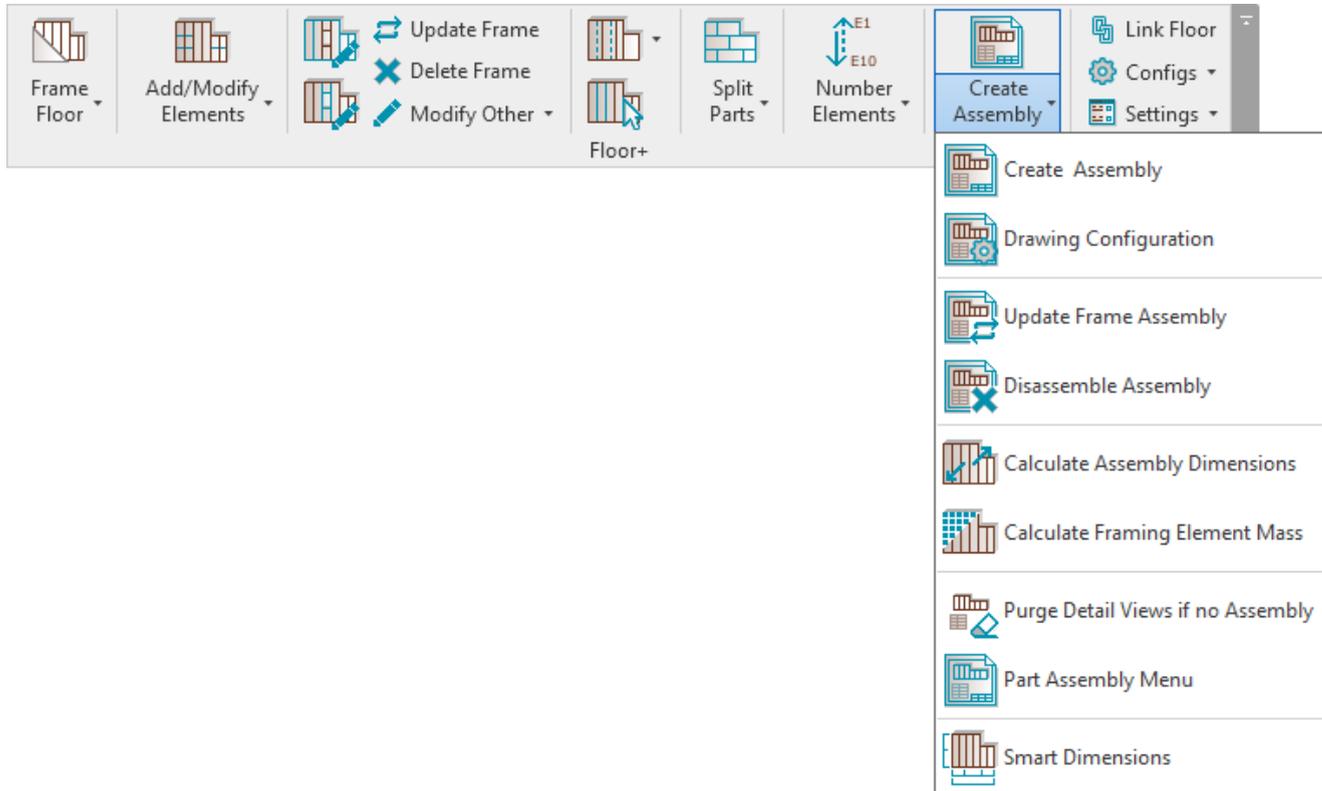


## SHOP DRAWINGS – Main Features

Modified on: Mon, 19 Aug, 2019 at 8:32 PM

Finish your modeling with the built-in shop drawing generator and deliver your floor framing estimation in the same hour. Compile your complete shop drawings with dimensioning, part lists, and material take-off automatically.



**Floor+** will collect all elements from one floor panel and make an assembly with predefined views, add dimensions, add tags, make sheets, and put the views into the sheets.

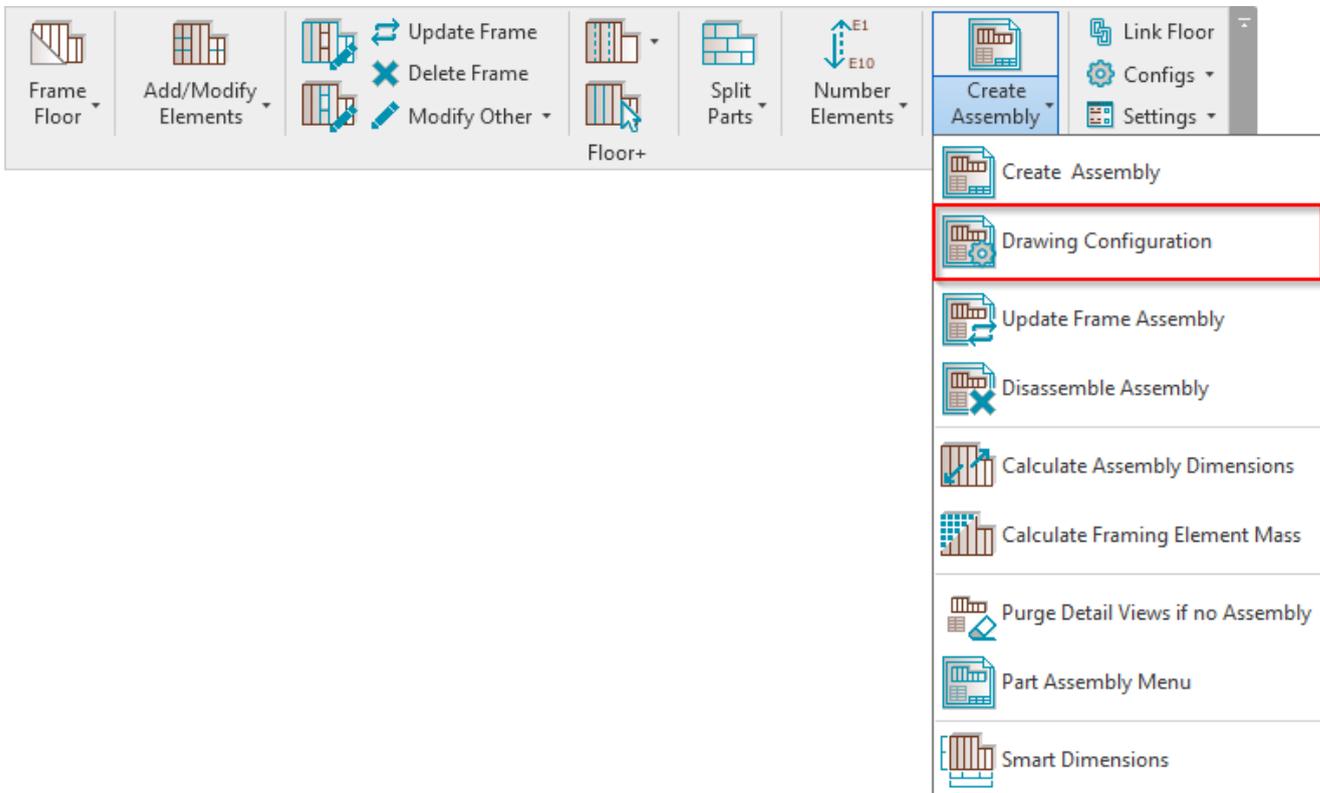
The basic shop drawing workflow consists of the following steps:

1. Floor+ → define **Drawing Configuration**
2. Floor+ → make shop drawings for one floor using **Create Assembly**
3. Floor+ → number the framing members
4. Add shop drawing views into the sheet for one floor and save it as a template for future floors

