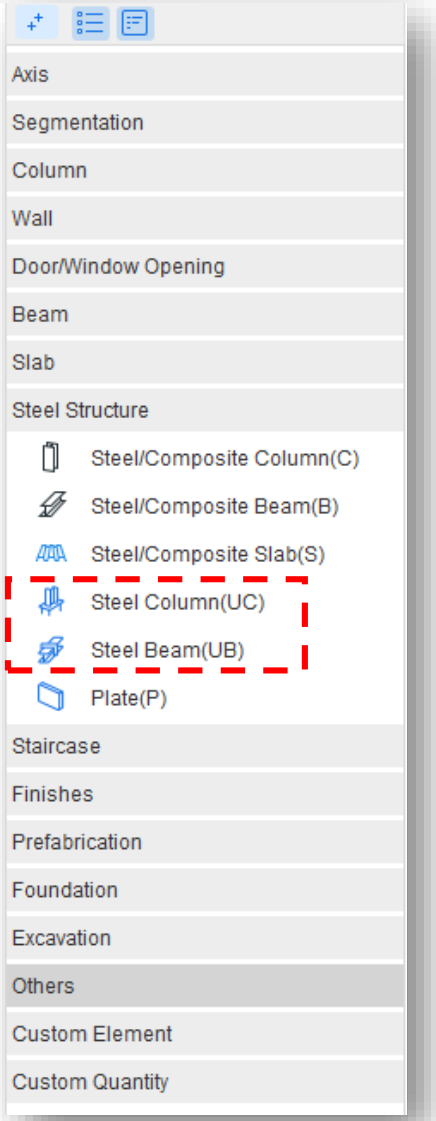
Point Type

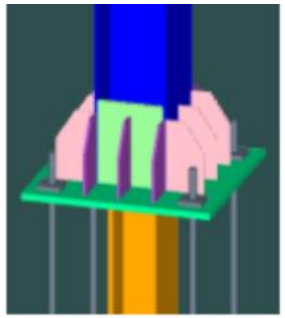


Section 3

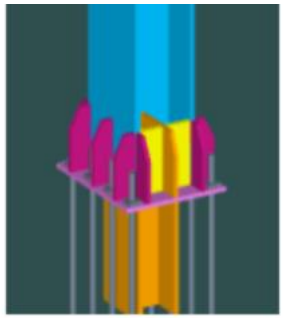
Steel Connection

A. Steel Connection – Generate Detail

- Column Base

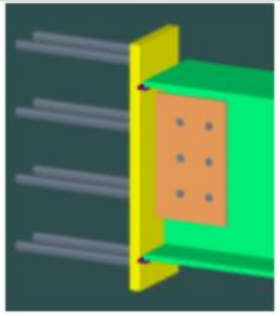


H-Column Column Base-1



H-Column Column Base-2

- Beam End



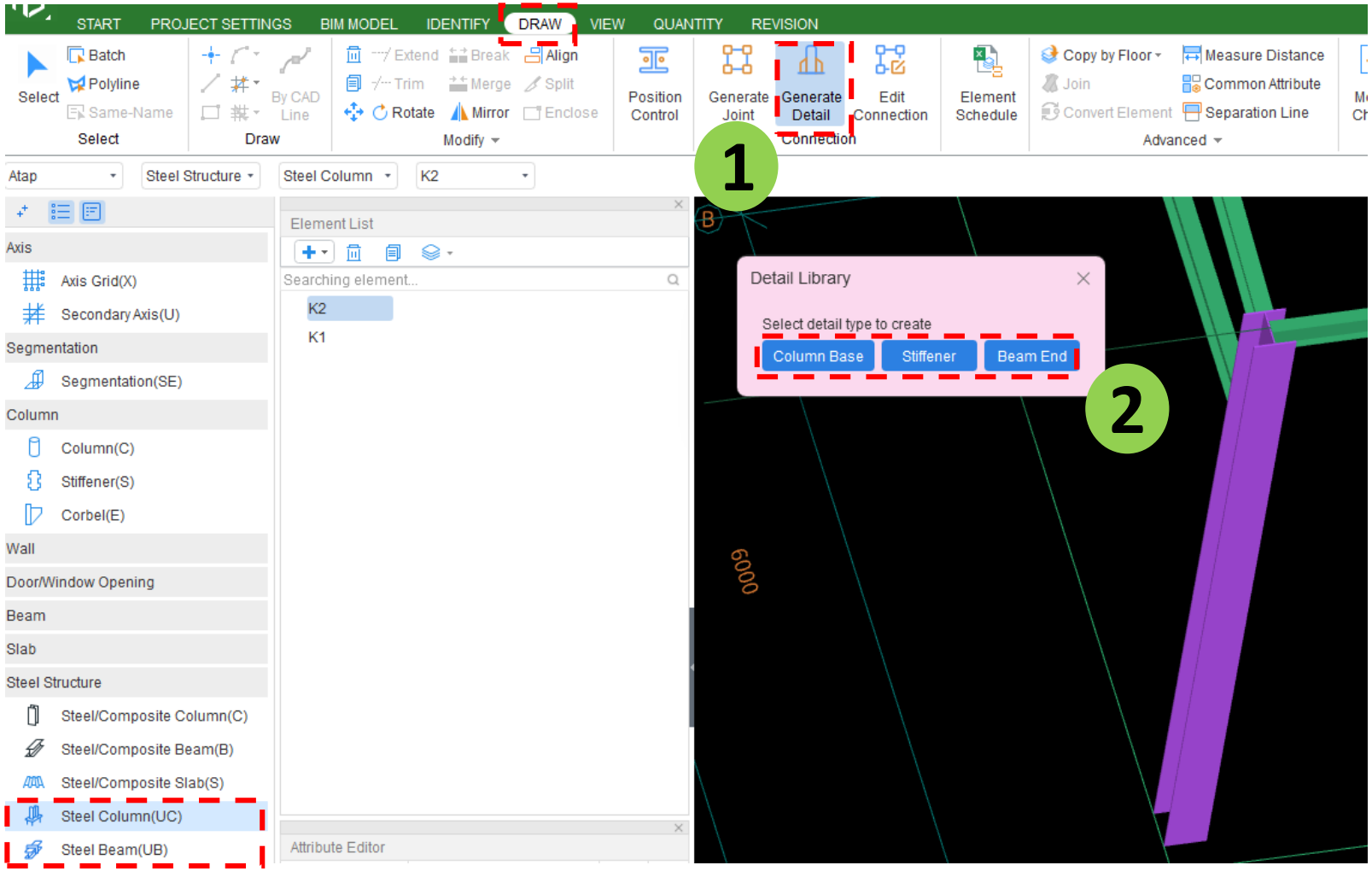
H-Beam End Anchorage

- Stiffener

H-Beam Stiffener

Generate Detail

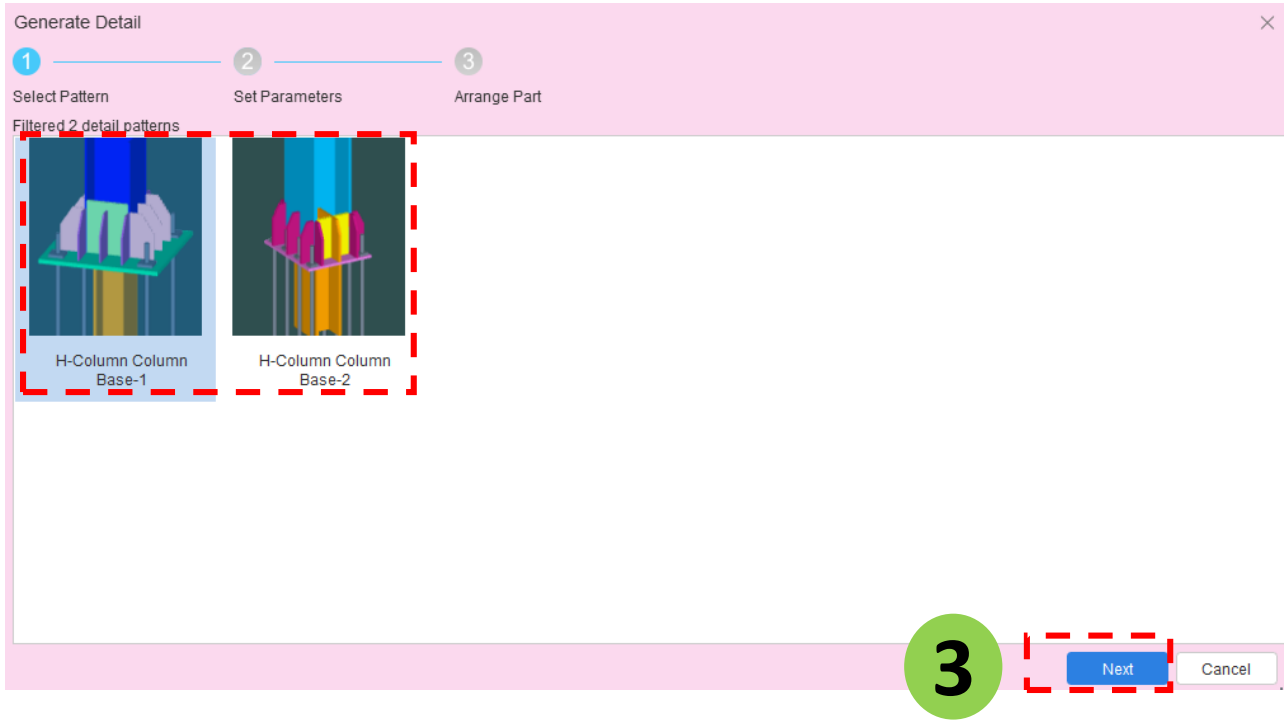
- Step 1: Go to Steel Column/Steel Beam Elements → in Draw menu → Generate Detail
- Step 2: Choose Detail Type to Create → Select entity → Right Click to Confirm

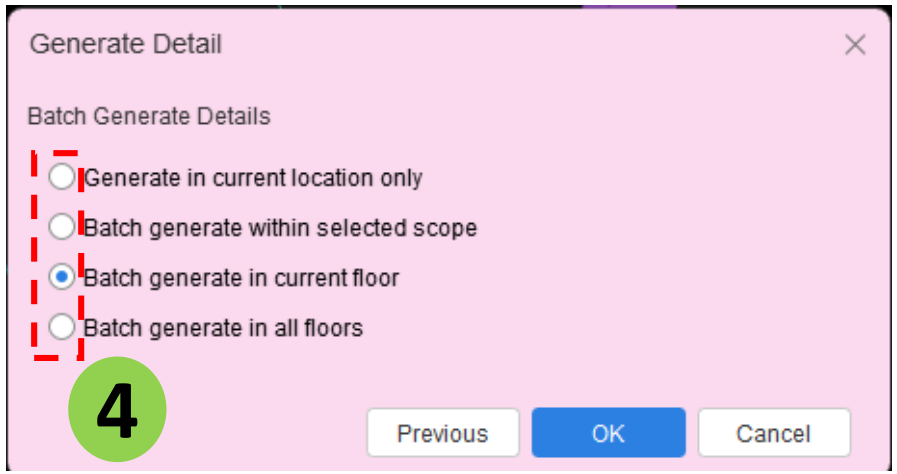


Continue →

Generate Detail

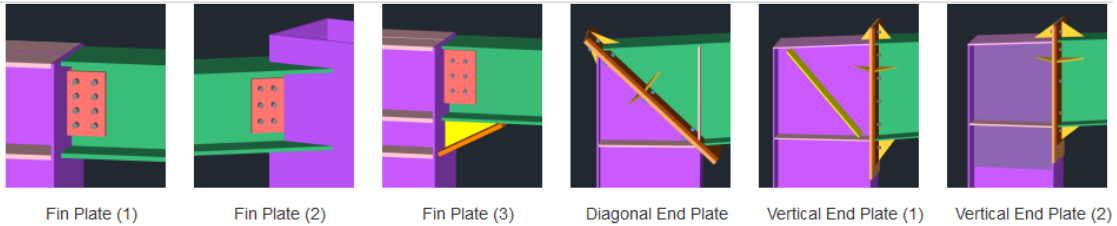
- Step 3: Choose Detail Pattern & adjust to match CAD detail → Next
- Step 4: Choose location to generate the detail

