

NOTES

(Applies to sheets 15A thru 15I of 21)

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Fasteners shall be high strength bolts. Bolts 7/8"φ, open holes 15/16"φ, unless otherwise noted.

Diaphragm connection holes shall be 15/16"φ for 3/4"φ bolts. Two hardened washers shall be required at diaphragm connections.

The Contractor shall provide support and/or shoring systems for the slab and beam in the area of existing beam removal. See Special Provisions "Temporary Shoring and Cribbing" and "Temporary Slab Support System."

After the new beam is in its final position and/or beam straightening operations have been completed, the Engineer in the field shall check to see that the top flange is tight against the slab. If not, the Contractor shall inject epoxy between the existing concrete deck and the top flange of the beam. See Special Provision "Epoxy Injection".

Grind existing nicks, gouges and shallow cracks in the damaged beams as detailed. Grinding shall be done parallel to the longitudinal axis of the member. Ground surfaces shall be inspected for cracks using dye penetrant or magnetic particle testing prior to initiating any beam straightening operations. Any cracks that cannot be removed by grinding approximately 1/4" deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. Ground surfaces shall be spot cleaned and painted with an aluminum epoxy mastic primer followed by a finish coat to match the color of the existing beam. Cost of grinding, testing and spot painting included with Beam Straightening.

Prior to pouring the new concrete deck, all heavy or loose rust, 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.

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.

Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included with Furnishing and Erecting Structural Steel.

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 GBSP "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

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 Interstate Green, Munsell No. 7.5G 4/8.

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.

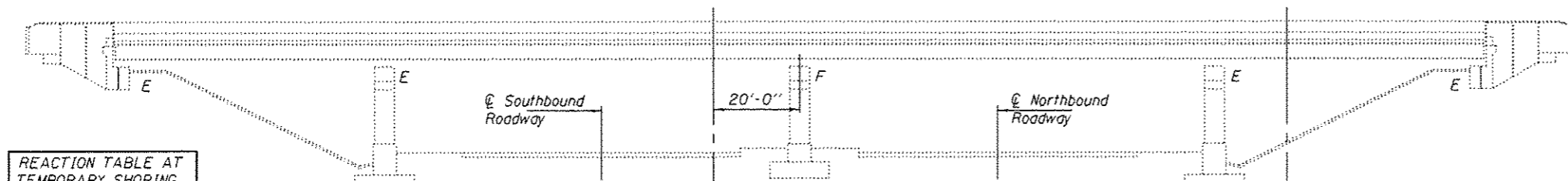
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

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.

BILL OF MATERIAL

(Applies to sheets 15A thru 15I of 21)

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	0.9
Concrete Superstructure	Cu. Yd.	0.9
Furnishing and Erecting Structural Steel	Pound	9740
Structural Steel Removal	Pound	9570
Structural Steel Repair	Pound	970
Beam Straightening	L.S.	1
Temporary Slab Support System	L.S.	1
Temporary Shoring and Cribbing	L.S.	1
Overhead Sign Structure - Bridge Mounted	Foot	13.5
Sign Panel - Type 3	Sq. Ft.	94.5

