

Bench Mark: Chiseled "□" on south east corner of west end of bridge abutment.
SN 013-0034 Elev. 568.20

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Existing Structure: #013-0034 constructed in 1981 as OR-1301 Section 9VBR, is 148'-0" Bk. to Bk. of abutments and 36'-0" out to out. The structure consists of prestressed deck beam simple spans supported on multi column piers and spill through abutments on pile foundations. Existing bridge to be removed and replaced. The road will be closed and traffic will be detoured during construction.

Salvage: Existing Aluminum Railing
Traffic Barrier Terminal
Std. 631031 Type 6 (Typ.)

STATION 475+50.44
BUILT 200_ BY
STATE OF ILLINOIS
F.A.S. 2703
SEC. (9-VBR)B
LOADING HL-93 TRUCK
STR. NO 013-0044

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts 7/8in. ϕ , holes 15/16in. ϕ , unless otherwise noted.
Calculated weight of Structural Steel = 169,891 Pounds (AASHTO M270, Gr 50)

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. 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 $\frac{1}{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

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 gray, Munsell No. 5B 7/1. See Special Provision for "Cleaning and Painting New Metal Structures".

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.

Cost of removal of the existing slopewall is included in the pay item "Removal of Existing Structures".

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

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

Two $\frac{1}{8}$ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

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 the removal and replacement of structures.

Slipforming of the parapets is not allowed.
Current Ratings on File for Existing Structure

Inventory: HS 6.0

Operating: HS 10.0

Live Load Restrictions: No

Inventory and Operating Ratings and Live Load Restrictions are provided for information only. Inventory and Operating Ratings are based on HS loading and configuration. Live Load Restrictions are based in Illinois legal loads and configurations. The Ratings and Live Load Restrictions are not necessarily representative of capacities to support the Contractor's equipment.

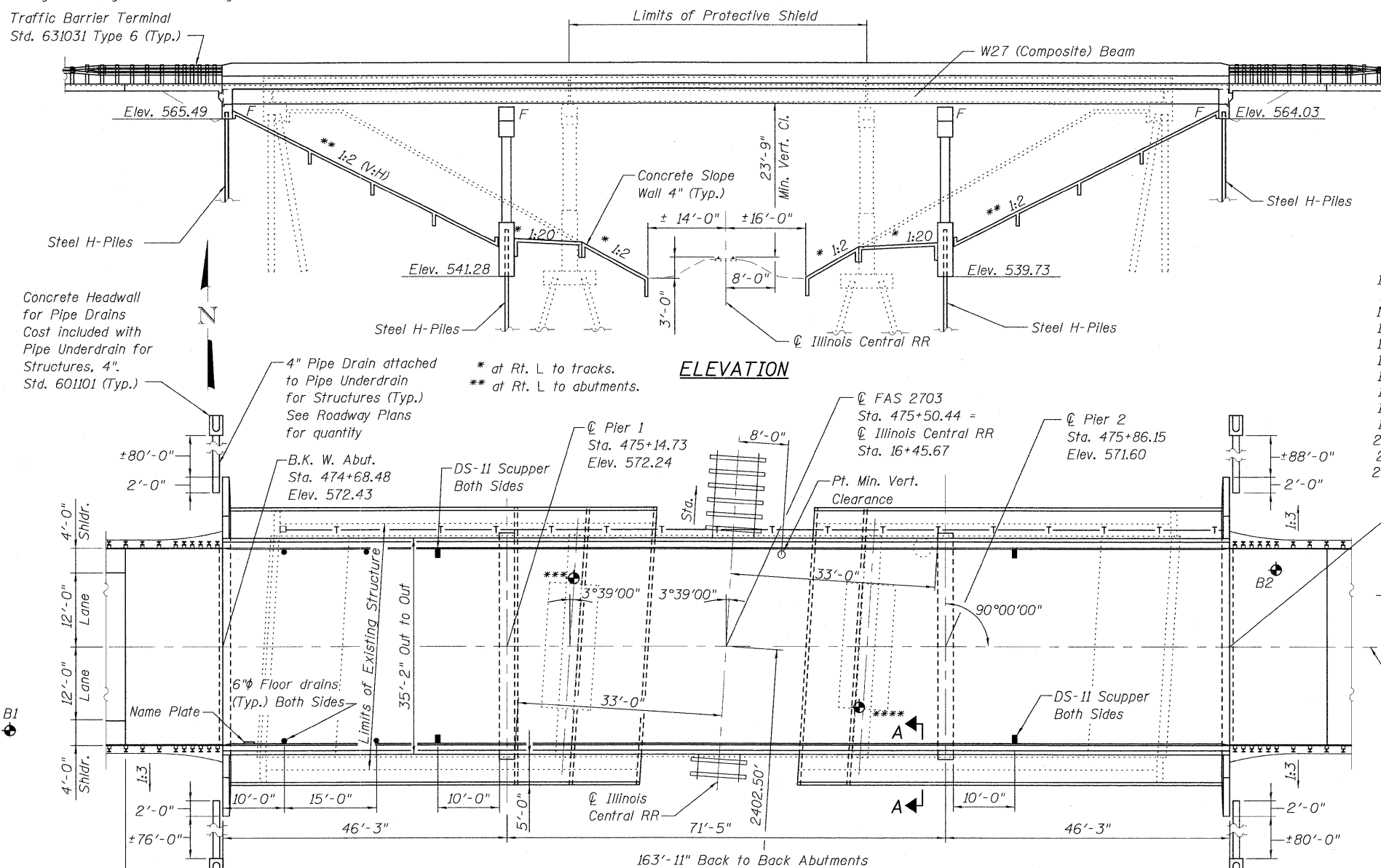
The contractor shall submit a Structural Assessment Report as required for Contractor's means and methods of construction, see Special Provisions.

The second beam in the Northeast quadrant of the existing bridge has a severe reduction in its load carrying capacity.

NAME PLATE
(See Std. 515001)

INDEX OF SHEETS

1. General Plan
2. General Details
3. Top of Slab Elevations
4. Top of Slab Elevations
5. Top of Slab Elevations
6. Top of App. Slab Elevations
7. Superstructure
8. Superstructure Details
9. Diaphragm Details
10. Structural Steel
11. Structural Steel
12. West Abutment
13. East Abutment
14. Pier 1
15. Pier 2
16. Bar Splicer Assembly Details
17. Cantilever Forming Brackets
18. Drainage Scupper, DS-II
19. Steel H-Pile Base Sheet
20. Soil Borings-1
21. Soil Borings-2
22. Soil Borings-3



ELEVATION

PLAN

The SSPC QP-1 contractor certification is required for this contract.

LOADING HL-93

Allow 50 psf for future wearing surface.

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications 4th edition

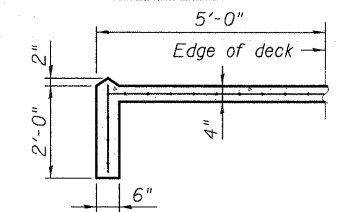
DESIGN STRESSES

FIELD UNITS

f'_c = 3500 psi
 f_y = 60,000 psi (Reinforcement)
 f_y = 50,000 psi (Structural Steel)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Bedrock Acceleration Coefficient (A) = 0.085 g
Site Coefficient (S) = 1.5



SECTION A-A

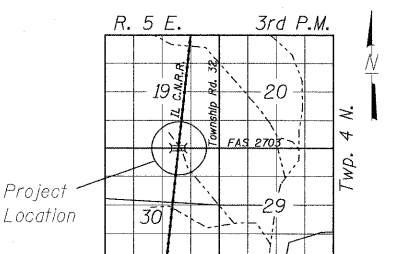
**GENERAL PLAN
KINMUNDY/LOUISVILLE ROAD
OVER ILLINOIS CENTRAL RR
STA. 475+50.44**

| | |
|----------|---------------|
| DESIGNED | B.B. |
| CHECKED | C.J.F. |
| DRAWN | J.G. |
| CHECKED | C.J.F. & B.B. |



APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

EXP. 11-30-2010
Chadwick J. Fursting
3/10/09



LOCATION SKETCH



3 Oak Drive
Maryville, IL 62062-5635
Local (618) 288-4666
Fax 618-288-4666

| | | | | | |
|---|---------------------|---------------------|--------------------|--------------------|-----------------|
| SHEET NO. 1 22 SHEETS | F.A.S. RTE. 2703 | SECTION (9-VBR)B | COUNTY CLAY | TOTAL SHEETS 65 | SHEET NO. 23 |
| | SN 013-0044 | | CONTRACT NO. 74136 | | |
| FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT | | | | | |

3/11/2009 3:05:06 PM ... \br\p\0130044\74136.dgn