

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
885	6B-2	POPE	48	1
D-99-048-09		ILLINOIS	CONTRACT NO. 78141	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

FAP ROUTE 885 (IL 146)  
SECTION 6B-2  
PROJECT: *BRF-0885(043)*  
POPE COUNTY  
C-99-067-09  
STRUCTURE REPLACEMENT  
OVER SIMMONS CREEK

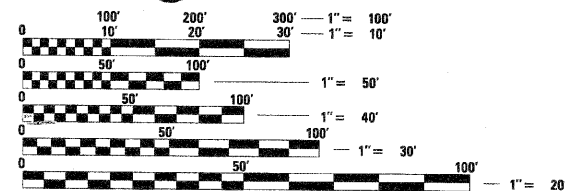
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FOR LIST OF HIGHWAY STANDARDS, SEE SHEET NO. 2

**UTILITY NOTE**

THE LOCATIONS OF THOSE BURIED AND ABOVEGROUND UTILITIES SHOWN ARE APPROXIMATE, ARE SHOWN FOR CONTRACTOR INFORMATIONAL USE ONLY, AND ARE NOT TO BE REFERENCED FOR CONSTRUCTION PURPOSES. THE IMPLIED PRESENCE OR ABSENCE OF UTILITIES IS NOT TO BE CONSTRUED BY THE OWNER, ENGINEER, CONTRACTOR, OR SUBCONTRACTORS TO BE AN ACCURATE AND COMPLETE REPRESENTATION OF UTILITIES THAT MAY OR MAY NOT EXIST ON THE CONSTRUCTION SITE. BURIED AND ABOVEGROUND UTILITY LOCATION, IDENTIFICATION, AND MARKING ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. REROUTING, DISCONNECTION, PROTECTION, ETC. OF AN UTILITIES MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY, AND OWNER. SITE SAFETY, INCLUDING THE AVOIDANCE OF HAZARDS ASSOCIATED WITH BURIED AND ABOVEGROUND UTILITIES, REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR

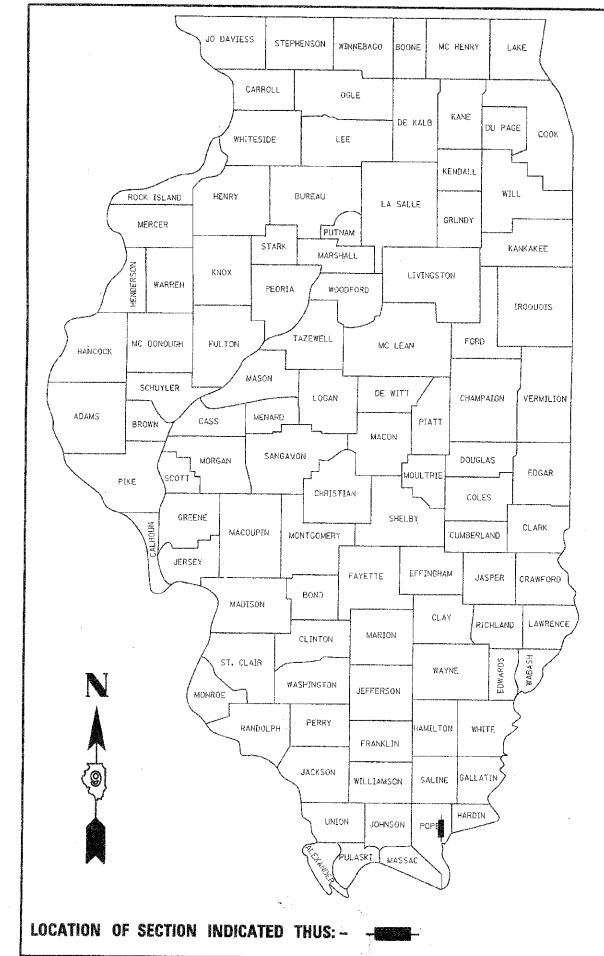


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT MANAGER - DAVID PICHE (618) 549-2171  
CONTRACT NO. 78141

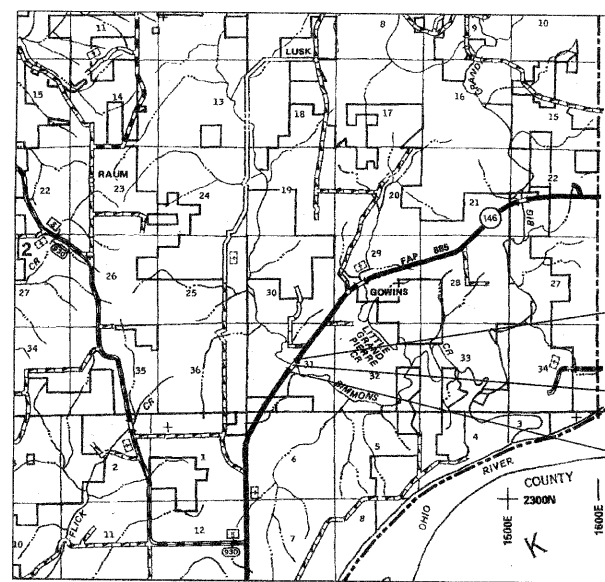
D-99-048-09



**FUNCTIONAL CLASSIFICATION**  
MINOR ARTERIAL (NON-URBAN)

2007 ADT = 1450

P.V. = 83.4% S.U. = 10.7% M.U. = 5.9%  
ROAD DISTRICT #2



**AREA LOCATION PLAN**



GROSS LENGTH = 645.5 FT. = 0.122 MILES  
NET LENGTH = 645.5 FT. = 0.122 MILES



BEGIN IMPROVEMENTS IL-146  
STA 1435+99.50

STRUCTURE #076-0029  
STA. 1438+51.00  
TO STA 1439+93.50

END IMPROVEMENTS IL-146  
STA 1442+45.00

PROFESSIONAL ENGINEER  
JOHN M. HEYEN  
602-082721  
STATE OF ILLINOIS

SIGNATURE: *John M. Heyen*  
DATE SIGNED: 9/17/2010  
LICENSE EXP.: 11/30/2011

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED: *David Piche* 20 *10*

DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

*December 10, 2010*  
*Scott E. Stitt, P.E.*  
acting ENGINEER OF DESIGN AND ENVIRONMENT

*December 10, 2010*  
*Christine M. Road*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**



**SUMMARY OF QUANTITIES**

CODE NO.	ITEM DESCRIPTION	UNIT	HBP FUNDS
			80% FED 20% STATE
			BRIDGE 0011
			RURAL
20200100	EARTH EXCAVATION	CU YD	450
20300100	CHANNEL EXCAVATION	CU YD	1304
20800150	TRENCH BACKFILL	CU YD	0.2
25000200	SEEDING, CLASS 2	ACRE	0.35
25000350	SEEDING, CLASS 7	ACRE	0.35
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	46
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	32
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	32
25000700	AGRICULTURAL GROUND LIMESTONE	TON	0.7
25100115	MULCH, METHOD 2	ACRE	0.35
25100630	EROSION CONTROL BLANKET	SQ YD	1388
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	35
28000400	PERIMETER EROSION BARRIER	FOOT	1580
28000510	INLET FILTERS	EACH	2
28100105	STONE RIPRAP, CLASS A3	SQ YD	32
28100107	STONE RIPRAP, CLASS A4	SQ YD	2030
28200200	FILTER FABRIC	SQ YD	2062
35600716	HOT-MIX ASPHALT BASE COURSE WIDENING, 10"	SQ YD	199
40300100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	255
40600645	LEVELING BINDER (MACHINE METHOD), N90	TON	52
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	174
40600990	TEMPORARY RAMP	SQ YD	28
40603320	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N90	TON	118
42001420	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	SQ YD	42
44000100	PAVEMENT REMOVAL	SQ YD	127
44004250	PAVED SHOULDER REMOVAL	SQ YD	830
48100700	AGGREGATE SHOULDERS, TYPE A 8"	SQ YD	32
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	321
48203037	HOT-MIX ASPHALT SHOULDERS, 10"	SQ YD	200
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50104650	SLOPE WALL REMOVAL	SQ YD	984

CODE NO.	ITEM DESCRIPTION	UNIT	HBP FUNDS
			80% FED 20% STATE
			BRIDGE 0011
			RURAL
50200100	STRUCTURE EXCAVATION	CU YD	292
50300225	CONCRETE STRUCTURES	CU YD	208.2
50300255	CONCRETE SUPERSTRUCTURE	CU YD	291.4
50300260	BRIDGE DECK GROOVING	SQ YD	675
50300280	CONCRETE ENCASEMENT	CU YD	15.4
50300300	PROTECTIVE COAT	SQ YD	874
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
50500505	STUD SHEAR CONNECTORS	EACH	2988
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	90,880
50800515	BAR SPLICERS	EACH	901
51201900	FURNISHING STEEL PILES HP14X89	FOOT	1109
51202305	DRIVING PILES	FOOT	1109
51203900	TEST PILE STEEL HP14X89	EACH	2
51500100	NAME PLATES	EACH	1
52100520	ANCHOR BOLTS, 1"	EACH	48
54213447	END SECTIONS 12"	EACH	2
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	54
60100945	PIPE DRAINS 12"	FOOT	135
60600605	CONCRETE CURB, TYPE B	FOOT	12
X6090150	TYPE B INLET BOX, STANDARD 609006 (SPECIAL)	EACH	2
60900515	CONCRETE THRUST BLOCKS	EACH	2
* 63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	425
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4
63200310	GUARDRAIL REMOVAL	FOOT	860
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	7
67100100	MOBILIZATION	L SUM	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1

DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	



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NOTE BOOK	
AREAS CHECKED	
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FILE NAME =	USER NAME = Cox01283	DESIGNED - JDW	REVISED -
c:\working\cox01283\dms23531\0978141-shc	S00.dgn	DRAWN - BKC	REVISED -
	PLOT SCALE = 2.0000' / 1" =	CHECKED - MH	REVISED -
	PLOT DATE = 10/01/2010	DATE - 06-30-2010	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL-146 (OVER SIMMONS CREEK) SUMMARY OF QUANTITIES**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
885	68-2	POPE	48	3
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 78141	

\* Specialty Items      Rev.

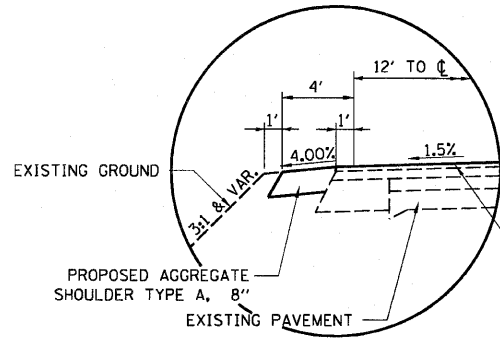




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AREAS CHECKED	
NO.	
FINAL SURVEY	
NOTE BOOK	
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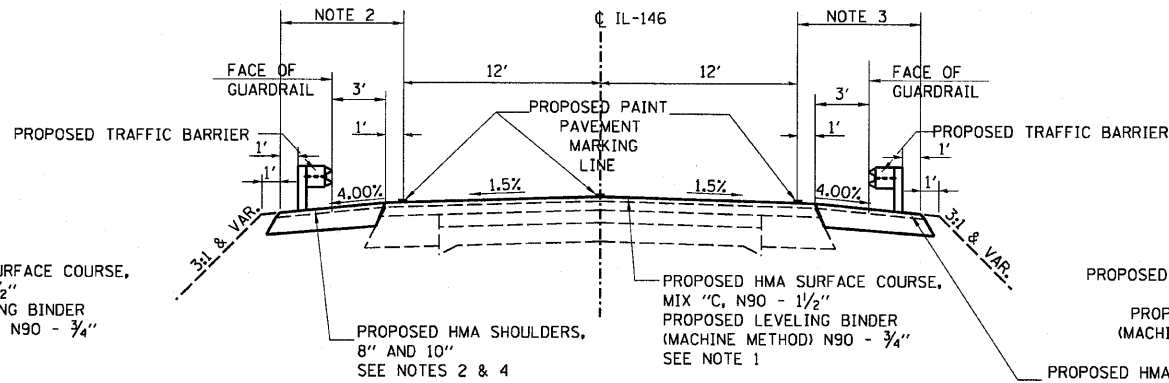


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PLOTTED	
DATE	
AREAS CHECKED	
NO.	
ORIGINAL SURVEY	
NOTE BOOK	
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PROPOSED AGGREGATE SHOULDER DETAIL  
STA. 1435+69.50 TO STA. 1435+72.19  
STA. 1442+62.33 TO STA. 1442+75.00

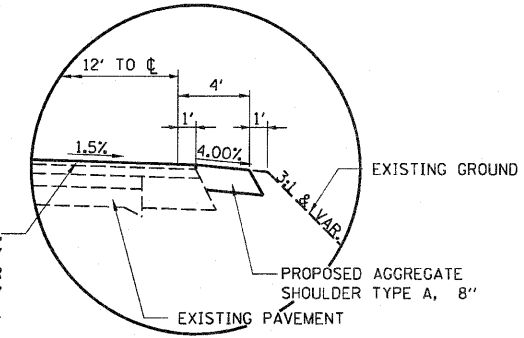
PROPOSED HMA SURFACE COURSE,  
MIX "C, N90 - 1 1/2"  
PROPOSED LEVELING BINDER  
(MACHINE METHOD) N90 - 3/4"  
SEE NOTE 1



**PROPOSED IL-146 TYPICAL SECTION**

STA. 1435+99.50 TO 1438+15.00  
STA. 1438+15.00 TO STA. 1438+21.00 - BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)  
STA. 1438+21.00 TO STA. 1440+23.50 - BRIDGE OMISSION  
STA. 1440+23.50 TO STA. 1440+29.50 - BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)  
STA. 1440+29.50 TO STA. 1442+45.00

PROPOSED HMA SURFACE COURSE,  
MIX "C, N90 - 1 1/2"  
PROPOSED LEVELING BINDER  
(MACHINE METHOD) N90 - 3/4"  
SEE NOTE 1  
PROPOSED HMA BASE COURSE WIDENING, 10" AND PROPOSED HMA SHOULDERS, 8" SEE NOTES 3 & 4



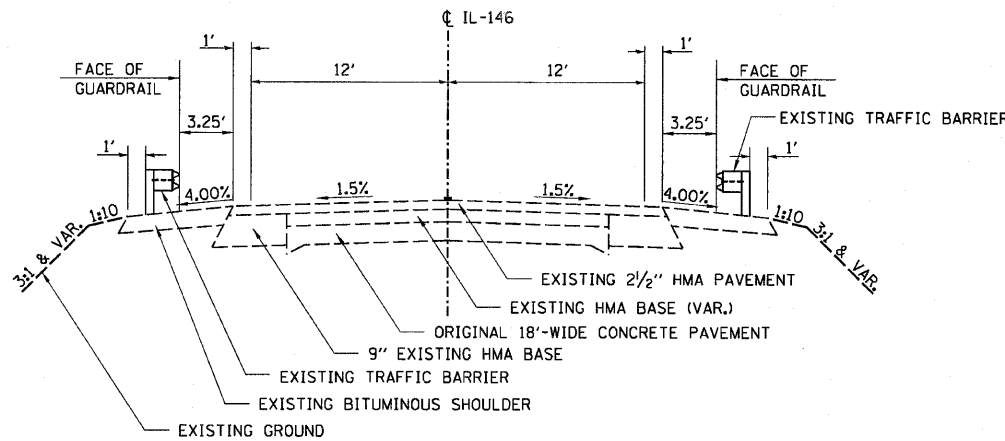
PROPOSED AGGREGATE SHOULDER DETAIL  
STA. 1435+69.50 TO STA. 1435+82.17  
STA. 1442+05.00 TO STA. 1442+75.00

**MIXTURE TABLE**

LOCATION(S):	HOT-MIX ASPHALT SURFACE COURSE AND LEVELING BINDER
MIXTURE USE(S):	HOT-MIX ASPHALT SURFACE COURSE, MX C, N90
AC/PG:	PG64-22
RAP % (MAX.)	10
DESIGN AIR VOIDS:	4.0%, 90 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-9.5 MM OR IL 12.5 MM
FRICTION AGGREGATE	C SURFACE

LOCATION(S):	HOT-MIX ASPHALT & BASE COURSE WIDENING - MAINLINE
MIXTURE USE(S):	HOT-MIX ASPHALT BINDER COURSE, N90, IL-19.0
AC/PG:	PG64-22
RAP % (MAX.)	10
DESIGN AIR VOIDS:	4.0%, 90 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-19.0 MM
FRICTION AGGREGATE	NONE

LOCATION(S):	HOT-MIX ASPHALT SHOULDERS
MIXTURE USE(S):	HOT-MIX ASPHALT SHOULDERS
AC/PG:	PG58-22
RAP % (MAX.)	50
DESIGN AIR VOIDS:	2.0%, 30 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	HMA SHOULDERS
FRICTION AGGREGATE	NONE



**EXISTING IL-146 TYPICAL SECTION**

THE HOT MIX ASPHALT BASE COURSE WIDENING, 10" CONSTRUCTED IN PRE-STAGE I MAY BE INCORPORATED INTO THE FINAL HOT MIX ASPHALT SHOULDERS, 8" DURING STAGE II CONSTRUCTION IF APPROVED BY THE ENGINEER. SUCH CHANGE WILL NOT BE A CAUSE FOR ADDITIONAL COMPENSATION, BUT THE CONTRACTOR WILL BE PAID FOR THE ACTUAL QUANTITY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

**NOTES:**

1. PROPOSED BUTT JOINT  
STA. 1435+69.50 TO STA. 1435+99.50  
STA. 1442+45.00 TO STA. 1442+75.00

2. LEFT SIDE  
STA. 1435+72.19 TO STA. 1435+76.88 - PAVED SHOULDER WIDTH 4.00'  
STA. 1435+76.88 TO STA. 1436+33.31 - FIELD ENTRANCE  
STA. 1436+33.31 TO STA. 1436+69.70 - PAVED SHOULDER WIDTH 4.00'  
STA. 1436+69.70 TO STA. 1436+77.91 - PAVED SHOULDER WIDTH TRANSITIONS FROM 4.00' TO 8.08'  
STA. 1436+77.91 TO STA. 1437+27.91 - PAVED SHOULDER WIDTH TRANSITIONS FROM 8.08' TO 7.08'  
STA. 1442+04.09 TO STA. 1442+54.15 - PAVED SHOULDER WIDTH TRANSITION FROM 7.08' TO 8.08'  
STA. 1442+54.15 TO STA. 1442+62.33 - PAVED SHOULDER WIDTH TRANSITION FROM 8.08' TO 4.00'

3. RIGHT SIDE  
STA. 1435+82.17 TO 1435+90.35 - PAVED SHOULDER WIDTH TRANSITIONS FROM 4.00' TO 8.08'  
STA. 1435+90.35 TO STA. 1436+40.41 - PAVED SHOULDER WIDTH TRANSITIONS FROM 8.08' TO 7.08'  
STA. 1441+16.59 TO STA. 1441+66.65 - PAVED SHOULDER WIDTH TRANSITIONS FROM 7.08' TO 8.08'  
STA. 1441+66.65 TO STA. 1441+74.83 - PAVED SHOULDER WIDTH TRANSITIONS FROM 8.08' TO 4.00'

4. ROTATE SHOULDERS TO MATCH APPROACH PAVEMENT OVER 25'.  
STA. 1437+90.00 TO STA. 1438+15.00 - TRANSITION PAVED SHOULDER FROM 4% CROSS SLOPE, TO 2% CROSS SLOPE.  
STA. 1440+29.50 TO STA. 1440+54.50 - TRANSITION PAVED SHOULDER FROM 4% CROSS SLOPE, TO 2% CROSS SLOPE.

FILE NAME =	USER NAME = Cox01283	DESIGNED - JDW	REVISED -
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	PLOT SCALE = 10.0000' / in.	CHECKED - MH	REVISED -
	PLOT DATE = 10/21/2010	DATE - 06-30-2010	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL-146 (OVER SIMMONS CREEK) TYPICAL SECTIONS

SCALE: NTS SHEET NO. 1 OF 1 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
885	6B-2	POPE	48	5
CONTRACT NO. 78141				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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



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

EARTHWORK SCHEDULE						
		20200100	20300100			
		A	B	C	D	
LOCATION		* EARTH EXCAVATION	CHANNEL EXCAVATION (UNSUITABLE)	EXCAVATION TO BE USED IN EMBANKMENT, ADJUSTED FOR SHRINKAGE (25%)	** EMBANKMENT	*** EARTHWORK BALANCE EXCESS (+) OR SHORTAGE (-)
		CU YD	CU YD	CU YD	CU YD	CU YD
BEGIN STATION	END STATION	OFFSET				
1435+69.50	1442+75.00		450	338	271	66
1440+35.51	(RIPRAP)	LT/RT		1304		
<b>TOTAL</b>			<b>450</b>	<b>1304</b>	<b>338</b>	<b>271</b>
						<b>66</b>

**EQUATIONS USED**  
**C = A \* 0.75**  
**E = C - D**

**NOTES**  
 \* - CUTS FROM CROSS SECTIONS  
 \*\* - FILLS FROM CROSS SECTIONS  
 \*\*\* - A SHORTAGE (-) OF MATERIAL IS FURNISHED EXCAVATION

PAVEMENT SCHEDULE													
LOCATION				35600716	40600100	40600645	40600990	40603320	42001420	48100700	48203029	48203037	60600605
				HOT-MIX ASPHALT BASE COURSE WIDENING, 10"	BITUMINOUS MATERIALS (PRIME COAT)	LEVELING BINDER (MACHINE METHOD), N90	TEMPORARY RAMP	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N90	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	AGGREGATE SHOULDERS, TYPE A 8"	HOT-MIX ASPHALT SHOULDERS, 8"	HOT-MIX ASPHALT SHOULDERS, 10"	CONCRETE CURB, TYPE B
				SQ YD	GALLON	TON	SQ YD	TON	SQ YD	SQ YD	SQ YD	SQ YD	FOOT
BEGIN STATION	OFFSET	END STATION	OFFSET										
1435+69.50	LT AND RT	1435+74.50	LT AND RT				14.0						
1435+69.50	RT	1435+82.17	RT							4			
1435+69.50	LT	1435+72.19	LT							1			
1435+69.50	LT AND RT	1435+99.50	LT AND RT		7.8			7.0					
1435+69.50	LT AND RT	1438+15.00	LT AND RT		63.8			52.0					
1435+99.50	LT AND RT	1438+15.00	LT AND RT		56.0	26.0							
1435+82.17	RT	1438+21.00	RT								161		
1436+69.70	LT	1438+21.00	LT									102	
1437+07.00	RT	1438+63.00	RT	105.0									
1438+15.00	LT AND RT	1438+21.00	LT AND RT						21.0				
1439+94.00	RT	1441+44.00	RT	94.0									
1440+23.50	LT AND RT	1440+29.50	LT AND RT						21.0				
1440+23.50	16.00' LT	1440+29.50	16.00' LT										6
1440+23.50	16.00' RT	1440+29.50	16.00' RT										6
1440+29.50	LT AND RT	1442+45.00	LT AND RT		56.0	26.0							
1440+29.50	LT AND RT	1442+75.00	LT AND RT		63.8			52.0					
1440+39.50	RT	1442+06.09	RT								105		
1440+39.50	LT	1441+84.00	LT									98	
1441+84.00	LT	1442+62.33	LT								55		
1442+04.97	RT	1442+75.00	RT							23			
1442+45.00	LT AND RT	1442+75.00	LT AND RT		7.8			7.0					
1442+62.33	LT	1442+75.00	LT							4			
1442+70.00	LT AND RT	1442+75.00	LT AND RT				14.0						
<b>TOTAL</b>				<b>199</b>	<b>255.2</b>	<b>52.0</b>	<b>28.0</b>	<b>118.0</b>	<b>42.0</b>	<b>32</b>	<b>321</b>	<b>200</b>	<b>12</b>

FILE NAME =	USER NAME = Cow01283	DESIGNED - JDW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL-146 (OVER SIMMONS CREEK) SCHEDULE OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
o:\working\cow01283\dms23631\0978141-shd	schedule.dgn	DRAWN - BKC	REVISED -			885	6B-2	POPE	48	6	
	PLOT SCALE = 2,0000 ' / in.	CHECKED - MH	REVISED -			CONTRACT NO. 78141					
	PLOT DATE = 10/01/2010	DATE - 06-30-2010	REVISED -			SCALE: NTS	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

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



DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
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TEMPLATE	
AREAS	
AREAS CHECKED	
NO.	

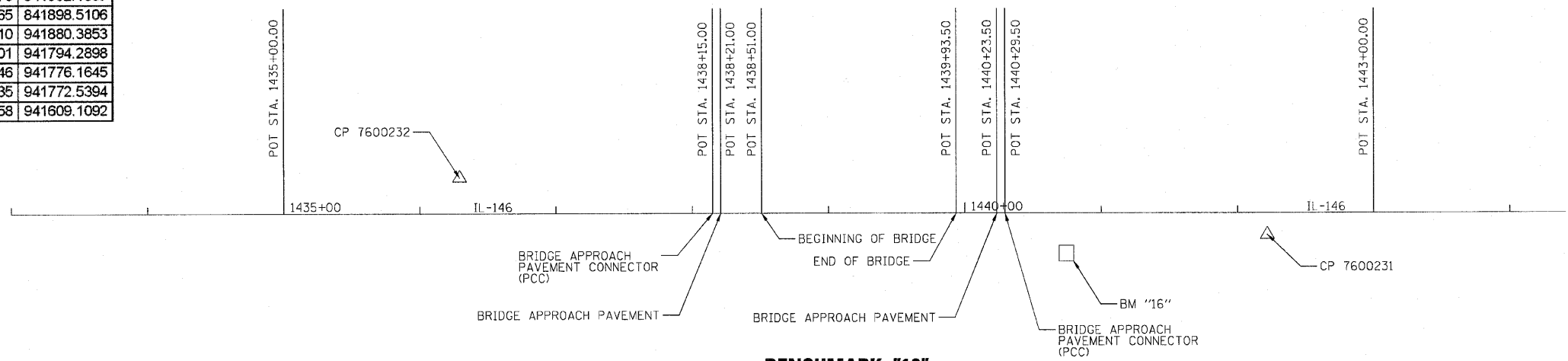
SEEDING SCHEDULE										
LOCATION			25000200	25000350	25000400	25000500	25000600	25000700	25100115	28000250
			SEEDING, CLASS 2	SEEDING, CLASS 7	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	AGRICULTURAL GROUND LIMESTONE	MULCH, METHOD 2	TEMPORARY EROSION CONTROL SEEDING
BEGIN STATION	END STATION	OFFSET	ACRES	ACRES	POUNDS	POUNDS	POUNDS	TONS	ACRES	POUND
1435+69.50	1438+51.00	LT/RT	0.10	0.10	13	9	9	0.2	0.10	10
1439+93.50	1442+75.00	LT/RT	0.25	0.25	33	23	23	0.5	0.25	25
<b>TOTAL</b>			<b>0.35</b>	<b>0.35</b>	<b>46</b>	<b>32</b>	<b>32</b>	<b>0.7</b>	<b>0.35</b>	<b>35</b>

PAVEMENT MARKING SCHEDULE								
LOCATION			78001110	78200410	78200510	78201000	78300200	NOTE
			PAINT PAVEMENT MARKING - LINE 4"	GUARDRAIL MARKERS, TYPE A	BARRIER WALL MARKERS, TYPE A	TERMINAL MARKER DIRECT APPLIED	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	
BEGIN STATION	END STATION	OFFSET	FOOT	EACH	EACH	EACH	EACH	
1435+69.50	1438+42.00	CENTERLINE					3	
1435+69.50	1442+75.00	LT & RT	1411					WHITE SOLID
1435+69.50	1440+20.00	CENTERLINE	113					YELLOW/SKIP DASH RT
1435+69.50	1441+20.00	CENTERLINE	551					YELLOW/SOLID LT
1435+90.36	1438+36.00	RT		4				
1435+90.36	-	RT				1		
1436+77.87	1438+36.00	LT		4				
1436+77.87	-	LT				1		
1438+36.00	1440+08.00				7			STG 2 - NEW BRIDGE NEXT TO TRAFFIC
1438+36.00	1440+08.00				7			STG 2 - NEW BRIDGE UNDER CONST.
1440+08.00	1442+54.00	RT		4				
1440+08.00	1442+54.14	LT		4				
1440+14.00	1442+75.00	CENTERLINE					3	
1440+20.00	1442+75.00	CENTERLINE	255					YELLOW/SOLID RT
1441+20.00	1442+75.00	CENTERLINE	39					YELLOW/SKIP DASH LT
1441+66.63	-	RT				1		
1442+54.14	-	LT				1		
<b>TOTAL</b>			<b>2369</b>	<b>16</b>	<b>14</b>	<b>4</b>	<b>6</b>	

FILE NAME =	USER NAME = Cov01283	DESIGNED - JDW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>IL-146 (OVER SIMMONS CREEK) SCHEDULE OF QUANTITIES</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ct\working\cov01283\dms23631\0978141-sht	schedule.dgn	DRAWN - BKC	REVISED -			885	6B-2	POPE	48	7	
	PLOT SCALE = 2,000' / in.	CHECKED - MH	REVISED -			SCALE: NTS		SHEET NO. OF SHEETS		STA.	TO STA.
	PLOT DATE = 10/01/2010	DATE - 06-30-2010	REVISED -					FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	
						CONTRACT NO. 78141					

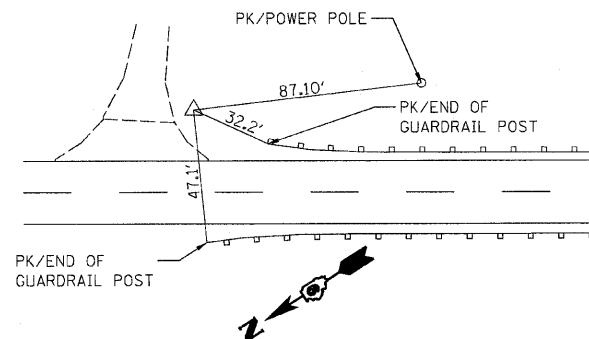
**ALIGNMENT COORDINATES - IL146**

IL-146	STATION	N	E
POT	1435+00.00	278968.6851	942092.4519
POT	1438+15.00	278717.6776	941902.1357
POT	1438+21.00	278712.8965	841898.5106
POT	1438+51.00	278688.9910	941880.3853
POT	1439+93.50	278575.4401	941794.2898
POT	1440+23.50	278551.5346	941776.1645
POT	1440+29.50	278546.7535	941772.5394
POT	1443+00.00	278331.2058	941609.1092



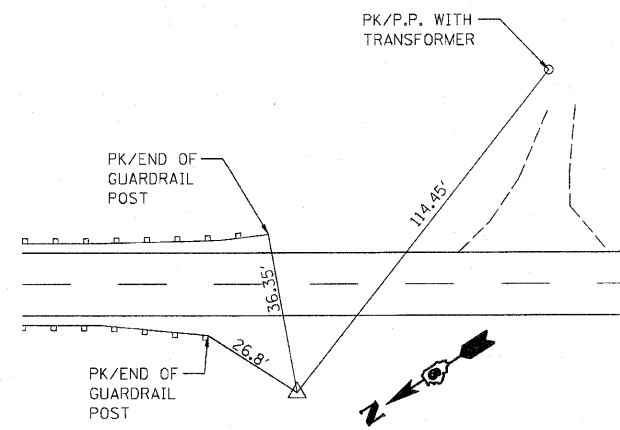
**BENCHMARK "16"**

ELEV. 359.95  
 CHISELED "□" ON NORTHEAST CORNER,  
 SOUTHWEST WING WALL OF  
 STRUCTURE NO. 076-0023



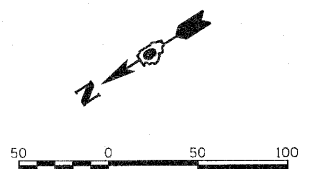
**CONTROL POINT 7600232**

IRON PIN WITH CAP  
 STA. 1436+29.28 26,1836' LT  
 N 278,849.8479  
 E 610,035.2073  
 ELEV. 363.5820



**CONTROL POINT 7600231**

IRON PIN WITH CAP  
 STA. 1442+21.83 15,8354' RT  
 N 278,403.0643  
 E 941,643.7204  
 ELEV. 357.0050



DATE	
BY	
SURVEYED	
PLOTTED	
AREAS	
AREAS CHECKED	
NO.	



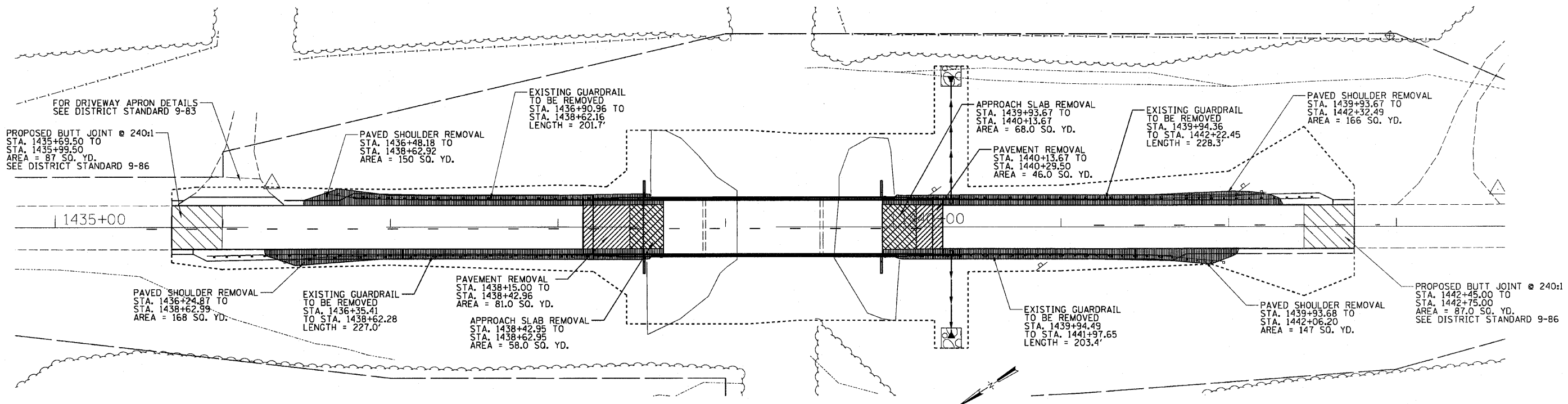
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BY	
SURVEYED	
PLOTTED	
AREAS	
AREAS CHECKED	
NO.	