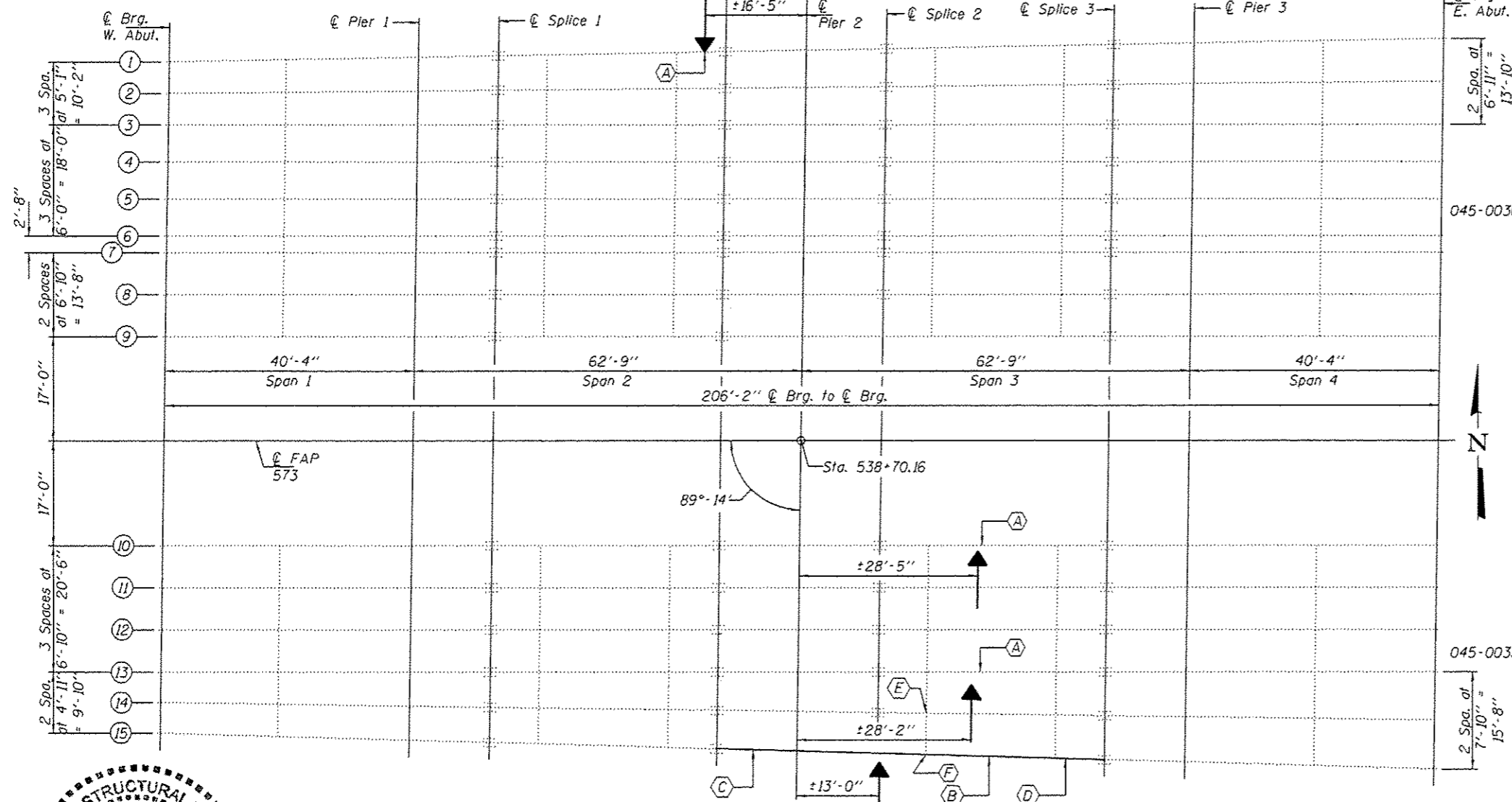


ELEVATION Temporary shoring may be required for Beam 15 to facilitate alignment of existing splice. Use 12" x 12" Timbers or HP's to be paid for as Temporary Shoring and Cribbing. Remove and replace slopewall, if required. Cost included with Temporary Shoring and Cribbing.

REACTION TABLE AT TEMPORARY SHORING

Q	(k)	95.6
L	(k)	44.5
Imp.	(k)	12.6
Total	(k)	152.7

Temporary shoring is required for Beams 1 & 15, while splice bolts are removed. See Table for reactions. Cost included with Temporary Shoring and Cribbing.



PLAN

Impact Line

- (A) - Straighten & Strengthen existing beam.
- (B) - Remove and replace existing 33W152 with new W33x152.
- (C) - Epoxy inject void left by existing cover plate. (If work is to be done thru holes in the deck, each hole shall be drilled before installing new beam.) Cost to be included with Furnishing & Erecting Structural Steel.
- (D) - Remove and replace existing sign truss.
- (E) - Replace 1 broken bolt.
- (F) - Replace bottom clip angle and straighten diaphragm bottom flange.



EXPIRES 11-30-2014

(Applies to sheets 15A thru 15I of 21)

DESIGNED <i>[Signature]</i>	EXAMINED <i>[Signature]</i>	DATE AUGUST 2, 2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		STEEL REPAIRS SPANS 2 & 3		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED <i>[Signature]</i>	PASSED <i>[Signature]</i>	REVISED			573	61 HB-1-1	KANE	48	33A		
DRAWN <i>[Signature]</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED	FAP RTE. 573 OVER IL. RTE. 47 (FAP 326)		SN 045-0035 (EB) & 0036 (WB)		CONTRACT NO. 60N12		SHEET NO. 15A OF 21 SHEETS		
CHECKED <i>[Signature]</i>							ILLINOIS FED. AID PROJECT				