Bentley
Sustaining Infrastructure

PROCONCRETE

Powered by Bentley Rebar

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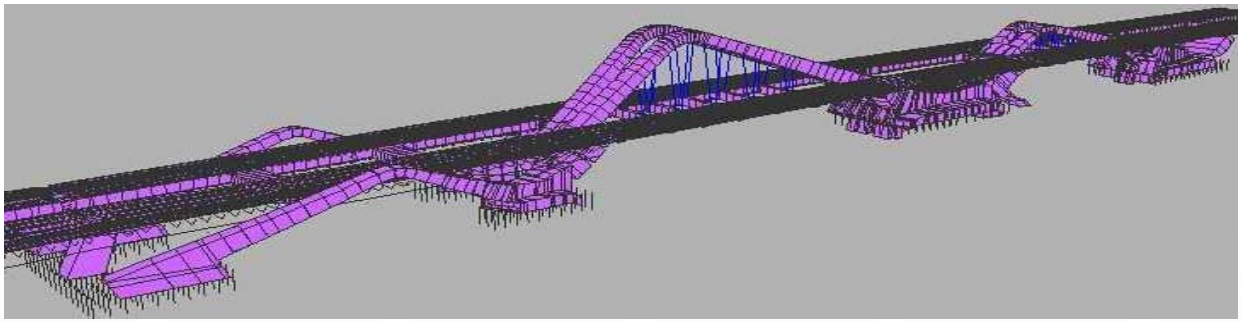
Agenda

- Why ProConcrete?
- Transitioning from 2D to 3D Design
- ProConcrete Overview
- Design sample
- Benefits

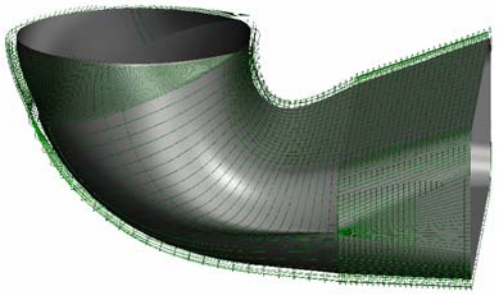
Why ProConcrete?

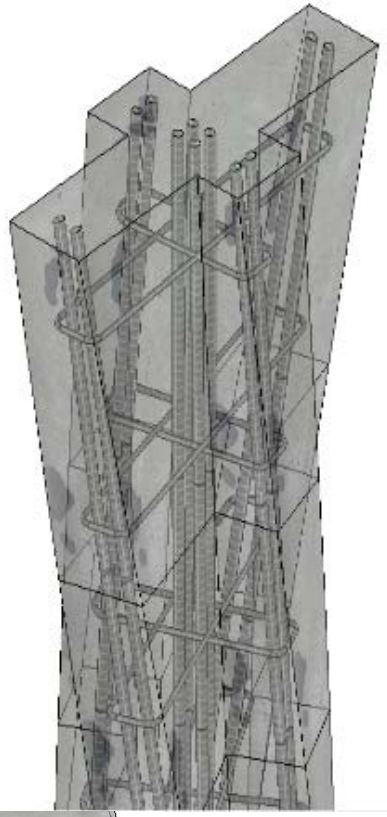
- Complex structures were 2D plans hardly depict what needs to be constructed.
- We live in a 3D world…BIM/BrIM
- Interaction with other software applications that required intelligent data inside.
- 3D Model is the single source of truth of the structure.
- Reports and plans will be generated from the model.

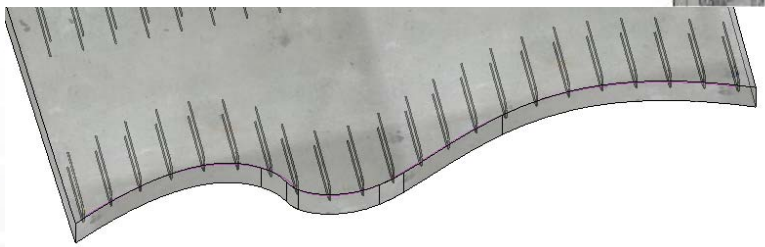


Transitioning from 2D to 3D Design

- Plans still need to be submitted as per legal/contractual requirements.
- Generate a 3D model of the detailing
- Multiple “views” will be generated from the 3D model: plan, elevation, sections still allowing the development of plan sheets.
- Intelligent 2D annotation of the views using Bentley Rebar tools, gathering the intelligence of the 3D model.
- Parametric environment: any changes in the 3D model will affect the developed plan sheets and their annotation.
- Automated bar list and bar bending charts generation.

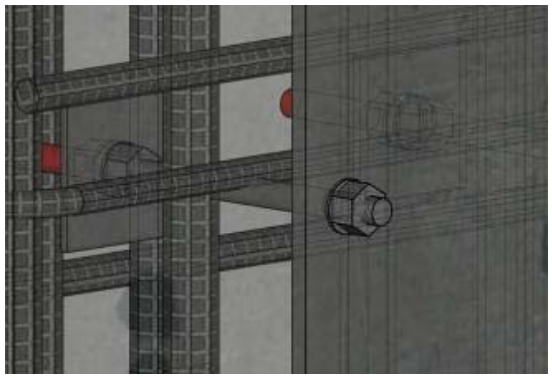


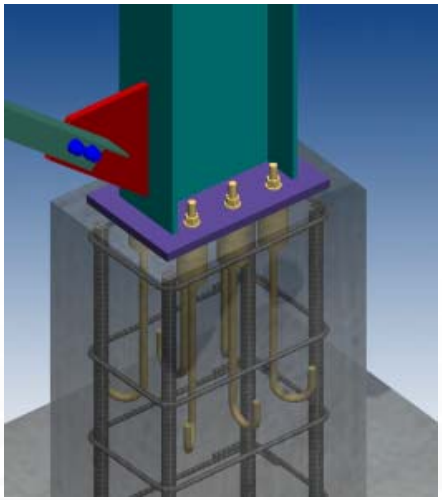


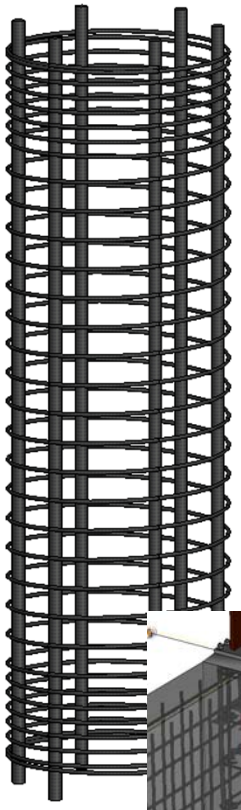


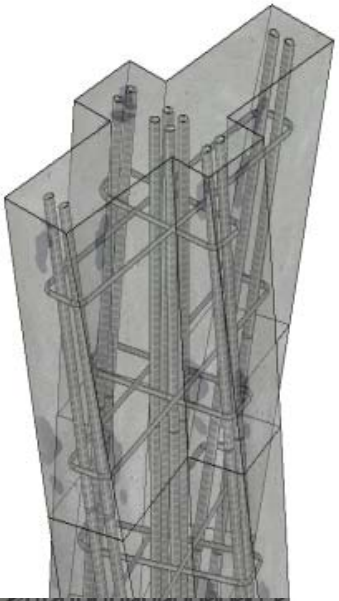
ProConcrete Overview

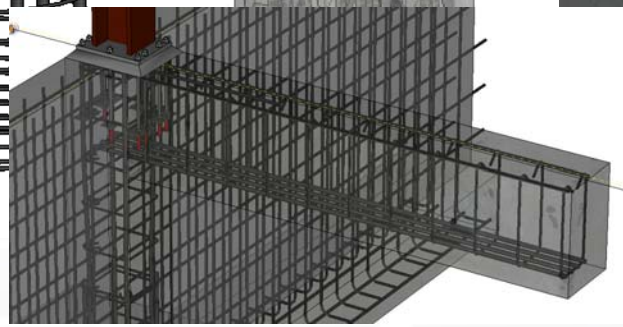
3D Parametric Concrete and Rebar Modeling