FILE NAME =	USER NAME = Cox01283	DESIGNED - JDW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>IL-146 (OVER SIMMONS CREEK) ALIGNMENT, TIES, &amp; BENCHMARKS</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ca:\working\cox01283\dms23631\0978141-shd	ATB.dgn	DRAWN - BKC	REVISED -			885	6B-2	POPE	48	8	
		CHECKED - MH	REVISED -			CONTRACT NO. 78141					
		DATE - 06-30-2010	REVISED -			SCALE: NTS	SHEET NO. 1 OF 1 SHEETS	STA. 1435+00.00 TO STA. 1443+00.00	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

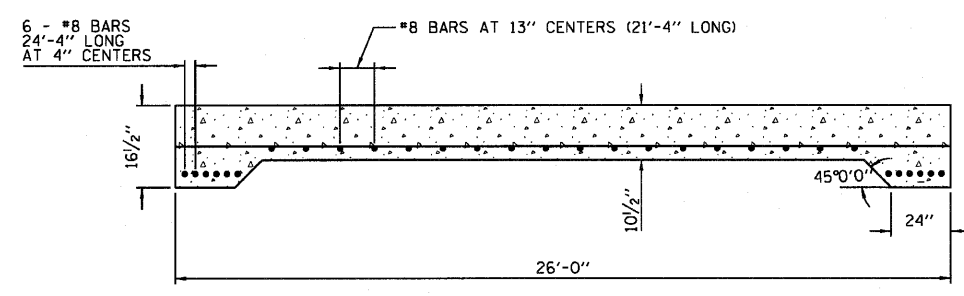
DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	



DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	



**REMOVAL PLAN**



**SECTIONAL VIEW OF EXISTING APPROACH SLAB**

FILE NAME =	USER NAME = Cox01283	DESIGNED - JDW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>IL-146 (OVER SIMMONS CREEK) REMOVAL PLAN</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
os\working\cox01283\dms23631\0978141-shr	rem.dgn	DRAWN - BKC	REVISED -			885	6B-2	POPE	48	9	
	PLOT SCALE = 59.9999' / 1" in.	CHECKED - MH	REVISED -			CONTRACT NO. 78141					
	PLOT DATE = 10/01/2010	DATE - 06-30-2010	REVISED -			SCALE: NTS	SHEET NO. 1 OF 1 SHEETS	STA. 1435+00.00 TO STA. 1443+00.00	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT

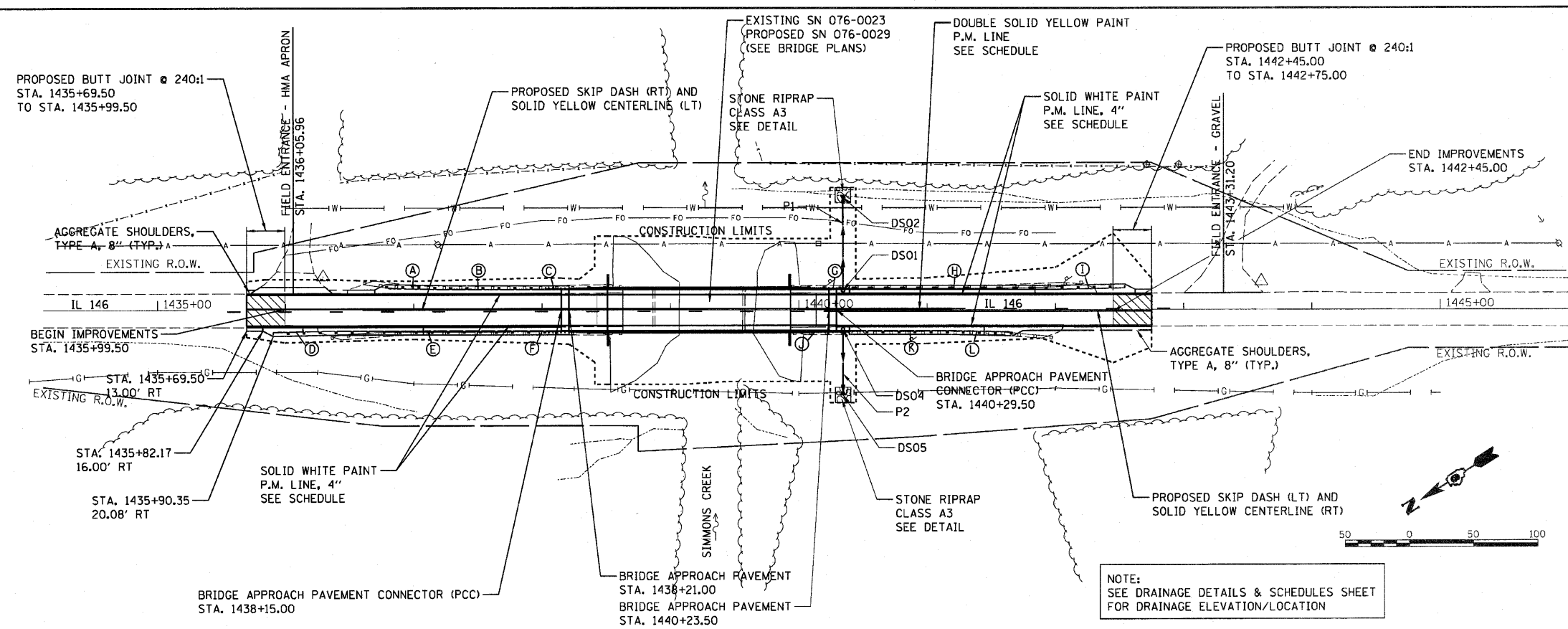


DATE	
BY	
FINAL SURVEY	
NOTED	
NO. CHECKED	

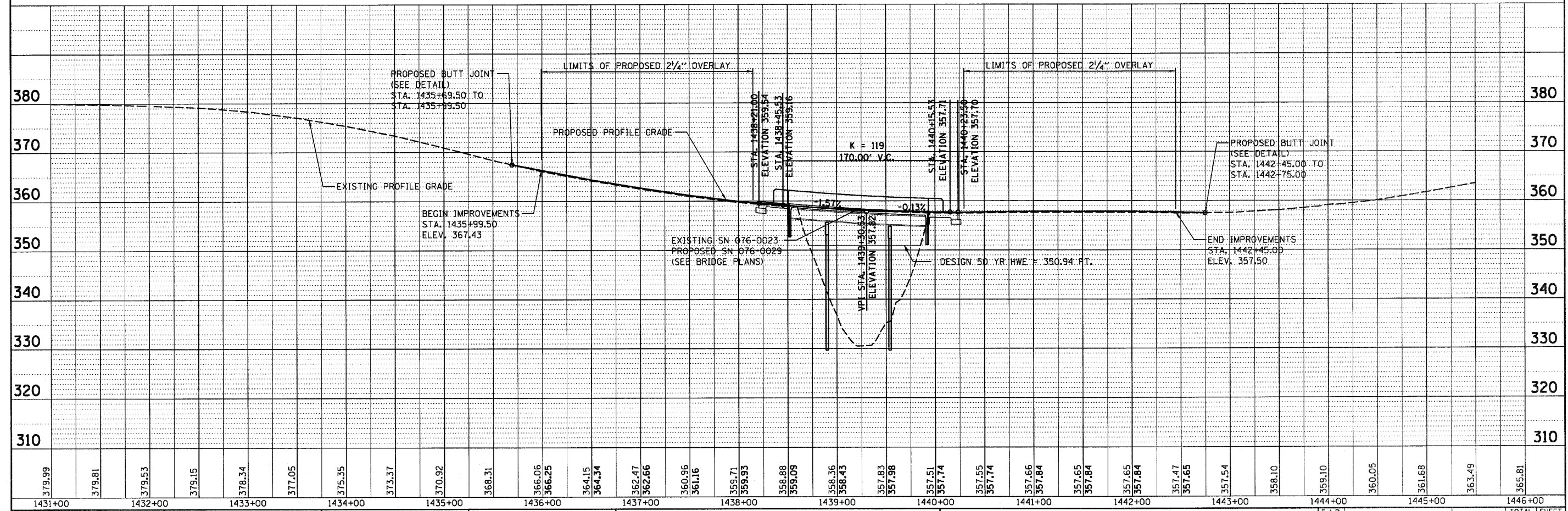


DATE	
BY	
ORIGINAL SURVEY	
NOTED	
NO. CHECKED	

- (A) PROPOSED T.B.T., TYPE 1 (SPECIAL) TANGENT STA. 1436+77.85 TO STA. 1437+27.85
- (B) PROPOSED S.P.B.C., LENGTH = 62.5' STA. 1437+27.85 TO STA. 1437+90.35
- (C) PROPOSED T.B.T., TYPE 6 STA. 1437+90.35 TO STA. 1438+36.00
- (D) PROPOSED T.B.T., TYPE 1 (SPECIAL) TANGENT STA. 1435+90.35 TO STA. 1436+40.35
- (E) PROPOSED S.P.B.C., LENGTH = 150.0' STA. 1436+40.35 TP STA. 1437+90.35
- (F) PROPOSED T.B.T., TYPE 6 STA. 1437+90.35 TO STA. 1438+36.00
- (G) PROPOSED T.B.T., TYPE 6 STA. 1440+08.50 TO STA. 1440+54.15
- (H) PROPOSED S.P.B.C., LENGTH = 150.0' STA. 1440+54.15 TO STA. 1442+04.15
- (I) PROPOSED T.B.T., TYPE 1 (SPECIAL) TANGENT STA. 1442+04.15 TO STA. 1442+54.15
- (J) PROPOSED T.B.T., TYPE 6 STA. 1440+08.50 TO STA. 1440+54.15
- (K) PROPOSED S.P.B.C., LENGTH = 62.5' STA. 1440+54.15 TP STA. 1441+16.65
- (L) PROPOSED T.B.T., TYPE 1 (SPECIAL) TANGENT STA. 1441+16.65 TO STA. 1441+66.65



NOTE:  
SEE DRAINAGE DETAILS & SCHEDULES SHEET  
FOR DRAINAGE ELEVATION/LOCATION

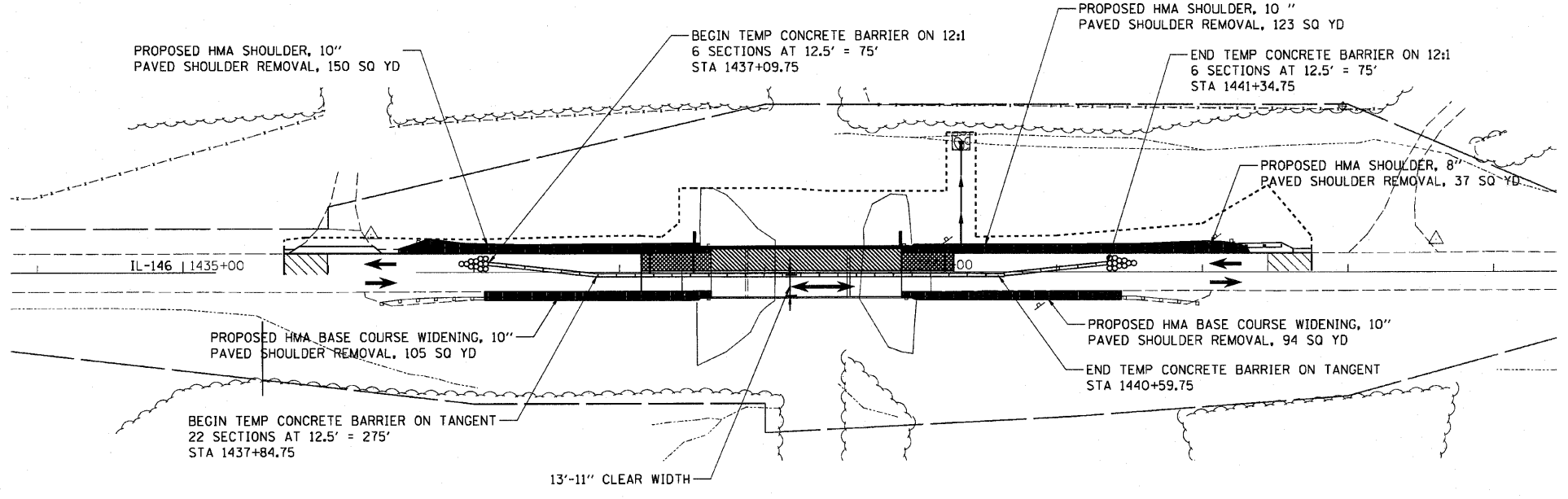
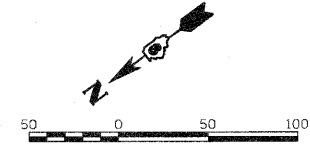


FILE NAME =	USER NAME = Cox@1283	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PLAN &amp; PROFILE (IL-146 OVER SIMMONS CREEK)</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET NO.	
c:\working\cox@1283\dms23631\0978141-sht-p\planprf.dgn		DRAWN -	REVISED -			0885	6B-2	POPE	48	10
PLOT SCALE = 1/8" = 10' / 1"		CHECKED -	REVISED -			CONTRACT NO. 78141				
PLOT DATE = 10/01/2010		DATE -	REVISED -			ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMP. DATE	
AREAS CHECKED	
NO.	

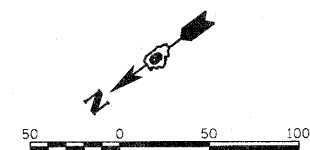
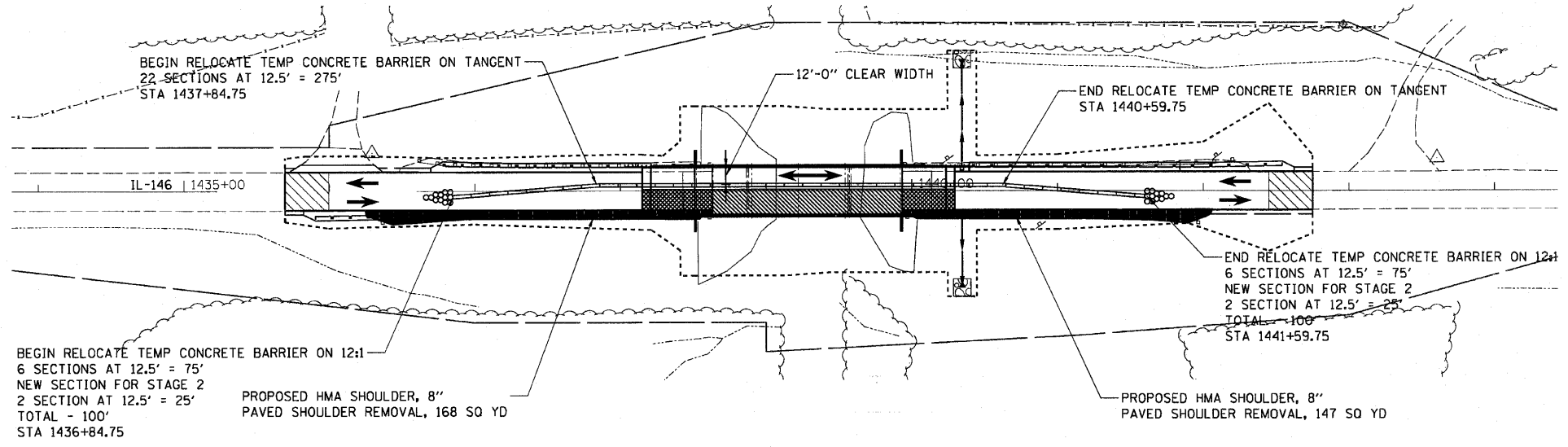


DATE	
BY	
SURVEYED	
PLOTTED	
TEMP. DATE	
AREAS CHECKED	
NO.	



LEGEND	
	PAVED SHOULDER REMOVAL
	STRUCTURE REMOVAL
	PAVEMENT REMOVAL

**STAGE 1 CONSTRUCTION**



LEGEND	
	PAVED SHOULDER REMOVAL
	STRUCTURE REMOVAL
	PAVEMENT REMOVAL

**STAGE 2 CONSTRUCTION**

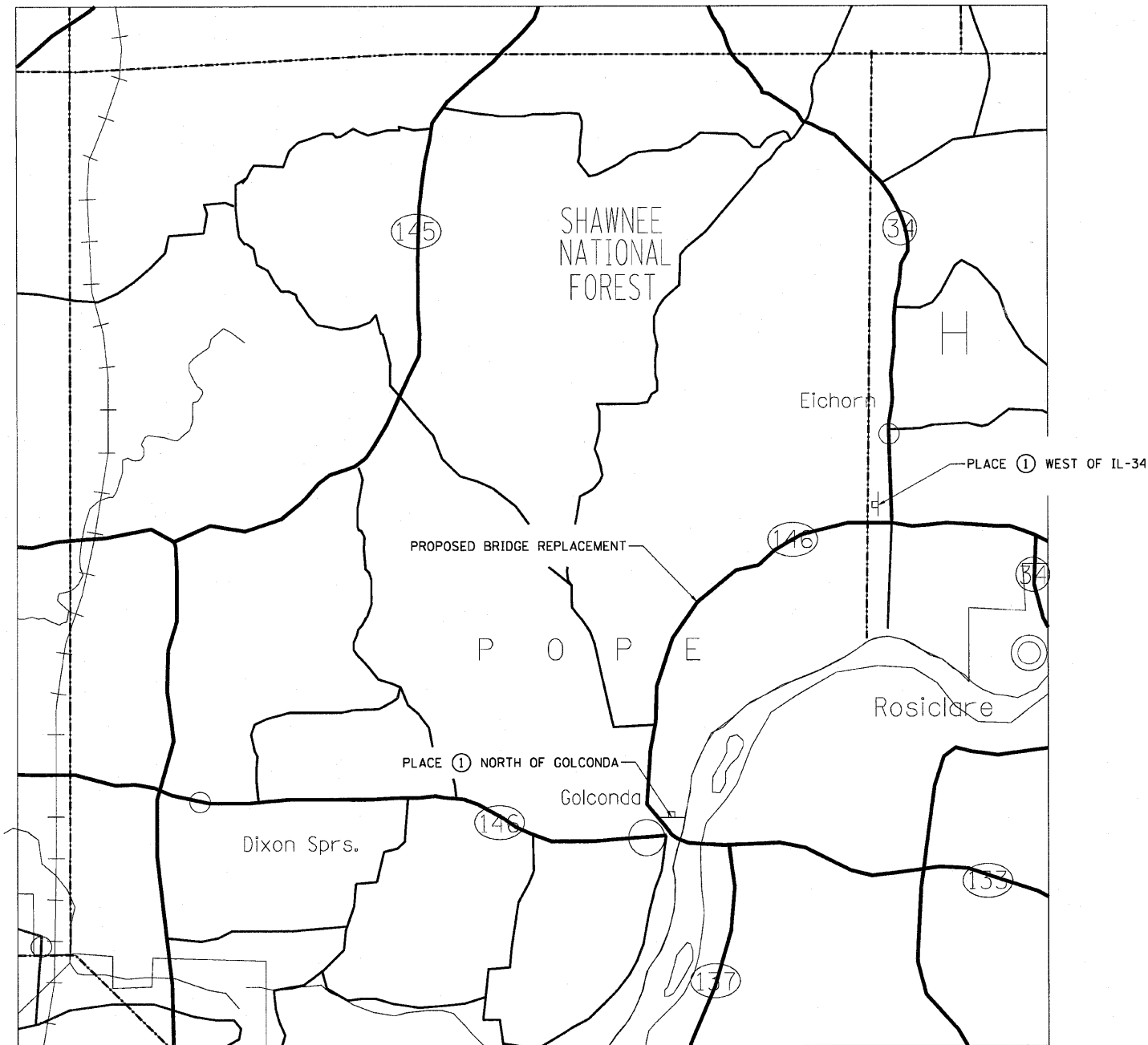
**GENERAL NOTES**  
 REFER TO STANDARDS:  
 701001 - OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY  
 701006 - OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE  
 701201 - LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS >= 45 MPH  
 701321 - LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER  
 701326 - LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS >= 45 MPH  
 701901 - TRAFFIC CONTROL DEVICES  
 704001 - TEMPORARY CONCRETE BARRIER

FILE NAME = e:\working\cov\1283\dms23631\0978141-sh	USER NAME = Cov\1283	DESIGNED - JDW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>IL-146 (OVER SIMMONS CREEK) TRAFFIC CONTROL AND STAGING</b>	F.A.P. RTE. 885	SECTION 6B-2	COUNTY POPE	TOTAL SHEETS 48	SHEET NO. 11		
PLOT SCALE = 1/8" = 1'-0"	CHECKED - MH	REVISED -	SCALE: NTS			SHEET NO. 1 OF 1 SHEETS	STA. 1435+00.00 TO STA. 1443+00.00	CONTRACT NO. 78141				
PLOT DATE = 10/21/2010	DATE - 06-30-2010	REVISED -	FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT									

DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	

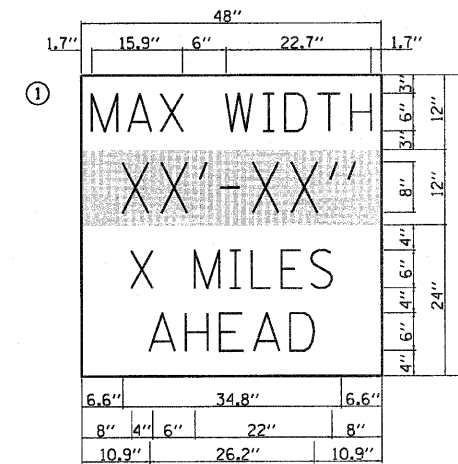


DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	



**DETOUR SIGNING PLAN**

**SIGN LEGEND**



**W12-1103**

W12-1103 (WIDTH IS 8D):  
 NO BORDER, BLACK ON WHITE;  
 "MAX WIDTH" D;  
 NO BORDER, BLACK ON ORANGE;  
 "XX'-XX'" D;  
 NO BORDER, BLACK ON WHITE;  
 "X MILES" D; "AHEAD" D

**DETOUR NOTES:**

1. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT THE SIGNS AT THE LOCATIONS AS DIRECTED BY THE ENGINEER. ALL SIGNS SHALL BE POST MOUNTED.
2. THE ABOVE NOTED WORK, INCLUDING SIGNS, POSTS, HARDWARE, AND LABOR SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE, EACH, FOR TRAFFIC CONTROL AND PROTECTION, STD 701321 AND NO OTHER COMPENSATION WILL BE ALLOWED.
3. THE WIDTH SHOWN ON THE W12-1103 SIGN SHALL BE 13'-11" FOR STAGE I AND 12'-0" FOR STAGE II OR AS DIRECTED BY THE ENGINEER. THE "X" MILES AHEAD WILL BE DETERMINED BY THE ENGINEER.

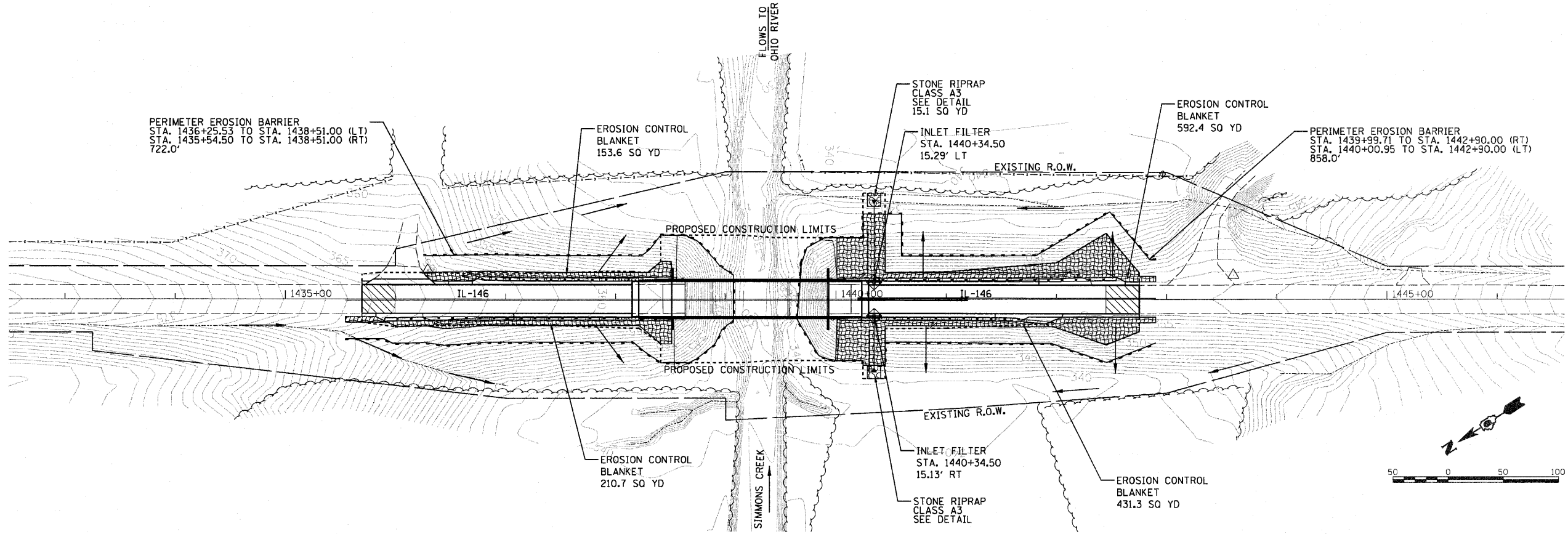


FILE NAME =	USER NAME = Cox01283	DESIGNED - JDW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>IL-146 (OVER SIMMONS CREEK) WIDE LOAD DETOUR SIGNING</b>		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ct:\working\cox01283\dms23631\0978141-sh	sign.dgn	DRAWN - BKC	REVISED -		885	6B-2	POPE	48	12	<b>CONTRACT NO. 78141</b>		
	PLOT SCALE = 99.9998' / in.	CHECKED - MH	REVISED -		SCALE: NTS	SHEET NO. 1 OF 1 SHEETS	STA. 1435+00.00 TO STA. 1443+00.00	FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				
	PLOT DATE = 10/21/2010	DATE - 06-30-2010	REVISED -									

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



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



**EROSION CONTROL LEGEND**

- EROSION CONTROL BLANKET
- INLET FILTER
- TEMPORARY DITCH CHECK
- PERIMETER EROSION BARRIER
- DRAINAGE PATTERN DIRECTION

**INTENDED SEQUENCE**

1. PLACEMENT OF PERIMETER EROSION BARRIER PRIOR TO COMMENCEMENT OF ANY WORK, SEE STANDARD 280001.
2. PLACEMENT OF TEMPORARY SEEDING ON GRADED SURFACES NOT HAVING PERMANENT SEEDING APPLIED.
3. PLACEMENT OF EROSION CONTROL BLANKET AFTER FINAL GRADING.
4. ONGOING MAINTENANCE OF EROSION CONTROL ELEMENTS PER THE SWPPP.
5. REMOVE TEMPORARY EROSION CONTROL ELEMENTS AFTER FINAL GRADING AND PERMANENT SEEDING ESTABLISHED AS PER THE SWPPP AND APPROVED BY THE ENGINEER.

**NOTES**

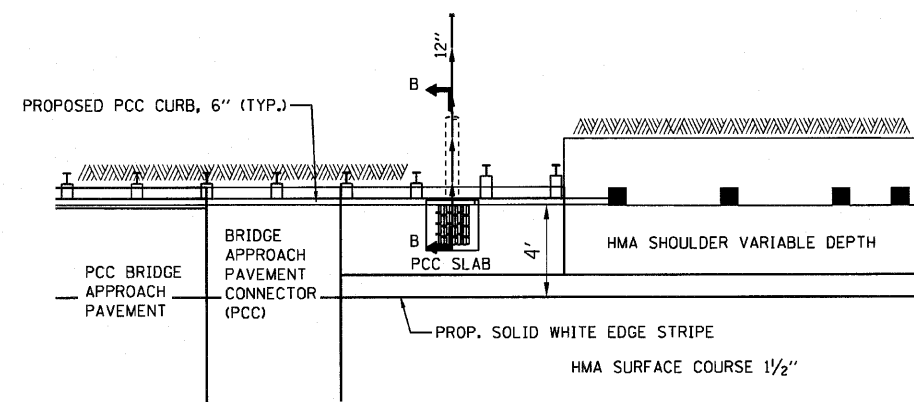
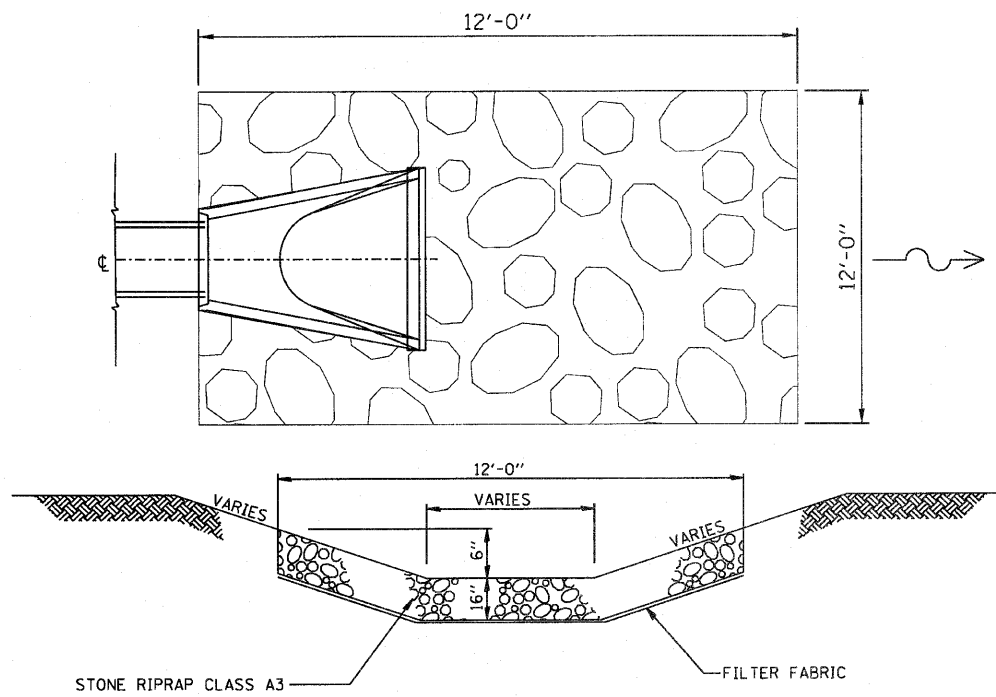
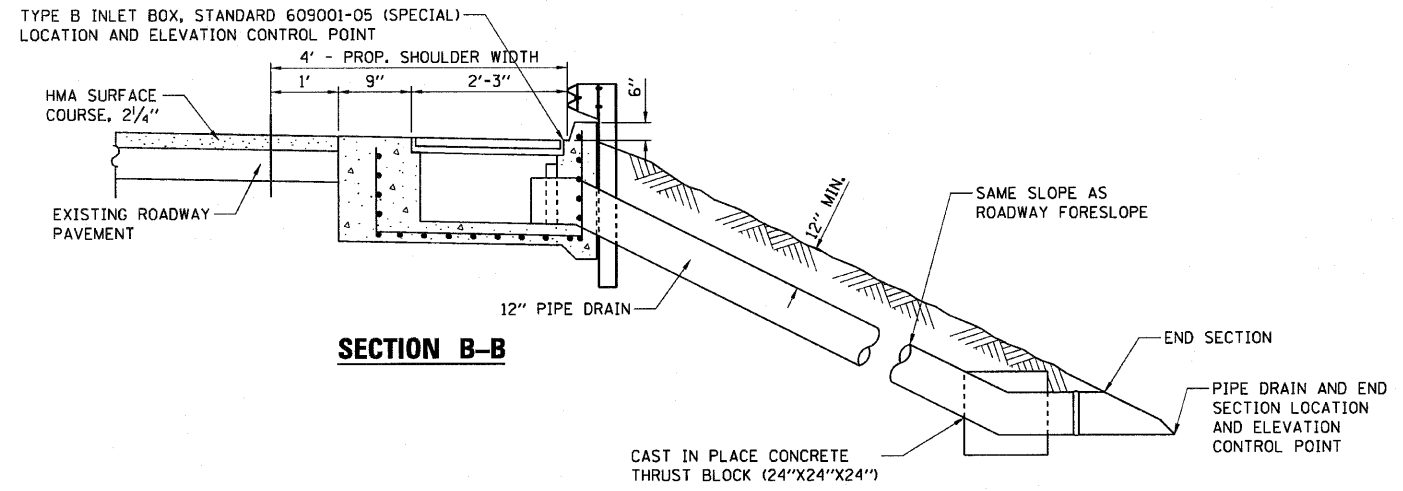
1. MAJOR GRADING SLOPES ALONG THE PROPOSED ROADWAY ARE 2:1 MAX.
2. SOILS DISTURBANCE SHALL ONLY OCCUR WITHIN THE AREAS SHOWN.
3. RECEIVING WATER FOR DRAINAGE FROM PROJECT IS SIMMONS CREEK, SIMMONS CREEK IS A TRIBUTARY OF THE OHIO RIVER.

FILE NAME =	USER NAME = Cox01283	DESIGNED - JDW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>IL-146 (OVER SIMMONS CREEK) TEMPORARY EROSION CONTROL PLAN</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
os\working\cox01283\dms23631\0978141-sh	eros.dgn	DRAWN - BKC	REVISED -			885	6B-2	POPE	48	13	
	PLOT SCALE = 99.9998' / 1" =	CHECKED - MH	REVISED -			<b>CONTRACT NO. 78141</b>					
	PLOT DATE = 10/21/2010	DATE - 06-30-2010	REVISED -			SCALE: NTS	SHEET NO. 1 OF 1 SHEETS	STA. 1435+00.00 TO STA. 1443+00.00	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT

DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	

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DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	



**IL RTE 146 STATION 1440+35.50 RT AND LT**

PIPE SCHEDULE							
LOCATION						20800150	60100945
PIPE NUMBER	FROM STRUCTURE S-NUMBER	TO STRUCTURE INV ELEV	TO STRUCTURE S-NUMBER	TO STRUCTURE INV ELEV	PIPE SLOPE %	TRENCH BACKFILL (CU YD)	PIPE DRAIN 12\"
P1	DS01	354.73	DS02	338.32	20.52%	0.1	80
P2	DS04	354.73	DS05	340.80	25.33%	0.1	55
TOTAL						0.2	135

DRAINAGE STRUCTURE SCHEDULE										
LOCATION						28100105	28200200	54213447	60900150	60900515
STR	STATION	OFFSET	SIDE	RIM ELEV	INVERT ELEV	STONE RIP RAP CLASS A3 (SQ YD)	FILTER FABRIC (SQ YD)	END SECTIONS 12\"	TYPE B INLET BOX STANDARD 609006 (SPECIAL) (EACH)	CONCRETE THRUST BLOCKS (EACH)
DS01	1440+35.50	16.00'	LT	357.40	354.73				1	
DS02	1440+35.50	89.80'	LT	-	338.32	16	16	1		
DS03	1440+35.50		LT	-	-					1
DS04	1440+35.50	16.00'	RT	357.40	354.73				1	
DS05	1440+35.50	66.20'	RT	-	340.80	16	16	1		
DS06	1440+35.50		RT	-	-					1
TOTAL						32	32	2	2	2

FILE NAME =	USER NAME = Cox01283	DESIGNED - JDW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>IL-146 (OVER SIMMONS CREEK) DRAINAGE DETAILS &amp; SCHEDULES</b>	F.A.P. RTE. =	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\working\cov01283\dlma23631\0978141-sh	details.dgn	DRAWN - BKC	REVISED -			885	6B-2	POPE	48	14	
PLOT SCALE = 39.9999' / in.		CHECKED - MH	REVISED -			CONTRACT NO. 78141					
PLOT DATE = 10/21/2010		DATE - 06-30-2010	REVISED -			SCALE: NTS	SHEET NO. 1 OF 1 SHEETS	STA. 1435+00.00 TO STA. 1443+00.00	FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT		

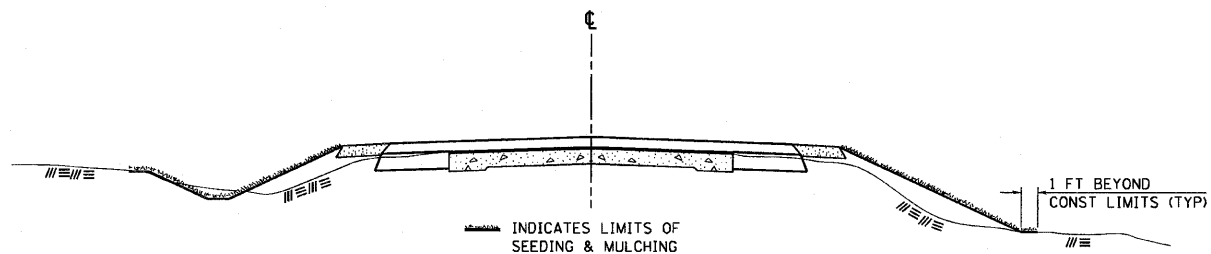


DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	
NO.	

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DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	
NO.	

### SEEDING & MULCHING



#### GENERAL NOTES

IN GENERAL, ALL EARTH SURFACES DISTURBED DURING CONSTRUCTION OPERATIONS SHALL BE SEED AND MULCHED UPON COMPLETION OF ALL GRADING OPERATIONS.

FERTILIZER NUTRIENTS AND LIMESTONE SHALL BE APPLIED TO ALL SEEDED AREAS.

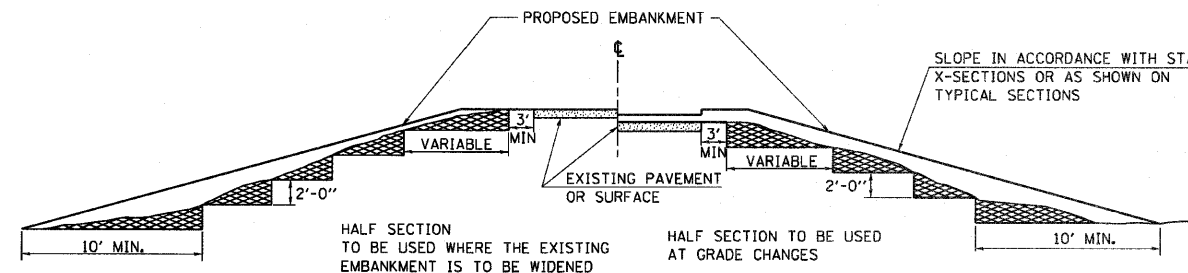
THE RATES OF APPLICATION OF FERTILIZER, MULCH AND LIMESTONE SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS.

SECTIONS 250 AND 251 OF THE STANDARD SPECIFICATIONS SHALL GOVERN THIS WORK EXCEPT AS SPECIFIED HEREIN OR AS NOTED IN THE SPECIAL PROVISIONS.

REVISIONS
REDRAWN 2-15-89
REVISED 8-15-94
REVISED 6-3-99
REVISED

STD. 9-12

### TYPICAL CROSS SECTION SHOWING STEP CONSTRUCTION ON EXISTING FILL

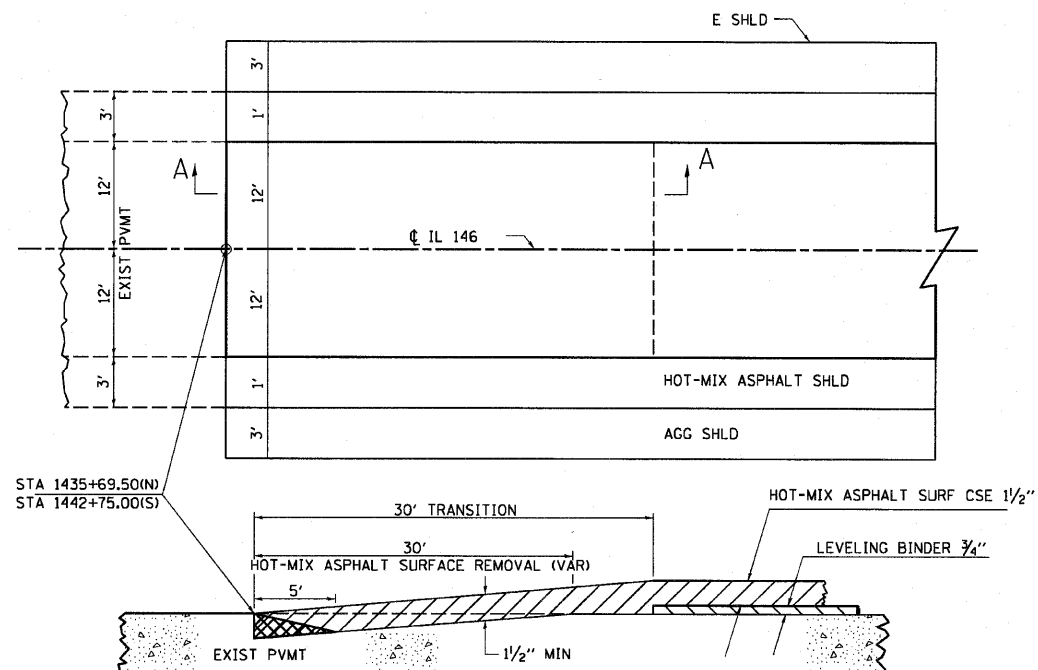


MATERIAL TO BE REMOVED AND REPLACED IN THE EMBANKMENT IN ACCORDANCE WITH ART. 205.04 OF THE STANDARD SPECIFICATION. COST TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED BECAUSE OF THIS WORK.