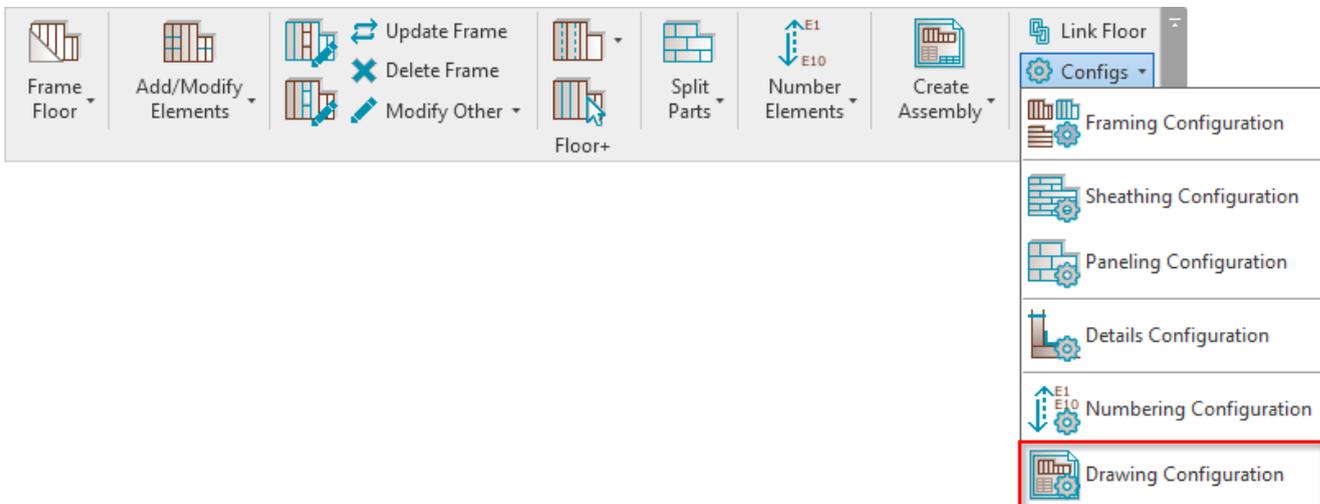
5. Floor+ → make shop drawings for other floor segments

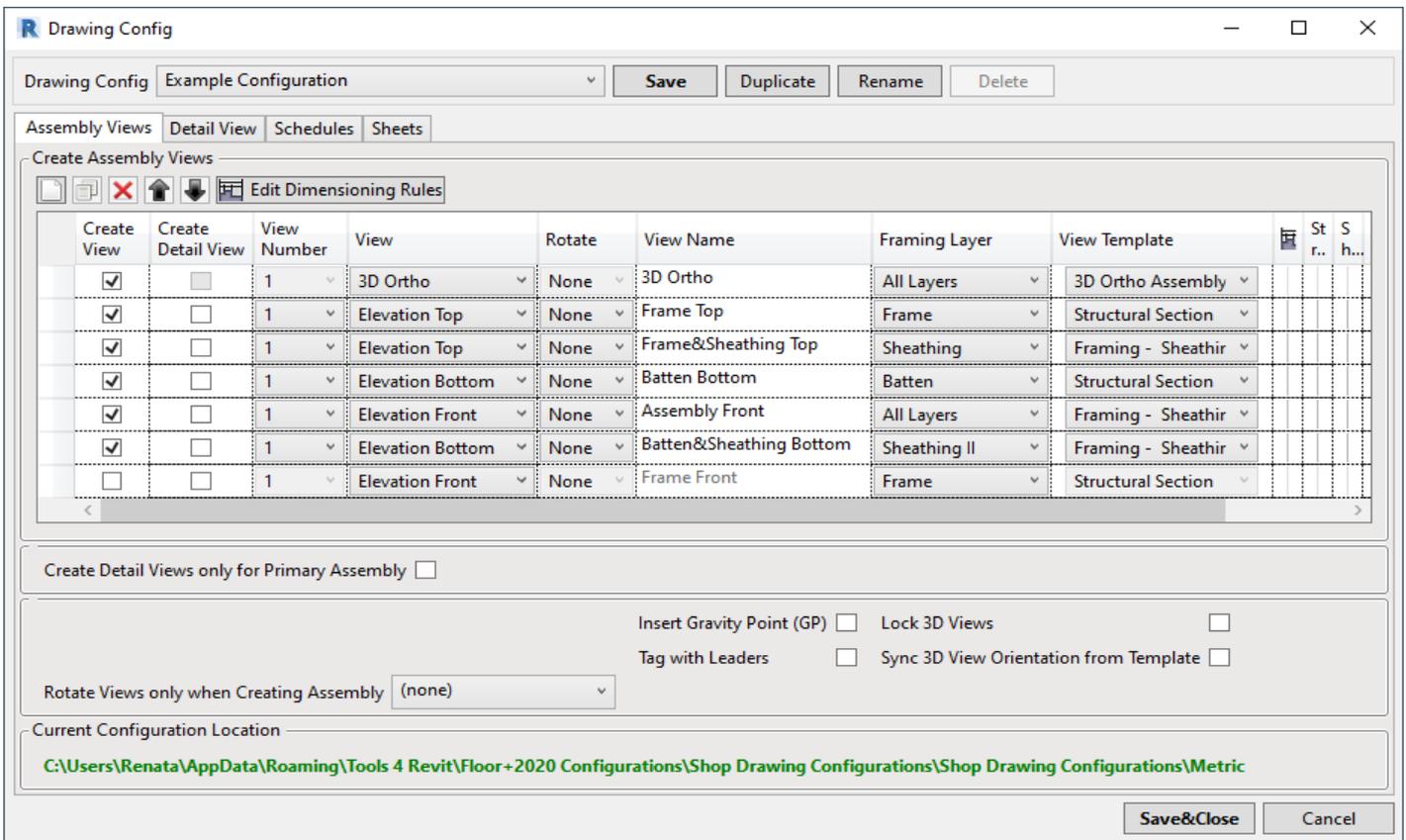
6. Floor+ → update shop drawings if any changes have been made to the model

