

SECTION THRU PILE SUPPORTED STUB ABUTMENT (Horiz, dim, @ Rt, L's)

*Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)

Note:

All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls or $\dot{2}^{\prime}\text{-}0^{\prime\prime}$ 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).

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas and ASTM A325 Type 3 in unpainted areas. Bolts ${}^{3}_{4}$ in. ϕ , holes ${}^{15}_{16}$ in. ϕ , unless otherwise noted.

Calculated weight of structural steel = 1,604,400 AASHTO M270 Grade 50W All structural steel shall be AASHTO M 270 Grade 50W. No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated. 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.

Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of l_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 designated areas of the abutments. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

All structural steel and exposed surfaces of bearings within a distance of 10 ft. each way from the deck joints shall be painted as specified in Section 506 of the Standard Specifications.

Layout of the slope protection system may be varied to suit ground conditions in the field 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. Slip forming of the parapets is not allowed.



WATERWAY INFORMATION

	Drainage Area	= 854	.0 Sq. I	Mi. L	ow Grad	e Elev.	560 . 6 f	t. @ St	a. 113+0)0
	Flood	Freq.	a	Opening	Sq. Ft.	Nat.	Head	- Ft.	Headwa	iter El.
DESIGNED JJD	1 1000	Yr.	C.F.S.	Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
CHECKED EML		10	16,898	7,974	6,800	553.7	0.5	0.5	554.2	554.2
CHECKED <i>LML</i>	Design	50	25,296	9,819	8,252	556.4	0.7	0.7	557.1	557.1
DRAWN JJD	Base	100	28,844	10,501	8,789	557.4	0.7	0.8	558.1	558.2
BRANN	Overtopping	-	-	-	-	-	-	-	-	-
CHECKED EML	Max. Calc.	500	37,275	11,684	9,451	559.0	1.2	1.4	560.2	560.4

DESIGN SCOUR ELEVATION TABLE

Design Scour	N. Abut.	Pier 1	Pier 2	Pier 3	Pier 4	S. Abut.
Elevation (ft.)	556.6	521.0	522.0	522.0	519.0	556.7



ROUTE ND.	SECTION	COL	YTA	TOTAL SHEETS	SHEET NO.	SHEET NO. 2
F.A.U. 7706	23(B-1)	LOC	GAN	179	86	52 SHEETS
FED. ROAD DIST.	ND. 7	ILLINGIS	FED. AID PRI	DJECT-		

