

Conowingo Models



St. Mary's Gate Lighthouse



www.conowingomodels.com
<https://www.facebook.com/ConowingoModels/>
 railrunner130@hotmail.com

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Thank you for purchasing this kit!

St. Mary's Gate Lighthouse is based on the East Channel Lighthouse in Michigan. Some creative liberties were taken for ease of construction and to make the building more attractive. This is why it doesn't retain the name of the original.

BE VERY CAREFUL with the notched ends of the side walls, tower and lantern room. They break easily. Fear not! If they do break, they can be easily glued back into place.

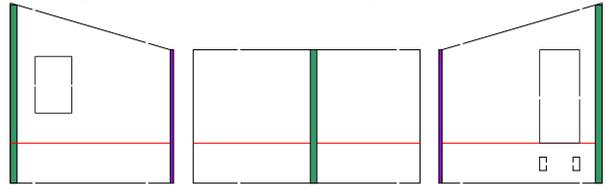
IF you decide to stain this building, do it very CAREFULLY and TAKE YOUR TIME. This is especially true if you have a limited number of weights. Pilot model #6 was stained and it warped like crazy because we didn't apply enough pressure to it.

With this kit, prepainting is the name of the game. Paint as much as you dare ahead of time.

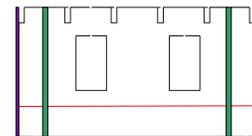
BUILDING

1. Begin by sanding down the areas below the line etched in the building and tower pieces. This will help the rock paper adhere better.

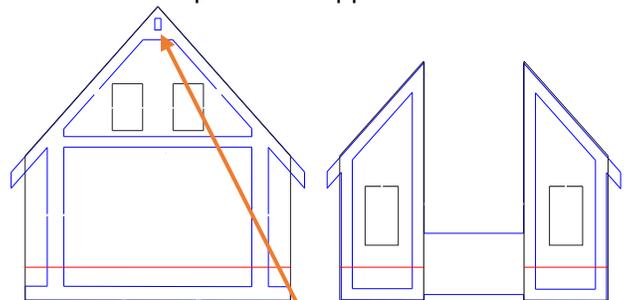
2. Bracing and edge pieces - Corner braces are shown in purple (1/16 stripwood). Internal bracing shown in green (1/8 stripwood). Precut internal bracing shown in blue. If you decide to stain your lighthouse, we recommend adding additional vertical bracing to it.



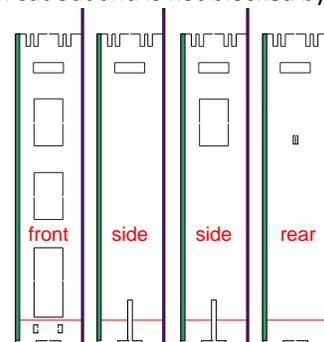
2a. Kitchen - (Top three pieces above) Bracing should go on the inside walls and slightly beyond the top and bottom edges. It is internal bracing, not visible from the outside when completed. When dry, trim the kitchen roof flush.



Duplicate for opposite side



- 2b. Main Building - Glue the precut bracing to the front and rear walls. Then, cut and glue 1/8 bracing to the side walls as shown above. Ensure the notch in the rear wall (upper left) has been cut out and is not blocked by glue.



- 2c. Tower - **DO NOT** cut the corner bracing on the tower. The internal bracing should not overlap the edges. Ensure you leave enough room on the bottom for the piece marked "BASE" to fit. Trial fit it if you desire, but **DO NOT** glue it in place yet.



Sneak peek at why you leave the corners long.

2d. Lantern room- (Only one shown) Brace the walls with 1/16 stripwood while they are still in the carrier. Ensure the internal bracing does not protrude beyond the notches, both upper and lower. Be mindful that glue does not stick to the carrier.



3. Tower assembly. The pieces with the slots coming up from the bottom are the sides. Using a glue of your choice, (I used Aileens' because it's malleable when dry) attach a front or back to each of the sides, forming an L-shape and repeat. (You will have two halves) One side has a window. The two sides are interchangeable. Be sure the window will be on the desired side.

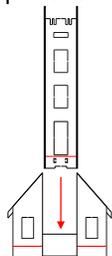
3a. **Do not put the two halves together yet**- Ensure that when you do, the two L-shaped pieces will form the front and back with the slots on either side. Below is an illusion. The 1/16 corner pieces do not actually stick down below the bottom of the tower. Note the BASE piece.



3b. If you are looking to add a working lamp to the tower, cut out the partially pre-cut hole on the widow's watch base piece and a hole in the rear wall of the tower.

