BOLTON & MENK
Real People. Real Solutions.

1243 Cedar Street NE
Sleepy Eye, MN 56085

Phone: (507) 810-4184
Bolton-Menk.com

January 6, 2025

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

Re: Preliminary Engineer's Report
Judicial Ditch No. 11, Lateral G Improvement
High Island Creek Watershed District
Sibley County, Minnesota
BMI Project No.: 24X.136092.000

Dear District:

I am enclosing 6 copies of the Preliminary Engineer's Report for the Judicial Ditch No. 11, Lateral G Improvement located in Sibley 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. The DNR Commissioner has designated an email address to submit public drainage system documents and an electronic copy of the report has been submitted accordingly.

In addition to the DNR, we should also notify the Sibley 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. Additional copies of the report should be distributed to the High Island Creek Watershed District members prior to the Hearing. I am also sending copies of the report to the ditch petitioners.

Please check with Dean Zimmerli 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 early 2025. 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

cc: DNR Director, MN DNR (w 1 copy of report via e-mail)
Dean Zimmerli, High Island Creek Watershed District Attorney (w/1 copy of report)
Jason Lina, Attorneys for Petitioners (w/1 copy of report)
John Wenninger, Sibley County Drainage System Manager (w/1 copy of report)
Petitioners: Ludowese (w/1 copy of report)

JUDICIAL DITCH No. 11, LATERAL G IMPROVEMENT

PRELIMINARY ENGINEER'S REPORT

HIGH ISLAND CREEK WATERSHED DISTRICT
Sibley County, MN
January 2025

24X.136092.000

BOLTON & MENK
Real People. Real Solutions.

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

Certification

Preliminary Engineer's Report

For

Judicial Ditch No 11, Lateral G Improvement

High Island Creek Watershed District
Sibley County, Minnesota
24X.136092.000

January 2025

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: 

Typed or Printed Name: Shaun P. Luker

Date: 1/3/2024 License Number: 48756

Table of Contents

Appendix

STATE OF MINNESOTA

HIGH ISLAND CREEK WATERSHED DISTRICT

IN THE MATTER OF THE PETITION FOR AN IMPROVEMENT TO LATERAL G, JUDICIAL DITCH NO. 11 IN SIBLEY COUNTY, MINNESOTA:

In August 2024, the High Island Creek Watershed District, acting as the Ditch Authority for Judicial Ditch No. 11 (JD 11) in Sibley County, in accordance with Minnesota Statute 103D.215, accepted a petition for the improvement to portions of Lateral G of JD 11 in Sibley County. After that authorization, preliminary field surveys were performed to obtain field elevations and establish an alignment for a proposed drain tile improvement as well as to evaluate the outlet for the system. This report summarizes the findings of the research, surveys and analysis and is submitted for consideration by the Ditch Authority.

I. LOCATION AND SCOPE OF IMPROVEMENT

The petitioned improvement area within Lateral G of Judicial Ditch No. 11 lies within and provides drainage to portions of Sections 17 and 18 of Grafton Township in Sibley County. The system consists of a Main tile (Lateral G) about 0.66 miles in length. The outlet for Lateral G is the open ditch of JD 11 in Section 18 of the Grafton Township. The system is located about 4 miles south of Buffalo Lake, Minnesota. The total estimated watershed for the tile system from Lidar contour data, is 252 acres.

The improvement of Lateral G of Judicial Ditch 11 proposes replacing all Lateral G. Exhibit 1 shows the general location of JD 11 and the proposed improvement. Exhibit 2 is the copy of the petition for improvement.

Field survey information was collected by Bolton & Menk, Inc. in November 2024. 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.

Other information used for this report included plans obtained from the Sibley County files. However, the plans do not provide accurate location and elevation data. If the project proceeds to construction, performing exploratory excavations at key locations to verify the existing tile sizes, locations, and elevations is recommended.

II. EXISTING DITCH SYSTEM

Public records regarding the Judicial Ditch No. 11 system were reviewed from High Island Creek Watershed District. This information provides a limited history of the JD 11 system.

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. CAPACITY OF EXISTING DRAINAGE SYSTEM

The portion of the JD 11 Lateral G system proposed to be improved consists of underground tiles. According to reports of the petitioners, the system is not able to adequately drain the JD 11 watershed, resulting in extended ponding in portions of the watershed. This ponding results in crop stress and crop loss. Because of these limitations of the drainage system, the petitioners have now requested that the drainage system 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 Manning equation, assuming the original hydraulic efficiency of the system as constructed and subsequently improved. Estimated tile sizes and grades are based on the original design plans supplemented with limited field data collected through tile intakes and general surface grades. The amount of drainage which is needed for modern crop production has been compared to standards recommended by the High Island Creek Watershed District (HIW) of 3/8 of an inch of runoff per day. Watershed areas have been estimated based on DNR Lidar maps. Table 1 shows the results of this analysis.

Table 1 – Existing Tile Capacity

Tile	Location	Drainage Area (acres)	HIW Flow (cfs) 3/8"/day	Ex Tile Size (in)	Tile Capacity (cfs) n=0.013	Calculated Coefficient (In/day)	Efficiency (%)
Lateral G	EOP to 820-Ft West of 661st Ave	55	0.87	8	0.44	0.19	50%
	820-Ft to 1760-Ft West of 661st Ave	186	2.93	10	0.69	0.09	24%
	1760-Ft West of 661st Ave to JD 11 Open Ditch	252	3.98	12	1.13	0.11	28%

From Table 1, the Lateral G tile can drain the watershed at a rate of 0.11" per day. When compared to the High Island Creek Watershed District recommended standard of 3/8" (0.375") per day, Lat G, in its originally constructed condition, is delivering about 24% to 50% of the recommended flow.

IV. DISCUSSION OF IMPROVEMENT

As noted earlier, the petitioners for the Improvement of JD 11 Lateral G have requested the consideration of the construction of an improved tile system to increase the capacity. A preliminary survey and the hydrologic and hydraulic analysis of such a drainage system has been performed to establish preliminary grades and depths for the tile system, to determine the quantities for the construction of such a system, to determine the size of proposed tile lines and to 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 10-inch to 18-inch diameter tile to replace the function of the existing JD 11 Lateral G tile from the outlet to the upper end. 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

The proposed grades for the tile improvements are shown on Exhibit 1 and vary from 0.08% to 0.14%. The type of pipe should be used for the construction will be bid as a contractor option as follows:

1. Dual Wall Polyethylene Drain Tile meeting the requirements of the American Society for Testing Materials F 2648. Pipe will be bedded in granular material as shown on Exhibit 1. Non-perforated pipe will be used where the tile is to be greater than 6 feet deep, and perforated pipe will be used where the tile is to be less than 6 feet deep. The perforated pipe will include a drain tile sock in order 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.

