



**BOLTON
& MENK**

Real People. Real Solutions.

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February 11, 2026

District Managers
High Island Creek Watershed District
2700 South Broadway
New Ulm, MN 56073

Re: Preliminary Engineer's Report
Judicial Ditch No. 11 Lateral H2 & H3 Improvements
High Island Creek Watershed District
Renville County, Minnesota
BMI Project No.: OS1.132013.000

Dear District Managers:

We are enclosing 6 copies of the Preliminary Engineer's Report for the proposed Judicial Ditch No. 11 Lateral H2 & H3 Improvements in Renville County. With the submission of this report, the project should be ready to move toward the Preliminary Hearing.

As you probably know, the DNR requires a 30-day review period for the report prior to the hearing. An electronic copy of the report has been submitted to the DNR Commissioner through their designated email address for submitting public drainage system documents.

In addition to the DNR, we should also notify the Renville County SWCD and NRCS offices as well as any other affected agencies or individuals for coordination and potential funding. Under a separate letter, we will send copies of the report to the SWCD and NRCS office. We are also including copies of the report for the ditch petitioners.

Please check with Rinke Noonan and myself prior to setting the hearing date to assure that there are no meeting conflicts. My understanding is that the hearing may be scheduled for March or April of 2026. As you know, published and mailed notice of the hearing to the landowners in the system is also required.

If you have any further questions regarding the project, please feel free to contact me.

Sincerely,

Bolton & Menk, Inc.

Shaun P. Luker, P.E.

SPL/jlj

Enclosure

cc: DNR Director, MN DNR; region4drainage.dnr@state.mn.us (Digital copy)
Dean Zimmerli, Gislason & Hunter; DZimmerli@gislason.com (Digital copy)
Kale Van Bruggen, Rinke-Noonan; KVanBruggen@rinkenoonan.com (Digital copy)
Seth Sparks, Renville County, Seth.Sparks@renvillecountymn.gov (Digital and Paper copy)
Bill Helget, Bolton & Menk, Inc. (Paper copy)
Petitioners: Carlson, Forst (Paper copy)

Preliminary Engineer's Report

Judicial Ditch No. 11
Lateral H2 & H3 Improvement
0S1.132013.000

High Island Creek Watershed District
Renville County, Minnesota
February 2026



Real People. Real Solutions.

Submitted by:

Bolton & Menk, Inc.
1243 Cedar Street NE
Sleepy Eye, MN 56085
P: 507-810-4184

Certification

Engineer's Report

For

Judicial Ditch No. 11 Lateral H2 & H3 Improvement

In

High Island Creek Watershed District
Renville County, Minnesota

OS1.132013.000
February 2026

PROFESSIONAL ENGINEER

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.

Signature: Shaun P. Luker

Typed or Printed Name: Shaun P. Luker

Date: 2/10/2026 License Number: 48756

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STATE OF MINNESOTA

RENVILLE COUNTY

IN THE MATTER OF THE PETITION FOR IMPROVEMENT OF JUDICIAL DITCH NO. 11 WITHIN HIGH ISLAND CREEK WATERSHED DISTRICT:

In June 2025, the High Island Creek Watershed District, acting as the Drainage Authority for Judicial Ditch No 15 Lateral H2 and H3 (JD 11 Lat H2 & H3) in Renville County, in accordance with Minnesota Statute 103E.215, accepted a petition for the Improvement of portions of JD 11 Lateral H2 and H3. Subsequent to that authorization, Final field surveys were performed to obtain elevations and establish an alignment for the proposed open ditch and culvert crossing improvements, as well as to evaluate the outlet for the system.

This Preliminary Engineer's Report summarizes the findings of the research, surveys, and analysis for the Improvement and is submitted for consideration by the Ditch Authority.

I. LOCATION AND SCOPE OF THE IMPROVEMENT

Judicial Ditch No 15 Lateral H2 & H3 lies within and provides drainage to a watershed on the eastern border of Renville County. The proposed project location lies within Section 36 of Martinsburg Township and Section 1 of Wellington Township. The system consists of 1.9 miles of drainage tile. The outlet for JD 11 Lateral H2 is JD 11 Lateral H in section 36 of Martinsburg Township in Renville County. The project is located about 6.5 miles south of Buffalo Lake, Minnesota. The total estimated watershed for the system based on Lidar contour data, is 399 acres. Exhibit 1 shows the general location of JD 11 and the proposed project.

Field survey information was collected by Bolton & Menk, Inc. in July of 2025. The survey included GPS locations and elevations for the outlet of the tile and for private and public intakes on the system. The tile system design utilizes Lidar data, provided by the Minnesota Department of Natural Resources. This data, obtained from an aerial flight, results in contours of equal elevation at 2' vertical intervals.

II. EXISTING DITCH SYSTEM

Public records regarding Judicial Ditch No 11 Lateral H2 & H3 were reviewed from Renville County and High Island Creek Watershed District.

High Island Creek Watershed District was established in 1957. Judicial Ditch 11 was included in the original establishment. Construction of JD 11 occurred prior to 1922. The original cost and actual cost information was not found.

The current benefits for the ditch system are \$61,883,123.96. Redetermination of benefits occurred in 2019.

III. CONDITION OF THE EXISTING DRAINAGE SYSTEM

The petitioners have requested the ditch improvements because of insufficient capacity and inadequate tile sizes to furnish sufficient capacity. The portion of the JD 11 system proposed to be improved consists of underground tiles. This Improvement will replace an existing tile system that currently has broken tile, quarter cracks, longitudinal cracks, offset joints, and sags. These broken tiles, cracks, and offset joints have allowed for roots and broken tile pieces to obstruct flow within the system.

Table 1 below shows the existing capacity for the JD 11 Tiles proposed to be improved. As a way of evaluating the capacity of the existing tile system, an analysis has been performed of the existing system using standard engineering methods. The capacity of the existing tile has been estimated using the Mannings equation, assuming the original hydraulic efficiency of the system as constructed and subsequently improved. Estimated tile sizes and grades are based on information recovered in the field through tile intakes, excavated tiles and general surface grades. The amount of drainage which is needed for modern crop production has been compared to the 3/8 of an inch of runoff per day standards that is recommended by High Island Creek Watershed District (HICWD). Watershed areas have been estimated based on DNR Lidar maps.

Table 1: Existing System Capacity						
JD 11 Tile	Location	Drainage Area (Acres)	Existing Tile Size (Inches)	Existing Grade (%)	Calculated Capacity (CFS) n=0.013	Calculated Coefficient (In. Per Day)
Lat H2	Station 84+50 to 70+00	94	8	0.06	0.30	0.08
	Station 70+00 to 55+00	141	10	0.06	0.54	0.09
	Station 55+00 to 44+90	162	12	0.15	1.38	0.20
	Station 44+90 to 13+00	361	14	0.13	1.94	0.13
	Station 13+00 to 0+00	399	15	0.13	2.34	0.14
Lat H3	Station 117+20 to 108+25	70	7	0.12	0.29	0.10
	Station 108+25 to 100+00	109	8	0.06	0.30	0.06

As can be seen from Table 1 above, the system is unable to drain the watershed even if it was in good repair. When compared to the HICWD recommended standard of 3/8" per day, the tile system is only delivering about 30% of the recommended flow, based on the tile sizes and grades. Therefore, there is inadequate capacity in the existing drainage system to provide for the efficient production of row crops. The result of this insufficient capacity is extended ponding in the low areas of the watershed and inadequate drainage of the tile lines which drain into the ditch system, thus resulting in crop stress and crop loss.

IV. DISCUSSION OF THE IMPROVEMENT

As discussed earlier, the petitioners for the improvement of JD 11 Lateral H2 have requested consideration for the construction of an improved tile system to increase the capacity to provide an adequate outlet. The proposed construction would consist of a drain tile reconstruction and improvement. A preliminary survey and the hydrologic and hydraulic analysis of such a drainage system was performed to establish preliminary grades and depths for the tile system. They were also used to determine quantities for construction of such a system, to determine the size of proposed tile lines, and analyze the outlet. General observations and results of the analysis are summarized as follows:

A. DESCRIPTION

As shown in Exhibit 1, the proposed Improvement consists of 12-inch to 24-inch diameter tile to replace the function of the existing JD 11 Lateral H2 tile from the outlet to the upper end. The township road crossings would be made by open trench methods, and the road surface restored with class 5 gravel. The County Road 8 crossings will be made by trenchless methods. The new tile will be constructed at a lower elevation than the existing tile in order to allow all existing tiles to be connected to the new tile to accommodate adequate drainage, to accommodate current farming practices and to provide more ground cover

over the new tile to reduce the probability of crushing.

B. DESIGN DATA – TILE IMPROVEMENT

The proposed drain tile Improvement is shown in Exhibit 1. The type of pipe to be used for construction will be bid with a contractor option as follows:

1. Dual Wall or Triple Wall Polypropylene Drain Tile meeting the requirements of the American Society for Testing Materials F2376. Pipe will be bedded in granular foundation rock.
2. Dual Wall Polyethylene Drain Tile meeting the requirements of the American Society for Testing Materials F 2648. Pipe will be bedded in granular foundation rock as shown on Exhibit 1. Non-perforated pipe will be used. The perforated pipe will include a drain tile sock or micro perforations/slots to avoid granular infiltration into the pipe. An option would be provided for the contractor to shape the bottom of the trench to conform to the pipe and eliminate some of the granular bedding if the pipe manufacturer would warrant the material installation.
3. Reinforced concrete pipe meeting the requirements of MnDOT Specification 2501, with the joints being covered with geotextile fabric or gasketed.

As can be seen in Table 2, the tile capacity for the Improvement System reflects a drainage coefficient of 0.375-inches/day. This is within the recommended drainage capacity from the High Island Creek Watershed District of 3/8-inches/day.

Table 2: Improvement System Capacity						
JD 11 Tile	Location	Drainage Area (Acres)	Tile Size (Inches)	Tile Grade (%)	Calculated Capacity (CFS) n=0.012	Calculated Coefficient (In. Per Day)
Lat H2	Station 84+50 to 65+00	103	15	0.10	2.22	0.51
	Station 65+00 to 44+90	148	15	0.11	2.33	0.37
	Station 44+90 to 12+00	366	24	0.07	6.50	0.42
	Station 12+00 to 0+00	399	24	0.07	6.50	0.39
Lat H3	Station 117+20 to 100+00	84	12	0.12	1.34	0.38

As can be seen from Table 2, portions of the tile exceed 0.375-inches/day due to minimum velocities required within the pipe. Ideally we would like to keep smaller diameter pipes (less than 24-inches) at or above 0.10% slope, and larger diameter pipes to have a minimum velocity in the pipe of 1.25-feet/second.

Also included, as part of the project, will be provisions to strip and replace the topsoil on the trench area, to provide rip rap as erosion protection at the outlet, and to construct several intakes on the system.

C. TILE SYSTEM DEPTH

Exhibit 1 shows profile views for the proposed tile system. The minimum and maximum depths of cut to the flow line of the pipes are shown on Table 4. For standard dual wall drain pipe the minimum bury depth is 4-feet and the maximum depth to the invert is approximately 20-feet. For any areas that are outside of that range we recommend the use of triple wall pipe or reinforced concrete pipe depending on current prices.

Table 3: Change in Outlet Capacity		
Tile Branch	Minimum Depth	Maximum Depth
Lat H2	4.6'	14.1'
Lat H3	6.8'	11.7'

V. ALTERNATE SOLUTIONS

A. "DO NOTHING ALTERNATIVE"

The "Do Nothing" Alternative has been discussed. However, the petitioners have experienced poor drainage throughout the drainage system for many years with the excess surface water damaging crops and resulting in frequent crop stress or crop loss. This loss of production equates to an economic loss for Renville County and the State of Minnesota. The loss results in a reduced property value for the wet acres, thus affecting the taxing capacity of the County and State. In addition, the ability of the landowners to receive a reasonable return on their investment is diminished because of this inadequate drainage.

For these reasons, the "Do Nothing" alternative has been dismissed. The economic question of the cost of the Improvement versus the benefits derived still needs to be evaluated. However, the "Do Nothing" alternative is not viewed as solving the drainage problem in the watershed.

B. REPAIR

Separable Maintenance for this project is estimated at \$510,484. A repair would only work as well as was discussed in Section III of this report. Repairing the system to as constructed system would not account for changing rainfall patterns or for additional waters being discharged into the system. Current design standards by High Island Creek Watershed District recommends a drainage coefficient of 3/8 inch/day. From Section III the current tile is approximately 30% efficient for a 3/8 inch/day coefficient. Therefore, we do not recommend a repair option when there are willing landowners for an improvement.

C. WETLAND RESTORATION

Another alternative would be to restore the typically flooded areas of the watershed to wetland use. This alternative would provide storage in the watershed depressional areas for the water that is currently accumulating in these areas and drowning out agricultural crops. The proposal would also have added benefits for wildlife and possibly water quality.

To be effective, this alternative would need to restore sufficient acres to wetland use so that the existing ditch system could convey the excess runoff. Utilizing NRCS data, about 47 acre-feet of water cannot be discharged from the JD 11 watershed through the existing drainage systems in a 48-hour period for a 5-year rain event. If sufficient wetland acres were available to store this runoff at an average depth of two feet, approximately 23.5 acres of wetland restoration would be needed to provide sufficient storage capacity for the excess runoff.

To convert the 23.5 acres to wetlands, at least twice this many acres would need to be acquired for irregular wetland shapes, marginal damp soils, and the ability to efficiently farm around the wetlands. Thus, about 47 acres of land would be needed. This acquisition would likely involve several properties, whose owners would voluntarily need to agree to the reversion. The estimated cost of acquisition plus seeding for wetland restoration would likely be about \$18,000 per acre, resulting in a total cost of about \$846,000. In addition to wetland restoration, the existing tile would still need to be repaired at an estimated cost of

\$510,484 for a total repair plus wetland restoration cost to \$1,356,484. Wetland restoration is about 2.1 times the estimated cost for the Improvement.

Wetland restoration remains a viable option for providing some improvement in the functioning of the drainage system. If sufficient acres of wetlands could be restored, particularly in the upper part of the watershed, it could reduce the need for as large of an outlet as is proposed. Finding willing landowners to participate in a restoration project and locating sufficient funding would be critical in order to make this option viable. Copies of this Report will be provided to the SWCD and NRCS so that early coordination can occur for potential funding and technical assistance toward this option.

