



UNIVERSITÀ DI PARMA

DIPARTIMENTO DI INGEGNERIA E ARCHITETTURA
CORSO DI LAUREA IN ARCHITETTURA E CITTA' SOSTENIBILI

**BUILDING INFORMATION MODELING:
DIGITAL MODELING OF ARCHITECTURE
DIGITAL VISUALIZATION OF PROJECT**

A.A. 2022-2023, Prof. Sandra Mikolajewska
02/05/2023

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THE CONTENT OF THESE SLIDES IN NO WAY REPLACES THE RECOMMENDED REFERENCE BIBLIOGRAPHY.

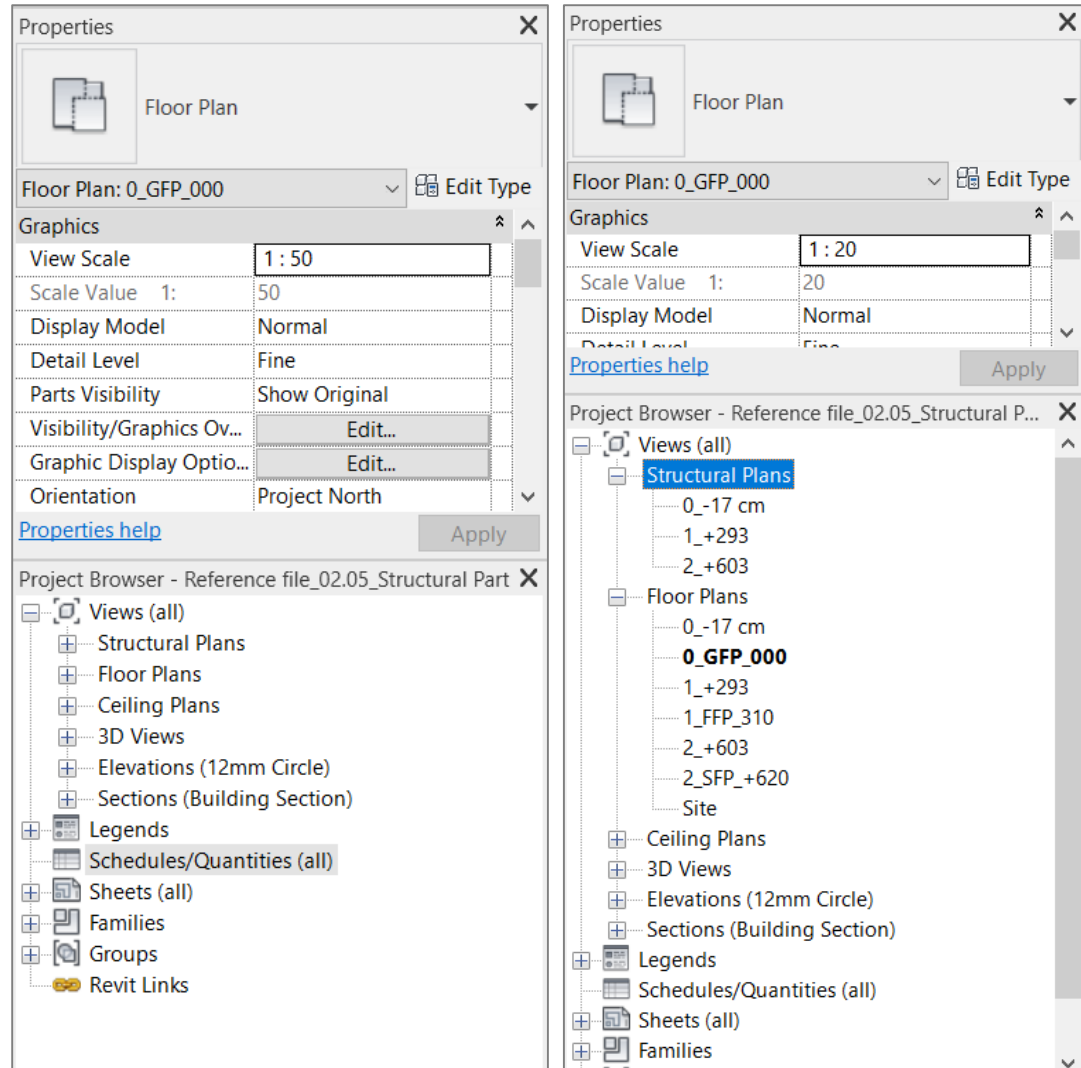




TOPICS OF TODAY: Revit. Part 4.

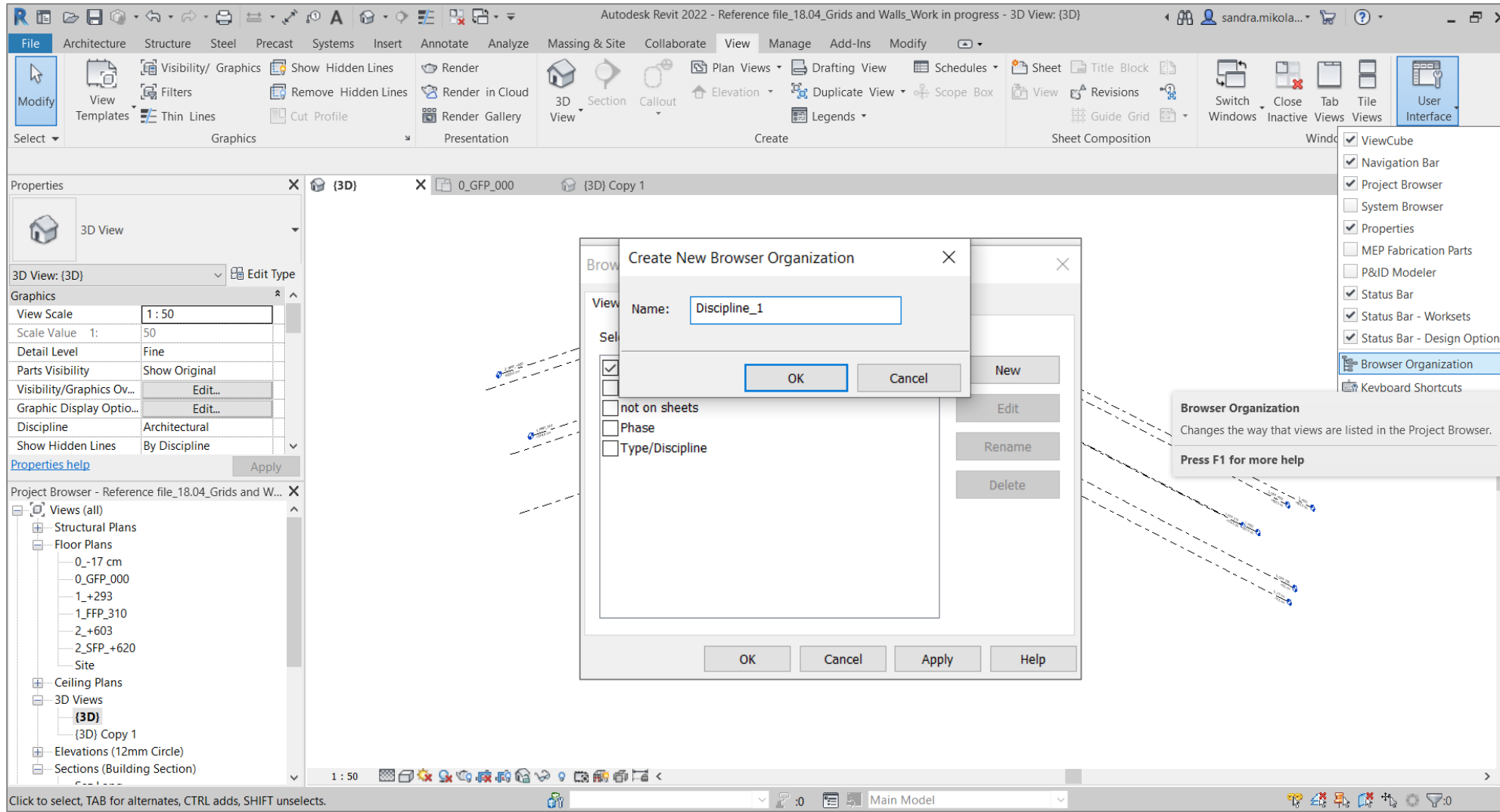
- HOW TO MANAGE VIEWS IN THE BROWSER ORGANIZATION (ARCHITECTURAL AND STRUCTURAL VIEWS);
- HOW TO CHANGE THE VISUALIZATION STYLE OF VIEWS; HOW TO CREATE A TEMPLATE VIEW;
- HOW TO MANAGE STRUCTURAL PART (COLUMNS, BEAMS, FOUNDATIONS);





DEFAULT VIEWS ORGANIZATION IN THE PROJECT BROWSER.

