

Bench Mark: USGS Brass Cap in concrete. Stamped "Elev. = 936". Near North R.O.W. of Howardsville Rd. 100'. East of the centerline of Tiger Whip Road. El. = 936.544'

Existing Structure: S.N. 043-0014 Built in 1921 as S.B.I. 5, Section 23B, at Sta. 123+25.00. In 1970, the structure was rehabilitated. The existing structure consists of prestressed, precast deck beams with a bituminous concrete overlay. The superstructure is supported by reinforced concrete closed abutments with no skew. 38'-0" back to back of abutments. Clear deck width is 32'-4" with 12 foot lanes in each direction, with 8 foot shoulders. The entire structure is to be removed and replaced with a triple cell reinforced concrete box. One lane of traffic will be maintained utilizing stage construction.

No salvage.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STATION 123+36.00  
BUILT 20\_\_ BY  
STATE OF ILLINOIS  
F.A. ROUTE 301 SEC. 23 BR-2  
LOADING HS20-44  
STR. NO. 043 - 2006

ROUTE NO.	SECTION	COUNTY	LENG.	SHEET NO.	SHEET NO. 1 OF
S.B.I. 5	23BR-2	JO DAVIESS	30	9	8 SHEETS
F.A. 301					64412
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

INDEX OF STRUCTURAL SHEETS

1. General Plan and Elevation
2. Staged Construction and Temporary Soil Retention System
3. Temporary Concrete Barrier
4. Box Culvert Details
5. Box Culvert Details
6. Wingwall Details
7. Bar Splicer Assembly Details
8. Soil Borings

LOADING HS20-44

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

DESIGN SPECIFICATIONS

1996 AASHTO with 1997 through 2002 Interims

DESIGN STRESSES

FIELD UNITS

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

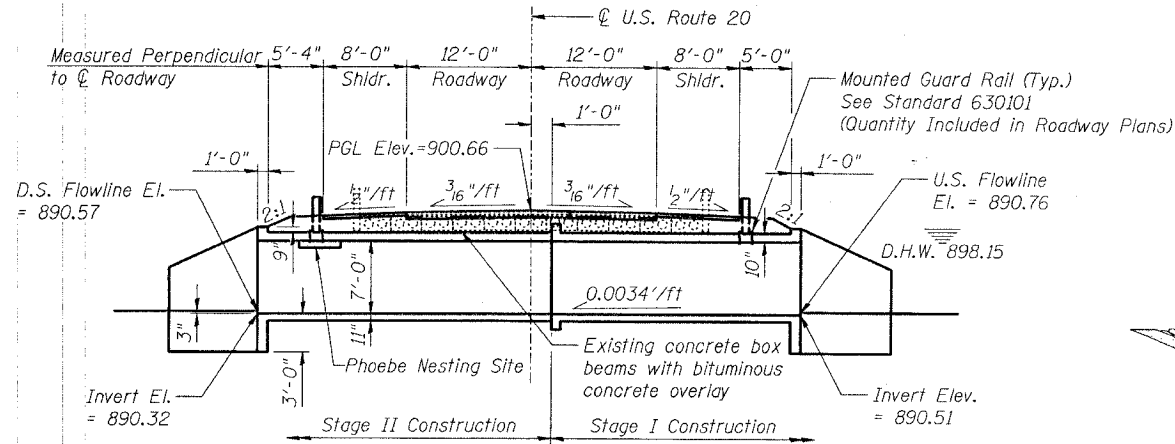
GENERAL NOTES

Reinforcing bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60. Exposed edges shall have 3/4" chamfer unless otherwise noted. For backfilling and embankment see Standard Specifications. A Precast culvert alternate is not allowed. Excavation behind existing abutment wall shall be completed before removing the existing superstructure. The contractor shall sawcut the existing abutment at the stage removal line before Stage I Removal. Cost is included with "Removal of Existing Structure". Cost of removing existing guard rail attached to bridge is included with "Removal of Existing Structure". See Staging Sequence on sheet No. 2 for additional information. At least 7'-4" of barrel shall be placed monolithically with the wingwall. All construction joints shall be bonded. Layout of slope protection system may be varied in field to suit ground conditions as directed by the engineer.

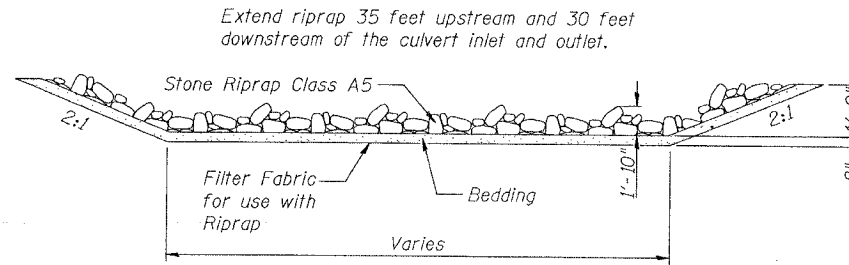
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal of Existing Structure	Each	1
Concrete Box Culverts	Cu. Yd.	181.2
Reinforcement Bars	Pound	37,197
Name Plates	Each	1
Temporary Soil Retention System	Sq. Ft.	415.3
Bar Splicers	Each	136
Stone Riprap Class A 5	Sq. Yd.	335
Filter Fabric for use with Riprap	Sq. Yd.	335

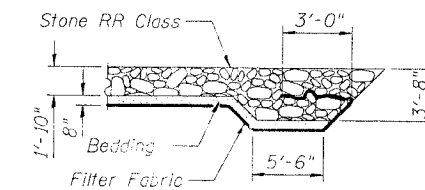
GENERAL PLAN & ELEVATION  
U.S. 20 OVER YELLOW CREEK TRIBUTARY  
FA ROUTE 301 SECTION 23BR-2  
JO DAVIESS COUNTY  
STATION 123+36.00  
STRUCTURE NUMBER 043-2006



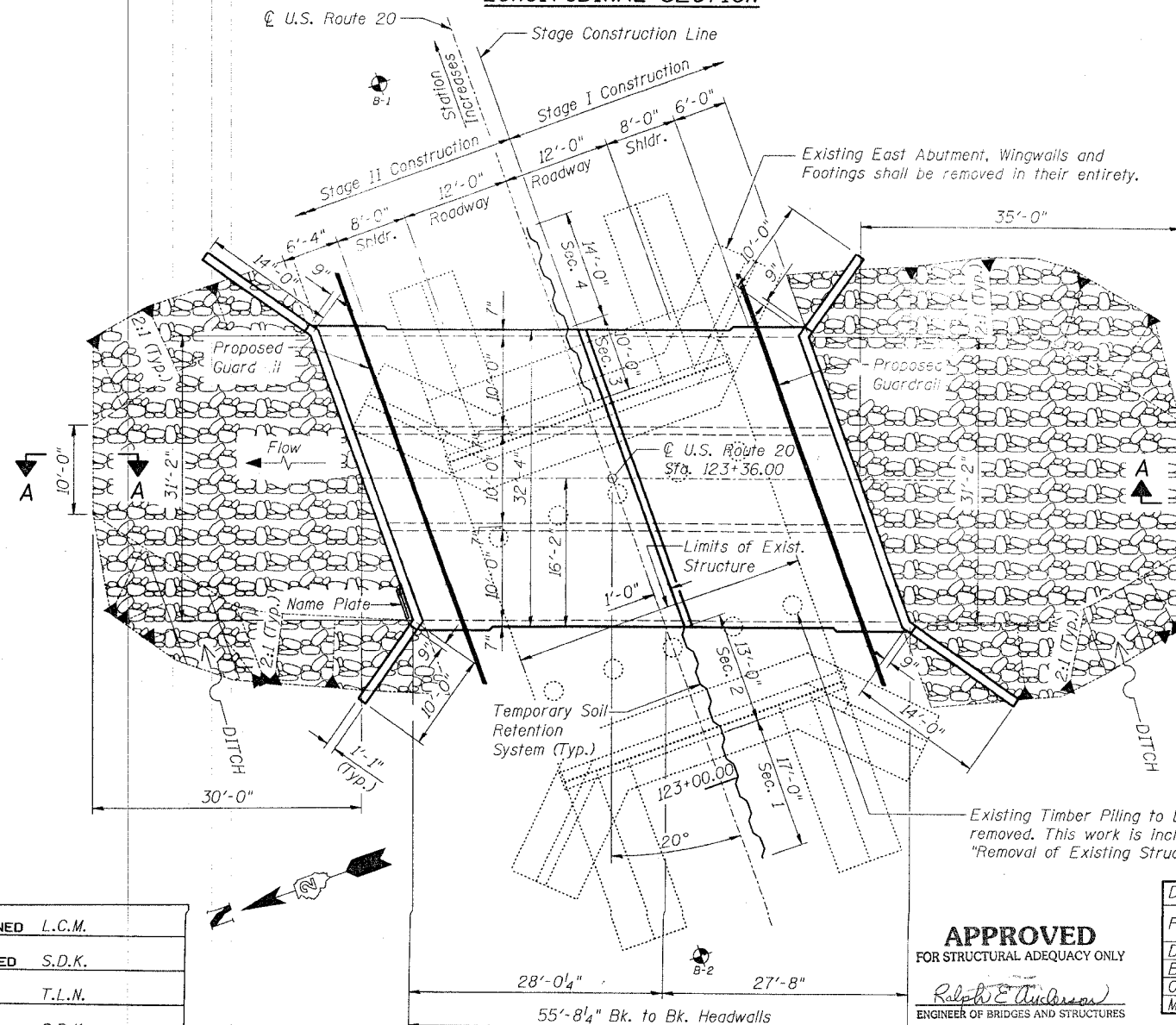
LONGITUDINAL SECTION



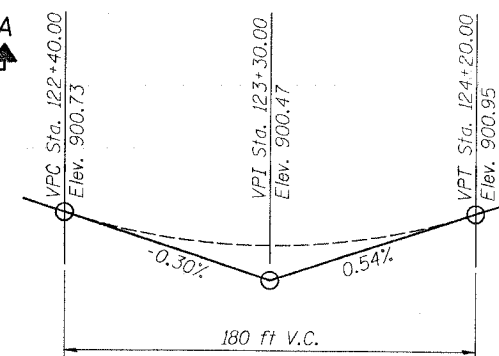
RIPRAP CROSS-SECTION



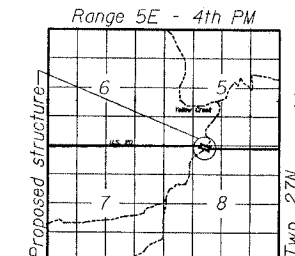
SECTION A-A



PLAN



PROFILE GRADE  
(Along U.S. 20)



LOCATION SKETCH

WATERWAY INFORMATION

Drainage Area = 4.8 sq. mi. Low Grade Elev. 900.64 @ Sta. 123+03.99

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Nat. H.W.E.	Head - Ft.	Headwater El.
Design	50	1540	180.0	195.0	897.00	2.29
Base	100	1770	187.0	200.7	897.19	2.71
Overtopping	110	1798	188.0		897.23	2.74
Max. Calc.	300	2140			897.45	2.58

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



Stephen D. Kathol  
1/5/2004  
date

license expires 11-30-2004



DESIGNED	L.C.M.
CHECKED	S.D.K.
DRAWN	T.L.N.
CHECKED	S.D.K.