

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

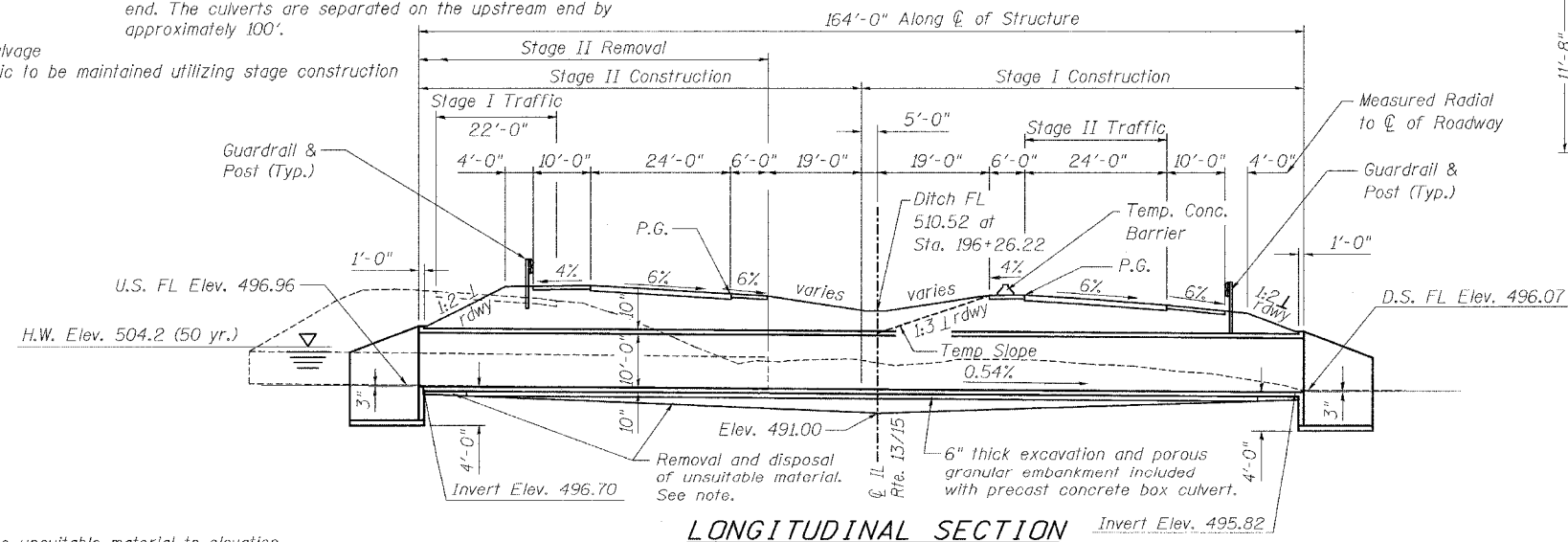
ROUTE NO.	SECTION	COUNTY	STATION	SHEET	SHEET NO. 1 4 SHEETS
F.A.P. 103	27-1R	ST. CLAIR	382	191	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-			

CONTRACT NO. 76300

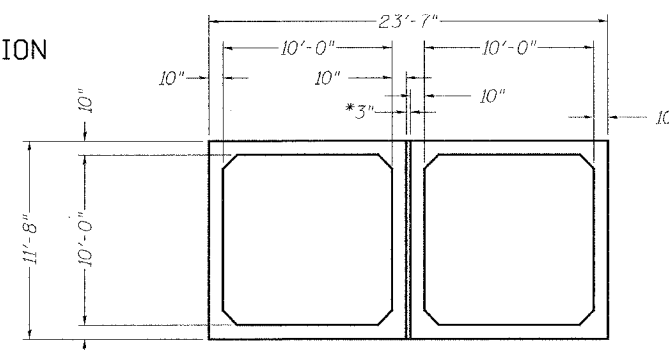
Bench Mark: GPS Ground Control Point #21 (iron rod)
Northing 657835.6524
Easting 2366635.9173
Elevation 517.13

Existing Structure: S.N. 082-2026 Original construction estimated late 1920's or early 1930's as a double 10'x6' R.C. box culvert, 98'-8" Long. Extension constructed in 1987 and joined to an adjacent single 4'x4' R.C. box culvert with a common headwall on the downstream end. The culverts are separated on the upstream end by approximately 100'.

