

DESIGN SIMPLE BUILDING (WALLS and windows and doors without details – you will add details in next Lab)

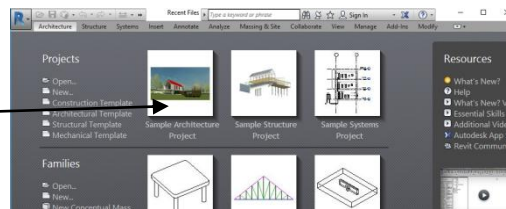
In E273 Studio, use College REVIT licenses; and works in groups of three.

At home, use free 3-year student license: <http://www.autodesk.com/education/free-software/revit>

PART 1 INTRODUCTION to REVIT

(Adapted for 2017 REVIT from 2013 video: <https://www.youtube.com/watch?v=IHynUsUZDv8>)

Open "**Basic Sample/Main Project**" on Start Screen



Explore ALL options under the "**Revit Button**"

Explore ALL options on the "**Quick Access Tool Bar**"

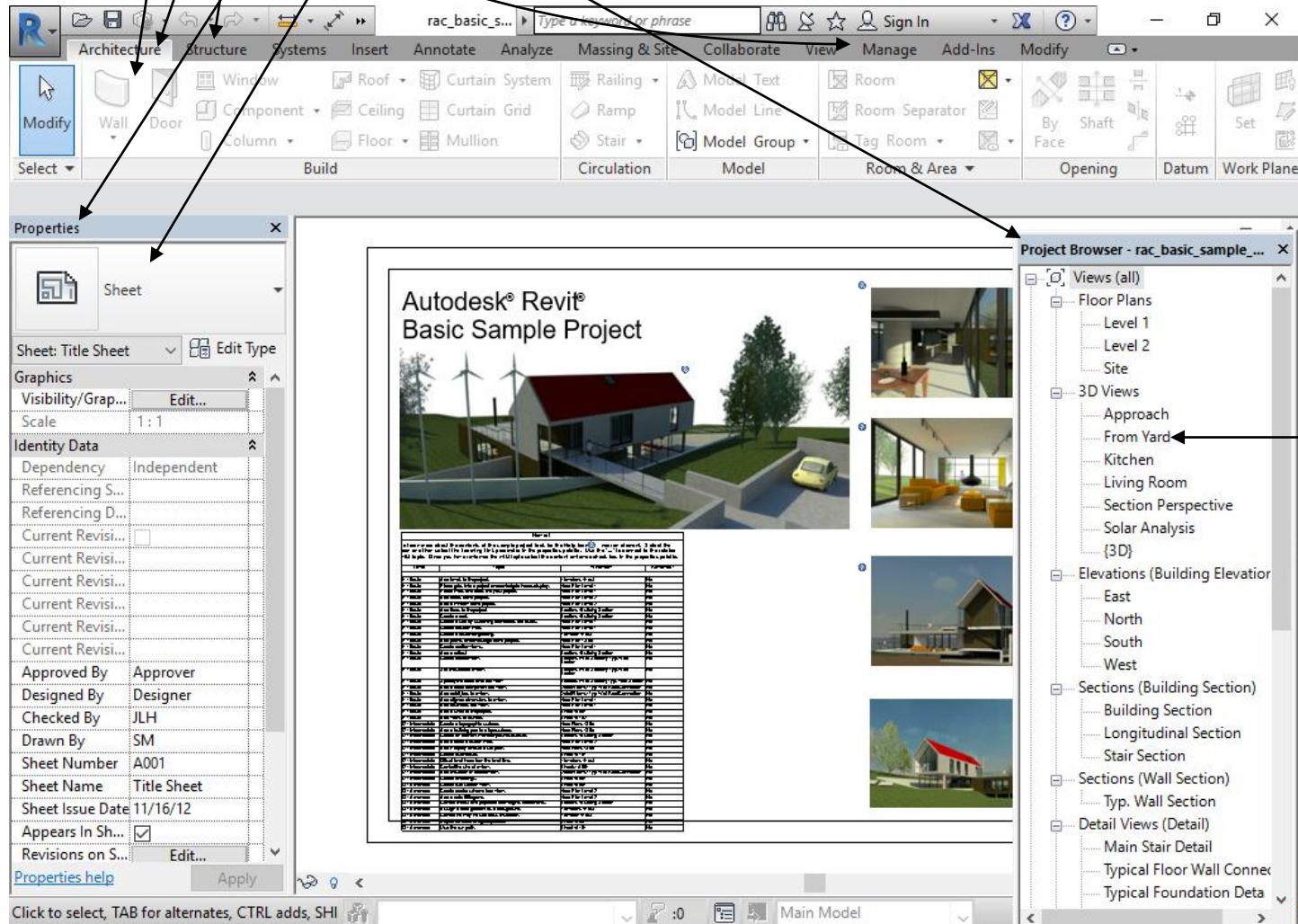
Explore ALL options on the "**Ribbon**" including clicking and viewing MANY things under ALL

