04-26-2024 LETTING ITEM 079

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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

| F.A.P. | SECTION | COUNTY | TOTAL SHEET | SH

D-95-040-18



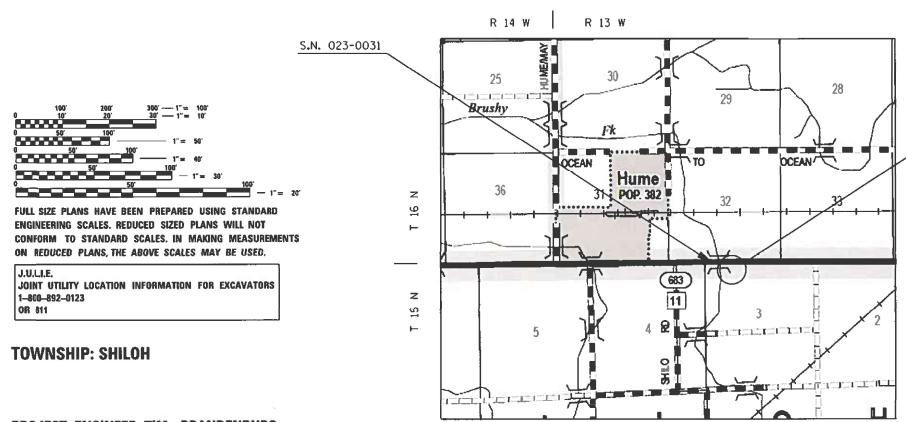
FOR INDEX OF SHEETS, SEE SHEET NO. 2

<u>CURREN</u>	r tr	<u>AFI</u>	FIC	DATA
2022	ADT	=	1,150	
2042	ADT	=	1,250	ł .
PU +	PC %	=	77.3	
SU '	%	=	7.0	
*****	,		4	

PROPOSED HIGHWAY PLANS

FAP ROUTE 323 (US 36)
SECTION (14)I
PROJECT
CULVERT REPLACEMENT
FIELD ENTRANCE EAST OF HUME
EDGAR COUNTY

C-95-064-18



PROPOSED S.N. 023-8069
PROPOSED S.N. 023-8077
FAP 323 (US-36)
STA. 1185+00
REPLACEMENT FIELD ENTRANCE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED

IIB

20 24

Kensill Bornett Saw

REGIONAL ENGINEER

March 22, 2024

ENGINEER OF DESIGN AND ENVIRONMENT

March 22, 2024

Style March

DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PROJECT ENGINEER: TIM BRANDENBURG PROJECT MANAGER: ERIC SHAWLER

CONTRACT NO. 70D26

INDEX OF SHEETS

SHEET NO.	ITEM
1	COVER SHEET
2	INDEX OF SHEETS
2	LIST OF STANDARDS
2	GENERAL NOTES
3-4	SUMMARY OF QUANTITIES
5-12	STRUCTCURE PLANS 023-8069
13-17	CROSS SECTIONS

LIST OF HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
515001-04	NAME PLATE FOR BRIDGES
701006-05	OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM EDGE OF PAVEMENT
701201-05	LANE CLOSURE, 2L,2W, DAY ONLY, FOR SPEEDS > = 45 MPH
701901- 09	TRAFFIC CONTROL DEVICES

GENERAL NOTES

G.N.-100

ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

G.N.-105.09A

ALL ELEVATIONS SHOWN IN THE PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988. (NAVD 88)

G.N.-540

THE CONTRACTOR SHALL ASSEMBLE AND MATCH MARK PRECAST BOX CULVERT SECTIONS AND END SECTIONS PRIOR TO SHIPPMENT OF THESE COMPONENTS FROM THE MANUFACTURER, AND AS DIRECTED BY THE ENGINEER IN ORDER TO SECURE A PROPER FIT ON EACH JOINT. ANY SECTIONS OR END SECTIONS WICH DO NOT PROVIDE A PROPER FIT AT THE JOINT SHALL BE REJECTED BY THE ENGINEER AND REPLACED BY THE CONTRACTOR WITH NO ADDITIONAL COMPENSATION BEING ALLOWED.

THIS WORK WILL NOT BE PAID FOR SEPERATELY BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER FOOT FOR "PRECAST BOX CULVERT" OF THE SIZE SPECIFIED.

G.N.- 542.07

AT LOCATIONS WHERE END SECTIONS ARE SPECIFIED, CAST-IN-PLACE CONCRETE HEADWALLS WILL NOT BE ALLOWED.

SEE R.E. FILE FOR CALCULATIONS AND SCHEDULES.

USER NAME = eric shawler	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 / in.	CHECKED -	REVISED -
PLOT DATE = 1/12/2024	DATE -	REVISED -

NI	DEX OF	: s	HEETS,	ST	ANDARI	DS, GENE	RAL NOTES	F.A.P. RTE	SECT	ΠΟN		COUNTY	TOTAL SHEETS	
PROPOSED S.N. 023-8077						323	(14	4)I		EDGAR	17	2		
			1 1101 0	, J.	D 3.14.	023-007						CONTRACT	NO. 70	D26
	SHEET	1	OF 1	1	SHEETS	STA.	TO STA.			ILLINOIS	FED A	D PROJECT		

