Benchmark: Chiseled square on NE wingwall, SN 059-0046, Elevation 645.02

Existing Structure: SN 059-0046 built in 1920 as a single span, concrete slab structure with closed abutments, 18'-0" bk. to bk. abutments and 30'-0" o.o. deck. Road will be closed during construction

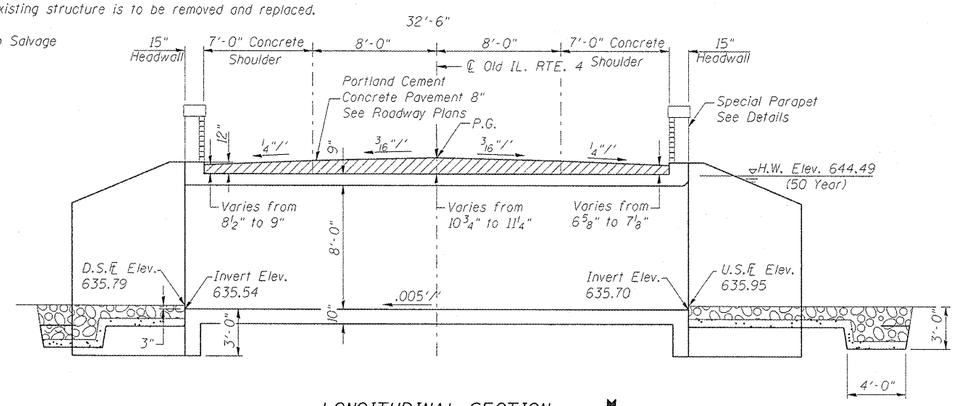
Existing structure is to be removed and replaced.

No Salvage

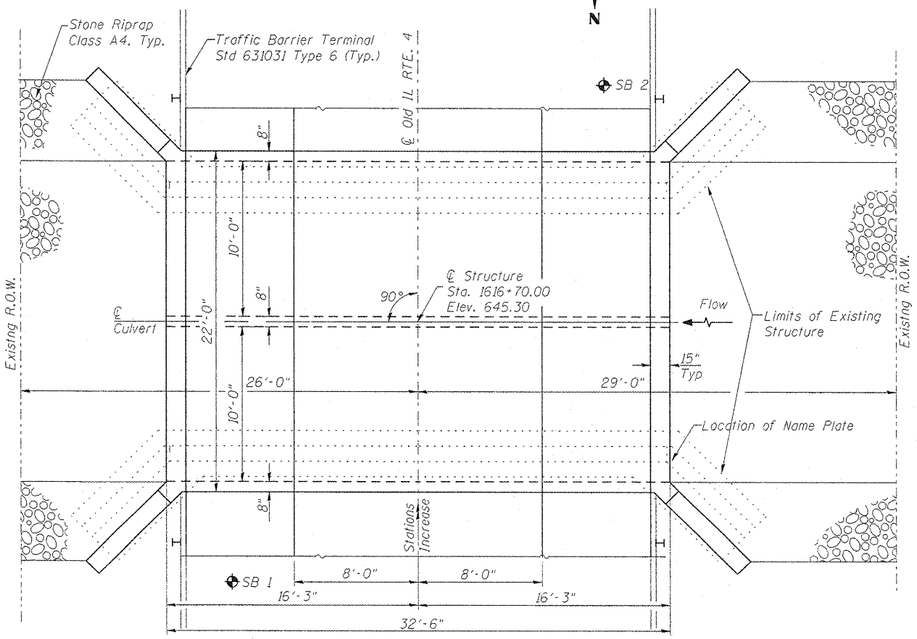
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SBI 4 OLD IL 4	(L-15D)B	Macoupin	21	13
FED. ROAD DIST. NO. 9		ILLINOIS	FED. AID PROJECT-	

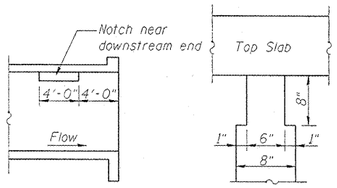
SHEET NO. 1
4 SHEETS



LONGITUDINAL SECTION



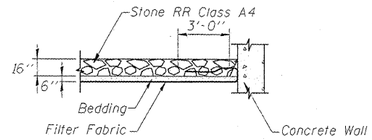
PLAN



LONGITUDINAL SECTION — NOTCH DETAIL

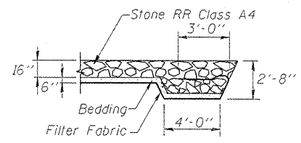
PHOEBE NESTING SITE DETAILS

Note: Notch formed by rough-finished board attached to and removed with formwork. Do not chamfer.



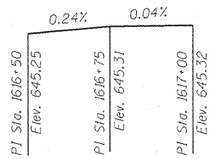
STONE RIPRAP ANCHOR DETAIL

(Typical where riprap abuts concrete)



STONE RIPRAP ANCHOR DETAIL

(Typical where riprap abuts soil)



PROFILE GRADE

Along ℄ Roadway

STATION 1616+70.00
BUILT 200_ BY
STATE OF ILLINOIS
S.B.I.. RT. 4 SEC (L-15D)B
LOADING HS20
STR. NO. 059-2502

NAME PLATE

See Std. 515001

WATERWAY INFORMATION

Drainage Area = 3.35 mi² Low Grade Elev. 645.01 ft @ Sta. 1616+61

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.
Design	50	980	114	160	644.49	2.0	0.5	646.48	645.01
Base	100	1121	114	160	644.77	2.3	0.8	647.02	645.55
Overtopping									
Max. Calc.	500	1455	114	160	645.32	2.6	1.3	647.83	646.59

LOADING HS20-44

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

DESIGN SPECIFICATIONS

1996 AASHTO with 1997, 1998, 1999, 2000, 2002 interims

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi

f_y = 60,000 psi (reinforcement)

GENERAL NOTES

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

Precast culvert alternate is not allowed.

For backfilling and embankment see Standard Specifications.

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

All construction joints shall be bonded.

Excavation behind existing abutment walls shall be done before removing the existing superstructure; cost included with Removal of Existing Structures.

Reinforcement Bars designated (E) shall be epoxy coated.

TOTAL BILL OF MATERIAL

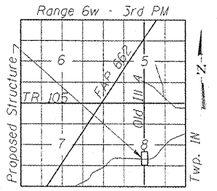
ITEM	UNIT	QUANTITY
Removal of Existing Structures	Each	1
Reinforcement Bars, Epoxy Coated	Pound	7410
Reinforcement Bars	Pound	10460
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	100.7
Standard Brick Veneer	Sq. Ft.	68
Stone Riprap, Class A4	Sq. Yd.	100
Filter Fabric	Sq. Yd.	152

* See Special Provisions

STATE OF ILLINOIS
RALPH E. ANDERSON
LICENSED
081-004625
SPRINGFIELD
STRUCTURAL ENGINEER

Expires Nov. 30, 2010

MICHAEL W. HOOK
081-005761
REGISTERED
STRUCTURAL
ENGINEER
STATE OF ILLINOIS



LOCATION SKETCH

GENERAL PLAN
OLD IL ROUTE 4 OVER
SHEARLES BRANCH TRIBUTARY
SBI ROUTE 4 - SECTION (L-15D)B
MACOUPIN COUNTY
STATION 1616+70
STRUCTURE NO. 059-2502

DESIGNED	J. BENNETT
CHECKED	M. HOOK
DRAWN	L. ROSE
CHECKED	J. BENNETT

AMENT, INC.
Engineering, Architecture, Surveying
Cedar Rapids, Iowa (319) 378-1401 Moline, Illinois (309) 762-3617
Illinois Professional Design Firm No. 184-002495

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