MISSOURI STATE HIGHWAY DEPARTMENT

BORING DATA

Black silty clay
Brown clay, glacial till, stiff

Brown silty clay
Brown clay, stiff, glacial till

Brown till with small gravel
Light brown sandy clay, with pebbles

Glacial till

Sand, fine

Gray till (PA-075)

Hard gray to brown sandy limestone
Brown sandstone with limestone stringers
Bottomed @ sandstone

Brown sandstone, marine banding
Limestone (cut with rock drill)
Brown gray sandstone

Limestone (cut with rock drill)
Brown sandstone

Limestone (cut with rock drill)
Brown sandstone, very thin bedded
Grey limestone, one bed
Brown & gray mottled sandy limestone, with thin sandstone seams, thin bedded

Brown sandy limestone
Bottomed sandstone

Note: For location of Boreings see Sheet No. 1/2
NOTE: Field Bonding shall be required of wing for H-bars and T-bars in Reckwall.

Note: This drawing is not to scale. For dimensional information, refer to Sheet No. 10.
Note: Longitudinal dimensions shown are taken parallel to grade at top of parapets to wall.

Transverse stiffeners used as intermediate diaphragm connection plate.
For Details C, D, E, F see sheet No. 13.
Transverse stiffeners shall be placed as designed.

Longitudinal stiffeners shall be placed on the outside face of exterior girders, and on the side opposite to transverse web stiffeners where the interior girders.
For Detail T, see sheet No. 14.
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PLAN OF FLANGE

DETAIL OF BOLTED FIELD SPlice

Note: Joint be constructed between roadway faces of curb.

Note: All Field Splice Plates and Pin Plates are subject to Notch Toughness Requirements.

DETAIL "F"

Note: This drawing is not to scale. Follow dimensions.

DETAIl "A"

DETAIl "B"

DETAIl "C"

DETAIl "D"

DETAIl "E"

DETAIl "F"

DETAIl "G"

DETAIl "H"

DETAIl "I"

DETAIl "J"

DETAIl "K"

DETAIl "L"

DETAIl "M"

DETAIl "N"

DETAIl "O"

DETAIl "P"

DETAIl "Q"

DETAIl "R"

DETAIl "S"

DETAIl "T"

DETAIl "U"

DETAIl "V"

DETAIl "W"

DETAIl "X"

DETAIl "Y"

DETAIl "Z"

DETAIl "AA"

PART DEVELOPED SECTION AA

DETAIL OF PIN PLATE CONNECTION

DETAIl OF PIN AND FLAT HEXAGONAL NUTS

DETAIl OF END DIAPHRAGMS

DETAIl OF INT DIAPHRAGMS

ELEVATION

DETAIl OF WEB SPACE

Note: Steel End of Binder "A" to main flange 1" over.

Shop Web Erection

Note: Web Erection above at 3" from top of beam.
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NOTES:

**TYPE "E" BEARINGS**

Anchor bolts for **TYPE "E" BEARINGS** shall be 1 1/2"Ø Studs and shall be cut to a 45° incline to tie into concrete. This option is used for fixed bridges and expansion joints. The estimated weight does not include the weight of anchor bolts.

- "S" indicates machine finish surface.
- "S" indicates smooth bearing surface.
- **Bearing** consists of a bearing plate and a flange plate.
- **Flange Plate** is a structural steel plate that is bolted to the concrete base plate. The plate is designed to distribute the loads from the bridge to the concrete base plate.
- **Bearing Plate** is a structural steel plate that is bolted to the flange plate. The plate is designed to absorb the movement of the bridge due to temperature changes, traffic, and other factors.

**NOTICE**

When intermediate web stiffeners or diaphragm are used, the bearing may be located on the interior girder. When intermediate diaphragm connections are required, the bearing plate is required on both sides.

**WELDING DETAILS**

- **5" x 8" Weld Flange SPANS (2-8) #4 (2-4)" (1-8)" 3/4" Welded Stud SPANS (1-8) #4 (1-8)" (1-8)" 3/4"

**SHOP WEB SPlice**

- **Note:** Field splices may be field welded or field bolted.

**DETAILED SHEAR CONNECTORS**

- Weight of 4022.3 lbs. of shear connectors is included in weight of fabricated structural steel.

**WELDED SHOP OR FIELD FLANGE SPlice**

**WELDED FIELD SPlice**

**DETAIL OF ANCHOR BOLT WELLS**

**PLATTE COUNTY**

*Note: This drawing is not to scale. Follow dimensions.*
Slab Drains may be fabricated of either & Welded Sheets of ASTM A36 Steel or from Structural Steel Tubing ASTM A500 or A501

Outside dimensions of Drains are: Piece A 9x3x6, Piece B 6x6x4
Piece B shall be cast in the concrete, prior to placement of Wearing Surface.

Piece A shall be cast in Place

Lease Piece A in slab by dimensions shown in Partial Elevation.

Shift Reinforcing Steel in field where necessary to clear drains.

Pieces A and B shall be Galvanized in accordance with ASTM A25.

Cost of furnishing, fabricating, galvanizing and erecting Drains, complete in place, shall be included in price bid for other items.

Shop Drawings will not be required for the Slab Drains.
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PLAN

SECTION A-A  SECTION B-B

Note: Longitudinal, dimensions shown are taken parallel to grade at top of Concrete Slab.

CURVE OFFSETS

DETAILS OF MEDIAN

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 2 of 25

PLATTE COUNTY

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GENERAL BRIDGE RAIL NOTES:

- ALL BRIDGE RAIL POSTS SHALL BE SET NORMAL TO GRADE.
- ALUMINUM TUBE BRIDGE RAIL SHALL BE SET TO CONFORM TO VERTICAL AND HORIZONTAL ALIGNMENT OF GUARD RAIL.
- GUARD RAIL POSTS MOUNTED WITH TOP OF GUARD RAIL AT SAME LEVEL AS POST RAILS ANY 30 DEG. TILTED OVER THE GUARD RAIL ALINGMENT, WHICH IS TOLERATED UP TO BE 1/10. WHERE MORE TILTED VEST POLES IS REQUIRED FOR PROPER ALIGNMENT, CONCRETE BULKHEAD RAILS SHALL BE BURIED 90MM DEEP TO THE TOP OF POSTS.
- ALL GUARD RAIL ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE SET TO BE OF ALUMINUM MATERIAL.
- GUARD RAIL POSTS EXCEPT AT INTERSECTIONS, ALL RAILING POSTS ARE MEASURED FROM CENTER TO CENTER OF GUARD RAIL POSTS. THE GUARD RAIL POSTS SHALL BE SET TO BE NOMINAL 1/10. GUARD RAIL POSTS ALL MEMBERS EXCEPT AS INDICATED.
- CAST END CAPS DRIVET FIT TYPES

TYPICAL BRIDGE RAIL DETAILS

POST
Section Thru Bridge Rail

Detail "A" - Aluminum Plate

One Tube Aluminum Railing

Part Bridge Rail Elevation

Part Rail Elevation At Expansion Gap

Details Of Timber Header At End Bents

Details Of Plastic Waterstop

Note: This drawing is not to scale. Follow dimensions.