

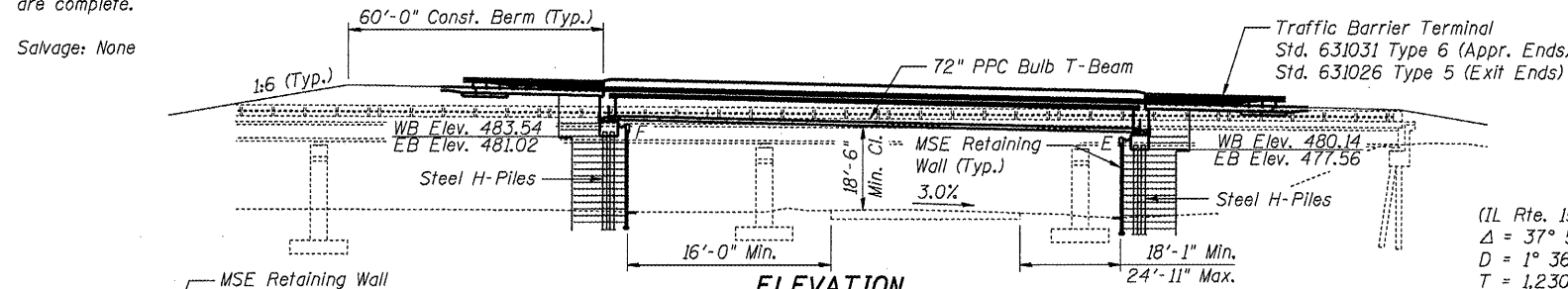
BENCHMARK: Existing chiseled square on south end of northeast wingwall, on SN 082-0051. Elev. 493.11

EXISTING STRUCTURE: Structure Numbers 082-0051 and 082-0052 were constructed in 1956. These structures consist of dual 8 span built-up steel girder spans: one three-span continuous, one simple span and two, two-span continuous. The riveted girders are supported on pile supported abutments and piers. The overall length of SN 082-0051 (Westbound) is 808 feet and SN 082-0052 (Eastbound) is 746 feet. Each structure is 35'-8" out-to-out of deck, with 30 feet of roadway width. Both structures were rehabilitated in 1985. Traffic will be maintained on SN 082-0051 while the new eastbound structures are constructed; traffic will then be moved to the new eastbound structures until the westbound structures are complete.

Salvage: None

LOADING HL-93
Allow 50#/sq. ft. for future wearing surface.

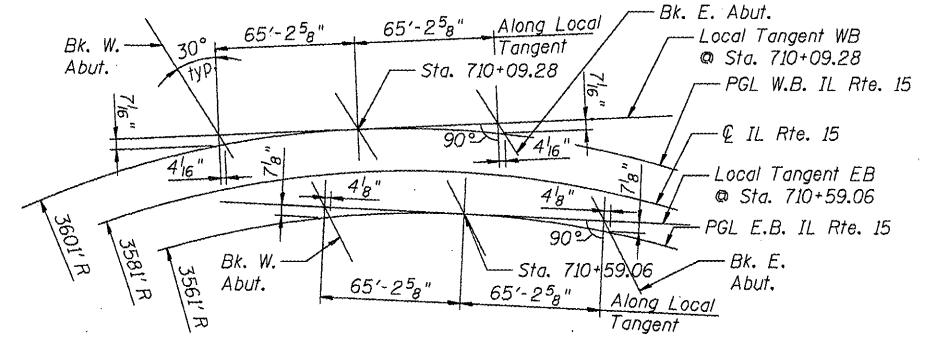
DESIGN SPECIFICATIONS
AASHTO LRFD Bridge Design Specifications
5th Edition with 2010 Interims



