

## **Bentley CONNECTED Platform CADD Environment**

**Deployment Version: 24.02.240204**

**Workspace Version: 10.12.03**

04/02/2024 Updates: Built on ORD 10.12.02.4 (2022 Release 3) and OBM 10.12.01.83 (2022 Release 2)

**This is the first release of the IDOT and Illinois Tollway CONNECTED CADD Standards in a combined format. You can change to the Tollway standards by changing the WorkSpace pull down within ORD to the ILTollway option.**

### ➤ **Cells:**

The following Bridge cell libraries and PDF's have been updated:

- Abutment-Deck Beams.cel
- Abutments-Integral.cel
- Details-Design.cel
- Details-Planning.cel

The following Bridge cell libraries and PDF's have been added:

- Approach Slabs-Bridge Full Depth Precast.cel
- Approach Slabs-Bridge Partial Depth Precast.cel

IDOT\_Dynamic XS Labels.cel

- The symbology for the guardrail and cable barrier cells has been adjusted.
- The name of the cells used for cross section annotation has been edited to append “\_XS” to the cell names.

IDOT\_Plats.cel

- Corrected the spelling for the name of the cell Bound\_Chiseled X Found.
- The following cells have been modified to correct the line style display:
  - Legend for existing topographic symbols
  - Right\_of\_Way Legend

IDOT\_Road.cel

- The cell origin for the following cells has been adjusted to match the setting in the IDOT 10.10.01 WorkSpace:
  - PM\_EX\_RUR COMB LT
  - RM\_EX\_RUR COMB RT
  - PM\_EX\_RUR THRU ARROW
  - RM\_EX\_RUR LT TRN ARROW
  - PM\_EX\_RUR LT TRN ONLY
  - PM\_EX\_RUR RT TRN ARROW
  - PM\_EX\_RUR RT TURN ONLY
  - PM\_EX\_THRU ARROW
  - PM\_EX\_URB COMBO LT
  - PM\_EX\_URB COMBO RT
  - PM\_EX\_URB LT TRN ARROW
  - PM\_EX\_URB LT TRN ONLY
  - PM\_EX\_URB RT TRN ARROW
  - PM\_EX\_URB RT TRN ONLY

- PM\_EX\_URB THRU ARROW

IDOT\_Sheets.cel

- The Is Annotation parameter was set to a value of True for several text nodes in the cell SHT\_PLAN. This has been changed to False.
- The text that was formerly used by the pen table PLOTLABEL.TBL as a substitution string for the plot scale has been removed from all the sheet borders.

➤ **Civil Labels:**

IDOT\_Standards.dgnlib

- A few of the label definitions used to label plan point station and offset locations were not configured to properly prompt for the alignment. This has been corrected.

- The following definitions have been renamed:

Old Name:

- Plan - Points > Geometry Points > Name-Description-NEZ-Rotation

New Name:

- Plan - Points > Geometry Points > GeomPT Name-Description-NEZ-Rotation

Old Name:

- Plan - Points > Geometry Points > Name-NE

New Name:

- Plan - Points > Geometry Points > GeomPT Name-NE

Old Name:

- Plan - Points > Geometry Points > Name-Station-Elevation

New Name:

- Plan - Points > Geometry Points > GeomPT Name-Station-Elevation

Old Name:

- Plan - Points > Geometry Points > Name-Station-Offset-NEZ-Terrain Elevation

New Name:

- Plan - Points > Geometry Points > GeomPT Name-Station-Offset-NEZ-Terrain Elevation

Old Name:

- Plan - Points > Geometry Points > Station-Offset-NE-Point Name

New Name:

- Plan - Points > Geometry Points > Station-Offset-NE-GeomPT Name

Old Name:

- Plan - Points > Geometry Points > Station-Offset-Projected Elevation

New Name:

- Plan - Points > Geometry Points > GeomPT Name-Station-Offset-NEZ-Projected Elevation

Old Name:

- Plan - Points > Coordinates

New Name:

- Plan - Points > NE Coordinates

Old Name:

- Plan - Points > Station-Offset-Terrain Elevation

New Name:

- Plan - Points > Station-Offset-NE-Terrain Elevation

- The following label definitions have been added:
  - Plan - Points > Station-Offset-Terrain Elevation
  - Plan - Points > Geometry Points > GeomPT Name-NEZ
  - Plan - Points > Geometry Points > GeomPT Name-Station-Offset-Elevation
  - Plan - Points > Geometry Points > GeomPT Name-Offset-NEZ-Projected Elevation

### ➤ **Configuration:**

IDOT\_Standards.cfg

- The following configuration variables have been added:
  - `_USTN_CAPABILITY < -CAPABILITY_ACTIVATE_REFERENCE_EXTERNAL`
  - `_USTN_CAPABILITY < -CAPABILITY_ACTIVATE_REFERENCE_INTERNAL`
  - `_USTN_DIM_TEXT_DIRECTION_THRESHOLD_DEGREES = 15`
  - `MS_CELLLIST < $(CIVIL_ORGANIZATION_STANDARDS)cell/IDOT_Plats.cel`
  - `_USTN_CELLPLACEMENTPERFORMANCE = True`
- Configuration variables have been added to provide access to the IDOT Bridge text styles and dimension style if the user is working in MicroStation. This was done to facilitate drafters working on bridge plans using MicroStation.

IDOT\_Bridge\_Standards.cfg

- The following variable assignments have been changed to “=”. This change removes the Road Text and Dimension Styles from the Bridge environment.
  - `MS_DGNLIBLIST_TEXTSTYLES = $(BRIDGE_ORGANIZATION_STANDARDS)OpenBridge Modeler/Dgnlib/Feature Definitions/*Text Style*.dgnlib`
  - `MS_DGNLIBLIST_DIMENSIONSTYLES = $(BRIDGE_ORGANIZATION_STANDARDS)OpenBridge Modeler/Dgnlib/Feature Definitions/*Dimension Style*.dgnlib`
- The following variable definitions have been added:
  - `MS_DGNLIBLIST_PRINTING = $(BRIDGE_ORGANIZATION_STANDARDS)OpenBridge Modeler/Dgnlib/Print Styles/Bridge_Print_Styles.dgnlib`
  - `MS_PLTCFG_PATH = $(BRIDGE_ORGANIZATION_STANDARDS)OpenBridge Modeler/Plotdrv/`
  - `MS_DEFAULT_PLTCFG_FILE = pdf.pltcfg`

### ➤ **Element Template Updates:**

IDOTCAD\_Standards.dgnlib

- The following element templates have been added:
  - Linear > Alignment > Regression > GE\_Regression\_Line
  - Linear > Traffic\_Control > TC\_Pr\_Barrels\_25'\_Spacing 2D
  - Linear > Traffic\_Control > 3D > TC\_Pr\_Barrels\_25'\_Spacing 3D
  - Points > Regression > GE\_Regression\_Point
- The level has been corrected for the following element template:
  - Linear > Utilities > Existing > UT\_Ex\_Underground\_Electric
- The element templates used for cross-section annotation have been updated.

### ➤ **Feature Definition Updates:**

IDOTCAD\_Standards.dgnlib

- The following feature definitions have been added:

- Alignment > Regression > GE\_Regression\_Line
  - Linear > Traffic\_Control > TC\_Pr\_Barrels\_25ft\_Spacing
  - Linear > Survey > Cross Sections > Lines > 604 - Ground Shot
  - Point > Regression > GE\_Regression\_Point
- The feature definitions used to draw guardrail and barrier in the dynamic cross-section view and in cross-section sheets have been updated.

➤ **Graphical Filters:**

IDOTCAD\_ Graphical Filters.dgnlib

- The Aerial Surveys Mass Points Filter has been modified to only look for the relevant cells by the cell name.

➤ **GUI:**

IDOT\_Menu.dgnlib

- The “IDOT Menu” tab has been removed from the various Workflows.
- A new Workflow has been added named “Illinois DOT” containing the contents of the former “IDOT Menu” tab.
- The following changes and additions were made to the Illinois DOT Workflow:
  - A new hyperlink has been added for the IDOT Communities Page
  - A link for the IDOT Generative Components PDF documentation has been added. This link is only available in Open Bridge Modeler.
  - The Additional Tool Suggestions command has been modified to open the email client to mail a suggestion to Illinois DOT CADD Support with the subject “Additional Tool Suggestion.”

➤ **Level Updates:**

IDOTCAD\_ Standards.dgnlib

- The following levels have been updated to correct the assigned custom line style:
  - STG\_Centerline
  - STG\_Edge\_Drums
- The following levels have been modified to toggle on the Plot option to allow these levels to be plotted:
  - SC\_Scratch8
  - SC\_Scratch9
  - SC\_Scratch10
- The following levels have been deleted:
  - ROW\_EX
  - ROW\_EX\_PropertyLine

➤ **Line Style Updates:**

IDOT CE Linestyles from Level Library.dgnlib

- The following Line Styles have been corrected:
  - Construction Barrels 50’ Spacing
  - PMK\_Pr\_CL\_Markers\_80
- The following Line Styles have been added:
  - Construction Barrels 25’ Spacing
  - Construction Barrels Flashing Light 25’ Spacing
  - Construction Barrels Steady Light 25’ Spacing
- The following Line Styles have been removed:
  - Construction Barrels Flashing Light 20’ Spacing
  - Construction Barrels Steady Light 20’ Spacing

IDOT CE Linestyles 3D.dgnlib

- The following Line Styles have been added:

- Construction Barrels 25' Spacing 3D
- The following Line Styles have been removed:
  - Construction Barrels 20' Spacing 3D

➤ **Macros:**

- The following macros have been updated:
  - WorkspaceVersion.mvba

➤ **PDF Documentation:**

- The following documents have been added to the \Standards\PDFs\ folder:
  - IL Deck Beam Abutment Generative Component.pdf
  - IL Integral Abutment Generative Component.pdf
  - IL Pile Stub Abutment Generative Component.pdf
  - IDOTCAD\_XS\_Annotation.pdf

➤ **Plotting:**

PLOTLABEL.TBL

- The substitution string option for the SCALE value has been disabled.

IDOT\_PDF\_NpLayers\_BW.pltcfg

- The option to print rasters has been set to a value of True.

➤ **Seed Files:**

IDOTeng.dgn

IDOTeng3D.dgn

Sheet Model Seed.dgn

- The View Attribute to display Data Fields has been turned off.

➤ **Sheet Clipping DGNLBS:**

Civil\_Named\_Boundary\_SheetSeeds.dgnib

Civil\_ROW\_Named\_Boundary\_SheetSeeds.dgnib

Detail Sheet Seed.dgnib

- The text that was formerly used by the pen table PLOTLABEL.TBL as a substitution string for the plot scale has been removed from all the sheet borders.
- The View Attribute to display Data Fields has been turned off.

