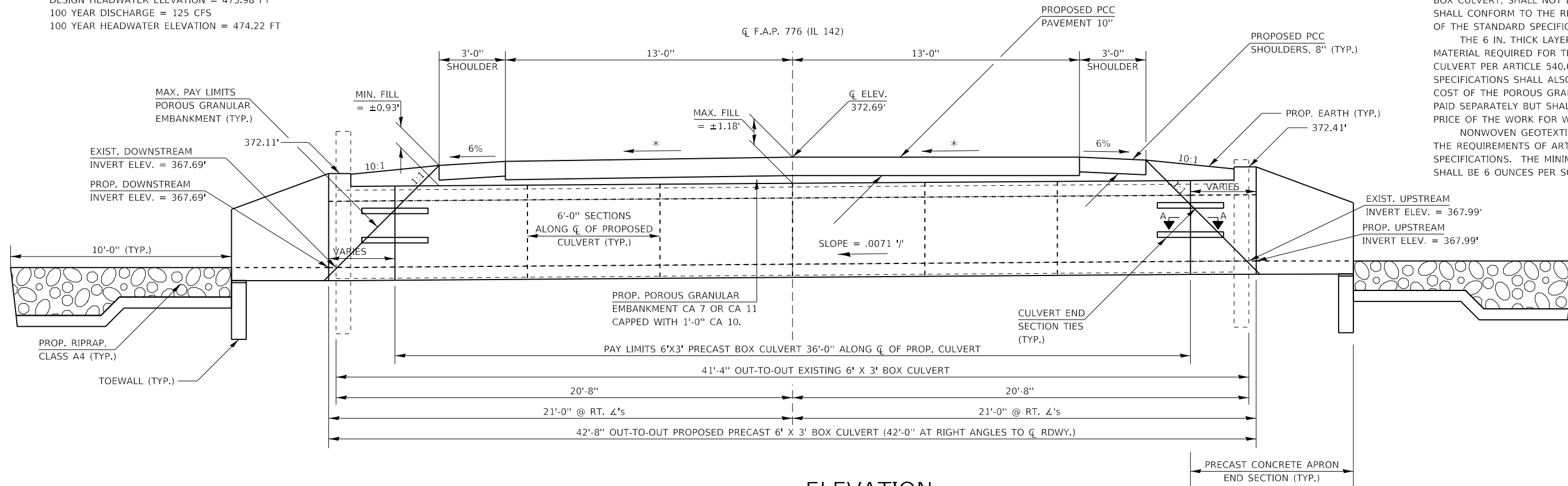


HYDRAULIC DATA
 DRAINAGE AREA = 0.10 SQ MI
 DESIGN WATERWAY OPENING = 18 SQ FT
 DESIGN DISCHARGE = 107 CFS
 DESIGN HEADWATER ELEVATION = 473.98 FT
 100 YEAR DISCHARGE = 125 CFS
 100 YEAR HEADWATER ELEVATION = 474.22 FT

FINAL SECTION

* MATCH EXISTING SUPERELEVATION
 PRECAST BOX LOADING HL-93.
 ASTM C 1577

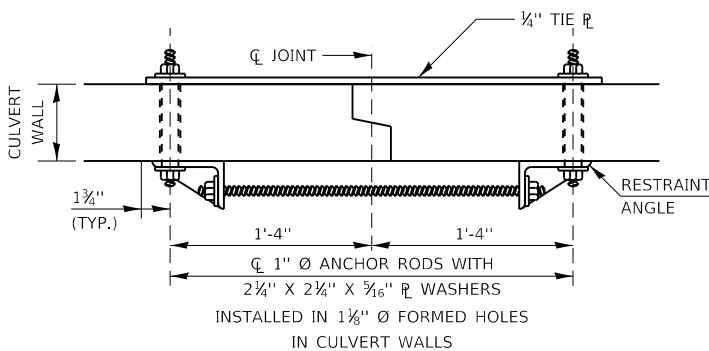
GENERAL NOTES
 DRAIN HOLES SHALL BE PROVIDED ON EXTERIOR CULVERT WALLS FOR EACH PRECAST BOX SEGMENT WITH A CLEAR RISE GREATER THAN 3 FT. THE DRAIN HOLE SHALL BE LOCATED WITHIN 1/3 OF THE CLEAR RISE OF THE BOX CULVERT, SHALL NOT INTERCEPT THE HAUNCH, AND SHALL CONFORM TO THE REQUIREMENTS OF ARTICLE 503.11 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 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.



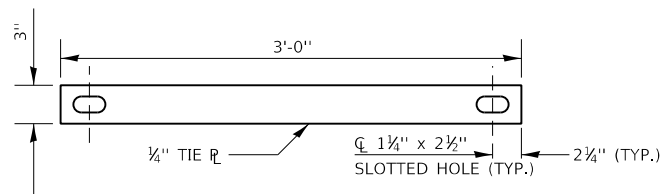
ELEVATION
(LOOKING NORTH)

THE REMOVAL OF THE EXISTING BOX CULVERT IS TO BE INCLUDED IN THE COST OF REMOVAL OF EXISTING STRUCTURES.
 THE COST OF THE TOEWALL, WHETHER CAST-IN-PLACE OR PRECAST, SHALL BE INCLUDED IN THE COST OF BOX CULVERT END SECTIONS, CULVERT NO. 1 (TYP.)

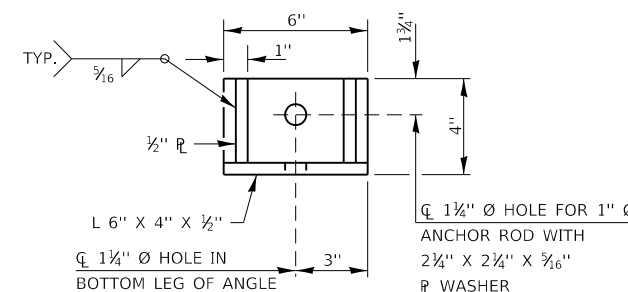
NOTE:
 GEOCOMPOSITE WALL DRAIN SHALL BE ACCORDING TO SECTION 591 OF THE STANDARD SPECIFICATIONS, EXCEPT THAT CONCRETE NAILS SHALL NOT BE USED IN AREAS WHERE IT OVERLAPS MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES.



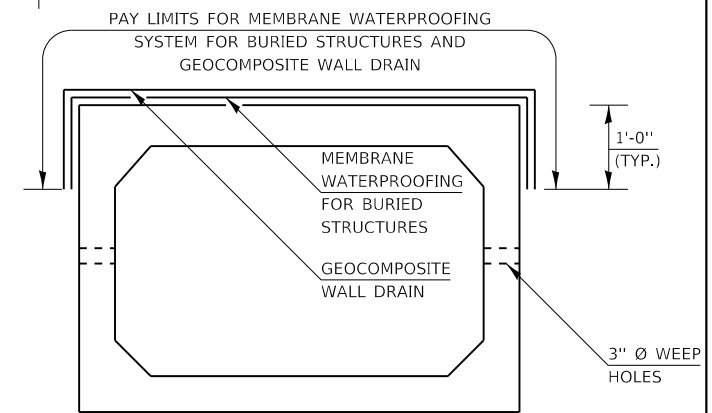
SECTION A-A TIE PLATE DETAIL
(SHOWING END SECTION TIE DETAILS)
NOT TO SCALE



TIE PLATE DETAIL
NOT TO SCALE



RESTRAINT ANGLE DETAIL
NOT TO SCALE



PRECAST CONCRETE BOX CULVERT

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
BOX CULVERT END SECTIONS, CULVERT NO. 1	EACH	2
GEOCOMPOSITE WALL DRAIN	SQ YD	42
MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES	SQ YD	42
PRECAST CONCRETE BOX CULVERTS 6' X 3'	FOOT	36

PRECAST BOX CULVERT SCHEDULE (ASTM C 1577)						
STATION	SIZE	SKEW	DESIGN FILL (FT.)		PGE BACKFILL REQUIRED	
			MINIMUM	MAXIMUM		
607+51.85 TO 607+59.15	6' X 3'	10°	±0.93'	±1.18'	83 CU YD	

THE NUMBER OF CULVERT TIES SHALL BE SUFFICIENT TO ENGAGE THE MINIMUM LENGTH OF CULVERT BARREL SHOWN WITHIN THE PAY LIMITS FOR PRECAST CONCRETE BOX CULVERTS AND WILL BE DEPENDENT UPON THE LENGTH OF BOX CULVERT SEGMENTS FURNISHED BY THE CONTRACTOR. CULVERT TIES ARE NOT REQUIRED FOR BOX CULVERTS HAVING A RISE LESS THAN OR EQUAL TO 3FT AND A SPAN GREATER THAN OR EQUAL TO 10 FT.
 ALL COSTS ASSOCIATED WITH FURNISHING AND INSTALLING OR CONSTRUCTING THE TOEWALL AND CULVERT TIES WILL NOT BE MEASURED FOR PAYMENT BUT SHALL BE INCLUDED IN THE UNIT PRICE FOR BOX CULVERT END SECTIONS OF THE CULVERT NUMBER SPECIFIED.

REVISED SHEET 12-11-20

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DETAIL AND FINAL SECTION
 SN 033-7039 (P)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
776	124CR-2	HAMILTON	14	9
CONTRACT NO. 78805				
ILLINOIS FED. AID PROJECT				

USER NAME	DESIGNED	REVIS
= adamsam	-	-
PLOT SCALE = 5.0000' / in.	CHECKED	REVIS
PLOT DATE = 12/9/2020	DATE	REVIS

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

MODEL: Default
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