

April 19, 2024

Brainerd/Baxter

7804 Industrial Park Road
Baxter MN 56425

218.829.5117

Baxter@Widseth.com
Widseth.com

City of Breezy Point

Attn: Joe Zierden, Public Works Supervisor

8319 County Road 11

Breezy Point, MN 56472

**Re: Shoreview Lane Damage Assessment
Project No. 2024-10650**

Dear City of Breezy Point:

A damage assessment was conducted on Shoreview Lane to identify the location and extent of damages caused by ice to the roadway. A utility meeting was held onsite to help identify existing utilities and potential conflicts in the project area. Our findings, along with recommended action and an estimate of probable cost are included in this document.



Figure 1: Project Area



Existing Conditions

The east side of Shoreview Lane has received ice damage extending approximately 660' down the centerline of the roadway. Ice has heaved the foreslope and shoulder upwards and into the roadway in certain locations. Some stretches of the roadway have received damage to the bituminous pavement, and there are signs of ice damage to the pavement from previous years. The east side of the roadway does not currently have a foreslope extending into Pelican Lake. Because of this, ice that is blown into the shoreline can push the in-place material vertically, causing damage to the road.

Existing utilities on Shoreview Lane include natural gas (Xcel Energy) running along the west side of the road, power (Crow Wing Co-op) and City sanitary sewer in the roadway, and fiber optic (TDS) along the east side. The fiber optic duct has been exposed in some locations, but there is no apparent evidence of damage to other utilities at this time.



Figure 2: Shoreview Lane Existing Conditions - South Facing



Figure 3: Exposed Utility



Figure 4: Shoreview Lane Damage – North Facing

Funding Investigation

Our funding team has investigated any potential funding sources and was unable to find any promising options for this situation. There are some grant options, but they can be very competitive. This instance would likely not compete with other projects. The other option would be to contact Sourcewell for local government funding. Amy Piekarski (218-821-0813, Amy.Piekarski@sourcewell-mn.gov) at Sourcewell would be the primary contact for this funding type. Widseth can also provide funding assistance as an additional service, if the City would like assistance with funding.

Recommendations

The recommended action for Shoreview Lane is to install a riprap foreslope. While this will not prevent ice from moving towards or onto the road, it will minimize future ice damage to the shoulder and roadway.

In order to complete these restorations, we recommend a topographic survey be conducted and a plan set be drafted to be submitted to the Department of Natural Resources for public waters work permit review. A permit must be obtained by the DNR if more than 200' of shoreline requires reconstruction, or if additional excavation or replacement fill materials are to occur on site. The enclosed **Exhibit A** includes a statement of probable cost for the road restoration. Widseth can provide these services, along with assisting the City with obtaining a permit from the DNR.

Proposed construction activities include blading material off the shoulder of the road. Coordination has begun with TDS regarding their exposed utility. TDS is aware of the issue and is working to come up with a plan. The shoulder of the road would then be shaped to a 3' width and taper into the lake. Riprap would be placed off the shoulder at a 3:1 slope on top of a geotextile fabric. Floating silt curtain would be installed around the project area as an erosion control BMP (Best Management Practice).

We understand the City has a concern with the public accessing the lake from this causeway and an optional guardrail barrier cost has been requested. This feature is not required due to a public safety concern or due to the ice heaving issue, it has been requested for city information as part of this assessment and potential incorporation with the ice repair efforts should the City wish to include it. Guardrail would be installed on the East side of the roadway to prevent lake access off the road. An item to consider would be additional maintenance associated with guardrail. Guardrail installation could create additional cost to the City for repairs if ice were to damage the guardrail in the future. Exhibit A summarizes the guardrail cost difference is summarized in the cost estimate enclosed as **Exhibit A**. The type of guardrail used in the estimate is a wooden post 3-cable guardrail.

Damaged pavement would be removed and repaved, and any green areas impacted by construction activities would be seeded after construction is complete. These improvements are summarized in the cost estimate enclosed here within as **Exhibit A**.

Widseth could put plans together in 45 days from receipt of a signed proposal. DNR permit review times may vary, but if their review is completed sometime in June or July, we anticipate there would be sufficient time for bidding and construction to take place this summer and fall before formation of lake ice.

City of Breezy Point
Attn: Joe Zierden, Public Works Supervisor
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Sincerely,
Widseth Smith Nolting and Associates Inc.

A handwritten signature in blue ink, appearing to read "David S. Reese".

David S. Reese, PE, VP

A handwritten signature in blue ink, appearing to read "Nick Peterson".

