

August 11, 2017

Board of Managers
Buffalo-Red River Watershed District
PO Box 341
Barnesville, MN 56514

**Subject: Wilkin County Ditch No. 22
Ditch Repair Investigation
HE Project No. 1915.001**

Dear Managers:

We have completed a repair survey for Wilkin County Ditch No. 22. Preliminary Repair plans are enclosed. The Wilkin County Ditch No. 22 Main begins in Section 9 of Mitchell Township. It heads northwest crossing under 170th Street and then runs parallel with 180th Ave for about 2800 ft. It then crosses 180th Ave and heads NW along section 5 of Mitchell Township. It continues north through section 32 of Deerhorn Township where it intersects CSAH 30 and CSAH 3, turning west and running along CSAH 30 to Wolverton Creek. The portion upstream of CSAH 3 was investigated for repair and the ditch is in need to be repaired.

The latest improvement ditch plan record drawings are dated 1982. The original ditch cross-section from the south side of Section 9 of Mitchell Township to the intersection of CSAH 30 and CSAH 3, consists of a 12-ft bottom width with 4H:1V sideslopes. Grades varied from 0.04% to 0.09%.

Based on field survey obtained in July 2017, the current ditch cross-section width varies. The existing bottom width varies from 4-12 feet. The proposed repair gradelines match the improvement gradelines from the 1982 plan.

The current ditch grade is close to the proposed ditch grade but sediment buildup along the toe of the channel slope has narrowed the bottom width. Much of the cleanout should go quickly given the excavation will be limited to reestablishing the bottom of the ditch. Sediment depths in the deepest part of the channel cross-section vary from 0.0 feet to 2.5 feet. Sediment depth is more along the toe of the slopes.

The opinion of probable cost for this ditch repair is \$35,000-\$40,000.

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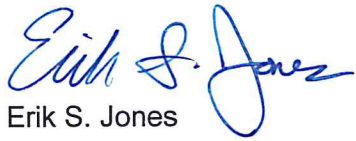
Sections that need the most repair work are Section 32 of Deerhorn Township, and Section 9 of Mitchell Township. We recommend that the entire ditch be repaired. Repair should go quickly in those Sections where sediment is lighter.

“Permission to Level Spoil” forms should be obtained from landowners. Given the length of the ditch system, we would recommend that the contractor complete sections of the ditch repair as crops come off, so that all the work can be completed yet this year.

If you have any questions or comments, feel free to give me a call at (701) 237-5065.

Sincerely,

HOUSTON ENGINEERING, INC.



Erik S. Jones

ESJ:mjh
Enclosure

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