

06-16-2023 LETTING ITEM 233

SEE SHEET 2 FOR
INDEX OF SHEETS AND
LIST OF ILLINOIS DOT HIGHWAY STANDARDS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED
TOWNSHIP BRIDGE PROGRAM

T.R. 13 (4000N & 880E)
SECTION 18-02155-00-BR
PROJECT RUKH(033)
VERMILION COUNTY
BUTLER ROAD DISTRICT
C-95-002-23

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	18-02155-00-BR	VERMILION	29	1
FEDERAL AID PROJECT		ILLINOIS	CONTRACT NO. 91617	



UTILITY CONTACTS:

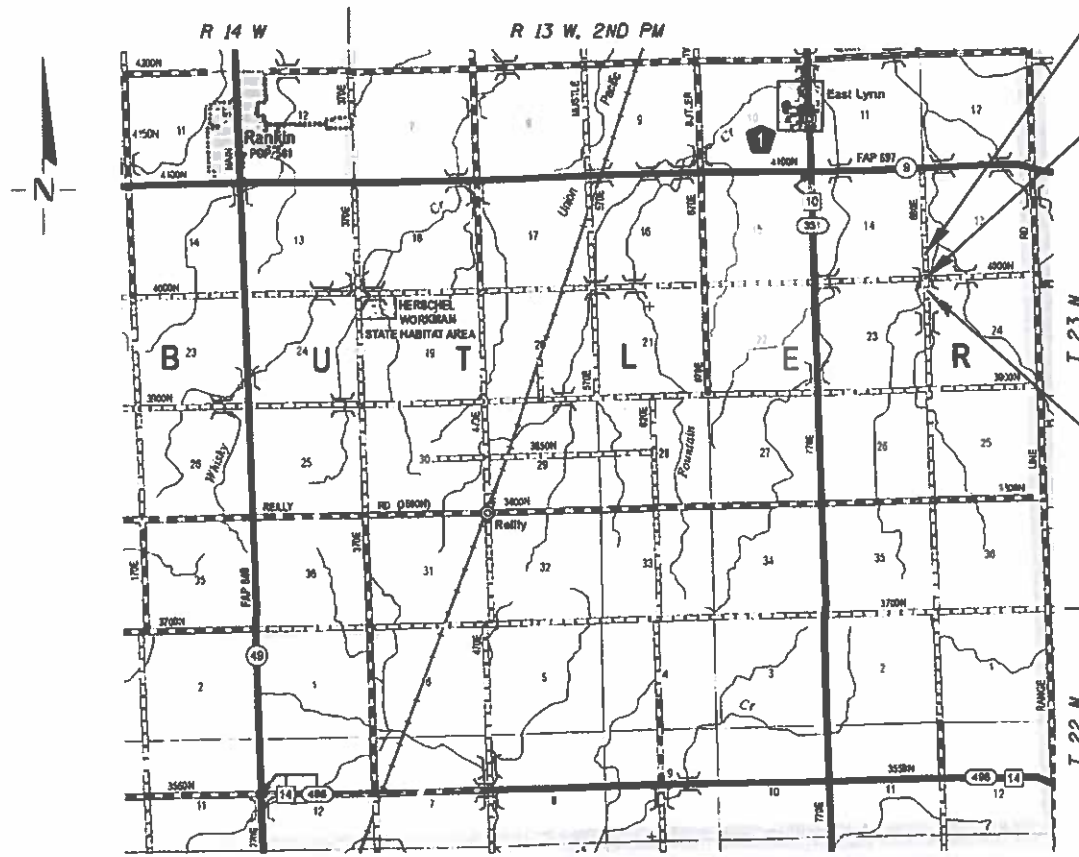
UTILITY TYPE:
ELECTRIC
EASTERN ILLINI ELECTRIC COOP
(217) 379-2131 EX: 173
ATTN: BRAD SMITH

UTILITY TYPE:
TELEPHONE
FRONTIER COMMUNICATIONS
(815) 895-1515
ATTN: KALIN HINSHAW



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

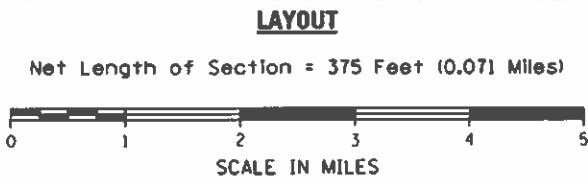


END IMPROVEMENT
STA 212+00.00

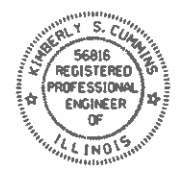
STA 210+08.00
PROPOSED SINGLE SPAN PRECAST
PRESTRESSED CONCRETE DECK BEAM
BRIDGE ON SPILL-THRU ABUTMENTS
ONE SPAN AT 47'-9 1/2"
50'-7 5/8 BK TO BK ABUTMENTS
30'-0" FC-FC RAILS, 15° SKEW RT FWD

PROPOSED SN 092-3541
REPLACES
EXISTING SN 092-3036

BEGIN IMPROVEMENT
STA 208+25.00



FUNCTIONAL CLASSIFICATION : LOCAL ROAD
DESIGN SPEED 30 MPH
CURRENT ADT= 50 (2019)



Kimberly S. Cummins 9/30/22
ILLINOIS PROFESSIONAL NO. 56816
(Expires 11/30/23)

APPROVED 10/3 2022
Adam L. Anewell
VERMILION COUNTY ENGINEER

PASSED OCT 03 2022
Mauro Reemle
ROAD DISTRICT COMMISSIONER

PASSED 10/4/22 2023
[Signature]
DISTRICT FIVE ENGINEER OF LOCAL ROAD AND TRAIL

RELEASED FOR BID BASED ON LIMITED REVIEW
5/8 2023
Yenial A. Darnettson
REGION THREE ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

SHEET NO.	TITLE
1	COVER SHEET
2	INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES AND ENTRANCE DETAILS
3	SUMMARY OF QUANTITIES
4-5	TYPICAL SECTIONS
6	SCHEDULE OF QUANTITIES
7	ALIGNMENT, BENCHMARKS, AND CROSS TIES
8-9	PLAN AND PROFILE
10-18	BRIDGE PLANS
19-29	CROSS SECTIONS

LIST OF ILLINOIS DOT HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
515001-04	NAME PLATE FOR BRIDGES
701901-08	TRAFFIC CONTROL DEVICES
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

GENERAL NOTES

- WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE ANY SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR, OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
- THE AREA TO BE SEEDDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT OF WAY AS DIRECTED BY THE ENGINEER.

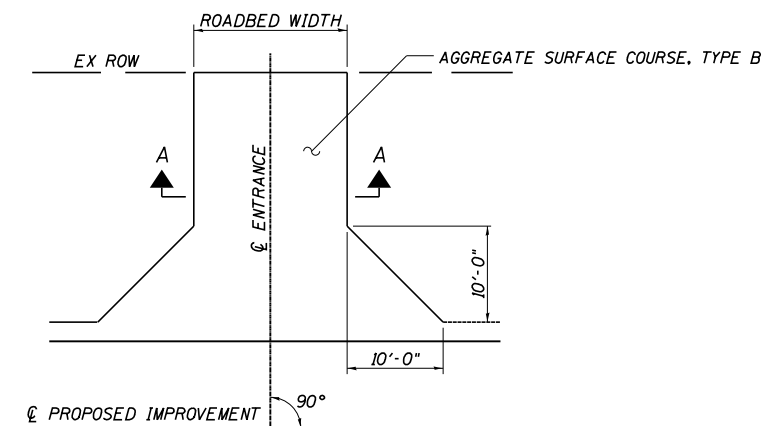
SEEDING CLASS 2 (SPECIAL) = 0.25 ACRES
- ALL ELEVATIONS SHOWN ON THE PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATION AND THE BEST INFORMATION AVAILABLE, BUT ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE UTILITY COMPANIES, MUNICIPALITIES, AND FIELD INSPECTION. SEE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRS TO ANY UTILITY LINES AND EXISTING IMPROVEMENTS TO REMAIN THAT ARE DAMAGED AS A RESULT OF THE WORK.
- LAYOUT OF EROSION CONTROL ITEMS MAY BE VARIED IN THE FIELD TO SUIT GROUND CONDITIONS AS DIRECTED BY THE ENGINEER.
- BEFORE ORDERING PIPE CULVERTS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR THE EXACT PIPE LENGTHS.

APPLICATION RATES USED IN QUANTITY CALCULATIONS

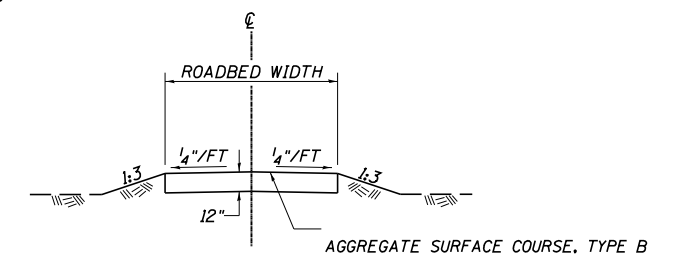
GRANULAR MATERIALS	1.8 TON /CU YD
RIPRAP	1.75 TON /CU YD
TEMPORARY EROSION CONTROL SEEDING	100 LBS /ACRE
NITROGEN FERTILIZER NUTRIENT	90 LBS /ACRE
PHOSPHORUS FERTILIZER NUTRIENT	90 LBS /ACRE
POTASSIUM FERTILIZER NUTRIENT	90 LBS /ACRE

COMMITMENTS

NONE



FIELD ENTRANCE DETAIL



SECTION A-A

ENTRANCES TO BE CONSTRUCTED
 TR 13 (880E) - LT STA 209+60.00 - 15'W X 13'L
 TR 13 (4000N) - RT STA 105+53.20 - 24'W X 20'L

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
20200100	EARTH EXCAVATION	CU YD	548
20300100	CHANNEL EXCAVATION	CU YD	33
25000200	SEEDING, CLASS 2	ACRE	0.25
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	25
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	25
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	25
25100115	MULCH, METHOD 2	ACRE	0.25
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	25
28000400	PERIMETER EROSION BARRIER	FOOT	463
28000500	INLET AND PIPE PROTECTION	EACH	5
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	987
48101200	AGGREGATE SHOULDERS, TYPE B	TON	29
* 50100200	REMOVAL OF EXISTING STRUCTURES	L SUM	1
50105220	PIPE CULVERT REMOVAL	FOOT	164
50200100	STRUCTURE EXCAVATION	CU YD	95
50300225	CONCRETE STRUCTURES	CU YD	27.3
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	1,470

* SEE SPECIAL PROVISIONS

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	3,900
# 50900205	STEEL RAILING, TYPE S1	FOOT	98
51201600	FURNISHING STEEL PILES, HP 12X53	FOOT	360
51202305	DRIVING PILES	FOOT	360
51203600	TEST PILE STEEL HP 12X53	EACH	2
51500100	NAME PLATES	EACH	1
* 542D1060	PIPE CULVERTS, CLASS D, TYPE 2 15"	FOOT	166
* 542D1063	PIPE CULVERTS, CLASS D, TYPE 2 18"	FOOT	124
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	38.7
66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	2
67100100	MOBILIZATION	L SUM	1
* X2810208	STONE RIPRAP, CLASS A4 (SPECIAL)	TON	252
* X7011800	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1
* XX004566	CONCRETE CUT-OFF WALL	CU YD	7.3
* Z0013798	CONSTRUCTION LAYOUT	L SUM	1

* SEE SPECIAL PROVISIONS

#SPECIALTY ITEMS



JOB = 2707
 FILE NAME = 2707-sht-S00.dgn
 PLOT SCALE = 0.2500' / in.
 PLOT DATE = 5/3/2023

DESIGNED - CGF
 DRAWN - SJS
 CHECKED - AAN
 DATE - 8/11/2022

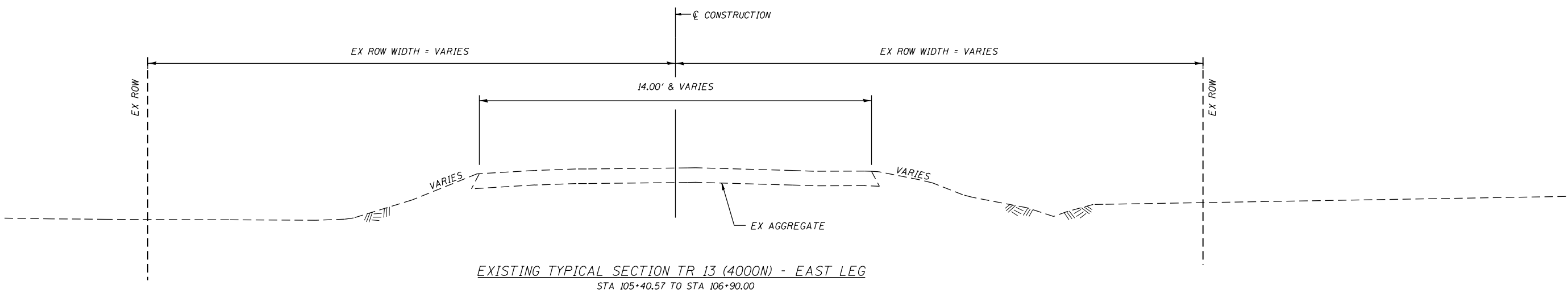
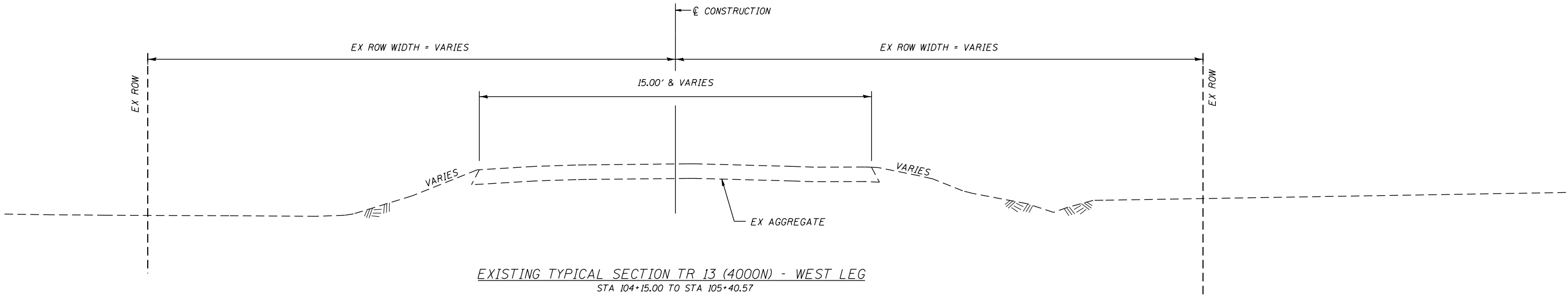
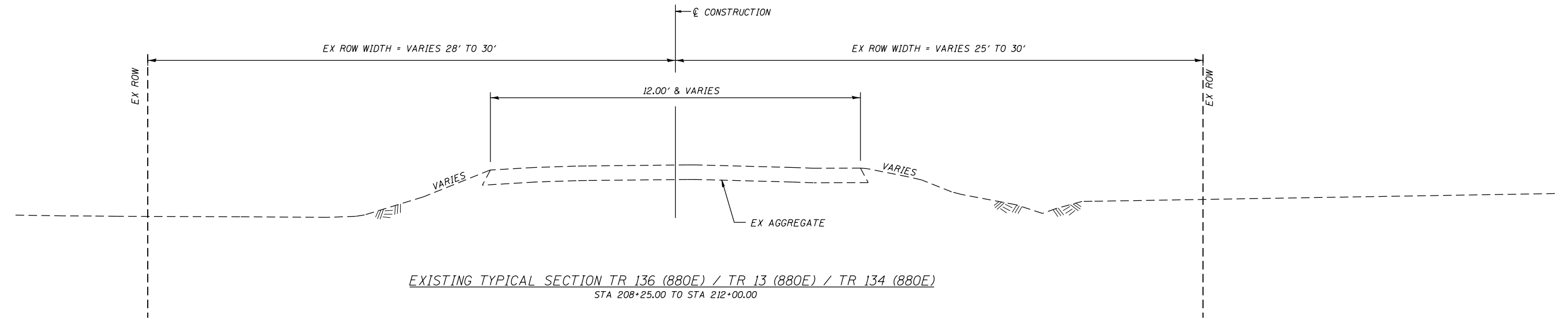
REVISED - TSH
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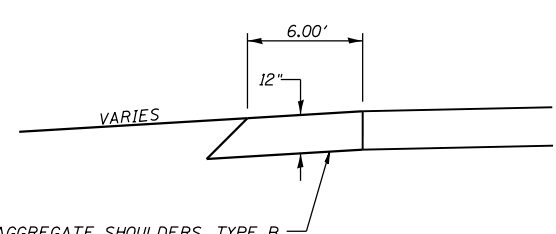
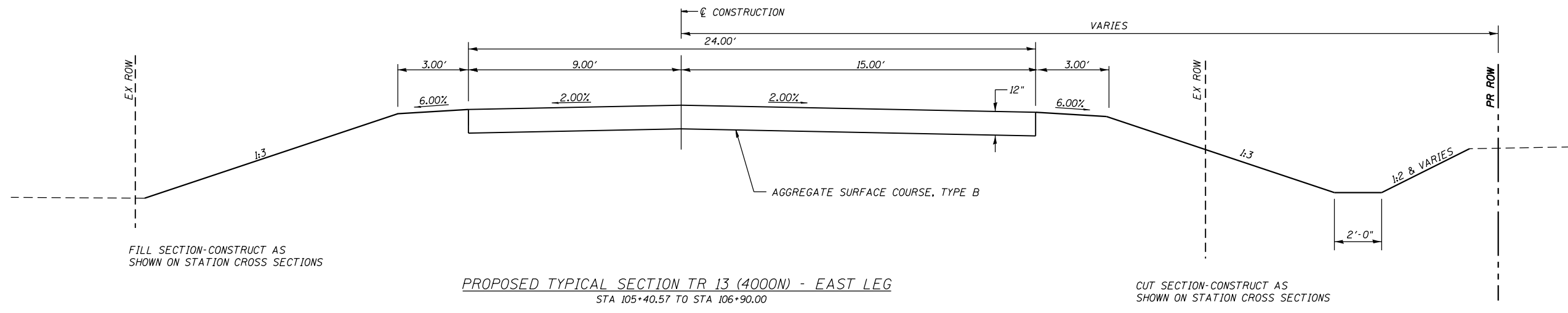
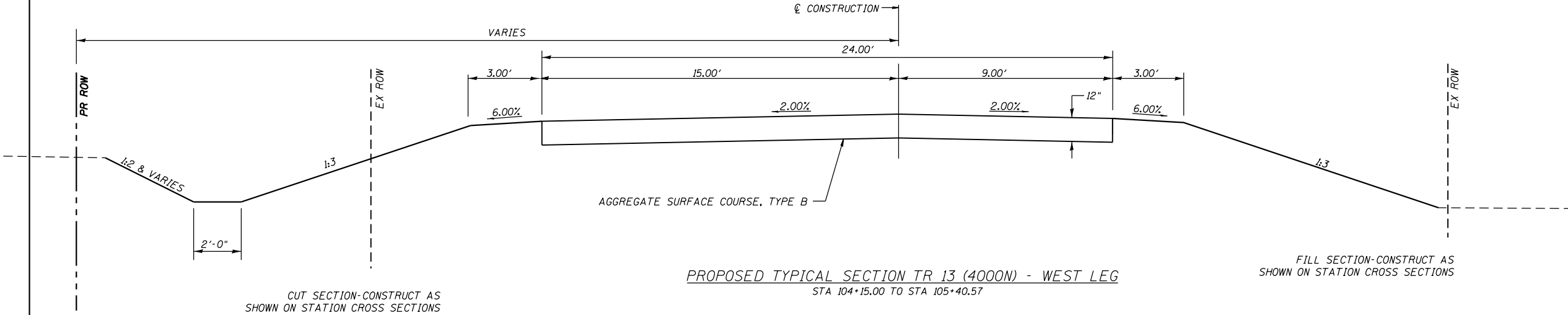
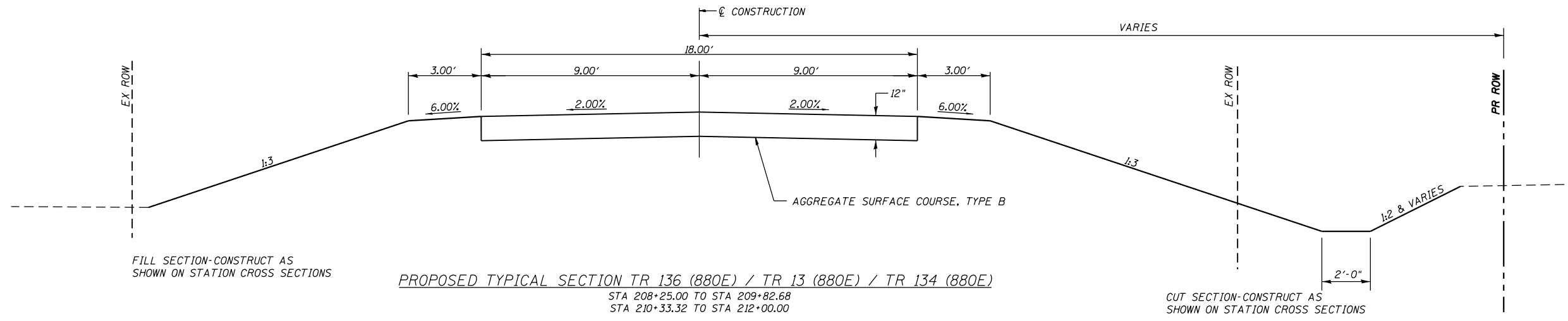
**VERMILION COUNTY
 BUTLER ROAD DISTRICT
 TR 13 (4000N & 880E) IMPROVEMENTS**

SUMMARY OF QUANTITIES

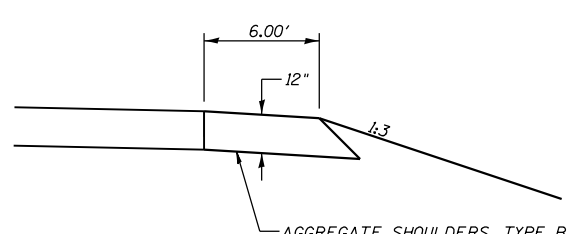
SCALE: SHEET NO. OF SHEETS STA. TO STA.

