

## CADD MODEL HOME PROJECT

In this class you are required to build a scale model of the Saltbox. **The design and model are due January 24 (During your final test time).** You will turn in a floor plan plus elevations by that date. You also need to bring the model to class to show to the rest of the class. The intent of the exercise is to draw something you actually build. The build materials can be corrugated cardboard, cereal box grade cardboard, foam board, thin plywood, acrylic sheets...whatever semi-rigid material you can get your hands on and is free or very cheap. You can join the pieces with tape, glue, nails, screws, clips... whatever works.

You need a base (not to exceed 24" in any direction), walls with windows and doors scaled out, floor plans, and a roof (removable or partial or clear).

Note: Windows and doors can be drawn on the side of the walls rather than cut out. Cutting rigid material is dangerous so be careful. You can print out floor plans and glue them to the floor of the model. Most students say it is much easier to have the windows and doors in place before assembling the structure.

Basic design requirements:

1. House must be to scale and scale must be noted. If house is  $\frac{1}{4}'' = 1'$  and the longest wall is 36 feet long, each inch would be 8' so the 36" wall would be  $4\frac{1}{2}''$  long and; 8' high ceiling would be 1". At  $\frac{1}{2}'' = 1'$  the same wall would be 9" long and the ceiling 2". At  $1'' = 8'$ , the same house would be 18" long.
2. House must be a team project. One person builds the first floor, the partner builds the second so the second story is removable. This is tricky but if you use cardboard, stick tooth picks in the corrugations, for example. If you have a third person, they make interior walls.
3. House must have some level of energy and material conservation. What about the house makes it efficient in terms of its energy use and its use of building materials.

***Presentation will be to class with model, a design portfolio which has floor plans, 3d sketchup pictures and energy information printed out for teacher. You will also put your sketchup model on the screen so you can walk us through it there. I will probably take pictures and maybe video.***