

GISLASON & HUNTER LLP
ATTORNEYS AT LAW

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REDWOOD COUNTY
AUDITOR - TREAS

September 4, 2024

Dean M. Zimmerli
507-354-3111
dzimmerli@gislason.com

Redwood County Government Center
Redwood County Auditor
Attn: Jean Price
403 South Mill Street
PO Box 130
Redwood Falls, MN 56283

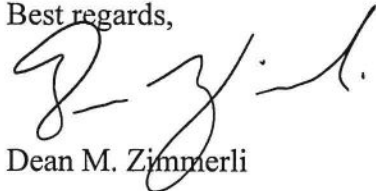
Re: Redwood County Ditch 93
Our File No. 35546-1

Dear Ms. Price:

Enclosed for filing, please find a Petition to Impound, Reroute, and Divert CD 93 Drainage System Waters pursuant to Minn. Stat. 103E.227. Our firm represents the petitioner, Boerboom Ag Resources, LLC. In addition, the petitioner will separately send a \$10,000 cash deposit in lieu of a bond pursuant to Minn. Stat. 103.227 subd. 2(a). If some sort of escrow agreement is required for this, please have the drainage authority's attorney contact me to discuss.

Petitioner respectfully requests the petition be presented to the drainage authority at its next meeting for consideration and appointment of an engineer to investigate the effect of the proposed project and file a report of findings, pursuant to Minn. Stat. 103E.227 subd. 3(a). Because ISG engineers have familiarity with the project, petitioners request they be appointed as the project engineer.

Best regards,



Dean M. Zimmerli

DMZ:JH
Enclosure

4896-0186-6205

**STATE OF MINNESOTA
BEFORE THE REDWOOD COUNTY BOARD OF COMMISSIONERS
SITTING AS THE DRAINAGE AUTHORITY
FOR REDWOOD COUNTY DITCH 93**

In the Matter of:

Petition to Impound, Reroute and Divert
CD 93 Drainage System Waters

PETITION

Pursuant to Minn. Stat. § 103E.227, Petitioner seeks approval to impound, reroute and divert drainage system waters on the County Ditch 93 drainage system in Redwood County, Minnesota, for beneficial use. For their Petition, the undersigned Petitioner states and alleges the following:

1. Petitioner seeks approval to impound, reroute and divert drainage system waters on the Redwood County Ditch 93 ("CD 93") drainage system located in Section 21 of Underwood Township, Redwood County, Minnesota, for beneficial use.
2. The project will be of a public and private benefit.
3. Petitioners propose to reroute and divert portions of the CD 93 drainage system located on or across the following properties:

<u>Property Description</u>	<u>Property Owner</u>	<u>Address</u>
SW ¼, Sec. 21-112N-39W	Boerboom Ag Resources LLC	3173 State Hwy 19 Marshall, MN 56258

4. Specifically, Petitioner seeks to replace the upstream open ditch portion of CD 93 located in the NW ¼ SE ¼ of Section 21 of Underwood Township with buried tile. This will primarily serve to eliminate the impediment that the existing open ditch creates for farming the SW ¼ of Section 21; the existing open ditch bisects Petitioner's farmland and cuts off approximately 10 acres of farmland from the remainder of the field, creating significant challenges for moving and operating equipment. In addition, eliminating the open ditch will eliminate the potential for ditch scour and erosion, which should improve downstream water quality, and reduce future maintenance costs associated with cleaning open ditches and repairing bank failures. Thus, the project will have public and private benefits.

5. ISG, Inc., an engineering firm with expertise in agricultural drainage, has investigated the potential and feasibility of rerouting and diverting portions of the CD 93 system and has found that a feasible solution exists to reroute and divert the open ditch portion of CD 93 located on the NW ¼ SE ¼ of Section 21 of Underwood Township through buried tile.

6. Attached to this Petition as **Exhibit A** is a Feasibility Report which contains plans and specifications for the proposed reroute and diversion developed by ISG.

7. Included in the Feasibility Report is a map of the areas likely to be affected by the reroute and diversion of CD 93 drainage system waters.

