

RICE COUNTY COUNTY DITCH NO. 31

Engineer's Advisory Report Redetermination of Benefits and Damages

February 14, 2017



**JONES
HAUGH
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Engineers + Surveyors

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I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Steven J. Penkava

STEVEN J. PENKAVA

Date: February 14, 2017

Lic. No. 43895

STATE OF MINNESOTA
COUNTY OF RICE

IN THE MATTER OF REDETERMINATION OF BENEFITS AND DAMAGES OF
COUNTY DITCH NO. 31
RICE COUNTY, MINNESOTA

ENGINEER'S ADVISORY REPORT

TO THE HONORABLE BOARD OF COUNTY COMMISSIONERS:

The undersigned Licensed Professional Engineer, Steven J. Penkava, representing Jones, Haugh & Smith Inc., Consulting Engineers, duly appointed by Order of said Board of County Commissioners, dated September 9, 2014, having qualified as provided by law and assumed the duties of the office of Engineer, would now respectfully report on the investigation and examination of said drainage system as follows:

ORDER

The Rice County Board of Commissioners has determined that the original benefits or damages determined in the above drainage system do not reflect reasonable present day land values; or that the benefited or damaged areas have changed.

HISTORY

County Ditch No. 31 (CD 31) was established in 1966 and is primarily located in Sections 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 16, 17 and 18 of Webster Township, Sections 1, 12, 13 and 14 Wheatland Township all of Rice County and Sections 27, 28, 29, 31, 32, 33 and 34 of New Market Township, Scott County. Original CD 31 construction consisted of the main open, Spur 1 and Spur 2 ditches, totaling 2.2 miles in length and four field crossings. A summary of the field crossing locations and size is shown in Table 1.

Ditch	Station	Location	Size
Main	16+00	NE ¼ SE ¼ 5-112-21	9'-4" x 6'-3" CMP-A
Main	66+80	SE ¼ SE ¼ 5-112-21	84" CMP
Main	85+00	SW ¼ SW ¼ 4-112-21	84" CMP
Spur 2	2+00	SE ¼ SW ¼ 4-112-21	54" CMP

Table 1: CD 31 field crossing summary.

In 1971, a petition was filed to construct Lateral 1 which extends northerly from CD 31 and drains portions of Section 5, Webster Township, Rice County and Sections 31 and 32 New Market Township, Scott County. Spur 1 to CD 31 was improved and made part of the Lateral 1 to CD 31. Lateral 1 consists of 800 feet of open ditch and 5,700 feet of tile ranging in size from 8 inch to 14 inch. The total cost of construction was \$12,106.80 of which Rice County paid 50.8% and Scott County paid 49.2%. Lateral 1 was established under direction of a Joint Board of Commissioners and is considered a separate ditch system within the CD 31 watershed.

In 1988, the village of Webster requested installation of a field crossing on CD 31 in the E ½ E ½ SW ¼ Section 4, Webster Township. The culvert was installed to develop and improve a park area. The agreement stated the culvert was a private crossing that would be paid for, built and maintained by Webster.

A petition was filed in 2013, to establish Lateral 2 to CD 31 in the Village of Webster. Said construction consists of a clean out of the existing channel from CSAH No. 3 easterly, before terminating 205 feet upstream of 41st Street West.

The established outlet of CD 31 is into Porter Creek on the west line of the NW ¼ SW ¼ Section 5, Webster Township at County State Aid Highway No. 3.

Since the original construction of CD 31, there has been substantial development of private surface and subsurface drainage systems within the watershed. There have also been numerous repairs of CD 31 over the years.

FINDINGS

Maps of previous proceedings for CD 31 were reviewed and used to determine watershed divides and current drainage use of the system. Aerial photography, U.S. Geological Survey contour maps, Lidar and other technological advances provide more accurate location of watershed divides than methods used over 49 years ago. The original Rice County watershed was approximately 4,430 acres in size.

The CD 31 watershed is approximately 8,148 acres and is located in both Rice and Scott Counties. A summary of the watershed and subwatershed acres in each County is below in Table 2.