EDGAR CO.
FAP 323 (US 36)
RURAL / TWO-LANE
CULVERT REPLACEMENT
Proposed S.N. 023-8077
100% STATE
0004
QUANTITY

CODE			
NO.	ITEM	UNIT	QUANTITY
20300100	CHANNEL EXCAVATION	CU YD	1,039.0
25000300	SEEDING, CLASS 3	ACRE	0.4
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	36.0
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	36.0
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	36.0
25100630	EROSION CONTROL BLANKET	SQ YD	1,790.0
28000500	INLET AND PIPE PROTECTION	EACH	1.0
28100107	STONE RIPRAP, CLASS A4	SQ YD	995.1
28200200	FILTER FABRIC	SQ YD	995.1
40200900	AGGREGATE SURFACE COURSE, TYPE B	CU YD	33.0
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1.0
50200100	STRUCTURE EXCAVATION	CU YD	217.0
51500100	NAME PLATES	EACH	1.0
54001001	BOX CULVERT END SECTIONS, CULVERT NO. 1	EACH	2.0

* SPECIALTY ITEM

USER NAME = eric shawler	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 / in.	CHECKED -	REVISED -
PLOT DATE = 12/19/2023	DATE -	REVISED -

SCALE:

SUMMARY OF QUANTITY						F.A.P. RTE	SECTION		
	PROPOSED S.N. 023-8077						323	(14)I	
			1 1101	03	LD J.IV.	023-00	011		
	SHEET	1	OF	2	SHEETS	STA.	TO STA.		ILLINOIS

EDGAR CO.	
FAP 323 (US 36)	
RURAL / TWO-LANE	
CULVERT REPLACEMENT	
Proposed S.N. 023-8077	
100% STATE	
0004	

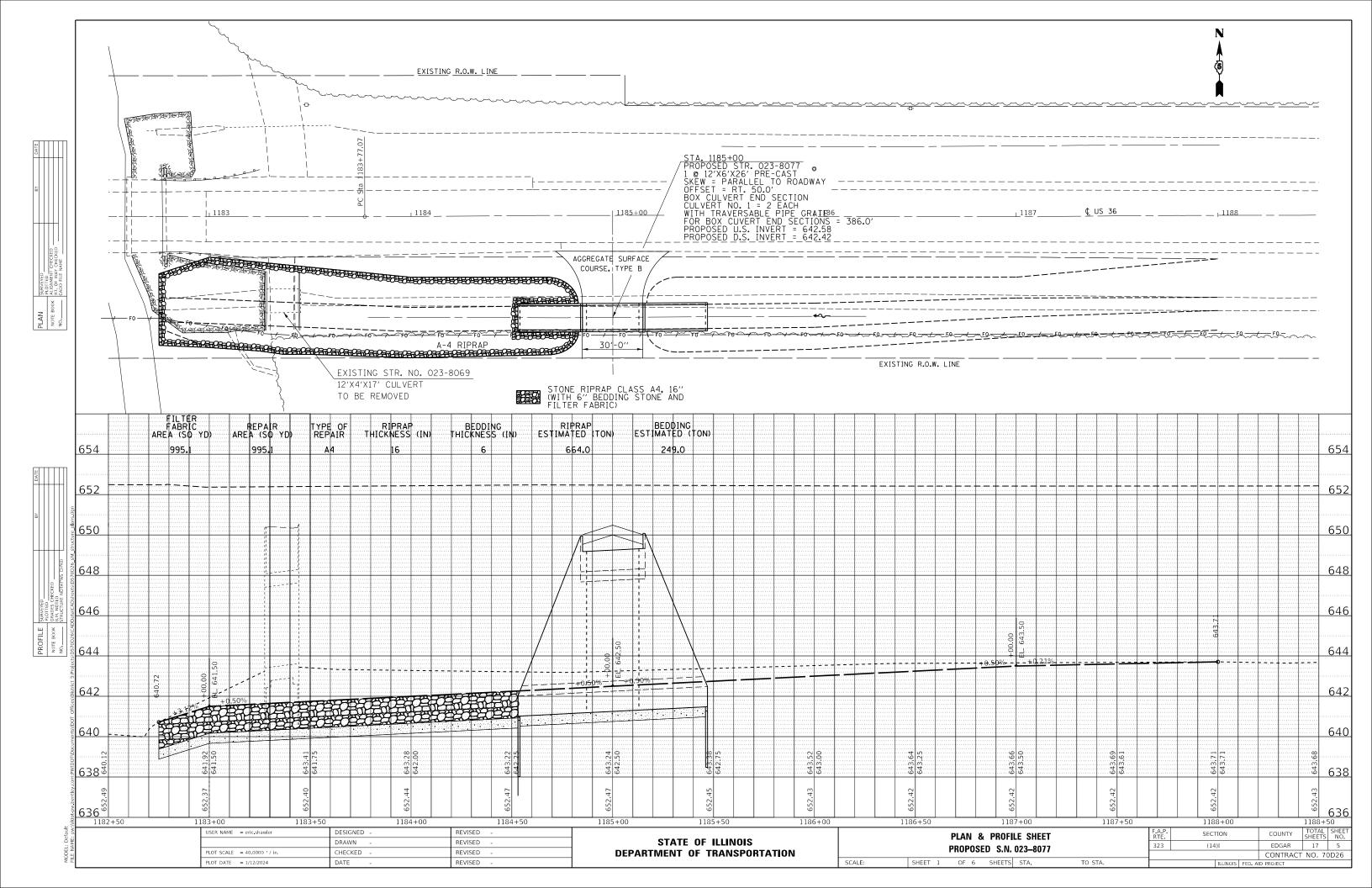
CODE			
NO.	ITEM	UNIT	QUANTITY
54011206	PRECAST CONCRETE BOX CULVERTS 12' X 6'	FOOT	26.0
54260315	TRAVERSABLE PIPE GRATE FOR CONCRETE END SECTION	FOOT	386.0
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	53.0
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	2.0
67100100	MOBILIZATION	L SUM	1.0
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1.0
X5810103	WATERPROOFING MEMBRANE SYSTEM FOR BURIED STRUCTURES	SQ YD	53.0
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.0