No salvage
Traffic to be maintained utilizing stage construction



Note:
Remove unsuitable material to elevation 491.00 at the centerline tapering up to 6" at the ends of the precast box culvert and continuing that plane to the end of the cast in place ends. Extend 24" beyond each side of the Box. Replace with Porous Granular Embankment gradation CA-7.



SECTION THRU BARREL (PRECAST)

*3" nominal space shall be left between adjacent precast sections. After the precast cells are in place and backfill has been placed to midheight of the precast concrete box section on each side, the space between the cells shall be filled with Class SI Concrete. Class SI Concrete cast-in-place between adjacent cells will not be measured for payment.

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.
2. Layout of the Slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
3. All construction joints shall be bonded.
4. Maximum Design Fill Height = 7.6'.

TOTAL BILL OF MATERIAL

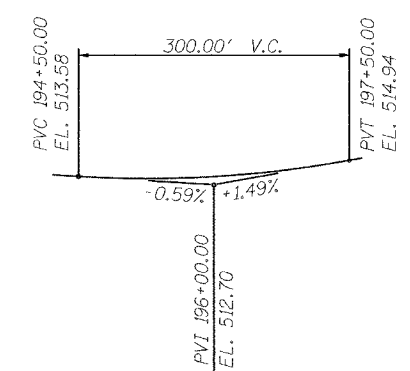
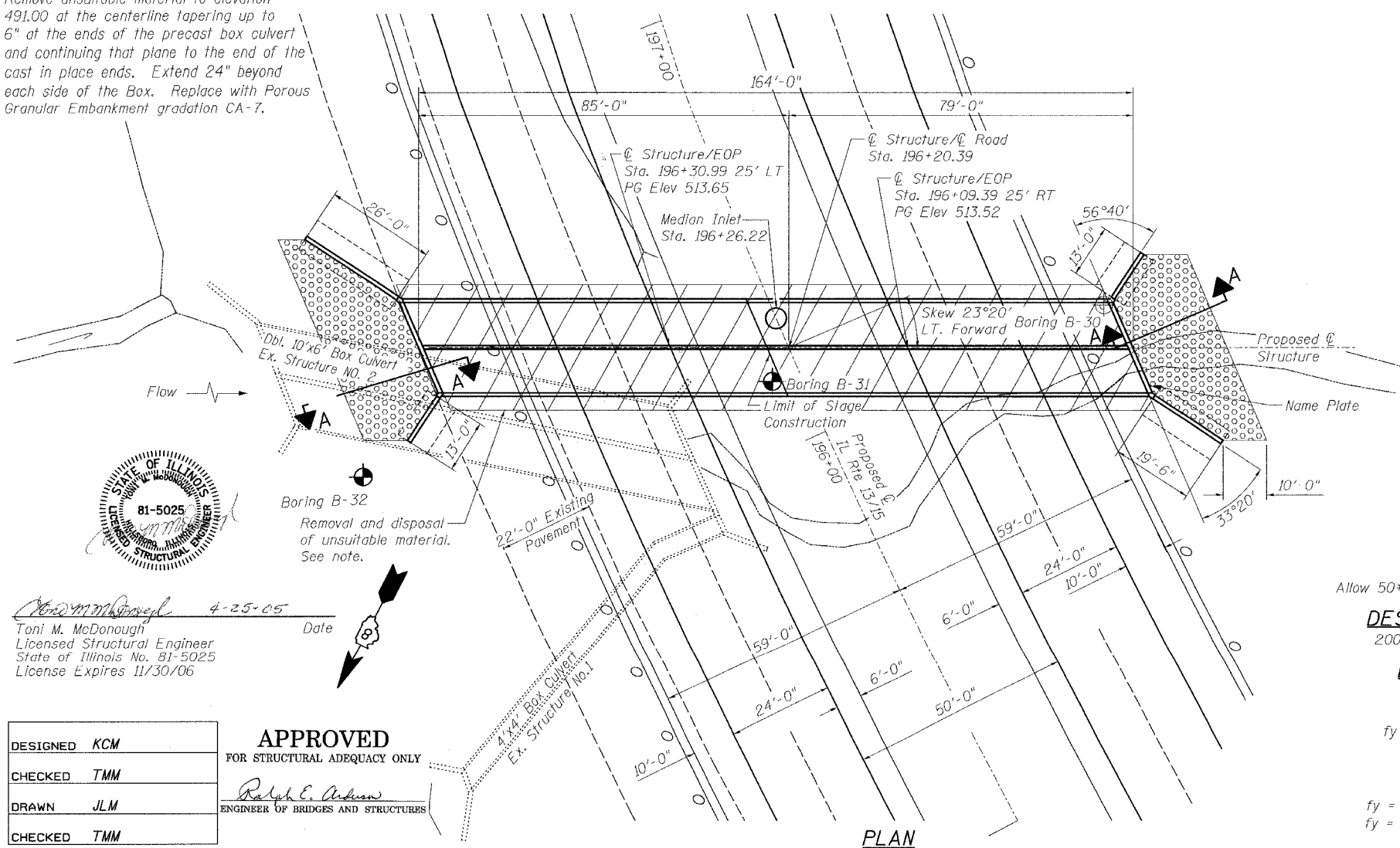
Item	Unit	Quantity
Removal and Disposal of Unsuitable Material	Cu Yd	307
Porous Granular Embankment	Cu Yd	307
Stone Riprap, Class A4	Sq Yd	231
Filter Fabric For use with Riprap	Sq Yd	231
Removal of Existing Structures No. 1	Each	1
Removal of Existing Structures No. 2	Each	1
Name Plates	Each	1
Box Culvert End Section, Culvert No. 3	Each	2
Precast Concrete Box Culvert 10' x 10'	Foot	307.5

