

Building Technology III

New York City College of Technology

Course Day 12

Revit Day 04
The New Academic Building – Start



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<http://professorpaulking.wordpress.com/>
<http://students.autodesk.com/>

New Project

- Project Location
- Project North

- Oasisnyc.net
- Property Lines
- Adjust Keys

- Grids
- Vertical
- Horizontal
- Cleanup & Propagate

- Levels
- Elevation Cleanup
- New Levels

New Plan Views

- Propagate

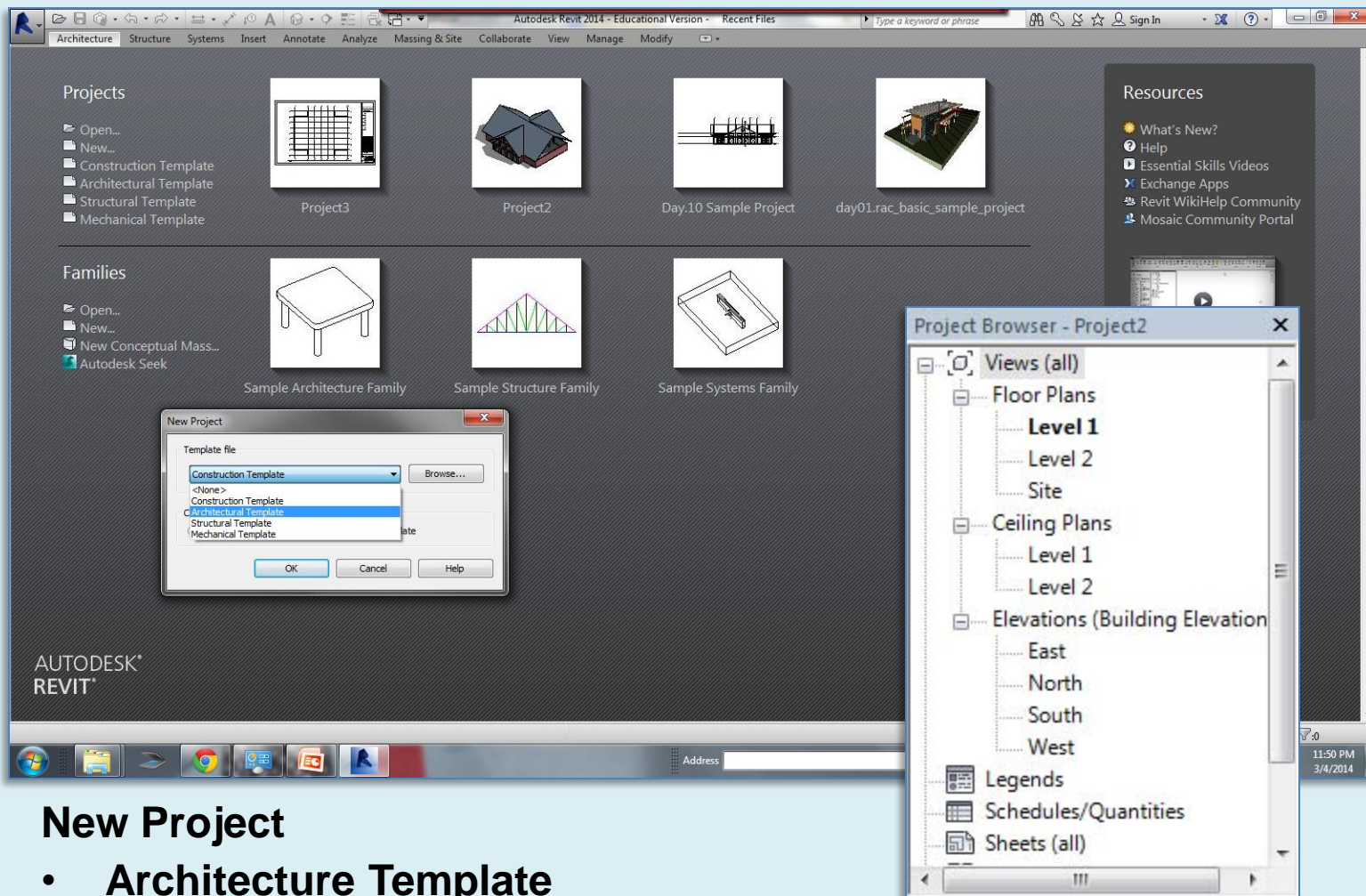
Walls

- Gym
- Atrium
- Laboratory

Sheet Layout

Wrap Up

Start a New Project



New Project

- Architecture Template

New Project

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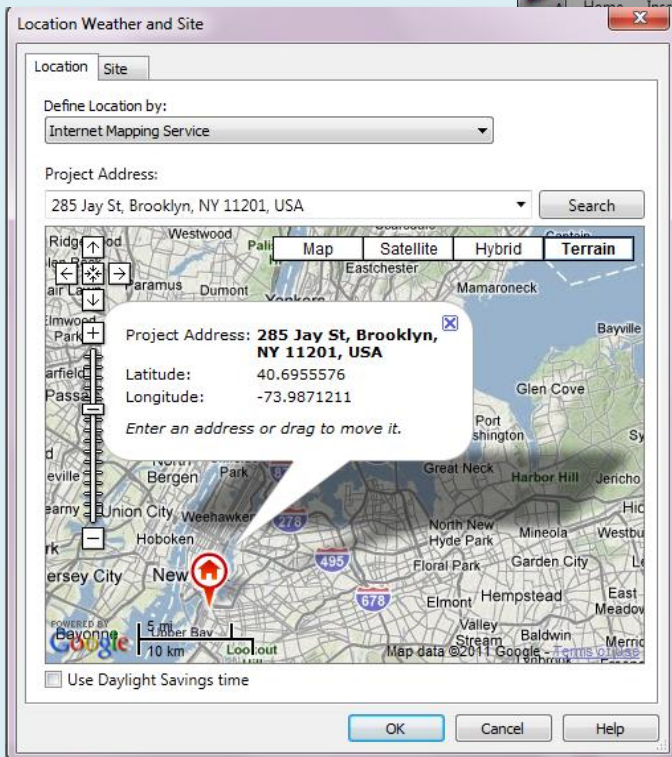
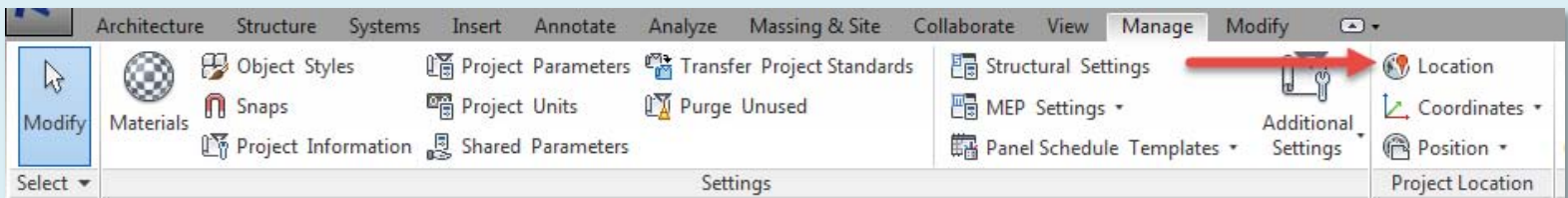
- Atrium

- Laboratory

Sheet Layout

Wrap Up

Set Project Location



Project Address:
285 Jay Street
Brooklyn NY 11201

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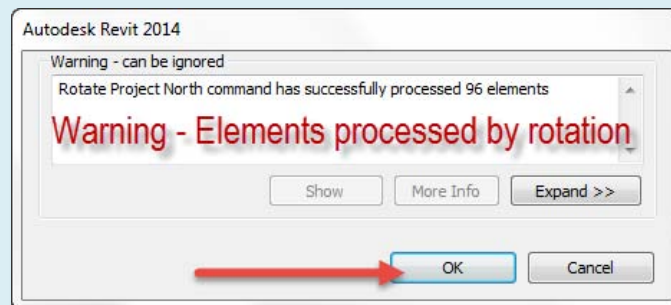
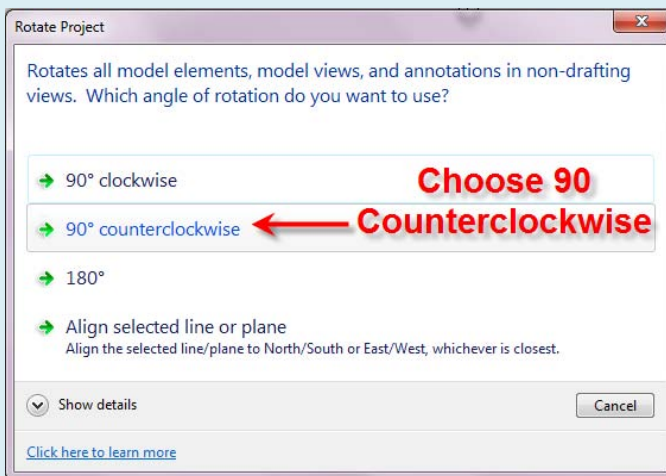
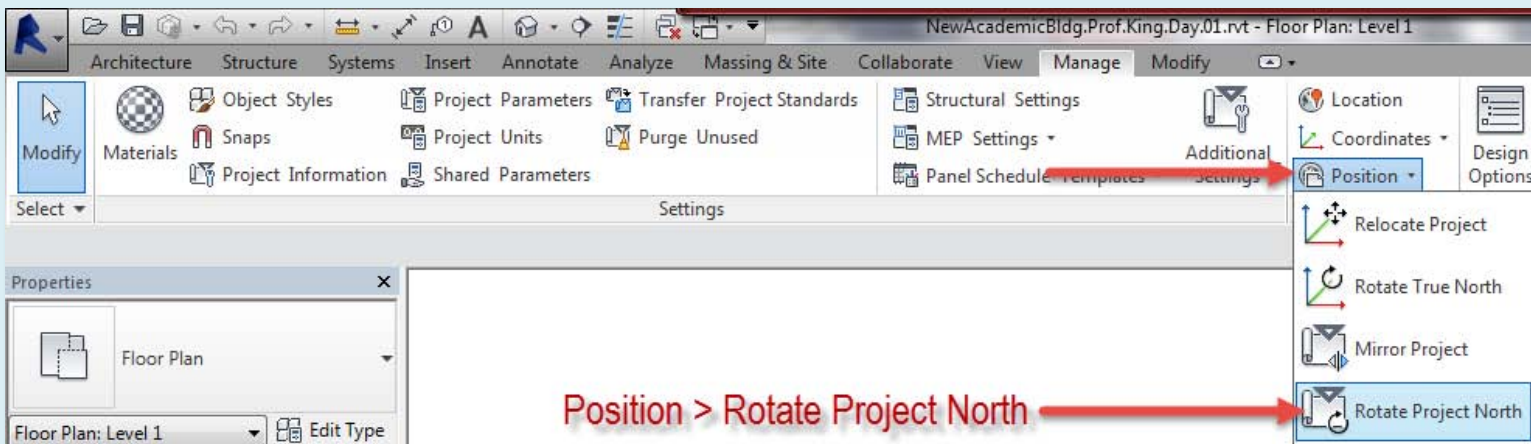
Walls

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Wrap Up

Rotate Project North



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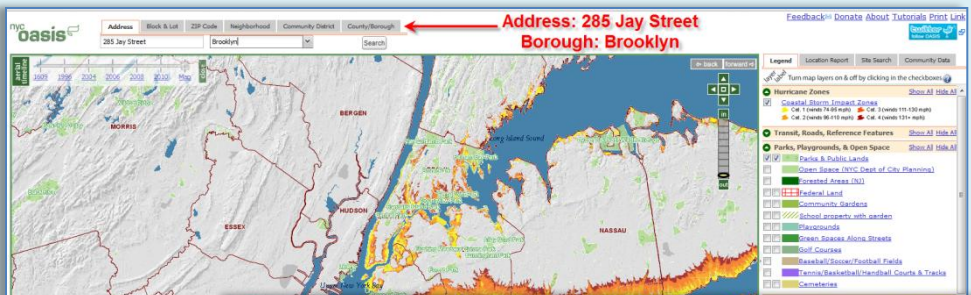
Walls

