



PO Box 44
1124 Willis Ave
Perry, IA 50220

July 9, 2026

Subject: Open Ditch Repairs
McNeill Intercounty Drainage District Lateral No. 8

Dear McNeill Drainage District Trustees,

The Monona and Harrison County Boards of Supervisors, acting as Trustees for McNeill Drainage District, appointed our firm as engineer to investigate the condition of the Lateral No. 8 open ditch and to study and recommend any necessary repairs to the drainage district system pursuant to Iowa Code §468.126.

Originally, ISG was appointed to investigate. ISG completed and provided a cost estimate and plan set. In March of 2026, AgriVia was appointed to replace ISG. We flew a drone, made a visual survey of the open ditches, and reviewed the information provided by ISG. We have enclosed the ISG cost estimate and plans with this letter.

Observations

The plan set prepared by ISG proposes to clean and reshape the Lateral No. 8 open ditch and to relocate the channel. Our review of that plan set identified the following items for the Board's consideration:

Side slopes. The ISG plans specify 1.5:1 (horizontal to vertical) side slopes on the channel. Based on our site review, the soils along this reach are sandy and erosive. In these soils, a 1.5:1 slope is at or near the natural angle of repose and is susceptible to sloughing, bank erosion, and re-deposition of sediment in the channel. A prior plan prepared for this ditch by Virtue Engineering in 1998 specified 3:1 side slopes for these soils.

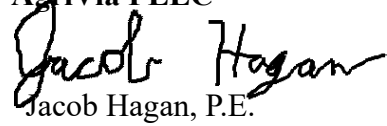
Channel location. The proposed grade shifts the ditch centerline north of the present-day channel and into the adjacent cropland, with construction work limits extending approximately 100 feet north of the current ditch centerline. The ISG plans identify this shift as moving the channel back toward the historic (1916) ditch centerline.

Recommendation

ISG's estimate of the district construction cost is \$48,492.25, which is below the \$50,000 threshold that would otherwise require a public hearing under §468.126. In light of the items above, we recommend that the Board hold an informational meeting to receive landowner input before deciding whether to proceed.

Sincerely,

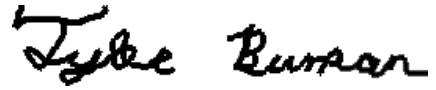
AgriVia PLLC

A handwritten signature in black ink that reads "Jacob Hagan". The signature is fluid and cursive, with the first name and last name clearly distinguishable.

Jacob Hagan, P.E.

712-250-4318

jacob.agrivia@gmail.com

A handwritten signature in black ink that reads "Tyler Buman". The signature is fluid and cursive, with the first name and last name clearly distinguishable.

Tyler Buman, E.I.T.

712-579-5296

tyler.agrivia@gmail.com

Client Name: McNeill Intercounty Drainage District Lateral No. 8

Location: Monona County

ISG Project Number: 24-32020

Date: 12/22/2025

Engineer's Opinion of Probable Cost

No.	ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL AMOUNT
1	Mobilization	LS	1	\$1,900.00	\$1,900.00
2	Class 10 Excavation - Open Ditch Excavation	CY	5899	\$2.75	\$16,222.25
3	Class 10 Excavation - Spoil Bank Leveling, One-Sided	STA	36	\$200.00	\$7,200.00
4	Topsoil Strip, Stockpile, Respread	STA	36	\$200.00	\$7,200.00
5	Open Ditch Seeding and Fertilizing	STA	36	\$150.00	\$5,400.00
6	Class E Rip Rap	TN	15	\$80.00	\$1,200.00
7	Surface Drain, 18" CMP, Trenched	LF	50	\$56.00	\$2,800.00
8	Surface Drain, 24" CMP, Trenched	LF	90	\$73.00	\$6,570.00
Construction Costs					\$48,492.25
TOTAL DISTRICT CONSTRUCTION COST					\$48,492.25
9	Pipe Culvert, 30" CMP, Trenched	LF	40	\$120.00	\$4,800.00
SECONDARY ROADS COST					\$4,800.00
10	Revetment Mattress	SY	27.5	\$182.00	\$5,005.00
SUNOCO PIPELINE COST					\$5,005.00
NON-CONSTRUCTION COSTS					\$9,699.00
Damages					\$3,250.00
TOTAL PROJECT COST					\$71,246.25

MCNEILL DRAINAGE DISTRICT LATERAL 8 OPEN DITCH REPAIRS

MONONA COUNTY, IOWA

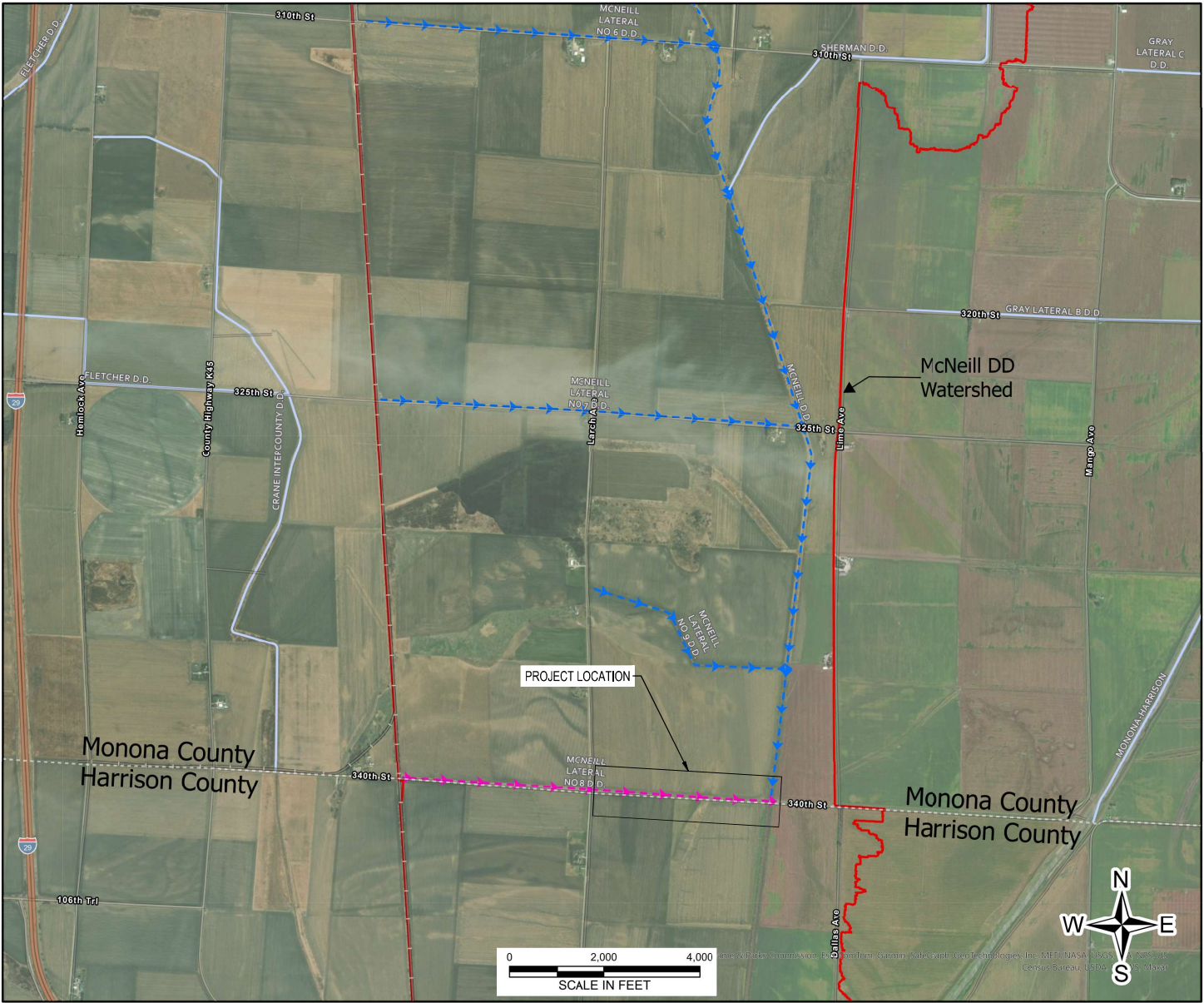
CONSTRUCTION PLANS

ISG PROJECT # 24-32020



LEGEND

EXISTING	
	WATERSHED BOUNDARY
	CITY LIMITS
	SECTION LINE
	QUARTER SECTION LINE
	RIGHT OF WAY LINE
	PROPERTY / LOTLINE
	EASEMENT LINE
	ACCESS CONTROL
	WATER EDGE
	WETLAND BOUNDARY
	FENCE LINE
	EXISTING OPEN DITCH
	CULVERT
	TILE
	PRIVATE TILE
	WATER
	GAS
	OVERHEAD ELECTRIC
	UNDERGROUND ELECTRIC
	UNDERGROUND TELEPHONE
	UNDERGROUND TV
	OVERHEAD UTILITY
	UNDERGROUND UTILITY
	UNDERGROUND FIBER OPTIC
	CONTOUR (MAJOR)
	CONTOUR (MINOR)
	DECIDUOUS TREE
	CONIFEROUS TREE
	TREE LINE
	DROP INTAKE
	HYDRANT
	POWER POLE
PROPOSED	
	EASEMENT
	PROPOSED OPEN DITCH
	OPEN DITCH REPAIR
	CULVERT (RCP)
	CULVERT (CMP)
	CULVERT (HDPE)
	TILE
	TILE (PIPE WIDTH)
	PRIVATE TILE
	WATER
	GAS
	OVERHEAD ELECTRIC
	UNDERGROUND ELECTRIC
	UNDERGROUND TV
	CONTOUR (MAJOR)
	CONTOUR (MINOR)
	DROP INTAKE
	SLOUGH REPAIR
	SPOIL PLACEMENT
	TREE CLEARING
	REMOVE TREE
	BUFFER



LOCATION MAP

SHEET INDEX

- 1 TITLE
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SEAL	I hereby certify that this engineering document was prepared by me or under direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.
	<i>Amanda Goodenow</i> 12/22/2025 (signature) (date)
	Printed or typed name: AMANDA L. GOODENOW
	License number: P25734
	My license renewal date is December 31, 2026
	Pages or sheets covered by this seal: ALL SHEETS

GIS DISCLAIMER:

INFORMATION FOR THE BOUNDARY / LOT LINES, AND UNDERGROUND UTILITIES SHOWN WAS DERIVED FROM DIGITAL DATABASES AND IS FOR INFORMATIONAL PURPOSES ONLY. DATA MAY NOT HAVE BEEN PREPARED FOR, OR BE SUITABLE FOR, LEGAL, ENGINEERING, OR SURVEYING PURPOSES.

PROJECT GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE CONTRACT DOCUMENTS, WHICH INCLUDE, BUT ARE NOT LIMITED TO, THE OWNER - CONTRACTOR AGREEMENT, THE PROJECT MANUAL, WHICH INCLUDES GENERAL SUPPLEMENTARY CONDITIONS AND SPECIFICATIONS, DRAWINGS OF ALL DISCIPLINES AND ALL ADDENDA, MODIFICATIONS, AND CLARIFICATIONS ISSUED BY ARCHITECT/ENGINEER.
2. CONTRACT DOCUMENTS SHALL BE ISSUED TO ALL SUBCONTRACTORS BY THE GENERAL CONTRACTOR IN COMPLETE SETS IN ORDER TO ACHIEVE THE FULL EXTENT AND COMPLETE COORDINATION OF ALL WORK.
3. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES OR CONDITIONS REQUIRING INFORMATION OR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
4. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES OR CONDITIONS REQUIRING INFORMATION OR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
5. DETAILS SHOWN ARE INTENDED TO BE INDICATIVE OF THE PROFILES AND TYPE OF DETAILING REQUIRED THROUGHOUT THE WORK. DETAILS NOT SHOWN ARE SIMILAR IN CHARACTER TO DETAILS SHOWN, WHERE SPECIFIC DIMENSIONS, DETAILS, OR DESIGN INTENT CANNOT BE DETERMINED. NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE WORK.
6. ALL MANUFACTURED ARTICLES, MATERIALS, AND EQUIPMENT SHALL BE APPLIED, INSTALLED, CONNECTED, ERECTED, CLEANED, AND CONDITIONED ACCORDING TO MANUFACTURERS' INSTRUCTIONS. IN CASE OF DISCREPANCIES BETWEEN MANUFACTURERS' INSTRUCTIONS AND THE CONTRACT DOCUMENTS, NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE WORK.
7. ALL DISSIMILAR METALS SHALL BE EFFECTIVELY ISOLATED FROM EACH OTHER TO AVOID GALVANIC CORROSION.
8. THE LOCATION AND TYPE OF ALL EXISTING UTILITIES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY AND ARE ACCURATE AND COMPLETE TO THE BEST OF THE KNOWLEDGE OF I & S GROUP, INC. (ISG). NO WARRANTY OR GUARANTEE IS IMPLIED. THE CONTRACTOR SHALL VERIFY THE SIZES, LOCATIONS, AND ELEVATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES OR VARIATIONS FROM PLAN.
9. THE CONTRACTOR IS TO CONTACT "IOWA ONE CALL" FOR UTILITY LOCATIONS A MINIMUM OF 2 BUSINESS DAYS PRIOR TO ANY EXCAVATION / CONSTRUCTION (1-800-292-8989).

PROJECT INDEX:

OWNER:

MONONA COUNTY
DRAINAGE DISTRICT
COURTHOUSE
610 IOWA AVE. FIRST FLOOR
ONAWA, IOWA 51040
PH: 712-433-2630

PROJECT

ADDRESS / LOCATION:

SECTION 35 SHERMAN TWP.
MONONA COUNTY, IOWA

MANAGING OFFICE:



STORM LAKE OFFICE
1725 LAKE AVE. NORTH
STORM LAKE, IA 50588
PHONE: 712.732.7745

PROJECT MANAGER: HALEY TOMS
EMAIL: HALEY.TOMS@ISGINC.COM

SPECIFICATIONS REFERENCE

ALL CONSTRUCTION SHALL COMPLY WITH MONONA COUNTY'S REQUIREMENTS AND WITH THE 2025 EDITION OF THE STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS) FOR PUBLIC IMPROVEMENTS, UNLESS DIRECTED OTHERWISE.

PROJECT DATUM

HORIZONTAL COORDINATES HAVE BEEN REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83), 2011 ADJUSTMENT, ON THE NAD83/11 IARCS-6 COORDINATE SYSTEM, IN U.S. SURVEY FEET. ELEVATIONS HAVE BEEN REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). RTK GPS METHODS WERE USED TO ESTABLISH HORIZONTAL AND VERTICAL COORDINATES FOR THIS PROJECT.

B.M. ELEVATION=1029.66

BENCH MARK DESCRIPTION

MAGNETIC NAIL SET IN TOP OF CULVERT

NORTHING: 7188490.225
EASTING: 16411155.09

TOPOGRAPHIC SURVEY

THIS PROJECT'S TOPOGRAPHIC SURVEY CONSISTS OF DATA COLLECTED IN NOVEMBER 2024 BY ISG.