The criterion for the design of the tile system size is based on the High Island Creek Watershed District standard of 3/8" per day. In other words, the system should be able to drain the amount of water produced by about 3/8" of runoff over the entire watershed in one day. Since the Improvement is within the High Island Watershed District, the 3/8" per day design criterion has been selected.

The capacity of the proposed tiles is shown in Table 2. Table 2 also shows the resulting runoff coefficient provided for the watershed served.

Table 2 – Proposed Tile Capacity

Tile	Location	Drainage Area (acres)	HIW Flow (cfs) 3/8"/day	Ex Tile Size (in)	Tile Capacity (cfs) n=0.013	Calculated Coefficient (In/day)	Efficiency (%)
Lateral G	EOP to 820-Ft West of 661st Ave	55	0.87	10	0.89	0.39	103%
	820-Ft to 1760-Ft West of 661st Ave	186	2.93	18	3.23	0.41	110%
	1760-Ft West of 661st Ave to JD 11 Open Ditch	252	3.98	18	4.11	0.39	103%

Also included as part of the project will be provisions to strip and replace the topsoil on the trench area, to provide riprap as erosion protection at the outlet, and to construct several intakes on the system. The detail sheet C1.01 in Exhibit 1 provides more information on several of these items.

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 as shown on Table 3.

Table 3 – Depth of Proposed Tile

Tile Branch	Minimum Depth	Maximum Depth
Lateral G	5.1'	12.0'

V. ALTERNATIVE SOLUTIONS

Several other alternative solutions to the proposed Improvement have been evaluated as part of this study.

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 Sibley County and the State of Minnesota. The loss results in reduced property value for the wet acres, thus affecting the taxing capacity of the County and State. Also, 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. Obviously, the economic question of the cost of the Improvement verses the benefits derived still needs to evaluated. However, the “Do Nothing” alternative is not viewed as solving the drainage problem in the watershed.

B. 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 which is currently accumulating in these areas and drowning out agricultural crops. The proposal would also have added benefits for wildlife and possibly water quality.

In order to be effective, this alternative would need to restore sufficient acres to wetland use so that the existing drain tile system could convey the excess runoff. Utilizing NRCS data, it is estimated that about 23 acre-feet of water runs off the watershed during a 5-year storm event. Of this total, about 19 acre-feet of water is not able to be discharged through the existing drainage systems in a 48-hour period following the storm event. If enough wetland acres were available to store this runoff at a one-foot depth, approximately 19 acres of wetland restoration would be needed to provide a 5 year storm event protection.

To convert the 19 acres to wetlands, at least twice this many acres would need to be acquired for irregular wetland shapes and marginal damp soils. Thus about 38 acres of land would be needed. This acquisition would likely involve multiple properties who would voluntarily need to agree to the reversion. The estimated cost of acquisition plus reconstructing tile lines would probably range in the area of $17,000 per acre. Applying this price to the estimated 38 acres results in a total cost of about $646,000 or approximately 3.2 times greater than the estimated Improvement cost.

Wetland restoration remains a viable option for providing some improvement in the functioning of the tile 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 an outlet tile 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. As part of the initial submittal of the Preliminary Report, copies were provided to the SWCD and NRCS so that early coordination could occur for potential funding and technical assistance toward this option. At the time of this report no willing landowners have been identified.

C. WATER AND SEDIMENT CONTROL BASINS

From the Agricultural Best Management Practices Handbook for Minnesota, “WASCOBs consist of an embankment across the slope of a field or minor waterway to temporarily detain and release water through a piped outlet or through infiltration. They are constructed perpendicular to the flow direction. The key benefit of WASCOBs is detaining water from contributing areas, inducing sedimentation, and controlling the release of water, thereby reducing the erosive power of the water downstream.

1. A potential alternate solution for this project to construct a WASCOB within the

agricultural land of the project. These are often effective solutions to decrease overland peak discharge. However, existing conditions for this project do not lend itself to this type of construction. A majority of the tile lies within natural low areas as seen Exhibit 1.

2. Alternatively side inlets can be constructed in the same manner as WASCOBs along the open ditch. WASCOBs can be constructed alongside the open ditch to prevent direct runoff into the open ditch. From initial investigations there appears to be adequate locations for side inlets to be constructed as a part of the project.

WASCOBs could be constructed in conjunction with the project either within the agricultural fields or alongside the ditch. However, they require landowner support to retain water within their property and construct earthen berms over existing ground.

VI. OTHER CONSIDERATIONS

A. WETLANDS

National Wetland Inventory (NWI) Maps have been reviewed to locate potential wetlands subject to regulations. One wetland is shown on the NWI maps near the Improvement within parcel 14-1809-010. While crossing this area it is required that 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.

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.

B. PUBLIC AND PRIVATE BENEFITS AND COSTS

The estimated cost of the proposed Improvement to JD 11 Lateral G 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.

C. 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.

D. ALTERNATIVE MEASURES

Alternative measures, including those identified in the Sibley 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 NRCS in order 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.

E. WATER QUALITY

Little change in measurable water quality is anticipated because of this Improvement. However, there are components of the Improvement that will mitigate erosion and help improve water quality on a micro watershed scale. Tile system velocities are generally low, so that soil from the surrounding envelop is seldom carried into the tile. Thus, the largest source of suspended solids in tile system drainage is from water discharging into open intakes. Although open intakes will still be used on the system, ponding occurs around these intakes for any significant storm events. Thus, solids have time to settle rather than being discharged.

As a requirement of the MPCA Erosion Control Permit, the establishment of an erosion control plan is anticipated. Incorporation of such devices as inlet protection, riprap at

the outlets and permanent grasses as soon as possible following the construction are anticipated. All of these measures will help to reduce erosion and maintain water quality during the construction of the project.

F. FISH AND WILDLIFE

The threatened or endangered species having the potential to be in Sibley 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 Sibley 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 Sibley 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 of 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 through the use of 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 Lateral G watershed is largely agricultural. This use is expected to continue into the future.

J. ALTERNATE EROISON CONTROL METHODS

Soil transportation can negatively affect the longevity of soil health. With this being the case, we encourage landowners to seek alternative methods of soil stabilization. One of the methods that can be used is cover crops. Cover crops increase soil stability via the roots of the chosen crop. More information about alternative erosion control methods can be found in the Agricultural BMP (best management practices) Handbook at the following link: Agricultural BMP Handbook for Minnesota 2017 | WRL Digital Asset Management (mnpals.net).

