

06-15-12 LETTING ITEM 074

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PLANS FOR PROPOSED
HIGHWAY BRIDGE PROGRAM**

PROJECT BROS-0081(067)
SECTION 10-04106-00-BR
DODDS ROAD DISTRICT
JEFFERSON COUNTY
T.R. 364 / SPRING GARDEN LANE
PROPOSED STRUCTURE NO. 041-3750
C-99-500-11

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 364	10-04106-00-BR	JEFFERSON	27	1
FED. ROAD DIST. NO.		ILLINOIS CONTRACT NO.	99472	

INDEX OF SHEETS

SHEET NO. DESCRIPTION

- 1. COVER SHEET
- 2. SUMMARY OF QUANTITIES AND GENERAL NOTES
- 3. SCHEDULE OF QUANTITIES
- 4. TYPICAL CROSS SECTIONS AND ENTRANCE DETAILS
- 5.-6. PLAN & PROFILE
- 7.-16. STATION CROSS SECTIONS
- 17.-26. BRIDGE PLANS
- 27. BORINGS

HIGHWAY STANDARDS:

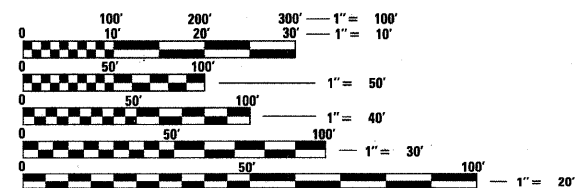
- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
- 515001-03 NAME PLATE FOR BRIDGES
- 630001-10 STEEL PLATE BEAM GUARDRAIL
- 630301-05 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
- 635006-03 REFLECTOR AND TERMINAL MARKER PLACEMENT
- 701901-02 TRAFFIC CONTROL DEVICES
- BLR 21-9 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
- BLR 27-1 TRAFFIC BARRIER TERMINAL, TYPE 5A

UTILITIES

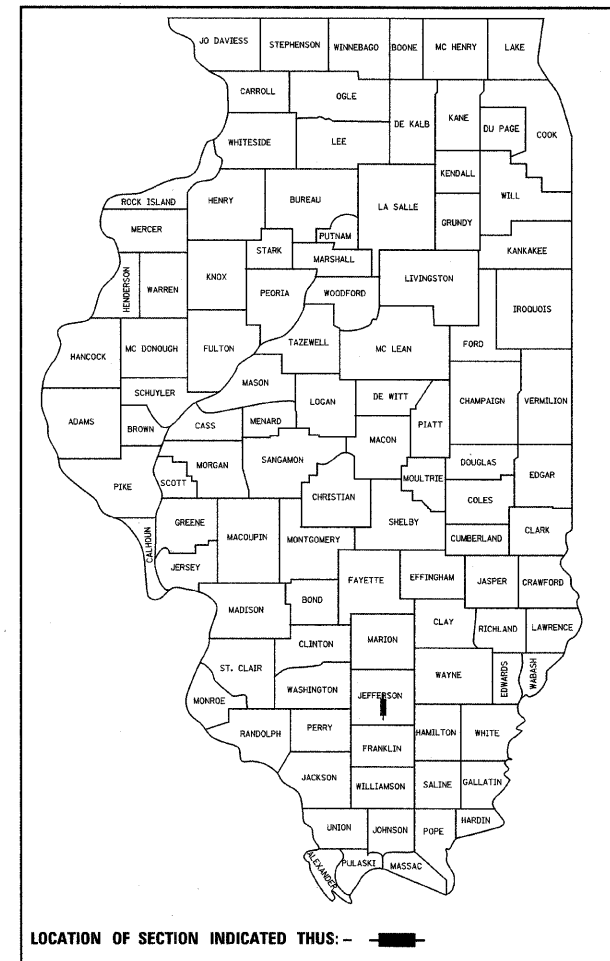
ELECTRIC:
TRI-COUNTY ELECTRIC COOPERATIVE
3906 BROADWAY
MT. VERNON, IL 62864
ATTN: DENNIS IVERS

TELEPHONE:
AT&T / DISTRIBUTION
529 S. SEVENTH ST.
SPRINGFIELD, IL 62703

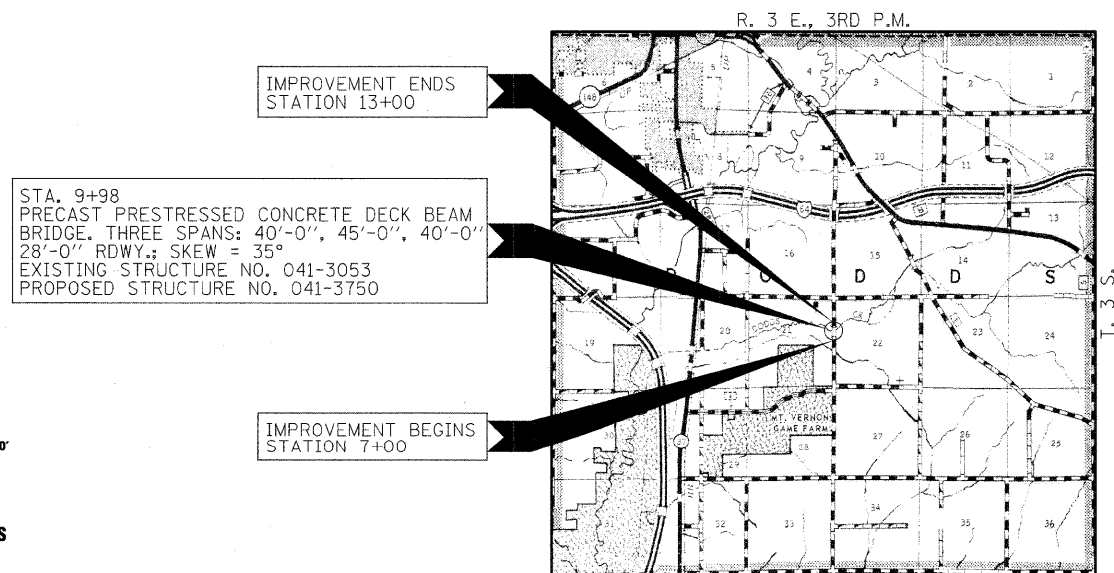
WATER:
VILLAGE OF BELLE RIVE WATER DEPARTMENT
109 SOUTH MAIN ST.
BELLE RIVE, IL 62810
ATTN: CHARLES NEAL



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: 40 MPH
DESIGN TRAFFIC: 950 ADT

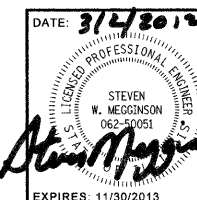


LOCATION MAP

APPROXIMATE SCALE: 0 1 MILE
NET LENGTH OF SECTION = 600 FEET = 0.114 MILES



ILLINOIS DEPARTMENT OF TRANSPORTATION	
APPROVED	3-8 2012 <i>[Signature]</i> COUNTY ENGINEER
APPROVED	3-8 2012 <i>[Signature]</i> TOWNSHIP COMMISSIONER
PASSED	3/14 2012 <i>[Signature]</i> DISTRICT NINE ENGINEER OF LOCAL ROADS & STREETS
Releasing For Bid Based on Limited Review	3/14 2012 <i>[Signature]</i> DEPUTY DIRECTOR OF HIGHWAYS REGION FIVE ENGINEER STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



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

184.000659
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORPORATION

CONTRACT NO. 99472

PROJECT NUMBER: 10.0238.130 DATE: 02/29/12

SUMMARY OF QUANTITIES				
	ITEM	CONSTRUCTION CODE 0011		
		UNIT	TOTAL	
	20100110 TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	120	
	20100210 TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	20	
	20200100 EARTH EXCAVATION	CU YD	100	
	20300100 CHANNEL EXCAVATION	CU YD	420	
	20400800 FURNISHED EXCAVATION	CU YD	265	
A	21001000 GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	1220	
	28100807 STONE DUMPED RIPRAP, CLASS A4	TON	470	
A	40200800 AGGREGATE SURFACE COURSE, TYPE B	TON	550	
	50100100 REMOVAL OF EXISTING STRUCTURES	EACH	1	
	50300225 CONCRETE STRUCTURES	CU YD	59.8	
	50300280 CONCRETE ENCASEMENT	CU YD	17.0	
	50400305 PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	3500	
	50800105 REINFORCEMENT BARS	POUND	5860	
*	50900205 STEEL RAILING, TYPE S1	FOOT	260	
	51201400 FURNISHING STEEL PILES HP10X42	FOOT	800	
	51202305 DRIVING PILES	FOOT	800	
	51500100 NAME PLATES	EACH	1	
A	59300100 CONTROLLED LOW-STRENGTH MATERIAL	CU YD	54	
*	63000001 STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	200	
*	63100075 TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	4	
*	63100167 TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	
	67100100 MOBILIZATION	L SUM	1	
*	78200410 GUARDRAIL MARKERS, TYPE A	EACH	8	
*	78201000 TERMINAL MARKER - DIRECT APPLIED	EACH	4	
A	X2501000 SEEDING, CLASS 2 (SPECIAL)	ACRE	0.5	

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 BITUMINOUS 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 SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.
- THE REVISION NUMBER INDICATED FOR THE STANDARDS LISTED IN THE INDEX OF SHEETS SHALL BE USED IN THE CONSTRUCTION OF THIS SECTION.
- TREES WITHIN THE RIGHT-OF-WAY WHICH INTERFERE WITH CONSTRUCTION SHALL BE REMOVED ONLY AT THE DIRECTION OF THE ENGINEER.
- THE CONTRACTOR SHALL PROVIDE ACCESS TO ADJACENT PROPERTY AT ALL TIMES DURING CONSTRUCTION OF THE PROJECT.
- 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 SEEDDED SHALL CONSIST OF ALL EARTH SURFACES WITHIN THE RIGHT OF WAY OR AS DIRECTED BY THE ENGINEER
SEEDING, CLASS 2 (SPECIAL) = 0.5 ACRES

FILE NAME = 100238-sht-summary.dgn	USER NAME =	DESIGNED - J.W.F.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3685 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000958		DRAWN - D.T.M.	REVISED -
PLOT SCALE =		CHECKED - S.W.M.	REVISED -
PLOT DATE = 3/1/2012		DATE - 02/29/12	REVISED -

**STATE OF ILLINOIS
JEFFERSON COUNTY HIGHWAY DEPARTMENT**

SUMMARY OF QUANTITIES AND GENERAL NOTES					T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
					364	10-04106-00-BR	JEFFERSON	27	2
					DODDS ROAD DISTRICT			CONTRACT NO. 99472	
SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. AID PROJECT BR05-0081067		

EARTHWORK SUMMARY						
LOCATION	EARTH EXCAVATION	SHRINKAGE FACTOR	% USED	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT REQUIRED	EARTHWORK BALANCE WASTE (+) / SHORTAGE (-)
	20200100					
	CU YD			CU YD	CU YD	CU YD
TR 364 (SPRING GARDEN LN.)						
STA 7+00 TO STA 9+34.59	44	25.00%	100.00%	33	280	-247
STA 9+34.59 TO STA 10+61.42	0	25.00%	100.00%	0	0	0
STA 10+61.42 TO STA 13+00	58	25.00%	100.00%	44	272	-228
CHANNEL EXCAVATION ENTRANCES	420	25.00%	70.00%	221	10	221
TOTAL	102			298	562	-264
USE	100					265
FURNISHED EXCAVATION					265	CU YD.

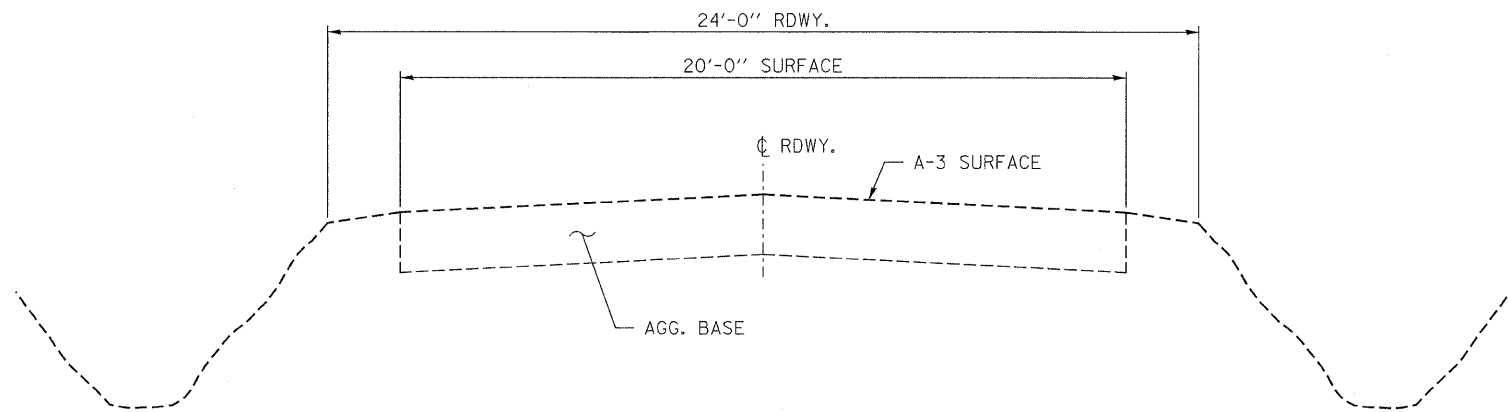
TREE REMOVAL		
LOCATION	UNIT - DIA	UNIT - DIA
TR 364 (SPRING GARDEN LN.)	6-15	OVER 15
25' LT. STA 8+89	6	
26' LT. STA 8+91	12	
28' LT. STA 8+95	6	
30' LT. STA 9+02	5	
29' LT. STA 9+06	12	
28' LT. STA 9+07	6	
28' LT. STA 9+11	10	
27' LT. STA 9+11	6	
28' LT. STA 9+17	15	
26' LT. STA 9+21	12	
27' LT. STA 9+25		20
27' LT. STA 9+40	5	
25' LT. STA 9+94	5	
27' LT. STA 10+11	15	
26' LT. STA 10+23	5	
TOTAL	120	20

GUARDRAIL TABULATION					
LOCATION	TRAFFIC BARRIER TERMINAL TYPE 1 (SPECIAL) TANGENT	TRAFFIC BARRIER TERMINAL TYPE 5A	TERMINAL MARKER DIRECT APPLIED	GUARDRAIL MARKERS TYPE A	STEEL PLATE BEAM GUARDRAIL TYPE A 6 FOOT POSTS
	63100167	63100075	78201000	78200410	63000001
	EACH	EACH	EACH	EACH	FOOT
TR 364 (SPRING GARDEN LN.)					
15' LT. STA 8+34.95 TO LT. STA 9+23.20	1	1	1		25
15' RT. STA 8+04.55 TO RT. STA 9+42.80	1	1	1		75
15' LT. STA 10+53.20 TO LT. STA 11+91.45	1	1	1		75
15' RT. STA 10+72.80 TO RT. STA 11+61.05	1	1	1		25
15' LT. STA 8+34.95 TO LT. STA 11+91.45				4	
15' RT. STA 8+04.55 TO RT. STA 11+61.05				4	
TOTAL	4	4	4	8	200

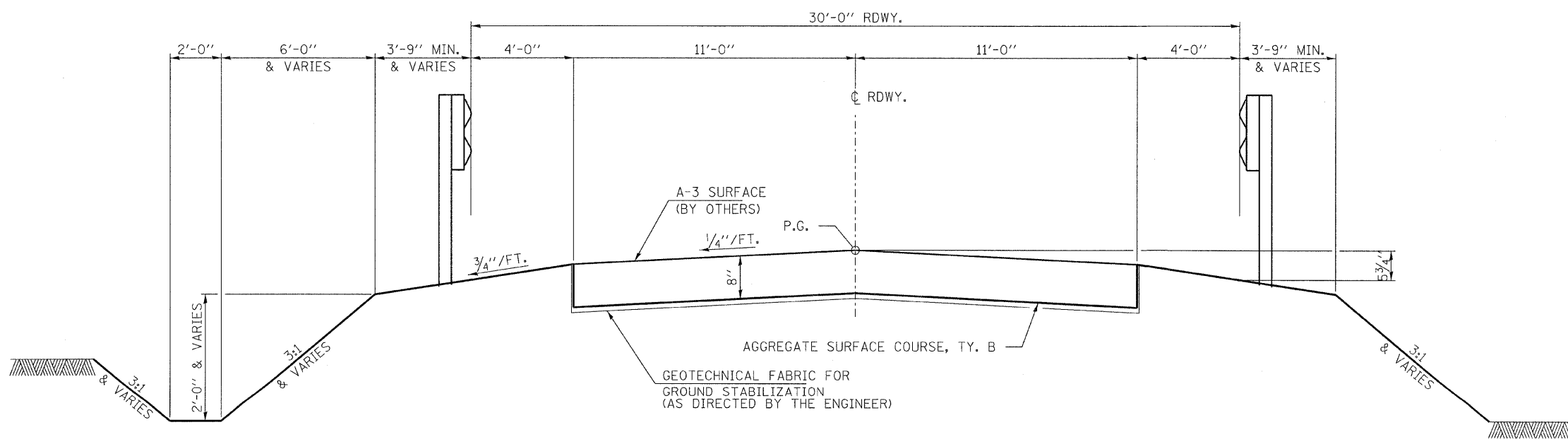
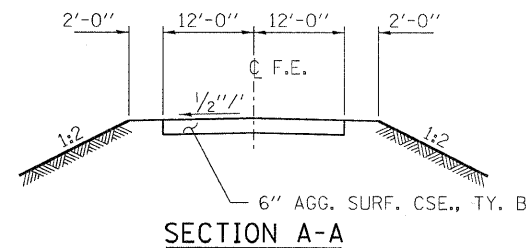
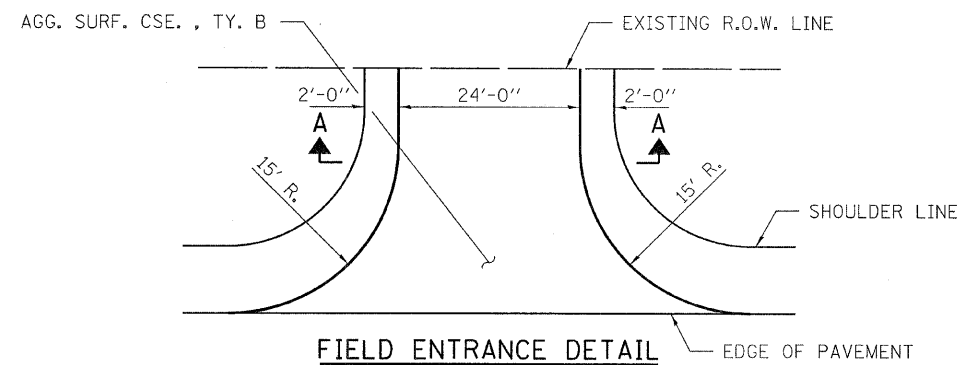
NOTE: TRANSITION TBT T5A FROM BRIDGE RAIL TO SPGBR OFFSET.

ROADWAY SCHEDULE		
LOCATION	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	AGGREGATE SURFACE COURSE TYPE B
	21001000	40200800
	SQ YD	TON
TR 364 (SPRING GARDEN LN.)		
STA 7+00 TO STA 9+34.59	608	262
STA 10+61.42 TO STA 13+00	612	263
ENTRANCE STA 12+21 LT		25
TOTAL	1,220	550

SEEDING SCHEDULE	
LOCATION	SEEDING, CLASS 2 (SPECIAL)
	X2501000 ACRE
TR 364 (SPRING GARDEN LN.)	
STA 7+00 TO STA 9+60	0.26
STA 10+40 TO STA 13+00	0.23
TOTAL	0.49
USE	0.50



EXISTING TYPICAL CROSS SECTION
STA. 6+50 TO 15+00



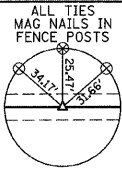
SUGGESTED CUT SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

PROPOSED TYPICAL CROSS SECTION
STA. 7+50 TO 12+50

SUGGESTED FILL SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

TRANSITION FROM THE PROPOSED ROADWAY TO THE EXISTING ROADWAY
IS TO BE CONSTRUCTED FROM STA. 7+00 TO 7+50 AND FROM
STA. 12+50 TO 13+00 SEE SHEET 17 FOR TRANSITION AT BRIDGE.