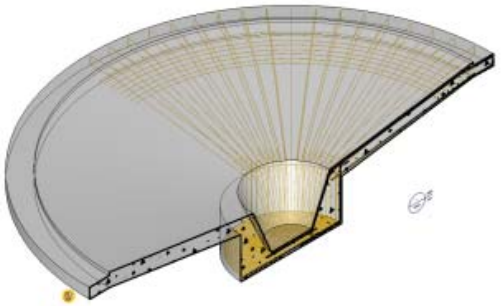


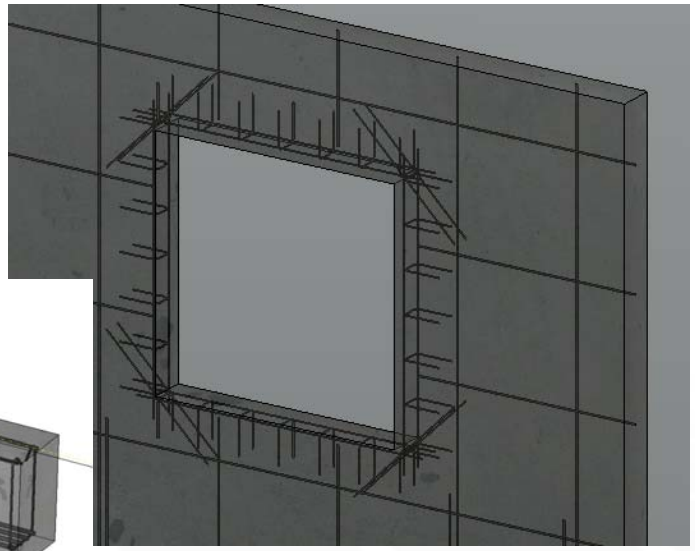




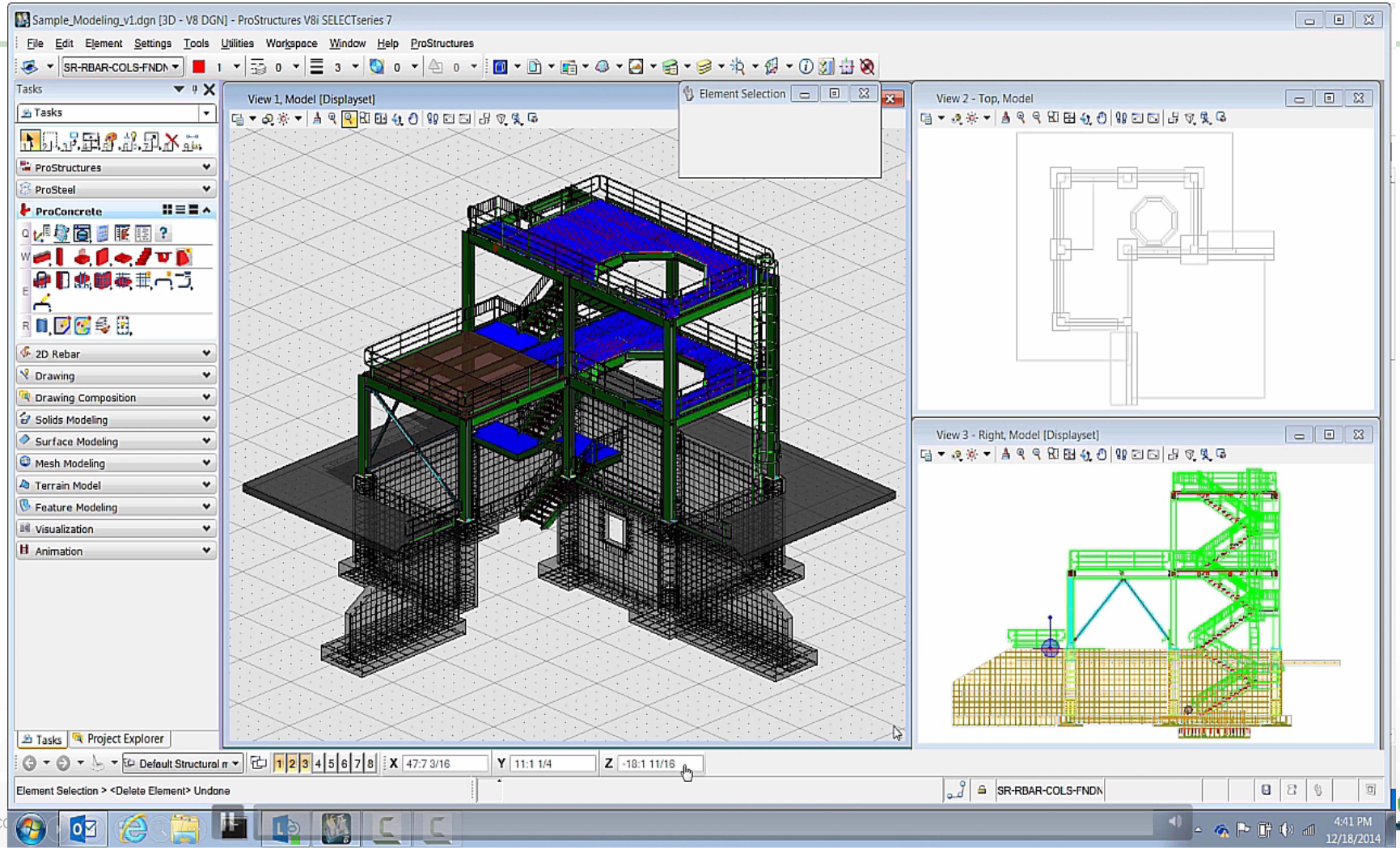




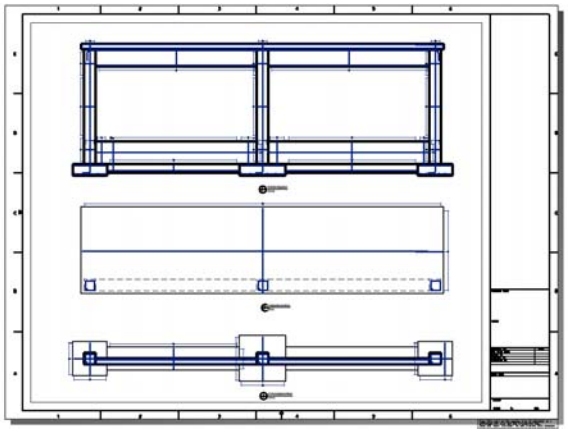


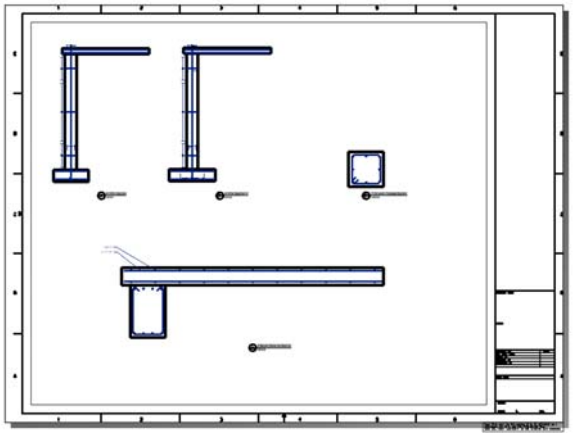


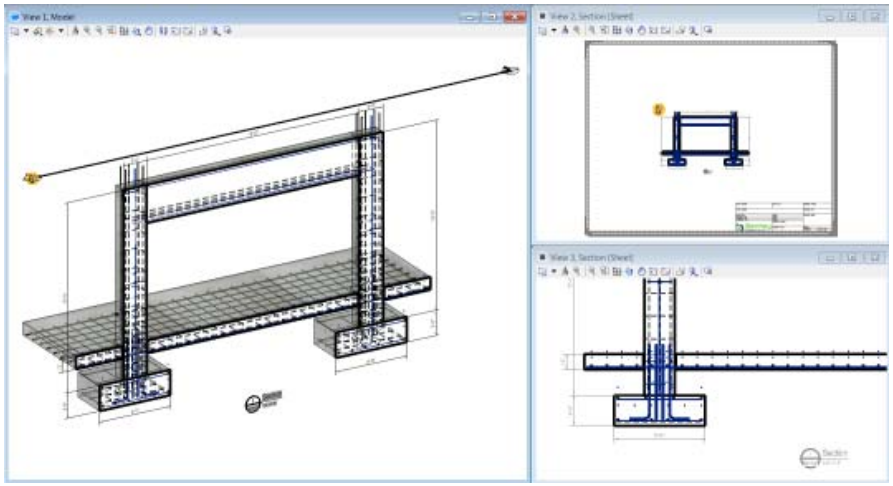
3D Parametric Concrete and Rebar Modeling

