

B.M.: RR Spike in 16" Tree
Sta. 14+75, 54' Lt.
Elev. 568.32

RR Spike in 14" Tree
Sta. 25+85, 46' Lt.
Elev. 522.77

Existing Structure:

Three span poured deck on steel beams superstructure. The substructure consists of concrete spill thru abutments on piles and footing supported solid wall piers. The structure is 202'-10" back to back of abutments, 24'-0" out to out deck, and skewed ±14° Rt. Ah. Str. No. 085-3021 built 1951.

Salvage: None

Road to be closed to traffic during construction.

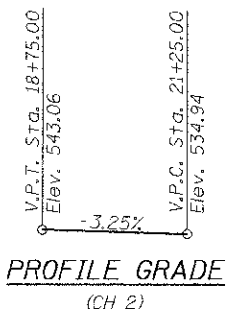
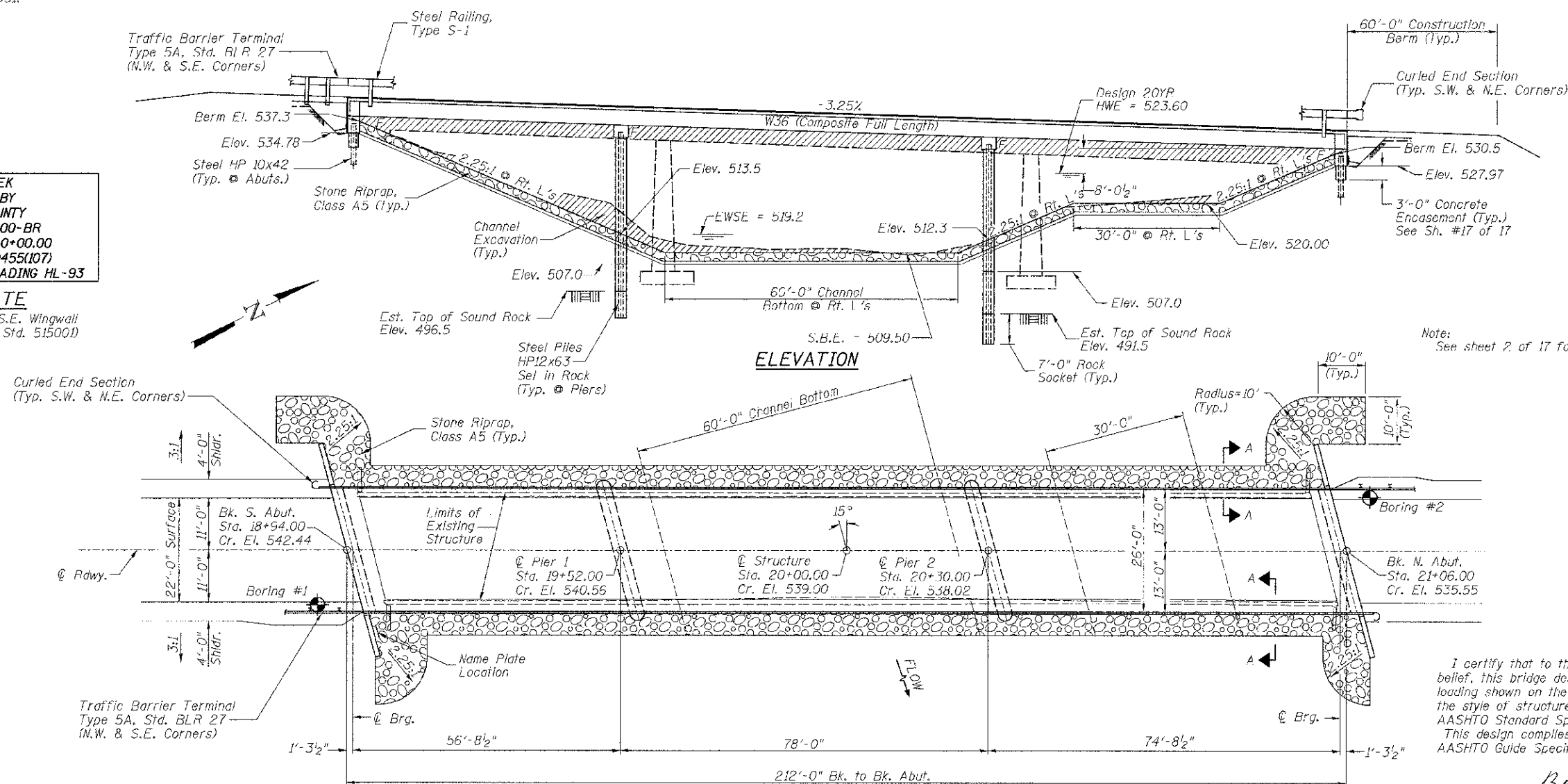
**SUGAR CREEK
BUILT 20L BY
SCHUYLER COUNTY
SEC. 07-00073-00-BR
C.H. 2 STATION 20+00.00
F.A. PROJ. BRS-0455(107)
STR. NO. 085-3056 LOADING HL-93**

