

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F A P RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
*	109CR-1;102CR-1	**	20	1
		ILLINOIS	CONTRACT NO. 78999	

* 328 & 776
** WHITE & HAMILTON

FOR INDEX OF SHEETS, SEE SHEET NO. 3
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4-6

**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 328 (US 45) & FAP ROUTE 776 (IL 242)
SECTION 109CR-1;102CR-1
PROJECT HBFP-KCU7(326)
CULVERT REPLACEMENT
WHITE & HAMILTON COUNTY

TRAFFIC DATA

SN 097-7066 : 2023 ADT = 1,730
WITH 20.52% TRUCKS
SN 033-7020 : 2023 ADT = 1,280
WITH 16.41% TRUCKS

TOWNSHIPS

INDIAN CREEK
CROUCH

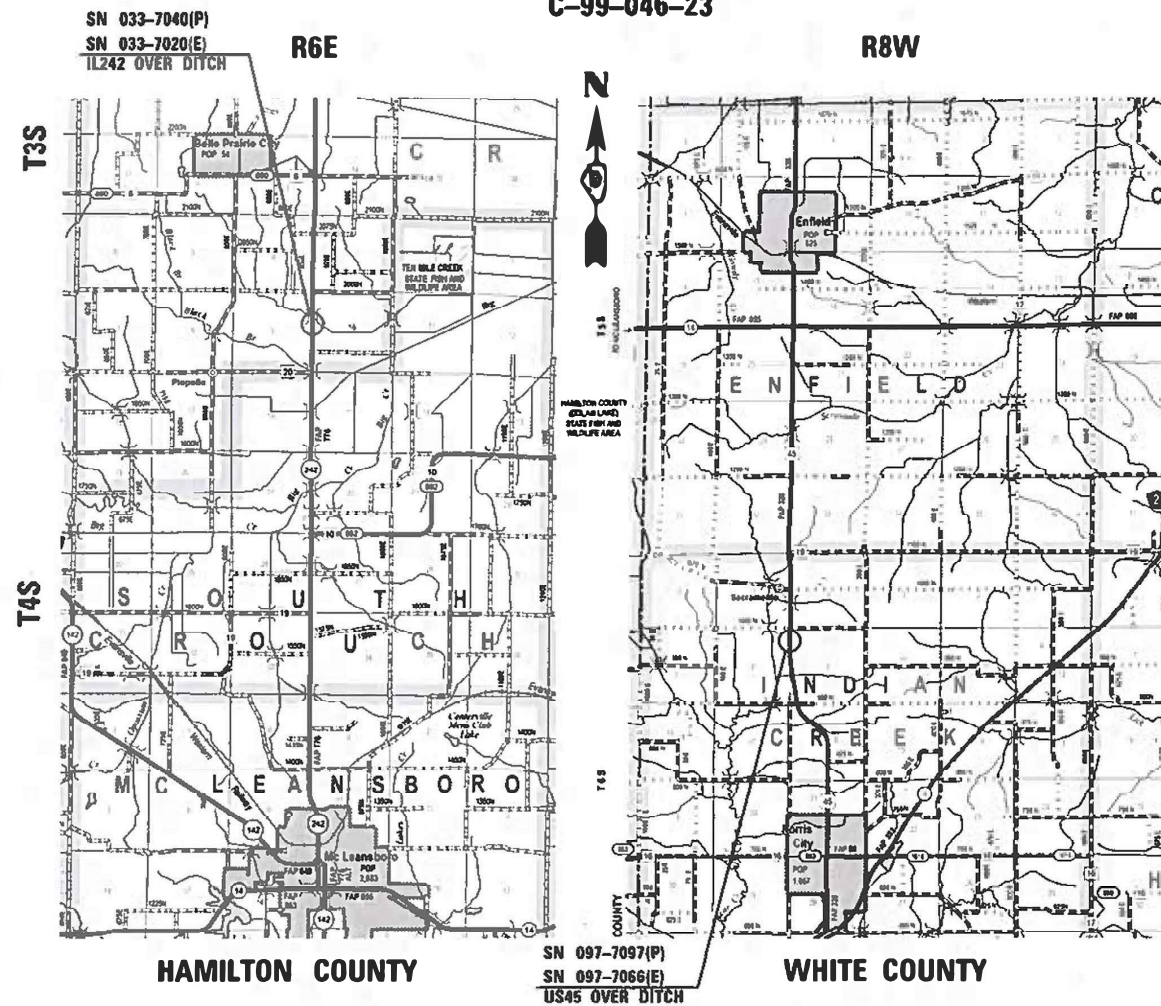
DESIGN DESIGNATION : N/A
COORDINATE SYSTEM : STATE PLANE ZONE - ILLINOIS EAST
POSTED SPEED : 55 MPH

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

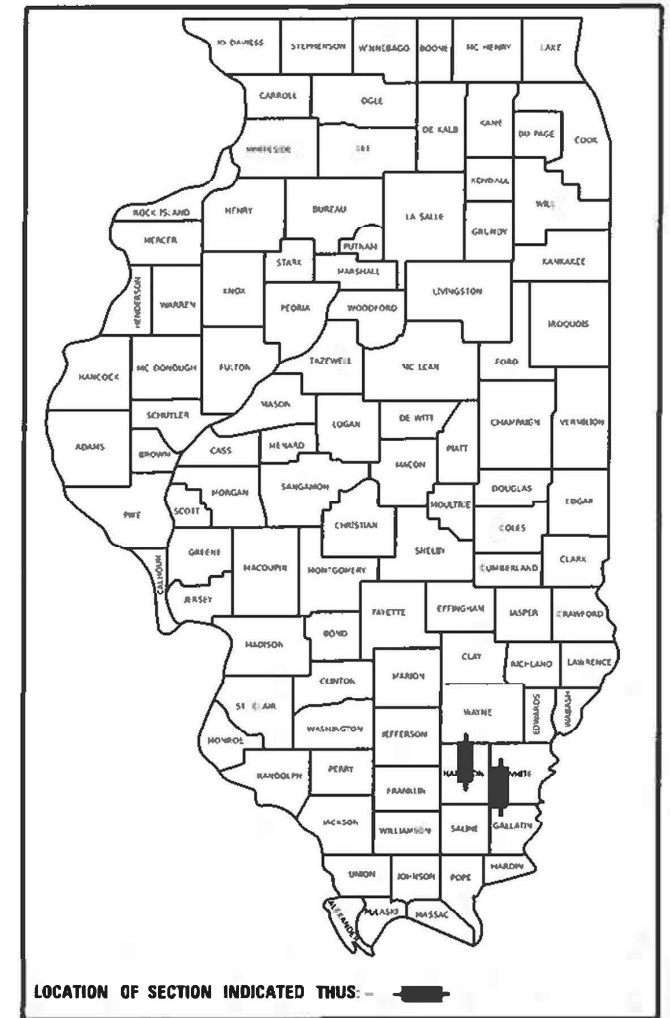
PROJECT ENGINEER EHREN KIRBY
PROJECT DESIGNER DEREK SNIDER

CONTRACT NO. 78999

C-99-046-23



GROSS LENGTH = 50.5 FT. = 0.0096 MILES
NET LENGTH = 50.5 FT. = 0.0096 MILES



LOCATION OF SECTION INDICATED THUS: —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED *Jan 30th 2024*
Keith H. Brown **REG. ENGR**
March 22, 2024
Scott A. Etk **ENGINEER OF DESIGN AND ENVIRONMENT**
March 22, 2024
Stephen M. Smith **DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION**

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OF THE STATE OF ILLINOIS**

INDEX OF SHEETS

1	COVER SHEET
2	SIGNATURES
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7	SCHEDULES
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11-13	SN 033-7020 BOX CULVERT REPLACEMENT
14-17	PRECAST CONCRETE END SECTION DETAILS
18	DISTRICT STANDARDS
19-20	DETOUR SIGNING SHEETS

GENERAL NOTES

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

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 COST OF EARTH EXCAVATION.

COMMITMENTS: NONE

STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420001-10	PAVEMENT JOINTS
420101-07	24' JOINTED PCC PAVEMENT
420701-03	PAVEMENT WELDED WIRE REINFORCEMENT
483001-06	PCC SHOULDER
701001-02	OFF ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5M) AWAY
701006-05	OFF ROAD OPERATIONS, 2L, 2W, 15' (4.5M) TO 24" (600MM) FROM PAVEMENT EDGE
701201-05	LANE CLOSURE, 2L,2W DAY ONLY, FOR SPEEDS > 45 MPH
701301-04	LANE CLOSURE, 2L,2W DAY ONLY, SHORT TIME OPERATIONS
701901-09	TRAFFIC CONTROL DEVICES
780001-05	TYPICAL PAVEMENT MARKINGS
BLR21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RUAL LOCAL HIGHWAYS

REV. - MS

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PLOT DATE = 1/31/2024	DATE -	REVISED -			SCALE:	SHEET	OF	SHEETS	STA.	TO STA.

SUMMARY OF QUANTITIES

COUNTY:	WHITE CO	HAMILTON CO
ROUTE:	FAP 328	FAP 776
FUNDING:	80% FEDERAL 20% STATE	80% FEDERAL 20% STATE
LOCATION:	RURAL	RURAL
	SN 097-7097	SN 033-7040
	0004	0004

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	WHITE CO	HAMILTON CO
20200100	EARTH EXCAVATION	CU YD	120	70	50
20700220	POROUS GRANULAR EMBANKMENT	CU YD	106	64	42
25000200	SEEDING, CLASS 2	ACRE	0.02	0.01	0.01
25000350	SEEDING, CLASS 7	ACRE	0.02	0.01	0.01
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	1.8	0.9	0.9
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	1.8	0.9	0.9
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	1.8	0.9	0.9
25000700	AGRICULTURAL GROUND LIMESTONE	TON	0.04	0.02	0.02
25100630	EROSION CONTROL BLANKET	SQ YD	59	32	27
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	2	1	1
28000400	PERIMETER EROSION BARRIER	FOOT	192	87	105
28100107	STONE RIPRAP, CLASS A4	SQ YD	57	11	46
28200200	FILTER FABRIC	SQ YD	57	11	46

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PLOT DATE = 2/2/2024	DATE -	REVISED -							ILLINOIS FED. AID PROJECT

*328 & 776
** WHITE & HAMILTON

SUMMARY OF QUANTITIES - CONT

COUNTY:	WHITE CO	HAMILTON CO
ROUTE:	FAP 328	FAP 776
FUNDING:	80% FEDERAL 20% STATE	80% FEDERAL 20% STATE
LOCATION:	RURAL	RURAL
	SN 097-7097	SN 033-7040
	0004	0004

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	WHITE CO	HAMILTON CO
4200060	WELDED WIRE REINFORCEMENT	SQ YD	172	73	99
42000500	PORTLAND CEMENT CONCRETE PAVEMENT 10"	SQ YD	172	73	99
44000100	PAVEMENT REMOVAL	SQ YD	172	73	99
48300500	PORTLAND CEMENT CONCRETE SHOULDERS 10"	SQ YD	49	20	29
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	108	40	68
54001001	BOX CULVERT END SECTIONS, CULVERT NO. 1	EACH	2	2	
54001002	BOX CULVERT END SECTIONS, CULVERT NO. 2	EACH	2		2
54010603	PRECAST CONCRETE BOX CULVERTS 6' X 3'	FOOT	36	36	
54010802	PRECAST CONCRETE BOX CULVERTS 8' X 2'	FOOT	66		66
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	120	41	79
67100100	MOBILIZATION	L SUM	1	0.5	0.5
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	0.5	0.5

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			SCALE: SHEET OF SHEETS STA. TO STA.		