K. GUIDANCE TO VIEWERS REGARDING IMPROVEMENT BENEFITS

Discussions with the landowners in the JD 11 Lateral G system has provided evidence of the condition of the existing tile systems. Previous repairs on the tile and televising 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 G 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 15 Branch Q tiles should be allocated as a Repair cost. The application of this principal 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 $170,245. 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 G is into the open ditch of JD 11 in Section 17 of Grafton Township.

B. ADEQUACY OF THE OUTLET – PEAK DISCHARGE

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 G has been delineated using the US Geological Survey "StreamStats" program. The StreamStats program has been used to generate peak flow rates for 2 to 100-year storm events.

3. HydroCAD was used to calculate the peak discharge rates for the relevant storm events for the Lateral G watershed.

Table 4 – Adequacy of the Outlet – Peak Discharge

Storm Event	Existing Discharge (cfs)	Proposed Discharge (cfs)	Change in Discharge (cfs)
2-Year	3	8	5
5-Year	8	12	4
10-Year	13	18	5
25-Year	41	36	-5
50-Year	85	78	-7
100-Year	145	137	-8

As can be seen in Table 4 the peak discharge rates for the 25 year, 50 year, and 100 year have decreased from the existing conditions. Where as the peak discharge rates for the 2 year, 5 year, and 10 year have increased from existing conditions. With the upstream watershed being over 19 square miles it is our opinion that the outlet is adequate.

VIII. ESTIMATE OF COST

The preliminary cost estimate to construct the proposed Improvement, is described in this report is shown in Exhibit 3. The total estimated cost is $199,085. Included in the construction cost estimate are the approximate 6.44 acres of agricultural land which will be temporarily taken out of production by the construction. The individual landowners will be compensated for this loss through the damage process of the further ditch proceedings.

IX. RECOMMENDATIONS

The proposed Improvement of JD 11 Lateral G in Sibley County, as described in this report, is feasible and practical and is necessary to provide drainage for the cultivation of crops in this watershed area. The existing tile system is inadequate to provide proper drainage for current

agricultural practices. The outlet is adequate in order to convey the discharge.

It is the recommendation of your engineer that the Preliminary Engineer's Report be approved and that the Board order the preparation of the Final Engineer's Report and appoint Viewers to determine the benefits and damages.

Exhibit 1: Preliminary Plans and Profiles

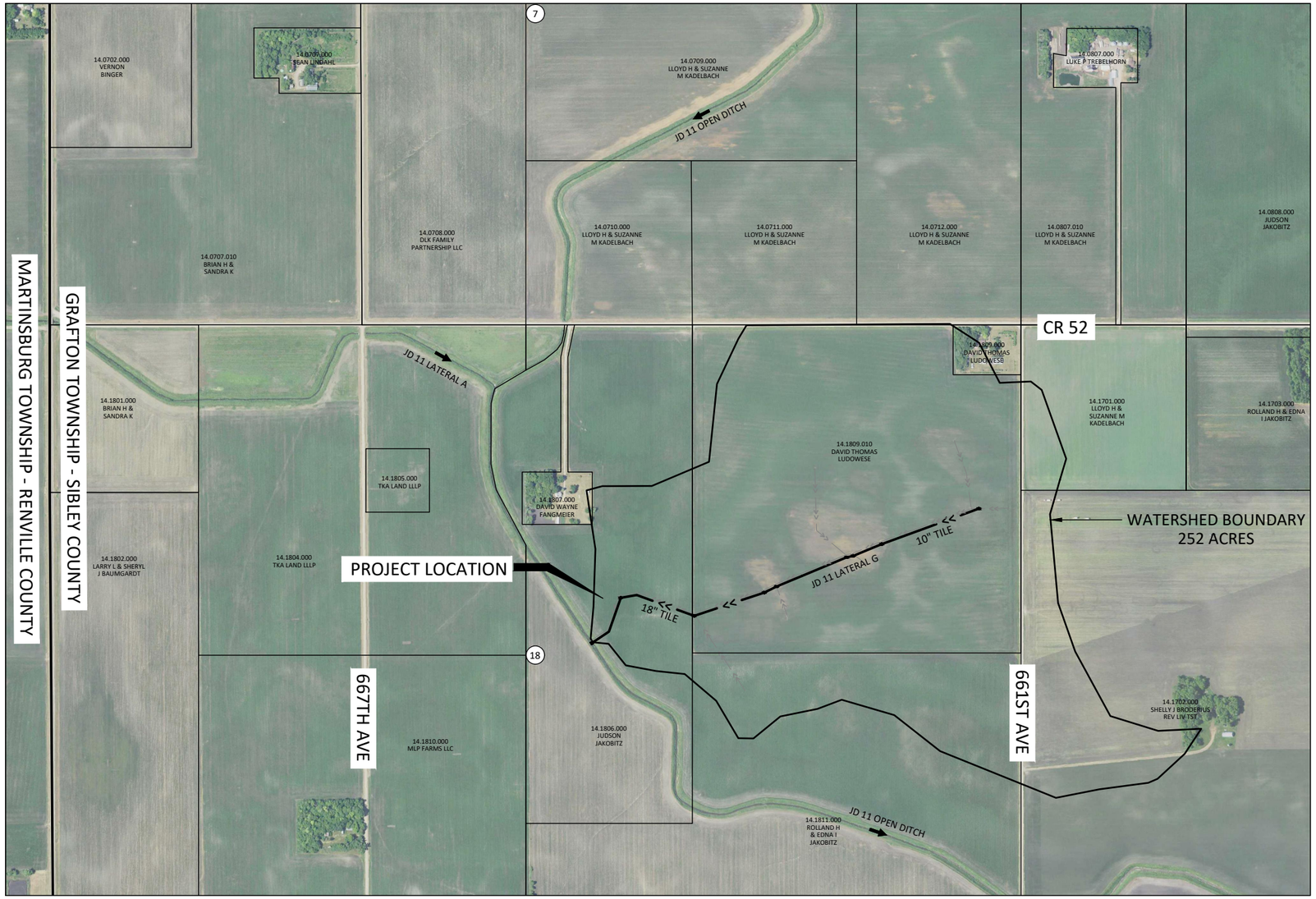
HIGH ISLAND CREEK WATERSHED DISCTRICT

PRELIMINARY PLANS FOR

JUDICIAL DITCH 11 LATERAL G IMPROVEMENT

DRAIN TILE, SURFACE INTAKES AND EROSION CONTROL

JANUARY, 2025



SHEET NUMBER	SHEET TITLE
GENERAL	
G0.01 - G0.02	TITLE SHEET, LEGEND
CIVIL	
C1.01	DETAILS, TYPICAL SECTIONS
C2.01 - C2.XX	EROSION CONTROL PLAN, SWPPP
C5.01 - C5.02	DRAIN TILE PLAN & PROFILE

THIS PLAN SET CONTAINS 5 SHEETS.

PARTIAL MAP OF
SIBLEY COUNTY

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 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".

PROJECT DATUM: SIBLEY CO COORDINATES

HORIZONTAL: NAD83 (2011)

VERTICAL: NAVD88

RECORD DRAWING INFORMATION

OBSERVER:

CONTRACTOR:

DATE:

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.

PRELIMINARY

FOR CONSTRUCTION

SHAUN P. LUKER

LIC. NO. 48756 DATE MM/DD/YYYY

BOLTON & MENK

1243 CEDAR STREET NE
SLEEPY EYE, MN 56085
Phone: (507) 810-4184
Email: SleepyEye@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
JGB			
DRAWN			
JGB			
CHECKED			
SPL			
CLIENT PROJ. NO.			
24X.136092.000			

HIGH ISLAND CREEK WATERSHED DISTRICT

JUDICIAL DITCH 11 LATERAL G IMPROVEMENT

TITLE SHEET

SHEET G0.01

H:\HIGHISCR_WD_MN\24X\136092000\CAD\C3D\136092G001.dwg 1/3/2025 10:14:49 AM

EXISTING TOPOGRAPHIC SYMBOLS

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

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
- CONTROL POINT
- MONUMENT FOUND
- CAST IRON MONUMENT
- STONE MONUMENT

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

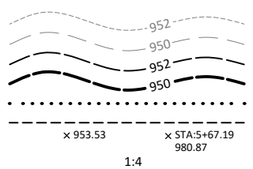
EXISTING UTILITY LINES

- 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



- EXISTING CONTOUR MINOR
- EXISTING CONTOUR MAJOR
- PROPOSED CONTOUR MINOR
- PROPOSED CONTOUR MAJOR
- PROPOSED GRADING LIMITS / SLOPE LIMITS
- PROJECT LIMITS
- PROPOSED SPOT ELEVATION
- RISE:RUN (SLOPE)

HATCH PATTERNS

- BITUMINOUS
- GRAVEL
- CONCRETE

EXISTING PRIVATE UTILITY LINES

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 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		

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.

PRELIMINARY NOT FOR CONSTRUCTION

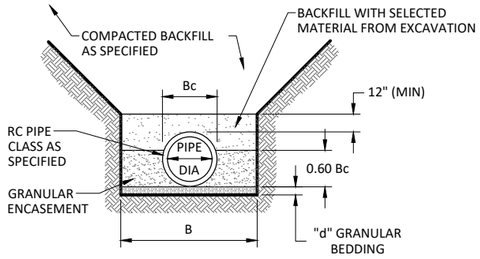
SHAUN P. LUKER
LIC. NO. 48756 DATE MM/DD/YYYY

BOLTON & MENK
1243 CEDAR STREET NE
SLEEPY EYE, MN 56085
Phone: (507) 810-4184
Email: SleepyEye@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
JGB			
DRAWN			
JGB			
CHECKED			
SPL			
CLIENT PROJ. NO.			
24X.136092.000			

HIGH ISLAND CREEK WATERSHED DISTRICT
JUDICIAL DITCH 11 LATERAL G IMPROVEMENT
LEGEND

SHEET
G0.02



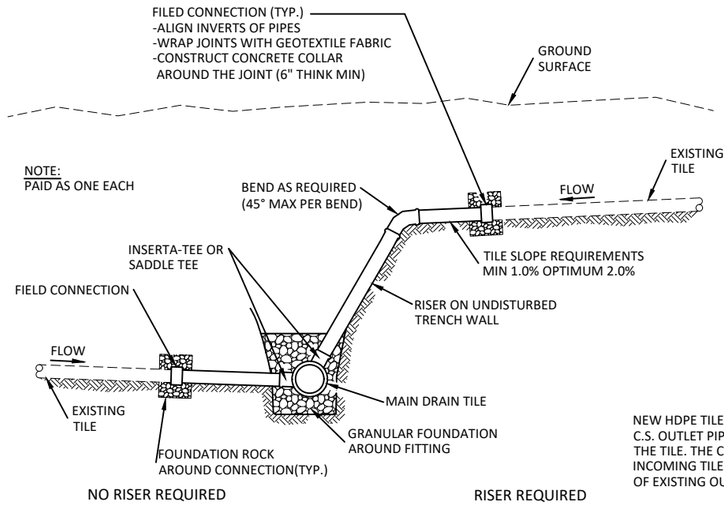
PIPE DIA	d	B
27" OR LESS	3"	Bc + 24"
30" TO 60"	4"	1.5 x Bc
66" OR OVER	6"	Bc + 36"