Contract #72789

TOTAL BILL OF MATERIAL

ITEM UNIT SUPER SUB TOTA Stone Riprap, Class A5 Sq. Yd. 5,175 5,175 Filter Fabric Sq. Yd. 6,426 6,421 Removal of Existing Structures Each 1 Structure Excavation Cu. Yd. 362 362 Floor Drains Each 9 9 Concrete Structures Cu. Yd. 1,022.9 1,022 Concrete Superstructure Cu. Yd. 1,750.3 1,750. Bridge Deck Grooving Sq. Yd. 6,636 6,636 Furnishing and Erecting Structural Sq. Yd. 6,636 6,636 Furnishing and Erecting Structural L Sum 1 1 Stud Shear Connectors Each 15,264 15,266 Reinforcement Bars Pound 1822 1,822 Furnishing Steel Piles HP12x53 Foot 1,408 1,402 Driving Piles Foot 1,408 1,402 1,402 Invising Steel Piles HP12x53 Foot 1,408 1,
Filter Fabric Sq. Yd. 6,426 6,420 Removal of Existing Structures Each 1 Structure Excavation Cu. Yd. 362 362 Floor Drains Each 9 9 Concrete Structures Cu. Yd. 1,022.9 1,022 Concrete Superstructure Cu. Yd. 1,750.3 1,750.3 Bridge Deck Grooving Sq. Yd. 5,975 5,975 Concrete Encasement Cu. Yd. 11.9 11.9 Protective Coat Sq. Yd. 6,636 6,636 Furnishing and Erecting Structural L Sum 1 1 Steel L Sum 1 1 Stud Shear Connectors Each 15,264 102,580 102,580 Reinforcement Bars Pound 489,100 171,340 660,4-4 Bar Splicers Each 1,408 1,408 1,408 Driving Piles Foot 1,408 1,408 1,408 Test Pile Steel HP12x53 Each 2
Removal of Existing Structures Each 1 Structure Excavation Cu. Yd. 362 362 Floor Drains Each 9 9 Concrete Structures Cu. Yd. 1,022.9 1,022 Concrete Superstructure Cu. Yd. 1,022.9 1,022 Bridge Deck Grooving Sq. Yd. 5,975 5,975 Concrete Encasement Cu. Yd. 11.9 11.9 Protective Coat Sq. Yd. 6,636 6,636 Furnishing and Erecting Structural L Sum 1 1 Steel L Sum 1 1 1 Stud Shear Connectors Each 15,264 15,266 Reinforcement Bars Pound 102,580 102,580 Reinforcement Bars, Epoxy Coated Pound 489,100 171,340 660,44 Bar Splicers Each 1,408 1,408 1,408 Driving Piles Foot 1,408 1,408 1,408 Mame Plates Foot 1,408 1,408
Structure Excavation Cu. Yd. 362 362 Floor Drains Each 9 9 Concrete Structures Cu. Yd. 1,022.9 1,022 Concrete Superstructure Cu. Yd. 1,750.3 1,750.3 Bridge Deck Grooving Sq. Yd. 5,975 5,975 Concrete Encasement Cu. Yd. 11.9 11.9 Protective Coat Sq. Yd. 6,636 6,636 Furnishing and Erecting Structural L Sum 1 1 Steel L Sum 1 1 Stud Shear Connectors Each 15,264 15,266 Reinforcement Bars Pound 489,100 171,340 660,4- Bar Splicers Each 1,822 1,822 1,822 Furnishing Steel Piles HP12x53 Foot 1,408 1,408 Driving Piles Foot 1,408 1,408 1,408 Mame Plates Each 1 1 1
Structure Excavation Cu. Yd. 362 362 Floor Drains Each 9 9 Concrete Structures Cu. Yd. 1,022.9 1,022 Concrete Superstructure Cu. Yd. 1,750.3 1,750.3 Bridge Deck Grooving Sq. Yd. 5,975 5,975 Concrete Encasement Cu. Yd. 11.9 11.9 Protective Coat Sq. Yd. 6,636 6,636 Furnishing and Erecting Structural L Sum 1 1 Steel L Sum 1 1 Stud Shear Connectors Each 15,264 15,266 Reinforcement Bars Pound 489,100 171,340 660,4- Bar Splicers Each 1,822 1,822 1,822 Furnishing Steel Piles HP12x53 Foot 1,408 1,408 Driving Piles Foot 1,408 1,408 1,408 Mame Plates Each 1 1 1
Concrete Structures Cu. Yd. 1,022.9 1,022 Concrete Superstructure Cu. Yd. 1,750.3 1,750.3 Bridge Deck Grooving Sq. Yd. 5,975 5,975 Concrete Encasement Cu. Yd. 11.9 11.9 Protective Coat Sq. Yd. 6,636 6,636 Furnishing and Erecting Structural Steel L Sum 1 1 Stud Shear Connectors Each 15,264 15,266 Reinforcement Bars Pound 489,100 171,340 660,47 Bar Splicers Each 1,822 1,822 1,822 Furnishing Steel Piles HP12x53 Foot 1,408 1,408 Driving Piles Foot 1,408 1,408 Reinf Pile Steel HP12x53 Each 2 2 Mame Piates Each 1 1