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Wrap Up

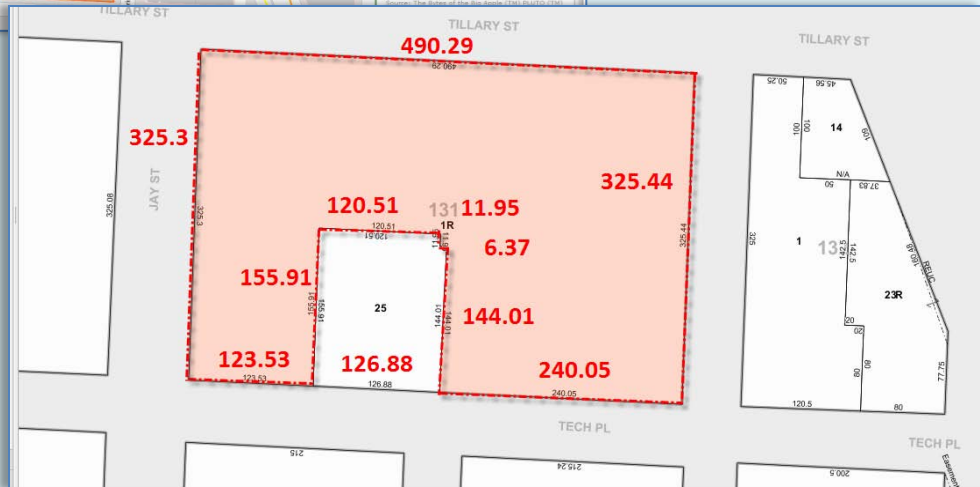
<http://oasisnyc.net/map.aspx>



- Project Address:
285 Jay Street
Brooklyn NY 11201



- Location Report >
NYC Digital Tax Map
- Site Dimensions



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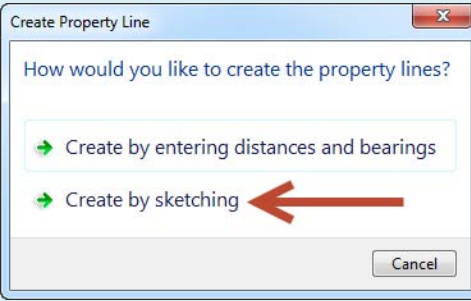
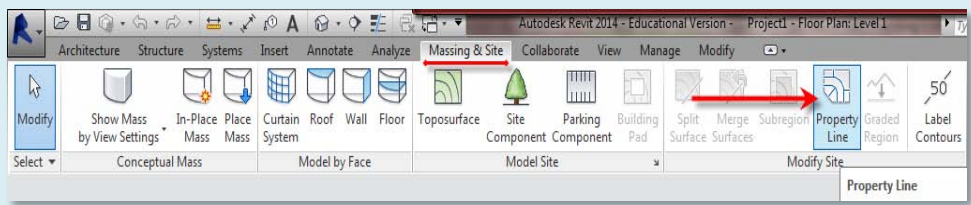
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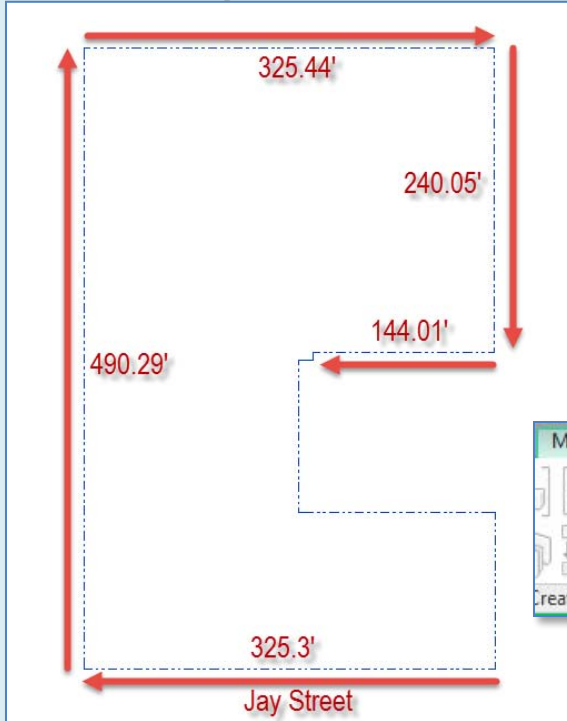
Sheet Layout

Wrap Up

Draw Property Lines

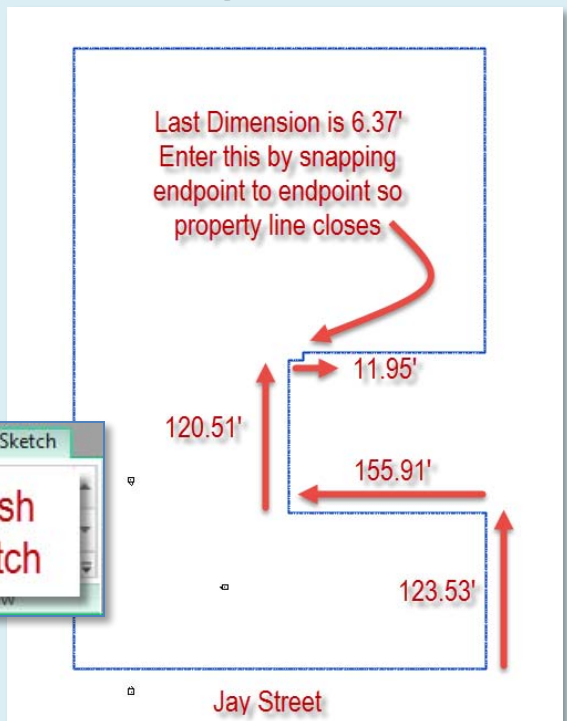


Running Counter Clockwise:



- 325.3'
- 490.29'
- 325.44'
- 240.05'
- 144.01'

Running Clockwise:



- 123.53'
- 155.91'
- 120.51'
- 11.95'
- (6.37')



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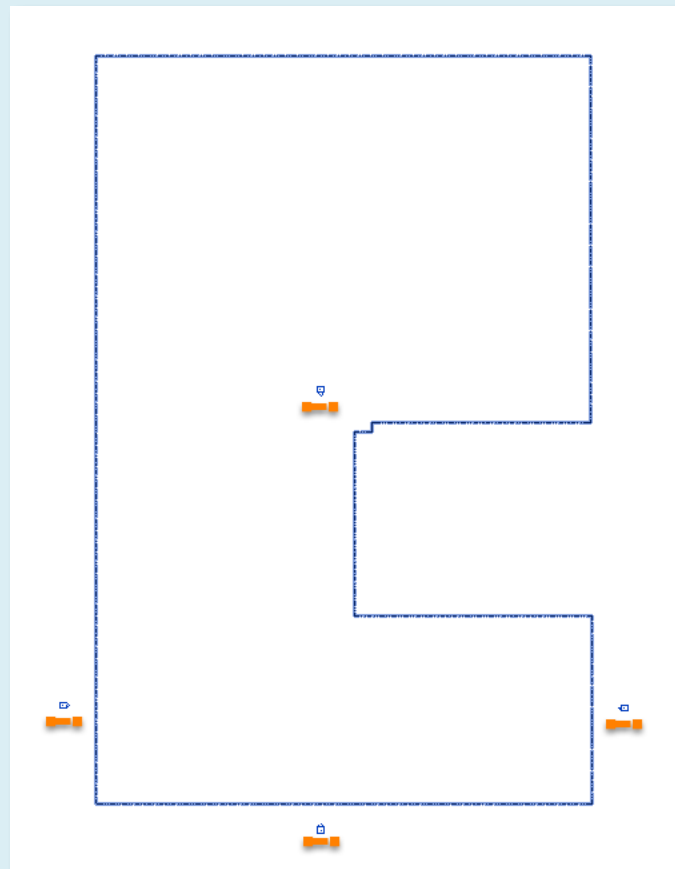
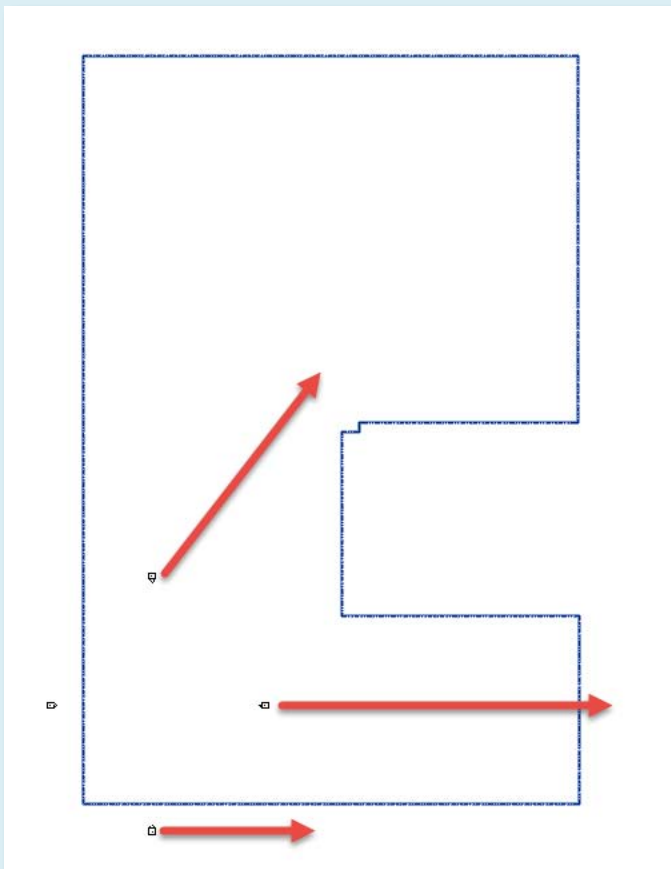
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Wrap Up

Adjust Elevation Keys in Plan View

Drag to reposition the keys as needed:



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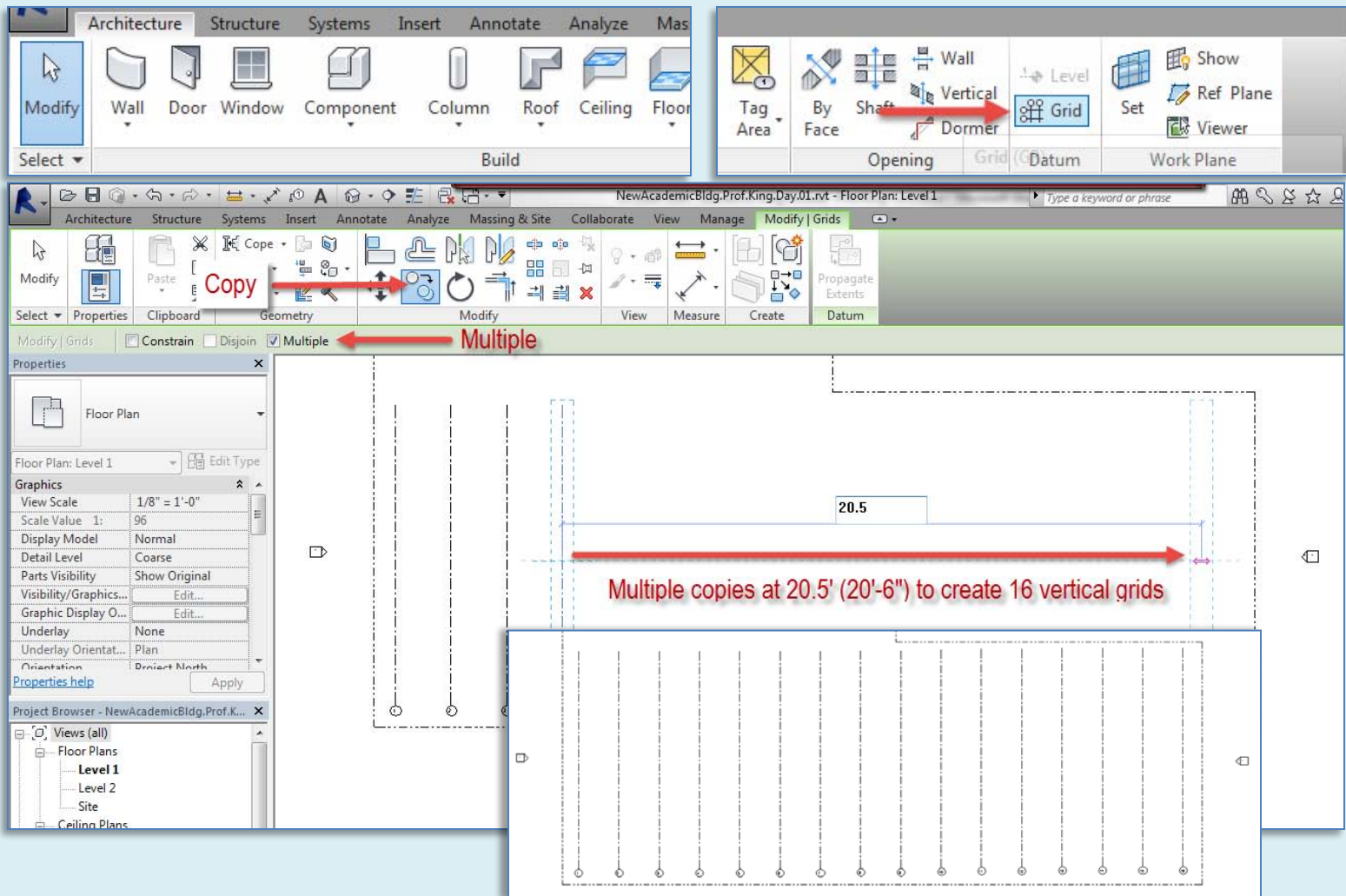
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Wrap Up

Grids : Create 16 vertical grids (Numbered 1 to 16)