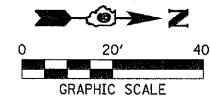
FILE NAME = 100238-ah-typcrosssections.dgn	USER NAME =	DESIGNED - J.W.F.	REVISED -	STATE OF ILLINOIS JEFFERSON COUNTY HIGHWAY DEPARTMENT	TYPICAL CROSS SECTIONS AND ENTRANCE DETAILS SPRING GARDEN LANE			T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 2088 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62761	PLOT SCALE =	DRAWN - D.T.M.	REVISED -					364	10-04106-00-BR	JEFFERSON	27	4
ILLINOIS PROFESSIONAL DESIGN FIRM L3/P/E/SE CORP. 184.000899	PLOT DATE = 3/1/2012	CHECKED - S.W.M.	REVISED -		DODDS ROAD DISTRICT			CONTRACT NO. 99472				
		DATE - 02/29/12	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT BR05-00810671		



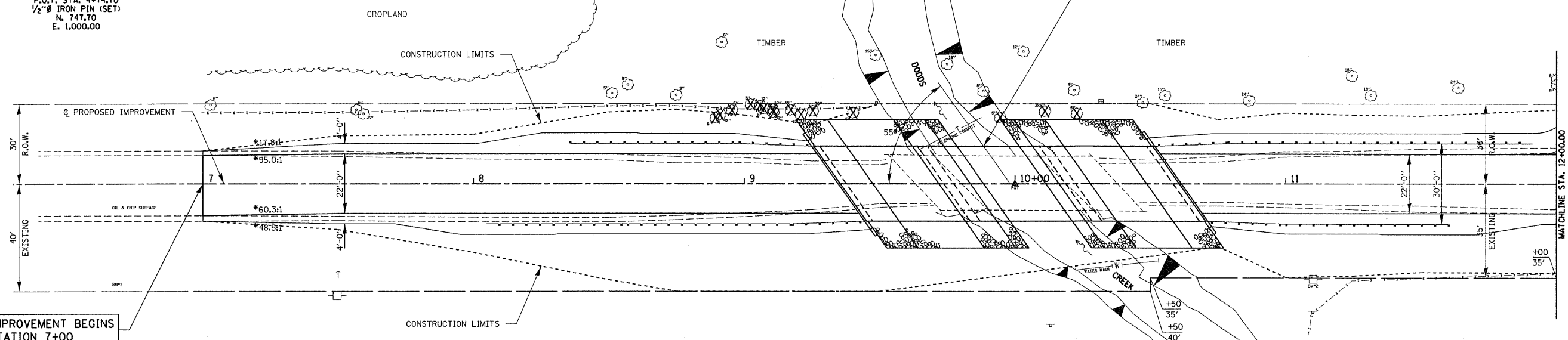
P.O.T. STA. 4+74.70
 1/2" Ø IRON PIN (SET)
 N. 747.70
 E. 1,000.00

ROGER V. DANIEL & JANICE K. DANIEL
 SE 1/4, NE 1/4, SEC 21, T. 3 S., R. 3 E., 3RD P.M.

STATION 9+98
 PRECAST PRESTRESSED CONCRETE DECK BEAM
 BRIDGE: 3 SPANS: 40'-0", 45'-0", 40'-0"
 28'-0" RDWY, SKEW = 35°
 PROPOSED STRUCTURE NO. 041-3750



PLAN	DATE
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IMPROVEMENT BEGINS
 STATION 7+00

TREE REMOVAL
 INDICATES TREE TO BE REMOVED

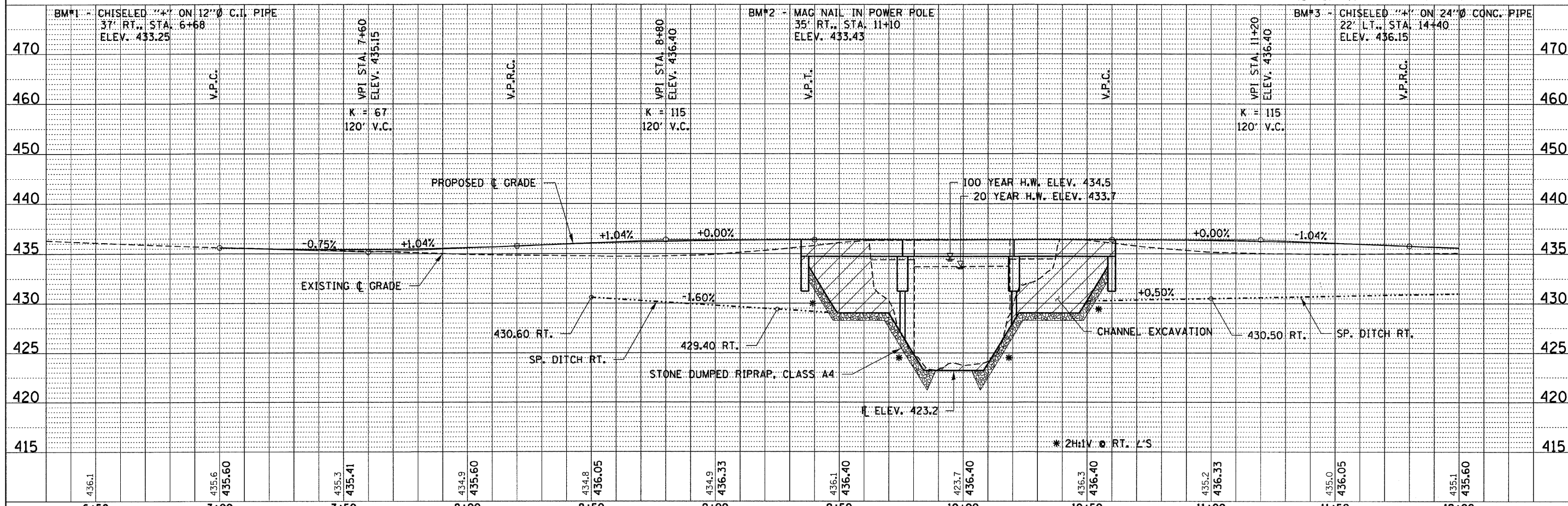
EXISTING STRUCTURE NO. 041-3053
 STATION 10+00 - THREE SPAN I-BEAM BRIDGE
 WITH TIMBER DECK ON CLOSED TIMBER ABUTMENTS
 AND PILES WITH TIMBER PILE PIERS.
 73.7' FC-FC, ABUTS; 20.00' o-o DECK

*TRANSITION FROM THE PROPOSED ROADWAY TO THE EXISTING
 ROADWAY IS TO BE CONSTRUCTED FROM STA. 7+00 TO 7+50.

WILLIAM L. MILLER & NINA MILLER
 S 1/2, SW 1/4, NW 1/4, SEC 22, T. 3 S., R. 3 E., 3RD P.M.

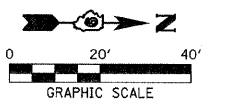
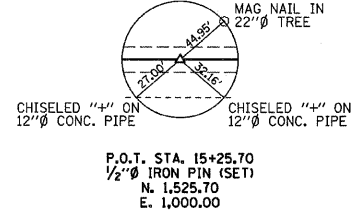
GAYLON R. SEAGRAVES & JANET KAY SEAGRAVES
 N 1/2, SW 1/4, NW 1/4, SEC 22, T. 3 S., R. 3 E., 3RD P.M.

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STRUCTURE NOTATION	

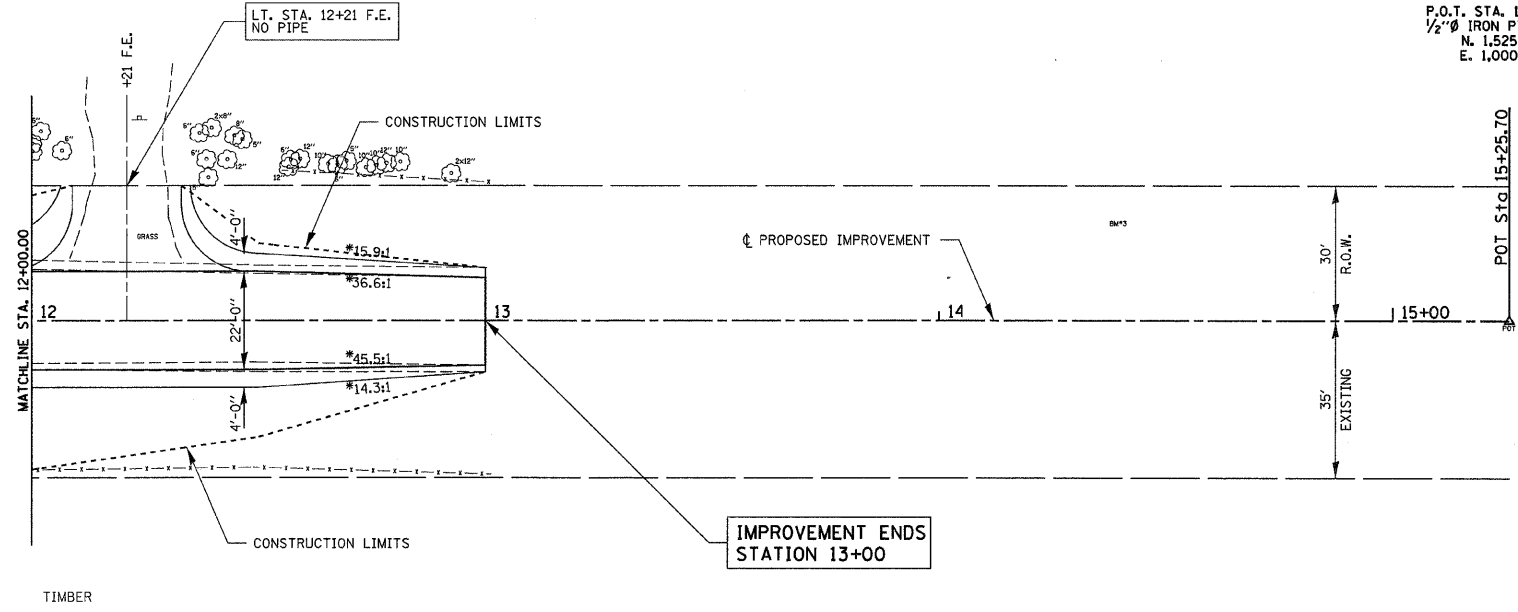


FILE NAME = 100238-shr-pp1.dgn	USER NAME =	DESIGNED - J.W.F.	REVISED -	STATE OF ILLINOIS JEFFERSON COUNTY HIGHWAY DEPARTMENT	PLAN & PROFILE SPRING GARDEN LANE		T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC.		DRAWN - D.T.M.	REVISED -		364	10-04106-00-BR	JEFFERSON	27	5		
308 STEVENSON DRIVE, SUITE 207 SPRINGFIELD, ILLINOIS 62703		CHECKED - S.W.M.	REVISED -		SCALE: H20xV5		SHEET NO. 1 OF 1 SHEETS		STA. 7+00.00 TO STA. 13+00.00	ILLINOIS FED. AID PROJECT BROS-00810671	
ILLINOIS PROFESSIONAL DESIGN FIRM L.S. / P.E. / S.E. CORP. 184.000095		DATE - 02/29/12	REVISED -		CONTRACT NO. 99472						

ROGER V. DANIEL & JANICE K. DANIEL
SE 1/4, NE 1/4, SEC 21, T. 3 S., R. 3 E., 3RD P.M.



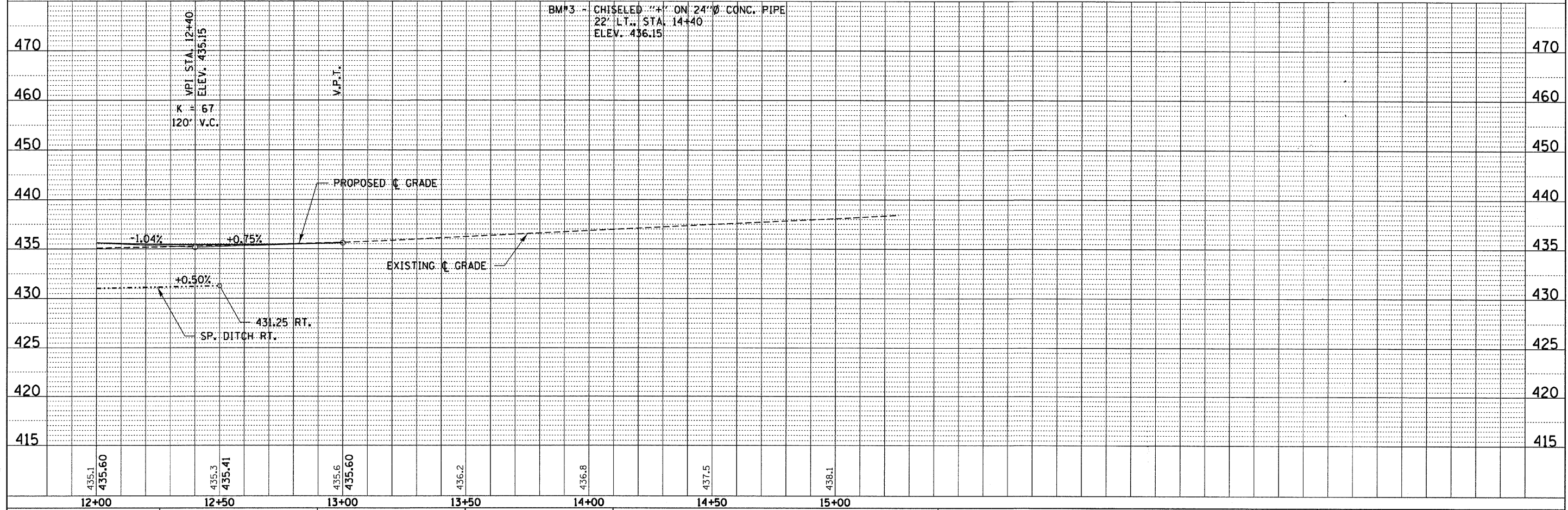
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	PLOTTED		
	CHECKED		
	RT. OF WAY CHECKED		
	CADD FILE NAME		
	NO.		



*TRANSITION FROM THE PROPOSED ROADWAY TO THE EXISTING ROADWAY IS TO BE CONSTRUCTED FROM STA. 12+50 TO 13+00.

GAYLON R. SEAGRAVES & JANET KAY SEAGRAVES
N 1/2, SW 1/4, NW 1/4, SEC 22, T. 3 S., R. 3 E., 3RD P.M.

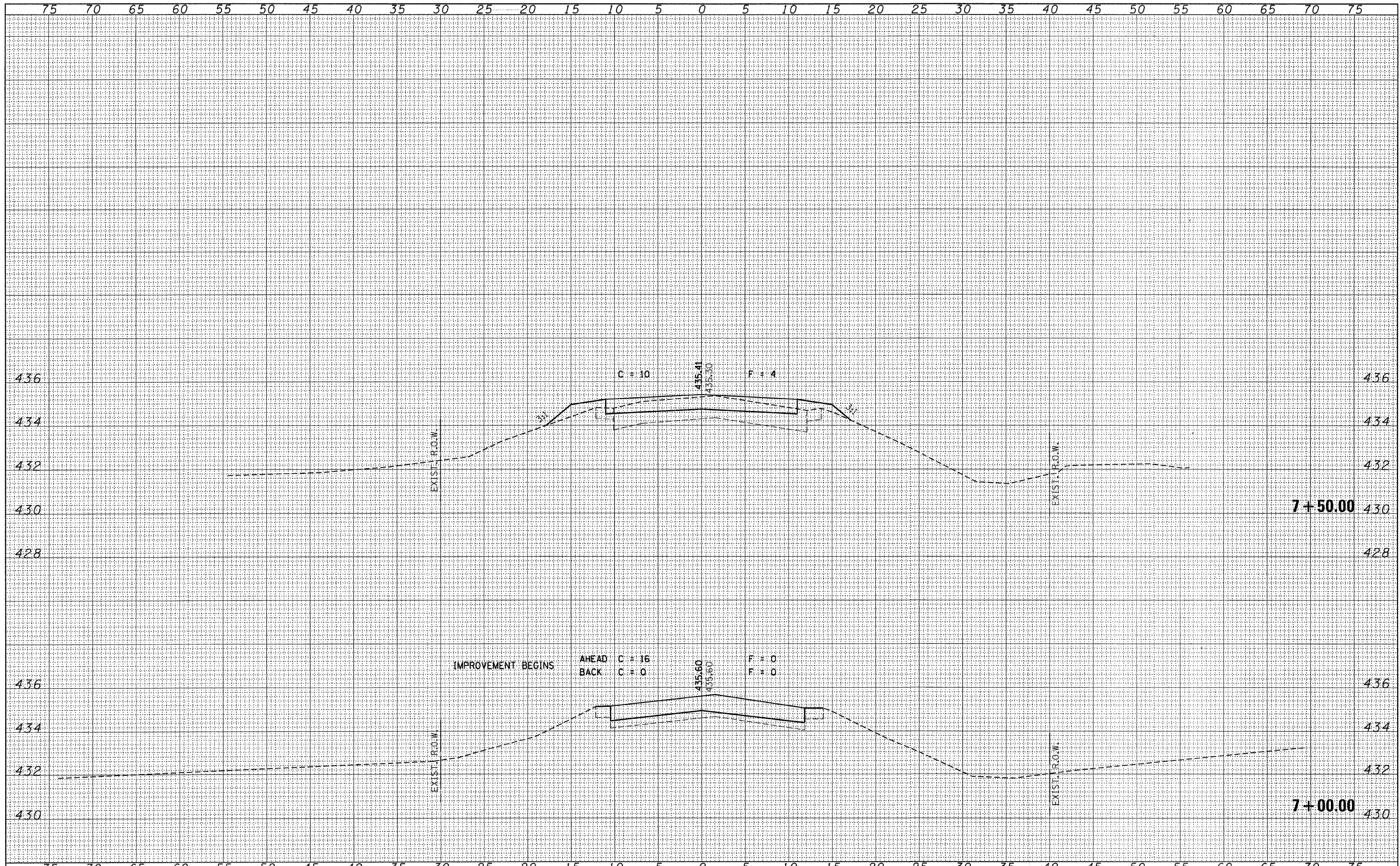
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	BL. NOTED		
	STRUCTURE NOTATIONS OK'D		
	NO.		



