

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PLANS FOR PROPOSED
SURFACE TRANSPORTATION PROGRAM
OFF SYSTEM BRIDGE**

**PROJECT BROS-0081(078)
SECTION 01-13109-00-BR
ROME ROAD DISTRICT
JEFFERSON COUNTY
T.R. 1A / OLD CENTRALIA LANE
PROPOSED STRUCTURE NO. 041-3760
C-99-509-15**

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 1A	01-13109-00-BR	JEFFERSON	25	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 99547	

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	SUMMARY OF QUANTITIES AND GENERAL NOTES
3.	TYPICAL CROSS SECTIONS
4-5.	PLAN AND PROFILE
6.	CENTERLINE, GUARDRAIL AND SHOULDER DETAILS
7-16.	STATION CROSS SECTIONS
17-24.	BRIDGE PLANS
25.	BORINGS

HIGHWAY STANDARDS:

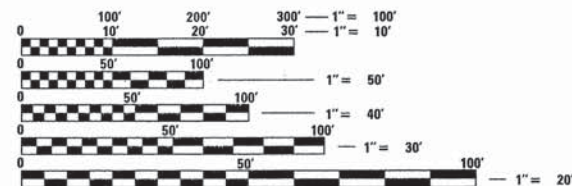
000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
515001-03	NAME PLATE FOR BRIDGES
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
701901-04	TRAFFIC CONTROL DEVICES
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
BLR 27-1	TRAFFIC BARRIER TERMINAL, TYPE 5A

UTILITIES

TRI-COUNTY ELECTRIC COOPERATIVE
3906 BROADWAY
MT. VERNON, ILLINOIS 62864
(618)244-5151

FRONTIER COMMUNICATIONS
111 EAST STATE STREET
MASCOUTAH, ILLINOIS 62258
(618)566-9815

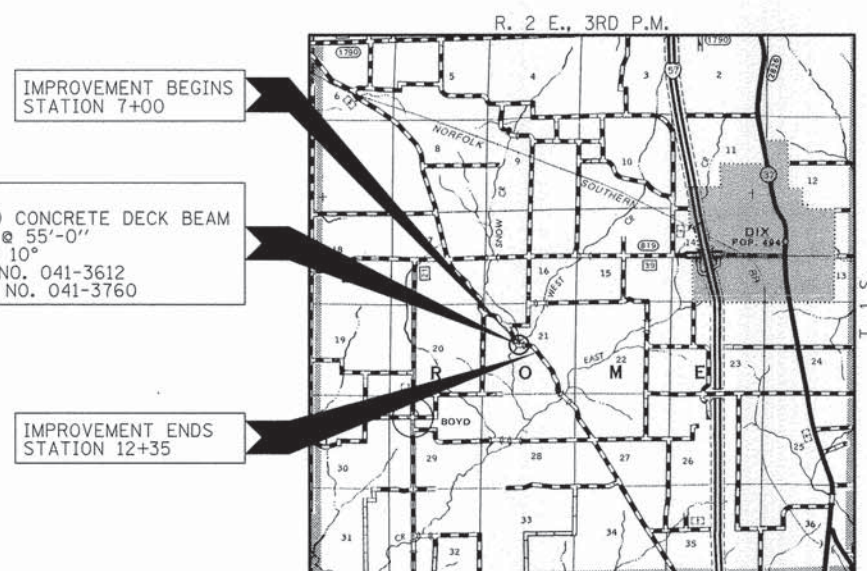
VILLAGE OF WOODLAWN
202 S. CENTRAL STREET
WOODLAWN, ILLINOIS 62898
(618)244-7819



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.



FUNCTIONAL CLASSIFICATION: LOCAL ROAD (NON-URBAN)
DESIGN SPEED: 30 MPH
DESIGN TRAFFIC: 125 ADT (2014)



LOCATION MAP
APPROXIMATE SCALE: 0 1 MILE
NET LENGTH OF SECTION = 535 FEET = 0.101 MILES



ILLINOIS DEPARTMENT OF TRANSPORTATION	
APPROVED	3-6 20 15 <i>Derek J. ...</i> COUNTY ENGINEER
APPROVED	3-6 20 15 <i>Ed ...</i> TOWNSHIP COMMISSIONER
PASSED	March 17 20 15 <i>Derek W. Hill</i> DISTRICT NINE ENGINEER OF LOCAL ROADS & STREETS
Releasing For Bid Based on Limited Review	March 17 20 15 <i>Dallas L. Kern</i> DEPUTY DIRECTOR OF HIGHWAYS REGION FIVE ENGINEER STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DATE: 03/03/2015
EXPIRES: 11/30/2015
PROJECT NUMBER: 14.0152.130
DATE: 03/13/15

HAMPTON, LENZINI AND RENWICK, INC.
CIVIL ENGINEERS - STRUCTURAL ENGINEERS - LAND SURVEYORS
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
217.546.3400 www.hlrengineering.com
184.000999
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORPORATION

SUMMARY OF QUANTITIES			
CODE NO.	ITEM	CONSTRUCTION CODE 0011	
		UNIT	TOTAL
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	75
20200100	EARTH EXCAVATION	CU YD	335
20300100	CHANNEL EXCAVATION	CU YD	125
20400800	FURNISHED EXCAVATION	CU YD	600
A 28100807	STONE DUMPED RIPRAP, CLASS A4	TON	180
A 40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	436
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	28.2
50300280	CONCRETE ENCASEMENT	CU YD	2.8
A 50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	1485
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2820
51201400	FURNISHING STEEL PILES HP10X42	FOOT	360
51202305	DRIVING PILES	FOOT	360
51500100	NAME PLATES	EACH	1
58700300	CONCRETE SEALER	SQ FT	110
A 59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	69
* 63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	2
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2
67100100	MOBILIZATION	L SUM	1
A X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.5
* A X5091305	STEEL RAILING, TYPE S1 (SPECIAL)	FOOT	110

A SEE SPECIAL PROVISIONS

* SPECIALTY ITEMS

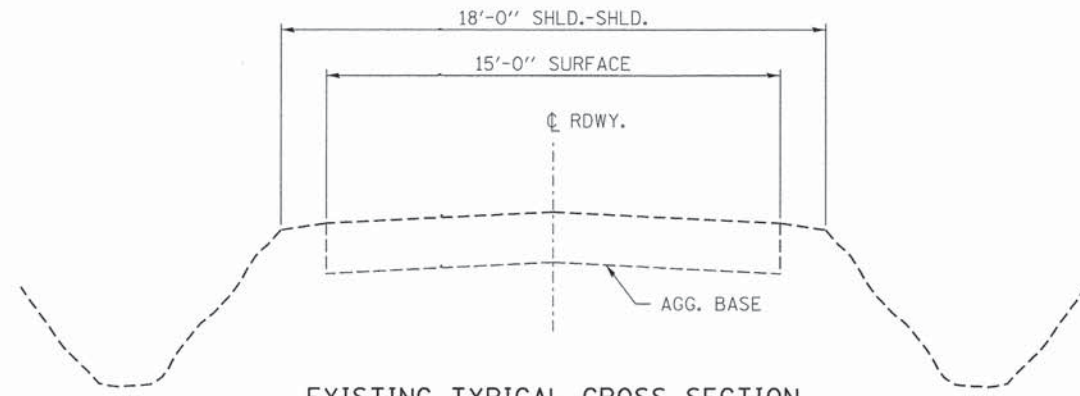
GENERAL NOTES

- ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED, JANUARY 1, 2012," THESE PLANS AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.
- ALL CLEARING AND GRUBBING, FENCE REMOVAL AND REMOVAL OF EXISTING DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION. THE REMOVAL OF THE EXISTING AGGREGATE SURFACE WILL BE PAID FOR AS EARTH EXCAVATION. ALL BITUMINOUS MATERIAL SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN A METHOD APPROVED BY THE ENGINEER. PROPOSED DISPOSAL OF BITUMINOUS MATERIAL SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- THE LOCATION OF EXISTING GAS MAINS, ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATION AND THE BEST INFORMATION AVAILABLE, BUT THE LOCATIONS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE INDIVIDUAL COMPANIES AND BY FIELD INSPECTION.
- WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR REESTABLISH ANY ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.
- THE CONTRACTOR SHALL CONSULT THE ENGINEER IN REGARD TO THE EXACT LENGTH OF PIPE CULVERTS AND PIPE DRAINS BEFORE ORDERING THESE ITEMS.
- THE FENCES WILL BE REMOVED BY OTHERS. CONTRACTOR SHALL NOTIFY THE ENGINEER, 5 DAYS BEFORE HIS INTENDED START DATE FOR THE FENCE TO BE RELOCATED.
- THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES.

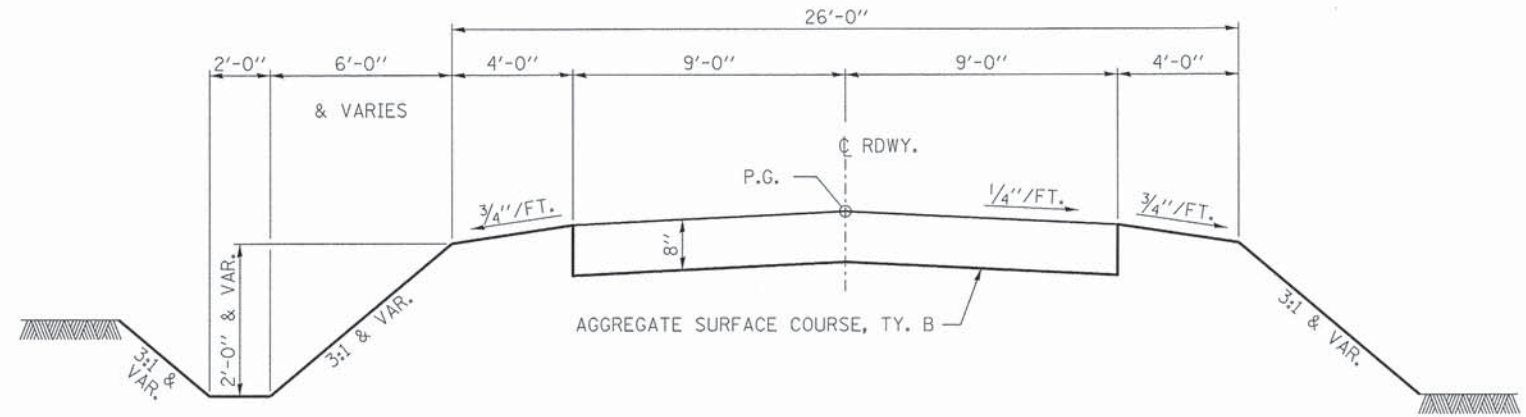
AGGREGATE SURFACE COURSE, TYPE B	2.05 TON/CU YD
STONE DUMPED RIPRAP, CLASS A4	1.75 TON/CU YD
- THE AREA TO BE SEEDED SHALL CONSIST OF ALL EARTH SURFACES WITHIN THE RIGHT OF WAY OR AS DIRECTED BY THE ENGINEER
SEEDING, CLASS 2 (SPECIAL) = 0.5 ACRES

EARTHWORK SUMMARY							
LOCATION	EARTH EXCAVATION	CHANNEL EXCAVATION	SHRINKAGE FACTOR	% USED	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT REQUIRED	EARTHWORK BALANCE WASTE (+) / SHORTAGE (-)
	20200100	20300100			CU YD		CU YD
	CU YD	CU YD			CU YD		CU YD
STA 7+00.00 TO STA 9+71.83	162		25.00%	100.00%	121	540	-419
STA 9+71.83 TO STA 10+28.17		125	25.00%	70.00%	66		66
STA 10+28.17 TO STA 12+35.00	170		25.00%	100.00%	127	367	-240
TOTAL	332	125			314	908	-593
USE	335	125					-600

FURNISHED EXCAVATION 600 CU.YD.



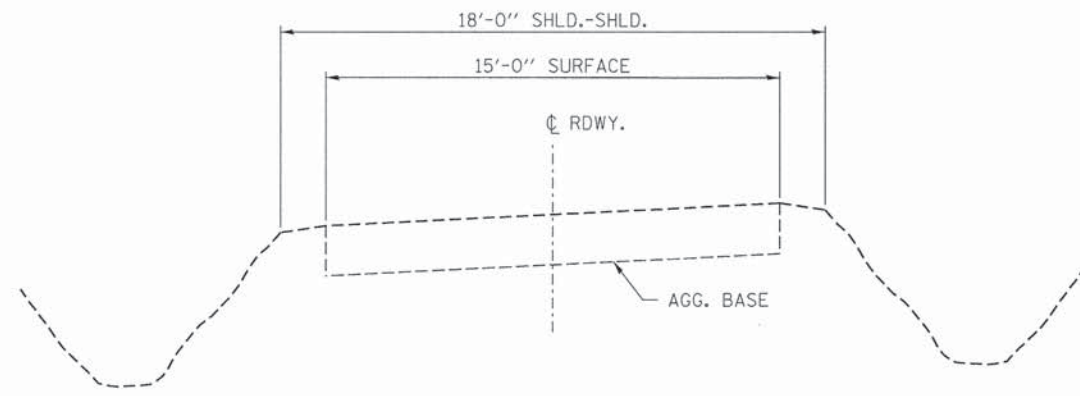
EXISTING TYPICAL CROSS SECTION
 STA. 7+00 TO 8+46.93 &
 STA. 10+29.21 TO 12+35



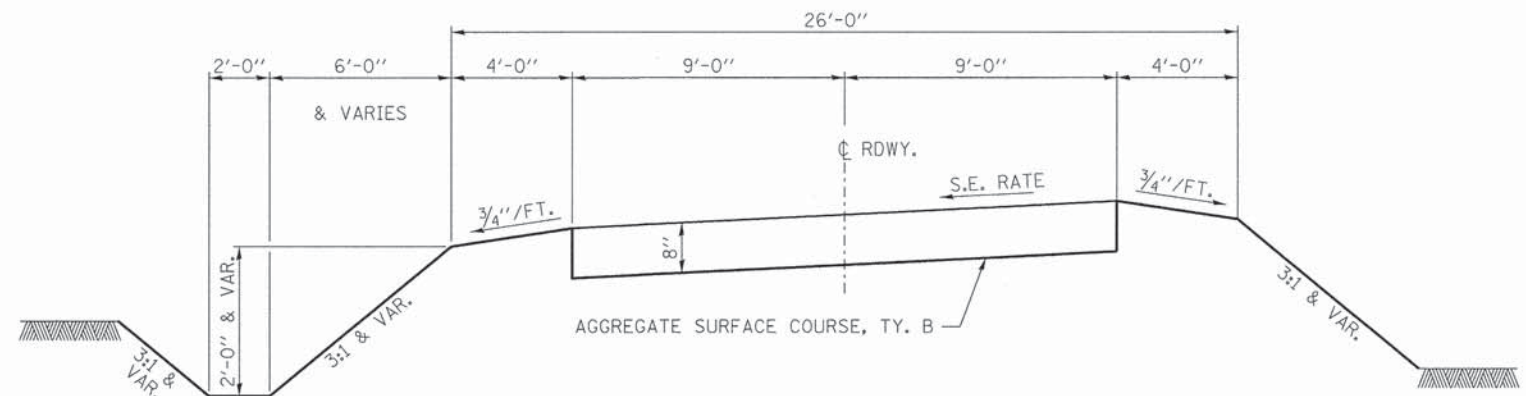
SUGGESTED CUT SECTION
 CONSTRUCT AS SHOWN IN
 STATION CROSS SECTIONS

PROPOSED TYPICAL CROSS SECTION
 STA. 7+00 TO 8+46.93 &
 STA. 10+29.21 TO 12+35

SUGGESTED FILL SECTION
 CONSTRUCT AS SHOWN IN
 STATION CROSS SECTIONS



EXISTING TYPICAL CROSS SECTION
 STA. 8+46.93 TO 10+29.21



SUGGESTED CUT SECTION
 CONSTRUCT AS SHOWN IN
 STATION CROSS SECTIONS

PROPOSED TYPICAL CROSS SECTION
 STA. 8+46.93 TO 10+29.21

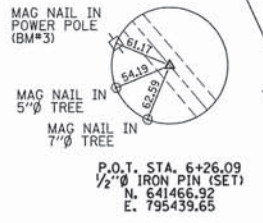
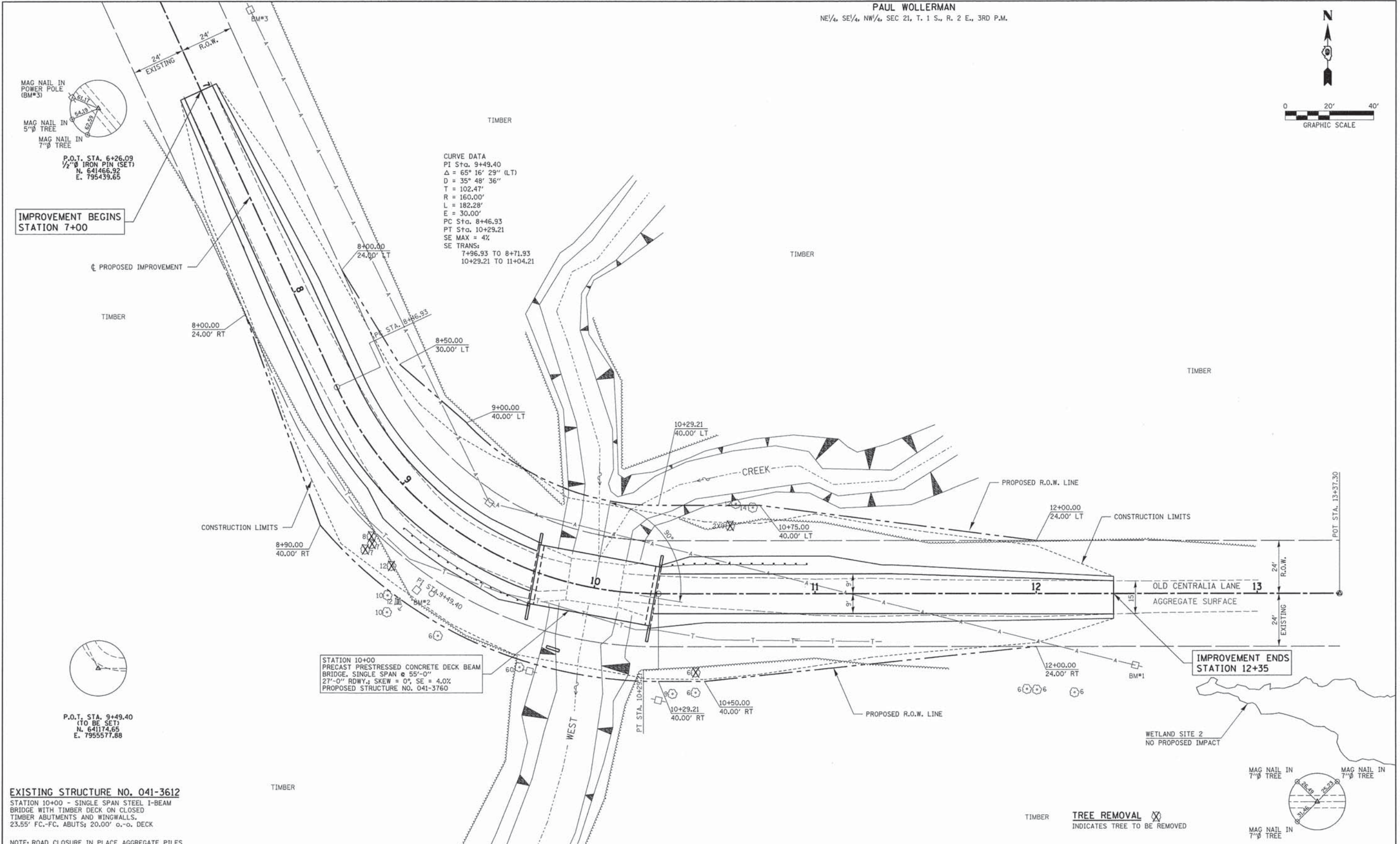
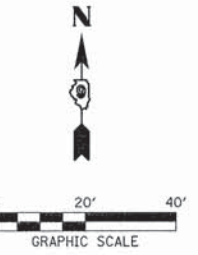
SUGGESTED FILL SECTION
 CONSTRUCT AS SHOWN IN
 STATION CROSS SECTIONS

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HAMPTON, LENZINI AND RENWICK, INC.		DRAWN - R.D.H.	REVISED -
3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE COMP. 184.00093	PLOT DATE = 3/4/2015	DATE - 03/03/15	REVISED -

STATE OF ILLINOIS
JEFFERSON COUNTY HIGHWAY DEPARTMENT

TYPICAL CROSS SECTIONS	
SCALE:	SHEET NO. 1 OF 1 SHEETS
STA.	TO STA.

