

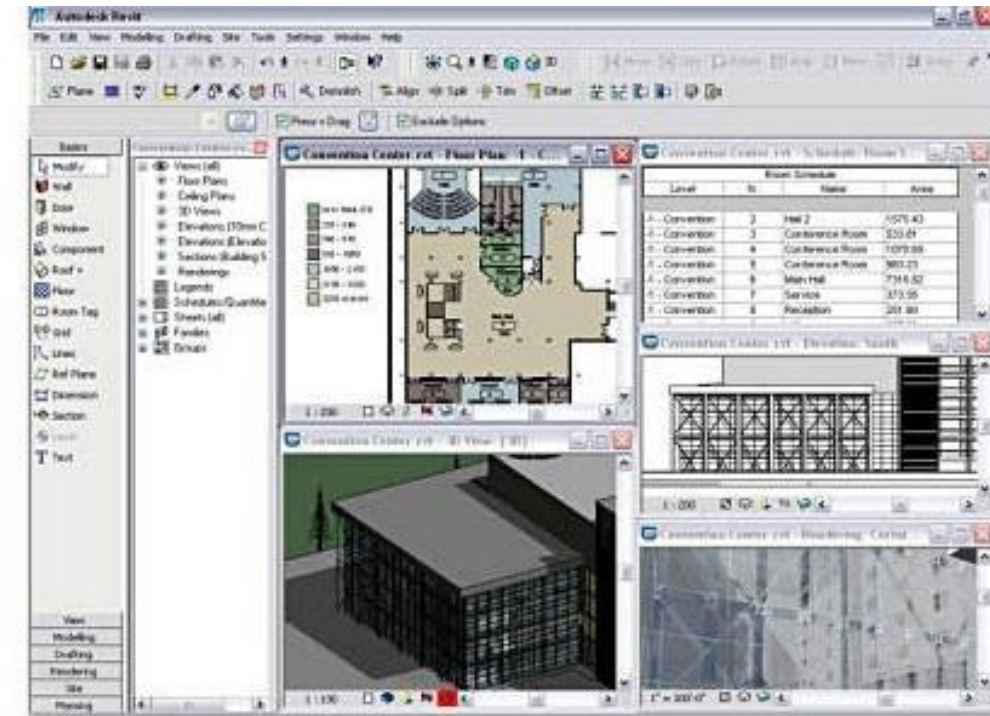
## What is Revit?

Revit is a Building Information Management (BIM) program that allows users to design a building, as well as its structure, in 3D, annotate the model with 2D drafting elements, and access building information from the building models database.

AutoDesk has become a significant player in the BIM market due to Revit, which became popular because of government contracting. Revit has a number of features:

- Parametric components
- Bidirectional associativity
- Worksharing, including interference checks
- Construction modeling
- The creation of building schedules

When using Revit, you are drafting and building a detailed, 3D model simultaneously.

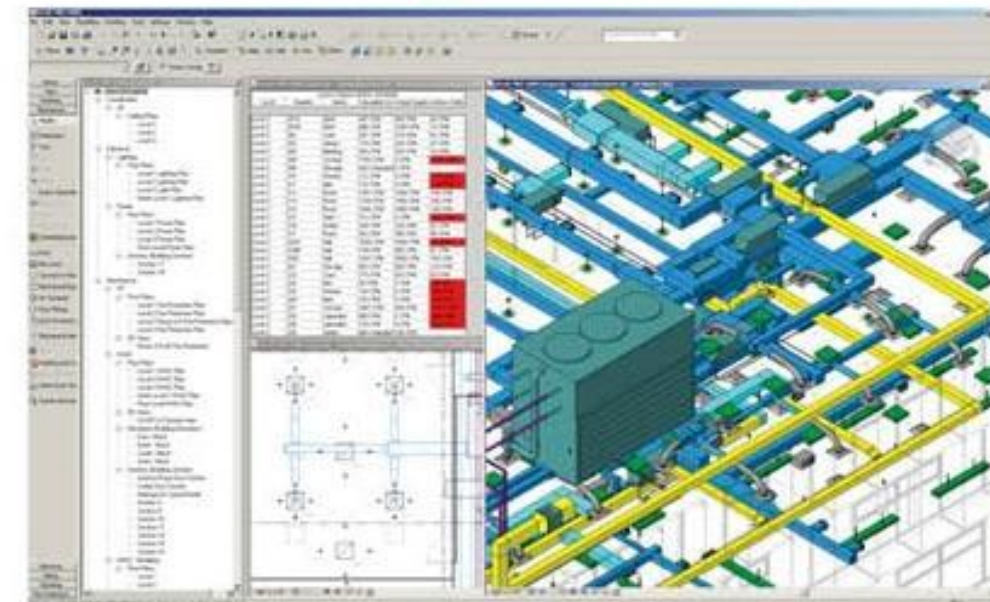


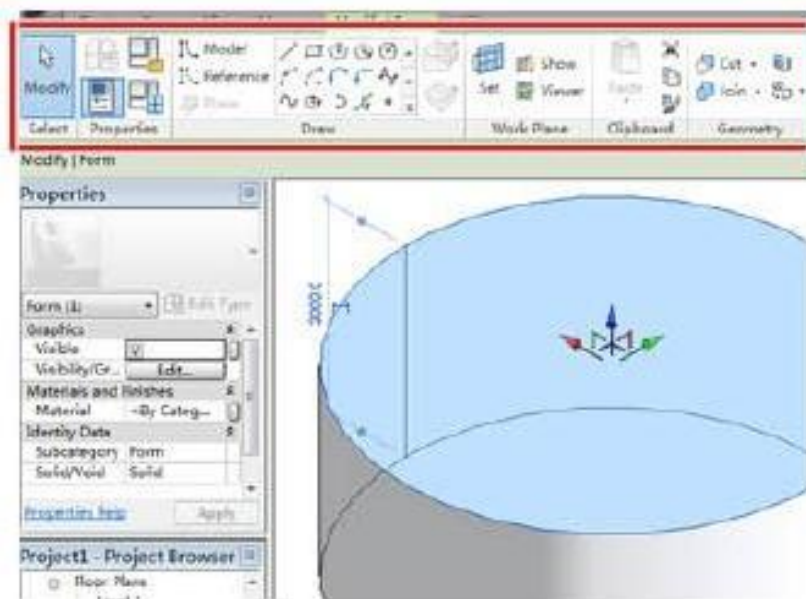
## What is BIM?

