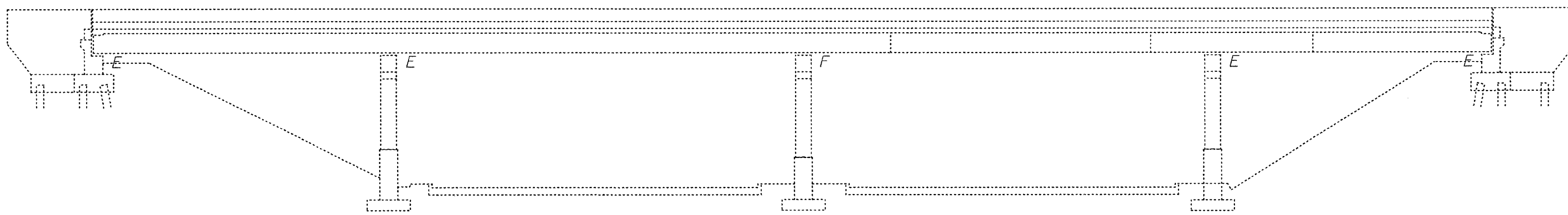
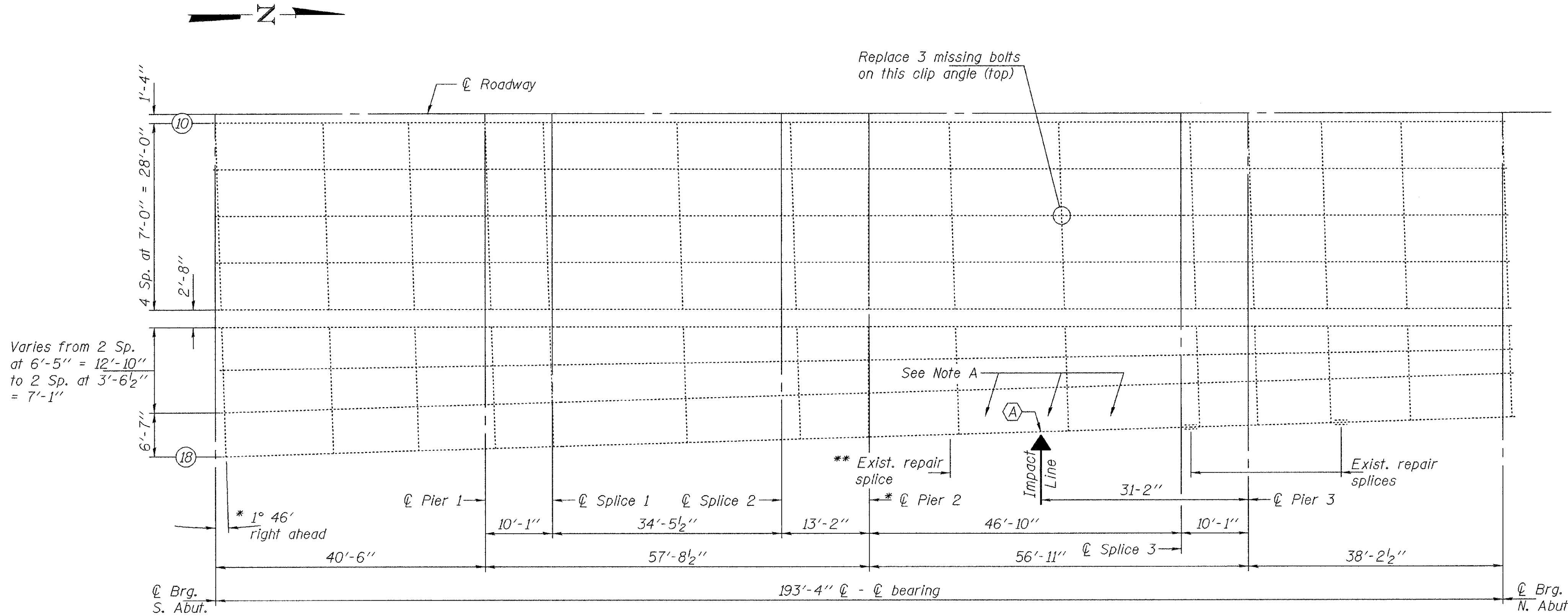
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION



* Skew angle for ℄ Pier 2 and diaphragms at Pier 2 = 0° 7' left ahead.