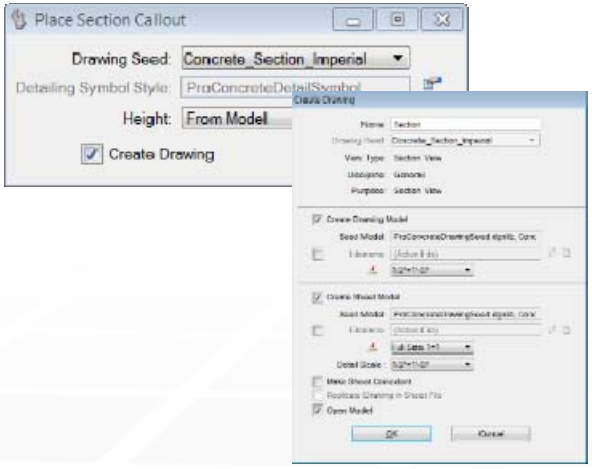


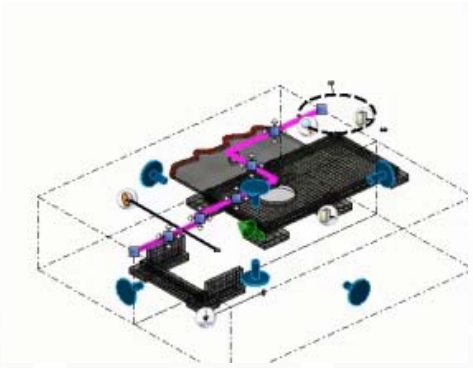
Drawing Creation and Sheet Composition

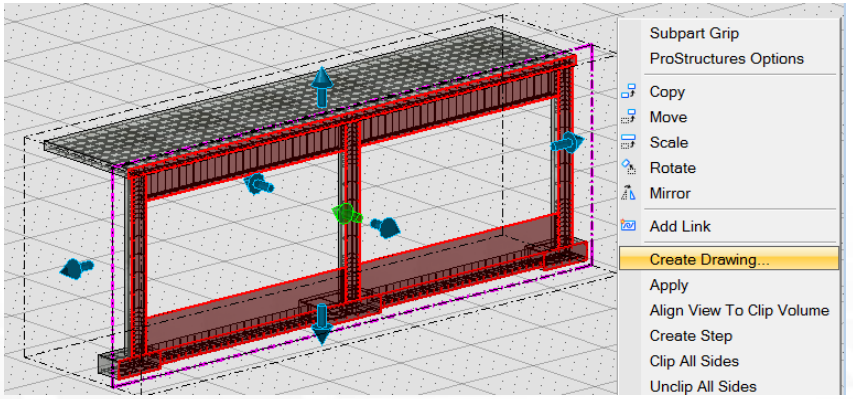












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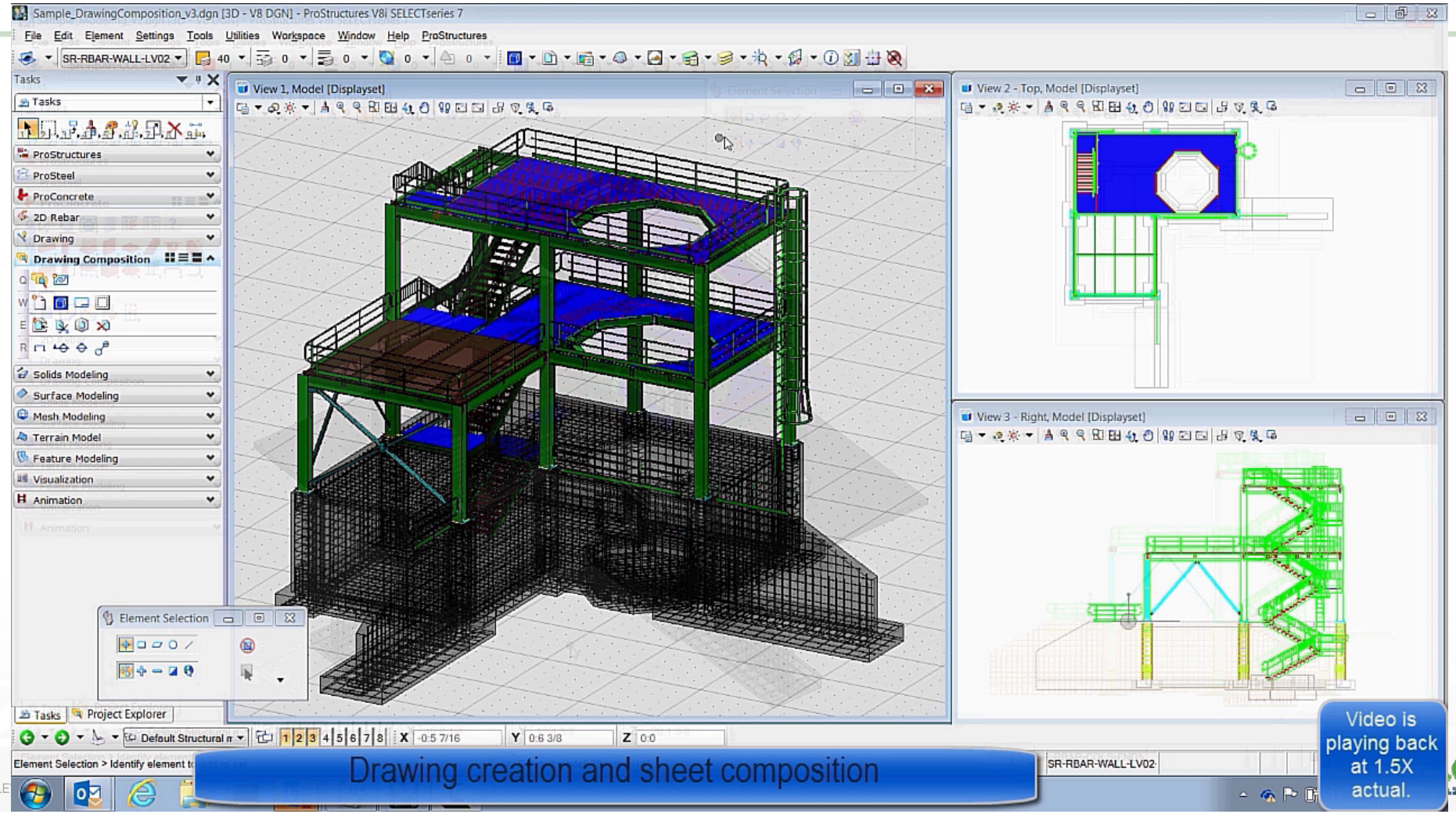
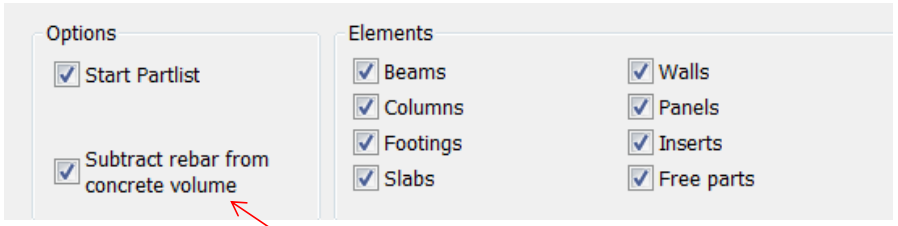


Customized Bar Bending Schedules and Quantity Reports

- Volume quantities with or without rebar:



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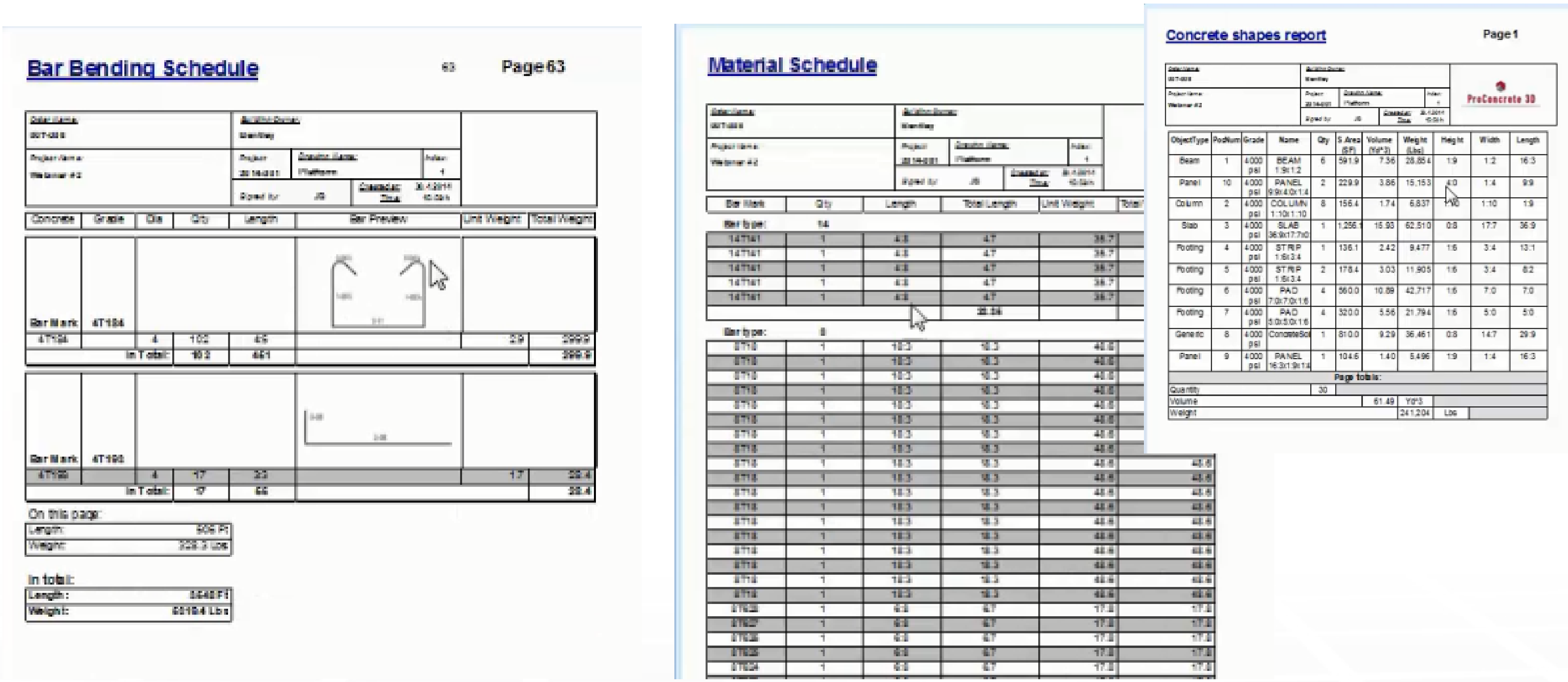
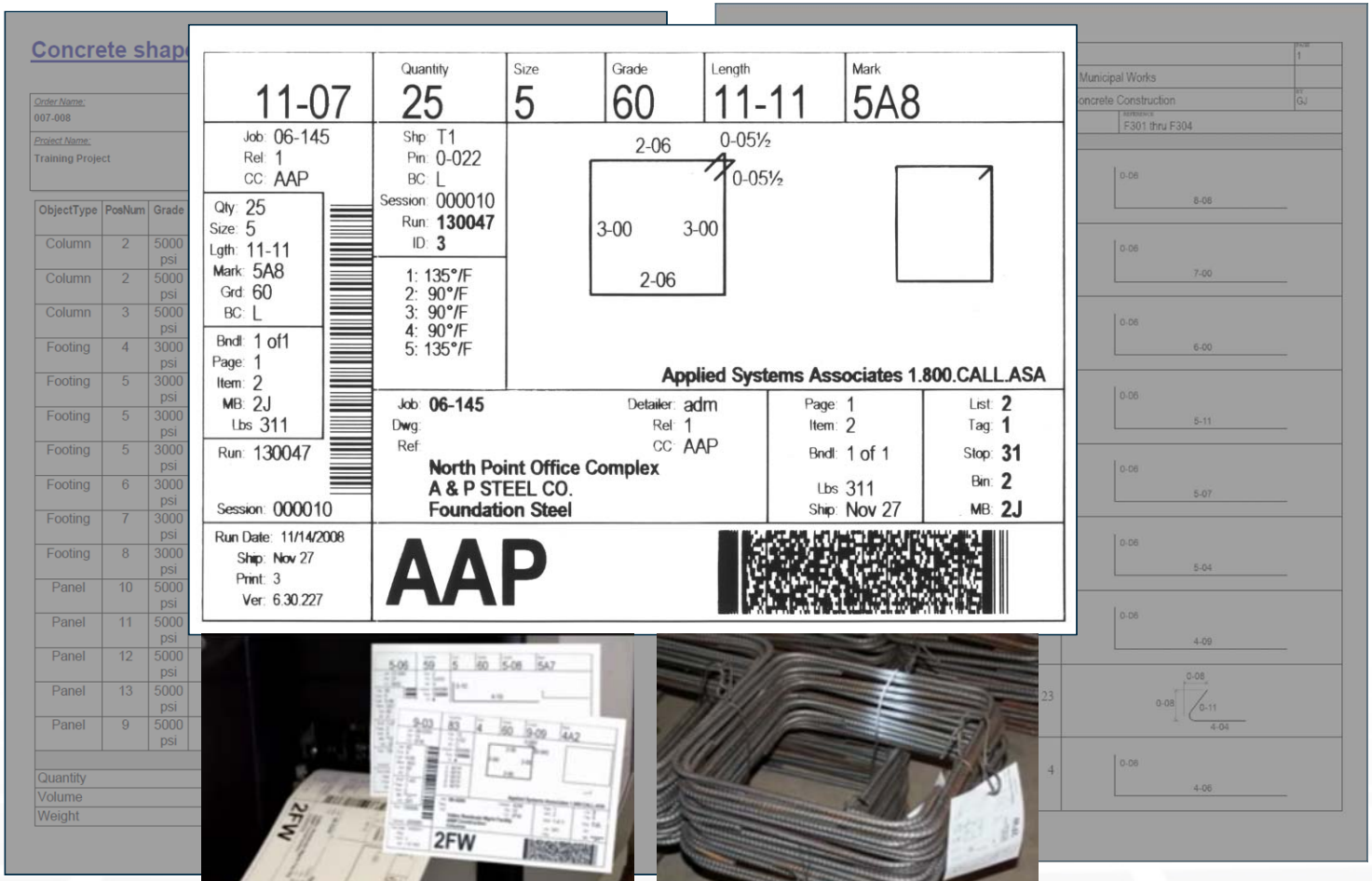


