



MEMORANDUM

**Highway  
Department**

Jason Benson, P.E.  
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  
DATE: July 9, 2013  
SUBJECT: Road Advisory Committee Meeting  
July 15, 2013 2:00 p.m.

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A Road Advisory Committee meeting has been scheduled for Monday, July 15, 2013 at 2:00 pm in the Cass County Commission Room. The agenda is as follows:

2:00 – 2:05	Introduction and Recognition of Outstanding Highway Employees	<b>Information</b>
2:05 – 2:20	Superior Inc., road and bridge improvements on Cass 36 for economic development	<b>Information</b>
2:20 – 2:25	Review 2013 Construction Projects	<b>Information</b>
2:25 – 2:45	Discuss/Approve 2013 Construction Projects	<b>Information/Action</b>
2:45 – 2:55	Discuss priority for paving of gravel roads and long range paving goal	<b>Information/Action</b>
2:55 – 3:00	Other Business	
3:00	Adjourn	

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## MEMORANDUM

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TO: Cass County Road Advisory Committee

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Superior Inc. request for Road and Bridge Improvements

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Cass County was recently contacted by the Greater Fargo Moorhead EDC and Superior Inc. regarding the possible expansion of the Superior Inc. facilities located along Cass 36 northeast of Kindred. Superior Inc. will have someone present at this meeting to provide information on their expansion project.

Superior Inc. is a commercial producer of grain storage, drying, and handling systems. Their existing facility is located 2.5 miles south of Cass 16 along Cass 36. This section of road is a 26 foot wide gravel road. During the spring load restrictions this section is limited to a 6 ton load. In addition, there is a short section that is low and has had minor overtopping during past floods. The main bridge servicing this facility on Cass 36 is load restricted at 34 tons.

In discussions with Superior Inc., they are requesting the County complete improvements to the bridge and road to bring them up to a year round legal 10 ton load standard. To do this the County would need to replace the bridge and complete a regrading/subgrade repair project on the road. The Highway Department has programmed to replace the bridge in 2014 as part of the County's goal to remove all structures from being load restricted. This project will be moved forward for construction regardless of the Superior Inc. expansion.

As for the roadway, Cass 36 has not been targeted for any upcoming maintenance projects. To rebuild this section of roadway, reinforce the subgrade, and leave it as a gravel, year round unrestricted roadway it would cost approximately \$1.7 million. This section would be graded to support the future paving of a 28 foot roadway if necessary.

**RECOMMENDATION:** After information and discussion, bring this item back to a future Road Advisory or County Commission meeting for a decision.

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Background Information

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2014 Proposed Highway and Bridge Projects:

#### **Bituminous Overlay Projects:**

Cass 20 from Cass 17 to University Drive and Cass 81 from Cass 20 to 0.4 miles north. (5.2 miles, \$3,095,000. All local funding.) This section of Cass 20 will have a 2.5 inch maintenance overlay and turnlanes will be installed in two locations east of I-29. We are working with the City of Fargo to cost share on the turnlanes and then turn this section of highway over to them upon completion of construction.

Cass 22 from Cass 11 to Prosper. (2.0 miles, \$500,000. All local funding.) This section of Cass 22 will have a 2.5 inch maintenance overlay. It was last overlaid in 1995.

Cass 22 from the intersection of Cass 17 east to Harwood and from Cass 81 to the Red River. (3.8 miles, \$1,100,000. All local funding.) The section west of Harwood will have the existing paved shoulders milled and overlaid. The section of Cass 22 east of Harwood will have a 2.5 inch maintenance overlay. It was last overlaid in 2005, but has seen extensive truck traffic, rutting, and flood damage.

Cass 31 from Cass 20 to Cass 22. (3.7 miles, \$1,100,000. All local funding.) This section of Cass 31 will have a 2.5 inch maintenance overlay. It was last overlaid in 1998 and a portion in 2000.