## Drawing Configuration



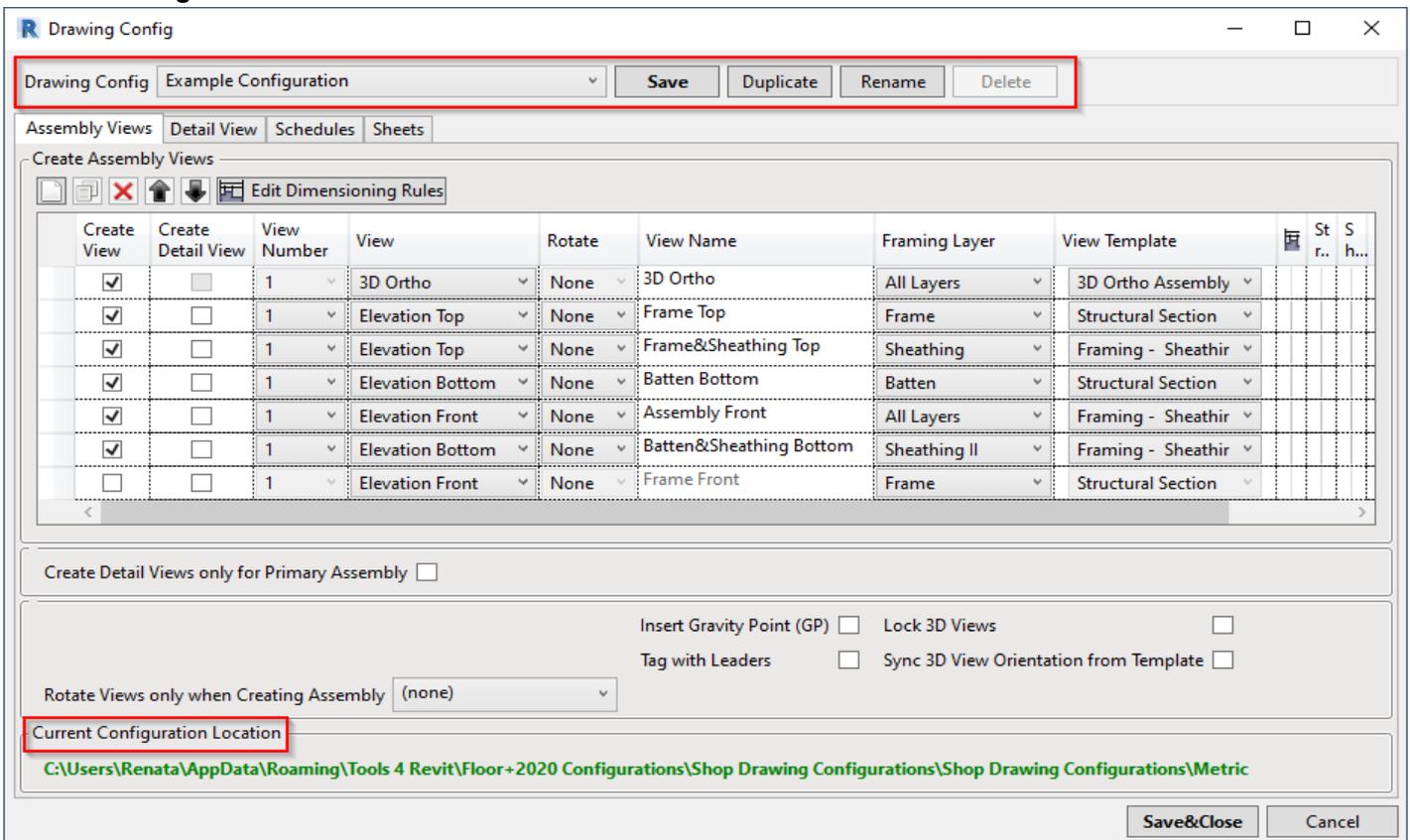
OR:





**Drawing Configuration** – predefine the settings for creating shop drawings. It is very versatile with thousands of different possibilities.

Configurations can be saved, duplicated, renamed, and deleted. You can check the location of configurations under **Current Configuration Location**:



The 4 tabs (**Assembly Views**, **Detail View**, **Schedules** and **Sheets**) are for setting up assembly views, detail views, schedules, and sheets, respectively:

## Drawing Config

Drawing Config Example Configuration

Save Duplicate Rename Delete

Assembly Views Detail View Schedules Sheets

Create Assembly Views

Edit Dimensioning Rules

Create View	Create Detail View	View Number	View	Rotate	View Name	Framing Layer
<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	3D Ortho	None	3D Ortho	All Layers
<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Elevation Top	None	Frame Top	Frame
<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	Elevation Top	None	Frame&Sheathing Top	Sheathing

**Read more about Assembly Views >>** (<https://agacad.freshdesk.com/support/solutions/articles/44001780325-shop-drawings-drawing-configuration-assembly-views>).

**Read more about Schedules >>** (<https://agacad.freshdesk.com/support/solutions/articles/44001780331-shop-drawings-drawing-configuration-schedules>).

**Read more about Sheets>>** (<https://agacad.freshdesk.com/support/solutions/articles/44001780332-shop-drawings-drawing-configuration-sheets>).

## Create Assembly

Frame Floor Add/Modify Elements Update Frame Delete Frame Modify Other Floor+ Split Parts Number Elements