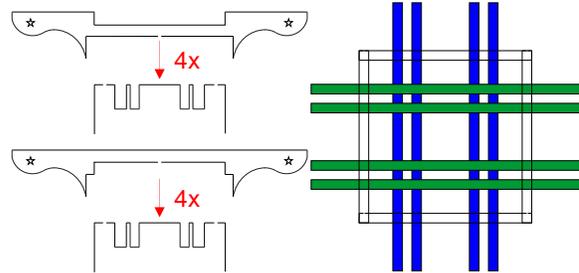
4. This next step will require several actions within a short time period in order to keep the tower square while building.
4a. Once dry, glue the two halves together.

4b. While the tower is still wet, slide it down the front of the main building. (see diagram below) This will help keep the tower square. You may need to apply some clamps to get the proper fit and squareness.

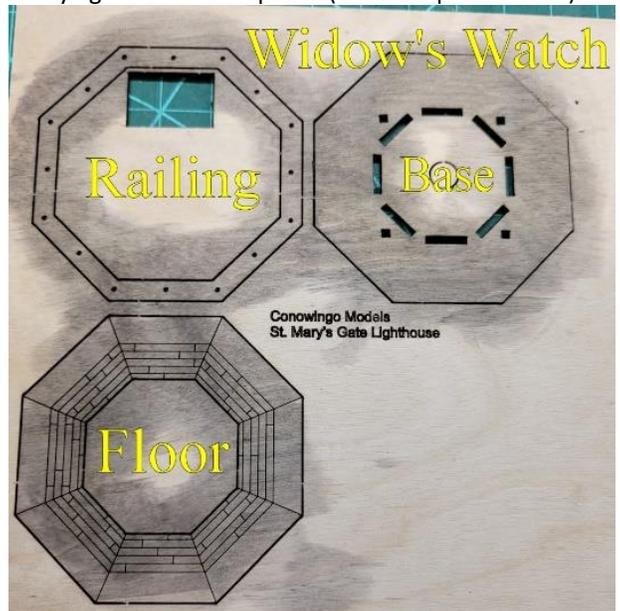


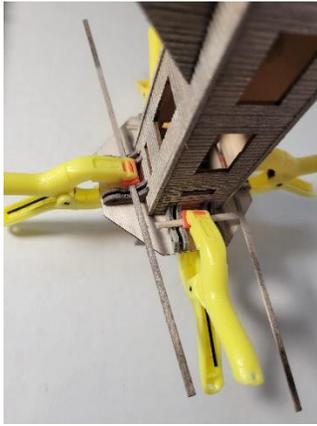
4c. Glue the base piece in the bottom slots.

4d. Insert the widow's watch supports as shown below. Pay close attention to the cut of the supports as there are two different styles, which run in different directions. If you run into issues, this is probably the cause. The bottom diagram is the top view.

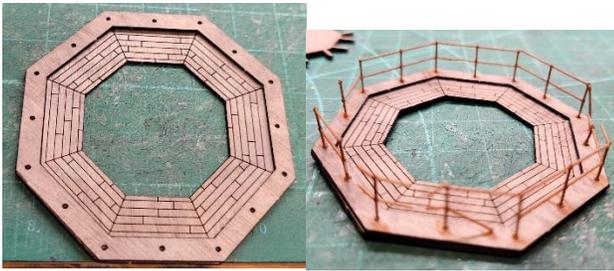


4e. Glue the widow's watch deck into place. There are four notches that the corner braces will fit through. This is the final way to ensure a straight tower. We recommend painting the inside of the lantern room floor and walls at this point. Ensure the glue does not interfere with the eight slots in the base. Also, ensure the supports are solidly against the base piece. (see third photo down)





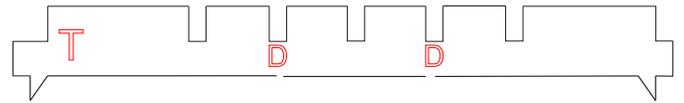
5. Glue the widow's watch railing piece to the top of the floor piece and flatten to prevent warping. You may choose to add the railings when this is dry. However, it will limit your workspace with the lantern room walls.



6. Glue the kitchen walls together, ensuring they are square.
7. If you elected to use a lighting kit, now would be a good time to install them. Greg Cassidy's lighting kit came from Evan Designs. <https://evandesigns.com/>
8. Cut out the roof supports and dormer pieces. We stained the ends to weather them. You have a few options with the dormers.
 - There is an extra roof support piece in the event that you don't want to use the dormer. However, the roof still has a cut out, so you will need to figure that out.
 - You can put the dormer on either side. However, if you put the dormer on the left side, you still have to contend with the cut out.