Bentley

Customized Bar Bending Schedules and Quantity Reports



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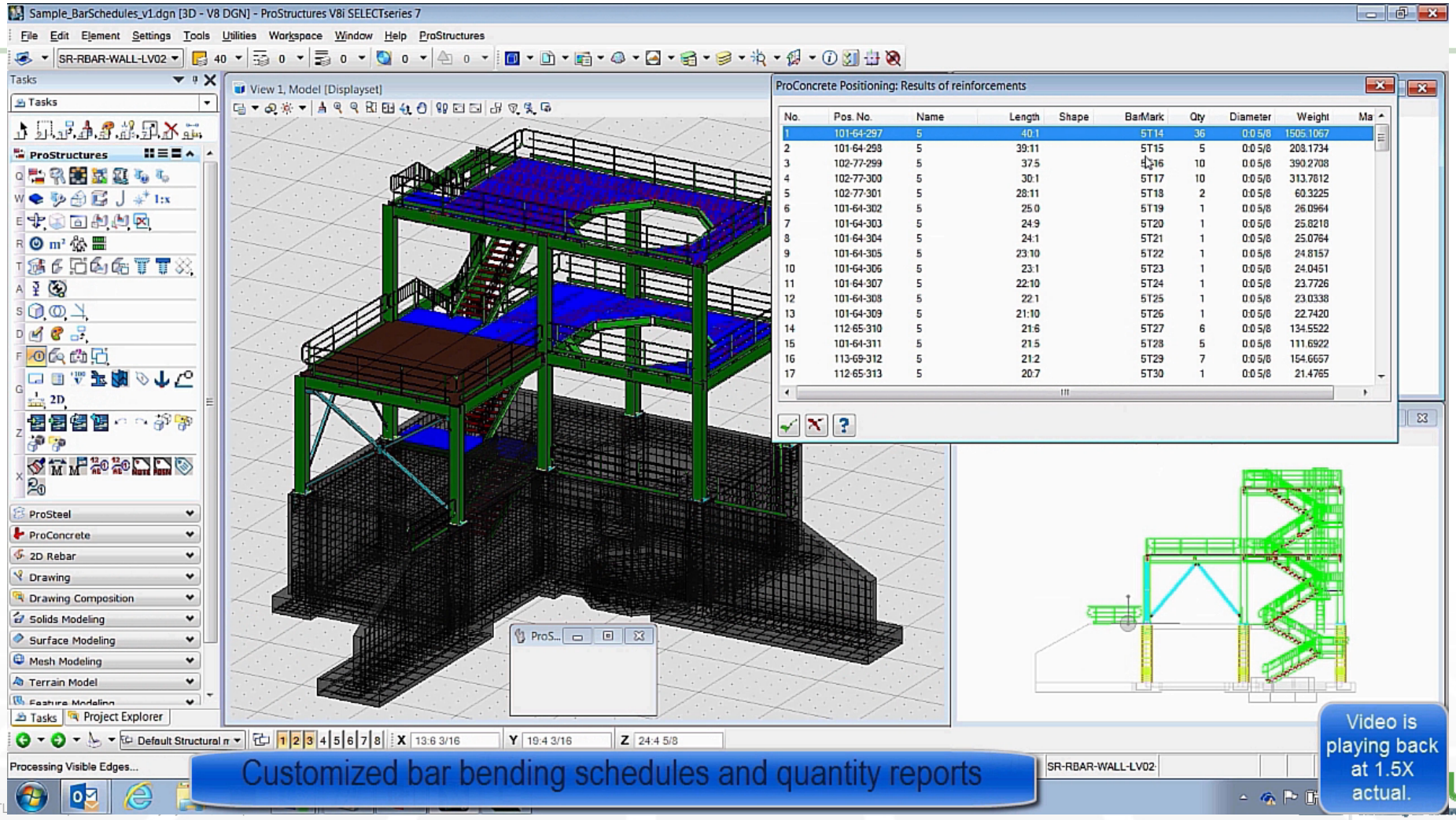
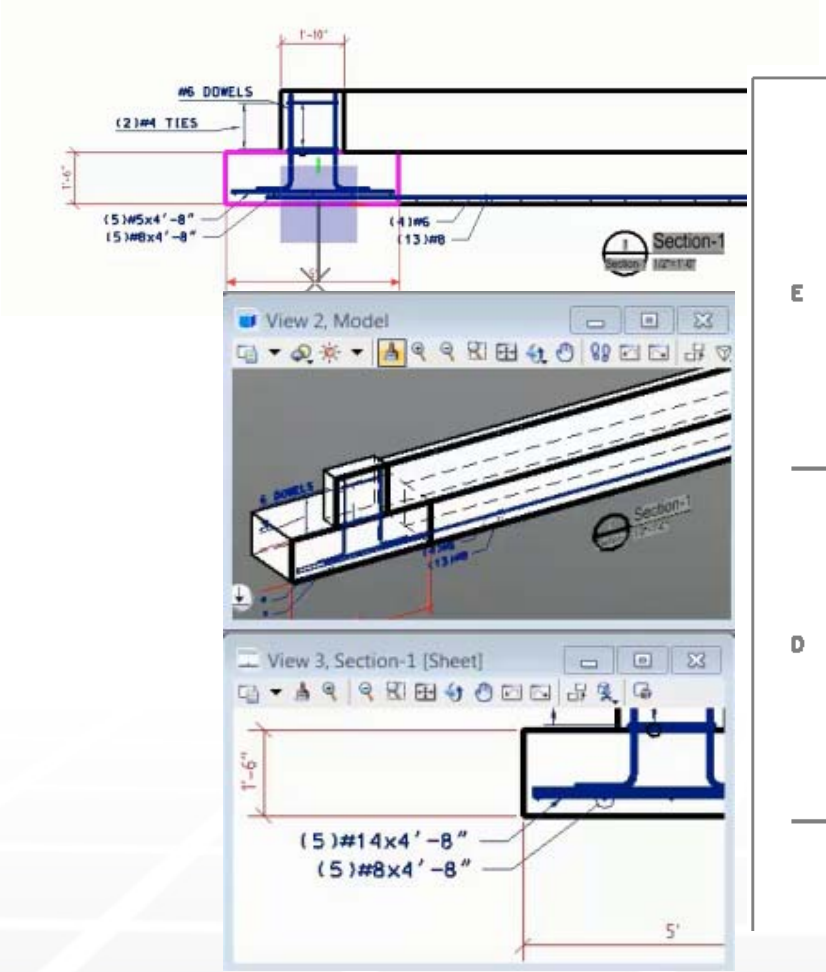
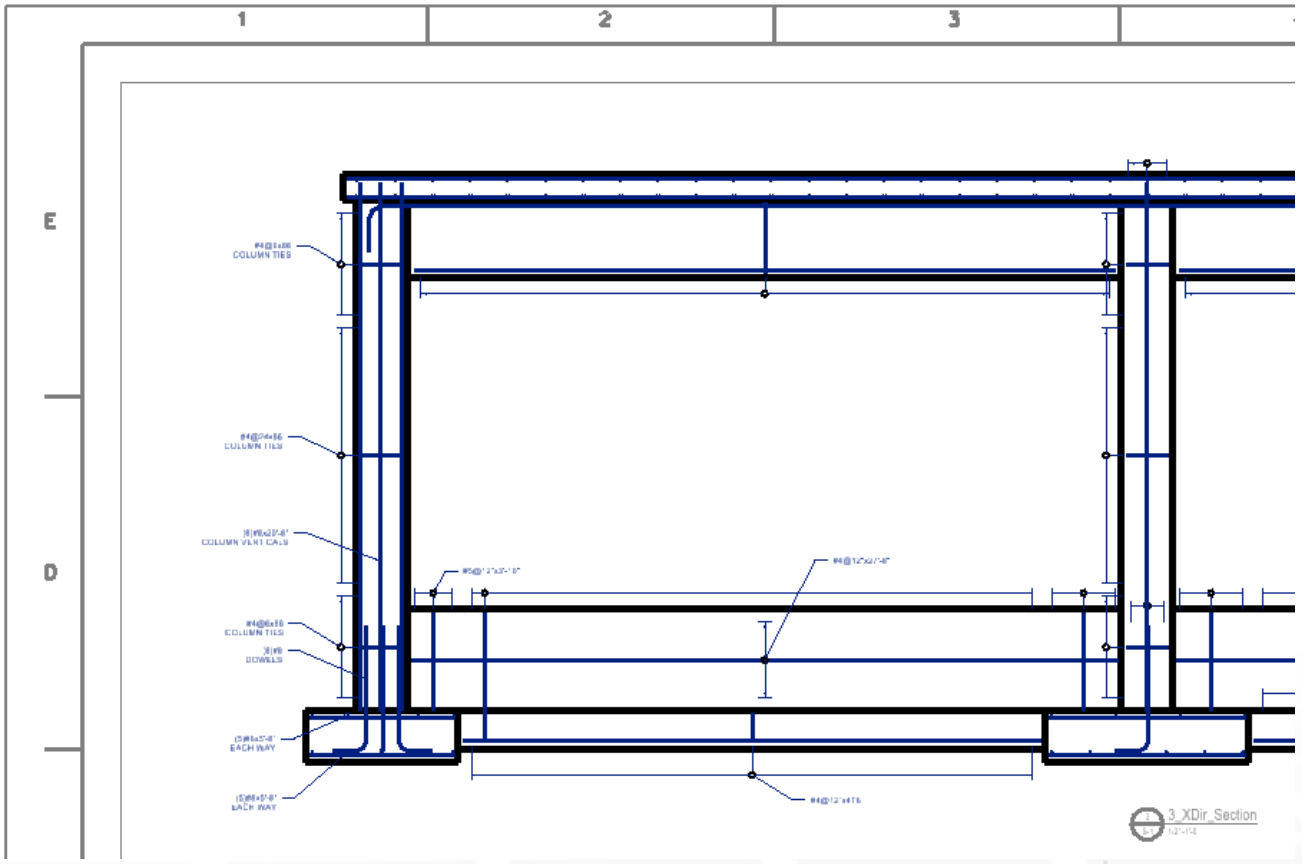