tabs including the "**Manage**" Tab for changing "**Project Units**" to "**Feet and Fractional Inches**"

Explore options in the "**Properties Palette**" including clicking MANY parts of the building (door, window, walls, roof), and explore changing "types", if possible, in the

"**Type Selector**" **First go to ("3D Views", "From Yard") in Project Browser window.**

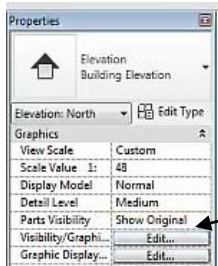
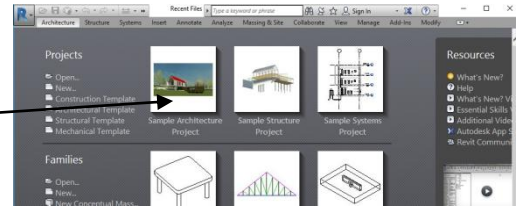
View in the "**Project Browser**" ALL "**Floor Plans**", "**Ceiling Plans**", "**3D Views**", "**Elevations**", "**Sections**", and "**Renderings**"



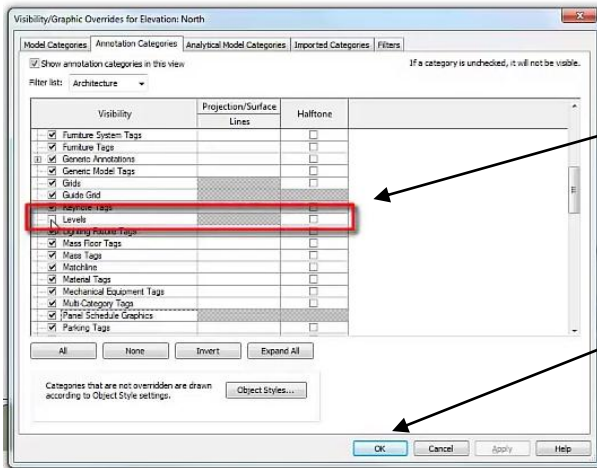
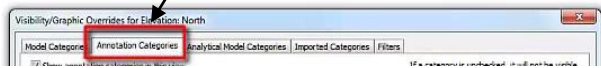
PART 2 BUILDING LEVELS and VIEWS

(Adapted for 2017 REVIT from 2013 video: : <https://www.youtube.com/watch?v=IHynUsUZDv8>)

- Open **Revit** (not "Revit Viewer") in **Autodesk** Folder (in "**All Apps**" for Windows10)
- Click "**Sample Architecture Project**" on Start Screen
- Click "**South**" **Elevation** in Project Browser window



- Click "**Edit**" in Properties window to open "**VisibilityGraphic**" window
- Click "**Annotation Categories**" in VisibilityGraphic window



If not checked, click "**Levels**" and click OK



Using **center mouse button**, **Scroll over**, and **Zoom** on the **Level indicators**; Click each to see **Floor Plans** for that Level, followed each time by closing the Floor Plan window to return to South Elevation window.