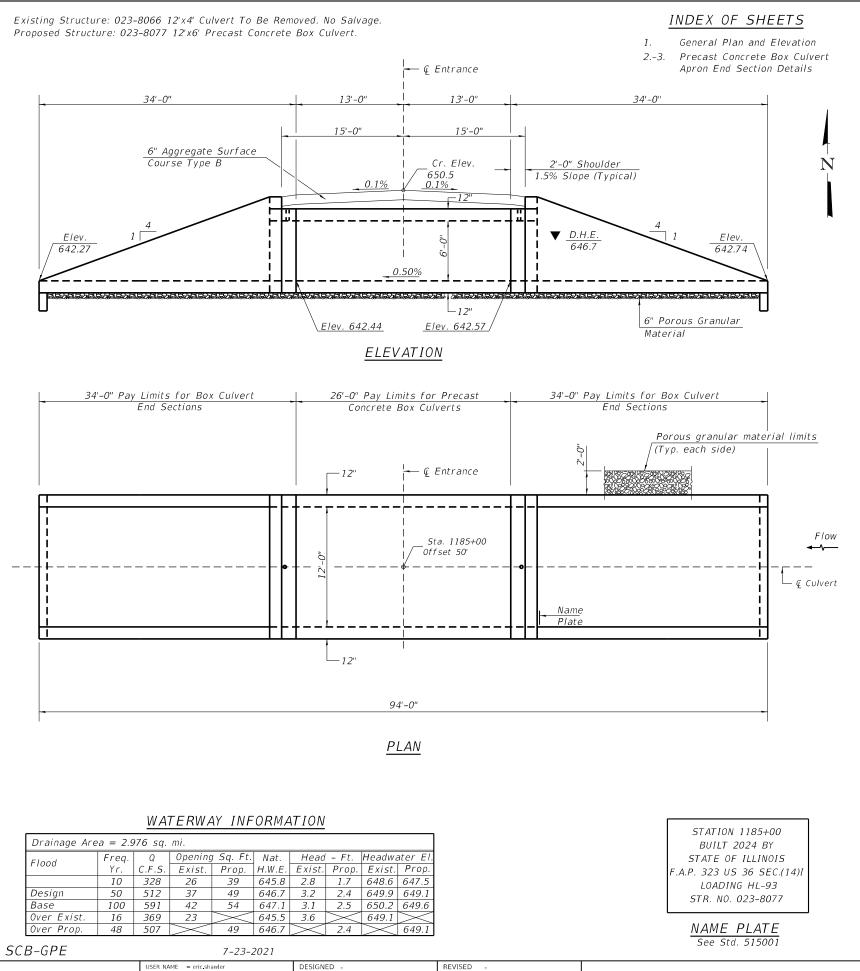
* SPECIALTY ITEM

USER NAME = eric shawler	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 / in.	CHECKED -	REVISED -
PLOT DATE = 1/12/2024	DATE -	REVISED -

SCALE:

			SUMI	MAI	SUMMARY OF QUANTITY						SECTION		
PROPOSED S.N. 023-8077						323	(14	4)I		EDGAR			
	LULO2ED 2'IN' 052-0011						'					CONTRACT	N
	SHEET	2	OF	2	SHEETS	STA.	TO STA.			ILLINOIS	FED. AI	ID PROJECT	





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DRAWN

DATE

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PLOT SCALE = 40.0000 / in.

PLOT DATE = 3/26/2024

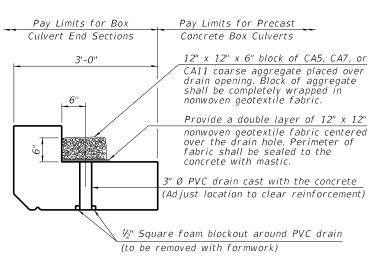
GENERAL NOTES

The design fill height for this box is 1.0 ft. 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 top of the box culvert 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.



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.)

DESIGN SPECIFICATIONS

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

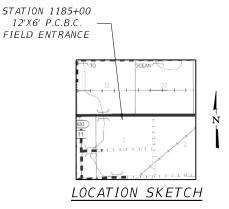
LOADING HL-93

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	Each	1.0
Structure Excavation	Cu Yd	217.0
Name Plates	Each	1.0
Box Culvert End Sections, Culvert No. 1	Each	2.0
Precast Concrete Box Culverts, 12' x 6'	Foot	26.0
Traversable Pipe Grate For	Foot	386.0
Concrete End Section	1000	300.0
Geocomposite Wall Drain	Sq Yd	53.0
Waterproofing Membrane System for Buried Structures	Sq Yd	53.0