Cass 14 from I29 to Cass 81. (1.8 miles, \$625,000 total cost, \$500,000 Federal funding, \$125,000 local funding.) This section of Cass 14 will have a 2.0 inch maintenance overlay. It was last overlaid in 1999.

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Cass 81 from 64<sup>th</sup> Ave S to Cass 16W. (5.4 miles, \$2,200,000 total cost, \$1,775,000 Federal funding, \$425,000 local funding.) This section of Cass 14 will have a 2.0 inch maintenance overlay. It was last overlaid in 2000.

### **Grading and Surfacing Projects:**

Cass 15 from I94 to Cass 10. (0.8 miles, \$560,000. All local funding.) This section of Cass 15 has seen continued increases in traffic as volumes have increased on Cass 15 and Cass 10. This road also has a higher rate of required maintenance and gravel. Planned construction includes grading and drainage improvements. Asphalt surfacing would be planned for 2015.

### **Drain Tile, Subgrade Repair, and Reshaping Projects:**

Cass 32 from ND18 to Cass 11. (7.75 miles, \$400,000. All local funding.) This will be used to install drain tile remove moisture from the subgrade of the road.

Cass 3 from Cass 4 to Cass 26. (7 Miles, \$1,000,000. All local funding.) Sections of this road will be targeted for subgrade repair and reshaping.

Cass 6 two miles west of ND 18. (2 Miles, \$200,000. All local funding.) Sections of this road will be targeted for reshaping to improve the safety of the curve sections of this roadway.

Cass 36 two miles east of Cass 15. (2 Miles, \$200,000. All local funding.) Sections of this road will be targeted for reshaping to improve the safety of the curve sections of this roadway.

### **Bridge Projects:**

10 Durbin – Township Bridge on Maple River. This is a township bridge with a Code 3 alert, with a posted limit of 8 tons and a rating of 39. The total length is 149 feet and was built in 1958. Replacing the structure. Estimated cost is \$800,000, \$650,000 Federal funding, \$150,000 local funding.

12 Gill/7 Everest – Township Road on branch of Maple River. This is a township bridge with damaged piling at the south abutment. It is 21 feet long and was built in 1955. Estimated cost is \$100,000.

28/33 Empire – Township Bridge on Swan Creek. This is a township bridge with a Code 3 alert, and a 40.0 rating. It was built in 1950 and is 24 feet long. Estimated cost is \$150,000.

34/35 Highland – Township Bridge on Maple River. This is a township bridge is a minor structure in need of replacement. No data is available on the existing bridge but it is very narrow and deteriorating in age. Replace with metal arch culvert. Estimated cost is \$50,000.

31/32 Highland – Township Bridge on Maple River. This is a township bridge with a Code 3 alert and a rating of 38.0 and is closed to traffic. The existing bridge was built in 1955 and is 32 feet long. Recommend removing this structure and replace the 34/35 Highland structure. Estimated cost of removal is \$50,000.

5/8 Hill – Township Road on the Maple River. This is a township bridge with a 70.0 rating, but has a Code 3 alert with significant deficiencies. This bridge will be replaced with a concrete box culvert. It is 31 feet long and was built in 1954. Estimated cost is \$180,000.

33 Hill/4 Clifton – Township Road on the Maple River. This is a township bridge with a Code 3 alert and a 39.0 rating and will be a bridge replaced. It is 79 feet long and was built in 1956. Estimated cost is \$450,000.

34 Pontiac – Township Bridge on Maple River. This is a township bridge with a Code 3 alert and a rating of 42.0. The total length is 121 feet and was built in 1960. Replacing the structure. Estimated cost is \$700,000, \$560,000 Federal funding, \$140,000 local funding

1/2 Normanna – County Bridge on Cass 36 on the Sheyenne River. This is a County bridge with a posted limit of 34 tons and a rating of 67.3. The total length is 112 feet and was built in 1956. Replacing the structure as it has a restrictive load rating and is a narrow bridge that has sustain ongoing flood damage. Estimated cost is \$700,000.

27/28 Amenia – County Bridge on Cass 32 on the Rush River. This is a County bridge with a posted limit of 27 tons and a rating of 57.3. The total length is 62 feet and was built in 1955. Replacing the structure as it has a restrictive load rating. Estimated cost is \$500,000 for the bridge and to realign the approaching road segments that are slumping into the river.

10/15 Warren – County Bridge on Cass 6 on the Rush River. This is a County bridge and is a minor structure in need of replacement. It is very narrow existing concrete box culvert. Add culvert extensions to lengthen the structure for safety improvements. Estimated cost is \$50,000.

16/17 Reed (Lake Shure Bridge) – Township Bridge on Drain 45. This bridge has received a FEMA HMGP grant to be built in order to provide year around access for residents. Estimated cost is \$1,200,000, \$960,000 Federal HMGP funding, \$240,000 local funding.



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### MEMORANDUM

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DATE: July 10, 2013

SUBJECT: Road Advisory Committee Meeting, July 15, 2013  
Paving Gravel Roads

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Over the years Cass County has been contacted by a number of residents and groups about paving certain gravel roadways. The roads most often requested are Cass 16 from ND 18 to Davenport (8 miles), Cass 10 from Buffalo to Cass 5 (8 miles), and Cass 11 from Cass 4 to Cass 26 (7 miles). Other roads considered are Cass 6 from ND18 to Horace (15 miles) and Cass 34 from Cass 81 to the Red River. While these roads are important to the County, current funding does not allow for all of these to be added. However, I think it is reasonable to develop plans for the paving of certain gravel roads.

Many considerations must be taken prior to expending significant funds into a new paved roadway. Our Commission Policy 9.30 places a criteria of the average daily traffic, either current or projected within the next 5 years, be a minimum of 400 vehicles per day. Our experience with Cass 14 south of Horace has been that a newly paved road will have increased traffic as drivers adjust their travel patterns to utilize the paved road. Of the roads listed above, only Cass 6 has a high enough traffic counts to warrant paving (see traffic count maps).

Another potential criteria is the continuity of paved roadways across the County. Currently the NDDOT and Cass County have four major highways running south to north. These include Cass 38/ND38, ND18, I-29, and Cass 81. For east-west paved highways there is Cass 26, I-94, and ND46. While these highways provide a significant continuous network, the one region that has a significant gap is the east-west road network south of I-94. That area of the County has a paved Barnes County highway matching into our paved Cass 6 in the west with Cass 6 being paved to ND18 and from Horace east into Fargo. Four miles south of Cass 6, Cass 16 is paved from Davenport to the Red River.

I am recommending that Cass County develops a long range goal to be added to the Comprehensive Highway/Bridge Plan to construct a continuous paved highway running east-west across the County south of Interstate 94, to include the paving of Cass 6 from ND18 to Horace.

**SUGGESTED MOTION:** Approve a long range goal to construct a continuous paved highway running east-west across the County south of Interstate 94 on Cass 6 from ND18 to Horace.

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WHEELER  
TOWNSHIP

BUFFALO  
TOWNSHIP

**BUFFALO**

5

3

10

67

2007  
505 ADT  
0 Total Trucks

2010  
1145 ADT  
0 Total Trucks

2010  
200 ADT  
0 Total Trucks

2007  
990 ADT  
0 Total Trucks

2007  
190 ADT  
0 Total Trucks

2007  
65 ADT  
15 Total Trucks

2007  
350 ADT  
30 Total Trucks

2010  
570 ADT  
75 Total Trucks

2007  
75 ADT  
15 Total Trucks

2007  
390 ADT  
50 Total Trucks

2007  
15 Total Trucks

2007  
4280 ADT  
1080 Total Trucks

2007  
4430 ADT  
895 Total Trucks