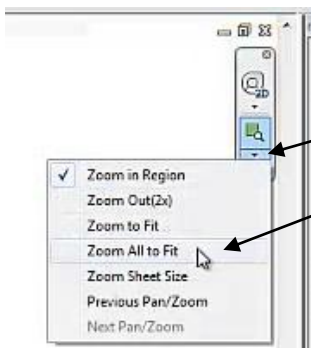
- **Change numbers in elevations** (next to **Level Indicators**) or **drag line**, and watch **building elements change to fit**.

To get a full view of the Elevation, do one of these:

A) **Shortcut Keys "Z" then "E"** (Extend Window) or

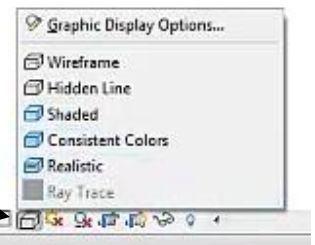
B) Use toolbar and click

"Zoom All to Fit"



Find "**View Control Bar**" and change

"Graphic Display Option" to "**Wireframe**", "**Hidden Line**", "**Shaded**", and "**Realistic**"

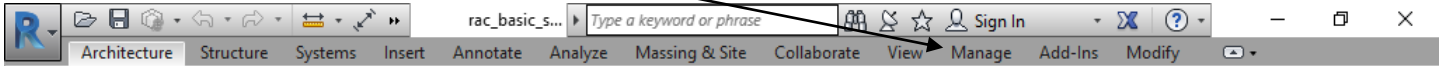
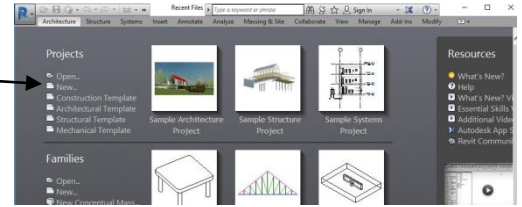


- Use **Shortcut Keys "W" "T"** to see all your design windows (**Tiles**) – i.e., all the computer windows you've worked in.

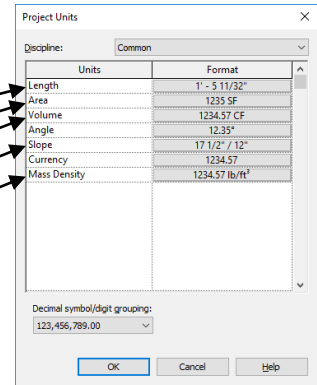
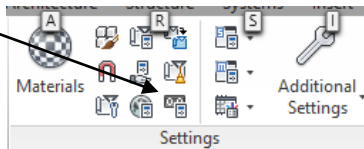
PART 3 LEVELS (continued) and WALLS

(Adapted for 2017 REVIT from 2015 video: <https://www.youtube.com/watch?v=WQxZ0ZTXkIQ>)

- Open **Revit** (not "Revit Viewer") in **Autodesk** Folder (in "All Apps" for Windows10)
- Click "**New**" under "**Projects**" on Start Screen
 - Select "**Architecture template**" if asked
 - Select "**Imperial units**" if asked
- Click "**Manage**" Tab on Ribbon



- Click "**Project Units**"