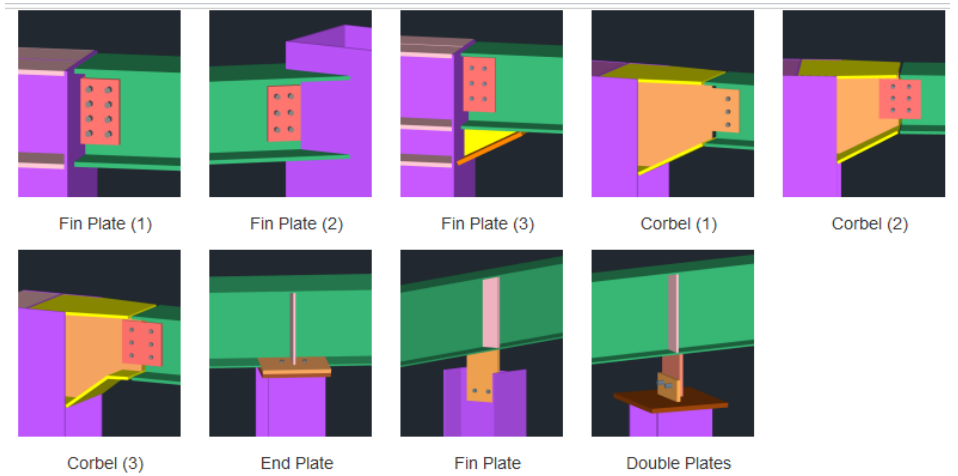




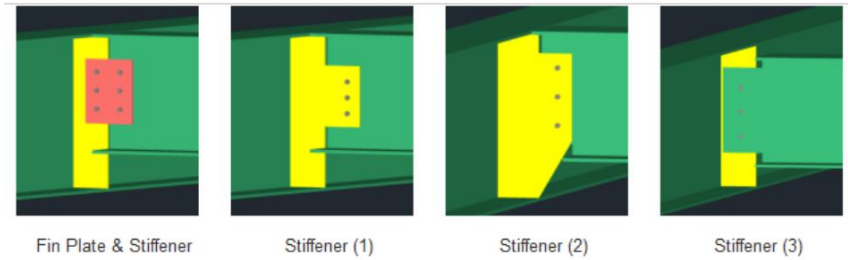
B. Steel Connection – Generate Joint

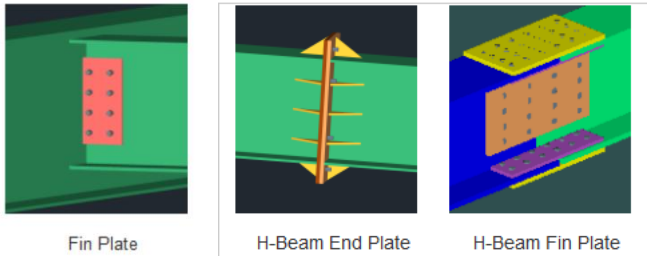
- Column to Beam





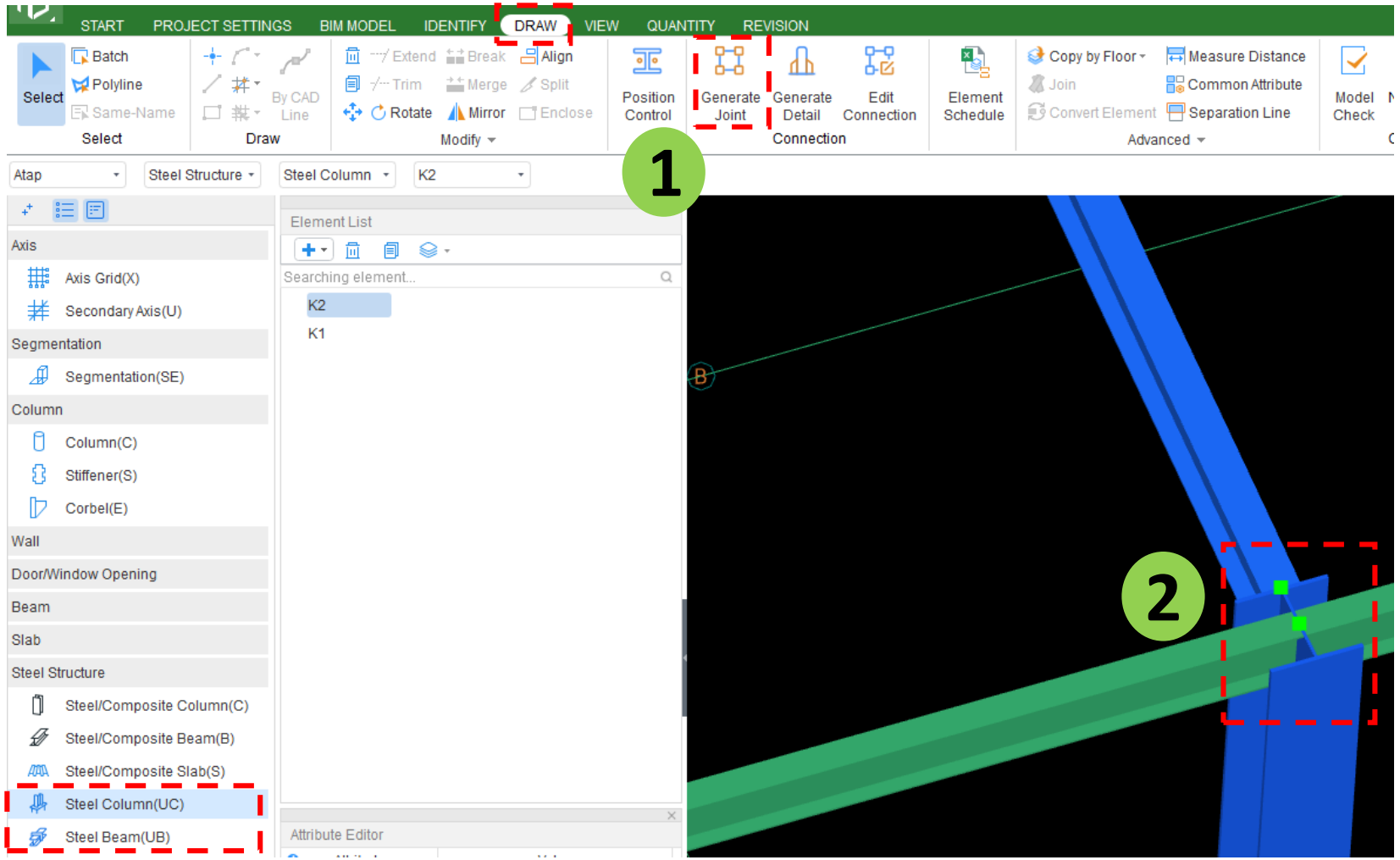