*328 & 776
 ** WHITE & HAMILTON

PAVEMENT MARKING SCHEDULE									
STATION				NOTES				PAINT PAVEMENT MARKING - LINE 4"	
								SOLID WHITE	YELLOW SKIP DASH
								FOOT	FOOT
WHITE COUNTY SN 097-7097									
223 + 48.5	RT	TO	223 + 73.5	RT			25		
223 + 48.5		TO	223 + 73.5		ALONG CENTERLINE			10	
223 + 48.5	LT	TO	223 + 73.5	LT			25		
SUBTOTAL							60		
HAMILTON COUNTY SN 033-7040									
629 + 01	RT	TO	629 + 35	RT			34		
629 + 01		TO	629 + 35		ALONG CENTERLINE			10	
629 + 01	LT	TO	629 + 35	LT			34		
SUBTOTAL							78		
GRAND TOTAL							138		

PAVEMENT SCHEDULE							
STATION			PAVEMENT REMOVAL	PORTLAND CEMENT CONCRETE PAVEMENT, 10"	WELDED WIRE REINFORCEMENT	PORTLAND CEMENT CONCRETE SHOULDERS, 10"	
							SQ YD
WHITE COUNTY SN 097-7097							
223 + 48.5	TO	223 + 73.5	73	73	73	20	
HAMILTON COUNTY 033-7040							
629 + 01	TO	629 + 35	99	99	99	29	
GRAND TOTAL			172	172	172	49	

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PLOT DATE = 1/31/2024	DATE -	REVISED -






STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

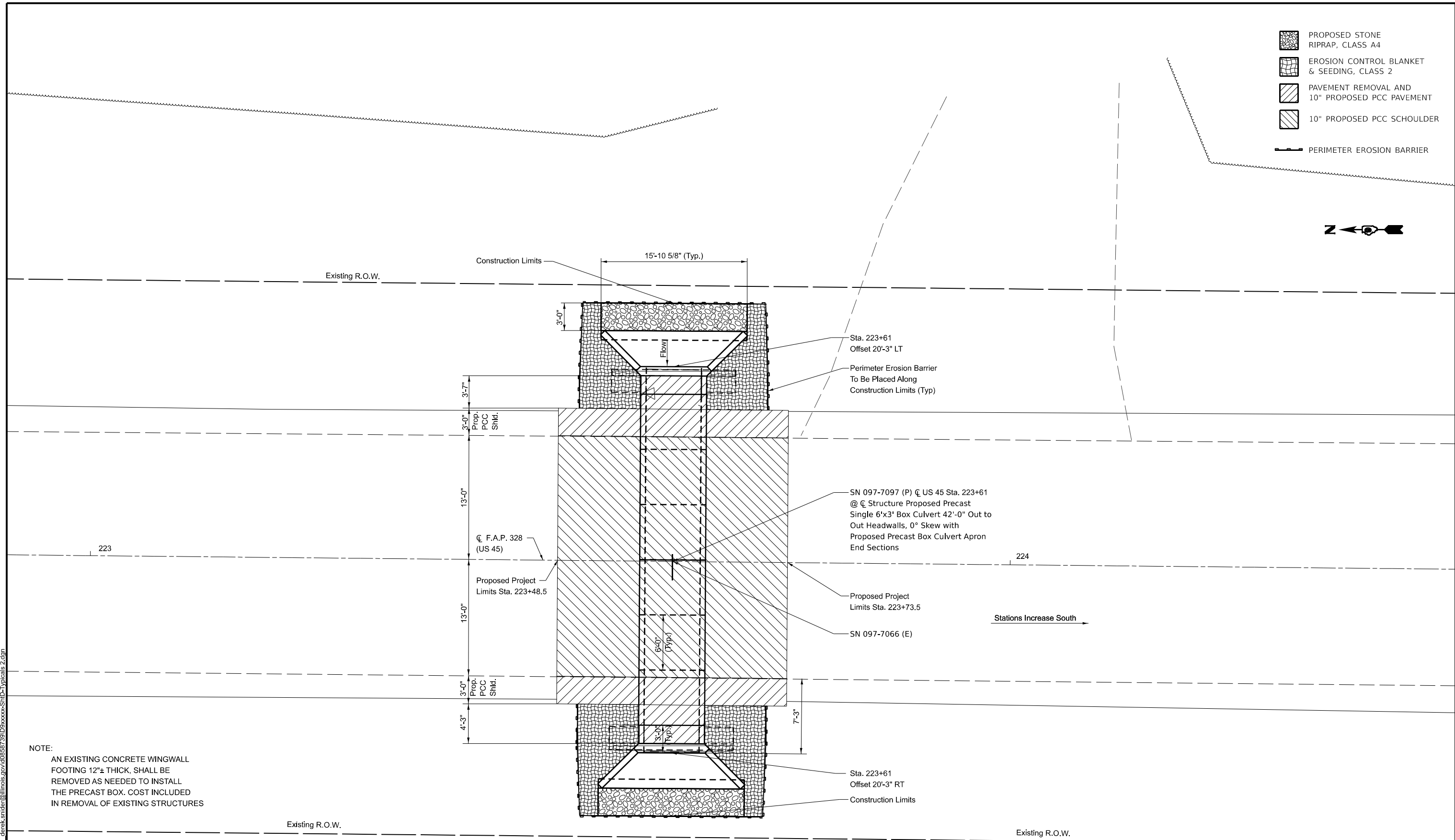
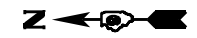
SCHEDULES

SCALE: SHEET OF 26 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	109CR-1;102CR-1	**	20	7
ILLINOIS FED. AID PROJECT			CONTRACT NO. 78999	

*328 & 776 ** WHITE & HAMILTON

-  PROPOSED STONE RIPRAP, CLASS A4
-  EROSION CONTROL BLANKET & SEEDING, CLASS 2
-  PAVEMENT REMOVAL AND 10" PROPOSED PCC PAVEMENT
-  10" PROPOSED PCC SHOULDER
-  PERIMETER EROSION BARRIER



NOTE:
 AN EXISTING CONCRETE WINGWALL FOOTING 12"± THICK, SHALL BE REMOVED AS NEEDED TO INSTALL THE PRECAST BOX. COST INCLUDED IN REMOVAL OF EXISTING STRUCTURES

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

GENERAL PLAN SN 097-7066	
SCALE:	SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	109CR-1;102CR-1	**	20	8
CONTRACT NO. 78999				
ILLINOIS FED. AID PROJECT				

*328 & 776 ** WHITE & HAMILTON

GENERAL NOTES

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 SPECIFICATIONS.

THE 6 IN. THICK LAYER OF POROUS GRANULAR MATERIAL REQUIRED FOR THE PRECAST CONCRETE BOX CULVERT PER ARTICLE 540.06 OF THE STANDARD SPECIFICATIONS SHALL ALSO APPLY TO THE CAST-IN-PLACE END SECTIONS. COST OF THE POROUS GRANULAR MATERIAL WILL NOT BE PAID SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE OF THE WORK FOR WHICH IT IS REQUIRED.

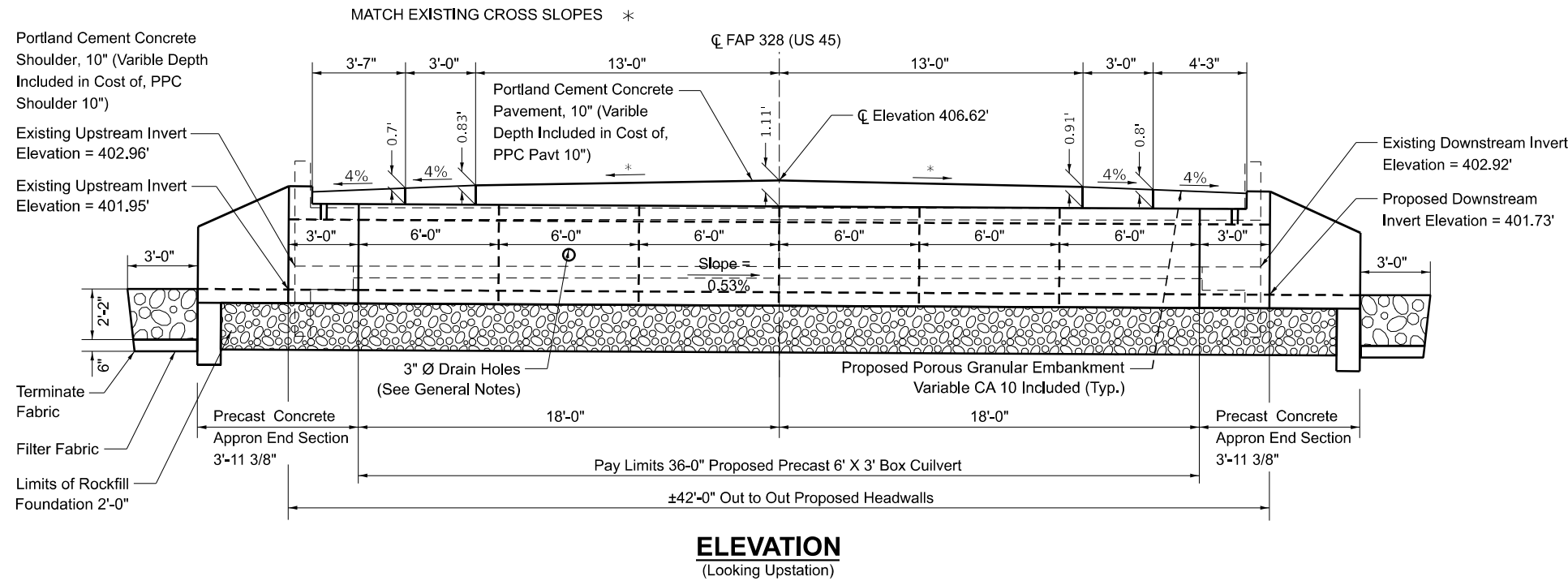
NONWOVEN GEOTEXTILE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ARTICLE 1080.01 OF THE STANDARD SPECIFICATIONS. THE MINIMUM WEIGHT OF THE FABRIC SHALL BE 6 OUNCES PER SQUARE YARD.

THE REMOVAL OF THE EXISTING BOX CULVERT IS TO BE INCLUDED IN THE COST OF REMOVAL OF EXISTING STRUCTURES.