Drawing Annotation





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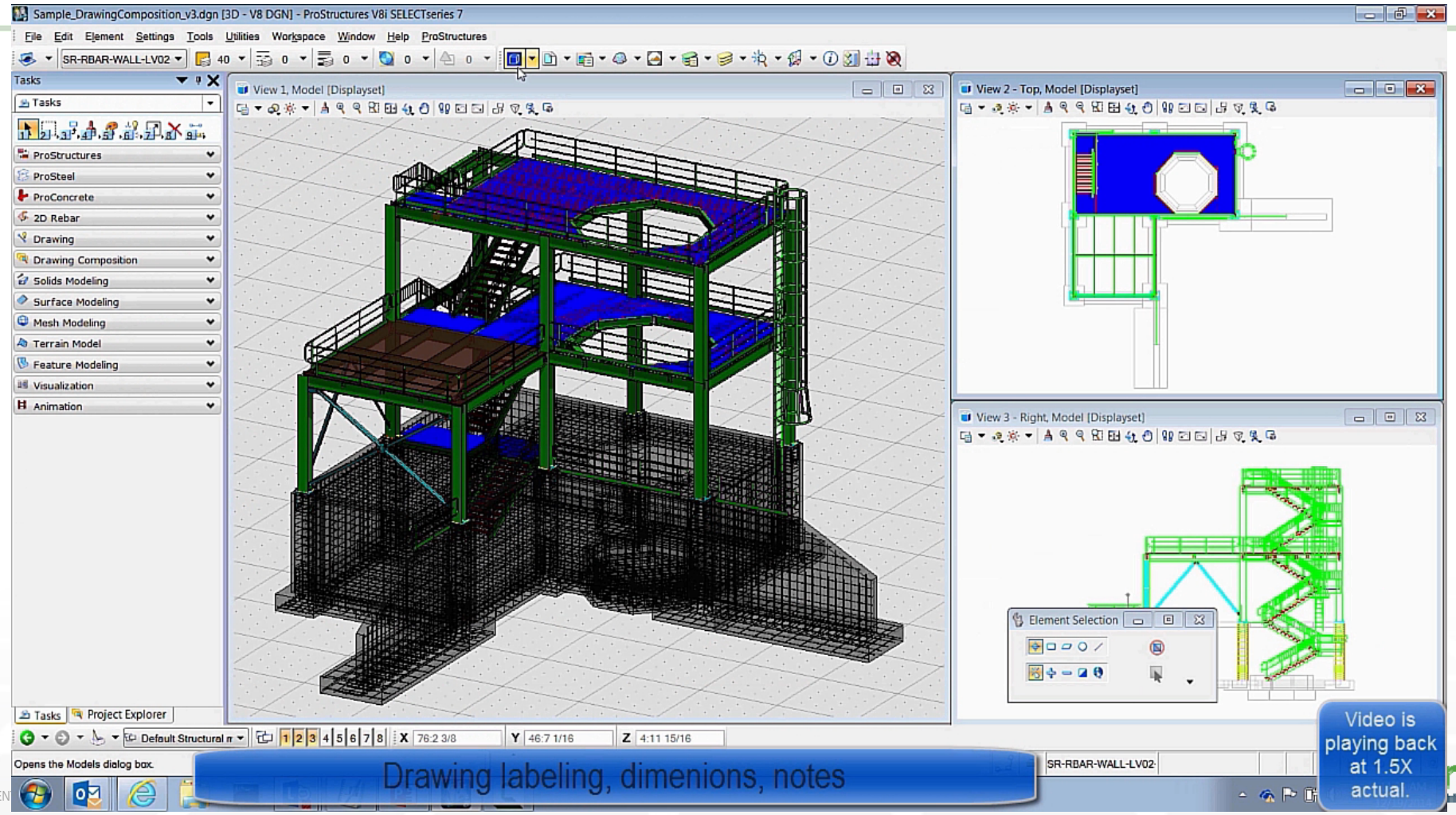
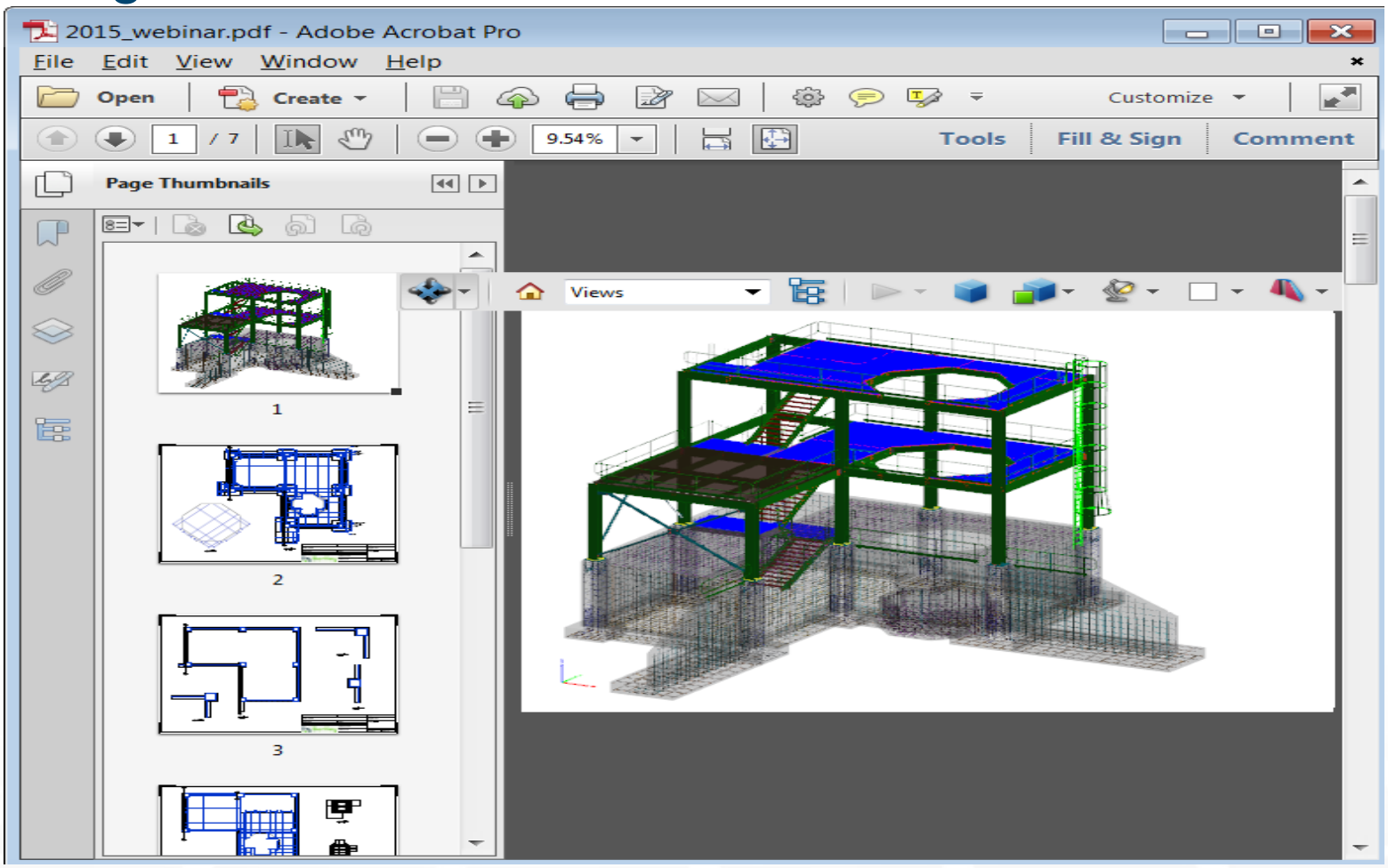


Exporting to 3D PDF, ISM/IFC, iModels



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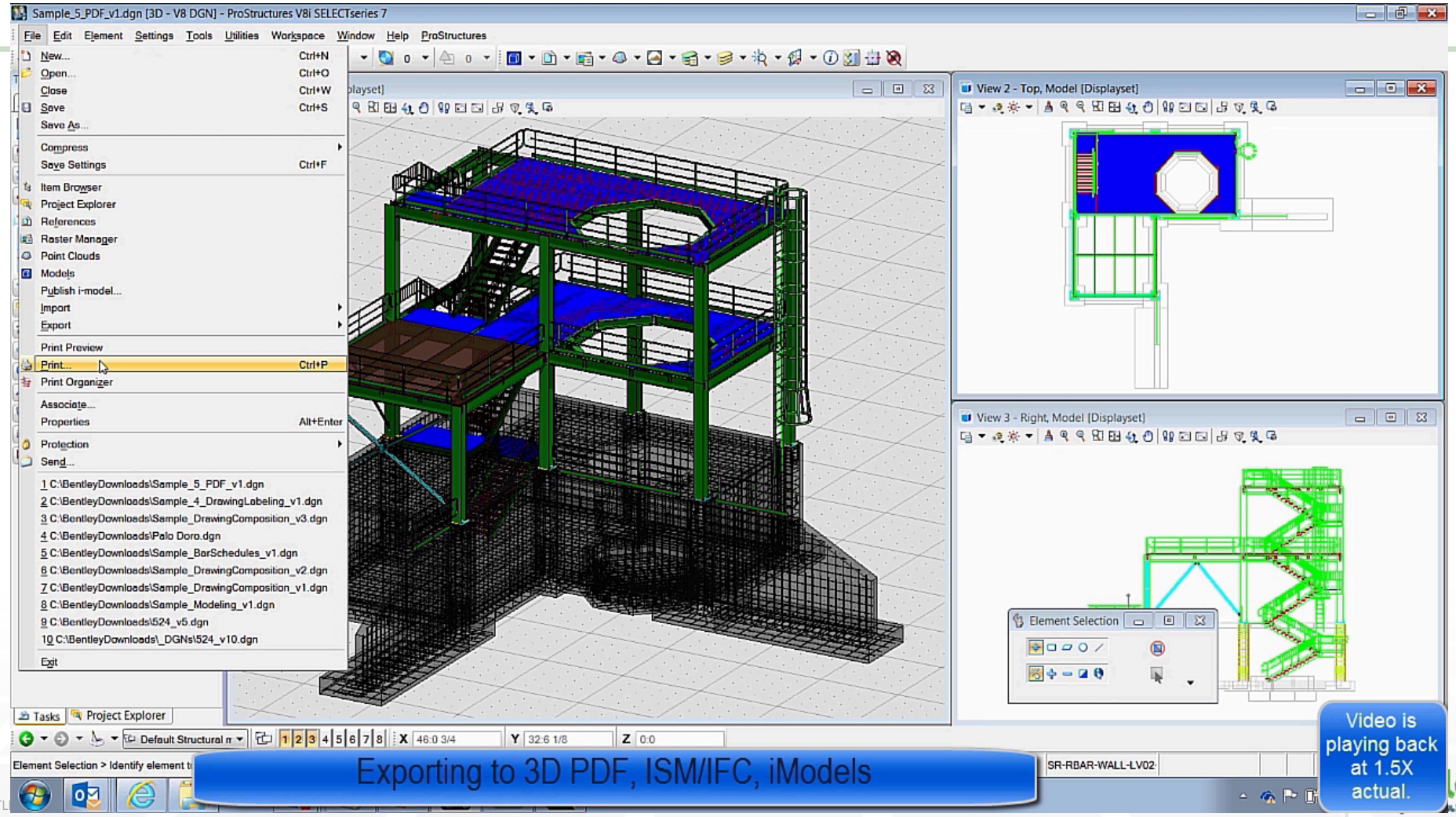
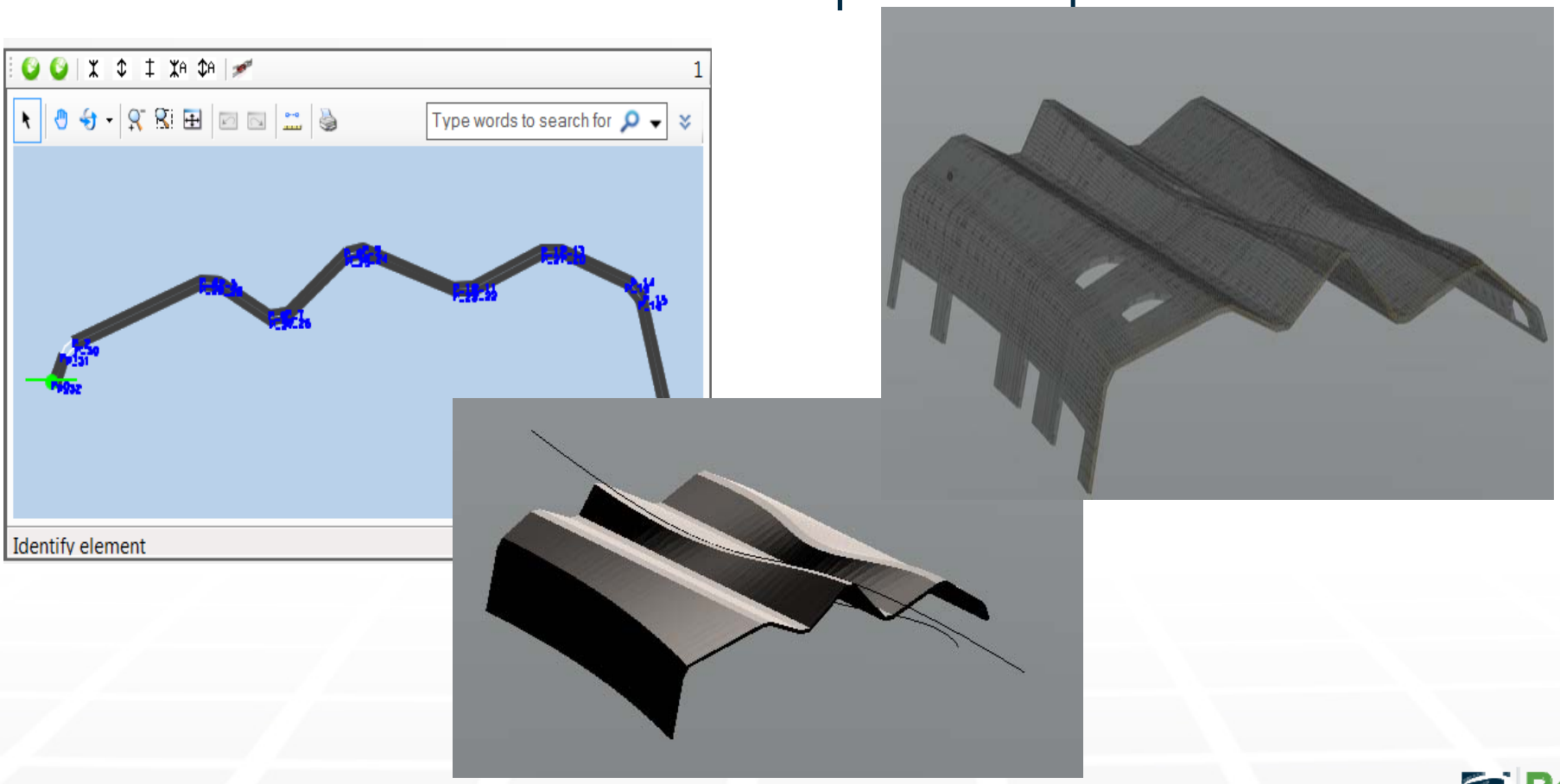
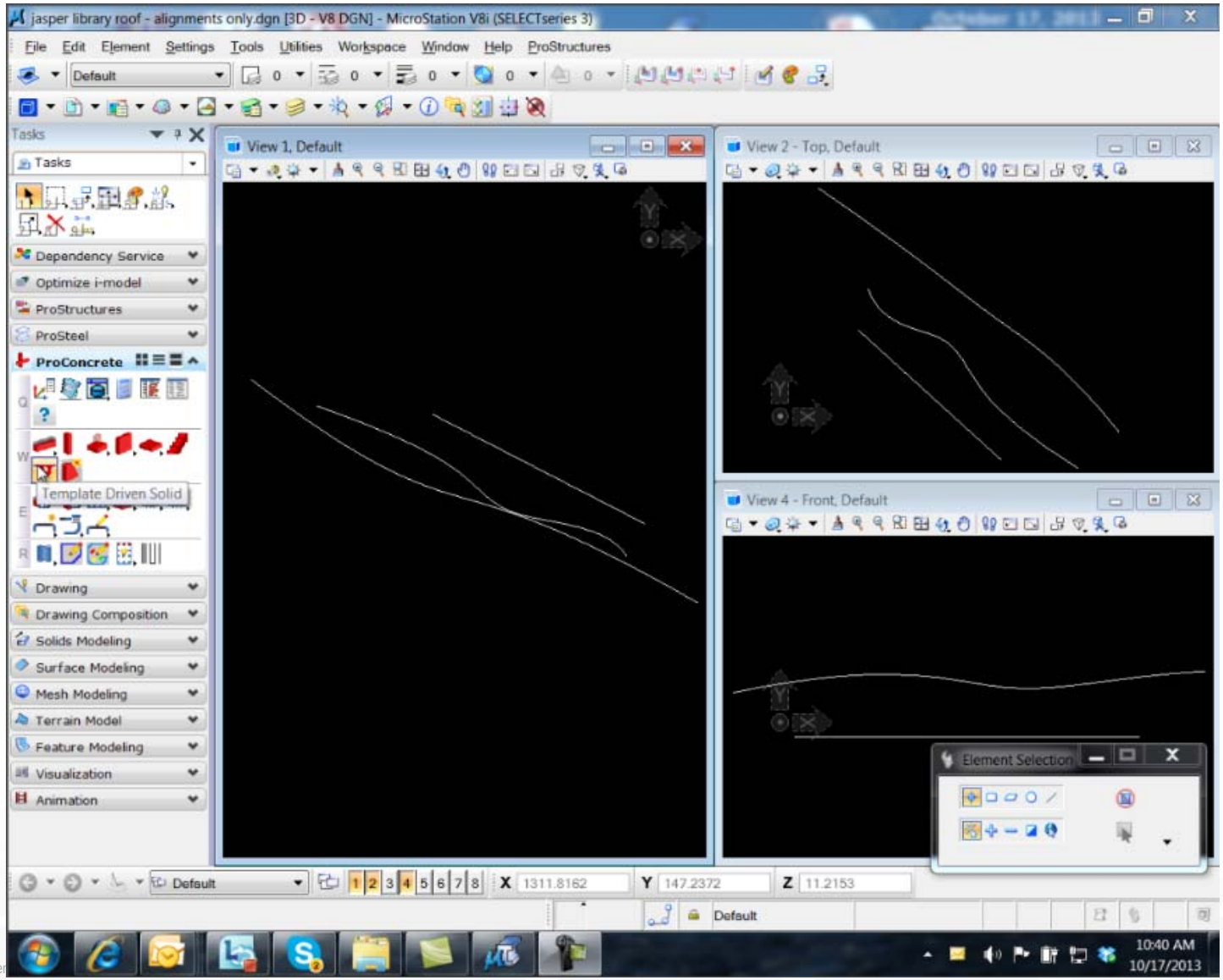


