



MEMORANDUM

**Highway
Department**

Jason Benson
County Engineer

Richard S. Sieg
Superintendent

Thomas B. Soucy, P.E.
Design and Construction
Engineer

TO: Cass County Road Advisory Committee

FROM: Jason Benson, Cass County Engineer *JB*

DATE: November 15, 2011

SUBJECT: Road Advisory Committee Meeting
November 21, 2011 2:00 p.m.

A Road Advisory Committee meeting has been scheduled for Monday, November 21, 2011 at 2:00 pm in the Cass County Commission Room. The agenda is as follows:

2:00 – 2:15	Discuss and Approve 2012 Construction Projects	Action
2:15 – 2:25	Review 2011 Highway Construction Projects and Flood Repair Projects	Information
2:25 – 2:35	Update on Posted Bridges on County Roads and Review Current Bridge Projects	Information
2:35 – 2:45	Removal of the Solberg Bridge at Section 35/36 Stanley Township	Action
2:45 – 2:55	Other Business	
2:55	Adjourn	

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FROM: Jason Benson, Cass County Engineer *JMB*
DATE: November 15, 2011
SUBJECT: Road Advisory Committee Meeting, November 21, 2011
Background Information

2012 Proposed Highway and Bridge Projects:

Overlay Projects:

Cass 26 from State 38 to Cass 5N: (8 miles, \$2 Million, \$1.619 Million Federal, \$381,000 Local) This section of Cass 26 was last paved in 1994 and is in need of a thin maintenance overlay.

Cost per Mile: \$250,000

Current Road Dimensions: 2 Lanes/12' Wide with 6' Gravel Shoulders

Proposed Future Road Dimensions: 2 Lanes/12' Wide with 5' Paved Shoulders

Last Year Paved: 1994

Cass 5, 10, and 32 from Absaraka to I94: (9.5 miles, \$1.5 Million) The 1.5 mile section on Cass 10 was paved in 2009 to fill wheel ruts and the sections of Cass 5 and 32 were last paved in 1990. This 9.5 mile length of road is in need of a thin maintenance overlay.

Cost per Mile: \$157,895

Current Road Dimensions: 2 Lanes/ 12' Lanes with 1' Paved Shoulders (C-10 from C-5 to I-94), 2 Lanes/12' Lanes with 2' Paved Shoulders (C-32 from Absaraka to C-5, C-5 from C-32 to C-10)

Proposed Future Road Dimensions: 2 Lanes/ 12' Lanes with 1' Paved Shoulders (C-10 from C-5 to I-94), 2 Lanes/12' Lanes with 1' Paved Shoulders (C-32 from Absaraka to C-5, C-5 from C-32 to C-10)

Last Year Paved: 1990

Cass 5 from I94 to Cass 6: (7 miles, \$1.2 Million) This section of Cass 5 was last paved in 1987 and is in need of a thin maintenance overlay. Based on available funding, this project may be moved to 2013.

Cost per Mile: \$171,429

Current Road Dimensions: 2 Lanes/12' Lanes with 4' Gravel Shoulders

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Proposed Future Road Dimensions: 2 Lanes/12' Lanes with 4' Paved
Shoulders

Last Year Paved: 1987

Cass 6 from Barnes County to Cass 38: (6 miles, \$600,000) This section of
Cass 6 was last paved in 1995 and is in need of a thin maintenance overlay.
Cost per Mile: \$100,000

Current Road Dimensions: 2 Lanes/12' Lanes with 2' Paved Shoulders

Proposed Future Road Dimensions: 2 Lanes/12' Lanes with 1' Paved
Shoulders

Last Year Paved: 1995

Grading Projects:

Cass 4 from Cass 11 to Drain 13: (7 miles, \$5.7 Million) This road is very
narrow and has almost no base under the existing pavement. For these
reasons, the best alternative is to recycle the existing asphalt for new base
material and re-grade the road in 2012 and place an asphalt surface in 2013.
This project was originally approved to start in 2011 but the need for right
of way precluded 2011 construction.

Cost per Mile: \$814,285

Current Road Dimensions: 2 Lanes/12' Lanes with 2' Gravel Shoulders

Proposed Future Road Dimensions: 2 Lanes/12' Lanes with 6' Paved
Shoulders

Last Year Paved: 1995

Subgrade Repair Projects:

Cass 20 from Cass 11 east 5 miles: (5 miles, \$100,000) Sections of this five
mile segment will be targeted for reshaping and subgrade repair.

Drain Tile: (25 miles, \$500,000) We have significant subgrade moisture
issues on our gravel road system from recent floods and rains. This drain
tile project will reduce the miles of gravel roadway with significant
subgrade problems and reduce the maintenance and additional gravel
needed to keep these roadways to standard. The exact location of this
project will be determined this winter during the design phase.

Subgrade Repair: (2 miles, \$300,000) In 2011 we bid a Subgrade Repair
project for Cass 11 north of Cass 4. This will be used to repair and reinforce
the subgrade of an additional two miles of gravel road.

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Bridge Projects:

35/36 Wiser -- Cass 31: This is a County bridge with settling and moving of the south abutment. The existing bridge is 20 feet in length and was built in 1940. Estimated cost is \$200,000.

24 Howes/19 Gill – Cass 7 on a Branch of Maple River: This is a County bridge with a posted limit of 30 tons and a rating of 56.5. It was built 1943, with a length of 31 feet. Estimated cost is \$500,000.

23/24 Walburg – Township Road on Buffalo Creek: This is a Township bridge with an alert Code 3, a posted limit of 18 tons, and a rating of 50.8. It is an existing Timber Box Culvert structure built in 1971, with a length of 21 feet. A hydraulic analysis has been completed with a recommended double 4 ft x 10 ft Box Culvert. Estimated cost is \$175,000.

20/29 Mapleton – Township Road on Drain 14: This is a Township bridge with an alert Code 3 and a rating of 56.4. This structure was built in 1970, with a length of 50 feet. Estimated cost is \$600,000 (\$360,000 Water Resource District and \$240,000 Cass County).

31/32 Noble – Township Road on Drain 32: This is a Township bridge with a posted limit of 6 tons and a rating of 39.0. This structure was built in 1941, with a length of 37 feet. Estimated cost is \$375,000 (\$225,000 Water Resource District and \$150,000 Cass County).

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DATE: November 15, 2011

SUBJECT: Road Advisory Committee Meeting, November 21, 2011
Background Information – Solberg Bridge at 35/36 Stanley
Township

It is recommended that the Township Bridge located at sections 35/36 Stanley Township, known as the Solberg Bridge, be removed.

From the 1997 Flood through 2011, there has been continued flood damage and debris issues at this bridge. This bridge was built to provide the sole access for Mr. Warren Solberg's farmstead. Prior to the 1997, the bridge was in poor condition and Cass County and Stanley Township worked cooperatively to build Mr. Solberg a new driveway to the west to access the township road. Since the new driveway was built, this has been the primary access for Mr. Solberg.

Cass County has incurred significant repair costs for this bridge over the last five years. Below is a list of the year and cost of repair:

2007 – \$25,000

2009 – \$40,000

2010 – \$11,000

2011 – Repairs are not complete, estimated cost is \$100,000-\$120,000

Due to the high cost of the current repair and the fact that Mr. Solberg has an alternate access to his farmstead, the recommendation is made to remove this bridge.

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