06-15-2018 LETTING ITEM 091

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	5B-3	WHITE	28	1
	ILLINOIS	CONTRACT NO. 78390		

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

PROPOSED HIGHWAY PLANS

FAP ROUTE 332 (IL 1) OVER UNNAMED CREEK
SECTION 5B-3
PROJECT NHPP-IIBY(899)
WHITE COUNTY
BOX CULVERT REPLACEMENT

C-99-011-14

FOR INDEX OF SHEETS, SEE SHEET NO. 2

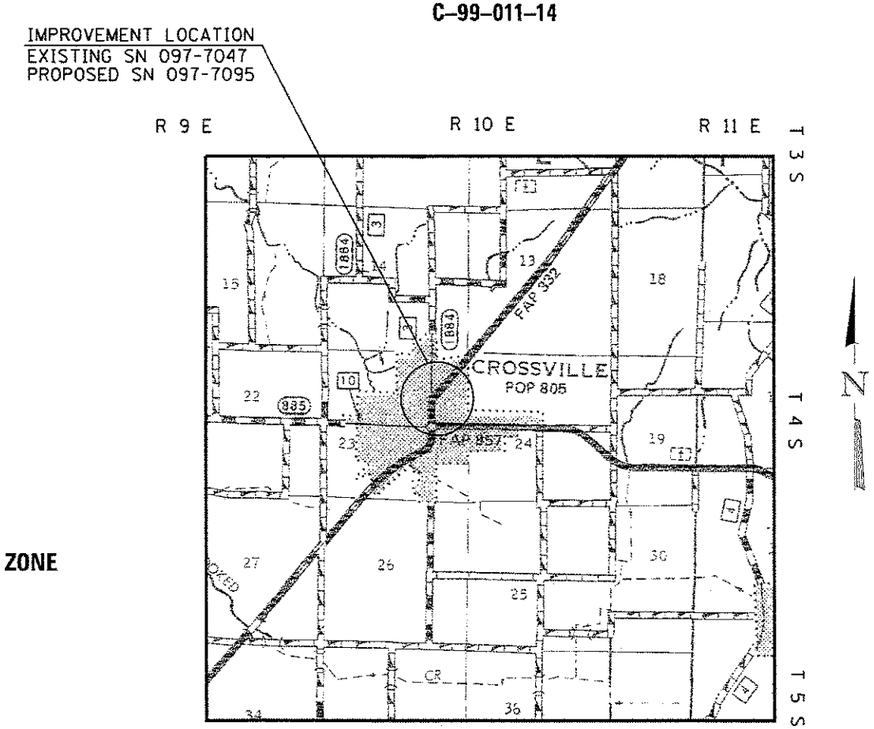
FOR SUMMARY OF QUANTITIES, SEE SHEETS NO. 4-9

TRAFFIC DATA

SN 097-7047 (E)
2015 ADT = 4,050
WITH 14.2% TRUCKS
SPEED LIMIT: 35 MPH

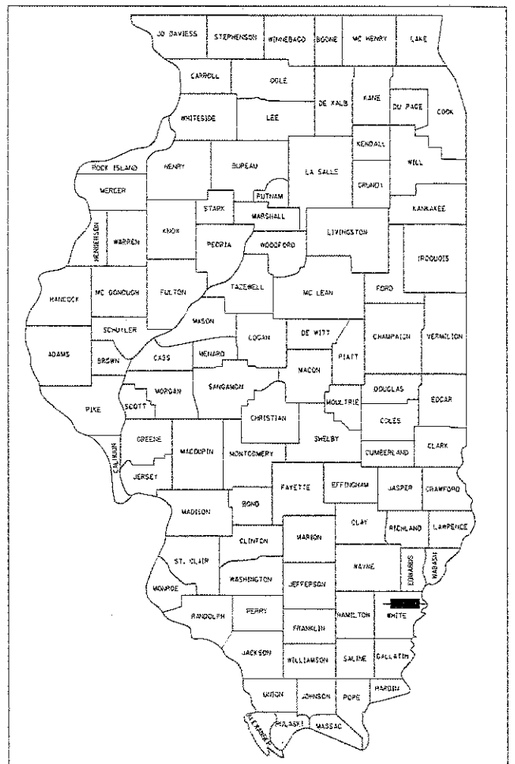
TOWNSHIPS

PHILLIPS



GROSS LENGTH = 94.0 FT. = 0.02 MILES
NET LENGTH = 94.0 FT. = 0.02 MILES

D-99-010-14



LOCATION OF SECTION INDICATED THUS: -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED March 21 20 18
Jeffrey A Keirn
REGION FIVE ENGINEER
May 11 20 18
ENGINEER OF DESIGN AND ENVIRONMENT
May 11 20 18
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

DESIGN DESIGNATION : N/A

COORDINATE SYSTEM : ILLINOIS COORDINATE SYSTEM, EAST ZONE

POSTED SPEED : 35 MPH

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

PROJECT DESIGNER: CHRIS LAMPORT 618-351-5313
PROJECT ENGINEER: DAVID PICHE 618-351-5227

CONTRACT NO. 78390

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

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2	INDEX OF SHEETS AND STANDARDS
3	GENERAL NOTES
4-9	SUMMARY OF QUANTITIES
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12	GENERAL PLAN
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001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420001-09	PAVEMENT JOINTS
420701-03	PAVEMENT WELDED WIRE REINFORCEMENT
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
602401-04	PRECAST MANHOLE - TYPE A, 4' DIA
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604001-04	FRAME AND LIDS - TYPE 1
606001-07	CONCRETE TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011-04	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
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701901-07	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
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

Prepared By: ______ DISTRICT STUDIES & PLANS ENGINEER

Examined By: ______ DISTRICT LAND ACQUISITION ENGINEER

Examined By: ______ DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By: ______ DISTRICT OPERATIONS ENGINEER

Examined By: ______ DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By: ______ DISTRICT CONSTRUCTION ENGINEER

Examined By: ______ DISTRICT MATERIALS ENGINEER

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PLOT DATE = 2/21/2018	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS AND STANDARDS
SN 097-7047 (E) SN 097-7095 (P)

SCALE: ____ SHEET __ OF __ SHEETS STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	5B-3	WHITE	28	2
		CONTRACT NO. 78390		
	ILLINOIS	FED. AID PROJECT		

COMMITMENTS

1) ADJACENT PROPERTY OWNERS MUST BE PROVIDED ACCESS THROUGHOUT PROJECT, UNLESS OTHERWISE NOTED IN PLANS. A TEMPORARY EASEMENT HAS BEEN ACQUIRED TO SERVE THE LOT AT THE SOUTHEAST QUADRANT OF THE PROJECT, AS DETAILED ON THE RIGHT OF WAY PLAN. CONTRACTOR TO MAINTAIN EXISTING AGGREGATE ACCESS THROUGH THIS EASEMENT. CONSTRUCTION STAGING OR STORAGE IS NOT ALLOWED WITHIN EASEMENT.

2) CONTRACTOR SHALL NOTIFY THE FOLLOWING AT LEAST 14 DAYS IN ADVANCE OF STARTING ANY CONSTRUCTION WORK:
- PROPERTY OWNERS WHOSE ACCESS WILL BE DIRECTLY AFFECTED DURING OPERATIONS
- VILLAGE OF CROSSVILLE - (618) 966-2237
- CROSSVILLE POLICE DEPT - (618) 966-2504
- WHITE COUNTY SHERIFF DEPT - (618) 382-5321
- CROSSVILLE FIRE DEPT - (618) 966-3731
- WHITE COUNTY AMBULANCE DEPT - (618) 382-7131

GENERAL NOTES

1) FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

ALL AGGREGATE	2.05 TONS/CU.YD.
RIPRAP	1.50 TONS/CU.YD.
EARTH	110 LBS/CU. FT.

2) FORMS FOR COMBINATION CONCRETE CURB AND GUTTER, IF NOT SLIPFORMED AS PER ARTICLE 606.05, SHALL BE OF METAL ONLY.

3) PROTECTIVE COAT SHALL BE APPLIED TO ALL GUTTER FLAGS, FACE OF CURB, AND MEDIAN SURFACE AS NEEDED ACCORDING TO THE SEASONAL REQUIREMENTS OF ARTICLE 420.18.

4) AGGREGATE FOR TEMPORARY ACCESS SHALL BE USED TO MAINTAIN EXISTING AGGREGATE ACCESS WITHIN TEMPORARY EASEMENT. THE GRADATION SHALL BE CA-6 OR CA-10 AS DIRECTED BY THE ENGINEER. A QUANTITY OF 50 TONS HAS BEEN ESTIMATED FOR THIS WORK.

5) TRENCH BACKFILL REQUIRED FOR STORM SEWER, SANITARY SEWER, OR WATER MAINS SHALL ONLY BE PLACED UP TO ONE FOOT BELOW THE FINAL GRADE IN AREAS HAVING A PROPOSED GRASS OR SOD SURFACE.

6) 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.

7) PRIOR TO PLACEMENT OF THE FINAL PAVEMENT MARKINGS THE RESIDENT ENGINEER SHALL CONTACT THE BUREAU OF OPERATIONS AND ARRANGE FOR INSPECTION AND APPROVAL OF THE PAVEMENT MARKING LAYOUT.

8) CONNECTING OF NEW OR EXISTING STORM SEWER TO NEW OR EXISTING INLETS OR MANHOLES SHALL BE MADE IN A MANNER WHICH RESULTS IN A NEAT AND WATERTIGHT JOINT. WHEN PLACED THROUGH THE WALL OF AN INLET OR MANHOLE, STORM SEWER PIPE SHALL BE PLACED OR CUT FLUSH WITH THE FACE OF THE WALL AND DRESSED WITH MORTAR TO PROVIDE A SMOOTH ROUNDED OR BEVELED EDGE. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICES OF THE STORM SEWERS OR STRUCTURES INVOLVED.

9) THE CENTERLINE PAVEMENT MARKING SHALL BE REMOVED FROM THE STOP BAR TO THE SAND ATTENUATORS OR DRUMS. EDGE LINE PAVEMENT MARKING SHOULD BE REMOVED IF A 10 FT LANE WIDTH CANNOT BE MAINTAINED.

10) ANY TIME THE CONCRETE BARRIER IS NOT IN THE PROPER POSITION, FLAGGERS SHALL BE IN PLACE TO CONTROL TRAFFIC. THE TEMPORARY TRAFFIC SIGNALS SHALL BE SET TO FLASH ALL RED.

11) THERE ARE NO AVAILABLE WASTE SITES ON THE EXISTING RIGHT OF WAY WITHIN THE PROJECT LIMITS. DISPOSAL WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND WASTE MUST BE DISPOSED OF IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS.

12) TO RETAIN THE TEMPORARY CONCRETE BARRIER FOR STAGE II TRAFFIC, THE CONTRACTOR SHALL HAVE THE OPTION OF USING EITHER 2 (#5) BAR SPLICERS OR 2 CAST IN PLACE INSERTS AT 6" CENTERS AT THE MID-DEPTH OF THE PCC PAVEMENT. THE BAR SPLICERS OR INSERTS SHALL HAVE A MINIMUM PROOF LOAD OF 5,000 POUNDS. ALONG WITH THE ANCHORING DEVICES THE CONTRACTOR SHALL PROVIDE ONE STEEL RETAINER PLATE, AND 2 1/2" DIAMETER BOLT AND WASHERS EVERY 6 FEET AS SHOWN ON DETAIL II ON STANDARD R-27 FROM STA. 442+86 TO STA. 443+80 FOR STAGE II TRAFFIC. THIS WORK SHALL BE INCLUDED IN THE COST OF TEMPORARY CONCRETE BARRIER, NO ADDITIONAL COMPENSATION SHALL BE PROVIDED.

13) BACKFILL FOR TRENCHES, WALLS, AND CULVERT TO BE POROUS GRANULAR EMBANKMENT (CA7 OR CA11) WITH THE TOP 1'-0" CONSISTING OF CA6 (OR CA10) IF EDGE OF TRENCH IS WITHIN 2'-0" OF PROPOSED CONCRETE SURFACE. IF EDGE OF TRENCH IS BEYOND 2'-0" OF PROPOSED CONCRETE SURFACE, TOP 1'-0" SHALL BE IMPERVIOUS MATERIAL. OUTER 3'-0" OF TRENCH AT SEWER OUTFLOWS SHALL ALSO BE IMPERVIOUS MATERIAL.

USER NAME = Lamportcp	DESIGNED - _____	REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - _____	REVISED - _____	
PLOT SCALE = 100.0000 ' / in.	CHECKED - _____	REVISED - _____	
PLOT DATE = 2/21/2018	DATE - _____	REVISED - _____	

GENERAL NOTES
SN 097-7047 (E) SN 097-7095 (P)

SCALE: _____ | SHEET __ OF __ SHEETS | STA. _____ | TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	5B-3	WHITE	28	3
		CONTRACT NO. 78390		
	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

COUNTY:	WHITE CO
ROUTE:	IL 1
FUNDING:	80% FEDERAL / 20% STATE
LOCATION:	RURAL

CODE NUMBER	ITEM DESCRIPTION	UNIT	ROADWAY 0004
20200100	EARTH EXCAVATION	CU YD	340
20700220	POROUS GRANULAR EMBANKMENT	CU YD	371
25000200	SEEDING, CLASS 2	ACRE	0.25
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	23
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	23
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	23
25000700	AGRICULTURAL GROUND LIMESTONE	TON	0.5
25100115	MULCH, METHOD 2	ACRE	0.25
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	25
28100109	STONE RIPRAP, CLASS A5	SQ YD	250
28200200	FILTER FABRIC	SQ YD	250
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	50

USER NAME = LAMPORTCP	DESIGNED -	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
SN 097-7047 (E) SN 097-7095 (P)

SCALE: _____ | SHEET 1 OF 6 SHEETS | STA. _____ | TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	5B-3	WHITE	28	4

CONTRACT NO. 78390

ILLINOIS | FED. AID PROJECT

SUMMARY OF QUANTITIES - CONT

COUNTY:	WHITE CO
ROUTE:	IL 1
FUNDING:	80% FEDERAL / 20% STATE
LOCATION:	RURAL
	ROADWAY
	0004

CODE NUMBER	ITEM DESCRIPTION	UNIT	
42000060	WELDED WIRE REINFORCEMENT	SQ YD	262
42000500	PORTLAND CEMENT CONCRETE PAVEMENT 10"	SQ YD	262
42001300	PROTECTIVE COAT	SQ YD	262
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	554
44000100	PAVEMENT REMOVAL	SQ YD	265
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	189
44000600	SIDEWALK REMOVAL	SQ FT	462
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50200450	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR STRUCTURES	CU YD	82
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	38,640
50800515	BAR SPLICERS	EACH	110
50901125	STEEL RAILING (TEMPORARY)	FOOT	94

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
SN 097-7047 (E) SN 097-7095 (P)

SCALE: _____ SHEET 2 OF 6 SHEETS STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	5B-3	WHITE	28	5
		CONTRACT NO. 78390		
	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES - CONT

COUNTY:	WHITE CO
ROUTE:	IL 1
FUNDING:	80% FEDERAL / 20% STATE
LOCATION:	RURAL

CODE NUMBER	ITEM DESCRIPTION	UNIT	ROADWAY 0004
52200020	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	219
54003000	CONCRETE BOX CULVERTS	CU YD	141.2
54213660	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"	EACH	1
54213669	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"	EACH	1
54213681	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 36"	EACH	1
54248510	CONCRETE COLLAR	CU YD	0.5
550A0070	STORM SEWERS, CLASS A, TYPE 1 15"	FOOT	15
550A0160	STORM SEWERS, CLASS A, TYPE 1 36"	FOOT	42
55100700	STORM SEWER REMOVAL 15"	FOOT	12
55101200	STORM SEWER REMOVAL 24"	FOOT	6
55101600	STORM SEWER REMOVAL 36"	FOOT	43
60218400	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1

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PLOT DATE = 3/22/2018	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
SN 097-7047 (E) SN 097-7095 (P)

SCALE: _____ SHEET 3 OF 6 SHEETS STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	58-3	WHITE	28	6
		CONTRACT NO. 78390		
	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES - CONT

COUNTY:	WHITE CO
ROUTE:	IL 1
FUNDING:	80% FEDERAL / 20% STATE
LOCATION:	RURAL
	ROADWAY
	0004

CODE NUMBER	ITEM DESCRIPTION	UNIT	
60223800	MANHOLES, TYPE A, 6'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	2
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	184
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4
67100100	MOBILIZATION	L SUM	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DAY	4
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
70106700	TEMPORARY RUMBLE STRIPS	EACH	6
70300100	SHORT TERM PAVEMENT MARKING	FOOT	70
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	24
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	477
70400100	TEMPORARY CONCRETE BARRIER	FOOT	200