➤ **Survey Field Codes:**

IDOTCAD\_Survey Codes by Number 2024-03-01.pdf

IDOTCAD\_Survey Codes by Category 2024-03-01.pdf

- The following survey field codes have been restored to active status:
  - 722 Left Turn
  - 723 Right Turn
  - 724 Left Turn Combo
  - 725 Right Turn Combo
  - 726 Left Turn Only
  - 727 Right Turn Only
  - 728 Thru Arrow

➤ **Template Library:**

IDOT.itl

- The display rule defined for curb and gutter components that is used to switch to a dropped curb was defined such that it would not function properly when these components were inserted into a template using either the Mirror or Reflect options. This has been corrected.
- The point and component names have been edited to assign the correct left and right prefixes for the following templates:
  - IDOT Standard > Templates > Proposed > Rural > Undivided > Undivided Rural New Asphalt Pavt, AGG Subbase w/Open Asphalt Shoulders
  - IDOT Standard > Templates > Proposed > Rural > Undivided > Undivided Rural New Asphalt Pavt, HMA Subbase w/ Open Asphalt Shoulders

➤ **Text Favorites:**

IDOTCAD\_Standards.dgnlib

- The following Text Favorites have been renamed:

Old Name:

- Civil Labeler > Plan > Geometry Points > CivLabelerPlan-Coordinates-Name

New Name:

- Civil Labeler > Plan > Geometry Points > CivLabelerPlan-GeomPT Name-NE Coordinates

Old Name:

- Civil Labeler > Plan > Geometry Points > CivLabelerPlan-Coordinates-Name-Description-Elevation-Rotation

New Name:

- Civil Labeler > Plan > Geometry Points > CivLabelerPlan-GeomPT Name-Description-NE-Elevation-Rotation

Old Name:

- Civil Labeler > Plan > Geometry Points > CivLabelerPlan-Station-Elevation with Name

New Name:

- Civil Labeler > Plan > Geometry Points > CivLabelerPlan-GeomPT Name-Station-Elevation

Old Name:

- Civil Labeler > Plan > Geometry Points > CivLabelerPlan-Station-Offset-Elevation-Terrain Elevation

New Name:

- Civil Labeler > Plan > Geometry Points > CivLabelerPlan-GeomPT Name-Station-Offset-NE-Elevation-Terrain Elevation

- Old Name:

- Civil Labeler > Plan > Geometry Points > CivLabelerPlan-Station-Offset-NE-Point Name

New Name:

- Civil Labeler > Plan > Geometry Points > CivLabelerPlan-Station-Offset-NE-GeomPT Name

Old Name:

- Civil Labeler > Plan > Geometry Points > CivLabelerPlan-Station-Offset-Projected Elevation

New Name:

- Civil Labeler > Plan > Geometry Points > CivLabelerPlan-GeomPT Name-Station-Offset-NE-Elev-Projected Elevation

Old Name:

- Civil Labeler > Plan > Points > CivLabelerPlan-Station-Offset-Terrain Elevation

New Name:

- Civil Labeler > Plan > Points > CivLabelerPlan-Station-Offset-NE-Terrain Elevation
- The following Text Favorites have been added:
  - Civil Labeler > Plan > Points > CivLabelerPlan-Station-Offset-Terrain Elevation

➤ **Text Styles:**

IDOTCAD\_Standards.dgnlib

- New Text Styles have been added to ensure that every size option has the following justification options:
  - Bold\_Center-Bottom
  - Bold\_Center-Center
  - Bold\_Center-Descender
  - Bold\_Center-Top
  - Bold\_Left-Bottom
  - Bold\_Left-Center
  - Bold\_Left\_Descender
  - Bold\_Left-Top
  - Bold\_Right-Bottom
  - Bold\_Right-Center
  - Bold\_Right-Descender
  - Bold\_Right-Top
  - Center-Bottom
  - Center-Center
  - Center-Descender
  - Center-Top
  - Left-Bottom
  - Left-Center
  - Left\_Center-Descender
  - Left-Top
  - Right-Bottom
  - Right-Center
  - Right-Descender
  - Right-Top
- Test styles for each of the justification options listed above have been added for the 350 and 500 sizes.
- The default value for the Underline Offset and Overline Offset parameters for all text styles has been set to 0.25.

➤ **Miscellaneous Updates:**

Active\_WorkSpace\_Version.cfg

- The file has been updated with the current Workspace information.

IDOTCAD\_Graphical Filters.dgnlib

- The graphical filter for Aerial Surveys LiDAR Mas PNTS has been updated.

scales.def

- The following scale options have been added to the scale definition file:
  - 1"=2'
  - 1"=2.5'

Note: The actual definition for Engineering scale 1"=2' is the same as the Architectural scale 1/2" = 1'-0". In some cases, selecting the name 1"=2' will result in the dialog displaying the name 1/2" = 1'-0" and vice versa. This could be confusing to some users.

## VBA Apps

- Spinit.mvba has been updated and added to the IDOTCAD Standards. The application is used to place the active cell with a second data point to define the rotation of the cell.



## **Deployment Version: 23.02.232012**

## **Workspace Version: 10.12.02**

12/20/2023 Updates: Built on ORD 10.12.02.4 (2022 Release 3)

### ➤ **Configuration:**

IDOT\_Standards.cfg

- The following configuration variables have been added:
  - MS\_PLTCFG\_PATH < \$(CIVIL\_ORGANIZATION\_STANDARDS)Plotdrv\
  - MS\_DEFAULT\_PLTCFG\_FILE = IDOT\_PDF\_NoLayers\_BW.pltcfg
- A typo has been corrected in the variable name CIVILPROPERTYEEXPRESSION
- A typo has been corrected in the definition for MS\_CELLIST that calls IDOT\_Bentley 3D Cells.cel

### ➤ **Feature Definition Updates:**

IDOTCAD\_Standards.dgnlib

Survey Features

- The following Survey features were moved from the inactive codes list to the active code list:
  - Survey > Underground Utilities > 285 – Cable Power
  - Survey > Underground Utilities > 688 – Underground Gas Pipe
- The DTM attribute was changed from Spot to SpotAndBreak for the following Survey feature:
  - Survey > Vegetation\_Features > Lines > 411 – Crop Line

Terrain Features

- The various Terrain Feature Definitions that were defined to display existing contours were incorrectly displaying contours using the TM\_Ex\_Contours\_0.2'\_Minor\_1'\_Major element template. We are unsure why this was happening as the various Terrain feature definitions used to display contours were defined to use the correct corresponding element template. This has been corrected by deleting and recreating the TM\_Ex\_Contours\_0.2'\_Minor\_1'\_Major element template, feature symbology, and feature definition. Design files currently under development with an existing ground terrain element can be updated by taking the following steps:
  - Set the terrain to use the TM\_Ex\_Boundary feature definition.
  - Delete any unused terrain element templates, feature definitions, and feature symbologies in the file.
  - Compress the file.
  - Exit the file.
  - Reopen the file.
  - Once back in the file, assign one of the Terrain feature definitions that is configured to display contours to the terrain element. This should result in the correct contour interval being displayed.

Feature Definitions

- The following Feature Definitions have been added:
  - Feature Definitions > Linear > Profiles > Roadway > PF\_Ex\_Roadway\_Profile\_LT
  - Feature Definitions > Linear > Profiles > Roadway > PF\_Ex\_Roadway\_Profile\_RT
  - Feature Definitions > Linear > Profiles > Roadway > PF\_Pr\_Roadway\_Profile\_LT
  - Feature Definitions > Linear > Profiles > Roadway > PF\_Pr\_Roadway\_Profile\_RT
  - Feature Definitions > Linear > Profiles > Ditch > PF\_Pr\_Special\_Ditch\_RT

Feature Symbologies

- The following Feature Symbologies have been added:
  - Feature Symbologies > Profile > Roadway > Roadway\_PGL > PF\_Ex\_Roadway\_Profile\_LT
  - Feature Symbologies > Profile > Roadway > Roadway\_PGL > PF\_Ex\_Roadway\_Profile\_RT

- Feature Symbolologies > Profile > Roadway > Roadway\_PGL > PF\_Pr\_Roadway\_Profile\_LT
- Feature Symbolologies > Profile > Roadway > Roadway\_PGL > PF\_Pr\_Roadway\_Profile\_RT
- Feature Symbolologies > Profile > Profiles > Ditch > PF\_Pr\_Special\_Ditch\_Median

#### Annotation Groups

- The Minor Grid Properties “Horizontal per Major” property has been changed from a value of 4 to 1 for the following Annotation Groups:
  - Profile Grid 50H 2V
  - Profile Grid 50H 5V
- The following Annotation Groups have been added:
  - Annotation Group > Profile > Linear > Existing Strip Grades LT
  - Annotation Group > Profile > Linear > Existing Strip Grades RT
  - Annotation Group > Profile > Linear > Proposed Profile Annotations LT
  - Annotation Group > Profile > Linear > Proposed Profile Annotations RT
  - Annotation Group > Profile > Linear > Special Ditch Median
- Some changes have been made to the cross-section annotation to clean up the unintended annotation of points below the template surface in specific situations, and to turn off the Bold text option for elevation-offset labels.
- New annotation groups have been added for Plan view Drawing models to place the scale bar. The following annotation groups have been added:
  - Annotation Group > Plan > Drawing > Bar Scale 20
  - Annotation Group > Plan > Drawing > Bar Scale 40
  - Annotation Group > Plan > Drawing > Bar Scale 50
  - Annotation Group > Plan > Drawing > Bar Scale 100

#### Item Types

- Item Types have been added for Utilities.

### ➤ **Element Template Updates:**

#### IDOTCAD\_Standards.dgnlib

- The following Survey element templates were moved from the inactive codes list to the active code list:
  - Survey > Underground Utilities > Lines > 285 – Cable Power
  - Survey > Underground Utilities > Lines > 388 – Underground Gas Pipe
  - Survey > Underground Utilities > Shot\_Markers > 285 – Cable Power
  - Survey > Underground Utilities > Shot\_Markers > 388 – Underground Gas Pipe
- The level used for the display of existing ground profiles has been changed from TM\_Ex to TM\_Ex\_Ground for the following Element Templates:
  - TM\_Ex\_Boundary
  - TM\_Ex\_Coutours\_0.2'-Minor\_1'-Major
  - TM\_Ex\_Coutours\_1'-Minor\_5'-Major
  - TM\_Ex\_Coutours\_10'-Minor\_50'-Major
  - TM\_Ex\_Coutours\_2'-Minor\_10'-Major
  - TM\_Ex\_Coutours\_4'-Minor\_20'-Major
  - TM\_Ex\_Thematic\_Height
  - TM\_Ex\_Thematic\_Slope
  - TM\_Ex\_Triangles
- The following Element Templates have been added:
  - Annotation > Sheets > Draft\_Named\_Boundary
  - Annotation > Sheets > Profile > Draft\_Profile\_Ex\_Text\_LT
  - Annotation > Sheets > Profile > Draft\_Profile\_Ex\_Text\_RT
  - Annotation > Sheets > Profile > Draft\_Profile\_LP\_HP\_Text\_LT
  - Annotation > Sheets > Profile > Draft\_Profile\_LP\_HP\_Text\_RT

- Annotation > Sheets > Profile > Draft\_Profile\_Pr\_Text\_LT
- Annotation > Sheets > Profile > Draft\_Profile\_Pr\_Text\_RT
- Annotation > Sheets > Profile > Draft\_Profile\_Special\_Ditch\_Median
- Annotation > Sheets > Profile > Draft\_Profile\_Special\_Ditch\_Median\_Text
- Linear > Profiles > Ditch > PF\_Pr\_Special\_Ditch\_Median
- Linear > Profiles > Roadway > PF\_Ex\_Roadway\_Profile-Arc\_LT
- Linear > Profiles > Roadway > PF\_Ex\_Roadway\_Profile-Arc\_RT
- Linear > Profiles > Roadway > PF\_Ex\_Roadway\_Profile\_LT
- Linear > Profiles > Roadway > PF\_Ex\_Roadway\_Profile\_RT
- Linear > Profiles > Roadway > PF\_Pr\_Roadway\_Profile-Arc\_LT
- Linear > Profiles > Roadway > PF\_Pr\_Roadway\_Profile-Arc\_RT
- Linear > Profiles > Roadway > PF\_Pr\_Roadway\_Profile\_LT
- Linear > Profiles > Roadway > PF\_Pr\_Roadway\_Profile\_RT
- The Element Template Annotation > Sheets > Profile > Draft\_Profile\_Ex\_Text was modified to use a new level, PF\_Ex\_Roadway\_Profile\_Text. This use used on profile drawing model annotations for existing strip grade elevations.
- The element templates for 3D guardrail have been modified to use the newly added 3D guardrail definitions that to not have end terminals defined.

