

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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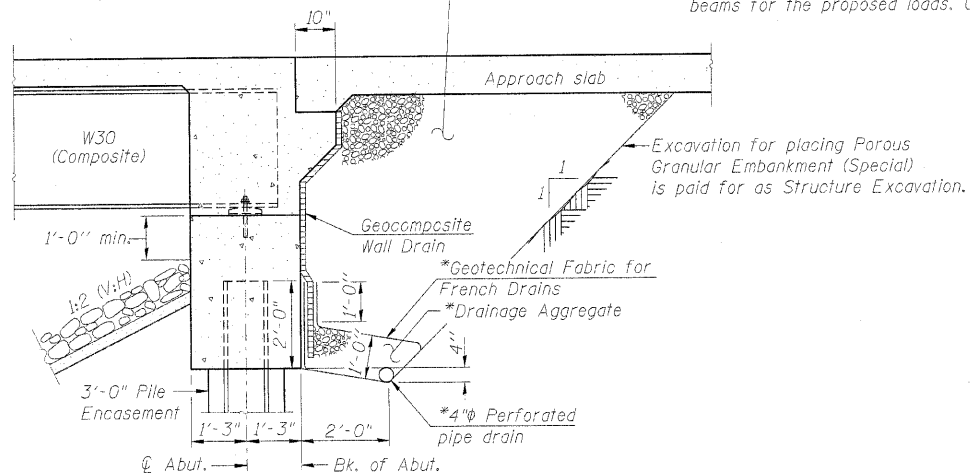
GENERAL NOTES

1. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts in painted areas and M164 Type 3 in unpainted areas. Bolts $\frac{1}{8}$ in. dia., holes $\frac{1}{16}$ in. dia., unless otherwise noted.
2. Calculated weight of Grade 50W structural steel = 129,800 pounds.
3. No field welding is permitted except as specified in the contract documents.
4. Reinforcement bars shall conform to the requirements of ASTM A706 Gr 60. See Special Provisions.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ in. (0.01 ft). Adjustment shall be made either by grinding the surface or by shimming the bearings.
7. Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 in. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.
8. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
9. Slipforming of the parapets is not allowed.
10. A cantilevered sheet piling system does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
11. All structural steel shall be AASHTO M 270 Grade 50W. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".
12. The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.
13. If the Contractor's procedures for existing deck beam removal or construction of the new superstructure involves placement of heavy equipment on the existing deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the deck beams for the proposed loads. Cost included with Removal of Existing Structures.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.		168	168
Stone Riprap Class A4	Sq. Yd.		1,287	1,287
Filter Fabric	Sq. Yd.		1,287	1,287
Removal of Existing Structures	Each		1	1
Structure Excavation	Cu. Yd.		210	210
Concrete Structures	Cu. Yd.		161.4	161.4
Concrete Superstructure	Cu. Yd.	340.1		340.1
Bridge Deck Grooving	Sq. Yd.	839		839
Concrete Encasement	Cu. Yd.		4.0	4.0
Protective Coat	Sq. Yd.	1,023		1,023
Furnishing and Erecting Structural Steel	L. Sum		1	1
Stud Shear Connectors	Each	3,402		3,402
Reinforcement Bars	Pound		11,480	11,480
Reinforcement Bars, Epoxy Coated	Pound	79,720	30,820	110,540
Bar Splicers	Each	735	474	1,209
Furnishing Steel Pile HP 12x63	Foot		231	231
Driving Piles	Foot		231	231
Test Pile Steel HP 12x63	Each		1	1
Name Plates	Each	1		1
Drilled Shaft in Soil	Cu Yd		9.2	9.2
Drilled Shaft in Rock	Cu Yd		44.0	44.0
Anchor Bolts, $\frac{3}{4}$ "	Each		24	24
Anchor Bolts, 1"	Each		24	24
Geocomposite Wall Drain	Sq. Yd.		64	64
Pipe Underdrains for Structures 4"	Foot		125	125
Temporary Soil Retention System	Sq. Ft.		283	283
Underwater Structure Excavation Protection - Location 1	Each		1	1
Underwater Structure Excavation Protection - Location 2	Each		1	1

