

Benchmark: Chisled "□" on 6" Barrier Curb east of Big Salt Creek Bridge. Approximately 41' west of the east end of the left Bridge Guardrail. Elev. 540.23

Existing Structure: Structure Number 025-0035 was built in 1925 as SBI Route 33, Section 7B Sta. 146+63.50. The superstructure was replaced and substructure was widened in 1976 as Section 7B. The existing structure is 33'-0" out-to-out of deck, 129'-0" back-to-back of abutments. It has 21" precast prestressed concrete deck beams with closed abutments on timber piling. One lane of traffic shall be maintained at all times using staged construction. No salvage.

F.A.P. No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
95	7B-1	EFFINGHAM	409	346
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 94356				

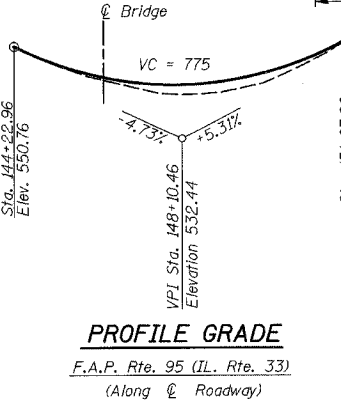
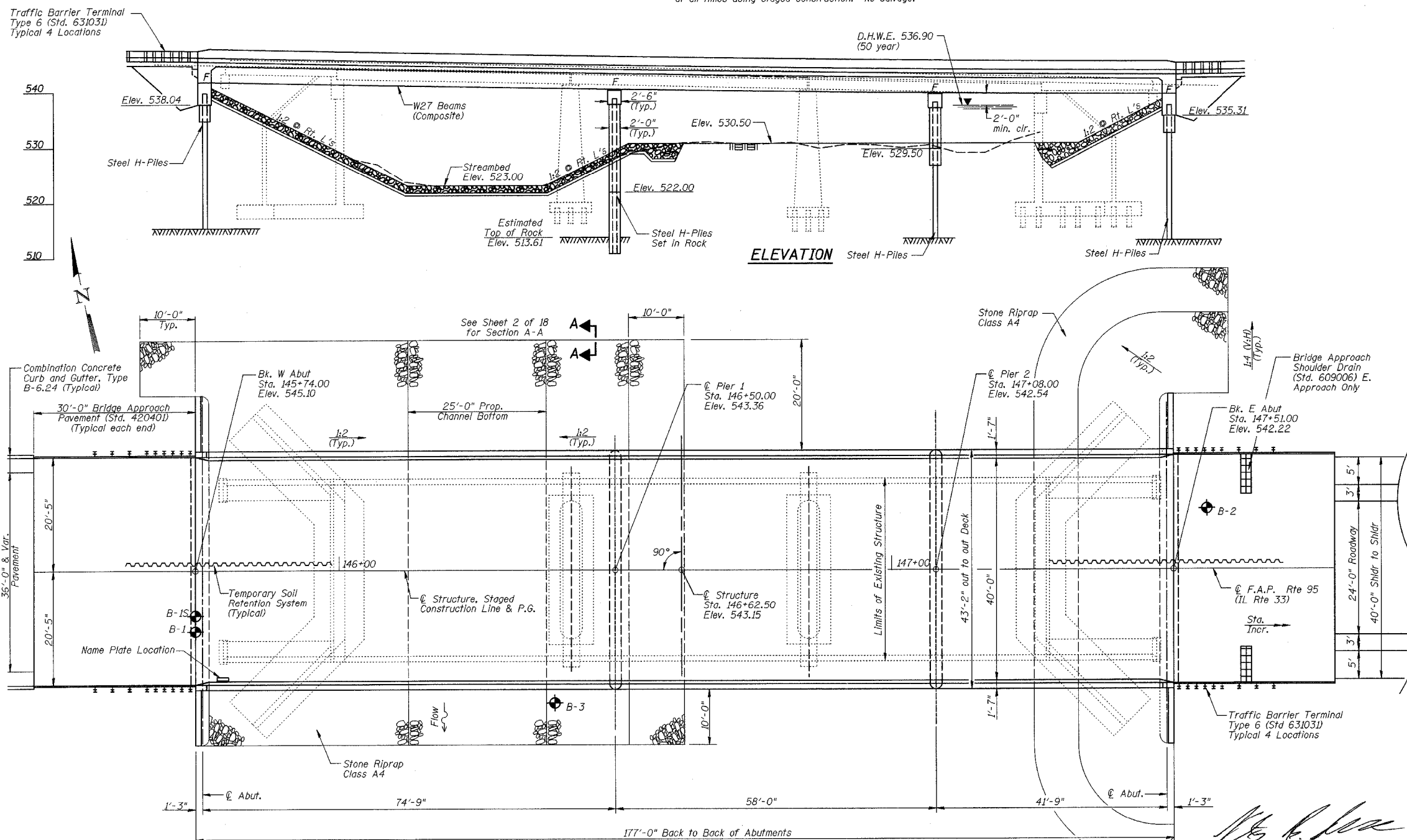
SHEET NO. 1
SHEETS 1B