REVISIONS
REDRAWN 2-15-89
REVISED 8-15-94
CHECKED 6-3-99
REVISED

STD. 9-16

### BUTT JOINT



TEMPORARY RAMP

#### SECTION A-A

REVISIONS
DRAWN 10-17-90
REVISED 01-11-01
REVISED
REVISED

STD. 9-86

FILE NAME =	USER NAME = Cox01263	DESIGNED - JDW	REVISED -
ct:\working\cox01263\dms23631\0978141-shd	standards.dgn	DRAWN - BKC	REVISED -
	PLOT SCALE = 2.0000' / 1" =	CHECKED - MH	REVISED -
	PLOT DATE = 10/21/2010	DATE - 06-30-2010	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL-146 (OVER SIMMONS CREEK) STANDARDS

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

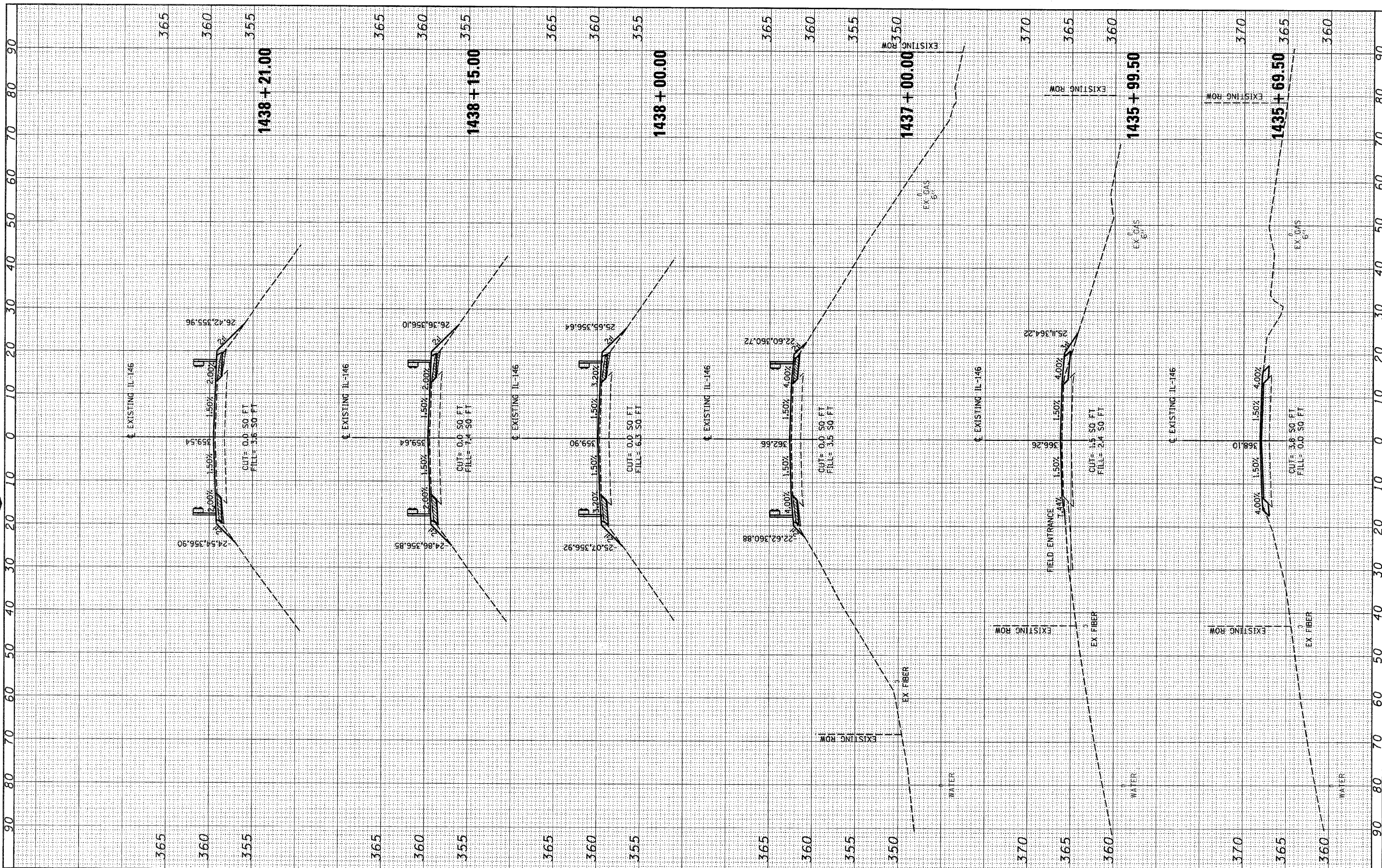
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
885	6B-2	POPE	48	15
CONTRACT NO. 78141				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				





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

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



FILE NAME =	USER NAME =	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

SCALE:	SCALE:
SCALE:	SCALE:

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>IL 146 (OVER SIMMONS CREEK) CROSS SECTIONS</b>	
SHEET NO. 1	OF 1 SHEETS
STA. 1435+00.00 TO STA. 1443+00.00	

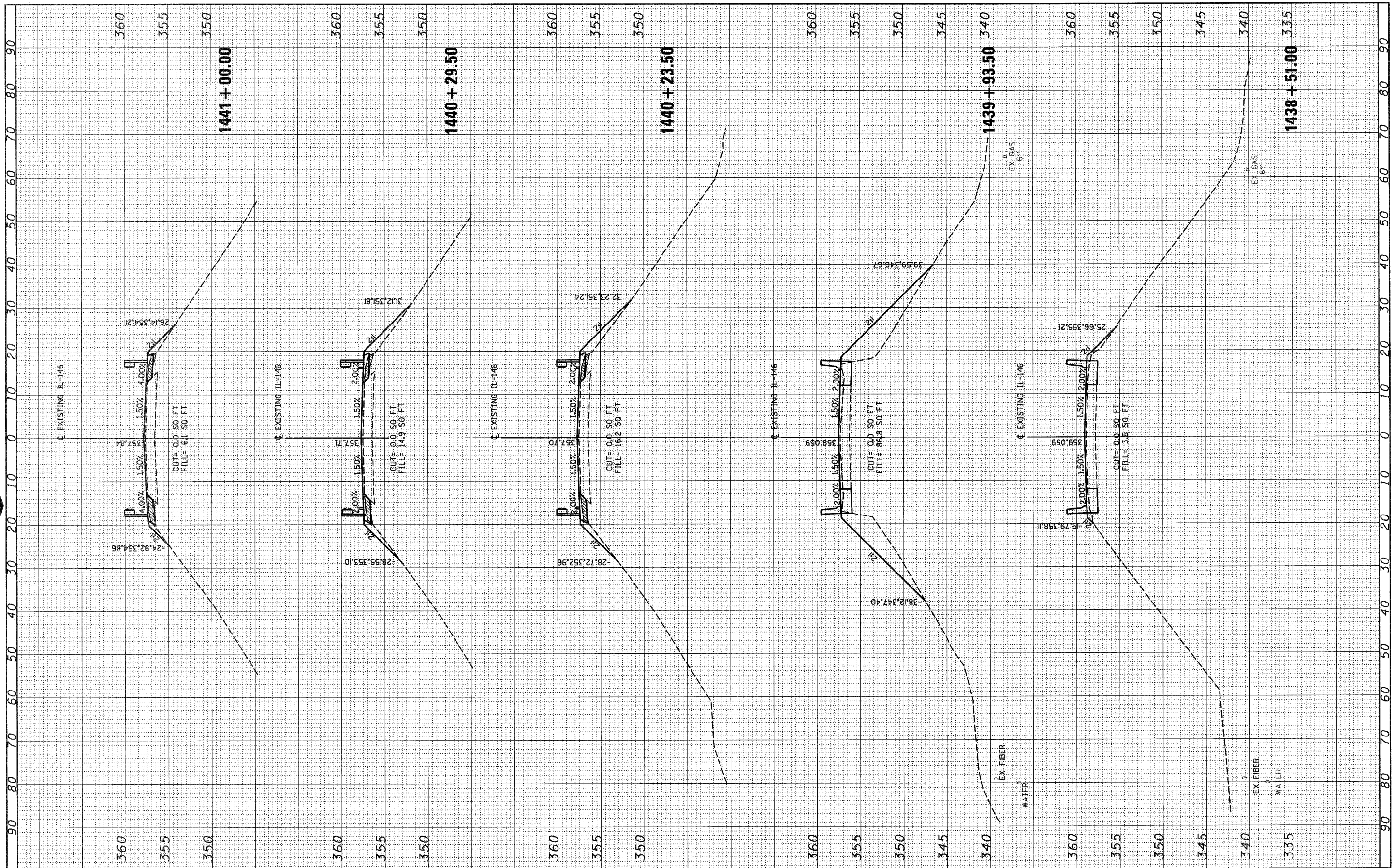
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
885	68-2	POPE	48	17
CONTRACT NO. 78141			ILLINOIS FED. AID PROJECT	



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

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

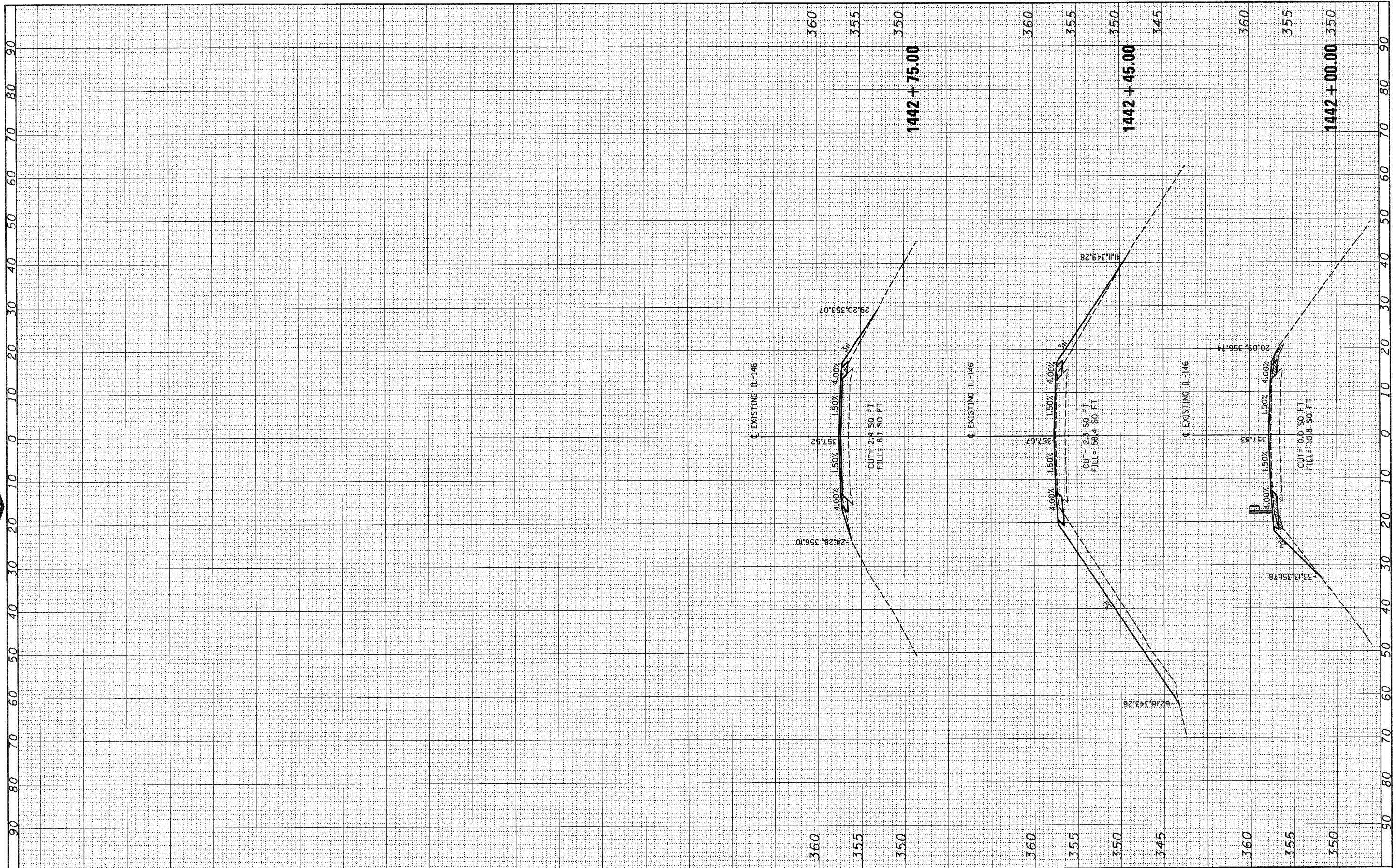


FILE NAME :	USER NAME :	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>IL 146 (OVER SIMMONS CREEK) CROSS SECTIONS</b>	F.A.P. RTE. 885	SECTION 6B-2	COUNTY POPE	TOTAL SHEETS 48	SHEET NO. 18		
PLOT SCALE :	CHECKED -	REVISED -	SCALE:			SHEET NO. 1 OF 1 SHEETS	STA. 1435+00.00 TO STA. 1443+00.00	CONTRACT NO. 78141		(ILLINOIS) FED. AID PROJECT		
PLOT DATE :	DATE -	REVISED -	SCALE:									

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



ORIGINAL SURVEY	DESIGNED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	AREAS CHECKED		



FILE NAME =	USER NAME =	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>IL 146 (OVER SIMMONS CREEK) CROSS SECTIONS</b>		F.A.P. RTE. 885	SECTION 68-2	COUNTY POPE	TOTAL SHEETS 48	SHEET NO. 19
PLLOT SCALE =	CHECKED -	REVISED -	REVISED -		SCALE:	SHEET NO. 1 OF 1 SHEETS	STA. 1435+00.00 TO STA. 1443+00.00	CONTRACT NO. 78141		ILLINOIS FED. AID PROJECT	
PLLOT DATE =	DATE -	REVISED -	REVISED -		SCALE:						





STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES**

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts in painted areas and M164 Type 3 in unpainted areas. Bolts  $\frac{7}{8}$  in.  $\phi$ , holes  $\frac{15}{16}$  in.  $\phi$ , unless otherwise noted.

Calculated weight of Structural Steel = 91,480 lbs.

All structural steel shall be AASHTO M 270 Grade 50W. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

No field welding is permitted except as specified in the contract documents.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of  $\frac{1}{8}$  inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.

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

In lieu of the hammer selection criteria and use of the FHWA Modified Gates formula specified in Section 512 of the Standard Specifications, the Contractor shall conduct a wave equation analysis to establish the driving criteria at all pile foundations which specify a nominal required bearing above 600 kips. The analysis and calculations shall be submitted to the Engineer for approval.

Slipforming of parapets is not allowed.

Current Ratings on File for Existing Structure

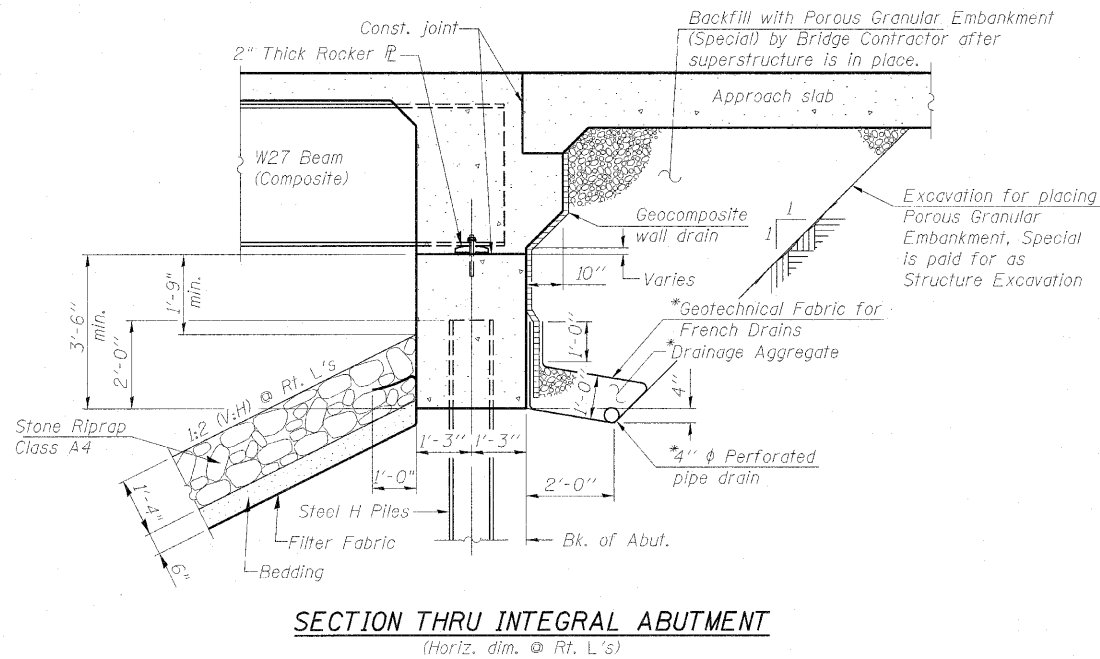
Inventory: HS-5.1

Operating: HS-12.7

Live Load Restrictions: No

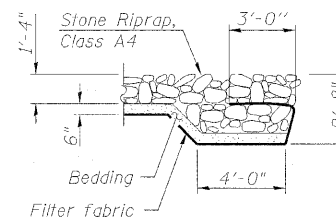
Inventory and Operating Ratings and Live Load Restrictions are provided for information only. Inventory and Operating Ratings are based on HS loading and configuration. Live load Restrictions are based on Illinois legal loads and configurations. The Ratings and Live Load Restrictions are not necessarily representative of capacities to support Contractor's equipment.

The Contractor is advised that the existing structure contains members that are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the existing structure when developing construction procedures for the complete or partial removal, or replacement of the structure. An Existing Structure Information Package is available upon request as noted in the Special Provisions.



**SECTION THRU INTEGRAL ABUTMENT**

Note:  
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slope. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101)



**SECTION B-B**

**INDEX OF SHEETS**

- 1 General Plan
- 2 General Data
- 3 Substructure Layout and Temporary Sheet Piling Details
- 4-5 Stage Construction Details
- 6 Temporary Concrete Barrier for Stage Construction
- 7-9 Top of Slab Elevations - Bridge Deck
- 10-11 Top of Slab Elevations - Approach Slabs
- 12-14 Superstructure Details
- 15-16 Bridge Approach Slab Details
- 17 Drainage Scuppers Details
- 18-19 Structural Steel Details
- 20 Bearing Details
- 21 North Abutment
- 22 South Abutment
- 23 Pier 1
- 24 Pier 2
- 25 HP Pile Details
- 26 Bar Splicer Assembly and Mechanical Splicer Details
- 27 Cantilever Forming Brackets
- 28-29 Boring Logs

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.	-	86	86
Stone Riprap, Class A4	Sq. Yd.	-	2030	2030
Filter Fabric	Sq. Yd.	-	2030	2030
Removal of Existing Structures	Each	-	-	1
Sloped Wall Removal	Sq. Yd.	-	984	984
Structure Excavation	Cu. Yd.	-	292	292
Concrete Structures	Cu. Yd.	-	208.2	208.2
Concrete Superstructure	Cu. Yd.	291.4	-	291.4
Bridge Deck Grooving	Sq. Yd.	675	-	675
Concrete Encasement	Cu. Yd.	-	15.4	15.4
Protective Coat	Sq. Yd.	874	-	874
Furnishing and Erecting Structural Steel	L. Sum	1	-	1
Stud Shear Connectors	Each	2988	-	2988
Reinforcement Bars, Epoxy Coated	Pound	70420	20460	90880
Bar Splicers	Each	731	170	901
Furnishing Steel Piles HPI4x89	Foot	-	1109	1109
Driving Piles	Foot	-	1109	1109
Test Pile Steel HPI4x89	Each	-	2	2
Temporary Sheet Piling	Sq. Ft.	-	1102	1102
Name Plates	Each	1	-	1
Anchor Bolts, 1"	Each	48	-	48
Geocomposite Wall Drain	Sq. Yd.	-	54	54
Pipe Underdrains For Structures 4"	Foot	-	130	130
Drainage Scuppers, DS-II	Each	2	-	2
Temporary Soil Retention System	Sq. Ft.	-	467	467
Mechanical Splicers	Each	-	156	156

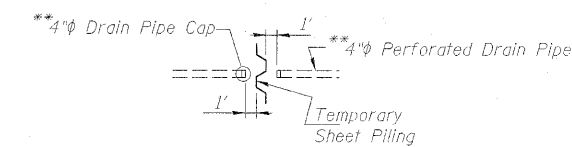
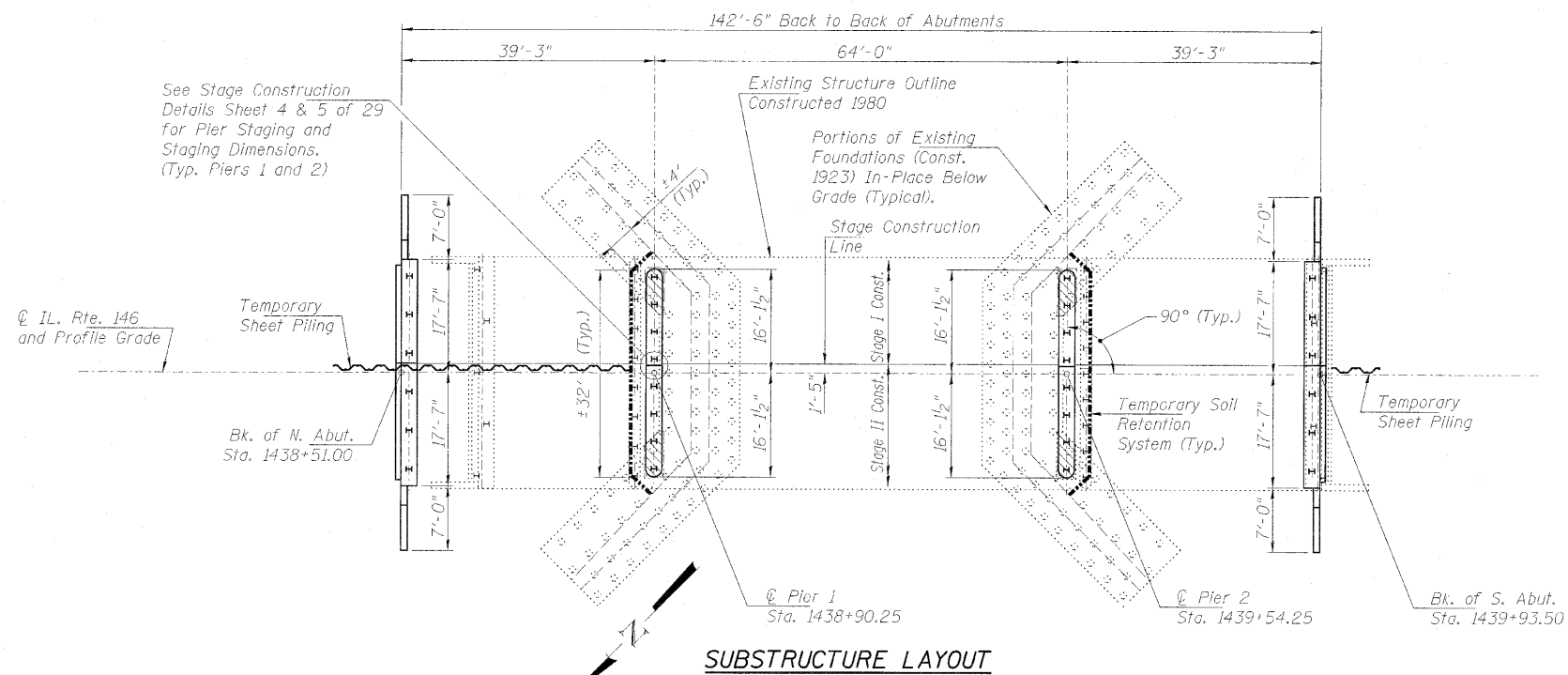
STATION 1439+22.25  
BUILT 20\_\_ BY  
STATE OF ILLINOIS  
F.A.P. RT. 885 SEC. 6B-2  
LOADING HL93  
STRUCTURE NO. 076-0029

**NAME PLATE**  
See Std. 515001

**GENERAL DATA**  
**STRUCTURE NO. 076-0029**

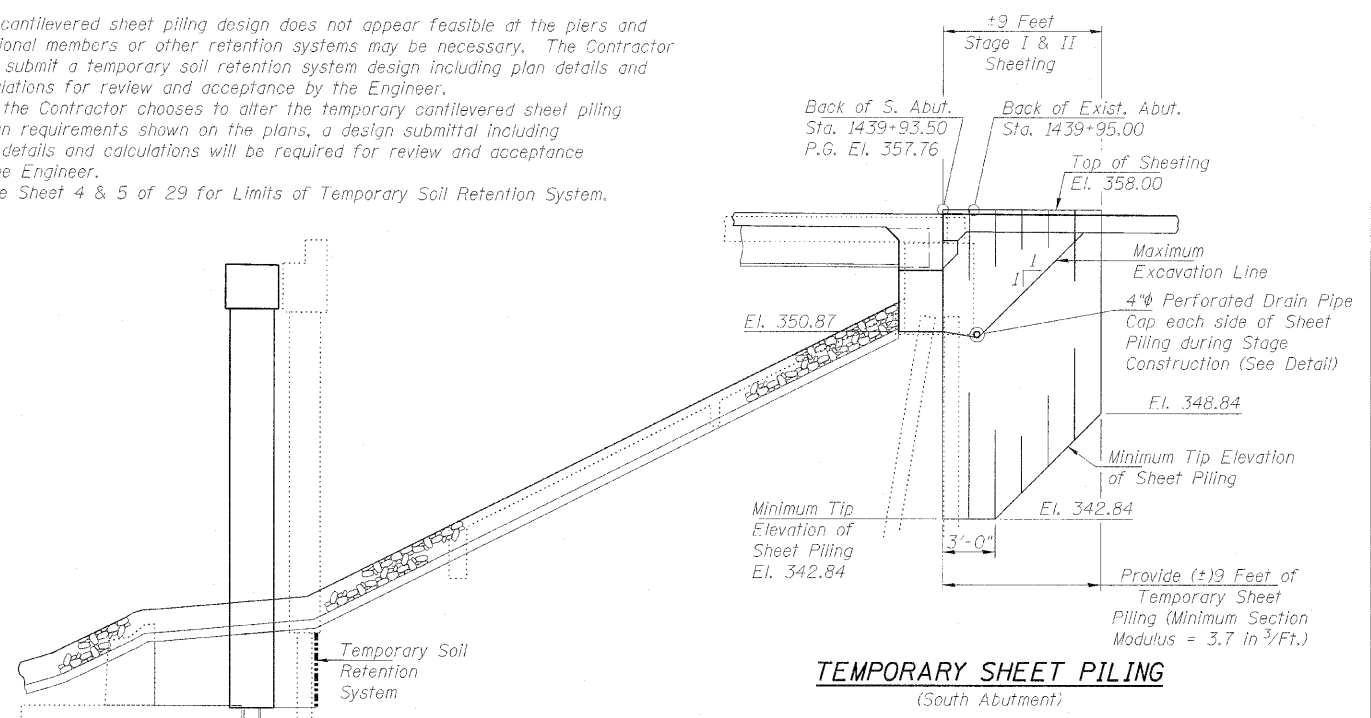
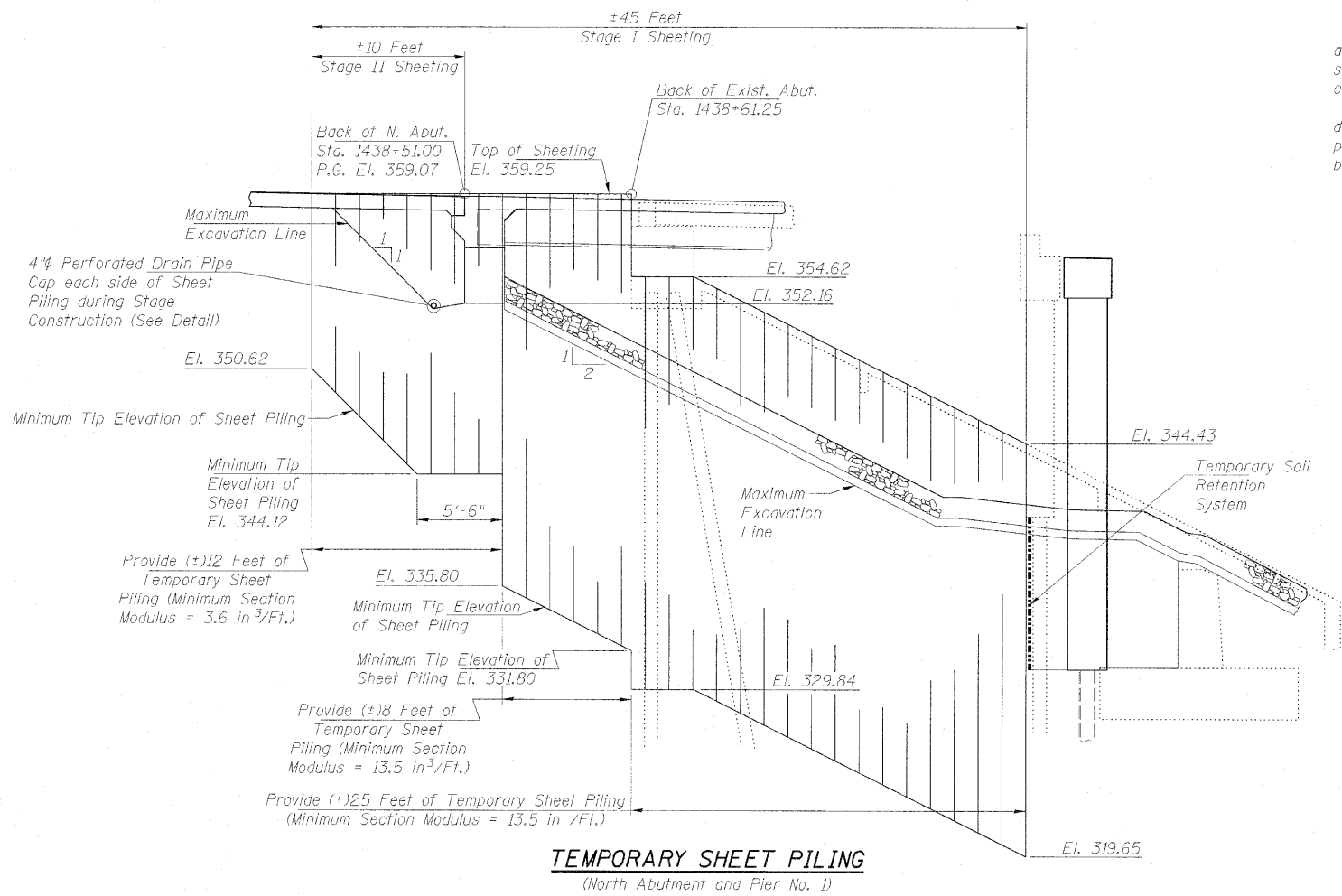
PROFESSIONAL DESIGN FIRM LICENSE #184-001084 © Copyright Hanson Professional Services Inc. 2010 Hanson Professional Services Inc.	NO. NO. 08H0131	SHEET NO. 2	F.A.P. RTE. 885	SECTION 6B-2	COUNTY Pope	TOTAL SHEETS 48	SHEET NO. 21
	DATE 05/21/10	29 SHEETS	ILLINOIS FED. AID PROJECT		CONTRACT NO. 78141		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**DRAIN PIPE DETAIL AT SHEET PILING**  
\*\*Included in the cost of Pipe Underdrains for Structures.

A cantilevered sheet piling design does not appear feasible at the piers and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.  
If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.  
See Sheet 4 & 5 of 29 for Limits of Temporary Soil Retention System.

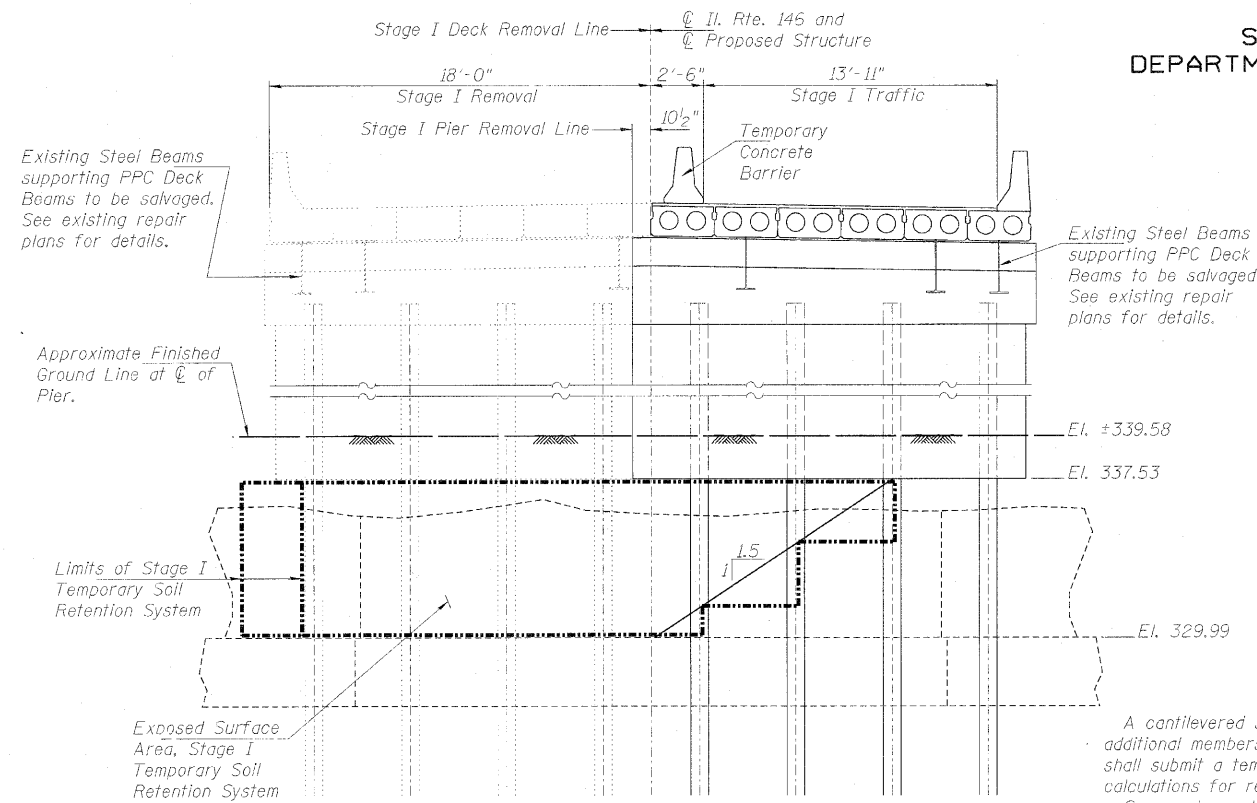


**TEMPORARY SHEET PILING**  
(South Abutment)

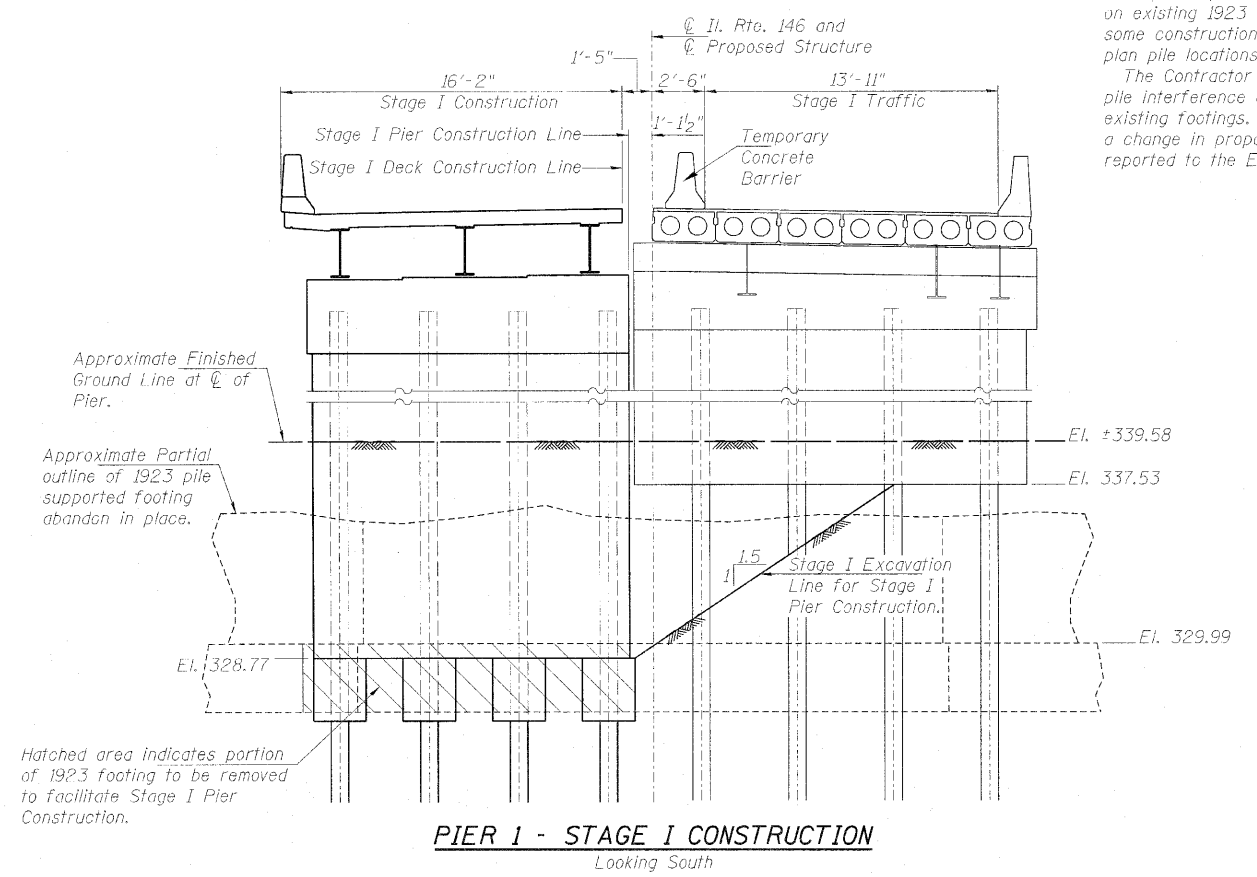
**SUBSTRUCTURE LAYOUT AND TEMPORARY SHEET PILING DETAILS**  
**STRUCTURE NO. 076-0029**

