

# 4 ft Quarter Pipe

Here you will find free original plans for a 4 feet high 8 feet wide quarter pipe with a 4 foot platform. This quarterpipe is perfect for both skateboarding and aggressive skating, it works for bmx riding, but is a little small to do much with on a bike. It took me about three hours to build. The total cost of this quarterpipe is about \$200.

## Materials required

13 pieces of 8' 2X4	\$35
4 pieces of 8' 2X6	\$15
1 piece of 8' 4x4	\$7
2 pieces of (3/4) inch plywood	\$44
4 pieces of (3/8) inch plywood	\$44
2 pieces of (1/4) inch massonite	\$20
1 piece of 8' 1.5 inch diameter black metal pipe	\$22



**Approximate Total Cost: \$187**

# Step 1: Cut the Sides

## Materials Required

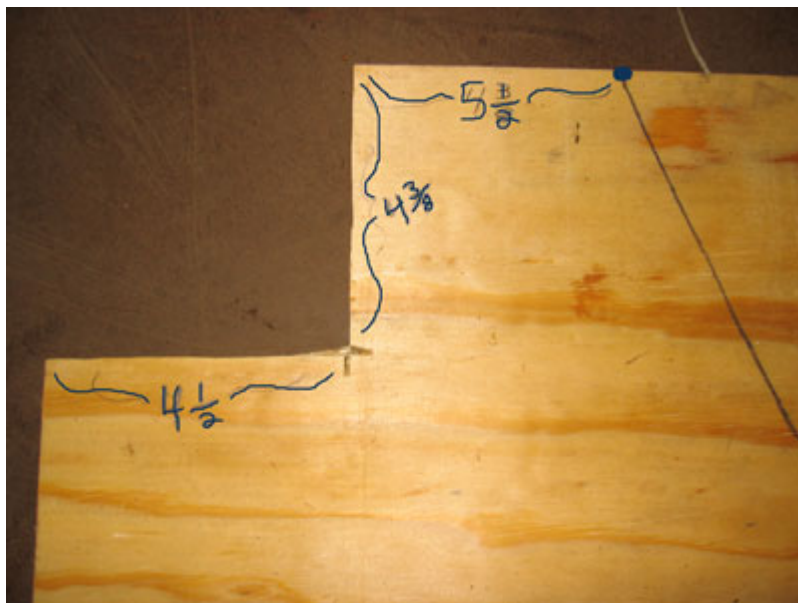
- 1 piece 3/4 inch plywood

## BE SURE TO READ THIS

I made the quarterpipe in the following plans with a platform that is not built in. I did this because of the way the quarter pipe is placed in the barn. I personally recommend making your quarterpipe with a built in platform, it is much easier. In order to make a quarterpipe with a built in platform, do not follow the first part below called "Cut the Corner". Then in [step 3](#), instead of building the platform separately, build it into the quarter pipe. If you need help with this part refer to [Mini Halfpipe Plans Step 4](#) which shows how the platform is built into the mini halfpipe.

## Part 1: Cut the Corner

The only material required for this step is a single sheet of 3/4 inch plywood. First cut a square out of the corner, As you can see in the picture below, cut in 4.5", up 4 and 3/8", then draw a dot 5.5" over, this dot is where the transition will start.



Following these dimensions, the coping will end up flush with the transition of the quarterpipe. Also, the coping will stick up above the platform about a half an inch, if you want the coping to stick out more or less you can adjust the length of the vertical cut, feel free to look at future steps to see how everything is going to fit together.

## Part 2: Draw the Transition

Refer to the [String and Compass](#) section for a much better explanation (and video!). Essentially I do the same thing in each description, the way below is more complicated.

Next, draw the transition of the quarterpipe using the string and compass method. To do this, you need two long perpendicular lines, I used the lines of the massonite on my halfpipe, you might need to draw your own. Once you have your perpendicular lines, put the plywood along the bottom line and measure out 6.5' along the perpendicular line as shown in the picture.



You can use whatever transition you want, for my quarterpipe, I used a 6.5' transition. For a steeper slope use a smaller number, for example if you use a 4' transition (not recommended), then your quarterpipe will approach vert, if you use an 8' transition then your quarterpipe will have a very gradual slope, 6.5' worked out pretty well for me. If you do go with a steeper slope the plywood will be more difficult to bend.

Next, put a screw 6.5 feet away (or whatever transition you use). In the picture above I put a screw in near the end of the tape measure. Now tie a string to the screw and at the other end (at the bottom of the plywood) tie a pencil. Next slide the plywood along the line you drew so that the pencil just reaches the dot you drew. Now draw your transition along the plywood keeping the string taught. The line should go from the dot you made just reaching the bottom of the plywood.



### Part 3: Cut it Out

Now at the bottom of the transition it is not necessary to go all the way since you will be screwing a 2x4 at the bottom, so draw a vertical line at the last point that a 2x4 will fit.



Okay, now you have your transition drawn, next take a jig saw and cut out the plywood along the line you drew. Once you have done this there is plenty of plywood left, so take the piece you cut out and use it as a stencil for the second piece you are going to cut out of the same piece of plywood. Once you have this line cut the second side. You should now have two pieces that look like this.



## Step 2: Screw in the 2x4's

Materials required: eight 8' 2x4's, three 8' 2x6's and the two sides cut from step 1.



Now the whole quarterpipe is going to be 8' wide, so you need to cut each of the 2x4's and 2x6's to be 94.5", so that each piece plus two widths of the 3/4" plywood will add to 8 feet. Next, before screwing anything together, lay the two sides on top of each other and make marks where you want to screw in each 2x4 (it is easier to do this now than when they are separated by 8'). You should put a 2x4 about every 10 inches. In total my quarterpipe has nine 2x4's along the transition, so just try to evenly space them out. Once you have your marks on where the 2x4's should go just start screwing them in like in this picture.



Note that the bottom 2x4 goes horizontal and the rest go vertically, perpendicular to the transition. In the picture I have the top 2x4 perpendicular to the transition, but after building the quarterpipe I recommend putting this piece parallel like the bottom one. The reason for this is when you screw in the plywood you start from the top and it will be much easier to screw it into the 2x4 if it is parallel to the transition. Next take the three 2x6's and screw them into the back. Put one at the bottom corner, then the other two along the 90 degree cuts that you made in the sides. One of the lengths is 5.5 inches (a 2x6 is actually 1.5 by 5.5 so a 2x6 should fit perfectly in this spot).

# Step 3: Build the Platform

## Materials Required

- seven 41.5" 2x4's
- two 41.5" 2x6's
- two 8' 2x6's
- seven 41.5" 2x4's
- one sheet of 3/4" plywood

## Different Ways Of Doing This

As I mention in [Step 1](#), I recommend making the platform built into the quarterpipe. (See step 1 for how to do this, you will deviate from the directions on this page)



This next part is pretty self explanatory, use the two 8' 2x6's on the outside and screw in the two 41.5" 2x6's on each end, then measure out one foot and screw in each of the 41.5 inch 2x4s like in the picture below.



Next, screw the 3/4" plywood to the top, you should note that the plywood is wider than the platform, don't worry, the plywood should stick out 3.5" one side, like this.



So the whole platform should now look like this



Next, set the platform on the quarterpipe piece built in steps 1 and 2. Like this.



It is a good idea to have help when lifting the platform onto the quarterpipe piece, you can see me struggle doing it by myself in the video. Next cut the 4x4 into two pieces and put them at the other two corners of the platform so that it is level. In the picture below I only used 2x6's, but this is because where I have my quarterpipe it is up against the barn wall where there are already supports for it so I just put the 2x6's there for a temporary support. At this point it would also be a good idea to put in some diagonal supports (some 2x4's going from the

bottom of the 4x4 to the corner where the platform meets the quarterpipe piece) for extra stability.



Now that you have the platform in place let's take another look at this picture



Note that there is a gap between the 3.5" of plywood that sticks out of the platform and the quarterpipe piece from steps 1 and 2. Again do not worry this was planned. This could have been avoided by cutting the square out of the plywood differently in step one, but if the gap weren't there then the coping would stick up too much (if you prefer the coping sticks up a lot, perhaps you should adjust the cuts in step 1 so that this gap is smaller), I designed these plans so that the gap would be 3/4", so that the left over plywood from step 1 would fit perfectly. There probably won't be a 3.5" by 8'

piece of plywood left in the scraps, so I cut out two 4' by 3.5" pieces of 3/4" plywood and used them to fill this gap.



Its a perfect fit!



One last note, you may notice that in the pictures my side piece top cut is not actually 5.5", when building the quarterpipe I didn't account for the fact the the quarterpipe would not reach vert so I cut incorrectly, but I assure you the cut should be 5.5" so that the coping is flush with the transition.

## Step 4: Coping

Materials required: One piece of 8' 1.5" black metal pipe (coping).



As you can see in the picture above, you need two metal drill bits, one that is  $11/64$ " and one that is  $21/64$ ". First take the  $21/64$ " drill bit and drill 4 holes evenly spaced into the coping, being sure that the holes are all lined up. Next take the  $11/64$ " drill bit and drill a small hole on the opposite side of the coping from the bigger holes you just drilled (put the small drill bit through the hole you made with the big drill bit to drill the opposite side).



The reason for the big hole on top is so that you can fit the head of the screw in the hole, the reason for the small hole on the oppsite side is for the tip of the screw to go in. Now place the coping at the top of the quarterpipe and screw it in where you want it to go. You will need an extended bit that will fit in the big hole you drilled and long enough to reach the small hole.



## Step 5: Surface

Materials required: Four pieces of 3/8" plywood and two pieces of 1/4" massonite.

This is probably the most difficult step of building a quarterpipe. Following these plans there will be two layers of 3/8" plywood with a top layer of 1/4" massonite. Some people like to put the second layer of plywood diagonal, the main purpose of doing this is so the seams do not line up. I don't think its worth it to put the secon layer diagonal instead I just shift the second layer over so the seams don't line up. The top layer of massonite is not nesisary but it is much smoother than plywood. Another option for the top layer is skatelite. Skatelite is very expensive (over \$100 per sheet) but it is waterproof so if you are keeping your quarterpipe outside you should look into this option.

First, take one sheet of 3/8" plywood and screw it into each of the 2x4's that you put in in step 2. I always like to start from the top so any extra plywood you can easily cut off from the bottom.





It can be very difficult to bend the plywood to match the transition of your quarterpipe. The steeper the transition the harder it will be. I used a 6.5' transition and would not want to have done anything steeper. The only advise I can give is to use your body to gradually bend the plywood and screw it in, starting from the top, one two by four at a time. Having other people with you to help keep the plywood bent while you screw it in is a good idea. Don't worry if you hear the plywood pop, but realize that it might break and you will have to buy a new piece. I've heard rumors that soaking the plywood in warm water makes this step easier but i've never seen it done and not sure how practical that is.

That being said, screw in the next piece of plywood.



Now it is time for the second layer of plywood. It is possible to skip this step but with two layers of plywood your quarterpipe will be stronger and last longer than with just one layer. Now you don't want the seams of this layer to match up so cut one of the pieces in half the long way (the hot dog way). So now you have two pieces of 2' by 8' plywood and one piece that is 4' by 8' left. Take one of the 2' by 8' pieces and screw it on one end.



Next screw the 4' by 8' piece of plywood into the middle, then the last 2' by 8' piece into the other end. Next take two sheets of 4' by 8' of 1/4" massonite and

screw them on just like you did the first layer of plywood. The massonite bends very easily so this part will not be difficult. Once you are done with this depending on the transition you used there will be extra surface sticking out from the bottom. You only need the plywood/massonite to stick out about 6", so cut anything extra off. Your quarterpipe should now look like this.



Your almost done! All that is left is to make the transition between the ground and the quarterpipe smooth. For my quarterpipe I have a 6" by 8' piece of hard flat metal, but I have no idea where you can buy these! I've looked all over and can't find them, if anyone knows please tell me. Another option is to take a 2x4 and cut it at an angle to match the transition to the ground.