BROWSER ORGANIZATION



CREATE NEW
BROWSER ORGANIZATION.



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Browser Organization Properties

Filtering | Grouping and Sorting

Browser Organization: Discipline_1
Specify the grouping/sorting rules for this browser organization.

Group by: Discipline

Using: All characters Leading characters 1

Then by: Family and Type

Using: All characters Leading characters 1

Then by: <None>

Using: All characters Leading characters 1

Then by: <None>

Using: All characters Leading characters 1

Then by: <None>

Using: All characters Leading characters 1

Then by: <None>

Using: All characters Leading characters 1

Then by: <None>

Using: All characters Leading characters 1

Then by: <None>

Sort by: View Name

Ascending Descending

OK Cancel Help

Browser Organization

Views | Sheets | Schedules

Select the organization scheme to apply to the Project Browser.

- all
- Discipline
- Discipline_1
- not on sheets
- Phase
- Type/Discipline

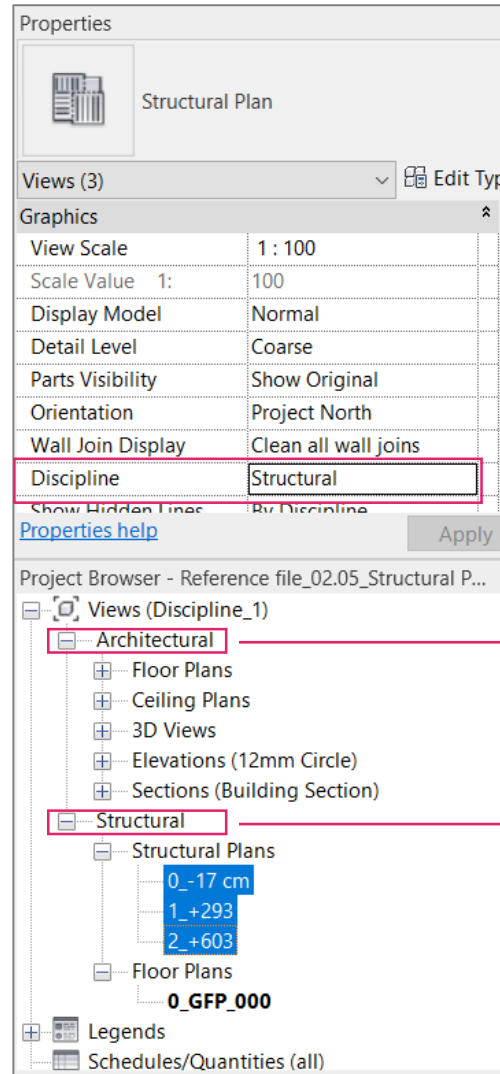
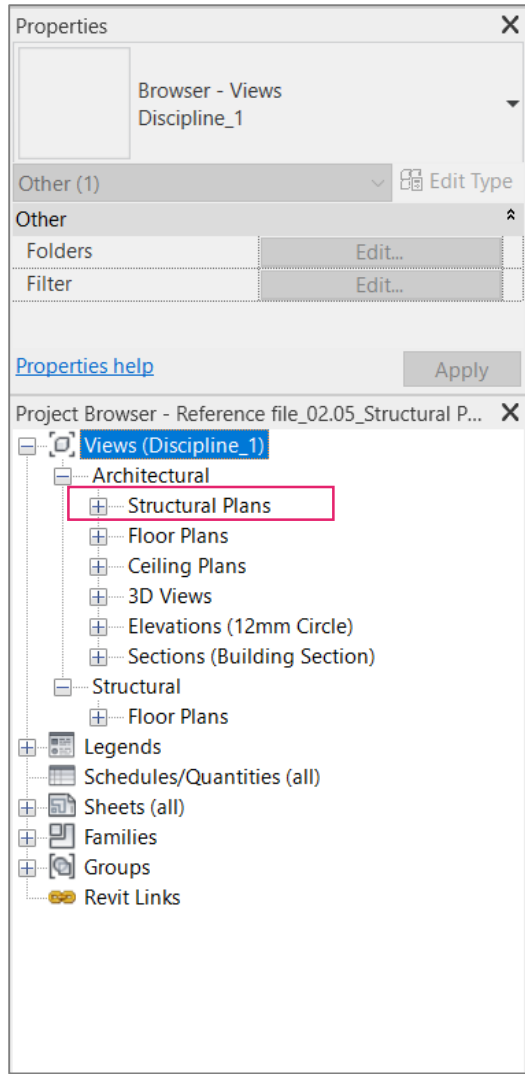
New

Edit

Rename

Delete

OK Cancel Apply Help



CUSTOMIZED VIEWS ORGANIZATION IN THE PROJECT BROWSER.

NEW TEMPLATE VIEW

Visibility/Graphic Overrides for 3D View: (3D) Copy 1

Model Categories Annotation Categories Analytical Model Categories Imported Categories Filters

Show model categories in this view If a category is unchecked, it will not be visible.

Filter list: Architecture

Visibility	Projection/Surface			Cut		Haltone	Detail Level
	Lines	Patterns	Transparency	Lines	Patterns		
<input type="checkbox"/> Areas						<input type="checkbox"/>	By View
<input type="checkbox"/> Audio Visual Devices						<input type="checkbox"/>	By View
<input type="checkbox"/> Casework						<input type="checkbox"/>	By View
<input type="checkbox"/> Ceilings						<input type="checkbox"/>	By View
<input checked="" type="checkbox"/> Columns						<input type="checkbox"/>	By View
<input type="checkbox"/> Curtain Panels						<input type="checkbox"/>	By View
<input type="checkbox"/> Curtain Systems						<input type="checkbox"/>	By View
<input type="checkbox"/> Curtain Wall Mullions						<input type="checkbox"/>	By View
<input type="checkbox"/> Detail Items						<input type="checkbox"/>	By View
<input type="checkbox"/> Doors						<input type="checkbox"/>	By View
<input type="checkbox"/> Electrical Equipment						<input type="checkbox"/>	By View
<input type="checkbox"/> Electrical Fixtures						<input type="checkbox"/>	By View
<input type="checkbox"/> Entourage						<input type="checkbox"/>	By View
<input type="checkbox"/> Fire Protection						<input type="checkbox"/>	By View
<input checked="" type="checkbox"/> Floors						<input type="checkbox"/>	By View
<input type="checkbox"/> Food Service Equipment						<input type="checkbox"/>	By View
<input type="checkbox"/> Furniture						<input type="checkbox"/>	By View
<input type="checkbox"/> Furniture Systems						<input type="checkbox"/>	By View
<input type="checkbox"/> Generic Models						<input type="checkbox"/>	By View
<input type="checkbox"/> Hardscape						<input type="checkbox"/>	By View
<input type="checkbox"/> Lighting Fixtures						<input type="checkbox"/>	By View
<input checked="" type="checkbox"/> Lines						<input type="checkbox"/>	By View

All None Invert Expand All

Categories that are not overridden are drawn according to Object Style settings. Object Styles...

Override Host Layers Cut Line Styles Edit...

OK Cancel Apply Help

Architecture Structure Steel Precast System

View Templates

Visibility/ Graphics Show H

Filters Remove

Thin Lines Cut Prof

Apply Template Properties to Current View

Create Template from Current View

Manage View Templates

New View Template

Name: Template_Structural plan

OK Cancel



VIEW RANGE

The screenshot shows the software's interface with the 'View Range' property highlighted in the Properties panel. The 'View Range' property is set to 'Edit...'. The Project Browser on the left shows the '0_GFP_000' floor plan selected under 'Architectural' > 'Floor Plans'.

The 'View Range' dialog box for the Architectural discipline shows a sample view range and a primary range configuration. The primary range is defined by the top, cut plane, and bottom levels, all set to 'Associated Level (0_GFP_0)'. The view depth is also set to 'Associated Level (0_GFP_0)'. The offsets are 230.00 for the top, 150.00 for the cut plane, and 0.00 for the bottom. The view depth offset is 0.00.