PROFESSIONAL DESIGN FIRM LICENSE #184-001084 © Copyright Hanson Professional Services Inc. 2010		DES. NO. 08H0131	SHEET NO. 3	F.A.P. RTE. 885	SECTION 6B-2	COUNTY Pope	TOTAL SHEETS 48	SHEET NO. 22
Hanson Professional Services Inc.		DATE 05/21/10	29 SHEETS	CONTRACT NO. 78141		ILLINOIS FED. AID PROJECT		

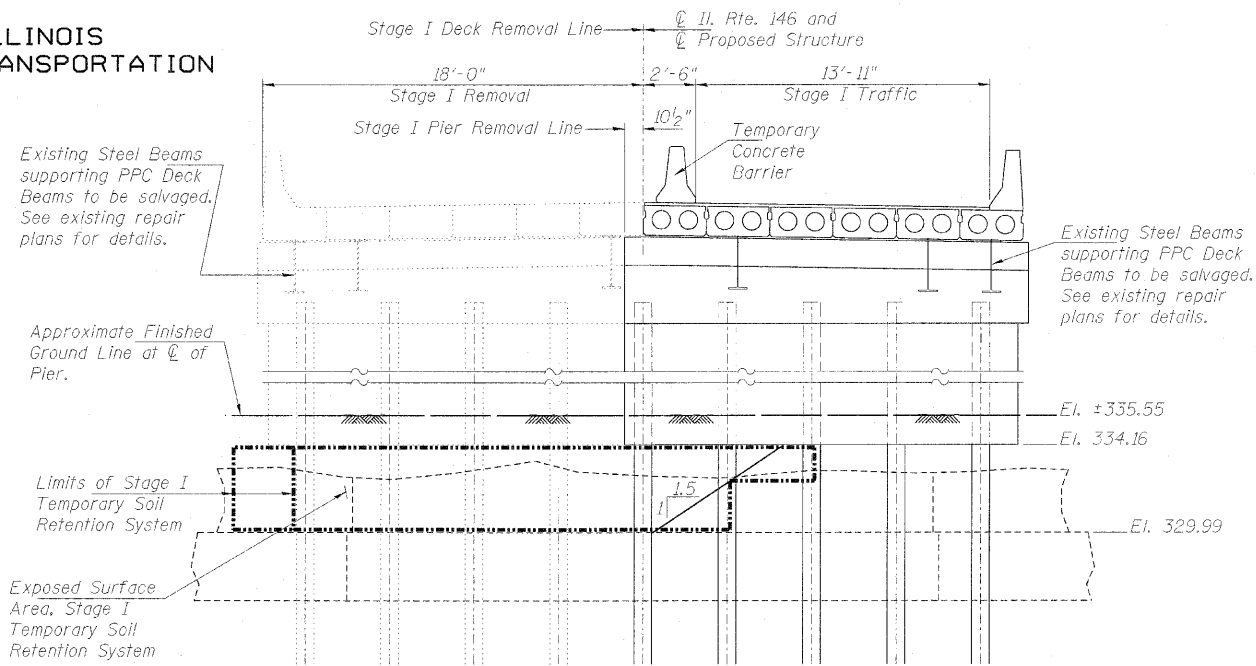
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



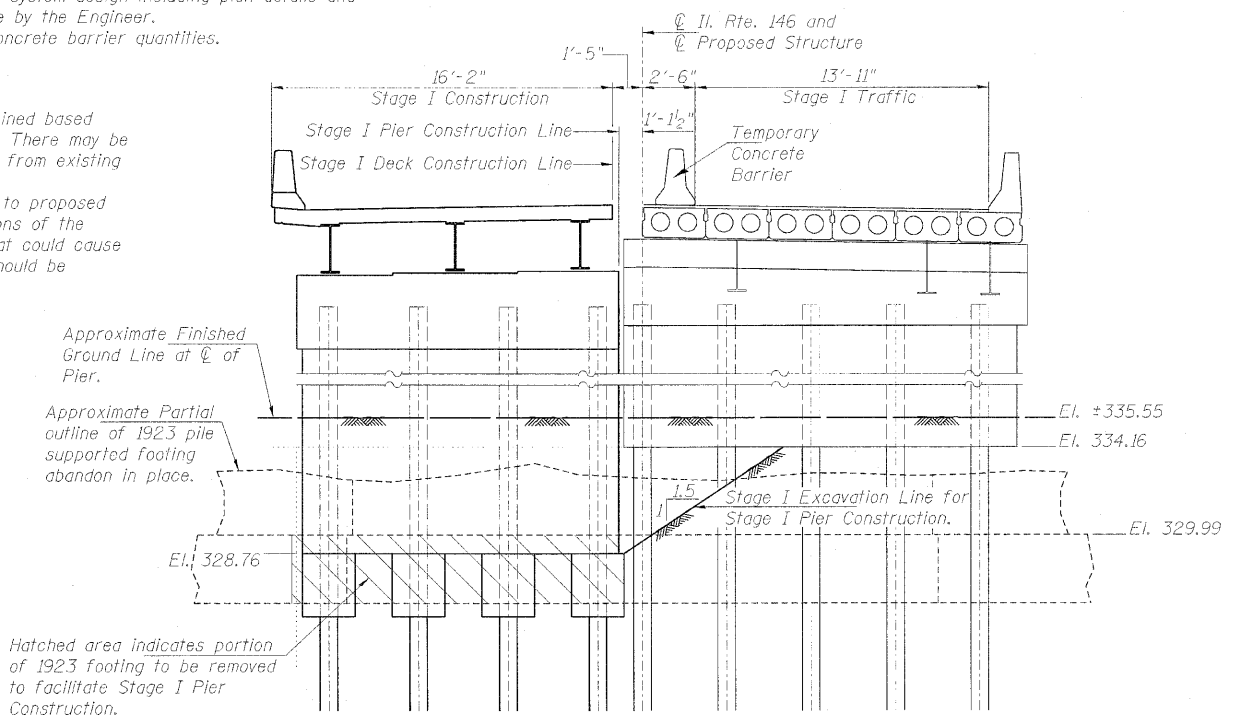
**PIER 1 - STAGE I REMOVAL**  
Looking South



**PIER 1 - STAGE I CONSTRUCTION**  
Looking South



**PIER 2 - STAGE I REMOVAL**  
Looking South



**PIER 2 - STAGE I CONSTRUCTION**  
Looking South

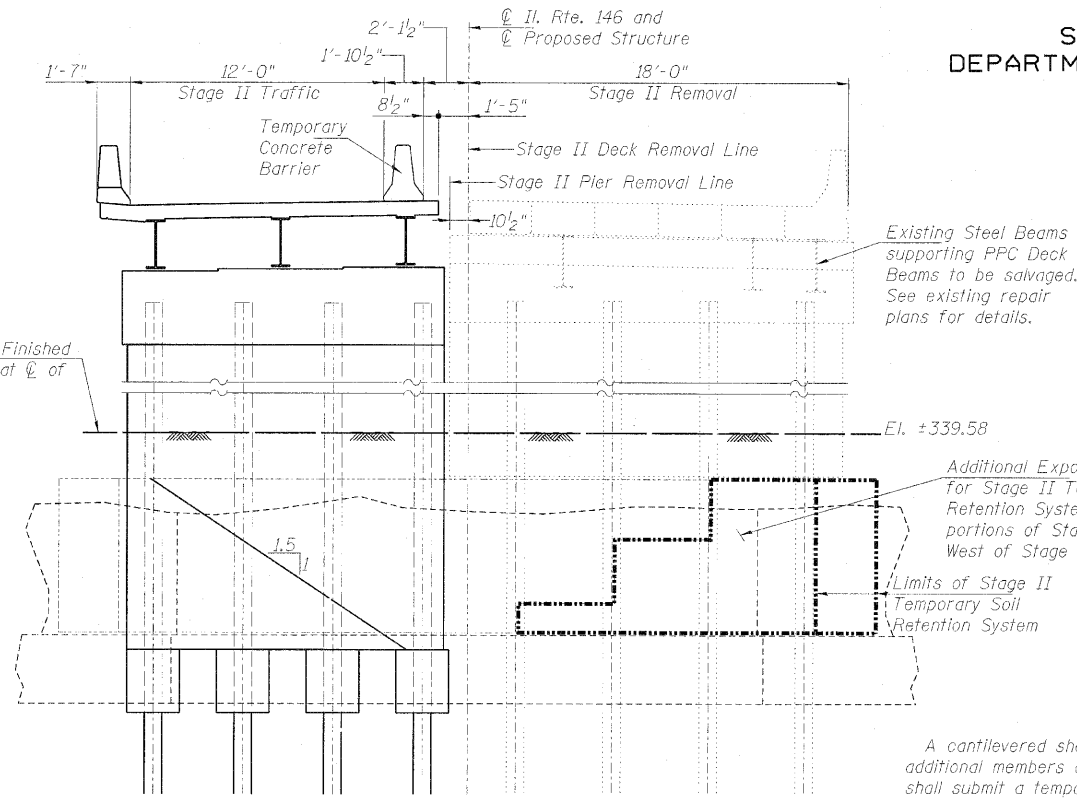
A cantilevered sheet piling design does not appear feasible at the piers and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.  
See roadway plans for temporary concrete barrier quantities.

**Note Well:**  
Proposed pile locations were determined based on existing 1923 & 1980 bridge plans. There may be some construction tolerance variations from existing plan pile locations.  
The Contractor shall check existing to proposed pile interference after removing portions of the existing footings. Any interferences that could cause a change in proposed pile locations should be reported to the Engineer.

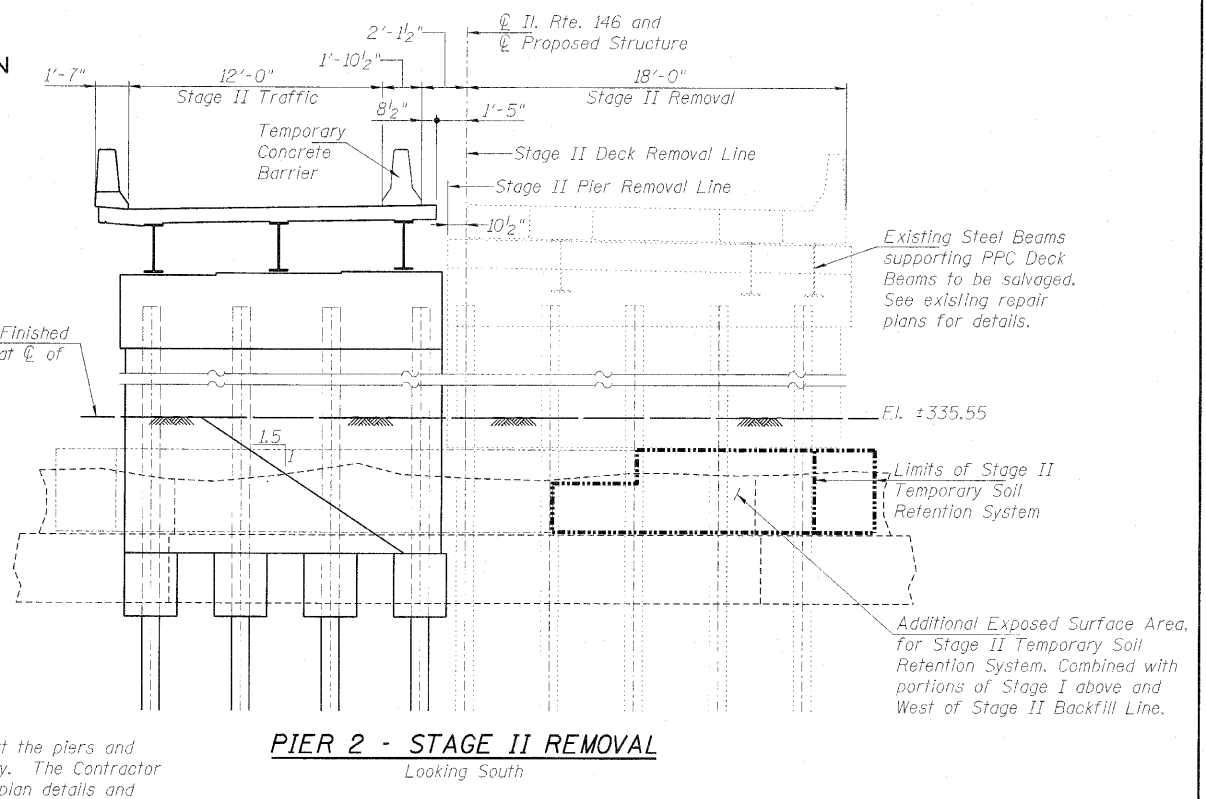
**STAGE I CONSTRUCTION DETAILS**  
**STRUCTURE NO. 076-0029**

PROFESSIONAL DESIGN FIRM LICENSE #184-001084		SHEET NO. 4		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
© Copyright Hanson Professional Services Inc. 2010		08H0131	29 SHEETS	885	6B-2	Pope	48	23
Hanson Professional Services Inc.		DATE 05/21/10	ILLINOIS FED. AID PROJECT		CONTRACT NO. 78141			

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

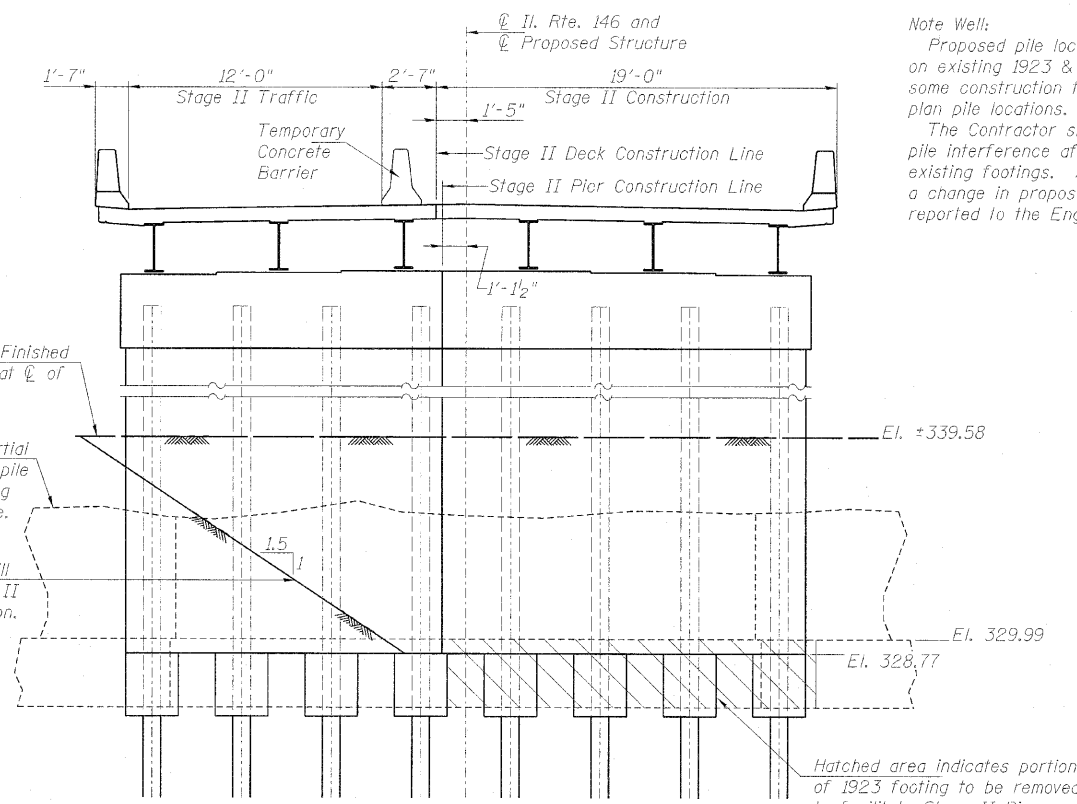


**PIER 1 - STAGE II REMOVAL**  
Looking South

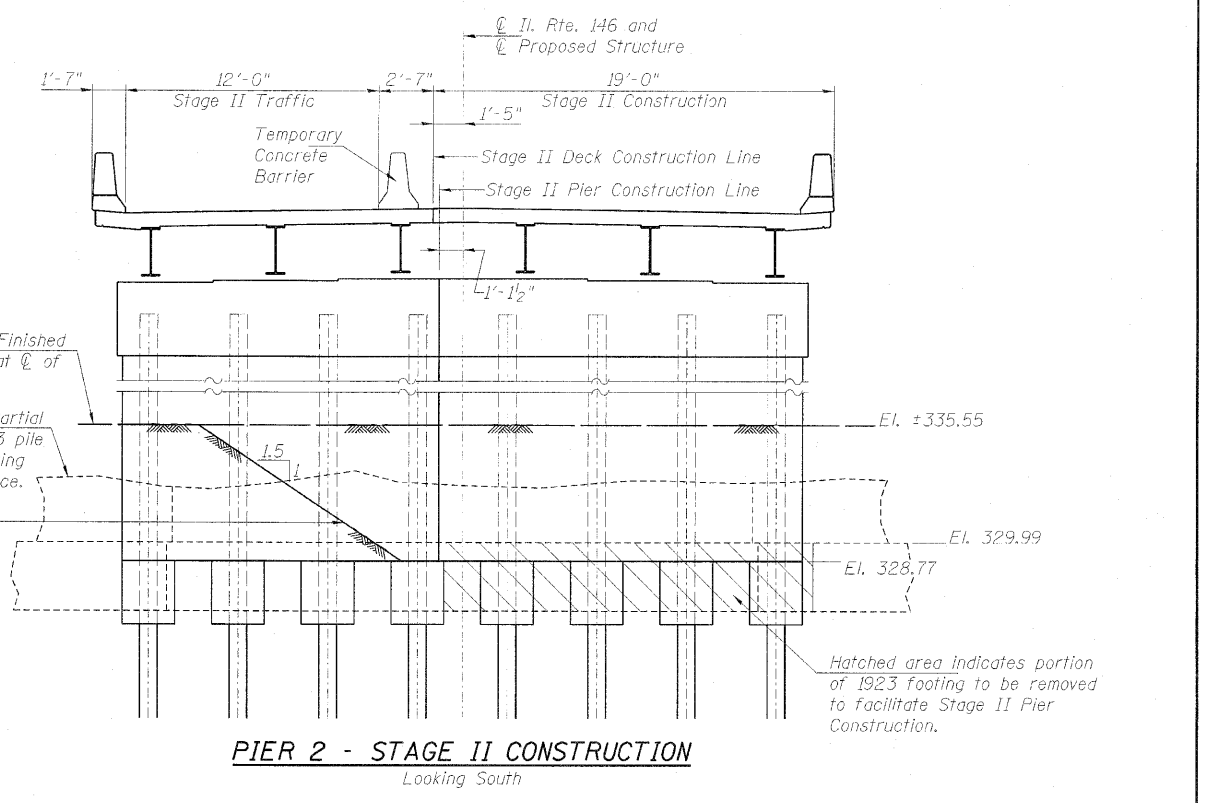


**PIER 2 - STAGE II REMOVAL**  
Looking South

A cantilevered sheet piling design does not appear feasible at the piers and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer. See roadway plans for temporary concrete barrier quantities.



**PIER 1 - STAGE II CONSTRUCTION**  
Looking South



**PIER 2 - STAGE II CONSTRUCTION**  
Looking South

Note Well:  
Proposed pile locations were determined based on existing 1923 & 1980 bridge plans. There may be some construction tolerance variations from existing plan pile locations. The Contractor shall check existing to proposed pile interference after removing portions of the existing footings. Any interferences that could cause a change in proposed pile locations should be reported to the Engineer.

Hatched area indicates portion of 1923 footing to be removed to facilitate Stage II Pier Construction.

**STAGE II CONSTRUCTION DETAILS**  
**STRUCTURE NO. 076-0029**

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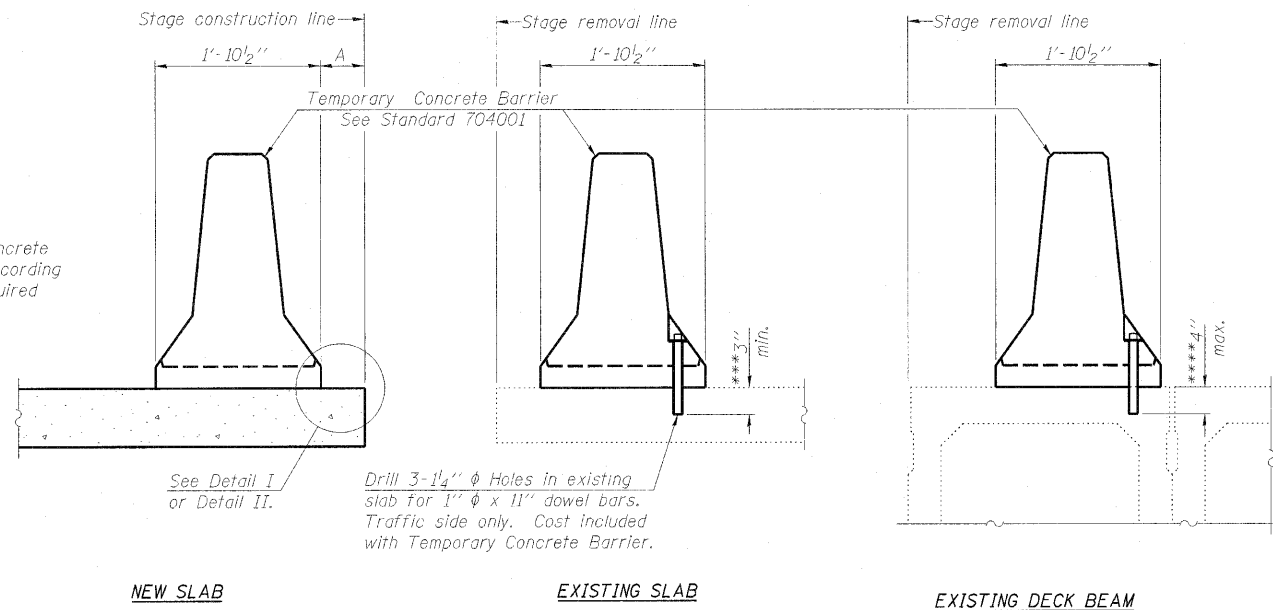


JOB NO. 08H0131	SHEET NO. 5	F.A.P. RTE. 885	SECTION 6B-2	COUNTY Pope	TOTAL SHEETS 48	SHEET NO. 24
DATE 05/21/10	29 SHEETS	CONTRACT NO. 78141		ILLINOIS FED. AID PROJECT		



STATE OF ILLINOIS  
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When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



Drill 3-1/4"  $\phi$  Holes in existing slab for 1"  $\phi$  x 11" dowel bars. Traffic side only. Cast included with Temporary Concrete Barrier.

**NOTES**

Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1" x 7" x 10" steel  $\bar{P}$  to the top layer of couplers with 2-5/8"  $\phi$  bolts screwed to coupler at approximate  $\bar{C}$  of each barrier panel.

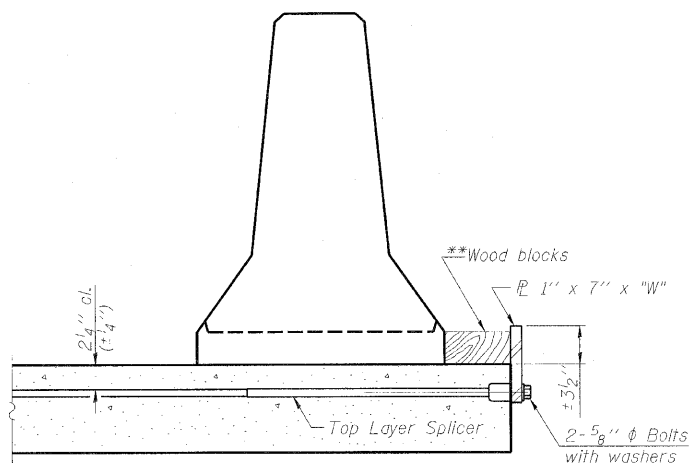
Detail II - With Extended Reinforcement Bars:  
Connect one (1) 1" x 7" x 10" steel  $\bar{P}$  to the concrete slab or concrete wearing surface with 2-5/8"  $\phi$  Expansion Anchors or cast in place Inserts spaced between the top layer of reinforcement at approximate  $\bar{C}$  of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

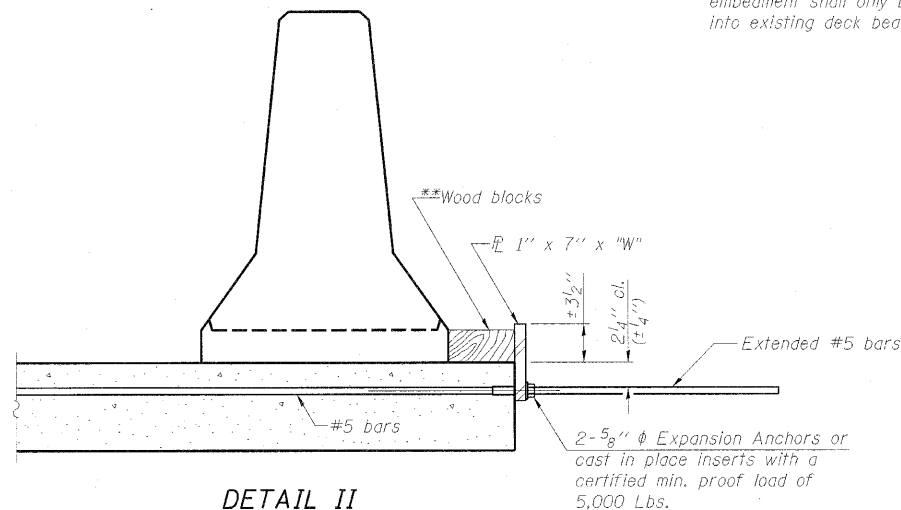
**SECTIONS THRU SLAB OR DECK BEAM**

\*\*\* Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

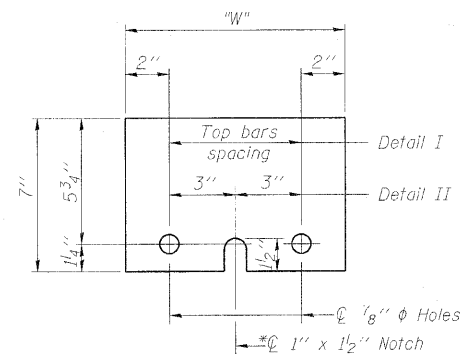
\*\*\*\* If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



**DETAIL I**



**DETAIL II**



**STEEL RETAINER  $\bar{P}$  1" x 7" x 10"**

\* Required only with Detail II

\*\* Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

**TEMPORARY CONCRETE BARRIER  
FOR STAGE CONSTRUCTION  
STRUCTURE NO. 076-0029**

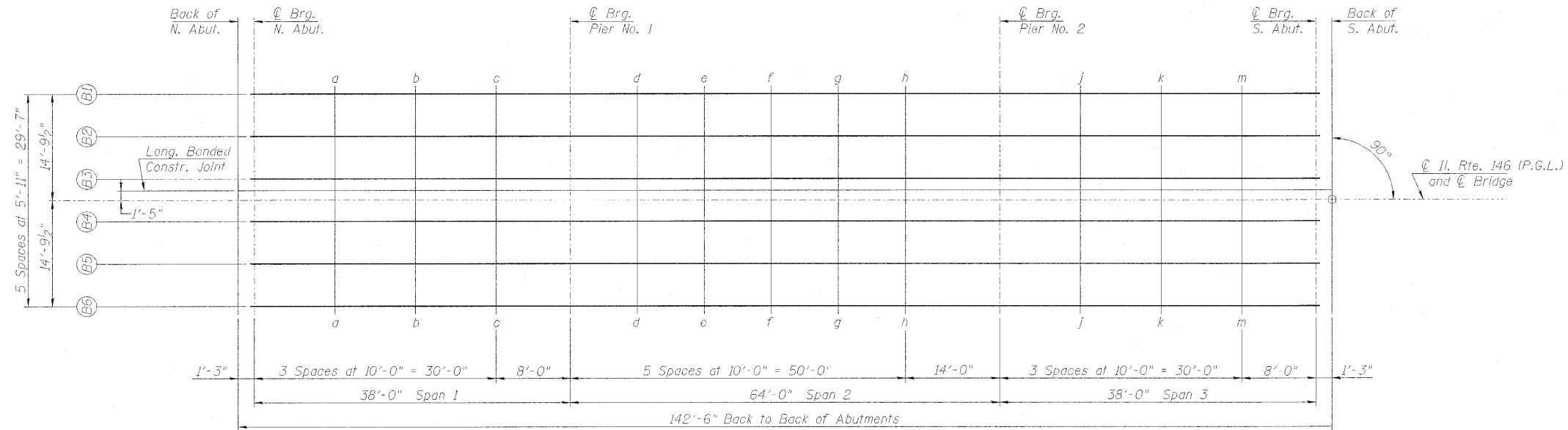
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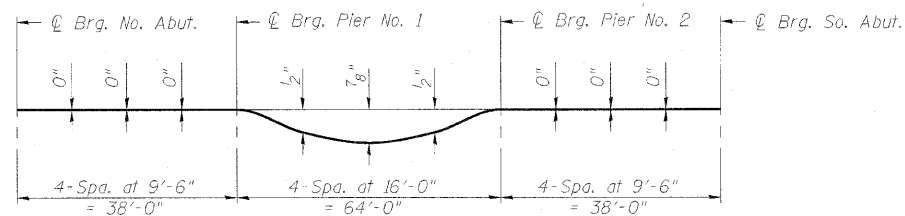


JOB NO. 08H0131	SHEET NO. 6	F.A.P. RTE. 885	SECTION 6B-2	COUNTY Pope	TOTAL SHEETS 48	SHEET NO. 25
DATE 05/21/10	29 SHEETS	CONTRACT NO. 78141		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



DIAGRAMMATIC PLAN

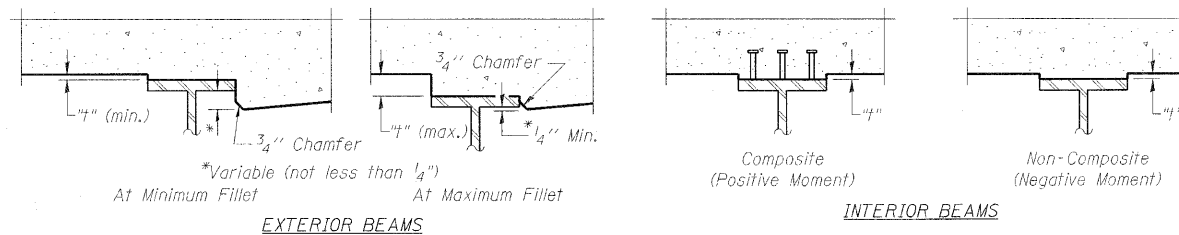


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheets 8 & 9 of 29.



EXTERIOR BEAMS

INTERIOR BEAMS

To determine "h": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets 8 & 9 of 29, minus 8" slab thickness, equals the fillet heights "h" above top flange of beams.

FILLET HEIGHTS

TOP OF SLAB ELEVATIONS  
(Sheet 1 of 3)  
STRUCTURE NO. 076-0029

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JOB NO. 08H0131	SHEET NO. 7	F.A.P. RTE. 885	SECTION 6B-2	COUNTY Pope	TOTAL SHEETS 48	SHEET NO. 26
DATE 05/21/10	29 SHEETS	ILLINOIS FED. AID PROJECT		CONTRACT NO. 78141		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**BEAM 1**

Location	Station	Offset	Theoretical Grade Elevations	Theo. Grade Elevations Adj. for D.L. Deflection
Bk. No. Abut.	1438+51.00	-14.79	358.84	358.84
⊕ Brg. No. Abut	1438+52.25	-14.79	358.82	358.82
a	1438+62.25	-14.79	358.67	358.67
b	1438+72.25	-14.79	358.53	358.53
c	1438+82.25	-14.79	358.40	358.40
⊕ Brg. Pier No. 1	1438+90.25	-14.79	358.30	358.30
d	1439+00.25	-14.79	358.19	358.22
e	1439+10.25	-14.79	358.08	358.13
f	1439+20.25	-14.79	357.99	358.05
g	1439+30.25	-14.79	357.90	357.95
h	1439+40.25	-14.79	357.81	357.85
⊕ Brg Pier No. 2	1439+54.25	-14.79	357.72	357.72
j	1439+64.25	-14.79	357.65	357.65
k	1439+74.25	-14.79	357.60	357.60
m	1439+84.25	-14.79	357.56	357.56
⊕ Brg. So. Abut.	1439+92.25	-14.79	357.53	357.53
Bk. So. Abut.	1439+93.50	-14.79	357.53	357.53

**BEAM 2**

Location	Station	Offset	Theoretical Grade Elevations	Theo. Grade Elevations Adj. for D.L. Deflection
Bk. No. Abut.	1438+51.00	-8.88	358.94	358.94
⊕ Brg. No. Abut	1438+52.25	-8.88	358.92	358.92
a	1438+62.25	-8.88	358.77	358.78
b	1438+72.25	-8.88	358.63	358.63
c	1438+82.25	-8.88	358.50	358.50
⊕ Brg. Pier No. 1	1438+90.25	-8.88	358.41	358.41
d	1439+00.25	-8.88	358.29	358.32
e	1439+10.25	-8.88	358.19	358.24
f	1439+20.25	-8.88	358.09	358.16
g	1439+30.25	-8.88	358.00	358.06
h	1439+40.25	-8.88	357.92	357.96
⊕ Brg Pier No. 2	1439+54.25	-8.88	357.82	357.82
j	1439+64.25	-8.88	357.76	357.75
k	1439+74.25	-8.88	357.70	357.71
m	1439+84.25	-8.88	357.66	357.66
⊕ Brg. So. Abut.	1439+92.25	-8.88	357.63	357.63
Bk. So. Abut.	1439+93.50	-8.88	357.63	357.63


**BEAM 3**

Location	Station	Offset	Theoretical Grade Elevations	Theo. Grade Elevations Adj. for D.L. Deflection
Bk. No. Abut.	1438+51.00	-2.96	359.03	359.03
⊕ Brg. No. Abut	1438+52.25	-2.96	359.01	359.01
a	1438+62.25	-2.96	358.86	358.86
b	1438+72.25	-2.96	358.72	358.72
c	1438+82.25	-2.96	358.59	358.59
⊕ Brg. Pier No. 1	1438+90.25	-2.96	358.50	358.50
d	1439+00.25	-2.96	358.38	358.41
e	1439+10.25	-2.96	358.27	358.33
f	1439+20.25	-2.96	358.18	358.24
g	1439+30.25	-2.96	358.09	358.15
h	1439+40.25	-2.96	358.01	358.05
⊕ Brg Pier No. 2	1439+54.25	-2.96	357.91	357.91
j	1439+64.25	-2.96	357.85	357.84
k	1439+74.25	-2.96	357.79	357.79
m	1439+84.25	-2.96	357.75	357.75
⊕ Brg. So. Abut.	1439+92.25	-2.96	357.72	357.72
Bk. So. Abut.	1439+93.50	-2.96	357.72	357.72

**LONGITUDINAL BONDED CONSTRUCTION JOINT**

Location	Station	Offset	Theoretical Grade Elevations	Theo. Grade Elevations Adj. for D.L. Deflection
Bk. No. Abut.	1438+51.00	-1.42	359.05	359.05
⊕ Brg. No. Abut	1438+52.25	-1.42	359.03	359.03
a	1438+62.25	-1.42	358.88	358.89
b	1438+72.25	-1.42	358.75	358.75
c	1438+82.25	-1.42	358.62	358.61
⊕ Brg. Pier No. 1	1438+90.25	-1.42	358.52	358.52
d	1439+00.25	-1.42	358.40	358.43
e	1439+10.25	-1.42	358.30	358.35
f	1439+20.25	-1.42	358.20	358.27
g	1439+30.25	-1.42	358.11	358.17
h	1439+40.25	-1.42	358.03	358.07
⊕ Brg Pier No. 2	1439+54.25	-1.42	357.93	357.93
j	1439+64.25	-1.42	357.87	357.87
k	1439+74.25	-1.42	357.82	357.82
m	1439+84.25	-1.42	357.77	357.78
⊕ Brg. So. Abut.	1439+92.25	-1.42	357.74	357.74
Bk. So. Abut.	1439+93.50	-1.42	357.74	357.74

**TOP OF SLAB ELEVATIONS**  
**(Sheet 2 of 3)**  
**STRUCTURE NO. 076-0029**

PROFESSIONAL DESIGN FIRM LICENSE #184-001084		JOB NO. 08H0131		SHEET NO. 8		F.A.P. RTE. 885		SECTION 6B-2		COUNTY Pope		TOTAL SHEETS 48		SHEET NO. 27	
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BEAM 4


