

Bench Mark BM 5127-1:
Found chiseled square on
NE wingwall of bridge
Elev 622.83

Bench Mark BM 5127-2:
Set chiseled square on
SW wingwall of bridge
Elev 621.93

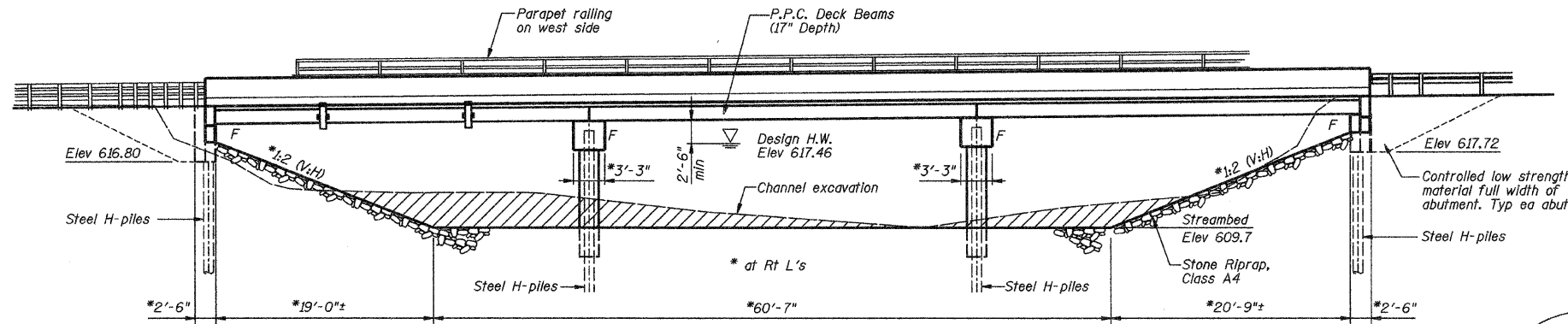
Existing Structure:
Three span precast channel deck beams on timber
pile bent abutments and concrete pile bent piers

INDEX OF SHEETS

- 1 General Plan And Elevation
- 2 Deck Plan And Cross Section
- 3-4 Superstructure Details
- 5-6 17"x36" PPC Deck Beam Details
- 7 Bicycle Rail Details
- 8 South Abutment Details
- 9 North Abutment Details
- 10 Pier No. 1 Details
- 11 Pier No. 2 Details
- 12 Steel HP Pile Details

GENERAL NOTES:

For Boring Data see Special Provisions.
Reinforcement bars shall conform to the requirements of
ASTM A706, Grade 60. See Special Provisions.
Layout of the slope protection system may be varied to suit
ground conditions as directed by the Engineer.
All Construction joints shall be bonded.
See Roadway Plans for channel excavation limits and quantities.
See Roadway Plans for additional riprap limits and quantities.
See Roadway Plans for traffic barrier terminal type and location.



**FINLEY CREEK BRIDGE
BUILT 20 BY
MACON COUNTY
SECTION 05-00198-00-BR
STA 26+00.19
SN 058-3388 LOADING HL93**

LOADING HL 93

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

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications

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

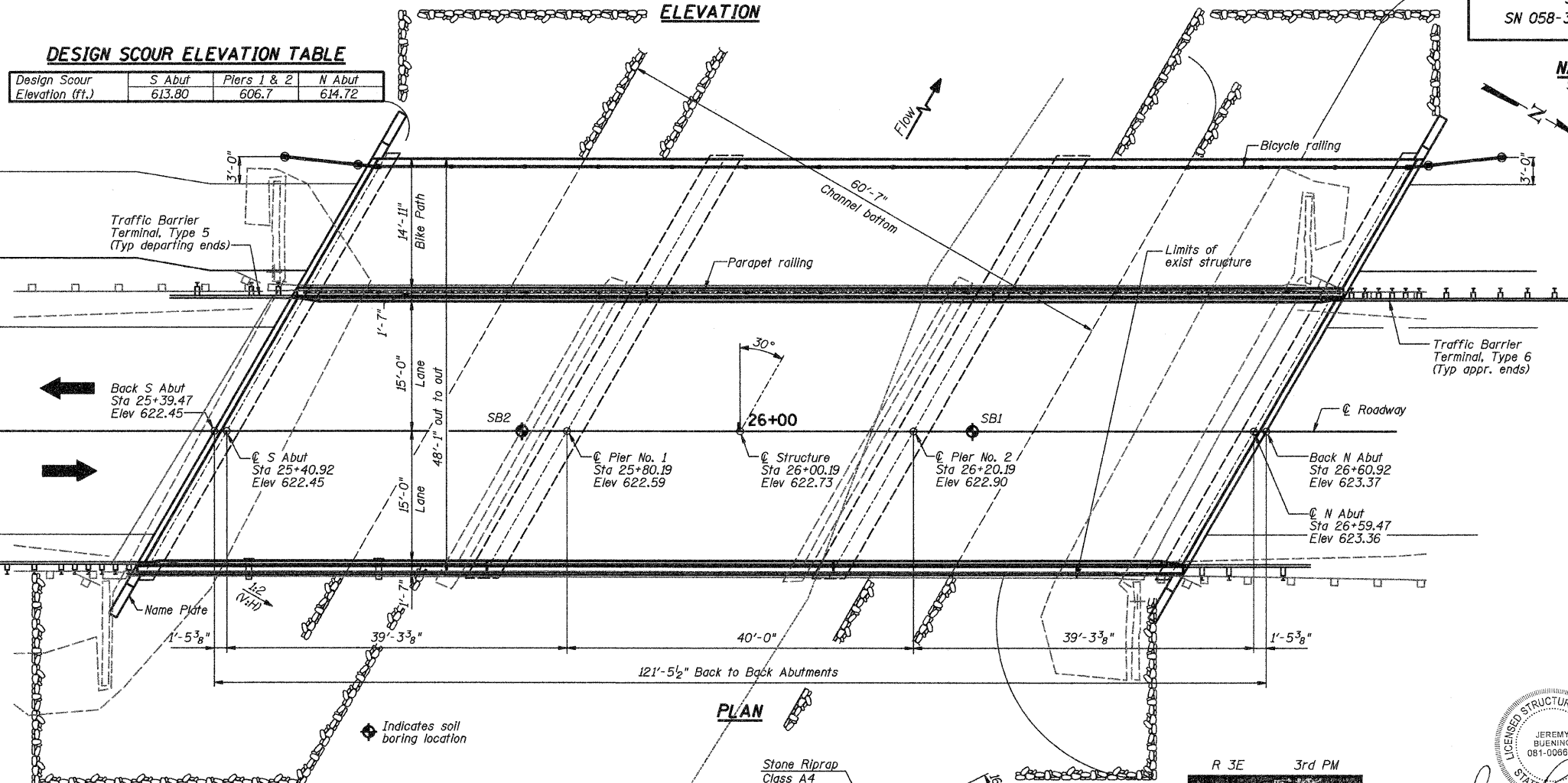
Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.111 g
Design Spectral Acceleration at 0.2 sec. (SDs) = 0.204 g
Soil Site Class = C

TOTAL BILL OF MATERIAL

Item	Unit	Quantity
Removal of Existing Structures	Each	1
Structure Excavation	Cu Yd	110
Concrete Structures	Cu Yd	89.0
Concrete Superstructures	Cu Yd	28.3
Concrete Wearing Surface, 5"	Sq Yd	639.6
Bridge Deck Grooving	Sq Yd	378
Protective Coat	Sq Yd	710
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq Ft	5748
Reinforcement Bars, Epoxy Coated	Pound	21,700
Furnishing Steel Piles HP10x42	Foot	1265
Driving Piles	Foot	1265
Test Pile Steel HP10x42	Each	2
Name Plates	Each	1
Underwater Structure Excavation Protection - Location 1	Each	1
Underwater Structure Excavation Protection - Location 2	Each	1
Asbestos Bearing Pad Removal	Each	40
Bicycle Railing, Special	Foot	140
Controlled Low-Strength Material	Cu Yd	74.8
Parapet Railing	Foot	120
Concrete Encasement	Cu Yd	30.2

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	S Abut	Piers 1 & 2	N Abut
	613.80	606.7	614.72

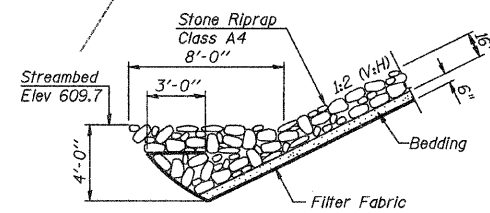


WATERWAY INFORMATION AT 153' UPSTREAM

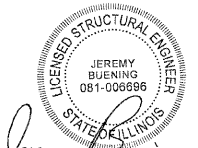
Drainage Area = 27.02 sq mi Low Grade Elev. 622.43 @ Sta. 25+36.91

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.		Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	30	2944	461	596	617.46	0.73	0.45	618.19	617.91	
Base	100	3856	724	894	621.04	0.40	0.24	621.44	621.28	
Max. Calc.	500	5171	724	894	621.66	0.72	0.44	622.38	622.10	

PLAN

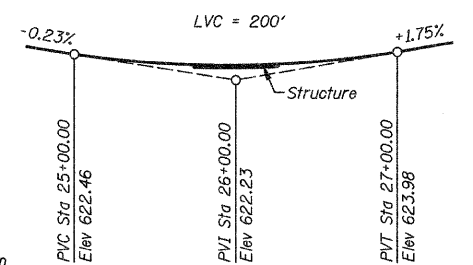


STONE RIPRAP ANCHOR DETAIL



Jeremy Buening, P.E., S.E.
License Expires 11/30/12
Date 4/18/11

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 requirements of the current AASHTO Standard Specifications for Highway Bridges.



CONSTRUCTION PROFILE

FILE NAME = I:\Municipalities\Macon County\5127 Finley Creek Bridge\CADD\Structural\Revised\gpk	USER NAME = rkung	DESIGNED ACB	REVISED -		DECATUR (217) 422-8544	<table border="1"> <thead> <tr> <th>F.A.S. RTE.</th> <th>SECTION</th> <th>COUNTY</th> <th>TOTAL SHEETS</th> <th>SHEET NO.</th> </tr> </thead> <tbody> <tr> <td>CH 7</td> <td>05-00198-BR</td> <td>MACON</td> <td>29</td> <td>7</td> </tr> </tbody> </table>	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	CH 7	05-00198-BR	MACON	29	7
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS		SHEET NO.											
CH 7	05-00198-BR	MACON	29		7											
PLOT SCALE = 8x10.0000 "/ IN.	DRAWN RLK	REVISED -	CHICAGO (773) 714-0050													
PLOT DATE = 4/18/2011	CHECKED JMB	REVISED -	ROCKFORD (815) 489-0050													
	DATE 1-11-11	REVISED -	184-001397													
<p align="center">GENERAL PLAN AND ELEVATION BALTIMORE AVE (CH 7) OVER FINLEY CREEK</p>					<table border="1"> <thead> <tr> <th>SCALE:</th> <th>SHEET NO. 1 OF 12 SHEETS</th> <th>STA.</th> <th>TO STA.</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	SCALE:	SHEET NO. 1 OF 12 SHEETS	STA.	TO STA.							
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