BOLTON & MENK

RC PIPE CLASS "B"
BEDDING-SQUARE TRENCH
NOT TO SCALE

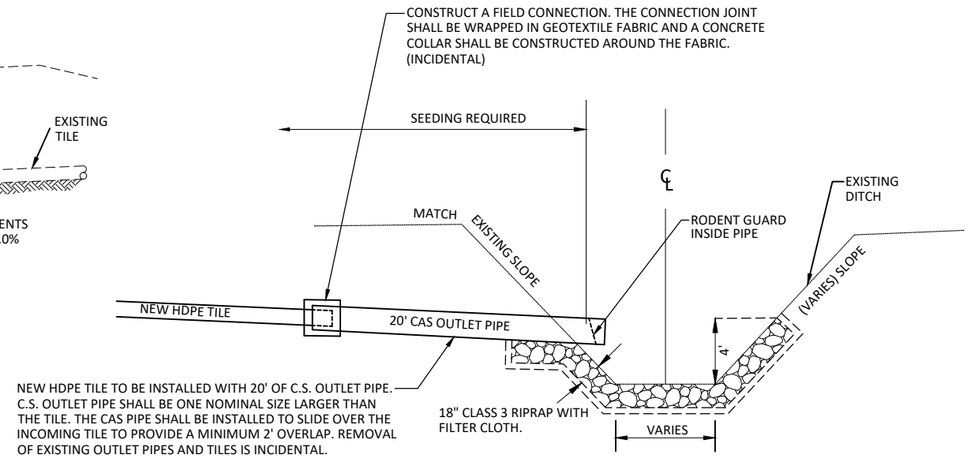
LAST REVISION: 04-2021

PLATE NO. 4-001-1



DRAIN TILE CONNECTION

NOT TO SCALE

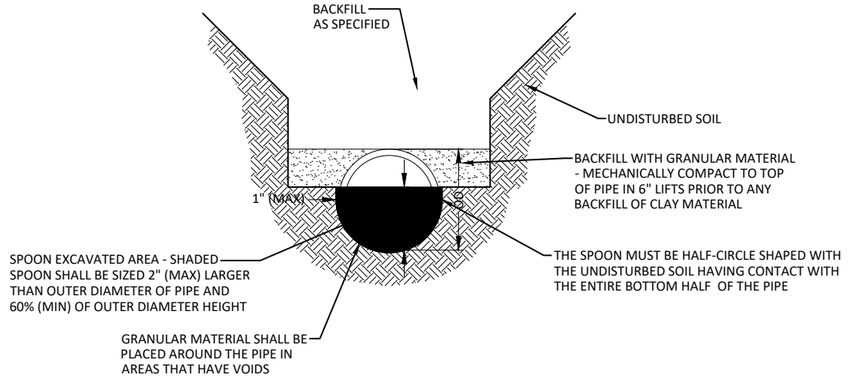


TYPICAL SECTION AT OPEN DITCH FOR HDPE TILE

NOT TO SCALE

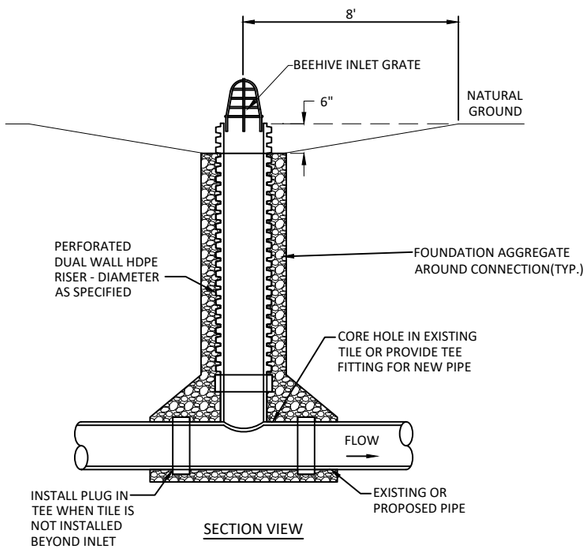
GRANULAR MATERIAL DEPTH TO INVERT TABLE (ASTM F2648)	
TILE SIZE (IN)	MAX PIPE DEPTH (FT)
4	21
6	21
8	21
10	21
12	21
15	21
18	21
24	19
30	19
36	18
42	18
48	18
60	17

NOTE: THIS TABLE IS FOR REFERENCE PURPOSES ONLY. ACTUAL MAXIMUM AND MINIMUM DEPTHS SHALL BE DETERMINED IN CONJUNCTION WITH MANUFACTURER AND TESTING AGENCIES.



HDPE "SPOON" TRENCH BEDDING DETAIL

NOT TO SCALE



FIELD INTAKE - IN FIELDS

NOT TO SCALE

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PRELIMINARY NOT FOR CONSTRUCTION