#### IDOTCAD\_Drainage – Features\_Annotations\_Elem Temp.dgnlib

- The line style has been corrected for the following Element Template:
  - Drainage > Conduit > Existing > Storm Pipes > Ex Storm Pipe - Plan

#### ➤ **Level Updates:**

##### IDOTCAD\_Standards.dgnlib

- The following levels were added for separate left-side and right-side profiles:
  - PF\_Ex\_Roadway\_Profile\_LT
  - PF\_Ex\_Roadway\_Profile\_RT
  - PF\_Ex\_Roadway\_Profile\_Text
  - PF\_Ex\_Roadway\_Profile\_Text\_LT
  - PF\_Ex\_Roadway\_Profile\_Text\_RT
  - PF\_Pr\_Roadway\_Profile\_LT
  - PF\_Pr\_Roadway\_Profile\_RT
  - PF\_Pr\_Roadway\_Profile\_Text\_LT
  - PF\_Pr\_Roadway\_Profile\_Text\_RT
- A typo was corrected in the description for the level PV\_Pr\_Face\_of\_Curb\_Line

#### ➤ **Cell Library Updates:**

##### IDOT\_Drainage – 2D.cel

- The size has been corrected for the following cells:
  - Plan – Inlet Special – 5ft x 3ft
  - Plan – Inlet Special – 6ft x 3 ft

##### IDOT\_Drainage – 3D.cel

- The size has been corrected for the following cells:
  - Bottom – Inlet Special – 5ft x 3ft
  - Bottom – Inlet Special – 6ft x 3ft
  - Top – Inlet Special – 5ft x 3ft
  - Top – Inlet Special – 6ft x 3ft

#### IDOT\_Plats.cel

- The following cells have been added to the library:
  - Bound\_Chisled X Found
  - Bound Stone Found
  - Crows Feet – Proposed
  - Crows Feet – Existing

#### IDOT\_Road.cel

- A background mask has been added to the following cells:
  - NORTH ARROW D1
  - NORTH ARROW D2
  - NORTH ARROW D3
  - NORTH ARROW D4
  - NORTH ARROW D5
  - NORTH ARROW D6
  - NORTH ARROW D7
  - NORTH ARROW D8
  - NORTH ARROW D9

#### IDOT\_Bentley 3D Cells.cel

- The guardrail end terminal cells were updated.

#### IDOT\_Sheets.cel

- The following cells have been added for Highway Standards sheets:
  - SHT\_HIGHWAY\_STANDARDS
  - SHT\_HIGHWAY\_STANDARDS FIRST PAGE
- The active points at the insertion location for various text favorites have been changed to construction class elements.
- The scale bars have been modified to add a background mask and to shorten the overall length of the scale bar:
  - SHT\_BAR SCALE 20
  - SHT\_BAR SCALE 40
  - SHT\_BAR SCALE 50
  - SHT\_BAR SCALE 100
- The signature block for the cell SHT\_COVER has been updated to change DIRECTOR OR PROGRAM DEVELOPMENT to DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION.

#### Plan Labeling Annotations.cel

- Added cells for separate left and right profile annotations:
  - Profile Curve Arrow Left
  - Profile Curve Arrow Right

### ➤ **Civil Labeler:**

#### IDOT\_Standards.dgnlib

- Two new cross-section labeling options have been added:
  - Cross Sections > Slope (Left of CL)
  - Cross-Sections > Slope (Right of CL)
- Default placement settings have been set for each label definition.

### ➤ **Survey Updates:**

## Field Codes

### IDOTCAD\_Standards.dgnlib

- The following field codes were moved from the inactive codes to the active codes:
  - Underground Utilities > Lines > 932 - Electric, Under Ground - Main
  - Underground Utilities > Lines > 972 - Gas, Underground - Main
- The PDF code lists have been updated to reflect changes made to the Survey Features:
  - \\IDOTCAD\_CONNET\Documentation\IDOTCAD\_Survey\_Codes\_by\_Category\_2023-10-27.pdf
  - \\IDOTCAD\_CONNET\Documentation\IDOTCAD\_Survey\_Codes\_by\_Number\_2023-10-27.pdf

### ➤ **Template Library:**

#### IDOT.itl

- Corrected the feature definition assigned to various points on various templates.

### ➤ **Text Favorites:**

#### IDOT\_Standards.dgnlib

- Two new text favorites have been added for annotating cross-section slopes with the Civil Labeler:
  - Civil Labeler > Cross Section > CivilLabelerXS-Slope on Left of CL
  - Civil Labeler > Cross Section > CivilLabelerXS-Slope on Right of CL

#### IDOTCAD\_Drainage – Features\_Annotations\_Elem Temp.dgnlib

- Some of text favorites used in various Civil Labeler definitions to annotate drainage and utilities elements were edited to make the following changes:
  - Slope annotations were changed to two decimal places.
  - The manhole and inlet annotations were corrected to read the rim elevation parameter.

### ➤ **Line Style Updates:**

#### IDOT CE Linestyles from Level Library.dgnlib

- The following custom line styles have been added for aerial flight paths:
  - DCMFlight0.17
  - DCMFlight0.18
  - Multi Flt Lin 60x35
  - UCEFlight0.17
  - UCEFlight0.18

#### IDOT CE Linestyles 3D.dgnlib

- The following 3D Guardrail line styles have been added:
  - Guardrail Type A Steel Post Left No Ends 3D
  - Guardrail Type A Steel Post Right No Ends 3D
  - Guardrail Type B Steel Post Left No Ends 3D
  - Guardrail Type B Steel Post Right No Ends 3D

### ➤ **Printing:**

#### IDOT\_Print\_Styles.dgnlib

- Common Settings:
  - The Print Driver Configuration File has been set to IDOT\_PDF\_NoLayers\_BW.pltcfg
- DGN/DWG Settings:
  - The path for the Pen Table, which was set to an incorrect value, has been removed. The location of the pen table is set by the configuration variable MS\_PETABLE
  - The Raster quality factor parameter has been set to 50.

- The Display option for Fast cells has been toggled off.
- The Display option for Points has been toggled off.
- The Display option “Use view background color when rendering” has been toggled off.

➤ **Miscellaneous Updates:**

Right-Click View Control Menu

The IDOT CADD Standards are configured so that the level on/off status for sheets is controlled by the level display status of the Design Model. Changes to the level on/off status in the design model are carried through to the sheets only if these changes are made in View 1.

When laying out the Named Boundaries for cross-section sheets, the right-click View Control menu option “2 Views Plan/3D” is typically used to display the 2D model on the left and the 3D model on the right. For cross-sections, changes made to the level on/off display status in the Default-3D model are automatically applied to the cross-section sheets only if the Default-3D model is displayed in View 1. With the previous implementation of the “2 Views Plan/3D” option, the Default-3D model is displayed in View 2, therefore changes made to the level display status is not carried through to the cross sections. The “2 Views Plan/3D” option has been revised to display the Default-3D model in View 1, instead of View 2. Using this view configuration, changes made to the level on/off status of the Default-3D model will carry through to the cross-section sheets. The following three files have been edited to support this change:

\\IDOT\_Standards\dgnlib\GUI\Custom\_Menu.dgnlib

- The “2 Views Plan/3D” right-click menu option has been modified as follows:

Previous Behavior	Revised Behavior
View 1 is on the left, displaying the Default Model	View 1 is on the right, displaying the Default-3D Model
View 2 is on the right, displaying the Default-3D model	View 2 is on the left, displaying the Default Model

\\IDOT\_Standards\Macros\ViewControlConfigurations.xml

- A new configuration option was added to support the revised “2 Views Plan/3D” right-click menu option.

\\IDOT\_Standards\Macros\ViewSet.mvba

- A new subroutine was added to support the revised “2 Views Plan/3D” right-click menu option.

User Preference Seed

\\IDOT\_Standards\Preference Seeds\IDOT.Prefereces.spf

- The following option in the seed preference file was changed to a value of “True”:
  - View Options – Civil > Drainage and Utilities > Show Connected Conduits In Profile

DGNWS Template

\\IDOT\_Standards\DGNWS Template\IDOT Template.dgnws

- A folder has been added for Highway Standards sheets with subfolders for 2023 and 2024

\_Template for New WorkSet

- The dgnws file for the template has been removed. After a new WorkSet is created, when a design file is opened, ORD will create the dgnws file for the WorkSet using the IDOT Template.dgnws file.
- Configuration variable definitions for OpenBridge Modeler overrides have been added to \_Template for New WorkSet.cfg file.

➤ **Sheet Seeds:**

\\IDOT\_Standards\dgnlib\Sheet Seeds\Civil\_Named\_Boundary\_SheetSeeds.dgnlib

- The following drawing boundary sheet options have been added:
  - Civil Plan:
    - Plan with 2 Profiles – Plan View
  - Civil Profile:
    - Plan with 2 Profiles – Profile View

\\IDOT\_Standards\dgnlib\Sheet Seeds\Detail Sheet Seed.dgnlib

- The following drawing boundary sheet options have been added:
  - Highway Standards First Page
  - Highway Standards
- The sheet border cell for the Cover Sheet has been updated.

All sheet seed dgnlibs:

- In the sheet models, the Scale Line Styles by Reference Scale option has been toggled off for all reference attachments.

➤ **Documentation:**

IDOTCAD\_Sheet Title Block Automation with Sheet Index.pdf

- Additional information has been added to document the differences between IDOT's title block automation in the 10.10 and 10.12 version of the IDOT WorkSpace.

