

Bench Mark: BM_RR_01: Square cut on light pole foundation at SW corner of Russell Rd. and I-94 NB exit Elev. 742.887.
 BM_RR_02: Square cut on north curb Russell Rd. ± 90 ft west of I-94 SB exit Elev. 753.758.

Existing Structure : S.N. 049-0078 was built in 1959 with two lane roadway under FAI-94 Section 49-1 HB at Sta. 14+52.377. The existing structure has three simple spans, with a length of 151'-5 1/4" back-to-back of abutments, and a constant out-to-out width of 35'-2". The superstructure consists of a 9" thick reinforced concrete deck built composite with 42" deep PPC I-beams. The substructure consists of two stub abutments on concrete piles and two multi-column shoulder piers on spread footings.

The existing bridge is to be removed and replaced. Traffic shall be maintained using a detour.

No Salvage.

APPROVED
 For Structural Adequacy Only
De Carol Kopy
 Engineer of Bridges & Structures

SEISMIC DATA
 Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec. (S_{dl}) = 0.074g
 Design Spectral Acceleration at 0.2 sec. (S_{ds}) = 0.117g
 Soil Site Class = D

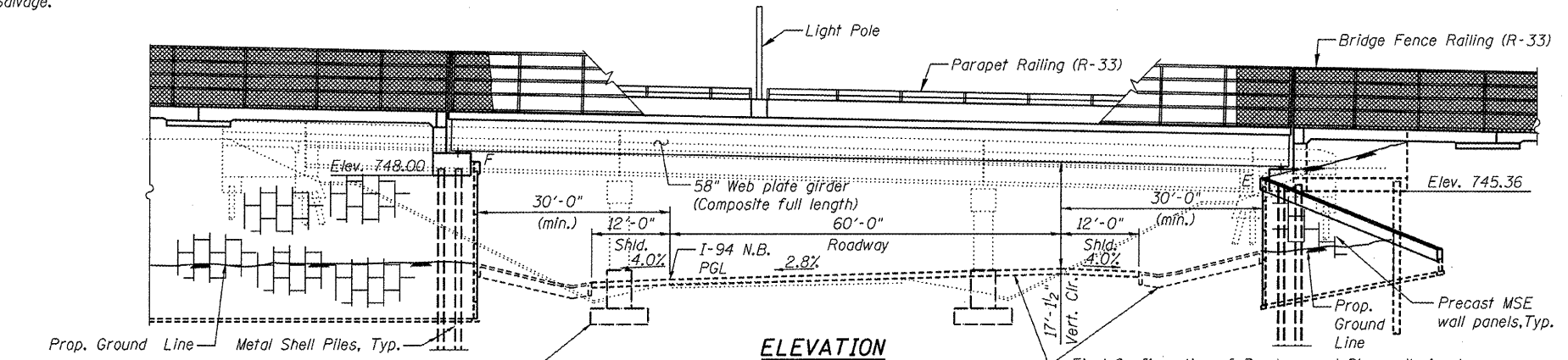
DESIGN SPECIFICATIONS
 2010 AASHTO LRFD Bridge Design Specifications with 2010 Interims
LOADING HL-93
 Allow 50#/sq. ft. for future wearing surface.

DESIGN STRESSES
FIELD UNITS

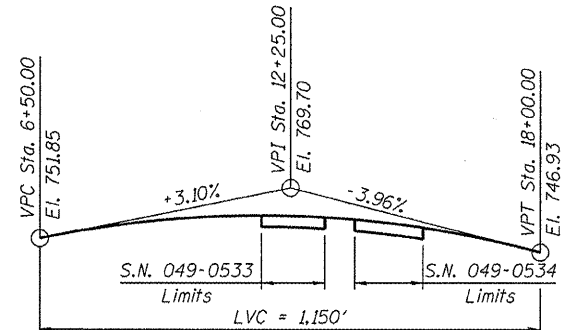
f'c = 3,500 psi
 fy = 60,000 psi (Reinforcement)
 fy = 50,000 psi (AASHTO M270 Grade 50)
 fy = 36,000 psi (AASHTO M270 Grade 36)

CURVE DATA
 (NB I-94)

P.I. = Sta. 4094+52.48
 Δ = 15° 57' 58" (LT)
 D = 0° 45' 08"
 R = 7,617.18'
 L = 2,122.61'
 T = 1,068.23'
 e = 2.8%
 P.C. STA. = 4083+84.25
 P.T. STA. = 4105+06.86

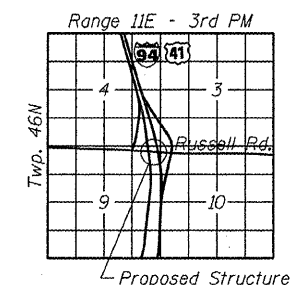


ELEVATION
 Horizontal Dimensions @ Rt. L's



PROFILE GRADE
 (Russell Rd.)