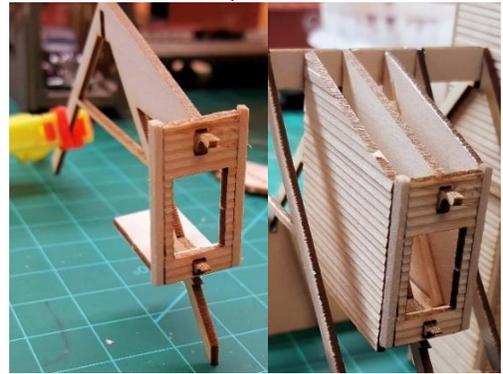
9. Dormer- The top corbel is decorative. One idea would be to add a flower box below the window. (As a finishing touch) The lower corbel, shown in the photo below was removed from the final kit design. On a pilot model, we glued the dormer together after the ridge had been glued in place. This may work for you, but it didn't work all that well for us. To add to that, the lower stabilization piece (shown in the first photo below) needed to be added after the glue was dry, making it somewhat pointless to install.

9a. We recommend painting the dormer before assembly.



9b. Align the three dormer pieces on the ridge beam (above). If you have a "third hand" gripper, we recommend holding the ridge beam horizontally with it. On one side of the ridge beam, you will see the letter T and the letter D twice. T is the side that goes towards the tower. You want to hook the outer dormer pieces on the notches marked D and the roof support with the corbel on it in the middle. We recommend **not gluing** the dormer to the ridge beam yet, as it could make ridge beam placement difficult.

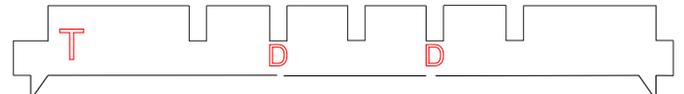
- 9c. Glue the dormer together. The lower stabilization piece should be used to square up the front piece. (early pilot model version shown)



10. Dry fit the main building together. The front and rear walls should slide onto the side walls fairly snugly. Assess whether or not you need to add the ridge beam now or later due to workload/space requirements. See step 11 for ridge beam application. If it isn't necessary right now or needs to be done in two steps, go ahead and glue the main building together.



11. Roof Details -
 - 11a. Loosely fit the roof supports on top of the ridge beam. **NOT IN THE NOTCHES.** We know, that's not what is in the photo. Ensure one will go over the T.



- 11b. Add some glue to the end notches. You can also add glue to the roof support notches if you desire, but that's not necessary yet.

- 11c. Insert the end with the T in the corresponding hole in the tower.
- 11d. Insert the opposite end in the corresponding hole in the rear wall. It may be necessary to pull the roof supports upward because they do fall in the notches prematurely.
- 11e. Slide each roof support into their corresponding notches on both the ridge beam and sides.
- 11f. Once you're satisfied with how the roof supports fit, run a bead of glue over the top of the notches on the ridge beam.

12. Foundation-

12a. Cut to fit the rock paper to the foundation. Leave approximately 1/16 of an inch for each corner. We recommend planning for the starting/stopping points to be located in an area rarely seen. We began one strip to the left of the front door and one to the right. It wrapped around and ended about an inch into the rear wall on each side. One small piece was added between the steps because we weren't sure of how much it would show. The kitchen was done very similarly. Figure out what works best for you before you start cutting.

12b. Glue each section down one at a time. Use scrap wood or a flat surface and some clamps to keep it as flat as possible. This can take several hours, depending on the glue you use and how long you let the glue set. Be sure to apply lots of pressure to the inside corners so it looks square.

13. Glue the widow's watch floor and railing assembly to the widow's watch base. We used clamps and found out why waiting to add railings until later may be a good idea. See step 15b for an illustration.

14. Glue the lantern room windows into the lantern room walls. The side with the longer notch is the bottom.

15. Once the lantern room walls are dry, glue them to the widow's watch base. If you have errant glue in the base, you can trim the bottom tabs on the lantern room walls to fit into the base. **DO NOT CUT THEM OFF COMPLETELY.** The lantern room will not be properly shaped without the tabs.

15a. Dry fit the roof piece, to ensure a good fit and set up while the walls dry. Ensure all the notches on the top of each wall have roof supports in them as in the photo below.

15b. Add a rubber band to hold the walls in the proper place.



15c. Carefully glue the roof piece to the walls. This helps to ensure they are straight. We added CA where the roof piece meets the walls.

16. Bend the lantern room roof on the scored lines. When you are satisfied that the roof will come out even on all sides, glue the tab under the corresponding panel. You may need to add a little bit of weight to ensure the roof settles evenly. Sometimes a piece of masking tape on the inside will help.

17. When the roof is dry, insert the pin from below and glue into place using CA. We used a plastic clamp to hold it vertically from a wire shelf to ensure it's straight.

18. When the lantern room is dry, measure and glue into place the 1/32x 3/32 stripwood to cover where the walls come together on all eight sides.



