



# What's new in Revit 2024

Key themes and features



# Key themes

Revit 2024



Design productivity



Simulation & analysis



Interoperability



Cloud & data



Design optimization



Documentation efficiency

# New features and enhancements

## Revit 2024

### Design productivity

- My Insights in Revit Home
- Dark Theme
- New Imperial and Metric Templates
- New sample model
- Modernized Project Browser with new Search
- Height parameter in scope box
- Color Books browser
- Textures visual style
- Revit to Twinmotion enhancements
- Site design – Icon reorg for Massing and Site
- Site design – Create Toposolid
- Site design – Generate Toposolid from Toposurface
- Site design – Linked Topography enhancements
- Site design – Contour Display settings per Types
- Site design – Cut geometry enhancement & Mass Cut excavations
- Site design – Solid Sub-divisions
- Site design – Cut & Split Toposolids
- Site design – Graded Regions
- Site design – Show shape-edit control points
- Site design – Floor-based families and Slab Edges on Toposolids
- Site design – Exposed Toposolid API
- New path alignment options for free form rebar
- Stirrup orientation for aligned free form rebar
- MEP fabrication ductwork stiffener
- Pipe Wall thickness as a built-in parameter
- Elevation parameters in visibility filters
- Hide insulation with hosting duct and pipe
- Parameters sorting in type/instance properties
- Export 'Family type' parameter

# New features and enhancements

## Revit 2024

### Simulation & analysis

- Sun Settings in the ribbon
- Run Solar Studies with seconds intervals
- Sun Paths in perspective views
- Generate energy model by view
- Enhanced structural analytical loads
- Structural area loads with color coding
- Custom physical-analytical association
- Detailed results for connection automation rules
- Non-coincident loads for electrical analytical components
- Flow and pressure calculations added to MEP fabrication network
- Network based calculation for design ductwork
- Demand loads for electrical analytical components
- Flow and pressure drop calculations

### Cloud data & interoperability

- Link coordination models from Autodesk Docs
- Manage links dialog for coordination models
- Access properties of coordination model objects
- Point snaps for coordination model objects
- Collaboration cache relocation for cloud models
- Link and Import PDF in Revit LT and Design Automation API
- Revit to Robot Link enhancements

# New features and enhancements

## Revit 2024

### Design optimization

- Dynamo for Revit 2.17 upgrade
- Dynamo Player & Generative Design updates
- Dynamo Player & Generative Design samples
- Improved steel connections SDK documentation
- Revit additional resizable dialogs
- Revit Macro security improvements
- API enhancements for developers

### Documentation efficiency

- Place multiple views and schedules on a sheet
- Move aligned to sheet enhancements
- Open sheet directly from drawing area
- Schedule revision clouds
- Align patterns on shaped-edited surfaces
- Bar bending details on reinforcement drawings
- Bar bending details in rebar schedules
- 2D element draw order in 3D families
- Resize all schedule rows
- Enable removal of unit symbol for fraction inches

An abstract, metallic, geometric structure on the left side of the slide, composed of several rectangular blocks and beams, creating a sense of depth and modern design.

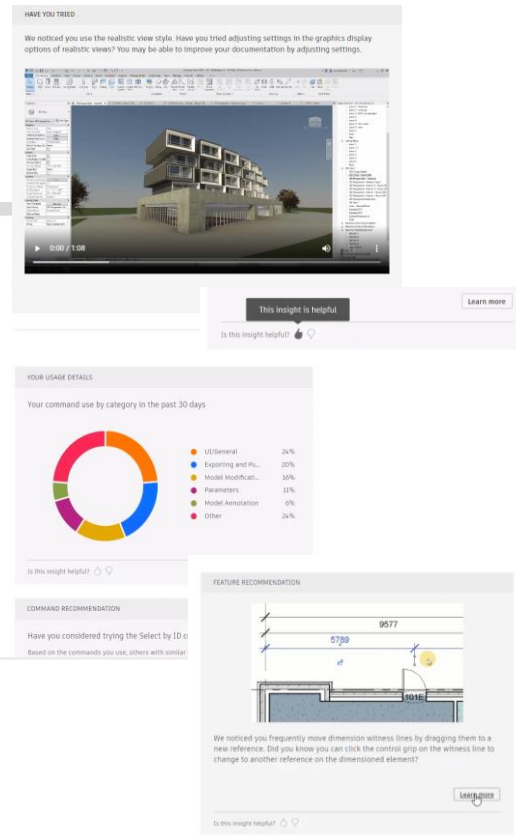
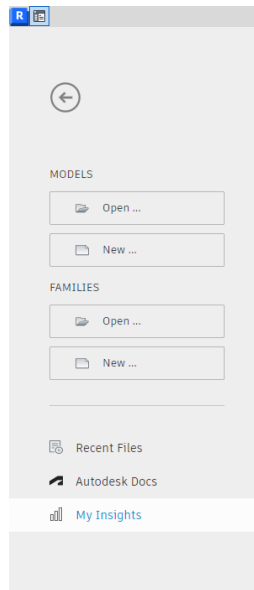
# Design productivity

Revit 2024

# My Insights in Revit home

## Revit 2024

- New My Insights tab in Revit home page
- Get personalized insights based on how you work and the work you do
- Learn valuable information (new features, commands and workflows)
- Display through cards
  - React to the cards
  - Learn more through the link in cards



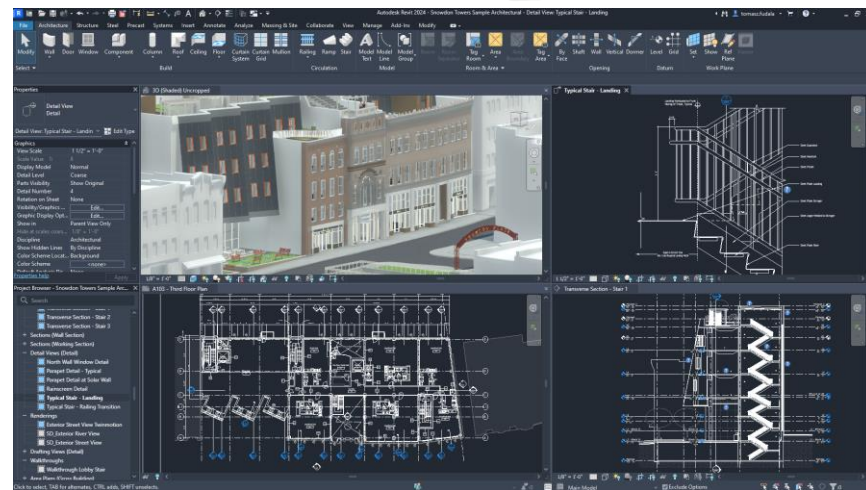
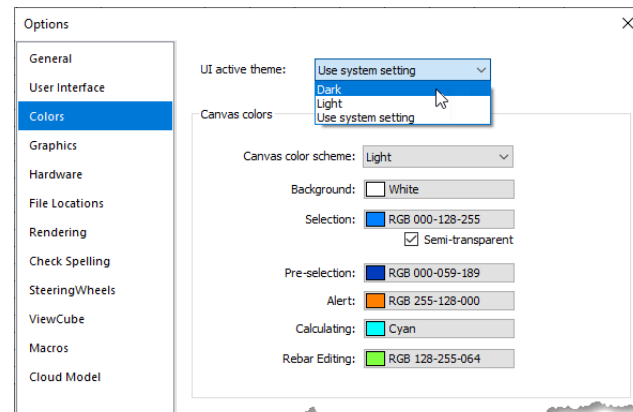
Work more efficiently with helpful content from My Insights

# Dark theme

## Revit 2024

- Support Dark Theme for 1st level user interface
- Dark Theme settings
- UI modernization
  - 2000+ new modernized icons for both light and dark themes
  - Modernized style for both light and dark themes
- Dark Theme for canvas display

Navigate projects more easily with a modernized UI



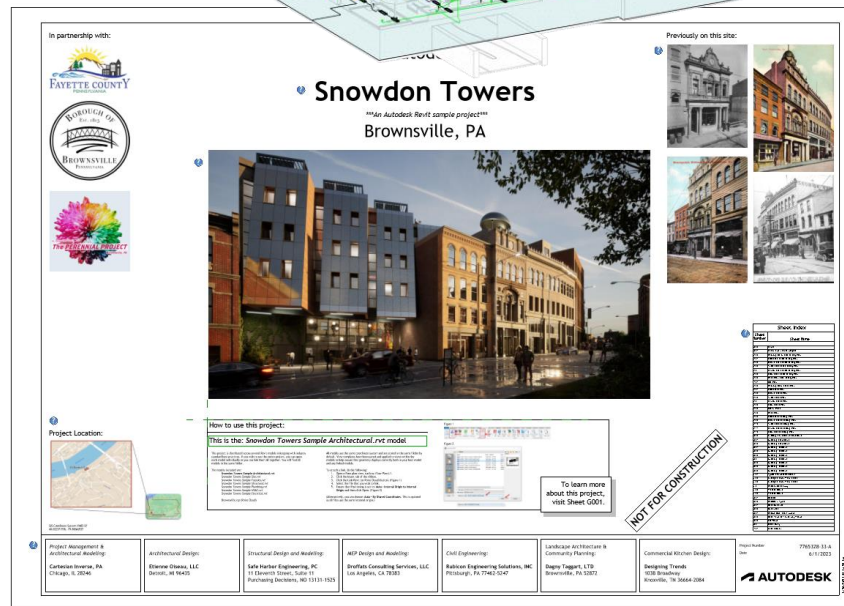
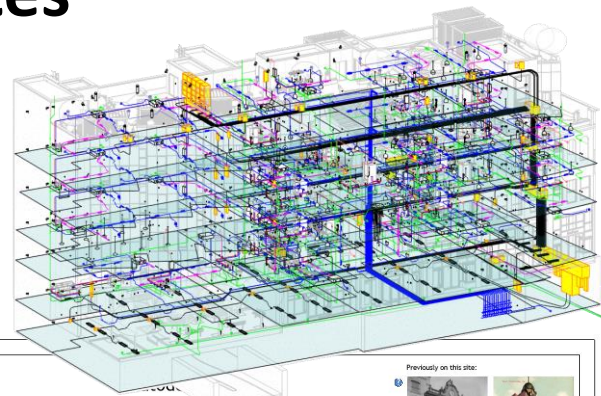


# New sample model and project templates

## Revit 2024

- Multidisciplinary dataset to demonstrate Revit full capability
- Full set of documentation and models for Architecture, Structure, MEP, and Site model
- Point cloud of existing location
- A guided tour of the project and models
- New imperial and metric English "All Discipline" templates

Discover best in class BIM practices

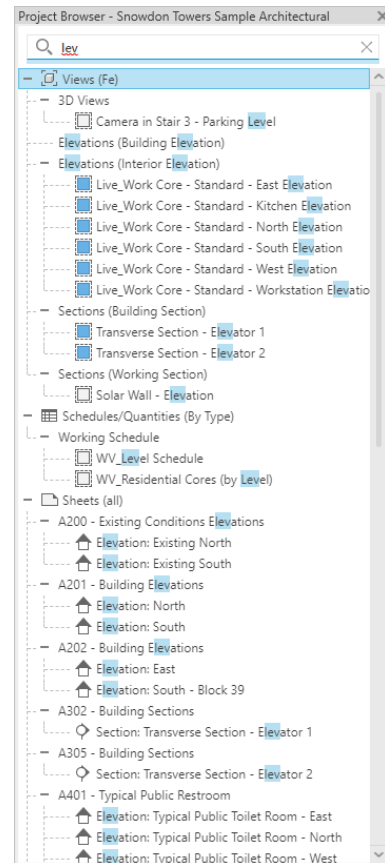
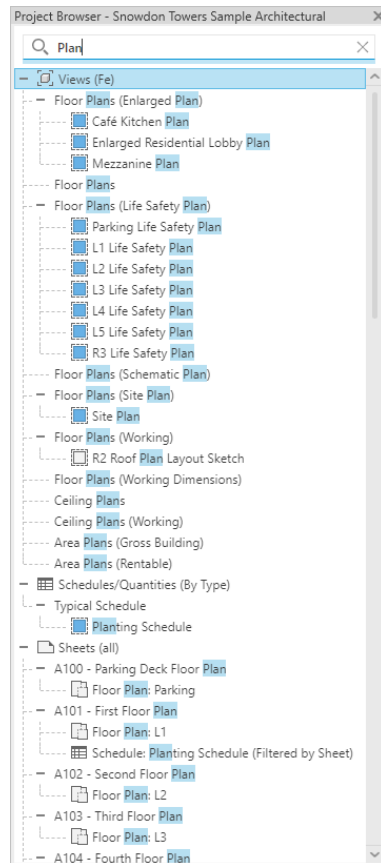


# Modernized Project Browser with new search

## Revit 2024

- New search function permanently at the top of the Project Browser
- Search initiated automatically after keywords entered
- Instantly update relevant results as the user types their query
- Instantly highlight the matched keywords in the filtered list on all levels of the hierarchy in the Project Browser

Enhanced productivity while working with views, schedules, sheets, and families



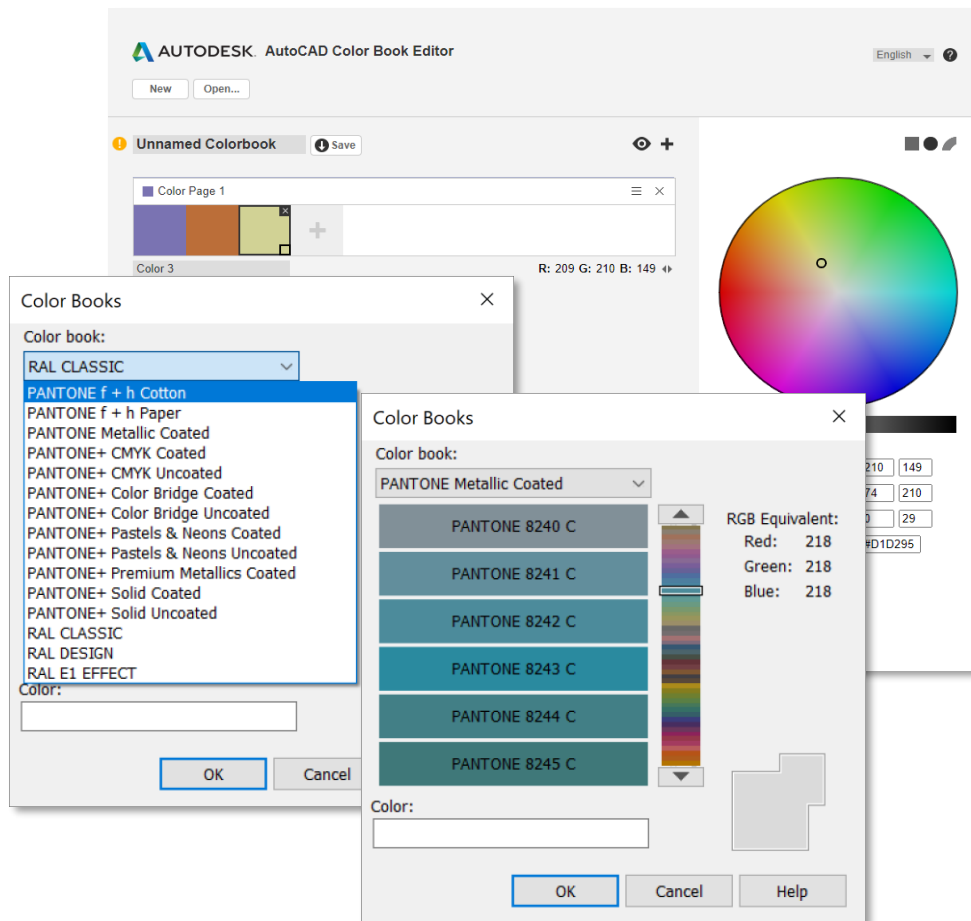
# Color Books browser

## Revit 2024

- Specify colors using third-party color books or user-defined color books
- Changes to Pantone color selection
- Search color by number input and hit TAB to display the results
- Create a custom book palette with the Autodesk Color Book Editor