➤ **Bridge Updates:**

- The following bridge template files have been updated:
  - Templates.xml: Sleeper slab template added.
  - IDOT BearingLib.cel: Sample Type I Elastomeric Bearing Assembly added.
- The following Bridge cell libraries and their corresponding pdf's have been updated:
  - Abutments-Vaulted.cel
  - Approach Slabs-Bridge Cast in Place.cel
  - Approach Slabs-Bridge Precast.cel
  - Approach Spans-Vaulted Abutments.cel
  - Base Sheets-General.cel
  - Beams-Plate Girders.cel
  - Details-Design.cel
  - Details-Planning.cel
  - Diaphragms-Expansion Abutment Prestressed Beams.cel
  - Diaphragms-Expansion Abutment Steel Beams.cel
  - Piles.cel
  - Railings.cel
  - Superstructure-Expansion Prestressed Beams.cel
  - Superstructure-Expansion Steel Beams.cel
  - Superstructure-Integral Prestressed Beams.cel
  - Superstructure-Integral Steel Beams.cel
  - Superstructure-Prestressed Deck Beams.cel

## **Deployment Version: 23.01.231109**

## **Workspace Version: 10.12.01**

09/11/2023 Updates: Built on ORD 10.12.02.04 (2022 Release 3)

### ➤ **DGNLIBS:**

- A new DGN Library has been added to the WorkSpace that replaces several other DGN Libraries. The following new file has been added:

- IDOTCAD\_Standards.dgnlib

This file replaces the following DGN Libraries, which have been removed from the WorkSpace:

- IDOTCAD\_Features\_Annotations\_Levels\_Elem\_Temp\_Item\_Types.dgnlib
- IDOTCAD\_Text Favorites\_Text Styles\_Dimension Styles.dgnlib
- Labeler Text Favorites Dimension\_Styles\_Elem\_Temp\_Imperial.dgnlib
- Table Seed\_Reports.dgnlib

- Two new DGN Libraries have been added for Drainage and Utilities.

- IDOTCAD\_Drainage – Features\_Annotations\_Elem Temp.dgnlib
- IDOTCAD\_Uilities – Features\_Elem Temp.dgnlib

These new DGN Libraries replace the following two files, which have been removed from the WorkSpace:

- IDOTCAD\_SU\_Features\_Elem Temp.dgnlib
- IDOTCAD\_Uilities\_Features\_Elem\_Temp.dgnlib

### ➤ **Configuration Updates:**

WorkSpaceSetup.cfg

- Added syntax to append the \_DYNAMIC\_CONFIGURATIONNAME and \_DYNAMIC\_PRODUCT\_VERSION\_GEN\_MAJ to the \_USTN\_PREFNAMEBASE variable if accessed from ProjectWise Explorer

### ➤ **Feature Definition Updates:**

IDOTCAD\_Standards.dgnlib

- Added linear Feature Definitions and Feature Symbologies for Aerial Survey items.
- Reverted the Terrain Model Attribute setting for Survey field code 604 to SpotAndBreak
- Added the following Feature Definitions:
  - Linear > Right-of-Way > ROW\_Ex\_Former\_ROW\_Line
  - Linear > Safety\_and\_Structures > Barrier > RD\_Pr\_Concrete\_Barrier\_Temporary
  - Linear > Safety\_and\_Structures > Barrier > RD\_Pr\_Jersey\_Barrier
  - Linear > Safety\_and\_Structures > Barier > RD\_Pr\_Jersey\_Barrier\_w/Screen
  - Linear > Traffic\_Control > Construction\_Barrels > Construction Barrels Flashing Light 20' Spacing
  - Linear > Traffic\_Control > Construction\_Barrels > Construction Barrels Flashing Light 50' Spacing
  - Linear > Traffic\_Control > Construction\_Barrels > Construction Barrels Flashing Light 100' Spacing
  - Linear > Traffic\_Control > Construction\_Barrels > Construction Barrels Steady Light 20' Spacing
  - Linear > Traffic\_Control > Construction\_Barrels > Construction Barrels Steady Light 50' Spacing
  - Linear > Traffic\_Control > Construction\_Barrels > Construction Barrels Steady Light 100' Spacing
  - Mesh > Roadway > 3DM\_Pr\_Bike\_Path



- Mesh > Roadway > 3DM\_Pr\_Bike\_Path\_Subbase
- Mesh > Roadway > 3DM\_Pr\_Bike\_Path\_Subgrade
- Mesh > Roadway > 3DM\_Pr\_Mulri-Use\_Path
- Mesh > Roadway > 3DM\_Pr\_Multi-Use\_Path\_Subbase
- Mesh > Roadway > 3DM\_Pr\_Multi-Use\_Path\_Subgrade
- Several Feature Definitions were added for Aerial Survey points.
- Defined 3D Feature Definitions for the Linear > Traffic\_Control Feature Symbology items.
- Added Feature Definitions for construction barrels with lights.
- Set the Volume Option for the Mesh\Guardrail feature definitions to a value of “None.”
- The following Survey features were updated:
  - 111 – Calculated Point
    - The symbol was changed to the cell SURVEY\_STC on level AS\_Control\_Points
  - 117 – Bench Tie
    - The name was changed to 117 – Cross Tie
  - 219 – Barricade
    - Changed to a linear feature on level Topo\_Ex\_Miscellaneous
  - 223 – Traffic Signal controller
    - Removed as a linear feature.
    - Changed the Terrain Model Attribute to Do Not Include
  - 274 – Handhole, 275 – Double Handhole, 276 – Heavy Duty Handhole
    - Removed as Linear Feature
    - Changed the Terrain Model Attribute to Spot
  - 280 – Junction Box
    - Removed as Linear Feature
  - 357 – Crosswalk button
    - Removed as Linear Feature
  - 410 – Timber Edge, 411 – Crop line, 412 – Hedge Row
    - Changed the Terrain Model Attribute to Spot
  - 458 – Railroad Signal Cabinet
    - Removed as linear feature
    - Changed the Terrain Model Attribute to Spot
  - 459 – Railroad Signal Foundation
    - Changed to a linear feature
    - Changed the Terrain Model Attribute to Break Line
  - 466 – Railroad Crossing Gate, 467 – Railroad Crossing Combination Mast Arm
    - Removed as linear feature
  - 604 – Ground Shot
    - Changed the Terrain Model Attribute to SpotAndBreak
  - 623 – Expansion Joint
    - Change to a Linear Feature
    - Changed the Terrain Model Attribute to Break Line
  - 639 – Gasoline Monitoring Well
    - Changed the name to Monitoring Well
    - Removed as linear feature
  - 824 – PK Nail
    - Changed to the name to PK/MAG Nail
- The following Survey Feature was added:
  - 993 – Low Water Entry
- The following Feature Definitions were removed:
  - Linear > Profiles > Roadway > PF\_Ex\_Roadway\_Profile

- Linear > Profiles > Roadway > PF\_Pr\_Roadway\_Profile
- Added and revised Feature Definitions and Feature Symbolologies for 3D line styles as needed for Channelizing Cones, Construction Barrels, Traffic Cones, Guardrail, and Cable Road Guard
- Modified the Feature Symbolology for linear Survey items to use the newly added shot marker element templates. In the 10.10.01 version of the IDOT Workspace, a common shot marker was used for all the linear survey items. This change was made to match the color of the shot marker with the linear feature.
- Modified the Annotation Group for Special Ditch LT and Special Ditch RT to annotate the slope correctly.
- The annotation definitions for alignment stationing were modified to set the Manage Annotations option to a value of False for all the annotation definitions used to annotate alignment key points. This was done to correct a problem with the spacing of the labels when the annotation scale value in the file with the annotations plotted is different than the annotation scale of a file that references the alignment data.
- Corrected the Feature Definitions and Annotations for Special Ditch Profiles
- Revised and updated the Annotation Group XS Grid w/Annotations to add elevation/offset labels for the following feature definitions:
  - GE\_Ex\_Baseline
  - GE\_Ex\_Centerline
  - GE\_Pr\_Alternate
  - GE\_Pr\_Baseline
  - GE\_Pr\_Centerline
  - GE\_Pr\_Detour
  - GE\_P\_Stage
- New Feature Definitions were added to be used in the process for converting a project from the IDOT 10.09 Standards to version 10.12
  - Linear\Conversion\_Error\Unrecognized\_Feature
  - Mesh\Conversion\_Error\Unrecognized\_Feature
  - Point\Conversion\_Error\Unrecognized\_Feature

➤ *Element Template Updates:*

IDOTCAD\_Standards.dgnlib

- Added linear element templates for Aerial Survey items.
- Added point element templates for Aerial Survey items.
- Edited the Terrain Element Templates that are been configured to display contours to toggle off the display of the triangles.
- Corrected the level for the existing centerline major station annotation and tic marks.
- Corrected the level for the following Terrain Features:
  - Terrain > Existing > TM\_Ex\_Triangles
  - Terrain > Proposed > TM\_Pr\_Triangles
- Corrected the level assignment for several element templates.
- Added Element Templates for the Linear > Traffic\_Control items that use the 3D Custom Line Styles for these features.
- Added an element template for ROW\_Ex\_Former\_ROW\_Line
- Changed the color to ByLevel for the following item:
  - Survey > DTM\_Line\_Codes > Lines > 607 Break Line
- Changed the color to 1 for the following element templates:
  - Survey > Miscellaneous > Lines > 860 – Toe
  - Survey > Miscellaneous > Lines > 861 – Top
  - Survey > Miscellaneous > Lines > 862 – Top of Bank
- Changed the cell to AS\_HORIZ\_CTRL\_STA for the following feature:
  - Survey > Miscellaneous > Points > 818 – Permanent Survey Marker
- Added element templates for 3D line styles as needed for Channelizing Cones, Construction Barrels, Traffic Cones, Guardrail, and Cable Road Guard

- Added element templates for survey “shot markers” to correspond to the linear survey codes.
- Terrain Element Templates:
  - Corrected the level defined for major contour annotation as needed.
- Added element templates for construction barrels:
  - Construction Barrels Flashing Light 20’ Spacing
  - Construction Barrels Flashing Light 50’ Spacing
  - Construction Barrels Flashing Light 100’ Spacing
  - Construction Barrels Steady Light 20’ Spacing
  - Construction Barrels Steady Light 50’ Spacing
  - Construction Barrels Steady Light 100’ Spacing
- Added element templates for bike and multi-use path meshes:
  - Components > Roadway > 3DM\_Pr\_Bike\_Path
  - Components > Roadway > 3DM\_Pr\_Bike\_Path\_Subbase
  - Components > Roadway > 3DM\_Pr\_Bike\_Path\_Subgrade
  - Components > Roadway > 3DM\_Pr\_Mulri-Use\_Path
  - Components > Roadway > 3DM\_Pr\_Multi-Use\_Path\_Subbase
  - Components > Roadway > 3DM\_Pr\_Multi-Use\_Path\_Subgrade

➤ Level Updates:

IDOTCAD\_Standards.dgnlib

- Corrected typos in various level descriptions
- Edited level descriptions to consistently spell out “Existing” and “Proposed”.
- Added new Level Filters:
  - CC – Civil Cells
  - CM – Corridor Graphics
  - GR – Grading
  - GuideSign – GuideSign levels
- Corrected the line style assigned to the following levels:
  - Bridge\_TSandL\_Railroad
  - Bridge\_TSandL\_Streamline
- Revised the Level Filter for Bridge levels to remove the underscore from the filter.
- The following levels have been added:
  - RD\_Ex\_Roadway\_Items
  - ROW\_Ex\_Former\_ROW\_Line
- The following levels have been removed:
  - Draft\_Survey\_Field\_Code
  - Draft\_Survey\_Point\_Description
  - Draft\_Survey\_Point\_Elevation
  - Draft\_Survey\_Point\_Name
  - Draft\_Survey\_Topo\_Label
  - TM\_Contour\_Major
  - TM\_Contour\_Minor
- The line style for the level VL\_Cut (Volumes – Cut) was changed to line code 0.
- The following levels have been added for Turning Paths:
  - GeoMetrics\_Turning\_Parh\_01
  - GeoMetrics\_Turning\_Parh\_02
  - GeoMetrics\_Turning\_Parh\_03
  - GeoMetrics\_Turning\_Parh\_04
  - GeoMetrics\_Turning\_Parh\_05
  - GeoMetrics\_Turning\_Parh\_06

- GeoMetrics\_Turning\_Parh\_07
- GeoMetrics\_Turning\_Parh\_08
- GeoMetrics\_Turning\_Parh\_09
- GeoMetrics\_Turning\_Parh\_10
- GeoMetrics\_Turning\_Parh\_11
- GeoMetrics\_Turning\_Parh\_12
- GeoMetrics\_Turning\_Parh\_13
- GeoMetrics\_Turning\_Parh\_14
- GeoMetrics\_Turning\_Parh\_15

➤ *Text Styles, Text Favorites, and Dimension Styles:*

IDOTCAD\_Standards.dgnlib

- Added a new Text Favorite:
  - Profile Special Ditch – Slope
- Removed the following text styles:
  - 100\_Fixed\_Spacing\_Left-Center
  - 120\_Fixed\_Spacing\_Left-Center
  - 140\_Fixed\_Spacing\_Left-Center
  - 140\_Fixed\_Spacing\_Right-Center
- Adjusted the Terminator Arrowhead Width to 1.0 and Height to 0.5 for the dimension styles.

