F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I90/94	2222-909HB-R	COOK	1	1
STA. +927.456		TO STA. 1+072.124		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRRP-S-0(	

Bench Mark: "+" cut in N. flange bolt of fire hydrant at SW corner of Wentworth & Root St. Elev. 181.355

Existing Structure: No. 016-1154. Built as F.A.I. 90/94 (Root St.) Sec. 2222-909HB-R in 1961. The superstructure consists of a R.C. deck 97.58 m long by 20.32 m wide on five-span continuous rolled girders. Two lane traffic shall be maintained during the structure rehabilitation by staged construction.

HIGHWAY CLASSIFICATION

F.A.I. 90/94 (Root St.)
Class: Local Street (Urban)
DHV: 1,500 (1978)
ADT: 15,000 (1978)
16,510 (2015)
Design Speed: 40 km/h
Posted Speed: 40 km/h

F.A.I. 90/94
Class: Interstate
DHV: 30,040
ADT: 300,400 (1997)
Design Speed: 160 km/h
Posted Speed: 90 km/h

DESIGN SPECIFICATIONS

1996 AASHTO with 1997, 1998 and 1999 Interims

DESIGN STRESSES

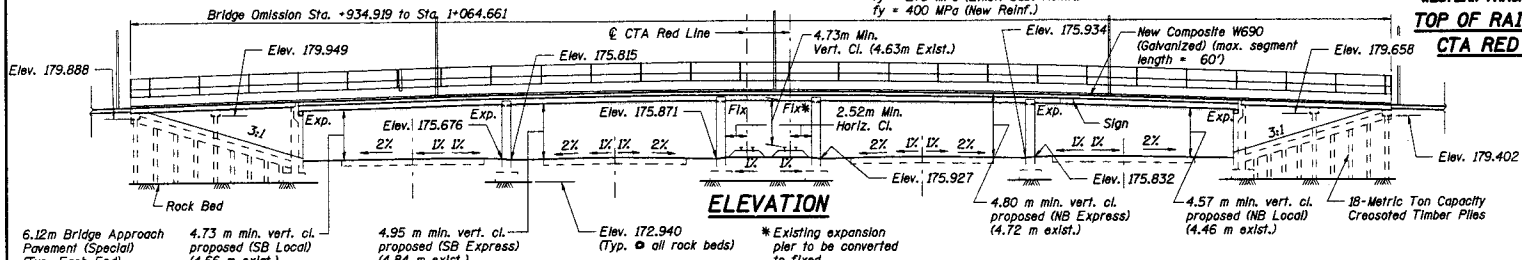
f'c = 24 MPa (New & Exist.)
Fy = 345 MPa (New Struct. Steel-AASHTO M270 Gr 345)
fy = 275 MPa (Exist. Sub. Reinf.)
fy = 400 MPa (New Reinf.)

SEISMIC DATA

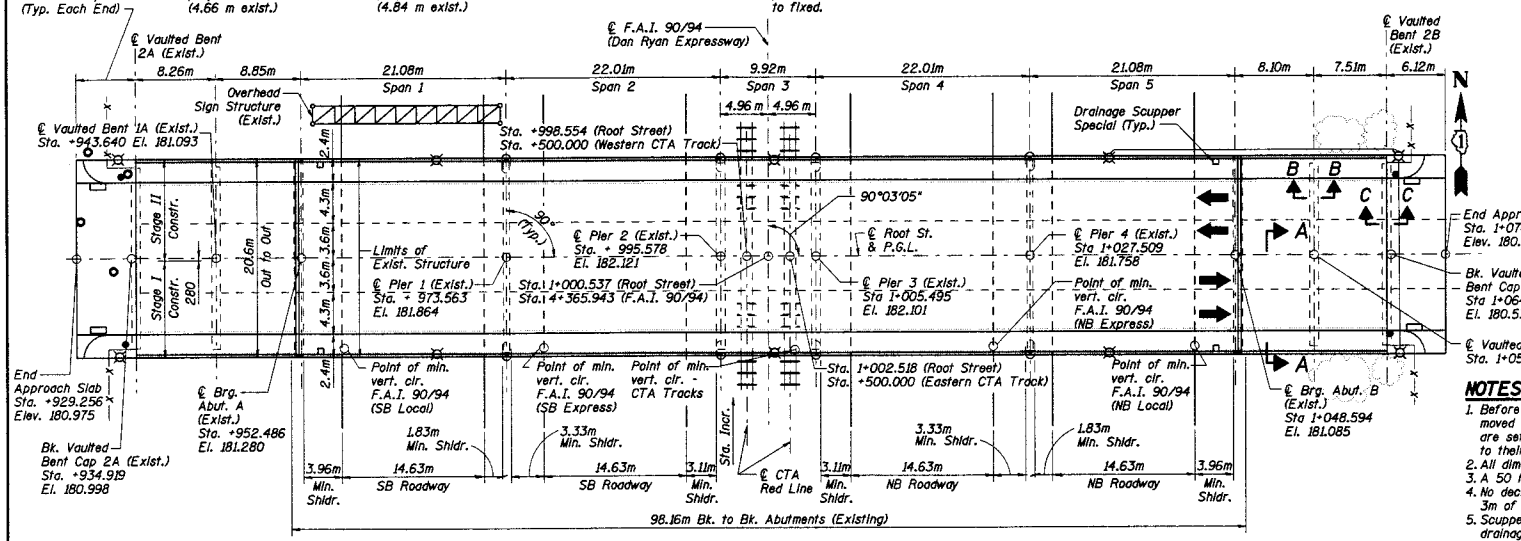
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.04
Site Coefficient (S) = 1.0

