

PLANS FOR CONSTRUCTION OF

YOUNGS INTERCOUNTY DRAIN

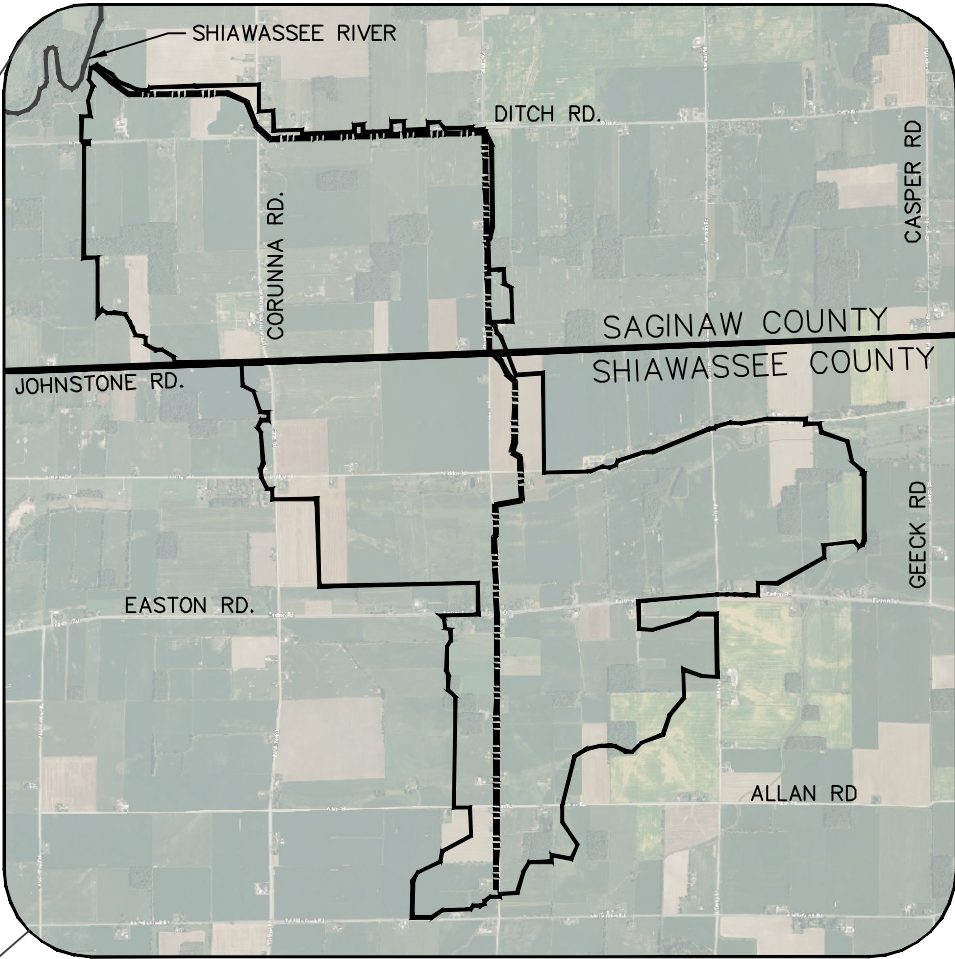
CHESANING TOWNSHIP, SAGINAW COUNTY, MICHIGAN

NEW HAVEN TOWNSHIP, SHIAWASSEE COUNTY, MICHIGAN

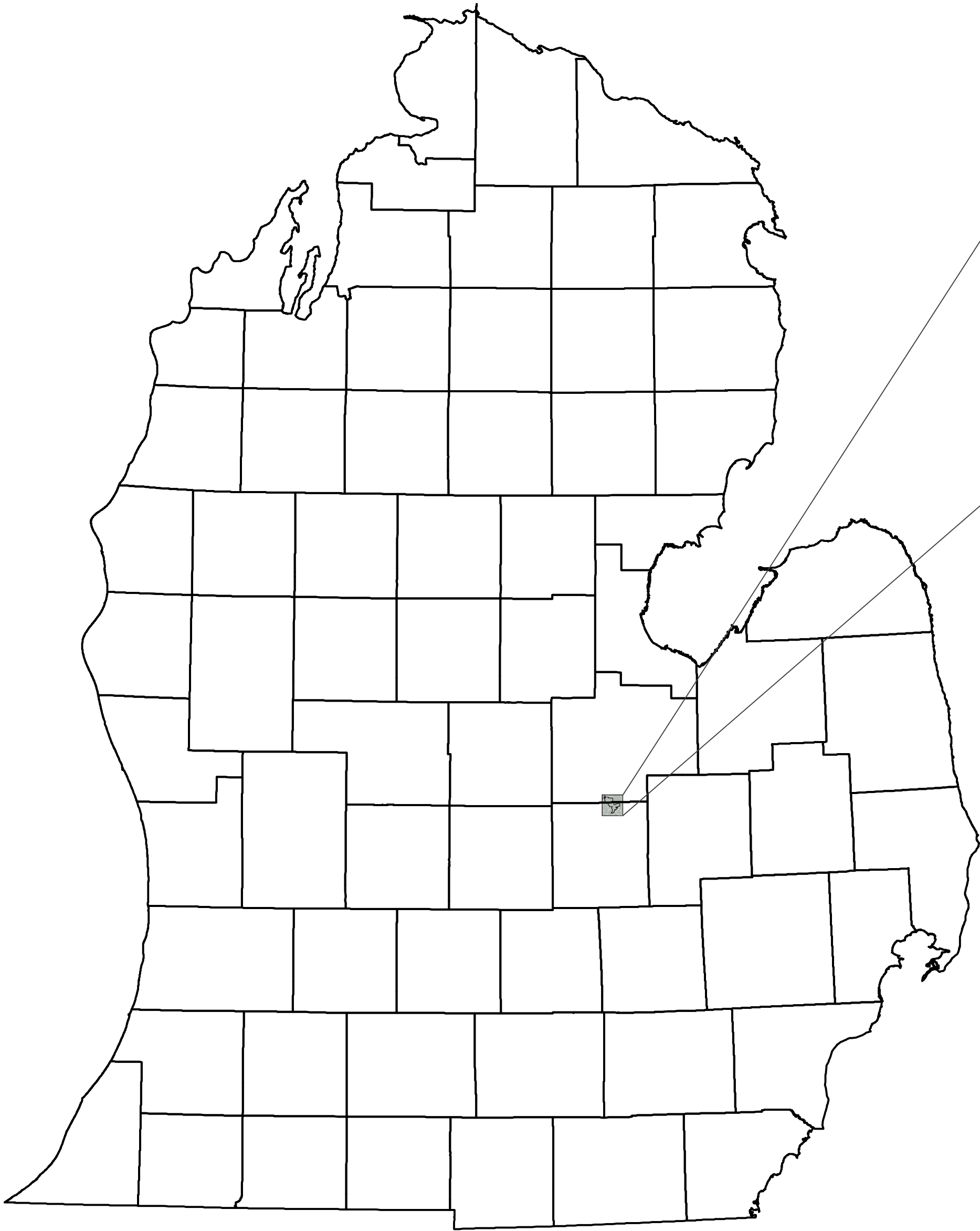
10/31/2025	ISSUED FOR BIDS	GKL
DATE	DESCRIPTION	BY
REVISIONS/SUBMITTALS		

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LOCATION MAP



PREPARED FOR:

YOUNGS

INTERCOUNTY DRAIN

MICHIGAN DEPARTMENT OF AGRICULTURE

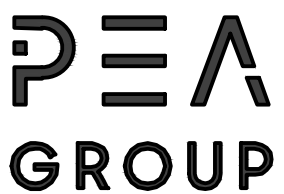
JOSEPH BREZVAI

SAGINAW COUNTY PUBLIC WORKS COMMISSIONER

BRIAN WENDLING

SHIAWASSEE COUNTY DRAIN COMMISSIONER

BRENT SINGER



2379 WOODLAKE DRIVE

SUITE 480

OKEMOS, MI 48864

PH. (517) 393-2902

www.peagroup.com

DATE

OCT 31, 2025

PROJECT NO.

1694

SHEET NO.

C

EGLE PERMIT

WRP 046524 V.1

NOTES

GENERAL

- BENCHMARK #2:
FOUND SPIKE WITH WASHER ON EAST SIDE OF POWER POLE, 59' RIGHT OF OF DRAIN. SOUTHEAST OF CORUNNA ROAD AND DITCH ROAD
ELEV. = 675.45 (NAVD88).
- BENCHMARK #2003:
SET RAILROAD SPIKE IN EAST SIDE OF EAST END OF TREE LINE, 30'± NORTH OF OF DITCH ROAD, 1322' ± EAST OF CORUNNA ROAD AT SOUTHEAST PROPERTY CORNER OF HOUSE #9760.
ELEV. = 681.34 (NAVD 88)
- BENCHMARK #2004:
SET RAILROAD SPIKE SOUTH FACE OF 48" OAK, 30'± NORTH OF OF DITCH ROAD AT NORTH 1/4 CORNER, SECTION 34.
ELEV. = 685.41 (NAVD 88)
- BENCHMARK #2005:
SET RAILROAD SPIKE IN SOUTH FACE POWER POLE 53'± EAST OF OF STUART ROAD AND 20'± NORTH OF DITCH ROAD.
ELEV. = 684.60 (NAVD 88)
- BENCHMARK #2012:
SET MAG NAIL IN SOUTH FACE OF POWER POLE LOCATED 20'± NORTH OF OF DITCH ROAD AND 500'± EAST OF NORTH 1/4 CORNER, SECTION 34. ALSO BEING FRONT YARD OF HOUSE #9372.
ELEV. = 683.61 (NAVD 88)
- BENCHMARK #7:
FOUND SPIKE ON EAST SIDE OF POWER POLE 24'± WEST OF OF STUART ROAD, 407'± NORTH OF EAST 1/4 CORNER, SECTION 34. ALSO BEING THE IN FRONT YARD OF HOUSE #19422.
ELEV. = 692.22 (NAVD 88)
- BENCHMARK #10:
FOUND SPIKE AND TAG SOUTHEAST SIDE OF POWER POLE, 111'± SOUTHWEST OF INTERSECTION OF JOHNSTONE ROAD AND STUART ROAD.
ELEV. = 701.07 (NAVD 88)
- BENCHMARK #2006:
SET MAG NAIL IN WEST FACE OF POWER POLE 45'± EAST OF OF STUART ROAD AND 1200'± SOUTH OF OF DITCH ROAD.
ELEV. = 687.65 (NAVD 88)
- BENCHMARK #2013:
CHISELED " " ON TOP OF LARGE ROCK AT WEST END OF 12" CMP ROAD CULVERT LOCATED 18'± WEST OF OF STUART ROAD AT FENCELINE WEST. ALSO BEING 1/4 MILE NORTH OF JOHNSTONE ROAD.
ELEV. = 693.53 (NAVD 88)
- BENCHMARK #12:
FOUND SPIKE NORTHWEST SIDE OF POWER POLE, 70'± SOUTHEAST INTERSECTION OF DRAIN AND NORTH RIDGE ROAD.
ELEV. = 706.62 (NAVD 88)
- BENCHMARK #13:
FOUND SPIKE ON SOTHEAST SIDE OF POWER POLE 210' RIGHT OF OF DRAIN. ALSO BEING SOUTHEAST QUAD OF NORTH RIDGE ROAD AND CRAM ROAD.
ELEV. = 710.43 (NAVD 88)
- BENCHMARK #2014:
SET MAG NAIL IN SOUTHWEST FACE OF POWER POLE 55'± EAST OF OF CRAM ROAD AND 1710'± NORTH OF NORTH RIDGE ROAD.
ELEV. = 701.34 (NAVD 88)
- BENCHMARK #2015:
FILED "+" OF TOP OF WEST END 4.6'x6.3' CMP CULVERT CROSSING OF CRAM ROAD 1287'± SOUTH OF NORTH RIDGE ROAD.
ELEV. = 713.74 (NAVD 88)
- BENCHMARK #2009:
SET MAG NAIL NORTHWEST FACE OF POWER POLE LOCATED IN SOUTHEAST QUAD OF CRAM AND EASTON ROADS.
ELEV. = 728.13 (NAVD 88)
- BENCHMARK #2010:
SET MAG NAIL EAST FACE POWER POLE, 30'± WEST OF OF CRAM ROAD AND 150'± SOUTH OF ALLAN ROAD.
ELEV. = 733.09 (NAVD 88)
- BENCHMARK #2016:
SET MAG NAIL IN WEST FACE OF 36" OAK, 15'± EAST OF OF CRAM ROAD AND 50'± NORTH OF EAST 1/4 CORNER, SECTION 10.
ELEV. = 729.60 (NAVD 88)
- BENCHMARK #21:
FOUND SPIKE EAST SIDE OF SOUTH(EAST) POLE OF H-POLES, 147' RIGHT OF OF DRAIN OR 165' WEST OF OF CRAM ROAD AT HOUSE #6625.
ELEV. = 736.11 (NAVD 88)
- The contractor shall call "MISS DIG" at 1-800-482-7171 at least 3 working days (excluding weekends and holidays) prior to construction.
- All work shall be done in accordance with the applicable codes, ordinances, design standards and standard specifications of the following agencies which have the responsibility of reviewing plans and specifications for construction of all items included in these plans:
 - Chesaning Township, Saginaw County
 - Saginaw County Public Works Commissioner
 - Saginaw County Road Commission
 - New Haven Township, Shiawassee County
 - Shiawassee County Drain Commissioner
 - Shiawassee County Road Commission
 - State of Michigan

- The contractor shall apply for and obtain all necessary permits as required for construction of this project prior to the beginning of work from the previously mentioned agencies.
- The contractor shall notify the Saginaw County Road Commission or the Shiawassee County Road Commission a minimum of 72 hours prior to any construction in any road right-of-way.
- The contractor agrees that in accordance with generally accepted construction practices, the contractor will be required to assume sole responsibility for job site conditions during the course of construction of the project, including the safety of all persons and property. This requirement shall be made to apply continuously and not be limited to normal working hours.
- The locations and dimensions shown on the plans for existing facilities are in accordance with all available information. The engineer does not guarantee the accuracy of this information or that all existing underground facilities are shown.
- When any existing utility requires adjustment or relocation, the contractor shall notify the proper utility company and coordinate the work accordingly. There shall be no claim made by the contractor for any costs caused by delays in construction due to the adjustment or relocation of utilities.
- The contractor is to verify that the plans and specifications that he/she is building from are the very latest plans and specifications that have been approved by all applicable permit-issuing agencies and the owner. All items constructed by the contractor prior to receiving the final approval and permits having to be adjusted or re-done, shall be done at the contractor's expense.
- Should the contractor encounter conflict between these plans and specifications, either among themselves or with the requirements of any and all reviewing and permit-issuing agencies, he/she shall seek clarification in writing from this engineer before commencement of construction. Failure to do so shall be at the sole expense to the contractor.
- Unless otherwise noted the contractor shall furnish as-built drawings indicating all changes and deviations from approved drawings.
- All signs and traffic control measures during construction and maintenance activities shall be constructed and installed per the latest edition of the Michigan Manual of Uniform Traffic Control Devices (M.M.U.T.C.D.).
- PEA Group will not be responsible for field design changes made by the contractor or the contractor's surveyor where PEA Group has not approved these design changes.

GRADING AND SITE WORK

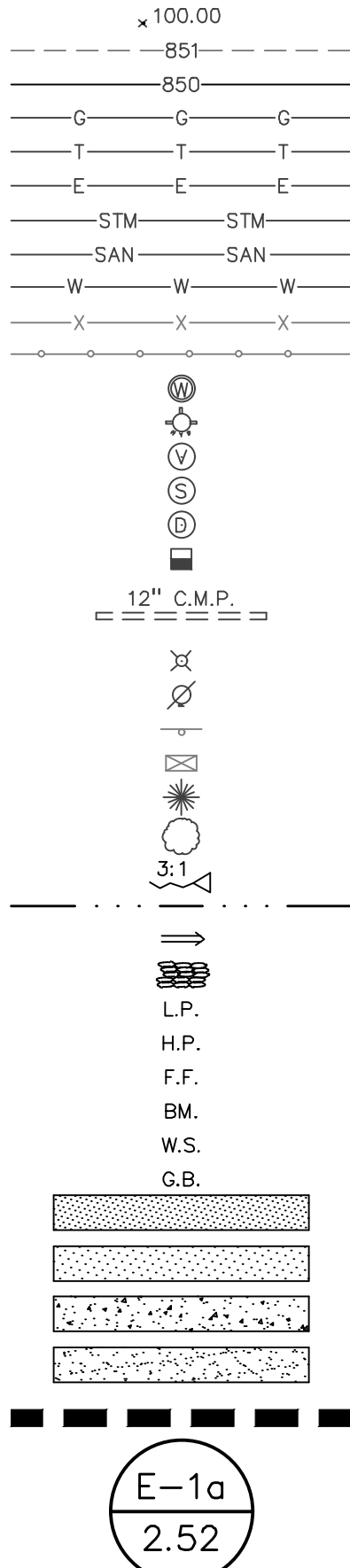
- All site grading must be performed to insure positive drainage across the entire site, throughout the period of construction and after project completion.
- All sedimentation and soil erosion control measures shall be constructed prior to the commencement of site grading and must conform to Part 91 of Act 451 of the Public Acts of 1994 as amended. All applicable permits shall be obtained before implementing these measures. The contractor shall be responsible for maintaining the sedimentation and soil erosion control measures throughout construction.

STORM DRAINAGE SYSTEM

- All storm drain below paved areas shall be backfilled with 100% granular material (or approved other) and compacted to 95% of its maximum unit weight (see typical trench details included in these plans).
- See Miscellaneous Drain Details on sheets C4.0 to C4.2.

LEGEND

- (E) SPOT ELEVATION
(E) 1' CONTOURS
(E) 5' CONTOURS
(E) GAS LINE
(E) TELEPHONE LINE
(E) ELECTRIC LINE
(E) STORM DRAIN
(E) SANITARY SEWER
(E) WATER MAIN
(E) CHAIN LINK FENCE
(E) WOOD FENCE
(E) WATER WELL
(E) FIRE HYDRANT
(E) WATER VALVE
(E) SANITARY MANHOLE
(E) STORM MANHOLE
(E) CATCHBASIN
(E) CULVERT
(E) LIGHT POLE
(E) UTILITY POLE
(E) SIGN
(E) MAILBOX
(E) CONIFEROUS TREE
(E) DECIDUOUS TREE
(P) SIDE SLOPE
(P) DRAINAGE SWALE
(P) DRAINAGE FLOW ARROW
(P) RIP RAP
LOW POINT
HIGH POINT
FINISH FLOOR
BM.
W.S.
G.B.
(P) LIGHT DUTY ASPHALT AREA
(P) CONCRETE SURFACE
(P) AGGREGATE SURFACE
(P) DRAINAGE BASIN BOUNDARY
(P) BASIN DESIGNATION
(P) BASIN AREA IN ACRES



- (P) SPOT ELEVATION
(P) 1' CONTOUR
(P) 5' CONTOUR
(P) GAS LINE
(P) TELEPHONE LINE
(P) ELECTRIC LINE
(P) STORM DRAIN
(P) SANITARY SEWER
(P) WATER MAIN
(P) CHAIN LINK FENCE
(P) WOOD FENCE
(P) GUARD RAIL
(P) FIRE HYDRANT ASSEMBLY
(P) WATER MAIN VALVE
(P) WATER MAIN BEND
(P) WATER MAIN REDUCER
(P) CURB INLET
(P) CATCH BASIN
(P) TRENCH DRAIN
(P) FLARED END SECTION
(P) MANHOLE
(P) LIGHT POLE
(P) SANITARY SEWER CLEANOUT
(P) UTILITY CROSSING
(P) BUILDING WALLPAC
(P) SIGN
(P) PARKING COUNT
(P) HANDICAP PARKING
(P) HANDICAP VAN ACCESSIBLE
(P) TRAFFIC FLOW
(P) MODIFIED CURB & GUTTER
(P) REGULAR CURB & GUTTER
(P) SCREEN WALL OR RETAINING WALL

NOTE:
(E) - INDICATES EXISTING
(P) - INDICATES PROPOSED

CHESANING TOWNSHIP PARCEL
(13-09-3-32-1001-004) AT
SOUTHEAST CORNER OF DITCH AND
NIVER RDS (DISPOSAL SITE #2)

NOTE

CONTRACTOR SHALL DISPOSE OF
SPOILS IN THE TWO APPROVED
LOCATIONS SHOWN ON THIS SHEET.

CONTACTS

PEA GROUP

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PHONE: (989) 790-5258

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CHESANING TOWNSHIP SUPERVISOR

JOSEPH RUTHIG
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SAGINAW COUNTY ROAD COMMISSION

3020 SHERIDAN AVE
SAGINAW, MI 48601
PHONE: (989) 752-6140

SHIAWASSEE COUNTY ROAD COMMISSION

701 W CORUNNA AVE
CORUNNA, MI 48817
PHONE: (989) 743-2228

UTILITIES

CONSUMERS ENERGY COMPANY-ELECTRIC

NO CONTACT NAME GIVEN
PHONE: (800) 778-9140

BRIGHTSPEED

WADE MILLER
PHONE: (704) 314-2499

ISSUED FOR BIDS	DESCRIPTION	DATE	BY
		10/31/2025	



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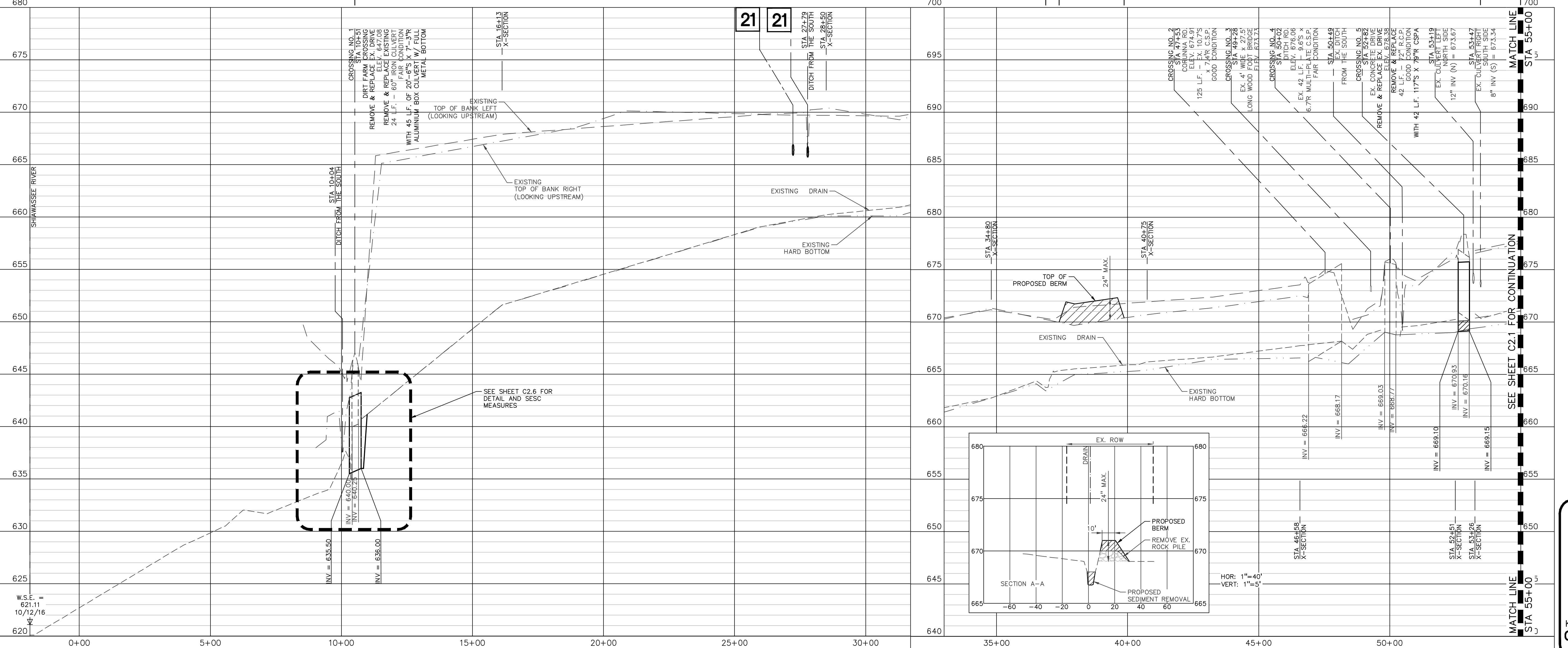
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SHIAWASSEE COUNTY DRAIN COMMISSIONER
BRENT SINGER

NOTES AND CONTACTS
FOR
YOUNGS INTERCOUNTY DRAIN
CHESANING TWP, SAGINAW COUNTY AND
NEW HAVEN TOWNSHIP, SHIAWASSEE COUNTY, MICHIGAN



Know what's below.
Call before you dig.

FILE	CI-0.DWG
DESIGNED BY	RAH
DRAWN BY	RAH
CHECKED BY	ADB
DATE	OCT 31, 2025
SCALE	
HOR.	1" = 1000'
VERT.	N/A
PROJECT NO.	1694
SHEET NO.	C1.0



FILE	C2-0.DWG
DESIGNED BY	RAH
DRAWN BY	SEP/RAH
CHECKED BY	ADB
DATE	OCT 31, 2025
SCALE	
HOR.	1" = 200'
VERT.	1" = 5'
PROJECT NO.	
1694	
SHEET NO.	
C2.0	

MISS
DIG
811
Know what's **below**.
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DATE	ISSUED FOR BIDS DESCRIPTION BY
10/31/2025	CLK

PEA GROUP

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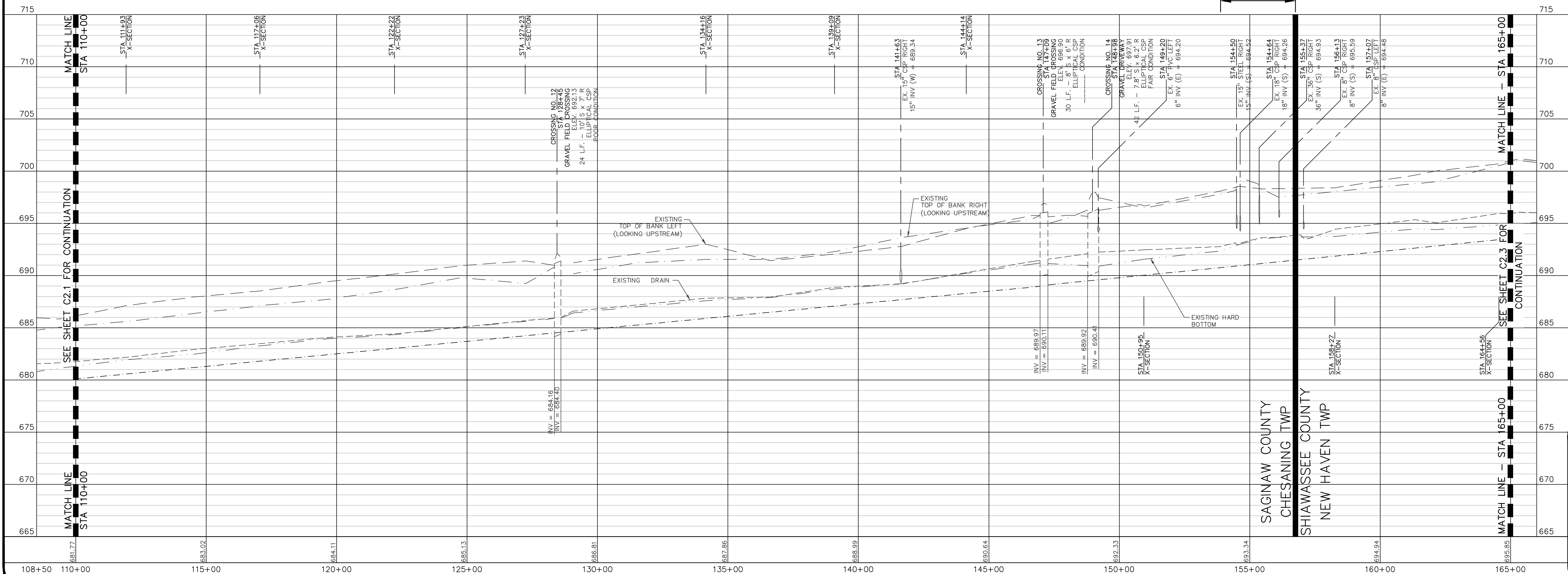
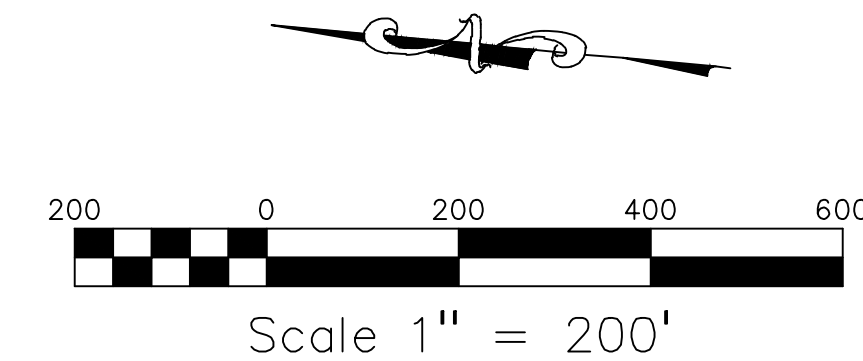
YOUNGS
INTERCOUNTY DRAIN
MICHIGAN DEPARTMENT OF AGRICULTURE
JOSEPH BREZVAI
SAGINAW COUNTY PUBLIC WORKS COMMISSIONER
BRAND WENDLING
SHAWASSEE COUNTY DRAIN COMMISSIONER
BRENT SINGER

PLAN AND PROFILE - STA 55+00 TO STA 110+00
FOR
YOUNGS INTERCOUNTY DRAIN
CHESANING TOWNSHIP, SAGINAW COUNTY AND
NEW HAVEN TOWNSHIP, SHAWASSEE COUNTY, MICHIGAN

FILE	C2-1.DWG
DESIGNED BY	RAH
DRAWN BY	SEP/RAH
CHECKED BY	ADB
DATE	OCT 31, 2025
SCALE	
HOR.	1" = 200'
VERT.	1" = 5'
PROJECT NO.	1694
SHEET NO.	C2.1

NOTES

1. BENCHMARKS
- #7. FOUND SPIKE ON EAST SIDE OF POWER POLE 24'± WEST OF OF STUART ROAD, 407'± NORTH OF EAST ¼ CORNER, SECTION 34. ALSO BEING IN FRONT YARD OF HOUSE # 19422.
ELEV = 692.24 (NAVD88)
- #10. FOUND SPIKE AND TAG SOUTHEAST SIDE OF POWER POLE, 111'± SOUTHWEST OF INTERSECTION OF JOHNSTONE AND STUART ROAD.
ELEV = 701.07 (NAVD88)
- #2006. SET MAG NAIL IN WEST FACE OF POWER POLE 45'± EAST OF OF STUART ROAD AND 1200'± SOUTH OF OF DITCH ROAD.
ELEV = 687.65 (NAVD88)
- #2013. CHISELED " " ON TOP OF LARGE ROCK AT WEST END OF 12" CMP ROAD CULVERT LOCATED 18'± WEST OF OF STUART ROAD AT FENCELINE WEST ALSO BEING 1/4 MILE NORTH OF JOHNSTONE ROAD.
ELEV = 693.53 (NAVD88)
2. THE CONTRACTOR SHALL CALL "MISS DIG" AT 811 OR 1-800-482-7171 AT LEAST THREE (3) WORKING DAYS (EXCLUDING WEEKENDS AND HOLIDAYS) PRIOR TO CONSTRUCTION.
3. PEA GROUP WILL NOT BE RESPONSIBLE FOR FIELD DESIGN CHANGES MADE BY THE CONTRACTOR OR THE CONTRACTOR'S SURVEYOR WHERE THESE DESIGN CHANGES HAVE NOT BEEN APPROVED BY PEA GROUP.