Labeler Text Favorites Dimension\_Styles\_Elem\_Temp\_Imperial.dgnlib

- Added a new Text Favorite:
  - Plan > Points > CivilLabelerPlan-Station-Offset-Profile Elevation
- Corrected the Text Favorites used by various labels.
- Several Text Favorites for sheet title block automation have been added.

➤ *Linestyle Updates:*

IDOT CE Linestyles from Level Library.dgnlib

- Copied the traffic control 3D line styles from the Bentley delivered 3D line styles to the IDOT line style dgnlib.
- Revised the Sanitary Sewer line style to provide more spacing between the symbols.
- Added new 2D line styles for Traffic Control items:
  - Channelizing Cones 10' Spacing
  - Channelizing Cones 20' Spacing
  - Channelizing Cones 30' Spacing
  - Channelizing Cones 40' Spacing
  - Channelizing Cones 50' Spacing
  - Channelizing Cones 60' Spacing
  - Construction Barrels 50' Spacing
  - Construction Barrels 100' Spacing
  - Construction Barrels Flashing Light 20' Spacing
  - Construction Barrels Flashing Light 50' Spacing
  - Construction Barrels Flashing Light 100' Spacing
  - Construction Barrels Steady Light 20' Spacing
  - Construction Barrels Steady Light 50' Spacing
  - Construction Barrels Steady Light 100' Spacing
  - Traffic Cone 10' Spacing
  - Traffic Cone 20' Spacing
  - Traffic Cone 30' Spacing
  - Traffic Cone 40' Spacing

- Traffic Cone 50' Spacing
  - Traffic Cone 60' Spacing
- Added a new 2D lines tyle for Type D Guardrail
- 3D Line styles:
  - Revised 3D line styles for better consistency with IDOT standard colors
  - The 3D line styles are defined in a new file, IDOT CE Linestyles 3D.dgnlib.
  - Old versions of the line styles were removed from the main line style dgnlib.
  - Added 3D line styles for 1-Strand and 4-Strand cable road guard.
  - Some of the previously defined guardrail and cable road guard 3D line styles contained lengthy end terminals that were not specific to IDOT standards. These end terminals are not included in the revised line styles
- Line styles with the “\_CE” suffix in the name:
  - Line styles held over from the V1 IDOT ORD WorkSpace (the ones that did not have a “\_CE” suffix in the name) were removed from the dgnlib.
  - All the line styles that had a “\_CE” suffix have been renamed to remove the suffix.
  - These changes were made to eliminate confusion. Existing CONNECT design files using the line styles from the V1 IDOT WorkSpace will retain the previous line style definition and will not be impacted by this change. Files that have been started with the V2 IDOT WorkSpace that may contain line styles names with the “\_CE” suffix will retain those line style definitions.
- Corrected the following line style definitions:
  - PMK\_LaneLine\_Marker\_40
  - PMK\_LaneLine\_Marker\_80

➤ Cell Library Updates:

IDOT\_Road.cel

- The sheet borders have been removed from IDOT\_Road.cel. The sheet borders are now defined in a new cell library IDOT\_Sheets.cel
- Dropped the text in the cells NORTH ARROW D8 and NORTH ARROW D9 to line strings.
- Corrected the level for the cell NONHWY\_PAY\_TEL
- The cell origin for the following cells has been modified:
  - AS\_VERT\_CONTROL STA
  - PM\_EX\_URB LT TRN ARROW
  - PM\_EX\_URB RW TRN ARROW
  - PM\_EX\_URB COMB LT
  - PM\_EX\_URB COMB RT
  - PM\_EX\_URB LT TURN ONLY
  - PM\_EX\_URB RT TURN ONLY
  - PM\_EX\_URB THRU ONLY
  - PM\_EX\_URB 2-WAY LT TRN
- The following cells have been added to IDOT\_Road.cel:

Cell Name	Description
AS_EX_HEADSTONE	AERIAL SURVEYS HEADSTONE
TC_CHANNELIZING_CONE	TRAFFIC CONTROL – CHANNELIZING CONE
TC_CONSTRUCTION_BARREL	TRAFFIC CONTROL – CONSTRUCTION BARREL
TC_CONSTRUCTION_BARREL_FLASHING	TRAFFIC CONTROL – CONSTRUCTION BARREL WITH FLASHING LIGHT
TC_CONSTRUCTION_BARREL_LIGHT	TRAFFIC CONTROL – CONSTRUCTION BARREL WITH STEADY BURNING LIGHT
TC_CONSTRUCTION_BARREL_MULTI_LIGHT	TRAFFIC CONTROL – CONSTRUCTION BARREL WITH MULTIDIRECTIONAL LIGHT

UTIL_EX STORAGE TANK	UTILITY STRAGE TANK EXISTING
UTIL_EX VBOX	UTILITY VALVE BOX EXISTING

#### IDOT\_Dynamic XS Labels.cel

- Corrected the line style for the following cells:
  - 3D Traffic Rail SSTR\_L
  - 3D Traffic Rail SSTR\_R
  - Guardrail\_Double
  - Guardrail\_L
  - Guardrail\_R
  - Jersey Barrier
  - Jersey Barrier with Screen

#### IDOT\_3D-Modeling.cel

- The color for all the ROW\_PR cells has been changed to ByLevel
- The size and text size of all the cells in the library was adjusted to match other cross section annotations and to also use the annotation scale.

#### IDOT\_Plats.cel

- Updated the line styles.

#### New cell libraries added.

- The following cell libraries have been added to the Standards:
  - AreaPattern.cel
  - FHWA\_Signs\_2021-04-13.cel
  - SIGN\_Guide.cel
  - SIGN\_Regulatory.cel
  - SIGN\_School\_Zone.cel
  - SIGN\_Temporary\_Traffic\_Control.cel
  - SIGN\_Warning.cel

The FHWA Signs cell library is as delivered by FHWA with the exception that the cells have been moved to the IDOT level ST\_Pr\_Sign.

#### IDOT\_Sheets.cel

- New cell library containing the IDOT Sheet Borders (formerly defined in IDOT\_Road.cel)
- Updated all IDOT Sheet cells to change fonts COMPRESSED and SWISS\_BOLD\_CONDENSED to Arial Black
- The sheet title blocks have been updated to use newly defined Text Favorites that read the Sheet Index properties and custom properties.
- The following sheets have been removed from the library:
  - SHT\_1 PLAN 2 PROFILE
  - SHT\_2 PLAN 2 PROFILE
  - SHT\_DOUBLE PROFILE
  - SHT\_FULL PROFILE
  - SHT\_PLNPROF
  - SHT\_PLNPROF URBAN
  - SHT\_TRIPLE PROFILE
  - SHT\_XS\_H GRID
  - SHT\_XS\_V GRID

#### Drainage and Utilities Cell Libraries

- The following cell libraries have been removed and replaced:
  - \Cell\SUE\D2\_SUE\_Drainage.cel
  - \Cell\SUE\D9\_SUE\_Drainage.cel
  - \Cell\SUE\IDOT\_Utility.cel
- New cell libraries have been added to replace those listed above:
  - \Cell\DU Cells\IDOT\_Drainage - 2D Headwalls.cel
  - \Cell\DU Cells\IDOT\_Drainage - 2D.cel
  - \Cell\DU Cells\IDOT\_Drainage - 3D Hearwalls.cel
  - \Cell\DU Cells\IDOT\_Drainage -3D.cel
  - \Cell\DU Cells\IDOT\_Uilities - 2D.cel
  - Cell\DU Cells\IDOT Utilities - 3D.cel

➤ Seed Files:

- Removed extraneous civil data from the seed files IDOTeng.dgn and IDOTeng3D.dgn
- Turned down the Default Lighting brightness level in IDOTeng3D.dgn
- Turned on the Fill View Attribute in IDOTeng.dgn

➤ Survey Updates:

TIW Files

- The following TIW file was recreated to resolve a problem with the old one not mapping the Codes correctly:  
D3\_ASCII-Comma-PtNumNEZCodeCode.tiw
- The following TIW file was added to the Standards:
  - IDOT\_Standards/Survey/TIW/D1\_ASCII-Comma-PtNumNEZCodeCodeNote.tiw
- The TIW file D2\_ASCII-Space\_with\_Comma.tiw was renamed to D2\_ASCII-Topo.tiw. The Survey Settings were updated to reflect the new file name.

Field Codes

- IDOT’s Survey Personnel have revised the field code list to reduce the number of codes and eliminate redundancy.

Codes that are no longer used have been retained in the WorkSpace and have been moved to a separate “inactive Codes” folder within the element templates and feature definition structure as detailed below. The intent is to retain the “inactive codes” in the WorkSpace for compatibility with existing projects. These codes made be removed from the WorkSpace at a future date.