SUMMARY OF QUANTITIES - CONT

COUNTY:	WHITE CO
ROUTE:	IL 1
FUNDING:	80% FEDERAL / 20% STATE
LOCATION:	RURAL
	ROADWAY
	0004

	CODE NUMBER	ITEM DESCRIPTION	UNIT	
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	262.5
	70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2
	70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	477
*	78100300	REPLACEMENT REFLECTOR	EACH	6
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	6
*	86200300	UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1
	X0322128	MEMBRANE WATERPROOFING FOR BURIED STRUCTURES	SQ YD	143
	X0327979	PAVEMENT MARKING REMOVAL - GRINDING	SQ FT	212
	X7010202	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	1
	X7015005	CHANGEABLE MESSAGE SIGN	CAL DAY	28
	X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	159

* SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
SN 097-7047 (E) SN 097-7095 (P)

SCALE: | SHEET 5 OF 6 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	5B-3	WHITE	28	8
		CONTRACT NO. 78390		
	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES - CONT

COUNTY:	WHITE CO
ROUTE:	IL 1
FUNDING:	80% FEDERAL / 20% STATE
LOCATION:	RURAL
	ROADWAY
	0004

	CODE NUMBER	ITEM DESCRIPTION	UNIT	
	X7040125	PINNING TEMPORARY CONCRETE BARRIER	EACH	6
*	Z0054517	ROCK FILL - FOUNDATION	TON	123
	Z0073500	TEMPORARY SUPPORT SYSTEM	L SUM	1

3

* SPECIALTY ITEM

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
SN 097-7047 (E) SN 097-7095 (P)

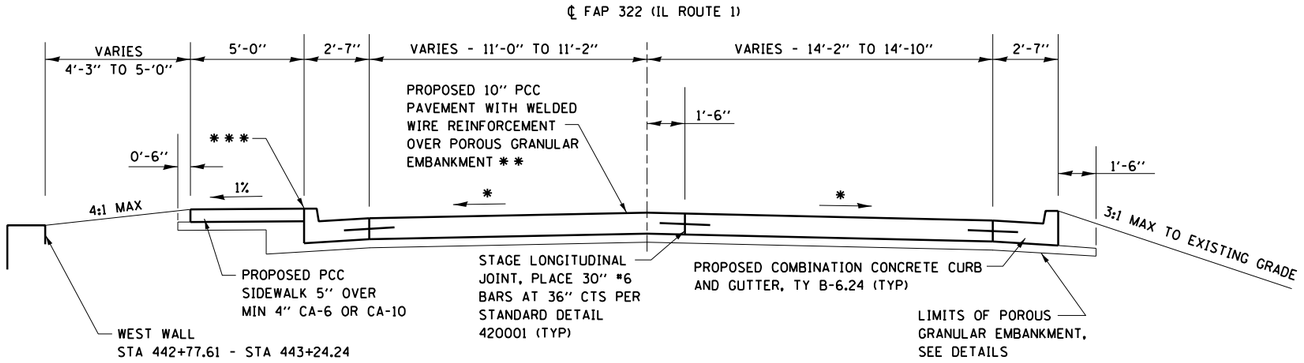
SCALE: _____ | SHEET 6 OF 6 SHEETS | STA. _____ | TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	58-3	WHITE	28	9
		CONTRACT NO. 78390		
	ILLINOIS FED. AID PROJECT			

* MATCH EXISTING CROSS SLOPES

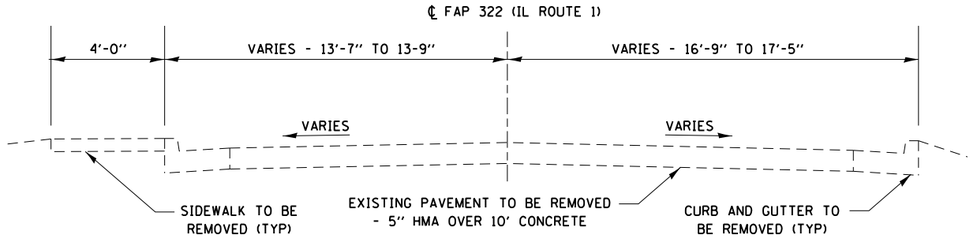
** TOP SLAB OF CULVERT AT EASTERN CURB, AND EDGE BEAM AT STAGE CONSTRUCTION JOINT MAY PROTRUDE INTO PAVEMENT, A MINIMUM 8" PAVEMENT SECTION SHALL BE MAINTAINED AT THESE LOCATIONS

*** 1/2" PREFORMED JOINT FILLER WITH HOT POURED JOINT SEALER, INCLUDED WITH PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH



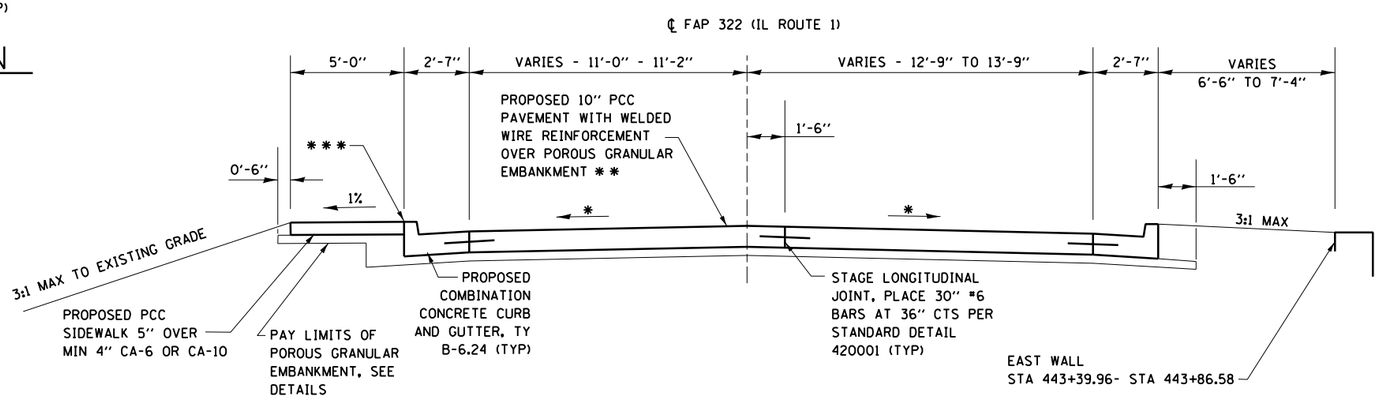
ROADWAY TYPICAL SECTION AT WEST WALL

(LOOKING NORTH)



EXISTING ROADWAY TYPICAL SECTION

(LOOKING NORTH)



ROADWAY TYPICAL SECTION AT EAST WALL

(LOOKING NORTH)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL ROADWAY SECTIONS
SN 097-7047 (E) SN 097-7095 (P)

SCALE: _____ | SHEET __ OF __ SHEETS | STA. _____ | TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	5B-3	WHITE	28	10
		CONTRACT NO. 78390		
	ILLINOIS FED. AID PROJECT			

PAVEMENT MARKING SCHEDULE

STATION	DESCRIPTION	LENGTH	PAVEMENT MARKING REMOVAL - GRINDING	RAISED REFLECTIVE PAVEMENT MARKING REMOVAL	SHORT TERM PAVEMENT MARKING	SHORT TERM PAVEMENT MARKING REMOVAL	TEMPORARY PAVEMENT MARKING - LINE 4''	TEMPORARY PAVEMENT MARKING REMOVAL	PAINT PAVEMENT MARKING - LINE 4''	REPLACEMENT REFLECTOR
		LF	SF	EA	LF	SF	LF	SF	LF	EA
CL STA 440+53 TO STA 444+34	YELLOW SOLID	381					381 X 1 APP.	127	381	
CL STA 440+53 TO STA 444+34	YELLOW SKIP-DASH	381			35 X 2 APP.	24	96 X 1 APP.	32	96	
CL STA 440+53 TO STA 444+34	RRPM	381		6						6
CL STA 440+53 TO STA 442+86	YELLOW SOLID	233	78							
CL STA 440+53 TO STA 442+86	YELLOW SKIP-DASH	233	19							
CL STA 443+80 TO STA 446+55	YELLOW SOLID	275	92							
CL STA 443+80 TO STA 446+55	YELLOW SKIP-DASH	275	23							
TOTALS			212	6	70	24	477	159	477	6

* APP. = APPLICATIONS

POROUS GRANULAR EMBANKMENT SCHEDULE

DESCRIPTION	QUANTITY
CULVERT BACKFILL	250 CY
WALL BACKFILL, WALK/PAVEMENT SUBBASE, AND TRENCH BACKFILL	121 CY
TOTAL	371 CY

SEWER SCHEDULE

DESCRIPTION	STATION
STORM SEWER REMOVAL 15''	RT STA 443+81 TO STA 443+83
STORM SEWER REMOVAL 24''	LT STA 442+83 TO STA 442+89
STORM SEWER REMOVAL 36''	RT STA 443+01 TO STA 443+43
FES 15''	RT STA 443+91
FES 24''	LT STA 442+89
FES 36''	RT STA 443+55
STORM SEWER 15''	RT STA 443+83 TO STA 443+96
STORM SEWER 36''	RT STA 443+06 TO STA 443+55
CONCRETE COLLAR	LT STA 442+83
MANHOLE 4' DIA	RT STA 443+96
MANHOLE 6' DIA	RT STA 443+04
MANHOLE 6' DIA	RT STA 443+44

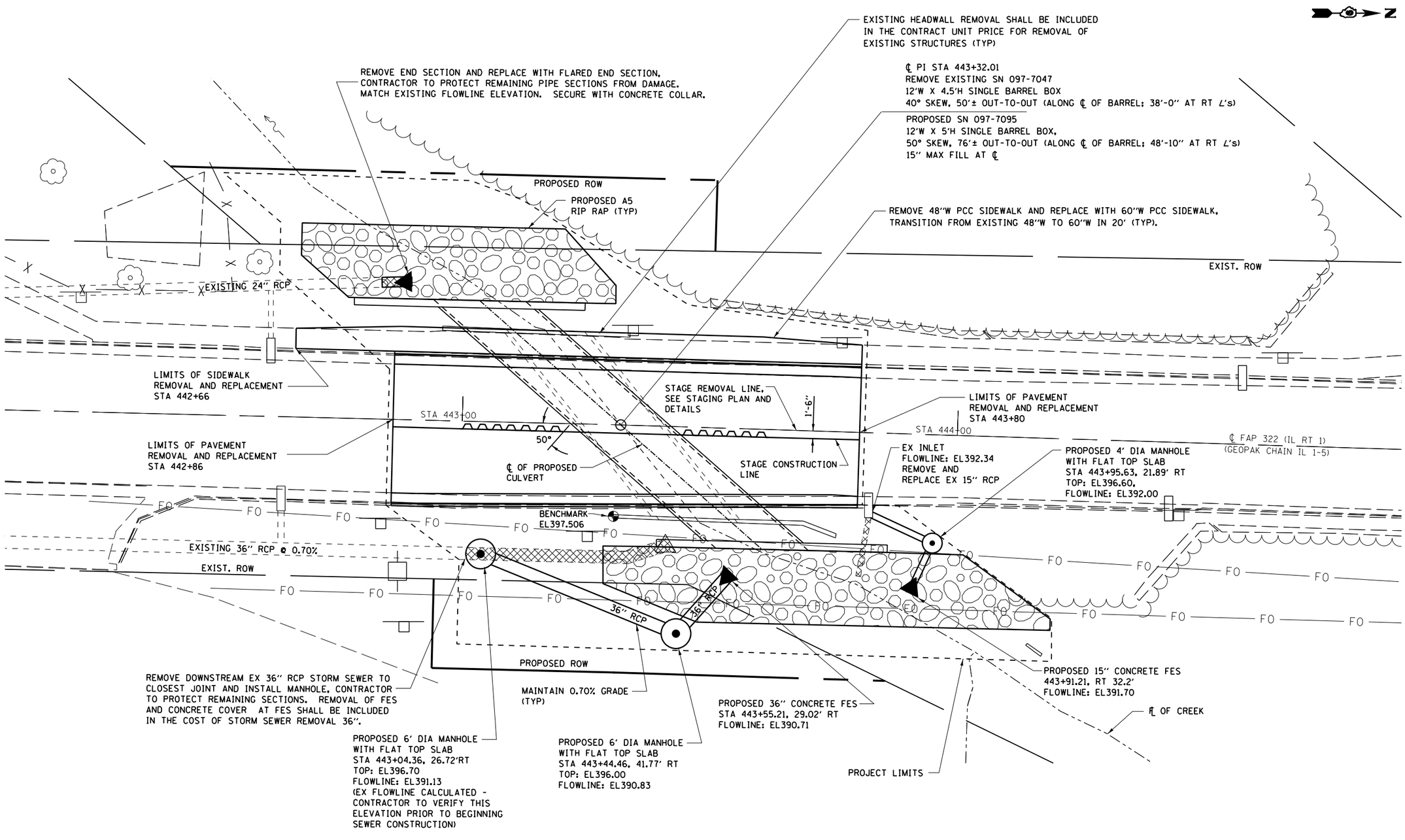
USER NAME = LAMPORTCP	DESIGNED - _____	REVISED - _____	
	DRAWN - _____	REVISED - _____	
PLOT SCALE = 100.0000 ' / in.	CHECKED - _____	REVISED - _____	
PLOT DATE = 3/22/2018	DATE - _____	REVISED - _____	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULES
SN 097-7047 (E) SN 097-7095 (P)

SCALE: _____ | SHEET __ OF __ SHEETS | STA. _____ | TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	5B-3	WHITE	28	11
		CONTRACT NO. 78390		
	ILLINOIS FED. AID PROJECT			



CULVERT REMOVAL AND REPLACEMENT
IL-1 OVER UNNAMED CREEK

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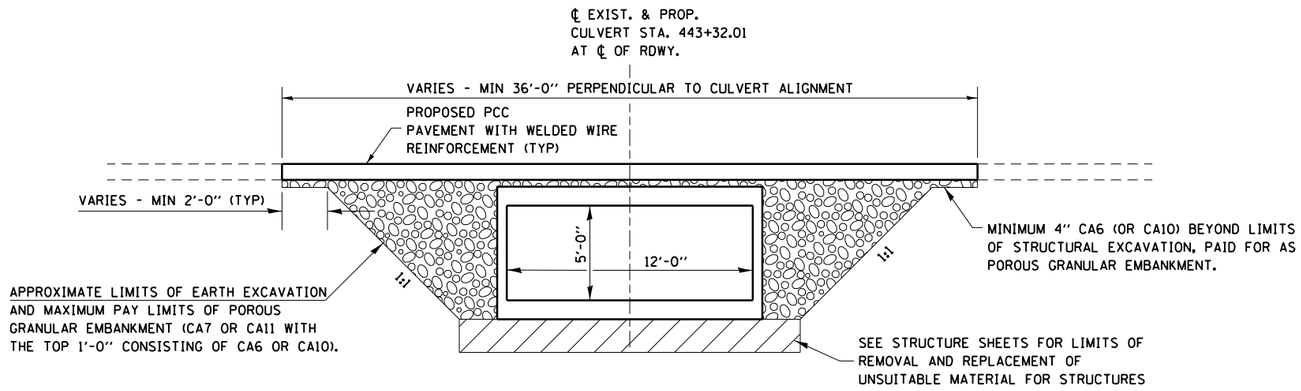
	DRAWN - _____	REVISED - _____
PLOT SCALE = 20.0000 ' / in.	CHECKED - _____	REVISED - _____
PLOT DATE = 2/21/2018	DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
SN 097-7047 (E) SN 097-7095 (P)

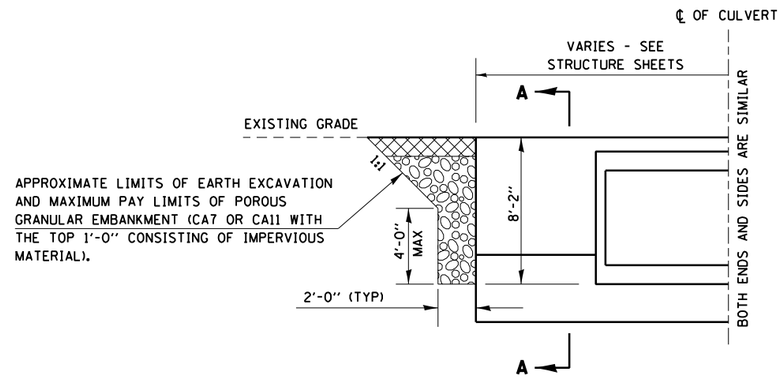
SCALE: _____ | SHEET __ OF __ SHEETS | STA. _____ | TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	58-3	WHITE	28	12
		CONTRACT NO. 78390		
	ILLINOIS FED. AID PROJECT			



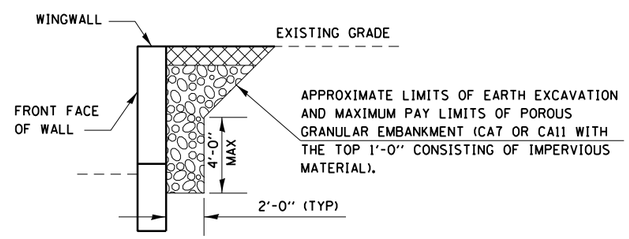
LIMITS OF POROUS GRANULAR EMBANKMENT

(AT CENTERLINE - AT RIGHT ANGLES TO ℄ OF BARREL)