TITLE

TITLE

SHEET

1

OF 12

ESTIMATE REFERENCE INFORMATION					
Item No.	Code	Item of Work	Unit	Quantity	Description
1.	SUDAS 11020-A	Mobilization	LS	1	Per Specification. Includes the construction of any necessary stabilized construction entrances. Includes pre-project vegetation management. Includes controls for track out to gravel roads where necessary and removal of sediment from construction entrances during construction.
2.	SUDAS 2010-E	Class 10 Excavation - Open Ditch Excavation	CY	5,899	Excavate open channel to the neat lines of the plan. Excavate and place material on the North bank. No additional measurements are to be made. Plan quantity represents final quantity to be paid. Spoil bank leveling to be paid separately. Includes removal and disposal of minor trees and shrubs, if any. Contractor to minimize bank disturbance when able, and protect existing surface drains.
3.	SUDAS 2999-E	Class 10 Excavation - Spoil Bank Leveling, One-Sided	STA	36	Level excavated spoils (as embankment) to the typical section as shown. Measure in 100 FT stations along open ditch centerline, with no deduction for public road right-of-way, intersecting ditches or drains, private drives, or crossings, or similar items. Payment to be made per station complete. Includes shaping and draining at field grade to ensure drainage to field outlets and existing surface drains are unobstructed. Spoils shall be leveled on North side of drainage ditch. Includes cleaning of crumbs from ditch if encountered while spoil leveling.
4.	SUDAS 2010	Topsoil Strip, Stockpile, Respread	STA	36	Item includes stripping of topsoil to a depth of (8" or 9") and a (40-50 FT or width 10 FT wider than the area for spoils to be leveled), stockpiled near the work limits. Item also includes re-spreading topsoil over the completed spoil bank leveling. Stripping is to be completed prior to material delivery, open ditch excavation, or any other work in the work limits that may cause compaction.
5.	SUDAS 9010-999-A OR ISG SECTION 32 9221	Open Ditch Seeding and Fertilizing	STA	36	Measurement will be in 100 FT stations of disturbed open ditch banks on both sides along centerline of the open ditch with no deduction for public road right-of-way, intersecting open ditches or drains, private crossings, or similar items. Also includes seeding of all road right-of-way disturbed during completion of this work. Payment will be unit price per station complete. Includes reseeding of all areas of existing established grass vegetation within open ditch work limits disturbed by construction. Includes supplemental watering as required and reseeding areas of non-germination. Includes the installation and removal of any necessary filter sock during the time of seeding establishment. No seeding will be allowed on snow or ice covered surfaces or frozen ground. Seeding options: - SUDAS: Conventional seed open ditch banks with 30 lbs/acre winter wheat/rye cover crop every day after ceasing excavation operations. At the end of the project, seed with SUDAS Type 2 permanent cool season mixture for slopes and ditches during seeding windows (March 1 to May 31 or August 10 to September 30). - ISG: Conventional seed open ditch banks with Mix A or Mix B (refer to specification for rate) and a companion crop of dean Oats (100 lbs/acre). If after September 20, substitute Oats for Winter Wheat (100 lbs/acre). A dormant seeding may be made late in the fall just prior to freeze up beginning on November 15. The seeding application rate shall be increased by 50% of that specified and incorporated as outlined in the Seeding section.
6.	SUDAS 9040-2.10-C	Class E Rip Rap	TN	15	Includes furnishing and installing Class E Rip Rap. Material shall comply with gradation of Iowa DOT specification 4130.02. Payment will be for actual tons placed based on scale tickets.
7.	SUDAS 4030-A-1	Surface Drain, 18" CMP, Trenched	LF	50	Includes furnishing and installing one (1) new CMP surface drain near STA: 24+30. Field adjust exact location as needed and approved by Engineer. All excavation, earthfill, granular material, and grading incidental to payment. Payment to be made based on linear feet of pipe installed. All pipes to be 14 gauge minimum. Refer to plans and construction notes.
8.	SUDAS 4030-A-1	Surface Drain, 24" CMP, Trenched	LF	90	Includes furnishing and installing two (2) new CMP surface drains near STA: 18+85 and STA: 29+80. Field adjust exact locations as needed and approved by Engineer. All excavation, earthfill, granular material, and grading incidental to payment. Payment to be made based on linear feet of pipe installed. All pipes to be 14 gauge minimum. Refer to plans and construction notes.
9.	SUDAS 4030-A-1	Pipe Culvert, 30" CMP, Trenched	LF	40	Includes removing existing culvert and installing new CMP culvert under one (1) private field crossing near STA: 10+00. Monona County Secondary Roads to supply culvert. All excavation, earthfill, granular material, and grading incidental to payment. Payment to be made based on linear feet of pipe installed. Coordinate with landowner and Monona County Secondary Roads when replacing private field crossing. Refer to plans and construction notes.
10.	MANUFACTURER'S SPECIFICATION	Revetment Mattress	SY	27.5	Revetment Mattress to be installed where open ditch intersects Sunoco gas line near STA: 6+00. Revetment mattress to be Submar or equivalent approved by Engineer. Refer to details sheets and manufacturer's specifications sheet for mattress specifications. Includes furnishing and installing mat and any fabric or granular material needed per spec. Also includes any excavation or grading needed in installation. Coordinate with Sunoco for work and supervision when crossing the gas line.

UTILITY CONTACTS			
COMPANY	NAME	PHONE	EMAIL
AT&T	LENNY VOHS	816-275-4014	LV2121@ATT.COM
(TRANSMISSION LINES)	JUSTIN RAHM	678-231-5933	JRAHM@SDT-1.COM
SUNOCO	WADE OPP	605-321-7260	WADE.OPP@SUNOCO.COM
(NUSTAR GAS PIPELINE)	LAURI KANE	210-918-2652	LAURI.KANE@SUNOCO.COM
MONONA COUNTY SECONDARY ROADS, ONAWA SHED FOREMAN	DAVE BROWN	712-420-2034	

CONSTRUCTION NOTES:

- STAKING TO BE PROVIDED BY THE ENGINEER.
- CROP DAMAGES: NOTIFY THE LANDOWNER PRIOR TO TAKING OUT STANDING CROPS.
- WORK LIMITS: MINIMUM REQUIRED WORK LIMITS TO EFFICIENTLY ACCOMPLISH THE WORK AS SHOWN ON THE PLANS. NORTH OF THE CURRENT DITCH CENTERLINE 100 FT.
- CONTRACTOR IS RESPONSIBLE FOR SAFETY ON THE WORK SITE INCLUDING FENCES AND SITE SECURITY AS REQUIRED.
- NOTHING IN THE PLANS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE REGULATIONS.
- PRIVATE FIELD CROSSING - THE CULVERT UNDER THE PRIVATE FIELD CROSSING AT STA: 10+00 SHALL BE REMOVED AND REPLACED PER PLANS. INCLUDES RESTORING FIELD ENTRANCE TO EXISTING CONDITIONS AND PROPER GRADING FOR DRAINAGE THROUGH CULVERT. MONONA COUNTY SECONDARY ROADS WILL FURNISH THE NEW CMP AND CONTRACTOR TO INSTALL.
- FENCE REMOVAL - IF NECESSARY, REMOVE, SALVAGE, AND REPLACE FENCE AS INDICATED ON PLAN SHEETS OR AS FOUND IN FIELD. FENCE REPLACEMENT SHALL BE COMPLETED WITH SALVAGED MATERIALS WHERE POSSIBLE. REPLACE FENCE WITH SIMILAR MATERIALS AS EXISTING UNLESS OTHERWISE APPROVED.
- WEED CONTROL - CONTRACTOR IS REQUIRED TO CONTROL WEED GROWTH WITHIN THE WORK LIMITS MONTHLY OR AS NEEDED TO PREVENT WEEDS FROM GOING TO SEED. CHEMICAL TREATMENT IS NOT ALLOWED BETWEEN MAY 1 AND OCTOBER 1 OR WHILE CROPS ARE IN THEIR GROWING SEASON. OTHER METHODS SUCH AS MOWING AND TILLAGE ARE ALLOWED.
- UTILITIES - CONTRACTOR IS RESPONSIBLE TO NOTIFY ALL UTILITY COMPANIES AND TO COOPERATE WITH THEM IN THE LOCATION, MARKING, AND PROTECTION OF THEIR FACILITIES. CONTRACTOR IS TO IMMEDIATELY NOTIFY ENGINEER OF APPARENT CONFLICTS OF EXISTING UTILITIES WITH THE PLAN GRADE OR CROSS-SECTIONS OF THE OPEN DITCH. SUNOCO TO BE NOTIFIED BEFORE ANY WORK AROUND GAS LINE AND TO BE PRESENT FOR SUPERVISION.
- PIPE WORK - QUANTITIES ARE ESTIMATED AS SHOWN ON THE PLANS. IF ANY TILE LINES NOT CALLED OUT ON THE PLANS ARE DISCOVERED DURING EXCAVATION THE CONTRACTOR IS TO NOTIFY THE ENGINEER IMMEDIATELY. SURFACE DRAINS WILL BE FINALIZED AT THE TIME THE PIPE IS FIELD STAKED AND MARKED. ALL PROTECTED PIPES THAT WILL NOT BE REPLACED WILL BE STAKED AND MARKED IN THE FIELD UPON REQUEST. ANY DAMAGE THAT OCCURS TO PIPES CALLED OUT AS PROTECTED WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL TILE EXTENSIONS AND SURFACE DRAINS REMOVED AS PART OF THE WORK SHALL BE DISPOSED OF OFFSITE. DISPOSAL IS SUBSIDIARY TO PIPE WORK ITEMS.

Ground Removed Volume Table			
Station	Area	Volume	Cumulative Volume
1+00.00	5.44	0.00	0.00
2+00.00	10.35	29.24	29.24
3+00.00	11.53	40.52	69.76
4+00.00	16.16	51.28	121.03
5+00.00	19.50	66.05	187.08
6+00.00	34.07	99.20	286.28
7+00.00	34.99	127.89	414.17
8+00.00	41.86	142.28	556.45
9+00.00	41.05	153.58	710.03
10+00.00	39.28	148.84	858.87
11+00.00	68.49	199.30	1058.17
12+00.00	65.05	247.31	1305.48
13+00.00	79.39	267.50	1572.98
14+00.00	92.86	318.99	1891.98
15+00.00	61.85	286.50	2178.48
16+00.00	43.97	196.05	2374.52
17+00.00	37.29	150.42	2524.94
18+00.00	24.62	114.65	2639.60
19+25.15	52.01	177.53	2817.13
20+00.00	68.85	167.66	2984.79
21+00.00	49.90	219.83	3204.62
22+00.00	57.38	198.68	3403.30
23+00.00	53.06	204.53	3607.84
24+00.00	59.05	207.63	3815.46
25+00.00	61.45	223.16	4038.62
26+00.00	51.19	208.66	4247.29

Ground Removed Volume Table			
Station	Area	Volume	Cumulative Volume
27+00.00	46.17	180.13	4427.41
28+00.00	53.47	184.67	4612.08
29+00.00	43.41	179.37	4791.45
30+00.00	36.78	148.50	4939.95
31+00.00	45.66	152.66	5092.61
32+00.00	45.90	169.55	5262.17
33+00.00	47.43	172.84	5435.01
34+00.00	47.05	174.98	5609.99
35+00.00	38.13	157.76	5767.75
36+00.00	25.19	117.25	5885.00
36+30.00	0.00	13.99	5898.99



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PROJECT

MCNEILL
DRAINAGE
DISTRICT
LATERAL 8 OPEN
DITCH REPAIRS

MONONA COUNTY IOWA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO.	24-32020
FILE NAME	32020 DETAILS
DRAWN BY	KJH
DESIGNED BY	RAM
REVIEWED BY	CDR/ALG
ORIGINAL ISSUE DATE	12/08/2025
CLIENT PROJECT NO.	-

TITLE

ERI, NOTES, AND
QUANTITIES

SHEET



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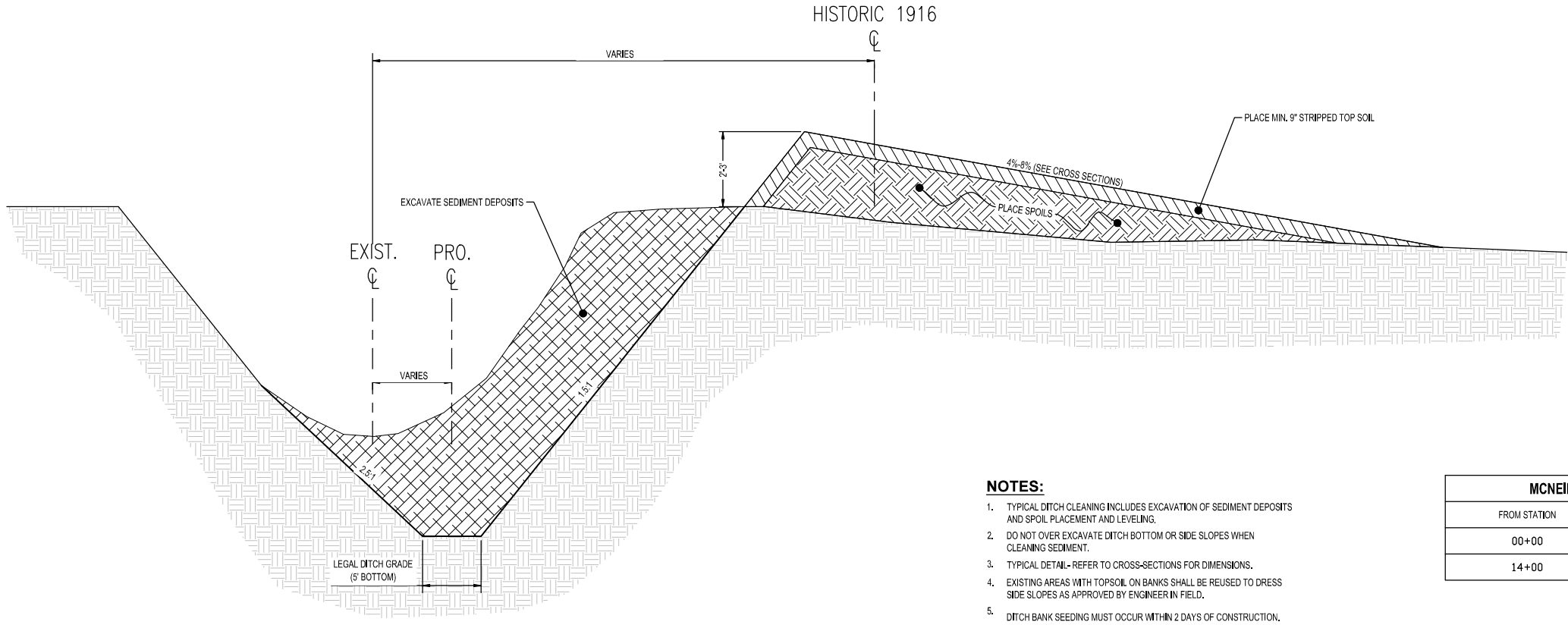
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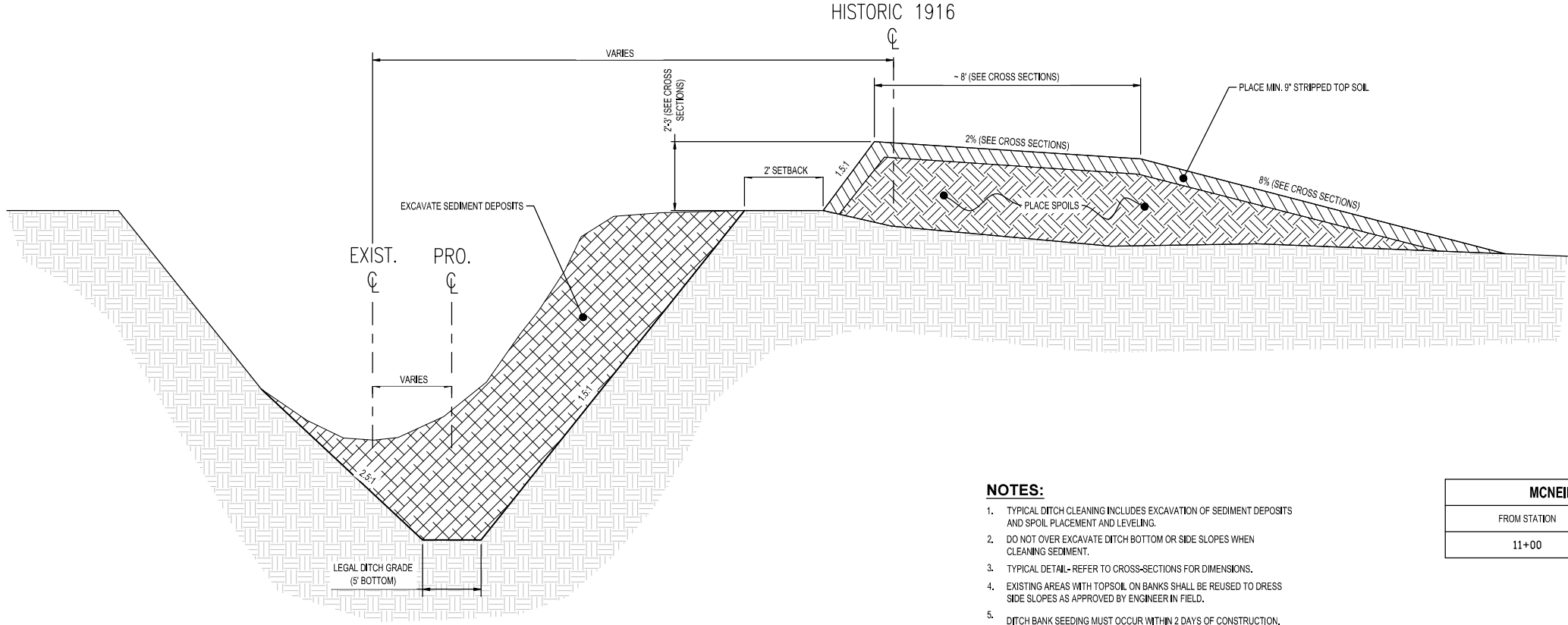
TITLE
DETAILS 1



- NOTES:**
1. TYPICAL DITCH CLEANING INCLUDES EXCAVATION OF SEDIMENT DEPOSITS AND SPOIL PLACEMENT AND LEVELING.
 2. DO NOT OVER EXCAVATE DITCH BOTTOM OR SIDE SLOPES WHEN CLEANING SEDIMENT.
 3. TYPICAL DETAIL- REFER TO CROSS-SECTIONS FOR DIMENSIONS.
 4. EXISTING AREAS WITH TOPSOIL ON BANKS SHALL BE REUSED TO DRESS SIDE SLOPES AS APPROVED BY ENGINEER IN FIELD.
 5. DITCH BANK SEEDING MUST OCCUR WITHIN 2 DAYS OF CONSTRUCTION.

MCNEILL LAT 8 OPEN DITCH	
FROM STATION	TO STATION
00+00	11+00
14+00	36+76

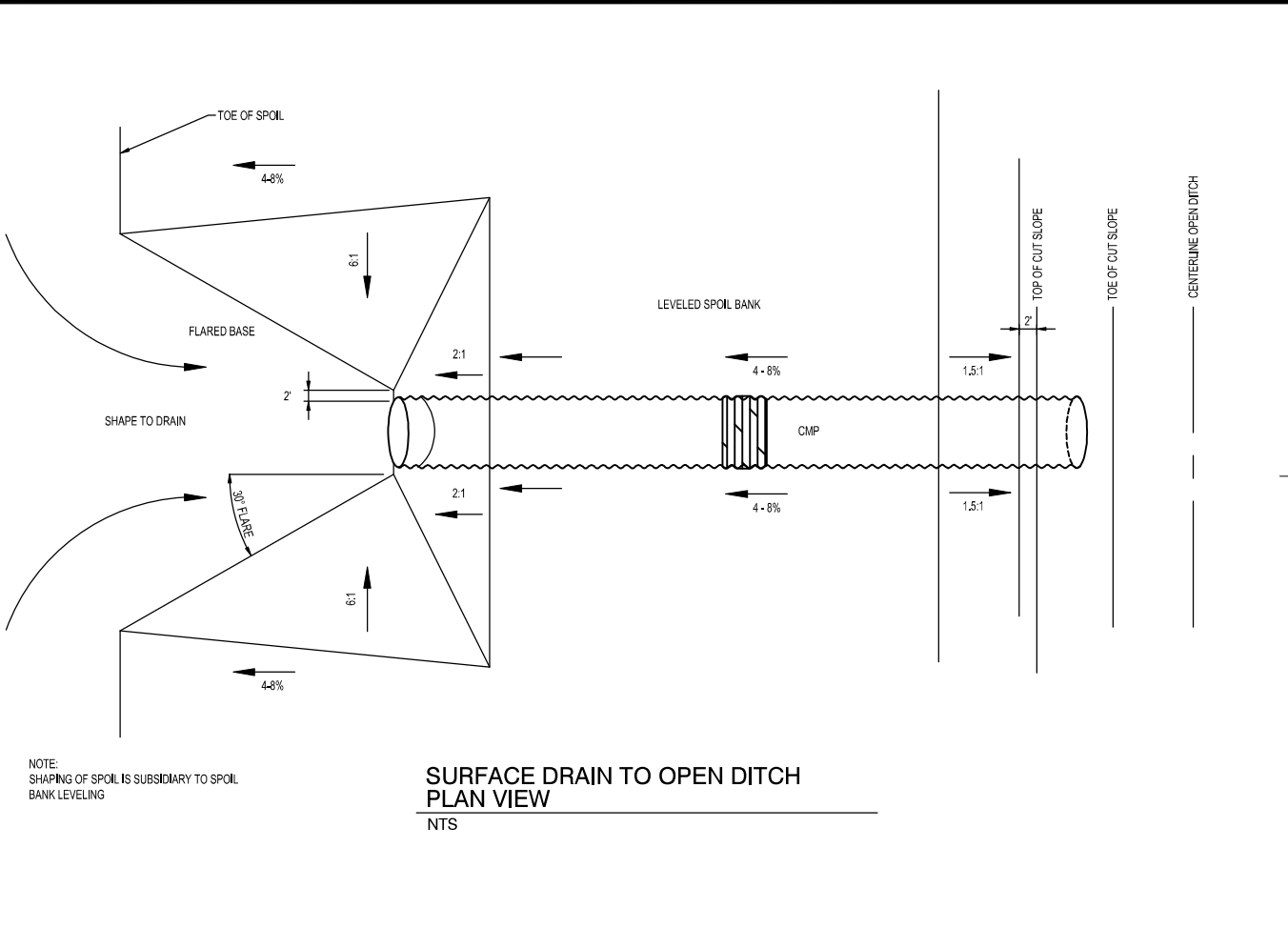
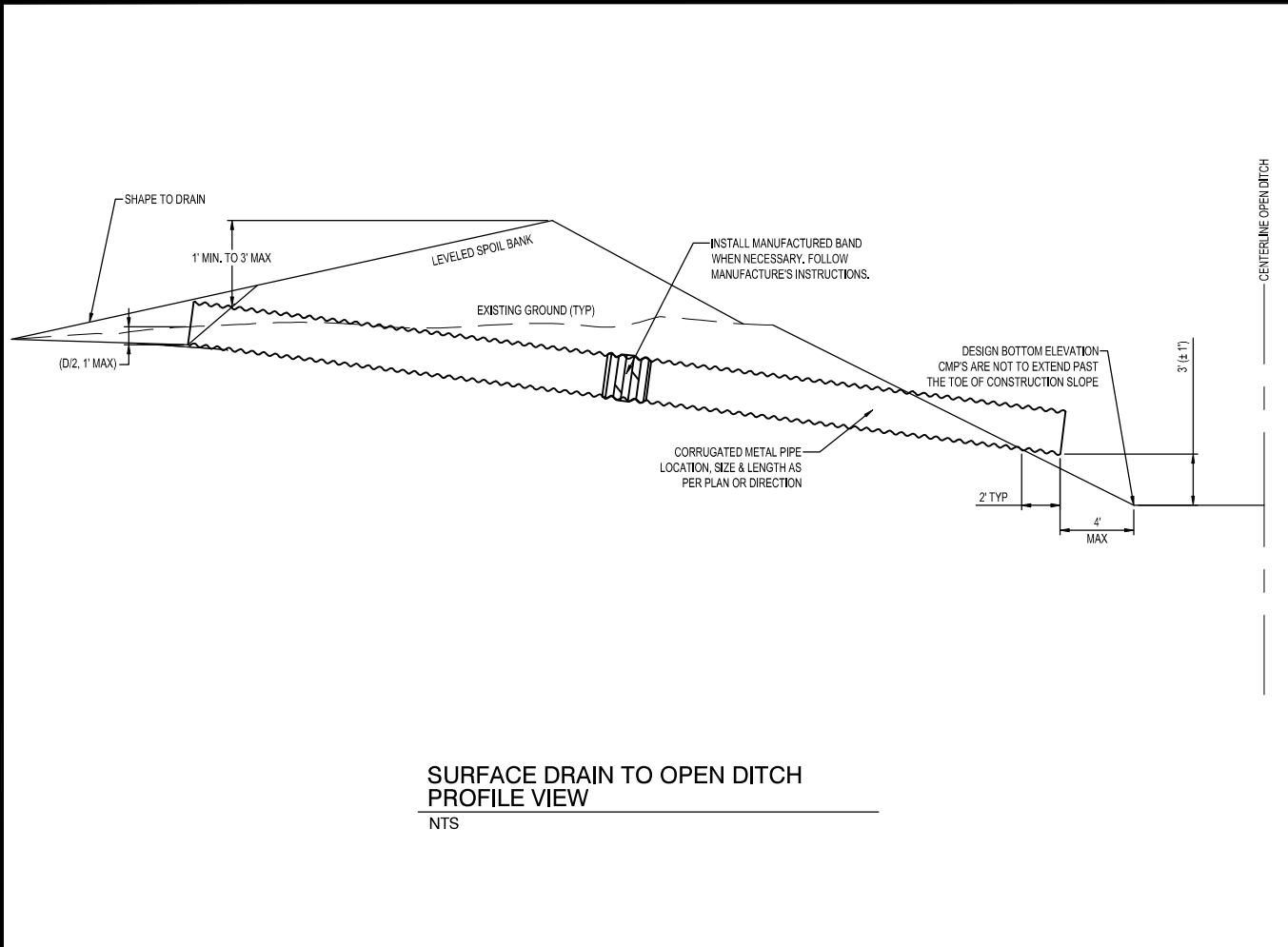
TYPICAL DITCH CLEANING AND SPOIL BANK LEVELING
NTS DETAIL1



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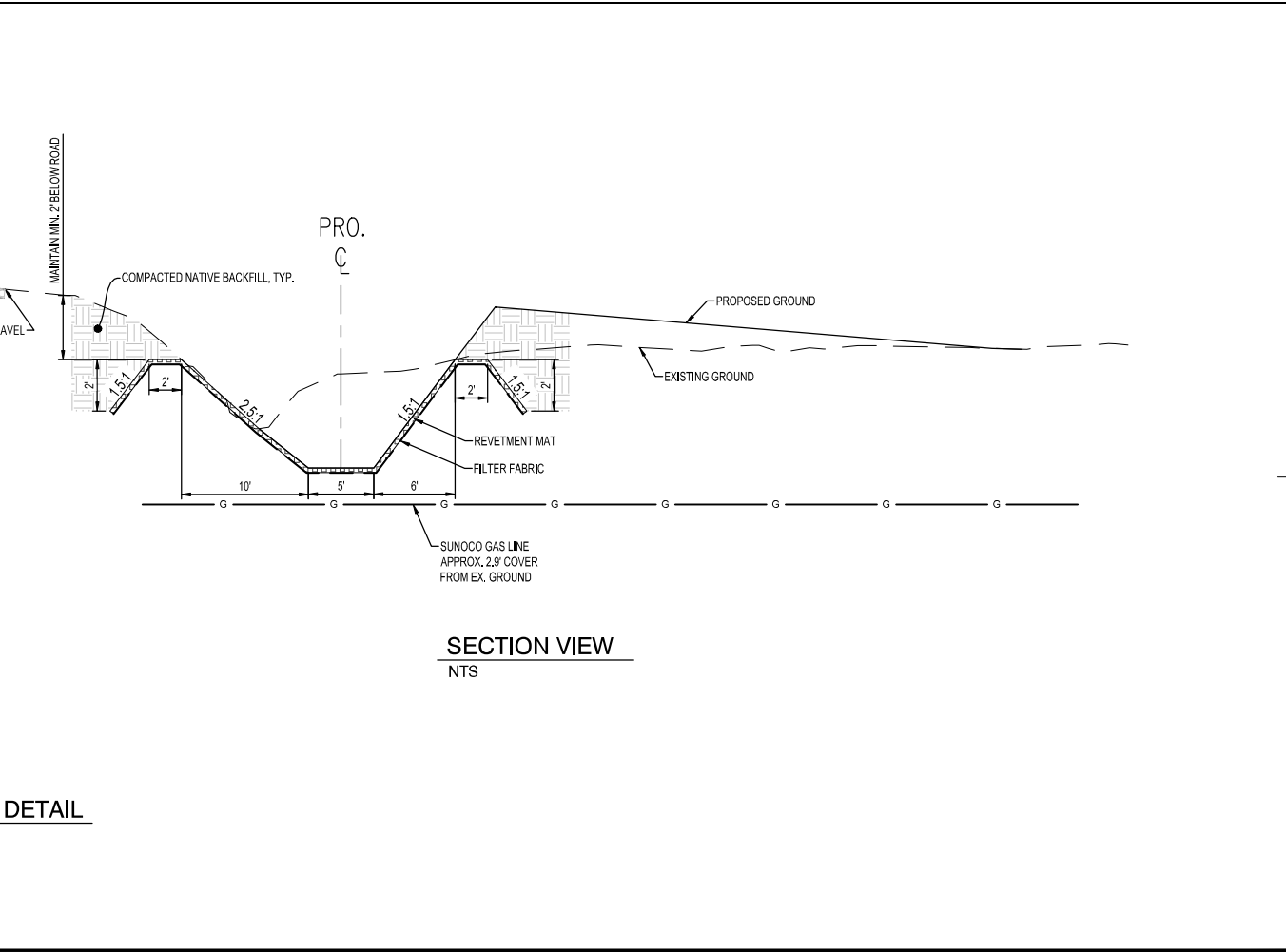
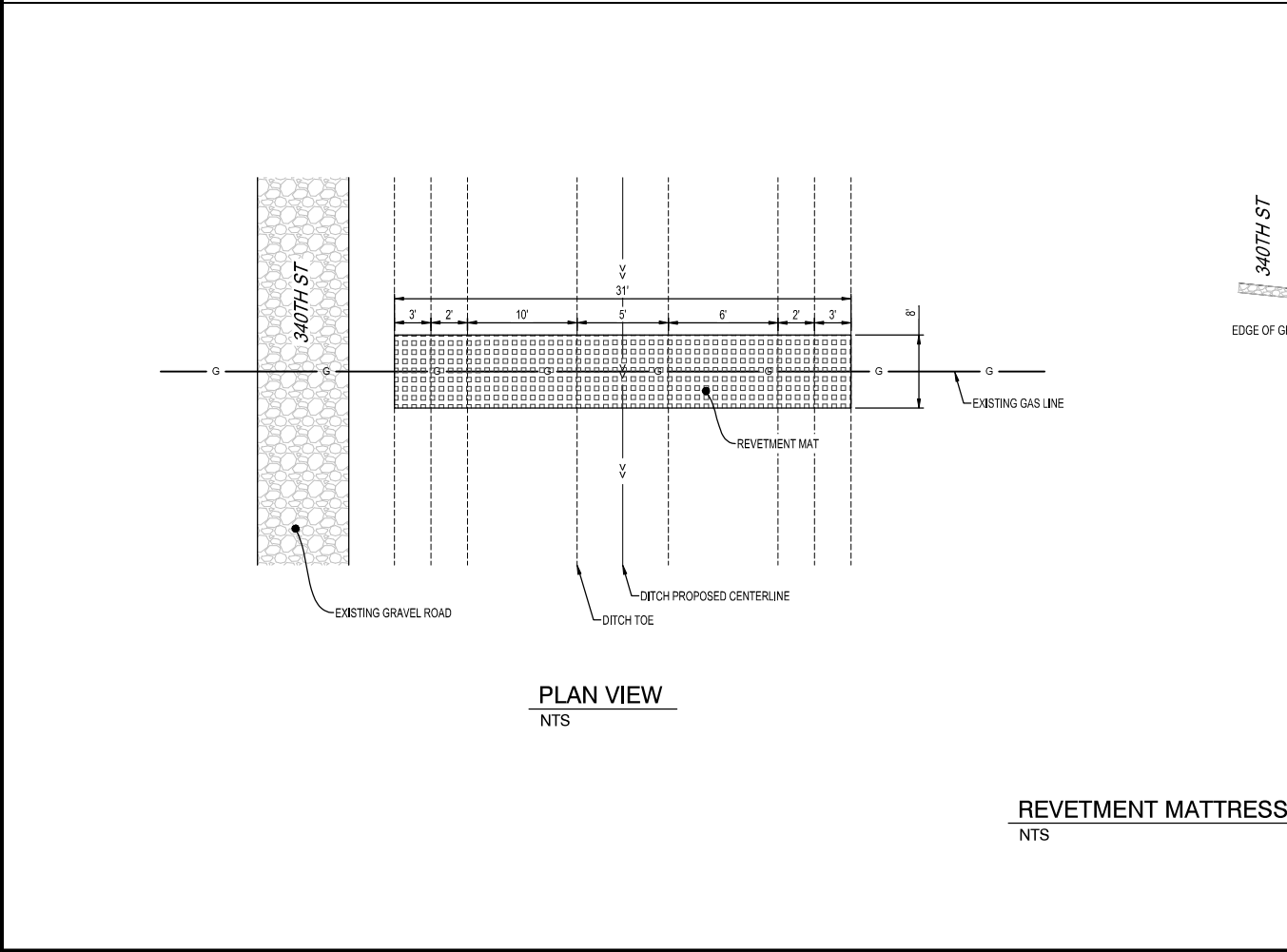
MCNEILL LAT 8 OPEN DITCH	
FROM STATION	TO STATION
11+00	14+00

TYPICAL DITCH CLEANING AND SPOIL BANK LEVELING
NTS DETAIL2



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PROJECT

**MCNEILL
DRAINAGE
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LATERAL 8 OPEN
DITCH REPAIRS**

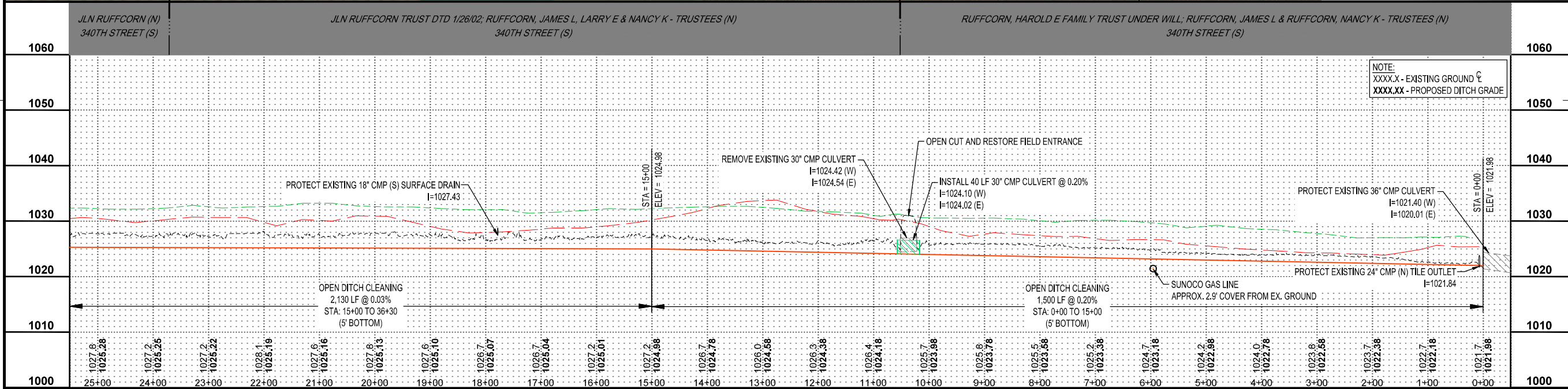
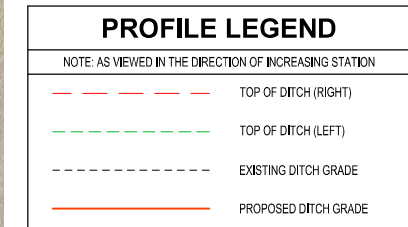
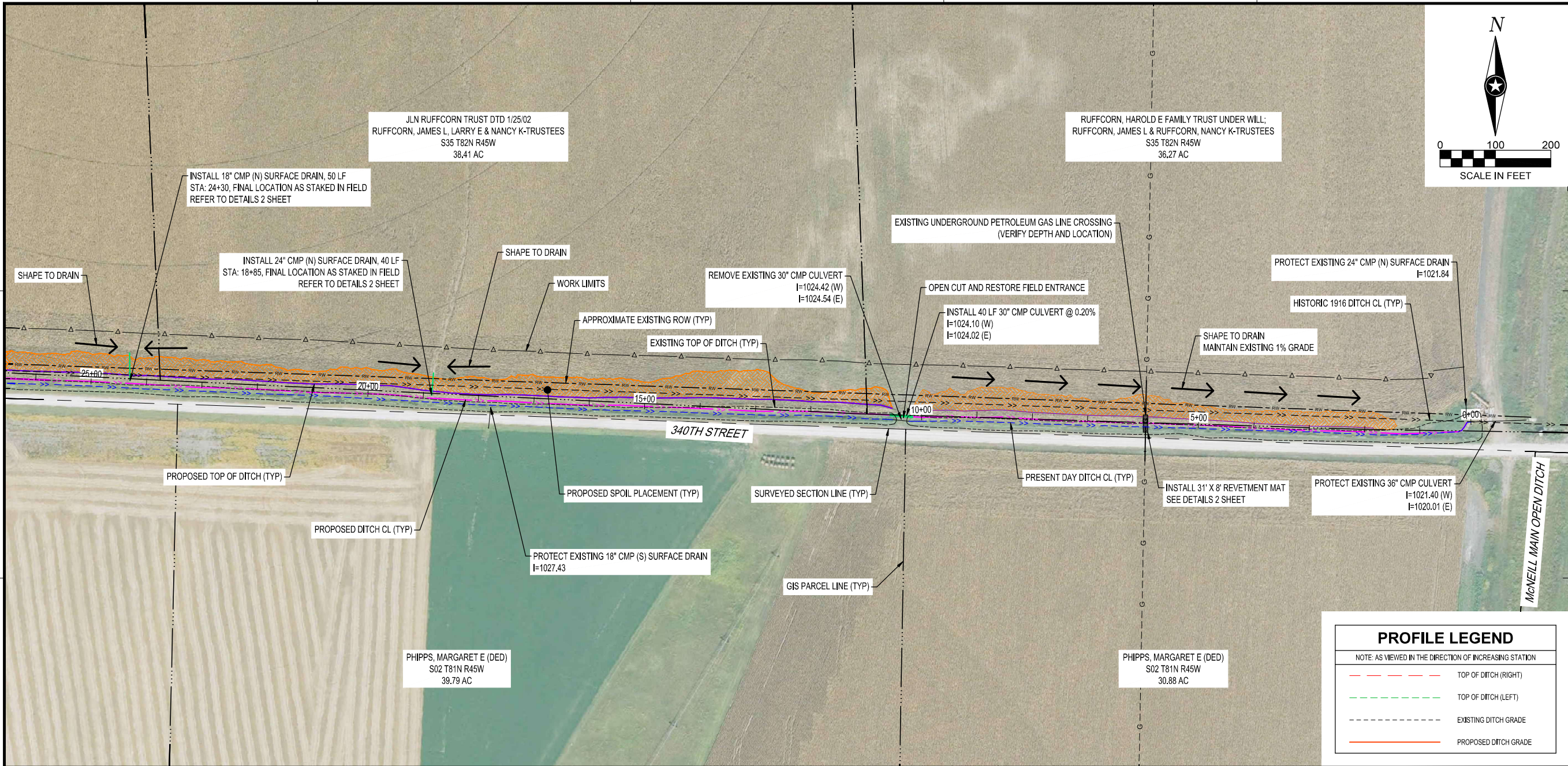
MONONA COUNTY IOWA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO.	24-32020
FILE NAME	32020 DETAILS
DRAWN BY	KJH
DESIGNED BY	RAM
REVIEWED BY	CDR/ALG
ORIGINAL ISSUE DATE	12/08/2025
CLIENT PROJECT NO.	-

TITLE

DETAILS 2



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PROJECT

MCNEILL DRAINAGE DISTRICT LATERAL 8 OPEN DITCH REPAIRS

MONONA COUNTY IOWA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO.	24-32020
FILE NAME	32020 PROFILES
DRAWN BY	KJH
DESIGNED BY	RAM
REVIEWED BY	CDR/ALG
ORIGINAL ISSUE DATE	12/08/2025
CLIENT PROJECT NO.	-

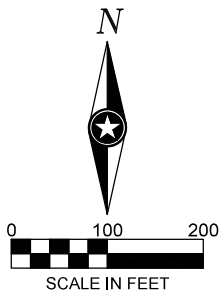
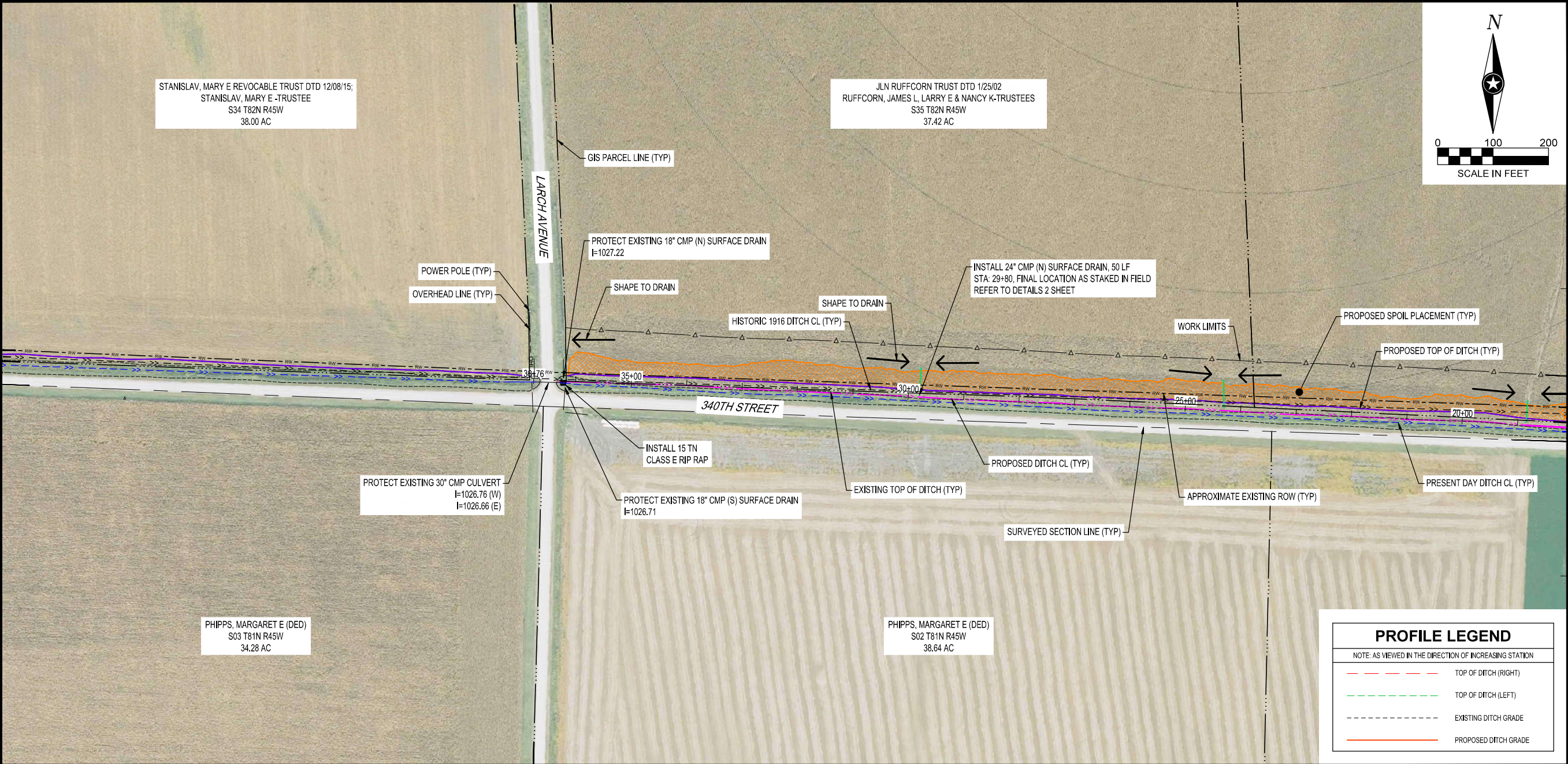
TITLE

PLAN - PROFILE 1

SHEET

5

OF 12



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PROJECT

**MCNEILL
DRAINAGE
DISTRICT
LATERAL 8 OPEN
DITCH REPAIRS**

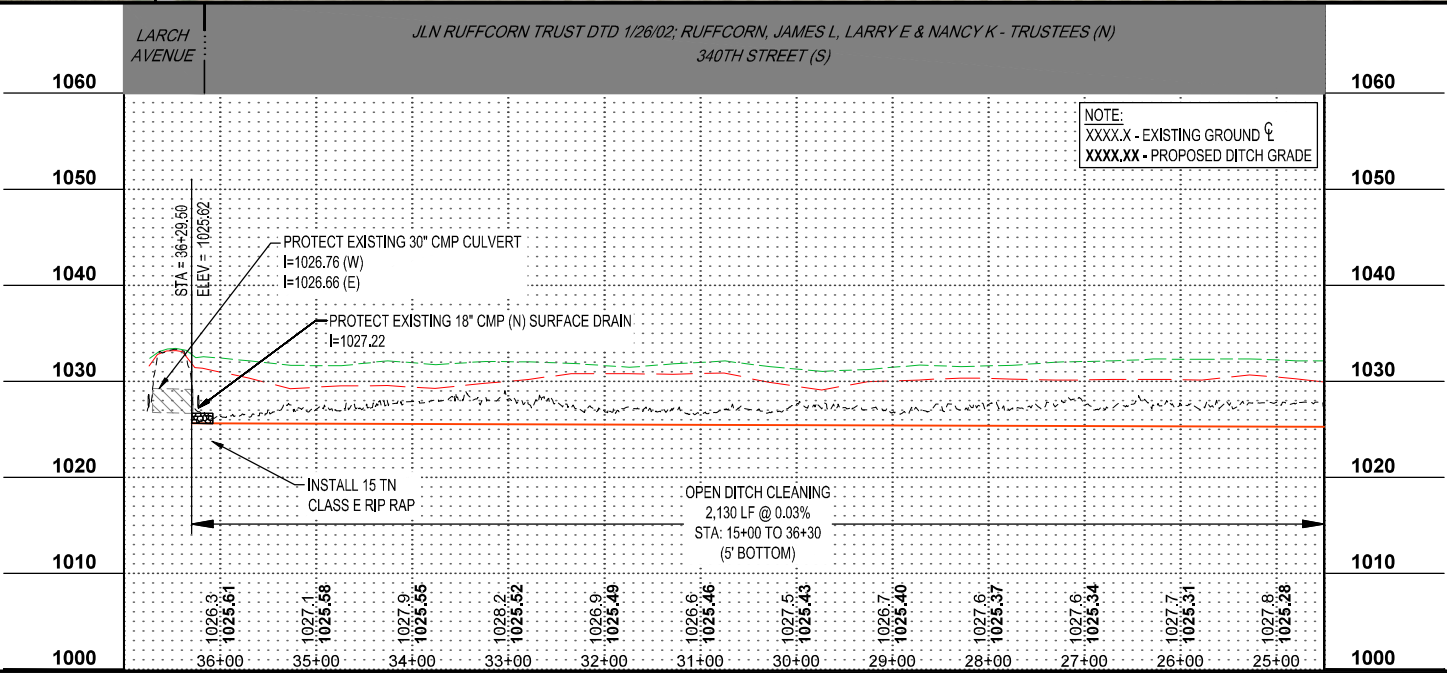
MONONA COUNTY IOWA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO.	24-32020
FILE NAME	32020 PROFILES
DRAWN BY	KJH
DESIGNED BY	RAM
REVIEWED BY	CDR/ALG
ORIGINAL ISSUE DATE	12/08/2025
CLIENT PROJECT NO.	-

TITLE

PLAN - PROFILE 2





SECTION VIEW LEGEND	
NOTE: AS VIEWED IN THE DIRECTION OF INCREASING STATION	
---	EXISTING GROUND
---	PROPOSED GROUND
1000.0 1000.00	XXXX - EXISTING GROUND E XXXXX - PROPOSED GROUND E



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PROJECT
**MCNEILL
DRAINAGE
DISTRICT
LATERAL 8 OPEN
DITCH REPAIRS**

MONONA COUNTY IOWA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

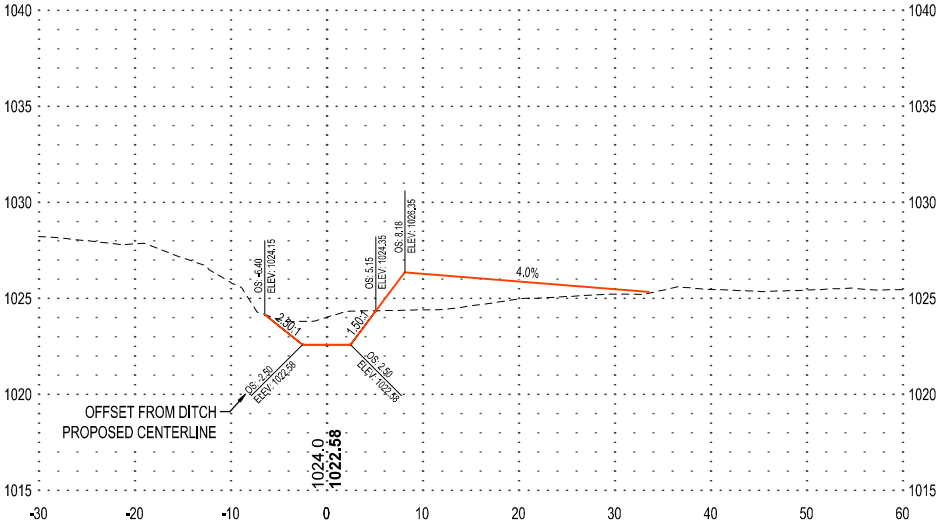
PROJECT NO.	24-32020
FILE NAME	32020 SECTIONS
DRAWN BY	KJH
DESIGNED BY	RAM
REVIEWED BY	CDR/ALG
ORIGINAL ISSUE DATE	12/08/2025
CLIENT PROJECT NO.	-

TITLE

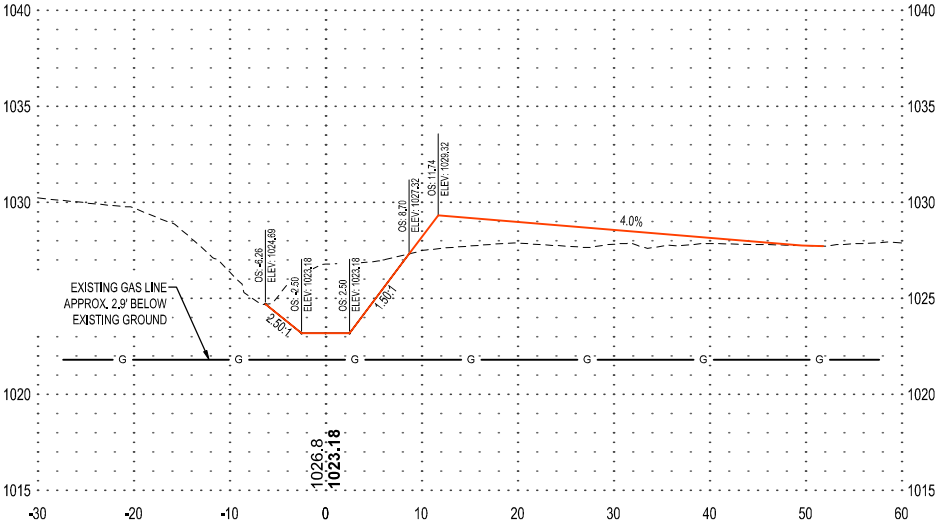
CROSS SECTIONS 1

SHEET

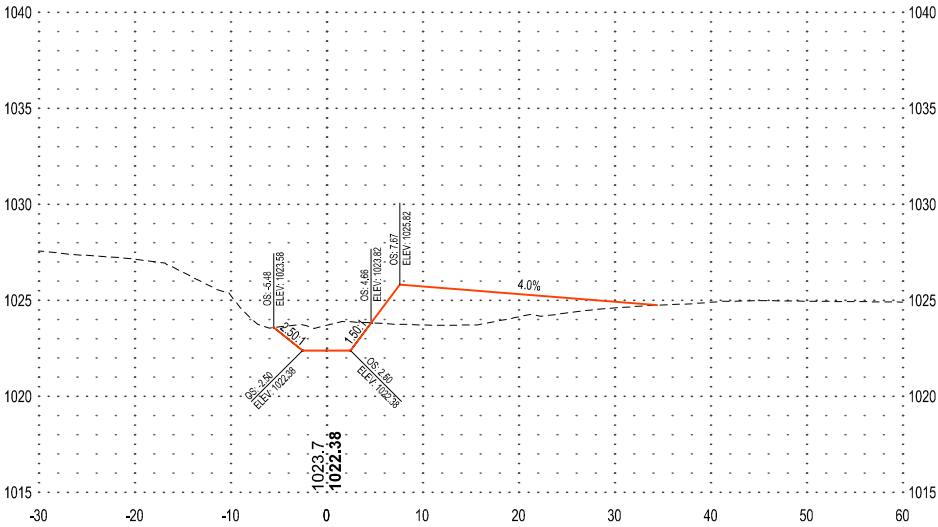
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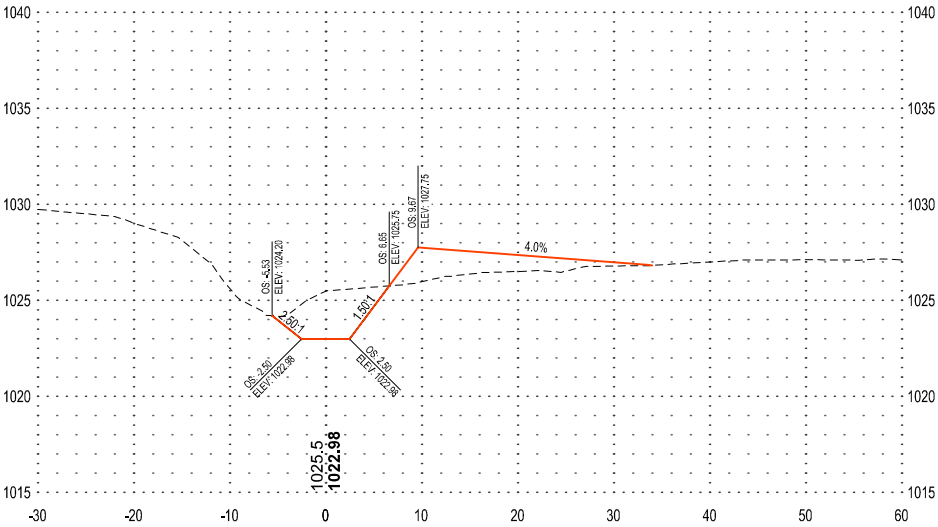
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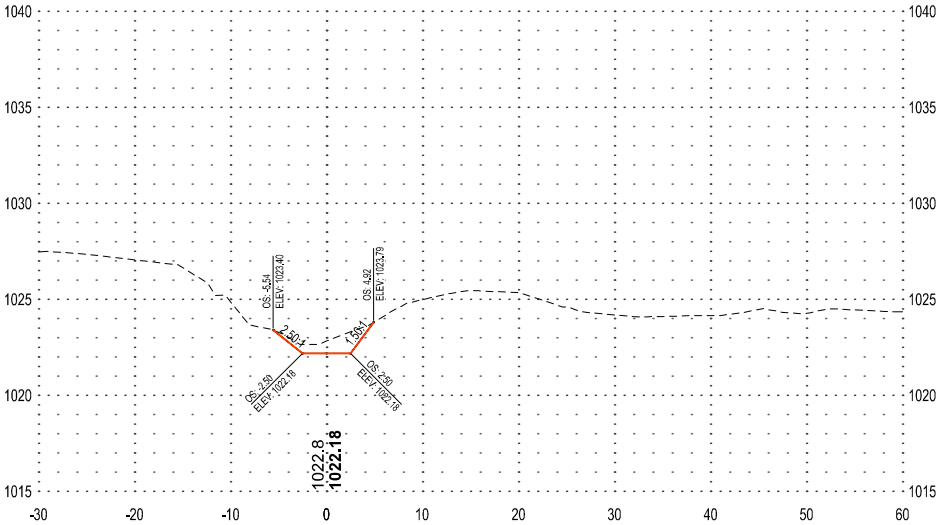
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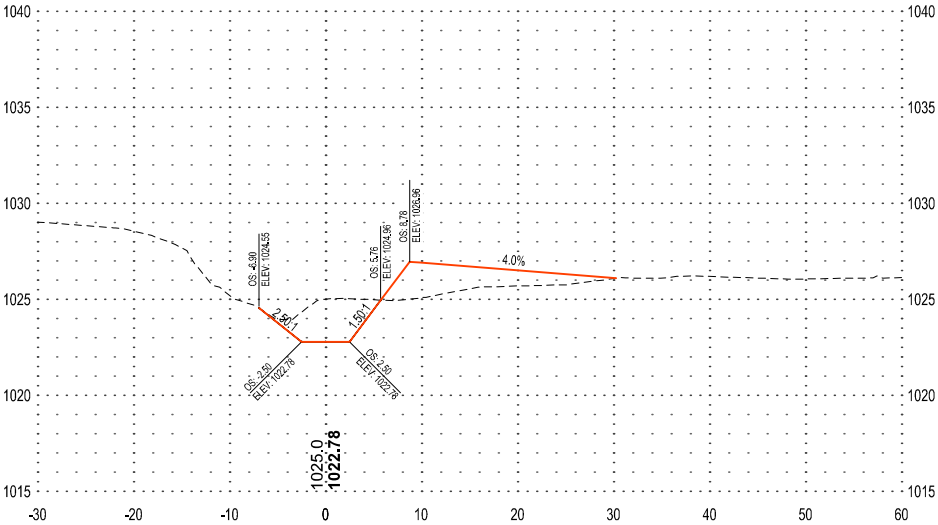
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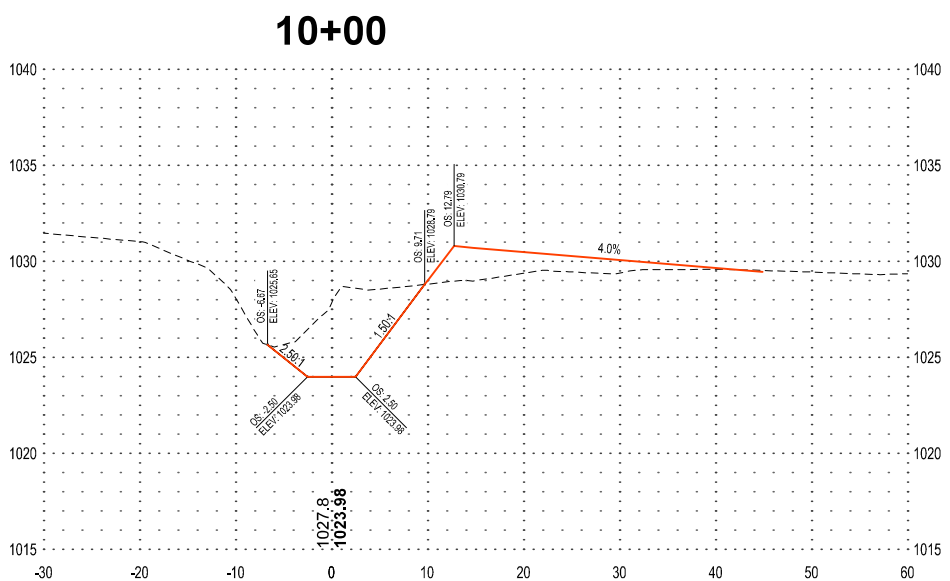
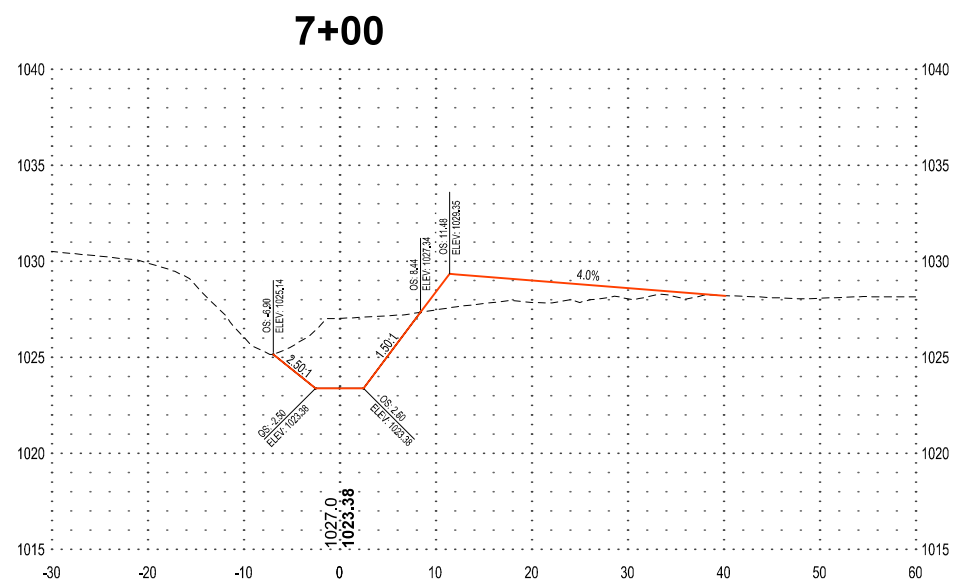
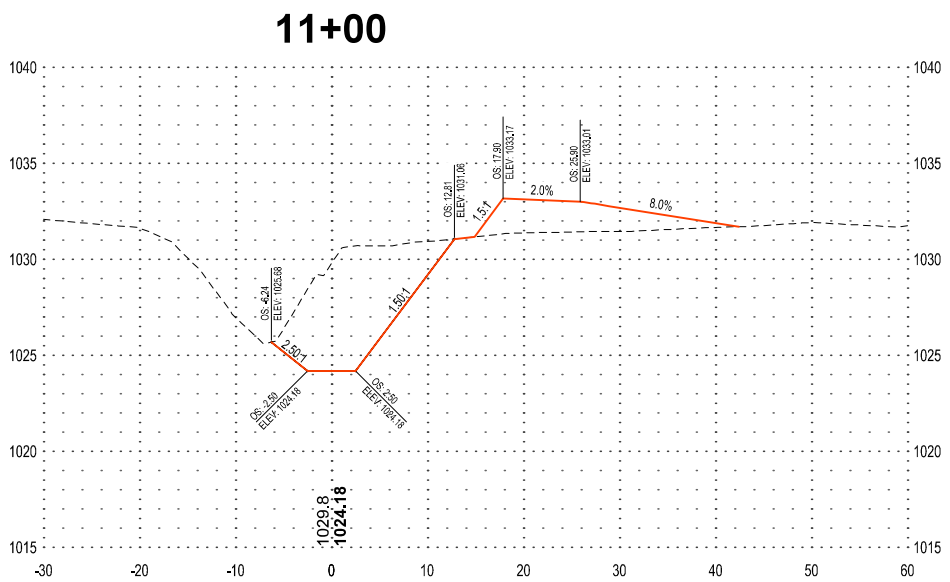
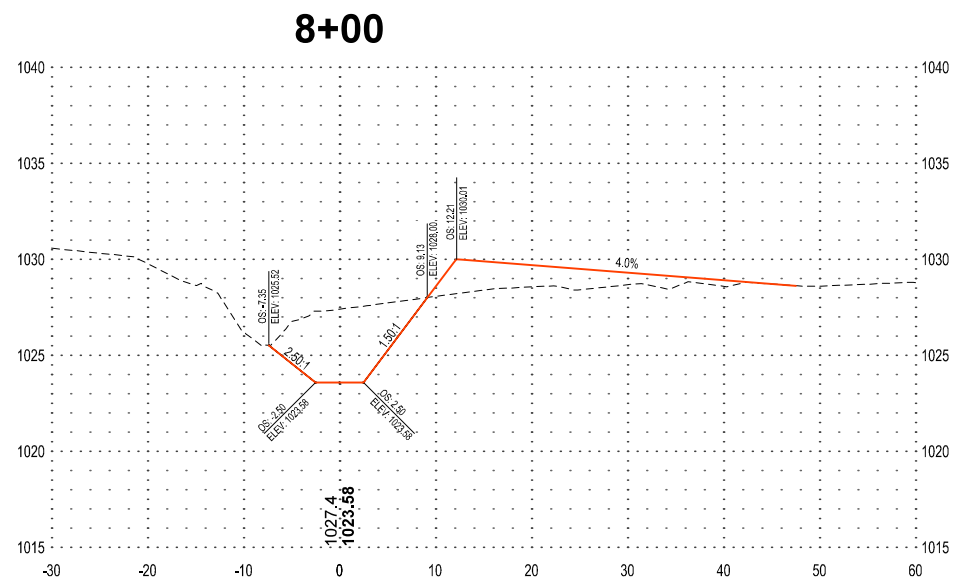
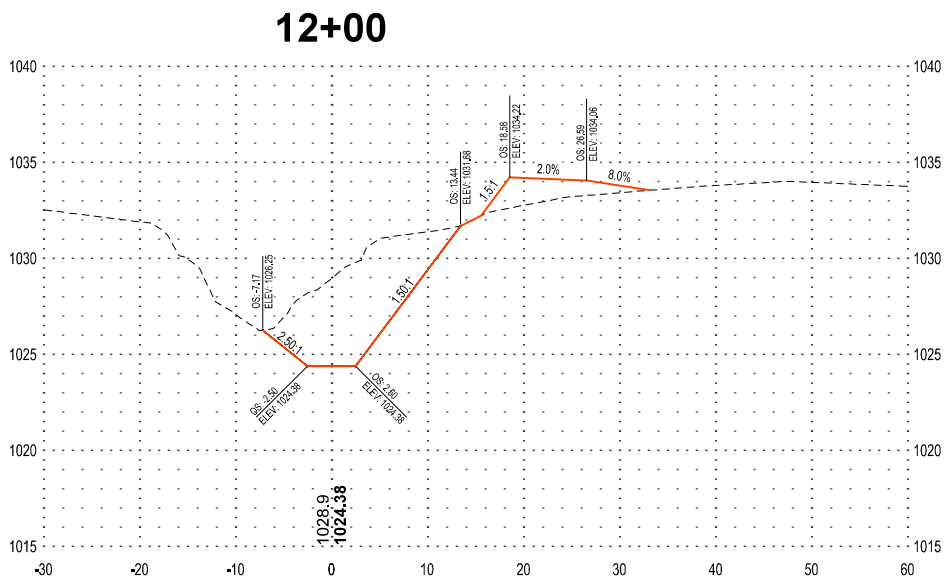
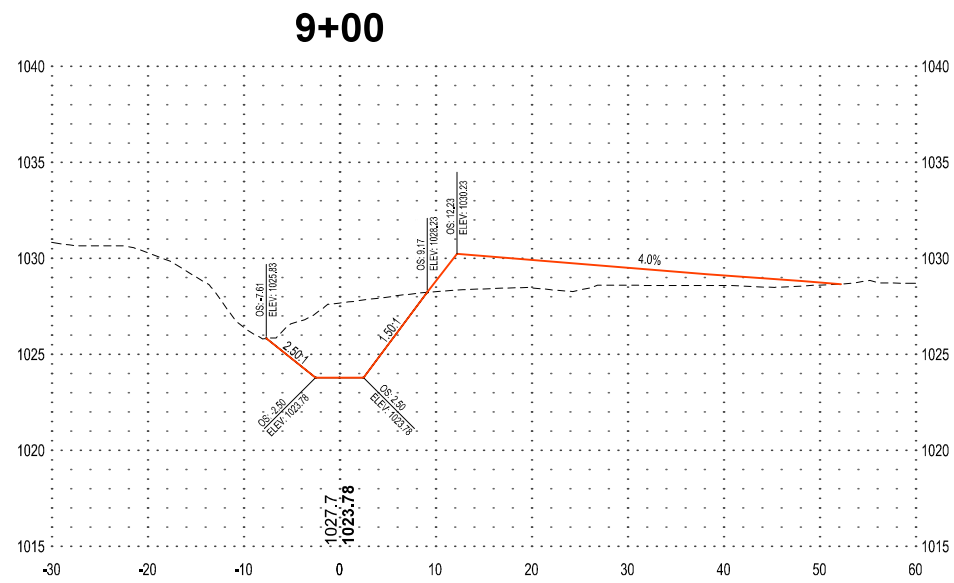


1+00



4+00





SCALE IN FEET

SECTION VIEW LEGEND

NOTE: AS VIEWED IN THE DIRECTION OF INCREASING STATION

---	EXISTING GROUND
—	PROPOSED GROUND

000.0	XXX.X - EXISTING GROUND €
000.00	XXX.XX - PROPOSED GROUND €

100 100	XXX.XX - PROPOSED GROUND 1
------------	----------------------------



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PROJECT

**MCNEILL
DRAINAGE
DISTRICT
LATERAL 8 OPEN
DITCH REPAIRS**

MONONA COUNTY

IOWA

REVISION SCHEDULE

[illegible]

PROJECT NO.	24-32020
-------------	----------

FILE NAME	32020 SECTIONS
-----------	----------------

DRAWN BY	KJH
----------	-----

DESIGNED BY	RAM
-------------	-----

REVIEWED BY CDR/ALG

ORIGINAL ISSUE DATE 12/08/2025

CLIENT PROJECT NO. -

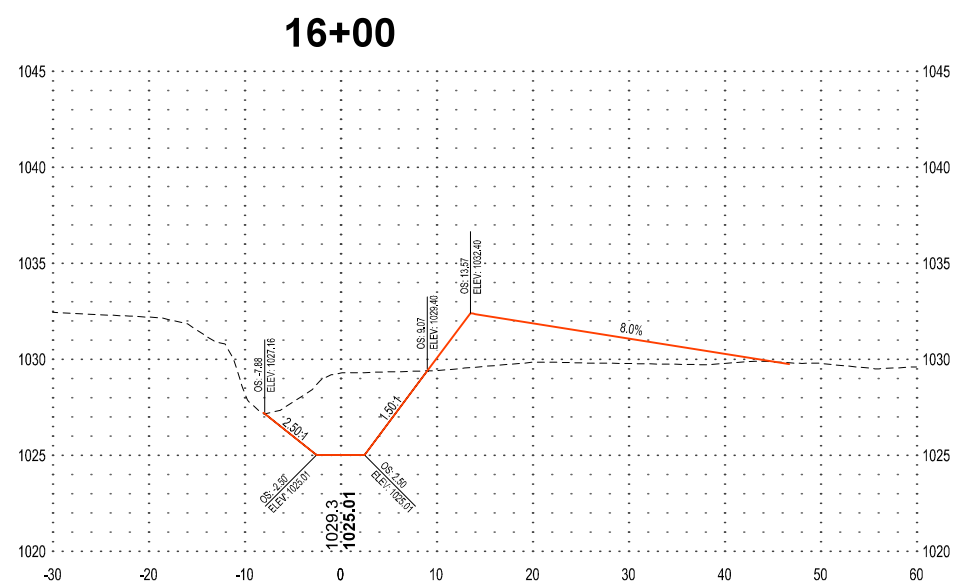
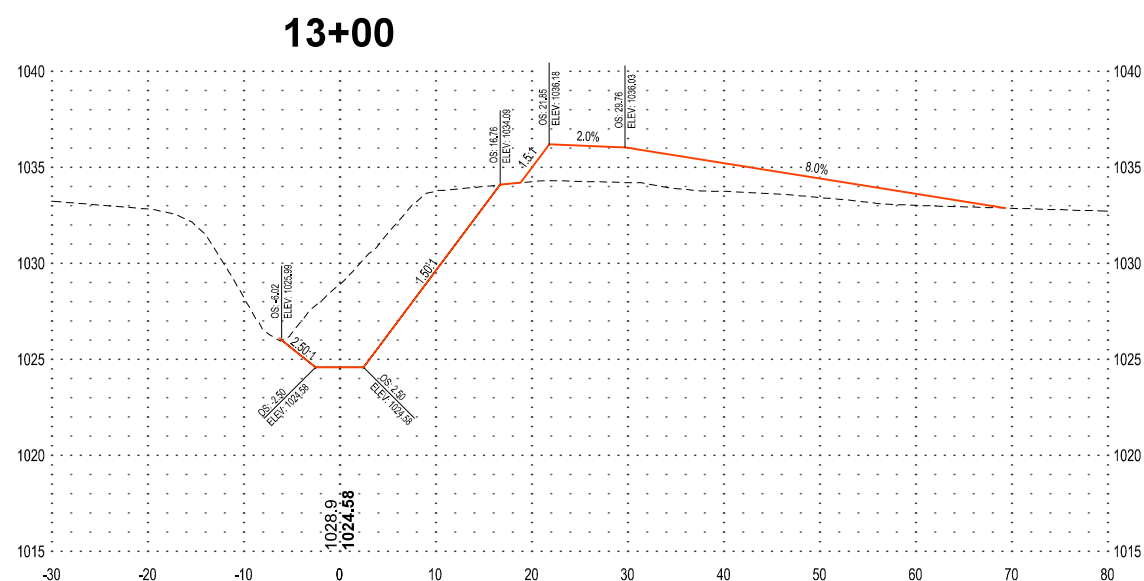
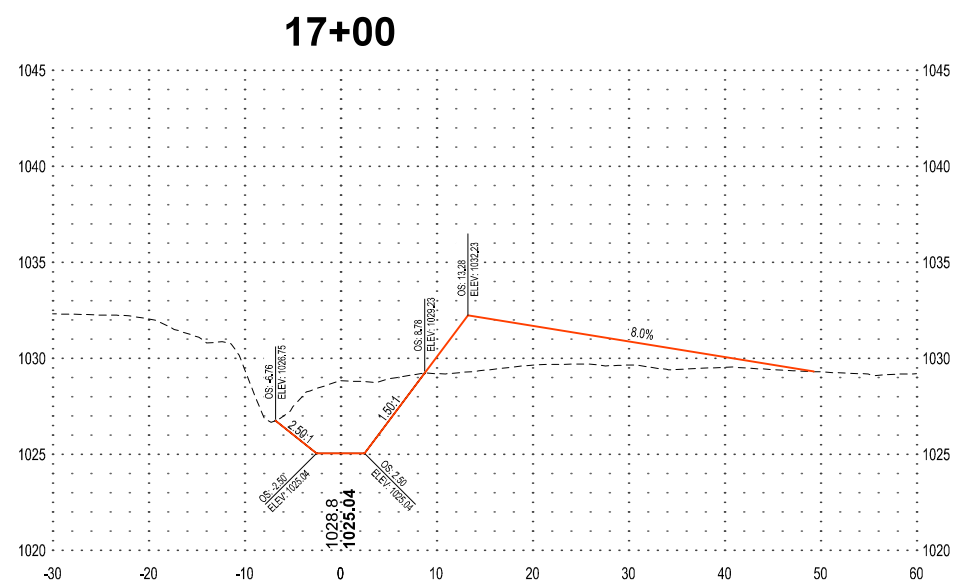
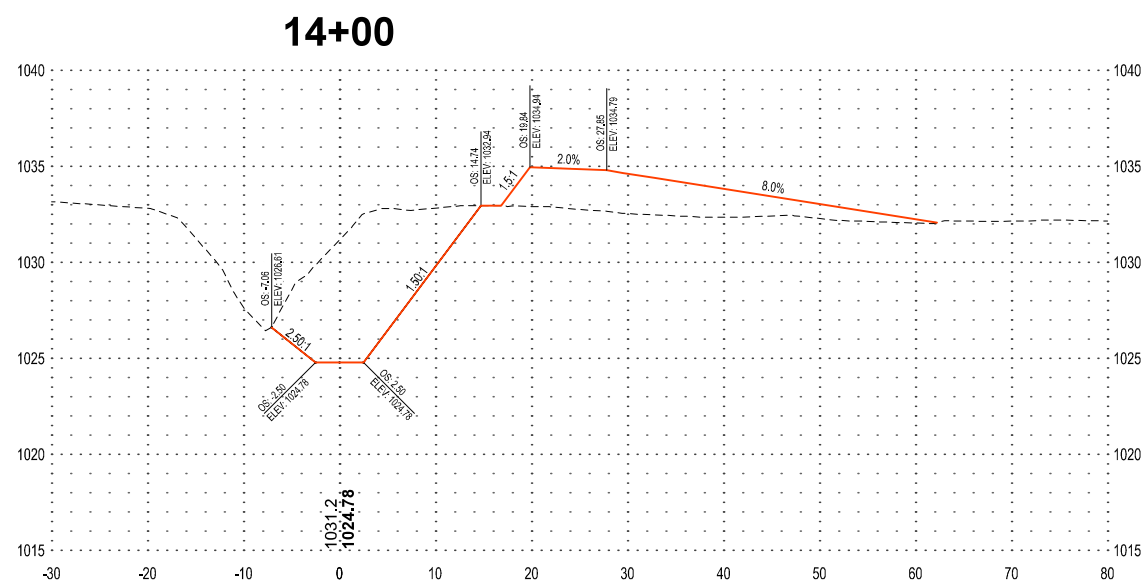
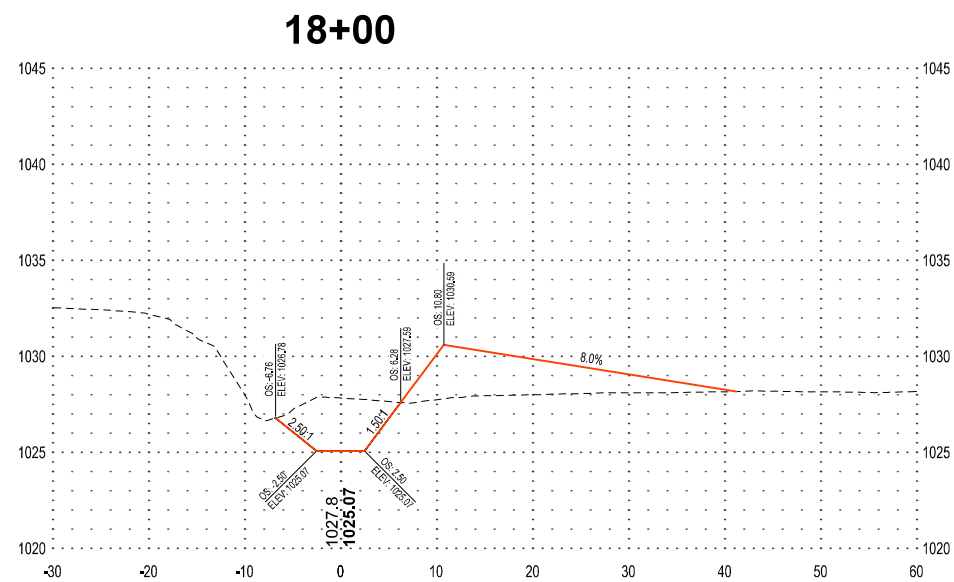
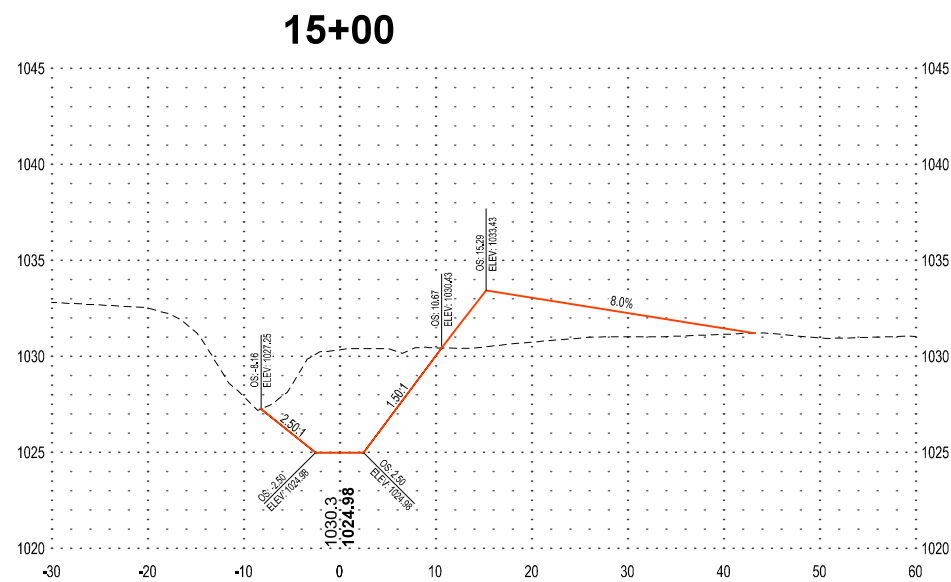
TITLE

CROSS SECTIONS 2

SHEET

8

OF 12



SECTION VIEW LEGEND	
NOTE: AS VIEWED IN THE DIRECTION OF INCREASING STATION	
----	EXISTING GROUND
—	PROPOSED GROUND
1000.0 1000.00	XXX.X - EXISTING GROUND € XXX.XX - PROPOSED GROUND €



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PROJECT	
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**MCNEILL
DRAINAGE
DISTRICT
LATERAL 8 OPEN
DITCH REPAIRS**

MONONA COUNTY IOWA

[illegible]

PROJECT NO	24-32020
------------	----------

FILE NAME	32020 SECTIONS
-----------	----------------

DRAWN BY	KJH
----------	-----

DESIGNED BY	RAM
-------------	-----

REVIEWED BY CDR/ALG

ORIGINAL ISSUE DATE 12/08/2025

CLIENT PROJECT NO. -

TITLE

CROSS SECTIONS 3

SHEET



SECTION VIEW LEGEND	
NOTE: AS VIEWED IN THE DIRECTION OF INCREASING STATION	
---	EXISTING GROUND
---	PROPOSED GROUND
1000.0 1000.00	XXX.X - EXISTING GROUND E XXX.XX - PROPOSED GROUND E



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PROJECT

**MCNEILL
DRAINAGE
DISTRICT
LATERAL 8 OPEN
DITCH REPAIRS**

MONONA COUNTY IOWA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

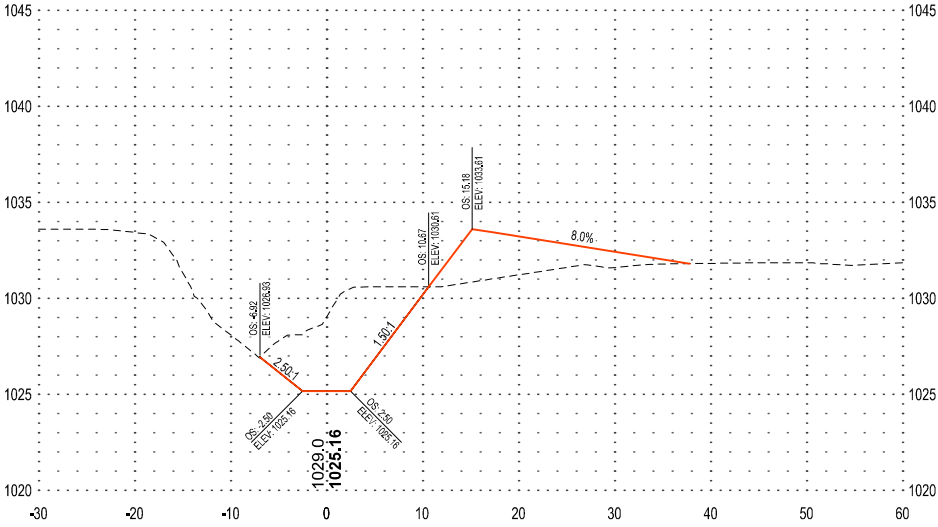
PROJECT NO.	24-32020
FILE NAME	32020 SECTIONS
DRAWN BY	KJH
DESIGNED BY	RAM
REVIEWED BY	CDR/ALG
ORIGINAL ISSUE DATE	12/08/2025
CLIENT PROJECT NO.	-

TITLE

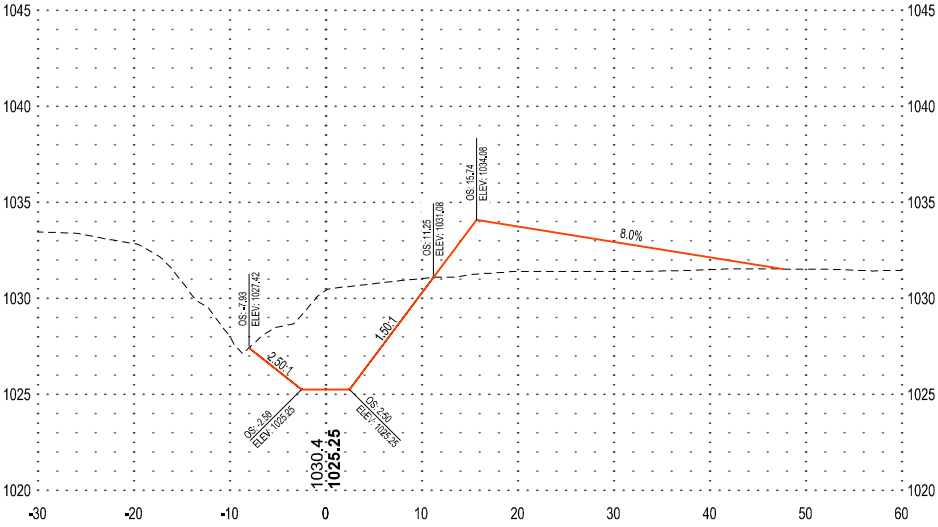
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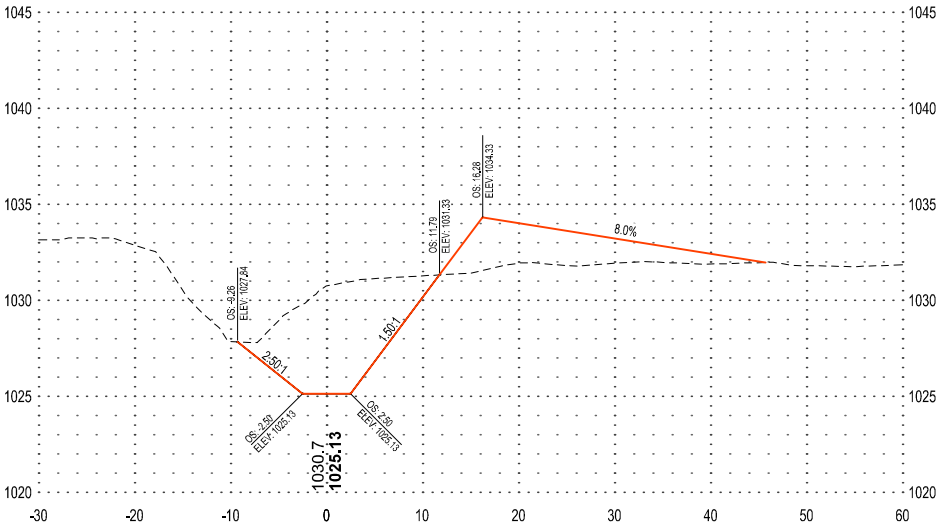
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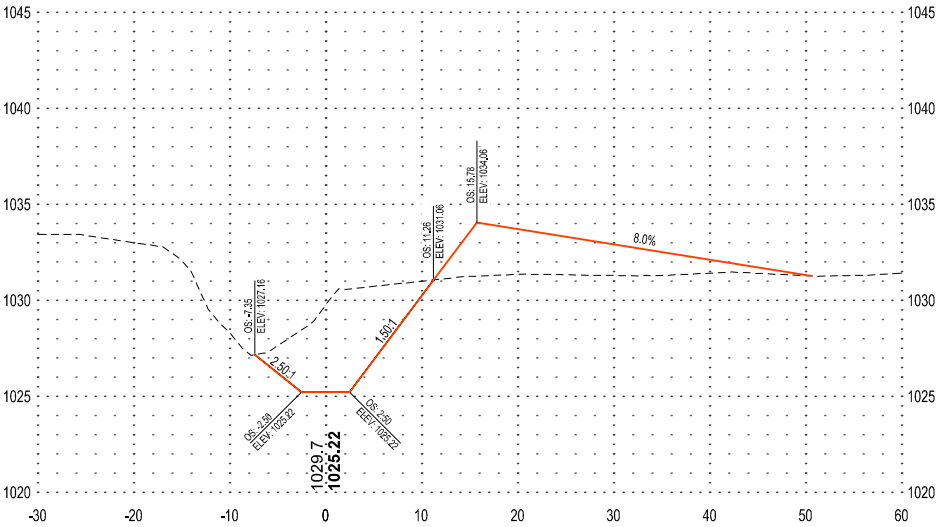
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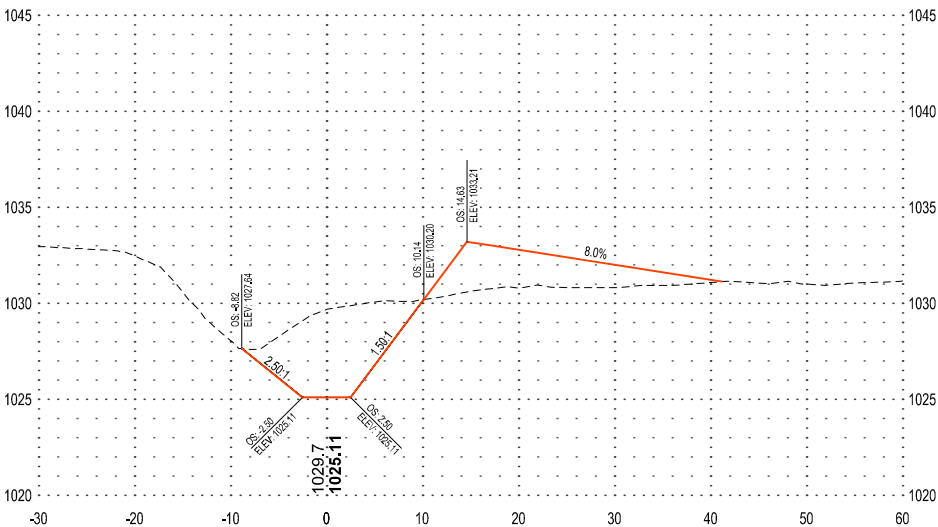
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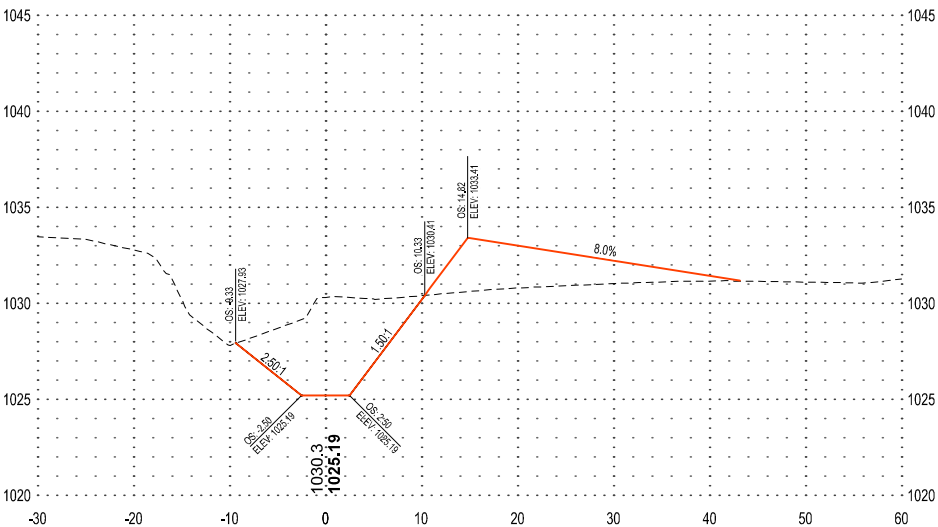
23+00



19+25



22+00





SECTION VIEW LEGEND	
NOTE: AS VIEWED IN THE DIRECTION OF INCREASING STATION	
---	EXISTING GROUND
---	PROPOSED GROUND
1000.0 1000.00	XXXX - EXISTING GROUND E XXXXX - PROPOSED GROUND E



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PROJECT

**MCNEILL
DRAINAGE
DISTRICT
LATERAL 8 OPEN
DITCH REPAIRS**

MONONA COUNTY IOWA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

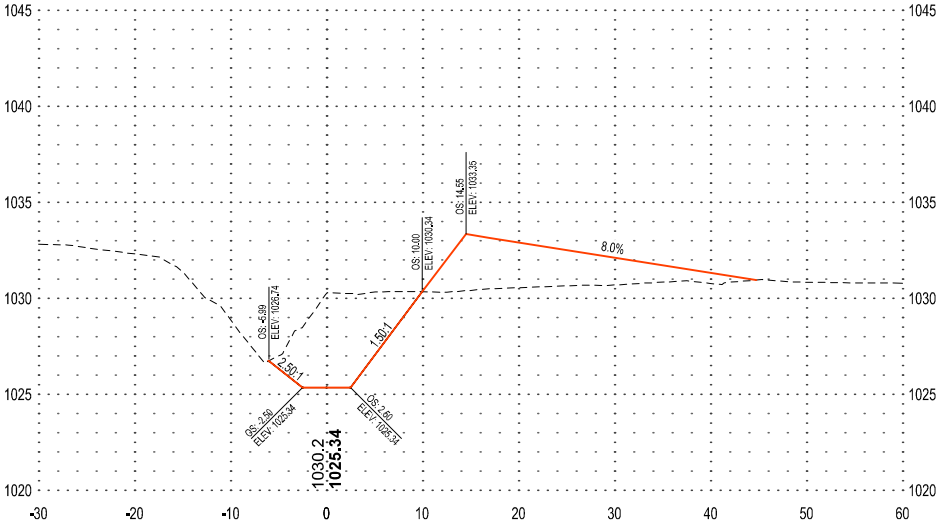
PROJECT NO.	24-32020
FILE NAME	32020 SECTIONS
DRAWN BY	KJH
DESIGNED BY	RAM
REVIEWED BY	CDR/ALG
ORIGINAL ISSUE DATE	12/08/2025
CLIENT PROJECT NO.	-

TITLE

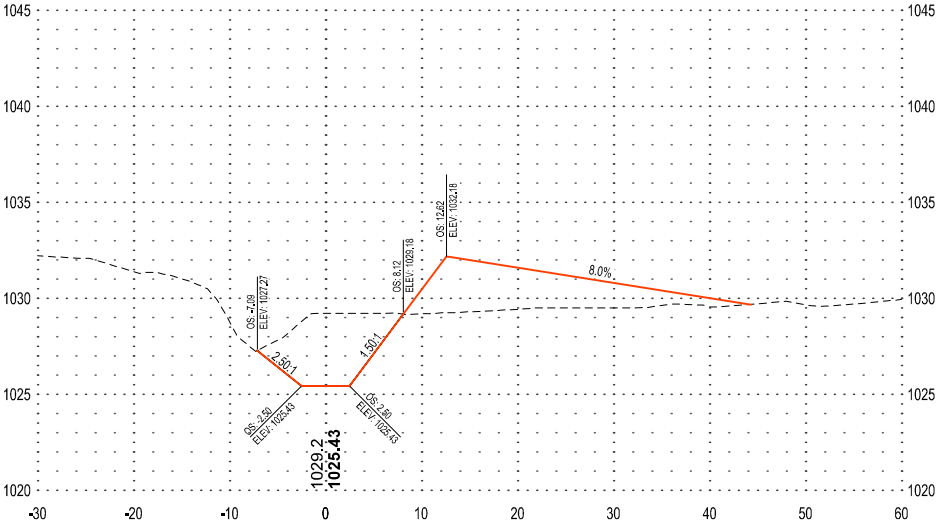
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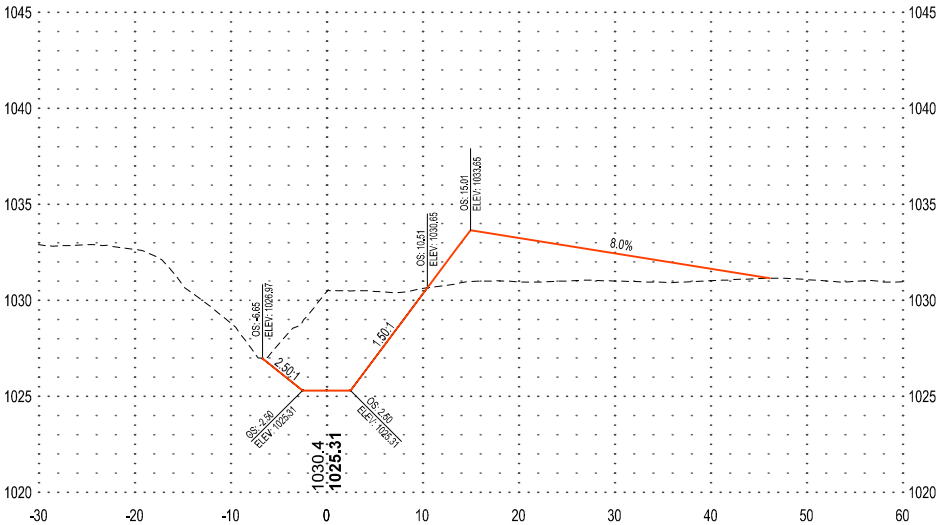
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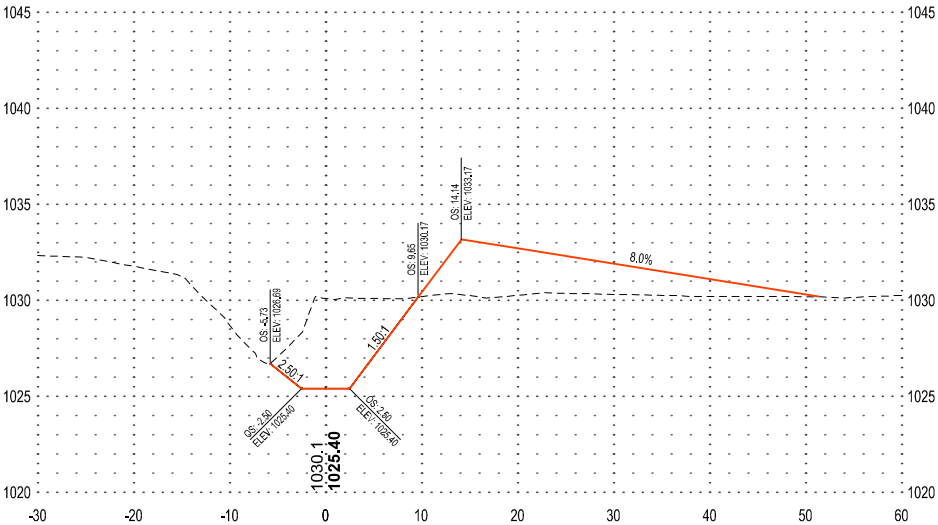
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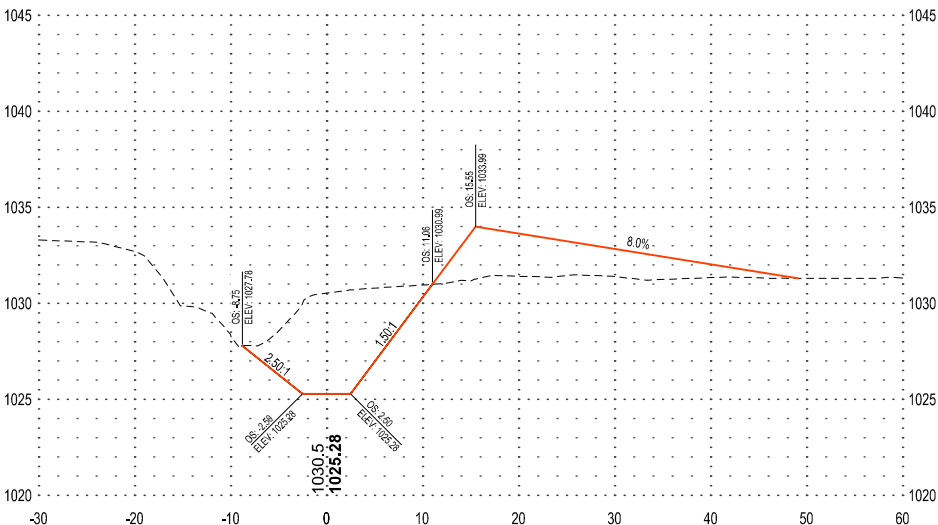
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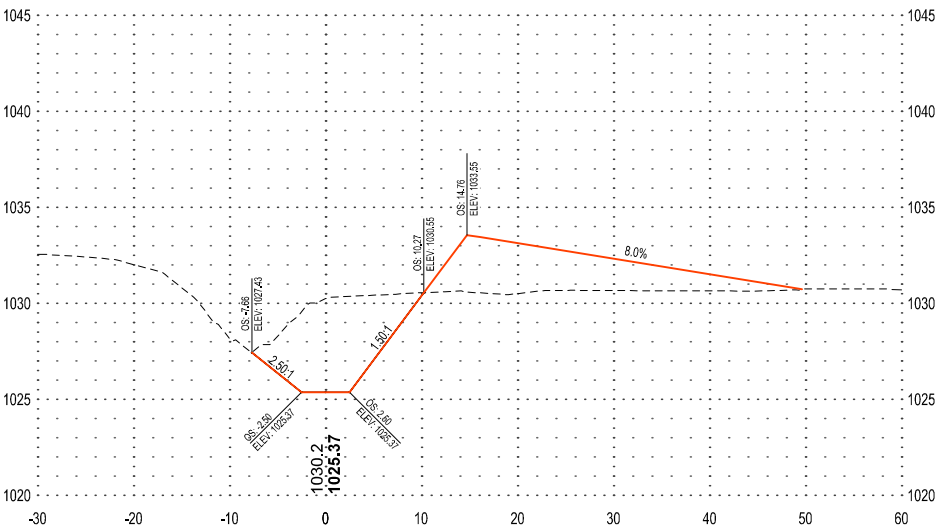
29+00



25+00



28+00





SECTION VIEW LEGEND	
NOTE: AS VIEWED IN THE DIRECTION OF INCREASING STATION	
---	EXISTING GROUND
---	PROPOSED GROUND
1000.0 1000.00	XXX.X - EXISTING GROUND E XXX.XX - PROPOSED GROUND E



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PROJECT

**MCNEILL
DRAINAGE
DISTRICT
LATERAL 8 OPEN
DITCH REPAIRS**

MONONA COUNTY IOWA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

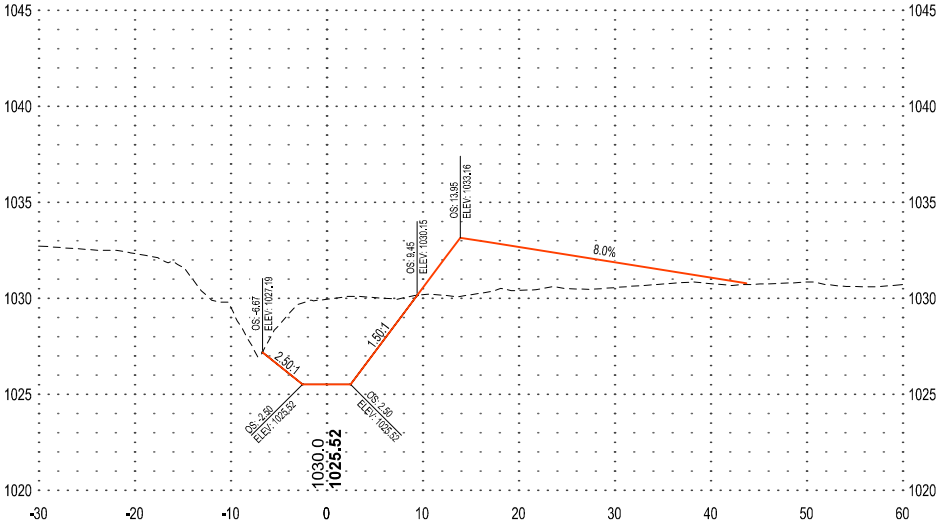
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FILE NAME	32020 SECTIONS
DRAWN BY	KJH
DESIGNED BY	RAM
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CLIENT PROJECT NO.	-

TITLE

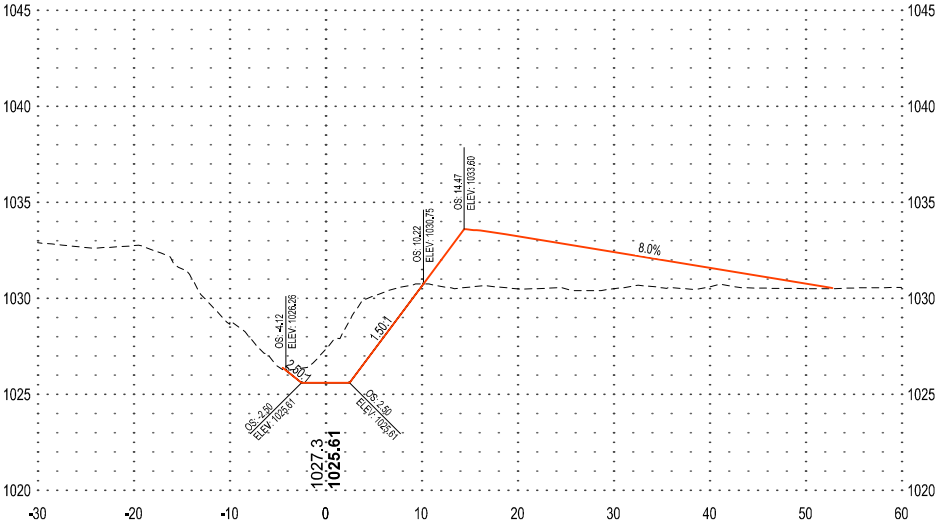
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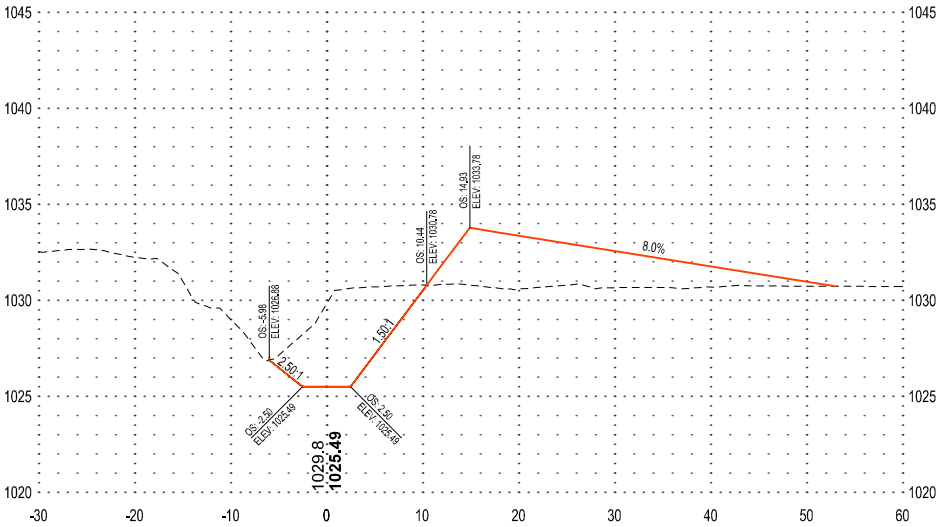
33+00



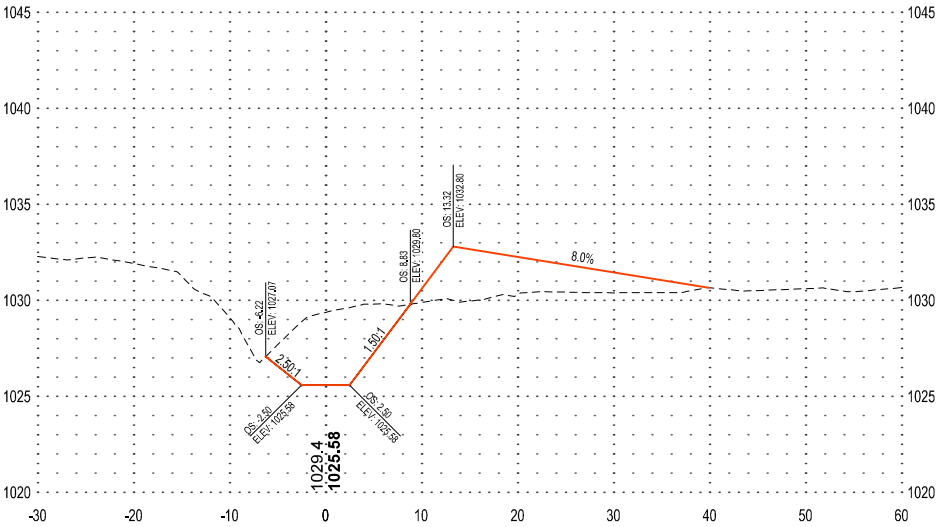
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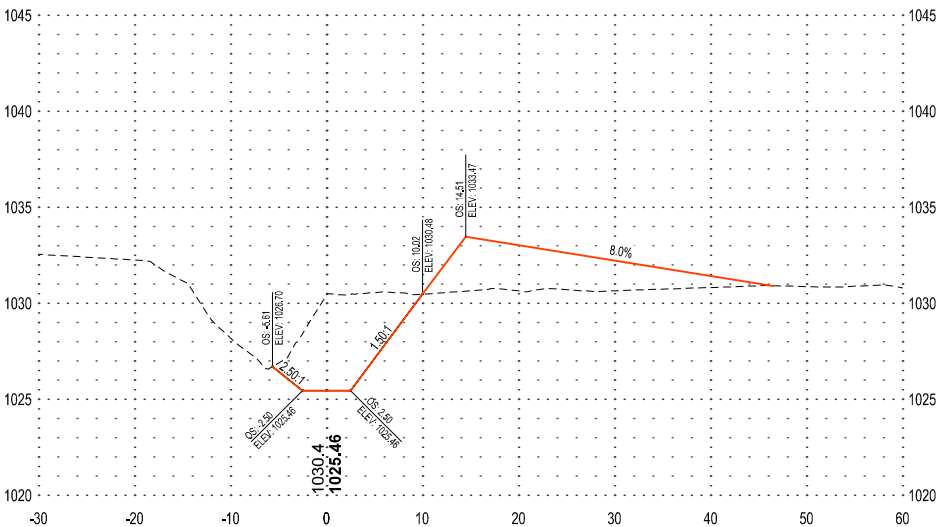
32+00



35+00



31+00



34+00

