

Anatomy of a 3D Sidewalk Chalk Drawing: Onto the Sidewalk

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What Did I Learn Out On the Sidewalk?

1. Gathering the tools: Here is the list of equipment I found helpful...

- 8 foot straight edge
- 25 foot tape measure
- 2 Traffic cones
- large right angle square marked off in appropriate units.
- small set square, no units required – used to preserve 90 degree corners when you are measuring on the sidewalk
- piece of rope – maybe 8 feet long – used to approximate curves on the sidewalk
- small diameter white chalk to lay out the grid and the design



- multiple colours of chalk, probably large diameter...
 Note that the following colours **are difficult to get...**
 - Dark green
 - Red and dark red
 - Black – I substituted charcoal briquettes but they tend to shed little pieces.
 - Brown
 - Skin tones
- For such colours, you might try mixing up batches of corn starch and water...
- **Faux Chalk Recipe...** Wet chalk-like paint can be made according to the following:
 - 1 part of cornstarch with
 - 1 part water then
 - add food colouring as desired. (Try neon food colours.)
 - Mix.
- knee pads
- masking tape to mark out the grid
- pen
- 18 inch ruler – serves as a smaller straight edge and measuring device

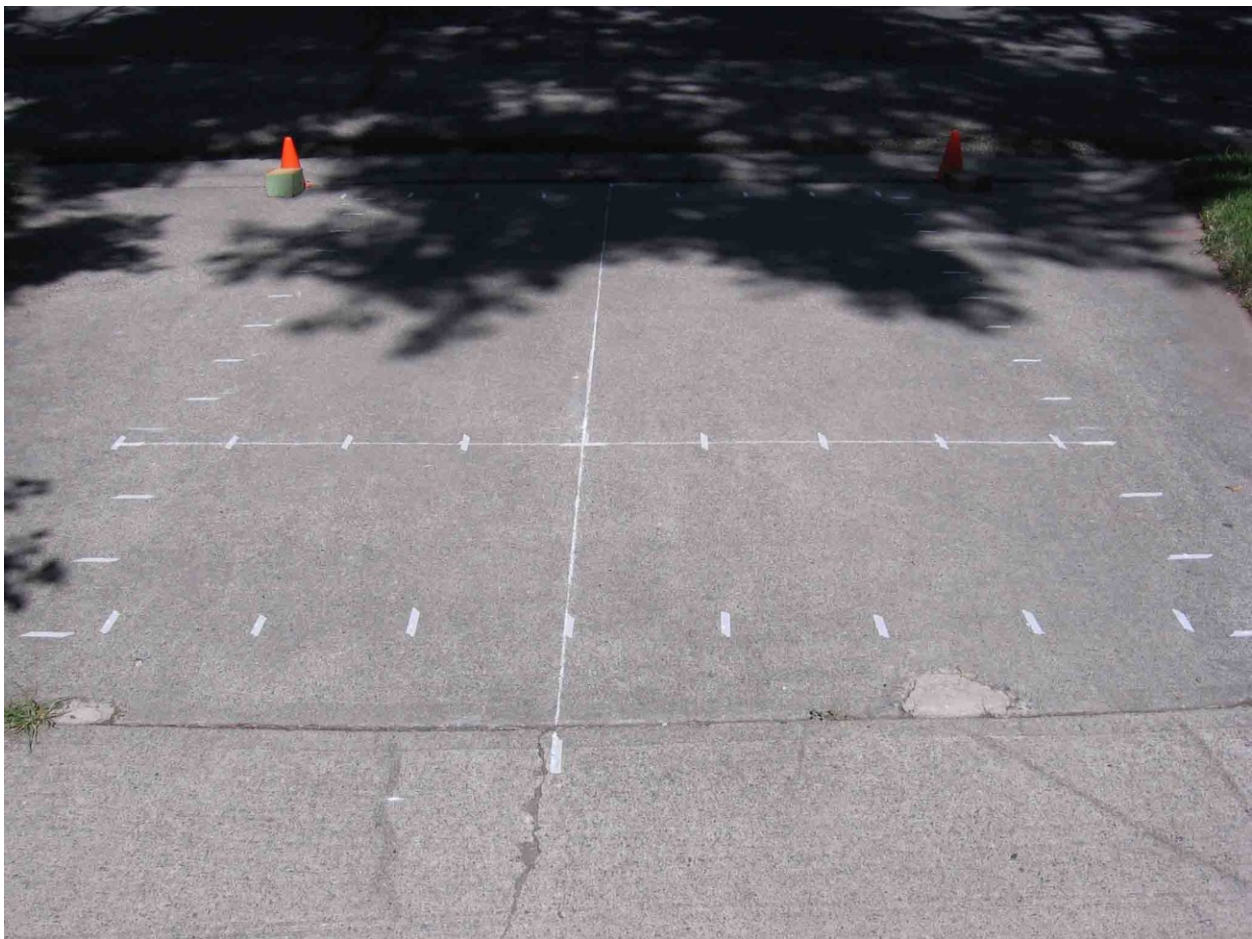
2. A copy of my model... This is the paper model I took out to the sidewalk



