

03-08-2019 LETTING ITEM 038

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

P.A.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3	102B-2	PERRY	17	1
		ILLINOIS	CONTRACT NO. 78618	

FOR INDEX OF SHEETS, SEE SHEET NO. 3

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

PROPOSED HIGHWAY PLANS

FAP ROUTE 103 (IL 13)
SECTION STP-102B-2
PROJECT 9WU7(001)
BOX CULVERT REPLACEMENT SN 073-7074
PERRY COUNTY

C-99-011-18

TRAFFIC DATA

SN 073-7074
2019 ADT = 2400
WITH 11.5% TRUCKS

TOWNSHIPS
COUNTY UNIT ROAD DISTRICT

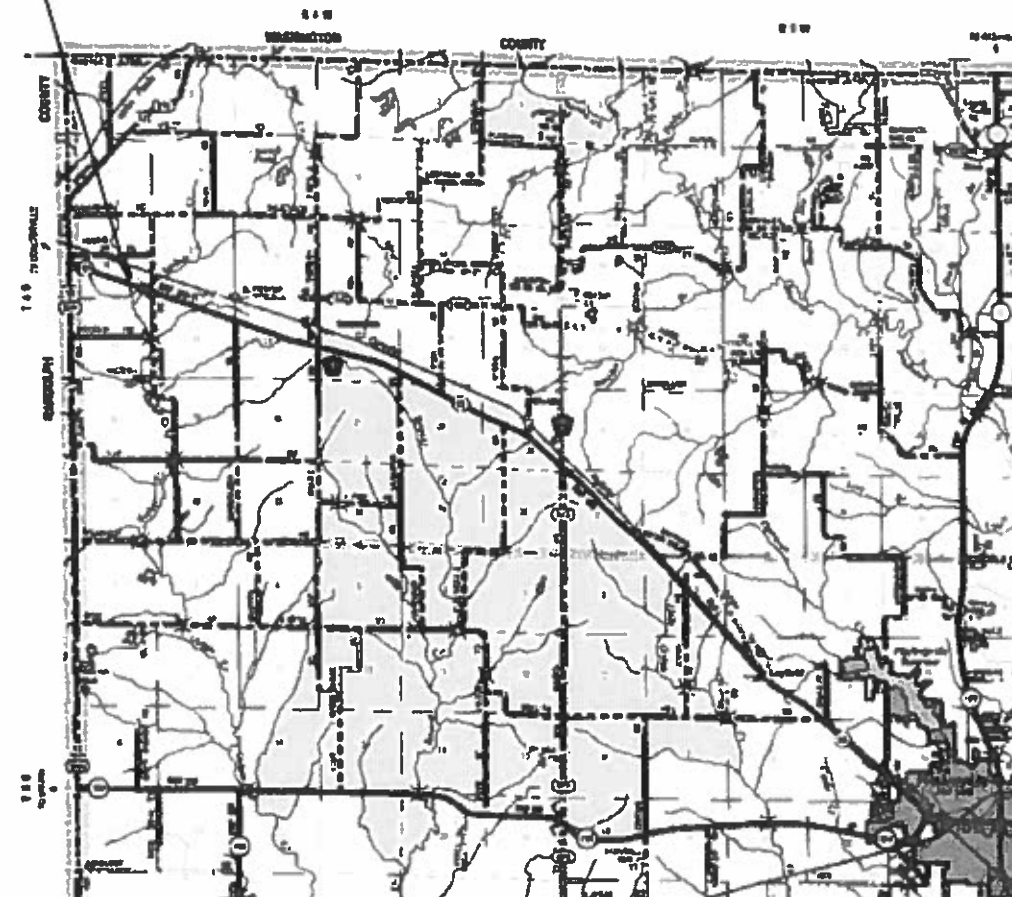
DESIGN DESIGNATION : N/A
COORDINATE SYSTEM : N/A
POSTED SPEED : 55 MPH

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-882-0123
OR 811

PROJECT ENGINEER: CHARLES STEIN
PROJECT DESIGNER: BEN DUGAS

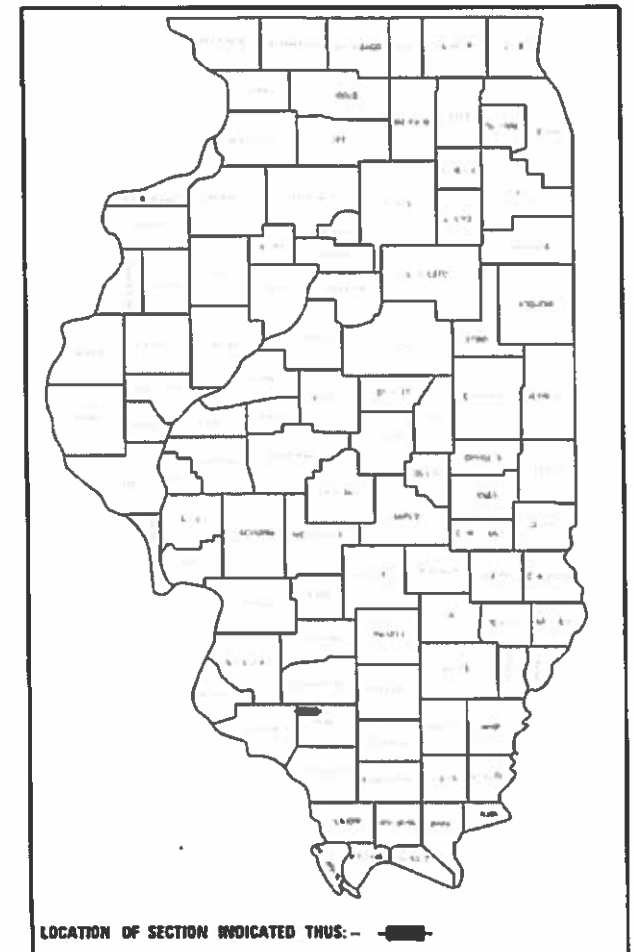
CONTRACT NO. 78618

PROJECT LOCATION
SN 073-7074
STA 380+03



GROSS LENGTH = 100.0 FT. = 0.2 MILES
NET LENGTH = 100.0 FT. = 0.2 MILES

D-99-005 18



LOCATION OF SECTION INDICATED THUS: - [rectangle] -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED Sept 12 2018

Jeffrey A. Keiser
REGION FIVE ENGINEER

Feb 1 2019
Scott A. Etkin
ENGINEER OF DESIGN AND ENVIRONMENT








Feb 1 2019
Paul P. Chit
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

USER MADE = DUCASRC										DESIGNED -		REVISED -	
DRAWN -										REVISED -		REVISED -	
CHECKED -										REVISED -		REVISED -	
DATE -										REVISED -		REVISED -	
PLOT SCALE = 100,000 / 1"=													
PLOT DATE = 9/7/2018													

STATE OF ILLINOIS									
DEPARTMENT OF TRANSPORTATION									

SCALE:				SHEET				OF SHEETS				STA				TO STA				F.A.P. RTE		SECTION		COUNTY		TOTAL SHEET			
																				103		102B-2		PERRY		17		2	
																		ILLINOIS		FED AID PROJECT									

