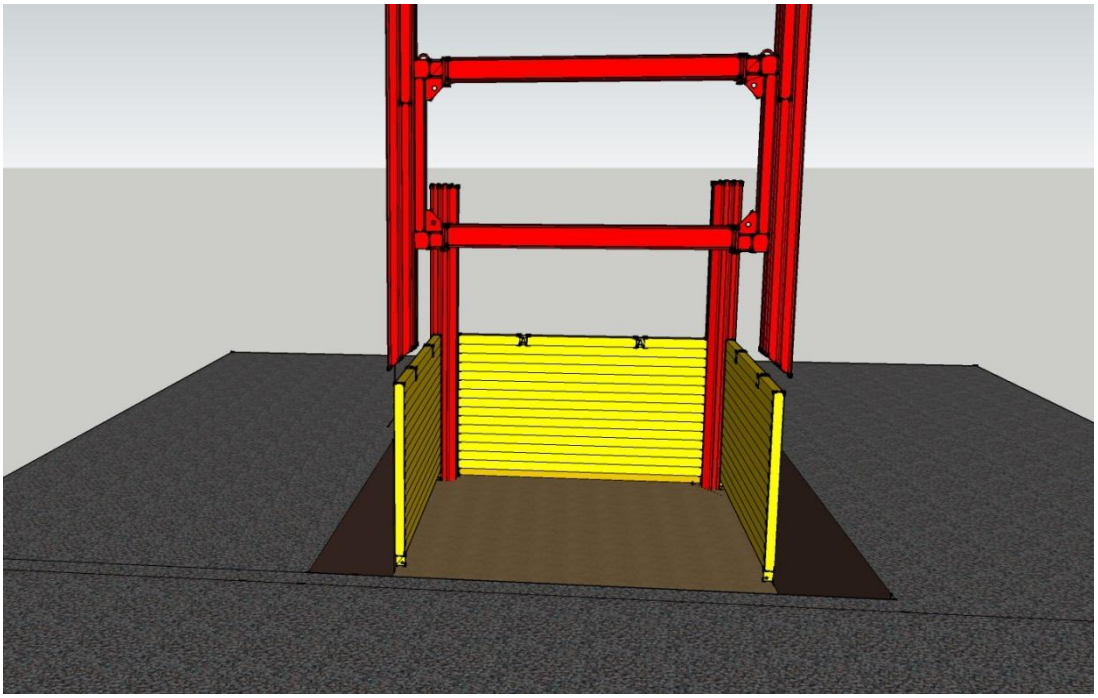
Step 8,

Insert the locking pins into the keyed hole above and below the frame. This will allow you to lift from the frame without it sliding out.



