

Existing Structure: SN 016-0400 built in 1958 as FA Route 173, Section 267-111-15D. In 1997, the rigid frame concrete was repaired, the PCC Pavement, embankment, waterproofing membrane and drainage system were replaced along with the railing and barriers. The structure consists of a 3 span reinforced concrete rigid frame supported on concrete piles. The bridge length and width vary due to the curvature at the south end of the structure. The supports are placed at varying left ahead skews. A 9" PCC Pavement supported by ±3 ft of Porous Granular Embankment rest on top of the structure. Stage Construction will be utilized to maintain traffic during construction.

### SCOPE OF WORK

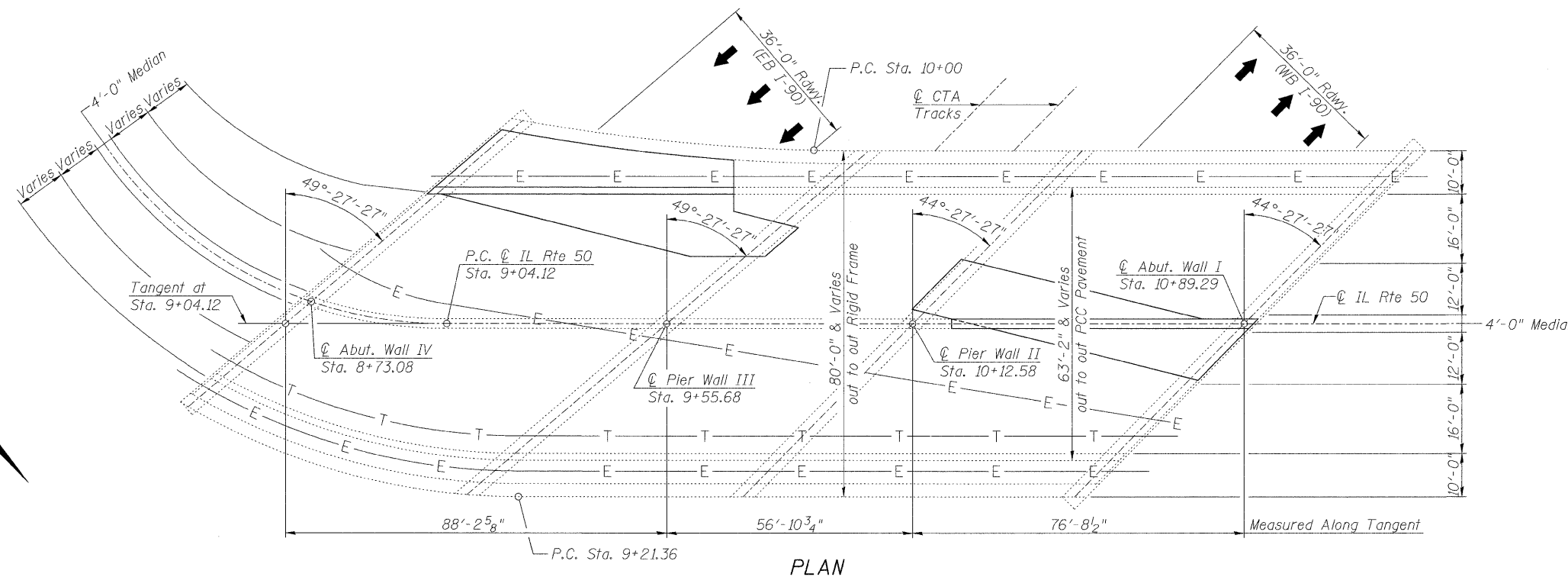
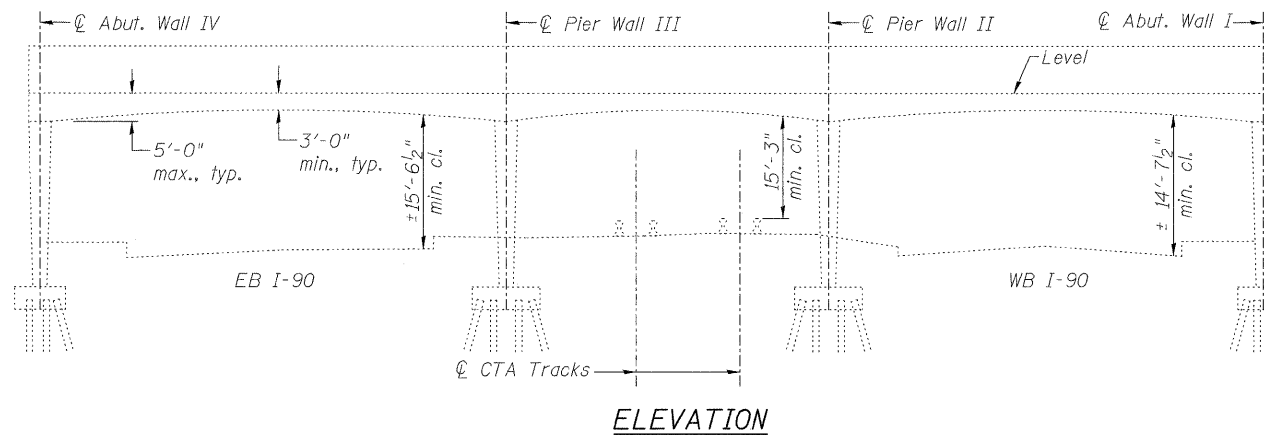
1. Remove PCC Pavement, barrier and sidewalk as indicated and excavate Porous Granular Embankment material to top of Rigid Frame Structure.
2. Provide falsework below end spans to prevent material from falling into traffic and to act as form work for new concrete.
3. Reconstruct top slab of rigid frame full depth as indicated.
4. Provide waterproofing membrane over the new portion of the rigid frame.
5. Replace the Porous Granular Embankment material and rebuild the PCC Pavement and barriers to their original condition.
6. Provide Protective Coat on top of new pavement and top and inside faces of new barriers.

### GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated. 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.

### INDEX OF SHEETS

1. General Plan and Elevation
2. Stage Construction Details
3. Temporary Concrete Barrier for Stage Construction
- 4-4A. Rigid Frame Reconstruction Details
5. PCC Pavement Removal Details
6. PCC Pavement Reconstruction Details
7. Bar Splicer Assembly and Mechanical Splicer Details



### TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment	Cu. Yd.	278	-	278
Continuously Reinforced PCC Pavement, 9"	Sq. Yd.	195	-	195
Pavement Reinforcement	Sq. Yd.	195	-	195
Portland Cement Concrete Sidewalk, 5 Inch	Sq. Ft.	597	-	597
Pavement Removal	Sq. Yd.	195	-	195
Sidewalk Removal	Sq. Ft.	597	-	597
Concrete Removal	Cu. Yd.	144.7	-	144.7
Structure Excavation	Cu. Yd.	266	-	266
Concrete Superstructure	Cu. Yd.	133.1	-	133.1
Protective Coat	Sq. Yd.	329	-	329
Reinforcement Bars, Epoxy Coated	Pound	14970	-	14970
Mechanical Splacers	Each	609	-	609
Waterproofing Membrane System, (Special)	Sq. Yd.	86	-	86

### EXISTING CURVE DATA

Δ = 58° 59' 14" (LT)  
D = 63° 30' 49"  
R = 95.00'  
T = 53.73'  
L = 92.87'  
E = 14.14'  
P.C. = Sta. 8+11.25  
P.T. = Sta. 9+04.12  
P.I. = Sta. 8+64.98

### DESIGN STRESSES

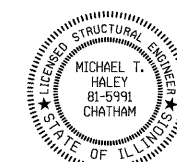
FIELD UNITS  
f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)

### LOADING HS 20-44

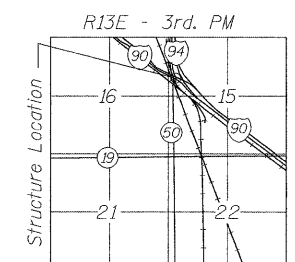
(Original Construction)

### DESIGN SPECIFICATIONS

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



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State of Illinois No. 81-5991  
Expires 11/30/2012  
Date 2-2-12



LOCATION SKETCH



USER NAME =  
FILE NAME =  
PLOT SCALE =  
PLOT DATE =

DESIGNED - TBP  
CHECKED - MTH  
DRAWN - AJF  
CHECKED - MTH

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION  
STRUCTURE NO. 016-0400

SHEET NO. 1 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2011-063-1	COOK	18	7
				CONTRACT NO. 60P82
ILLINOIS FED. AID PROJECT				