GENERAL PLAN AND ELEVATION

US RTE. 36 F.A.P. 323 SEC. (14)I EDGAR COUNTY STATION 1185+00 S.N. 023 - 8077

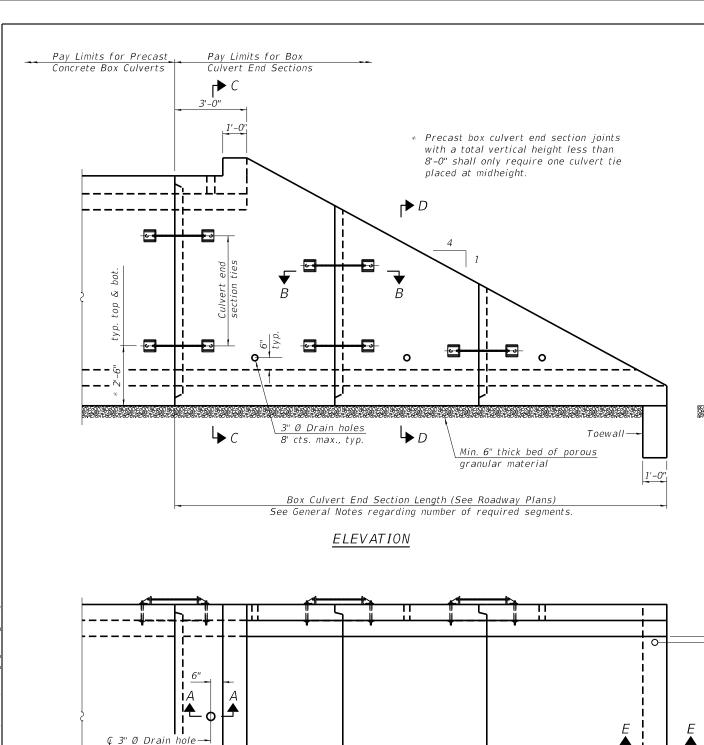
GENERAL PLAN AND ELEVATION S.N. 023–8077
FIELD ENTRANCE CULVERT STA. 1185 + 00 RT. 50.0

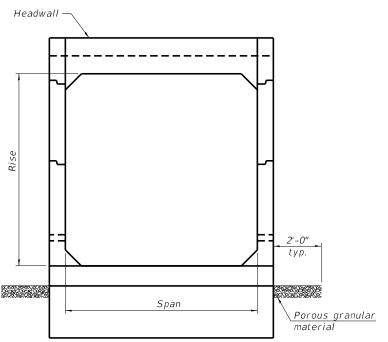
SCALE: SHEET 2 OF 6 SHEETS STA. TO STA

F.A.P. RTE	SECT	ΠΟN	COUNTY	TOTAL SHEETS	SHE		
323	(14	4)I		EDGAR	17	6	
				CONTRACT	NO. 70	D26	
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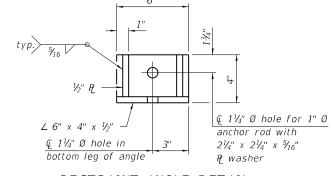
MODEL: Default

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION





END VIEW



RESTRAINT ANGLE DETAIL

12" x 12" x 6" block of CA5, CA7, or
CA11 coarse aggregate placed over drain
opening. Block of aggregate shall be
completely wrapped in nonwoven
geotextile fabric.

Provide a double layer of 12" x 12"
nonwoven geotextile fabric centered
over the drain hole. Fabric shall
be sealed to the concrete with mastic.

3" Ø PVC drain cast with the
concrete (Adjust location to
clear reinforcement).

12" Square foam blockout around PVC drain
(to be removed with formwork)

SECTION A-A

(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.)

(Sheet 1 of 2)

GENERAL NOTES

Box Culvert End Sections shall be constructed according to the requirements of Section 540 of the Standard Specifications except as modified herein. This work will be measured for payment as each, with each end of each culvert being one each. End sections will be paid for at the contract unit price per each for Box Culvert End Sections of the culvert number specified.

Typical box section dimensions, materials, and reinforcement details for Box Culvert End Sections shall be according to the requirements of 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.

Number of segments shown in Elevation is for example only. Length and number of precast box sections required to construct Box Culvert End Sections shall be determined by the Contractor.

See roadway plans for embankment slope (V:H).

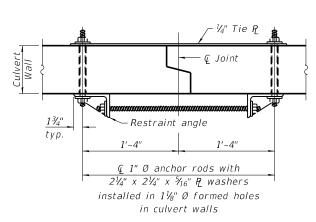
1" Ø anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according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

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 contract unit price for Box Culvert End Sections of the culvert number specified.

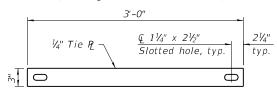
Drain holes shall conform to the requirements of Article 503.11 of the Standard Specifications unless noted otherwise.

Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01. The minimum weight of the fabric shall be 6 oz. / sq. yd..

For end sections with traversable pipe grate systems, see grate detail sheet for required modifications.



<u>SECTION B-B</u> (Showing end section tie details)



TIE PLATE DETAIL

SCB-TES 2-17-2017

USER NAME = eric shawler	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 / in.	CHECKED -	REVISED -
PLOT DATE = 12/19/2023	DATE -	REVISED -

PLAN

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

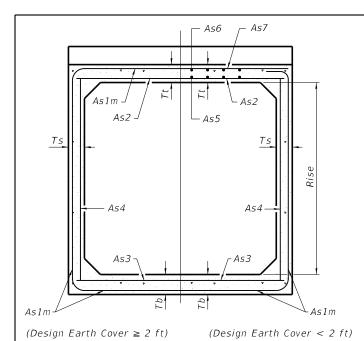
SINGLE CELL PRECAST BOX CULVERT TAPERED END SECTIONS
STRUCTURE NO. 023–8077

SHEET 3 OF 6 SHEETS STA. TO STA.

F.A.P. SECTION COUNTY TOTAL SHEET NO.

