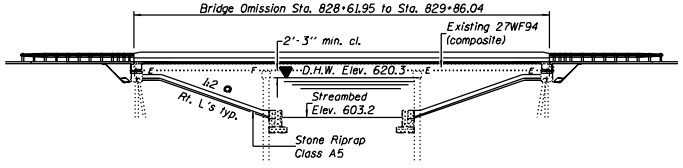
Bench Mark: Chiseled "□" on NE wingwall of S.N. 094-0002. Elev. 626.24.

Existing Structure: S.N. 094-0002 built in 1954 as S.B.I. Route 3, Section 28-BR at Station 829+24.00. Structure consists of 3 span reinforced concrete deck on steel WF beams supported on spill-thru pile bent abutments and open concrete pile bent piers. 125'-9" back-to-back abutments. 34'-4" out-to-out deck. Concrete deck to be removed and replaced using Stage Construction.

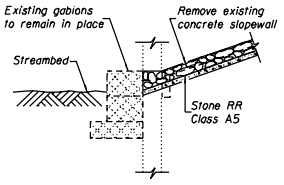
No salvage

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

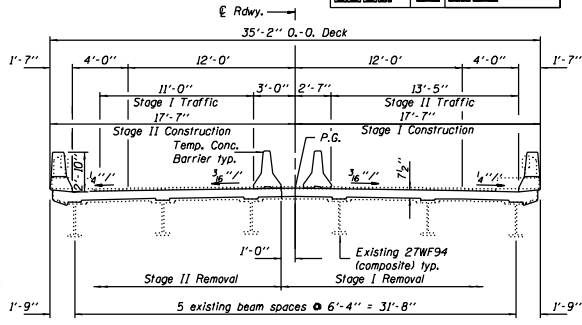
SHEET NO. 1
1 SHEET



ELEVATION

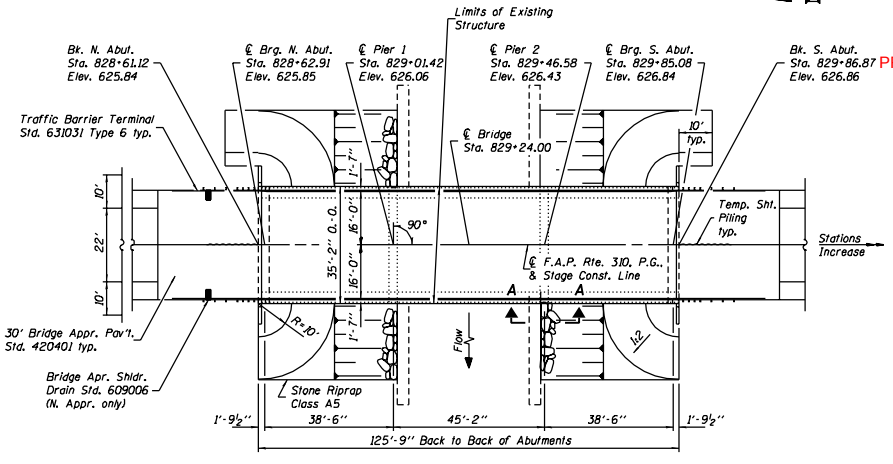


SECTION A-A

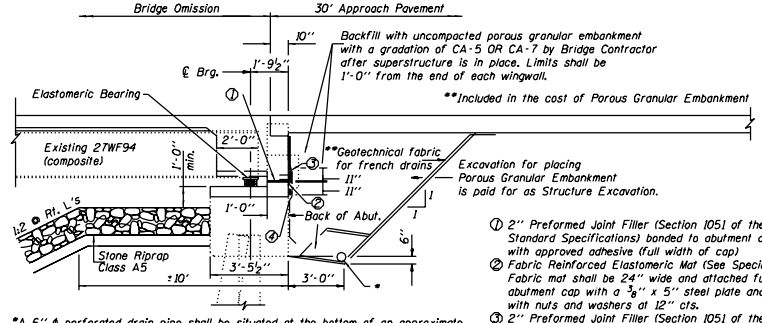


CROSS SECTION
(Looking South)

APPROVED
AS A BASIS FOR
PREPARATION OF DETAILED PLANS
OCT 02 2003



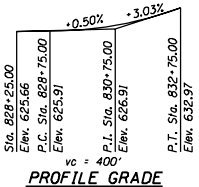
PLAN



*A 6" ϕ perforated drain pipe shall be situated at the bottom of an approximate 2' x 2' area of porous granular embankment. The 2' x 2' area shall be wrapped completely in a geotechnical fabric for french drains. Extend pipe parallel with the cap until intersecting with the sideslope. Pipes shall drain onto concrete headwalls (Article 601.05 of the Std. Specifications).**

① 2" Preformed Joint Filler (Section 105) of the Standard Specifications) bonded to abutment cap with approved adhesive (full width of cap)
② Fabric Reinforced Elastomeric Mat (See Special Provisions). Fabric mat shall be 24" wide and attached full width to the abutment cap with a ⅜" x 5" steel plate and ½" ϕ studs with nuts and washers at 12" cts.
③ 2" Preformed Joint Filler (Section 105) of the Standard Specifications) bonded to superstructure (full width of cap)
④ Geocomposite Wall Drain (Section 591 of the Standard Specifications - full width of cap)

SECTION THRU SEMI-INTEGRAL ABUTMENT
(@ Rt. L's)



PROFILE GRADE
(along ℄ roadway)

SCOPE OF WORK

1. Remove and replace existing concrete deck.
2. Make new deck composite in positive moment regions.
3. Reconfigure existing abutments and wingwalls to semi-integral configuration.
4. Clean, paint and reuse fixed and expansion bearings at the piers.
5. Repair steel beams and diaphragms as necessary.
6. Remove existing concrete slope wall and replace with riprap.
7. Clean and paint existing structural steel under separate "Paint Only" contract.

HIGHWAY CLASSIFICATION

F.A.P. Rte. 310 - U.S. Rte. 67
Functional Class: Principal Arterial
ADT: 1950 (2001); 2914 (2020)
DHV: 244 ADTT: 17.9%
Design Speed: 55 m.p.h.
Posted Speed: 55 m.p.h.

LOADING HS20-44 (New Const.)

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

DESIGN SPECIFICATIONS (New Const.)

1996 AASHTO with 1997 thru 2002 Interims

DESIGN STRESSES

FIELD UNITS (New Construction)
f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)

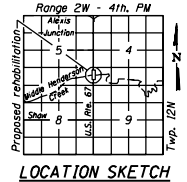
SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 3.6%g
Site Coefficient (S) = 1.2

WATERWAY INFORMATION

Drainage Area = 35.10 Sq. Mi. Low Grade Elev. 624.04' @ Sta. 825+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	3750	728	728	617.8	0.2	0.2	618.0	618.0
Design	50	5573	970	970	620.3	0.5	0.5	620.8	620.8
Base	100	6328	1058	1058	621.2	0.5	0.5	621.7	621.7
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	8254	1237	1237	622.7	0.9	0.9	623.6	623.6



LOCATION SKETCH

GENERAL PLAN
U.S. ROUTE 67 OVER
MIDDLE HENDERSON CREEK
F.A.P. ROUTE 310 - SECTION 28BR-1
WARREN COUNTY
STATION 829+24.00
STRUCTURE NO. 094-0002

DESIGNED	G.G. Eicher
CHECKED	A.Y. Vinson
DRAWN	W.D. Collins
CHECKED	M.D. Cima

EXAMINED 20
ENGINEER OF BRIDGE DESIGN
PASSED
ENGINEER OF BRIDGES AND STRUCTURES