

B.M. TA-219; Chiseled "□" in SE wingwall of SN 034-0053,
0.55 mi. east of TR 2200E. Elev. 603.40 (183.917 m)

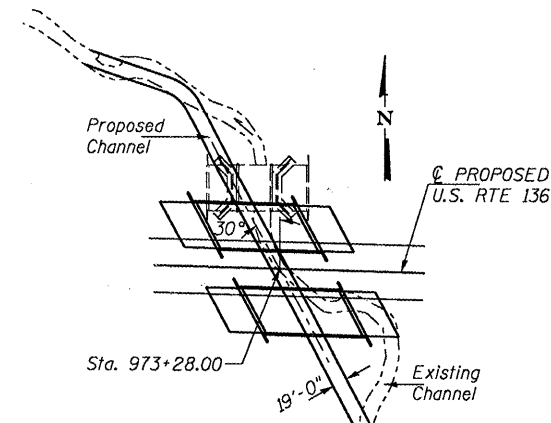
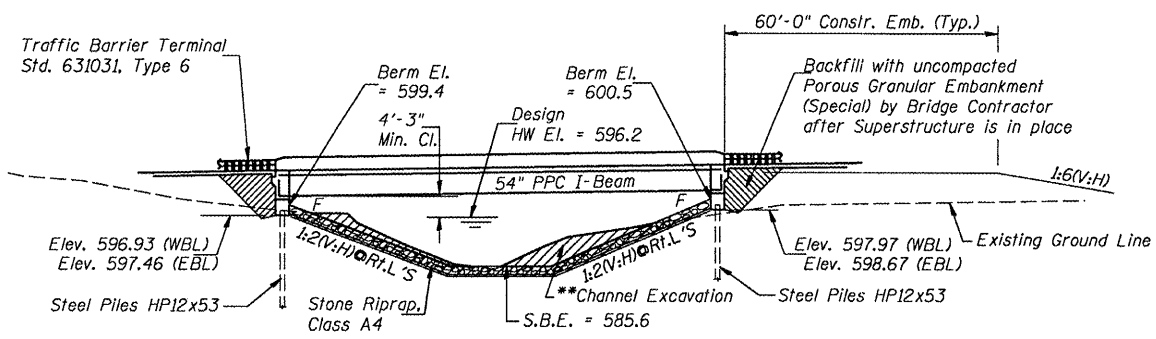
EXISTING STRUCTURE

SN 034-0053 Built as FA Route 53, Section 26-BR
In 1981. A three span prestressed concrete deck
beam superstructure, 95'-0" back to back abutments
and 42'-0" o. to o. deck. Existing structure to be
removed.
No Salvage

CONSTRUCTION SEQUENCE

Two-way traffic to be maintained on existing structure.
To accomplish this, centerline will be shifted,
temporary concrete barrier will be placed on the 5th beam
from the south and the 4 beams will be removed
on the south side. New structures will be constructed,
except for north wings of abutments. The traffic will
be shifted after completion of both structures. Remove
the remainder of existing structure and construct north
wingwalls of westbound structure.
Proposed channel change shall be completed after
removal of the existing structure.