Property	Value	Offset
Top	Associated Level (0_GFP_0)	230.00
Cut plane	Associated Level (0_GFP_0)	150.00
Bottom	Associated Level (0_GFP_0)	0.00
View Depth Level	Associated Level (0_GFP_0)	0.00

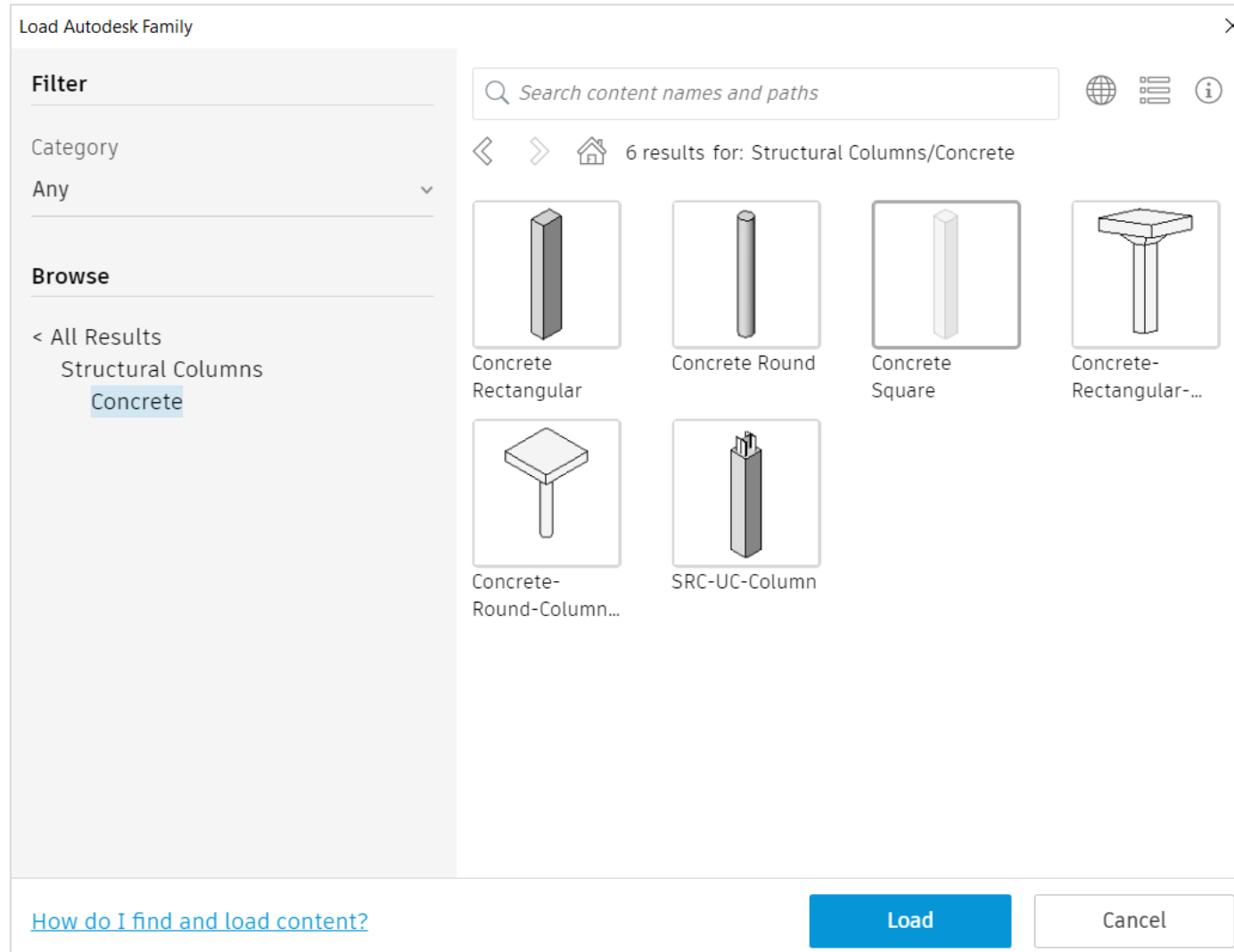
VIEW RANGE
(Discipline: ARCHITECTURAL)

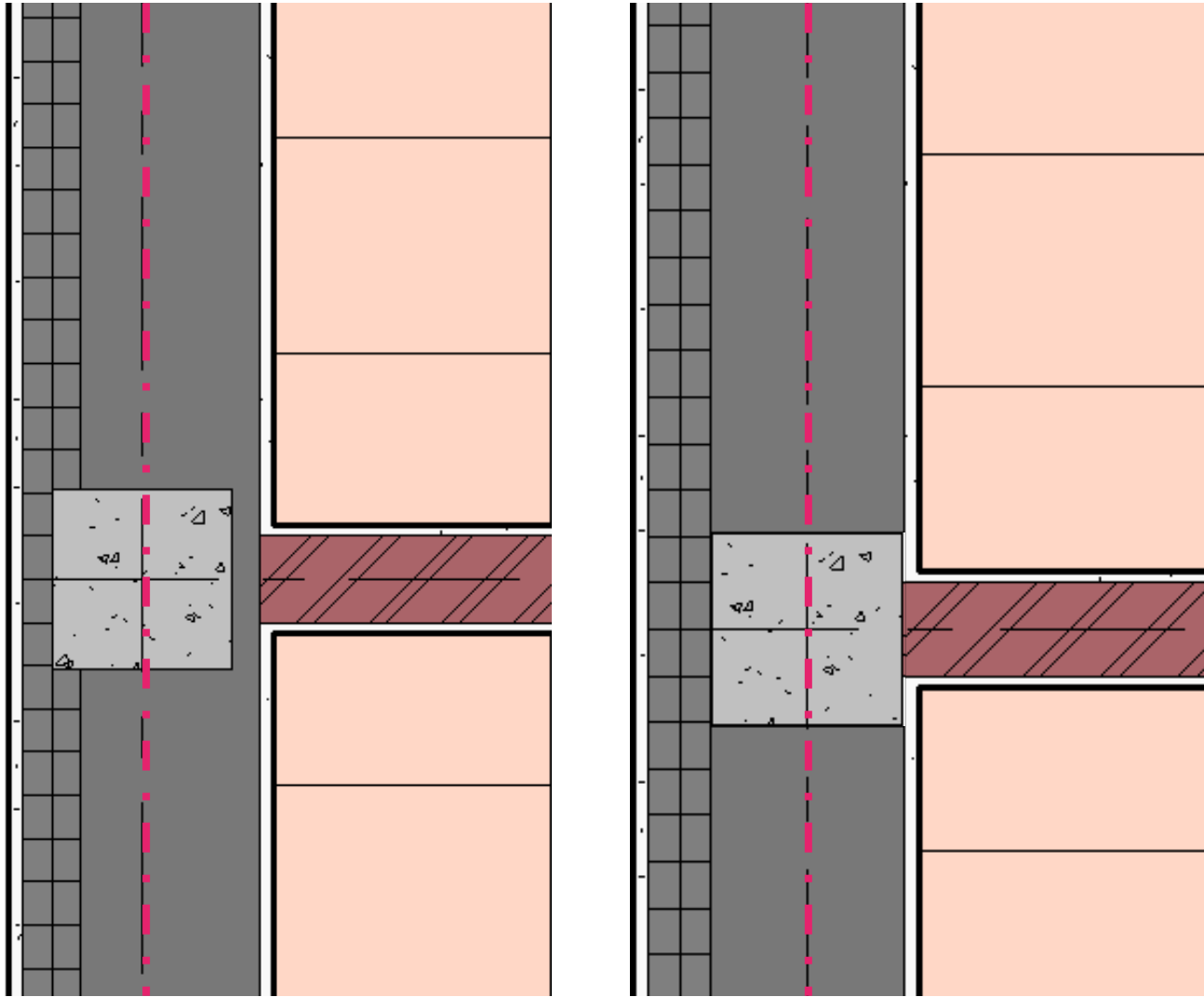
The 'View Range' dialog box for the Structural discipline shows a sample view range and a primary range configuration. The primary range is defined by the top, cut plane, and bottom levels, all set to 'Associated Level (0_-17 cn)'. The view depth is also set to 'Associated Level (0_-17 cn)'. The offsets are 60.00 for the top, 30.00 for the cut plane, and -120.00 for the bottom. The view depth offset is -180.00.