** Bottom flange to be painted.

FRAMING PLAN

(A) - Straighten & Strengthen Exisiting Beam

Note A:
Existing Permanent Protective Shield in this area to be removed as necessary to complete beam straightening operations. Shielding to be re-installed to its original configuration. Cost included with Beam Straightening.

GENERAL NOTES

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

Fasteners shall be high strength bolts. Bolts ⅞"ϕ, open holes 15/16"ϕ, unless otherwise noted.

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".

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/or 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 in the cost of Structural Steel Repair.

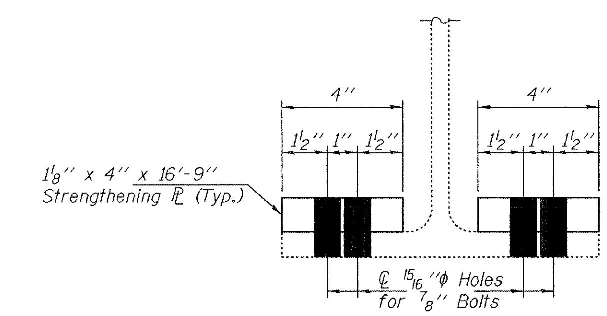
The existing structural steel coating contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project.

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".

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 ¼" 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.

The cost of all field drilling required for installation of the steel members is included with "Structural Steel Repair".

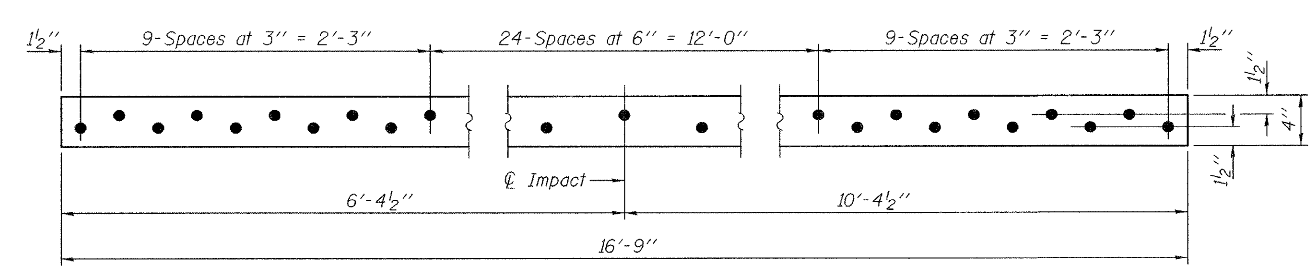
The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Interstate Green, Munsell No. 7.5G 4/8. See Special Provision for "Cleaning and Painting New Metal Structures".



STRENGTHENING DETAIL

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Steel Repair	Pound	660
Beam Straightening	L.S.	0.25



STRENGTHENING PLATE

℄ 1⅛" x 4" x 16'-9" (2 Req'd)

PLAN & ELEVATION
HARLEM AVENUE (IL 43)
OVER 95th STREET
SN 016-0320

DESIGNED	Vrefrn H. Veliz
CHECKED	[signature]
DRAWN	Kyle M. Steffen
CHECKED	VHU IJL

JANUARY 22, 2010

EXAMINED [signature] ENGINEER OF STRUCTURAL SERVICES

PASSED Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

Expires: November 30, 2010

SHEET NO. 1 / 2 SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	-	2009-070BR	COOK	17	9
			CONTRACT NO. 60H78		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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