NAME PLATE

Locate Name Plate at S.E. Wingwall
Corner of Bridge (See Std. 51500)

**BRIDGE PLANS
INDEX TO SHEETS**

SHEET #'s	DESCRIPTION
1	General Plan
2	General Notes, Bill of Materials & Footing Plan
3-5	Top of Slab Elevations
6	Superstructure
7	Superstructure Details
8	Diaphragm Details
9	Steel Railing, Type S-1
10	Framing Plan and Details
11	Structural Steel Details
12	Bearing Details
13	South Abutment
14	North Abutment
15	Pier #1
16	Pier #2
17	HP Pile Details



Note:
See sheet 2 of 17 for Section A-A.

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO Standard Specification for Highway Bridges. This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.

Benjamin A. Nebel
Illinois Structural No. 6527
Expires 11/30/2012

PLAN

DESIGN SCOUR TABLE

Location	S. Abut	Pier 1	Pier 2	N. Abut
Design Scour Elevation	534.78	508.10	506.90	521.97

WATERWAY INFORMATION

Drainage Area = 79.91 Sq. Mi. Low Grade Elev. = 528.41 @ Sta. 26+25.00

Flood Yr.	Freq.	C.F.S.	Q	Opening Exist.	Sq. Ft. Prop.	Nat. H.W.E. Exist.	Head - Ft. Prop.	Headwater Cl. Exist.	Headwater Cl. Prop.
Design	20	6,940	1,144	1,354	523.60	0.74	0.69	524.34	524.29
Base	100	9,965	1,293	1,512	524.64	1.42	1.28	526.06	525.92

DESIGNED	S.T.M
CHECKED	B.A.N.
DRAWN	S.T.M.
CHECKED	B.A.N.

Construction of this project complies with IDNR,
Office of Water Resources Statewide Permit No. 2

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition

DESIGN STRESSES

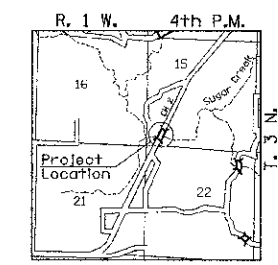
(FIELD UNITS)
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50W)

LOADING HL-93

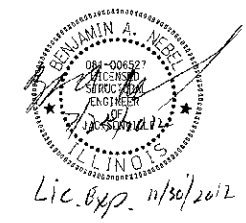
Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.12g
Design Spectral Acceleration at 0.2 sec. (SD5) = 0.19g
Soil Site Class = D



LOCATION SKETCH



**GENERAL PLAN
C.H. 2 OVER SUGAR CREEK
SECTION 07-00073-00-BR
SCHUYLER COUNTY
STATION 20+00.00
STRUCTURE NO. 085-3056**

SHEET NO. 1	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	CH 2	07-00073-00-BR	SCHUYLER	35	7
SN 085-3056			CONTRACT NO. 99584		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0455(107)		