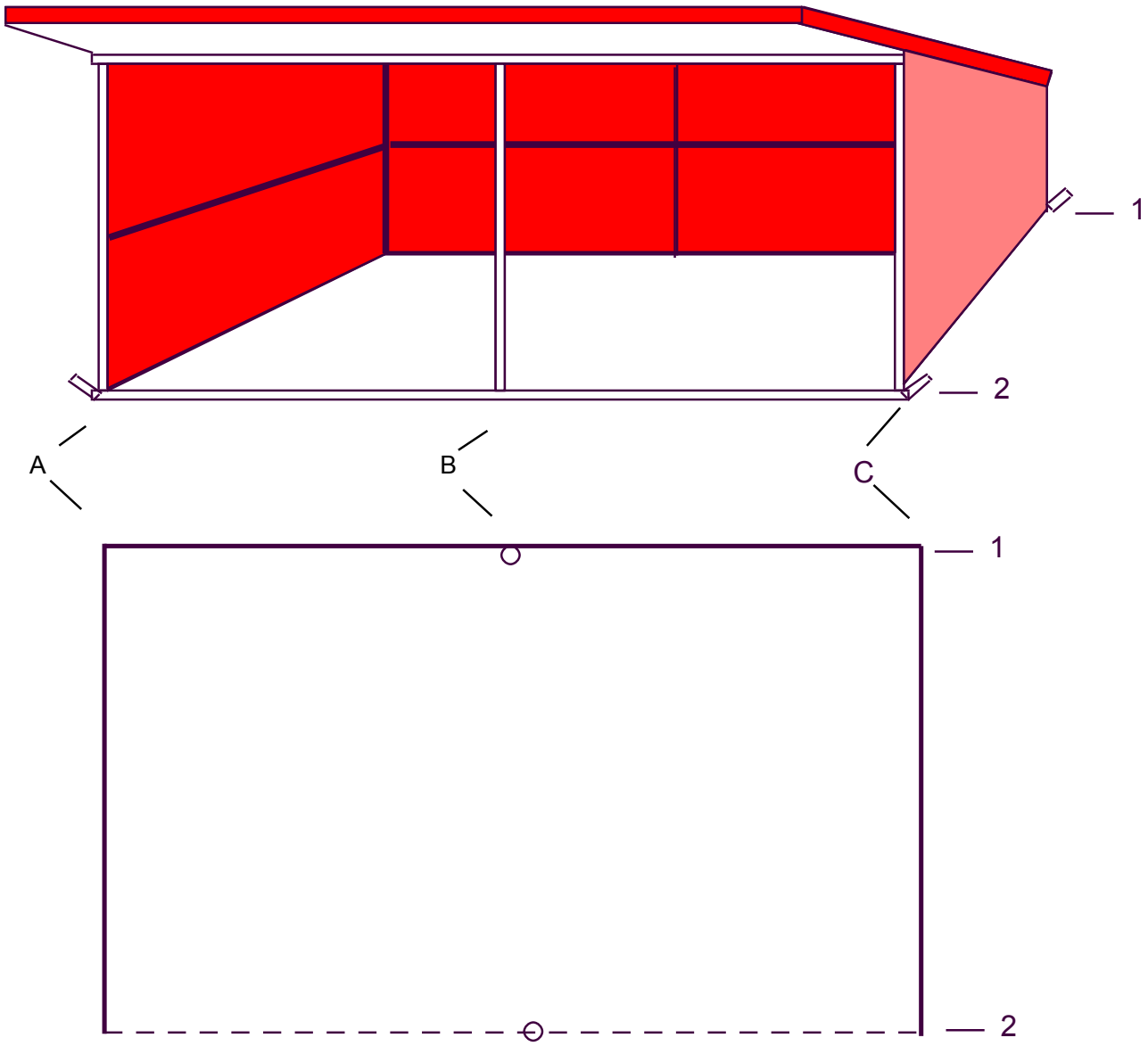

Frame #22-2

1 BT-
1 FT-
1 BR-
1 FR-

5 CP-
2 CPD-
2 CPD-

3 B-
3 F-

Before You Begin

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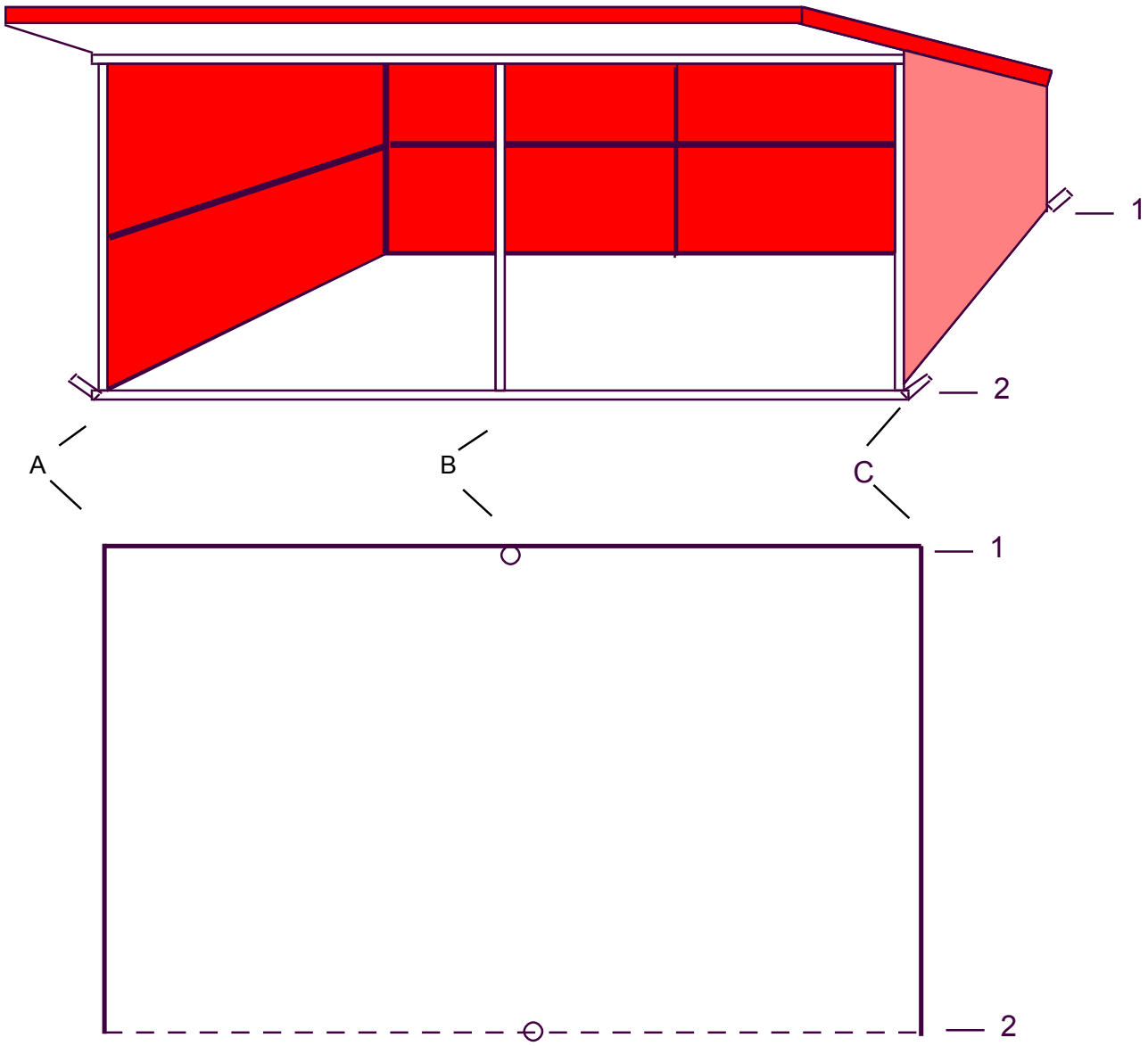
Set Aside Enough Time.

These buildings have been designed to go together smoothly with all the bolts fitting. However you should remember that you are actually constructing a building and the process will require several hours to complete. By setting aside plenty of time and deciding to make the task enjoyable, assembly will go smoothly.

Safety First.

Acting as your own building contractor can be a very rewarding and pride filled experience. Be careful, follow safety rules, and watch out for each other. Have fun and send us a picture.