LOADING MS18

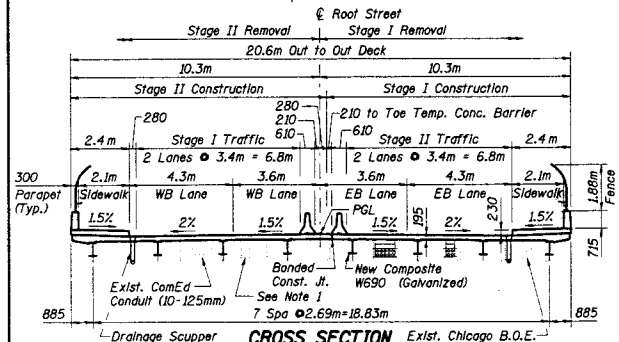
Allow 2.4 kN/m² for future wearing surface.



ELEVATION

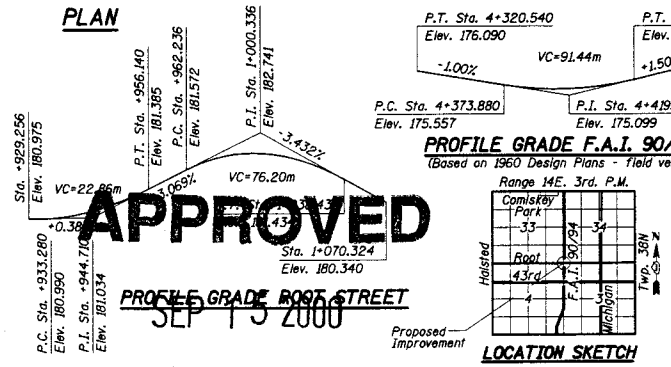


PLAN



CROSS SECTION

(Looking Upstation)



PROFILE GRADE ROOT STREET

PROFILE GRADE F.A.I. 90/94

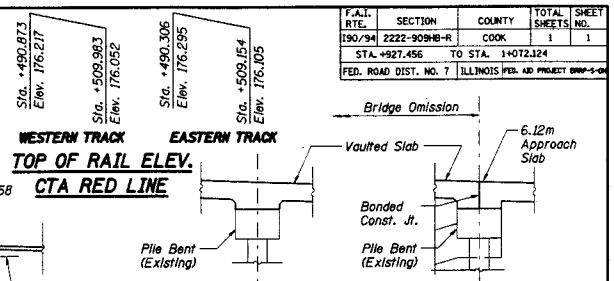
(Based on 1960 Design Plans - Field verify)

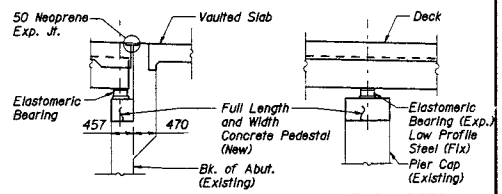
LOCATION SKETCH

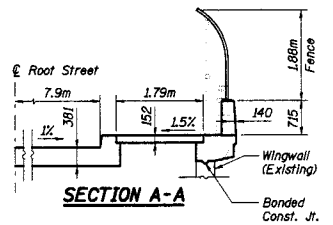
Proposed Improvement

LEGEND

Inlet, Type B
Manhole
Light Pole
Stop Sign
Fence —x—x—
Overhead Wire Line







NOTES

1. Before Stage I demolition, the four duct utility bank will be temporarily moved to the North side of the structure. After Stage I beams are set and before Stage II demolition, both utility banks will be moved to their final locations on the South side of the structure.
2. All dimensions are in millimeters (mm) except as noted.
3. A 50 haunch is assumed for vertical clearance calculations.
4. No deck drains will be permitted in the span over the tracks or within 3m of the cross arms of a railroad pole line.
5. Scupper drainage discharge to be tied into existing underground drainage along F.A.I. 90/94.

SCOPE OF WORK

1) Remove stage I light poles, stop signs, and underbridge lighting from structure.
2A) Remove stage I deck, girders, and bearings.
2B) Remove stage I vaulted slabs, approach slabs, and top of existing wingwalls.
3) Construct new concrete pedestals on piers and abutments.
4A) Construct new vaulted slabs, approach slabs, and top of wingwalls.
4B) Construct superstructure with new bearings, composite girders, and deck.
5) Construct light poles and stop signs.
6) Repeat steps 1-5 for stage II.
7) Refer to Note 1 for existing utility duct instructions.
8) Replace underbridge lighting.
9) Perform the following repairs to all existing piers and abutments:
Formed concrete repair of all spalls and delaminations
Epoxy crack sealing for crack widths > 1/16"

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
ROOT STREET OVER F.A.I. 90/94
STRUCTURE NO. 016-1154

GENERAL PLAN
ROLLED GIRDER ALTERNATE

Section 2222-909HB-R
Cook County
Sta. 1+000.537
DATE 9/1/00
DRAWN BY JMW
CHECKED BY KPZ

APPROVED
SEP 15 2000
AS A BASIS FOR
PREPARATION OF DETAILED PLANS

Conditionally Approved