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	18-02155-00-BR	VERMILION	29	3
CONTRACT NO. 91617				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				





AGGREGATE SHOULDERS DETAIL
 TR 136 (880E) / TR 13 (880E) / TR 134 (880E)
 LT STA 209+30.52 TO STA 209+80.27



AGGREGATE SHOULDERS DETAIL
 TR 136 (880E) / TR 13 (880E) / TR 134 (880E)
 RT STA 210+35.73 TO STA 210+74.34

OMISSIONS
 BRIDGE
 STA 209+82.68 TO STA 210+33.32

NOTE:
 TRANSITION FROM EXISTING ROADWAY TO PROPOSED AS FOLLOWS:
 STA 208+25.00 TO STA 208+50.00
 STA 211+75.00 TO STA 212+00.00
 STA 104+15.00 TO STA 104+54.63
 STA 106+40.00 TO STA 106+90.00

EARTHWORK

LOCATION	20200100 EARTH EXCAVATION (with roadway)	EARTH EXCAVATION (no roadway)	EXCAVATION ADJUSTED FOR SHRINKAGE (no roadway)	EMBANKMENT (no roadway)	FURNISHED EXCAVATION EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
TR 136 (880E) / TR 13 (880E) / TR 134 (880E)					
STA 208+25.00 TO STA 209+82.68	183	105 (1)	80	15	65
STA 210+33.32 TO STA 212+00.00	192	90 (1)	70	40	30
TR 13 (4000N) - WEST LEG					
STA 104+15.00 TO STA 105+10.00	104	85 (1)	65	45	20
TR 13 (4000N) - EAST LEG					
STA 105+49.99 TO STA 106+90.00	70	80 (1)	60	35	25
TOTAL	548	360 (1)	275	135	140
CHANNEL EXCAVATION		33 (2)	0	0	0
TOTAL	548	360	275	135	140

(1) SHRINKAGE = 25%

(2) ASSUMES EXCAVATED MATERIAL IS NOT SUITABLE FOR EMBANKMENT

NOTES:

ALL EXCAVATED MATERIAL OUTSIDE OF THE ROADWAY SHALL BE WASTED WITHIN THE PROJECT LIMITS.

ALL EXCAVATED MATERIAL WITHIN THE EXISTING ROADWAY IS DEEMED NOT REUSABLE WITHIN THE PROJECT LIMITS AND SHALL BE DISPOSED OF BY THE CONTRACTOR.

28000500 INLET AND PIPE PROTECTION

LOCATION	EACH
TR 136 (880E) / TR 13 (880E) / TR 134 (880E)	
F.E. LT STA 209+60.00	1
TR 13 (4000N) - WEST LEG	
STA 104+72.60 (CROSSROAD)	1
TR 13 (4000N) - EAST LEG	
F.E. RT STA 105+53.20	1
STA 105+94.50 (CROSSROAD)	1
STA 106+68.00 (CROSSROAD)	1
TOTAL	5

28000250 TEMPORARY EROSION CONTROL SEEDING

LOCATION	POUND
TR 136 (880E) / TR 13 (880E) / TR 134 (880E) / TR 13 (4000N)	
LT STA 208+25.00 TO STA 212+00.00	14
RT STA 208+25.00 TO STA 212+00.00	11
TOTAL	25

28000400 PERIMETER EROSION BARRIER

LOCATION	FOOT
TR 136 (880E) / TR 13 (880E) / TR 134 (880E) / TR 13 (4000N)	
LT STA 208+25.00 TO STA 209+52.00	127
RT STA 210+40.00 TO STA 212+00.00	163
TR 13 (4000N) - WEST LEG	
RT STA 104+15.00 TO STA 104+72.00	65
TR 13 (4000N) - EAST LEG	
LT STA 105+92.00 TO STA 106+90.00	108
TOTAL	463

40200800 AGGREGATE SURFACE COURSE, TYPE B

LOCATION	TON
TR 136 (880E) / TR 13 (880E) / TR 134 (880E)	
STA 208+25.00 TO STA 209+82.68	184
F.E. LT STA 209+60.00	20
STA 210+33.32 TO STA 212+00.00	196
TR 13 (4000N) - WEST LEG	
STA 104+15.00 TO STA 105+31.03	251
TR 13 (4000N) - EAST LEG	
STA 105+49.99 TO STA 106+90.00	295
F.E. RT STA 105+53.20	41
TOTAL	987

48101200 AGGREGATE SHOULDERS, TYPE B

LOCATION	WIDTH	TON
LT STA 209+30.52 TO STA 209+42.52	0' - 6'	2
LT STA 209+42.52 TO STA 209+80.27	6'	15
RT STA 210+35.73 TO STA 210+62.34	6'	10
RT STA 210+62.34 TO STA 210+74.34	0' - 6'	2
TOTAL		29

50105220 PIPE CULVERT REMOVAL

LOCATION	SIZE	FOOT
TR 136 (880E) / TR 13 (880E) / TR 134 (880E)		
F.E. LT STA 209+60.00	15" CMP	41
TR 13 (4000N) - WEST LEG		
STA 104+79.93 (CROSSROAD)	18" CMP	57
TR 13 (4000N) - EAST LEG		
F.E. RT STA 105+53.20	12" CMP	31
STA 106+08.02 (CROSSROAD)	12" CMP	35
TOTAL		164

SEEDING

LOCATION	25000200	25100115	25000400	25000500	25000600
	SEEDING, CLASS 2 ACRE	MULCH, METHOD 2 ACRE	NITROGEN FERTILIZER NUTRIENT POUND	PHOSPHORUS FERTILIZER NUTRIENT POUND	POTASSIUM FERTILIZER NUTRIENT POUND
TR 136 (880E) / TR 13 (880E) / TR 134 (880E) / TR 13 (4000N)					
LT STA 208+25.00 TO STA 212+00.00	0.14	0.14	13	13	13
RT STA 208+25.00 TO STA 212+00.00	0.11	0.11	10	10	10
TOTAL	0.25	0.25	23	23	23
USE	0.25	0.25	25	25	25

66600105 FURNISHING AND ERECTING RIGHT OF WAY MARKERS

LOCATION	EACH
TR 13 (4000N) - WEST LEG	
25.08' LT STA 104+15.00	1
57.81' LT STA 105+10.00	1
TOTAL	2

542D1060 PIPE CULVERTS, CLASS D, TYPE 2 15"

LOCATION	FOOT
TR 136 (880E) / TR 13 (880E) / TR 134 (880E)	
F.E. LT STA 209+60.00	50
TR 13 (4000N) - EAST LEG	
F.E. RT STA 105+53.20	44
STA 106+68.00 (CROSSROAD)	72
TOTAL	166

542D1063 PIPE CULVERTS, CLASS D, TYPE 2 18"

LOCATION	FOOT
TR 13 (4000N) - WEST LEG (CROSSROAD)	
STA 104+72.60	74
TR 13 (4000N) - EAST LEG (CROSSROAD)	
STA 105+94.50	50
TOTAL	124

X2810208 STONE RIPRAP, CLASS A4 (SPECIAL)

LOCATION	TON
TR 13 (4000N) - EAST LEG	
LT STA 106+00.00	21
RT STA 105+94.50	21
TOTAL	42 *

* FOR ADDITIONAL QUANTITY, SEE STRUCTURE PLANS.



JOB = 2707	DESIGNED - CGF	REVISED - TSH
FILE NAME = 2707-sht-sched.dgn	DRAWN - SJS	REVISED -
PLOT SCALE = 2.0000' / in.	CHECKED - KSC	REVISED -
PLOT DATE = 5/3/2023	DATE - 5/2/2023	REVISED -

**VERMILION COUNTY
BUTLER ROAD DISTRICT
TR 13 (4000N & 880E) IMPROVEMENTS**

SCHEDULE OF QUANTITIES

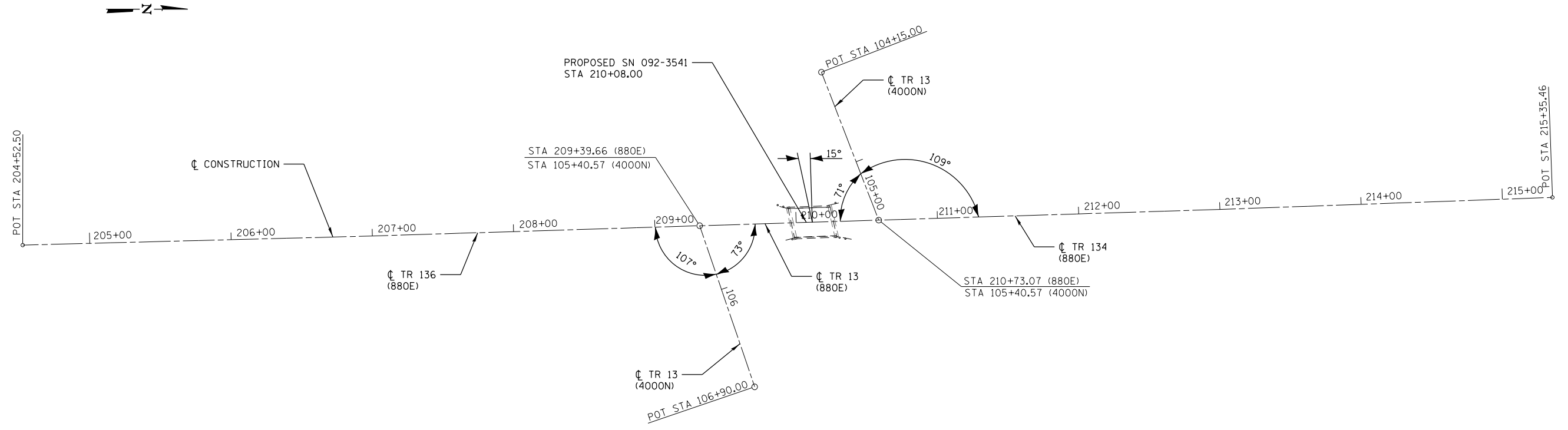
SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.
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T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	18-02155-00-BR	VERMILION	29	6
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

CONTRACT NO. 91617

SEC 23, T23N, R13W, 2ND PM

SEC 14, T23N, R13W, 2ND PM

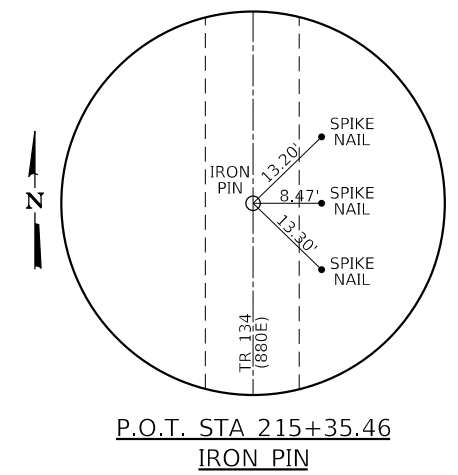
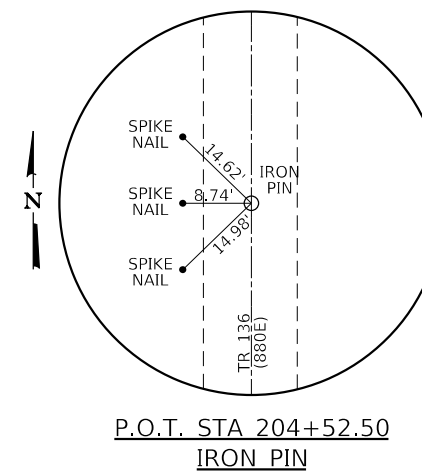


SEC 24, T23N, R13W, 2ND PM

SEC 13, T23N, R13W, 2ND PM

- BM*1 - SPIKE NAIL IN POWER POLE
STA. 208+64.1, 21.5' RT
ELEV. 710.02
- BM*2 - CHISELED "C" ON SW BRIDGE CURB
STA. 209+94.5, 10.9' LT
ELEV. 709.79
- BM*3 - MAG NAIL IN CROSSROAD CULVERT
UNDER 4000N GOING WEST
STA. 209+75.1/ 306.0' LT
ELEV. 706.87

CENTERLINE CONSTRUCTION			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
P.O.T.	204+52.50	1375766.60	1138057.00
P.O.T.	209+39.66	1376253.55	1138043.06
P.O.T.	210+73.07	1376386.90	1138038.88
P.O.T.	215+35.46	1376849.02	1138023.26



**VERMILION COUNTY
BUTLER ROAD DISTRICT
TR 13 (400N & 880E) IMPROVEMENTS**

ALIGNMENT, BENCHMARKS, AND CROSS TIES

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	18-02155-00-BR	VERMILION	29	7
CONTRACT NO. 91617				

SCALE: SHEET OF SHEETS STA. TO STA.

ILLINOIS FED. AID PROJECT

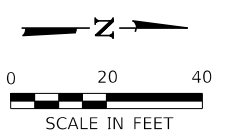
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CEC Cummins
Engineering
Corporation
Civil and Structural Engineering

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FILE NAME = 2707-shl-all.dgn
PLOT SCALE = 100,0000' / in.
PLOT DATE = 9/12/2022

DESIGNED - CGF
DRAWN - SJS
CHECKED - AAN
DATE - 8/11/2022

REVISED -
REVISED -
REVISED -
REVISED -



SEC 23, T23N, R13W, 2ND PM

02-23-200-004
SUMMIT AG FUND III LLP
CROPS

PROPOSED STRUCTURE NO. 092-3541
STA 210+08.00
PRECAST PRESTRESSED CONCRETE DECK
BEAM BRIDGE ON SPILL-THRU ABUTMENTS,
ONE SPAN AT 47'-9 1/2"
50'-7 3/4" BK-BK ABUTMENTS
30' ROADWAY FC-FC RAILS
SKEW = 15° RT FWD

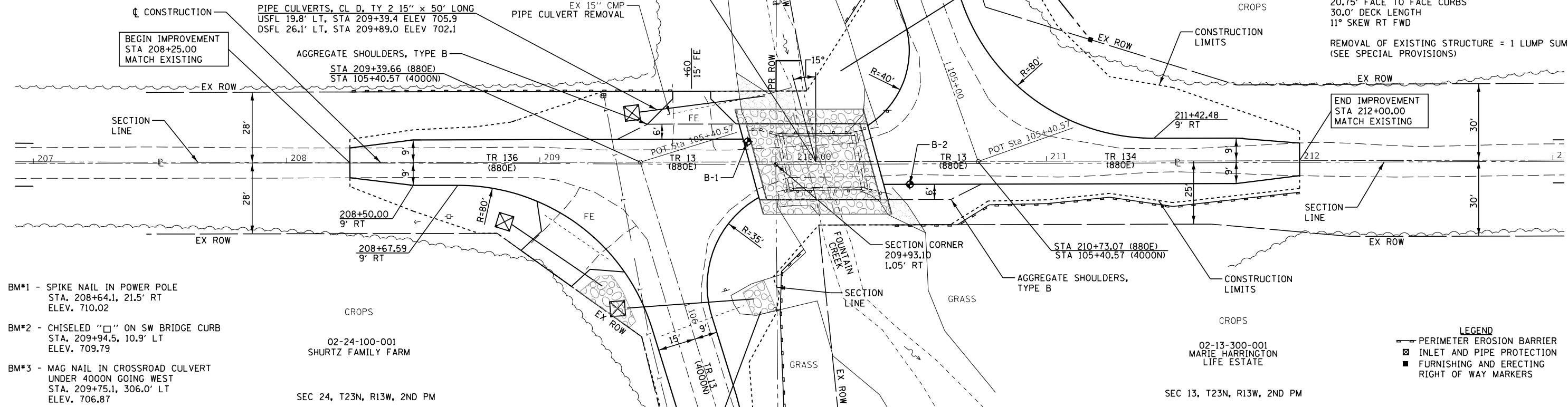
SEC 14, T23N, R13W, 2ND PM

02-14-400-004
JENNIE R STIPP TRUST
CROPS

EXISTING STRUCTURE NO. 092-3036
STA 210+11.50
SINGLE SPAN CONCRETE PRECAST CHANNEL BEAM
BRIDGE ON CLOSED CONCRETE PILE BENT ABUTMENTS,
TIMBER PLANK BACKING AND TIMBER PILE
WINGWALLS.
22.4' OUT TO OUT DECK
20.75' FACE TO FACE CURBS
30.0' DECK LENGTH
11° SKEW RT FWD

REMOVAL OF EXISTING STRUCTURE = 1 LUMP SUM
(SEE SPECIAL PROVISIONS)

DATE	
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	



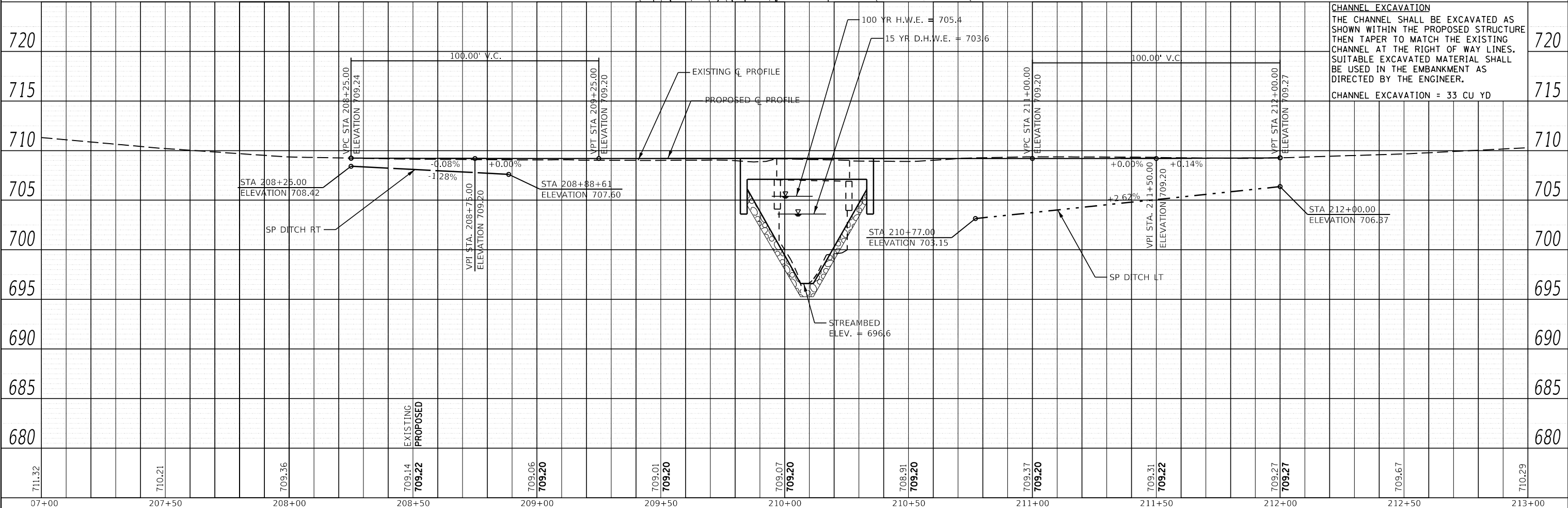
- BM#1 - SPIKE NAIL IN POWER POLE
STA. 208+64.1, 21.5' RT
ELEV. 710.02
- BM#2 - CHISELED "□" ON SW BRIDGE CURB
STA. 209+94.5, 10.9' LT
ELEV. 709.79
- BM#3 - MAG NAIL IN CROSSROAD CULVERT
UNDER 4000N GOING WEST
STA. 209+75.1, 306.0' LT
ELEV. 706.87

02-24-100-001
SHURTZ FAMILY FARM

02-13-300-001
MARIE HARRINGTON
LIFE ESTATE

- LEGEND
- PERIMETER EROSION BARRIER
 - ☒ INLET AND PIPE PROTECTION
 - FURNISHING AND ERECTING
 - RIGHT OF WAY MARKERS

DATE	
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	



CHANNEL EXCAVATION
THE CHANNEL SHALL BE EXCAVATED AS
SHOWN WITHIN THE PROPOSED STRUCTURE
THEN TAPER TO MATCH THE EXISTING
CHANNEL AT THE RIGHT OF WAY LINES.
SUITABLE EXCAVATED MATERIAL SHALL
BE USED IN THE EMBANKMENT AS
DIRECTED BY THE ENGINEER.
CHANNEL EXCAVATION = 33 CU YD

711.32	710.21	709.36	709.14 709.22	709.06 709.20	709.01 709.20	709.07 709.20	708.91 709.20	709.37 709.20	709.31 709.22	709.27 709.27	709.67	710.29
07+00	207+50	208+00	208+50	209+00	209+50	210+00	210+50	211+00	211+50	212+00	212+50	213+00

