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State Aid E-Scene

MnCMAT2 update

By: Loren Hill, Program Support Engineer

The Minnesota Crash Mapping Analysis Tool version 2 ([MnCMAT2](#)) is here! A three hour training session was developed and given to a select number of personnel for refinement prior to the formal training. Based on their input, the materials were finalized, and formal training for more than 90 participants was performed on March 19 via WebEx. An additional training session is scheduled for March 31. The old MnCMAT had about 750 users, and we expect that MnCMAT2 will have even more, so future trainings will be announced.

An active account is required for use of MnCMAT2. As part of the registration, users will be required to name a Sponsor. The Sponsor will be:

For the Role of "User" (employee of County, City, State Patrol, Sheriff or Police)

- **County Engineer** – sponsors County Engineering staff and County Sheriff staff
- **City Engineer** – sponsors City Engineering staff and City Police

- **District Traffic Engineer** – sponsors MnDOT district staff and local State Patrol Station staff
- **State Traffic Safety Engineer** – sponsors MnDOT central office staff and State Patrol Headquarters staff

For the Role of "Consultant"

- **County or City Engineer** - s sponsors the consultant that is working for their agency.

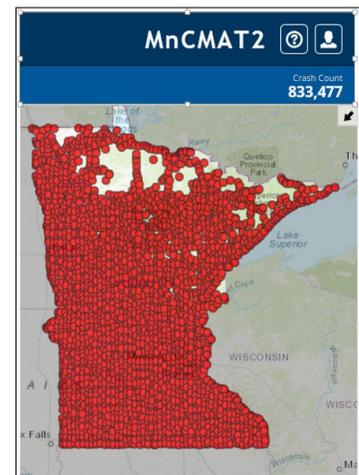
When a **New User Request** is submitted, the sponsor will receive an email. The sponsor must reply back with approval or denial of the request.

The purpose of the sponsorship process is to insure only legitimate users have access to the data. An important secondary objective is to foster the relationship between Engineering and Law Enforcement. This will help insure that all agencies present a uniform set of data to requestors of crash data.

The January 2020 e-scene gave a brief explanation of functionality of the application. We have and will continue

to give demonstrations of the application to various Traffic Safety personnel. The purpose of the demonstration is to demonstrate the application capabilities and solicit potential new users.

The website has been modified for MnCMAT2 to include training resources. Please contact Loren Hill at lor-en.hill@state.mn.us if you would like a presentation to interested parties in your area.



Where did you get those specs?

By: Ron Dahlquist, Federal Aid Pre-Construction Coordinator

We in State Aid appreciate the time and effort that our local agency partners put into their plans and specifications, especially on federal aid projects. As you know, we maintain an [Electronic Proposal Tool \(EPT\)](#) on our website, which can be useful for all local agency projects and we try to keep it up-to-date. In addition, we send out a DCP packet to assist local agencies in preparing proposals for federal aid projects. Those two resources should provide you with everything you need as far as updates, revisions, or sections especially worded for local agencies in regard to Division I (the 1000 series), General Requirements and Covenants, of the MnDOT Standard Specifications for Construction. The EPT and DCP packet also include sections for Division II (the 2000 series), Construction Details, which are updates or are especially worded for local agencies.

Division II (the 2000 series) is where local agencies have the most leeway

in making additions to their proposals; it is where they can include construction details specific to their projects. The MnDOT pre-letting unit has some construction detail specs available that could possibly be of use by local agencies from time to time. This MnDOT “boilerplate” verbiage (Division II) is suitable for technical specs such as excavation, or pipe culverts, or aggregate base, etc.

However, there is one area where local agencies can get into trouble when they borrow language from MnDOT, most notably Division I – General Requirements. Much of MnDOT’s “administrative” or “front-end” language (Division I) doesn’t apply to local agencies and from time to time some counties and cities dig up things from the MnDOT pre-letting that they should probably leave alone.