8. The rerouting and diversion of CD 93 in the location of the project will include the following:

- a. Filing in the existing open ditch located on the NW ¼ SE ¼ of Section 21 of Underwood Township.
- b. Replacing the existing open ditch along the same general route with a buried tile of 36-inch diameter
- c. Connecting any tile or culverts from west of Balsa Avenue into the new tile, connecting any other private tile located on the NW ¼ SE ¼ of Section 21 of Underwood Township into the new tile, and outletting the new tile just upstream and south of 305th St.
- d. Construction of the new proposed tile through the project area will preserve the efficiency and benefits of the existing CD 93 system for property owners as indicated on the attached exhibits.

9. Petitioner agrees to be responsible for the cost of installation and construction of the structures, including the new tile line, as well as the engineering and legal costs associated with this Petition.

10. Petitioner requests that the drainage authority appoint an engineer to investigate the effect of the proposed reroute and diversion and to file a report of findings, pursuant to Minn. Stat § 103E.227 subd 3(a). Petitioner suggests Jacob Rischmiller of ISG be appointed to investigate the proposed project, as he is familiar with the proposed project.

11. Petitioner states that no public waters work permit is required for this project.

12. A bond in the amount of at least \$10,000.00 or a cash deposit in that amount is being submitted with this Petition, payable to the drainage authority for CD 93 and conditioned to pay the costs incurred if these proceedings are dismissed. Petitioner acknowledges and agrees that additional bonds or cash deposits may be required as additional costs are incurred by the drainage authority in connection with these proceedings.

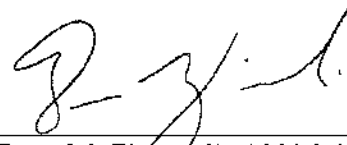
13. Petitioner proposes to construct the project, including the new, rerouted tile line, at Petitioner's expense. Petitioner further proposes that after construction, the drainage authority will take ownership of and maintain the new tile line as part of the CD 93 system.

14. Petitioner shall acquire, in writing, all property rights, rights-of-way, or flowage easements, if any, necessary before construction of the project. Petitioner does not believe any such rights-of-way or flowage easements are required for this project.

15. Petitioners request that the drainage authority conduct a public hearing pursuant to Minn. Stat. § 103E.227, subd. 3, in order to:

- a. Determine that the project will be of a public or private benefit;
- b. Determine that said project will not impair the utility of the CD 93 drainage system or deprive affected landowners of its benefits;
- c. Make an order modifying the drainage system accordingly;
- d. Determine the amount of drainage system funds, if any, to contribute to the project;
- e. Identify the parties responsible for construction, operation and maintenance of the drainage system modification; and
- f. Issue an order authorizing the project.

Dated this 26th day of August, 2024.



Dean M. Zimmerli #0396791
dzimmerli@gislason.com
GISLASON & HUNTER LLP
Attorneys for Petitioners
2700 South Broadway
P. O. Box 458
New Ulm, MN 56073-0458
Phone: 507-354-3111

[Petitioner signatures on following page]

PETITIONERS

Dated: August __, 2024

BOERBOOM AG RESOURCES, LLC

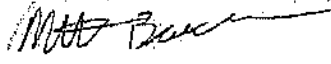
By: 
Name: Matthew Boerboom
Title: Member

EXHIBIT A
(Feasibility Report)

Feasibility Report

County Ditch No. 93

Redwood County, Minnesota

Date: August 21st, 2024

ISG Project No.: 24-31130



Architecture
Engineering
Environmental
Planning
ISGinc.com

REPORT FOR:
Matt Boerboom
Owner
Boerboom Ag Resources
3173 State Highway 9
Marshall, MN 56258
507.829.1743
matt@boerboomag.com

FROM:
Jacob Rischmiller, PE
Water Resources Practice Group Leader
ISG
115 E. Hickory Street, Suite 300
Mankato, MN 56001
507.387.6651
Jacob.Rischmiller@ISGInc.com

