State-Aid Bridge News

July 25, 2003

- **Vertical Clearance for Highways Under Rail Road Bridges**

When planning an underpass project involving a railroad bridge, make sure that you consult and comply with State-Aid Rules Table 8820.9956 "Vertical Clearances for Underpasses". If the railroad is planning to rebuild or replace an existing bridge structure over a local highway, they must do so in accordance with Minnesota Statute 165.05 Sub division 2, "Railroad Bridge over Highway". This statute requires at least a 14-foot minimum vertical clearance, unless otherwise approved by the commissioner of transportation.

- **Bond Fund Projection**

No new funds were made available in the 2002 regular session or 2003 special session. The $15 million in Bond Funds appropriated by the 2002 legislature still remains on hold with no indications that it will be released. Therefore, we have no bond funds for any projects that have not already been approved. 2003 Federal-aid matching funds are being reserved for those projects. All other projects will be placed on a waiting list until new bond funds become available, likely in May of 2004.

Unallocated town bridge funds are depleted, except for overruns and engineering charges on previously approved town bridge projects. There is about $9 million left in the general Town Bridge Account. Requests for advance funding from the general Town Bridge Account are being accepted. Please feel free to contact Mark Gieseke (State Aid Program Delivery Engineer) at 651-296-7679 if you have any questions regarding bridge funding.

- **Bridge Management Data Supervisor**

After 44 years of dedicated service to Mn/DOT, Charlie Deutsch has retired. Charlie's last day in the Bridge Office was June 30th, 2003. Charlie will be missed for his dedicated service and support to our local agencies.

Thomas Martin, currently an Information Technology Specialist III in our Bridge Hydraulics Unit, will replace Charlie. Thomas has over 10 years of service with Mn/DOT. He also has 12 years of experience in Geographic Information Systems, and holds a master's degree in geography. We're confident that Thomas will do a great job providing the necessary service and support requested of our local agencies.

- **Pontis Update**

The following Web Reports for local agencies will be available via the internet in August:

- Inventory Report – prints a report for one bridge, or all bridges.
- Inspection Report – prints a report for one bridge, or all bridges.
- Inspection Frequency Report – Lists all bridges, and shows current and proposed inspection frequency (one report sorts by bridge number, the other sorts by township name).
- Inspections Due Report – Lists all inspections due based on current inspection frequency (one report sorts by bridge number, the other sorts by township name).
- Improvement Cost Report – Lists all deficient bridges and their current improvement costs.
- Load Rating Report – List of bridges that may require a new load rating.
- Scour Report – List of bridges that require scour review or action by the agency.

Local Agencies will get a new version (4.2) of Pontis this fall:

The new version of Pontis will be distributed in September or October with the inspection data. The new version:

- Calculates SR's for one or multiple bridges
- Calculates Deficient status for bridges < 20 ft
- Built-in Mn/DOT reports will function properly

Pontis elements are being renumbered:

A cheat sheet with the new element numbers will be available until the new pocket manual is finished and distributed.

Element sort order:

We are working to get elements to show up in the same order on the screen and on the printed inspection reports. This should be available in fall 2003.

- **The New LRFD Mn/DOT Bridge Design Manual**

LRFD (Load Factor Resistance Design) is a design methodology that accounts for variability in both construction materials and loads. This design method should achieve fairly uniform levels of safety for different bridge types, and will provide a consistent method of design.

The Bridge Office has been working to develop a new Mn/DOT bridge design manual to guide bridge designers in the use of LRFD specifications. This new LRFD Bridge Design Manual should be available online by mid August 2003. You will be able to access the manual through the Bridge Office Website at

http://www.dot.state.mn.us/bridge. If you have any questions on the LRFD Bridge Design Manual please contact Dave Dahlberg our LRFD Implementation Engineer at 651-747-2116.

Bridge designs for any new/replacement bridge on the trunk highway system are currently implementing the new LRFD design specifications. The State-Aid Bridge Office encourages and allows the use of the LRFD design specification for local highway bridges per State Aid Operation Rules Chapter 8820.

The State Aid Bridge Office will be working close with the Local Bridge Design Consultants to assure that LRFD specifications are understood and implemented. We feel it is important that we stay current with the latest design trends, to assure that the counties and municipalities are receiving the most economical and reliable bridge structures.

- **BrHydInfo**

The Bridge Hydraulic Information (BrHydInfo) database will soon be available online. A GIS application was developed that will enable the user to access information in the data base by simply clicking on a map. Queries to the data base can be made by entering any part of the bridge's number. This will return a list of all bridges that contain the combination of numbers entered. Just click on the bridge you want from the list. The program will display a map showing the general location of your selected bridge. Bridges with hydraulic information are noted with blue markers. By clicking on the bridge marker, a report is displayed showing all of the hydraulic information we have available on that bridge. The hydraulic data that is available is archived information only; so engineering judgment should be used when utilizing the data. If you haven't already done so, please submit any hydraulic information you have to Petra DeWall-State Aid Bridge Office so it can be included in the database.

- **State Aid Bridge Contacts:**

	Phone #
Dave Conkel State Aid Bridge Engineer	651-747-2151
Petra DeWall Assistant State Aid Bridge Engineer	651-747-2152
Brian Homan Assistant State Aid Bridge Engineer	651-747-2153
Vacant Graduate Engineer	651-747-2154