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HAMPTON, LENZINI AND RENWICK, INC. 305 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	DRAWN - D.T.M.	REVISED -			364	10-04106-00-BR	JEFFERSON	27	6	
ILLINOIS PROFESSIONAL DESIGN FIRM L8 / PE / SE CORP. 184.0009W	PLOT DATE = 3/1/2012	CHECKED - S.W.M.	REVISED -			DODDS ROAD DISTRICT			CONTRACT NO. 99472		
	DATE = 02/29/12	DATE - 02/29/12	REVISED -			SCALE: H20xV5 SHEET NO. 1 OF 1 SHEETS STA. 7+00.00 TO STA. 13+00.00			ILLINOIS FED. AID PROJECT BR05-00810671		

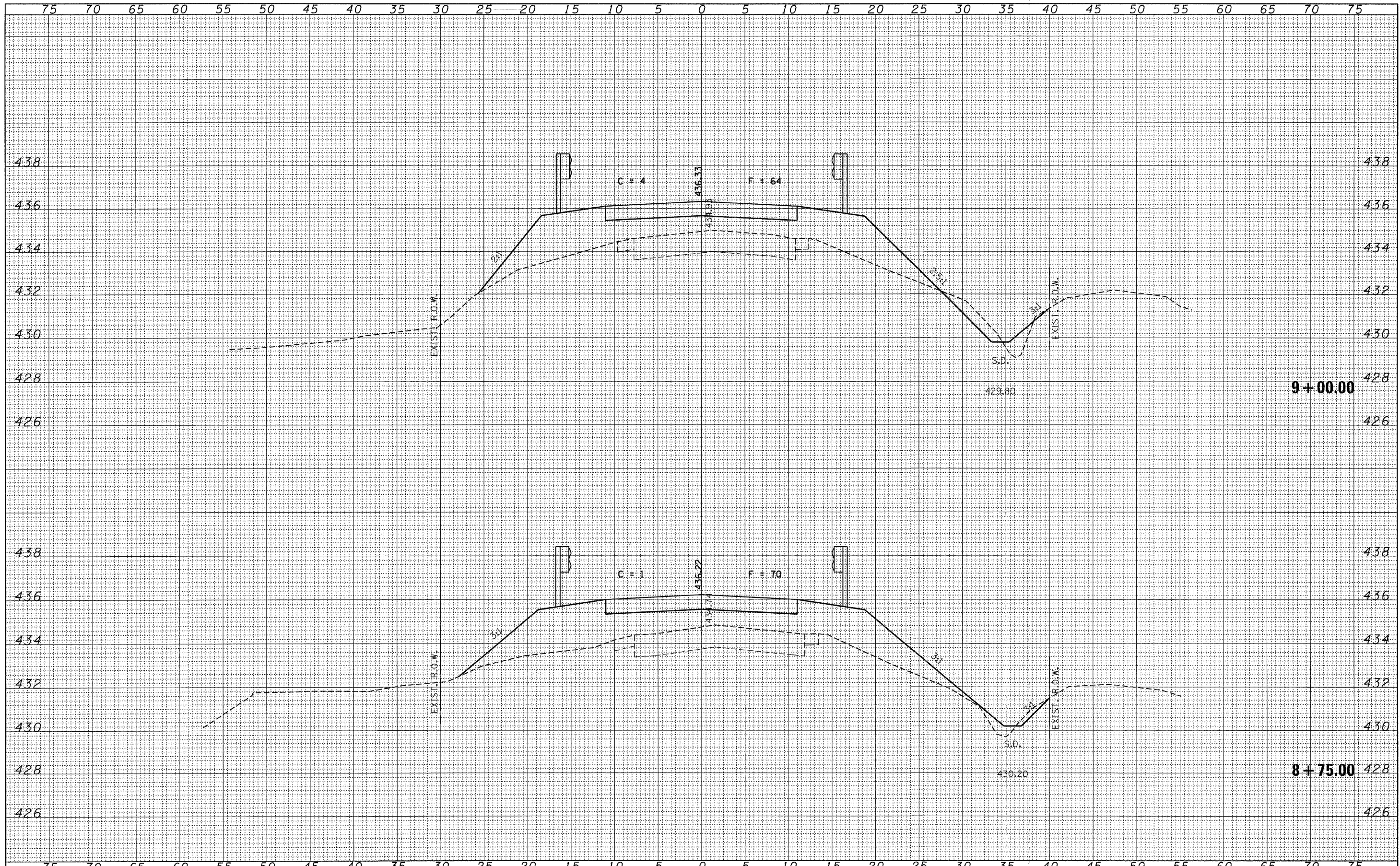
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BY	
FINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
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DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
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FILE NAME = 100238-sht-ex.dgn	USER NAME =	DESIGNED - J.W.F.	REVISED -	STATE OF ILLINOIS JEFFERSON COUNTY HIGHWAY DEPARTMENT	STATION CROSS SECTIONS SPRING GARDEN LANE			T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HLR HAMPTON, LENZINI AND RENWICK, INC. 3885 STEVENSON DRIVE, SUITE 207 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184-000899		DRAWN - D.T.M.	REVISED -		364	10-04106-00-BR	JEFFERSON	27	7			
	PLOT SCALE =	CHECKED - S.W.M.	REVISED -		DODDS ROAD DISTRICT CONTRACT NO. 99472							
	PLOT DATE = 3/1/2012	DATE - 02/29/12	REVISED -		ILLINOIS FED. AID PROJECT BROS-00810671							
					SCALE: H5:V2 SHEET NO. OF SHEETS STA. 7+00.00 TO STA. 7+50.00							

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FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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	AREAS CHECKED

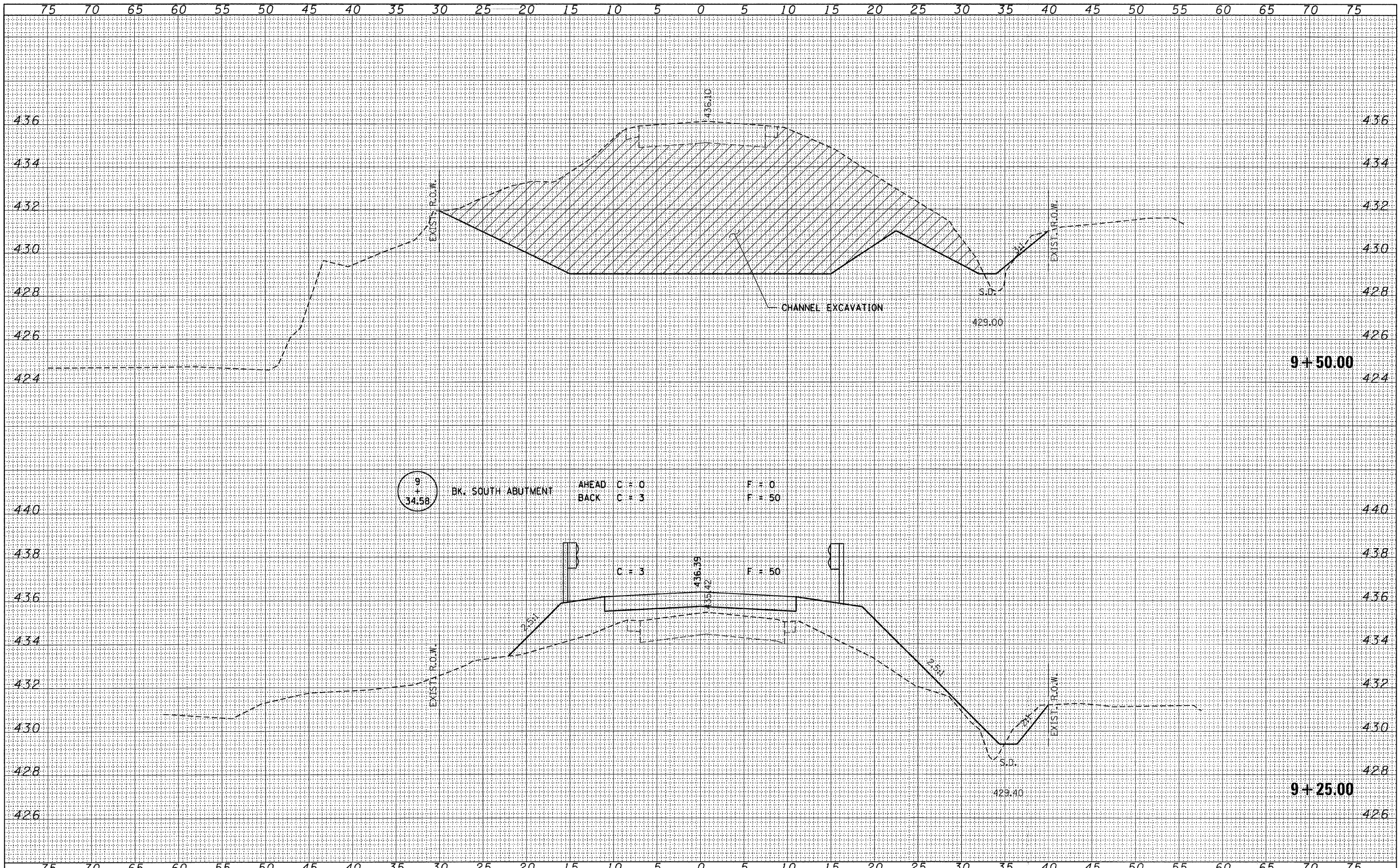


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BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

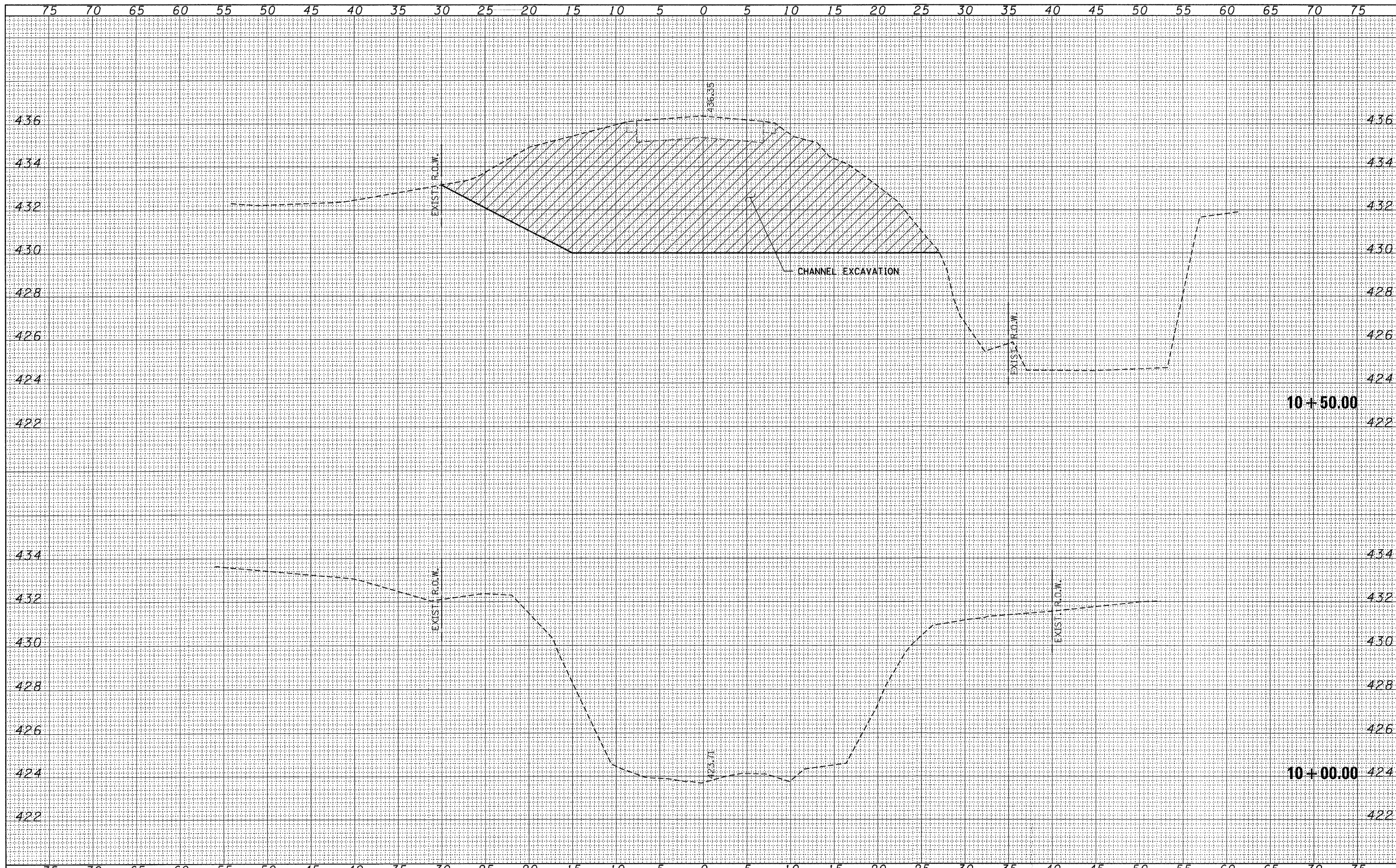
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NOTE BOOK	PLOTTED
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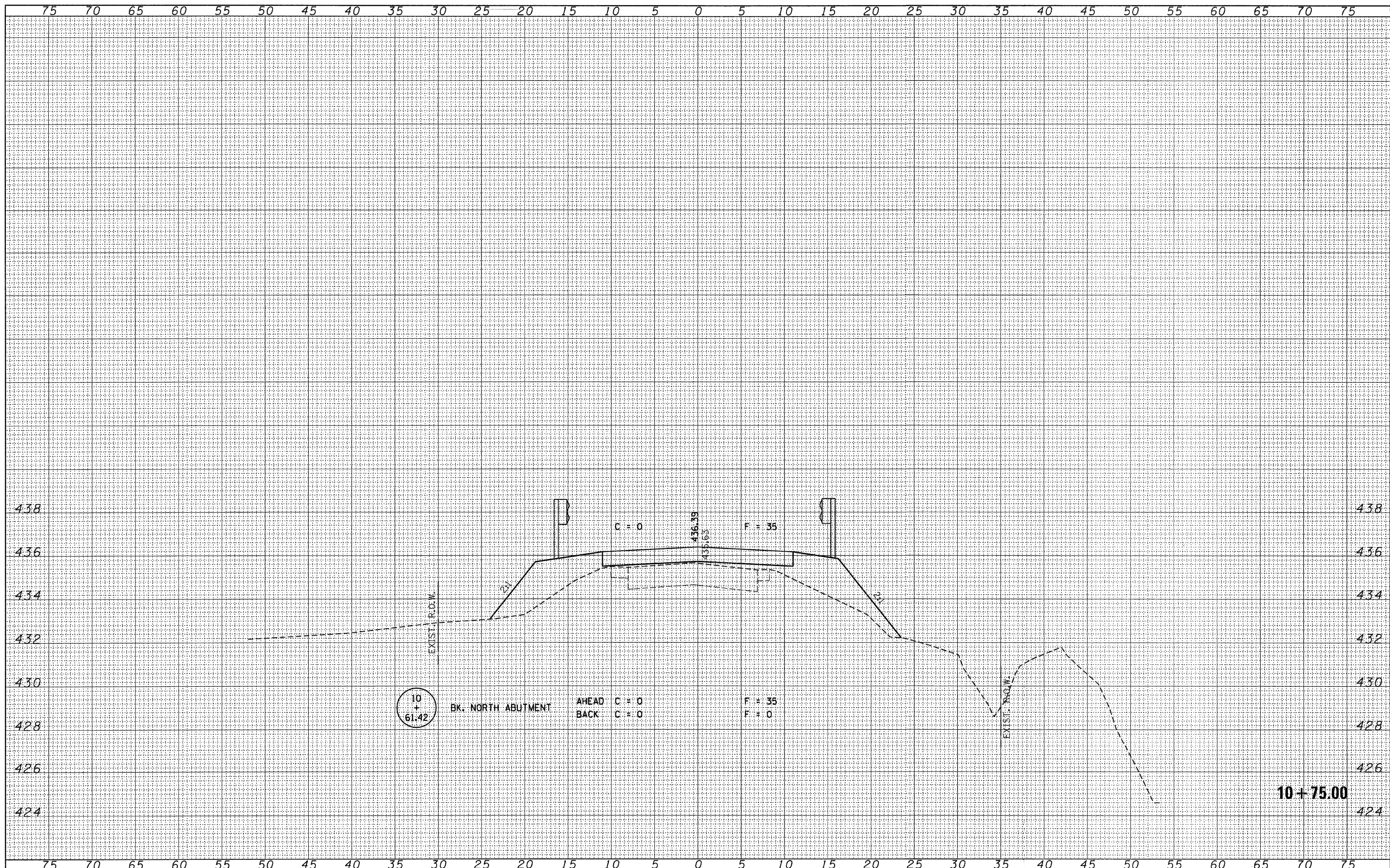
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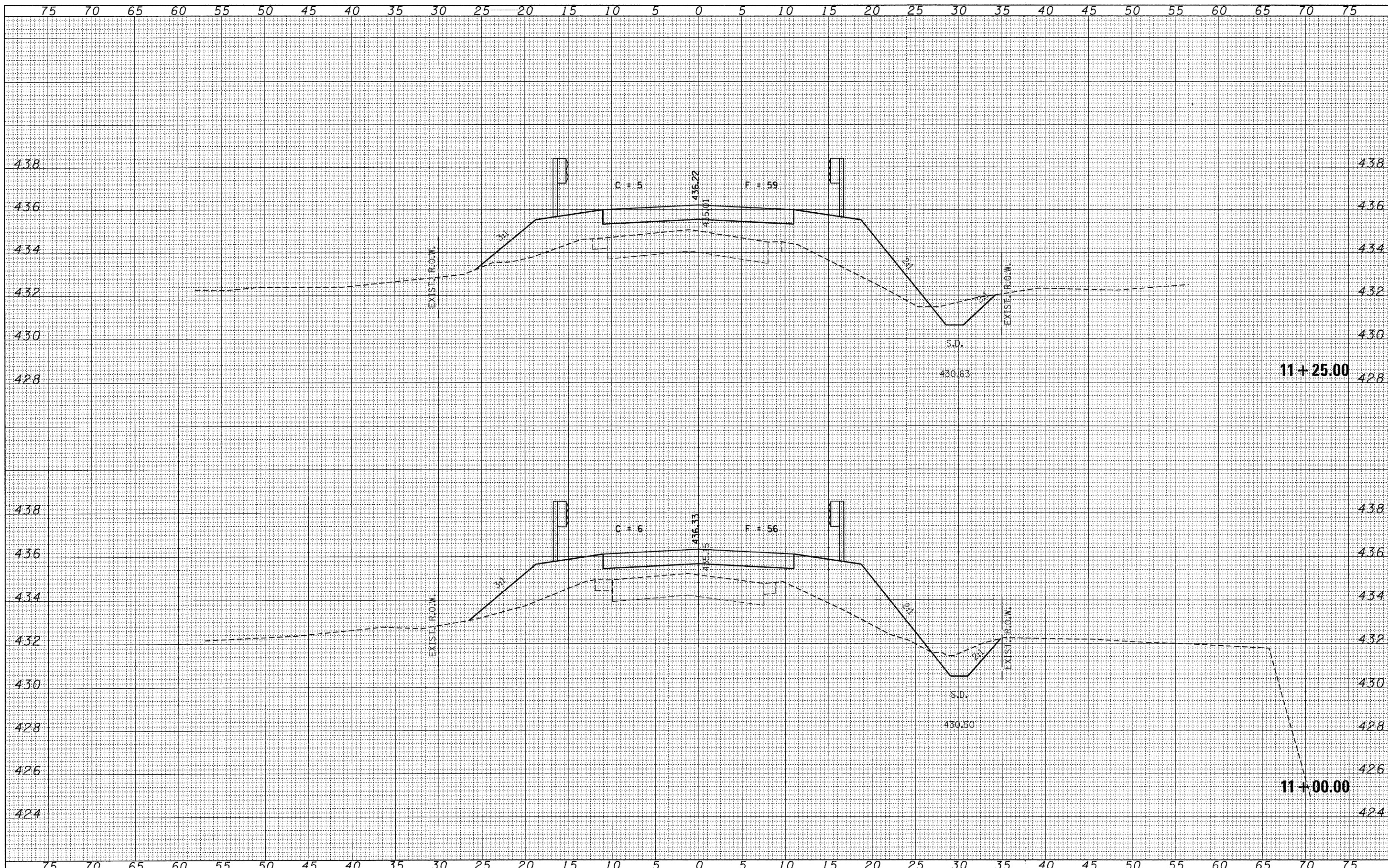
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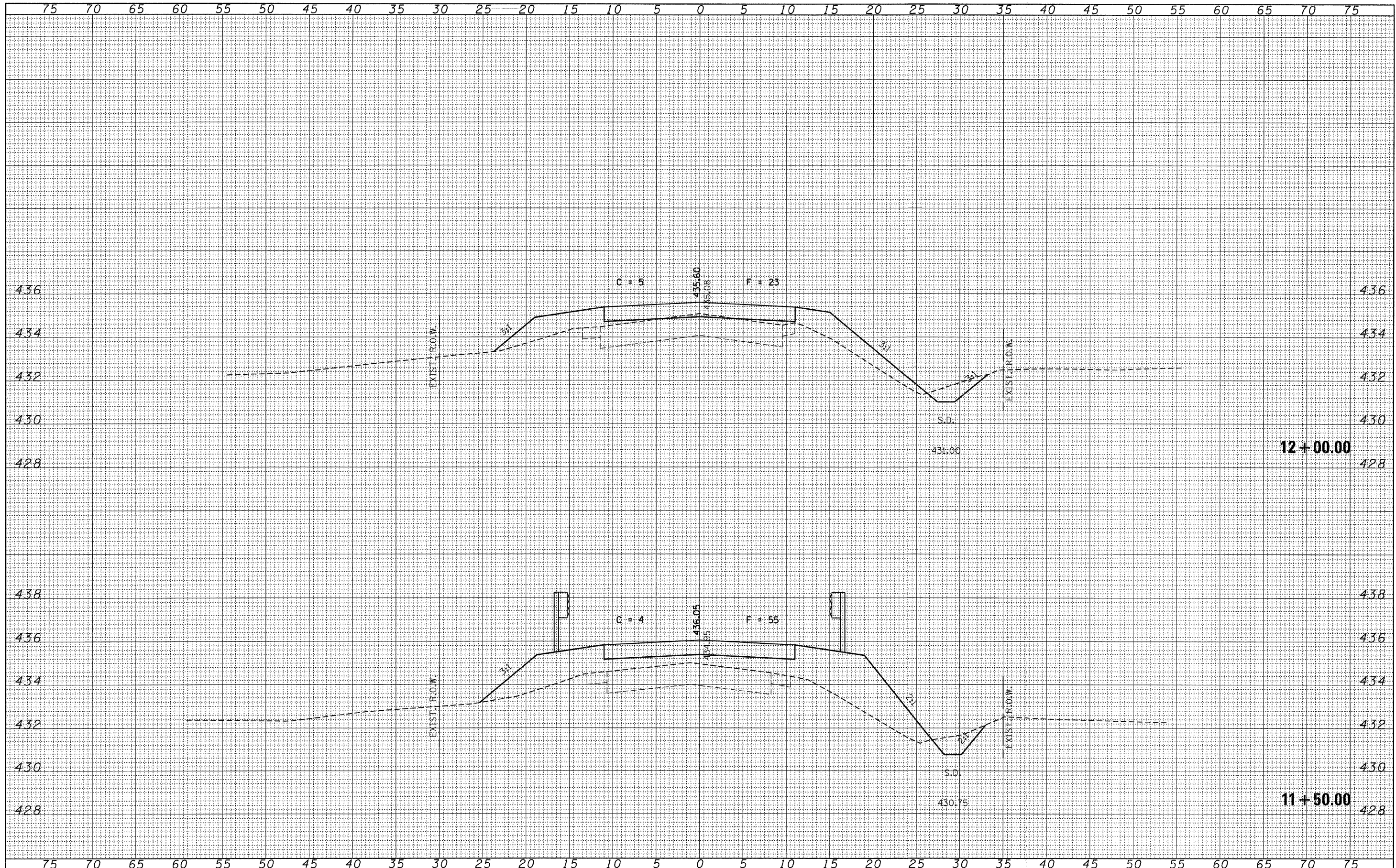
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 LS / PE / SE CORP. 184.000889