- Beam to Beam





Generate Joint

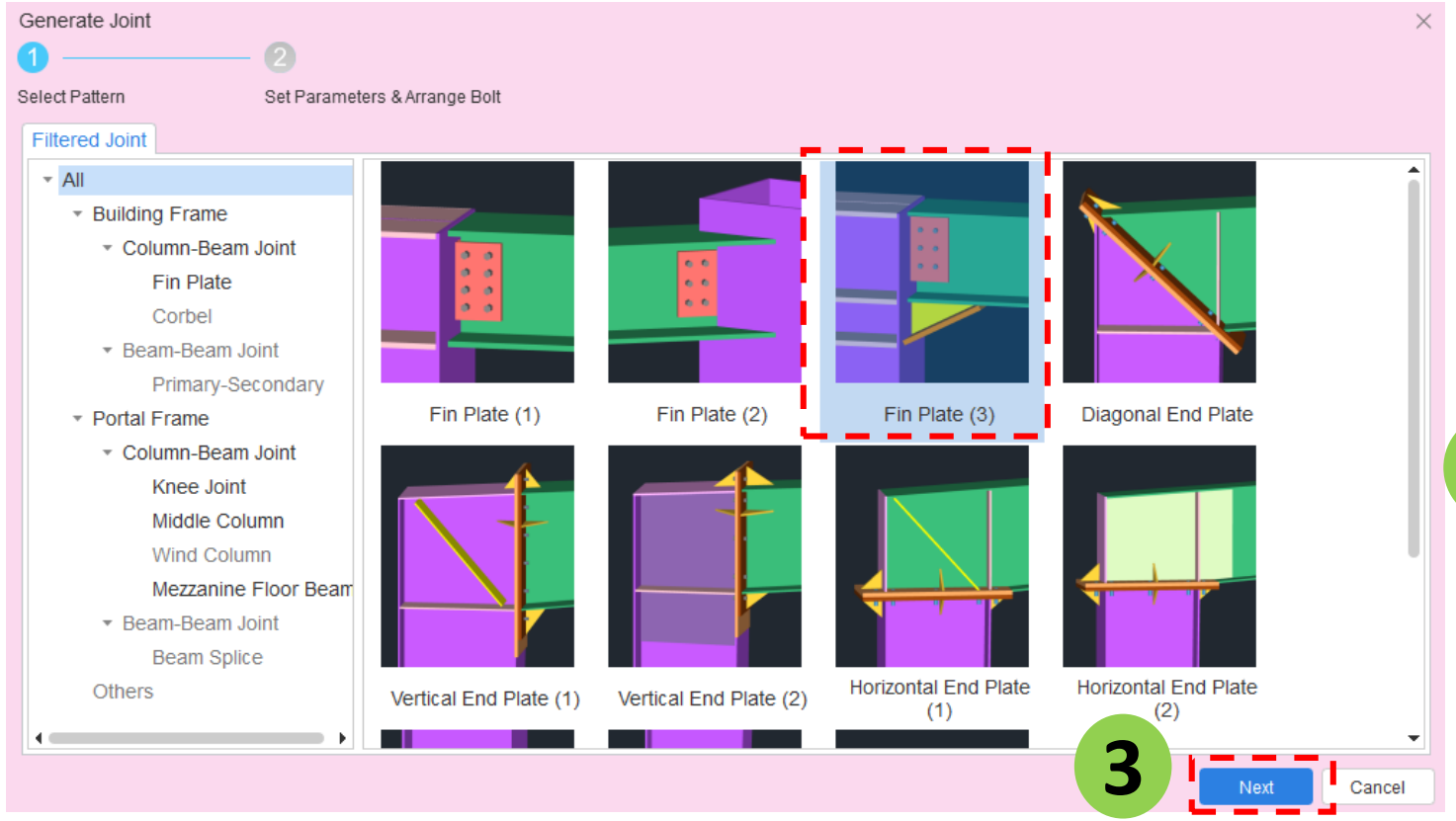
- Step 1: Go to Steel Column/Steel Beam Elements → in Draw menu → Generate Joint
- Step 2: Select 2 entities → Right Click to Confirm

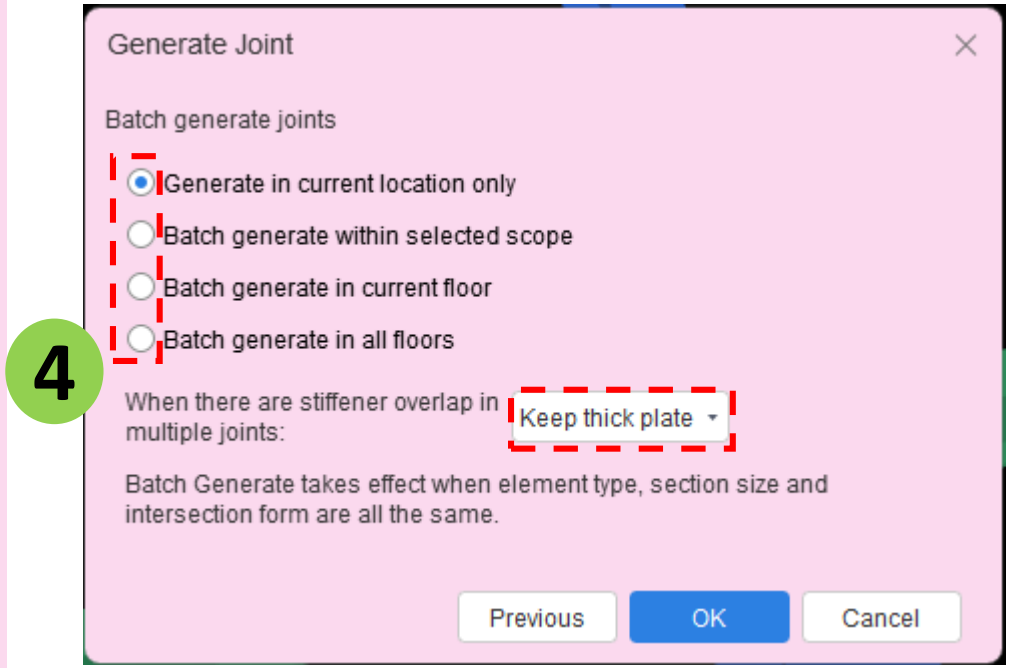


Continue →

Generate Joint

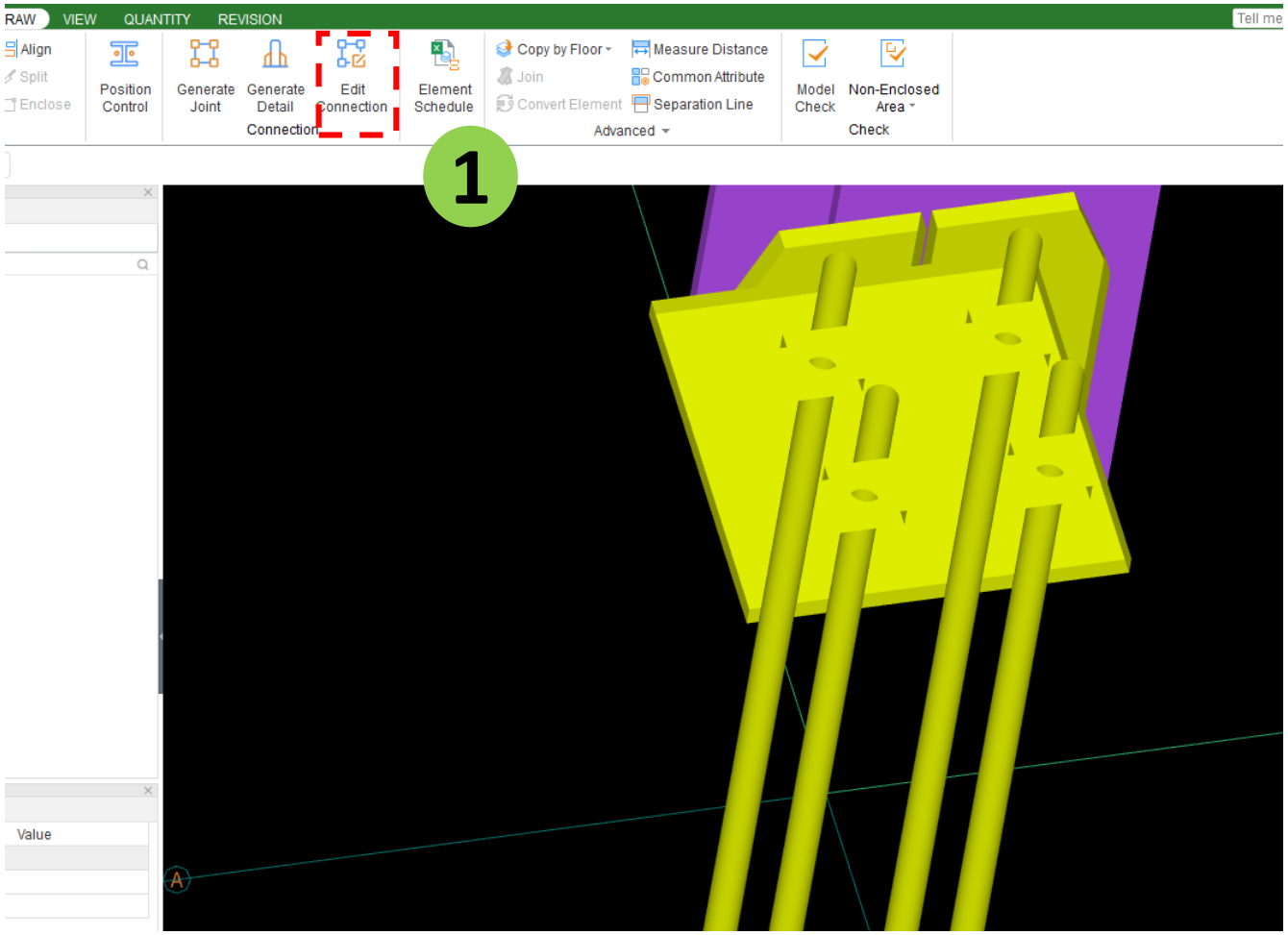
- Step 3: Choose Joint Pattern & adjust to match CAD detail → Next
- Step 4: Choose location to generate the Joint

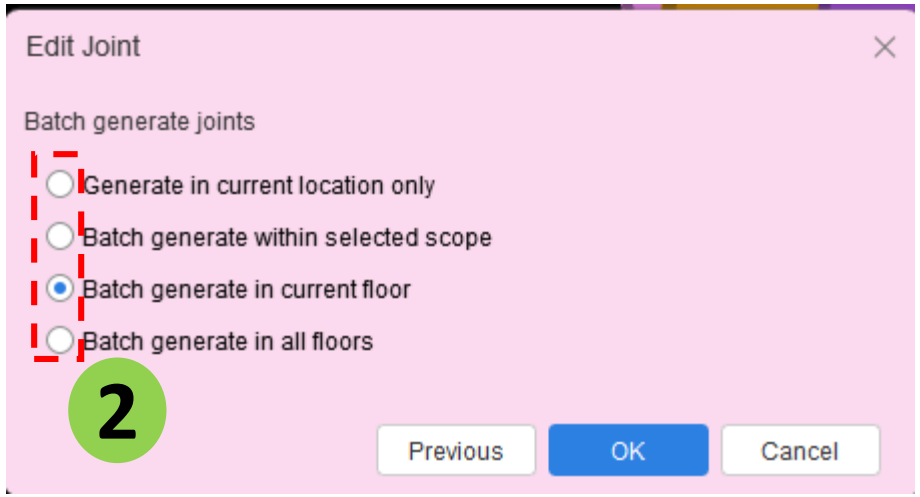




Edit Detail & Joint Connection

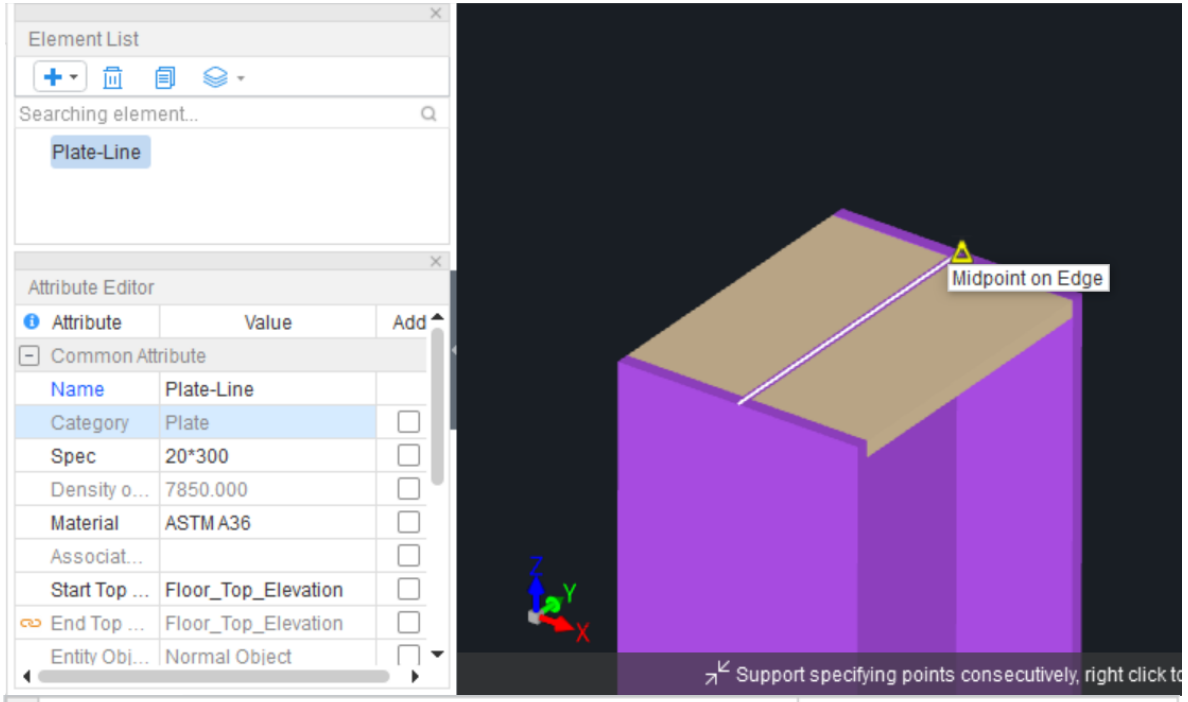
- Step 1: Choose Detail→ Click Edit Connection
- Step 2: Choose location to edit the detail





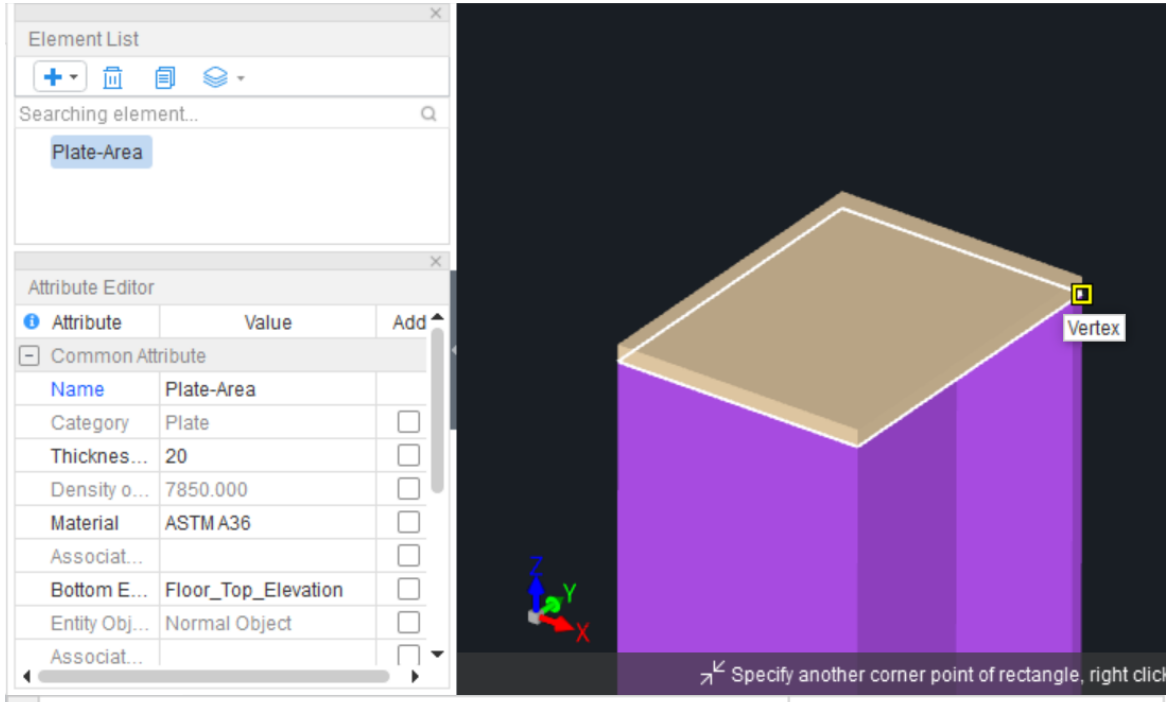
Steel Plate Element

By Line



	Classification Condition				Quantity	
	Floor	Name	Spec	Thickness	Weight of plates(kg)	Area of plates(m2)
1	Ground Floor	Plate-Line	20*300	-	18.369	0.262
2	Total				18.369	0.262