323 (14)I EDGAR 17 7

CONTRACT NO. 70D26



SECTION C-C

Optional bonded construction joint typ. As1m √ c typ.

ALTERNATE SECTION D-D

As1m REINFORCEMENT											
(in.²/ ft)											
Ts (in.)	2	3	4	5	6	7	8	9	10	11	12
4	0.19	0.17									
5	0.26	0.21	0.18								
6	0.22	0.26	0.23	0.22							
7	0.25	0.33	0.59	0.27	0.28						
8	0.40	0.35	0.43	0.39	0.36	0.34	0.40				
9	0.44	0.39	0.35	0.43	0.40	0.37	0.36	0.48			
10	0.48	0.42	0.38	0.47	0.44	0.41	0.38	0.42	0.56		
11	0.52	0.45	0.54	0.50	0.46	0.44	0.41	0.46	0.50	0.65	
12	0.55	0.49	0.58	0.54	0.50	0.48	0.45	0.46	0.46	0.61	0.75
roinforcement ha	cad un	on wal	dod wii	ro roin	forcom	ant cou	nformir	a to A	ACUTO	M 55	or M 3

(As1m reinforcement based upon welded wire reinforcement conforming to AASHTO M 55 or M 221).

ℓ₁ DIMENSION

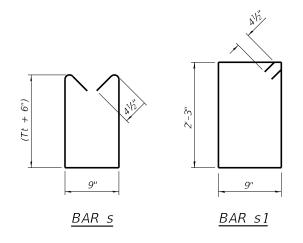
#3 bar = 2'-0''#4 bar = 2'-8'' $#5 \ bar = 3'-4"$

 $\#6 \ bar = 3'-11''$

Alternate Section D-D is provided to allow the Contractor the option of casting the bottom slab of the end section first followed by construction of the sidewalls using conventional forming methods. Shop drawings that detail slab thickness and reinforcement layout shall be submitted to the Engineer for review and approval when using Alternate Section D-D.

The size and spacing of the v2 bars shall provide a minimum reinforcement area along each face of the walls (in.2/ft.) equal to 1.10*(As1m). v2 bars may consist of #3 thru #6 size reinforcement bars and the longitudinal spacing shall not exceed the lesser of the wall thickness or 8 inches.

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



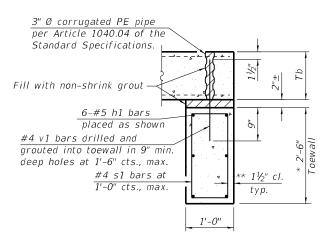
#4 s bars at spacing = Tt (Spacing need not be less than 8") 4-h bars (See Section F-F) HEADWALL ELEVATION (Allow sidewall reinforcement to extend into end of headwall.)

TOEWALL CONSTRUCTION SEQUENCE

1. Perform excavation and construct toewall.

SECTION D-D

- 2. Backfill according to the applicable paragraphs of Article 502.10 of the Standard Specifications 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 the 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

2-#7 h bars (S < 8'-0") 2-#8 h bars (S ≥ 8'-0") Top and bottom of headwall ¾" "∆" Drip notch full length of span

SECTION F-F

SCALE:

SCB-TES 2-17-2017

USER NAME = eric shawler	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 / in.	CHECKED -	REVISED -
PLOT DATE = 12/19/2023	DATE -	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

		(She								
SINGLE CELL PRECAST BOX CULVERT TAPERED END SECTIONS STRUCTURE NO. 023-8077							SECTION		COUNTY	TOTA SHEE
							(14)I		EDGAR	17
31NUGIUNE NU. 023-00//									CONTRAC	T NO.
LE:	SHEET 4	OF 6	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT				

PLAN

SINGLE PCBC SHOWN; MULTIPLE PCBC SIMILAR

EXCAVATION DEPTHS	* SLOPES
5'-0" < EXCAVATION DEPTH <= 8'-0"	¾': 1'
8'-0" < EXCAVATION DEPTH <= 12'-0"	1' : 1'
12'-0" < EXCAVATION DEPTH <= 20'-0" MUST BE SLOPED FROM EXCAVATION BOTTOM OR SPECIAL DESIGN BY S.E. SEE ARTICLE 522.07 FOR TEMPORARY SOIL RETENTION SYSTEM	1' : 1'

*SLOPED EXCAVATION IN TYPE A SOIL SHOWN PER APPENDIX B OF OSHA CFR LABOR 29 PART 1926 SUBPART P - EXCAVATIONS.

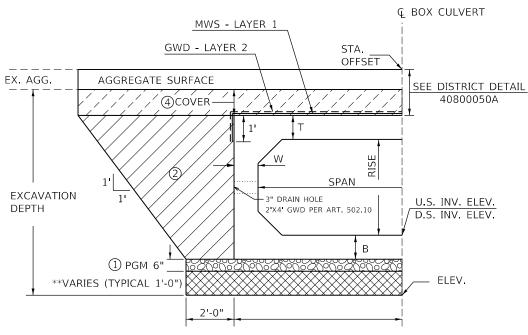
OPTIONAL CONFIGURATIONS MAY BE CONSTRUCTED IN ACCORDANCE WITH OSHA REQUIREMENTS CONTAINED IN THE CODE OF FEDERAL REGULATIONS LABOR 29 PART 1926 SUBPART P - EXCAVATIONS.

SEE ARTICLE 107.28 FOR CONTRACTOR SAFETY RESPONSIBILITY.