D. IMPOUNDMENT

During the feasibility stage of the project one location was identified for storage. The proposed storage was a dry bottom pond in the southeast quarter of section 36 of Martinsburg Township. This option was eliminated due to additional storage and ponding no longer being desired at this location by the landowner.

Additional Water Quality and Storage features should be considered as a part of the Improvement Project. These could include but are not limited to additional WASCObS, Side Inlets, Dry Bottom Basins, Wet (Sediment) Bottom Basins, and Saturated Buffers. We will continue to work with Landowners and Renville County to identify potential locations. However, impoundments require willing landowners and areas that meet the requirements for that type of impoundment. Impoundments lead to improved water quality downstream, soil retention, and potential wildlife habitat.

VI. OTHER CONSIDERATIONS

A. PERMIT REQUIREMENTS

A permit from the Minnesota Pollution Control Agency for stormwater and erosion control for the project would be necessary. This permit requirement, which applies to any construction which disturbs more than one acre of land, requires that the contractor and owner secure a permit for the repair. The permit process will also require erosion control measures to be taken during construction. Typical erosion control measures include placing of riprap and grass stabilization of the ditch bank and inlet protection around installed inlet areas. The fee for this permit is currently \$400.00. This permit will be applied for shortly before construction is scheduled so the contractor can sign the permit application.

B. WETLANDS

National Wetland Inventory (NWI) Maps have been reviewed to locate potential wetlands subject to regulations. Wetlands are shown on the NWI maps near the Improvement alignment. If wetlands are identified all piping running directly through must be nonperforated. Along with this all intakes that are within the wetland can be reinstalled at the same nominal size. Currently there is no planned perforated tile within the Lateral H2 & H3 system.

Impacts of the potential drainage system on individual land parcels will be evaluated by the Natural Resources Conservation Service upon filing of a Form AD 1026 by landowners. This NRCS process will identify any wetlands and measures which need to be taken in order for the drainage project to avoid impact to these wetlands. Because of federal data privacy requirements, it is not possible for non-landowners to obtain this information. Thus, the obligation for filling out these forms and doing this investigation will rest with individual landowners.

Drainage of non-directly impacted wetlands will be controlled by supplemental drainage systems installed by private owners. Owners are advised that such supplemental drainage may not be permitted under State Wetland Conservation Act, US Army Corps of Engineers and NRCS rules and may affect US Department of Agriculture program eligibility.

C. PUBLIC AND PRIVATE BENEFITS AND COSTS

The estimated cost of the proposed Improvement to JD 11 Lateral H2 is shown in Exhibit 3 of this report. Benefits for the Improvement, both public and private, will be established by the viewers and a report will be available at the final hearing.

Landowners certainly have other costs associated with construction and maintenance of their individual drainage systems. The proposed Improvement would only serve as an outlet or collector of runoff and drainage flow from the lands within the watershed. Each landowner is responsible to construct and maintain their own drainage system in order to adequately drain their farmlands. Individual benefits for an adequate drainage system are in increased crop production from farmlands.

The estimated cost of the proposed Improvement is included in this report. The public and private benefits and damages will be available at the final hearing.

D. AGRICULTURAL EFFECTS

Once installed, the lands within the improved watershed will be largely dependent on this drainage system for both surface and subsurface drainage flows. Thus it is imperative that the proposed system have adequate capacity in order to allow for modern farming operations.

It should be noted that many of the established ditch systems in Minnesota are now 70 to 100 years old. These systems are approaching the need for complete repair or replacement if the farmland is to remain productive. When feasible, it is economically imperative that these drainage systems be improved to become compatible with present day farming techniques and they be continually maintained. If properly maintained during normal growing seasons, portions of the agricultural lands in the watershed are some of the most productive in the State of Minnesota.

E. ALTERNATIVE MEASURES

Alternative measures, including those identified in the Renville County Water Management Plan and the strategies in the High Island Creek Watershed District Water Management Plan, have been considered in conjunction with this project. Specific proposals as part of the project to incorporate these measures include:

1. Measures to conserve, allocate and use drainage waters include the use of non-perforated tiles for the deeper installations so that groundwater is preserved for crop use and the continued infiltration which will occur in depressional areas of the watershed.
2. Measures to reduce downstream peak flows and flooding include the use of hickenbottom risers on intakes which limit the flow capacity of tile intakes, limiting the capacity of the proposed tiles to the minimum recommended standard of the High Island Creek Watershed District to limit downstream flows, and construction of the proposed water and sediment control basin.
3. Measures to provide adequate drainage system capacity are being accomplished by designing the size of the tile system to meet the recommended standards of the High Island Creek Watershed District.

4. Measures to reduce erosion and sedimentation include the use of hickenbottom risers on the tile intakes which result in reduced discharge of suspended solids, the restoration of the tile trench as soon as possible so that surface erosion of the disturbed soil is reduced, the use of inlet protection during the construction so that the discharge of suspended solids is reduced and the use of a rock filter at the outlet during construction so that suspended solids are captured. Straw mulch will also be utilized to temporarily stabilize the disturbed areas until they can be turned back over to agricultural production.

F. FISH AND WILDLIFE

The threatened or endangered species having the potential to be in Renville County at the time of this report are the northern long-eared bat, and the prairie bush clover. According to the Minnesota DNR, there are no known northern long-eared bat roost trees or hibernacula in Renville County. Additionally, there are no trees to be removed as a part of the improvement, so there is no anticipated impact to the northern long-eared bat. The prairie bush clover is found within native prairie on well drained soils. The project will take place within agricultural fields, so no impact to the prairie bush clover is anticipated. Bald eagles are present in Renville County, and are protected under the Bald and Golden Eagle Protection Act. Again, there are no trees to be removed as a part of the improvement, so there is no impact to the bald eagle.

Field investigation has revealed that the only permanent wildlife habitat in the area of the Improvement is along the road ditches and building sites. These areas will not be impacted by the improvement.

Current wet areas within the project watershed do provide for transitory stop over locations for migratory waterfowl. However, these areas currently dry up following wet periods and are then under cultivation and production. It is anticipated that some of these temporary ponding areas will still exist after the construction of the Improvement although ponding times will likely be reduced. Therefore, the provisions for adequate drainage of these lands will not be of a detrimental nature to local wildlife resources.

G. GROUNDWATER

The purpose of an agricultural drainage system is to maintain the elevation of the shallow groundwater table sufficiently below the surface to provide for efficient production of crops. The level at which the groundwater will be maintained has been and will be determined by the depth of the tile system and private tiles in the area. Although the proposed Improvement is somewhat deeper than the existing tiles in the areas, the depth increase is not significant or unusual for drainage systems. Additionally, tiles that have a depth of 6 feet or greater to the invert of the pipe will be non-perforated. Therefore, no change in the availability, distribution or use of the shallow groundwater beyond that necessary for the sufficient production of crops within the watershed is anticipated by this construction.

H. ENVIRONMENTAL IMPACT

The adverse effects of the proposed Improvement are of a temporary nature and are listed as follows:

1. Disturbing the ground surface during construction could result in the loss of one crop within the construction limits.
2. The restored trench area will be less productive for the first few years following construction and will require more fertilizer to be as productive as the undisturbed

adjoining farmland. The topsoil in this area will be removed and replaced in an effort to maintain the soil productivity.

3. Temporary noise and dust generation can be expected from the construction operations. These impacts are not viewed as significant since there are few residences near the proposed construction route.
4. Temporary erosion of soil may occur in the construction area until permanent ground cover and ground stabilization occurs. Although these effects need to be considered, they are probably not significantly different than the current topsoil loss that occurs annually from erosion of topsoil due to overland flow in the watershed. This construction erosion will be minimized using inlet protection, riprap and rapid establishment of permanent grass cover.

Numerous beneficial effects are anticipated from the proposed Improvement. Most of these benefits are directly attributable to increased crop production from lands presently damaged through period flooding and ponding. Among the most obvious benefits are:

1. Increased personal farm income.
2. Increased value of benefited farmland.
3. Contribution to the local economy through additional purchases, farm modernization and expansion.

I. LAND USE

The present use of the land in the JD 11 watershed is largely agricultural. It is expected that the land will continue to be used for agricultural purposes in the future.

J. GUIDANCE TO VIEWERS REGARDING IMPROVEMENT BENEFITS

Discussions with the landowners in the JD 11 Lateral H2 system has provided evidence of the condition of the existing tile systems. Previous repairs on the tile have shown that the existing tile is badly deteriorated. In addition, years of use and settlement of sections of the tile have reduced the hydraulic capacity of the tile. Even if JD 11 Lateral H2 had not been petitioned for improvement, a repair is warranted.

Another way to describe this is related to the benefit of avoiding inevitable repair/reconstruction costs on the ditch. Since repair of the system, as required by Minnesota Statue 103E.705, would otherwise be paid for by the entire drainage system in order to restore the system to its as constructed, and subsequently improved, hydraulic efficiency, the cost of repair may be used to offset a portion of the improvement cost. Thus, the cost of the new tiles may be added as benefit since it avoids costs otherwise required to repair the system. With this information, it is the intent of the Improvement to replace the existing tile. Thus, a portion of the cost of the new JD 11 Lateral H2 tiles should be allocated as a Repair cost. The application of this principle is known as Separable Benefits under the ditch statutes.

The amount of the Improvement which can be allocated to Separable Benefits is shown in Exhibit 3 as \$510,484. It is recommended that the Board apply these Separable Benefits to the Improvement in the further ditch proceedings.

VII. ADEQUACY OF THE OUTLET

A. GENERAL INFORMATION

As mentioned earlier, the outlet for Lateral H2 is into the open ditch of JD 11 Lateral H in Section 36 of Martinsburg Township. Lateral H2 then becomes JD 11 main open ditch in section 20 of Grafton Township in Sibley County.

B. ADEQUACY OF THE OUTLET

The adequacy of the unnamed stream to accept the additional flow resulting from the Improvement has been evaluated as required by the ditch statutes. This evaluation has been performed in the following manner:

1. The watershed contributing flow to the open ditch of JD 11 at the outlet for JD 11 Lateral H2 has been delineated using the US Geological Survey "StreamStats" program and 3-meter Lidar information retrieved from the DNR. The StreamStats program has been used to generate peak flow rates for 5 to 100-year storm events.
 - a) This information was then used in combination with Mannings Equation to calculate the tailwater conditions of JD 11 Lateral H open ditch.
2. The proposed and existing conditions were modeled in HydroCAD. It is worth noting that HydroCAD often overestimates the discharge rates compared to other models and calculation methods. Using the information calculated above the HydroCAD model was restricted and not in a free flow condition.
3. Rainfall data was retrieved from NOAA Atlas 14 by using Buffalo Lake, Minnesota as the data center point.

The change in outlet discharge can be seen in the table below.

Storm Event	Existing Discharge Rate (cfs)	Proposed Discharge Rate (cfs)	Change in Discharge Rate (cfs)
5-year	4	9	+5
10-year	4	10	+6
25-year	7	10	+3
50-year	11	19	+8
100-year	21	28	+7

As can be seen from Table 5, the construction of the new lateral will increase flows to the JD 11 Lateral H because of the larger pipe outlet. The increase in flow is not significant for the 5-year to the 100-year events when compared to the downstream watershed as a whole. Therefore, it is our opinion that the outlet is adequate.

VIII. ESTIMATE OF COST

The Improvement cost estimate to construct the proposed Improvement, as described in this report, is shown in Exhibit 2. The total estimated cost for the Improvement is \$631,344. That price includes the cost of administration and engineering fees.

Included in the estimate are the approximate 19 acres of agricultural land which will be temporarily taken out of production by construction. The individual landowners will be compensated for this loss through the damage process of further ditch proceedings.

IX. RECOMMENDATIONS

The proposed Improvement of JD 11 in Renville County, as described in this report, is feasible, practical and necessary to provide drainage for the cultivation of crops within the watershed area. The existing tile system is in need of an Improvement to provide proper drainage for current agricultural practices.

It is our recommendation to proceed with the Improvement as outlined in this report and that the Engineer's Preliminary Engineer's Report be approved, the Final Engineer's Report be issued, and the viewers be appointed for the redetermination of benefits.

