

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	1
		ILLINOIS	CONTRACT NO. 78893	

FOR INDEX OF SHEETS, SEE SHEET NO. 3
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 5-8

PROPOSED HIGHWAY PLANS

FAP ROUTE 869 (IL 34)
SECTION 101CR-1,102CR-1
PROJECT HBFP-QFQC(904)
BOX CULVERT REPLACEMENTS
FRANKLIN COUNTY

C-99-092-21

TRAFFIC DATA

SN 028-7026 2019 ADT = 4,000 W/ 8.2% TRUCKS
SN 028-7027 2019 ADT = 2850 W/ 9.8% TRUCKS
SN 028-7028/ SN 028-7030/ SN 028-7033 2019 ADT = 2450 W/ 7.3% TRUCKS

TOWNSHIPS

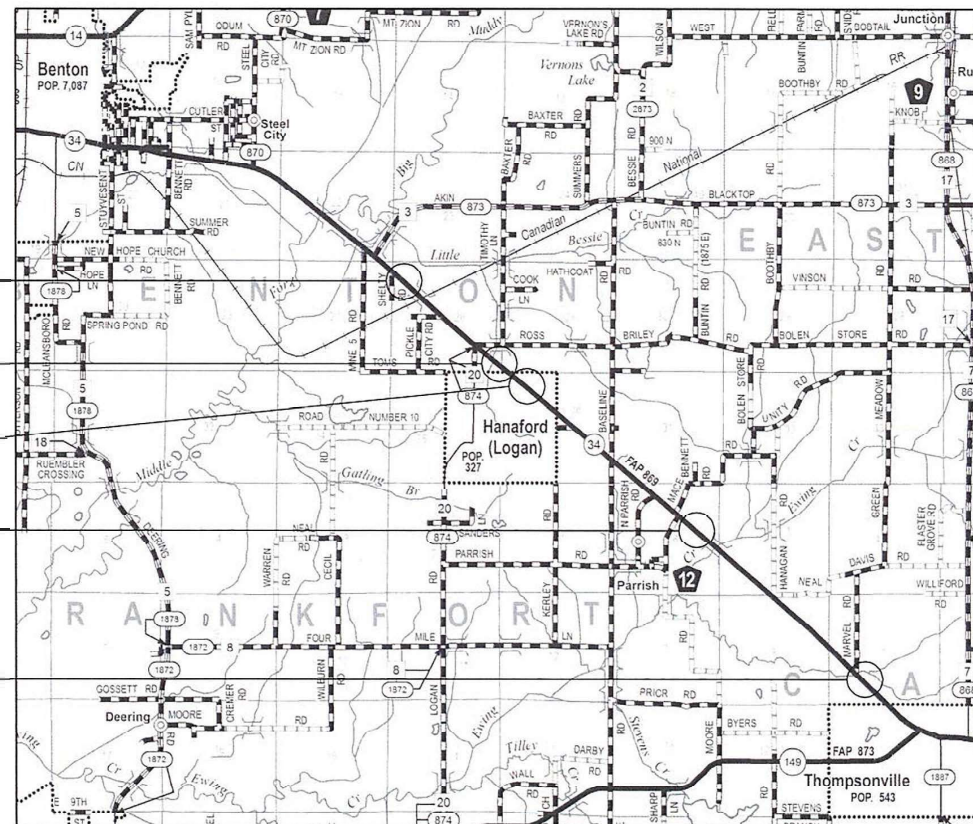
SN 028-7026/028-7027/028-7028: BENTON
SN 028-7030/028-7033: CAVE

POSTED SPEED : 55 MPH

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

PROJECT ENGINEER: GRANT DETERDING
PROJECT DESIGNER: EHREN KIRBY & NATHANIEL MORRIS

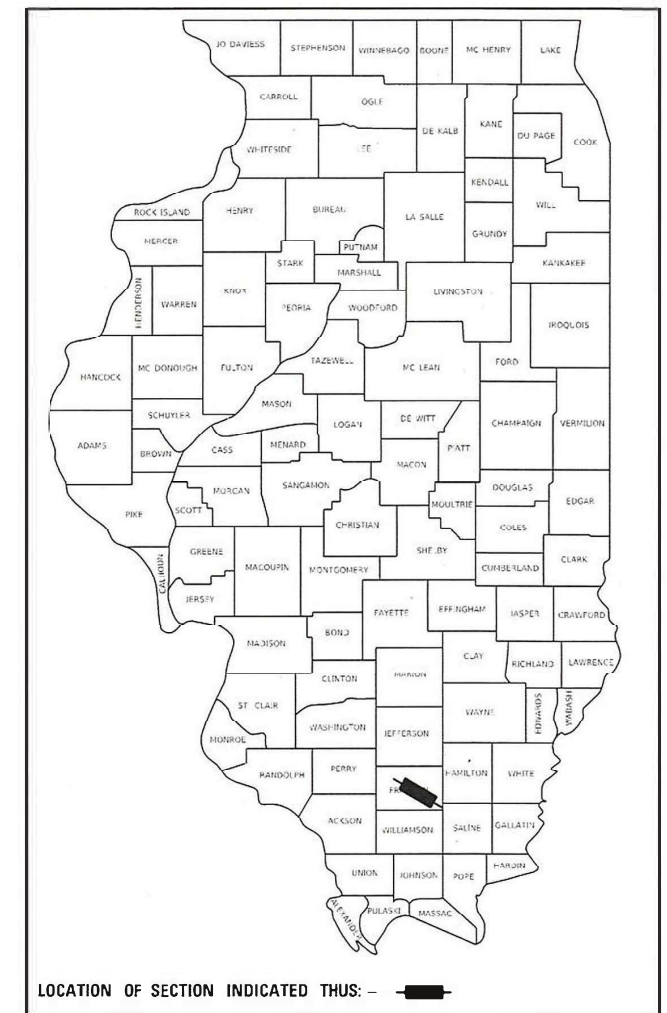
CONTRACT NO. 78893



- SN 028-7026 (E) / 48" RCP (P)
C STRUCTURE STA 162+64.1
- SN 028-7027 (E) / SN 028-7132 (P)
C STRUCTURE STA 218+65.1
- SN 028-7028 (E) / SN 028-7134 (P)
C STRUCTURE STA 223+65.8
- SN 028-7030 (E) / SN 028-7133 (P)
C STRUCTURE STA 349+73.2
- SN 028-7033(E) / SN 028-7135 (P)
C STRUCTURE STA 454+04.7

GROSS LENGTH = 29177.0 FT. = 5.526 MILES
NET LENGTH = 175.0 FT. = 0.033 MILES

D-99-070-21



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED August 25 20 22

Keith H. Brown

REGION FIVE ENGINEER

October 14, 2022

[Signature]

ENGINEER OF DESIGN AND ENVIRONMENT

October 14, 2022

[Signature]

DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS

MODEL: D:\dtp\...
 FILE NAME: ...

Prepared By: Charles Stein
 DISTRICT STUDIES & PLANS ENGINEER

Examined By: Nancy Lee
 DISTRICT LAND ACQUISITION ENGINEER

Examined By: Car Nelson
 DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By: [Signature]
 DISTRICT OPERATIONS ENGINEER

Examined By: Doris J. [Signature]
 DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By: Doris J. [Signature]
 DISTRICT CONSTRUCTION ENGINEER

Examined By: [Signature]
 DISTRICT MATERIALS ENGINEER

USER NAME = William Porter	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100 0000 / in.	CHECKED -	REVISED -
PLOT DATE = 8/24/2022	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SIGNATURE SHEET

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1.102CR-1	FRANKLIN	68	2
ILLINOIS FED. AID PROJECT			CONTRACT NO. 78893	

GENERAL NOTES

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.
 RIPRAP 1.50 TONS/CU. YD.

THE ALGEBRAIC DIFFERENCE BETWEEN THE PAVEMENT AND SHOULDER SLOPES SHALL NOT EXCEED 10%. THE SHOULDER ON THE OUTSIDE OF SUPERELEVATED CURVES SHALL BE FLATTENED ACCORDINGLY.

AT ALL LOCATIONS WHERE THE PROPOSED 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.

REMOVAL OF EXISTING AGGREGATE SHOULDERS SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

COMMITMENTS:

THE CONTRACTOR SHALL NOTIFY THE ENGINEER 2 WEEKS PRIOR TO THE START OF ANY WORK AT SN 028-7033(E) / SN 028-7135(P), ALLOWING ADEQUATE TIME FOR HE/SHE TO CONTACT MICHAEL SHANE DOTY (618-559-4111) TO REMOVE THE FIZEL FARM SIGN LOCATED AT THE SOUTHEAST QUADRANT OF THE STRUCTURE.

TREES THREE (3) INCHES OR GREATER IN DIAMETER AT BREAST HEIGHT SHALL NOT BE CLEARED FROM APRIL 1ST THROUGH SEPTEMBER 30TH OF ANY GIVEN YEAR.

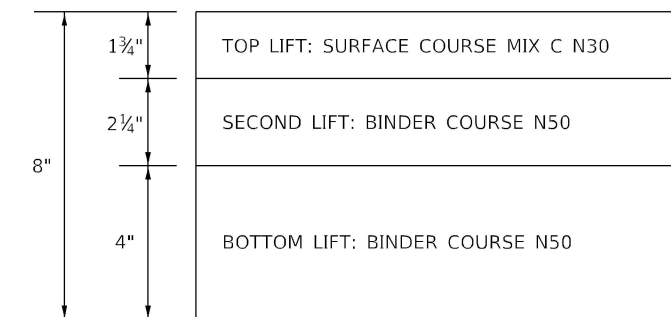
HMA MIXTURE REQUIREMENTS TABLES

The following HMA mixture requirements are applicable for this project

Location(s):	Hot-Mix Asphalt Shoulders (Top Lift)
Mixture Use(s):	Hot-Mix Asphalt Surface Course, Mix C, N30
PG:	PG64-22
Design Air Voids:	4.0 %, 30 Gyration Design
Mixture Composition:	IL-9.5mm
Friction Aggregate:	Mix C
Mixture Weight:	112 lbs/Sq Yd/in
Quality Management Program:	QCQA
Sublot Size:	3000
Material Transfer Device (Required?)	No

Location(s):	Hot-Mix Asphalt Shoulders (Lower Lifts)
Mixture Use(s):	Hot-Mix Asphalt Binder Course, N50
PG:	PG64-22
Design Air Voids:	4.0 %, 50 Gyration Design
Mixture Composition:	IL-19.0mm
Friction Aggregate:	None
Mixture Weight:	112 lbs/Sq Yd/in
Quality Management Program:	QCQA
Sublot Size:	3000
Material Transfer Device (Required?)	No

HMA SHOULDERS, 8" LIFT THICKNESS REQUIREMENTS



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	DRAWN -	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 8/26/2022	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES, COMMITMENTS,
 & HMA MIXTURE REQUIREMENTS**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	4
CONTRACT NO. 78893			ILLINOIS FED. AID PROJECT	

SUMMARY OF QUANTITIES

COUNTY:	FRANKLIN	FRANKLIN	FRANKLIN	FRANKLIN	FRANKLIN
ROUTE:	FAP 869 (IL 34)	FAP 869 (IL 34)	FAP 869 (IL 34)	FAP 869 (IL 34)	FAP 869 (IL 34)
FUNDING:	80% FED/20% STATE	80% FED/20% STATE	80% FED/20% STATE	80% FED/20% STATE	80% FED/20% STATE
LOCATION:	RURAL	RURAL	RURAL	RURAL	RURAL

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	PROP. RCP CULVERT	SN 028-7132	SN 028-7133	SN 028-7134	SN 028-7135
				0004	0004	0004	0004	0004
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	545				418	127
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	363				169	194
20200100	EARTH EXCAVATION	CU YD	1,450		113	113	621	603
20300100	CHANNEL EXCAVATION	CU YD	660				320	340
20400800	FURNISHED EXCAVATION	CU YD	1,045				200	845
20700220	POROUS GRANULAR EMBANKMENT	CU YD	1,335		75	98	382	780
20800150	TRENCH BACKFILL	CU YD	61	61				
25000200	SEEDING, CLASS 2	ACRE	0.67	0.02	0.02	0.02	0.32	0.29
25000350	SEEDING, CLASS 7	ACRE	0.67	0.02	0.02	0.02	0.32	0.29
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	61	2	2	2	29	26
25000500	PHOSPHOROUS FERTILIZER NUTRIENT	POUND	61	2	2	2	29	26
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	61	2	2	2	29	26
25000700	AGRICULTURAL GROUND LIMESTONE	TON	1.34	0.04	0.04	0.04	0.64	0.58
25100630	EROSION CONTROL BLANKET	SQ YD	3,244	97	97	97	1,549	1,404
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	67	2	2	2	32	29
28000400	PERIMETER EROSION BARRIER	FOOT	1,488	53	45	40	720	630

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PLOT DATE = 8/26/2022	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	5
CONTRACT NO. 78893			ILLINOIS FED. AID PROJECT	

SUMMARY OF QUANTITIES

COUNTY:	FRANKLIN	FRANKLIN	FRANKLIN	FRANKLIN	FRANKLIN
ROUTE:	FAP 869 (IL 34)	FAP 869 (IL 34)	FAP 869 (IL 34)	FAP 869 (IL 34)	FAP 869 (IL 34)
FUNDING:	80% FED/20% STATE	80% FED/20% STATE	80% FED/20% STATE	80% FED/20% STATE	80% FED/20% STATE
LOCATION:	RURAL	RURAL	RURAL	RURAL	RURAL

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	PROP. RCP CULVERT	SN 028-7132	SN 028-7133	SN 028-7134	SN 028-7135
				0004	0004	0004	0004	0004
28100107	STONE RIPRAP, CLASS A4	SQ YD	297	25	49	24	94	105
28200200	FILTER FABRIC	SQ YD	297	25	49	24	94	105
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	399				214	185
42000060	WELDED WIRE REINFORCEMENT	SQ YD	546	96	87	87	122	154
42000500	PORTLAND CEMENT CONCRETE PAVEMENT 10' '	SQ YD	546	96	87	87	122	154
44000100	PAVEMENT REMOVAL	SQ YD	546	96	87	87	122	154
48101600	AGGREGATE SHOULDERS, TYPE B 8' '	SQ YD	23					23
48203029	HOT-MIX ASPHALT SHOULDERS, 8' '	SQ YD	670				360	310
48300300	PORTLAND CEMENT CONCRETE SHOULDERS 8' '	SQ YD	56	14	22	20		
50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1	1				
50100400	REMOVAL OF EXISTING STRUCTURES NO. 2	EACH	1		1			
50200450	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR STRUCTURES	CU YD	491	71	66	62	129	163
50100500	REMOVAL OF EXISTING STRUCTURES NO. 3	EACH	1			1		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	8,180		780		3,740	3,660
50100600	REMOVAL OF EXISTING STRUCTURES NO. 4	EACH	1				1	
54001001	BOX CULVERT END SECTIONS, CULVERT NO. 1	EACH	2			2		
50100700	REMOVAL OF EXISTING STRUCTURES NO. 5	EACH	1					1
54003000	CONCRETE BOX CULVERTS	CU YD	88.8		12.4		38.2	38.2
54010503	PRECAST CONCRETE BOX CULVERTS 5' X 3'	FOOT	57		57			
54010705	PRECAST CONCRETE BOX CULVERTS 7' X 5'	FOOT	30			30		

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	6
CONTRACT NO. 78893			ILLINOIS FED. AID PROJECT	

SUMMARY OF QUANTITIES

COUNTY:	FRANKLIN	FRANKLIN	FRANKLIN	FRANKLIN	FRANKLIN
ROUTE:	FAP 869 (IL 34)	FAP 869 (IL 34)	FAP 869 (IL 34)	FAP 869 (IL 34)	FAP 869 (IL 34)
FUNDING:	80% FED/20% STATE	80% FED/20% STATE	80% FED/20% STATE	80% FED/20% STATE	80% FED/20% STATE
LOCATION:	RURAL	RURAL	RURAL	RURAL	RURAL

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	PROP. RCP CULVERT	SN 028-7132	SN 028-7133	SN 028-7134	SN 028-7135
				0004	0004	0004	0004	0004
54011208	PRECAST CONCRETE BOX CULVERTS 12' X 8'	FOOT	129				52	77
542A0253	PIPE CULVERTS, CLASS A, TYPE 1 48''	FOOT	55	55				
54215448	CAST-IN-PLACE REINFORCED CONCRETE END SECTIONS 48''	EACH	2	2				
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	313		48	42	89	134
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	450				225	225
* 63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	12.5					12.5
* 63000030	STRONG POST GUARDRAIL ATTACHED TO CULVERT	FOOT	32				32	
* 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1					1
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	7				4	3
63200310	GUARDRAIL REMOVAL	FOOT	604				305	299
66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	25				12	13
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	10	2	2	2	2	2
67100100	MOBILIZATION	L SUM	1	0.2	0.2	0.2	0.2	0.2
70100100	TRAFFIC CONTROL AND PROTECTION, STANDARD 701316	EACH	4	1	1		1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	0.2	0.2	0.2	0.2	0.2
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	15	3	3	3	3	3

* SPECIALTY ITEM

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PLOT SCALE = 100.0000' / in.	CHECKED -	REVISOR -
PLOT DATE = 8/26/2022	DATE -	REVISOR -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	7
CONTRACT NO. 78893			ILLINOIS FED. AID PROJECT	

SUMMARY OF QUANTITIES

COUNTY:	FRANKLIN	FRANKLIN	FRANKLIN	FRANKLIN	FRANKLIN
ROUTE:	FAP 869 (IL 34)	FAP 869 (IL 34)	FAP 869 (IL 34)	FAP 869 (IL 34)	FAP 869 (IL 34)
FUNDING:	80% FED/20% STATE	80% FED/20% STATE	80% FED/20% STATE	80% FED/20% STATE	80% FED/20% STATE
LOCATION:	RURAL	RURAL	RURAL	RURAL	RURAL

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	PROP. RCP CULVERT	SN 028-7132	SN 028-7133	SN 028-7134	SN 028-7135
				0004	0004	0004	0004	0004
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	4	1	1		1	1
70106700	TEMPORARY RUMBLE STRIPS	EACH	30	6	6	6	6	6
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	140	28	28	28	28	28
* 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	7				4	3
* 78001110	PAINT PAVEMENT MARKING - LINE 4''	FOOT	1,264	50	106	70	556	482
* 78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	16				8	8
* 86200300	UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	4	1	1		1	1
X0900064	MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES	SQ YD	313		48	42	89	134
* X6330725	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	FOOT	25					25
X7011800	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	0.2	0.2	0.2	0.2	0.2
Z0022800	FENCE REMOVAL	FOOT	72					72
* Z0054517	ROCK FILL - FOUNDATION	TON	738	107	99	93	194	245
Z0076600	TRAINEES	HOUR	500	500				
Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500	500				

* SPECIALTY ITEM

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PLOT SCALE = 100.0000' / in.	DATE -	REVISED -
PLOT DATE = 8/26/2022		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	8
CONTRACT NO. 78893			ILLINOIS FED. AID PROJECT	

PAVEMENT MARKING SCHEDULE

START STATION	END STATION	NOTES	PAINT PAVEMENT MARKING			
			LINE- 4" WHITE		LINE- 4" YELLOW	
			SOLID	SOLID LT	SKIP-DASH	SOLID RT
			FT	FT	FT	FT
IL 34 - SN 028-7026(E) / 48" RCP (P)						
162+54.00	162+74.00	CENTERLINE			10	
162+41.20	162+61.20	LEFT EDGELINE	20			
162+67.00	162+87.00	RIGHT EDGELINE	20			
IL 34 - SN 028-7027 (E) / SN 028-7132 (P)						
218+50.00	218+80.00	CENTERLINE		30	10	
218+63.00	218+95.20	LEFT EDGELINE	33			
218+35.10	218+67.30	RIGHT EDGELINE	33			
IL 34 - SN 028-7028 (E) / SN 028-7134 (P)						
223+44.80	223+86.80	CENTERLINE			20	
222+55.70	225+22.90	LEFT EDGELINE	268			
222+05.70	224+72.90	RIGHT EDGELINE	268			
IL 34 - SN 028-7030 (E) / SN 028-7133 (P)						
349+58.20	349+88.20	CENTERLINE			10	
349+58.20	349+88.20	LEFT EDGELINE	30			
349+58.20	349+88.20	RIGHT EDGELINE	30			
IL 34 - SN 028-7033 (E) / SN 028-7135 (P)						
453+78.00	454+31.00	CENTERLINE			20	
452+92.60	455+65.10	LEFT EDGELINE	273			
452+46.00	454+35.00	RIGHT EDGELINE	189			
PROJECT TOTALS			1,264			

GUARDRAIL SCHEDULE

LOCATION (IL 34)	STEEL PLATE BEAM GUARDRAIL TYPE A, 6 FOOT POSTS	STEEL PLATE BEAM GUARDRAIL TYPE A, 9 FOOT POSTS	STRONG POST GUARDRAIL ATTACHED TO CULVERT	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS) (9 FOOT POSTS)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	TRAFFIC BARRIER TERMINAL, TYPE 2 (9 FOOT POSTS)	GUARDRAIL REMOVAL	TERMINAL MARKER - DIRECT APPLIED	GUARDRAIL REFLECTORS, TYPE A
	FOOT	FOOT	FOOT	FOOT	EACH	EACH	FOOT	EACH	EACH
SN 028-7028(E)/SN 028-7134(P)									
STA 222+73.6 LT TO STA 225+04.9 LT	112.5		16		2		156	2	4
STA 222+23.6 RT TO STA 224+54.9 RT	112.5		16		2		149	2	4
SN 028-7033(E)/SN 028-7135(P)									
STA 453+15.9 LT TO STA 455+47.1 LT	125				2		149	2	4
STA 452+64.1 RT TO STA 454+35.0 RT	100	12.5		25	1	1	150	1	4
PROJECT TOTALS	450	12.5	32	25	7	1	604	7	16

SEE GUARDRAIL DETAIL SHEETS FOR ADDITIONAL INFORMATION.

MODEL NUMBER: MAMES
FILE NAME: 81615

USER NAME = SUSERS	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = SSCALES	CHECKED -	REVISED -
PLOT DATE = SDATES	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PAVEMENT MARKING AND GUARDRAIL SCHEDULES

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	10
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

EARTHWORK SCHEDULE

LOCATION			EARTH EXCAVATION CU YD	CHANNEL EXCAVATION CU YD	AVERAGE SHRINKAGE FACTOR %	EARTH EXCAVATION (ADJUSTED) CU YD	EMBANKMENT CU YD	EARTHWORK BALANCE		FURNISHED EXCAVATION CU YD	REMARKS
								EXCAVATION REQUIRED TO COMPLETE CU YD	EXCESS EXCAVATION CU YD		
STA.	TO	STA.	CU YD	CU YD	%	CU YD	CU YD	CU YD	CU YD	CU YD	
IL 34 -SN 028-7027(E)/SN 028-7132(P)											
218+50.00	TO	218+80.00	113								EARTH EXCAVATION FOR BOX & P.G.E
IL 34-SN 028-7028(E)/SN 028-7134(P)											
223+44.80	TO	223+86.80	246								EARTH EXCAVATION FOR BOX & P.G.E
222+00.00	TO	225+25.00	375	320	18.0%	310	510	200	0	200	
IL 34-SN 028-7030(E)/SN 028-7133(P)											
349+58.00	TO	349+88.00	113								EARTH EXCAVATION FOR BOX & P.G.E
IL 34-SN 028-7033(E)/SN 028-7135(P)											
453+78.00	TO	454+31.00	481								EARTH EXCAVATION FOR BOX & P.G.E
452+37.50	TO	455+75.00	122	340	18.0%	105	950	845	0	845	
PROJECT TOTALS			1450	660						1045	

* EARTH EXCAVATION QUANTITIES CALCULATED FOR THE REMOVAL OF THE EXISTING BOX AND P.G.E ARE NOT USED IN THE BALANCING OF THE TOTAL EARTHWORK DUE TO THE UNCERTAINTY OF SUITABLE MATERIAL.

SEEDING/EROSION CONTROL SCHEDULE

LOCATION (IL 34)	CLASS 2 SEEDING	NITROGEN FERTILIZER	PHOSPHORUS FERTILIZER	POTASSIUM FERTILIZER	AG GROUND LIMESTONE	EROSION CONTROL BLANKET	CLASS 7 SEEDING	TEMP EROSION CONTROL SEEDING	PERIMETER EROSION CONTROL BARRIER
	ACRE	POUND	POUND	POUND	TON	SQ YD	ACRE	POUND	FOOT
SN 028-7026(E)/48"RCP(P)									
North/Downstream End	0.01	1	1	1	0.02	48.5	0.01	1	29
South/Upstream End	0.01	1	1	1	0.02	48.5	0.01	1	24
SN 028-7027(E)/SN 028-7132(P)									
North/Downstream End	0.01	1	1	1	0.02	48.5	0.01	1	28
South/Upstream End	0.01	1	1	1	0.02	48.5	0.01	1	17
SN 028-7028(E)/SN 028-7134(P)									
North/Downstream End	0.20	18	18	18	0.40	968.0	0.20	20	370
South/Upstream End	0.12	11	11	11	0.24	581.0	0.12	12	350
SN 028-7030(E)/SN 028-7133(P)									
North/Upstream End	0.01	1	1	1	0.02	48.5	0.01	1	20
South/Downstream End	0.01	1	1	1	0.02	48.5	0.01	1	20
SN 028-7033(E)/SN 028-7135(P)									
North/Upstream End	0.19	17	17	17	0.38	920.0	0.19	19	360
South/Downstream End	0.10	9	9	9	0.20	484.0	0.10	10	270
PROJECT TOTALS									
	0.67	61	61	61	1.34	3244	0.67	67	1488

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	DRAWN -	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 8/26/2022	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

EARTHWORK AND SEEDING /EROSION CONTROL SCHEDULES

SCALE: SHEET OF SHEETS STA. TO STA.

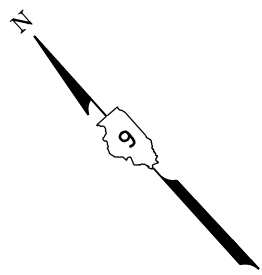
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	11
CONTRACT NO. 78893				
ILLINOIS		FED. AID PROJECT		

TREE REMOVAL SCHEDULE

LOCATION	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	TREE REMOVAL (OVER 15 UNITS DIAMETER)
	UNIT	UNIT
IL 34 - SN 028-7033 (E) / SN 028-7135 (P)		
NORTH END OF STRUCTURE		
1 - 6" DIAMETER TREE	6	
2 - 7" DIAMETER TREE	14	
1 - 8" DIAMETER TREE	8	
2 - 10" DIAMETER TREES	20	
1 - 11" DIAMETER TREE	11	
1 - 12" DIAMETER TREE	12	
1 - 13" DIAMETER TREE	13	
2 - 14" DIAMETER TREES	28	
1 - 15" DIAMETER TREE	15	
2 - 16" DIAMETER TREES		32
1 - 17" DIAMETER TREE		17
2 - 19" DIAMETER TREES		38
3 - 20" DIAMETER TREES		60
1 - 22" DIAMETER TREE		22
1 - 25" DIAMETER TREE		25
IL 34 - SN 028-7028 (E) / SN 028-7134 (P)		
NORTH END OF STRUCTURE		
8 - 6" DIAMETER TREES	48	
4 - 7" DIAMETER TREES	28	
3 - 8" DIAMETER TREES	24	
5 - 9" DIAMETER TREES	45	
4 - 10" DIAMETER TREES	40	
7 - 11" DIAMETER TREES	77	
1 - 12" DIAMETER TREE	12	
1 - 13" DIAMETER TREE	13	
4 - 14" DIAMETER TREES	56	
2 - 15" DIAMETER TREE	30	
1 - 16" DIAMETER TREE		16
3 - 17" DIAMETER TREES		51
2 - 18" DIAMETER TREES		36
2 - 22" DIAMETER TREES		44
SOUTH END OF STRUCTURE		
1 - 7" DIAMETER TREE	7	
1 - 11" DIAMETER TREE	11	
1 - 13" DIAMETER TREE	13	
1 - 14" DIAMETER TREE	14	
1 - 22" DIAMETER TREE		22
SN 028-7033 (E) / SN 028-7135 (P) TOTALS	127	194
SN 028-7028 (E) / SN 028-7134 (P) TOTALS	418	169
PROJECT TOTALS	545	363

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USER NAME = David.A.Villson PLOT SCALE = 100,0000' / in. PLOT DATE = 8/26/2022	DESIGNED - DRAWN - CHECKED - DATE -	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TREE REMOVAL SCHEDULE	SCALE: SHEET OF SHEETS STA. TO STA.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: 8px;">F.A.P. RTE.</td> <td style="font-size: 8px;">SECTION</td> <td style="font-size: 8px;">COUNTY</td> <td style="font-size: 8px;">TOTAL SHEETS</td> <td style="font-size: 8px;">SHEET NO.</td> </tr> <tr> <td style="font-size: 8px;">869</td> <td style="font-size: 8px;">101CR-1,102CR-1</td> <td style="font-size: 8px;">FRANKLIN</td> <td style="font-size: 8px;">68</td> <td style="font-size: 8px;">12</td> </tr> <tr> <td colspan="5" style="font-size: 8px; text-align: center;">CONTRACT NO. 78893</td> </tr> <tr> <td colspan="5" style="font-size: 8px; text-align: center;">ILLINOIS FED. AID PROJECT</td> </tr> </table>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	869	101CR-1,102CR-1	FRANKLIN	68	12	CONTRACT NO. 78893					ILLINOIS FED. AID PROJECT				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.																						
869	101CR-1,102CR-1	FRANKLIN	68	12																						
CONTRACT NO. 78893																										
ILLINOIS FED. AID PROJECT																										



EXIST ROW

8

162

163

STATIONS INCREASING →

CL FAP 869 (IL 34)

PROJECT LIMITS
STA 162+54

PROJECT LIMITS
STA 162+74

CL EXISTING SN 028-7026 4' X 3' CONCRETE BOX CULVERT @ 47° R.A. SKEW
& CL PROPOSED 48" REINFORCED CONCRETE PIPE CULVERT @ 45° R.A. SKEW
STA 162+64.1






PIPE CULVERTS
CLASS A TYPE 1 48"

TRENCH LINE

PROPOSED CAST-IN-PLACE CONCRETE APRON END SECTION
UTILIZING HIGHWAY STANDARD 542206-04

EXIST ROW

CONSTRUCTION LIMITS

	PAVEMENT REMOVAL AND PROPOSED PCC PAVEMENT		PROPOSED PCC SHOULDERS 8'		PERIMETER EROSION BARRIER
	EROSION CONTROL BLANKET & SEEDING CLASS 2		PROPOSED RIPRAP, CLASS A4		

THE COST OF THE REMOVAL OF EXISTING PAVEMENT MARKINGS,
INCLUDING RAISED REFLECTIVE PAVEMENT MARKERS IS
INCLUDED IN THE COST OF PAVEMENT REMOVAL

MODEL: general.dwg 5 scale
 FILE: 162+64.1-48" RCP Culvert.dwg
 PROJECT: 162+64.1-48" RCP Culvert.dwg
 USER: David.A.Villson
 DATE: 8/26/2022

USER NAME = David.A.Villson	DESIGNED -	REVISED -
PLOT SCALE = 10,0000 * / in.	DRAWN -	REVISED -
PLOT DATE = 8/26/2022	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN
PROPOSED 48" RCP CULVERT**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	13
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

**TEMPORARY SECTION DURING CONSTRUCTION
OF CAST-IN-PLACE APRONS**

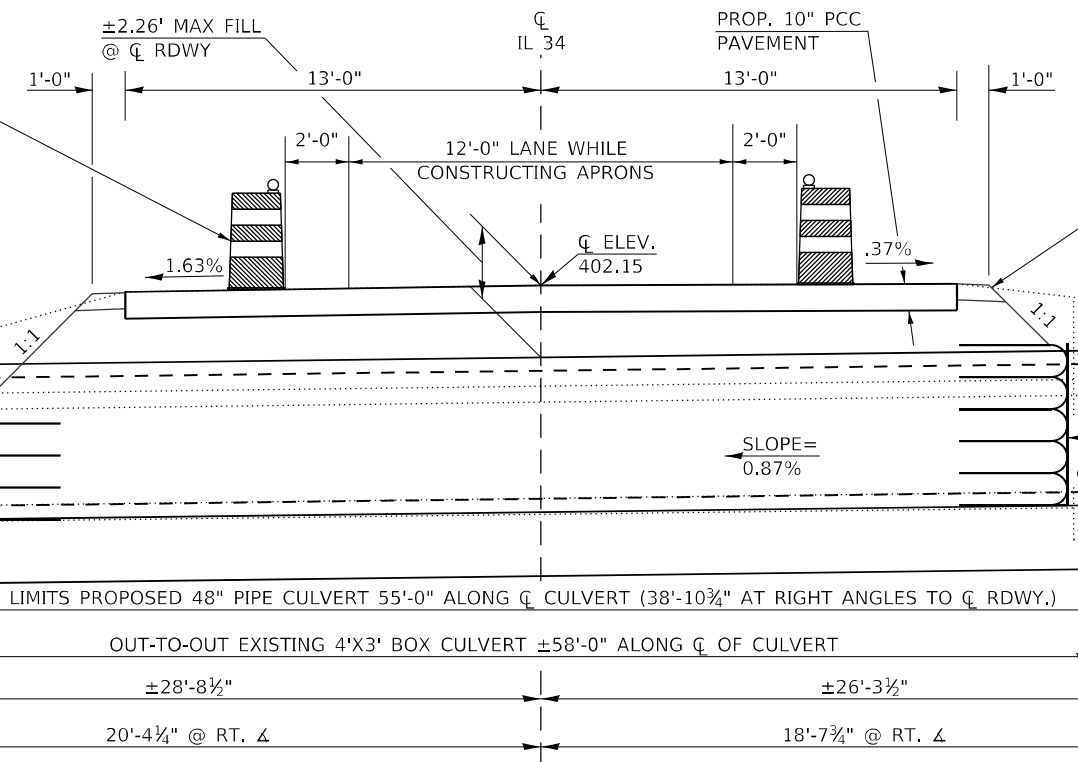
TEMPORARY DRUMS OR BARRICADES DURING CONSTRUCTION OF CIP APRONS. COST INCLUDED IN TC&P STANDARD 701316 (TYP.)