CEC Cummins
Engineering
Corporation
Civil and Structural Engineering

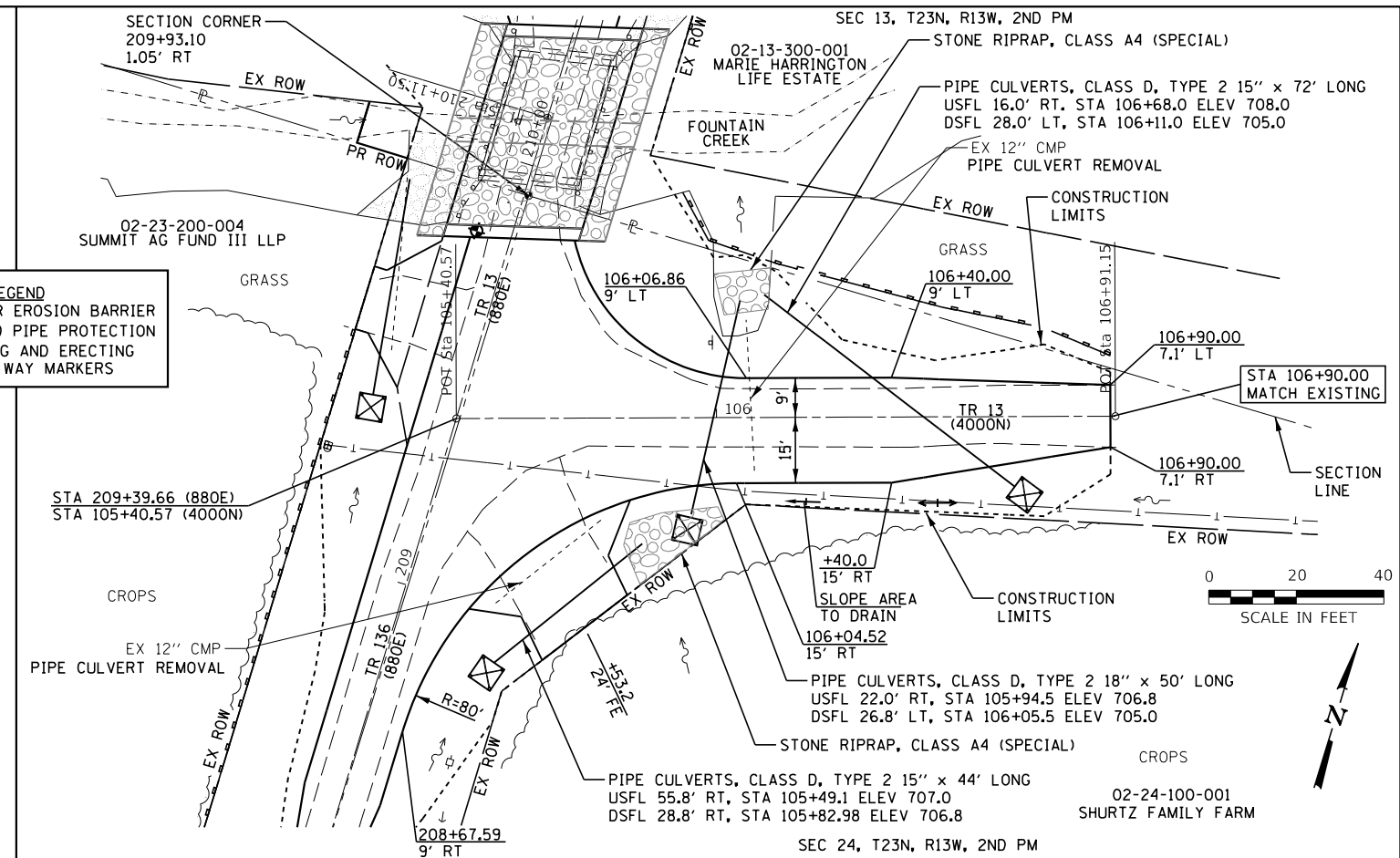
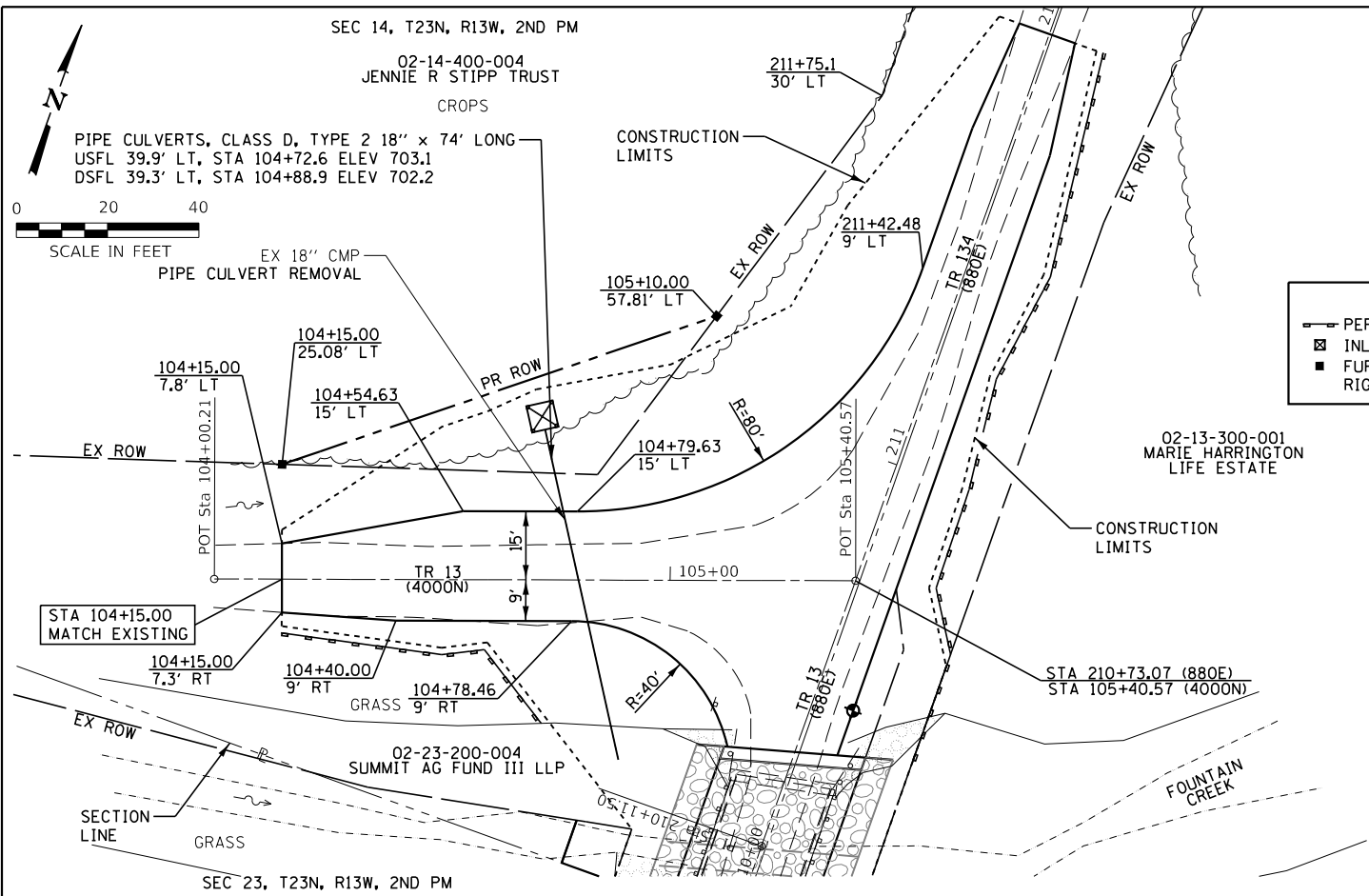
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PLOT SCALE = 40,000' / in.
PLOT DATE = 5/3/2023

DESIGNED - CGF	REVISED - TSH
DRAWN - SJS	REVISED -
CHECKED - AAN	REVISED -
DATE - 4/27/2023	REVISED -

VERMILION COUNTY
BUTLER ROAD DISTRICT
TR 13 (4000 N & 880E) IMPROVEMENTS

PLAN AND PROFILE
SCALE: 1" = 40'
SHEET OF SHEETS STA. TO STA.

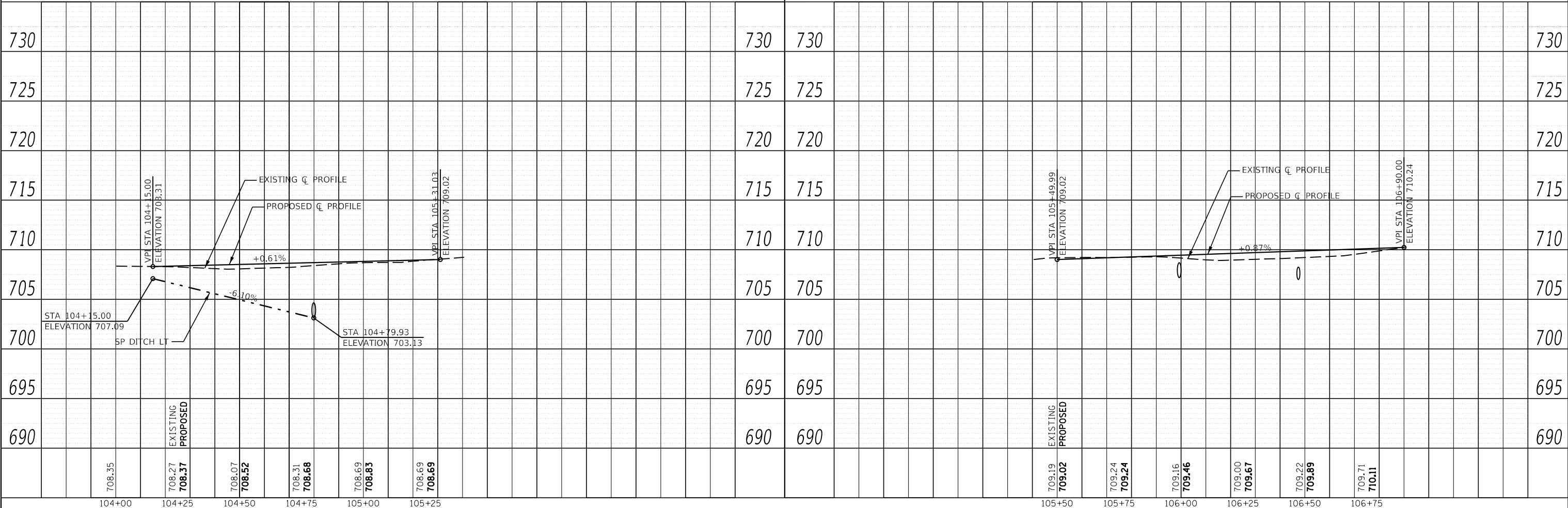
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13	18-02155-00-BR	VERMILION	29	8
CONTRACT NO. 91617				
ILLINOIS FED. AID PROJECT				



LEGEND
 - PERIMETER EROSION BARRIER
 ■ INLET AND PIPE PROTECTION
 ■ FURNISHING AND ERECTING
 ■ RIGHT OF WAY MARKERS

DATE	
BY	
NO.	
DATE	
BY	
NO.	
DATE	
BY	
NO.	

DATE	
BY	
NO.	
DATE	
BY	
NO.	
DATE	
BY	
NO.	



708.35	708.27 708.37	708.07 708.52	708.31 708.68	708.69 708.83	708.69 708.69	709.19 709.02	709.24 709.24	709.16 709.46	709.00 709.67	709.22 709.89	709.71 710.11	710.24
104+00	104+25	104+50	104+75	105+00	105+25	105+50	105+75	106+00	106+25	106+50	106+75	

**VERMILION COUNTY
 BUTLER ROAD DISTRICT
 TR 13 (4000 N & 880E) IMPROVEMENTS**

SCALE: 1"=40'	SHEET	OF	SHEETS	STA.	TO STA.
PLAN AND PROFILE					
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
13	18-02155-00-BR	VERMILION	29	9	
CONTRACT NO. 91617					
ILLINOIS FED. AID PROJECT					

CEC Cummins
 Engineering
 Corporation
 Civil and Structural Engineering

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 PLOT DATE = 5/3/2023

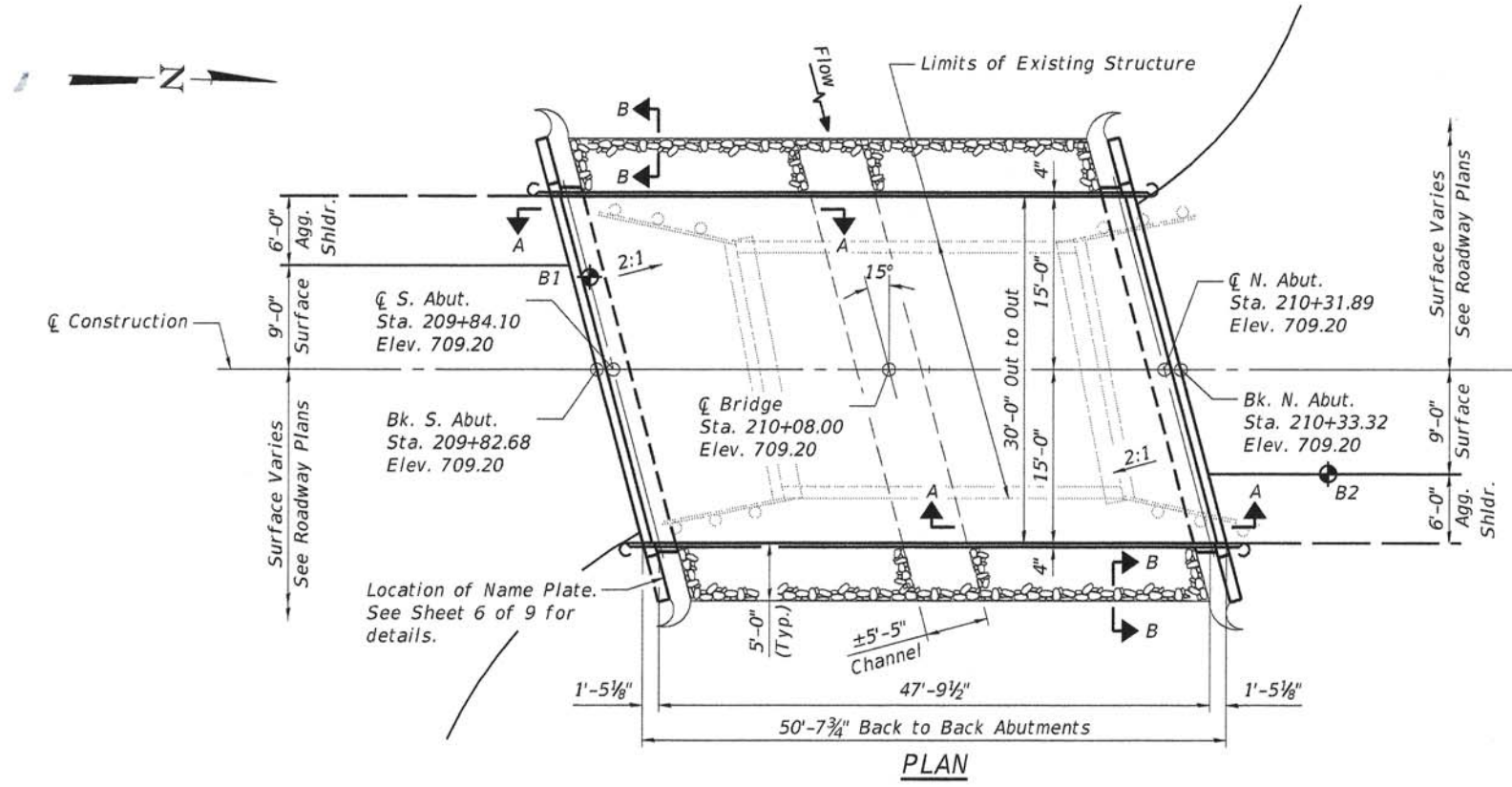
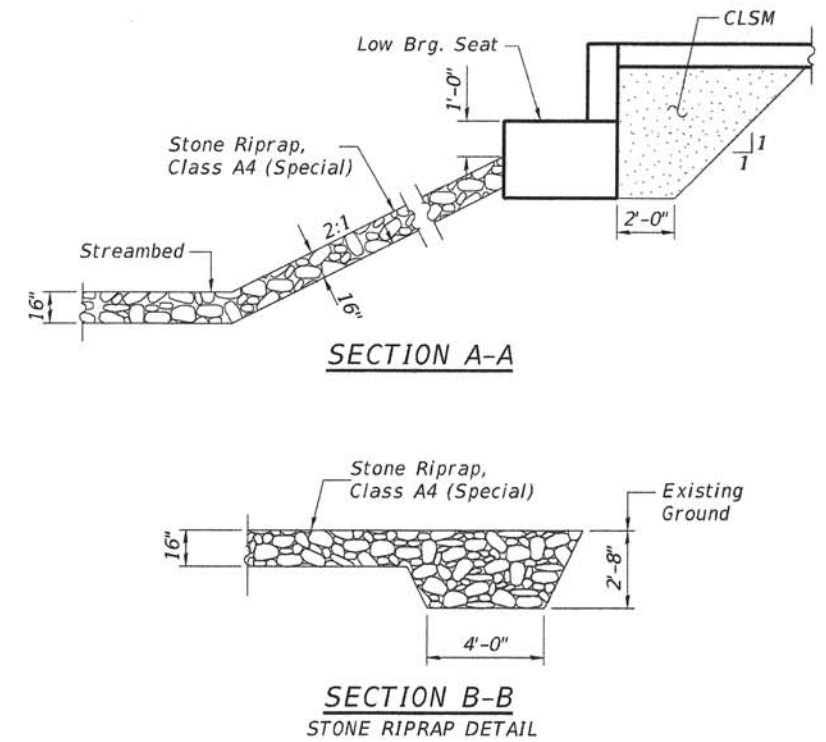
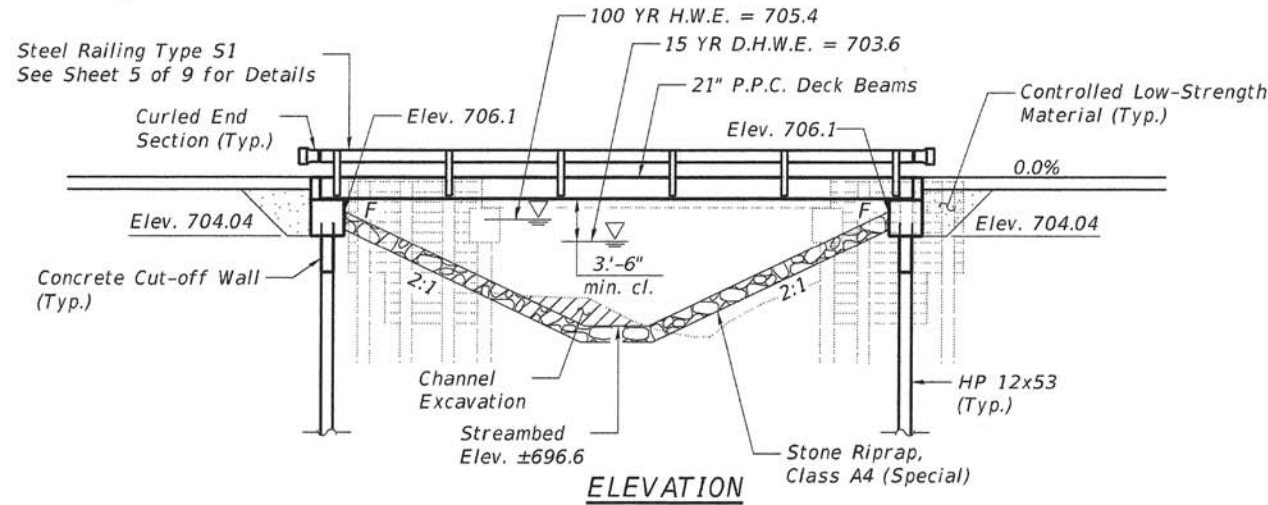
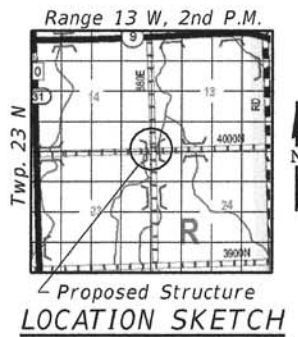
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DRAWN - SJS	REVISED -
CHECKED - AAN	REVISED -
DATE - 4/27/2023	REVISED -

MODEL: Default
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Benchmark: #2 Chiseled square on SW bridge curb, 10.9' LT, Sta. 209+94.5, Elev. 709.79

Existing Structure: S.N. 092-3036 is a single span precast channel beam bridge on closed concrete pile bent abutments with timber wingwalls. The existing structure is 22.4' 0.-0. deck and 20.75' Fc.-Fc. curbs.

No Salvage



GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

Controlled Low Strength Material shall be placed behind the abutments as shown from the bottom of the abutment cap to the top of the subgrade. This material shall be placed throughout the width of the abutment and shall be capped with earth at the ends of the excavation near the wingwalls.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4 (Special)	Ton		210	210
Structure Excavation	Cu. Yd.		95	95
Concrete Structures	Cu. Yd.		27.3	27.3
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1470		1470
Reinforcement Bars, Epoxy Coated	Pound		3900	3900
Steel Railing, Type S1	Foot	98		98
Furnishing Steel Piles, HP 12x53	Foot		360	360
Driving Piles	Foot		360	360
Test Pile Steel HP 12x53	Each		2	2
Name Plates	Each		1	1
Concrete Cut-off Wall	Cu. Yd.		7.3	7.3
Controlled Low-Strength Material	Cu. Yd.		38.7	38.7
Removal Of Existing Structures	L. Sum		1	1

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	N. Abut.	S. Abut.
	704.0	704.0

WATERWAY INFORMATION

Drainage Area	3.3 Sq. Mi.
Required Opening (15 Yr.)	140 Sq. Ft.
Existing Opening (15 Yr.)	138 Sq. Ft.
Approach Opening (15 Yr.)	0 Sq. Ft.
Proposed Opening (15 Yr.)	140 Sq. Ft.
Required Opening (100 Yr.)	210 Sq. Ft.
Existing Opening (100 Yr.)	186 Sq. Ft.
Approach Opening (100 Yr.)	0 Sq. Ft.
Proposed Opening (100 Yr.)	210 Sq. Ft.
Design Discharge (15 Yr.)	840 C.F.S.
Created Head (15 Yr.)	0.0 Ft.
100 Year Discharge	1370 C.F.S.
100 Yr. Created Head	0.3 Ft.

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specification, 9th Edition

LOADING HL-93

Allow 50#/Sq. Ft. for Future Wearing Surface

DESIGN STRESSES

FIELD UNITS (New Construction)
 f'c = 3,500 psi (Substructure)
 fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSES UNITS
 fc = 6,000 psi
 f'ci = 5,000 psi
 fpu = 270,000 psi (1/2" Ø low lax. strands)
 fpbt = 201,960 psi (1/2" Ø low lax. strands)
 fy = 60,000 psi (Reinforcement)

FOUNTAIN CREEK
 BUILT 20__ BY
 BUTLER ROAD DISTRICT
 VERMILION COUNTY
 SEC. 18-02155-00-BR
 STATION 210+08.00
 STR. NO. 092-3541 LOADING HL-93

NAME PLATE
 See Std. 515001

"I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current 'AASHTO Bridge Design Specifications'."