Backfill with Porous Granular Embankment (Special) by Bridge Contractor after superstructure is in place



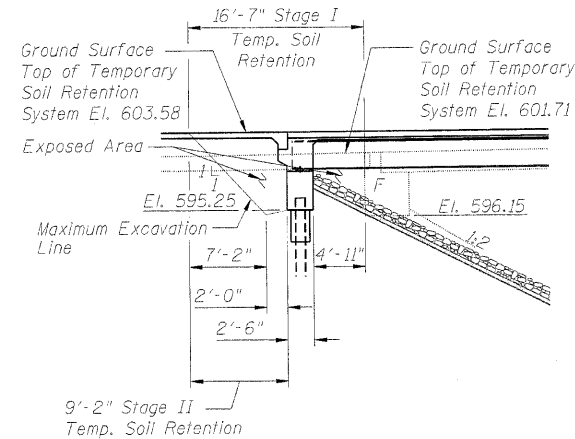
SECTION THRU ABUTMENT

*Included in the cost of Pipe Underdrain for Structures 4"

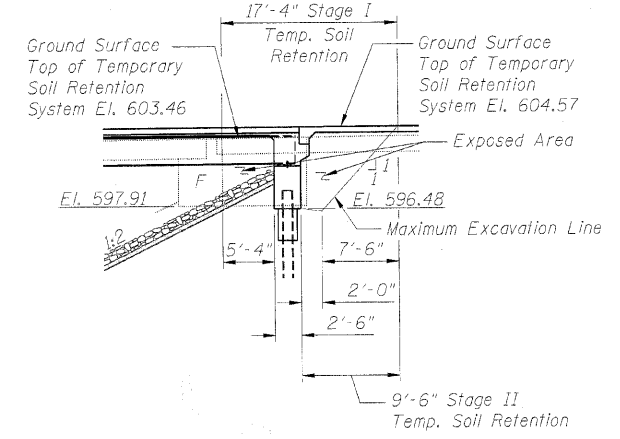
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend from the wingwall on the low side until intersecting with the side slopes. The pipe shall drain into a concrete headwall. (See Article 601.05 of the Standard Specifications and Highway Standard 601101.)

STATION 625+84.00
BUILT BY
STATE OF ILLINOIS
F.A.P. RTE. 68 SEC. (102)BR-1
LOADING HL-93
STRUCTURE NO. 053-0189

NAME PLATE
See Std. 515001



NORTH ABUTMENT



SOUTH ABUTMENT

TEMPORARY SOIL RETENTION SYSTEM

WATERWAY INFORMATION

Flood		0		Opening Sq. Ft.		Nat. Head - Ft.		Headwater El.	
Yr.	C.F.S.	Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.	Prop.
Design	10	4790	1403	1729	598.6	0.7	0.1	599.3	598.7
Base	50	7550	1479	1819	599.2	0.5	0.2	599.7	599.5
Overtopping	100	8750	1520	1867	599.6	0.6	0.3	600.2	599.9
Max. Calc.	75	8220	1501	NA	599.4	0.6	NA	600.0	NA
	500	11700	1631	2016	600.6	1.1	0.6	601.7	601.2

10-Year Velocity through Existing Bridge = 3.3 fps
10-Year Velocity through Proposed Bridge = 2.6 fps

DESIGN SCOUR ELEVATION TABLE

N. Abut.	Pier 1	Pier 2	S. Abut.
594.51	580.3	580.3	595.74

ZROKA engineering
Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

DESIGNED	LAS
CHECKED	JLA
DRAWN	SAW
CHECKED	LAS

REVISED
October 19, 2010

GENERAL DATA
STRUCTURE NO. 053-0189

SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2	68	(102)BR-1	LIVINGSTON	58	13
OF 26 SHEETS	SN 053-0189		CONTRACT NO. 66822		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					