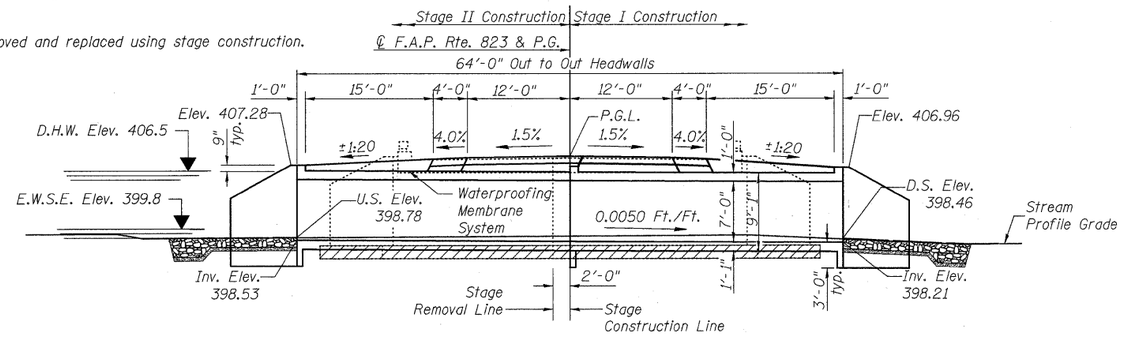
Bench Mark: NGS Disk in N.E. wingwall S.N. 096-0055. Elevation 410.16.

Existing Structure: S.N. 096-0055 The original structure was built in 1918 at Station 239+90 as a single 20'-0" span concrete slab bridge over closed abutments on spread footings. The original structure had a 20'-0" clear between rails, no skew and 45 degree wing walls. The Structure was widened in 1954 to 37'-0" clear with similiar wingwalls and substructure.

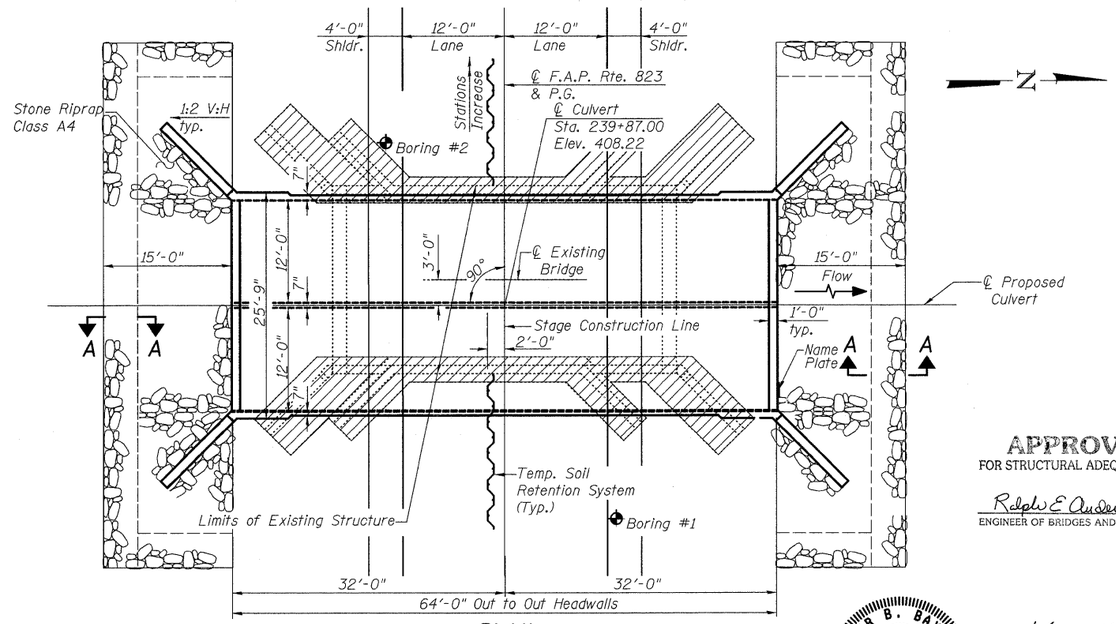
Structure to be removed and replaced using stage construction.

No Salvage

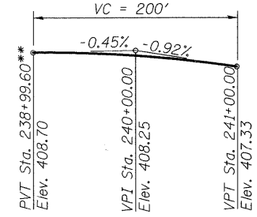
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



LONGITUDINAL SECTION
(Looking West)



PLAN



PROFILE GRADE
(along ℄ roadway)

** Sta. Eqn. Sta. 239+37.30 Bk. = Sta. 239+37.70 Ah.

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

Excavation behind existing abutment walls shall be performed to balance front and back soil pressures before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.

Precast Alternative not allowed.

STATION 239+87.00
BUILT 2009 BY
STATE OF ILLINOIS
F.A.P. RT. 823 SEC. (22BR1) B-1
LOADING HS20-44
STR. NO. 096-2011

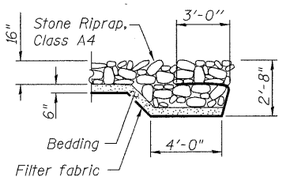
NAME PLATE
See Std. 515001

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	QUANTITY
Stone Riprap, Class A4	Sq. Yd.		205	205
Fliter Fabric	Sq. Yd.		205	205
Removal of Existing Structures	Each	1		1
Reinforcement Bars	Pound		30,940	30,940
Bar Splicers	Each		125	125
Concrete Box Culverts	Cu. Yd.		181	181
Temporary Soil Retention System	Sq. Ft.		343	343
Name Plates	Each	1		1
Waterproofing Membrane System	Sq. Yd.		178	178
Structure Excavation	Cu. Yd.		338	338

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E Anderson (TJD)
ENGINEER OF BRIDGES AND STRUCTURES



SECTION A-A

INDEX OF SHEETS

1 General Plan and Elevation
2 Staged Construction Details
3 Temporary Concrete Barrier
4-5 Culvert Details
6 Bar Splicer Assembly Details
7 Soil Boring Logs

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	U.S. *	D.S. *
	395.53	395.21

*Bottom of Toe Wall Elevations

PETER B. BAYLES
081-006042
LICENSED STRUCTURAL ENGINEER
ILLINOIS

Peter B. Bayles, P.E., S.E.
Structural Engineer License No. 081-006042
Expiration Date: 11/30/2010

WATERWAY INFORMATION

Drainage Area = 0.4 mi ²
Exist. Low Grade Elev. 407.20 @ Sta. 242+00
Prop. Low Grade Elev. 407.20 @ Sta. 242+00

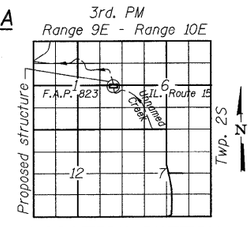
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	417	108	128	405.6	0.0	0.0	405.6	405.6
Design	50	722	122	149	406.5	0.4	0.1	406.9	406.6
Base	100	868	122	149	406.7	0.5	0.3	407.2	407.0
Ex. Overtop	100	868	122	-	406.7	0.5	-	407.2	-
Pr. Overtop	200	950	-	149	406.8	-	0.4	-	407.2

10 year velocity through existing bridge = 3.9 fps
10 year velocity through prop. bridge = 2.8 fps

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)



LOCATION SKETCH

GENERAL PLAN
IL 15 OVER TRIBUTARY TO UNION DRAINAGE DITCH
STATION 239+87.00
STRUCTURE NO. 096-2011

SHEET NO. 1 OF 7 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	823	(22BR1) B-1	WAYNE	142	31
			CONTRACT NO. 74238		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

BLANK, WESSELINK, COOK & ASSOCIATES ENGINEERS - CONSULTANTS DECATUR, ILLINOIS