LIMITS OF POROUS GRANULAR EMBANKMENT

(AT WINGWALL - AT RIGHT ANGLES TO ℄ OF BARREL)



SECTION A-A

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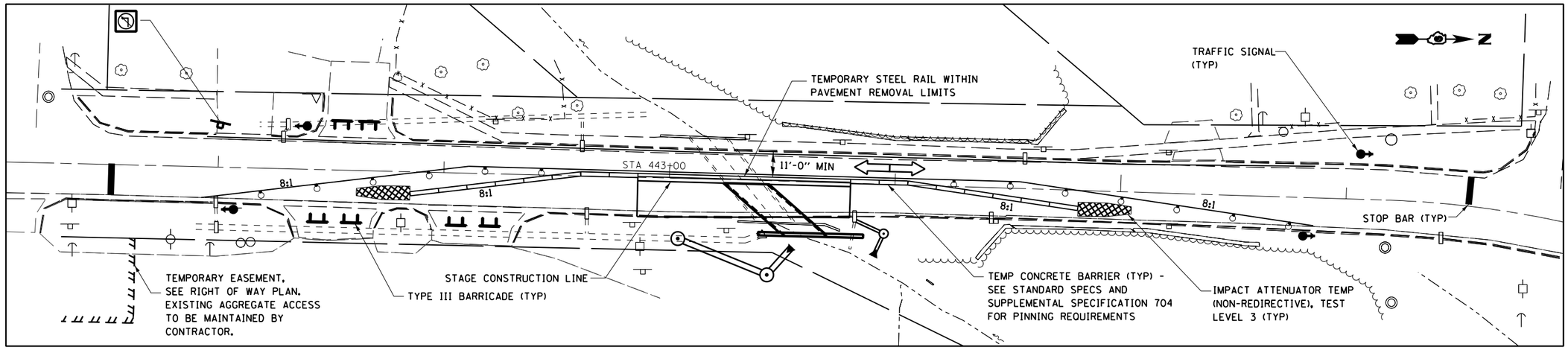
USER NAME = Lamportcp	DESIGNED - _____	REVISED - _____	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**
	DRAWN - _____	REVISED - _____	
PLOT SCALE = 8.0000 ' / in.	CHECKED - _____	REVISED - _____	
PLOT DATE = 2/21/2018	DATE - _____	REVISED - _____	

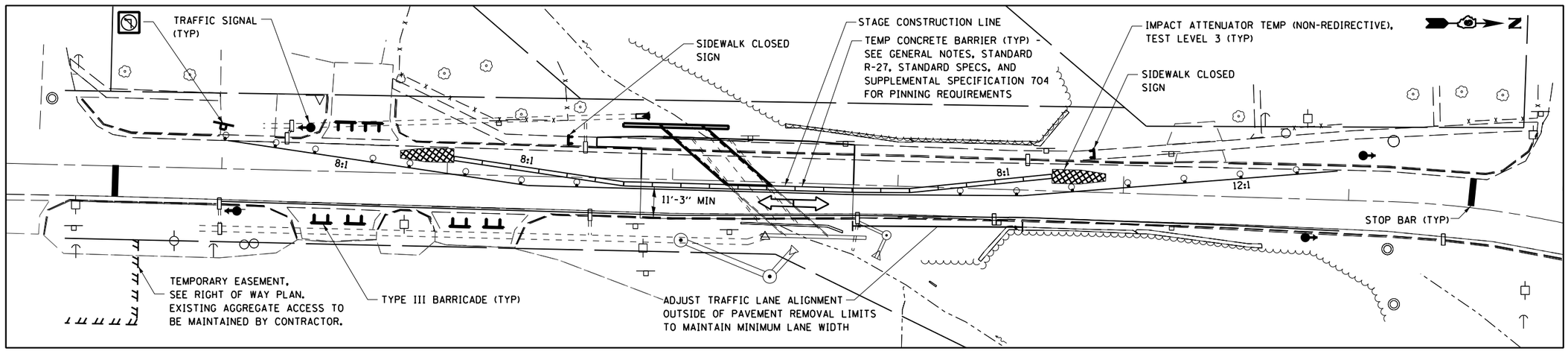
LIMITS OF POROUS GRANULAR EMBANKMENT
SN 097-7047 (E) SN 097-7095 (P)

SCALE: _____ | SHEET __ OF __ SHEETS | STA. _____ | TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	5B-3	WHITE	28	13
		CONTRACT NO. 78390		
	ILLINOIS	FED. AID PROJECT		



STAGE I



STAGE II

NOTES

1) SEE STANDARD 701321 AND WIDE LOAD DETOUR SIGNING SHEET FOR ADDITIONAL DETAILS. ALL TRAFFIC CONTROL SHOWN AND REFERENCED HEREIN SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL). NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

MODEL: Default
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USER NAME = Lamportcp	DESIGNED - _____	REVISED - _____	
	DRAWN - _____	REVISED - _____	
PLOT SCALE = 50.0000 ' / in.	CHECKED - _____	REVISED - _____	
PLOT DATE = 2/21/2018	DATE - _____	REVISED - _____	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING PLAN
SN 097-7047 (E) SN 097-7095 (P)

SCALE: _____ | SHEET 1 OF 2 SHEETS | STA. _____ | TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	5B-3	WHITE	28	14
		CONTRACT NO. 78390		
		ILLINOIS	FED. AID PROJECT	

SIGN LEGEND

1. RIGHT-HAND ADVANCE TURN ARROW, M1-5R
2. ONE LANE ROAD AHEAD, W20-4(O)-48
3. WORK ZONE SPEED LIMIT, W13-1(O)-2424
4. LANE WIDTH, W12-I102(O)-48
5. ROAD CONSTRUCTION AHEAD, W20-I103(O)-48
6. MAX WIDTH, W12-I103-4848

NOTES

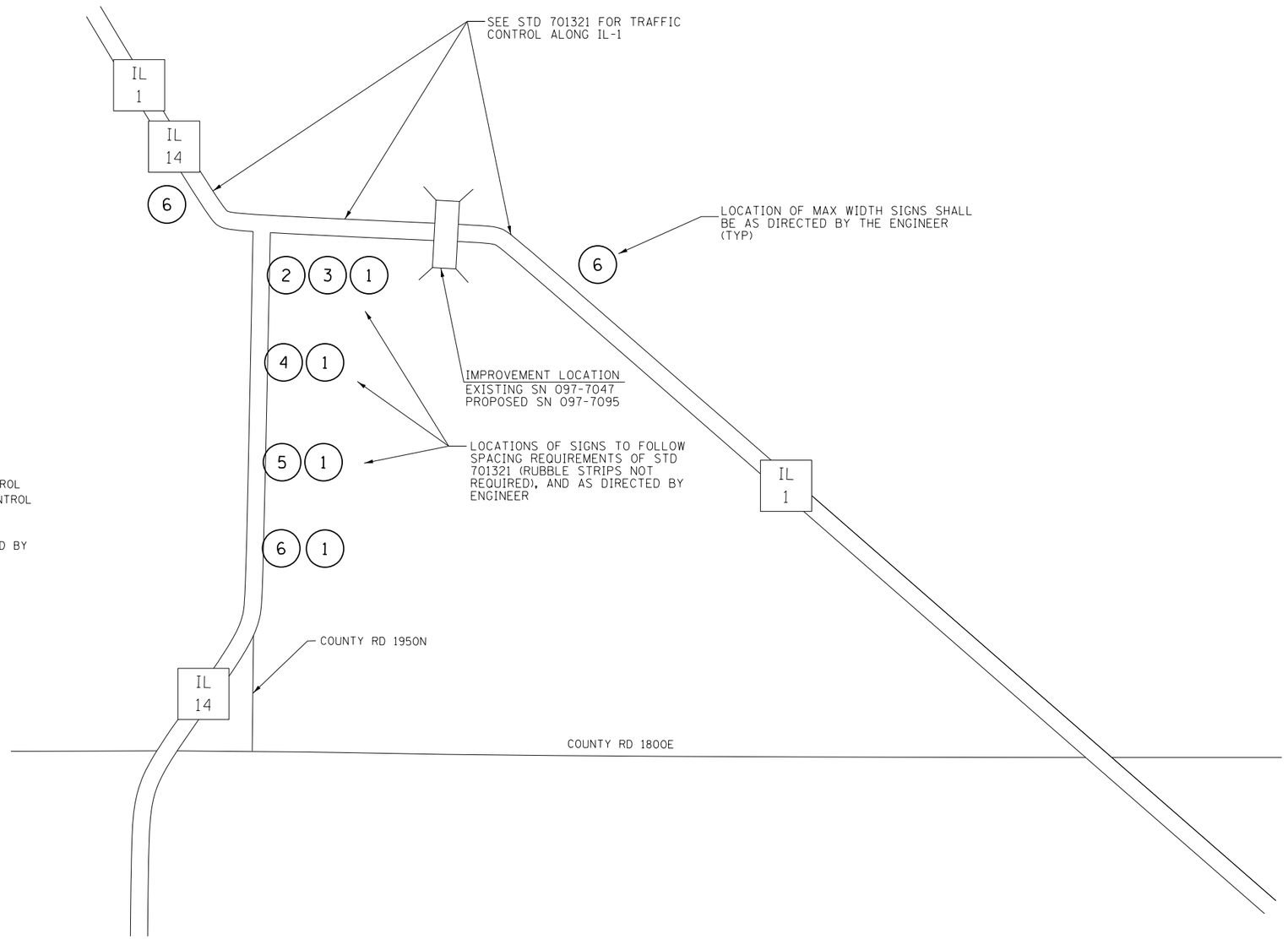
1) SEE STANDARD 701321 AND STAGING PLAN SHEET FOR ADDITIONAL DETAILS. ALL TRAFFIC CONTROL SHOWN AND REFERENCED HEREIN SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL). NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

2) CONTRACTOR SHALL FURNISH THE POSTS AND ERECT THE SIGNS AT THE LOCATIONS AS DIRECTED BY THE ENGINEER. ALL SIGNS SHALL BE POST MOUNTED.

3) THE WIDTH SHOWN ON W12-I103 AND W12-I102 SHALL BE 9'-6".

4) THE "X" MILES AHEAD DISTANCE ON W12-I103 SHALL BE AS DETERMINED BY THE ENGINEER.

4) SIGNAGE SHOWN HEREIN SHALL REMAIN FOR BOTH STAGE I AND STAGE II.



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	DRAWN -	REVISED -	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 2/21/2018	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

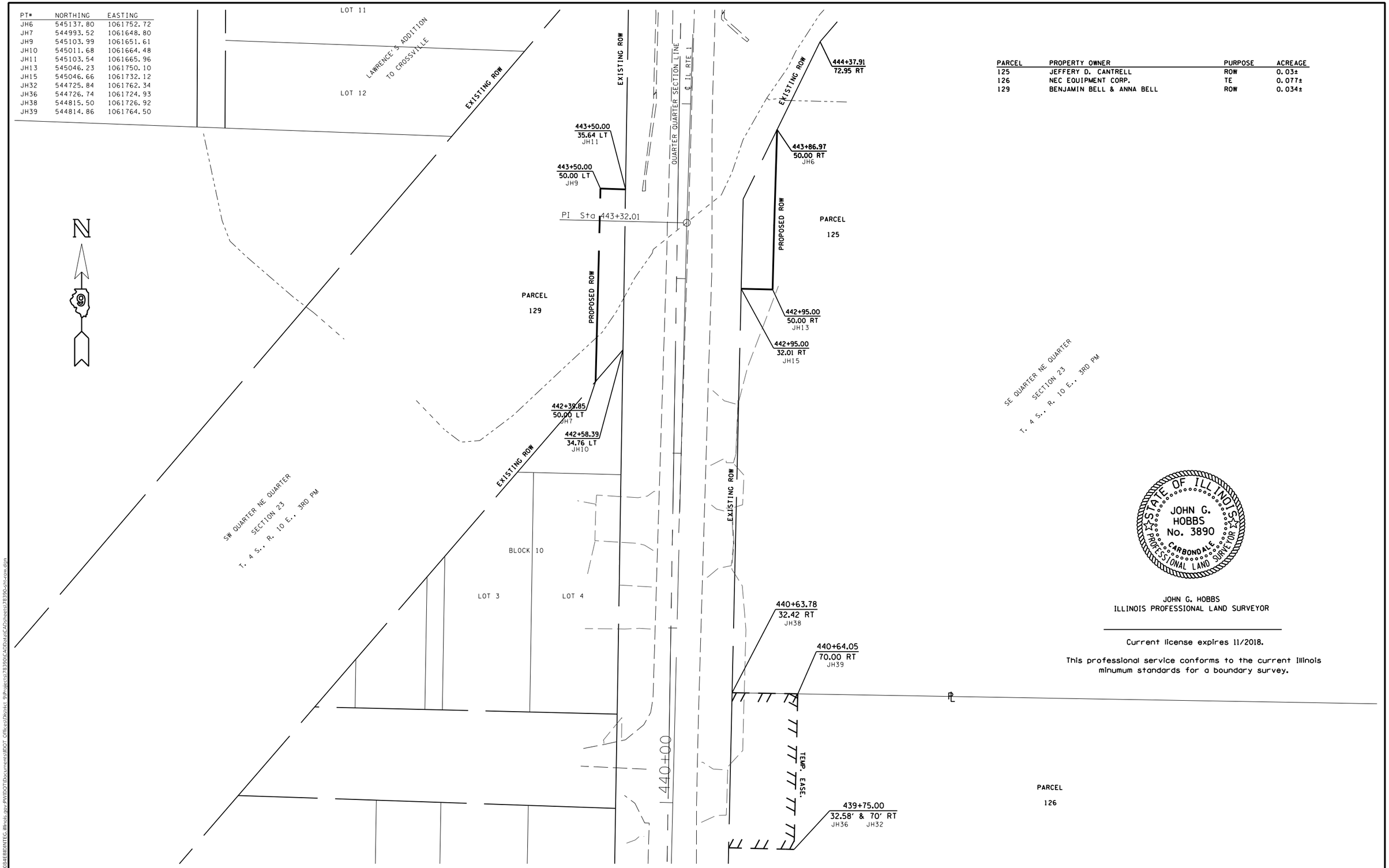
WIDE LOAD DETOUR SIGNING
SN 097-7047 (E) SN 097-7095 (P)

SCALE: _____ | SHEET 2 OF 2 SHEETS | STA. _____ | TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	5B-3	WHITE	28	15
		CONTRACT NO. 78390		
	ILLINOIS FED. AID PROJECT			

PT#	NORTHING	EASTING
JH6	545137.80	1061752.72
JH7	544993.52	1061648.80
JH9	545103.99	1061651.61
JH10	545011.68	1061664.48
JH11	545103.54	1061665.96
JH13	545046.23	1061750.10
JH15	545046.66	1061732.12
JH32	544725.84	1061762.34
JH36	544726.74	1061724.93
JH38	544815.50	1061726.92
JH39	544814.86	1061764.50

PARCEL	PROPERTY OWNER	PURPOSE	ACREAGE
125	JEFFERY D. CANTRELL	ROW	0.03±
126	NEC EQUIPMENT CORP.	TE	0.077±
129	BENJAMIN BELL & ANNA BELL	ROW	0.034±



STATE OF ILLINOIS
JOHN G. HOBBS
No. 3890
PROFESSIONAL LAND SURVEYOR
CARBONDALE

JOHN G. HOBBS
ILLINOIS PROFESSIONAL LAND SURVEYOR

Current license expires 11/2018.

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

MODEL: Default
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	DRAWN -	REVISED -	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 2/21/2018	DATE -	REVISED -	

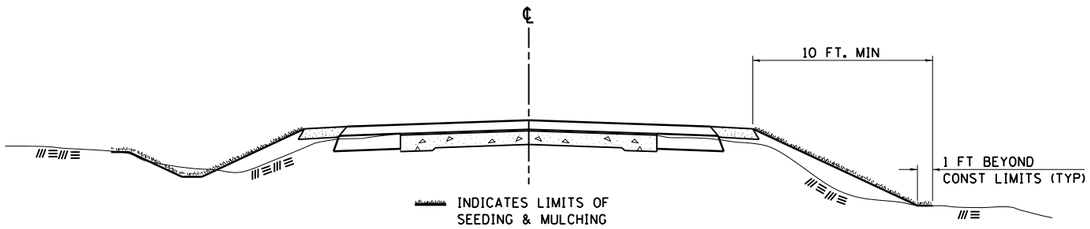
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLAN
IL RTE 1 SN097-7047

SCALE: 1" = 50' | SHEET 1 OF 28 SHEETS | STA. 439+75.00 | TO STA. 445+10.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	5B-3	WHITE	28	16
		CONTRACT NO. 78390		
R-99-006-14	ILLINOIS FED. AID PROJECT			

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 SEEDING SHALL BE CLASS 7.