Ditch	Total	Rice County	Scott County
CD 31	8,148 acres	6,086 acres (74.7%)	2,062 acres (25.3%)
Lateral 1 (subwatershed)	1,690 acres	310 acres (18.3%)	1,380 acres (81.7%)

Table 2: CD 31 watershed summary.

RIGHT-OF-WAY REQUIRED

It appears adequate right-of-way was granted for the construction of CD 31 but records are unclear on the area and amount if any were paid for said right-of-way. We recommend construction right-of-way be purchased to facilitate any future repair and maintenance. Construction right-of-way should be acquired based on a width of 200 feet, 100 feet either side of centerline.

The right-of-way for the one-rod permanent grass strip adjacent to the top of the ditch bank is considered necessary. A list of tracts for which the one-rod grass strip and construction right-of-way is needed is listed in Exhibit B under the "RIGHT-OF-WAY REQUIRED". The list contains the description of each tract, the name of the recorded owner, and the area required for right-of-way.

Damages for acquisition of the one-rod grass strip should be shown separately in the Viewer's Report.

Approximate acreages of public roads and utilities traversing the watershed are listed in Exhibit B under the heading "ROAD AND UTILITY ACREAGE".

RECOMMENDATIONS

Landowners should realize that no construction is proposed and that benefits determined will be the basis for future repair and maintenance of County Ditch No. 31.

Hearings should be held to consider the Viewer's Report and watershed modifications shown on Exhibit A to this report. Subject to discussions during the hearings, the Ditch Authority should adopt the Engineer's Report and the Viewer's Report as accepted or amended during these proceedings.

ATTACHMENTS

Exhibit A: Title Sheet, Watershed Map.

REDETERMINATION OF BENEFITS AND DAMAGES
COUNTY DITCH NO. 31
RICE COUNTY, MN

RIGHT-OF-WAY REQUIRED

Owner	Location	Pin	Construction Right-of-way (ac)*	One-Rod Grass Strip (ac)
<u>County Ditch No. 31 - Main Open Ditch</u>				
Thomas Meinke	NW SW	5-112-21 0205325001	7.32	1.21
Thomas Meinke	NE SW	5-112-21 0205325001	6.57	1.08
Thomas Meinke	NW SE	5-112-21 0205325001	7.21	1.19
Betty Aabel	NE SE	5-112-21 0205400001	0.74	0.12
Bruce Meger	SW SE	5-112-21 0205450001	2.36	0.39
Betty Aabel	SE SE	5-112-21 0205400001	11.06	1.83
Ross Nelson	SW SW	4-112-21 0204325001	3.42	0.56
Sandra Fahrenkamp	SW SW	4-112-21 0204350001	3.42	0.56
Joann Meinke	SE SW	4-112-21 0204300002	3.07	0.51
Charles Holen	SE SW	4-112-21 0204375001	3.99	0.66
<u>County Ditch No. 31 - Spur 2</u>				
Charles Holen	SE SW	4-112-21 0204375001	1.82	0.30
Town of Webster	SE SW	4-112-21 0204300001	0.26	0.04

*Construction Right-of-way based on width of 200 feet, 100 feet either side of centerline.
Construction Right-of-way includes the area occupied by the ditch and the one-rod grass strip.

REDETERMINATION OF BENEFITS AND DAMAGES
COUNTY DITCH NO. 31
RICE COUNTY, MN

ROAD & UTILITY ACREAGE

Roadway	Acres
<u>Rice County</u>	
30th Street W	6.5
40th Street W	42.0
50th Street W	47.6
60th Street W	2.1
Dent Ave	18.2
Elmore Ave	20.5
Halstad Ave	7.3
 <u>Webster Township</u>	
35th Street W	1.3
37th Street W	4.0
38th Street W	0.8
41st Street W	1.5
44th Street W	2.0
45th Street W	3.5
50th Street W	4.3
Farwell Ave	9.6
Elmore Ave	2.6
Douglas Ave	5.1
Cass Circle	2.4
Dalton Ave	9.6
Canby Ave	7.9
Chester Ave	0.6
Cass Ave	2.6
Chester Court	1.8
Cass Court	1.2
Canton Court	1.1
Boulder Circle	0.3
Delano Ave	1.0
Dassel Ave	0.8
 <u>Wheatland Township</u>	
40th Street W	1.7
Glencoe Ave	2.5