Michael D. Cummins 10-3-22
 ILLINOIS STRUCTURAL NO. 4822 (Expires 11/30/22)

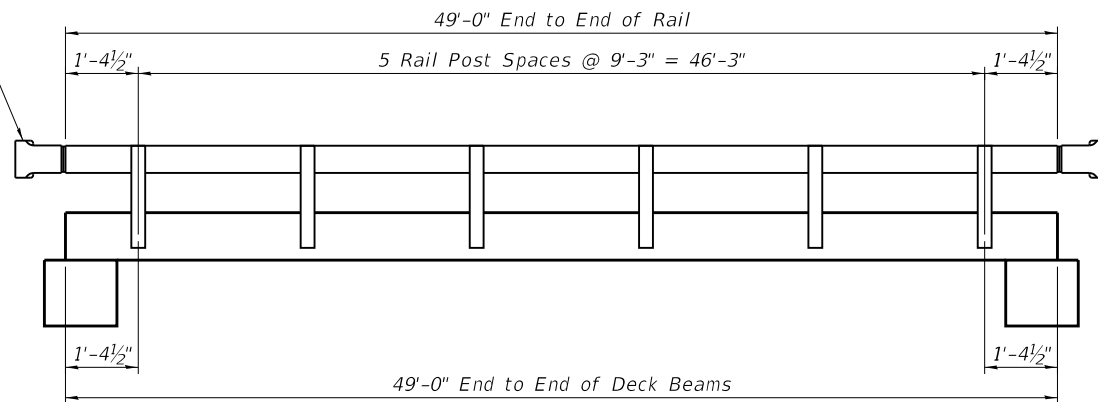


GENERAL PLAN AND ELEVATION
TR 13 OVER FOUNTAIN CREEK
SECTION 18-02155-00-BR
VERMILION COUNTY
STA 210+08.00
STRUCTURE NO. 092-3541

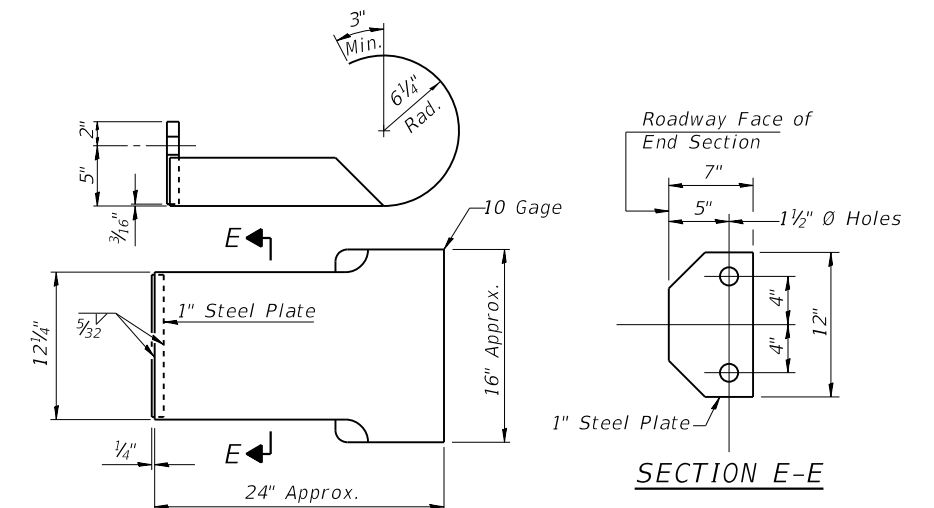
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	FILE NAME = 2707_01_GPE.dgn	CHECKED - MDC	REVISED -			13	18-02155-00-BR	VERMILION	29	10
	PLOT DATE = 10/3/2022	DRAWN - SJS	REVISED -					CONTRACT NO. 91617		
		CHECKED - MDC	REVISED -							

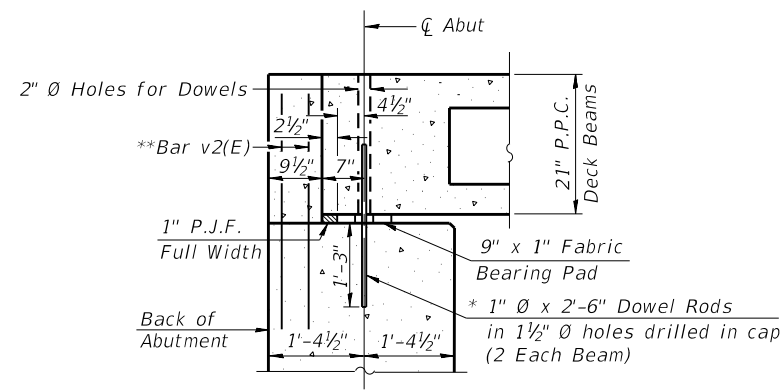
Curled End Section Typ.
(Cost Included in "Steel Railing, Type S1")



RAIL ELEVATION - STEEL RAILING, TYPE S1



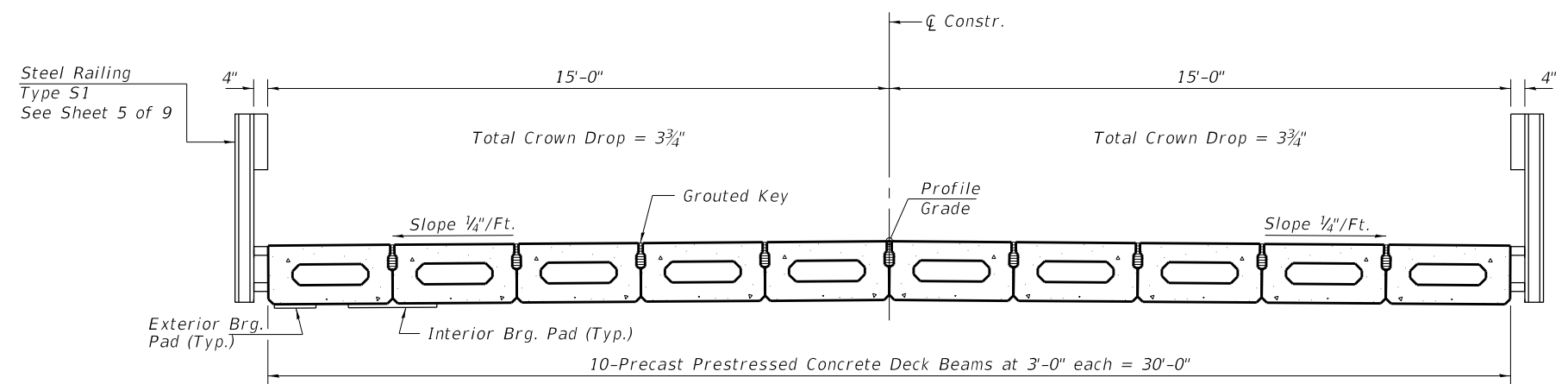
CURLED END SECTION DETAILS
(4 Required)



SECTION THRU ABUT.
(@ Rt. Δ's to Abut.)

* After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.

** See Sheet 6 of 9 for v2(E) bar



CROSS SECTION

Notes:
See Sheet 3 & 4 of 9 for Superstructure.
See Sheet 5 of 9 for Steel Railing, Type S1.

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Civil and Structural Engineering

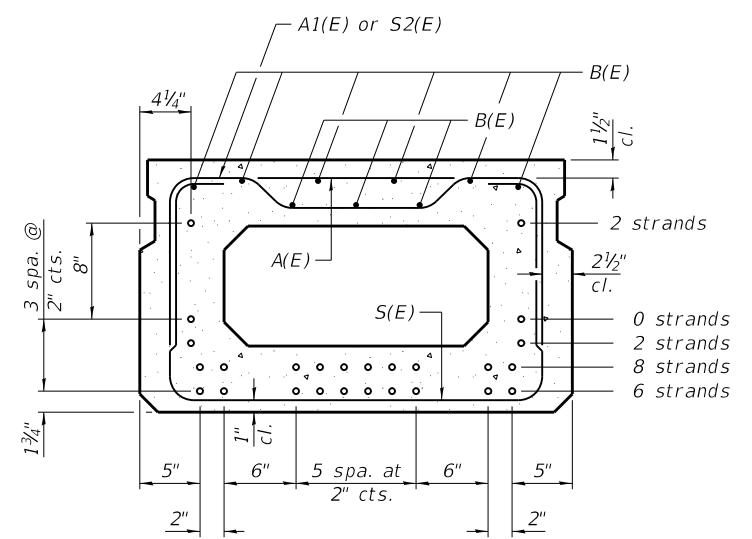
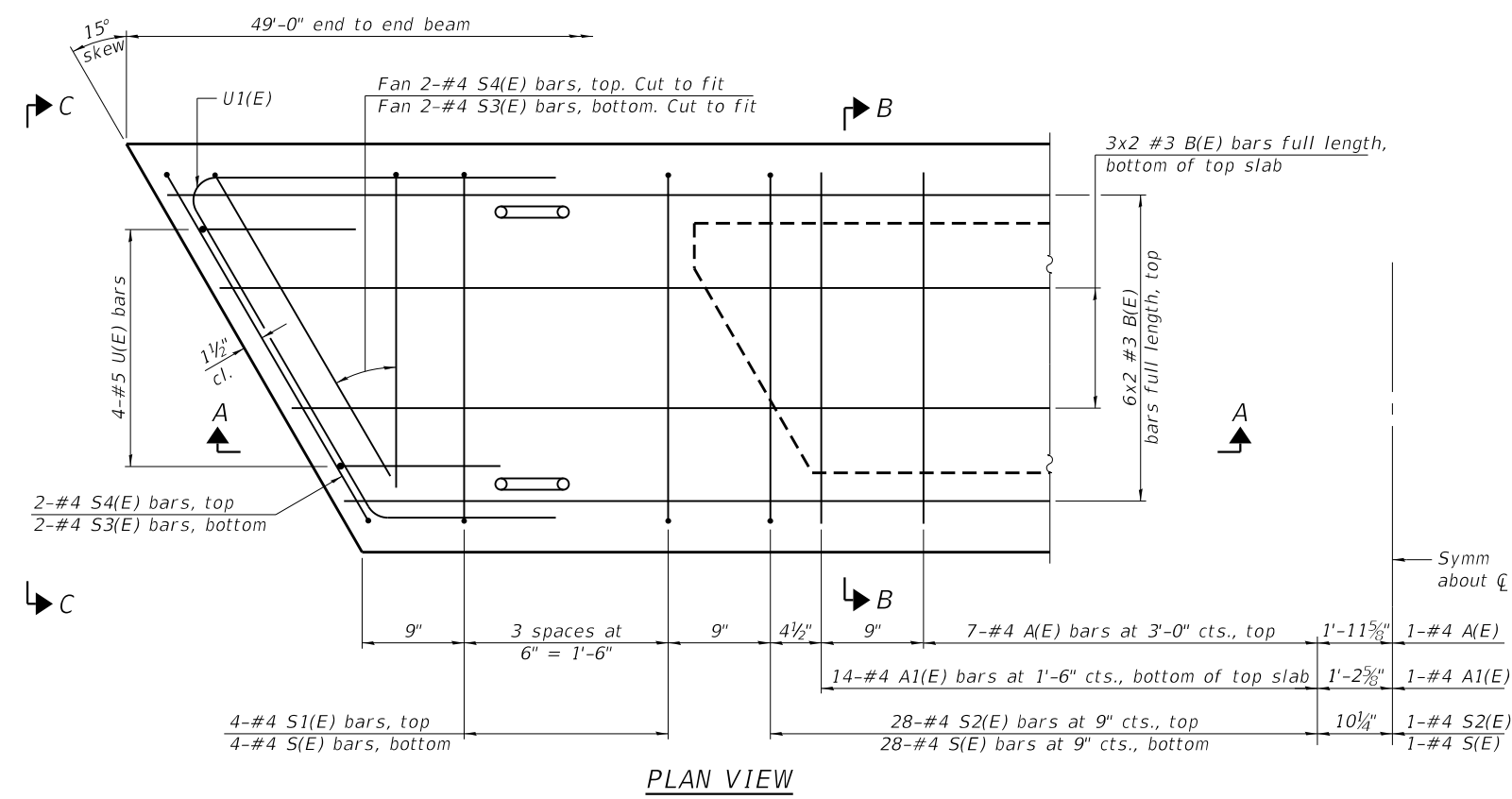
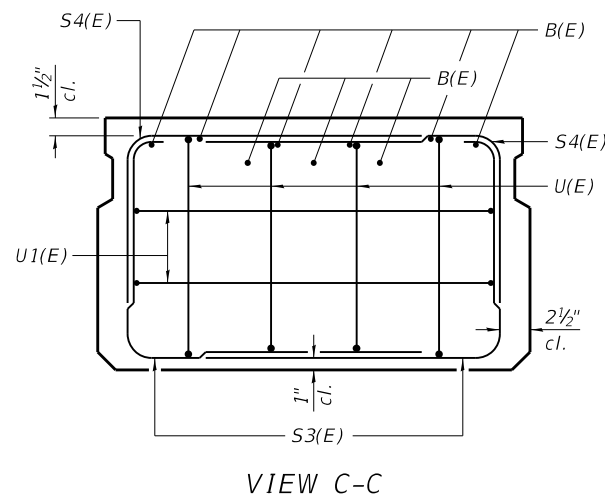
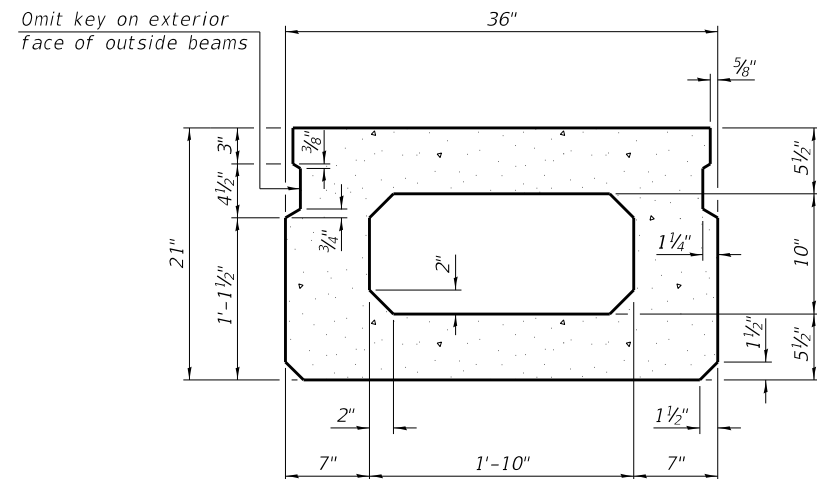
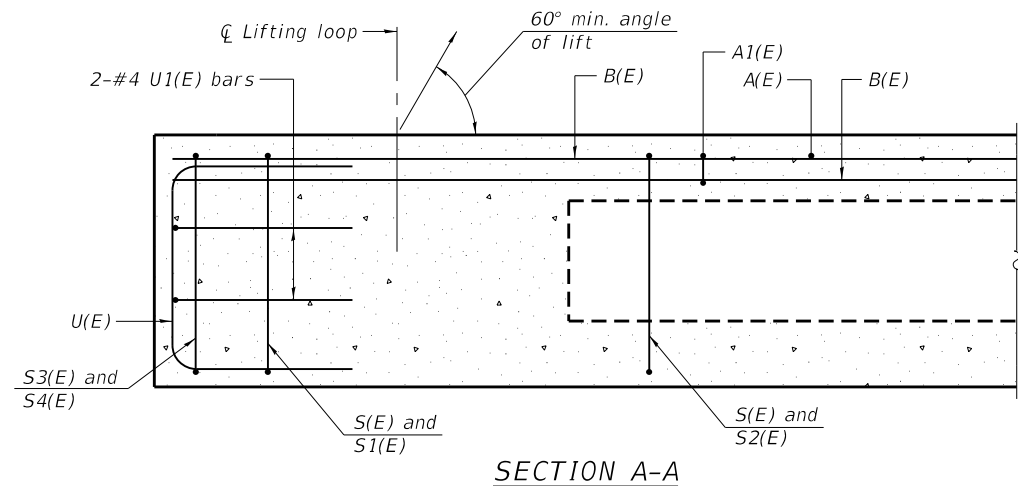
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PLOT DATE = 9/12/2022	DRAWN - SJS	REVISED -
	CHECKED - MDC	REVISED -

**VERMILION COUNTY
BUTLER ROAD DISTRICT
TR 13 (400N & 880E) IMPROVEMENTS**

**SUPERSTRUCTURE DETAILS
STRUCTURE NO. 092-3541**

SHEET 2 OF 9 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	18-02155-00-BR	VERMILION	29	11
CONTRACT NO. 91617				
ILLINOIS FED. AID PROJECT				



BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	15	#4	2'-7"	—
A1(E)	29	#4	2'-10"	—
B(E)	18	#3	25'-2"	—
S(E)	65	#4	6'-5"	U
S1(E)	8	#4	4'-11"	U
S2(E)	57	#4	5'-2"	U
S3(E)	8	#4	4'-9"	U
S4(E)	8	#4	3'-10"	U
U(E)	8	#5	4'-0"	U
U1(E)	4	#4	5'-9"	U

SECTION B-B
(Showing reinforcement and permissible strand locations)
Note:
Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

Note:
Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

MINIMUM BAR LAP
#3 bar = 1'-6"

Note:
See sheet 4 of 9 for additional details and Bill of Material.

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FILE NAME: 2707_3-4_Super.dgn

PD-2136-R

1-1-2020



JOB =	2707
FILE NAME =	2707_3-4_Super.dgn
PLOT DATE =	9/12/2022

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CHECKED -	MDC	REVISED -	
DRAWN -	SJS	REVISED -	
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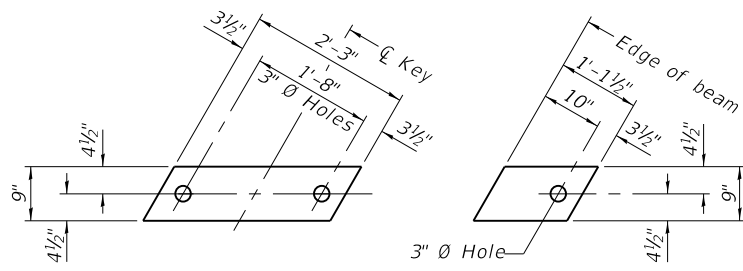
VERMILION COUNTY
BUTLER ROAD DISTRICT
TR 13 (400N & 880E) IMPROVEMENTS

21" x 36" PPC DECK BEAM
STRUCTURE NO. 092-3541

SHEET 3 OF 9 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	18-02155-00-BR	VERMILION	29	12
CONTRACT NO. 91617				

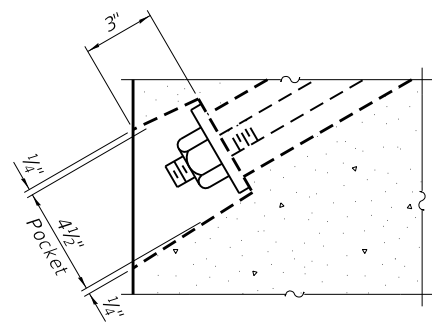
ILLINOIS FED. AID PROJECT



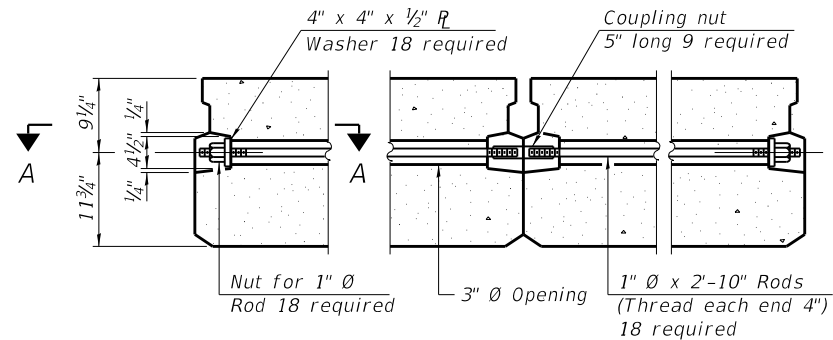
FABRIC BEARING PAD
(Interior) **FABRIC BEARING PAD**
(Exterior)

FIXED

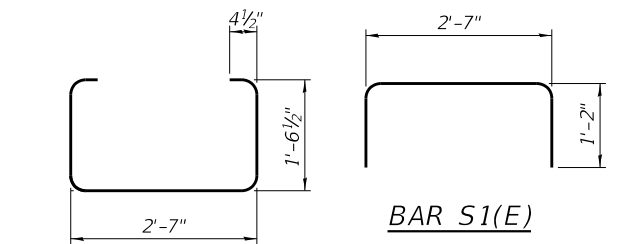
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pads shall be bonded to the substructure.



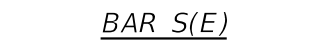
SECTION A-A



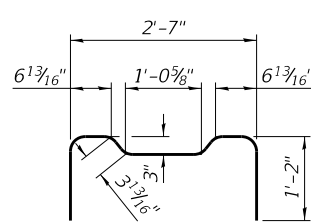
TYPICAL TRANSVERSE TIE ASSEMBLY



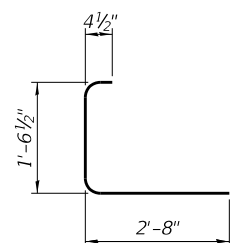
BAR S1(E)



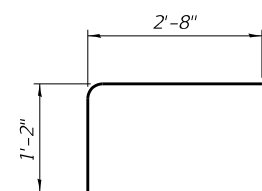
BAR S(E)



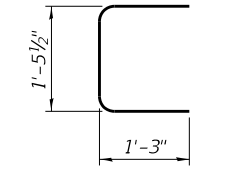
BAR S2(E)



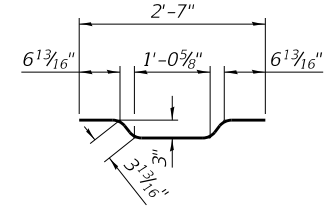
BAR S3(E)



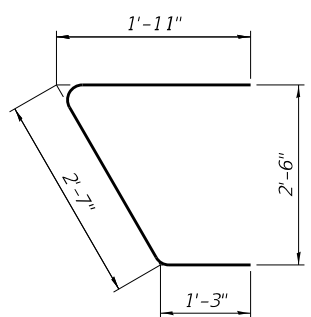
BAR S4(E)



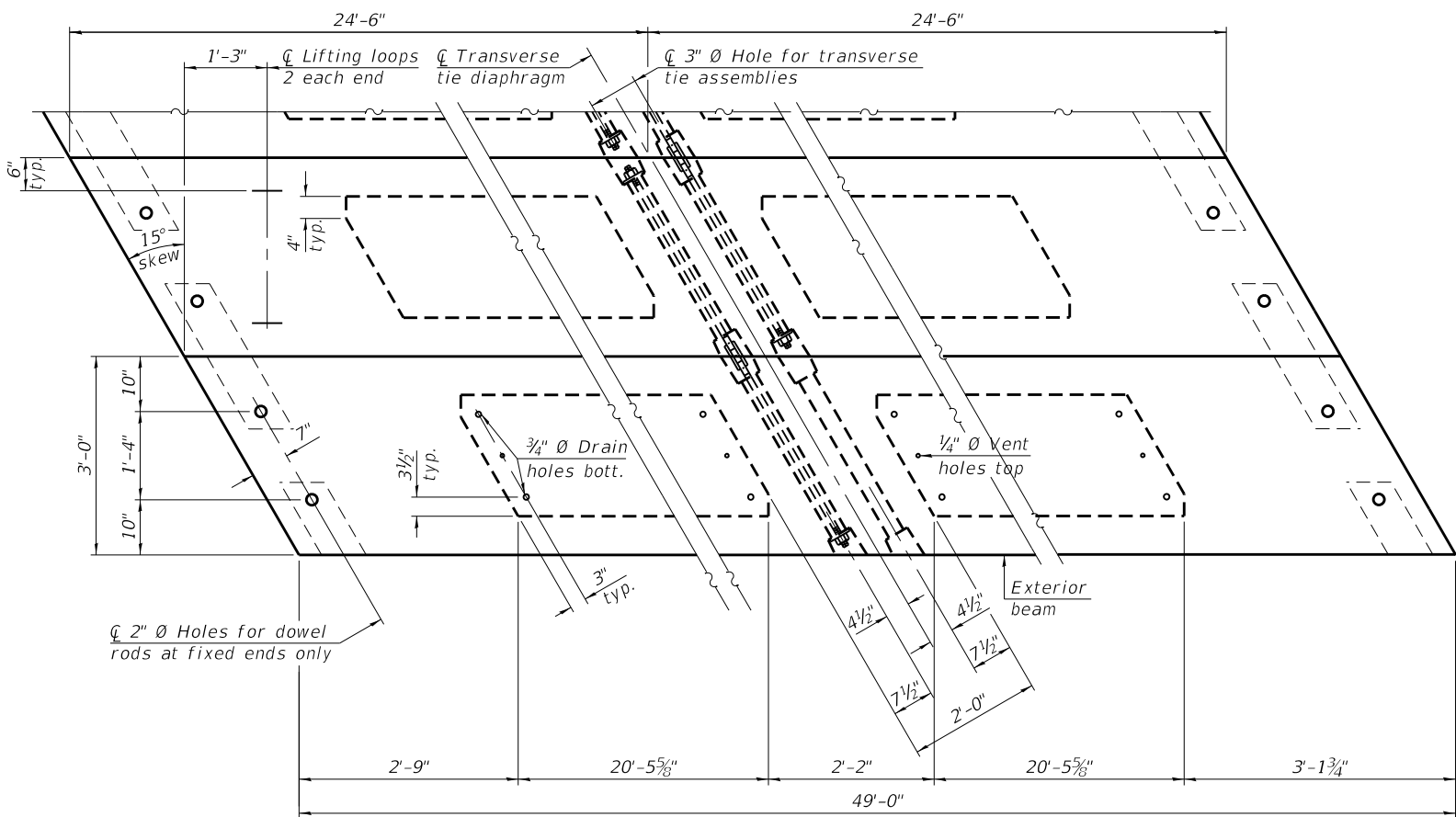
BAR U(E)



BAR A1(E)



BAR U1(E)

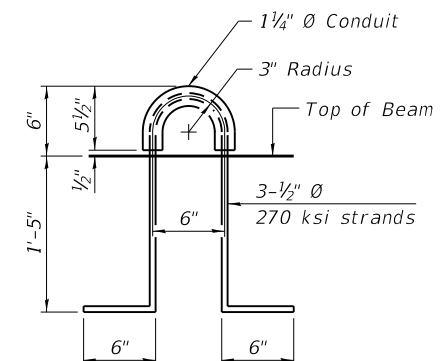


PLAN VIEW

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" Ø rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place. Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location. A minimum 2 1/2" Ø lifting pin shall be used to engage the lifting loops during handling. Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Compressive strength of prestressed concrete, f'c, shall be 6000 psi. Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

Note:
Connect beams in pairs with the transverse tie configuration shown.



LIFTING LOOP DETAIL

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft.	1470
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MODEL: Default
FILE NAME: 2707_3-4_Super.dgn

PDD-2136-R

1-1-2020



JOB =	2707
FILE NAME =	2707_3-4_Super.dgn
PLOT DATE =	9/12/2022

DESIGNED -	AAN	REVISED -	
CHECKED -	MDC	REVISED -	
DRAWN -	SJS	REVISED -	
CHECKED -	MDC	REVISED -	

**VERMILION COUNTY
BUTLER ROAD DISTRICT
TR 13 (400N & 880E) IMPROVEMENTS**

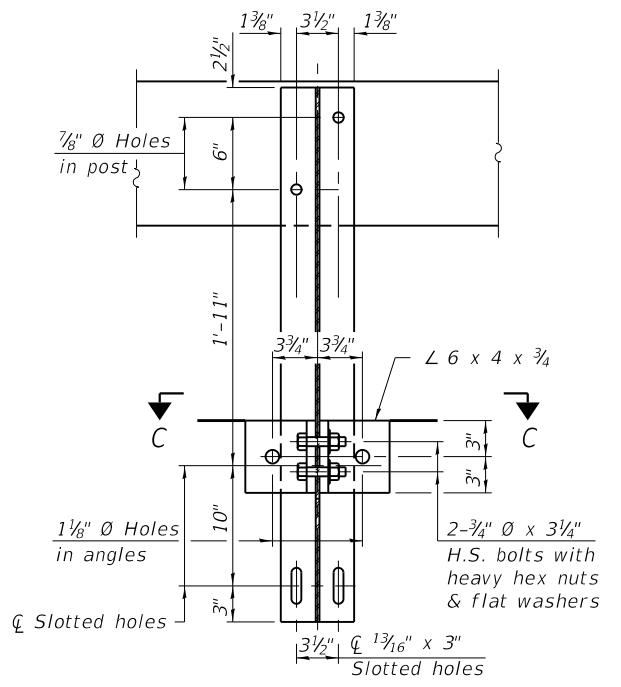
**21" x 36" PPC DECK BEAM DETAILS
STRUCTURE NO. 092-3541**

SHEET 4 OF 9 SHEETS

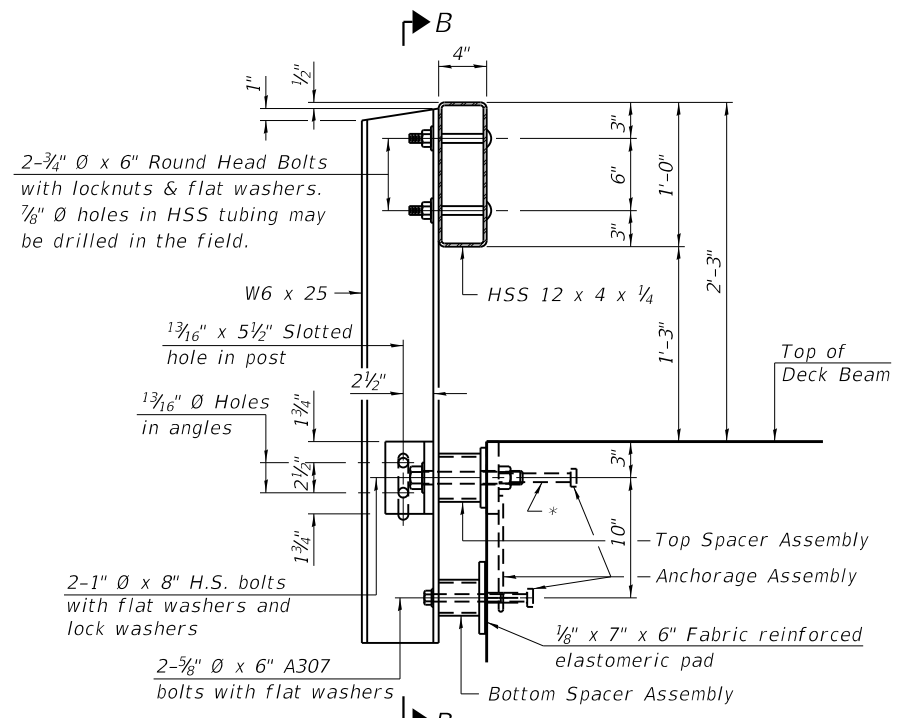
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	18-02155-00-BR	VERMILION	29	13
CONTRACT NO. 91617				

ILLINOIS FED. AID PROJECT

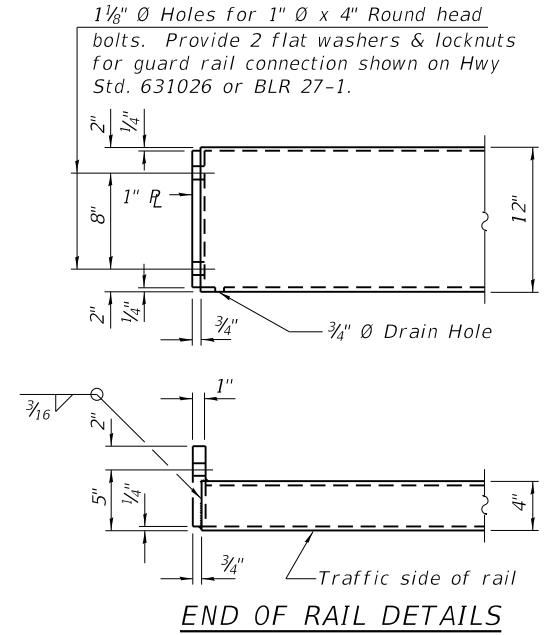
Notes:
 A sufficient number of shims of various thicknesses, sized to fit behind the top spacer assembly, 5" x 11 1/2", and bottom spacer assembly, 6" x 7", shall be provided to adjust posts for proper alignment. If the summation of shims is greater than 1/4" (top) or 1/2" (bottom), longer bolts are required. Cost included with Steel Railing, Type S-1.
 All steel rail elements including shims shall be galvanized according to Article 509.05 of the Standard Specifications.
 All HSS tubing serving as railing shall be CVN tested according to Article 1006.34(b) of the Standard Specifications.
 Rail splice inserts may be built out of 2 - 3/8" bent plates in lieu of the 4 plate rail splice inserts shown, provided the outside dimensions are matched.
 All round head bolts shall be ASTM A307 with locknuts according to ASTM A563 grade A.



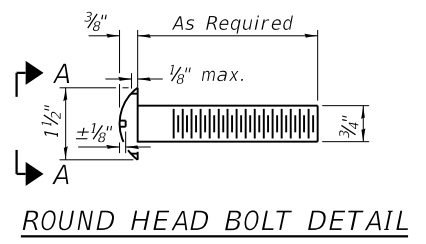
SECTION B-B



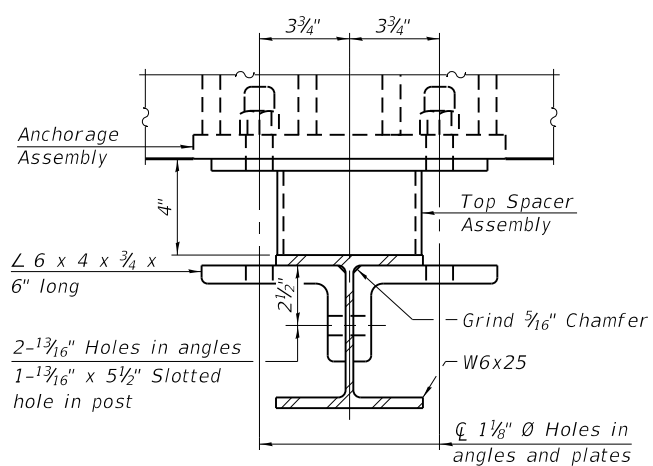
SECTION AT RAILING POST



END OF RAIL DETAILS

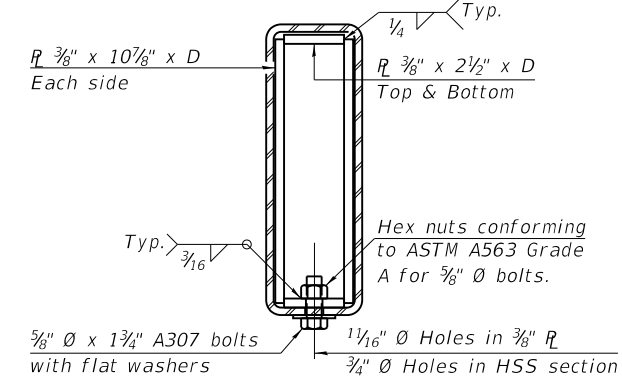


ROUND HEAD BOLT DETAIL

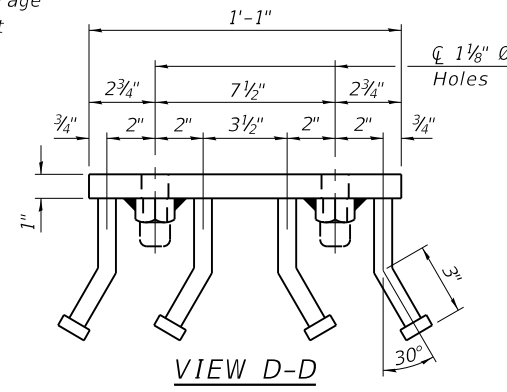


SECTION C-C

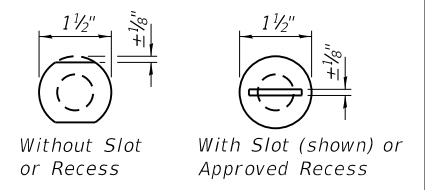
* The outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchorage assembly. The anchorage studs may be bent down 1/2" to accommodate the top reinforcement bar placement.



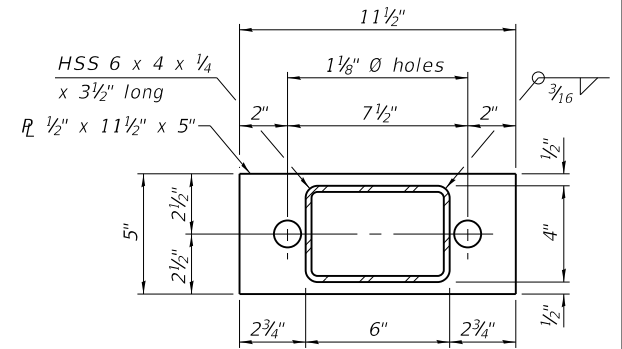
SECTION AT RAIL SPLICE



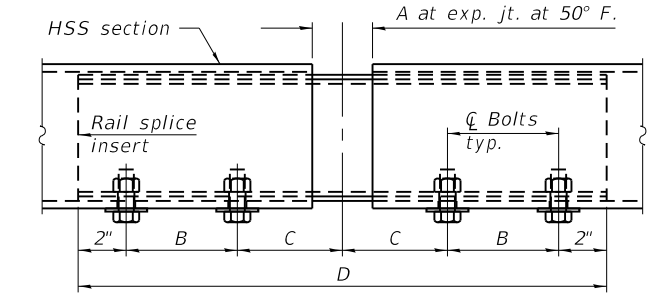
VIEW D-D



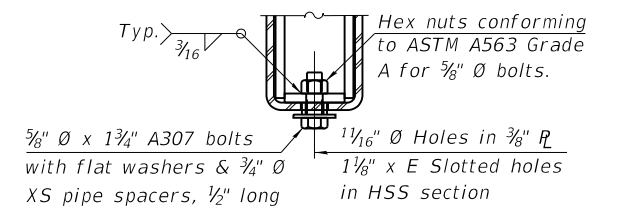
VIEW A-A



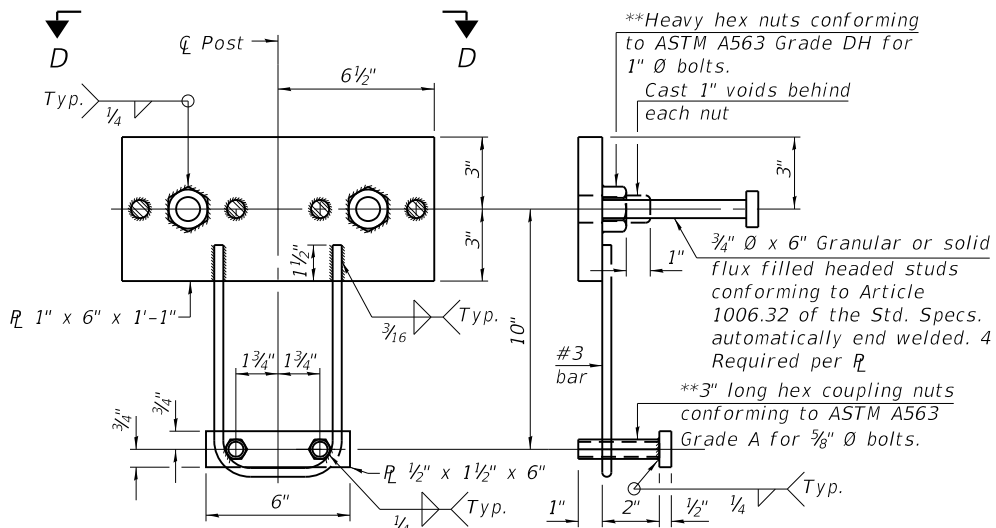
TOP SPACER ASSEMBLY



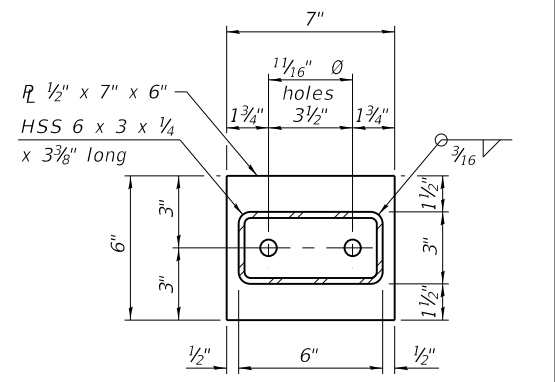
RAIL SPLICE ELEVATION



RAIL SPLICE CONNECTION AT EXPANSION JT.



ANCHORAGE ASSEMBLY



BOTTOM SPACER ASSEMBLY

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	98

SPLICE DIMENSIONS

Location	T	A	B	C	D	E
All locs. not over exp. jts.	0	1/4"	4"	4"	1'-8"	-
Over Strip Seal Jt.	≤4"	2 1/2"	4 3/8"	4 3/8"	1'-10"	3 1/2"
Over Finger or Modular Jt.	≤9 1/2"	5 1/2"	7 3/8"	7 1/4"	2'-9 1/4"	5 1 3/16"
Over Finger or Modular Jt.	≤15"	8 1/4"	10 1/8"	10"	3'-8 1/4"	8 9/16"

T = ; total movement along centerline of roadway at expansion joint.

RAILING CRITERIA

NCHRP 350 Test Level	2
Railing Weight (plf)	50
Max Post Spacing	10'-9"
HMA thickness range (in)	1 1/4 - 3 1/8

R-23A 10-12-2021

MODEL: Default
 FILE NAME: 2707_05_S-1_Rail.dgn



JOB = 2707
 FILE NAME = 2707_05_S-1_Rail.dgn
 PLOT DATE = 9/12/2022

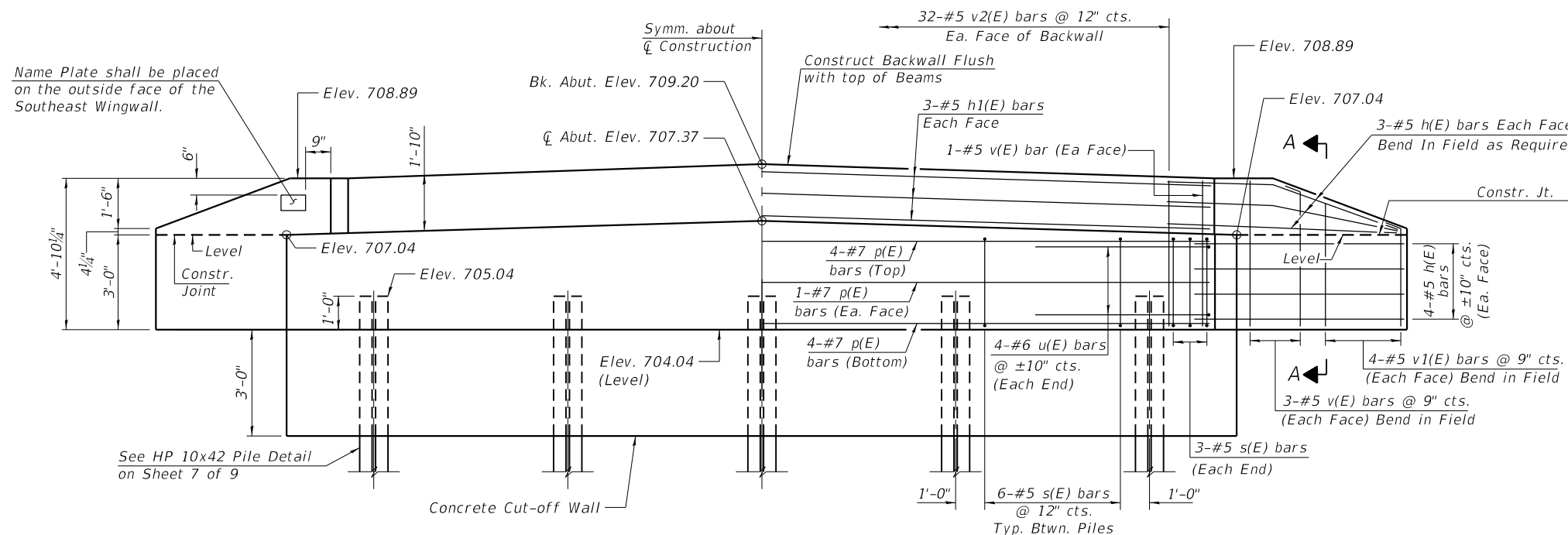
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 CHECKED - MDC
 DRAWN - SJS
 CHECKED - MDC

VERMILION COUNTY
 BUTLER ROAD DISTRICT
 TR 13 (400N & 880E) IMPROVEMENTS

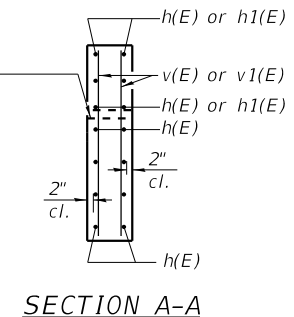
STEEL RAILING, TYPE S-1
 STRUCTURE NO. 092-3541

SHEET 5 OF 9 SHEETS

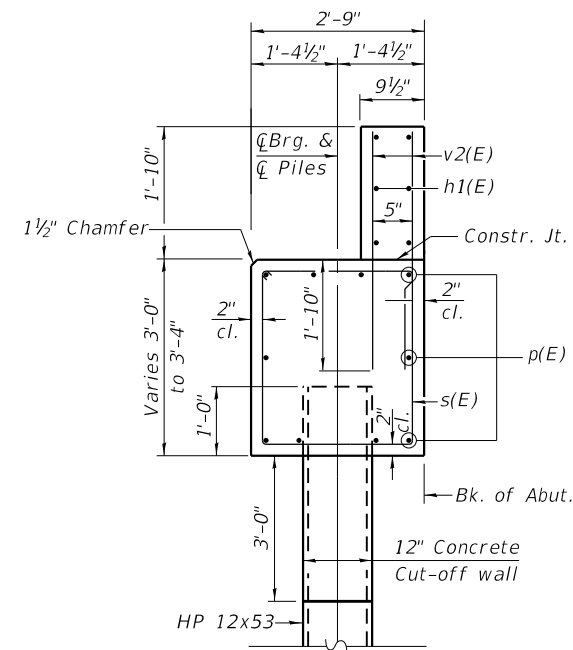
T.R. SECTION COUNTY TOTAL SHEETS SHEET NO.
 13 18-02155-00-BR VERMILION 29 14
 CONTRACT NO. 91617
 ILLINOIS FED. AID PROJECT



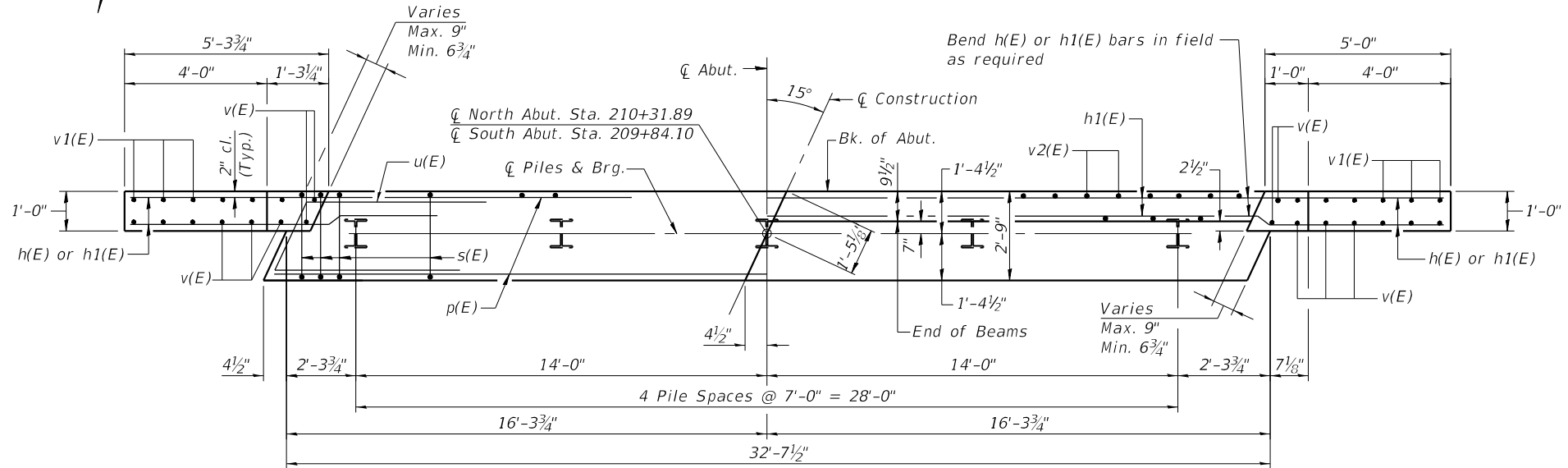
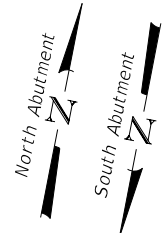
ELEVATION



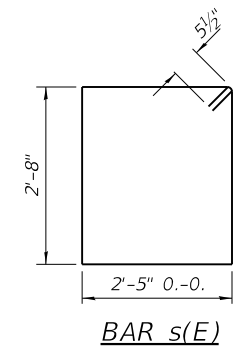
SECTION A-A



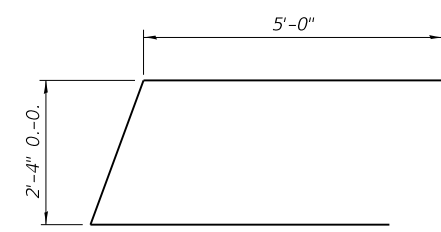
SECTION THRU ABUTMENT



PLAN



BAR s(E)



BAR u(E)

PILE DATA

Type: HP 12x53
 Nominal Required Bearing: 255 kips
 Factored Resistance Available: 140 kips
 No. Required: 10 piles*
 Estimated Length: 45 ft. @ S. Abut.
 45 ft. @ N. Abut.