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

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

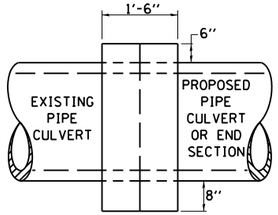
SECTIONS 250 AND 251 OF THE STANDARD SPECIFICATIONS SHALL GOVERN THIS WORK EXCEPT AS SPECIFIED HEREIN OR AS NOTED IN THE SPECIAL PROVISIONS.

REVISIONS	
REDRAWN	2-15-89
REVISED	8-15-94
REVISED	6-3-99
REVISED	3-27-08
REVISED	5-16-13

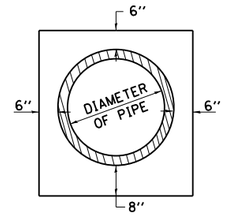
STD. 9-12

CONCRETE COLLAR

PIPE TO PIPE



SIDE VIEW



END VIEW

TABULATION

DIAMETER OF PIPE	CL SI CONC CU YDS EST
12"	0.24
15"	0.29
18"	0.32
24"	0.44
30"	0.56
36"	0.66
42"	0.80
48"	0.93
54"	1.07
60"	1.22
72"	1.55

THE CONCRETE COLLAR SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR **CONCRETE COLLAR,** AS SHOWN ON THE PLANS, WHICH PRICE SHALL INCLUDE THE REMOVAL OF SUCH PORTIONS THE EXISTING HEADWALLS AS MAY BE REQUIRED.

CLASS SI CONCRETE SHALL BE USED THROUGHOUT.

REVISIONS	
DRAWN	7-13-90
REVISED	8-22-94
REVISED	3-26-08
REVISED	5-17-13

STD. 9-79

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	DRAWN -	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 2/21/2018	DATE -	REVISED -	

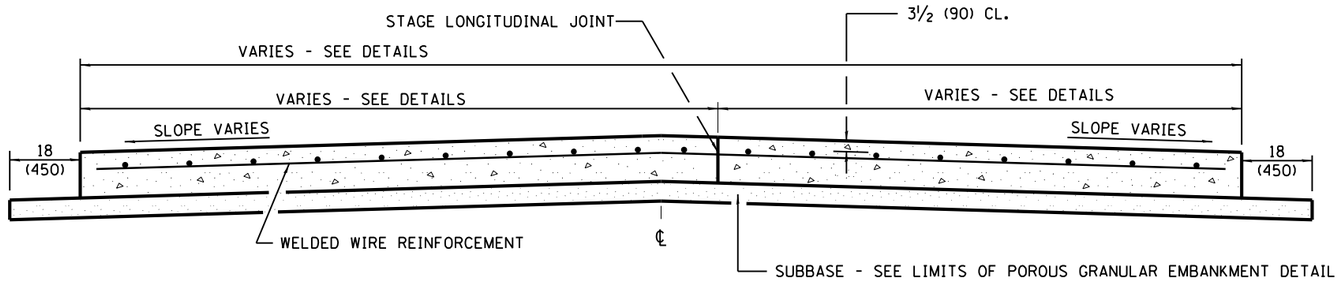
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT STANDARDS
SN 097-7047 (E) SN 097-7095 (P)

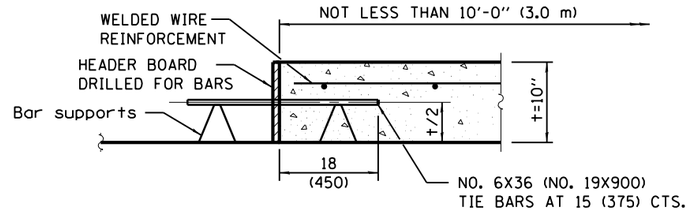
SCALE: _____ | SHEET 1 OF 2 SHEETS | STA. _____ | TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	5B-3	WHITE	28	17
		CONTRACT NO. 78390		
	ILLINOIS	FED. AID PROJECT		

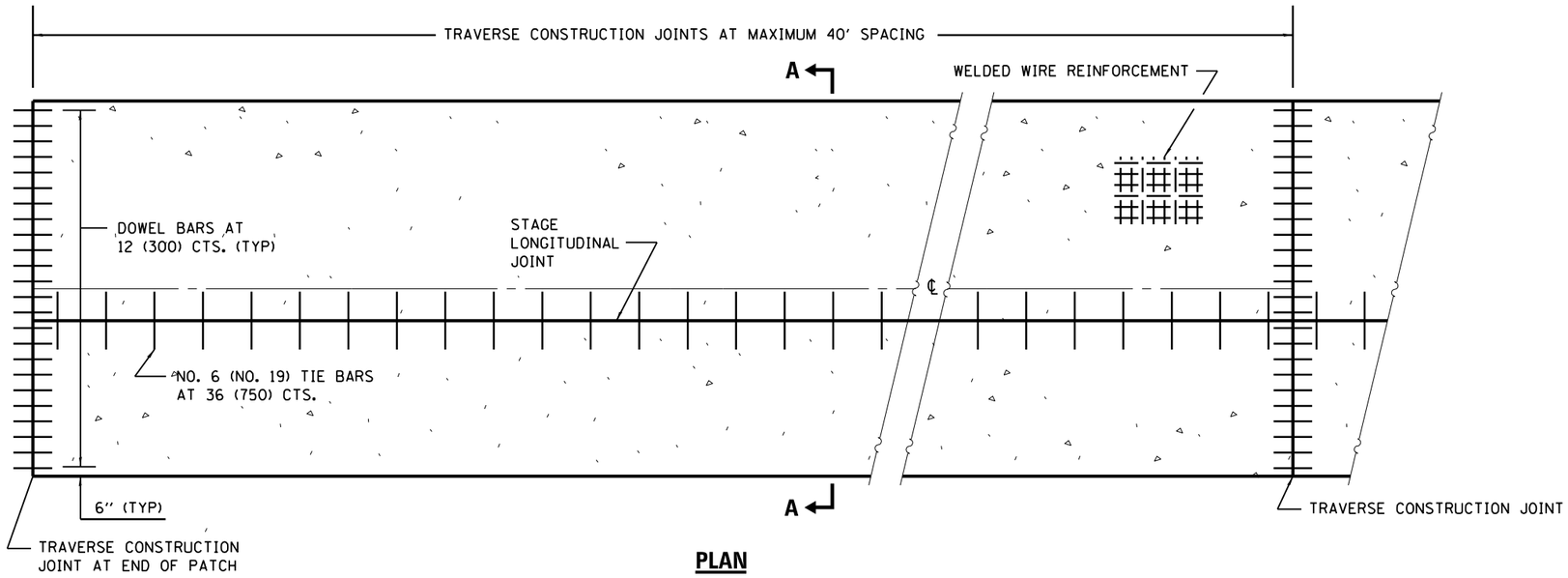
PCC PAVEMENT
OVER BOX CULVERT



SECTION A–A



TRANSVERSE CONSTRUCTION JOINT



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.

REVISIONS

DRAWN	11-9-17

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	DRAWN - _____	REVISED - _____
PLOT SCALE = 100.0000 ' / in.	CHECKED - _____	REVISED - _____
PLOT DATE = 2/21/2018	DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT STANDARDS
SN 097-7047 (E) SN 097-7095 (P)

SCALE: _____ | SHEET 2 OF 2 SHEETS | STA. _____ | TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	5B-3	WHITE	28	18
		CONTRACT NO. 78390		
		ILLINOIS	FED. AID PROJECT	

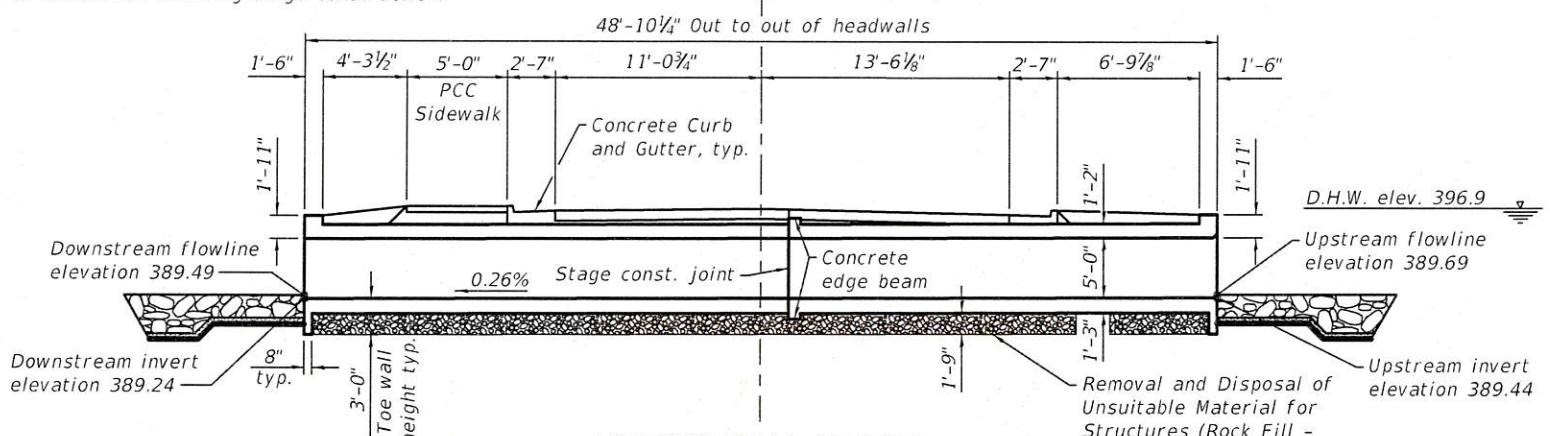
BENCHMARK: Chiseled square in east headwall in the southeast corner of existing SN 097-7047. Elev. 397.51

EXISTING STRUCTURE:
SN 097-7047 was originally built in 1924 as S.B. Rte. 1, Section 5. The structure consists of a single barrel cast-in-place culvert that is 4'-6" tall and 12'-0" wide. The existing structure is skewed 40° right-forward. Traffic shall be maintained utilizing stage construction.

No salvage.

STRUCTURE INDEX OF SHEETS

General Plan	Sheet No. 1 of 10
General Data	Sheet No. 2 of 10
Stage Construction Details	Sheet No. 3 of 10
Temporary Concrete Barrier for Stage Construction	Sheet No. 4 of 10
Steel Railing (Temporary)	Sheet No. 5 of 10
Box Culvert Details	Sheet No. 6-8 of 10
Bar Splicer Assembly and Mechanical Splicer Details	Sheet No. 9 of 10
Boring Logs	Sheet No. 10 of 10



LONGITUDINAL SECTION

(Dimensions at right angle to ℄ F.A.P. 332 at ℄ culvert)
(Looking North)

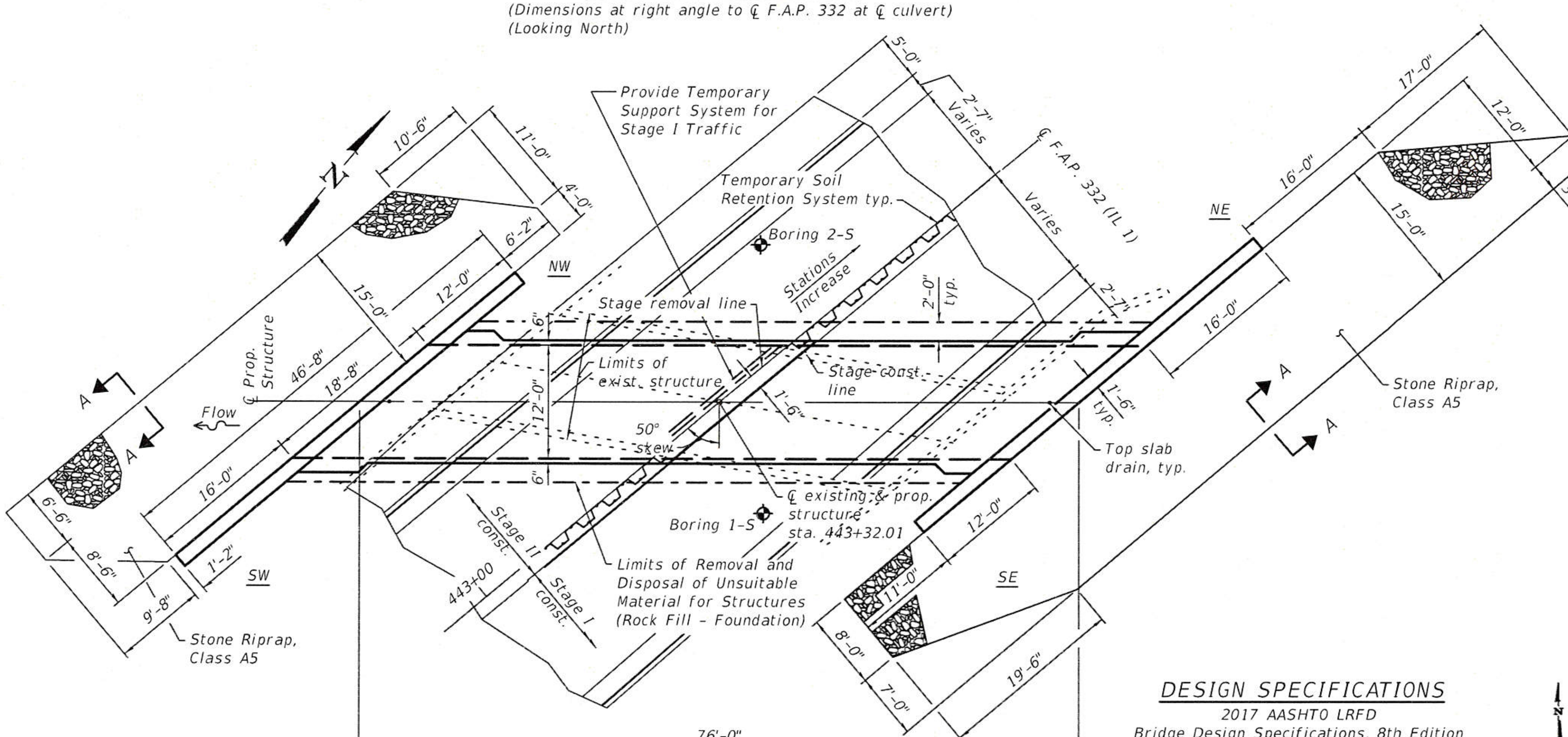
GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
3. Precast option is not allowed.
4. Modify existing channel to match culvert at each end as directed by the Engineer, cost included in the pay item for Stone Riprap, Class A5.
5. A temporary support system is required to support the existing culvert for partial removal to allow stage construction. The Contractor shall submit a temporary support system design including plan details and calculations for review and acceptance by the Engineer.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Stone Riprap, Class A5	Sq. Yd.	250
Filter Fabric	Sq. Yd.	250
Removal of Existing Structures	Each	1
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	82
Reinforcement Bars, Epoxy Coated	Pound	38640
Bar Splicers	Each	110
Concrete Box Culverts	Cu. Yd.	141.2
Porous Granular Embankment	Cu. Yd.	250
Rock Fill - Foundation	Ton	148
Temporary Soil Retention System	Sq. Ft.	219
Membrane Waterproofing System for Buried Structures	Sq. Yd.	143
Temporary Support System	L. Sum	1
Steel Railing (Temporary)	Foot	94

See Roadway Plans for quantities of Temporary Concrete Barrier, Earth Excavation, and Pavement Removal

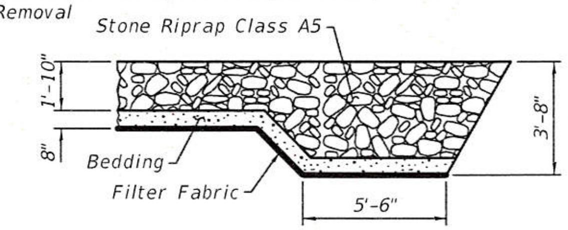


PLAN

EXPIRES 11/30/2018

SIGNATURE

05/03/2018
DATE



SECTION A-A

HYDRAULIC DATA

Drainage Area = 0.55 Sq Mi
Design Waterway Opening = 60 Sq Ft
Design Discharge = 535 Cfs
Design Headwater Elevation = 396.9 Ft
100 Year Discharge = 637 Cfs
100 Year Headwater Elevation = 397.0 Ft

DESIGN SPECIFICATIONS

2017 AASHTO LRFD
Bridge Design Specifications, 8th Edition

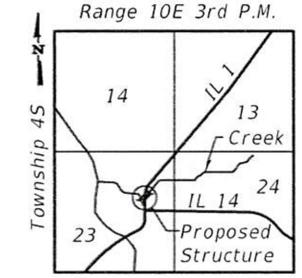
LOADING HL-93

Allow 50 psf for future wearing surface

DESIGN STRESSES
FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (reinforcement)

Range 10E 3rd P.M.



LOCATION SKETCH

GENERAL PLAN
IL 1 OVER UNNAMED CREEK
FAP ROUTE 332 - SECTION 5B-3
WHITE COUNTY
STATION 443+32.01
STRUCTURE NO. 097-7095

ESCA CONSULTANTS, INC.