Exhibit 1: Preliminary Plans and Profiles

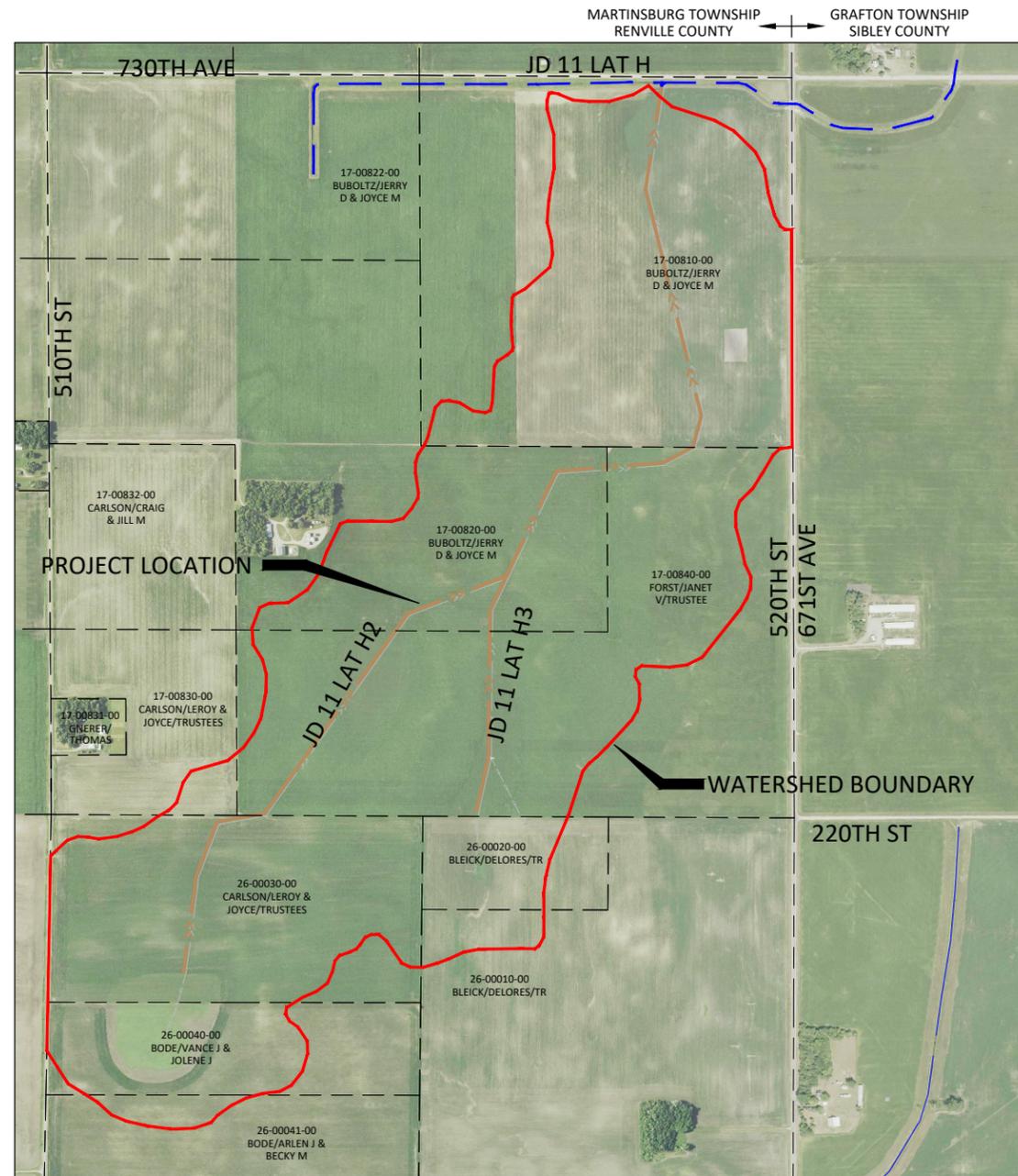
HIGH ISLAND CREEK WATERSHED DISTRICT RENVILLE COUNTY, MINNESOTA

PRELIMINARY PLANS FOR

JUDICIAL DITCH NO. 11 LATERAL H2 & H3 IMPROVEMENTS

DRAIN TILE, SURFACE INTAKES, GRADING, AND TURF ESTABLISHMENT

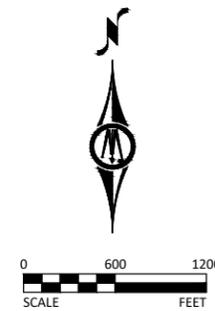
AUGUST, 2025



SHEET NUMBER	SHEET TITLE
GENERAL	
G0.01 - G0.02	TITLE SHEET, LEGEND
CIVIL	
C1.01	DETAILS, TYPICAL SECTIONS
C2.05 - C2.06	EROSION CONTROL PLAN, SWPPP
C5.01 - C5.03	LATERAL H2 DRAIN TILE PLAN & PROFILE
C5.03	LATERAL H3 DRAIN TILE PLAN & PROFILE

THIS PLAN SET CONTAINS SHEETS.

PARTIAL MAP OF
RENVILLE COUNTY, MN



NOTE: EXISTING UTILITY INFORMATION SHOWN ON THIS PLAN HAS BEEN PROVIDED BY THE UTILITY OWNER. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS PRIOR TO COMMENCING CONSTRUCTION AS REQUIRED BY STATE LAW. NOTIFY GOPHER STATE ONE CALL, 1-800-252-1166 OR 651-454-0002.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL "D". THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-22, ENTITLED "STANDARD GUIDELINES FOR INVESTIGATING AND DOCUMENTING EXISTING UTILITIES."

PROJECT DATUM: RENVILLE CO COORDINATES	RECORD DRAWING INFORMATION
HORIZONTAL: RENVILLE CO - NAD83 (2011)	OBSERVER:
VERTICAL: NAVD88	CONTRACTOR:
	DATE:

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PRELIMINARY NOT FOR CONSTRUCTION
SHEET NO. 48756 DATE MM/DD/YYYY



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DRAWN			
JGB			
CHECKED			
SPL			
CLIENT PROJ. NO.			
051.132013.000			

HIGH ISLAND CREEK WATERSHED DISTRICT, MINNESOTA
JUDICIAL DITCH NO. 11 LATERAL H2 & H3 IMPROVEMENTS
TITLE SHEET

SHEET
G0.01

EXISTING TOPOGRAPHIC SYMBOLS

	ACCESS GRATE		REGULATION STATION GAS
	AIR CONDITION UNIT		SATELLITE DISH
	ANTENNA		SIGN TRAFFIC
	AUTO SPRINKLER CONNECTION		SIGNAL CONTROL CABINET
	BARRICADE PERMANENT		SOIL BORING
	BASKETBALL POST		SIREN
	BENCH		TELEPHONE BOOTH
	BIRD FEEDER		TILE INLET
	BOLLARD		TILE OUTLET
	BUSH		TILE RISER
	CATCH BASIN RECTANGULAR CASTING		TRANSFORMER-ELECTRIC
	CATCH BASIN CIRCULAR CASTING		TREE-CONIFEROUS
	CURB STOP		TREE-DEAD
	CLEAN OUT		TREE-DECIDUOUS
	CULVERT END		TREE STUMP
	DRINKING FOUNTAIN		TRAFFIC ARM BARRIER
	DOWN SPOUT		TRAFFIC SIGNAL
	ELECTRIC CAR CHARGE STATION		TRASH CAN
	FILL PIPE		UTILITY MARKER
	FIRE HYDRANT		VALVE
	FLAG POLE		VALVE POST INDICATOR
	FLARED END / APRON		VALVE VAULT
	FUEL PUMP		VAULT
	GRILL		VENT PIPE
	GUY WIRE ANCHOR		WATER SPIGOT
	HANDHOLE		WELL
	HANDICAP SPACE		WETLAND DELINEATED MARKER
	IRRIGATION SPRINKLER HEAD		WETLAND
	IRRIGATION VALVE BOX		WET WELL
	LIFT STATION CONTROL PANEL		YARD HYDRANT
	LIFT STATION		
	LIGHT POLE		
	MAILBOX		
	MANHOLE-COMMUNICATION		
	MANHOLE-ELECTRIC		
	MANHOLE-GAS		
	MANHOLE-HEAT		
	MANHOLE-RECLAIMED WATER		
	MANHOLE-SANITARY SEWER		
	MANHOLE-STORM SEWER		
	MANHOLE-UTILITY		
	MANHOLE-WATER		
	METER		
	DRIVE-THRU MICROPHONE		
	PARKING METER		
	PAVEMENT MARKING		
	PEDESTAL-COMMUNICATION		
	PEDESTAL-ELECTRIC		
	PEDESTRIAN PUSH BUTTON		
	PICNIC TABLE		
	POLE-UTILITY		
	POST		
	RAILROAD SIGNAL POLE		

PROPOSED TOPOGRAPHIC SYMBOLS

	CLEANOUT
	MANHOLE
	LIFT STATION
	STORM SEWER CIRCULAR CASTING
	STORM SEWER RECTANGULAR CASTING
	STORM SEWER FLARED END / APRON
	STORM SEWER OUTLET STRUCTURE
	STORM SEWER OVERFLOW STRUCTURE
	CURB BOX
	FIRE HYDRANT
	WATER VALVE
	WATER REDUCER
	WATER BEND
	WATER TEE
	WATER CROSS
	WATER SLEEVE
	WATER CAP / PLUG
	RIP RAP
	DRAINAGE FLOW
	TRAFFIC SIGNS

SURVEY SYMBOLS

	BENCHMARK LOCATION		CAST IRON MONUMENT
	CONTROL POINT		STONE MONUMENT
	MONUMENT FOUND		

EXISTING TOPOGRAPHIC LINES

	RETAINING WALL
	FENCE
	FENCE-DECORATIVE
	GUARD RAIL
	TREE LINE
	BUSH LINE

SURVEY LINES

	CONTROLLED ACCESS
	BOUNDARY
	CENTERLINE
	EXISTING EASEMENT LINE
	PROPOSED EASEMENT LINE
	EXISTING LOT LINE
	PROPOSED LOT LINE
	EXISTING RIGHT-OF-WAY
	PROPOSED RIGHT-OF-WAY
	SETBACK LINE
	SECTION LINE
	QUARTER LINE
	SIXTEENTH LINE
	TEMPORARY EASEMENT

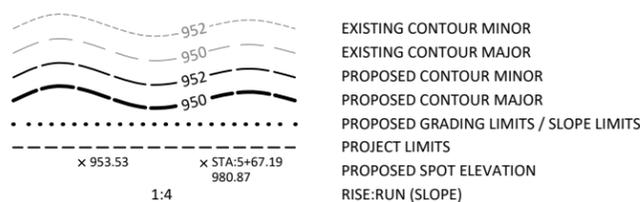
EXISTING UTILITY LINES

	FORCEMAIN
	SANITARY SEWER
	SANITARY SERVICE
	STORM SEWER
	STORM SEWER DRAIN TILE
	WATERMAIN
	WATER SERVICE
	RECLAIMED WATER

PROPOSED UTILITY LINES

	FORCEMAIN
	SANITARY SEWER
	SANITARY SERVICE
	STORM SEWER
	STORM SEWER DRAIN TILE
	WATERMAIN
	WATER SERVICE
	PIPE CASING
	TRENCHLESS PIPE (PLAN VIEW)
	TRENCHLESS PIPE (PROFILE VIEW)

GRADING INFORMATION



HATCH PATTERNS

	BITUMINOUS		GRAVEL
	CONCRETE		

EXISTING PRIVATE UTILITY LINES

NOTE:
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THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D UNLESS OTHERWISE NOTED. THIS UTILITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-22, ENTITLED "STANDARD GUIDELINE FOR INVESTIGATING AND DOCUMENTING EXISTING UTILITIES".

	UNDERGROUND FIBER OPTIC
	UNDERGROUND ELECTRIC
	UNDERGROUND GAS
	UNDERGROUND COMMUNICATION
	OVERHEAD ELECTRIC
	OVERHEAD COMMUNICATION
	OVERHEAD UTILITY

UTILITIES IDENTIFIED WITH A QUALITY LEVEL :

LINE TYPES FOLLOW THE FORMAT: UTILITY TYPE - QUALITY LEVEL
EXAMPLE: G-A G-A UNDERGROUND GAS, QUALITY LEVEL A
UTILITY QUALITY LEVEL (A,B,C,D) DEFINITIONS CAN BE FOUND IN CI/ASCE 38-22.

UTILITY QUALITY LEVELS:

QUALITY LEVEL D: PROVIDES THE MOST BASIC LEVEL OF INFORMATION. IT INVOLVES COLLECTING DATA FROM EXISTING UTILITY RECORDS. RECORDS MAY INCLUDE AS-BUILT DRAWINGS, DISTRIBUTION AND SERVICES MAPS, EXISTING GEOGRAPHIC INFORMATION SYSTEM DATABASES, CONSTRUCTION PLANS, ETC.

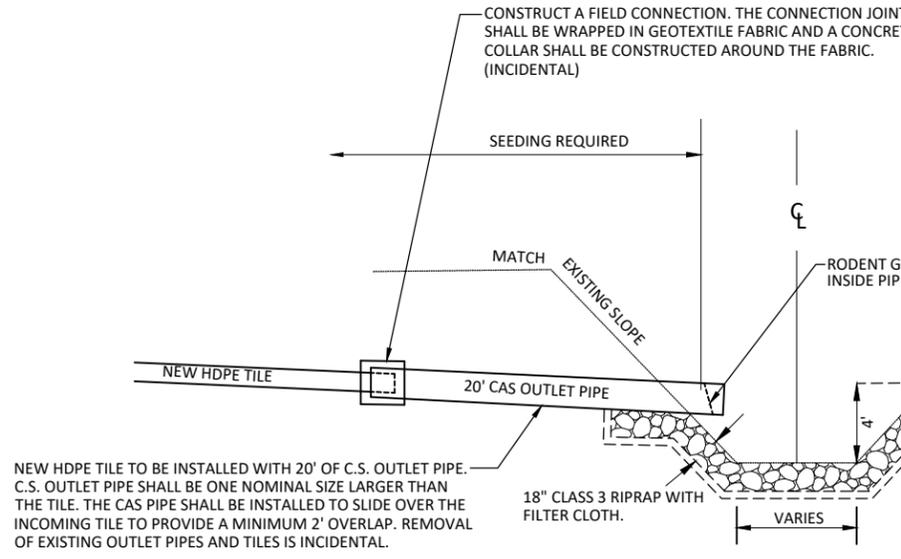
QUALITY LEVEL C: INVOLVES SURVEYING VISIBLE SUBSURFACE UTILITY STRUCTURES SUCH AS MANHOLES, HAND-HOLES, UTILITY VALVES AND METERS, FIRE HYDRANTS, PEDESTALS AND UTILITY MARKERS, AND THEN CORRELATING THE INFORMATION WITH EXISTING UTILITY RECORDS TO CREATE COMPOSITE DRAWINGS. INCLUDES QUALITY LEVEL D ACTIVITIES.

QUALITY LEVEL B: INVOLVES DESIGNATING THE HORIZONTAL POSITION OF SUBSURFACE UTILITIES THROUGH SURFACE DETECTION METHODS AND COLLECTING THE INFORMATION THROUGH A SURVEY METHOD. INCLUDES QUALITY LEVEL C AND D TASKS.

QUALITY LEVEL A: PROVIDES THE HIGHEST LEVEL OF ACCURACY. IT INVOLVES LOCATING OR POTHOLING UTILITIES AS WELL AS ACTIVITIES IN QUALITY LEVELS B, C, AND D. THE LOCATED FACILITY INFORMATION IS SURVEYED AND MAPPED AND THE DATA PROVIDES PRECISE PLAN AND PROFILE INFORMATION.

