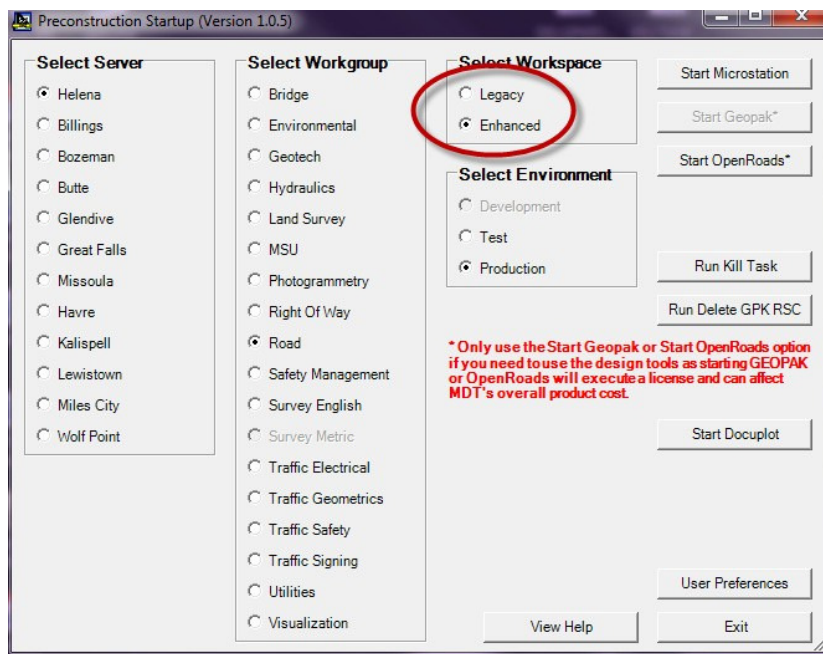


As we move forward with the transition into OpenRoads 3D design, the EISS and Road Design team have been working diligently to provide an organized, intuitive workspace for users. During a review of the current workspace, barriers, which impede MDT's transition to OpenRoads technology, have been identified. Further, new details from Bentley have emerged regarding the transition from Geopak Criteria and SS-4 OpenRoads to OpenRoads Connect.

Based on this review and recommendations from the above referenced team we are phasing out the use of Criteria in the Enhanced workspace. Removing Criteria from OpenRoads SS-4 results in a much cleaner work environment for new OpenRoads users. Removal of Criteria also provides a more seamless transition from OpenRoads SS-4 to the future OpenRoads Connect Edition. In order to facilitate a smooth transition, a complete distinction between Criteria and OpenRoads technology projects must occur.

Currently, the Pre-Construction start-up allows the user to select a workspace and a software version.



- The workspace selection, **Legacy/Enhanced**, specifies the designation of seed files and workspace settings.
- The software selection, **GEOPAK /OpenRoads**, specifies the designation of software that will be used to design a project.
- **Start GEOPAK** tab = Criteria - no modeling capability
- **Start OpenRoads** tab = OpenRoads Technology - provides the option of using modeling tools to produce a 3D model

With this setup, the user has the option of selecting the following workspace/software combinations as a design environment:

- Legacy/GEOPAK
- Enhanced/GEOPAK
- Enhanced/OpenRoads

Changes in the TCP rules and additional activities inserted into the Preconstruction Schedule have placed increased pressure on project delivery. Minimizing schedule slide has become very important.

OpenRoads training is in the process of being created and deployed. Users are not expected to design using the 3-D OpenRoads Technology tools until they have completed the first 5 training modules.

During this time of growing pains, careful consideration needs to be given to software choices. Current direction says that any Criteria projects that were not to the Alignment and Grade milestone before April 2017 are to be moved into the Enhanced workspace.

Direction moving forward:

- **Criteria projects will no longer be started or designed in the Enhanced workspace.**
- Existing Legacy Criteria projects will be completed in the Legacy workspace
- Projects currently in design, using the Enhanced/GEOPAK workspace/software combination that are **9 months or less** from Letting will remain in the mixed (Enhanced/GEOPAK) environment
- Any other Criteria projects currently being designed using the Enhanced/GEOPAK workspace/software combination will either be converted into the OpenRoads software or moved into the Legacy workspace
 - The conversion decision will be made by the Highways Engineer.
- All new projects that **do not** require advanced design tools (for example: pavement preservation, fencing, etc.) will be drafted in the Enhanced/OpenRoads combination workspace using MicroStation drawing tools.
- Workspace decisions for new projects will be based on completion of updates to the Enhanced workspace and on Designer completion of OpenRoads Technology training modules 1-5.
 - Exceptions will be at the discretion of the Highways Engineer.

- All EPS Project Managers (PMs) are required to verify (and update if necessary) the CADD Workspace column for all projects, per this memo, based on the following criteria:

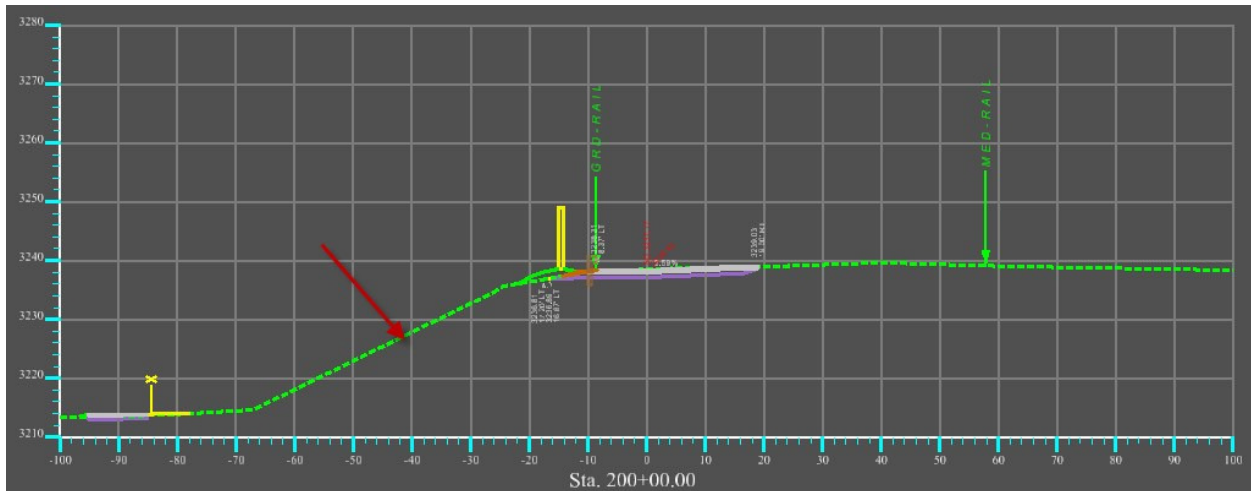
<u>Microstation Project Type/Workspace</u>	<u>EPS Designation</u>
○ Criteria/Legacy Workspace	Legacy
○ Pave Pres/Enhanced Workspace	Enhanced
○ OpenRoads Model/Enhanced Workspace	3D Model

****DEADLINE: January 31st, 2018. Please send an email to Craig Nelson once you have verified/updated all of your projects.****

When a project changes workspaces, (from Enhanced to Legacy or vice versa) the current design and sheet files will need to be recreated using the correct seed files (10,000 upf for Enhanced and 1,000 upf for Legacy).

Conversion will be completed by a member of the OpenRoads Power User group.

As part of the new workspace setup for the OpenRoads transition, MDT is adopting industry drafting standards for plans production. For example, existing ground will be shown as a dashed line in cross section and profile views as shown below.



Developments in the workspace will also reflect MDT’s adoption of True Type Font. Microsoft developed, and Bentley Systems has subsequently taken ownership of a True Type Font called Engineering. The original Microsoft font included many common engineering symbols. e.g. degree, +/-, centerline, etc. Once Bentley took over the font, they updated the font symbol library to include a much more robust selection of engineering symbols.

This Engineering font is included in future Bentley software releases. The user will notice this in seed files and DGN libraries (cells, text styles, dimension styles).

A finalized (cleaned-up; i.e. no criteria settings), secondary Enhanced workspace will be released in early 2018. This will not affect projects being designed in the current Enhanced workspace. The cleaner workspace will not only be significantly easier to navigate; the criteria settings cannot be carried forward into the next Bentley release. Additional guidance will be provided when a more concrete release date has been decided.

An 'Ask A Question' form has been added to the Consultant Design CIM Initiative webpage on the Internet.

Civil Integrated Management (CIM) Initiative

CIM includes the technologies and methods that facilitate the transition from traditional to digital project delivery and asset management.

Supporting Documentation

- CIM Implementation Plan
- CADD Workspace & Design Tools Selection
- CADD Workspace & Design Tools Decision Tree
- CADD Specs and Guidance for SS4 and OpenRoads

MDT OpenRoads Technology Informational Session

- Webinar Recording
- Presentation Slides

Questions on CADD Workspaces & Design Tools

- Ask a Question
- Previously answered FAQs

Both MDT employees and consultants are encouraged to submit OpenRoads questions using this form:

<http://www.mdt.mt.gov/business/consulting/cim.shtml>.

Answers will be posted in this document, also on the Consultant Design CIM Initiative webpage.

<http://www.mdt.mt.gov/other/webdata/external/CDB/Workspaces-DesignSoftwareInfo/FAQs-Workspaces-and-DesignTools.pdf>

If you have questions concerning this information, please contact Megan Cail in Road Design.

EXISTING CRITERIA PROJECTS