TABLE OF CONTENTS

Table of Contents.....	i
Project Summary.....	1
System Watershed.....	1
Location.....	1
Watershed Description.....	1
History.....	1
Project scope.....	1
Existing Condition of System.....	1
Present Condition of Drainage Infrastructure.....	1
System Capacity.....	2
Proposed Conditions.....	3
Replacement Option 1.....	3
Preliminary Cost Estimates.....	4
Separable Maintenance.....	4
Cost Estimates.....	4
Potential funding sources.....	5
Conclusions + Recommendations.....	5

PROJECT SUMMARY

At your request, ISG completed a preliminary review of Redwood County Ditch No. 93 (CD 93). The scope included an examination of the existing CD 93 watershed, specifically the area drained by Branch 1 open ditch from station 23+47 to station 37+32, as well as recommendations for repairing and improving the existing open ditch system. Maps of the CD 93 watershed and existing public open ditch and tile system are shown on the attached exhibits and are referenced herein.

It should be noted that some general assumptions were made during this analysis. ISG received the original watershed map, showing the tile and open ditch locations and grades from Redwood County for the CD 93 system. Additional information may or may not modify our findings, but it is not anticipated that significant changes to our recommendation would result. If you, or any other landowners, have tile maps or any other information that can aid us in future work, please feel free to share this information with us. Further topographic survey and investigation will be necessary to verify these assumptions.

SYSTEM WATERSHED

Location

Redwood County Ditch No. 93 watershed is located in Sections 20-22, 27-29, and 33 of Underwood Township in Redwood County. The mainline ditch generally runs north from its end in Section 28 of Underwood Township to Section 21 of Underwood Township to its outlet, the Redwood River.

Watershed Description

The CD 93 system drains approximately 2,172 acres. Its watershed is characterized by gently rolling agricultural lands with an elevation difference of approximately 61 feet. There are several Minnesota Board of Water & Soil Resources (BWSR) easements located within and downstream of CD 93. There is a 57.2-acre Permanent Wetland Preserve (PWP) easement located in the southern portion of the watershed and several RIM and CREP easements located downstream of the watershed along the Redwood River.

HISTORY

According to historical records provided by Redwood County, the CD 93 system was originally constructed in 1955. CD 93 consists of 16,018 feet of open ditch including Mainline, Branch 1, and Branch 2. The system also includes 8,701 feet of tile including Branch 2, Branch 2A, Branch 2B, and Branch 2C.

There are no documented repairs or improvements to the CD 93 system. It is assumed the original plan and profile materials accurately depict the current drainage infrastructure, although varying degrees of deterioration and inefficiency may exist based on the age of the system.

PROJECT SCOPE

The remainder of this feasibility report will highlight a small portion of the Branch 1 open ditch per request of the petitioner. It was requested of ISG to determine the feasibility of filling and replacing this portion of open ditch. The project will follow Minnesota Drainage Statute 103E.227; Impounding, Rerouting, and Diverting Drainage System Waters. See the attached Exhibits for maps of the project area.

EXISTING CONDITION OF SYSTEM

Present Condition of Drainage Infrastructure

The open ditch channel contains a typical trapezoidal channel designed to convey both surface and subsurface tile water throughout the upstream watershed. According to historical records, the open ditch in this area is at a slope of 0.04%. In most areas, existing tile outlets from private tiles outlet near the bottom of the ditch. These outlets were located using a private tile map provided by the landowner and verified during an on-site survey.

The current alignment of the open ditch creates a diagonal division in the NW corner of the 160-acre Boerboom Ag Resources parcel (ID 70-021-3020). This division cuts off the NW corner and makes desired farming patterns unattainable. The existing open ditch in the project area is not in a state of disrepair but is currently 69 years old and has no record of past repairs, therefore a ditch cleaning should be due on this portion of open ditch.