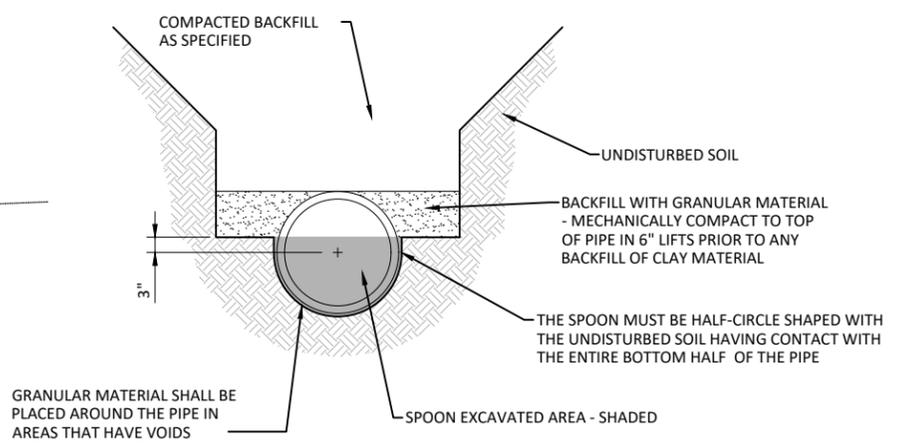
ABBREVIATIONS

A	ALGEBRAIC DIFFERENCE	GRAV	GRAVEL	RSC	RIGID STEEL CONDUIT
ADJ	ADJUST	GU	GUTTER	RT	RIGHT
ALT	ALTERNATE	GV	GATE VALVE	SAN	SANITARY SEWER
B-B	BACK TO BACK	HDPE	HIGH DENSITY POLYETHYLENE	SCH	SCHEDULE
BIT	BITUMINOUS	HH	HANDHOLE	SERV	SERVICE
BLDG	BUILDING	HP	HIGH POINT	SHLD	SHOULDER
BMP	BEST MANAGEMENT PRACTICE	HWL	HIGH WATER LEVEL	STA	STATION
BR	BEGIN RADIUS	HYD	HYDRANT	STD	STANDARD
BV	BUTTERFLY VALVE	I	INVERT	STM	STORM SEWER
CB	CATCH BASIN	K	CURVE COEFFICIENT	TC	TOP OF CURB
C&G	CURB AND GUTTER	L	LENGTH	TE	TEMPORARY EASEMENT
CIP	CAST IRON PIPE	LO	LOWEST OPENING	TEMP	TEMPORARY
CIPP	CURED-IN-PLACE PIPE	LP	LOW POINT	TNH	TOP NUT HYDRANT
CL	CENTER LINE	LT	LEFT	TP	TOP OF PIPE
CL	CLASS	MAX	MAXIMUM	TYP	TYPICAL
CLVT	CULVERT	MH	MANHOLE	VCP	VITRIFIED CLAY PIPE
CMP	CORRUGATED METAL PIPE	MIN	MINIMUM	VERT	VERTICAL
C.O.	CHANGE ORDER	MR	MID RADIUS	VPC	VERTICAL POINT OF CURVE
COMM	COMMUNICATION	NIC	NOT IN CONTRACT	VPI	VERTICAL POINT OF INTERSECTION
CON	CONCRETE	NMC	NON-METALLIC CONDUIT	VPT	VERTICAL POINT OF TANGENT
CSP	CORRUGATED STEEL PIPE	NTS	NOT TO SCALE	WM	WATERMAIN
DIA	DIAMETER	NWL	NORMAL WATER LEVEL		
DIP	DUCTILE IRON PIPE	OHW	ORDINARY HIGH WATER LEVEL		
DWY	DRIVEWAY	PC	POINT OF CURVE	AC	ACRES
E	EXTERNAL CURVE DISTANCE	PCC	POINT OF COMPOUND CURVE	CF	CUBIC FEET
ELEC	ELECTRIC	PE	PERMANENT EASEMENT	CV	COMPACTED VOLUME
ELEV	ELEVATION	PED	PEDESTRIAN, PEDESTAL	CY	CUBIC YARD
EOF	EMERGENCY OVERFLOW	PERF	PERFORATED PIPE	EA	EACH
ER	END RADIUS	PERM	PERMANENT	EV	EXCAVATED VOLUME
ESMT	EASEMENT	PI	POINT OF INTERSECTION	LB	POUND
EX	EXISTING	PL	PROPERTY LINE	LF	LINEAR FEET
FES	FLARED END SECTION	PRC	POINT OF REVERSE CURVE	LS	LUMP SUM
F-F	FACE TO FACE	PT	POINT OF TANGENT	LV	LOOSE VOLUME
FF	FINISHED FLOOR	PVC	POLYVINYL CHLORIDE PIPE	SF	SQUARE FEET
F&I	FURNISH AND INSTALL	PVMT	PAVEMENT	SV	STOCKPILE VOLUME
FM	FORCEMAIN	R	RADIUS	SY	SQUARE YARD
FO	FIBER OPTIC	R/W	RIGHT-OF-WAY		
F.O.	FIELD ORDER	RCP	REINFORCED CONCRETE PIPE		
GRAN	GRANULAR	RET	RETAINING		



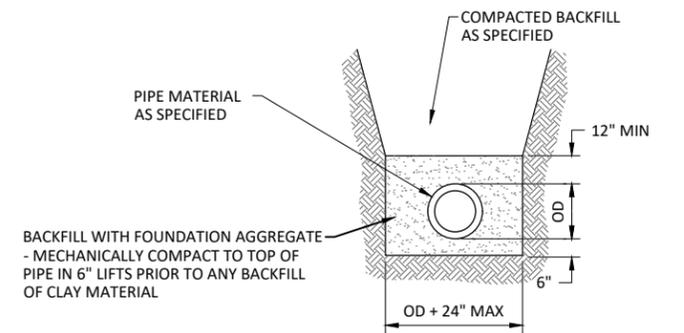
NEW HDPE TILE TO BE INSTALLED WITH 20' OF C.S. OUTLET PIPE. C.S. OUTLET PIPE SHALL BE ONE NOMINAL SIZE LARGER THAN THE TILE. THE CAS PIPE SHALL BE INSTALLED TO SLIDE OVER THE INCOMING TILE TO PROVIDE A MINIMUM 2' OVERLAP. REMOVAL OF EXISTING OUTLET PIPES AND TILES IS INCIDENTAL.

TYPICAL SECTION AT OPEN DITCH FOR HDPE TILE
NOT TO SCALE



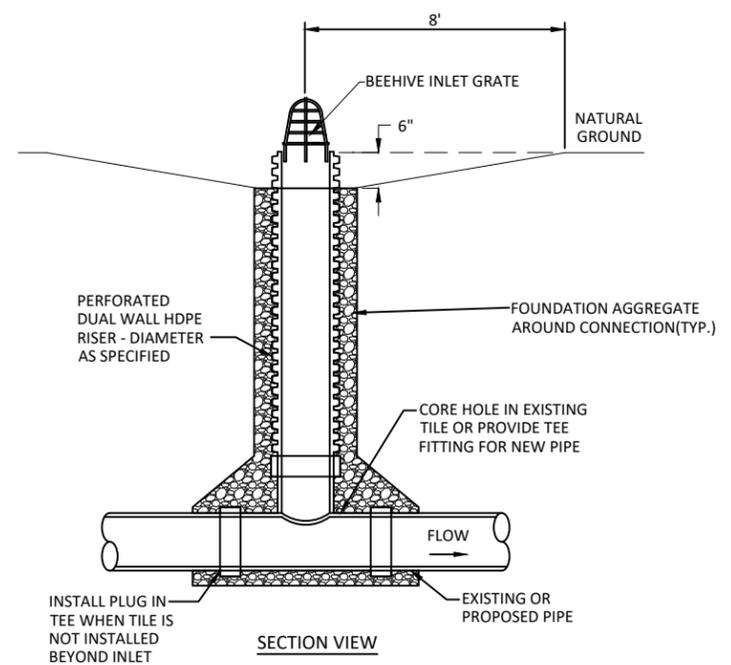
GRANULAR MATERIAL SHALL BE PLACED AROUND THE PIPE IN AREAS THAT HAVE VOIDS

HDPE "SPOON" TRENCH BEDDING DETAIL
NOT TO SCALE



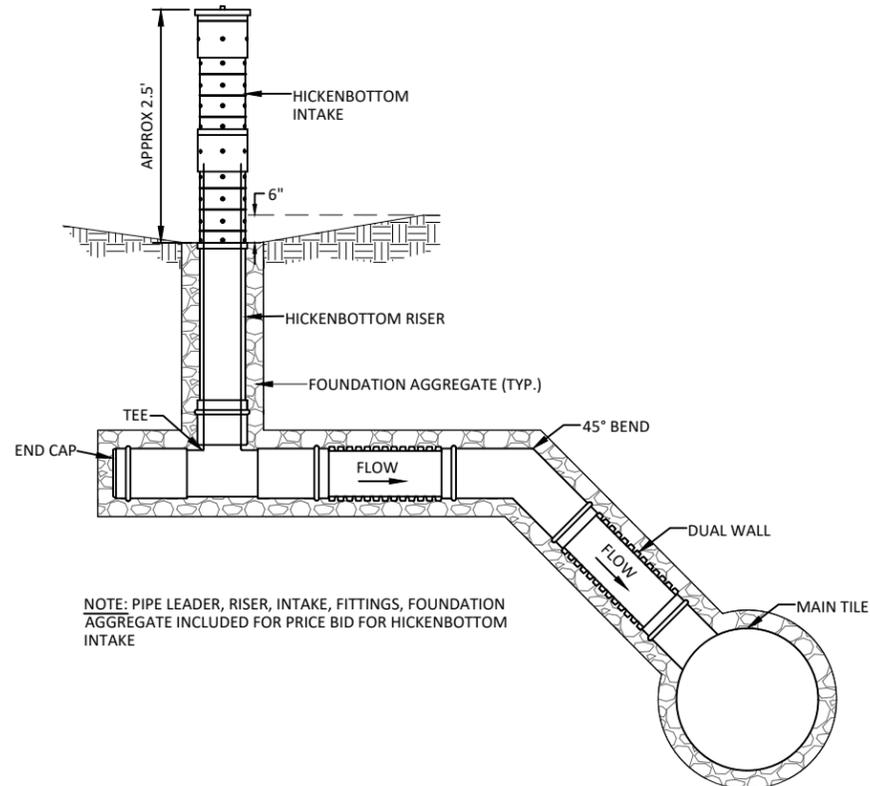
BACKFILL WITH FOUNDATION AGGREGATE - MECHANICALLY COMPACT TO TOP OF PIPE IN 6" LIFTS PRIOR TO ANY BACKFILL OF CLAY MATERIAL

HDPE RECTANGULAR TRENCH BEDDING DETAIL
NOT TO SCALE



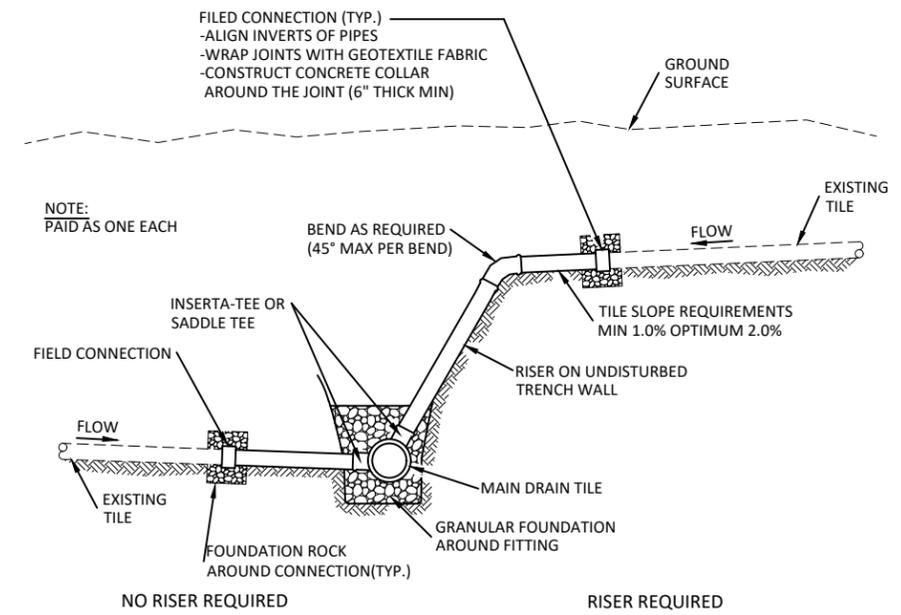
INSTALL PLUG IN TEE WHEN TILE IS NOT INSTALLED BEYOND INLET

FIELD INTAKE - IN FIELDS
NOT TO SCALE



NOTE: PIPE LEADER, RISER, INTAKE, FITTINGS, FOUNDATION AGGREGATE INCLUDED FOR PRICE BID FOR HICKENBOTTOM INTAKE

HICKENBOTTOM INTAKE - IN ROADSIDE DITCHES
NOT TO SCALE



NOTE: PAID AS ONE EACH

DRAIN TILE CONNECTION
NOT TO SCALE

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SHEET NO. 48756 DATE MM/DD/YYYY