Building information modeling (BIM) is a new way of approaching the design and documentation of building projects.

BIM models and manages not just graphics, but also information - Information that allows the automatic generation of drawings and reports, design analysis, schedule simulation, and facilities management.

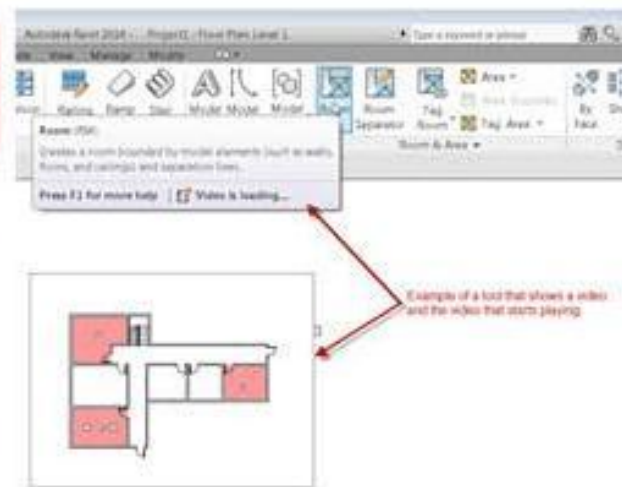
It also supports a distributed team so that people, tools, and tasks can effectively share this information throughout the building lifecycle, thus eliminating data redundancy, data re-entry, data loss, miscommunication, and translation errors.





When you first open Revit, it will take you to recently opened files; if you have never opened Revit, it will pull up sample products that Autodesk provides.

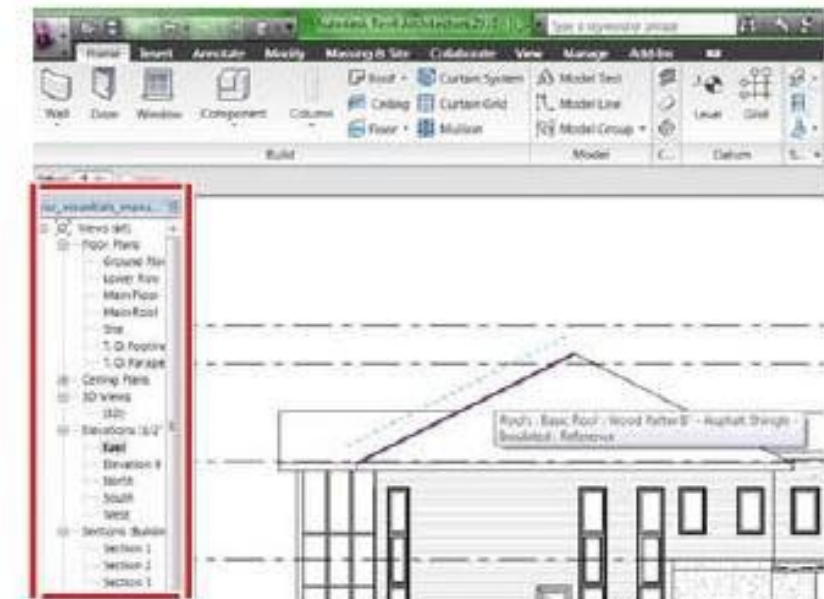
The primary tool bar is called the Ribbon, it is organized into tabs which consist of related tools. You may rearrange the tools and move them to your preferred location.



When you hover over tools, a description of the tool pops up.



On the left side of the page you will see the product info. The properties dialogue shows information of selected building elements, such as dimensions.



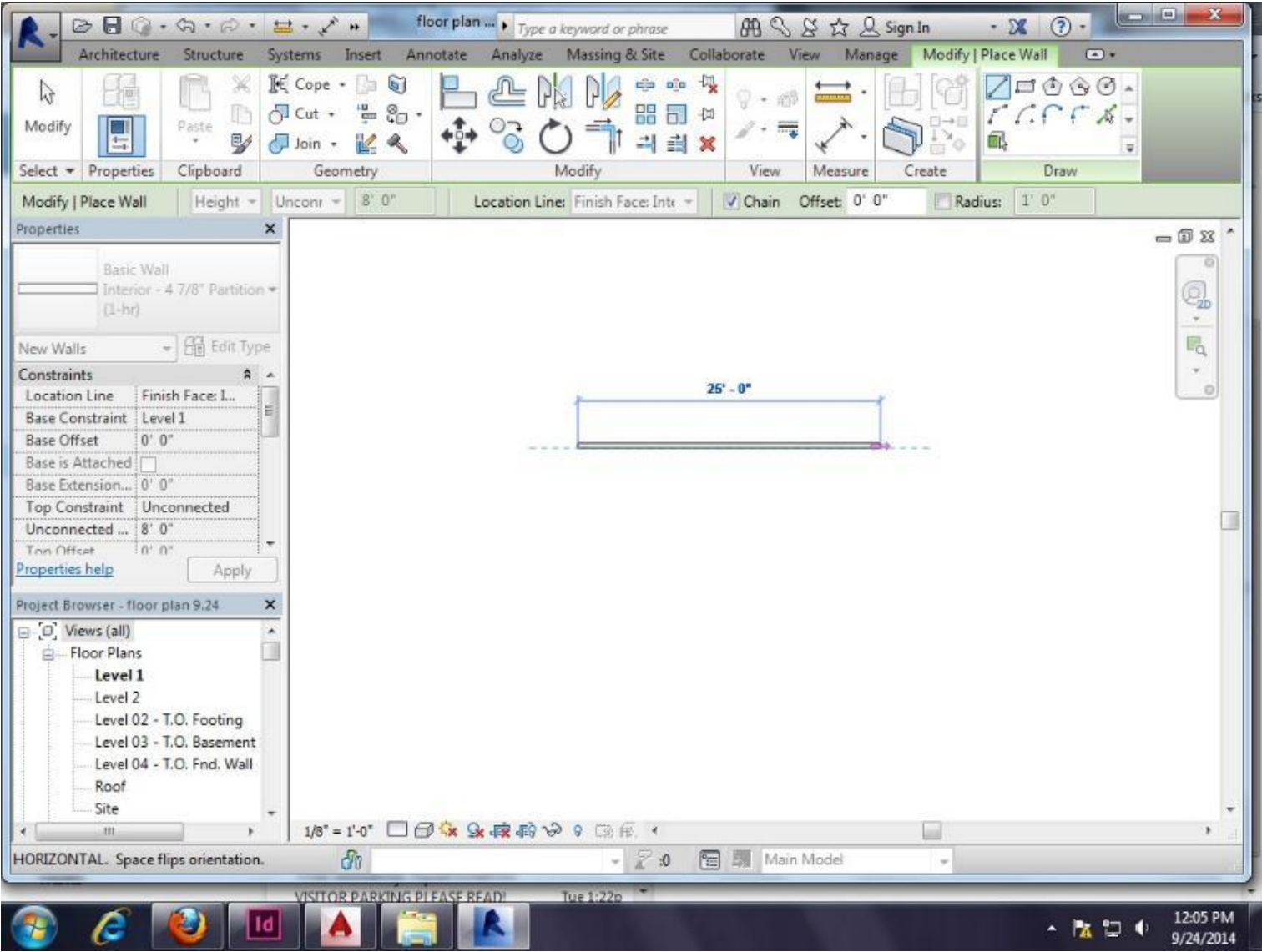
The Project browser gives lists of all the different sheets in your project, such as schedules, elevations, and plans.