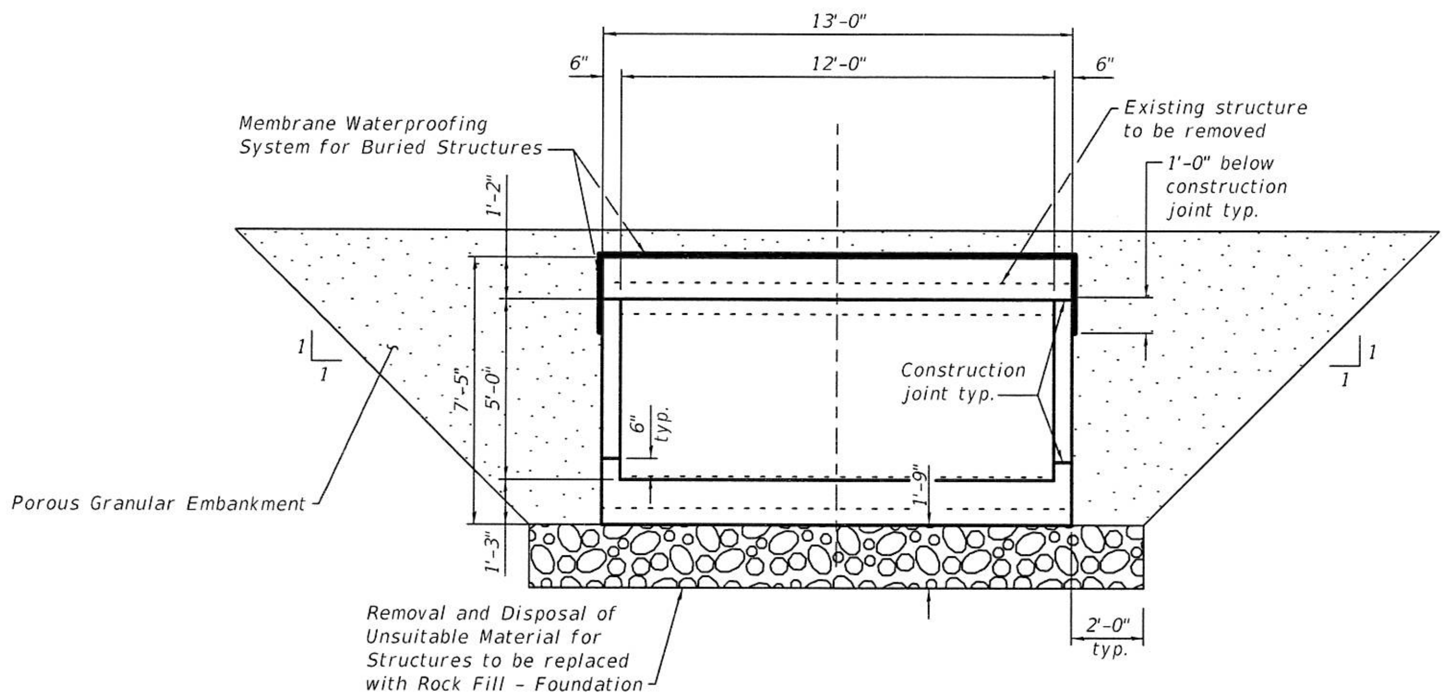
USER NAME = kja	DESIGNED - KJA	12/17	REVISED -	
ESCA PROJECT NO. 1295.01	CHECKED - RTM/ELH	12/17	REVISED -	
PLOT SCALE = 0.2 ' / in.	DRAWN - KAH/KJA	12/17	REVISED -	
PLOT DATE = 5/3/2018	CHECKED - ELH	05/18	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 097-7095

SHEET NO. 1 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	5B-3	WHITE	28	19
		CONTRACT NO. 78390		
		ILLINOIS FED. AID PROJECT		



SECTION THROUGH BARREL

(Dimensions at rt. angle to barrel)

NOTES

1. The limits and quantities of removal and replacement shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.

2. Excavation for construction of the box culvert, including the excavation necessary to construct the Porous Granular Embankment, is included in Earth Excavation, see roadway plans.

ESCA CONSULTANTS, INC.

USER NAME = kja	DESIGNED - KJA	12/17	REVISED -	
ESCA PROJECT NO. 1295.01	CHECKED - RTM/ELH	12/17	REVISED -	
PLOT SCALE = 0.1667 ' / in.	DRAWN - KAH/KJA	12/17	REVISED -	
PLOT DATE = 5/3/2018	CHECKED - ELH	05/18	REVISED -	

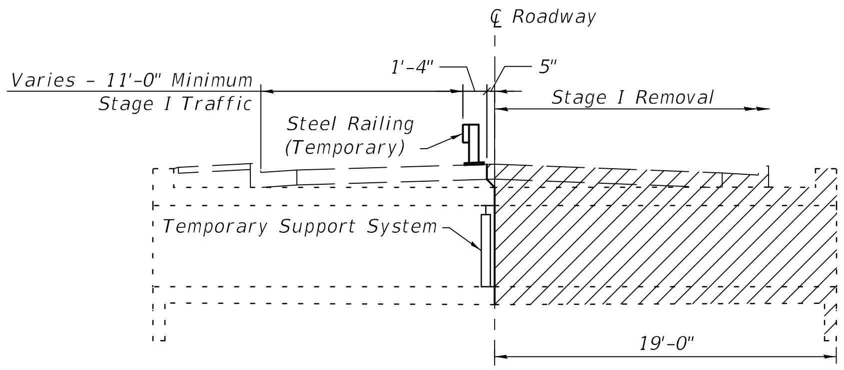
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 097-7095

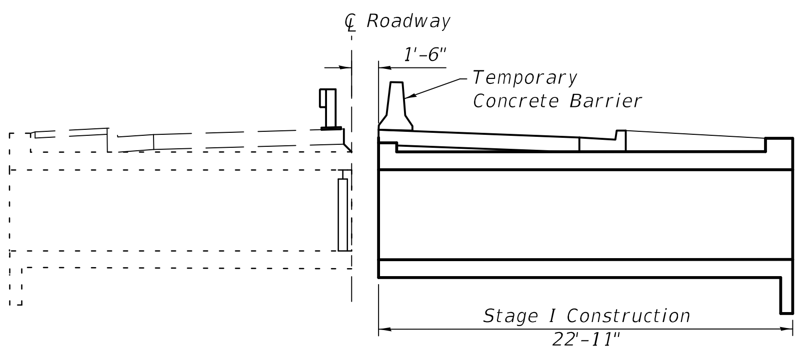
SHEET NO. 2 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	5B-3	WHITE	28	20
		CONTRACT NO. 78390		

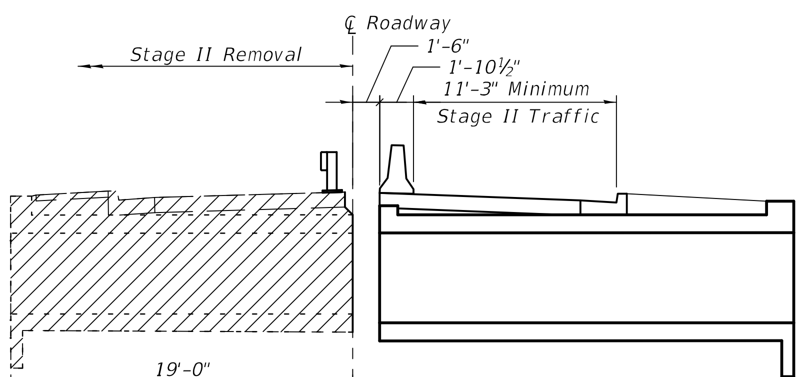
ILLINOIS FED. AID PROJECT



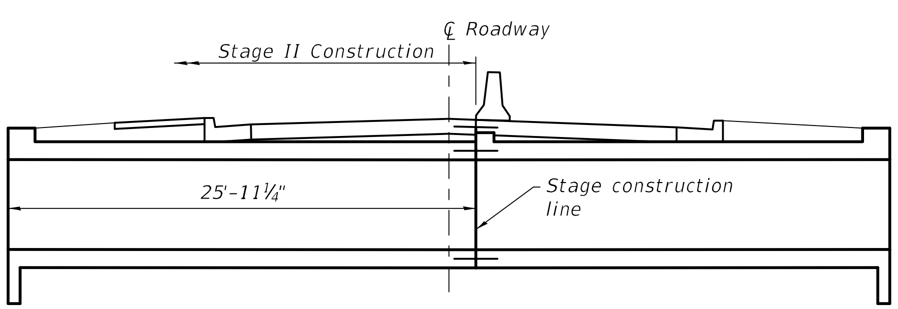
STAGE I REMOVAL



STAGE I CONSTRUCTION



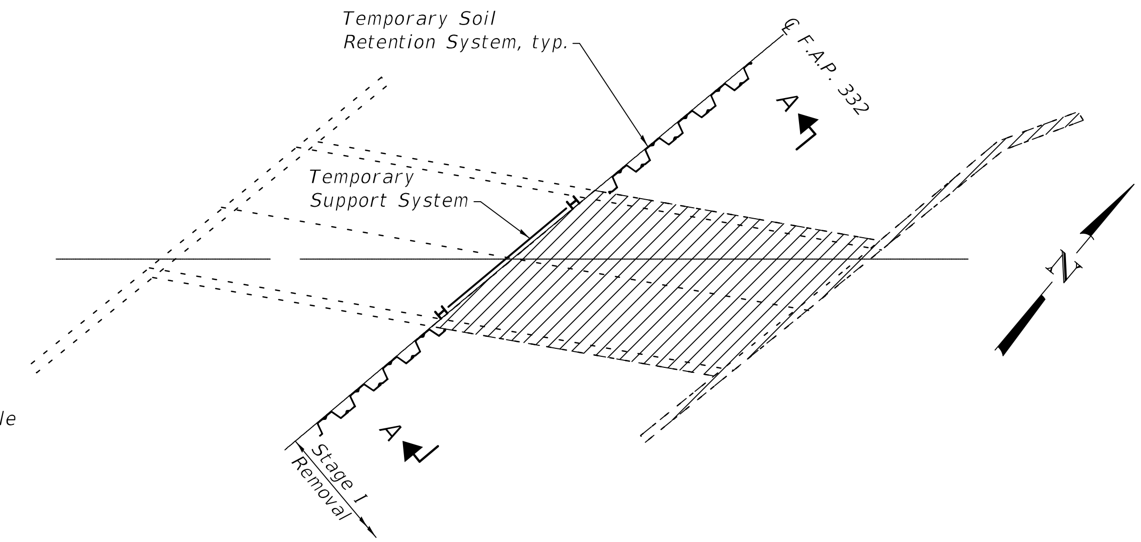
STAGE II REMOVAL



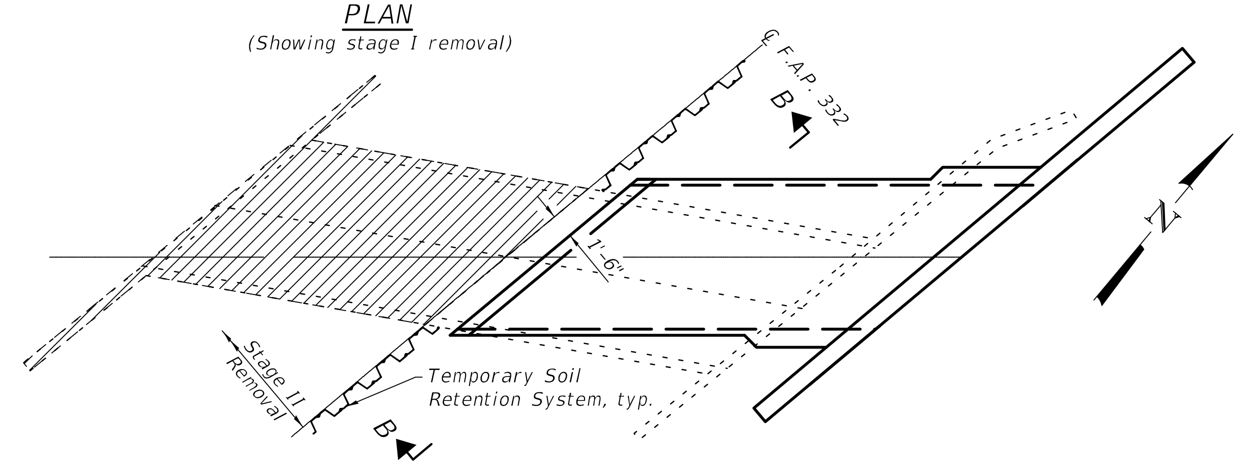
STAGE II CONSTRUCTION

STAGE CONSTRUCTION NOTES

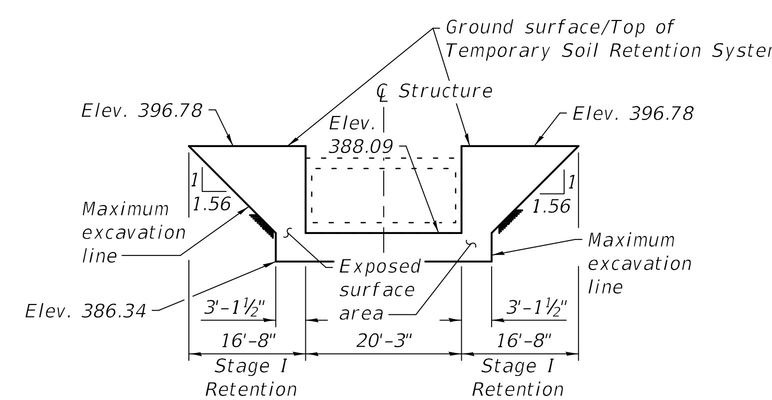
1. All staging sections looking north.
2. Hatched areas indicate removal.
3. See roadway plans for quantities of Temporary Concrete Barrier.
4. Dimensions are at right angle to centerline roadway unless noted otherwise.
5. The anchorage for each post of the temporary railing shall consist of 4 - 1¼" dia. holes for 1" dia. threaded rods with hex nut and flat washer. Drill and set rods according to Article 509.06 of the Standard Specifications with 12" of embedment into the existing pavement.



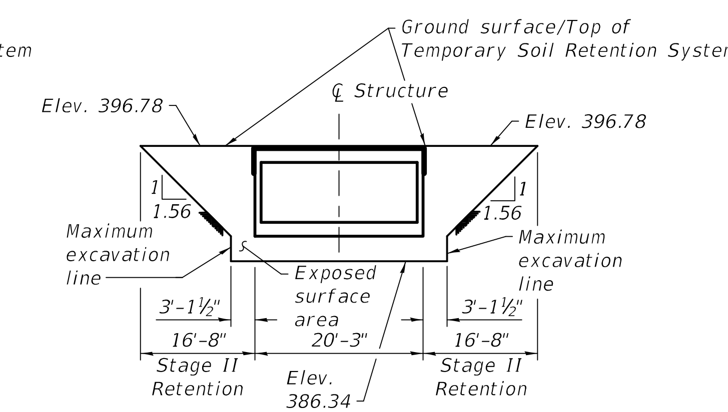
PLAN
(Showing stage I removal)



PLAN
(Showing stage II removal)



VIEW A-A
(Showing Temporary Soil Retention System for Stage I Construction)



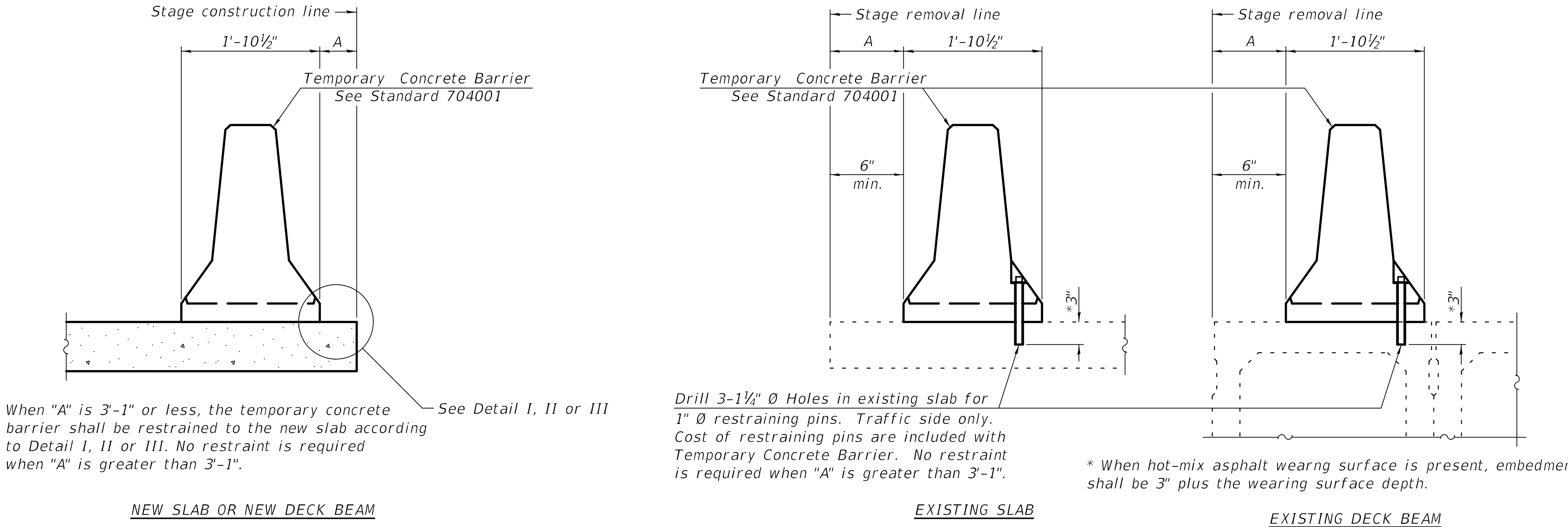
VIEW B-B
(Showing Temporary Soil Retention System for Stage II Construction)

TEMPORARY SOIL RETENTION SYSTEM NOTES

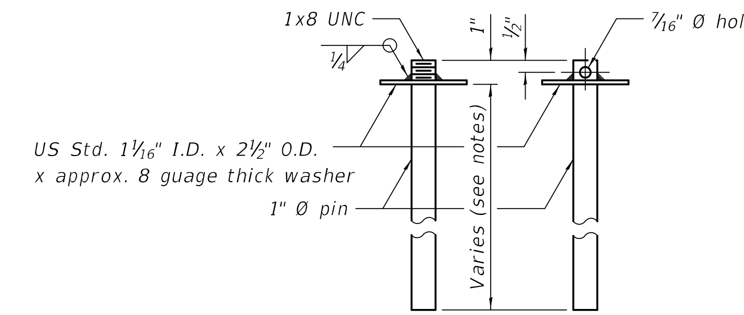
1. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
2. Existing structure details are taken from existing plans.
3. Dimensions and slopes are shown along the Temporary Soil Retention System unless noted otherwise.

