93371

FAS RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
732	•	MACOUPIN	15	4
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

•02-00083-00-BR

B.M. #1: Chiseled Square in S.W. Wingwall, 16.9' Rt. Sta. 9+77, Elev. 626.85
Existing Structure: S.N. 059-3003 at Sta. 10+00 single span reinforced concrete slab with concrete parapets on closed concrete abutments, 20.1' face to face parapets, 38.7' fc. to fc. abutments. The Contractor shall remove the superstructure completely and the abutment walls to 1' below the proposed ground surface.
No salvage

GENERAL NOTES

Reinforcement bars shall conform to the requirements of AASHTO M 31, M 42 or M 53 Grade 60.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

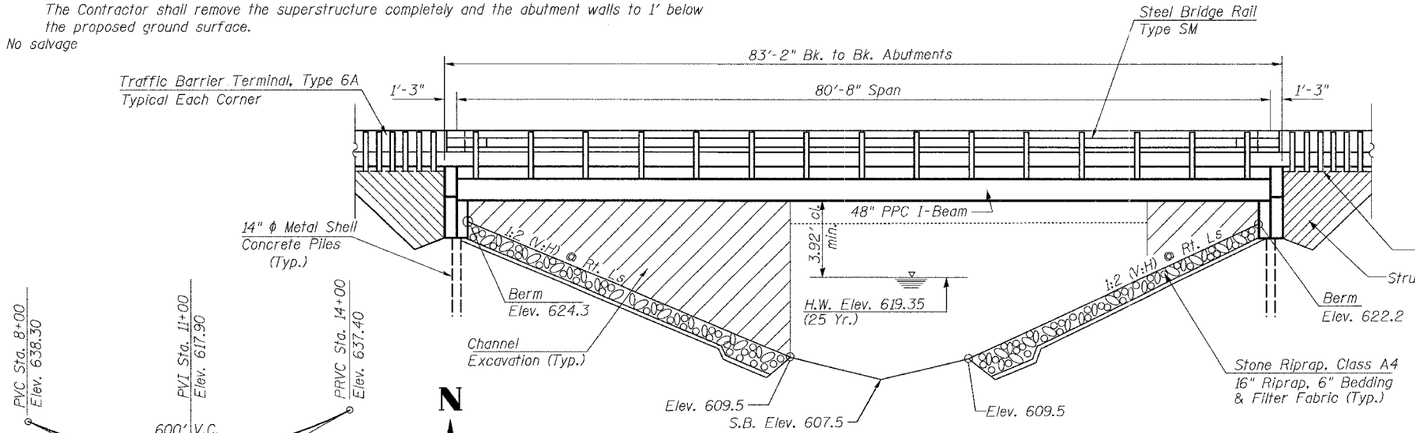
The contractor shall drive one 14" φ metal shell test pile in a permanent location at each abutment as directed by the Engineer before ordering the remainder of the piles.

Class SI Concrete shall be used throughout.

All reinforcement bars shall be lapped as shown on the plans.

The Standard Specifications adopted by the Department of Transportation January 1, 2002 shall apply to this work.

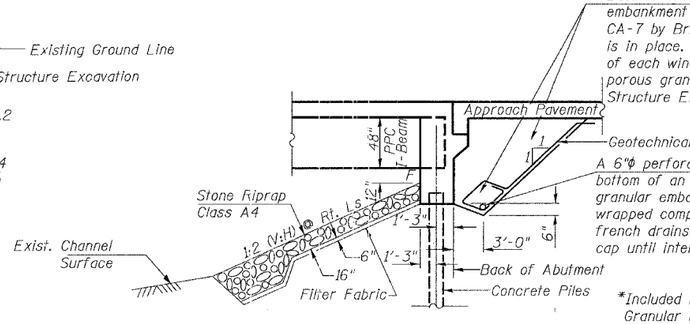
See proposal for Borings.