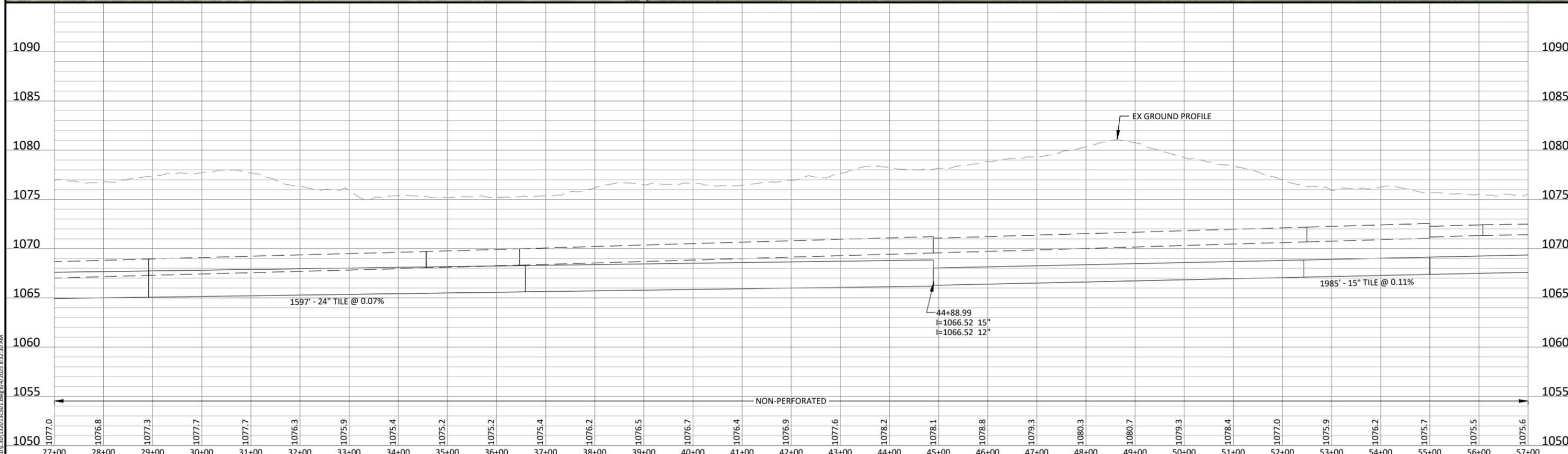
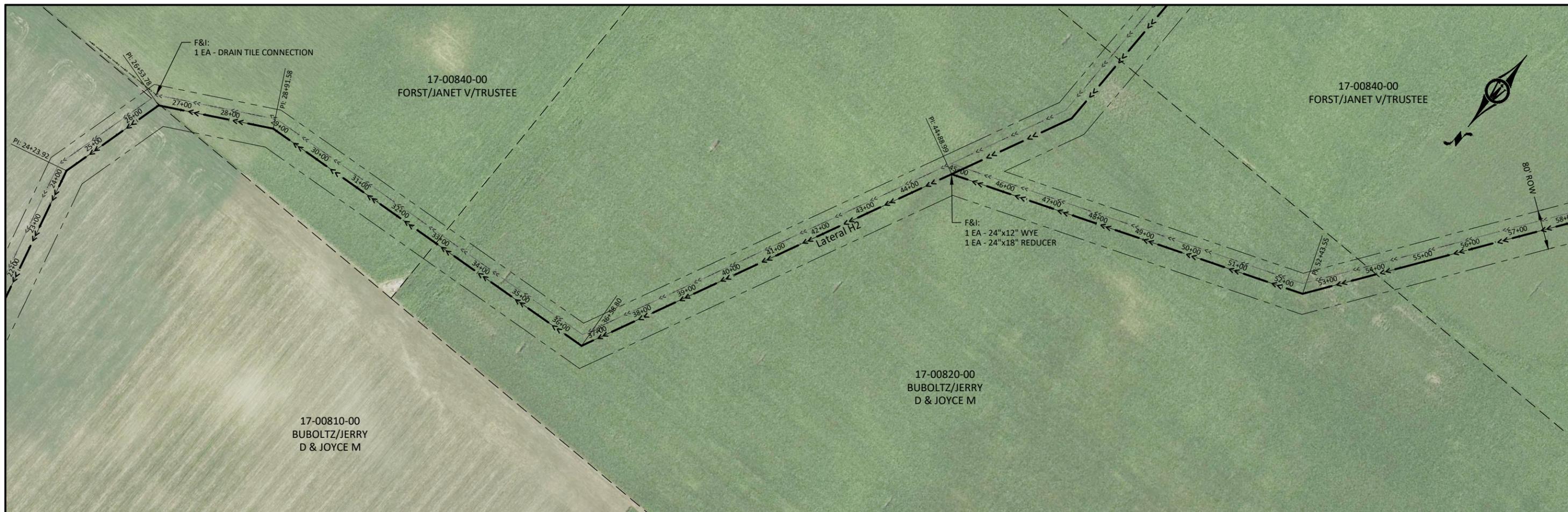
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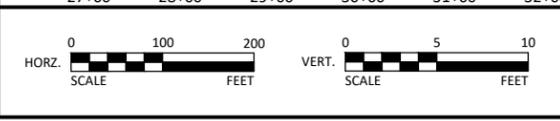
HIGH ISLAND CREEK WATERSHED DISTRICT, MINNESOTA
JUDICIAL DITCH NO. 11 LATERAL H2 & H3 IMPROVEMENTS

DETAILS

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 NUMBER ARE SHOWN ON THIS PLAN.
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 SHAWN P. LUKER
 LIC. NO. 48756 DATE MM/DD/YYYY

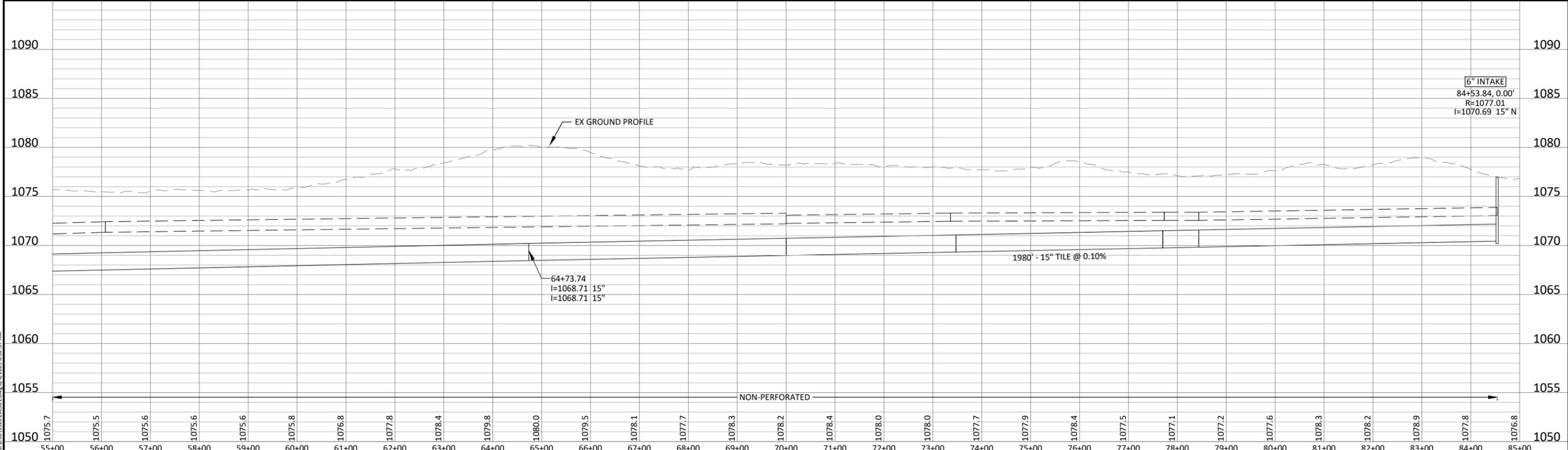
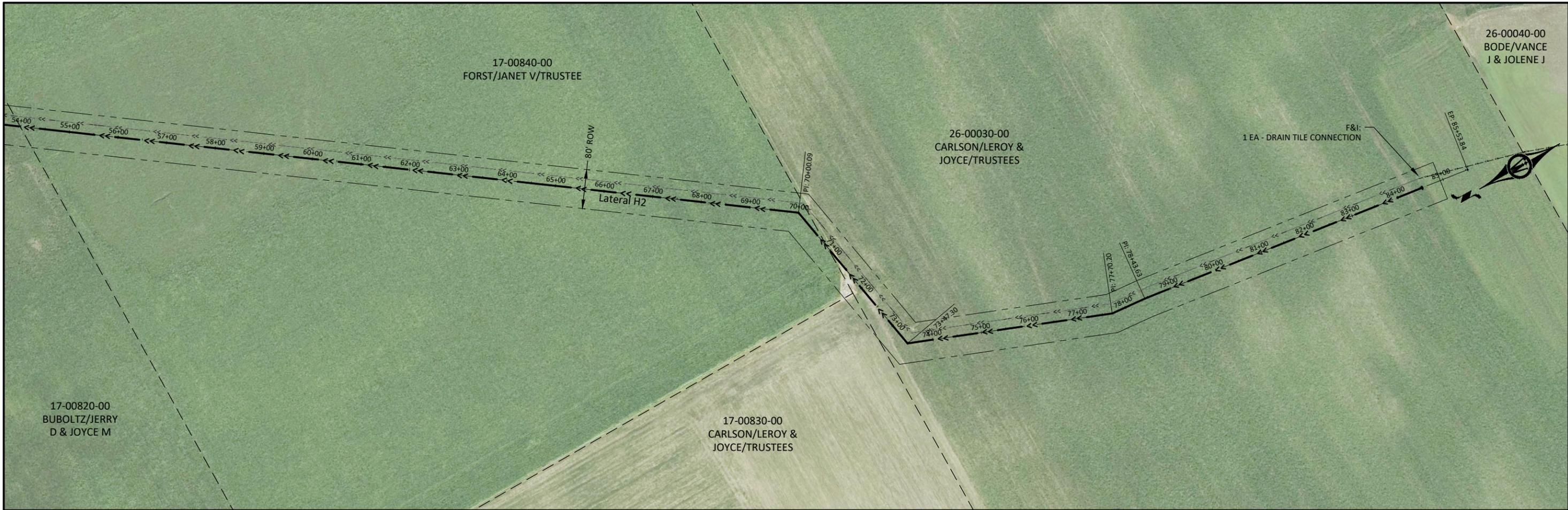


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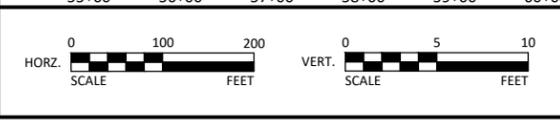
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CLIENT PROJ. NO.	051.132013.000		

HIGH ISLAND CREEK WATERSHED DISTRICT, MINNESOTA
 JUDICIAL DITCH NO. 11 LATERAL H2 & H3 IMPROVEMENTS
DRAIN TILE PLAN - LATERAL H2
 STA 27+00 TO STA 57+00

SHEET
C5.02



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 SHAWN P. LUKE
 LIC. NO. 48756 DATE MM/DD/YYYY

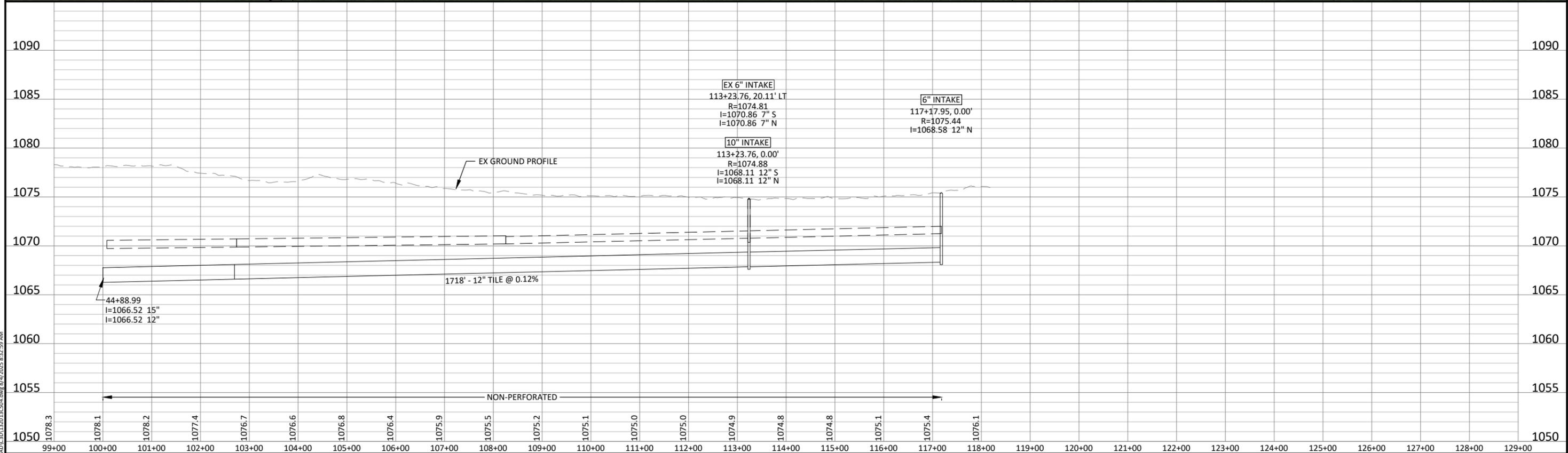
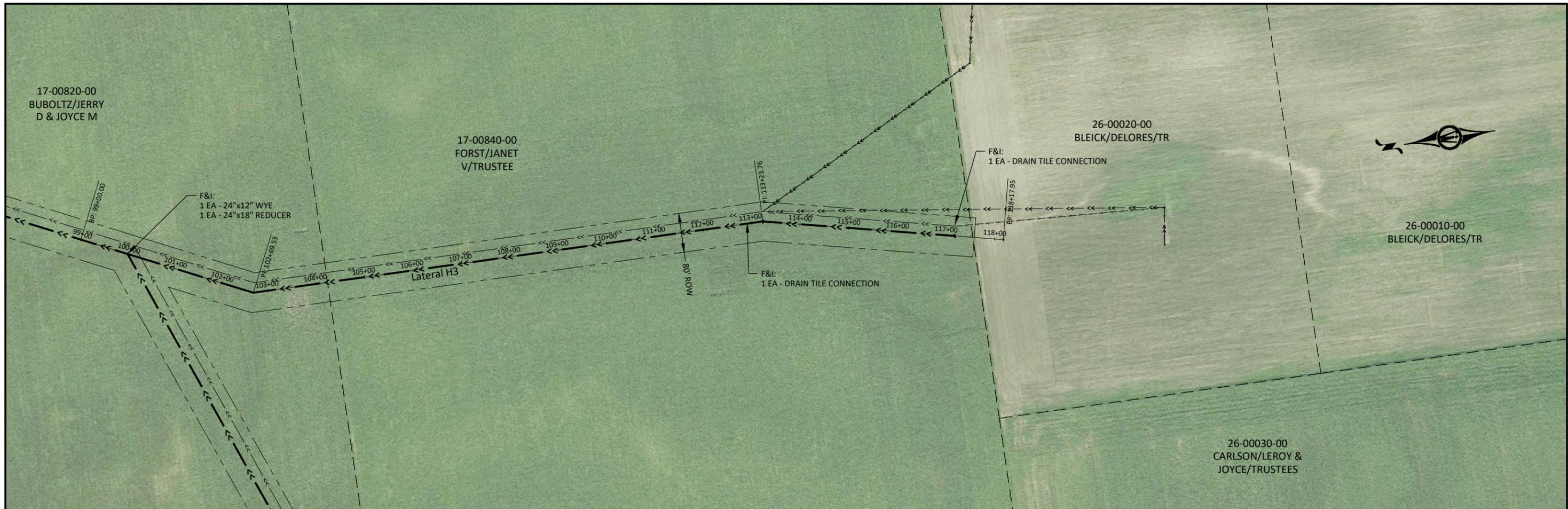


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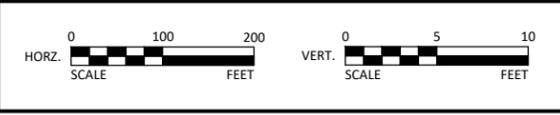
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HIGH ISLAND CREEK WATERSHED DISTRICT, MINNESOTA
 JUDICIAL DITCH NO. 11 LATERAL H2 & H3 IMPROVEMENTS
DRAIN TILE PLAN - LATERAL H2
 STA 55+00 TO STA 85+00

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SHAWN P. LUKE
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HIGH ISLAND CREEK WATERSHED DISTRICT, MINNESOTA
JUDICIAL DITCH NO. 11 LATERAL H2 & H3 IMPROVEMENTS
DRAIN TILE PLAN - LATERAL H3
 STA 99+00 TO STA 129+00

SHEET
C5.04

Exhibit 2: Preliminary Cost Estimate

ENGINEER'S ESTIMATE

JUDICIAL DITCH #11 LAT H IMPROVEMENTS

RENVILLE COUNTY

BMI PROJECT NO: OS1.132013



Real People. Real Solutions.