Detailing Complex Structures…

- 3D Parametric Solid Model from 2D profile template

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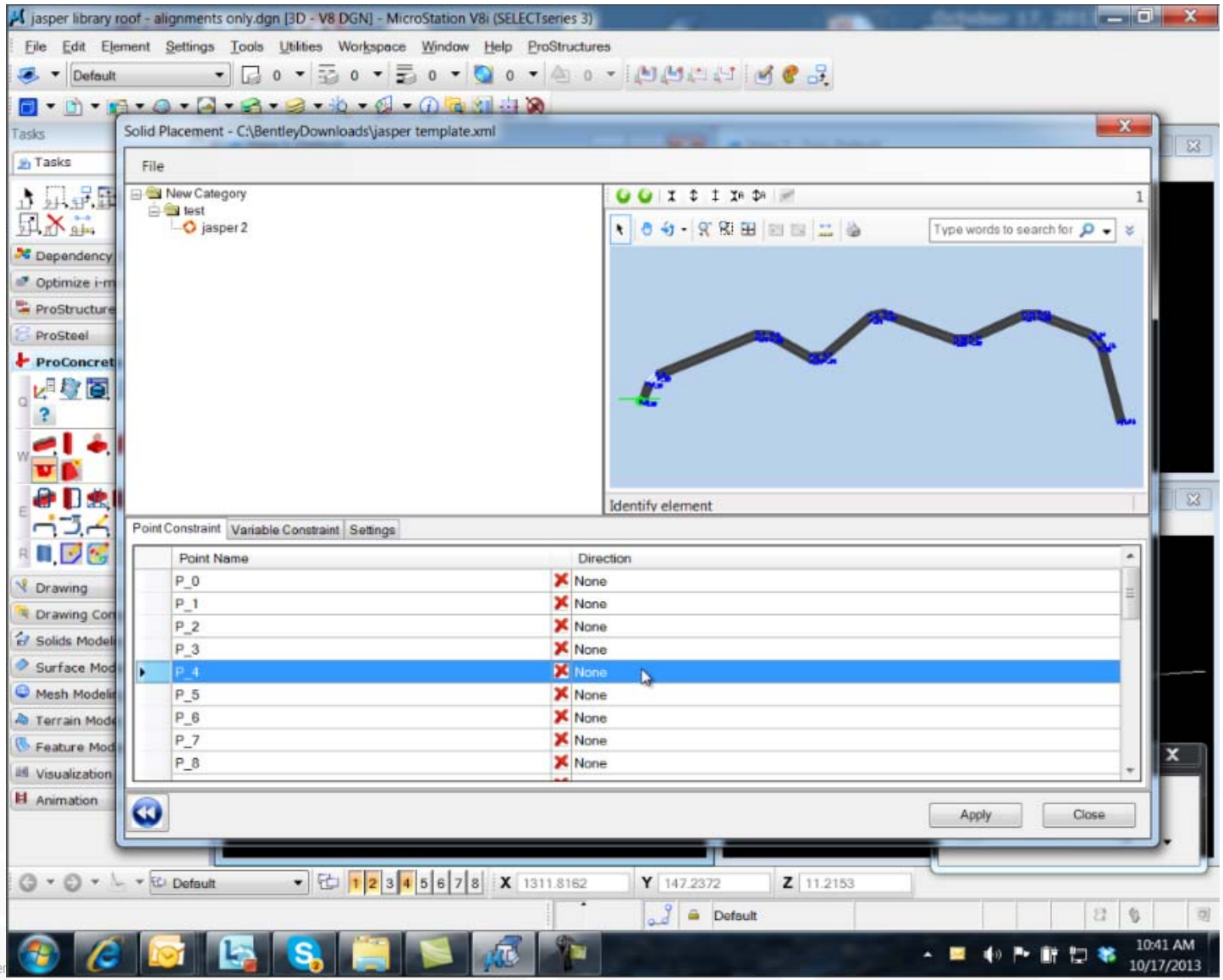
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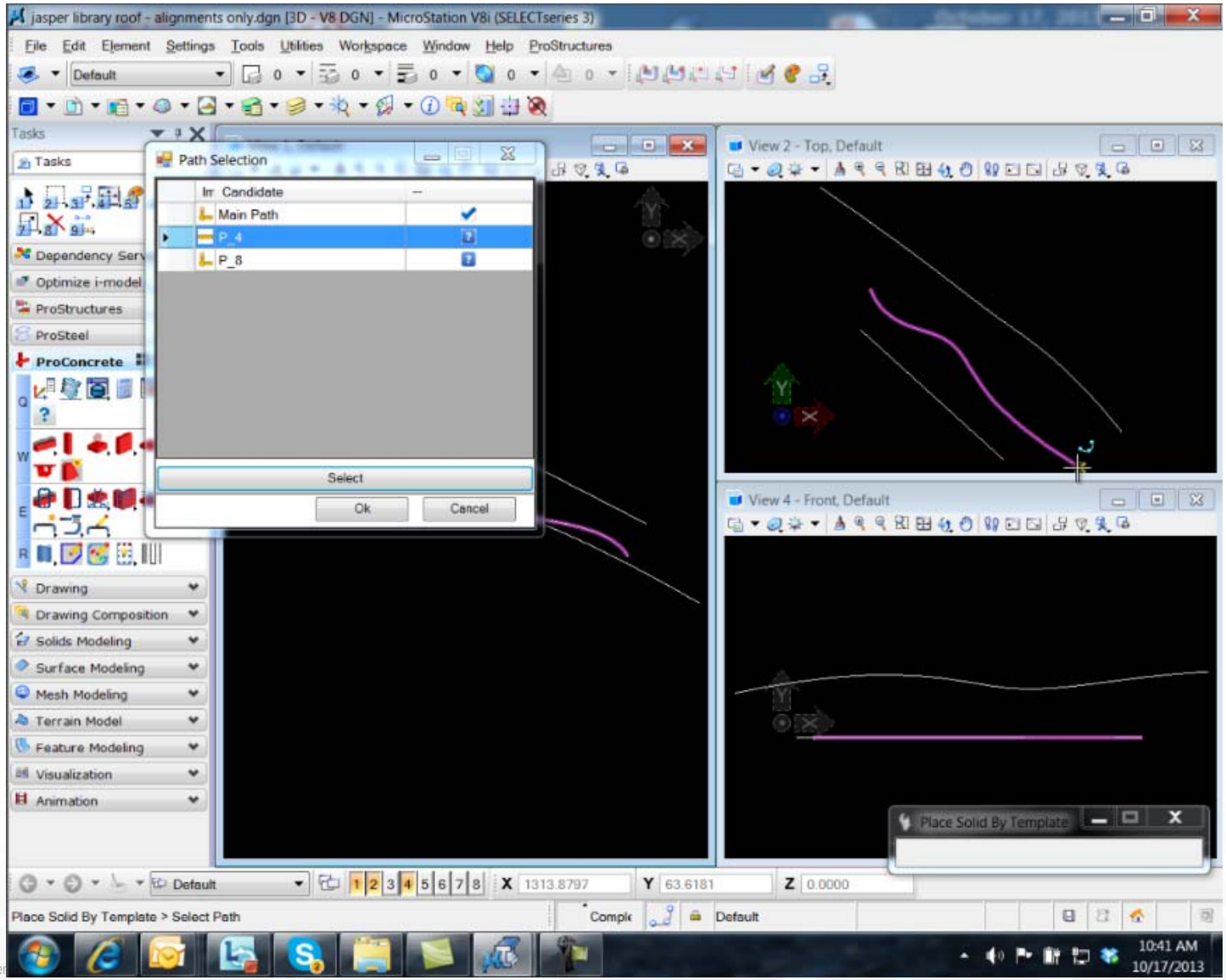
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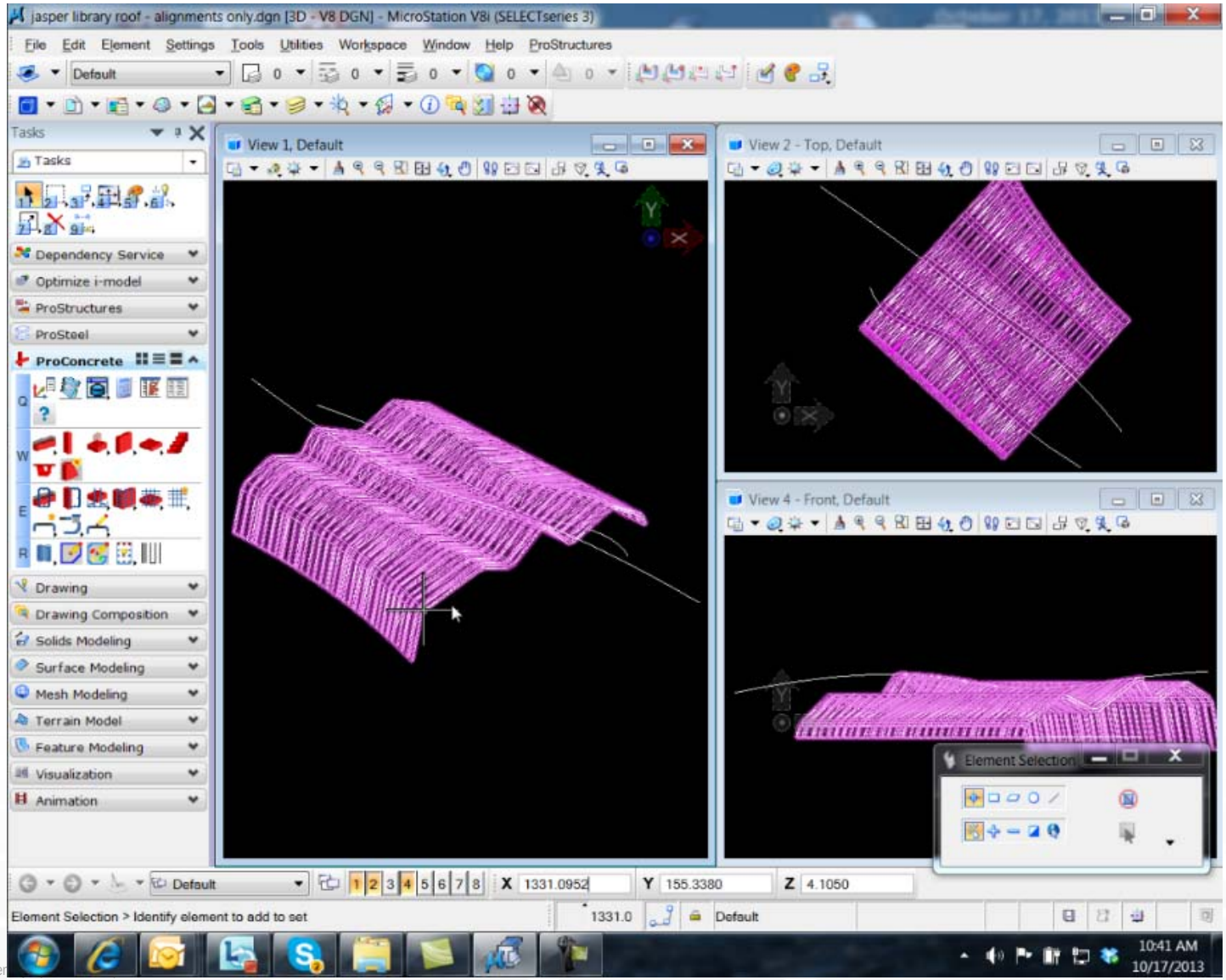
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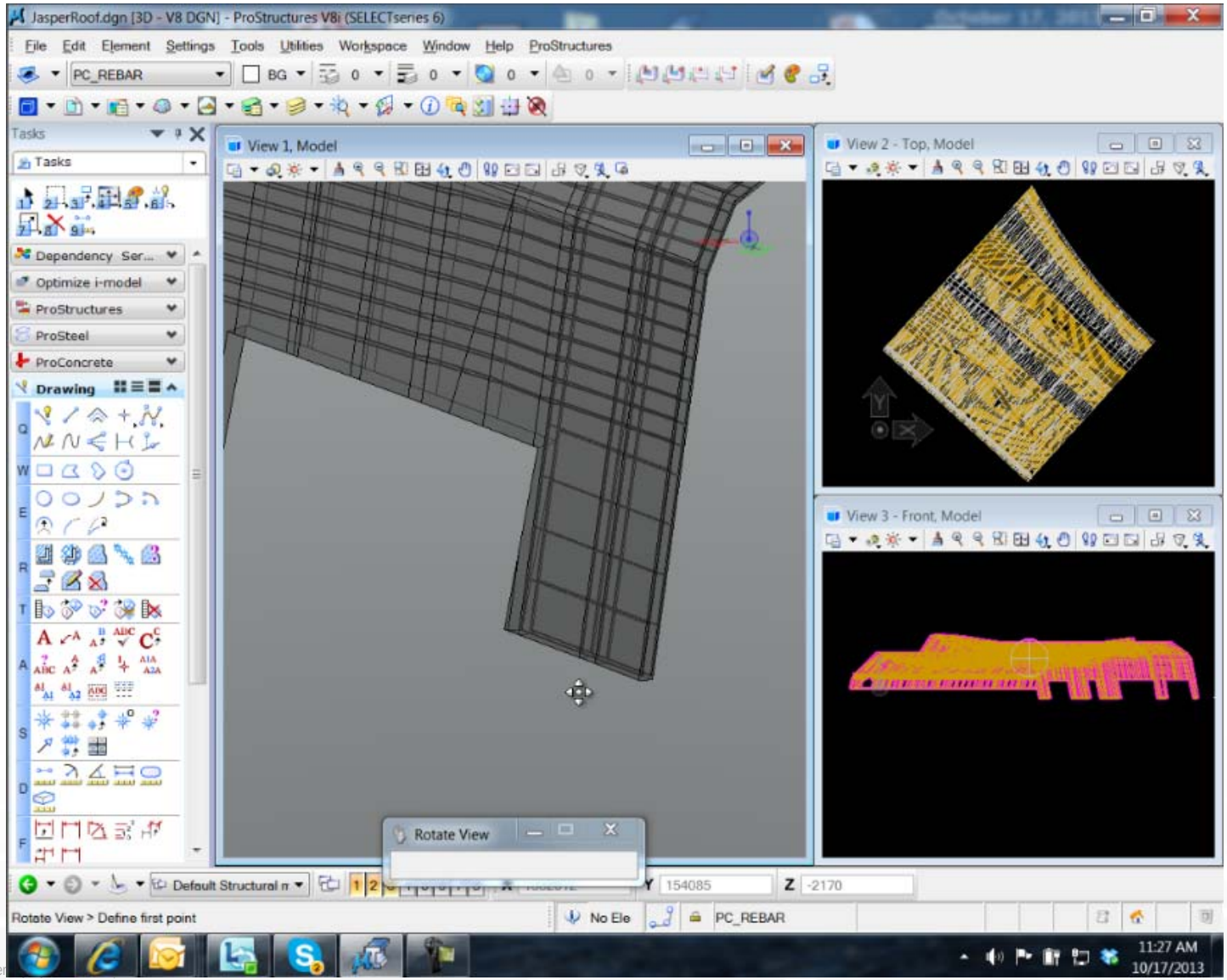