Improve design deliverables by applying consistent color standards

<https://download.autodesk.com/global/acb/index.html>

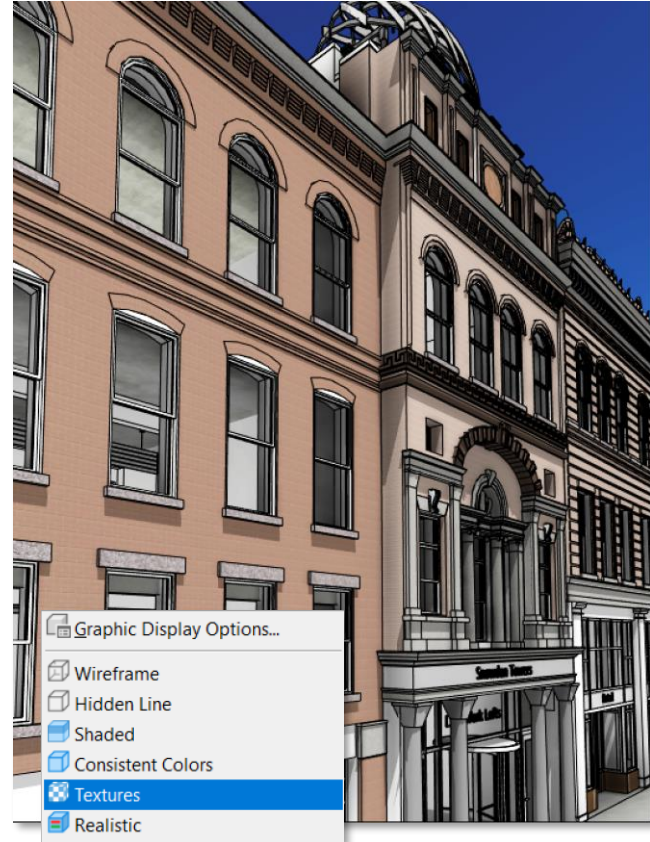


# Textures visual style

## Revit 2024

- Display the texture map of a materials without rendering
- Ignores the effects of light
- Assets appear evenly distributed across all surfaces

Expand your ability to create impactful representations using the Textures style

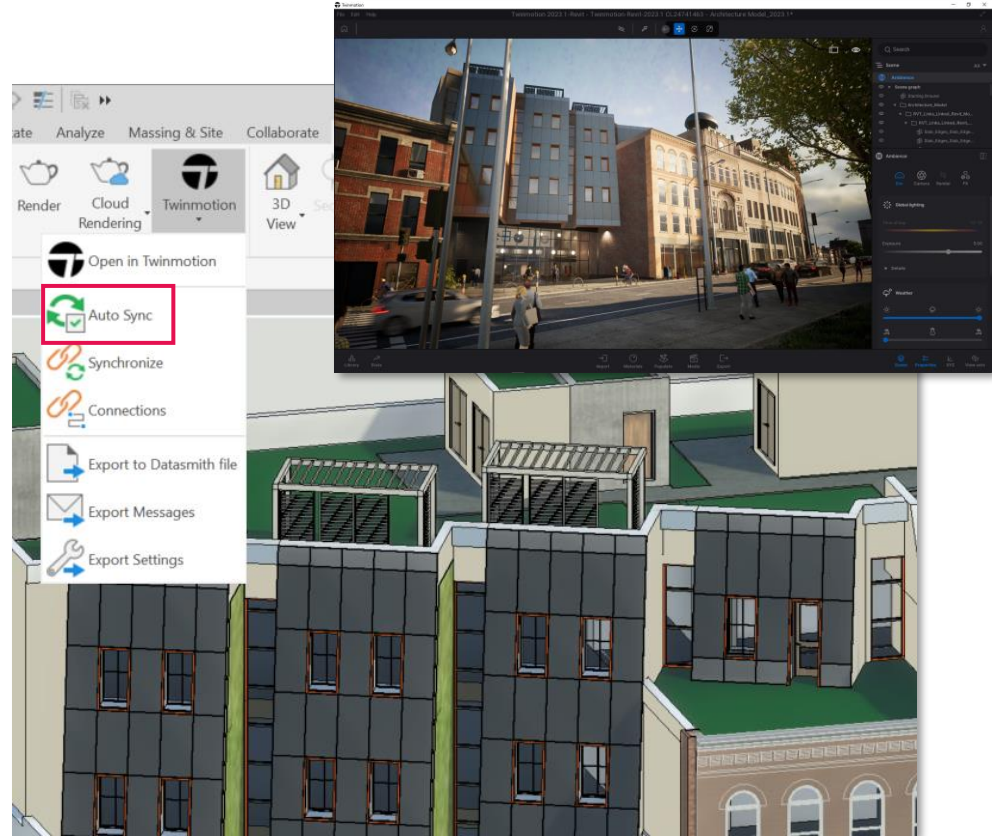


# Revit to Twinmotion enhancements

## Revit 2024

- Automatic Synchronization of changes from the Revit model to the Twinmotion direct link connection
- All visible geometry in a view is automatically kept in sync
- Enabled only for 3D Views
- Access to the latest Twinmotion release 2023.1

Automatically sync in Twinmotion to the latest Revit model updates



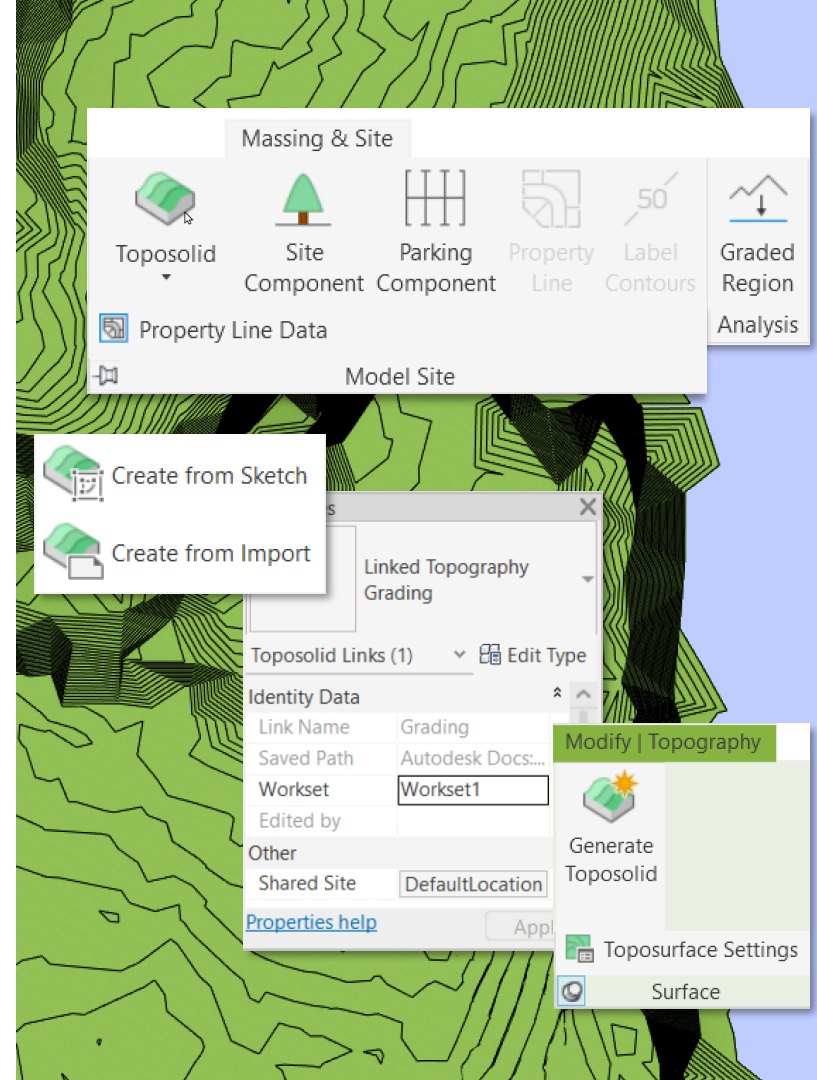


# Site design - Toposolids

## Revit 2024

- Reorganized Site Tool icons
- Creation methods:
  - By sketching line and manipulating points
  - By CAD or point file import
- Convert Toposurfaces to Toposolids
- Linked Topography becomes a Toposolid
- New toggle for Property Line Data settings

Improve design quality and documentation in landscape design

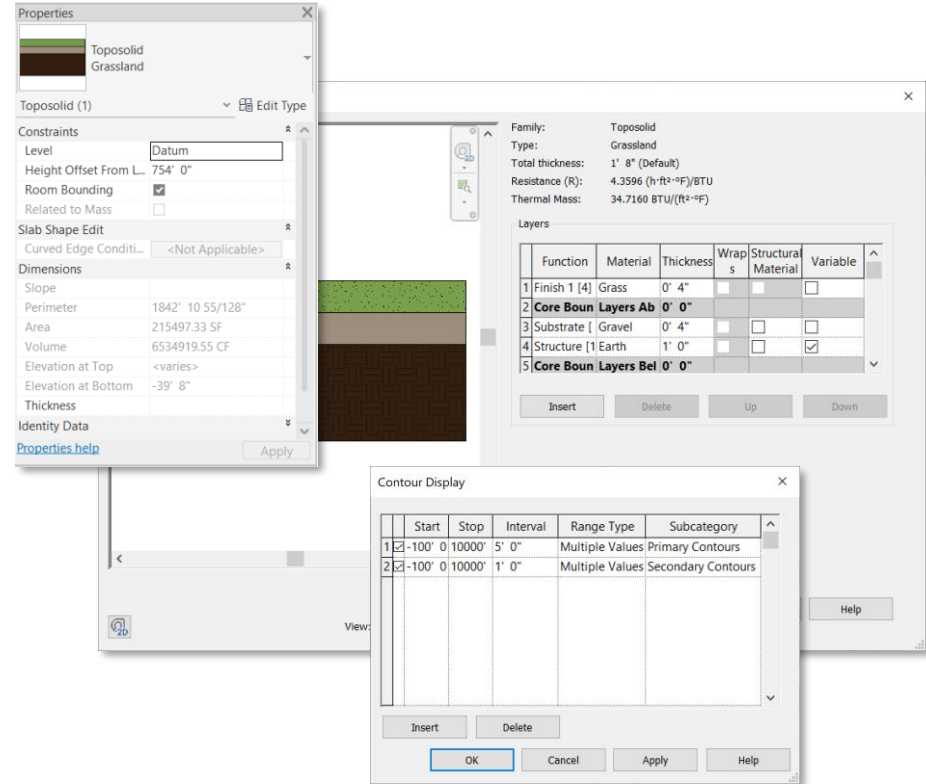


# Site design - Toposolid Properties

Revit 2024

- System family with instance and type parameters
- Build a compound type Toposolid with a layered structure
- Define Contour Settings as Type Properties
- Can be room-bounding elements
- Reporting parameters include slope, perimeter, area, volume, elevation at Top & Bottom, and Thickness

Better site documentation with expanded  
Toposolid types

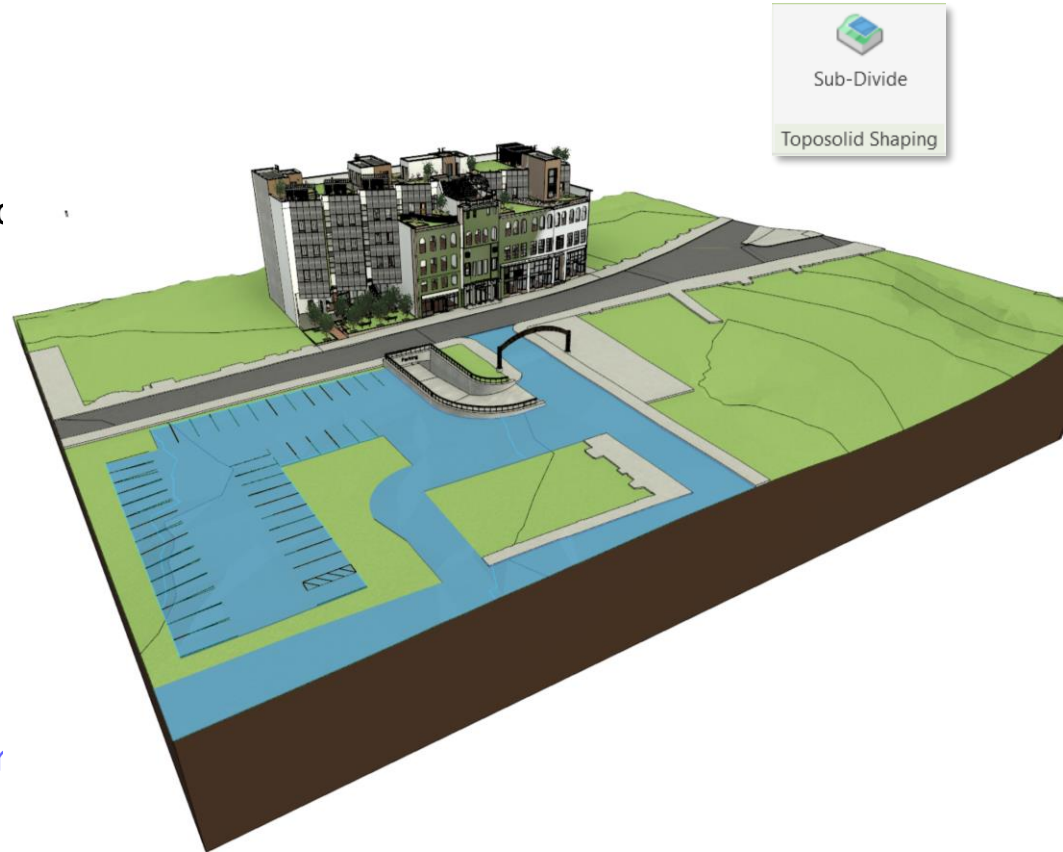


# Site design – Solid Subdivisions

Revit 2024

- Area offset from the original surface
- Sketch any boundary to form the subdivision
- Set a unique material
- Must have a thickness > 0
- Option to display contour lines

Design topography features faster and deliver better site plans



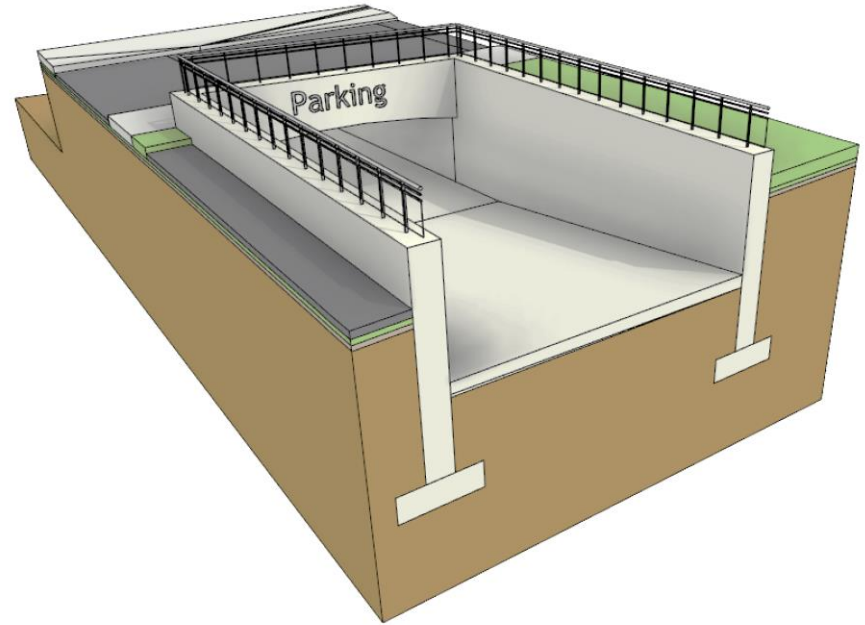


# Site design – Cut and Split Toposolids

Revit 2024

- Building Pads are now retired, but you can still edit their boundaries
- Use boolean operations with loadable or in-place void-mass families to model excavations or tunnels
- Cut a Toposolid with Walls, Floors, Structural Foundations, and elements from a dozen of other categories
- Use the Split Tool to divide a Toposolid into separate elements.