Link Floor Configs Settings

Create Assembly

Create Assembly

Drawing Configuration

Update Frame Assembly

Disassemble Assembly

Calculate Assembly Dimensions

Calculate Framing Element Mass

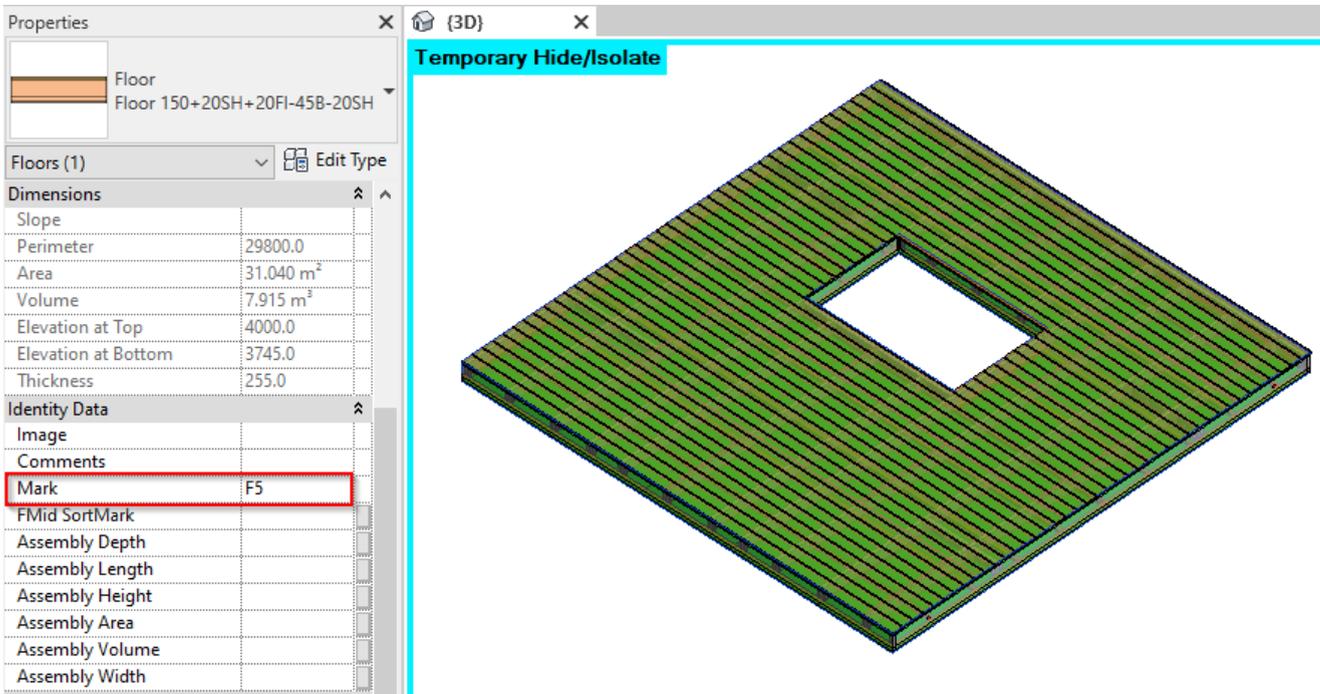
Purge Detail Views if no Assembly

Part Assembly Menu

Smart Dimensions

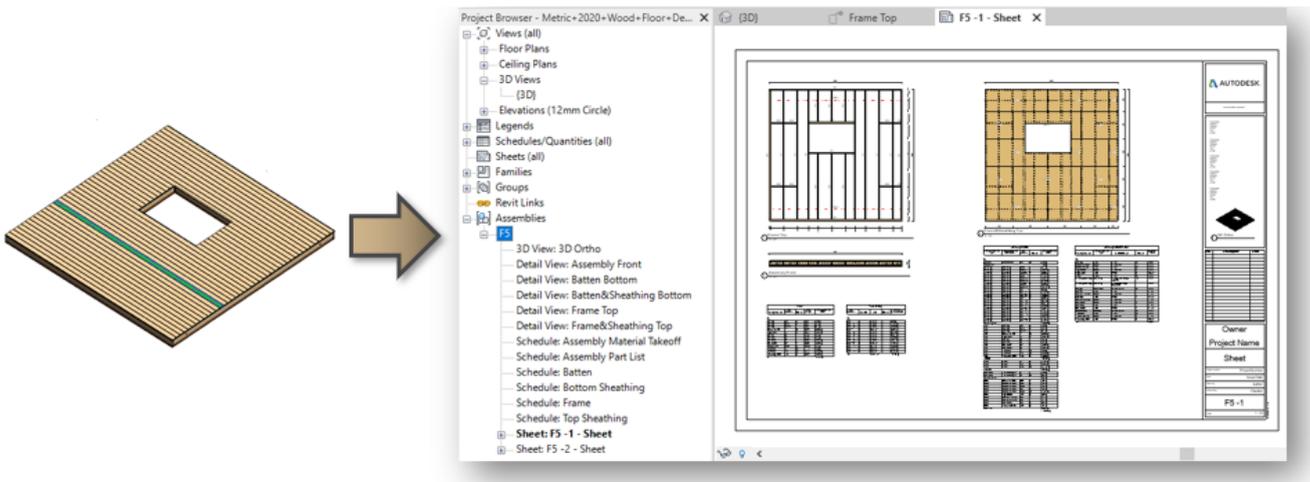
**Create Assembly** – makes shop drawings for selected floors. Select any frame from the floor, and after clicking **Create Assembly**, the software will create shop drawings according to the predefined configuration.

*Mandatory condition: selected floor needs to have a **Mark** value assigned:*

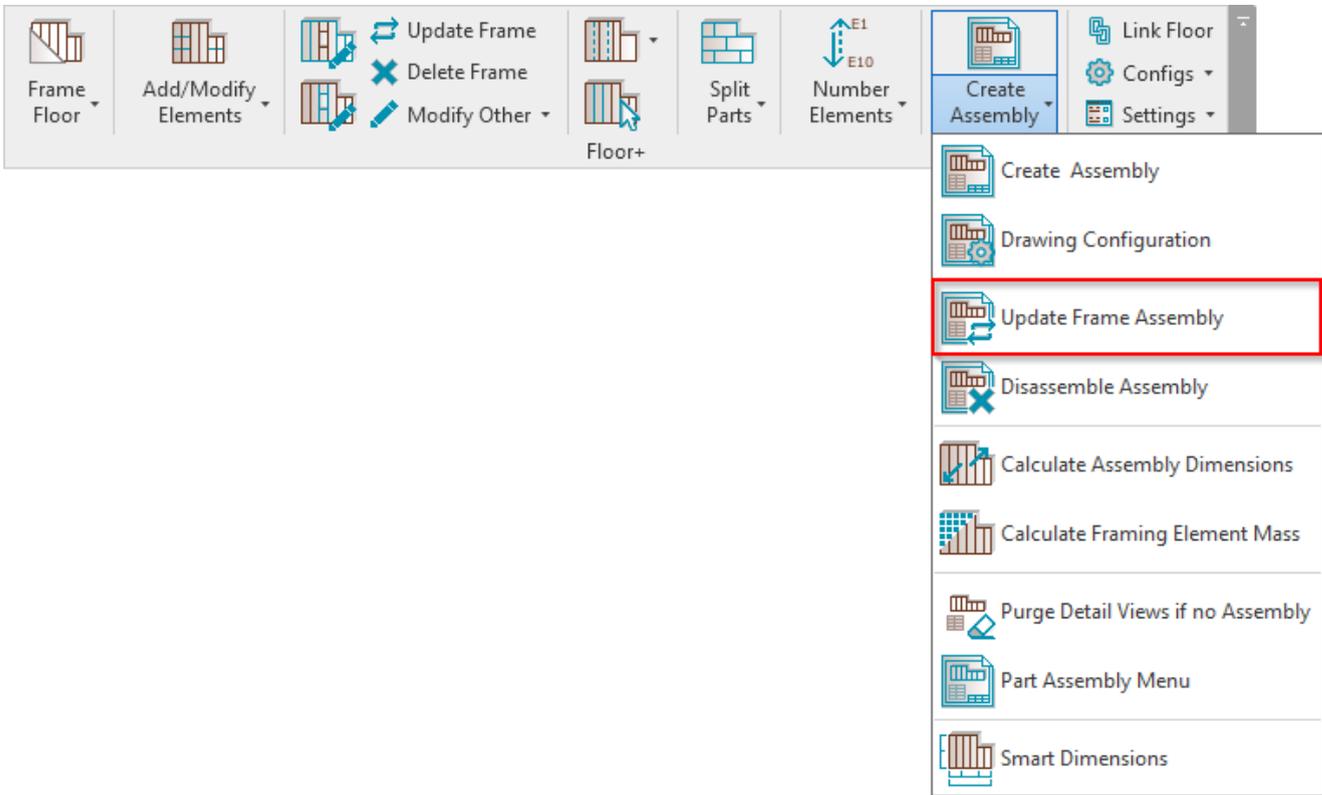


This value will be used as the assembly name. You can find shop drawings in **Project Browser** under **Assemblies**.

An assembly combines all parts into a single entity, which is scheduled and isolated to create shop drawing views with tags and dimensions.