BEAM 5

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theo. Grade Elevations Adj. for D.L. Deflection	Location	Station	Offset	Theoretical Grade Elevations	Theo. Grade Elevations Adj. for D.L. Deflection	Location	Station	Offset	Theoretical Grade Elevations	Theo. Grade Elevations Adj. for D.L. Deflection	Location	Station	Offset	Theoretical Grade Elevations	Theo. Grade Elevations Adj. for D.L. Deflection
Bk. No. Abut.	1438+51.00	0.00	359.07	359.07	Bk. No. Abut.	1438+51.00	2.96	359.03	359.03	Bk. No. Abut.	1438+51.00	8.88	358.94	358.94	Bk. No. Abut.	1438+51.00	14.79	358.84	358.84
☉ Brg. No. Abut	1438+52.25	0.00	359.05	359.05	☉ Brg. No. Abut	1438+52.25	2.96	359.01	359.01	☉ Brg. No. Abut	1438+52.25	8.88	358.92	358.92	☉ Brg. No. Abut	1438+52.25	14.79	358.82	358.82
a	1438+62.25	0.00	358.91	358.91	a	1438+62.25	2.96	358.86	358.86	a	1438+62.25	8.88	358.77	358.78	a	1438+62.25	14.79	358.67	358.67
b	1438+72.25	0.00	358.77	358.77	b	1438+72.25	2.96	358.72	358.72	b	1438+72.25	8.88	358.63	358.63	b	1438+72.25	14.79	358.53	358.53
c	1438+82.25	0.00	358.64	358.63	c	1438+82.25	2.96	358.59	358.59	c	1438+82.25	8.88	358.50	358.50	c	1438+82.25	14.79	358.40	358.40
☉ Brg. Pier No. 1	1438+90.25	0.00	358.54	358.54	☉ Brg. Pier No. 1	1438+90.25	2.96	358.50	358.50	☉ Brg. Pier No. 1	1438+90.25	8.88	358.41	358.41	☉ Brg. Pier No. 1	1438+90.25	14.79	358.30	358.30
d	1439+00.25	0.00	358.43	358.45	d	1439+00.25	2.96	358.38	358.41	d	1439+00.25	8.88	358.29	358.32	d	1439+00.25	14.79	358.19	358.22
e	1439+10.25	0.00	358.32	358.37	e	1439+10.25	2.96	358.27	358.33	e	1439+10.25	8.88	358.19	358.24	e	1439+10.25	14.79	358.08	358.13
f	1439+20.25	0.00	358.22	358.29	f	1439+20.25	2.96	358.18	358.24	f	1439+20.25	8.88	358.09	358.16	f	1439+20.25	14.79	357.99	358.05
g	1439+30.25	0.00	358.13	358.19	g	1439+30.25	2.96	358.09	358.15	g	1439+30.25	8.88	358.00	358.06	g	1439+30.25	14.79	357.90	357.95
h	1439+40.25	0.00	358.05	358.09	h	1439+40.25	2.96	358.01	358.05	h	1439+40.25	8.88	357.92	357.96	h	1439+40.25	14.79	357.81	357.85
☉ Brg Pier No. 2	1439+54.25	0.00	357.95	357.95	☉ Brg Pier No. 2	1439+54.25	2.96	357.91	357.91	☉ Brg Pier No. 2	1439+54.25	8.88	357.82	357.82	☉ Brg Pier No. 2	1439+54.25	14.79	357.72	357.72
j	1439+64.25	0.00	357.89	357.89	j	1439+64.25	2.96	357.85	357.84	j	1439+64.25	8.88	357.76	357.75	j	1439+64.25	14.79	357.65	357.65
k	1439+74.25	0.00	357.84	357.84	k	1439+74.25	2.96	357.79	357.79	k	1439+74.25	8.88	357.70	357.71	k	1439+74.25	14.79	357.60	357.60
m	1439+84.25	0.00	357.79	357.80	m	1439+84.25	2.96	357.75	357.75	m	1439+84.25	8.88	357.66	357.66	m	1439+84.25	14.79	357.56	357.56
☉ Brg. So. Abut.	1439+92.25	0.00	357.76	357.76	☉ Brg. So. Abut.	1439+92.25	2.96	357.72	357.72	☉ Brg. So. Abut.	1439+92.25	8.88	357.63	357.63	☉ Brg. So. Abut.	1439+92.25	14.79	357.53	357.53
Bk. So. Abut.	1439+93.50	0.00	357.76	357.76	Bk. So. Abut.	1439+93.50	2.96	357.72	357.72	Bk. So. Abut.	1439+93.50	8.88	357.63	357.63	Bk. So. Abut.	1439+93.50	14.79	357.53	357.53

TOP OF SLAB ELEVATIONS  
(Sheet 3 of 3)  
STRUCTURE NO. 076-0029

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 Hanson Professional Services Inc.	JOB NO. 08H0131	SHEET NO. 9	F.A.P. RTE. 885	SECTION 6B-2	COUNTY Pope	TOTAL SHEETS 48	SHEET NO. 28
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STATE OF ILLINOIS  
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EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
Free End of North Appr.	1438+21.00	-16.00	359.28
'A'	1438+31.00	-16.00	359.12
'B'	1438+41.00	-16.00	358.97
Abut. End of North Appr.	1438+51.00	-16.00	358.81

EAST EDGE OF PAVEMENT

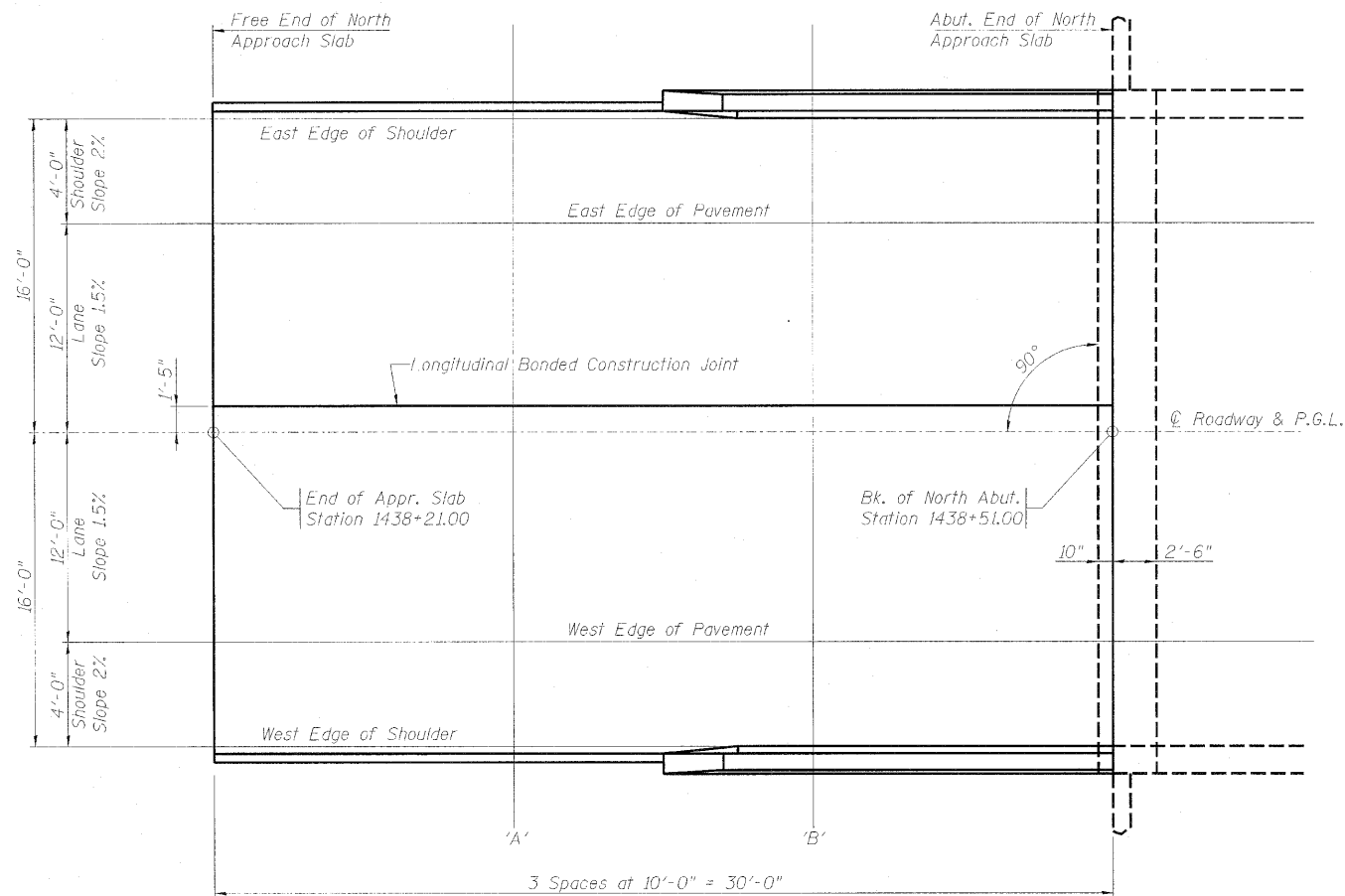
Location	Station	Offset	Theoretical Grade Elevations
Free End of North Appr.	1438+21.00	-12.00	359.36
'A'	1438+31.00	-12.00	359.20
'B'	1438+41.00	-12.00	359.05
Abut. End of North Appr.	1438+51.00	-12.00	358.89

LONGITUDINAL BONDED CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
Free End of North Appr.	1438+21.00	-1.42	359.52
'A'	1438+31.00	-1.42	359.36
'B'	1438+41.00	-1.42	359.21
Abut. End of North Appr.	1438+51.00	-1.42	359.05

☉ ROADWAY & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
Free End of North Appr.	1438+21.00	0.00	359.54
'A'	1438+31.00	0.00	359.38
'B'	1438+41.00	0.00	359.23
Abut. End of North Appr.	1438+51.00	0.00	359.07

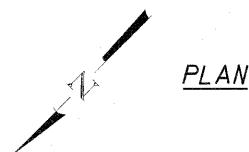


WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Free End of North Appr.	1438+21.00	12.00	359.36
'A'	1438+31.00	12.00	359.20
'B'	1438+41.00	12.00	359.05
Abut. End of North Appr.	1438+51.00	12.00	358.89

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
Free End of North Appr.	1438+21.00	16.00	359.28
'A'	1438+31.00	16.00	359.12
'B'	1438+41.00	16.00	358.97
Abut. End of North Appr.	1438+51.00	16.00	358.81



TOP OF APPROACH SLAB ELEVATIONS  
NORTH APPROACH SLAB  
STRUCTURE NO. 076-0029

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HANSON Hanson Professional Services Inc.	DATE 05/21/10	29 SHEETS	CONTRACT NO. 78141		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
Abut. End of South Appr.	1439+93.50	-16.00	357.50
'A'	1440+03.50	-16.00	357.47
'B'	1440+13.50	-16.00	357.45
Free End of South Appr.	1440+23.50	-16.00	357.44

EAST EDGE OF PAVEMENT

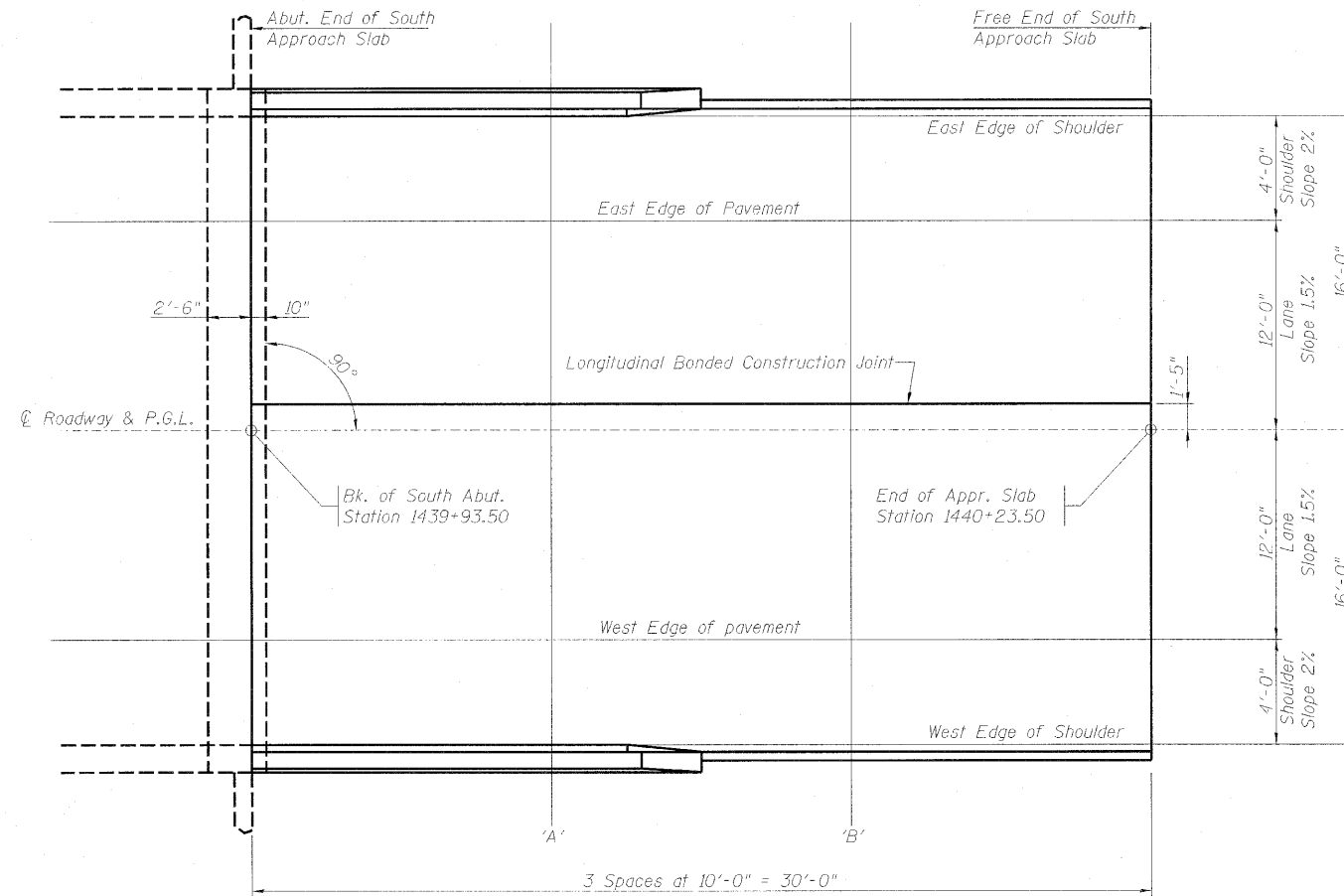
Location	Station	Offset	Theoretical Grade Elevations
Abut. End of South Appr.	1439+93.50	-12.00	357.58
'A'	1440+03.50	-12.00	357.55
'B'	1440+13.50	-12.00	357.53
Free End of South Appr.	1440+23.50	-12.00	357.52

LONGITUDINAL BONDED CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
Abut. End of South Appr.	1439+93.50	-1.42	357.74
'A'	1440+03.50	-1.42	357.71
'B'	1440+13.50	-1.42	357.69
Free End of South Appr.	1440+23.50	-1.42	357.68

℄ ROADWAY & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
Abut. End of South Appr.	1439+93.50	0.00	357.76
'A'	1440+03.50	0.00	357.73
'B'	1440+13.50	0.00	357.71
Free End of South Appr.	1440+23.50	0.00	357.70



WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Abut. End of South Appr.	1439+93.50	12.00	357.58
'A'	1440+03.50	12.00	357.55
'B'	1440+13.50	12.00	357.53
Free End of South Appr.	1440+23.50	12.00	357.52

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
Abut. End of South Appr.	1439+93.50	16.00	357.50
'A'	1440+03.50	16.00	357.47
'B'	1440+13.50	16.00	357.45
Free End of South Appr.	1440+23.50	16.00	357.44

PLAN

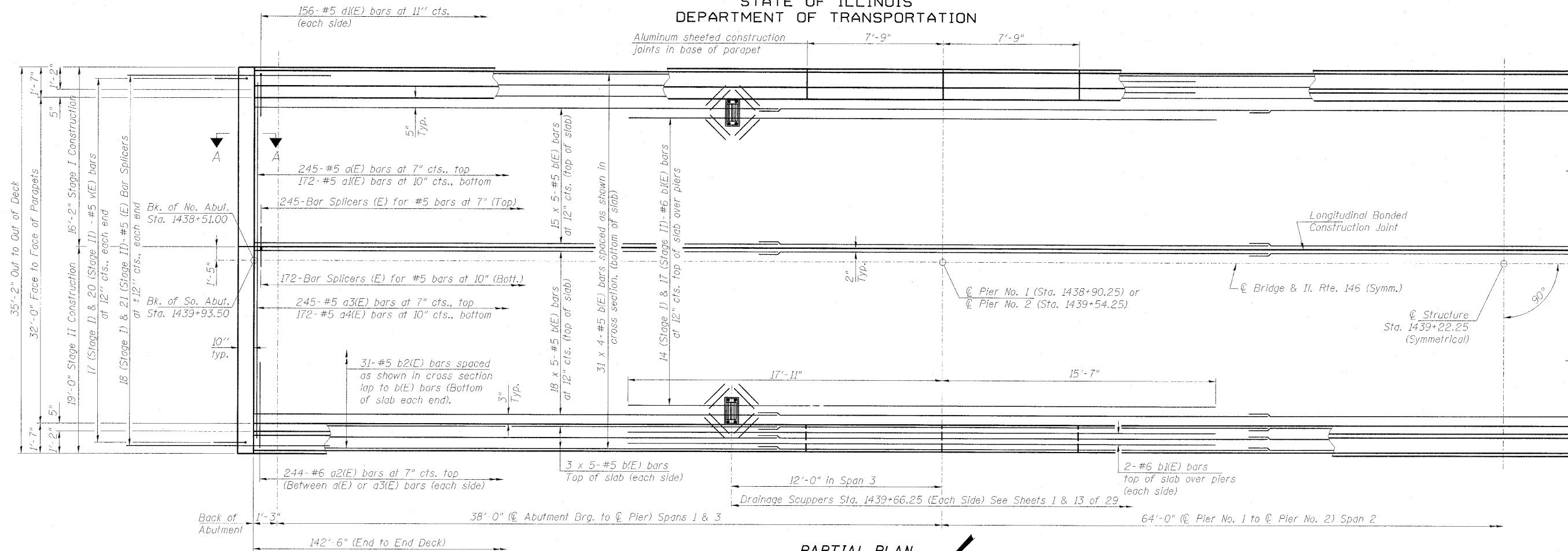
TOP OF APPROACH SLAB ELEVATIONS  
SOUTH APPROACH SLAB  
STRUCTURE NO. 076-0029

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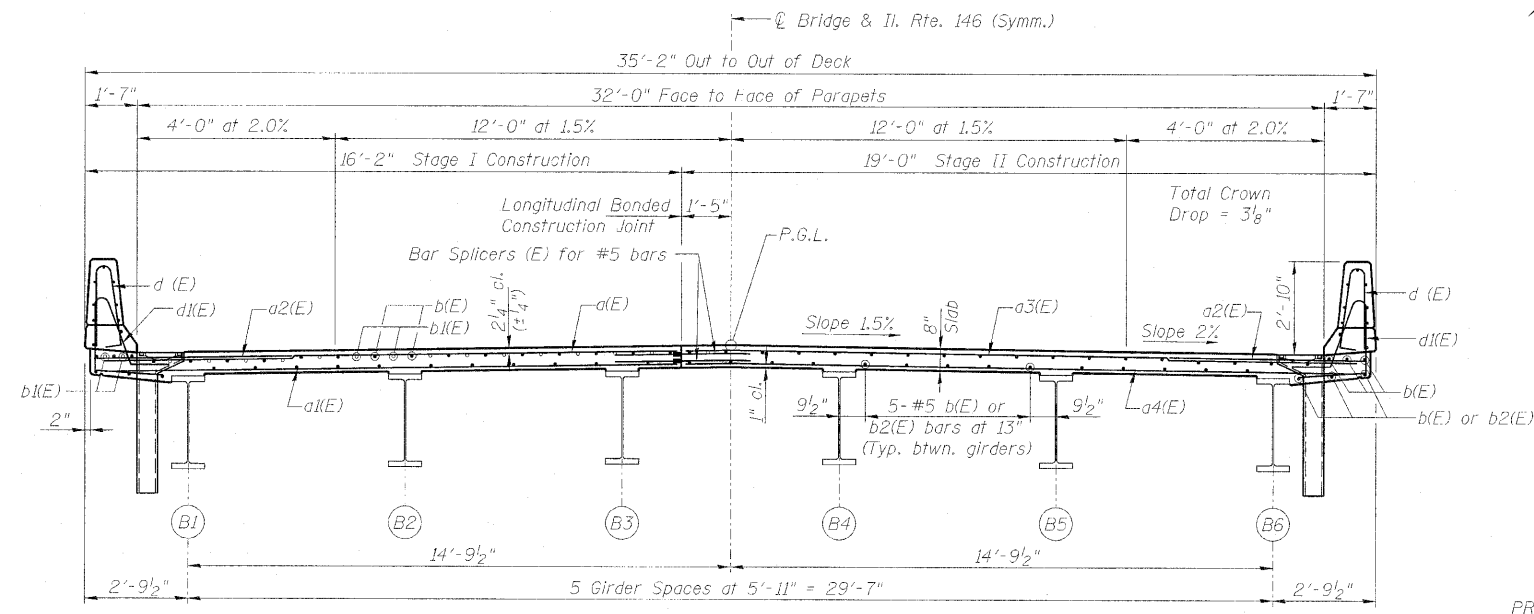


JOB NO. 08H0131	SHEET NO. 11	F.A.P. RTE. 885	SECTION 6B-2	COUNTY Pope	TOTAL SHEETS 48	SHEET NO. 30
DATE 05/21/10	29 SHEETS	CONTRACT NO. 78141		ILLINOIS FED. AID PROJECT		

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PARTIAL PLAN



DECK CROSS SECTION  
(Looking South)

Notes:  
See Sheet 13 of 29 for superstructure details, bar laps and Bill of Material.  
Bars indicated thus 15 x 5-#5 etc. indicates 15 lines of bars with 5 lengths per line.  
See Sheet 13 of 29 for parapet reinforcement.  
See Sheet 14 of 29 for Section A-A.

MINIMUM BAR LAP

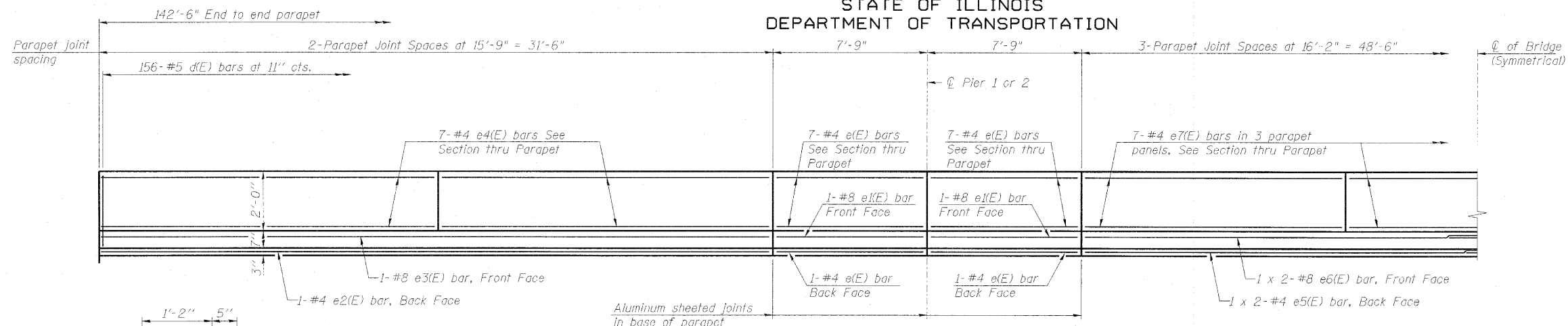
- #4 bar = 2'-0"
- #5 bar = 3'-3"
- #8 bar = 5'-2"

SUPERSTRUCTURE  
STRUCTURE NO. 076-0029

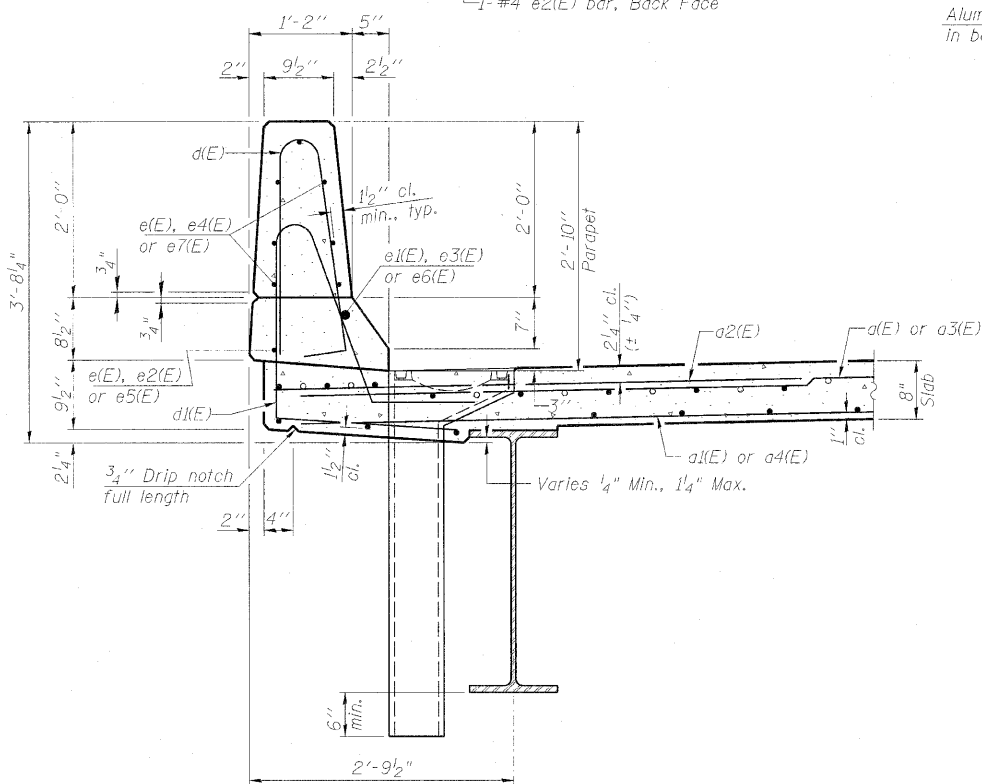
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Hanson Professional Services Inc.		DATE 05/21/10	29 SHEETS	CONTRACT NO. 78141		ILLINOIS FED. AID PROJECT		



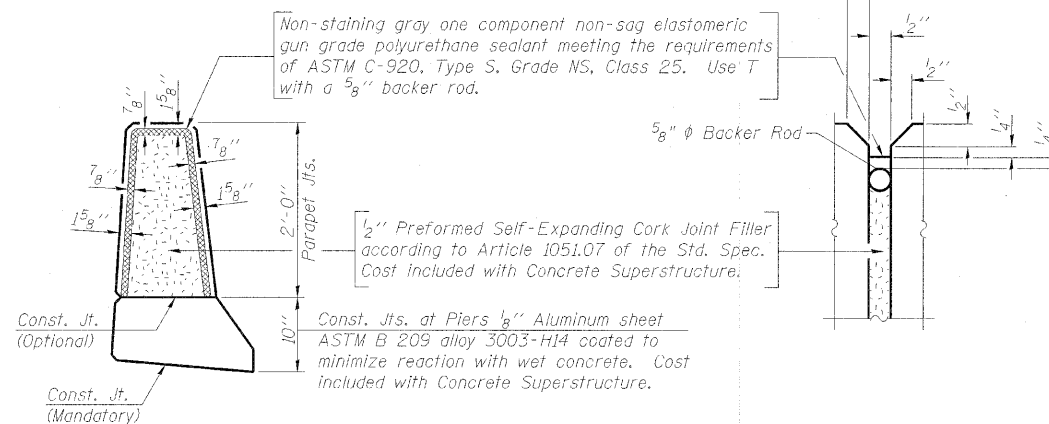
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INSIDE ELEVATION OF PARAPET



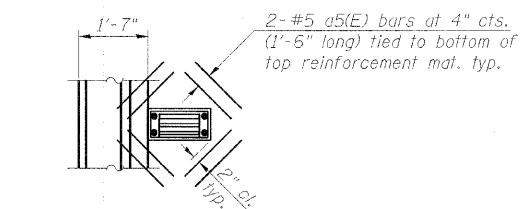
SECTION THRU PARAPET



PARAPET JOINT DETAILS

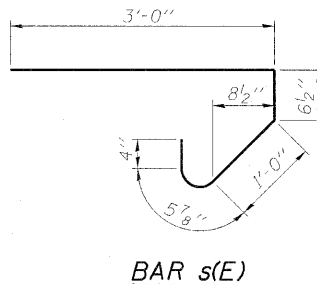
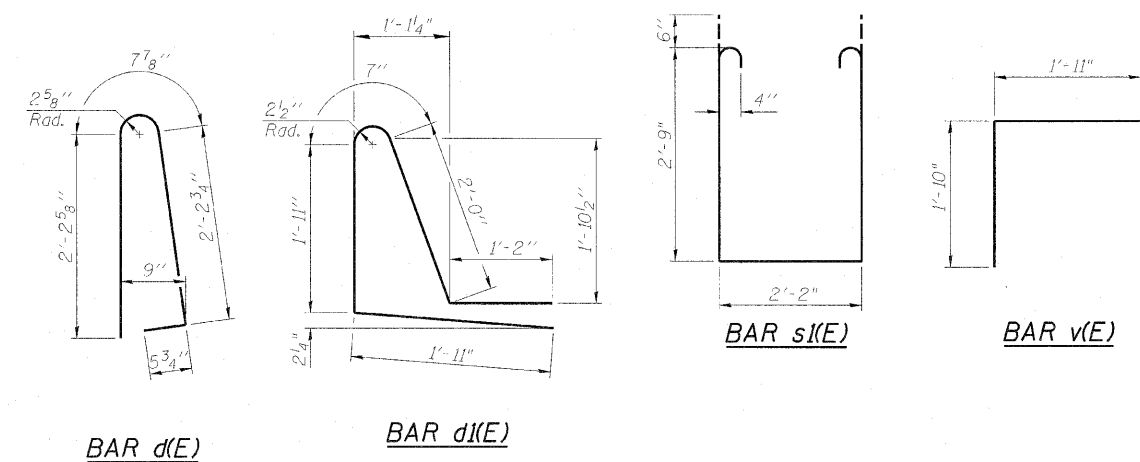
MINIMUM BAR LAP

- #4 bar = 2'-0"
- #5 bar = 3'-3"
- #8 bar = 5'-2"



PLAN - REINFORCEMENT  
TREATMENT AT SCUPPERS

Note:  
Cut longitudinal reinforcement to clear drainage scuppers.



BAR s(E)

SUPERSTRUCTURE  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	245	#5	15'-8"	—
d1(E)	172	#5	15'-0"	—
a2(E)	488	#6	6'-6"	—
a3(E)	245	#5	18'-6"	—
a4(E)	172	#5	17'-10"	—
a5(E)	16	#5	1'-6"	—
b(E)	319	#5	31'-1"	—
b1(E)	70	#6	33'-6"	—
b2(E)	62	#5	17'-1"	—
d(E)	312	#5	5'-7"	⌋
d1(E)	312	#5	7'-7"	⌋
e(E)	64	#4	7'-5"	—
e1(E)	8	#8	7'-5"	—
e2(E)	4	#4	31'-2"	—
e3(E)	4	#8	31'-2"	—
e4(E)	56	#4	15'-5"	—
e5(E)	4	#4	25'-1"	—
e6(E)	4	#8	26'-8"	—
e7(E)	42	#4	15'-10"	—
m(E)	10	#6	15'-10"	—
m1(E)	24	#6	9'-3"	—
m2(E)	8	#6	5'-7"	—
m3(E)	4	#6	2'-5"	—
m4(E)	2	#6	1'-3"	—
m5(E)	10	#6	18'-8"	—
m6(E)	2	#6	4'-1"	—
s(E)	72	#5	5'-4"	⌋
s1(E)	72	#4	8'-8"	⌋
v(E)	74	#5	3'-9"	⌋
Reinforcement Bars, Epoxy Coated		Pound	42980	
Concrete Superstructure		Cu. Yds.	185.5	

Bars indicated thus 1 x 3 -#5 etc. indicates 1 line of bars with 3 lengths per line.

SUPERSTRUCTURE DETAILS  
STRUCTURE NO. 076-0029

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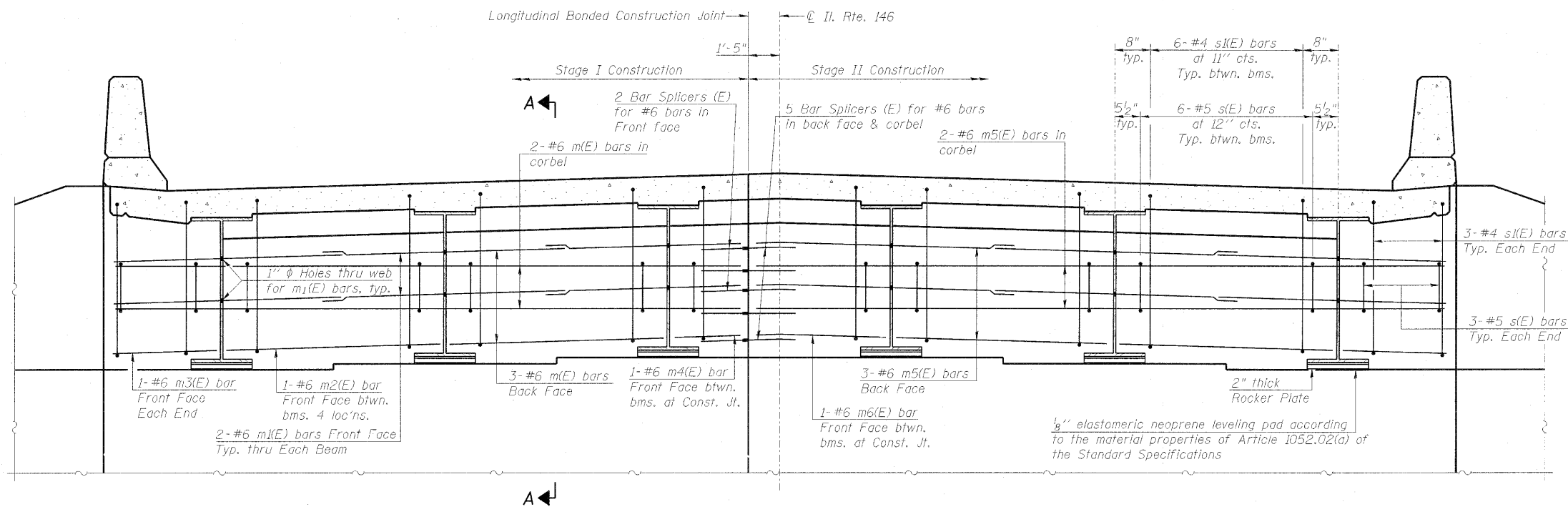
**HANSON**  
Hanson Professional Services Inc.

JOB NO. 08H0131  
DATE 05/21/10

SHEET NO. 13  
29 SHEETS

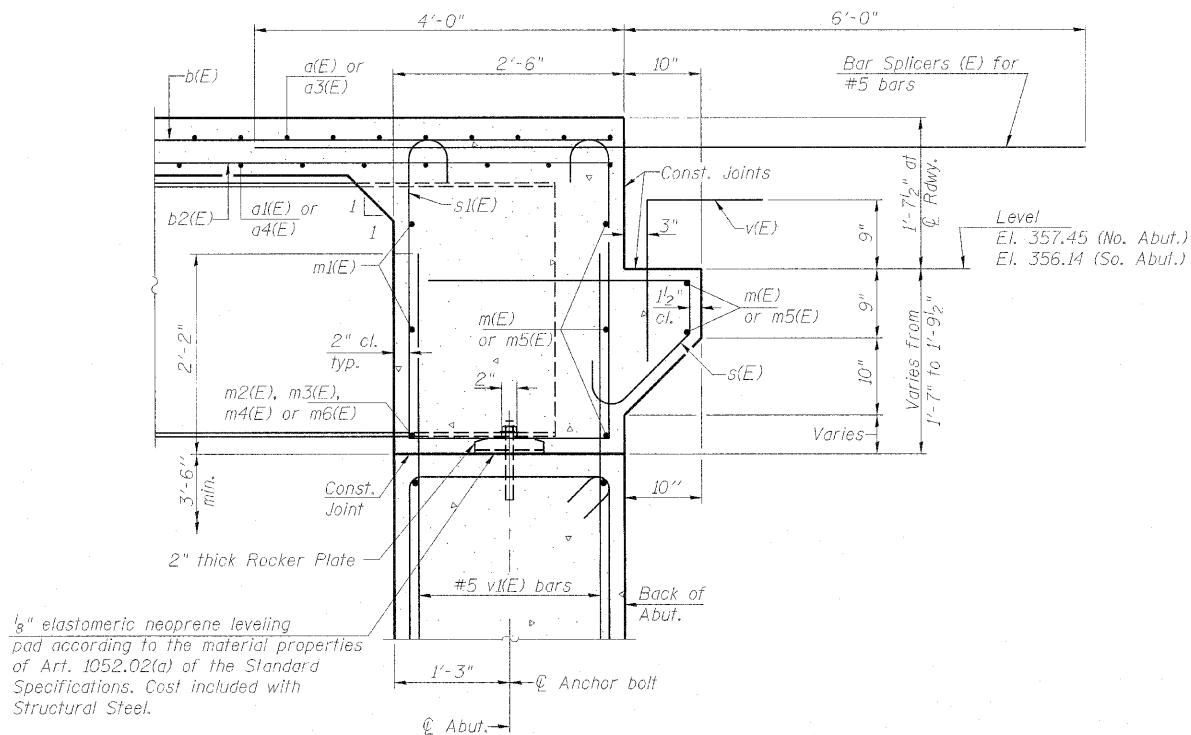
F.A.P. RTE. 885	SECTION 6B-2	COUNTY Pope	TOTAL SHEETS 48	SHEET NO. 32
CONTRACT NO. 78141			ILLINOIS FED. AID PROJECT	

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**DIAPHRAGM ELEVATION AT SOUTH ABUTMENT**

Looking South (South Abutment shown North Abutment similar)



**SECTION A-A**

Notes:  
Reinforcement bars in diaphragm are billed with superstructure on sheet 13 of 29.  
Concrete in diaphragm is included with Concrete Superstructure on sheet 13 of 29.  
For details of bars s(E) & s1(E) see sheet 13 of 29.  
The s(E) and s1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

**MIN. BAR LAP**

#6 bar = 3'-4"

**INTEGRAL ABUTMENT  
DIAPHRAGM DETAILS  
STRUCTURE NO. 076-0029**

PROFESSIONAL DESIGN FIRM LICENSE #184-001084

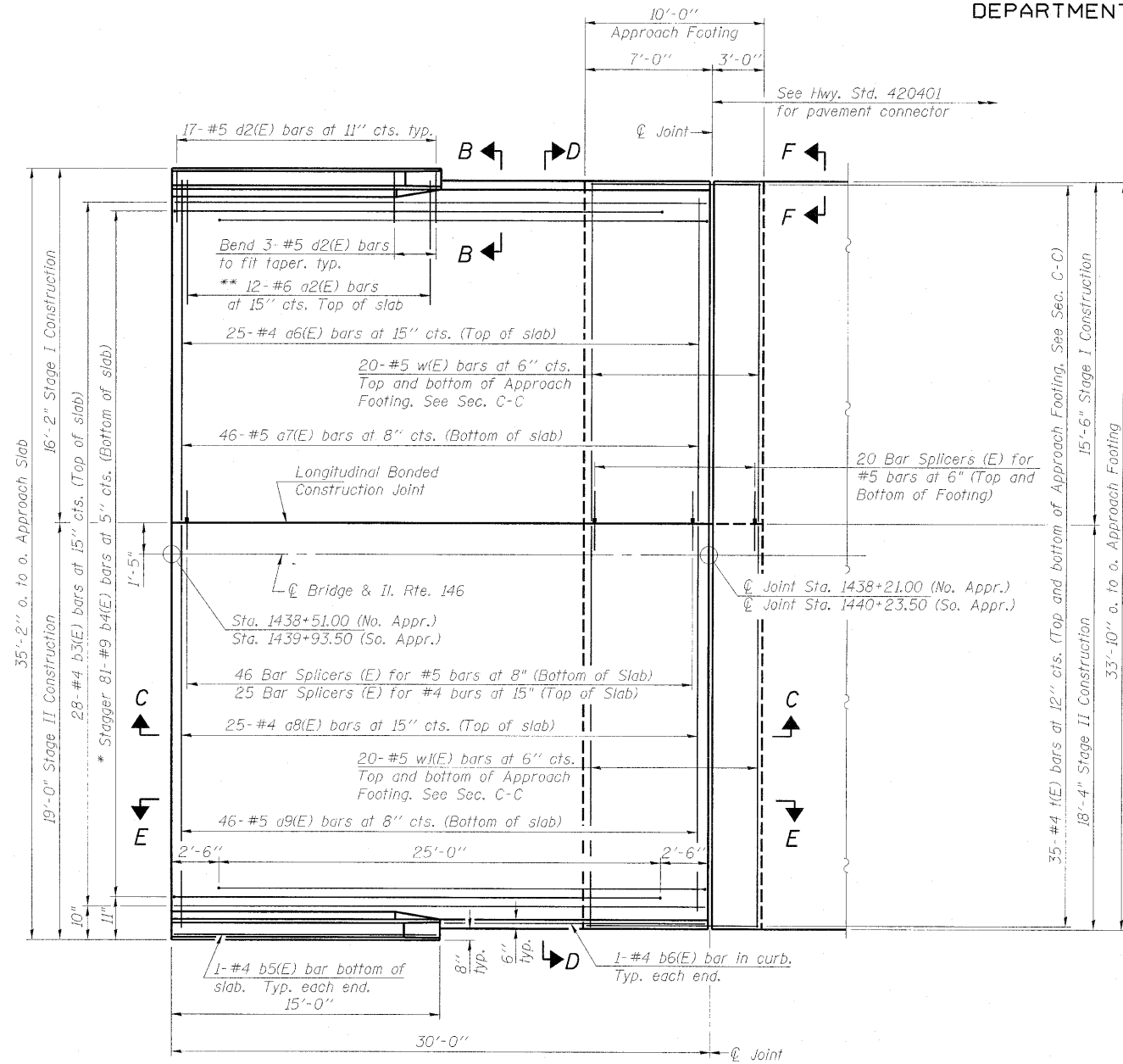
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OP. NO. 08H0131	SHEET NO. 14	F.A. RTE. 885	SECTION 6B-2	COUNTY Pope	TOTAL SHEETS 48	SHEET NO. 33
DATE 05/21/10	29 SHEETS	CONTRACT NO. 78141		ILLINOIS FED. AID PROJECT		

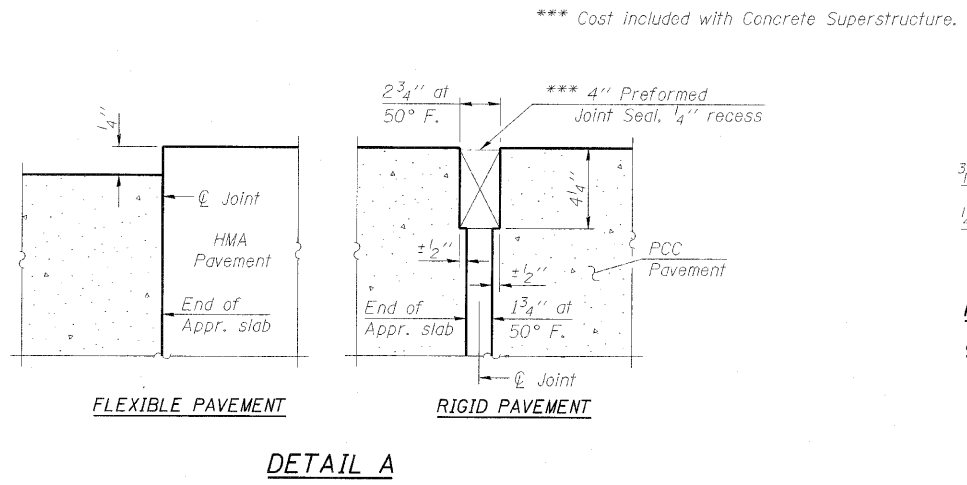
STATE OF ILLINOIS  
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Notes:  
See sheet 16 of 29 for Sections C-C & D-D and View E-E.  
a6(E), a7(E), a8(E) and a9(E) bar spacings measured along  $\phi$  Rdwy.

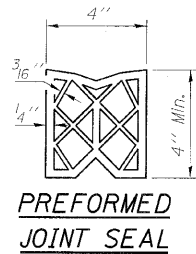


**PLAN**  
(South Appr. Shown)  
(North Appr. Opposite Hand)

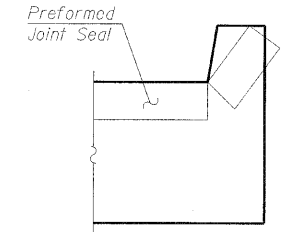
\* Tilt #9 b4(E) bars as required to maintain clearance.  
\*\* Space between a6(E) or a8(E) bars, typ. ea. parapet.



**DETAIL A**

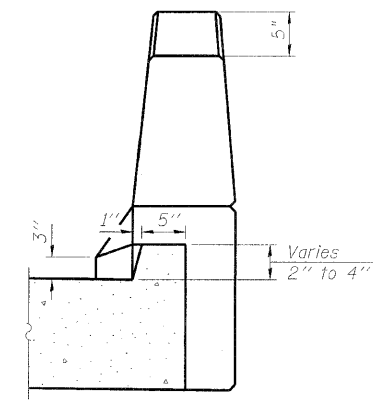


**PREFORMED JOINT SEAL**



**VIEW F-F**

Angle Preformed Joint Seal at 45° at curbs when req'd for drainage.



**VIEW B-B**

**BRIDGE APPROACH SLAB DETAILS**  
(Sheet 1 of 2)  
STRUCTURE NO. 076-0029

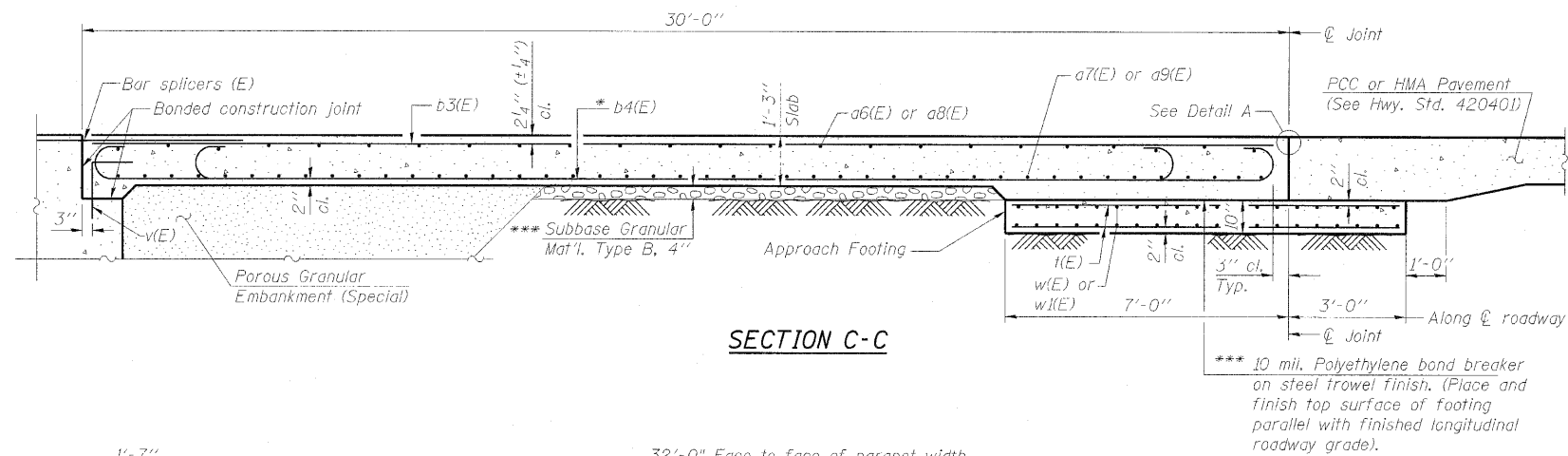
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DATE 05/21/10		29 SHEETS		CONTRACT NO. 78141		ILLINOIS FED. AID PROJECT		



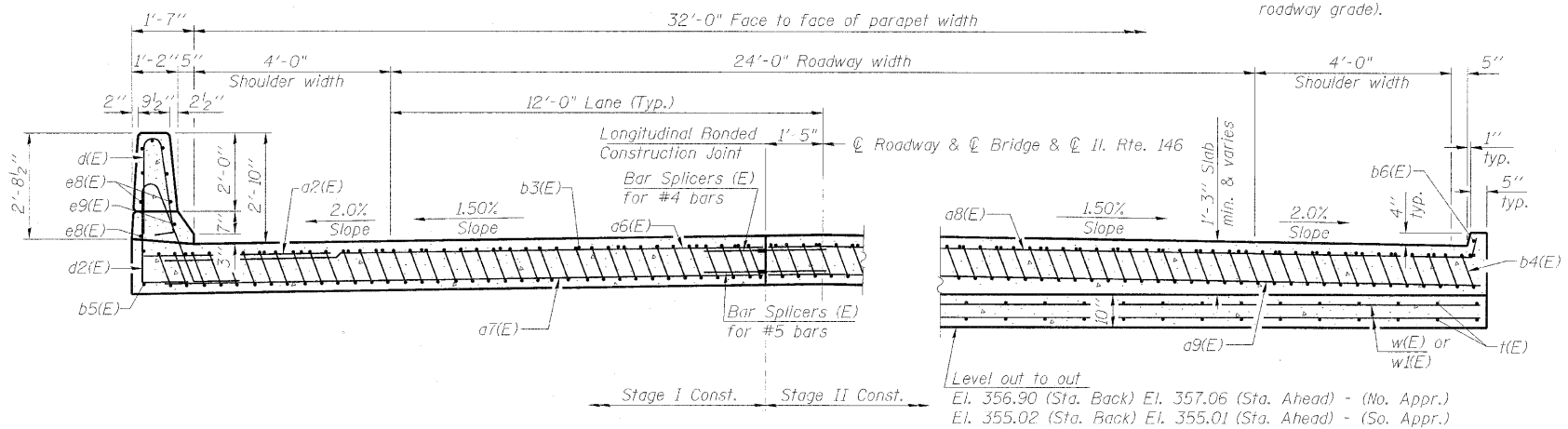
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Notes:

See sheet 15 of 29 for Detail A and View B-B.  
Approach slab and parapet concrete shall be paid for as Concrete Superstructure.  
Approach footing concrete shall be paid for as Concrete Structures.  
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.  
For v(E) bar details, see sheet 13 of 29.  
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.  
For bar splicer details, see sheet 26 of 29.  
For excavation for approach footing included with Concrete Structures.  
For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 29.  
For additional parapet details, see sheet 13 of 29.



SECTION C-C

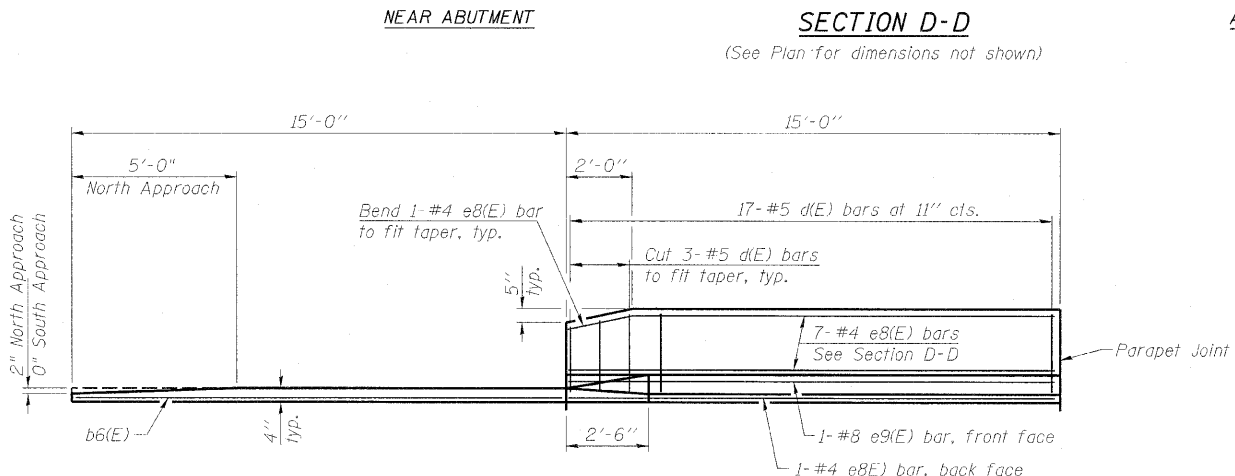


SECTION D-D

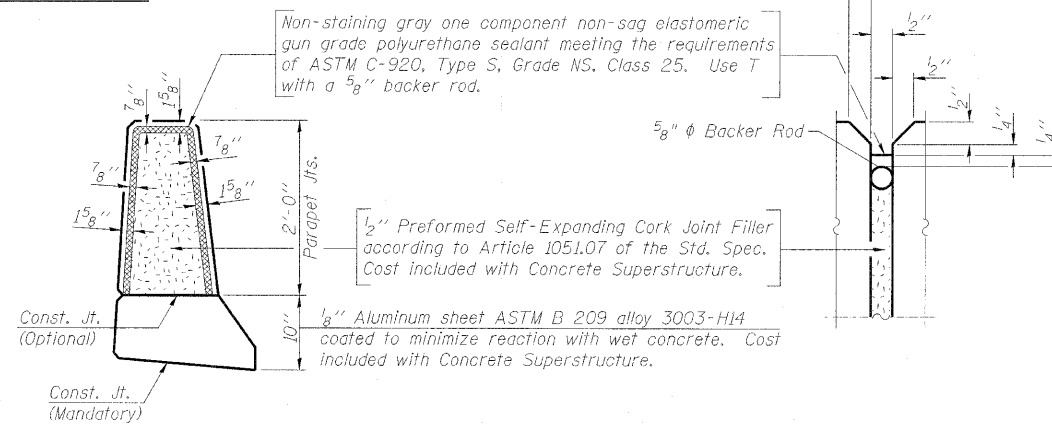
AT APPROACH FOOTING

NEAR ABUTMENT

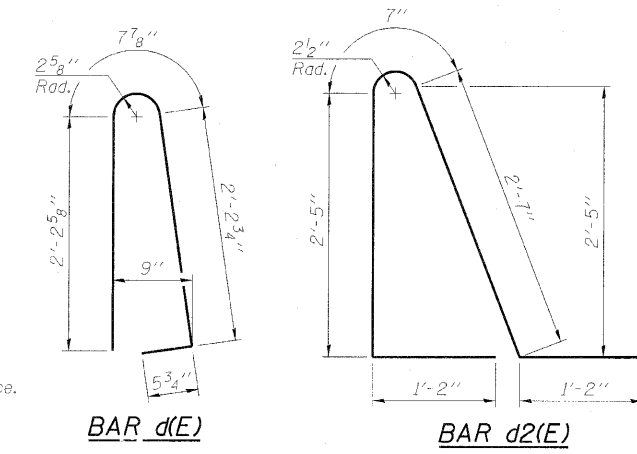
(See Plan for dimensions not shown)



VIEW E-E



PARAPET JOINT DETAILS



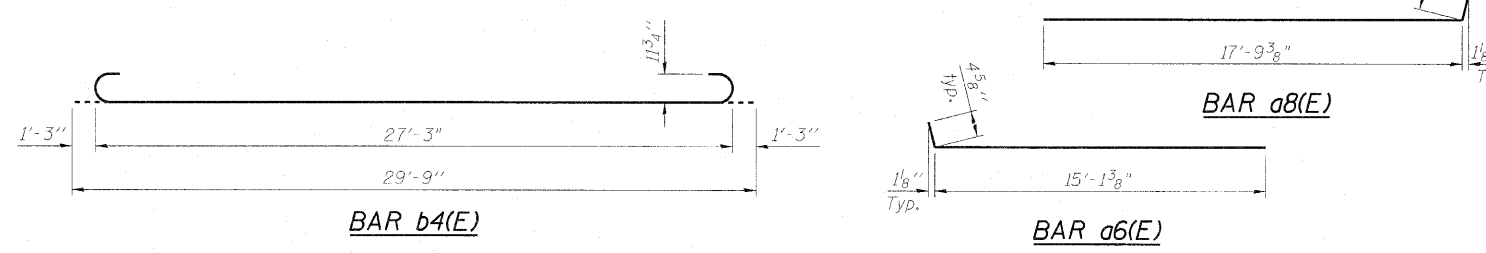
BAR d(E)

BAR d2(E)

TWO APPROACHES  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a2(E)	48	#6	6'-6"	—
a6(E)	50	#4	15'-6"	—
a7(E)	92	#5	15'-3"	—
a8(E)	50	#4	18'-2"	—
a9(E)	92	#5	17'-11"	—
b3(E)	56	#4	29'-8"	—
b4(E)	162	#9	29'-9"	—
b5(E)	4	#4	14'-8"	—
b6(E)	4	#4	14'-7"	—
d(E)	68	#5	5'-7"	U
d2(E)	68	#5	7'-11"	U
e8(E)	32	#4	14'-8"	—
e9(E)	4	#8	14'-8"	—
f(E)	140	#4	9'-8"	—
w(E)	80	#5	15'-1"	—
w1(E)	80	#5	17'-11"	—
Concrete Superstructure		Cu. Yd.	105.9	
Concrete Structures		Cu. Yd.	20.9	
Reinforcement Bars, Epoxy Coated		Pound	27440	

BRIDGE APPROACH SLAB DETAILS  
(Sheet 2 of 2)  
STRUCTURE NO. 076-0029



BAR b4(E)

BAR a6(E)

BAR a8(E)

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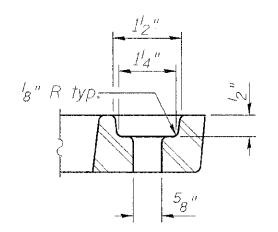
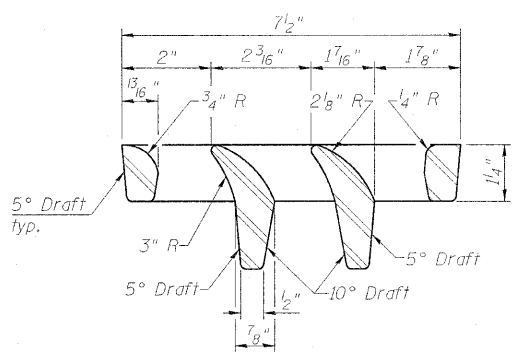
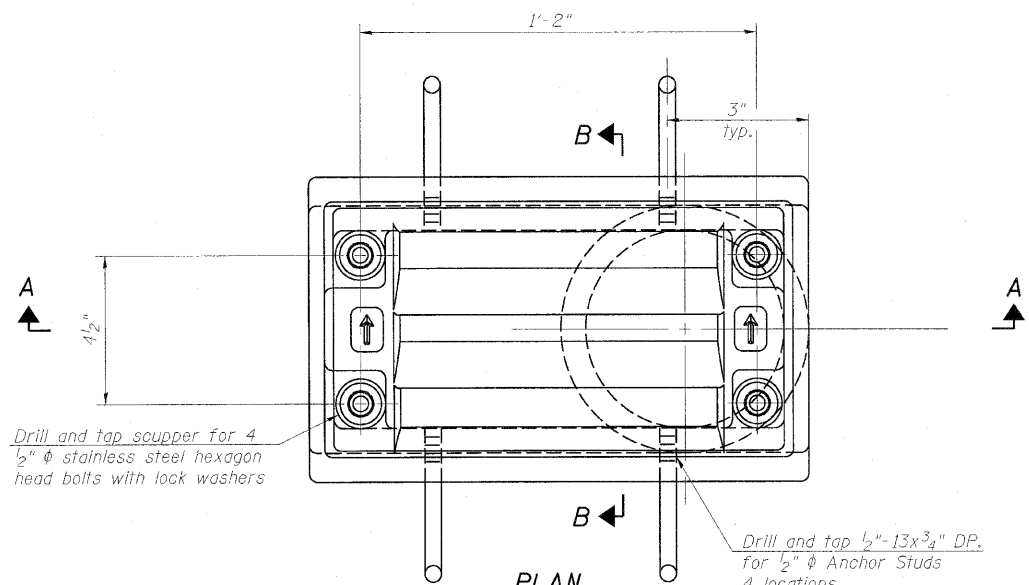
**HANSON**  
Hanson Professional Services Inc.

JOB NO. 08H0131  
DATE 05/21/10

SHEET NO. 16  
29 SHEETS

F.A.P. RTE. 885	SECTION 6B-2	COUNTY Pope	TOTAL SHEETS 48	SHEET NO. 35
CONTRACT NO. 78141			ILLINOIS FED. AID PROJECT	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

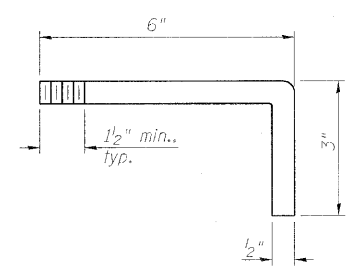
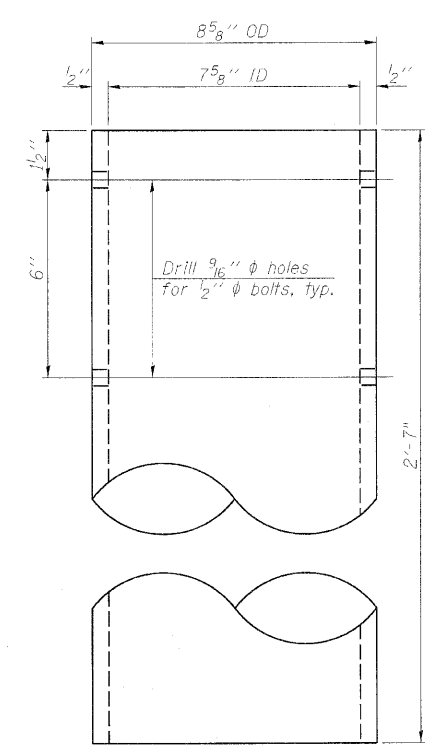
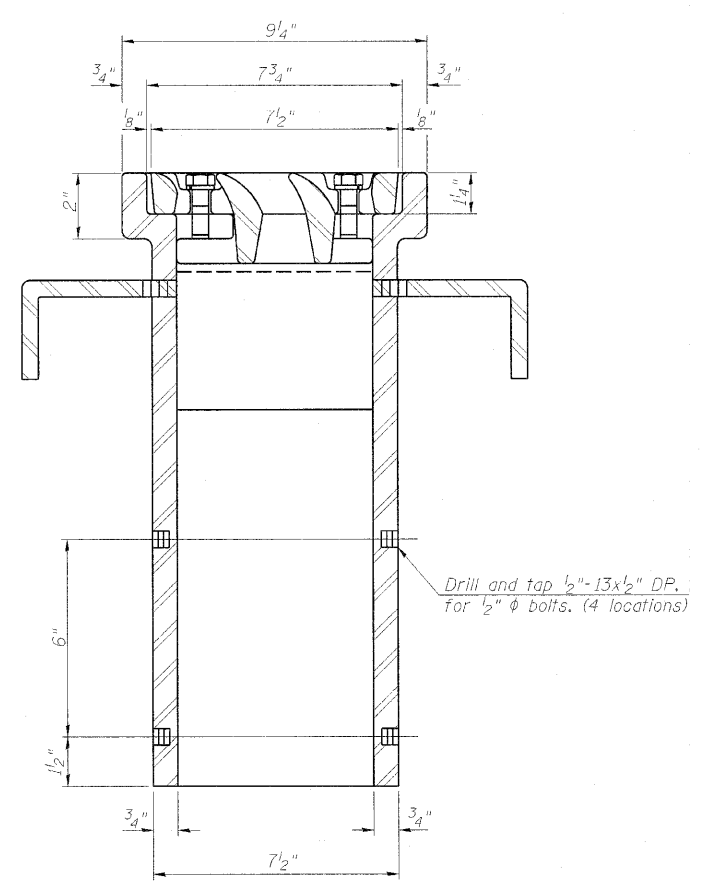
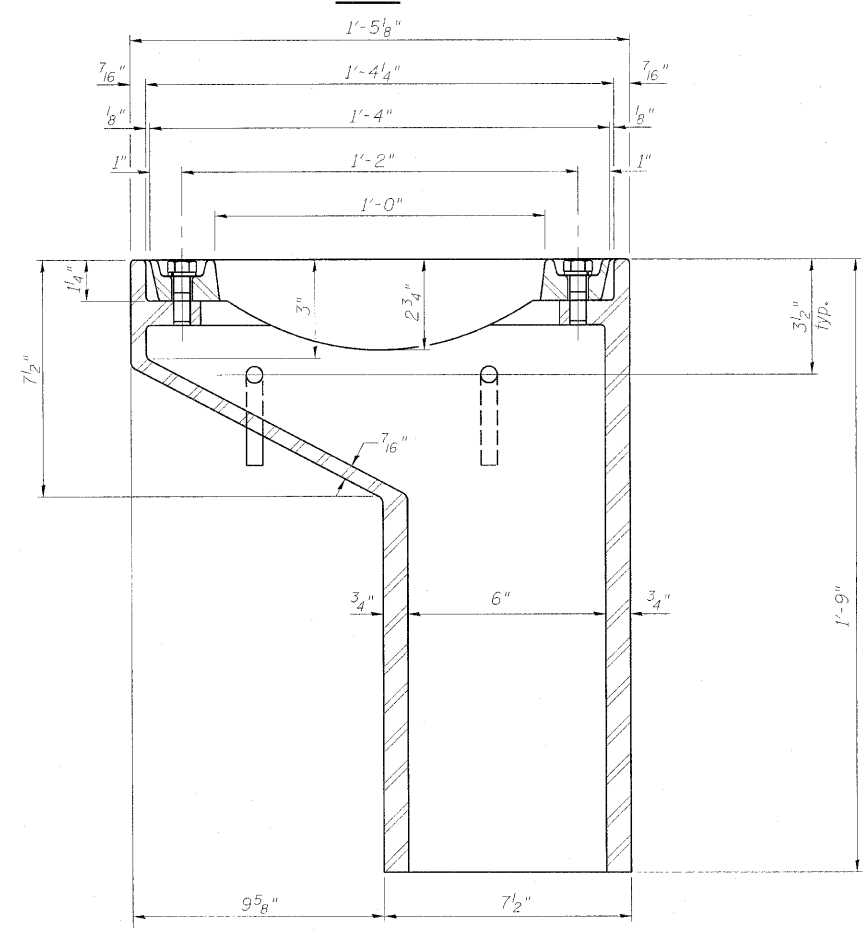
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-II.

Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.



BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-II	Each	2

DRAINAGE SCUPPER DETAILS  
STRUCTURE NO. 076-0029

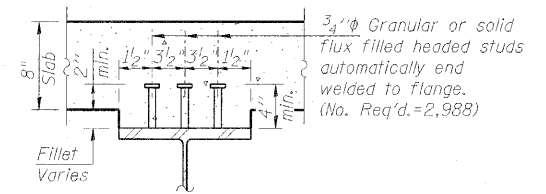
PROFESSIONAL DESIGN FIRM LICENSE #184-001084 © Copyright Hanson Professional Services Inc. 2010		JOB NO. 08H0131	SHEET NO. 17	F.A.P. RTE. 885	SECTION 6B-2	COUNTY Pope	TOTAL SHEETS 48	SHEET NO. 36
DATE 05/21/10		29 SHEETS		CONTRACT NO. 78141			ILLINOIS FED. AID PROJECT	



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DEPARTMENT OF TRANSPORTATION

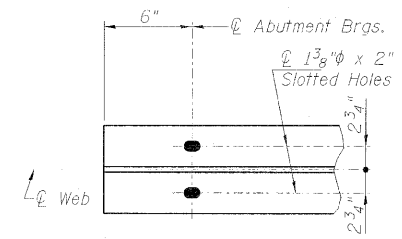


FRAMING PLAN

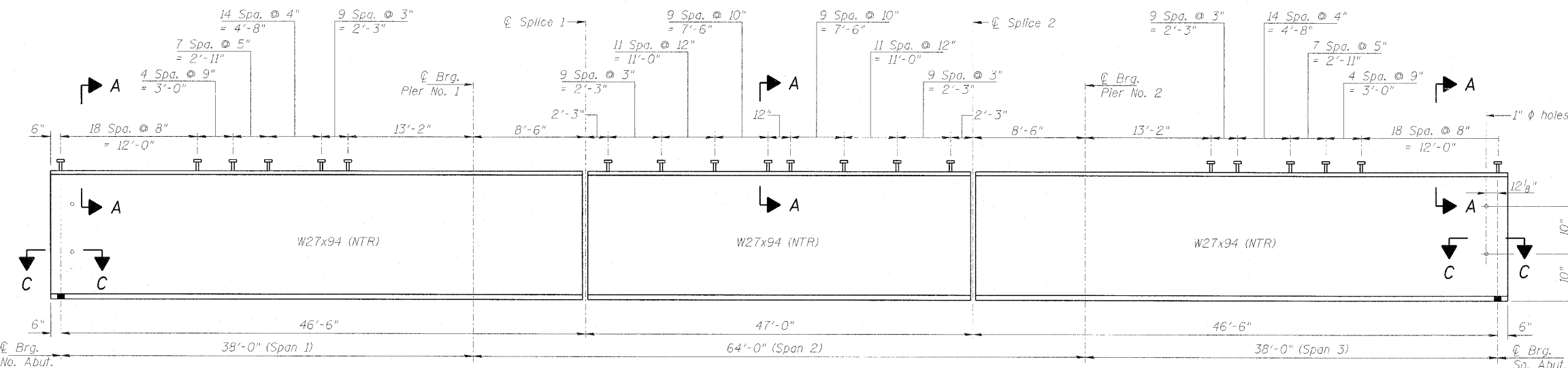


SECTION A-A

Bridge &  
P.G.L. Il. Rte 146



SECTION C-C



GIRDER ELEVATION

Notes:  
All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.  
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.  
All beams, splice plates, connecting angles and diaphragms shall conform to the requirements of AASHTO M270 Grade 50W.  
Drains shall be located clear of all diaphragms.

STRUCTURAL STEEL  
STRUCTURE NO. 076-0029

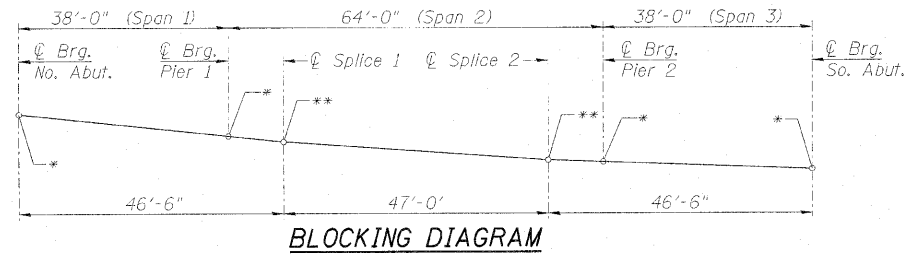
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JOB NO. 08H0131	SHEET NO. 18	F.A.P. RTE. 885	SECTION 6B-2	COUNTY Pope	TOTAL SHEETS 48	SHEET NO. 37
DATE 05/21/10	29 SHEETS	CONTRACT NO. 78141		ILLINOIS FED. AID PROJECT		

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\* See Table for Final Top of Beam Elevations at abutments and piers.  
\*\* Theoretical Top of Beam Elevations before dead load deflections.

**TOP of BEAM ELEVATIONS TABLE**  
For Fabrication Only

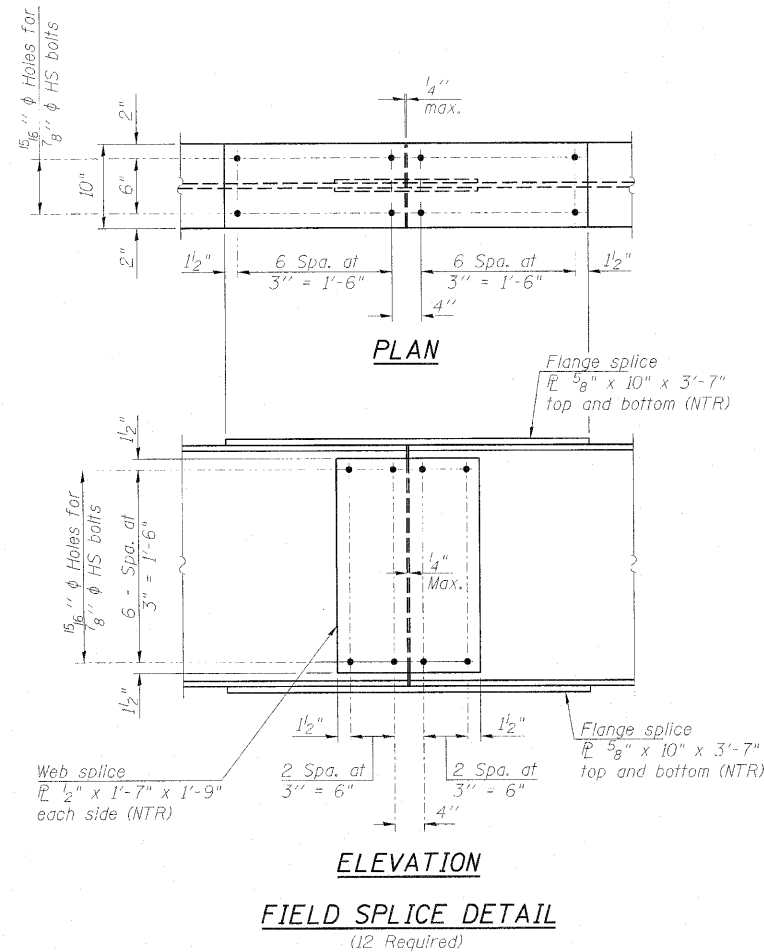
Beam Number	℄ Brg. No. Abut.	℄ Brg. Pier 1	℄ Splice No. 1	℄ Splice No. 2	℄ Brg. Pier 2	℄ Brg. So. Abut.
Beam 1	358.08	357.58	357.47	357.04	356.99	356.79
Beam 2	358.18	357.68	357.57	357.14	357.10	356.89
Beam 3	358.27	357.77	357.66	357.23	357.18	356.98
Beam 4	358.27	357.77	357.66	357.23	357.18	356.98
Beam 5	358.18	357.68	357.57	357.14	357.10	356.89
Beam 6	358.08	357.58	357.47	357.04	356.99	356.79

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1 or 0.6 Sp. 2	Pier 1 or 2	0.5 Sp. 2
$I_s$	(in <sup>4</sup> )	3270	3270	3270
$I_c(n)$	(in <sup>4</sup> )	9469	-	9469
$I_c(3n)$	(in <sup>4</sup> )	7023	-	7023
$S_s$	(in <sup>3</sup> )	243	243	243
$S_c(n)$	(in <sup>3</sup> )	370	-	370
$S_c(3n)$	(in <sup>3</sup> )	335	-	335
DC1	(k/')	0.713	0.713	0.713
M <sub>DC1</sub>	(k)	39	211	154
DC2	(k/')	0.150	0.150	0.150
M <sub>DC2</sub>	(k)	12	36	41
DW	(k/')	0.267	0.267	0.267
M <sub>DW</sub>	(k)	21	64	72
M <sub>℄ + IM</sub>	(k)	355	284	582
M <sub>u</sub> (Strength I)	(k)	715	902	1371
**** $\phi_r M_{nc}$	(k)	1946	-	1853
$f_s$ DC1	(ksi)	1.93	10.41	7.61
$f_s$ DC2	(ksi)	0.41	1.79	1.46
$f_s$ DW	(ksi)	0.73	3.18	2.59
$f_s$ 1.3(℄ + IM)	(ksi)	14.95	18.20	24.54
$f_s$ (Service II)	(ksi)	18.03	33.58	36.20
***** $f_s$ (Total)(Strength I)	(ksi)	-	44.52	-
$V_f$	(k)	17.6	-	19

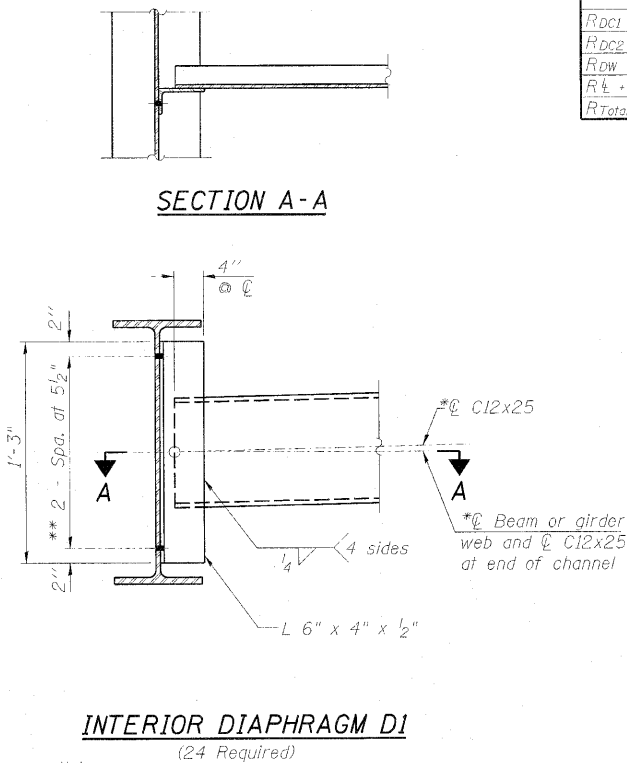
\*\*\*\* Compact sections  
\*\*\*\*\* Non-Compact and slender sections

$I_s, S_s$ : Non-composite moment of inertia and section modulus of the steel section used for computing  $f_s$  (Total-Strength I, and Service II) due to non-composite dead loads (in<sup>4</sup> and in<sup>3</sup>).  
 $I_c(n), S_c(n)$ : Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing  $f_s$  (Total-Strength I, and Service II) due to short-term composite live loads (in<sup>4</sup> and in<sup>3</sup>).  
 $I_c(3n), S_c(3n)$ : Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing  $f_s$  (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads (in<sup>4</sup> and in<sup>3</sup>).  
DC1: Un-factored non-composite dead load (kips/ft.).  
M<sub>DC1</sub>: Un-factored moment due to non-composite dead load (kip-ft.).  
DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).  
M<sub>DC2</sub>: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).  
DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).  
M<sub>DW</sub>: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).  
M<sub>℄ + IM</sub>: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).  
M<sub>u</sub> (Strength I): Factored design moment (kip-ft.).  
1.25 (M<sub>DC1</sub> + M<sub>DC2</sub>) + 1.5 M<sub>DW</sub> + 1.75 M<sub>℄ + IM</sub>  
 $\phi_r M_{nc}$ : Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).  
 $\phi_r M_{nc}$ : Compact non-composite negative moment capacity computed according to Article A6.1.1 (kip-ft.).  
 $f_s$  (Service II): Sum of stresses as computed from the moments below (ksi).  
M<sub>DC1</sub> + M<sub>DC2</sub> + M<sub>DW</sub> + 1.3 M<sub>℄ + IM</sub>  
 $f_s$  (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).  
1.25 (M<sub>DC1</sub> + M<sub>DC2</sub>) + 1.5 M<sub>DW</sub> + 1.75 M<sub>℄ + IM</sub>  
 $V_f$ : Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

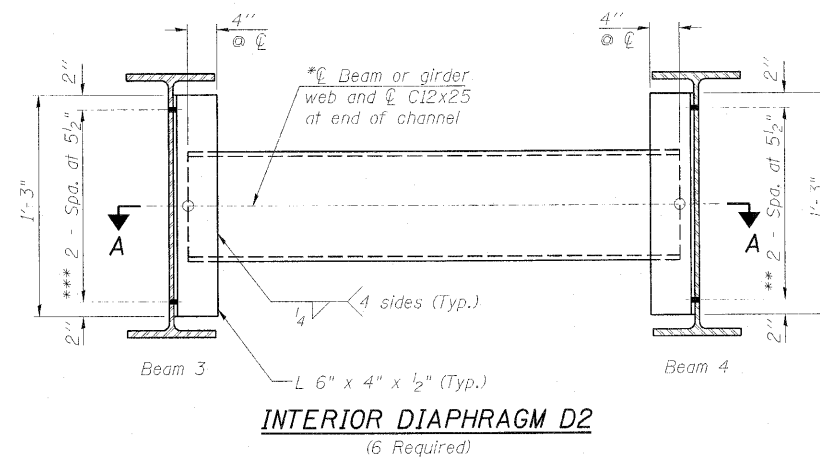
INTERIOR GIRDER REACTION TABLE			
	Abuts.	Pier 1 or 2	
R <sub>DC1</sub>	(k)	8.0	41.9
R <sub>DC2</sub>	(k)	1.9	8.6
R <sub>DW</sub>	(k)	3.4	15.3
R <sub>℄ + IM</sub>	(k)	53.4	83.7
R <sub>Total</sub>	(k)	66.7	149.5



Note: Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.



**INTERIOR DIAPHRAGM D1**  
(24 Required)  
Note:  
Two hardened washers required for each set of oversized holes.  
\* Alternate channels C12x30 are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.  
The alternate, if utilized, shall be provided at no additional cost to the Department.  
\*\*\* 3/4"  $\phi$  HS bolts, 13/16"  $\phi$  holes



**INTERIOR DIAPHRAGM D2**  
(6 Required)  
\*\*\* 3/4"  $\phi$  H.S. bolts, 13/16"  $\phi$  holes in Beam 3 web and 13/16" x 17/8" vertically slotted holes in connection angle at Beam 3 end of diaphragm assembly.  
3/4"  $\phi$  H.S. bolts, 13/16"  $\phi$  holes in in all connection parts at Beam 4 end of diaphragm assembly. Other notes on Diaphragm D1 pertain and Section A-A Similar.

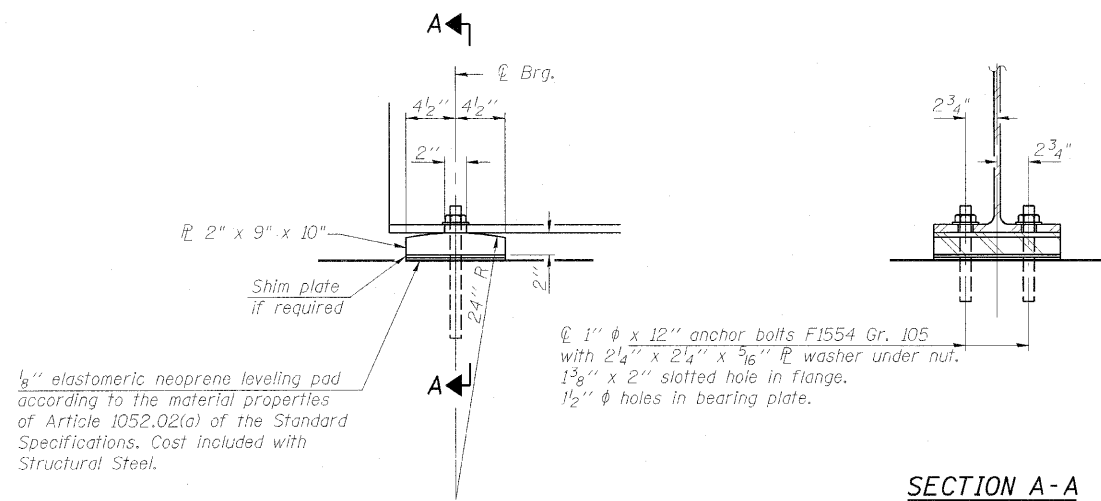
Note:  
All beams, splice plates, connecting angles and diaphragms shall conform to the requirements of AASHTO M270 Grade 50W.

**STRUCTURAL STEEL DETAILS**  
STRUCTURE NO. 076-0029

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© Copyright Hanson Professional Services Inc. 2010		29 SHEETS		885	6B-2	Pope	48	38
Hanson Professional Services Inc.		DATE 05/21/10		CONTRACT NO. 78141				
ILLINOIS FED. AID PROJECT								

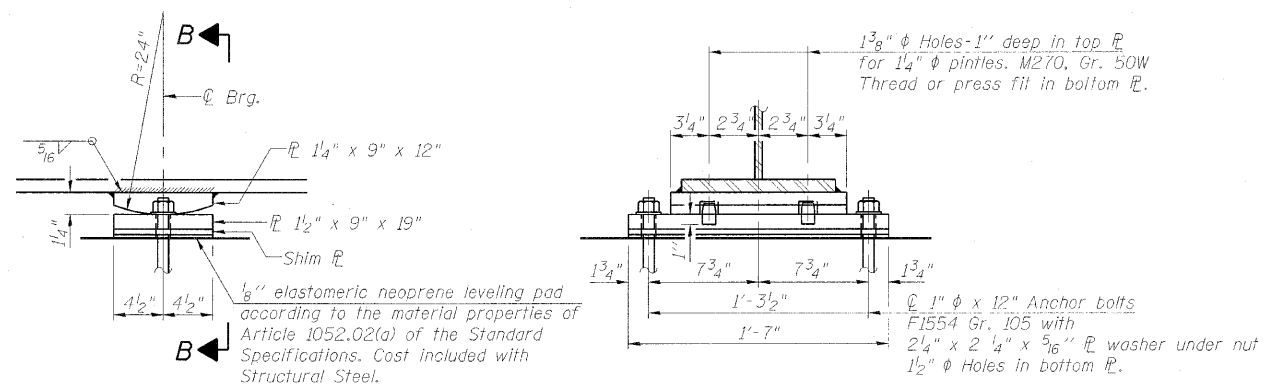


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



ELEVATION AT ABUTMENT

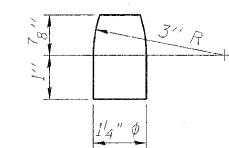
INTEGRAL ABUTMENT FIXED BEARING DETAILS



ELEVATION AT PIER

SECTION B-B

FIXED PIER BEARING DETAILS



PINTLE

Notes:

- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- Anchor bolts may be either cast in place or installed in holes drilled after the supported member is in place.
- Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
- Steel members required for the bearing assembly shall be included in the cost of Structural Steel.
- Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
- The anchor bolt lengths shown are the required total lengths for cast-in-place headed anchor bolts. The required total length for the sealed capsule alternate anchor bolt shall be according to the manufacturer's recommendations.
- The structural steel plates and pintles of the Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50W.
- The anchor bolt sizes and grades shown constitute a calculated seismic structural fuse. Substitution of higher diameter and/or grade anchor bolts will not be allowed.

BILL OF MATERIAL

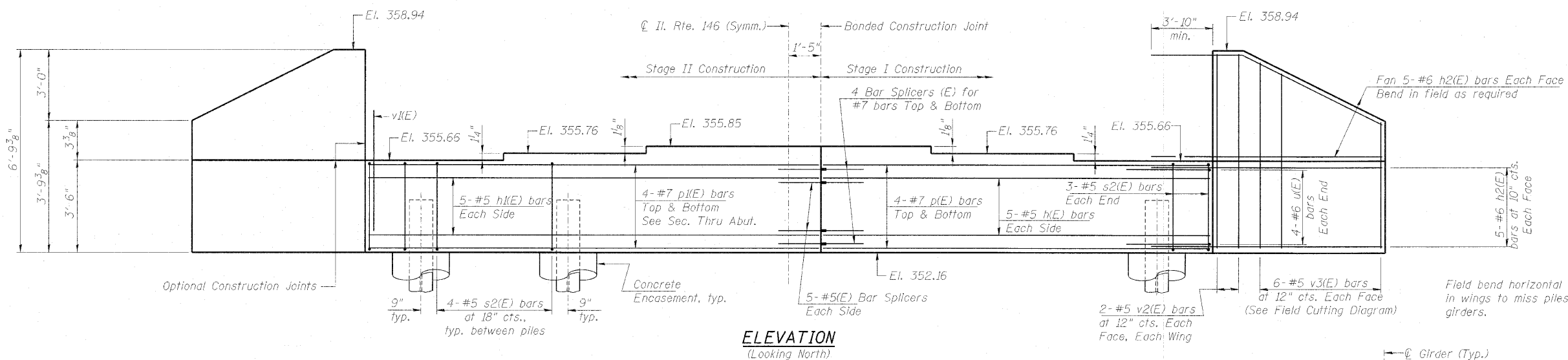
Item	Unit	Total
Anchor Bolts, 1"	Each	48

BEARING DETAILS  
STRUCTURE NO. 076-0029

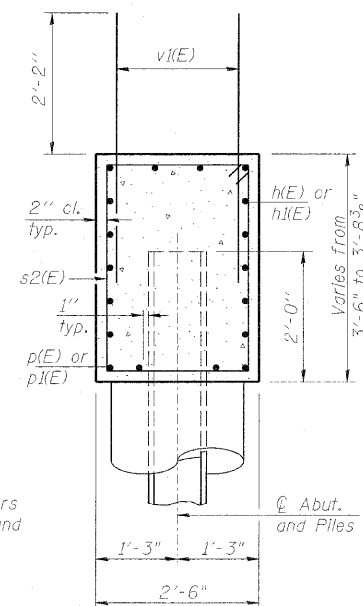
PROFESSIONAL DESIGN FIRM LICENSE #184-001084 © Copyright Hanson Professional Services Inc. 2010		DES. NO. 08H0131	SHEET NO. 20	F.A.P. RTE. 885	SECTION 6B-2	COUNTY Pope	TOTAL SHEETS 48	SHEET NO. 39
		DATE 05/21/10	29 SHEETS	CONTRACT NO. 78141		ILLINOIS FED. AID PROJECT		

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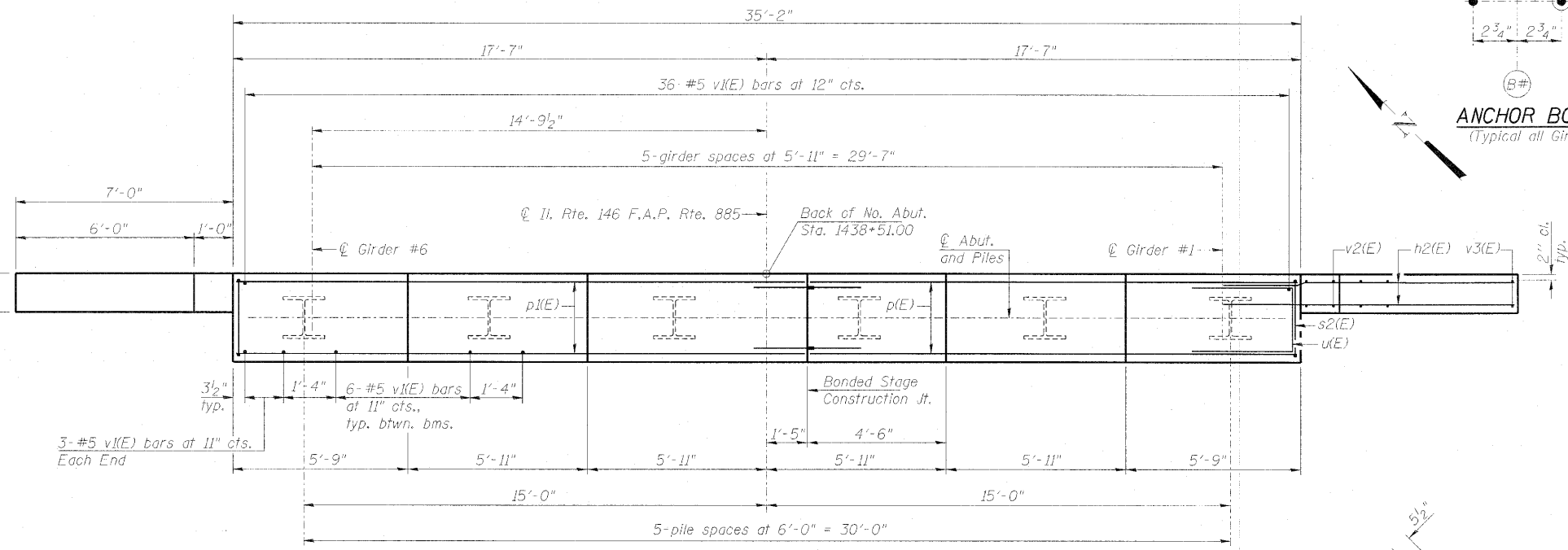
Notes:  
Pour steps monolithically with cap.



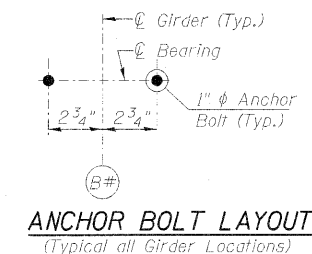
**ELEVATION**  
(Looking North)



**SEC. THRU ABUT.**



**PLAN**



**ANCHOR BOLT LAYOUT**  
(Typical all Girder Locations)

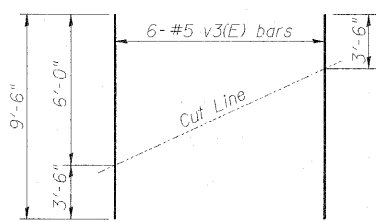
**BILL OF MATERIAL (No. Abut.)**

Bar	No.	Size	Length	Shape
h1(E)	10	#5	15'-10"	—
h2(E)	10	#5	18'-8"	—
h2(E)	40	#6	10'-10"	—
p1(E)	8	#7	15'-10"	—
p1(E)	8	#7	18'-8"	—
s2(E)	26	#5	11'-7"	□
u(E)	8	#6	9'-9"	□
v1(E)	72	#5	4'-4"	—
v2(E)	8	#5	6'-5"	—
v3(E)	12	#5	9'-6"	—
Structure Excavation			Cu. Yd.	72
Concrete Structures			Cu. Yd.	14.6
Reinforcement Bars, Epoxy Coated			Pound	2500
Furnishing Steel Piles, HP14x89			Foot	225
Driving Piles			Foot	225
Test Pile, HP14x89			Each	1
Concrete Encasement			Cu. Yd.	3.3

For details of Bar Splicers, see sheet 26 of 29.  
For details of piles and Concrete Encasement, see sheet 25 of 29.

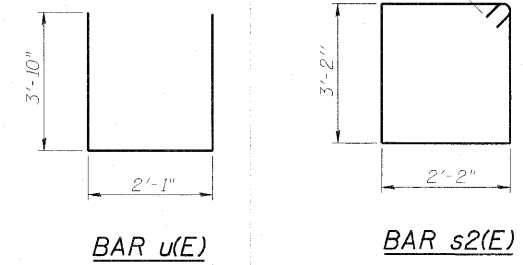
**PILE DATA**

Type:	HP 14x89
Nominal Required Bearing:	705 kips
Factored Resistance Available:	352 kips
Factored Resistance Available During an Extreme Event 1:	705 kips
Est. Length:	45 Feet
No. Production Piles:	5
No. Test Piles:	1 (In Stage I Area)



**FIELD CUTTING DIAGRAM**

Order v3(E) full length. Cut as shown and use remainder of bars in opposite face.



**BAR u(E)**

**BAR s2(E)**

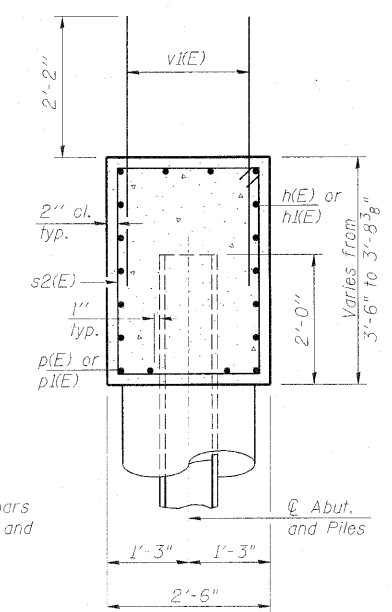
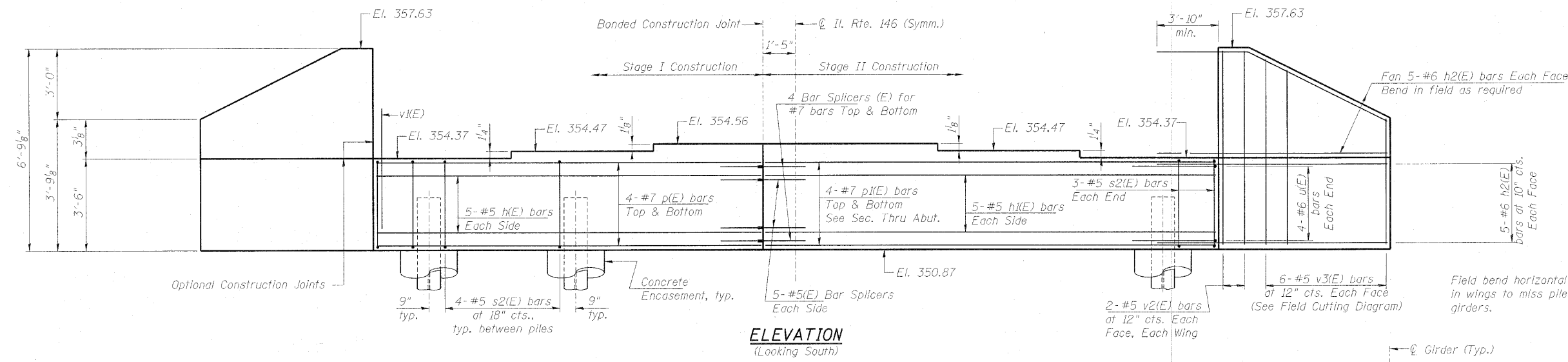
**NORTH ABUTMENT  
STRUCTURE NO. 076-0029**

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	JOB NO. 08H0131	SHEET NO. 21	F.A.P. RTE. 885	SECTION 6B-2	COUNTY Pope	TOTAL SHEETS 48	SHEET NO. 40
	DATE 05/21/10	29 SHEETS	CONTRACT NO. 78141		ILLINOIS FED. AID PROJECT		

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DEPARTMENT OF TRANSPORTATION

Notes:  
Four steps monolithically with cap.



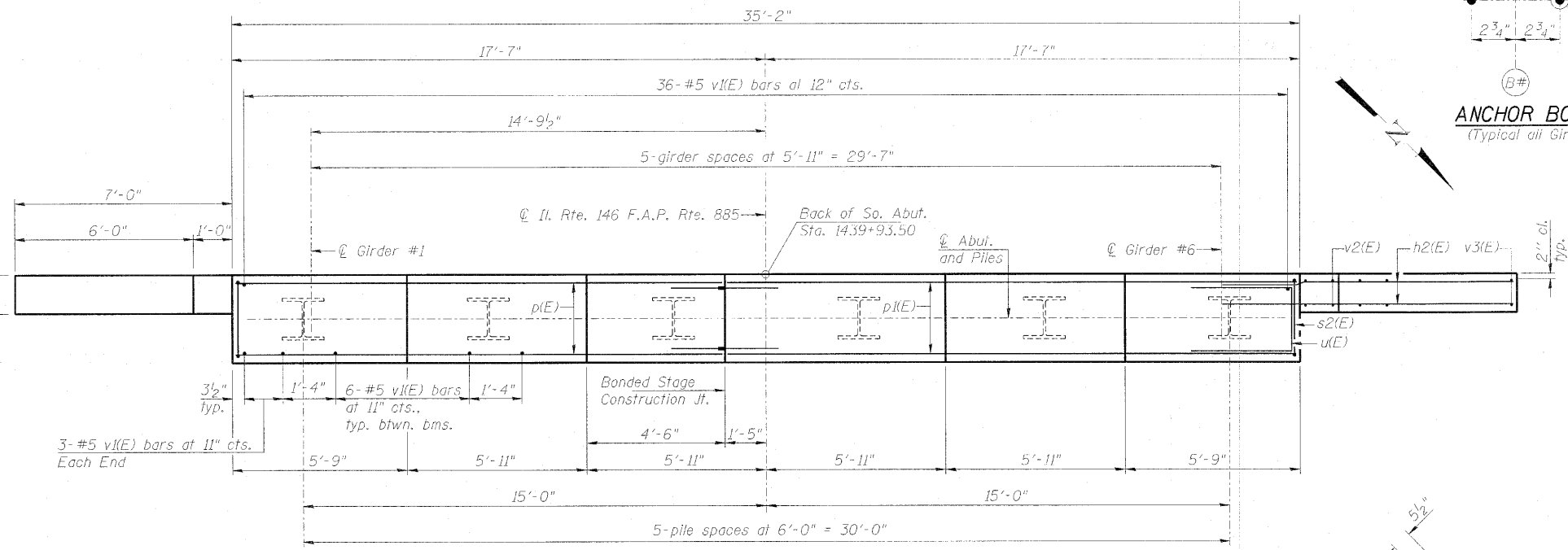
**ELEVATION**  
(Looking South)

**SEC. THRU ABUT.**

**BILL OF MATERIAL (So. Abut.)**

Bar No.	Size	Length	Shape
h(E)	10 #5	15'-10"	—
h1(E)	10 #5	18'-8"	—
h2(E)	10 #6	10'-10"	—
p(E)	8 #7	15'-10"	—
p1(E)	8 #7	18'-8"	—
s2(E)	26 #5	11'-7"	□
u(E)	8 #6	9'-9"	—
v1(E)	72 #5	4'-4"	—
v2(E)	8 #5	6'-5"	—
v3(E)	12 #5	9'-6"	—
Structure Excavation	Cu. Yd.	72	
Concrete Structures	Cu. Yd.	14.6	
Reinforcement Bars, Epoxy Coated	Pound	2500	
Furnishing Steel Piles, HP14x89	Foot	220	
Driving Piles	Foot	220	
Test Pile, HP14x89	Each	1	
Concrete Encasement	Cu. Yd.	3.3	

For details of Bar Splicers, see sheet 26 of 29.  
For details of piles and Concrete Encasement, see sheet 25 of 29.

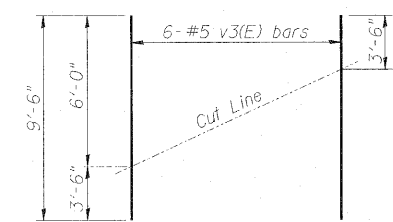


**ANCHOR BOLT LAYOUT**  
(Typical all Girder Locations)

**PLAN**

**PILE DATA**

Type: HP 14x89  
Nominal Required Bearing: 705 kips  
Factored Resistance Available: 352 kips  
Factored Resistance Available During an Extreme Event 1: 568 kips  
Est. Length: 44 Feet  
No. Production Piles: 5  
No. Test Piles: 1 (1n Stage I Area)



**FIELD CUTTING DIAGRAM**

Order v3(E) full length. Cut as shown and use remainder of bars in opposite face.

**BAR u(E)**

**BAR s2(E)**

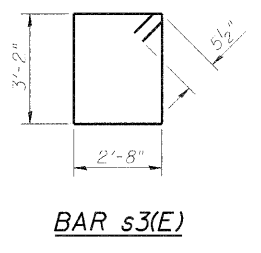
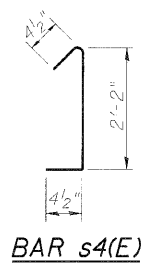
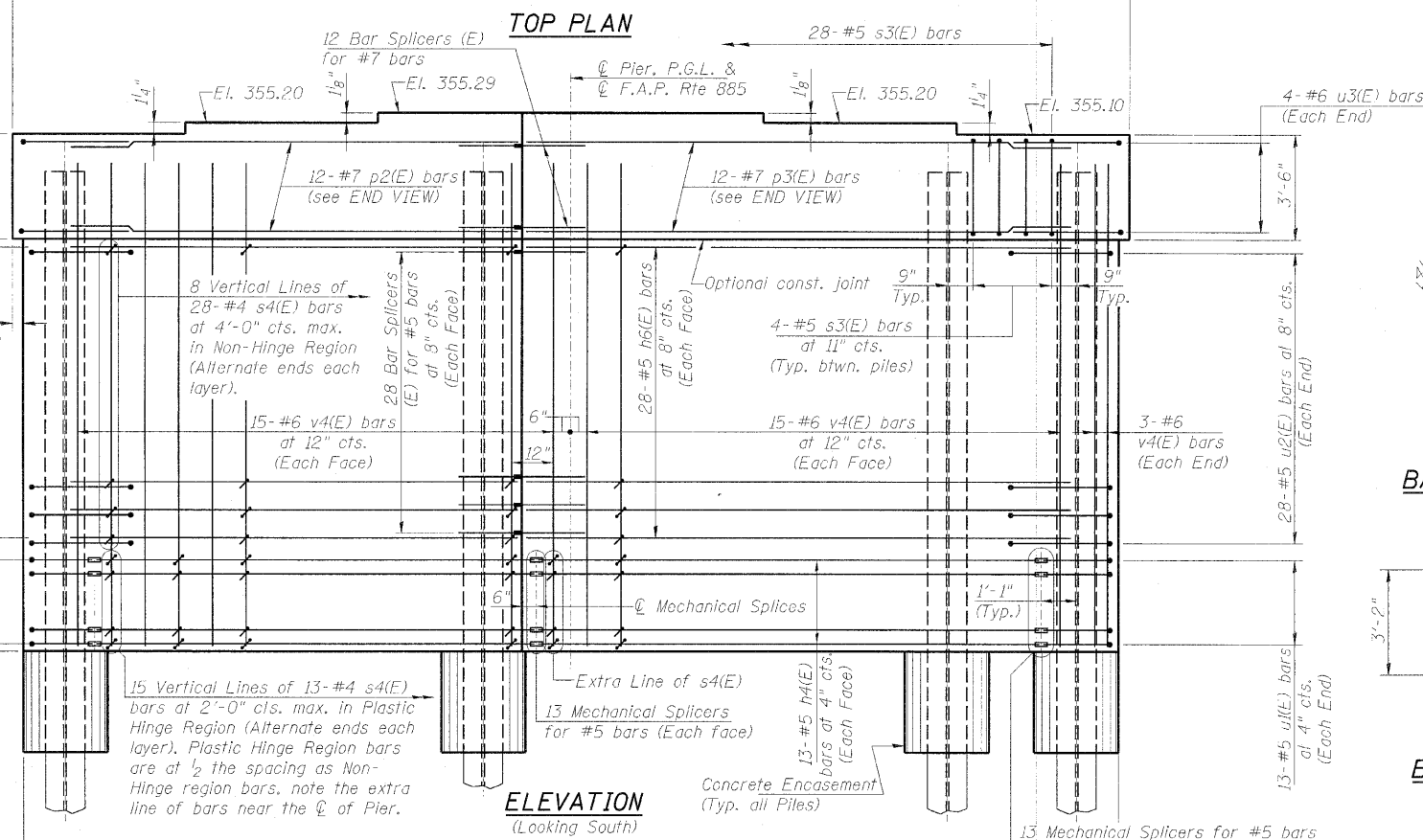
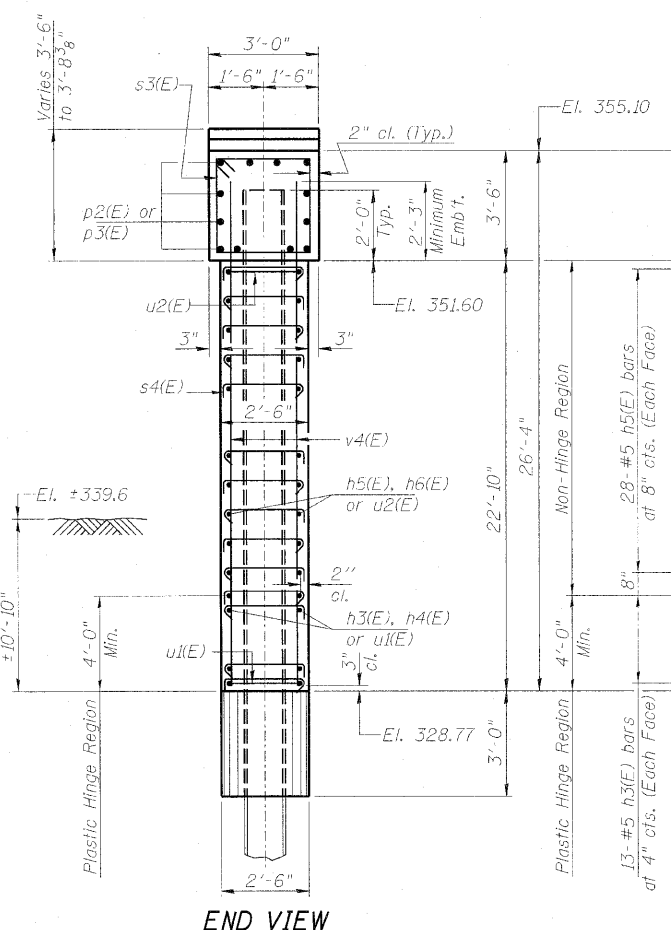
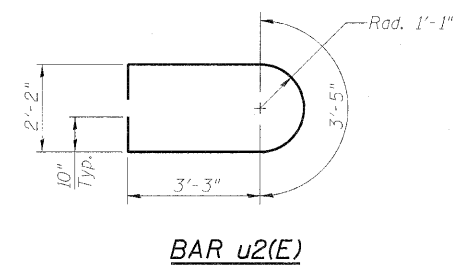
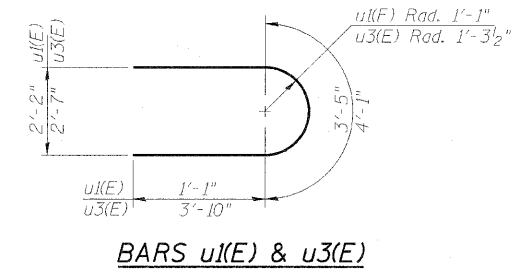
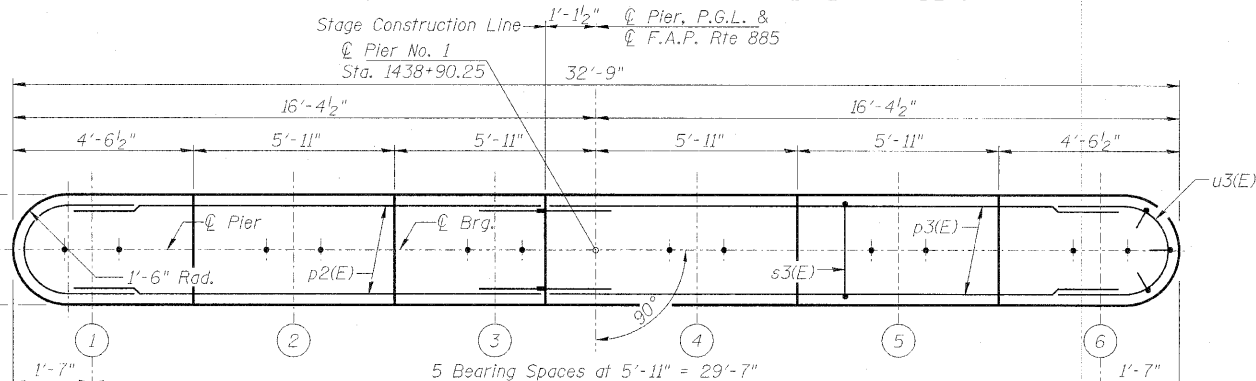
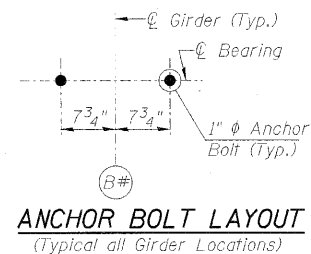
**SOUTH ABUTMENT  
STRUCTURE NO. 076-0029**

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	JOB NO. 08H0131	SHEET NO. 22	F.A.P. RTE. 885	SECTION 6B-2	COUNTY Pope	TOTAL SHEETS 48	SHEET NO. 41
	DATE 05/21/10	29 SHEETS	CONTRACT NO. 78141		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Notes:  
Space reinforcement in cap to miss anchor bolts.  
Pour steps monolithically with cap.  
For details of piles and concrete encasement,  
See Sheet 25 of 29.  
For Stage Construction Details, See Sheets 4 & 5 of 29.

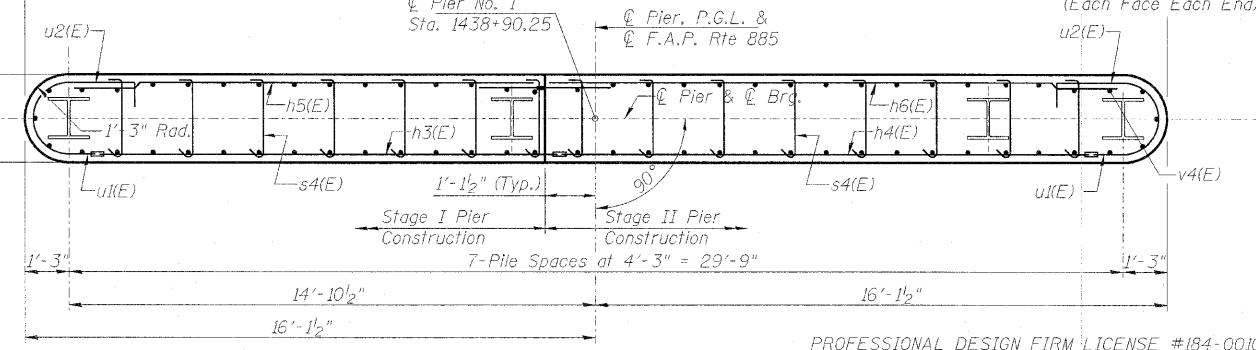


**BILL OF MATERIAL (Pier 1)**

Bar	No.	Size	Length	Shape
h3(E)	26	#5	13'-2"	—
h4(F)	26	#5	14'-5"	—
h5(E)	56	#5	13'-7"	—
h6(E)	56	#5	15'-10"	—
p2(E)	12	#7	13'-7"	—
p3(E)	12	#7	15'-10"	—
s3(E)	28	#5	12'-7"	□
s4(E)	419	#4	2'-11"	┌
u1(E)	26	#5	5'-7"	U
u2(E)	56	#5	11'-7"	U
u3(E)	8	#6	11'-9"	U
v4(E)	66	#6	24'-11"	—
Structure Excavation			Cu. Yd.	91
Concrete Structures			Cu. Yd.	79.9
Reinforcement Bars, Epoxy Coated			Pound	7810
Furnishing Steel Piles, HP 14x89			Foot	344
Driving Piles			Foot	344
Concrete Encasement			Cu. Yd.	4.4

**PILE DATA**

Type: HP 14x89  
Nominal Required Bearing: 705 kips  
Factored Resistance Available: 347 kips  
Factored Resistance Available During an Extreme Event 1: 705 kips  
Est. Length: 43 Ft.  
No. Production Piles: 8  
No. Test Piles:



**PIER 1  
STRUCTURE NO. 076-0029**

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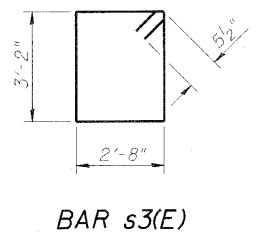
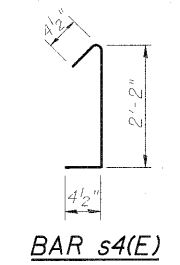
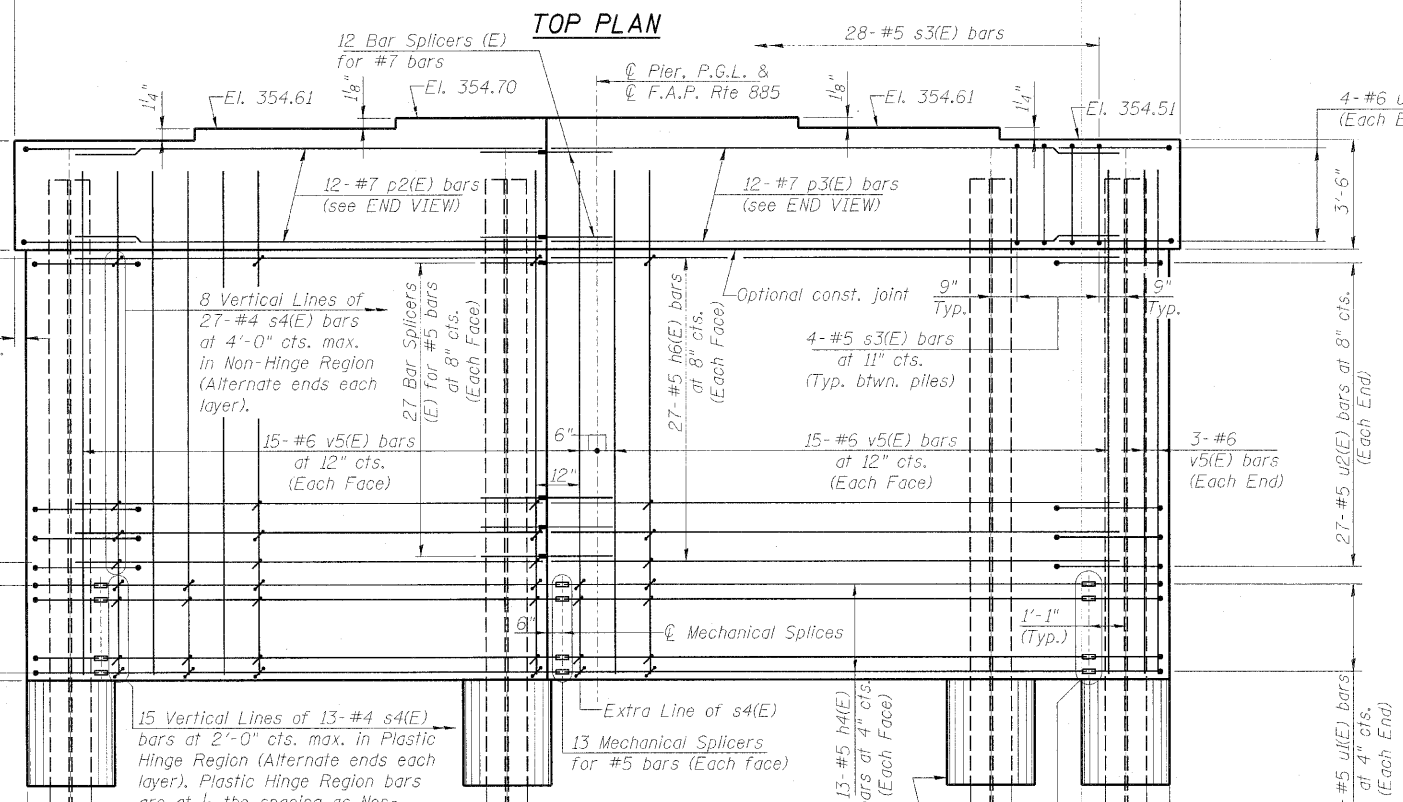
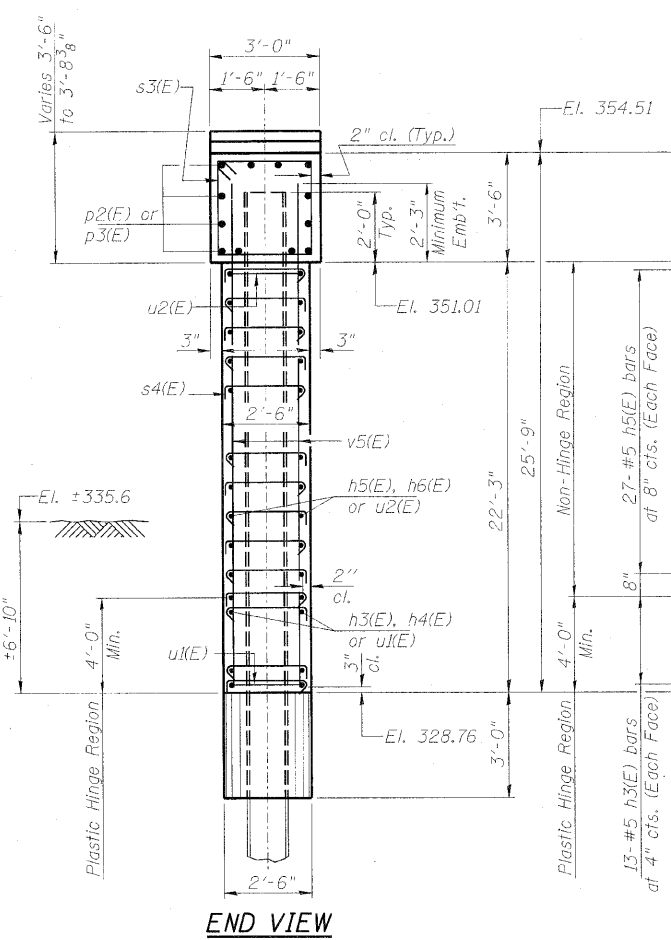
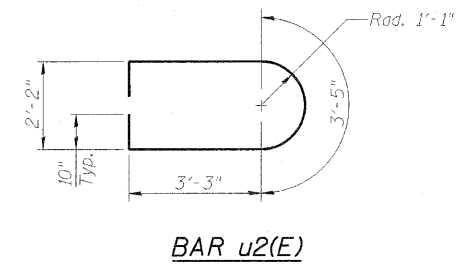
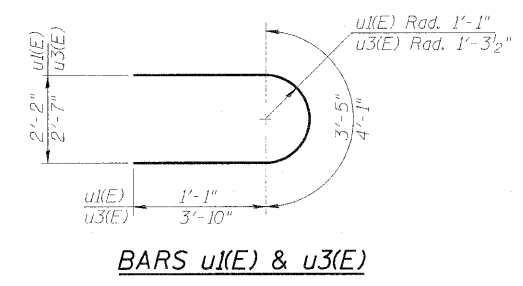
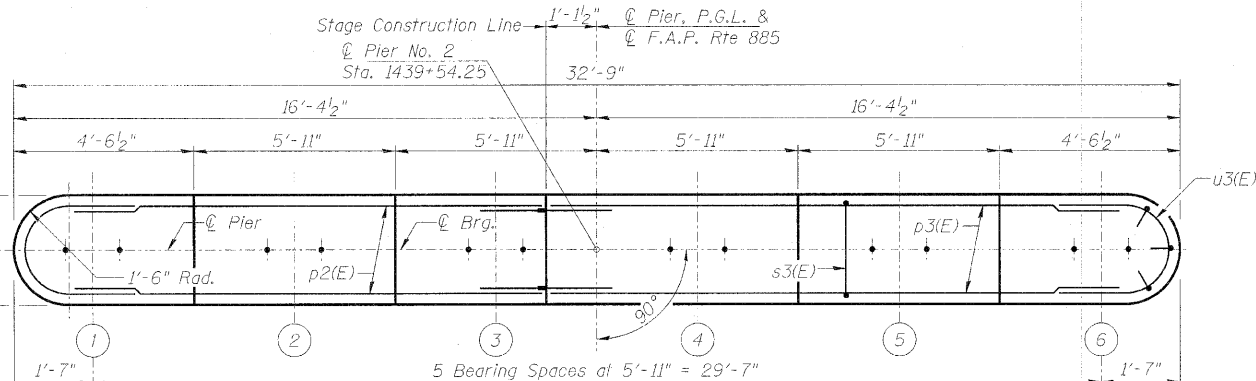
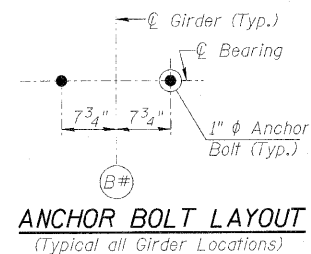
DATE: 05/21/10

SHEET NO. 23  
29 SHEETS

F.A.P. RTE. 885  
SECTION 6B-2  
COUNTY Pope  
TOTAL SHEETS 48  
SHEET NO. 42  
CONTRACT NO. 78141  
ILLINOIS FED. AID PROJECT

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Notes:  
Space reinforcement in cap to miss anchor bolts.  
Pour steps monolithically with cap.  
For details of piles and concrete encasement,  
See Sheet 25 of 30.  
For Stage Construction Details, See Sheets 4 & 5 of 30.

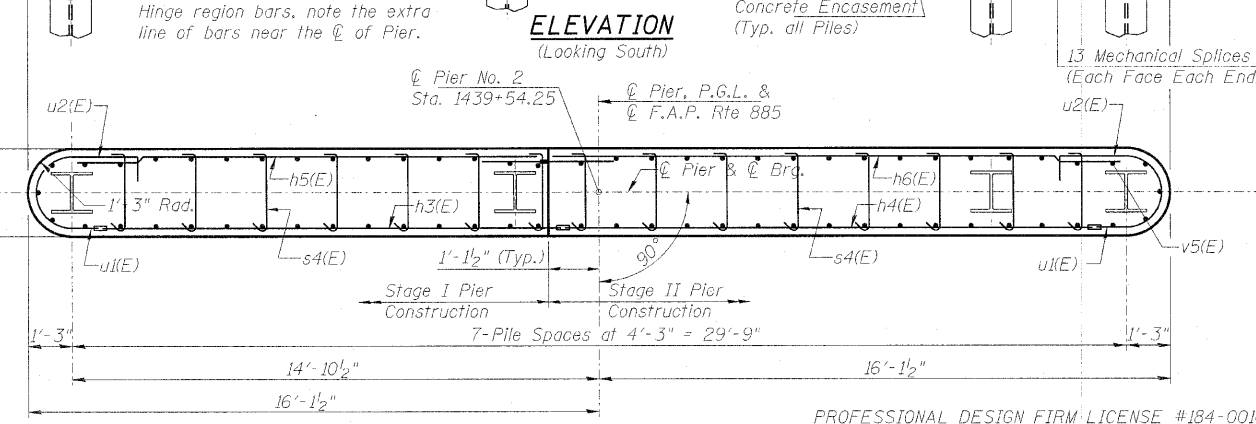


**BILL OF MATERIAL (Pier 2)**

Bar	No.	Size	Length	Shape
h3(E)	26	#5	13'-2"	—
h4(E)	26	#5	14'-5"	—
h5(E)	54	#5	13'-7"	—
h6(E)	54	#5	15'-10"	—
p2(E)	12	#7	13'-7"	—
p3(E)	12	#7	15'-10"	—
s3(E)	28	#5	12'-7"	□
s4(E)	41	#4	2'-11"	┌┐
u1(E)	26	#5	5'-7"	U
u2(E)	54	#5	11'-7"	U
u3(E)	8	#6	11'-9"	U
v5(E)	66	#6	24'-4"	—
Structure Excavation		Cu. Yd.	57	
Concrete Structures		Cu. Yd.	78.2	
Reinforcement Bars, Epoxy Coated		Pound	7650	
Furnishing Steel Piles, HP 14x89		Foot	320	
Driving Piles		Foot	320	
Concrete Encasement		Cu. Yd.	4.4	

**PILE DATA**

Type:	HP 14x89
Nominal Required Bearing:	705 kips
Factored Resistance Available:	347 kips
Factored Resistance Available During an Extreme Event I:	666 kips
Est. Length:	40 Ft.
No. Production Piles:	8
No. Test Piles:	



**PIER 2  
STRUCTURE NO. 076-0029**

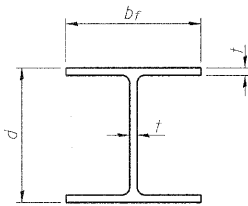
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JOB NO. 08H0131	SHEET NO. 24	F.A.P. RTE. 885	SECTION 6B-2	COUNTY Pope	TOTAL SHEETS 48	SHEET NO. 43
DATE 05/21/10	29 SHEETS	CONTRACT NO. 78141				
ILLINOIS FED. AID PROJECT						

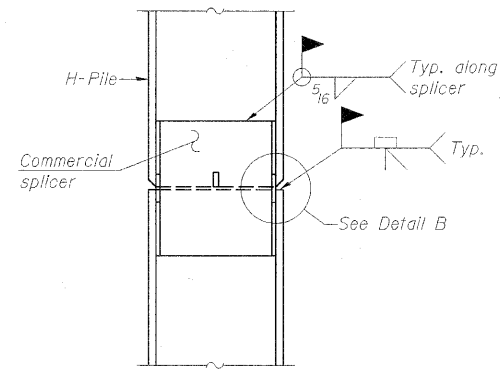


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

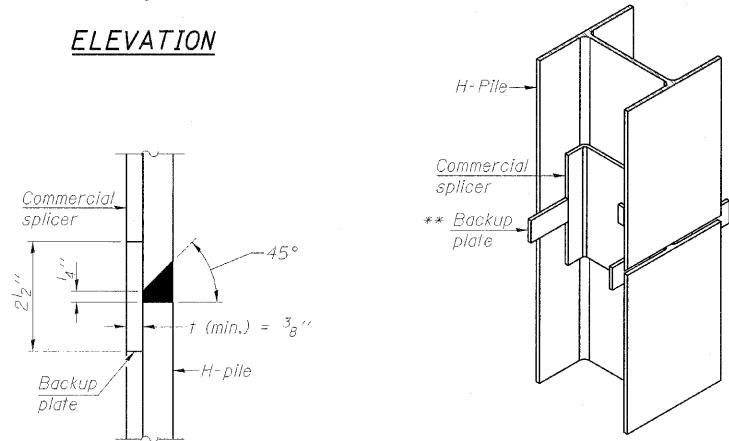


STEEL PILE TABLE

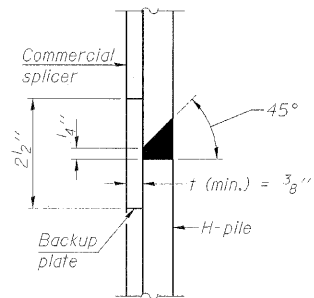
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 5/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53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



ELEVATION

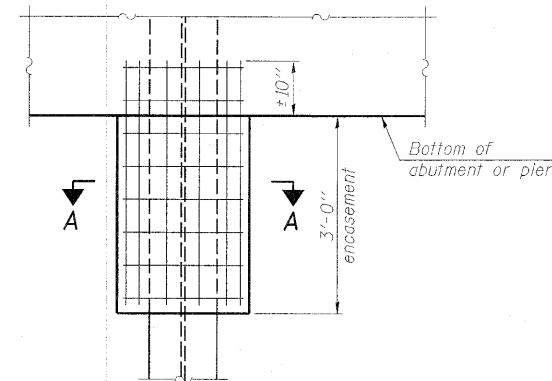


ISOMETRIC VIEW



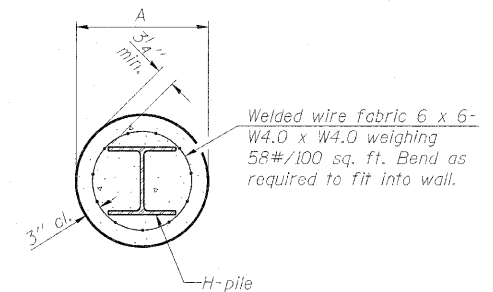
DETAIL "B"

WELDED COMMERCIAL SPLICE



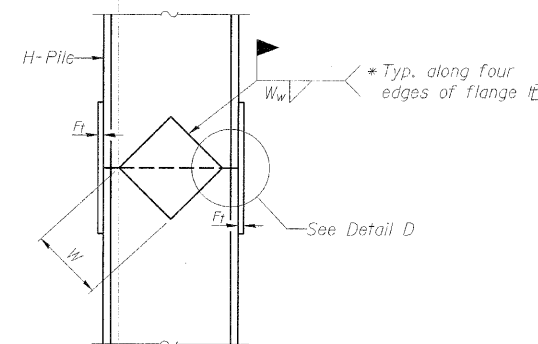
ELEVATION

PILE ENCASEMENT

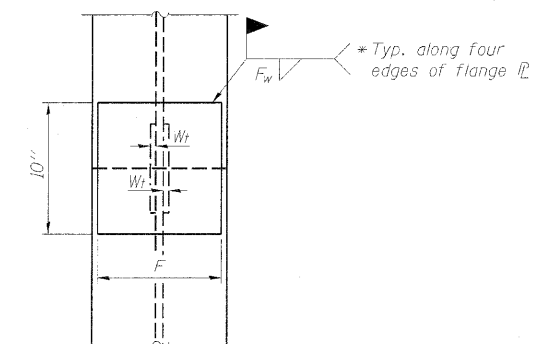


SECTION A-A

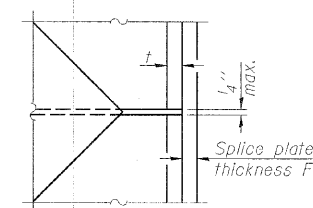
Note:  
Forms for encasement may be omitted when soil conditions permit.



ELEVATION



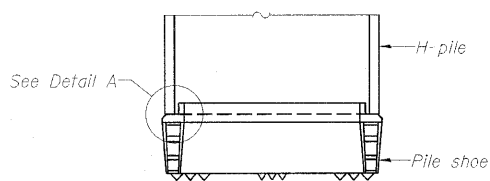
END VIEW



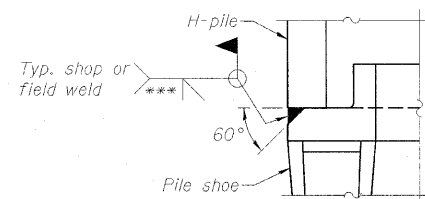
DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	F <sub>f</sub>	F <sub>w</sub>	W	W <sub>f</sub>	W <sub>w</sub>
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 8/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 8/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5 8/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 8/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5 8/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5 8/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	5 8/8"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	5 8/8"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	5 8/8"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	5 8/8"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	5 8/8"	3/8"



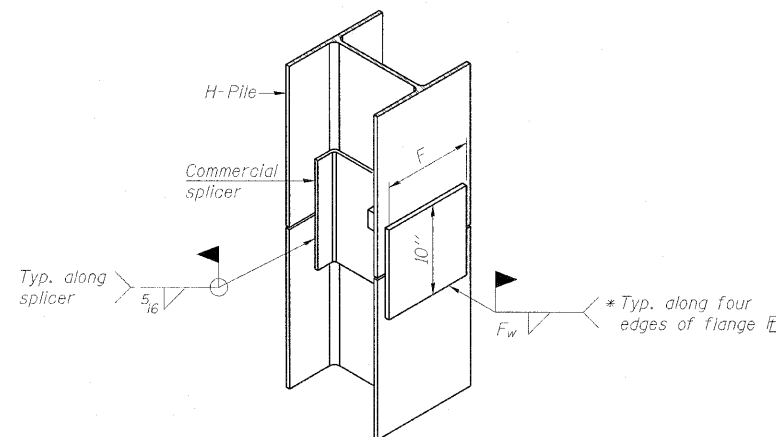
ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT

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



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

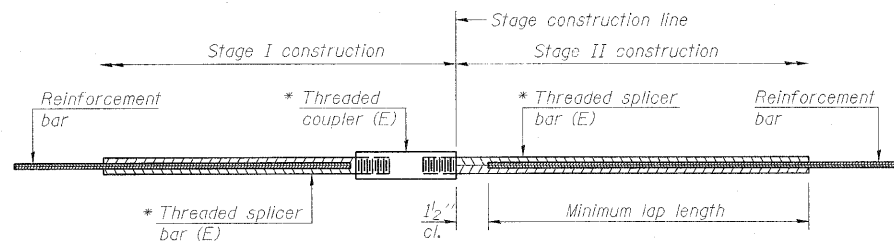
- \* Interrupt welds 1/4" from end of web and/or each flange.
- \*\* Remove portions of backup plates that extend outside the flanges.
- \*\*\* Weld size per pile shoe manufacturer (5/16" min.).

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JOB NO. 08H0131	SHEET NO. 25	F.A.P. RTE. 885	SECTION 6B-2	COUNTY Pope	TOTAL SHEETS 48	SHEET NO. 44
DATE 05/21/10	29 SHEETS	CONTRACT NO. 78141		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**STANDARD BAR SPLICER ASSEMBLY**

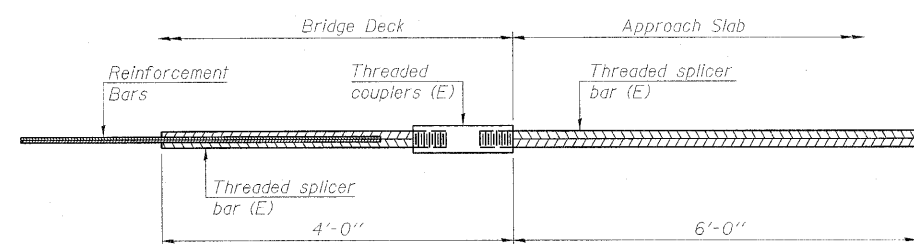
Bar size to be spliced	Minimum Lap Lengths			
	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

Table 1: Black bar, 0.8 Class C  
Table 2: Black bar, Top bar lap, 0.8 Class C  
Table 3: Epoxy bar, 0.8 Class C  
Table 4: Epoxy bar, Top bar lap, 0.8 Class C

Threaded splicer bar length = min. lap length + 1/2" + thread length

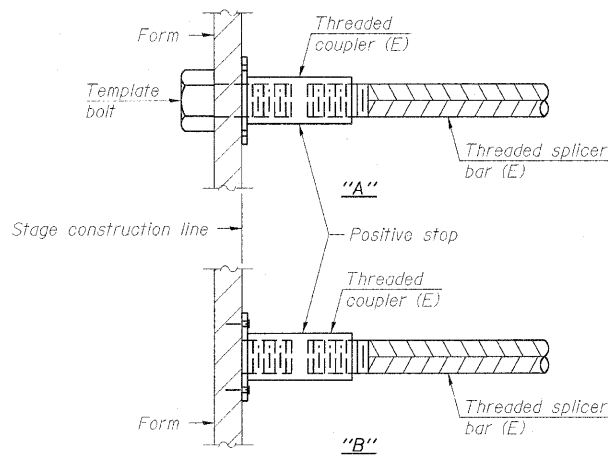
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Superstructure	#5	417	2'-7"
Diaphragms	#6	14	3'-1"
Bridge Appr. Slabs	#4	50	2'-1"
Bridge Appr. Slabs	#5	172	2'-7"
Abutments	#5	20	2'-7"
Abutments	#7	16	4'-8"
Pier Walls	#5	110	2'-7"
Pier Caps	#7	24	4'-8"



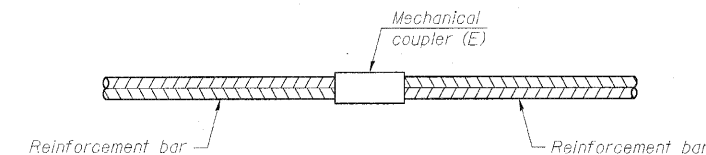
**BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

No. required = 78



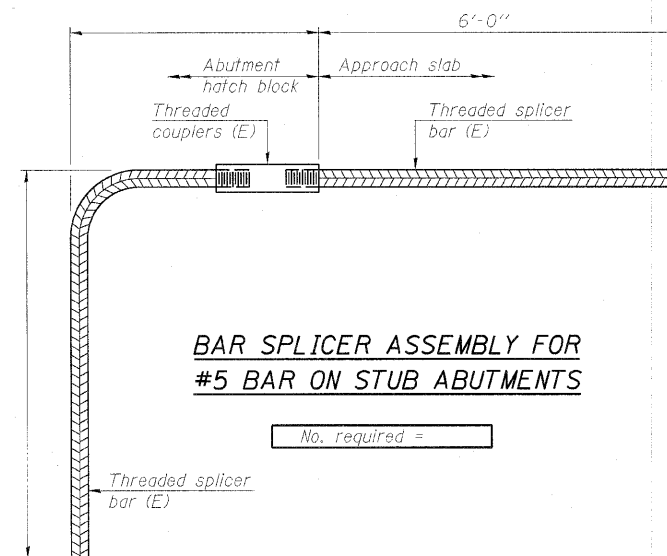
**INSTALLATION AND SETTING METHODS**

"A": Set bar splicer assembly by means of a template bolt.  
"B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms.  
(E) : Indicates epoxy coating.



**STANDARD MECHANICAL SPLICER**

Location	Bar size	No. assemblies required
Pier 1 Wall	#5	78
Pier 2 Wall	#5	78



**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

No. required =

**NOTES**

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.  
All reinforcement shall be lapped and tied to the splicer bars.  
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.  
See special provision for Mechanical Splicers.  
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

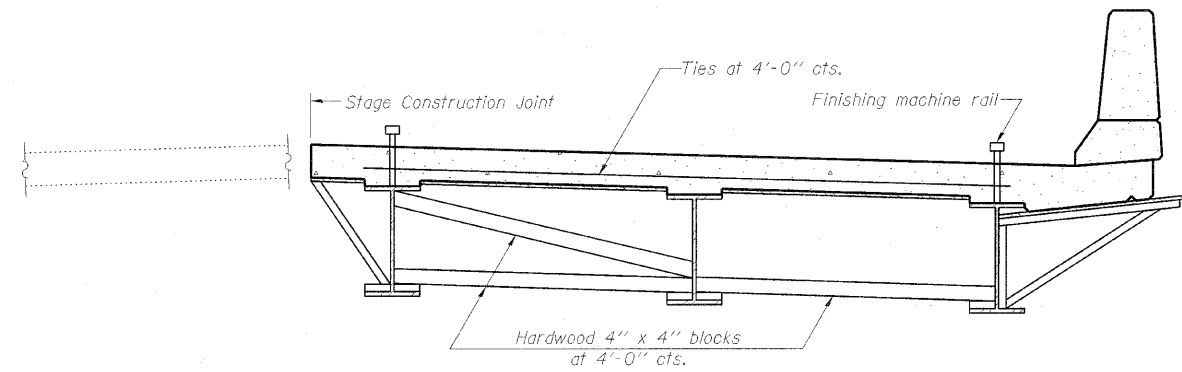
**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
STRUCTURE NO. 076-0029**

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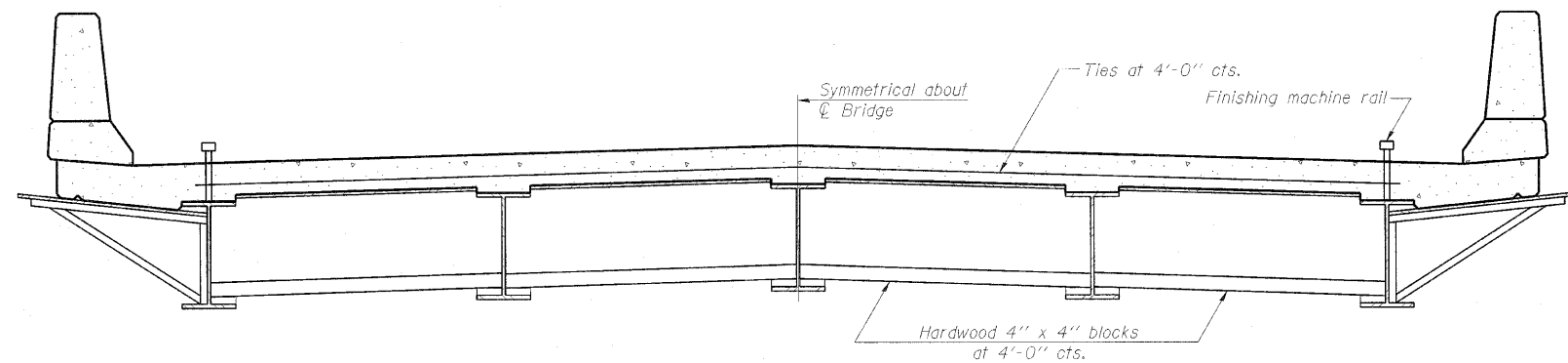
JOB NO. 08H0131	SHEET NO. 26	F.A.P. RTE. 885	SECTION 6B-2	COUNTY Pope	TOTAL SHEETS 48	SHEET NO. 45
DATE 05/21/10	29 SHEETS	CONTRACT NO. 78141		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**FORM BRACES FOR  
STAGE CONSTRUCTION**

When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.  
The finishing machine rails shall be placed on the top flange of the exterior beams.  
The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.  
For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.



**FORM BRACES FOR  
STANDARD CONSTRUCTION**

**CANTILEVER FORMING BRACKETS  
FOR SUPERSTRUCTURES WITH  
W27 BEAMS AND SMALLER  
STRUCTURE NO. 076-0029**

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DES. NO. 08H0131	SHEET NO. 27	F.A.P. RTE. 885	SECTION 6B-2	COUNTY Pope	TOTAL SHEETS 48	SHEET NO. 46
DATE 05/21/10	29 SHEETS			CONTRACT NO. 78141		
ILLINOIS FED. AID PROJECT						

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION


ILLINOIS DEPARTMENT OF TRANSPORTATION District Nine Materials				Bridge Foundation Boring Log					
FMP 885 (IL 146) Over Simmons Creek		Sheet 1 of 2		Date: 11/29/2007					
Route: 885 (IL 146) Structure Number: 076-0023		Location: 4.3 mi SW Hardin County		Bored By: R Moberly		Checked By: R Moberly			
Section 6B-BR		County: Pope							
Boring No. 1-S	D E P T H	B L O W S	Q <sub>u</sub> tsf	W <sub>%</sub>	Soils	D E P T H	B L O W S	Q <sub>u</sub> tsf	W <sub>%</sub>
					Surf Wet Elev: 330.3				
					Ground Water Elevation when Drilling: 329.3				
					At Completion:				
					Ground Surface: 356.3 ft				
					Asphalt and Concrete				
					Very soft, very moist, grey, Silty Loam to Silty Clay Loam A-6				
					WH 0.2B 21				
					354.3				
					Stiff, moist, grey, Silty Loam to Silty Clay Loam A-6				
					Loose, wet, grey, Sand with broken Sandstone Gravel				
					23% Gravel, 54% Sand, 17% Silt, 6% Clay				
					2 1.2B 22				
					5.0 2				
					2 1.3B 21				
					3				
					349.3				
					Medium, moist to very moist, grey, Silty Loam to Silty Clay Loam A-6				
					Stiff, moist, grey, Clay A7-6				
					1 0.8B 21				
					3				
					348.8				
					Soft, very moist, grey, Silty Loam to Silty Clay Loam A-6				
					10.0 1				
					1 0.4B 27				
					2				
					344.3				
					Medium, moist to very moist, grey, Silty Loam to Silty Clay Loam A-6				
					Medium, very moist, grey, Silty Clay to Silty Clay Loam A-6				
					1 0.8B 23				
					3				
					340.3				
					Stiff, moist, grey, Clay A7-6				
					15.0 1				
					2 0.7B 24				
					4				
					339.3				
					Soft, very moist, grey, Silty Loam to Silty Clay Loam A-6				
					1 0.4B 27				
					2				
					338.8				
					Medium to soft, very moist, grey, Silty Loam to Silty Clay Loam A-6				
					Cored 43.5 to 48.5 feet				
					83% Recovery, 48% RQD				
					20.0 1				
					1 0.5B 27				
					2				
					334.3				
					Soft, very moist, grey, Silty Loam to Silty Clay Loam A-6				
					Very dense, dry, br. Sandstone				
					WH				
					1 0.4B 25				
					1				
					331.8				
					Very dense, dry, br. Sandstone				
					Cored 46.5 to 51.5 feet				
					100% Recovery, 60% RQD				
					25.0 WH				

N-Std Penetr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fall. B-Bulge S-Shear E-Estimated P-Penetrometer)

ILLINOIS DEPARTMENT OF TRANSPORTATION District Nine Materials				Bridge Foundation Boring Log					
FMP 885 (IL 146) Over Simmons Creek		Sheet 2 of 2		Date: 11/29/2007					
Route: 885 (IL 146) Structure Number: 076-0023		Location: 4.3 mi SW Hardin County		Bored By: R Moberly		Checked By: R Moberly			
Section 6B-BR		County: Pope							
Boring No. 1-S	D E P T H	B L O W S	Q <sub>u</sub> tsf	W <sub>%</sub>	Soils	D E P T H	B L O W S	Q <sub>u</sub> tsf	W <sub>%</sub>
					Surf Wet Elev: 330.3				
					Ground Water Elevation when Drilling: 329.3				
					At Completion:				
					Ground Surface: 356.3 ft				
					Asphalt and Concrete				
					Very soft, very moist, grey, Silty Loam to Silty Clay Loam A-6				
					WH 0.2B 21				
					354.3				
					Stiff, moist, grey, Silty Loam to Silty Clay Loam A-6				
					Loose, wet, grey, Sand with broken Sandstone Gravel				
					23% Gravel, 54% Sand, 17% Silt, 6% Clay				
					2 1.2B 22				
					5.0 2				
					2 1.3B 21				
					3				
					349.3				
					Medium, moist to very moist, grey, Silty Loam to Silty Clay Loam A-6				
					Stiff, moist, grey, Clay A7-6				
					1 0.8B 21				
					3				
					348.8				
					Soft, very moist, grey, Silty Loam to Silty Clay Loam A-6				
					10.0 1				
					1 0.4B 27				
					2				
					344.3				
					Medium, moist to very moist, grey, Silty Loam to Silty Clay Loam A-6				
					Medium, very moist, grey, Silty Clay to Silty Clay Loam A-6				
					1 0.8B 23				
					3				
					340.3				
					Stiff, moist, grey, Clay A7-6				
					15.0 1				
					2 0.7B 24				
					4				
					339.3				
					Soft, very moist, grey, Silty Loam to Silty Clay Loam A-6				
					1 0.4B 27				
					2				
					338.8				
					Medium to soft, very moist, grey, Silty Loam to Silty Clay Loam A-6				
					Cored 43.5 to 48.5 feet				
					83% Recovery, 48% RQD				
					20.0 1				
					1 0.5B 27				
					2				
					334.3				
					Soft, very moist, grey, Silty Loam to Silty Clay Loam A-6				
					Very dense, dry, br. Sandstone				
					WH				
					1 0.4B 25				
					1				
					331.8				
					Very dense, dry, br. Sandstone				
					Cored 46.5 to 51.5 feet				
					100% Recovery, 60% RQD				
					25.0 WH				

N-Std Penetr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fall. B-Bulge S-Shear E-Estimated P-Penetrometer)

**BORING LOGS**  
*(Sheet 1 of 3)*  
**STRUCTURE NO. 076-0029**

PROFESSIONAL DESIGN FIRM LICENSE #184-001084 © Copyright Hanson Professional Services Inc. 2010		SHEET NO. 28  29 SHEETS	F.A.P. RTE. 885	SECTION 6B-2	COUNTY Pope	TOTAL SHEETS 48	SHEET NO. 47
							

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ILLINOIS DEPARTMENT OF TRANSPORTATION  
District Nine Materials

Bridge Foundation  
Boring Log  
Sheet 1 of 2

Route: FA/ 885 (IL 146) Over Simmons Creek Structure Number: 076-0023 Date: 12/3/2007  
Section: 6B-BR Bored By: R Moberly  
County: Pope Location: 4.3 mi. SW Hardin County Checked By: R Moberly

Boring No. 2-8 Station 24' N N Abut Offset 10' E CL Ground Surface 357.7ft	D E P T H	B L O W S	Q u tsf	W %	Surf Wat Elev: 330.3 Ground Water Elevation when Drilling At Completion 330.7 At: _____	D E P T H	B L O W S	Q u tsf	W %	Description
										Multiple layers of Asphalt, Concrete and Gravel
										Medium to soft, very moist, grey, Silty Clay to Silty Clay Loam A-6
										Soft, very moist, grey, Silty Clay to Silty Clay Loam A-6
										Stiff, moist, brown, Clay to Silty Clay A7-6
										Medium, very moist, grey, Silty Clay to Silty Clay Loam A-6
										Stiff, moist, grey, Clay A7-6
										Medium to soft, very moist, grey, Silty Clay Loam A-6
										Very stiff, moist, grey, Clay A7-6
										Medium, very moist, grey, Silty Clay to Silty Clay Loam A-6
										Stiff, moist, grey, Clay A7-6
										Very dense, dry, grey, Sandstone
										Very dense, dry, grey, Sandstone
										Cored 45.5 to 60.5 feet 100% Recovery, 52% RQD

N-Std Penetr Test: 2" OD Sampler,  
140# Hammer, 30" Fall (Type Fall. B-Bulge S-Shear Z-Estimated P-Penetrometer)

Sheet 2 of 2


Route: 885 (IL 146) Section: 6B-BR  
County: Pope

Boring No. 2-8  
Station: 24' N N Abut  
Offset: 10' E CL  
Ground Surface: 357.7ft

D E P T H	B L O W S	Q u tsf	W %	Description	D E P T H	B L O W S	Q u tsf	W %
				Very dense, dry, grey, Sandstone				
				Cored 50.5 to 55.5 feet 100% Recovery, 67% RQD				
				Bottom of hole = 55.5 feet				
				Free water observed at 27.0 feet				
				Elevation referenced to BM M-16 Elevation = 360.0 feet				
				To convert "N" values to "N60" value multiply by 1.25				

N-Std Penetr Test: 2" OD Sampler,  
140# Hammer, 30" Fall (Type Fall. B-Bulge S-Shear Z-Estimated P-Penetrometer)

**BORING LOGS**  
*(Sheet 2 of 3)*  
**STRUCTURE NO. 076-0029**

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	DATE 05/21/10	CONTRACT NO. 78141		ILLINOIS FED. AID PROJECT			