Model complex site conditions with the expanded boolean and split operations

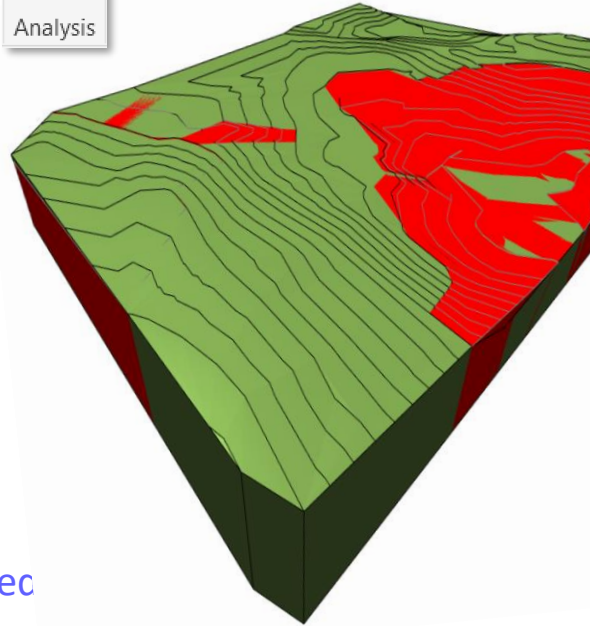
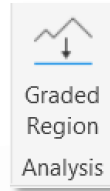


# Site design – Graded Regions

Revit 2024

- Calculate and report cut and fill volumes in Toposolids
- Applies the grading functionality from previous releases to Toposolids
- Use shape-editing tools to grade proposed point elevations
- Add cut & fill values in schedules

Reduce your site construction cost with balanced cut and fill volume analysis

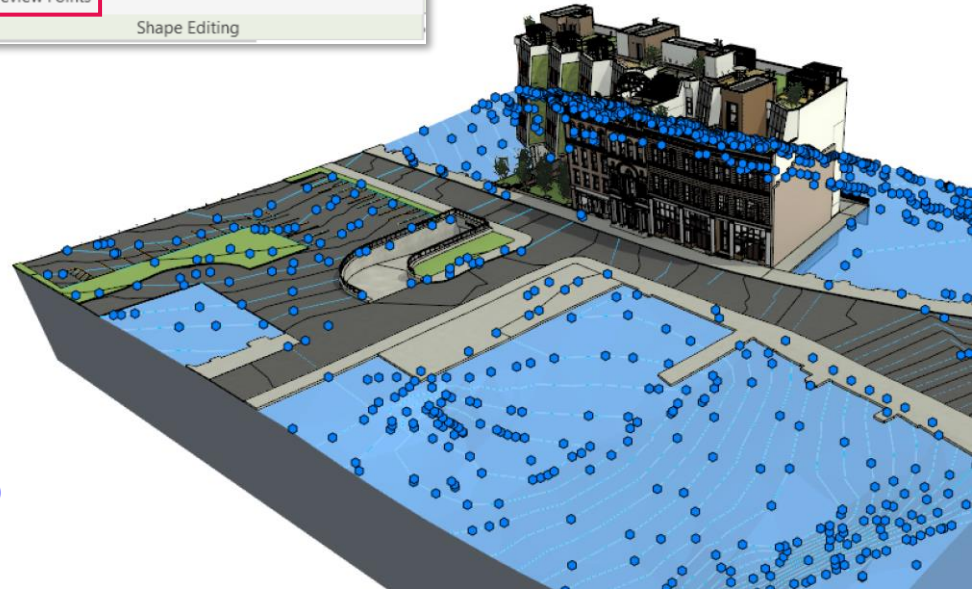
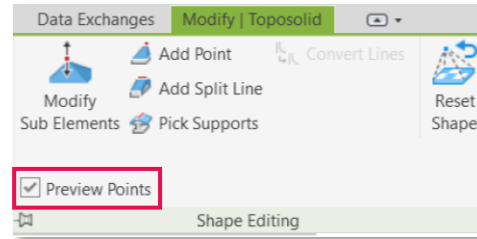


Properties	
Toposolid Grassland	
Toposolid (1)	Edit Type
Constraints	
Level	Level 1
Height Offset From Level	0' 0"
Room Bounding	<input checked="" type="checkbox"/>
Related to Mass	<input type="checkbox"/>
Slab Shape Edit	
Curved Edge Condition	<Not Applicable>
Dimensions	
Slope	
Perimeter	1188' 7 51/64"
Area	91274.83 SF
Volume	2419131.87 CF
Elevation at Top	<varies>
Elevation at Bottom	-20' 0"
Thickness	
Identity Data	
Image	
Comments	
Name	
Mark	
Phasing	
IFC Parameters	
Other	
Net cut/fill	-21621.50 CF
Fill	18032.34 CF
Cut	39653.84 CF
<a href="#">Properties help</a>	
Apply	

# Site Design – Show shape-edit control points

Revit 2024

- Change the display status of control points during highlight and selection
- Enable Preview Points in the Toposolid Shape Editing panel drop-down menu
- Control points are off by default



Set the display of control points in Toposolids to your preference

# Site Design – Additional functionality

Revit 2024

- Toposolids are able to act as a host of the following elements:
  - Site component
  - Parking
  - Railings
  - Floor Based Element
- Apply a slab edge family to the edge of a Toposolid
- Exposed Toposolid API



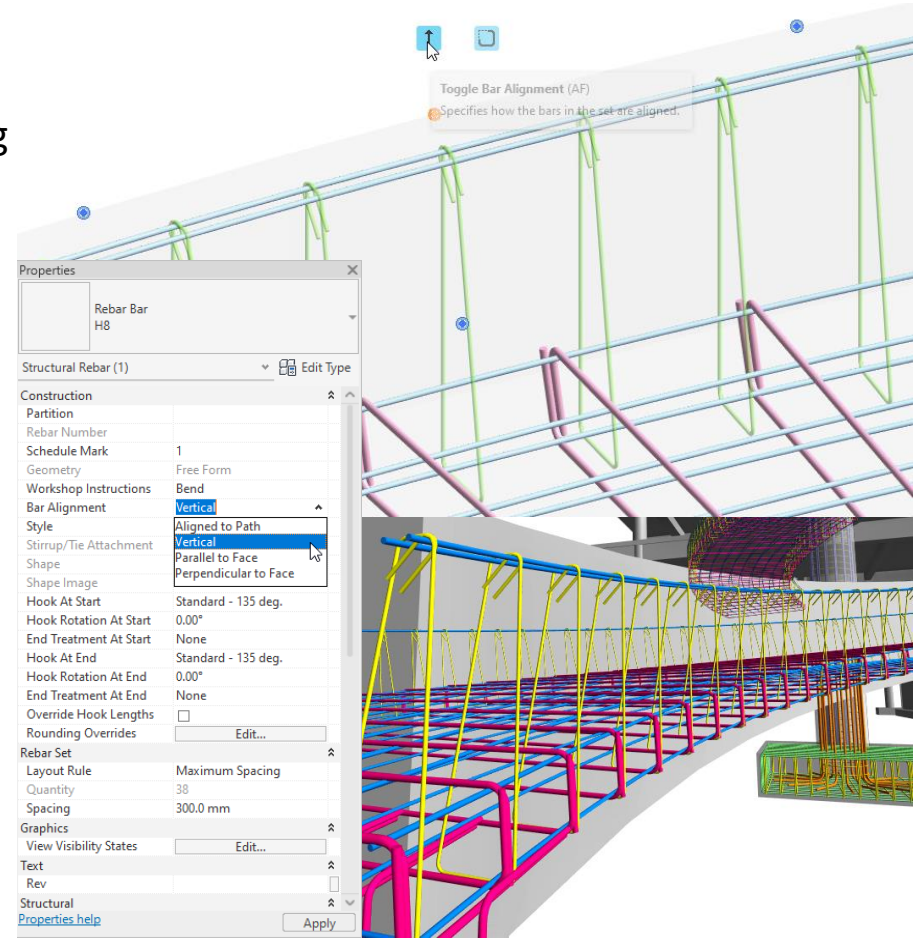
Improved site modeling in BIM with the expanded functionality of Toposolids

# New path alignment options for free form rebar

Revit 2024

- Vertical position for transverse reinforcement along double curved path
- Choose the bar alignment options during free form rebar placement
- Set the alignment options through the Bar Alignment parameter
- The planar face to which the bars are parallel or perpendicular can be selected on placement of the rebar set

Increase 3D rebar modelling versatility



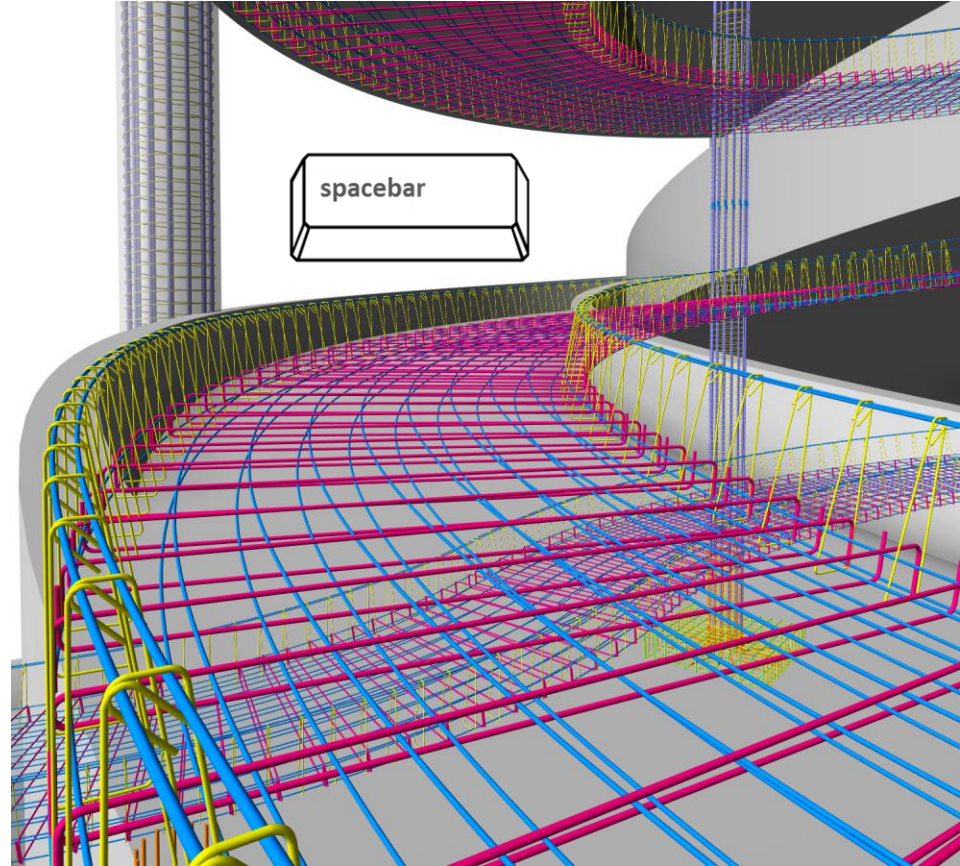


# Stirrup orientation for aligned free form rebar

Revit 2024

- Rotate the bar ends of stirrups created using aligned free form rebar
- Easily toggle stirrup orientation by pressing Space bar

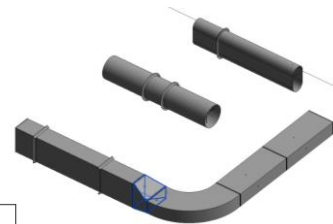
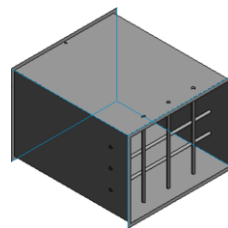
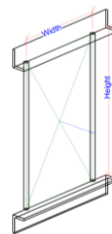
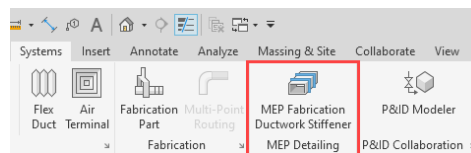
Increase 3D rebar modelling versatility with greater control over free form rebars








# MEP fabrication ductwork stiffener

Revit 2024

- New MEP Fabrication Ductwork Stiffener command
- Place internal and external stiffeners on rectangular, round, and oval fabrication ductwork
- Embedded schedules can quantify stiffeners per duct and stiffener subcomponents
- Export fabrication duct with holes based on internal stiffeners
- Sample content provided through Load Autodesk Family



Sample Stiffener Families	
	
External Rectangular	Internal Rectangular
	
External Oval	Internal Oval
	
External Round	

<MEP Fabrication Ductwork Schedule>		
A	B	C
Family and Type	Size	Classification
Ductwork +2in WG	12"x24"	
Duct Stiffener - Internal Oval 1/4 Vert	12"x24"	External
Duct Stiffener - External Oval Angle	12"x24"	External
Ductwork +2in WG	20"a	
Duct Stiffener - Internal Round 1/4 Vert	20"a	External
Duct Stiffener - External Round Angle	20"a	External
Ductwork +2in WG	15"x24"	
Duct Stiffener - External Rectangular	15"x24"	External
Ductwork +2in WG	24"x12"	
Ductwork +2in WG	15"x24"-24"x12"	
Ductwork +2in WG	24"x12"	
Duct Stiffener - Internal Rectangular S-24"x12"	24"x12"	External
Ductwork +2in WG	24"x12"	
Duct Stiffener - Internal Rectangular S-24"x12"	24"x12"	External

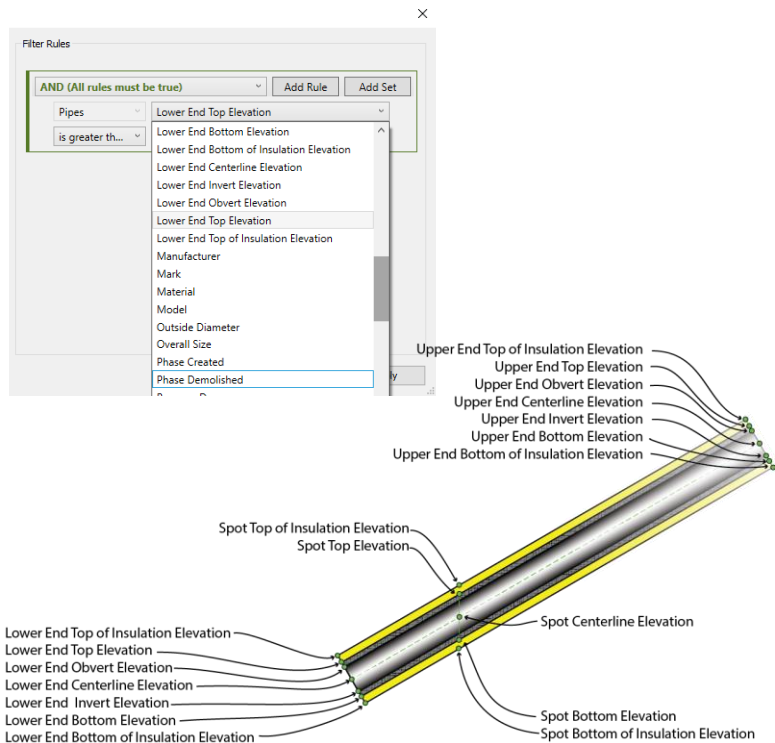
Create stiffeners on ductwork with dedicated features

# Elevation parameters in visibility filters

Revit 2024

- All elevation parameters on either end of an MEP segment can now be added to visibility filters
- Elevation parameters now include:
  - Lower / Upper End Bottom of Insulation Elevation
  - Lower / Upper End Centerline Elevation
  - Lower / Upper End Obvert Elevation
  - Lower / Upper End Top Elevation
  - Lower / Upper End Top of Insulation Elevation

Gain more flexibility in controlling the display of MEP components in views



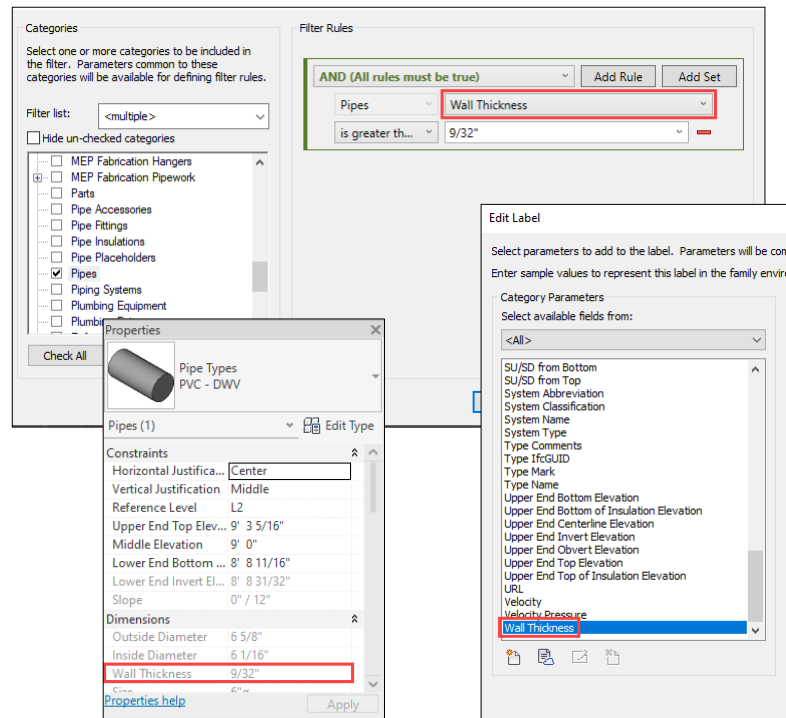


# Pipe Wall thickness as a built-in parameter

Revit 2024

- Wall thickness parameter now available as a built-in parameter
- Wall thickness parameter available for:
  - Tags
  - Schedules
  - View Filters