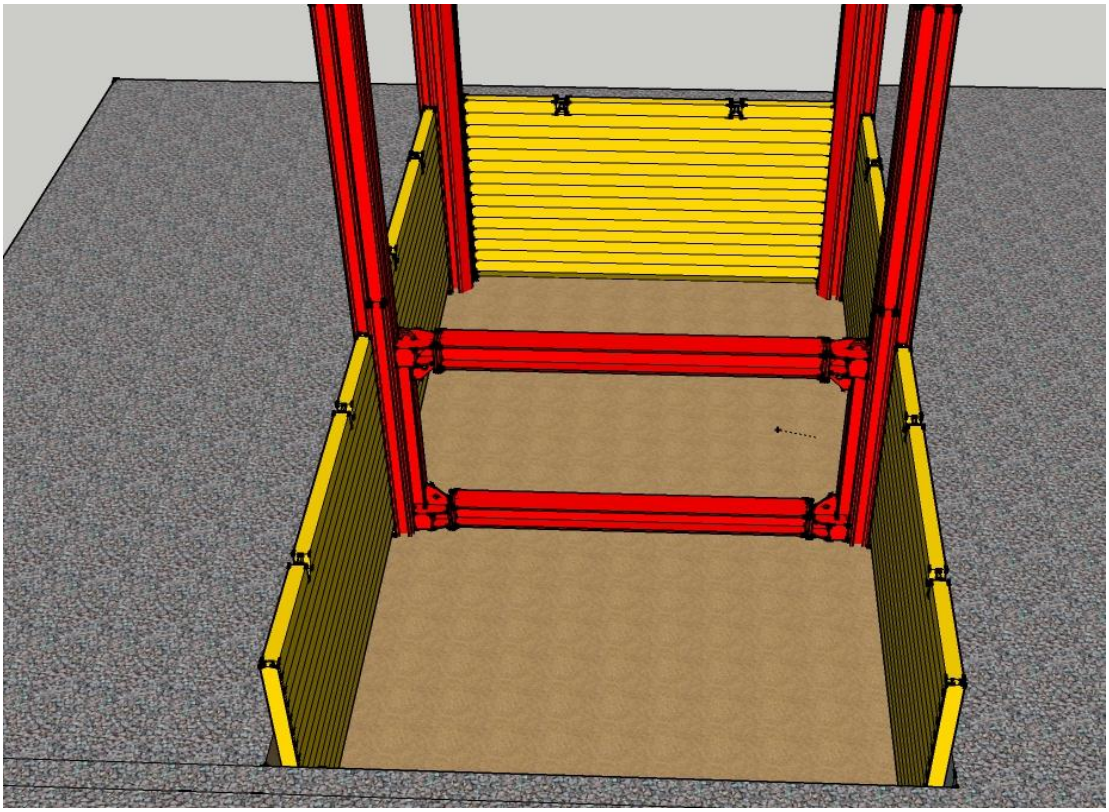
Step 9,

Make sure the distance between the back of the two panels is the same as the inside of the back slides of posts. Slide the frame down onto the two panels do not push the posts into the ground



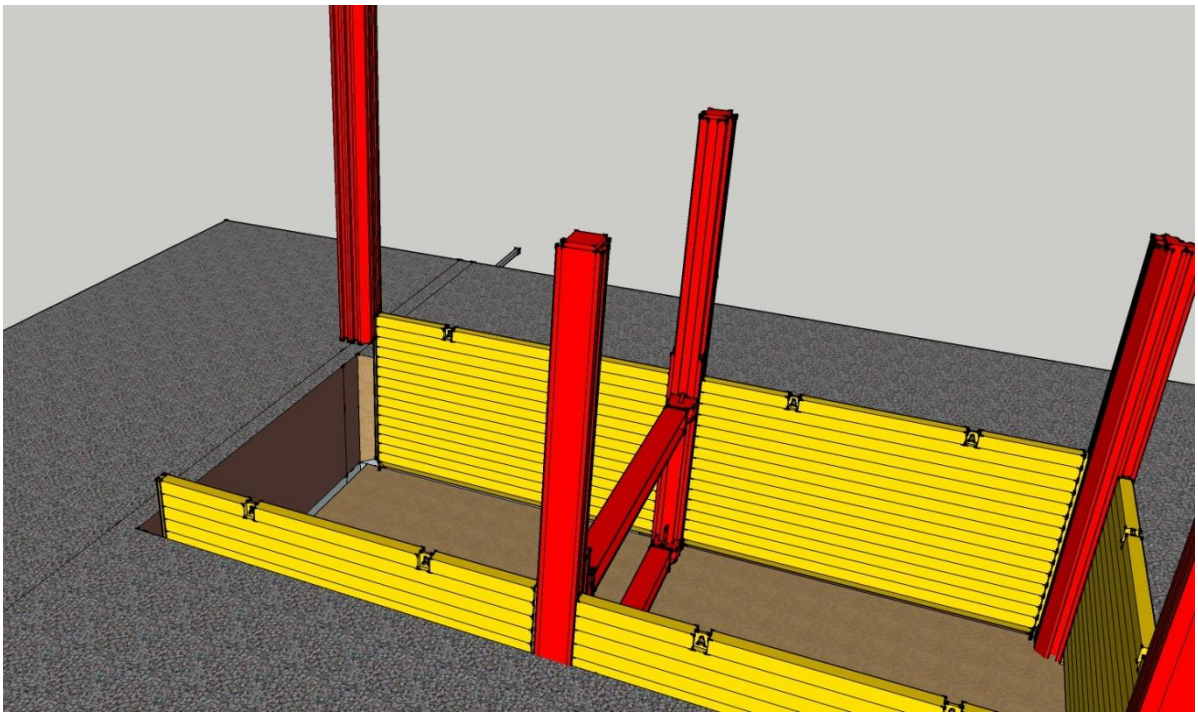
Step 10,

Insert a panel into the posts on both sides ensure they are straight and not kicking in at all.



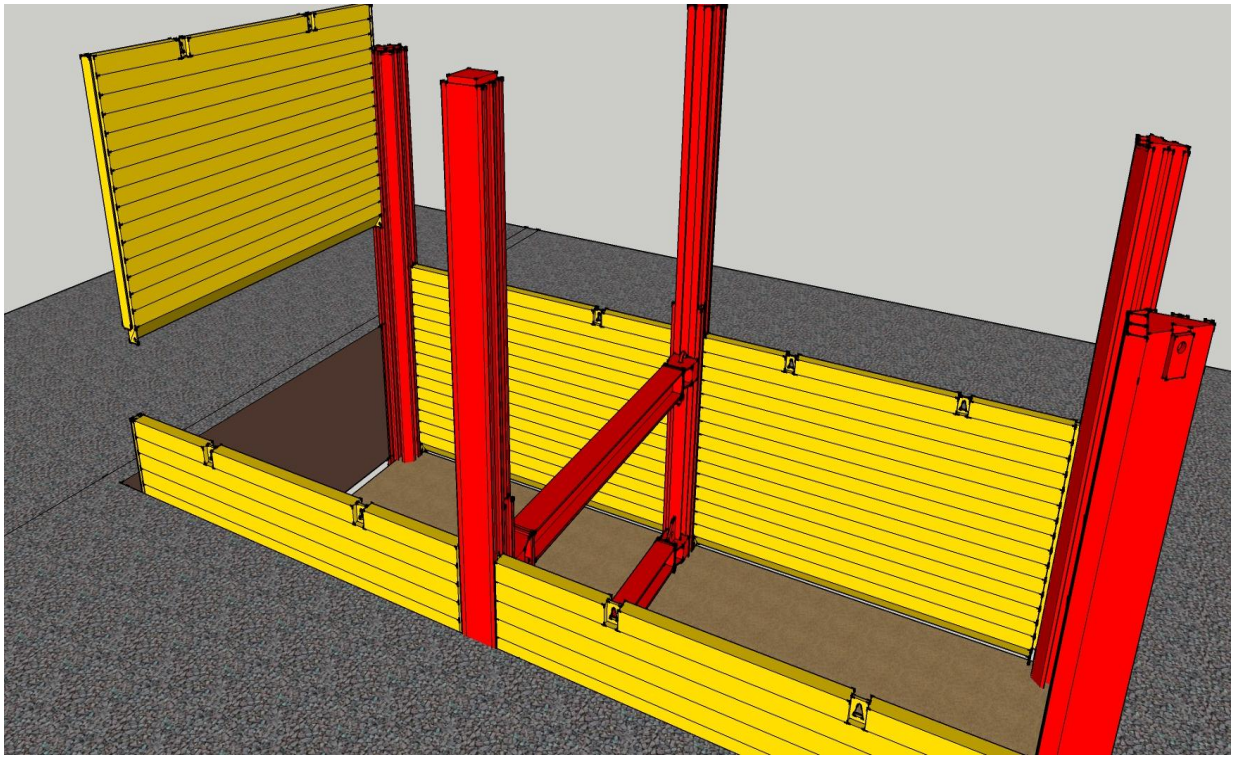
Step 11,

Insert a Corner post onto the end of one panel



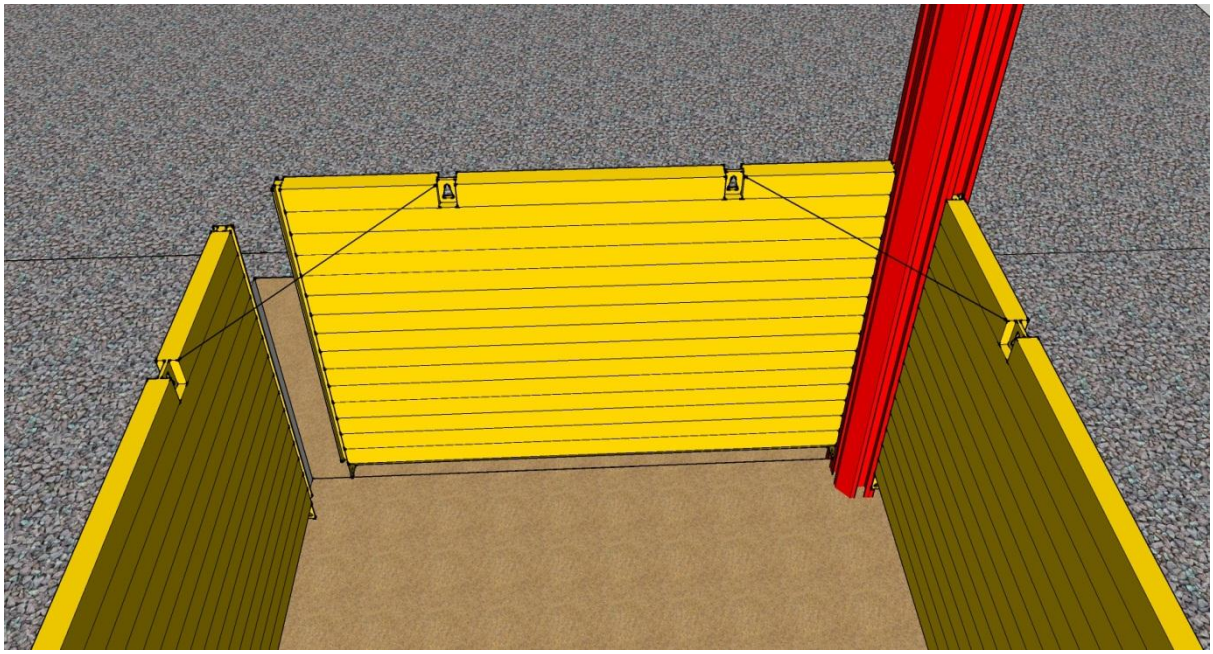
Step 12,

Insert a panel into the post from the top at the end ensure it is straight and 90˚ to the other panel



