

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 549	*	MACON	52	21

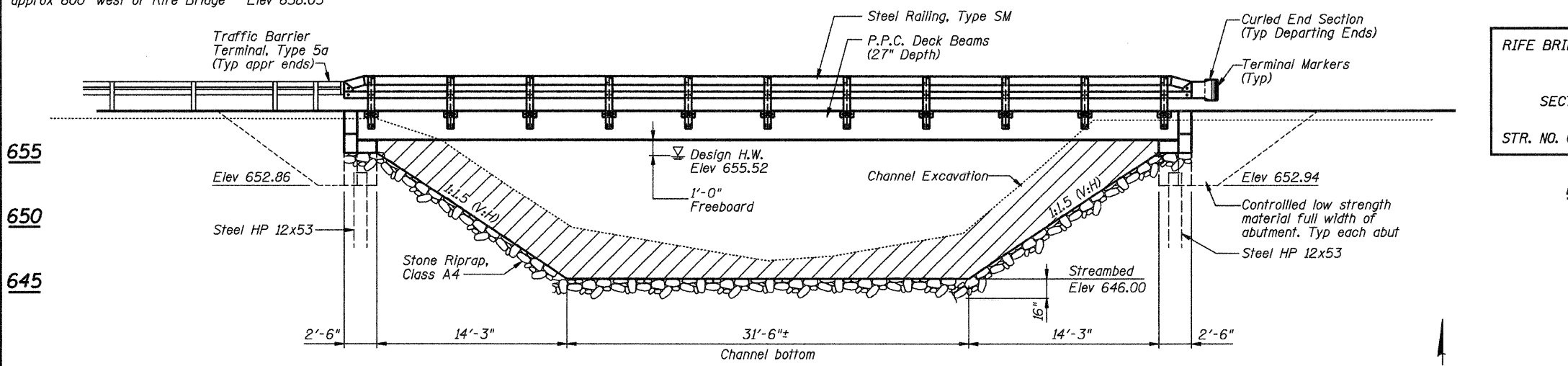
Sheet No. 1 of 8 Sheets

*03-00184-00-BR

Bench Mark:
4901-2 RR spike in power pole on N side of CH 20 approx 120' east of Rife Bridge Elev 657.59
4901-3 RR spike in power pole on N side of CH 20 approx 600' west of Rife Bridge Elev 658.03

Existing Structure:
Single span precast deck beams on timber pile bent closed abutments.

Road to be closed during construction.



RIFE BRIDGE OVER STEVENS CREEK
BUILT 20 BY
MACON COUNTY
SECTION 03-00184-00-BR
STA 30+55.00
STR. NO. 058-3371 LOADING HL93

NAME PLATE
See Std. 515001

LOADING HL93
Allow 50 lb/sq. ft. for future wearing surface.

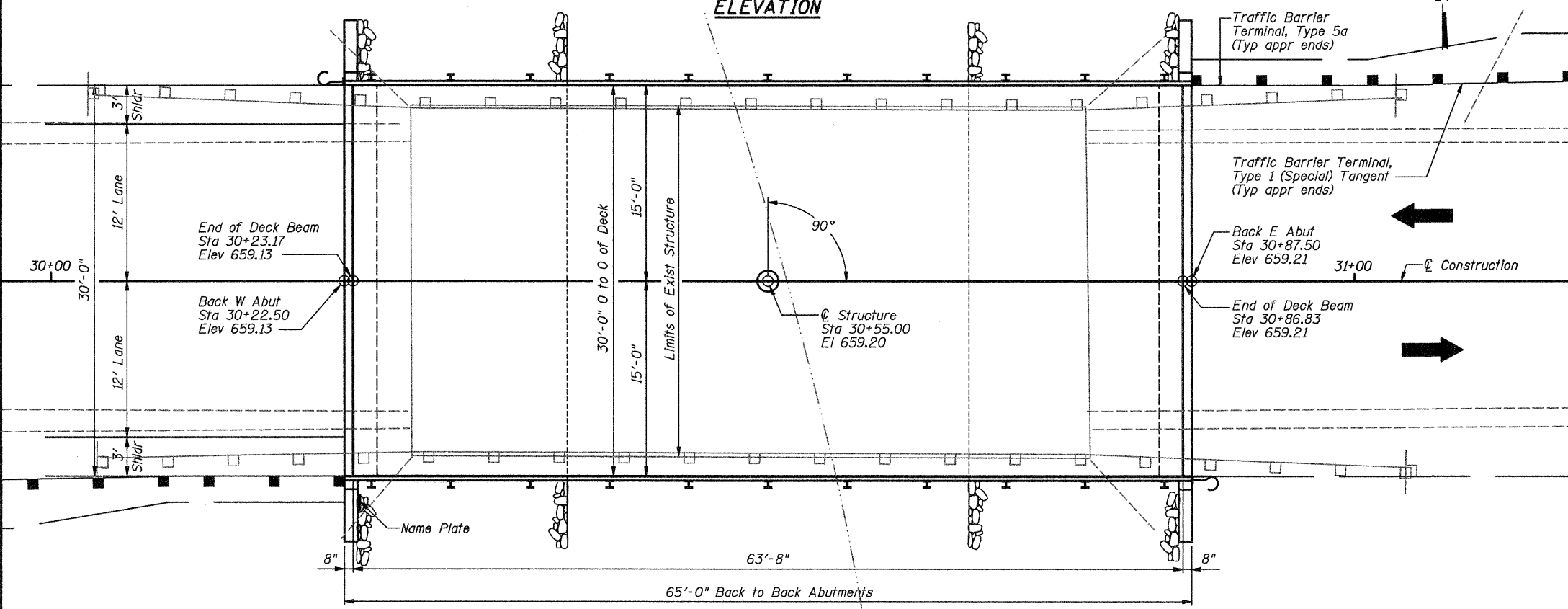
DESIGN SPECIFICATIONS
2007 LRFD Bridge Design Specifications with 2008 Interims

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (reinforcement)

PRECAST PRESTRESSED UNITS
f'c = 6,000 psi
f'ci = 5,000 psi
f's = 270,000 psi (1/2" φ low relaxation strands)
f'si = 202,000 psi (1/2" φ low relaxation strands)

SEISMIC DATA
Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.15 g
Design Spectral Acceleration at 0.2 sec. (S_{Ds}) = 0.26 g
Soil Site Class = D



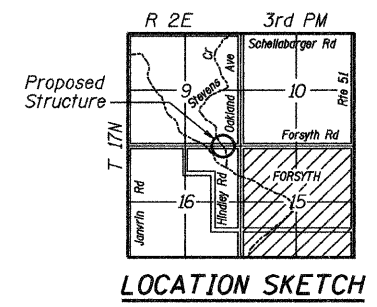
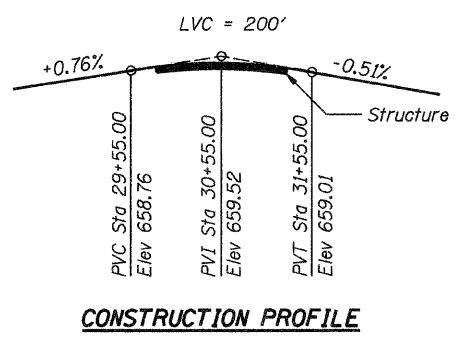
STEVENS CREEK WATERWAY INFORMATION

Drainage Area = 30.29 sq mi Low Grade Elev. 657.04 @ Sta. 26+50

Flood	Freq. Yr.	C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	30	3061	312	485	655.52	1.72	1.40	657.24	656.92
Base	42	3061	312	-	655.52	1.72	-	657.24	-
Overtopping	56	4000	312	497	656.09	1.66	1.50	657.75	657.59
Max. Calc.	100	4545	-	497	656.38	-	1.86	-	658.24

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Abut. No. 1	Abut. No. 2
	649.86	649.94



DATE: 11/02/09
EXP: 11/30/10

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 THE REQUIREMENTS OF THE CURRENT "AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES."

CH 20 OVER STEVENS CREEK

GENERAL PLAN AND ELEVATION

REVISIONS	CH 20	SECTION 03-00184-00-BR	DRN BY DATE
No. DATE INITIALS	MACON	SN 058-3371	R KING 6/09
1		COUNTY	CHECKED BY DATE
2			JMB 6/09
3			BOOK NUMBER
4			
5			PROJECT NO.
6			4901
7			SHEET NO.
8			
9			
10			

HOMER L. CHASTAIN & ASSOCIATES, LLP
CONSULTING ENGINEERS
184-00197

DECATUR CHICAGO
617-423-8644 0770 714-0660

ROCKFORD
(815) 489-0050