Property	Value	Offset
Top	Associated Level (0_-17 cn)	60.00
Cut plane	Associated Level (0_-17 cn)	30.00
Bottom	Associated Level (0_-17 cn)	-120.00
View Depth Level	Associated Level (0_-17 cn)	-180.00

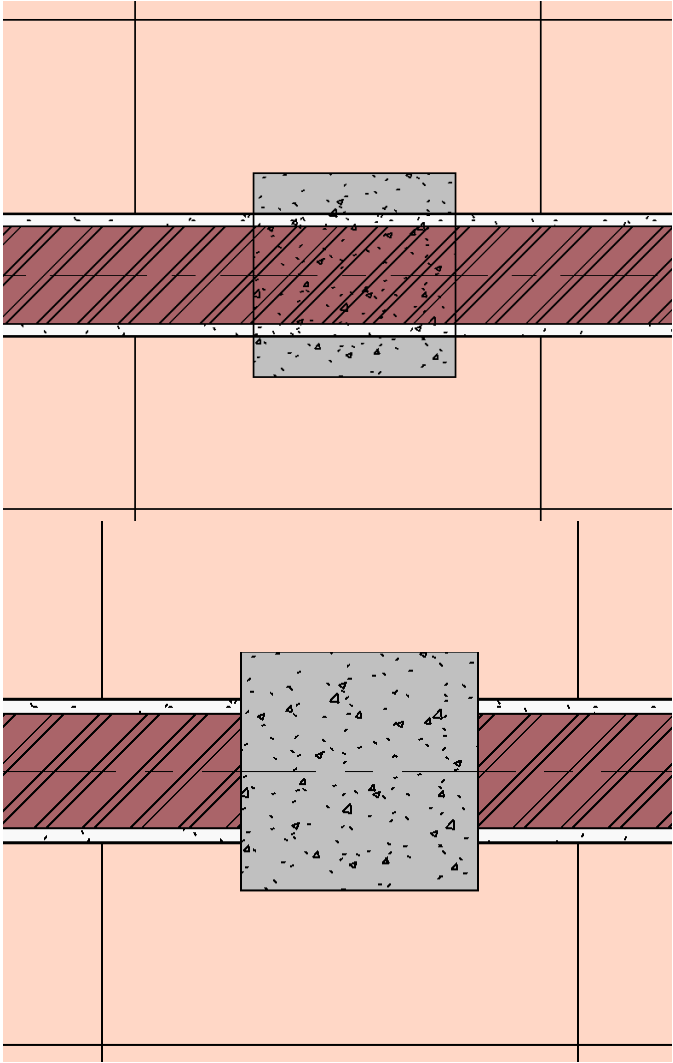
VIEW RANGE
(Discipline: STRUCTURAL)

STRUCTURAL COLUMNS [example 250 x 250 mm]



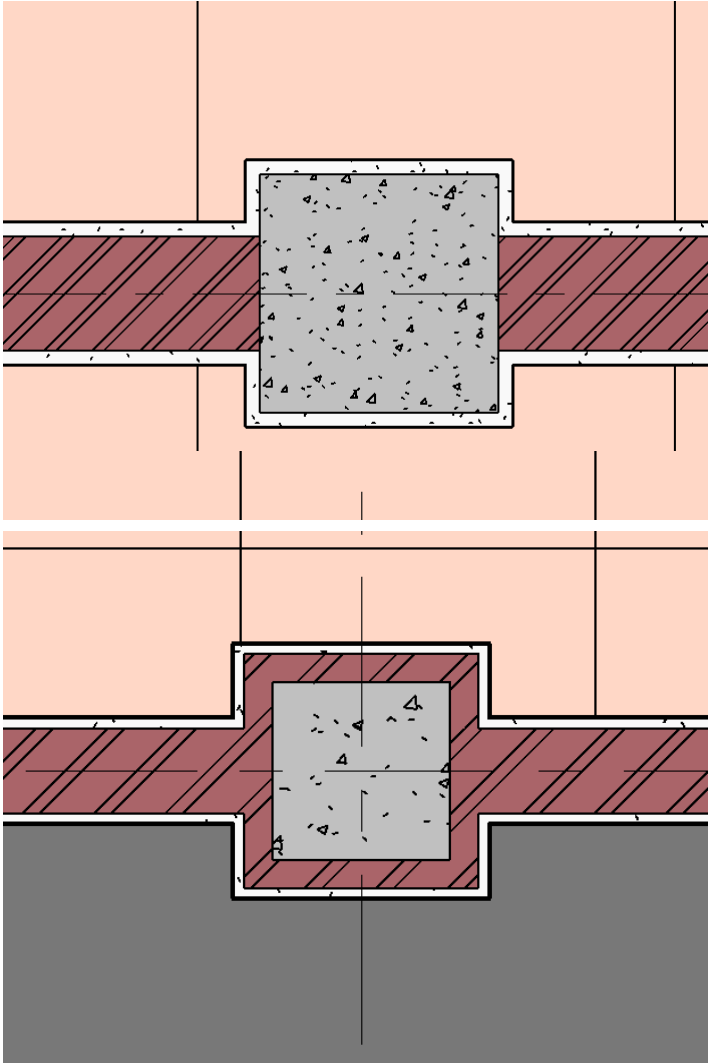
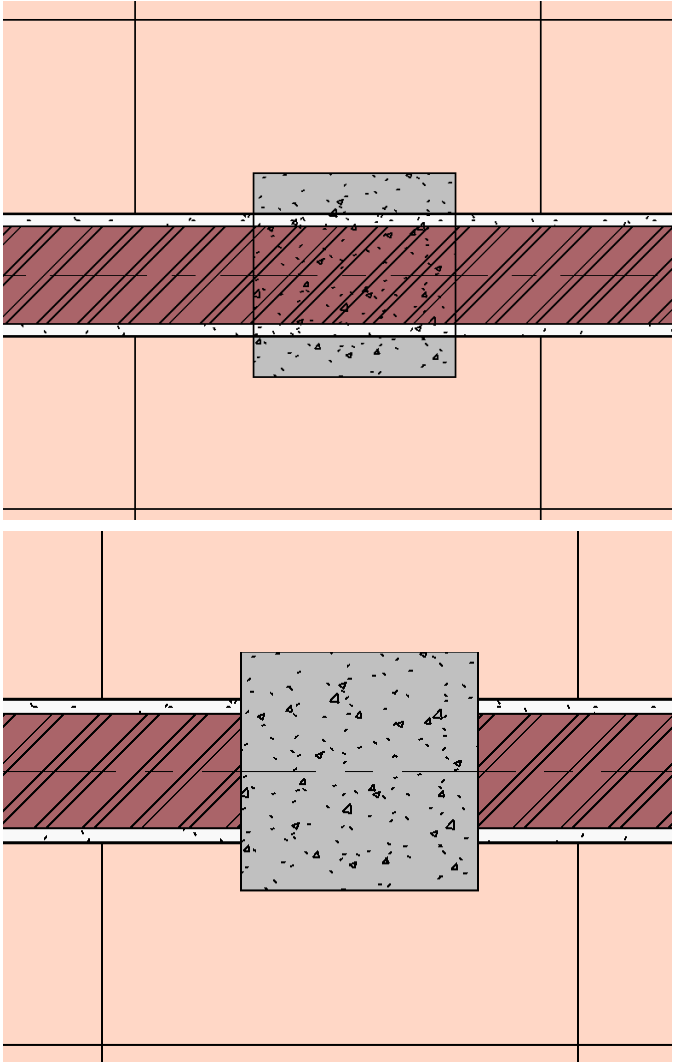


PLAN VIEWS:
EXAMPLE OF A COLUMN PLACED AT THE **CENTER OF THE WALL**
(LEFT) AND AT THE **CENTER OF THE WALL CORE** (RIGHT).



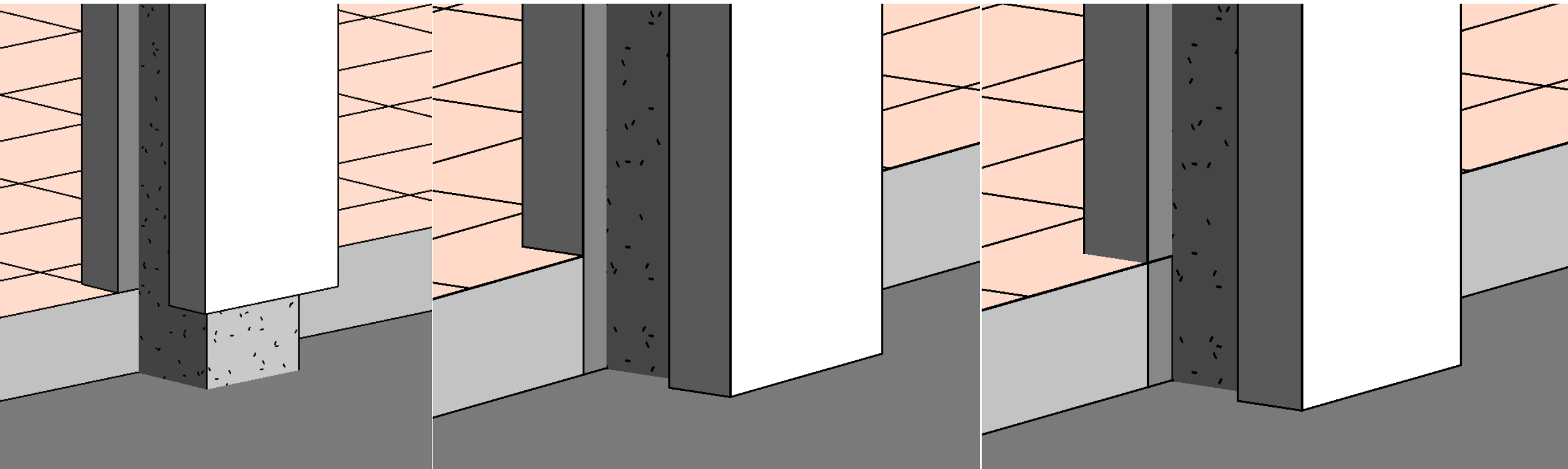
PLAN VIEWS:
EXAMPLE OF A COLUMN
PLACED AT THE CENTER OF THE
INTERNAL WALL.
USE THE **JOIN** COMMAND.

STRUCTURAL AND ARCHITECTURAL COLUMNS



PLAN VIEWS:
EXAMPLE OF AN **ARCHITECTURAL COLUMN** PLACED
IN ORDER TO COVER ITS STRUCUTRAL PART.

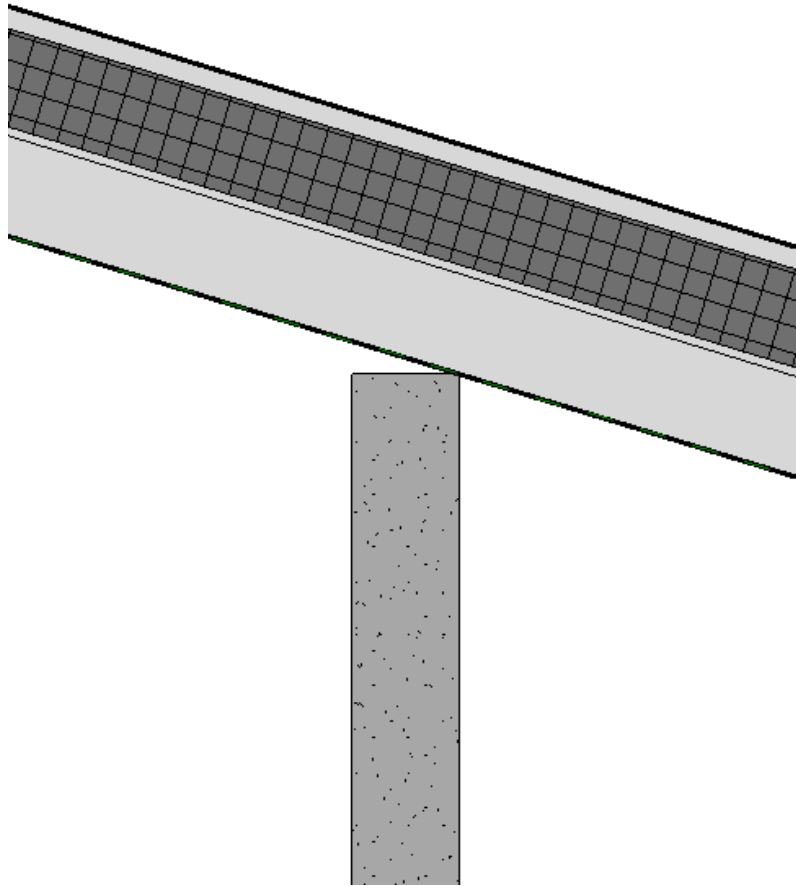




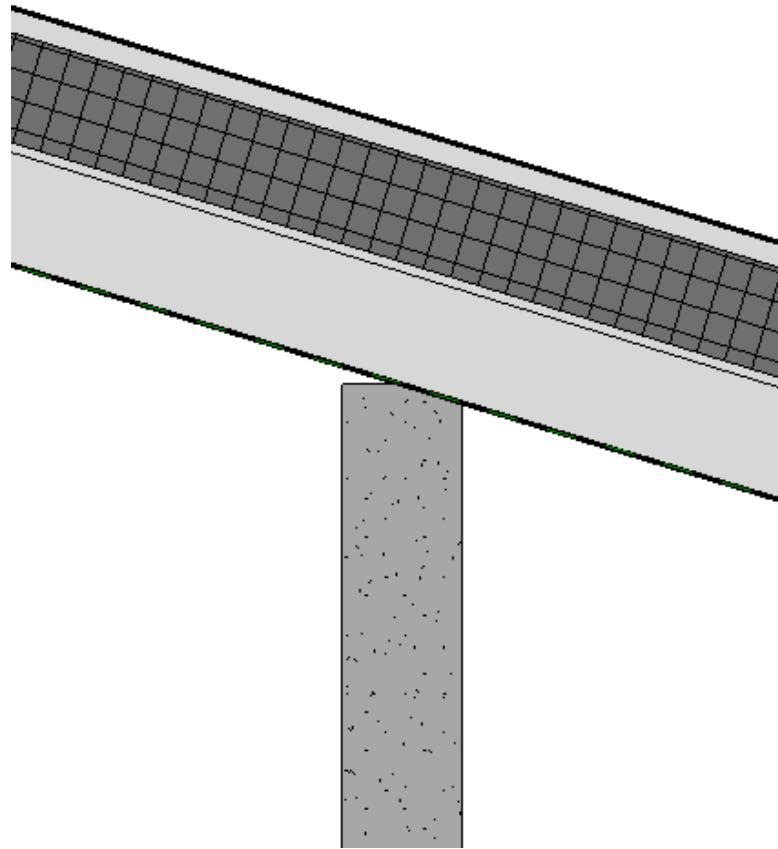
3D VIEWS OF THE INTERSECTION POINT BETWEEN ARCHITECTURAL COLUMN AND FINISHING-STRUCTURAL FLOORS.

SECTION VIEWS [attachment justification at top of the wall]:

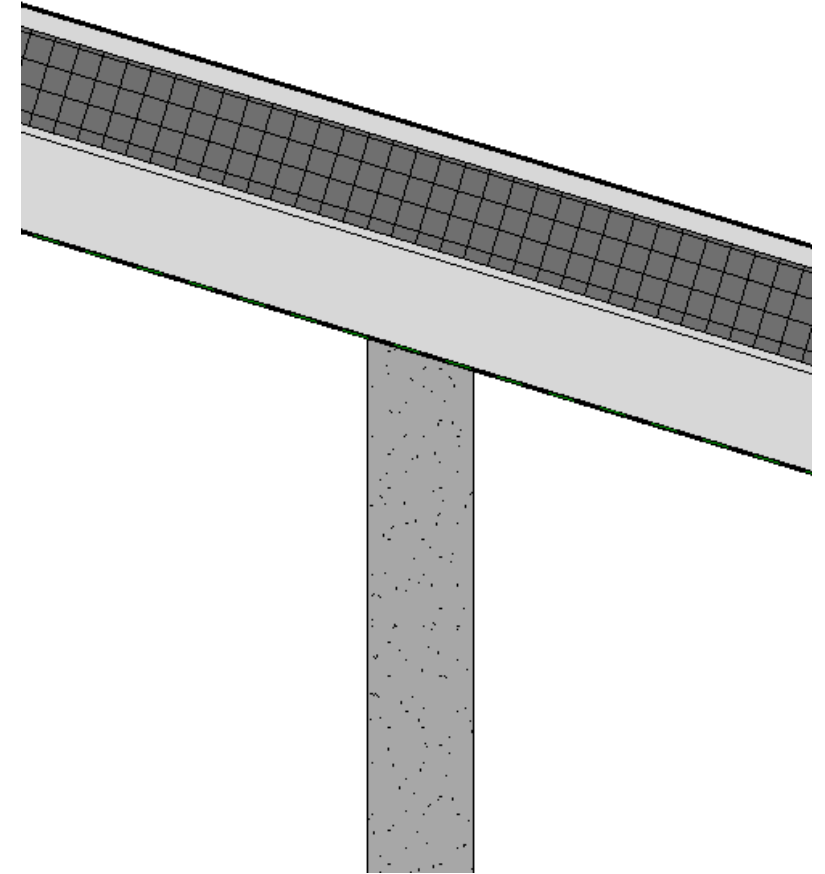
MINIMUM INTERSECTION



INTERSECT COLUMN MIDLINE



MAXIMUM INTERSECTION



STRUCTURAL BEAMS [example 250 x 250 mm]

Load Autodesk Family

Filter

Category

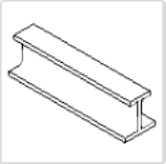
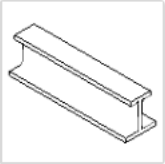
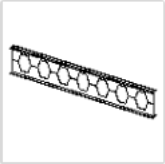
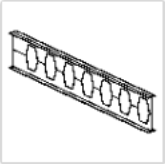

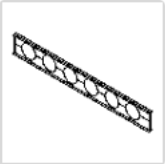
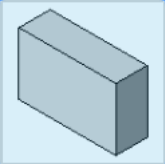
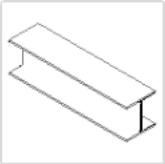
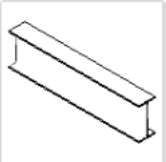
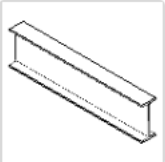
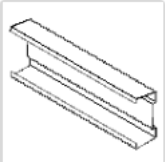
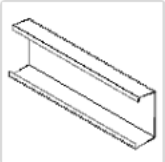
Any

Browse

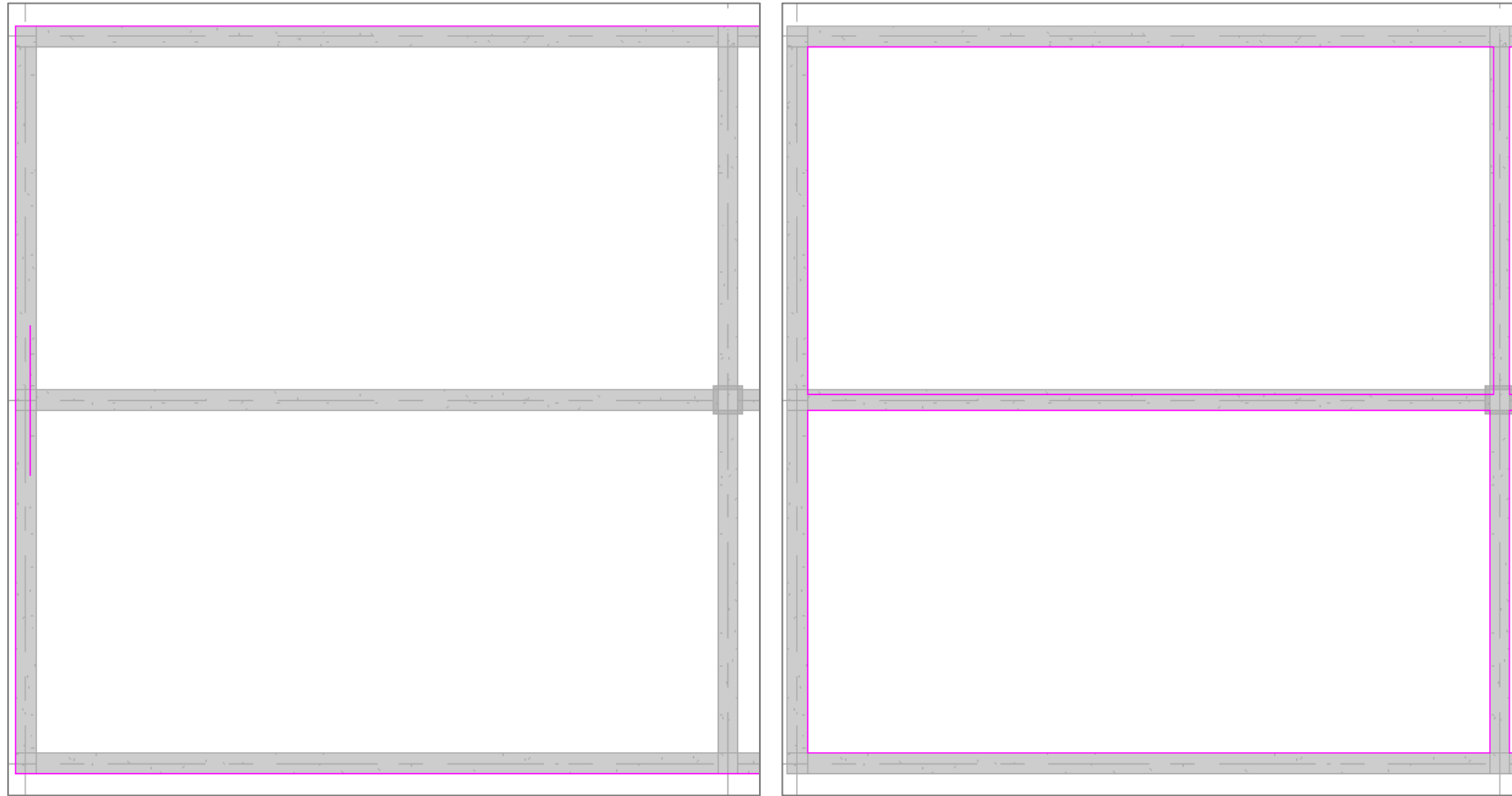
- < All Results
- Structural Framing
 - Concrete
 - Light Gauge Steel
 - Precast Concrete
 - Steel
 - British Standard
 - Corus Advance
 - Europe Specific