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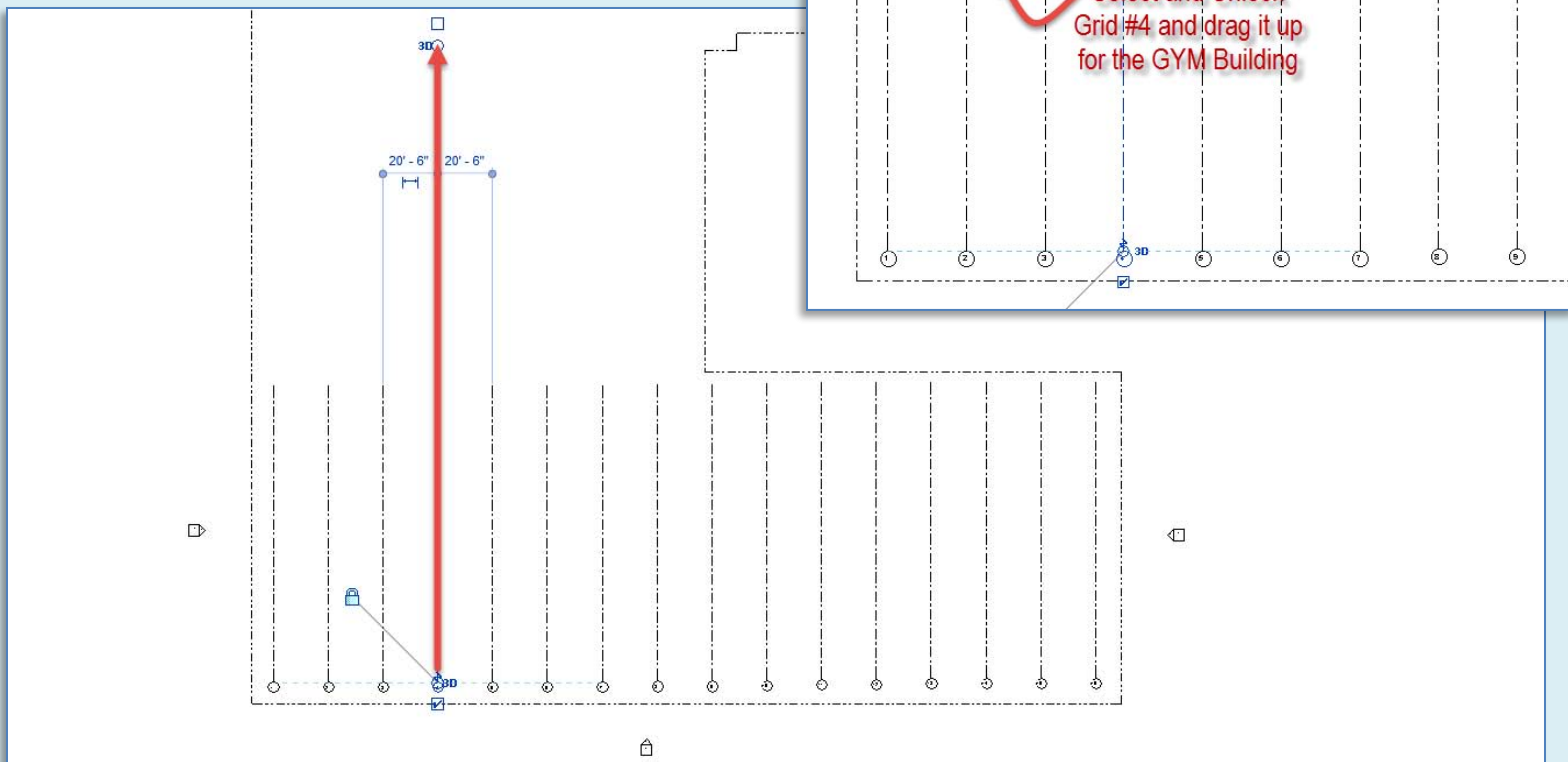
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Sheet Layout

Wrap Up

Grids : Extend Grid #4

- Select Grid 4
- Unlock the Grid
- Extend it up



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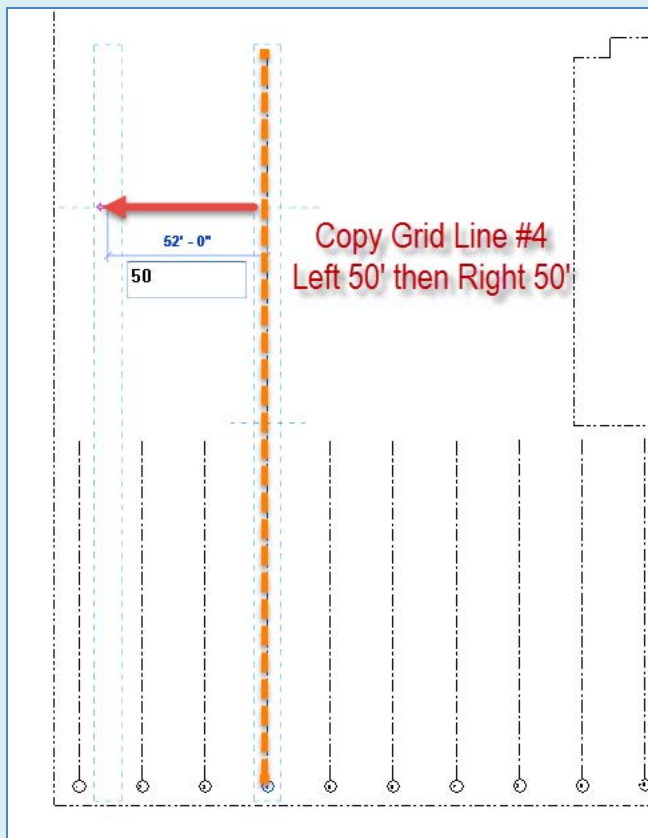
Sheet Layout

Wrap Up

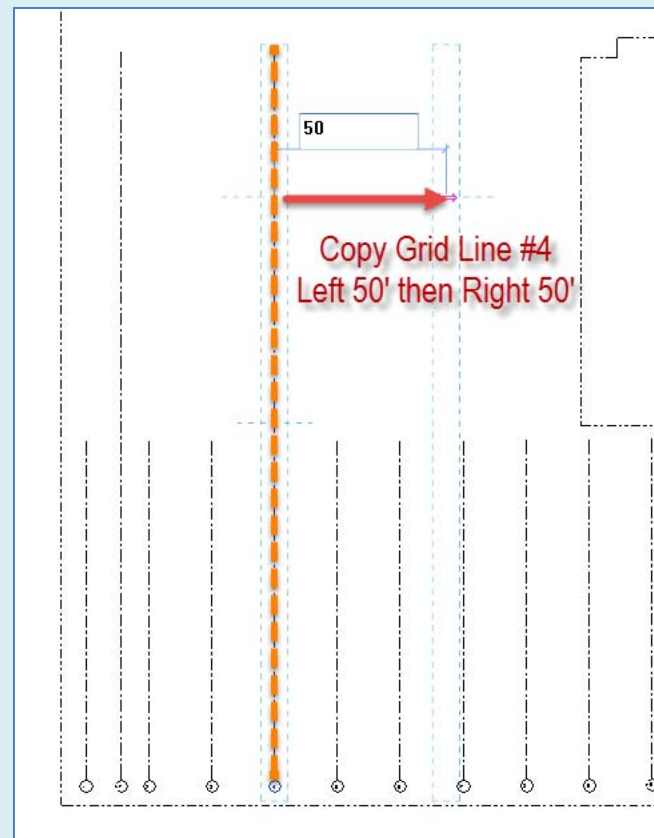
Grids : Create 2 new Grids for GYM 50' from Grid 4

•Select Grid 4 twice

•Copy 50' to the Left



•Copy 50' to the Right



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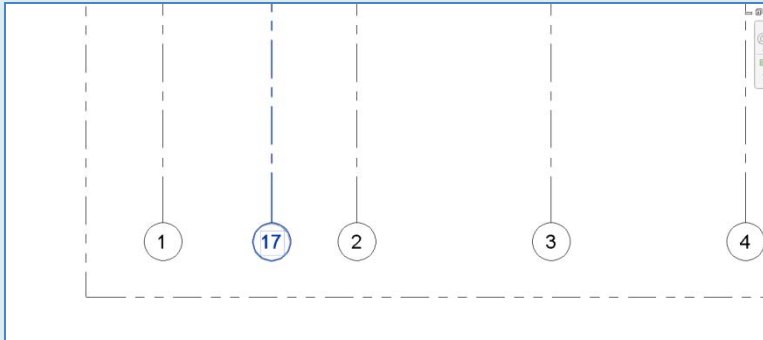
Sheet Layout

Wrap Up

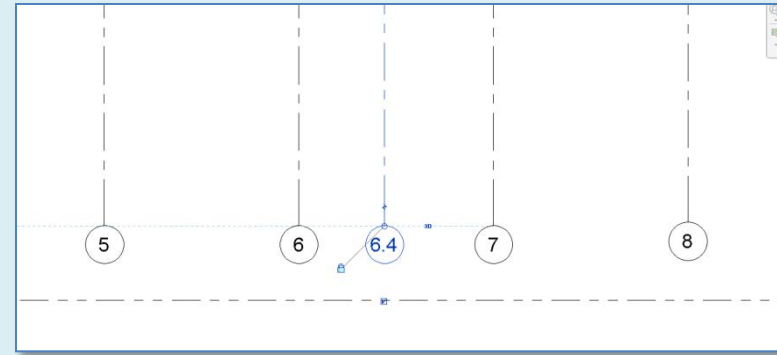
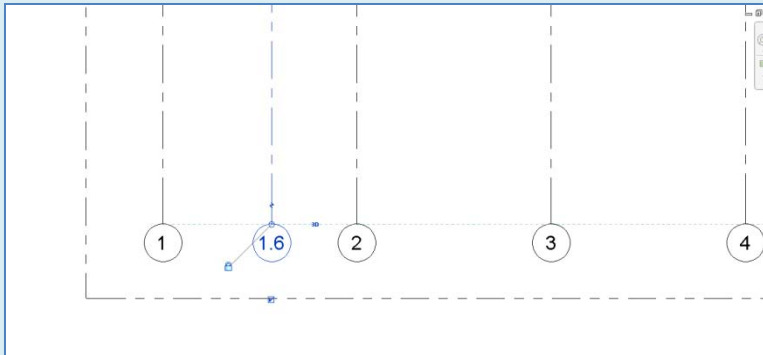
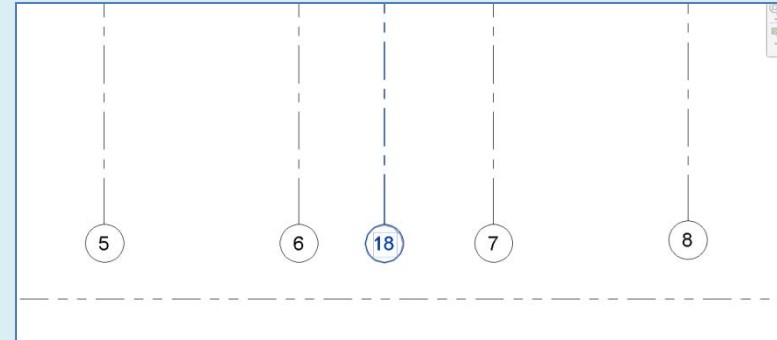
Grids : Rename GYM grids based on position

- Based on their relative position in the structural grid re-number grid lines 17 & 18

- Change 17 to 1.6



- Change 18 to 6.4



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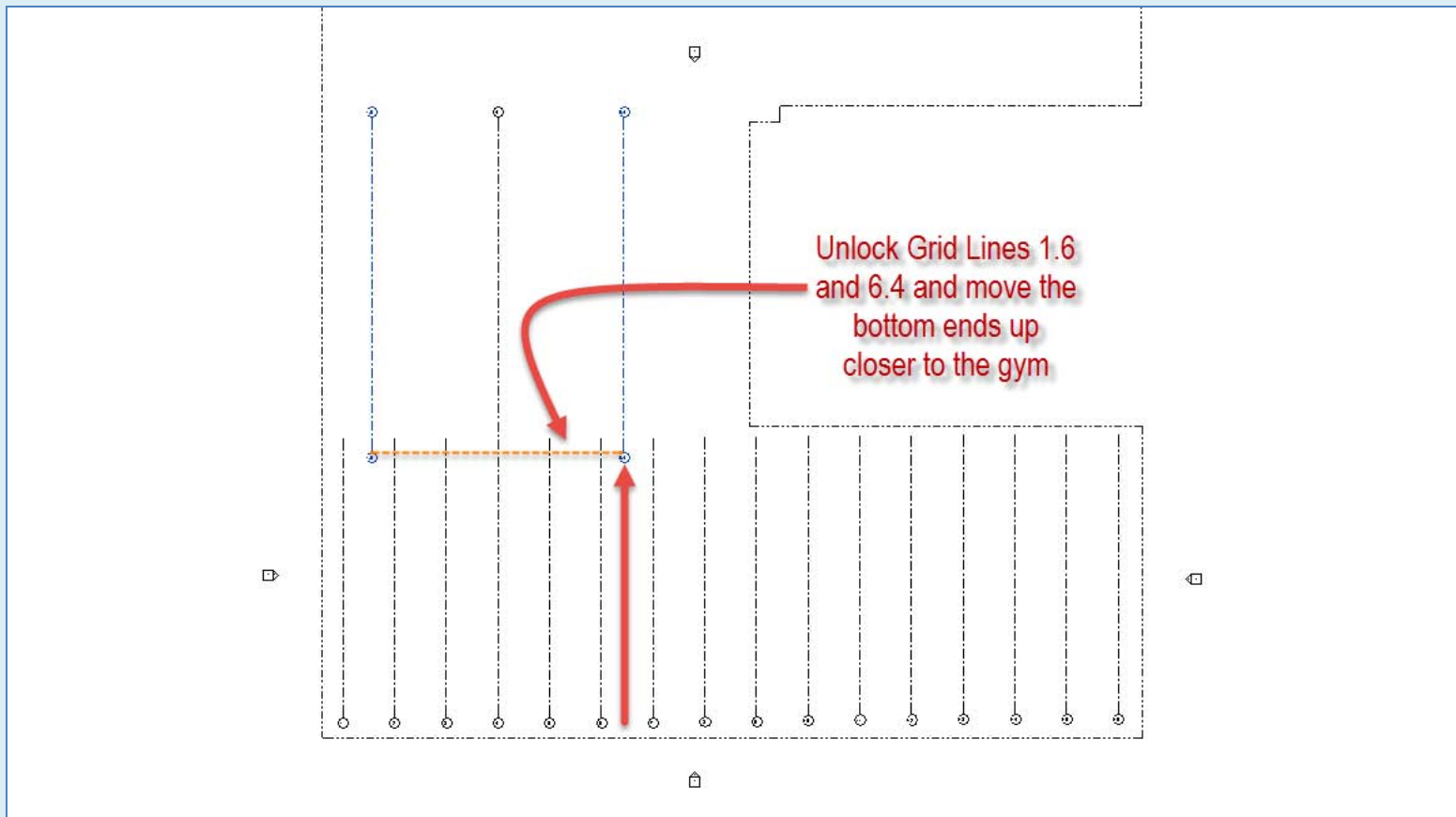
- Gym
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Sheet Layout

