

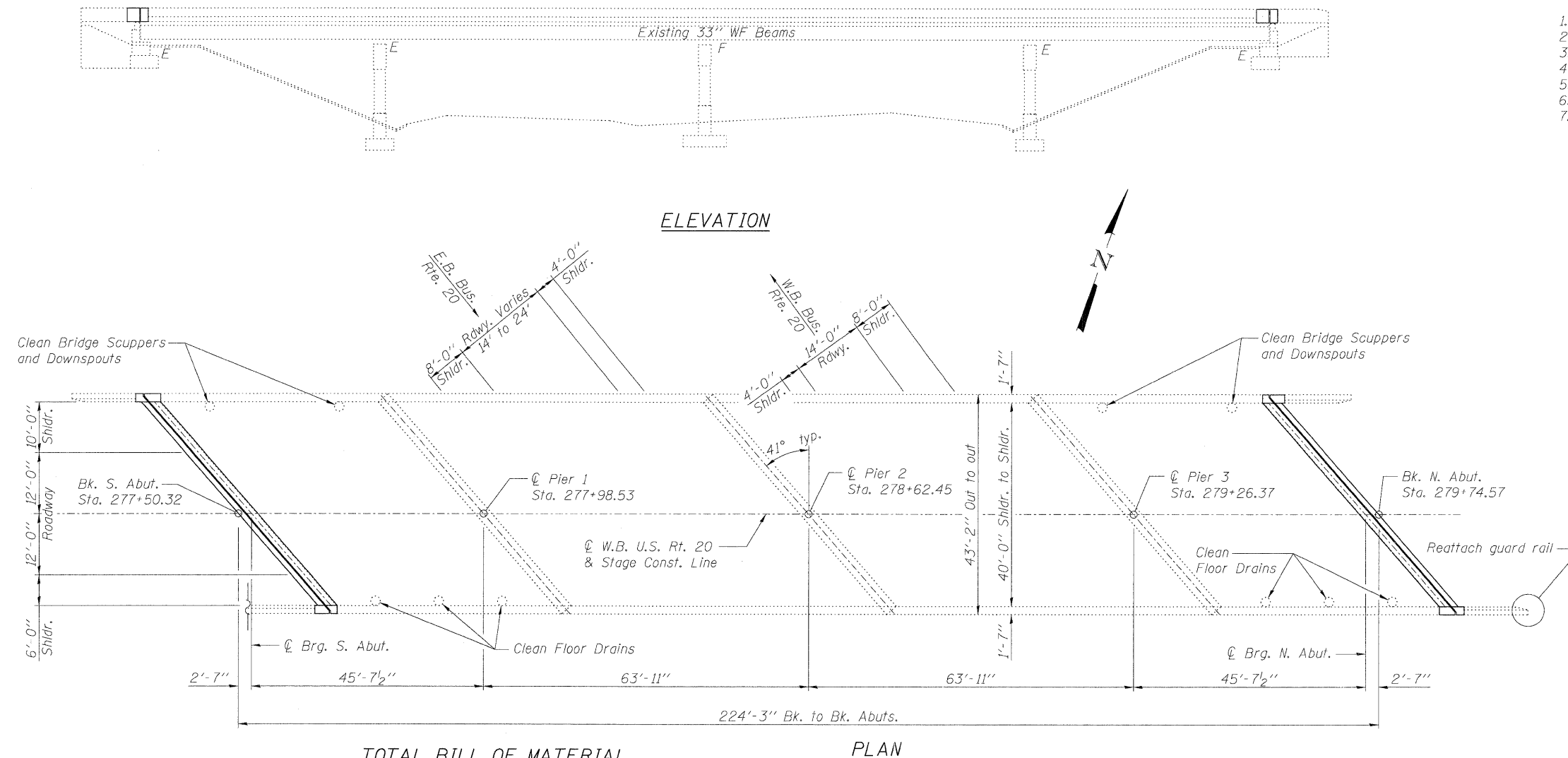
Existing Structure: S.N. 016-0218 built in 1961 as F.A. Route 6, Section 8R-HB-7 at Station 278+61.60. In 1987, the reinforced concrete deck was replaced and widened, the substructure was rehabilitated and widened, expansion joints reconstructed and bearings replaced. Structure consists of a four span steel WF beam bridge with 224'-3" back-to-back abutments, 43'-2" out-to-out deck width, multi-column piers and open abutments. Stage construction shall be utilized to maintain one lane of traffic at all times.

SCOPE OF WORK

1. Remove and replace concrete deck and parapets adjacent to abutment expansion joints.
2. Provide preformed joint strip seal expansion joints at abutments.
3. Repair deck slab.
4. Repair substructure.
5. Clean Scuppers.
6. Apply concrete sealer to top of concrete deck and top and inside vertical face of parapets.
7. Repair guardrail attachment.

INDEX OF SHEETS

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



DESIGN STRESSES

FIELD UNITS (New Const.)

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

FIELD UNITS (Existing)

$f_c = 14,000$ psi (Superstructure & Substructure)
 $f_s = 18,000$ psi (Reinforcement)
 $f_s = 20,000$ psi (Structural Steel)

LOADING HS 20-44

(Original Construction)

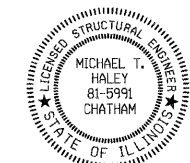
DESIGN SPECIFICATIONS

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

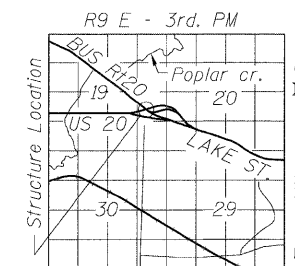
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Preformed Joint Strip Seal	Foot	112	-	112
Concrete Sealer	Sq. Ft.	10471	-	10471
Protective Shield	Sq. Yd.	539	-	539
Concrete Removal	Cu. Yd.	13.1	-	13.1
Concrete Superstructure	Cu. Yd.	13.1	-	13.1
Deck Slab Repair (Partial)	Sq. Yd.	9.1	-	9.1
Structural Repair of Concrete (Depth equal to or less than 5 in.)	Sq. Ft.	-	55	55
Reinforcement Bars, Epoxy coated	Pound	2010	-	2010
Bar Splicers	Each	24	-	24
Guardrail Repair	Each	1	-	1
Floor Drains to be cleaned	Each	6	-	6
Cleaning Bridge Scuppers and Downspouts	Each	4	-	4

PLAN



Michael T. Haley
 Michael T. Haley
 Licensed Structural Engineer
 State of Illinois No. 81-5991
 Expires 11/30/2012



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
 W.B. US 20 OVER BUS. US 20
 FAP RTE 345 - SECTION 8R-1-RS-4
 COOK COUNTY
 STATION 278+62.45
 STRUCTURE NO. 016-0218



USER NAME =	DESIGNED - TBP	REVISED -
FILE NAME =	CHECKED - ADB	REVISED -
PLOT SCALE =	DRAWN - AJF	REVISED -
PLOT DATE =	CHECKED - MTH	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
 STRUCTURE NO. 016-0218

SHEET NO. 1 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	8R-1-RS-4	COOK	124	94
				CONTRACT NO. 60M46
ILLINOIS FED. AID PROJECT				