For example, a local agency recently inserted a MnDOT Division I section on “Resident Preference” into their

federal aid project proposal. This particular section, when written, was intended for state funded projects (a completely separate topic) - specifically trunk highway projects – and it may actually be obsolete, even for that purpose.

The point we are trying to make is that for your project proposals, especially those for federal aid projects, please use only the materials we provide for you when assembling sections relating to the Division I requirements. For any project, please contact us with any questions or concerns you may have regarding special provisions, particularly if you have any doubts or reservations about adding or revising verbiage to a Division I section.



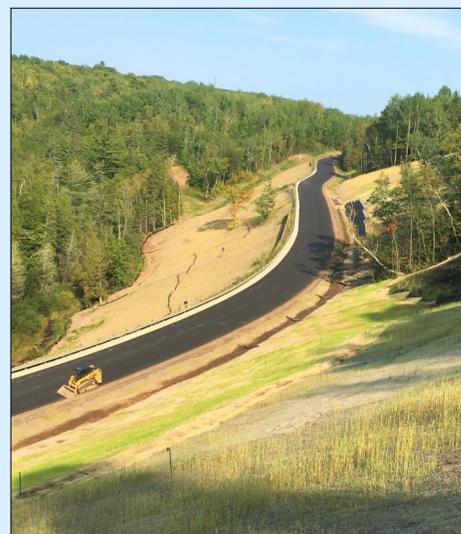
Soil bed preparation/vegetation establishment

By: Warren Tuel, Office of Environmental Stewardship

What exactly is soil bed preparation and how is this accounted for in bid documents for CSAH projects? Soil bed preparation consists of providing temporary shaping and grading and preparing the soil for permanent turf establishment as well as temporary stabilization to reduce the risk of soil erosion before the vegetation becomes established. Basic soil bed preparation consists of loosening the soil to a minimum depth of 3 inches and applying any soil amendments to the soil during tillage operations using cultivating

equipment such as disks, harrows or tillers capable of loosening the soil to the proper depth. There may also be instances where subsoiling is required where there is a need to loosen the soil at deeper depths in areas where subsoil has been compacted by equipment operations, staging areas or old road beds to be vegetated. Design plans should have a detailed description of soil bed preparation requirements in the General

(continue on page 3)



...continued, Soil bed preparation/vegetation establishment

Notes of the Turf Establishment Plan, the SWPPP and/or the Construction Notes and should also be accounted for in the Estimated Quantity plan sheets for the project under Item Number 2574.505.

It is very important to have soil bed preparation in any plans that include seeding in order to have the best chance for the vegetation to become established. A separate bid item should be included for soil preparation and it should not be considered incidental to seeding. In the event soil bed preparation is omitted as a bid item, there is a unit price for soil bed preparation in the boilerplate special provision for 2574. In the current boilerplate unit prices (2020) soil bed preparation is valued at \$260/acre. Also, where there is a bid item for soil bed preparation, we need to make sure that the contractor is actually performing the work they are being paid for as soil bed preparation is vital to successful vegetation establishment and also to promote infiltration of stormwater.

SAF reminder

As a friendly reminder from State Aid Finance — there are two Mohamed Farah's who work for the state of Minnesota. Please be extra careful that you send your emails to the correct Mohamed Farah as we have had many emails that have gone to the wrong Mohammed. Please use the following email when contacting him, Mohamed.m.farah@state.mn.us.

Rolled erosion prevention products update

By: Warren Tuel, Office of Environmental Stewardship

MnDOT recently released a new standard specification for Rolled Erosion Prevention Products (REPP). The standard specification first appeared in the boilerplate special provisions that apply with the January 31, 2020 letting. The REPP specification will be published in the 2020 Standard Specifications.