The revised code list is available PDF format in the IDOT CADD Standards in the following folder:

\IDOTCAD\_CONNET\Documentation\IDOTCAD\_Survey Codes by Category 2023-07-21.pdf  
 \IDOTCAD\_CONNET\Documentation\IDOTCAD\_Survey Codes by Number 2023-07-21.pdf

IDOTCAD\_Standards.dgnlib

- The Survey Settings have been updated to account for the changes made to the TIW files.
- The defaulting values for the following Survey Settings were changed for compatibility with IDOT’s numeric field codes. Note: these are new settings that were added in ORD version 10.11
  - Linking Codes > Best Match Field Code Option: Match Truncate
  - Linking Codes > Best Match Truncate Value: 3
- Feature Definitions for survey codes that and no longer used on IDOT projects have been moved to the following folder:
  - \Survey\z\_Inactive\_Codes\
- Feature Symbolologies for survey codes that and no longer used on IDOT projects have been moved to the following folder:
  - \Feature Definitions\Survey\z\_Inactive\_Codes\

- Element Templates for survey codes that and no longer used on IDOT projects have been moved to the following folder:
  - \Feature Symbolgies\Linear\Survey\z\_Inactive\_Codes\
  - \Feature Symbolgies\Point\Survey\z\_Inactive\_Codes\

➤ **Roadway Updates:**

- Sheet Title Block automation
  - With this release of the IDOT CADD Standards, the MicroStation Sheet Index is used for sheet title block automation. This methodology is incompatible with sheets created using previous versions of the IDOT CADD Standards. Documentation for title block automation using the sheet index is provided in the following PDF document within the IDOTCAD Standards:  
 ..\IDOTCAD\_CONNECT\Documentation\IDOTCAD\_Sheet Title Block Automation with Sheet Index.pdf
- Template Library – IDOT.itl
  - Corrected several feature definition assignments for points and components in multiple templates
  - Added underdrain templates under the Components folder
  - Added IDOT preferences for the Point Name Prefix and Step Increment values
- Turned off the Scale Line Styles by Reference Scale setting in all the sheet models for the following sheet clipping dgnlib files:
  - Civil\_Named\_Boundary\_SheetSeeds.dgnlib
  - Civil\_ROW\_Named\_Boundary\_SheetSeeds.dgnlib
  - Detail Sheet Seed.dgnlib
- All sheet clipping dgnlib files:
  - Adjusted the Reference file Presentation settings (Properties > Presentation) for the Drawing Models to turn off the Use View Flags setting. This allows the View Attribute Fill setting in the completed sheets to turn on/off the fill display across references.
  - Corrected various text justification and font issues.
- Civil\_Named\_Boundary\_SheetSeeds.dgnlib
  - Added a dividing line to the plan sheet for the Double Plan sheet configuration.
- Civil\_ROW\_Named\_Boundary\_SheetSeeds.dgnlib
  - Corrected the Solids Modeling Area
- Detail Sheet Seeds.dgnlib
  - Corrected the size and scale for Plat of Highways and the Right-of-Way Plat sheets.
  - The Fill View Attribute was toggled on in all the models.
- Civil Labeler imperial.xml
  - Added the following label definition:
    - Plan – Points > Station-Offset-Profile Elevation
  - Adjusted the parameters for various labeling options.
- IDOTCAD\_Features\_Annotations\_Levels\_Elem\_Temp\_Item\_Types.dgnlib
  - Corrected the text size for the right-side vertical axis tick label in the Profile Grid 20H 2V annotation group
- Civil Labeler:
  - The file Civil Labeler file Imperial.xml has been imported into IDOTCAD\_Standards.dgnlib. The XML file has been removed from the WorkSpace.
- Favorite Symbols
  - Renamed FavortieSymbols.xml to IDOT\_Road\_FavoriteSymbols.xml
  - Added IDOT\_Bridge\_FavoriteSymbols.xml

➤ **Bridges and Structures Updates:**

- This is the initial release of the IDOT CONNECTED Bridge environment.

➤ **Configuration Updates:**



#### \_Template for New WorkSet.cfg

- The file was slightly reorganized to move the definition for \_USTN\_WORKSETDGNS, \_USTN\_WORKSETSTANDARDS, and MS\_DEF before the Template Library and Seed File definitions.
- Revised the following variable definition to append the CADD Data folder:  
\_USTN\_WORKSETDGNS = \$\_USTN\_WORKSETROOT)CADD Data/

#### IDOT\_Standards.cfg

- Corrected a typo in the variable definition for IDOTCAD\_Graphical\_Filters.dgnlib
- Removed duplicate variable definitions:
  - CIVIL\_REPORT\_SUBDIRECTORIES
  - MS\_IDLETIMEOUT
- Removed the line style rsc file definition for the variable MS\_SYMBRSRC. All IDOT line styles are defined in dgnlibs.
- Added the following configuration variables:
  - MS\_PLTCFG\_PATH < \$(CIVIL\_ORGANIZATION\_STANDARDS)Plotdrv/
  - MS\_DEFAULT\_PLTCFG\_FILE = IDOT\_PDF\_NoLayers\_BW.pltcfg
- Commented out the variables for the user preferences. These are defined in WorkspaceSetup.cfg
- The following variable definitions were removed:
  - MS\_DGNLIBLIST\_ELEMENTTEMPLATES < \$(CIVIL\_ORGANIZATION\_STANDARDS)Dgnlib/Feature Definitions/IDOTCAD\_SU\_Features\_Elem Temp.dgnlib
  - MS\_DGNLIBLIST\_ELEMENTTEMPLATES < \$(CIVIL\_ORGANIZATION\_STANDARDS)Dgnlib/Feature Definitions/IDOTCAD\_Uilities\_Features\_Elem\_Temp.dgnlib
  - CIVIL\_CONTENTMANAGEMENTDGNLIBLIST > \$(CIVIL\_ORGANIZATION\_STANDARDS)Dgnlib/Feature Definitions/IDOTCAD\_SU\_Features\_Elem Temp.dgnlib
  - CIVIL\_CONTENTMANAGEMENTDGNLIBLIST > \$(CIVIL\_ORGANIZATION\_STANDARDS)Dgnlib/Feature Definitions/IDOTCAD\_Uilities\_Features\_Elem\_Temp.dgnlib
  - MS\_CELL < \$(CIVIL\_ORGANIZATION\_STANDARDS)cell/SUE/
  - MS\_CELLLIST < \$(CIVIL\_ORGANIZATION\_STANDARDS)cell/SUE/D2\_SUE\_Drainage.cel
  - MS\_CELLLIST < \$(CIVIL\_ORGANIZATION\_STANDARDS)cell/SUE/D9\_SUE\_Drainage.cel
  - MS\_CELLLIST < \$(CIVIL\_ORGANIZATION\_STANDARDS)cell/SUE/IDOT\_Utility.cel
- The following variable definitions were added:
  - MS\_DGNLIBLIST\_ELEMENTTEMPLATES > \$(CIVIL\_ORGANIZATION\_STANDARDS)Dgnlib/Feature Definitions/IDOTCAD\_Drainage - Features\_Annotations\_Elem Temp.dgnlib
  - MS\_DGNLIBLIST\_ELEMENTTEMPLATES > \$(CIVIL\_ORGANIZATION\_STANDARDS)Dgnlib/Feature Definitions/IDOTCAD\_Uilities - Features\_Elem\_Temp.dgnlib
  - CIVIL\_CONTENTMANAGEMENTDGNLIBLIST > \$(CIVIL\_ORGANIZATION\_STANDARDS)Dgnlib/Feature Definitions/IDOTCAD\_Drainage - Features\_Annotations\_Elem Temp.dgnlib
  - CIVIL\_CONTENTMANAGEMENTDGNLIBLIST > \$(CIVIL\_ORGANIZATION\_STANDARDS)Dgnlib/Feature Definitions/IDOTCAD\_Uilities - Features\_Elem Temp.dgnlib
  - MS\_CELL > \$(CIVIL\_ORGANIZATION\_STANDARDS)cell/DU/
  - MS\_CELLLIST > \$(CIVIL\_ORGANIZATION\_STANDARDS)cell/DU/IDOT\_Drainage - 2D Headwalls.cel
  - MS\_CELLLIST > \$(CIVIL\_ORGANIZATION\_STANDARDS)cell/DU/IDOT\_Drainage - 2D.cel
  - MS\_CELLLIST > \$(CIVIL\_ORGANIZATION\_STANDARDS)cell/DU/IDOT\_Drainage - 3D Headwalls.cel
  - MS\_CELLLIST > \$(CIVIL\_ORGANIZATION\_STANDARDS)cell/DU/IDOT\_Drainage - 3D.cel
  - MS\_CELLLIST > \$(CIVIL\_ORGANIZATION\_STANDARDS)cell/DU/IDOT\_Uilities - 2D.cel
  - MS\_CELLLIST > \$(CIVIL\_ORGANIZATION\_STANDARDS)cell/DU/IDOT\_Uilities - 3D.cel
  - CIVIL\_TOOL\_SETTINGS\_OMIT\_ITEMTYPES = False
  - CIVIL\_QUICK\_PROPERTIES\_OMIT\_ITEMTYPES = False

#### ➤ Miscellaneous Updates:

- The following folder and file has been removed:
  - /Sheet Borders/IDOT Sheet Borders.dgn
- IDOT\_Print\_Styles.dgnlib
  - Corrected the name of the defined print driver configuration file
- IDOT\_PDF\_NoLayers\_BW.pltcfg
  - Removed the Color Map definitions, which are defined by the Pen Table
- PLOTLABEL.TBL
  - Added syntax to plot all elements using color 241, other than elements using the colors that are specifically designated for shading.
- The following font has been added to the WorkSpace:
  - \IDOT\_Standards\Fonts\EngineeringMono.ttf

#### IDOT Template.dgnws

- The Project Properties have been removed. These properties are now defined by the sheet index
- Several custom properties have been added to the Sheet Index for sheet title block automation

#### Rescinded Files:

The following files were removed from the WorkSpace:

- IDOT\_Standards\Cell\IDOT cell readme.txt
- IDOT\_Standards\Cell\PDF\IDOTroad.pdf

## **Deployment Version: 22.02.220927**

## **Workspace Version: 10.10.02a**

09/27/2022 Updates: Built on ORD 10.10.21.04 (2021 Release 2) and OBM 10.10.20.91 (2021 Release 2)

**This release of the IDOTCAD CONNECTED Environment is for the OpenBridge **Evaluation** through ACEC Illinois. **Production work shall not be done** with this Environment until it has been officially released on the IDOT Website.**

➤ **Roadway Updates:**

- No updates to the Roadway Environment from Version 10.10.02

➤ **Bridges and Structures Updates:**

- Initial release of OpenBridge Environment for evaluation and comment purposes **ONLY**.
  - The Roadway Environment must be installed with the Bridge Environment in order to have all IDOT CADD Standards available for use.
  - Review the “2022-09-27 IDOTCAD CONNECTED Environment Setup.pdf” for step-by-step instructions on how to configure the environment to work with your system.

