



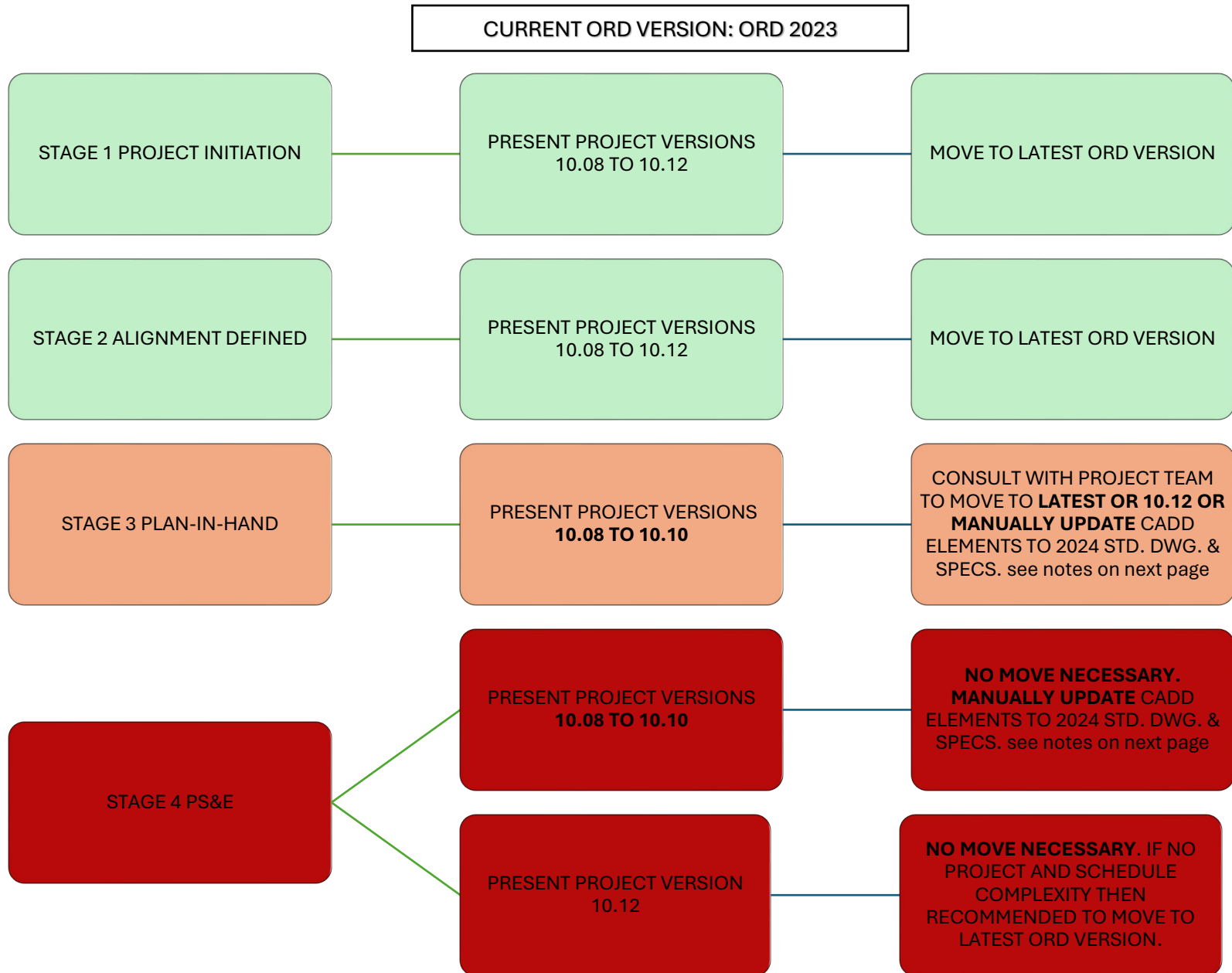
NCDOT OPENROADS VERSION MIGRATION GUIDE

JUNE 2024

PREPARED BY : CADD INTEGRATION TEAM

WHEN TO MIGRATE PROJECT IN ORD VERSIONS*

* Limited CADD Support is available on any unmaintained versions (10.12 and below).