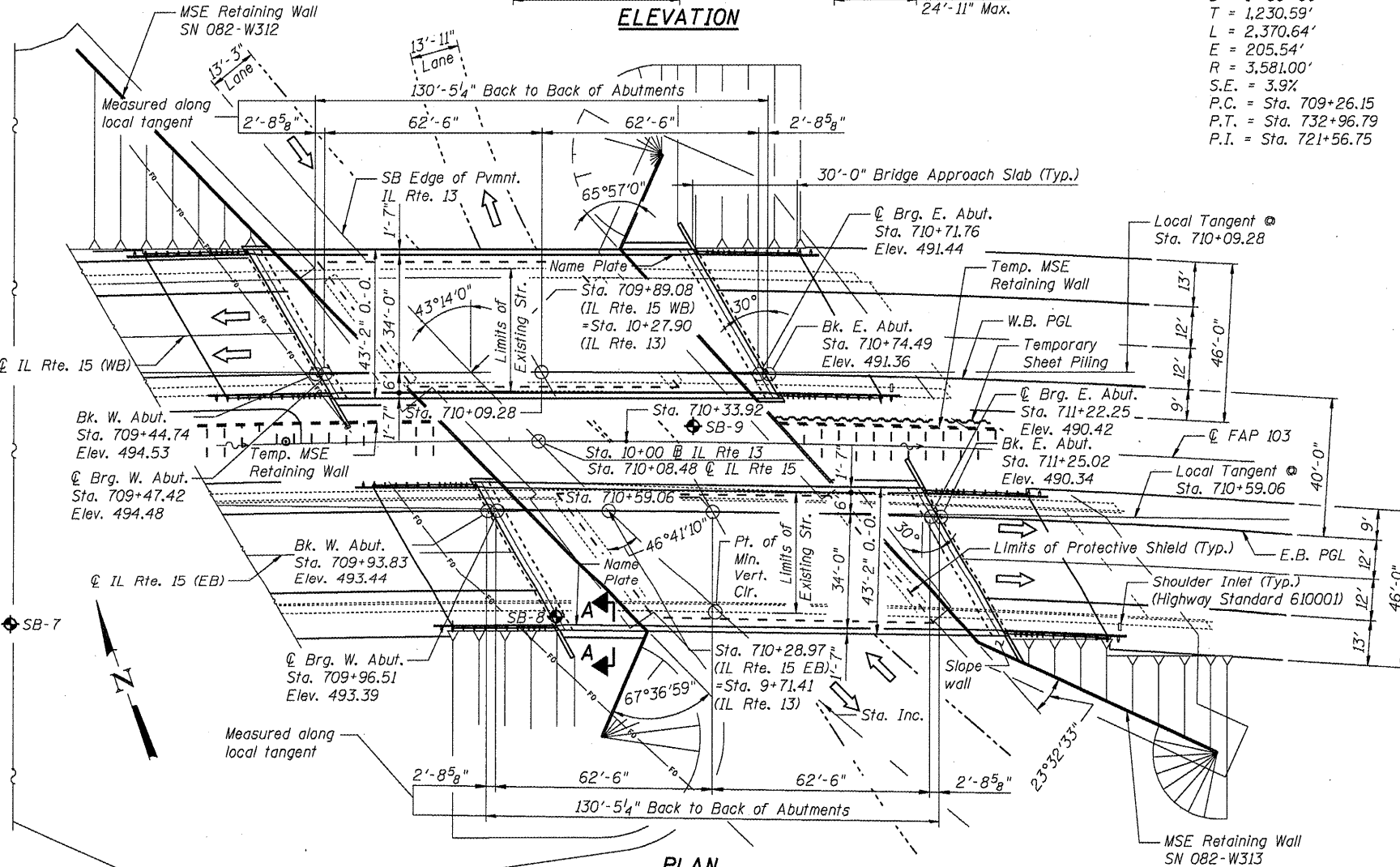
ELEVATION

CURVE DATA

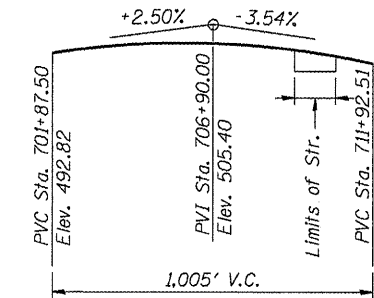
(IL Rte. 15)	(IL Rte. 13)
$\Delta = 37^\circ 55' 48''$ (RT)	$\Delta = 17^\circ 42' 18''$ (RT)
$D = 1^\circ 36' 00''$	$D = 3^\circ 49' 11''$
$T = 1,230.59'$	$T = 233.62'$
$L = 2,370.64'$	$L = 463.52'$
$E = 205.54'$	$E = 18.08'$
$R = 3,581.00'$	$R = 1,500.00'$
$S.E. = 3.9\%$	$S.E. = 3.0\%$
$P.C. = \text{Sta. } 709+26.15$	$P.C. = \text{Sta. } 8+72.98$
$P.T. = \text{Sta. } 732+96.79$	$P.T. = \text{Sta. } 13+36.50$
$P.I. = \text{Sta. } 721+56.75$	$P.I. = \text{Sta. } 11+06.60$