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	

INDEX OF SHEETS

SHEET NO	DESCRIPTION
1	COVER SHEET
2	SIGNATURE SHEET
3	INDEX OF SHEETS, GENERAL NOTES HIGHWAY STANDARDS, COMMITMENTS
4-6	SUMMARY OF QUANTITIES
7	TYPICAL SECTION: IL 13 LIMITS OF POROUS GRANULAR EMBANKMENT
8	PLAN AND PROFILE: IL 13
9	EROSION CONTROL PLAN
10	TEMPORARY AND FINAL SECTIONS
11-12	CAST-IN-PLACE CONCRETE APRON END SECTION DETAILS
13	HALF SIDE ELEVATION
14-15	CROSS SECTIONS: IL 13
16	DISTRICT STANDARDS: MULCHING AND SEEDING
17	CULVERT TIE DETAILS

HIGHWAY STANDARDS

000001-07	STANDARD SYMBOLS ABBREVIATIONS & PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
420001-09	PAVEMENT JOINTS
420701-03	PAVEMENT WELDED WIRE REINFORCEMENT
442201-03	CLASS C&D PATCHES
701001-02	OFF-ROAD OPERATIONS - 2L, 2W - 15 FT MIN FROM EOP
701006-05	OFF-ROAD OPERATIONS - 2L, 2W - 15 FT TO EOP
701201-05	LANE CLOSURE 2L, 2W - DAY ONLY
701901-08	TRAFFIC CONTROL DEVICES
780001-05	TYPICAL PAVEMENT MARKINGS
BLR21-9	TYPICAL APPLICATIONS OF TRAFFIC CONTROL DEVICES CONSTRUCTION OF RURAL LOCAL HIGHWAYS

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.

EARTH 110 LBS/CU. FT.

EARTHWORK COMPACTION SHALL BE TO THE SATISFACTION OF THE ENGINEER.

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.

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

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

COMMITMENTS: NONE

Model: Default
File Name: p:\ulb8ae\BID\NTEG Illinois.gov\PIVIDOT\Documents\DOT Offices\District 9\Projects\78618\CADDData\CAD\Sheets\0778618-Sta-Cv-Seg-Index.dgn

	USER NAME = DUGASBC	DESIGNED - _____	REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES, INDEX OF SHEETS, HIGHWAY STANDARDS, COMMITMENTS	SCALE: _____	SHEET ____ OF ____ SHEETS	STA. _____ TO STA. _____	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - _____	REVISED - _____						103	102B-2	PERRY	17	3
	PLOT SCALE = 100.0000 ' / in.	CHECKED - _____	REVISED - _____						CONTRACT NO. 78618				
	PLOT DATE = 9/7/2018	DATE - _____	REVISED - _____						ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES

COUNTY:	PERRY CO
ROUTE:	IL 13
FUNDING:	80% FED / 20% STATE
LOCATION:	RURAL

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	
				0004
20200100	EARTH EXCAVATION	CU YD	302	302
20300100	CHANNEL EXCAVATION	CU YD	50	50
20400800	FURNISHED EXCAVATION	CU YD	15	15
20700220	POROUS GRANULAR EMBANKMENT	CU YD	374	374
25000200	SEEDING, CLASS 2	ACRE	0.1	0.1
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	9	9
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	9	9
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	9	9
25000700	AGRICULTURAL GROUND LIMESTONE	TON	0.2	0.2
25100630	EROSION CONTROL BLANKET	SQ YD	484	484
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	50	50
28000400	PERIMETER EROSION BARRIER	FOOT	135	135
42000060	WELDED WIRE REINFORCEMENT	SQ YD	156	156

Model: Default
File Name: p:\11084\EBID\NTEG Illinois.gov\PWIDOT\Documents\DOT Offices\District 9\Projects\7861B\CADDData\CAD Sheets\07861B-ShA-Cu_Seg_Index.dgn

	USER NAME = DUGASBC	DESIGNED - _____	REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES			F.A.P. RTE. _____	SECTION _____	COUNTY _____	TOTAL SHEETS _____	SHEET NO. _____
	PLOT SCALE = 100.0000 ' / in.	DRAWN - _____	REVISED - _____					103	102B-2	PERRY	17	4
	PLOT DATE = 9/7/2018	CHECKED - _____	REVISED - _____		SCALE: _____ SHEET ____ OF ____ SHEETS STA. _____ TO STA. _____			CONTRACT NO. 78618				
		DATE - _____	REVISED - _____					ILLINOIS FED. AID PROJECT				

COUNTY:	PERRY CO
ROUTE:	IL 13
FUNDING:	80% FED / 20% STATE
LOCATION:	RURAL
TOTAL QUANTITY	0004

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	
			0004	
44201347	CLASS C PATCHES, TYPE IV, 9 INCH	SQ YD	156	156
48300300	PORTLAND CEMENT CONCRETE SHOULDERS 8"	SQ YD	48	48
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2,320	2,320
54003000	CONCRETE BOX CULVERTS	CU YD	26.2	26.2
54010707	PRECAST CONCRETE BOX CULVERTS 7' X 7'	FOOT	120	120
67100100	MOBILIZATION	L SUM	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DAY	8	8
70107025	CHANGEABLE MESSAGE SIGN	CAL DAY	46	46
70300100	SHORT TERM PAVEMENT MARKING	FOOT	8	8
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	3	3
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	128	128

REV. - MS

SUMMARY OF QUANTITIES - CONT

SUMMARY OF QUANTITIES - CONT

			COUNTY:	PERRY CO	
			ROUTE:	IL 13	
			FUNDING:	80% FED / 20% STATE	
			LOCATION:	RURAL	
	CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	
					0004
*					
	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	128	128
	X0900064	MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES	SQ YD	127	127