FILE: S:\PROJECTS\2021\2021-1694 MDARD YOUNGS IC DRAIN\C\6 PLANS\C2-2.DWG - PLOT DATE: 10/30/2025 10:20 AM BY: Chloe DuBois SCALE: 1:1

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PEA
GROUP

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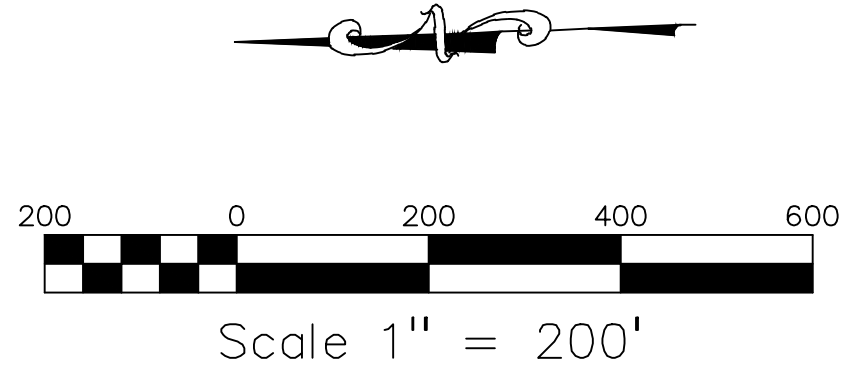
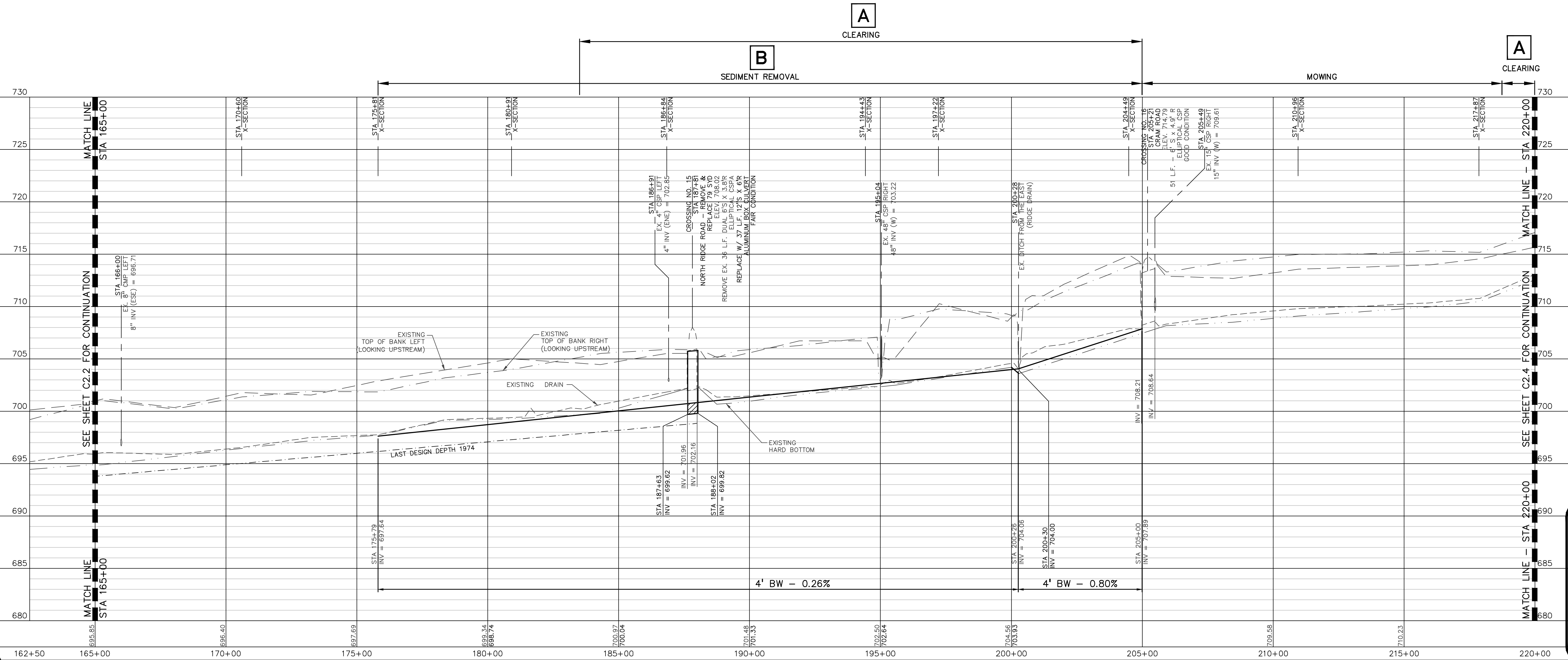
PREPARED FOR: **YOUNGS**
INTERCOUNTY DRAIN
MICHIGAN DEPARTMENT OF AGRICULTURE
JOSEPH BREZVAI
SAGINAW COUNTY PUBLIC WORKS COMMISSIONER
BRIAN WENDLING
SHIAWASSEE COUNTY DRAIN COMMISSIONER
SINCE 1967

PLAN AND PROFILE - STA 110+00 TO STA 165+00
FOR
YOUNGS INTERCOUNTY DRAIN
CHESANING TOWNSHIP, SAGINAW COUNTY AND
NEW HAVEN TOWNSHIP, SHIAWASSEE COUNTY, MICHIGAN

FILE	C2-2.DWG
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DRAWN BY	SEP/RAH
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VERT.	1" = 5'
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C2.2	

MISS
DIG
811
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FILE: S:\PROJECTS\2021\1694 MDARD YOUNGS IC DRAIN\CVG PLANS\C2-3.DWG - PLOT DATE: 10/30/2025 10:20 AM BY: Chase DuBois SCALE: 1:1



NOTES

- BENCHMARKS
 - #12. FOUND SPIKE NORTHWEST SIDE OF POWER POLE, 70'± SOUTHEAST INTERSECTION OF DRAIN AND NORTH RIDGE ROAD. ELEV = 706.62 (NAVD88)
 - #13. FOUND SPIKE ON SOUTHEAST SIDE OF POWER POLE 210' RIGHT OF OF DRAIN, ALSO BEING SOUTHEAST QUAD OF NORTH RIDGE ROAD AND CRAM ROAD. ELEV = 710.43 (NAVD88)
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SHAWASSEE COUNTY DRAIN COMMISSIONER
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PLAN AND PROFILE - STA 165+00 TO STA 220+00
FOR
YOUNGS INTERCOUNTY DRAIN
CHESANING TOWNSHIP, SAGINAW COUNTY AND
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FILE: C2-3.DWG
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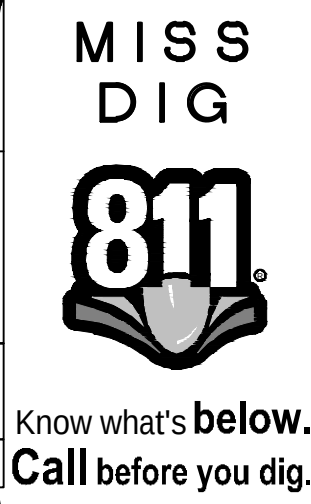
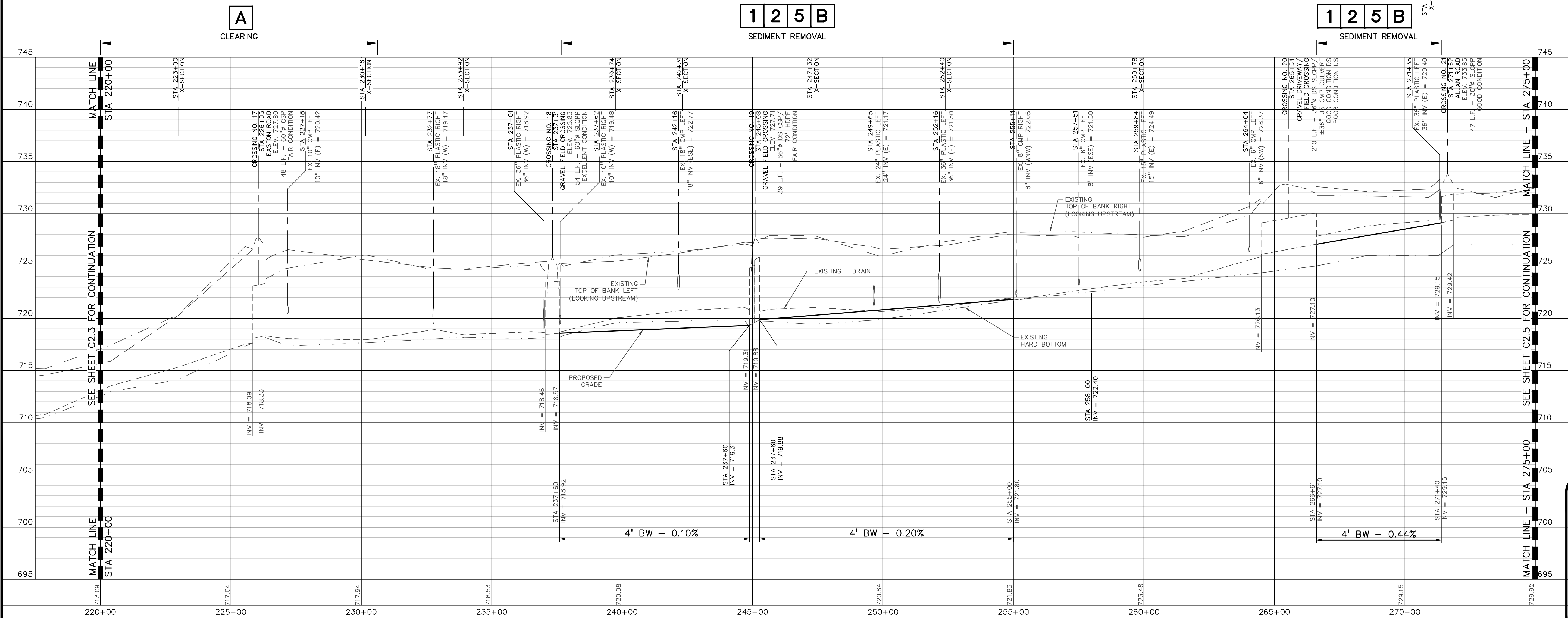
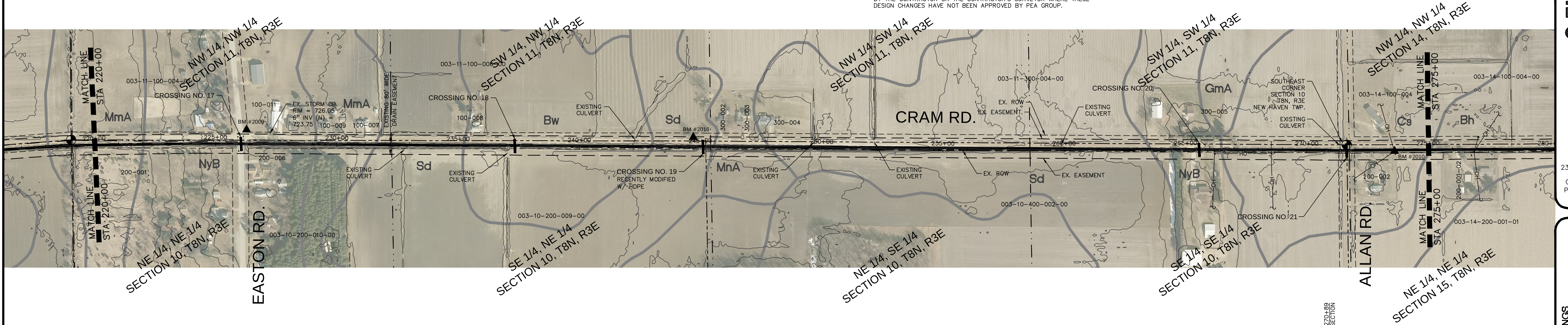
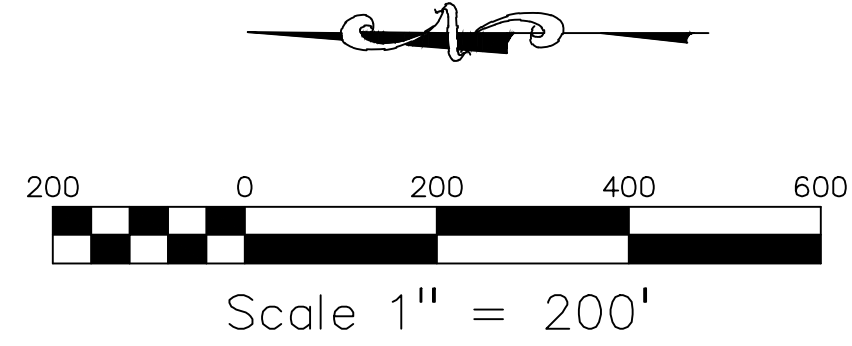
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NOTES

1. BENCHMARKS
 - #2009. SET MAG NAIL, NORTHWEST FACE POWER POLE LOCATED IN SOUTHEAST SQUAD OF GRAM AND EASTON ROADS. ELEV = 728.13 (NAVD88)
 - #2010. SET MAG NAIL, EAST FACE POWER POLE, 30'± WEST OF CRAM ROAD AND 150'± SOUTH OF ALLAN ROAD. ELEV = 733.09 (NAVD88)
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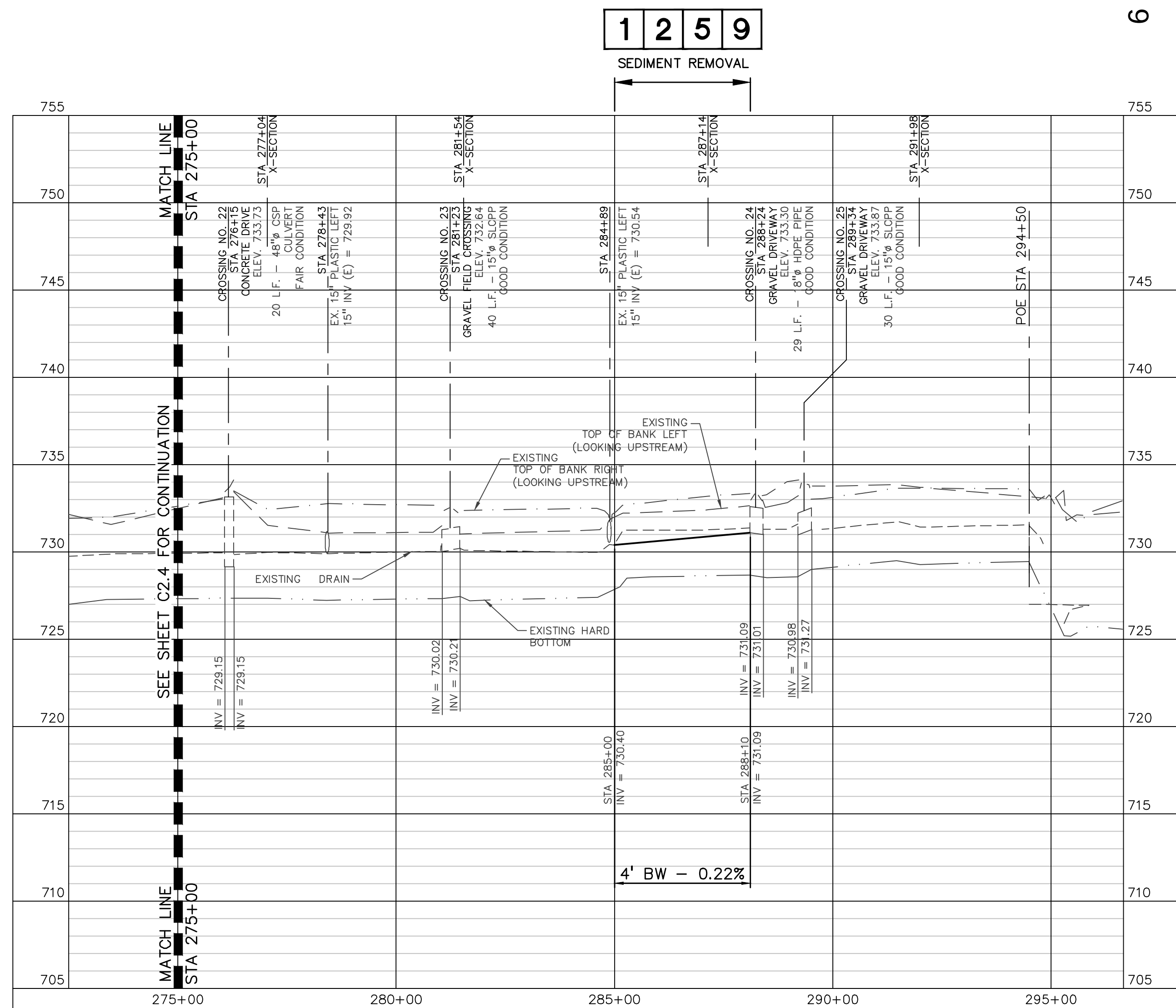
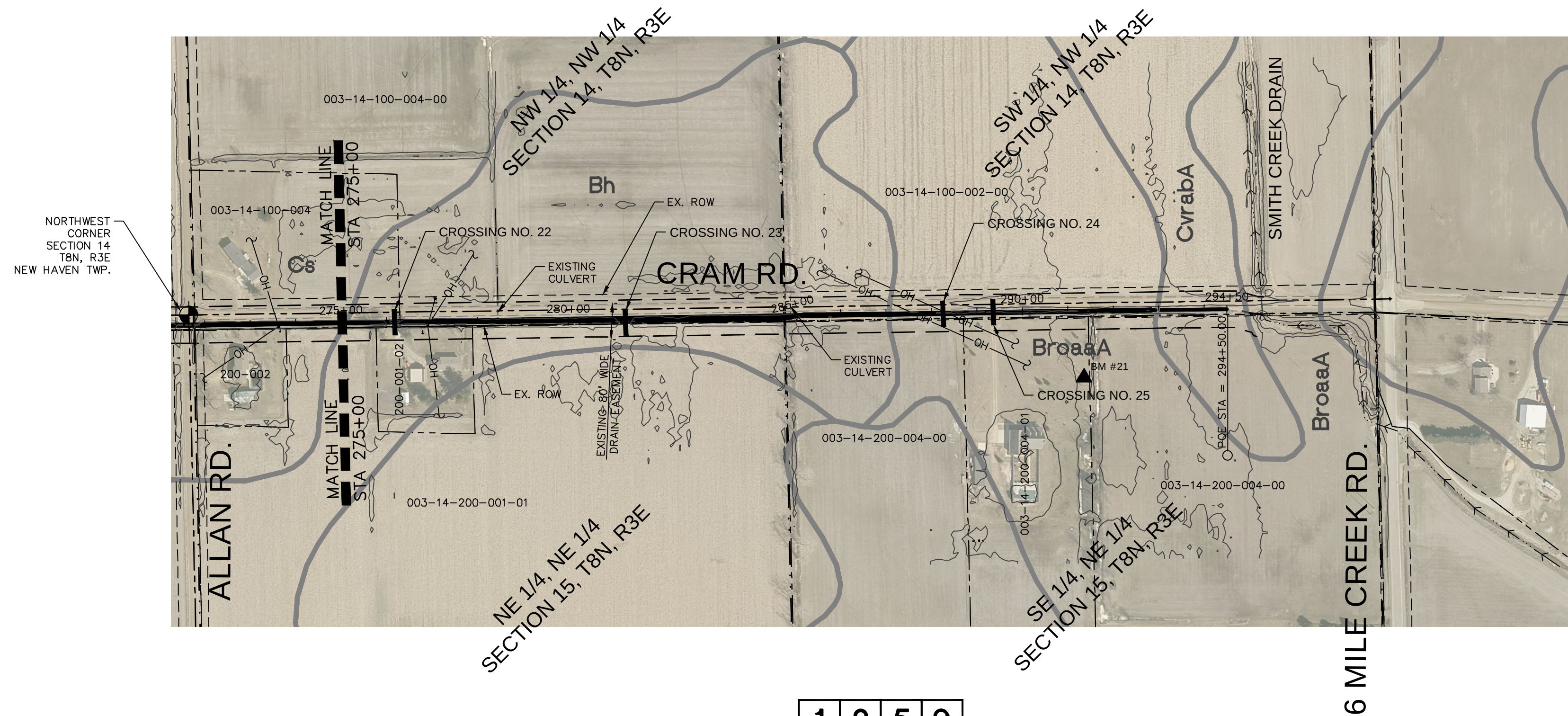


PLAN AND PROFILE - STA 220+00 TO STA 275+00
FOR
YOUNGS INTERCOUNTY DRAIN
CHESANING TOWNSHIP, SAGINAW COUNTY AND
NEW HAVEN TOWNSHIP, SHIAWASSEE COUNTY, MICHIGAN

INTERCOUNTY DRAIN
MICHIGAN DEPARTMENT OF AGRICULTURE
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SHIAWASSEE COUNTY DRAIN COMMISSIONER
BRENT SINGER

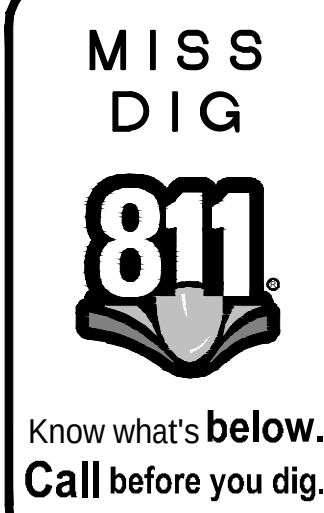
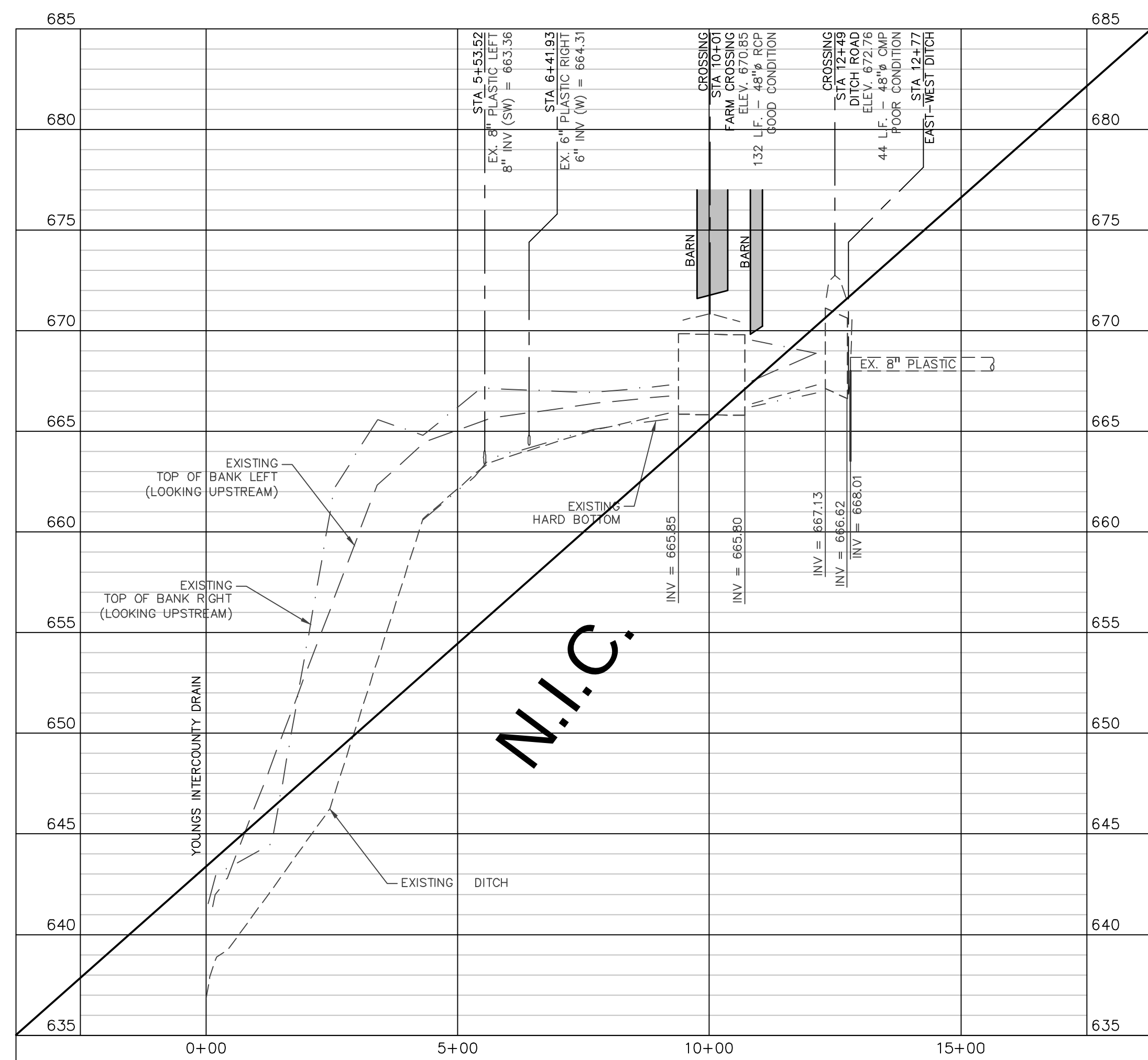
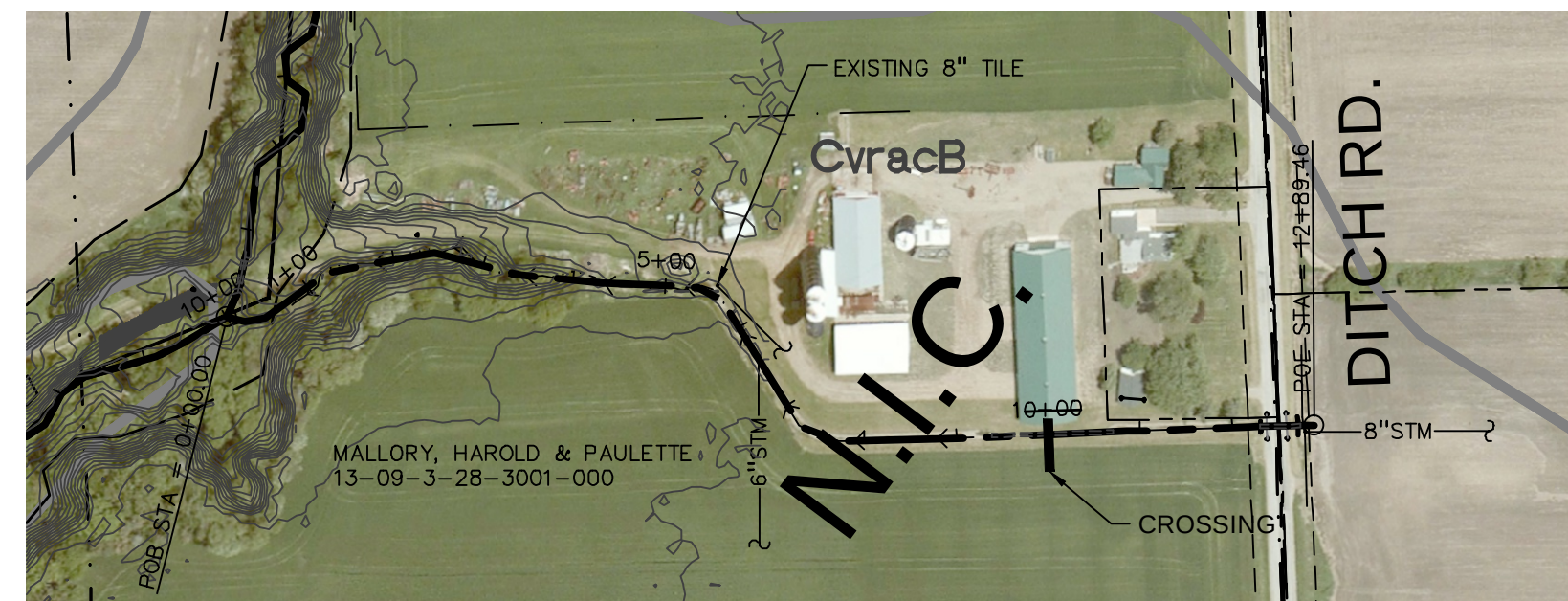
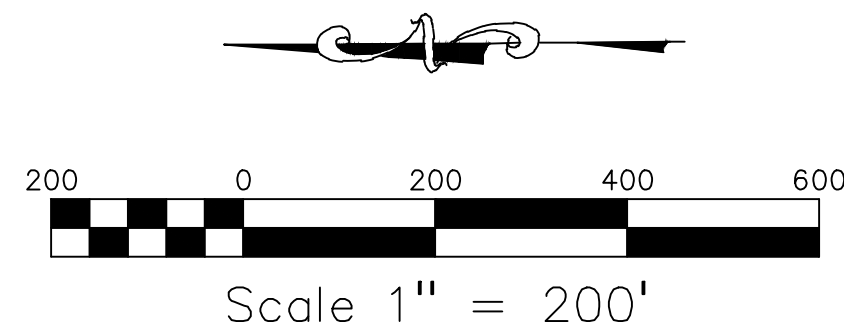
PEA
GROUP

REVIEWS/SUBMITTALS		
DATE	DESCRIPTION	BY
10/31/2025	ISSUED FOR BIDS	OKL



NOTES

1. BENCHMARK
#21. FOUND SPIKE EAST SIDE OF SOUTH(EAST) POLE OF H--POLES, 147' RIGHT OF OF DRAIN OR 165' WEST OF OF CRAM ROAD AT HOUSE #6625.
ELEV = 736-11 (NAYD88)
2. THE CONTRACTOR SHALL CALL "MISS DIG" AT 811 OR 1-800-482-7171 AT LEAST THREE (3) WORKING DAYS (EXCLUDING WEEKENDS AND HOLIDAYS) PRIOR TO CONSTRUCTION.
3. PEA GROUP WILL NOT BE RESPONSIBLE FOR FIELD DESIGN CHANGES MADE BY THE CONTRACTOR'S SURVEYOR WHERE THESE DESIGN CHANGES HAVE NOT BEEN APPROVED BY PEA GROUP.



**PLAN AND PROFILE - STA 275+00 TO POE
FOR
YOUNGS INTERCOUNTY DRAIN
CHESANING TOWNSHIP, SAGINAW COUNTY AND
NEW HAVEN TOWNSHIP, SHIAWASSEE COUNTY MICHIGAN**

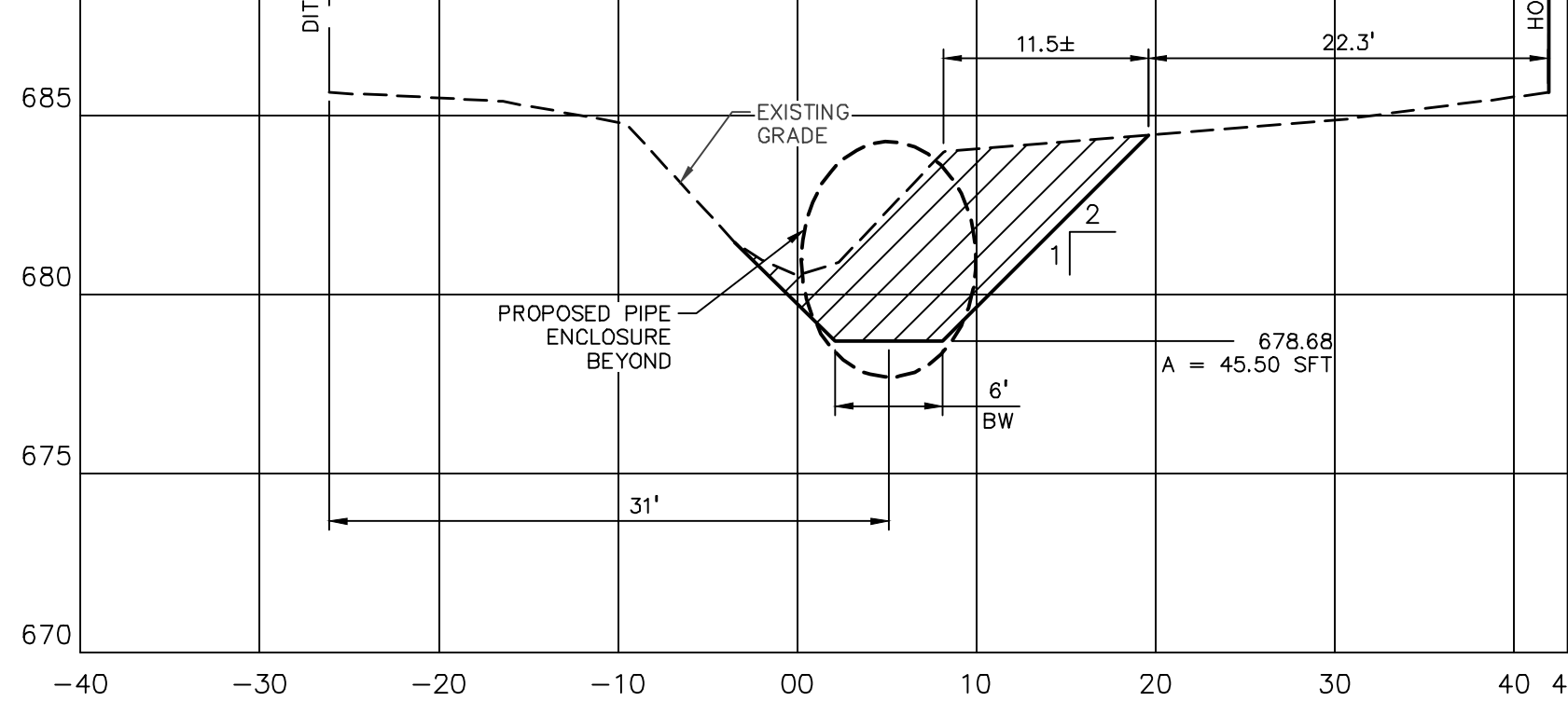
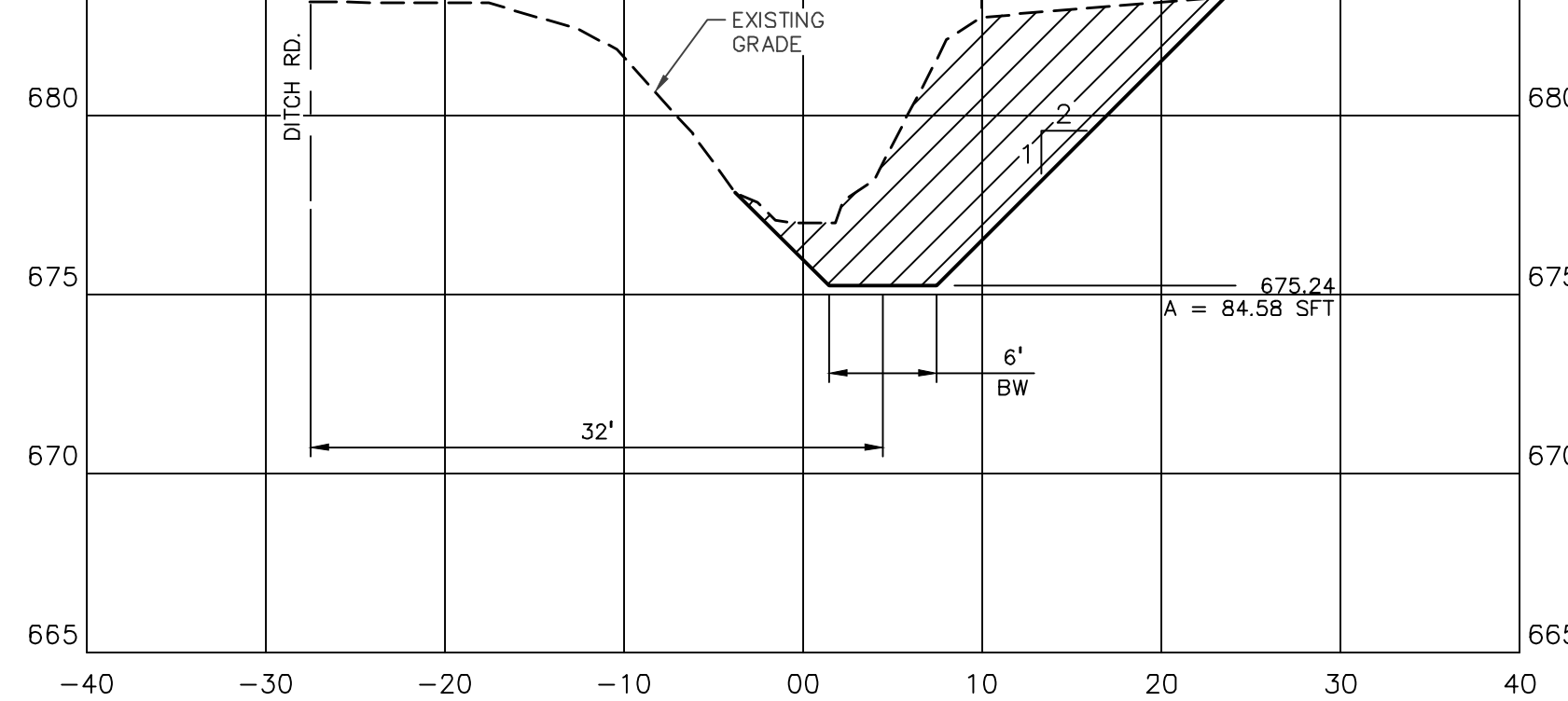
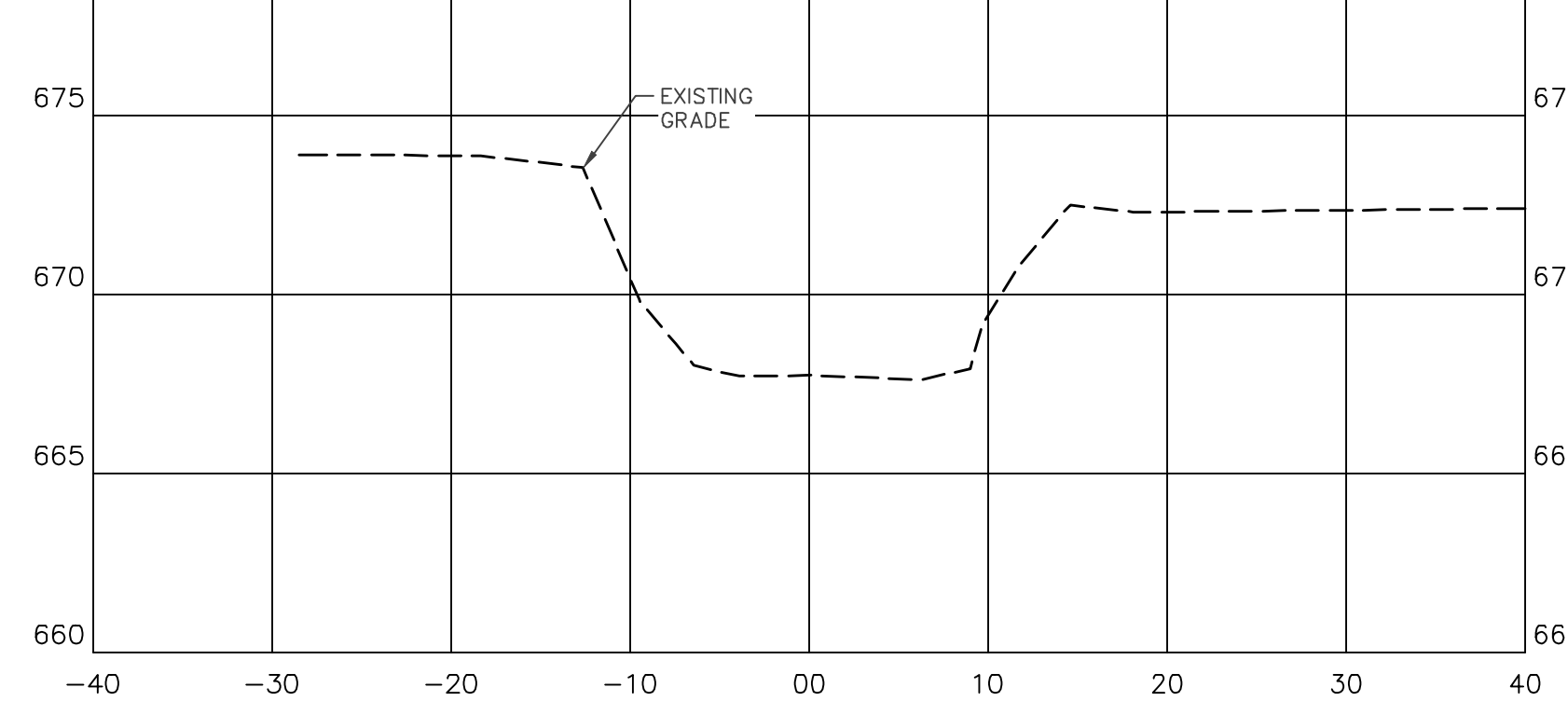
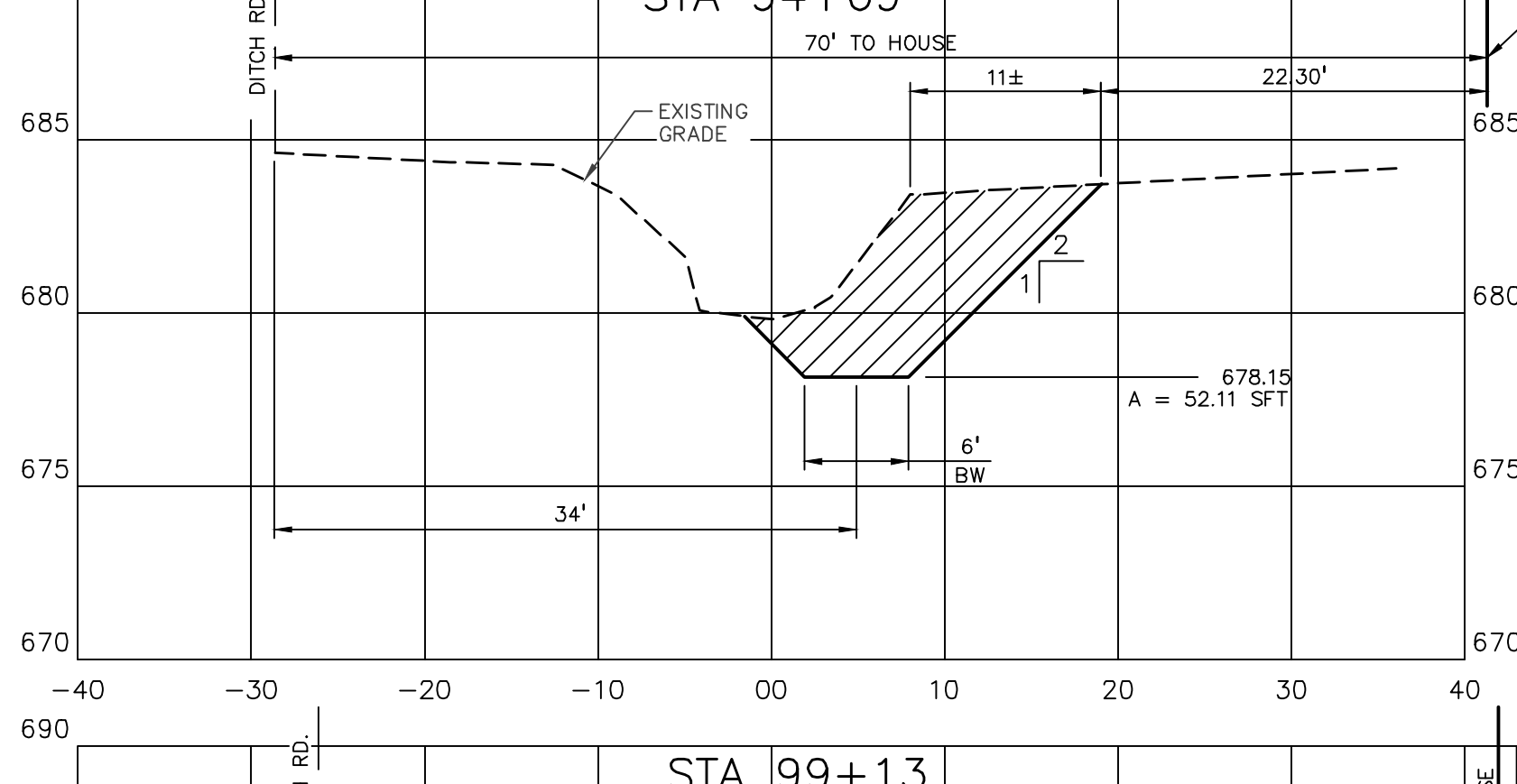
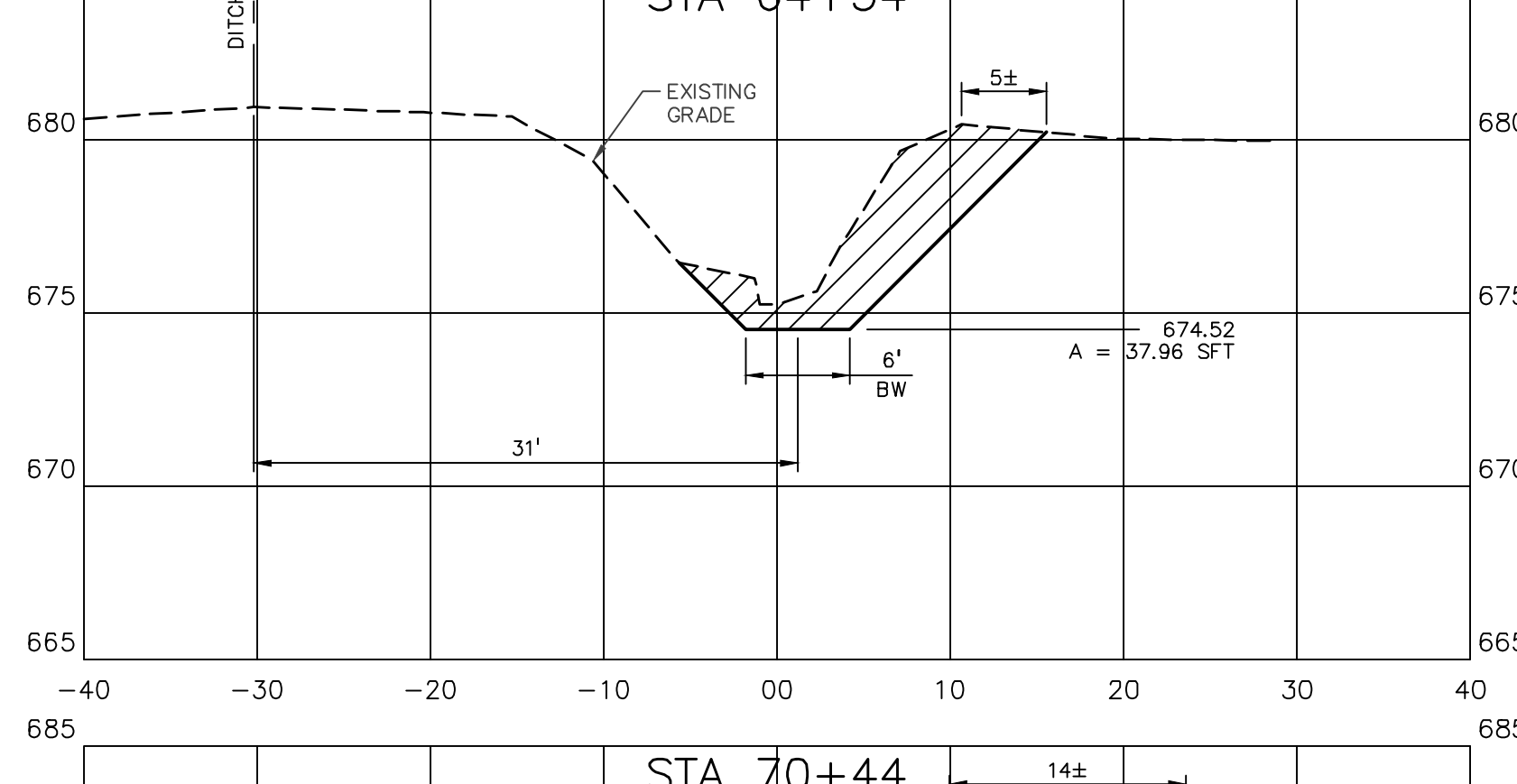
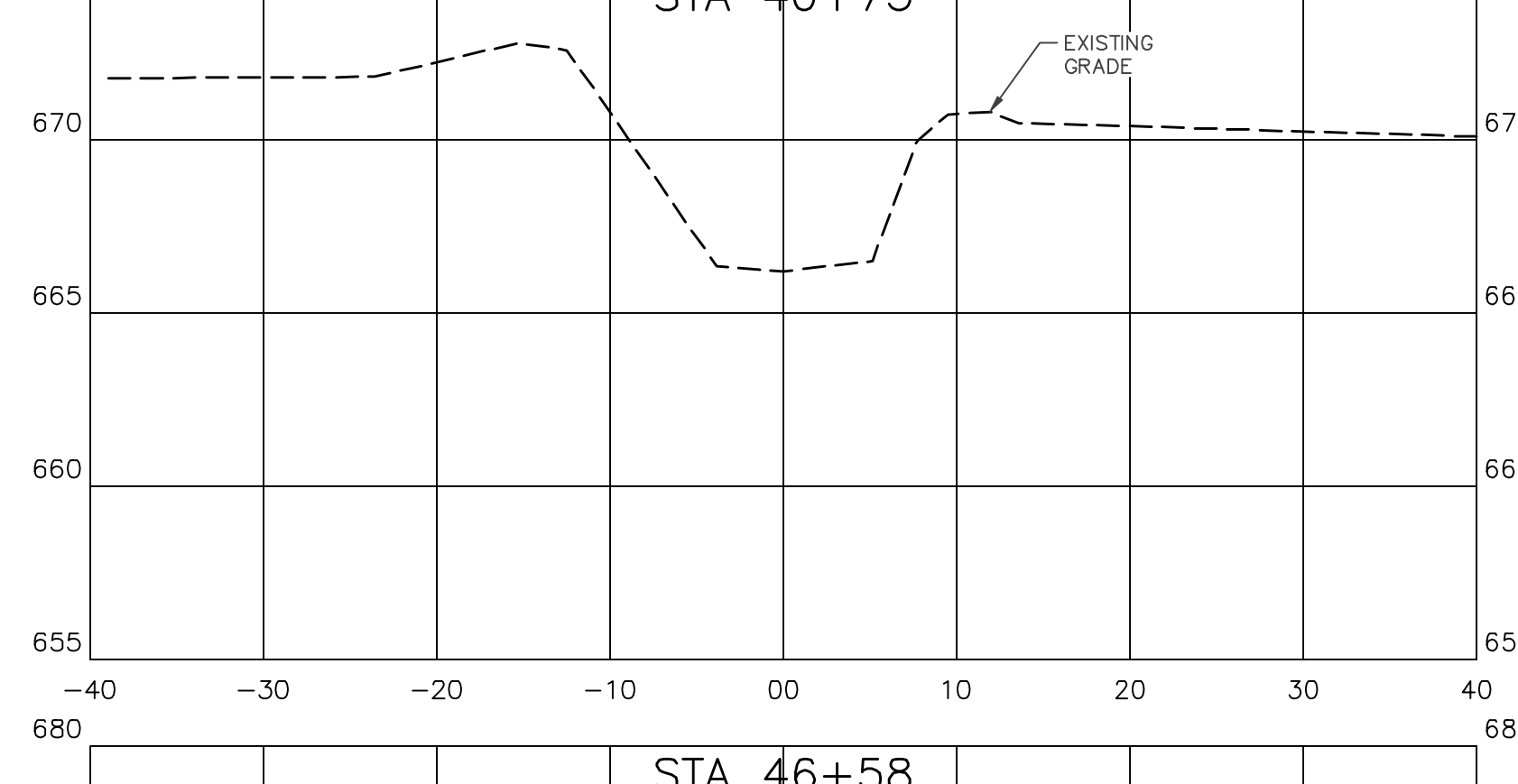
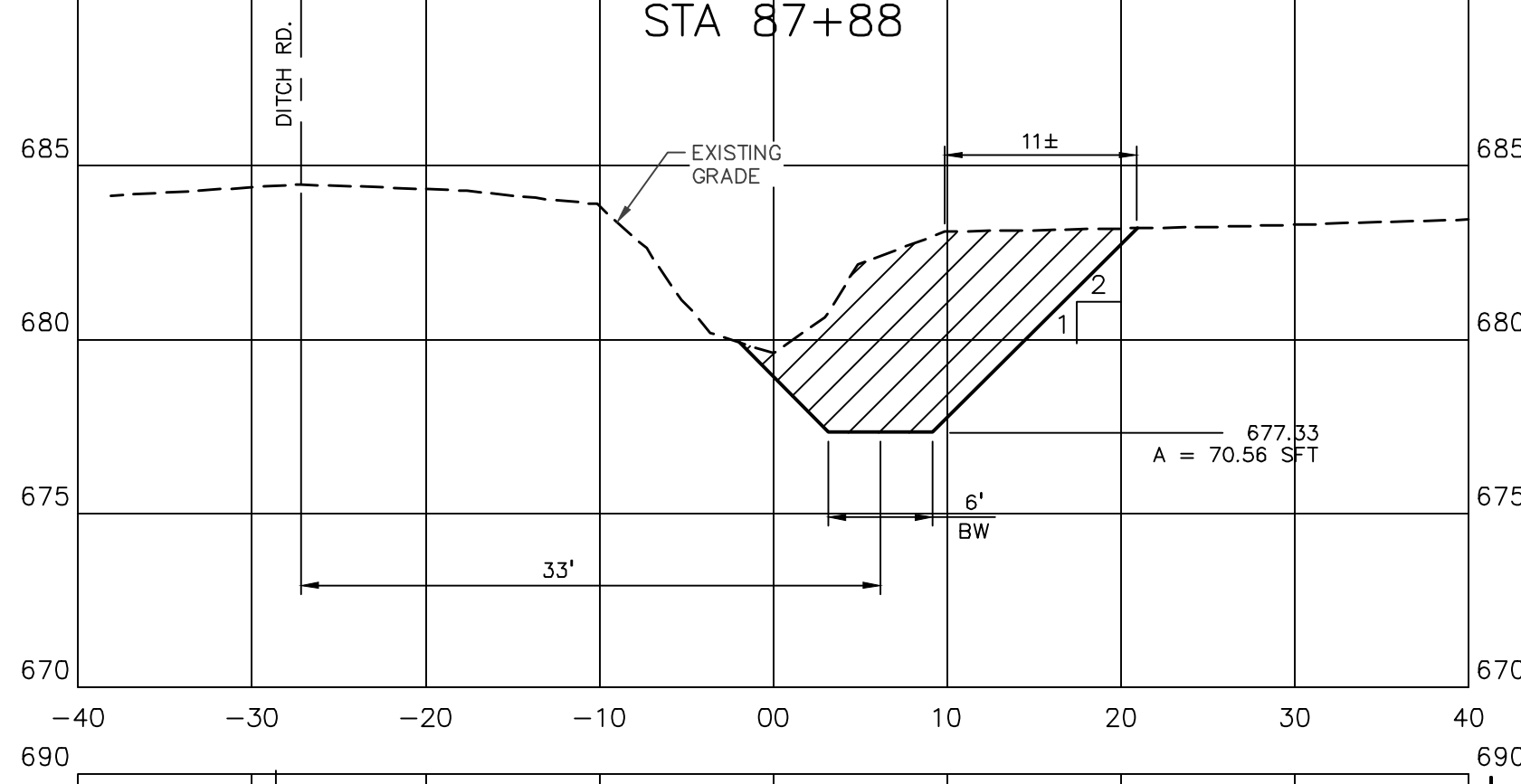
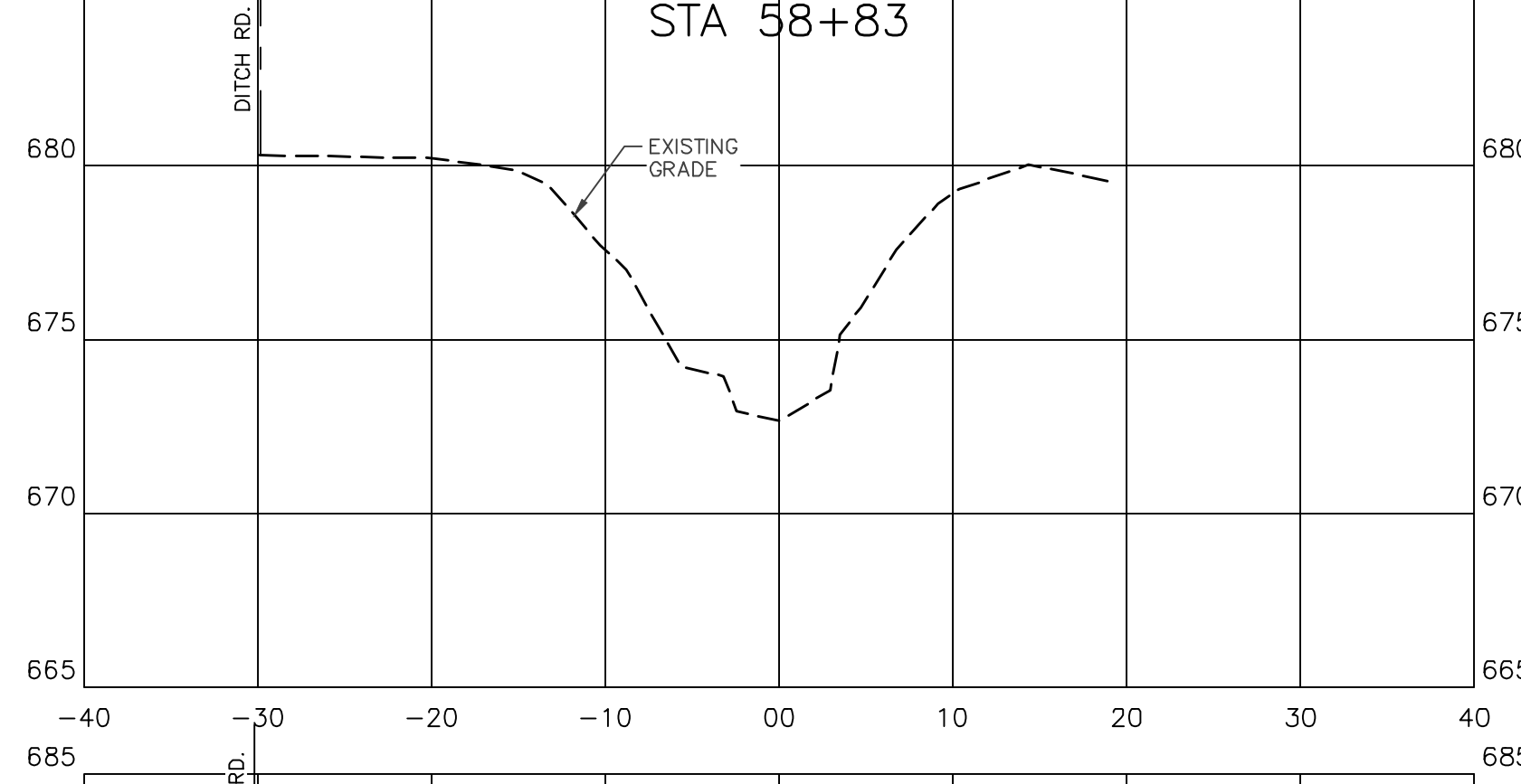
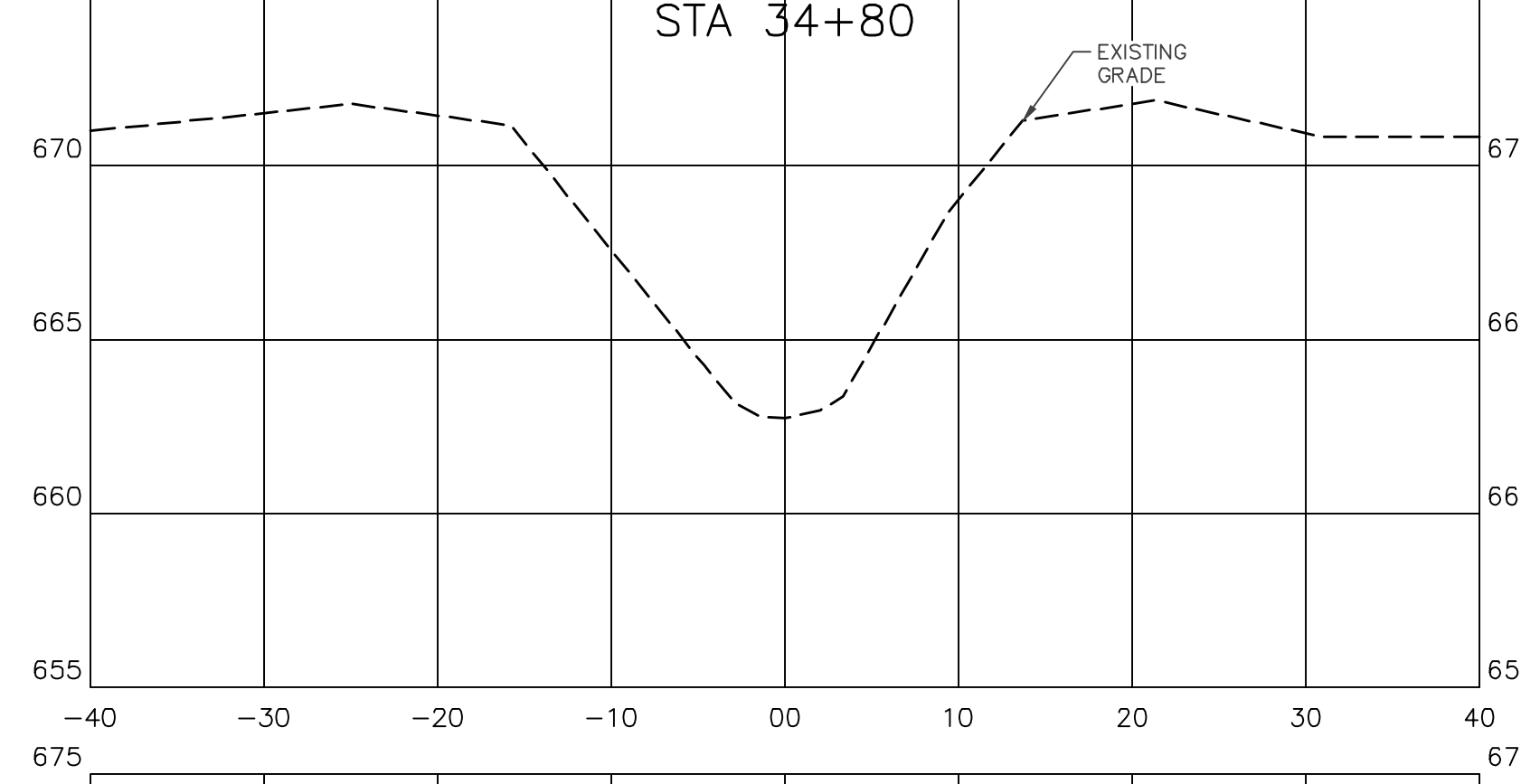
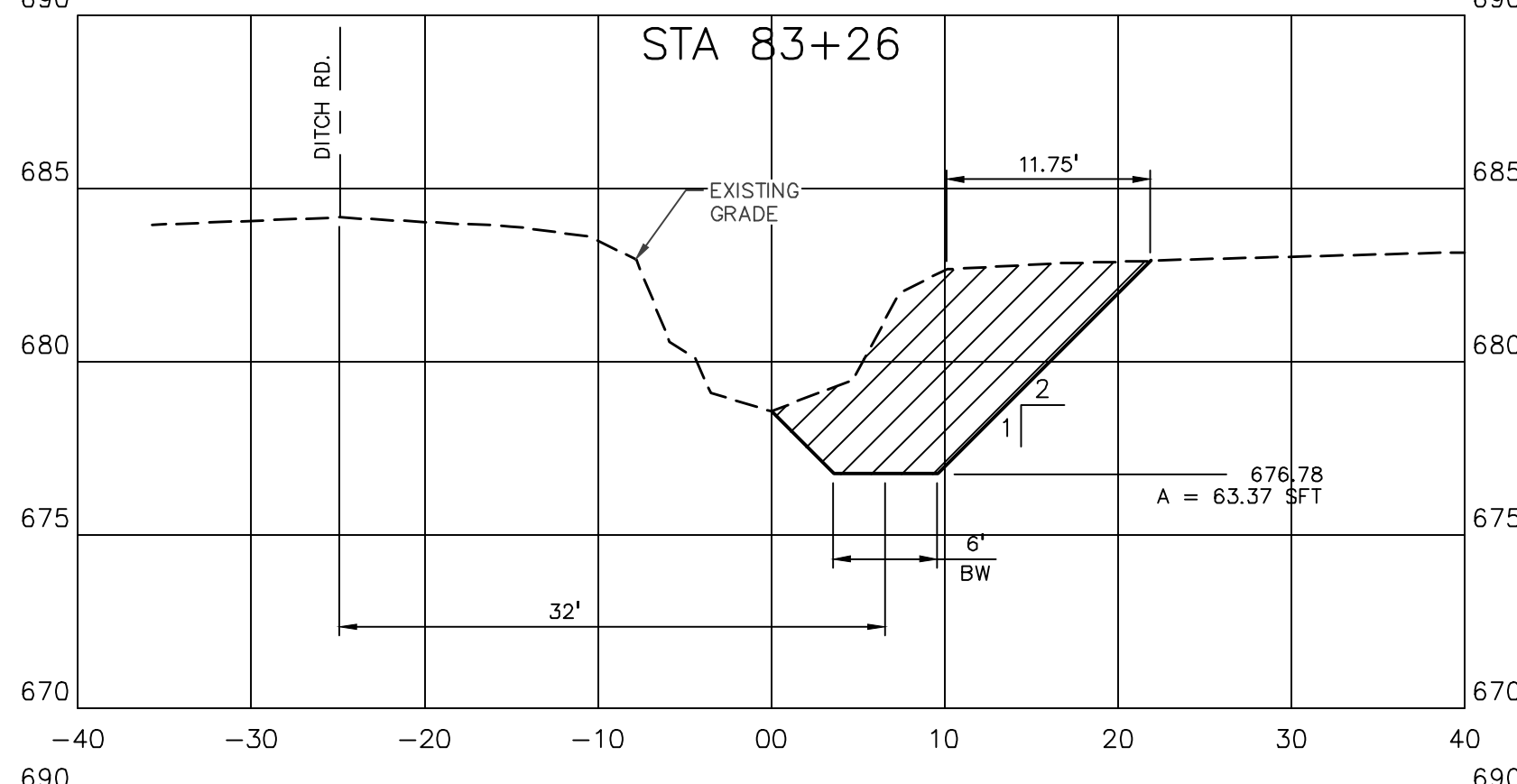
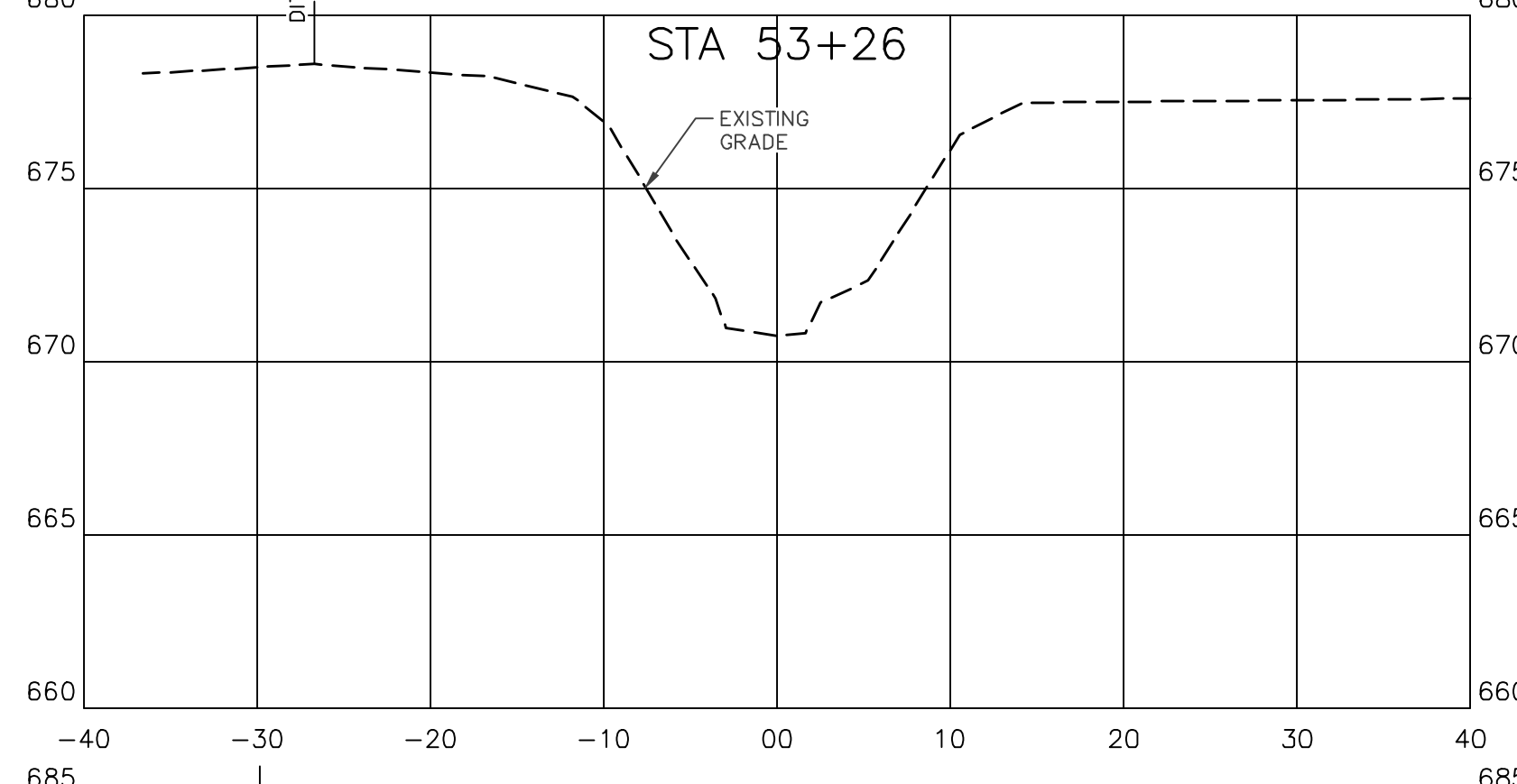
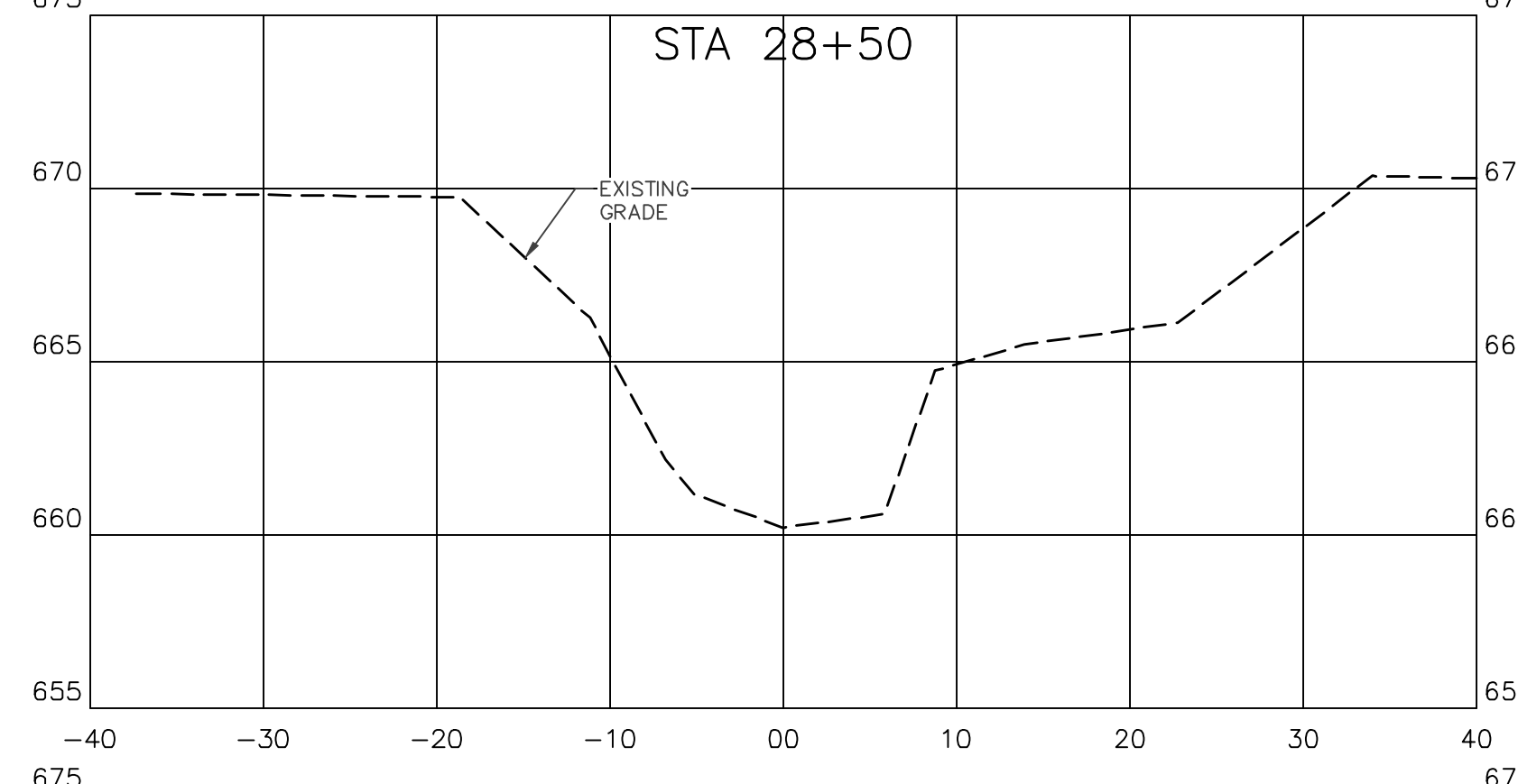
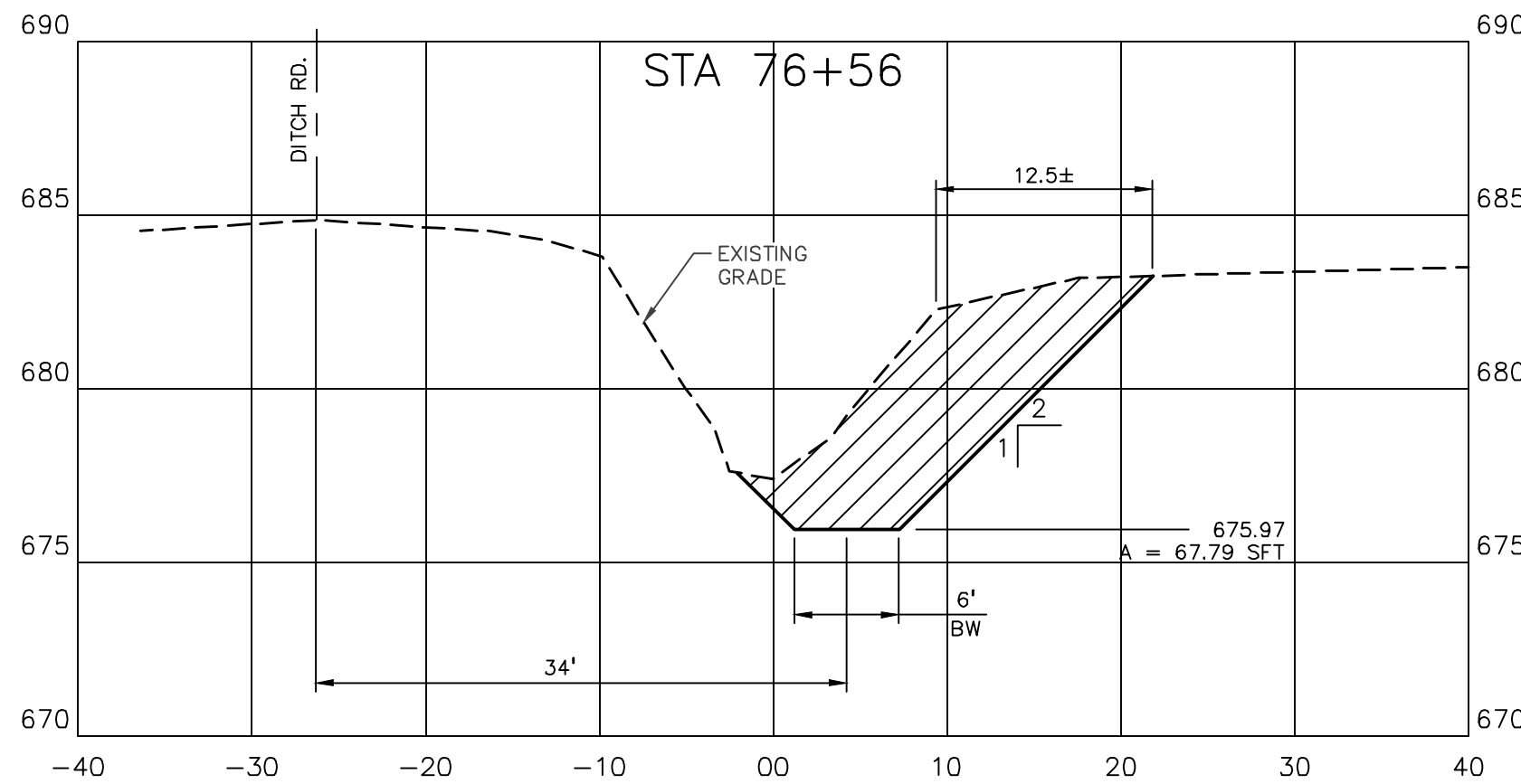
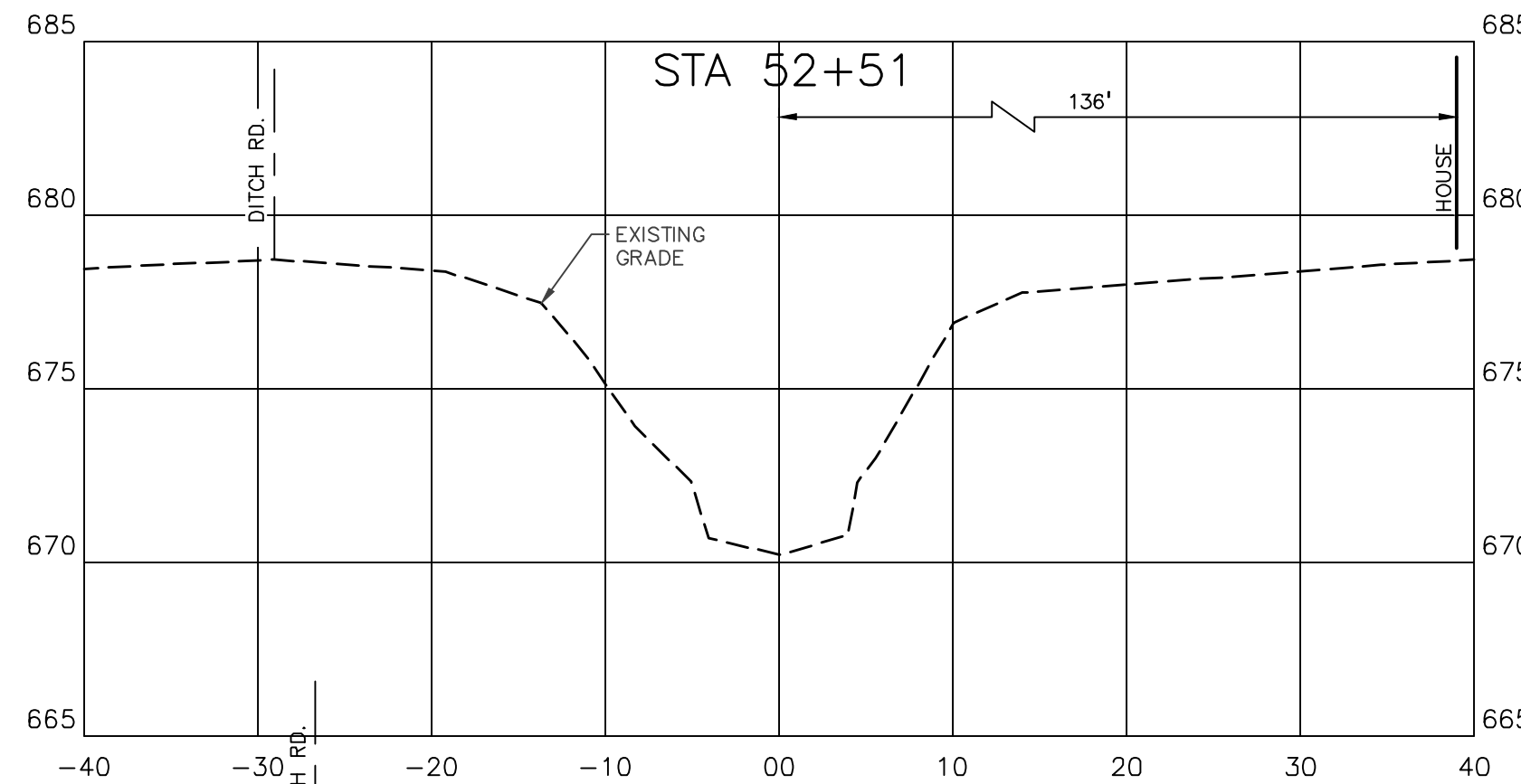
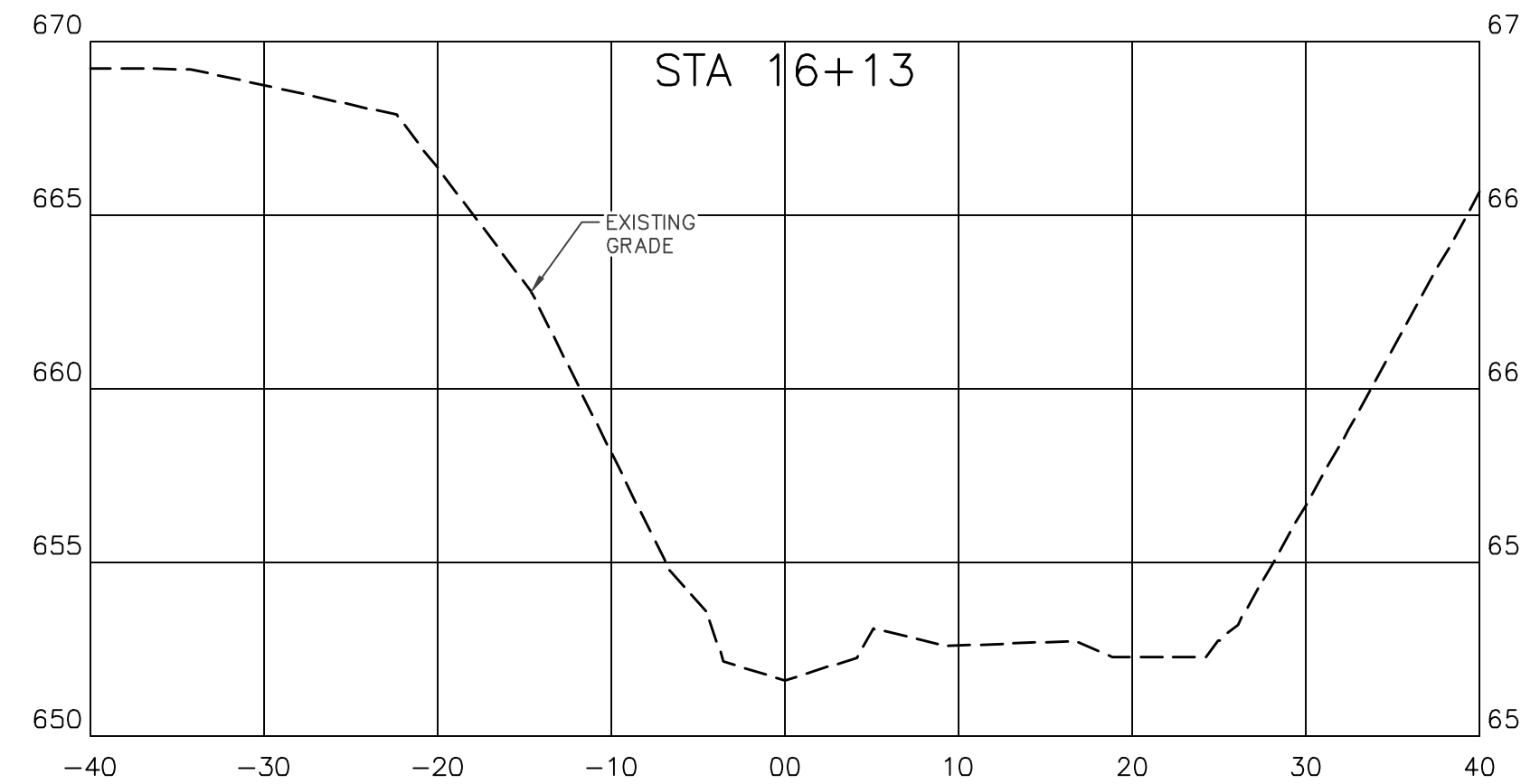
PREPARED FOR:

YOUNGS	INTERCOUNTY DRAIN
MICHIGAN DEPARTMENT OF AGRICULTURE	JOSEPH BREZVAI
SAGNAW COUNTY PUBLIC WORKS COMMISSIONER	BRIAN WENDLING
SHIAWASSEE COUNTY DRAIN COMMISSIONER	BRENT SINGER

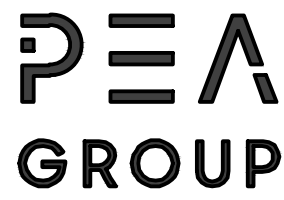
2379 WOODLAKE DRIVE
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OKEMOS, MI 48864
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[illegible]

FILE: S:\PROJECTS\2021\1694 MDARD YOUNGS IC DRAIN\06 PLANS\C3-0_C3-3.DWG - PLOT DATE: 10/30/2025 10:19 AM BY: Chloe Dubois SCALE: 1:1



DATE	DESCRIPTION	ISSUED FOR	BY
10/31/2025	REVISIONS/SUBMITTALS		



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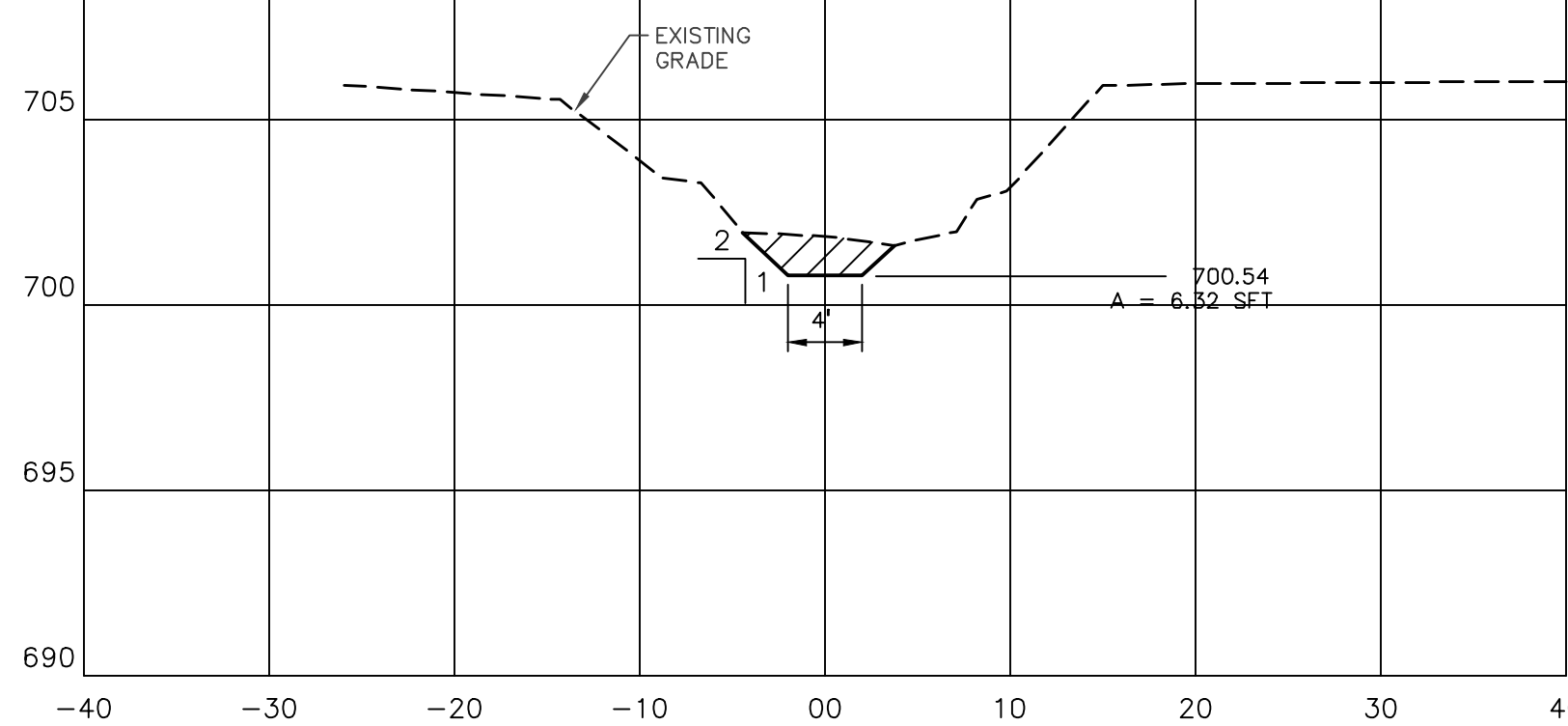
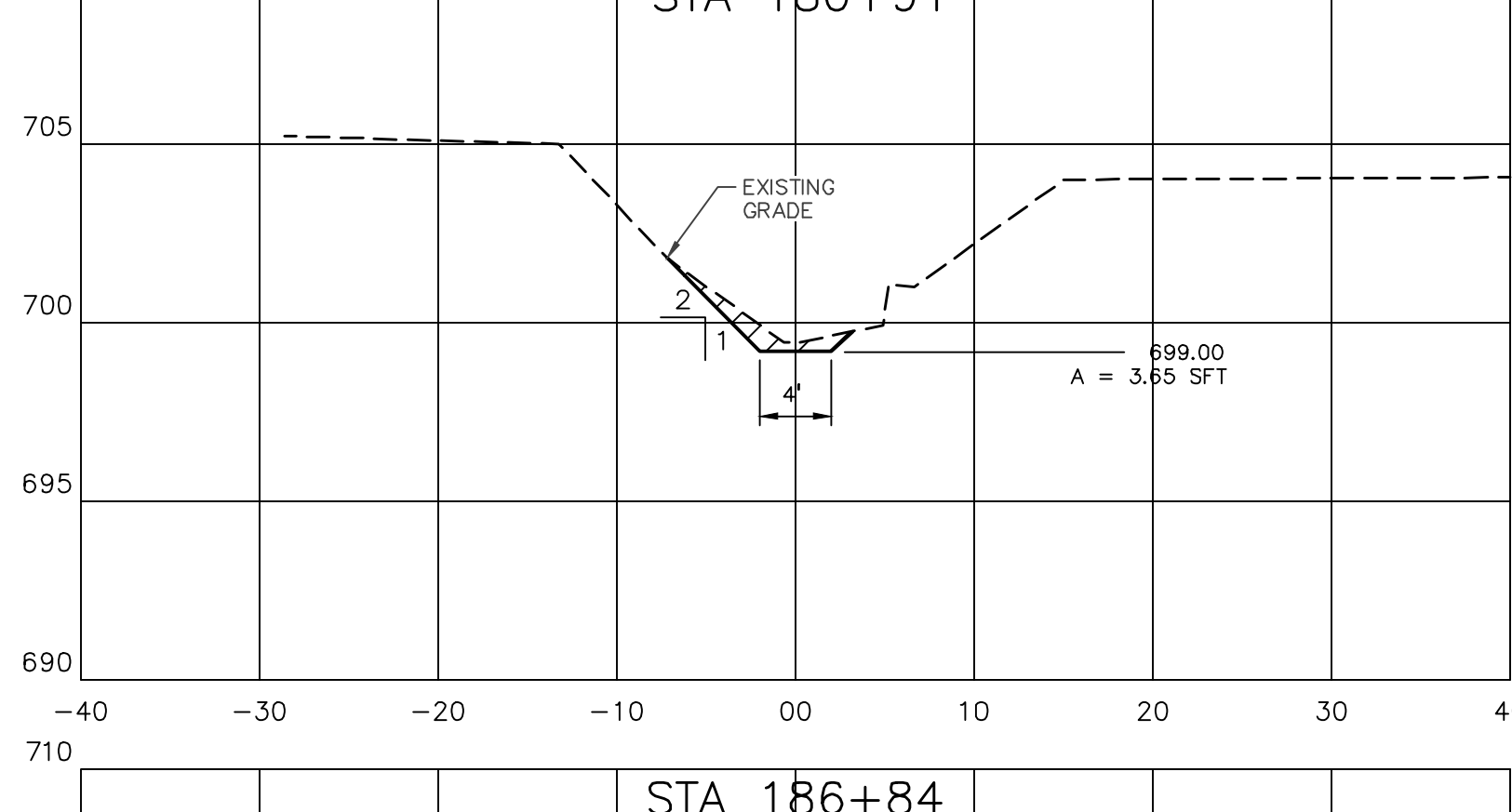
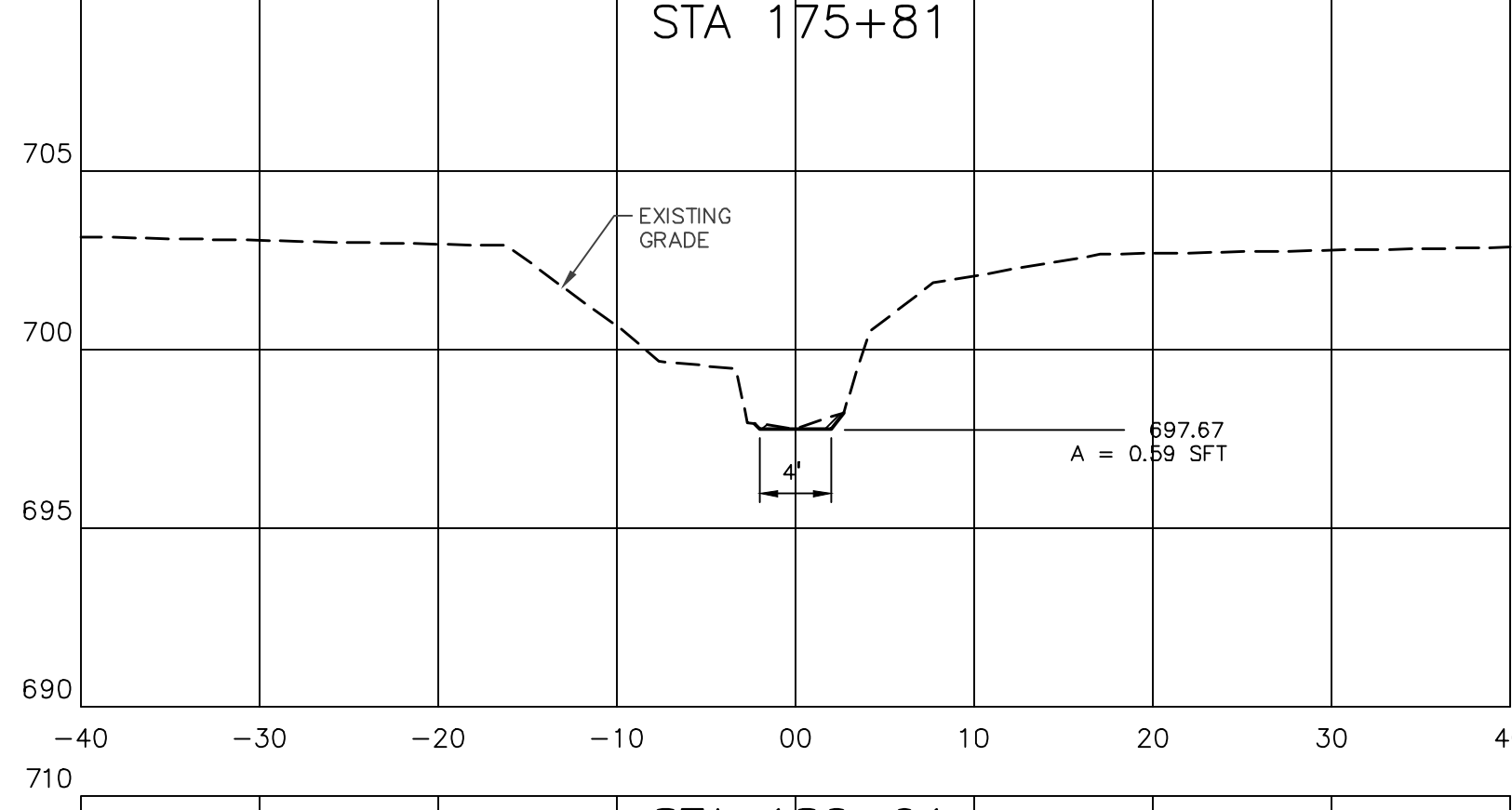