** For quantity of Channel Excavation
See Roadway Plans.

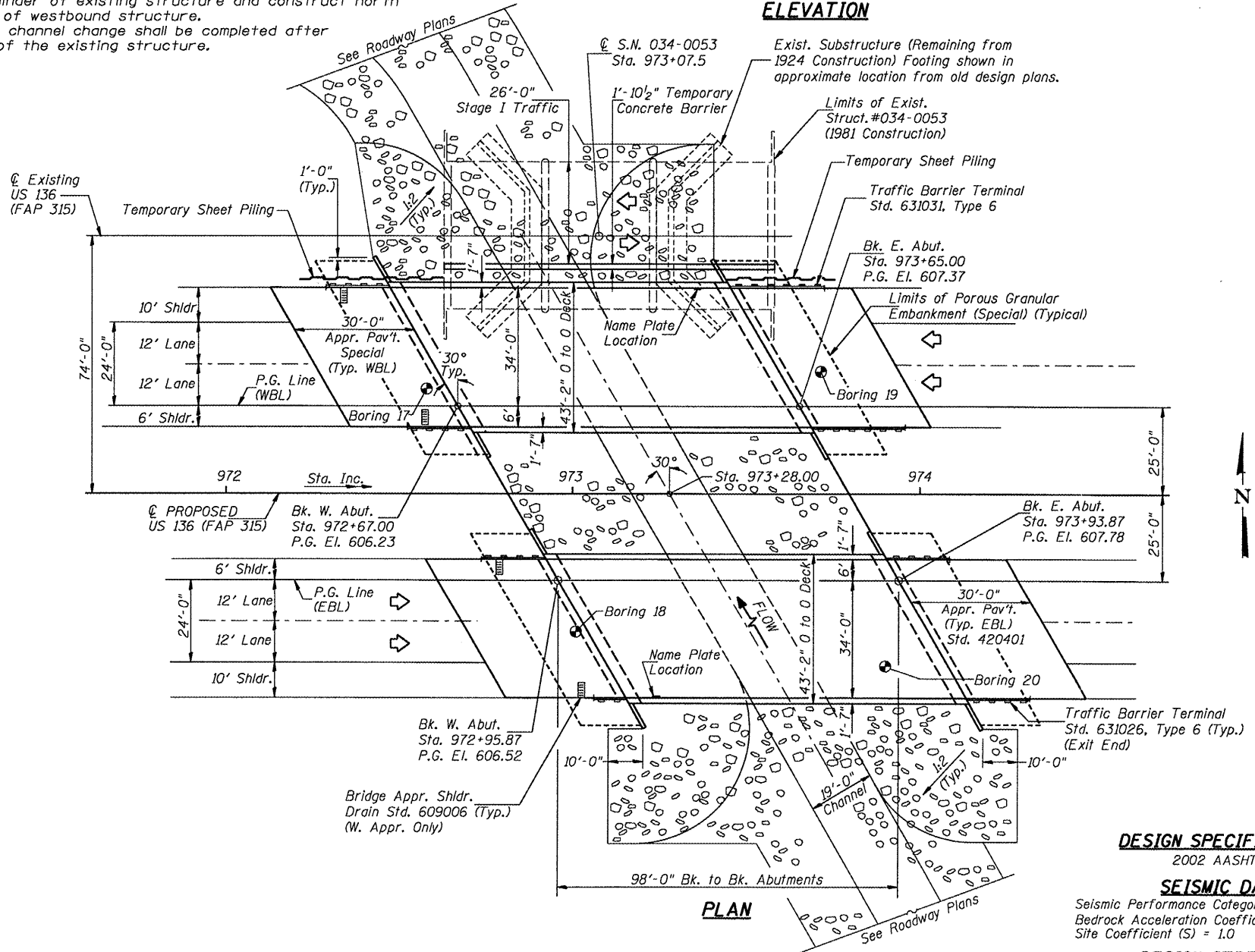


ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 315	*	HANCOCK	452	178
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT	* 34-4B	

D-96-551-02
CONTRACT NO. 72680

INDEX TO SHEETS

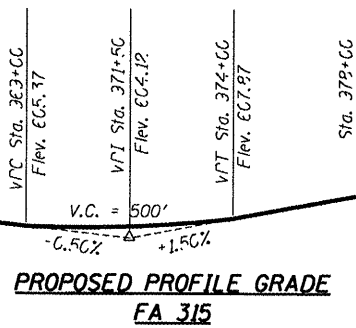
SHEET #'s	DESCRIPTION
1	General Plan
2-3	Staging Details
4	Footing Layout, General Notes
5-7	Top of Slab Elevs
8	Superstructure
9	Superstructure Details
10	PPC I-Beam
11	Framing Plan
12	Abutment Diaphragms
13	West Abutment WBL
14	East Abutment WBL
15	West Abutment EBL
16	East Abutment EBL
17	Bar Splicer Details
18-21	Boring Logs



STATION 973+28.00
BUILT BY
STATE OF ILLINOIS
F.A.P. RT. 315 SEC. 34-4B
LOADING HS20
STR. NO. 034-....

