

Bench Mark: District Network Monument at approx. Sta. 920+00, Elevation 687.736

Existing Structure: S.N. 043-1012 is approximately 200' west at Sta. 926+26 constructed in 1925, extended in 1963 and 1986. 12'x4'-6" Concrete Box Culvert to be removed.

No Salvage.

One lane of traffic to be maintained under stage construction.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
F.A.P. 301	29T-1	JO DAVIESS	30	10	9 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

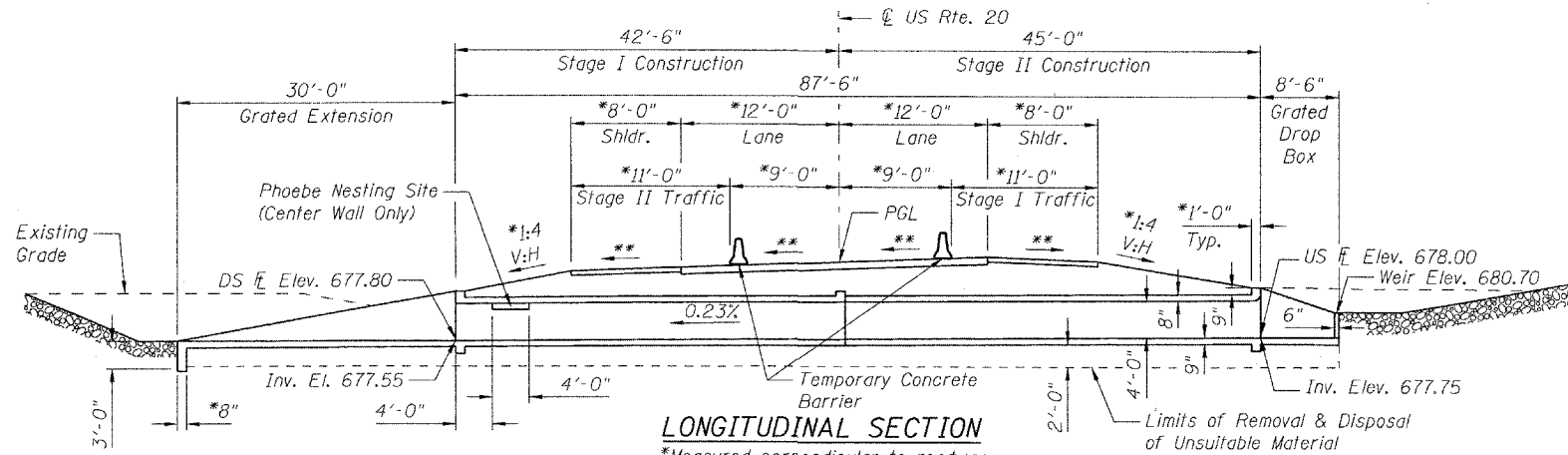
Contract #64C58

INDEX OF SHEETS

1. General Plan
2. Stage Construction
3. Culvert Plan
4. Culvert Sections
5. Culvert Details
6. Grated Drop Box
7. Grated Extension
8. Bar Splicer Assembly Details
9. Boring Log

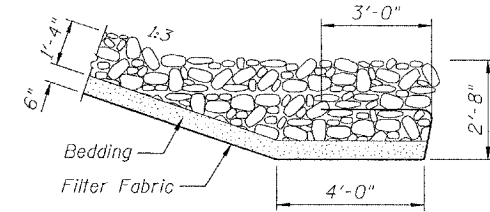
GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60 (IL Modified). See Special Provisions.
2. Exposed edges shall have a 3/4" chamfer.
3. The proposed grated end sections (headwalls and wingwalls) shall extend less than 4 inches (i.e. 3 inches typical) above the adjacent ground elevation.
4. The limits and quantities of removal and replacement shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.
5. Precast alternate is not allowed.
6. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
7. The contract unit price "Cu Yd" for Concrete Box Culverts shall include the Galvanized Pipe, Pipe Caps, Bolts, Nuts, Washers, Steel Plates, earth excavation, backfilling, compacted CA-7 aggregate bedding material and necessary grading.

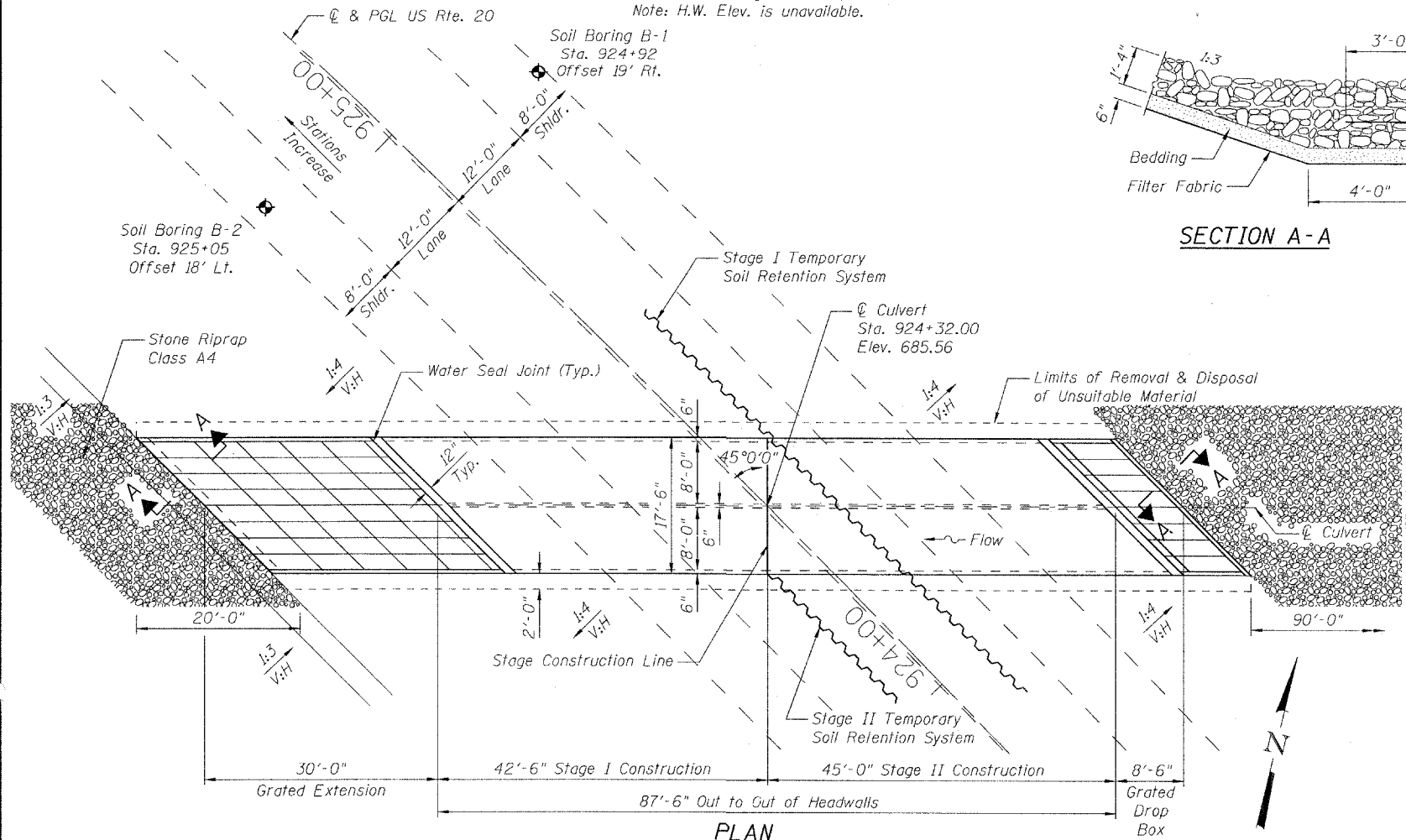


LONGITUDINAL SECTION

*Measured perpendicular to roadway
** Match existing cross slopes
Note: H.W. Elev. is unavailable.



SECTION A-A



PLAN

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal and Disposal of Unsuitable Material	Cu. Yd.	201
Stone Riprap, Class A4	Sq. Yd.	428
Filter Fabric	Sq. Yd.	428
Remove Existing Culverts	Each	1
Reinforcement Bars	Pound	40,170
Bar Splicers	Each	129
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	129.0
Temporary Soil Retention System	Sq. Ft.	836
Breaker-Run Crushed Stone	Ton	244

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 35,000$ psi (steel pipe)

HORIZONTAL CURVE DATA

Exist. Curve 200
PI Sta. = 925+18.48
 $\Delta = 3^\circ 06' 50''$ (LT)
 $D = 1^\circ 09' 08''$
 $R = 4,973.00'$
 $T = 135.17'$
 $L = 270.27'$
 $E = 1.84'$
S.E. Run = Match Existing
P.C. Sta. = 923+83.32
P.T. Sta. = 926+53.58

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	674.75	674.55

WATERWAY INFORMATION

Drainage Area = 155.0 acres
Existing Low Grade Elev. 680.56 ft. @ Sta. 926+71
Proposed Low Grade Elev. 683.18 ft. @ Sta. 925+33

Flood Year	Frequency Year	Discharge cfs	Headwater Elev. (ft)	
			Existing	Proposed
Ten-Year	10	288	x	682.58
Design	50	401	x	682.52
Base	100	461	x	682.96
OVT (E)	2	205		680.56
OVT (P)	144	497		683.18

10-Year Velocity through Existing Culvert = 12.2 fps
10-Year Velocity through Proposed Culvert = 8.32 fps

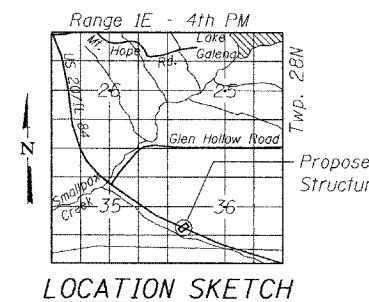
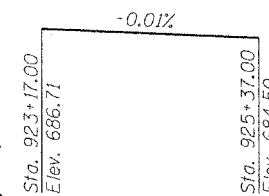


Signature: *Deborah A. Troia*
Date: March 24, 2008
November 30, 2008 Expires

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson (TDP)
ENGINEER OF BRIDGES AND STRUCTURES

PROFILE GRADE
(along @ US Route 20)



GENERAL PLAN
US ROUTE 20/IL ROUTE 84
OVER UNNAMED TRIBUTARY
TO SMALLPOX CREEK
F.A.P. 301 SECTION 29T-1
JO DAVIESS COUNTY
STATION 924+32.00
STRUCTURE NO. 043-1077

DESIGNED	LAS
CHECKED	DAZ
DRAWN	SAW
CHECKED	LAS