## Deployment Version: 22.01.220907

## Workspace Version: 10.10.02

09/07/2022 Updates: Built on ORD 10.10.21.04 (2021 Release 2)

**This version of the IDOT WorkSpace represents a *MAJOR REVISION* to the IDOT CADD Environment. This list is not comprehensive of all the changes made but does represent the majority of the updates.**

### ➤ Feature Definition Updates:

IDOTCAD\_Features\_Annotations\_Levels\_Elem\_Temp\_Item\_Types.dgnlib

#### ○ Linear Features

- The linear features have been reorganized into several folders.
- Several features that were included from the Bentley delivered workspace but never configured for IDOT standards have been removed
- Features formerly using either the “Road” or “Design” prefix have been renamed and separated into different categories.
- All features are named using the following format:

AA\_Bb\_Cccc

AA = A two- or three-character prefix identifying the category, as detailed below

Bb = “Ex” for Existing items, “Pr” for Proposed items

Cccc = A descriptive name

Example: GE\_Pr\_Centerline

Prefix	Description
3DL	3D Line strings generated as part of the corridor modeling process
3DM	3D Mesh elements generated as part of the corridor modeling process
AS	Aerial Survey
BR	Bridges
DR	Drainage
EV	Environmental
GE	Geometry
IDS	Highway Standards
LS	Landscaping
LT	Lighting
PV	Pavement, shoulders, curb
PM	Pavement Marking
PF	Profiles
RM	Removal
RD	Roadway – Miscellaneous roadway items
ROW	Right-of-Way
SC	Scratch levels
SH	Sheets
SG	Signals
STG	Stage Construction
ST	Structures
TM	Terrain Model
Topo	Survey Data
TopoDot	TopoDot levels
TC	Traffic Control
UT	Utilities
VL	3D Volumes generated by ORD

- Space characters in Feature Definition names have been replaced with an underscore character
  - A new folder, named “Template\_Points”, has been added. This folder contains features that are used for sub-surface points in the Template Library to draw the 3D line strings in the model
- Point Features
  - Several point features have been added corresponding to the cells contained in IDOT\_Road.cel
  - Removed Bentley point features not required in the IDOT environment
- Mesh Features
  - The mesh features have been reorganized into folders
  - Mesh features have been renamed using the naming convention as detailed above
- Survey Features
  - Removed the top-level folder “IDOT\_Survey”
  - Revised folder structure to separate linear and point features
  - Appended descriptive names to the survey feature definition names. The Numeric Code is unchanged, so this does not impact data processing.
- Terrain Features
  - Terrain features have been reorganized into two folders for Existing and Proposed
  - Terrain Symbologies for existing ground terrains all include the Existing Strip Grades Annotation Group.
  - The terrain feature definitions have been renamed with a prefix of “TM” corresponding to the level name and either “Ex” or “Pr” for existing and proposed features
  - Terrain feature definitions have been added with different contour interval settings
    - TM\_Ex\_0.2'-Minor\_1'-Major
    - TM\_Ex\_1'-Minor\_5'-Major
    - TM\_Ex\_2'-Minor\_10'-Major
    - TM\_Ex\_4'-Minor\_20'-Major
    - TM\_Ex\_10'-Minor\_50'-Major
    - TM\_Pr\_0.2'-Minor\_1'-Major
    - TM\_Pr\_1'-Minor\_5'-Major
    - TM\_Pr\_2'-Minor\_10'-Major
    - TM\_Pr\_4'-Minor\_20'-Major
    - TM\_Pr\_10'-Minor\_50'-Major

➤ Element Template Updates:

IDOTCAD\_Features\_Annotations\_Levels\_Elem\_Temp\_Item\_Types.dgnlib

- Element templates have been reorganized and renamed like the Feature Definitions using the following format:
  - AA\_Bb\_Cccc
  - AA = A two- or three-character prefix identifying the category, as detailed above
  - Bb = “Ex” for Existing items, “Pr” for Proposed items
  - Cccc = A descriptive name
  - Example: GE\_Pr\_Centerline
- Space characters in element template names have been replaced with an underscore character
- Several element templates that were copied from the Bentley WorkSpace without further customization for the IDOT environment have been removed
- A new “Patterning” folder has been added with element templates configured for use with the MicroStation patterning commands. These element templates correspond to the patterned areas documented in the IDOT Highway Standards, Standard 000001-08

➤ Level Updates:

IDOTCAD\_Features\_Annotations\_Levels\_Elem\_Temp\_Item\_Types.dgnlib

- The levels have been renamed and reorganized into categories.
- Many of the levels formerly using either the “Road” or “Design” prefix have been separated into different categories.
- The level names use the following format, like the Feature Definitions and Element Templates:

AA\_Bb\_Cccc

AA = A two- or three-character prefix identifying the category, as detailed above

Bb = “Ex” for Existing items, “Pr” for Proposed items

Cccc = A descriptive name

Example: GE\_Pr\_Centerline

- Space characters in level names have been replaced with an underscore character
- Descriptions have been added for all levels. Level descriptions contain a prefix to clearly identify the category and to help clarify the two- or three-character prefix. For example, the level “GE\_Ex\_Baseline” includes the description “Geometry – Existing Baseline”
- Level Overrides were set to match the same symbology as the non-override state.
- Level Filters have been added for each category
- All levels have been consolidated into one DGNLIB

➤ Text Styles, Text Favorites, and Dimension Styles:

IDOTCAD\_Text Favorites\_Text Styles\_Dimension Styles.dgnlib

- Text styles have been redefined to use the font Arial in place of the Engineering fonts
- Text styles defined with “Fixed\_Spacing” in the text style name are configured to use the font Courier New
- The text style names have been renamed to remove the font name
- Text favorites have been organized into folders
- The following dimension styles, used the leader lines with the Civil Labeler tool, have been changed to use color 6:
  - Plan Annotation with Arrowhead
  - Plan Annotation without Arrowhead
- In the Place Text command, additional Favorite Symbols have been added. Note that the Baseline, Centerline, Flowline, Matchline, Property Line, Subscript 1, Subscript 2, and Subscript 3 favorites are configured to use the font Engineering Vert
- The text Favorites used to annotate alignment curve data information were set in the previous IDOT Environment to include the “Name” parameter as part of the curve data. The available text favorite “Name” parameter is the alignment name, not the curve name. ORD does not currently offer the curve name as an available text favorite. The curve data text favorites have been modified to include an enter data field for the curve name that may be used to manually enter curve names.

➤ Linestyle Updates:

IDOT CE Linestyles from Level Library.dgnlib

- New versions of the IDOT line styles have been created for ORD and scaled as necessary to accommodate Working Unit changes made in a previous update to the IDOT WorkSpace. The old versions of the line styles are retained for compatibility with existing files. The new line styles are named with the same name as the old versions with a suffix of “\_CE” added.
- Added linestyles:
  - PMK\_SkipDash\_2\_6\_CE
  - PMK\_SpipDash\_3\_9\_CE

➤ Cell Library Updates:

- All cell libraries:
  - Updated text in cells to use font Arial as necessary
  - Updated the cells to correspond to level changes
  - Changed the Working Units Solids Modeling Area to a value of 10 miles for all cells in all cell libraries
  - ACS Triad is turned on in all cell models
- IDOT\_Road.cel
  - Pavement marking cells have been resized to “real world” dimensions

➤ Seed Files:

- Removed Civil models and Item Types from the seed files
- The Design File Settings > Civil Formatting > Station Settings > Equation parameter has been set to “By Index”
- Turned off the Clip Back View Attribute setting in seed file IDOTeng3D.dgn

➤ Survey Updates:

IDOTCAD\_Features\_Annotations\_Levels\_Elem\_Temp\_Item\_Types.dgnlib

- Survey settings, element templates, and feature definitions were moved from IDOTCAD\_Survey Settings\_Features\_Annotations\_Elem Temp.dgnlib to the DGNLIB listed above. The Survey DGNLIB is no longer included in the configuration
- The Survey element templates, and feature definitions have been reorganized into folders
- All the element template and feature definition names for survey items now contain the description as part of the name. For example, field code “274” is now named “274 – Handhole”. This does not impact survey processing using the numeric field codes. The Numeric Code parameter of each field code is unchanged
- Field code 604 - Ground Shot
  - The Terrain Model Attribute setting was changed from SpotAndBreak to Spot
  - The element template now places the cell SURVEY\_STC, instead of SURVEY\_SPC, on the level Topo\_Ex\_Point\_Ground\_Shots
- Linear Survey features use the element template Survey/Element\_Symbology/Shot\_Marker to place the cell SURVEY\_STC at each shot location along the linear feature. This cell is a plus sign placed on the level Topo\_Ex\_Point\_SPC\_Cell. This cell is defined at a relatively small size and does not respond to annotation scale changes. This change allows for easier selection of the survey point to access the pop-up menu when editing survey points.
- Survey Settings
  - The Data File Parsing > Description Separator parameter is set to a single dash
  - The Terrain Model > Terrain Feature Definition parameter is set to TM\_Ex\_Boundary
  - The Terrain Model > Edge Method parameter is set to Max Triangle Length
  - The Terrain Model > Length parameter is set to a value of 100'

➤ Roadway Updates:

- Annotation Groups
  - The Plan drawing annotation group “Plan Grid” has been updated with new text favorites for the Plan Grid X and Plan Grid Y values
  - New annotation groups have been added for alignments providing different annotation settings. These annotations may be used when annotating an alignment using the Element Annotation command with the Override Annotation Group option selected. The annotation groups are summarized below:

Annotation Group	Notes
Ex_Baseline	Default annotation for GE_Ex_Baseline
Ex_Baseline (Stations Forced Right)	Station annotation on the right
Ex_Baseline (Stations Reversed Forced Right)	Stations reversed, annotation on the right
Ex_Centerline	Default annotation for GE_Ex_Centerline
Ex_Centerline (No Curve Data)	
Ex_Centerline (Stations Forced Right)	Station annotation on the right
Ex_Centerline (Stations Reversed Forced Right)	Stations reversed, annotation on the right
Pr_Alternate	Default annotation for GE_Pr_Alignment
Pr_Alternate (Stations Forced Right)	Station annotation on the right
Pr_Alternate (Stations Reversed Forced Right)	Stations reversed, annotation on the right
Pr_Baseline	Default annotation for GE_Pr_Baseline
Pr_Baseline (Stations Forced Right)	Station annotation on the right
Pr_Baseline (Stations Reversed Forced Right)	Stations reversed, annotation on the right
Pr_Centerline	Default annotation for GE_Pr_Centerline
Pr_Centerline (No Curve Data)	
Pr_Centerline (Stations Forced Right)	Station annotation on the right
Pr_Centerline (Stations Reversed Forced Right)	Stations reversed, annotation on the right
Pr_Detour	Default annotation for GE_Pr_Detour
Pr_Detour (Stations Forced Right)	Station annotation on the right
Pr_Detour (Stations Reversed Forced Right)	Stations reversed, annotation on the right
Pr_Stage	Default annotation for GE_Pr_Stage
Pr_Stage (Stations Forced Right)	Station annotation on the right
Pr_Stage (Stations Reversed Forced Right)	Stations reversed, annotation on the right

- Annotations have been configured to take advantage of the Manage Modification setting, where appropriate
  - Civil Labeler
    - Reassigned Text Styles as needed
    - Added various label definitions
  - Graphical Filters
    - Various graphical filters have been added for proposed terrain model creation
  - Sheet Clipping
    - The sheet clipping DGNLIBs have been consolidated into one DGNLIB
    - DGNLIBs for specific scales have been removed. Users must set the Detail Scale to the desired value on both the Place Named Boundary dialog and the Create Drawing dialog
    - The reference file Display Overrides parameter is set with a value of “Never”. Level display for the sheets is controlled from the Design Model.
  - Template Library – IDOT.itl
    - All templates have been updated with the new feature definitions for points and components
    - Templates for Structures were copied from the District 2 template library into the main IDOT.itl library

➤ **Bridges and Structures Updates:**

- No Bridge Environment is included with this release.



