





(40 pts) Approx. 3 days

The second part of our unit gives us time to focus on some of the details of our building. Just as with the Habitat for Humanity House, we need to add a footer to the wall to serve as a foundation. Then, we'll start adding furniture to the home, thinking about how people will likely use it. Finally, we need to make sure that all the electrical appliances are installed so that we can add the wiring, electrical sockets, lights, and switches that are needed in the house.

1. The first thing to do is watch the three presentations on site planning: *Residential Electrical Ideas 1*, *Residential Electrical Ideas 2*, and *Zero Energy Housing*. Take a full page of notes on these ideas and think about how these concepts will impact your Habitat for Humanity design.
2. Next, follow the same process you did in the last unit to add a concrete footer to the wall of your building. This will give us a simple foundation to work with. Use this same type of footer on all designs regardless of the challenge you chose
3. Now, start adding your furniture. As you look for furniture and appliances, check out RevitCity (revitcity.com) and use our class login info: *username: LHSCEA password LHSCEA*. Here at RevitCity you can find lots of new components to add to your Revit designs and make them even cooler!
4. When all your electrical fixtures are in (TVs, electric stoves, refrigerator, washer & dryer, etc), start wiring your house for electrical. As you do this, you need to follow these design codes:
 - a. No plumbing should be in exterior walls (so keep your electrical devices like refrigerators and washer/dryers away from exterior walls too, since they will also need water).
 - b. Every room should have at least 1 electrical outlet.
 - c. Every wall longer than 10 feet should have at least 1 electrical outlet.
 - d. It should never be more than 8 feet between electrical outlets.
 - e. Outlets placed near running water (kitchen/bathroom) need to be GFR Outlets for safety reasons
 - f. Light switches in large common rooms should be accessible from multiple entrances
5. Finally, just like with the Habitat for Humanity House, create an electrical plan that shows where all the wiring, switches, and outlets will go in your new home design.

Part 2: Tasks	10-7 points	6-4 points	3-0 points
 Brainstorming Notes	+ You took a full page of notes from the videos and started your own design brainstorming + Your brainstorming is apparent	- Your notes and brainstorming are less than a page or missing important information	- Your notes & brainstorming are severely lacking
 Revit Foundation	+ You created a footer foundation on the wall cross section of your home. + The footer matches the parameters of the footer from the last unit	- Your footer is incorrect - Your footer is not visible on the house when viewed	- Your footer is missing - Your footer is significantly wrong
 Revit Furniture & Appliances	+ You began adding furniture to your home + All appliances requiring electricity have been placed in the house	- Your furniture is barely included - Obvious appliances are still missing	- No furniture has been added
 Revit Electrical Plan	+ You created an Electrical Plan layout + Your plan follows the design codes above + Your plan has all important parts	- Your electrical plan is missing some elements - Your electrical plan does not follow the guidelines	- Your electrical plan is missing

