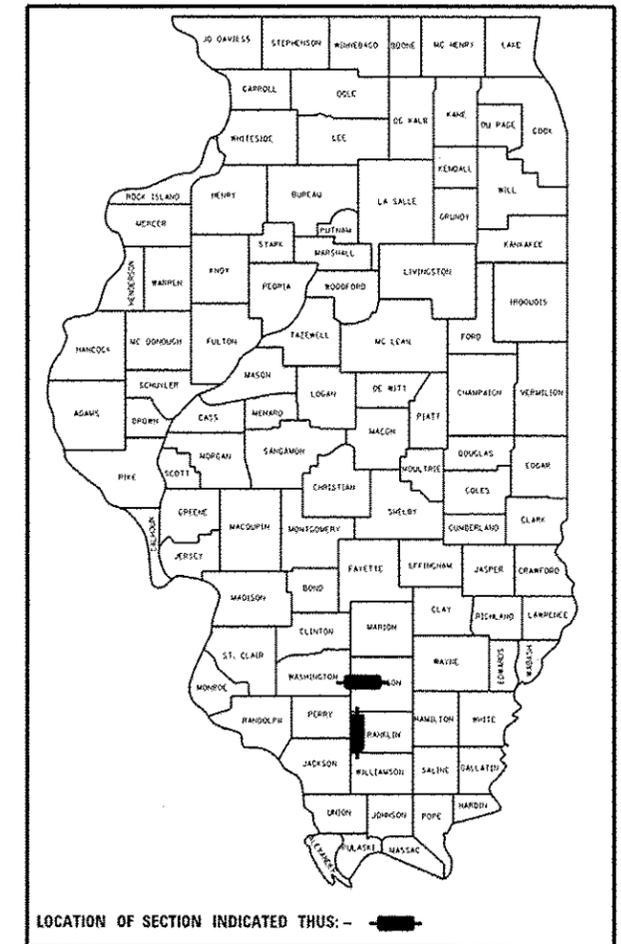


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	12B-3;127B-1	**	24	1
ILLINOIS CONTRACT NO. 78496				

\* FAP ROUTE 821 & FAP ROUTE 726  
\*\* JEFFERSON & FRANKLIN

D-99-056-15



LOCATION OF SECTION INDICATED THUS: - [Black Box] -

# PROPOSED HIGHWAY PLANS

F.A.P. ROUTE 821 & F.A.P. ROUTE 726 (IL 15 & IL 148)  
SECTION 12B-3;127B-1  
PROJECT ACF-000V(087)  
BOX CULVERT REPLACEMENTS  
JEFFERSON & FRANKLIN COUNTY

C-99-064-15

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 3 - 6

**TRAFFIC DATA**

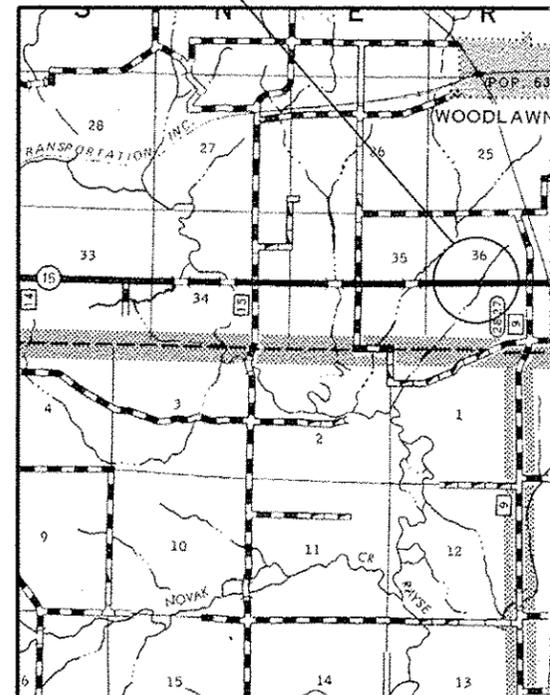
SN 041-7067 (E)  
2013 ADT = 2600  
WITH 7.3% TRUCKS  
SPEED LIMIT: 55 MPH

SN 028-7003 (E)  
2013 ADT = 5450  
WITH 6.2% TRUCKS  
SPEED LIMIT: 45 MPH

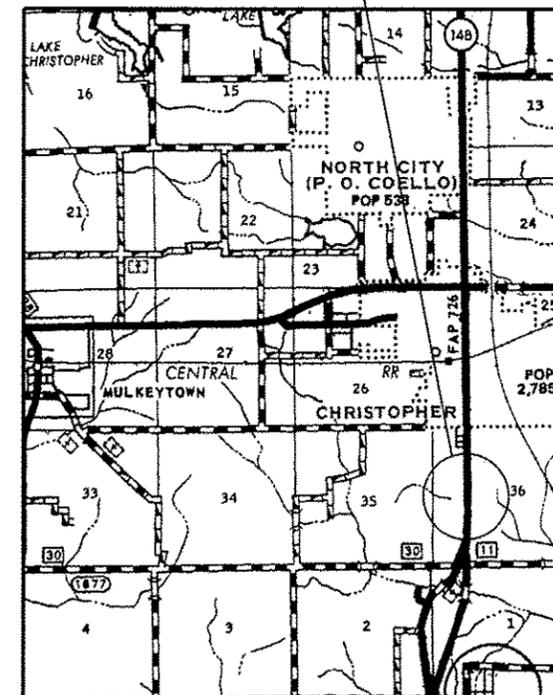
**TOWNSHIP**

SN 041-7067 (E) - CASNER  
SN 028-7003 (E) - TYRONE

IMPROVEMENT LOCATION  
STRUCTURE 041-7067 (E)  
STRUCTURE 041-7097 (P)  
IL 15 OVER DITCH



IMPROVEMENT LOCATION  
STRUCTURE 028-7003 (E)  
STRUCTURE 028-7124 (P)  
IL 148 OVER DITCH



SN 041-7067 (E)

DESIGN DESIGNATION - 2600 (16) ARTERIAL 0.04 (N/A)

SN 028-7003 (E)

DESIGN DESIGNATION : 5450 (16) ARTERIAL 0.05 (N/A)

COORDINATE SYSTEM : EAST ZONE

POSTED SPEED : 55 MPH

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

PROJECT ENGINEER: DAVID PICHE (618) 351-5227  
PROJECT DESIGNER: ADRIAN ADAMS (618) 351-5262

CONTRACT NO. 78496

GROSS LENGTH = 90.0 FT. = 0.02 MILES  
NET LENGTH = 90.0 FT. = 0.02 MILES

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED February 2 20 17

*Jeffrey J. Lewis*  
REGION FIVE ENGINEER

Mar 24 20 17  
*Maureen M. Addis, PE, PE*  
ENGINEER OF DESIGN AND ENVIRONMENT

Mar 24 20 17  
*Kevin Allen* 2  
DIRECTOR OF PROGRAM DEVELOPMENT

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

**GENERAL NOTES**

- 1) THE THICKNESS OF HOT-MIX ASPHALT MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HOT-MIX ASPHALT MIXTURE IS PLACED.
- 2) FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:
 

ALL HOT MIX ASPHALT	2.016 TONS/CU YD
ALL AGGREGATE	2.05 TONS/CU YD
BITUMINOUS MATERIALS:	
(TACK COAT) ON PAVEMENT	0.05 LBS/SQ FT
HMA LIFTS	0.025 LBS/SQ FT
(PRIME COAT) AGGREGATE BASES	0.25 LBS/SQ FT
RIPRAP	1.50 TONS/CU YD
EARTH	110 LBS/CU FT
- 3) AT ALL LOCATIONS WHERE EXISTING HOT-MIX ASPHALT OR CONCRETE PAVEMENT JOINS AN EXISTING HOT-MIX ASPHALT OR CONCRETE PAVEMENT, A FULL DEPTH SAWED JOINT SHALL BE CONSTRUCTED. THE COST OF THIS JOINT WILL BE INCLUDED IN THE COST OF THE TYPE OF PAVEMENT BEING CONSTRUCTED.
- 4) A CALCIUM CHLORIDE ACCELERATOR WILL BE ALLOWED FOR THE PCC PAVEMENT, 10%. THE CONCRETE SHALL BE CLASS PP-1 OR PP-2 PER ARTICLE 1020 OF THE STANDARD SPECS.
- 5) REMOVAL OF EXISTING AGGREGATE SHOULDERS SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.
- 6) PRIOR TO PLACEMENT OF FINAL PAVEMENT MARKINGS THE RESIDENT ENGINEER SHALL CONTACT THE BUREAU OF OPERATIONS AND ARRANGE FOR INSPECTION AND APPROVAL OF THE PAVEMENT MARKING LAYOUT.
- 7) THE ADVANCE DETECTOR LOOPS ARE TYPICALLY LOCATED 275 FEET IN ADVANCE OF THE STOP BAR. THE BUREAU OF OPERATIONS SHOULD APPROVE THE LOOP LOCATIONS PRIOR TO INSTALLATION.
- 8) COMMITMENTS: NONE AS OF FEBRUARY 3, 2017.

**STANDARDS**

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
420001-08	PAVEMENT JOINTS
420601-06	24' PCC PAVEMENT
420701-03	PAVEMENT FABRIC
630301-07	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
666001-01	RIGHT OF WAY MARKERS
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701316-11	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR, FOR SPEEDS > 45 MPH
701901-06	TRAFFIC CONTROL DEVICES
725001-01	OBJECT AND TERMINAL MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
782006	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
862001-01	UNINTERRUPTABLE POWER SUPPLY
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

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1	COVER SHEET
2	GENERAL NOTES, INDEX OF SHEETS, AND STANDARDS
3-6	SUMMARY OF QUANTITIES
7	SCHEDULES AND DETAILS
8	GEOPAK ELEMENTS IDENTIFICATION SHEET
9	GENERAL PLAN SN 041-7097 (P)
10	FINAL SECTION SN 041-7097 (P)
11	LIMITS OF POROUS GRANULAR EMBANKMENT AND TYPICAL SECTION WITHIN PAVEMENT REMOVAL SN 041-7097 (P)
12	R-99-007-16 RIGHT OF WAY PLANS
13-16	CROSS SECTIONS SN 041-7097 (P)
17-18	PRECAST CONCRETE BOX CULVERT APRON END SECTION DETAILS SN 041-7097 (P)
19	GENERAL PLAN SN 028-7124 (P)
20	TEMPORARY AND FINAL SECTIONS SN 028-7124 (P)
21	LIMITS OF POROUS GRANULAR EMBANKMENT AND SECTION WITHIN PAVEMENT REMOVAL SN 028-7124 (P)
22-23	CAST-IN-PLACE APRON END SECTION DETAILS SN 028-7124 (P)
24	DISTRICT STANDARDS

Prepared By: *[Signature]*  
 DISTRICT STUDIES & PLANS ENGINEER

Examined By: *[Signature]*  
 DISTRICT LAND ACQUISITION ENGINEER

Examined By: *[Signature]*  
 DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By: *[Signature]*  
 DISTRICT OPERATIONS ENGINEER

Examined By: *[Signature]*  
 DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By: *[Signature]*  
 DISTRICT CONSTRUCTION ENGINEER

Examined By: *[Signature]*  
 DISTRICT MATERIALS ENGINEER

JOB NAME 128-3127B-1	JOB NO. 128-3127B-1	DESIGNED DATE	REVISOR DATE	DRAWN DATE	CHECKED DATE	REVISOR DATE	REVISOR DATE	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES, INDEX OF SHEETS, AND STANDARDS	F.A.P. RTE. 128-3127B-1	SECTION 128-3127B-1	COUNTY ..	TOTAL SHEETS 24	SHEET NO. 2	CONTRACT NO. 78496	ILLINOIS FED. AID PROJECT
									SCALE: _____ SHEET OF SHEETS STA. _____ TO STA. _____							

# SUMMARY OF QUANTITIES

COUNTY:	✓ JEFFERSON	✓ FRANKLIN
STRUCTURE:	SN 041-7067	SN 028-7003
FUNDING:	80% FED / 20% STATE	80% FED / 20% STATE
LOCATION:	✓ RURAL	✓ RURAL
	ROADWAY	ROADWAY
	0004	0004

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	JEFFERSON	FRANKLIN
20200100	EARTH EXCAVATION	CU YD	826	666	160
20400800	FURNISHED EXCAVATION	CU YD	434	434	
20700220	POROUS GRANULAR EMBANKMENT	CU YD	806	646	160
25000200	SEEDING, CLASS 2	ACRE	0.25	0.20	0.05
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	23	18	5
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	23	18	5
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	23	18	5
25000700	AGRICULTURAL GROUND LIMESTONE	TON	0.5	0.4	0.1
25100115	MULCH, METHOD 2	ACRE	0.25	0.20	0.05
25100630	EROSION CONTROL BLANKET	SQ YD	965	882	83
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	20	20	
28000400	PERIMETER EROSION BARRIER	FOOT	697	515	182

12

# SUMMARY OF QUANTITIES - CONT

COUNTY:	JEFFERSON	FRANKLIN
STRUCTURE:	SN 041-7067	SN 028-7003
FUNDING:	80% FED / 20% STATE	80% FED / 20% STATE
LOCATION:	RURAL	RURAL
TOTAL QUANTITY	ROADWAY 0004	ROADWAY 0004

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	JEFFERSON	FRANKLIN
28100107	STONE RIPRAP, CLASS A4	SO YD	94		94
28100707	STONE DUMPED RIPRAP, CLASS A4	SO YD	29	29	
28200200	FILTER FABRIC	SO YD	94		94
42000060	WELDED WIRE REINFORCEMENT	SO YD	261	116	145
42000500	PORTLAND CEMENT CONCRETE PAVEMENT 10"	SO YD	250	116	134
42300200	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH	SO YD	11		11
44000100	PAVEMENT REMOVAL	SO YD	261	116	145
48101600	AGGREGATE SHOULDERS, TYPE B 8"	SO YD	29		29
48300300	PORTLAND CEMENT CONCRETE SHOULDERS 8"	SO YD	330	330	
50102400	CONCRETE REMOVAL	CU YD	59.5	25.8	33.7
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	730		730
54001001	BOX CULVERT END SECTIONS, CULVERT NO. 1	EACH	2	2	

12

# SUMMARY OF QUANTITIES - CONT

COUNTY:	JEFFERSON	FRANKLIN
STRUCTURE#:	SN 041-7067	SN 028-7003
FUNDING:	80% FED / 20% STATE	80% FED / 20% STATE
LOCATION:	RURAL	RURAL
	ROADWAY	ROADWAY
	0004	0004

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	JEFFERSON	FRANKLIN
54003000	CONCRETE BOX CULVERTS	CU YD	12.0		12.0
54010604	PRECAST CONCRETE BOX CULVERTS 6' X 4'	FOOT	117	63	54
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	200	200	
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE I (SPECIAL) TANGENT	EACH	4	4	
66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	8	8	
67100100	MOBILIZATION	LSUM	1.0	0.5	0.5
70100100	TRAFFIC CONTROL AND PROTECTION, STANDARD 701316	EACH	1		1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	LSUM	1	1	
70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	LSUM	1	0.5	0.5
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1		1
* 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	240	130	110

\* SPECIALTY ITEM

FILE NAME	USER NAME	DESIGNED	REVISED	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
128-31278-1						*	128-31278-1	**	24	5
MODEL NAME	PLOT SCALE	CHECKED	REVISOR		SCALE					
	1/2"=10'									
	1/27/2017	DATE	REVISOR		SHEET	OF	SHEETS	STA.	TO	STA.