ESCA CONSULTANTS, INC.	USER NAME = kja	DESIGNED - KJA 12/17	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE CONSTRUCTION DETAILS STRUCTURE NO. 097-7095
	ESCA PROJECT NO. 1295.01	CHECKED - RTM/ELH 12/17	REVISED -		
	PLOT SCALE = 0.1667 ' / in.	DRAWN - KAH/KJA 12/17	REVISED -		
	PLOT DATE = 1/17/2018	CHECKED - ELH 01/18	REVISED -		SHEET NO. 3 OF 10 SHEETS

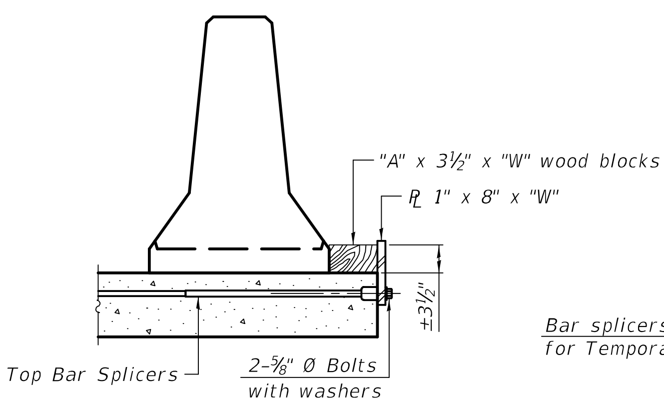
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	5B-3	WHITE	28	21
		CONTRACT NO. 78390		
		ILLINOIS FED. AID PROJECT		



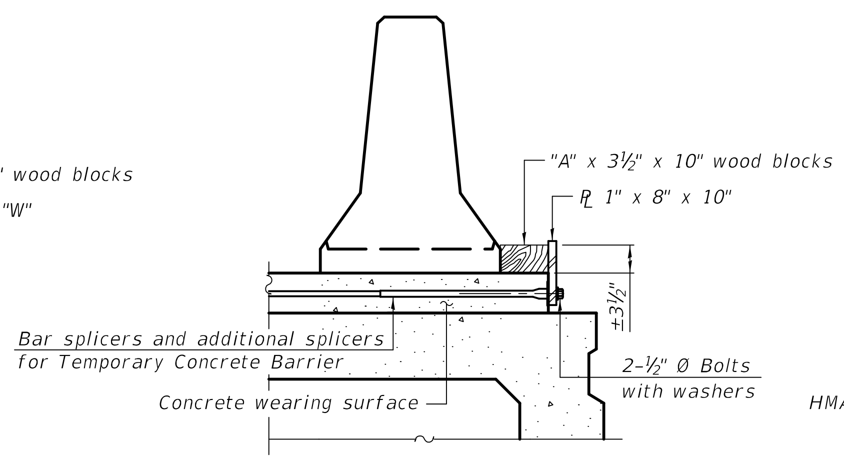
SECTIONS THRU SLAB OR DECK BEAM



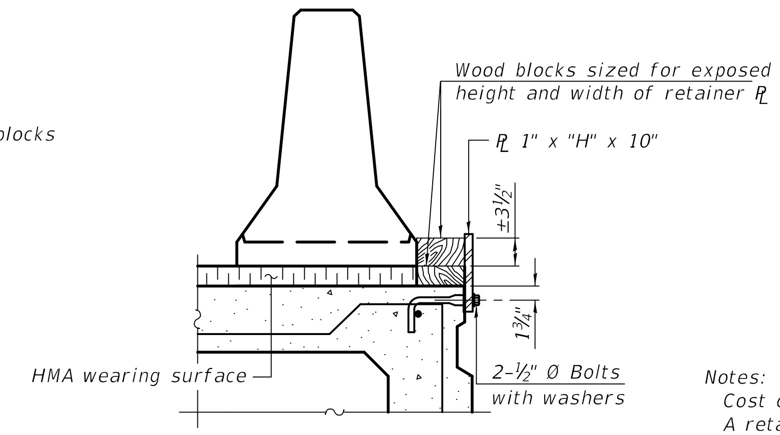
RESTRAINING PIN



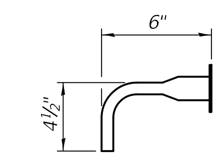
DETAIL I



DETAIL II



DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.

A retainer assembly shall be located at the approximate ℄ of each temporary concrete barrier.

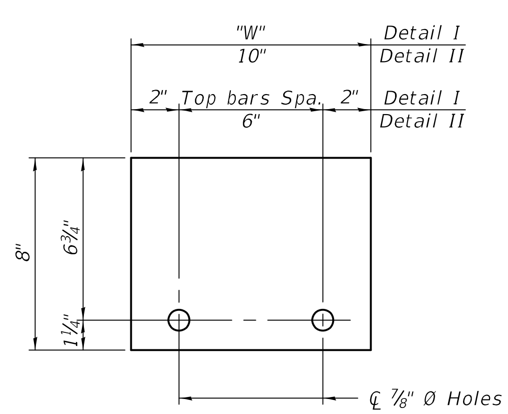
The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than 1½", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

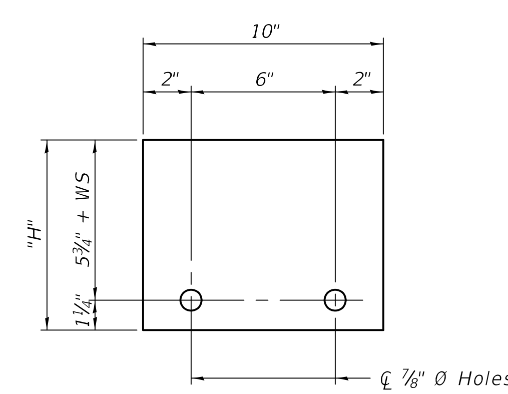
Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.



STEEL RETAINER PL 1" x 8" x "W"

(Detail I and II)



STEEL RETAINER PL 1" x "H" x 10"

(Detail III)

R-27

8-11-2017

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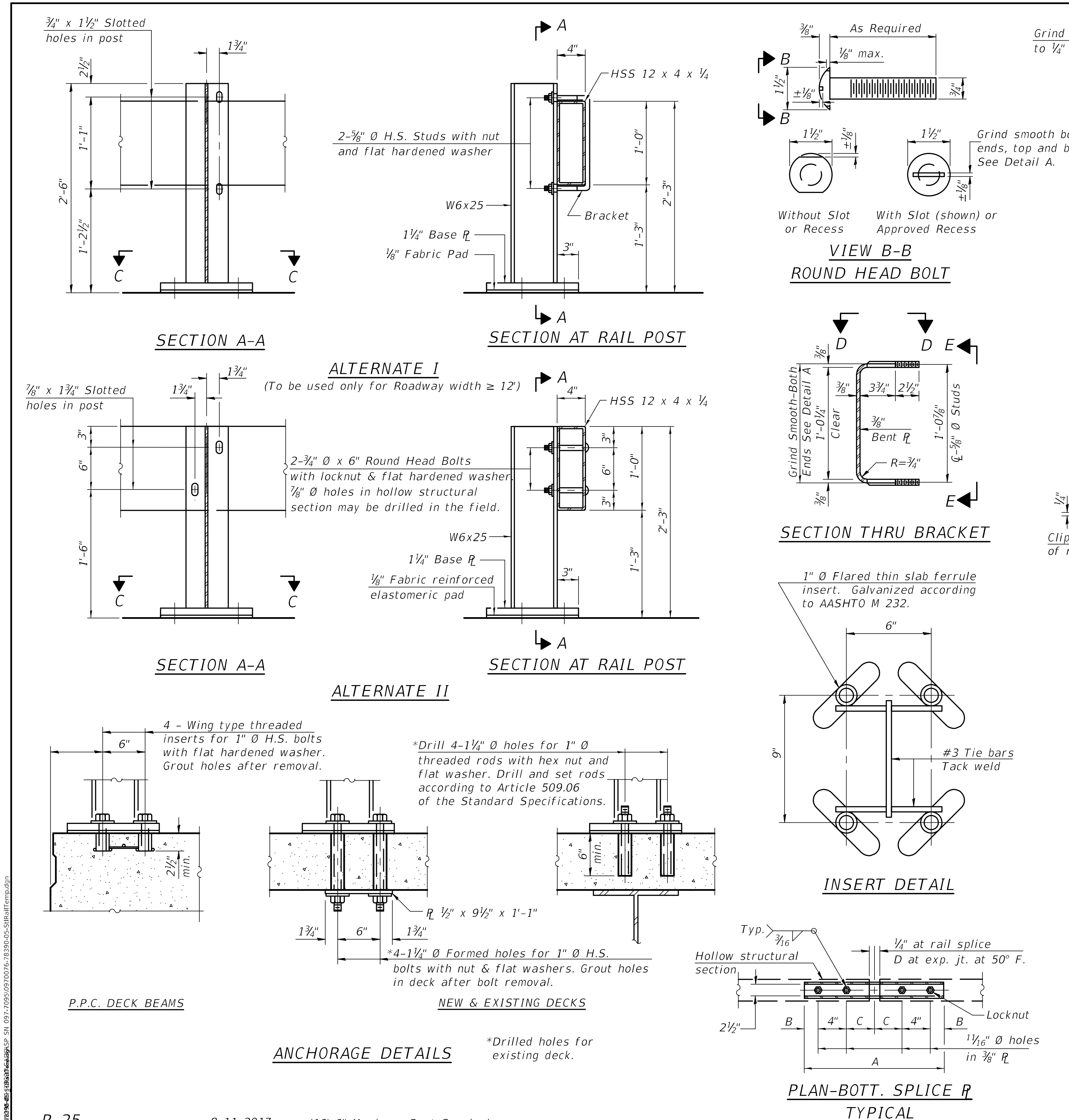
	ESCA PROJECT NO. 1295.01	CHECKED - RTM	12/17	REVISED -	
	PLOT SCALE = 0.1667 ' / in.	DRAWN - KAH	12/17	REVISED -	
	PLOT DATE = 1/17/2018	CHECKED - ELH	01/18	REVISED -	

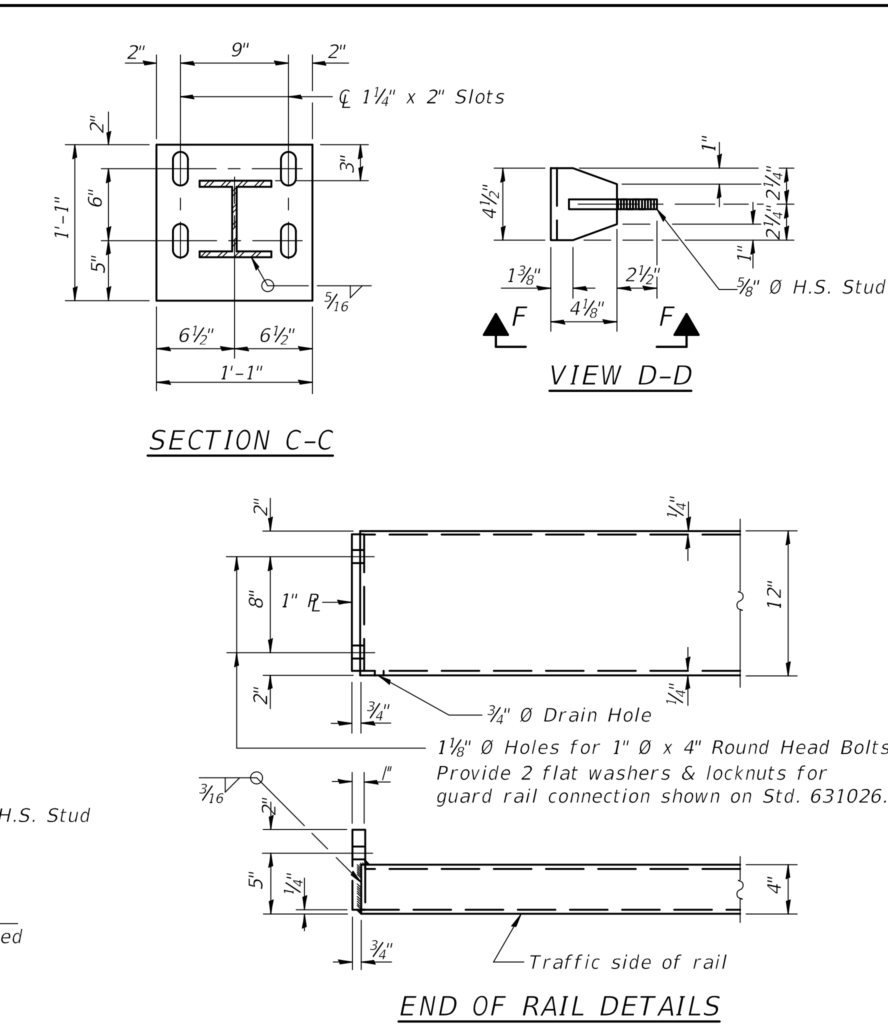
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

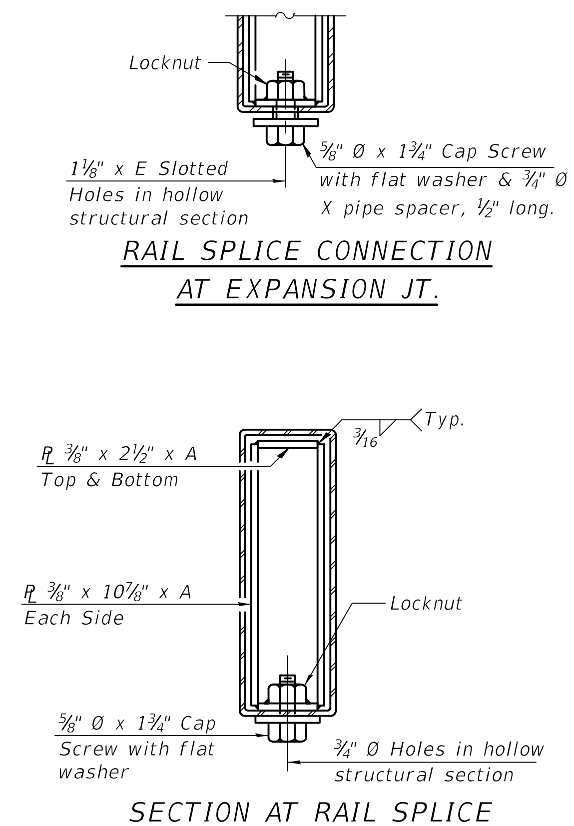
TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 097-7095

SHEET NO. 4 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	5B-3	WHITE	28	22
		CONTRACT NO. 78390		
		ILLINOIS FED. AID PROJECT		







SPLICE DIMENSIONS

T	D	A	B	C	E
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6 1/2" ≤ 9"	5"	2'-4"	3 1/2"	6 1/2"	9"
> 9" ≤ 13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1/4"	1'-8"	2"	4"	——

T = Total movement at expansion joint as shown on the design plans.

Notes:

The contact surfaces between post flange, rail and inside face of bracket for Alternate I shall be free of all lubricants.