SHAUN P. LUKER
LIC. NO. 48756 DATE MM/DD/YYYY

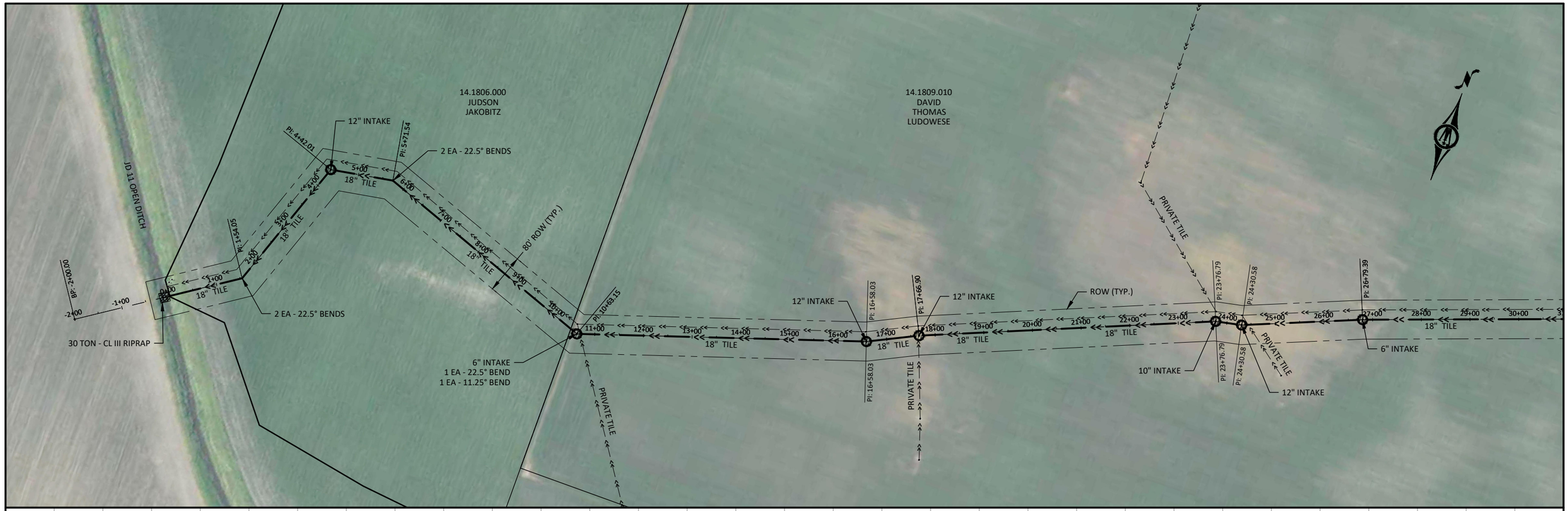
BOLTON & MENK

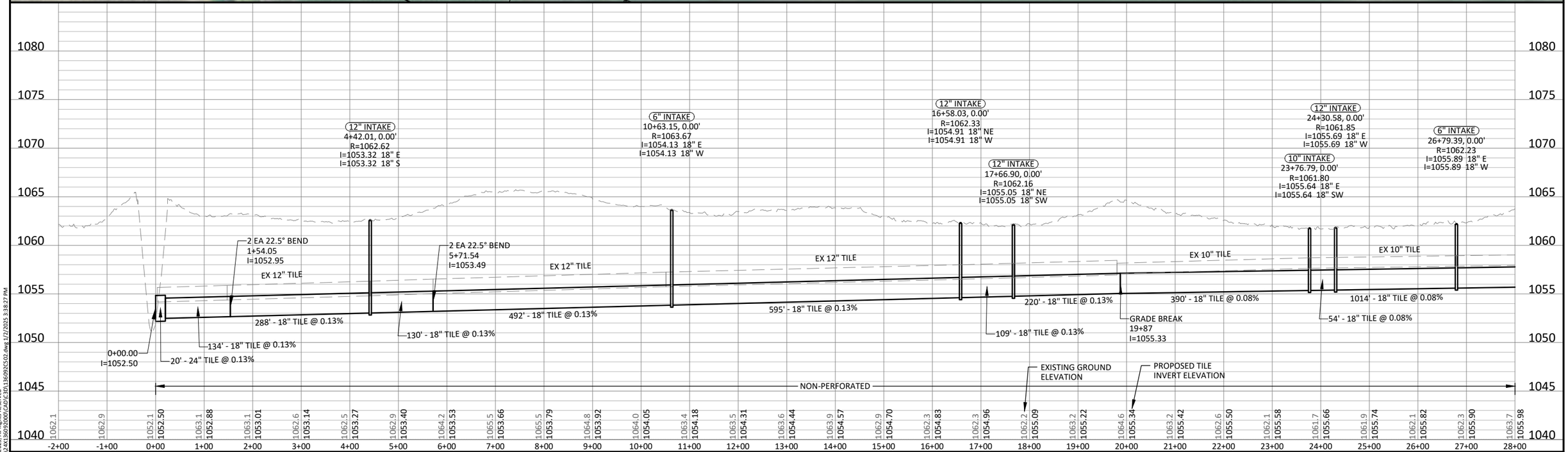
1243 CEDAR STREET NE
SLEEPY EYE, MN 56085
Phone: (507) 810-4184
Email: SleepyEye@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
JGB			
DRAWN JGB			
CHECKED SPL			
CLIENT PROJ. NO. 24X.136092.000			

HIGH ISLAND CREEK WATERSHED DISTRICT
JUDICIAL DITCH 11 LATERAL G IMPROVEMENT
DETAILS
DRAIN TILE DETAILS

SHEET C1.01





HORZ. SCALE 0 100 200 FEET

VERT. SCALE 0 5 10 FEET

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.

PRELIMINARY NOT FOR CONSTRUCTION

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DESIGNED	JGB
DRAWN	JGB
CHECKED	SPL
CLIENT PROJ. NO.	24X.136092.000

NO.	ISSUED FOR	DATE

HIGH ISLAND CREEK WATERSHED DISTRICT
JUDICIAL DITCH 11 LATERAL G IMPROVEMENT
DRAIN TILE PLAN
LATERAL G - STA -2+00 TO 28+00

SHEET C5.01

HORZ. SCALE 0 100 200 FEET

VERT. SCALE 0 5 10 FEET

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SHAUN P. LUKER
LIC. NO. 48756 DATE MM/DD/YYYY

PRELIMINARY - NOT FOR CONSTRUCTION

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DESIGNED	JGB
DRAWN	JGB
CHECKED	SPL
CLIENT PROJ. NO.	24X.136092.000

NO.	ISSUED FOR	DATE

HIGH ISLAND CREEK WATERSHED DISTRICT
JUDICIAL DITCH 11 LATERAL G IMPROVEMENT
DRAIN TILE PLAN
LATERAL G - STA 26+00 TO 56+00

SHEET C5.02

Exhibit 2: Petition for Improvement

STATE OF MINNESOTA
COUNTY OF SIBLEY

In Re:

Sibley County Judicial Ditch No. 11, Lateral G
Sibley County, Minnesota.

PETITION FOR IMPROVEMENT OF DRAINAGE SYSTEM

TO: THE BOARD OF MANAGERS OF THE HIGH ISLAND WATERSHED DISTRICT AS THE DRAINAGE AUTHORITY FOR JUDICIAL DITCH NO. 11 (SIBLEY COUNTY, MINNESOTA)

Petitioners respectfully represent, state and request the following:

1. **Jurisdiction.**

The undersigned Petitioners constitute (1) at least 26% of the owners of the property affected by the proposed improvement; (2) at least 26% of the owners of property that the proposed improvement passes over; (3) the owners of at least 26% of the property area affected by the proposed improvement; or (4) the owners of at least 26% of the property area that the proposed improvement passes over.

2. **Designation of Drainage System.**

This Petition requests the improvement of the drainage system known by and designated as Judicial Ditch No. 11, Lateral G, located in Grafton Township, Sibley County, Minnesota.

3. **Need for Improvement.**

The drainage system has insufficient capacity or needs enlarging or extending to furnish sufficient capacity or a better outlet. Judicial Ditch No. 11, Lateral G provides beneficial drainage to agricultural properties, public roadways and other lands located in Section 18, Township 114, Range 31, Sibley County, Minnesota. Judicial Ditch No. 11, Lateral G is in need of repair. Judicial Ditch No. 11, Lateral G has remained in service since its original construction. Other than minor repairs, no major repairs have been made to Judicial Ditch No. 11, Lateral G since it was constructed. Even in a repaired state, Judicial Ditch No. 11, Lateral G is inadequate to support beneficial drainage for current farming and drainage practices. Judicial Ditch No. 11, Lateral G has insufficient capacity and needs enlarging to furnish sufficient capacity and better outlet.

7. **Cost Bond.**

One or more petitioners shall cause a bond to be filed in the amount of at least $10,000.00 payable to the drainage authority. The bond will be conditioned to pay the costs incurred if the proceedings are dismissed or if a contract is not awarded to construct the proposed improvement described in the petition. In lieu of a bond, one or more Petitioners may request permission to deposit $10,000.00 cash with the drainage authority to secure payment of such costs.

8. **Separable Maintenance.**

Because Judicial Ditch No. 11, Lateral G is in need of repair, Petitioners request, to the extent practicable, that the drainage authority consider, under Minn. Stat. § 103E.215, subd. 6, the separable maintenance portion of the work when determining benefits and assessing costs of the improvement.

WHEREFORE, the Petitioners respectfully request the following:

a. That the drainage authority accept this Petition, review it and determine that it is legally adequate; and

b. That the drainage authority appoint Shaun Luker of Bolton & Menk as engineer for purposes of the proposed improvement and direct the engineer to prepare an engineer's preliminary report for the proposed improvement, including allowing the engineer to analyze other potential routes for the proposed improvement and whether separable maintenance may be employed.

FLUEGEL, ANDERSON, MCLAUGHLIN
& BRUTLAG, CHARTERED

Dated: _____

By *s/ Jason G. Lina*
Jason G. Lina, #347541
Attorneys for Petitioners
215 Atlantic Avenue, PO Box 527
Morris, MN 56267
(320) 589-4151/phone
(320) 589-4154/fax
jlina@fluegellaw.com

4. **Description of Improvement.**

The proposed improvements include: Enlarging the existing tile to provide a 3/8 drainage coefficient in the manner to be determined by Bolton & Menk, Inc.

The following is a description of a starting point, general course, and terminus of the proposed improvement: Commencing at a point in the Northeast Quarter of Section 18, Township 114, Range 31, Grafton Township, Sibley County, Minnesota; thence southwesterly; terminating at a point located in the Northwest Quarter of Section 18, Township 114, Range 31, Grafton Township, Sibley County, Minnesota.

Set forth below is a list of the forty-acre tracts or Government Lots that the proposed improvement would pass over, together with the names and addresses of the owners of those tracts.

Tract	PIN	Owner	Address	Description	Sec.	Twp.	Rge.
1	14.1809.010	David Thomas Ludowese & Lynette Kay Ludowese	55350 Hidden Cir SW Hutchinson, MN 55350	PT NE¼NE¼	18	114	31
2	14.1809.010	David Thomas Ludowese & Lynette Kay Ludowese	55350 Hidden Cir SW Hutchinson, MN 55350	SE¼NE¼	18	114	31
3	14.1809.010	David Thomas Ludowese & Lynette Kay Ludowese	55350 Hidden Cir SW Hutchinson, MN 55350	SW¼NE¼	18	114	31
4	14.1806.000	Judson Jakobitz & Rolland Jakobitz	65597 180 St, Buffalo Lake, MN 55314	Gov. Lot 8	18	114	31

5. **Public Utility and Health.**

The proposed improvement will be of public utility and will promote the public health.

6. **Agreement by Petitioners.**

The undersigned Petitioners have been informed and understand that they may not withdraw as a 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 improvement proceedings are dismissed.

SIGNATURE PAGES FOR
PETITION FOR IMPROVEMENT TO JUDICIAL DITCH NO. 11, LATERAL G
(SIBLEY COUNTY, MINNESOTA)

Name of Petitioner(s) (please print or type):

David Ludowese

Lynette Ludowese

Ownership (check one):

____ Individual
_X_ Co-Owners (# of co-owners: _____)
____ Partner (name of Partnership: _____)
____ Corporation or limited liability company (name of corporation or LLC: _____)
____ Trust (complete name of trust: _____)
____ Other (explanation: _____)

Statement of Authority:

The undersigned states and represents that if he or she is executing in a representative capacity, he or she has the authority to execute on behalf of the respective partnership, corporation, limited liability company, trust or other such entity.

The above-named Petitioner(s) own the following tract(s) which the proposed improvement will pass over or which is affected by the proposed improvement:

Tract Description	Section	Township	Range	County
1	18	114	31	Sibley
2	18	114	31	Sibley
3	18	114	31	Sibley

Dated: Aug 15, 2024

David Ludowese
(Signature)

Dated: Aug 15 -2024

Lynette Ludowese
(Signature)

Dated: _____

_____
(Signature)

Exhibit 3: Preliminary Cost Estimate

ENGINEER'S ESTIMATE

JD 11 LATERAL G IMPROVEMENTS
HIGH ISLAND WATERSHED DISTRICT
PROJECT NO. 24X.136092.000

BOLTON & MENK
Real People. Real Solutions.

Date: 12/26/2024

Item No.	Item	Notes	Estimated Quantity	Unit	Unit Price	Total Amount
BASE BID						
1	MOBILIZATION		1	LUMP SUM	$8,000.00	$8,000.00
2	EXPLORATORY EXCAVATION		25	HOUR	$300.00	$7,500.00
3	DRAIN TILE CONNECTIONS		20	EACH	$1,000.00	$20,000.00
4	6" INTAKE	(1)	2	SQ YD	$1,000.00	$2,000.00
5	8" INTAKE	(1)	1	EACH	$1,250.00	$1,250.00
6	10" INTAKE	(1)	1	EACH	$1,500.00	$1,500.00
7	12" INTAKE	(1)	4	EACH	$1,750.00	$7,000.00
8	10" HDPE TILE	(2)	520	LIN FT	$22.00	$11,440.00
9	18" HDPE TILE	(2)	2980	LIN FT	$30.00	$89,400.00
10	24" CM PIPE		20	LIN FT	$200.00	$4,000.00
11	RAPID STABILIZATION METHOD 4		25	SQ YD	$35.00	$875.00
12	MULCH TYPE 1		12	TON	$3.00	$36.00
13	RANDOM RIPRAP CLASS III		20	TON	$120.00	$2,400.00
					ESTIMATED BASE BID TOTAL:	**$155,401.00**

NOTES:

(1) SHALL INCLUDE ALL LABOR AND MATERIALS REQUIRED TO CONSTRUCT INTAKE.
(2) PIPE SHALL MEET MINIMUM REQUIREMENTS OF ASTM F2648. ALTERNATIVELY AASHTO M252 OR 294 MAY BE USED IN LEIU FOR NO ADDITIONAL PAYMENT. PRICE OF BENDS AND FITTINGS SHALL BE INCLUDED IN THE PRICE OF LINEAR FOOT OF SPECIFIED PIPE.

TEMPORARY RIGHT OF WAY DAMAGES:	6.44	ACRES	$600.00	$3,864.00
			SUBTOTAL:	$159,265.00
			10% CONTINGENCY:	$15,930.00
			TOTAL ESTIMATED CONSTRUCTION COST:	**$175,195.00**
			DESIGN, ADMINISTRATION AND CONSTRUCTION ENGINEERING:	$23,890.00
			TOTAL ESTIMATED PROJECT COST:	**$199,085.00**

Exhibit 4: Separable Maintenance

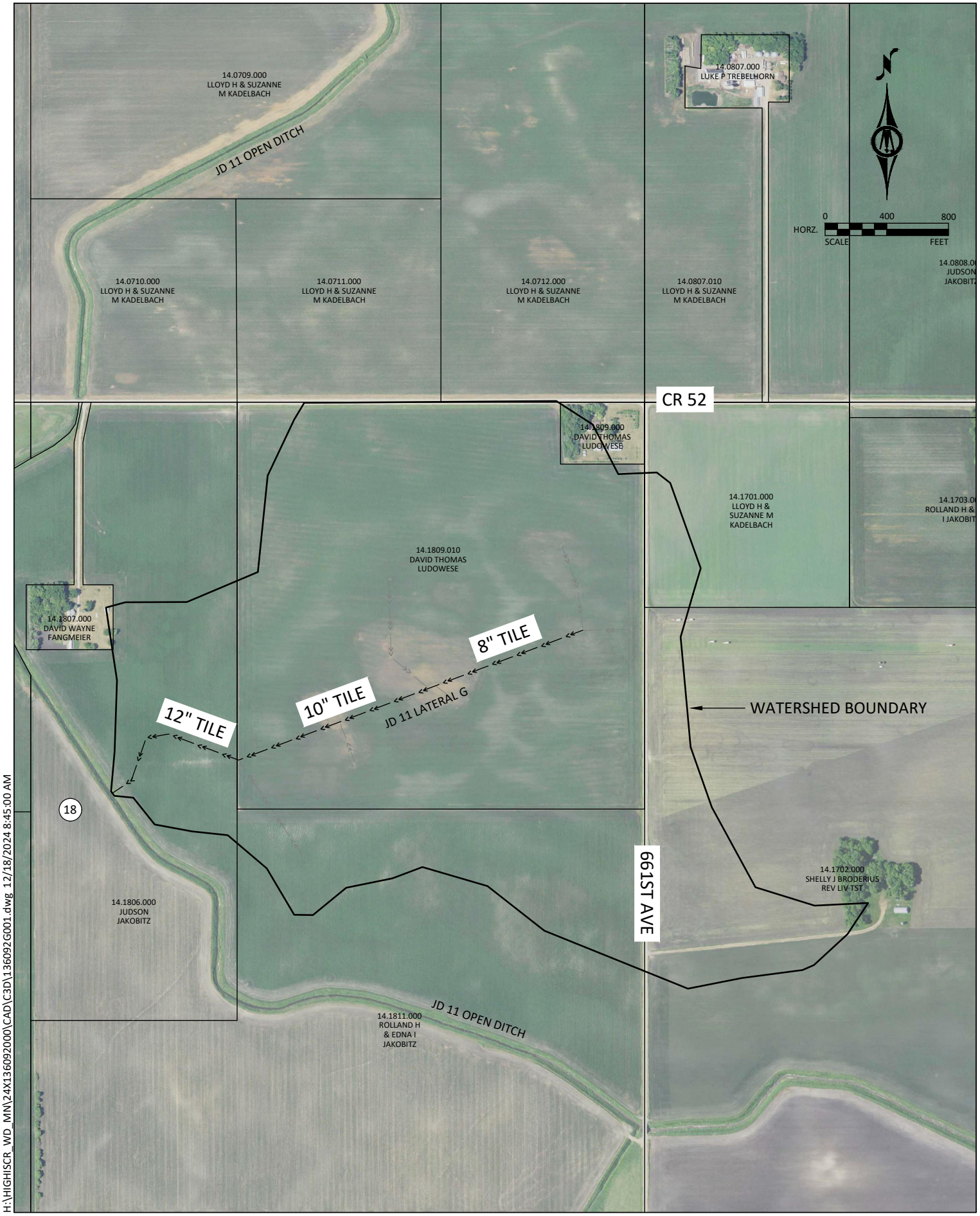
JD 11, LATERAL G IMPROVEMENT

HIGH ISLAND CREEK WATERSHED DISTRICT

SEPARABLE MAINTENANCE

DECEMBER 2024

BOLTON & MENK



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SEPARABLE MAINTENANCE

JD 11 LATERAL G IMPROVEMENTS
HIGH ISLAND WATERSHED DISTRICT
PROJECT NO. 24X.136092.000

BOLTON & MENK
Real People. Real Solutions.

Date: 12/26/2024

Item No.	Item	Notes	Estimated Quantity	Unit	Unit Price	Total Amount
BASE BID						
1	MOBILIZATION		1	LUMP SUM	$8,000.00	$8,000.00
2	EXPLORATORY EXCAVATION		25	HOUR	$300.00	$7,500.00
3	DRAIN TILE CONNECTIONS		20	EACH	$1,000.00	$20,000.00
4	6" INTAKE	(1)	2	SQ YD	$1,000.00	$2,000.00
5	8" INTAKE	(1)	1	EACH	$1,250.00	$1,250.00
6	10" INTAKE	(1)	1	EACH	$1,500.00	$1,500.00
7	12" INTAKE	(1)	3	EACH	$1,750.00	$5,250.00
8	8" HDPE TILE	(2)	520	LIN FT	$20.00	$10,400.00
9	10" HDPE TILE	(2)	1000	LIN FT	$22.00	$22,000.00
10	12" HDPE TILE	(2)	1980	LIN FT	$24.00	$47,520.00
11	18" CM PIPE		20	LIN FT	$180.00	$3,600.00
12	RAPID STABILIZATION METHOD 4		25	SQ YD	$35.00	$875.00
13	MULCH TYPE 1		12	TON	$3.00	$36.00
14	RANDOM RIPRAP CLASS III		20	TON	$120.00	$2,400.00
				ESTIMATED BASE BID TOTAL:		**$132,331.00**

NOTES:

(1) SHALL INCLUDE ALL LABOR AND MATERIALS REQUIRED TO CONSTRUCT INTAKE.
(2) PIPE SHALL MEET MINIMUM REQUIREMENTS OF ASTM F2648. ALTERNATIVELY AASHTO M252 OR 294 MAY BE USED IN LEIU FOR NO ADDITIONAL PAYMENT. PRICE OF BENDS AND FITTINGS SHALL BE INCLUDED IN THE PRICE OF LINEAR FOOT OF SPECIFIED PIPE.

TEMPORARY RIGHT OF WAY DAMAGES:	6.44	ACRES	$600.00	$3,864.00
			SUBTOTAL:	$136,195.00
			10% CONTINGENCY:	$13,620.00
			TOTAL ESTIMATED CONSTRUCTION COST:	**$149,815.00**
			DESIGN, ADMINISTRATION AND CONSTRUCTION ENGINEERING:	$20,430.00
			TOTAL ESTIMATED PROJECT COST:	**$170,245.00**

Exhibit 5: Right-of-Way Table

Judicial Ditch No. 11 Lateral G Improvement

High Island Creek Watershed District

Right-of-way Table

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26-Dec-24

H:\HIGHISCR_WD_MN\24X136092000\2_Preliminary\A_Calculations\[136092_ROW.xlsx]Sheet1

			Improvement Right-of-Way					Amount/Ac
Parcel No.	**Property Owner**	**Legal Description**	**Station to Station**		**Length**	**Width**	**Area (Acres)**	**$600**
Branch Q1								
17.1806.000	JUDSON JAKOBITZ	SW 1/4, NE 1/4	0+00	10+47	1047	80	1.92	$1,152.00
14.1809.010	DAVID THOMAS LUDOWESE	SW 1/4, NE 1/4	10+47	35+10	2463	80	4.52	$2,712.00
	Total			**Total Improvement Right-of-Way Damages =**			**6.44**	**$3,864.00**