Note:
 The Steel H-Piles shall be according to AASHTO M270 Grade 50.

* Includes one test pile to be driven in a permanent location at each Abutment, as directed by the Engineer, before ordering the remainder of the piles. The test pile shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.

**BILL OF MATERIAL
TWO ABUTMENTS**

BAR	NO.	SIZE	LENGTH	SHAPE	
h(E)	56	#5	7'-10"	—	
h1(E)	12	#5	30'-9"	—	
p(E)	20	#7	32'-4"	—	
s(E)	60	#5	11'-1"	□	
u(E)	16	#6	12'-4"	▤	
v(E)	32	#5	4'-6"	—	
v1(E)	32	#5	3'-11"	—	
v2(E)	128	#5	3'-6"	—	
Concrete Structures				Cu. Yd.	27.3
Reinforcement Bars, Epoxy Coated				Pound	3900
Name Plates				Each	1
Furnishing Steel Piles HP 12x53				Foot	360
Driving Piles				Foot	360
Structure Excavation				Cu. Yd.	95
Test Pile Steel HP 12x53				Each	2
Concrete Cut-off wall				Cu. Yd.	7.3

Note:
 After beams are in place and dowel rods grouted, the backwall and the portions of the wingwalls above the construction joint shall be poured.

MODEL: Default
FILE NAME: 2707_06_Abuts.dgn



JOB = 2707
 FILE NAME = 2707_06_Abuts.dgn
 PLOT DATE = 9/12/2022

DESIGNED - AAN
 CHECKED - MDC
 DRAWN - SJS
 CHECKED - MDC

REVISED -
 REVISED -
 REVISED -
 REVISED -

**VERMILION COUNTY
BUTLER ROAD DISTRICT
TR 13 (400N & 880E) IMPROVEMENTS**

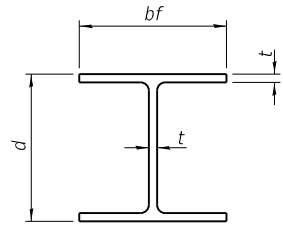
**ABUTMENTS
STRUCTURE NO. 092-3541**

SHEET 6 OF 9 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	18-02155-00-BR	VERMILION	29	15

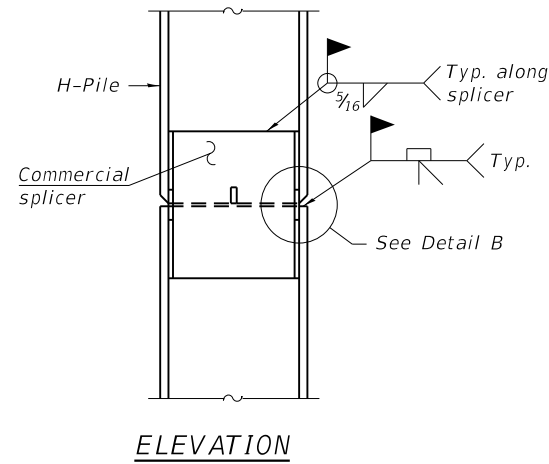
CONTRACT NO. 91617

ILLINOIS FED. AID PROJECT

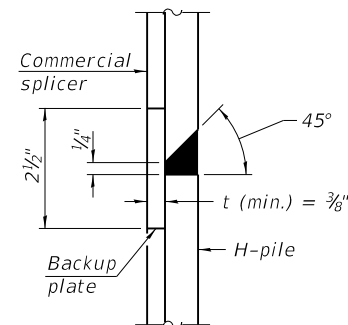


STEEL PILE TABLE

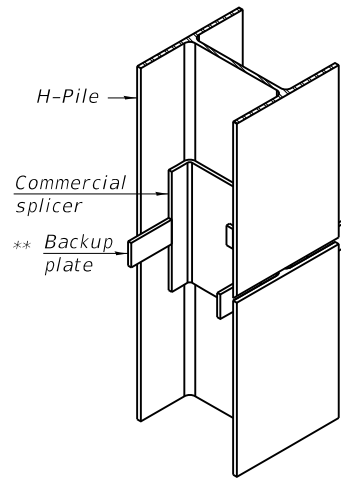
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 3/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION

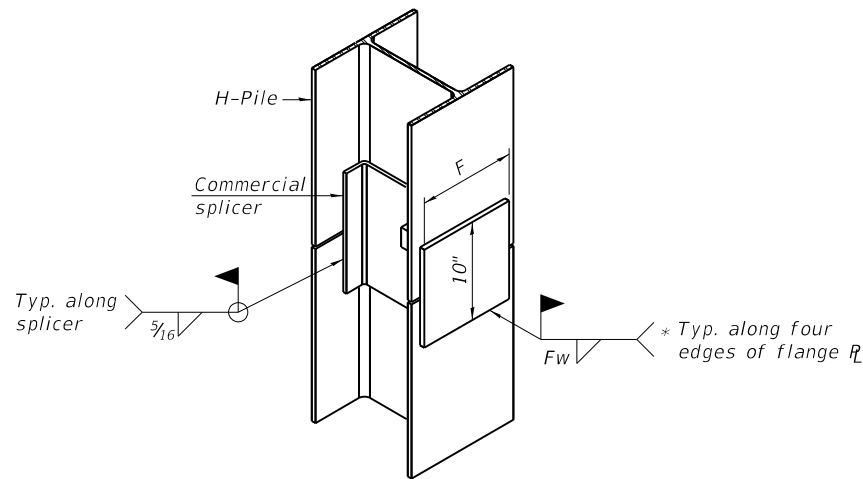


DETAIL "B"



ISOMETRIC VIEW

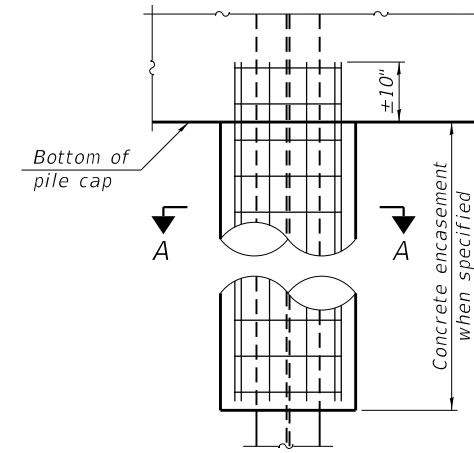
WELDED COMMERCIAL SPLICE



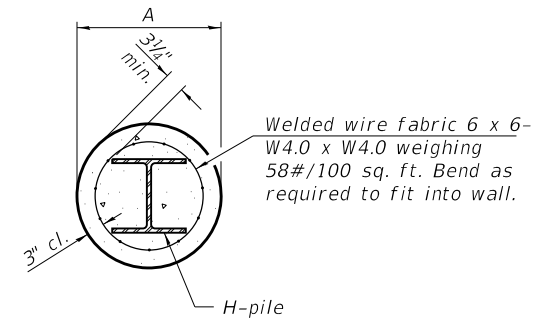
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (5/16" min.).

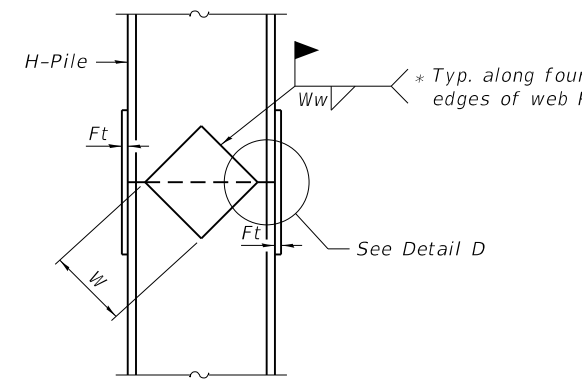


ELEVATION

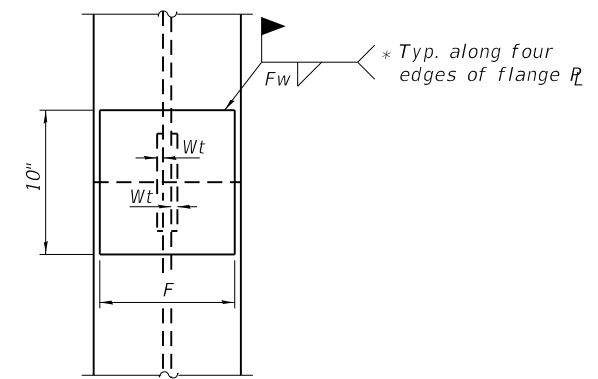


SECTION A-A

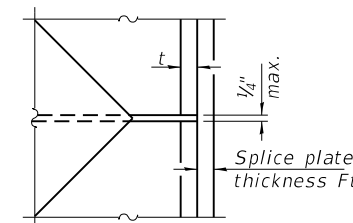
INDIVIDUAL PILE CONCRETE ENCASUREMENT
(Forms for encasement may be omitted when soil conditions permit).



ELEVATION



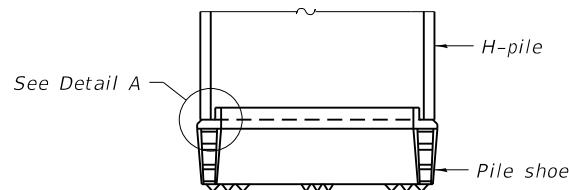
END VIEW



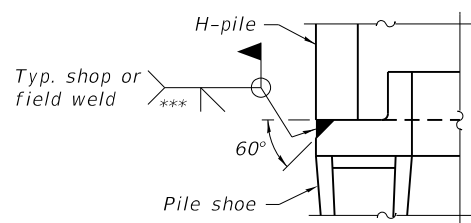
DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1 1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1 1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1 1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"



ELEVATION



DETAIL A

SHOE ATTACHMENT

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

MODEL: Default
FILE NAME: 2707_07_Piles.dgn

F-HP 8-11-2017

CEC Cummins Engineering Corporation
Civil and Structural Engineering

JOB = 2707	DESIGNED - AAN	REVISED -
FILE NAME = 2707_07_Piles.dgn	CHECKED - MDC	REVISED -
PLOT DATE = 9/12/2022	DRAWN - SJS	REVISED -
	CHECKED - MDC	REVISED -

VERMILION COUNTY BUTLER ROAD DISTRICT TR 13 (400N & 880E) IMPROVEMENTS

HP PILE DETAILS STRUCTURE NO. 092-3541

SHEET 7 OF 9 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	18-02155-00-BR	VERMILION	29	16
CONTRACT NO. 91617				

ILLINOIS FED. AID PROJECT

Bridge Foundation Boring Log

Project: H-22013 Bridge TR 13 over Fountain Creek Date: 3/9/22
 Section: 18-02155-00-BR Station _____ Bored by: J. Carter
 Structure: 092-3036 _____ Checked By: T. Holcomb
 County: Vermillion _____

Boring No.	Station	Offset	Elevation	N	Qu tsf	w %	Surface Water Elev.	Elevation	N	Qu tsf	w %
1	209+82	LT 8'	708.97				681.97				
							-72.9				
							-86.9				
			695.97								
			707.97	6	1.5B	21		-25	12	2.5B	21
							682.97				
				7	1.9B	31		-5	8	--	15
			702.97				680.47				
				5	1.2B	27		-30	10	2.3B	20
			697.97					-10	6	1.5B	25
				17	6.4B	19		-35	9	1.4B	22
			692.97					-15	15	2.9B	19
				10	2.7B	22		-40	12	0.8B	23
				9	1.7B	20		-20			
				11	2.2B	22			12	1.3B	26

N = Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with a 140 lbs. hammer falling 30"
 Qu - Unconfined Compressive Strength in tons/sq.ft.
 w - Water Content - percentage of oven dry weight - %
 B = Bulge Failure
 S = Shear Failure
 E = Estimated Value
 P = Penetrometer

Bridge Foundation Boring Log

Project: H-22013 Bridge TR 13 over Fountain Creek Date: 3/9/22
 Section: 18-02155-00-BR Station _____ Bored by: J. Carter
 Structure: 092-3036 _____ Checked By: T. Holcomb
 County: Vermillion _____

Boring No.	Station	Offset	Elevation	N	Qu tsf	w %	Surface Water Elev.	Elevation	N	Qu tsf	w %
1	209+82	LT 8'					681.97				
							-72.9				
							-86.9				
			695.97								
								-45			
								-70			
							660.47				
								-50	47	--	17
								-55			
								-60			
								-65			
								-75			
								-80			
								-85			
								-90			
								-95			
								-100			

N = Standard Penetration Test Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with a 140 lbs. hammer falling 30"
 Qu - Unconfined Compressive Strength in tons/sq.ft.
 w - Water Content - percentage of oven dry weight - %
 B = Bulge Failure
 S = Shear Failure
 E = Estimated Value
 P = Penetrometer

MODEL: Default
 FILE NAME: 2707_8-9_Borings.dgn



JOB = 2707	DESIGNED - AAN	REVISED -
FILE NAME = 2707_8-9_Borings.dgn	CHECKED - MDC	REVISED -
PLOT DATE = 9/12/2022	DRAWN - SJS	REVISED -
	CHECKED - MDC	REVISED -

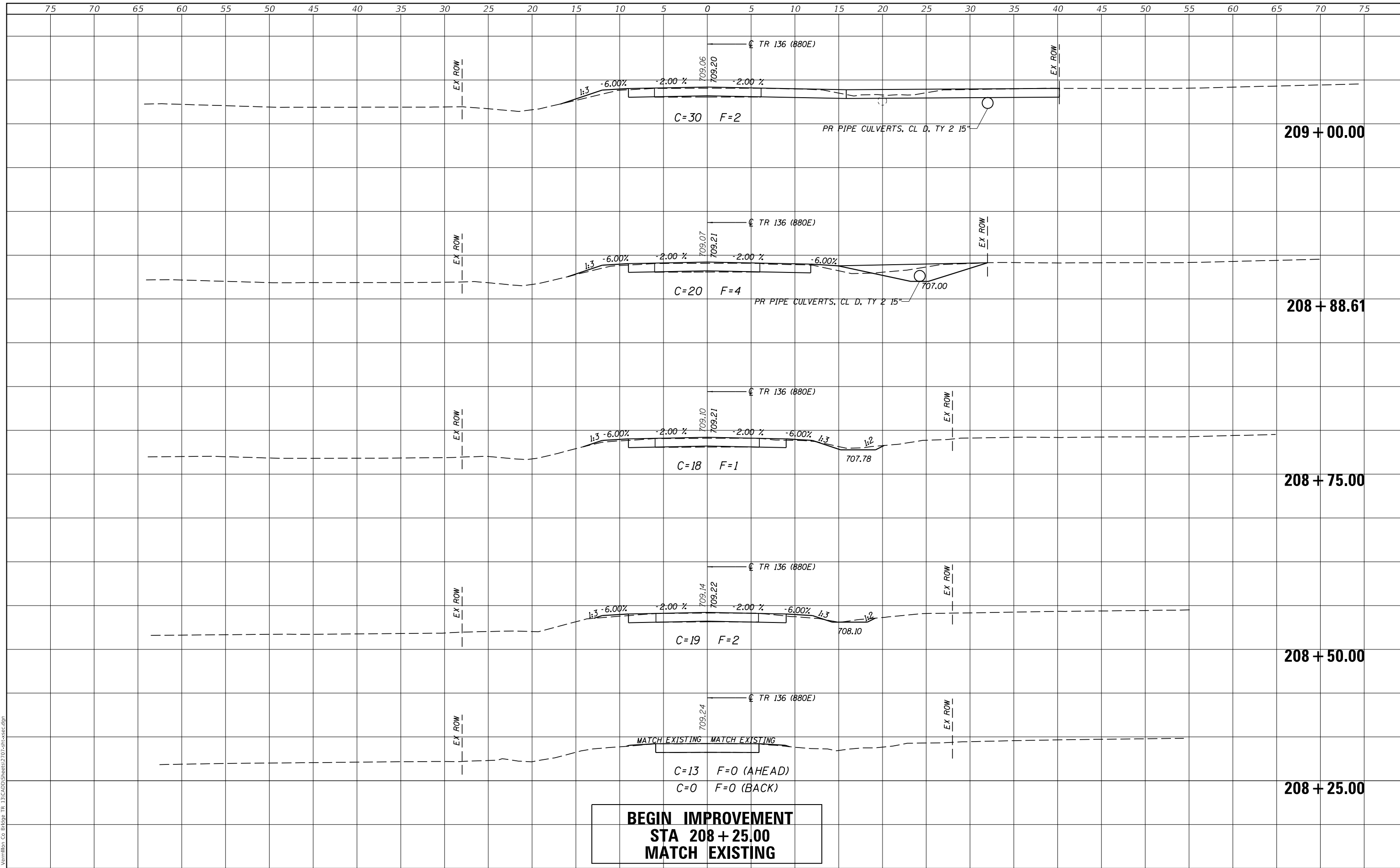
VERMILION COUNTY
 BUTLER ROAD DISTRICT
 TR 13 (400N & 880E) IMPROVEMENTS

BORINGS
 STRUCTURE NO. 092-3541
 SHEET 8 OF 9 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	18-02155-00-BR	VERMILION	29	17
CONTRACT NO. 91617				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	



BEGIN IMPROVEMENT
STA 208 + 25.00
MATCH EXISTING

MODEL: Default
 FILE NAME: R22707_Vermilion_Co_Bridge_TR_13_CAD/Sheets/2707-29-sec.dgn

CEC Cummins
 Engineering
 Corporation
 Civil and Structural Engineering

JOB# = 2707
 FILE NAME = 2707-sht-xsec.dgn
 PLOT SCALE = 10.0000' / in.
 PLOT DATE = 5/3/2023

DESIGNED - CGF
 DRAWN - CGF
 CHECKED - AAN
 DATE - 8/11/2022

REVISED - TSH
 REVISED -
 REVISED -
 REVISED -

VERMILION COUNTY
BUTLER ROAD DISTRICT
TR 13 (4000N & 880E) IMPROVEMENTS

CROSS SECTIONS
TR 136 (880E)

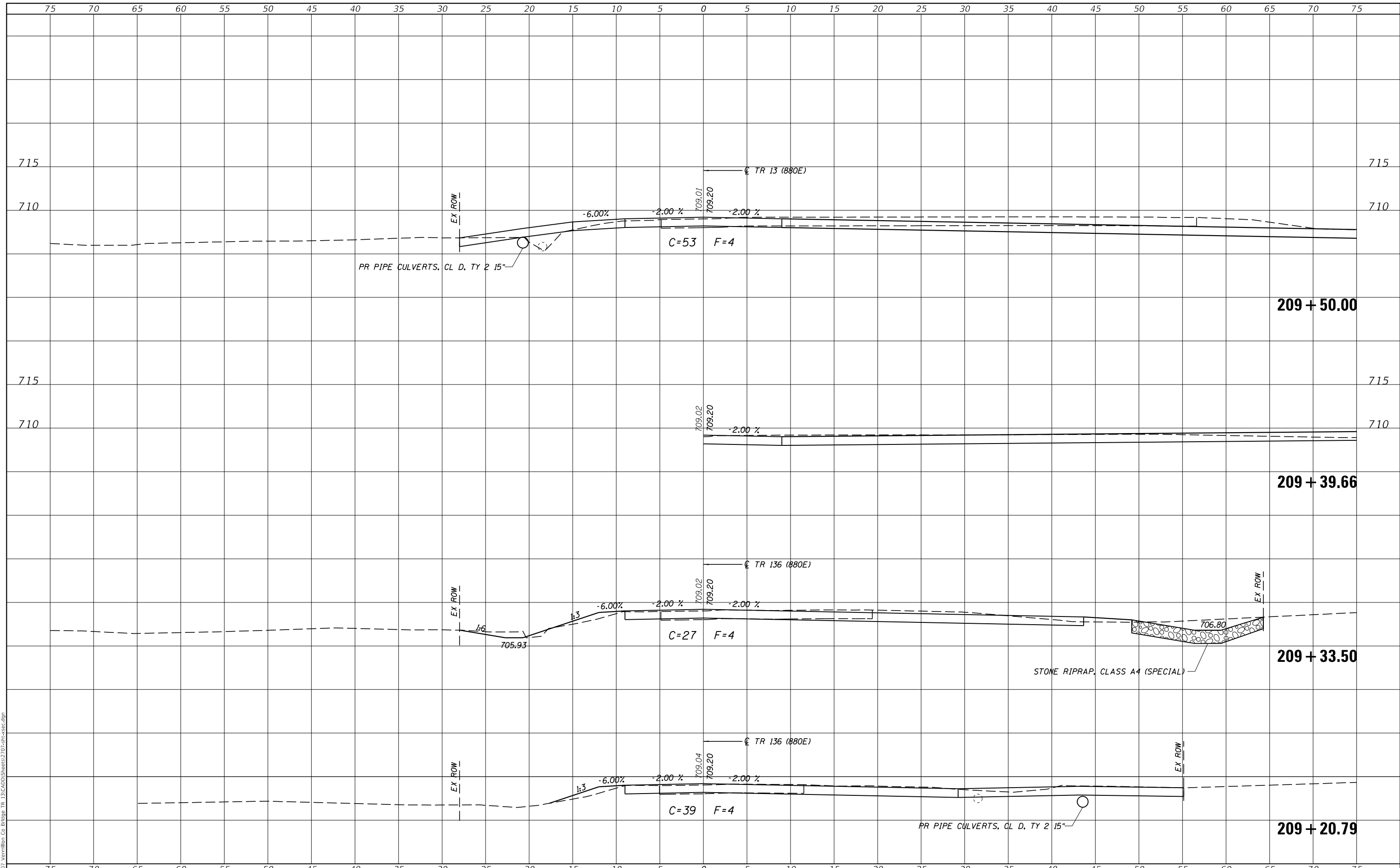
SCALE: SHEET OF SHEETS STA. 208+25.00 TO STA. 209+00.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	18-02155-00-BR	VERMILION	29	19
CONTRACT NO. 91617				
		ILLINOIS	FED. AID PROJECT	

