Directions: For this project you will need to design and create a floor plan for a one story house of your own creation. You must complete a sketch of the design based upon information you will need to obtain from the internet. You will need to research general information along with reference already existing floor plans to determine the correct size of spaces in the house.

Requirements for House

When designing your house, you will need to think about your own house and what elements exist within each room. Does your room have a closet? How many bathrooms do you have in your house? Where is your water heater and heating system located?

☐ Bedrooms (Master, 2nd Bedroom at least…)
☐ Garage (Single or Double Bay)
☐ Kitchen (Eat in or stand alone)
☐ Eating Area (Dining Room / Eat in Kitchen)
☐ Bathroom
☐ Utility Room (Washing Machines, Dryer…)
☐ Storage with Water heater / Heater
☐ Windows, doors, other typical house characteristics.

House Construction Dimensions

Exterior Walls: **6 ½"**
Exterior Doors: **36"**
Interior Walls: **4 ½"**
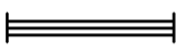Interior Doors: **30"**
Standard Windows: **36"**

Part 1 - Requirements for Preliminary Sketch

The purpose of this sketch is for you to create a general idea of the dimensions of your house, the layout and basic concept before you start working in AutoCAD. You must complete this sketch neatly using the drawing boards and your research materials prior to working with AutoCAD. Mr. Hollstein must sign off on your sketch before-hand.

✓ Each ☐ on your 17" x 22" graph paper is equal to 1 foot. This will allow you to draw a house around 80 feet across. This is all the space you will get, so use it wisely when planning your layout.

✓ The exterior walls can be sketched by using ½ of a ☐ and the interior walls can be sketched by using ¼ of a ☐ (*Do the best you can with these exterior and interior walls. The main objective is to show me you understand which walls connect with the outside and which separate general rooms.*)

✓ Each room that you design must be labeled with its general dimensions (example: 15' – 10"…). It is important to think about how large the rooms must be in order to be comfortable moving around in them.

✓ Neatness! – You will once again be using the drawing boards for this first phase of the project. Make sure that you set the page up so everything will be consistently parallel and perpendicular using the T-square. This will help you keep things neat and orderly. You will be graded based on how neat this sketch is.
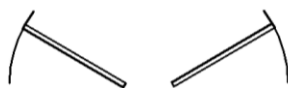
General Shapes

The shapes below are commonly used in residential design. You will need to use these shapes in your drawings.

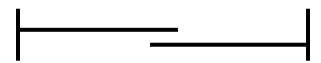**36" Window**

(Drawn within Exterior Wall)

36" Hinged Doors

(Drawn within space between exterior walls. 30" interior doors are drawn the same way.)

60" Accordian Closet Doors

(Typically used for closet doors. Can only be drawn within interior walls.)

60" Sliding Doors

(Drawn within space between interior walls. Can be used for closets or utility rooms.)

Part 2 – AutoCAD Design

The final part of this project, will require you re-create your sketch using AutoCAD. Once again, you will be drawing your house design to 1:1 scale (life size!). You will want to make sure your units are set for inches or feet and will have to convert your units accordingly. ***Remember, there are 12 inches in a foot!***

CAD Requirements

☐   Accurately draw each room and overall house layout to scale
☐   You can either draw your own doors and windows or use pre-drawn blocks using the **Design Center**.
☐   You must the rooms in your house with the name and dimensions.
☐   You must also add tile, hardwood flooring, furniture and other features to provide as much detail as possible. Many of these options can be found in the **Design Center**.

Sample CAD Design