CONTRACTOR SHALL RETAIN THE BACKFILL MATERIAL DURING THE CONSTRUCTION OF THE CIP APRONS. COST INCLUDED IN POROUS GRANULAR EMBANKMENT (TYP.)

PROP. & EXIST. DOWNSREAM INVERT = 394.94'

2'-0" MIN. (TYP.)

LIMITS OF ROCK FILL - FOUNDATION (2'-0")



**ELEVATION
(LOOKING UPSTATION)**

GENERAL NOTES

The removal of the existing box culvert and headwall is included in the Removal of Existing Structures pay item.
Per Article 542.04, the compacted aggregate of 4 inches below the proposed pipe culvert is included in the cost of Pipe Culverts, Class A, Type 1 48". The proposed Removal and Disposal of Unsuitable Materials for Structures and Rock Fill - Foundation payitems will include quantity for 2' below the incidental 4 inches of excavation and compacted aggregate.

TEMPORARY AGGREGATE SHOULDERS, 6" MAY BE USED IN LIEU OF THE PCC SHOULDERS TO SUPPORT THE DRUMS OR BARRICADES FOR TRAFFIC CONTROL BEFORE CAST-IN-PLACE APRONS ARE BUILT. COST INCLUDED IN POROUS GRANULAR EMBANKMENT (TYP.)

PROP. & EXIST. UPSTREAM INVERT = 395.42'

2'-0" MIN. (TYP.)

SLOPE = 0.87%

PAY LIMITS PROPOSED 48" PIPE CULVERT 55'-0" ALONG CL CULVERT (38'-10 3/4" AT RIGHT ANGLES TO CL RDWY.)

OUT-TO-OUT EXISTING 4'X3' BOX CULVERT ±58'-0" ALONG CL OF CULVERT

±28'-8 1/2"

±26'-3 1/2"

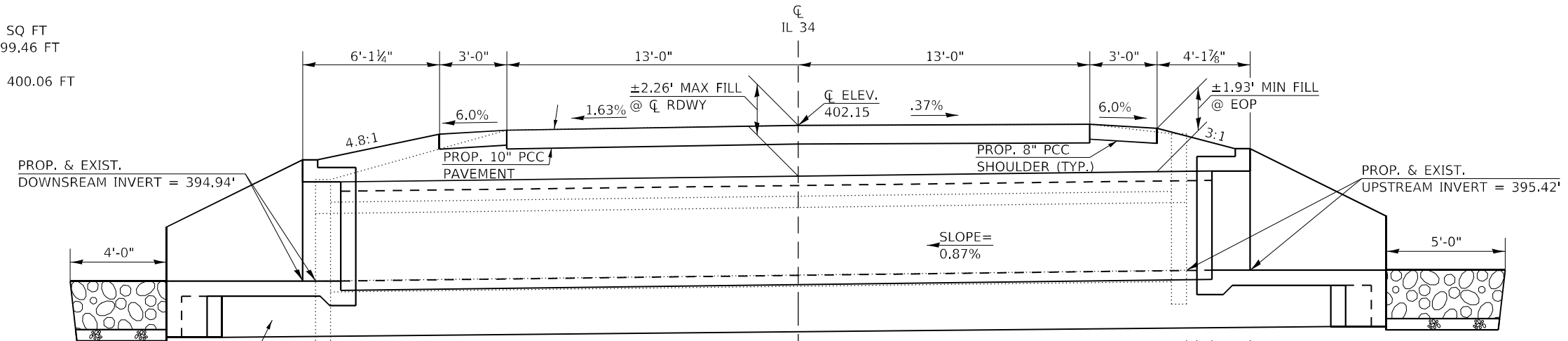
20'-4 1/4" @ RT. Δ

18'-7 3/4" @ RT. Δ

HYDRAULIC DATA

DRAINAGE AREA = .11 SQ MI
DESIGN DISCHARGE = 73.5 CFS
DESIGN WATERWAY OPENING = 12.5 SQ FT
DESIGN HEADWATER ELEVATION = 399.46 FT
100 YEAR DISCHARGE = 88 CFS
100 YEAR HEADWATER ELEVATION = 400.06 FT

FINAL SECTION AFTER CONSTRUCTION OF CAST-IN-PLACE APRONS



**ELEVATION
(LOOKING UPSTATION)**

PROP. & EXIST. DOWNSREAM INVERT = 394.94'

PROP. & EXIST. UPSTREAM INVERT = 395.42'

4'-0"

SLOPE = 0.87%

LIMITS OF ROCK FILL - FOUNDATION (2'-0")

PAY LIMITS PROPOSED 48" PIPE CULVERT 55'-0" ALONG CL CULVERT

OUT-TO-OUT EXISTING 4'X3' BOX CULVERT ±58'-0" ALONG CL OF CULVERT

±31'-1 1/2"

±28'-8 1/2"

22'-0 1/2" @ RT. Δ

20'-3 3/8" @ RT. Δ

59'-10" OUT-TO-OUT PROPOSED 48" PIPE CULVERT (42'-3 3/4" AT RIGHT ANGLES TO CL RDWY.)

C.I.P. CONCRETE APRON END SECTION (TYP.)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal of Existing Structures No. 1	Each	1
Pipe Culverts, Class A, Type 1 48"	Foot	55
Cast-In-Place Reinforced Concrete End Sections 48"	Each	2

MODEL details and final section
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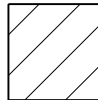
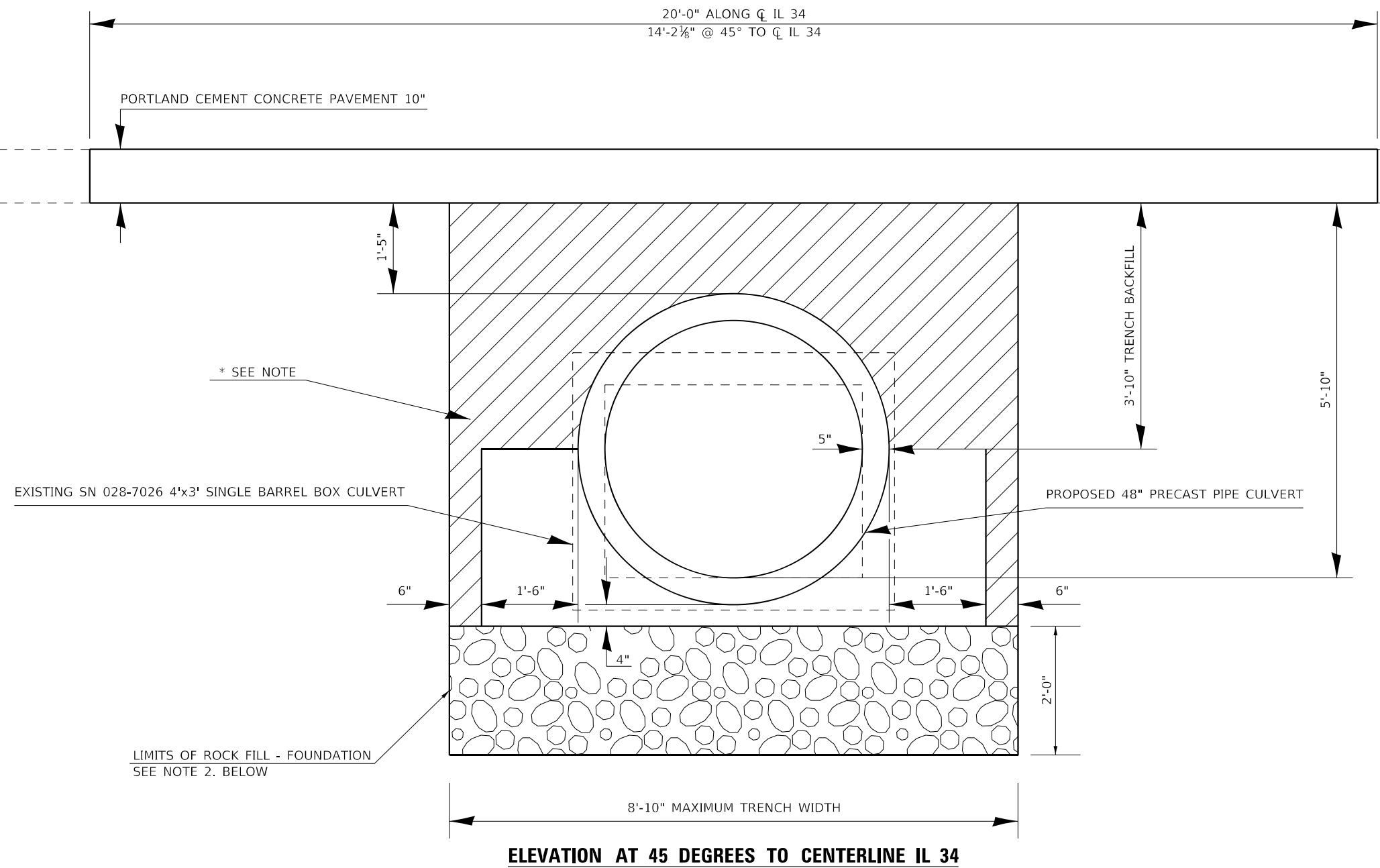
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	DRAWN -	REVISED -
PLOT SCALE = 6,000' / in.	CHECKED -	REVISED -
PLOT DATE = 10/17/2022	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

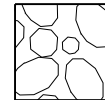
**TEMPORARY AND FINAL SECTIONS
48" RCP CULVERT (P)**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	14
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				



TRENCH BACKFILL



ROCK FILL - FOUNDATION

NOTE:

1. THE PROPOSED MAXIMUM TRENCH WIDTH DIFFERS FROM THE STANDARD MAXIMUM TRENCH WIDTH CORRESPONDING TO A 48" CONCRETE PIPE. ADDITIONAL TRENCH WIDTH AND TRENCH BACKFILL QUANTITIES WERE INCLUDED DUE TO THE CHANGE IN SKEW FROM THE EXISTING BOX CULVERT AND THE PROPOSED 48" RCP.
2. PER ARTICLE 542.04, THE COMPACTED AGGREGATE OF 4 INCHES BELOW THE PIPE CULVERT IS INCLUDED IN THE COST OF PIPE CULVERTS, CLASS A, TYPE I 48".

MODEL: Trench Backfill
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	DATE -	REVISED -

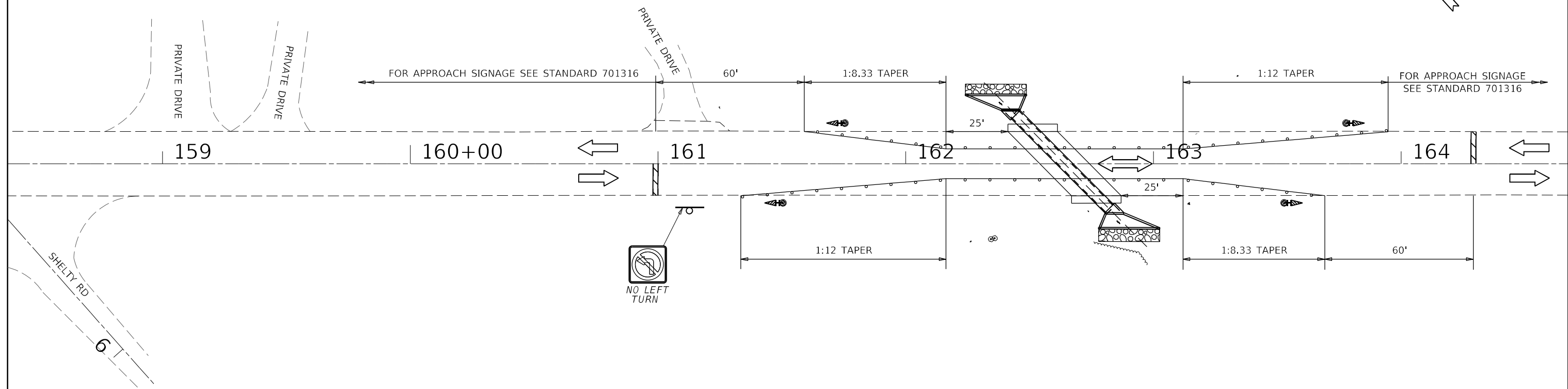
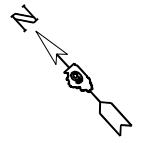
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED 48" RCP CULVERT TRENCH DETAILS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE. 869	SECTION 101CR-1,102CR-1	COUNTY FRANKLIN	TOTAL SHEETS 68	SHEET NO. 15
ILLINOIS FED. AID PROJECT			CONTRACT NO. 78893	

STAGE II TRAFFIC
(CONSTRUCTION OF CAST-IN PLACE APRON END SECTIONS)



Notes for Traffic Control & Protection Standard 701316

(All items below shall be included in the contract unit price, each for Traffic Control and Protection, Std. 701316, no other compensation will be allowed.)

1. All signage as shown on the Highway Standard and additional signage shown on the detail above. The noted work shall include signs, posts, hardware and labor. The contractor shall erect the signs at the locations detailed above and at locations directed by the engineer.
2. Per Article 703.07, when temporary pavement marking is shown on the Standard and Detail above, the cost of temporary pavement marking and its removal will be included in the cost of the Standard.
3. All temporary drums or barricades shown on the Highway Standard and as shown on the detail above.

SYMBOLS

- DRUM
- TRAFFIC SIGNAL
- SIGN

STAGING SHEET
SN 028-7026 (E)
48" RCP CULVERT (P)

MODEL Staging Sheet
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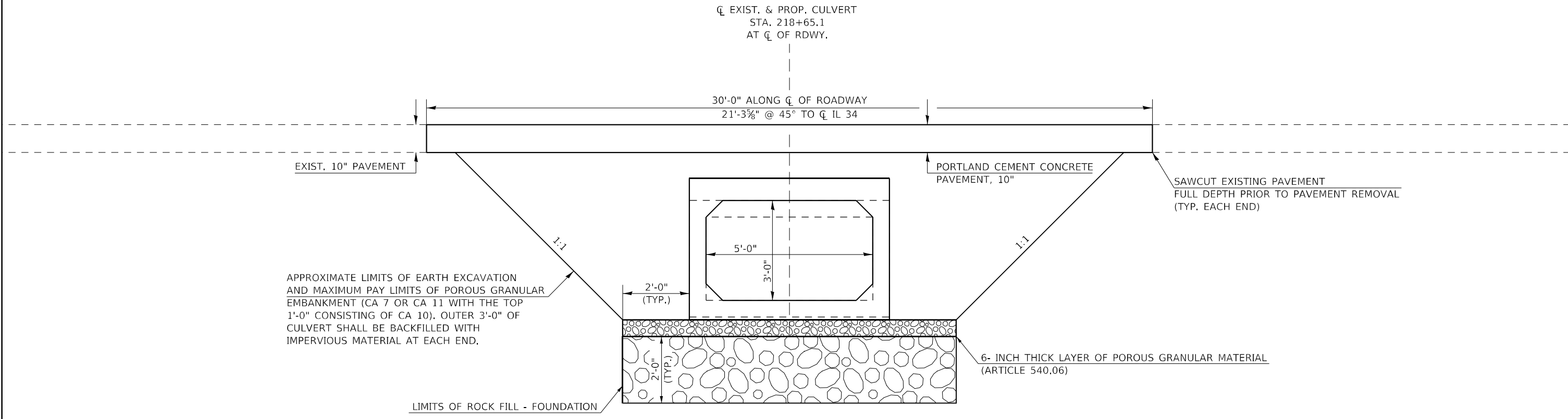
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING SHEET

SCALE: SHEET OF SHEETS STA. TO STA.

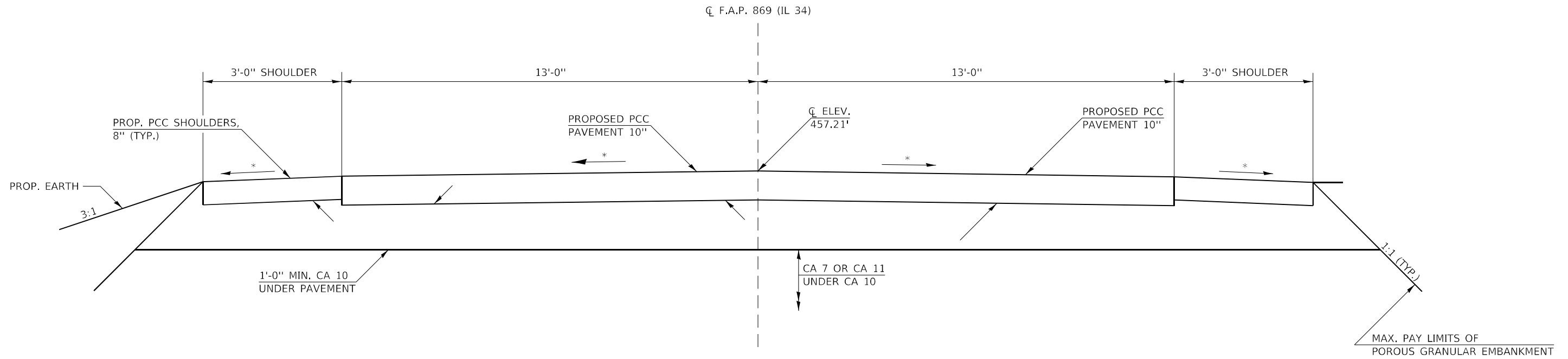
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869	101CR-1,102CR-1	FRANKLIN	68	16
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

LIMITS OF POROUS GRANULAR EMBANKMENT



SECTION WITHIN PAVEMENT REMOVAL

THE COST OF THE REMOVAL OF EXISTING PAVEMENT MARKINGS, INCLUDING RAISED REFLECTIVE PAVEMENT MARKERS IS INCLUDED IN THE COST OF PAVEMENT REMOVAL.



* MATCH EXISTING CROSS SLOPES

MODEL: Limits of Porous Granular Embankment
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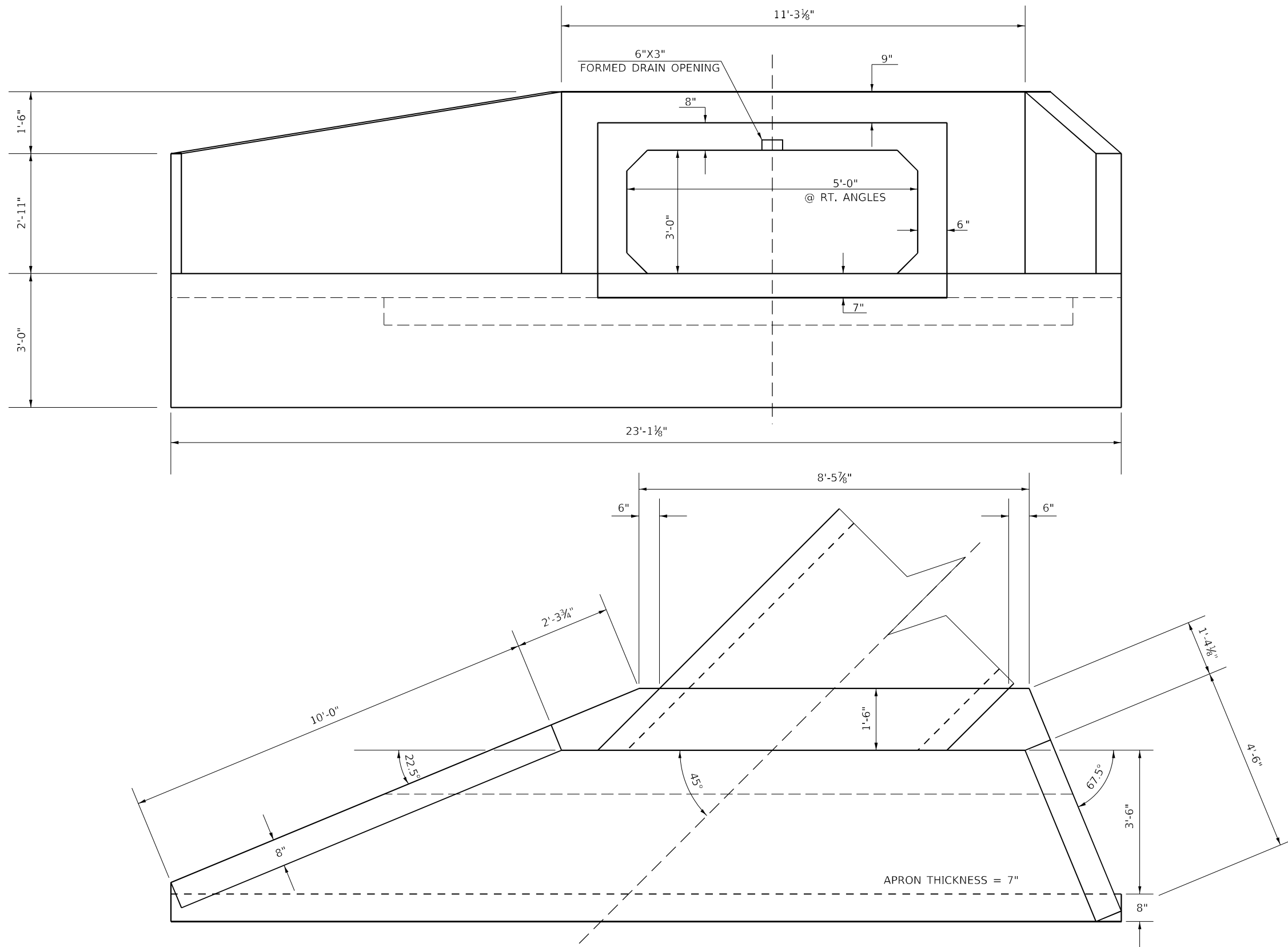
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PLOT DATE = 8/26/2022	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**LIMITS OF POROUS GRANULAR EMBANKMENT AND
SECTION WITHIN PAVEMENT REMOVAL SN 028-7132 (P)**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	18
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				



CAST-IN-PLACE CONCRETE APRON END SECTION DETAILS
(TYPICAL EACH END)

MODEL End Section Details
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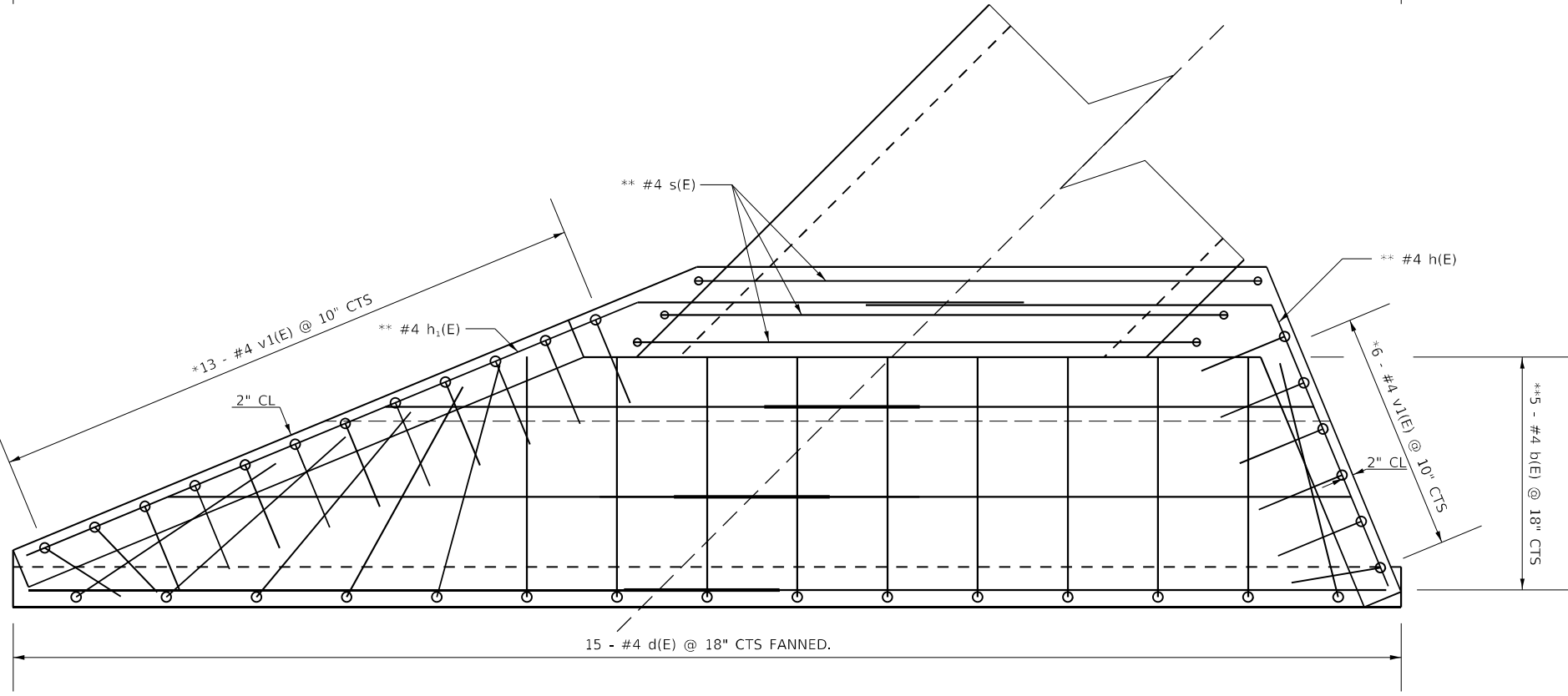
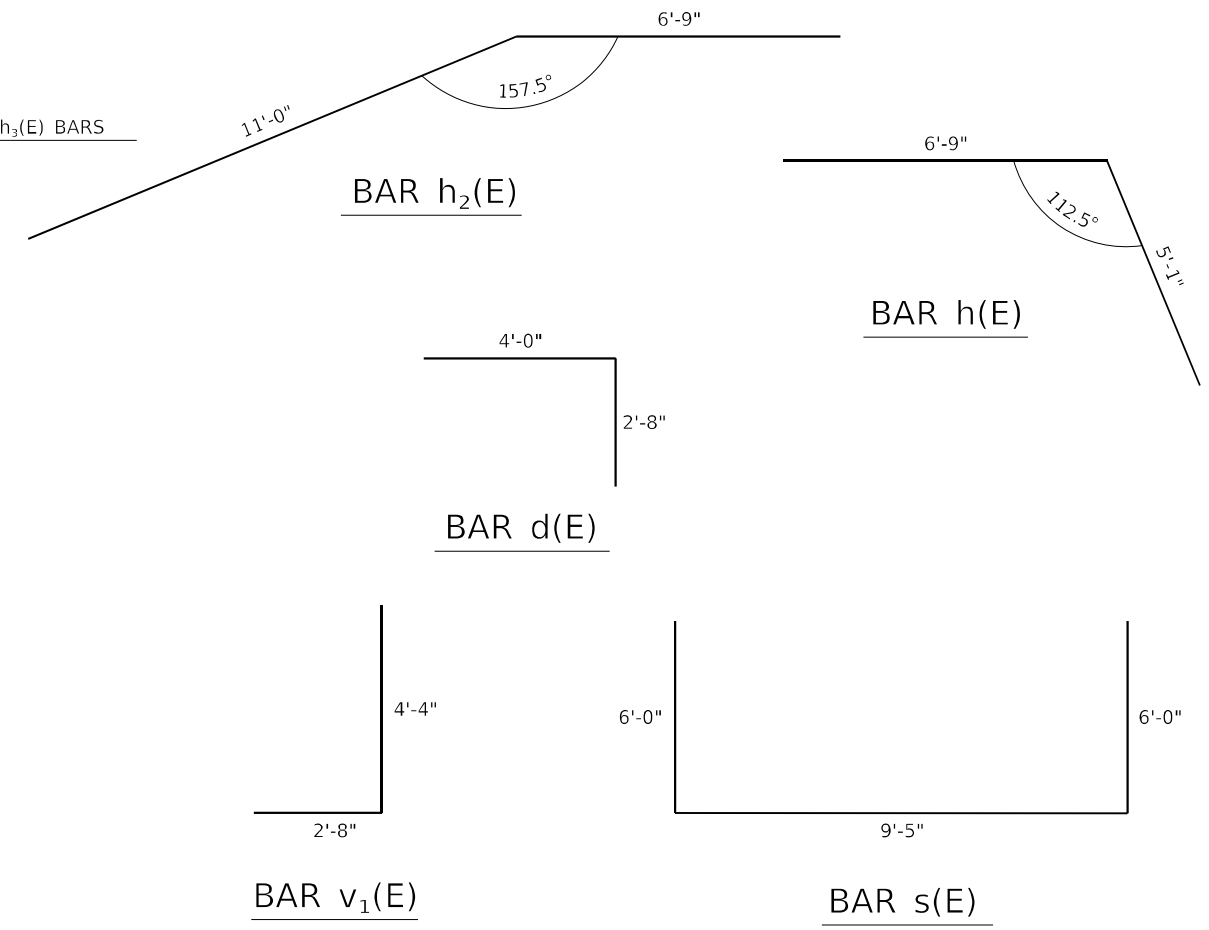
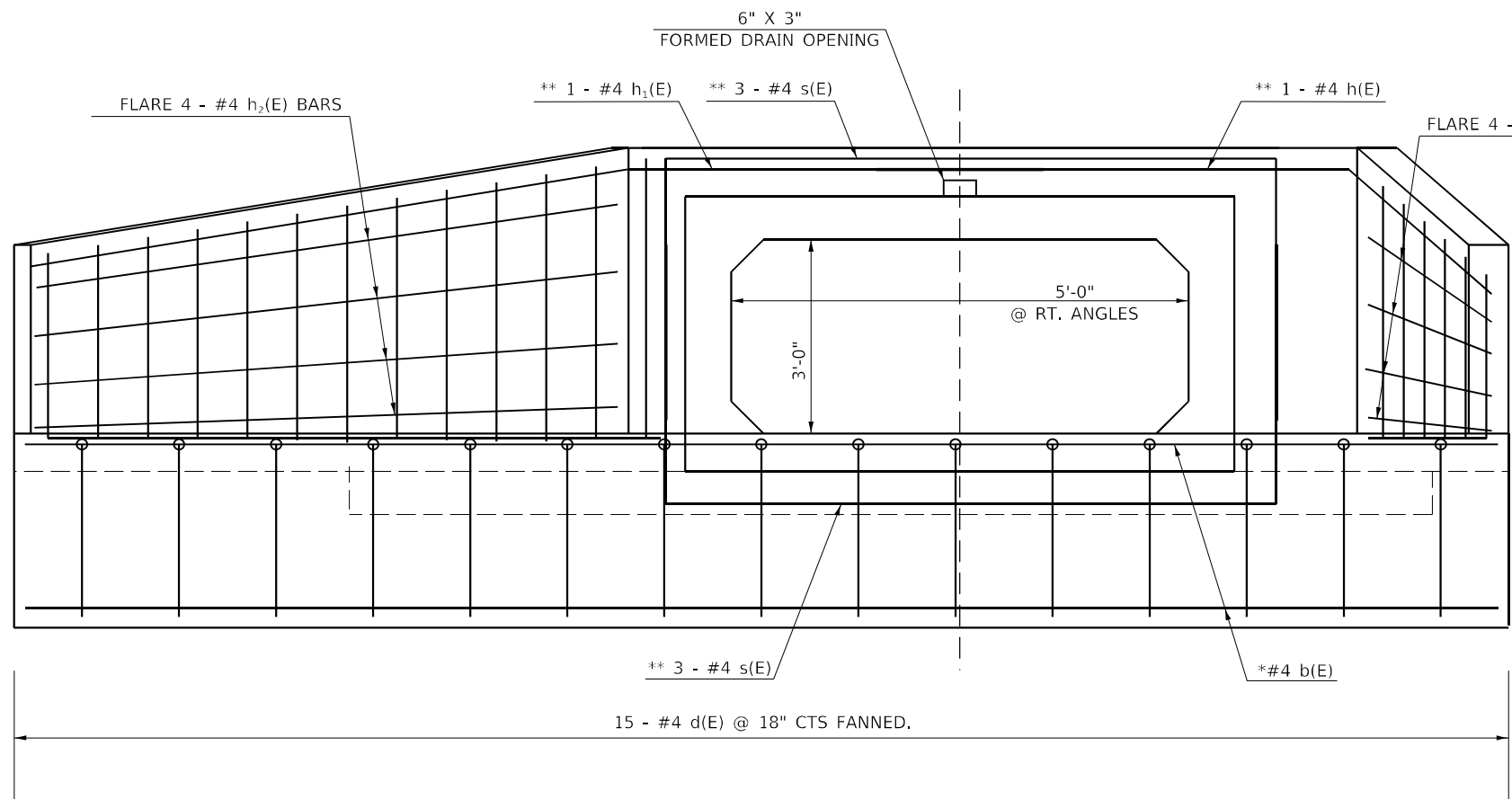
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	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CAST-IN-PLACE CONCRETE BOX CULVERT
APRON END SECTION DETAIL - SN 028-7132 (P)

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	20
ILLINOIS FED. AID PROJECT			CONTRACT NO. 78893	



BILL OF MATERIAL - 2 APRONS

BAR	NO.	SIZE	LENGTH	SHAPE
b(E)	20	#4	12'-6"	┌───
d(E)	30	#4	6'-8"	└───
h(E)	2	#4	11'-10"	┌───┐
h ₁ (E)	2	#4	17'-9"	┌───┐
h ₂ (E)	8	#4	11'-6"	┌───
h ₃ (E)	8	#4	5'-0"	┌───
s(E)	12	#4	21'-5"	└───┐
v ₁ (E)	38	#4	7'-0"	┌───┐
CONCRETE BOX CULVERTS			CU. YD.	12.4
REINFORCEMENT BARS, EPOXY COATED			POUND	780

DESIGN STRESSES

f_y = 60,000 psi
f'_c = 3,500 psi

MINIMUM BAR LAP

#4 = 2'-7"
#5 = 3'-2"

* CUT OR BEND TO FIT IN FIELD
** LAP BARS WHERE NECESSARY

WORK THIS SHEET WITH SHEET 22 OF 67
REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GRADE 60.
EXPOSED EDGES SHALL BE BEVELED 3/4".