Concrete Superstructure Cu. Yd. 1,750.3 1,750.3 Bridge Deck Grooving Sq. Yd. 5,975 5,975 Concrete Encasement Cu. Yd. 11.9 11.9 Protective Coat Sq. Yd. 6,636 6,636 Furnishing and Erecting Structural L Sum 1 1 Steel L Sum 1 1 1 Steel Drovente Bars Pound 102,580 102,580 Reinforcement Bars Pound 102,580 102,580 102,580 Reinforcement Bars, Epoxy Coated Pound 489,100 171,340 660,44 Bar Splicers Each 1,408 1,408 1,408 Trying Piles Foot 1,408 1,408 1,408 Driving Piles Foot 1,408 1,408 1,408 Mame Piates Each 2 2 Mame Piates Each 1 1 Driviled Shaft in Soil Cu. Yd. 291,4 291,4
Bridge Deck Grooving Sq. Yd. 5,975 5,975 Concrete Encasement Cu. Yd. 11.9 11.9 Protective Coat Sq. Yd. 6,636 6,636 Furnishing and Erecting Structural Steel L Sum 1 1 Stud Shear Connectors Each 15,264 15,266 102,580 102,580 Reinforcement Bars Pound 489,100 171,340 660,44 Bar Splicers Each 1,822 1,822 1,822 Furnishing Steel Piles HP12x53 Foot 1,408 1,408 Driving Piles Foot 1,408 1,408 Mame Plates Each 1 1 Drilled Shaft in Soil Cu. Yd. 291,4 291,4
Concrete Encasement Cu. Yd. 11.9
Protective Codt Sq. Yd. 6,636 6,630 Furnishing and Erecting Structural Steel L Sum 1 1 Stud Shear Connectors Each 15,264 15,266 Reinforcement Bars Pound 102,580 102,580 Reinforcement Bars, Epoxy Coated Pound 489,100 171,340 660,4* Bar Splicers Each 1,822 1,822 1,822 Furnishing Steel Piles HP12x53 Foot 1,408 1,408 Driving Piles Foot 1,408 1,402 Mame Plates Each 1 1 Drilled Shaft in Soil Cu. Yd. 291,4 291,4
Furnishing and Erecting Structural Steel L Sum 1 1 Stud Shear Connectors Each 15,264 15,264 15,264 Reinforcement Bars Pound 102,580 102,580 102,580 Reinforcement Bars Pound 489,100 171,340 660,4* Bar Splicers Each 1,822 1,822 Furnishing Steel Piles HP12x53 Foot 1,408 1,408 Driving Piles Foot 1,408 1,402 Mame Plates Each 1 1 Drilled Shaft in Soil Cu. Yd. 291.4 291.4
Steel L Sum 1 1 Stud Shear Connectors Each 15,264 15,26 Reinforcement Bars Pound 102,580 102,52 Reinforcement Bars, Epoxy Coated Pound 489,100 171,340 660,4- Bar Splicers Each 1,822 1,822 1,822 Furnishing Steel Piles HP12x53 Foot 1,408 1,408 Driving Piles Foot 1,408 1,408 Mame Plates Each 1 1 Drilled Shaft in Soil Cu. Yd. 291,4 291,4
Reinforcement Bars Pound 102,580 102,580 Reinforcement Bars, Epoxy Coated Pound 489,100 171,340 660,44 Bar Splicers Each 1,822 1,822 1,822 Furnishing Steel Piles HP12x53 Foot 1,408 1,408 1,408 Driving Piles Foot 1,408 1,408 1,408 1,408 Mame Plates Each 2 2 Drilled Shaft in Soil Cu. Yd. 291,4 291,4
Reinforcement Bars, Epoxy Coated Pound 489,100 171,340 660,44 Bar Splicers Each 1,822 1,822 Furnishing Steel Piles HP12x53 Foot 1,408 1,408 Driving Piles Foot 1,408 1,408 Test Pile Steel HP12x53 Each 2 2 Name Plates Each 1 1 Driviled Shaft in Soil Cu. Yd. 291.4 291.4
Bar Splicers Each 1,822 1,822 Furnishing Steel Piles HP12x53 Foot 1,408 1,408 Driving Piles Foot 1,408 1,408 Test Pile Steel HP12x53 Each 2 2 Name Plates Each 1 1 Driviled Shaft in Soil Cu. Yd. 291.4 291.4
Bar Splicers Each 1,822 1,822 Furnishing Steel Piles HP12x53 Foot 1,408 1,408 Driving Piles Foot 1,408 1,408 Test Pile Steel HP12x53 Each 2 2 Name Plates Each 1 1 Driviled Shaft in Soil Cu. Yd. 291.4 291.4
Driving Piles Foot 1,408 1,408 Test Pile Steel HP12x53 Each 2 2 Name Plates Each 1 1 Drilled Shaft in Soil Cu. Yd. 291.4 291.4
Test Pile Steel HP12x53 Each 2 2 Name Plates Each 1 1 Drilled Shaft in Soil Cu. Yd. 291.4 291.4
Drilled Shaft in Soil Cu. Yd. 291.4 291.4
Drilled Shaft in Soil Cu. Yd. 291.4 291.4
Drilled Shaft in Peak Ou Yd Z001 Z00
Preformed Joint Strip SealFoot9292
Finger Plate Expansion Joint, 3''Foot8686
Fabric Reinforced Elastomeric TroughFoot9090
Elastomeric Bearing Assembly, Type II Each 12 12
Elastomeric Bearing Assembly, Type III Each 12 12
Anchor Bolts, 1'' Each 48 48
Anchor Bolts, 1'4'' Each 96 96
Concrete Sealer Sq. Ft. 1,974 1,974
Geocomposite Wall Drain Sq. Yd. 155 155
Drainage Scuppers, DS-11 Each 6 6
Pipe Underdrains for Structures 4'' Foot 260 260
High Load Multi-Rotational Bearings, Guided Expansion, 400k Each 36 36
Granular Backfill for Structures Cu. Yd. 335 335