19. Cut and glue into place 1/32 x 3/32 stripwood around the widow's watch. This should cover the three seams on all eight sides. (See photo on next page)

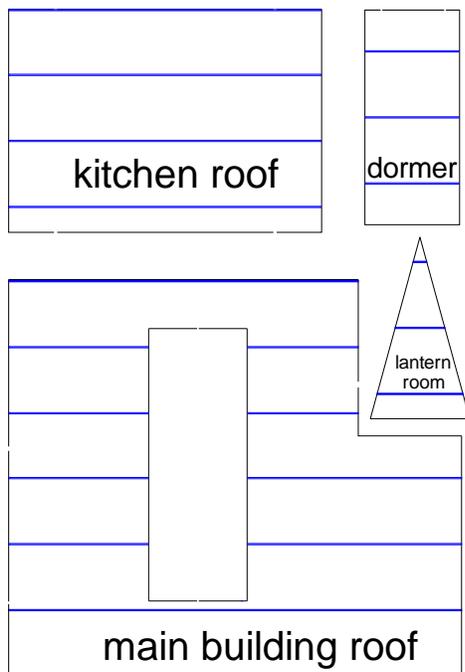


20. When the stripwood in the above two steps are dry, paint it if you have not done so already.

ROOFING CHOICES

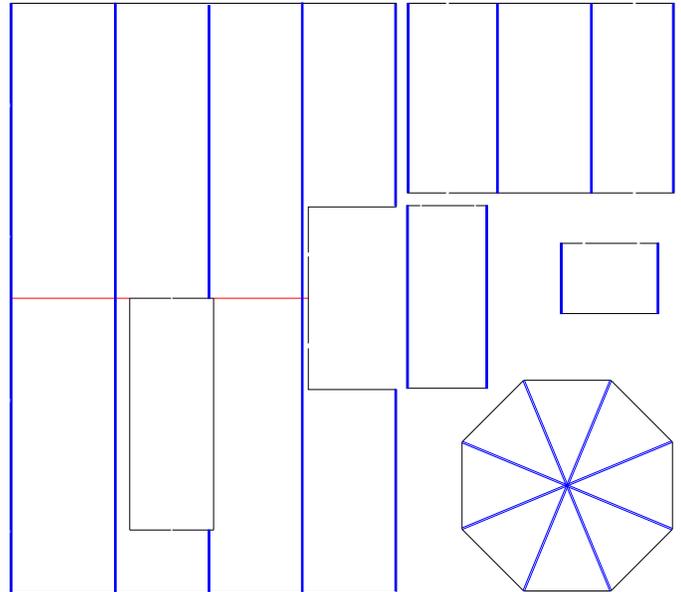
For damaged and shingled roofing, continue to step 21. Proceed to step 23 for metal roofing.

21. If you have chosen to add damage to the roof, cut holes in the desired locations on the chipboard. Diagrams for the roofing is shown on step 25. We recommend you Google "rotten wood shake shingle roofing old restoration" for some ideas of how to make it look realistic.
22. Cut, measure and glue down strips of 1/32 x 3/32 stripwood to the roofing pieces of chipboard. Diagram below is how we suggest you apply the stripwood. Pieces are show four scale feet apart. Only one half of the main roof and 1/8 of the lantern room roof are shown for clarity.



23. After the roof has been "damaged", paint and weather the chipboard and stripwood to reflect water damage.
24. Apply shingles as desired and weather accordingly. Skip to step 27.

25. Cut the 1/32 x 1/32 stripwood to fit the roofing as shown below to form the standing seams. Be sure to leave the scored line (red) open so that the roof halves will fold over properly. Reserve wood for the ridge line.
 - Left piece is the main roof
 - Upper right piece is the kitchen roof
 - Center piece is the dormer roof
 - Right piece is the front porch roof
 - Lower right piece is the lantern room roof.
 - There is an additional piece or two that could be utilized over the kitchen door roof with some scrap stripwood.



26. When dry, paint the roof a desired color. Most likely, a lighthouse roof would be red, but possibly silver.
27. Glue the sides of the stairs into place. The larger set goes on the front and the smaller goes at the kitchen.
28. Cut and glue down the 1/32x 3/32 stripwood to both sets of stairs, forming the stairs themselves.
29. Front porch overhang –



- 25a. Locate the overhang base and corbels. There are outlines where the corbels go. Glue them into place, ensuring they will be flush on the back side.

25b. Add the two triangular pieces that go above it, ensuring they too will be flush on the back side.

25c. Paint the assembly.

25e. Add the roof to the overhang.

25f. Glue the assembly into place over the front door.

30. Apply roofing to the building using a glue of your choice.

31. Apply the 1/32 x 132 stripwood to the ridge line and paint.

32. Apply the 1/32 x 1/32 stripwood trim to the top of the rock paper foundation.

33. Apply door, windows, shutters, trim, smoke jack and chimney as desired

34. Apply any paint touch-ups, such as the ridge line and weather as desired.

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