Specification 3885 was re-written with extensive input from manufacturers, vendors, contractors, MnDOT staff in the design, construction, and environmental fields, and interagency partners. The revisions update categories to better align with usage patterns, update product criteria and testing requirements, and reduce environmental impacts. Changes to the REPP specification include the REPP category numbering system currently from 00 to 6 now goes from 10 to 90. There are intentional gaps in the numbering system to allow industry innovation of new product lines. Blanket categories that previously grouped straw and wood fiber together are now split into separate categories (i.e. Category 20 and 25), added options for inclusion of agriculturally derived organic materials (i.e. silk, wool, cotton and hemp) added categories to allow filling TRM's with hydromulch or compost rather than soil, added/clarified options for anchoring REPP's which will allow designers to specify anchor pull-out resistance to ensure surface material remains in place and updates to 2575 language to reference REPP installation requirements, measurement, payment, and pay items. The end result is an optimization of effectiveness, practicality, and environmental concerns.

MnDOT is eliminating plastic from all **temporary** REPP since it has been determined that plastic mesh in these products has the potential to entrap wildlife. In addition, the plastic may

persist in the environment longer than their intended use which can interfere with the ability to manage roadside vegetation by becoming entangled in mowers. For these reasons, the specification for these products is being changed to allow only natural fiber in future **temporary** REPP applications. The removal of plastic makes all **temporary** REPP products compliant with DNR Public Waters Work Permits. Plastics are still allowed for use in permanent products such as Turf Reinforcement Mats and Flexible Geogrid Mats.

The two most commonly used categories of REPP will continue as follows:

- Category 20, a 2-sided straw blanket, replaces Category 3 (straw) for use on 3:1 and flatter slopes and in low gradient ditches
- Category 25, a 2-sided wood fiber blanket, replaces Category 3 (wood fiber) for use in most ditches, steeper slopes, and over poor clay, silt and sandy soil areas where longer service life is necessary to provide erosion prevention until native perennial plants fully establish.

A chart outlining the new REPP nomenclature and REPP selection decision matrix is located in the [MnDOT Erosion Prevention website](#).

We are also in the process of updating and adding products to the Approved Products List. The [Approved Products List for both temporary and permanent REPP products](#).

During this product category transition the Office of Environmental Stewardship is ready to assist in answering questions and reviews of design plans. If you have any questions, please contact Ken Graeve at 651-366-3613 or kenneth.graeve@state.mn.us.

Got bats?

By: Ron Dahlquist, Federal Aid Pre-Construction Coordinator

Answer:

The answer is yes, you probably do have Northern Long-Eared Bats (NLEB) in your area. In the United States the bats range from Maine to Louisiana to Montana. In Canada they range from the Atlantic Maritime Provinces to the Yukon Territory. So the entire state Minnesota is in the midst of NLEB habitat.

So what?

The NLEB is a threatened species under the Endangered Species Act. The main threat is the disease called White-nose Syndrome. In areas of the north-eastern U.S. numbers of the NLEB have declined by over 90 percent.

How does this affect me?

Your construction project may have habitat where the NLEB hibernates and/or reproduces. Any project in a karst area or projects with tree clearing, lighting and/or night work, or projects with any bridges or other structures located within the project limits may negatively affect NLEB habitat.

What should I do?

State and Federal Regulations require that you follow certain Avoidance and Minimization Measures (AMMs) to help protect the NELB. A special provision for you to include in your proposal has been developed and can be found on the [State Aid Electronic Proposal Document Table](#).

Please use this special provision on any State Aid project where it is likely to apply. For Federal Aid projects check your project memo and follow the MnDNR Response comments regarding the Endangered Species Act. This information can be found in Section 7 of the Determination Letter. Any federal Emergency Repair projects will have additional requirements regarding the NELB and other threatened/



endangered species.

What else?

Notify your contractors at the preconstruction meetings with a reminder of their environmental commitments as part of their contract. Ensure that your inspectors are aware of the requirements.

Questions?

If you think your project may be affected contact the MnDOT Wildlife Ecologist (651-366-3605) with questions about the NELB or other protected species.