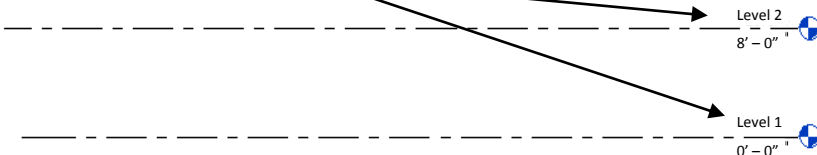
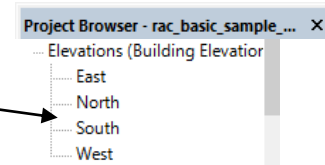
- Verify that you have **Units** desired:
 - "**Feet and fractional inches**" for Length
 - "**Square feet**" for Area
 - "**Cubic feet**" for Volume
 - "**Rise / 12**" for Slope
 - "**Pounds per cubic foot**" for Mass Density

The following is from this 2017 REVIT video on **Levels**:

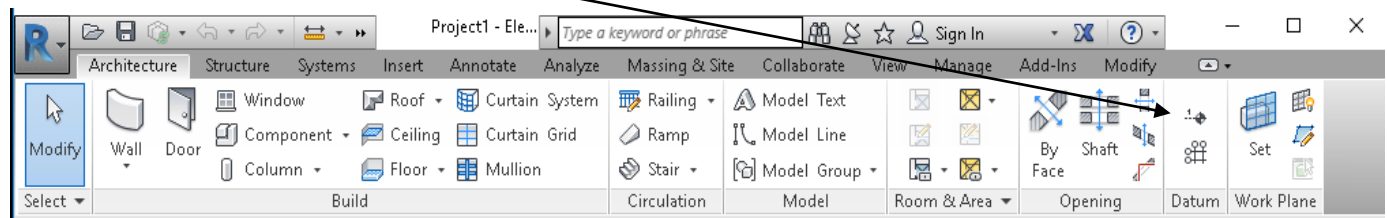
https://www.youtube.com/watch?v=N52QSVu5dDA&list=PLzAQZFR7SsdgX_v1enjjlesCkMeMo8CON&index=6#t=629.258139

Click "**South**" Elevation in **Project Browser** window

You'll see two default Levels



Click "**Architecture**" then "**Level**" on **Ribbon** to **create two new levels** (click and drag pointer across screen from left)



Rename you four Levels to:

(click on them to change name)

- "**Attic**"
- "**Second Floor**"
- "**First Floor**"
- "**Basement**"

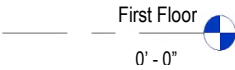
And respond "Yes" when asked if you would like to change corresponding views

Change Floor Level values to:

(click them to change values)

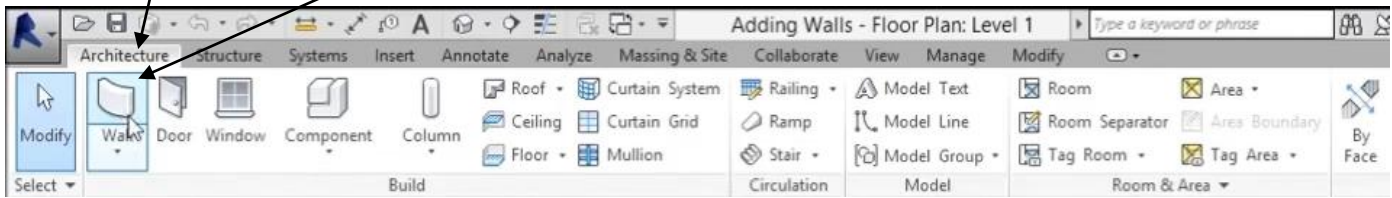
- Attic = 18'-0"**
- Second Floor = 9'-0"**
- First Floor = 0'-0"**
- Basement = -8'-0"** (negative eight feet because it's below ground level)

The following is from this 2017 REVIT video on Creating Walls:
https://www.youtube.com/watch?v=3fvfLzOiToY&index=8&list=PLZAQZFR7SsdgX_v1enjilesCkMeMo8CON#t=457.821854