Date: 8/2/2025

Item No.	Item	Estimated Quantity	Unit	Unit Price	Total Amount
BASE BID					
1	Mobilization	1	Lump Sum	\$35,000.00	\$35,000.00
2	Exploratory Excavation	50	Hour	\$300.00	\$15,000.00
3	6" Intake	2	Each	\$750.00	\$1,500.00
4	10" Intake	1	Each	\$1,000.00	\$1,000.00
5	12" Drain Tile	1720	Linear Foot	\$23.00	\$39,560.00
6	15" Drain Tile	3980	Each	\$25.00	\$99,500.00
7	24" Drain Tile	3980	Linear Foot	\$32.00	\$127,360.00
8	24" Heavy Duty Drain Tile	500	Linear Foot	\$95.00	\$47,500.00
9	30" CM Tile	20	Linear Foot	\$125.00	\$2,500.00
10	Drain Tile Connection	40	Each	\$600.00	\$24,000.00
11	Random Riprap, Class III	30	Ton	\$115.00	\$3,450.00
12	Inlet Protection	11	Each	\$150.00	\$1,650.00
13	Mulch Material, Type 1	40	Ton	\$275.00	\$11,000.00
14	Stabilized Construction Exit	1	Lump Sum	\$2,500.00	\$2,500.00
	SUBTOTAL:				\$411,520.00
	30% CONTINGENCY:				\$82,310.00
	TEMPORARY CROP DAMAGES:	18.74	Acres	600	\$11,244.00
	TOTAL ESTIMATED CONSTRUCTION COST:				\$505,074.00
	DESIGN, ADMINISTRATION AND CONSTRUCTION ENGINEERING:				\$126,270.00
	TOTAL ESTIMATED PROJECT COST:				\$631,344.00

ENGINEER'S ESTIMATE

JUDICIAL DITCH #11 LAT H IMPROVEMENTS

RENVILLE COUNTY

BMI PROJECT NO: 0S1.132013

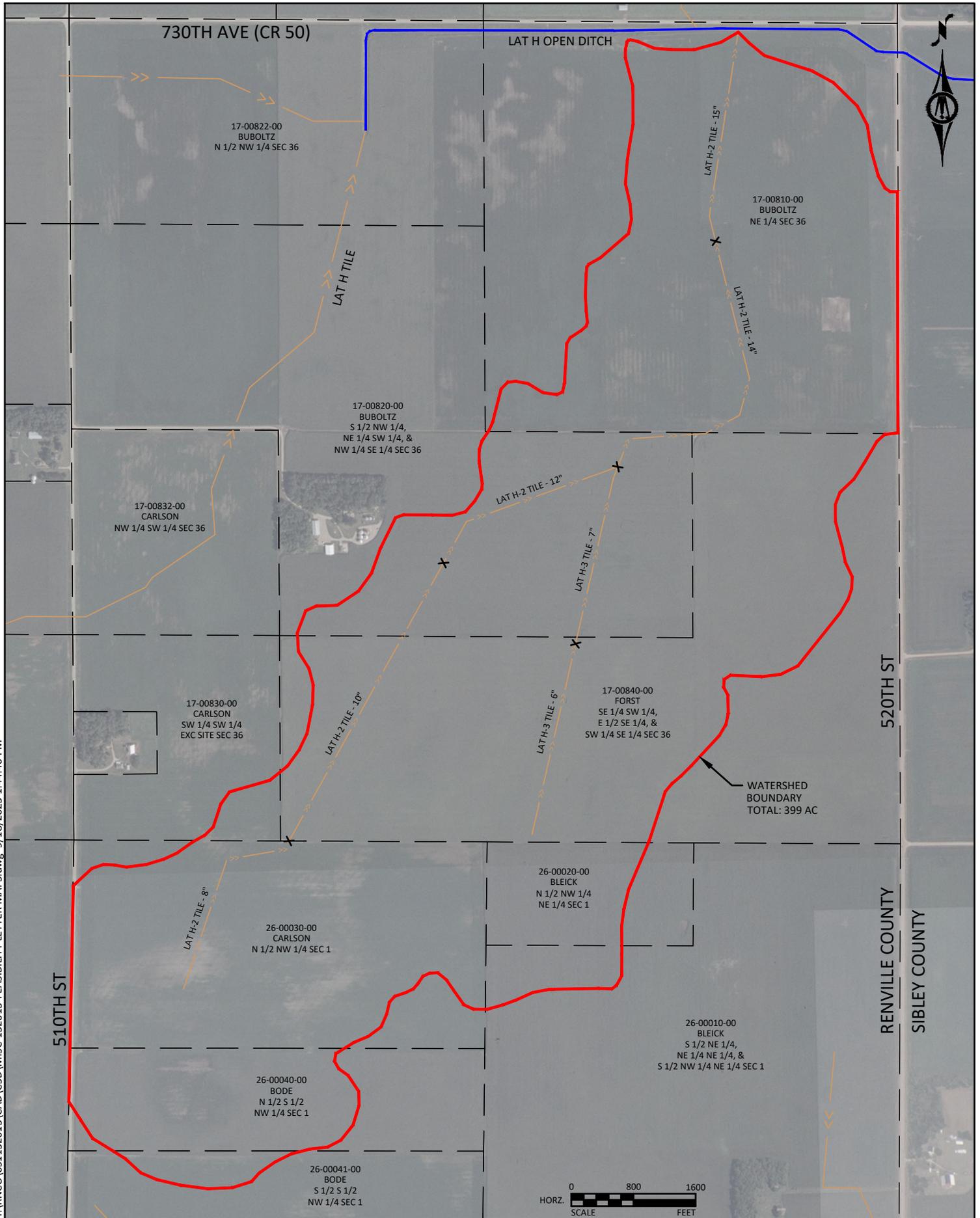


Real People. Real Solutions.

Date: 9/15/2023

Item No.	Item	Estimated Quantity	Unit	Unit Price	Total Amount	LAT H2		LAT H3	
						Qty.	Price	Qty.	Price
BASE BID									
1	Mobilization	1	Lump Sum	\$35,000.00	\$35,000.00	0.8	\$28,000.00	0.2	\$7,000.00
2	Exploratory Excavation	50	Hour	\$300.00	\$15,000.00	40	\$12,000.00	10	\$3,000.00
3	6" Intake	2	Each	\$750.00	\$1,500.00	1	\$750.00	1	\$750.00
4	10" Intake	1	Each	\$1,000.00	\$1,000.00			1	\$1,000.00
5	12" Drain Tile	1720	Linear Foot	\$23.00	\$39,560.00		\$0.00	1720	\$39,560.00
6	15" Drain Tile	3980	Linear Foot	\$25.00	\$99,500.00	3980	\$99,500.00		\$0.00
7	24" Drain Tile	3980	Linear Foot	\$32.00	\$127,360.00	3980	\$127,360.00		\$0.00
8	24" Heavy Duty Drain Tile	500	Linear Foot	\$95.00	\$47,500.00	500	\$47,500.00		\$0.00
9	30" CM Tile	20	Linear Foot	\$125.00	\$2,500.00	20	\$2,500.00		\$0.00
10	Drain Tile Connection	40	Each	\$600.00	\$24,000.00	32	\$19,200.00	8	\$4,800.00
11	Random Riprap, Class III	30	Ton	\$115.00	\$3,450.00	30	\$3,450.00		\$0.00
12	Inlet Protection	11	Each	\$150.00	\$1,650.00	5	\$750.00	6	\$900.00
13	Mulch Material, Type 1	40	Ton	\$275.00	\$11,000.00	30	\$8,250.00	10	\$2,750.00
14	Stabilized Construction Exit	1	Lump Sum	\$2,500.00	\$2,500.00	0.8	\$2,000.00	0.2	\$500.00
ESTIMATED CONSTRUCTION SUBTOTAL:					\$411,520.00		\$351,260.00		\$60,260.00
20% CONTINGENCY:					\$82,310.00		\$70,250.00		\$12,060.00
TEMPORARY CROP DAMAGES:		18.74	Acres	\$600.00	\$11,244.00	15.6	\$9,354.00	3.15	\$1,890.00
TOTAL ESTIMATED CONSTRUCTION COST:					\$505,074.00		\$430,864.00		\$74,210.00
DESIGN, ADMINISTRATION AND CONSTRUCTION ENGINEERING:					\$126,270.00		\$107,720.00		\$18,550.00
TOTAL ESTIMATED PROJECT COST:					\$631,344.00		\$538,584.00		\$92,760.00

Exhibit 3: Separable Maintenance



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SEPARABLE MAINTENANCE

JUDICIAL DITCH #11 LAT H IMPROVEMENTS

RENVILLE COUNTY

BMI PROJECT NO: 0S1.132013



Real People. Real Solutions.

Date: 9/15/2023

Item No.	Item	Estimated Quantity	Unit	Unit Price	Total Amount	Lat H2		Lat H3		
						Qty.	Price	Qty.	Price	
BASE BID										
1	Mobilization	1	Lump Sum	\$28,000.00	\$28,000.00	0.8	\$22,400.00	0.2	\$5,600.00	
2	Exploratory Excavation	50	Hour	\$300.00	\$15,000.00	40	\$12,000.00	10	\$3,000.00	
3	6" Intake	3	Each	\$750.00	\$2,250.00	1	\$750.00	2	\$1,500.00	
4	8" Drain Tile	3180	Linear Foot	\$20.00	\$63,600.00	1460	\$29,200.00	1720	\$34,400.00	
5	10" Drain Tile	1500	Linear Foot	\$22.00	\$33,000.00	1500	\$33,000.00		\$0.00	
6	12" Drain Tile	1020	Linear Foot	\$23.00	\$23,460.00	1020	\$23,460.00		\$0.00	
7	15" Drain Tile	4580	Linear Foot	\$25.00	\$114,500.00	4580	\$114,500.00		\$0.00	
8	15" Heavy Duty Drain Tile	500	Linear Foot	\$50.00	\$25,000.00	500	\$25,000.00		\$0.00	
9	18" CM Tile	20	Linear Foot	\$60.00		20	\$1,200.00		\$0.00	
10	Drain Tile Connection	40	Each	\$600.00	\$24,000.00	32	\$19,200.00	8	\$4,800.00	
11	Random Riprap, Class III	30	Ton	\$115.00	\$3,450.00	30	\$3,450.00		\$0.00	
12	Inlet Protection	11	Each	\$150.00	\$1,650.00	5	\$750.00	6	\$900.00	
13	Mulch Material, Type 1	40	Ton	\$275.00	\$11,000.00	30	\$8,250.00	10	\$2,750.00	
14	Stabilized Construction Exit	1	Lump Sum	\$2,500.00	\$2,500.00	0.8	\$2,000.00	0.2	\$500.00	
ESTIMATED CONSTRUCTION SUBTOTAL:					\$344,910.00		\$293,160.00		\$52,950.00	
20% CONTINGENCY:					\$69,230.00		\$58,640.00		\$10,590.00	
TEMPORARY CROP DAMAGES:		18.74	Acres	\$600.00	\$11,244.00	15.59	\$9,354.00	3.15	\$1,890.00	
TOTAL ESTIMATED CONSTRUCTION COST:					\$425,384.00		\$361,154.00		\$65,430.00	
DESIGN, ADMINISTRATION AND CONSTRUCTION ENGINEERING:					\$85,100.00		\$72,300.00		\$13,100.00	
TOTAL ESTIMATED PROJECT COST:					\$510,484.00		\$433,454.00		\$78,530.00	

Exhibit 4: Right-of-Way Table

Judicial Ditch 11 Lateral H2 & H3 Improvement
 High Island Creek Watershed District

Right-of-way Table

H:\RNCO\051132013\2_Preliminary\A_Calculations\[132013_ROW.xlsx]Sheet1

1-Aug-25

H:\RNCO\051132013\2_Preliminary\A_Calculations\[132013_ROW.xlsx]Sheet1

Parcel No.	Property Owner	Legal Description		Tile Improvement Right-of-Way Damages				Amount/Ac	
				Station to Station	Length	Width	Area (Acres)	\$600	
Lateral H2									
17-00810-00	Buboltz/Jerry D & Joyce M	NE 1/4, NE 1/4	114-32-36	0+00	12+92	1292	80	2.37	\$1,422.00
		SE 1/4, NE 1/4	114-32-36	12+92	26+58	1366	80	2.51	\$1,506.00
17-00840-00	Forst/Janet V/Trustee	NE 1/4, SE 1/4	114-32-36	26+58	32+96	638	80	1.17	\$702.00
17-00820-00	Buboltz/Jerry D & Joyce M	NW 1/4, SE 1/4	114-32-36	32+96	51+36	1840	80	3.38	\$2,028.00
		NE 1/4, SW 1/4	114-32-36	51+36	53+97	261	80	0.48	\$288.00
17-00840-00	Forst/Janet V/Trustee	SE 1/4, SW 1/4	114-32-36	53+97	70+92	1695	80	3.11	\$1,866.00
26-00030-00	Carlson/Leroy & Joyce/Trustees	NE 1/4, NW 1/4	133-32-1	70+92	72+03	111	80	0.20	\$120.00
		NW 1/4, NW 1/4	133-32-1	72+03	84+94	1291	80	2.37	\$1,422.00
Lateral H3									
17-00820-00	Buboltz/Jerry D & Joyce M	NE 1/4, SW 1/4	114-32-36	100+40	104+23	383	80	0.70	\$420.00
17-00840-00	Forst/Janet V/Trustee	SW 1/4, SE 1/4	114-32-36	104+23	117+58	1335	80	2.45	\$1,470.00
	Total			Total Improvement Right-of-Way Damages =				18.74	\$11,244.00

Exhibit 5: Petition for Improvement

January 15, 2025

Direct Dial: 320-656-3522
Kvanbruggen@RinkeNoonan.com

High Island Creek Watershed District
Board of Managers
c/o Verne Schlueter, Secretary
2700 S Broadway
New Ulm, MN 56073

SENT VIA CERTIFIED MAIL – RETURN RECEIPT REQUESTED

**Re: Petition for Improvement to Renville Sibley McLeod JD 11 Laterals H-2 & H-3 Tile
Our File No. 32784-0001**

Dear Mr. Schlueter:

Rinke Noonan Law Firm represents Leroy Carlson and Joyce Carlson, Trustees of the Joyce C. Carlson Living Trust, and Janet V. Forst, Trustee of the Janet V. Forst Revocable Trust, as Petitioners for the proposed Improvement to Renville Sibley McLeod Judicial Ditch 11 Laterals H-2 & H-3. Enclosed, please find the following:

1. Petition for Improvement to Renville Sibley McLeod Judicial Ditch 11 Laterals H-2 & H-3 Tile
2. A map attached to the Petition as “Exhibit A” depicting the starting point, general course, and terminus of the proposed improvement;
3. Signature Page of Leroy Carlson & Joyce Carlson, Trustees of the Joyce C. Carlson Living Trust;
4. Signature Page of Janet V. Forst, Trustee of the Janet V Forst Revocable Trust; and
5. Cash Bond by Leroy Carlson to the High Island Creek Watershed District for \$50,000.