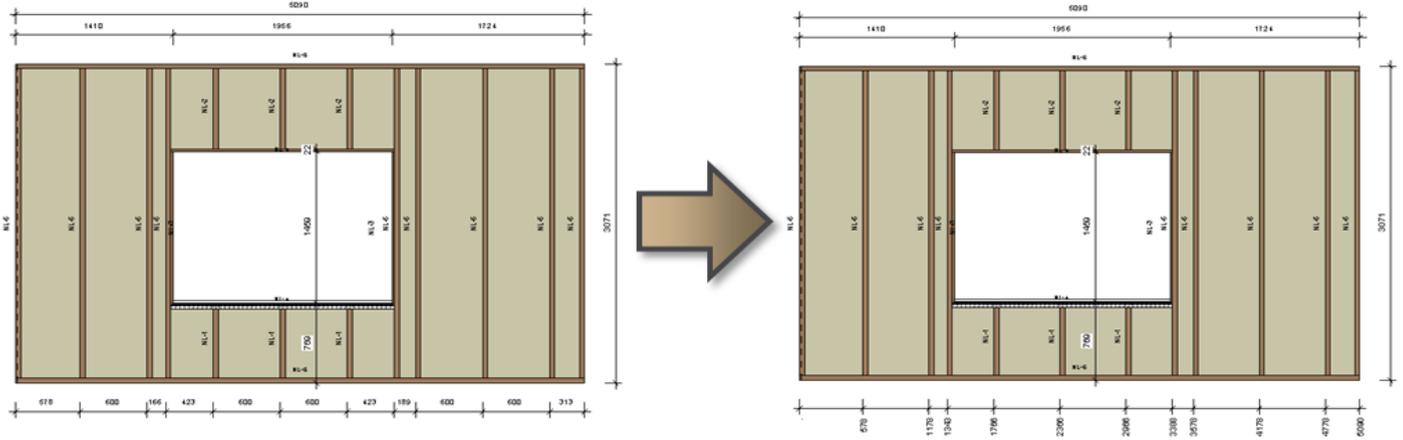


## Update Frame Assembly

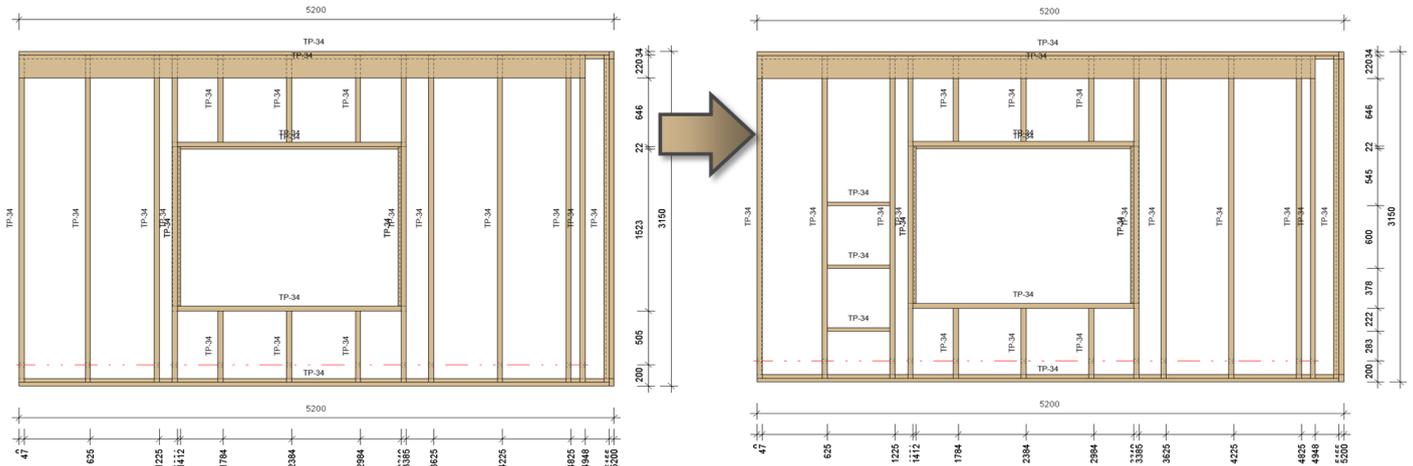


**Update Frame Assembly** – updates the selected assembly if any changes were made to the framing or to the Drawing Configuration.

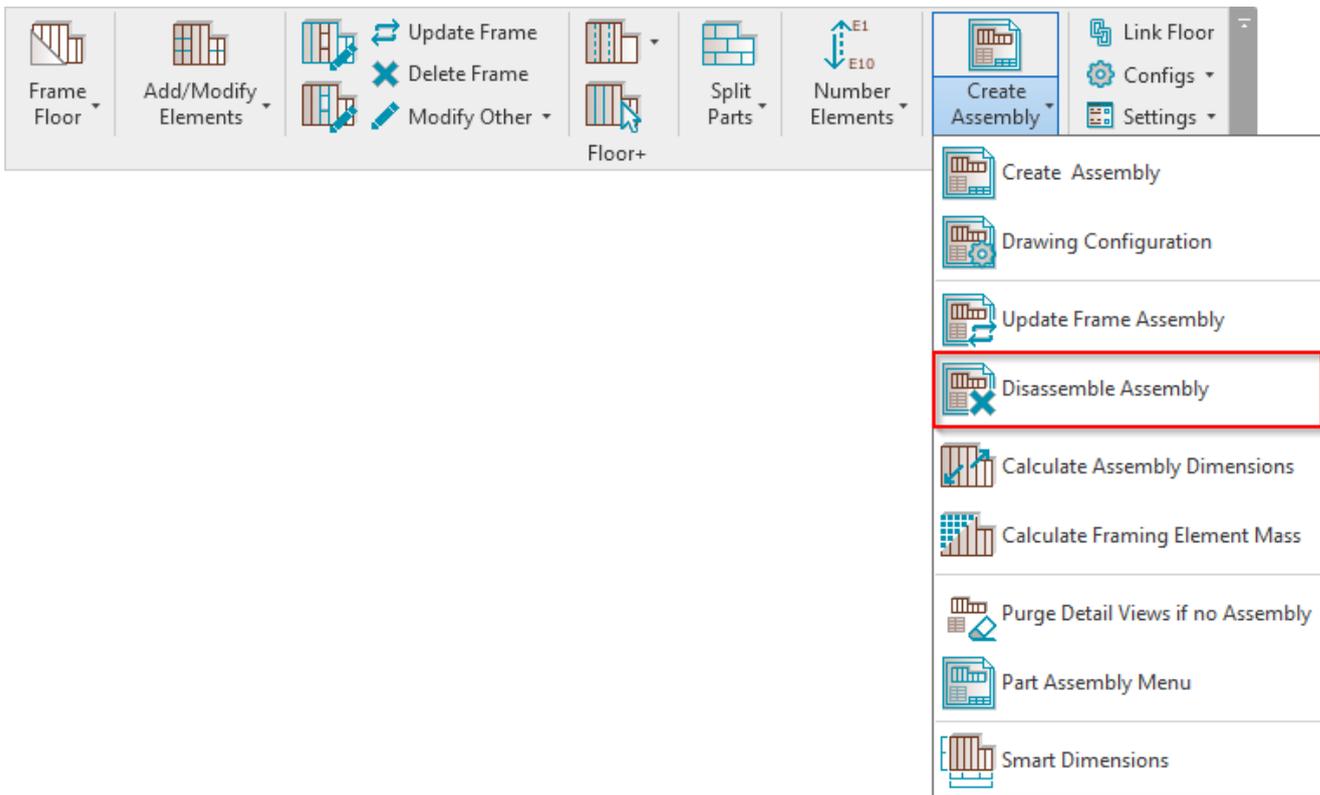
*Example 1: dimension type was changed in the configuration. Result after updating:*



*Example 2: additional bridging was added to the floor. Result after updating:*



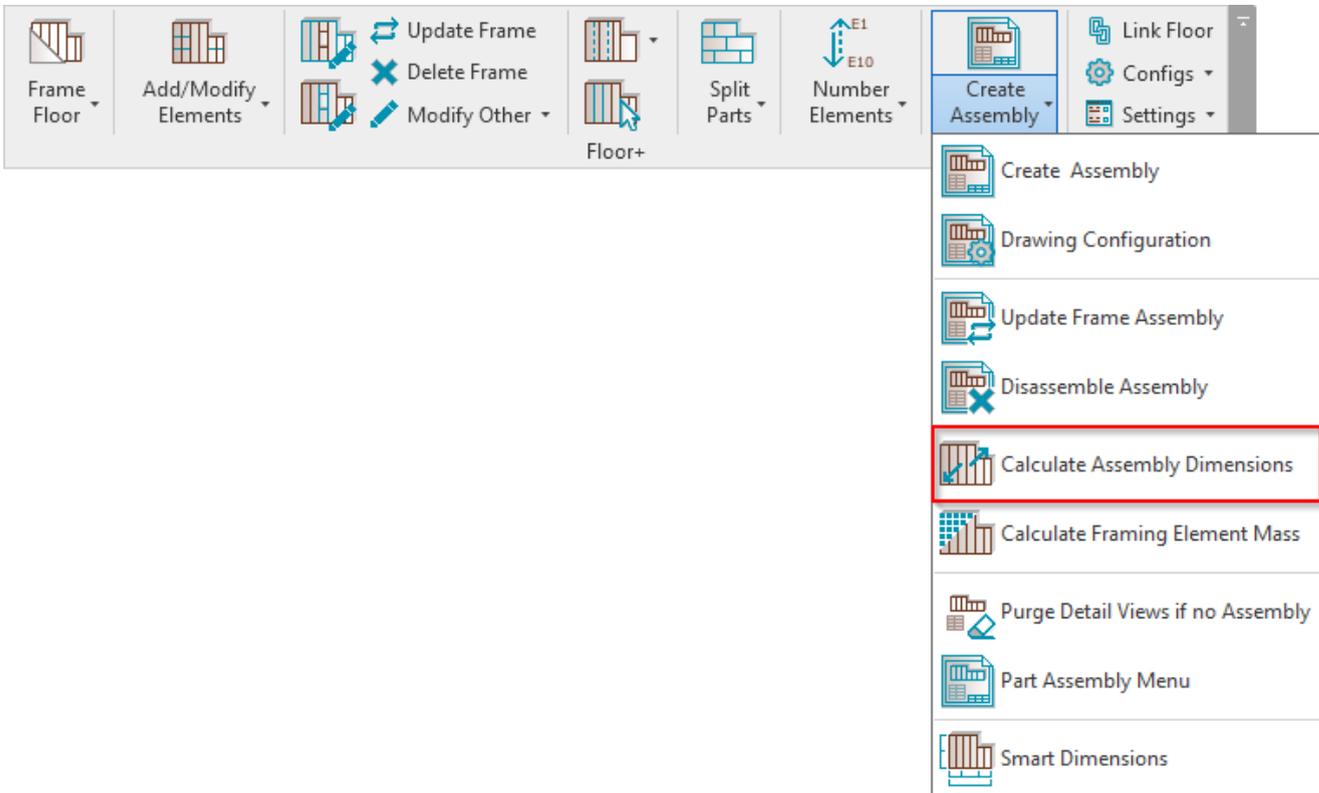
## Disassemble Assembly



**Disassemble Assembly** – removes the assembly relationship between elements in the selected assembly and all associated views.

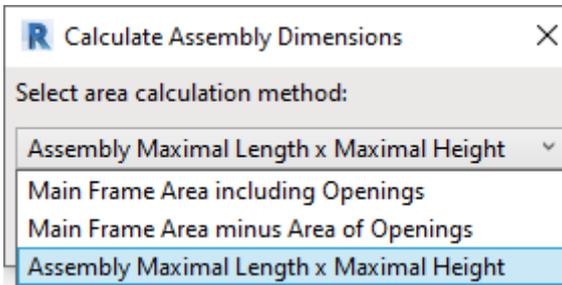
*Recommended workflow:* Instead of **Revit** → **Disassemble**, we recommend using **Floor+** → **Create Assembly** → **Disassemble Assembly** as it doesn't show unnecessary pop-ups and deletes the gravity point.

## Calculate Assembly Dimensions



**Calculate Assembly Dimensions** – calculates assembly dimensions (area, volume, width, depth, length, height) by predefined rules and writes the results in assembly instance parameters (**Assembly Area**, **Assembly Volume**, **Assembly Width**, **Assembly Depth**, **Assembly Length**, **Assembly Height**) for later use in schedules.

Select area calculation method:



*Result:*

Properties

Structural Framing Assembly  
F-9

Assemblies (1) Edit Type

Framing Member	Assembly
Framing Member Type	Assembly
Framing	Floor
Framing Member Description	Assembly
FM SortMark	
Framing Layer	Frame
Framing Member Mark	AS
FM HostMemberSortMark	F-9
Framing Member Mass	463.771 kg
Framing Member Volume	0.238 m <sup>3</sup>
Assembly Area	0.664 m <sup>2</sup>
Assembly Volume	2.198 m <sup>3</sup>
Assembly Width	3311.5
Assembly Depth	3311.5
SDC	Example Configur...
Assembly Length	2100.0
Assembly Height	316.0

