

Bench Mark: Iron Pipe approximately 4' behind outside concrete barrier of Eastbound I-94, approximately 140' southeast of West Abutment, Elevation 602.38.

Existing Structure: Structure No. 016-2436 was constructed in 1970 by the Cook County Department of Highways. The superstructure is a steel wide flange beam bridge with three simple spans, 90'-0 1/16", 68'-3 3/4" and 86'-3 3/16" long, supporting a composite 7" reinforced concrete deck. The end-to-end length of the bridge deck is 260'-6 1/4" with a constant out-to-out deck width of 37'-0". The substructure consists of two closed concrete abutments with concrete wingwalls extending parallel to the Stony Island Connector and two solid wall concrete piers, all supported on concrete piles. The bridge will be replaced using staged construction, maintaining one lane of traffic in each stage.

No salvage.

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications with 2010 Interims

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. (S_{D1}) = 0.0912g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.155g
Soil Site Class = D

DESIGN STRESSES

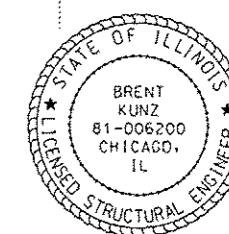
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (AASHTO M270 Grade 50)

SCOPE OF WORK

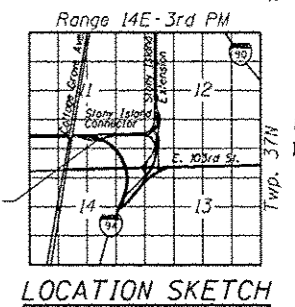
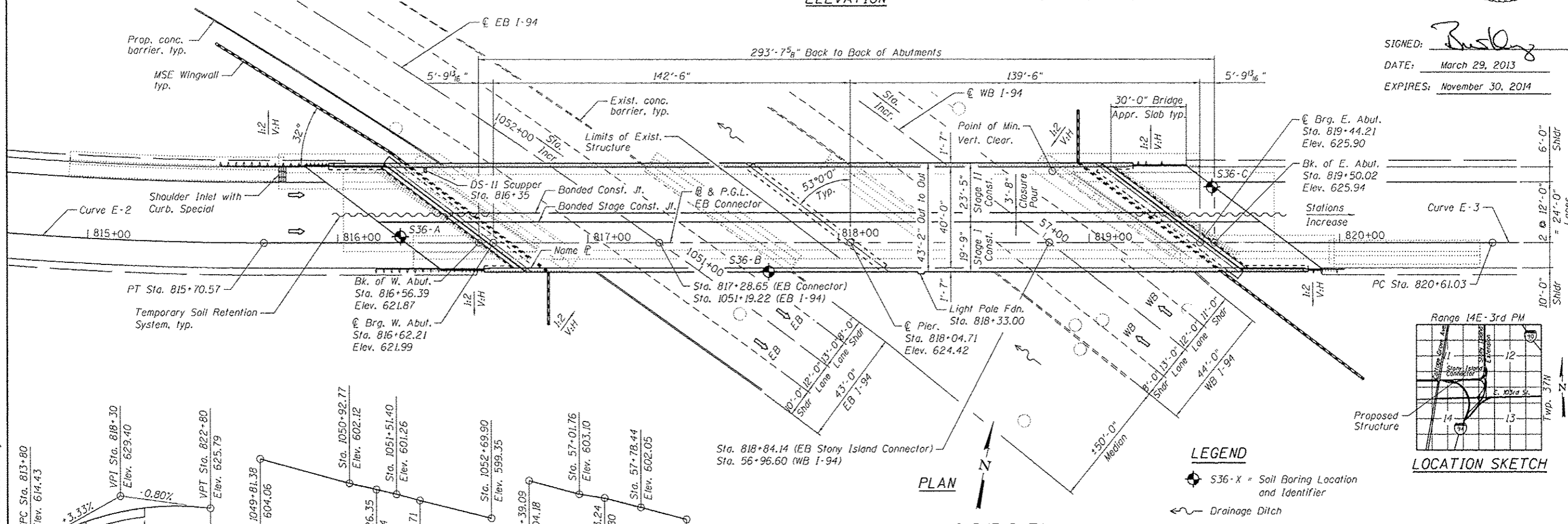
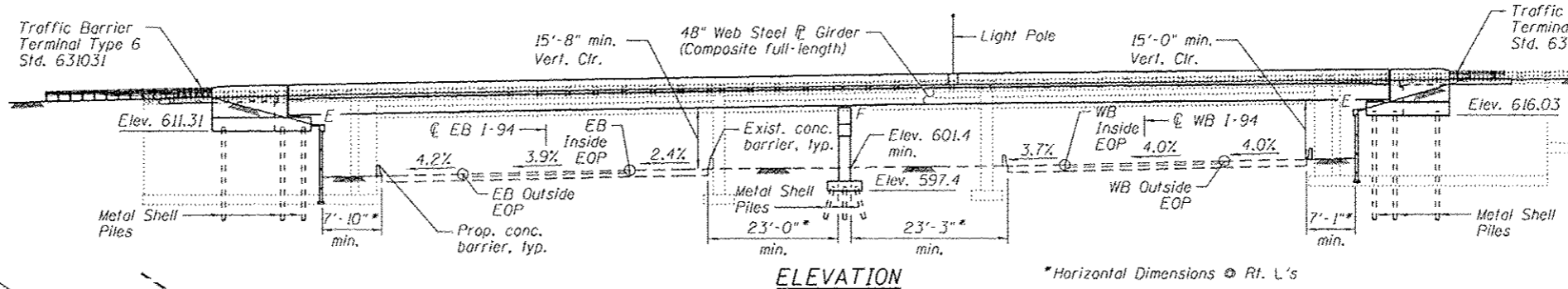
- 1. Remove and replace existing bridge and approach slabs.