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Sq Yd		1032	1032
Filter Fabric	Sq Yd		1032	1032
Removal of Existing Structure, No. 1	Each			1
Structure Excavation	Cu Yd		348	348
Bridge Deck Grooving	Sq Yd	748		748
Concrete Structures	Cu Yd		125.6	125.6
Concrete Superstructure	Cu Yd	249.9		249.9
Furnishing and Erecting Structural Steel	L Sum		1	1
Stud Shear Connectors	Each	3384		3384
Porous Granular Embankment (Special)	Cu Yd		154	154
Reinforcement Bars, Epoxy Coated	Pound	60850		72400
Furnishing Steel Piles HP 10x57	Foot		416	416
Furnishing Steel Piles HP 12x74	Foot		248	248
Driving Piles	Foot		416	416
Test Pile Steel HP 10x57	Each		2	2
Name Plates	Each	1		1
Bar Splicers	Each	604	156	760
Underwater Structure Excavation Protection Location 1	Each		1	1
Setting Piles in Rock	Each		8	8
Temporary Soil Retention System	Sq Ft		628	628
Anchor Bolts, 1"	Each		48	48
Pipe Underdrain for Structure, 4"	Foot		190	190
Geo Composite Wall Drain	Sq Yd		80	80

GENERAL NOTES

- Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts (in painted areas and M164 Type 3 in unpainted areas). Bolts 3/4", holes 13/16", unless otherwise noted.
- Calculated weight of Structural Steel = 159,770 lbs.
- All structural steel shall be AASHTO M 270 Grade 50W.
- All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
- The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams and all splice plate material except fill plates.
- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
- No field welding is permitted except as specified in the contract documents.
- Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Those areas shall be primed in the shop with a Department approved zinc rich primer. No field painting shall be required. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".
- Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8". Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 1/8" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.
- The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.
- Excavation behind existing abutment walls shall be performed to balance front and back soil pressure 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.
- If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
- Reinforcement bars designated (E) shall be epoxy coated.

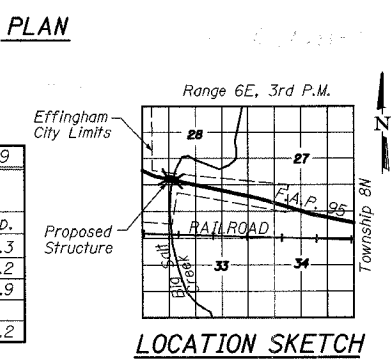


WATERWAY INFORMATION

Drainage Area = 34.97 sq.mil. Low Grade Elev. = 542.13 @ Sta. 147+88.09

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.	Exist.	Prop.
Design	10	3089	856	985	535.1	0.3	0.2	535.4	535.3	
Base	50	4631	1067	1260	536.9	0.5	0.3	537.4	537.2	
Overtopping	100	5274	1142	1361	537.5	0.5	0.4	538.0	537.9	
Max. Calc.	500	6793	1294	1569	538.8	0.6	0.4	539.4	539.2	

Maximum Highwater Elevation Unknown



APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Adams
ENGINEER OF BRIDGES AND STRUCTURES
DESIGN SPECIFICATIONS
2002 AASHTO
LOADING HS-20-44
Allow 50#/sq. ft. for future wearing surface.

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

Peter B. Bayles
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Structural Engineer License No. 081-006042
Expiration Date: 11/30/2008

DESIGN STRESSES
FIELD UNITS
f_c = 3,500 psi
f_y = 60,000 psi (Reinforcement)
f_y = 50,000 psi (Str. Steel-M270 Gr. 50W)

STATION 146+62.50
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RTE. 95 SECTION 7B-1
LOADING HS20
STR. NO. 025-0101

NAME PLATE
See Std. 515001

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN
ILLINOIS ROUTE 33 OVER
BIG SALT CREEK
F.A.P. ROUTE 95
SECTION 7B-1
EFFINGHAM COUNTY
STA. 146+62.50
STRUCTURE NUMBER 025-0101

DATE: OCT. 2003
DRAWN BY: MLO/NW
CHECKED BY: PBB/SJK