ELEVATION

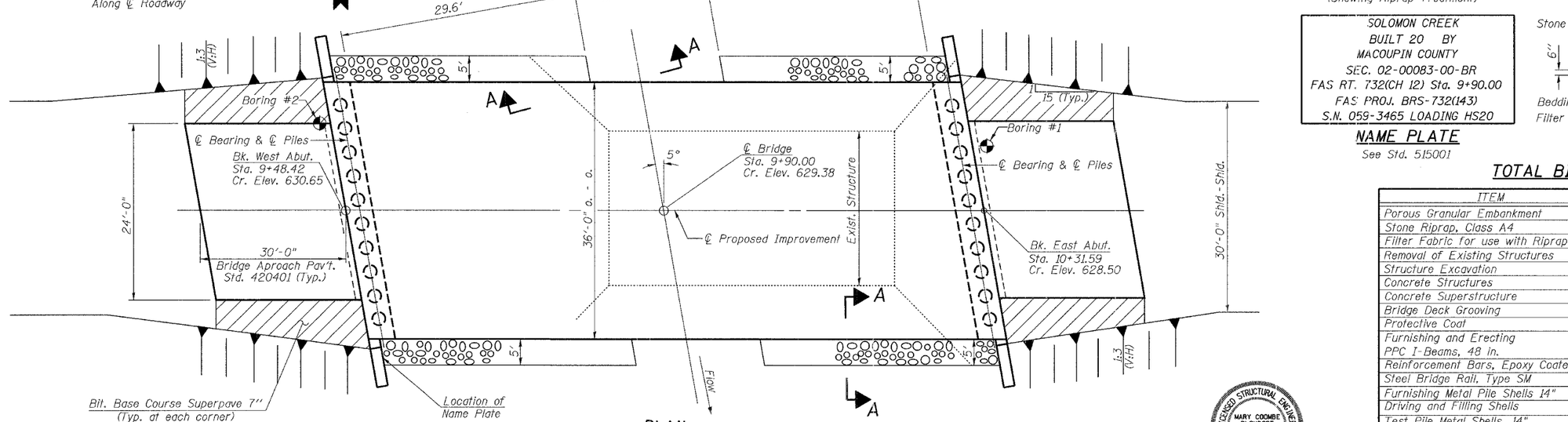
PROFILE GRADE

Along ℄ Roadway



SECTION THRU INTEGRAL ABUTMENT

(Showing Riprap Treatment)

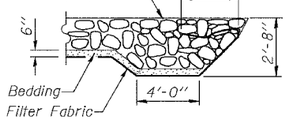


PLAN

SOLOMON CREEK
BUILT 20 BY
MACOUPIN COUNTY
SEC. 02-00083-00-BR
FAS RT. 732(CH 12) Sta. 9+90.00
FAS PROJ. BRS-732(143)
S.N. 059-3465 LOADING HS20

NAME PLATE

See Std. 515001



SECTION A-A

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment	Cu. Yd.			200
Stone Riprap, Class A4	Sq. Yd.			319
Filter Fabric for use with Riprap	Sq. Yd.			319
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		172	172
Concrete Structures	Cu. Yd.		32.4	32.4
Concrete Superstructure	Cu. Yd.	108.3		108.3
Bridge Deck Grooving	Sq. Yd.	333		333
Protective Coat	Sq. Yd.	333		333
Furnishing and Erecting PPC I-Beams, 48 in.	Foot	492		492
Reinforcement Bars, Epoxy Coated	Pound	17460	4060	21520
Steel Bridge Rail, Type SM	Foot	167		167
Furnishing Metal Pile Shells 14"	Foot		720	720
Driving and Filling Shells	Foot		720	720
Test Pile Metal Shells, 14"	Each		2	2
Name Plates	Each	1		1
Bar Splicers	Each	48		48

WATERWAY INFORMATION

Drainage Area = 7.58 Low Grade Elev. 627.88 @ Sta. 11+00 Max. Rec. H.W.E.

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head-Ft. Exist.	Head-Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	25	1945	308	390	619.35	0.81	0.23	620.16	619.58
* Base	100	2635	342	442	620.23	1.52	0.64	621.75	620.87
Max. Calc.	500	3455	379	501	621.19	2.36	1.1	623.55	622.29

* = Overtopping

DESIGN SPECIFICATIONS

2002 AASHTO & INTERIMS

LOADING HS20

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

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi

f_y = 60,000 psi (reinforcement)

PRECAST PRESTRESSED UNITS

f'_c = 6,000 psi

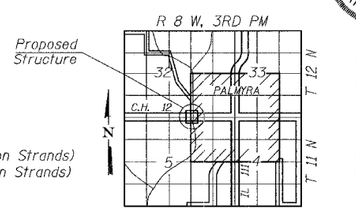
f'_{ci} = 5,000 psi

f'_s = 270,000 psi (½" φ Low Relaxation Strands)

f_{si} = 201,960 psi (½" φ Low Relaxation Strands)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.055g
Site Coefficient (S) = 1.5



LOCATION SKETCH

LICENSED STRUCTURAL ENGINEER
MARY COOMBE BLOXDORF
4859
SPRINGFIELD
STATE OF ILLINOIS

I certify 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.

Mary Coombe Bloxdorf
Illinois Structural No. 4859
Expires 11-30-06
Date: 2/16/05

SHEET TITLE
GENERAL PLAN AND ELEVATION

PROJECT
C.H. 12 OVER SOLOMON CREEK
FAS ROUTE 732 SEC. 02-00083-00-BR
MACOUPIN COUNTY
STATION 9+90.00
STRUCTURE NUMBER 059-3465

PROJECT NO. 03016
SCALE
DATE 2/16/04
DRAWN BY TFG
CHECKED BY MRL/REG/MCB
DRAWING NO. 4
OF 15 SHTS

COOMBE-BLOXDORF P.C.
Engineers / Land Surveyors
Springfield, Illinois
Design Firm License No. 184-002703

gen-plan