Wrap Up

Grids : Reposition Grids 1.6 & 6.4

- Move the grids up towards the Gymnasium



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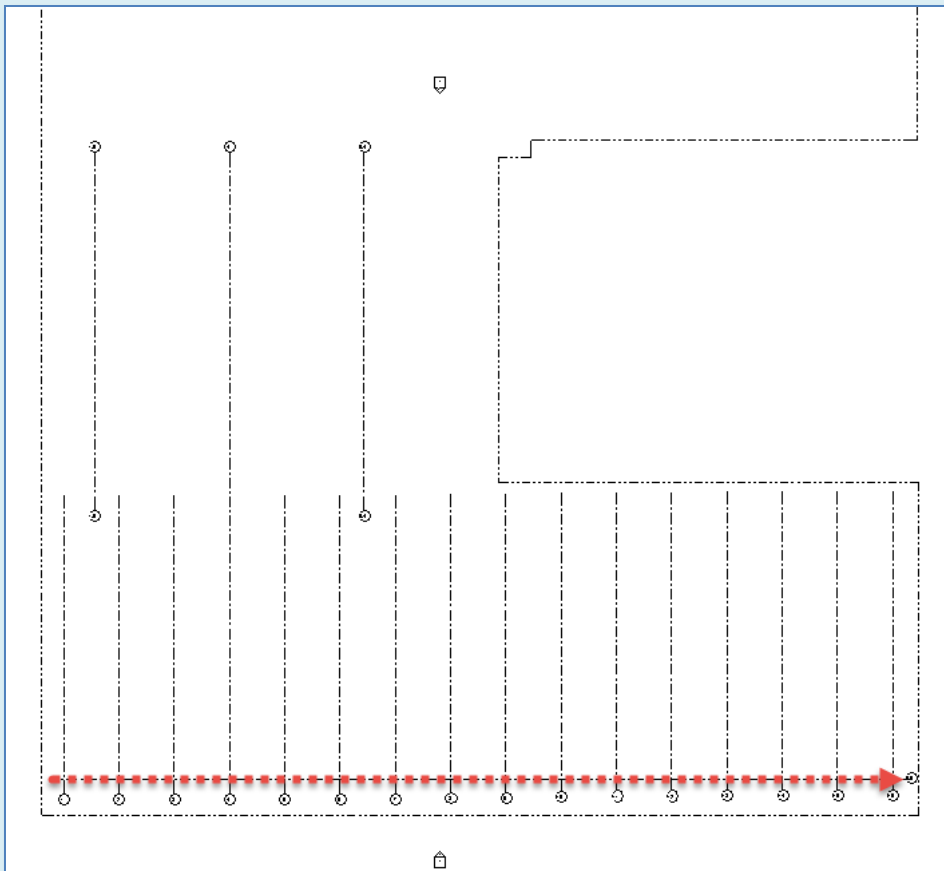
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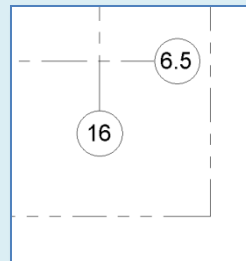
Wrap Up

Grids : Draw first horizontal Grid Line for Lab/Atrium

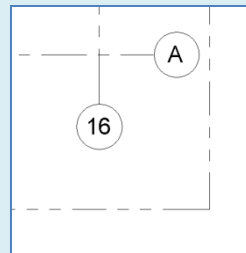
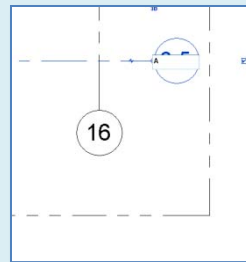
•Draw the first horizontal Grid Across the bottom



•The grid takes the next name (6.5) in the sequence



•Change the number to the letter A to define the first grid of the new sequence



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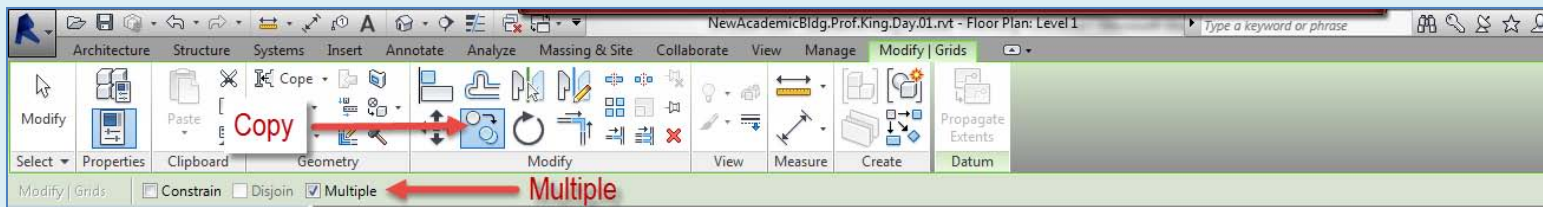
Walls

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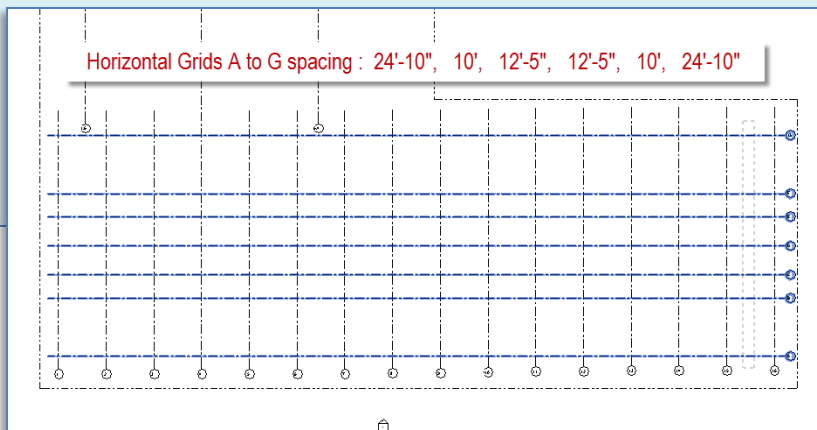
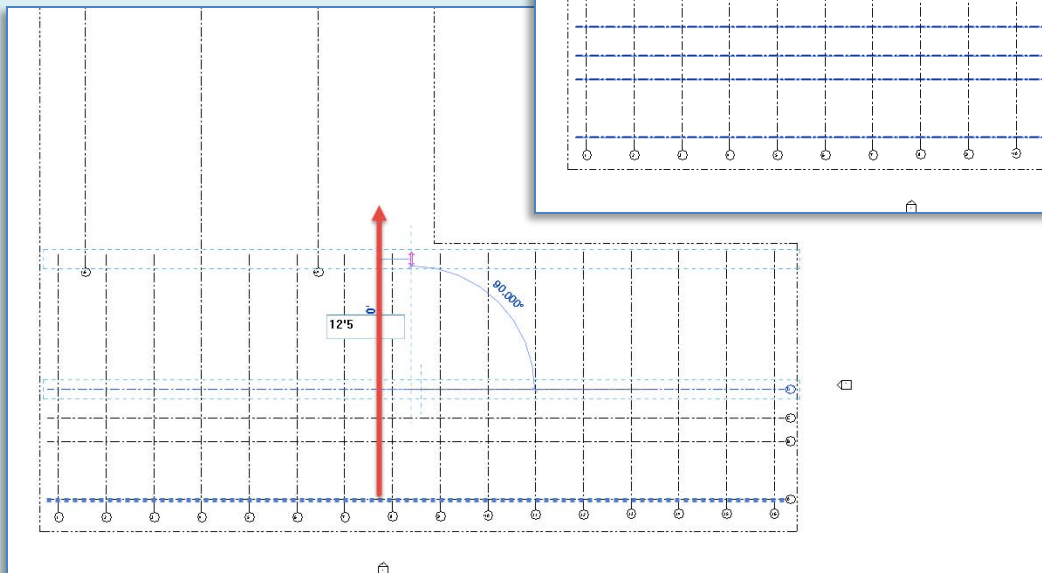
Sheet Layout

Wrap Up

Grids : Copy Grid Lines for Atrium/Lab



- Select Grid A
- Multiple Copies



• Grid Spacing

- 24'-10"
- 10'-0"
- 12'-5"
- 12'-5"
- 10'-0"
- 24'-10"

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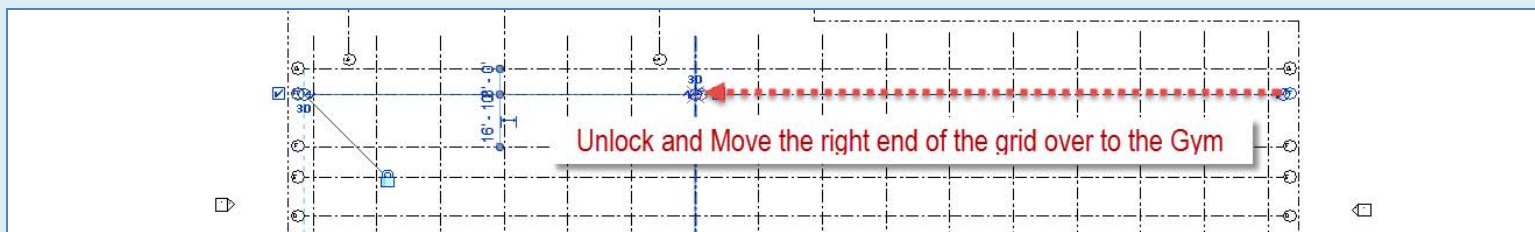
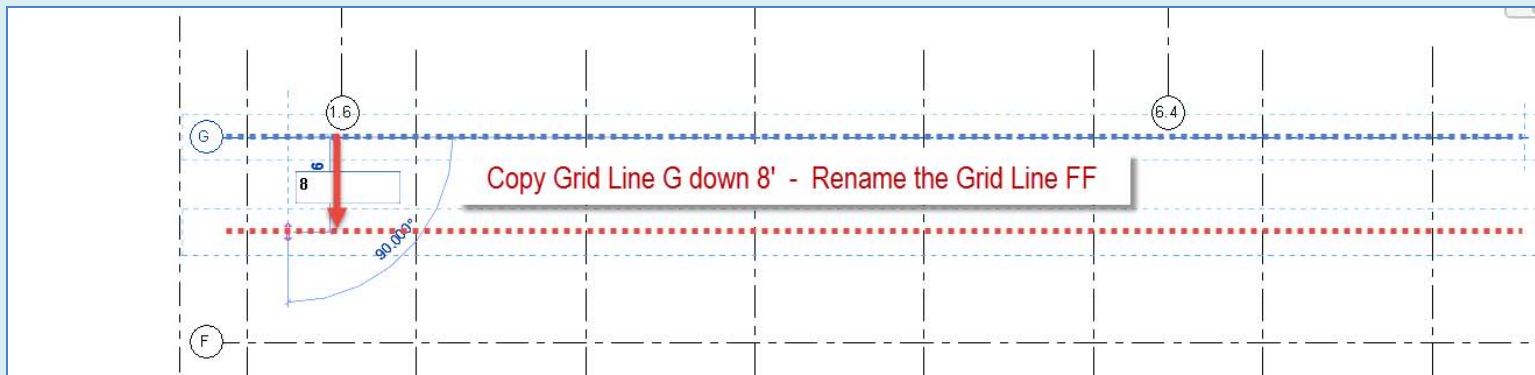
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Sheet Layout

Wrap Up

Grids : Copy Grid E to create first Grid FF for GYM



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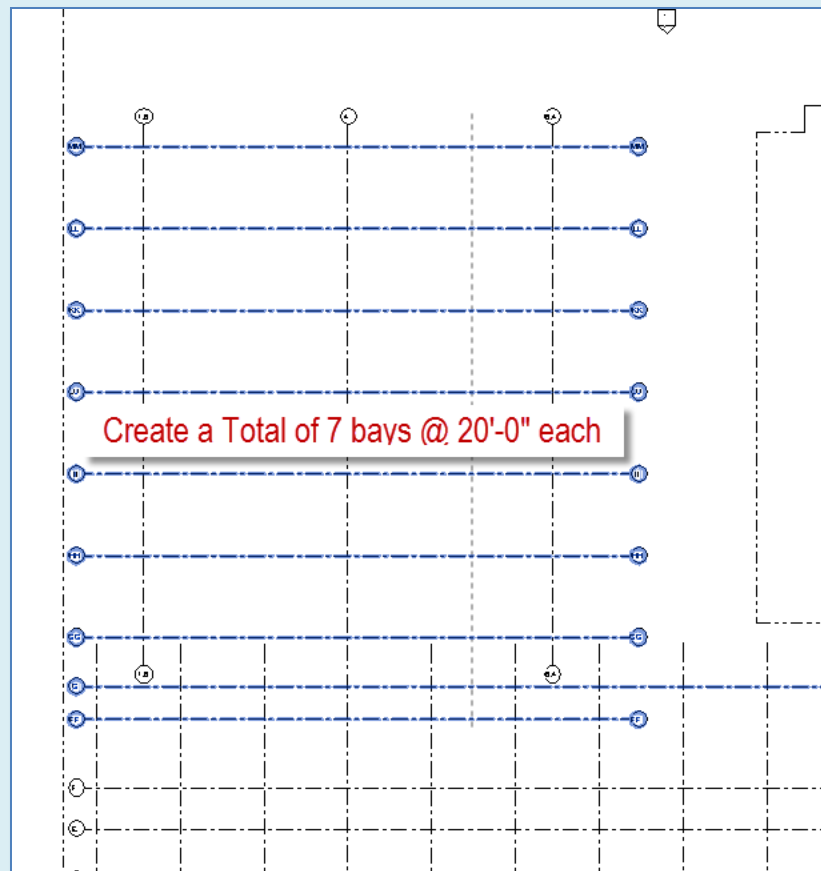
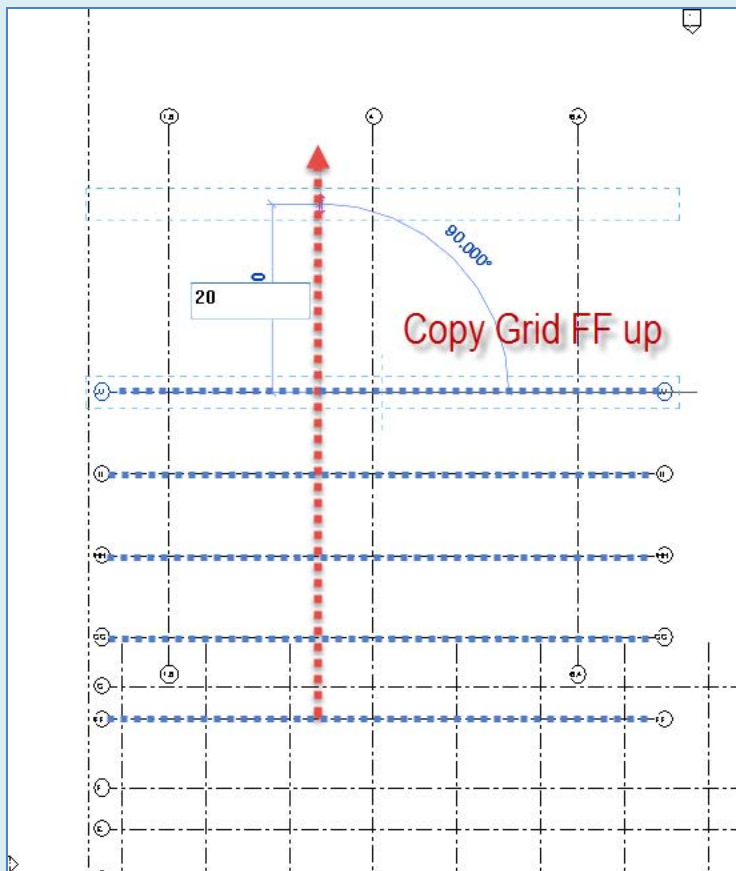
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Sheet Layout

Wrap Up

Grids : Create a total of 8 Grids & 7 Bays for GYM

- For the horizontal GYM grid we will use double letters (FF, GG...)



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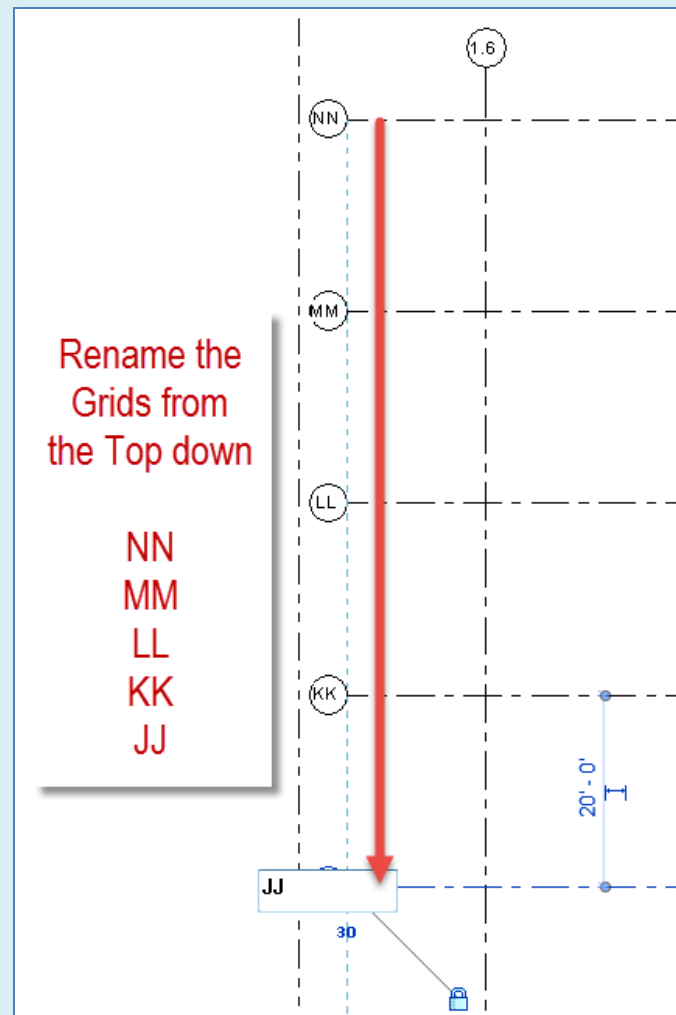
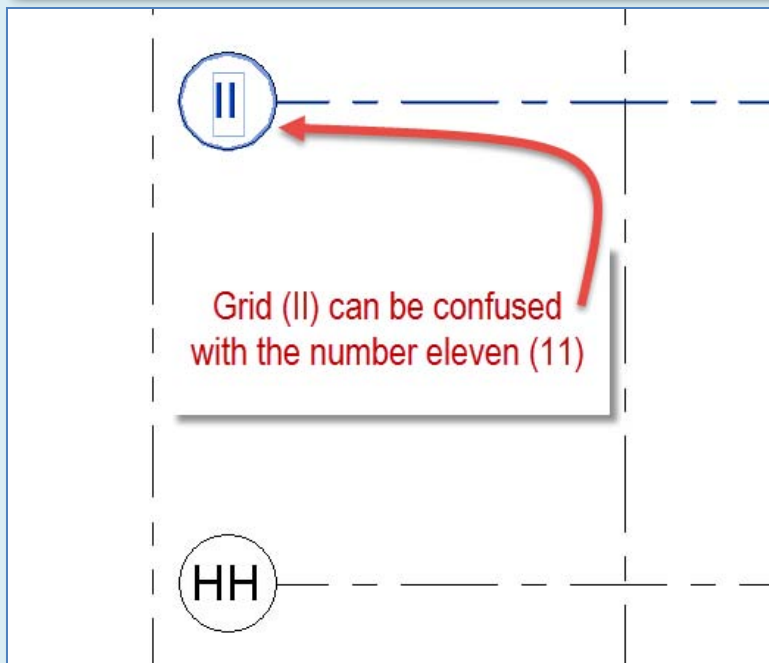
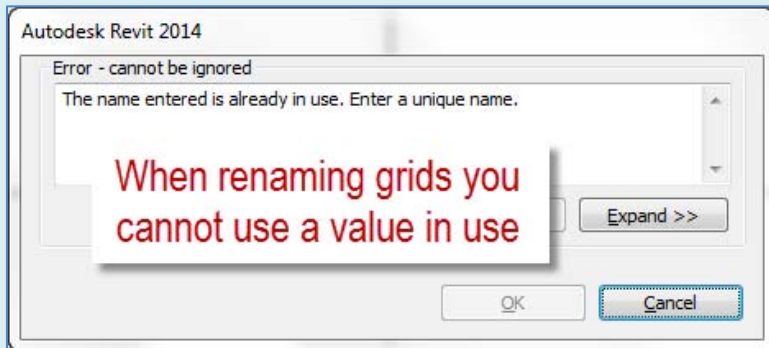
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Wrap Up

Grids : Rename Grids from the Top Down



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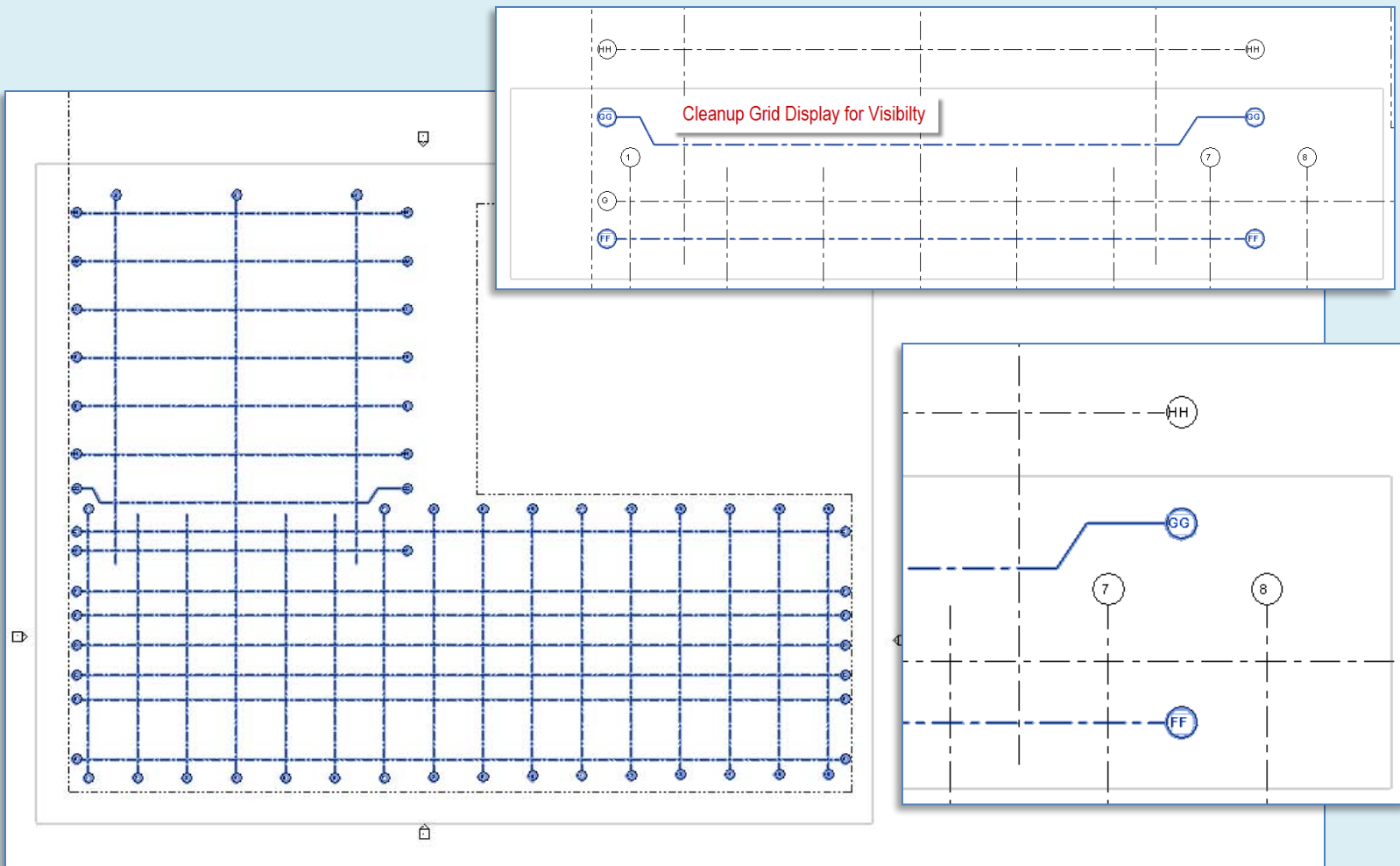
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Wrap Up

Grids : Cleanup Grids for clarity



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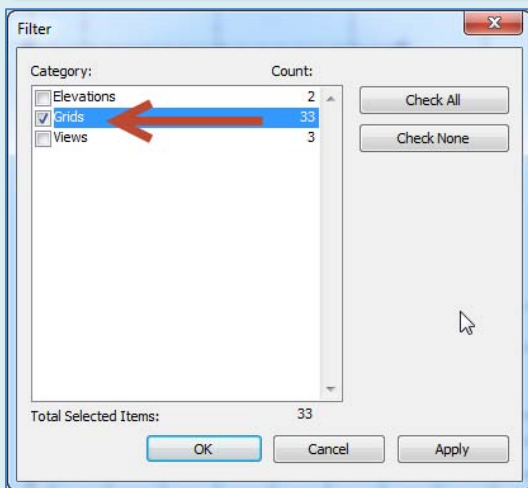
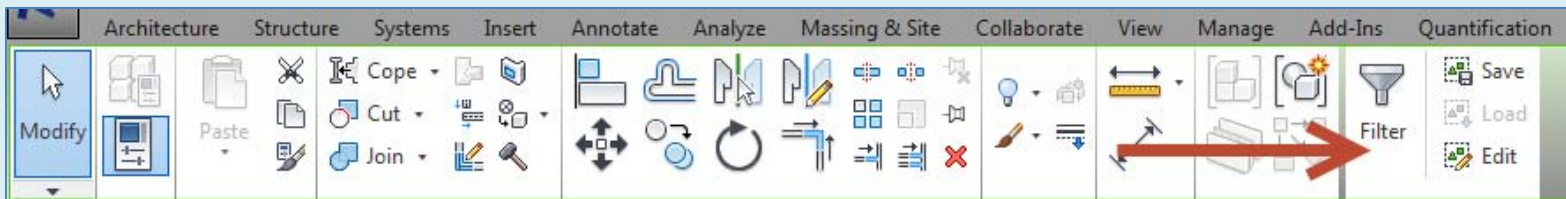
Walls

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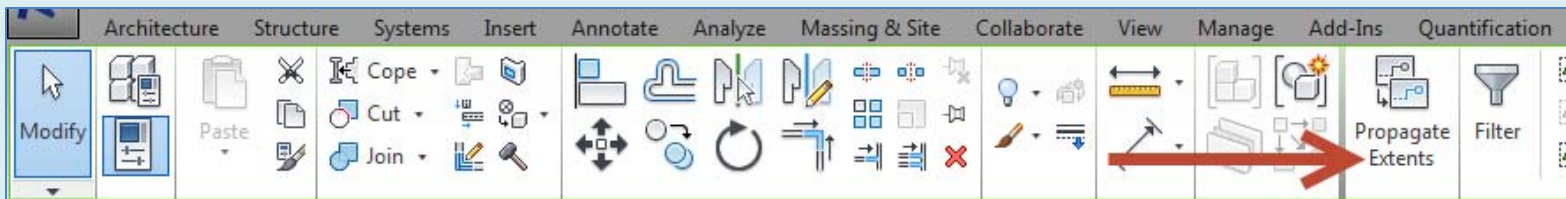
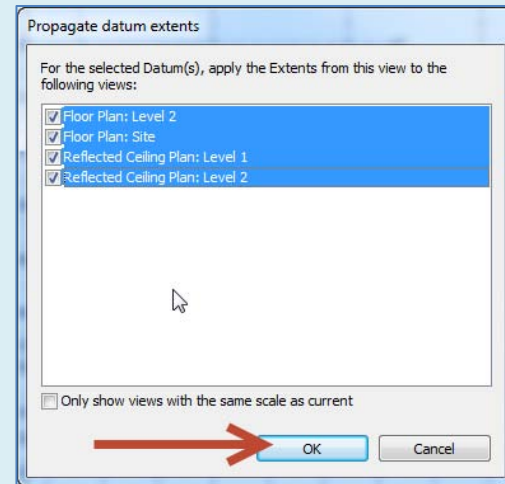
Sheet Layout

Wrap Up

Grids : Propagate Extents of Grid to other Levels



- **Select the Grids on a level formatted properly**
- **Filter to make sure only Grids are selected**
- **Propagate Extents to selected levels**



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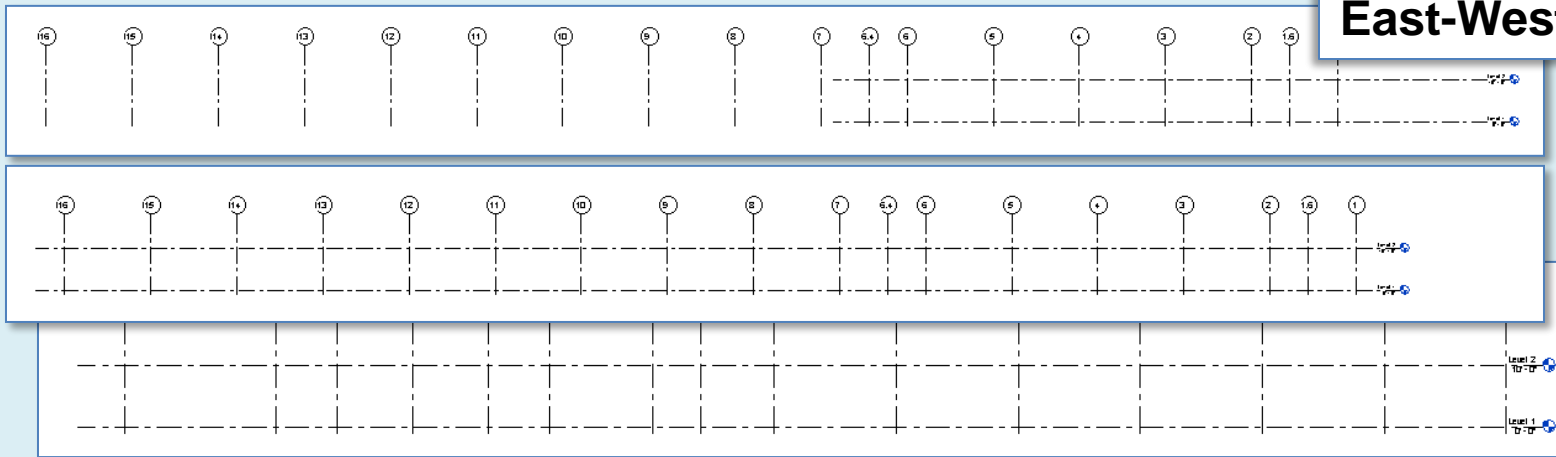
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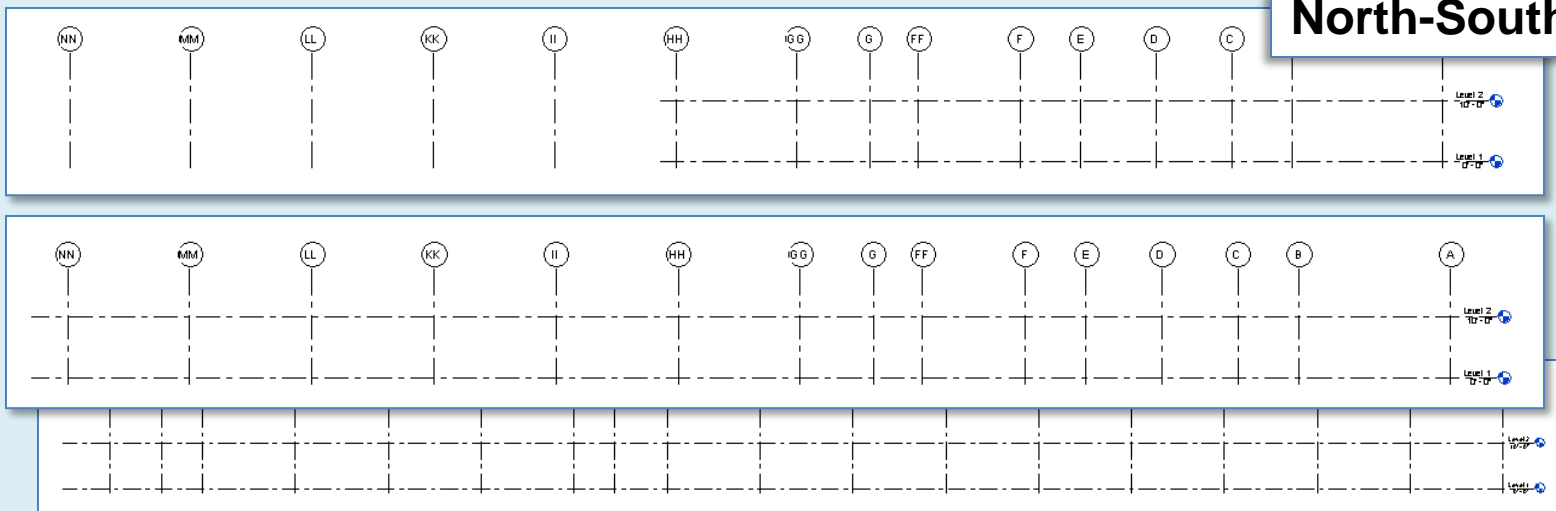
Wrap Up

Levels: Begin by Cleaning up the Elevation Views

East-West



North-South



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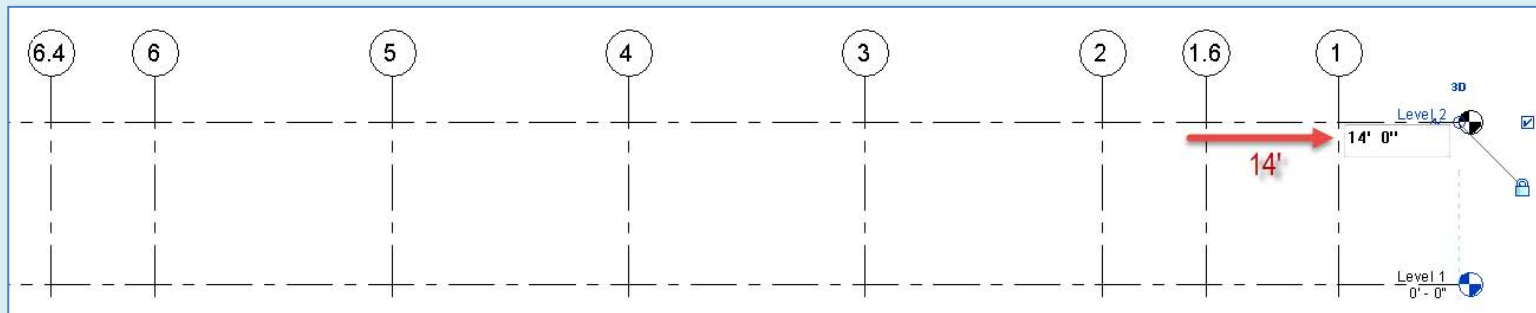
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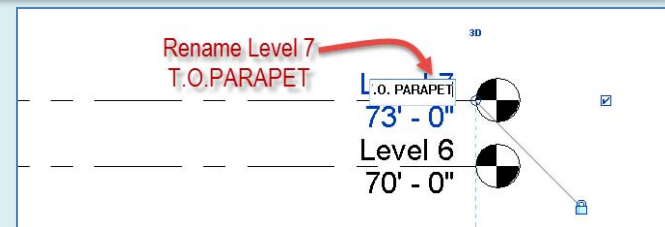
Sheet Layout

Wrap Up

Levels: Adjust and Add New Levels

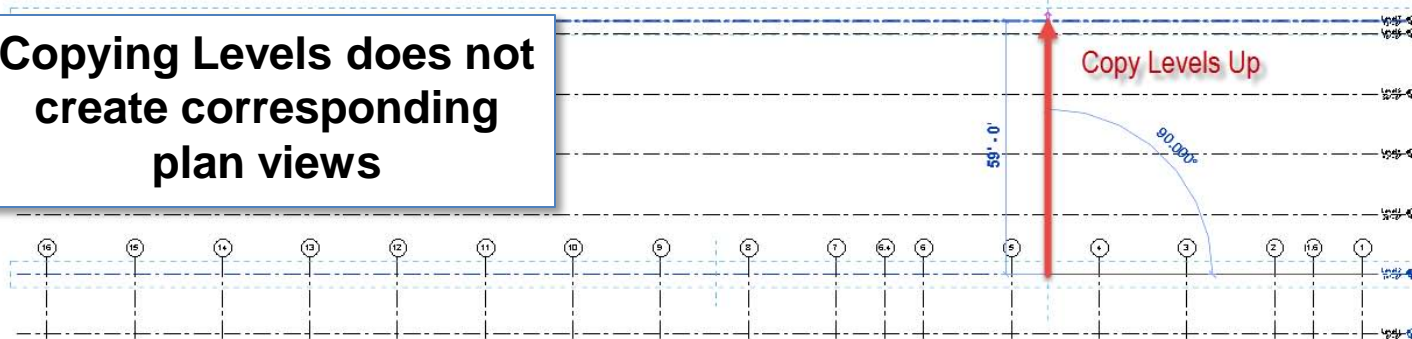


- Set Level 2 to 14'
- Copy to Create Levels 1 to 7
- Rename Level 7 to T.O.PARAPET



Create Levels 1 to 7 @14' then add 1 additional @3' for the Top of Parapet

Copying Levels does not create corresponding plan views



Levels: Adjust and Add New Levels

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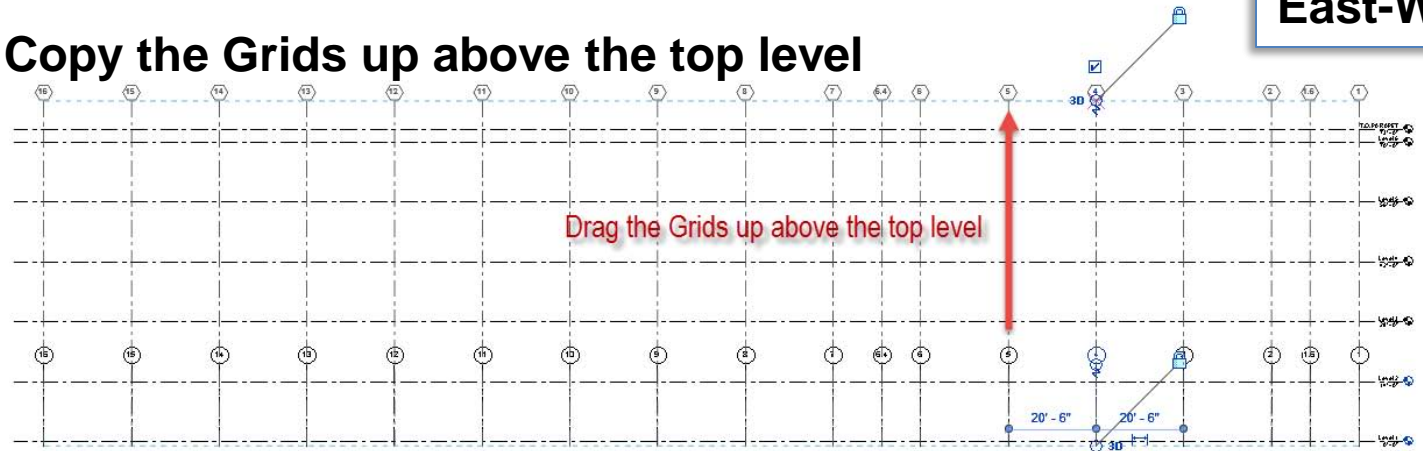
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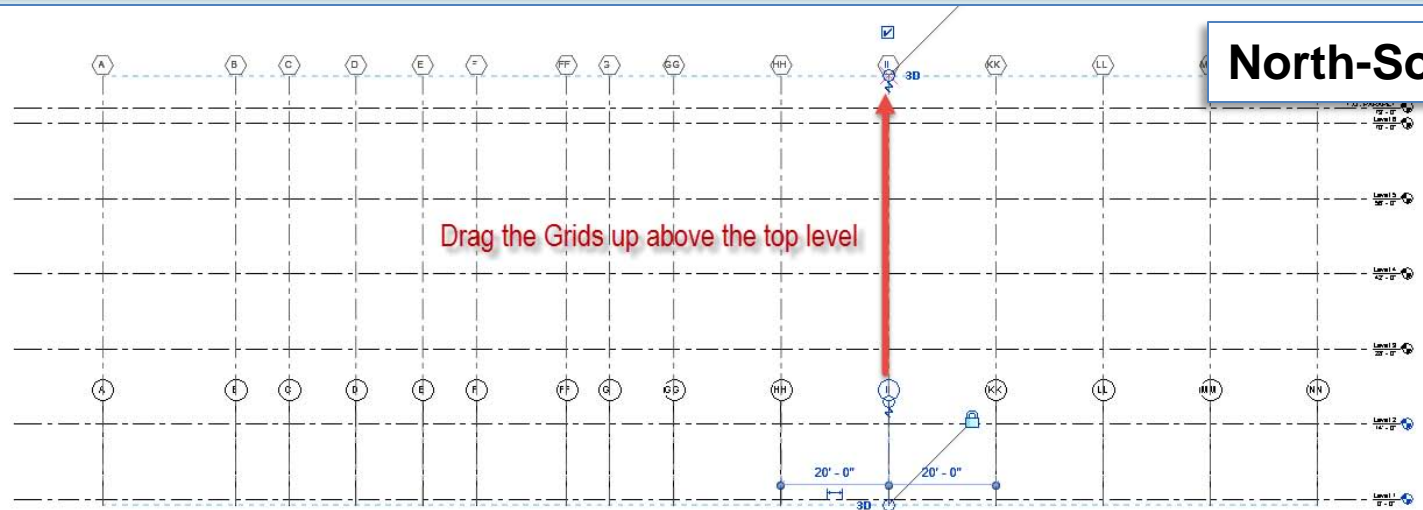
East-West

- **Copy the Grids up above the top level**



North-South

- Drag the Grids up above the top level



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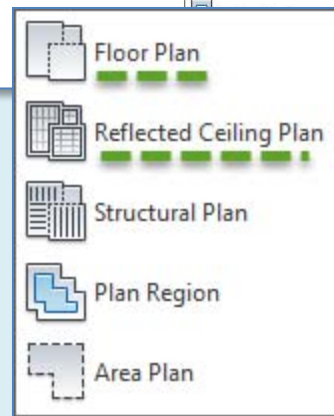
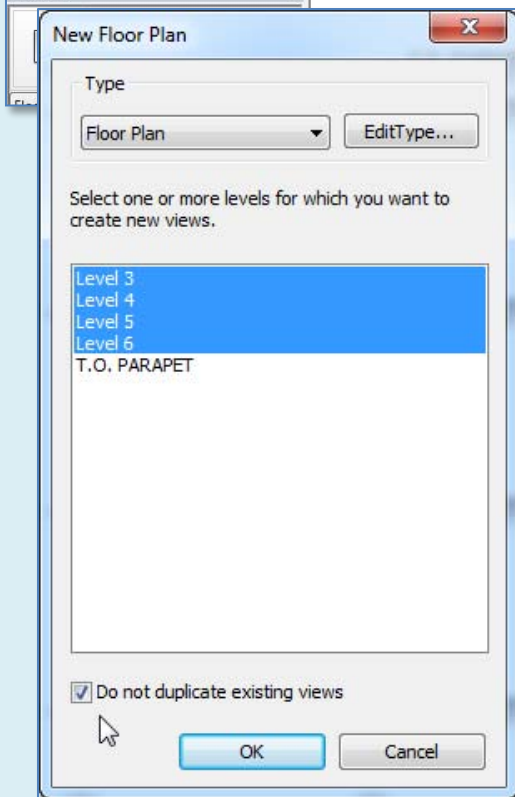
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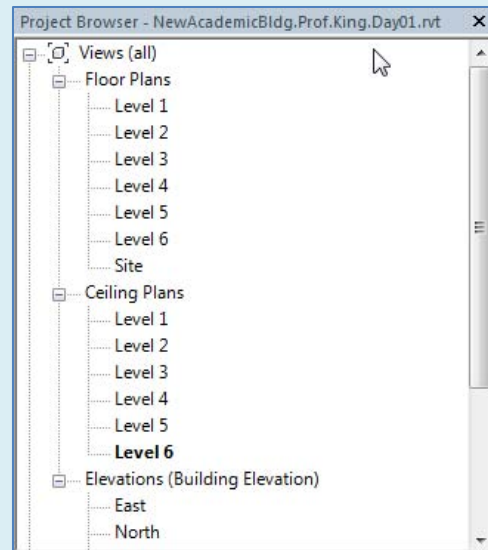
Wrap Up

Views: Create Floor Plan & RCP Plan Views



Copying Levels does not create corresponding plan views

- View > Plan Views
- Floor Plans
- Reflected Ceiling plan



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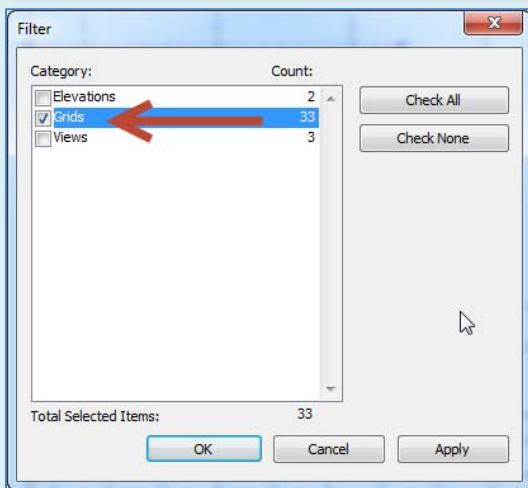
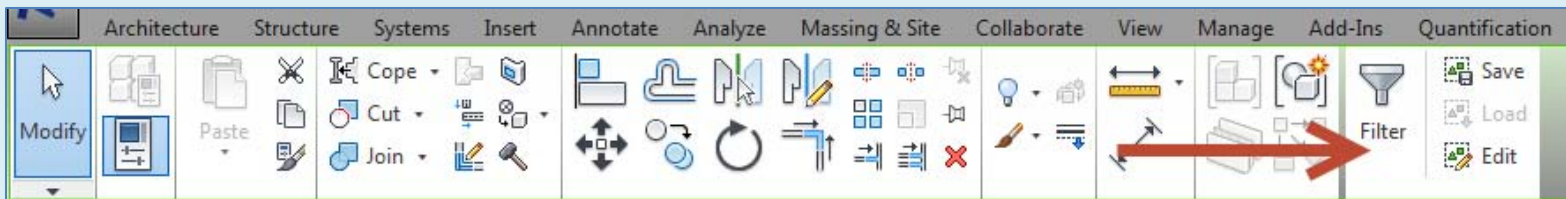
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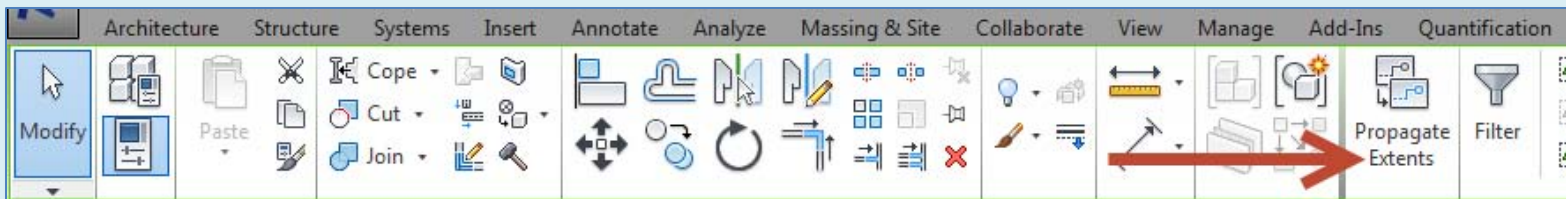
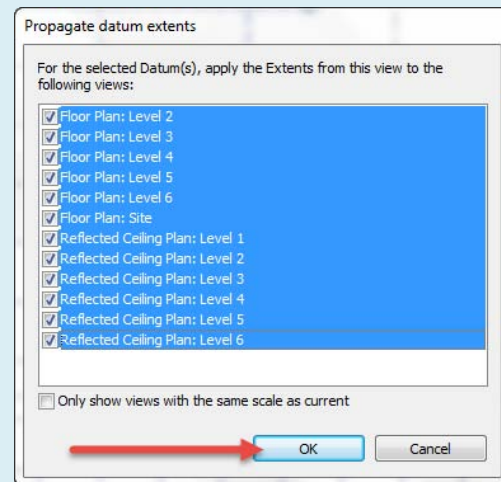
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Grids : Repeat Propagate Extents of Grid to other Levels



- Select the Grids on a level formatted properly
- Filter to make sure only Grids are selected
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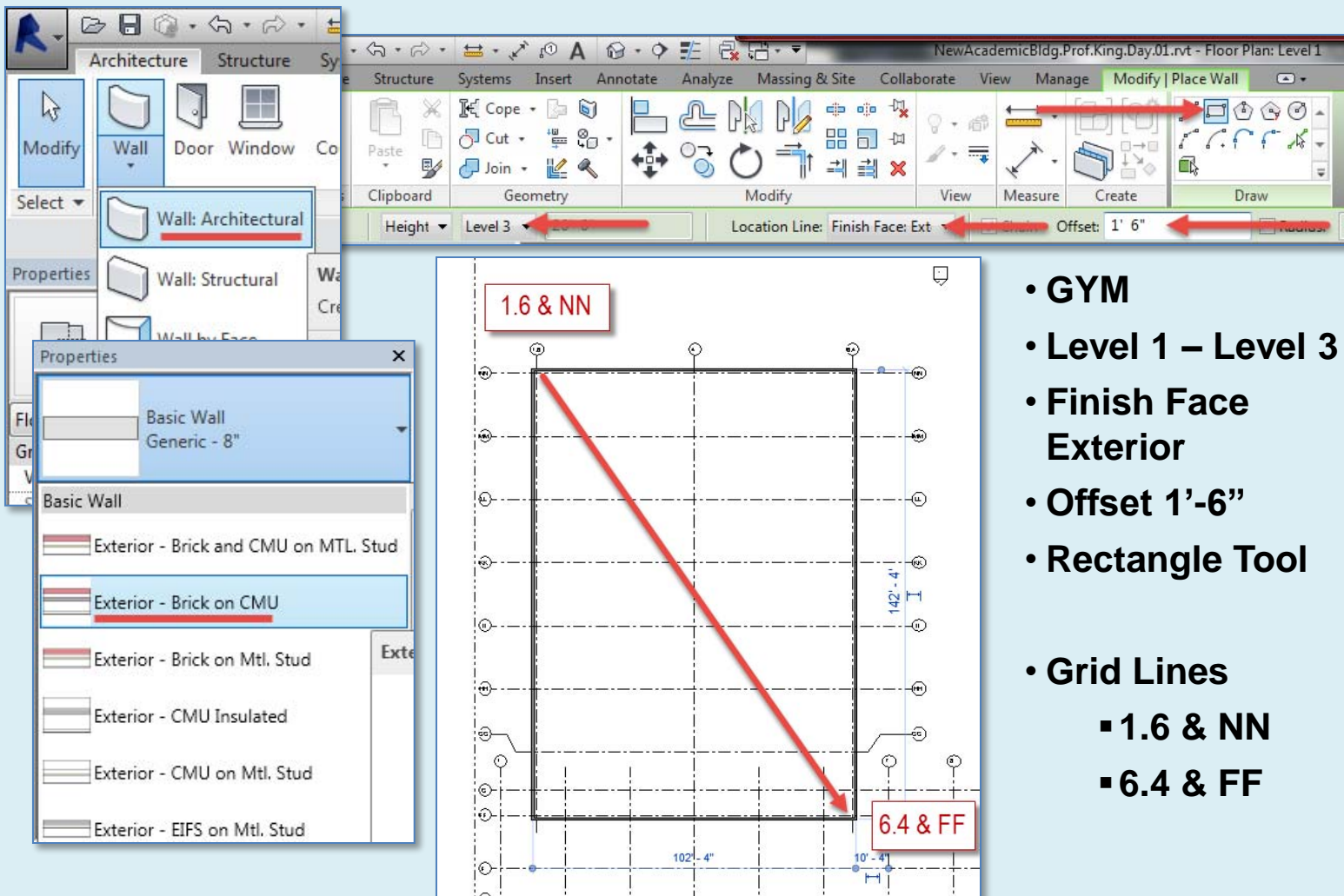
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Sheet Layout

Wrap Up

Walls : 1: Create Outlines of the three Buildings



- GYM
- Level 1 – Level 3
- Finish Face Exterior
- Offset 1'-6"
- Rectangle Tool
- Grid Lines
 - 1.6 & NN
 - 6.4 & FF

New Project

- Project Location
- Project North

- Oasisnyc.net
- Property Lines
- Adjust Keys

- Grids
- Vertical
- Horizontal
- Cleanup & Propagate

- Levels
- Elevation Cleanup
- New Levels

New Plan Views

- Propagate

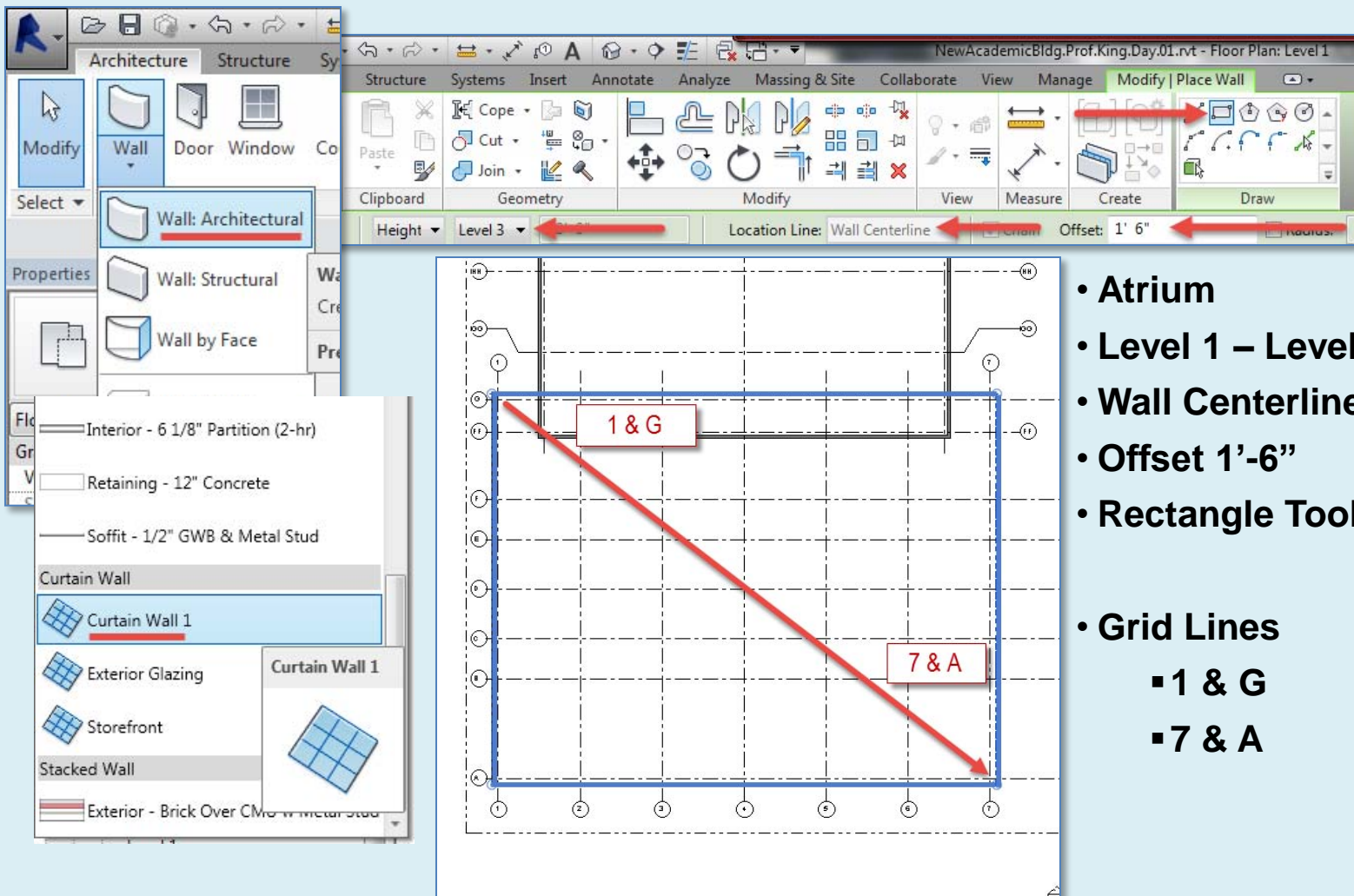
Walls

- Gym
- Atrium
- Laboratory

Sheet Layout

Wrap Up

Walls : 2: Create Outlines of the three Buildings



- Atrium
- Level 1 – Level 3
- Wall Centerline
- Offset 1'-6"
- Rectangle Tool
- Grid Lines
 - 1 & G
 - 7 & A

New Project

- Project Location
- Project North

- Oasisnyc.net
- Property Lines
- Adjust Keys

- Grids
- Vertical
- Horizontal
- Cleanup & Propagate

- Levels
- Elevation Cleanup
- New Levels

New Plan Views

- Propagate

Walls

- Gym
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Sheet Layout

Wrap Up

Walls : 3: Create Outlines of the three Buildings

The screenshot displays the Revit Architecture interface. The 'Place Wall' tool is active, with the 'Wall: Architectural' type selected in the Properties palette. The 'Height' is set to 'T.O. PA' (Top of Parapet), the 'Location Line' is 'Finish Face: Ext' (Exterior), and the 'Offset' is '1' 6"'. The 'Modify' ribbon is visible, showing the 'Place Wall' tool. Below the software interface, a floor plan view of a building is shown, with a red rectangle indicating the outline of a building. The rectangle is labeled '9 & G' and '16 & A', indicating its position relative to the grid lines. The grid lines are labeled with numbers 1 through 16 and letters A through G.

- **LABORATORY**
- **Level 1 – T.O.PARAPET**
- **Finish Face Exterior**
- **Offset 1'-6"**
- **Rectangle Tool**
- **Grid Lines**
 - **9 & G**
 - **16 & A**

New Project

- Project Location
- Project North

- Oasisnyc.net
- Property Lines
- Adjust Keys

- Grids
- Vertical
- Horizontal
- Cleanup & Propagate

- Levels
- Elevation Cleanup
- New Levels

New Plan Views

- Propagate

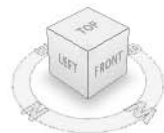
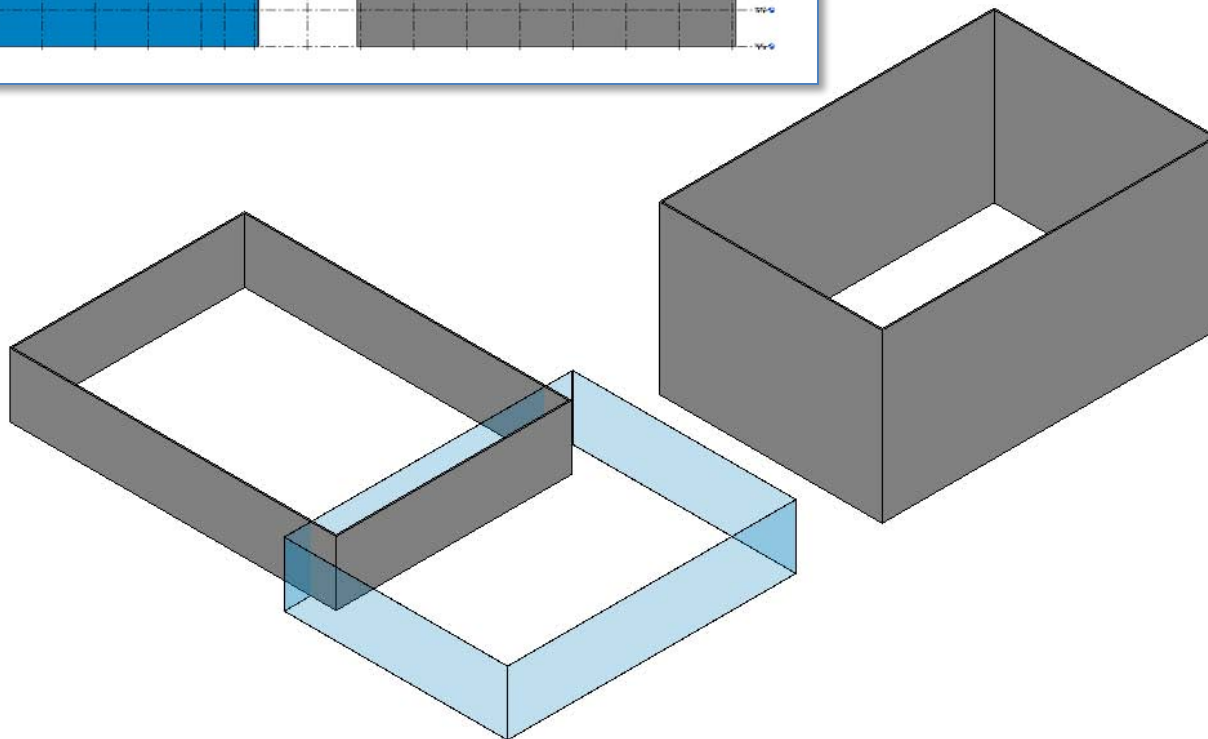
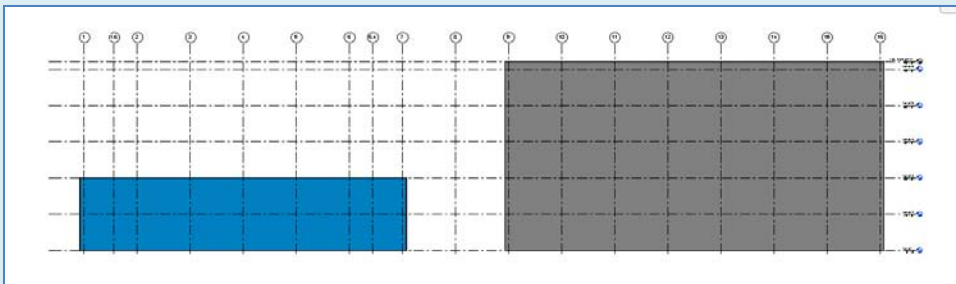
Walls

- Gym
- Atrium
- Laboratory

Sheet Layout

Wrap Up

GYM – ATRIUM & LABORATORY FACILITY



New Project

- Project Location
- Project North
- Oasisnyc.net
- Property Lines
- Adjust Keys

- Grids
- Vertical
- Horizontal
- Cleanup & Propagate

- Levels
- Elevation Cleanup
- New Levels

New Plan Views

- Propagate

Walls

- Gym
- Atrium
- Laboratory

Sheet Layout

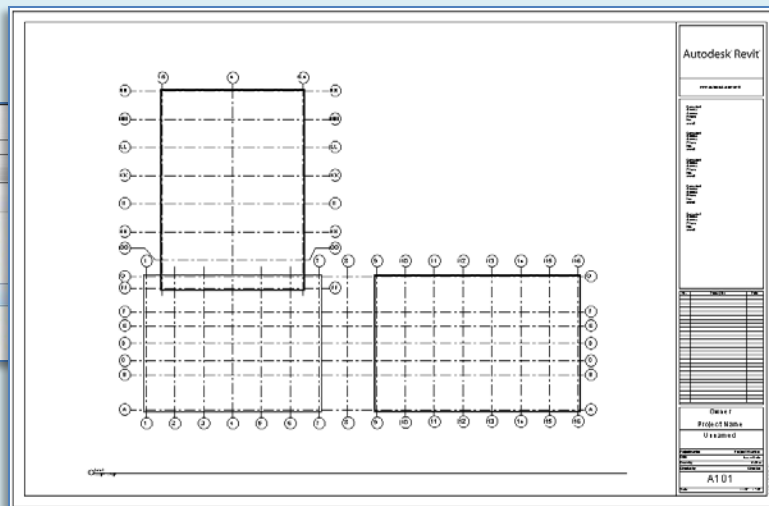
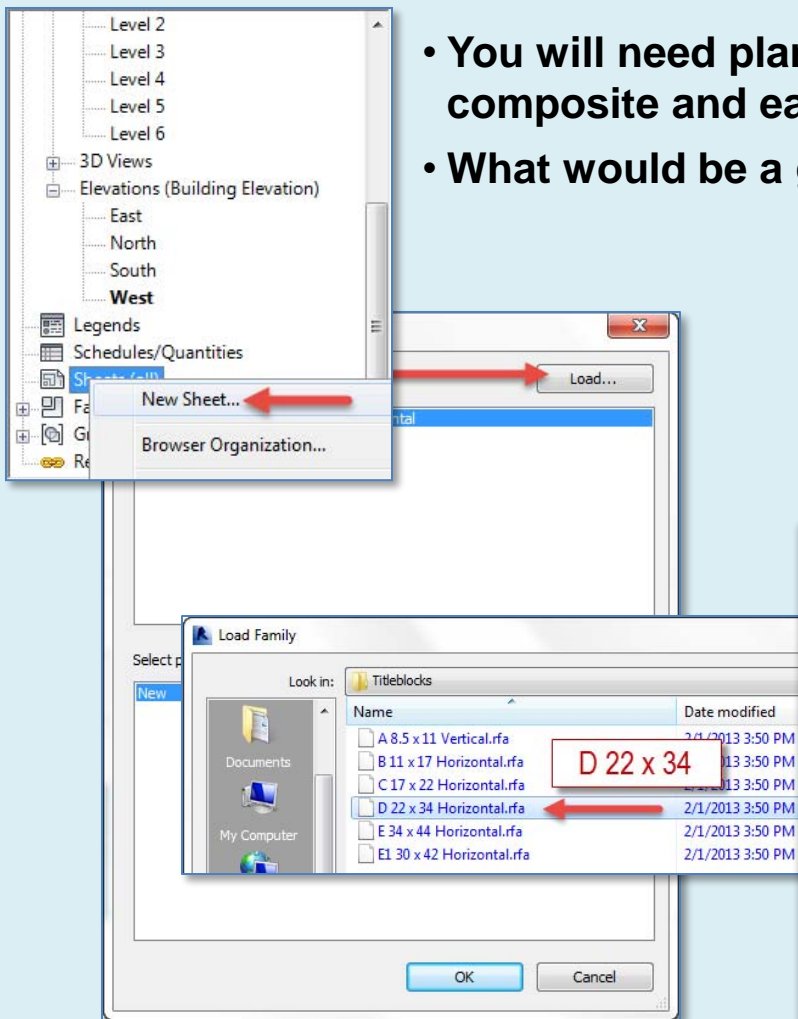
Wrap Up

Sheets : Develop a set of drawing sheets

- You will need plans at two scales for the first level a composite and each building separately
- What would be a good numbering system for the sheets?

Focus on the following:

- Layout Level 1 Floor Plan(s)
- Layout Level 4 Floor Plan(s)
- Layout Exterior Elevations (NSEW)



New Project

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New Plan Views

- Propagate

Walls

- Gym
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- Laboratory

Sheet Layout

Wrap Up

Day 12 / Revit Day 04 - Wrap Up

- **New Project**

- Project Location
- Project North

- Oasisnyc.net
- Property Lines
- Adjust Keys

Grids

- Vertical
- Horizontal
- Cleanup & Propagate

Levels

- Elevation Cleanup
- New Levels

- **New Plan Views**

- Propagate

- **Walls**

- Gym
- Atrium
- Laboratory

- **Sheet Layout**