WATERWAY INFORMATION

Drainage Area = 0.75 sq. mi. (exist); 0.839 sq.mi. (prop.) Low Grade Elev. 511.29 @ Sta. 195+34.59

Flood Year	Freq.	Q (C.F.S.)		Opening Sq. Ft.		H.W.E.		Head-Ft.		Headwater El.	
		Exist	Prop.	Exist	Prop.	Exist	Prop.	Exist	Prop.	Exist	Prop.
Design	50	981	1072	120	150	504.2	1.3	0.2	505.5	504.4	
Base	100	1148	1254	120	154	504.4	2.0	0.7	506.4	505.1	
Overtopping	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Max. Calc.	500	1559	1704	120	166	505.0	3.9	2.1	508.9	507.1	

Comments
All elevations are in highway datum. Low grade is right edge of shoulder



STATION 196+20.39
BUILT 200 BY
STATE OF ILLINOIS
F.A.P. RT. 103 SEC. 27-1R
LOADING HS20
STR. NO. 082-2043

NAME PLATE
Locate Name Plate as shown on Plan (See Std. 515001)

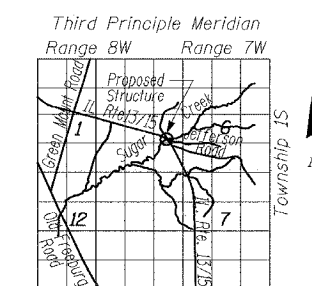
PROFILE GRADE
(along inside edge of roadway)

LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface

DESIGN SPECIFICATIONS
2002 AASHTO and AASHTO M259

DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (reinforcement)

PRECAST UNITS
f'c = 5,000 psi (minimum)
fy = 65,000 psi (welded wire fabric)
fy = 60,000 psi (reinforcement bars)



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
IL ROUTE 13/15
OVER SUGAR CREEK
F.A.P. ROUTE 103 SECTION 27-1R
ST. CLAIR COUNTY
STATION 196+20.39
STRUCTURE NO. 082-2043



Toni M. McDonough
Licensed Structural Engineer
State of Illinois No. 81-5025
License Expires 11/30/06

DESIGNED	KCM
CHECKED	TMM
DRAWN	JLM
CHECKED	TMM

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES