



MicroStation CONNECT Edition - Information Modeling for Infrastructure Professionals

Urmas Jüriorg, CAD-süsteemide OÜ, Estonia





MicroStation

3D modeling and documentation
software for infrastructure
projects



**Interoperable and Scalable
Platform**

Robust and Extensive Modeling

**Automated Production of
Intelligent Deliverables**



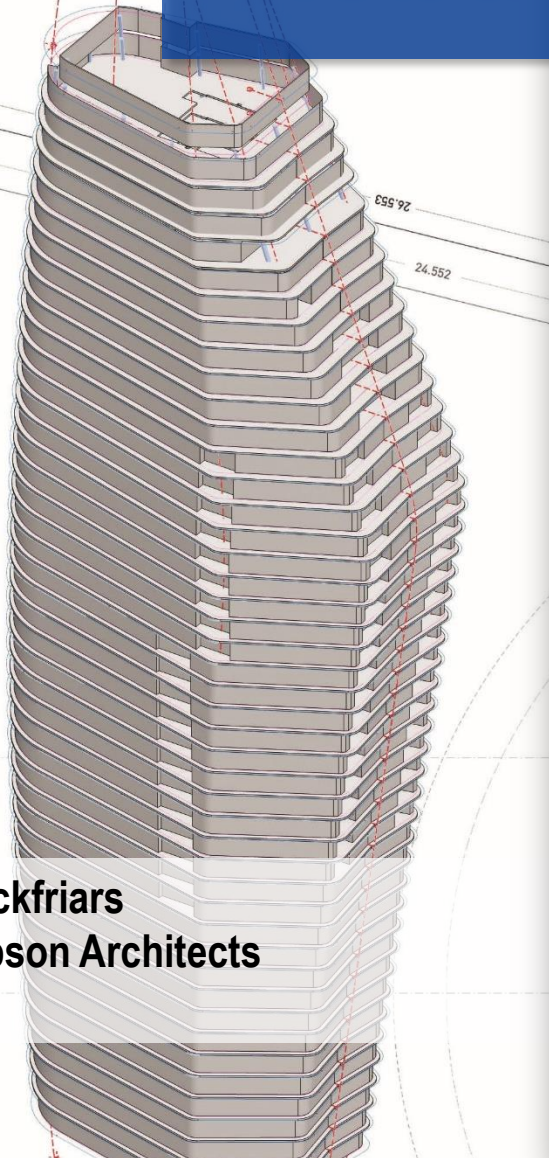
Interoperable



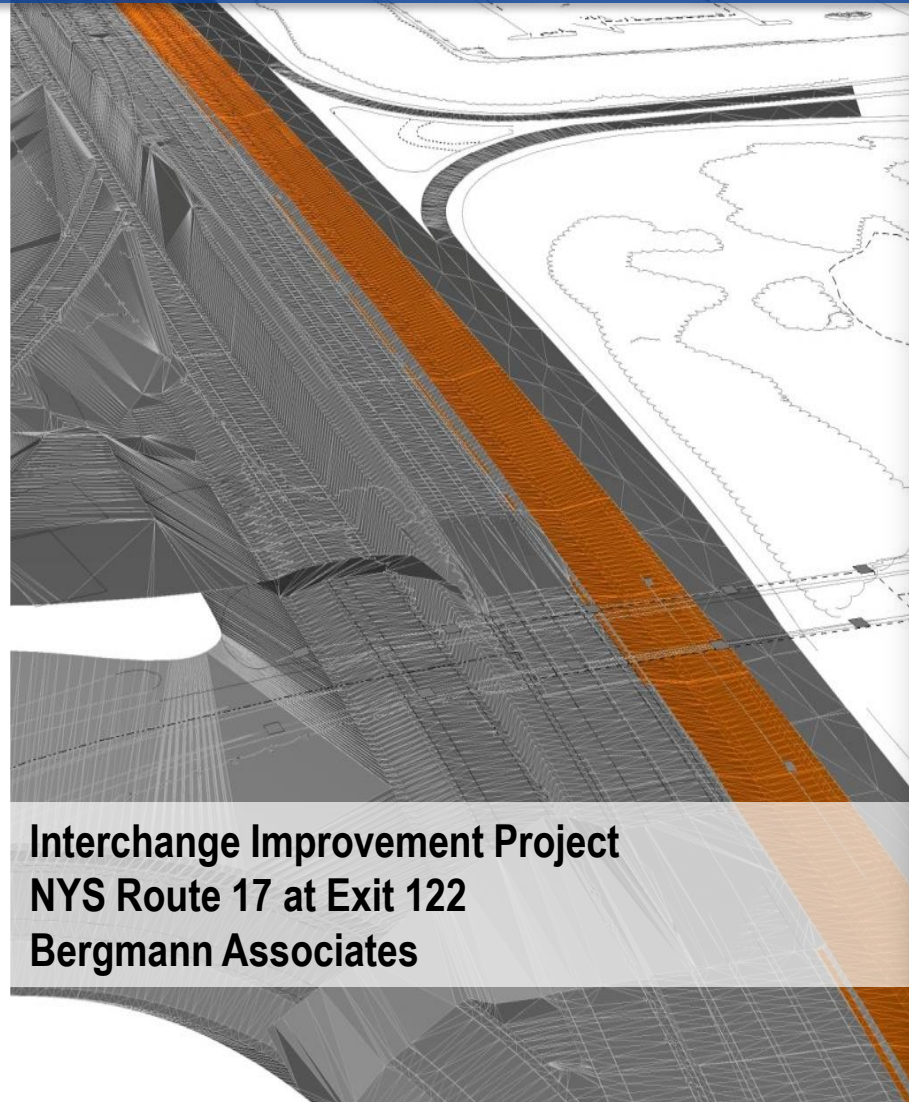
Scalable

Platform

Robust and Extensive Modeling



One Blackfriars
Ian Simpson Architects

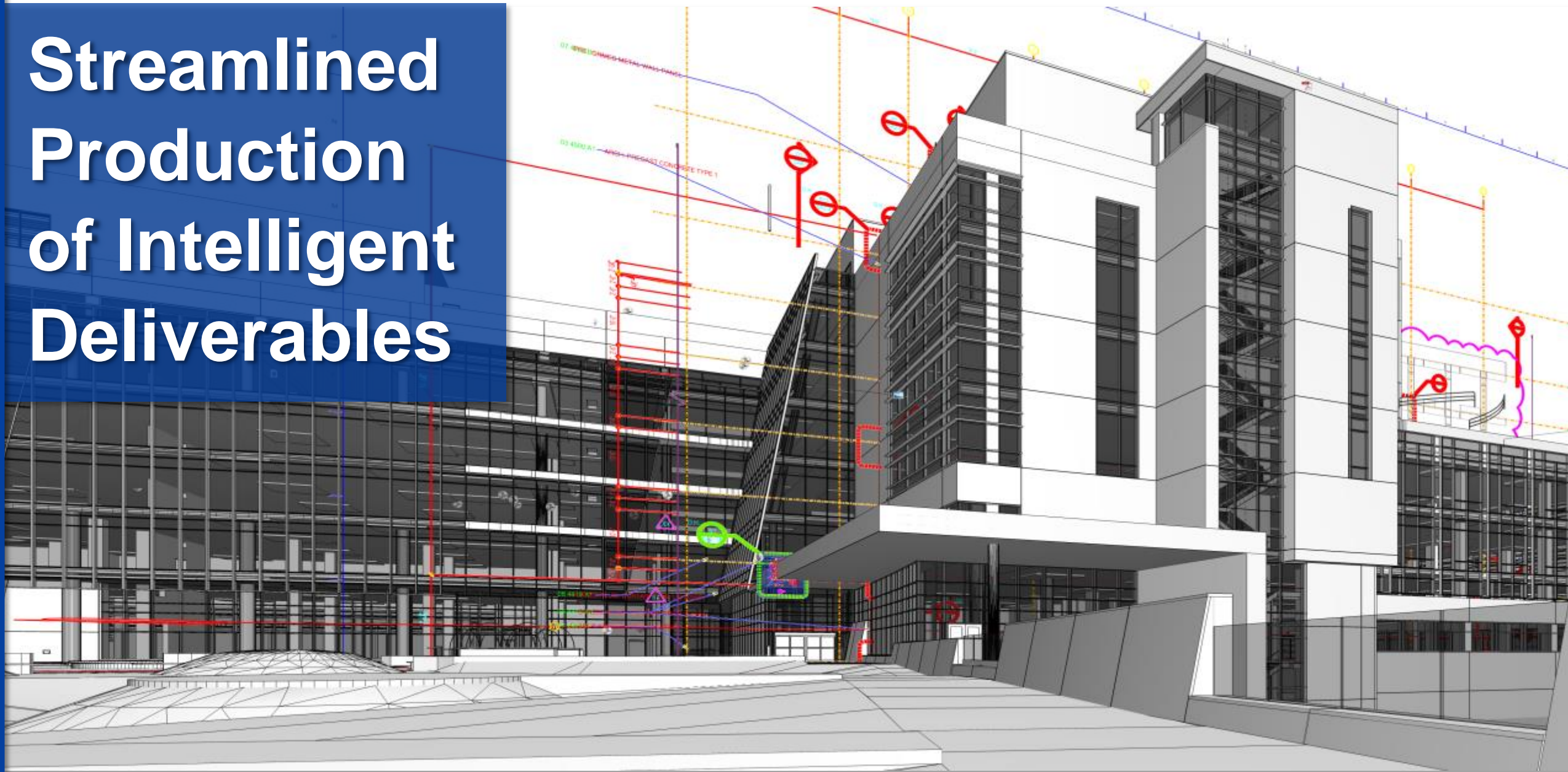


Interchange Improvement Project
NYS Route 17 at Exit 122
Bergmann Associates



3x660MW Supercritical Thermal Power Project
Larsen & Toubro

Streamlined Production of Intelligent Deliverables



The CONNECT Edition

Become a **CONNECTED**
User

Work on **CONNECTED**
Projects

Within **CONNECTED**
Enterprises

The CONNECTED *User*



Personal Dashboard



Application
Usage
Tracking



Learning
Paths
& Transcripts



Passport
s & Visas



Service
Ticket Status



i-model
Notifications



Settings



Personal
Playlists



Communitie
s



New Version
Notifications



Fix
Download
Notifications

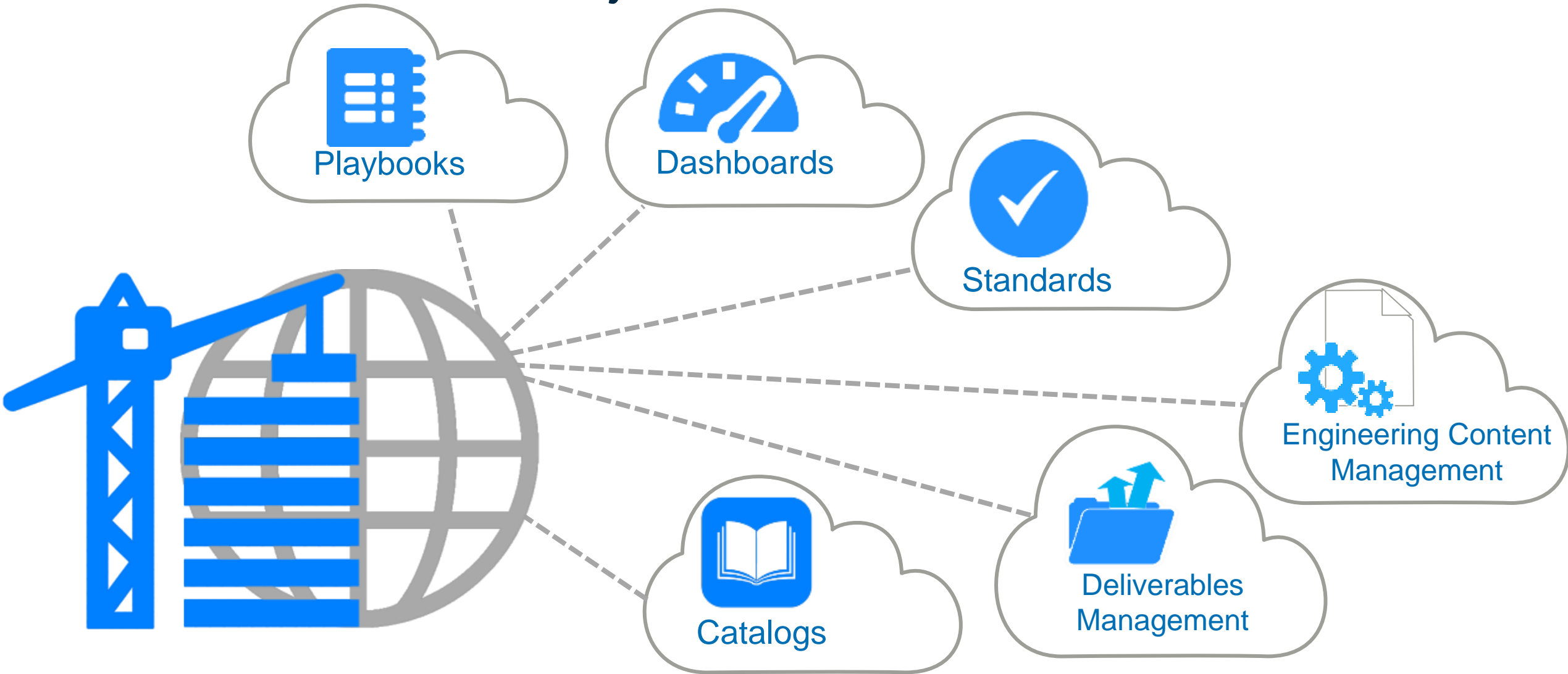


Content

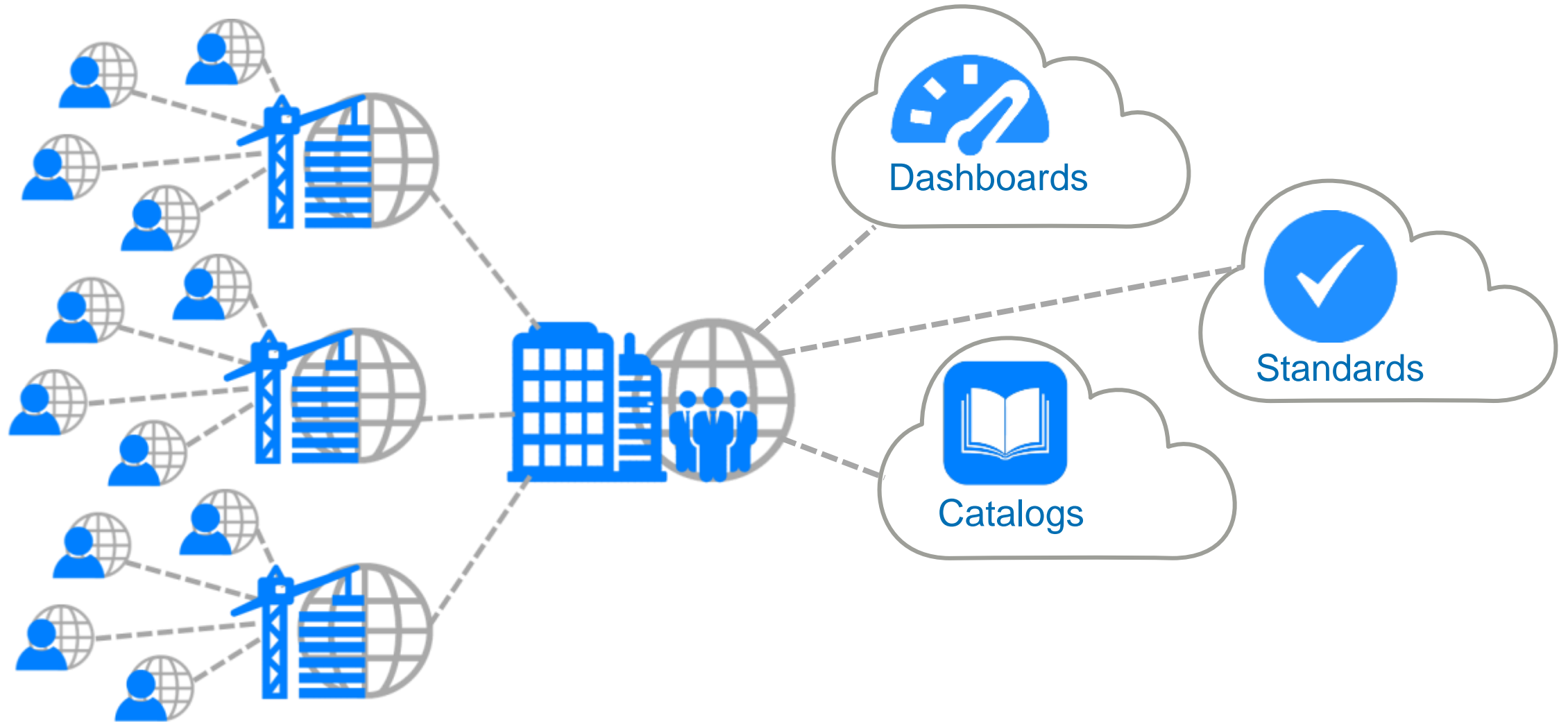


RSS
Feeds

The CONNECTED *Project*



The CONNECTED *Enterprise*





The CONNECT Edition

The Common Environment for
Comprehensive Project Delivery



The Common Environment for Comprehensive Project Delivery

Modeling, Data, Performance

Common Modeling Environment



Common **Modeling** Environment



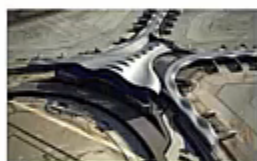
VIEW EXAMPLES



Bridge



Hydro Plant



Airport Terminal



Civil

LEARNING

Courses

Experience Level

Edges Overlay Workflow (12:02)

You will be able to achieve amazing renderings by following Jerry's visualization recipes. In this fourth and last video learn a new workflow for producing high quality high resolution...

**Contours and Edges** (0:28)

You will be able to achieve amazing renderings by following Jerry's visualization recipes. In this third video of 4 learn how to render using contours and edges overlay.

**Render Settings Output to PSD** (12:32)

You will be able to achieve amazing renderings by following Jerry's visualization recipes. In this second of 4 videos learn about all the output channels available when rendering wit...

**Output Channels** (14:54)

In this first video of 4 you will learn how render output channels can be used with Photoshop to produce unique effects such as ambient occlusion render with realistic glass.

**Lighting Environments and Wrap Up** (7:41)

You will be able to achieve amazing renderings by following Jerry's visualization recipes. In this fifth and last video you will learn more about the impact of Environments on illuminat...

**Lighting with Environments** (14:57)

You will be able to achieve amazing renderings by following Jerry's visualization recipes. This month's topic is lighting and in this fourth video of 5 you will learn about Environment...

**Lighting Area Lights, Glow and Environment** (13:21)

You will be able to achieve amazing renderings by following Jerry's visualization recipes. This month's topic is Lighting in this 3rd video of 5 you will learn about Area Lights, Glow Li...

**Lighting with IES and Glow** (12:52)

You will be able to achieve amazing renderings by following Jerry's visualization recipes. This month's topic is lighting and in this second video of 5 you learn about IES photometric...

**Lights Indirect Range and Material Visibility** (14:19)

You will be able to achieve amazing renderings by following Jerry's visualization recipes. This month's topic is Lighting in this first video of 5 you will learn about the render settings...

**Materials from DGN** (4:47)

Every month, your Instructor, Jerry Flynn, will host a question and answer session on a variety of visualization topics. The topic for January 2015 is Materials this fifth video is on crea...

**Materials Projections** (12:30)

Every month, your Instructor, Jerry Flynn, will host a question and answer session on a variety of visualization topics. The topic for January 2015 is Materials this fourth video is on m...

**Fur Based Materials** (14:59)

Every month, your Instructor, Jerry Flynn, will host a question and answer session on a variety of visualization topics. The topic for January 2015 is Materials this third video is on cre...

**Layered Materials** (11:37)

Visualization Special Interest Group Every month, your Instructor, Jerry Flynn, will host a question and answer session on a variety of visualization topics. The topic for January 2015 i...

**Material Widgets** (14:22)

Visualization Special Interest Group Every month, your Instructor, Jerry Flynn, will host a question and answer session on a variety of visualization topics. The topic for January 2015 i...

**Texture Replicators** (15:00)

Visualization SIG What's new for visualization MicroStation Connect Edition EAP2 Jerry Flynn shows the new ribbon interface demonstrates some new features related to visualization.

**Rendered Edge Shader** (1:00)

More Training...

NEWS AND ANNOUNCEMENTS

Bentley Acquires EADOC

Registration and Schedule Now Available for 2015 Bentley LEARNING Conferences in U.S.

Bentley Adds Process Safety and Risk Management Capabilities to AssetWise APM

Bentley Acquires Acute3D**Bentley Acquires C3global**

Bentley Systems Congratulates Network Rail on Taking Top Honors for its Linear Asset Decision Support System at IET Innovation Awards 2014

Bentley Announces Winners of 2014 Be Inspired Awards**Bentley Systems and Highways Agency Announce AssetWise Academy**

Bentley Systems and Siemens PLM Software advance manufacturing process productivity through reality modeling of industrial facilities

Bentley Unveils the CONNECT Edition's Common Environment for Comprehensive Project Delivery

Leading Architectural and Design Practices Credit Bentley AECOSim Building Designer's BIM Advancement

Bentley and Trimble Advance BIM through Construction Modeling

News Alert: OpenPlant Orthographics Manager V8i Automates Extraction and Production of General Arrangement Plant Drawings from 3D Model, Saving Time and Money

Bentley's New MineCycle Applications Empower Optioneering for Faster and Better Mine Planning and Design Decisions

2014 Be Inspired Awards

News Alert: Bentley Systems Names Dr. Artur Krawczyk 2014 Educator of the Year

Read more...



MicroStation

Projects

- Blackhawk Estates
Residential Subdivision
- Health Protection Center
Health Protection Centre for Women a...
- Cougar Dam Reservoir
- Falcon Flight School
Light Commercial
- Graphite Mine Road Extension
100 to 272
- Hames Water Treatment Plant
Water Treatment Plant Improvements
- Hardisty Tank Farm**
- Hardisty Tank Farm
Facility Upgrade
- Round Lake Bypass
Link between I-87 and U.S. 9
- Street Water Treatment Plant
- Other Files
No active project
- New Project

Search Projects

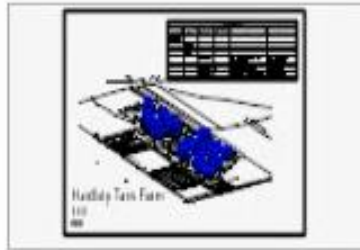
Hardisty Tank Farm

Would you like to convert this Bentley Connect project to a local project?

Recent Files



TankPlacement.dgn
3D Imperial Design Mo



Sheets.dgn
Cover Sheet



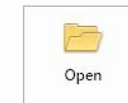
3D Existing Site Model...
Default

MicroStation interface showing the 'Sheets.dgn' file. The main window displays a technical drawing of a tank farm layout with a table of contents on the right. The table lists various sheets and their descriptions. The bottom status bar shows the current sheet is 'Zone 3 - Tank Report'.

ID	Project	Description	Author	Created By
EAT 001	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 002	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 003	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 004	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 005	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 006	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 007	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 008	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 009	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 010	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 011	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 012	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 013	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 014	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 015	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 016	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 017	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 018	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 019	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 020	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 021	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 022	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 023	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 024	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 025	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 026	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 027	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 028	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 029	10.0000	10.0000	10.000000-0000	Bentley Sheet
EAT 030	10.0000	10.0000	10.000000-0000	Bentley Sheet

Sheets.dgn

Created 10/28/2014 10:09:23 AM
Modified 10/30/2014 10:05:00 AM
Size 2259 KB



Properties

\$id 123
ProjectId 51
ProjectName Hardisty Tank Farm
ProjectNumber 00000032
ProjectManager
ProjectType eB.Data.Project
ProjectDescription Hardisty Tank Farm
ProjectStartDate
ProjectEndDate
ProjectLocation
ProjectScopeld 123

Members

- bill.blair@mailinator.com
- bill.blair@mailinator.com
- bill.blair@mailinator.com
- chris.bober@bentley.com
- chris.bober@bentley.com
- chris.bober@bentley.com
- cindy.cross@mailinator.com
Eagle Infrastructure
- cindy.cross@mailinator.com
Eagle Infrastructure
- cindy.cross@mailinator.com
Eagle Infrastructure

MicroStation

Projects

- Blackhawk Estates
Residential Subdivision
- Health Protection Center
Health Protection Centre for Women a...
- Cougar Dam Reservoir
- Falcon Flight School
Light Commercial
- Graphite Mine Road Extension
100 to 272
- Hames Water Treatment Plant
Water Treatment Plant Improvements
- Hardisty Tank Farm**
- Hardisty Tank Farm
Facility Upgrade
- Round Lake Bypass
Link between I-87 and U.S. 9
- Street Water Treatment Plant
- Other Files
No active project
- New Project**

Hardisty Tank Farm

Would you like to convert this Bentley Connect project to a local project?



Create Local Project

Properties

\$id	123
ProjectId	51
ProjectName	Hardisty Tank Farm
ProjectNumber	00000032
ProjectManager	
ProjectType	eB.Data.Project
ProjectDescription	Hardisty Tank Farm
ProjectStartDate	
ProjectEndDate	
ProjectLocation	
ProjectScopeld	123

Members

- bill.blair@mailinator.com
- bill.blair@mailinator.com
- bill.blair@mailinator.com
- chris.bober@bentley.com
- chris.bober@bentley.com
- chris.bober@bentley.com
- cindy.cross@mailinator.com
Eagle Infrastructure
- cindy.cross@mailinator.com
Eagle Infrastructure
- cindy.cross@mailinator.com
Eagle Infrastructure

Bentley

Markets

Products

Capabilities

Services

Projects

About

Bentley Playbook™

Bentley Playlist™

PRODUCTS

AECOSim Building Designer
PowerCivil
Bentley Raceway and Cable Management
Bentley Substation
promis.e Enterprise
Bentley Descartes
ProjectWise WorkSite
Navigator Mobile
MicroStation
ProjectWise
ProSteel
STAAD Foundation Advanced
STAAD.Pro

PRODUCT SUMMARY

Bentley Substation

Bentley Substation combines intuitive 3D modeling, electrical design functionality, and automatic bill of materials and report generation, all working together to get your project completed, approved, and online in the shortest possible time.

USED BY

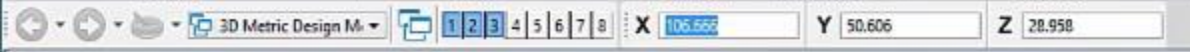
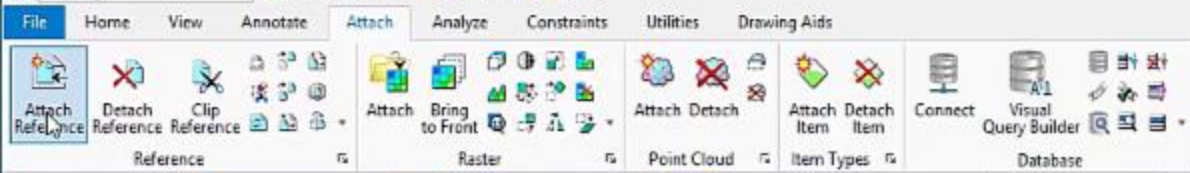
Engineer, Substation
Engineer, Protection and Control

LEARN MORE

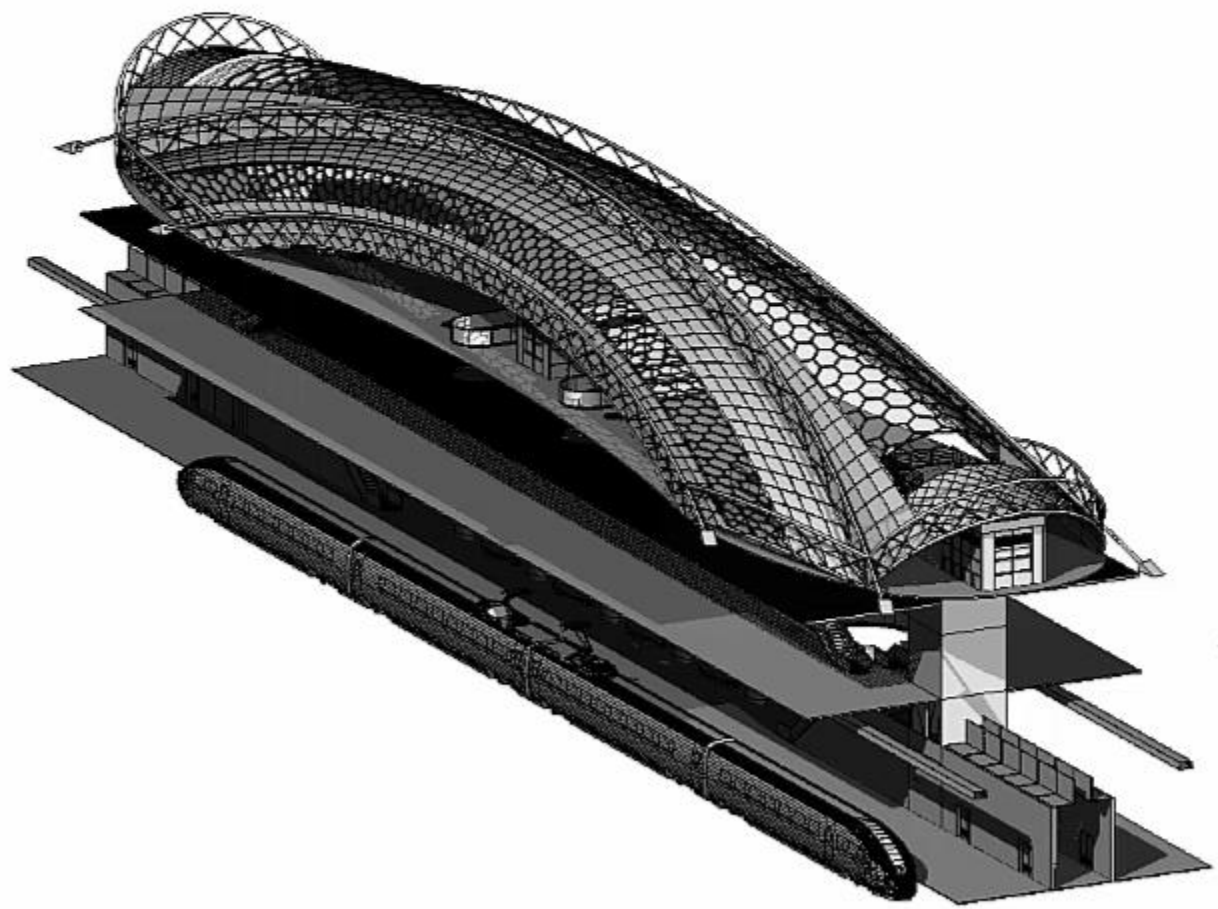


Common **Modeling** Environment

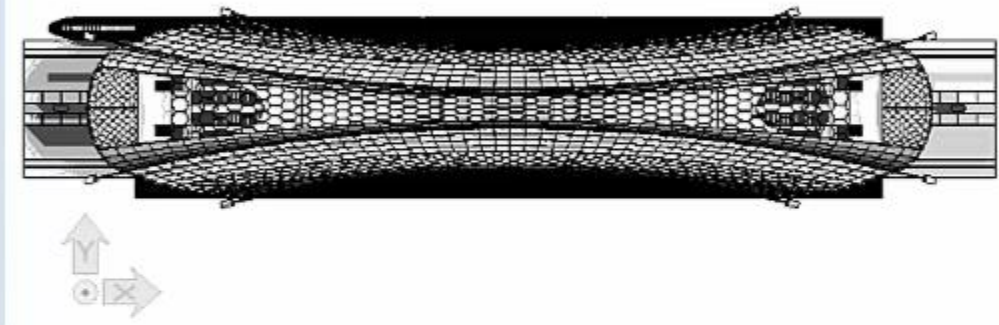




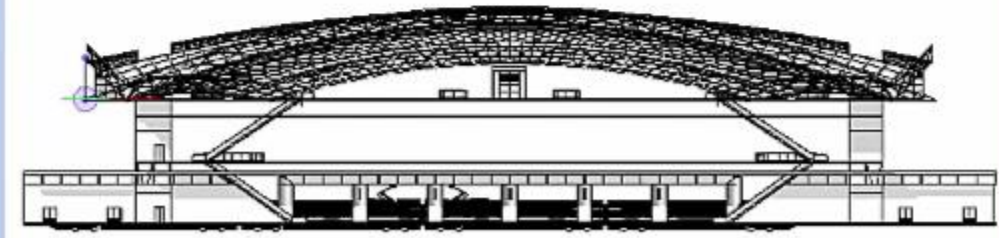
View 1, 3D Metric Design

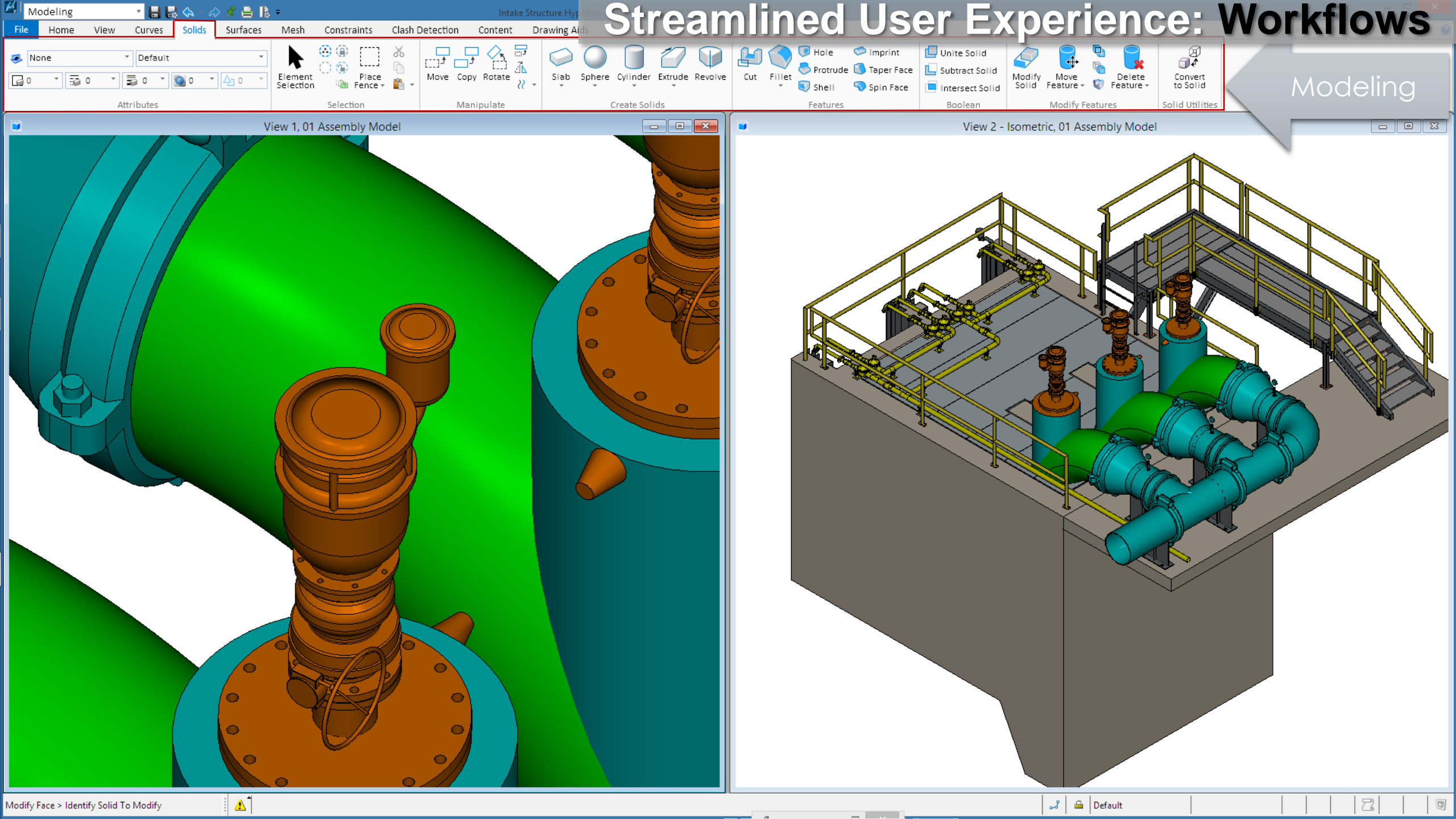


View 2 - Top, 3D Metric Design

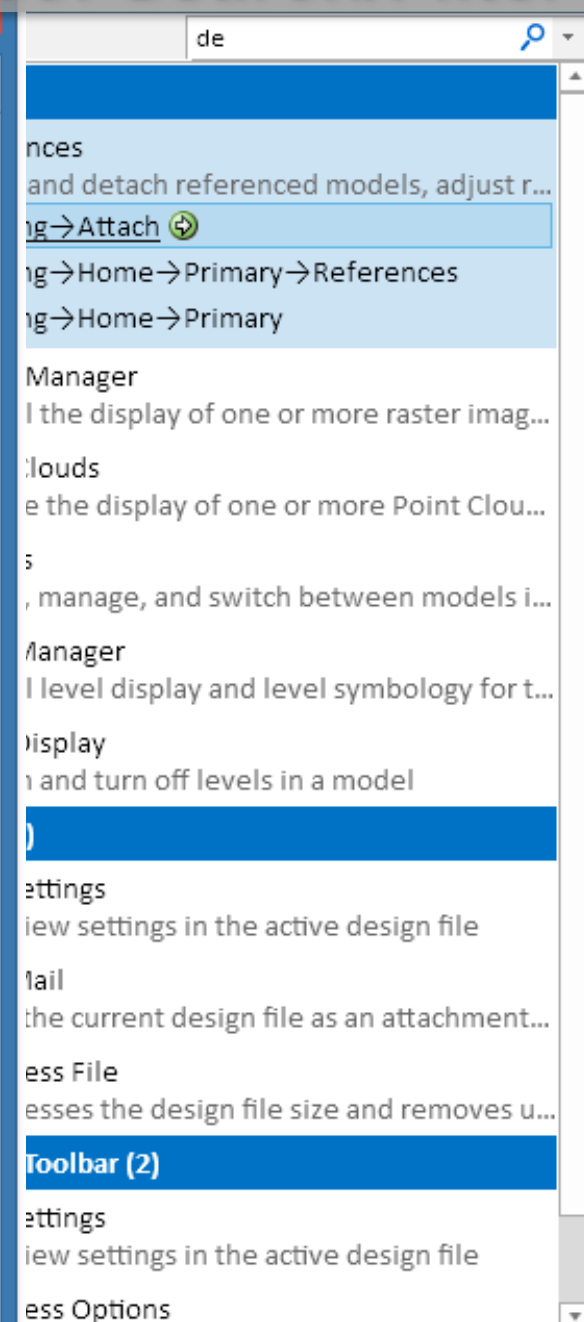
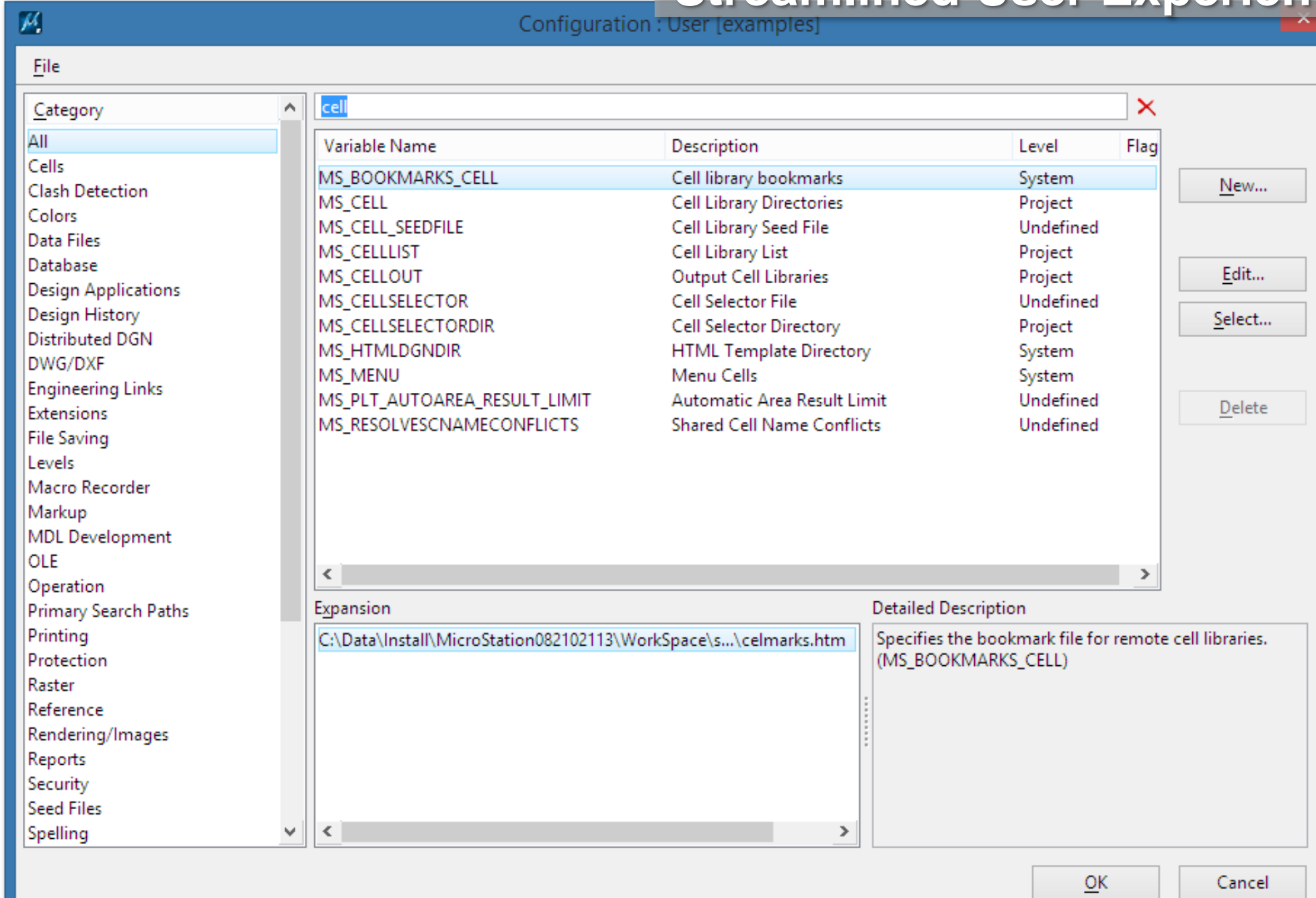