\* FAP ROUTE 821 & FAP ROUTE 726  
\*\* JEFFERSON & FRANKLIN

*REV*

# SUMMARY OF QUANTITIES - CONT

COUNTY:	JEFFERSON	FRANKLIN
STRUCTURE#:	SN 041-7067	SN 028-7003
FUNDING:	80% FED / 20% STATE	80% FED / 20% STATE
LOCATION:	RURAL	RURAL
	ROADWAY	ROADWAY
	0004	0004

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	JEFFERSON	FRANKLIN
* 78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	8	8	
* 86200300	UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1		1
X0322128	MEMBRANE WATERPROOFING FOR <i>BURIED STRUCTURES</i>	SQ YD	122	69	53
X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	80	43	37
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	120	60	60

\* SPECIALTY ITEM

FILE NAME *	USER NAME * <i>adrian</i>	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
<i>pub\ELDR\DESIGN\TCD\Illinois\guardrail\001\00</i>	<i>umansa\DDT_Offices\District 9\Projects\78496\DRAWN\CD\shauts\78496.ph5.dgn</i>	<i>DRAWN</i>	<i>REVISED</i>			<i>*</i>	<i>128-3(1278-1)</i>	<i>**</i>	<i>24</i>	<i>6</i>
MODEL NAME *	PLOT SCALE = <i>1/2"=100'</i>	CHECKED -	REVISED -		SCALE: _____				CONTRACT NO. <b>78496</b>	
	PLOT DATE = <i>1/27/2017</i>	DATE -	REVISED -		SHEET _____ OF _____ SHEETS				ILLINOIS FED. AID PROJECT	

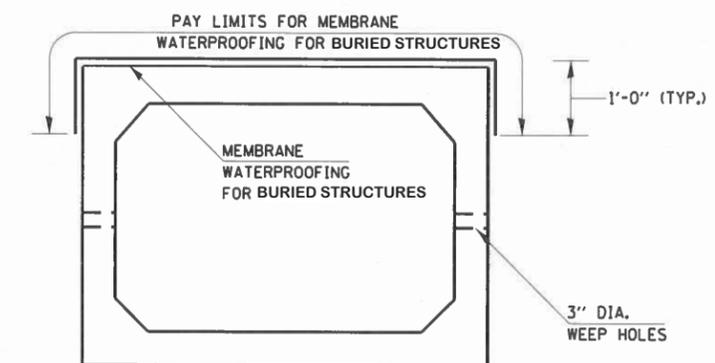
• FAP ROUTE 821 & FAP ROUTE 726  
•• JEFFERSON & FRANKLIN

PAVING SCHEDULE						
STATION	COMMENTS	PAVEMENT REMOVAL	PORTLAND CEMENT CONCRETE PAVEMENT, 10'	WELDED WIRE REINF.	PCC SHOULDERS, 8'	AGGREGATE SHOULDERS, TYPE B - 8'
		SO YD	SO YD	SO YD	SO YD	SO YD
JEFFERSON COUNTY 041-7097						
982+23.6	LT TO 984+55.6	58	58	58	165	
981+76.8	RT TO 983+26.8	58	58	58	165	
FRANKLIN COUNTY 028-7124						
948+53.8	LT TO 948+73.2	11		11		
948+36.0	LT TO 948+86.0	67	67	67		7
948+36.0	RT TO 948+86.0	67	67	67		22
TOTALS		261	250	261	330	29

GUARDRAIL SCHEDULE						
STATION	TRAFFIC BARRIER TERMINAL, TYPE 1 SPL TANGENT			STEEL PLATE BEAM GUARDRAIL		
	EACH			FOOT		
JEFFERSON COUNTY						
982+39.65	LT TO 982+89.65	1				
982+89.65	LT TO 983+89.65				100	
983+89.65	LT TO 984+39.65	1				
981+51.85	RT TO 982+01.85	1				
982+01.85	RT TO 983+01.85				100	
983+01.85	RT TO 983+51.85	1				
TOTALS		4			200	

PAVEMENT MARKING SCHEDULE						
STATION	NOTES	PAINT PAVEMENT MARKING - LINE 4'				
		SOLID WHITE	YELLOW SKIP DASH	SOLID YELLOW		
		FOOT	FOOT	FOOT		
JEFFERSON COUNTY						
982+80	RT TO 983+20	40				
982+80	ALONG CENTERLINE		10	40		
982+80	LT TO 983+20	40				
FRANKLIN COUNTY						
948+36	RT TO 948+86	50				
948+36	ALONG CENTERLINE		10			
948+36	LT TO 948+86	50				
SUBTOTAL		180	20	40		
TOTAL			240			

PRECAST BOX CULVERT SCHEDULE (ASTM C 1577)						
STATION	SIZE	SKEW	DESIGN FILL (FT.)		PGE BACKFILL REQUIRED	
			EDGE OF SHLD. (MIN)	MAXIMUM		
JEFFERSON COUNTY						
982+96.40	TO 983+03.60	6' X 4'	5	• 6.8'	• 7.5'	628 CU YD
FRANKLIN COUNTY						
948+56.86	TO 948+65.14	6' X 4'	30	• 1.3'	• 2.1'	145 CU YD



PRECAST CONCRETE  
BOX CULVERT



CHAIN NAME = IL15

984

SN 041-7067 (E)  
SN 041-7097 (P)



CHAIN NAME = IL148

950

SN 028-7003 (E)  
SN 028-7124 (P)

FILE NAME =	USER NAME = adamsam	DESIGNED -	REVISED -
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	PLOT DATE = 10/18/2016		

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GEOPAK ELEMENTS  
IDENTIFICATION SHEET**

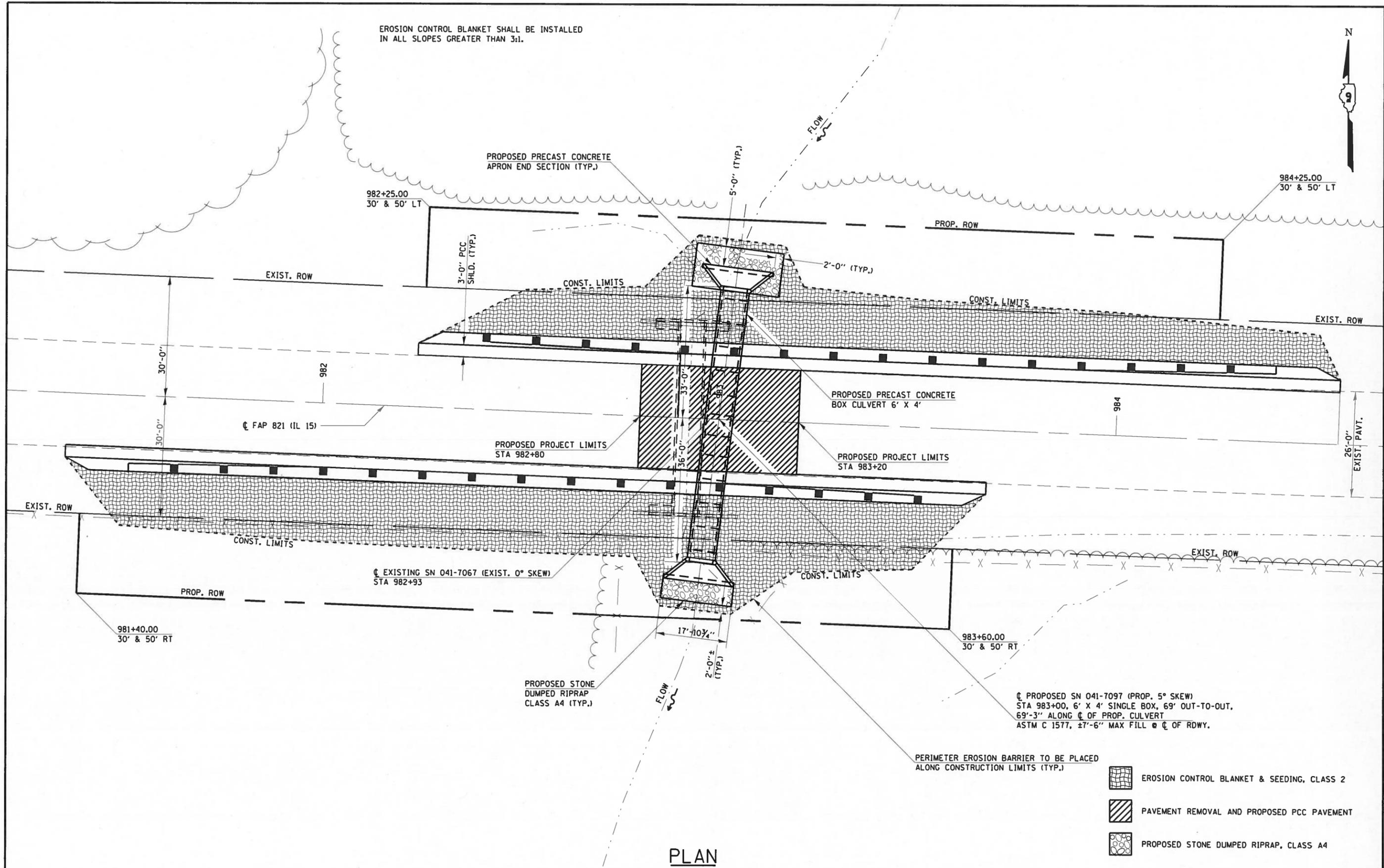
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	12B-3i127B-1	••	24	8
			CONTRACT NO. 78496	
ILLINOIS FED. AID PROJECT				

- FAP ROUTE 821 & FAP ROUTE 726
- JEFFERSON & FRANKLIN



EROSION CONTROL BLANKET SHALL BE INSTALLED  
IN ALL SLOPES GREATER THAN 3:1.



PLAN

FILE NAME =	USER NAME = adamsa	DESIGNED -	REVISED -
pw:\IL084EBIOINTEG.illinois.gov\PI\DOT\Documents\DOT Offices\District 9\Projects\78496\Drawings\CA\Sheets\78496_sht.dgn		DRAWN -	REVISED -
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN  
SN 041-7097 (P)

SCALE: \_\_\_\_\_ SHEET \_\_\_\_\_ OF \_\_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

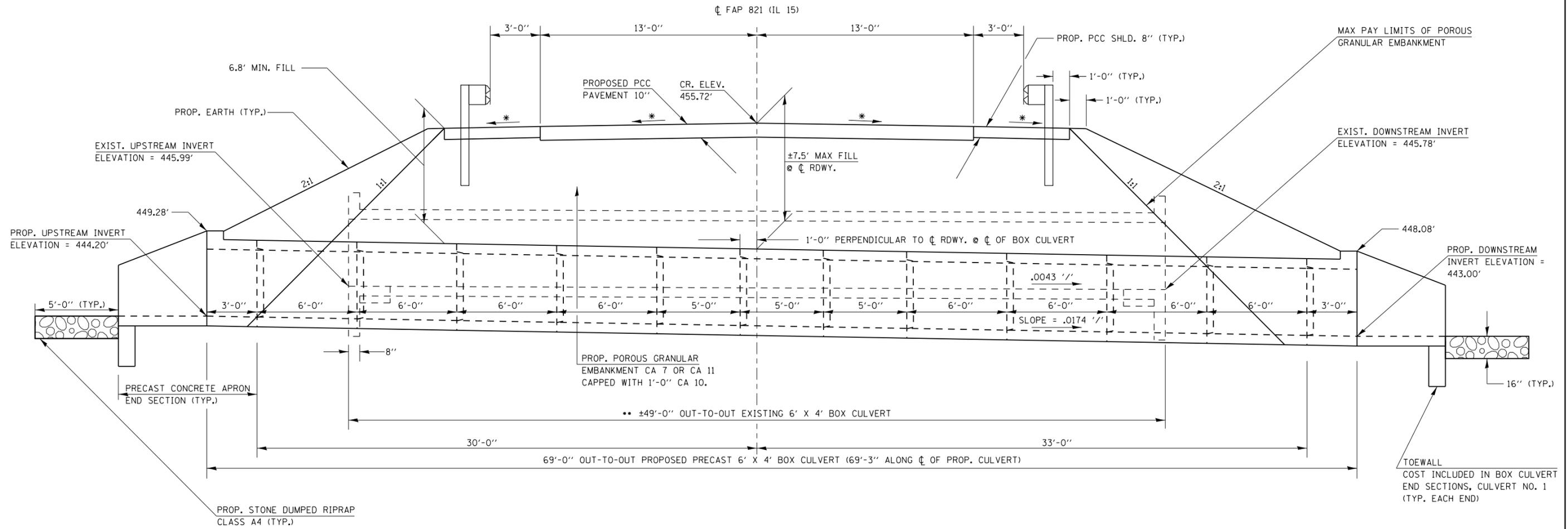
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	128-31278-1	**	24	9
CONTRACT NO. 78496				
ILLINOIS FED. AID PROJECT				

• FAP ROUTE 821 & FAP ROUTE 726  
•• JEFFERSON & FRANKLIN

# FINAL SECTION

**HYDRAULIC DATA**  
 DRAINAGE AREA = 0.20 SQ MI  
 DESIGN WATERWAY OPENING = 24 SQ FT  
 DESIGN DISCHARGE = 345 CFS  
 DESIGN HEADWATER ELEVATION = 454.06 FT  
 100 YEAR DISCHARGE = 410 CFS  
 100 YEAR HEADWATER ELEVATION = 456.01 FT

\* MATCH EXISTING CROSS SLOPES  
 \*\* THE REMOVAL OF THE EXISTING BOX CULVERT IS TO BE INCLUDED IN THE COST OF CONCRETE REMOVAL.