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PLOT DATE = 3/1/2012	DATE - 02/29/12	REVISED -

STATE OF ILLINOIS
JEFFERSON COUNTY HIGHWAY DEPARTMENT

STATION CROSS SECTIONS
SPRING GARDEN LANE
 SCALE: H5:V2 SHEET NO. OF SHEETS STA. 11+00.00 TO STA. 11+25.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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DODDS ROAD DISTRICT			CONTRACT NO. 99472	
ILLINOIS FED. AID PROJECT BROS-00810671				



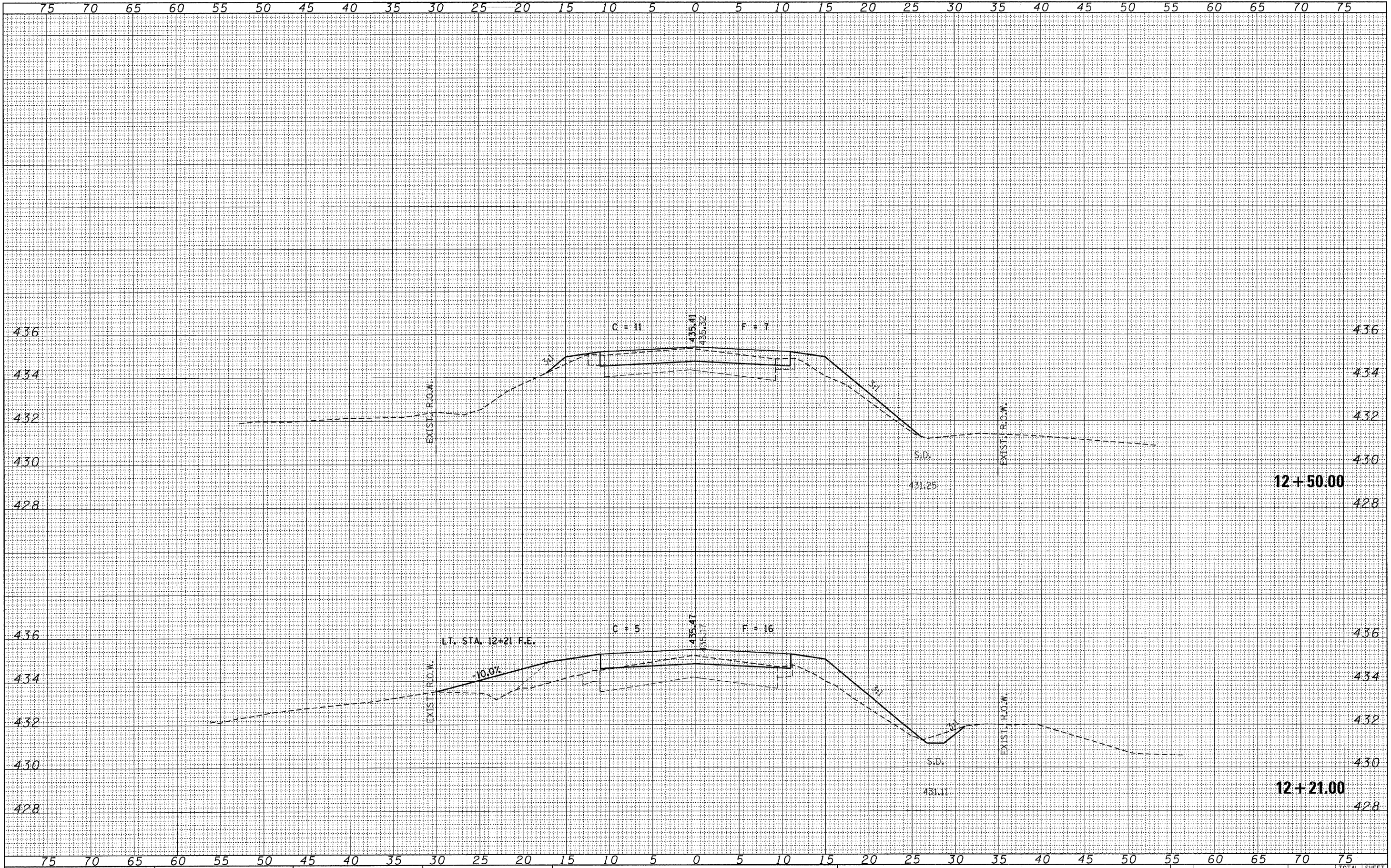
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DATE	
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NOTE BOOK	
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 SPRINGFIELD, ILLINOIS 62703
 ILLINOIS PROFESSIONAL DESIGN FIRM
 LS / PE / SE CORP. 184-000029

USER NAME =
 PLOT SCALE =
 PLOT DATE = 3/1/2012

DESIGNED - J.W.F.
 DRAWN - D.T.M.
 CHECKED - S.W.M.
 DATE - 02/29/12

REVISED -
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STATE OF ILLINOIS
 JEFFERSON COUNTY HIGHWAY DEPARTMENT

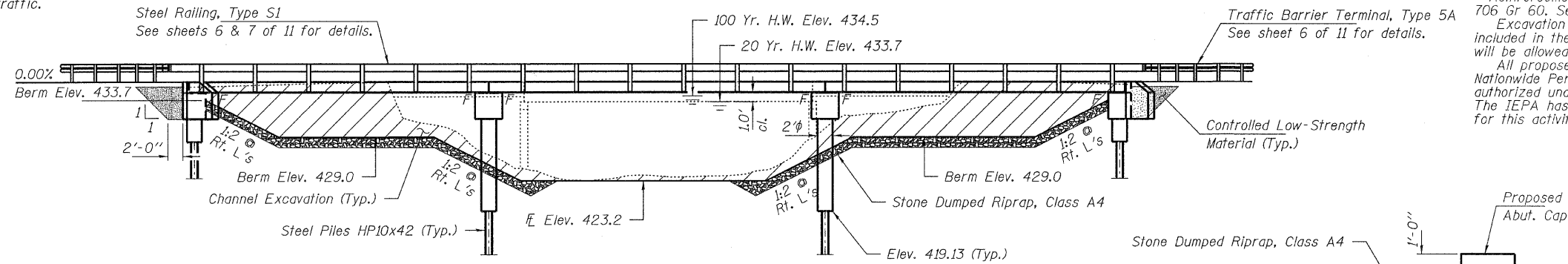
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 SPRING GARDEN LANE
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ILLINOIS FED. AID PROJECT BROS-00810671				

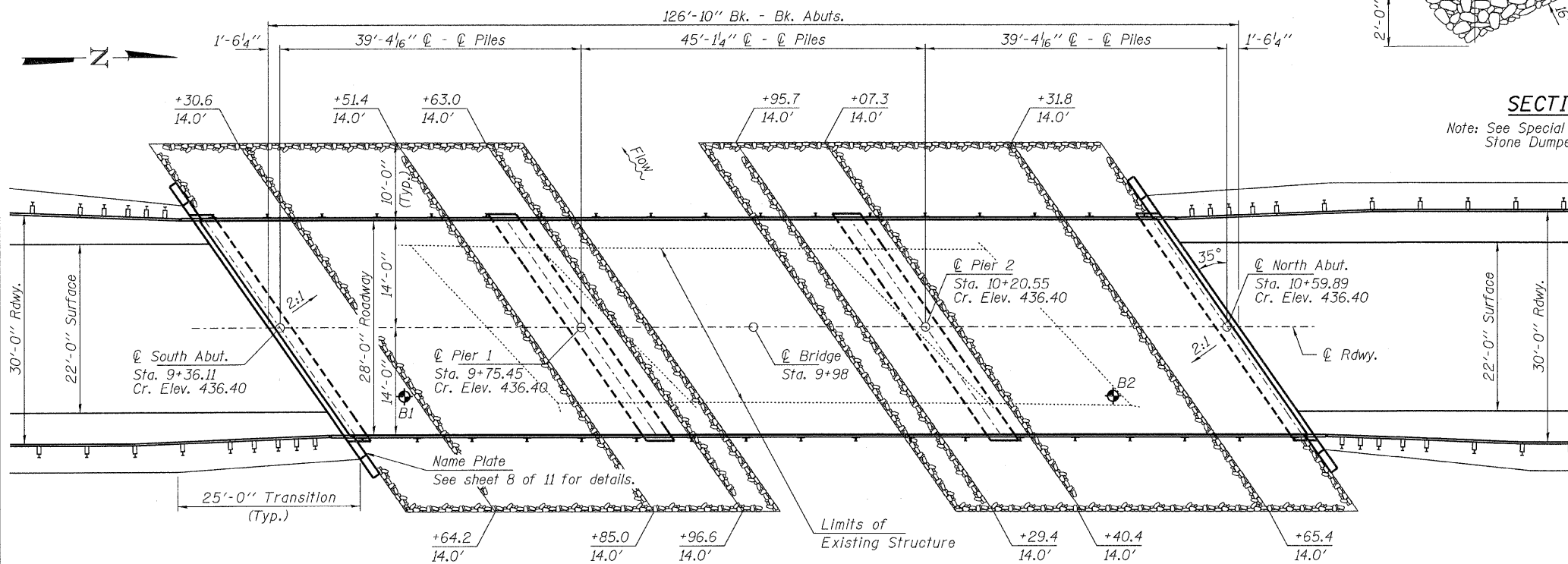
BENCHMARK: Mag Nail in Power Pole; 35' Rt. Sta. 11+10; Elev. 433.43

EXISTING STRUCTURE NO. 041-3053; Sta. 10+00 - Three span I-beam bridge with timber deck on closed timber abutments and piles with fiber pile piers. 73.7' fc.-fc. Abuts.; 20.0' o.-o. Deck Structure closed to traffic.

No Salvage



ELEVATION



PLAN

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	S. Abut.	Pier 1	Pier 2	N. Abut.
	432.1	417.4	417.4	432.1

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 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.)

LOADING HL-93

Design Specifications: 2010 AASHTO LRFD with all applicable Interims. 50#/Sq. Ft. included in dead load for future wearing surface.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 3
Design Spectral Acceleration at 1.0 sec. (Sp1) = 0.301g
Design Spectral Acceleration at 0.2 sec. (Sp5) = 0.714g
Soil Site Class = D

WATERWAY INFORMATION

Flood		Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Natural H.W.E.	Head - Ft. Exist. Prop.	Headwater El. Exist. Prop.
Exist. Overtop	10	2000	330	450	433.36	1.54 0.95	434.90 434.31
Design	20	2510	340	490	433.72	1.49 1.20	435.21 434.92
Base	100	3790	340	560	434.47	1.40 1.01	435.87 435.48
Max. Calc.	500	5220	340	580	435.19	1.34 1.17	436.53 436.36

10 Year Velocity through Existing Bridge = 6.1 Tps 10 Year Velocity through Proposed Bridge = 4.4 Tps

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. Megginson 3/2/2012
ILLINOIS STRUCTURAL ENGINEER NO. 081-6064



Expires 11-30-2012

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. See Special Provisions. Excavation required to construct the Abutments & Piers shall be included in the cost of Concrete Structures. No additional compensation will be allowed for Structure Excavation. 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.

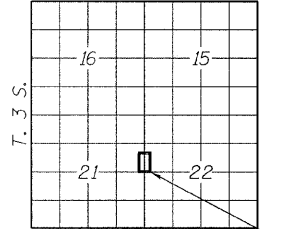
INDEX OF STRUCTURE SHEETS

1. General Plan & Elevation
2. 17" x 48" PPC Deck Beam - Span 1 & 3
3. 17" x 48" PPC Deck Beam Details - Span 1 & 3
4. 17" x 48" PPC Deck Beam - Span 2
5. 17" x 48" PPC Deck Beam Details - Span 2
6. Superstructure Details
7. Steel Railing, Type 1
8. Abutments
9. Piers
10. HP Pile Details
11. Borings

SECTION A-A

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

R. 3 E., 3rd. P.M.



LOCATION SKETCH

DODDS CREEK
BUILT 201_ BY
JEFFERSON COUNTY
SEC. 10-04106-00-BR
DODDS ROAD DISTRICT
STR. NO. 041-3750
LOADING HL-93

NAME PLATE

See Std. 515001

TOTAL BILL OF MATERIAL

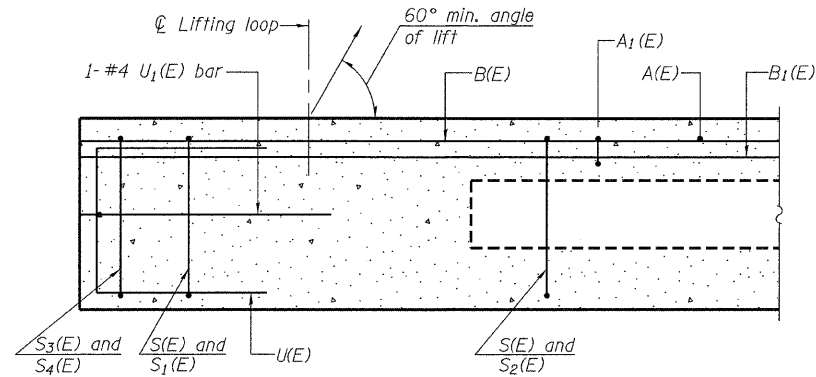
ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			420
Stone Dumped Riprap, Class A4	Ton			470
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		59.8	59.8
Concrete Encasement	Cu. Yd.		17.0	17.0
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	3,500		3,500
Reinforcement Bars	Pound		5,860	5,860
Steel Railing, Type S1	Foot	260		260
Furnishing Steel Piles HP10x42	Foot		800	800
Driving Piles	Foot		800	800
Name Plates	Each		1	1
Controlled Low Strength Material	Cu. Yd.		54	54

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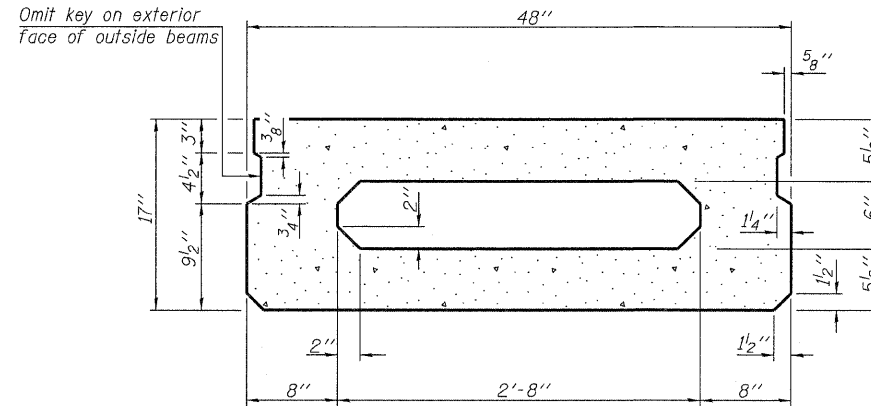
STATE OF ILLINOIS
JEFFERSON COUNTY HIGHWAY DEPARTMENT

GENERAL PLAN & ELEVATION
STRUCTURE NO. 041-3750
SHEET NO. 1 OF 11 SHEETS

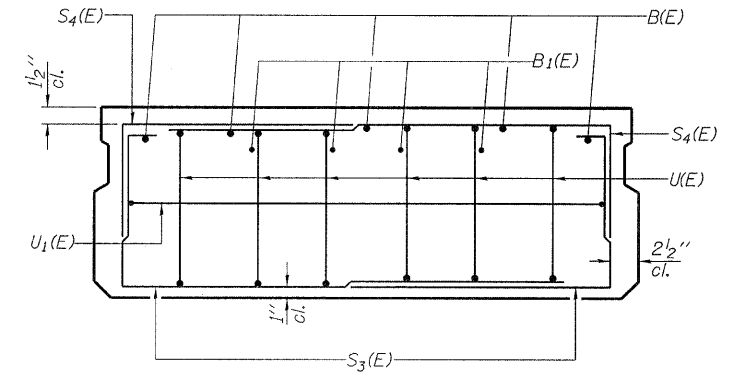
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ILLINOIS FED. AID PROJECT BROS-00810671				



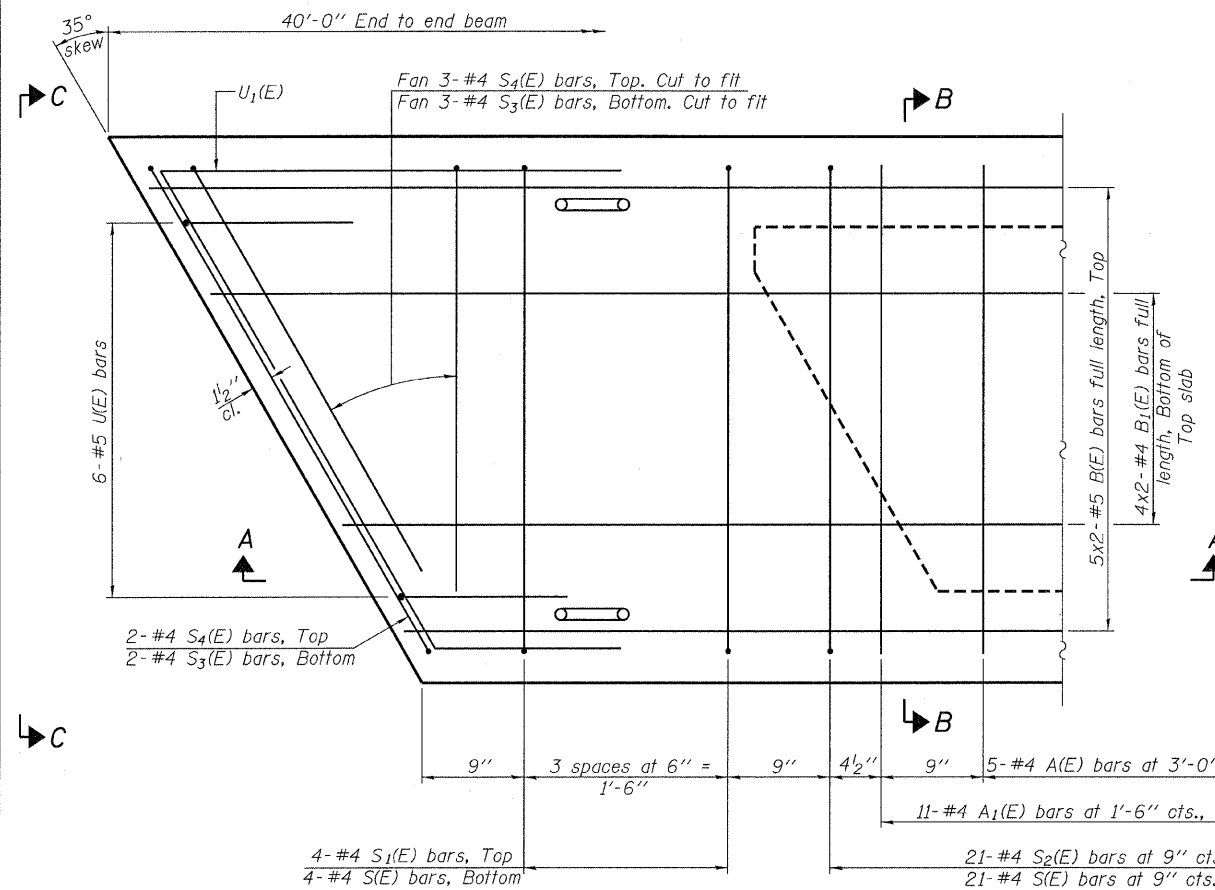
SECTION A-A



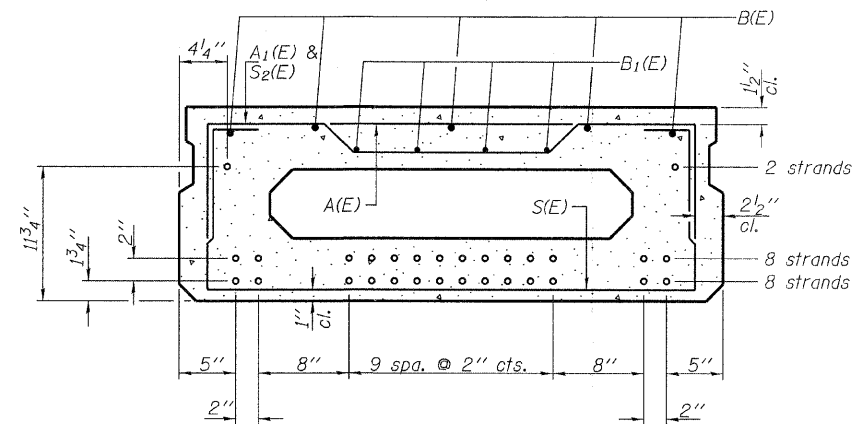
SECTION B-B
(Showing dimensions)



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)	11	#4	3'-7"	—
A1(E)	22	#4	3'-10"	—
B(E)	10	#5	21'-1"	—
B1(E)	8	#4	20'-10"	—
S(E)	51	#4	6'-9"	┌
S1(E)	8	#4	5'-3"	┌
S2(E)	43	#4	5'-6"	┌
S3(E)	10	#4	4'-8"	┌
S4(E)	10	#4	3'-11"	┌
U(E)	12	#5	3'-8"	┌
U1(E)	2	#4	9'-3"	┌

Note: See sheet 3 & 6 of 11 for additional details and Bill of Material.

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 5x2-#5 etc. indicates 5 lines of bars with 2 lengths per line.

MINIMUM BAR LAP

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

PD-1748-R

7-1-10

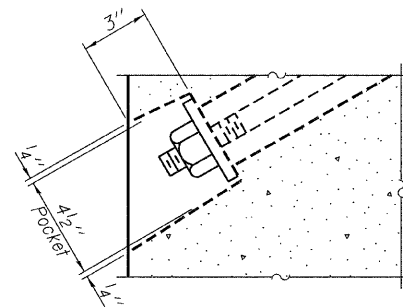
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STATE OF ILLINOIS
JEFFERSON COUNTY HIGHWAY DEPARTMENT

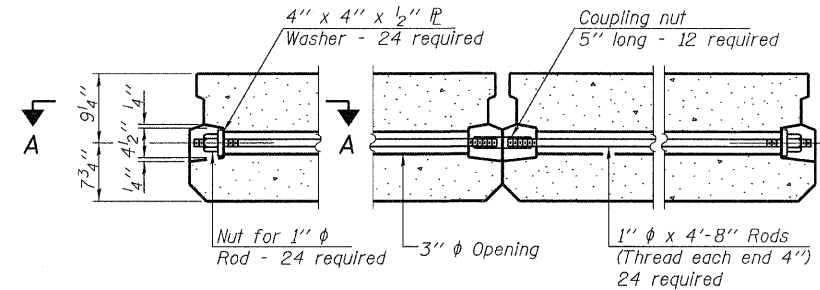
17" x 48" PPC DECK BEAM - SPAN 1 & 3
STRUCTURE NO. 041-3750

SHEET NO. 2 OF 11 SHEETS

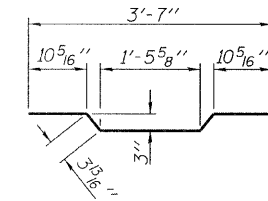
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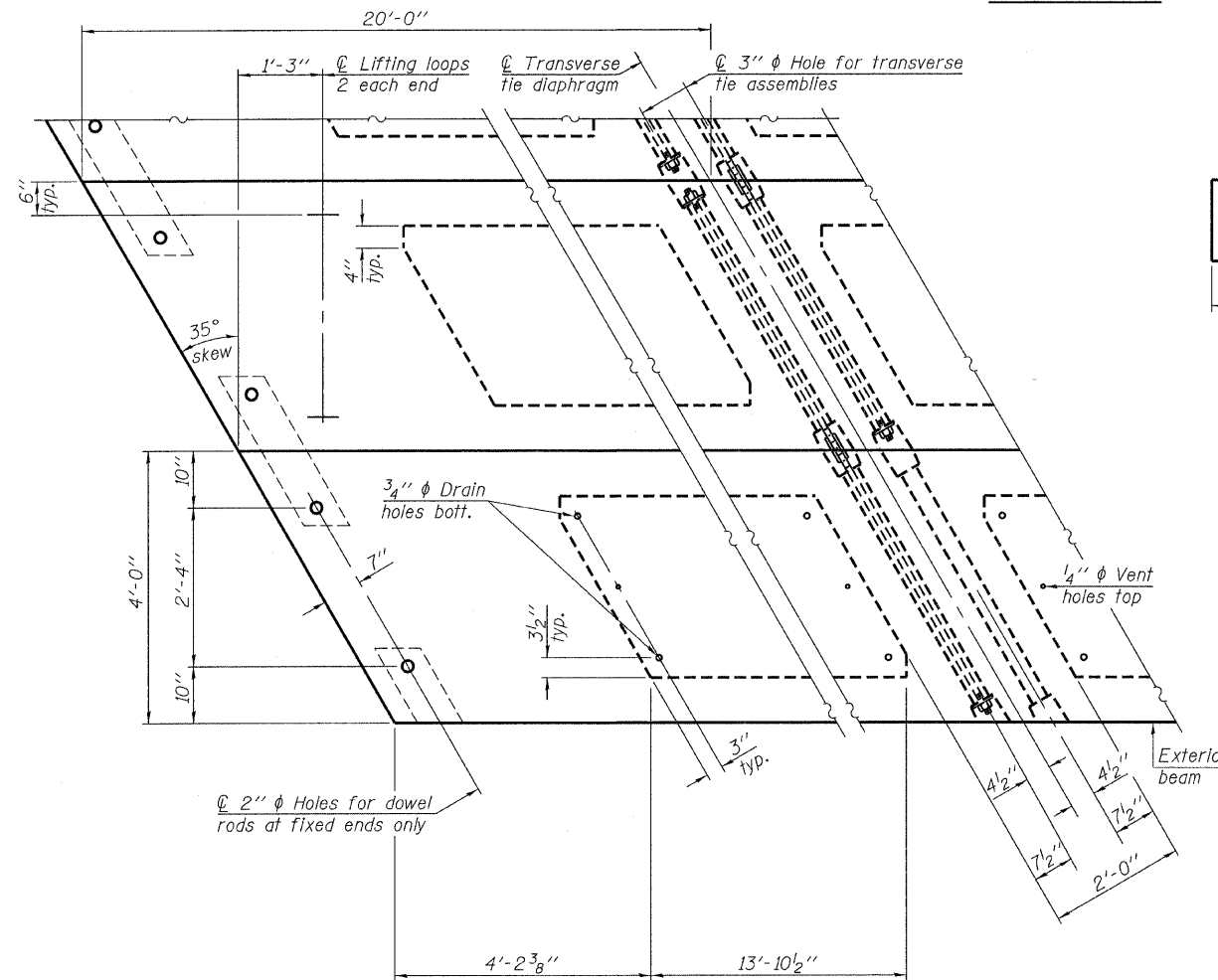
SECTION A-A



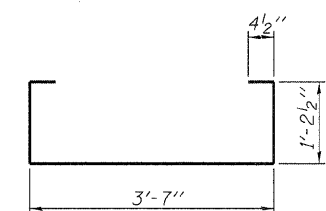
TYPICAL TRANSVERSE TIE ASSEMBLY



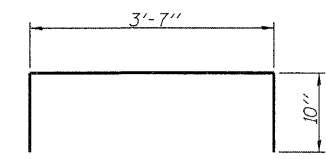
BAR A₁(E)



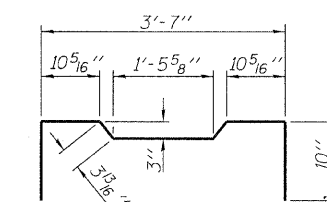
PLAN VIEW



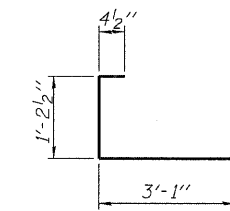
BAR S(E)



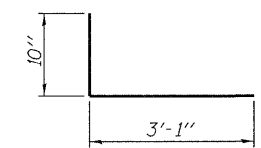
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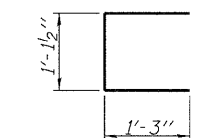
BAR S₂(E)



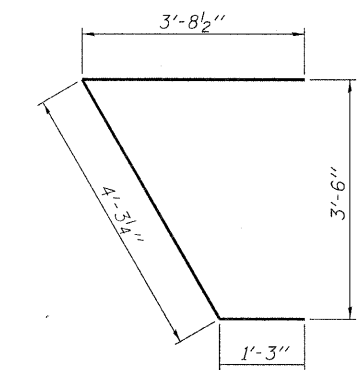
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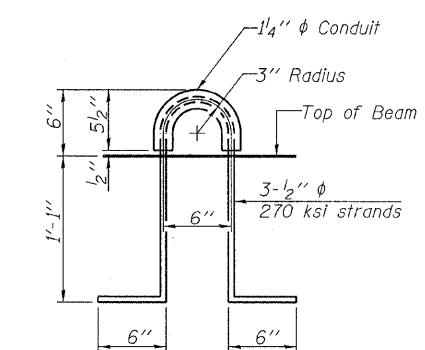
BAR S₄(E)



BAR U(E)



BAR U₁(E)



LIFTING LOOP DETAIL

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

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" ϕ 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" ϕ lifting pin shall be used to engage the lifting loops during handling.
- Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 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 bars shall be epoxy coated.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (17" depth)	Sq. Ft.	2,240
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7-1-10

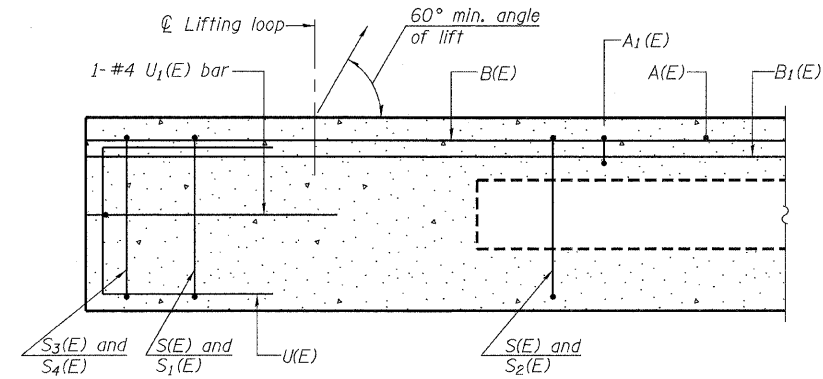
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HLR ILLINOIS PROFESSIONAL DESIGN FIRM L3 / PE / SE CORP. 184.002859	CHECKED - S.W.M.
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PLOT DATE = 3/1/2012	CHECKED - S.W.M.
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STATE OF ILLINOIS
JEFFERSON COUNTY HIGHWAY DEPARTMENT

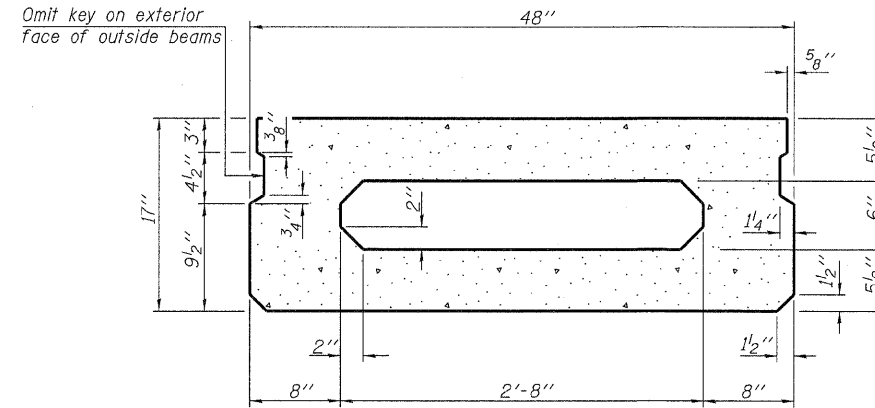
17" x 48" PPC DECK BEAM DETAILS - SPAN 1 & 3
STRUCTURE NO. 041-3750

SHEET NO. 3 OF 11 SHEETS

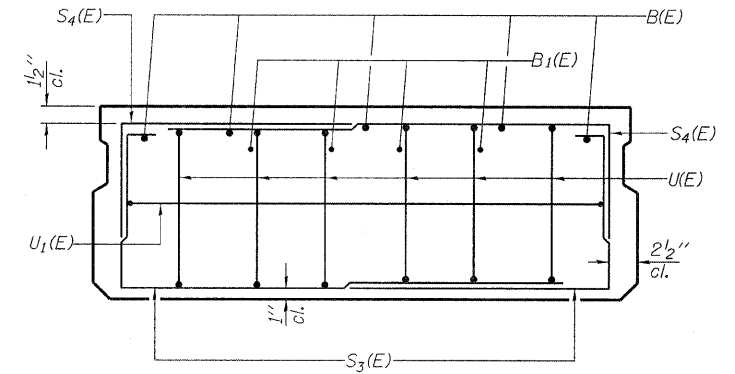
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
364	10-04106-00-BR	JEFFERSON	27	19
DODDS ROAD DISTRICT		CONTRACT NO. 99472		
[ILLINOIS] FED. AID PROJECT BROS-00810671				



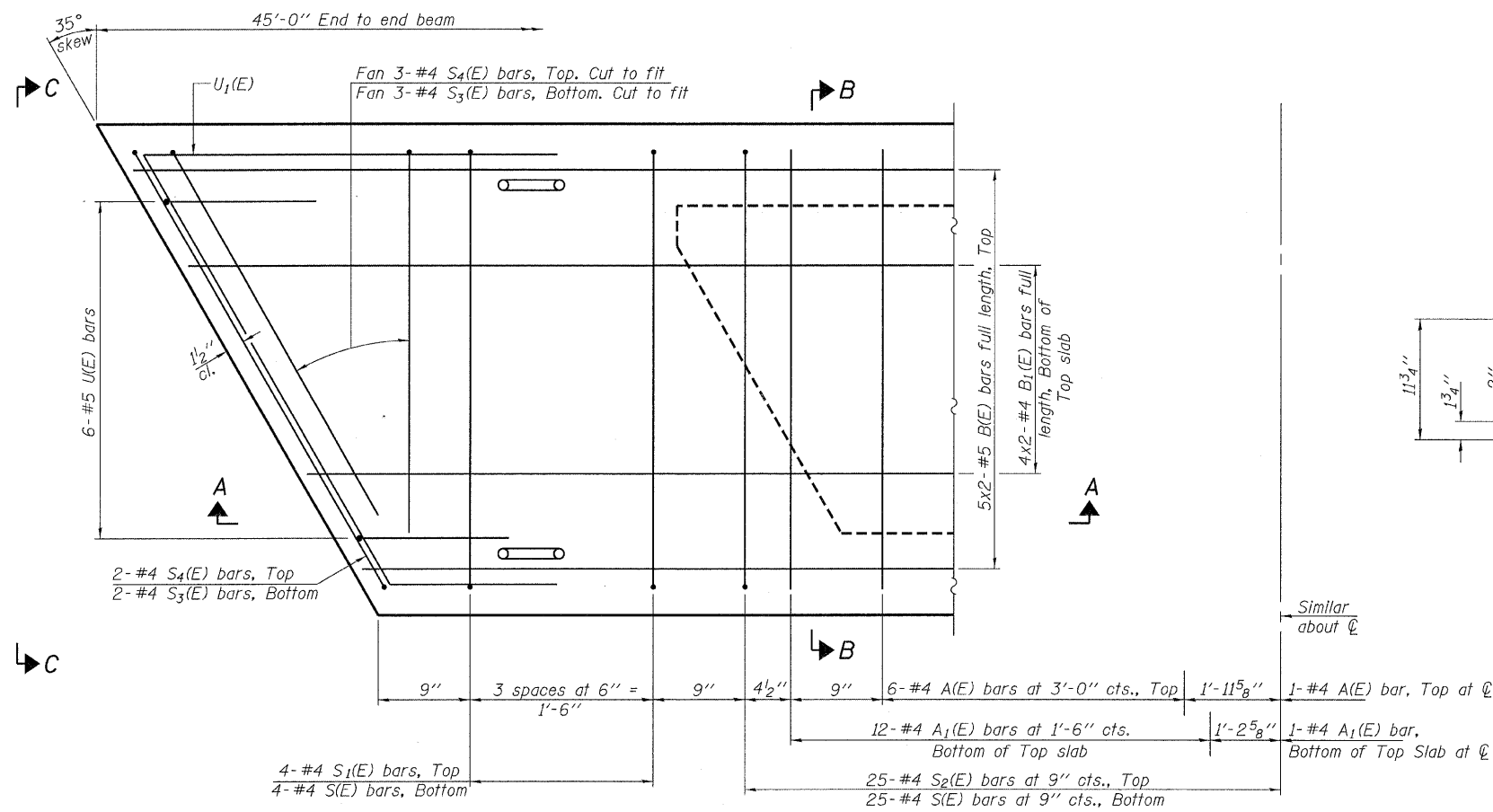
SECTION A-A



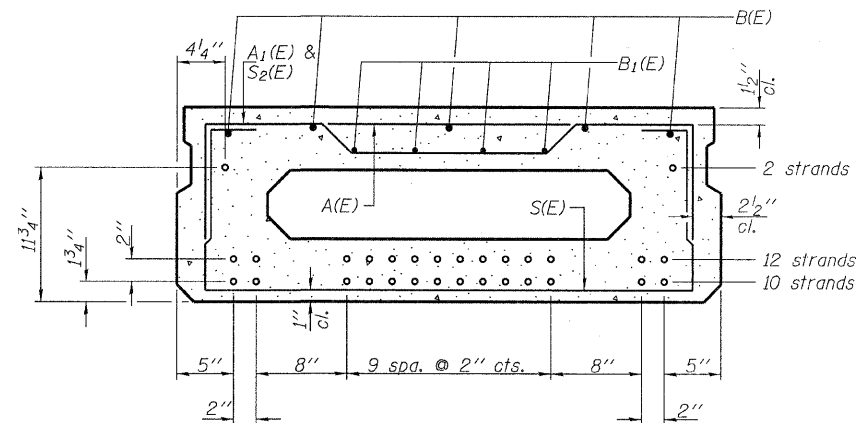
SECTION B-B
(Showing dimensions)



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)	13	#4	3'-7"	—
A1(E)	25	#4	3'-10"	—
B(E)	10	#5	23'-7"	—
B1(E)	8	#4	23'-4"	—
S(E)	58	#4	6'-9"	□
S1(E)	8	#4	5'-3"	□
S2(E)	50	#4	5'-6"	□
S3(E)	10	#4	4'-8"	□
S4(E)	10	#4	3'-11"	□
U(E)	12	#5	3'-8"	□
U1(E)	2	#4	9'-3"	□

Note: See sheet 5 & 6 of 11 for additional details and Bill of Material.

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 5x2-#5 etc. indicates 5 lines of bars with 2 lengths per line.

MINIMUM BAR LAP

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

PD-1748-R

7-1-10

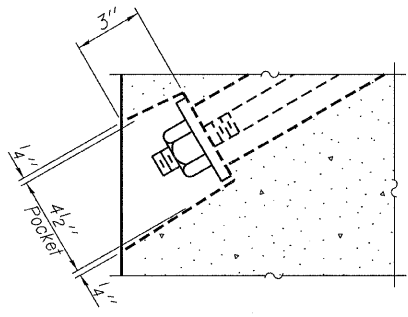
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HAMPTON, LENZINI AND RENWICK, INC. 505 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703		CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184-00089	PLOT SCALE =	DRAWN - D.T.M.	REVISED -
	PLOT DATE = 3/1/2012	CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
JEFFERSON COUNTY HIGHWAY DEPARTMENT

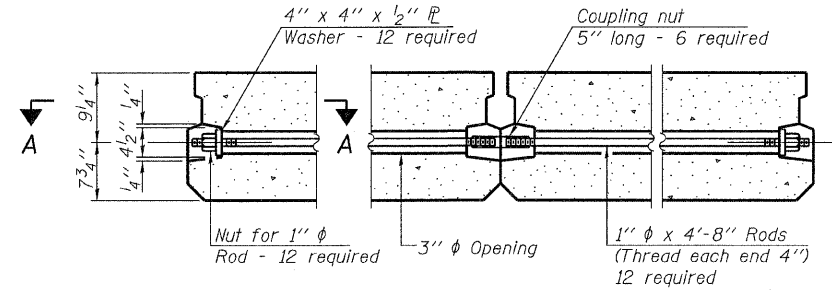
17" x 48" PPC DECK BEAM - SPAN 2
STRUCTURE NO. 041-3750

SHEET NO. 4 OF 11 SHEETS

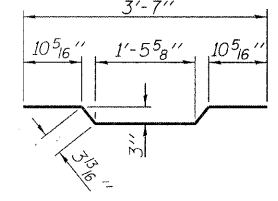
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DODDS ROAD DISTRICT		CONTRACT NO. 99472		
[ILLINOIS] FED. AID PROJECT BR05-0081067				



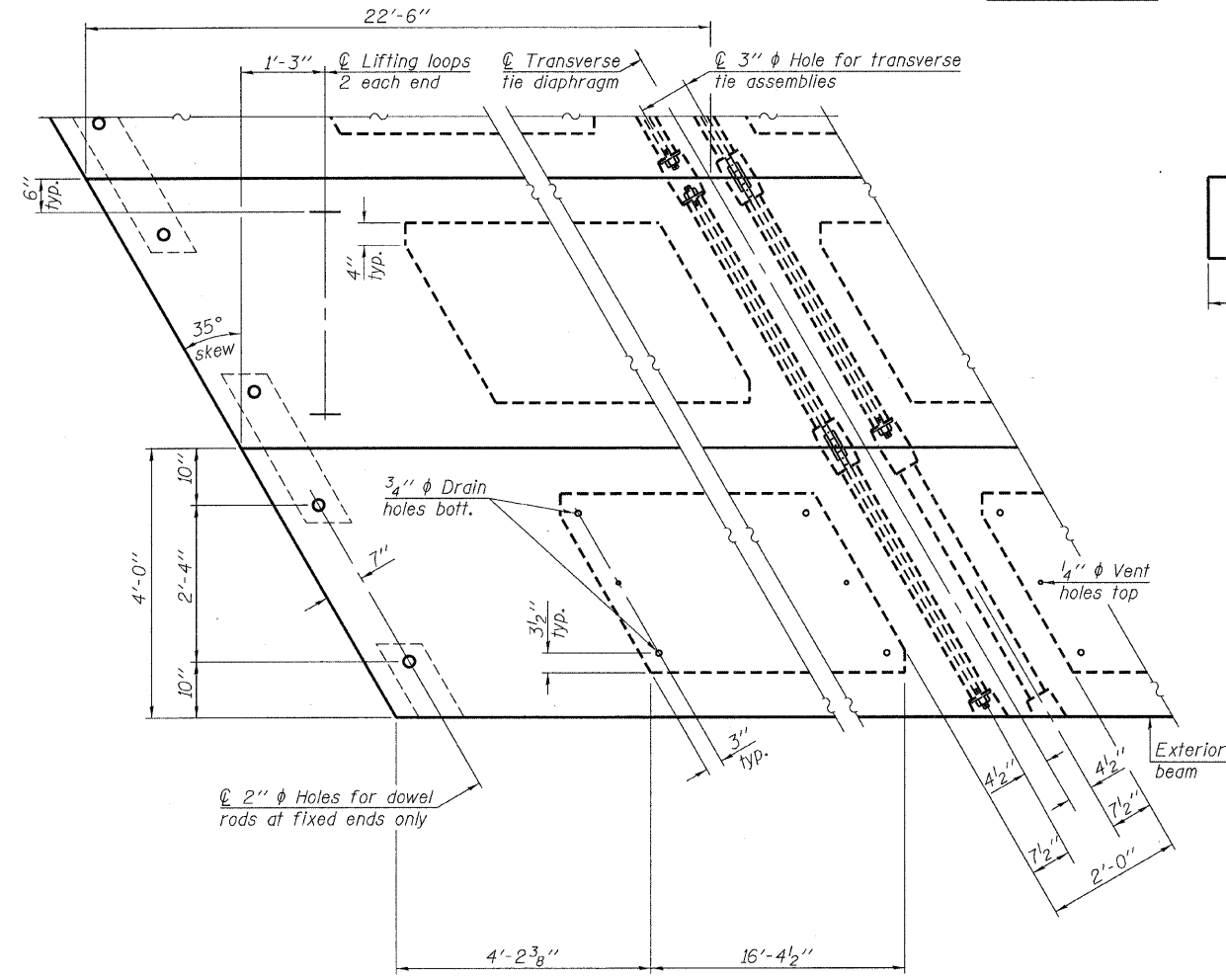
SECTION A-A



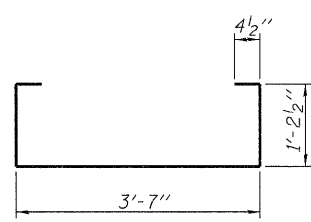
TYPICAL TRANSVERSE TIE ASSEMBLY



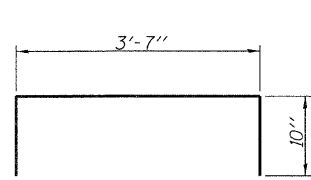
BAR A1(E)



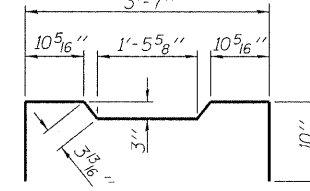
PLAN VIEW



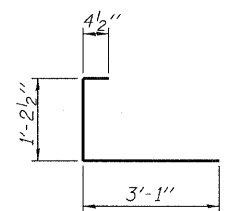
BAR S(E)



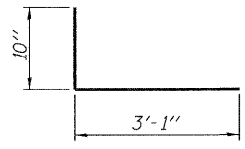
BAR S1(E)



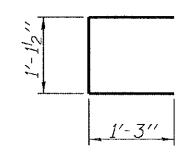
BAR S2(E)



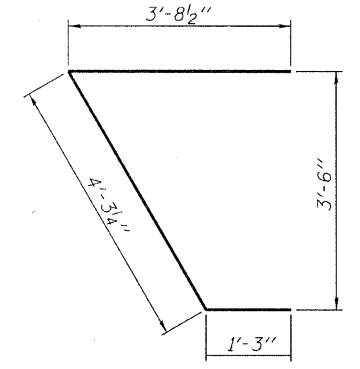
BAR S3(E)



BAR S4(E)



BAR U(E)

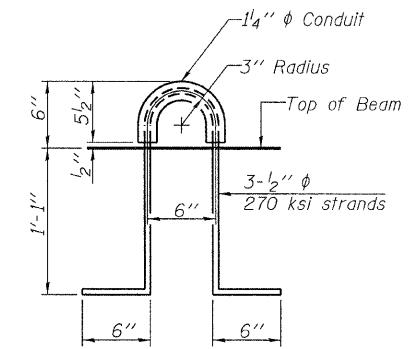


BAR U1(E)

NOTES

- 1. 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.
- 2. The 1" ϕ 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.
- 3. Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
- 4. Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- 5. A minimum 2 1/2" ϕ lifting pin shall be used to engage the lifting loops during handling.
- 6. Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- 7. Compressive strength of prestressed concrete, $f'c$, shall be 6000 psi.
- 8. Compressive strength of prestressed concrete at release, $f'cl$, 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. (17" depth)	Sq. Ft.	1,260
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PD-1748-RD 7-1-10

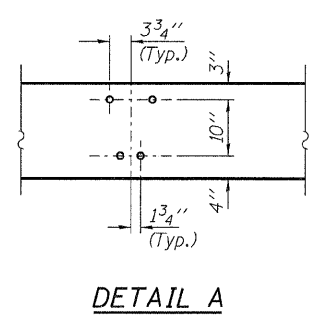
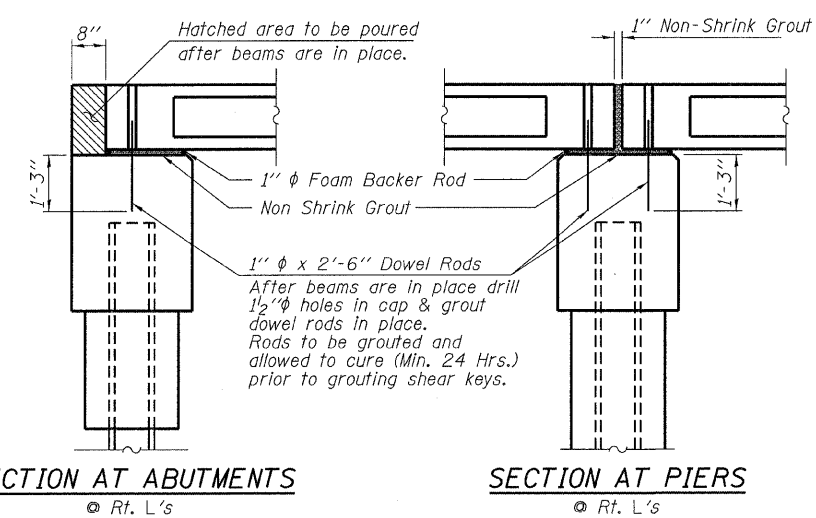
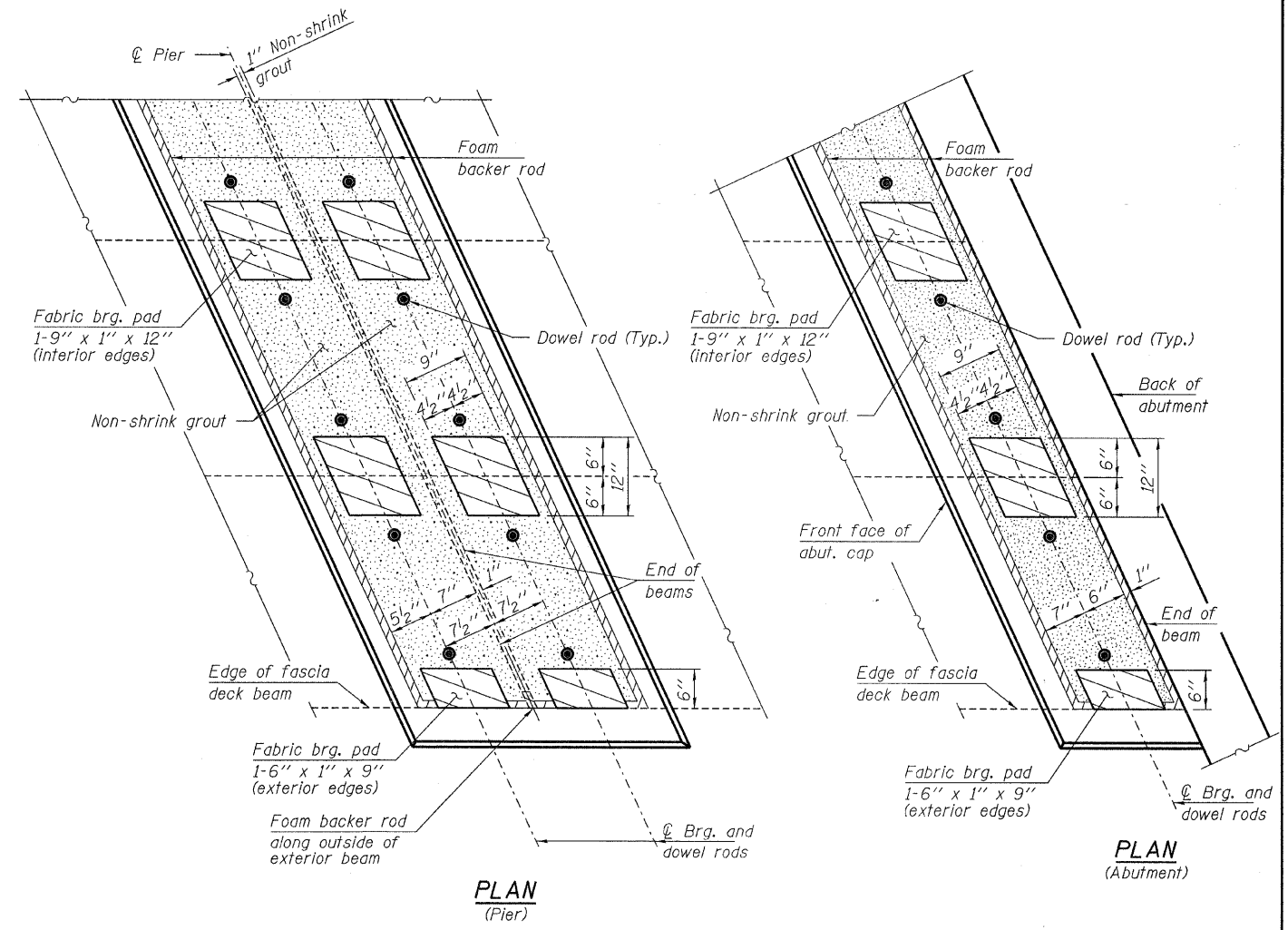
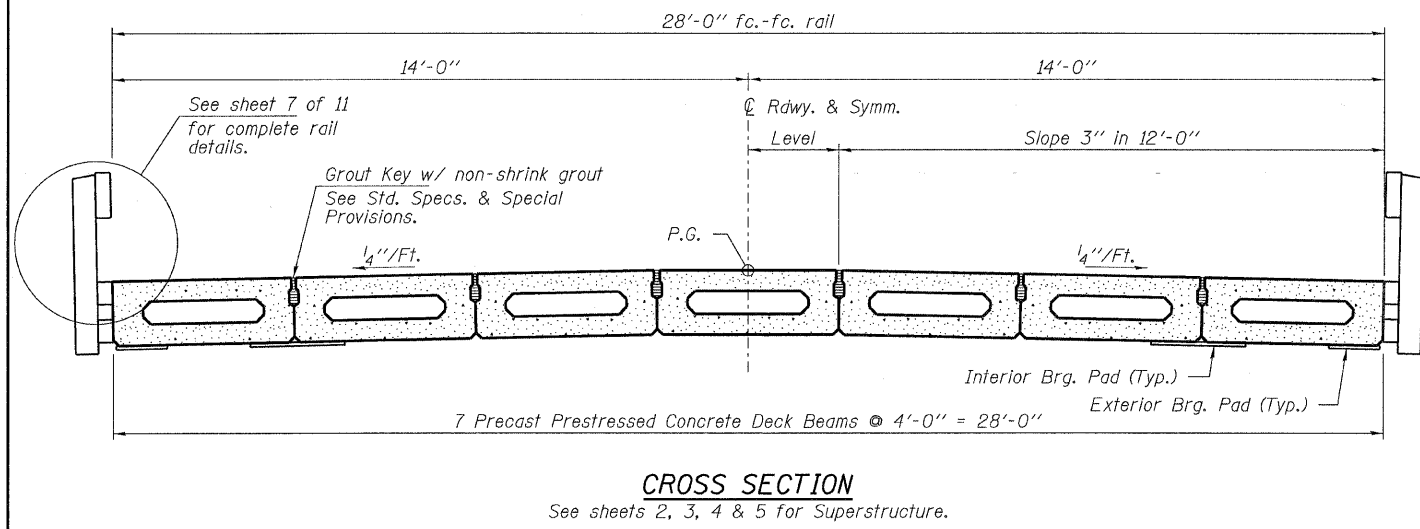
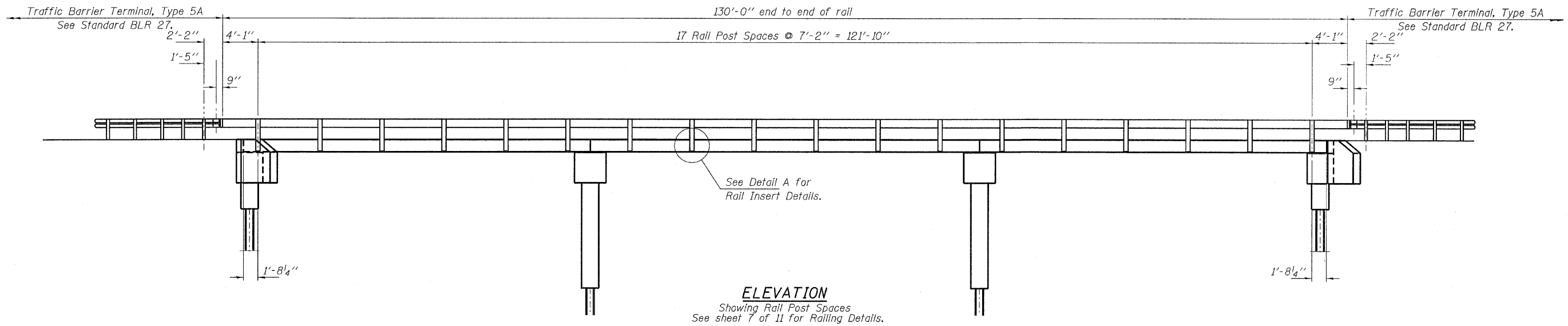
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HAMPTON, LENZINI AND RENWICK, INC.		CHECKED - S.W.M.	REVISED -
3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	DRAWN - D.T.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184-000859	PLOT DATE = 3/1/2012	CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
JEFFERSON COUNTY HIGHWAY DEPARTMENT

17" x 48" PPC DECK BEAM DETAILS - SPAN 2
STRUCTURE NO. 041-3750

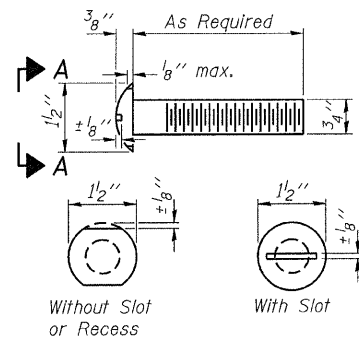
SHEET NO. 5 OF 11 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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DODDS ROAD DISTRICT		CONTRACT NO. 99472		
[ILLINOIS] FED. AID PROJECT BR05-00810671				

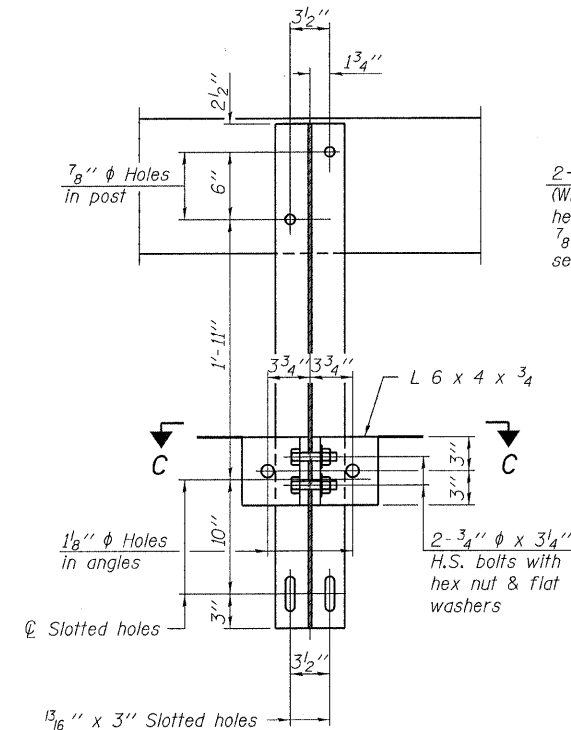
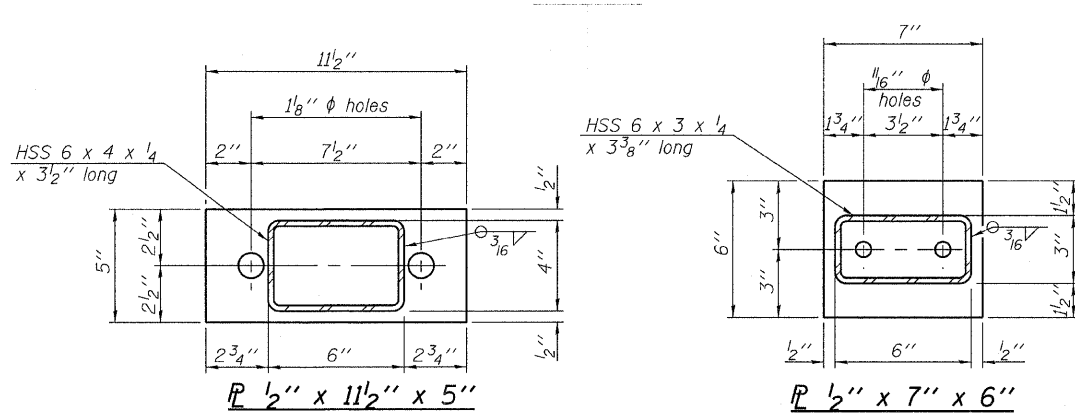


Notes:
The bearing seat surfaces shall be adjusted by shimming the bearing to assure firm and even bearing prior to placement of grout. 2-1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shown shall be provided for each bearing.

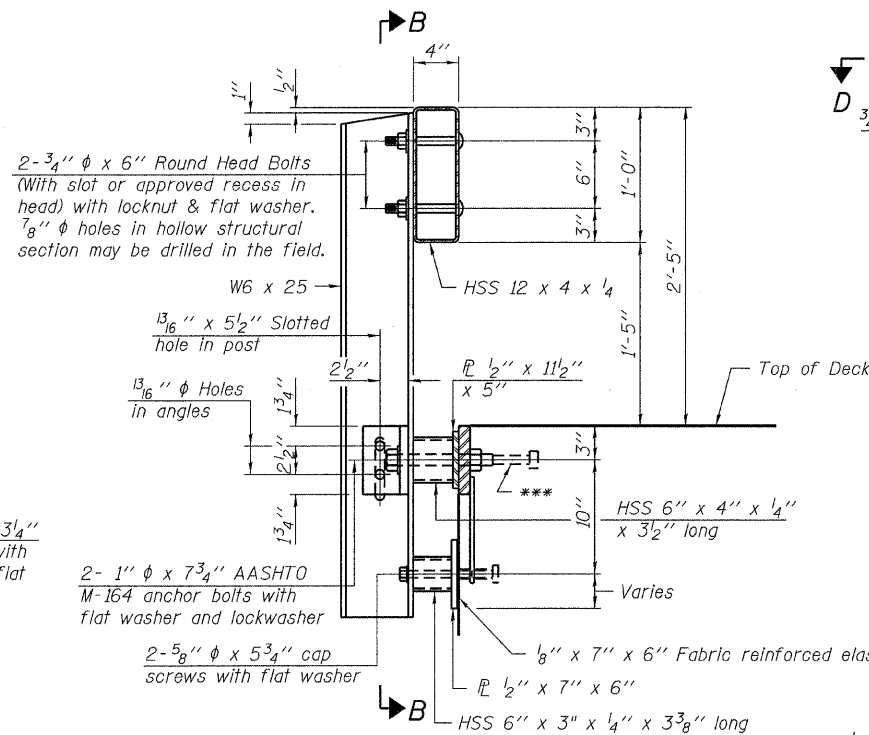
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HAMPTON, LENZINI AND RENWICK, INC. 3035 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	CHECKED - S.W.M.	REVISED -			364	10-04106-00-BR	JEFFERSON	27	22	
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		CHECKED - S.W.M.	REVISED -			SHEET NO. 6 OF 11 SHEETS					



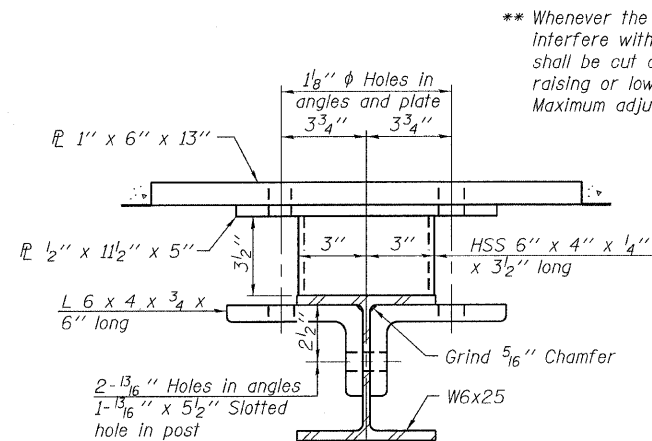
**VIEW A-A
ROUND HEAD BOLT**



SECTION B-B

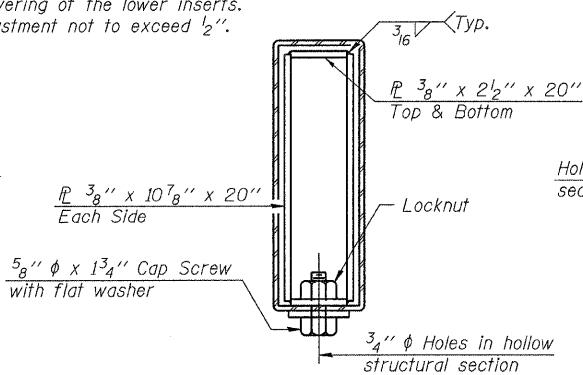


SECTION AT RAILING POST

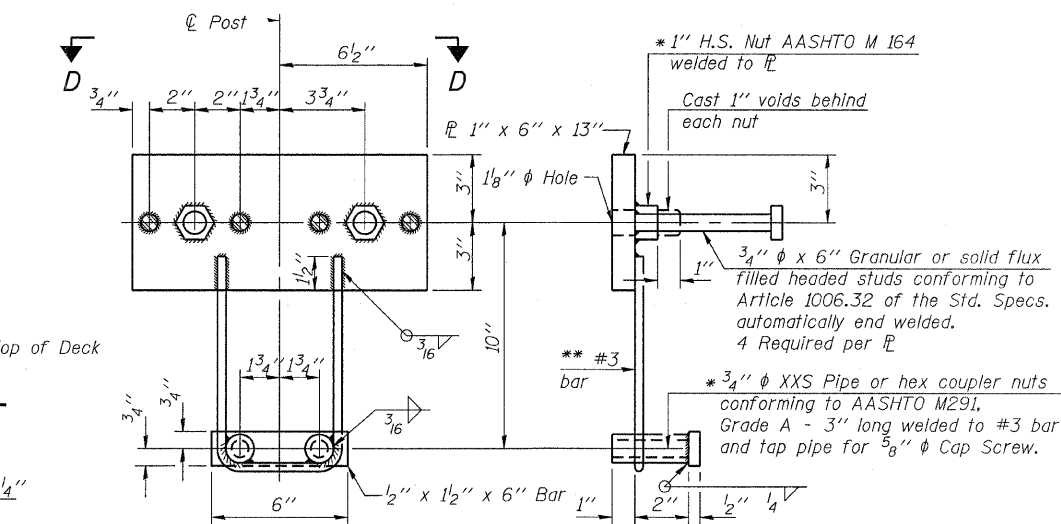


SECTION C-C

** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2\"

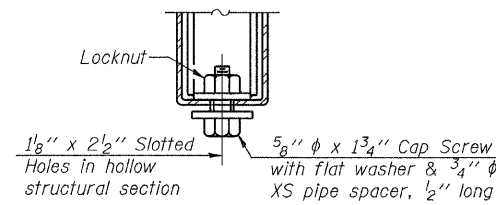


SECTIONS AT RAIL SPLICE

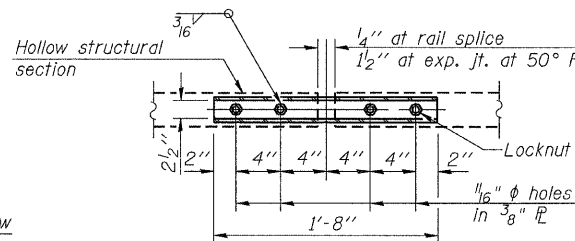


ANCHOR DEVICE

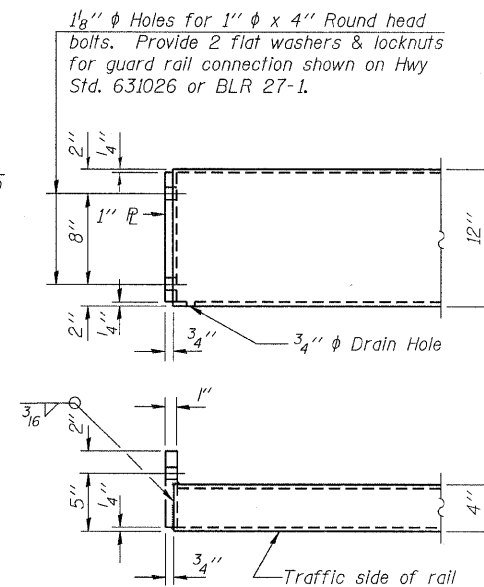
* Threaded areas shall be plugged or blocked off during casting of beam.



**RAIL SPLICE CONNECTION
AT EXPANSION JT.**



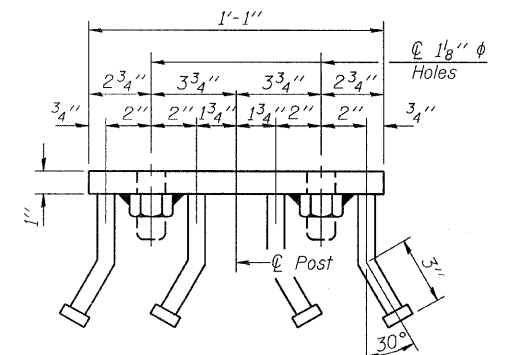
**PLAN-BOTT. SPLICE R
TYPICAL**



END OF RAIL DETAILS

Notes:
All field drilled holes shall be coated with an approved zinc rich paint before erection.
For multi-span bridges, sufficient 1/4 inch x 6 inch 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.



VIEW D-D

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	260

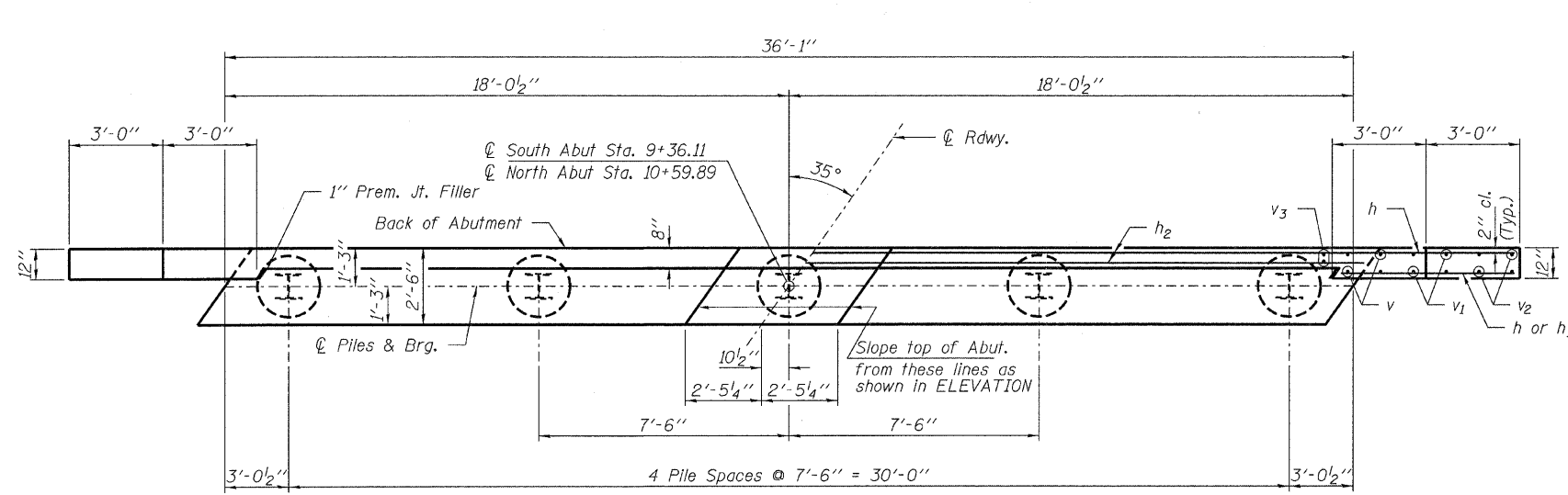
R-23A 7-1-10 (10'-9" Maximum Post Spacing)

FILE NAME = 180238-shft-bridge.dgn	USER NAME =	DESIGNED - J.W.F.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 6306 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM L.S./P.E./S.E. CORP. 184-000068	PLOT DATE = 3/1/2012	DRAWN - D.T.M.	REVISED -
		CHECKED - S.W.M.	REVISED -

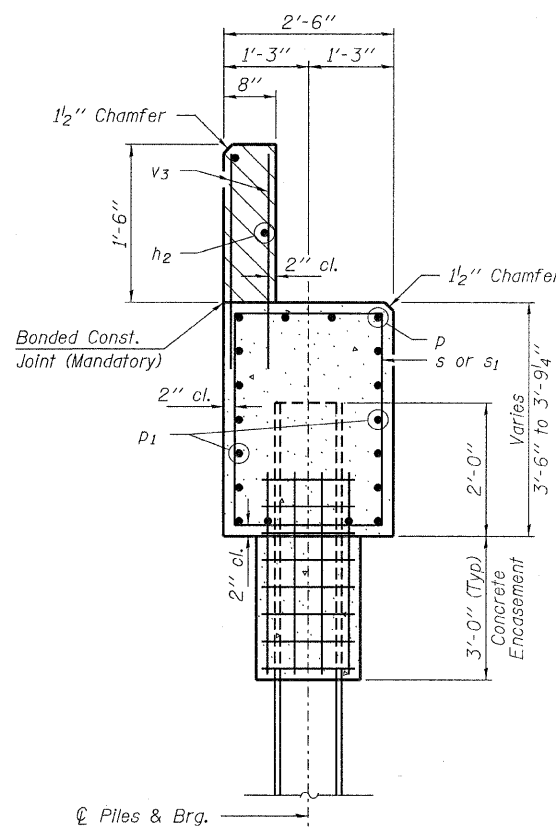
**STATE OF ILLINOIS
JEFFERSON COUNTY HIGHWAY DEPARTMENT**

**STEEL RAILING, TYPE S-1
STRUCTURE NO. 041-3750
SHEET NO. 7 OF 11 SHEETS**

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
364	10-04106-00-BR	JEFFERSON	27	23
DODDS ROAD DISTRICT			CONTRACT NO. 99472	
[ILLINOIS] FED. AID PROJECT BROS-00810671				

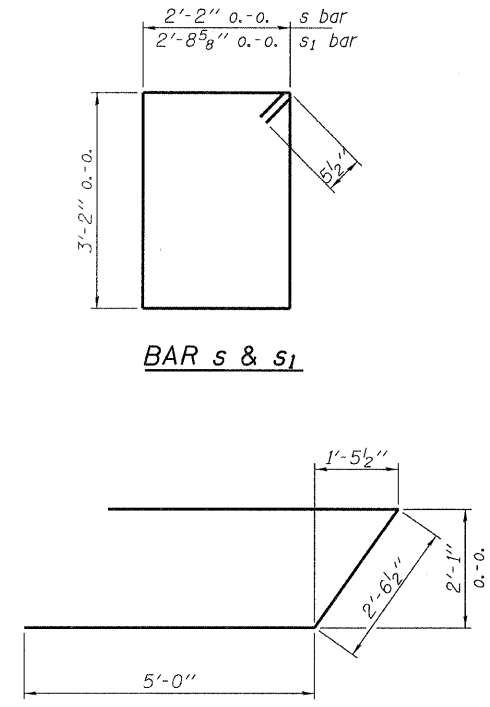


PLAN



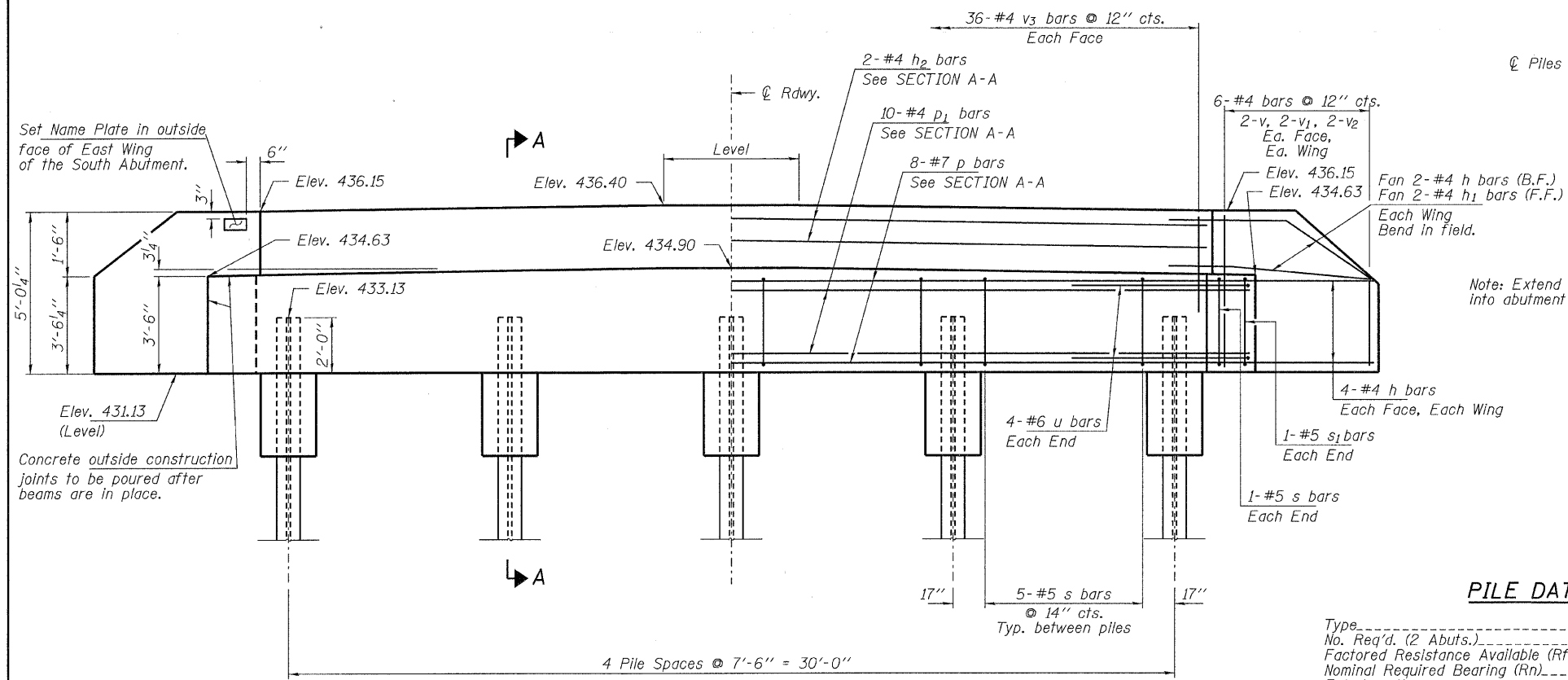
SECTION A-A

Hatched area to be poured after beams are in place.



BAR s & s1

BAR u



ELEVATION

PILE DATA

Type ----- Steel HP10x42
 No. Req'd. (2 Abuts.) ----- 10
 Factored Resistance Available (Rf) ----- 184 Kips/Pile
 Nominal Required Bearing (Rn) ----- 335 Kips/Pile
 Est. Length ----- 40 Ft/Pile

BILL OF MATERIAL - 2 ABUTS.

BAR	NO.	SIZE	LENGTH	SHAPE
h	40	#4	7'-3"	—
h1	8	#4	5'-9"	—
h2	4	#4	35'-9"	—
p	16	#7	35'-9"	—
p1	20	#4	35'-9"	—
s	44	#5	11'-7"	□
s1	4	#5	12'-8"	□
u	16	#6	12'-7"	—
v	16	#4	4'-8"	—
v1	16	#4	4'-3"	—
v2	16	#4	3'-3"	—
v3	144	#4	2'-10"	—
Concrete Structures			Cu. Yd.	30.6
Concrete Encasement			Cu. Yd.	3.4
Reinforcement Bars			Pound	3,260
Steel Piles HP10x42			Foot	400
Name Plates			Each	1

FILE NAME = 100238-ah-bridge.dgn
 USER NAME =
 HAMPTON, LENZINI AND RENWICK, INC.
 3008 STEPHENSON DRIVE, SUITE 201
 SPRINGFIELD, ILLINOIS 62703
 ILLINOIS PROFESSIONAL DESIGN FIRM
 15 / PE / SE CORP. 194-000939

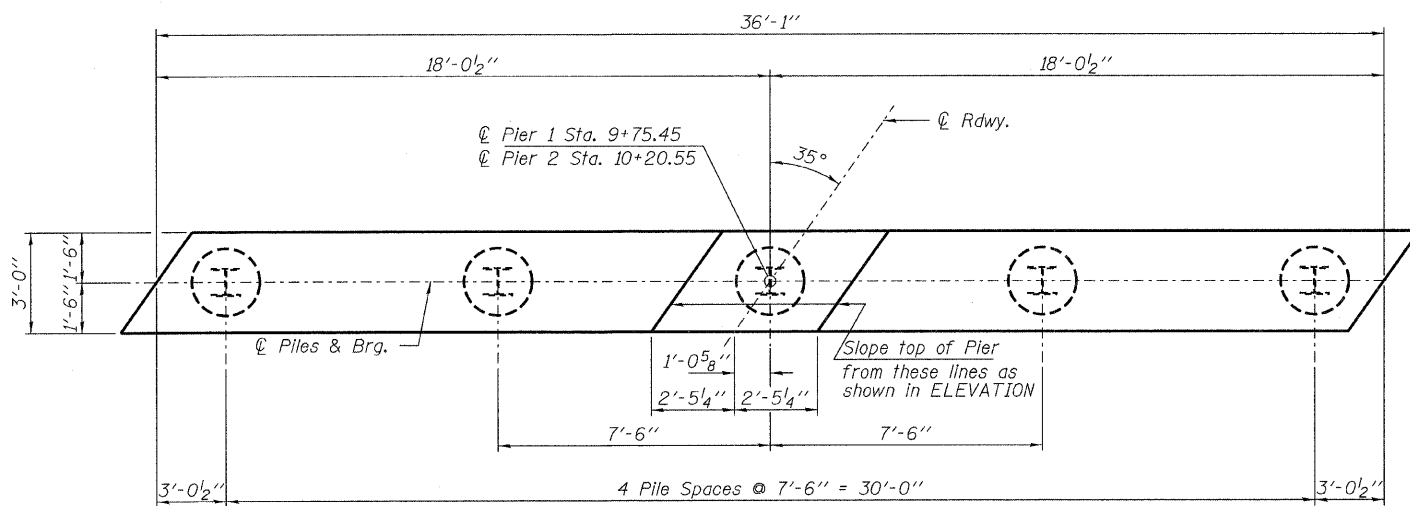
DESIGNED - J.W.F.
 CHECKED - S.W.M.
 DRAWN - D.T.M.
 CHECKED - S.W.M.

REVISI...
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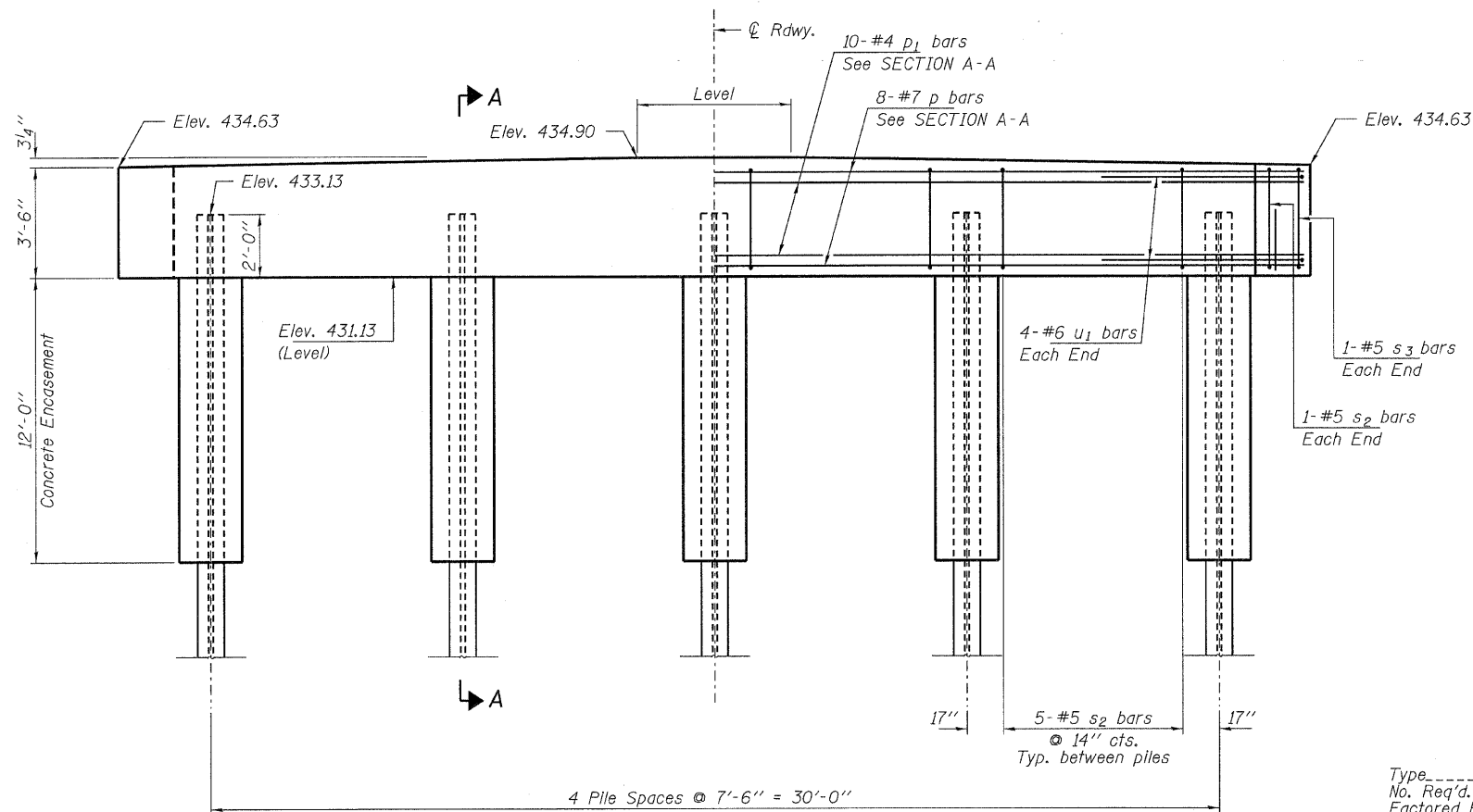
STATE OF ILLINOIS
JEFFERSON COUNTY HIGHWAY DEPARTMENT

ABUTMENTS
STRUCTURE NO. 041-3750
 SHEET NO. 8 OF 11 SHEETS

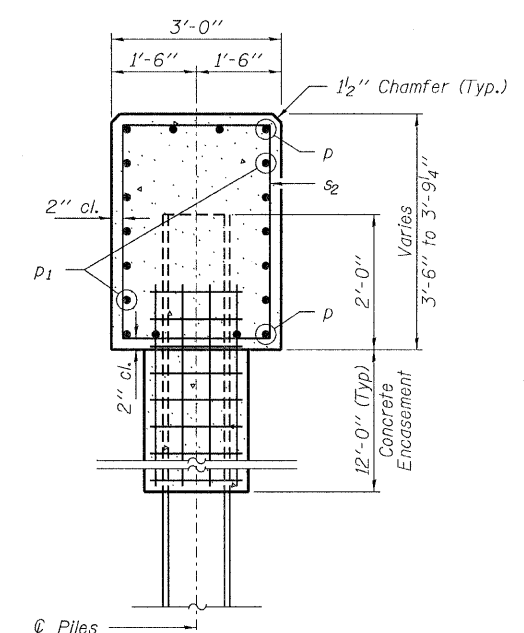
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
364	10-04106-00-BR	JEFFERSON	27	24
DODDS ROAD DISTRICT			CONTRACT NO. 99472	
ILLINOIS FED. AID PROJECT BROS-00810671				



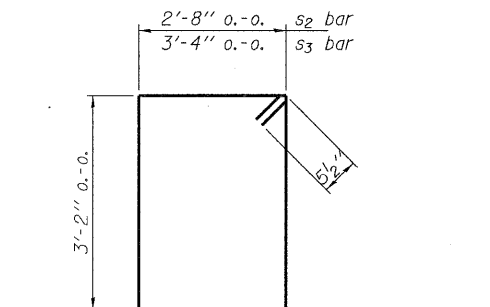
PLAN



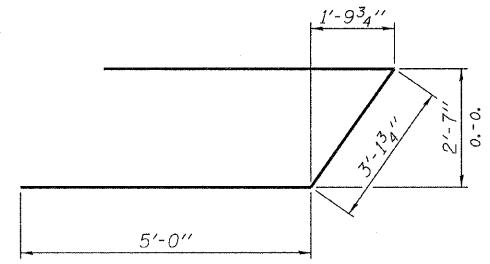
ELEVATION



SECTION A-A



BAR s2 & s3



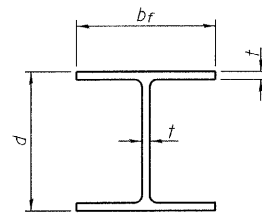
BAR u1

PILE DATA

Type.....Steel HP10x42
 No. Req'd. (2 Piers).....10
 Factored Resistance Available (Rf).....184 Kips/Pile
 Nominal Required Bearing (Rn).....335 Kips/Pile
 Est. Length.....40 Ft/Pile

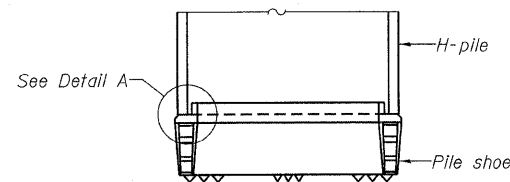
BILL OF MATERIAL - 2 PIERS

BAR	NO.	SIZE	LENGTH	SHAPE
p	16	#7	35'-9"	—
p1	20	#4	35'-9"	—
s2	44	#5	12'-7"	□
s3	4	#5	13'-11"	□
u1	16	#6	13'-2"	—
Concrete Structures			Cu. Yd.	29.2
Concrete Encasement			Cu. Yd.	13.6
Reinforcement Bars			Pound	2,600
Steel Piles HP10x42			Foot	400

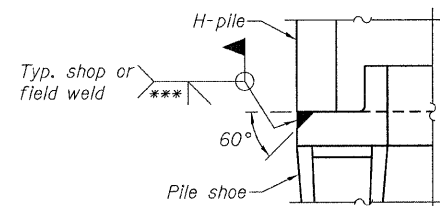


STEEL PILE TABLE

Designation	Depth d	Flange width b _f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	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 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 5/8"	12 1/4"	5/8"	24"
x63	12"	12 5/8"	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 5/8"	7/16"	24"
HP 8x36	8"	8 5/8"	7/16"	18"

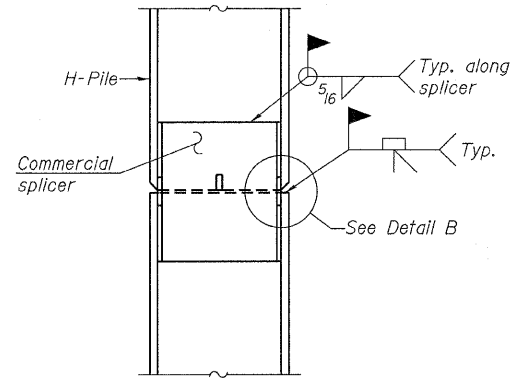


ELEVATION

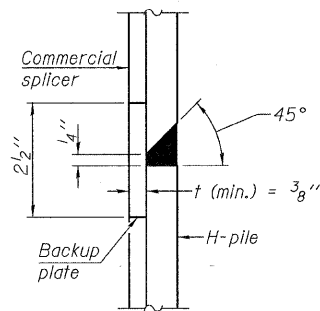


DETAIL A

H-PILE SHOE ATTACHMENT

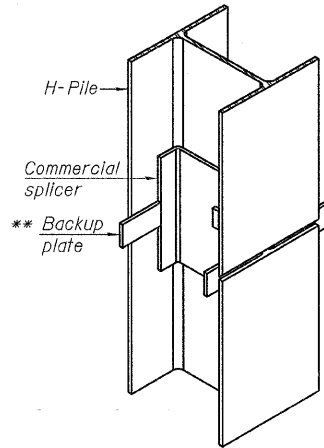


ELEVATION

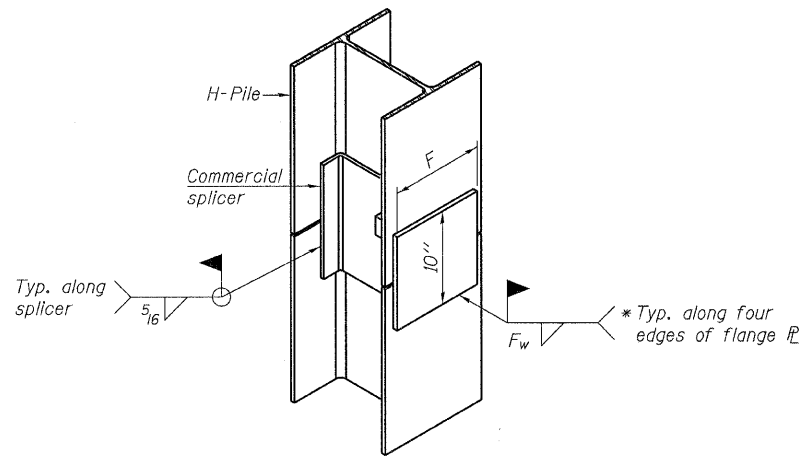


DETAIL "B"

WELDED COMMERCIAL SPLICE



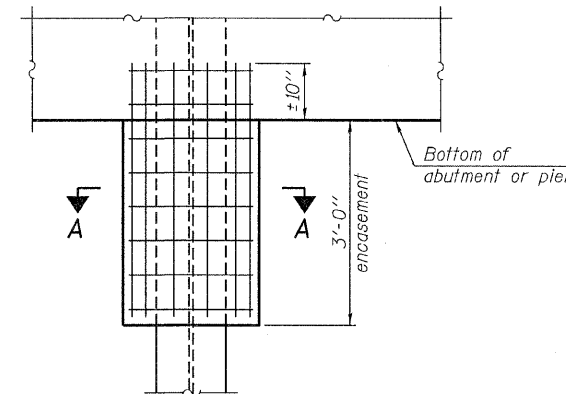
ISOMETRIC VIEW



ISOMETRIC VIEW

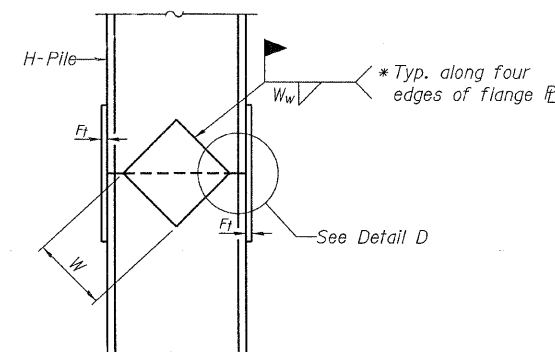
WELDED COMMERCIAL SPLICE ALTERNATE

- * 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.).

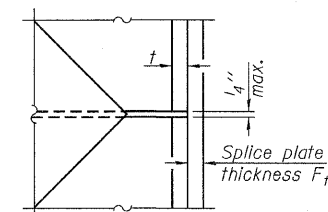


ELEVATION

PILE ENCASEMENT

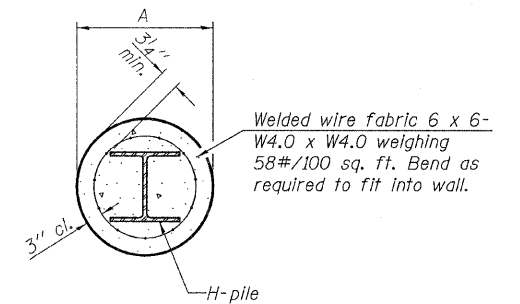


ELEVATION



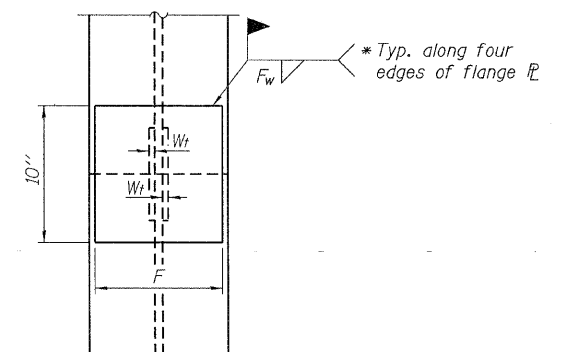
DETAIL D

WELDED PLATE FIELD SPLICE



SECTION A-A

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



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 5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 5/8"	1/2"
x89	12 1/2"	3/4"	1 1/16"	7 3/4"	5 5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 5/8"	1/2"
HP 12x84	10"	7/8"	1 1/16"	6 1/2"	5 5/8"	1/2"
x74	10"	7/8"	1 1/16"	6 1/2"	5 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"

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

F-HP

7-1-10

FILE NAME = 100239-eh-t-bridge.dgn	USER NAME =	DESIGNED - J.W.F.	REVISED -	STATE OF ILLINOIS JEFFERSON COUNTY HIGHWAY DEPARTMENT	HP PILE DETAILS STRUCTURE NO. 041-3750	T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
HAMPTON, LENZINI AND RENWICK, INC. 308 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62763	PLOT SCALE =	CHECKED - S.W.M.	REVISED -			364	10-04106-00-BR	JEFFERSON	27	26	
ILR ILLINOIS PROFESSIONAL DESIGN FIRM 18 / PE / SE CORP. 184-000939	PLOT DATE = 3/1/2012	DRAWN - D.T.M.	REVISED -			CONTRACT NO. 99472					
		CHECKED - S.W.M.	REVISED -			ILLINOIS FED. AID PROJECT BROS-00810671					
SHEET NO. 10 OF 11 SHEETS											

HOLCOMB FOUNDATION ENGINEERING INC.
P.O. Box 88 618-529-5262
Carbondale, Il. 62903 618-457-8991 fax

Bridge Foundation Boring Log

Project: H-11092 Bridge Spring Garden Ln Date: 5/26/2011
Section: 10-04106-00-BR Station _____ Bored by: B. Schwartz
Structure: _____ Checked By: T. Holcomb
County: Jefferson

Boring No. 1 Station: 9+49 Offset: 9' Rt	Elevation	N	Qu tsf	w %	Surface Water Elev.		Elevation	N	Qu tsf	w %
					During Drilling	Upon Completion				
Ground Surface	433.4	0								
Brown Silty CLAY (A-6) with sand and pebbles						409.4				
		3	2.0B	18			-25	5	2.0B	27
						406.9				
		8	1.3B	18				3	0.6B	24
	426.9									
Gray Silty CLAY (A-6)		6	1.1S	23			-30	3	0.9B	21
	424.4									
Gray Mottled Brown Silty CLAY (A-6)		7	1.2B	21						
	421.9					399.9				
								100		6
Gray Mottled Brown Sandy CLAY (A-6)		2	0.7B	22			-35			
	419.4							100		6
Gray Mottled Brown Clayey SAND (A-2-4)		3	0.3B	23						
	416.9					394.4		100		9
Brown Mottled Gray Silty CLAY (A-6) with sand		6		23						
		3	1.4B	26						
		4	1.4B	27						

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

BORING 1

HOLCOMB FOUNDATION ENGINEERING INC.
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Carbondale, Il. 62903 618-457-8991 fax

Bridge Foundation Boring Log

Project: H-11092 Bridge Spring Garden Ln Date: 6/3/2011
Section: 10-04106-00-BR Station _____ Bored by: B. Schwartz
Structure: _____ Checked By: T. Holcomb
County: Jefferson

Boring No. 2 Station: 10+45 Offset: 9' Rt	Elevation	N	Qu tsf	w %	Surface Water Elev.		Elevation	N	Qu tsf	w %
					During Drilling	Upon Completion				
Ground Surface	433.8	0								
5" Topsoil/Crushed Stone						410.8				
Brown Mottled Gray Silty CLAY (A-6)		7	2.3B	19			-25	3		23
	430.8									
Gray Silty CLAY to Clayey SILT (A-6 to A-4)		1	0.5B	25				4	0.9B	24
	426.9									
Gray CLAY (A-7-6)		1	0.5B	25			-30	2	1.0B	29
	424.3									
Brown Silty CLAY (A-6) with trace sand		9	1.5B	19						
	422.3					399.8				
Brown Sandy CLAY (A-6)		4	0.7B	22			-35	5	1.4B	25
	417.8									
Brown Mottled Gray Fine SAND (A-2-4) with trace clay		1	0.5B	21						
						395.8				
	414.8							100		6
Gray Mottled Brown Sandy CLAY (A-6)		2		25						
		4	0.9B	22				100		7
		4	0.7B	27				100		12

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

BORING 2