View 3 - Front, 3D Metric Design

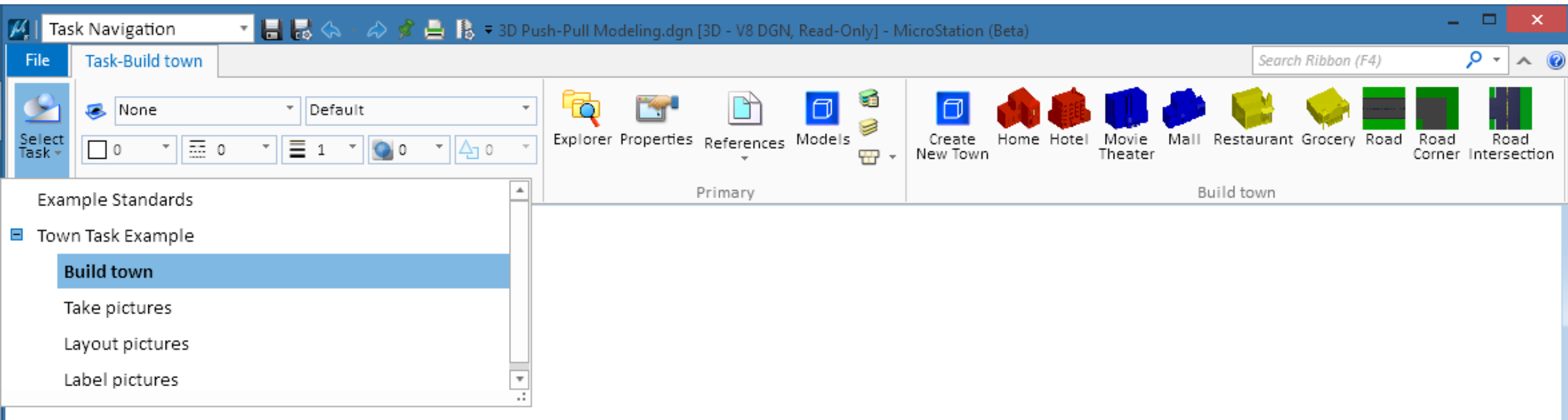




Streamlined User Experience: Search/Filter



Streamlined User Experience: V8i Workflows

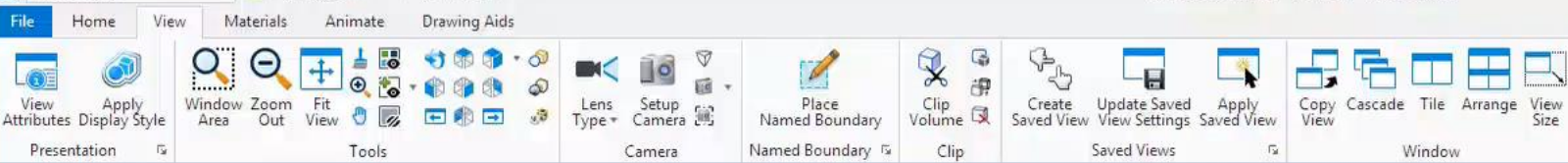


Update

Bentley®

Common **Modeling** Environment

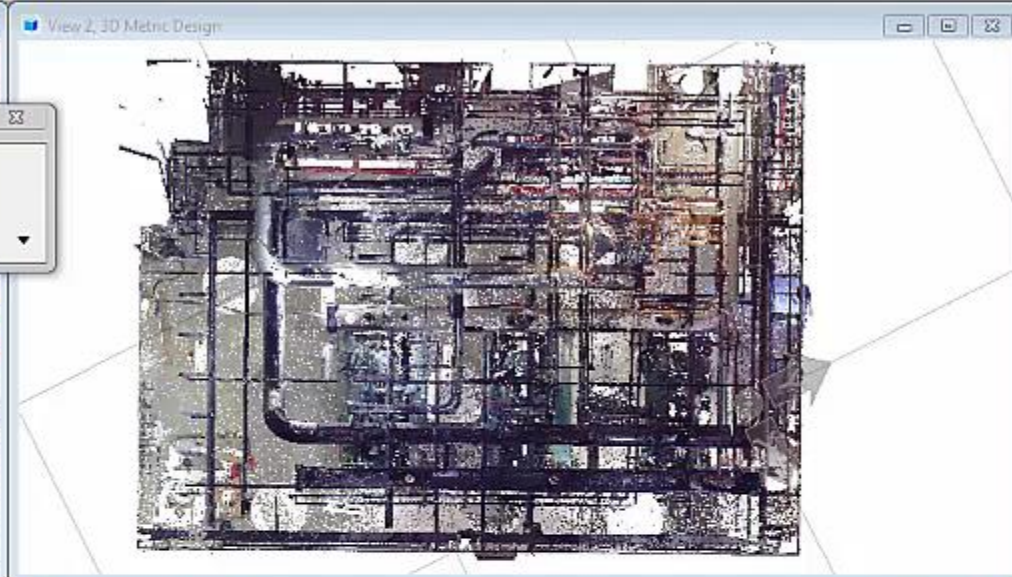
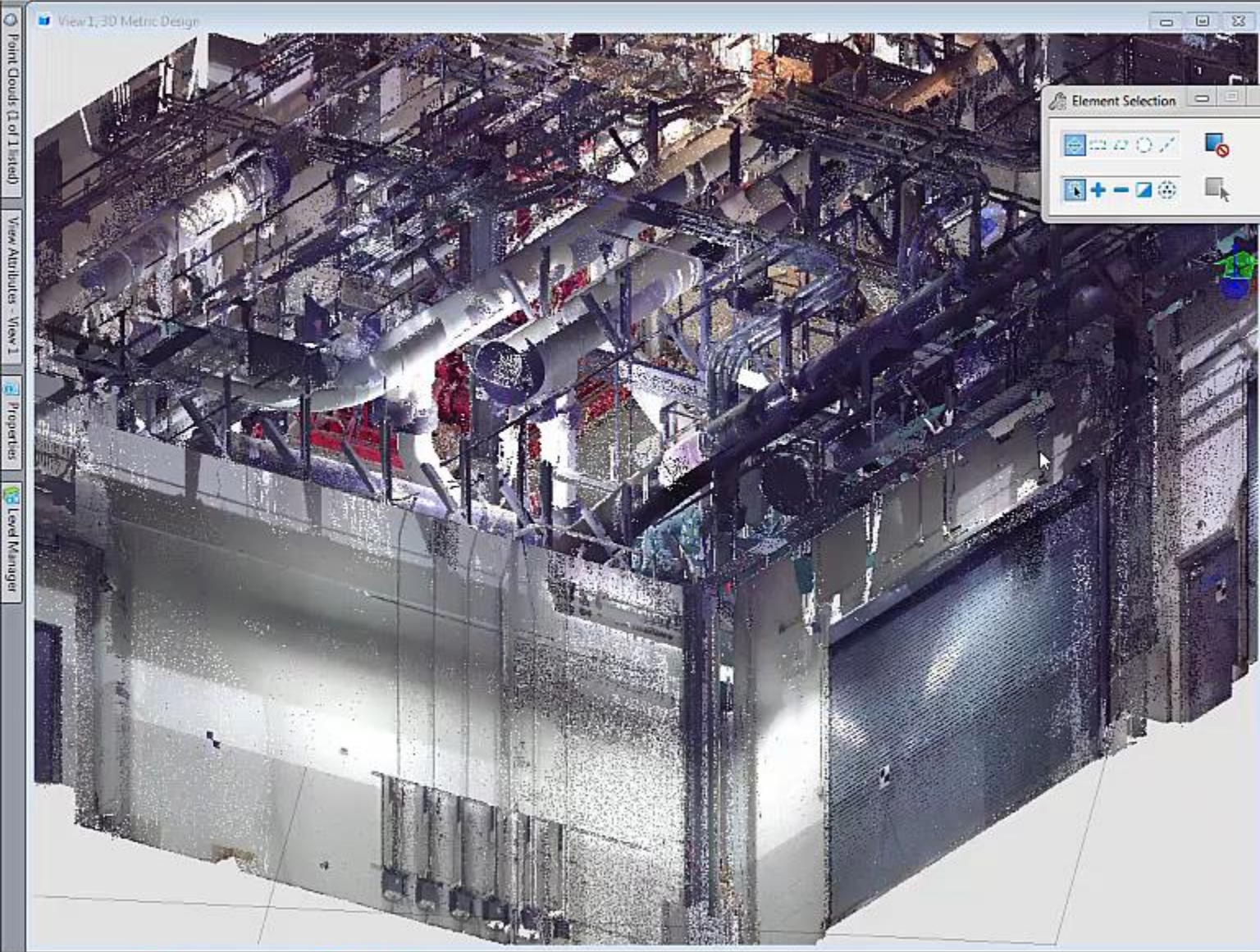