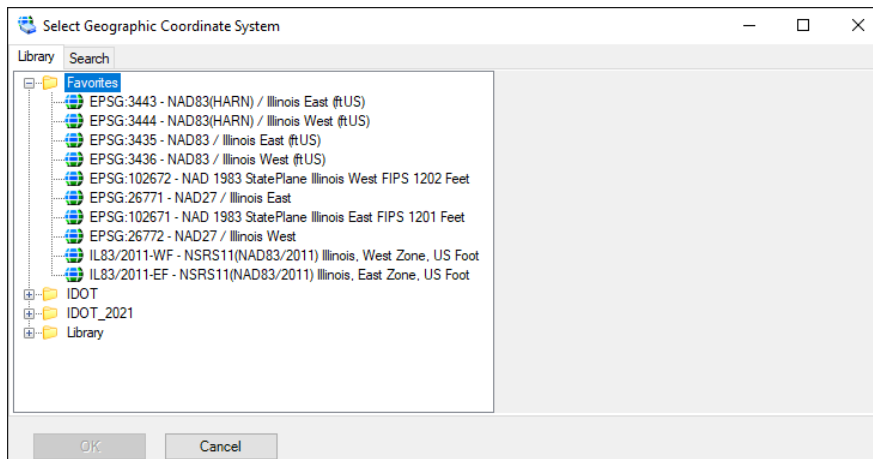
➤ Miscellaneous Updates:

- WorkSet Template
  - The folder structure for the template WorkSet has been revised as follows:

Parent Folders	Sub-Folders
<ul style="list-style-type: none"> <li>▼ _Template for New WorkSet               <ul style="list-style-type: none"> <li>▼ CADD Data                   <ul style="list-style-type: none"> <li>Bridge</li> <li>Construction</li> <li>Corridors</li> <li>Drainage</li> <li>Electrical</li> <li>Existing Files</li> <li>Geometry</li> <li>GeoTech</li> <li>&gt; Land Acq                       <ul style="list-style-type: none"> <li>Plan Graphics</li> <li>Quantities</li> <li>Sheets</li> </ul> </li> <li>&gt; Standards                       <ul style="list-style-type: none"> <li>Studies</li> <li>Super</li> </ul> </li> <li>&gt; Survey                       <ul style="list-style-type: none"> <li>Terrain</li> </ul> </li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▼ Land Acq               <ul style="list-style-type: none"> <li>Deeds</li> <li>Research</li> <li>ROW Plans</li> <li>Survey Plats</li> <li>Tax Maps</li> </ul> </li> <li>▼ Standards               <ul style="list-style-type: none"> <li>Cell</li> <li>DgnLib</li> <li>Macros</li> <li>Plotdrv</li> <li>Seed</li> <li>Template Library</li> </ul> </li> <li>▼ Survey               <ul style="list-style-type: none"> <li>Field Data</li> </ul> </li> <li>▼ Images               <ul style="list-style-type: none"> <li>Aerial</li> <li>Field Images</li> <li>Notes and Sketches</li> <li>Office Data</li> <li>Reports</li> </ul> </li> </ul>

- Geocoordinate Favorites
 

The Coordinate Systems listed below have been added to IDOT\_GeoCoordFavorites.xml



➤ Configuration Update

- Workspace Change
  - IDOT Consultant has been removed and the only Workspace being utilized is IDOTCAD CONNECT

IDOTCAD\_CONNECT.cfg

- The following configuration variables have been added:
  - MS\_LEVEL\_DISPLAY\_FORMAT = N (D)
  - MS\_IDLETIMEOUT = 120
  - MS\_LEVEL\_DO\_NOT\_OVERRIDE\_DESIGN\_LEVELS\_IN\_SHEET = 1
  - CIVIL\_SURVEY\_STROKE\_TOLERANCE\_LINEAR = 10000
  - CIVIL\_SURVEY\_STROKE\_TOLERANCE\_CURVE = 0.07
- Survey settings have been moved to the main feature definition dgnlib:
  - CIVIL\_PROJECTSETTINGSDGNLIBLIST > \$(CIVIL\_ORGANIZATION\_STANDARDS)Dgnlib/Feature Definitions/\*Features\*.dgnlib

## **Deployment Version: 21.03.220131**

### **Workspace Version: 10.10.1.01**

01/31/2022 Updates: Built on ORD 2021 R1 10.10.1.3

- Survey Updates:
  -
- Roadway Updates:
  -
- Bridges and Structures Updates:
  - NO Bridge Environment is included with this release.
- Miscellaneous Updates:
  - Removed "IDOT\_Ver\_Checker\_Links.dgnlib" from the "IDOTCAD\_ORD\Configuration\Organization-Civil\IDOT\_Standards\Dgnlib\GUI" folder.
  - Added below DGNLIB's to the "IDOTCAD\_ORD\Configuration\Organization-Civil\IDOT\_Standards\Dgnlib\GUI" folder
    - IDOT\_Menu.dgnlib
    - Torus.dgnlib
    - AutoTurn.dgnlib
  - Added below MVBA's to the "IDOTCAD\_ORD\Configuration\Organization-Civil\IDOT\_Standards\Macros" folder
    - EngSys\_IDOT Menu.mvba
    - EngSys\_TranSoft\_ORD.mvba
- Configuration Update
  - Updated Seed files below, located at "IDOTCAD\_ORD\Configuration\Organization-Civil\IDOT\_Standards\Seed"
    - IDOTeng.dgn
    - IDOTeng3D.dgn
  - Updated Model Seed files below, located at "IDOTCAD\_ORD\Configuration\Organization-Civil\IDOT\_Standards\Seed\Sheets"
    - Drawing Model Seed.dgn
    - Sheet Model Seed.dgn

## **Deployment Version: 21.03.211115**

## **Workspace Version: 10.10.1**

11/15/2021 Updates: Built on ORD 2021 R1 10.10.1.3

### ➤ Survey Updates:

- Changed IDOT Survey Setting: Default Terrain Model to Existing Boundary
- Add Survey Code 991 (HDPE) High Density Polyethylene Pipe
- Add Survey Code 992 (CLSM) Controlled Low Strength Material

### ➤ Roadway Updates:

- **Updated Design file settings to match Open Bridge Modeler**
- **Update all Dgnlibs, seed files and levels**
- **Added Item Types to IDOTCAD\_Feature\_Annotations\_Levels\_Elem Temp.dgnlib**
- **Changed name of IDOTCAD\_Feature\_Annotations\_Levels\_Elem Temp\_Item Types.dgnlib**
- **Added IDOT Coded Pay Items to Item Types**
- **Added Tables Seed Reports.dgnlib**
- **Setup Tables and various reports for the workspace.**
- Update Text Favorite Curve label LT - EX: add Curve name and Arc Length
- Update Text Favorite Curve label RT- EX: add Curve name and Arc Length
- Update Text Favorite Curve label LT- PR: add Curve name and Arc Length
- Update Text Favorite Curve label RT- PR: add Curve name and Arc Length
- Update Matchline Line text to Sheets\_Matchline Feature Definition
- Update Element Templates in IDOTCAD\_Features\_Annotations\_Levels\_Elem Temp
- Change Element Template: Overlay\_Leveling Level: XSC\_Ashphalt Base Course Color to 229
- Change Element Template: Overlay\_Milling Level: XSC\_Ashphalt Milling Color to 224
- Change Element Template: Roadway\_Guardrail Level: Design\_PR\_Guardrail Color to 219
- Change Element Template: Roadway\_Guardrail\_Post Level: Design\_PR\_Guardrail Color to 219
- Change Element Template: Roadway\_Pave\_Ashphalt\_Milling Level: Design\_PR\_Pavement Color to 224
- Change Element Template: Roadway\_Pave\_Ashphalt\_Wedging Level: Design\_PR\_Pavement Color to 229
- Change Element Template: XS PR Sidewalk Level: XSC\_Sidewalk Subgrade Color to 219
- Change Element Template: XS PR Sidewalk Surface Level: XSC\_Sidewalk Color to 219

### ➤ Bridges and Structures Updates:

- 

### ➤ Miscellaneous Updates:

- Added "Data\IDOT.dty" file and folder to the IDOTCAD\_ORD\_Standards folder for existing District 8 County based LDP Coordinate systems so they show up in OpenRoads Designer. Variable previously added to the IDOTCAD\_ORD\_Standards.cfg file.

### ➤ Configuration Update

- **Update all configuration files to accommodate new settings and Item Types.**
- Updated all Workspace configuration files to add the functionality to read Sheet Seeds from the workspace specific Standards\DGNLIB\Sheet Seeds folder location.

## **Version 21.02.210115**

02/10/2021 Updates: Built on ORD 2020 R3 10.09.00.91

### ➤ **Configuration Update**

- Entire IDOTCAD CONNECTED Environment moved from the Workspace folder back up to the Organization-Civil or Organization folder depending on your software choice.
- The “Configuration\Organization-Civil\IDOT STANDARDS\STANDARDS\Dgnlib\LineStyle\District2\_SUE\_Linestyles.dgnlib unused fonts deleted correcting truetype font error.
- Configuration\Organization-Civil\IDOT STANDARDS\STANDARDS\Dgnlib\Feature Definitions\IDOTCAD\_Uilities\_Features\_Elem Temp.dgnlib unused fonts deleted correcting truetype font error.

### ➤ **Roadway Updates:**

- Added Title Sheet.dgn
- Added Details Sheet.dgn
- Added Details.dgnlib
- All dgnlib updated to ORD 2020 R3

### ➤ **Bridges and Structures Updates:**

- Bridges and Structures are NOT setup to work with our CONNECTED Environment at the time of this release.

## **Version 20.03.201001**

10/01/2020 Updates:

### ➤ **Configuration Update**

- The entire “Configuration\WorkSpaces\IDOT Standards.cfg” file has been rewritten to fully incorporate all of the IDOT Standards located in the “Configuration\WorkSpaces\IDOT Standards\Standards” folder.

## **Version 20.02.200827**

08/27/2020 Updates: Built on ORD 2020 R2 10.08.01.33

### ➤ **Survey Updates:**

- Added the “IDOT.dty” file to the Configuration\WorkSpaces\IDOT Standards\Standards\Data folder
- Added Survey Point 263 TS\_EX DET LOOP SMALL
- Added Survey Point 264 TS\_EX DET LOOP LARGE

### ➤ **Roadway Updates:**

- Removed miscellaneous items in Standard Template Library that were left in by mistake after testing.
- Added Linear Features Under Linear/ Category Topo
  - Topo Entrance
  - Topo EOP
  - Topo Fence
  - Topo Guardrail
  - Topo Vegetation Line
  - Topo Woods and Brush
- Added Linear Features Under Linear/ Category Utilities/Existing and Proposed
  - Aerial Line
  - Sanitary Structures
  - Underground Cable TV
  - Underground Electric
  - Underground Fiber Optic

- Underground Gasoline
- Underground Oil
- Underground Sanitary Sewer
- Underground Telephone
- Underground Water
- Added Plan View Match line to Text Favorites
  - Match line Plan Sheet Begin
  - Match line Plan Sheet End
- Added Plan View Match line to Annotation Groups
  - Match line Plan Sheet Begin
  - Match line Plan Sheet End
- Added Text Styles From the SS4 Workspace
- Created \_LBL\_Profile\_Flowline Elevation Label in Plan View Labeling Cell
- Created \_LBL\_Profile\_Flowline Elevation in Dimension Styles

➤ **Bridges and Structures Updates:**

- 

➤ **Miscellaneous Updates:**

- Revised the Units.def file to include “Meters”.
- Added and defined the following variables in the “IDOT Standards.cfg” file in the WorkSpaces folder
  - MS\_CELLLIST
  - MS\_CUSTOMSCALEDEF
  - MS\_CUSTOMSHEETSIZEDDEF
  - MS\_CUSTOMUNITDEF
  - MS\_DEFCTBL
  - MS\_FONTPATH
  - MS\_GEOCOORDINATE\_USERLIBRARIES
  - MS\_SEEDFILES

**Version 20.01.200313**

04/10/2020 Updates:

- Issued Production Environment to Consultants