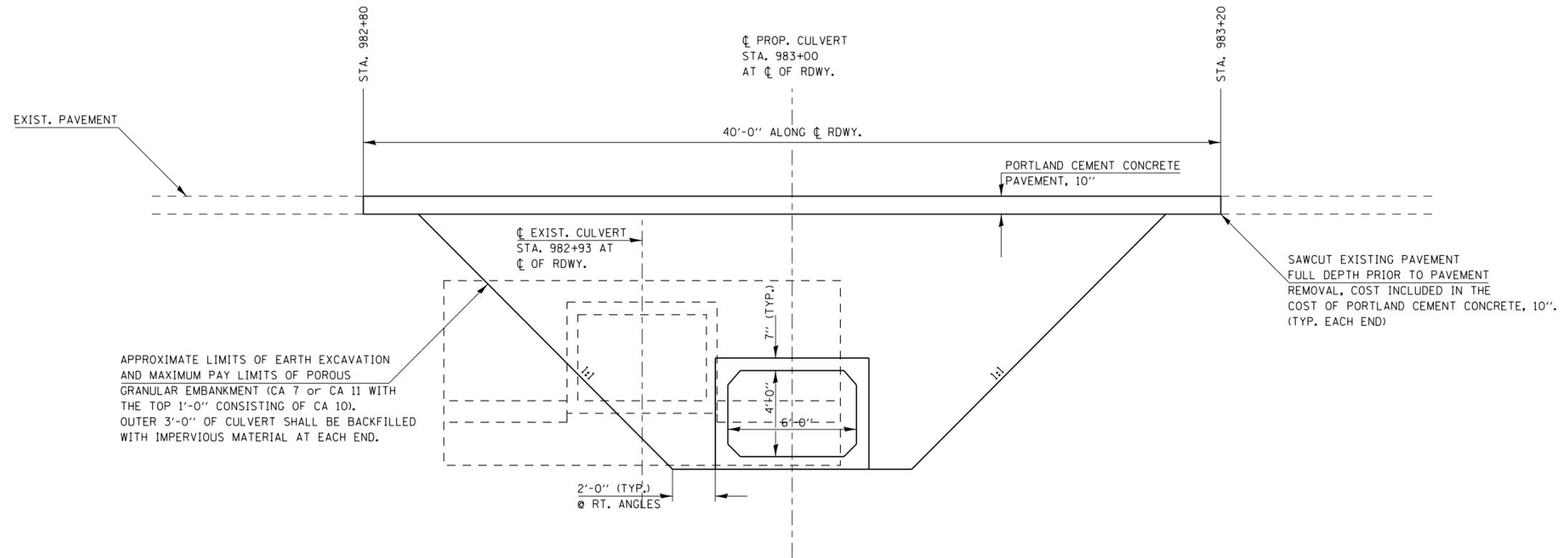
**ELEVATION**  
(LOOKING EAST)

DIMENSIONS OF BOX CULVERT ARE AT RIGHT ANGLES. PRECAST BOX LOADING HL-93. ASTM C 1577

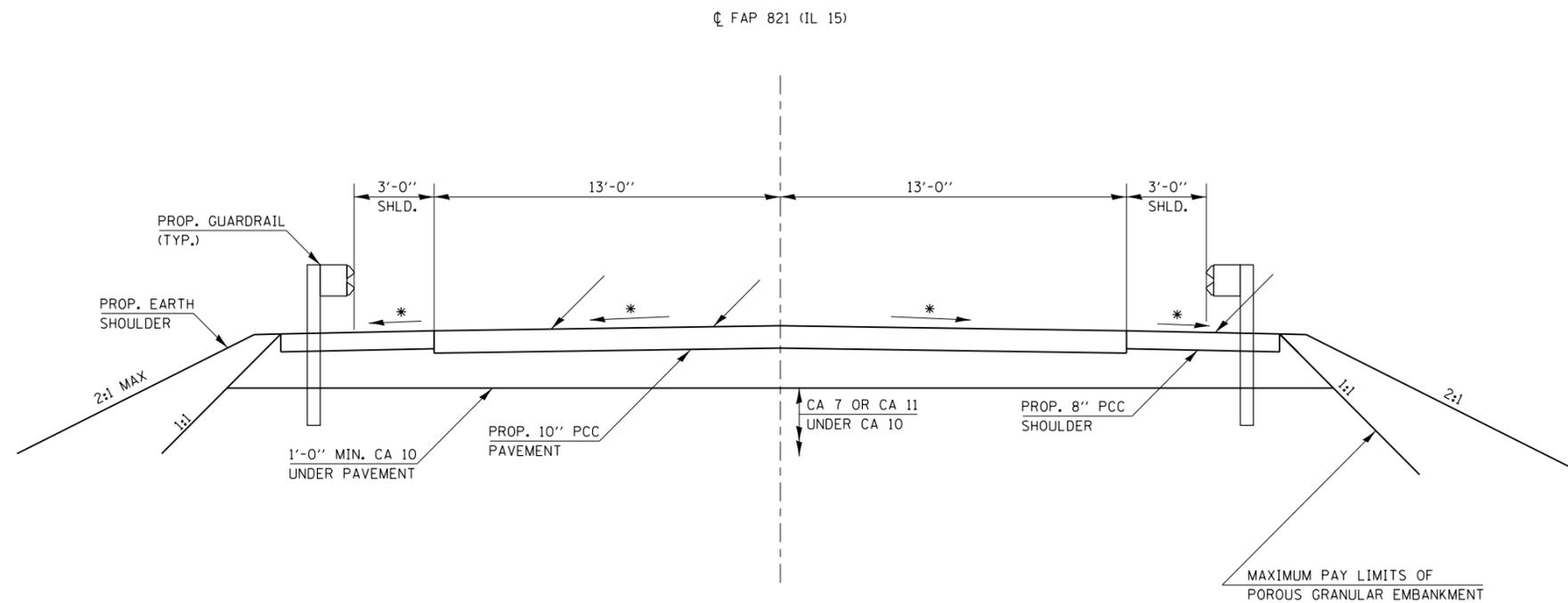
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pw:\IL084EBIDINTEG\Illinois.gov\PWIDOT\Documents\DOT Offices\District 9\Projects\78496\Drawings\CAD\Sheets\78496_sht.dgn						•	12B-3127B-1	••	24	10
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	PLOT DATE = 10/18/2016	DATE -	REVISED -			CONTRACT NO. 78496				

• FAP ROUTE 821 & FAP ROUTE 726  
 •• JEFFERSON & FRANKLIN

# LIMITS OF POROUS GRANULAR EMBANKMENT



# SECTION WITHIN PAVEMENT REMOVAL



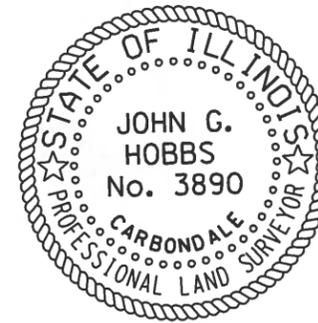
\* MATCH EXISTING CROSS SLOPES

FILE NAME =	USER NAME = adamsam	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>LIMITS OF POROUS GRANULAR EMBANKMENT AND SECTION WITHIN PAVEMENT REMOVAL</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
pw:\IL084EBIDINTEG\Illinois.gov\PWIDOT\Documents\DOT Offices\District 9\Projects\78496\Drawings\CAD\Sheets\78496.sht.dgn		CHECKED -	REVISED -			•	12B-3127B-1	••	24	11	
Default	PLOT SCALE = 5.6667 "/ in.	DATE -	REVISED -			CONTRACT NO. 78496					
	PLOT DATE = 10/18/2016					ILLINOIS FED. AID PROJECT					

• FAP ROUTE 821 & FAP ROUTE 726  
•• JEFFERSON & FRANKLIN

PARCEL	PROPERTY OWNER	R. O. W. (ACRES)	PE (ACRES)	TE (ACRES)
356	MICHELLE & CHRISTOPHER BAILEY	0.023		
357	MARK RUBEL	0.078		
358	JAMES & MARGARET DYCUS	0.092		

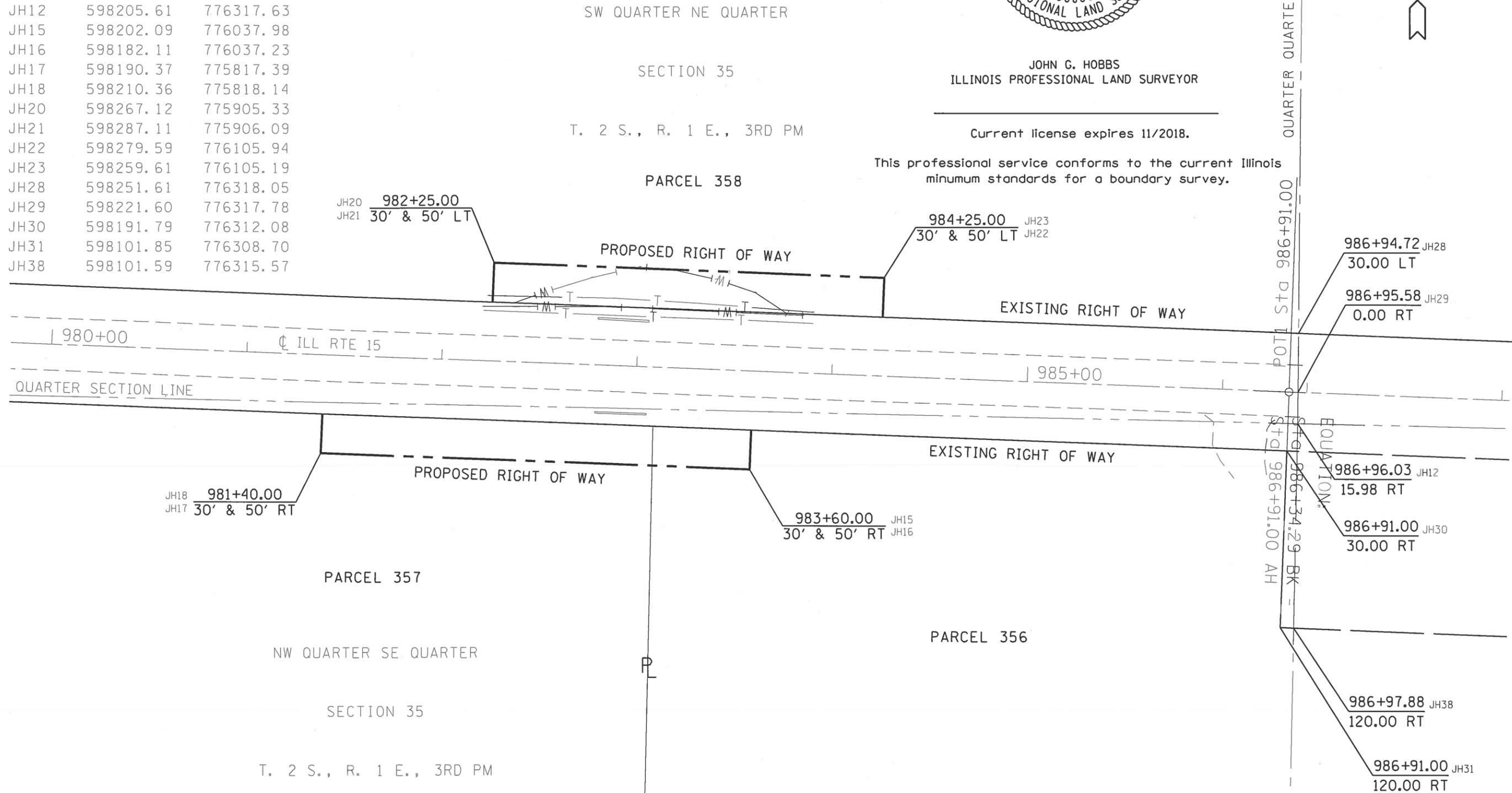
PT#	NORTHING	EASTING
JH12	598205.61	776317.63
JH15	598202.09	776037.98
JH16	598182.11	776037.23
JH17	598190.37	775817.39
JH18	598210.36	775818.14
JH20	598267.12	775905.33
JH21	598287.11	775906.09
JH22	598279.59	776105.94
JH23	598259.61	776105.19
JH28	598251.61	776318.05
JH29	598221.60	776317.78
JH30	598191.79	776312.08
JH31	598101.85	776308.70
JH38	598101.59	776315.57



JOHN G. HOBBS  
ILLINOIS PROFESSIONAL LAND SURVEYOR

Current license expires 11/2018.

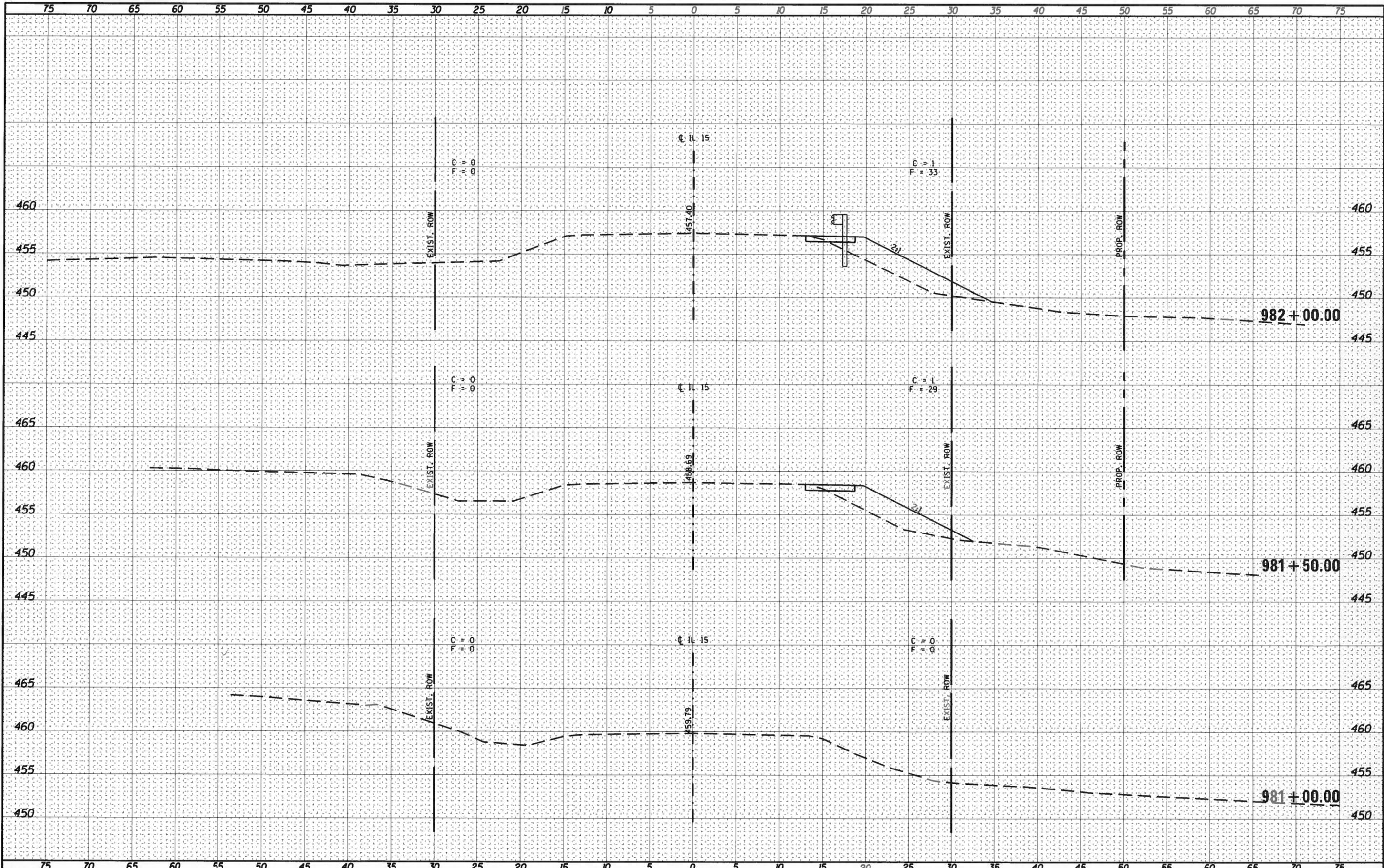
This professional service conforms to the current Illinois minimum standards for a boundary survey.



FILE NAME =	USER NAME = adamsam	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>RIGHT OF WAY SHEET</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw\IL084EBID\INTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 9\Projects\78496\Drawings\CAD\Sheets\78496_ROW_sht.dgn	PLOT SCALE = 51.4981' / in.	DRAWN -	REVISED -		15	128-31278-1	JEFFERSON	24	12		
#MODELNAME*	PLOT DATE = 1/27/2017	CHECKED -	REVISED -		SCALE: 1" = 50' SHEET 1 OF 1 SHEETS STA. 980+00.00 TO STA. 987+00.00		R-99-007-16		CONTRACT NO. 78496		
		DATE -	REVISED -		ILLINOIS FED. AID PROJECT						

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

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

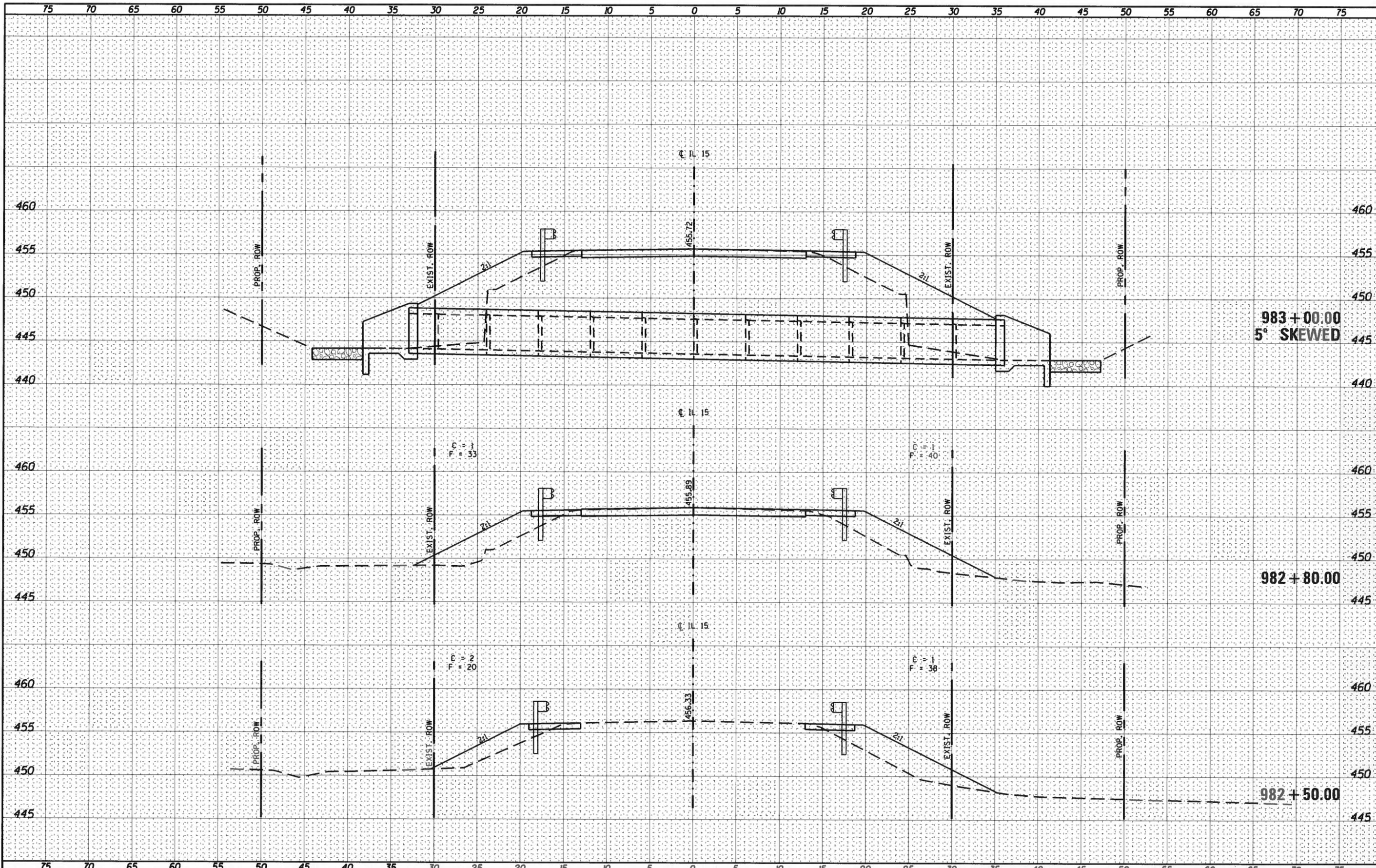


FILE NAME =	USER NAME = adamsam	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTIONS</b>		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
p:\1\084EBID\INTEG\Illinois.gov\PW\DOT\Documents\DOT Offices\District 9\Projects\78496\CAO\	DRAWN heeta78496_sg_sht.dgn	CHECKED -	REVISED -		SCALE: _____	SHEET 1	OF 4	SHEETS	STA. 981+00.00	TO STA. 982+00.00	24	13
MODEL NAME =	PLLOT SCALE = 10.2996' / in.	DATE -	REVISED -						CONTRACT NO. 78496			
	PLLOT DATE = 10/21/2016								ILLINOIS FED. AID PROJECT			

• FAP ROUTE 821 & FAP ROUTE 726  
•• JEFFERSON & FRANKLIN

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

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



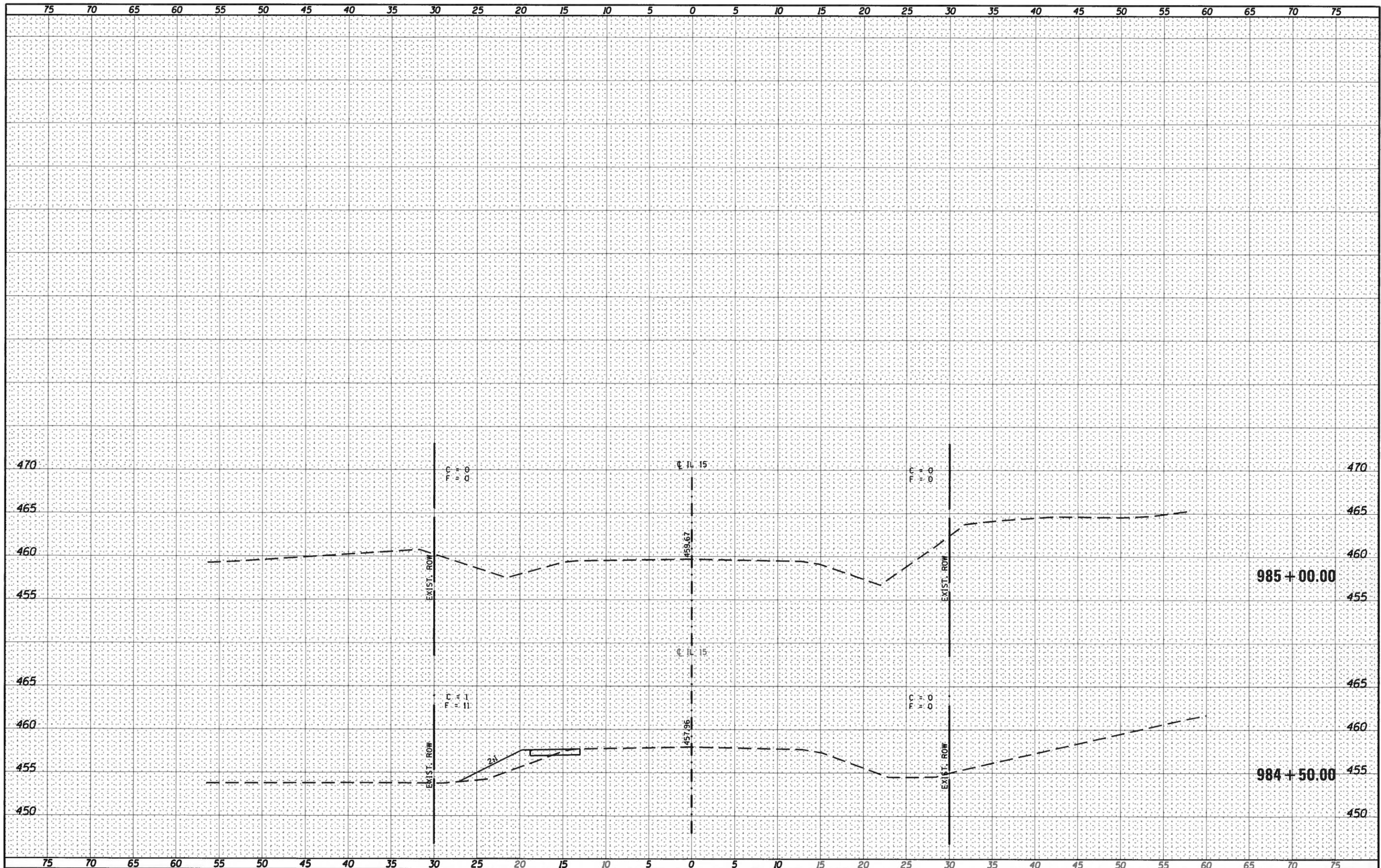
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		DATE -	REVISED -			ILLINOIS FED. AID PROJECT					

• FAP ROUTE 821 & FAP ROUTE 726  
 •• JEFFERSON & FRANKLIN

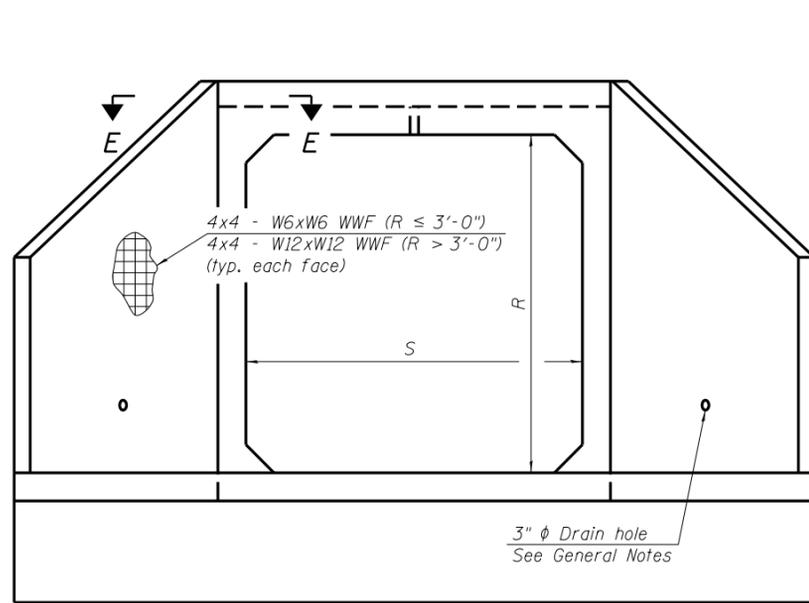


FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTED		
	TEMPLATE		
	AREAS CHECKED		

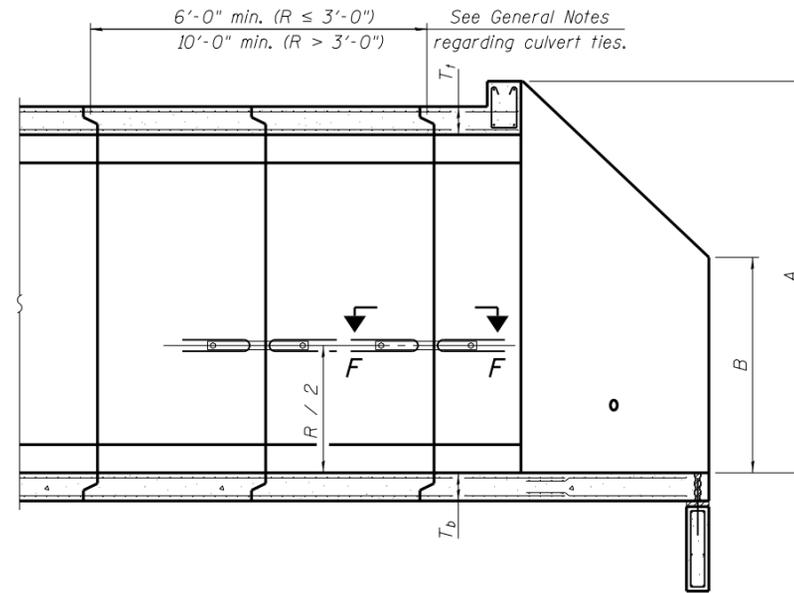
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NOTE BOOK NO.	PLOTTED		
	TEMPLATE		
	AREAS CHECKED		



FILE NAME =	USER NAME = adamsam	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTIONS</b> SCALE: _____ SHEET 4 OF 4 SHEETS STA. 984+50.00 TO STA. 985+00.00	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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	PLOT DATE = 10/21/2016	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					
						* FAP ROUTE 821 & FAP ROUTE 726 ** JEFFERSON & FRANKLIN					



END VIEW



SECTION A-A

GENERAL NOTES

Box Culvert End Sections shall be constructed according to the requirements of Section 540 of the Standard Specifications except as modified herein. End sections will be paid for at the contract unit price per each for Box Culvert End Sections.

The Contractor may furnish the end section as a single precast concrete piece or construct the end section in the field using cast-in-place (CIP) construction. For CIP construction, the bottom slab thickness shall be increased by 2" and the clear cover to the bottom mat of reinforcement shall be increased to 3".

Box section dimensions, materials, and reinforcement details for Box Culvert End Sections shall be according to the requirements for ASTM C 1577 as required for the design of the portion of the culvert within the limits of Precast Concrete Box Culverts except as modified herein.

The number of culvert ties shall be sufficient to engage the minimum length of culvert barrel shown within the pay limits for Precast Concrete Box Culverts and will be dependent upon the length of box culvert segments furnished by the Contractor. Culvert ties are not required for box culverts having a rise (R) less than or equal to 3 ft and a span (S) greater than or equal to 10 ft.

All costs associated with furnishing and installing or constructing the toewall and culvert ties will not be measured for payment but shall be included in the unit price for Box Culvert End Sections of the culvert number specified.

Shop drawings that detail slab thickness and reinforcement layout for the Box Culvert End Sections shall be provided to the Engineer for review and approval. Reinforcement bars not detailed herein shall be detailed with a clear distance at the end of the reinforcement not less than 1/2" nor more than 2". For the precast option, it shall be the Contractor's responsibility for determining a method of handling and a construction procedure shall be included on the shop drawings. The Contractor shall determine and detail in the shop drawings any necessary strengthening or stiffening provisions necessary to handle the precast segment. Any required modifications shall be at no extra charge.

All exposed concrete edges shall be chamfered 3/4" unless noted otherwise.

The Contractor may use reinforcement bars in lieu of welded wire fabric (WWF). Reinforcement bars shall be limited to the sizes of #3 through #5 bars, a maximum spacing of the lesser of 8" or the member thickness, and shall result in an area of reinforcement equal to or greater than that provided by the WWF. Minimum lap lengths detailed herein are applicable to WWF and reinforcement bars.

Reinforcement (circumferential and longitudinal) in the culvert barrel portion of the end section being lapped with reinforcement from the wingwalls or bottom slab of the end section shall not be less than that required by ASTM C 1577 for the design fill height or the reinforcement detailed for the end section, whichever is greater.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. Reinforcement bars designated (E) shall be epoxy coated.

Bonded construction joints shall be prepared according to Article 503.09 of the Standard Specifications.

One drain hole shall be provided in each wingwall for end sections of box culverts having an opening with a clear rise greater than 3 ft. The drain hole shall be located within the lower 1/3 of the clear rise of the box culvert and shall conform to the requirements of Article 503.11 of the Standard Specifications.

APRON END SECTION DIMENSIONS

Span (S)	Rise (R)	T <sub>t</sub>	T <sub>b</sub>	T <sub>s</sub>	A	B	C	D	E	Concrete Cu. Yd.	Culvert Ties Required
3'-0"	2'-0"	7"	6"	4"	3'-4"	2'-2"	2'-10 <sup>5</sup> / <sub>8</sub> "	4'-1"	10'-4 <sup>5</sup> / <sub>8</sub> "	2.8	Yes
3'-0"	2'-0"	4"	4"	4"	3'-1"	2'-1"	2'-7 <sup>7</sup> / <sub>8</sub> "	3'-9"	10'-7 <sup>7</sup> / <sub>8</sub> "	2.3	Yes
3'-0"	3'-0"	7"	6"	4"	4'-4"	2'-8"	3'-10 <sup>5</sup> / <sub>8</sub> "	5'-6"	12'-4 <sup>5</sup> / <sub>8</sub> "	3.7	Yes
3'-0"	3'-0"	4"	4"	4"	4'-1"	2'-7"	3'-7 <sup>7</sup> / <sub>8</sub> "	5'-2"	11'-11"	3.1	Yes
4'-0"	2'-0"	7.5"	6"	5"	3'-4 <sup>1</sup> / <sub>2</sub> "	2'-2 <sup>1</sup> / <sub>2</sub> "	2'-11 <sup>3</sup> / <sub>8</sub> "	4'-2"	11'-8"	3.3	Yes
4'-0"	2'-0"	5"	5"	5"	3'-2"	2'-1"	2'-8 <sup>1</sup> / <sub>2</sub> "	3'-10"	11'-2 <sup>3</sup> / <sub>8</sub> "	2.8	Yes
4'-0"	3'-0"	7.5"	6"	5"	4'-4 <sup>1</sup> / <sub>2</sub> "	2'-8 <sup>1</sup> / <sub>2</sub> "	3'-11 <sup>3</sup> / <sub>8</sub> "	5'-7"	13'-8 <sup>1</sup> / <sub>8</sub> "	4.2	Yes
4'-0"	3'-0"	5"	5"	5"	4'-2"	2'-7"	3'-8 <sup>1</sup> / <sub>2</sub> "	5'-3"	13'-2 <sup>3</sup> / <sub>8</sub> "	3.7	Yes
4'-0"	4'-0"	7.5"	6"	5"	5'-4 <sup>1</sup> / <sub>2</sub> "	3'-2 <sup>1</sup> / <sub>2</sub> "	4'-11 <sup>3</sup> / <sub>8</sub> "	7'-0"	15'-8 <sup>1</sup> / <sub>8</sub> "	5.3	Yes
4'-0"	4'-0"	5"	5"	5"	5'-2"	3'-1"	4'-8 <sup>5</sup> / <sub>8</sub> "	6'-8"	15'-2 <sup>1</sup> / <sub>2</sub> "	4.7	Yes
5'-0"	2'-0"	8"	7"	6"	3'-5"	2'-3"	2'-11 <sup>3</sup> / <sub>8</sub> "	4'-2"	12'-10"	3.9	Yes
5'-0"	2'-0"	6"	6"	6"	3'-3"	2'-2"	2'-10"	4'-0"	12'-7 <sup>1</sup> / <sub>4</sub> "	3.5	Yes
5'-0"	3'-0"	8"	7"	6"	4'-5"	2'-9"	3'-11 <sup>3</sup> / <sub>8</sub> "	5'-7"	14'-10 <sup>1</sup> / <sub>8</sub> "	4.9	Yes
5'-0"	3'-0"	6"	6"	6"	4'-3"	2'-8"	3'-10"	5'-5"	14'-7 <sup>1</sup> / <sub>4</sub> "	4.5	Yes
5'-0"	4'-0"	8"	7"	6"	5'-5"	3'-3"	4'-11 <sup>3</sup> / <sub>8</sub> "	7'-0"	16'-10 <sup>1</sup> / <sub>8</sub> "	6.1	Yes
5'-0"	4'-0"	6"	6"	6"	5'-3"	3'-2"	4'-9 <sup>1</sup> / <sub>4</sub> "	6'-9"	16'-5 <sup>7</sup> / <sub>8</sub> "	5.5	Yes
5'-0"	5'-0"	8"	7"	6"	6'-5"	3'-9"	5'-11 <sup>3</sup> / <sub>8</sub> "	8'-5"	18'-10 <sup>1</sup> / <sub>8</sub> "	7.4	Yes
5'-0"	5'-0"	6"	6"	6"	6'-3"	3'-8"	5'-9 <sup>1</sup> / <sub>4</sub> "	8'-2"	18'-5 <sup>7</sup> / <sub>8</sub> "	6.8	Yes
6'-0"	2'-0"	8"	7"	7"	3'-5"	2'-3"	2'-11 <sup>3</sup> / <sub>8</sub> "	4'-2"	14'-0"	4.3	Yes
6'-0"	2'-0"	7"	7"	7"	3'-4"	2'-2"	2'-10 <sup>5</sup> / <sub>8</sub> "	4'-1"	13'-10 <sup>5</sup> / <sub>8</sub> "	4.2	Yes
6'-0"	3'-0"	8"	7"	7"	4'-5"	2'-9"	3'-11 <sup>3</sup> / <sub>8</sub> "	5'-7"	16'-0 <sup>1</sup> / <sub>8</sub> "	5.4	Yes
6'-0"	3'-0"	7"	7"	7"	4'-4"	2'-8"	3'-10 <sup>5</sup> / <sub>8</sub> "	5'-6"	15'-10 <sup>5</sup> / <sub>8</sub> "	5.2	Yes
6'-0"	4'-0"	8"	7"	7"	5'-5"	3'-3"	4'-11 <sup>3</sup> / <sub>8</sub> "	7'-0"	18'-0 <sup>1</sup> / <sub>8</sub> "	6.5	Yes
6'-0"	4'-0"	7"	7"	7"	5'-4"	3'-2"	4'-10 <sup>3</sup> / <sub>4</sub> "	6'-11"	17'-10 <sup>3</sup> / <sub>4</sub> "	6.5	Yes
6'-0"	5'-0"	8"	7"	7"	6'-5"	3'-9"	5'-11 <sup>3</sup> / <sub>8</sub> "	8'-5"	20'-0 <sup>1</sup> / <sub>8</sub> "	8.0	Yes
6'-0"	5'-0"	7"	7"	7"	6'-4"	3'-8"	5'-10 <sup>3</sup> / <sub>4</sub> "	8'-4"	19'-10 <sup>3</sup> / <sub>4</sub> "	7.8	Yes
6'-0"	6'-0"	8"	7"	7"	7'-5"	4'-3"	6'-11 <sup>1</sup> / <sub>2</sub> "	9'-10"	22'-0 <sup>1</sup> / <sub>4</sub> "	9.5	Yes
6'-0"	6'-0"	7"	7"	7"	7'-4"	4'-2"	6'-10 <sup>3</sup> / <sub>4</sub> "	9'-9"	21'-10 <sup>3</sup> / <sub>4</sub> "	9.3	Yes
7'-0"	2'-0"	8"	8"	8"	3'-5"	2'-3"	2'-11 <sup>3</sup> / <sub>8</sub> "	4'-2"	15'-2"	4.9	Yes
7'-0"	3'-0"	8"	8"	8"	4'-5"	2'-9"	3'-11 <sup>3</sup> / <sub>8</sub> "	5'-7"	17'-2 <sup>1</sup> / <sub>8</sub> "	6.1	Yes
7'-0"	4'-0"	8"	8"	8"	5'-5"	3'-3"	4'-11 <sup>3</sup> / <sub>8</sub> "	7'-0"	19'-2 <sup>1</sup> / <sub>8</sub> "	7.4	Yes
7'-0"	5'-0"	8"	8"	8"	6'-5"	3'-9"	5'-11 <sup>3</sup> / <sub>8</sub> "	8'-5"	21'-2 <sup>1</sup> / <sub>8</sub> "	8.9	Yes
7'-0"	6'-0"	8"	8"	8"	7'-5"	4'-3"	6'-11 <sup>1</sup> / <sub>2</sub> "	9'-10"	23'-2 <sup>1</sup> / <sub>4</sub> "	10.6	Yes
8'-0"	2'-0"	8"	8"	8"	3'-5"	2'-3"	2'-11 <sup>3</sup> / <sub>8</sub> "	4'-2"	16'-2"	5.3	Yes
8'-0"	3'-0"	8"	8"	8"	4'-5"	2'-9"	3'-11 <sup>3</sup> / <sub>8</sub> "	5'-7"	18'-2 <sup>1</sup> / <sub>8</sub> "	6.5	Yes
8'-0"	4'-0"	8"	8"	8"	5'-5"	3'-3"	4'-11 <sup>3</sup> / <sub>8</sub> "	7'-0"	20'-2 <sup>1</sup> / <sub>8</sub> "	7.8	Yes
8'-0"	5'-0"	8"	8"	8"	6'-5"	3'-9"	5'-11 <sup>3</sup> / <sub>8</sub> "	8'-5"	22'-2 <sup>1</sup> / <sub>8</sub> "	9.3	Yes
8'-0"	6'-0"	8"	8"	8"	7'-5"	4'-3"	6'-11 <sup>1</sup> / <sub>2</sub> "	9'-10"	24'-2 <sup>1</sup> / <sub>4</sub> "	11.0	Yes
9'-0"	2'-0"	9"	9"	9"	3'-6"	2'-3"	3'-0 <sup>3</sup> / <sub>4</sub> "	4'-4"	17'-6 <sup>1</sup> / <sub>8</sub> "	6.2	Yes
9'-0"	3'-0"	9"	9"	9"	4'-6"	2'-9"	4'-0 <sup>3</sup> / <sub>4</sub> "	5'-9"	19'-6 <sup>1</sup> / <sub>8</sub> "	7.5	Yes
9'-0"	4'-0"	9"	9"	9"	5'-6"	3'-3"	5'-0 <sup>3</sup> / <sub>4</sub> "	7'-2"	21'-6 <sup>7</sup> / <sub>8</sub> "	9.0	Yes
9'-0"	5'-0"	9"	9"	9"	6'-6"	3'-9"	6'-0 <sup>7</sup> / <sub>8</sub> "	8'-7"	23'-7"	10.6	Yes
9'-0"	6'-0"	9"	9"	9"	7'-6"	4'-3"	7'-0 <sup>1</sup> / <sub>8</sub> "	9'-11"	25'-5 <sup>5</sup> / <sub>8</sub> "	12.4	Yes
10'-0"	2'-0"	10"	10"	10"	3'-7"	2'-4"	3'-1 <sup>1</sup> / <sub>2</sub> "	4'-5"	18'-10 <sup>1</sup> / <sub>4</sub> "	7.1	No
10'-0"	3'-0"	10"	10"	10"	4'-7"	2'-10"	4'-1 <sup>1</sup> / <sub>2</sub> "	5'-10"	20'-10 <sup>1</sup> / <sub>4</sub> "	8.6	No
10'-0"	4'-0"	10"	10"	10"	5'-7"	3'-4"	5'-1 <sup>1</sup> / <sub>2</sub> "	7'-3"	22'-10 <sup>3</sup> / <sub>8</sub> "	10.2	Yes
10'-0"	5'-0"	10"	10"	10"	6'-7"	3'-10"	6'-1 <sup>1</sup> / <sub>2</sub> "	8'-8"	24'-10 <sup>3</sup> / <sub>8</sub> "	12.0	Yes
10'-0"	6'-0"	10"	10"	10"	7'-7"	4'-4"	7'-1 <sup>1</sup> / <sub>2</sub> "	10'-1"	26'-10 <sup>3</sup> / <sub>8</sub> "	13.9	Yes
11'-0"	2'-0"	11"	11"	11"	3'-8"	2'-4"	3'-2 <sup>7</sup> / <sub>8</sub> "	4'-7"	20'-3 <sup>1</sup> / <sub>8</sub> "	8.2	No
11'-0"	3'-0"	11"	11"	11"	4'-8"	2'-10"	4'-2 <sup>7</sup> / <sub>8</sub> "	6'-0"	22'-3 <sup>1</sup> / <sub>8</sub> "	9.8	No
11'-0"	4'-0"	11"	11"	11"	5'-8"	3'-4"	5'-2 <sup>1</sup> / <sub>4</sub> "	7'-4"	24'-1 <sup>3</sup> / <sub>4</sub> "	11.5	Yes
11'-0"	6'-0"	11"	11"	11"	7'-8"	4'-4"	7'-2 <sup>1</sup> / <sub>4</sub> "	10'-2"	28'-1 <sup>7</sup> / <sub>8</sub> "	15.5	Yes
12'-0"	2'-0"	12"	12"	12"	3'-9"	2'-5"	3'-3 <sup>5</sup> / <sub>8</sub> "	4'-8"	21'-6 <sup>1</sup> / <sub>2</sub> "	9.3	No
12'-0"	3'-0"	12"	12"	12"	4'-9"	2'-11"	4'-3 <sup>5</sup> / <sub>8</sub> "	6'-1"	23'-6 <sup>1</sup> / <sub>2</sub> "	11.1	No
12'-0"	4'-0"	12"	12"	12"	5'-9"	3'-5"	5'-3 <sup>5</sup> / <sub>8</sub> "	7'-6"	25'-6 <sup>5</sup> / <sub>8</sub> "	13.0	Yes
12'-0"	6'-0"	12"	12"	12"	7'-9"	4'-5"	7'-3 <sup>5</sup> / <sub>8</sub> "	10'-4"	29'-6 <sup>5</sup> / <sub>8</sub> "	17.4	Yes

Note:

Two sets of apron end section dimensions are shown above for some box culvert sizes due to the top and bottom slabs having different thicknesses per ASTM C 1577 for design fill heights less than 2 ft.

(Sheet 1 of 2)

SCB-AES-1

11-5-13

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

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

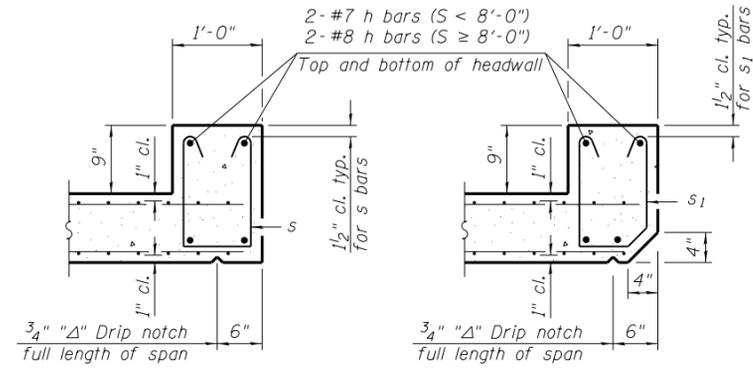
PRECAST CONCRETE BOX CULVERT  
APRON END SECTION DETAILS SN 041-7067 (P)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	12B-3i127B-1	••	24	17
CONTRACT NO. 78496				

SHEET NO. OF SHEETS

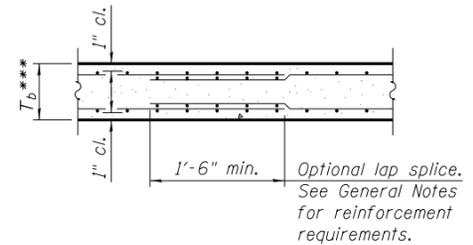
ILLINOIS FED. AID PROJECT

• FAP ROUTE 821 & FAP ROUTE 726  
•• JEFFERSON & FRANKLIN

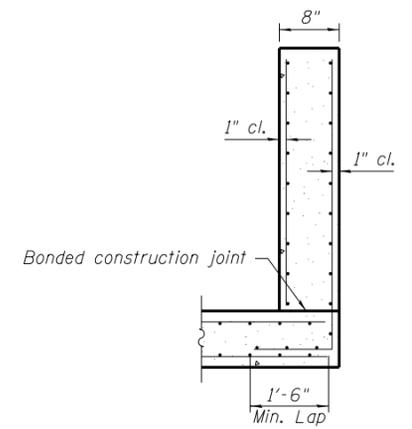


**SECTION B-B**  
(Top slab at downstream end)

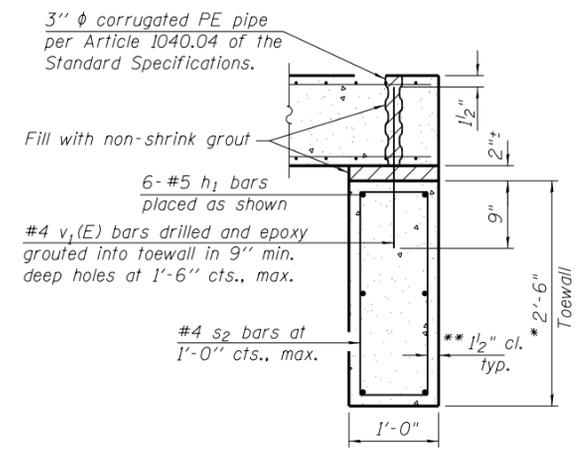
**SECTION B-B**  
(Top slab at upstream end)



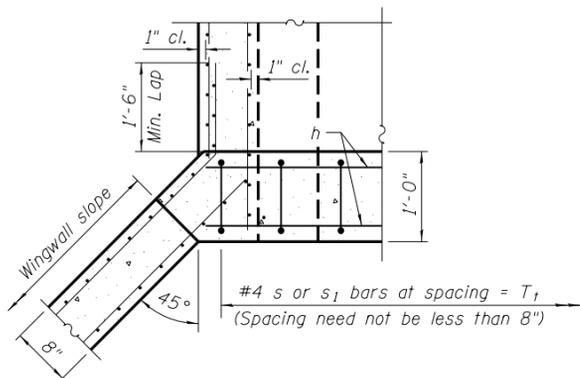
**SECTION B-B**  
(Bottom Slab)



**SECTION C-C**

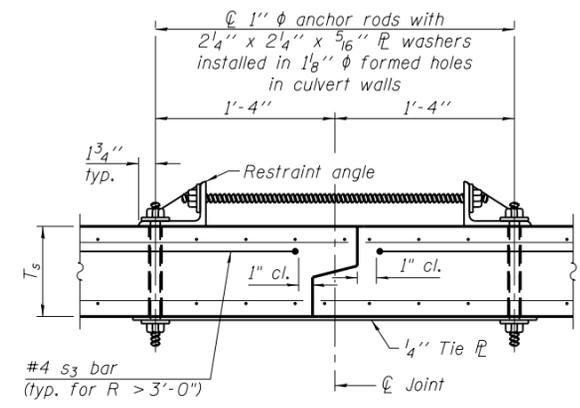


**SECTION D-D**



**SECTION E-E**

\*\*\* This dimension shall be increased by 2" for CIP construction.



**SECTION F-F**  
(Showing culvert tie details)

**TOEWALL CONSTRUCTION SEQUENCE**

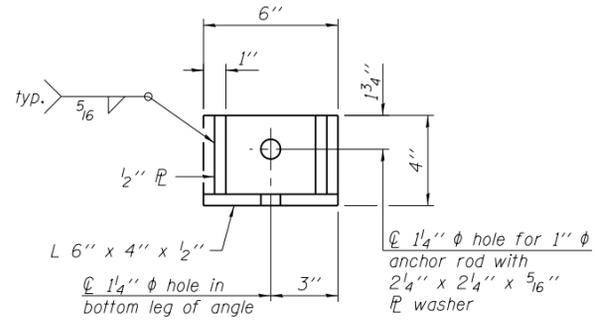
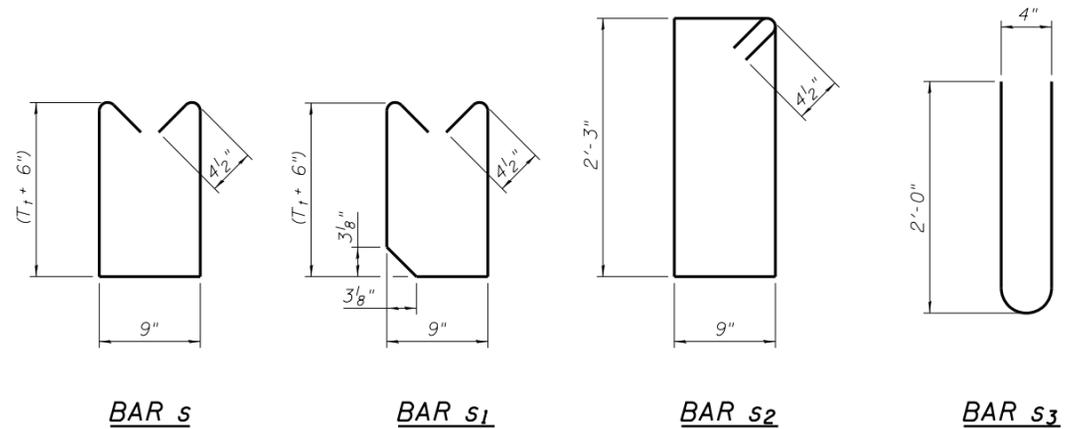
1. Perform excavation and construct toewall.
2. Backfill accordingly and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance with Section 584 of the Standard Specifications.
5. Pressure grout voids using non-shrink grout conforming to Section 1024 of the Standard Specifications.

\* The Contractor may furnish a precast or cast-in-place toewall. The Contractor shall be responsible for the strength and stability of the precast toewall during handling. Additional lifting points may be required depending upon the length of the toewall or the Contractor may need to modify the design of the toewall for the proposed handling method.

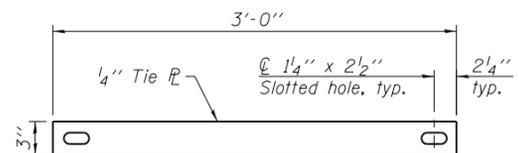
\*\* If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.

**Notes:**

1" φ anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for the tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2 1/4"x2 1/4"x5/16" plate washers shall be provided under each nut required for the anchor rods. Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional 1/2 turn on one of the nuts for anchor rods installed in the walls. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.



**RESTRAINT ANGLE DETAIL**



**TIE PLATE DETAIL**

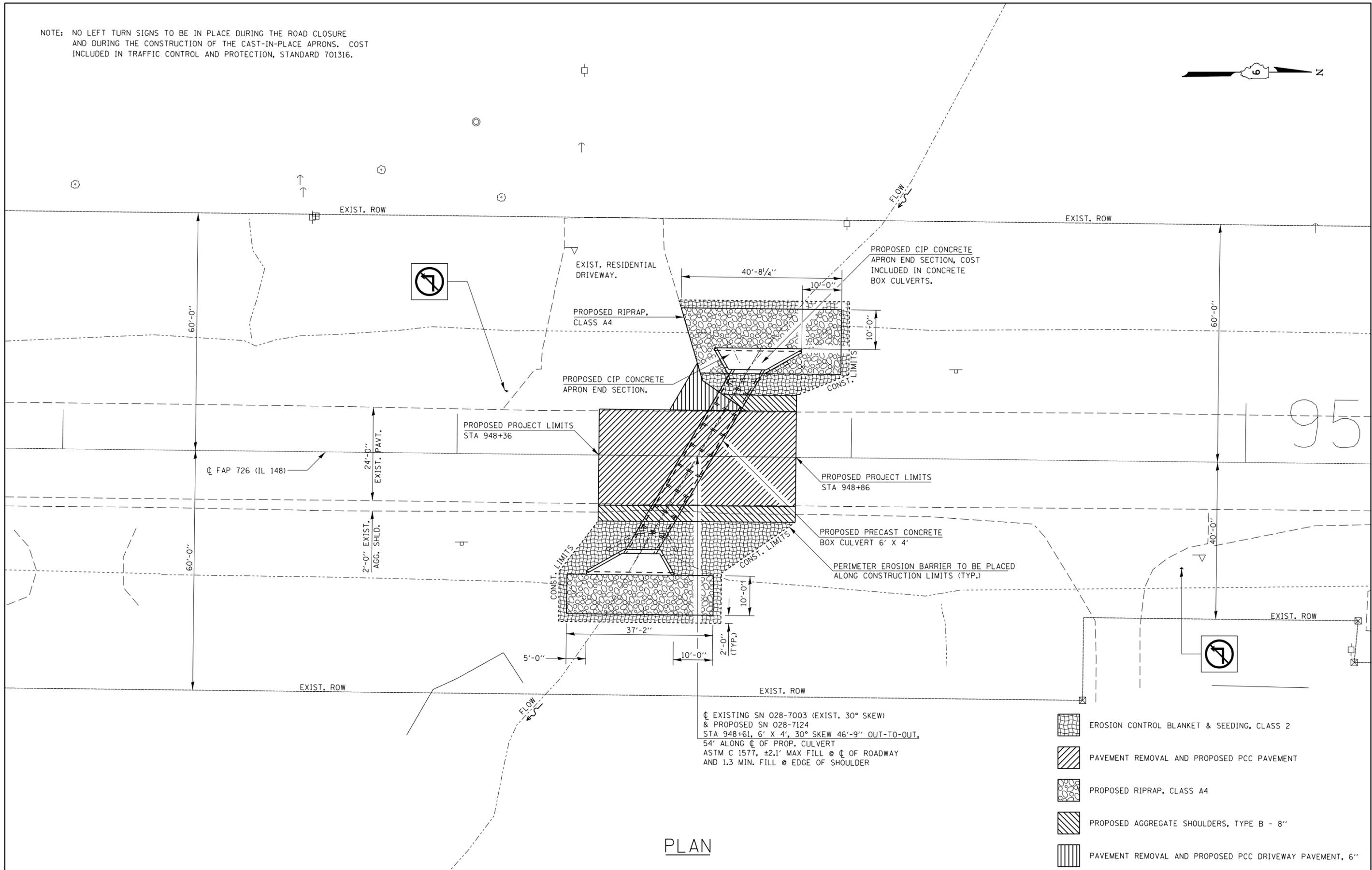
SCB-AES-2 11-5-13

(Sheet 2 of 2)

FILE NAME =	USER NAME =	DESIGNED -	REVISED	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PRECAST CONCRETE BOX CULVERT APRON END SECTION DETAILS SN 041-7067 (P)</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED -	REVISED					12B-3127B-1	**	24	18
		PLOT SCALE =	REVISED			CONTRACT NO. 78496					
		PLOT DATE =	REVISED			ILLINOIS FED. AID PROJECT					
					SHEET NO. OF SHEETS						

• FAP ROUTE 821 & FAP ROUTE 726  
•• JEFFERSON & FRANKLIN

NOTE: NO LEFT TURN SIGNS TO BE IN PLACE DURING THE ROAD CLOSURE AND DURING THE CONSTRUCTION OF THE CAST-IN-PLACE APRONS. COST INCLUDED IN TRAFFIC CONTROL AND PROTECTION, STANDARD 701316.

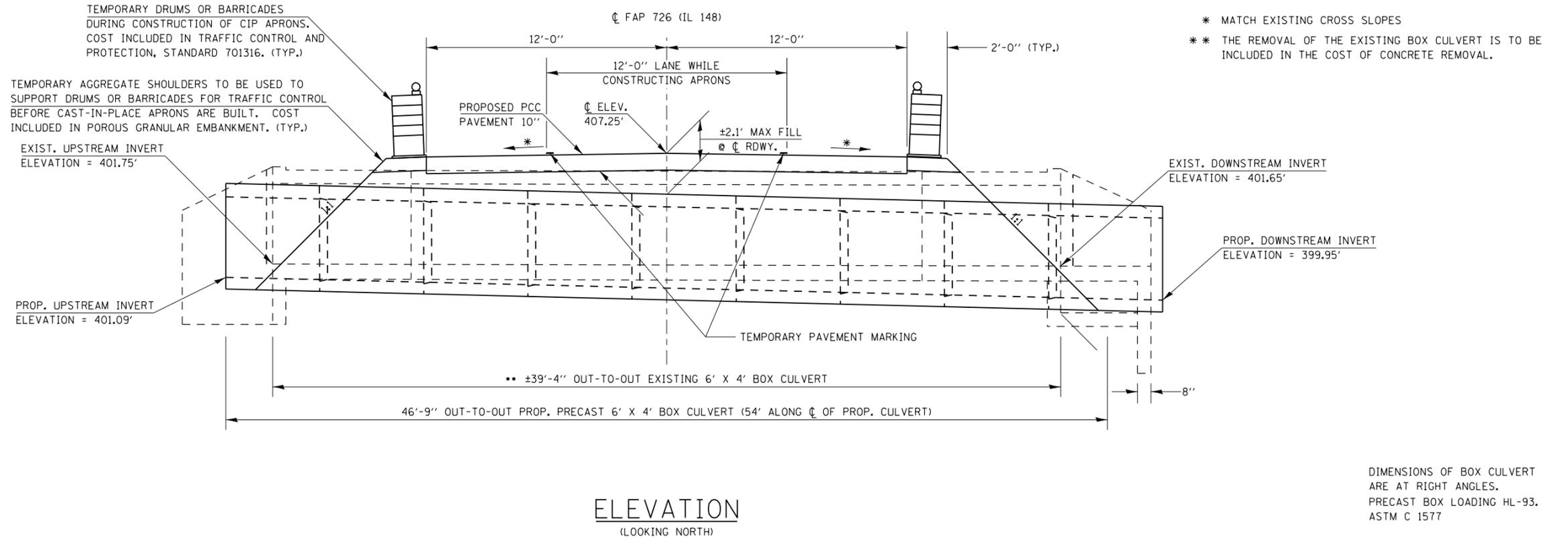


-  EROSION CONTROL BLANKET & SEEDING, CLASS 2
-  PAVEMENT REMOVAL AND PROPOSED PCC PAVEMENT
-  PROPOSED RIPRAP, CLASS A4
-  PROPOSED AGGREGATE SHOULDERS, TYPE B - 8"
-  PAVEMENT REMOVAL AND PROPOSED PCC DRIVEWAY PAVEMENT, 6"

FILE NAME =	USER NAME = adamsam	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL PLAN SN 028-7124 (P)</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\IL084EBIDINTEG\Illinois.gov\PWIDOT\Documents\DOT Offices\District 9\Projects\78496\Drawings\CAD\Sheets\78496_sht.dgn		CHECKED -	REVISED -					•	12B-3127B-1	••	24	19
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	PLOT DATE = 10/18/2016	DATE -	REVISED -					ILLINOIS FED. AID PROJECT				

• FAP ROUTE 821 & FAP ROUTE 726  
•• JEFFERSON & FRANKLIN

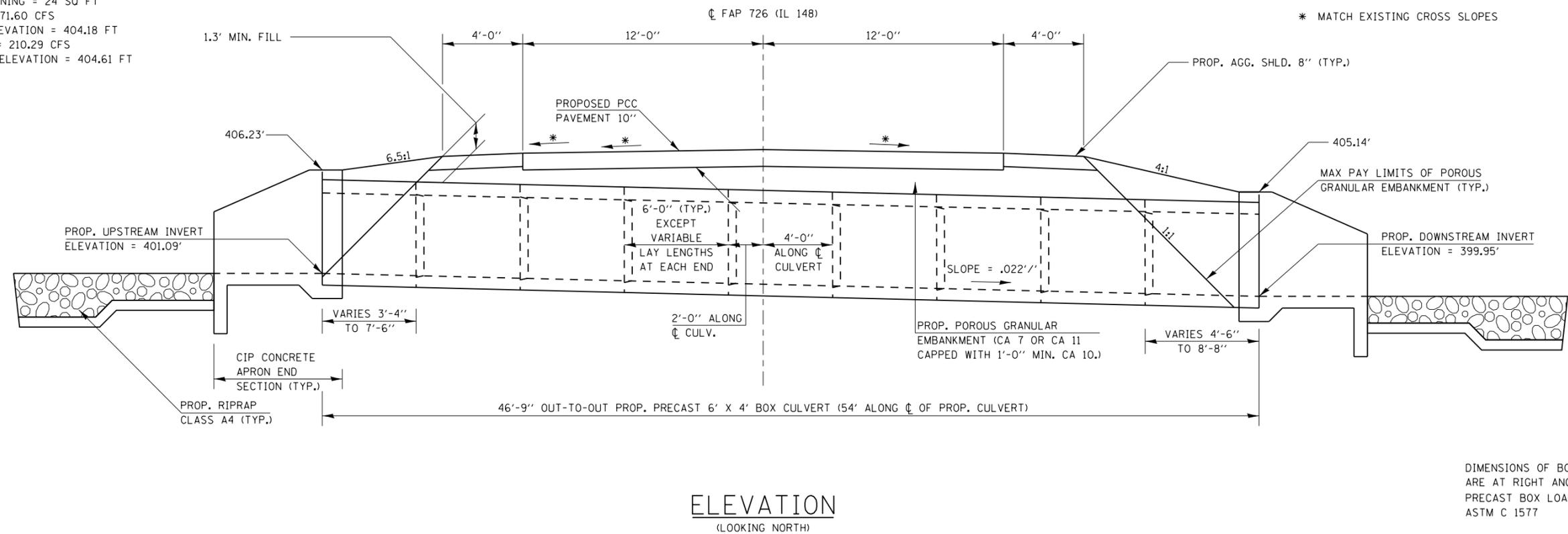
## TEMPORARY SECTION PRIOR TO CONSTRUCTION OF CAST-IN-PLACE APRONS



DIMENSIONS OF BOX CULVERT ARE AT RIGHT ANGLES.  
PRECAST BOX LOADING HL-93.  
ASTM C 1577

## FINAL SECTION AFTER CONSTRUCTION OF CAST-IN-PLACE APRONS

**HYDRAULIC DATA**  
DRAINAGE AREA = 0.20 SQ MI  
DESIGN WATERWAY OPENING = 24 SQ FT  
DESIGN DISCHARGE = 171.60 CFS  
DESIGN HEADWATER ELEVATION = 404.18 FT  
100 YEAR DISCHARGE = 210.29 CFS  
100 YEAR HEADWATER ELEVATION = 404.61 FT

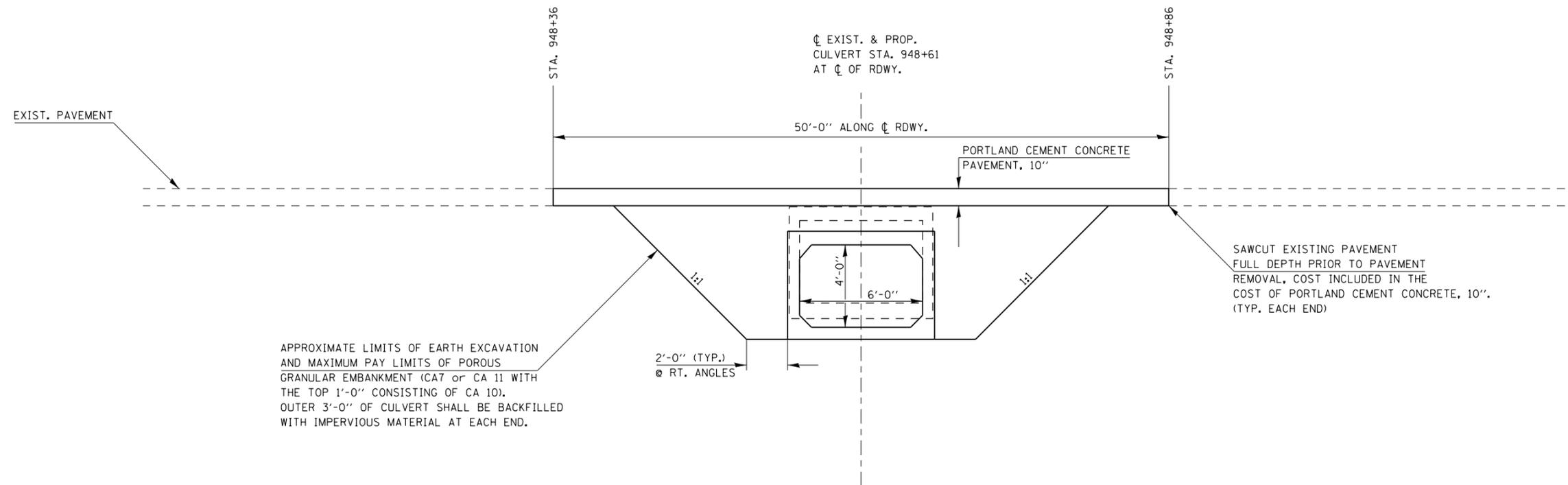


DIMENSIONS OF BOX CULVERT ARE AT RIGHT ANGLES.  
PRECAST BOX LOADING HL-93.  
ASTM C 1577

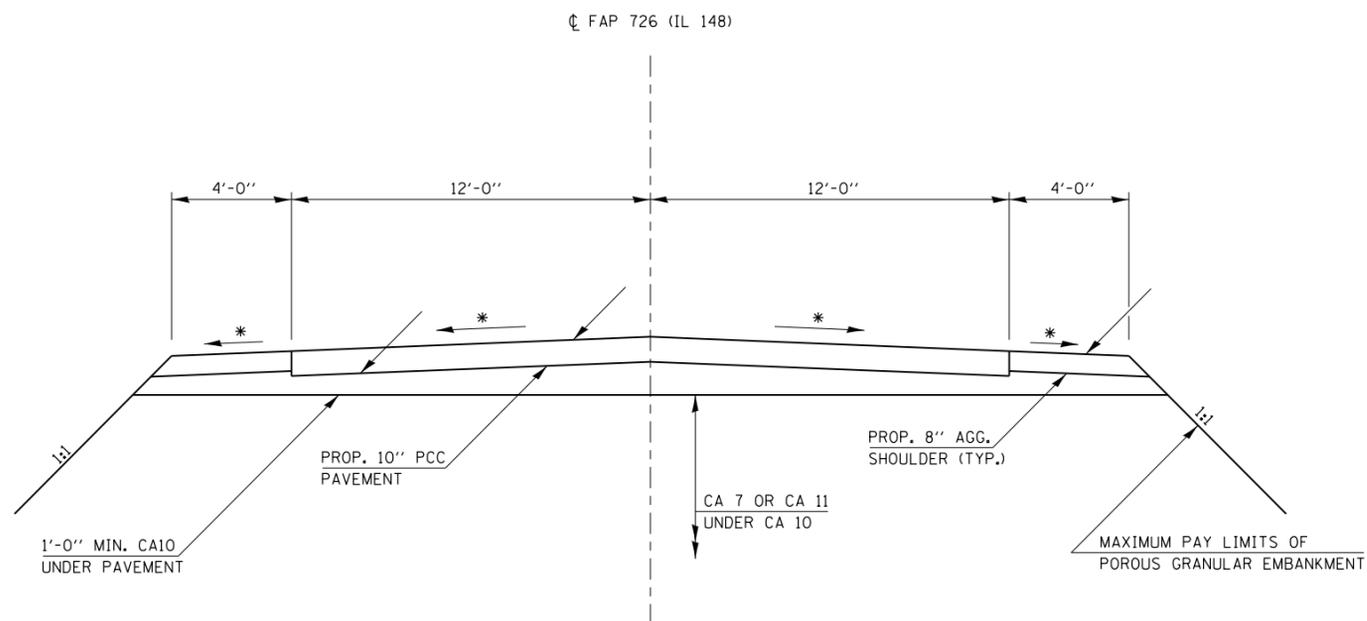
FILE NAME =	USER NAME = adamsam	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TEMPORARY AND FINAL SECTIONS SN 028-7124 (P)</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE = 10/18/2016		REVISED -		SHEET	OF	SHEETS	STA.	TO	STA.

• FAP ROUTE 821 & FAP ROUTE 726  
•• JEFFERSON & FRANKLIN

# LIMITS OF POROUS GRANULAR EMBANKMENT



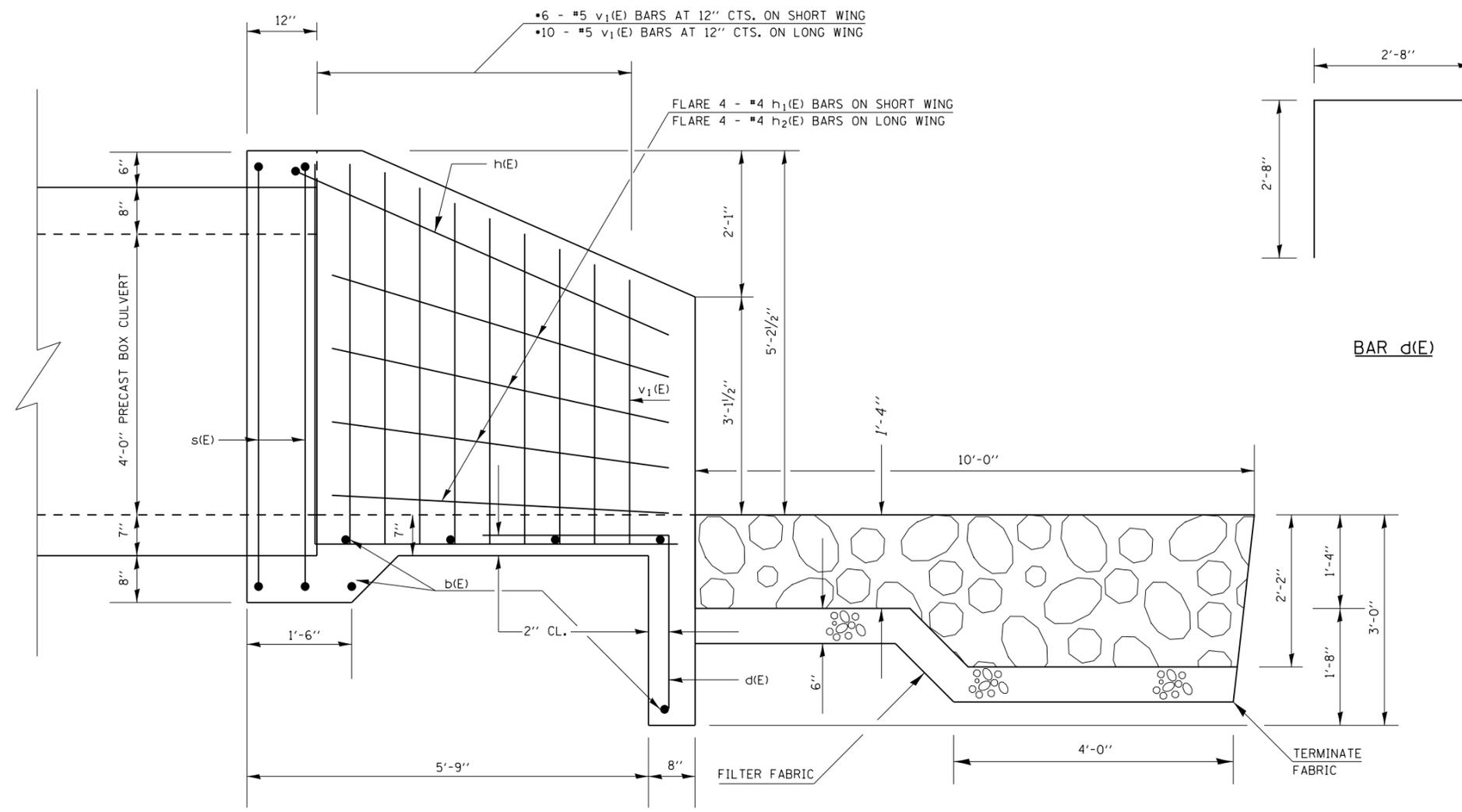
# SECTION WITHIN PAVEMENT REMOVAL



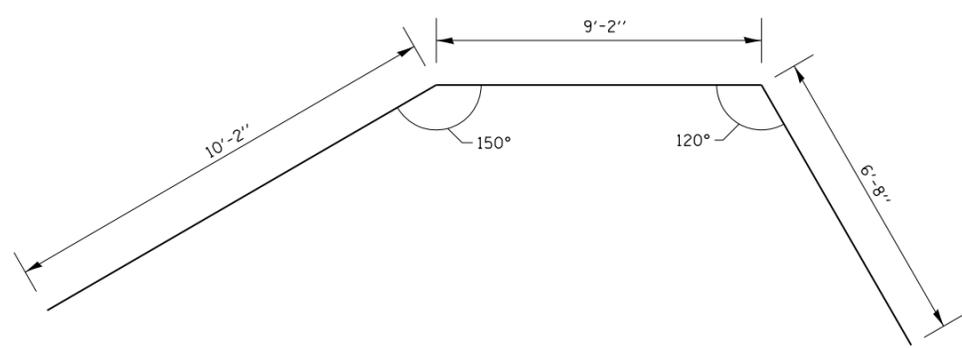
\* MATCH EXISTING CROSS SLOPES

FILE NAME =	USER NAME = adamsam	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>LIMITS OF POROUS GRANULAR EMBANKMENT AND SECTION WITHIN PAVEMENT REMOVAL SN 028-7124 (P)</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
pw:\IL084EBIDINTEG\Illinois.gov\PWIDOT\Documents\DOT Offices\District 9\Projects\78496\Drawings\CAD\Sheets\78496.sht.dgn	PLOT SCALE = 5.6667' / in.	CHECKED -	REVISED -			•	12B-3127B-1	••	24	21	
Default	PLOT DATE = 10/18/2016	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					
						CONTRACT NO. 78496					

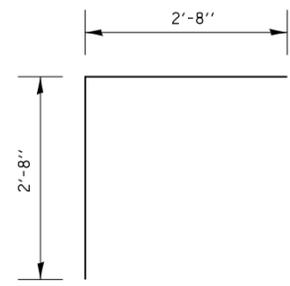
• FAP ROUTE 821 & FAP ROUTE 726  
•• JEFFERSON & FRANKLIN



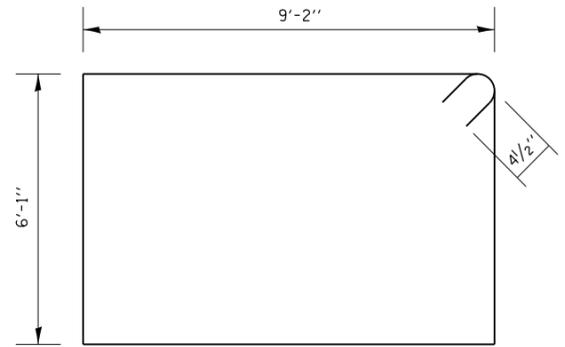
HALF SIDE ELEVATION



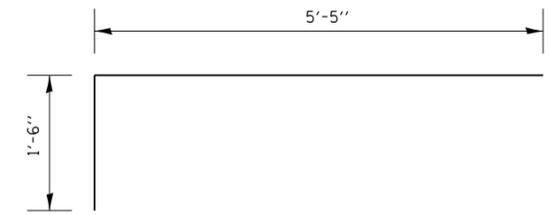
BAR h(E)



BAR d(E)



BAR s(E)



BAR v1(E)

**BILL OF MATERIAL - 2 APRONS**

BAR	NO.	SIZE	LENGTH	SHAPE
b(E)	12	#4	21'-9"	—
d(E)	30	#4	5'-4"	└
h(E)	2	#4	26'-0"	∧
h <sub>1</sub> (E)	8	#4	6'-7"	—
h <sub>2</sub> (E)	8	#4	10'-1"	—
s(E)	4	#4	31'-3"	□
v <sub>1</sub> (E)	32	#5	6'-11"	└
CONCRETE BOX CULVERTS			CU. YD.	12.0
REINFORCEMENT BARS, EPOXY COATED			POUND	730

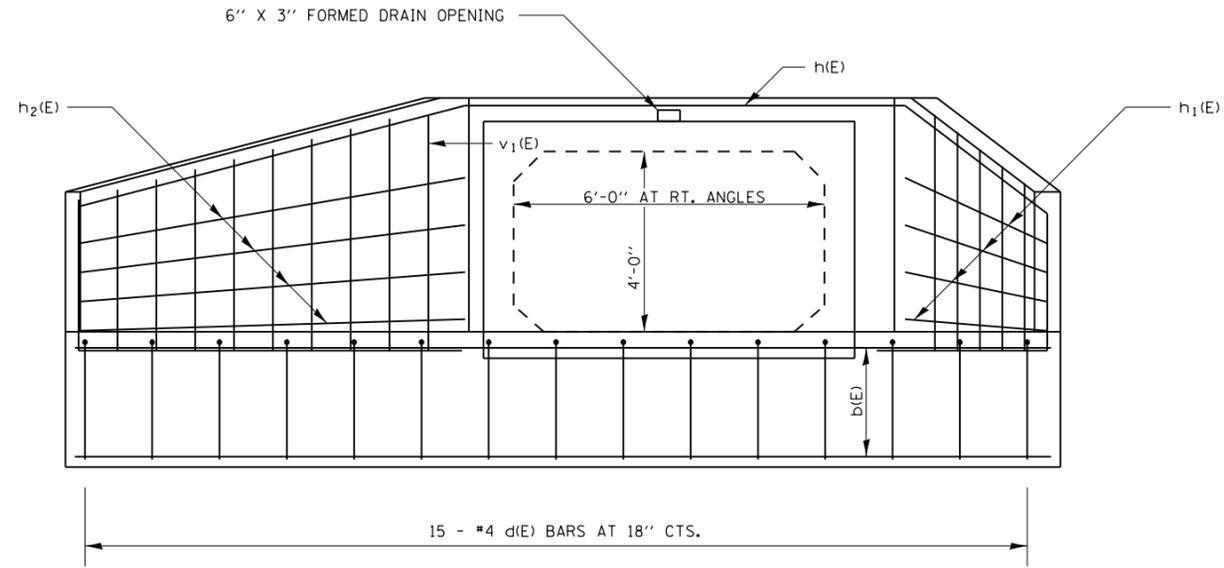
REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.  
 \*CUT OR BEND TO FIT  
 REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706.  
 EXPOSED EDGES SHALL BE BEVELED 3/4"

DESIGN STRESSES  
 f<sub>y</sub> = 60,000 PSI  
 f<sub>c</sub>' = 3,500 PSI

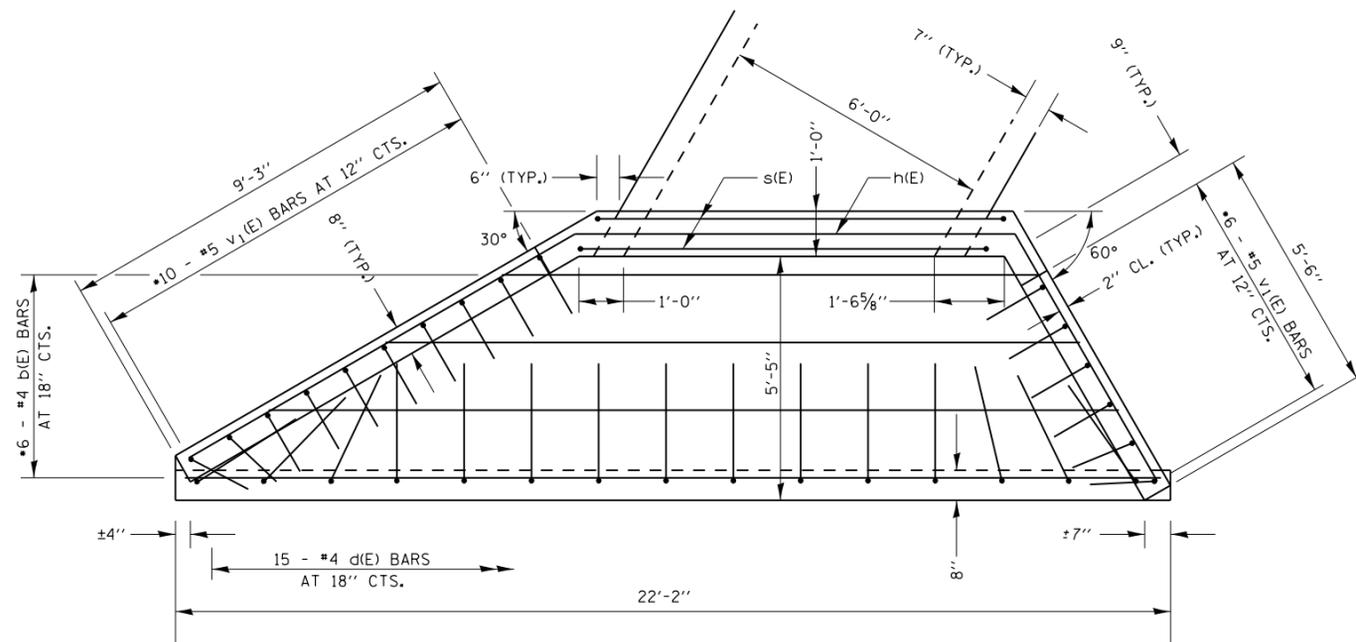
**CAST-IN-PLACE  
 APRON END SECTION DETAILS  
 FRANKLIN COUNTY  
 SN 028-7124 (P)**

FILE NAME =	USER NAME = adamsam	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CAST-IN-PLACE APRON END SECTION DETAILS SN 028-7124 (P)</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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Default	PLOT DATE = 10/18/2016	DATE -	REVISED -			ILLINOIS FED. AID PROJECT				
			SCALE: SHEET OF SHEETS STA. TO STA.			CONTRACT NO. 78496				

• FAP ROUTE 821 & FAP ROUTE 726  
 •• JEFFERSON & FRANKLIN



END ELEVATION



PLAN

• CUT OR BEND TO FIT  
 WORK THIS SHEET WITH SHEET 22 OF 24

FILE NAME =	USER NAME = adamsam	DESIGNED -	REVISED -
p:\1\IL084EBIDINTEG\Illinois.gov\PWIDOT\Documents\DOT Offices\District 9\Projects\78496\DRAWING\CAD\Sheets\78496.sht.dgn		CHECKED -	REVISED -
Default	PLOT DATE = 10/18/2016	DATE -	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

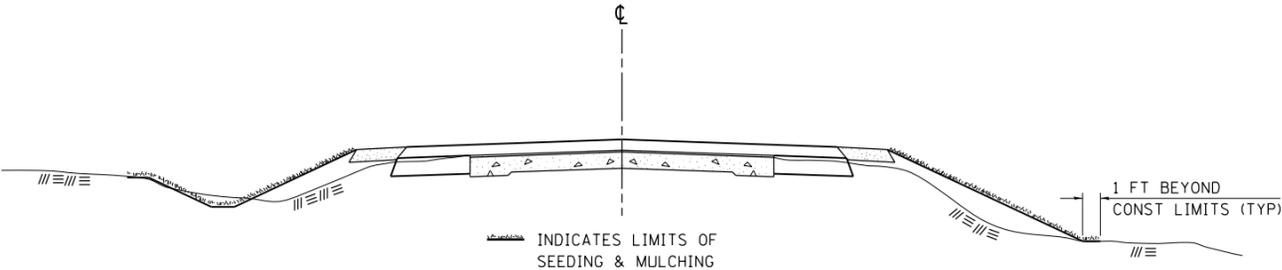
CAST-IN-PLACE APRON END SECTION DETAILS  
 SN 028-7124 (P)

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	12B-3127B-1	••	24	23
			CONTRACT NO. 78496	
[ILLINOIS] FED. AID PROJECT				

• FAP ROUTE 821 & FAP ROUTE 726  
 •• JEFFERSON & FRANKLIN

# SEEDING & MULCHING



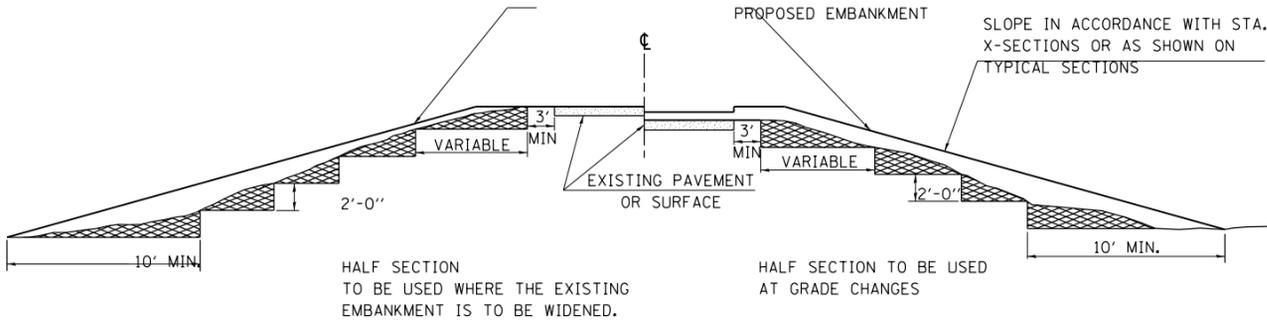
### GENERAL NOTES

IN GENERAL, ALL EARTH SURFACES DISTURBED DURING CONSTRUCTION OPERATIONS SHALL BE SEEDED 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	3-27-08

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
RESIZED	5-7-08

STD. 9-16

FILE NAME =	USER NAME = adamsam	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT STANDARDS</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE = 10/18/2016	DATE -	REVISIONS -							
						ILLINOIS FED. AID PROJECT				
						CONTRACT NO. 78496				
						SCALE: SHEET OF SHEETS STA. TO STA.				

• FAP ROUTE 821 & FAP ROUTE 726  
•• JEFFERSON & FRANKLIN