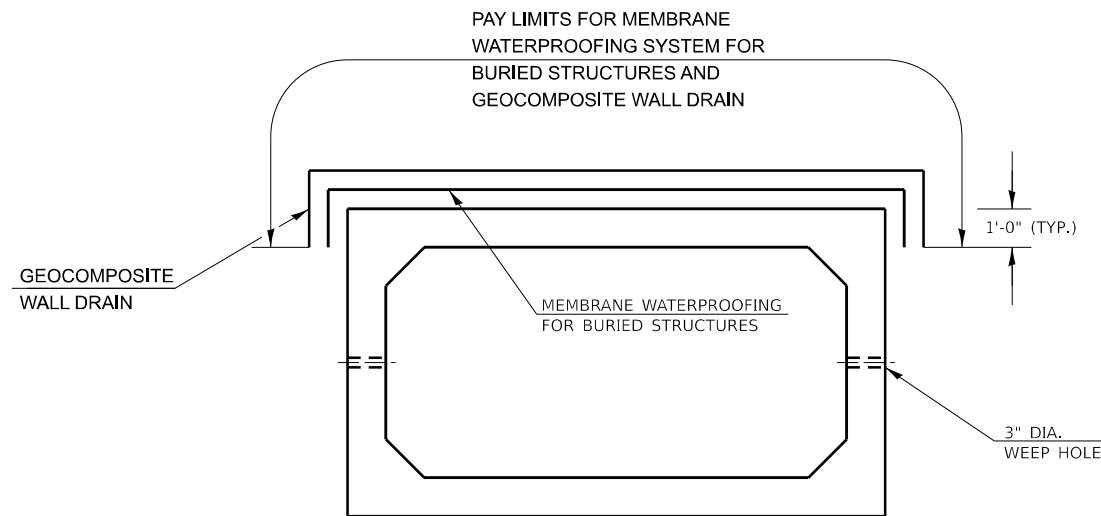
PRECAST CONCRETE BOX CULVERTS AND BOX CULVERT END SECTIONS SHALL BE BACKFILLED WITH POROUS GRANULAR EMBANKMENT IN THE REQUIRED EXCAVATION AREAS ON THE SIDES OF THE BOX CULVERT FROM THE BOTTOM OF THE PROPOSED PAVEMENT TO THE BOTTOM OF THE BOX CULVERT. THIS AREA OF PGE IS INCLUDED IN THE POROUS GRANULAR 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 PAY ITEMS WILL INCLUDE QUANTITY FOR 2' BELOW THE INCIDENTAL 6-INCHES OF EXCAVATION AND POROUS GRANULAR MATERIAL.

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.

FINAL SECTION

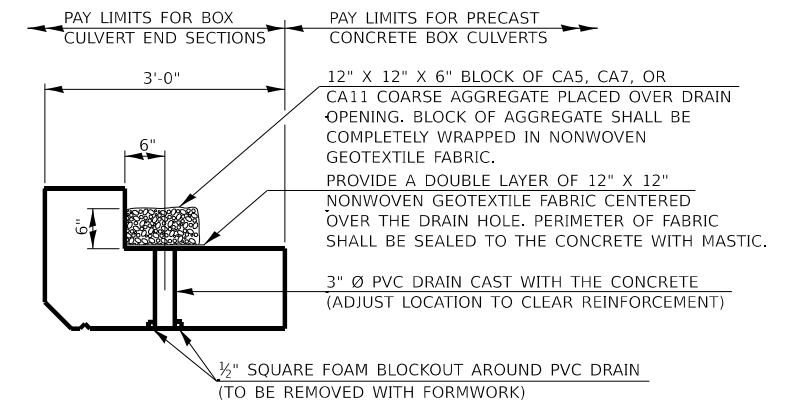


ELEVATION
(Looking Upstation)



PRECAST CONCRETE BOX CULVERT

NOTE: 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.



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.)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1
BOX CULVERT END SECTIONS, CULVERT NO. 1	EACH	2
PRECAST CONCRETE BOX CULVERTS 6' X 3'	FOOT	36
GEOCOMPOSITE WALL DRAIN	SQ YD	41
MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES	SQ YD	41

PRECAST BOX CULVERT SCHEDULE (HL-93; ASTM C 1577)							
STATION	SIZE	SKEW	DESIGN FILL (FT.)		PGE BACKFILL REQUIRED		
			EDGE OF SHLD. (MIN)	MAXIMUM			
WHITE COUNTY							
223+48.5	TO	223+73.5	6' X 3'	0°	± 0.583'	± 1.1'	64 CU YD

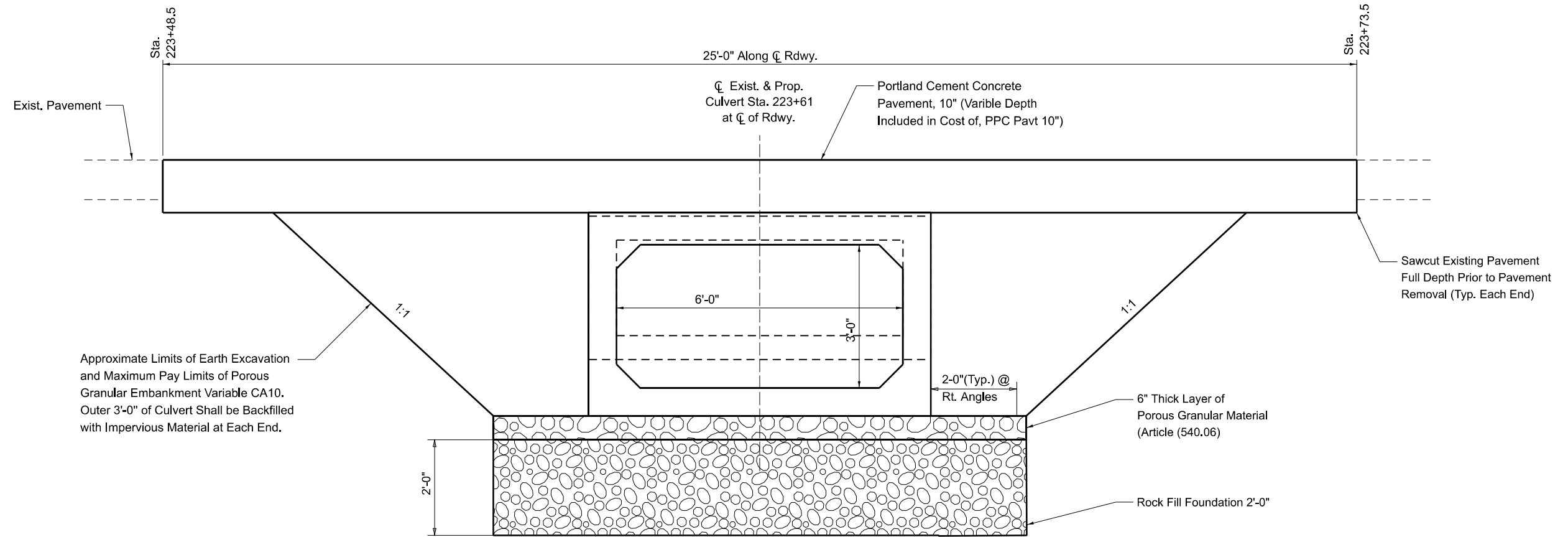
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELEVATION & DETAILS
SN 097-7066

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 78999				
ILLINOIS FED. AID PROJECT				

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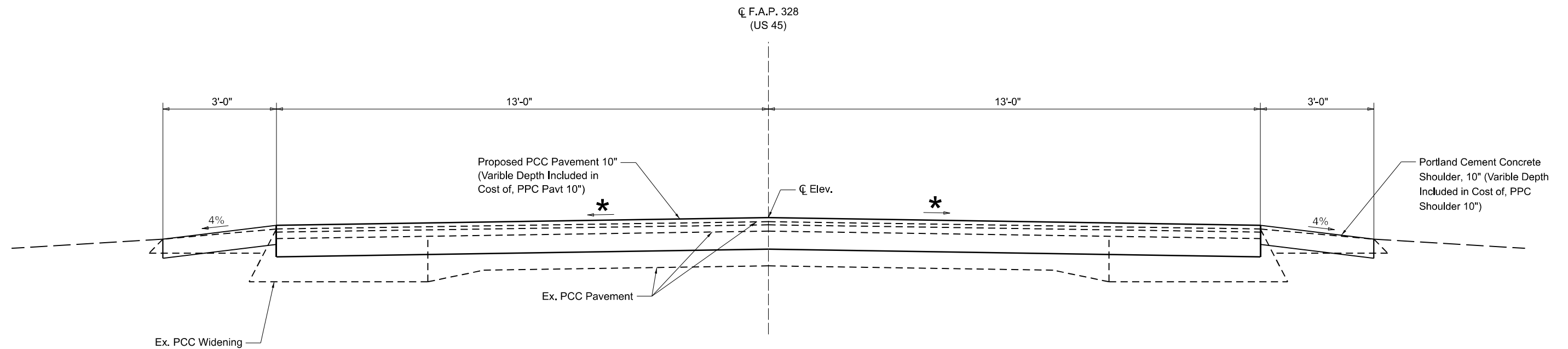
*328 & 776 ** WHITE & HAMILTON