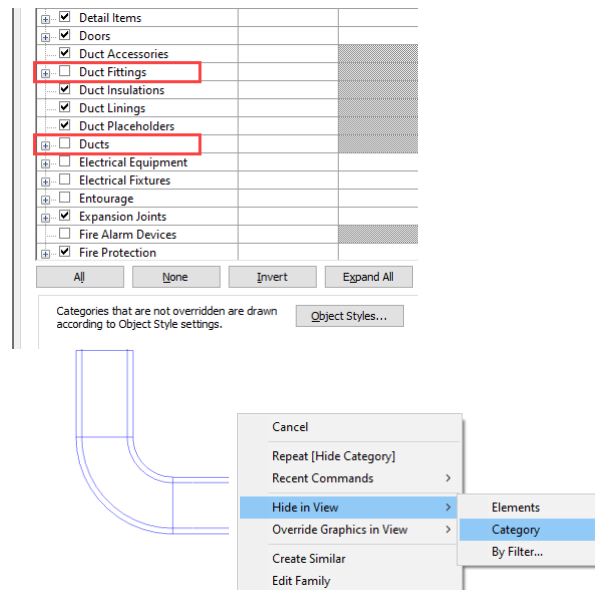
Easily create documentation for pipes with the wall thickness parameter



# Hide insulation with hosting duct and pipe

Revit 2024

- Hide Ducts with insulation/lining by:
  - Turning off Ducts category in the visibility setting
  - Selecting uninsulated instances of duct and select Hide by Categories
  - Select instances of insulated duct without selecting its insulation and select Hide
- Also applies to insulated/lined:
  - Duct Fitting
  - Duct Accessories
  - Pipe
  - Pipe Fitting
  - Pipe Accessories

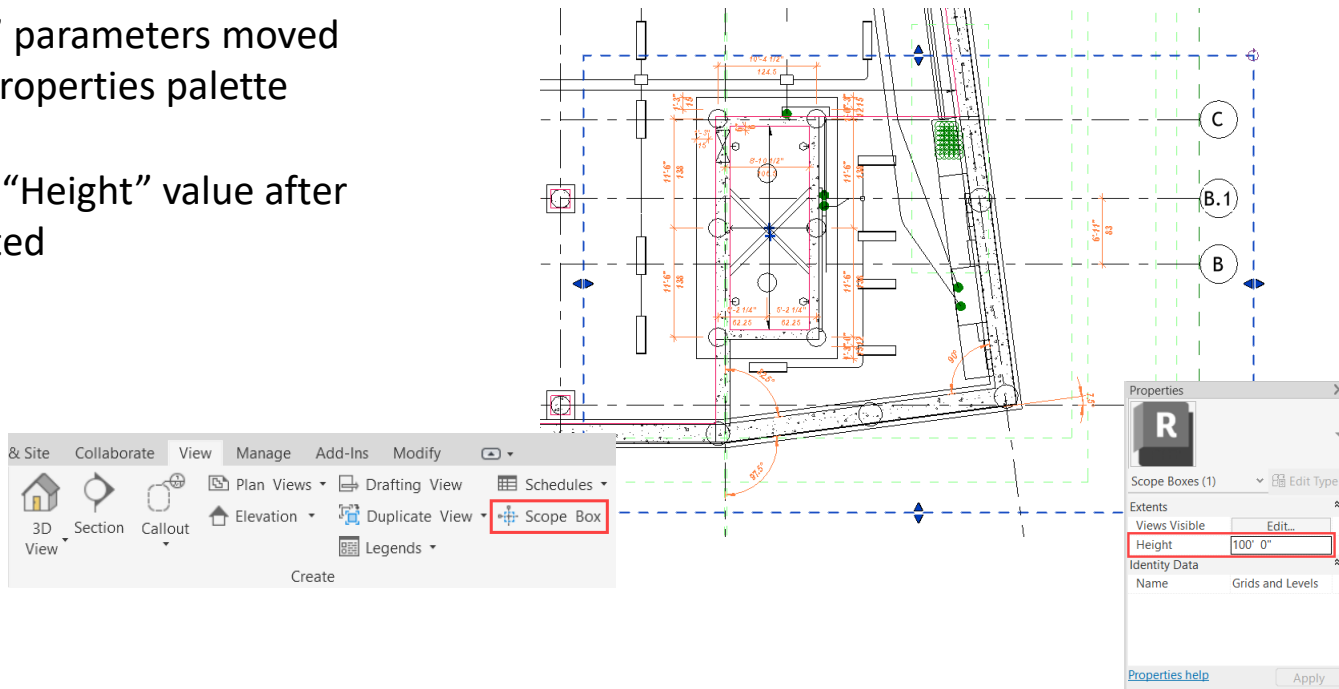


Model systems more efficiently with additional visibility controls

# Height parameter in scope box

Revit 2024

- “Height” and “Name” parameters moved from options bar to properties palette
- Possibility to edit the “Height” value after the scope box is created

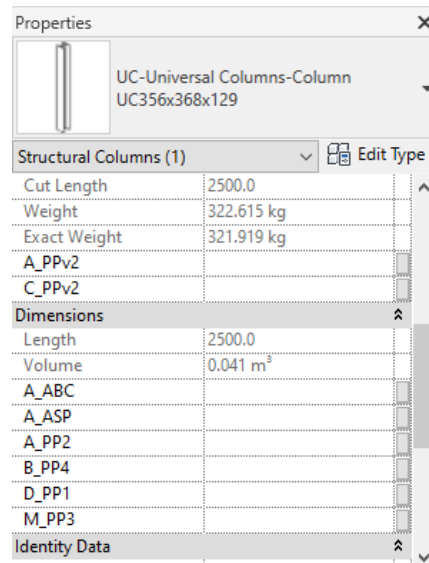


Navigate and manipulate project data more effectively

# Parameters sorting in type/instance properties

Revit 2024

- Project parameters are automatically sorted alphabetically (and not by order of creation)
- Sorting is done per category ; relative position of family parameters is kept as before

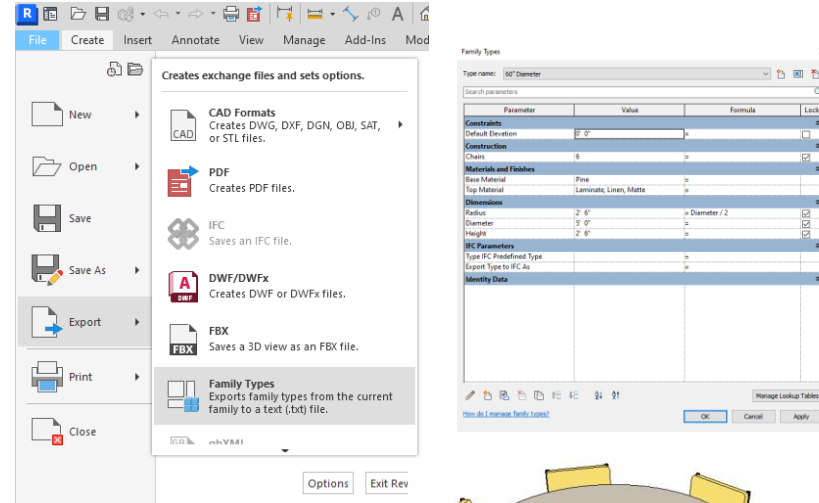


Navigate projects more intuitively with parameter property enhancements

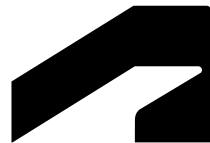
# Export 'Family type' parameter

## Revit 2024

- 'Family Type' parameter data is included when using Family Types export
- Type driven by family parameter
- Makes it easier to build type catalogs for nested families



Create and manage family type catalogs with less effort



# Simulation & analysis

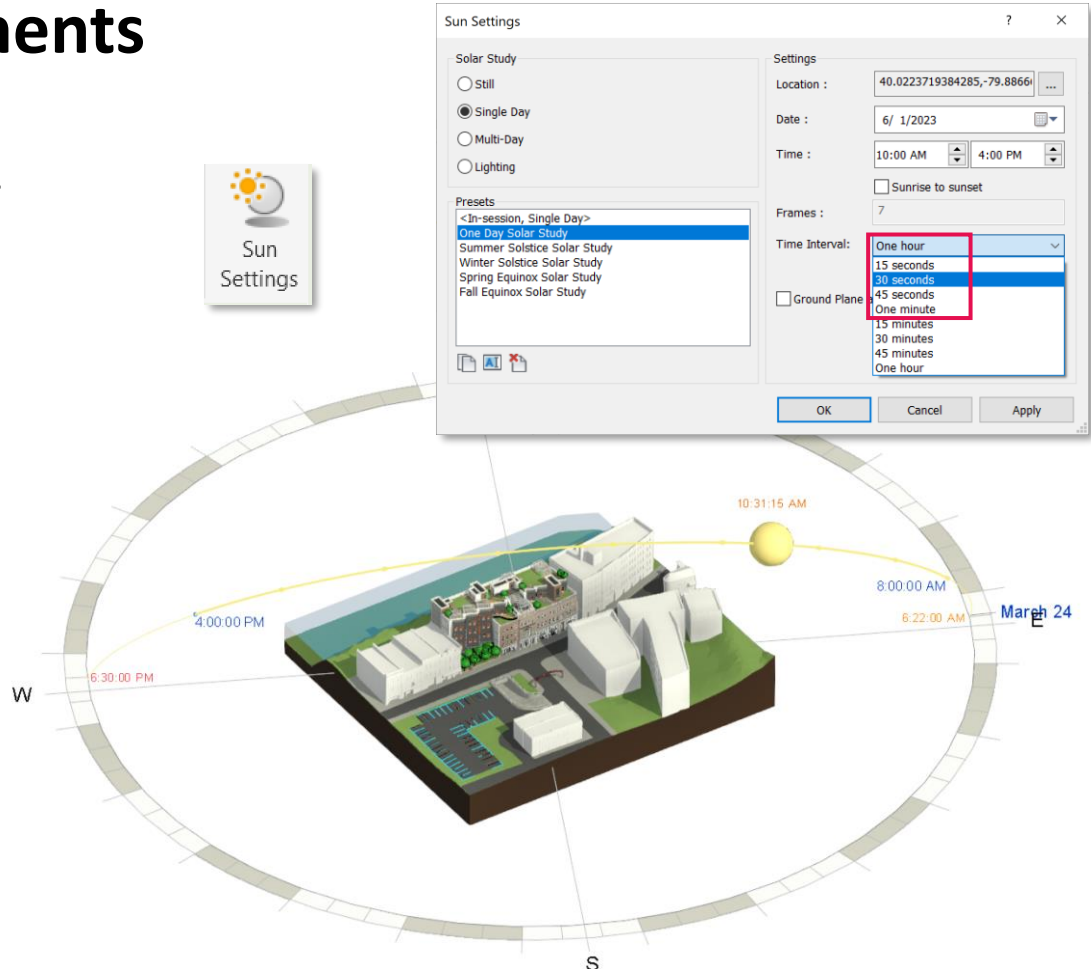
Revit 2024

# Solar Study enhancements

Revit 2024

- Access Sun Settings from the Solar Study ribbon
- Run Single Day Solar Studies at a higher precision
- Options include 15, 30, 45 or 60-second intervals
- Sun Path editable in perspective views

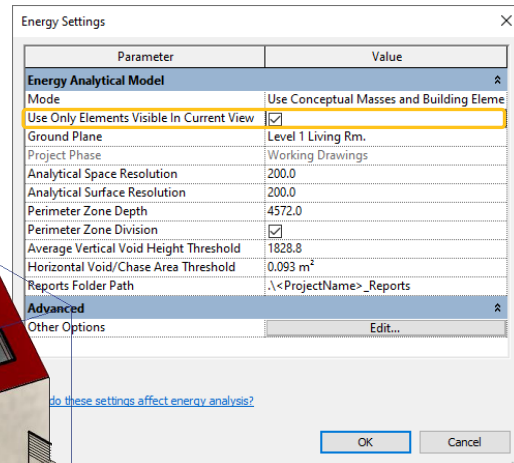
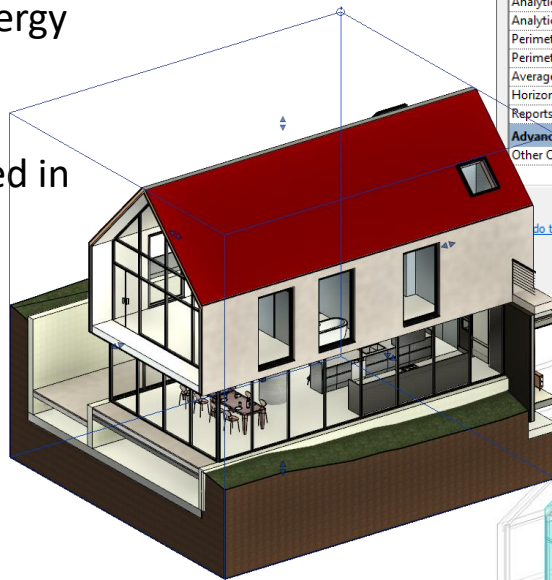
Better visualize the impact of sunlight and shadows



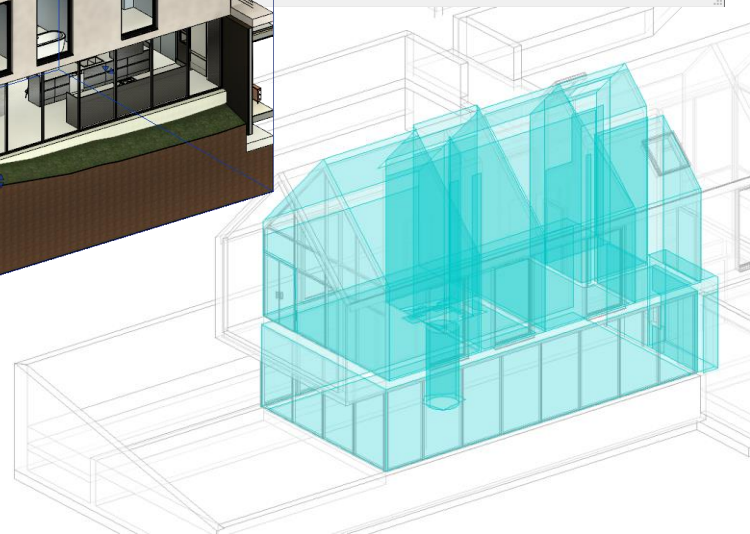
# Generate energy model by view

Revit 2024

- Active view may be used to generate the energy model
- Only visible elements in the view are included in the model generation
- Applicable to 3D views



Iterate the energy analytical model more quickly  
and streamline analysis



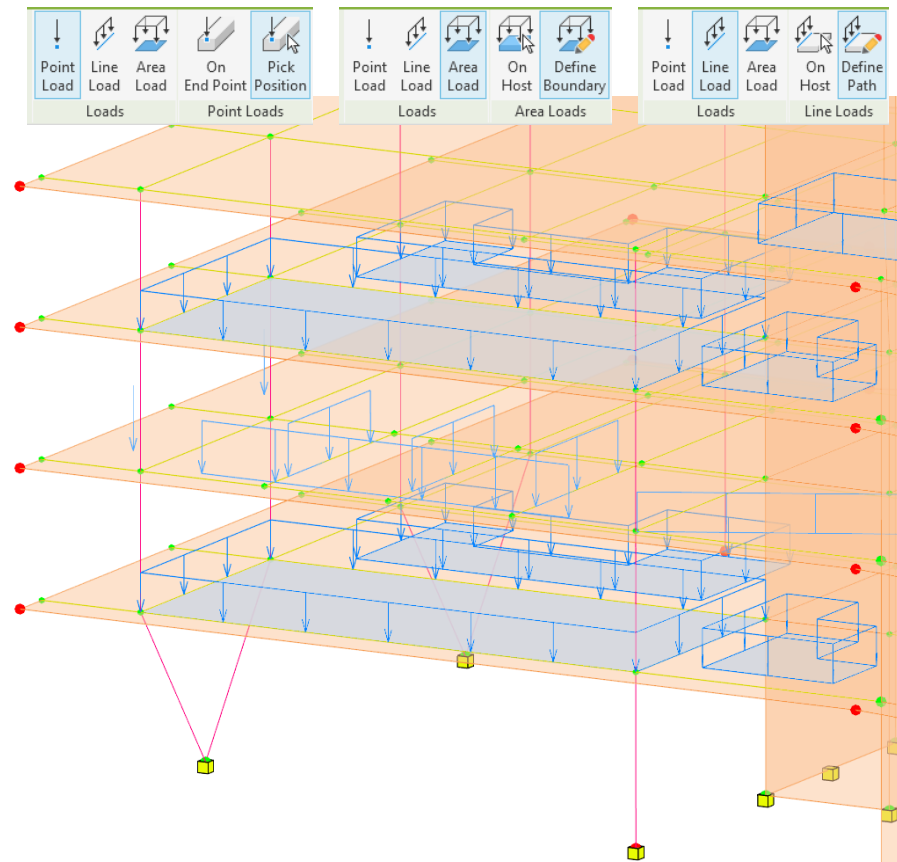


# Enhanced structural analytical loads

Revit 2024

- Hosted loads applied to specific areas of panels and members
  - Planar loads applied to user-defined, sketched areas of analytical panels
  - Linear loads applied to specified segments of analytical members lengths and analytical panels
- Point loads can be placed anywhere on their hosts
- Loads can be constrained (or not) to their hosts' boundaries

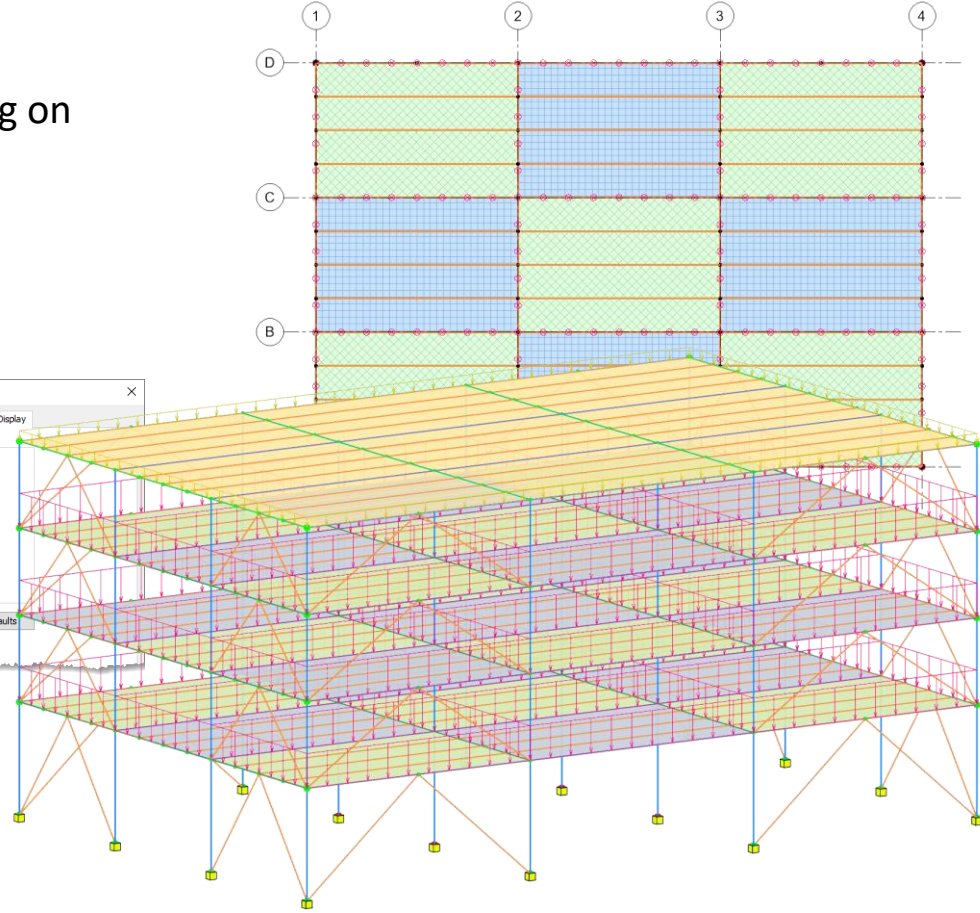
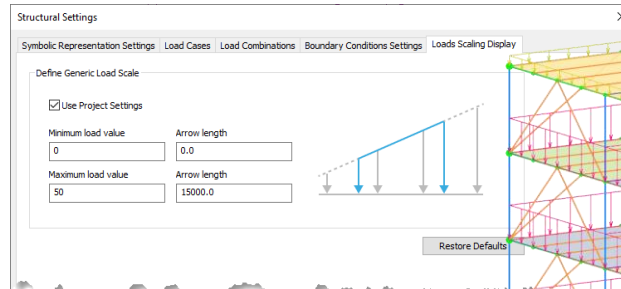
Define structural loads more accurately and flexibly



# Structural area loads with color coding

Revit 2024

- Customized representation of loads depending on load types or load cases
- Use colors and patterns
- Loads scaling



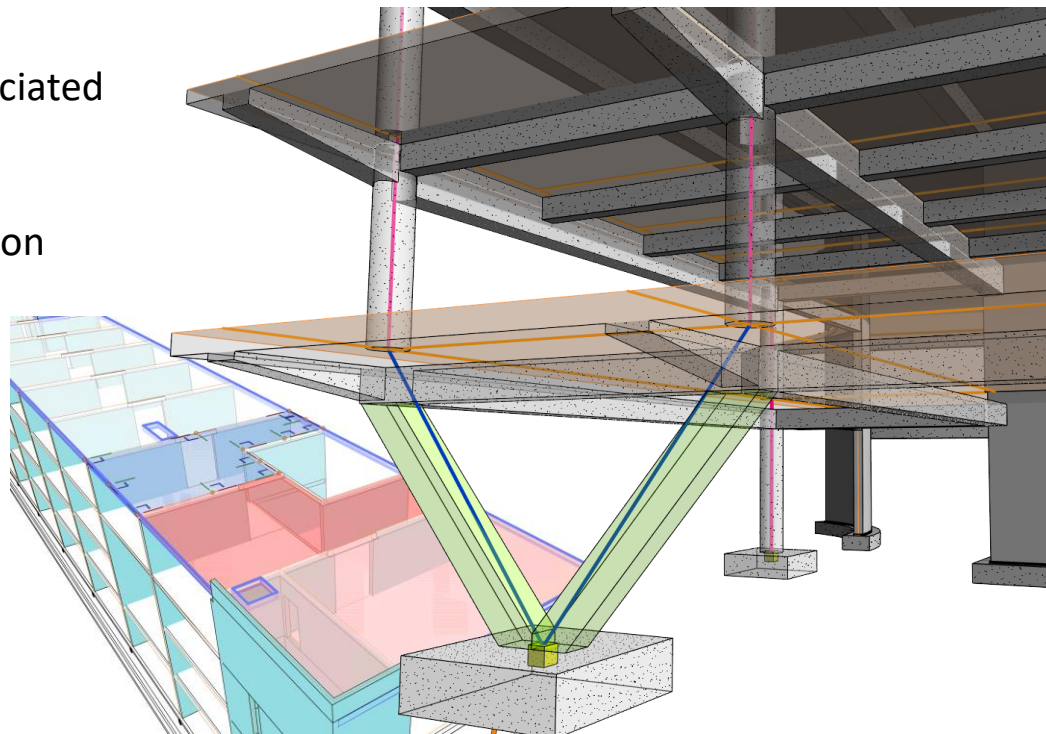
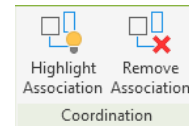
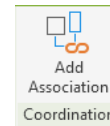
Document structural loads more effectively

# Custom physical-analytical association

Revit 2024

- Group a different number of physical and analytical elements into a single association
- Multiple analytical panels or members associated to a single physical object (or vice versa)
- Same user workflow as for the 1:1 association

Better coordinate updates across physical and analytical models

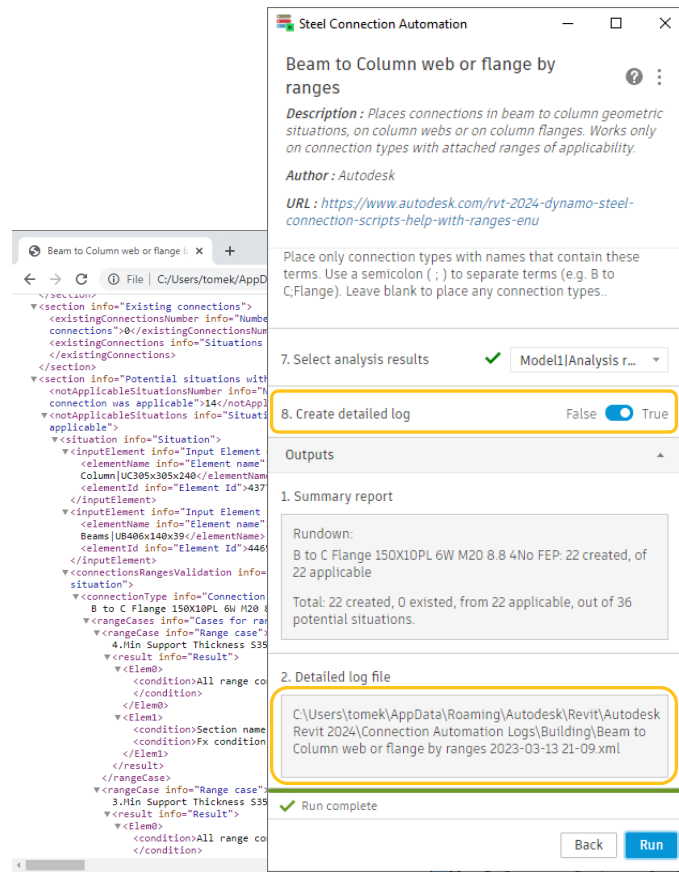


# Detailed results for connection automation rules

## Revit 2024

- Use the information in the log generated at the specified location for:
  - Connections that were placed
  - Situations where connections already existed
  - Situations where no connection was applicable

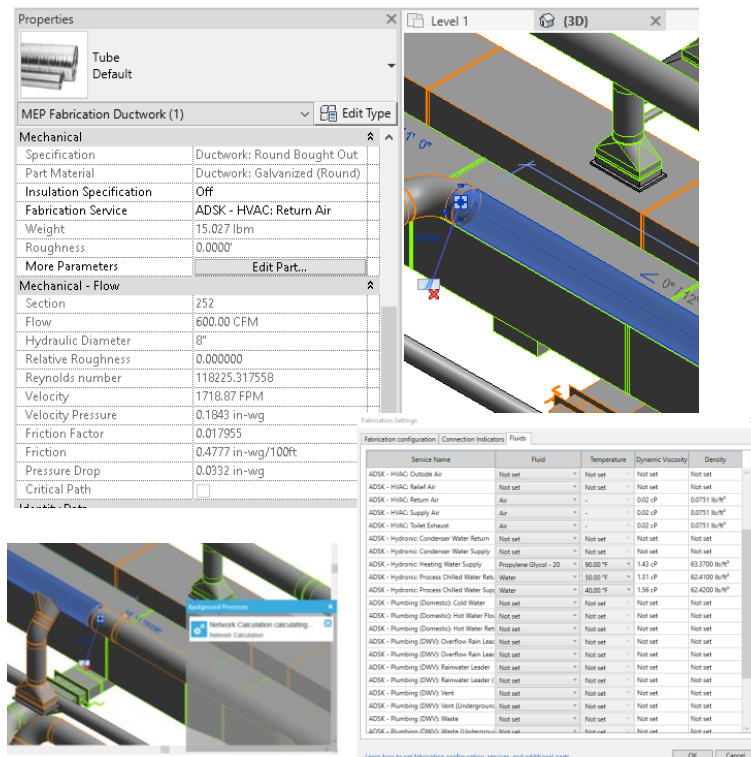
Design steel structures more quickly and accurately



# Flow and pressure drop calculations

## Revit 2024

- Flow and pressure drop calculations added to MEP fabrication elements
- New Fluids tab in Fabrication Settings associates fluid and temperature settings
- Roughness parameter added to straight elements
- Pipe and duct calculations run in the background
- Results displayed as properties on straight segments

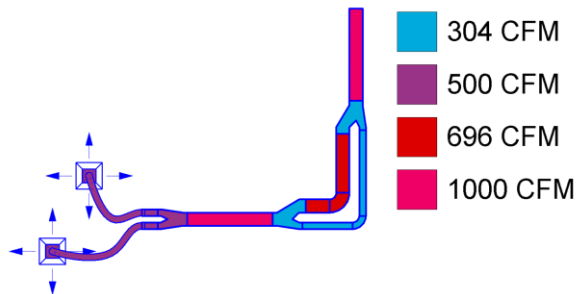


Connect MEP design and fabrication workflows

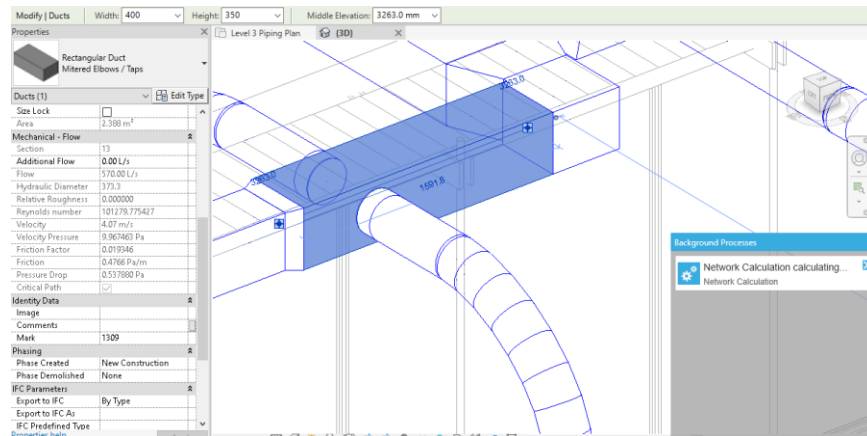
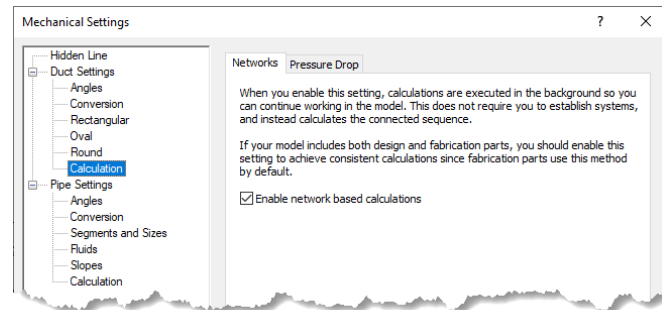
# Network based calculations for design ductwork

Revit 2024

- Enable the new calculation engine in Mechanical Settings
- Duct calculations now run in the background
- Improved handling of parallel flow cases



Improve integration of design and fabrication workflows



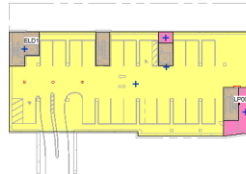


# Demand loads for electrical analytical components

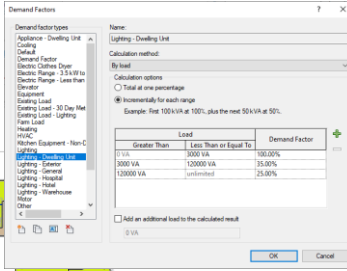


## Revit 2024

- Demand factors now apply to analytical loads
- Applies to Analytical Equipment Loads and Analytical Area Based Loads
- Demand apparent power and demand current computed for analytical distribution elements
- Values are schedulable and reportable in system browser

Analyze the impact of demand on the analytical model for sizing equipment



Power Distribution	Connected Load	Demand Load	Connected Current	Demand Current	Voltage
Unconnected					
Utility	1033304 VA	558396 VA	50 A	27 A	12000 V
Utility Transformer	1033304 VA	558396 VA			
SWITCHBOARD	1033304 VA	558396 VA	2868 A	1550 A	208 V
MAIN1	572042 VA	443081 VA	1588 A	1230 A	208 V
MB11	101664 VA	60398 VA	282 A	162 A	208 V
MB12	122062 VA	44466 VA	339 A	123 A	208 V
MB13	191386 VA	189896 VA	531 A	527 A	208 V
MB14	156930 VA	156930 VA	436 A	436 A	208 V
MAIN2	461262 VA	129266 VA	1280 A	359 A	208 V
TM21	147073 VA	50718 VA	405 A	141 A	208 V
RP204	37797 VA	15179 VA	105 A	42 A	208 V
RP205	37185 VA	14965 VA	103 A	42 A	208 V
RP506	38920 VA	15572 VA	108 A	43 A	208 V
RP507	33171 VA	13560 VA	92 A	38 A	208 V
MB22	114090 VA	41881 VA	317 A	116 A	208 V
RP308	19574 VA	8801 VA	54 A	24 A	208 V
RP309	24806 VA	10632 VA	69 A	30 A	208 V
RP403	27038 VA	11413 VA	75 A	32 A	208 V
RP404	19550 VA	8792 VA	54 A	24 A	208 V
RP405	23122 VA	10043 VA	64 A	28 A	208 V
MB23	200099 VA	63975 VA	555 A	178 A	208 V
RP406	84778 VA	31622 VA	235 A	88 A	208 V
RP407	36506 VA	14727 VA	101 A	41 A	208 V
RP408	35776 VA	14472 VA	99 A	40 A	208 V
RP409	19008 VA	8603 VA	53 A	24 A	208 V
RP410	24032 VA	10361 VA	67 A	29 A	208 V



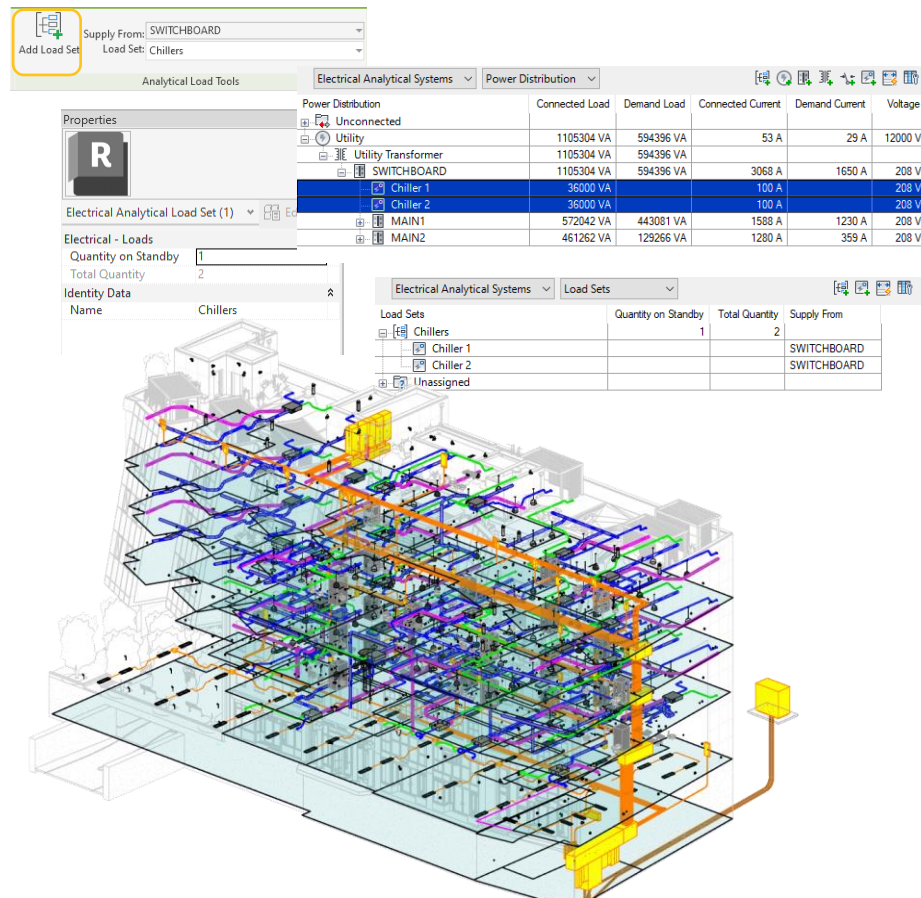
Load	Demand Factor
Greater than 1000 VA	100.00%
1000 VA to 12000 VA	35.00%
12000 VA	25.00%

# Non-coincident loads for electrical analytical components

## Revit 2024

- Define and connect analytical loads for all loads (e.g., mechanical, owner provided, etc.)
- Configure loads as backup / standby
- Automatic computation of connected vs demand load

Design electrical systems more simply and comprehensively





An abstract graphic on the left side of the slide, composed of several overlapping, transparent, metallic-looking rectangular frames that create a sense of depth and structure.

# Cloud data & interoperability

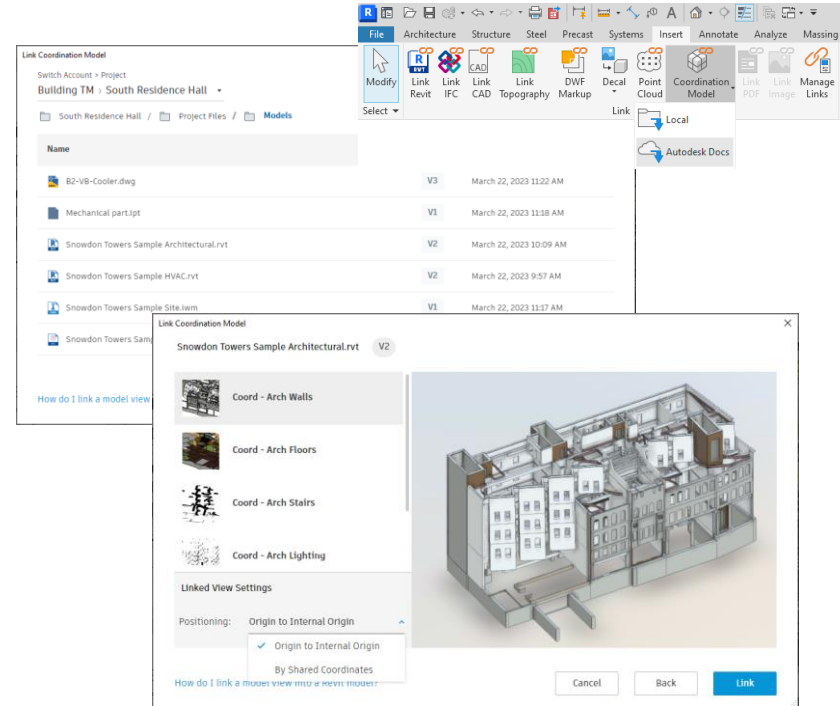
Revit 2024

# Link coordination models from Autodesk Docs

## Revit 2024

- Link a coordination model into the current Revit project
- 60+ file formats available in Autodesk Docs
- Link models or views
- Underlay the coordination model as visual reference when designing in Revit

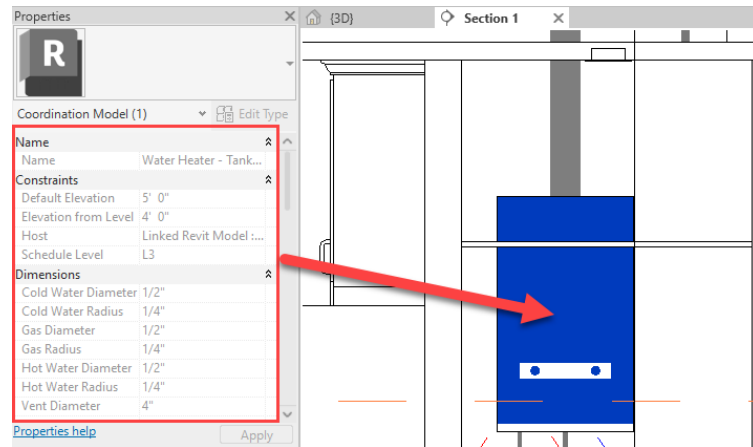
Coordinate design development and model deliverables more effectively between stakeholders



# Properties of coordination model objects

Revit 2024

- Get access to the properties of Coordination Model objects
- Select individual coordination objects (by pressing Tab)
- Get their properties displayed in the Properties palette
- Note that those properties are not editable



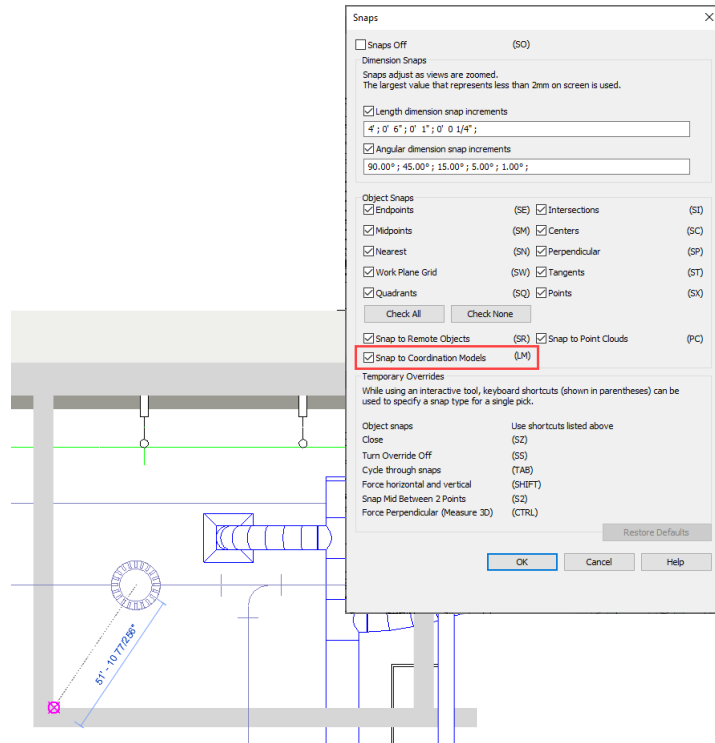
Quickly access properties of coordination model objects

# Point snaps for coordination model objects

Revit 2024

- Snap to linked geometry in projection views
- New “Snap to Coordination Models” in Snaps dialog (activated by default) adds precision to coordination modeling
- New hotkey (LM) to control this new object snap
- Can snap to corners or ends of coordination model objects

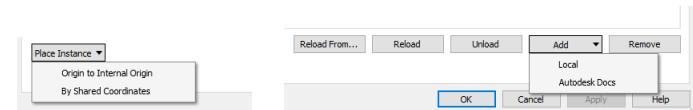
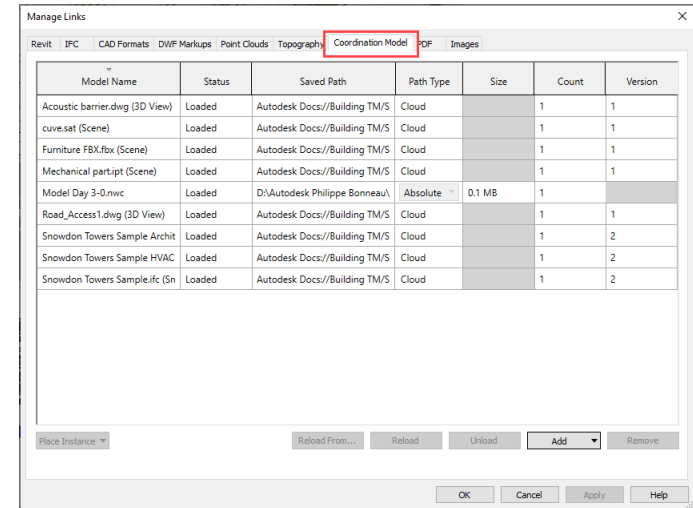
Enable fast and convenient snap on coordination model objects



# Manage links dialog for coordination models

Revit 2024

- New Coordination Model tab in the Manage Links dialog box
- Information arranged into a grid structure for better management
- Options available to place instance
- Possibility to link a coordination model from a local source or from Autodesk Docs

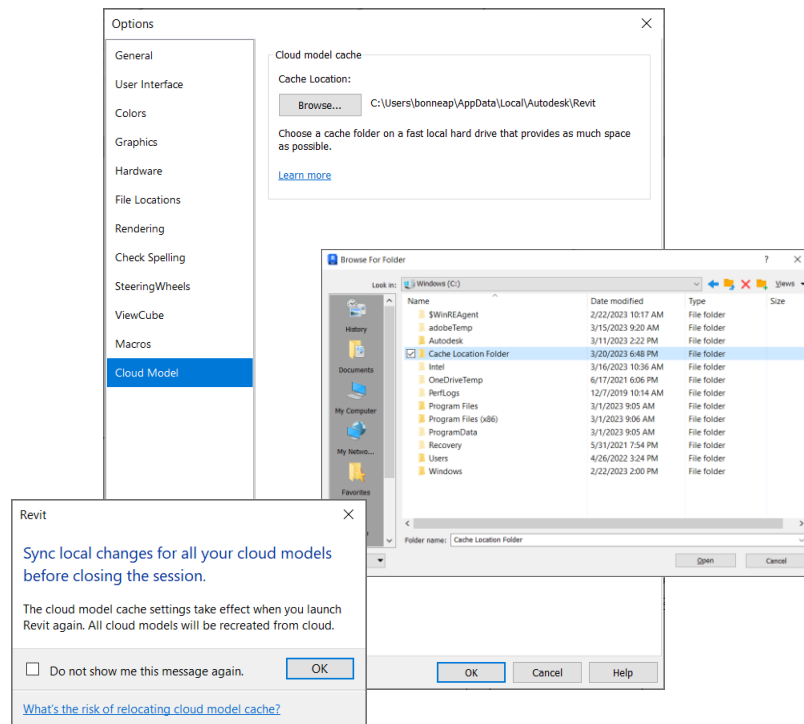


Easily manage coordination models for faster collaboration

# Collaboration cache relocation for cloud models

## Revit 2024

- New Cloud Model tab in Options dialog
- Ability to specify a different path for the cache folder
- By default, the cloud model cache path is  
C:\Users\username\AppData\Local\Autodesk\Revit
- The cloud model cache setting takes effect the next time you launch Revit

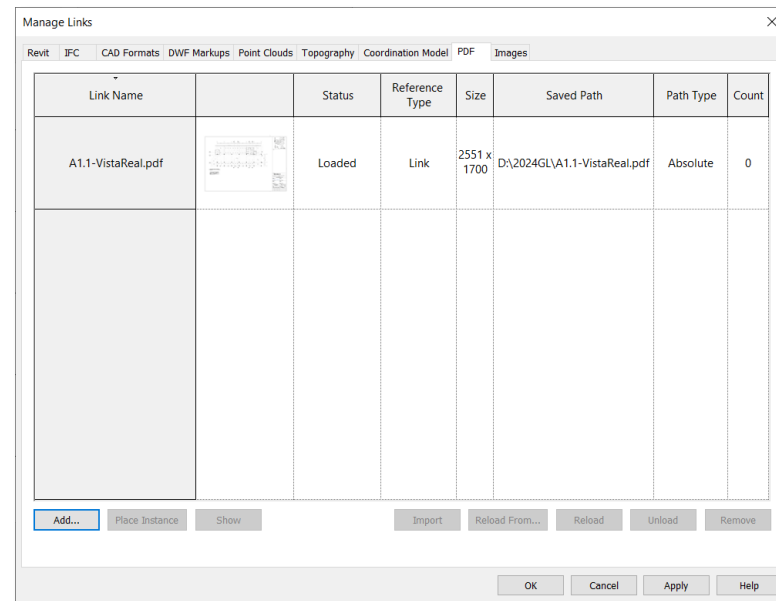
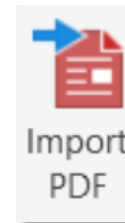


Easily manage the cloud model cache

# Link and Import PDF in Revit LT

## Revit 2024

- Link or Import PDF files projection views or sheets.
- PDF stays as a view specific object
- Use as a background underlay in floor plans
- Snap to PDF vector data
- Supported by Design Automation API

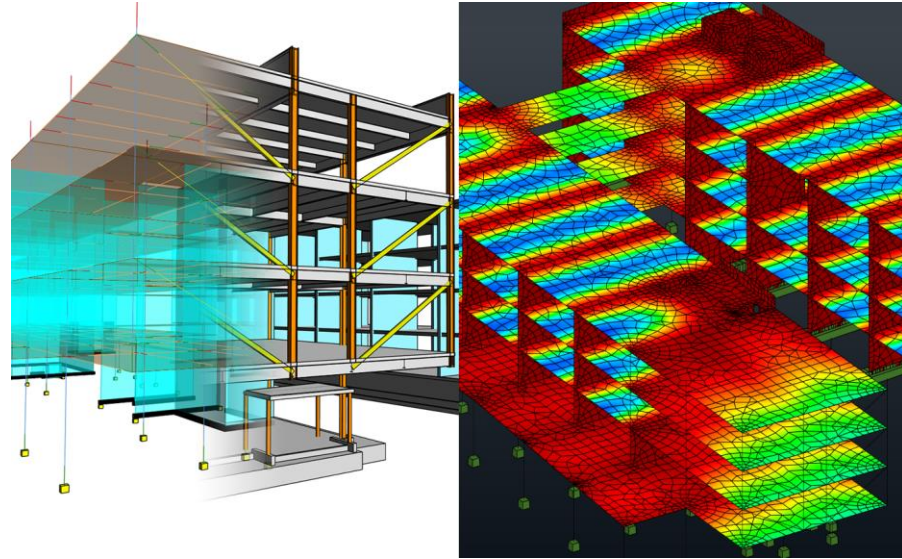


Expanded ability to display PDF information for Revit LT users

# Revit to Robot Link enhancements

## Revit 2024

- Transfer of analytical panels created by extrusion
- Transfer of linear and planar loads hosted on members and panels
- Data transfer of steel member code types
- Transfer of arc members