More information:

The U.S. Fish & Wildlife Service has more info on the NLEB and White-nose Syndrome which can be found [here](#).

Employee news

We are happy to announce Girma Feyissa has accepted the Program Support Engineer and Disaster Coordinator position that was most recently held by Tara Olds. Girma will assist with various programs that are administered by State Aid and will provide leadership in the areas of traffic safety, safe routes to school, bridge, local road improvement, and disaster relief. Girma has been with MnDOT for over 13 years and for the last three years he has been working in State Aid CO. At MnDOT, he started as a rotating grad where he gained experience in construction, foundations, final bridge design, and research. Later he spent over nine years in the Office of Bridges and Structures in final design, State Aid support, and scoping. Prior to this, he worked as a scheduling specialist, project lead, and operations manager in a financial organization. He also worked as a cost estimator, assistant site manager, and project engineer for construction of residential and administrative facilities in Europe and Asia.

After working more than 32 years for MnDOT, Patti Loken will retire on April 3rd. Patti began as grad engineer in 1987 and then worked in traffic, final design, construction, bridge hydraulics, consultant services, and Metro preliminary design. She joined Metro State Aid in 1999 and CO State Aid in 2004. Patti will be coming back part time on April 8th through the PRO (post retirement option) Plan where she will be helping newly appointed State Aid Programs Engineer, Marc Briese. We are extremely grateful for her sharing her expertise and knowledge during this transition. Due to recent COVID-19 events, Patti's retirement parties (slated for April 1st and April 3rd) have

...continued, Employee news

been postponed and will be rescheduled for a later time. We will send out a notification when new dates and times become available.

State Aid is pleased to announce that Marc Briese is the new State Aid Programs Engineer. Mark comes to State Aid with more than 22 years of transportation experience. He most recently was the Manager of Design and Construction for the \$461 million Gold Line Bus Rapid Transit project. Prior to Gold Line, Marc was the Right of Way Manager for the Southwest Light Rail Transit project. Before working in the transit world, Marc worked in a leadership position to help guide the growth

of a local Disadvantaged Business Enterprise consulting firm. His broad background also includes serving as the City Transportation Engineer for the City of Woodbury, a mobility as MnDOT's legislative liaison during the 2013 session, an engineering production role in the private sector, MnDOT Area Engineer, and in various other roles at MnDOT within both Metro District and CO. Marc has a Bachelor's degree in Civil Engineering from the University of Minnesota and a Master's degree in Infrastructure Systems Engineering.

D1 DSAE, John McDonald has retired from MnDOT. John started with

State Aid in March 2015. Before coming to MnDOT, John was the Faribault County Engineer for 15 years, and prior to that he worked in the consulting industry. We thank John for his many years of state service and wish him well in retirement. John's position has not yet been filled, in the interim, Todd Campbell is Acting DSAE. For Todd's contact information, please visit the [DSAE webpage](#).

MnDOT partners with Blue Earth County to dismantle historic Kern Bridge

By: Joseph Palmersheim, Office of Communications

Built in 1873, the Kern Bridge just southwest of Mankato has survived 145 Minnesota winters and spring floods. MnDOT partnered with Blue Earth County Feb. 6 to carefully dismantle the bridge and prepare it for storage.

The 189-foot-bridge is significant for being the only example of a "bowstring through truss bridge," a popular bridge type from the 1850s to the 1880s. Typically constructed of cast or wrought iron, these bridge types marked the transition from wood, stone and timber building materials to metal. There are few bowstring arch bridges still standing in the Midwest or the United States.

The bridge will likely be reused for a bike and pedestrian crossing at a new



location. MnDOT will be soliciting interested agencies to find a new home for the Kern Bridge. Federal Highway Administration funds are available to cover 80 percent with state or local match of 20 percent required. Contact Lisa Bigham and Katie Haun Schuring for more information. location. MnDOT will be soliciting interested agencies to find a

new home for the Kern Bridge. Federal Highway Administration funds are available to cover 80 percent with state or local match of 20 percent required. Contact Lisa Bigham at lisa.bigham@state.mn.us or Katie Haun Schuring at katherine.haun-schuring@state.mn.us for more information.