DATE	
BY	
FINAL SURVEY NO.	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY NO.	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	

MODEL: Definit
FILE NAME: R22707_Vermilion Co Bridge TR 13 CAD/Sheets/2707-290sec.dgn



CEC Cummins Engineering Corporation
Civil and Structural Engineering

JOB# = 2707
FILE NAME = 2707-sht-xsec.dgn
PLOT SCALE = 10.0000' / in.
PLOT DATE = 5/3/2023

DESIGNED - CGF	REVISED - TSH
DRAWN - CGF	REVISED -
CHECKED - AAN	REVISED -
DATE - 8/11/2022	REVISED -

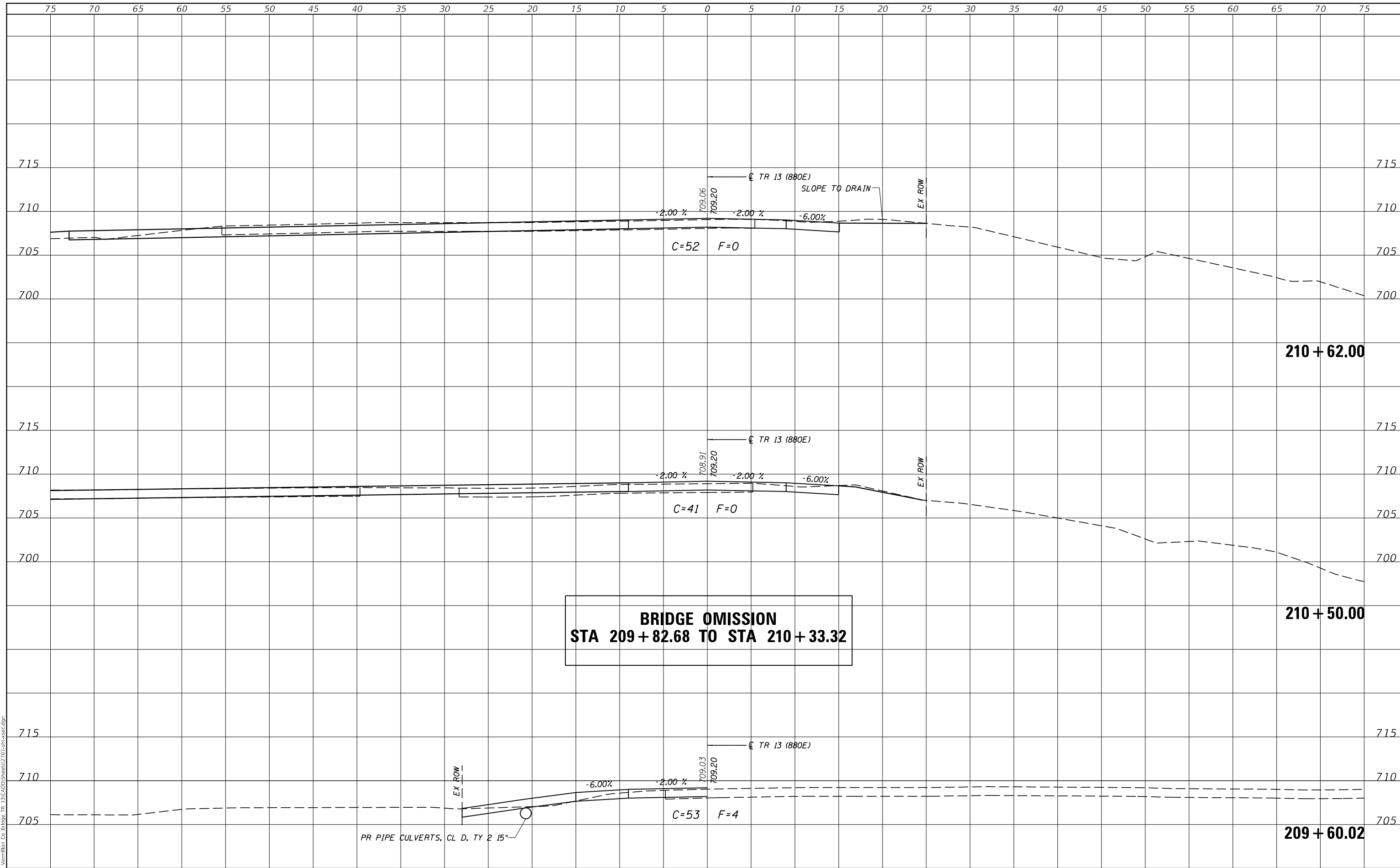
VERMILION COUNTY BUTLER ROAD DISTRICT TR 13 (4000N & 880E) IMPROVEMENTS

CROSS SECTIONS TR 136 (880E)/TR 13 (880E)			
SCALE:	SHEET	OF SHEETS	STA. 209+20.79 TO STA. 209+50.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	18-02155-00-BR	VERMILION	29	20
CONTRACT NO. 91617				
ILLINOIS		FED. AID PROJECT		

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY NO.	
NOTE BOOK NO.	
AREAS CHECKED	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY NO.	
NOTE BOOK NO.	
AREAS CHECKED	



**BRIDGE OMISSION
STA 209+82.68 TO STA 210+33.32**



JOB# = 2707
 FILE NAME = 2707-sht-xsec.dgn
 PLOT SCALE = 10.0000' / in.
 PLOT DATE = 5/3/2023

DESIGNED - CGF
 DRAWN - CGF
 CHECKED - AAN
 DATE - 8/11/2022

REVISED - TSH
 REVISED -
 REVISED -
 REVISED -

**VERMILION COUNTY
 BUTLER ROAD DISTRICT
 TR 13 (4000N & 880E) IMPROVEMENTS**

**CROSS SECTIONS
 TR 13 (880E)**

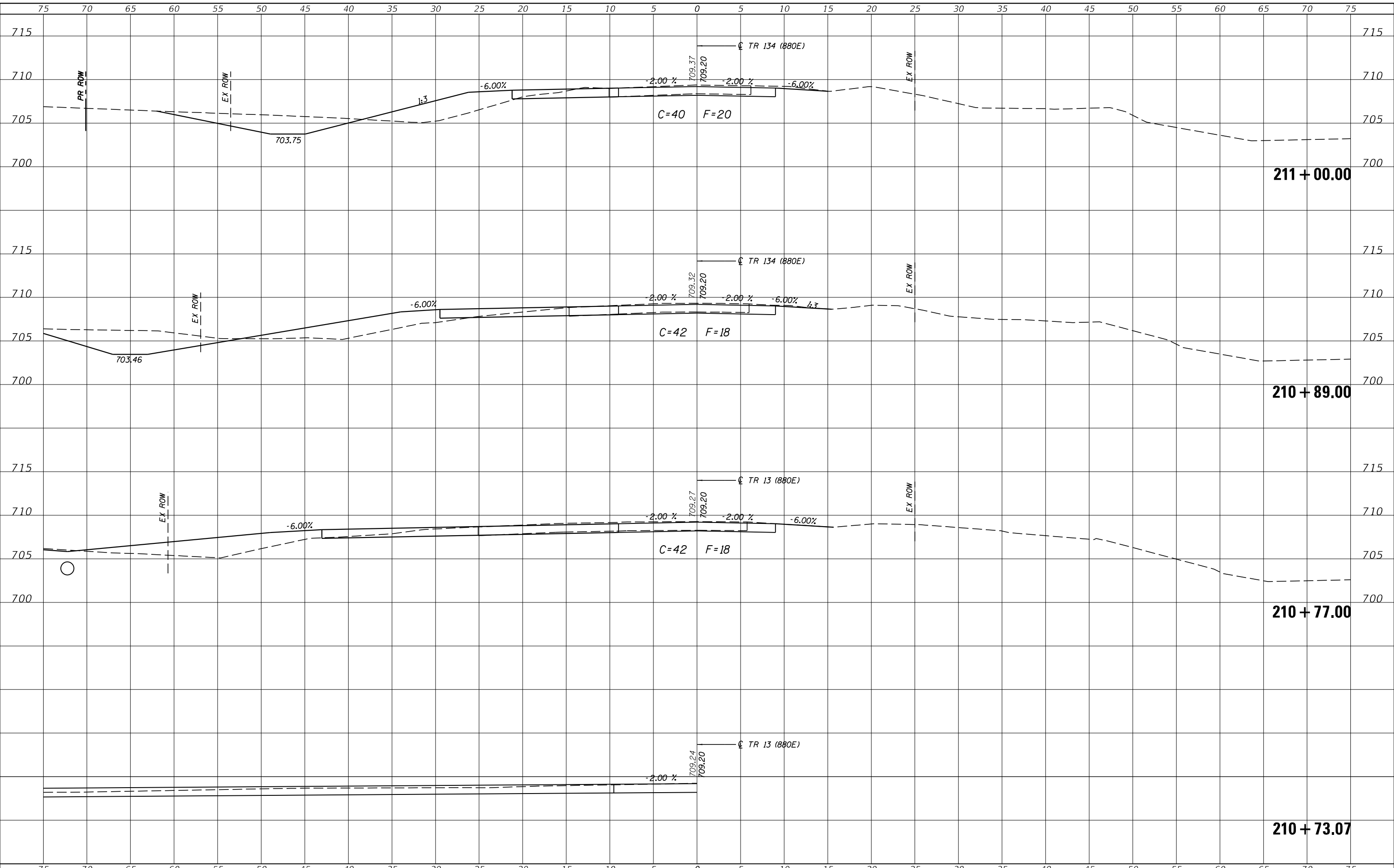
SCALE: SHEET OF SHEETS STA. 209+60.02 TO STA. 210+62.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	18-02155-00-BR	VERMILION	29	21
CONTRACT NO. 91617				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
AREAS CHECKED	TEMPLATE	
	AREAS CHECKED	

ORIGINAL SURVEY NO.	SURVEYED	DATE
	PLOTTED	BY
	TEMPLATE	
	AREAS CHECKED	
	AREAS CHECKED	

MODEL: Defaul
FILE NAME: H20707_Vermilion Co Bridge TR 13.CAD/Sheets/2707-210xsec.dgn



CEC Cummins Engineering Corporation
Civil and Structural Engineering

JOB# = 2707	DESIGNED - CGF	REVISED - TSH
FILE NAME = 2707-sht-xsec.dgn	DRAWN - CGF	REVISED -
PLOT SCALE = 10.0000' / in.	CHECKED - AAN	REVISED -
PLOT DATE = 5/3/2023	DATE - 8/11/2022	REVISED -

DESIGNED - CGF	REVISED - TSH
DRAWN - CGF	REVISED -
CHECKED - AAN	REVISED -
DATE - 8/11/2022	REVISED -

**VERMILION COUNTY
BUTLER ROAD DISTRICT
TR 13 (4000N & 880E) IMPROVEMENTS**

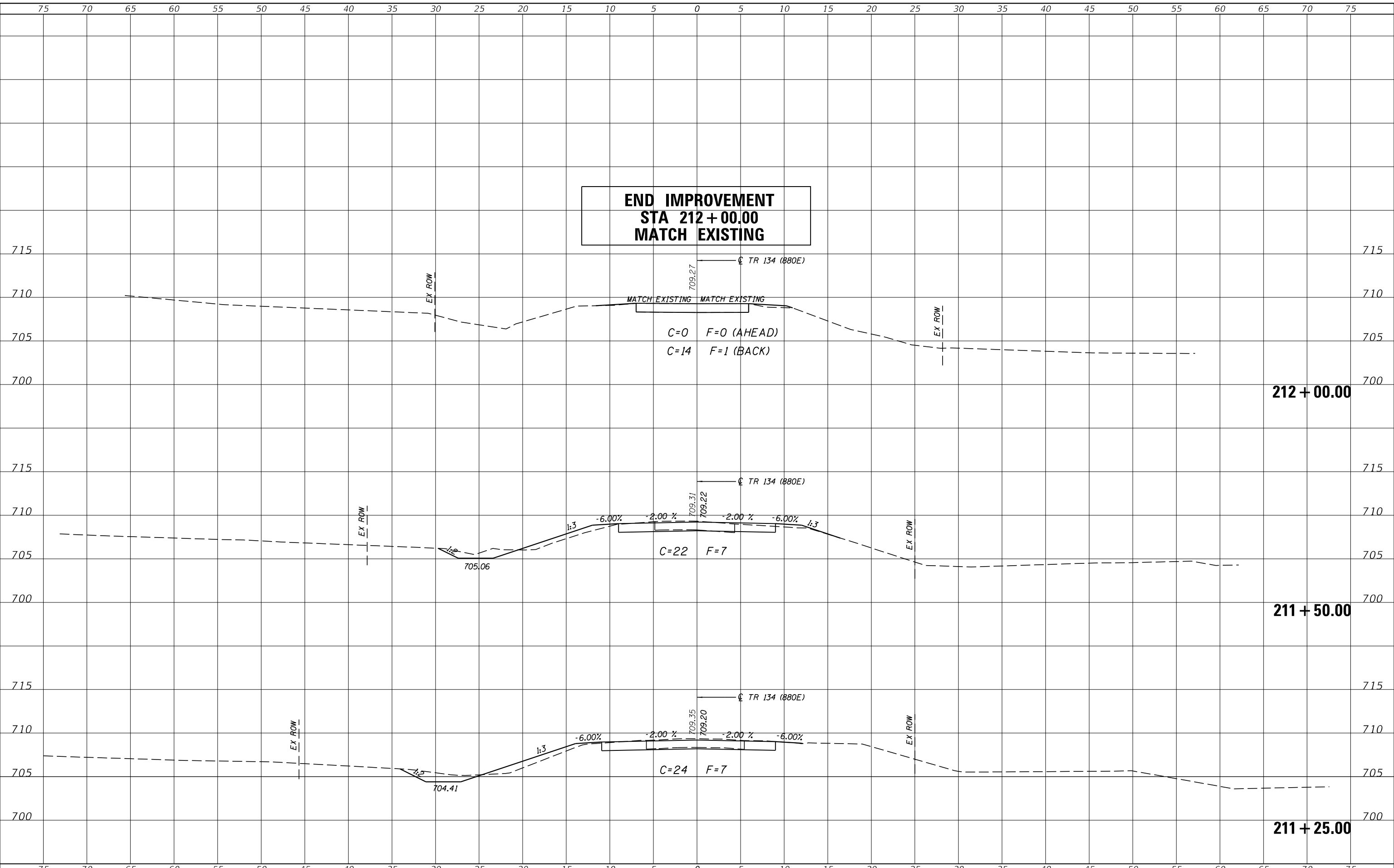
CROSS SECTIONS	
TR 134 (880E)	
SCALE:	SHEET OF SHEETS
STA. 210+73.07	TO STA. 211+00.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	18-02155-00-BR	VERMILION	29	22
				CONTRACT NO. 91617
				ILLINOIS FED. AID PROJECT

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

MODEL: Defaul
FILE NAME: R22707_Vermilion Co Bridge TR 13 CAD/Sheets/2707-211-xsec.dgn



CEC Cummins Engineering Corporation
Civil and Structural Engineering

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FILE NAME =	2707-sht-xsec.dgn
PLOT SCALE =	10.0000 ' / in.
PLOT DATE =	5/3/2023

DESIGNED -	CGF
DRAWN -	CGF
CHECKED -	AAN
DATE -	8/11/2022

REVISED -	TSH
REVISED -	
REVISED -	
REVISED -	

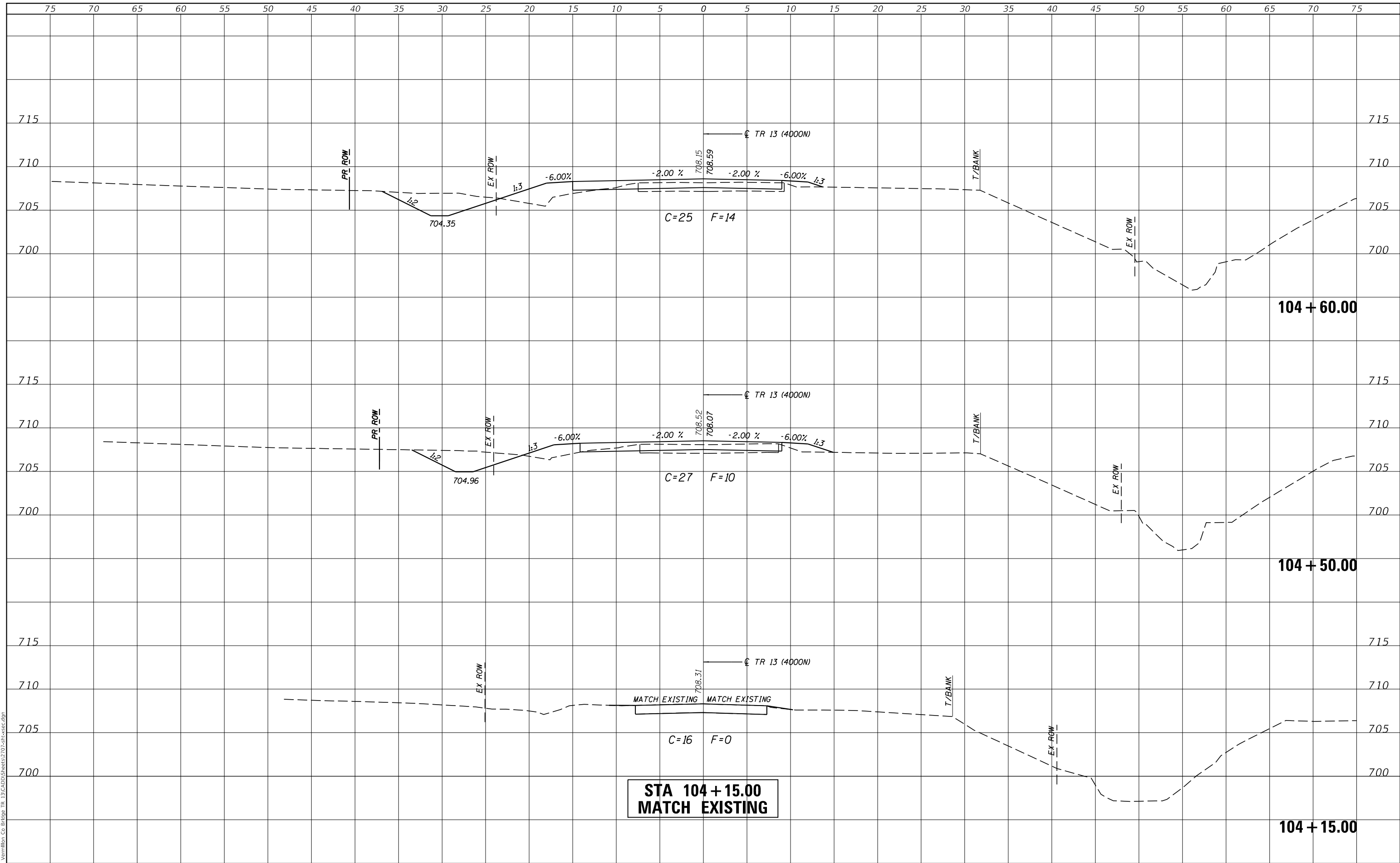
**VERMILION COUNTY
BUTLER ROAD DISTRICT
TR 13 (4000N & 880E) IMPROVEMENTS**

CROSS SECTIONS	
TR 134 (880E)	
SCALE:	SHEET OF SHEETS
STA. 211+25.00 TO STA. 212+00.00	

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	18-02155-00-BR	VERMILION	29	23
CONTRACT NO. 91617				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY NO.	
NOTE BOOK NO.	
AREAS CHECKED	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY NO.	
NOTE BOOK NO.	
AREAS CHECKED	



**STA 104 + 15.00
MATCH EXISTING**



JOB# = 2707
 FILE NAME = 2707-sht-xsec.dgn
 PLOT SCALE = 10.0000 ' / in.
 PLOT DATE = 5/3/2023

DESIGNED - CGF
 DRAWN - CGF
 CHECKED - AAN
 DATE - 8/11/2022

REVISED - TSH
 REVISED -
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 REVISED -

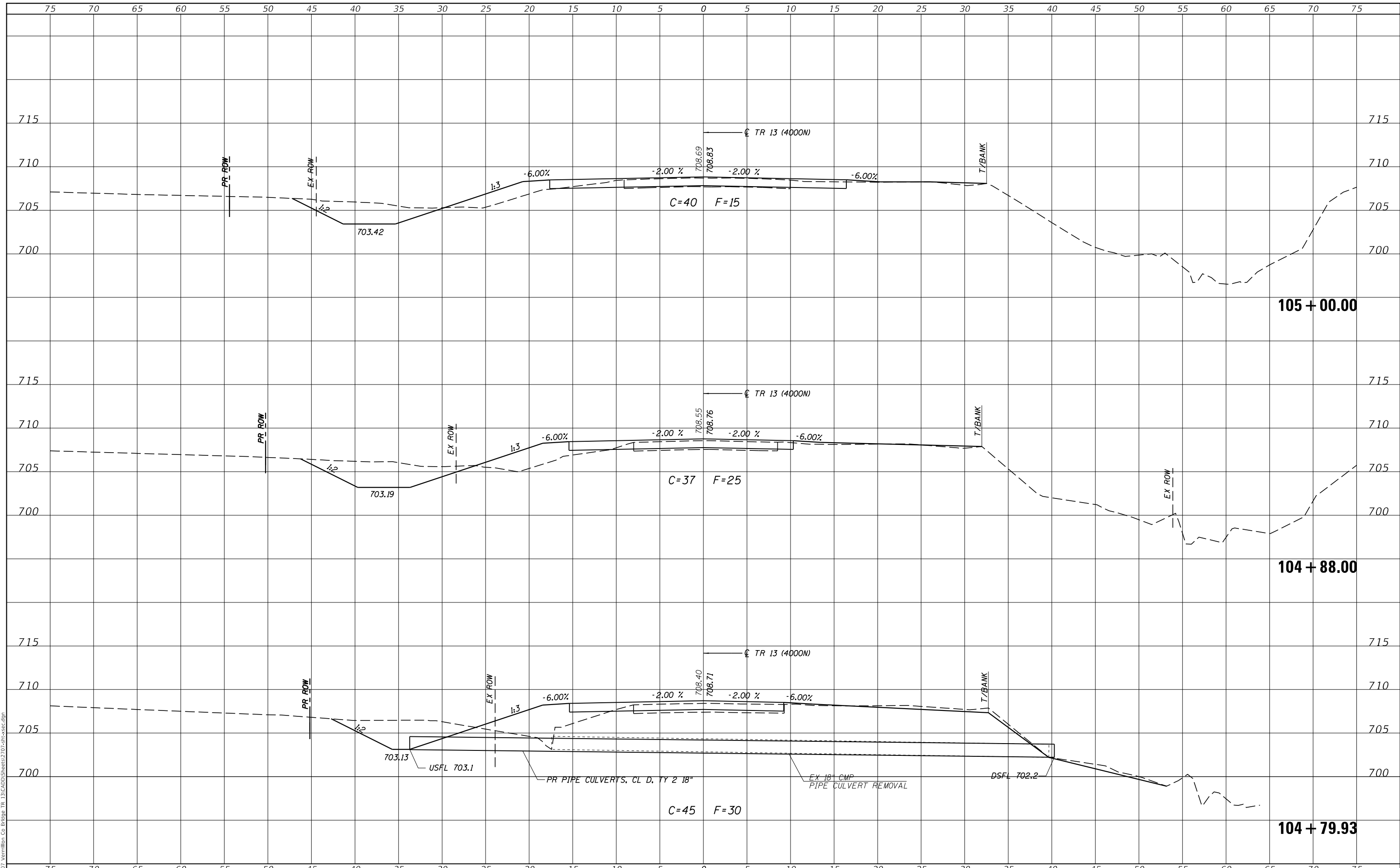
**VERMILION COUNTY
 BUTLER ROAD DISTRICT
 TR 13 (4000N & 880E) IMPROVEMENTS**

**CROSS SECTIONS
 TR 13 (4000N) - WEST LEG**
 SCALE: SHEET OF SHEETS STA. 104+15.00 TO STA. 104+60.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	18-02155-00-BR	VERMILION	29	24
			CONTRACT NO. 91617	
		ILLINOIS	FED. AID PROJECT	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY NO.	
NOTE BOOK NO.	
AREAS CHECKED	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY NO.	
NOTE BOOK NO.	
AREAS CHECKED	



JOB# = 2707
 FILE NAME = 2707-sht-xsec.dgn
 PLOT SCALE = 10.0000' / in.
 PLOT DATE = 5/3/2023

DESIGNED - CGF
 DRAWN - CGF
 CHECKED - AAN
 DATE - 8/11/2022

REVISED - TSH
 REVISED -
 REVISED -
 REVISED -

**VERMILION COUNTY
 BUTLER ROAD DISTRICT
 TR 13 (4000N & 880E) IMPROVEMENTS**

**CROSS SECTIONS
 TR 13 (4000N) - WEST LEG**

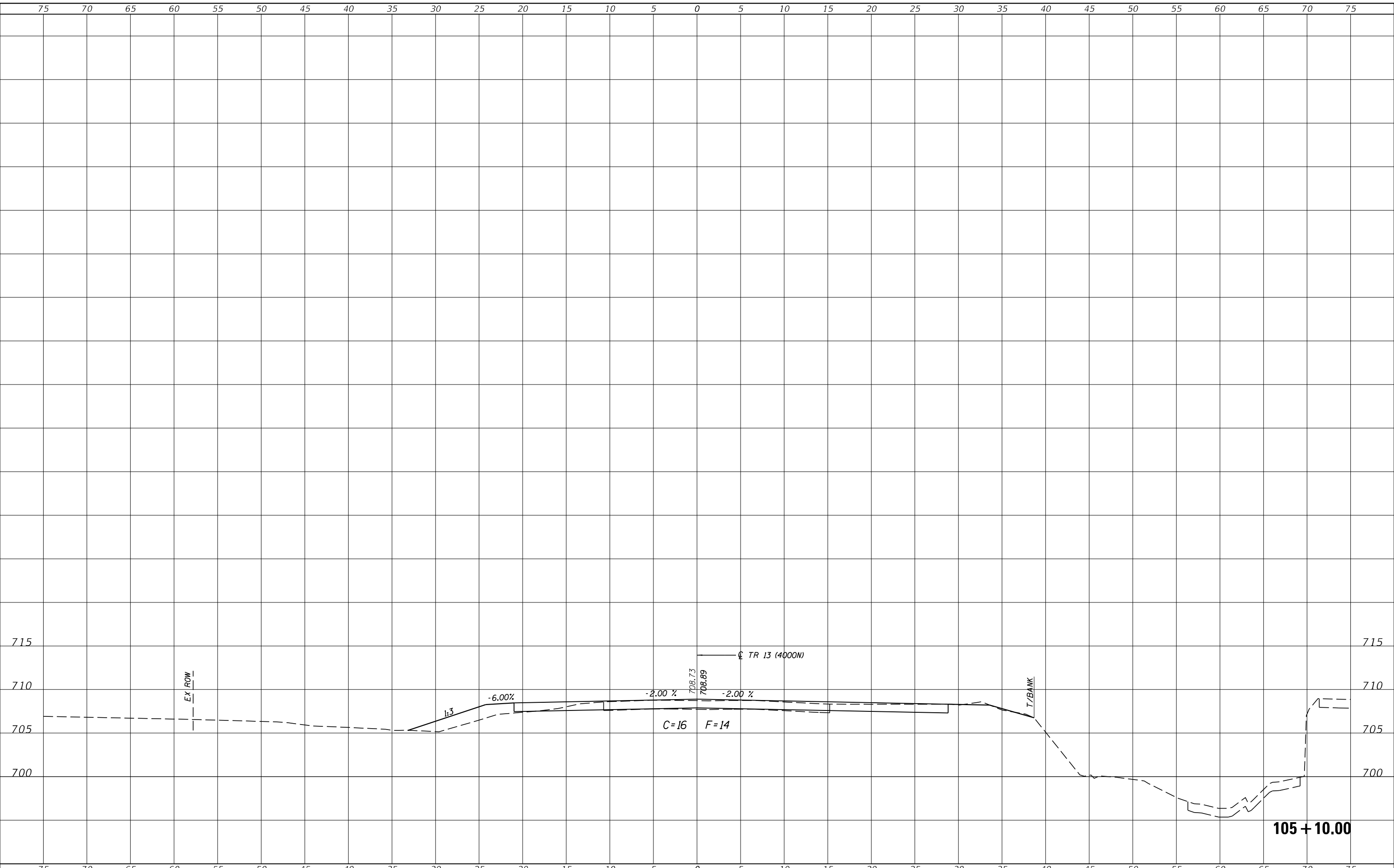
SCALE: SHEET OF SHEETS STA. 104+79.93 TO STA. 105+00.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	18-02155-00-BR	VERMILION	29	25
CONTRACT NO. 91617				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED	DATE
NOTE BOOK	PLOTTED	
	TEMPLATE	
	AREAS CHECKED	
	AREAS CHECKED	

ORIGINAL SURVEY NO.	SURVEYED	DATE
NOTE BOOK	PLOTTED	
	TEMPLATE	
	AREAS CHECKED	
	AREAS CHECKED	

MODEL: Defaul
FILE NAME: 18-0215-TR13-13-CAD/Sheets/2707-2tr-xsec.dgn



CEC Cummins Engineering Corporation
Civil and Structural Engineering

JOB# = 2707	DESIGNED - CGF	REVISED - TSH
FILE NAME = 2707-sht-xsec.dgn	DRAWN - CGF	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - AAN	REVISED -
PLOT DATE = 5/3/2023	DATE - 8/11/2022	REVISED -

DESIGNED - CGF	REVISED - TSH
DRAWN - CGF	REVISED -
CHECKED - AAN	REVISED -
DATE - 8/11/2022	REVISED -

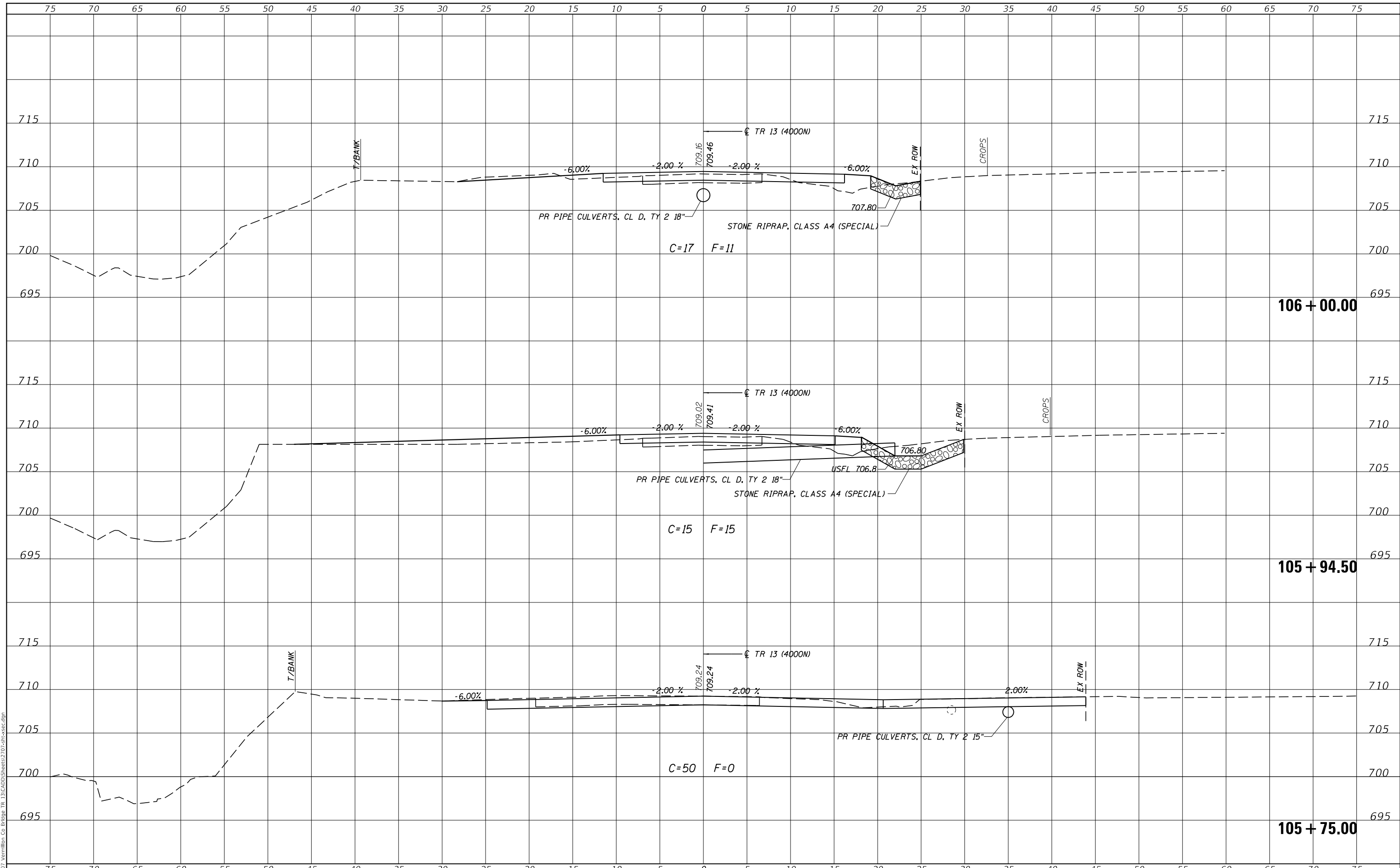
**VERMILION COUNTY
BUTLER ROAD DISTRICT
TR 13 (4000N & 880E) IMPROVEMENTS**

CROSS SECTIONS	
TR 13 (4000N) - WEST LEG	
SCALE:	SHEET OF SHEETS
STA. 105+10.00 TO STA. 105+10.84	

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	18-02155-00-BR	VERMILION	29	26
CONTRACT NO. 91617				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY NO.	
NOTE BOOK NO.	
AREAS CHECKED	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY NO.	
NOTE BOOK NO.	
AREAS CHECKED	



CEC Cummins Engineering Corporation
Civil and Structural Engineering

JOB# = 2707
FILE NAME = 2707-sht-xsec.dgn
PLOT SCALE = 10.0000' / in.
PLOT DATE = 5/3/2023

DESIGNED - CGF
DRAWN - CGF
CHECKED - AAN
DATE - 8/11/2022

REVISED - TSH
REVISED -
REVISED -
REVISED -

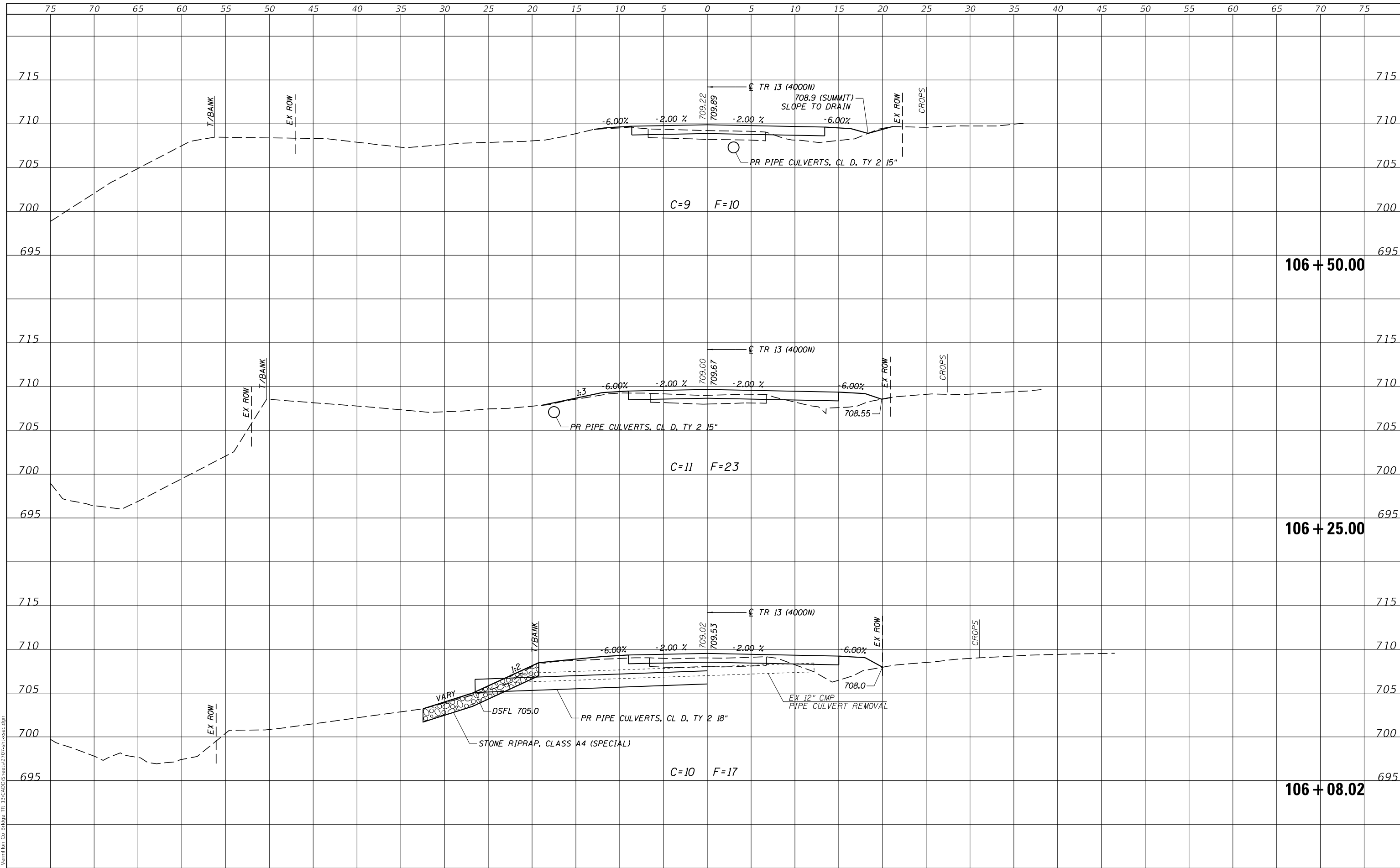
VERMILION COUNTY BUTLER ROAD DISTRICT TR 13 (4000N & 880E) IMPROVEMENTS

CROSS SECTIONS TR 13 (4000N) - EAST LEG
SCALE: SHEET OF SHEETS STA. 105+75.00 TO STA. 106+00.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	18-02155-00-BR	VERMILION	29	27
CONTRACT NO. 91617				
		ILLINOIS	FED. AID PROJECT	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY NO.	
NOTE BOOK NO.	
AREAS CHECKED	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY NO.	
NOTE BOOK NO.	
AREAS CHECKED	



CEC Cummins Engineering Corporation
Civil and Structural Engineering

JOB# = 2707
FILE NAME = 2707-sht-xsec.dgn
PLOT SCALE = 10.0000' / in.
PLOT DATE = 5/3/2023

DESIGNED - CGF
DRAWN - CGF
CHECKED - AAN
DATE - 8/11/2022

REVISED - TSH
REVISED -
REVISED -
REVISED -

VERMILION COUNTY BUTLER ROAD DISTRICT
TR 13 (4000N & 880E) IMPROVEMENTS

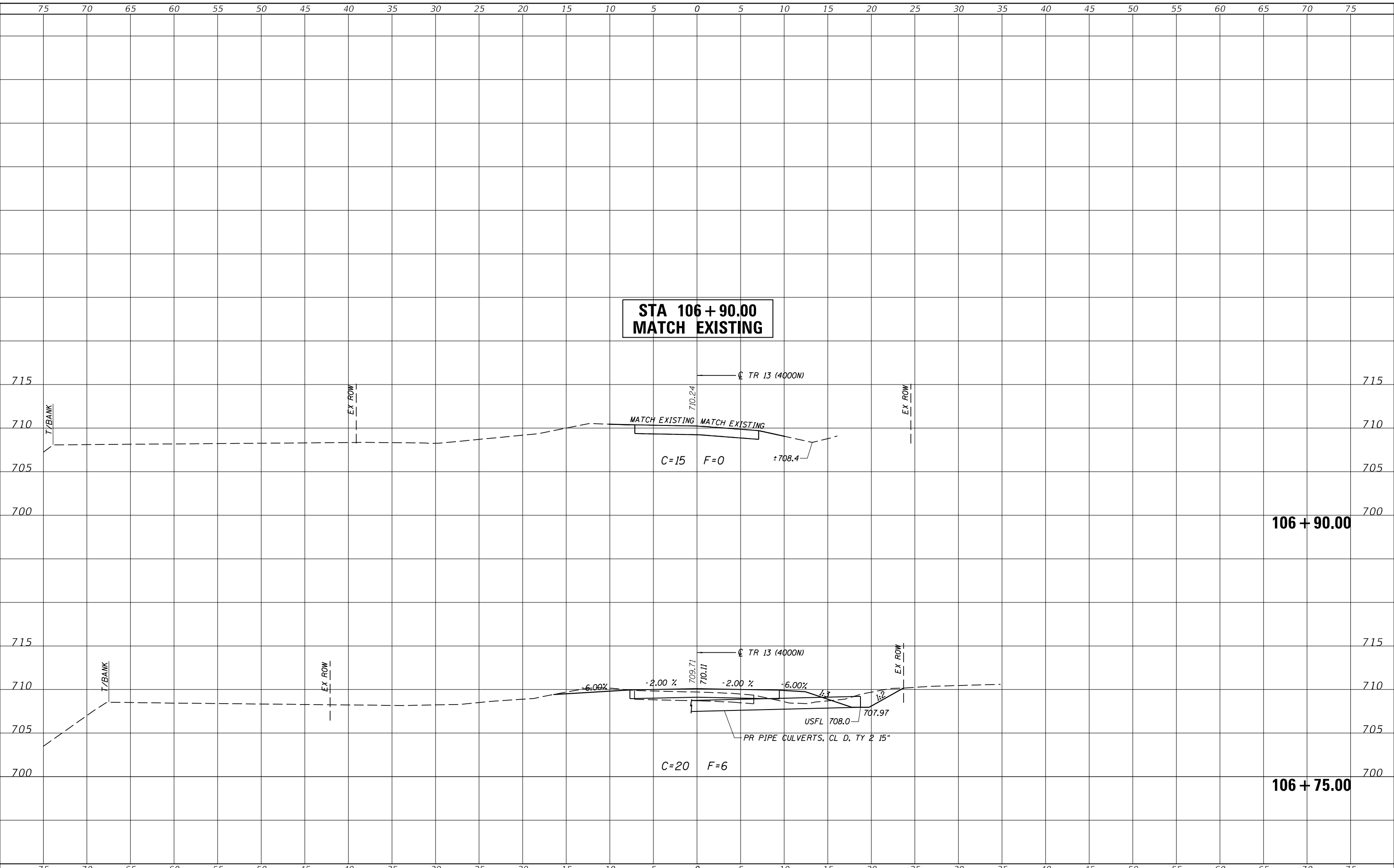
CROSS SECTIONS
TR 13 (4000N) - EAST LEG
SCALE: SHEET OF SHEETS STA. 106+08.02 TO STA. 106+50.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	18-02155-00-BR	VERMILION	29	28
				CONTRACT NO. 91617
		ILLINOIS	FED. AID PROJECT	

FINAL SURVEY NO.	SURVEYED	DATE
NOTE BOOK	PLOTTED	
	TEMPLATE	
	AREAS CHECKED	
	AREAS CHECKED	

ORIGINAL SURVEY NO.	SURVEYED	DATE
NOTE BOOK	PLOTTED	
	TEMPLATE	
	AREAS CHECKED	
	AREAS CHECKED	

MODEL: Defaul
FILE NAME: R22707_Vermilion Co Bridge TR 13 CAD/Sheets/2707-2tr-xsec.dgn



CEC Cummins Engineering Corporation
Civil and Structural Engineering

JOB# = 2707	DESIGNED - CGF	REvised - TSH
FILE NAME = 2707-sht-xsec.dgn	DRAWN - CGF	REvised -
PLOT SCALE = 10.0000' / in.	CHECKED - AAN	REvised -
PLOT DATE = 5/3/2023	DATE - 8/11/2022	REvised -

DESIGNED - CGF	REvised - TSH
DRAWN - CGF	REvised -
CHECKED - AAN	REvised -
DATE - 8/11/2022	REvised -

**VERMILION COUNTY
BUTLER ROAD DISTRICT
TR 13 (4000N & 880E) IMPROVEMENTS**

CROSS SECTIONS	
TR 13 (4000N) - EAST LEG	
SCALE:	SHEET OF SHEETS
STA. 106+75.00	TO STA. 106+90.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
13	18-02155-00-BR	VERMILION	29	29
				CONTRACT NO. 91617
				ILLINOIS FED. AID PROJECT