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1A	01-13109-00-BR	JEFFERSON	25	3
ROME ROAD DISTRICT			CONTRACT NO. 99547	
ILLINOIS FED. AID PROJECT BR05-00810781				



CURVE DATA
 PI Sta. 9+49.40
 $\Delta = 65^\circ 16' 29''$ (LT)
 $D = 35^\circ 48' 36''$
 $T = 102.47'$
 $R = 160.00'$
 $L = 182.28'$
 $E = 30.00'$
 PC Sta. 8+46.93
 PT Sta. 10+29.21
 SE MAX = 4%
 SE TRANS:
 7+96.93 TO 8+71.93
 10+29.21 TO 11+04.21

IMPROVEMENT BEGINS
STATION 7+00

P.O.T. STA. 9+49.40
(TO BE SET)
N. 641174.65
E. 7955577.88

STATION 10+00
PRECAST PRESTRESSED CONCRETE DECK BEAM
BRIDGE, SINGLE SPAN @ 55'-0"
27'-0" RDWY.; SKEW = 0°, SE = 4.0%
PROPOSED STRUCTURE NO. 041-3760

IMPROVEMENT ENDS
STATION 12+35

EXISTING STRUCTURE NO. 041-3612
 STATION 10+00 - SINGLE SPAN STEEL I-BEAM
 BRIDGE WITH TIMBER DECK ON CLOSED
 TIMBER ABUTMENTS AND WINGWALLS.
 23.55' FC.-FC. ABUTS; 20.00' o.-o. DECK

NOTE: ROAD CLOSURE IN PLACE AGGREGATE PILES
& TYPED BARRICADES SHALL BE SALVAGED
TO THE TOWNSHIP.

BM#1 - MAG SPIKE IN POWER POLE
30' RT., STA. 12+44
ELEV. 491.15

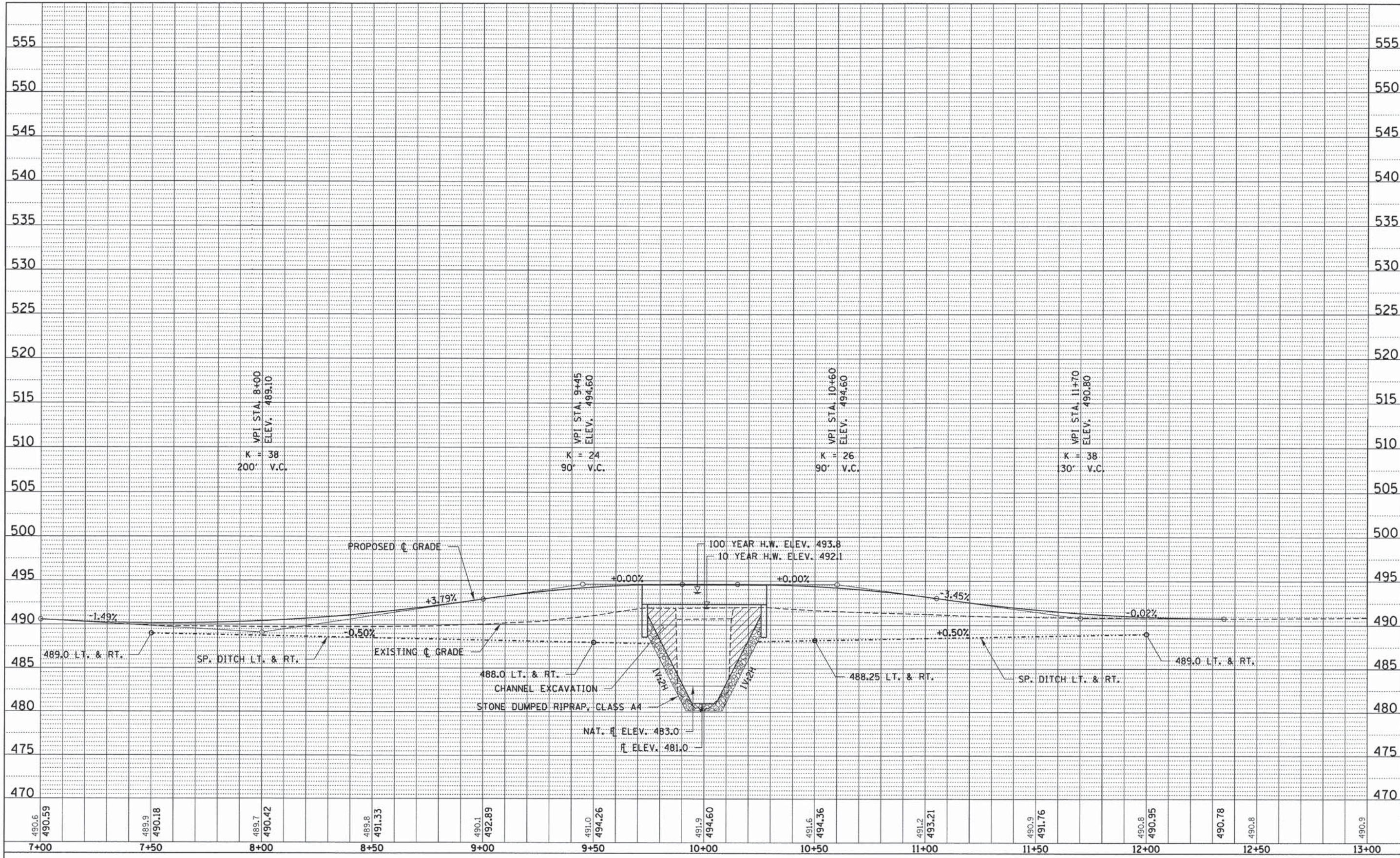
BM#2 - MAG SPIKE IN GUY POLE
15' RT., STA. 9+32
ELEV. 491.16

BM#3 - MAG SPIKE IN POWER POLE
35' LT., STA. 6+76
ELEV. 491.22

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HAMPTON, LENZINI AND RENWICK, INC. 3033 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	DRAWN - L.G.C.	REVISED -			1A	01-13109-00-BR	JEFFERSON	25	4
ILLINOIS PROFESSIONAL DESIGN FIRM L3 / PE / SE CORP. 184-000959	PLOT DATE = 3/4/2015	CHECKED - S.W.M.	REVISED -			ROME ROAD DISTRICT		CONTRACT NO. 99547		
		DATE - 03/03/15	REVISED -			SCALE: 20	SHEET NO. 1 OF 1 SHEETS	STA. 7+00.00 TO STA. 13+00.00	[ILLINOIS] FED. AID PROJECT BROS-0081078	

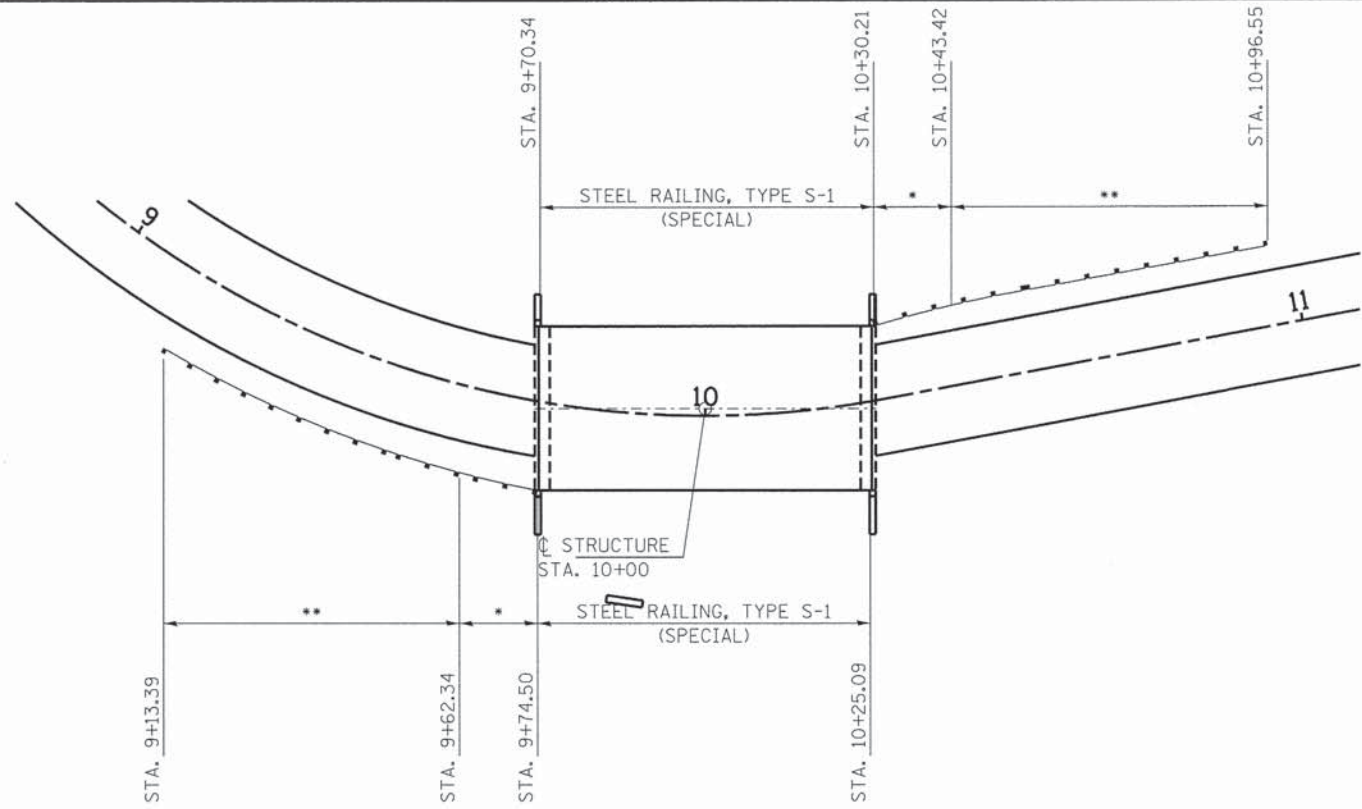
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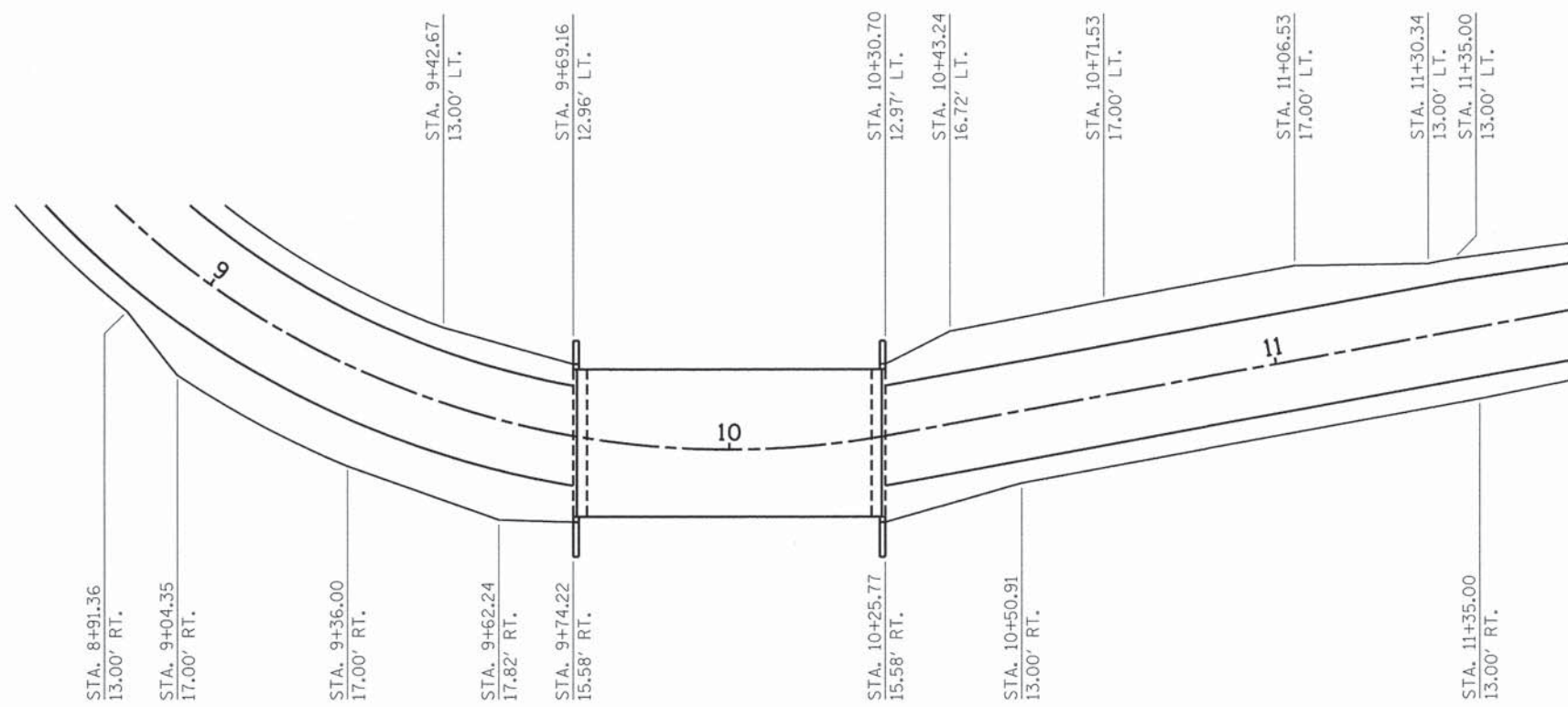
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PLLOT SCALE =		CHECKED - S.W.M.	REVISED -			ROME ROAD DISTRICT			CONTRACT NO. 99547	
PLLOT DATE = 3/4/2015		DATE - 03/03/15	REVISED -			FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT BROS-0081(078)				

SCALE: 20H:5V SHEET NO. 1 OF 1 SHEETS STA. 7+00.00 TO STA. 13+00.00



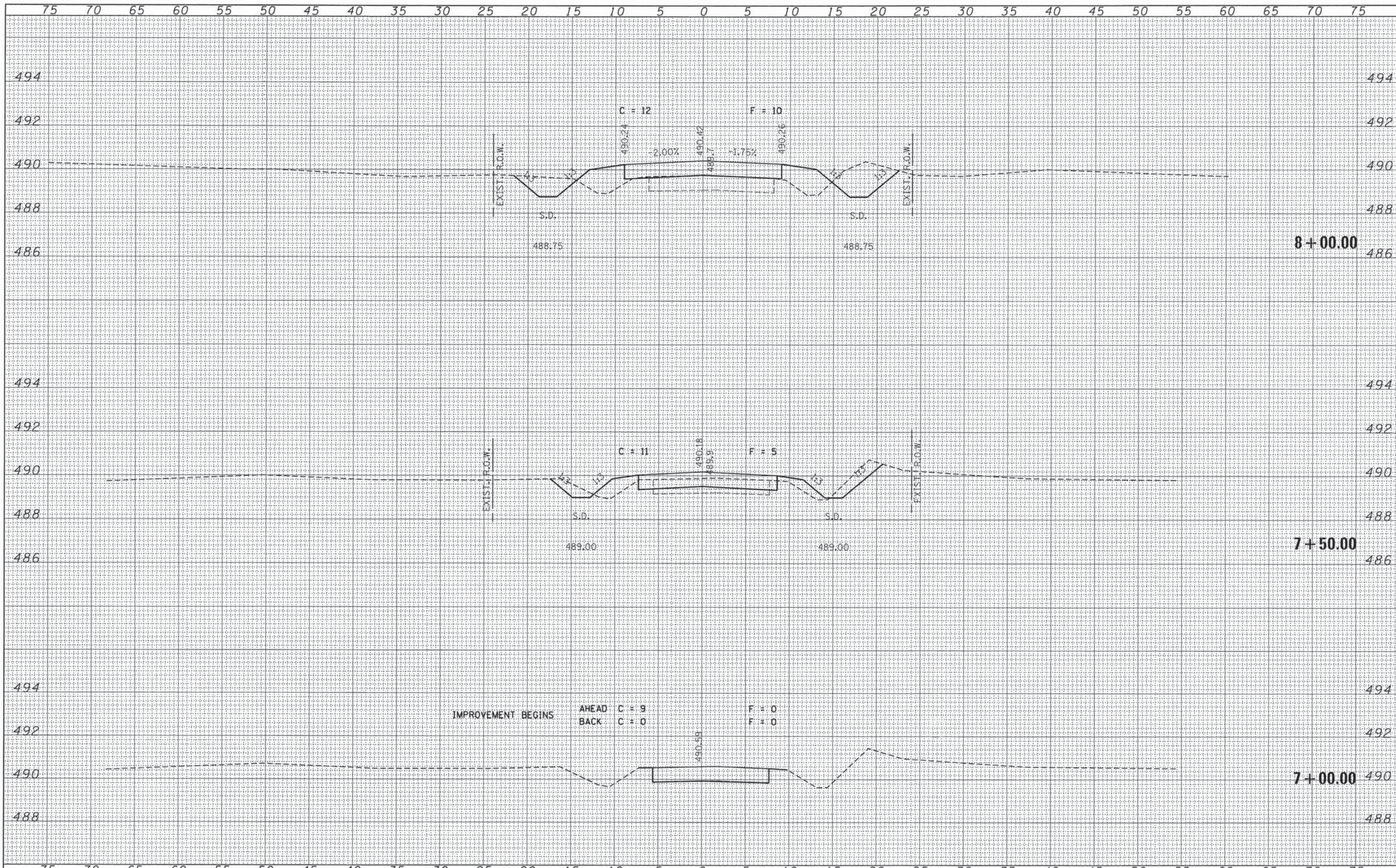
GUARDRAIL LAYOUT

- * TRAFFIC BARRIER TERMINAL, TYPE 5A
- ** TRAFFIC BARRIER TERMINAL, TYPE 1 SPL (TANGENT)