Are you using all the pavement tools at your disposal?

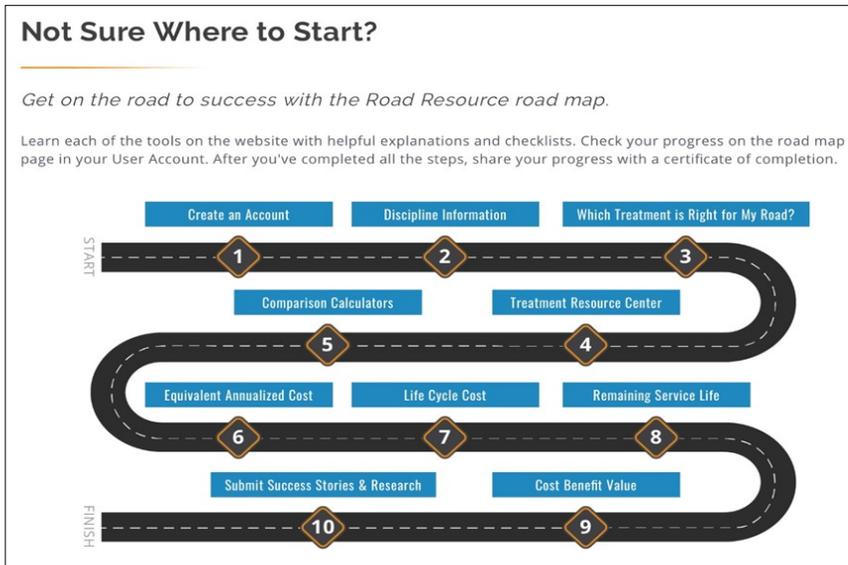
By: Dan Wegman, PPRA Representative

If not, Pavement Preservation & Recycling Alliance (PPRA) can help!

New pavement preservation and rehabilitation tools have been developed and proven to provide extended pavement life. When properly selected and applied to pavements in any condition these tools can save your agency considerable money while improving the performance of your entire network. Now there is a resource developed through combined efforts from pavement experts across the country (PPRA). It includes the most current guidelines, process information, research, selection criteria and in-depth quality assurance recommendations to equip you with the tools you need to ensure treatment success. Best of all, the resource is free and can be accessed at roadresource.org.

If you are willing to spend a little time exploring this free website program; you will quickly find it is the most comprehensive and easy to use resource to help you apply pavement preservation and rehabilitation tools successfully on your asphalt pavement network. Just be sure to click on the many tools and resources within the program to uncover the many levels of comprehensive information at your disposal. You will be happy you did!

For more information, contact: Dan Wegman P.E. at wegs2u@gmail.com or 612-275-5687.



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St. Paul, MN 55155
mndot.gov/stateaid

District 3 LPP highlights

By: Brett Stark, D3 DSAA



Cuyuna Lakes State Trail Tunnel

This project was developed because of safety concerns the City of Crosby and the bicycling community raised regarding the Cuyuna Lakes State Trail crossing on Trunk Highway 6 in 55 mph speed zone. MnDOT, MnDNR, and the City of Crosby was able to address the concerns with an under pass through the Local Partnership Program (LPP) and completed the project in 18 months. The tunnel under the highway improved safety and traffic flow for motorist, pedestrian, and bicyclist by providing a separated crossing for pedestrian and bicyclists. The project also improved the continuity of the Cuyuna Lakes State Trail in the Cuyuna Country State Recreation Area.

If you have any questions please contact Brett Stark at 218-828-5708 or brett.stark@state.mn.us.

Local stories:

- [Lakeland PBS](#)
- [Brainerd Dispatch](#) (PDF)