LIMITS OF POROUS GRANULAR EMBANKMENT

*

Match existing slopes



EXISTING & PROPOSED SECTIONS WITHIN PAVEMENT REMOVAL

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	DATE -	REVISED -






**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

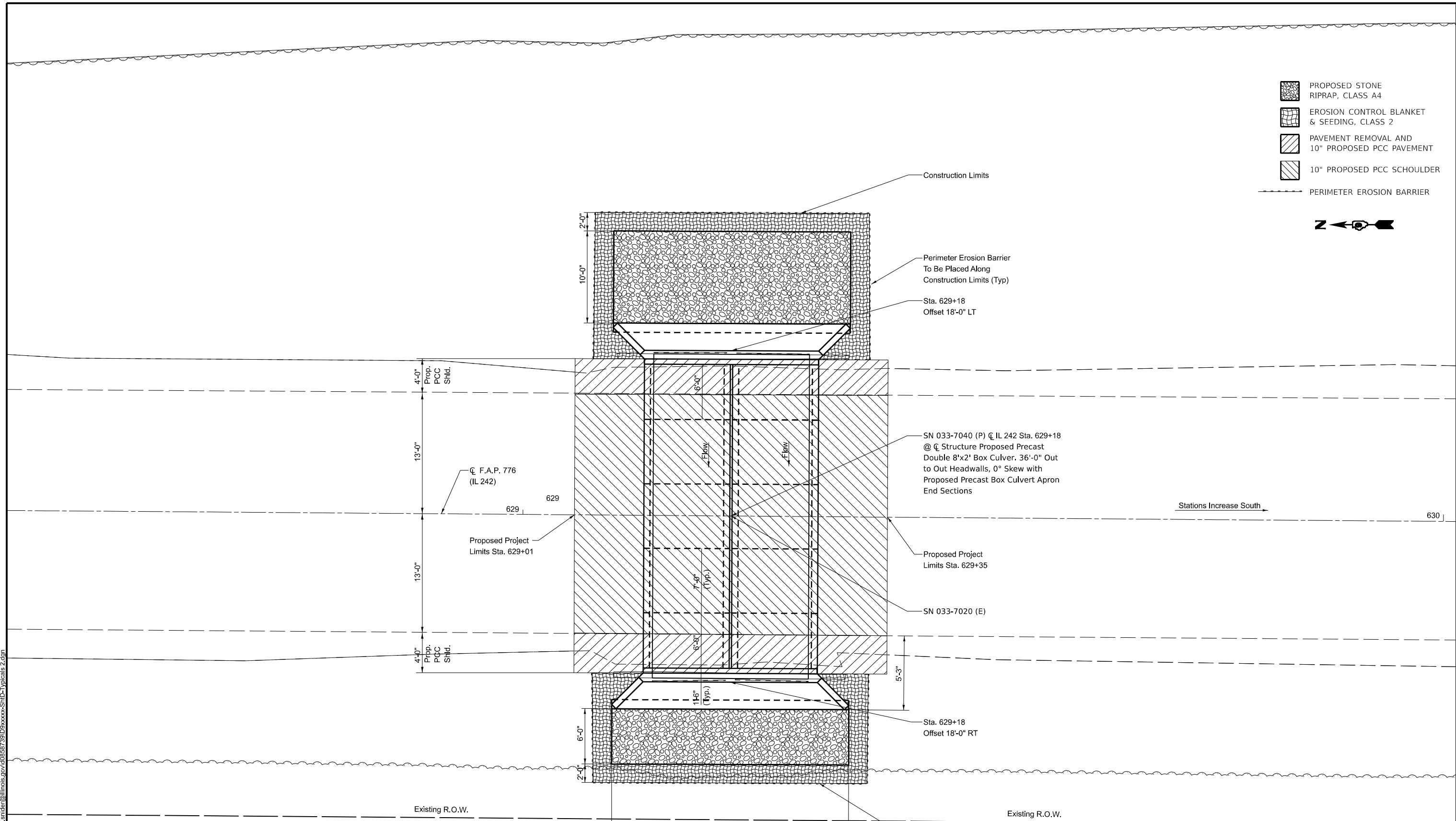
**LIMITS OF POROUS GRANULAR EMBANKMENT &
SECTION WITHIN PAVEMENT REMOVAL SN 097-7066**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	109CR-1;102CR-1	**	20	10
CONTRACT NO. 78999				
ILLINOIS FED. AID PROJECT				

*328 & 776 ** WHITE & HAMILTON

-  PROPOSED STONE RIPRAP, CLASS A4
-  EROSION CONTROL BLANKET & SEEDING, CLASS 2
-  PAVEMENT REMOVAL AND 10" PROPOSED PCC PAVEMENT
-  10" PROPOSED PCC SHOULDER
-  PERIMETER EROSION BARRIER



NOTE:
 AN EXISTING CONCRETE WINGWALL FOOTING 12"± THICK, SHALL BE REMOVED AS NEEDED TO INSTALL THE PRECAST BOX. COST INCLUDED IN REMOVAL OF EXISTING STRUCTURES

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN
 SN 033-7020**

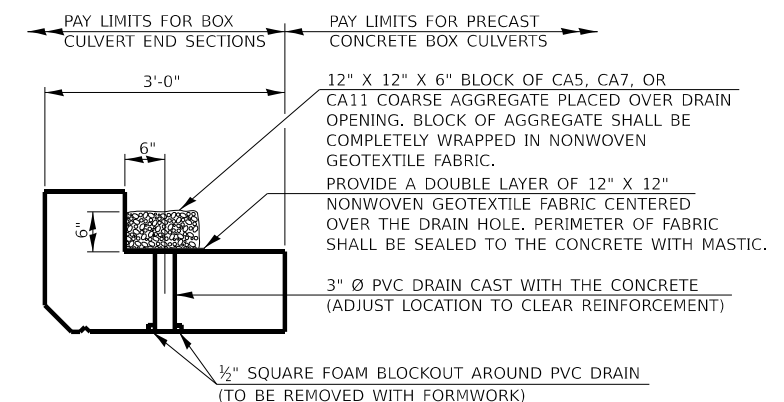
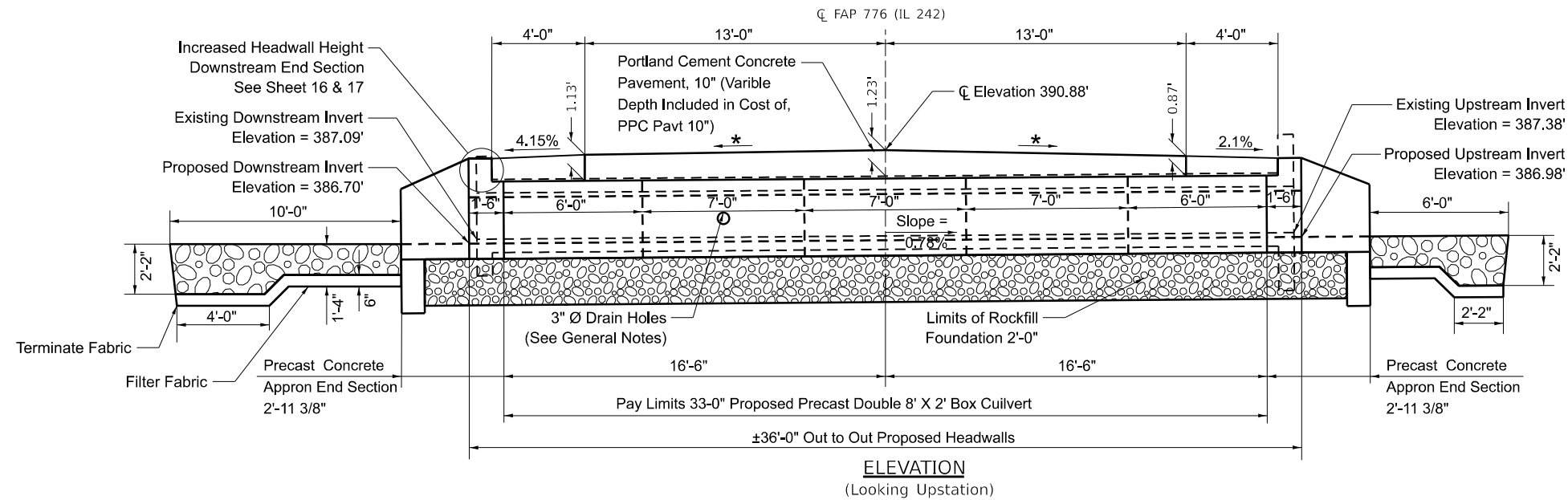
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 78999				
ILLINOIS FED. AID PROJECT				

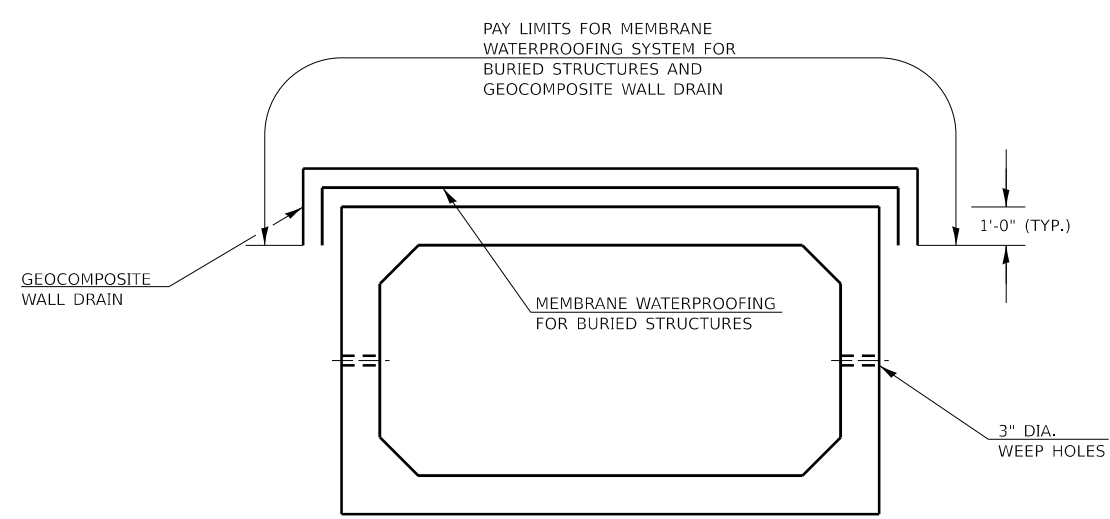
*328 & 776 ** WHITE & HAMILTON

FINAL SECTION

* MATCH EXISTING CROSS SLOPES



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.)



PRECAST CONCRETE BOX CULVERT

NOTE: 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.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
REMOVAL OF EXISTING STRUCTURES NO 2	EACH	1
BOX CULVERT END SECTIONS, CULVERT NO. 2	EACH	2
PRECAST CONCRETE BOX CULVERTS 8' X 2'	FOOT	66
GEOCOMPOSITE WALL DRAIN	SQ YD	79
MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES	SQ YD	79

STATION	SIZE	SKEW	DESIGN FILL (FT.)		PGE BACKFILL REQUIRED
			EDGE OF SHLD. (MIN)	MAXIMUM	
HAMILTON COUNTY					
965 + 27 TO 965 + 92	8' X 2'	0°	± 0.87'	± 1.23'	42 CU YD

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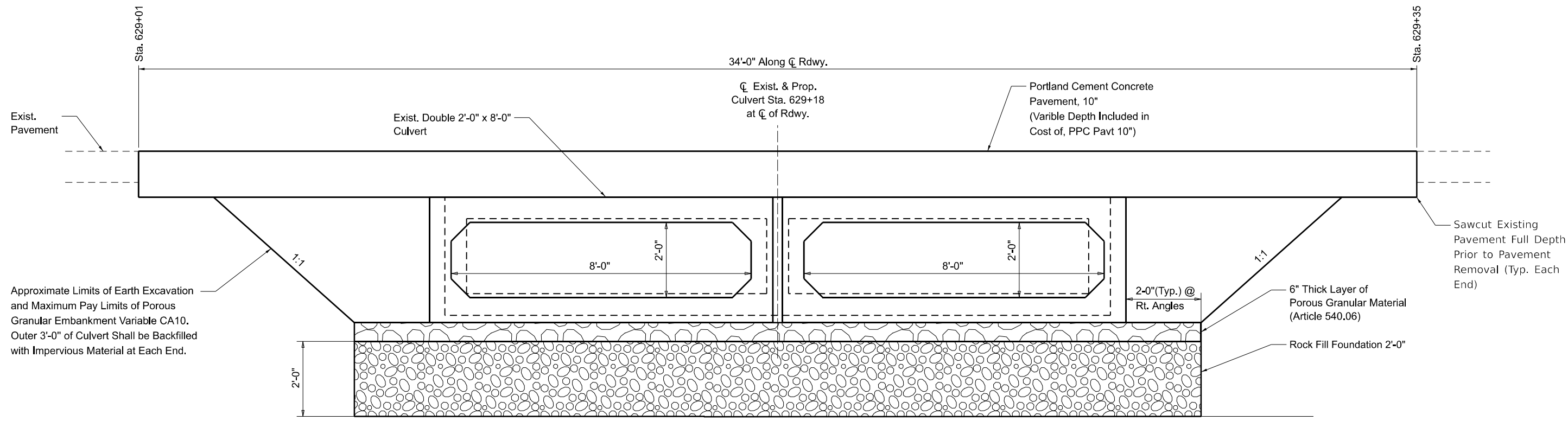
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

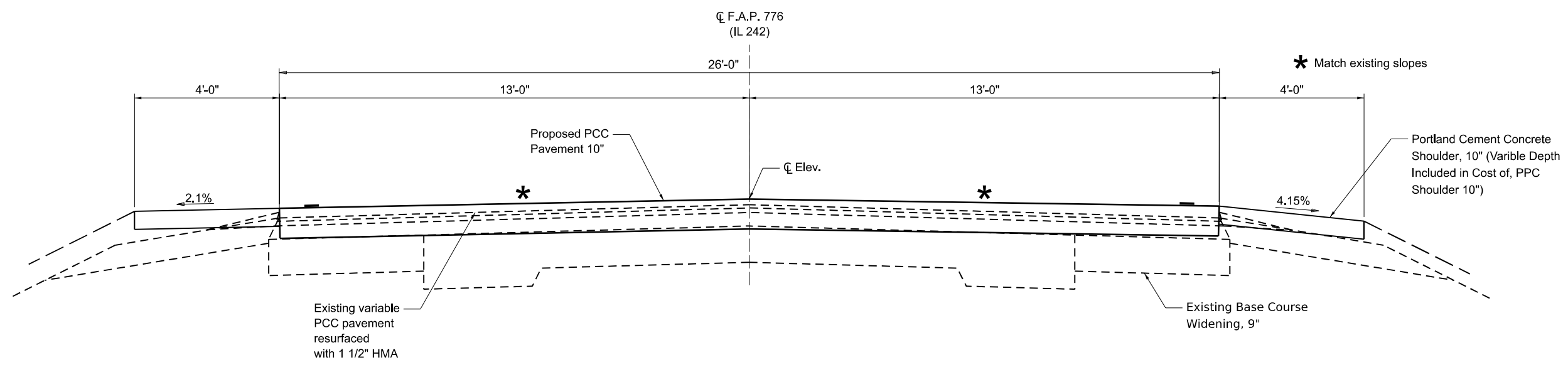
**ELEVATION & DETAILS
 SN 033-7020**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	109CR-1;102CR-1	**	20	12
CONTRACT NO. 78999				



LIMITS OF POROUS GRANULAR EMBANKMENT



EXISTING & PROPOSED SECTIONS WITHIN PAVEMENT REMOVAL

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PLOT DATE = 1/31/2024	CHECKED -	REVISED -
	DATE -	REVISED -

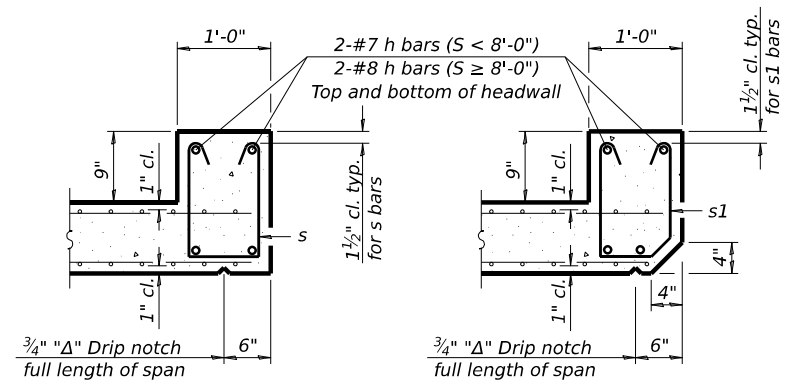
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIMITS OF POROUS GRANULAR EMBANKMENT &
SECTION WITHIN PAVEMENT REMOVAL SN 033-7020

SCALE: SHEET OF SHEETS STA. TO STA.

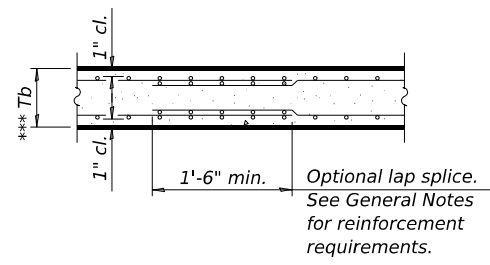
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	109CR-1;102CR-1	**	20	13
CONTRACT NO. 78999				
ILLINOIS FED. AID PROJECT				

*328 & 776 ** WHITE & HAMILTON



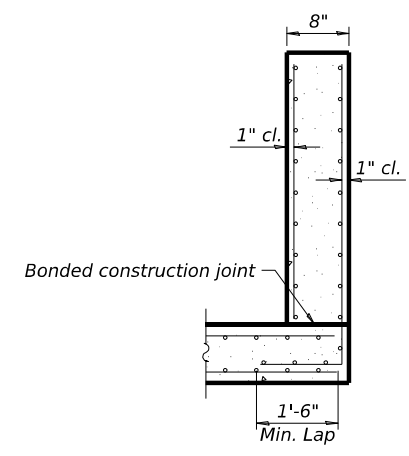
SECTION B-B
(Top slab at downstream end)

SECTION B-B
(Top slab at upstream end)

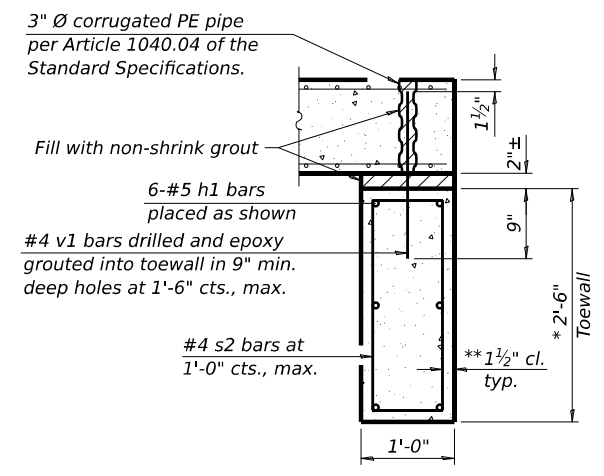


SECTION B-B
(Bottom Slab)

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



SECTION C-C



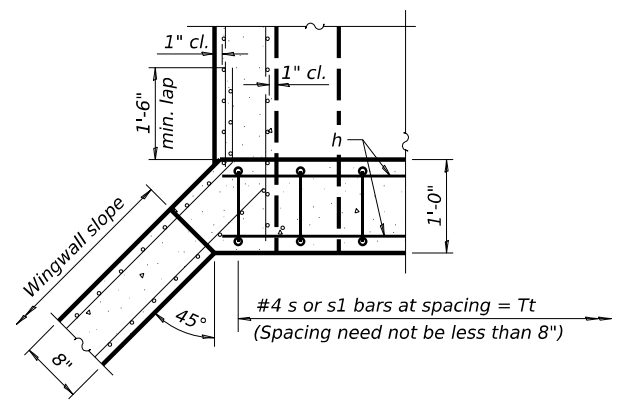
SECTION D-D

TOEWALL CONSTRUCTION SEQUENCE

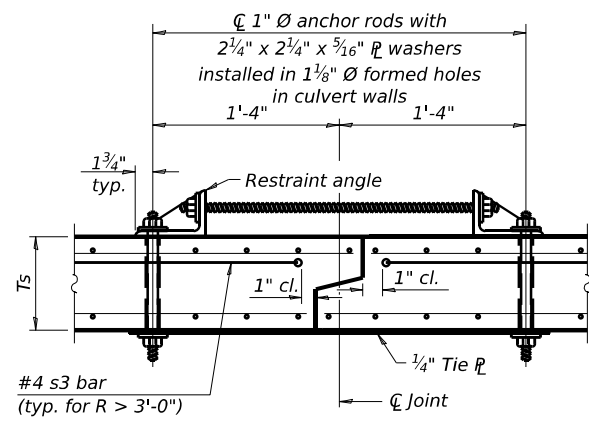
1. Perform excavation and construct toewall.
2. Backfill accordingly and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance with Section 584 of the Standard Specifications.
5. Pressure grout voids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

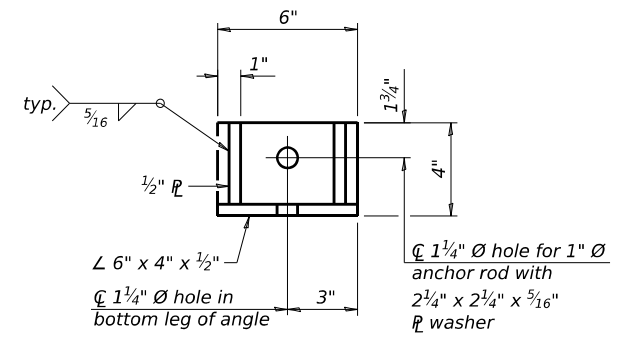
** If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.



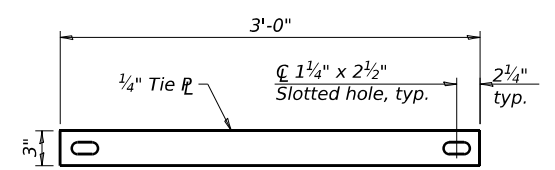
SECTION E-E



SECTION F-F
(Showing culvert tie details)

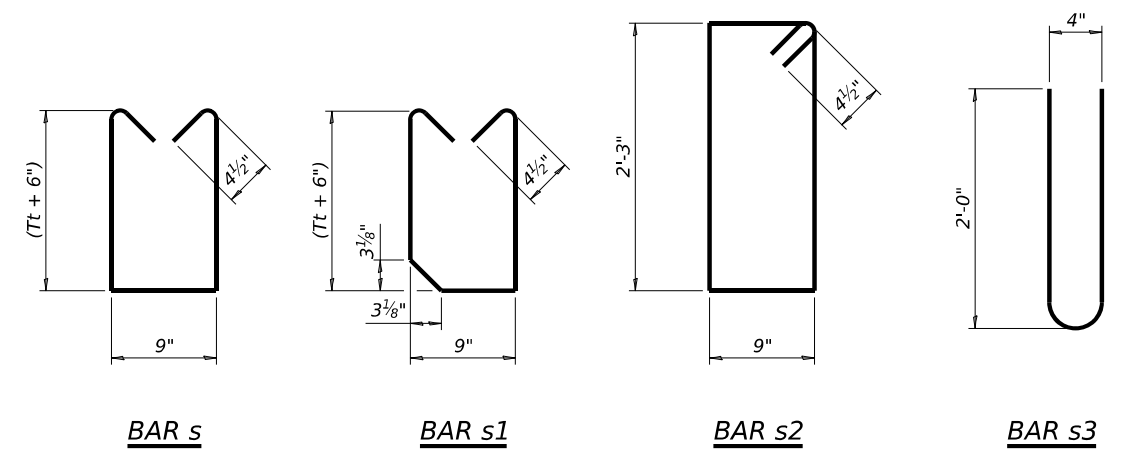


RESTRAINT ANGLE DETAIL



TIE PLATE DETAIL

Notes:
1" diameter 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 inch x 2 1/4 inch x 3/16 inch 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.