SHOULDER LAYOUT

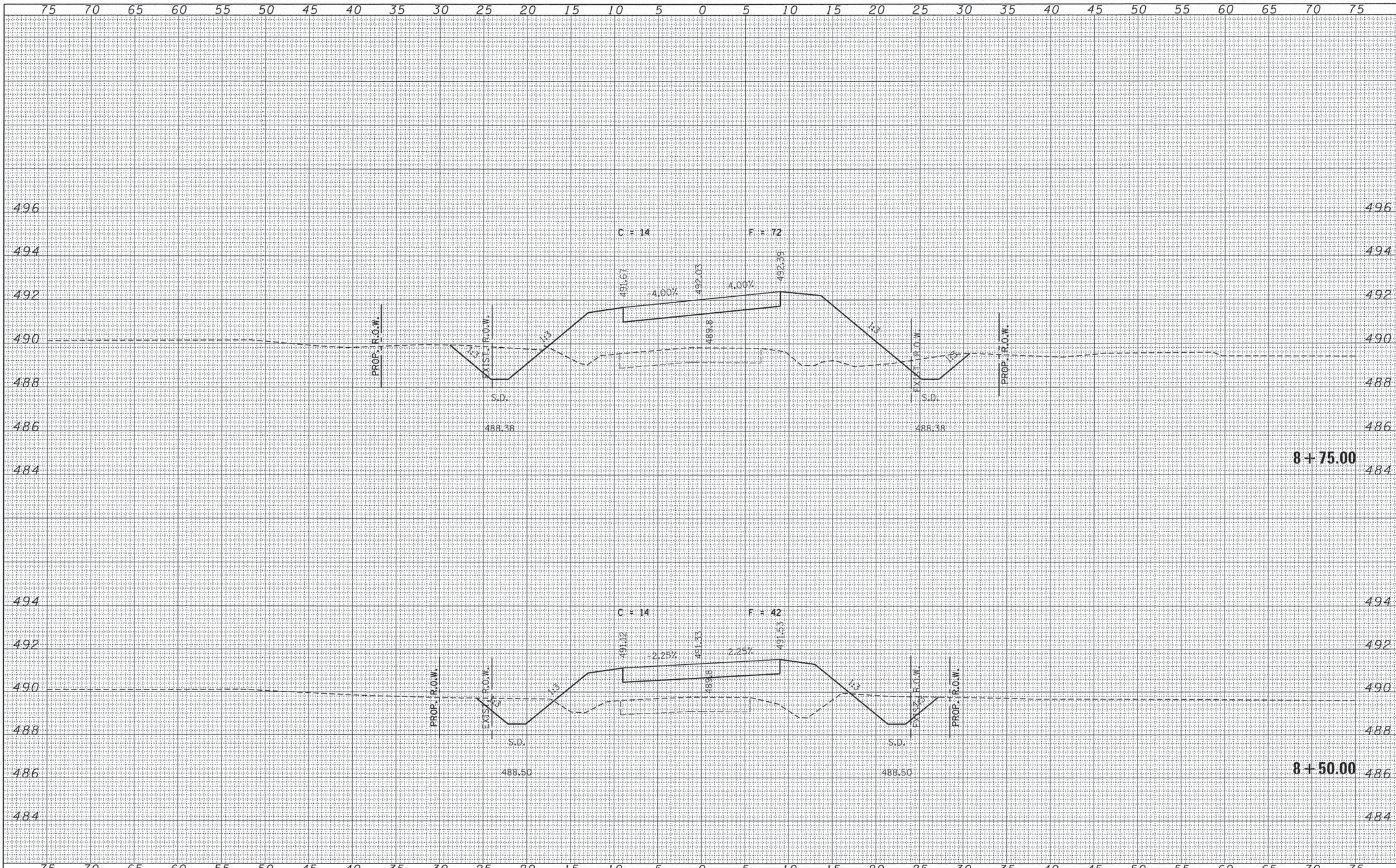
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	PLOT SCALE =	DRAWN - R.D.H.	REVISED -				1A	01-13109-00-BR	JEFFERSON	25	6
	PLOT DATE = 3/4/2015	CHECKED - S.W.M.	REVISED -				ROME ROAD DISTRICT	CONTRACT NO. 99547			
	DATE - 03/03/15	REVISED -	ILLINOIS FED. AID PROJECT BROS-0081078)								
				SCALE:	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.				



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NOTE BOOK	
AREAS CHECKED	
NO.	

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ORIGINAL SURVEY	
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		CHECKED - S.W.M.	REVISED -		1A	01-13109-00-BR	JEFFERSON	25	7
		DATE - 03/03/15	REVISED -		ROME ROAD DISTRICT				CONTRACT NO. 99547
				SCALE: 5H:2V	SHEET NO. 1 OF 10 SHEETS	STA. 7+00.00	TO STA. 8+00.00	ILLINOIS FED. AID PROJECT BROS-0081078	



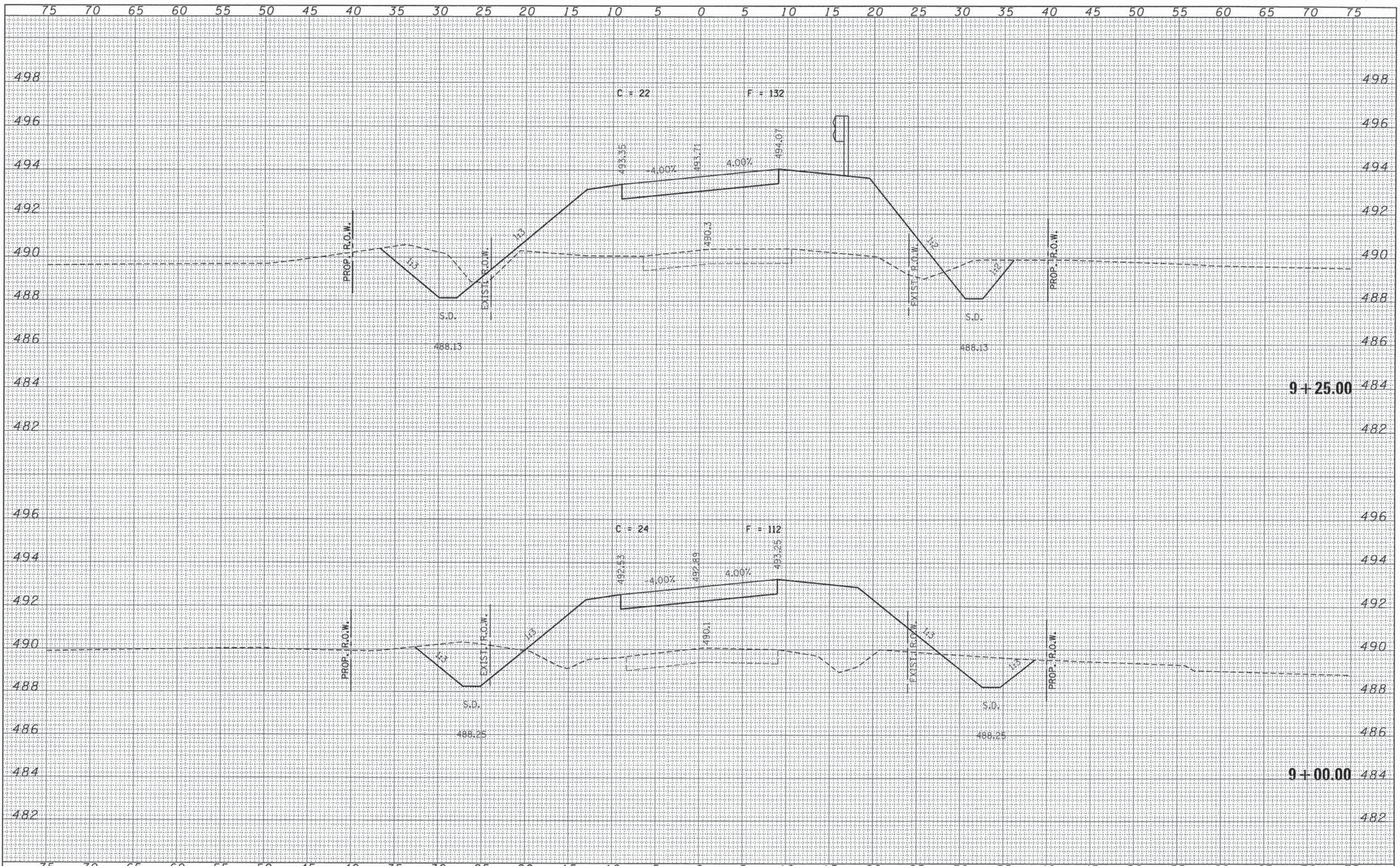
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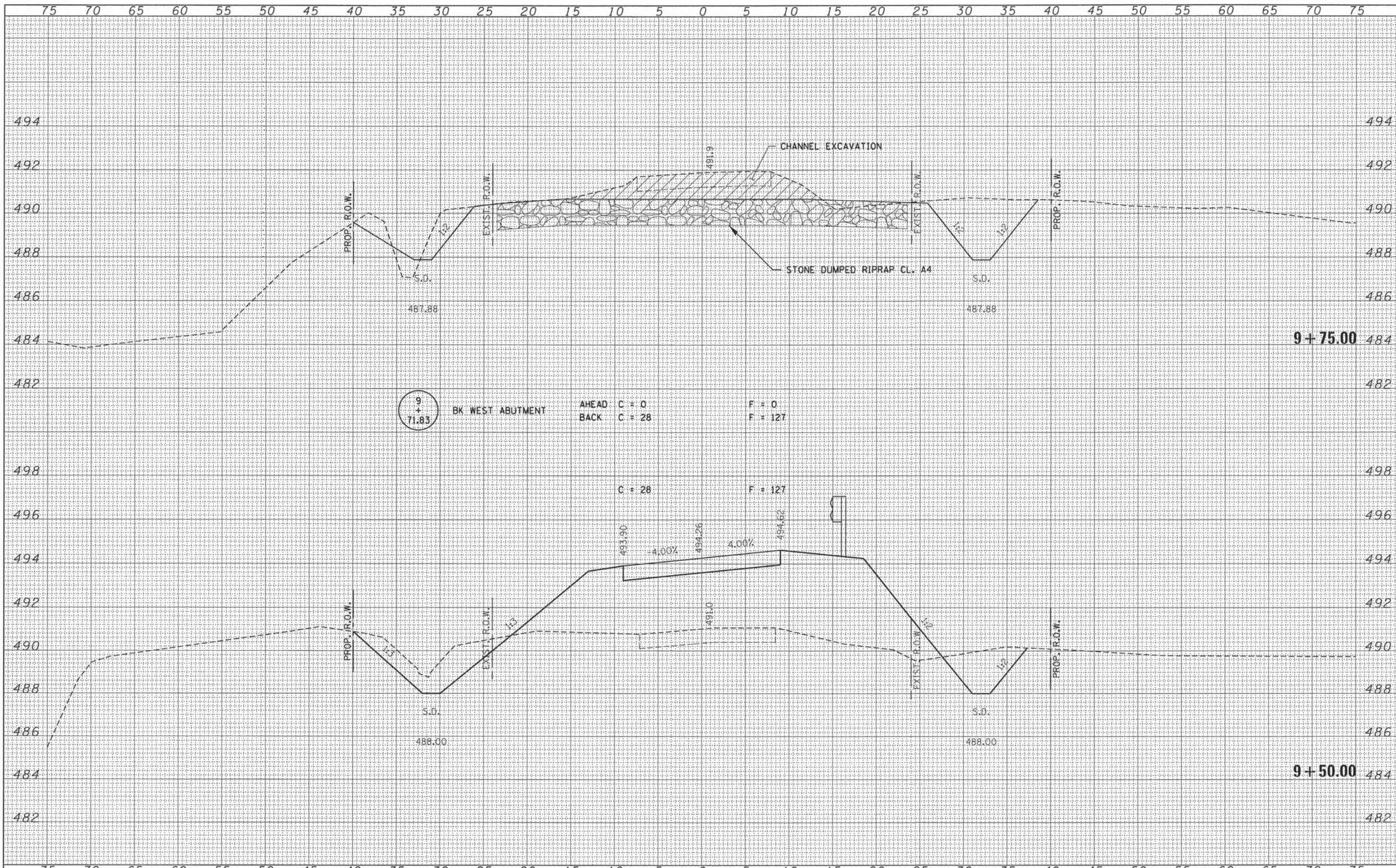
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HAMPTON, LENZINI AND RENWICK, INC. 305 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62702	PLOT SCALE =	DRAWN - L.G.C.	REVISED -		1A	01-13109-00-BR	JEFFERSON	25	8		
ILLINOIS PROFESSIONAL DESIGN FIRM L3 / PE / SE CORP. 184-00089	PLOT DATE = 3/4/2015	CHECKED - S.W.M.	REVISED -		ROME ROAD DISTRICT		CONTRACT NO. 99547				
		DATE - 03/03/15	REVISED -				ILLINOIS FED. AID PROJECT BROS-0081078				
				SCALE: 5H:2V	SHEET NO. 2 OF 10 SHEETS	STA. 8+50.00 TO STA. 8+75.00					

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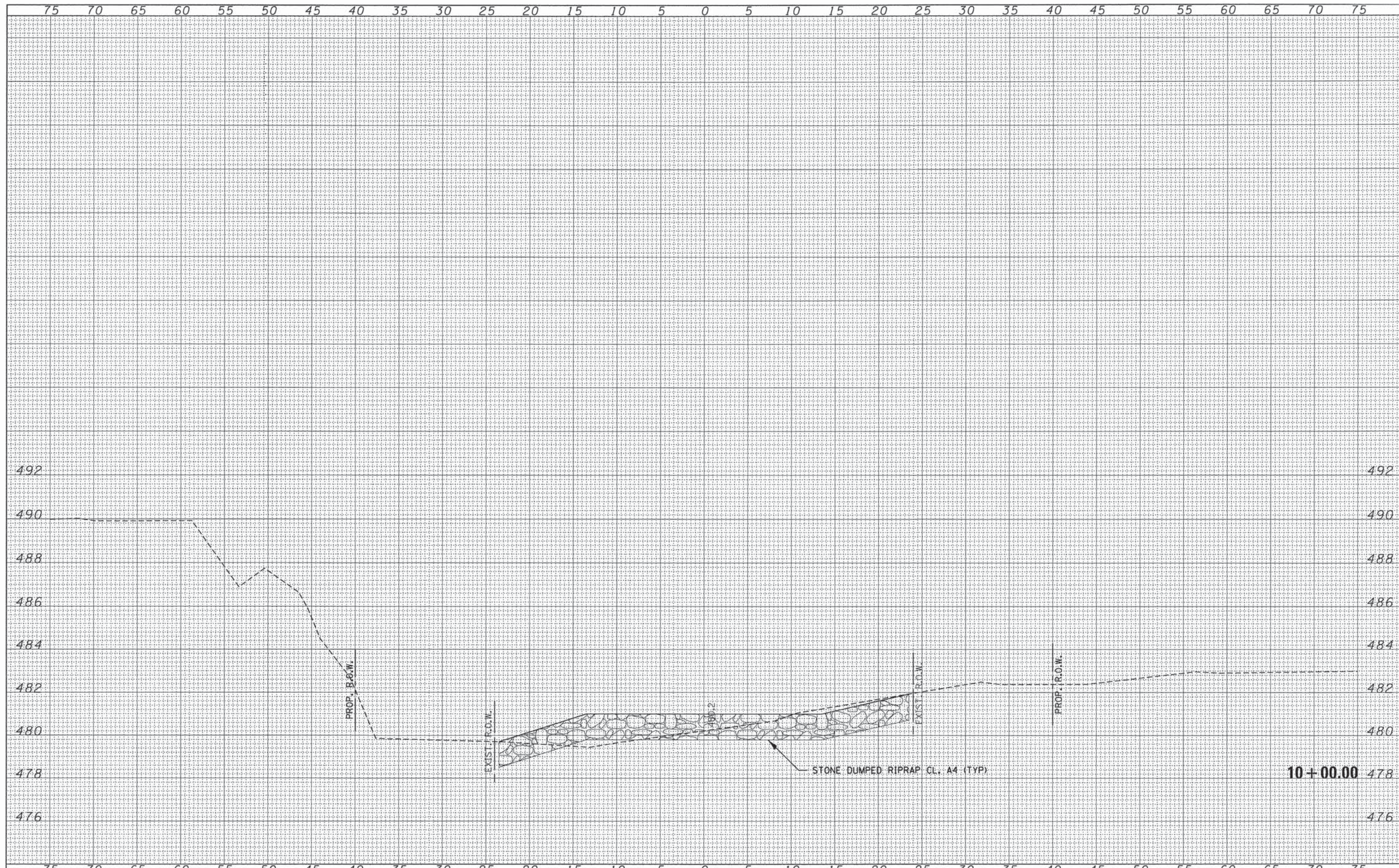
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HAMPTON, LENZINI AND RENWICK, INC. 308 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62709 ILLINOIS PROFESSIONAL DESIGN FIRM L8 / PE / SE CORP. 184-00099		DRAWN - L.G.C.	REVISED -		1A	01-13109-00-BR	JEFFERSON	25	9
		CHECKED - S.W.M.	REVISED -		ROME ROAD DISTRICT CONTRACT NO. 99547				
		DATE - 03/03/15	REVISED -		ILLINOIS FED. AID PROJECT BR05-008(1078)				



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HAMPTON, LENZINI AND RENWICK, INC. 305 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM L5/P8/BE CORP. 184-00099	PLOT SCALE =	DRAWN - L.G.C.	REVISED -		1A	01-13109-00-BR	JEFFERSON	25	10		
	PLOT DATE = 3/4/2015	CHECKED - S.W.M.	REVISED -		ROME ROAD DISTRICT			CONTRACT NO. 99547			
		DATE - 03/03/15	REVISED -		SCALE: 5H:2V			SHEET NO. 4 OF 10 SHEETS		STA. 9+50.00 TO STA. 9+75.00	ILLINOIS FED. AID PROJECT BROS-0081078



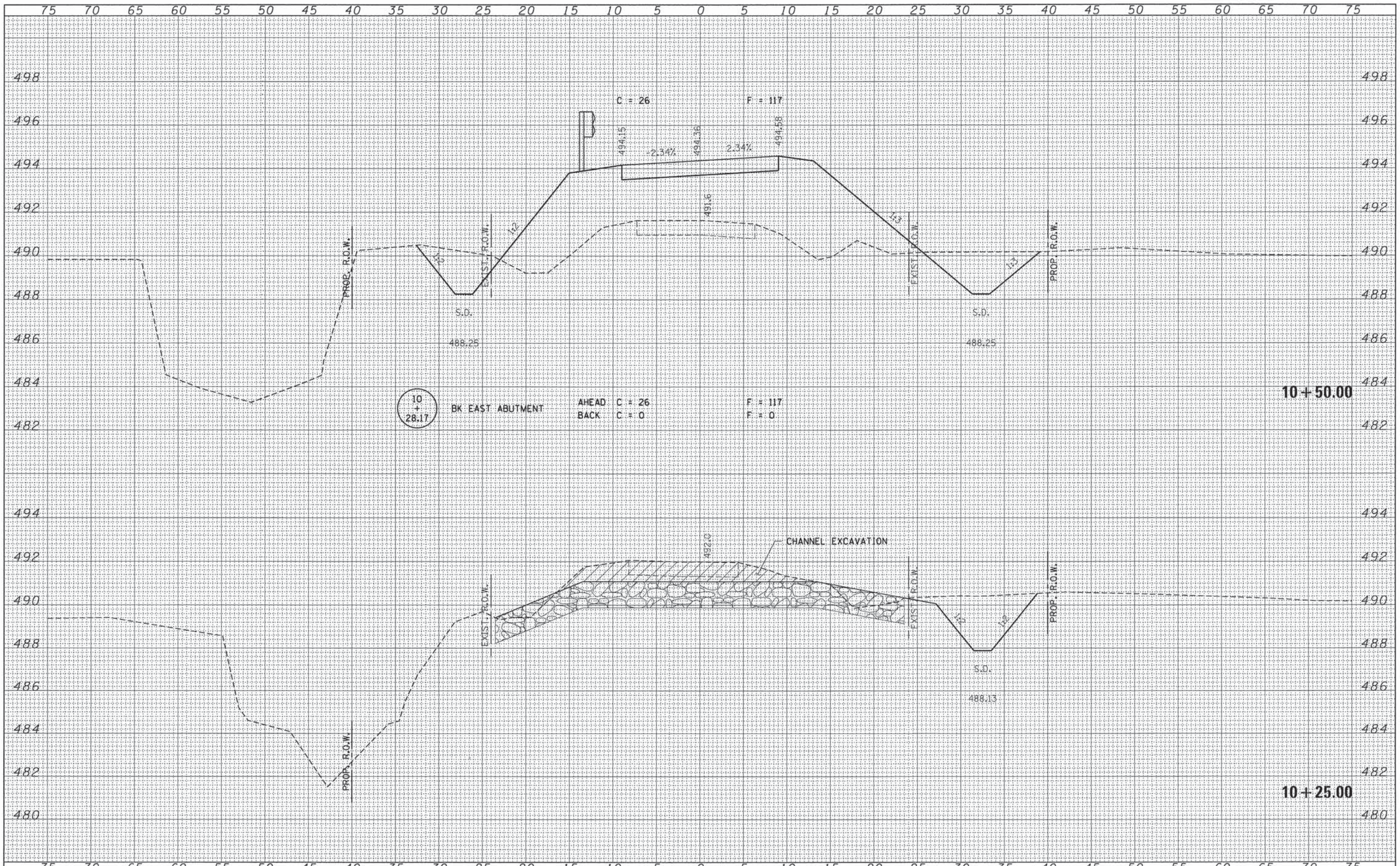
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HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62711 ILLINOIS PROFESSIONAL DESIGN FIRM LB / PE / SE CORP. 184-00099	PLOT SCALE =	DRAWN - L.G.C.	REVISED -		1A	01-13109-00-BR	JEFFERSON	25	11		
	PLOT DATE = 3/4/2015	CHECKED - S.W.M.	REVISED -		ROME ROAD DISTRICT				CONTRACT NO. 99547		
		DATE - 03/03/15	REVISED -						ILLINOIS FED. AID PROJECT BROS-00810781		
					SCALE: 5H:2V	SHEET NO. 5 OF 10 SHEETS	STA. 10+00.00	TO STA. 10+00.00			