Better support of BIM-centric structural analysis workflows





# Design optimization

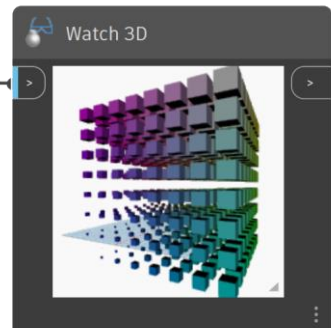
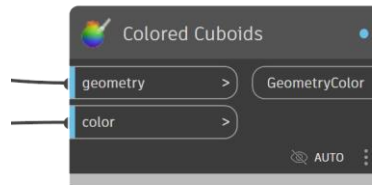
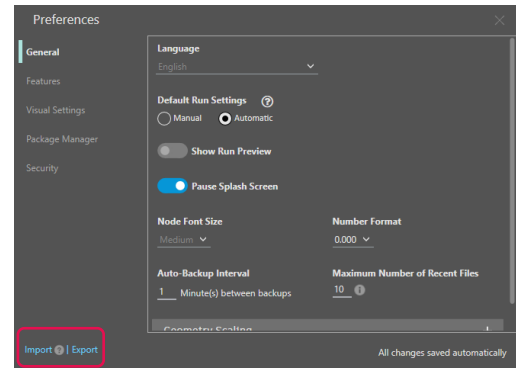
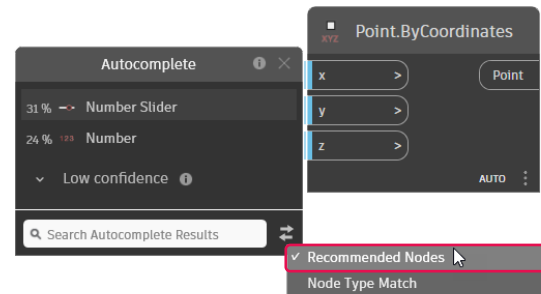
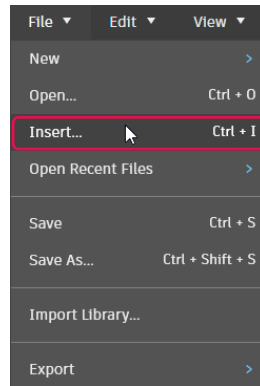
Revit 2024

# Dynamo for Revit 2.17 upgrade

## Revit 2024

- Enhanced Node Autocomplete
- New Dynamo settings with import/export and deployment
- In-product node documentation
- Insert graph into an open workspace
- Watch 3D nodes show geometry
- Default font sizes for group styles
- Find connected node

Improved experience when developing automation workflows

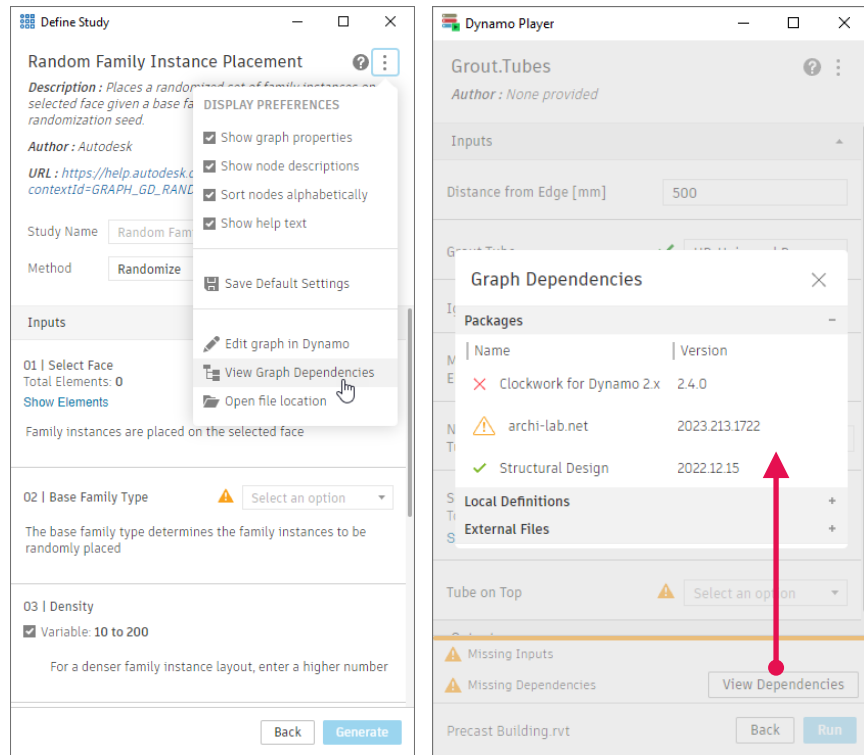


# Dynamo Player & Generative Design updates

## Revit 2024

- New Issue Manager shows warnings from Dynamo runs
- Expose graph dependencies to Dynamo Player and Generative Design users
- New sample graphs are available
- Images are available as outputs in Dynamo Player

Improved user experience for computational design workflows



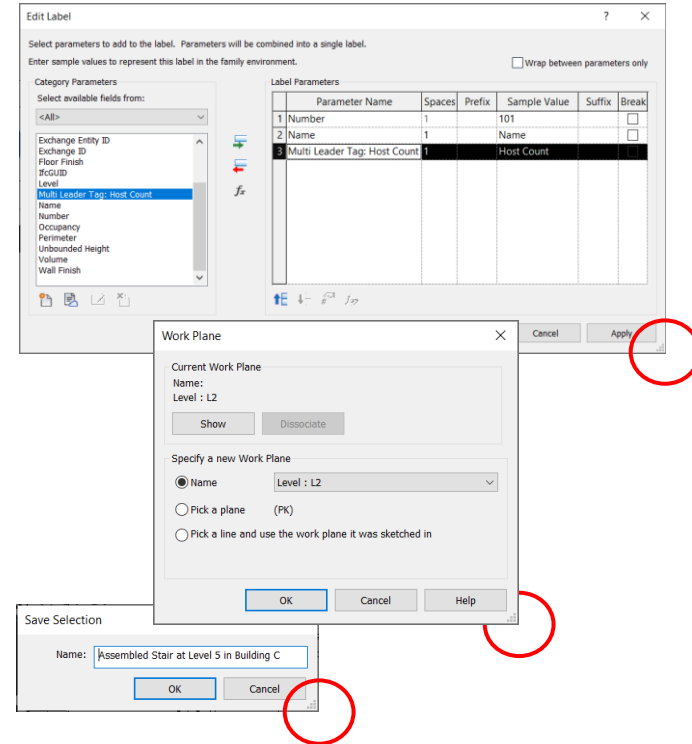
# Revit additional resizable dialogs

## Revit 2024

- List of updated dialogs:

- Decal Types dialog
- Check spelling dialog
- Keynotes dialog
- New Legend view dialog
- New Drafting view dialog
- New Plan dialog
- Save Selection dialog
- Load Selection dialog
- Detail Levels dialog
- Halftone/Underlay dialog
- Create Group dialog
- Export Image dialog
- System Color Schemes dialog
- Import Line Weight dialog
- Work Plane dialog
- Insert 2D elements dialog
- eTransmit - Transmit a model dialog
- Starting View dialog
- Select Element by ID dialog
- Element IDs of selection dialog
- Edit Label dialog

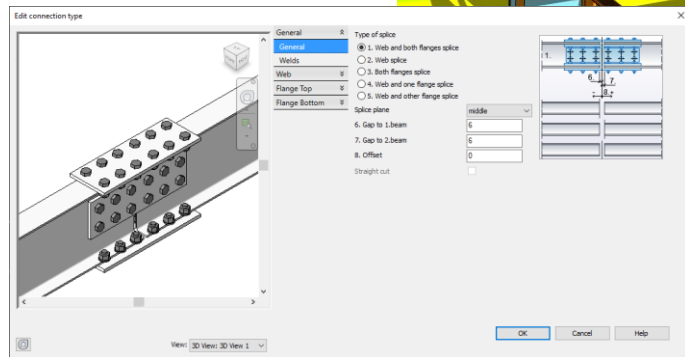
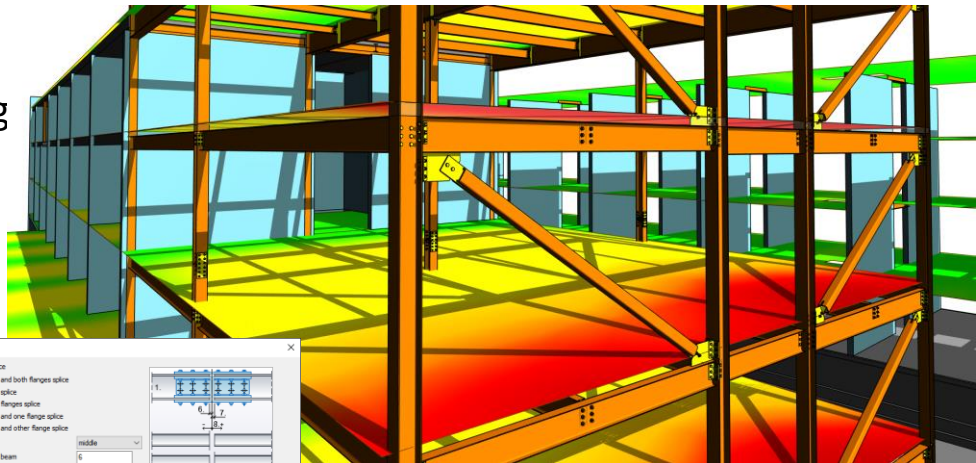
Small enhancements that improve the Revit user experience



# Improved steel connections SDK documentation

Revit 2024

- Detailed guidelines for creating and customizing steel connections
- New API samples



Design steel structures more quickly and accurately

```
from Autodesk.Revit.UI import *
from Autodesk.Revit.UI.Macros import *
from Autodesk.Revit.UI.Selection import *
from Autodesk.Revit.DB import *
from System.Collections.Generic import *
from System.Collections import *
from System import *
from math import *
```

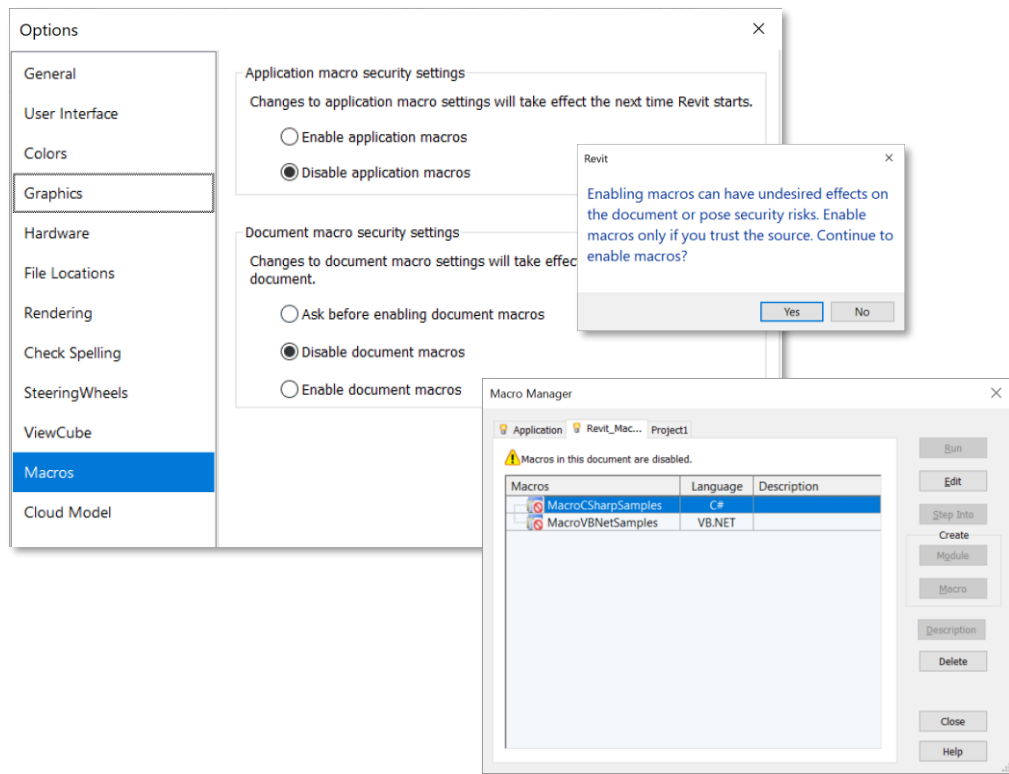
```
class ThisDocument (DocumentEntryPoint):
    #region Revit Macros generated code
    def FinishInitialization(self):
        DocumentEntryPoint.FinishInitialization(self)
        self.InternalStartup()

    def OnShutdown(self):
        self.InternalShutdown()
        DocumentEntryPoint.OnShutdown(self)
```

# Revit Macro security enhancements

## Revit 2024

- Application macros and document macros are disabled by default
- Prevent the execution of malicious codes
- A new warning inform users of potential security risks



Reduce the potential for security risks

# API enhancements for developers

## Revit 2024

- Element ID upgrade
- Design Automation API
- Group reload
- Purge Unused
- Link Visibility Graphic Overrides By Host and Linked View
- Draw order of 2D elements in 3D families

Expanded API access for third-party developers

## Autodesk Developer Network



Autodesk Developer Network

Autodesk Developer Network  
Open

ADN Membership Options

Platform Technologies

- AutoCAD
- AEC
- Autodesk Revit
- Navisworks
- Manufacturing
- Media & Entertainment
- GIS

Autodesk App Store

Autodesk Certified Apps

ADN Standard & Professional Member Login

ADN Sparks Member Login

Contact Us

Overview of My First Revit Plug-in Guide

Plug-in" is a self-paced tutorial guide for a smc  
aming world. This is a "one-stop shop" learning p  
reasons to learn to program Revit and are thinking  
Autodesk will be working with the Revit .NET API a  
vantages.

Click here to start your very first plug-in

Community

Blogs

Get news, expert tips and insider resources directly  
from Autodesk software engineers

Discussion Groups

Take part in active API dis  
by Autodesk software eng





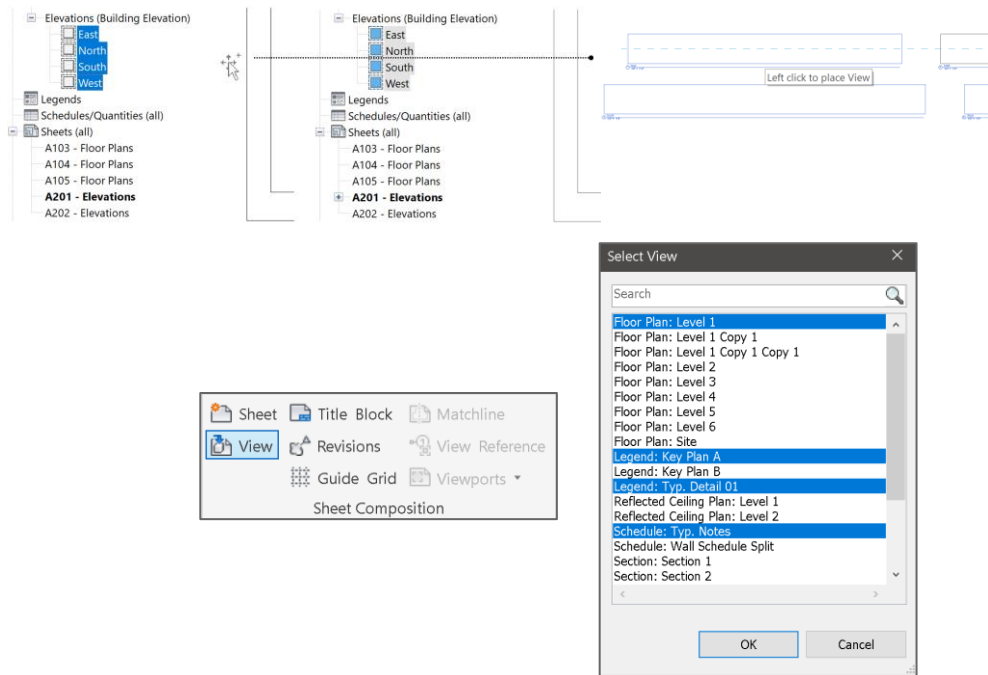
# Documentation efficiency

Revit 2024

# Place multiple views and schedules on a sheet

Revit 2024

- Multiple views and schedules can be placed on a sheet at the same time
  - Drag them from the project browser
  - Select multiple items from the Select View dialog
- Search function now available in the Select View dialog
- Easy arrangement on the sheet with views positioned tiled on the cursor