In the project browser you can create new sheets, legends or schedules by right clicking and selecting "create new sheet".



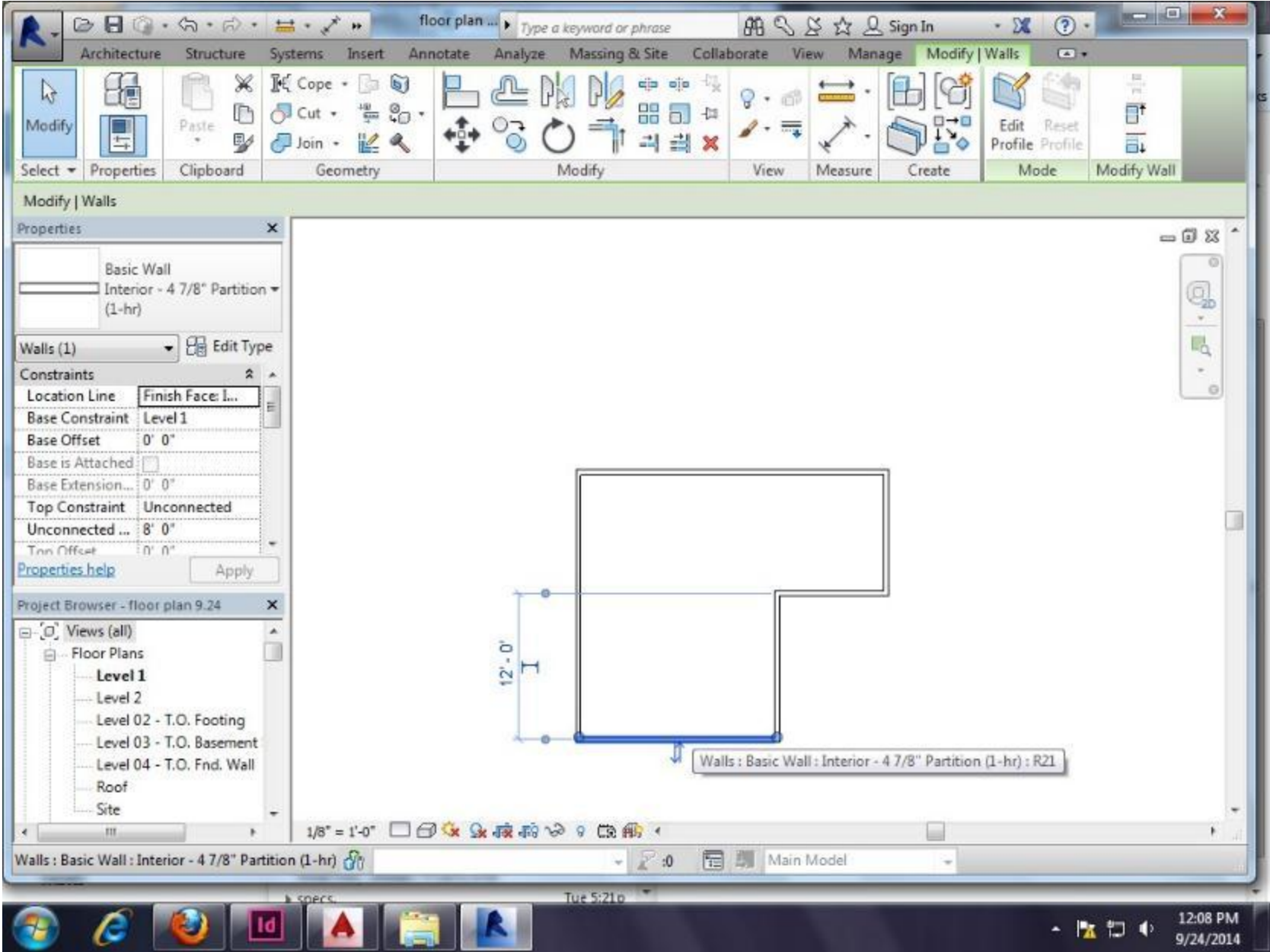
WELCOME TO REVIT! TO START THINGS OFF, YOU'RE GOING TO GO UP TO YOUR TOOL BAR, SELECT THE ARCHITECTURE TAB, AND CHOOSE THE WALL ICON. THERE, YOU'LL CHOOSE WALL: ARCHITECTURAL.

THERE WILL BE A DROP DOWN MENU ON THE LEFT SIDE OF THE SCREEN UNDER THE PROPERTIES MENU, YOU CAN USE THIS TO CHANGE THE TYPES WALL YOU'RE USING.



