

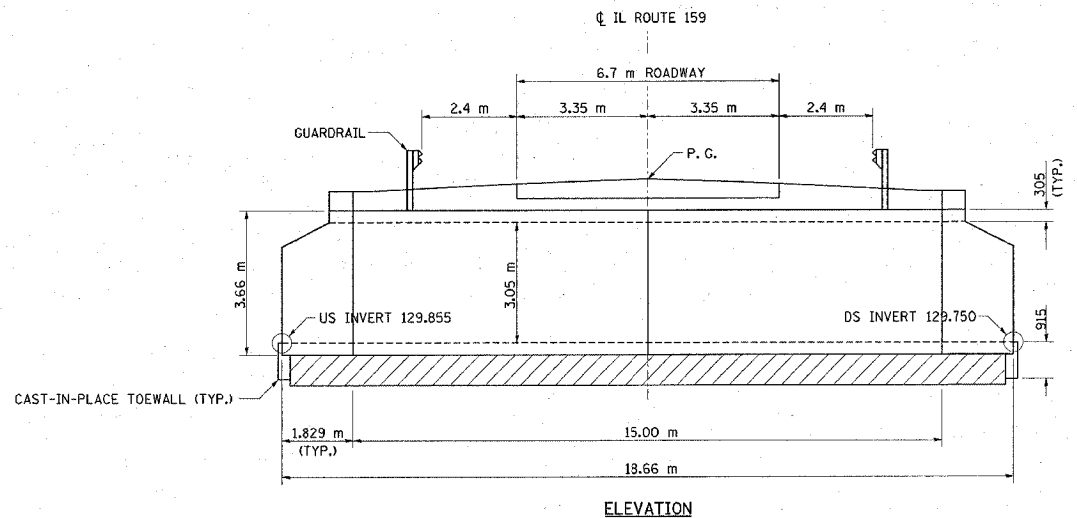
FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	51RS-3	ST. CLAIR	347	138
STA.		TO STA.		
CONTRACT : 76563				

SHEET #1 OF 2.

EXISTING STRUCTURE: SN 082-2011, BUILT AS SA ROUTE 7 SECTION 51-150; ST. CLAIR COUNTY IN 1928 AND REHABILITATED UNDER FAP ROUTE 600; SECTION 51B-1; ST. CLAIR IN 1991. THE EXISTING STRUCTURE IS A DOUBLE 3.20 m X 3.05 m REINFORCED CONCRETE BOX CULVERT WITH REINFORCED CONCRETE HEADWALL PARALLEL TO THE EXISTING ROADWAY. THE EXISTING STRUCTURE IS TO BE REMOVED AND REPLACED WITH A PRECAST DOUBLE BARREL 3.66 m X 3.05 m BOX CULVERT WITH PRECAST END SECTIONS, UTILIZING STAGE CONSTRUCTION.

STATION 24+287.410
BUILT 20 BY
STATE OF ILLINOIS
FAP RT. 600 SEC.
FA PROJECT
LOADING HS20
STR. NO. 082-2041

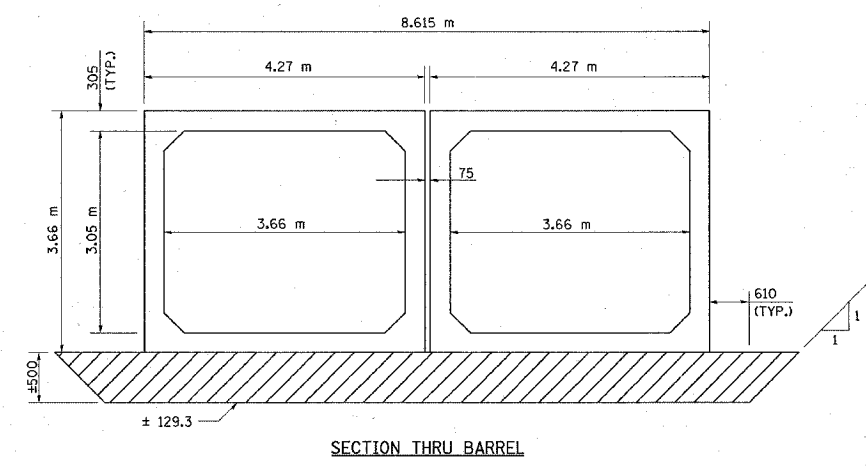
NAME PLATE
SEE STD. 515001



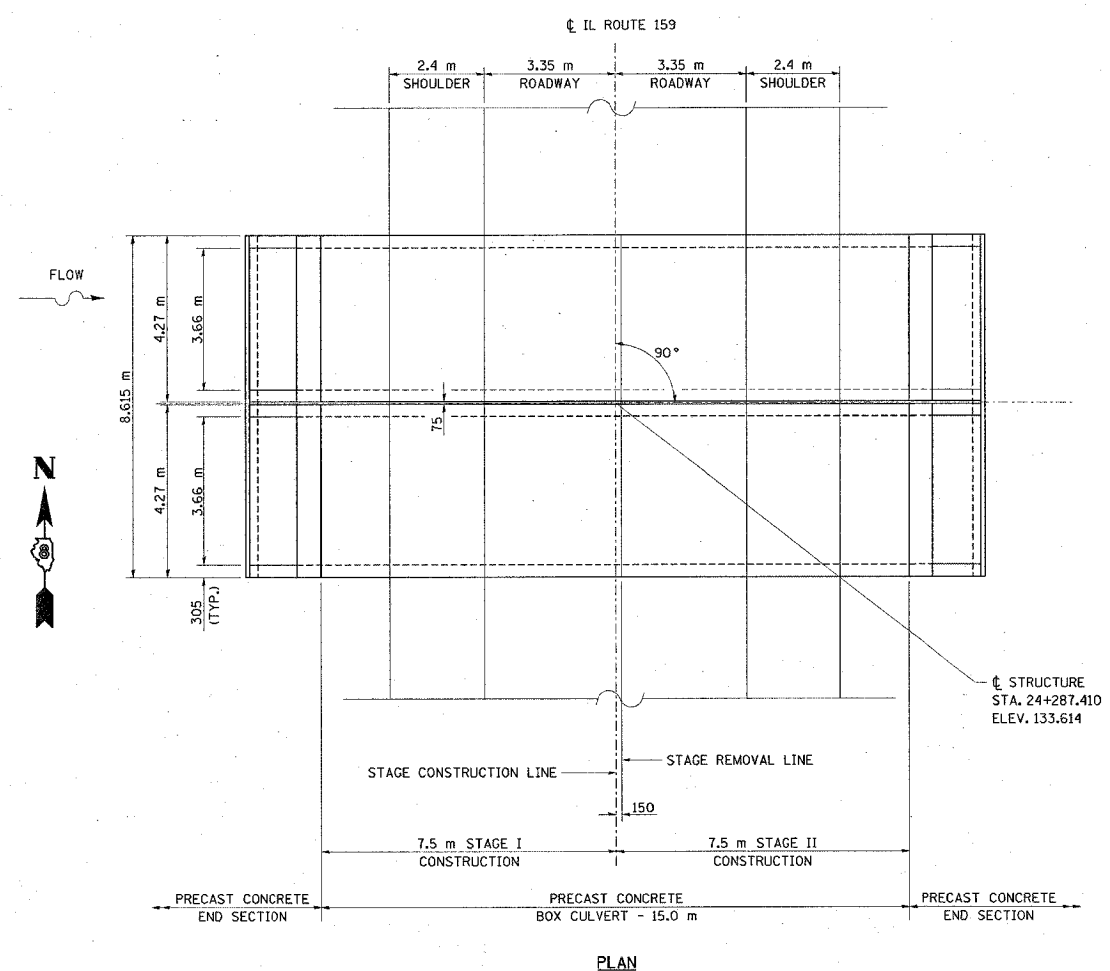
GENERAL NOTES

1. THE PRIMARY VERTICAL REINFORCEMENT IN THE ABUTMENT WALLS IS IN THE FACE NEAREST TO THE STREAM. THE CONTRACTOR SHALL BRACE THE ABUTMENT WALLS OR EXCAVATE BEHIND THE ABUTMENTS PRIOR TO REMOVAL OF THE SUPERSTRUCTURE.
2. THIS BOX CULVERT HAS A FILL HEIGHT OF 0.5 m. THE PRECAST BOX CULVERT SHALL BE DESIGNED IN ACCORDANCE WITH AASHTO M 273 m EXCEPT THAT THE AGGREGATE SHALL CONFORM TO THE REQUIREMENTS OF ARTICLE 1003.02 AND 1004.02 OF THE STANDARD SPECIFICATIONS WITH THE EXCEPTION OF GRADATION.
3. THE EXISTING STRUCTURE SHALL BE REMOVED IN ITS ENTIRETY.
4. THE CAST-IN-PLACE TOEWALL WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST FOR "BOX CULVERT END SECTIONS". APPROXIMATELY 3.7 m³ OF CONCRETE WILL BE NEEDED.
5. THE EXISTING STRUCTURE NEEDS A TEMPORARY SUPPORT SYSTEM TO SUPPORT THE EXISTING CONCRETE SLAB, PRIOR TO THE SLAB BEING SAWCUT FOR STAGE 1 TRAFFIC. THE CONTRACTOR SHALL SUBMIT FULL DESIGN SUBMITTALS SEALED BY A LICENSED STRUCTURAL ENGINEER TO THE DEPARTMENT FOR REVIEW AND APPROVAL. ALL WORK REQUIRED SHALL BE PAID FOR AS "TEMPORARY SUPPORT SYSTEM".
6. FOR QUANTITY OF "STONE RIPRAP, CLASS A5" AND "FILTER FABRIC FOR USE WITH RIPRAP" SEE ROADWAY PLANS.

PLAN	REVISIONS	DATE
	NO. 1	
	NO. 2	
	NO. 3	
	NO. 4	
	NO. 5	
	NO. 6	
	NO. 7	
	NO. 8	
	NO. 9	
	NO. 10	