MODEL End Section Details
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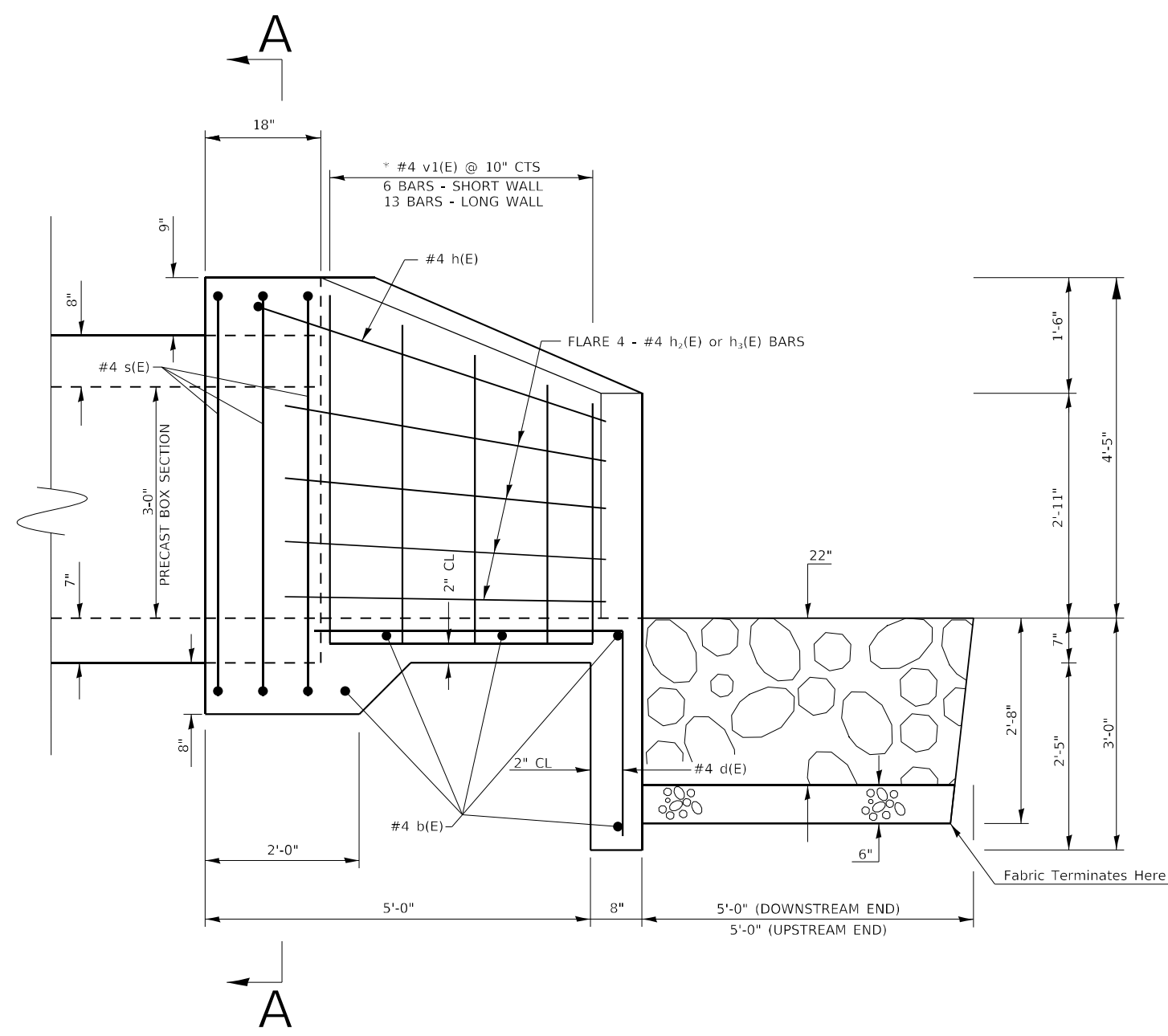
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PLOT DATE = 10/17/2022	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CAST-IN-PLACE CONCRETE BOX CULVERT APRON END SECTION
REINFORCEMENT DETAIL - SN 028-7132 (P)

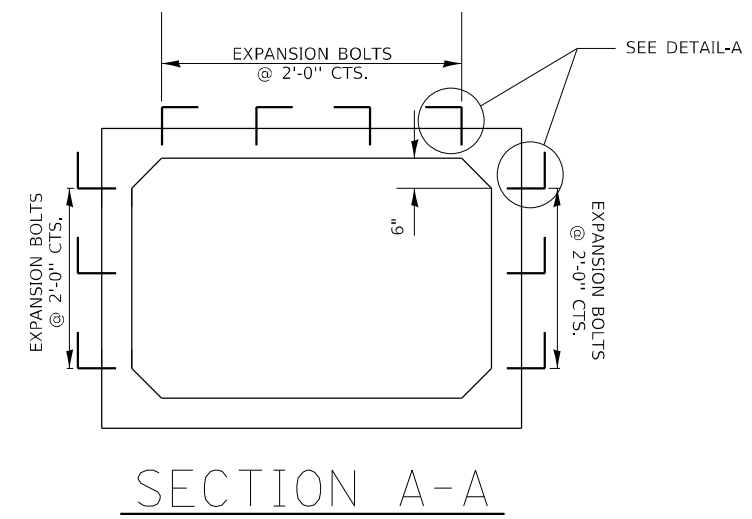
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			CONTRACT NO. 78893	
ILLINOIS FED. AID PROJECT				

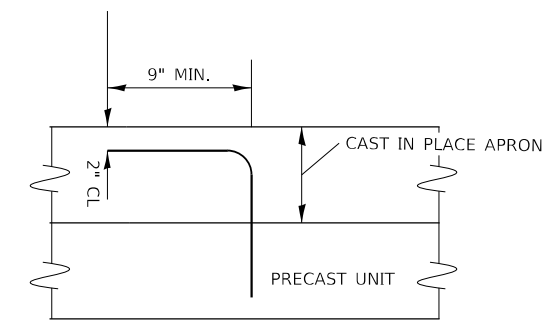


HALF SIDE ELEVATION

(AT RT ANGLES TO ~ ROADWAY)



SECTION A-A



DETAIL-A

NOTES: THE CAST-IN-PLACE APRON END SECTION SHALL BE TIED TO THE PRECAST BARREL AT EACH END USING EXPANSION BOLTS SPACED AT 2' CENTERS AS SHOWN IN SECTION A-A. EXPANSION BOLTS SHALL BE 3/4" DIAMETER HOOKED BOLTS. THE HOOKS SHALL BE AS SHOWN IN DETAIL A AND SHALL BE BENT IN THE FIELD AS NEEDED. COST INCLUDED IN PRECAST CONCRETE BOX CULVERTS OF THE SIZE SPECIFIED IN THE PLANS.

THE LAST TWO PRECAST BARREL SECTIONS AT EACH END SHALL BE TIED TOGETHER USING CULVERT TIES AS SHOWN ON CULVERT TIE DETAILS SHEET. COST INCLUDED IN PRECAST CONCRETE BOX CULVERTS OF THE SIZE SPECIFIED IN THE PLANS

MODEL End Section Details
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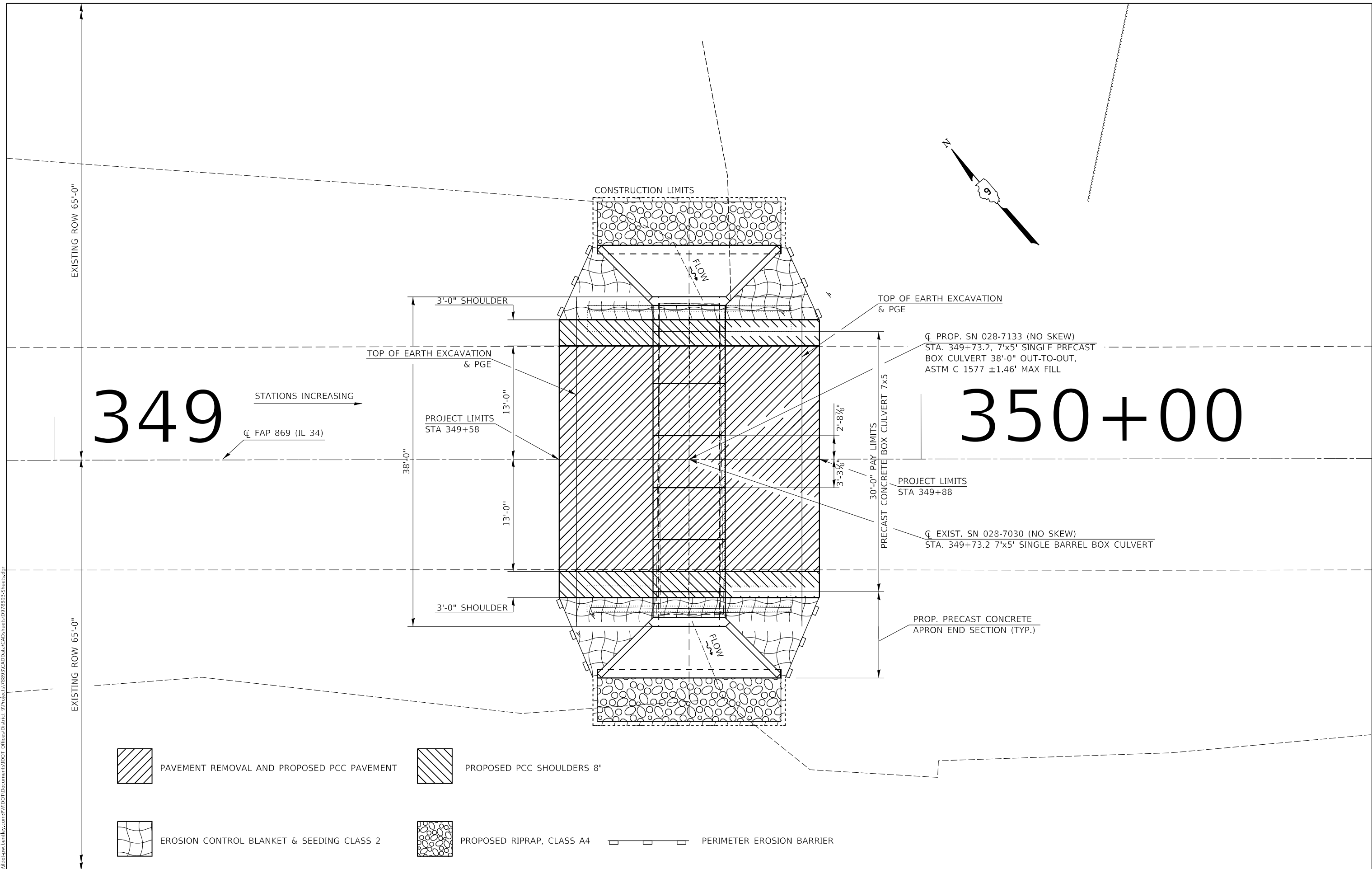
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PLOT SCALE = 2,000' / in.	DRAWN -	REVISED -
PLOT DATE = 10/17/2022	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CAST-IN-PLACE CONCRETE BOX CULVERT APRON END SECTION HALF SIDE ELEVATION DETAIL - SN 028-7132 (P)			
SCALE:	SHEET	OF	SHEETS
	STA.	TO	STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	22
				CONTRACT NO. 78893
ILLINOIS FED. AID PROJECT				

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349

STATIONS INCREASING →

CL FAP 869 (IL 34)

350+00

- PAVEMENT REMOVAL AND PROPOSED PCC PAVEMENT
- PROPOSED PCC SHOULDERS 8'
- EROSION CONTROL BLANKET & SEEDING CLASS 2
- PROPOSED RIPRAP, CLASS A4
- PERIMETER EROSION BARRIER

USER NAME = David.A.Villson	DESIGNED -	REVISED -
	DRAWN -	REVISED -
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PLOT DATE = 8/26/2022	DATE -	REVISED -

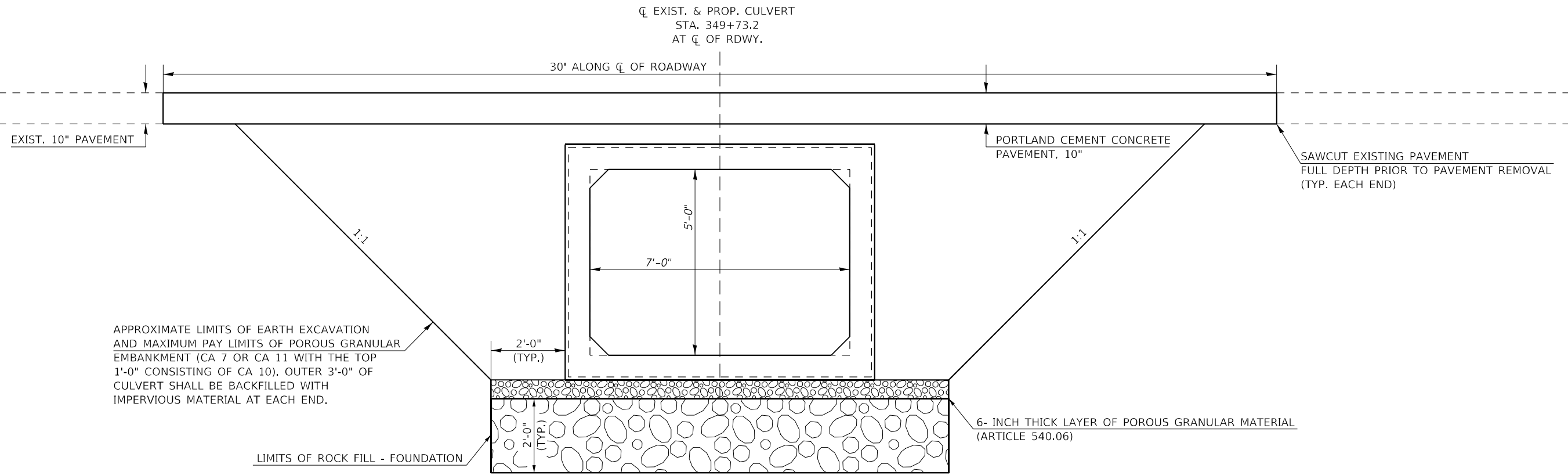
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN
SN 028-7133 (P)**

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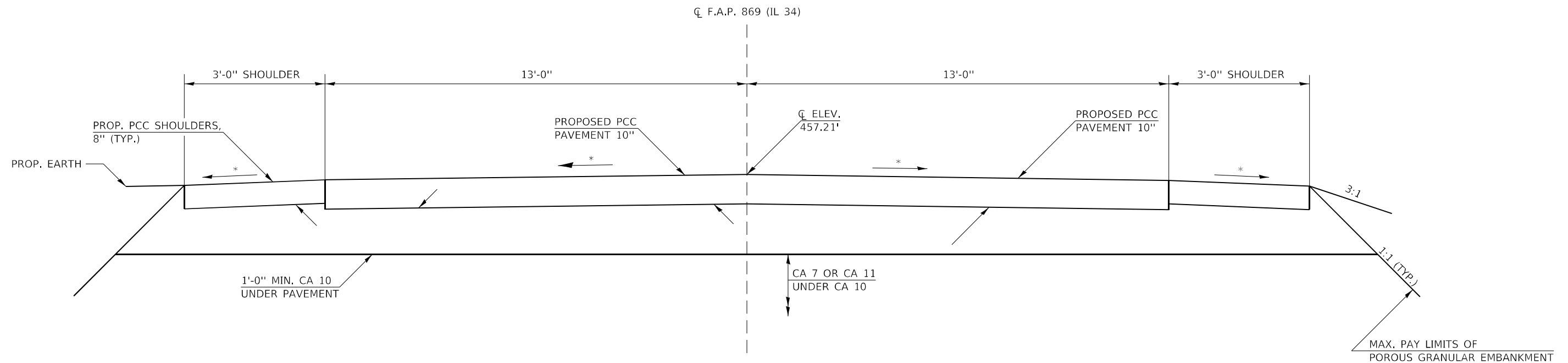
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-2	FRANKLIN	68	23
ILLINOIS FED. AID PROJECT			CONTRACT NO. 78893	

LIMITS OF POROUS GRANULAR EMBANKMENT



SECTION WITHIN PAVEMENT REMOVAL

THE COST OF THE REMOVAL OF EXISTING PAVEMENT MARKINGS, INCLUDING RAISED REFLECTIVE PAVEMENT MARKERS IS INCLUDED IN THE COST OF PAVEMENT REMOVAL.



* MATCH EXISTING CROSS SLOPES

MODEL: Limits of Porous Granular Embankment
FILE NAME: \\pauldick\pauldick\com\11101\Documents\DOT Office\Dir\et\Project\78893\CADD\Drawn\CAD\Sheets\0978893-Sheets.dgn

USER NAME = David.A.Villson	DESIGNED -	REVISED -
PLOT SCALE = 3,0000' / in.	DRAWN -	REVISED -
PLOT DATE = 8/26/2022	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**LIMITS OF POROUS GRANULAR EMBANKMENT AND
SECTION WITHIN PAVEMENT REMOVAL SN 028-7133 (P)**

SCALE: SHEET OF SHEETS STA. TO STA.

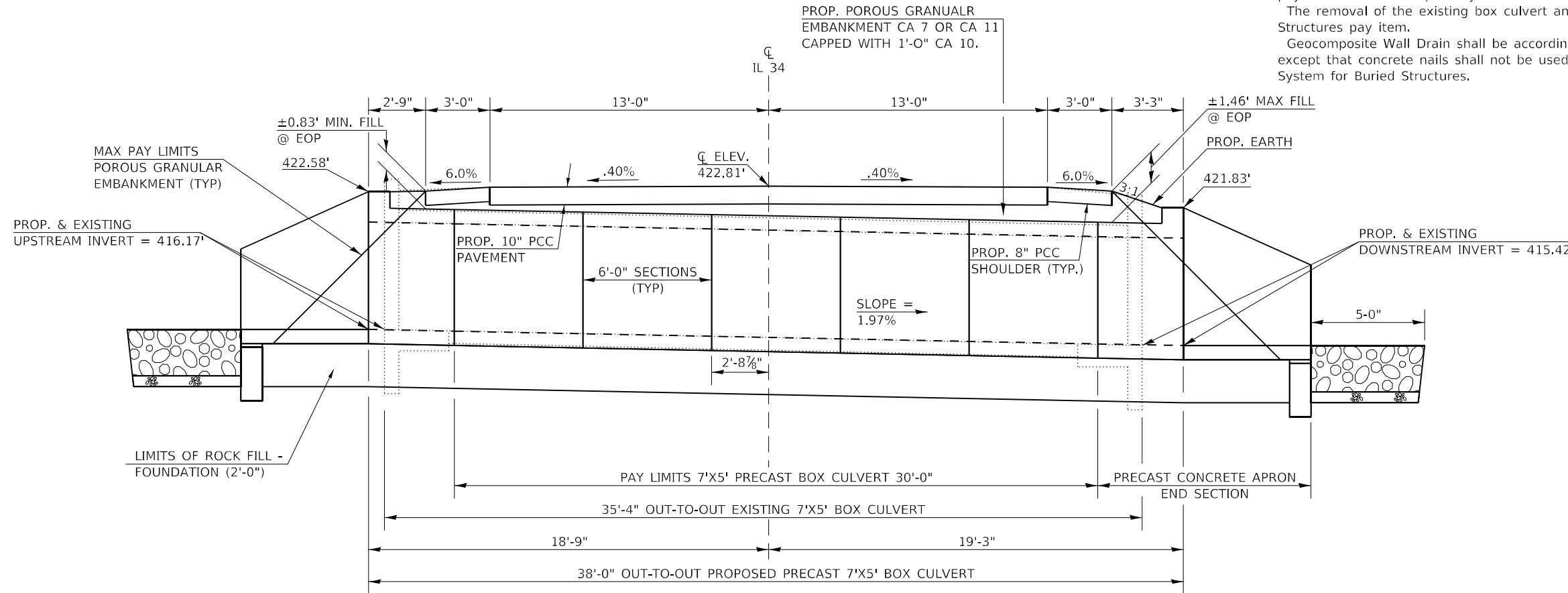
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CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

HYDRAULIC DATA

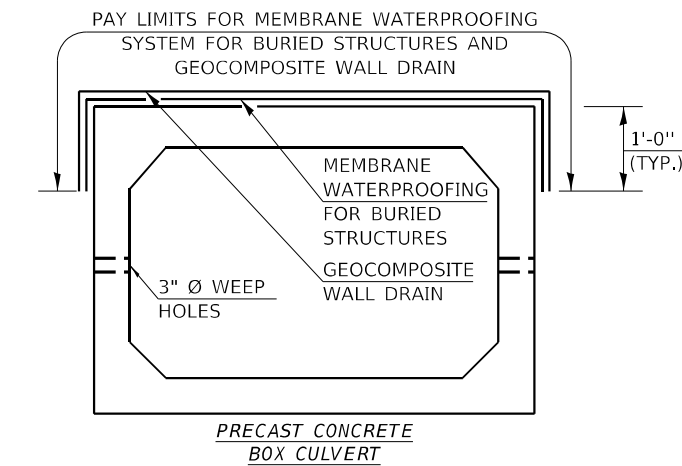
DRAINAGE AREA = 0.12 SQ MI
 DESIGN DISCHARGE = 90.72 CFS
 DESIGN WATERWAY OPENING = 35 SQ FT
 DESIGN HEADWATER ELEVATION = 419.17 FT
 100 YEAR DISCHARGE = 105.96 CFS
 100 YEAR HEADWATER ELEVATION = 419.49 FT

GENERAL NOTES

The precast box culvert sections shall conform to the requirements of ASTM C 1577.
 Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert, shall not intercept the haunch, and shall conform to the requirements of Article 503.11 of the Standard Specification.
 Nonwoven geotextile fabric shall conform to the requirements of Art. 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.
 Precast concrete box culverts and box culvert end sections shall be backfilled with Porous Granular Embankment in the required excavation areas on the sides of the box culvert from the bottom of the proposed pavement to the bottom of the box culvert. This area of PGE is included in the Porous Granular Embankment pay item. The 6-inch thick layer of porous granular material required under the precast concrete box culvert, according to Section 540.06 of the standard specifications, shall also apply to the end sections. Cost of this porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required. The proposed Removal and Disposal of Unsuitable Materials for Structures and Rock Fill - Foundation payitems will include quantity for 2' below the incidental 6-inches of excavation and porous granular material. The removal of the existing box culvert and headwall is included in the Removal of Existing Structures pay item.
 Geocomposite Wall Drain shall be according to Section 591 of the Standard Specifications, except that concrete nails shall not be used in areas where it overlaps Membrane Waterproofing System for Buried Structures.



ELEVATION
(LOOKING SOUTH)



DESIGN SPECIFICATIONS

2020 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS
 CUSTOMARY U.S. UNITS, 9TH EDITION

LOADING HL-93

DESIGN STRESSES

PRECAST UNITS

f'c = 5,000 psi
 fy = 65,000 psi (WELDED WIRE REINFORCEMENT)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal of Existing Structures No. 3	Each	1
Geocomposite Wall Drain	Sq Yd	42
Membrane Waterproofing System for Buried Structures	Sq Yd	42
Box Culvert End Sections, Culvert No. 1	Each	2
Precast Concrete Box Culverts, 7' x 5'	Foot	30

STATION	SIZE	SKEW	DESIGN FILL (FT.)		PGE BACKFILL REQUIRED
			MINIMUM	MAXIMUM	
349+58 TO 349+88	7' X 5'	NONE	±0.83'	±1.46'	98 CU YD

USER NAME = Ehrenkirby	DESIGNED -	REVISED -
PLOT SCALE = 6,0000' / in.	DRAWN -	REVISED -
PLOT DATE = 10/17/2022	CHECKED -	REVISED -
	DATE -	REVISED -

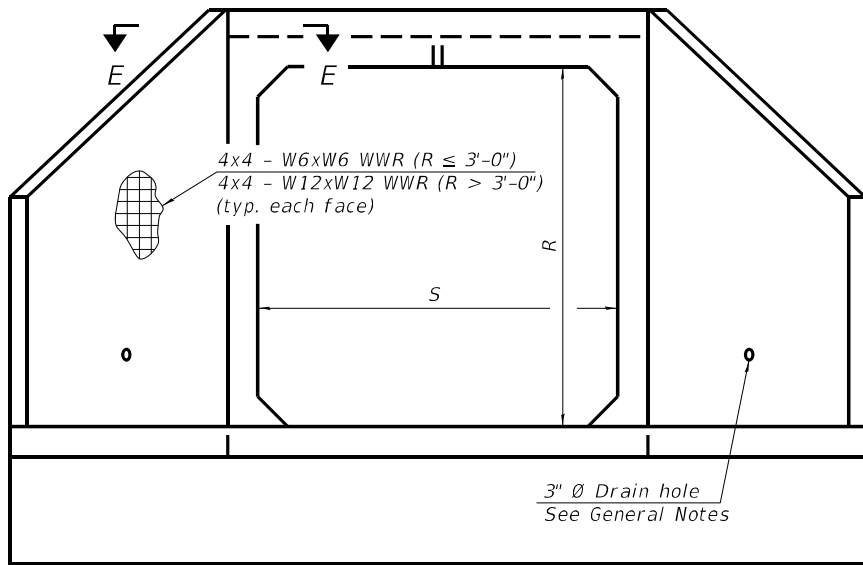
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS & FINAL SECTION
SN 028-7133 (P)

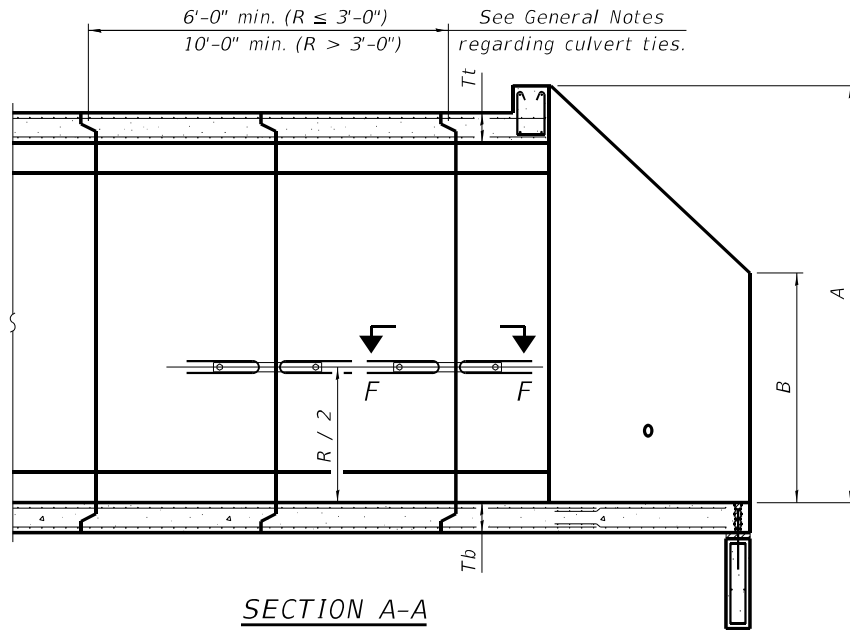
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-2	FRANKLIN	68	25
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

MODEL details and final section
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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 in 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.

The Contractor may use reinforcement bars in lieu of welded wire reinforcement (WWR). 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 WWR. Minimum lap lengths detailed herein are applicable to WWR 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.

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)	Tt	Tb	Ts	A	B	C	D	E	Concrete Cu. Yd.	Culvert Ties Required
3'-0"	2'-0"	7"	6"	4"	3'-4"	2'-2"	2'-10 3/8"	4'-1"	10'-4 5/8"	2.8	Yes
3'-0"	2'-0"	4"	4"	4"	3'-1"	2'-1"	2'-7 7/8"	3'-9"	9'-11"	2.3	Yes
3'-0"	3'-0"	7"	6"	4"	4'-4"	2'-8"	3'-10 3/8"	5'-6"	12'-4 5/8"	3.7	Yes
3'-0"	3'-0"	4"	4"	4"	4'-1"	2'-7"	3'-7 7/8"	5'-2"	11'-11"	3.1	Yes
4'-0"	2'-0"	7.5"	6"	5"	3'-4 1/2"	2'-2 1/2"	2'-11 3/8"	4'-2"	11'-8"	3.3	Yes
4'-0"	2'-0"	5"	5"	5"	3'-2"	2'-1"	2'-8 1/2"	3'-10"	11'-2 3/8"	2.8	Yes
4'-0"	3'-0"	7.5"	6"	5"	4'-4 1/2"	2'-8 1/2"	3'-11 3/8"	5'-7"	13'-8 1/8"	4.2	Yes
4'-0"	3'-0"	5"	5"	5"	4'-2"	2'-7"	3'-8 1/2"	5'-3"	13'-2 3/8"	3.7	Yes
4'-0"	4'-0"	7.5"	6"	5"	5'-4 1/2"	3'-2 1/2"	4'-11 3/8"	7'-0"	15'-8 1/8"	5.3	Yes
4'-0"	4'-0"	5"	5"	5"	5'-2"	3'-1"	4'-8 3/8"	6'-8"	15'-2 1/2"	4.7	Yes
5'-0"	2'-0"	8"	7"	6"	3'-5"	2'-3"	2'-11 3/8"	4'-2"	12'-10"	3.9	Yes
5'-0"	2'-0"	6"	6"	6"	3'-3"	2'-2"	2'-10"	4'-0"	12'-7 1/4"	3.5	Yes
5'-0"	3'-0"	8"	7"	6"	4'-5"	2'-9"	3'-11 3/8"	5'-7"	14'-10 1/4"	4.9	Yes
5'-0"	3'-0"	6"	6"	6"	4'-3"	2'-8"	3'-10"	5'-5"	14'-7 1/4"	4.5	Yes
5'-0"	4'-0"	8"	7"	6"	5'-5"	3'-3"	4'-11 3/8"	7'-0"	16'-10 1/8"	6.1	Yes
5'-0"	4'-0"	6"	6"	6"	5'-3"	3'-2"	4'-9 1/4"	6'-9"	16'-5 1/8"	5.5	Yes
5'-0"	5'-0"	8"	7"	6"	6'-5"	3'-9"	5'-11 3/8"	8'-5"	18'-10 1/8"	7.4	Yes
5'-0"	5'-0"	6"	6"	6"	6'-3"	3'-8"	5'-9 1/4"	8'-2"	18'-5 1/8"	6.8	Yes
6'-0"	2'-0"	8"	7"	7"	3'-5"	2'-3"	2'-11 3/8"	4'-2"	14'-0"	4.3	Yes
6'-0"	2'-0"	7"	7"	7"	3'-4"	2'-2"	2'-10 3/8"	4'-1"	13'-10 3/8"	4.2	Yes
6'-0"	3'-0"	8"	7"	7"	4'-5"	2'-9"	3'-11 3/8"	5'-7"	16'-0 1/8"	5.4	Yes
6'-0"	3'-0"	7"	7"	7"	4'-4"	2'-8"	3'-10 3/8"	5'-6"	15'-10 3/8"	5.2	Yes
6'-0"	4'-0"	8"	7"	7"	5'-5"	3'-3"	4'-11 3/8"	7'-0"	18'-0 1/8"	6.5	Yes
6'-0"	4'-0"	7"	7"	7"	5'-4"	3'-2"	4'-10 3/4"	6'-11"	17'-10 3/4"	6.5	Yes
6'-0"	5'-0"	8"	7"	7"	6'-5"	3'-9"	5'-11 3/8"	8'-5"	20'-0 1/8"	8.0	Yes
6'-0"	5'-0"	7"	7"	7"	6'-4"	3'-8"	5'-10 3/4"	8'-4"	19'-10 3/4"	7.8	Yes
6'-0"	6'-0"	8"	7"	7"	7'-5"	4'-3"	6'-11 1/2"	9'-10"	22'-0 1/4"	9.5	Yes
6'-0"	6'-0"	7"	7"	7"	7'-4"	4'-2"	6'-10 3/4"	9'-9"	21'-10 3/4"	9.3	Yes
7'-0"	2'-0"	8"	8"	8"	3'-5"	2'-3"	2'-11 3/8"	4'-2"	15'-2"	4.9	Yes
7'-0"	3'-0"	8"	8"	8"	4'-5"	2'-9"	3'-11 3/8"	5'-7"	17'-2 1/8"	6.1	Yes
7'-0"	4'-0"	8"	8"	8"	5'-5"	3'-3"	4'-11 3/8"	7'-0"	19'-2 1/8"	7.4	Yes
7'-0"	5'-0"	8"	8"	8"	6'-5"	3'-9"	5'-11 3/8"	8'-5"	21'-2 1/8"	8.9	Yes
7'-0"	6'-0"	8"	8"	8"	7'-5"	4'-3"	6'-11 1/2"	9'-10"	23'-2 1/4"	10.6	Yes
8'-0"	2'-0"	8"	8"	8"	3'-5"	2'-3"	2'-11 3/8"	4'-2"	16'-2"	5.3	Yes
8'-0"	3'-0"	8"	8"	8"	4'-5"	2'-9"	3'-11 3/8"	5'-7"	18'-2 1/8"	6.5	Yes
8'-0"	4'-0"	8"	8"	8"	5'-5"	3'-3"	4'-11 3/8"	7'-0"	20'-2 1/8"	7.8	Yes
8'-0"	5'-0"	8"	8"	8"	6'-5"	3'-9"	5'-11 3/8"	8'-5"	22'-2 1/8"	9.3	Yes
8'-0"	6'-0"	8"	8"	8"	7'-5"	4'-3"	6'-11 1/2"	9'-10"	24'-2 1/4"	11.0	Yes
9'-0"	2'-0"	9"	9"	9"	3'-6"	2'-3"	3'-0 3/4"	4'-4"	17'-6 1/8"	6.2	Yes
9'-0"	3'-0"	9"	9"	9"	4'-6"	2'-9"	4'-0 3/4"	5'-9"	19'-6 1/8"	7.5	Yes
9'-0"	4'-0"	9"	9"	9"	5'-6"	3'-3"	5'-0 3/4"	7'-2"	21'-6 7/8"	9.0	Yes
9'-0"	5'-0"	9"	9"	9"	6'-6"	3'-9"	6'-0 7/8"	8'-7"	23'-7"	10.6	Yes
9'-0"	6'-0"	9"	9"	9"	7'-6"	4'-3"	7'-0 1/8"	9'-11"	25'-5 5/8"	12.4	Yes
10'-0"	2'-0"	10"	10"	10"	3'-7"	2'-4"	3'-1 1/2"	4'-5"	18'-10 1/4"	7.1	No
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10'-0"	4'-0"	10"	10"	10"	5'-7"	3'-4"	5'-1 1/2"	7'-3"	22'-10 3/8"	10.2	Yes
10'-0"	5'-0"	10"	10"	10"	6'-7"	3'-10"	6'-1 1/2"	8'-8"	24'-10 3/8"	12.0	Yes
10'-0"	6'-0"	10"	10"	10"	7'-7"	4'-4"	7'-1 1/2"	10'-1"	26'-10 3/8"	13.9	Yes
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11'-0"	4'-0"	11"	11"	11"	5'-8"	3'-4"	5'-2 1/4"	7'-4"	24'-1 3/4"	11.5	Yes
11'-0"	5'-0"	11"	11"	11"	6'-8"	3'-10"	6'-2 1/4"	8'-9"	26'-1 3/4"	13.3	Yes
11'-0"	6'-0"	11"	11"	11"	7'-8"	4'-4"	7'-2 1/4"	10'-2"	28'-1 1/8"	15.5	Yes
12'-0"	2'-0"	12"	12"	12"	3'-9"	2'-5"	3'-3 3/8"	4'-8"	21'-6 1/2"	9.3	No
12'-0"	3'-0"	12"	12"	12"	4'-9"	2'-11"	4'-3 5/8"	6'-1"	23'-6 1/2"	11.1	No
12'-0"	4'-0"	12"	12"	12"	5'-9"	3'-5"	5'-3 5/8"	7'-6"	25'-6 3/8"	13.0	Yes
12'-0"	5'-0"	12"	12"	12"	6'-9"	3'-11"	6'-3 5/8"	8'-11"	27'-6 3/8"	14.1	Yes
12'-0"	6'-0"	12"	12"	12"	7'-9"	4'-5"	7'-3 5/8"	10'-4"	29'-6 3/8"	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

2-17-2017

USER NAME = David A. Wilson	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 8/26/2022	DATE -	REVISED -

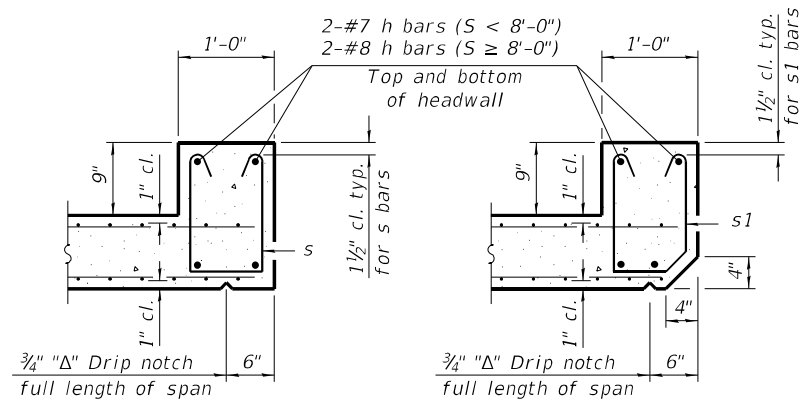
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST CONCRETE BOX CULVERT
APRON END SECTION DETAILS SN 028-7133(P)

SCALE: SHEET OF SHEETS STA. TO STA.

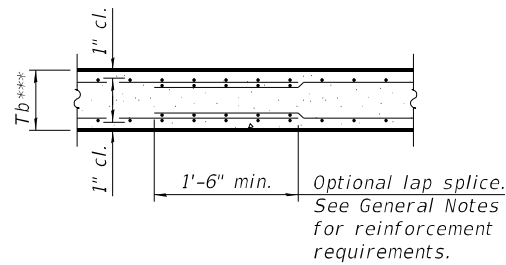
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	26
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

MODEL: Default
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 DESIGNED: -
 DRAWN: -
 CHECKED: -
 DATE: -
 REVISED: -
 REVISED: -
 REVISED: -
 REVISED: -
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 PRECAST CONCRETE BOX CULVERT
 APRON END SECTION DETAILS SN 028-7133(P)
 SCALE: SHEET OF SHEETS STA. TO STA.
 F.A.P. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.
 869 101CR-1,102CR-1 FRANKLIN 68 26
 CONTRACT NO. 78893
 ILLINOIS FED. AID PROJECT

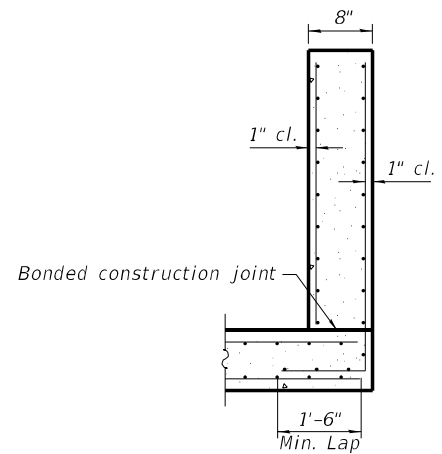


SECTION B-B
(Top slab at downstream end)

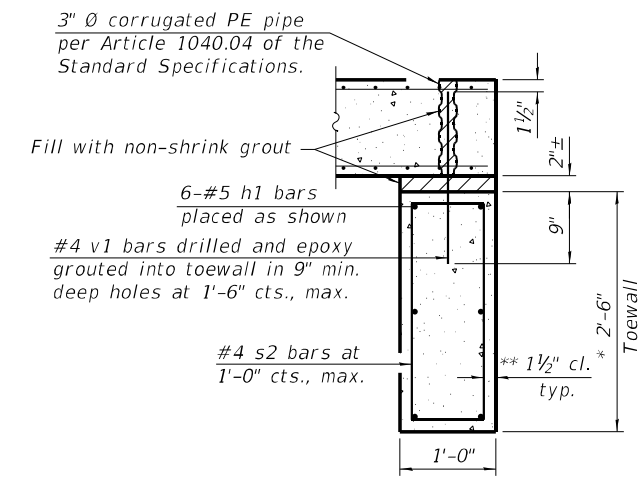
SECTION B-B
(Top slab at upstream end)



SECTION B-B
(Bottom Slab)

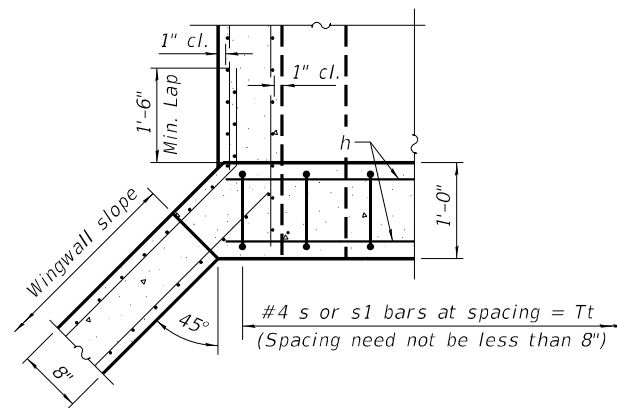


SECTION C-C

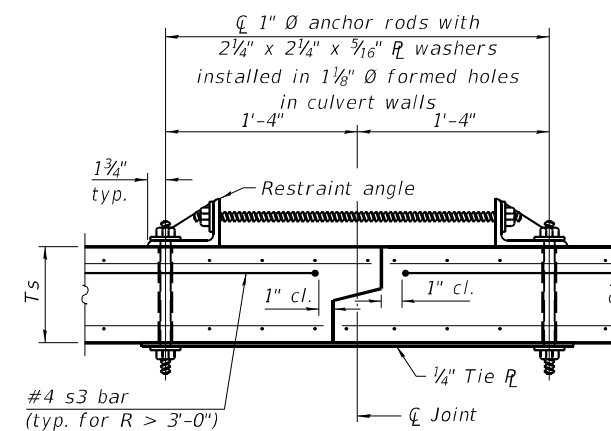


SECTION D-D

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



SECTION E-E



SECTION F-F
(Showing culvert tie details)

TOEWALL CONSTRUCTION SEQUENCE

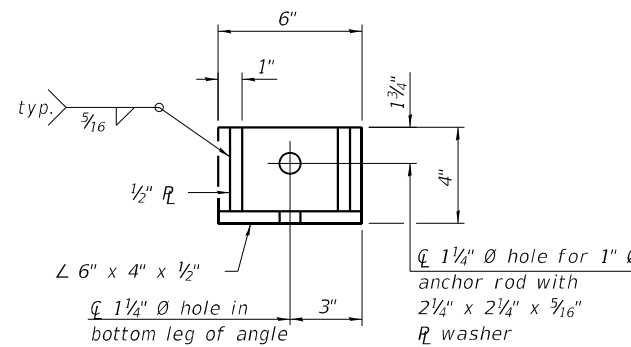
1. Perform excavation and construct toewall.
2. Backfill accordingly and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance with Section 584 of the Standard Specifications.
5. Pressure grout voids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

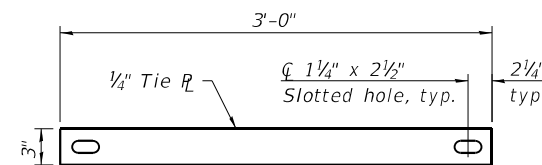
** If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.

Notes:

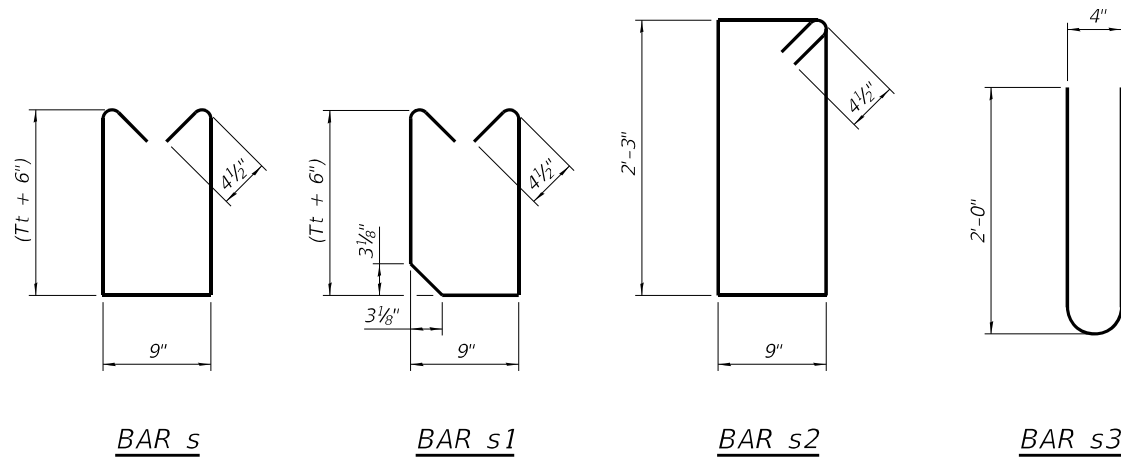
1" Ø anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for the tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2 1/4" x 2 1/4" x 3/16" 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



BAR s

BAR s1

BAR s2

BAR s3

(Sheet 2 of 2)

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SCB-AES

2-17-2017

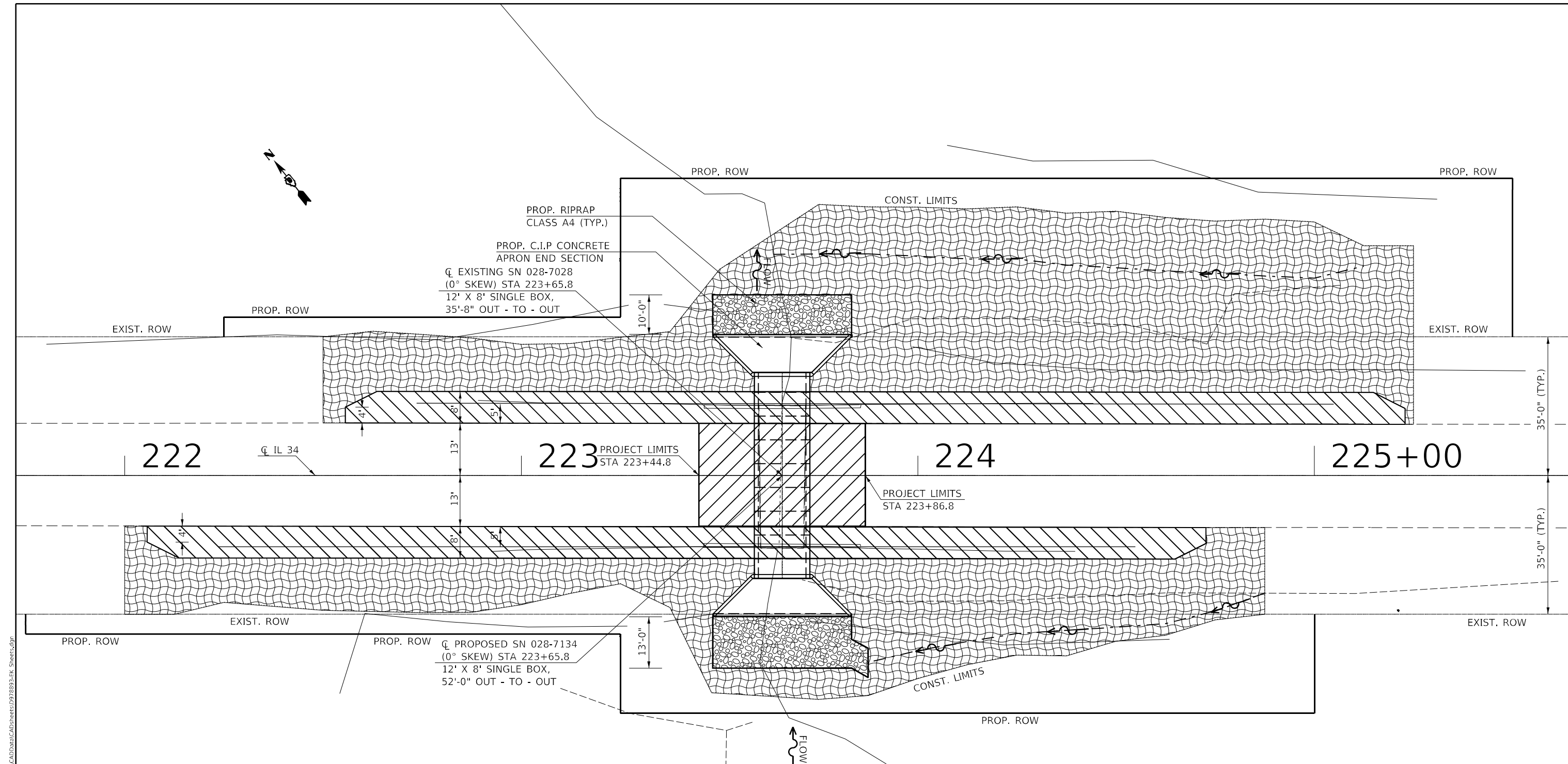
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PLOT SCALE = 100,0000' / in.	DRAWN -	REVISED -
PLOT DATE = 8/26/2022	CHECKED -	REVISED -
	DATE -	REVISED -





STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST CONCRETE BOX CULVERT
APRON END SECTION DETAILS SN 028-7133(P)

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	27
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				



-  PROPOSED HMA SHOULDERS
-  PROPOSED RIPRAP, CLASS A4
-  EROSION CONTROL BLANKET AND SEEDING, CLASS 2
-  PAVEMENT REMOVAL AND PROPOSED PCC PAVEMENT

NOTE: PERIMETER EROSION BARRIER SHALL BE PLACED ALONG CONSTRUCTION LIMITS.

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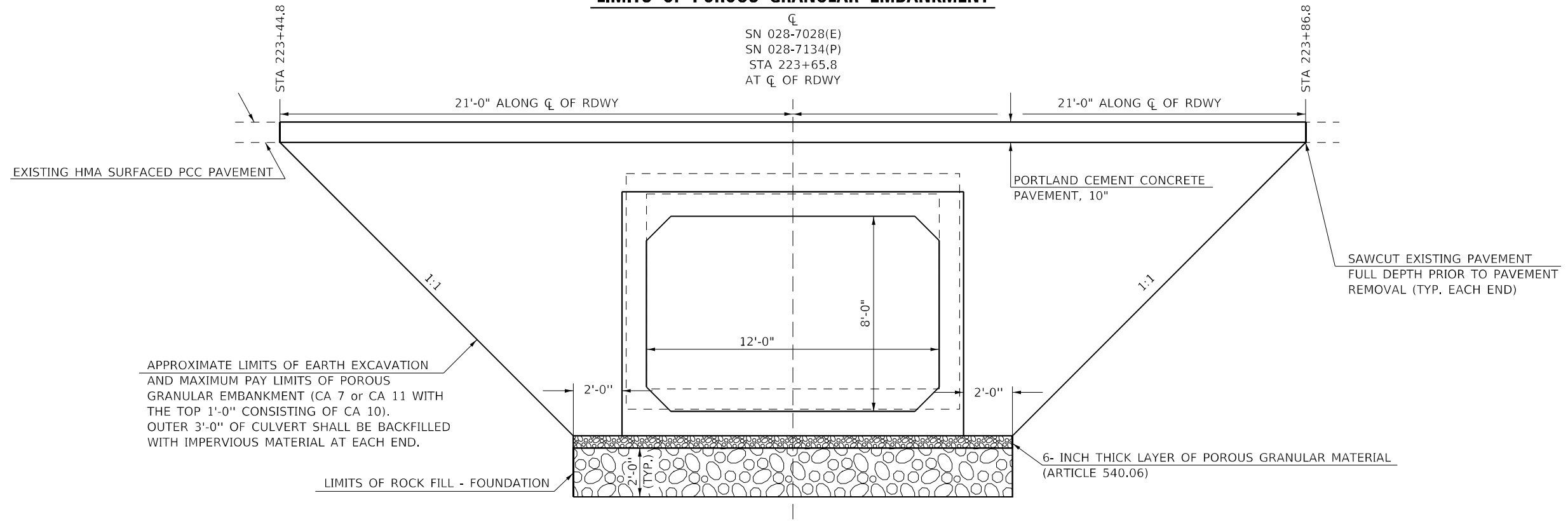
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN
SN 028-7134 (P)**

SCALE: SHEET OF SHEETS STA. TO STA.

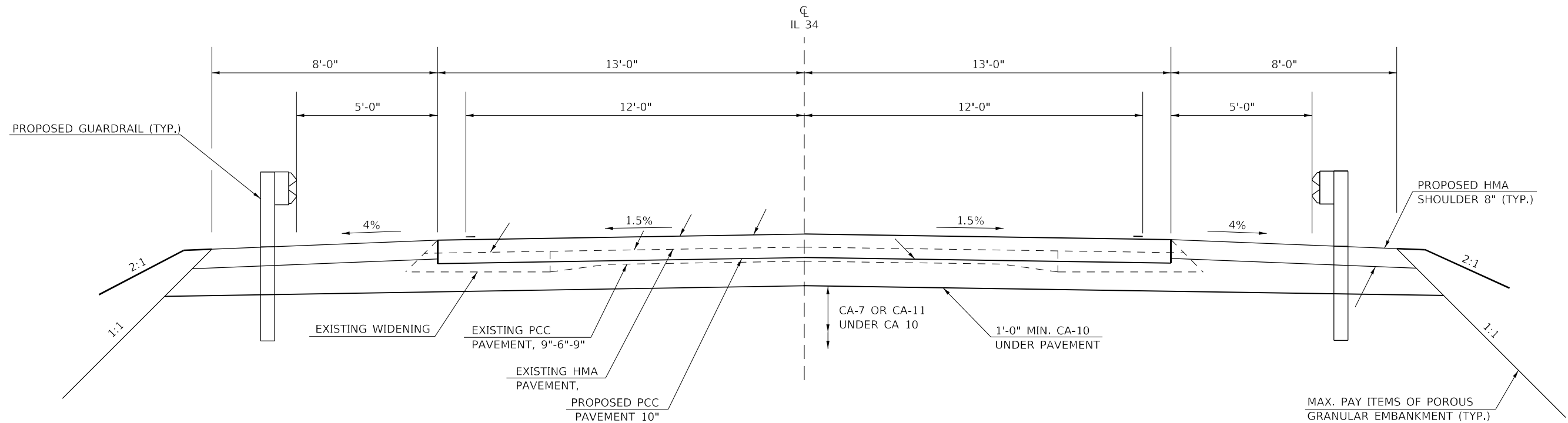
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869	101CR-1,102CR-1	FRANKLIN	68	28
CONTRACT NO. 78993				
ILLINOIS FED. AID PROJECT				

LIMITS OF POROUS GRANULAR EMBANKMENT



SECTION WITHIN PAVEMENT REMOVAL

THE COST OF THE REMOVAL OF EXISTING PAVEMENT MARKINGS, INCLUDING RAISED REFLECTIVE PAVEMENT MARKERS IS INCLUDED IN THE COST OF PAVEMENT REMOVAL.



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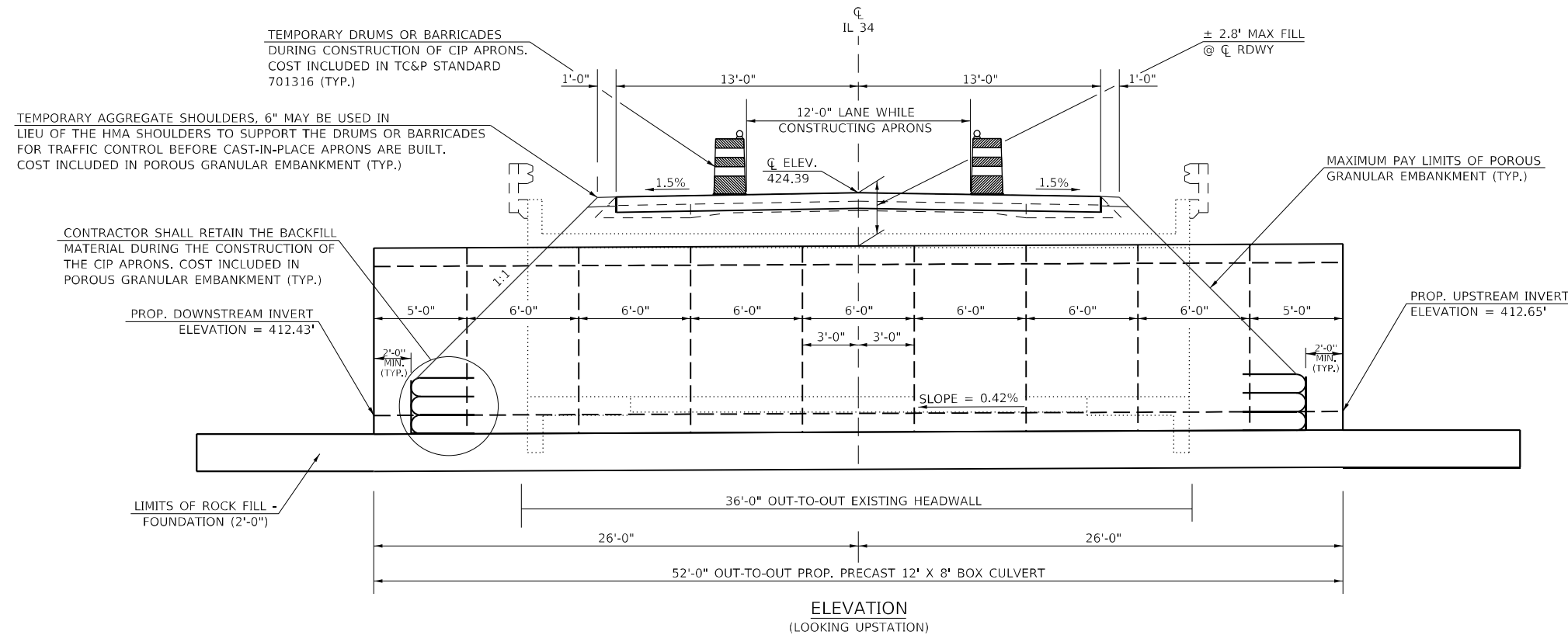
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**LIMITS OF POROUS GRANULAR EMBANKMENT AND
SECTION WITHIN PAVEMENT REMOVAL - SN 028-7134(P)**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	29
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

**TEMPORARY SECTION DURING TO CONSTRUCTION
OF CAST-IN-PLACE APRONS**



TEMPORARY DRUMS OR BARRICADES DURING CONSTRUCTION OF CIP APRONS. COST INCLUDED IN TC&P STANDARD 701316 (TYP.)

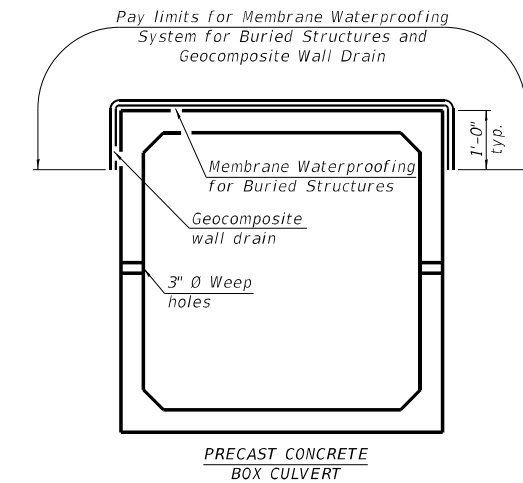
TEMPORARY AGGREGATE SHOULDERS, 6" MAY BE USED IN LIEU OF THE HMA SHOULDERS TO SUPPORT THE DRUMS OR BARRICADES FOR TRAFFIC CONTROL BEFORE CAST-IN-PLACE APRONS ARE BUILT. COST INCLUDED IN POROUS GRANULAR EMBANKMENT (TYP.)

CONTRACTOR SHALL RETAIN THE BACKFILL MATERIAL DURING THE CONSTRUCTION OF THE CIP APRONS. COST INCLUDED IN POROUS GRANULAR EMBANKMENT (TYP.)

MAXIMUM PAY LIMITS OF POROUS GRANULAR EMBANKMENT (TYP.)

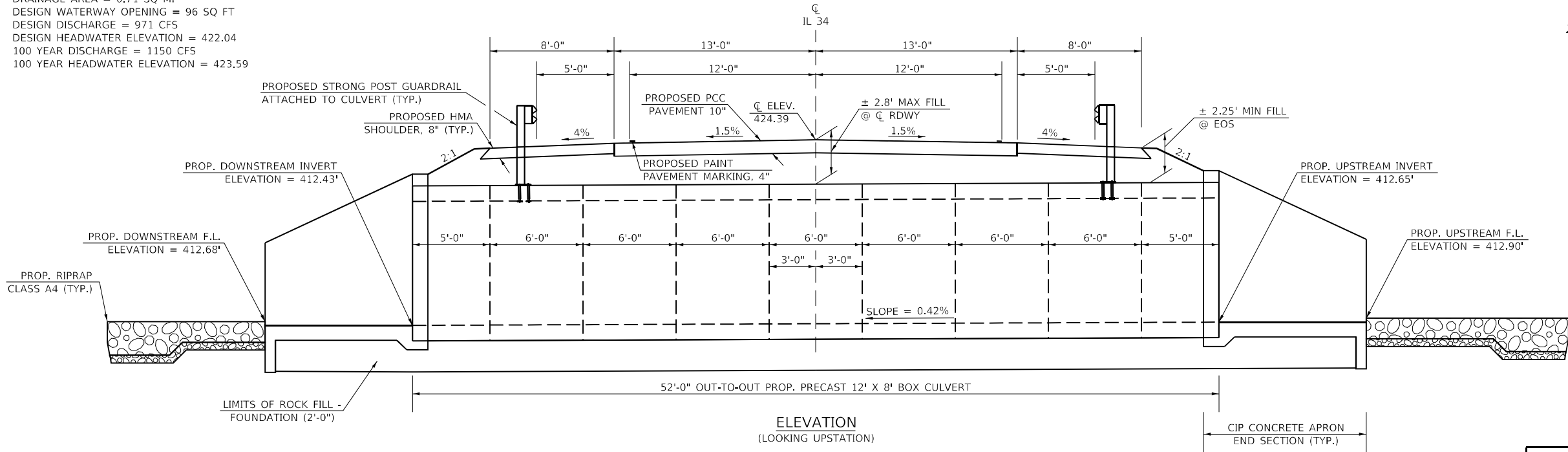
GENERAL NOTES

The precast box culvert sections shall conform to the requirements of ASTM C 1577. Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert, shall not intercept the haunch, and shall conform to the requirements of Article 503.11 of the Standard Specification. Nonwoven geotextile fabric shall conform to the requirements of Art. 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard. Precast concrete box culverts and box culvert end sections shall be backfilled with Porous Granular Embankment in the required excavation areas on the sides of the box culvert from the bottom of the proposed pavement to the bottom of the box culvert. This area of PGE is included in the Porous Granular Embankment pay item. The 6-inch thick layer of porous granular material required under the precast concrete box culvert, according to Section 540.06 of the standard specifications, shall also apply to the end sections. Cost of this porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required. The proposed Removal and Disposal of Unsuitable Materials for Structures and Rock Fill - Foundation payitems will include quantity for 2' below the incidental 6-inches of excavation and porous granular material. The removal of the existing box culvert and headwall is included in the Removal of Existing Structures pay item. Geocomposite Wall Drain shall be according to Section 591 of the Standard Specifications, except that concrete nails shall not be used in areas where it overlaps Membrane Waterproofing System for Buried Structures.



HYDRAULIC DATA
DRAINAGE AREA = 0.71 SQ MI
DESIGN WATERWAY OPENING = 96 SQ FT
DESIGN DISCHARGE = 971 CFS
DESIGN HEADWATER ELEVATION = 422.04
100 YEAR DISCHARGE = 1150 CFS
100 YEAR HEADWATER ELEVATION = 423.59

FINAL SECTION AFTER CONSTRUCTION OF CAST-IN-PLACE APRONS



DESIGN SPECIFICATIONS
2020 AASHTO LRFD Bridge Design Specifications
Customary U.S. Units, 9th Edition

LOADING HL-93

DESIGN STRESSES

PRECAST UNITS

$f'_c = 5,000 \text{ psi}$
 $f_y = 65,000 \text{ psi}$ (Welded Wire Reinforcement)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal of Existing Structures No. 4	Each	1
Membrane Waterproofing System for Buried Structures	Sq Yd	89
Geocomposite Wall Drain	Sq Yd	89
Reinforcement Bars, Epoxy Coated	Pound	3,740
Precast Concrete Box Culverts, 12' x 8'	Foot	52
Concrete Box Culverts	Cu. Yd.	38.2
Strong Post Guardrail Attached To Culvert	Foot	32

PRECAST BOX CULVERT SCHEDULE (ASTM C 1577)						
STATION	SIZE	SKEW	DESIGN FILL (FT.)		PGE BACKFILL REQUIRED	
			MINIMUM	MAXIMUM		
223+44.8 TO 223+86.8	12' X 8'	0°	±2.25'	±2.85'	382 CU YD	

USER NAME = Ehren, Kirby	DESIGNED -	REVISED -
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	DATE -	REVISED -

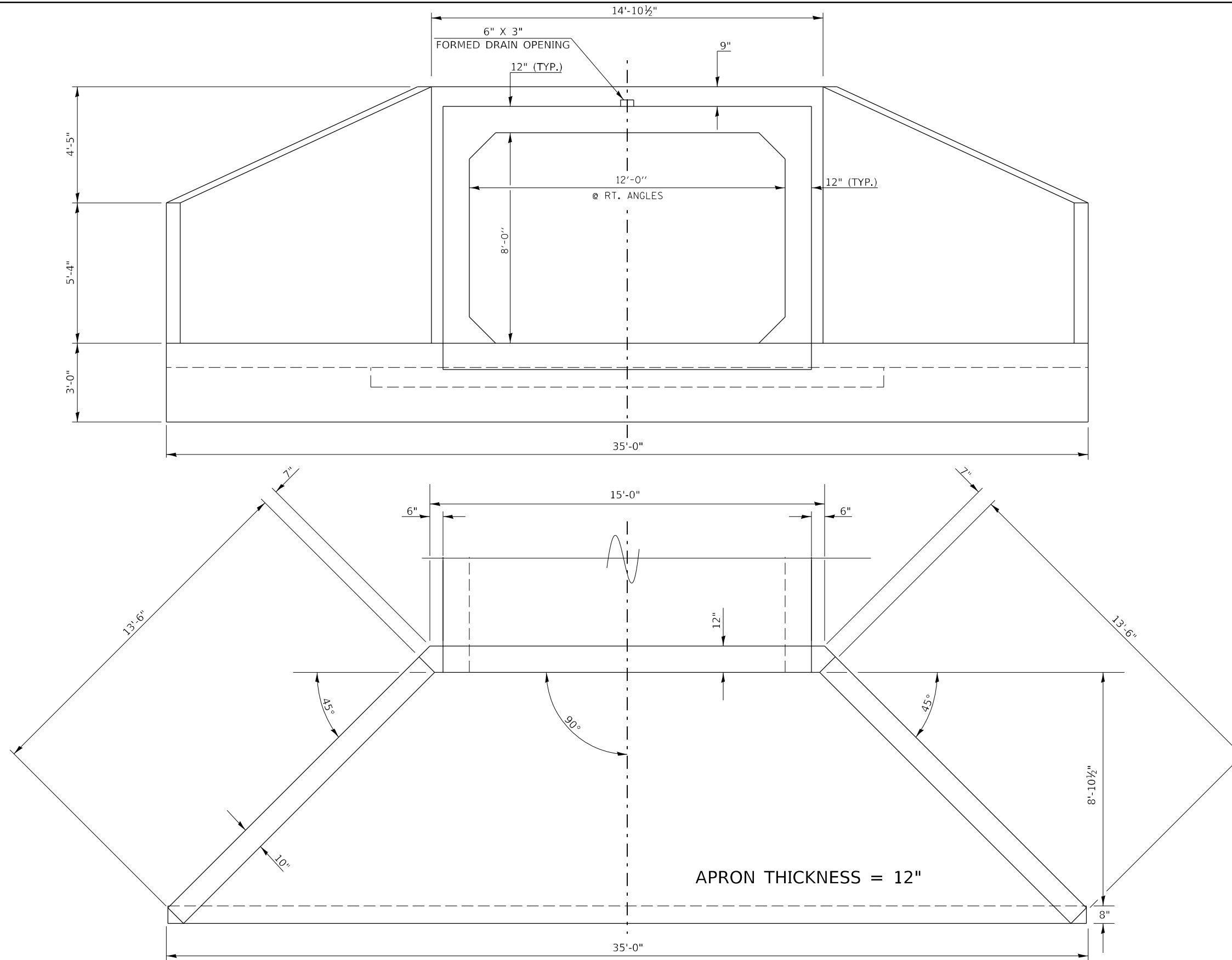
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY AND FINAL SECTIONS
SN 028-7134(P)**

SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	30
			CONTRACT NO. 78893	
ILLINOIS FED. AID PROJECT				

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CAST-IN-PLACE CONCRETE APRON END SECTION DETAILS

(TYPICAL EACH END)

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DATE: 10/17/2022

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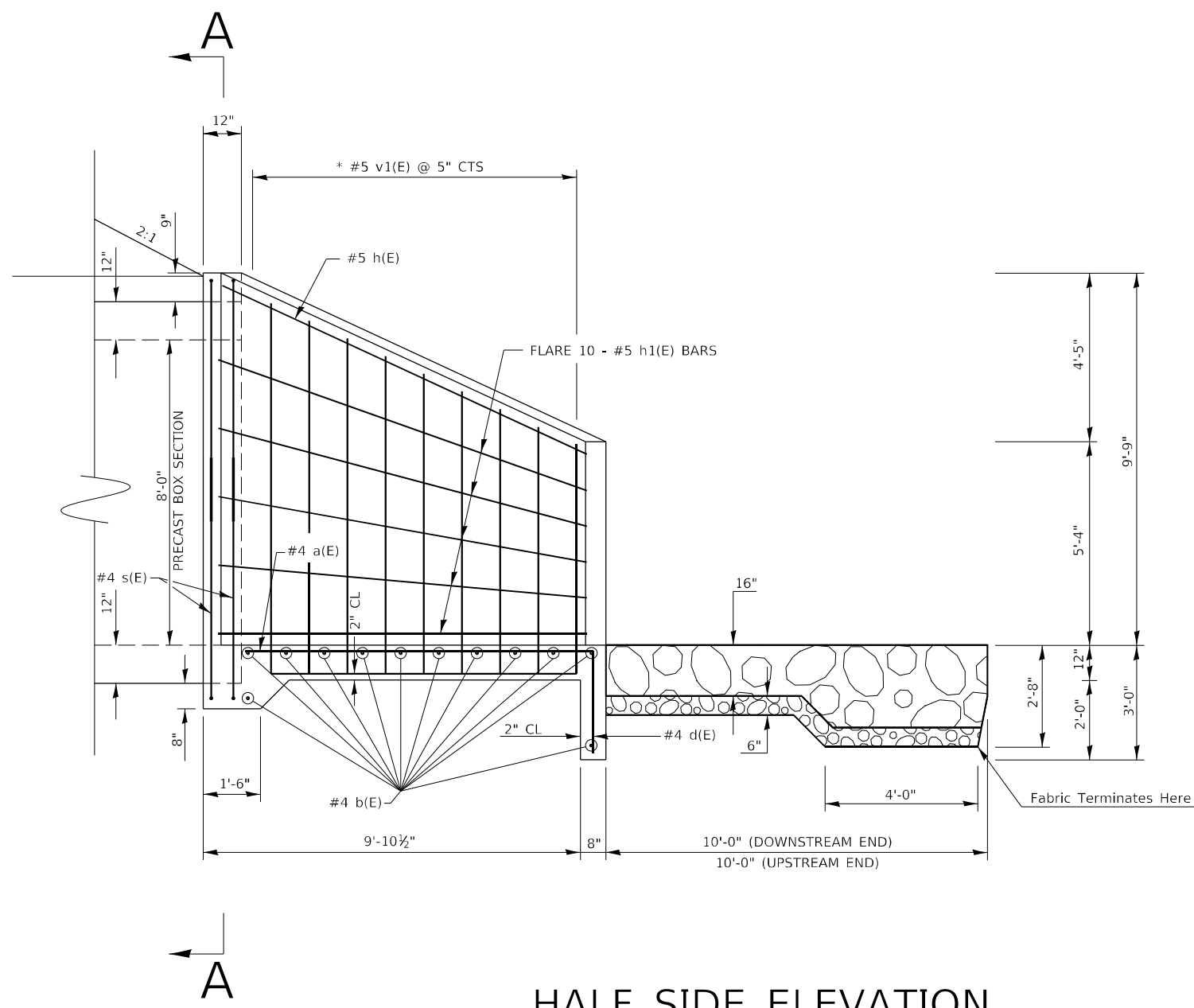
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CAST-IN-PLACE CONCRETE BOX CULVERT
APRON END SECTION DETAIL - SN 028-7134 (P)

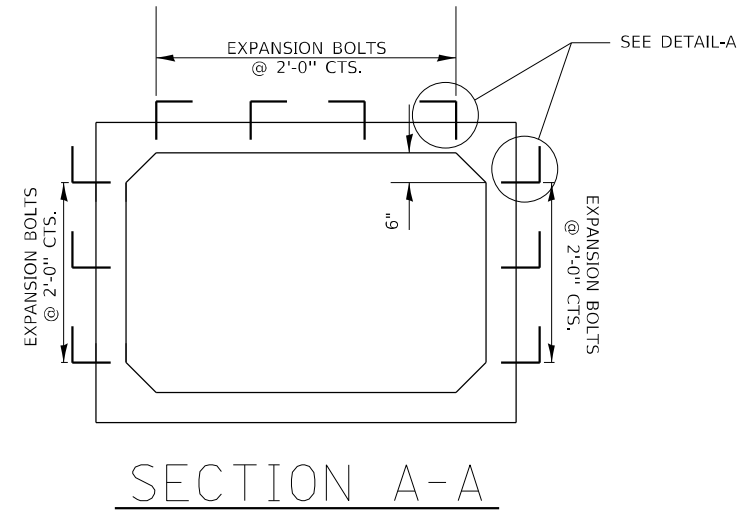
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1, 102CR-1	FRANKLIN	68	31
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

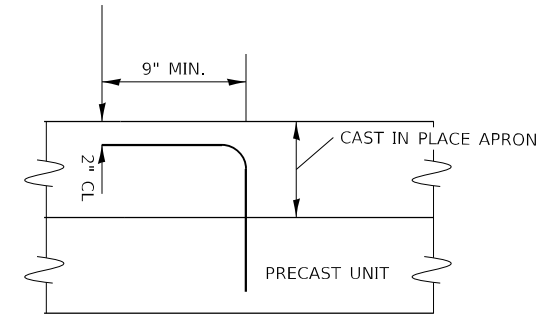
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HALF SIDE ELEVATION
(AT RT ANGLES TO ~ ROADWAY)



SECTION A-A



DETAIL-A

NOTES: THE CAST-IN-PLACE APRON END SECTION SHALL BE TIED TO THE PRECAST BARREL AT EACH END USING EXPANSION BOLTS SPACED AT 2' CENTERS AS SHOWN IN SECTION A-A. EXPANSION BOLTS SHALL BE 3/4" DIAMETER HOOKED BOLTS. THE HOOKS SHALL BE AS SHOWN IN DETAIL A AND SHALL BE BENT IN THE FIELD AS NEEDED. COST INCLUDED IN PRECAST CONCRETE BOX CULVERTS OF THE SIZE SPECIFIED IN THE PLANS.

THE LAST TWO PRECAST BARREL SECTIONS AT EACH END SHALL BE TIED TOGETHER USING CULVERT TIES AS SHOWN ON CULVERT TIE DETAILS SHEET. COST INCLUDED IN PRECAST CONCRETE BOX CULVERTS OF THE SIZE SPECIFIED IN THE PLANS

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CAST-IN-PLACE CONCRETE BOX CULVERT APRON END SECTION
HALF SIDE ELEVATION DETAIL - SN 028-7134 (P)**

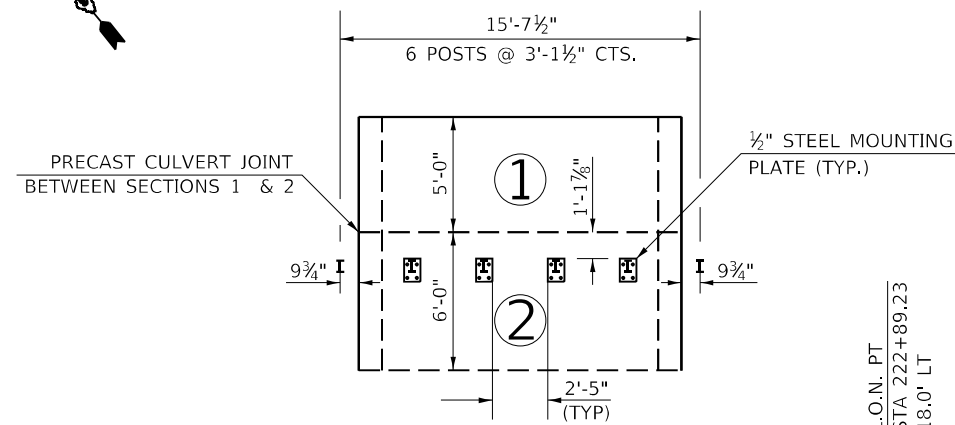
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869	101CR-1,102CR-1	FRANKLIN	68	33
ILLINOIS FED. AID PROJECT			CONTRACT NO. 78893	



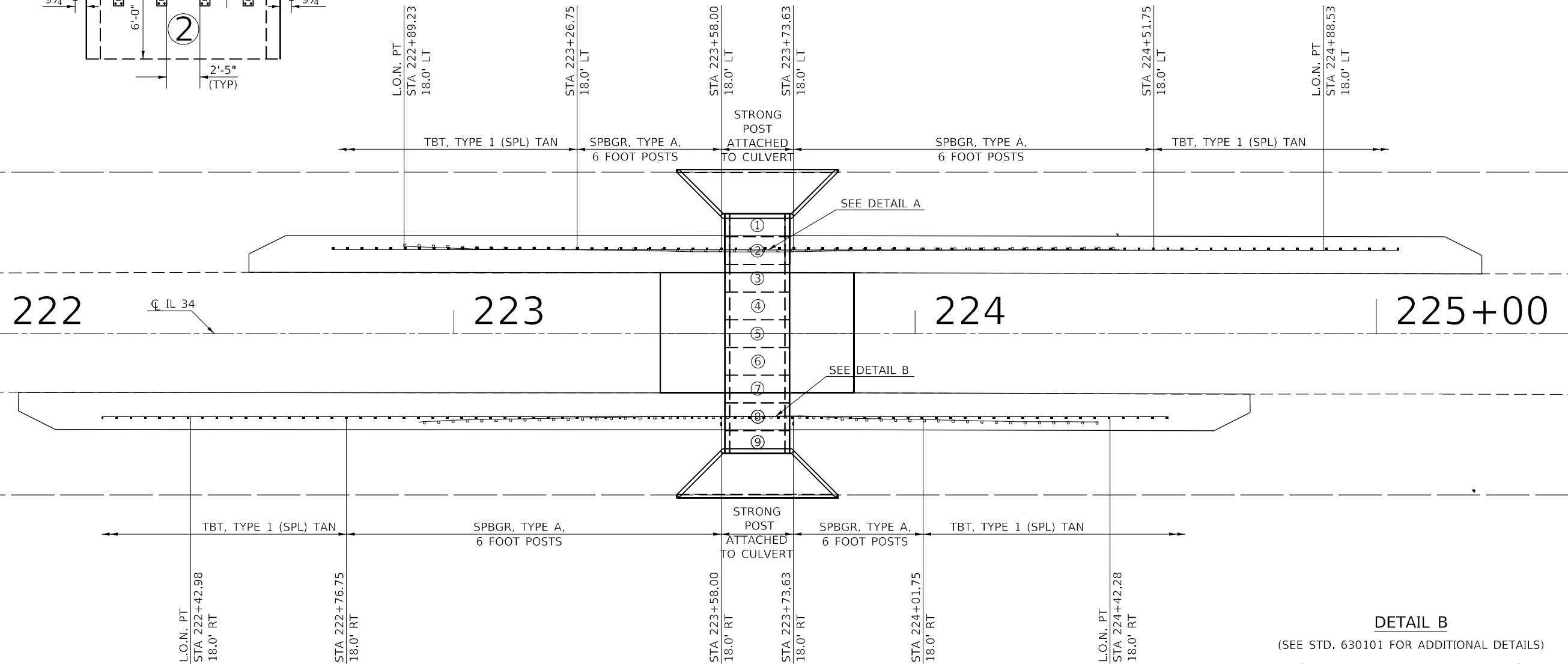
DETAIL A

(SEE STD. 630101 FOR ADDITIONAL DETAILS)



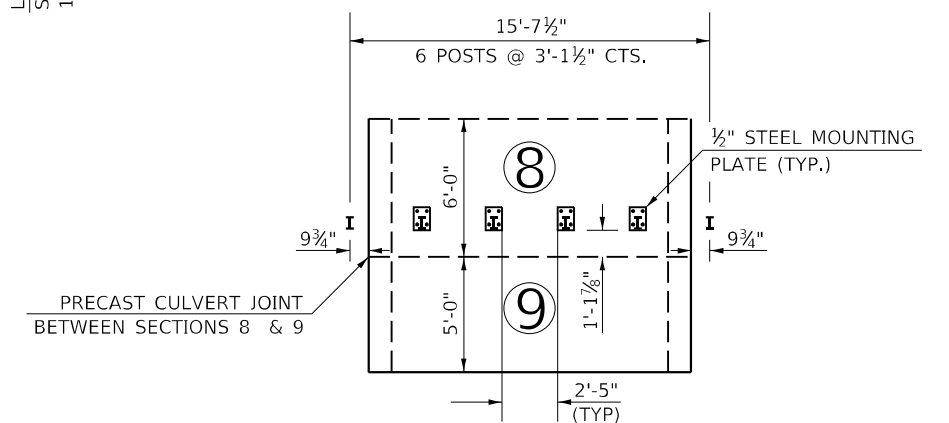
NOTES:

1. STATIONS, OFFSETS, DIMENSIONS AND RADII ARE MEASURED TO THE FACE OF THE PROPOSED GAUDDRAIL.
2. THE HOLES FOR THE INSERTS IN THE TOP SLAB OF THE PROPOSED PRECAST BOX CULVERT SECTIONS ② AND ⑧ SHALL BE CAST INTO THE TOP SLAB AT THE PRECAST CONCRETE PLANT. THE HOLES FOR INSERTS SHALL BE AS SHOWN IN STANDARD 630101.



DETAIL B

(SEE STD. 630101 FOR ADDITIONAL DETAILS)



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PLOT SCALE = 25,0000 * / in.	DRAWN -	REVISED -
PLOT DATE = 8/26/2022	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GUARDRAIL LAYOUT DETAIL
SN 028-7134 (P)**

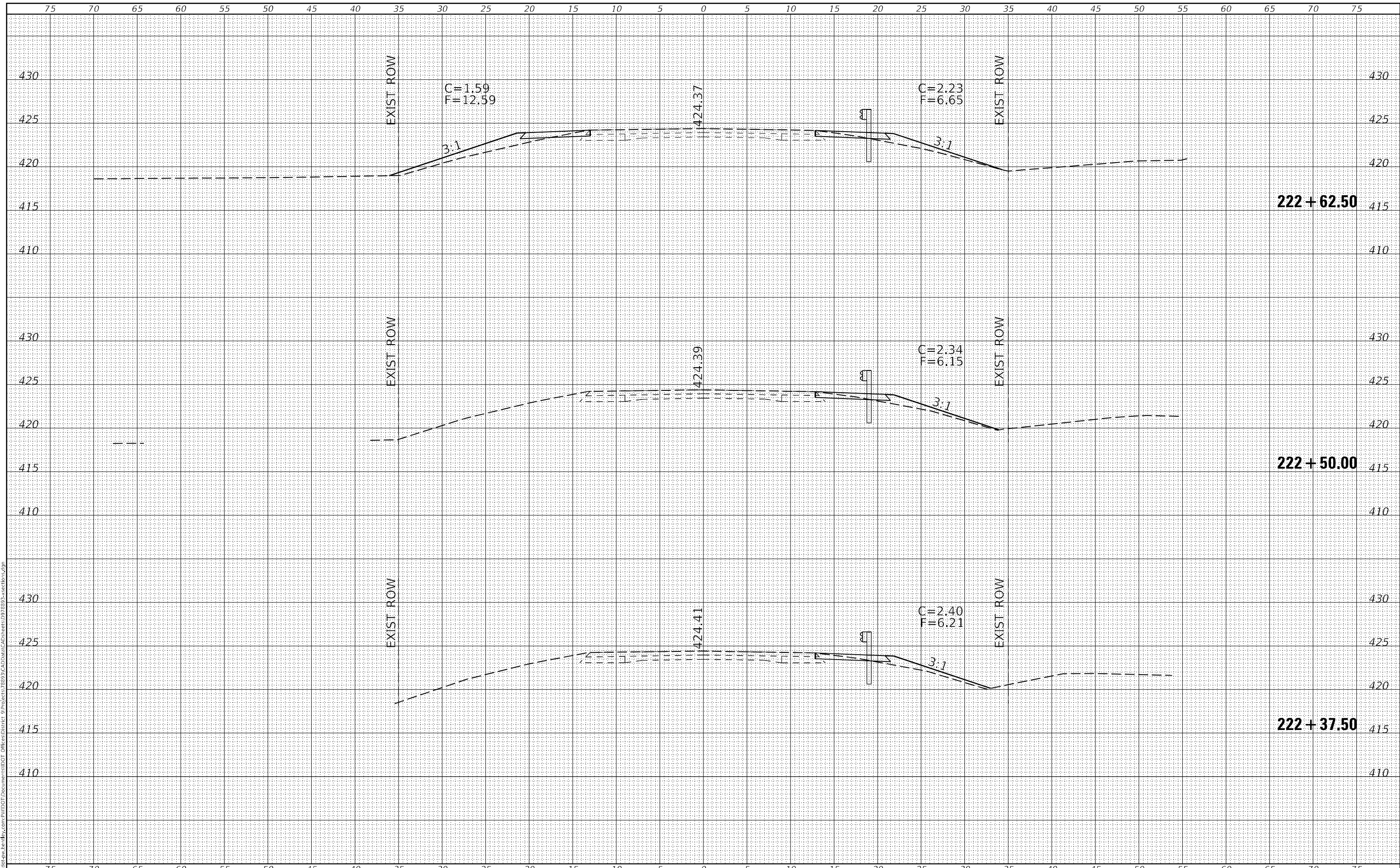
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869	101CR-1,102CR-1	FRANKLIN	68	34
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

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AREAS CHECKED	TEMPLATE	
	AREAS CHECKED	

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NOTE BOOK	PLOTTED	BY
AREAS CHECKED	TEMPLATE	
	AREAS CHECKED	

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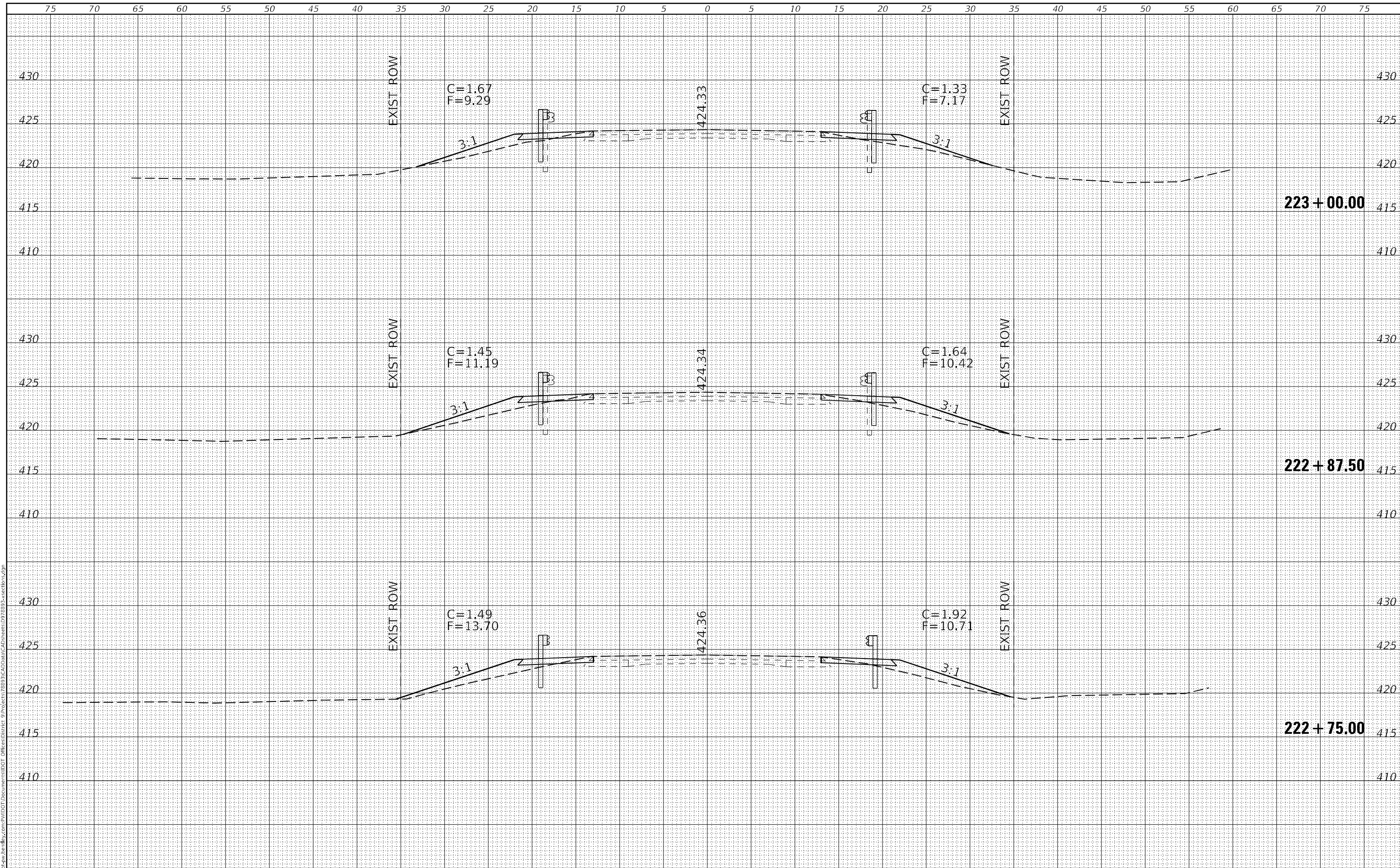
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	37
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

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BY	
SURVEYED	
PLOTTED	
TEMPLATE	
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FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
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TEMPLATE	
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ORIGINAL SURVEY	
NOTE BOOK	
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PLOT DATE = 8/26/2022	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

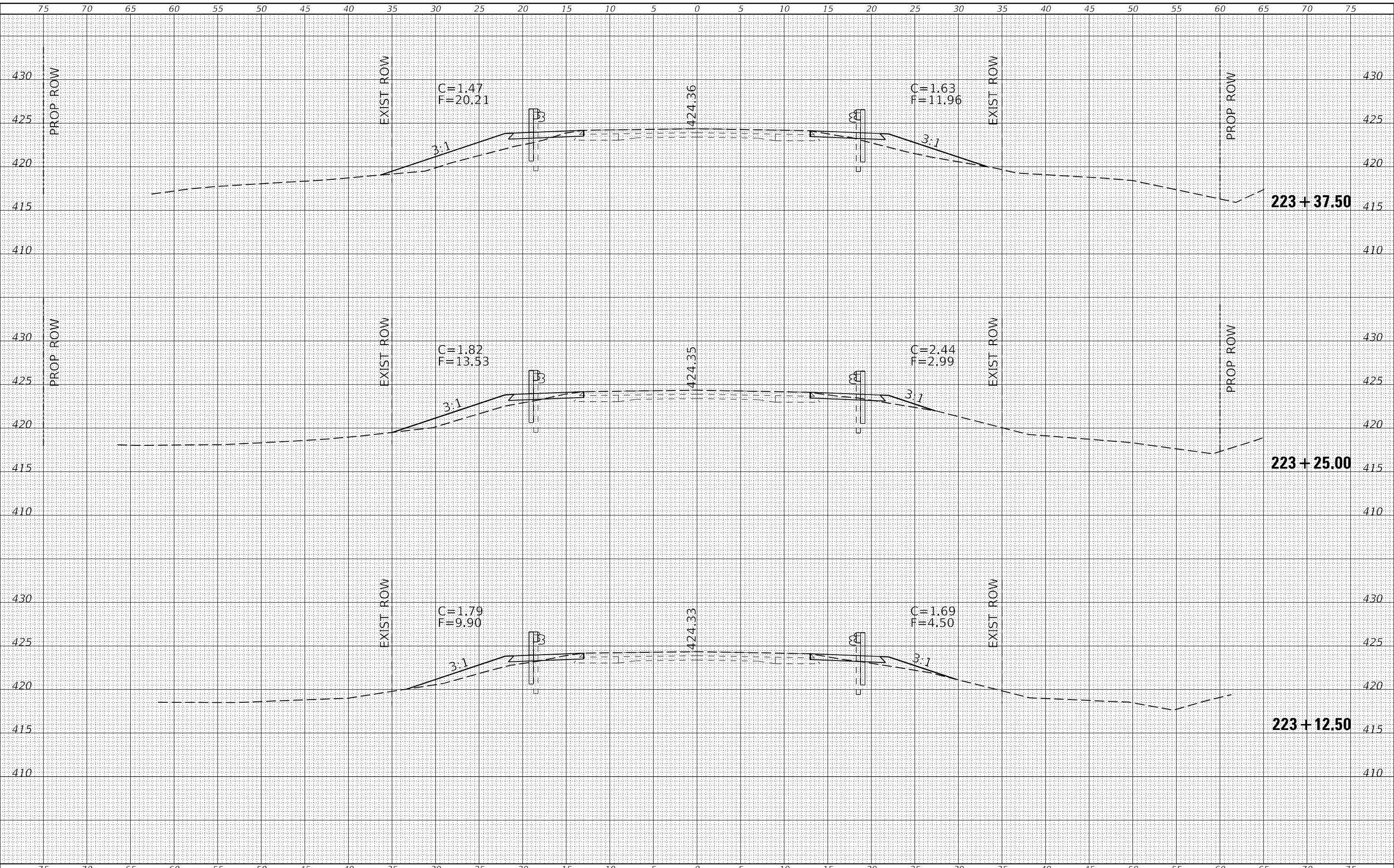
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	38
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

DATE	
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SURVEYED	
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NOTE BOOK	
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DATE	
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
 SN 028-7134(P)**

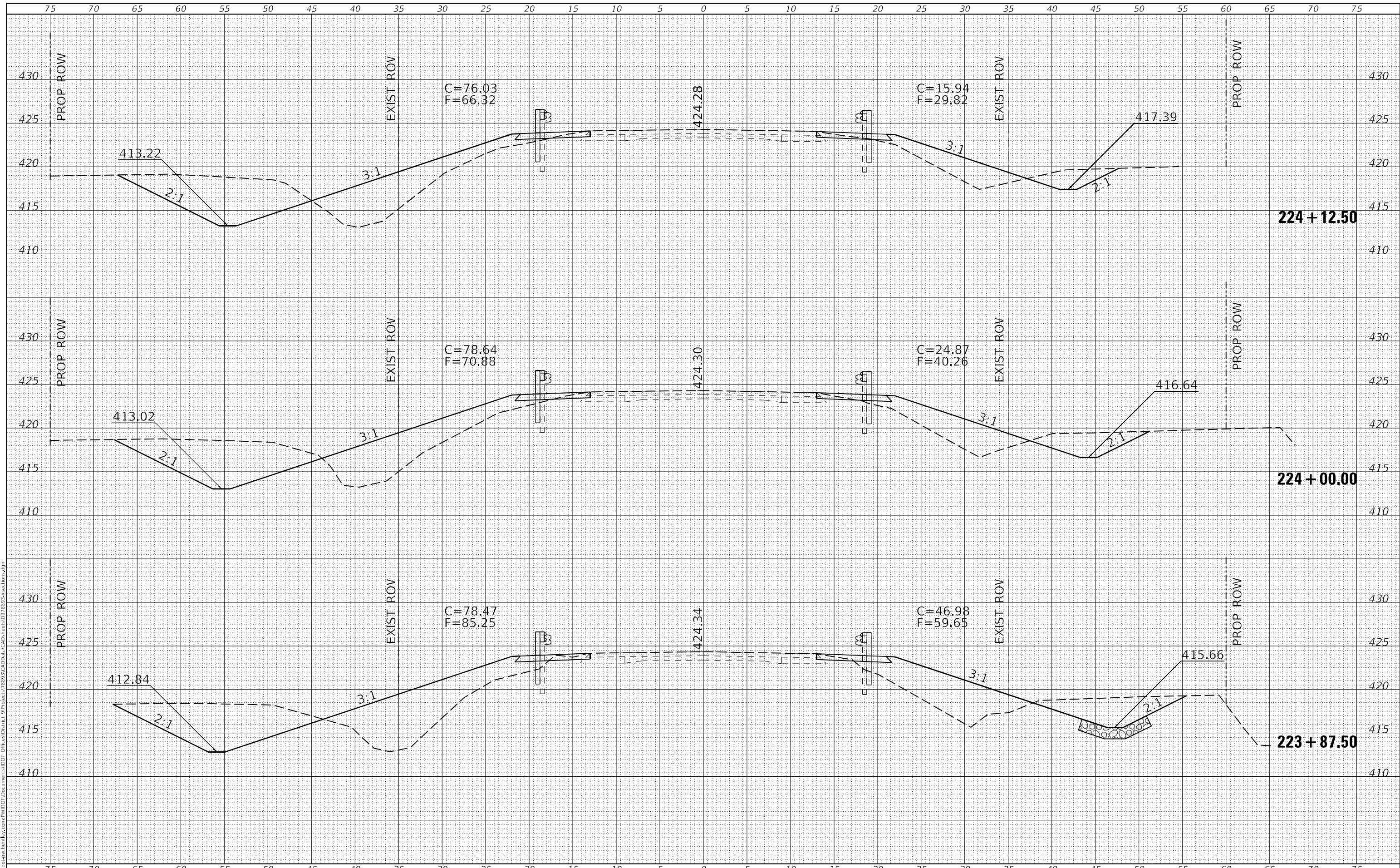
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	39
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

DATE	
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SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
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DATE	
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

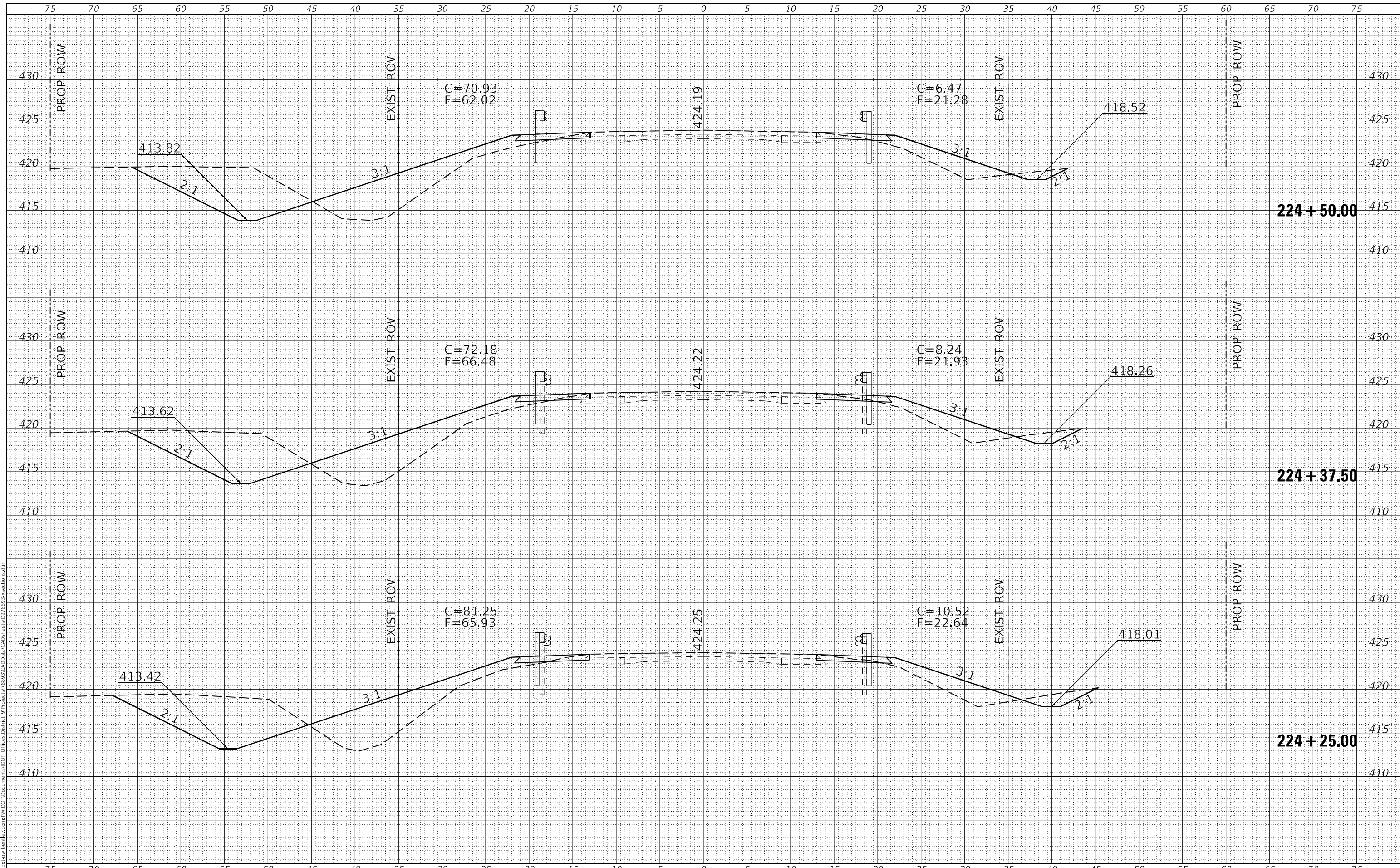
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SN 028-7134(P)	
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	42
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
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FINAL SURVEY	
NOTE BOOK	
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DATE	
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	DRAWN -	REVISED -
PLOT SCALE = 10,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 8/26/2022	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
SN 028-7134(P)**

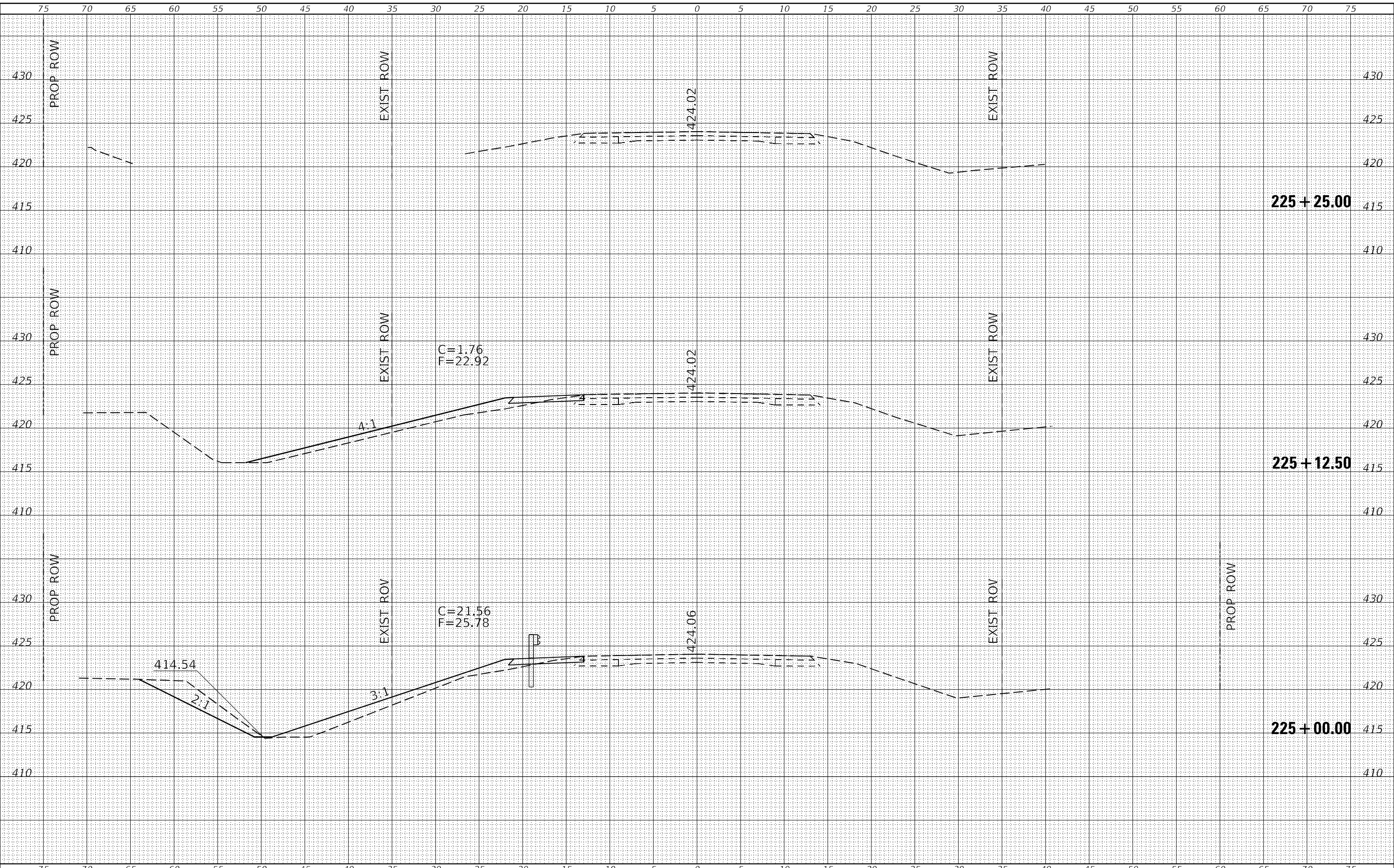
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869	101CR-1,102CR-1	FRANKLIN	68	43
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED	DATE
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ORIGINAL SURVEY NO.	SURVEYED	DATE
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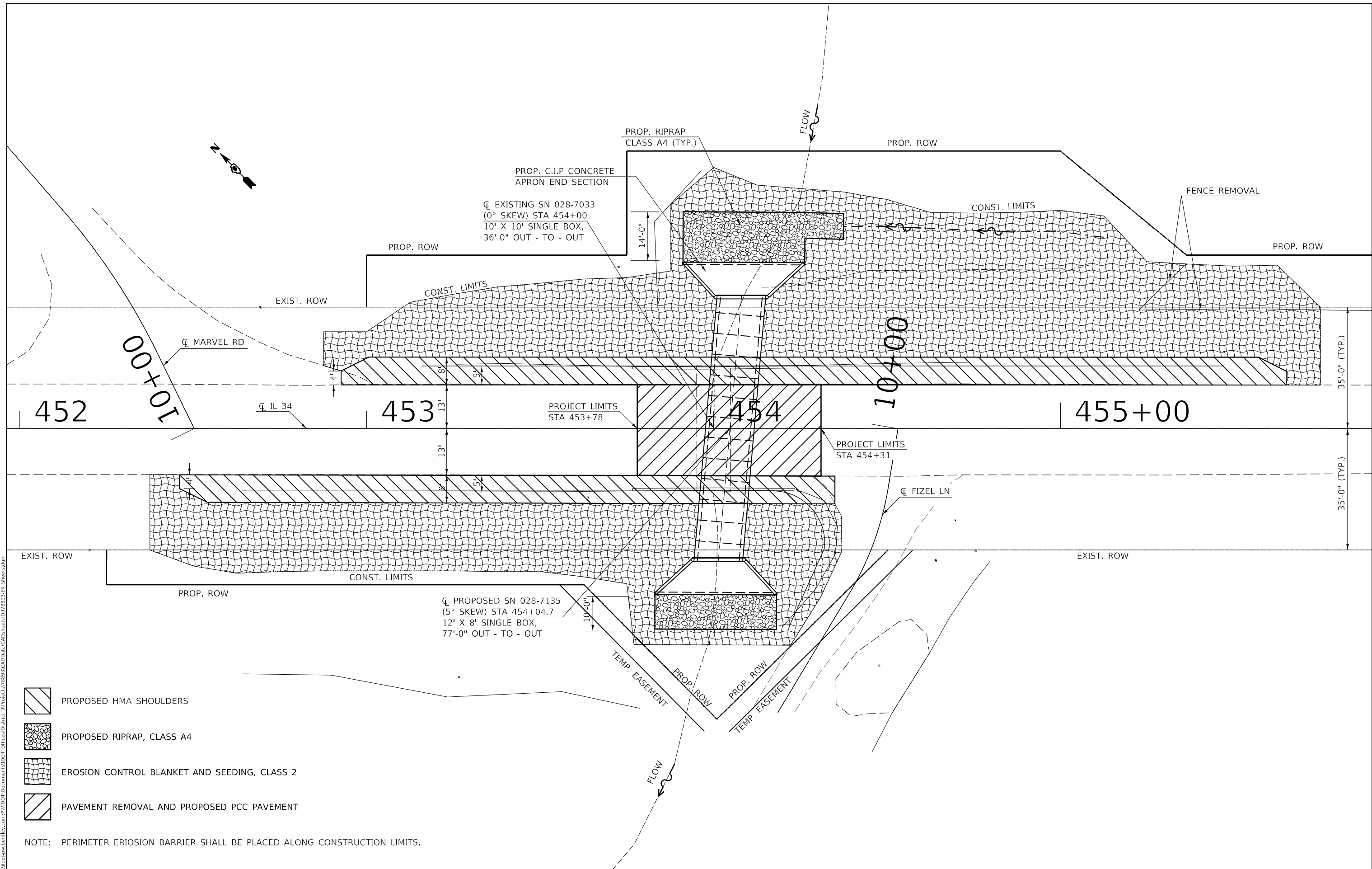
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
SN 028-7134(P)**

SCALE: SHEET OF SHEETS STA. 225+00.00 TO STA. 225+25.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	45
				CONTRACT NO. 78893
				ILLINOIS FED. AID PROJECT



-  PROPOSED HMA SHOULDERS
-  PROPOSED RIPRAP, CLASS A4
-  EROSION CONTROL BLANKET AND SEEDING, CLASS 2
-  PAVEMENT REMOVAL AND PROPOSED PCC PAVEMENT

NOTE: PERIMETER EROSION BARRIER SHALL BE PLACED ALONG CONSTRUCTION LIMITS.

MODEL: Ripr - Sheet
 FILE NAME: p:\projects\78893\CADD\Drawings\DOT\Office\Drawings\78893\Drawings\78893-EK_Sheets.dwg
 PROJECT: 78893\CADD\Drawings\DOT\Office\Drawings\78893-EK_Sheets.dwg

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	DRAWN -	REVISED -
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PLOT DATE = 8/26/2022	DATE -	REVISED -

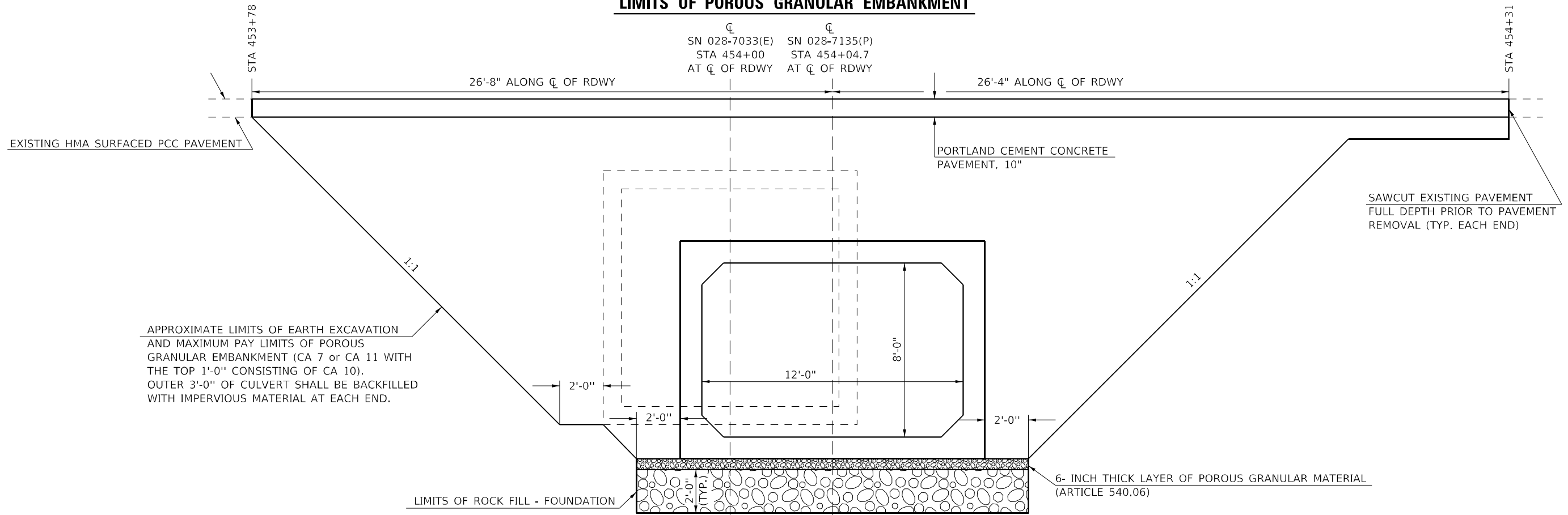
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN
SN 028-7135 (P)**

SCALE: SHEET OF SHEETS STA. TO STA.

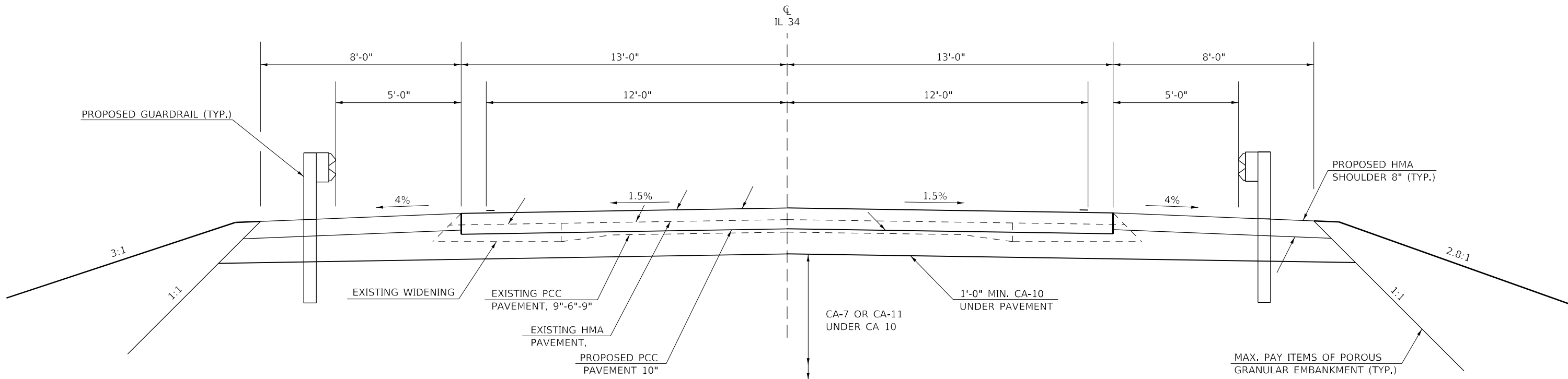
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	46
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

LIMITS OF POROUS GRANULAR EMBANKMENT



SECTION WITHIN PAVEMENT REMOVAL

THE COST OF THE REMOVAL OF EXISTING PAVEMENT MARKINGS, INCLUDING RAISED REFLECTIVE PAVEMENT MARKERS IS INCLUDED IN THE COST OF PAVEMENT REMOVAL.



MODEL: Typical Section
FILE: 8/26/2022 8:26:22 AM
PROJECT: 78893\DOT\Drawings\DOT Office\Drawings\Project\78893\CADD\Drawings\CAD\Drawings\78893-LK_Sheets.dgn

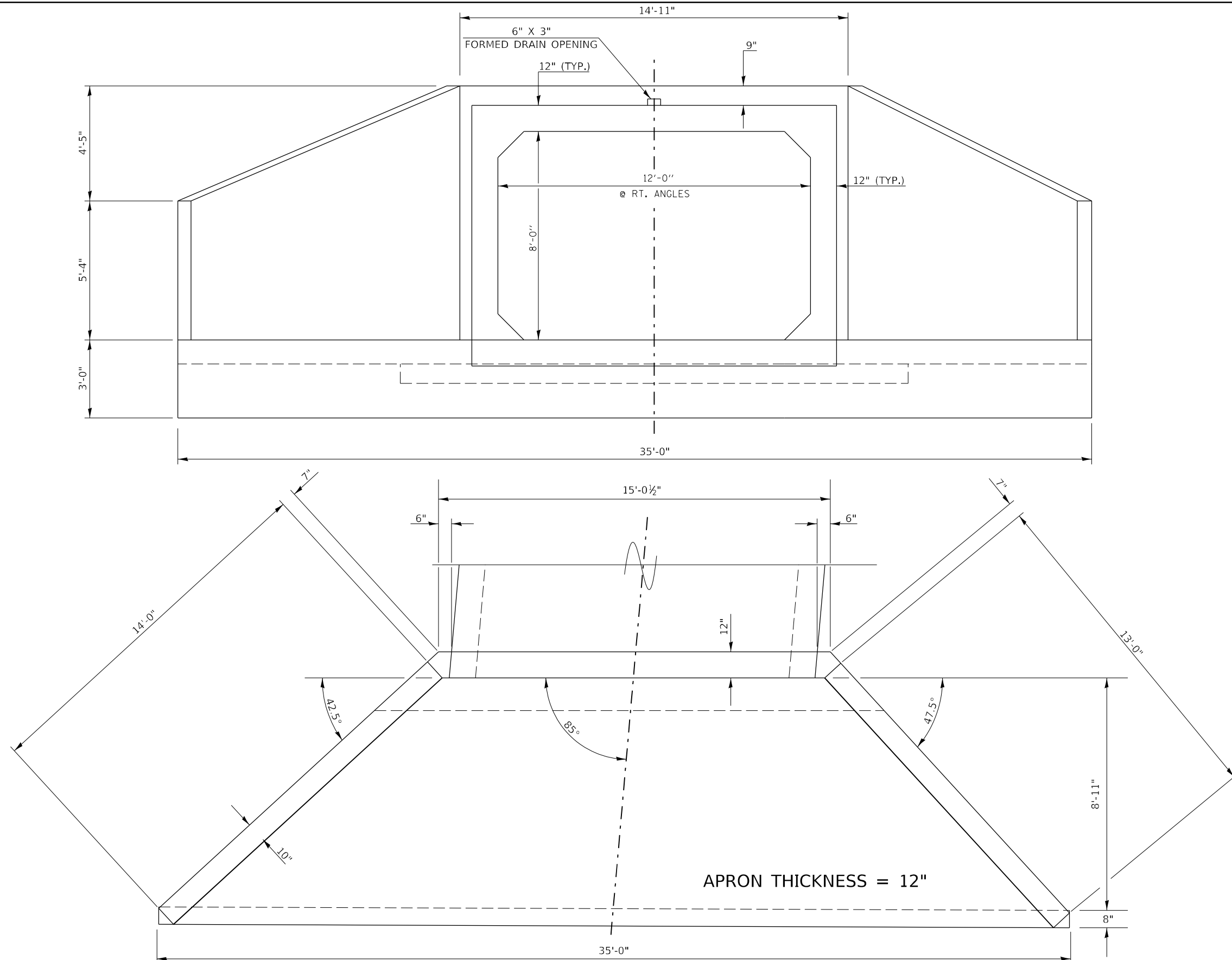
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	DRAWN -	REVISED -
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PLOT DATE = 8/26/2022	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**LIMITS OF POROUS GRANULAR EMBANKMENT AND
SECTION WITHIN PAVEMENT REMOVAL - SN 028-7135(P)**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	47
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				



CAST-IN-PLACE CONCRETE APRON END SECTION DETAILS

(TYPICAL EACH END)

MODEL: Concrete Apron Details
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 PROJECT: 101CR-1, 102CR-1
 DATE: 10/17/2022

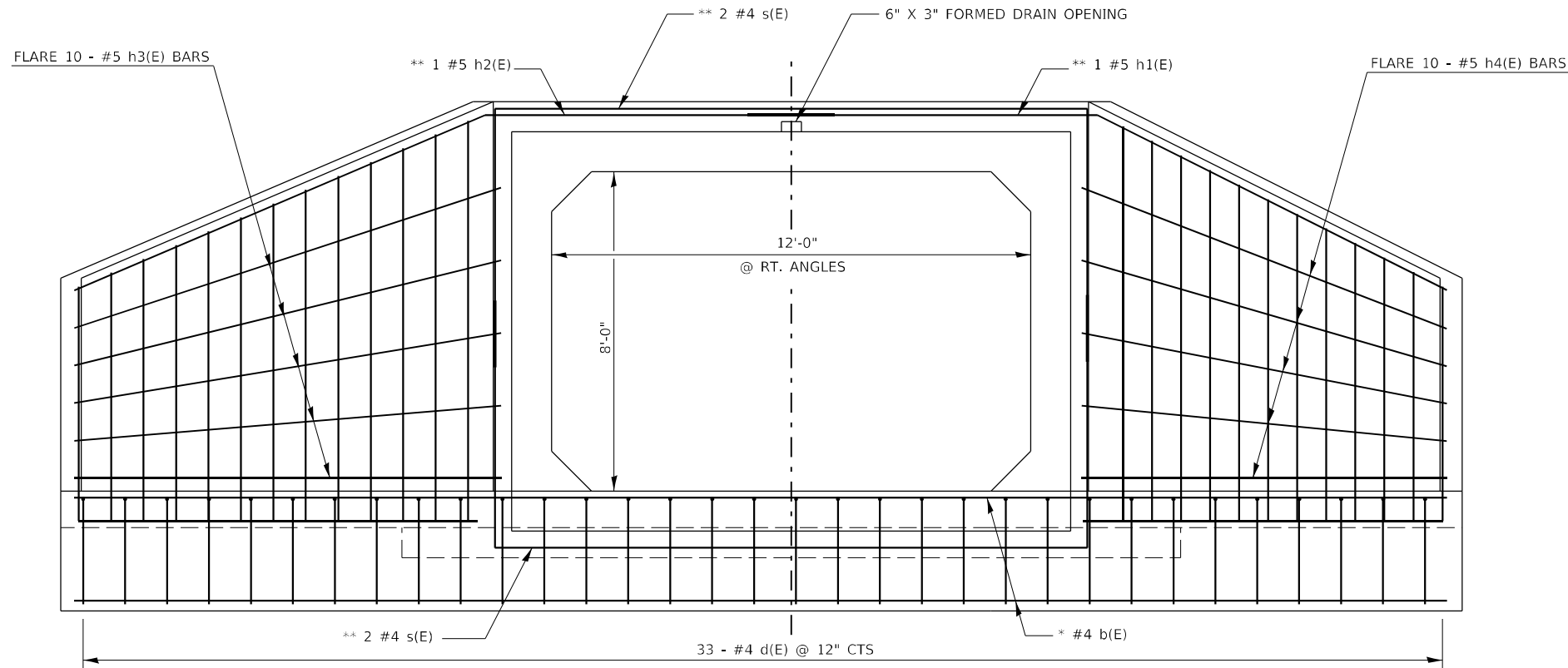
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	DRAWN -	REVISED -
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PLOT DATE = 10/17/2022	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

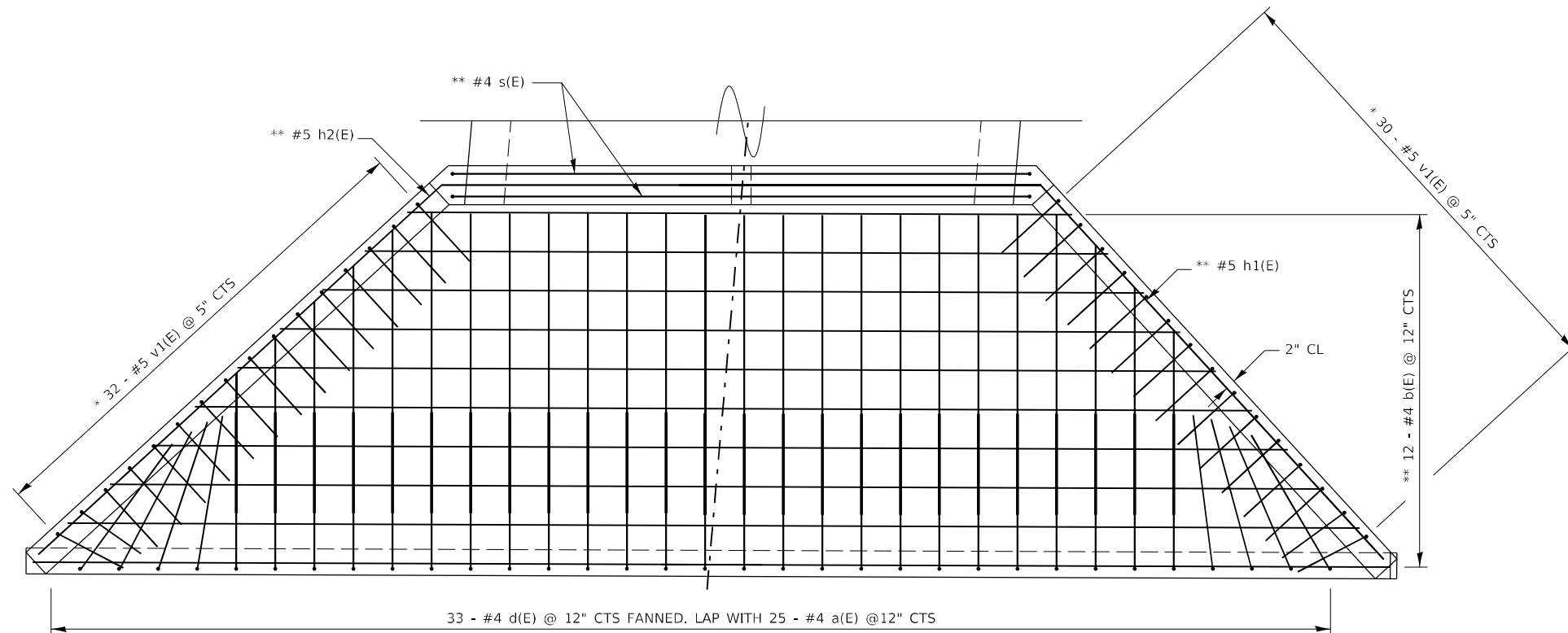
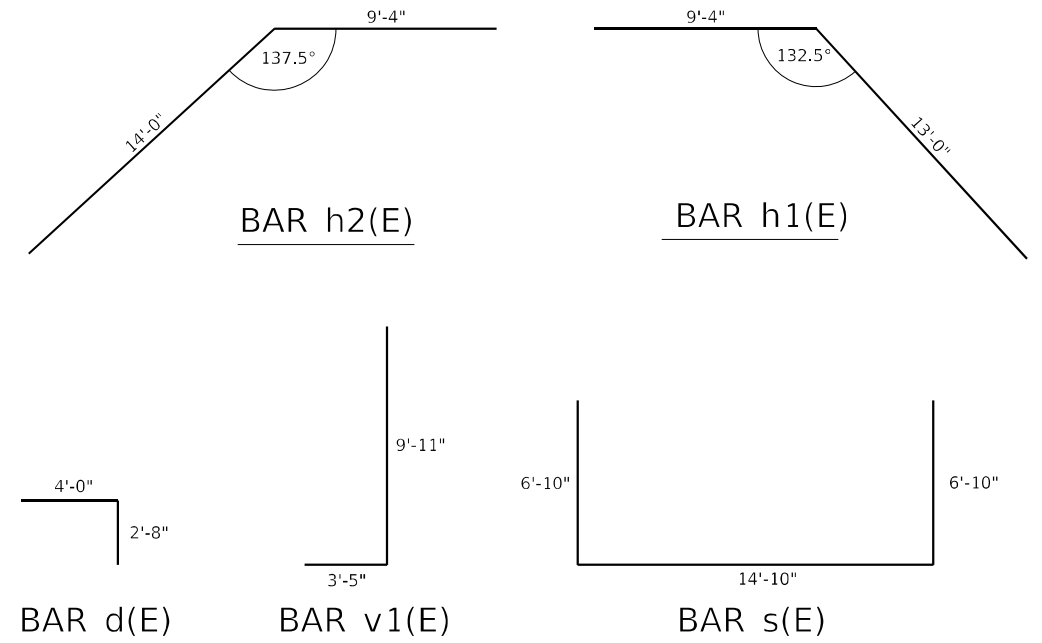
**CAST-IN-PLACE CONCRETE BOX CULVERT
APRON END SECTION DETAIL - SN 028-7135 (P)**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1, 102CR-1	FRANKLIN	68	49
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				



ELEVATION
@ RT 4'S TO CL OF BOX



PLAN

BILL OF MATERIAL

BAR	No.	SIZE	LENGTH	SHAPE
a(E)	50	#4	7'-8"	—
b(E)	44	#4	18'-8"	—
d(E)	66	#4	6'-8"	┌┐
h1(E)	2	#5	22'-4"	└┘
h2(E)	2	#5	23'-4"	└┘
h3(E)	20	#5	14'-6"	—
h4(E)	20	#5	13'-6"	—
s(E)	8	#4	28'-6"	┌┐
v1(E)	124	#5	13'-4"	┌┐
CONCRETE BOX CULVERTS		CU. YD.	38.2	
REINFORCEMENT BARS EPOXY COATED		POUND	3660	

NOTE: BILL OF MATERIAL SCHEDULE IS TOTAL FOR BOTH ENDS

DESIGN STRESSES

$f_y = 60,000$ psi
 $f'_c = 3,500$ psi

MINIMUM BAR LAP

#4 = 2'-7"
#5 = 3'-2"

× CUT OR BEND TO FIT IN FIELD
** LAP BARS WHERE NECESSARY

WORK THIS SHEET WITH SHEET 51 OF 67
REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GRADE 60.
EXPOSED EDGES SHALL BE BEVELED $\frac{3}{4}$ ".

MODEL Concrete Apron Details
FILE NAME: p:\projects\78893\CADD\Drawings\Sheet\0978893-EK_Sheets.dgn

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PLOT DATE = 10/17/2022	CHECKED -	REVISED -
	DATE -	REVISED -

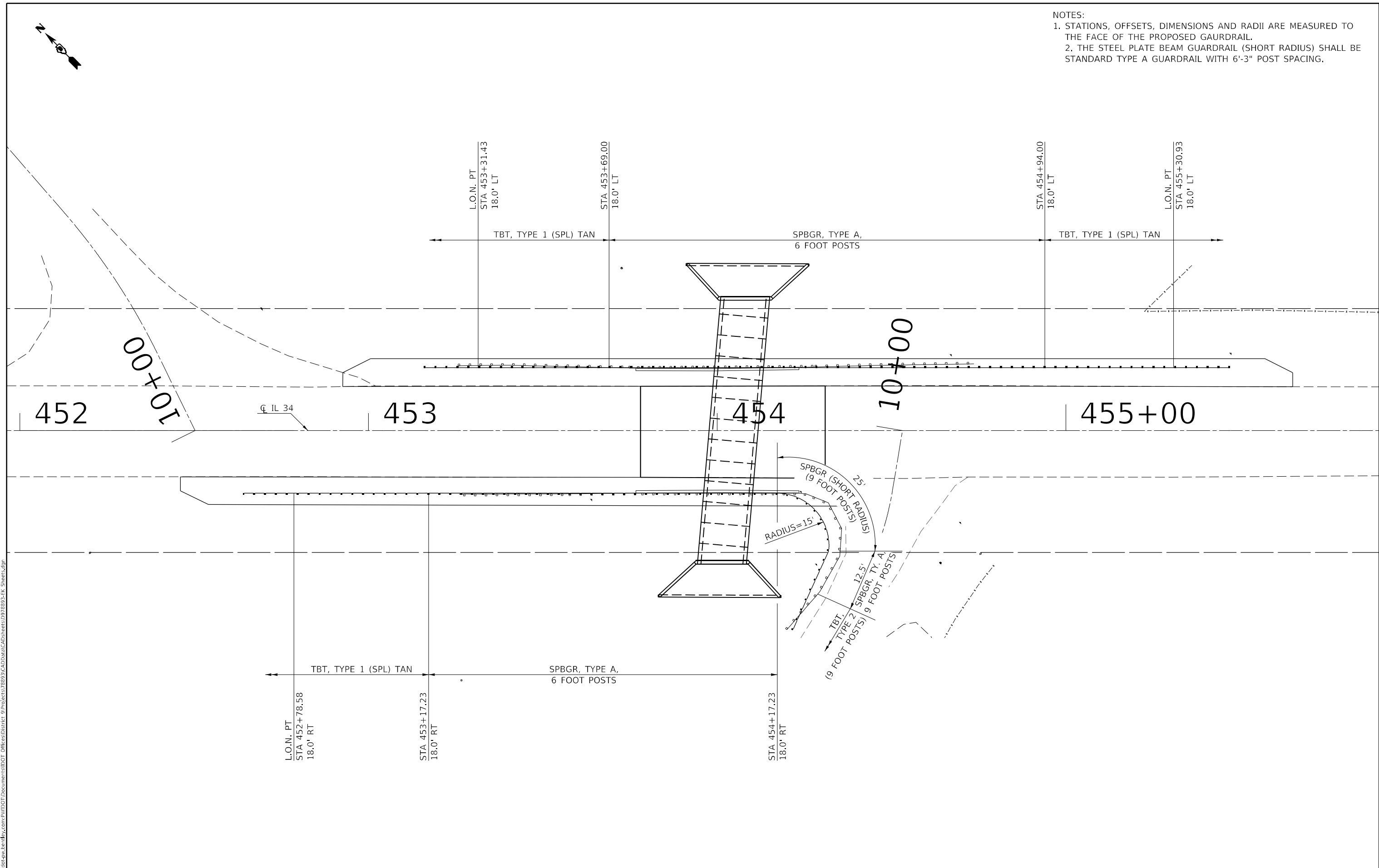
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CAST-IN-PLACE CONCRETE BOX CULVERT APRON END SECTION
REINFORCEMENT DETAIL - SN 028-7135 (P)**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	50
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

- NOTES:
 1. STATIONS, OFFSETS, DIMENSIONS AND RADII ARE MEASURED TO THE FACE OF THE PROPOSED GAURDRAIL.
 2. THE STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS) SHALL BE STANDARD TYPE A GUARDRAIL WITH 6'-3" POST SPACING.



MODEL: Guardrail.layout
 FILE: \\naulc-pub\share\bea\p\com\PIV\DOT\Documents\DOT\Office\Dir\ref: @Project\78893\CADD\Drawn\CAD\Sheets\078893-EK_Sheets.dgn

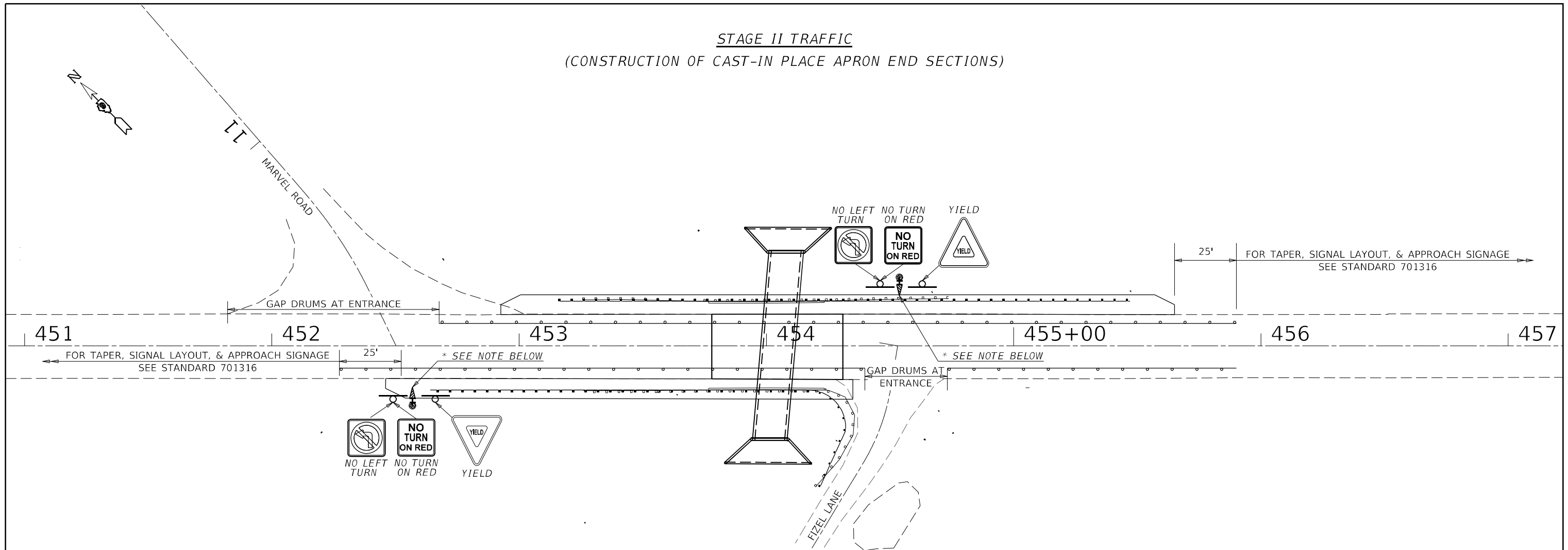
USER NAME = David.A.Wilson	DESIGNED -	REVISED -
DRAWN -	REVISIED -	
PLOT SCALE = 25,0000 * / in.	CHECKED -	REVISED -
PLOT DATE = 8/26/2022	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

GUARDRAIL LAYOUT DETAIL			
SN 028-7135 (P)			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	52
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

STAGE II TRAFFIC
(CONSTRUCTION OF CAST-IN PLACE APRON END SECTIONS)



Notes for Sideroad & Private Lane Signals

* The contractor shall provide a temporary signal across from the private lane and sideroad at the location detailed above.

The signals shall contain a red arrow and two yellow arrows.

The private drive signal for Fizez Lane shall be wired directly with the southbound phase. The private phases shall coordinate with the southbound phases as follows; red arrow to red, top yellow arrow to yellow and bottom yellow arrow to green.

The sideroad signal for Marvel Road shall be wired directly with the northbound phase. The private phases shall coordinate with the northbound phases as follows; red arrow to red, top yellow arrow to yellow and bottom yellow arrow to green.

Both signals will be included in the cost of Temporary Bridge Traffic Signals, Each.

Notes for Traffic Control & Protection Standard 701316

(All items below shall be included in the contract unit price, each for Traffic Control and Protection, Std. 701316, no other compensation will be allowed.)

1. All signage as shown on the Highway Standard and additional signage shown on the detail above. The noted work shall include signs, posts, hardware and labor. The contractor shall erect the signs at the locations detailed above and at locations directed by the engineer.
2. Per Article 703.07, when temporary pavement marking is shown on the Standard and Detail above, the cost of temporary pavement marking and its removal will be included in the cost of the Standard.
3. All temporary drums or barricades shown on the Highway Standard and as shown on the detail above.

SYMBOLS

- DRUM
- TRAFFIC SIGNAL
- SIGN

STAGING SHEET
SN 028-7033 (E)
SN 028-7135 (P)

MODEL Staging Sheets
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	DRAWN -	REVISED -
PLOT SCALE = 40,0000 * / in.	CHECKED -	REVISED -
PLOT DATE = 8/26/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING SHEET

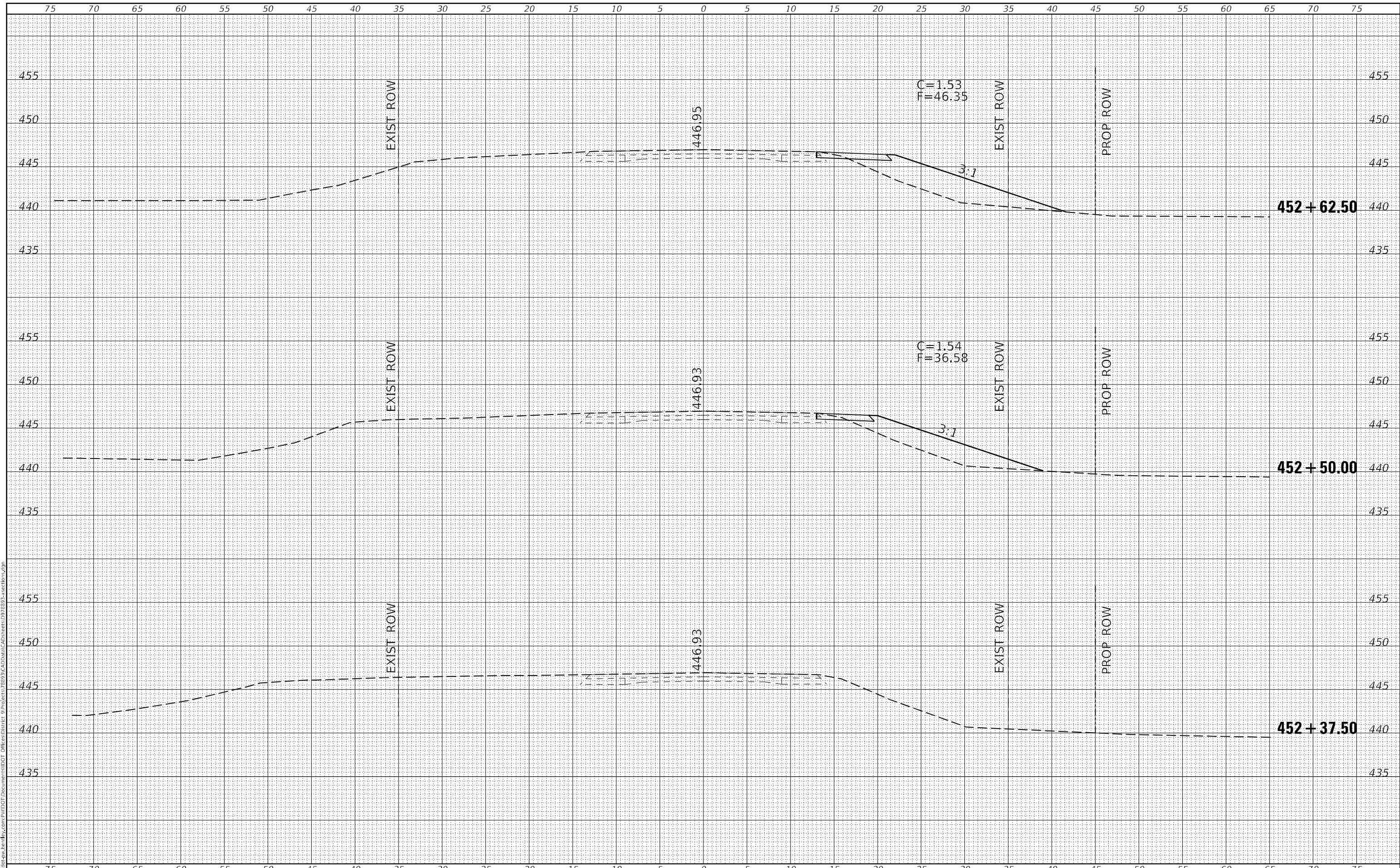
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	53
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

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

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

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	DRAWN -	REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
SN 028-7135(P)**

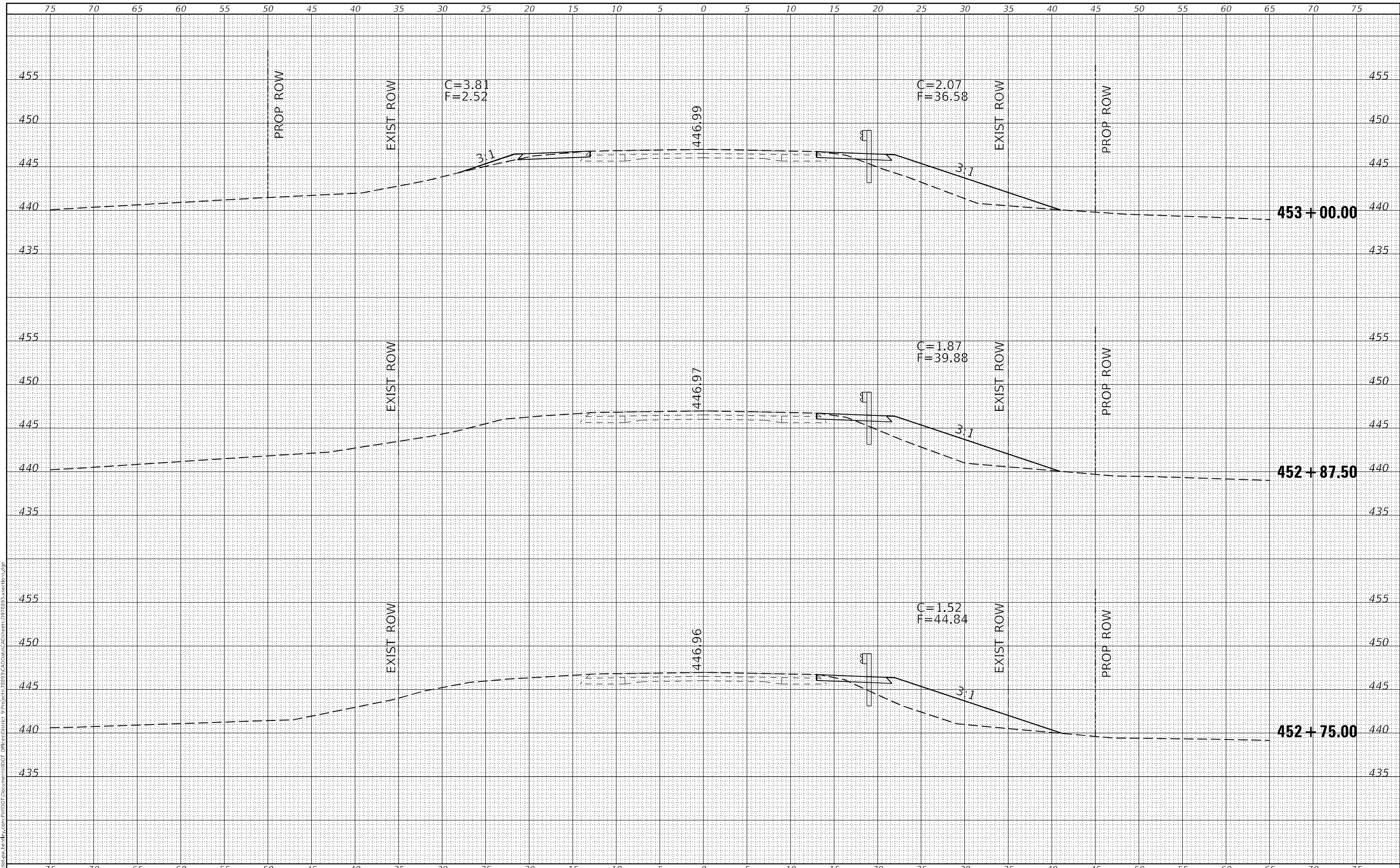
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869	101CR-1,102CR-1	FRANKLIN	68	55
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

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

DATE	
BY	
SURVEYED	
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NOTE BOOK NO.	
AREAS CHECKED	

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	DRAWN -	REVISED -
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PLOT DATE = 8/26/2022	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
 SN 028-7135(P)**

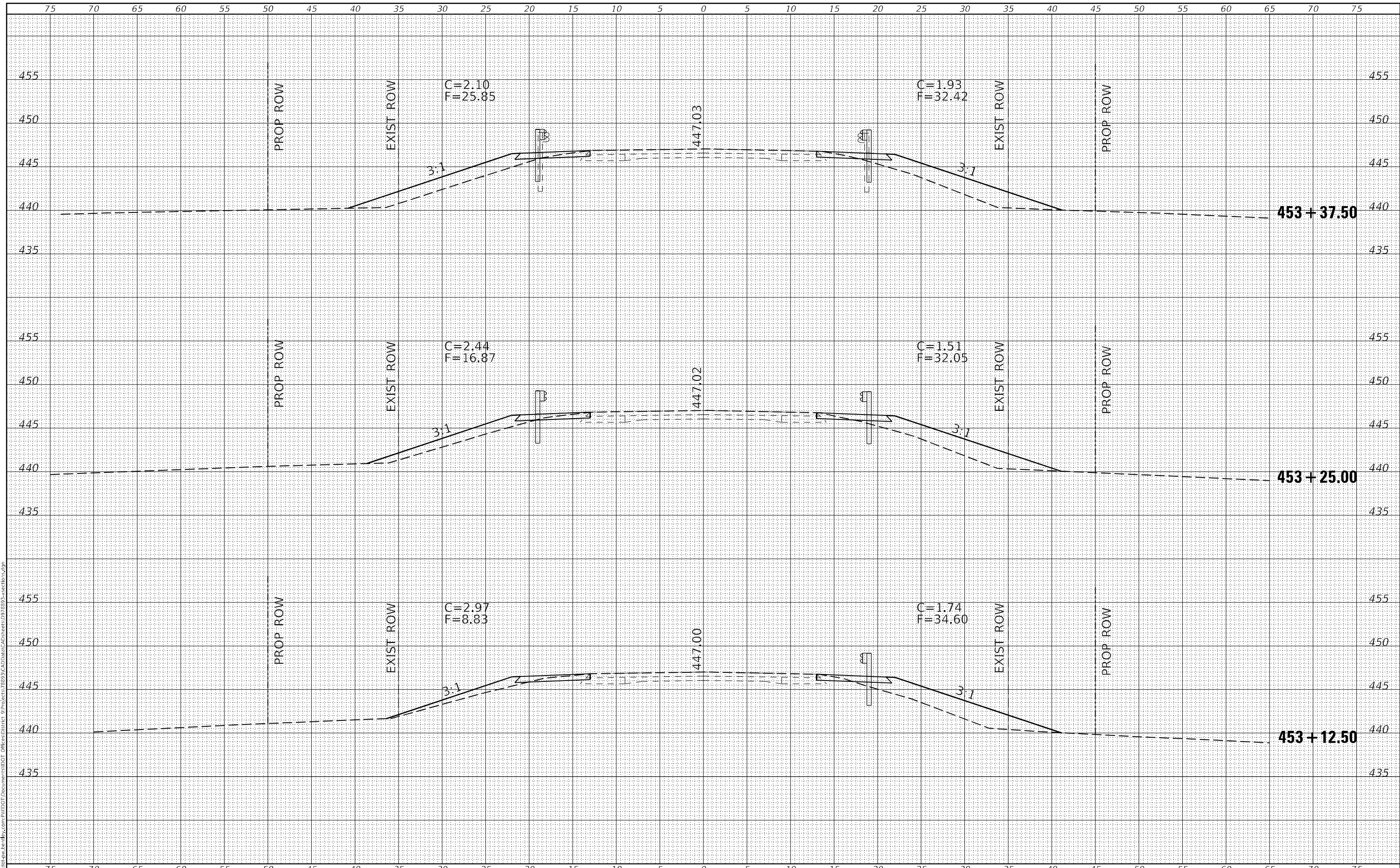
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869	101CR-1,102CR-1	FRANKLIN	68	56
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

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

DATE	
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SURVEYED	
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TEMPLATE	
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ORIGINAL SURVEY	
NOTE BOOK	
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	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

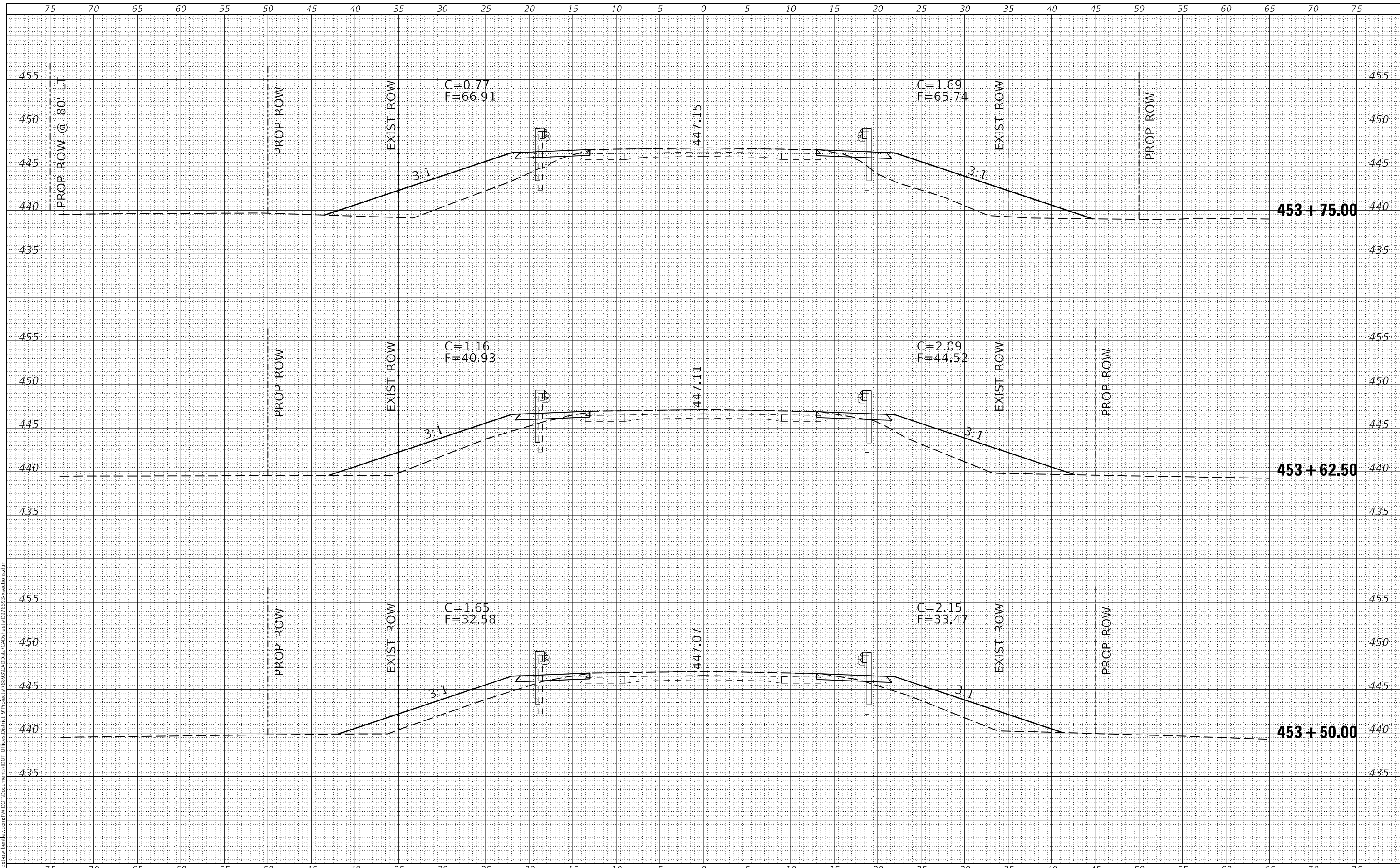
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SN 028-7135(P)	
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STA. 453+12.50	TO STA. 453+37.50