JasperRoof.dgn [3D - V8 DGN] - ProStructures V8i (SELECTseries 6)
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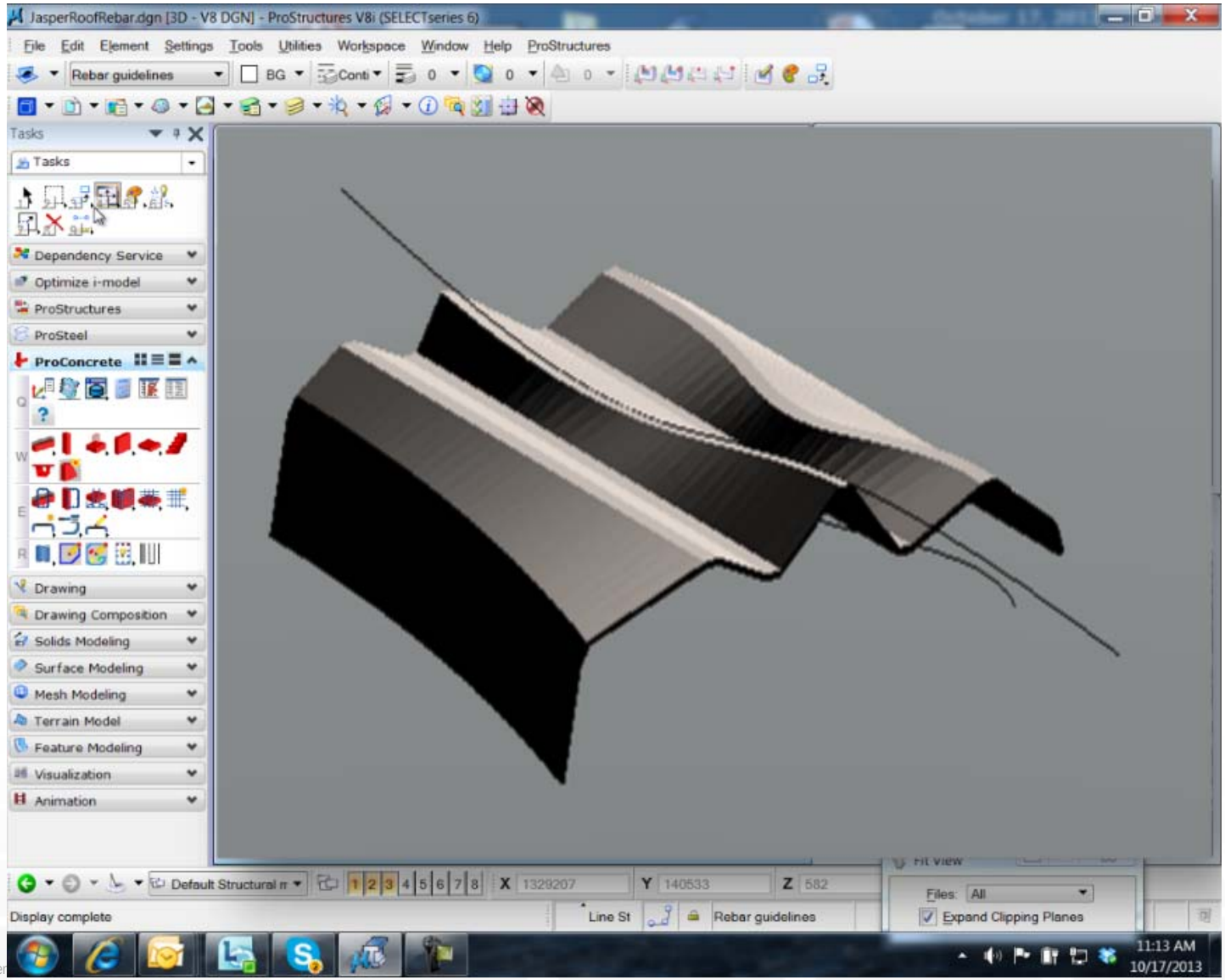
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Drawing Composition
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Benefits

- Ability to model any type of structure
- Clash detection against any element in the 3D model…not only rebars
- Automated quantities
- Intelligent i-Model for construction and inspection

Thank you!