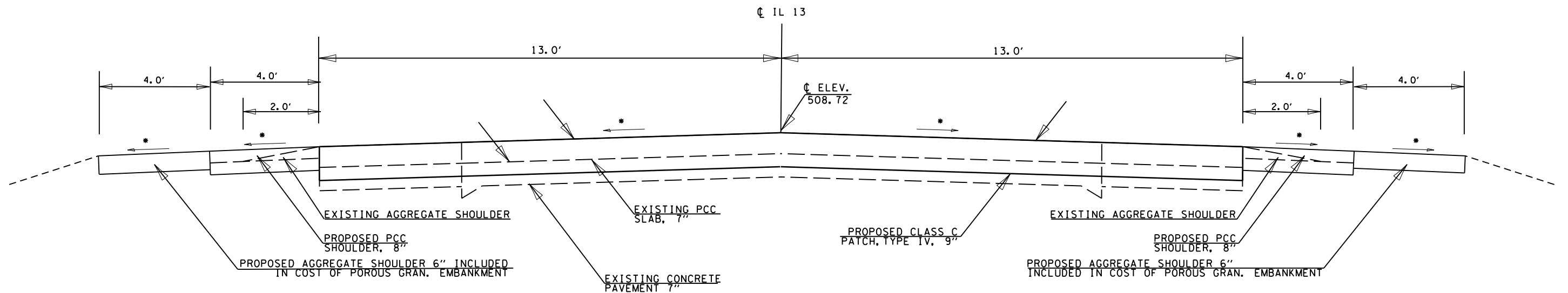
* SPECIALTY ITEM

REV. - MS

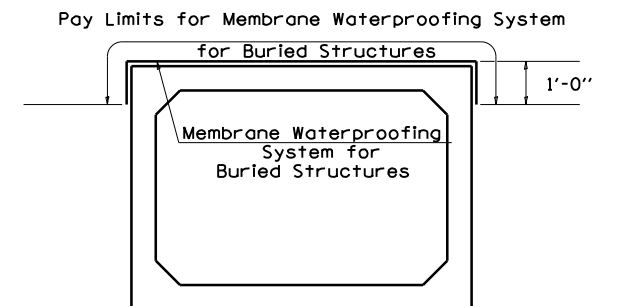
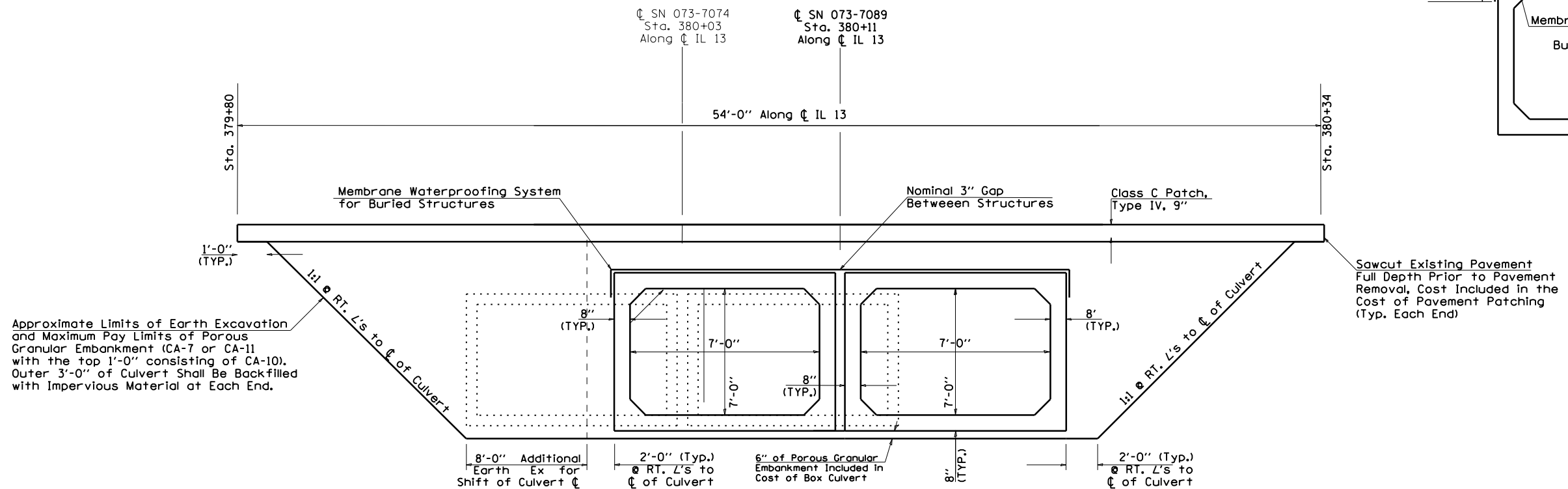
MODEL: Default
FILE NAME: p:\11084EBD\NTEG_illinois.gov-PW\DOT\Documents\DOT_Offices\District 9\Projects\7861B\CADDData\CAD\Sheets\DD7861B_SHA-Cv_Soa_Index.dgn

TYPICAL SECTION

•MATCH EXISTING CROSS SLOPES



TYPICAL LIMITS OF POROUS GRANULAR EMBANKMENT



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS AND
LIMITS OF POROUS GRANULAR EMBANKMENT, EARTH EXCAVATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	102B-2	PERRY	17	7
CONTRACT NO. 78618				
ILLINOIS FED. AID PROJECT				

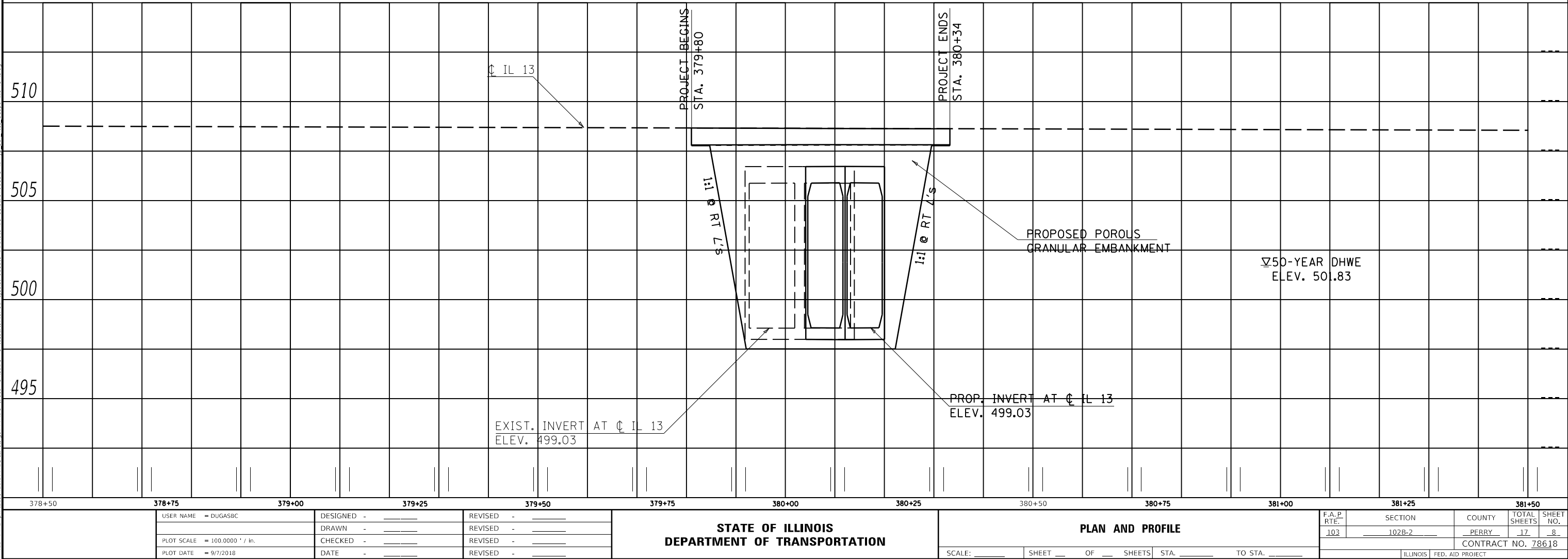
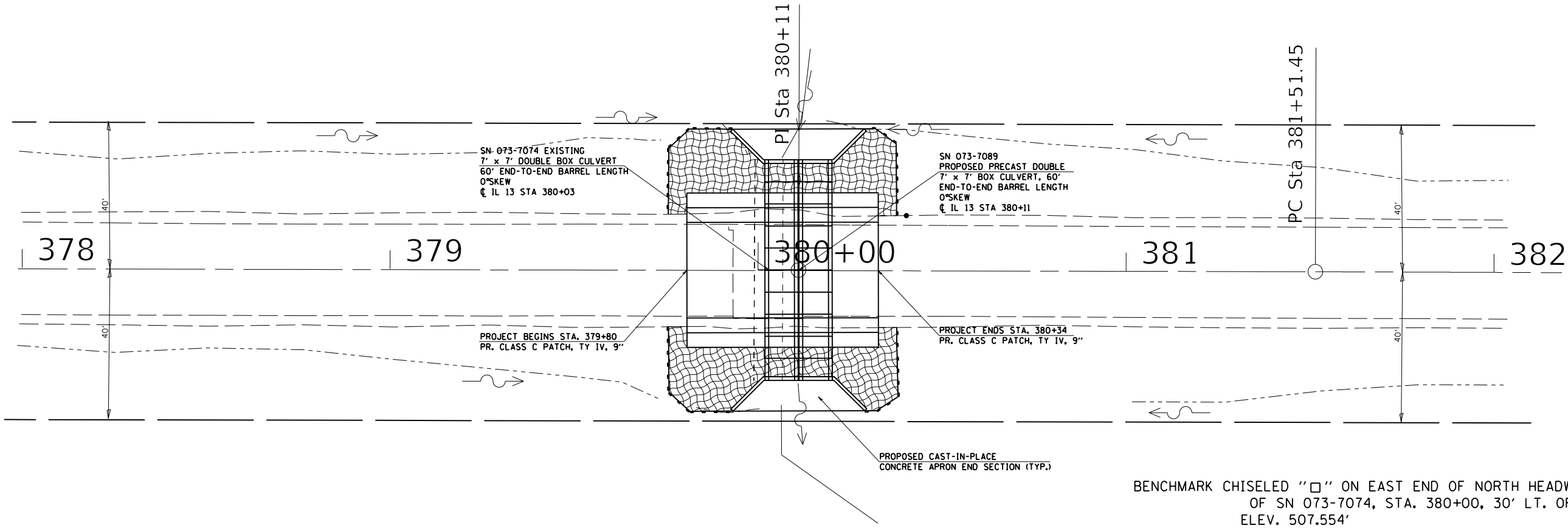
SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____