DATE	
BY	
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PLOTTED	
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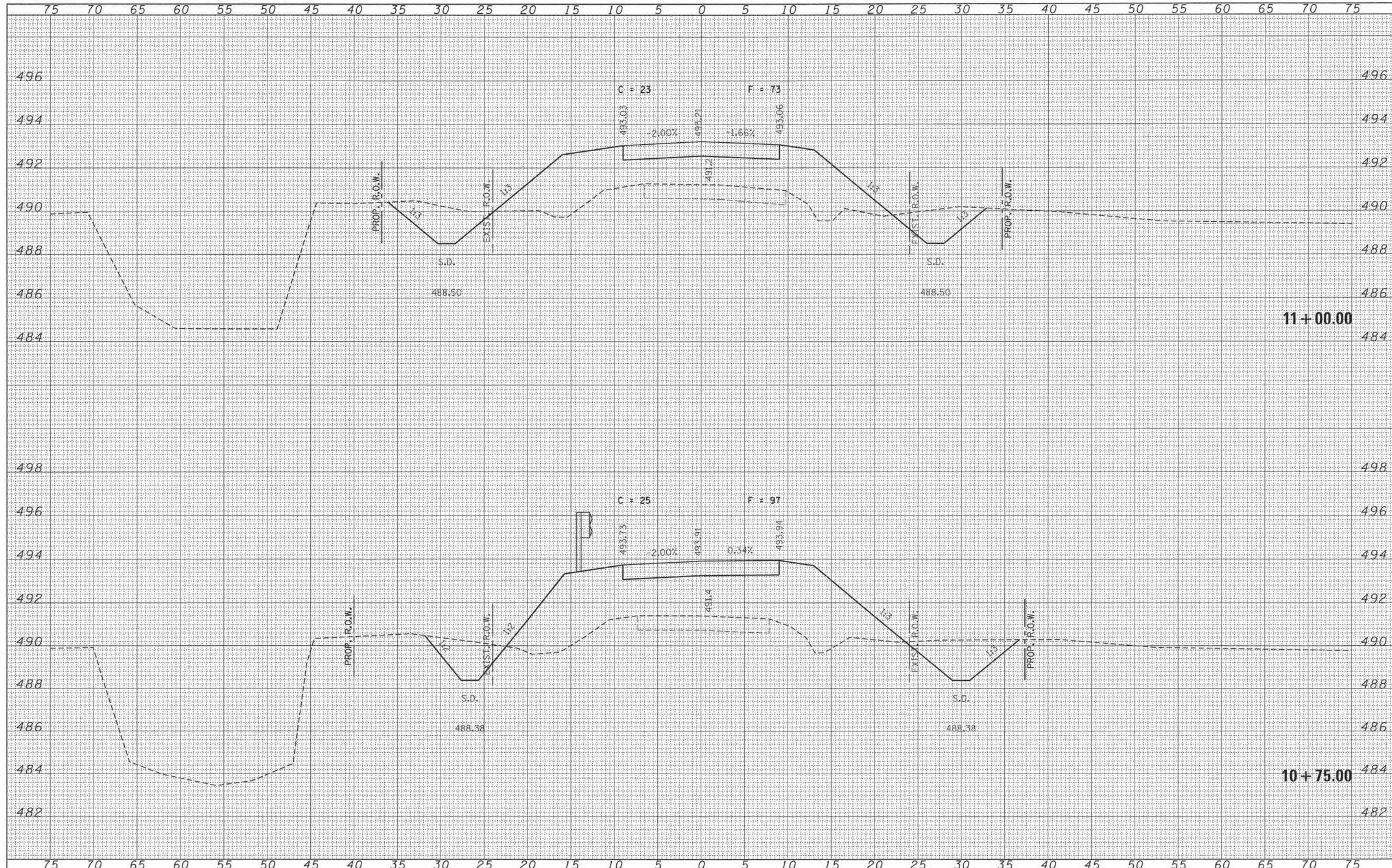
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3002 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62702 ILLINOIS PROFESSIONAL DESIGN FIRM L.B./P.E. SE CORP. 184-000999		CHECKED - S.W.M.	REVISED -		ROME ROAD DISTRICT		CONTRACT NO. 99547		ILLINOIS FED. AID PROJECT BROS-0081078		
		DATE - 03/03/15	REVISED -		SCALE: 5H:2V	SHEET NO. 6 OF 10 SHEETS	STA. 10+25.00 TO STA. 10+50.00				

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BY	
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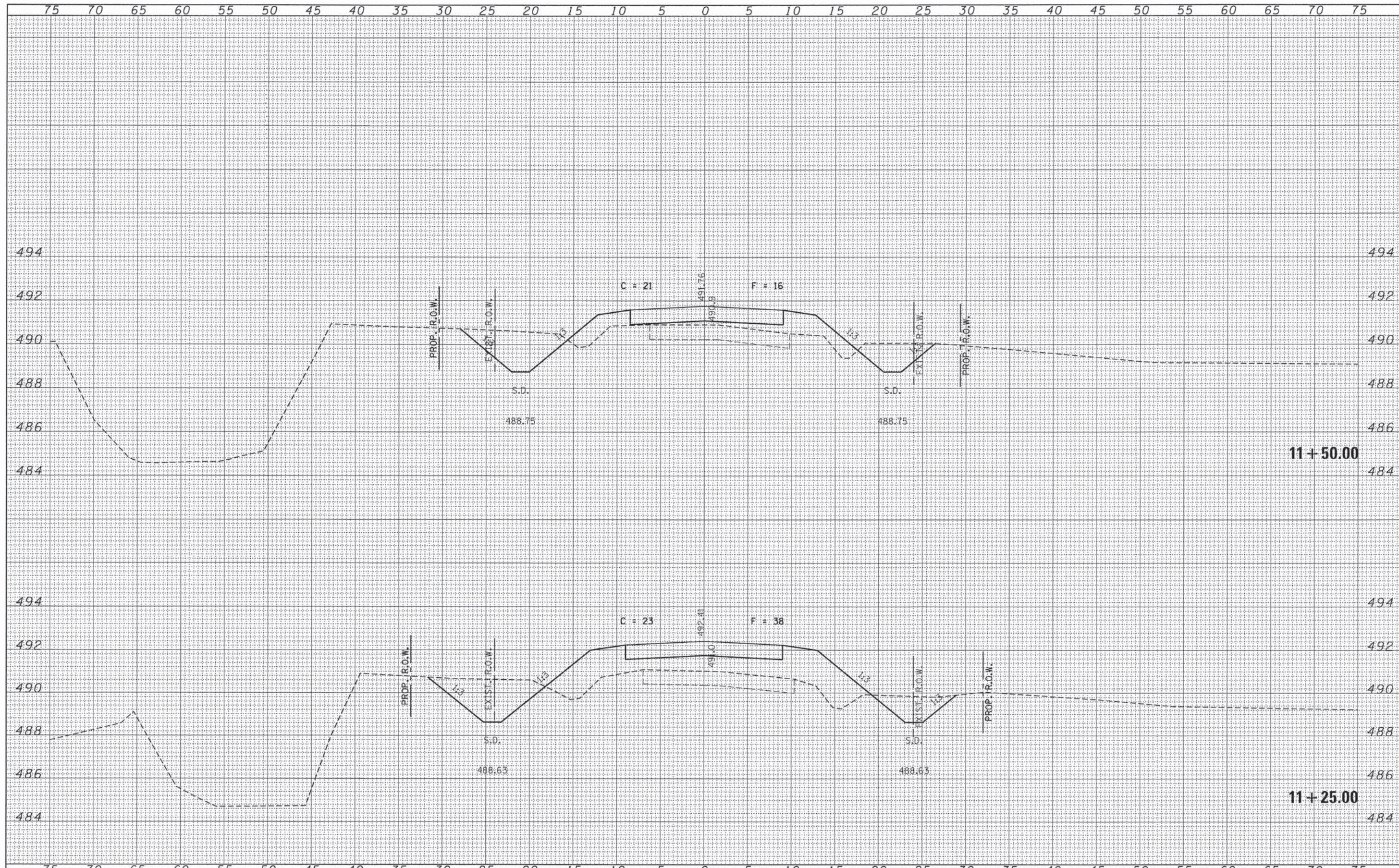
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HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM L3/P6/88 CORP. 184-000999		DRAWN - L.G.C.	REVISED -		TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		DATE - 03/03/15	REVISED -		ROME ROAD DISTRICT		CONTRACT NO. 99547		
				SCALE: 5H:2V	SHEET NO. 7 OF 10 SHEETS	STA. 10+75.00	TO STA. 11+00.00	ILLINOIS FED. AID PROJECT BROS-0081078	

DATE	
BY	
FINAL SURVEY	
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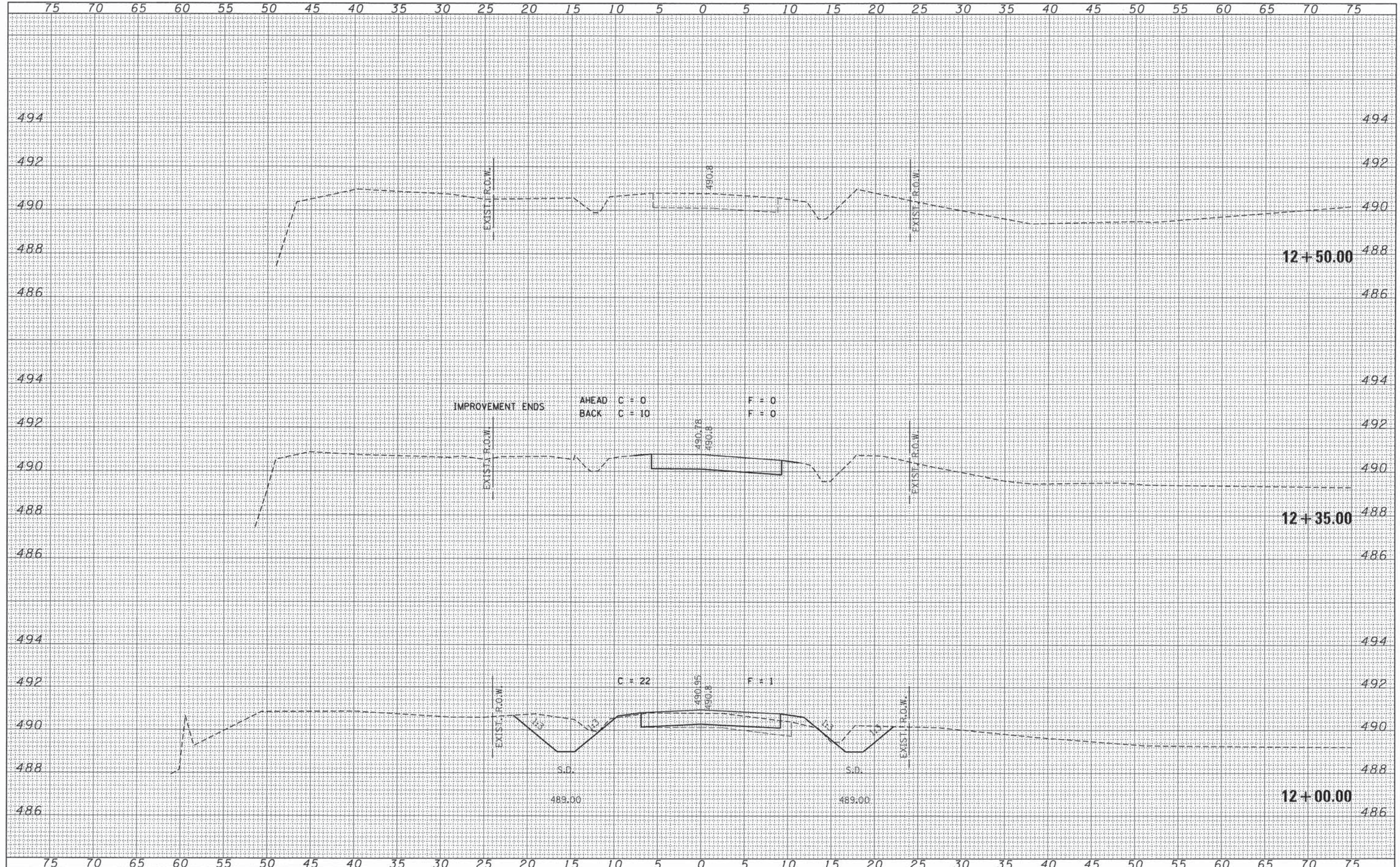
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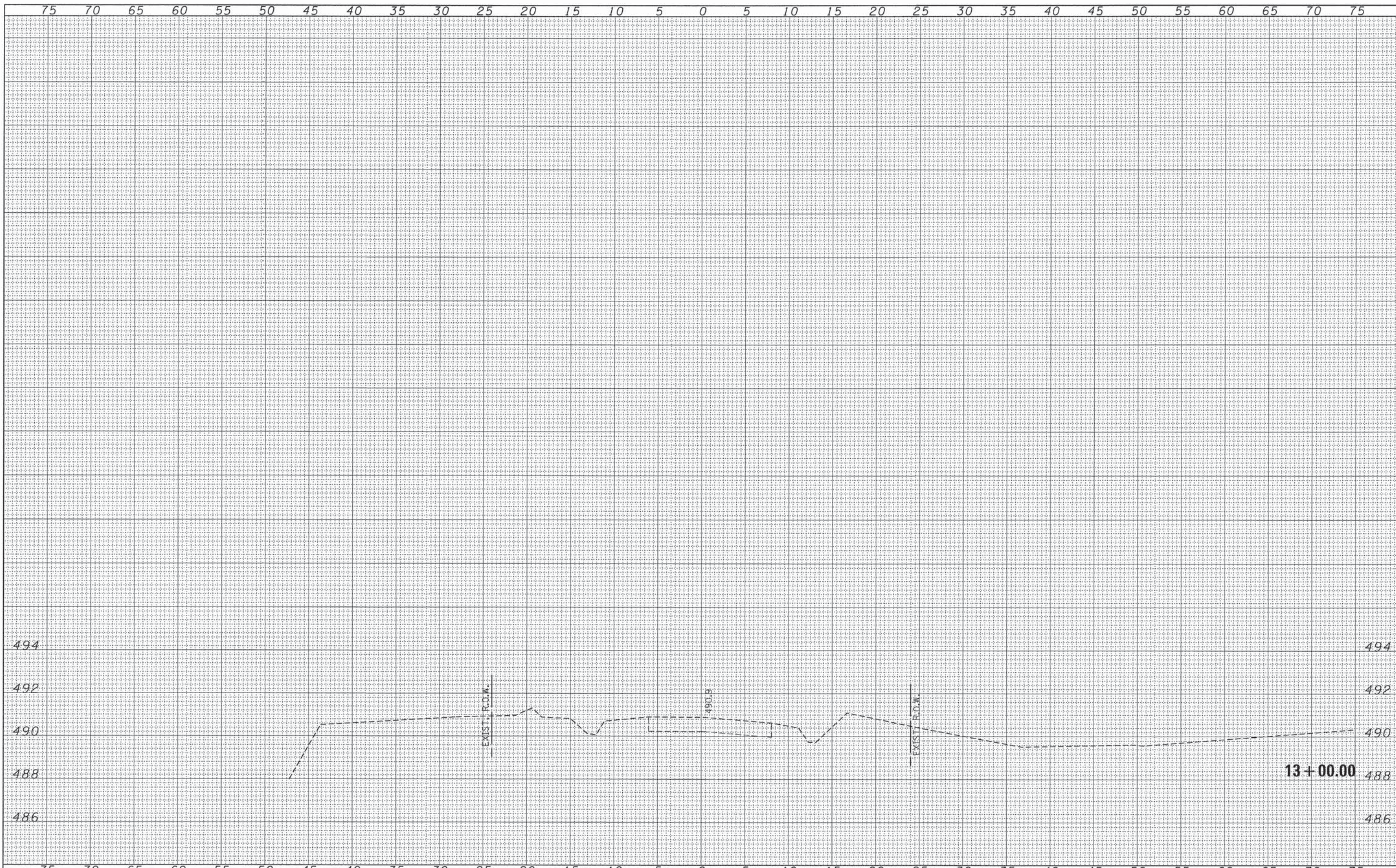
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HAMPTON, LENZINI AND RENWICK, INC. 308 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62709 ILLINOIS PROFESSIONAL ENGINEER FIRM L8 / PE / SE CORP. 184 000999		DRAWN - L.G.C.	REVISED -		TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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				STA. 11+25.00 TO STA. 11+50.00				ILLINOIS FED. AID PROJECT BROS-0081078	

DATE	
BY	
FINAL SURVEY	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	



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HAMPTON, LENZINI AND RENWICK, INC. 300 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62761 ILLINOIS PROFESSIONAL DESIGN FIRM L.S./P.E./S.E. CORP. 184-00289		DRAWN - L.G.C.	REVISED -		TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		DATE - 03/03/15	REVISED -		ROME ROAD DISTRICT				CONTRACT NO. 99547
				SCALE: 5H:2V	SHEET NO. 9 OF 10 SHEETS	STA. 12+00.00	TO STA. 12+50.00	ILLINOIS FED. AID PROJECT BROS-0081(078)	



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

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NO.	DATE		
	AREAS		
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HAMPTON, LENZINI AND RENWICK, INC. 3005 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62793 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184-00099		DRAWN - L.G.C.	REVISED -		TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		DATE - 03/03/15	REVISED -		ROME ROAD DISTRICT			CONTRACT NO. 99547	
							ILLINOIS FED. AID PROJECT BROS-0081078		
					SCALE: 5H:2V	SHEET NO. 10 OF 10 SHEETS	STA. 13+00.00	TO STA. 13+00.00	

BENCHMARK: Mag spike in guy pole 15' RT., Sta. 9+32 Elev. 491.16

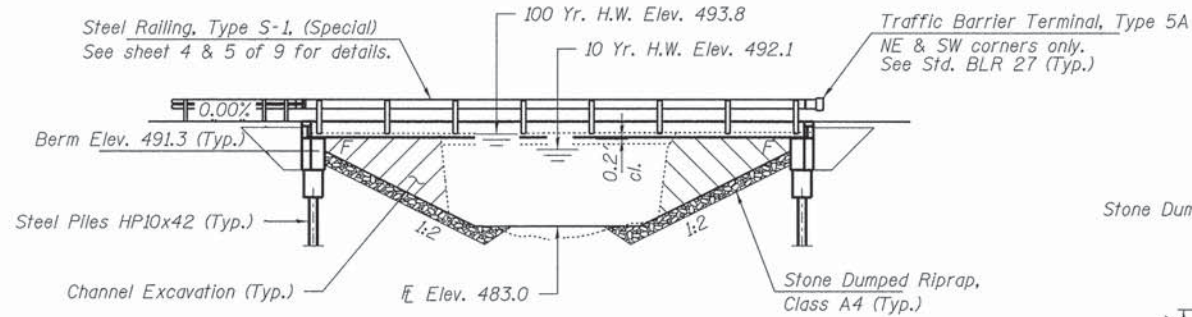
EXISTING STRUCTURE NO. 041-3612: Single span I-beam bridge with timber deck on closed timber abutments and wingwalls. 23.55' fc.-fc. abuts., 20.0' o.-o. deck.