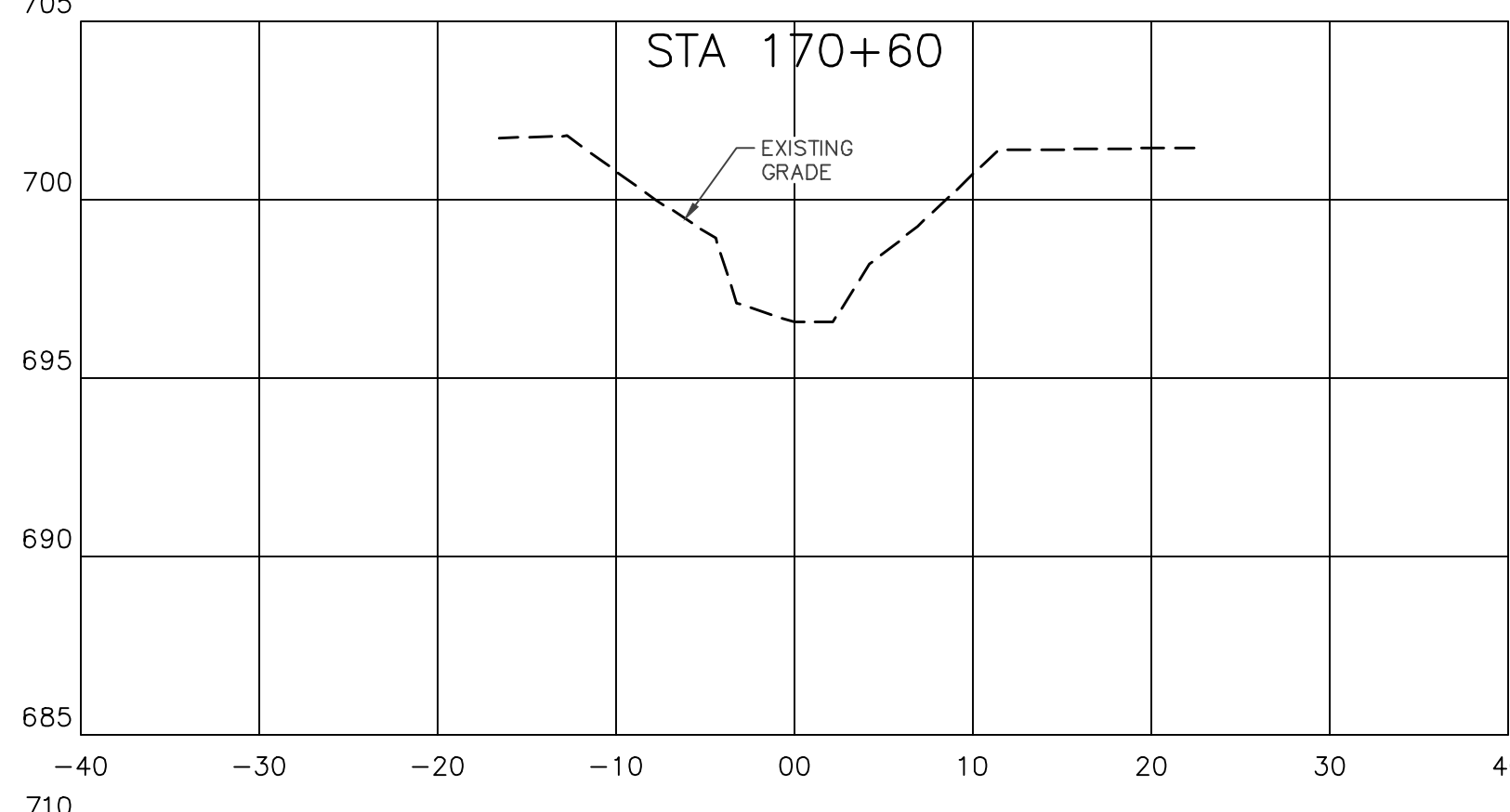
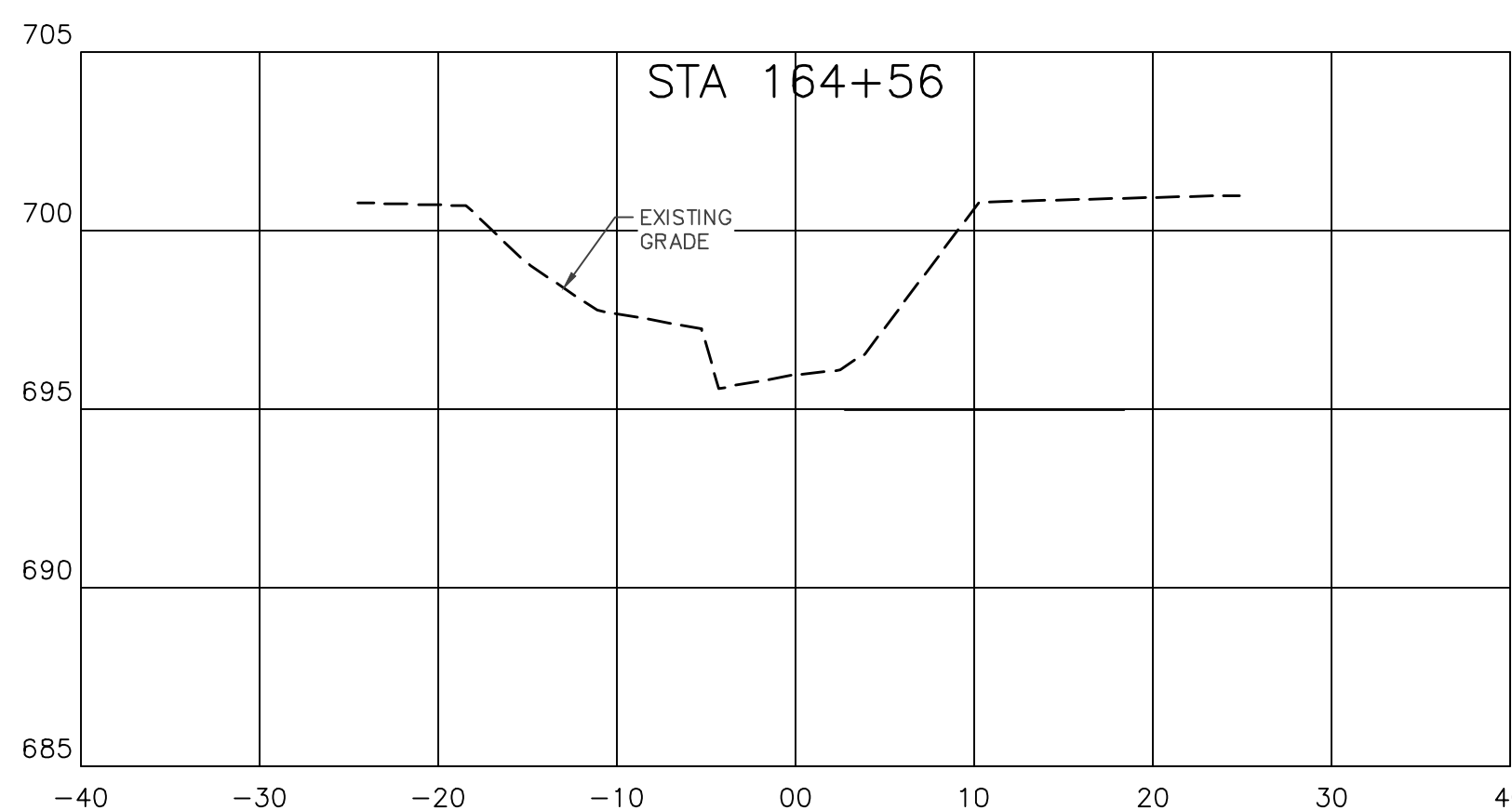
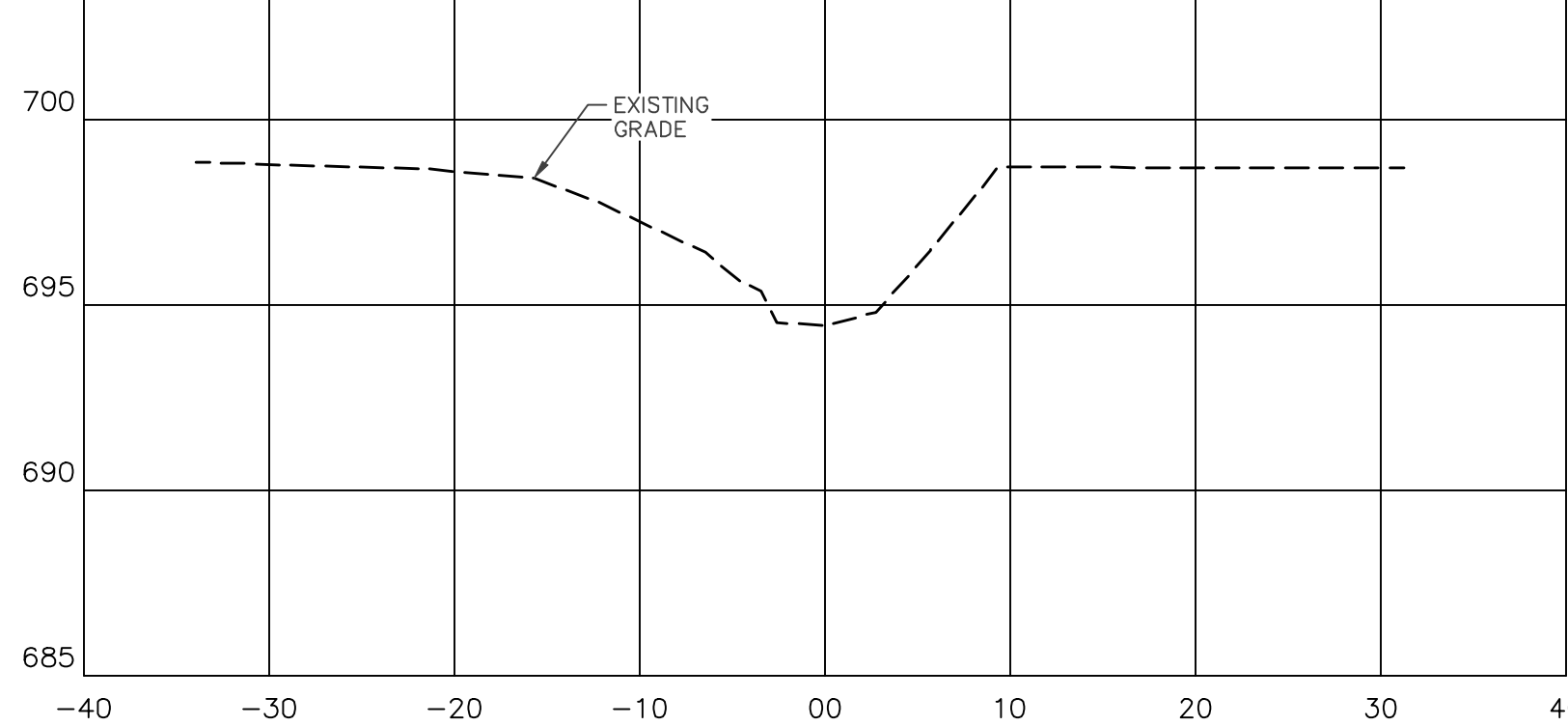
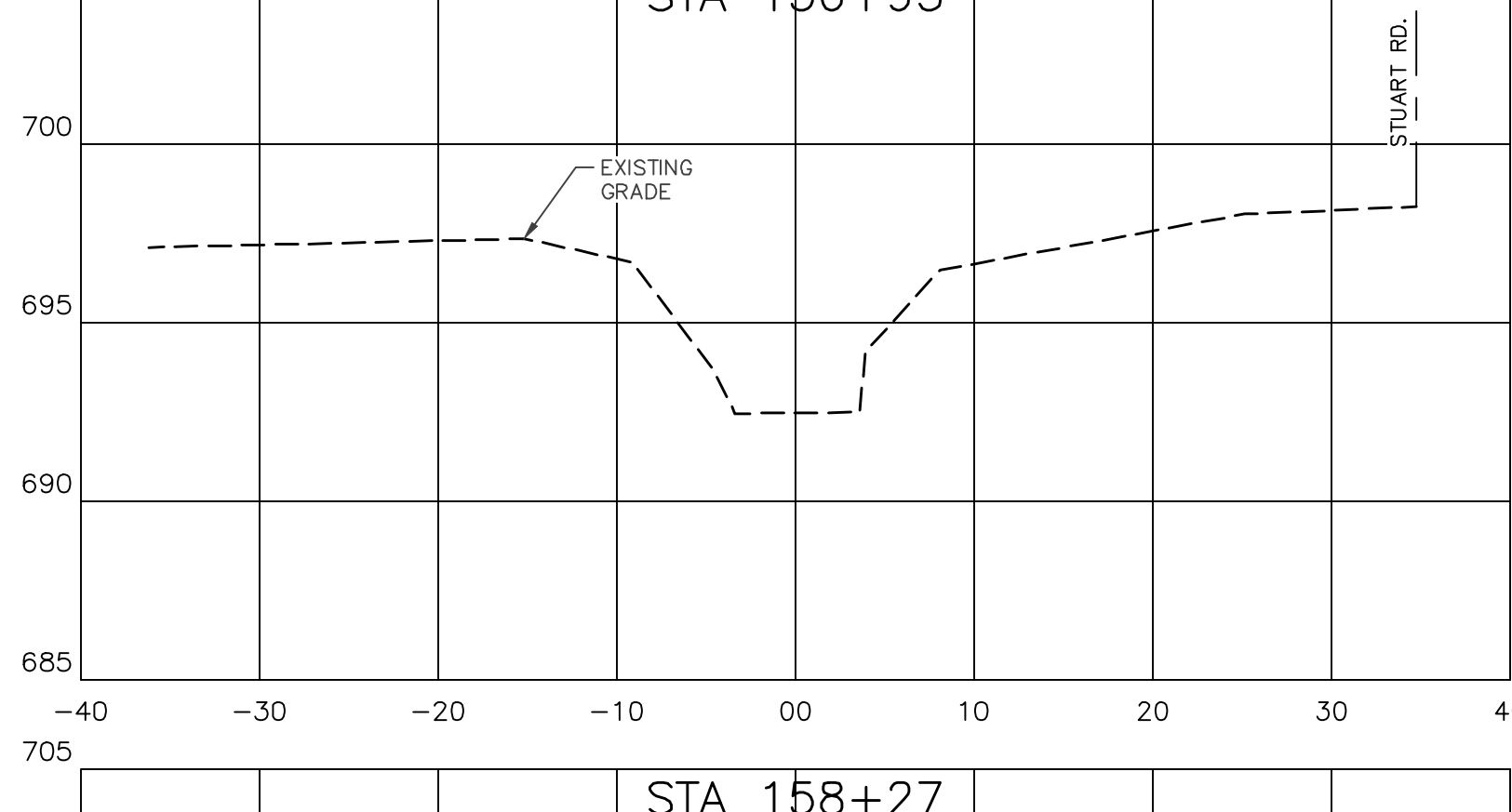
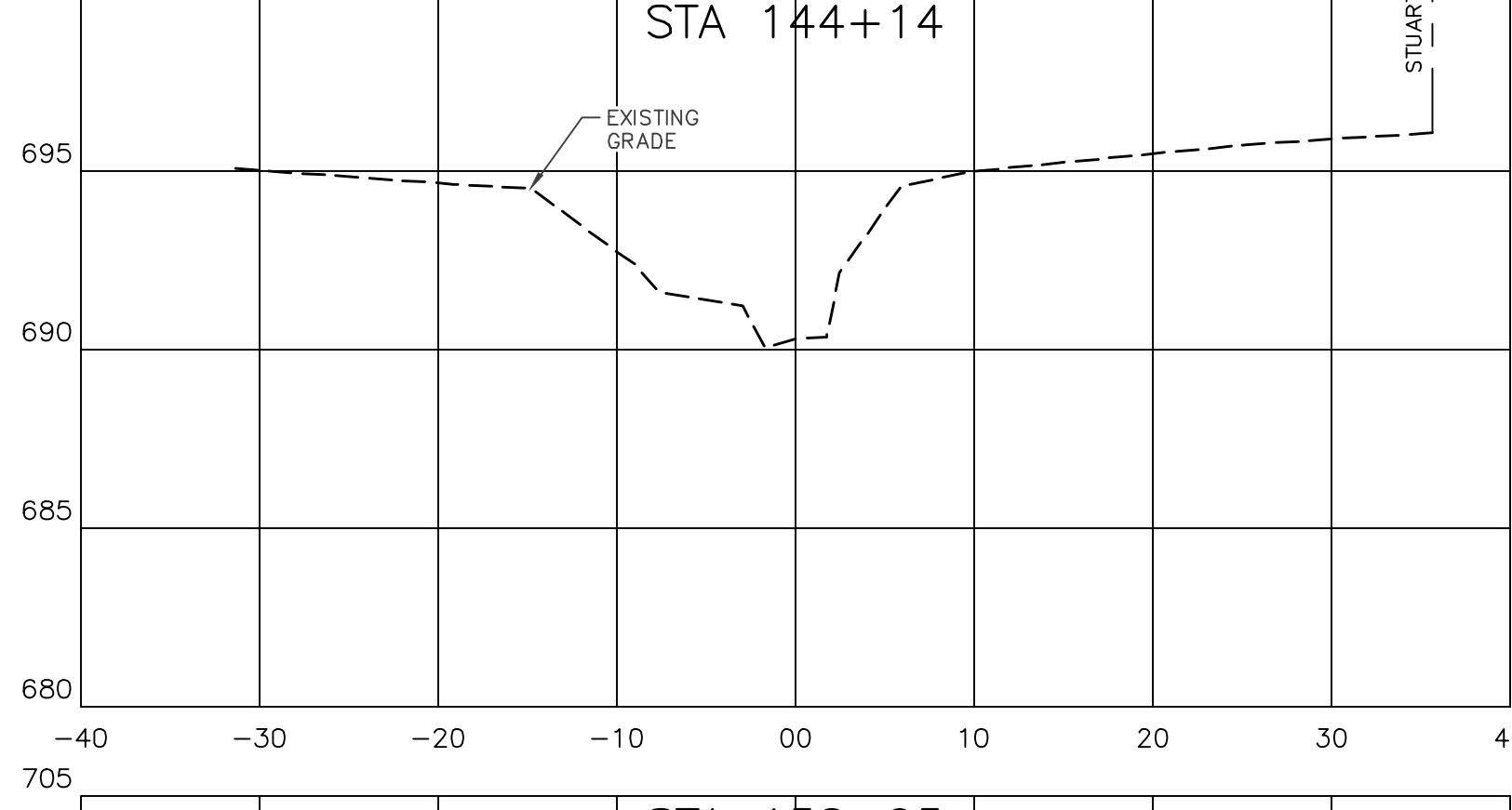
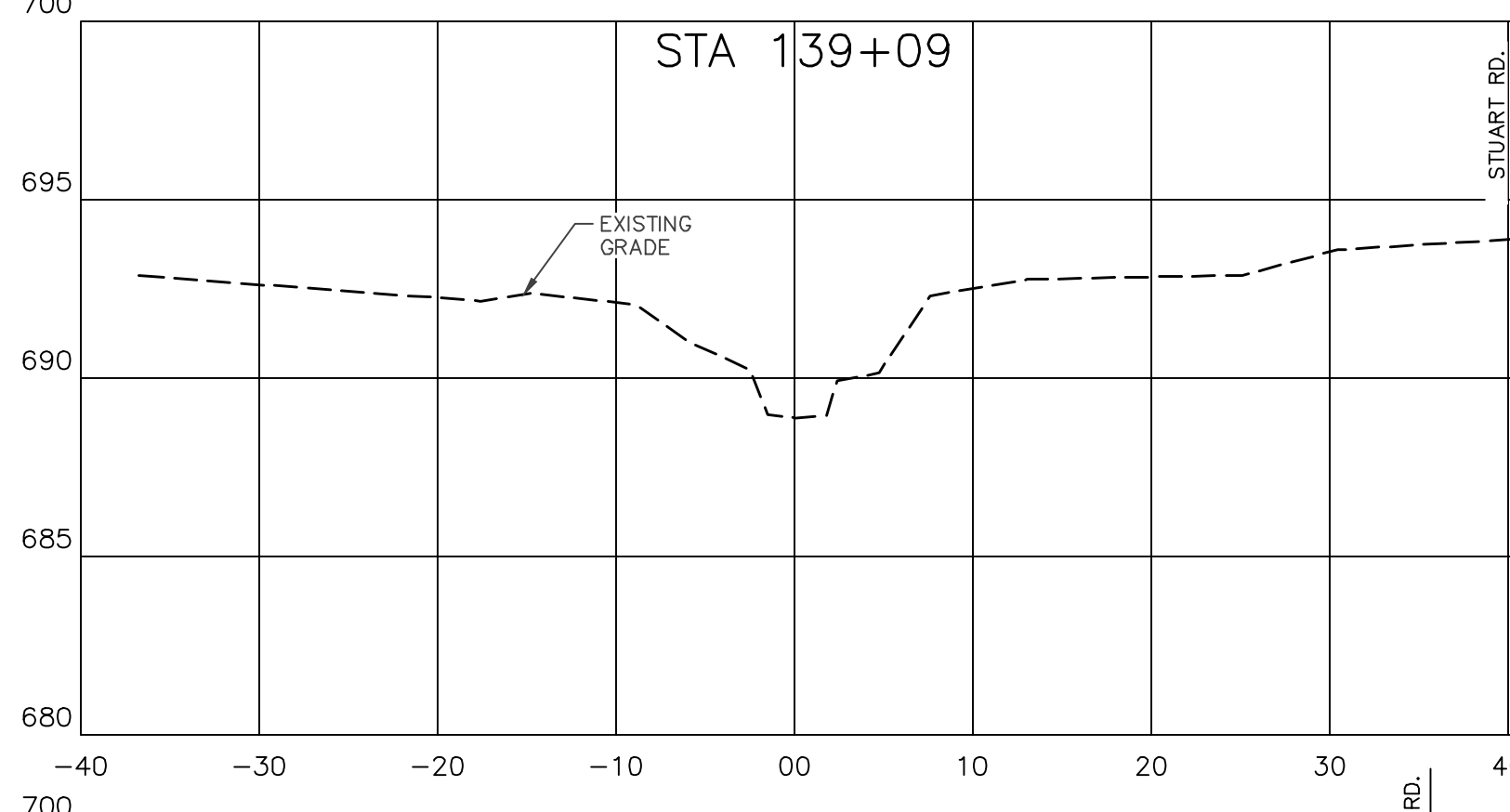
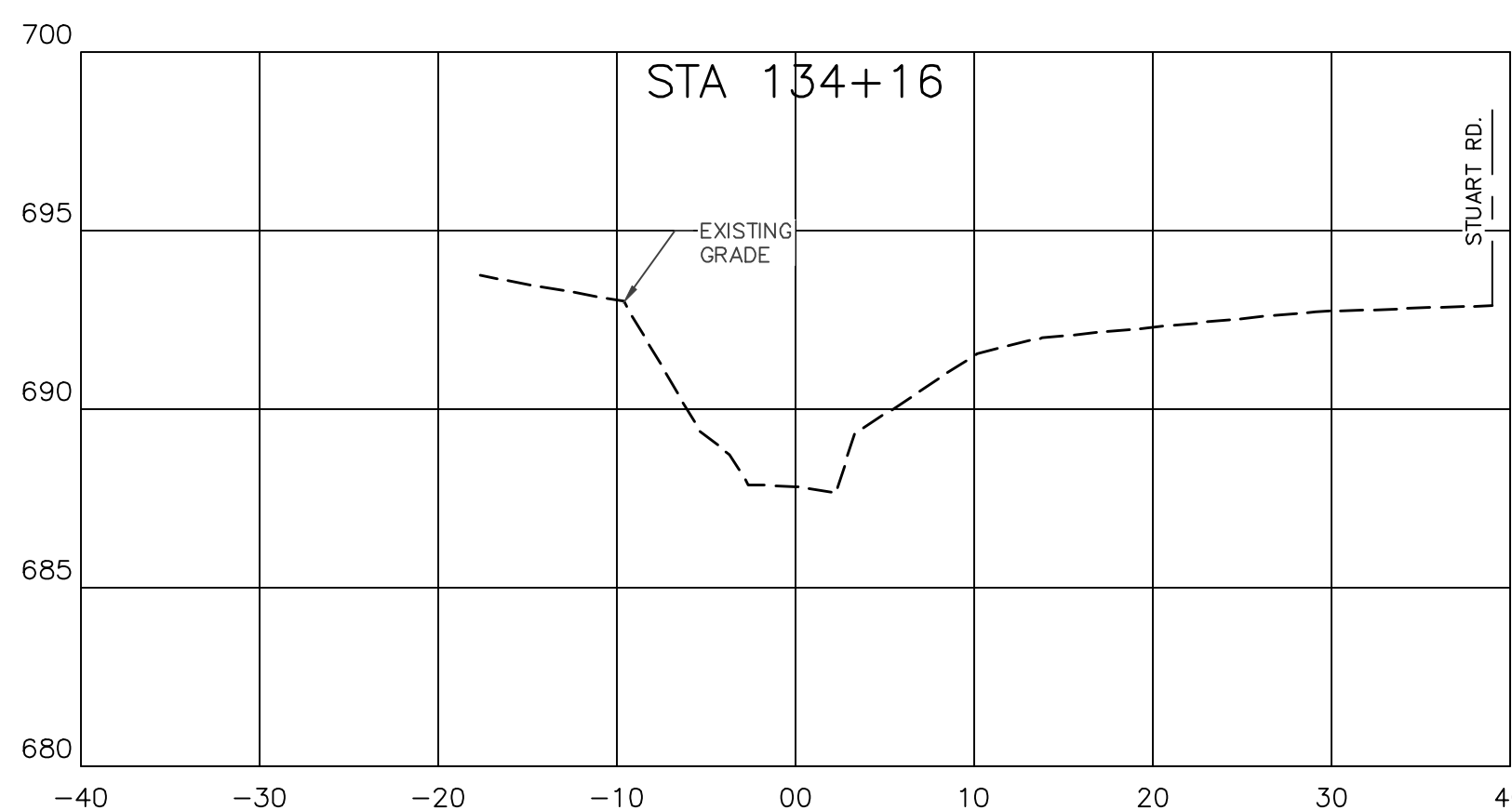
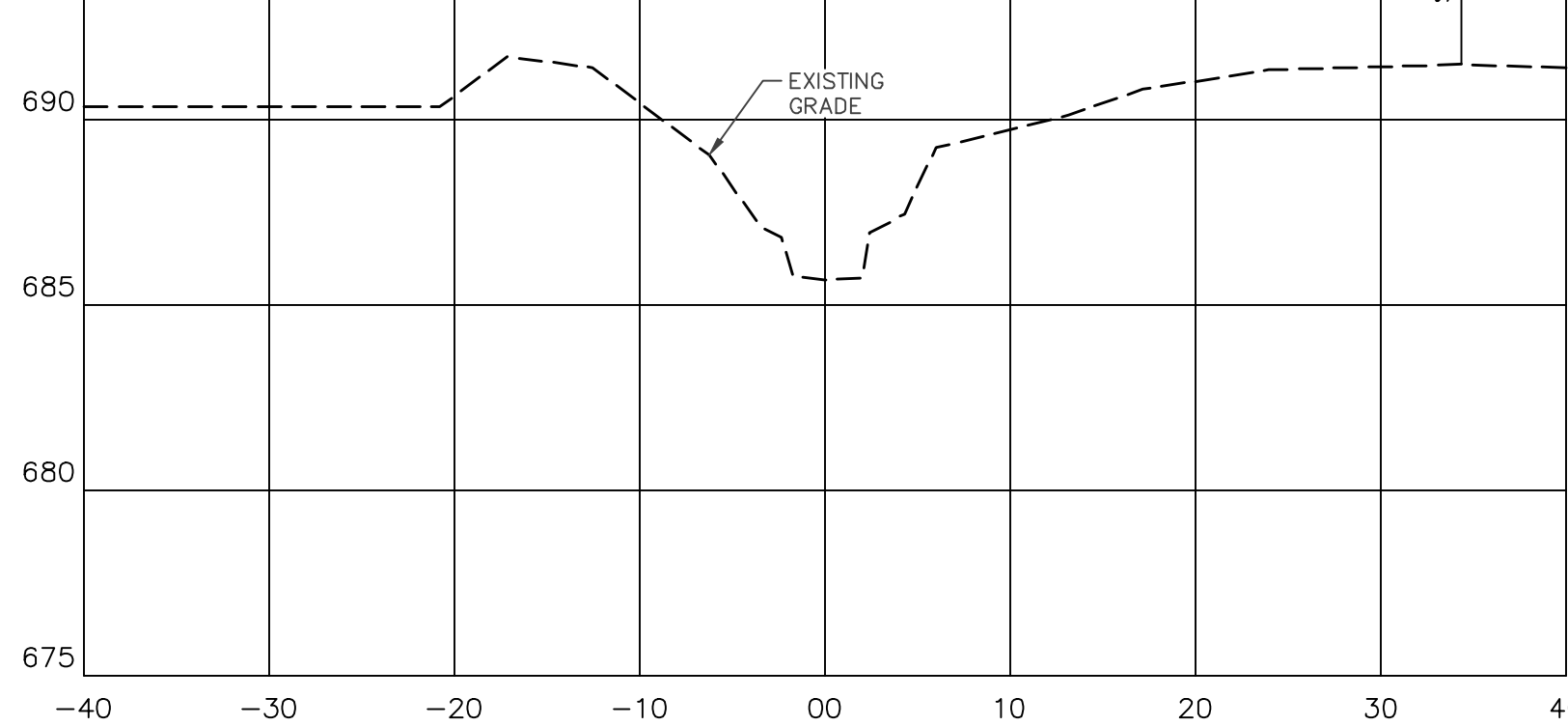
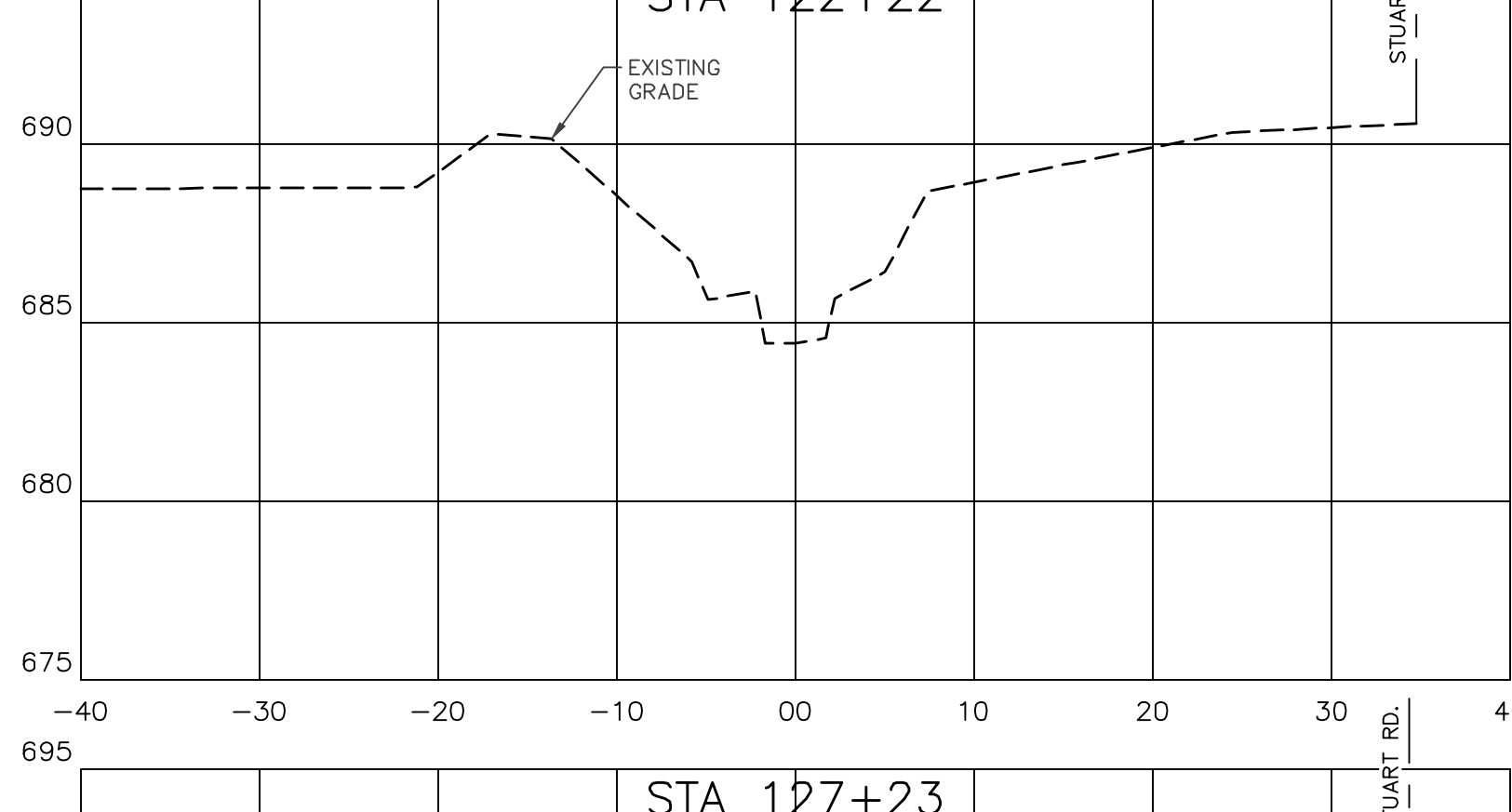
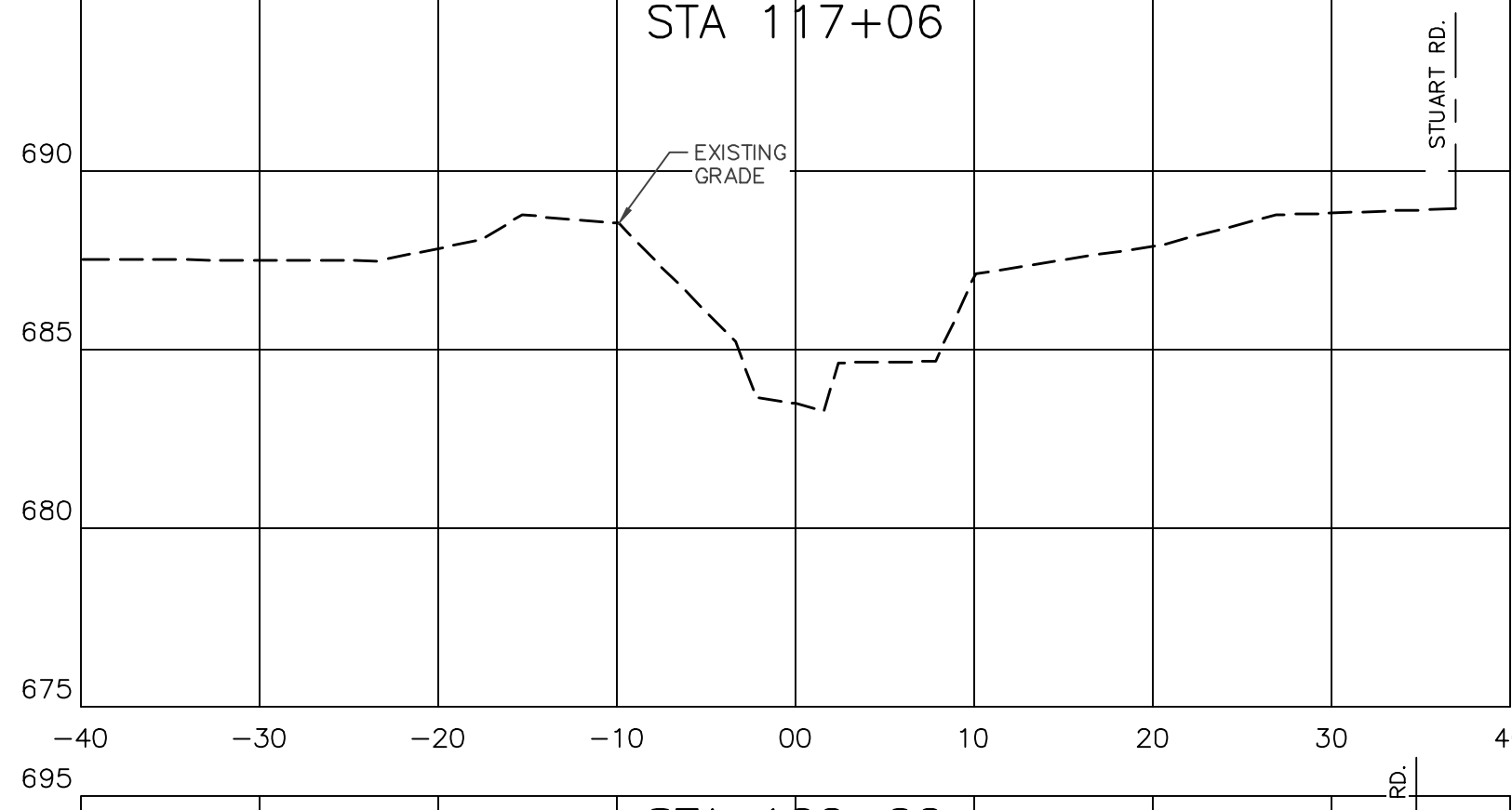
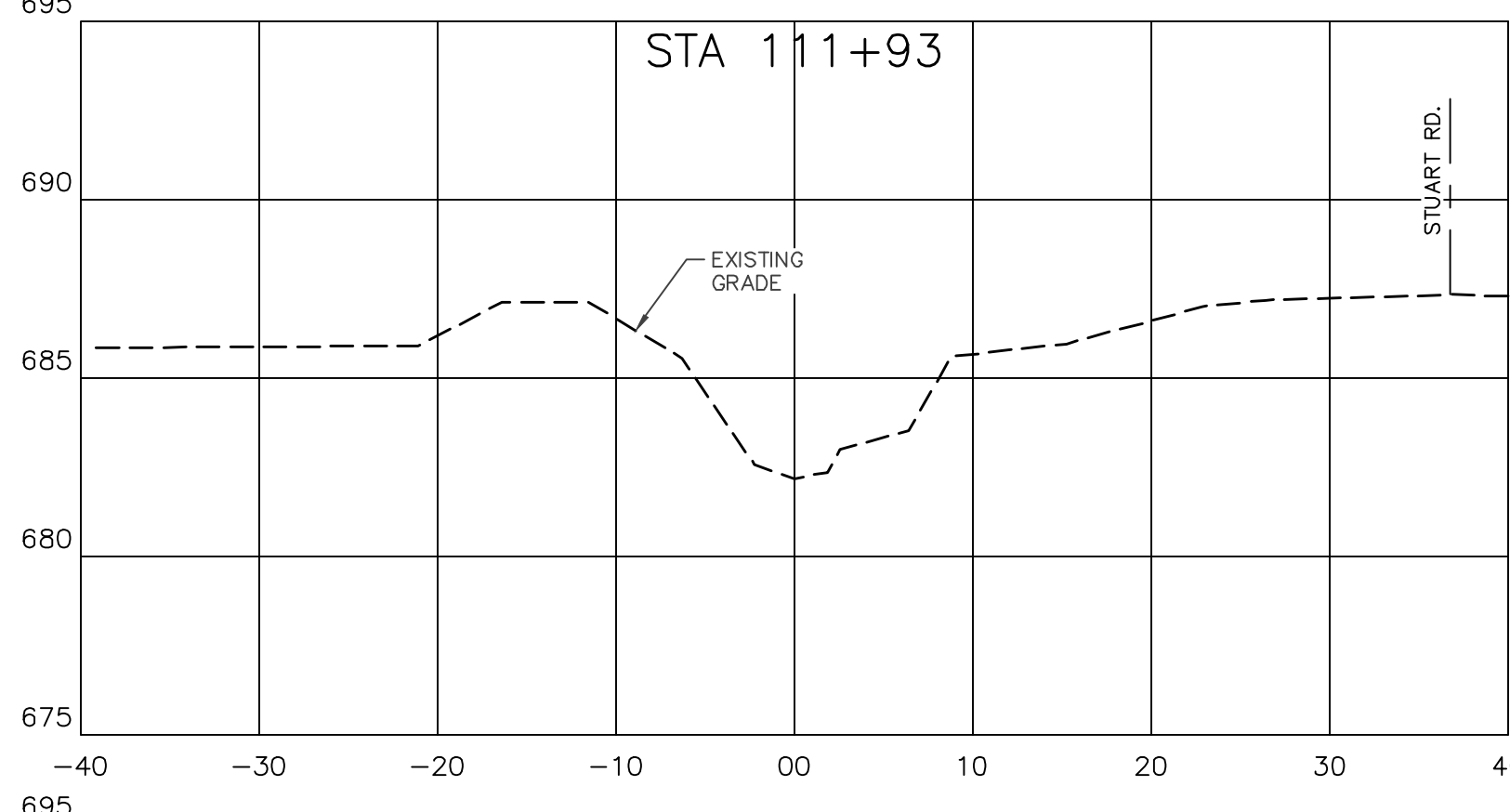
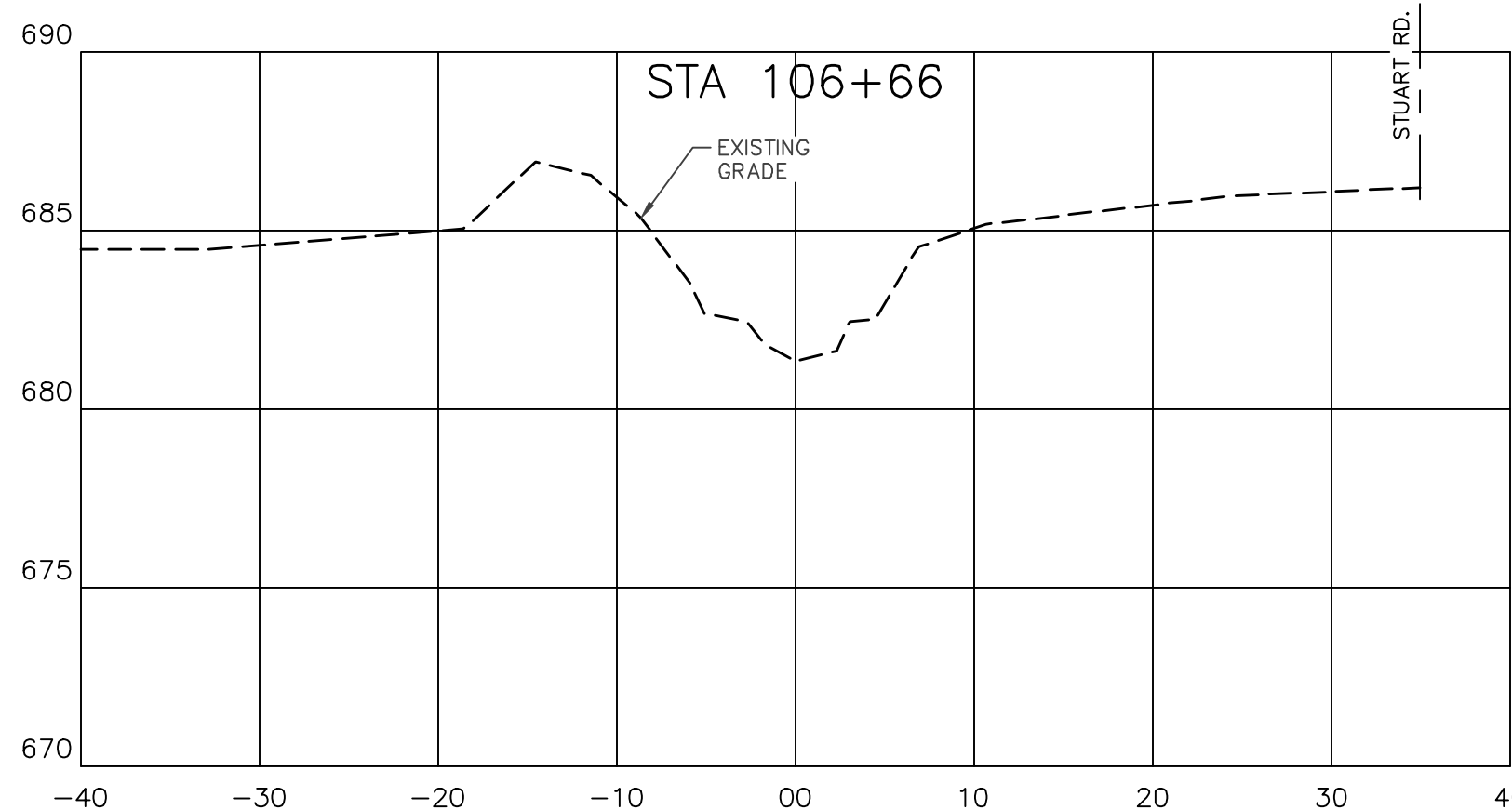
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YOUNGS
INTERCOUNTY DRAIN
MICHIGAN DEPARTMENT OF AGRICULTURE
JOSEPH BREZVAI
SAGINAW COUNTY PUBLIC WORKS COMMISSIONER
BRIAN WENDLING
SHAWASSEE COUNTY DRAIN COMMISSIONER
BRENT SINGER

CROSS SECTIONS - STA 16+58 TO STA 99+13
FOR
YOUNGS INTERCOUNTY DRAIN
CHESANING TOWNSHIP, SAGINAW COUNTY AND
NEW HAVEN TOWNSHIP, SHAWASSEE COUNTY, MICHIGAN

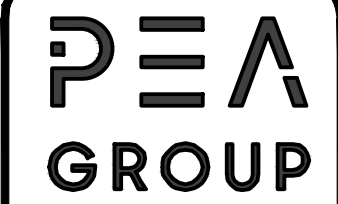


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DRAWN BY	SEP/RAH
CHECKED BY	ADB
DATE	OCT 31, 2025
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HOR.	1" = 10'
VERT.	1" = 5'
PROJECT NO.	1694
SHEET NO.	C3.0

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ISSUED FOR	DATE	DESCRIPTION	BY
10/31/2025			



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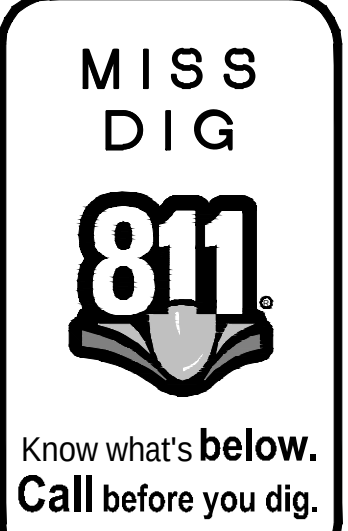
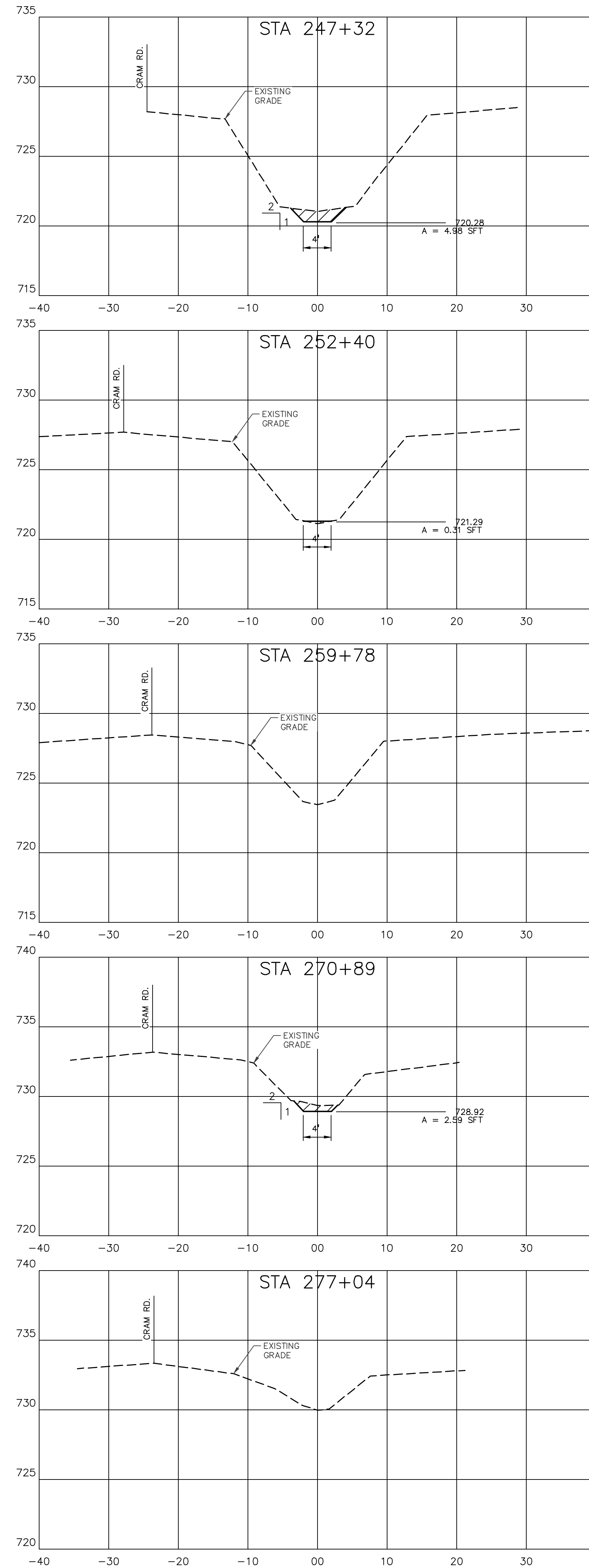
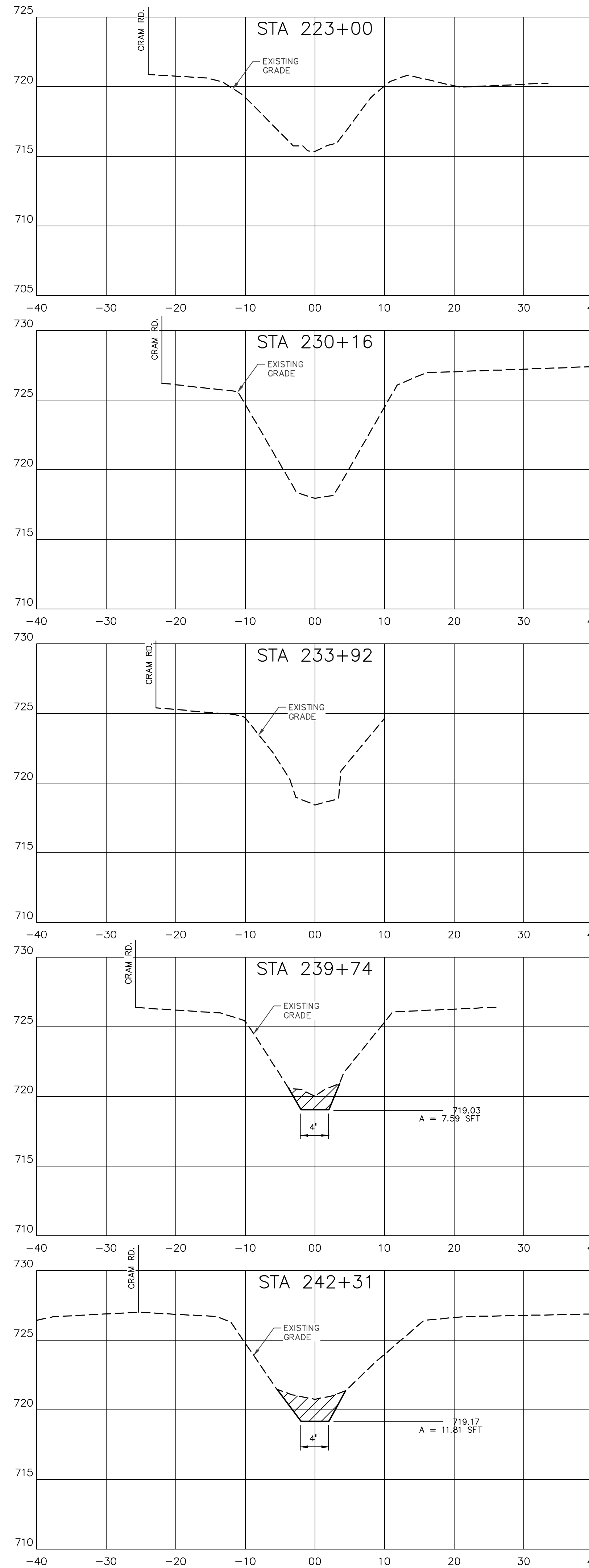
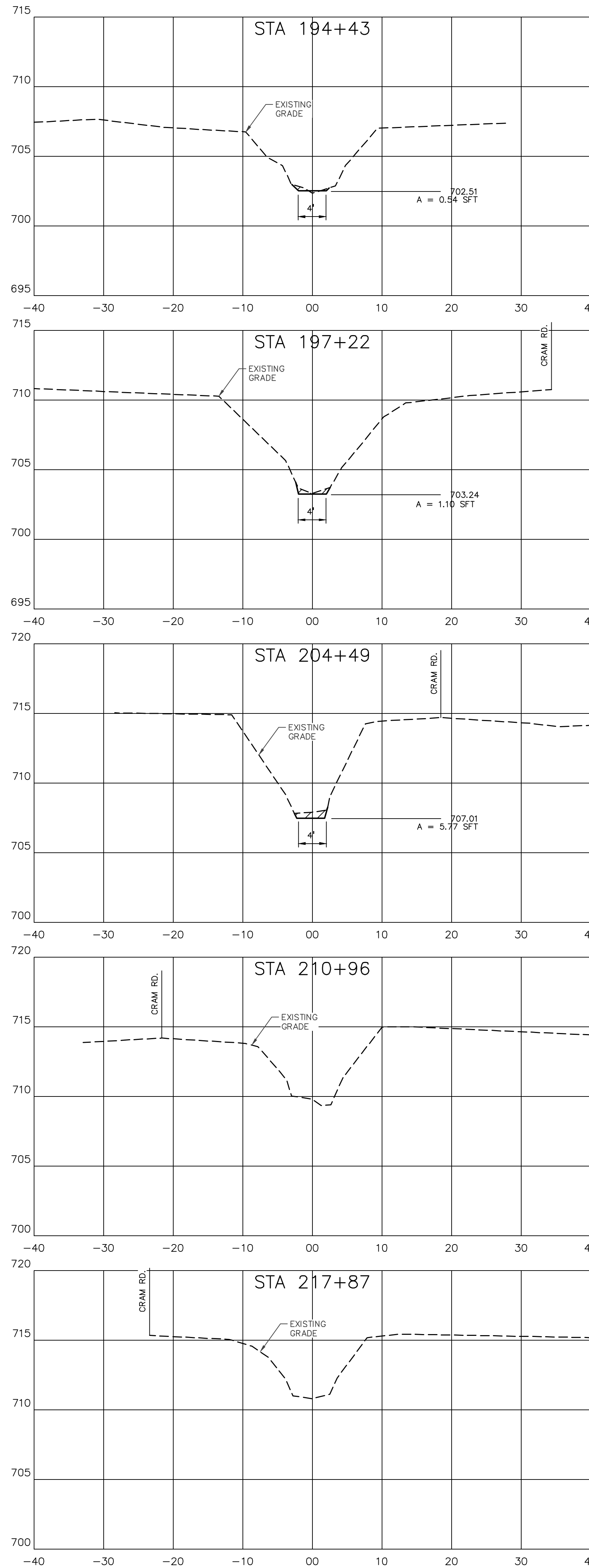
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JOSEPH BREZVAI
SAGINAW COUNTY PUBLIC WORKS COMMISSIONER
BRIAN WENDLING
SHAWASSEE COUNTY DRAIN COMMISSIONER
BRENT SINGER

CROSS SECTIONS - STA 106+66 TO STA 186+84
FOR
YOUNGS INTERCOUNTY DRAIN
CHESANING TOWNSHIP, SAGINAW COUNTY AND
NEW HAVEN TOWNSHIP, SHAWASSEE COUNTY, MICHIGAN

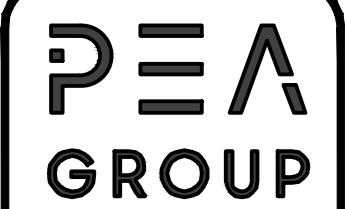


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DRAWN BY	SEP/RAH
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DATE	OCT 31, 2025
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HOR.	1" = 10'
VERT.	1" = 5'
PROJECT NO.	1694
SHEET NO.	C3.1

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DATE	DESCRIPTION	BY
10/31/2025	ISSUED FOR BIDS	DCL

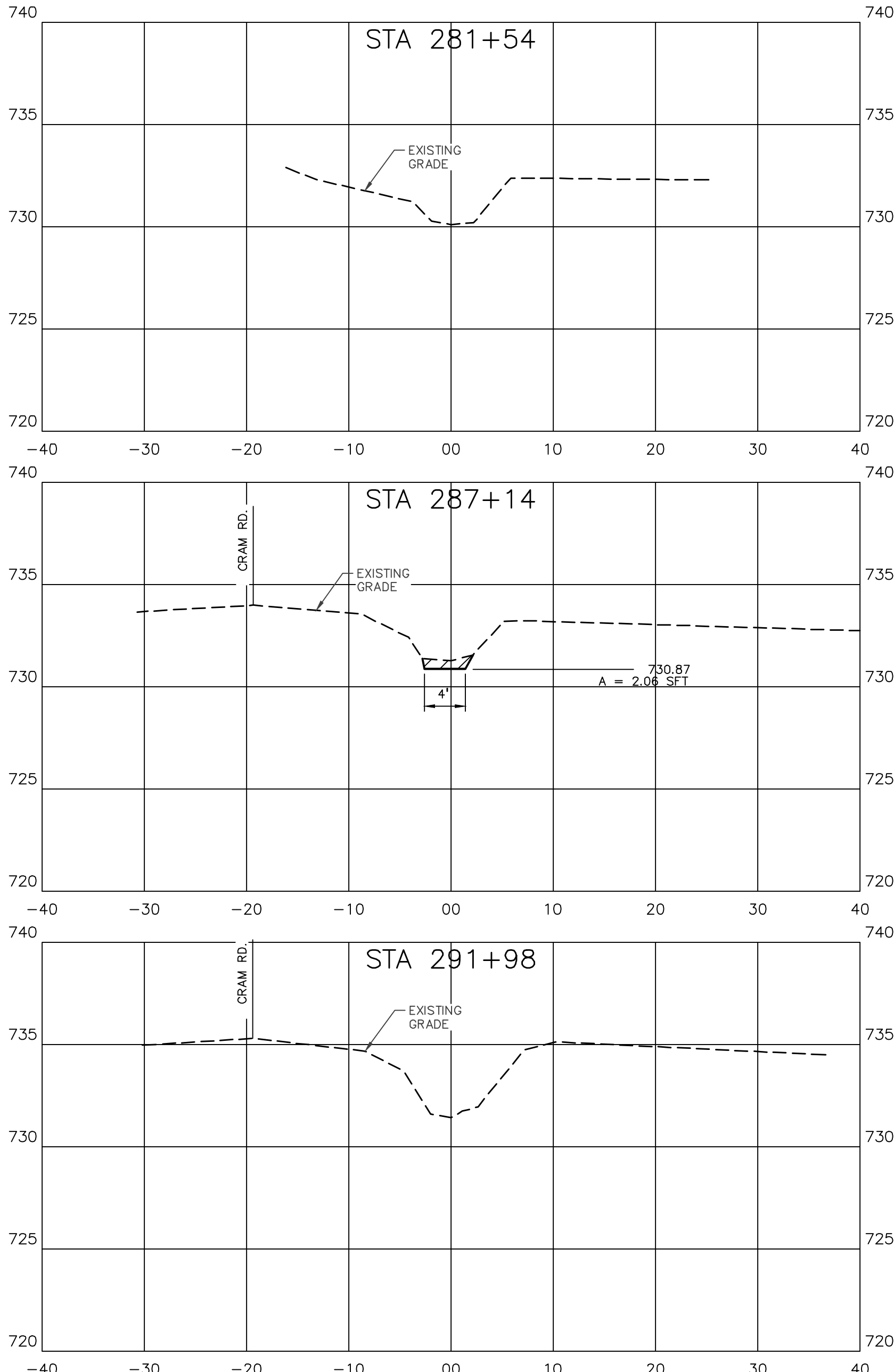


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MICHIGAN DEPARTMENT OF AGRICULTURE
JOSEPH BREZVA
SAGINAW COUNTY PUBLIC WORKS COMMISSIONER
BRAND WENDLING
SHAWASSEE COUNTY DRAIN COMMISSIONER
BRENT SINGER

CROSS SECTIONS - STA 194+43 TO STA 277+04
FOR
YOUNGS INTERCOUNTY DRAIN
CHESANING TOWNSHIP, SAGINAW COUNTY AND
NEW HAVEN TOWNSHIP, SHAWASSEE COUNTY, MICHIGAN

FILE	C3-0_C3-3.DWG
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CHECKED BY	ADB
DATE	OCT 31, 2025
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PROJECT NO.	1694
SHEET NO.	C3.2



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PROJECT NO.	
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SHEET NO.	
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**CROSS SECTIONS - STA 281+54 TO STA 291+98
FOR
YOUNGS INTERCOUNTY DRAIN
CHESANING TOWNSHIP, SAGINAW COUNTY AND
NEW HAVEN TOWNSHIP, SHIAWASSEE COUNTY, MICHIGAN**

PREPARED FOR:

YOUNGS

INTERCOUNTY DRAIN

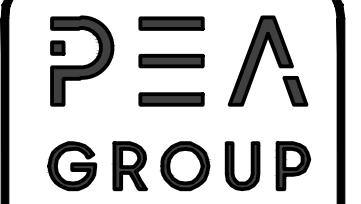
MICHIGAN DEPARTMENT OF AGRICULTURE

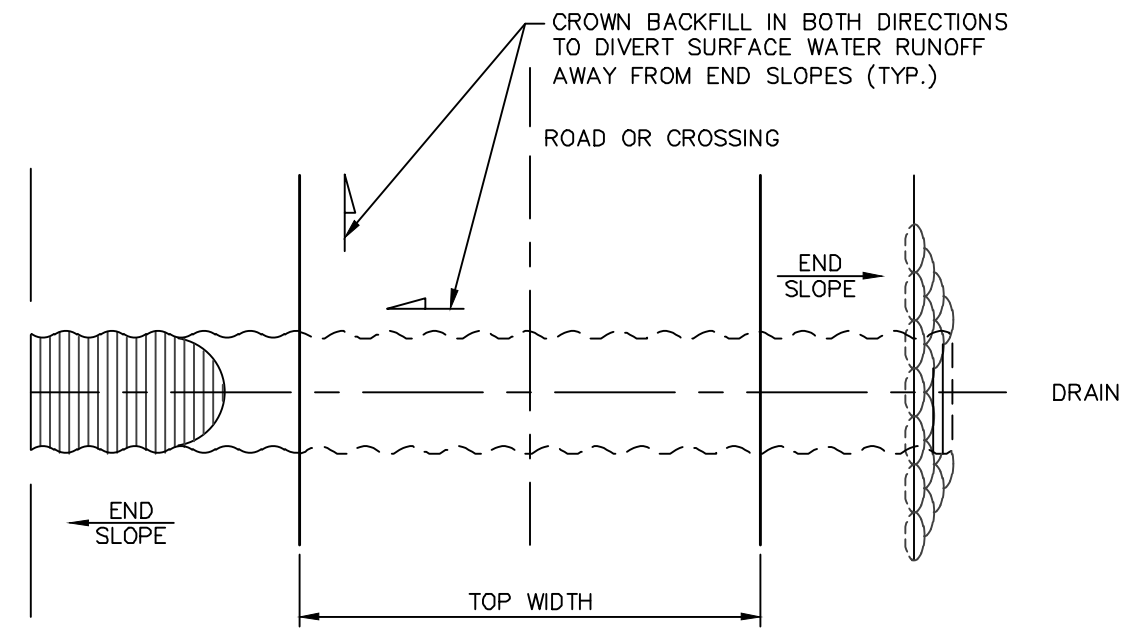
SAGINAW COUNTY PUBLIC WORKS COMMISSIONER

SHIAWASSEE COUNTY DRAIN COMMISSIONER

JOSEPH BREZVAI
BRYAN WENDLING
BRENT SINGER

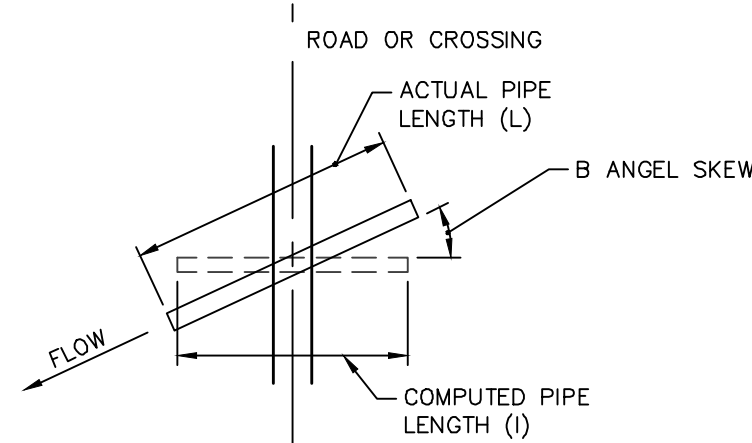
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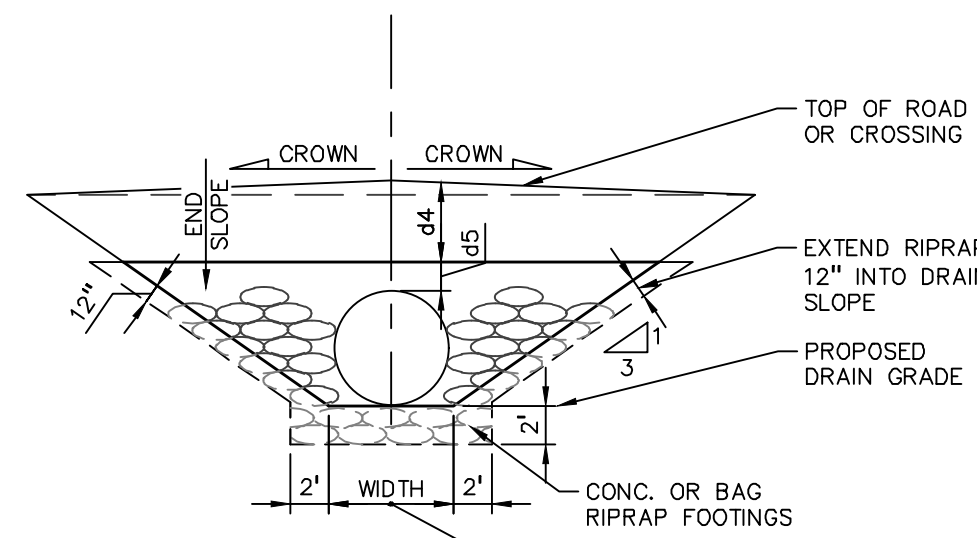


TYPICAL W/o RIPRAP TYPICAL W/ BAG RIPRAP

TOP VIEW

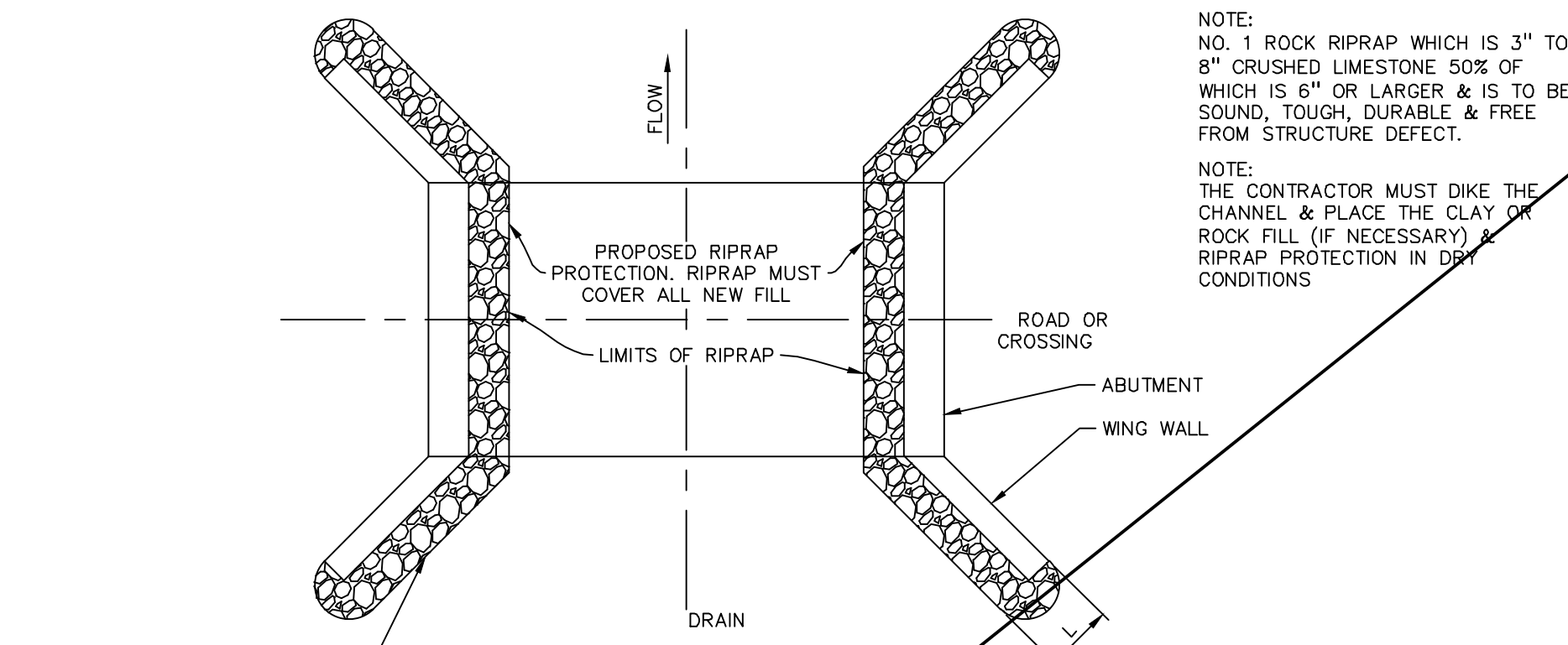


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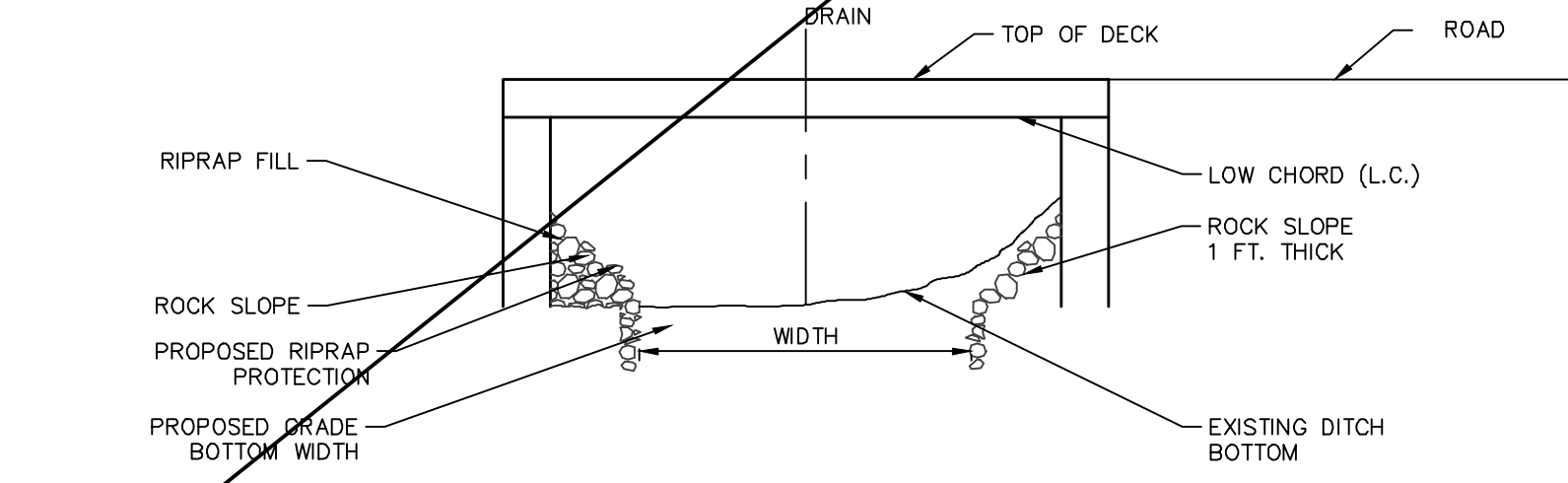


END VIEW

(TYPICAL W/ BAG RIPRAP) WHERE ALLOWED



PLAN VIEW

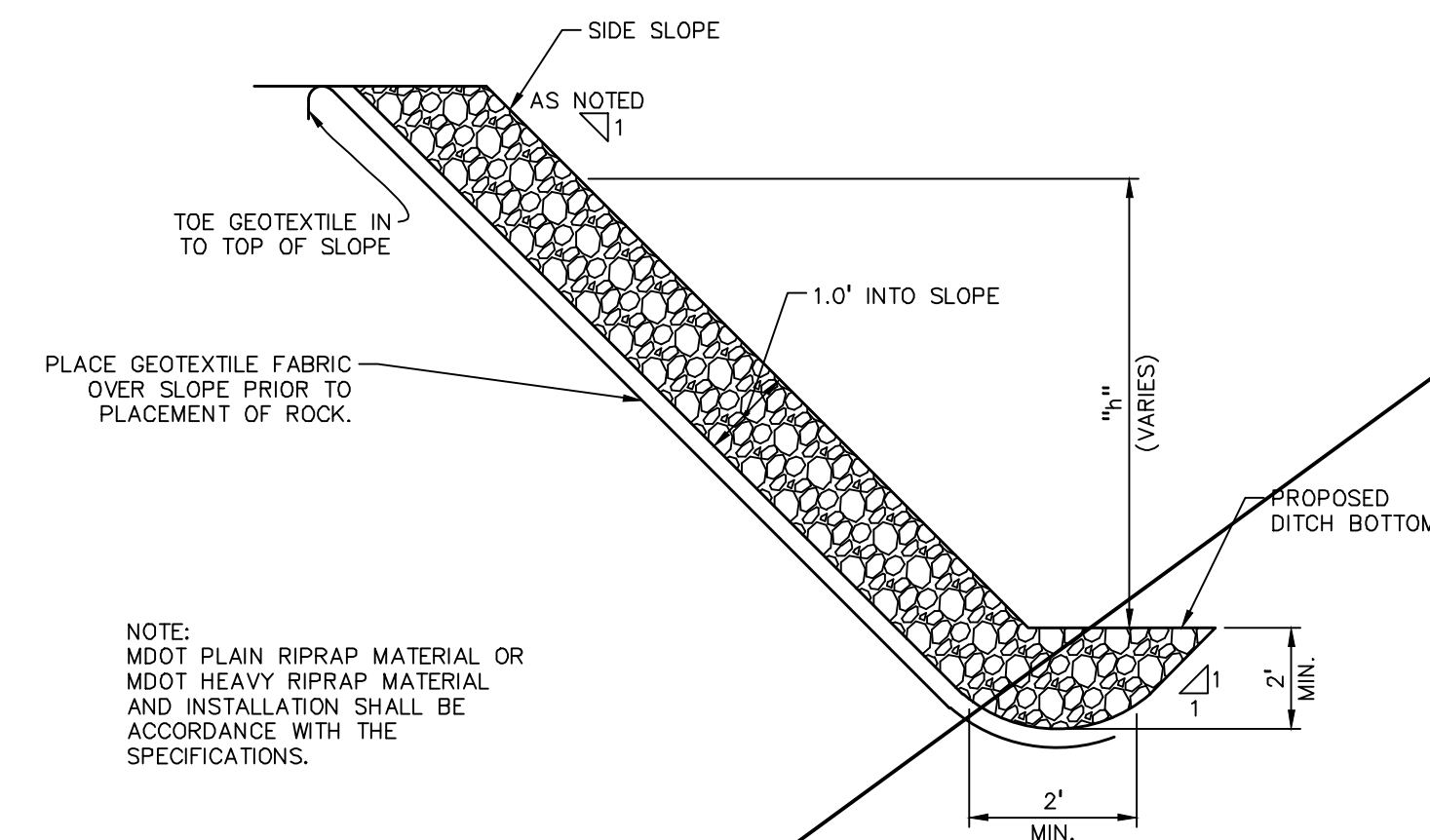


END VIEW

BRIDGE PROTECTION CHART

C-#	STATION	NAME	QUANTITY SQUARE YARDS	ROCK SLOPE

ROCK RIPRAP BRIDGE PROTECTION C4.1

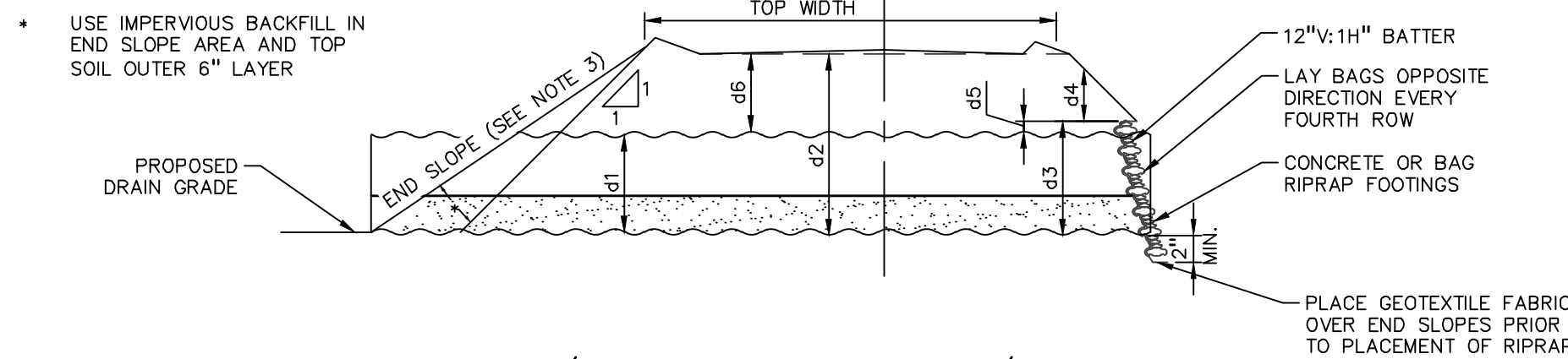


ROCK RIPRAP SLOPE PROTECTION

NO.	SIDE (R OR L)	STATION TO STATION	LENGTH (L.F.)	WIDTH (FT.)	"h" (FT.)	AREA (SQ.YDS.)	TYPE

SLOPE PROTECTION D C4.1

d1 = RISE OF CULVERT
d2 = DEPTH TO INVERT
d3 = HEIGHT OF RIPRAP ABOVE INVERT
d4 = 3' MAX.
d5 = 1' MIN.
d6 = FOR MINIMUMS, SEE SPECIFICATIONS



TYPICAL W/o RIPRAP TYPICAL W/ BAG RIPRAP

SECTIONAL VIEW

CULVERTS

- CULVERTS SHALL BE PLACED AND BACKFILLED IN ACCORDANCE WITH THE SPECIFICATIONS AND THE HIGHWAY AGENCY HAVING JURISDICTION.
- UNLESS OTHERWISE SPECIFIED, CULVERT WALL THICKNESS REQUIREMENTS SHALL MEET M.D.O.T. CLASS "B" CRITERIA (SEE TABLE THIS SHEET).
- UNLESS OTHERWISE NOTED ON THE PLANS, BACKFILLING OF CULVERTS SHALL BE AS FOLLOWS:
FARM CROSSINGS 24 FEET TOP WIDTH & 1.5:1 END SLOPES
COUNTY PUBLIC ROAD CROSSINGS:
PRIMARY ROADS 32 FEET TOP WIDTH & 2.0:1 END SLOPES.
SECONDARY ROADS 30 FEET TOP WIDTH & 2.0:1 END SLOPES
M.D.O.T. STATE HIGHWAY FEET TOP WIDTH & 1:1 END SLOPES
RAILROAD FEET TOP WIDTH & 1:1 END SLOPES

WALL THICKNESS REQUIREMENTS IN INCHES, BASED ON CLASS OF PIPE AND SIZE OF CORRUGATION.*

PIPE DIA., IN.	CLASS A and B		CLASS C		CLASS D	
	CORRUGATION SIZE, IN.		CORRUGATION SIZE, IN.		CORRUGATION SIZE, IN.	
	2 3/4 x 1/2	3x1, 5x1	2 3/4 x 1/2	3x1, 5x1	2 3/4 x 1/2	3x1, 5x1
12-30	0.109	0.109	0.109	0.109	0.109	0.109
36-60	0.109	0.109	0.109	0.109	0.109	0.109
66-72	0.138	0.109	0.138	0.109	0.138	0.109
78-94	0.168	0.109	0.168	0.109	0.168	0.109
90-102	—	0.109	—	0.109	—	0.109
108-120	—	0.109	—	0.109	—	0.109
126	—	0.138	—	0.138	—	0.138
130-136	—	0.138	—	0.138	—	0.138
144	—	0.168	—	0.168	—	0.168

a. INCREASE THE WALL THICKNESS BY ONE GAGE FOR RIVETED OR SPOT WELDED LONGITUDINAL SEAMS.
b. NOT ALLOWED FOR RIVETED OR SPOT WELDED LONGITUDINAL SEAMS. RIVETED OR SPOT WELDED SEAMS WILL NOT BE PERMITTED FOR 5 IN. x 1 IN. CORRUGATIONS.
c. FOR PIPE-ARCH SHAPE CORRUGATED STEEL PIPE, USE THE GAGE REQUIREMENT FOR THE CIRCULAR PIPE EQUAL TO OR NEXT LARGER THAN THE SPAN OF THE PIPE-ARCH.
* SOURCE: M.D.O.T. 2012 STANDARD SPECIFICATION FOR CONSTRUCTION

GAGE V.S. THICKNESS

GAGE	GALVANIZED THICKNESS
1	.280"
3	.249"
5	.218"
7	.188"
8	.168"
10	.138"
12	.109"
14	.079"
16	.064"

CLASS VS. DEPTH OF COVER

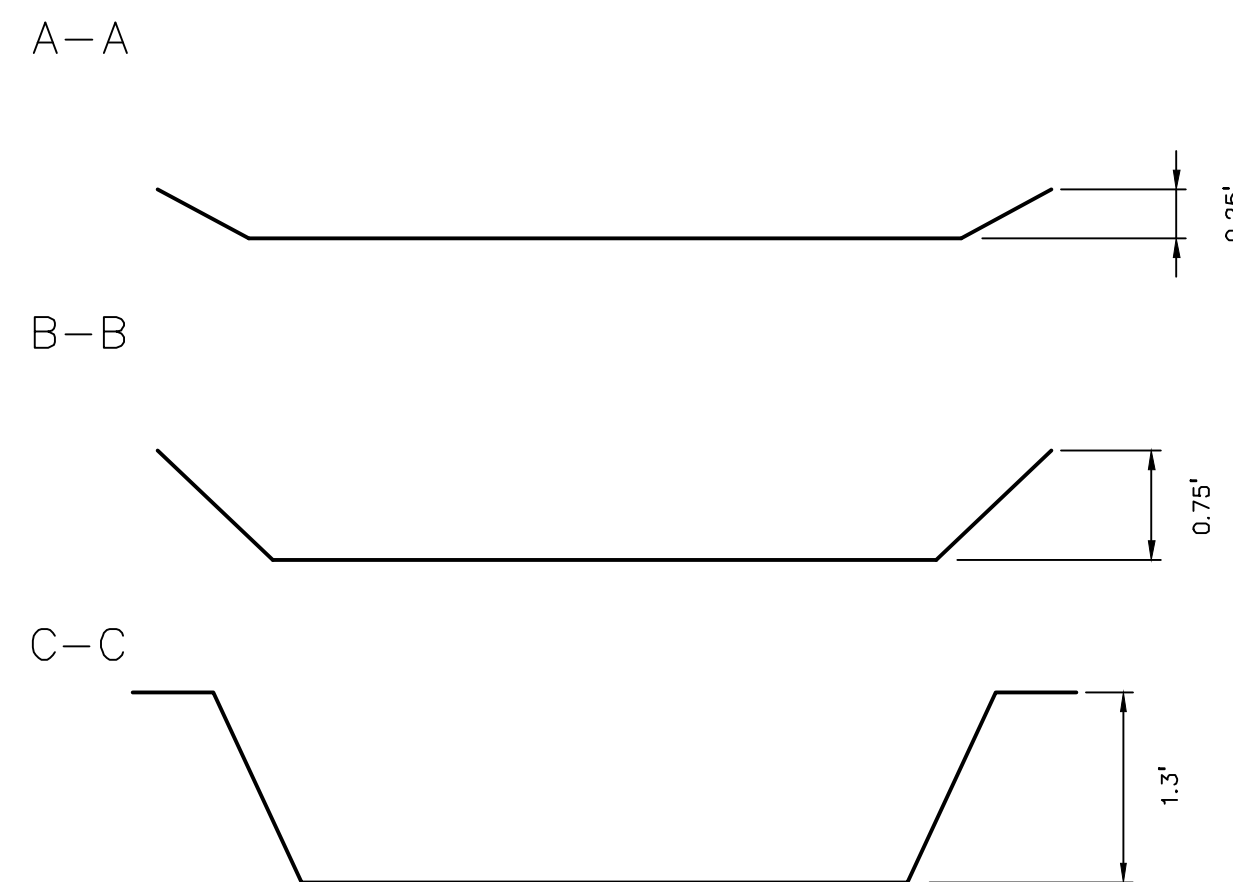
CLASS OF PIPE	DEPTH OF COVER (FT)
CLASS A	0 - 10
CLASS B	10 - 16
CLASS C	16 - 23
CLASS D	23 - 33

EQUIVALENT FOR CORRUGATED STEEL PIPE

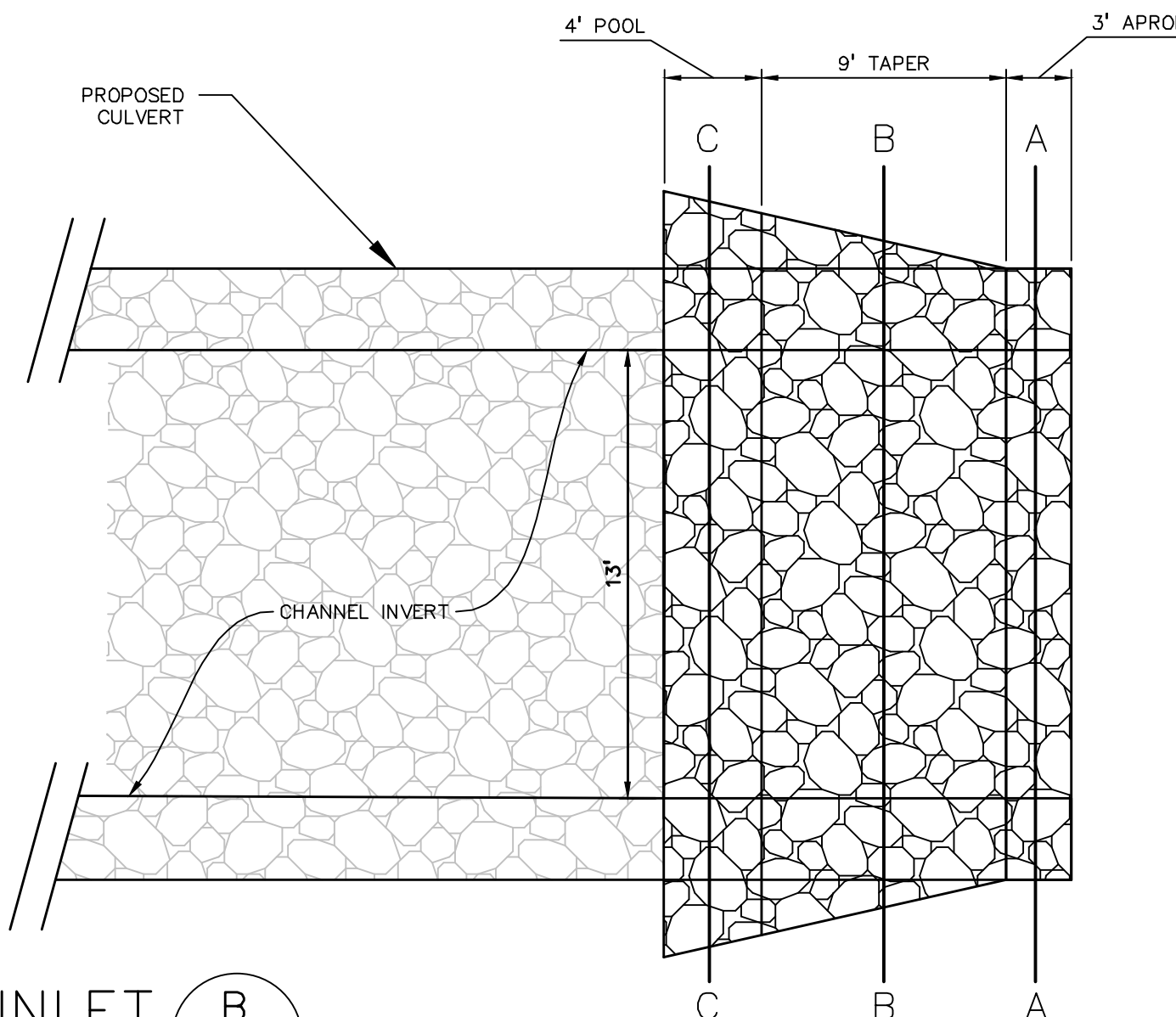
DIA. OF PIPE OF EQUAL PERIPHERY (INCHES)	2 3/4" x 1/2" CORRUGATIONS		3" x 1" CORRUGATIONS	
	RISE, IN.	SPAN, IN.	RISE, IN.	SPAN, IN.
15	17	13	---	---
18	21	15	---	---
21	24	18	---	---
24	28	20	---	---
30	35	24	---	---
36	42	29	43	27
42	49	33	50	31
48	57	38	58	36
54	64	43	60	46
60	71	47	66	51
66	77	52	73	55
72	83	57	81	59
78	---	---	87	63
84	---	---	95	67
90	---	---	103	71
96	---	---	112	75
102	---	---	117	79
108	---	---	128	83
114	---	---	137	87
120	---	---	142	91

SOURCE: HANDBOOK OF STEEL DRAINAGE & HIGHWAY CONSTRUCTION PRODUCTS 1983 ED.

CULVERT DETAILS A C4.1



TAPERED INLET B C4.1



NO.	DATE	DESCRIPTION	ISSUED FOR	BY

PEA GROUP

2379 WOODLAKE DRIVE
SUITE 480
OKEMOS, MI 48864
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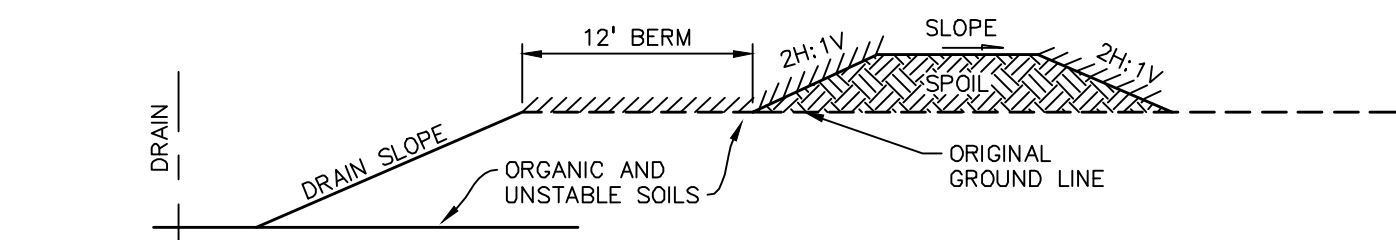
YOUNGS
INTERCOUNTY DRAIN
MICHIGAN DEPARTMENT OF AGRICULTURE
JOSEPH BREZVAI
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SHAWASSEE COUNTY DRAIN COMMISSIONER
BRENT SINGER

MISCELLANEOUS DRAIN DETAILS
FOR
YOUNGS INTERCOUNTY DRAIN
CHESANING TOWNSHIP, SAGINAW COUNTY AND
NEW HAVEN TOWNSHIP, SHAWASSEE COUNTY, MICHIGAN

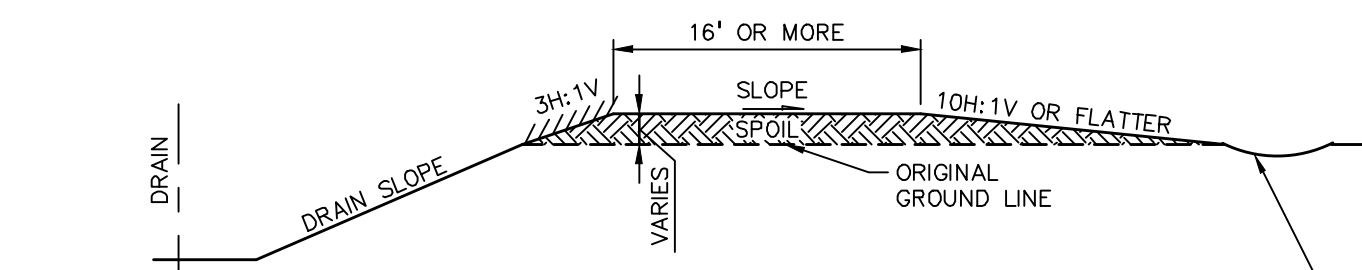
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FILE C4-1.DWG
DESIGNED BY RAH
DRAWN BY SEP/RAH
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DATE OCT 31, 2025
SCALE
HOR. N/A
VERT. N/A
PROJECT NO. 1694
SHEET NO. C4.1

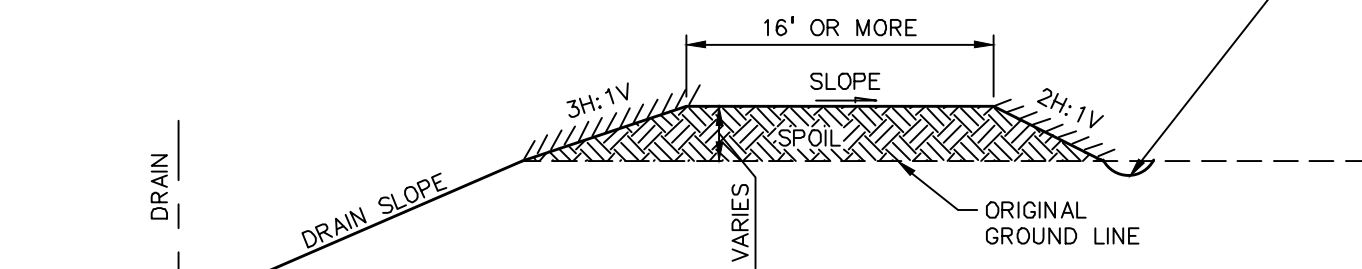
FILE: S:\PROJECTS\2021\2021-1694 MD RD YOUNGS IC DRAIN\2.6 PLANS\C4-2.DWG - PLOT DATE: 10/30/2025 10:18 AM BY: Chloe DuBois SCALE: 1:0.9987



ALL CLASSES
(ORGANIC & UNSTABLE SOILS)



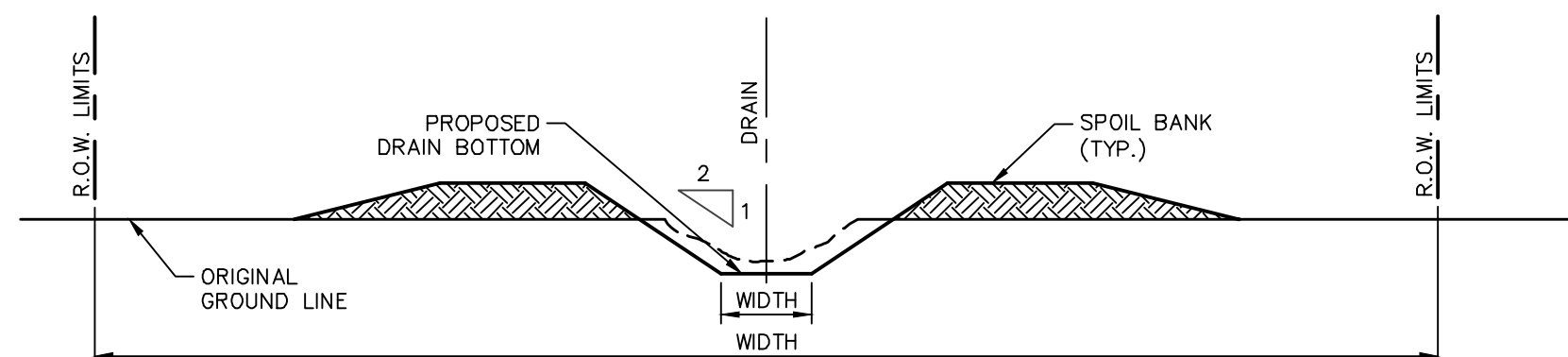
CLASS I
(IF SPECIFIED)



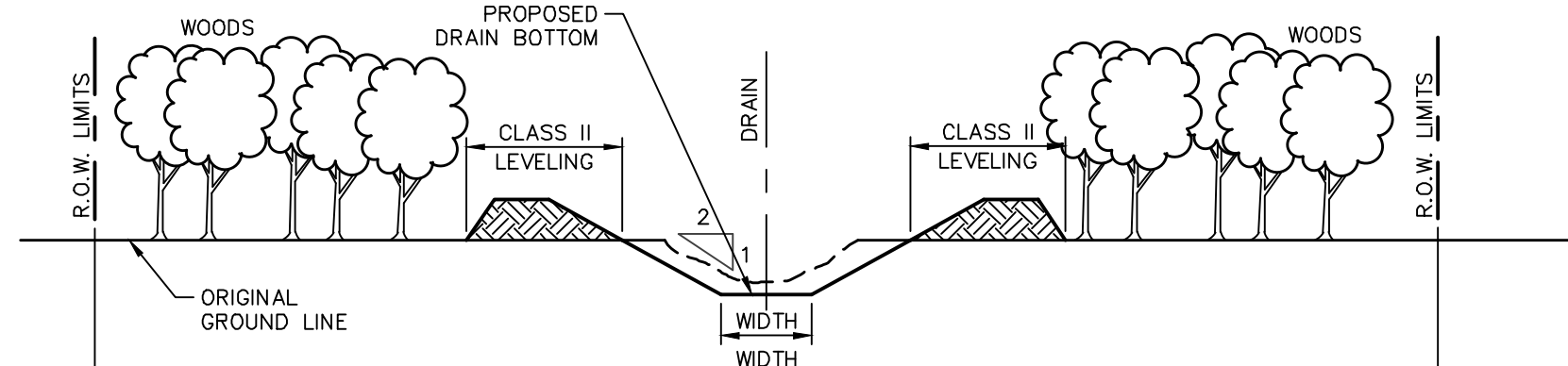
CLASS II
(HEAVY WOODED AREAS FOR TYPE B & F CLEARING)

FIELD DIVERSION
SWALE (TYP.)
INCIDENTAL TO
CONSTRUCTION.

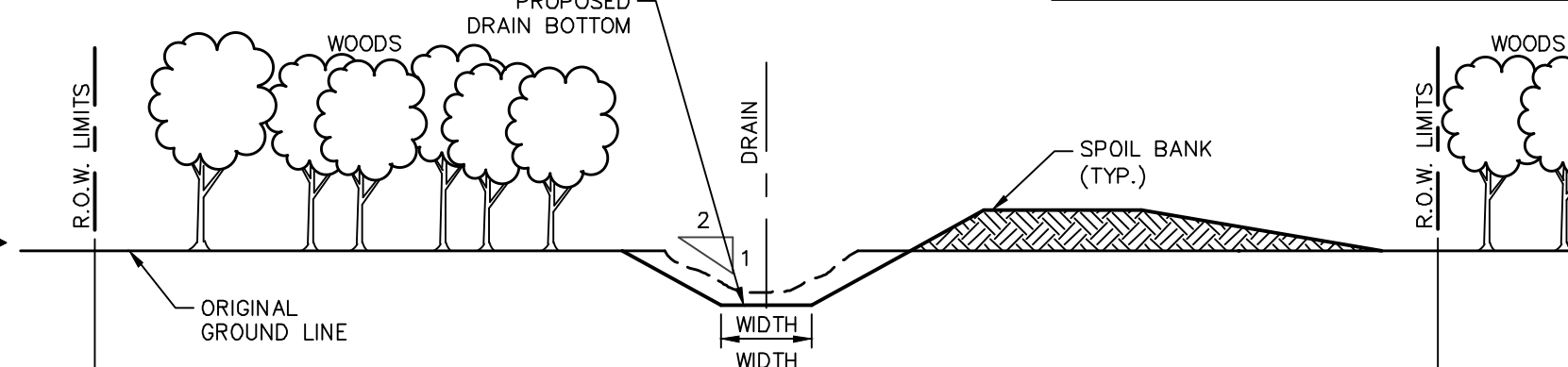
SPOIL LEVELING DETAILS



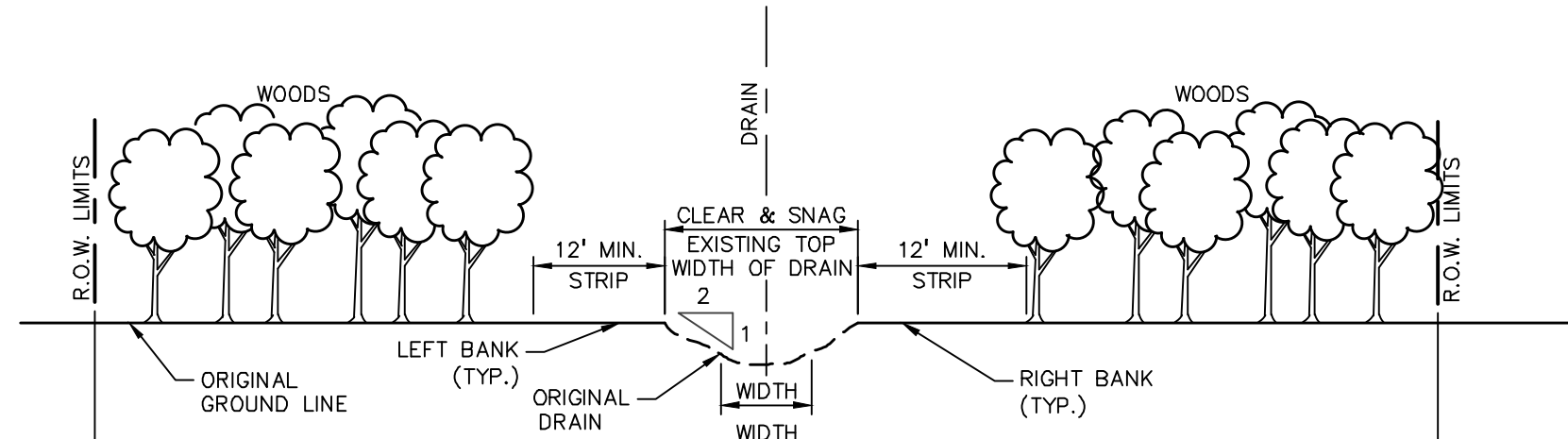
TYPE A NORMAL CONDITION



TYPE B THROUGH OR ADJACENT TO HEAVY WOODS



TYPE C SPOIL DEPOSITED ONE SIDE ONLY

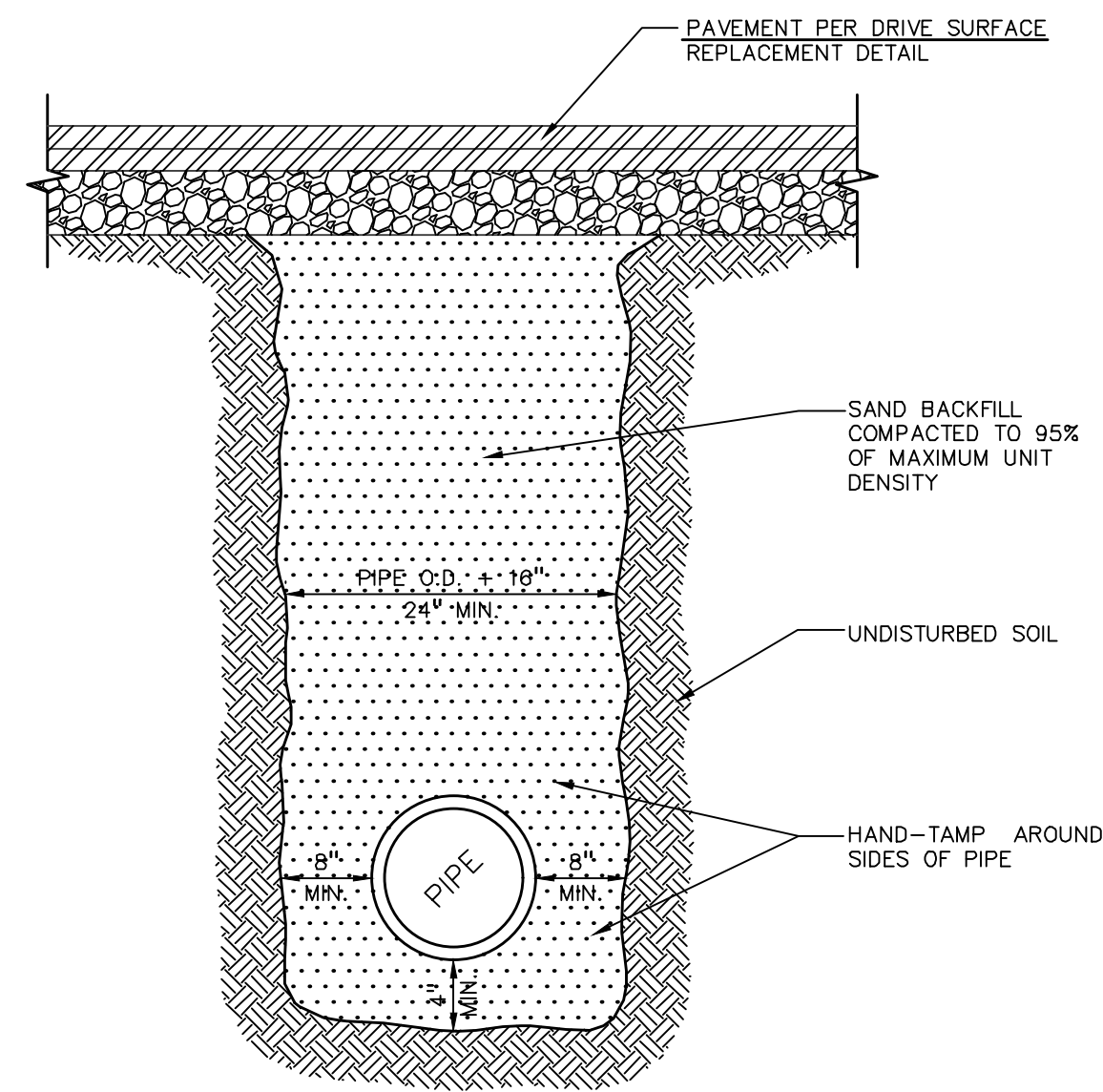


TYPE D CLEARING & SNAGGING AREAS ONLY

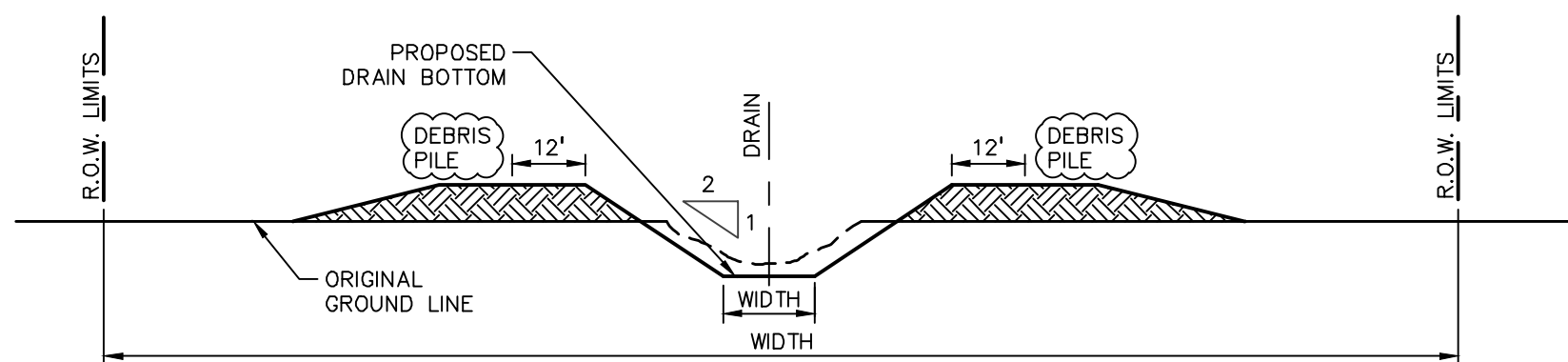
TYPICAL CLEARING & DEBRIS MANAGEMENT DETAILS WHERE BURNING OR DISPOSAL IS REQUIRED