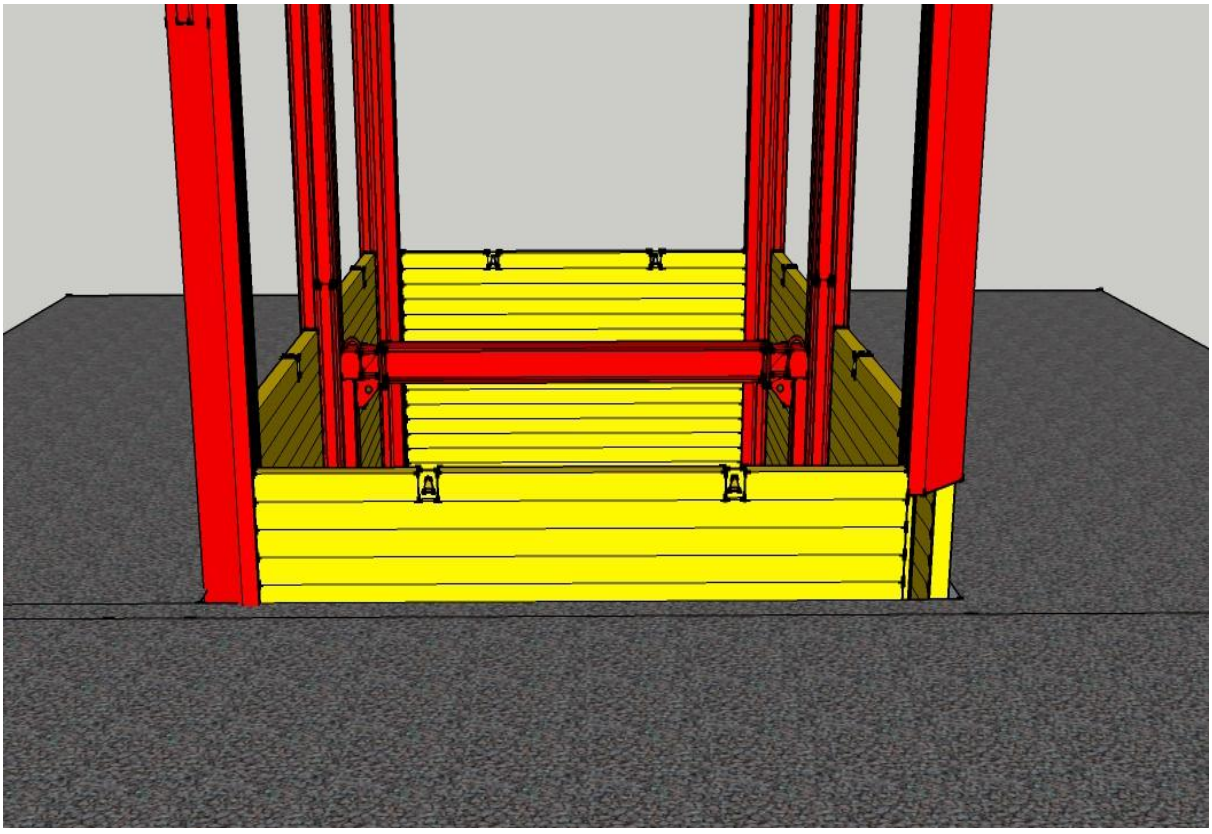
Step 13,

Ensure the distance between the two lifting eyes are the same as the adjacent side.



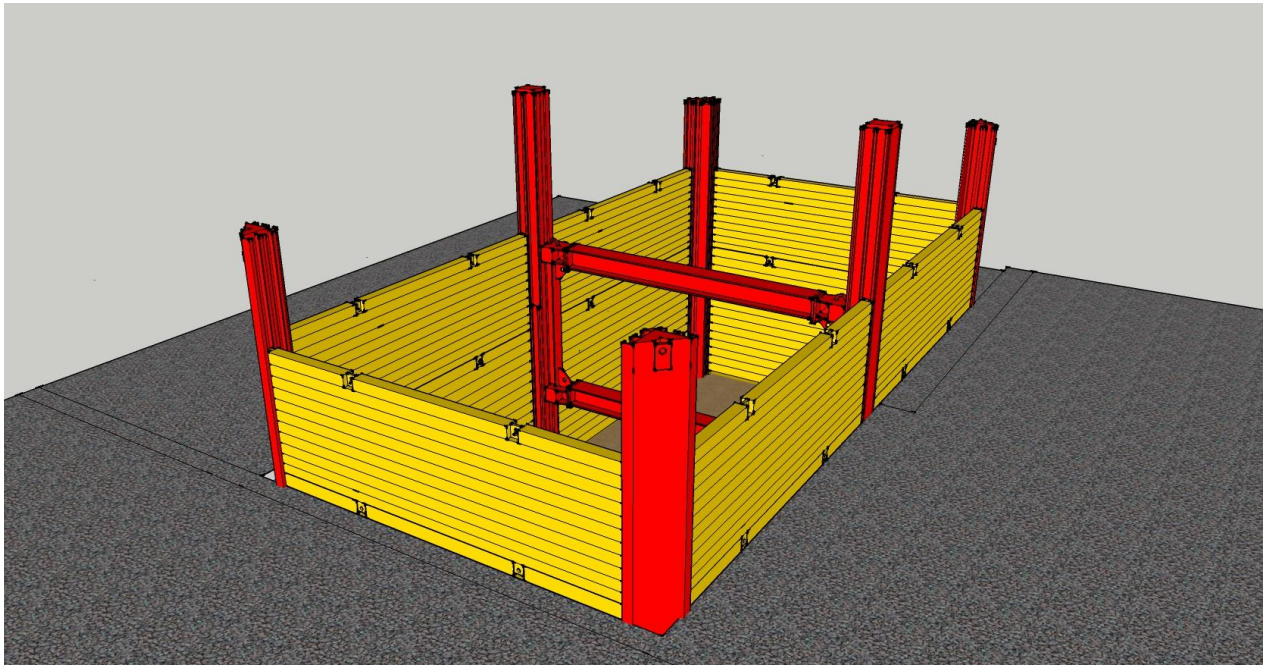
Step 14,

Slide the last post onto the corner



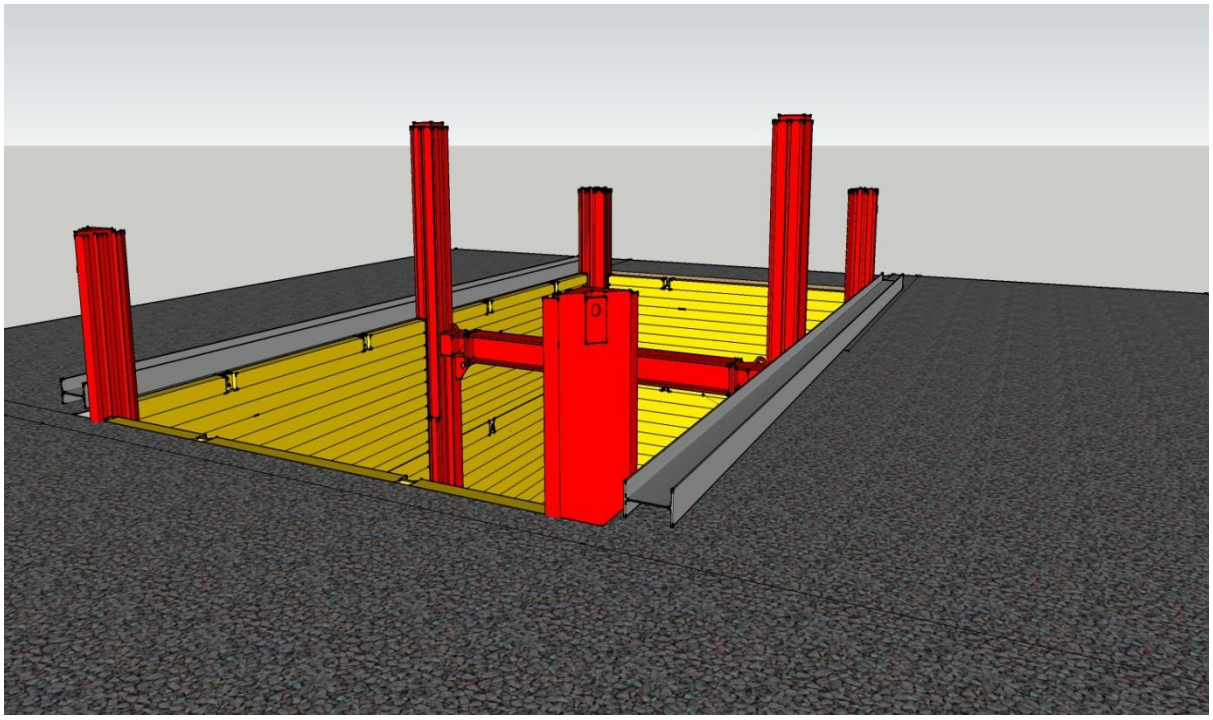
Step 15,

Dig out between the shoring using the dig and push method, once the base panels reach ground level it is time to add the extension panels



