



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

MEMO TO: Roadway Design Project Engineers

FROM: Jay A. Bennett, PE
State Roadway Design Engineer

DATE: December 10, 2009

SUBJECT: **Corridor Modeler/3D Design Models Implementation**

The introduction training for Corridor Modeler/Roadway Designer and Microstation V8i within Roadway Design has been completed. Implementation of Corridor Modeler for the production of a 3D Design Model can now begin in Roadway Design. To facilitate workload assignments an implementation date has been set for January 4, 2010.

Generally all bridge projects scheduled for a 2011 Letting should utilize Corridor Modeler for the design. The I, R, and U projects that have not reached the 25% HYD (MO245) milestone by the January 4, 2010 implementation date should be considered as candidates for design with Corridor Modeler. Individual projects at other stages of design with large earthwork quantities should be considered as candidates for Corridor Modeler. With any new process, the individual projects in the "other" stage category will be evaluated on a case by case basis. The acceleration or delay of any individual project schedule can be discussed with me, Dwayne or Glenn.

The full implementation process will require a phased approach that reflects the project type and scope of work. The following is a proposed step by step process to achieve this implementation. The CADD support group has or is in the process of developing templates and training documents to accompany each phase of the implementation process. There are enhancements to the software being developed by Bentley that will require certain types of projects to be phased in later than others.

The Corridor Modeler allows us to create a 3D design model, which is the intent of this software implementation. In order to provide an accurate model to the Contractor and Construction, the model must reflect the actual design. To accomplish this, Corridor Modeling will require some modifications to our traditional workflow and some design standards.

Implementation Expectations and Template Data Availability

1) **January 2010** – The following templates data will be available for both 2 & 4 lane projects:

- Pavement Layers
- Superelevation
- Plan View Graphics: GR, EOP, SBG, etc.
- Earthwork(New Location)
- Ditch Median
- Bridges(2 Ln & 4 Ln.)

2) March 2010 – This additional template data will be available for both 2 & 4 lane projects:

- Earthwork (Widening)
- Pavement Quantities
- Slope Stake Line
- Curb and Gutters
- Driveways
- Ditches & DDE
- Overlay & Milling
- Wedging
- Raised Island Median

3) May 2010 – Formal training will be provided.

4) June 2010 – Additional template data will be available:

- Interchange Ramps and Loops
- Gore Areas
- Intersections
- Grade Separations
- Median Barrier

5) September 2010 – Formal training will be provided.

6) October 2010 – Additional template data will be available:

- Super Street
- Round-a-bouts
- Geotech: Undercut, Rock, Stratigraphy, etc.

Consultants Projects:

No specific time line has been set for Consultant Project implementation. The Template data created in Roadway Design will be provided to the Consultants as it is released and training documents will be made available for download as they are developed. At the discretion of Engineering Coordination, projects may be evaluated on a project by project bases for Corridor Modeler design and 3D model delivery.

If you have any questions about the implementation for corridor modeling, please contact Ted Walls at 919-250-4016.

JAB/tw

Attachment

cc: Deborah Barbour, PE
John Nance, PE
Art McMillan, PE
Ron Hancock, PE
Charlie Brown, PE, PLS
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Calendar Year 2010

IMPLEMENTATION EXPECTATIONS AND TEMPLATE DATA AVAILABILITY FOR CORRIDOR MODELER/3D DESIGN MODELS

ROADWAY DESIGN PLAN PREPARATION