CONSTRUCTION NOTES

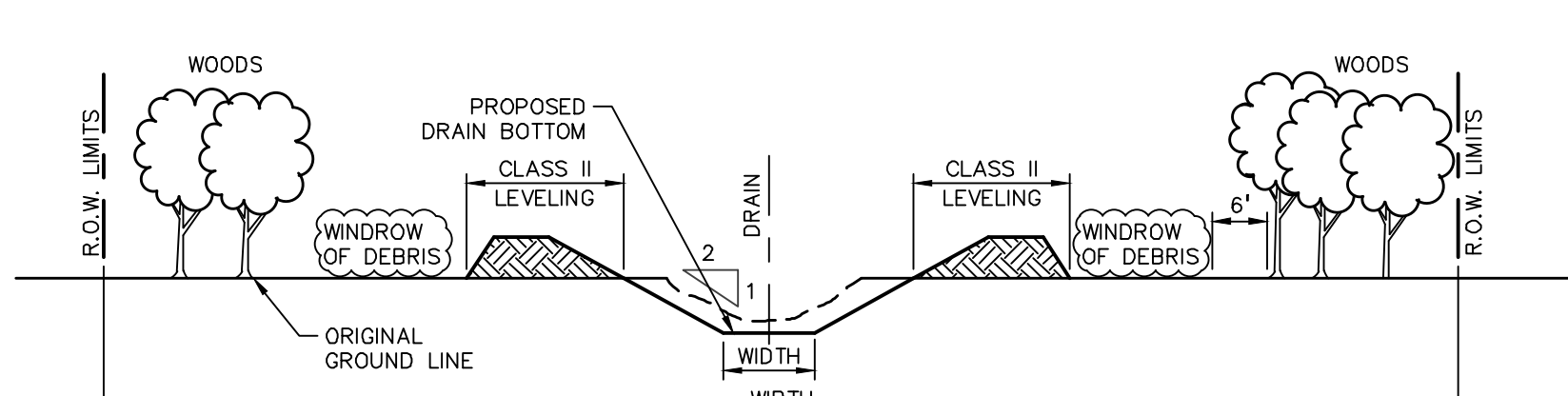
- REFER TO THE CONSTRUCTION SPECIFICATIONS FOR THE DEFINITION OF WORK INVOLVED IN CLEARING, GRUBBING, SNAGGING, ETC.
- BURYING OR PILING OF DEBRIS WILL BE REQUIRED ON THIS PROJECT PER THE SPECIFICATIONS.
- CLEARING WILL BE TYPE C FOR CONDITIONS WHERE BURNING OR DISPOSAL IS REQUIRED, AND TYPE G FOR CONDITIONS WHERE PILING IS REQUIRED.
- IN CLEAR AND SNAG AREAS ONLY, THE CONTRACTOR WILL BE REQUIRED TO CLEAR, SNAG AND REMOVE DEBRIS DAMS WITHIN TOP WIDTH OF DRAIN, CLEAR BOTH BANKS IN ORDER TO PERFORM REQUIRED WORK WITHIN A MIN. OF 12'. IF ANY OLD SPOIL IS PRESENT, CLEAR AS NECESSARY TO ALLOW FOR LEVELING OF SPOIL TO A MINIMUM OF 16' TOP WIDTH, AND REMOVE AND DISPOSE OF ALL DEBRIS. NO GRUBBING WILL BE ALLOWED WITHIN TOP WIDTH OF DRAIN. IF SLOPES ARE DISTURBED WHEN TREES ARE CUT AND REMOVED FROM SLOPES, THE CONTRACTOR WILL PREPARE SEED BED, OR REPAIR IF NECESSARY, AND SEED AS DIRECTED BY THE ENGINEER.
- WHEN BURYING NON-COMBUSTIBLE DEBRIS, LEAVE HOLES OPEN AFTER PLACEMENT OF NON-COMBUSTIBLE DEBRIS FOR INSPECTION PRIOR TO BACKFILL AS PER THE SPECIFICATIONS.
- UNLESS OTHERWISE NOTED, SPOIL LEVELING WILL BE CLASS I AS PER THE SPECIFICATIONS AND DETAILS SHOWN ON THIS SHEET. SPOIL LEVELING IN HEAVY WOODS WILL BE CLASS II.
- FOR SPOIL DEPOSITING ON ONE SIDE ONLY (TYPE C AND G) THE 12 FOOT STRIP CALLED FOR IN THE SPECIFICATIONS WILL BE REQUIRED ON THIS PROJECT.
- IF DIRECTED BY THE ENGINEER, FIELD DIVERSION SWALES ARE INCIDENTAL TO THE CONSTRUCTION FOR SPOIL LEVELING (SEE DETAILS THIS SHEET).
- A 15 FT. STAGING AREA FROM THE TOP OF THE BANK TO THE SPOIL BANKS WILL BE REQUIRED WHEN UNSTABLE OR ORGANIC SOILS ARE ENCOUNTERED.
- A PILOT CHANNEL WILL NOT BE REQUIRED ON THIS PROJECT, THE CONSTRUCTION OF THE PILOT CHANNEL WILL BE PER THE SPECIFICATIONS, AS REQUIRED BY THE ENGINEER.
- SEDIMENT SUMPS WILL BE CONSTRUCTED ON THIS PROJECT AS PER THE SPECIFICATIONS. ALL SUMPS ARE TO BE MAINTAINED REGULARLY THROUGHOUT CONSTRUCTION AND CLEANED OUT UPON COMPLETION OF THIS PROJECT.
- UPON COMPLETION OF THE PROJECT, ALL ROCK CHECK DAMS SHALL BE REMOVED INCIDENTAL TO CONSTRUCTION. ALL SEDIMENT THAT HAS BEEN ACCUMULATED BEHIND THE CHECK DAMS SHALL BE REMOVED FROM THE DRAIN AND LEVELED ACCORDING TO THE SPOIL LEVELING DETAILS.
- THE CENTERLINE OF THE DRAIN WILL BE SET BACK FROM ROADS AS SHOWN ON THE CROSS-SECTIONS IN THESE PLANS.
- FENCES ON PRIVATE PROPERTY DISTURBED BY THE CONTRACTOR ON THIS PROJECT WILL BE REPLACED AS PER GENERAL CONDITIONS.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR TURF ESTABLISHMENT ALONG DRAIN SIDE SLOPES, SPOIL BANKS, CULVERT END SLOPES AND OTHER AREAS DESIGNATED BY THE CONSTRUCTION PLANS OR BY THE ENGINEER AS PER THE SPECIFICATIONS.
- IF THE BID PROPOSAL DOES NOT CONTAIN AN ITEM FOR "ENGINEERING INSPECTION" THE INSPECTION COST WILL BE PAID BY THE OWNER. INSPECTION CHARGES BY THE ROAD COMMISSION, RAILROADS AND THE M.D.O.T. WILL BE PAID BY THE CONTRACTOR, UNLESS OTHERWISE SPECIFIED.



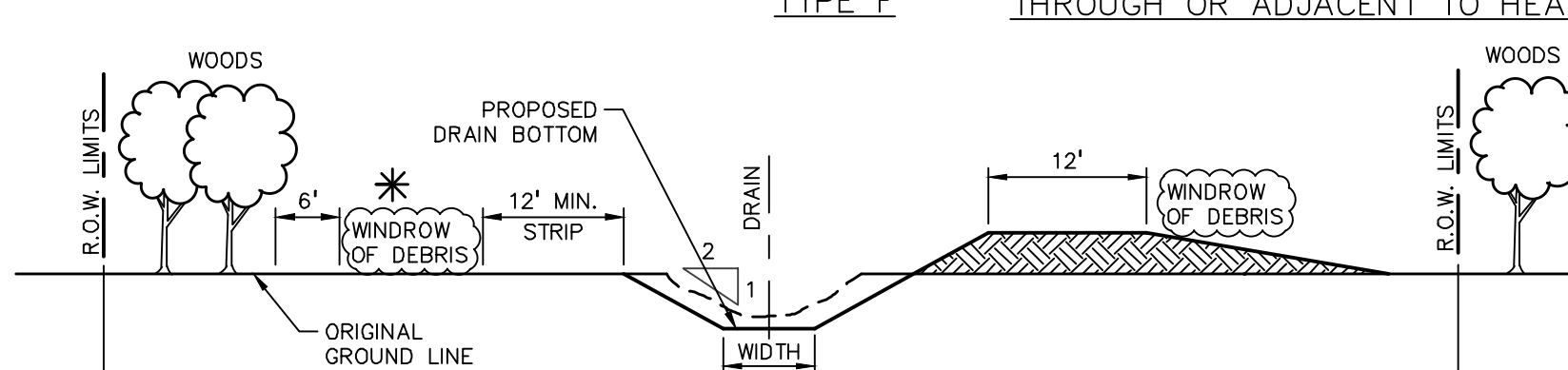
TYPICAL TRENCH DETAIL
UNDER ASPHALT/GRAVEL SURFACES ONLY



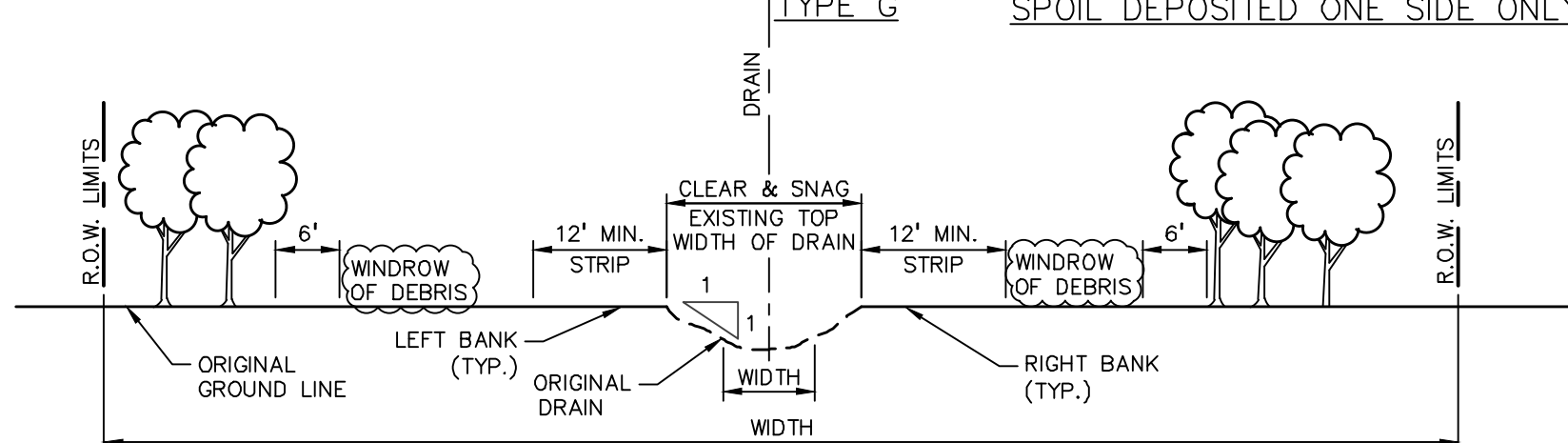
TYPE E NORMAL CONDITION



TYPE F THROUGH OR ADJACENT TO HEAVY WOODS



TYPE G SPOIL DEPOSITED ONE SIDE ONLY

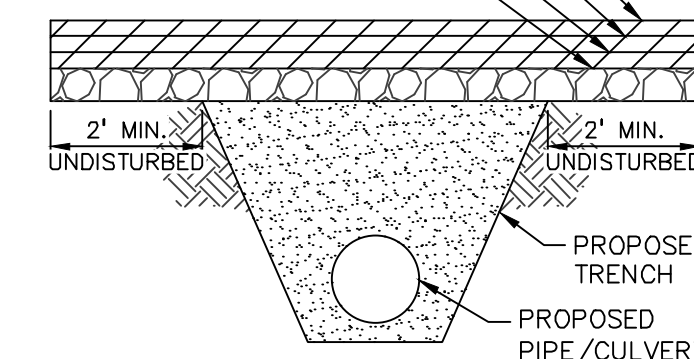


TYPE H CLEARING & SNAGGING AREAS ONLY

* WHEN PARALLELING A ROAD, ALL DEBRIS BETWEEN THE CENTERLINE OF THE ROAD AND THE CENTERLINE OF THE DRAIN MUST BE DISPOSAL.

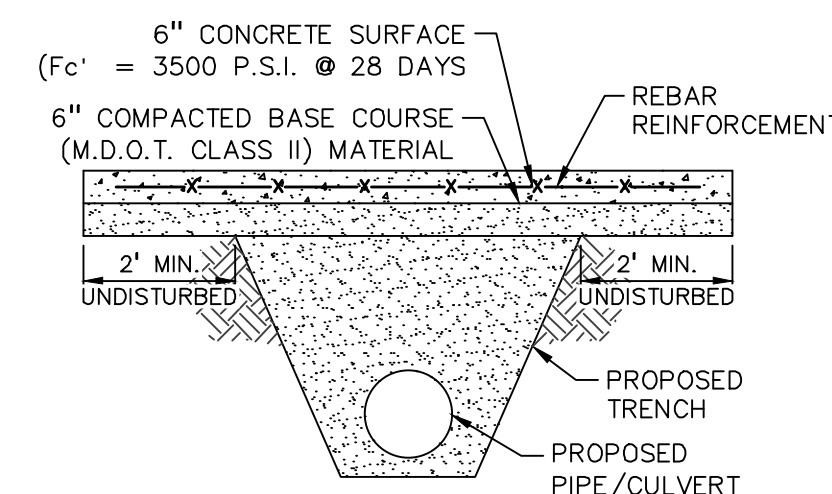
TYPICAL CLEARING & DEBRIS MANAGEMENT DETAILS WHERE PILING IS REQUIRED

MINIMUM OF
165 LBS/SY (1.5") LSVP-T
220 LBS/SY (2.0") LSVP-T
275 LBS/SY (2.5") LSVP-L
9" AGGREGATE BASE - 21AA



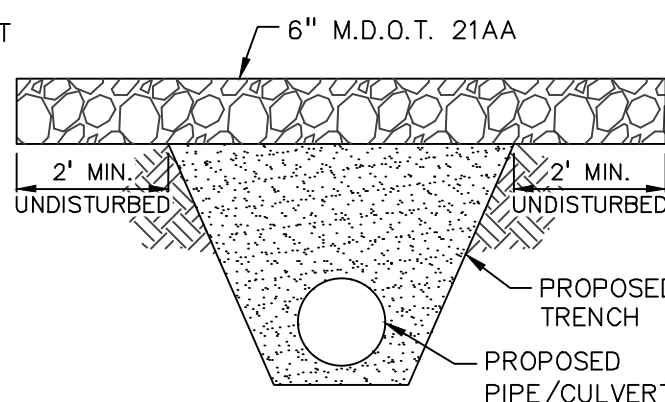
NOTE:
IF EXISTING DRIVE SURFACE
THICKNESS IS GREATER THAN 6",
MATCH EXISTING THICKNESS.

ASPHALT ROAD



NOTE:
IF EXISTING DRIVE SURFACE
THICKNESS IS GREATER THAN 6",
MATCH EXISTING THICKNESS.

CONCRETE DRIVEWAY



NOTE:
IF EXISTING DRIVE SURFACE
THICKNESS IS GREATER THAN 6",
MATCH EXISTING THICKNESS.

GRAVEL DRIVEWAY/ROAD

DRIVE SURFACE REPLACEMENT DETAIL (NOT TO SCALE)



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ISSUED FOR BIDS
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BY

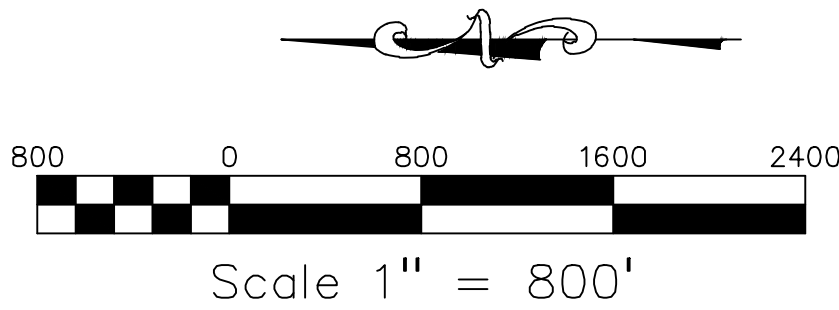
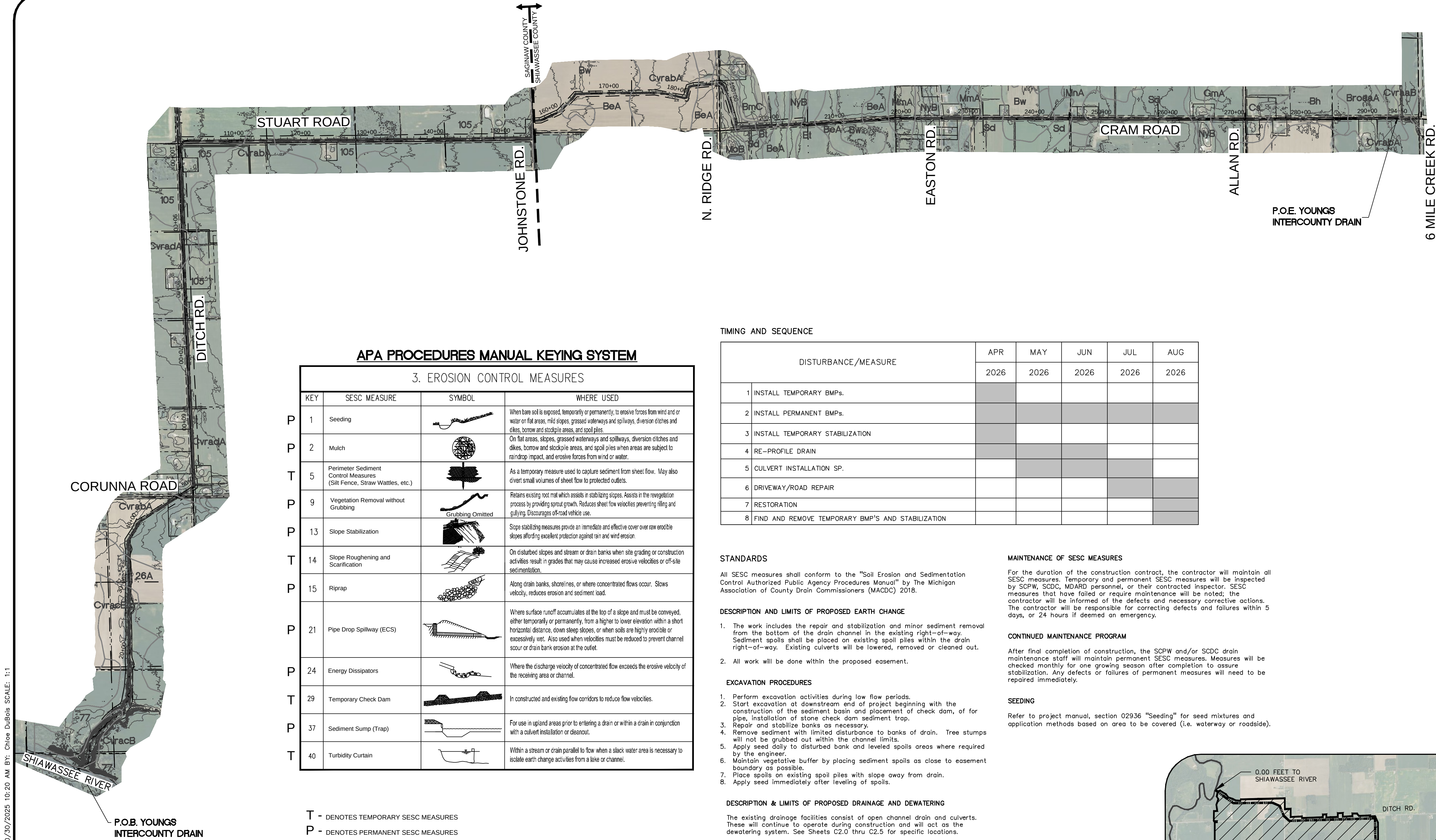
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BRENT SINGER

MISCELLANEOUS DRAIN DETAILS
FOR
YOUNGS INTERCOUNTY DRAIN
CHESANING TOWNSHIP, SAGINAW COUNTY AND
NEW HAVEN TOWNSHIP, SHIAWASSEE COUNTY, MICHIGAN

FILE	C4-2.DWG
DESIGNED BY	RAH
DRAWN BY	SEP/RAH
CHECKED BY	ADB
DATE	OCT 31, 2025
SCALE	
HOR.	N/A
VERT.	N/A
PROJECT NO.	1694
SHEET NO.	C4.2



APA PROCEDURES MANUAL KEYING SYSTEM

3. EROSION CONTROL MEASURES			
KEY	SESC MEASURE	SYMBOL	WHERE USED
P 1	Seeding		When bare soil is exposed, temporarily or permanently, to erosive forces from wind and/or water on flat areas, mild slopes, grassed waterways and spillways, diversion ditches and dikes, borrow and stockpile areas, and spoil piles.
P 2	Mulch		On flat areas, slopes, grassed waterways and spillways, diversion ditches and dikes, borrow and stockpile areas, and spoil piles when areas are subject to raindrop impact, and erosive forces from wind or water.
T 5	Perimeter Sediment Control Measures (Silt Fence, Straw Wattles, etc.)		As a temporary measure used to capture sediment from sheet flow. May also divert small volumes of sheet flow to protected outlets.
P 9	Vegetation Removal without Grubbing		Retains existing root mat which assists in stabilizing slopes. Assists in the revegetation process by providing sprout growth. Reduces sheet flow velocities preventing rilling and gullying. Discourages off-road vehicle use.
P 13	Slope Stabilization		Slope stabilization measures provide an immediate and effective cover over raw erodible slopes affording excellent protection against rain and wind erosion.
T 14	Slope Roughening and Scarification		On disturbed slopes and stream or drain banks when site grading or construction activities result in grades that may cause increased erosive velocities or off-site sedimentation.
P 15	Riprap		Along drain banks, shorelines, or where concentrated flows occur. Slows velocity, reduces erosion and sediment load.
P 21	Pipe Drop Spillway (ECS)		Where surface runoff accumulates at the top of a slope and must be conveyed, either temporarily or permanently, from a higher to lower elevation within a short horizontal distance, down steep slopes, or when soils are highly erodible or excessively wet. Also used when velocities must be reduced to prevent channel scour or drain bank erosion at the outlet.
P 24	Energy Dissipators		Where the discharge velocity of concentrated flow exceeds the erosive velocity of the receiving area or channel.
T 29	Temporary Check Dam		In constructed and existing flow corridors to reduce flow velocities.
P 37	Sediment Sump (Trap)		For use in upland areas prior to entering a drain or within a drain in conjunction with a culvert installation or cleanout.
T 40	Turbidity Curtain		Within a stream or drain parallel to flow when a slack water area is necessary to isolate earth change activities from a lake or channel.

T - DENOTES TEMPORARY SESC MEASURES
P - DENOTES PERMANENT SESC MEASURES

ROUTINE MAINTENANCE ACTIVITIES

KEY	BEST MANAGEMENT PRACTICE	SESC PLAN
A	Debris Removal	NO
B	Sediment Removal	> 100 FEET

MAINTENANCE PROCEDURES

1. PERFORM MAINTENANCE/CONSTRUCTION ACTIVITIES DURING LOW FLOW PERIODS.
2. START MAINTENANCE/CONSTRUCTION AT DOWNSTREAM END OF PROJECT.
3. APPLY SEED DAILY TO DISTURBED AREA.
4. MAINTAIN VEGETATIVE BUFFER BY PLACING SEDIMENT AS CLOSE TO EASEMENT BOUNDARY AS POSSIBLE.
5. APPLY SEED TO SPOILS.
6. IF DEWATERING IS REQUIRED, A DEWATERING PLAN MUST BE SUBMITTED TO THE OWNER FOR APPROVAL.

LEGEND

36

SCS SOIL BOUNDARY
LIMITS OF EARTH CHANGE 14.5 ACRES

TIMING AND SEQUENCE

DISTURBANCE/MEASURE		APR	MAY	JUN	JUL	AUG
		2026	2026	2026	2026	2026
1	INSTALL TEMPORARY BMPs.					
2	INSTALL PERMANENT BMPs.					
3	INSTALL TEMPORARY STABILIZATION					
4	RE-PROFILE DRAIN					
5	CULVERT INSTALLATION SP.					
6	DRIVEWAY/ROAD REPAIR					
7	RESTORATION					
8	FIND AND REMOVE TEMPORARY BMP'S AND STABILIZATION					

STANDARDS

All SESC measures shall conform to the "Soil Erosion and Sedimentation Control Authorized Public Agency Procedures Manual" by the Michigan Association of County Drain Commissioners (MACDC) 2018.

DESCRIPTION AND LIMITS OF PROPOSED EARTH CHANGE

1. The work includes the repair and stabilization and minor sediment removal from the bottom of the drain channel in the existing right-of-way. Sediment spoils shall be placed on existing spoil piles within the drain right-of-way. Existing culverts will be lowered, removed or cleaned out.
2. All work will be done within the proposed easement.

EXCAVATION PROCEDURES

1. Perform excavation activities during low flow periods.
2. Start excavation at downstream end of project beginning with the construction of the sediment basin and placement of check dam, of for pipe, installation of stone check dam sediment trap.
3. Repair and stabilize banks as necessary.
4. Remove sediment with limited disturbance to banks of drain. Tree stumps will not be grubbed out within the channel limits.
5. Apply seed daily to disturbed bank and leveled spoils areas where required by the engineer.
6. Maintain vegetative buffer by placing sediment spoils as close to easement boundary as possible.
7. Place spoils on existing spoil piles with slope away from drain.
8. Apply seed immediately after leveling of spoils.

DESCRIPTION & LIMITS OF PROPOSED DRAINAGE AND DEWATERING

The existing drainage facilities consist of open channel drain and culverts. These will continue to operate during construction and will act as the dewatering system. See Sheets C2.0 thru C2.5 for specific locations.

DESCRIPTION AND LOCATION FOR INSTALLING/REMOVING TEMPORARY SESC MEASURES

Temporary SESC measures will be installed for each section of the works as work proceeds upstream. See Sheets C2.0 thru C2.5 for specific locations.

DESCRIPTION AND LOCATION FOR INSTALLING/REMOVING PERMANENT SESC MEASURES

The locations for all permanent SESC measures are shown on Sheets C2.0 thru C2.5.

MAINTENANCE OF SESC MEASURES

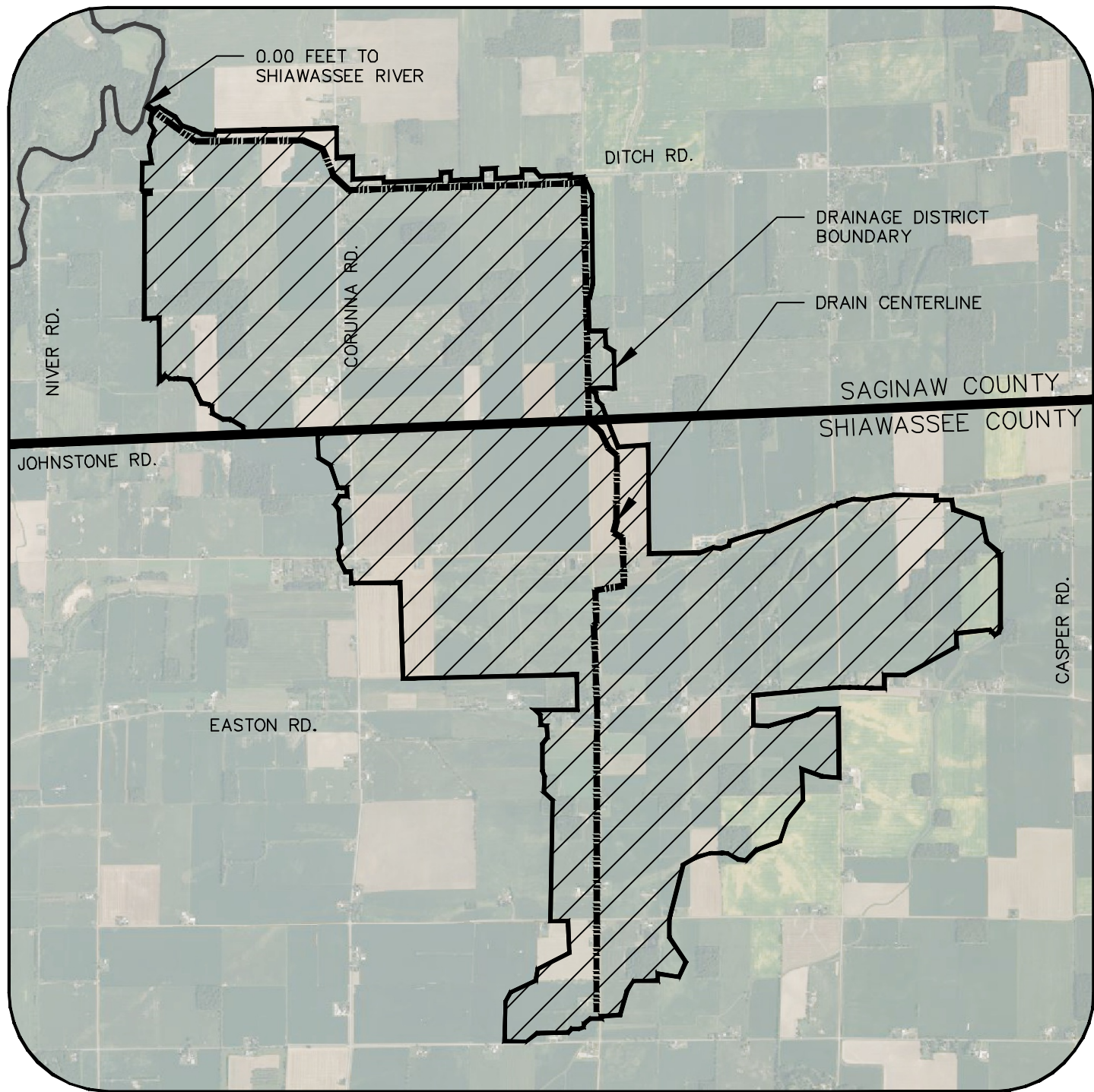
For the duration of the construction contract, the contractor will maintain all SESC measures. Temporary and permanent SESC measures will be inspected by SCPW, SDCD, MDARD personnel, or their contracted inspector. SESC measures that have failed or require maintenance will be noted; the contractor will be informed of the defects and necessary corrective actions. The contractor will be responsible for correcting defects and failures within 5 days, or 24 hours if deemed an emergency.

CONTINUED MAINTENANCE PROGRAM

After final completion of construction, the SCPW and/or SDCD drain maintenance staff will maintain permanent SESC measures. Measures will be checked monthly for one growing season after completion to assure stabilization. Any defects or failures of permanent measures will need to be repaired immediately.

SEEDING

Refer to project manual, section 02936 "Seeding" for seed mixtures and application methods based on area to be covered (i.e. waterway or roadside).



LOCATION MAP

SCS SOIL TYPES

SAGINAW COUNTY

- 26A PIPESTONE SAND, LOAMY SUBSTRATUM
- 77 CHESANING-COHOCTAH COMPLEX
- 105 BROOKSTON LOAM
- CVRABA CONOVER-WILLIAMSTOWN LOAMS
- CVRACB CONOVER LOAM
- CVRADA CONOVER GRAVELLY SANDY LOAM
- W WATER

SHIAWASSEE COUNTY

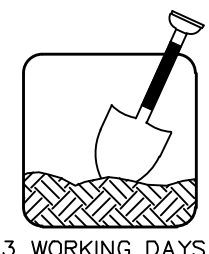
- BEA BELDING SANDY LOAM
- BH BERVILLE LOAM
- BMC BOYER LOAMY SAND
- BROAAA BROOKSTON LOAM
- BT BRECKENRIDGE SANDY LOAM 244.7 2.4%
- BW BROOKSTON LOAM
- CS COLWOOD LOAM
- CVRAAB CONOVER LOAM
- CVRABA CONOVER LOAM
- GMA GLADWIN LOAMY SAND
- MMA MATHERTON SANDY LOAM
- MNA MATHERTON SANDY LOAM
- MOB MENOMINEE LOAMY SAND
- NYB NEWAYGO SANDY LOAM
- SD SEBEWA LOAM

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SOIL EROSION AND SEDIMENTATION CONTROL PLAN
FOR
YOUNGS INTERCOUNTY DRAIN
CHESANING TOWNSHIP, SAGINAW COUNTY AND
NEW HAVEN TOWNSHIP, SHIAWASSEE COUNTY, MICHIGAN

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