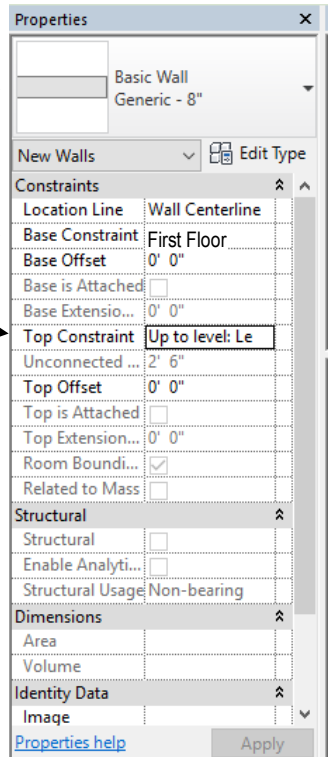
Click on **First Floor Level Indicator** → 

(or click **“First Floor”** which will now be listed under **“Floor Plans”** in **Project Browser** window)

Click on **“Architecture”** then **“Wall”** on **Ribbon** to create walls



For now, just uses default **“Basic Wall – 8”** shown in **Properties Window**

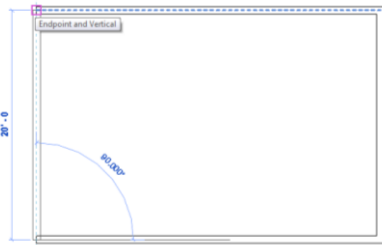


In **Properties Window**, click on **“Base Constraint”** and select **“First Floor”**

In **Properties Window**, click on **“Top Constraint”** and select **“up to Attic Level”**



Use mouse to draw a **30'-0” wall**
 (you'll see dimension as you drag mouse)



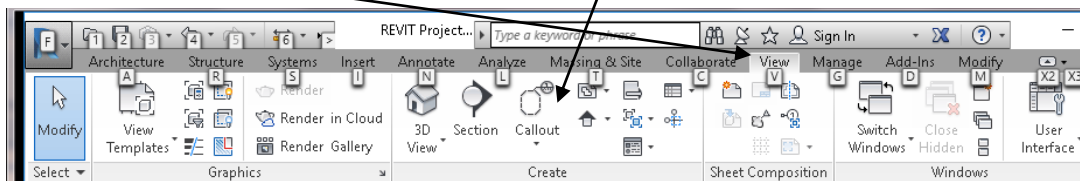
Use mouse to draw a **30'-0”x 20'-0” Floor Plan**
 (you'll see the dimensions as you drag mouse)

Use **“ESC”** to stop drawing connected walls, and **“ESC”** again to completely stop drawing walls

Use **“Ctrl” + click** to select multiple walls (if for example you want to change the properties on only two walls)

Now make this Design uniquely your own by changing wall lengths or heights, experimenting with other add-ons, etc

Click **“View”** on top of ribbon, then click **“3D Views”**



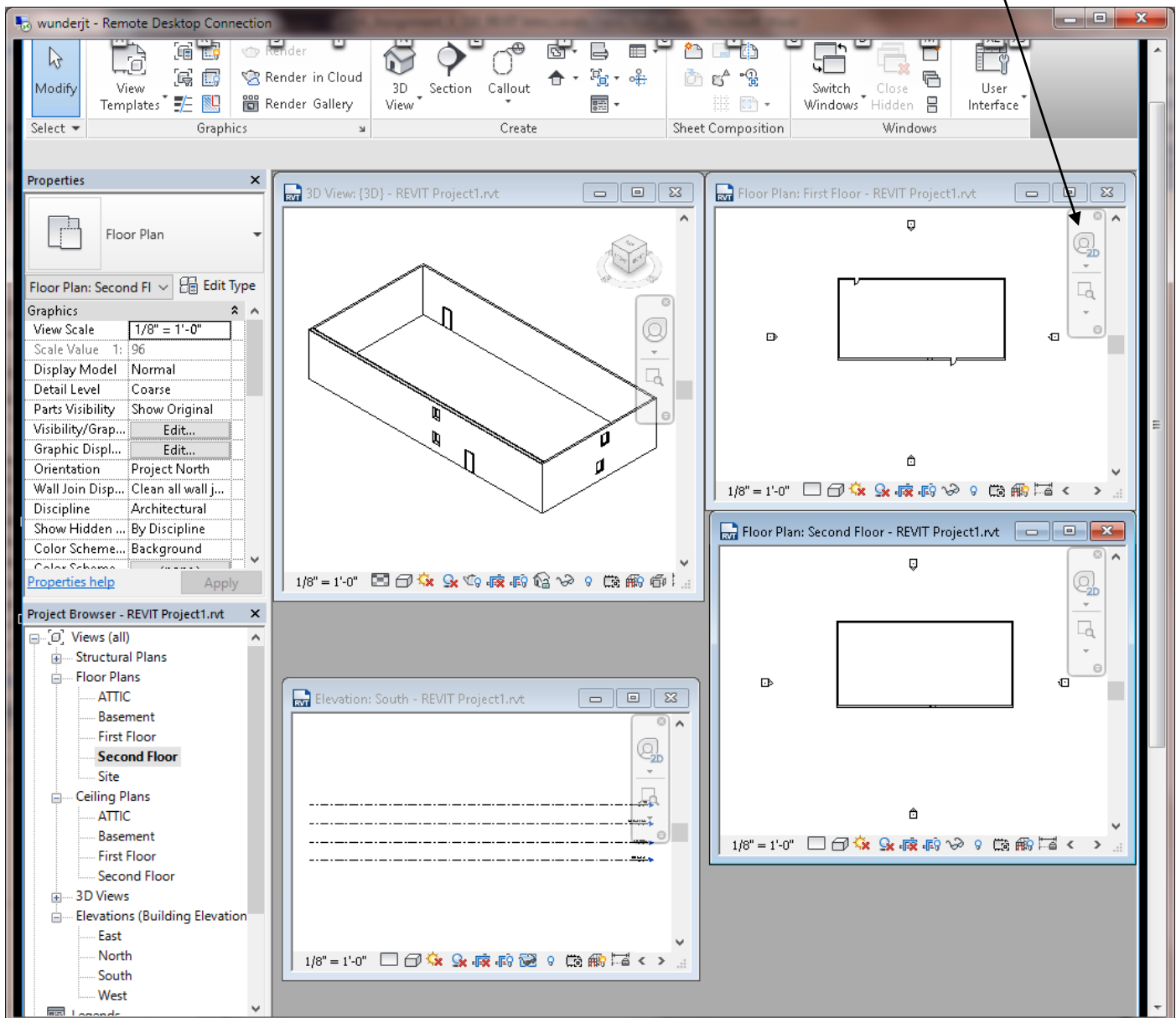
Play with this to **rotate and view your design from different angles**

HAND IN (stapled to this assignment):

- Type “**W**” “**T**” for **Window Tiles** (*a mosaic of your windows*)
- Open, close, and play with windows until you have these windows in your mosaic with each nicely centered, etc in a tile:
 “3D View” **“Floor Plan: First Floor”** **“Floor Plan: Second Floor”** **“Elevation - South”**
- Open a Word file
- **ALT+PrintScreen**, then **CTRL-V** to paste it into a word file
- **Save Revit file** where you can retrieve it; Call it **“353house your full names”**

It should look something like this (*but with your unique design and more complexity (like a roof !, etc); And much more is expected if I know you have previous Revit experience in one of my other courses*):

Play with this to get images centered



GRADES:

Beginners: 75 to 85 if it just looks something like the above, 85 to 100 for more complexity (seek help from the experienced Revit person in your group)

Those I know have Revit experience: 65 to 75 if it just looks something like the above, 75 to 100 for more complexity; and I will consider the amount of help you gave the beginners in your group.