PROFILE GRADE
 (Northbound I-94)



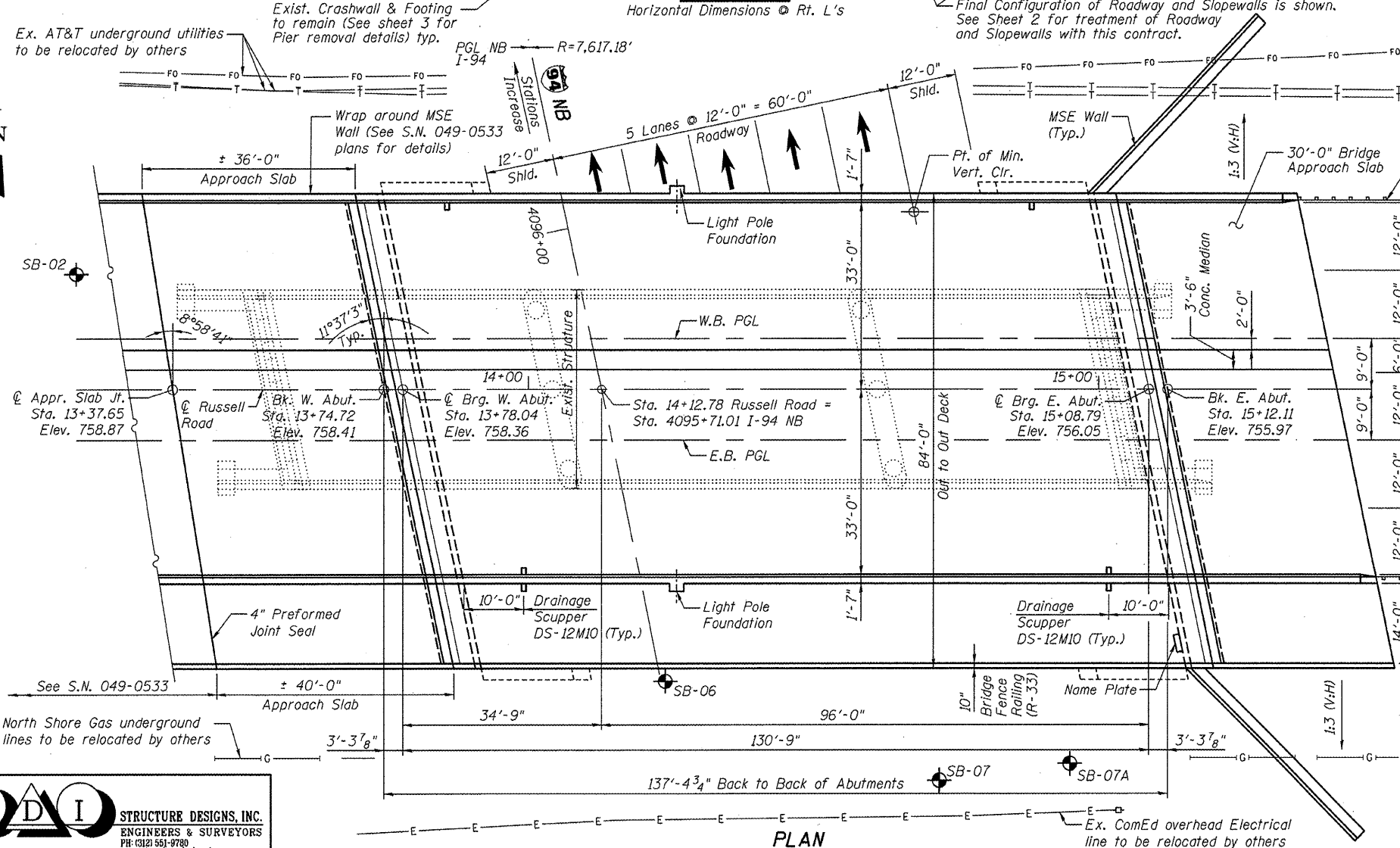
LOCATION SKETCH



SIGNED: *Brian L. Umbright*
 DATE: December 13, 2011
 EXPIRES: November 30, 2012
 SHEETS: 3, 11-13 & 20-31



Signed: *Olufemi A. Oladeinde* 01/16/2012
 OLUFEMI A. OLADEINDE, P.E., S.E. Date
 LICENSE EXPIRES 11-30-2012
 SHEETS: 1, 2, 4-10 & 14-19



PLAN

NAME PLATE
 See Std. 515001

GENERAL PLAN & ELEVATION
RUSSELL ROAD OVER NORTHBOUND I-94
F.A.U. RTE. 1199 - SEC. 49-1(HB & HB-1R)
LAKE COUNTY
STATION 14+12.78
STRUCTURE NO. 049-0534



FILE NAME =	USER NAME =	DESIGNED - LRT / AG	REVISED -
		CHECKED - OAO / LRT	REVISED -
		DRAWN - TCS / AG	REVISED -
		CHECKED - AG	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 31 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1199	49-1(HB & HB-1R)	LAKE	225	148
				CONTRACT NO. 60L76
ILLINOIS FED. AID PROJECT				