

Benchmark: Chiseled "□" on NW wingwall of S.N. 099-0183. Elev. 728.94.

Existing Structure: The existing structure, number 099-0183, originally built in 1969 as F.A. Route 122, section 0910-B. The structure was rehabilitated in 1974 as F.A. Route 122, section 0910-B. The existing structure consists of three span bridge, with reinforced concrete deck on continuous wide flange steel beams supported by pile bent abutments and multi-column piers. The existing structure is 128 ft. back-to-back of abutments and 42 ft. out-to-out of deck. The existing deck and concrete parapets to be removed and replaced. Traffic will be crossed over to northbound bridge (S.N. 099-0147) during construction.

Salvage: No salvage

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE
INFORMATION

Inventory: HS 21.7
Operating: HS 33.9
Live Load Restrictions: No

Inventory and Operating Ratings and Live Load Restrictions are provided for information only. Inventory and Operating Ratings are based on HS loading and configuration. Live Load Restrictions are based on Illinois legal loads and configurations. The Ratings and Live Load Restrictions are not necessarily representative of capacities to support the Contractor's equipment.

LOADING HS20-44

Allow 25#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2002 AASHTO Standard
Specifications for Highway Bridges
1995 FHWA Seismic Retrofitting
Manual for Highway Bridges

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 36,000$ psi (M270 Grade 36)

EXISTING

$f'_c = 3,500$ psi (Concrete)
 $f_c = 1,400$ psi (Concrete, Without Earth Pressure)
 $f_c = 1,000$ psi (Concrete, With Earth Pressure)
 $f_s = 20,000$ psi (Reinforcement)
 $f_s = 20,000$ psi (Structural Steel)
 $n = 10$

SEISMIC DATA

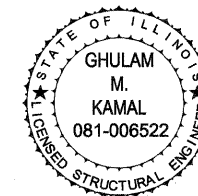
Seismic Performance Zone (SPZ) = A
Horizontal Bedrock Acceleration Coefficient (A) = 0.042g
Site Coefficient (S) = 1.0

CURVE DATA

(@ IL Route 394)
 $\Delta = 39^\circ 01' 56''$ (RT)
 $D = 0.718^\circ$
 $T = 2827.40'$
 $L = 5434.40'$
 $E = 486.25'$
 $R = 7977.22'$
S.E. = 2.0%
P.C. = Sta. 2+74.87
P.T. = Sta. 57+09.27
P.I. = Sta. 31+02.27

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APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

9/23/09

Ghulam M. Kamal
Licensed Structural Engineer
State of Illinois
Lic. No. 081-006522
Expires: 11-30-2010

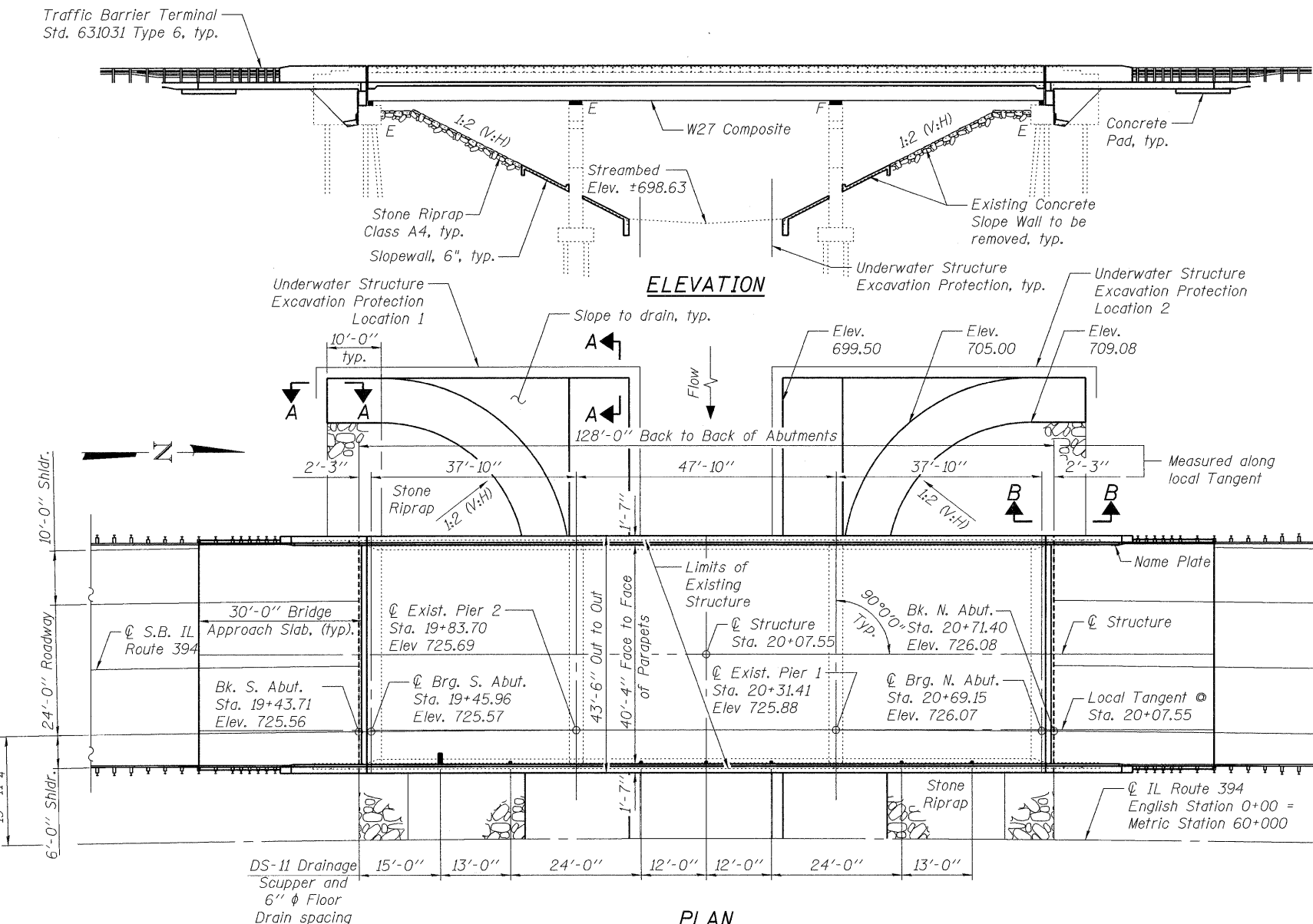
STATION 20+07.55
RE-BUILT 20 BY
STATE OF ILLINOIS
F.A. RTE. 332 SEC. 9B-1
LOADING HS20
STR. NO. 099-0183

NAME PLATE

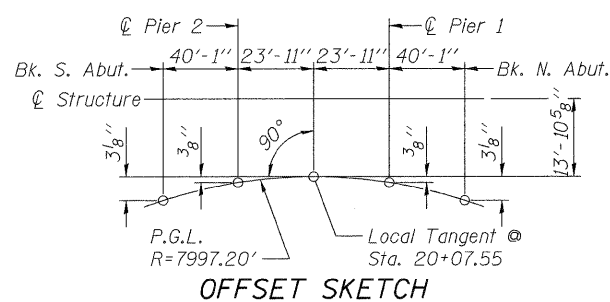
Locate Name Plate at Northwest
Corner of Bridge (See Std. 515001)

Note:
Existing name plate shall be cleaned
and relocated next to the new name plate.
Cost included with name plates.

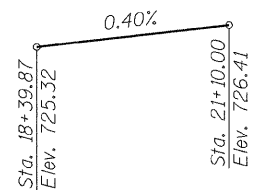
GENERAL PLAN
SOUTHBOUND ILLINOIS ROUTE 394 OVER PLUM CREEK
F.A.P. ROUTE 332 - SECTION 2002-113R
WILL COUNTY
STATION 20+07.55
STRUCTURE NO. 099-0183



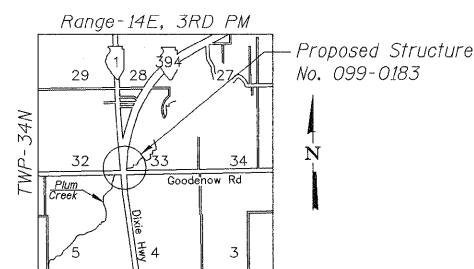
See Sheet 2 of 23 for sections A-A and B-B



OFFSET SKETCH



PROFILE GRADE
(along SB IL-394 P.G.L.)



LOCATION SKETCH

DESIGNED	SK/GMK/LCM
CHECKED	GBC/GMK/SMK
DRAWN	RR/LCM/SK
CHECKED	GBC/GMK/SMK

Delta Engineering, Inc.
CONSULTING ENGINEERS, CONSTRUCTION MANAGERS, SURVEYORS
111 N. JACKSON BLVD. SUITE 900 CHICAGO, IL 60604-2001

SHEET NO. 1 23 SHEETS	F.A.P. RTE. 332	SECTION 2002-113R	COUNTY WILL	TOTAL SHEETS	SHEET NO. 172
	SN-099-0183		CONTRACT NO.	62542	
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT		