Learning Revit 2023

LinkedIn Learning

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Short Keys
Access Home Screen: ctrl+d
Close file: ctrl+w

I. Introduction
    A. Getting Started with Revit
        1. Paul F. Aubin, 20 year experience
    B. What is Revit?
        1. Design, documentation, and delivery of buildings
        2. Autodesk AEC (Arch/Eng/Const) collection
        3. Building Information Modeling (BIM)
            a) All pertinent building design data
        4. Tools for:
            a) Architectural design
            b) Interiors
            c) Building engineering
            d) Structural design construction
            e) Fabrication
        5. Revit LT, for architecture only
    C. How Do You Get Revit?
        1. Windows only
        2. Needs a lot of RAM
    D. Understanding Revit Flavors
        1. Professional
            a) Mid-to-large sized firms
            b) AEC collection good for multiple tools
                (1) Autodesk Docs
        2. LT
            a) Small firm/sole proprietor
            b) Architecture only
            c) Does not support work sharing
            d) Compatible files with full version
        3. Education

a) Functionally equivalent to full version
b) Includes watermark on output files

E. Understanding Revit Release Versions and File Formats
1. Annual major release
a) New file format
(1) Not backwards compatible
(2) Don't work share with newer versions, you won't be able to open newer files
b) File formats same across full, LT, and educational
2. Easy to see which version on window file preview
a) Older files can be upgraded
b) Need to save older files as newer version
c) May modify or lose annotations, etc.
3. Temporarily upgrades linked files
a) Not permanent; upgrade linked files first to make permanent
4. Cannot open newer versions at all

F. Other Revit Courses
1. Must be working in at least recorded (lesson) version

II. Getting Started

A. Revit or Revit LT
1. For lesson purposes, either works

B. Opening a Project
1. Open Revit —> Home Screen
a) Models —> Open/New
(1) .rvt
b) Families —> Open/New
(1) For items, objects, or components within a model
(2) .rte
2. Models —> Open —> locate file —> Open
3. File opened —> modeling interface
a) Access Home Screen (ctrl+d)
4. Close file (ctrl+w) —> returns to Home Screen

C. Opening a Collaborative Team Project
1. Revit: work sharing / central models
a) Revit LT cannot do this (read-only)
2. Central file is a *database* hosted on *servers*
a) Each user creates a local copy
3. Select central model —> check Create New Local
a) Unchecking will alter central model
4. Revit prevents multiple users editing same geometry at same time
5. Home Screen
a) Icon: work share enabled

b) Icon with cloud: work shared cloud model
c) No icon on standalone projects

D. Introducing the Interface
1. Quick Access Toolbar
a) Customizable
2. File dropdown
a) Submenus on hover
3. Ribbon —> panels
4. Options bar
a) Appears on running command
5. Properties palette
a) Changes on running command or selecting geometry
6. Project Browser
a) Various views of project
b) Opens new tab of view window
c) ”Table of contents” of project
7. If Properties or Project Browser is missing,
a) View tab (on ribbon) —> User Interface —> Toggle Properties or Project Browser
8. Status Bar (on bottom)
a) Appears on hover over geometry
9. Navigation Bar (on far right)
a) Moving, panning, zoom

E. Navigating a Project’s Views
1. Navigation Bar
a) Zoom —> dropdown menu
(1) Zoom in region —> click and drag box on screen to zoom
(2) Previous Pan or Zoom steps back one step
(3) Next Pan or Zoom steps forward one step
(4) Zoom to Fit
(5) Zoom Out 2x
(6) With other tabs open:
(a) View —> tile views
(i) Puts tabs next to each other
(b) Zoom all to fit
(7) Zoom to sheet size
(a) Matches scale
2. Mouse wheel rolling to zoom
3. Mouse wheel click to pan

F. The Unified Building Information Model
1. Performing modifications in any view
2. Project Browser —> Schedules and Quantities

a) Schedule Views —> Tile Views
b) Highlighting in Schedule will select in all open views
c) Highlighting in another view will **not** select in Schedule
(1) But, will affect schedule if changed

G. Choosing a Template File
1. Consistency, office standards
2. Default Template
a) New model —> Imperial Architectural (Default.rte)
b) Architecture —> Component —> Type Selector Menu
c) A lot of manual configuration
3. Commercial Default
a) File —> New —> New submenu —> Project
b) Browse —> Commercial Default.rte
c) Blue Badge on view indicates placement on Sheet
4. Likely that firms have standard templates

III. Building a Model
A. Setting Up Levels and Grids
1. *Datum* elements - establish context
2. Levels - important heights such as floor level
3. Grids - structure like columns and beams
4. Levels:
a) Work in Elevation or Section view
b) Architecture —> Datum panel —> Level
(1) Snap new level
c) Will add new Level to Project Browser, but not to Sheets
(1) Options Bar —> Make Plan View
(2) Or —> Plan View Types to edit where levels appear on Project Browser
(a) Black color indicates it is just a datum height
(b) Blue indicates associated Floor Plan
5. Grids:
a) Work in Floor Plan (Level 1)
b) Architecture —> Datum panel —> Grid
c) Snap to any existing grid line
d) Will sequence automatically
(1) Edit Parameter to rename
e) Modify size of grid
(1) Modify the Grid By Dragging This Model End
(2) If snapped, will affect all similar grid lines
f) Can hide:
(1) Select grid line —> Modify tab —> Hide in Views dropdown —> Hide Category tool

B. Working With Walls
    1. Architecture —> Wall: Architectural
    2. Properties palette —> dropdown Type Selector
    3. Options Bar —> Level selection for height (up to)
    4. Options Bar —> Location line —> Finish Face Exterior
        a) Click to draw wall —> Spacebar to flip top/down or left/right line follow
    5. Options Bar —> Offset
        a) Can use while drawing wall
        b) Can still snap with effective offset
    6. Escape key —> breaks chain
        a) Just once will keep in wall edit mode
        b) Changing wall type will reset settings on Options Bar
        c) Double press will end wall modification
C. Understanding Dimensions
    1. Refining layouts
    2. Temporary dimensions by selecting geometry
        a) Determined by object, surrounding geometry, and window zoom
        b) Edit via witness line control grips
            (1) Click to change interior/exterior/center of geometry
            (2) Click and drag to a new geometry
    3. Permanent dimensions
        a) Quick Access —> Aligned Dimension tool
        b) Click two witness lines (geometry)
            (1) Tab key will change location on geometry
            (2) Can also alter preference on Options Bar
        c) Click in empty space to place dimension
        d) Can edit size of geometry by typing dimension
        e) Moving objects
            (1) Select object —> Right click —> Snap overrides —> Midpoint
            (2) Select object —> type desired distance
D. Adding Doors and Windows
    1. Needs to be hosted on a wall
    2. Architecture —> Door —> Properties palette
        a) Flip door direction before (with mouse location) or after placement (with toggles)
        b) Placing on wall reveals temporary dimensions
    3. Architecture —> Window —> Properties palette
        a) Spacebar will flip window direction before placing
        b) Placing on wall reveals temporary dimensions
E. Modifying the Design
    1. Select geometry —> Modify ribbon —> Create Similar

a) Matches all settings

2. Modify tab —> Trim and Extend to Corner
    a) Click on side of geometry you want to **keep**
3. Changing draw shape
    a) Create Similar —> Fillet arc
    b) Click first geometry, click second geometry
    c) Use mouse or type distance to set radius
        (1) Can also set radius beforehand in Options Bar

F. Loading Families
1. Columns
    a) Architecture —> Column dropdown —> Column: Architectural —> Properties palette
    b) Will merge to surrounding geometry
    c) Columns on grid:
        (1) If grid is moved, columns move with it
2. Loading new families
    a) Modify tab —> Load Families —> Browse
    b) Insert tab —> Load Autodesk Family
        (1) Can change language and locale
3. Components
    a) Architecture —> Component —> Properties palette Type Selector to find desired object
    b) Can search under Properties palette
    c) Can search in Load Autodesk Family window

G. Creating Ceilings and Lights
1. Project Browser —> Ceiling Plan
2. Creating a ceiling
    a) Architecture —> Ceiling tool —> Properties palette
    b) Ribbon —> Automatic or Sketch
    c) Move or rotate
3. Adding Light Fixtures
    a) Architecture —> Component —> search for a light fixture
    b) Hosted element, must be placed on ceiling
    c) Moving:
        (1) Modify —> Align tool
        (2) Click destination first, then desired edge of object
    d) Making an array
        (1) Select multiple light fixtures
            (a) Right-to-left drag selects only things completely in box
            (b) Left-to-right drag selects everything that passes through box

(2) Modify —> Array tool
(3) Options Bar
(a) Linear/Radial
(b) Group and Associate allows for parametric array; remains responsive
(i) Uncheck for just a copy command
(c) Number
(d) Move to
(i) 2nd - between next copied element
(ii) Last - between the whole array
(e) Constrain

H. Exploring Additional Modeling Tools
1. Roof
a) Work in Floor Plan
(1) Architecture —> Roof —> Sketch Mode —> Draw
(a) Select opposing sides of drawn roof —> Options Bar —> Define Slope
(b) Reselect same lines —> Properties palette —> set Slope
b) Control pitch with Slope on Properties palette
c) To attach: select geometry (wall) —> Modify —> Attach Top/Base tool —> Select roof
2. Floor
a) Work on correct desired floor plan
(1) Can change settings in Properties palette
b) Architecture —> Floor —> Sketch floor
c) Can make sloped floor if desired
3. Curtain Wall
a) Tab to select correct feature
b) Can convert existing walls to any other type such as curtain walls
c) Architecture —> Wall —> Properties palette Type Selection —> Storefront
d) Modifying settings on Properties palette
4. Stair/Railing

IV. Working With Views
A. Creating a Section
1. Quick Access Toolbar or Views tab —> Section tool
2. Click two points across drawing
a) Will create section box on floor plan
b) Flip orientation with section grip
c) Can drag and move it (but may affect any annotations)
d) Can determine extents with box

3. Name section in Properties palette
4. Right click on section line —> Go to View
5. Can annotate with dimensions
6. Creating thicker line weights
    a) Manage tab —> Object Styles tool —> select element —> Change pen weight

B. Working With 3D Views
1. Orthographic and Perspective
2. Quick Access Toolbar —> Default 3D View
    a) Can rename with view settings
    b) Default 3D View will then create new {3D} view on Project Browser
3. Section boxes
    a) Select desired geometry
    b) Modify tab —> Selection Box tool
    c) Can modify size and extents
    d) Rename 3D view on Project Browser
4. Perspective view
    a) Quick Access Toolbar —> 3D Views dropdown —> Camera
    b) Click to place camera; click again to set cone
    c) Properties palette
        (1) Eye elevation
        (2) Target elevation (3-point perspective)
        (3) To maintain 2-point perspective, eye and target elevations must be same value
    d) Navigation Bar
        (1) Zoom
        (2) Pan
        (3) Orbit
        (4) Rewind
            (a) File —> Options —> Steering Wheels —> Uncheck Rewind History —> Save and Close file —> Reopen file
        (5) Walk
        (6) Look
        (7) Center
        (8) Behavior
    e) Immersive view
        (1) Properties palette —> Uncheck Crop View

C. Editing In Any View
1. Single unified building model
2. Box drag selection
    a) May select more than intended

b) Properties palette —> dropdown (left of Edit Type) —> Select family type
    (1) Can't copy
c) Modify tab —> Filter tool —> Check None —> Reselect desired elements
    (1) Deselects everything else
d) May be more effective or strategic multi-selection techniques

3. Schedule selection
    a) Select element —> Modify tab —> Highlight in Model tool

D. Color Scheme Diagram
1. Room elements represent actual rooms in model
2. Architecture —> Room and Area panel —> Room tool
    a) Room conforms to enclosed spaces
    b) Can use Highlight Boundaries tool for easier viewing
    c) Click to place, but is only visible when actively editing
3. Room separator
    a) Room and Area panel —> Room Separator tool —> Draw new geometry within existing room
    b) Subdivides existing room into smaller boundary
    c) Room Separator will also appear with Highlight Boundaries
    d) Rooms sequence automatically
        (1) Change name in Properties palette or by selecting tag
    e) Can add Department for function in Properties palette
4. Enabling color scheme
    a) Annotate tab —> Color fill panel —> Color Fill tool
    b) Place on screen
        (1) Opens Choose Scape Type and Color Scheme window
        (2) Choose Rooms on Space Type dropdown
        (3) Choose Department on Color Scheme dropdown
    c) Automatically creates color scheme
        (1) Can edit types of departments later
    d) Can hide
        (1) Properties palette —> Color Scheme —> Department box —> Click None

E. Visibility
1. *Model elements* - represents real life things
2. Other elements like annotations
3. Creating multiple views
    a) Project Browser —> Right click on desired view —> Duplicate View dropdown —> Duplicate or Duplicate with Detailing
    b) New copy —> original copy
        (1) Will not affect detailing

(2) **Will** affect model elements
(3) Can delete or change detailing on new copy

c) For model elements, Hide, don't Delete
(1) View tab —> Visibility/Graphics tool —> Uncheck element
(2) Will not affect visibility of original copy

4. Creating poche
a) View tab —> Visibility/Graphics tool —> Find element (wall, columns) —> Cut: Patterns column —> Override —> Background Pattern —> Solid Fill —> Background color —> Select color

F. Creating An Enlarged Floor Plan
1. Callouts enlarge a portion of a view
2. Can be created in any orthographic view
3. View tab —> Callout tool —> Draw shape around desired area
4. Creates new view on Project Browser
5. Creates Crop Region with dashed box
a) Uncheck to hide dashed box
b) Uncheck Annotation Crop to show new annotations outside dashed box, even if hidden

V. Creating Documentation
A. Dimensioning a Plan
1. Quick Access Toolbar or Annotate tab —> Aligned Dimensions tool
2. Can chain dimensions between multiple witness lines
3. Can drag measurement text to create leader lines
4. Removing 0' (when only inches)
a) Select or be editing dimensions —> Properties palette —> Edit type —> Uncheck Use Project Settings —> Check Supress 0 Feet
5. Options Bar —> Wall faces dropdown
6. Options Bar —> Options button
a) Openings
(1) Centers or Widths (widths better)
(2) Dimensions all doors/windows
(3) When intersecting column grid, may show 0'-0"
(a) Modify —> Edit Witness Lines tool —> Click desired face to remove witness line
(4) Including curtain walls
(a) Modify —> Edit Witness Lines tool —> draw desired witness lines
b) Intersecting Walls
c) Intersecting Grids
(1) Dimensions all intersecting grids of geometry

B. Creating Tags
1. Room tags have dedicated Room Tag button

2. Quick Access Toolbar or Annotate tab —> Tag By Category tool —> Select element
    a) Automatic loading of tag style
    b) Some elements may not have tags loaded
    c) Options bar —> Check Leader
3. Rename tags by click to edit
    a) Auto sequencing if Change Type Parameter approved
    b) Can also edit all like elements
        (1) Select element —> Properties palette —> Edit Type —> Type Mark —> type in naming convention
    c) Window tags will tag all like windows as same tag
    d) Door tags will order sequentially
4. **Add tags by element**
    a) Annotate tab —> Tag All Not Tabbed tool —> Select elements
5. Arranging tags
    a) Select wall tag —> Right click —> Select All Instances —> Visible In View —> Properties palette —> Type Selector —> change type
6. Adding leader lines to host tag
    a) Select tag —> Modify —> Add / Remove Host tool —> Select original element —> Ctrl + select additional like elements
    b) If tag says <Varies>, an unlike element is selected
        (1) Simply unselect unlike element

C. Customizing Tags
1. Loading in tags
    a) Annotate tab —> Tag by Category tool —> No tag loaded —> Yes —> Browse
    b) Or Insert tab —> Load Autodesk Family tool —> Browse —> Load in
        (1) Tag by Category
    c) Type Mark to label by category
    d) If labeling for other purposes
        (1) Select tag —> Modify —> Edit Family
        (2) Can edit geometry
        (3) Select label —> Properties palette —> Label —> Edit
            (a) Opens new window; Parameter Name set as Type Mark
            (b) Select Red Arrow to remove Type Mark as parameter
            (c) Select Mark —> Select Green Arrow to set as parameter
        (4) Save As Family —> Modify —> Load Into Project and Close
        (5) Select desired tags —> Properties palette —> Type Selector —> Tag Instance

(6) Select element (tag host) —> Properties palette —> Mark

D. Adding a Schedule View
    1. Door Schedule standards
        a) Door Number
        b) Type
        c) Width
        d) Height
        e) Thickness
        f) Material
        g) Finish
        h) Under Cut
        i) Fire Rating
        j) Hardware
        k) Type
        l) Material
        m) Frame Finish
    2. Room Schedule standards
        a) Room Number
        b) Room Name
        c) Floor Finish
        d) Base Finish
        e) Wall Finish
        f) Ceiling Finish
        g) Ceiling Height
        h) Comments
    3. Creating a custom schedule
        a) View tab —> Schedules dropdown —> Schedules/Quantities tool
        b) Select desired elements (such as furniture)
        c) Opens Schedule Properties window
            (1) Select desired properties in schedule
    4. Can extend column width, zoom (ctrl+scroll), and freeze header
        a) Modify —> Freeze Header tool
    5. Cleaning up
        a) Properties palette
            (1) Sorting/Grouping
                (a) Sort by dropdown
                    (i) Level
                    (ii) Check Header
                    (iii) Check Footer
                    (iv) Check Blank Line
                (b) Then by dropdown
                    (i) Family and Type

(c) Uncheck Itemize Every Instance
(d) Check Grand Total
(2) Formatting
(a) Level
(i) Field Formatting
(a) Hidden Field

E. Customizing a Schedule View
1. Right click schedule on Project Browser —> Duplicate view
2. Exclude elements
a) Properties palette —> Filter —> Filter by dropdown —> Family and Type —> Equals dropdown —> Contains or Does Not Contain —> type in element (case sensitive)
3. Add integer field (i.e. for booth seating count)
a) Properties palette —> Fields —> New parameter (icon) —> Name —> Type of Parameter dropdown —> Integer —> Select Type (instead of Instance)
b) Type value into column
c) Calculations
(1) Properties palette —> Formatting —> Select newly made column —> Calculation parameter dropdown —> Calculate totals

F. Creating a Construction Detail
1. Hybrid detailing process
2. Section tool —> Type Selector —> Detail View —> place section
3. Edit scale (i.e. 1 ½" = 1'0")
4. Annotate —> Detailing panel —> Component dropdown —> Detail Component tool —> Type Selector
5. Insert tab —> Load Autodesk Families —> Detail Items folder
6. Can draw extra annotations
a) Annotate —> Detail Line tool
b) Annotate —> Text —> Two Segment Leader
(1) Add Left/Right Side Leader tool to add extra leader lines

G. Path of Travel
1. Calculating shortest distance
a) For exit plans, code requirements
2. Project Browser —> Duplicate Floor Plan —> Duplicate (without detailing)
3. Rename new level
4. Status bar —> Reveal Hidden Elements toggle —> Select element —> Modify —> Unhide Element tool
5. Analyze tab —> Route Analysis panel —> Path of Travel tool
a) Click two points
b) Automatically avoids geometry

6. Analyze —> Route Analysis panel —> Reveal Obstacles tool
    a) Analyze —> Route Analysis dropdown
    b) Can add or subtract overrides
        (1) Have to click out then back into Reveal Obstacles
        (2) Draw new path of travel
        (3) Select path —> Update (where Path of Travel was)
7. Can customize path
    a) Select path —> Modify —> Add Waypoint
8. Tagging
    a) Annotate tab —> Tag by Category tool —> Select paths
    b) May need to load or create new tag for paths

VI. Collaborating With Others

A. Importing a CAD File

1. Insert tab —> Link CAD tool (not Import CAD) —> Single click CAD file —> Uncheck Current View Only —> Positioning dropdown —> Auto - Center to Center
    a) Be attentive to Correct Lines That Are Slightly Off Axis
        (1) Check for small-scale (usually)
        (2) Uncheck for large scale (like site plans)
2. If you cannot select linked CAD
    a) Modify dropdown —> Check Select Links
    b) —> Check Select Pinned Elements
3. Editing layers
    a) View tab —> Visibility/Graphics tool —> Imported Categories tab —> Check or uncheck layers
    b) Select linked CAD file —> Modify tab —> Query tool —> select element of CAD —> opens Import Instance Query window —> Hide in View

B. Importing Image and PDF Files

1. Supports JPG, PNG, TIFF, BitMap, PDF
2. Insert tab —> Link Image tool —> Browse for image —> Click to place
3. Scaling and Orientation
    a) Orientation
        (1) Select image —> Modify —> Rotate tool —> Spacebar to move center of rotation
    b) Scale
        (1) Select image —> Modify —> Scale tool —> Options Bar —> Check Graphical —> Pick a known distance —> Click two points —> Type known distance
4. PDFs
    a) Insert tab —> Link PDF tool —> Browse for PDF
    b) Will open Import PDF window

(1) Resolution dropdown —> 300 DPI

c) If PDF made in a vector geometry program (CAD, Illustrator)

(1) Select linked PDF —> Modify —> Enable Snaps tool

5. Can refresh linked files
    a) Insert tab —> Manage Links tool —> Select file —> Reload

C. Linking Another Revit File
1. Coordinating models
2. Insert tab —> Link Revit tool —> Browse for file —> Positioning dropdown —> Auto - Internal Origin to Internal Origin
    a) May display notice of nested links not displaying, that's fine
3. Project Browser —> Revit Links
4. Refresh via Manage Links tool

