

Benchmark: RR Spike in 2nd Utility Pole East of Existing Structure (No. 025-0037) on North side of IL Route 33. Elev. 581.69.

Existing structure: Structure number 025-0037 was built in 1925 as SBI Route 33, Section 6B. The superstructure was replaced and substructure was widened in 1974 as Section 6BR-2. The existing structure is 33'-0" out-to-out of deck, 48'-6" back-to-back of abutments. It has 21" precast concrete deck beams with closed abutments on timber piling. The existing structure shall be removed and replaced using staged construction. No salvage.

Traffic Management: One lane of traffic shall be maintained at all times using staged construction.

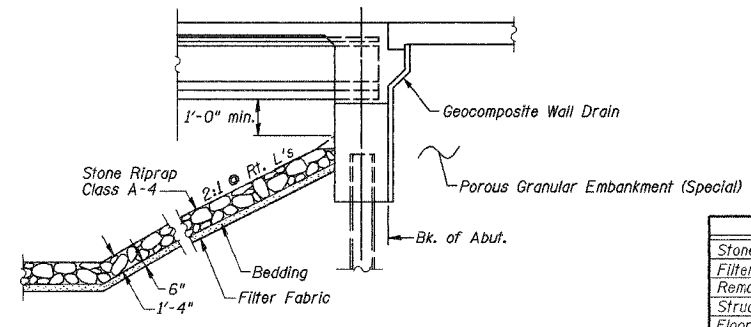
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
95	6B-1	EFFINGHAM	409	371
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 94356

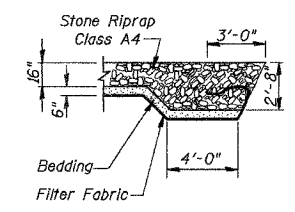
SHEET NO. 1
SHEETS 12

TOTAL BILL OF MATERIAL

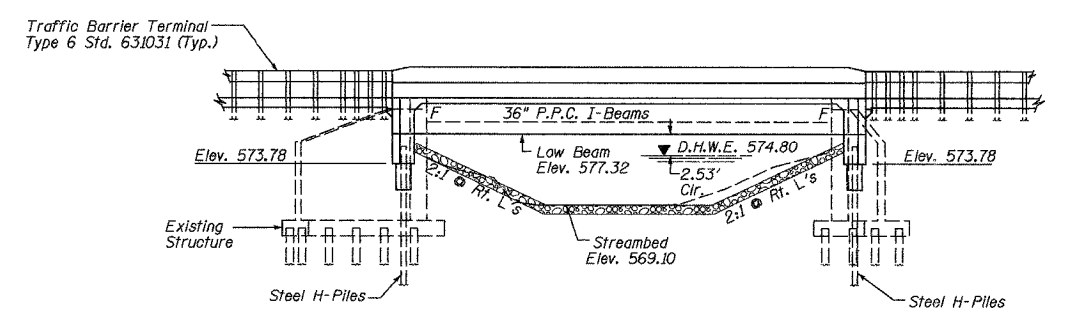
ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Sq Yd		429	429
Filter Fabric	Sq Yd		429	429
Removal of Existing Structure, No 2	Each		1	1
Structure Excavation	Cu Yd		80	80
Floor Drains	Each	6		6
Concrete Structures	Cu Yd		36.9	36.9
Concrete Superstructure	Cu Yd	95.6		95.6
Bridge Deck Grooving	Sq Yd	228		228
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 36"	Foot	318		318
Reinforcement Bars, Epoxy Coated	Pound	17470	4760	22230
Furnishing Steel Piles HP 10x42	Foot		540	540
Driving Piles	Foot		540	540
Test Pile Steel HP 10x42	Each		1	1
Temporary Soil Retention System	Sq Ft		532	532
Name Plates	Each		1	1
Bar Splicers	Each	274	20	294
Porous Granular Embankment (Special)	Cu Yd		412	412
Geocomposite Wall Drain	Sq Yd		84	84



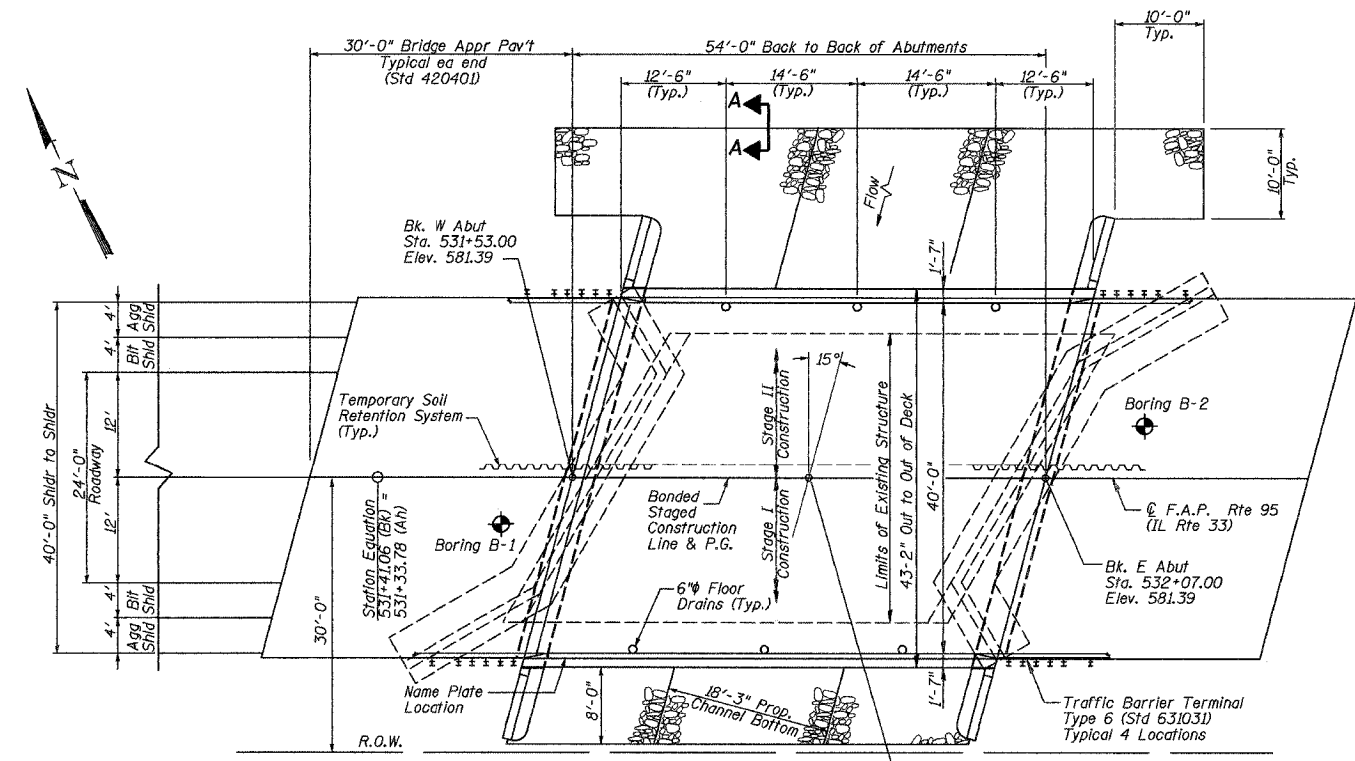
SECTION THRU INTEGRAL ABUTMENT
(Showing Riprap)



SECTION A-A



ELEVATION



PLAN

Note: Existing footings shall be removed as required to drive proposed piling.

STATION 531+80.00
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RTE. 95 SECTION 6B-1
LOADING HS20
STR. NO. 025-0097

NAME PLATE
See Std. 515001

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.075g
Site Coefficient (S) = 1.0

DESIGN SPECIFICATIONS

1996 AASHTO with 1997, 1998, 1999, and 2000 Interims

LOADING HS20-44

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

DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinf.)

PRECAST PRESTRESSED UNITS

$f'_c = 6,000$ psi
 $f'_ci = 5,000$ psi
 $f'_s = 270,000$ psi ($\frac{1}{2}$ " ϕ Low Relax. strands)
 $f'_{si} = 201,960$ psi ($\frac{1}{2}$ " ϕ Low Relax. strands)

GENERAL NOTES

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

Reinforcement Bars designated (E) shall be epoxy coated.

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

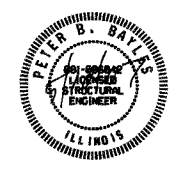
The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations of substructures specified or approved by the Engineer before ordering the remainder of piles.

All embedded and separate bearing plates, side retainers, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 (as applicable).

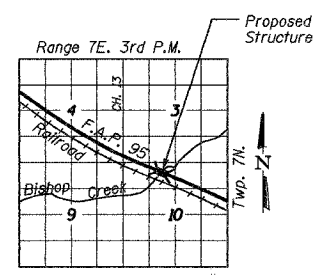
H.S. bolts in bearing assembly shall be galvanized according to AASHTO M298 Class 50.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY.

Robert E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



Peter B. Bayles 5/1/07
Peter B. Bayles, P.E., S.E. Date
Structural Engineer License No. 081-006042
Expiration Date: 11/30/2008



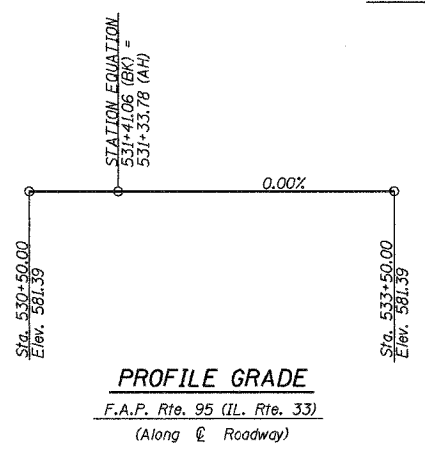
LOCATION SKETCH

WATERWAY INFORMATION

Drainage Area = 3.6 sq.m. Low Grade Elev. = 581.05

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E. Ft.	Head-Ft.		Headwater Elev. - Ft.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	470	101	130	573.8	0.3	0.0	574.1	573.8
Base	50	700	143	171	574.8	0.2	0.0	575.0	574.8
Overtopping	100	800	158	186	575.2	0.2	0.0	575.4	575.2
Max. Calc.	500	1020	188	219	575.9	0.3	0.0	576.2	575.9

Maximum Highwater Elevation Unknown



PROFILE GRADE
F.A.P. Rte. 95 (IL Rte. 33)
(Along ϕ Roadway)

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN
ILLINOIS ROUTE 33 OVER
BISHOP CREEK
F.A.P. RTE. 95
SECTION 6B-1
EFFINGHAM COUNTY
Sta. 531+80
STRUCTURE NUMBER 025-0097

DATE: APR. 2002 DRAWN BY: MLR
CHECKED BY: SJK