USER NAME = DUGASBC	DESIGNED - _____	REVISED - _____
PLOT SCALE = 100.0000' / in.	DRAWN - _____	REVISED - _____
PLOT DATE = 1/18/2019	CHECKED - _____	REVISED - _____
	DATE - _____	REVISED - _____

PLAN	SURVEYED	DATE
	BY	
NOTE BOOK	PLOTTED	
	ALIGNMENT CHECKED	
NO.	STRUCTURE NOTATION CHKD	
	CADD FILE NAME	

PROFILE	SURVEYED	DATE
	BY	
NOTE BOOK	PLOTTED	
	GRADES CHECKED	
NO.	STRUCTURE NOTATION CHKD	
	CADD FILE NAME	

MODEL: Default
FILE NAME: p:\a\10848\FIDM\ITEG\Illinois.pwr\PROJECTS\DOT\Office\District 9\Projects\7861\B\CADDData\CADD\Sheets\DOT7861B-ShtB7.dgn
Sht Title: GeoplotElements.dgn



EROSION CONTROL PLAN



PI Sta 380+11

EXISTING ROW

PR 4' PCC SHOULDER, 8"

PROJECT ENDS STA. 380+34
PR. CLASS C PATCH, TY IV, 9"

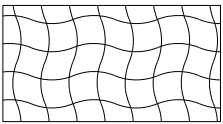
379

380+00

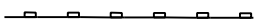
PROPOSED 4' AGG SHOULDER, 6"
INCLUDED IN COST OF
POROUS GRANULAR EMBANKMENT

PROJECT BEGINS STA. 379+80
PR. CLASS C PATCH, TY IV, 9"

EXISTING ROW



EROSION CONTROL BLANKET



PERIMETER EROSION BARRIER

MODEL: Default
FILE NAME: p:\11084\ERID\NTEG Illinois.gov\PI\DOT\Documents\DOT Offices\District 9\Projects\78618\CADDData\CAD\Sheet\9\Project\78618-SHB-Typ_Sch_Tile GeopakElements.dgn

USER NAME = DUGASBC	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = 100.0000 ' / in.	CHECKED - _____	REVISED - _____
PLOT DATE = 9/7/2018	DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN
AND SHOULDER DETAIL

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

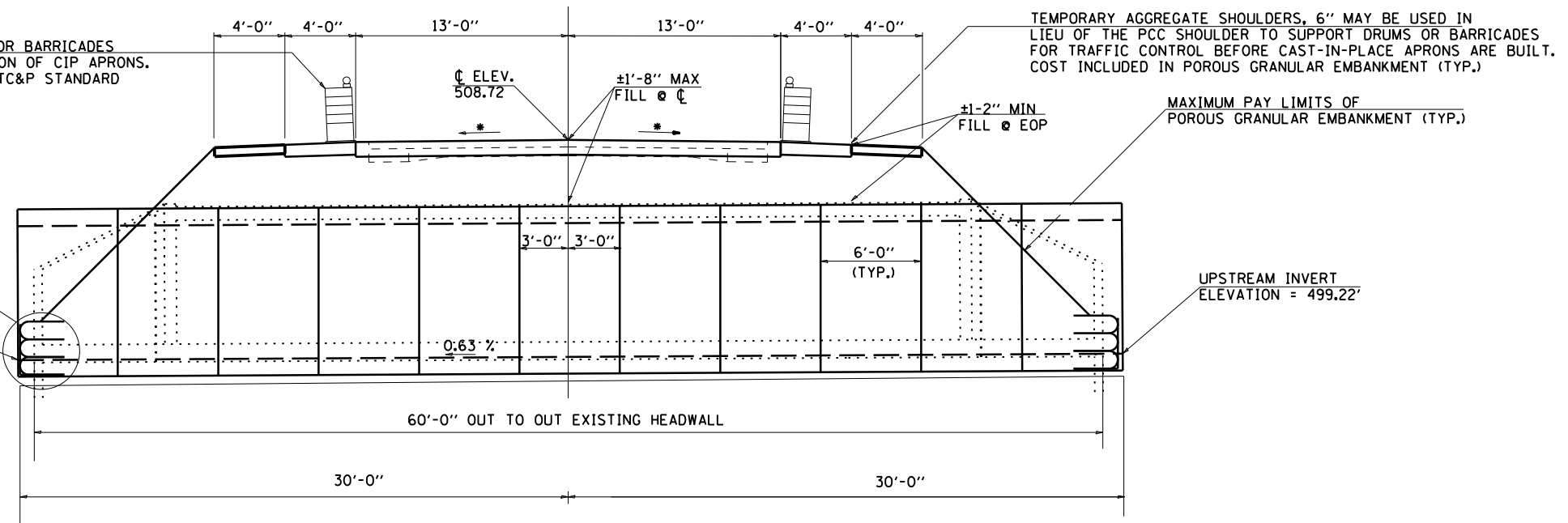
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	102B-2	PERRY	17	9
CONTRACT NO. 78618				
ILLINOIS FED. AID PROJECT				

*MATCH EXISTING CROSS SLOPES

TEMPORARY DRUMS OR BARRICADES
DURING CONSTRUCTION OF CIP APRONS.
COST INCLUDED IN TC&P STANDARD
BLR 21-9 (TYP.)