POROUS GRANULAR MATERIAL (PGM) (CA-7)
 (Ca-ct in the case of the case

STONE RIPRAP, CLASS A1

(Cost included with PCBC per Article 540.06)



HALF SECTION SHOWN; SEE EXCAVATION DEPTHS TABLE

2 ***CHANNEL EXCAVATION / STRUCTURE EXCAVATION

***COVER UNDER AGGREGATE SURFACE

**STONE RIPRAP, CLASS A1

(IF REQUIRED)

STONE RIPRAP, CLASS A1 SHALL BE USED TO ADDRESS UNSTABLE SOIL CONDITIONS AS DETERMINED BY THE GEOTECHNICAL ENGINEER.

THE WORK SHALL BE PERFORMED PER APPLICABLE PORTIONS OF SECTION 281.

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR STONE RIPRAP, CLASS Α1.

THE EXCAVATION AND DISPOSAL OF UNSUITABLE MATERIAL SHALL NOT BE MEASURED FOR PAYMENT, COST INCLUDED WITH STONE RIPRAP, CLASS A1.

***CHANNEL / STRUCTURE EXCAVATION

CHANNEL EXCAVATION OR STRUCTURE EXCAVATION OF SUITABALE BACKFILL MATERIAL APPROVED BY THE ENGINEER SHALL BE COMPACTED PER APPLICABLE PORTIONS OS SECTION 207.

CHANNEL EXCAVATION OR STRUCTURE EXCAVATION USED AS BACKFILL MATERIAL WILL NOT BE MEASURED FOR PAYMENT, COST INCLUDED WITH PRECAST CONCRETE BOX CULVERTS.

MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES (MWS)

SEE SPECIAL PROVISIONS

GEOCOMPOSITE WALL DRAIN (GWD)

PER SECTION 591, EXCEPT CONCRETE NAILS NOT USED WHERE MWS & GWD OVERLAP

FILL HEIGHTS <= 3': MWS & GWD REQ. FILL HEIGHTS > 3': MWS & GWD NOT REQ. SEE ABD 19.2.

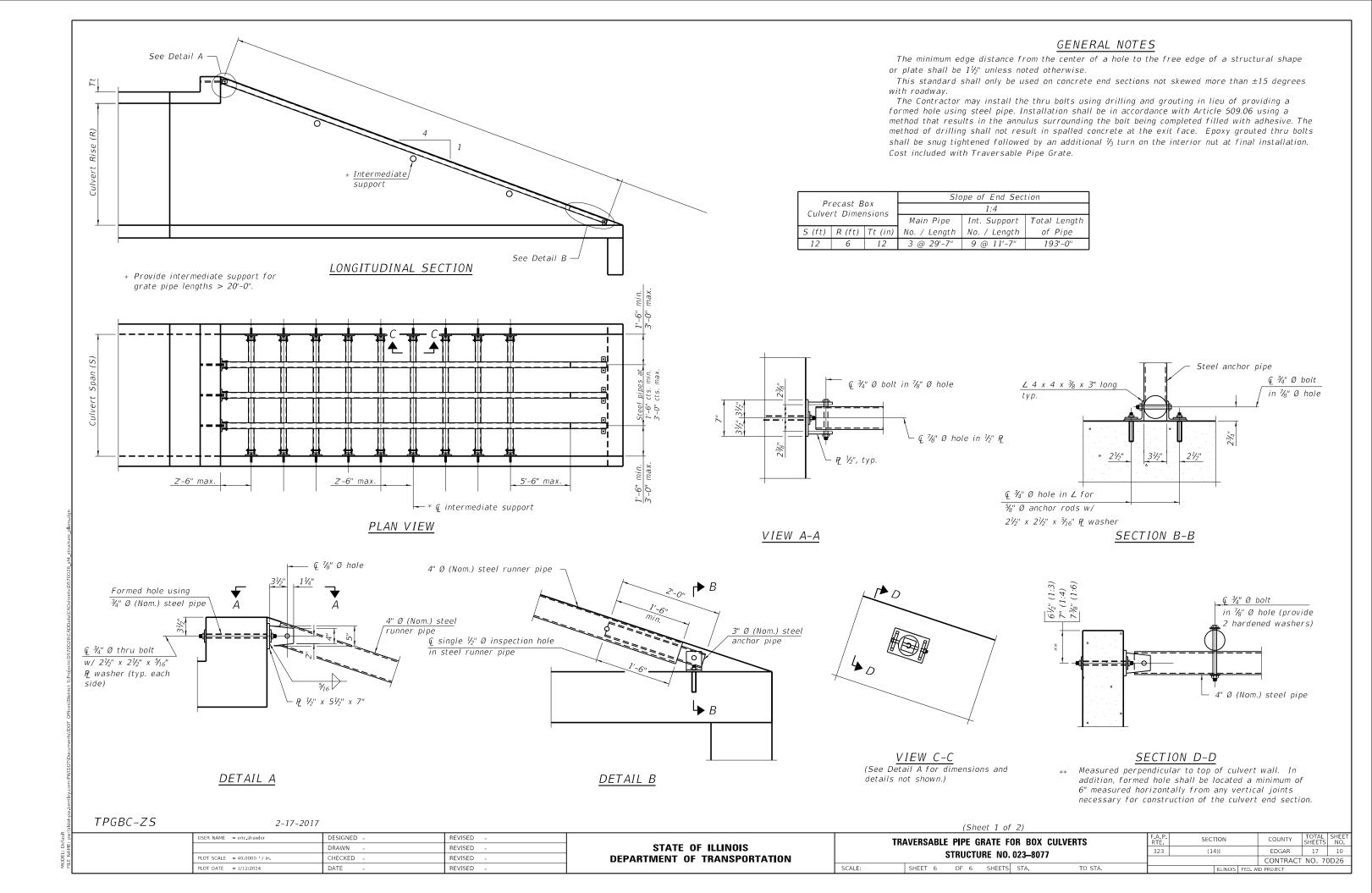
BILL OF MATERIAL

ITEM	UNIT	TOTAL
STONE RIPRAP, CLASS A1	TON	Χ
WATERPROOFING MEMBRANE SYSTEM FOR BURIED STRUCTURES	SQ YD	53.0
GEOCOMPOSITE WALL DRAIN	SQ YD	53.0