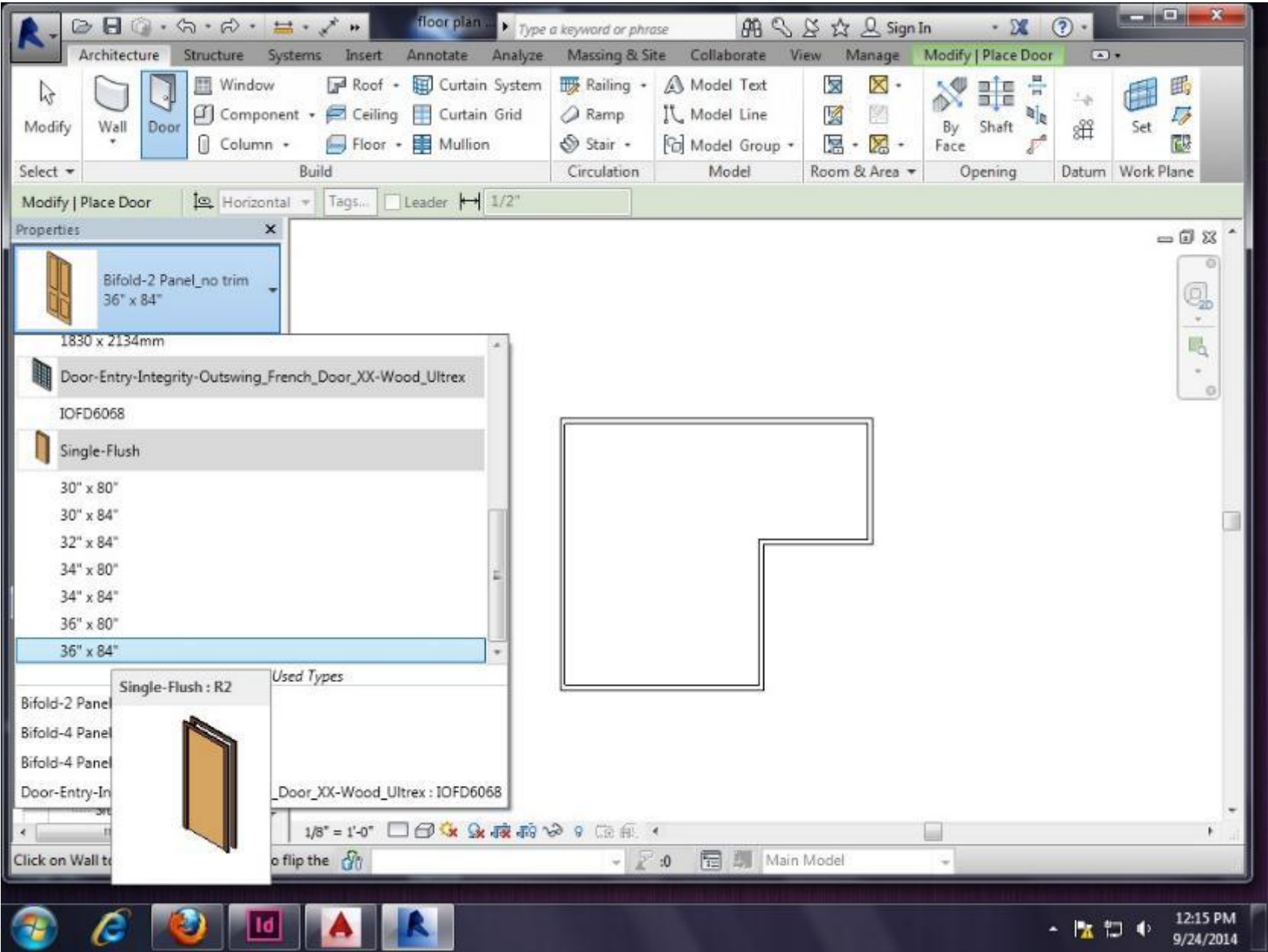
NOW THAT THERE ARE A FEW WALLS UP, LET'S LOOK AT WHAT HAPPENS WHEN WE CLICK A WALL. REVIT WILL SHOW US THE DIMENSIONS FROM ONE WALL TO ANOTHER. YOU CAN GRAB THE BLUE DOTS OF THE DIMENSION LINE AND MOVE THEM TO SEE OTHER DIMENSIONS.

IT IS ALSO POSSIBLE TO FLIP ITEMS WHEN YOU HAVE SELECTED THEM: NOTICE THE TWO BLUE ARROWS ON THE SCREEN, JUST CLICK THOSE AND THE ITEM WILL FLIP AROUND.



NOW THAT WE HAVE OUR SPACE, IT'S TIME TO ADD SOME DOORS. SELECT THE DOOR ICON ON THE RIBBON AND THEN BRING UP THE DROP DOWN MENU IN THE PROPERTIES MENU. LIKE THE WALLS, THERE ARE ALREADY PRELOADED TYPES TO CHOOSE FROM.