APPROVED
For Structural Adequacy Only

Carl Kopyev
Engineer of Bridges & Structures



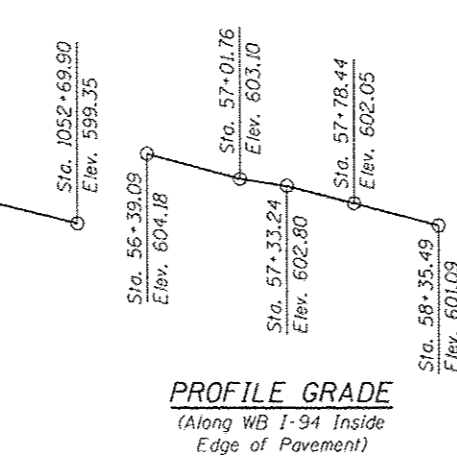
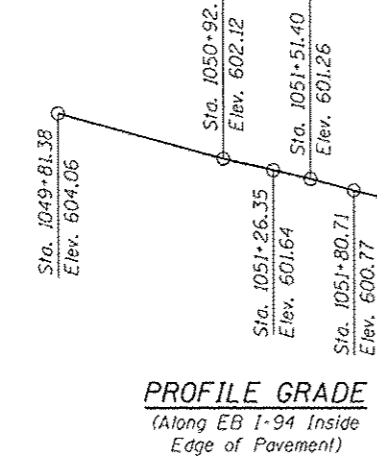
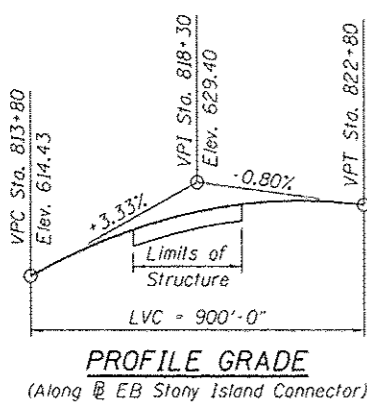
SIGNED: *Brent Kunz*
DATE: March 29, 2013
EXPIRES: November 30, 2014



LEGEND
S36-X = Soil Boring Location and Identifier
— Drainage Ditch

CURVE DATA

Curve	P.I.	Δ	D	R	T	L	E	e	P.C.	P.T.
(@ EB I-94)	Sta. 1049+07.94	113° 05' 28" (LT)	2° 00' 02"	2,864.00'	433.452'	5653.00'	2331.24'	3.9%	Sta. 1005+73.42	Sta. 1062+26.42
(@ WB I-94)	Sta. 57+39.08	117° 00' 14" (LT)	1° 53' 53"	3,018.50'	492.613'	6164.09'	2758.88'	4.0%	Sta. 8+12.95	Sta. 69+77.04
(Curve E-2)	Sta. 811+83.37	34° 42' 59" (LT)	4° 20' 26"	1,320.00'	460.26'	799.81'	62.98'	5.8%	Sta. 807+70.77	Sta. 815+70.57
(Curve E-3)	Sta. 825+21.29	13° 07' 40" (RT)	1° 25' 57"	4,000.00'	460.26'	916.49'	26.39'	3.2%	Sta. 820+61.03	Sta. 829+77.52



Note: The existing Profile Grades for EB and WB I-94 were obtained from survey data.

BOWMAN BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.8100
www.bbainc.com

USER NAME	DESIGNED - TL	REVISIONS
PLLOT SCALE	CHECKED - BAK	REVISIONS
PLLOT DATE - 03/29/2013	DRAWN - TL	REVISIONS
	CHECKED - BAK	REVISIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. S-1 OF S-53 SHEETS

GENERAL PLAN & ELEVATION
EASTBOUND STONY ISLAND CONNECTOR
OVER I-94 (BISHOP FORD FWY)
F.A.I. RTE. 94 - SEC. 2012-059-BR
COOK COUNTY
STATION 18+04.71
STRUCTURE NO. 016-2470

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2012-059-BR	COOK	631	376
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60J12	