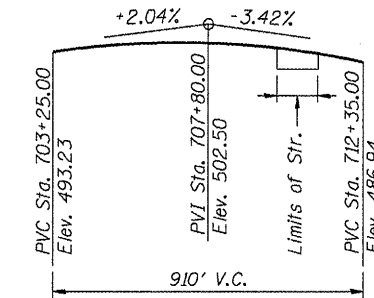
OFFSET SKETCH



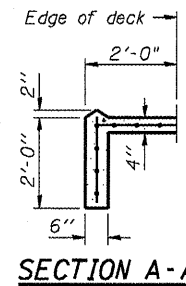
PLAN



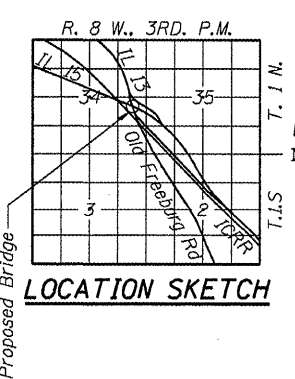
PROFILE GRADE
FAP 103 (IL 15 W.B.)



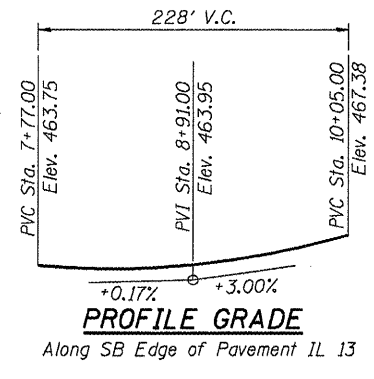
PROFILE GRADE
FAP 103 (IL 15 E.B.)



SECTION A-A



LOCATION SKETCH



PROFILE GRADE
Along SB Edge of Pavement IL 13

DESIGN STRESSES
FIELD UNITS

$f'_c = 3,500$ psi
$f_y = 60,000$ psi (Reinforcement)
PRECAST PRESTRESSED CONC. UNITS
$f'_c = 7,000$ psi
$f'_{ci} = 6,000$ psi
$f_{pu} = 270,000$ psi
$f_{pbt} = 201,960$ psi

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{d1}) = 0.253
Design Spectral Acceleration at 0.2 sec. (S_{d5}) = 0.582
Soil Site Class = D

Approximate Limit of Aggregate Column Ground Improvement See Roadway Plans



Lawrence L. Kirchner
EXPIRES 11/30/2011
10/19/2011

APPROVED
For Structural Adequacy Only
Lawrence L. Kirchner
Engineer of Bridges & Structures

GENERAL PLAN
ILLINOIS ROUTE 15 OVER ILLINOIS ROUTE 13
F.A.P. RTE. 103 - SEC. 27-1-VHB-1
ST. CLAIR COUNTY
STATION 710+33.92
STRUCTURE NO. 082-0119 (EB)
STRUCTURE NO. 082-0120 (WB)

FILE NAME = 0820119-0120-76884-001-001.dgn



USER NAME = brazzera	DESIGNED - MJK	REVISED -
PLOT SCALE = 42.8 1" / IN.	CHECKED - JAN	REVISED -
PLOT DATE = 10/19/2011	DRAWN - MJK	REVISED -
	CHECKED - JAN	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. S-1 OF S-51 SHEETS

F.A.P. RTE. 103	SECTION 27-1-VHB-1	COUNTY ST. CLAIR	TOTAL SHEET NO. 277	SHEET NO. 178
				CONTRACT NO. 76884
ILLINOIS FED. AID PROJECT				