Search: beam

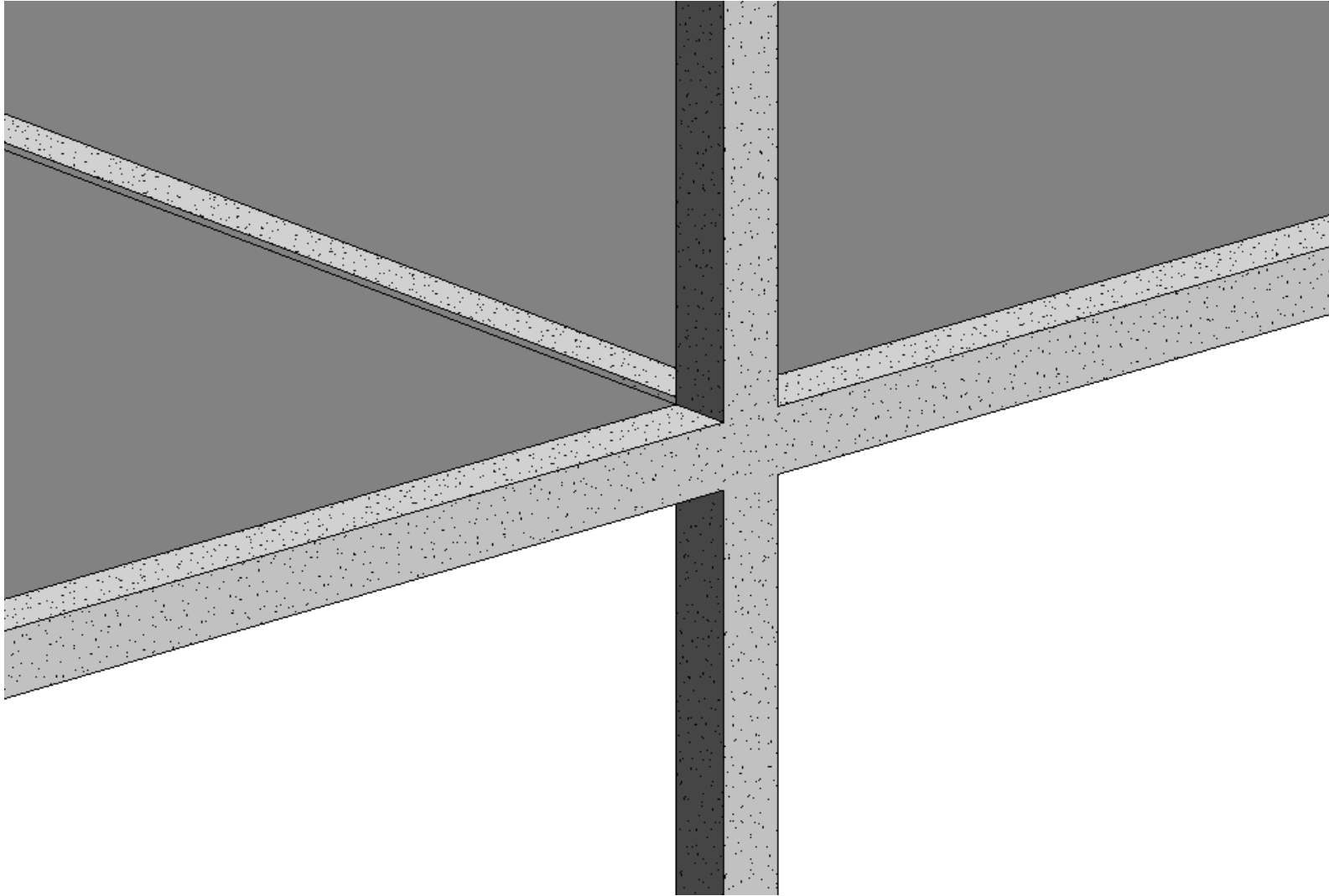
48 results for: beam > Structural Framing

 ASB-Beams	 ASB-Beams	 Castellated Beam	 Castellated Beam with un-...
 Cellular Beam	 Cellular Beam with un-...	 Concrete - Rectangular...	 H-Wide Flange Beams
 IPE-Beams	 IPN-Beams	 Light Gauge-Albion Eaves...	 Light Gauge-Hi-Span Eaves...

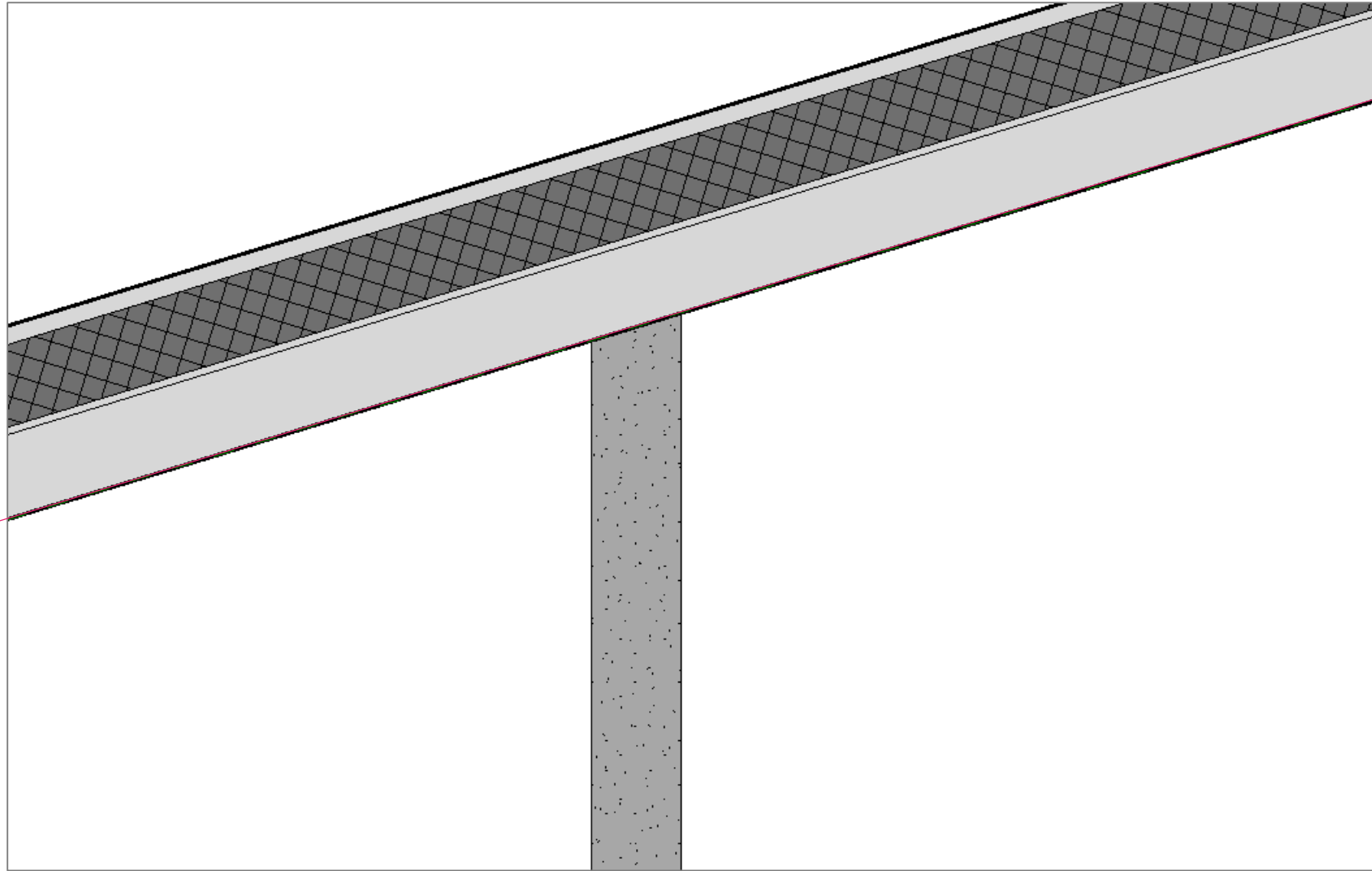
[How do I find and load content?](#) **Load** Cancel



PLAN VIEWS:
EDIT BOUNDARY OF THE
STRUCTURAL FLOOR.



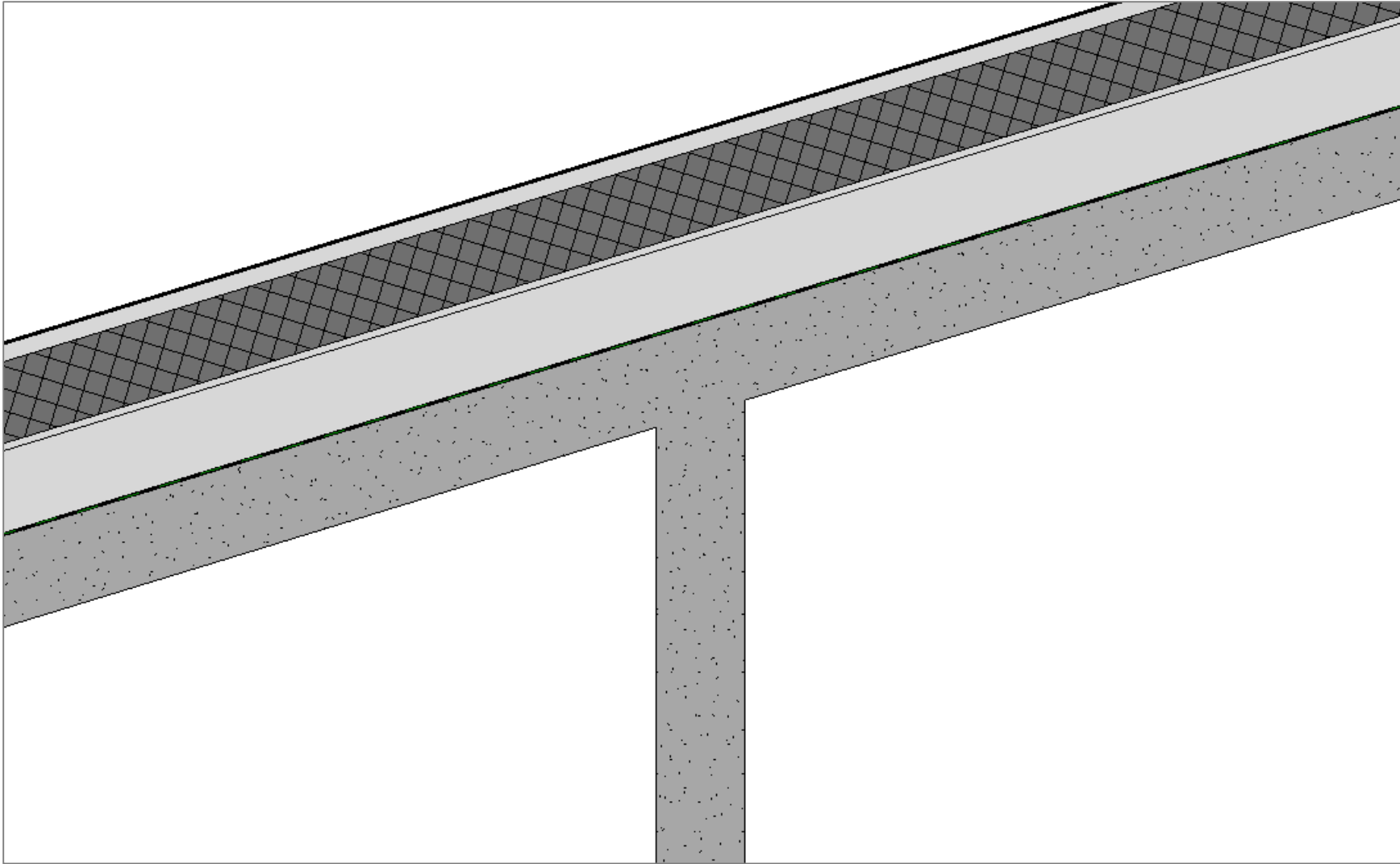
3D STRUCTURAL VIEW.