Phasing

Phase Created	New Construction
Phase Demolished	None

## Calculate Framing Element Mass

Frame Floor

Add/Modify Elements

Update Frame

Delete Frame

Modify Other

Floor+

Split Parts

Number Elements

Link Floor

Configs

Settings

Create Assembly

Create Assembly

Drawing Configuration

Update Frame Assembly

Disassemble Assembly

Calculate Assembly Dimensions

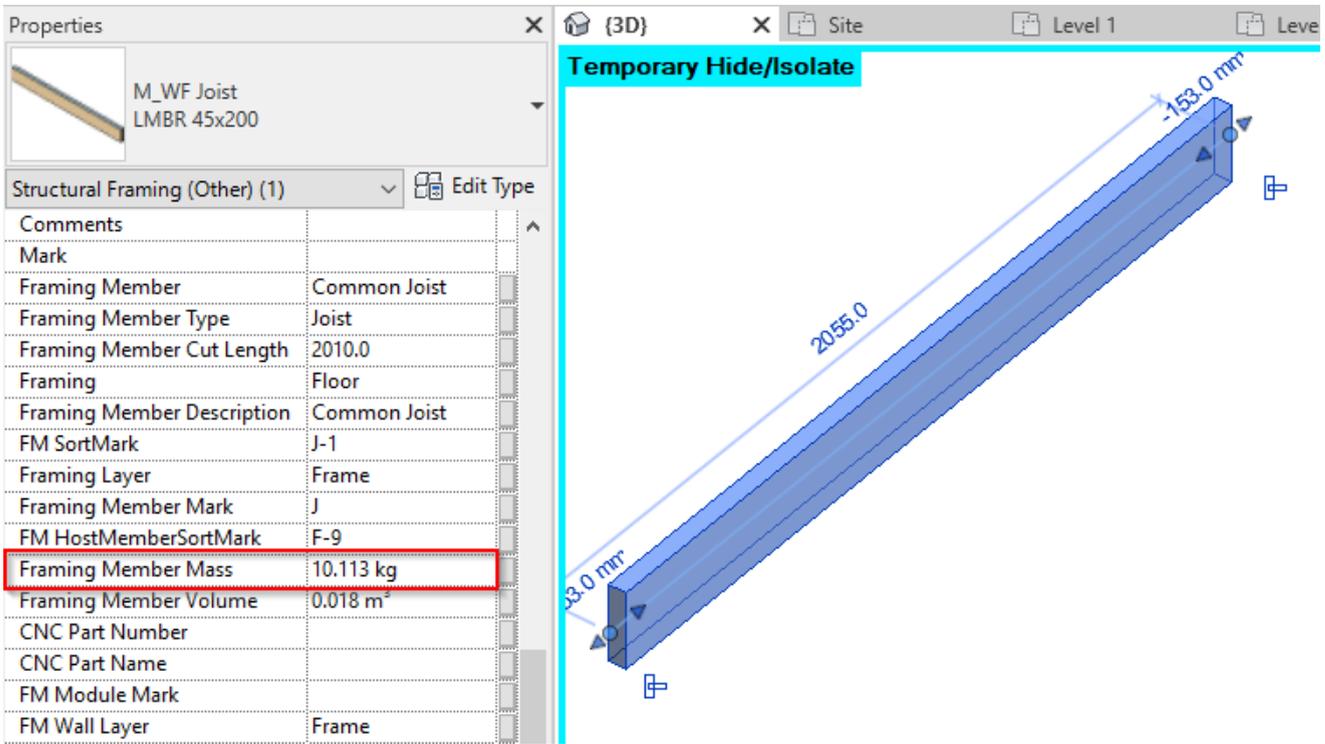
**Calculate Framing Element Mass**

Purge Detail Views if no Assembly

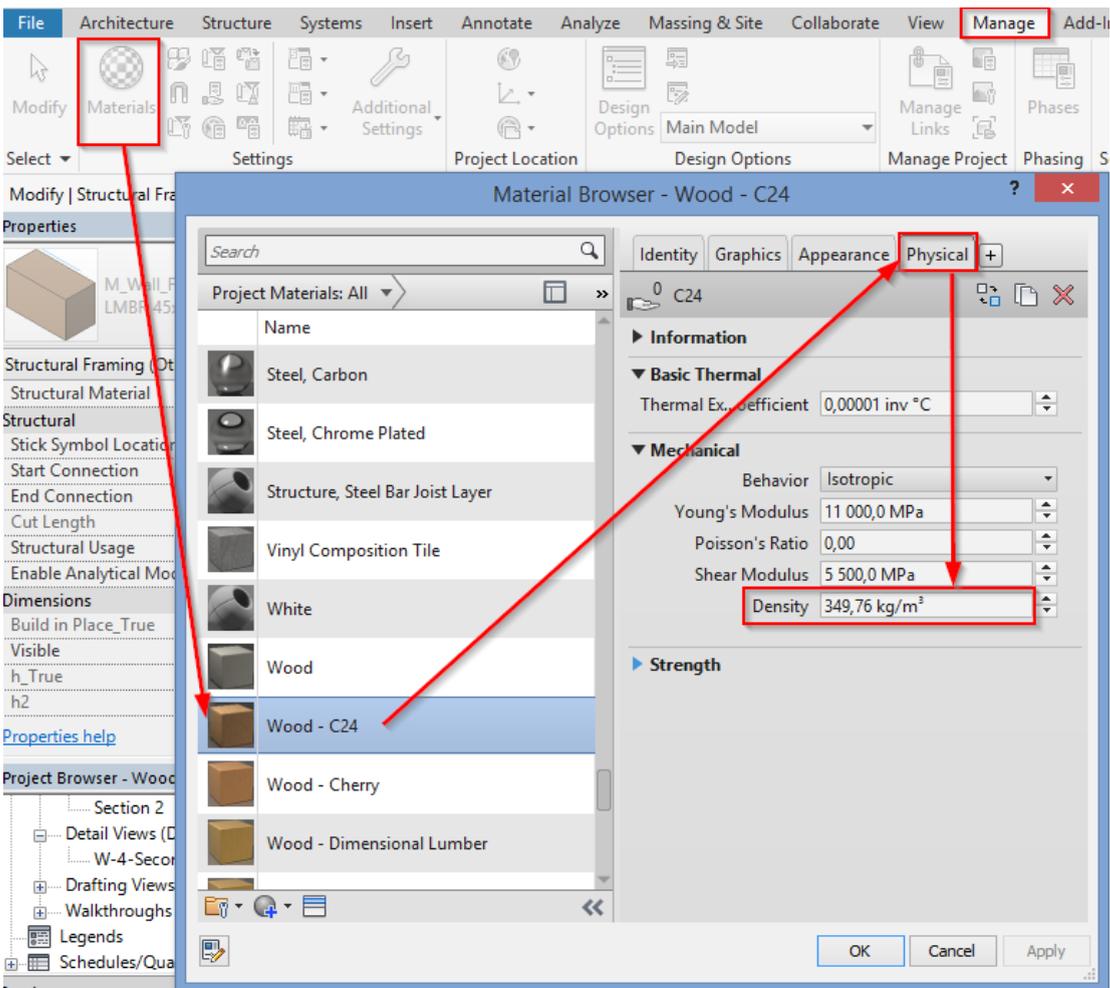
Part Assembly Menu

Smart Dimensions

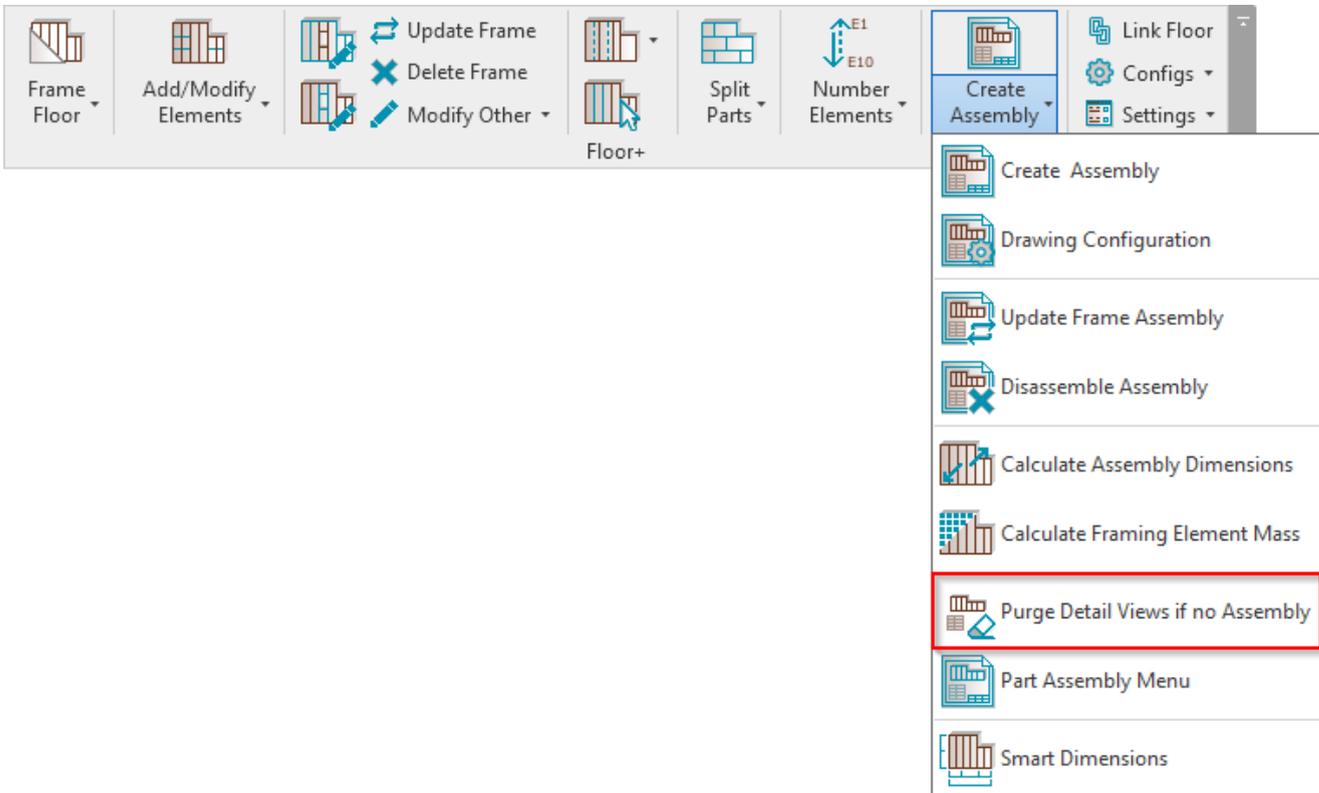
**Calculate Framing Element Mass** – calculates mass of selected framing elements, and writes result to **Framing Member Mass** parameter, which you can find in **Element Properties** → **Identity Data**.