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

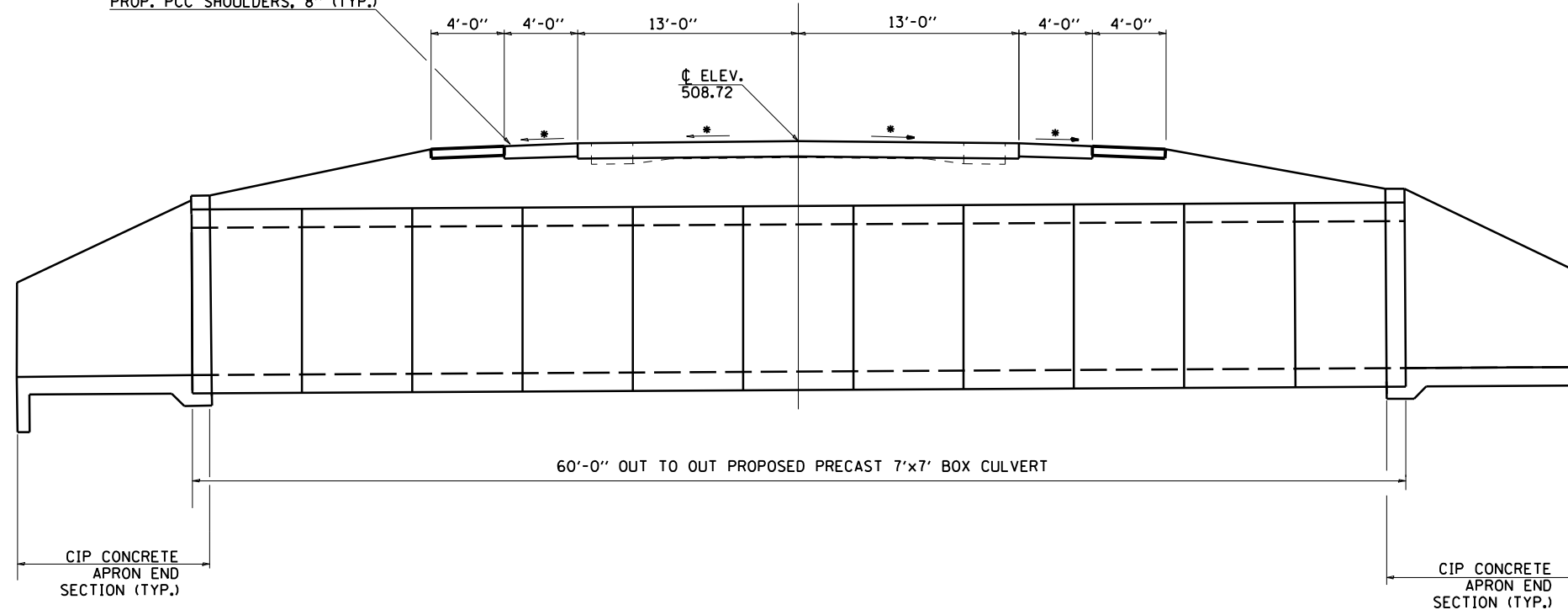
DOWNSTREAM INVERT
ELEVATION = 498.84'



HYDRAULIC DATA (50 YR DESIGN)

DRAINAGE AREA = 0.96 SQ MI
DESIGN WATERWAY OPENING = 98 SQ FT
DESIGN DISCHARGE = 317 CFS
DESIGN HEADWATER ELEVATION = 501.83 FT
100 YEAR DISCHARGE = 370 CFS
100 YEAR HEADWATER ELEVATION = 502.10 FT
OVERTOPPING < 100 YEAR = 2147 CFS

PROP. PCC SHOULDERS, 8" (TYP.)



USER NAME = DUGASBC	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = 100.0000 ' / in.	CHECKED - _____	REVISED - _____
PLOT DATE = 9/7/2018	DATE - _____	REVISED - _____

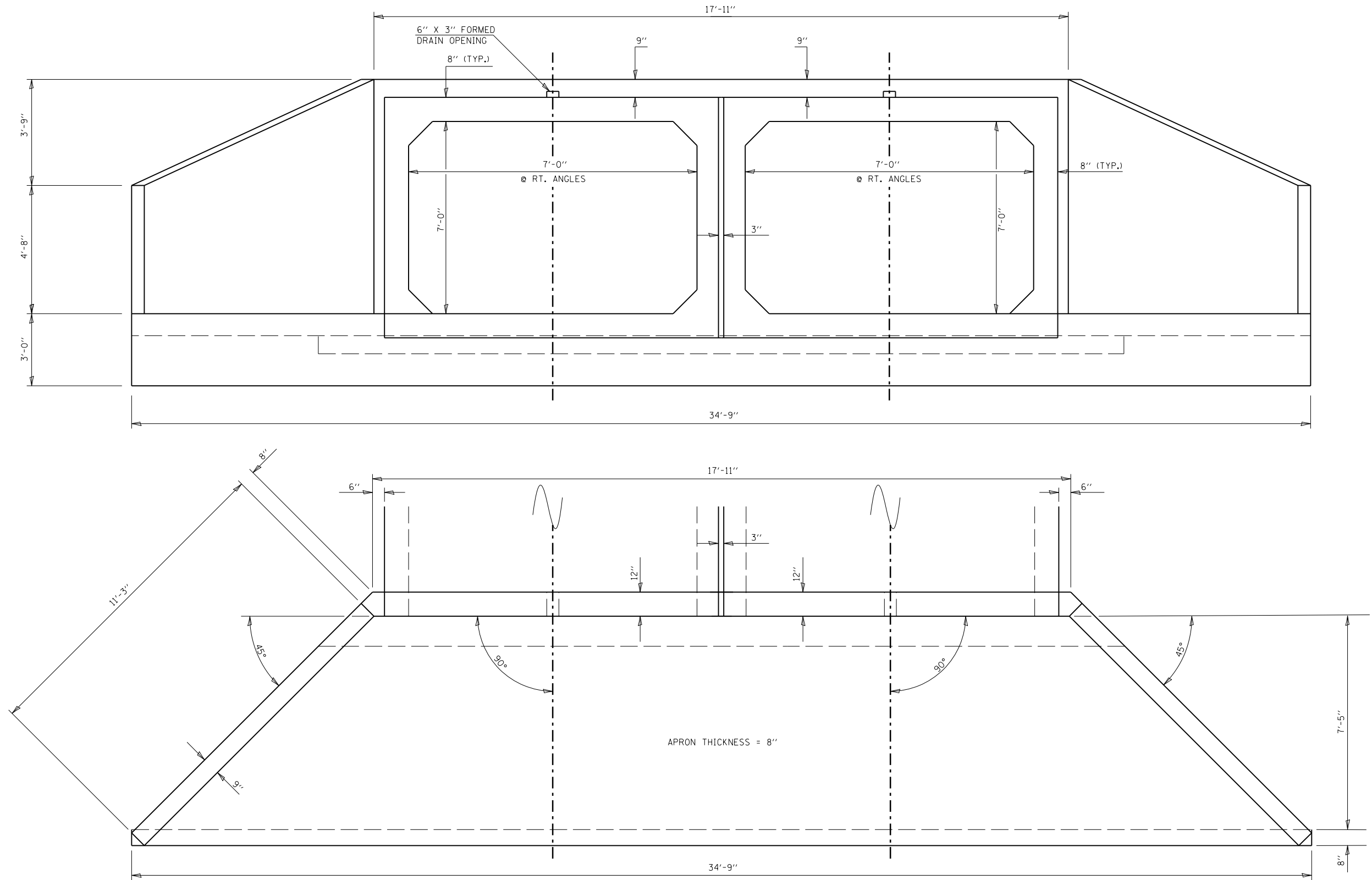
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TEMPORARY AND FINAL SECTIONS

SCALE:	SHEET	OF	SHEETS	STA.	TO STA.
--------	-------	----	--------	------	---------

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	102B-2	PERRY	17	10
CONTRACT NO. 78618				
ILLINOIS		FED. AID PROJECT		

MODEL: Default
FILE NAME: jw:\all084EBID\INTEG, Illinois.gov-PWD\DOT\Documents\DOT Offices\District_9\Projects\78618\CADData\CADsheets\ID978618-SWB-Typ_Sch_Tiles_GeopakElements.dgn



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

Model: Default
File Name: PROJ\UL84E\BID\NTEG\Illinois.pvu\PROJECT\78618\CADDData\CAD\Sheet\0278618-Sub-Typ_Sch_Tiles_CoroplastElements.dgn

USER NAME = DUGASBC	DESIGNED - _____	REVISED - 1/17/2019
	DRAWN - _____	REVISED - _____
PLOT SCALE = 100.0000 ' / in.	CHECKED - _____	REVISED - _____
PLOT DATE = 1/18/2019	DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

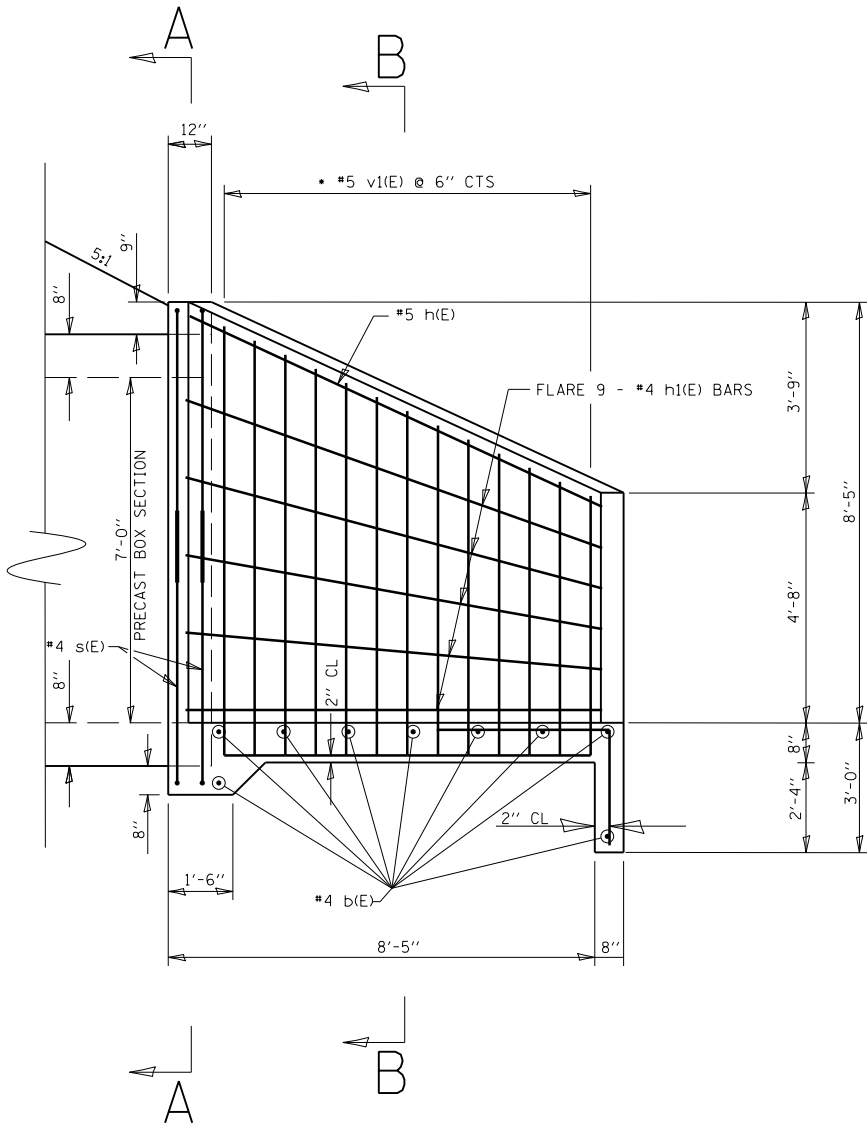
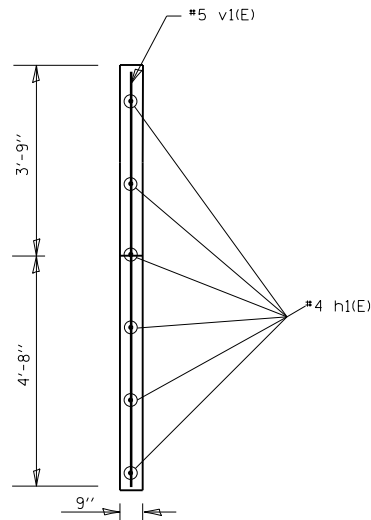
CAST-IN-PLACE CONCRETE APRON
END SECTION DETAILS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103	102B-2	PERRY	17	11
CONTRACT NO. 78618				
ILLINOIS FED. AID PROJECT				

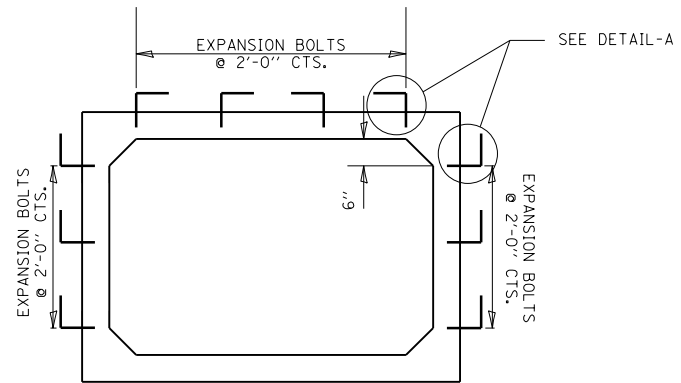
Model: Default
File Name: p:\ul08a\EBID\NTEG Illinois.pvu\PIV\DOT\Documents\DOT Office\District 9\Projects\78618\CADDData\CAD\Sheet\0278618-SHB-Typ Sch Title GeopakElements.dgn

SECTION B-B

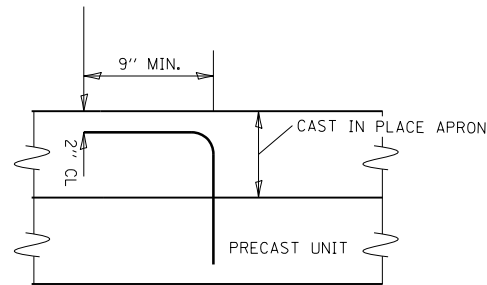


HALF SIDE ELEVATION

(AT RT ANGLES TO CL ROADWAY)



SECTION A-A



DETAIL-A

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

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

• CUT OR BEND TO FIT IN FIELD

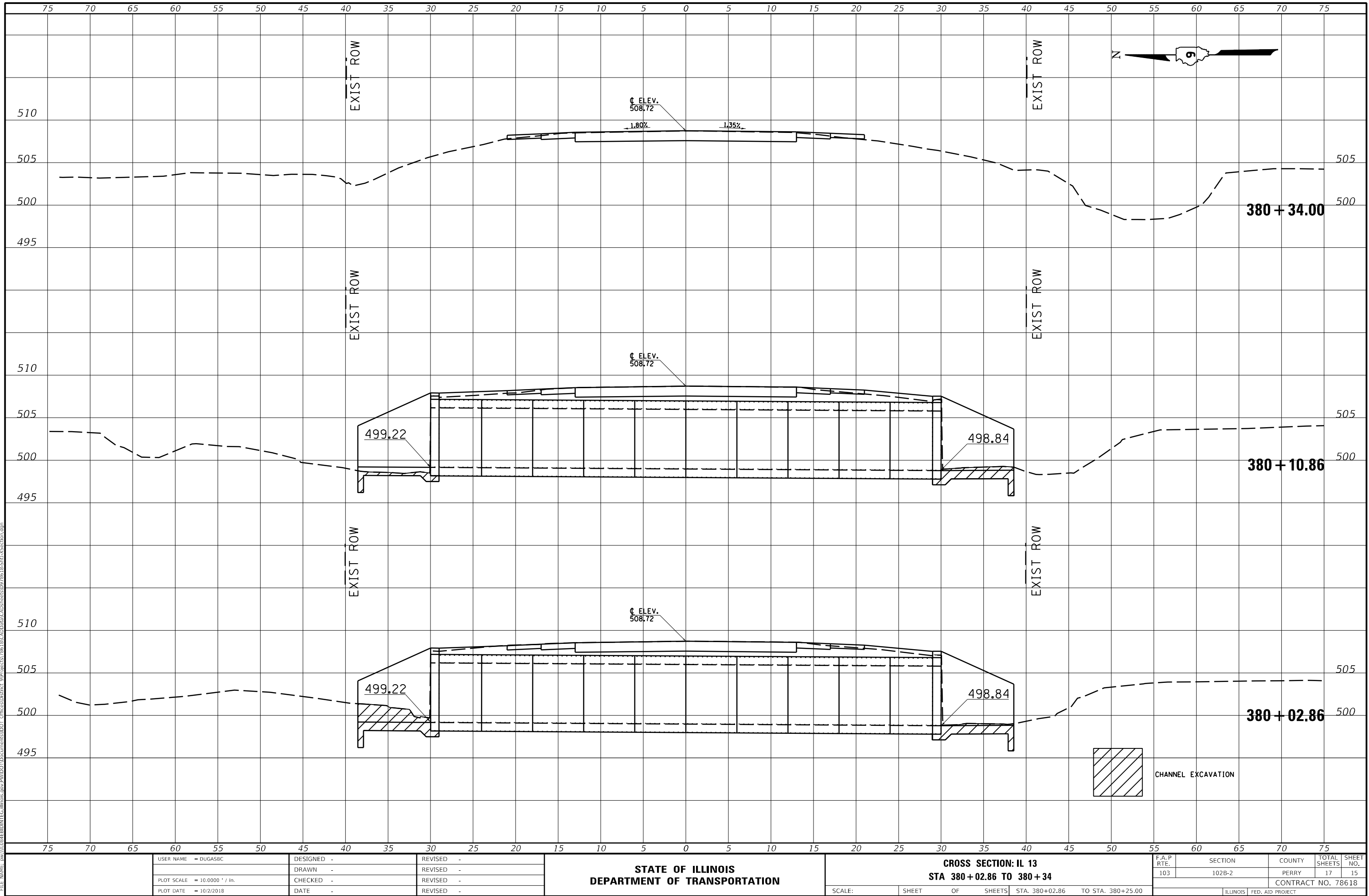
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CAST-IN-PLACE CONCRETE APRON HALF-SIDE ELEVATION		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	SCALE: _____ SHEET ____ OF ____ SHEETS STA. _____ TO STA. _____		103	102B-2	PERRY	17	13
			CONTRACT NO. 78618				
			ILLINOIS FED. AID PROJECT				

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

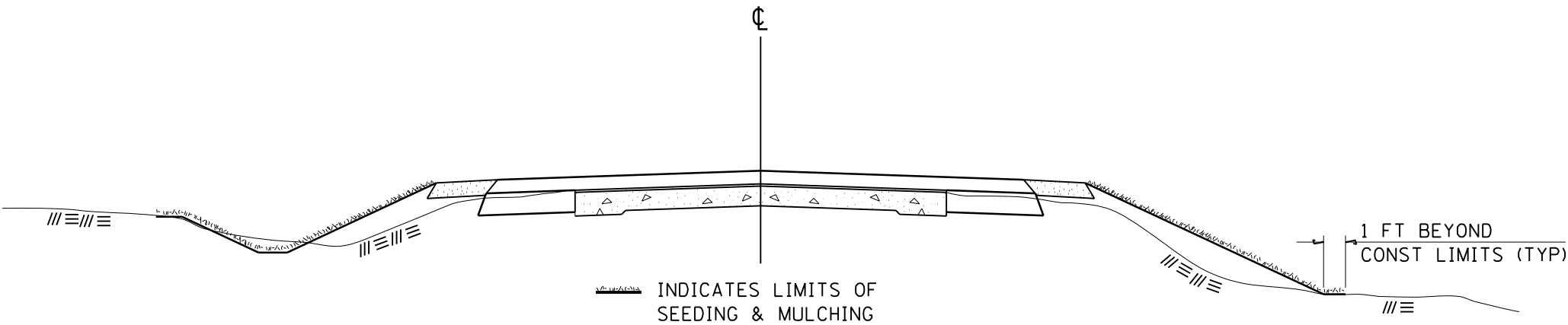
USER NAME = DUGASC	DESIGNED - _____	REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS: IL 13 STA 379+50 TO 380+00				F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 10.0000 ' / in.	DRAWN - _____	REVISED - _____						103	102B-2	PERRY	17	14
PLOT DATE = 10/2/2018	CHECKED - _____	REVISED - _____		CONTRACT NO. 78618								
DATE - _____	REVISED - _____	SCALE: _____		SHEET _____	OF _____	SHEETS	STA. 379+50.00	TO STA. 380+00.00	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY	SURVEYED _____	BY _____	DATE _____
	PLOTTED _____		
NOTE BOOK	TEMPERATURE _____		
	AREAS _____		
NO _____	AREAS CHECKED _____		

MODEL: Default	NO.	AREAS CHECKED
FILE NAME: pw:\IL084EBID\INTEG.illinois.gov\PW\DOT\Documents\DOT Offices\District 9\Projects\78618\CADData\CAD sheets\0978618-5th\1-XSection.dgn		



SEEDING & MULCHING



GENERAL NOTES

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

FERTILIZER NUTRIENTS AND LIMESTONE SHALL BE APPLIED TO ALL SEEDED AREAS.

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

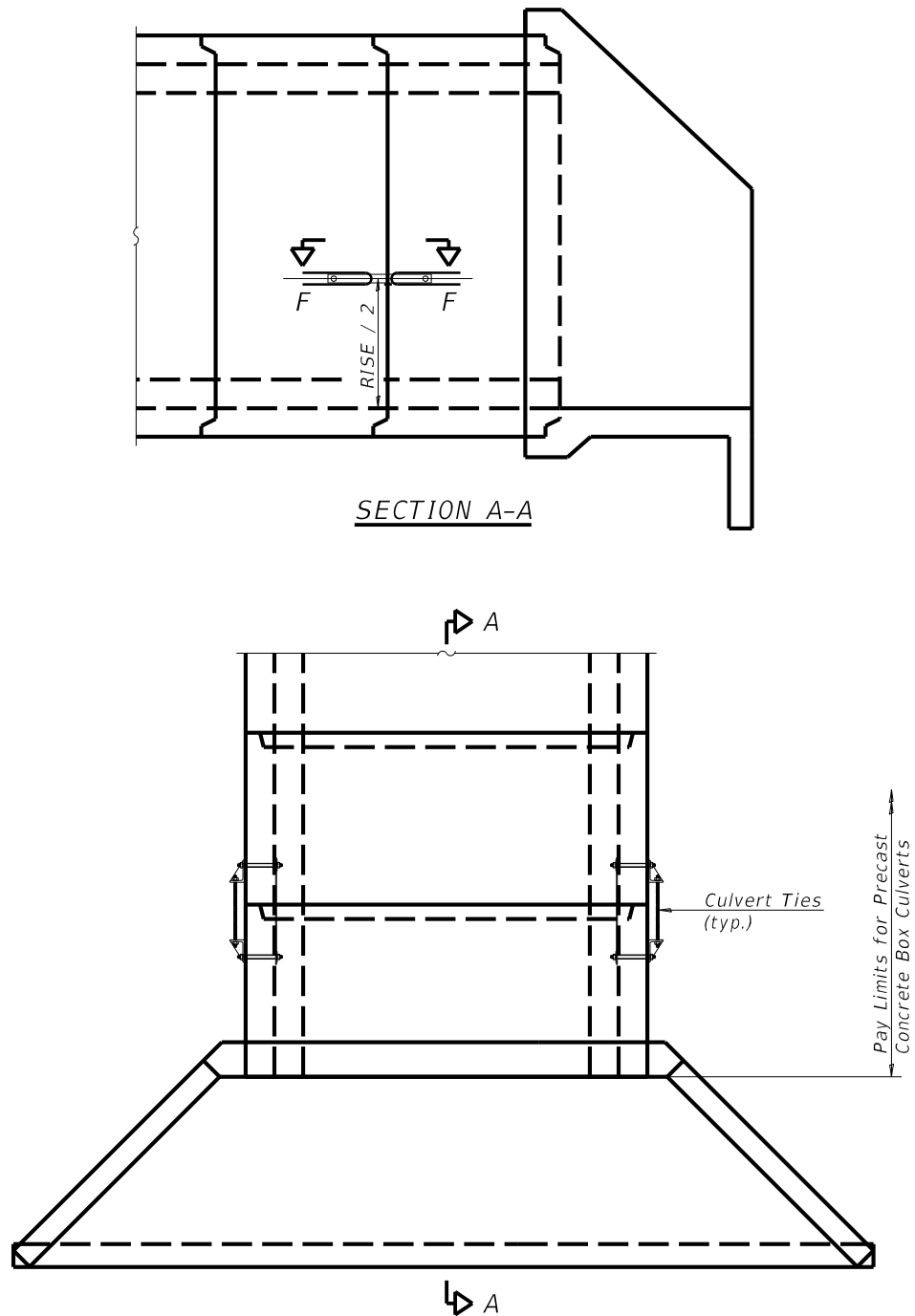
SECTIONS 250 AND 251 OF THE STANDARD SPECIFICATIONS SHALL GOVERN THIS WORK EXCEPT AS SPECIFIED HEREIN OR AS NOTED IN THE SPECIAL PROVISIONS.

Model: Default
File Name: p:\1108484\BID\NTEG Illinois 999-RV\DOT\Documents\DOT Office\District 9\Projects\78618\CADDData\CAD Sheets\0278618-Sub-Typ Sch-Title GeopakElements.dgn

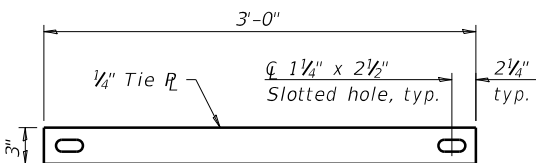
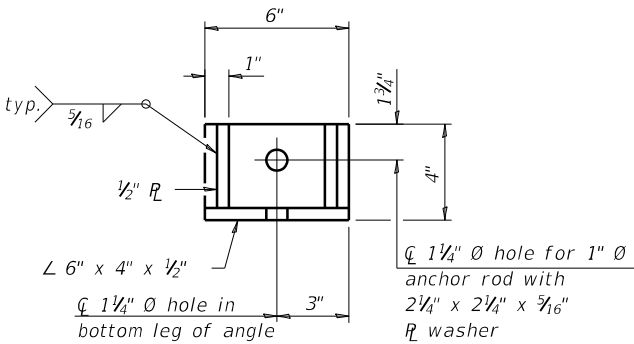
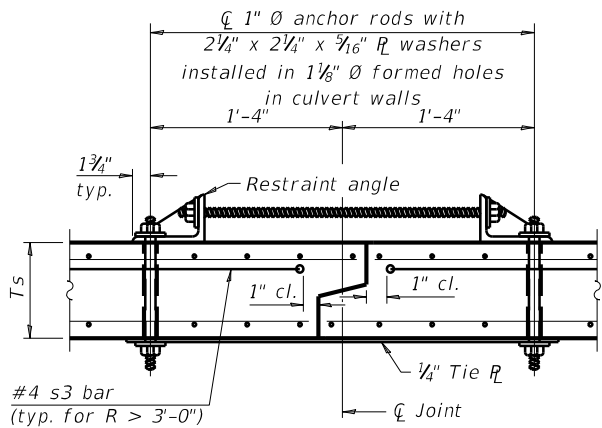
REVISIONS			
REDRAWN	2-15-89		
REVISED	8-15-94		
REVISED	6-3-99		
REVISED	3-27-08		

STD. 9-12

	USER NAME = DUGASBC	DESIGNED - _____	REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT STANDARD MULCHING AND SEEDING	SCALE: _____	SHEET ____ OF ____ SHEETS	STA. _____ TO STA. _____	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 100.0000 ' / in.	DRAWN - _____	REVISED - _____						103	102B-2	PERRY	17	16
	PLOT DATE = 8/17/2018	CHECKED - _____	REVISED - _____						CONTRACT NO. 78618				
		DATE - _____	REVISED - _____						ILLINOIS FED. AID PROJECT				



The number of culvert ties shall be sufficient to engage the minimum length of culvert barrel shown within the pay limits for Precast Concrete Box Culverts and will be dependent upon the length of box culvert segments furnished by the Contractor.



Notes:
 1" \varnothing anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for the tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2 1/4"x2 1/4"x3/16" plate washers shall be provided under each nut required for the anchor rods. Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional 1/2 turn on one of the nuts for anchor rods installed in the walls. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.

MODEL: Default
 FILE NAME: PROJ\UL84E\BID\NTEG\Ilands\99\RV\DOT\Documents\DOT - Offices\District 9\Projects\78618\CADDData\CAD\Sheet\0278618-SUB-7.dgn
 PROJECT: 78618

	USER NAME = DUGASBC		DESIGNED - _____	REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CULVERT TIE DETAILS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN - _____		CHECKED - _____	REVISED - _____					103	102B-2	PERRY	17	17
	PLOT SCALE = 100.0000' / in.		DATE - _____	REVISED - _____		SCALE: _____ SHEET ____ OF ____ SHEETS STA. _____ TO STA. _____			CONTRACT NO. 78618				
	PLOT DATE = 8/17/2018								ILLINOIS FED. AID PROJECT				