

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Existing Structure:
S.N. 016-1120 built in 1963 as F.A. Route 61, Section 531-2HB-1 at Station 243+49.94. Structure consists of three span continuous steel beam bridge with a 34°55' right ahead skew, 155'-6" back-to-back abutments along bridge chord, out to out deck width of 58'-11", multi-column piers, and pile bent abutments. In 1971, the deck was patched and a bituminous overlay was placed on the structure. In 1991, the expansion joints and parapets were reconstructed, along with deck patching and overlay replacement with microsilica concrete. In 2000, the abutment bearings were replaced with elastomeric bearings. Traffic is to be maintained utilizing stage construction.

GENERAL NOTES

Plan dimension 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.

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.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that can not be removed by grinding ¼ in. deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

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.

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

Reinforcement bars designated (E) shall be epoxy coated.

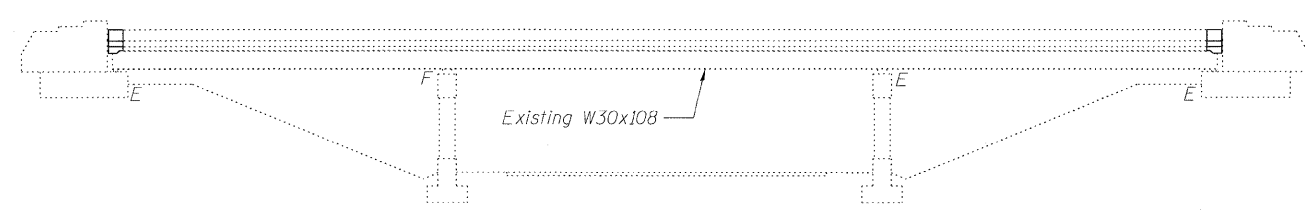
The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

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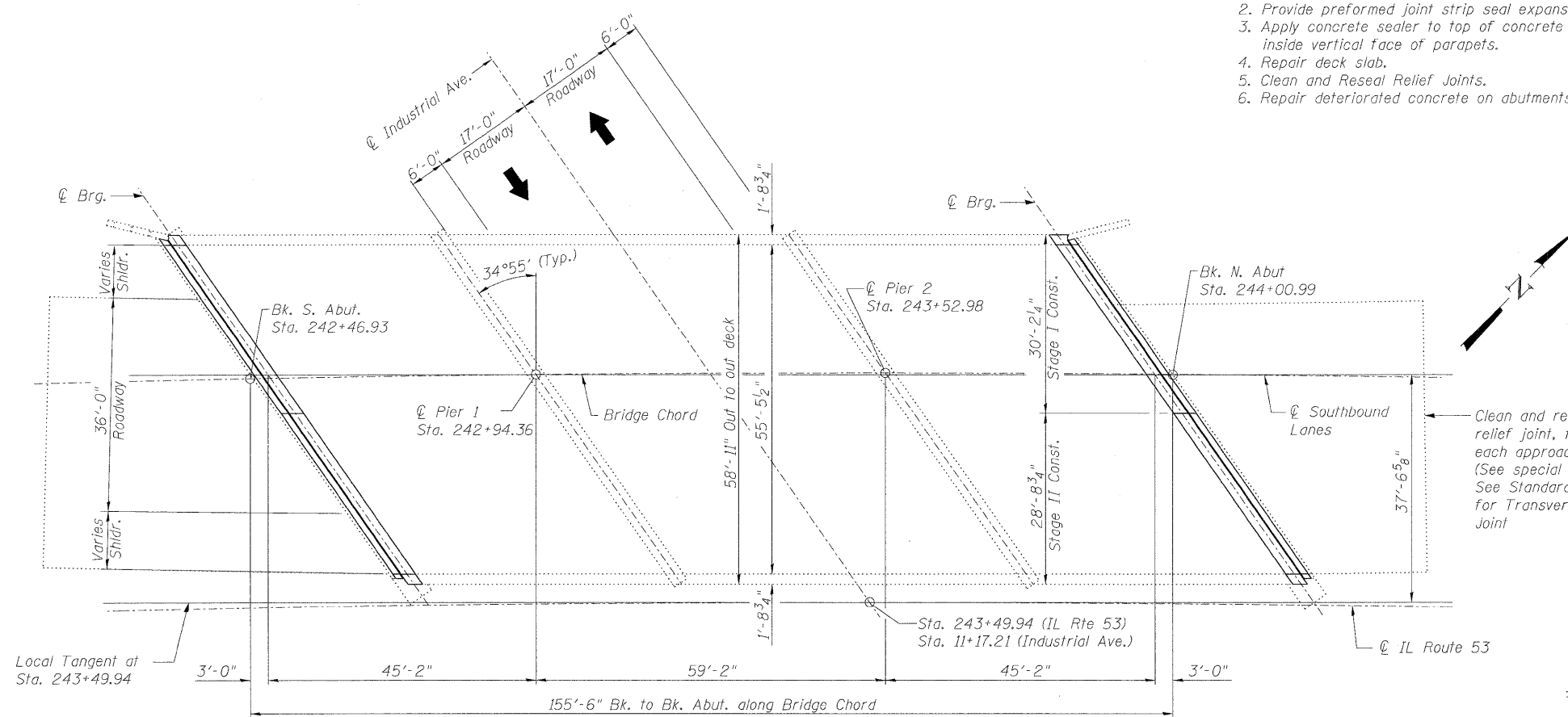
1. General Plan and Elevation
2. Deck Repair & Stage Construction Details
3. Temporary Concrete Barrier for Stage Construction
4. Concrete Removal
5. Concrete Details
6. Substructure Repair
7. Bar Splicer Assembly and Mechanical Splicer Details
8. Preformed Joint Strip Seal