View 1, Default



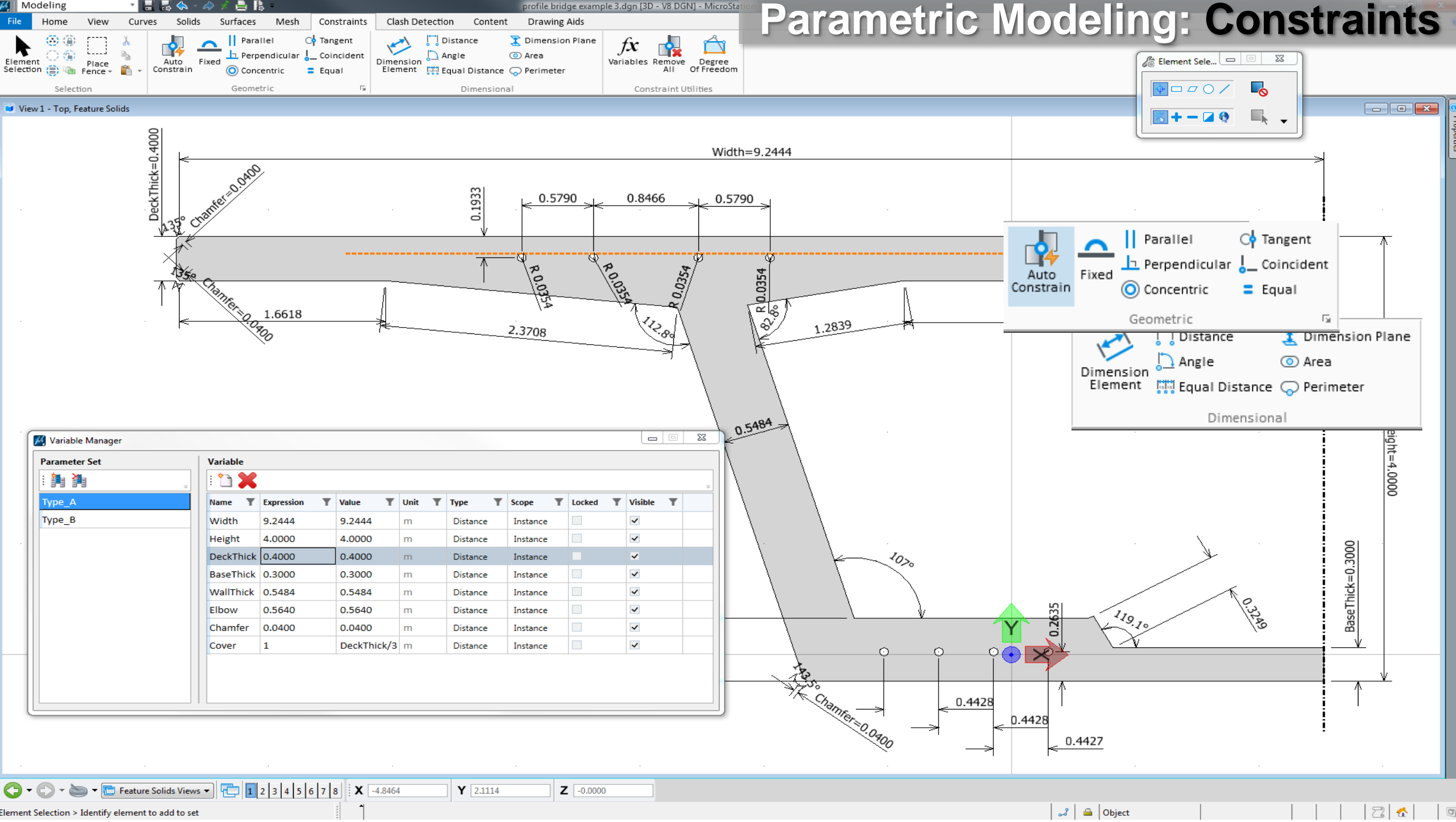




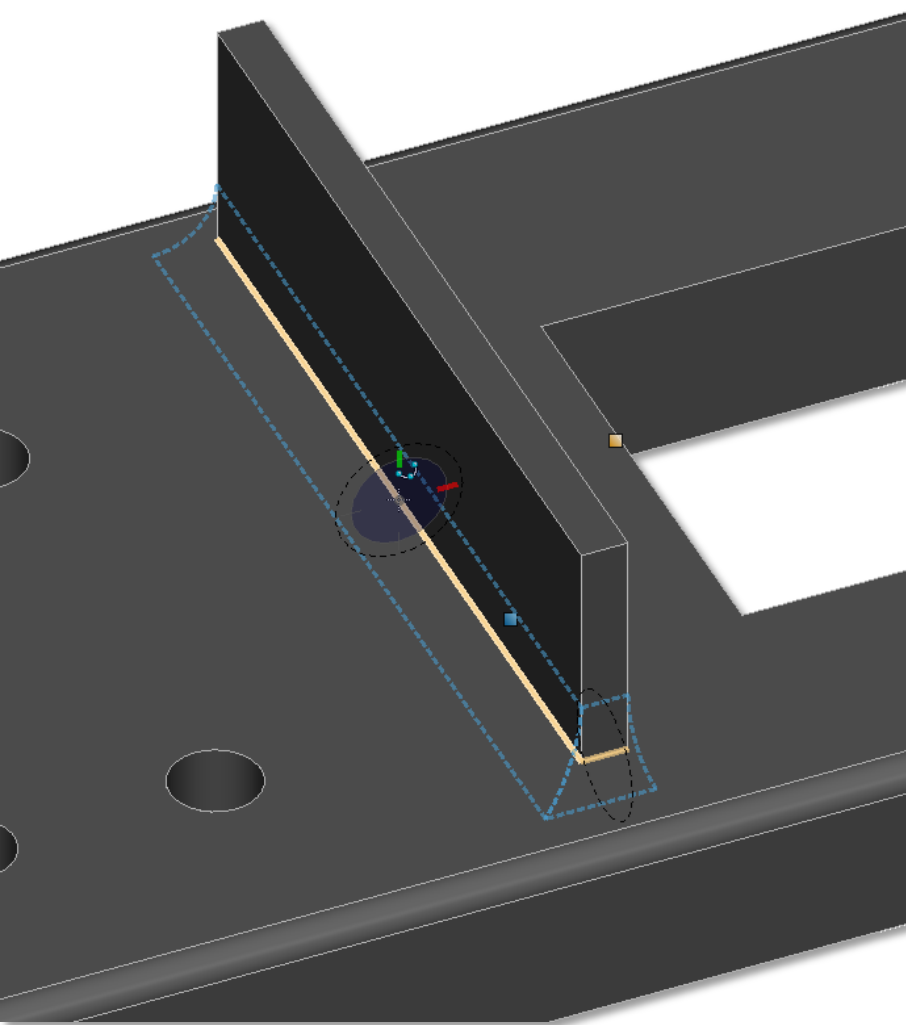
Common **Modeling** Environment



Parametric Modeling: Constraints



Parametric Modeling: Solids/Surfaces

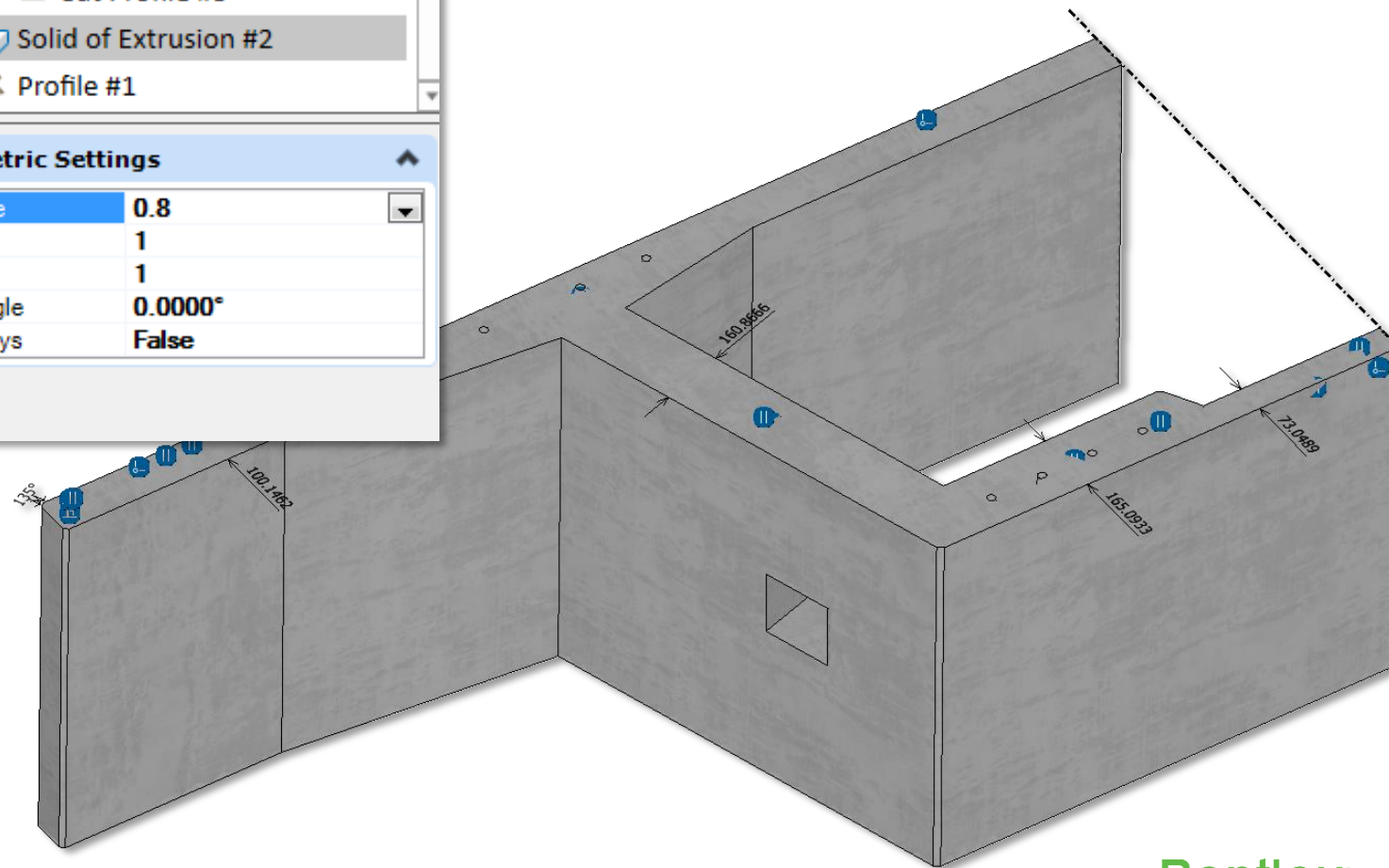


Properties

- Protrusion #15
- Fillet #13
- Hole #12
- Hole #10
- Hole #8
- Hole #6
- Cut #4
- Cut Profile #3
- Solid of Extrusion #2**
- Profile #1

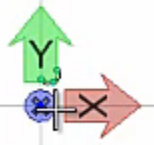
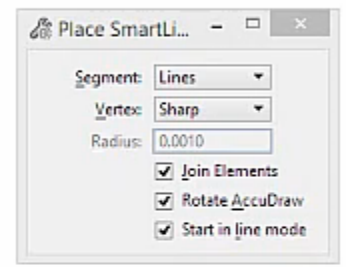
Parametric Settings