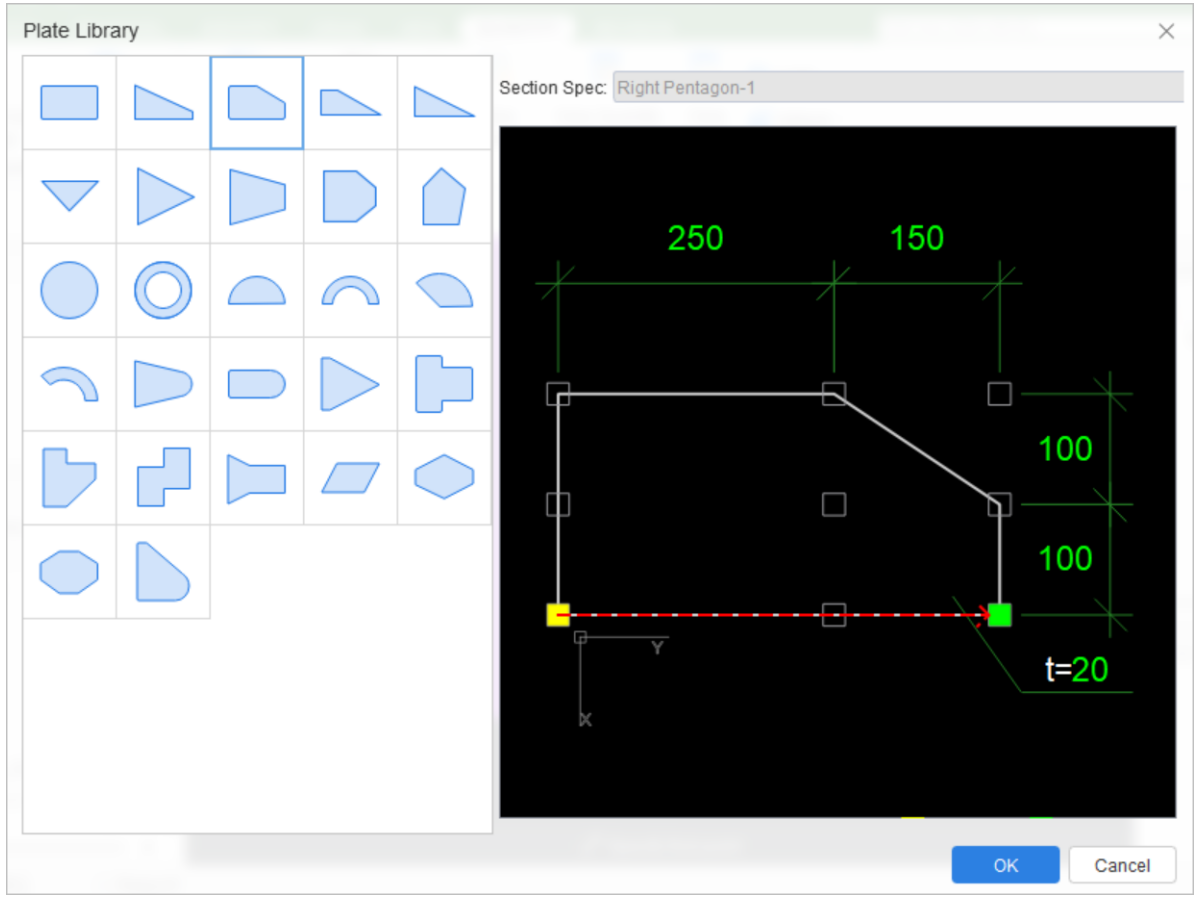
By Area

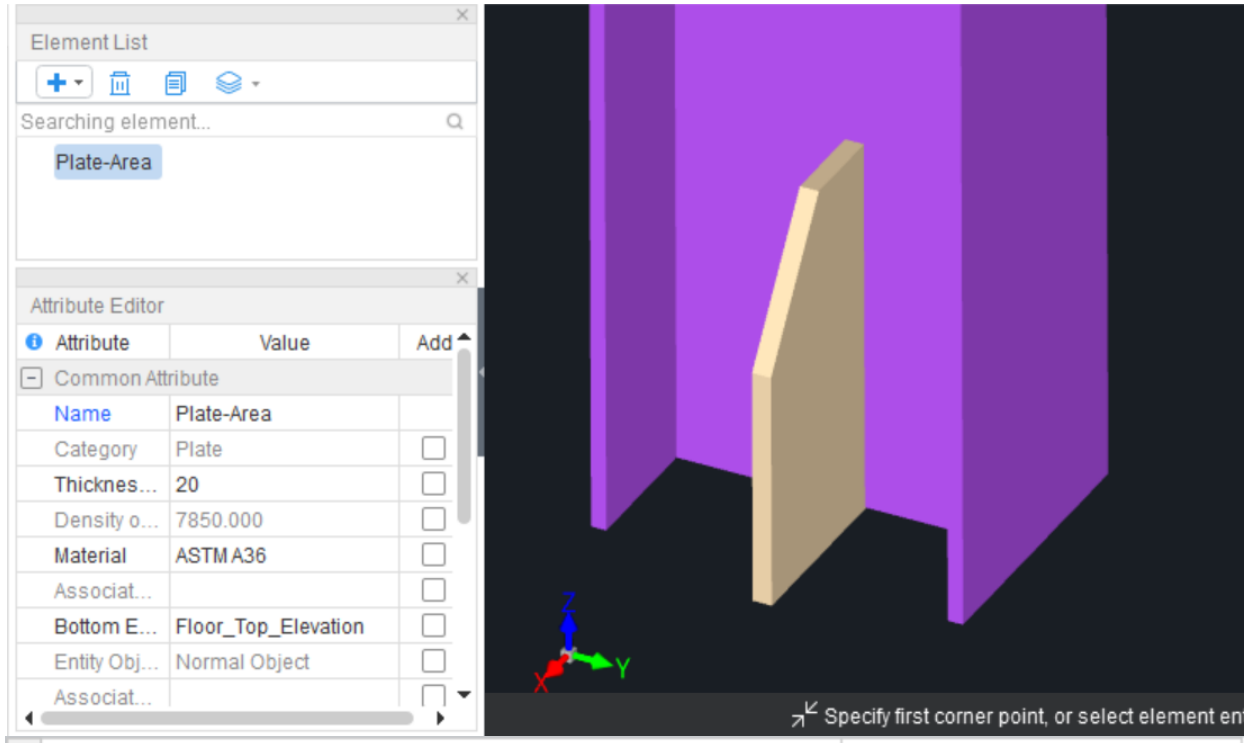


	Classification Condition				Quantity	
	Floor	Name	Spec	Thickness	Weight of plates(kg)	Area of plates(m2)
1	Ground Floor	Plate-Area	-	20	18.369	0.262
2	Total				18.369	0.262

Steel Plate Element

Parametric





	Classification Condition				Quantity	
	Floor	Name	Spec	Thickness	Weight of plates(kg)	Area of plates(m2)
1	Ground Floor	Plate-Area	Right Pentagon-1250*150*100*100	20	11.383	0.168
2	Total				11.383	0.168

