

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

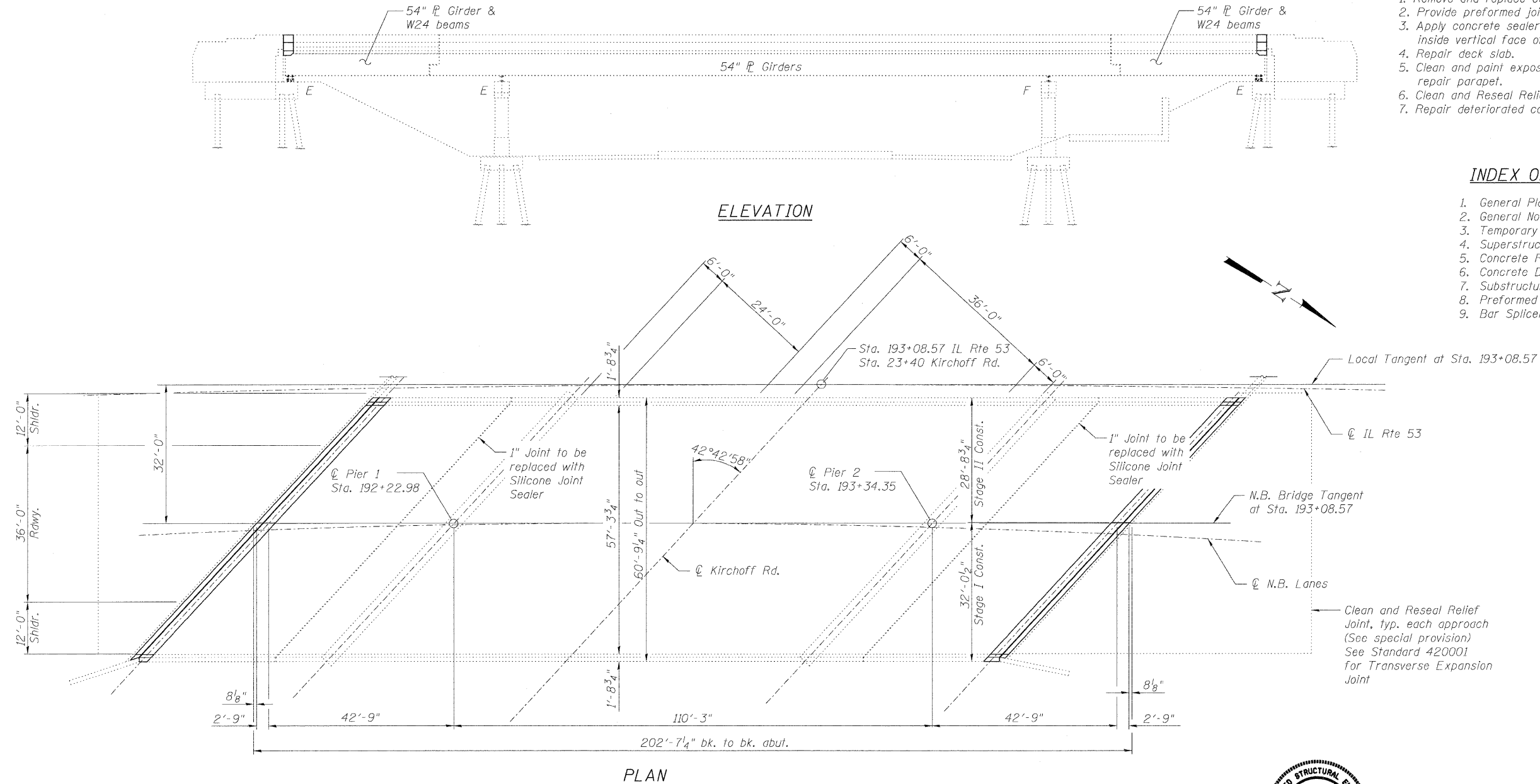
Existing Structure:  
Structure No. 016-0376, constructed in 1963 as FA 61, Section 531-1-HB-8, is a three span hinged continuous steel superstructure with a 7" reinforced concrete deck supported by multi-column piers and stub abutments. In 1971, the deck was patched and overlay was placed. In 1981, longitudinal joint was closed and expansion joint was reconstructed. In 1991, joint and parapet were reconstructed, overlay was replaced and deck was patched. In 2001, the expansion bearings were replaced. The structure is 202'-7 1/4" bk. to bk. abutments measured along north bound bridge tangent at Sta. 193+08.57, 60'-9 1/4" out to out and has a left ahead skew angle of 42°42'58". Stage Construction shall be utilized to maintain traffic during construction.

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 paint exposed reinforcement bars on underside deck, and repair parapet.
6. Clean and Reseal Relief Joints.
7. Repair deteriorated concrete on abutments and slope wall.

INDEX OF SHEETS

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



DESIGN STRESSES  
FIELD UNITS

Existing Construction  
f<sub>c</sub> = 1,400 psi (Substructure & Superstructure)  
f<sub>s</sub> = 20,000 psi (Reinforcement)  
f<sub>s</sub> = 20,000 psi (Structural Steel)

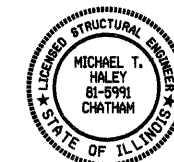
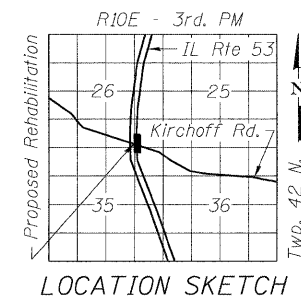
New Construction  
f<sub>c</sub> = 3,500 psi  
f<sub>y</sub> = 60,000 psi (Reinforcement)  
f<sub>y</sub> = 36,000 psi (Structural Steel) (M270 Gr. 36)

DESIGN SPECIFICATIONS

(New Construction)  
2002 AASHTO "Standard  
Specifications for Highway Bridges"

LOADING HS 20-44

(Original Construction)



Michael J. Haley 2/8/10  
Michael T. Haley Date  
Licensed Structural Engineer  
State of Illinois No. 81-5991  
Expires 11/30/2010

GENERAL PLAN AND ELEVATION  
NB IL RTE 53 OVER KIRCHOFF ROAD  
FAI RTE 290  
SECTION (531-3.1,0305-302K)RS-5  
COOK COUNTY  
STATION 193+08.57  
STRUCTURE NO. 016-0376

 LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 1	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	9 SHEETS	290	(531-3.1,0305-302K)RS-5	COOK	314	224
Designed By: ESH Date: 12/2009	Checked By: MTH File: 016-0376.dgn	Drawn By: ESH	CONTRACT NO. 60138			
FED. ROAD DIST. NO. -		ILLINOIS		FED. AID PROJECT		