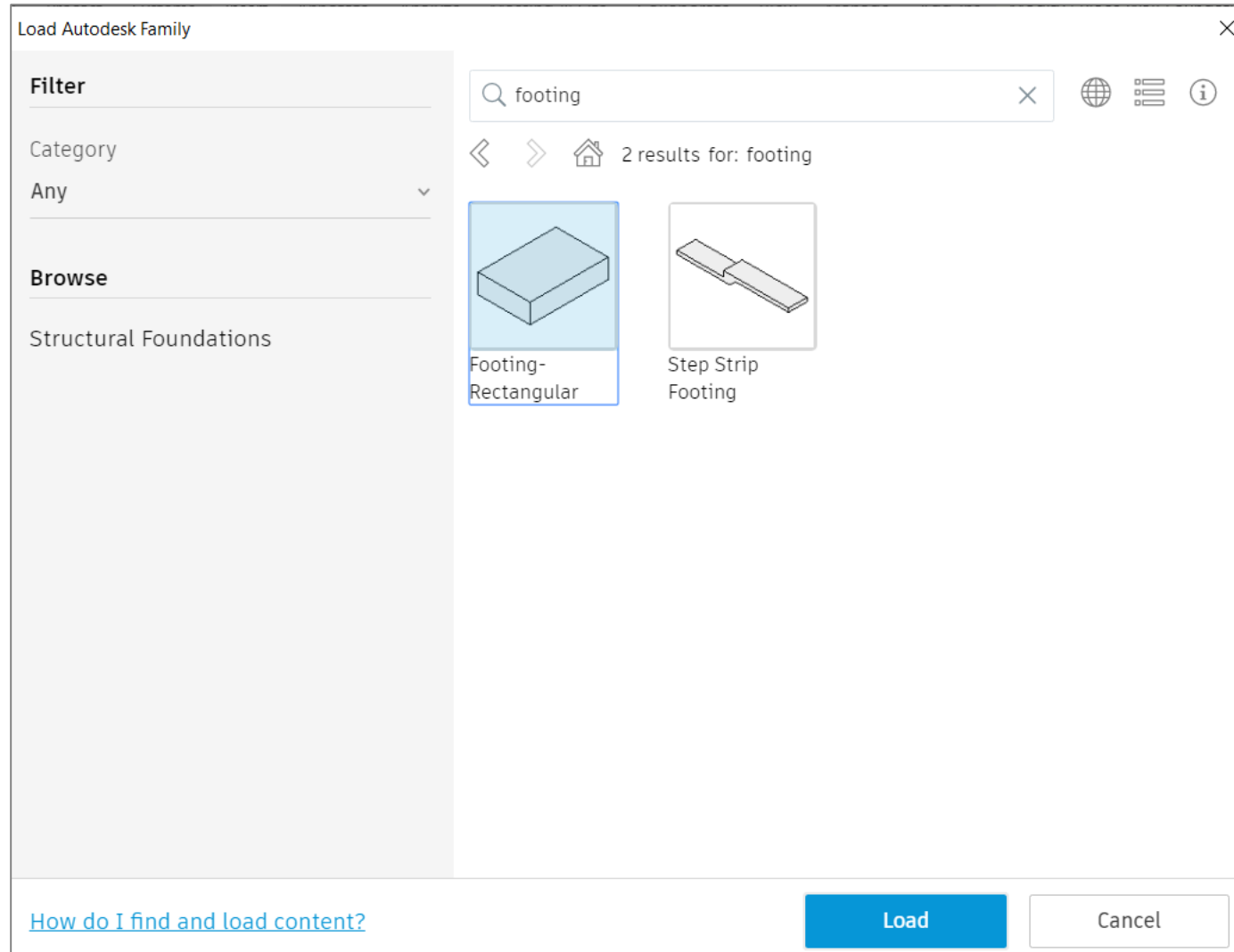
REFERENCE PLANE

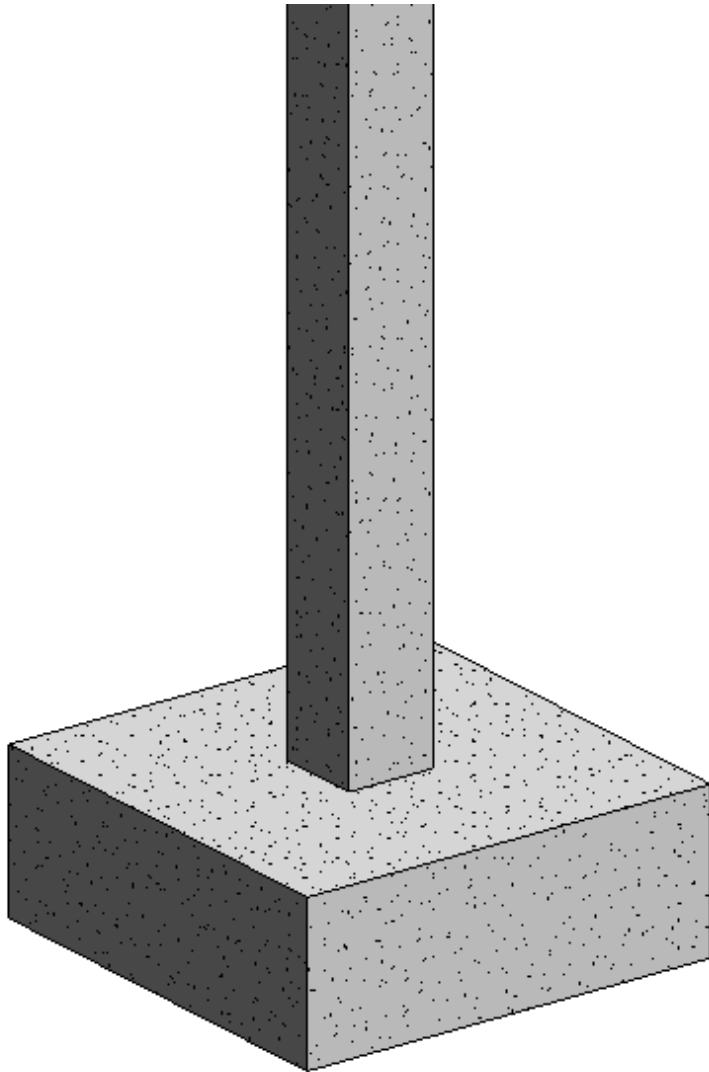
SECTION VIEW.





SECTION VIEW.





3D STRUCTURAL VIEW.