See upgrade considerations on next page

ORD VERSION UPGRADE CONSIDERATIONS FOR PROJECTS

PRIORITIZE PROJECT MILESTONE COMPLETION OVER UPGRADE

While major version upgrades for ORD can offer advantages, it is recommended to defer major version upgrades of the ORD software until the current project milestone concludes. This proactive approach ensures that the project timeline remains intact and mitigates potential disruptions arising from unanticipated changes to CADD components or plan production processes introduced by the new major release.

However, minor version updates can be seamlessly integrated without adversely impacting the project workflow. These incremental updates typically address bug fixes, performance enhancements, and minor feature additions, posing minimal risk to the established processes.

2018 vs 2024 STANDARDS & SPECIFICATIONS

Determine the NCDOT Standard Specifications under which the Project will be LET. **When NCDOT upgraded ORD 10.10 to 10.12 the NCDOT 2018 NCDOT Standard and Specifications were also revised to the 2024 Standards. ORD version 10.10 and below use 2018 standards and ORD version 10.12 and above use 2024 standards.** A few CADD and plan production elements (not all) were revised to the 2024 standards. If a project is delayed so that it's LET date falls within the use of the 2024 standards, the project will need to be upgraded to 10.12 version or above to include the 2024 Standards. If the team decides to leave the Project in 10.10 version or older, then the team should verify 2024 standard & specification CADD elements are manually updated in the project design before LET.

PLAN PRODUCTION ELEMENTS - SOFTWARE DEFICIENCIES/BROKEN FEATURES, NEW FEATURES

It's possible that CADD features from previous ORD software versions may behave differently in the latest version. Before upgrading the project, it is crucial to evaluate the effort required for the project team to adapt or modify plan production elements to align with the new version's functionality. If you have any version-specific concerns or questions, seek guidance from the relevant NCDOT Discipline CADD Coordinator, CADD Support, or CADD Integration team. Their expertise can help ensure a smooth transition. The contact information can be found at the end of this document.

For your convenience, this document includes a link to a log of version-specific software fixes provided by Bentley. This resource can be easily accessed and referenced, keeping you informed about the latest updates and resolutions.

Steps to take to upgrade Project to next version:

1. Project Manager should collaborate with project team leads from every Discipline such as Roadway, Hydraulics, Structures, and others to identify the closest project submission timeline, identify obstacles in plan preparation, assess project complexities, and weigh the pros and cons of upgrading to the next ORD version.
2. Once the Decision is made to upgrade, Project Manager should email ProjectWise Administrator at dot.pwsupport@ncdot.gov and include all project discipline leads with the email for clear communication.
3. Communicate with all Project team members to pause working on the project during the upgrade transition phase.
4. Once the ProjectWise Administrator sends a confirmation email, all disciplines can proceed with working on the project.

Curious about what's been upgraded / resolved in each version? Follow the link below to view a list of CADD fixes for each version:

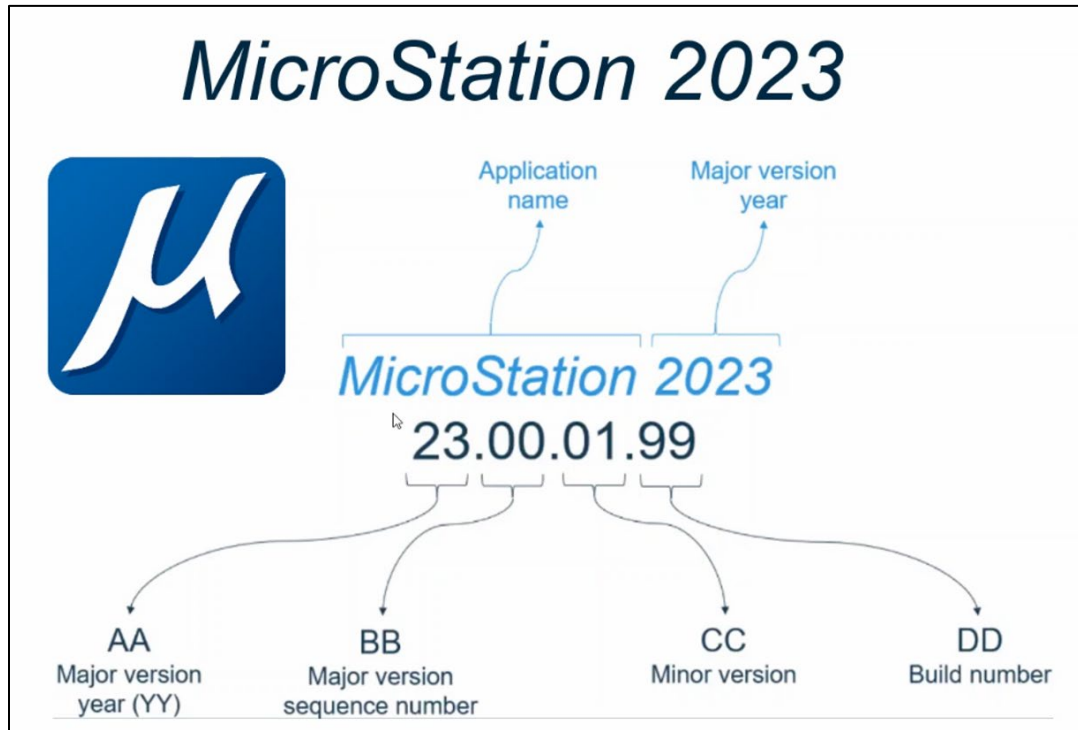
- [Link to OpenRoads Designer Defect fixes for each version \(includes OpenRail Designer fixes\)](#)
- [Link to OpenBridge Designer Defect fixes for each version](#)

OpenRoads Software product and version names:

- OpenRoads Designer CE 2023 Release - **ORD 23.0.0.129**
- OpenRoads Designer CE 2022 Release 3 - **ORD 10.12.2.4**
- OpenRoads Designer CE 2021 Release 2 - **ORD 10.10.21.4**

[Link to the Current NCDOT CADD Software](#)

SOFTWARE VERSION NUMBERING:



Naming Structure:

- Major version sequence number: If there are subsequent updates within a year, a period and update number follow the year (e.g., 2023.01 for MicroStation 2023 Update 1).
- Build number (Internal): A build number might be used internally by Bentley for tracking updates.
- Before January 2023, versions were denoted using a system like V8i SS4 (08.11.09.829). This indicated a major version (V8i), a sub-series (SS4), a minor version (08.11), and a build number (09.829).

Finding the Version: You can usually find the version by going to ORD/OBD menu: Help > About within the software itself.

- Major versions include new software functionality that changes the underlying software organization of data (schema) and are not backwards compatible with previous versions.
 - As an example, a file last edited with OpenRoads version 10.10 will be upgraded to the ORD 2023 schema when opened with ORD 2023. This file will no longer be editable in versions prior to ORD 2023.
- Minor version does not change the underlying software organization of data (schema) and do not require the file to be upgraded from a previous release with the same major version number.
- Keeping projects in versions older than 10.12 requires significant plan production workarounds due to the lack of enhancements available in older versions.

How to look up OpenX CADD application for the Project on SharePoint:

1. Go to [NCDOT Preconstruction SharePoint main page](#) and click on site request link on the left column.
2. Follow screenshots below:





Preconstruction ▸ **Site Requests**
This list is used to request new Preconstruction projects... for current information about existing sites... need to change information for an existing site, do not change information. Contact email: dot.cmsupport@ncdot.gov.