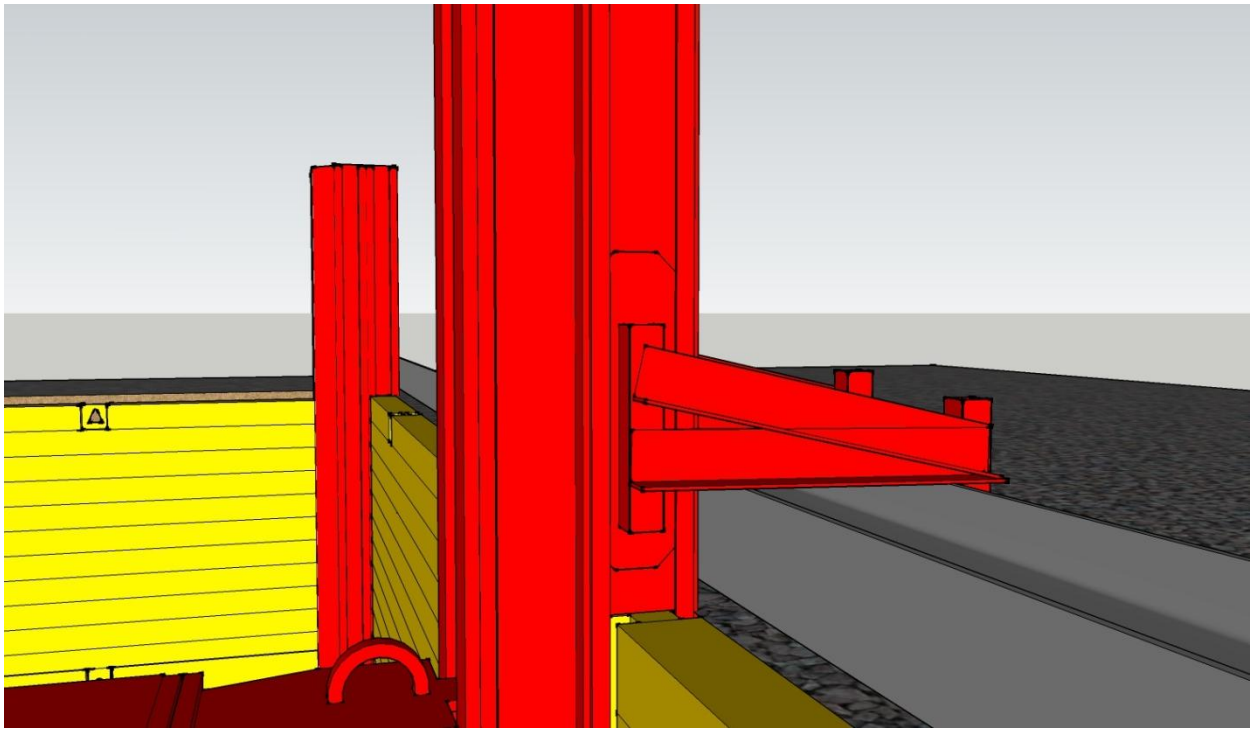
Step 16,

Carry on digging and pushing, once the shoring is down to depth it is time to place the Waler Beam along the outside of the pit, any gaps behind the shoring must be backfilled and level.



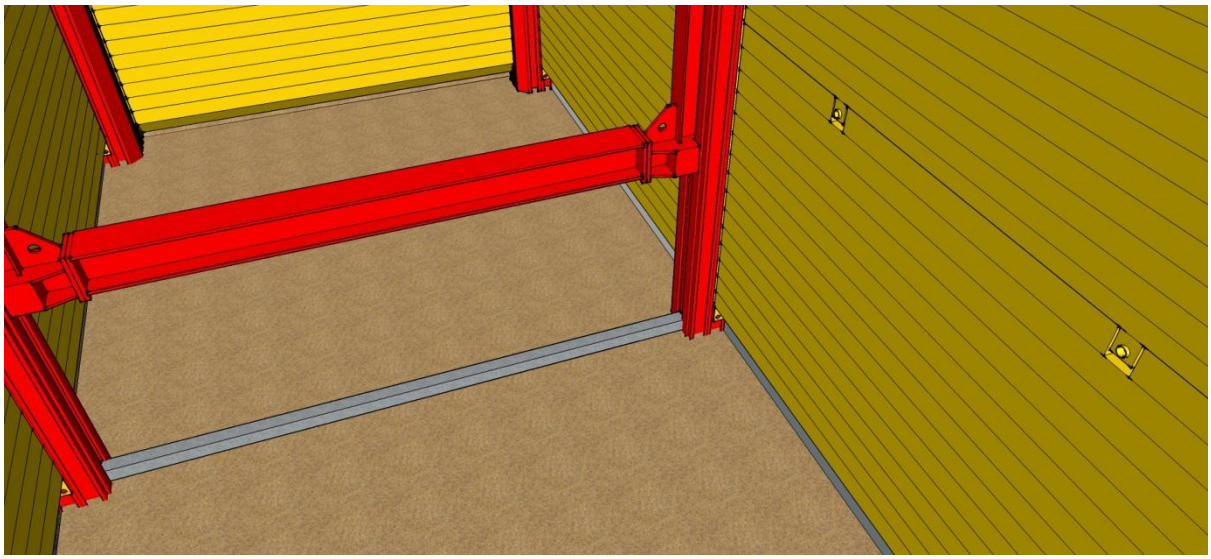
Step 17,

Slide the restraining brackets into the posts hooking over the beam as shown. Two brackets per post.



Step 18,

Place the sacrificial beam into the bit between posts, this remains in there lay your bedding over the top.



Step 19,

Once you are ready to install the tank and the brackets and beams are in place the central frame can be removed to create a clear opening.