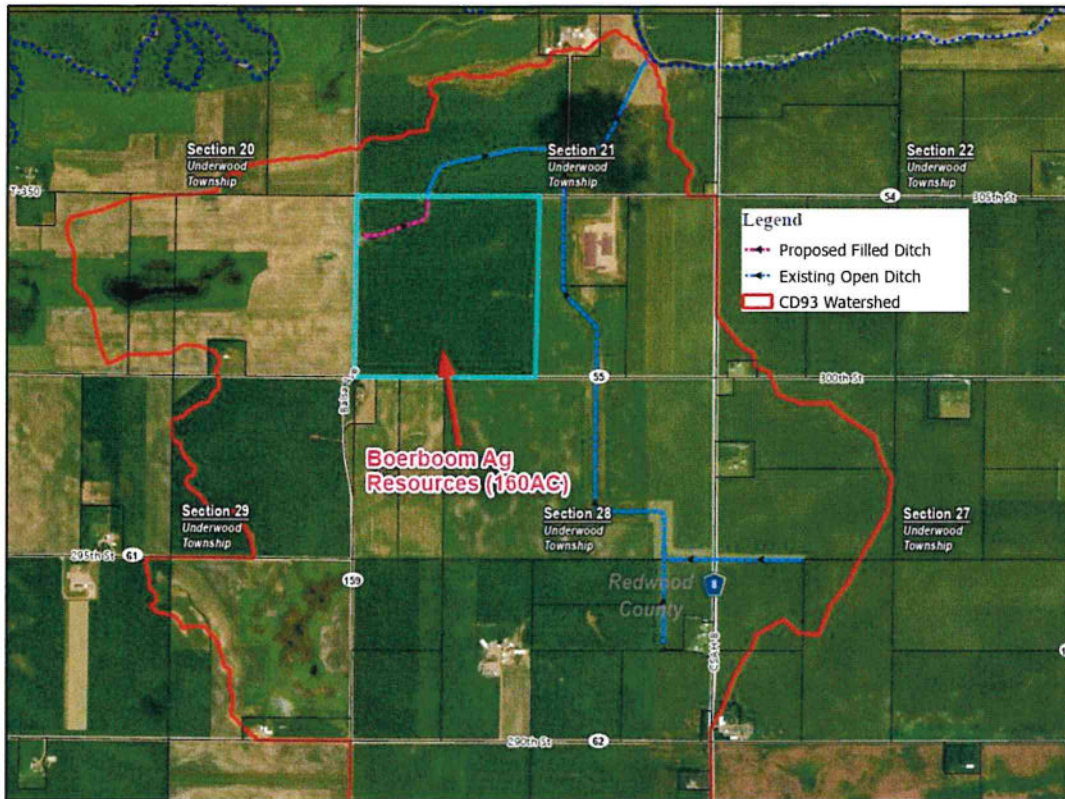


Figure 1: Aerial image showing the proposed project location.

System Capacity

The information in this document has been prepared with the original CD 93 alignment map. A close representation of the CD 93 watershed was created using this information in conjunction with LiDAR contours, Minnesota DNR Watershed lines, aerial photographs, USGS Stream-Stats, and an on-site survey.

The capacity of agricultural tile is expressed as a drainage coefficient, in inches per day (in/day), and is defined as the depth of water over the entire area of the upstream watershed that a tile can drain in a 24-hour period. For a system like CD 93, the recommended drainage coefficient for subsurface drainage tile is 0.50 in/day and 1.0 in/day for open ditches. The following table summarizes the hydraulic analysis of the CD 93 system. See Figure 2 below for the crossing locations.

TABLE 1. CD 93 EXISTING DRAINAGE CALCULATIONS

Description	Existing Type	Existing Material	Existing Size (in)	Existing Slope (%)	Drainage Area (Acres)	Existing Drainage Coefficient (in/day)
305th Street	ROUND CULVERT	RCP	48	-0.44%	926	0.37
Private Drive	ROUND CULVERT	RCP	54	0.30%	2661	0.97
Balsa Ave. Stub	SUBSURFACE TILE	HDPE	15	0.07%	236	0.17

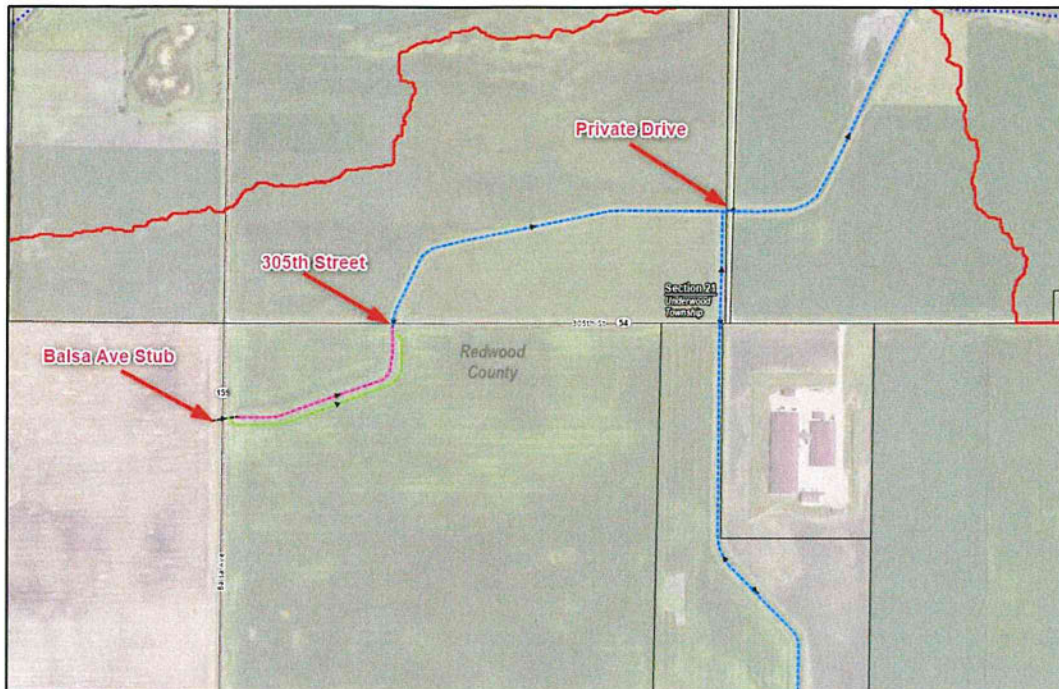


Figure 2: Crossing Locations

PROPOSED CONDITIONS

It is proposed to fill the existing open ditch to revert the land back to farmable area. To ensure proper drainage is upheld, subsurface tile will be installed in place of the open ditch. The tile will consist of dual wall, non-perforated HDPE pipe and follow the general alignment of the previous open ditch. The proposed option will be sized to match the existing drainage coefficient of the closest downstream culvert crossing, as to not overload the crossing and to keep costs low. The closest downstream crossing (305th Street) currently has a drainage coefficient of 0.37 in/day.

Replacement Option 1

The proposed replacement option includes filling approximately 1,246 LF of existing open ditch and replacing it with 1,352 LF of subsurface drainage tile. The ditch will be filled at traversable grade to maintain farm-ability. The proposed tile will connect to the existing 15-inch tile stub on the east side of Balsa Avenue, and outlet into the Branch 1 open ditch on the south side of 305th Street. The proposed tile will be installed on the south side of the existing open ditch and generally follow the same alignment. The southern alignment was preferred due to the amount of private tile outlets found on the south slope of the open ditch during the on-site survey. Figure 3 below shows a preliminary cross section of the project, while Table 2 below shows the proposed tile drainage capacity.

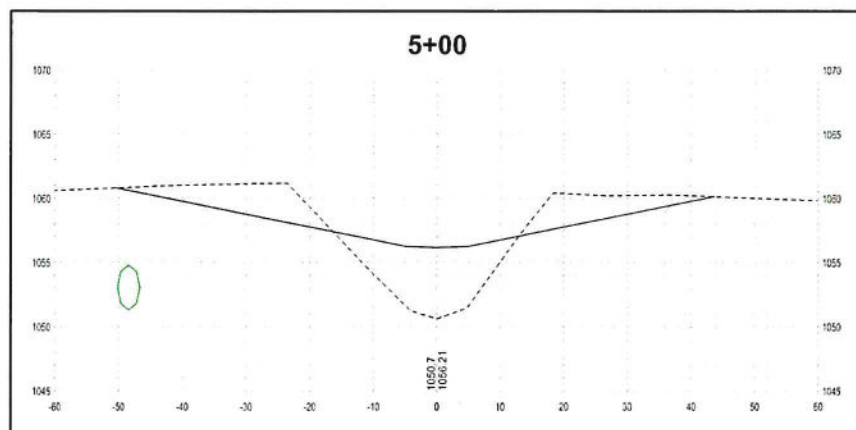


Figure 3: Preliminary cross-section

TABLE 2. CD 93 PROPOSED DRAINAGE CALCULATIONS

Area	Proposed Size (in)	Proposed Slope (%)	Drainage Area (Acres)	Proposed Drainage Coefficient (in/day)
Branch 1	36	0.06%	926	0.42

Due to the elevation of the 15" tile under Balsa Ave and the bottom on ditch elevation near 305th Street, there is a severe restriction in allowable grade for the proposed tile. For this reason, a 36-inch tile will be required to at least meet the 0.37 in/day drainage coefficient of the 305th Street culvert crossing. Since the proposed tile will outlet before the culvert at 305th Street, the controlling capacity will remain at the culvert.

PRELIMINARY COST ESTIMATES

Separable Maintenance

According to Minnesota Drainage Statute, Section 103E.227, Subd. 5, if the part of the drainage system located within the project boundaries is in need of repair, the petitioner's engineer shall estimate the cost at the time of petition of these separable repairs. The open ditch is due for a cleaning, therefore the cost to clean the ditch will be appropriated as separable maintenance, while the remaining project cost will be applied to the benefitted landowner (Mr. Boerboom).

Cost Estimates

A cost estimate was prepared for the above outlined option for replacement of the existing open ditch, as summarized in Tables 3 and 4. It should be noted the unit prices for the cost estimates are based on previous projects. When considering potential increase in production, the proposed repairs to the CD 93 system described in this report are cost effective.

TABLE 3. CD 93 PROPOSED PROJECT COST ESTIMATE (SEPARABLE MAINTENANCE)

Item No.	Item	Unit	Quantity	Unit Price	Amount
101	MOBILIZATION	LS	1	\$ 1,000.00	\$ 1,000
102	DITCH CLEANING (4' WIDE DITCH BOTTOM)	LF	1247	\$ 3.85	\$ 4,800
103	18-INCH TILE OUTLET (20 LF OF PIPE & RIPRAP ON GEOTEXTILE FABRIC)	EA	1	\$ 1,965.68	\$ 1,966
104	8-INCH TILE OUTLET (20 LF OF PIPE & RIPRAP ON GEOTEXTILE FABRIC)	EA	3	\$ 1,363.04	\$ 4,089
105	16.5' BUFFER STRIP SEEDING (SEED MIX: BUFFER BLEND WITH TYPE 3 MULCH)	AC	0.95	\$ 1,831.49	\$ 1,740
106	SIDESLOPE SEEDING (SEED MIX: BUFFER BLEND WITH TYPE 8 MULCH)	AC	0.58	\$ 4,538.91	\$ 2,633
107	MOWING	AC	1.9	\$ 312.84	\$ 594
108	WEED SPRAYING	AC	2.48	\$ 240.33	\$ 596
SUBTOTAL CONSTRUCTION COST					\$ 17,418
10% UNFORSEEN					\$ 1,742
TOTAL CONSTRUCTION COST					\$ 19,160
TEMPORARY DAMAGES		AC	0.94	\$ 750.00	\$ 709
COUNTY ADMINISTRATION COSTS					\$ 958
TOPOGRAPHIC SURVEY					\$ 1,181
REPORTS, PLANS AND SPECIFICATIONS					\$ 1,916
CONSTRUCTION STAKING & ADMINISTRATION					\$ 2,587
TOTAL CLEANING REPAIR COST					\$ 26,510

TABLE 4. CD 93 PROPOSED PROJECT TOTAL COST ESTIMATE

Item No.	Item	Unit	Quantity	Unit Price	Amount
101	MOBILIZATION	LS	1	\$ 5,830.00	\$ 5,830
102	TILE INVESTIGATION	HR	3	\$ 233.96	\$ 702
103	36-INCH AGRICULTURAL TILE	LF	1352	\$ 62.68	\$ 84,745
104	CONNECT EXISTING 18-INCH TILE	EA	1	\$ 1,712.88	\$ 1,713
105	CONNECT EXISTING 8-INCH TILE	EA	3	\$ 739.99	\$ 2,220
106	GRANULAR PIPE FOUNDATION	CY	69	\$ 48.65	\$ 3,357
107	INSTALL DROP INTAKE (18-INCH)	EA	2	\$ 1,357.13	\$ 2,714
108	CAP DROP INTAKE (18-INCH)	EA	1	\$ 654.53	\$ 655
109	INSTALL BAR GUARD ASSEMBLY (18-INCH DROP INTAKES)	EA	1	\$ 394.03	\$ 394
110	36-INCH TILE OUTLET (20 LF OF PIPE & RIPRAP ON GEOTEXTILE FABRIC)	EA	1	\$ 2,521.97	\$ 2,522
111	SPOILS PLACEMENT	CY	4735	\$ 3.50	\$ 16,573
SUBTOTAL CONSTRUCTION COST					\$ 121,425
10% UNFORSEEN					\$ 12,142
TOTAL CONSTRUCTION COST					\$ 133,567
TEMPORARY DAMAGES		AC	4.66	\$ 750.00	\$ 3,492
TELEVISIONING (POST CONSTRUCTION)		LF	1352	\$ 1.00	\$ 1,352
COUNTY ADMINISTRATION COSTS (Legal, Staff, Bonding, Advertisement)					\$ 1,250
TOPOGRAPHIC SURVEY					\$ 3,000
REPORTS, PLANS AND SPECIFICATIONS					\$ 7,500
TOTAL REPLACEMENT COST					\$ 150,161

POTENTIAL FUNDING SOURCES

An investigation of external sources of funding and technical assistance for this project was conducted by ISG on behalf of the Redwood County Drainage Authority. No sources of external funding were found to be applicable to this project; therefore, the entire project cost would be assessed to landowners affected by the project.

CONCLUSIONS + RECOMMENDATIONS

ISG has found the proposed project is feasible and cost effective and therefore is recommended to the Redwood County Drainage Authority.