BAR s

BAR s1

BAR s2

BAR s3

SCB-AES

5-15-2023

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

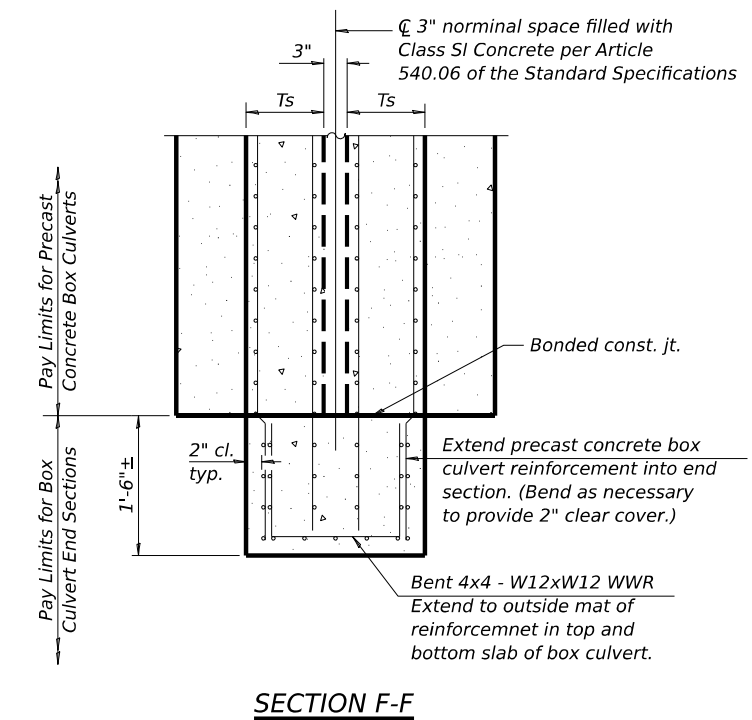
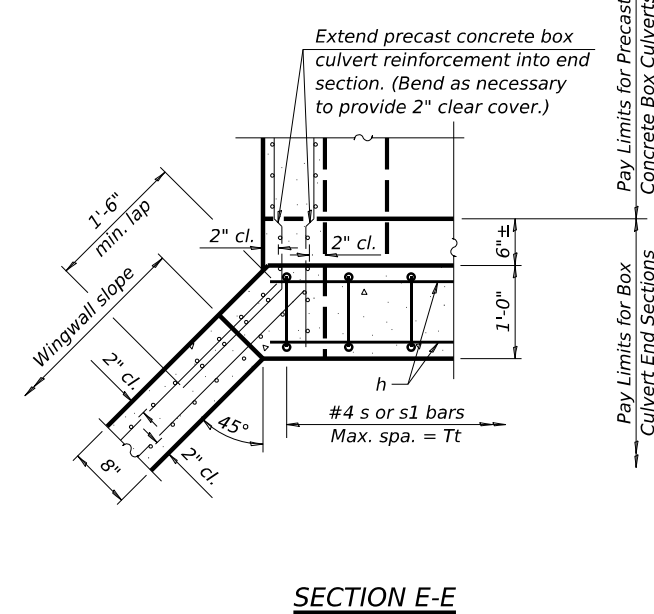
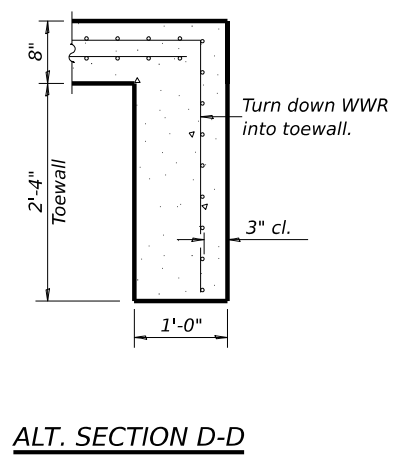
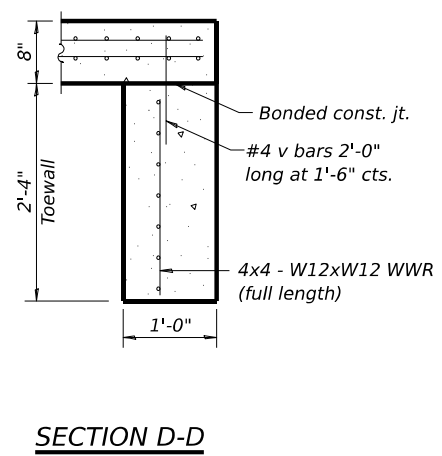
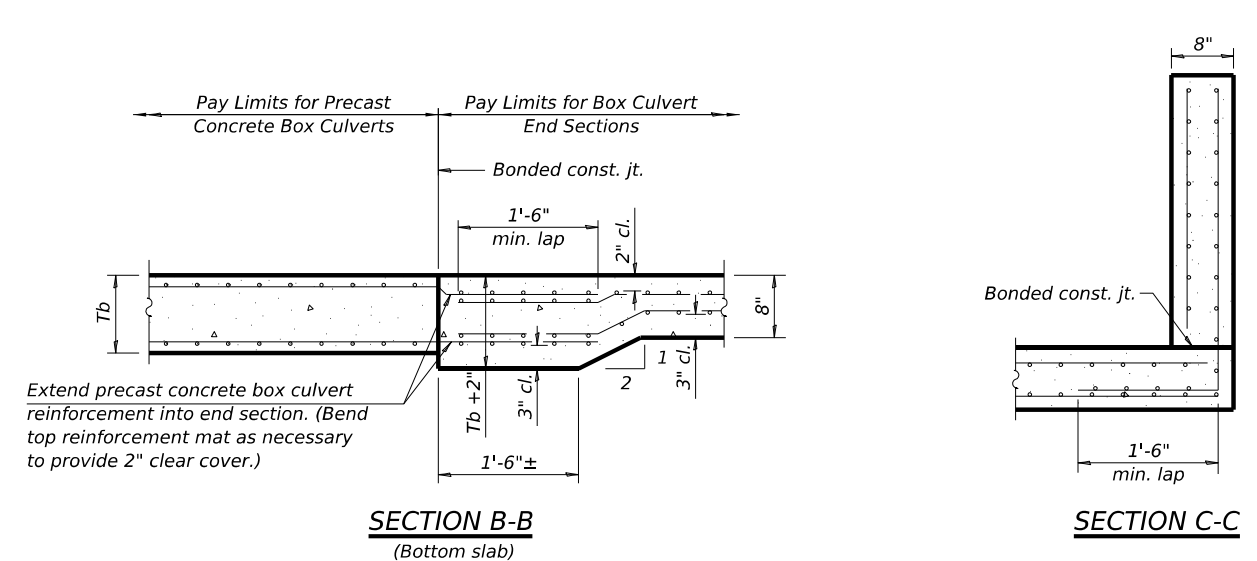
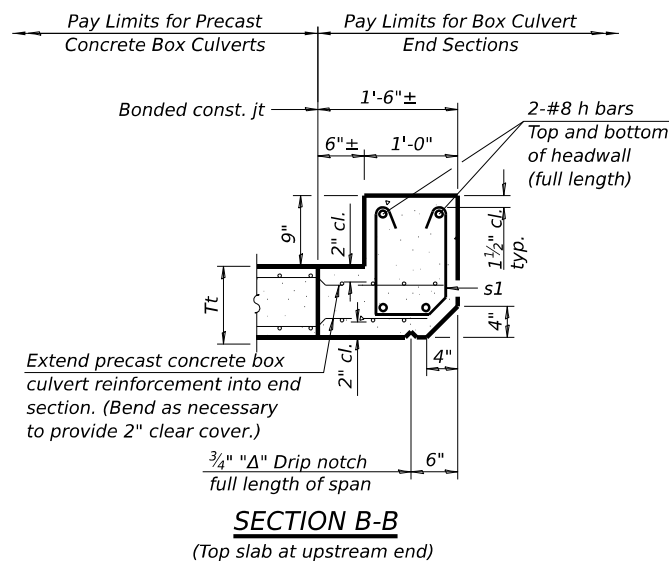
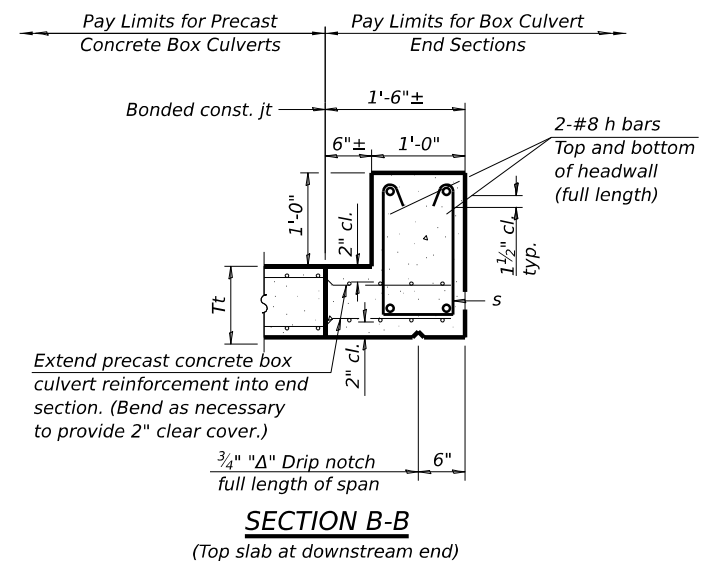
PRECAST CONCRETE BOX CULVERT
APRON END SECTION DETAILS SN 097-7066

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 78999				
ILLINOIS FED. AID PROJECT				

*328 & 776 ** WHITE & HAMILTON

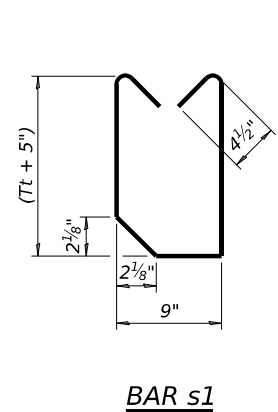
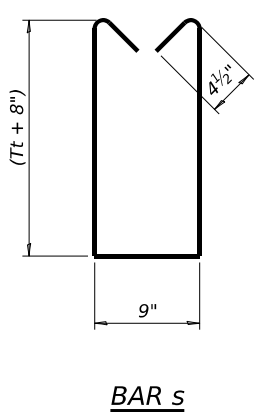
(Sheet 2 of 2)



TOEWALL CONSTRUCTION SEQUENCE

1. Perform excavation and construct toewall.
2. Backfill accordingly and prepare bedding for box culvert end sections.
3. Construct remainder of box culvert end section.