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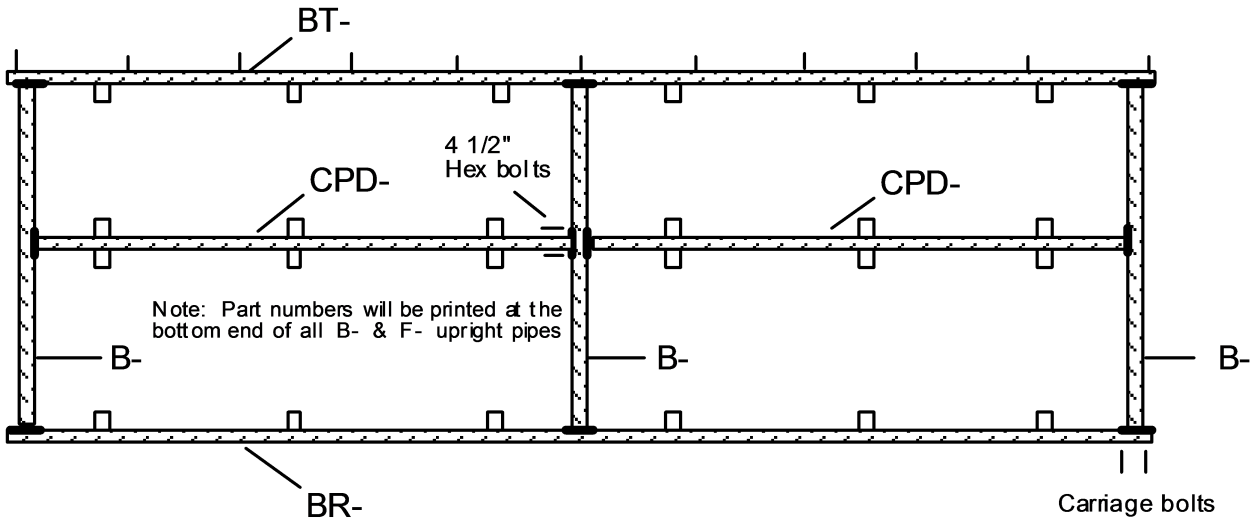
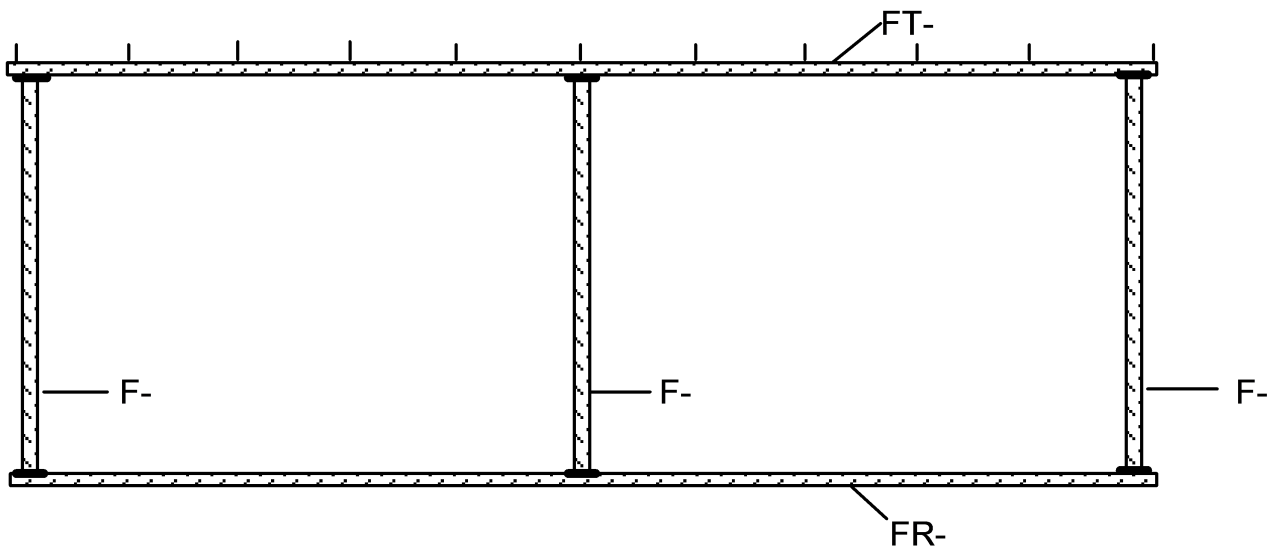
Generic Side Section assembly sheet for frame # 22

This is a generic assembly sheet. The number of tabs, the roof pitch, or the proportion of your building frame may vary slightly. Note: Do not tighten any bolts until the frame is completely assembled.

Side Sections 1



Side Sections 2



Generic Cross Section assembly sheet for frame # 22

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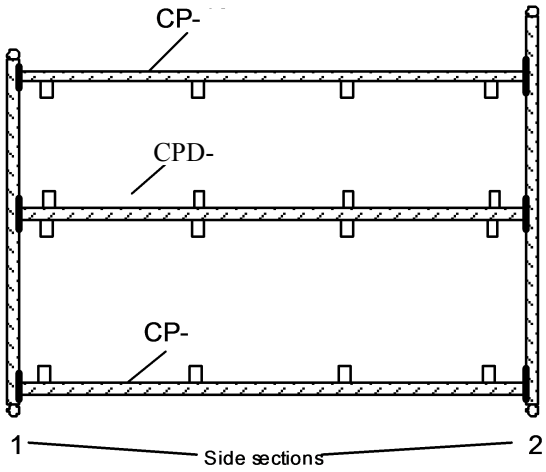
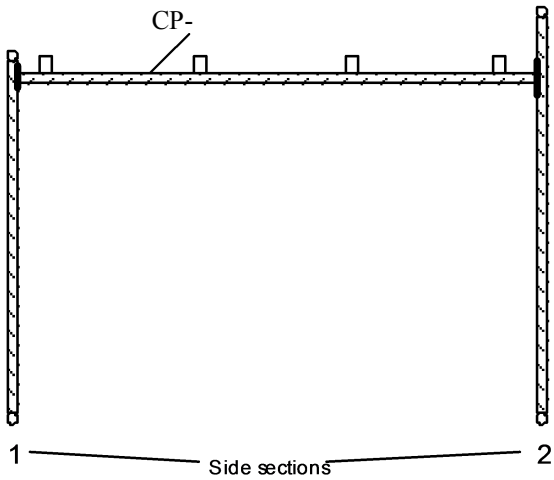
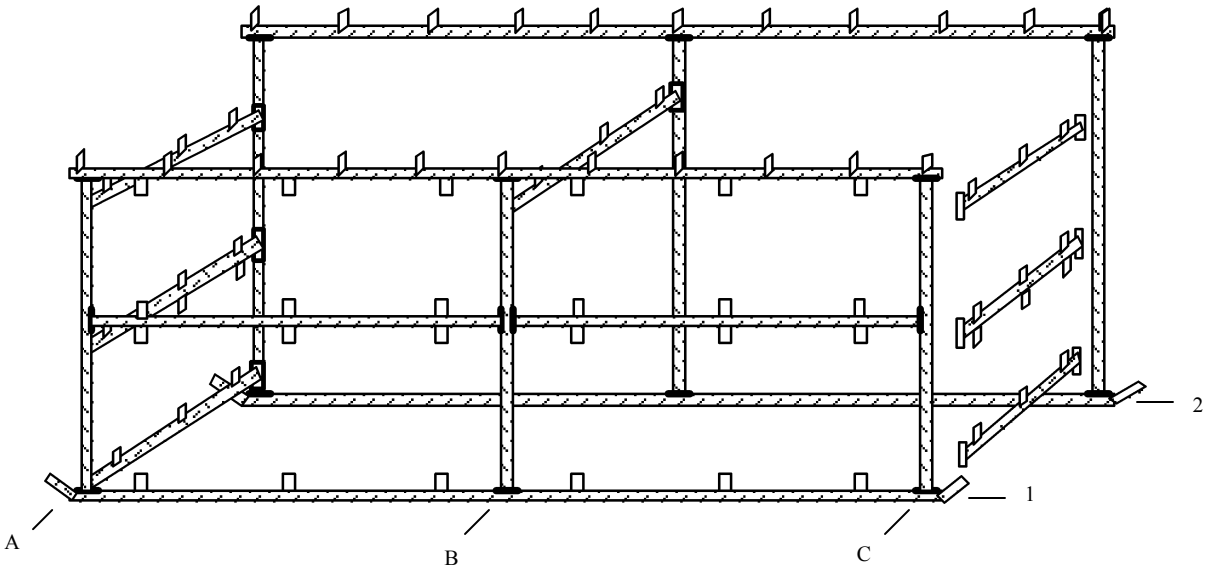
Cross Sections A & C

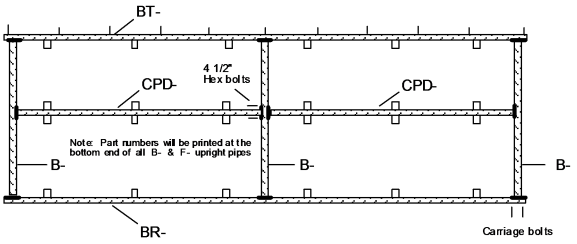


Cross Sections B

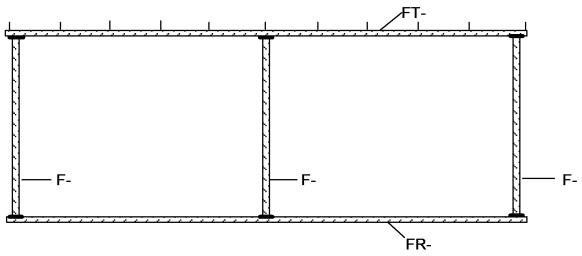




Side
Section 1



Side
Section 2



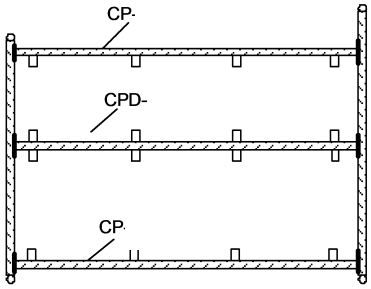
How to erect the main frame.

Building number 22

Before starting let me say here "Do not tighten any bolts until the frame is completely assembled" this will give your bolts enough allowance to pass through the holes without binding. It is best to have a level area but not necessary. Separate all parts and check them against your parts list. For the main frame you will need 9/16" wrenches.

Start by laying side one out on the ground as it appears on your illustration guide. The number of tabs your frame has may vary and that is not important but do pay attention to the direction they are facing.

Cross
Sections A & C

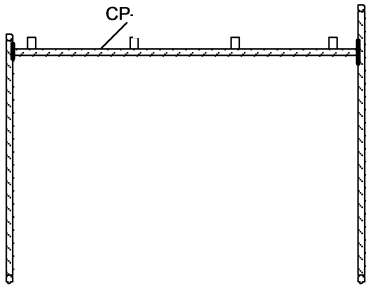


Insert the carriage bolts up through the runner pipe and through the upright. (When standing the bolt head will be on the ground). Make sure the ID marking on the upright (ie B-7) is at the bottom, near the runner pipe. (BR-)

After you have the carriage bolts in place and the nuts on. Use a hammer to strike the head of the carriage bolt to indent the square part of the carriage bolt head into the round hole. Then finger tighten the nut. This will keep the head from spinning after you stand the side up vertically.

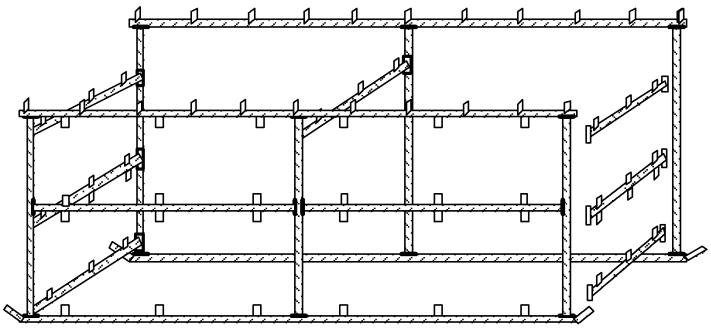
Attach the top pipe (ie BT-20) with the 3.5" hex head bolts and put the nuts on, be sure to leave them very loose.
Once you have side one assembled stand it up on its runner and have someone or something hold it in its upright position while you attach a cross pipe (ie CP-12) to the bottom set of holes on your upright at each end using 3.5" hex head bolts. This will serve as a kick stand affect to hold the side upright. **Never use just one bolt to hold a pipe in place**.

