



**Department of
Transportation**
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Mike DeWine, Governor
Jim Tressel, Lt. Governor
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STW CADD BIM and Model Development

PID: 124655

Scope of Services (SOS)

Overview

The Office of CADD & Mapping Services seeks assistance to improve Building Information Modeling (BIM) capabilities for current and future project delivery. The selected consultant will aid with the implementation of Bentley OpenRoads Designer (ORD) Drainage & Utilities (D&U) Analytics and OpenBridge Modeler (OBM), provide workspace development support, and develop training materials.

In addition to the Office of CADD & Mapping Services, coordination with the Office of Hydraulic Engineering and the Office of Structure Engineering will be required.

If authorized, provide support for other ongoing initiatives, findings and outcomes of the ODOT W.O.R.K.S. (Workflows Optimization for Real-time Knowledge Sharing) Advanced Digital Construction Management Systems (ADCMS) grant, or the Level of Development & Model Element Breakdown standards.

ODOT may also leverage Bentley Blueprint Credits for additional support, consultation, and coaching services as needed for specific tasks.

Objectives/Tasks

Task 1 – OpenRoads Designer Drainage & Utility Analytics Development Support

The consultant will review the current development activities performed by ODOT, prepare a work plan for the recommended next steps, and implement the approved plan. Implementation will include ORD D&U workspace development support which may include the creation of new standards (feature definitions, catalogs, etc.) or modification of current standards, creation of an ODOT specific training manual with dataset, and a recommended implementation plan for the Department.

When complete the ODOT ORD D&U toolset should have the same (or ODOT approved) analysis capabilities and output as the ODOT Culvert, Ditch, & Storm Sewer (CDSS) Software for culvert, storm sewer, inlet spacing, and ditch design analysis.

Task 2 – OpenBridge Modeler Workspace Development Support

The consultant will review the current development activities performed by ODOT (i.e., the OBM beta workspace), prepare a work plan for the recommended next steps, and implement the



approved plan. Implementation will include OBM workspace development support which may include the creation of new standards (feature definitions, element templates, etc.) or modification of current standards, creation of an ODOT specific training manual with dataset, and a recommended implementation plan for the Department.

Bentley has developed Generative Components (GC) for ODOT standard abutment types for bridge modeling. These components were being migrated to GC Package (GCP) files. This task will also include a combination of reviewing of the GCP files for compliance and functionality with ODOT standards and final development of the GCP (if necessary).

Note: This task will only include OpenBridge Modeler support; it is not anticipated to include any OpenBridge Designer support unless additionally authorized.

Task 3 – Additional OpenRoads Designer and/or OpenBridge Modeler Workspace Development (if authorized)

It's anticipated that through the ODOT WORKS ADCMS grant project, that additional ORD & OBM workspace enhancement/development needs will be identified. This task will provide additional workspace development support as determined, and as authorized, to support the grant initiative(s). This task may include workspace review, providing recommendations, and/or development of new or existing workspace features such as feature definitions, item types, custom reports, etc.

Task 4 – Update ODOT's Level of Development (LOD) / Model Element Breakdown (MEB) (if authorized)

This task will include providing recommendations and revisions to the [Level of Development & Model Element Breakdown Report, June 30, 2025](#), based on the *Recommendations for Further Development* and *Additional Development* needs identified within the report. Completion of CMS 500 – Structures section of the LOD Spreadsheet and other findings of ODOT WORKS ADCMS grant initiative may be included.

Deliverables

- **Workspace Development Tasks:**
 - Work plan report/memo for recommended next steps.
 - Delivery of any related CADD standards (e.g., .dgnlib, etc.)
 - ODOT specific training manuals with datasets.
 - Recommended implementation plans for the Department.
- **LOD/MEB Task:**
 - Revised sections of the LOD/MEB Report, as identified.
 - LOD Spreadsheet with CMS 500 – Structures section.



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Qualifications and Experience

Organizational Experience and Capabilities

Responses must demonstrate experience with the following:

- Hydraulic/Drainage Expertise in:
 - ODOT Location & Design Manual, Volume 2,
 - ODOT Hydraulics Standard Construction Drawings,
 - OpenRoads Designer Drainage and Utilities Analytics,
 - ODOT Culvert, Ditch, & Storm Sewer (CDSS) Software.
- Structure/Bridge Expertise in:
 - ODOT Bridge Design Manual,
 - ODOT Bridge Standard Construction Drawings,
 - OpenBridge Modeler.
- CADD Standards Development: Previous experience developing DOT CADD/BIM standards.
- Documentation and Implementation: Proficiency in developing and implementing comprehensive documentation and/or training materials.
- Conventional Plan Production: Demonstrate the understanding of current ODOT processes and workflows within the design process.

Staff Experience and Capabilities

- Identified staff, by name and position, who are considered key to the project's success. Key staff include at a minimum: Project Manager, OpenRoads Designer Drainage & Utility Analytics Task Lead, and OpenBridge Modeler Workspace Task Lead.
- Resumes/curriculum vitae (CV) of those key staff that describe appropriate education, experience, and expertise needed for the project.

Letter of Intent (LOI) Requirements

A Letter of Intent (LOI) must include the following information:

- 1) Project Manager
- 2) Task Leads
- 3) Assigned Staff
- 4) Current Workload / Availability of Personnel
- 5) Past Performance
- 6) Project Approach, including:
 - a. Technical approach and understanding of the project, including:
 - i. Statement of understanding of the scope.



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- ii. Technical description of the methodology anticipated in the performance of the “objectives” above.
- b. Qualifications for the project.
- c. Innovative ideas, including opportunities to leverage other ongoing initiatives.
- d. Project management approach, including:
 - i. Approach to managing and communicating simultaneous tasks
 - ii. Plans for ensuring increased quality, reduced project delivery time, and reduced project costs.