NAME PLATE
(See Std. 515001)

* STR. NO. 034-0506 (WBL)
* STR. NO. 034-0507 (EBL)



For General Notes, See Sheet 4 of 21.
Stone Riprap and Filter Fabric details are shown on
Sh# 4 of 21 of the Bridge Plans.
For Riprap Layout on Channel See Roadway Plans.
Quantities shown are the total for Prairie Creek.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures	EACH	-	-	1
Concrete Superstructure	CU YD	333.4	-	333.4
Concrete Structures	CU YD	-	90.5	90.5
Reinforcement Bars, Epoxy Coated	POUND	55,400	10,810	66,210
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 54 In.	FOOT	1,346	-	1,346
Stone Riprap, Class A4	TON	-	-	3,740
Filter Fabric	SQ YD	-	-	4,695
Porous Granular Embankment (Special)	CU YD	-	470	470
Name Plates	EACH	-	-	2
Furnishing Steel Piles HP12x53	FOOT	-	2,321	2,321
Driving Steel Piles	FOOT	-	2,321	2,321
Test Pile Steel HP12x53	EACH	-	4	4
Bar Splicers	EACH	160	44	204
Structure Excavation	CU YD	-	560	560
Bridge Deck Grooving	SQ YD	828	-	828
Protective Coat	SQ YD	1,034	-	1,034
Temporary Sheet Piling	SQ FT	-	1,079	1,079
Pipe Underdrains for Structures, 4"	FOOT	-	330	330
Geocomposite Wall Drain	SQ YD	-	235	235

DESIGN SPECIFICATIONS
2002 AASHTO

SEISMIC DATA
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.040g
Site Coefficient (S) = 1.0

DESIGN STRESSES
FIELD UNITS

f'c = 3,500 p.s.i.
fy = 60,000 p.s.i. (Reinforcement)

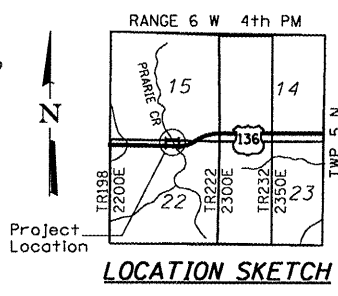
PRECAST PRESTRESSED UNITS

f'c = 6,000 p.s.i.
f'ci = 5,000 p.s.i.
f's = 270,000 p.s.i. (1/2" φ low relaxation strands)
f'si = 201,960 p.s.i. (1/2" φ low relaxation strands)

LOADING HS20-44
Allow 50#/sq. ft. future wearing surface.

JAMES D. HAMILTON
081-00368
LICENSED
STRUCTURAL
ENGINEER
OF
JACKSONVILLE
ILLINOIS

James D. Hamilton
3/16/2006
Expires 11/30/2006



APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Robert E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

GENERAL PLAN
US ROUTE 136 OVER
PRAIRIE CREEK
F.A.P. ROUTE 315 SECTION 34-4B
HANCOCK COUNTY
STATION 973+28.00
STR. NO. 034-0506 (WBL)
STR. NO. 034-0507 (EBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

WATERWAY INFORMATION

Drainage Area = 7.66 Sq. Mi., Low Grade Elev. = 605.06 @ Sta. 970+25

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. ft.		Natural H.W.E. ft.		Head - ft.		Headwater Elev. - ft.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	50	2,552	364	428	596.1	596.2	0.5	0.4	596.6	596.6
Base	100	2,858	387	453	596.5	596.6	0.6	0.5	597.1	597.1
Overlapping										
Max. Calc.	500	3,682	437	510	597.4	597.5	0.8	0.7	598.2	598.2

DESIGNED	JOH
CHECKED	BRT
DRAWN	TC/TD
CHECKED	JOH