Sincerely,



Jacob Rischmiller, PE
Water Resources Practice Group Leader

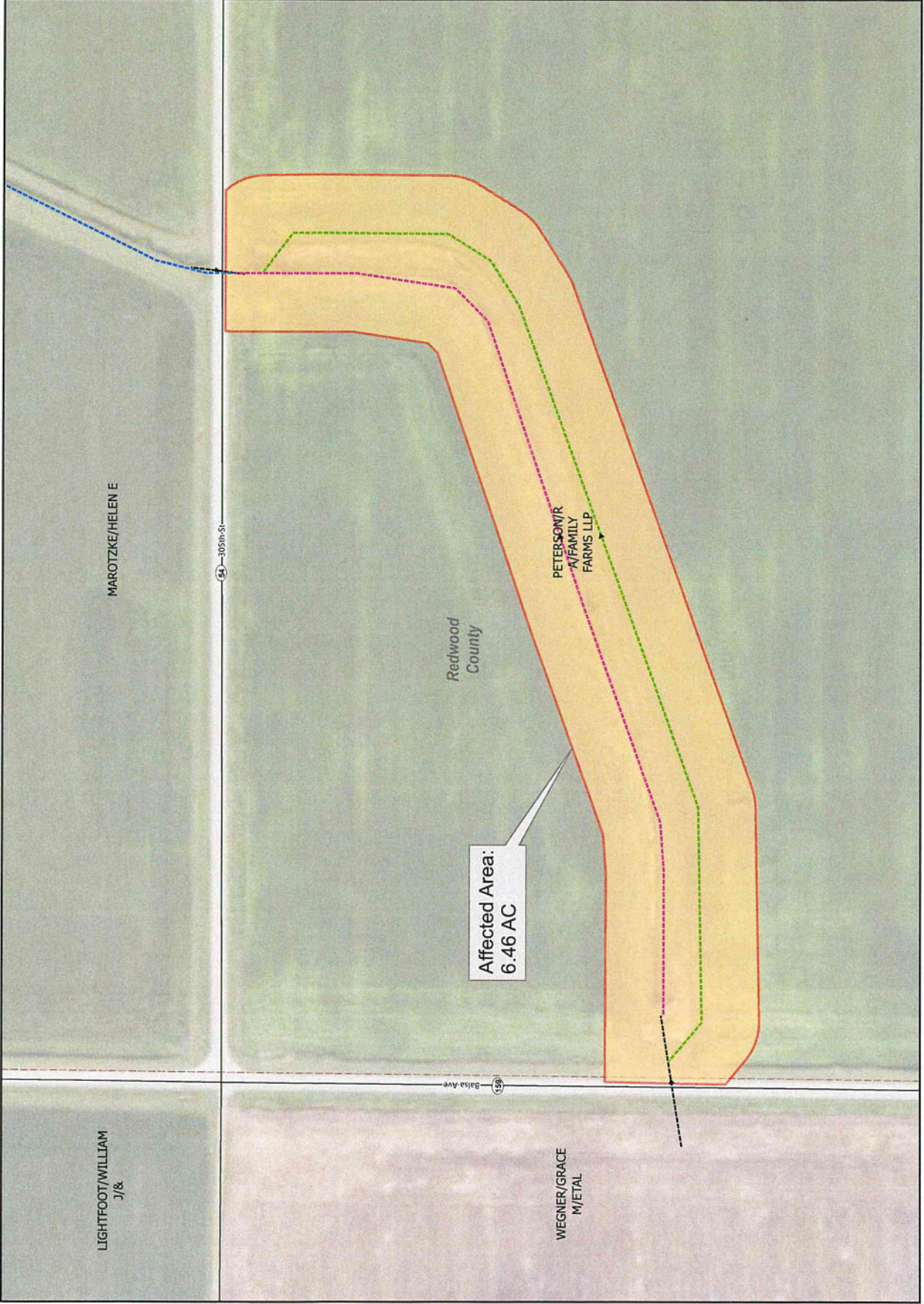
Exhibits:



Proposed Project Area
 County Ditch No 93
 Redwood County,
 Minnesota
 Wednesday, August 21, 2024

- Legend**
- Proposed Tile
 - Balsa Ave Stub
 - Proposed Filled Ditch
 - Existing Open Ditch
 - Parcels
 - Project Area

PN: 24-31130
Source:
 Orthophoto (NAD83) (MS, 2013)
 Taxlot (Redwood County, 12/1/2018)
 Parcel (Redwood County, 12/1/2018)
 Parcel (Redwood County, 12/1/2018)
 Map Status (MNDNR, Jul 2020)
 County (MNDNR, Jul 2013)
 PLSS (MGS/USGS)



Affected Area:
 6.46 AC

MAROTZKE/HELEN E

Redwood
 County

PETERSON/R
 A/FAMILY
 FARMS LLP

LIGHTFOOT/WILLIAM
 J/&

WEGNER/GRACE
 M/ETAL

54th St

Balsa Ave



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PRELIMINARY
FOR CONSTRUCTION

DATE: _____ LIC. NO. _____
 SHEET NO. 8 OF 13

PROJECT: **REDWOOD COUNTY DITCH No. 93**
 UNDERWOOD TWP. MINNESOTA

DATE	REVISIONS	DESCRIPTION	BY

PROJECT NO. 24-31170
 FILE NAME: 2412-PROFILES
 DRAWN BY: JAM
 DESIGNED BY: JAM
 REVIEWED BY: JRMG
 ORIGINAL ISSUE DATE: 11-27
 CLIENT PROJECT NO.:

TITLE: **PLAN - PROFILE**

SHEET: **8** OF 13