Distance	0.8
X Scale	1
Y Scale	1
Spin Angle	0.0000°
Both Ways	False



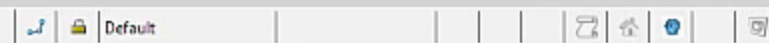


View 3 - Front, Oil Tank



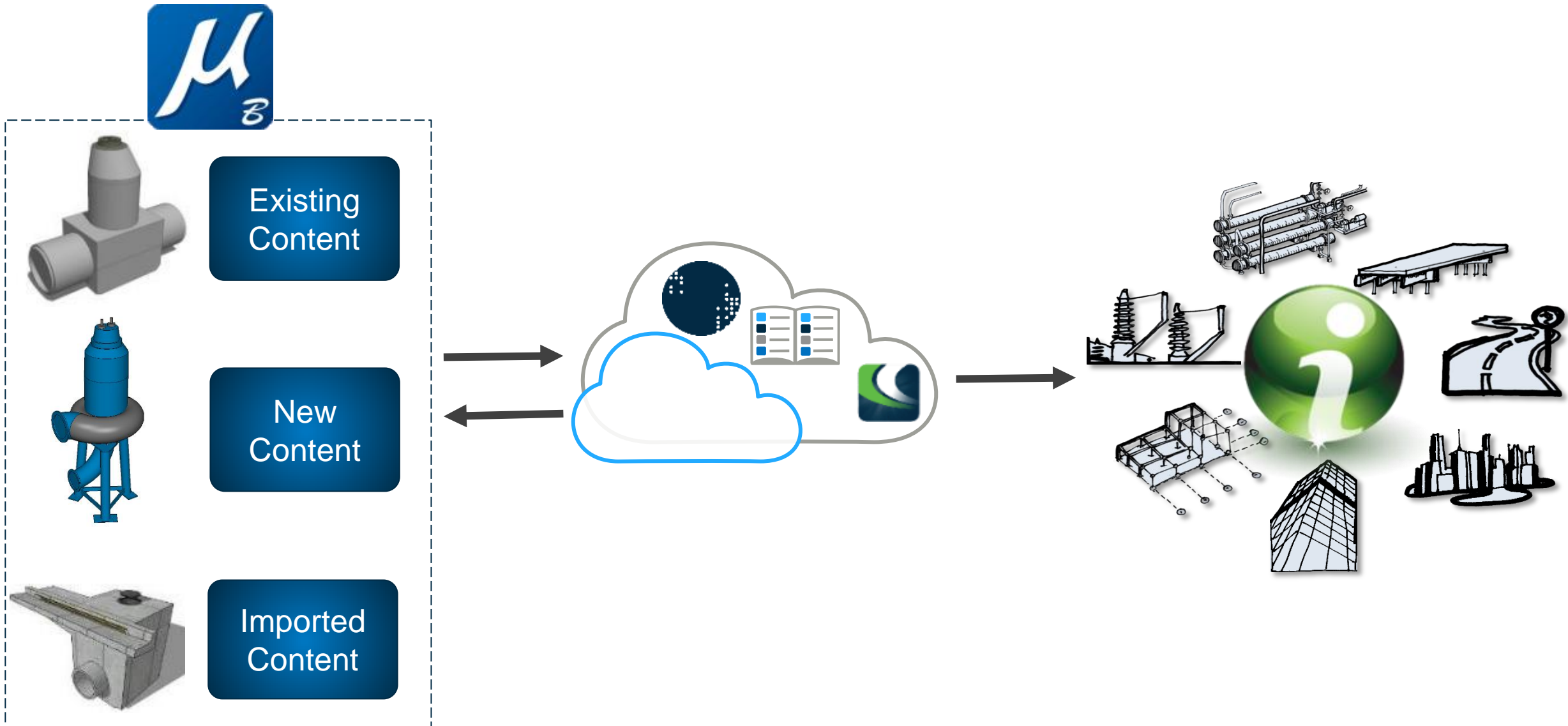
X 0.0000 Y 0.0000 Z 0.0000

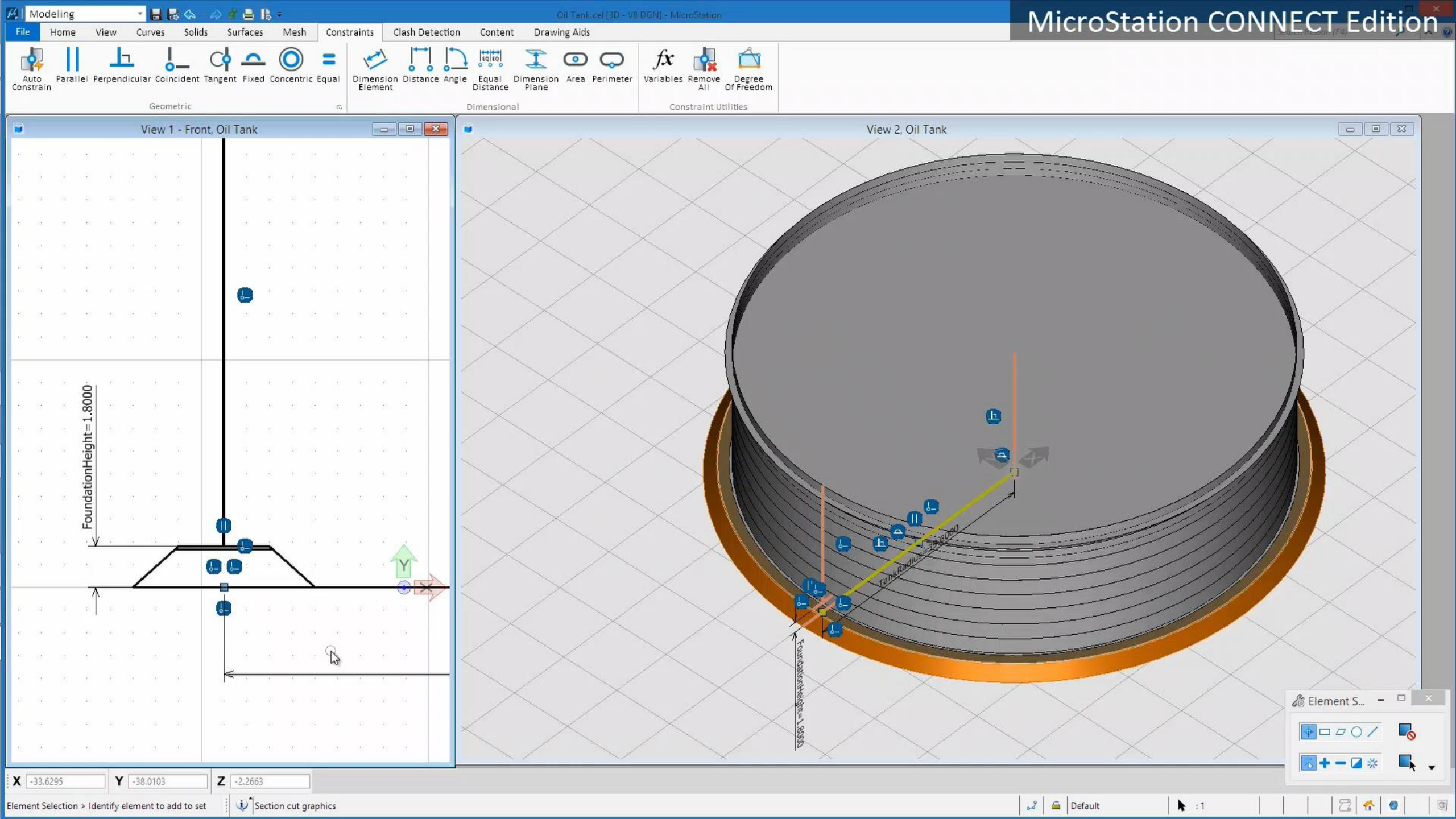
Place SmartLine > Enter first vertex

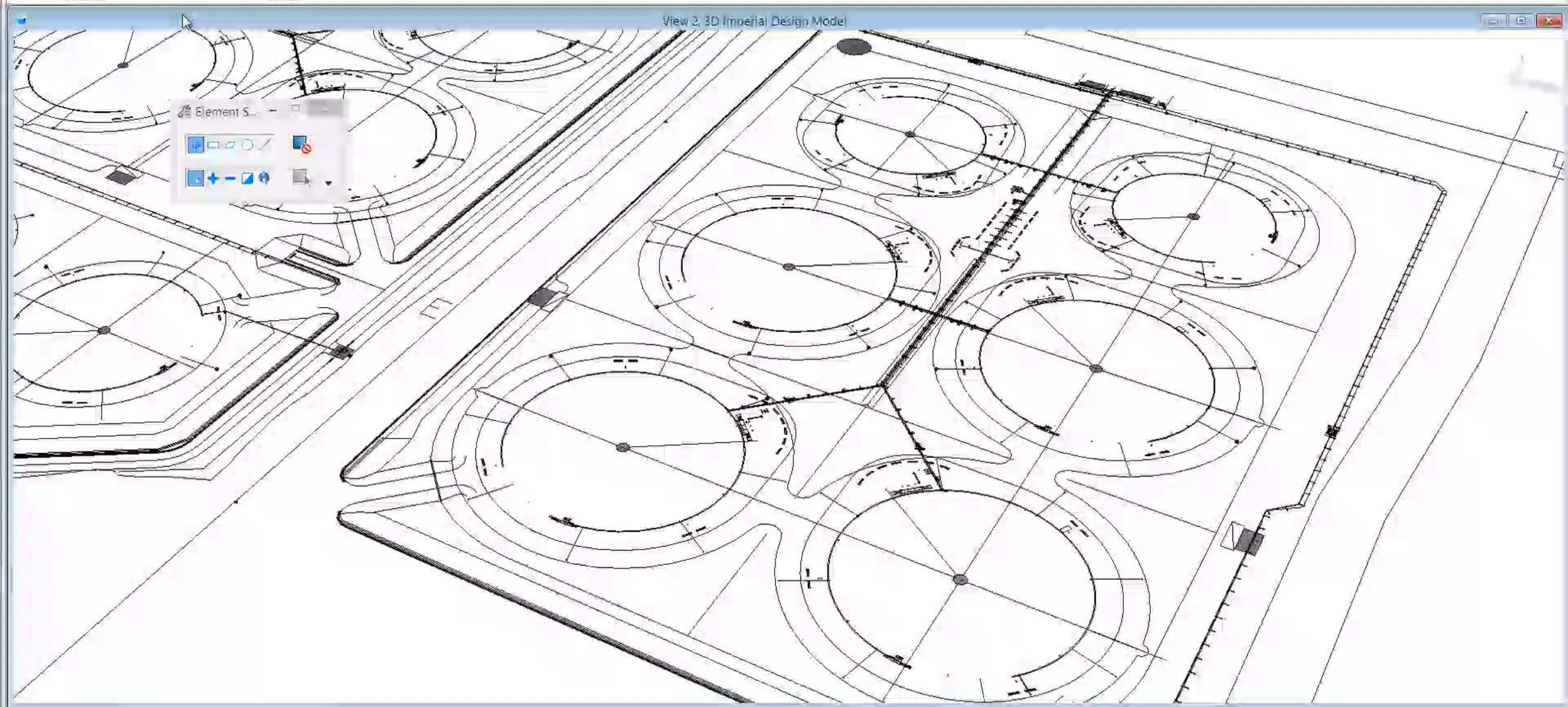


Common **Modeling** Environment





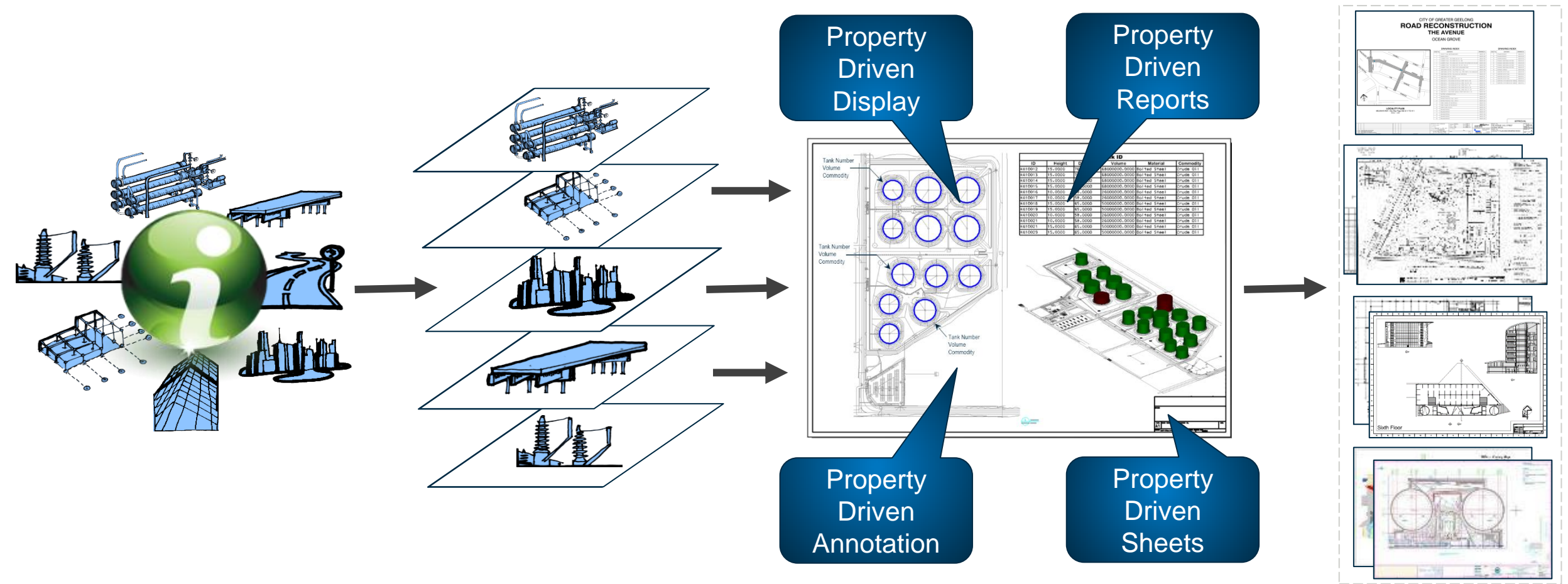


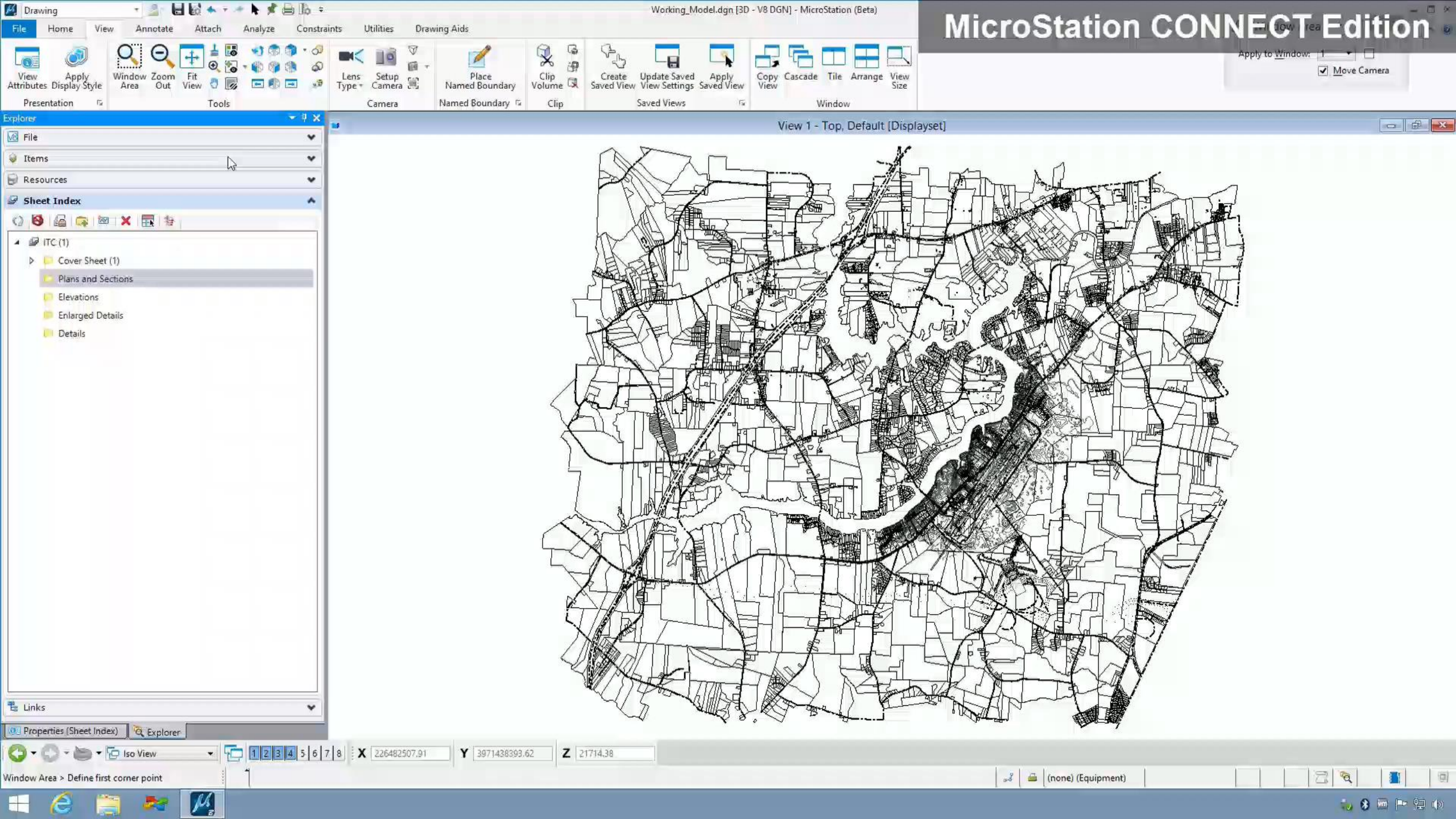


Common Modeling Environment



Documentation Center: Streamlined Workflows





Create Drawing

Name:

Drawing Seed:

View Type: Detail


Discipline: General

Purpose: Enlarged Detail

☒ Create Drawing Model

Seed Model:

☐ Filename:




☒ Create Sheet Model

Seed Model:

☐ Filename:

Sheets:



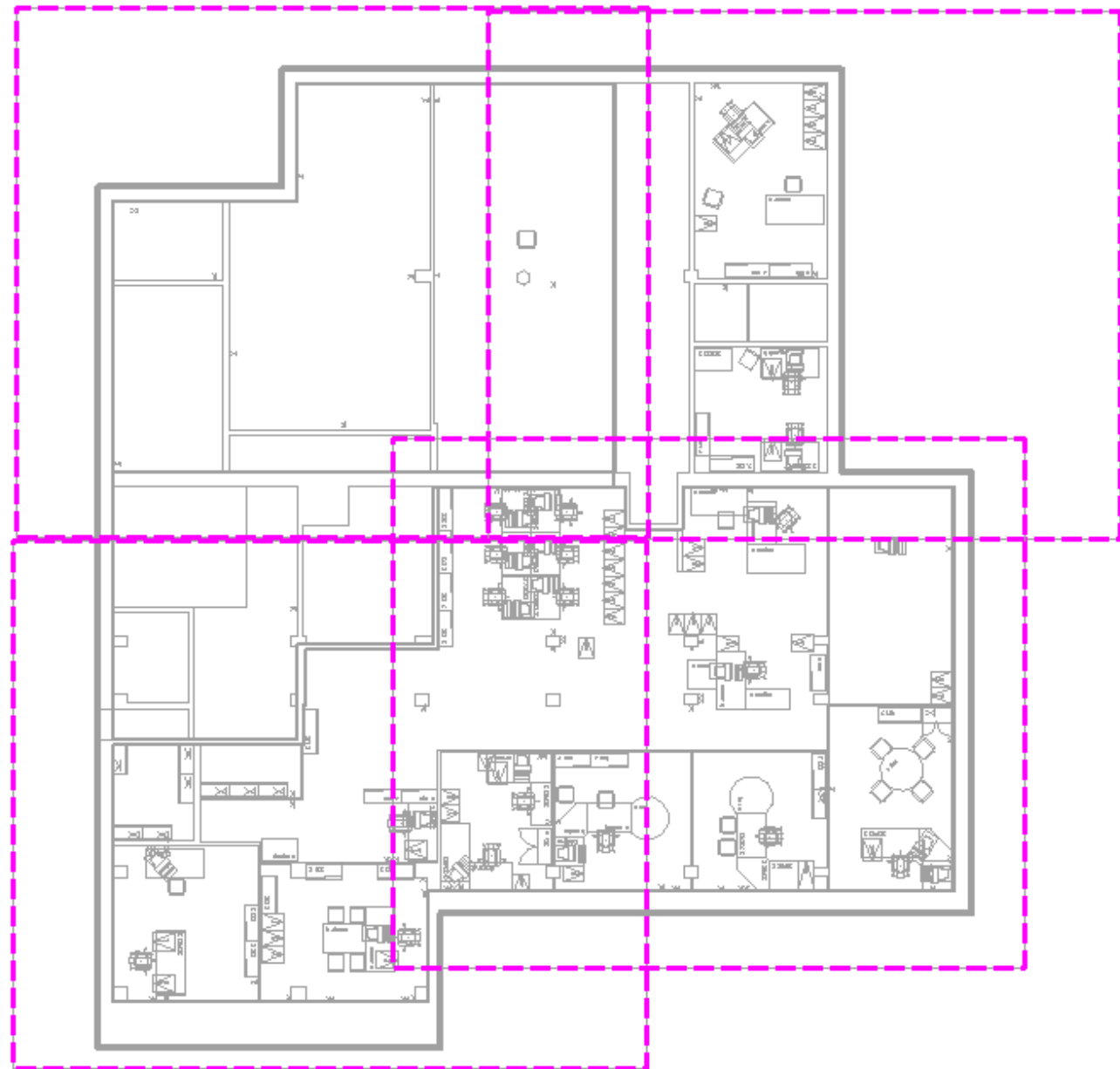
Drawing Boundary:

Detail Scale:

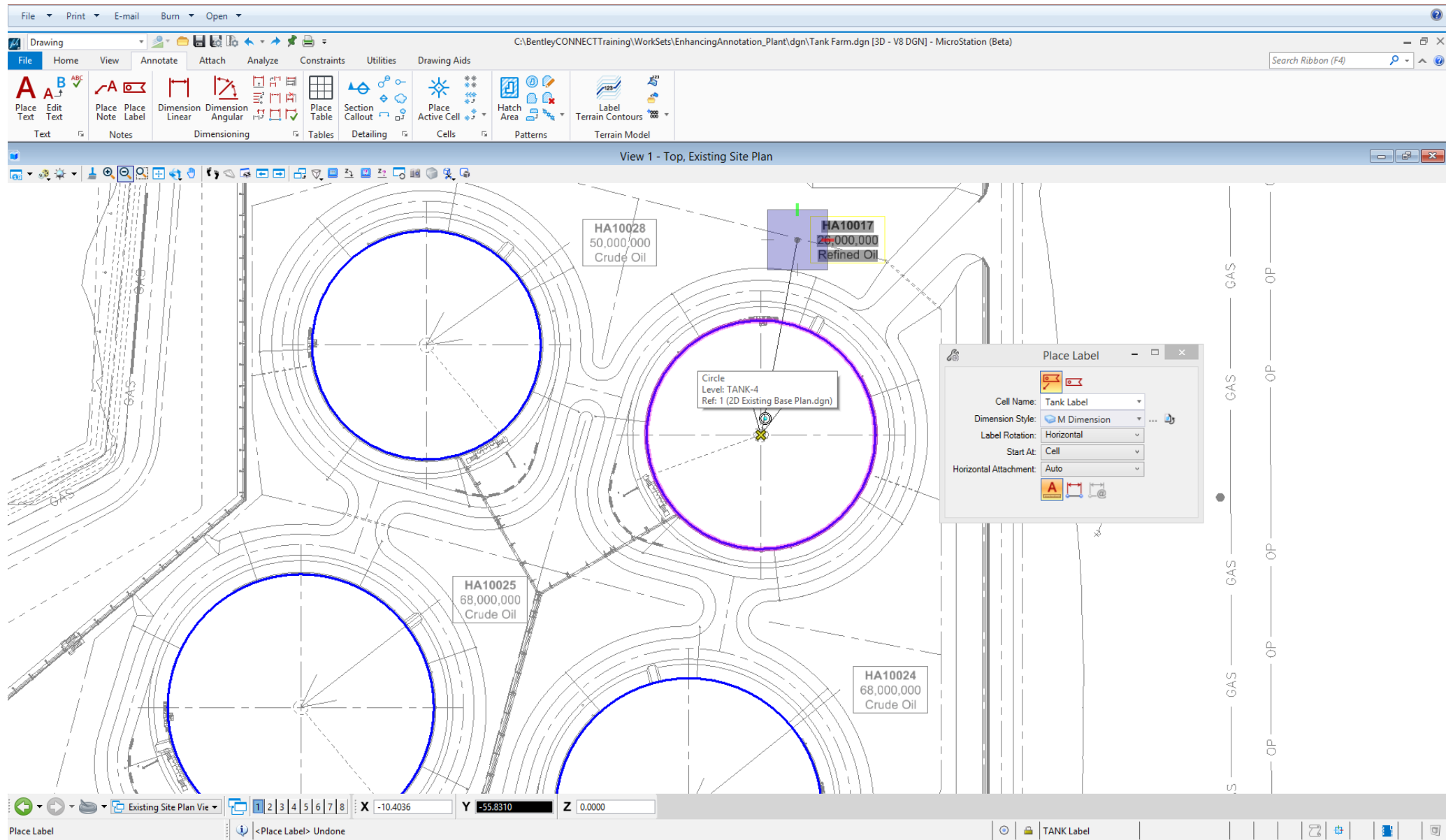
☐ Add To Sheet Index

☐ Make Sheet Coincident

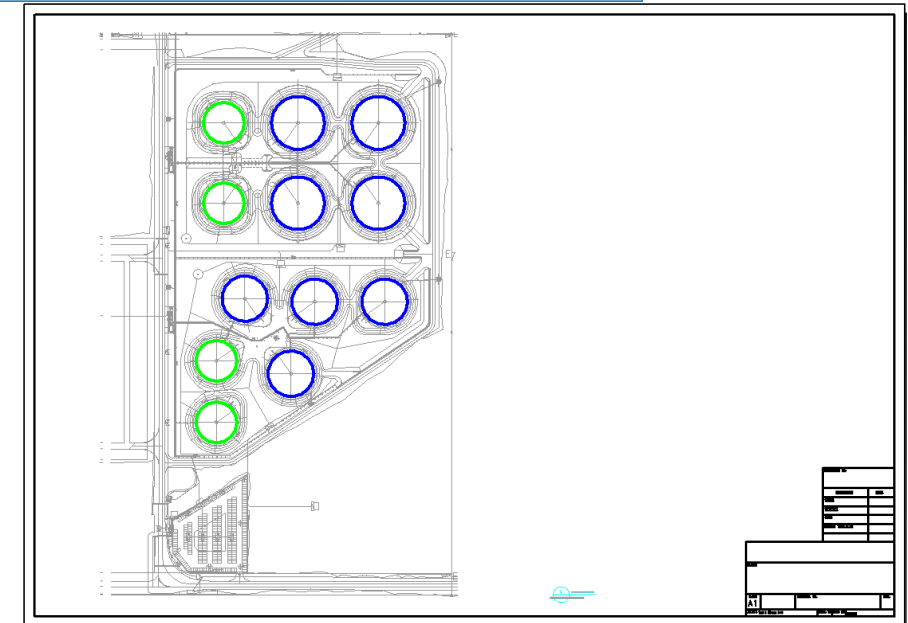
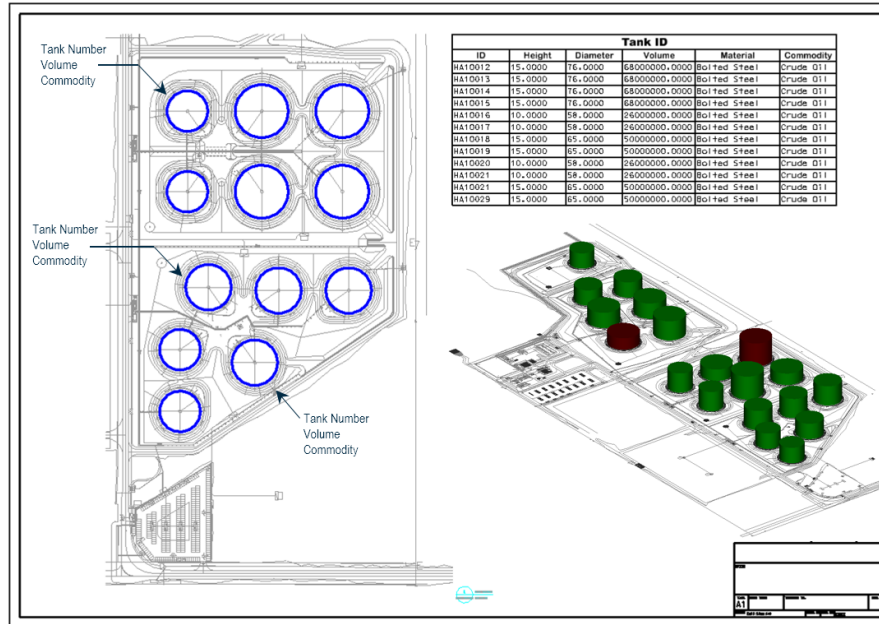
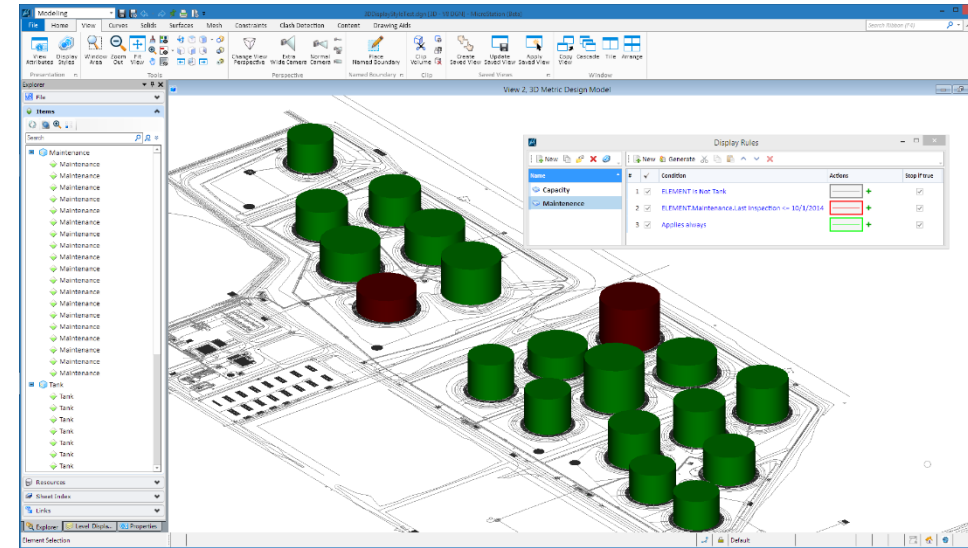
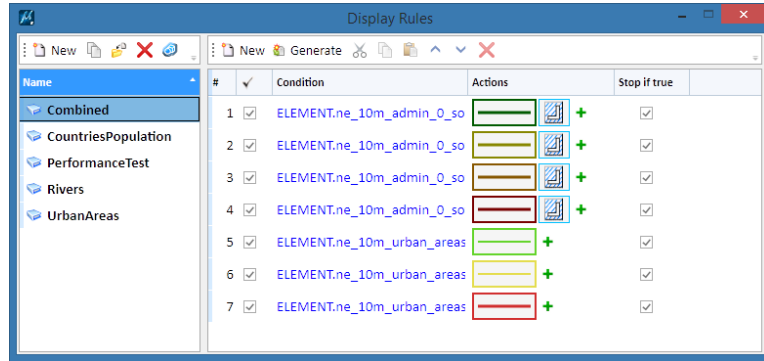
☒ Open Model