SCOPE OF WORK

1. Remove and replace concrete deck adjacent to abutment expansion joints.
2. Provide preformed joint strip seal expansion joints at abutments.
3. Apply concrete sealer to top of concrete deck and top and inside vertical face of parapets.
4. Repair deck slab.
5. Clean and Reseal Relief Joints.
6. Repair deteriorated concrete on abutments.



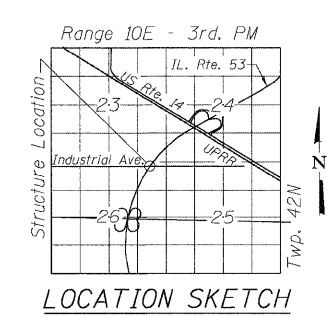
ELEVATION



PLAN

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	19.8	-	19.8
Protective Shield	Sq. Yd.	359	-	359
Concrete Superstructure	Cu. Yd.	19.8	-	19.8
Reinforcement Bars, Epoxy Coated	Pound	2090	-	2090
Bar Splicers	Each	24	-	24
Preformed Joint Strip Seal	Foot	138	-	138
Concrete Sealer	Sq. Ft.	9894	-	9894
Structural Repair of Concrete (Depth Greater Than 5 in.)	Sq. Ft.	-	21	21
Structural Repair of Concrete (Depth Equal To or Less Than 5 in.)	Sq. Ft.	-	69	69
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	0.6	-	0.6
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	45.6	-	45.6
Deck Slab Repair (Partial)	Sq. Yd.	28.0	-	28.0
Cleaning and Painting Exposed Rebar	Sq. Ft.	177	-	177
Clean and Reseal Relief Joint	Foot	72	-	72



LOCATION SKETCH

DESIGN STRESSES

FIELD UNITS (New Const.)

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

FIELD UNITS (Existing)

fc = 1,400 psi (Superstructure and Substructure)
fs = 20,000 psi (Reinforcement and Structural Steel)

DESIGN SPECIFICATIONS

(New Construction)
2002 AASHTO "Standard Specifications for Highway Bridges", 17th Edition

LOADING HS 20-44

(Original Construction)



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Date
Michael T. Haley
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Expires 11/30/2010

GENERAL PLAN AND ELEVATION
SB IL RTE 53 OVER INDUSTRIAL AVE.
F.A.I. RTE 290
SEC (531-3.1,0305-302K)RS-5
COOK COUNTY
STATION 243+49.94
STRUCTURE NO. 016-1120

LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois <small>Designed By: KHH Checked By: MTH Drawn By: KHH Date: 12/2009 File: 016-1120.dgn</small>	SHEET NO. 1	F.A.I. RTE. 290	SECTION (531-3.1,0305-302K)RS-5	COUNTY COOK	TOTAL SHEETS 314	SHEET NO. 216
	8 SHEETS	CONTRACT NO. 60138		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		