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT	5	DETAIL	NO.

REVISED PER ALL BRIDGE	DESIGNERS MEMORANDUM	MS (ABD) 19.2 AND 21.1.					DISTRICT 5 DETAI	L NO.		
USER NAME = eric shawler	DESIGNED - TJB	REVISED - TJB	STATE OF ILLINOIS	FIELD ENTRANCE PRECAST CONCRETE BOX CULVERT			SECTION	COUNTY	TOTAL	SHEET
	DRAWN - TJB	REVISED - TJB					(14)I	EDGAR	17	9
PLOT SCALE = 40,0000 / in	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	S.N. 023–8077				CONTRAC	T NO. 7	0D26
PLOT DATE = 3/26/2024	DATE - 10/17/2016	REVISED - 6/1/2022		SCALE:	SHEET 5 OF 6 SHEETS STA. TO STA.		ILLINOIS EF	D. AID PROJECT		



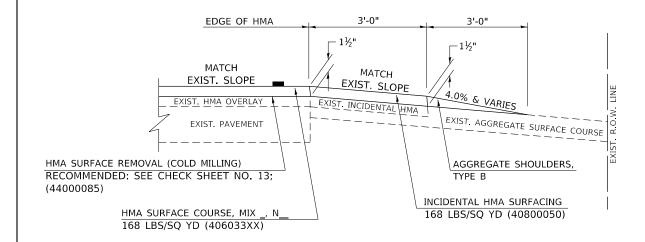
PROJECTS WITHOUT RECONSTRUCTION

("3R" WITHOUT RECONSTRUCTION, 3P, SMART AND CM)

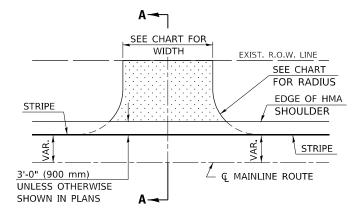
PROJECTS WITH RECONSTRUCTION

("3R" IMPROVEMENTS AND SMART/3P "SPOT" LOCATIONS)

S.M.A.R.T. IMPROVEMENTS (POLICY RESURFACING; BDE 53–4.03; 1½")

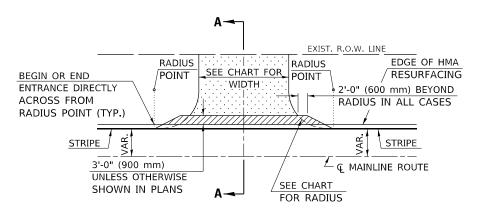


ADJACENT TO PROPOSED HMA SHOULDERS (AGGREGATE OR EARTH ENTRANCE)



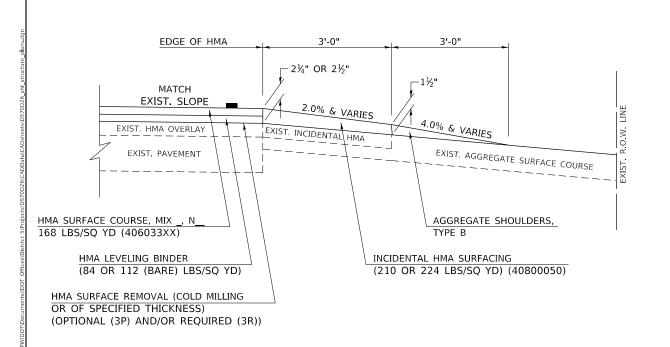
TYPICAL APPLICATION

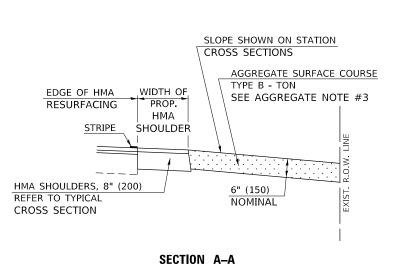
EXISTING AGGREGATE OR EARTH ENTRANCE

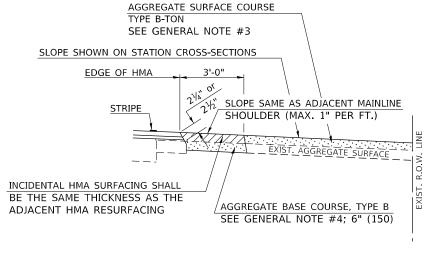


TYPICAL APPLICATION

"3P" OR "3R" IMPROVEMENTS (POLICY RESURFACING; BDE 53–4.02; $2\frac{1}{4}$ " OR $2\frac{1}{2}$ " ON BARE CONCRETE)