You need your printed computer design marked with a grid so you know what to draw. (I used a scale such that 1" on the paper model equaled 1 foot on the sidewalk.)

If your model is scaled the same as mine, you need a ruler with each 1 inch of length on the ruler marked into 12 equal parts. This enables you to scale lengths off of your paper model and easily transfer the measurement to the sidewalk. Since I did not have a ruler marked in 12 parts to the inch, I took a conventional 6 inch ruler and stuck a label over the 1/16" markings. I then subdivided the inch-long distances into 12 equal parts instead of 16 and marked them appropriately on the label which I pasted along the edge of the ruler.

3. But I can only use the model if I have a coordinate system on the sidewalk as well:



To set up the sidewalk coordinate grid I used the 8 foot straight edge, all my measuring tools, small diameter white chalk and pieces of masking tape – which you can see scattered along the grid lines.

4. Begin by chalking in the basic image.



Use measurements from the paper model to create key points as equivalents on the sidewalk. For example the four end points of the hole-corners are good points to mark.

Sometimes you can connect these key points using your long straight edge. Key points help when using the rope as well.

Use the 8 foot long section of rope as a guide to lay out curved lines. Once you lay the rope out on the ground, you can step back to your viewpoint and see if the curved rope matches the curve you want in your finished image. If it does, you can follow the curve of the rope with your piece of chalk. I found the thin white chalk was the best for laying out the outline of the image.

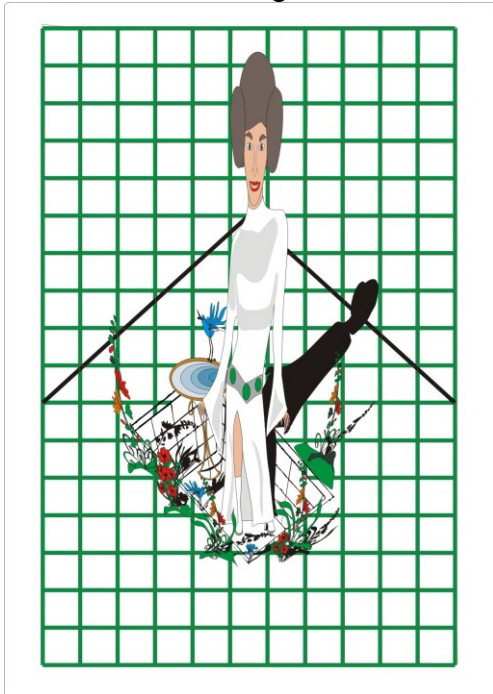
5. As your basic image fills out, you begin to colour in the details and end up with an image that will hopefully mirror what you intended when you built the computer model.



You will notice on the drawing above that the back side of the hole appears sloped. In fact, I failed to properly draw the back side of the hole. What I drew does not match the computer model that I was trying to emulate. Compare the back wall in my sidewalk drawing with the back wall in the original desired image:



This was a problem with my translation to the sidewalk, not a problem with the model that I was emulating.



Another difference you will notice is the lack of plant shadows on the sidewalk. I found that my charcoal briquettes were breaking apart too easily to work well. I stopped adding shadows when I realized that the broken bits would discolor the whole drawing. As for the two birds that are missing – after 14 hours of work, I just got tired!



So that's it! Hope you have lots of fun when you try your own design!

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