Structure closed to traffic during construction.

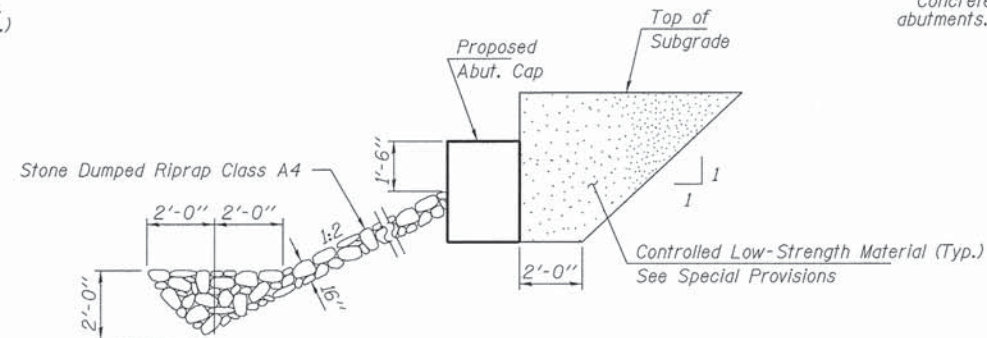
No Salvage.

GENERAL NOTES

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
 Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.
 Excavation required to construct the Abutments shall be included in the cost of Concrete Structures. No additional compensation will be allowed for Structure Excavation or Cofferdams.
 All proposed construction activities shall be in accordance with Nationwide Permit number 14 of the Department of the Army authorized under Section 404 of the Clean Water Act.
 The IEPA has issued Section 401 Water Quality Certification for this activity. See Special Provisions for conditions.
 Reinforcement bars designated (E) shall be epoxy coated.
 Concrete Sealer shall be applied to the designated areas of the abutments.



ELEVATION

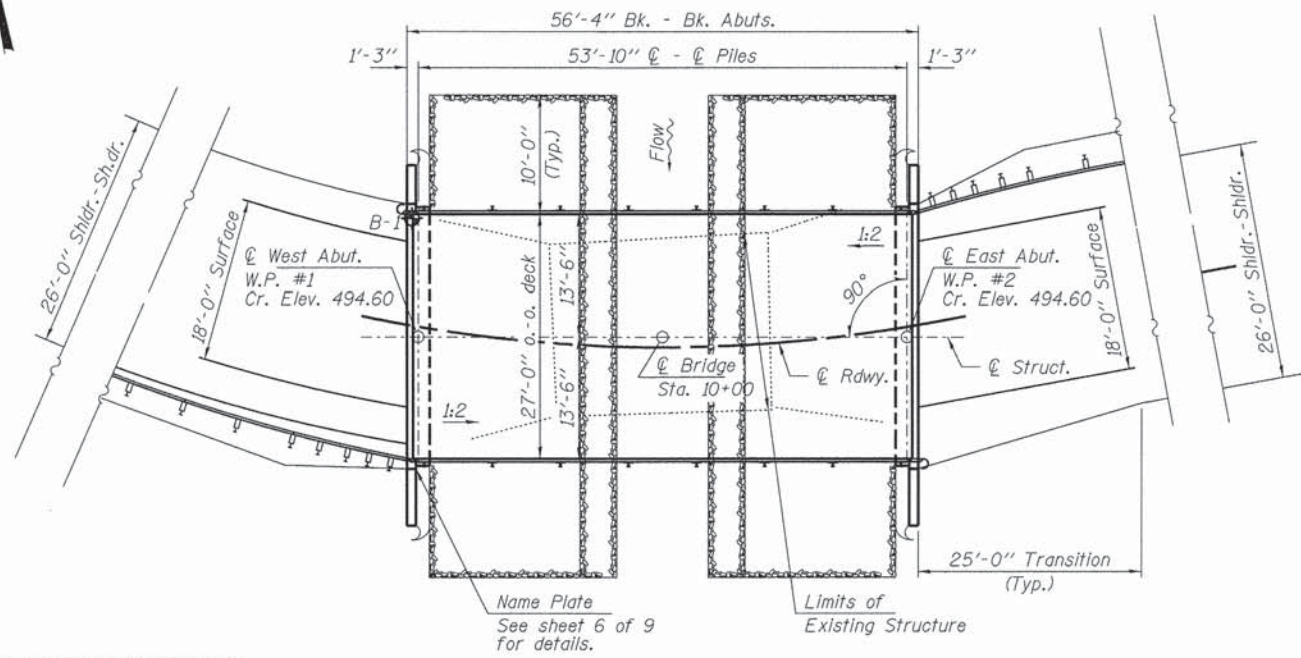


SECTION A-A

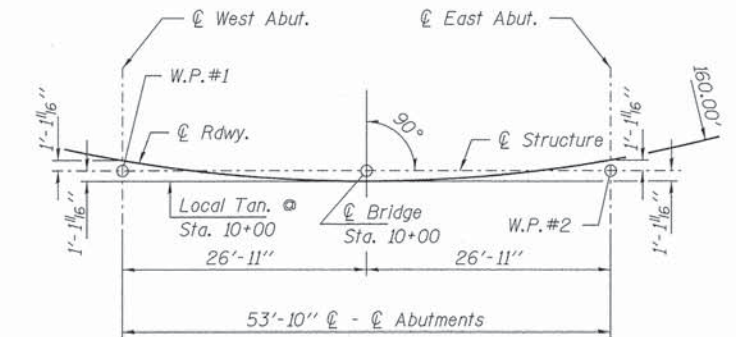
Note: See Special Provisions for Stone Dumped Riprap, Class A4.

INDEX OF STRUCTURE SHEETS

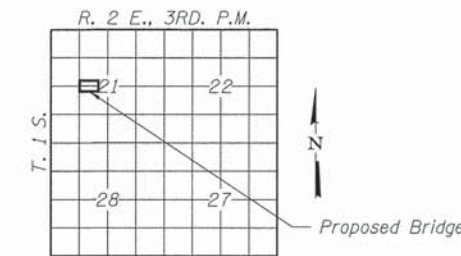
1. General Plan & Elevation
2. 21"x36" PPC Deck Beam
3. 21"x36" PPC Deck Beam Details
4. Superstructure Details
5. Steel Railing, Type S-1
6. West Abutment
7. East Abutment
8. HP Pile Details
9. Borings



PLAN



OFFSET SKETCH



LOCATION SKETCH

WEST CREEK
 BUILT 2011 BY
 JEFFERSON COUNTY
 SEC. 01-13109-00-BR
 STR. NO. 041-3760
 LOADING HL-93

NAME PLATE

See Std. 515001

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition with 2013 Interims.

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
 f'ci = 60,000 psi (Reinf.)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
 f'ci = 5,000 psi
 fpu = 270,000 psi (1/2" low lax. strands)
 fpbt = 201,960 psi (1/2" low lax. strands)
 fy = 60,000 psi (Reinf.)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
 Design Spectral Acceleration at 1.0 sec. (SD1) = 0.284g
 Design Spectral Acceleration at 0.2 sec. (SD5) = 0.672g
 Soil Site Class = D

Design Scour Elevations (ft.)		
	W. Abut.	E. Abut.
Q100	488.7	488.7

WATERWAY INFORMATION

		Existing Low Grade Elev. 489.7 @ Sta. 12+00		Proposed Low Grade Elev. 490.2 @ Sta. 12+50		
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Natural Head - Ft. Exist. Prop.	Headwater El. Exist. Prop.
Design	10	2320	230	340	492.08	0.33 0.07 492.41 492.15
Base	100	4470	230	350	493.79	0.17 0.25 493.96 494.04
Max. Calc.	500	6220	230	350	494.91	0.15 0.18 495.06 495.09

Drainage Area = 8.0 Sq. Mi.

10 Year Velocity through Existing Bridge = 10.1 fps 10 Year Velocity through Proposed Bridge = 6.8 fps

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 LRFD Specifications."

Steven W. Meggison 03/03/15
 ILLINOIS STRUCTURAL ENGINEER NO. 081-6064

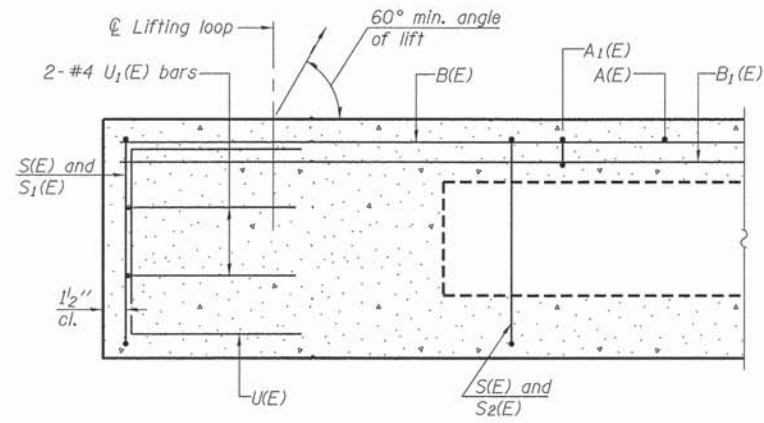


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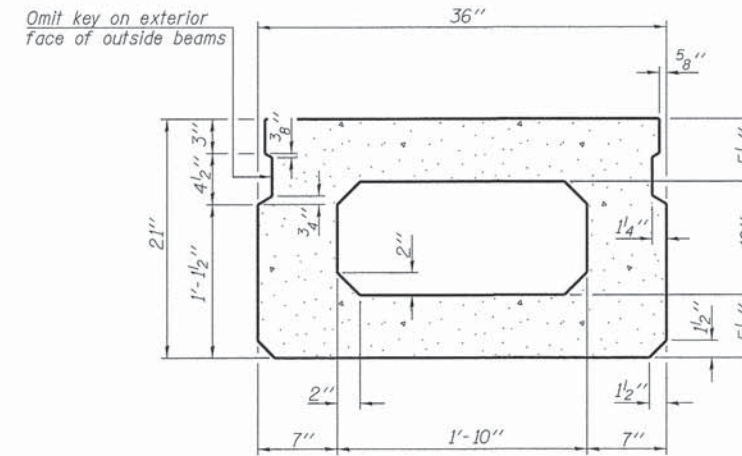
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			125
Stone Dumped Riprap, Class A4	Ton			180
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		28.2	28.2
Concrete Encasement	Cu. Yd.		2.8	2.8
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1,485		1,485
Reinforcement Bars, Epoxy Coated	Pound		2,820	2,820
Steel Railing, Type S-1, Special	Foot	110		110
Furnishing Steel Piles HP10x42	Foot		360	360
Driving Piles	Foot		360	360
Name Plates	Each		1	1
Controlled Low Strength Material	Cu. Yd.		69	69
Concrete Sealer	Sq. Ft.		110	110

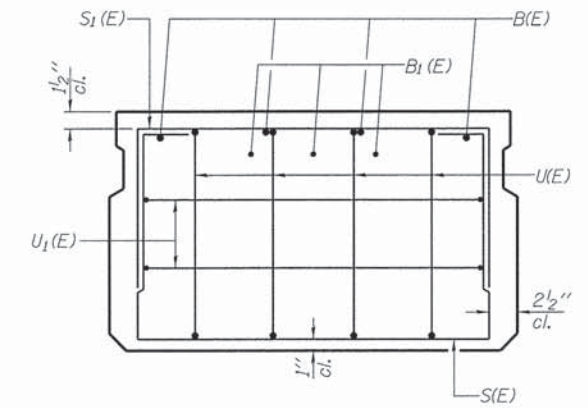
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HAMPTON, LENZINI AND RENWICK, INC. 3095 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM L0/PE/SE CORP. 184-00099	PLOT SCALE =	CHECKED - S.W.M.	REVISED -			1A	01-13109-00-BR	JEFFERSON	25	17
PLOT DATE = 3/4/2015		DRAWN - R.D.H.	REVISED -			ROME ROAD DISTRICT				CONTRACT NO. 99547
		CHECKED - S.W.M.	REVISED -							ILLINOIS FED. AID PROJECT BROS-0081078



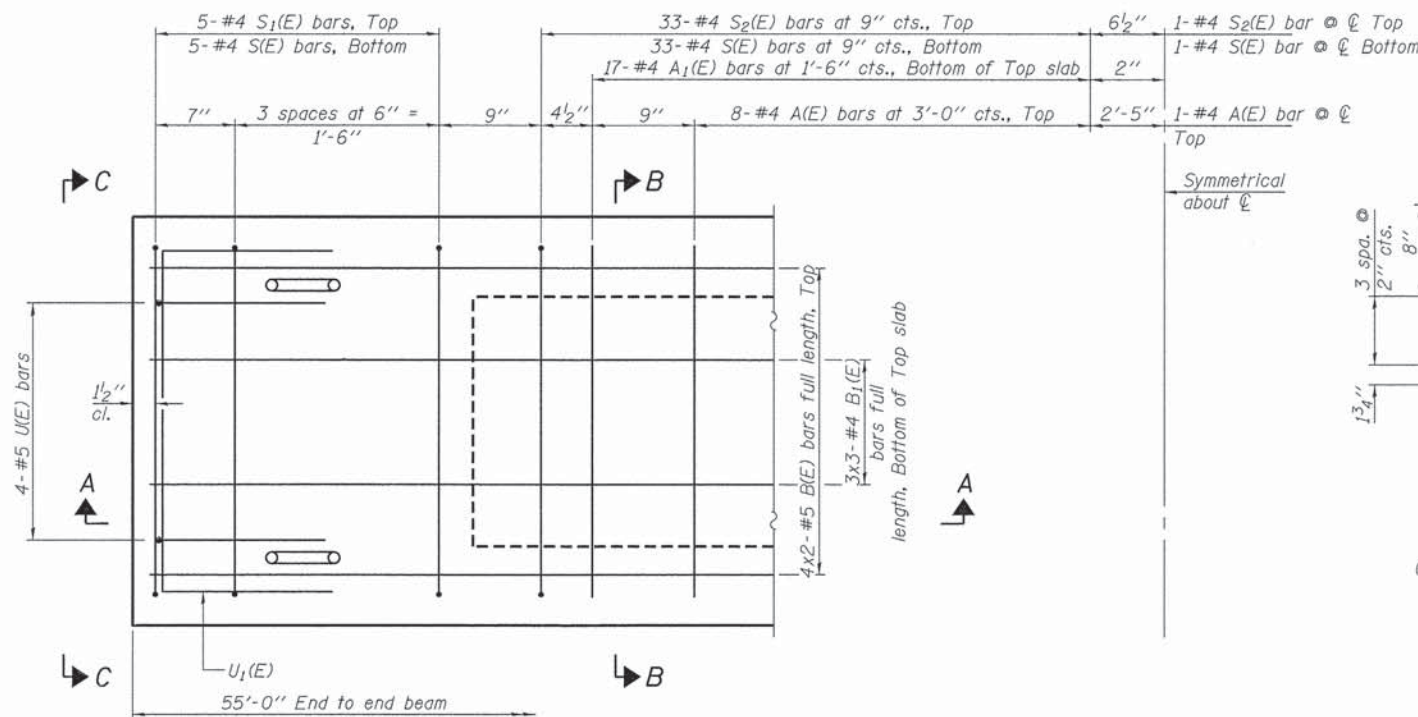
SECTION A-A



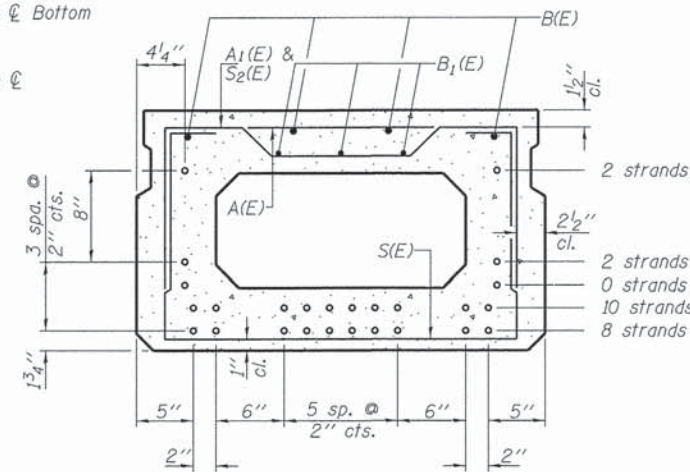
SECTION B-B
(Showing dimensions)



VIEW C-C



PLAN VIEW



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.

BAR LIST
ONE BEAM ONLY

(For information only)

Bar	No.	Size	Length	Shape
A(E)	17	#4	2'-7"	—
A1(E)	34	#4	2'-10"	—
B(E)	8	#5	28'-8"	—
B1(E)	9	#4	19'-7"	—
S(E)	77	#4	6'-5"	□
S1(E)	10	#4	4'-11"	□
S2(E)	67	#4	5'-2"	□
U(E)	8	#5	4'-0"	□
U1(E)	4	#4	5'-0"	□

Note: See sheet 3 & 4 of 9 for additional details and Bill of Material.

MINIMUM BAR LAP

#4 bar = 2'-0"
#5 bar = 2'-6"

Notes:
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.
Bars indicated thus 4x2-#5 etc. indicates 4 lines of bars with 2 lengths per line.

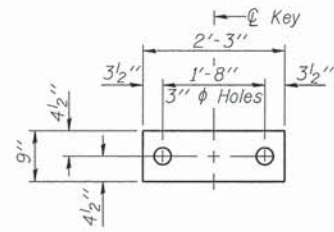
PD-2136-0

7-1-10

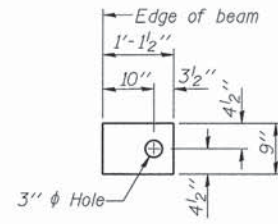
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HAMPTON, LENZINI AND RENWICK, INC. 3845 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM L3 / PE / SE CORP. 184 00099		CHECKED - S.W.M.	REVISED -			1A	01-13109-00-BR	JEFFERSON	25	18
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	PLOT DATE = 3/4/2015	CHECKED - S.W.M.	REVISED -							

SHEET NO. 2 OF 9 SHEETS

ILLINOIS FED. AID PROJECT BROS-0081078



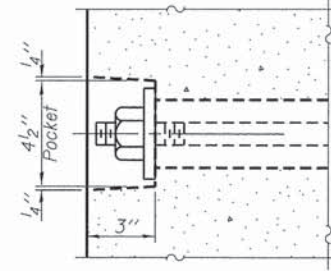
FABRIC BEARING PAD
(Interior - 16 Req'd.)



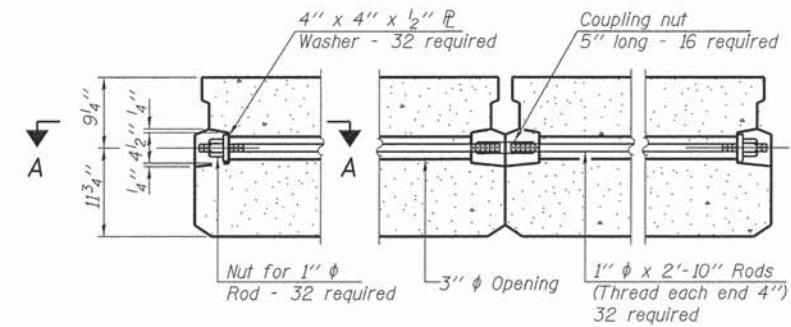
FABRIC BEARING PAD
(Exterior - 4 Req'd.)

FIXED

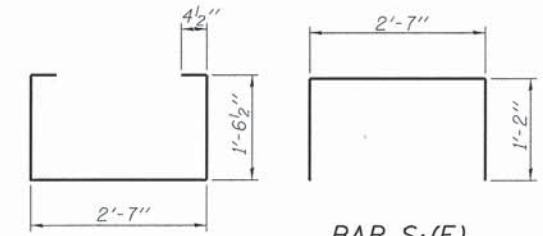
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



SECTION A-A

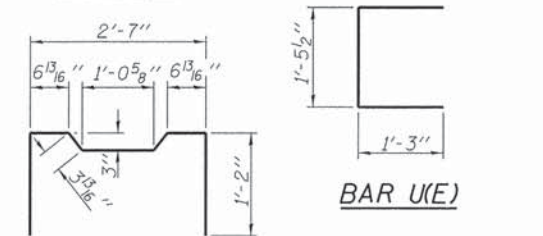


TYPICAL TRANSVERSE TIE ASSEMBLY

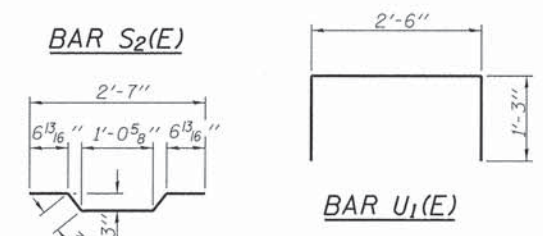


BAR S(E)

BAR S₁(E)

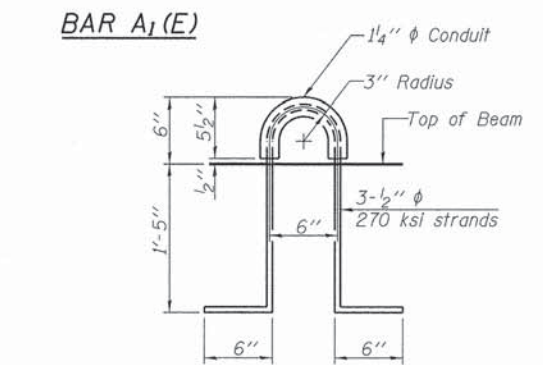


BAR U(E)



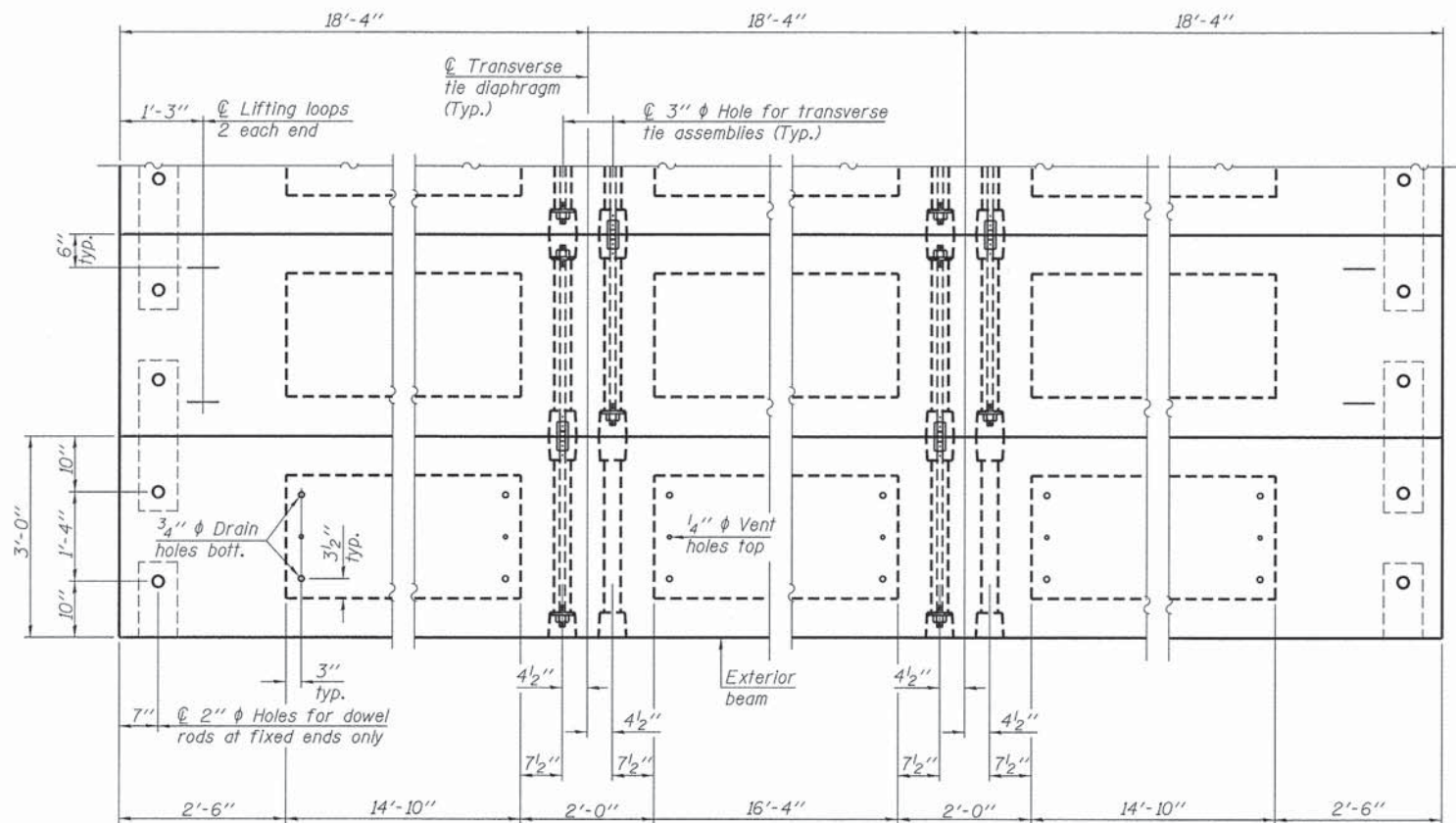
BAR S₂(E)

BAR U₁(E)



BAR A₁(E)

LIFTING LOOP DETAIL



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" 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. Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions). 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" diameter lifting pin shall be used to engage the lifting loops during handling. Corrosion inhibitor, per Article 1020.05(b)(12) 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. All reinforcement bars shall be epoxy coated.

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

BILL OF MATERIAL

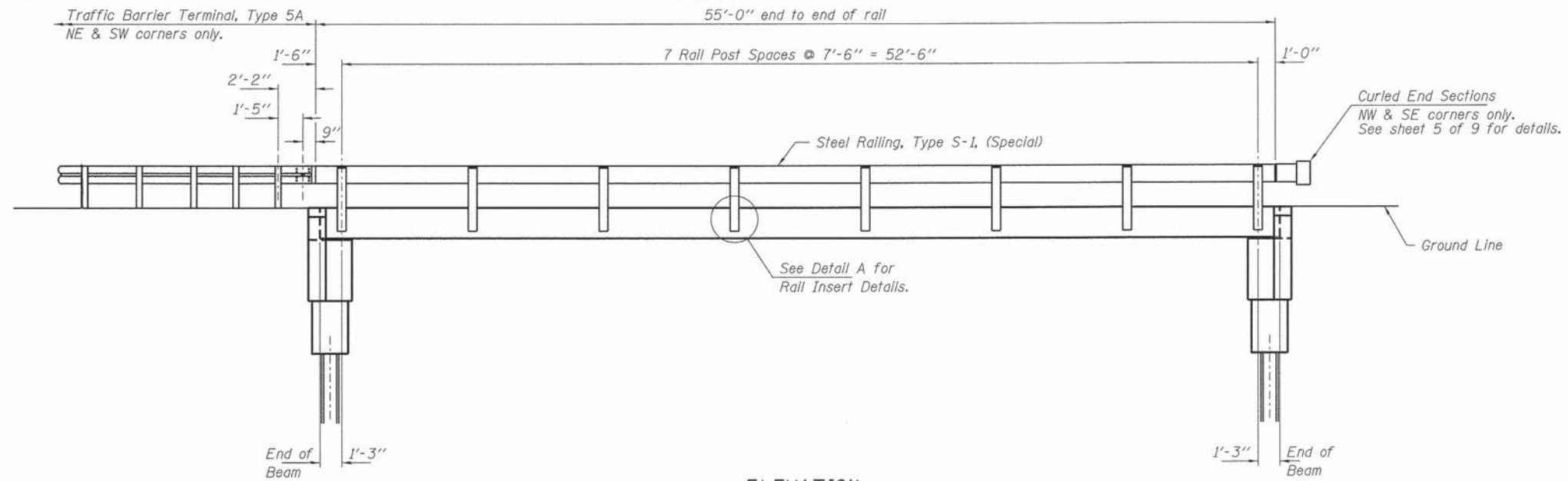
Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft.	1,485
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PD-2136-0D

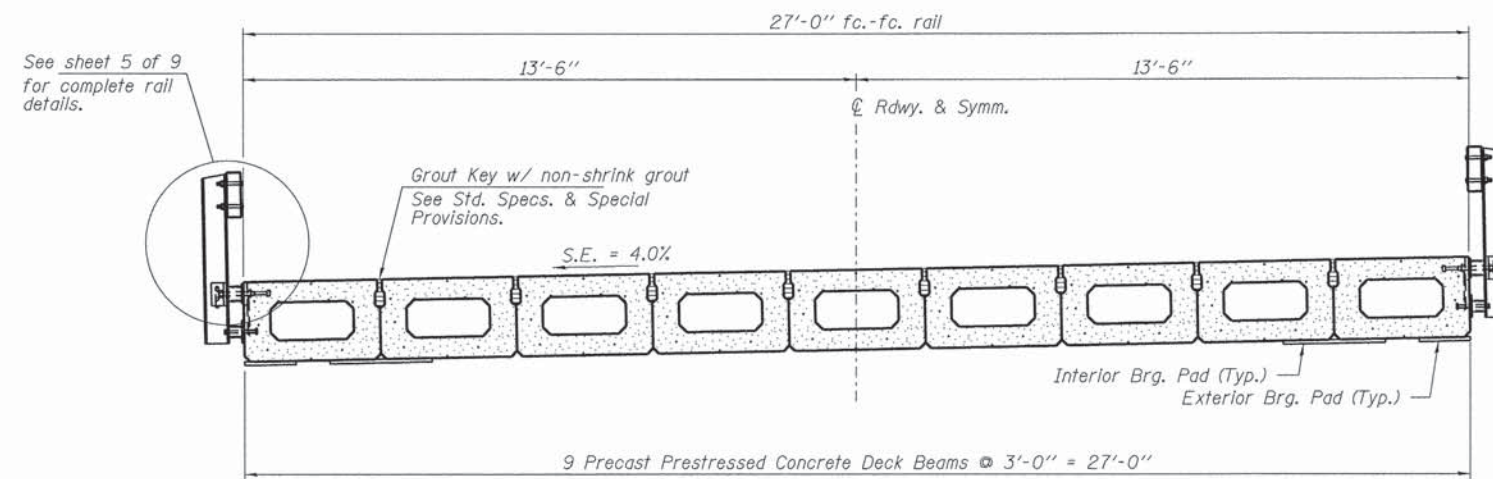
7-1-10

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HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM L3 / PE / SE CORP. 184.00089	PLLOT SCALE =	CHECKED - S.W.M.	REVISED -			1A	01-13109-00-BR	JEFFERSON	25	19
	PLLOT DATE = 3/4/2015	DRAWN - R.D.H.	REVISED -			ROME ROAD DISTRICT				CONTRACT NO. 99547
		CHECKED - S.W.M.	REVISED -			[ILLINOIS] FED. AID PROJECT BROS-0081078)				

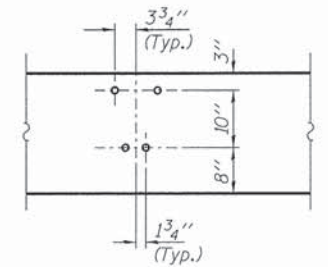
SHEET NO. 3 OF 9 SHEETS



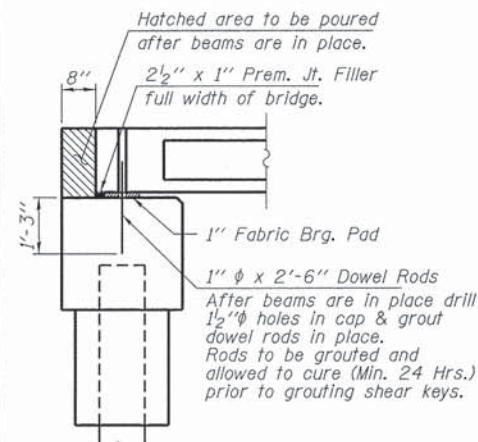
ELEVATION
Showing Rail Post Spaces
See sheet 5 of 9 for Railing Details.



CROSS SECTION
See sheets 2 & 3 of 9 for Superstructure.



DETAIL A



SECTION AT ABUTMENTS

© Rt. L's

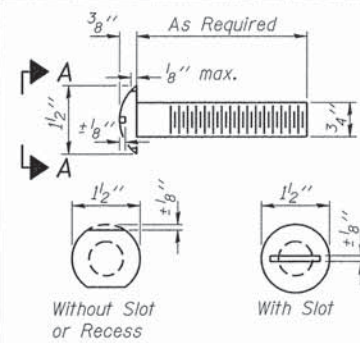
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	PLOT SCALE =	DRAWN - R.D.H.	REVISED -
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STATE OF ILLINOIS
JEFFERSON COUNTY HIGHWAY DEPARTMENT

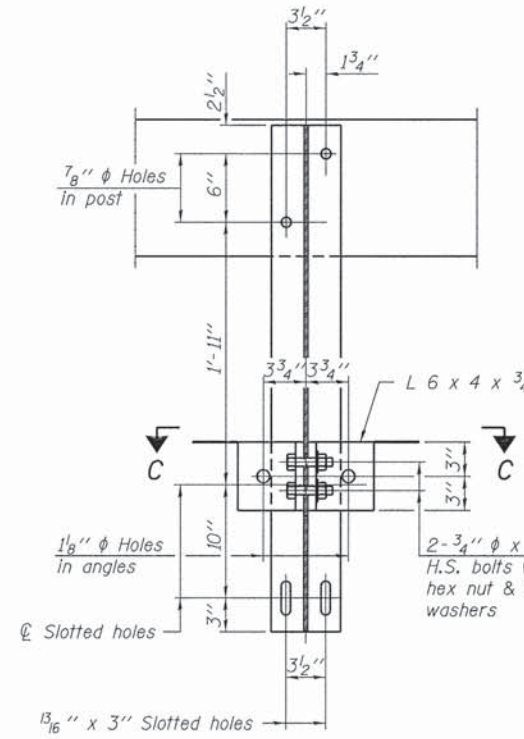
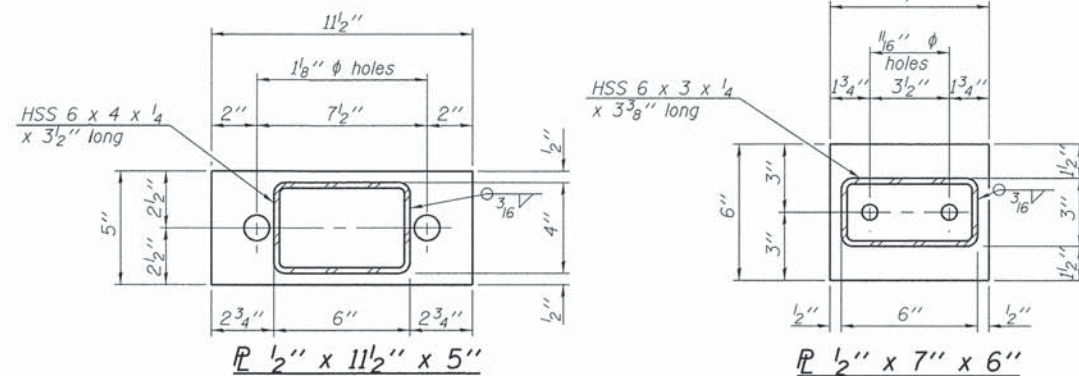
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 041-3760

SHEET NO. 4 OF 9 SHEETS

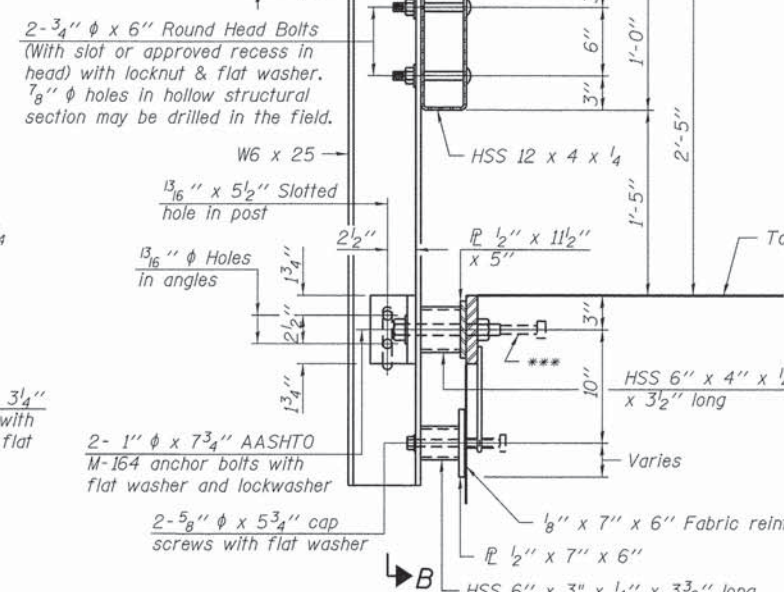
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1A	01-13109-00-BR	JEFFERSON	25	20
ROME ROAD DISTRICT			CONTRACT NO. 99547	
ILLINOIS FED. AID PROJECT BR05-0081078				