Technical information to support the petition was provided by Professional Engineer Shaun Luker of Bolton & Menk, Inc. For the sake of convenience and expense, the Petitioners request that Mr. Luker and Bolton & Menk, Inc. be appointed as engineers for the proposed improvement project.

Suite 300 US Bank Plaza
1015 W. St. Germain St.
P.O. Box 1497
St. Cloud, MN 56302
320.251.6700

www.rinkenoonan.com

High Island Creek Watershed District
January 15, 2025
Page 2

The Petition for Improvement is being filed with the High Island Creek Watershed District Board of Managers pursuant to Minn. Stat. § 103D.625, subd. 4, which requires the proceedings for the construction or improvement of drainage systems in the watershed district to conform to Minn. Stat. ch. 103E. Pursuant to Minn. Stat. § 103E.202, subd. 5, a cash bond payable to the High Island Creek Watershed District from Petitioner Leroy Carlson in the amount of \$50,000 is also enclosed. If the cost of the improvement proceeding will exceed \$50,000, please contact me with the estimated expenses to complete the proceeding and I will notify the petitioners that an additional cash bond is required.

A copy of this letter and the Petition is being sent to your counsel, Mr. Dean Zimmerli. Pursuant to Minn. Stat. § 103E.238, please refer the Petition and bond to your counsel for a determination of whether the Petition and bond meet the requirements for improvement of a drainage system.

A copy of this letter and the Petition is also being sent to Renville County Auditor/Treasurer Heather Weis; Renville County Drainage Systems Manager Seth Sparks; Sibley County Auditor-Treasurer Marilee Peterson; and McLeod County Auditor-Treasurer Connie Kurtzweg.

Please provide me with notice of all meetings and hearings at which the High Island Creek Watershed District will discuss or act on decisions related to the proposed improvement to JD 11.

If you need any additional information from me or the Petitioners, do not hesitate to contact me.

Sincerely,

/s/ Kale R. Van Bruggen

Kale R. Van Bruggen
KRV/

Enclosures

cc: Leroy & Joyce Carlson (w/encls.)
Janet & Dale Forst (w/encls.)
Dean Zimmerli, Esq. (via email, w/encls.)
Ms. Heather Weis (via email, w/encls.)
Mr. Seth Sparks (via email, w/encls.)
Ms. Marilee Peterson (via email, w/encls.)
Ms. Connie Kurtzweg (via email, w/encls.)

STATE OF MINNESOTA
HIGH ISLAND CREEK WATERSHED DISTRICT
SITTING AS THE DRAINAGE AUTHORITY FOR
RENVILLE SIBLEY MCLEOD JUDICIAL DITCH 11

In the Matter of the Petition for Improvement to Renville Sibley McLeod Judicial Ditch 11 Laterals H-2 & H-3 Tile (Carlson & Forst)	PETITION FOR IMPROVEMENT TO RENVILLE SIBLEY MCLEOD JUDICIAL DITCH 11 LATERALS H-2 & H-3 TILE
--	---

TO: THE HIGH ISLAND CREEK WATERSHED DISTRICT BOARD OF MANAGERS, ACTING AS THE DRAINAGE AUTHORITY FOR THE PROPOSED IMPROVEMENT TO RENVILLE SIBLEY MCLEOD JUDICIAL DITCH 11 LATERALS H-2 & H-3

Pursuant to Minnesota Statutes, section 103E.215, the undersigned Petitioners seek an improvement to Laterals H-2 & H-3 of the Renville Sibley McLeod Judicial Ditch 11 drainage system. For their Petition, the undersigned Petitioners state and allege, and respectfully request, the following:

1. **Designation of Drainage System.** Petitioners seek improvements to an established and constructed drainage system designated as Judicial Ditch 11 ("JD 11") in Renville, Sibley, and McLeod Counties.
2. **Necessity for Drainage Project.** The existing drainage system has insufficient capacity or needs enlarging or extending to furnish sufficient capacity or a better outlet.

The proposed improvements are necessary to prevent flooding, erosion, and adverse effects on agricultural land. Even in a repaired state, JD 11 is inadequate to support beneficial drainage for current farming and drainage practices.

Further, the drainage system is in need of repair and has remained in service since its original construction. The improvement project petitioned for herein is for a separable portion of the drainage system. Therefore, a portion of the cost may be assessed as a repair. See Minn. Stat. § 103E.215, subd. 6. Because JD 11 Laterals H-2 & H-3 need repair, Petitioners request, to the fullest extent practicable, that the Drainage Authority consider, under Minnesota Statutes, section 103E.215, subdivision 6, the separable maintenance portion of the work when assessing costs of the improvement.

3. **Description of Proposed Improvement.** The proposed drainage project consists of improving and enlarging Laterals H-2 and H-3 along their entire length. The location of the proposed improvements, subject to any alterations deemed prudent or necessary by the appointed project engineers, are depicted on the maps attached hereto as **EXHIBIT A**

and are in Martinsburg and Wellington Townships of Renville County, Minnesota. Laterals H-2 and H-3 consist of buried tile and are proposed to be enlarged and their capacity increased to meet the High Island Creek Watershed District standard of 3/8" per day drainage coefficient.

4. **Jurisdiction.** The undersigned Petitioners constitute at least 26% of the owners of property that the proposed improvement passes over and the owners of at least 26% of the property area that the proposed improvement passes over. Minn. Stat. § 103E.215, subd. 4(a).

Pursuant to Minnesota Statutes, section 103E.215, subd. 4(c)(4) (2023), set forth below is a list of the 40-acre tracts or government lots that the proposed improvements would pass over, together with the names and addresses of the owners of those tracts, all of which are in Renville County, Minnesota:

	Owner	Address	PID	Descr.	Sec.	Twp.	Rge.
1	Buboltz/ Jerry D & Joyce M	72514 510th St. Hector, MN 55342	17-00810-00	NENE	36	114N	32W
2	Buboltz/ Jerry D & Joyce M	72514 510th St. Hector, MN 55342	17-00810-00	SENE	36	114N	32W
3	Janet V Forst Revocable Trust	63693 260th St. Gibbon, MN 55335	17-00840-00	NESE	36	114N	32W
4	Buboltz/ Jerry D & Joyce M	72514 510th St. Hector, MN 55342	17-00820-00	NWSE	36	114N	32W
5	Buboltz/ Jerry D & Joyce M	72514 510th St. Hector, MN 55342	17-00820-00	NESW	36	114N	32W
6	Janet V Forst Revocable Trust	63693 260th St. Gibbon, MN 55335	17-00840-00	SESW	36	114N	32W
7	Janet V Forst Revocable Trust	63693 260th St. Gibbon, MN 55335	17-00840-00	SWSE	36	114N	32W
8	Joyce C. Carlson Living Trust	73174 490th St. Hector, MN 55342	26-00030-00	NENW	1	113N	32W
9	Joyce C. Carlson Living Trust	73174 490th St. Hector, MN 55342	26-00030-00	NWNW	1	113N	32W

5. **Public Utility and Health.** The proposed improvement will be of public utility because it will protect property and roads from overflow and flooding and render property suitable for cultivation. Further, the proposed improvements will promote the public health because they will improve the general sanitary condition of property by drainage and prevent overflow that produces or tends to produce unhealthful conditions on agricultural land.

6. **Agreement by Petitioners.** The undersigned Petitioners have been informed and understand that they may not withdraw as petitioner at any time after this Petition is accepted by the Drainage Authority, except with the written consent of all other Petitioners on the filed Petition.

Also, the undersigned Petitioners acknowledge and agree that they will pay all costs and expenses that may be incurred if the proceedings for this improvement are dismissed or the contract for construction of the proposed improvement is not awarded. See Minn. Stat. § 103E.215, subd. 4(c)(6).

7. **Bond.** One or more Petitioners shall cause a bond to be filed or a check to be delivered in the amount of at least \$10,000 payable to the Drainage Authority to pay the costs incurred if these proceedings are dismissed or a contract is not awarded to construct the improvement proposed in the Petition. See Minn. Stat. § 103E.202, subd. 5. Petitioners acknowledge and agree that additional bonds may be required as additional costs are incurred in the proceedings.
8. **Request.** The Petitioners respectfully request the following of the Drainage Authority:
- a. That the Drainage Authority accept the filing of this Petition and the bond and refer the Petition and bond to its legal counsel to determine if the Petition and bond meet the requirements of Minnesota Statutes, chapter 103E for an improvement proceeding;
 - b. That the Drainage Authority appoint an engineer for purposes of evaluating the proposed improvement project and direct the engineer to prepare an engineer's preliminary report for the proposed improvement project, including allowing the engineer to analyze other potential routes for the proposed improvements;
 - c. That the Drainage Authority direct the appointed engineer to investigate and report on the need for repair of the separable portion of the drainage system petitioned for improvement and include in the detailed survey report a statement showing the proportionate estimated cost of the proposed improvement required to repair the separable part of the existing system and the estimated proportionate cost of the added work required for the improvement;
 - d. That the notice of hearing on the detailed survey report be given by publication and mailing to all persons owning property affected by the existing JD 11 drainage system and that a hearing on Petitioners' request for the application of separable maintenance be held at the same time and location as the establishment hearing on the proposed improvement (see Minn. Stat. 103E.215, subd. 6(a));

- e. That at the establishment hearing, the Drainage Authority determine that only a separable portion of the existing drainage system will be improved and that the portion needs repair, and determine and assess, by order, the proportionate cost of the improvement that would be required to repair the separable portion of the drainage system to be improved be allocated as repairs and assessed against all property benefited by the entire JD 11 drainage system, as provided by Minnesota Statutes, section 103E.731, and the balance of the cost of the improvement assessed in addition to the repair assessment against the property benefited by the improvement;
- f. That Professional Engineer Shaun Luker and Bolton & Menk, Inc. be appointed as the project engineers; and
- g. That the proposed improvements be established and constructed as part of the Renville Sibley Mcleod Judicial Ditch 11 drainage system.

[Petitioner Signature Pages to Follow]

This Petition was drafted by:

Dated: Jan. 14, 2025



Kale R. Van Bruggen (#0393460)
kvanbruggen@rinkenoonan.com
RINKE NOONAN, LTD.
Attorneys for Petitioners
Suite 300, US Bank Plaza
1015 W. St. Germain St.
P.O. Box 1491
St. Cloud, MN 56302

SIGNATURE PAGE FOR
PETITION FOR PROPOSED IMPROVEMENT
TO RENVILLE SIBLEY MCLEOD JUDICIAL DITCH 11
LATERALS H-2 & H-3

PETITIONER:

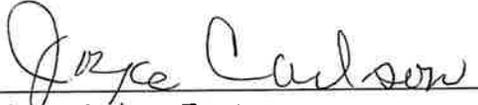
By signing below, I state and represent that I have authority to execute this Petition on behalf of the Joyce C. Carlson Living Trust.

JOYCE C. CARLSON LIVING TRUST



By Leroy Carlson, Trustee

Date: 01-08-2025



By Joyce Carlson, Trustee

Date: 01-08-2025

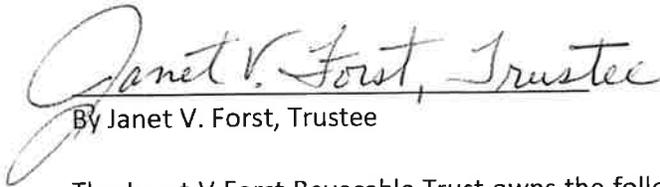
The Joyce C. Carlson Living Trust owns the following tracts, which the proposed improvement will pass over: the N1/2NW1/4 Section 1, Township 113 North, Range 32 West, Renville County, Minnesota (Parcel ID 26-00030-00).

SIGNATURE PAGE FOR
PETITION FOR PROPOSED IMPROVEMENT
TO RENVILLE SIBLEY MCLEOD JUDICIAL DITCH 11
LATERALS H-2 & H-3

PETITIONER:

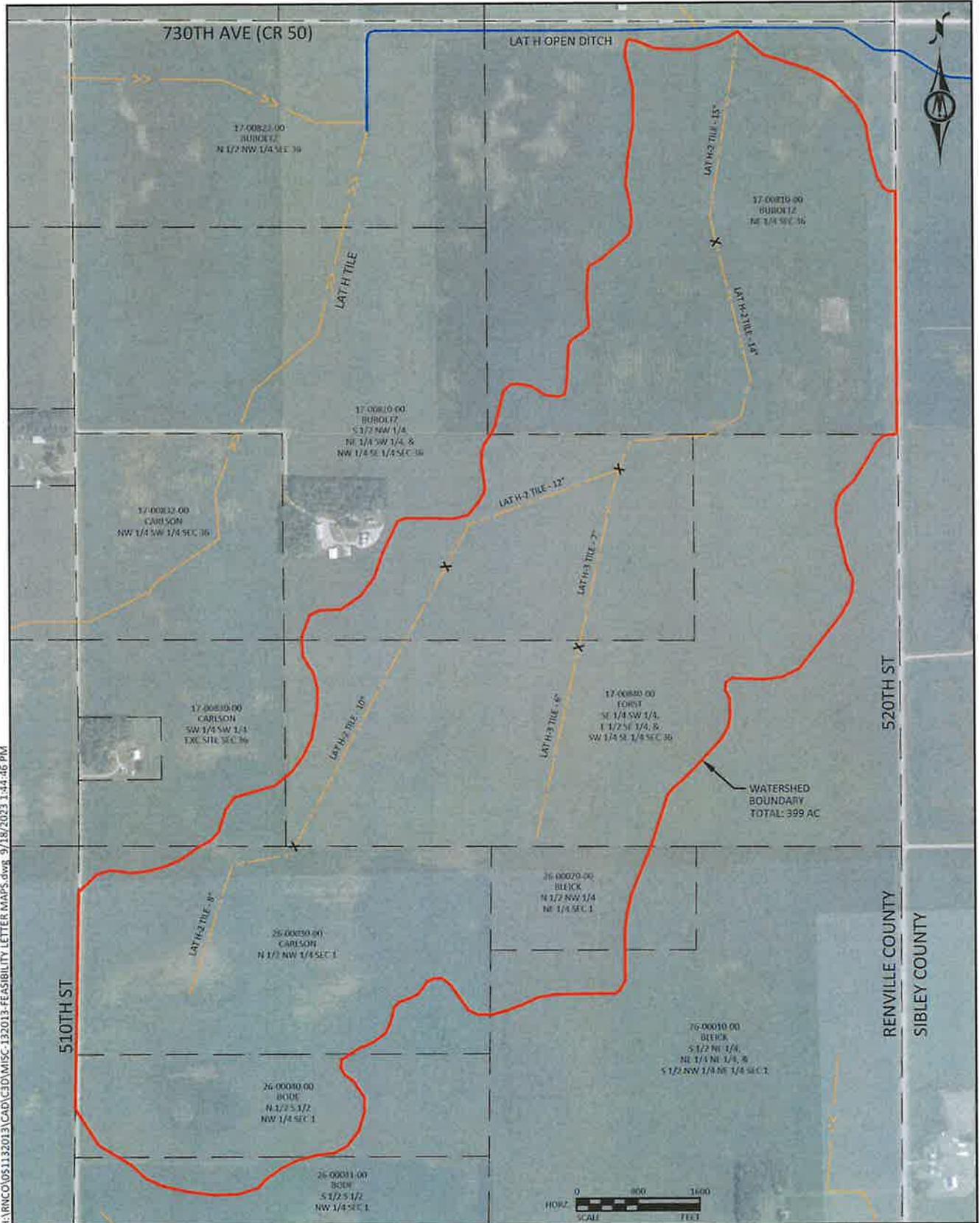
By signing below, I state and represent that I have authority to execute this Petition on behalf of the Janet V Forst Revocable Trust.

JANET V FORST REVOCABLE TRUST


By Janet V. Forst, Trustee

Date: 1-8-25

The Janet V Forst Revocable Trust owns the following tracts, which the proposed improvement will pass over: the SE1/4SW1/4; E1/2SE1/4; and SW1/4SE1/4 Section 36, Township 114 North, Range 32 West, Renville County, Minnesota (Parcel ID 17-00840-00).



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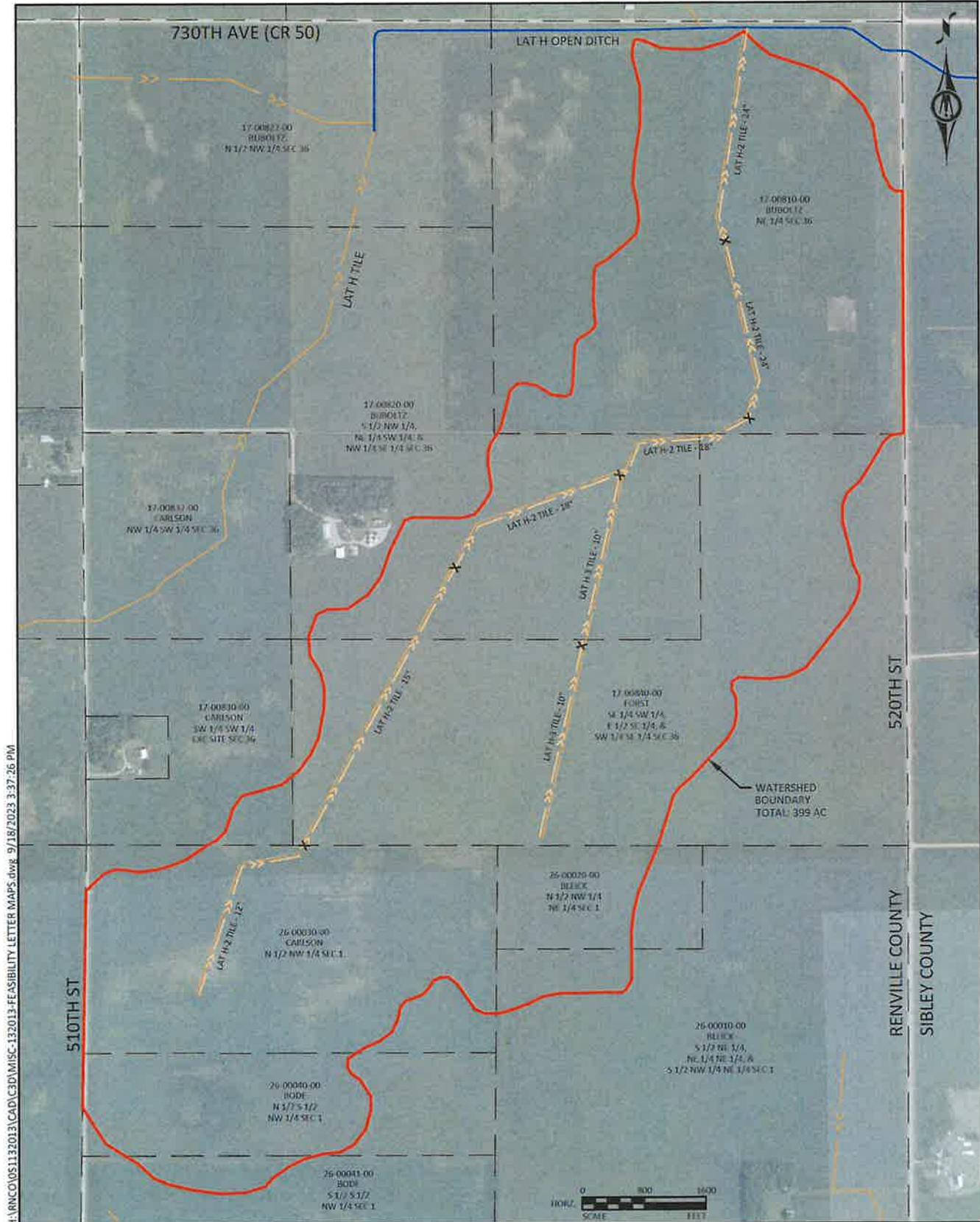
EXHIBIT A

JD 11 LAT H-2 & 3 IMPROVEMENTS

RENVILLE COUNTY, MN

PROPOSED SYSTEM

SEPT 2023



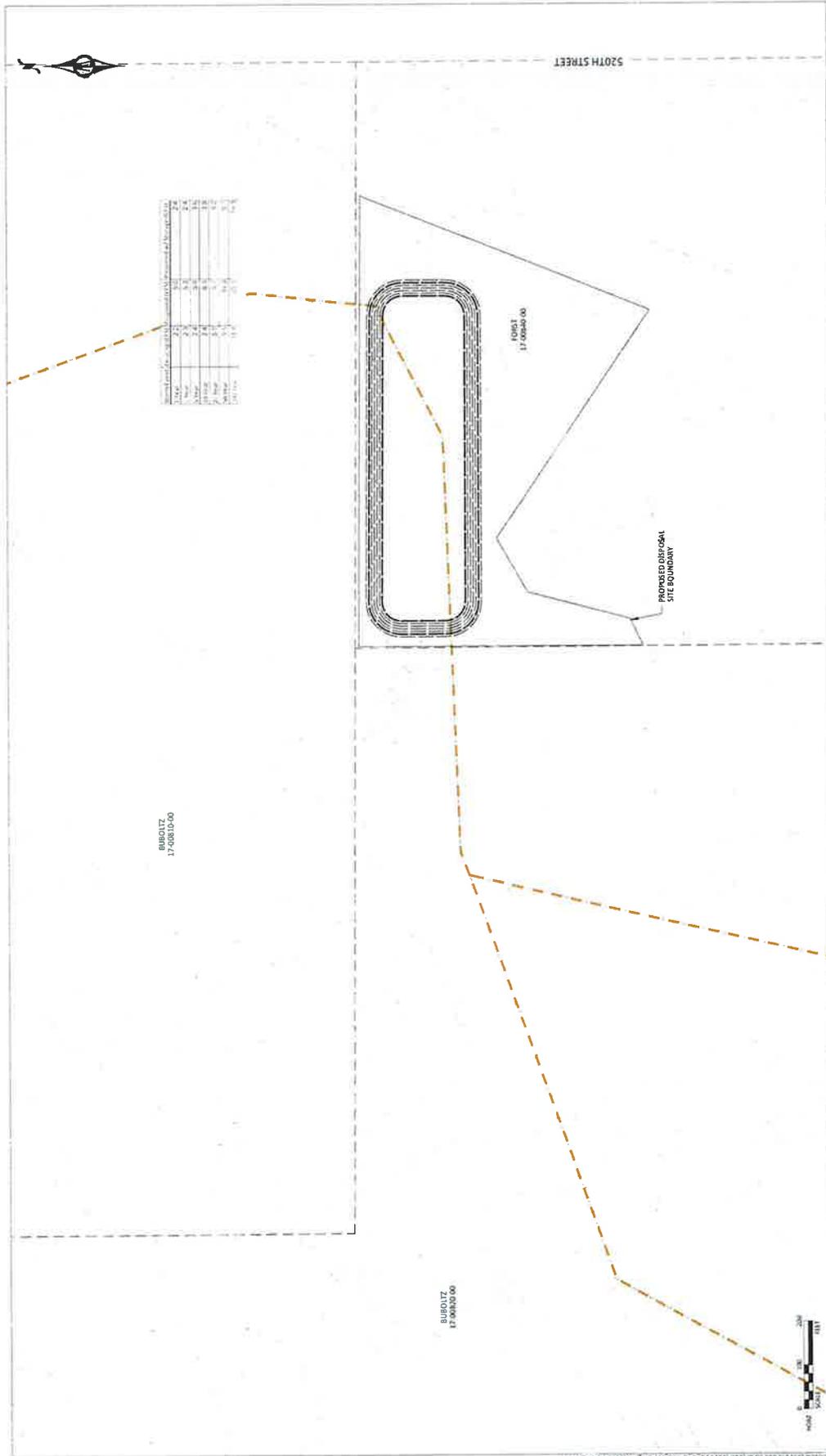
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EXHIBIT A



PROPOSED POND
MARCH, 2024

JD 11 LAT H2 & H3 - IMPROVEMENTS
RENVILLE COUNTY



Station	Stationing	Area (sq. ft.)	Volume (cu. ft.)
1	0+00	100	100
2	0+25	200	200
3	0+50	300	300
4	0+75	400	400
5	1+00	500	500
6	1+25	600	600
7	1+50	700	700
8	1+75	800	800
9	2+00	900	900
10	2+25	1000	1000
11	2+50	1100	1100
12	2+75	1200	1200
13	3+00	1300	1300
14	3+25	1400	1400
15	3+50	1500	1500
16	3+75	1600	1600
17	4+00	1700	1700
18	4+25	1800	1800
19	4+50	1900	1900
20	4+75	2000	2000
21	5+00	2100	2100
22	5+25	2200	2200
23	5+50	2300	2300
24	5+75	2400	2400
25	6+00	2500	2500
26	6+25	2600	2600
27	6+50	2700	2700
28	6+75	2800	2800
29	7+00	2900	2900
30	7+25	3000	3000
31	7+50	3100	3100
32	7+75	3200	3200
33	8+00	3300	3300
34	8+25	3400	3400
35	8+50	3500	3500
36	8+75	3600	3600
37	9+00	3700	3700
38	9+25	3800	3800
39	9+50	3900	3900
40	9+75	4000	4000
41	10+00	4100	4100
42	10+25	4200	4200
43	10+50	4300	4300
44	10+75	4400	4400
45	11+00	4500	4500
46	11+25	4600	4600
47	11+50	4700	4700
48	11+75	4800	4800
49	12+00	4900	4900
50	12+25	5000	5000
51	12+50	5100	5100
52	12+75	5200	5200
53	13+00	5300	5300
54	13+25	5400	5400
55	13+50	5500	5500
56	13+75	5600	5600
57	14+00	5700	5700
58	14+25	5800	5800
59	14+50	5900	5900
60	14+75	6000	6000
61	15+00	6100	6100
62	15+25	6200	6200
63	15+50	6300	6300
64	15+75	6400	6400
65	16+00	6500	6500
66	16+25	6600	6600
67	16+50	6700	6700
68	16+75	6800	6800
69	17+00	6900	6900
70	17+25	7000	7000
71	17+50	7100	7100
72	17+75	7200	7200
73	18+00	7300	7300
74	18+25	7400	7400
75	18+50	7500	7500
76	18+75	7600	7600
77	19+00	7700	7700
78	19+25	7800	7800
79	19+50	7900	7900
80	19+75	8000	8000
81	20+00	8100	8100
82	20+25	8200	8200
83	20+50	8300	8300
84	20+75	8400	8400
85	21+00	8500	8500
86	21+25	8600	8600
87	21+50	8700	8700
88	21+75	8800	8800
89	22+00	8900	8900
90	22+25	9000	9000
91	22+50	9100	9100
92	22+75	9200	9200
93	23+00	9300	9300
94	23+25	9400	9400
95	23+50	9500	9500
96	23+75	9600	9600
97	24+00	9700	9700
98	24+25	9800	9800
99	24+50	9900	9900
100	24+75	10000	10000