

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 1	*	LAWRENCE	22	17
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1

6 SHEETS

Contract Number: 74328

\* D7 Bridge Repairs 2009-2

**GENERAL NOTES**

All structural steel shall conform to AASHTO Classification M-270 Gr. 50, unless otherwise noted.

Plan dimensions and details relative to existing plans are subject to routine 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 based upon the unit price bid for the work.

Finger Plate Expansion Joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.

Tapered shims shall be added under the stools, as required by the Engineer, to make a smooth finger joint. Cost shall be included with Finger Plate Expansion Joint.

The finger plates shall be flame cut as provided in Article 505.04(k) of the Standard Specifications.

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

Reinforcement bars designated (E) shall be epoxy coated.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction.

Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50° F.

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.

Fasteners shall be high strength bolts. Bolts 3/4"φ, open holes 13/16"φ, unless otherwise noted.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Finger Plate Expansion Joint.

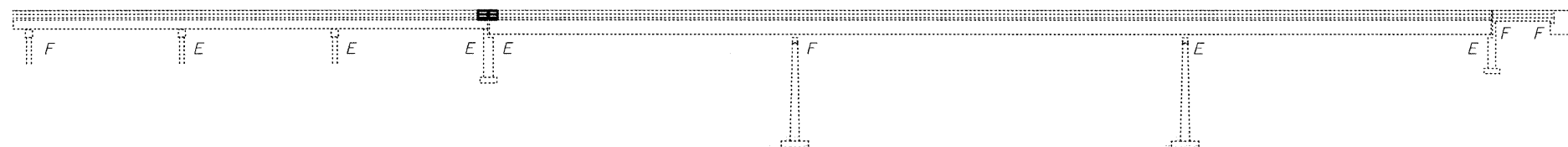
The Contractor shall use extreme care during concrete removal so as not to damage the PPC I-Beam.

The deck surface shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Superstructure.

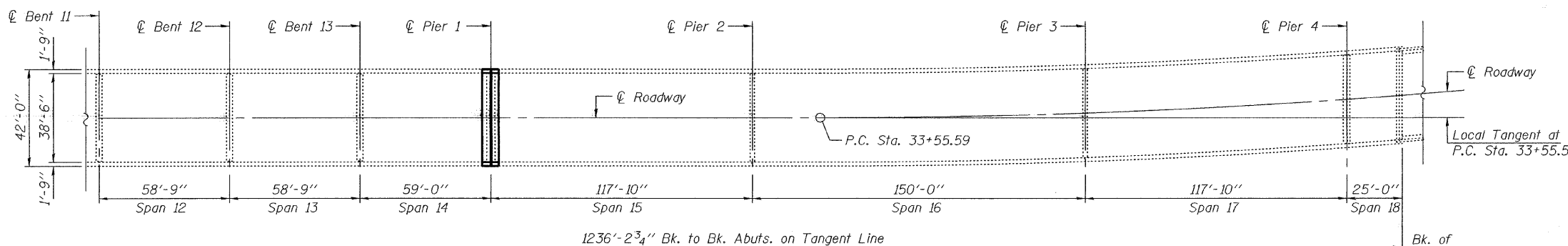
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

Field welding of construction accessories will not be permitted to beam or girders.

Estimated weight of Structural Steel = 20,280 pounds.



**PARTIAL ELEVATION**



**PARTIAL PLAN**

Remove existing Neoprene Expansion Joint at Pier 1 and replace with Finger Plate Joint.

**DESIGN STRESSES**

**FIELD UNITS**

$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 50,000$  psi (M270 Grade 50)

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	17.2
Concrete Superstructure	Cu. Yd.	16.7
Reinforcement Bars, Epoxy Coated	Pound	3000
Finger Plate Expansion Joint	Foot	39
Fabric Reinforced Elastomeric Trough	Foot	39
Bar Splicers	Each	26
Mechanical Splice	Each	90

DESIGNED	Adrian T. Holloway
CHECKED	[Signature]
DRAWN	Steffen
CHECKED	AJH AJB

EXAMINED	[Signature]	JULY 31, 2008
PASSED	[Signature]	



Expires: November 30, 2008

**PLAN & ELEVATION**  
**FA RT. 1 SPUR**  
**LAWRENCE COUNTY**  
**SN 051-0053**