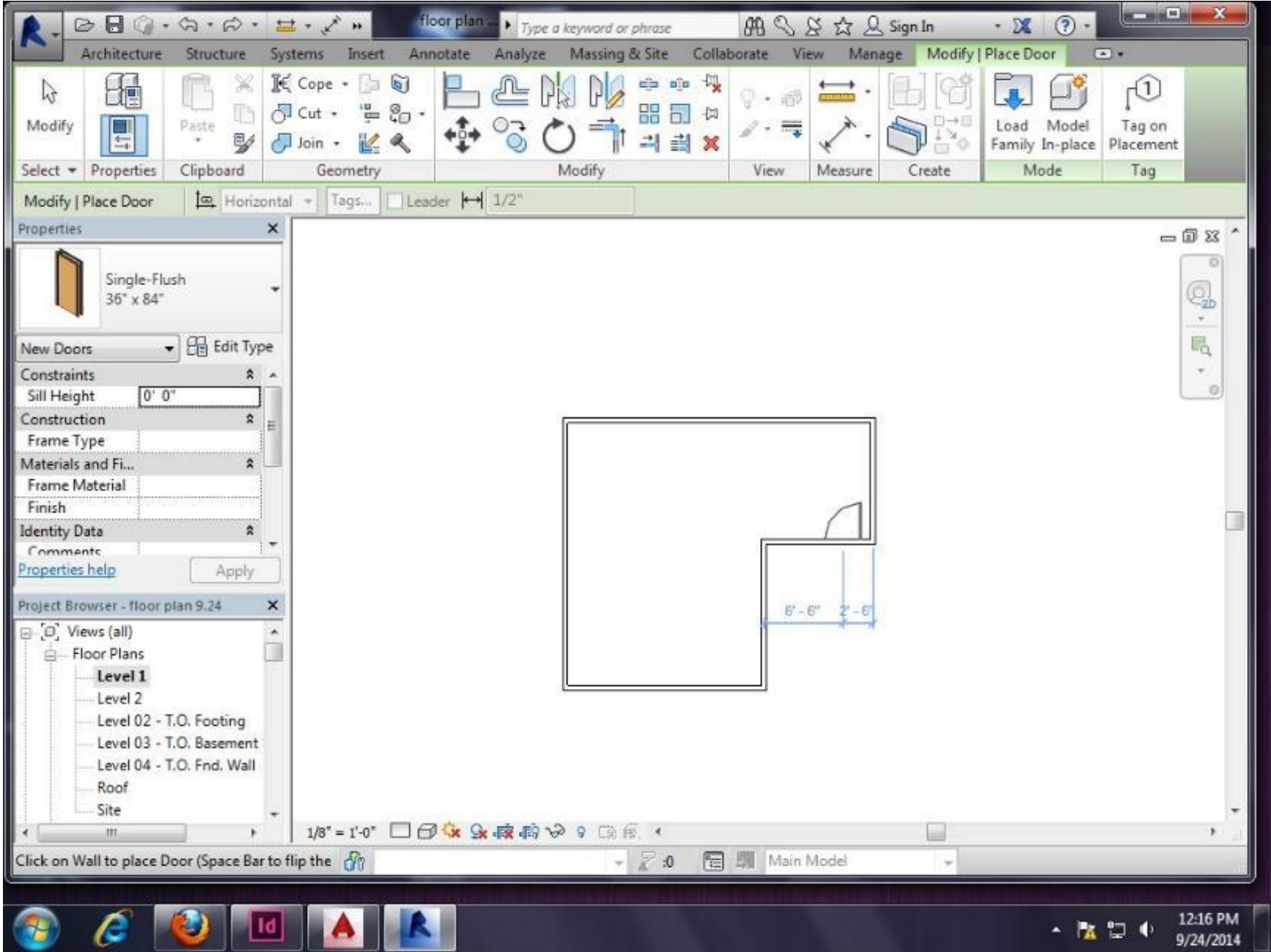
AS YOU CAN SEE, I HAVE DOWNLOADED A TYPE: FRENCH DOORS. THIS IS CALLED A FAMILY AND YOU CAN DOWNLOAD THEM ONLINE. FAMILIES ARE ALSO EDITABLE IN CASE THEY'RE NOT ALREADY EXACTLY WHAT YOU NEED.





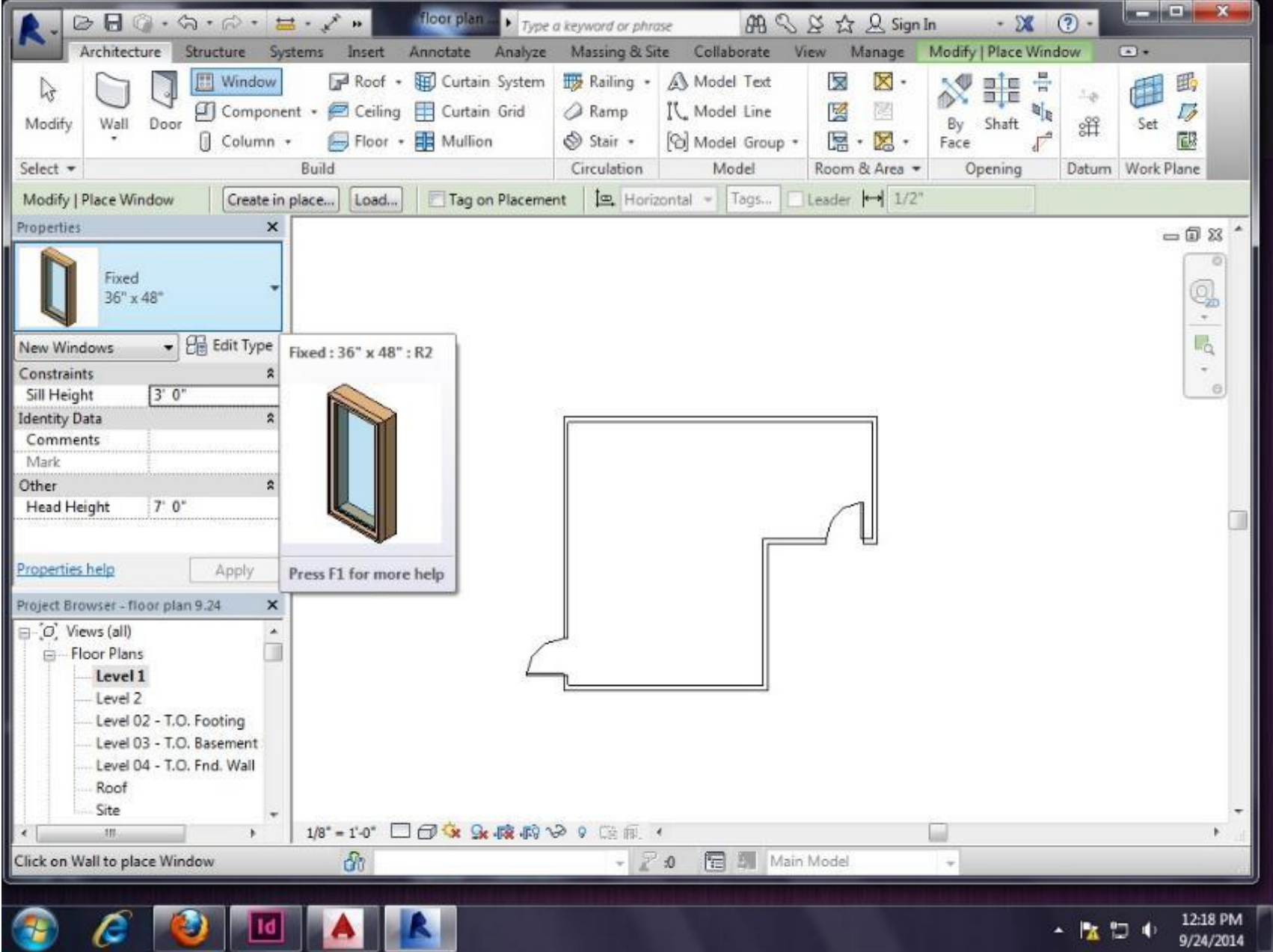
AFTER YOU'VE CHOSEN THE DOOR TYPE, YOU CAN PLACE IT INTO ANY EXISTING WALL. WHEN PLACING, IT WILL GIVE YOU THE DIMENSIONS ON EITHER SIDE.

THE TWO BLUE FLIP ARROWS ALSO COME UP WHEN YOU SELECT YOUR DOOR ONCE IT'S PLACED, MAKING IT EASY TO CHANGE DOOR SWINGS.



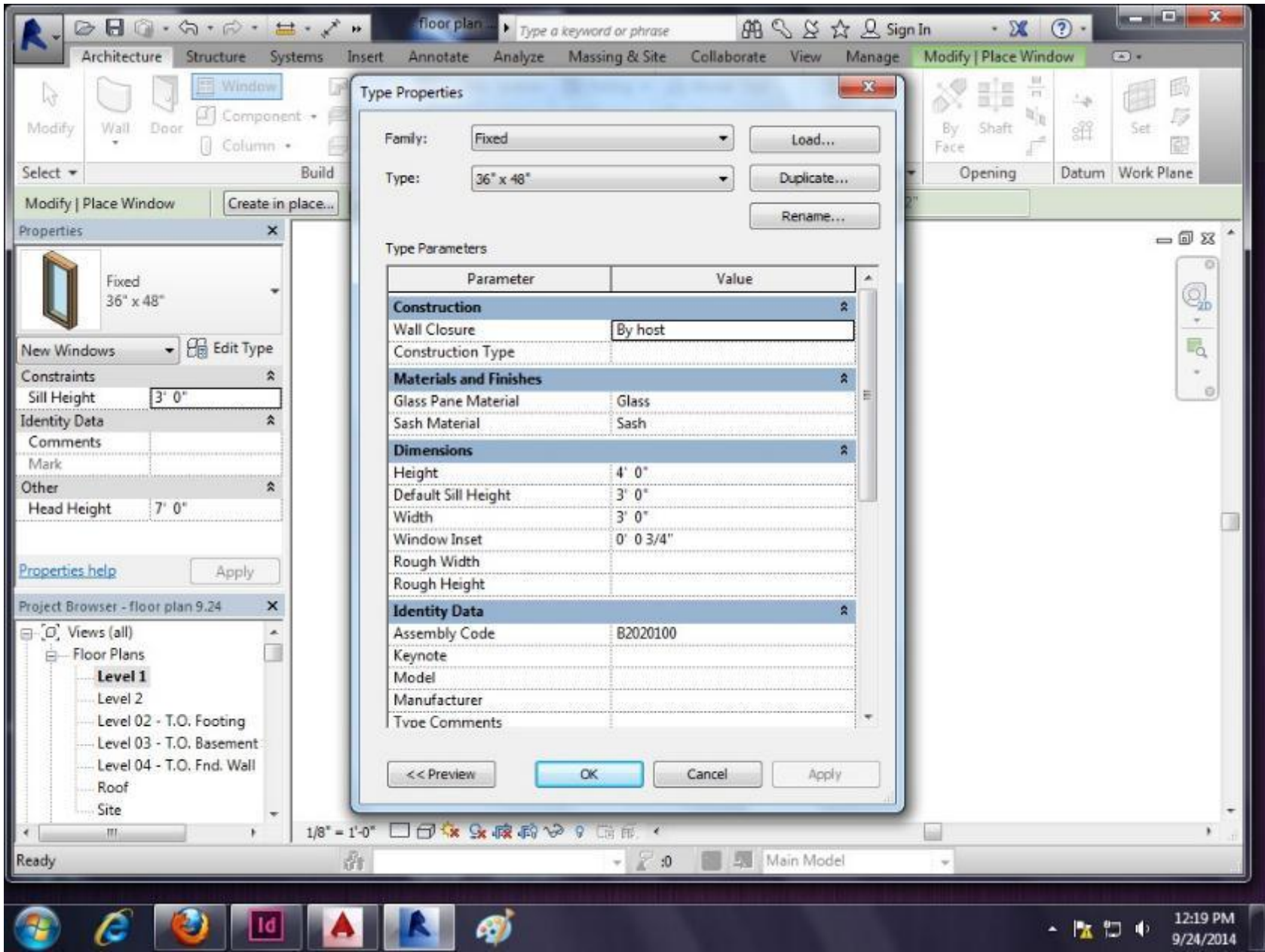
NEXT WE'LL ADD SOME WINDOWS. LIKE DOORS AND WALLS, YOU CAN CHOOSE DIFFERENT TYPES. HOWEVER, REVIT DOES NOT APPEAR TO HAVE THE SIZE OF WINDOW I NEED, SO LET'S EDIT ONE.

CLICK THE EDIT TYPE BUTTON IN THE PROPERTIES MENU.



FROM HERE, I RECOMMEND CHOOSING THE CLOSEST FAMILY AVAILABLE TO WHAT YOU NEED AND THEN CLICKING THE DUPLICATE BUTTON AT THE TOP. THIS WAY, THE TYPE THAT'S ALREADY THERE CAN STAY THE SAME. THEN YOU'LL NAME YOUR TYPE AND HIT OKAY.

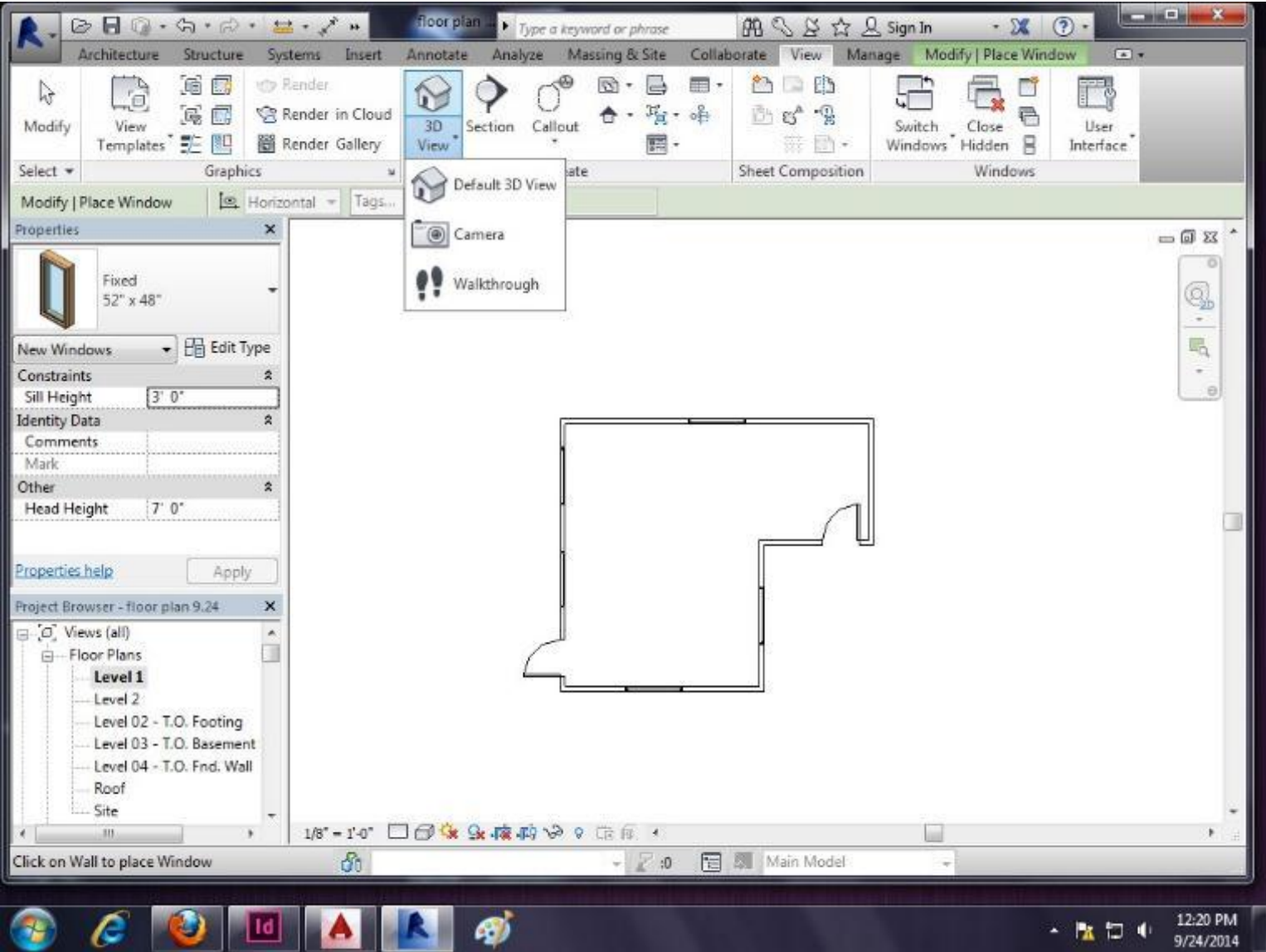
IN THE EDIT TYPE MENU YOU CAN ALTER THE MATERIALS OF THE ITEM AND THE DIMENSIONS. LET'S MAKE THIS 36"X48" WINDOW 52"X48".





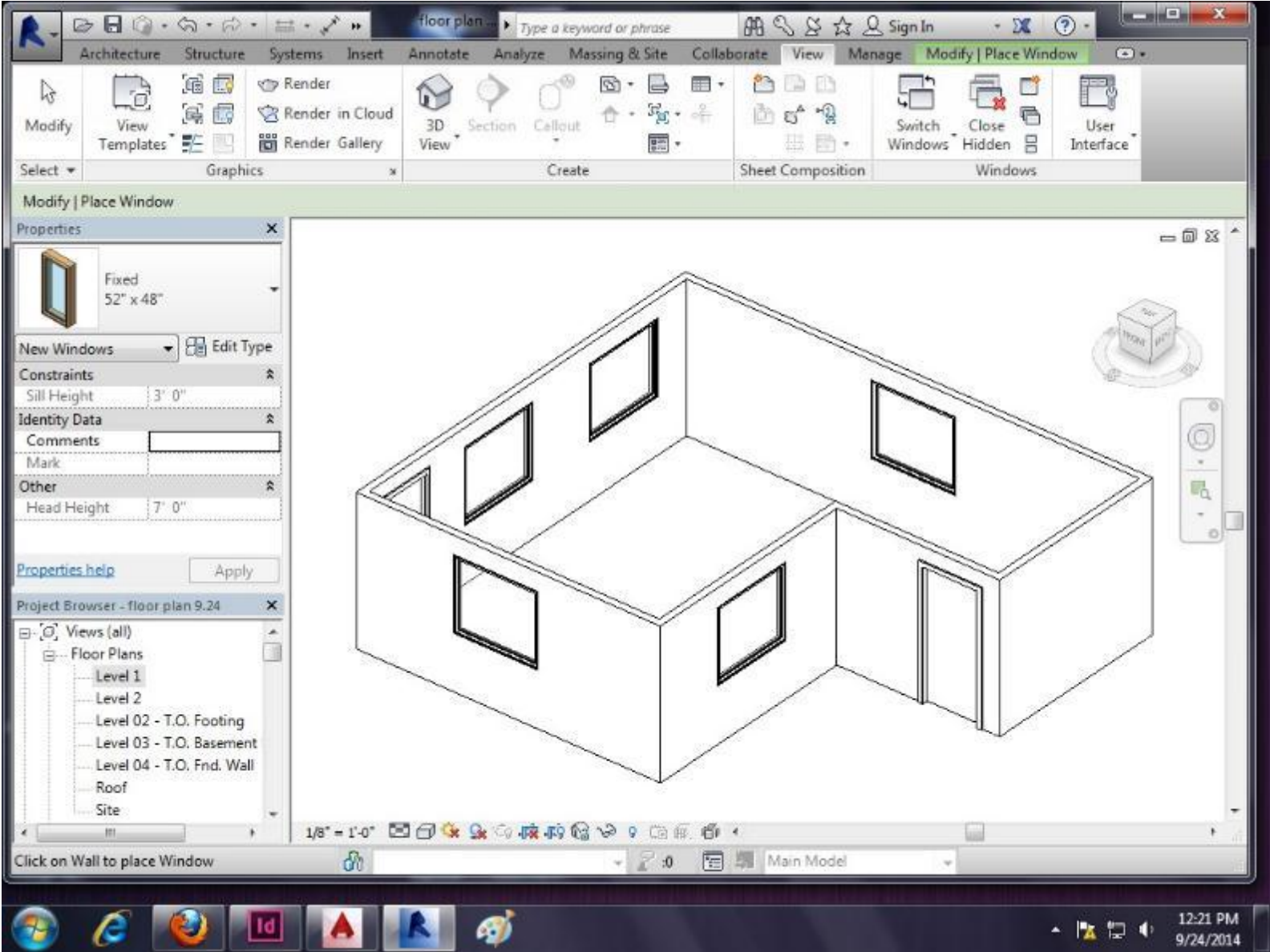
NOW WE HAVE A SPACE WITH DOORS AND WINDOWS, BUT I WANT TO SEE WHAT IT LOOKS IN 3D.

CLICK THE VIEW TAB IN THE RIBBON AND THEN CLICK THE 3D VIEW BUTTON. THERE ARE A COUPLE DIFFERENT OPTIONS, BUT LET'S CHOOSE THE DEFAULT.



IT'S OUR SPACE! EVERYTHING IS STILL EDITABLE IN THE 3D VIEW.

TO GO BACK TO THE FLOOR PLAN, YOU WILL CHOOSE "LEVEL 1" UNDER THE PROJECT BROWSER MENU.





## CLIENT DESCRIPTION

- Developer interested in building 55+ active adult community
  - Interested in exploring “Aging in Place” and “Universal Design” to attract retirees to the Greenville area
    - The developer wants to build a residential condominium development with each model unit being 2,000-3,500 square feet







## SPACES WITH IN THE CONDO

- **Kitchen with Breakfast Nook** ~350sqft
  - Dimensions ~19'6" x 18'6"
  - **Living Area** ~300 sqft
    - Dimensions ~18'6" x 18'6"
    - **Dining Room** ~200 sqft
      - Dimensions ~ 14'6" x 14'
  - **Master Bedroom with WIC** ~300sqft
    - Dimensions ~18'6" x 18'6"
    - **Mini Master Bedroom with WIC** ~200sqft
      - Dimensions ~14'6" x 14'6"
      - **2 Guest Rooms** ~100 sqft
        - Dimensions ~10' x 10'
      - **Screened in Porch** ~150sqft
        - Dimensions ~12' x 12'
        - **3.5 Bathrooms**
          - Dimensions of 3 full baths ~10' x 10' each
          - Half bath Dimensions ~ 8' x 8'

**Total Square Feet = ~2064**

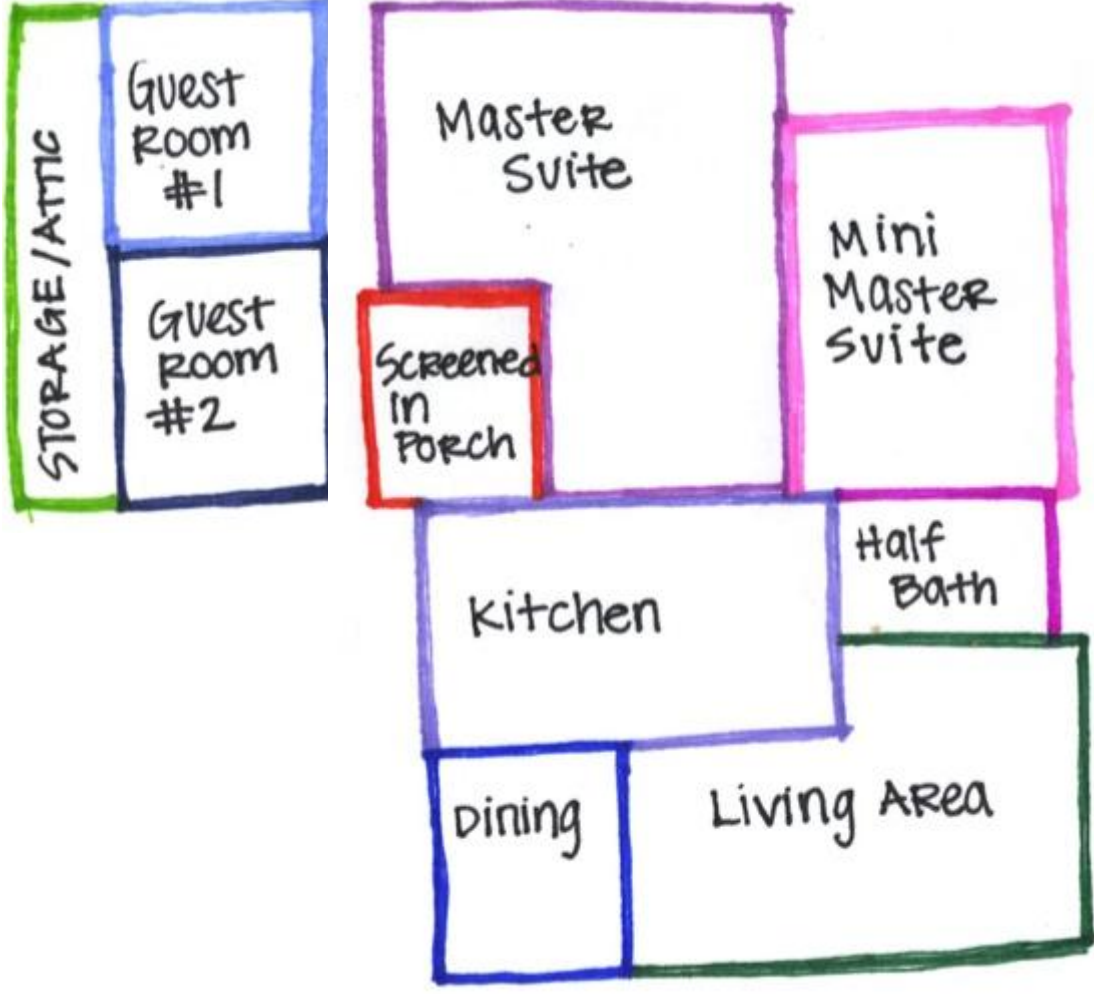


# REASONING BEHIND PROPOSED SPACES AND SQUARE FOOTAGE

- My research for this project came from touring a real 55+ active adult community in Williamsburg, VA in which my supervisor from my internship was a designer.
  - In most models there were:
    - Open floor plans
    - Low threshold showers
    - Master bedroom located on the first floor
      - Walk in closet in master bedroom
    - Guest bedrooms located on second floor
      - Screened in porch
    - Open kitchen with island
    - Formal dining room



# BUBBLE/BLOCKING DIAGRAMS





# INSPIRATION PICTURES