Note:
If soil conditions permit, the toewall may be poured monolithically with the bottom slab of the end section using Alt. Section D-D subject to approval from the Engineer.



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST CONCRETE BOX CULVERT
APRON END SECTION DETAILS SN 033-7020

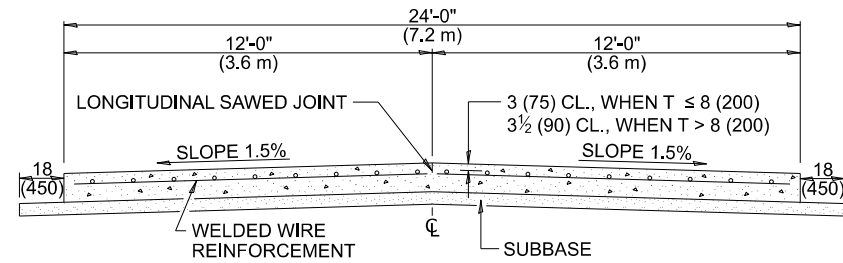
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*	109CR-1;102CR-1	**	20	17
CONTRACT NO. 78999				

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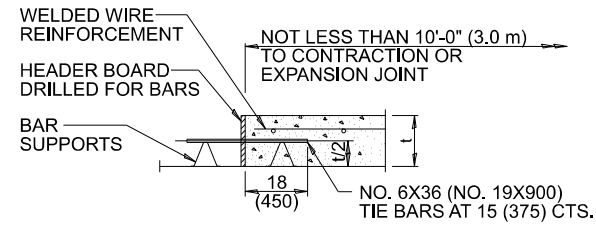
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	DATE -	REVISED -

SCALE: SHEET OF SHEETS STA. TO STA.

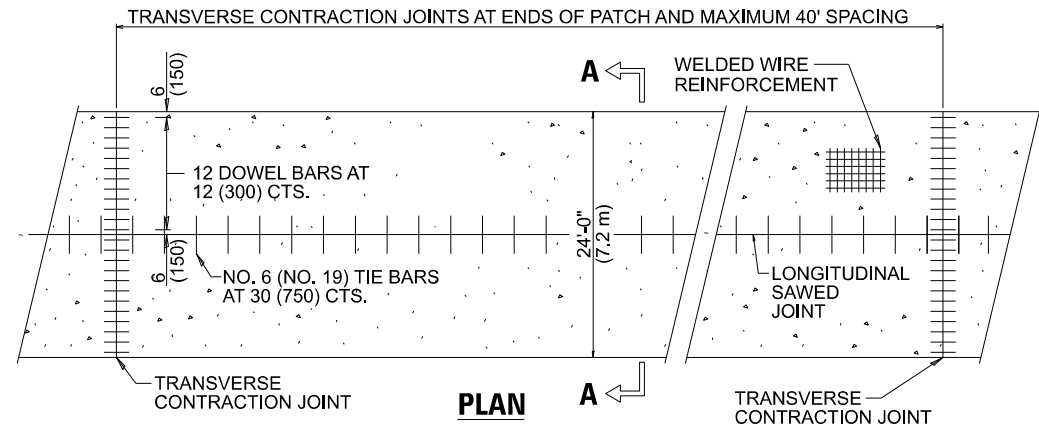
**24' (7.2 m) PCC PAVEMENT
OVER BOX CULVERT**



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.

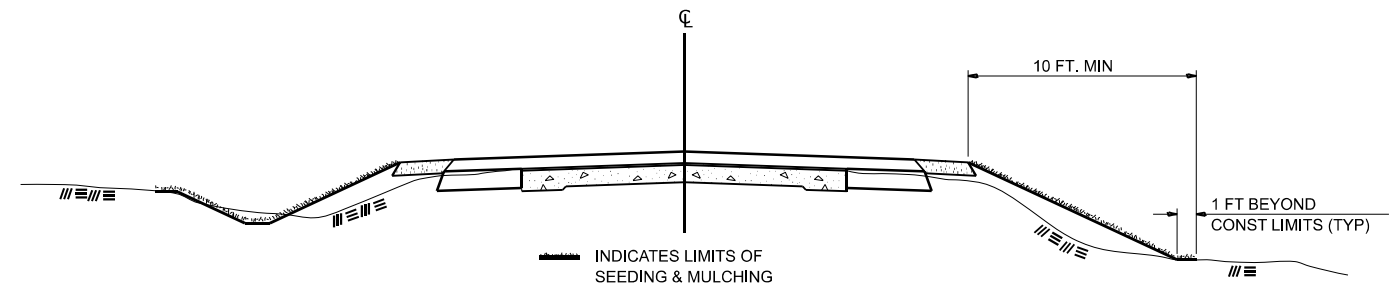
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

ACTUAL DIMENSIONS TO MATCH FIELD CONDITIONS AND CONSTRUCTION METHODS.

DRAWN	11-09-17
REVISED	07-23-18
REVISED	10-21-21
REVISED	05-04-22

STD. 9-13

SEEDING & MULCHING



GENERAL NOTES

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

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

FERTILIZER NUTRIENTS SHALL BE APPLIED TO ALL SEEDING 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 SHALL GOVERN THIS WORK EXCEPT AS SPECIFIED HEREIN OR AS NOTED IN THE SPECIAL PROVISIONS.

DRAWN	02-15-89
REVISED	03-27-08
REVISED	10-21-21
REVISED	05-27-22

STD. 9-19

MODEL: P1m Sheet 16 (Sheet)
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	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.
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CONTRACT NO. 78999				
ILLINOIS FED. AID PROJECT				

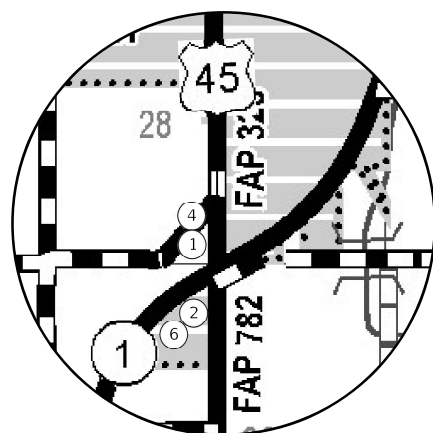
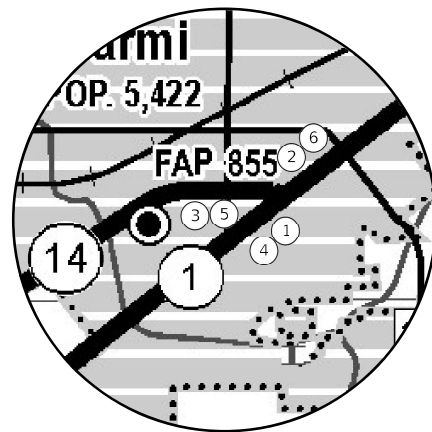
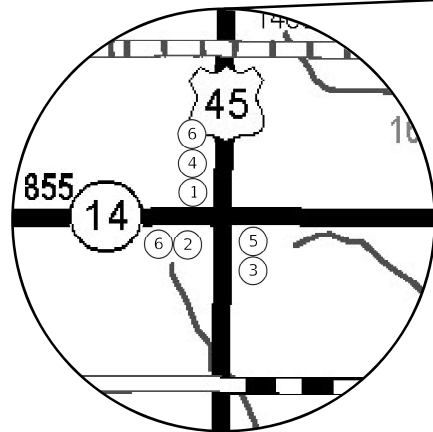
*328 & 776 ** WHITE & HAMILTON

SIGN DETAILS

- ①
3 REQUIRED
DETOUR
US 45
M4-8(O)-2412
M1-1100-3024
M6-1 L-2115
- ②
9 REQUIRED
DETOUR
US 45
M4-8(O)-2412
M1-1100-3024
M6-3 2115
- ③
2 REQUIRED
DETOUR
US 45
M4-8(O)-2412
M1-1100-3024
M5-1 R-2115
- ④
3 REQUIRED
DETOUR
US 45
M4-8(O)-2412
M1-1100-3024
M5-1 L-2115
- ⑤
2 REQUIRED
DETOUR
US 45
M4-8(O)-2412
M1-1100-3024
M6-1 R02115
- ⑥
4 REQUIRED
DETOUR AHEAD
W20-2(O)-4848

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 DETOUR SIGNING.
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 INCLUDED IN THE COST OF DETOUR SIGNING.
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.



MESSAGE BOARDS

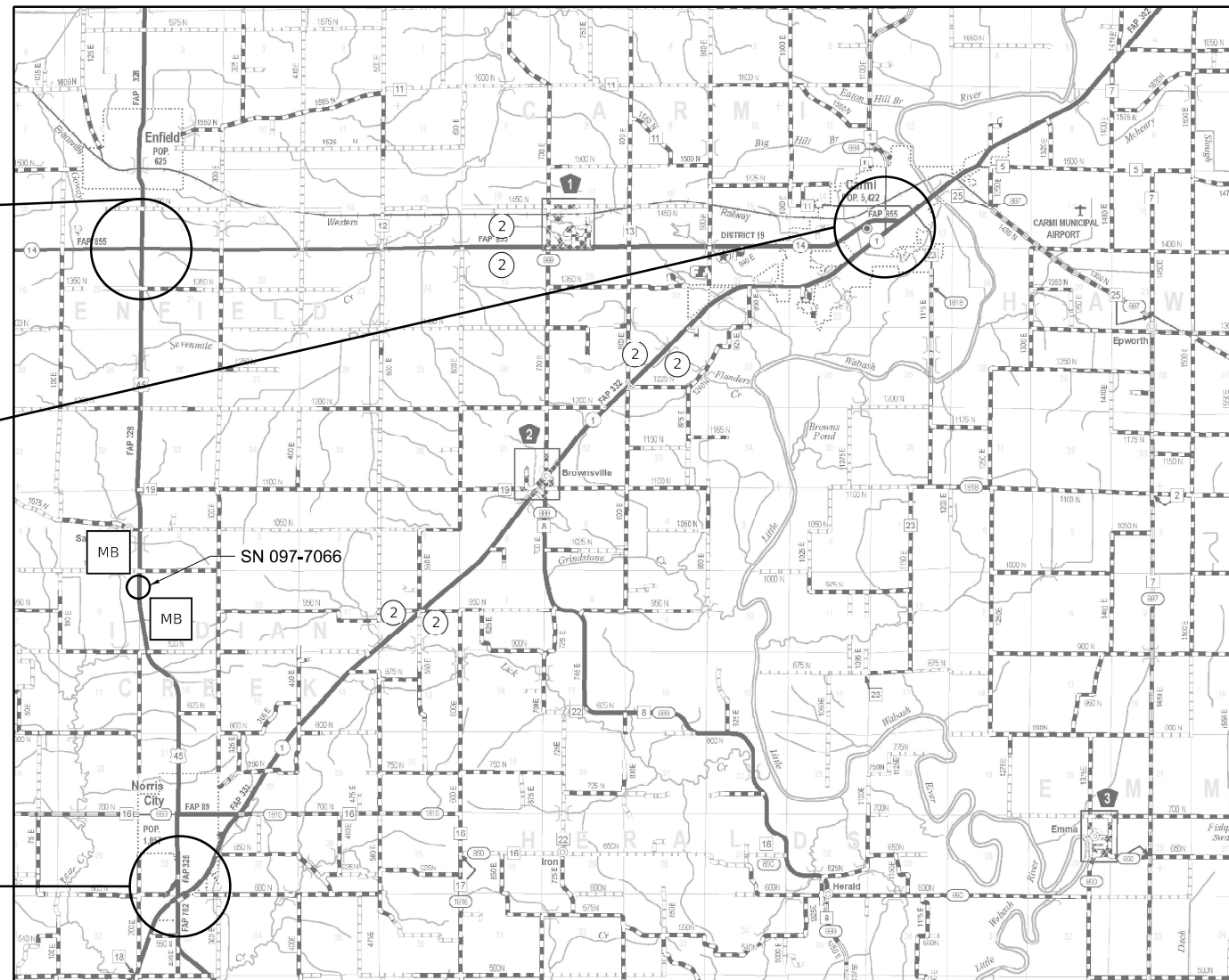
MB 2 REQUIRED (3 WEEKS BEFORE CLOSURE)

