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**GENERAL NOTES**

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts  $\frac{7}{8}$ "  $\phi$ , holes  $\frac{15}{16}$ "  $\phi$ , unless otherwise noted.

Calculated weight of Structural Steel = 156,816 Lbs. M270 Grade 50  
Calculated weight of Structural Steel = 17,318 Lbs. M270 Grade 36

No field welding is permitted except as specified in the contract documents.

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

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer.

Any cracks that cannot be removed by grinding  $\frac{1}{4}$  inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

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.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of  $\frac{1}{8}$  inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

Concrete Sealer shall be applied to the backwalls and bridge seats of the new portions of the East and West Abutments.

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5 YR 3/4. See Special Provision for "Cleaning and Painting New Metal Structures".

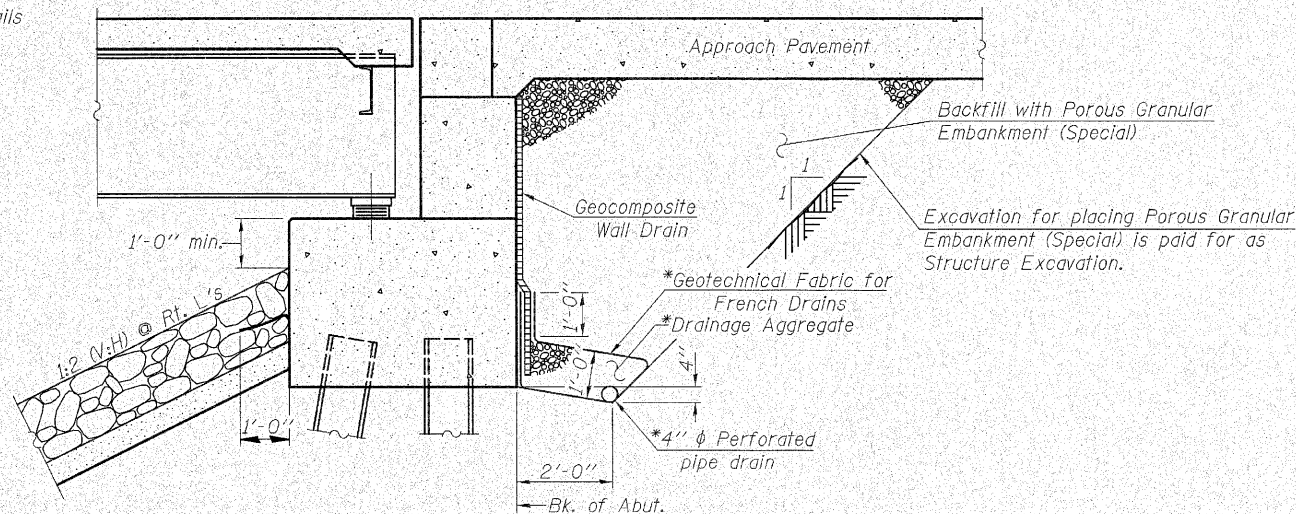
Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

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.

The concrete for bridge decks finished according to Article 503.16(a) of the Standard Specifications shall be placed and compacted parallel to the skew in uniform increments along centerline of bridge. The machine used for finishing shall be set parallel to the skew for striking off and screeding the concrete.

The Contractor shall prepare in-stream work plans (all cofferdams, work pads, and erosion and sediment control, etc.) and submit to the Engineer and the U.S. Army Corp of Engineers for review and approval. The Contractor should expect to have to attend meetings at the USACOE office to discuss their work plan in order to secure their permit. The cost of all in-stream work items will not be paid for separately, but shall be considered as included in the unit bid prices of the contract, and no additional compensation will be allowed.



**TYPICAL SECTION THRU ABUTMENT**

(Horiz. dim. @ Rt. L's)

Note: \*Included in the cost of Pipe Underdrains for Structures.

All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls or 2'-0" from the end of the wingwalls when the wings are parallel to the abutment. The pipe shall extend under the wingwall, if necessary, until intersecting the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

ROLL NO.	SECTION	COUNTY	SHEET	SHEET
353	(12&13) WRS-4	WILL	608	415
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

Contract No. 62478

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
** Porous Granular Embankment (Special)	Cu. Yd.		142	142
Stone Riprap, Class A4	Sq. Yd.		751	751
Filter Fabric	Sq. Yd.		751	751
Concrete Removal	Cu. Yd.		76	76
** Concrete Removal (Special)	Cu. Yd.		14	14
Structure Excavation	Cu. Yd.		217	217
Floor Drains	Each	21		21
Concrete Encasement	Cu. Yd.		16.8	16.8
Concrete Structures	Cu. Yd.		221.8	221.8
Concrete Superstructure	Cu. Yd.	308.4	16.2	324.6
Bridge Deck Grooving	Sq. Yd.	447		447
Protective Coat	Sq. Yd.	1,125		1,125
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	4,428		4,428
Reinforcement Bars, Epoxy Coated	Pound	64,570	19,140	83,710
Bar Splicers	Each	122		122
Bicycle Railing	Foot	175		175
Parapet Railing	Foot	216		216
Furnishing Steel Piles HP12x63	Foot		910	910
Furnishing Steel Piles HP12x74	Foot		665	665
Driving Piles	Foot		1,575	1,575
Test Pile Steel HP12x63	Each		2	2
Test Pile Steel HP12x74	Each		1	1
Pile Shoes	Each		48	48
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	224		224
Elastomeric Brg. Assembly, Type II	Each		9	9
Anchor Bolts, 1"	Each		72	72
Concrete Sealer	Sq. Ft.		264	264
Geocomposite Wall Drain	Sq. Yd.		72	72
** Pipe Underdrains for Structures 4"	Foot		159	159
** Underwater Structure Excavation Protection - Location 1	Each		1	1
** Underwater Structure Excavation Protection - Location 2	Each		1	1
** Exploratory Excavation	L. Sum		1	1

\*\* - See Special Provision

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
BILL OF MATERIAL, GENERAL NOTES  
AND INDEX OF SHEETS  
U.S. RTE. 30 OVER HICKORY CREEK  
STATION 493+89.73  
STRUCTURE NUMBER 099-0311

SCALE: None  
DATE: June 11, 2010

DRAWN BY: C. Cooney  
CHECKED BY: G. Hatlestad