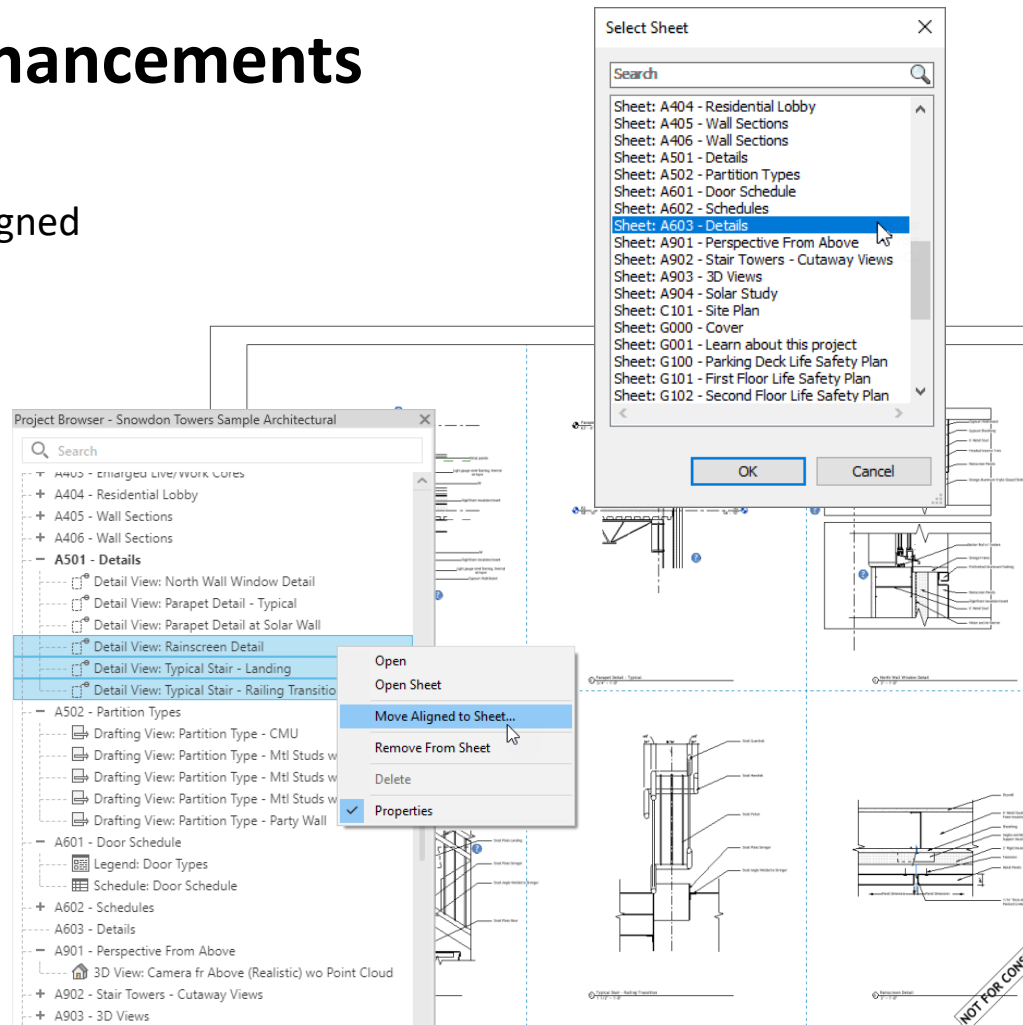
Save time when completing document sets

# Move Aligned to Sheet enhancements

Revit 2024

- Sheet-based elements can be moved and aligned between sheets directly from:
  - the Project Browser
  - the sheet drawing area

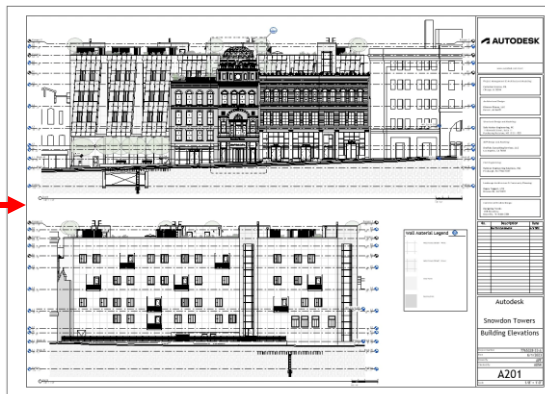
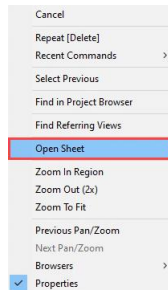
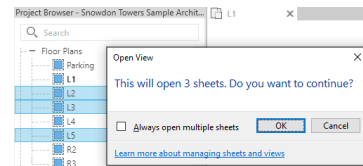
Move multiple elements between sheets while keeping their original positions



# Open sheet directly from drawing area

Revit 2024

- Open sheet command available directly in right-click menu from the drawing area
- Confirmation dialog gets displayed for views placed on more than one sheet



Open sheets related to specific views more quickly

# Schedule revision clouds

## Revit 2024

- New Revision Clouds category available for schedules
- Views, Sheets, and Revision Clouds fields available for revision cloud schedules
- Schedules key and Shared Parameters can be included

The screenshot displays the Revit 2024 interface for creating and managing schedules. The 'New Schedule' dialog is open, showing the 'Revision Clouds' category selected in the 'Category' list. The 'Schedule Properties' dialog is also open, showing the 'Revision Clouds' category selected in the 'Select available fields from:' list.

Two example schedule tables are shown:

A	B	C	D	
Revision	Issued to	Revision	Revision Description	Views: View Name
Cloud revision A				
Tom	2/2/23	Wall type change	Parking	
Tom	2/2/23	Wall type change	PLAN R1 Water	
Tom	2/2/23	Wall type change	L2	
Cloud revision B				
Sam	2/7/23	New meeting room layout		
Sam	2/7/23	New meeting room layout	Sanitary Riser #6	
Cloud revision C				
Paul	2/18/23	Change glass door style	PLAN Parking Water	
Paul	2/18/23	Change glass door style	PLAN R1 Water	
Cloud revision D				
Sam	2/25/23	Add more doors	PLAN L1 - Block 35 Water	
Sam	2/25/23	Add more doors	L2	
Cloud revision E				
Brad	3/3/23	Pipe diameter change	PLAN L2 Water	
Brad	3/3/23	Pipe diameter change	PLAN L3 Water	
Brad	3/3/23	Pipe diameter change	L2	
Cloud revision F				
Clara	3/8/23	Revised layout	PLAN L4 Water	
Cloud revision G				
Clara	3/15/23	Owner request	PLAN L5 Water	
Cloud revision H				
Paul	3/19/23	Wall thickness	PLAN R1 Water	

A	B	C	D	E
Views: Sheet Name	Views: View Name	Revision Number	Revision: Revision Description	Revision: Issued to
DOMESTIC WATER PLAN - L0 PARKING				
PLAN R1 Water	Cloud revision A	Wall type change	Tom	
DOMESTIC WATER PLAN - L0 PARKING	PLAN Parking Water	Cloud revision C	Change glass door style	Paul
DOMESTIC WATER PLAN - L0 PARKING	PLAN R1 Water	Cloud revision C	Change glass door style	Paul
DOMESTIC WATER PLAN - L0 PARKING	PLAN L1 - Block 35 Water	Cloud revision D	Add more doors	Sam
DOMESTIC WATER PLAN - L0 PARKING	PLAN L2 Water	Cloud revision E	Pipe diameter change	Brad
DOMESTIC WATER PLAN - L0 PARKING	PLAN L3 Water	Cloud revision E	Pipe diameter change	Brad
DOMESTIC WATER PLAN - L0 PARKING	PLAN L4 Water	Cloud revision F	Revised layout	Clara
DOMESTIC WATER PLAN - L0 PARKING	PLAN L5 Water	Cloud revision G	Owner request	Clara
DOMESTIC WATER PLAN - L0 PARKING	PLAN R1 Water	Cloud revision H	Wall thickness	Paul
PLAN - L0 SANITARY				
PLAN - L0 SANITARY	Parking	Cloud revision A	Wall type change	Tom
RCP - L2 SANITARY	L2	Cloud revision A	Wall type change	Tom
RCP - L2 SANITARY	L2	Cloud revision D	Add more doors	Sam
RCP - L2 SANITARY	L2	Cloud revision E	Pipe diameter change	Brad
SECTIONS SANITARY RISERS				
SECTIONS SANITARY RISERS	Sanitary Riser #6	Cloud revision B	New meeting room layout	Sam

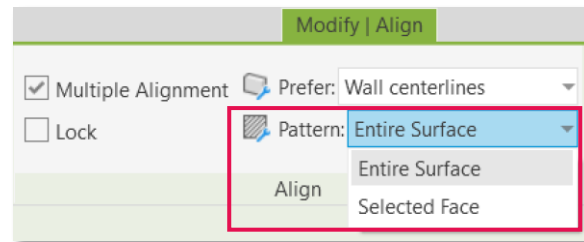
More easily track and call out changes to document sets

# Align patterns on shape-edited surfaces

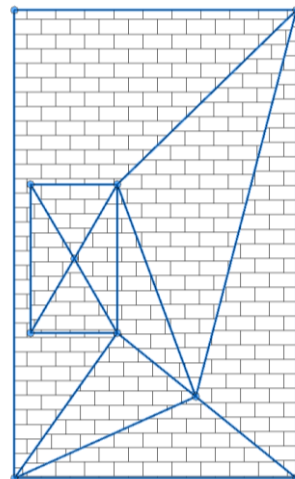
## Revit 2024

- Address the distortion of patterns in sloped surfaces for floors, roofs and toposolids
- Options available in the contextual ribbon of the Align tool
- Pattern align options
  - Selected Face
  - Entire Surface

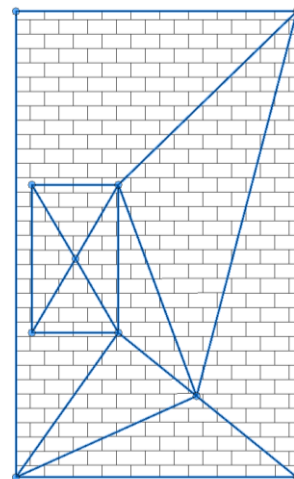
Improve pattern representation on sloped surfaces



**BEFORE**



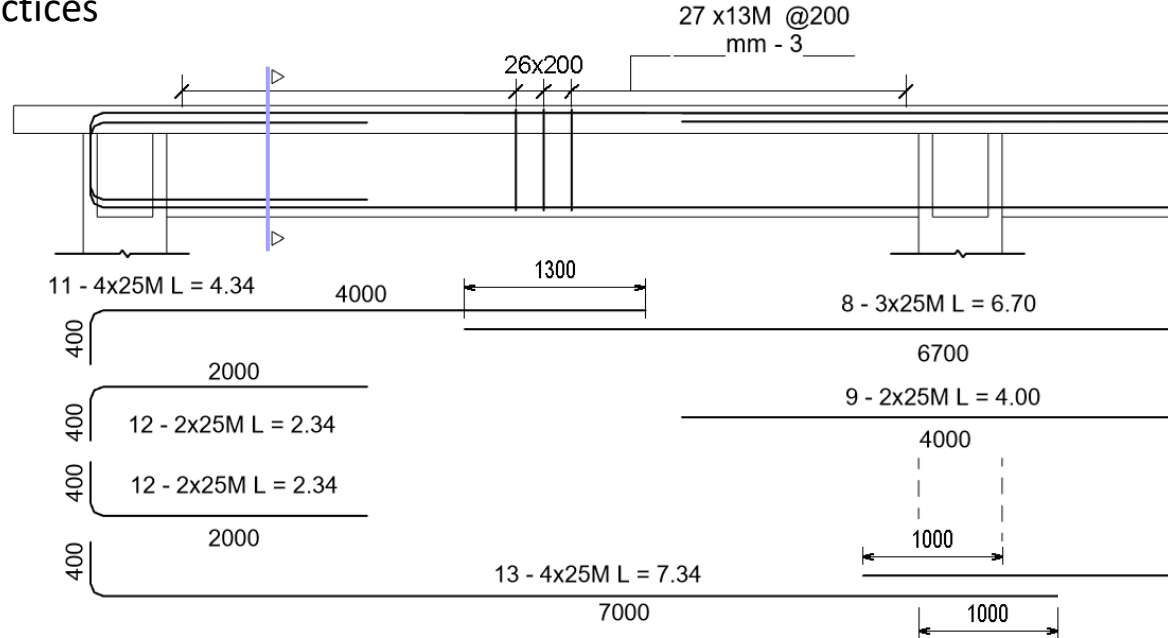
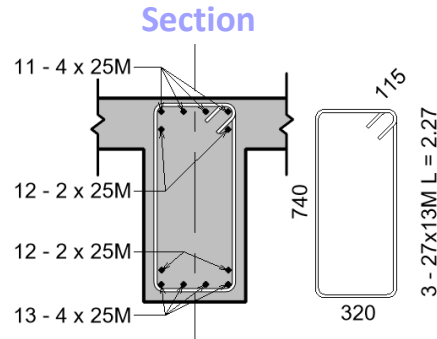
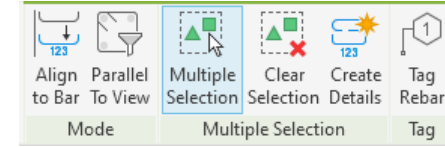
**NOW**



# Bar bending details on reinforcement drawings

Revit 2024

- Create accurate bar bending & installation instructions
- Respect typical documentation practices



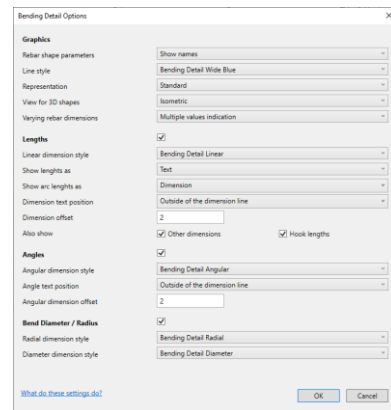
Streamline coordination between designers and fabricators



# Bar bending details in rebar schedules

Revit 2024

- Conventional representations for bar bending
- Automatic scaling to the schedule cell size



Mark	Type	Shape	Length	A	B	C	D	E	Bending Detail
40	H16	00	6000	6000	0	0	0	0	
41	H16	44	1500	200	500	285	500	150	
43	H16	52	2525	400	700	210	210	1180	
44	H16	67	4600	4595	4500	400	0	0	
45	H16	14	6150	2805	1205	3350	2550	0	
46	H16	27	4075	2785	1100	210	1490	2355	
47	H16	35	4175	1360	1900	735	1010	210	
48	H16	21	3725	800	2200	800	0	0	

Bending Detail

Streamline coordination between  
designers and fabricators

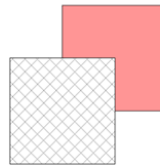
# 2D element draw order in 3D families

## Revit 2024

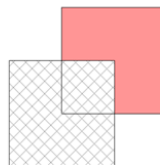
- Familiar 'Send to Back' and 'Bring to Front' buttons available in the family editor
- Consistent appearance of detail items in family editor, project, and print

PREVIOUS VERSIONS

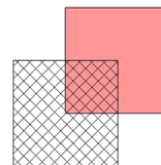
Family Editor



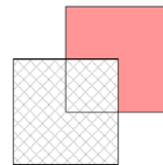
Project



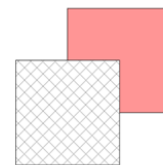
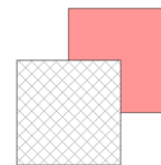
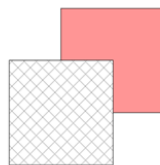
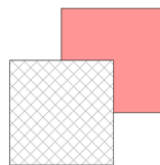
Vector Print



Raster Print



REVIT 2024



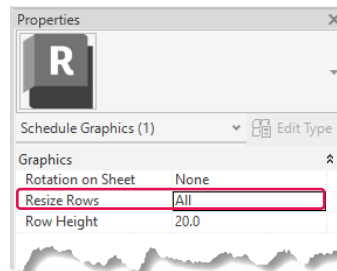
Consistent visual appearance across environments

# Resize all schedule rows

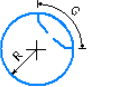
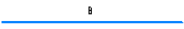
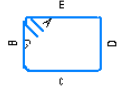

## Revit 2024

- Resize all rows regardless of content or just the image rows
- Create a clear representation by resizing rows with text, images or graphics
- Row height is adjusted if text is too tall or spans multiple rows

Schedule and document more efficiently



Rebar Schedule - All						
Rebar Number	Type	Shape	Bar Length	Quantity	Total Bar Length	Bending Detail

1	13M	M_T3	2220	45	99900	
2	22M	M_00	3740	121	452540	
3	13M	M_T1	1930	120	231600	
7	13M	M_T9	720	120	86400	
8	13M	M_T1	1670	91	151970	