The nut for 5/8" Ø high strength studs used in Alternate I to connect bracket to post shall be tightened to a snug fit and given an additional one half turn.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing (Temporary)	Foot	94

R-25 8-11-2017 (10'-9" Maximum Post Spacing)

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	ESCA PROJECT NO. 1295.01	CHECKED - RTM 12/17	REVISED -
	PLOT SCALE = 0.1667 ' / in.	DRAWN - KAH 12/17	REVISED -
	PLOT DATE = 1/17/2018	CHECKED - ELH 12/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL RAILING (TEMPORARY)
STRUCTURE NO. 097-7095

SHEET NO. 5 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	5B-3	WHITE	28	23
		CONTRACT NO. 78390		
		ILLINOIS FED. AID PROJECT		

MINIMUM BAR LAP

#4 bars = 2'-11"
#5 bars = 3'-2"
#7 bars, top slab = 5'-6"
#7 bars, bot. slab = 6'-3"
#9 bars = 6'-3"

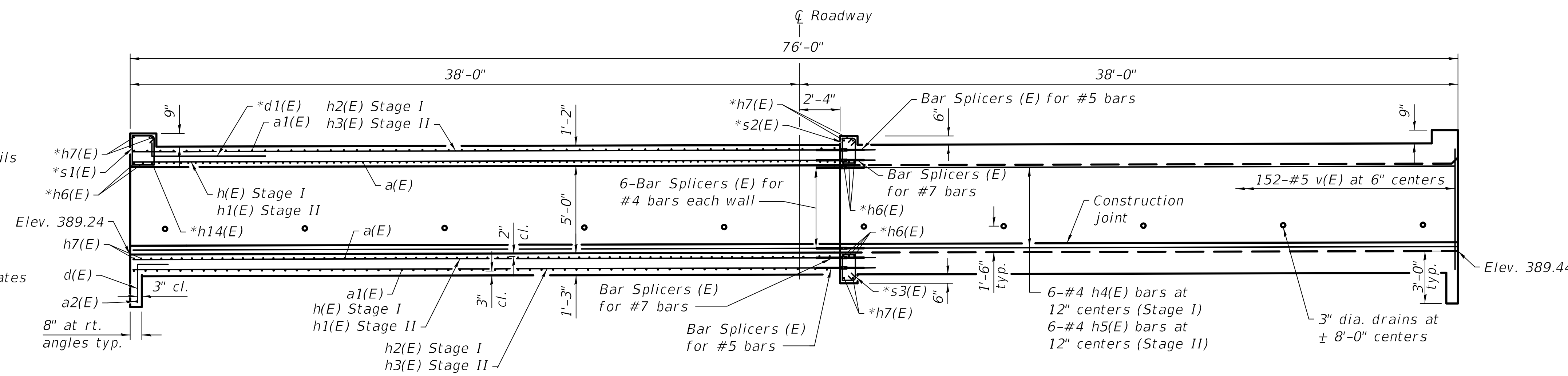
NOTES

See sheet 7 of 10 for wingwall details.

See sheet 8 of 10 for additional details & Bill of Material.

A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the horizontal cantilever wingwalls.

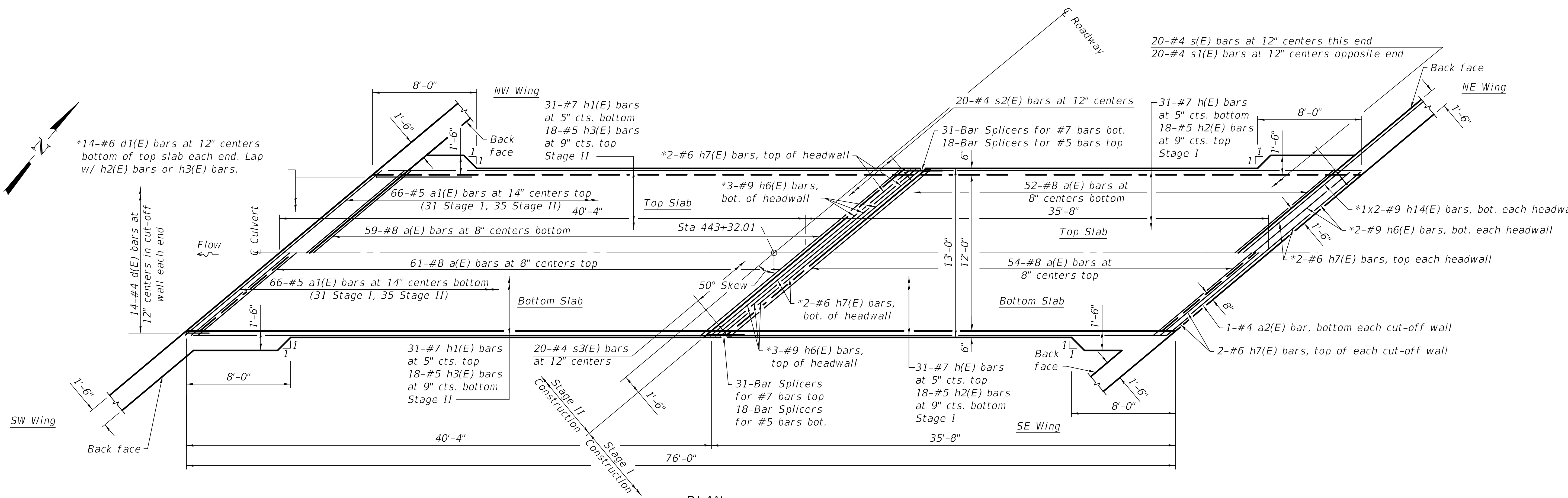
Bars indicated thus 1x2-#9 etc. indicates 1 line of bars with 2 lengths per line.



LONGITUDINAL SECTION

HALF ELEVATION
(Showing bars in outside walls)

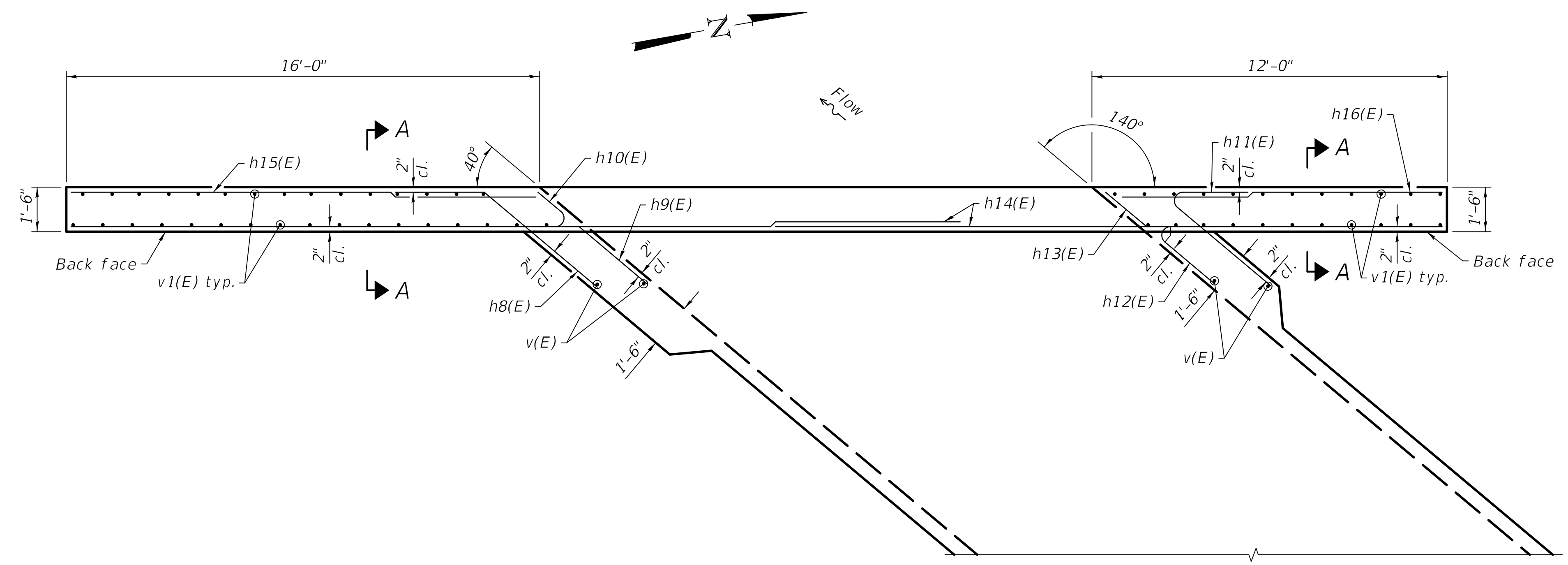
*See Headwall Details on sht. 8 of 10



PLAN

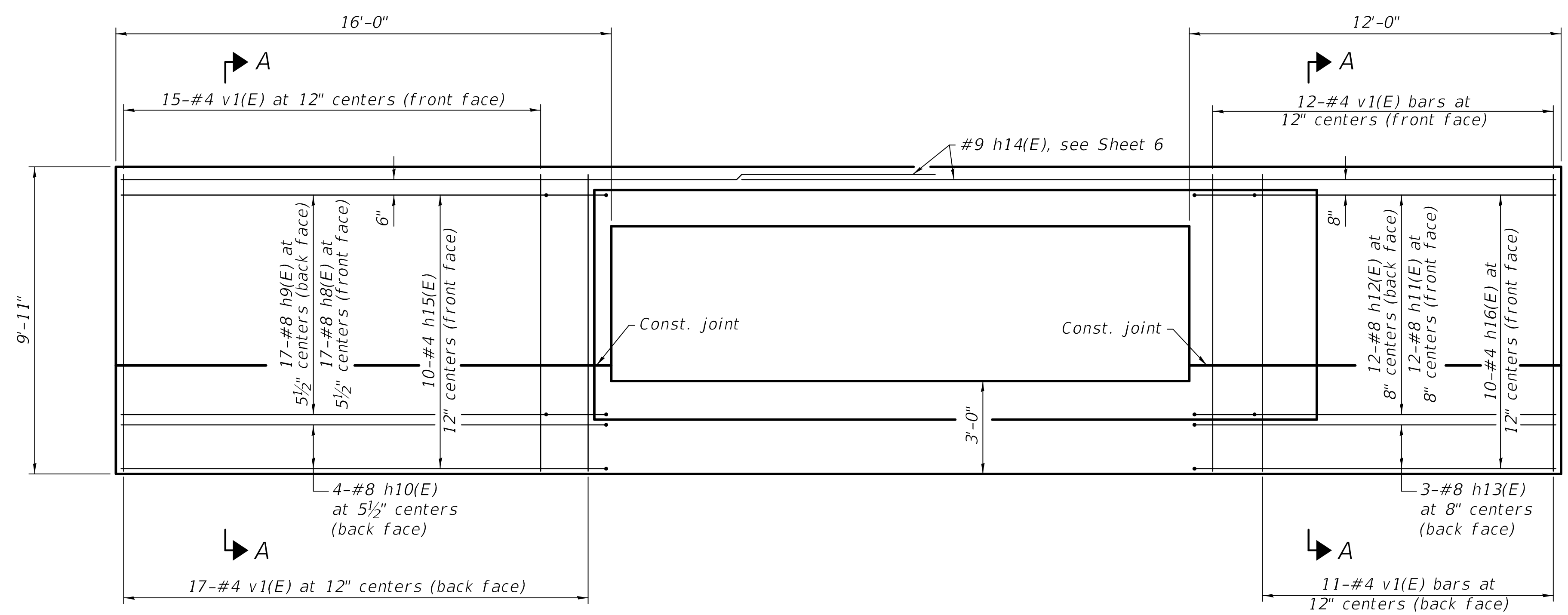
(Sheet 1 of 3)

ESCA CONSULTANTS, INC.	USER NAME = kja	DESIGNED - KJA 12/17	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BOX CULVERT DETAILS STRUCTURE NO. 097-7095	F.A.P. RTE. 332	SECTION 5B-3
	ESCA PROJECT NO. 1295.01	CHECKED - RTM/ELH 12/17	REVISED -			COUNTY WHITE	TOTAL SHEETS 28
	PLOT SCALE = 0:2 ':" / in.	DRAWN - KAH/KJA 12/17	REVISED -			SHEET NO. 24	CONTRACT NO. 78390
	PLOT DATE = 1/17/2018	CHECKED - ELH 01/18	REVISED -		SHEET NO. 6 OF 10 SHEETS	ILLINOIS	FED. AID PROJECT



WEST WINGWALLS PLAN

(East wingwalls similar)



SOUTHWEST WALL

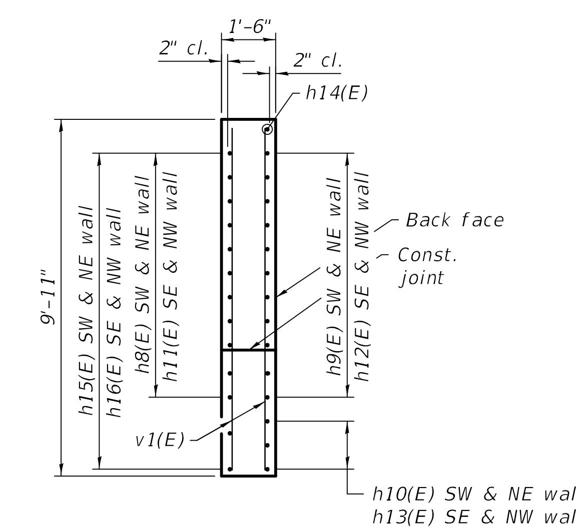
(Northeast wall similar)

NORTHWEST WALL

(Southeast wall similar)

WEST WINGWALLS ELEVATION

(Looking west; east wingwalls similar)



SECTION A-A

(Sheet 2 of 3)

ESCA CONSULTANTS, INC.	USER NAME = kja	DESIGNED - KJA 12/17	REVISED -
	ESCA PROJECT NO. 1295.01	CHECKED - RTM/ELH 12/17	REVISED -
	PLOT SCALE = 0:2 ':" / in.	DRAWN - KAH,KJA 12/17	REVISED -
	PLOT DATE = 1/17/2018	CHECKED - ELH 01/18	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

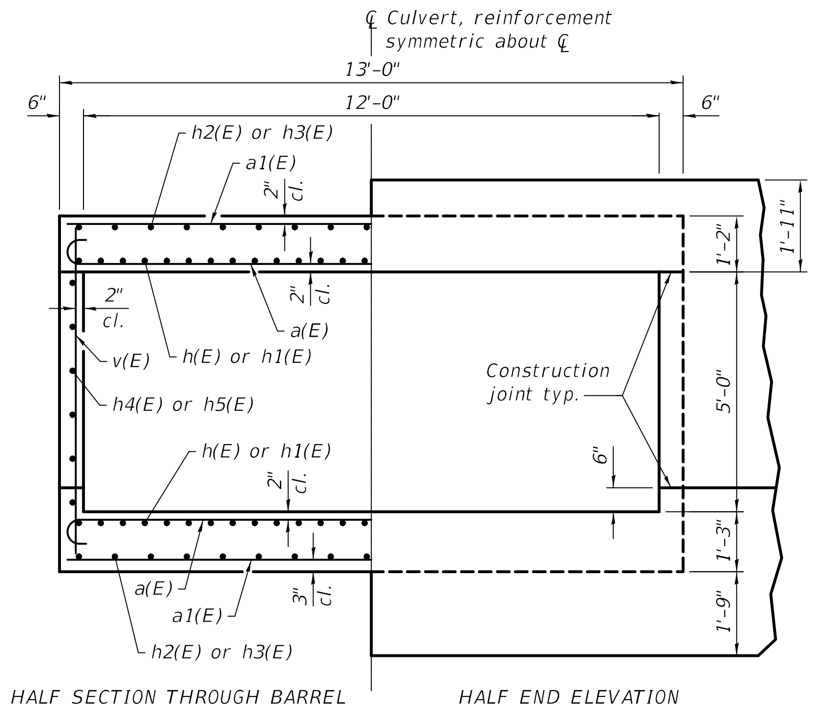
BOX CULVERT DETAILS
STRUCTURE NO. 097-7095

SHEET NO. 7 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	5B-3	WHITE	28	25

CONTRACT NO. 78390

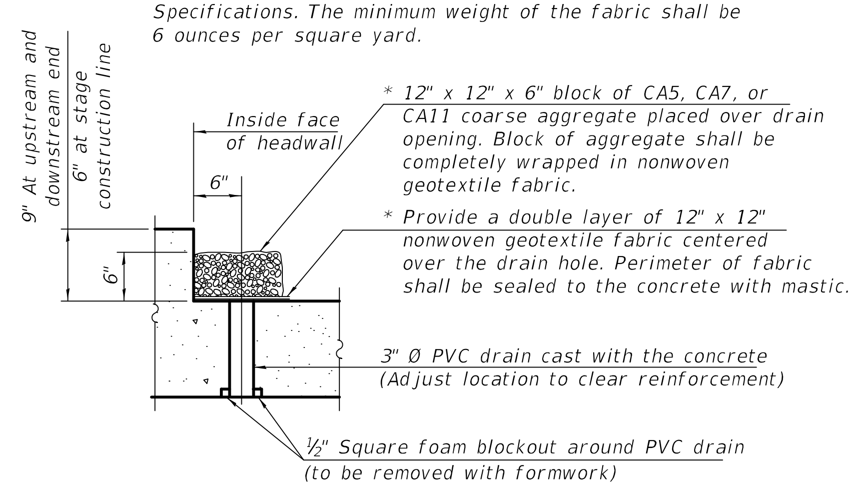
ILLINOIS FED. AID PROJECT



SECTION THROUGH BARREL

(Dimensions at right angle to barrel)

* Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.