Quantity of Steel Structure

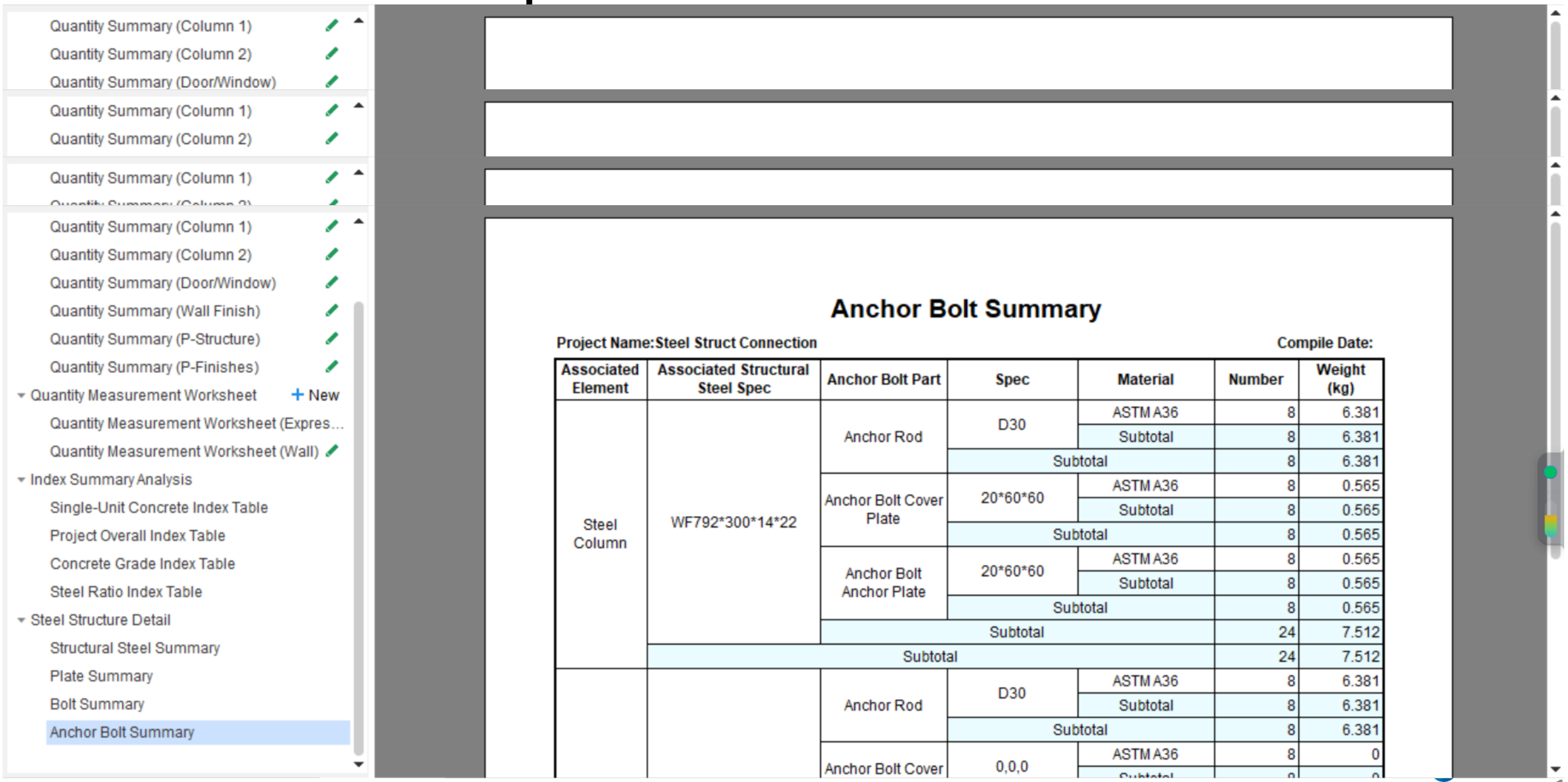
Notes:

Which quantity to extract for STEEL STRUCTURE

Quantity you need	Quantity to extract from Glodon
Gross Steel (kg)	Original Weight of Steel
Net Steel (kg)	Actual Weight of Steel
Plate (kg)	Total Weight of Plates
Bolts (pcs)	Number of Bolts

	Quantity Name	Quantity Expression	Quantity	Unit
1	Original weight of steel column	94.00<Theoretical weight>*5.512<Original height of steel column>	518.128	kg
2	Actual weight of steel column	94.00<Theoretical weight>*5.496<Actual/Converted length of structural steel>	516.624	kg
3	Original surface area of steel column	1.749<Theoretical surface area>*5.512<Original height of steel column>	9.640	m2
4	Actual surface area of steel column	9.640<Original surface area of steel column>-0.028<Deduct connections>	9.613	m2
5	Original height of steel column		5.512	m
6	Weight of plates(8mm)	0.102<Area>*0.008<Thickness>*7850.000<Density of steel>	6.406	kg
7	Weight of plates(16mm)	0.123<Area>*0.016<Thickness>*7850.000<Density of steel>	15.386	kg
8	Total weight of plates	6.406+15.386	21.792	kg
9	Surface area of plates(8mm)	0.110+0.110	0.219	m2
10	Surface area of plates(16mm)	0.267	0.267	m2
11	Number of anchor bolts		4	pc

Steel Connection Report



Associated Element	Associated Structural Steel Spec	Anchor Bolt Part	Spec	Material	Number	Weight (kg)
Steel Column	WF792*300*14*22	Anchor Rod	D30	ASTM A36	8	6.381
				Subtotal	8	6.381
			Subtotal		8	6.381
		Anchor Bolt Cover Plate	20*60*60	ASTM A36	8	0.565
				Subtotal	8	0.565
			Subtotal		8	0.565
		Anchor Bolt Anchor Plate	20*60*60	ASTM A36	8	0.565
				Subtotal	8	0.565
			Subtotal		8	0.565
		Subtotal			24	7.512
	Subtotal				24	7.512
		Anchor Rod	D30	ASTM A36	8	6.381
				Subtotal	8	6.381
			Subtotal		8	6.381
		Anchor Bolt Cover	0,0,0	ASTM A36	8	0