Home
My Precon
Precon Dashboard
My Project Portfolio
My Submittal Reviews
Tools
ATLAS Data Search Tool
ATLAS Data Screening Tool
Letting Admin Dashboard
Manage Project Contacts
Preconstruction Search
Usage Assessment
Resources
Bridge Plans and Reports
Discipline Specific Links
Division Specific Guidance
Preconstruction Archive
Signal Plans
Processing Requests
Site Requests 1
Help
Preconstruction Help
SharePoint Help

View Project Sites Active Archived ... Find an item 2

✓ TIP	WBS	Optional Extension	Project ID	Active Site URL	Archived Precon URL	Re
Count= 4886						
▷ Division : 01 (196)						
▷ Division : 02 (192)						
▷ Division : 03 (281)						
▷ Division : 04 (260)						
◀ Division : 05 (736)						
Count= 711						
	Test No TIP or WBS		Test No TIP or WBS			No
	50476.1.2	Merck Economic Dev	50476.1.2	50476.1.2		No
	15005.1032011	Redwood Road	15005.1032011 Redwood Road		15005.1032011 Redwood Road	Yes
	15005.1092017	US 70 Hurricane Site	15005.1092017 US 70 Hurricane Site		15005.1092017 US 70 Hurricane Site	Yes
	15705.1092011	Mitchell Mill Pipe	15705.1092011	15705.1092011		No

3

ManagedBy	Site Title	PW Status	PWSite	Rename Status	ManagedBy:ActiveDirectoryGroup	SPOT ID	On Hold	Routes	ManagedBy:Additional AD Groups	Project Software ↑ ▾	Created
											
ms Central	16SP.39085.1	Created	Yes		ECM-Int-Precon-ProjectDeliveryTeams		No	NC12;		ORD/OBD	February 8, 2023
ms Division	18101.1048011 Ocracoke Sandbags	Created	Yes		ECM-Int-IT-EngrContentMgmt		No	NC12;		ORD/OBD	February 19
ms Division	1C.058051 SR 1307 Warren Road	Rename	Yes		ECM-Int-IT-EngrContentMgmt		No	SR1307;		ORD/OBD	March 1, 2022
ms Division	1SP.10281.5 Red Drum Outfall	Created	Yes		ECM-Int-IT-EngrContentMgmt		No	NC12;		ORD/OBD	February 15
ms Division	1SP.10481.13 Ocracoke Stacking Ln	Rename	Yes		ECM-Int-IT-EngrContentMgmt		No	NC12;		ORD/OBD	December 7, 2022

How to look up OpenX CADD VERSION for the Project on ProjectWise:

The screenshot shows the ProjectWise Explorer interface. The search bar contains 'br-0068'. The address bar shows the path: 'pw:\ncdot-pw.bentley.com:ncdot-pw-01\Documents\Division_13\BR-0068 Burke 103\Roadway\Design\'. The main pane displays a list of files with columns for Description, Application, and File Name. A green star is placed next to the first 'batchprocess.log' entry.

SEARCH YOUR PROJECT FROM THE MAIN DIRECTORY

YOU CAN CHANGE VIEW LAYOUT FROM HERE TO YOUR PREFERENCE

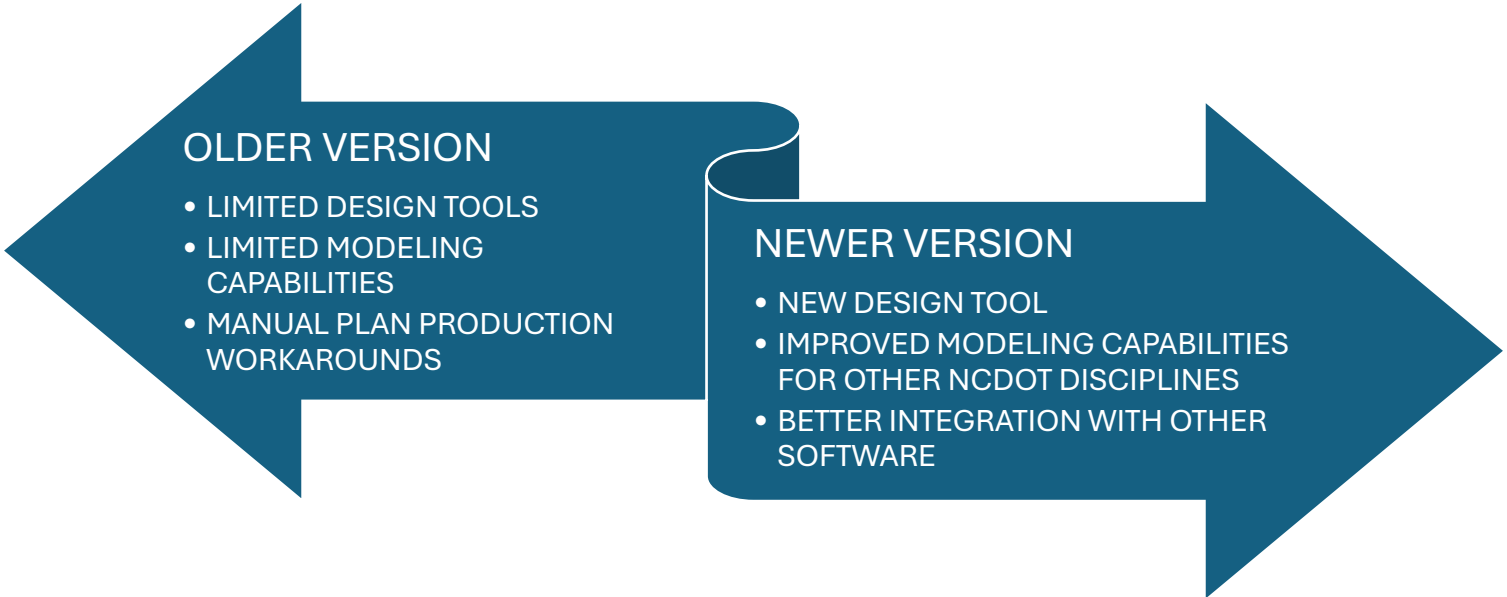
Description	Application	File Name
batchprocess.log	ORD 10.12	batchprocess.log
batchprocess.log	ORD 10.10	batchprocess.log
batchprocess.log	ORD 10.10	batchprocess.log
br-0068_rdy_bridge_slab.dgn	ORD 10.12	br-0068_rdy_bridge_slab.dgn
br-0068_rdy_bridge_slab.dgn	ORD 10.10	br-0068_rdy_bridge_slab.dgn
br-0068_rdy_bridge_slab.dgn	ORD 10.10	br-0068_rdy_bridge_slab.dgn
br-0068_rdy_bridge_slab.dgn	ORD 10.10	br-0068_rdy_bridge_slab.dgn
br-0068_rdy_bridge_slab.dgn	ORD 10.10	br-0068_rdy_bridge_slab.dgn
br-0068_rdy_bridge_slab.dgn.bak	ORD 10.12	br-0068_rdy_bridge_slab.dgn.bak
br-0068_rdy_bridge_slab.dgn.bak	ORD 10.10	br-0068_rdy_bridge_slab.dgn.bak
br-0068_rdy_bridge_slab.dgn.bak	ORD 10.10	br-0068_rdy_bridge_slab.dgn.bak
br-0068_rdy_bridge_slab.dgn.bak	ORD 10.10	br-0068_rdy_bridge_slab.dgn.bak
br-0068_rdy_bridge_slab.dgn	ORD 10.12	br-0068_rdy_bridge_slab.dgn

EXAMPLE OF A TYPICAL PROJECT LIFE-CYCLE AND SOFTWARE VERSIONS RELEASE TIMELINE

PROJECT MAJOR MILESTONES



ORD / OBD VERSION RELEASE



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