PRIOR TO CLOSURE

DURING CLOSURE

US 45 WILL BE CLOSED
XX MILES AHEAD
DATE TO DATE

US 45 CLOSED
XX MILES AHEAD
LOCAL TRAFFIC ONLY



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	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DETOUR SIGNING SHEET
SN 097-7097**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	109CR-1;102CR-1	**	20	19
CONTRACT NO. 78999				
ILLINOIS FED. AID PROJECT				

*328 & 776 ** WHITE & HAMILTON

SIGN DETAILS

- ①
5 REQUIRED

DETOUR	M4-8(O)-2412
ILLINOIS 242	M1-1100-3024
←	M6-1 L-2115
- ②
12 REQUIRED

DETOUR	M4-8(O)-2412
ILLINOIS 242	M1-1100-3024
↑	M6-3 2115
- ③
4 REQUIRED

DETOUR	M4-8(O)-2412
ILLINOIS 242	M1-1100-3024
↗	M5-1 R-2115
- ④
5 REQUIRED

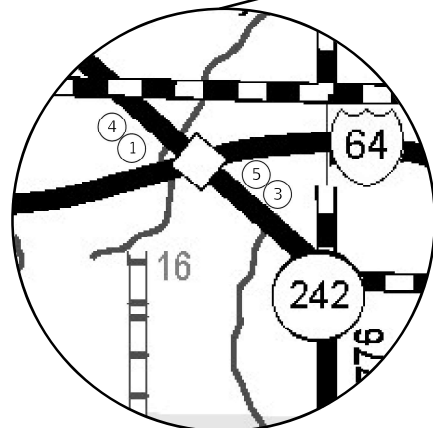
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ILLINOIS 242	M1-1100-3024
↖	M5-1 L-2115
- ⑤
4 REQUIRED

DETOUR	M4-8(O)-2412
ILLINOIS 242	M1-1100-3024
→	M6-1 R02115
- ⑥
6 REQUIRED

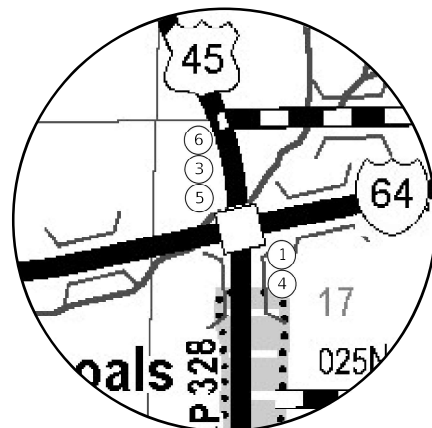
DETOUR AHEAD	W20-2(O)-4848
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NOTES:

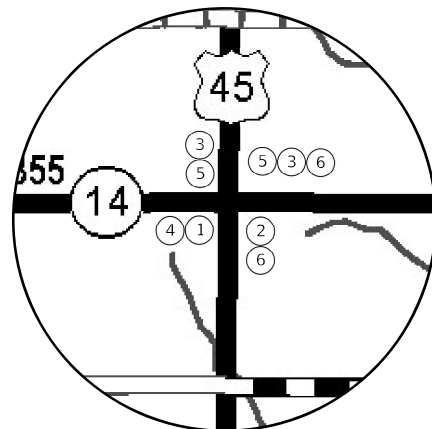
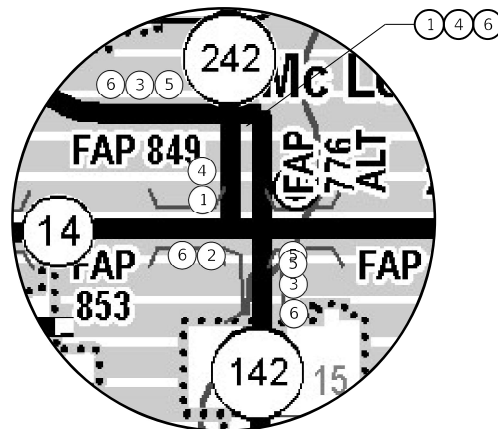
1. THE CONTRACTOR HAS THE OPTION OF USING METAL POSTS INSTEAD OF WOOD.
2. ALL SIGNS SHALL BE BLACK ON ORANGE. THE POSTS SHALL BE PLACED 12 FEET FROM THE EDGE OF PAVEMENT AS DIRECTED BY THE ENGINEER.
3. ALL SIGNS AND HARDWARE REQUIRED TO INSTALL THE DETOUR ROUTE SIGNING SHALL BE INCLUDED IN COST OF DETOUR SIGNING.
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 INCLUDED IN THE COST OF DETOUR SIGNING.
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.



*Detour Sign for I-64 EB Traffic will be placed on the on-ramp from IL 242

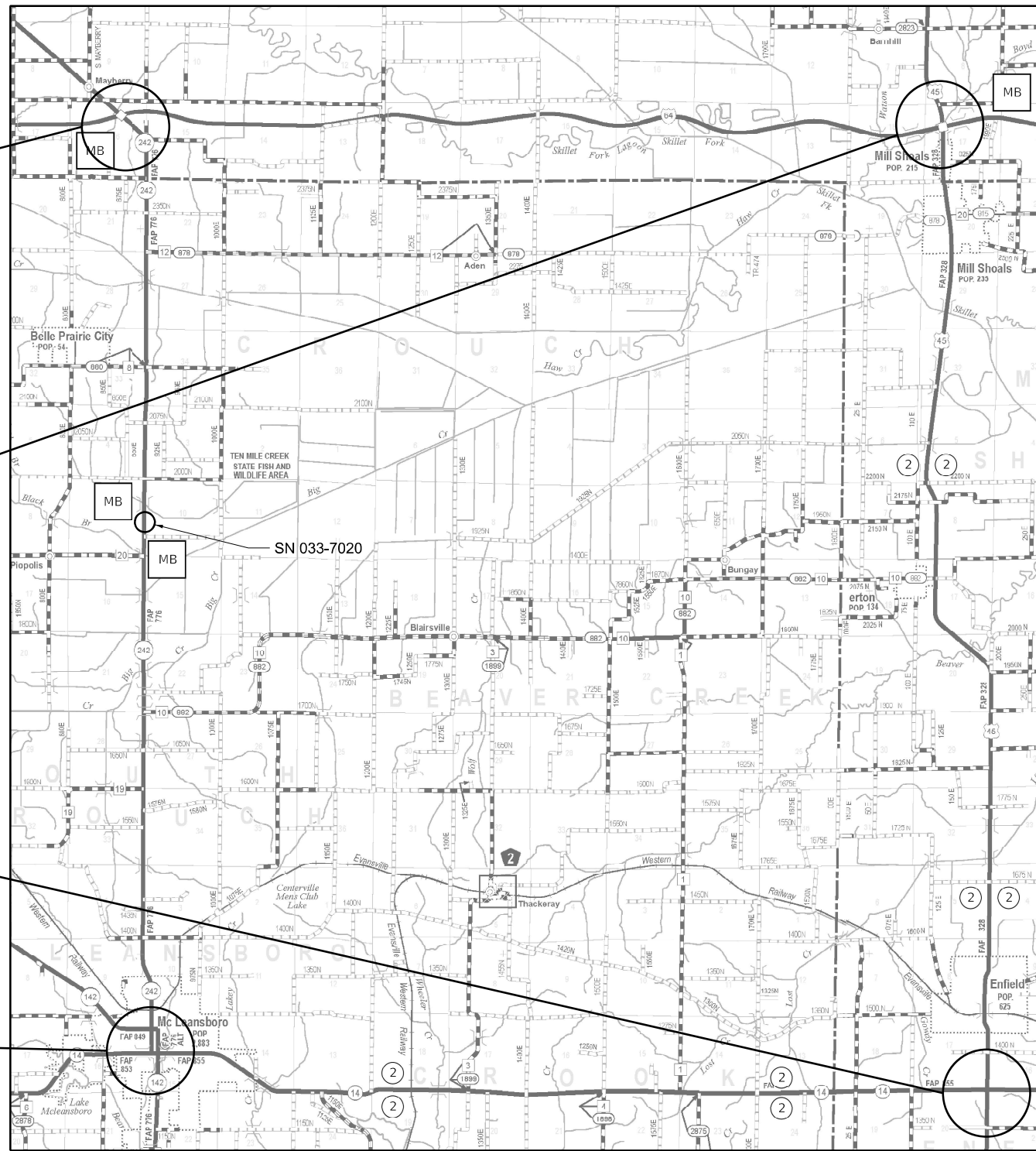


*Detour Sign for I-64 WB Traffic will be placed on the on-ramp from US 45



MESSAGE BOARDS

MB	2 REQUIRED (3 WEEKS BEFORE CLOSURE)
PRIOR TO CLOSURE	DURING CLOSURE
IL 242 WILL BE CLOSED	IL 242 CLOSED
XX MILES AHEAD	XX MILES AHEAD
DATE TO DATE	LOCAL TRAFFIC ONLY



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DETOUR SIGNING SHEET
SN 033-7040**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 78999				
ILLINOIS FED. AID PROJECT				

*328 & 776 ** WHITE & HAMILTON