SECTION A-A

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

SHEET NO. 11

										DISTRICT 5 DETAIL NO. 40800050A					
	USER NAME = eric.shawler	DESIGNED -	REVISED - 12/06 TJB			F.A.P.	SECTION	COUN	ry TOT	AL SHE					
		DRAWN -	REVISED - 09/07 KAG	STATE OF ILLINOIS	FIELD ENTRANCES (NONCOM	323	(14)I	EDGA	R 17	7 1					
	PLOT SCALE = 40.0000 / in.	CHECKED -	REVISED - 04/08 KJT	DEPARTMENT OF TRANSPORTATION				CONTRACT NO. 7		. 70D2					
	PLOT DATE = 7/11/2023	DATE -	REVISED - 3/16/17 SWN		SCALE: SHEET 1 OF 2 SHEETS	STA. TO STA.		ILLINOIS	ED. AID PROJECT						

RURAL ENTRANCE DESIGN STANDARDS (I NEW CONSTRUCTION & 3R with CONSTRUCTION									3R w/out RECONSTRUCTION, 3P, SMART & CM						
NONCOMMERCIAL								NON	COMMER	CIAL					
	PRIVATE & FIELD			FIELD W/FARM IMPLEMENTS		COMMERCIAL			PRIVATE & FIELD			COMMERCIAL			
DESIGN ELEMENT	min.	des.	max.	min.	max.	min.	des.	max.	min.	des.	max.	min.	des.	max	
					1 LANE, 1 WAY					1	LANE, 1 WA	AY			
SURFACE WIDTH (FT)	12	16	24	24	30	14	16	24							
						2 LANE, 2 WAY					2	LANE, 2 WA	AY		
						24	30	35							
RADIUS (FT)	15	25	40	30		20	30	50	resurface existing configuration; existing aggregate or earth						
SHOULDER WIDTH (FT)	2	2		2		1	3		entrances shall have the continuation of aggregate shoulders						
SHOULDER SLOPE (%)	2	4	6	4		2	4	6	placed behind them						
ENTRANCE GRADE (%)	0	2 to 5	10 or 12	2 to 5	10 or 12	0	2 to 5	8 or 10							
SIDE SLOPE (FT)	1:4	1:6	1:10	1:4	1:6	1:4	1:6	1:10							
SURFACE TYPE															
INCIDENTAL HMA			2		3 or 4			taper from I	hma resurfa	cing thickne	ss (2 1/2", 2	1/4" or 1 1/	(2")		
SURFACING (INCH)		2 2		3 01 4			to 1 1/2" to minimize aggregate shoulder								
AGGREGATE SURFACE	6 6		8			if applicable, use items: Preparation of Base & Aggregate									
COURSE, TYPE B (INCH)			O	Ö		0		Base Repair; see PPM 30-02							
PCC DRIVEWAY		6						60.0							
PAVEMENT (INCH)		6						6 or 8							

GENERAL NOTES

- 1. THE EXISTING SURFACE SHALL BE PREPARED IN ACCORDANCE WITH SECTION 408 OF THE STANDARD SPECIFICATIONS.
- ANY NECESSARY WORK BEHIND THE HMA SHOULDER OR THE INCIDENTAL HMA SURFACING SHALL BE AS SHOWN IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.
- 3. EARTH EXCAVATION REQUIRED FOR THE CONSTRUCTION OF THE AGGREGATE SURFACE COURSE SHALL BE INCLUDED IN THE COST OF AGGREGATE SURFACE COURSE.
- 4. AGGREGATE BASE COURSE, TYPE B, 6" (150 mm) MIN. SHALL BE USED WHERE IN THE OPINION OF THE ENGINEER THERE IS NOT SUFFICIENT BASE MATERIAL FOR THE PROPOSED ENTRANCES. THIS MATERIAL SHALL GENERALLY BE USED TO WIDEN ANY EXISTING RETURN OR TO CONSTRUCT NEW ENTRANCES WHERE NONE NOW EXISTS.
- 5. THE AGGREGATE BASE COURSE SHALL BE CONSTRUCTED 12" (300 mm) WIDER THAN THE SURFACE DIMENSIONS AS SHOWN ABOVE.
- 6. EXISTING FIELD ENTRANCES OF AGGREGATE OR EARTH WITH NO HMA APRON SHALL NOT RECEIVE A NEW HMA APRON WITHOUT PROPER APPROVAL THROUGH THE BUREAU OF OPERATIONS "POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS".
- 7. TO ASSURE APPROPRIATE ACCESS POLICIES ARE FOLLOWED ALL NEW ACCESS SHALL BE APPLIED FOR THROUGH THE BUREAU OF OPERATIONS PERMIT APPLICATION PROCESS. PLAN PREPARATION MEMORANDUMS 40-09 ALONG WITH DISTRICT PROJECT IMPLEMENTATION MEMORANDUM 104/01 DISCUSS THIS PROCEDURE.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 40800050A	
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 USER NAME
 = eric.shawler
 DESIGNED
 REVISED
 12/06 TJB

 DRAWN
 REVISED
 09/07 KAG

 PLOT SCALE
 = 40.0000 ' / in.
 CHECKED
 REVISED
 04/08 KJT

 PLOT DATE
 = 7/11/2023
 DATE
 REVISED
 3/16/17 SWN

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIELD ENTRANCES (NONCOMMERCIAL RURAL)

SHEET 2 OF 2 SHEETS STA. TO ST.

SCALE:

 F.A.P. RTE.
 SECTION
 COUNTY
 TOTAL SHEETS NO.

 323
 (14)I
 EDGAR
 17
 12

 CONTRACT NO. 70D26