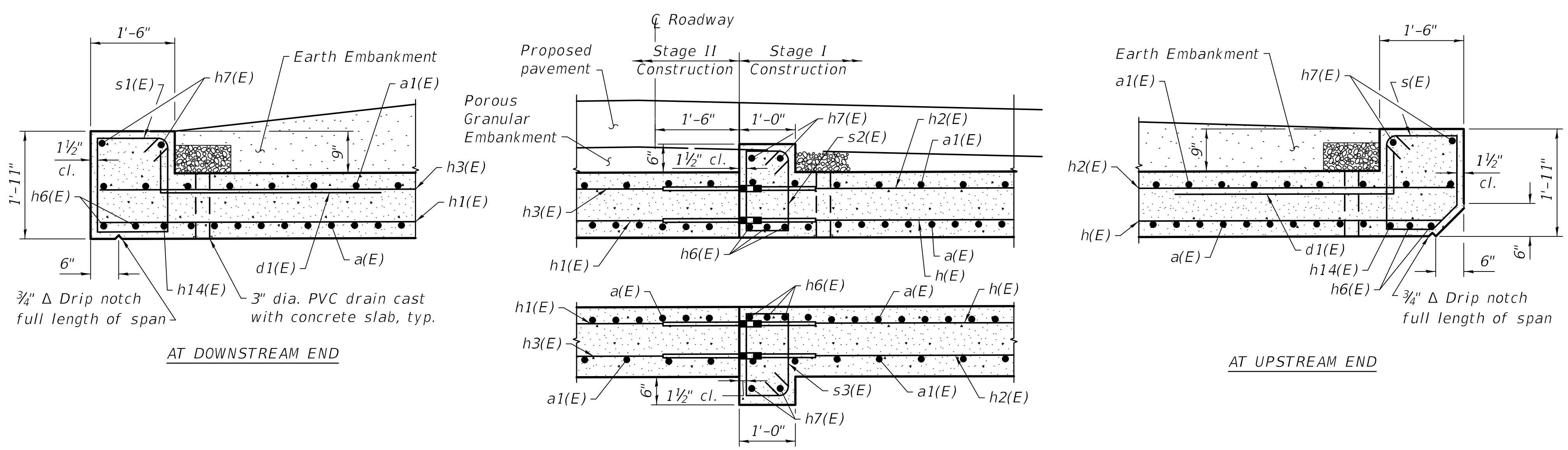


DRAIN DETAIL

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)

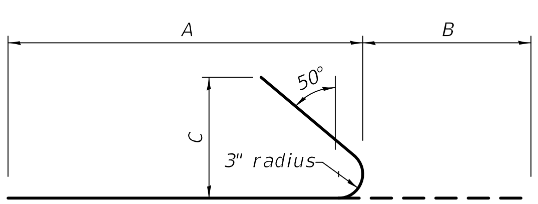
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	226	#8	21'-8"	
a1(E)	132	#5	19'-10"	
a2(E)	2	#4	19'-10"	
d(E)	28	#4	4'-8"	
d1(E)	28	#6	7'-4"	
h(E)	62	#7	35'-4"	
h1(E)	62	#7	40'-0"	
h2(E)	36	#5	35'-4"	
h3(E)	36	#5	40'-0"	
h4(E)	12	#4	35'-4"	
h5(E)	12	#4	40'-0"	
h6(E)	10	#9	19'-10"	
h7(E)	12	#6	19'-10"	
h8(E)	34	#8	8'-0"	
h9(E)	34	#8	20'-0"	
h10(E)	8	#8	18'-3"	
h11(E)	24	#8	7'-2"	
h12(E)	24	#8	12'-3"	
h13(E)	6	#8	11'-9"	
h14(E)	4	#9	26'-4"	
h15(E)	20	#4	15'-8"	
h16(E)	20	#4	11'-5"	
s(E)	20	#4	6'-4"	
s1(E)	20	#4	6'-7"	
s2(E)	20	#4	5'-1"	
s3(E)	20	#4	5'-3"	
v(E)	312	#5	7'-0"	
v1(E)	110	#4	9'-7"	
Concrete Box Culverts		Cu. Yd.	141.2	
Reinforcement Bars, Epoxy Coated		Pound	38640	



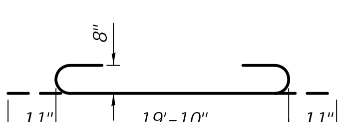
HEADWALL DETAILS

(Dimensions at right angles to ℄ Rdwy)



BARS h10(E), h11(E), h12(E)

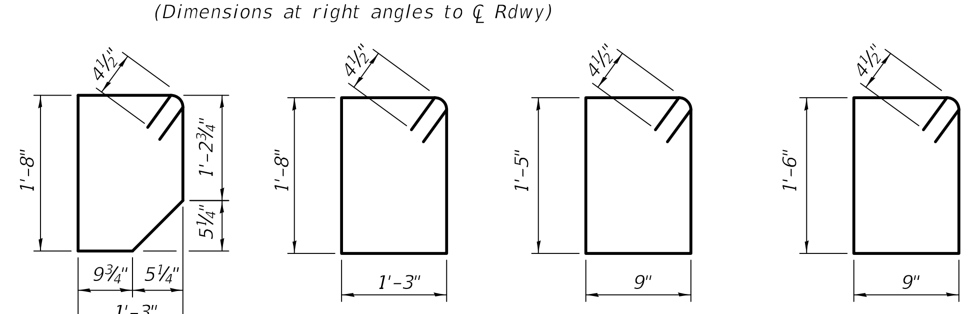
BAR	A	B	C
h10(E)	16'-8"	1'-7"	1'-2"
h11(E)	4'-5"	2'-9"	1'-11"
h12(E)	9'-6"	2'-9"	1'-11"



BAR a(E)

BARS d(E), d1(E)

BAR	A	B
d(E)	2'-8"	2'-0"
d1(E)	10"	6'-6"

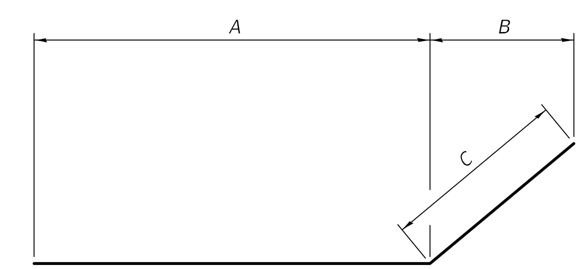


BAR s(E)

BAR s1(E)

BAR s2(E)

BAR s3(E)



BARS h8(E), h9(E), h13(E)

BAR	A	B	C
h8(E)	5'-0"	2'-3½"	3'-0"
h9(E)	17'-0"	2'-3½"	3'-0"
h13(E)	9'-11"	1'-4¾"	1'-10"

(Sheet 3 of 3)

ESCA CONSULTANTS, INC.

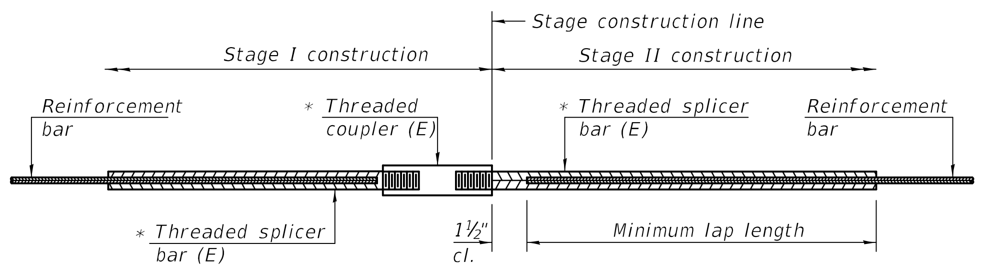
USER NAME = kja	DESIGNED - KJA 12/17	REVISED -
ESCA PROJECT NO. 1295.01	CHECKED - RTM/ELH 12/17	REVISED -
PLOT SCALE = 0.1667 ' / in.	DRAWN - KAH/KJA 12/17	REVISED -
PLOT DATE = 1/17/2018	CHECKED - ELH 01/18	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BOX CULVERT DETAILS
STRUCTURE NO. 097-7095

SHEET NO. 8 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	5B-3	WHITE	28	26
		CONTRACT NO. 78390		
		ILLINOIS FED. AID PROJECT		

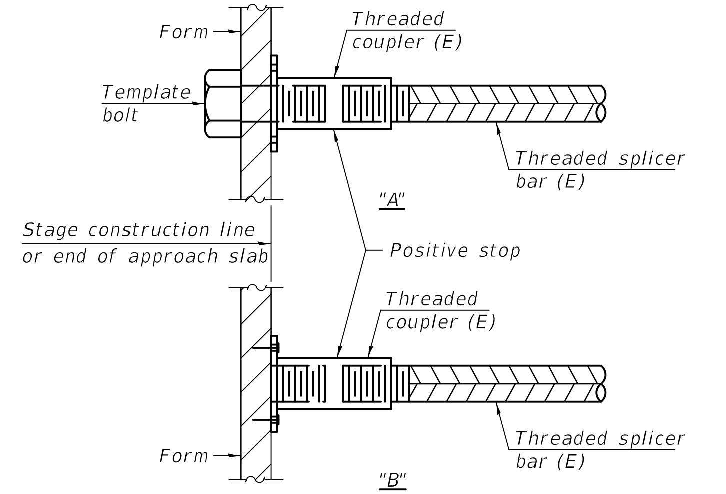


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 1½" + thread length

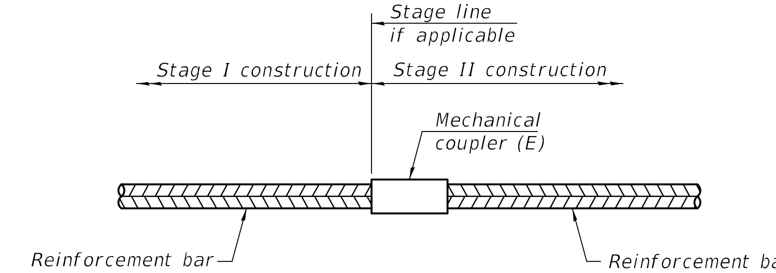
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Top of top slab	#5	18	3'-2"
Bot. of top slab	#7	31	5'-6"
Top of bot. slab	#7	31	6'-3"
Bot. of bot. slab	#5	18	3'-2"
Walls	#4	12	2'-11"



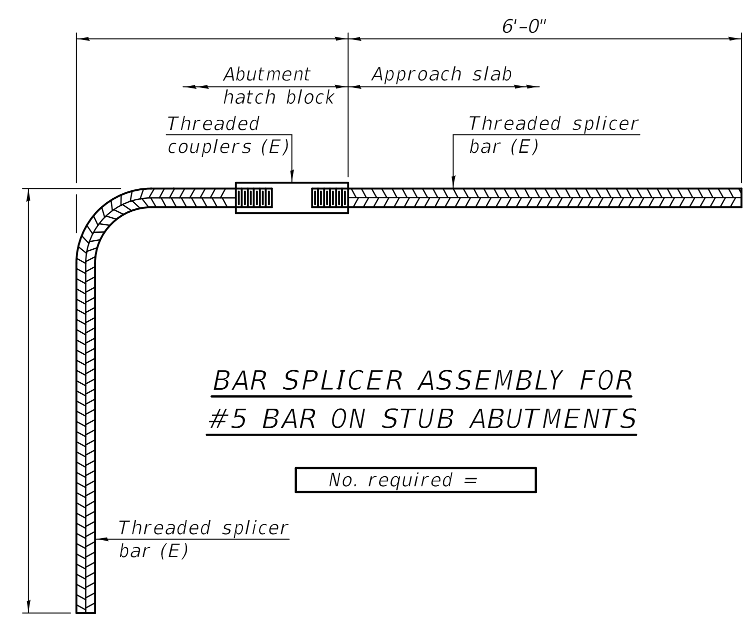
INSTALLATION AND SETTING METHODS

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



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 2-17-2017

ESCA CONSULTANTS, INC.	USER NAME = kja	DESIGNED - KJA 12/17	REVISED -
	ESCA PROJECT NO. 1295.01	CHECKED - RTM 12/17	REVISED -
	PLOT SCALE = 0.1667 ' / in.	DRAWN - KAH/KJA 12/17	REVISED -
	PLOT DATE = 1/17/2018	CHECKED - ELH 01/18	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 097-7095

SHEET NO. 9 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	5B-3	WHITE	28	27
		CONTRACT NO. 78390		
		ILLINOIS FED. AID PROJECT		

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Nine Materials

Bridge Foundation Boring Log — Sheet 1 of 1

FAP 332 (IL Rte 1) Over creek

Route: FAP 332 (IL 1) — Structure Number: 097-7047 (4.5'H x 12' W skewed box) — Date: 10/25/2017
Section NA — Bored By: R Moberly
County: White — Location: NCL Crossville — Checked By: A Hayes

Boring No 1-S
Station 443+28
Offset 12' Rt CL
Ground Surface 396.8 Ft

Surf Wat Elev: 390.6
Ground Water Elevation when Drilling 384.8
At Completion 386.9
At: Hrs:

Description	Elev.	Depth	Blows	Qu tsf	W%
Asphalt over concrete	395.8				
Medium, very moist, grey, Silty Clay A-6	392.3		Augered		
Medium, moist to very moist, brown, Clay A7-6	389.8	5.0	1 2 2	0.9B	27
Soft, very moist, brown, Silty Clay A-6	387.3		WH WH WH	0.3B	30
Medium, moist to very moist, brown, Silty Clay A-6	384.8	10.0	WH 1 2	0.7B	21
Soft, wet, grey and brown, Silty Clay A-6	381.8		WH 1 1	0.3B	28
		15.0	WH		
Stiff, moist, brown, Clay to Clay Loam A7-6	379.8		2 3	1.5B	22
Medium, very moist, grey mottled brown. Silty Clay to Silty Clay Loam A-6	377.3		1 1 2	0.9B	22
Soft, wet, grey, Silty Sand	374.8	20.0	1 3 8	0.3S	21
Very soft, wet, grey, Sandy Silt A-4	372.3		WH 2 3	0.2B	23
Stiff, moist, grey and brown, Clay Loam A-6	369.8	25.0	1 3 4	1.4B	16
Medium dense, wet, grey, Fine Sand			1 3 8		
	365.8	30.0	1 4 9		
		35.0			
		40.0			
		45.0			
		50.0			

Bottom of hole = 31.0 feet

Free water observed at 12.0 feet

Elevation referenced to BM at SE headwall = 397.5 feet

Borehole advanced with hollow stem auger (8" O.D, 3.25" I.D.)

To convert "N" values to "N60" multiply by 1.25

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Nine Materials

Bridge Foundation Boring Log — Sheet 1 of 1

FAP 332 (IL Rte 1) Over creek

Route: FAP 332 (IL 1) — Structure Number: 097-7047 (4.5'H x 12' W skewed box) — Date: 10/25/2017
Section NA — Bored By: R Moberly
County: White — Location: NCL Crossville — Checked By: A Hayes

Boring No 2-S
Station 443+46
Offset 10' Lt CL
Ground Surface 396.9 Ft

Surf Wat Elev: 390.7
Ground Water Elevation when Drilling 376.9
At Completion 381.7
At: Hrs:

Description	Elev.	Depth	Blows	Qu tsf	W%
Asphalt over concrete (13")	395.9				
Medium, moist to very moist, grey, Clay A-6	392.4		Augered		
Stiff, moist, brown, Clay A7-6	389.9	5.0	1 2 3	1.9B	24
Medium, very moist, brown, Silty Clay A-6	387.4		WH 1 2	0.6B	28
Medium, moist to very moist, brown mottled grey, Silty Clay A-6		10.0	WH 1 2	0.9B	20
	382.4		WH WH 2	0.7B	23
Stiff, moist, grey and brown, Clay to Clay Loam A7-6	379.9	15.0	1 3 3	1.3S	23
Medium, very moist, grey, Clay A7-6	377.4		WH WH 1	0.6B	25
Soft, very moist, grey, Silt A-4 w/ Sand and pea gravel	374.9	20.0	1 5 4	0.4S	20
Medium, very moist, grey, Silty Clay Loam A-4	372.4		1 3 2	0.6S	17
Medium dense, moist, grey, Sand with pea gravel	370.9	25.0	2 7 9		
		30.0			
		35.0			
		40.0			
		45.0			
		50.0			

Bottom of hole = 26.0 feet

Free water observed at 20.0 feet

Elevation referenced to BM at SE headwall = 397.5 feet

Borehole advanced with hollow stem auger (8" O.D, 3.25" I.D.)

To convert "N" values to "N60" multiply by 1.25

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