Documentation Center: Property Driven Annotation

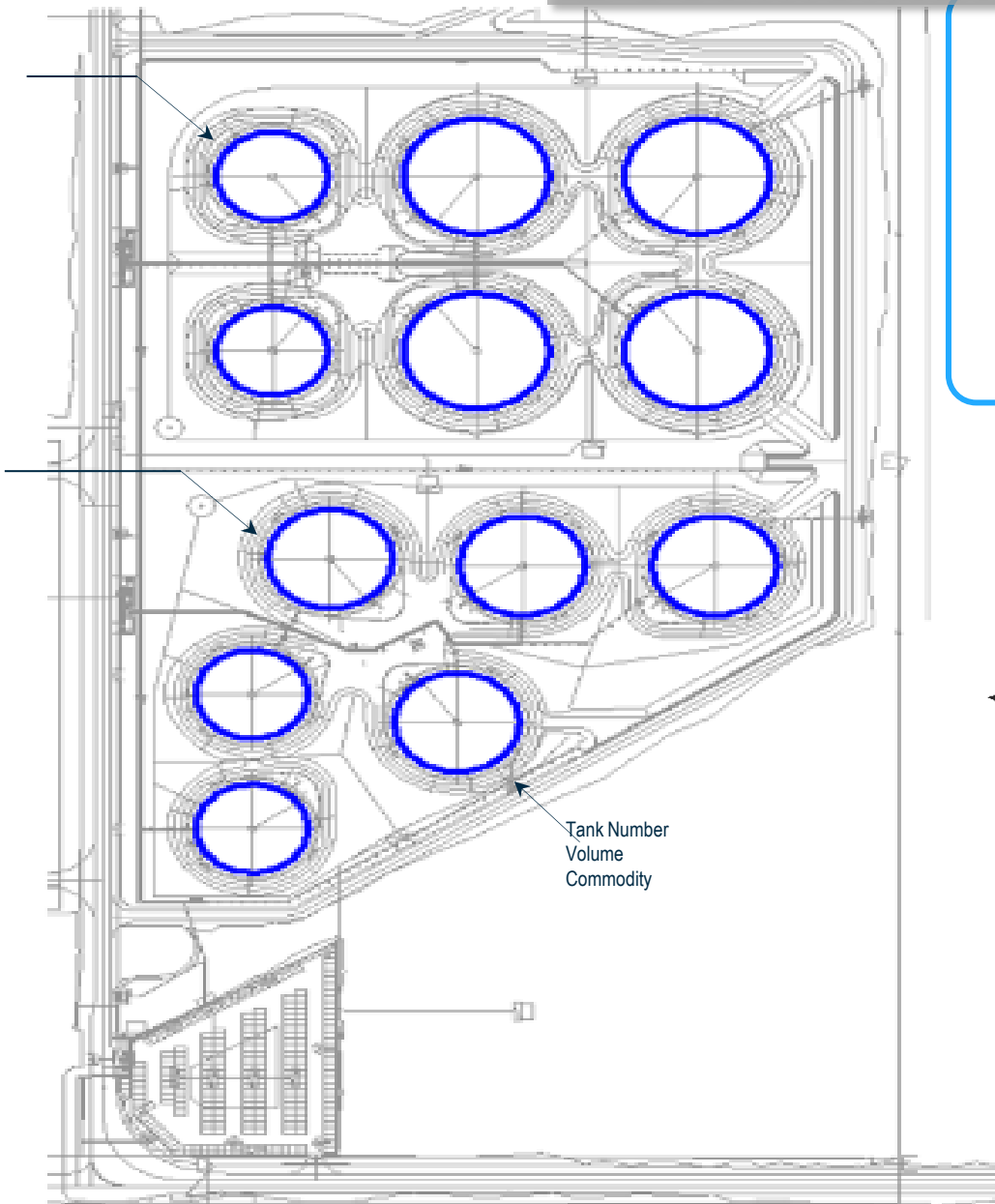


Documentation Center: Property Driven Display



Documentation Center: Property Driven Reports

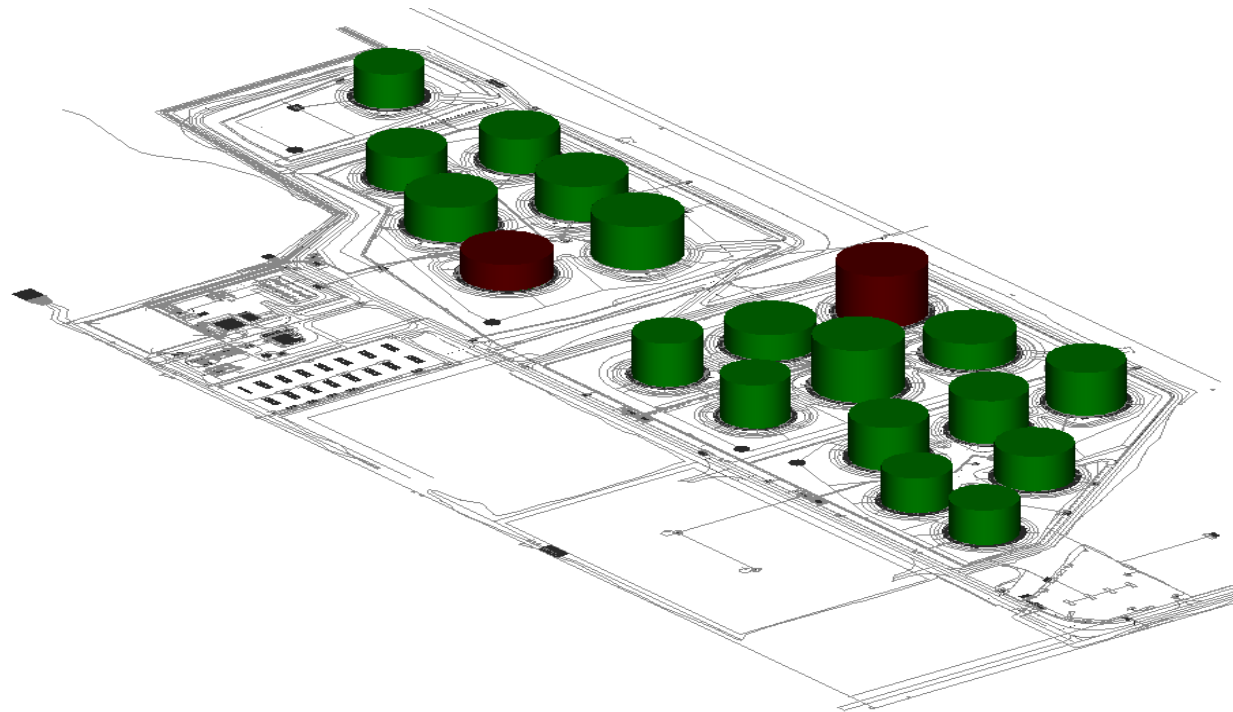
Tank Number
Volume
Commodity

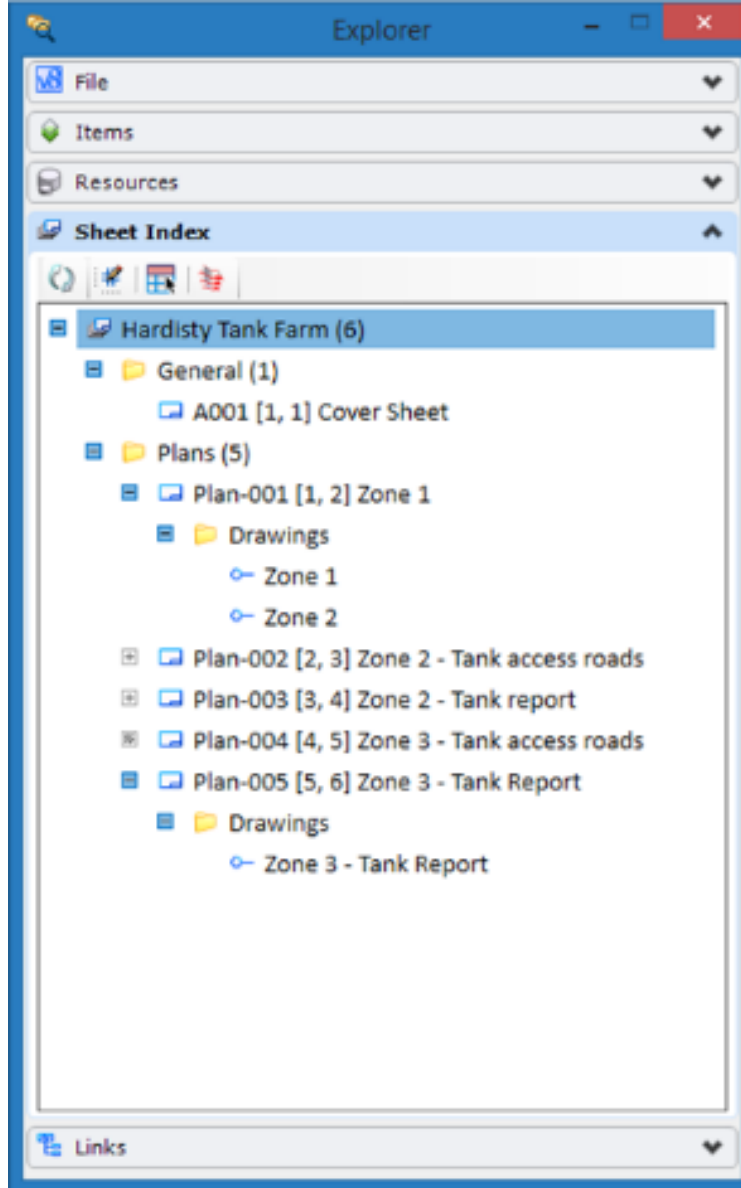


Tank Number	Volume	Commodity
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2	1000	Oil
3	1000	Oil
4	1000	Oil
5	1000	Oil
6	1000	Oil
7	1000	Oil
8	1000	Oil
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98	1000	Oil
99	1000	Oil
100	1000	Oil

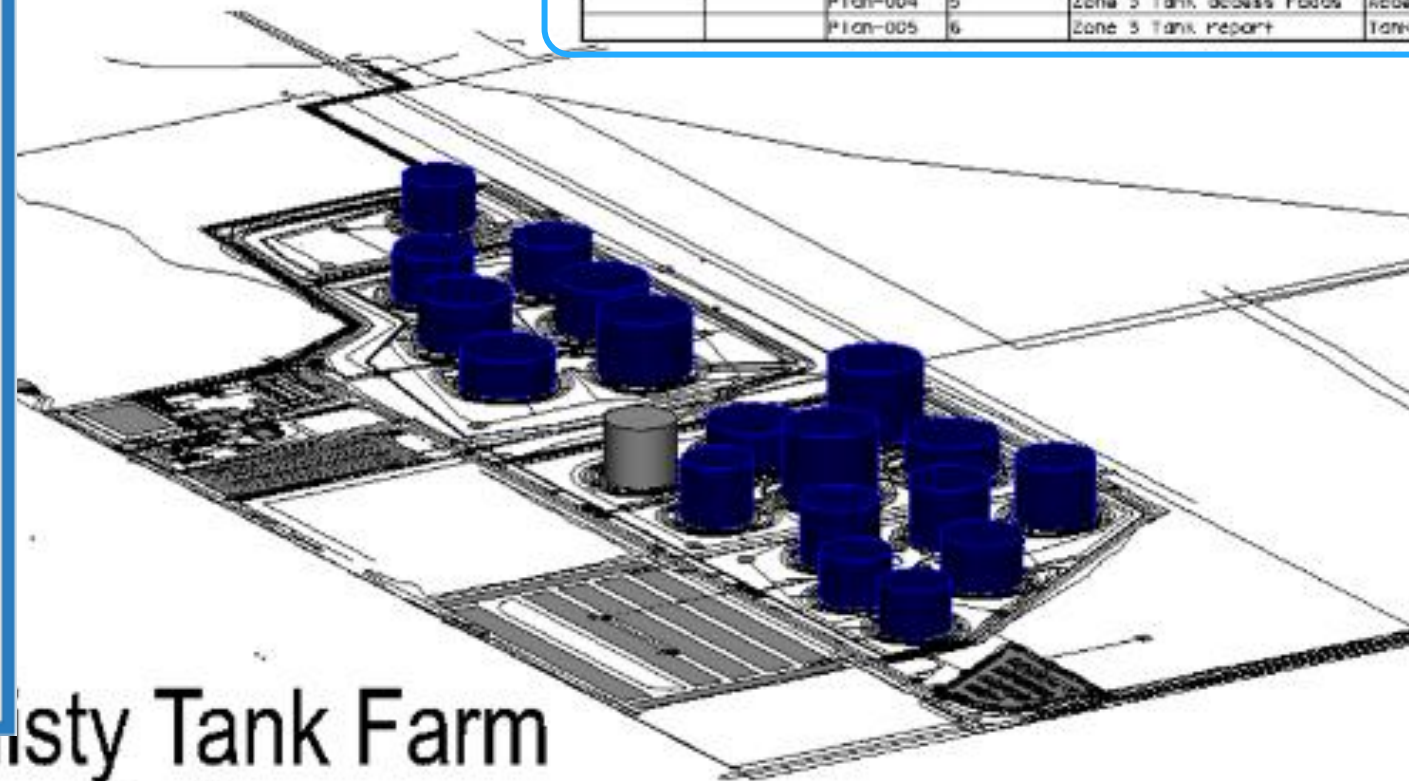
~~Tank Number~~
Volume
Commodity

Tank ID					
ID	Height	Diameter	Volume	Material	Commodity
HA10012	15.0000	76.0000	68000000.0000	Bolted Steel	Crude Oil
HA10013	15.0000	76.0000	68000000.0000	Bolted Steel	Crude Oil
HA10014	15.0000	76.0000	68000000.0000	Bolted Steel	Crude Oil
HA10015	15.0000	76.0000	68000000.0000	Bolted Steel	Crude Oil
HA10016	10.0000	58.0000	26000000.0000	Bolted Steel	Crude Oil
HA10017	10.0000	58.0000	26000000.0000	Bolted Steel	Crude Oil
HA10018	15.0000	65.0000	50000000.0000	Bolted Steel	Crude Oil
HA10019	15.0000	65.0000	50000000.0000	Bolted Steel	Crude Oil
HA10020	10.0000	58.0000	26000000.0000	Bolted Steel	Crude Oil
HA10021	10.0000	58.0000	26000000.0000	Bolted Steel	Crude Oil
HA10021	15.0000	65.0000	50000000.0000	Bolted Steel	Crude Oil
HA10029	15.0000	65.0000	50000000.0000	Bolted Steel	Crude Oil

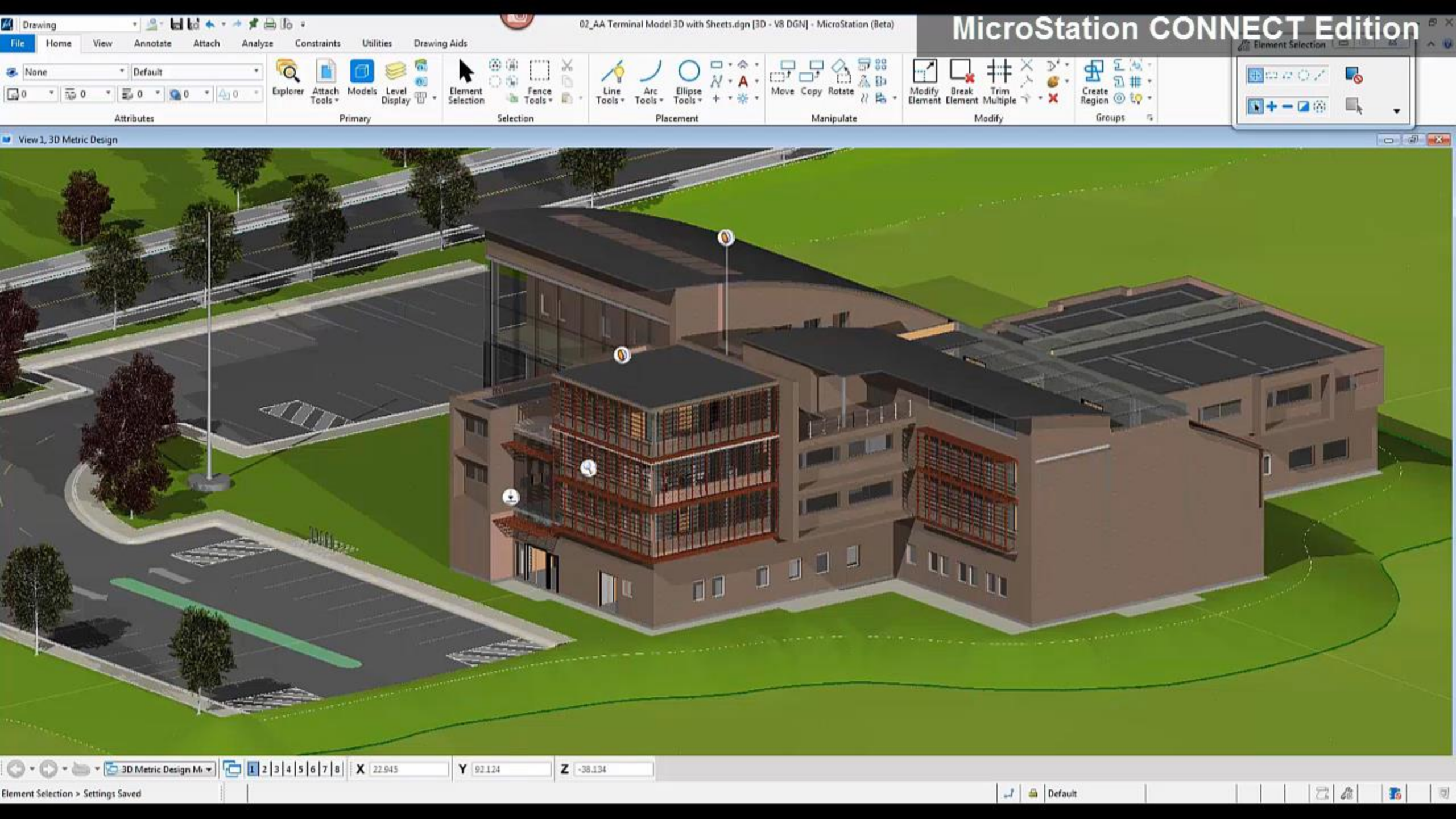




Sheet Index					
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	Plans				
		Plan-001	2	Zone 1 Tank report and access roads	Tank report and Access Roads
		Plan-002	3	Zone 2 Tank access roads	Access Roads
		Plan-003	4	Zone 2 Tank report	Tank report
		Plan-004	5	Zone 3 Tank access roads	Access Roads
		Plan-005	6	Zone 3 Tank report	Tank report



Hardisty Tank Farm
Oil storage facility
Canada



Common Modeling Environment



- Modernized C++ API's
- Better integrated .NET environment and examples
- Microsoft VBA 7.1 (64-bit)
- Microsoft Visual Studio 2013 compiler
- Many New and Updated MDL SDK Examples
- Applications require updates to run in CONNECT Edition

- **Streamlined User Experience**
 - Playbooks & playlists
 - Projects
 - Workflows
- **Documentation**
 - Streamlined sheet layout/creation
 - Sheet indexing
 - Property based annotation
 - Property based display/printing
 - Property based tables & schedules
- **Modeling**
 - Constraints
 - Parametric solids/surfaces
 - Functional Components
- **Printing**
 - Server side processing
 - PDF and Raster
 - Multi-page document collation
 - Rich PDF
- **Visualization**
 - Modo 801 Render Engine
 - Texture Replicators
 - Procedural Textures
- **Interoperability**
 - RealDWG 2015
 - JT format updates
 - IFC CV 2.0
- **Extensibility**
 - Bentley Macro Recorder
 - VBA 7.1
 - Updated API, new SDK
 - Updated compilers
- **Administration**
 - Virtualization support
 - Language packs
 - Update Notification Service



MicroStation

3D modeling and documentation
software for infrastructure projects

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