D. Performing an Interference Check
1. Looking for clashes between different categories of geometry
2. Collaborate tab —> Interference Check dropdown —> Run Interference Check tool
3. Will open Interference Check window
    a) Categories from: Current Project
    b) Categories from: other model
    c) Check desired geometry categories from each
4. Will open Interference Report window
    a) Click Show twice
    b) Will ask to open additional views, click OK
    c) May need to do this multiple times until ideal view
5. Manage tab —> Manage Links
    a) Reload or
    b) Reload From —> browse for new file
6. Interference Check dropdown —> Show Last Report tool —> opens new window —> Refresh

VII. Creating Output

A. Working With Sheets
1. Project Browser —> Sheets
2. On Views, blue badge indicates placement on sheets
    a) Sheet will have dropdown showing associated view
3. Cropping views
    a) Open View —> Status bar —> Show Crop Region tool —> Resize crop region
4. If linked with another Revit file, it may show redundant grid lines
    a) Open View —> View tab —> Visibility/Graphics —> Uncheck linked file
        (1) Will hide everything from linked file, even geometry

b) Open View —> View tab —> Visibility/Graphics —> By Host View —> Custom —> Annotation Categories —> Custom —> Scroll through to deselect categories (like grids, levels)

5. Adding views to a sheet
    a) Project Browser —> Drag view to desired sheet
    b) On sheet, can right click view —> Activate View —> do actions —> Right click —> Deactivate View
    c) Sections, elevations, and callouts populate info automatically
6. Creating new sheets
    a) Project Browser —> Right click Sheets —> New Sheet

B. Plotting a Set of Documents
1. Quick Access Toolbar —> Print tool
    a) Opens Print window
    b) Selected Views/Sheets —> Select
        (1) Opens Select Views/Sheets window
        (2) Create New Empty Set (top, icon) —> Name set —> Display Filter dropdown —> Uncheck 2D Views and 3D Views —> Check All —> Edit Print Order
            (a) Opens Edit Print Order window
            (b) Can check Manual
    c) Page Setup
        (1) Opens Page Setup window
        (2) Vector Processing for line views (best)
        (3) Check Hide Unreferenced View Tags
2. Quick Access Toolbar —> PDF tool
    a) Opens PDF Export window
    b) Check Combine Selected Views and Sheets Into a Single PDF
    c) Basically same as Print window

C. Exporting the Model
1. Project Browser —> Select sheet —> File dropdown —> Export dropdown —> CAD Formats dropdown —> DWG
    a) Opens DWG Export window
    b) Modify Export Setup (3 dots)
        (1) Opens DWG/DWF Export Setup
        (2) Layers
            (a) AIA Standards
        (3) Lines
        (4) Patterns
        (5) Text & Fonts
        (6) Colors, Solids
        (7) Units & Coordinates
        (8) General

(a) Export to File dropdown
(b) AutoCAD year format

2. Will open Export CAD Formats - Save to Target Folder window
    a) Check Export Views On Sheets and Links As External References
3. Can export 3D formats
    a) Export from a 3D view

D. Generating a Cloud Rendering
1. Cloud Rendering allows for uninterrupted workflow
2. View —> Status bar —> Visual Styles dropdown —> Graphic Display Options
    a) Will open Graphic Display Options window
    b) Shadows dropdown —> Check Cast Shadows
    c) Lighting Dropdown —> Sun Settings
        (1) Will open Sun Settings window
        (2) Select Still —> select preset —> Duplicate —> Change time
    d) Background dropdown —> Background dropdown —> Gradient (has best horizon line)
3. Can paint geometry or change materials
4. Manage tab —> Object Styles tool
    a) Will open Object Styles window
    b) I.e. walls:
        (1) Scroll down to Walls —> Materials column —> Click Default Walls
            (a) Will open Material Browser
            (b) Select material (default wall) —> Appearance tab —> Replace This Asset (icon)
                (i) Opens Asset Browser
                (ii) Find Wall Paint —> Select material/color —> Click double arrow on far right
            (c) Material Browser —> Color —> Select color
5. View tab —> Render in Cloud (requires login, costs Cloud Credits/money)
6. View tab —> Render gallery
    a) Will open web browser

VIII. Conclusion

A. Next Steps
1. Revit 2023: Essential Training for Architecture (Imperial and Metric)
2. Revit Tips, Tricks, and Troubleshooting (weekly)