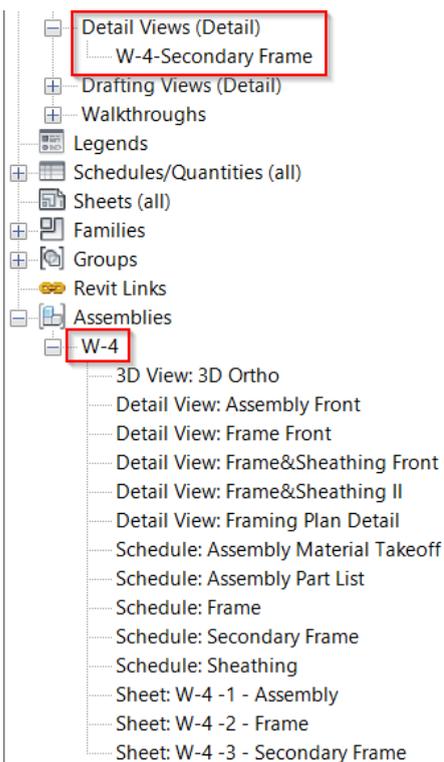
**Density** parameter must be filled in for the element in **Materials** → **Physical** tab:



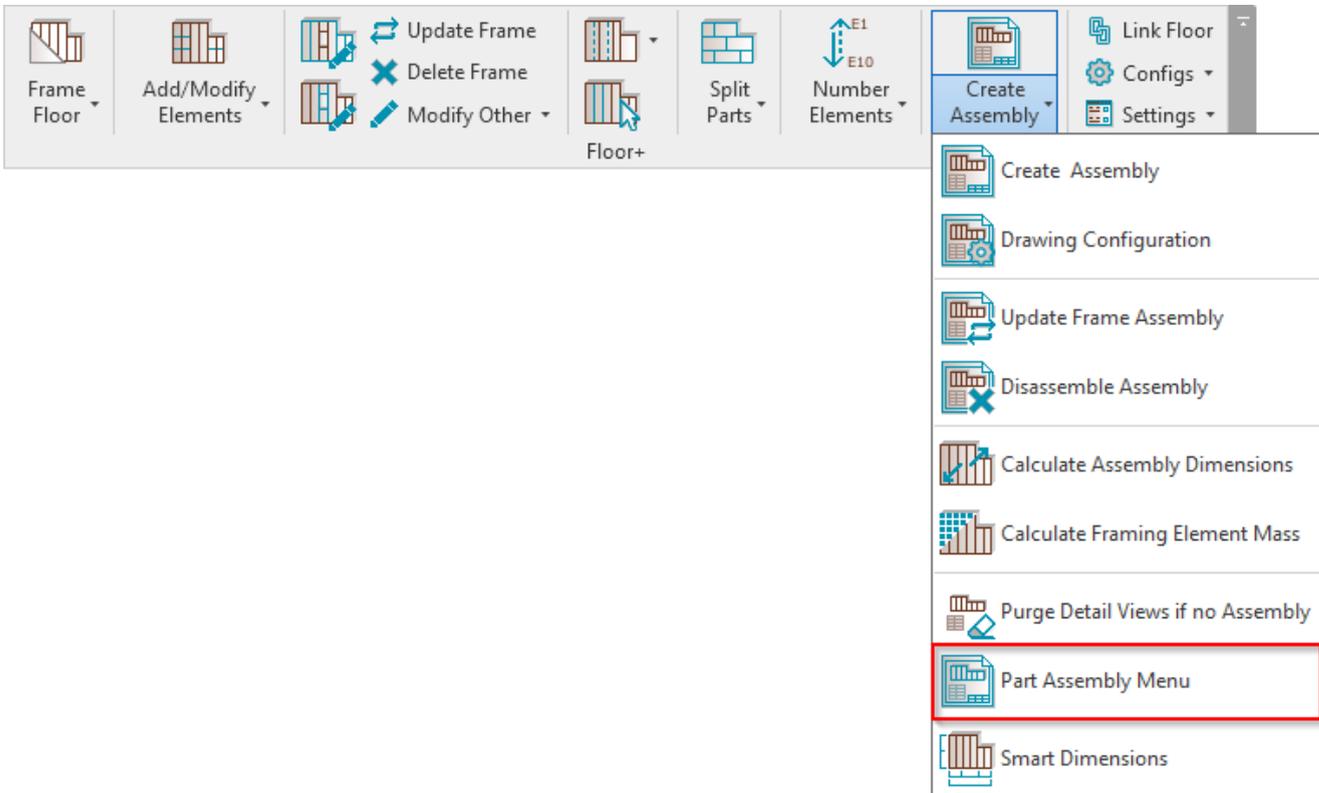
**Purge Detail Views if no Assembly**



**Purge Detail Views if no Assembly** – removes detail views if assembly has been disassembled.



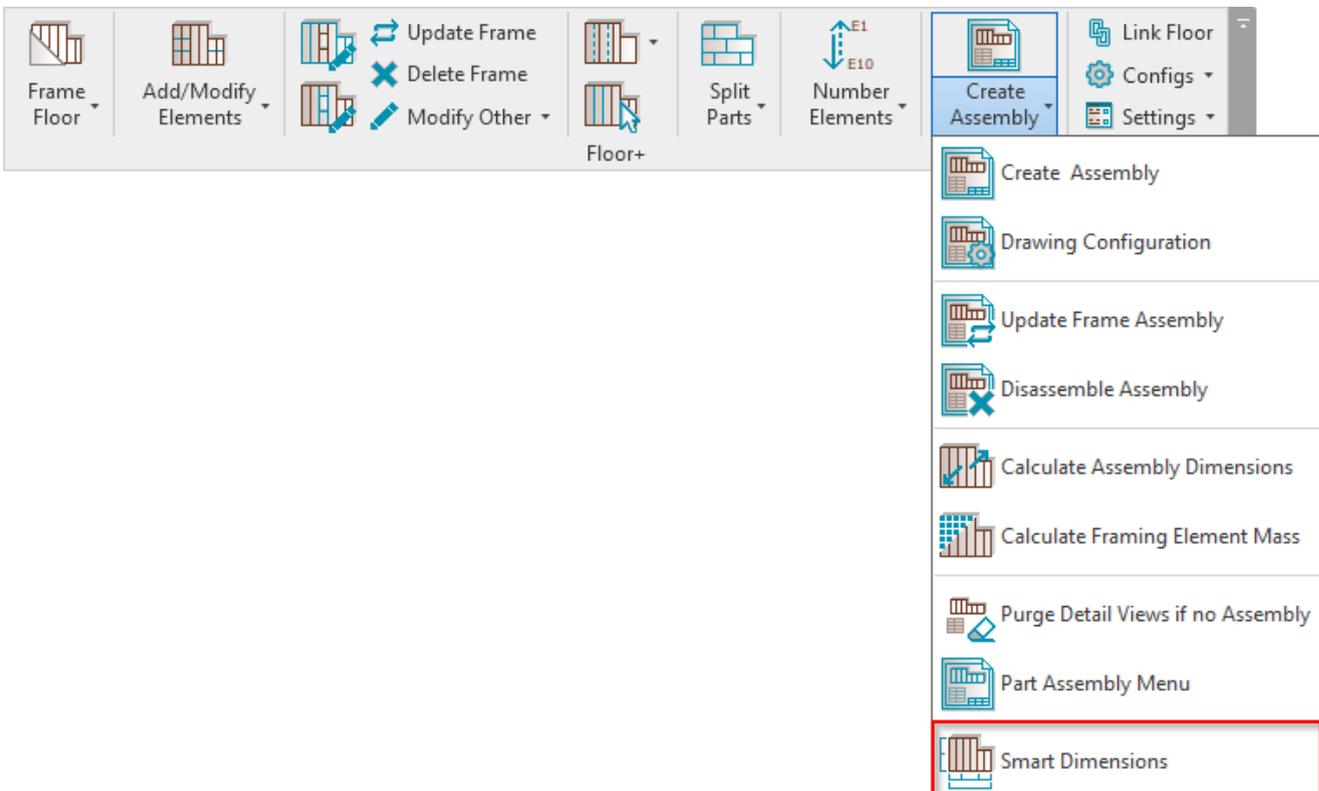
## Part Assembly Menu



**Part Assembly Menu** – features for creating assemblies from parts and different part selection options.

**Read more >>** (<https://agacad.freshdesk.com/a/solutions/articles/44001780334-shop-drawings-part-assembly-menu>).

## Smart Dimensions



**Smart Dimensions** – features for setting up dimensions in shop drawings.

**Read more >> (<https://agacad.freshdesk.com/a/solutions/articles/44001780335-shop-drawings-smart-dimensions-main-features>)**