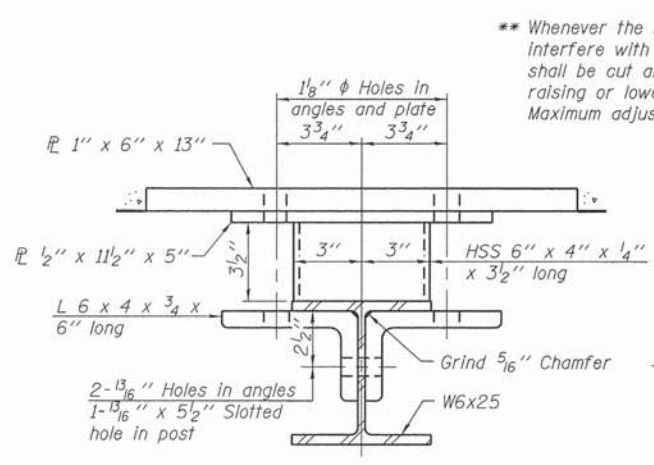
**VIEW A-A
ROUND HEAD BOLT**



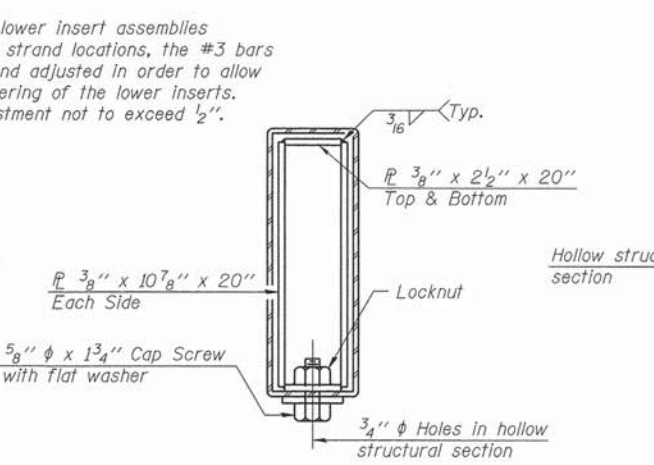
SECTION B-B



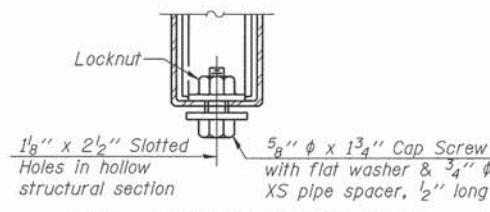
SECTION AT RAILING POST



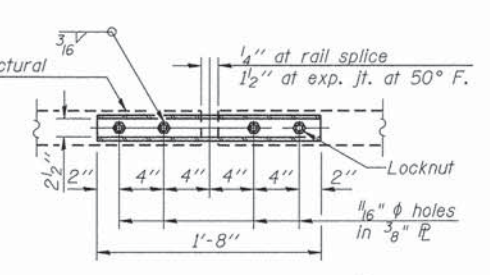
SECTION C-C



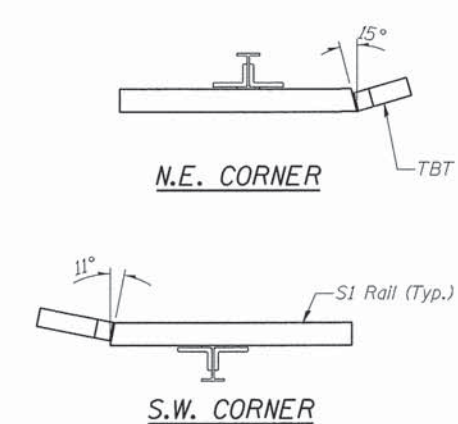
SECTIONS AT RAIL SPLICE



**RAIL SPLICE CONNECTION
AT EXPANSION JT.**



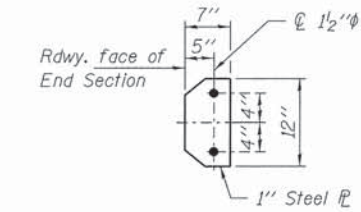
**PLAN-BOTT. SPLICE AT
TYPICAL**



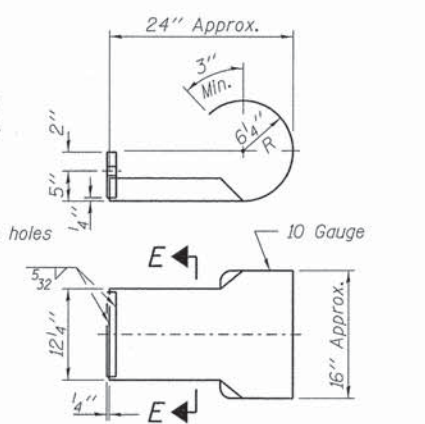
N.E. CORNER

S.W. CORNER

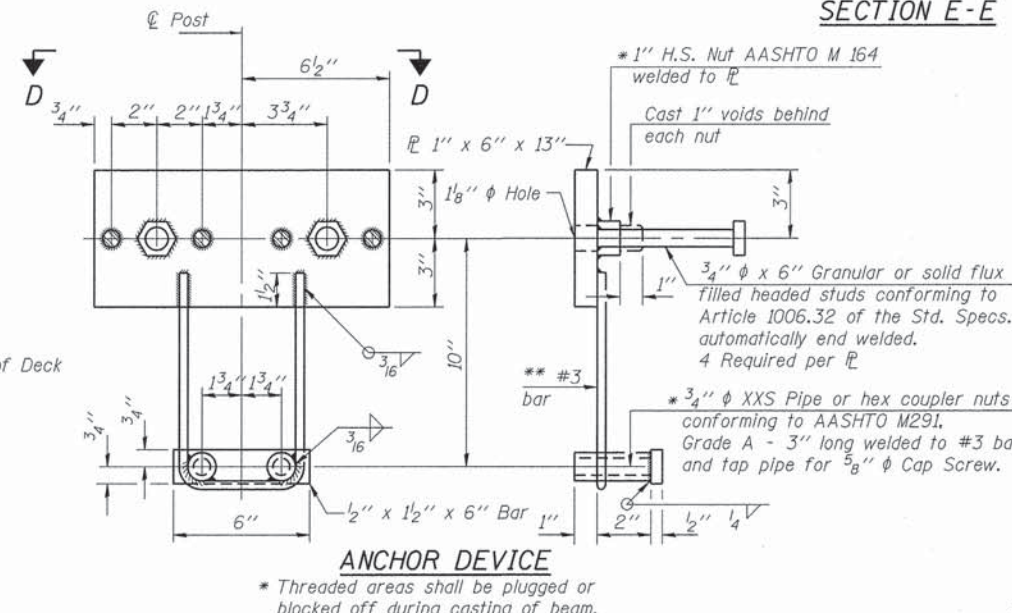
Note: Cost of curled end sections shall be included with the Steel Railing. (2 Required @ Bridge)



SECTION E-E



CURLED END SECTION DETAILS

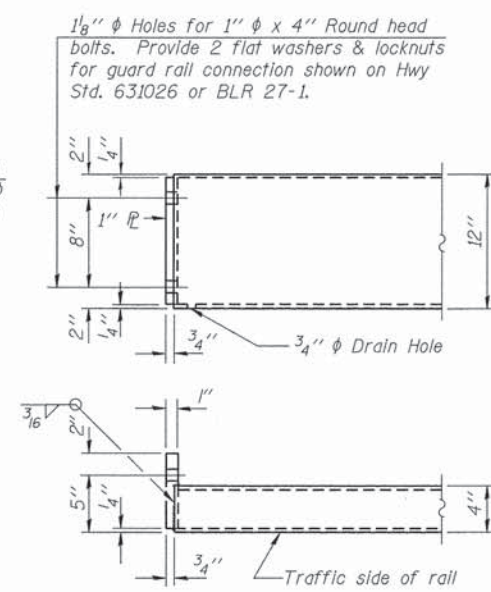


ANCHOR DEVICE

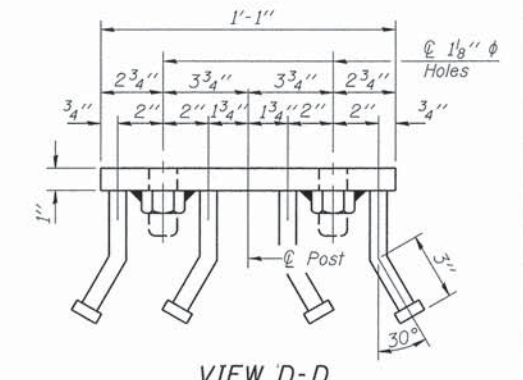
Note: The ends of rail shall be fabricated to the angle shown to accommodate the curvature of the roadway & guardrail.

Notes: All field drilled holes shall be coated with an approved zinc rich paint before erection. For multi-span bridges, sufficient 1/4 x 6 x 1-2 inch galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S-1. All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

*** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



END OF RAIL DETAILS



VIEW D-D

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1, (Special)	Foot	110

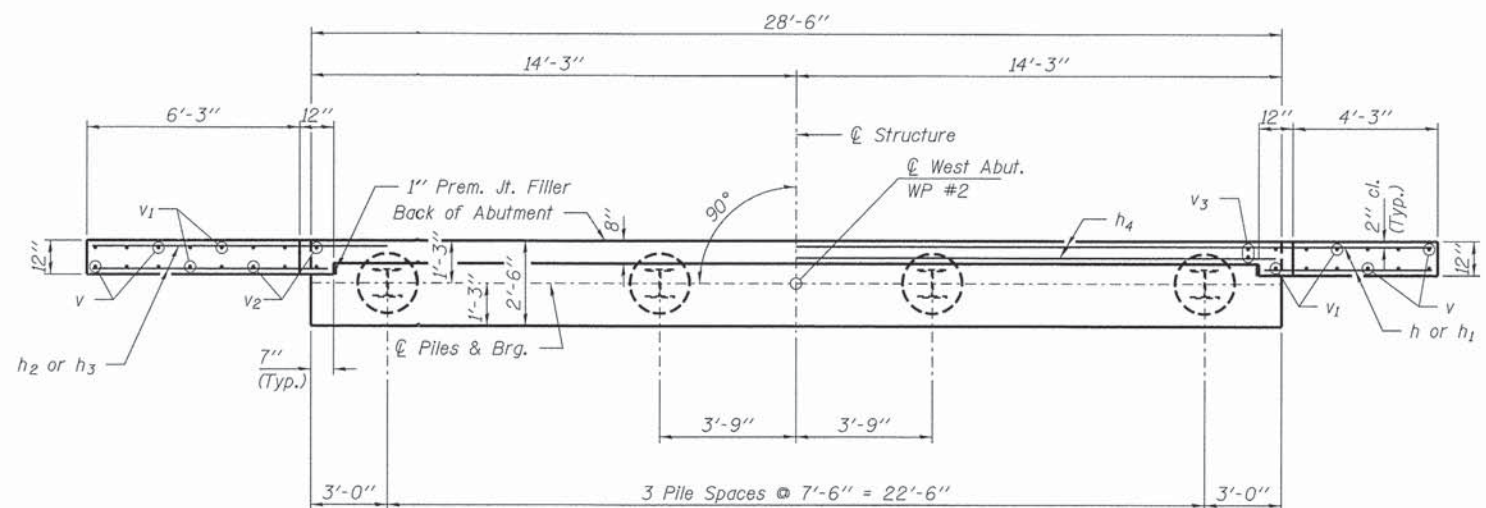
R-23A 7-1-10 (10'-9" Maximum Post Spacing)

FILE NAME = 140152-sht-brs1dgn.dgn	USER NAME =	DESIGNED - J.W.F.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC.	PLOT SCALE =	CHECKED - S.W.M.	REVISED -
5005 STEVENSON DRIVE, SUITE 201	PLOT DATE = 3/4/2015	DRAWN - R.D.H.	REVISED -
SPRINGFIELD, ILLINOIS 62705		CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM			
LS / PE / SE CORP. 184.000099			

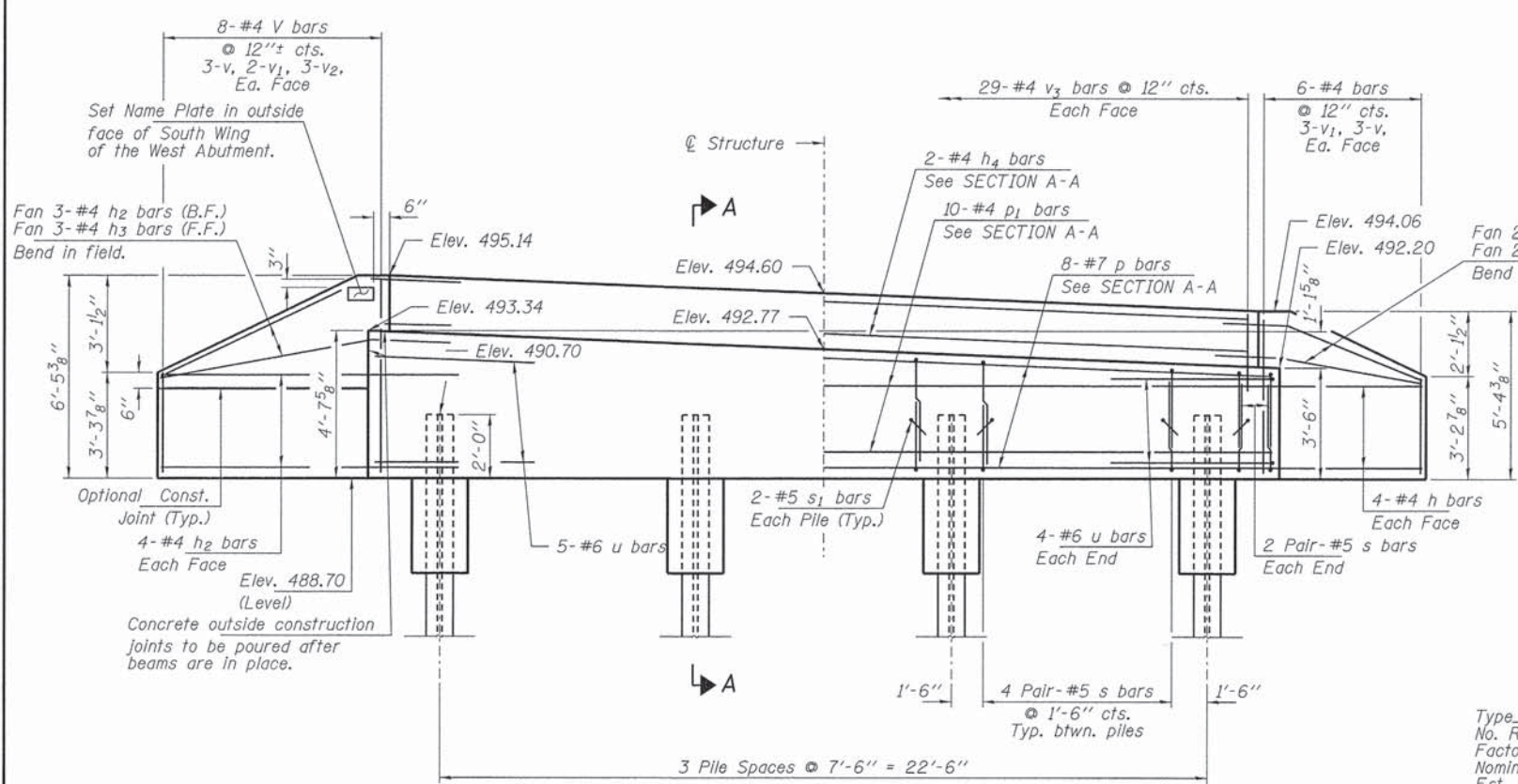
STATE OF ILLINOIS
JEFFERSON COUNTY HIGHWAY DEPARTMENT

STEEL RAILING, TYPE S-1
STRUCTURE NO. 041-3760
SHEET NO. 5 OF 9 SHEETS

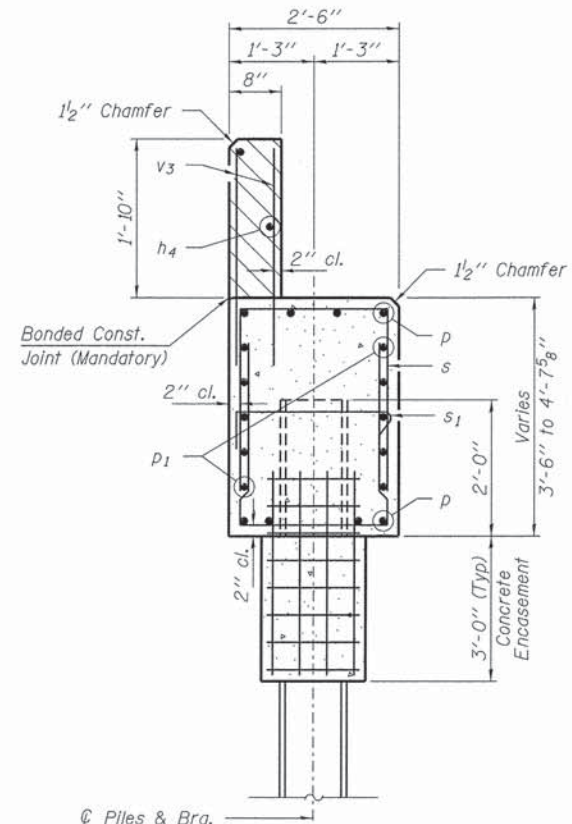
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1A	01-13109-00-BR	JEFFERSON	25	21
ROME ROAD DISTRICT			CONTRACT NO. 99547	
[ILLINOIS] FED. AID. PROJECT BROS-0081078				



PLAN

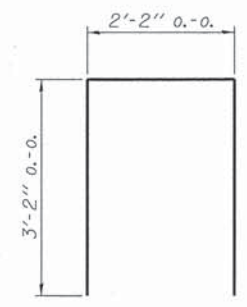


ELEVATION
(Looking West)

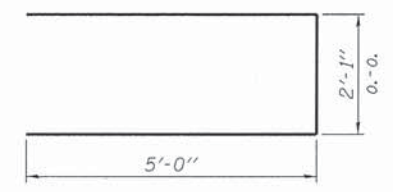


SECTION A-A

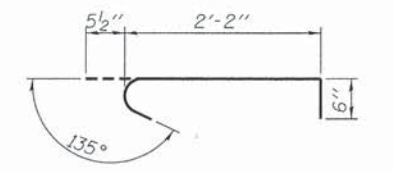
Hatched area to be poured after beams are in place.



BAR s



BAR u



BAR s1

BILL OF MATERIAL - W. ABUT.

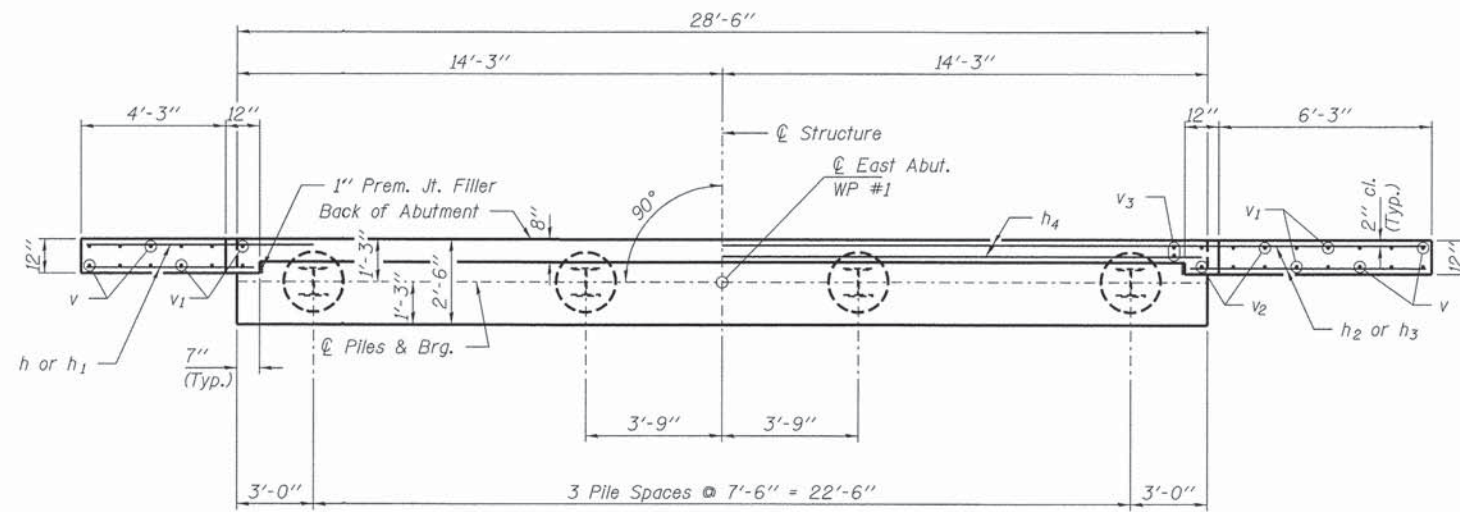
BAR	NO.	SIZE	LENGTH	SHAPE
h	10	#4	6'-6"	—
h1	2	#4	5'-0"	—
h2	11	#4	8'-6"	—
h3	3	#4	7'-0"	—
h4	2	#4	28'-2"	—
p	8	#7	28'-2"	—
p1	10	#4	28'-2"	—
s	32	#5	8'-6"	□
s1	8	#5	3'-2"	□
u	9	#6	12'-1"	□
v	12	#4	3'-0"	—
v1	10	#4	4'-6"	—
v2	6	#4	5'-6"	—
v3	58	#4	2'-8"	—
Concrete Structures			Cu. Yd.	14.1
Concrete Encasement			Cu. Yd.	1.4
Reinforcement Bars, Epoxy Coated			Pound	1,410
Steel Piles HP10x42			Foot	180
Name Plates			Each	1
Concrete Sealer			Sq. Ft.	55

All bars shall be epoxy coated
Concrete sealer shall be applied to all exposed surfaces of the bearing seats.

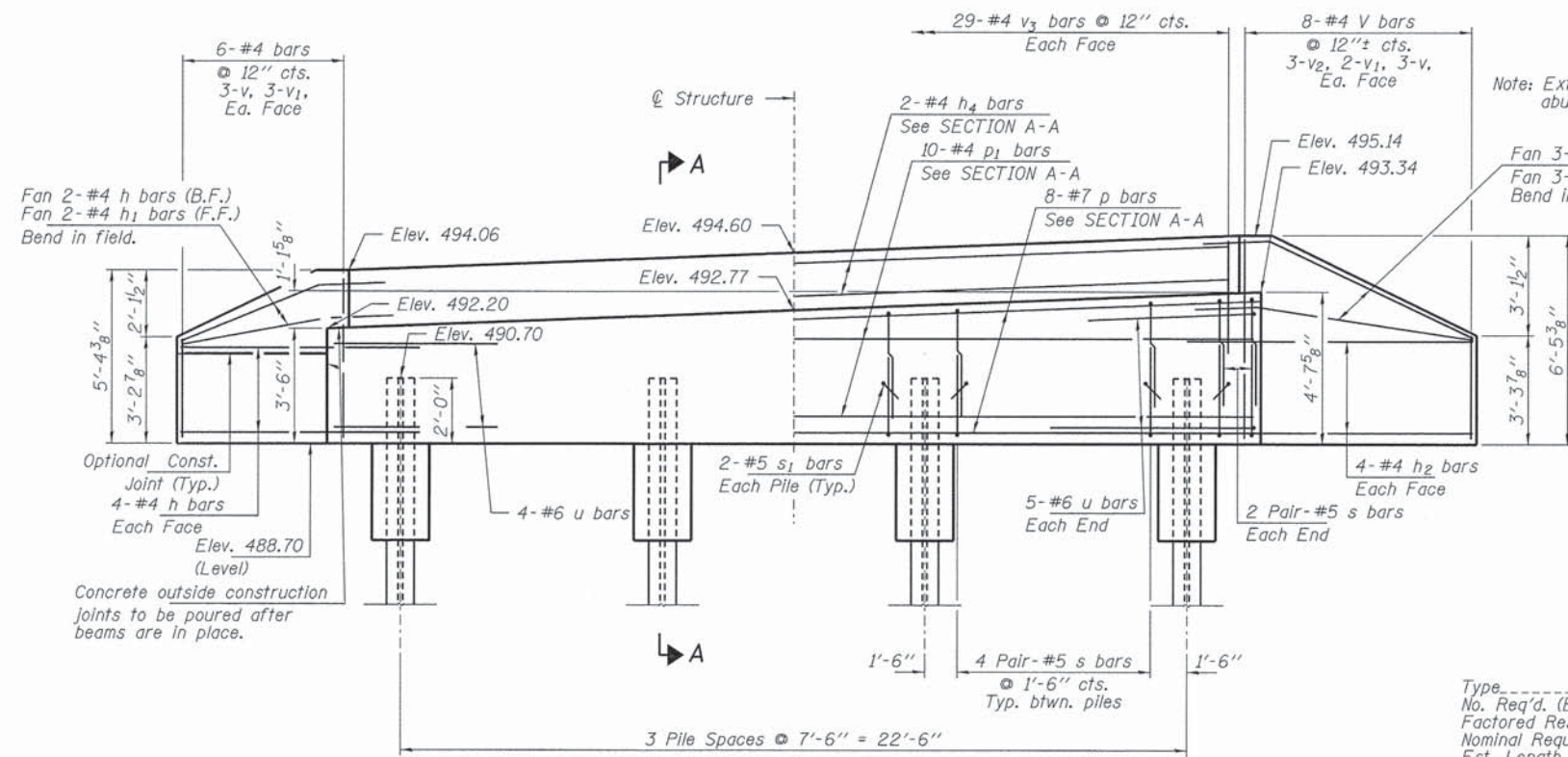
PILE DATA

Type ----- Steel HP10x42
No. Req'd. (W. Abut.) ----- 4
Factored Resistance Available (Rf) ----- 184 Kips/Pile
Nominal Required Bearing (Rn) ----- 335 Kips/Pile
Est. Length ----- 45 Ft/Pile

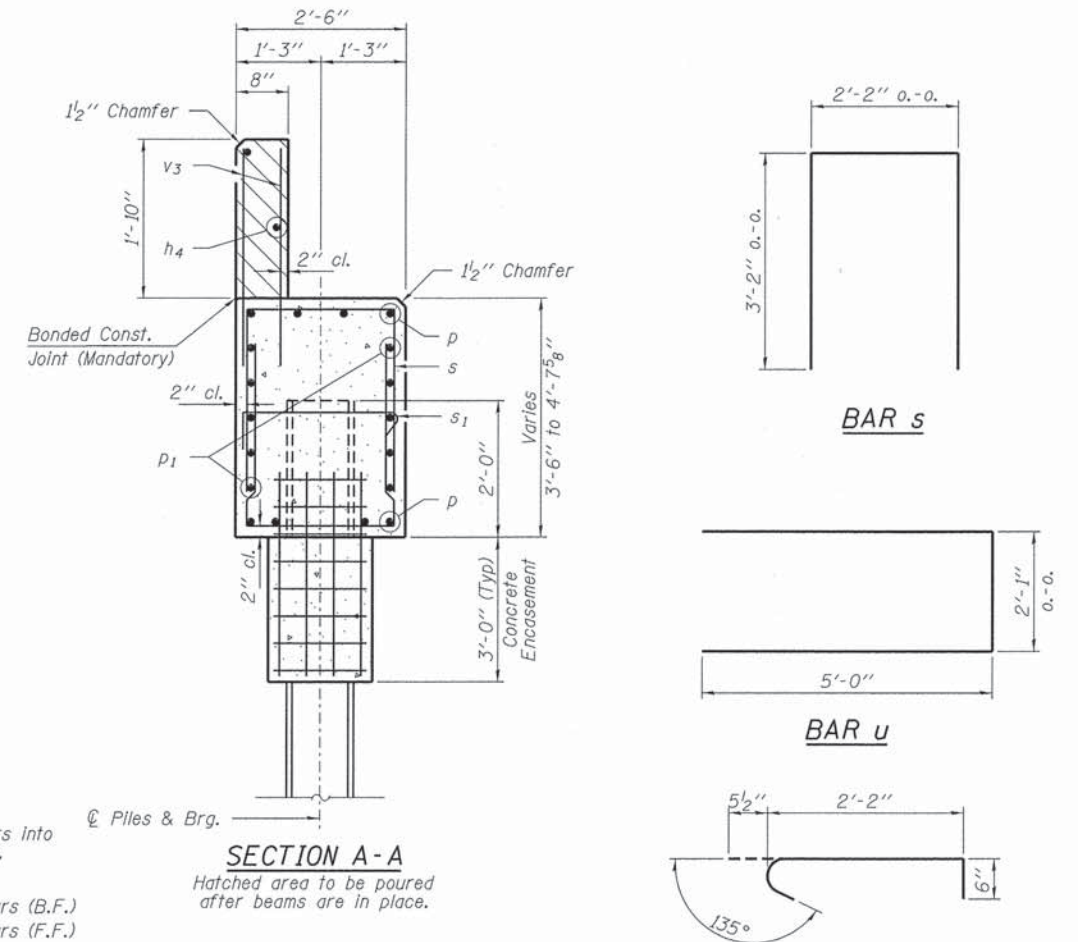
FILE NAME = 140152-sht-bridge.dgn	USER NAME =	DESIGNED - J.W.F.	REVISIONS -	STATE OF ILLINOIS JEFFERSON COUNTY HIGHWAY DEPARTMENT	WEST ABUTMENT STRUCTURE NO. 041-3760	T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62769 ILLINOIS PROFESSIONAL DESIGN FIRM L3 / PE / SE CORP. 184.000993	PLOT SCALE =	CHECKED - S.W.M.	REVISIONS -			1A	01-13109-00-BR	JEFFERSON	25	22
PLOT DATE = 3/4/2015	DRAWN - R.D.H.	CHECKED - S.W.M.	REVISIONS -			CONTRACT NO. 99547				
						[ILLINOIS] FED. AID PROJECT BROS-0081078)				



PLAN



ELEVATION
(Looking East)



SECTION A-A

Note: Extend h bars into abutment cap.

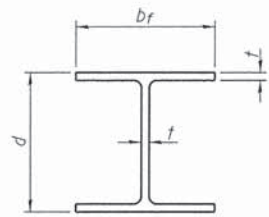
PILE DATA

Type ----- Steel HP10x42
 No. Req'd. (E. Abut.) ----- 4
 Factored Resistance Available (Rf) ----- 184 Kips/Pile
 Nominal Required Bearing (Rn) ----- 335 Kips/Pile
 Est. Length ----- 45 Ft/Pile

BILL OF MATERIAL - E. ABUT.

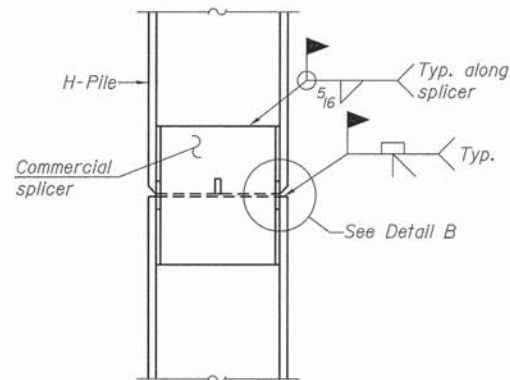
BAR	NO.	SIZE	LENGTH	SHAPE
h	10	#4	6'-6"	—
h1	2	#4	5'-0"	—
h2	11	#4	8'-6"	—
h3	3	#4	7'-0"	—
h4	2	#4	28'-2"	—
p	8	#7	28'-2"	—
p1	10	#4	28'-2"	—
s	32	#5	8'-6"	□
s1	8	#5	3'-2"	┌
u	9	#6	12'-1"	▭
v	12	#4	3'-0"	—
v1	10	#4	4'-6"	—
v2	6	#4	5'-6"	—
v3	58	#4	2'-8"	—
Concrete Structures			Cu. Yd.	14.1
Concrete Encasement			Cu. Yd.	1.4
Reinforcement Bars, Epoxy Coated			Pound	1,410
Steel Piles HP10x42			Foot	180
Concrete Sealer			Sq. Ft.	55

All bars shall be epoxy coated
 Concrete sealer shall be applied to all exposed surfaces of the bearing seats.

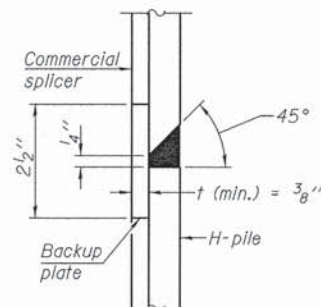


STEEL PILE TABLE

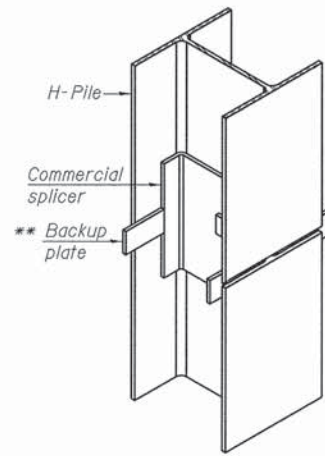
Designation	Depth d	Flange width b _f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 9/8"	1/2"	24"
x53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

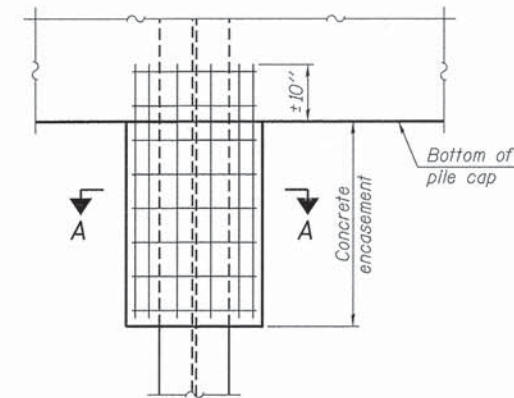


DETAIL "B"



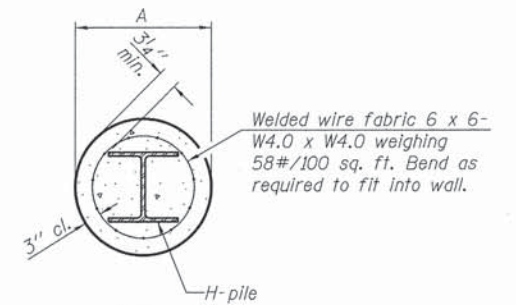
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



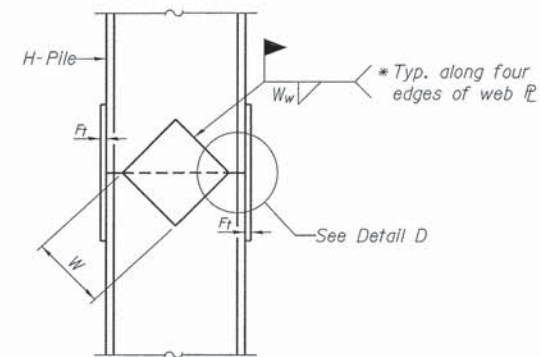
ELEVATION

PILE ENCASEMENT

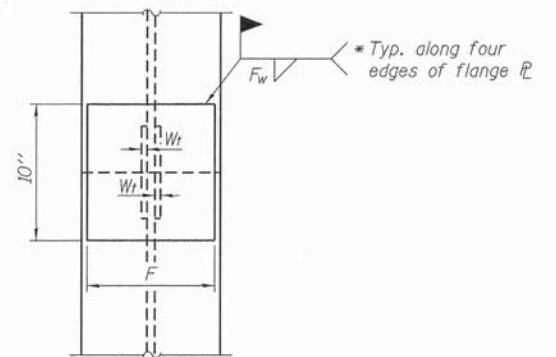


Note:
Forms for encasement may be omitted when soil conditions permit.

SECTION A-A

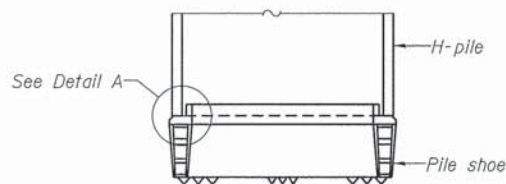


ELEVATION

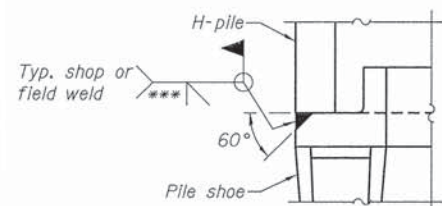


END VIEW

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 9/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 9/8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5 9/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 9/8"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5 9/8"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5 9/8"	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"

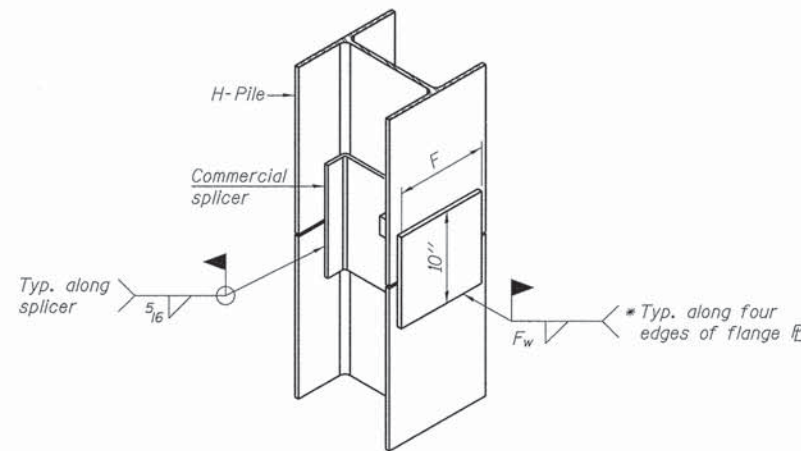


ELEVATION



DETAIL A

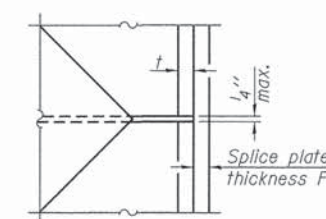
H-PILE SHOE ATTACHMENT



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.).



DETAIL D

WELDED PLATE FIELD SPLICE

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

F-HP

1-27-12

FILE NAME = 140152-sht-bridge.dgn	USER NAME =	DESIGNED - J.W.F.	REVISIONS -	STATE OF ILLINOIS JEFFERSON COUNTY HIGHWAY DEPARTMENT	HP PILE DETAILS STRUCTURE NO. 041-3760	T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3045 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62708 ILLINOIS PROFESSIONAL DESIGN FIRM L3 / P3 / SE CORP. 184-00099	PLLOT SCALE =	CHECKED - S.W.M.	REVISIONS -			1A	01-13109-00-BR	JEFFERSON	25	24
	PLLOT DATE = 3/4/2015	DRAWN - R.D.H.	REVISIONS -			ROME ROAD DISTRICT		CONTRACT NO. 99547		
		CHECKED - S.W.M.	REVISIONS -			ILLINOIS FED. AID PROJECT BROS-008(1078)				

SHEET NO. 8 OF 9 SHEETS

