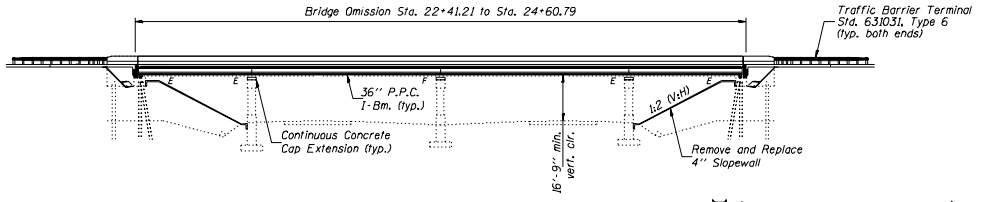
Bench Mark: Chiseled "□" cut in the top of hub guard on the west side, center of River Road over I-80. Elev. 594.99

Existing Structure: S.N. 099-0177, built in 1960 as F.A.I. Rte. 80, Section 99-1HB-1.
The existing structure consists of a 4 simple span 42" PPC I-Beam superstructure supported on pile bent abutments and multi-column piers on spread footings. The structure is 219'-7" Bk. to Bk. Abutments and 30'-0" Out to Out of deck. The superstructure is to be removed and replaced. Traffic is to be detoured during construction.

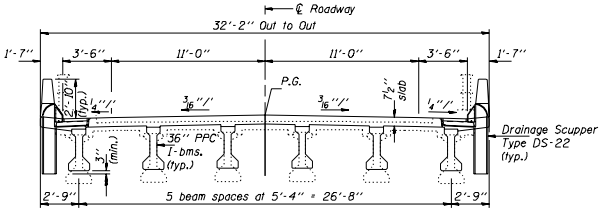
No salvage

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

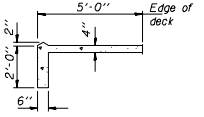
SHEET NO. 1
1 SHEET



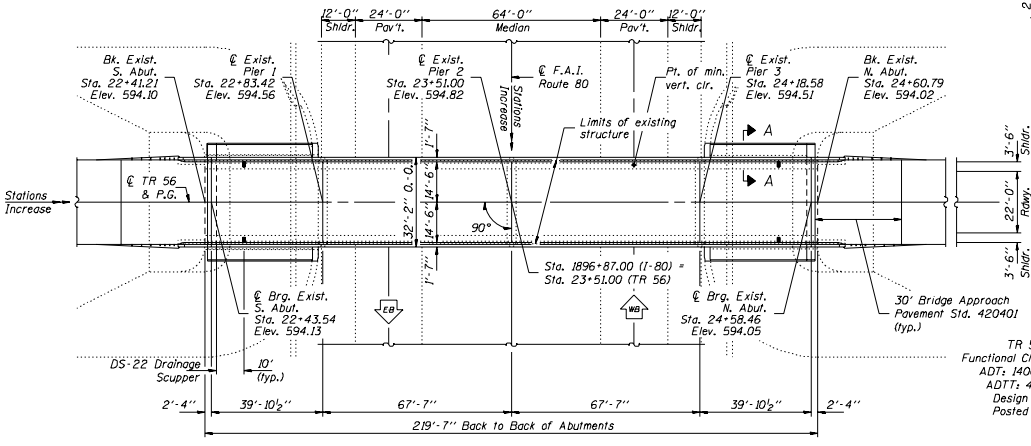
ELEVATION

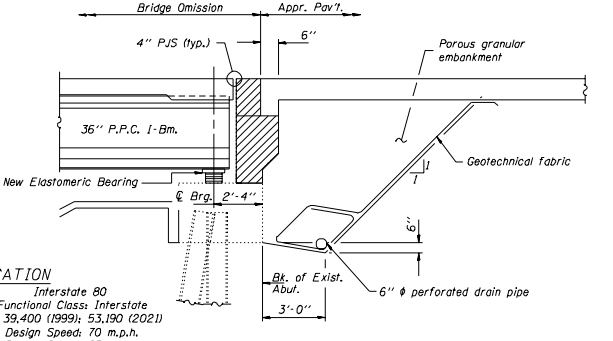


CROSS SECTION
(Looking North)



SECTION A-A





SECTION THRU ABUTMENT

Indicates Concrete Removal and Replacement

HIGHWAY CLASSIFICATION

TR 56 - River Road
Functional Class: Minor Arterial (Urban)
ADT: 1400 (1999); 1680 (2021)
ADTT: 42 (1999); 50 (2021)
Design Speed: 35 m.p.h.
Posted Speed: 35 m.p.h.

Interstate 80
Functional Class: Interstate
ADT: 39,400 (1999); 53,190 (2021)
Design Speed: 70 m.p.h.
Posted Speed: 65 m.p.h.

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

1996 AASHTO with 1997 thru 2000 Interims

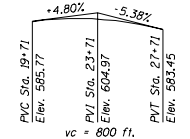
DESIGN STRESSES

FIELD UNITS
f'_c = 3,500 psi (existing and proposed)
f_y = 40,000 psi (existing reinforcement)
f_y = 60,000 psi (new reinforcement)

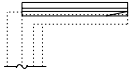
PRECAST PRESTRESSED UNITS
f'_c = 6,000 psi
f'_{ci} = 5,000 psi
f'_s = 270,000 psi (½" ϕ low relax. strands)
f_{si} = 201,960 psi (½" ϕ strands)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.04g
Site Coefficient (S) = 1.2



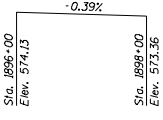
PROFILE GRADE
(℄ River Road)



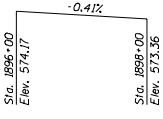
PLAN

WINGWALL DETAIL

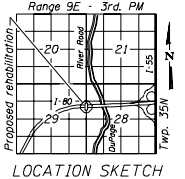
APPROVED
AS A BASIS FOR
PREPARATION OF DETAILED PLANS
JAN 28 2002



PROFILE GRADE
(I-80 EB)



PROFILE GRADE
(I-80 WB)



LOCATION SKETCH

GENERAL PLAN
RIVER ROAD OVER
I-80
FAI 80 - SECTION 99-1HB-1-BR-1
WILL COUNTY
STATION 23+51.00
STRUCTURE NO. 099-0177

DESIGNED	J.A. Elston
CHECKED	E.J. Carlson
DRAWN	W.D. Collins
CHECKED	T.A. Craven

20
EXAMINED
ENGINEER OF BRIDGE DESIGN
PASSED
ENGINEER OF BRIDGES AND STRUCTURES