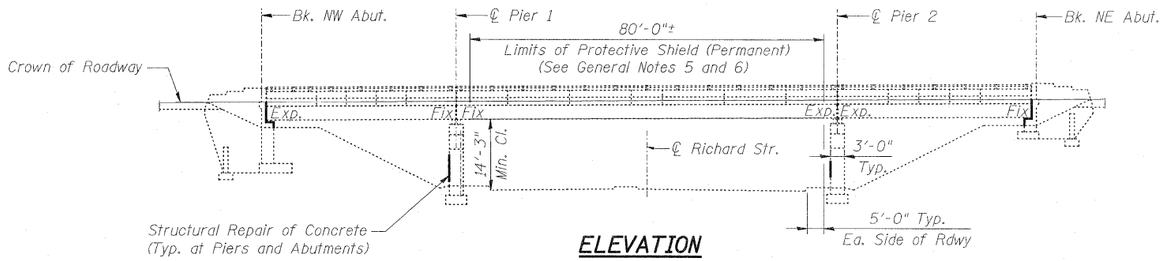
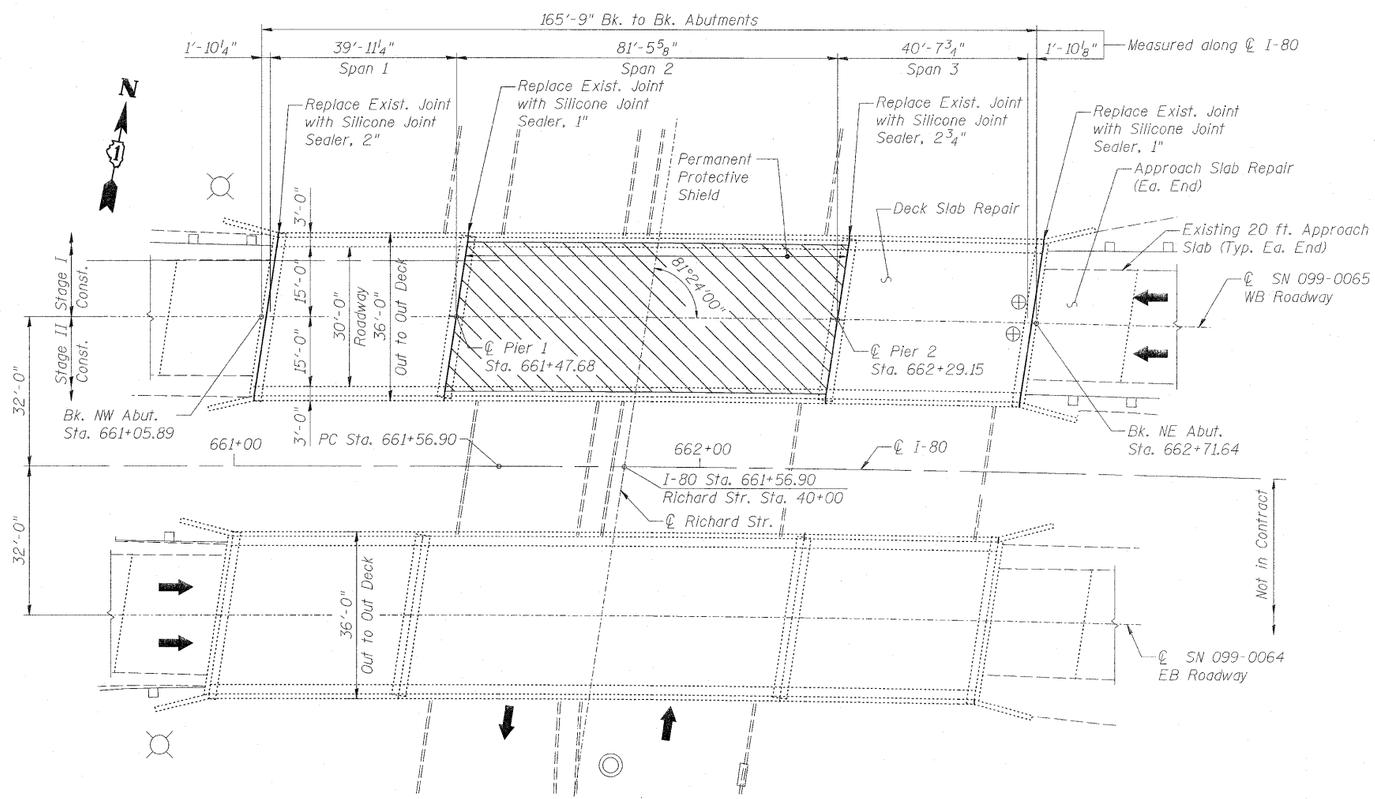
Existing Structures:
Dual bridges over Richards Street, S/N 099-0064 carrying I-80 Eastbound and S/N 099-0065 carrying I-80 Westbound, were originally constructed in 1961 as a part of F.A.I. 80 Project, I-80-4(38)134, Section 99-4HB-1. The superstructures consist of 3 simple spans of steel wide flange beam units. The 7-inch thick deck is supported on reinforced concrete piers and abutments with footings that extend a minimum of one foot into solid rock. In 1990 and 1998 repairs were made to the decks, abutments, piers, deck joints, rail and drainage system. In 2001, repairs were made to deck and expansion joints; a new 2" polymerized bituminous concrete overlay with waterproofing membrane was installed.

Traffic shall be maintained utilizing stage construction.

No salvage.



ELEVATION



PLAN

LEGEND

⊕ Temporary Shoring and Cribbing

▨ Protective Shield (Permanent)

INDEX OF SHEETS

S1. General Plan, Notes, and Total Bill of Material
S2. Construction Staging
S3. Deck, Approach Slab, and Expansion Joint Repairs
S4. Abutment and Pier Repairs
S5. Permanent Protective Shield
S6. Temporary Concrete Barrier for Stage Construction

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

DESIGN STRESSES

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

SCOPE OF WORK:

1. Remove existing Hot-Mix Asphalt Overlay.
2. Install Protective Shield.
3. Repair Deck Slab.
4. Repair Approach Slab.
5. Remove and replace deck joints with Silicone Joint Sealer.
6. Install Temporary Beam Shoring.
7. Repair structural concrete at Abutments and Piers.
8. Construct Hot-Mix Asphalt Overlay.

GENERAL NOTES:

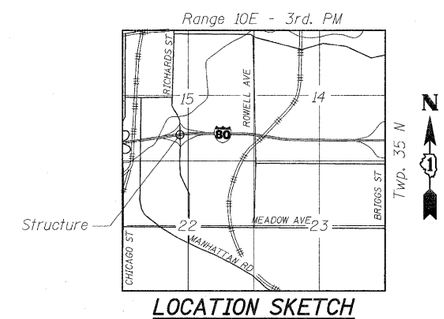
1. Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60. See Special Provisions.
2. Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. Contractor should verify dimensions and make necessary approved adjustments prior to starting construction. Such variations shall not be cause for additional compensation for a change in scope of work, however, the Contractor will be paid for actual quantity furnished and approved by Engineer at unit price bid for the work.
3. Areas of proposed deck repairs are estimated. Actual type, location and dimension of deck repairs are to be determined by the Engineer during construction.
4. Contractor shall remove the existing asphalt wearing surface and, as necessary, adjust the milling depth to prevent damage to the existing waterproofing membrane. After satisfactory completion of the deck repair work, an asphalt surface course shall be placed in sufficient thickness as to match the elevation of the original surface.
5. Protective shield shall be installed prior to start of Deck Slab Repair work.
6. The Contractor shall protect and maintain the existing underpass luminaires. See Special Provision "Protective Shield, Special".

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Polymerized Hot-Mix Asphalt Surface Course, Stone Matrix Asphalt, N80	Ton	62	-	62
Protective Shield (Permanent)	Sq. Yd.	284	-	284
Approach Slab Repair (Partial Depth)	Sq. Yd.	16	-	16
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	548	-	548
Structural Repair of Concrete (Depth =< 5")	Sq. Ft.	-	300	300
Structural Repair of Concrete (Depth > 5")	Sq. Ft.	-	167	167
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	45	-	45
Deck Slab Repair (Partial)	Sq. Yd.	118	-	118
Silicone Joint Sealer, 1"	Foot	75	-	75
Silicone Joint Sealer, 2"	Foot	38	-	38
Silicone Joint Sealer, 2¾"	Foot	38	-	38
Temporary Shoring and Cribbing	Each	2	-	2

STATE OF ILLINOIS
ATALAY YARGICOGLU
081-005358
CHICAGO, IL
LICENSED STRUCTURAL ENGINEER

SIGNED: [signature]
DATE: 02/08/2011
EXP: 11/30/2012
SHEETS: S1 THRU S6



LOCATION SKETCH

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PLOT SCALE = 1:16	CHECKED - A.Y./R.L.D.	REVISED -	
PLOT DATE = 2/8/2011	DATE - 01/20/2011	REVISED -	

HBP Illinois Partners

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN, NOTES, AND TOTAL BILL OF MATERIAL
WESTBOUND I-80 OVER RICHARDS STREET
SN 099-0065

SCALE: | SHEET S1 OF S6 | STA. | TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	174
		CONTRACT NO. 60M66		

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT

q:\idot\21050.005 (I-80 phase II)\drawings\cadd sheets\bridge p&e\richards_wb\099-0065-D160M66-GPE-Richards.dgn