Cross
Section B



Now that you have side one standing, assemble the main frame of side two using the same methods used in side one. After assembling side two on the ground stand it up and attach it to the horizontal cross pipes (ie CP –12) that are currently holding up side one.

Now following you illustrated diagram attach the remaining CP–pipes to your frame.

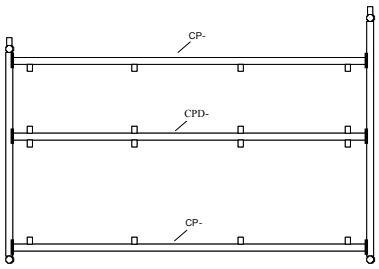


Now that your frame is standing completed with all the bolts in place it is time to square the frame. To do this start at the back upright (ie B-7) then measure diagonally to the front upright (ie. F-87) on the opposite end of the building frame. Once you have that measurement repeat the process on the opposite corners. When these two measurement are the same your building is square.

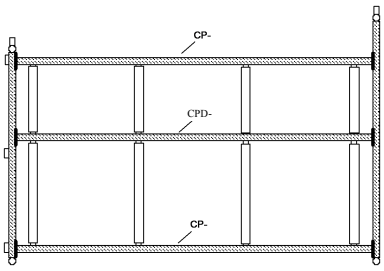
Now tighten your bolts. It is always best to start at the bottom and work your way to the top. Be careful not to bump into any exposed tabs.

Take a picture.

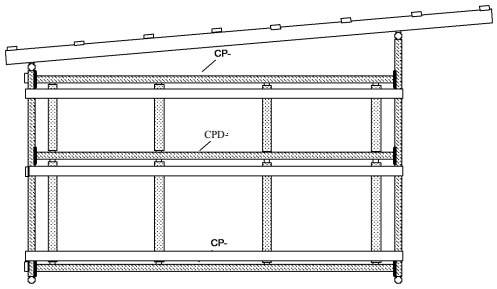
Cross Section A & C



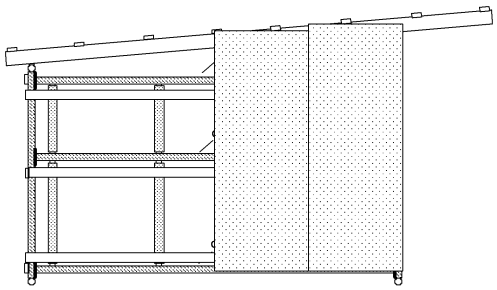
Cross Section A & C



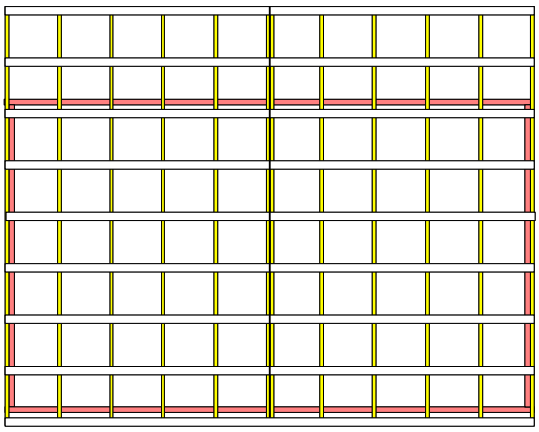
Cross Section A & C



Cross Section A & C



Roof



Roof Purlins.
For 15’ 6” rafters put a mark 1.5” from the front and 1.5” from the back. Then the rest of the center marks should be 30.5” to the center of the 2”x 4” purlins.