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869	101CR-1,102CR-1	FRANKLIN	68	57
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

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	AREAS CHECKED	

ORIGINAL SURVEY NO.	SURVEYED	DATE
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
SN 028-7135(P)**

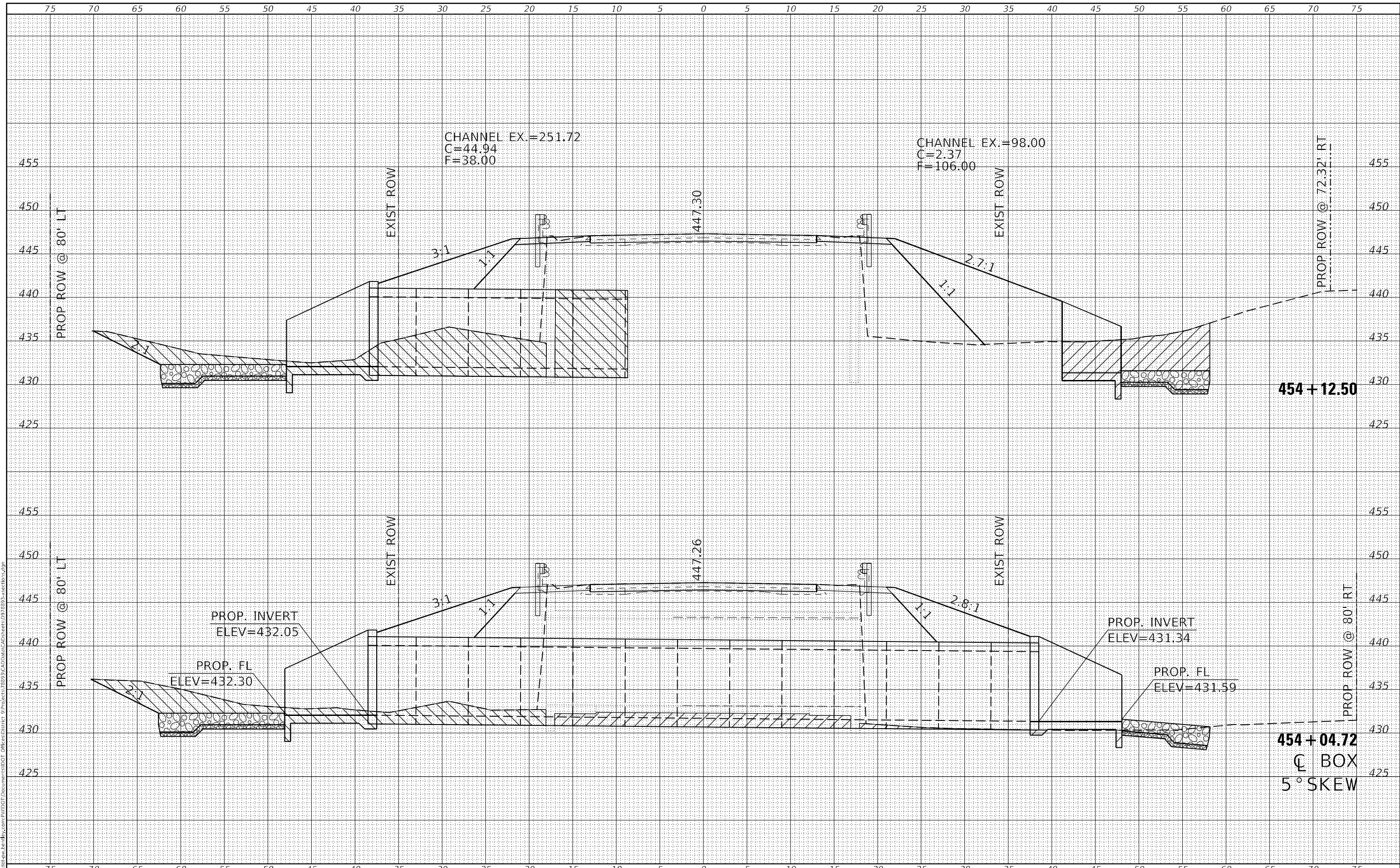
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CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
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NO.	TEMPLATE
	AREAS CHECKED

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

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	DRAWN -	REVISED -
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PLOT DATE = 8/26/2022	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
SN 028-7135(P)**

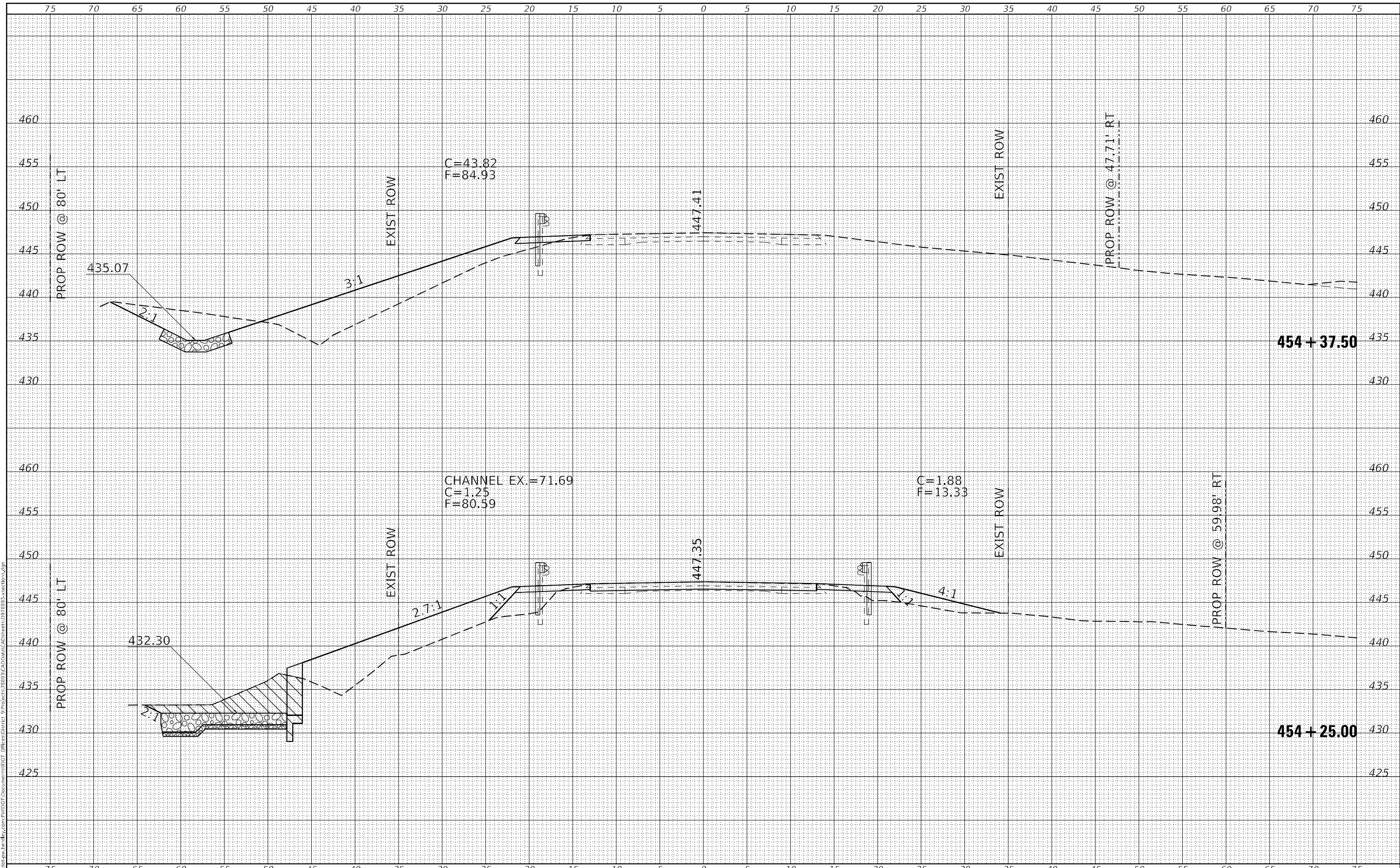
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869	101CR-1,102CR-1	FRANKLIN	68	60
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
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DATE	
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PLOT DATE = 8/26/2022	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SCALE:		SHEET	OF	SHEETS	STA. 454+25.00	TO STA. 454+37.50
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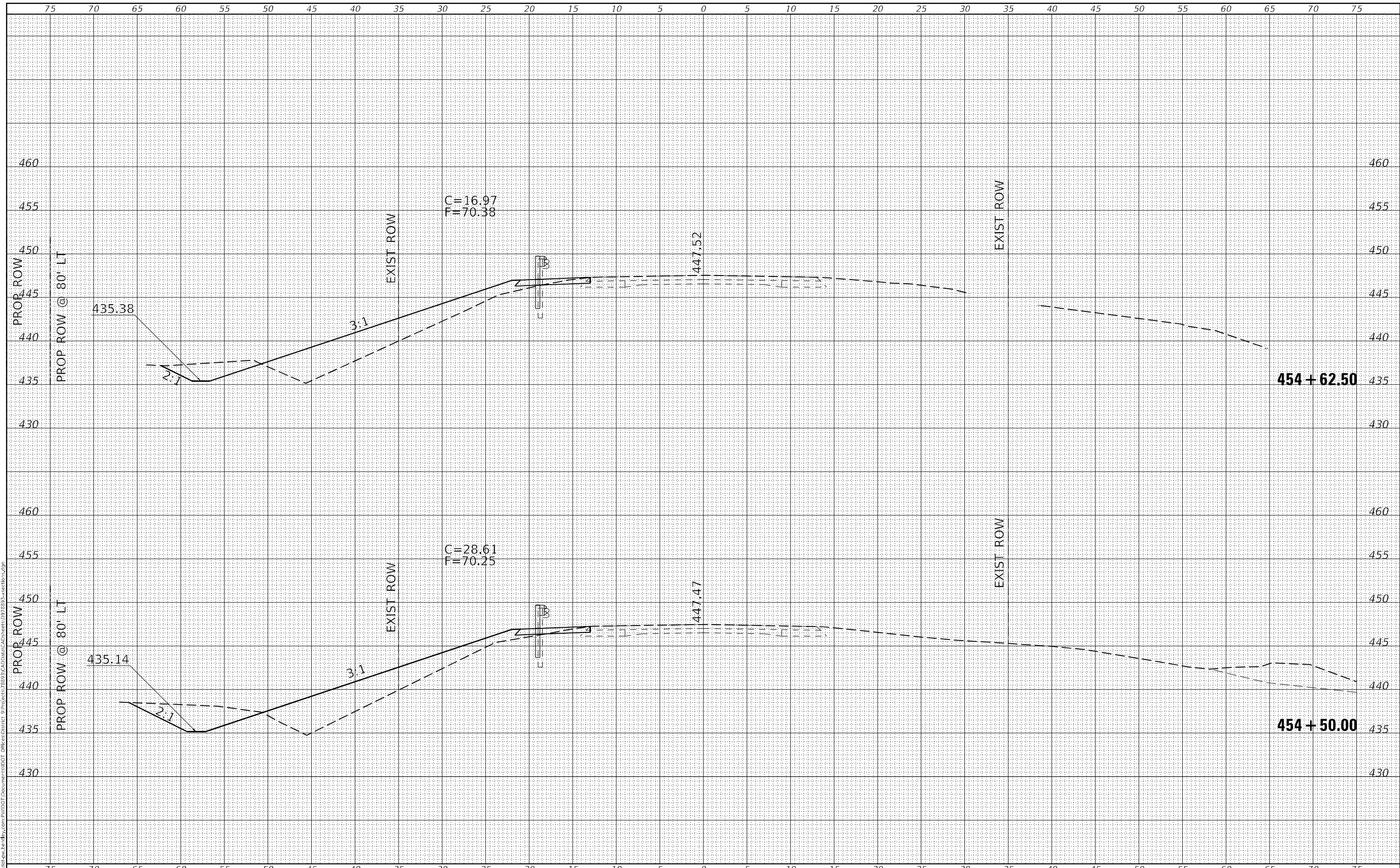
**CROSS SECTIONS
 SN 028-7135(P)**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	61
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
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NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

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

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PLOT DATE = 8/26/2022	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
SN 028-7135(P)**

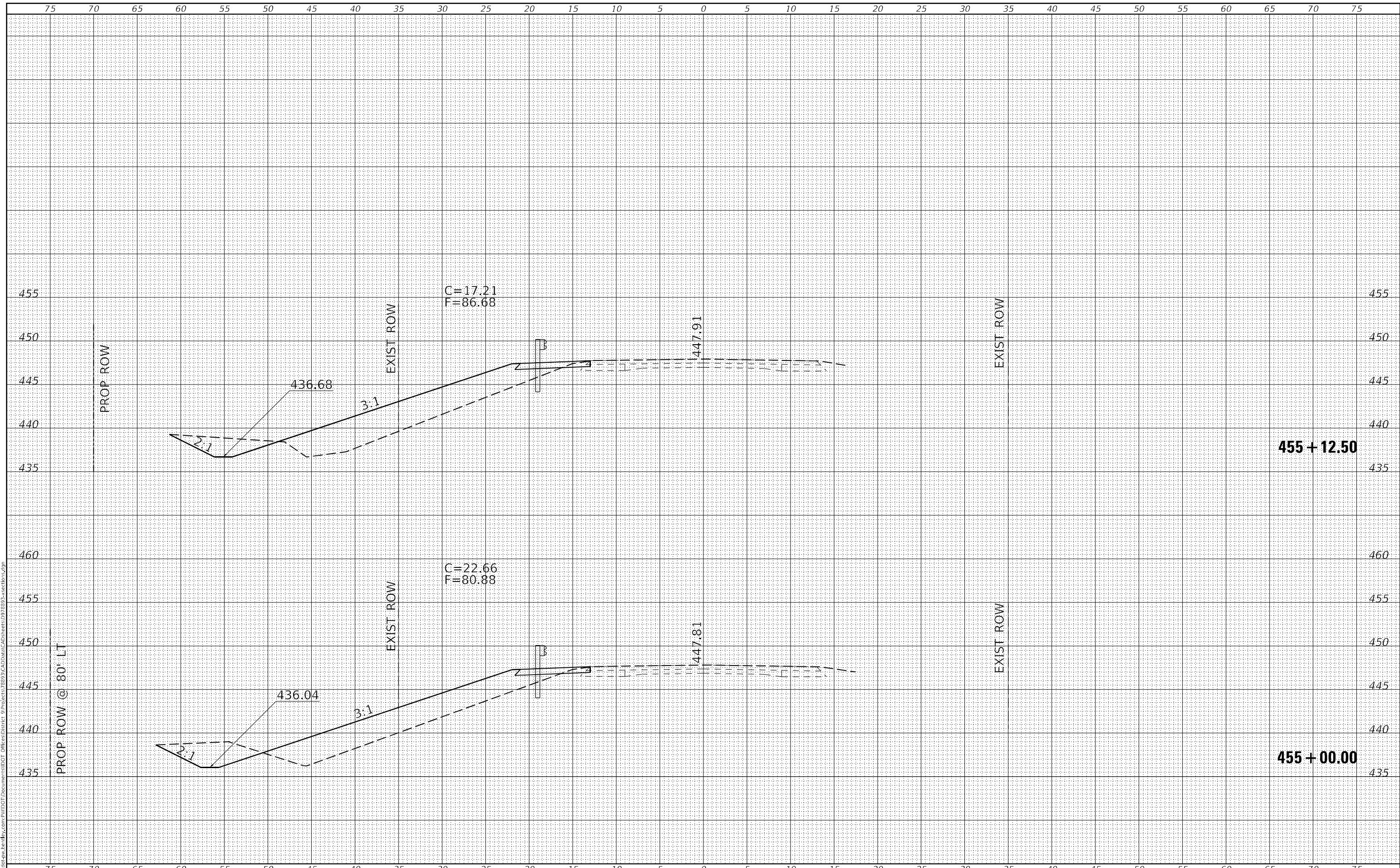
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	62
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

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NOTE BOOK	PLOTTED	
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	CHECKED	

ORIGINAL SURVEY NO.	SURVEYED	DATE
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PLOT DATE = 8/26/2022	DATE -	REVISED -

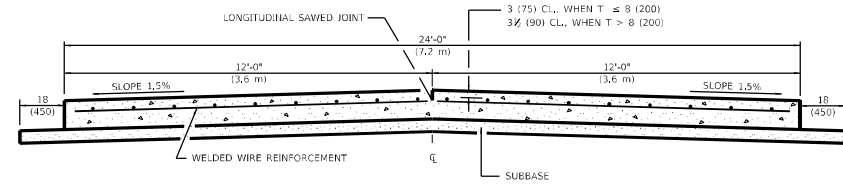
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
SN 028-7135(P)**

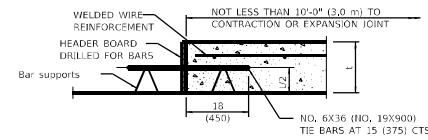
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	64
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

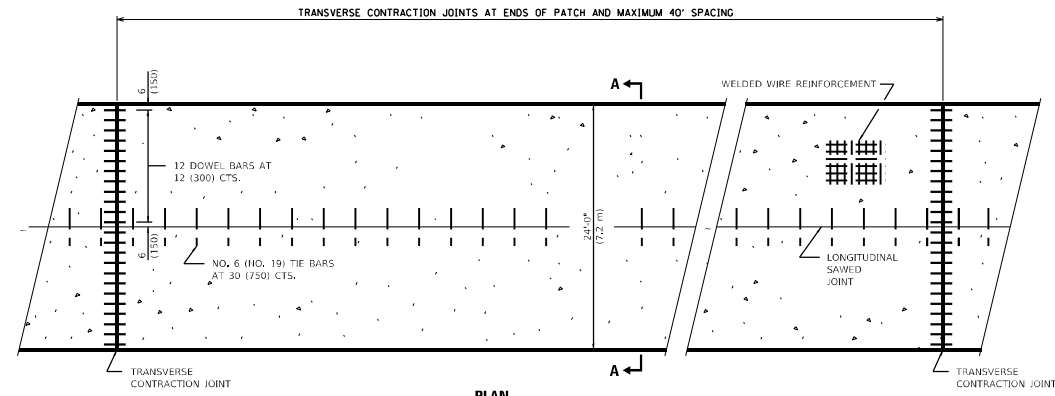
**24' (7.2 m) PCC PAVEMENT
OVER BOX CULVERT**



SECTION A-A
(TYPICAL 2-LANE WITH SHOULDERS)



TRANSVERSE CONSTRUCTION JOINT
(IF NEEDED PER STANDARD SPECIFICATIONS)



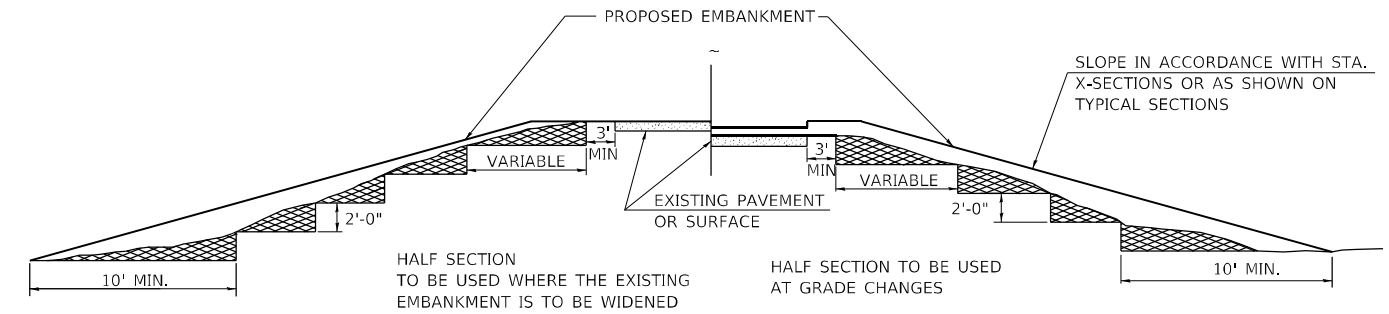
PLAN

GENERAL NOTES
SEE STANDARD 420001 FOR DETAILS NOT SHOWN.
SEE STANDARD 420701 FOR WELDED WIRE REINFORCEMENT DETAILS.
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
ACTUAL DIMENSIONS TO MATCH FIELD CONDITIONS AND CONSTRUCTION METHODS.

REVISIONS	
DRAWN	11-9-17
REVISED	7-23-18
REVISED	10-21-21

STD. 9-25

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

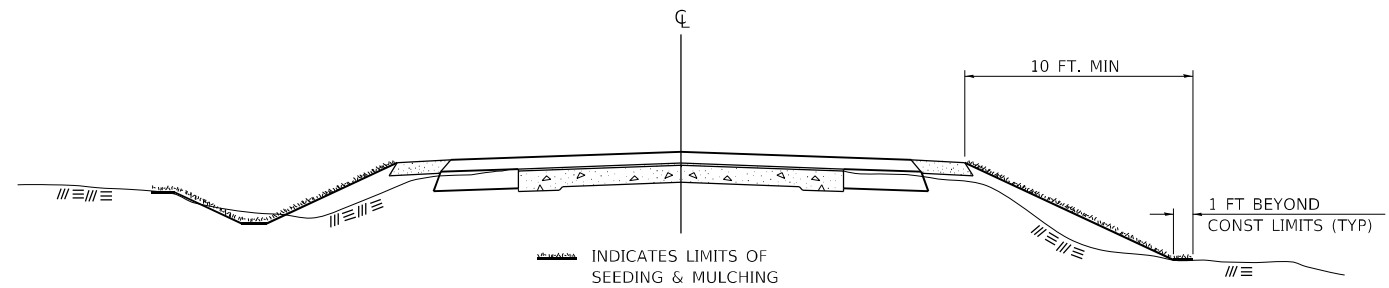


STEPS SHALL BE CUT IN THE EXISTING SLOPE IN ACCORDANCE WITH ART. 205.03 EXCEPT THAT THE REQUIREMENT THAT STEPS SHALL BE CUT INTO THE EXISTING SLOPE BEFORE THE CONSTRUCTION OF THE EXISTING EMBANKMENT IS STARTED SHALL NOT APPLY. MATERIAL TO BE REMOVED AND REPLACED IN THE EMBANKMENT IN ACCORDANCE WITH ART. 205.04. 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
REVIEWED	5-17-13
REVISED	4-22-21
REVISED	10-21-21

STD. 9-16

SEEDING & MULCHING



GENERAL NOTES

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

ON DETOUR ROADS, SLOPES SHALL BE SEEDED IMMEDIATELY UPON COMPLETION OF ANY GIVEN STAGE GRADING. TEMPORARY SEEDED SHALL BE CLASS 7.

FERTILIZER NUTRIENTS SHALL BE APPLIED TO ALL SEEDED AREAS. LIMESTONE SHALL BE APPLIED TO ALL AREAS OF FINAL SEEDED.

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

SECTIONS 250 AND 251 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
REVISED	5-16-13
REVISED	10-21-21

STD. 9-12

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USER NAME = David.A.Wilson	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 8/26/2022	DATE -	REVISED -


**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DISTRICT STANDARDS

SCALE: SHEET OF SHEETS STA. TO STA.

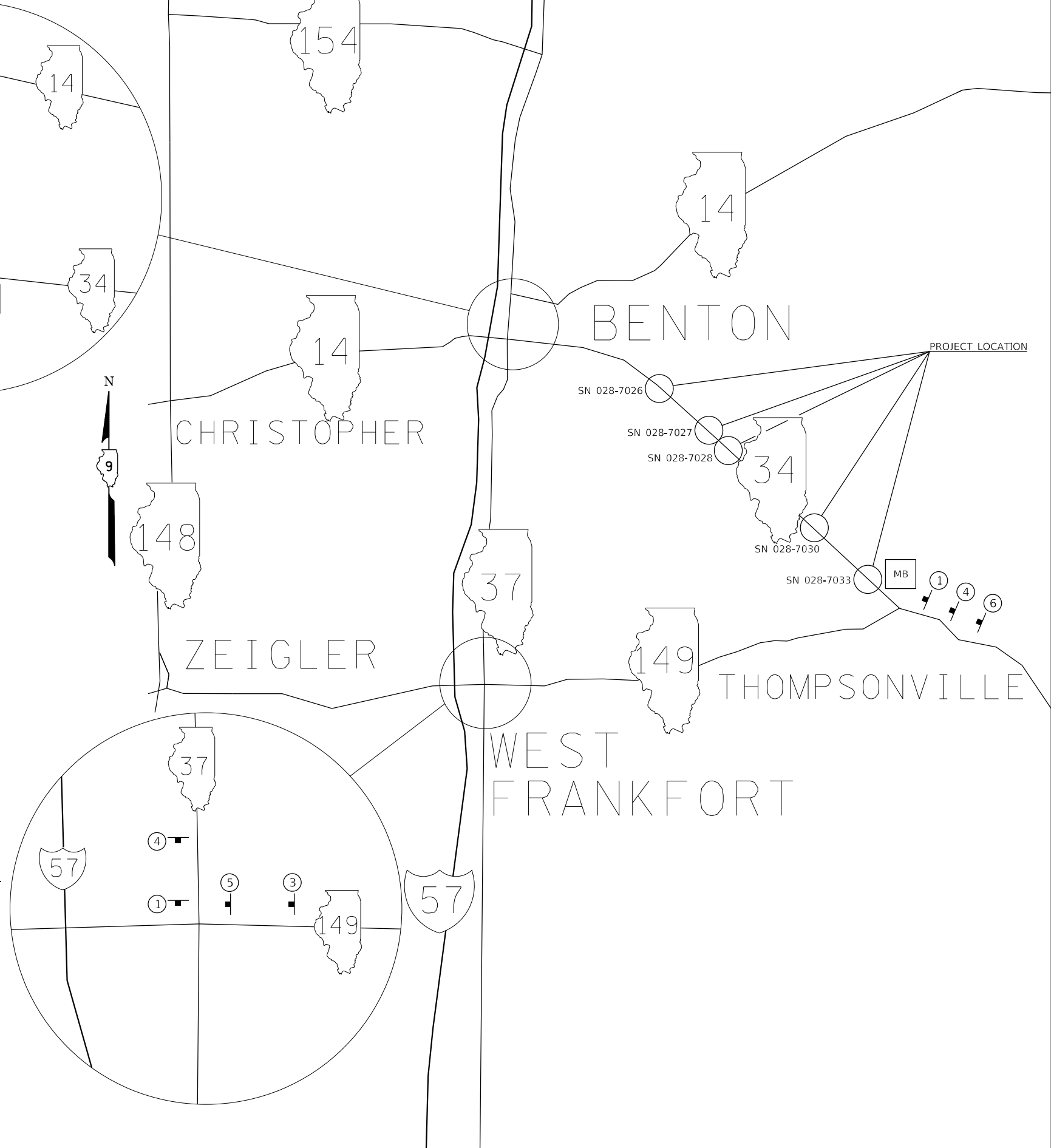
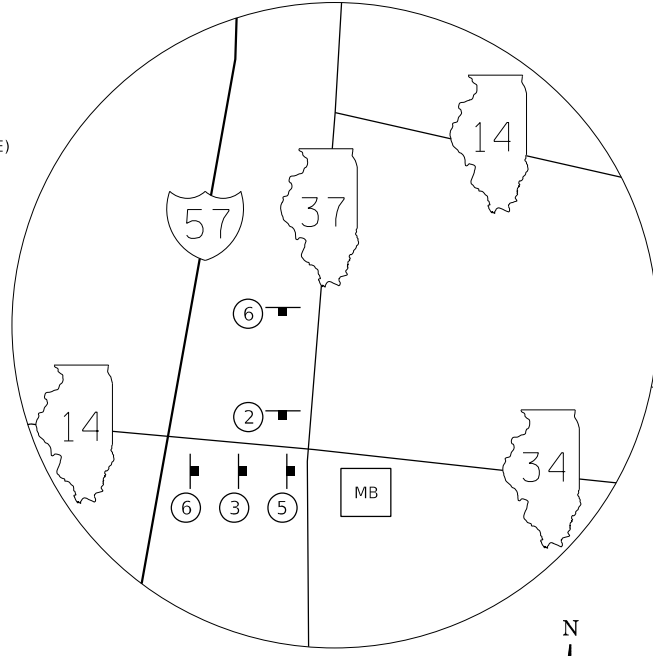
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	67
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				

SIGN DETAILS

DETOUR	M4-8 24" X 12"
ILLINOIS 34	M1-1100 30" X 24"
	M6-1 21" X 15" M5-1 (RIGHT) M5-1 (LEFT)

MESSAGE BOARDS

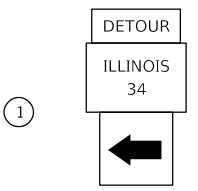
MB	2 REQUIRED (2 WEEKS BEFORE CLOSURE)
PRIOR TO CLOSURE	DURING CLOSURE
IL 34 WILL BE CLOSED	IL 34 CLOSED
XX MILES AHEAD	XX MILES AHEAD
DATE TO DATE	LOCAL TRAFFIC ONLY



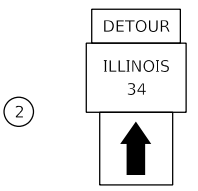
- NOTES:
1. THE CONTRACTOR HAS THE OPTION OF USING METAL POSTS INSTEAD OF WOOD.
 2. ALL SIGNS SHALL BE BLACK ON ORANGE. THE POSTS SHALL BE PLACED 12 FEET FROM THE EDGE OF PAVEMENT AS DIRECTED BY THE ENGINEER.
 3. ALL SIGNS AND HARDWARE REQUIRED TO INSTALL THE DETOUR ROUTE SIGNING SHALL BE INCLUDED IN COST OF TRAFFIC CONTROL AND PROTECTION, BLR 21.
 4. SIGNS SHALL BE REMOVED ON COMPLETION OF THE CONTRACT AT THE DIRECTION OF THE ENGINEER. THIS WORK SHALL BE COMPLETED ACCORDING TO SECTION 724. THIS WORK WILL NOT BE PAID FOR. THE SIGNS AND POSTS SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
 5. THE RELOCATING, MAINTENANCE OR REPLACEMENT OF SIGNS SHALL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04.
 6. EXACT SIGN PLACEMENT WILL BE DETERMINED BY THE ENGINEER.
 7. ALL EXISTING SIGNING THAT IS NOT APPLICABLE WHILE THE ROAD CLOSURE IS IN EFFECT SHALL BE COMPLETELY COVERED BY THE CONTRACTOR.
 8. THE DISTRICT 9 OPERATIONS ENGINEER SHALL BE CONTACTED 10 DAYS PRIOR TO THE ERECTION OF SIGNS.



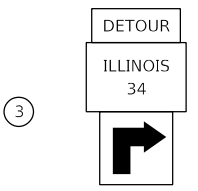
W20-2 (FO)
36" X 36"



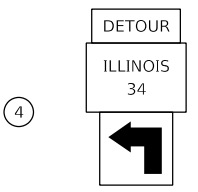
3 REQUIRED



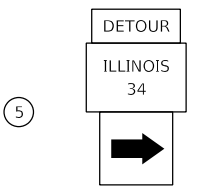
2 REQUIRED



3 REQUIRED



3 REQUIRED



3 REQUIRED



4 REQUIRED

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USER NAME = William.Porter	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 8/26/2022	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETOUR SIGNING PLAN

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
869	101CR-1,102CR-1	FRANKLIN	68	68
CONTRACT NO. 78893				
ILLINOIS FED. AID PROJECT				