Nick Peterson, EIT

Enclosure

PROJECT NAME: Shoreview Lane Damage Assessment
WIDSETH PROJECT NO. 2024-10650
DATE: APRIL 19TH, 2024

ESTIMATE OF PROBABLE COST							
ITEM NO.	NOTES	SPEC. NO.	ITEM DESCRIPTION	UNIT	UNIT PRICE	QUANTITY	COST
1		2021.501	MOBILIZATION	LUMP SUM	\$8,000.00	1	\$8,000.00
2	1	2102.505	CLEARING	LS	\$2,000.00	1.00	\$2,000.00
3		2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	\$4.00	660	\$2,640.00
4		2104.504	REMOVE BITUMINOUS PAVEMENT	SQ YD	\$6.50	220	\$1,430.00
5	2	2105.607	EXCAVATION SPECIAL	ROAD STA.	\$1,500.00	6.60	\$9,900.00
6	3	2108.504	GEOTEXTILE FABRIC TYPE 4	SQ YD	\$3.50	880	\$3,080.00
7		2123.510	COMMON LABORERS	HOURL	\$93.00	4	\$372.00
8		2123.510	SKID LOADER	HOURL	\$135.00	4	\$540.00
9		2123.510	STREET SWEEPER (WITH PICKUP BROOM)	HOURL	\$150.00	4	\$600.00
10	4	2211.507	AGGREGATE BASE CLASS 5 (CV)	CU YD	\$60.00	37	\$2,200.00
11	5	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (2,B)	TON	\$180.00	34	\$6,072.00
12	6	2511.507	RANDOM RIPRAP CLASS IV	CU YD	\$100.00	562	\$56,222.22
14	7	2565.501	TRAFFIC CONTROL	LUMP SUM	\$2,000.00	1	\$2,000.00
15		2573.503	FLOTATION SILT CURTAIN TYPE STILL WATER	LIN FT	\$14.00	700	\$9,800.00
16	8	2574.507	SCREENED TOPSOIL BORROW (CV)	CU YD	\$60.00	18.5	\$1,111.11
17	8	2575.505	SEED MIXTURE 22-111 (TEMPORARY)	POUND	\$50.00	1.05	\$52.51
18	8	2575.508	SEED MIXTURE 25-151	POUND	\$20.00	6.9	\$137.74
19	8	2575.508	HYDRAULIC REINFORCED FIBER MATRIX	POUND	\$8.00	134.3	\$1,074.38
ALTERNATE A							
13		2554.603	INSTALL 3-CABLE GUARDRAIL	LIN FT	\$65.00	660	\$42,900.00

ESTIMATED CONSTRUCTION COST:	\$107,231.97
CONTINGENCIES (15%):	\$16,084.80
DESIGN	\$16,000.00
CONSTRUCTION SERVICES	\$15,000.00
TOTAL PROJECT COST	\$154,316.76

ESTIMATED CONSTRUCTION COST INCLUDING ALTERNATE A:	\$150,131.97
CONTINGENCIES (15%):	\$22,519.80
DESIGN	\$19,500.00
CONSTRUCTION SERVICES	\$15,000.00
TOTAL PROJECT COST	\$207,151.76

NOTES:

1	ITEM DENOTES CLEARING OF TREES THAT ARE TOO LARGE TO BE REMOVED WITH EXCAVATION SPECIAL LINE ITEM
2	ITEM DENOTES REMOVAL OF ANY ITEMS THAT MAY EXIST FROM THE ICE DAMAGE TO SHOREVIEW LANE. THIS MAY INCLUDE SEDIMENT, ROCK, DEBRIS, OR TREES/SHRUBS.
3	ITEM DENOTES GEOTEXTILE FABRIC TO BE PLACED BENEATH RIPRAP. SEE PLANS FOR ADDITIONAL INFORMATION.
4	PLACE AGGREGATE MATERIAL AT A WIDTH OF 3' FROM EDGE OF BITUMINOUS AND 6" DEPTH TO CREATE SHOULDER
5	PAVEMENT SECTION IS 2" THICK, ITEM INCLUDES RESTORING AGGREGATE BASE TO ORIGINAL THICKNESS AND COMPACTION WHERE ICE DAMAGE HAS ALTERED THE PAVEMENT BASE.
6	RIPRAP TO BE PLACED AT 3:1 SLOPE FROM SHOULDER OF ROAD INTO PELICAN LAKE. SEE PLAN FOR DETAILS.
7	FURNISH, INSTALL, AND MAINTAIN TEMPORARY BY PASS LANE CLOSURE. USE LAYOUT 14 FROM MINNESOTA TEMPORARY TRAFFIC CONTROL FIELD MANUAL OR OTHER ENGINEER APPROVED TRAFFIC CONTROL.
8	ITEM IS FOR ANY AREA OF DISTURBED SOIL FROM CONSTRUCTION ACTIVITIES.