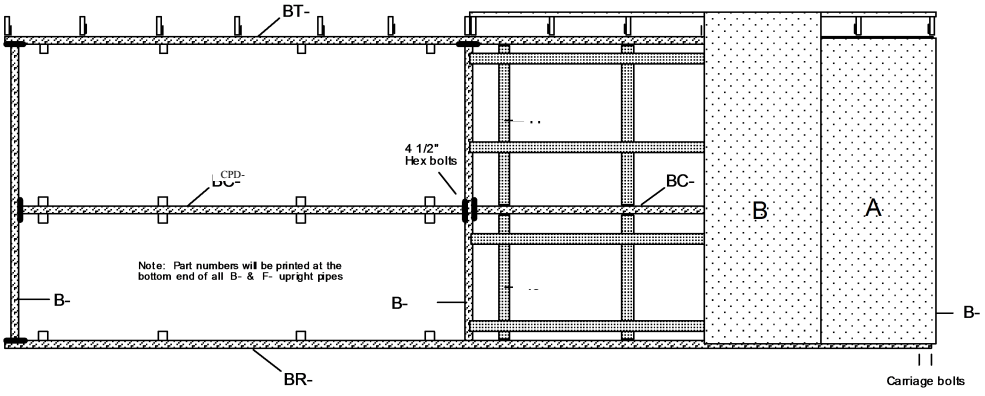
Now that your frame is complete and you have all the bolts tightened it is time to apply the lumber and the siding. The diagram above is the top view showing the top pipes, the 2”x 6” roof rafters and the 2”x 4” nailers. Notice the rafters in the center of the roof are doubled (placed one on each side of the center tab). This is not absolutely necessary but it will allow the roof and siding to go much more smoothly if done this way. Your 2”x 6” rafters should be cut 3” shorter than your roof metal. This is to allow space to keep rain water away and room to apply trim is so desired. The 2”x 4” nailers should be spaced evenly across the rafters. Or you may also opt to use plywood type decking over the rafters instead of the 2”x 4”s.
The illustrations on the side show the ends of the building frame and the illustration at the bottom of the page shows the back of the building frame. All the lumber and siding applied in these diagrams are applied from the outside of the building. Use 2” x 5/16” carriage bots to apply lumber to the tabs except for the double rafters in the center of the roof which will use 3 1/2” x 5/16” carriage bolts.

Cut 2”x 4” lumber and place them vertically from tab to tab as illustrated in the second drawing to the left. Do this on both ends and the back of the frame.

After the vertical 2”x 4”s are in place, nail or screw horizontal 2”x 4”s to them as illustrated in the third drawing. Depending on the height of your building frame or just your personal preference you may apply as many horizontal 2”x 4”s as you wish.
The horizontal 2”x 4”s on the ends of the frame should extend out to be about 1/4” short of the outside of the pipe uprights.
You will then repeat these processes on the back side of your frame. Take a picture for the scrapbook.

When applying your siding on the end as illustrated in the forth drawing start at the front and stair step it to the back. You may have to trim off the top corners of the metal to keep it out of the roof line (the steeper your roof pitch the more you will have to trim).. Notice at the bottom of portable building we have left ground clearance so the building may be moved.

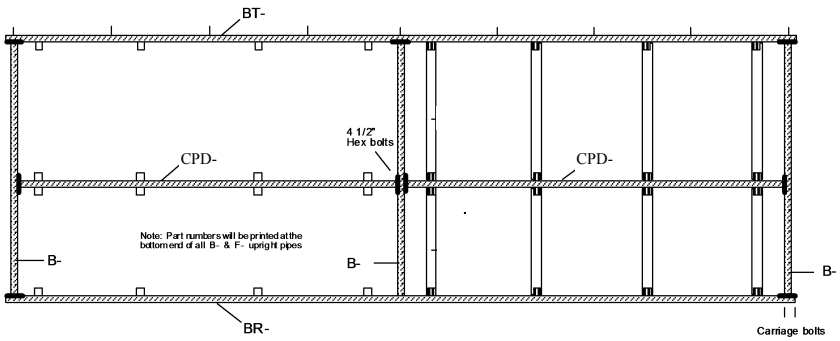
Side Section 1



Applying the siding on the back wall can cover the rafters or go just below the rafters. *** In most cases if you are using an open front building, as this was designed to be, you would stop your metal at the bottom of the rafter to allow ventilation or air movement.**

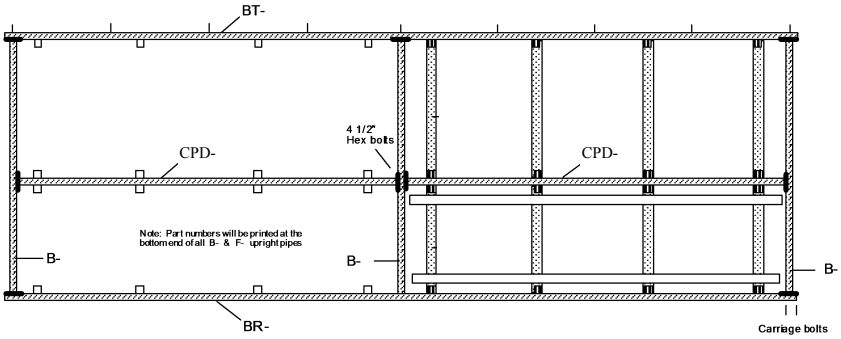
On the inside of the building. If you choose to apply a kickboard.

Side Section 1



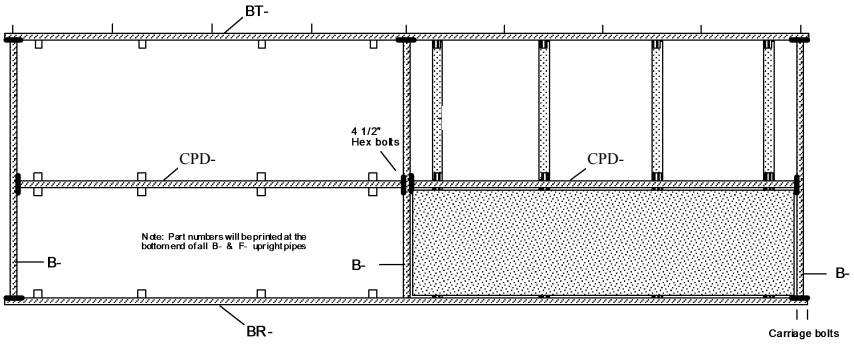
The above illustration shows the view from the inside of the pipe building with the vertical 2"x 4"s bolted to the tabs on the outside of the frame.

Side Section 1



Then just above the bottom tabs on the BR-pipe and just below the tabs on the CPD-pipe attach horizontal boards using cut strips of 3/4" plywood or 1"x 6" lumber. If it is necessary use heavier lumber to attach your kickboard to. ie. 2"x 4"

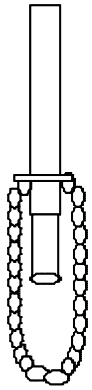
Side Section 1



Now measure the space between the pipes and cut 3/4" plywood that will fit between the BR-pipe and the CPD-pipe and attach it to the horizontal boards you just applied. If you opted to use a heavier kick-board material you may wish to cover over the top of the pipe frame. If you wish to have added protection against cribbing you may also apply a kick board above the center CPD– pipe by repeating the process.

Now that the building is finished, take a picture and send it to us and we will post it on our web site.

Top view

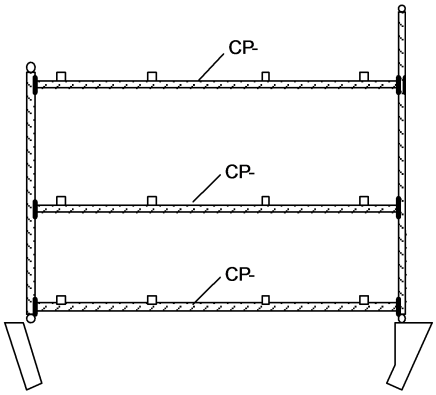


Side view

If you are building one of our frames that is 12'x 24' or less and you wish to drag it to new locations we have provided a hole at the end of the runner pipe for your convenience. Cut a length of 1/4" chain about 30" long and put a bolt through the end links so you will form a loop in front of the turned up runner end. Do this at each corner so when you are ready to move your building you can attach a pull chain at each corner of one end.

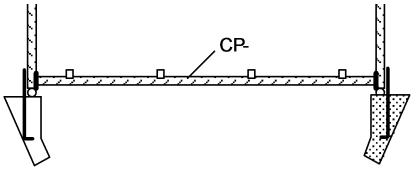
Generic view. Your proportion or number of uprights may vary.

Klene brand anchor guideline.
Suggested use at each main frame upright.



Depending on your soil, auger a hole two to four feet deep at an angle under the main uprights of your building.

After the hole is dug stretch the top of the hole over by knocking the dirt away from the runner pipe.



Bolt the 1/2" rebar anchor to the upright using the same bolts holding the CP- pipe.

After the anchor is securley in place fill the hole with cement until it is against the runner to serve as an anchor and sona tube foundation.

This type of foundation / anchoring system is best applied after the building is in place.