REMOVE UNSUITABLE SOIL BELOW BOTTOM OF CULVERT TO TOP OF ROCK (APPROX. EL. 129.3) AND 610 OUTSIDE THE FOOTPRINT OF THE BOX. COST SHALL BE PAID FOR AS "REMOVAL & DISPOSAL OF UNSUITABLE MATERIAL." REPLACE WITH CA-7 OR CA-11 "POROUS GRANULAR MATERIAL."



BILL OF MATERIAL - SN 082-2041

ITEM	UNIT	TOTAL
REMOVAL OF EXISTING STRUCTURES	EACH	1
NAME PLATES	EACH	1
BOX CULVERT END SECTION, CULVERT NO. 6	EACH	4
REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU M	96.4
POROUS GRANULAR EMBANKMENT	CU M	96.4
TEMPORARY SOIL RETENTION SYSTEM	SQ M	27.2
PRECAST CONCRETE BOX CULVERT		
3.6 m x 3.0 m	M	30
TEMPORARY SUPPORT SYSTEM	L.SUM	1

LOADING MS18
ALLOW 2.4 kN/m² FOR FUTURE WEARING SURFACE
DESIGN SPECIFICATIONS
2002 AASHTO
DESIGN STRESSES
PRECAST UNIT
f'c = 35 MPa
fy = 448 MPa (WELDED WIRE FABRIC)

WATERWAY INFORMATION

DRAINAGE AREA = 2.167 km² LOW GRADE ELEV. 133.50/133.56 STA: ± 24+284

FLOOD	FREQ. YR.	Q m ³ /s	OPENING - m ²		NAT. H.W.E.		HEAD - m		HEADWATER ELEV.	
			EXIST.	PROP.	EXIST.	PROP.	EXIST.	PROP.	EXIST.	PROP.
EROSION	10	17.0	13.50	15.45	132.21	0.00	0.00	132.21	132.21	
DESIGN	50	27.3	14.98	17.13	132.44	0.20	0.19	132.64	132.63	
BASE	100	31.8	15.55	17.79	132.53	0.32	0.30	132.85	132.83	
OVERTOPPING	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MAX. CALC.	500	42.8	16.64	19.03	132.70	0.79	0.76	133.49	133.46	

ALL DIMENSIONS ARE IN mm UNLESS DESIGNATED OTHERWISE

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAN VIEW
SN 082-2041
STA 24+287.521
FAP ROUTE 600
SECTION 51RS-3
ST. CLAIR COUNTY
DRAWN BY: