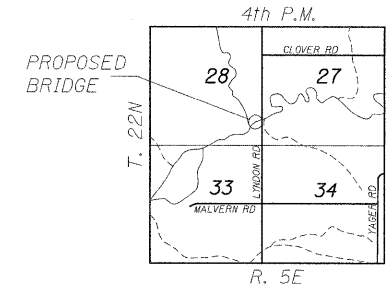


B.M. - Spike in power pole, Northwest of bridge. Elev. 641.237

Existing Structure - Structure Number 098-0036. Original structure built under sections KB1 and KC1 in 1932 as a single-span truss bridge. Pier added and superstructure replaced under Section (KB1-MFT) BR in 1976. Existing bridge consists of two-span PPC deck beam superstructure on closed concrete abutments and concrete wall pier. Pier footing is founded on concrete piles; abutment footing support is unknown. Structure length is 128 feet, back-to-back of abutments. Structure width is 30 feet, out-to-out.

Salvage - Existing Bridge Name Plate and existing Steel Bridge Railing.

ROCK CREEK
BUILT 2010 BY
WHITESIDE COUNTY
SECTION 06-00183-00-BR
F.A.S. RT. 76 STATION 203+86
STR. NO. 098-3077 LOADING HL93



LOCATION SKETCH

NAME PLATE

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

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	S. Abut.	Pier 1	Pier 2	N. Abut.
	640.4	624.1	624.1	640.4

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications - 4th edition

LOADING HL-93

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

DESIGN STRESSES

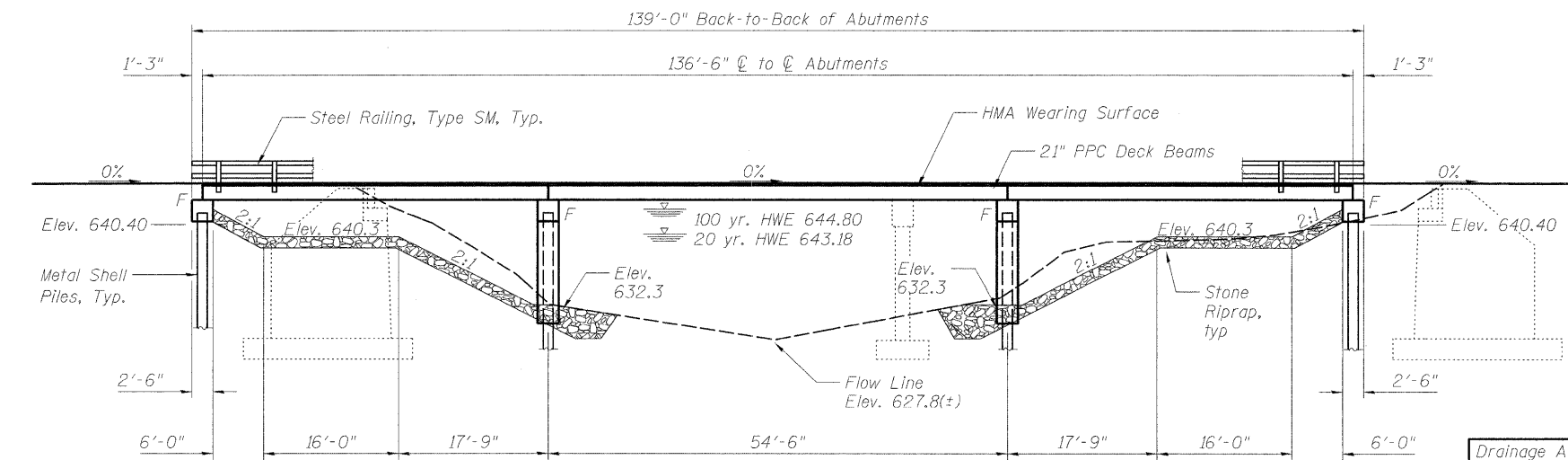
Super: $f'_c = 6,000$ p.s.i. (P.P.C. Deck Beams)
 $f'_{ci} = 5,000$ p.s.i.
 $f'_s = 270,000$ p.s.i. ($\frac{1}{2}$ " ϕ Strand)
 $f'_{si} = 201,960$ p.s.i. ($\frac{1}{2}$ " ϕ Strand)
 $f_y = 60,000$ p.s.i.
 Sub: $f'_c = 3,500$ p.s.i.
 $f_y = 60,000$ p.s.i.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec (SD1) = 0.121
 Design Spectral Acceleration at 0.2sec (SDs) = 0.204
 Soil Site Class = E

INDEX OF BRIDGE SHEETS

1. General Plan & Elevation
2. General Notes and Rip Rap Details
3. P.P.C. Deck Beam Superstructure
4. P.P.C. Deck Beam - Spans 1 & 3
5. P.P.C. Deck Beam - Span 2
6. P.P.C. Deck Beam Details
7. Steel Railing, Type SM
8. Pile Bent Abutment Details
9. Pile Bent Pier Details
10. Concrete Pile Details
11. Boring Logs

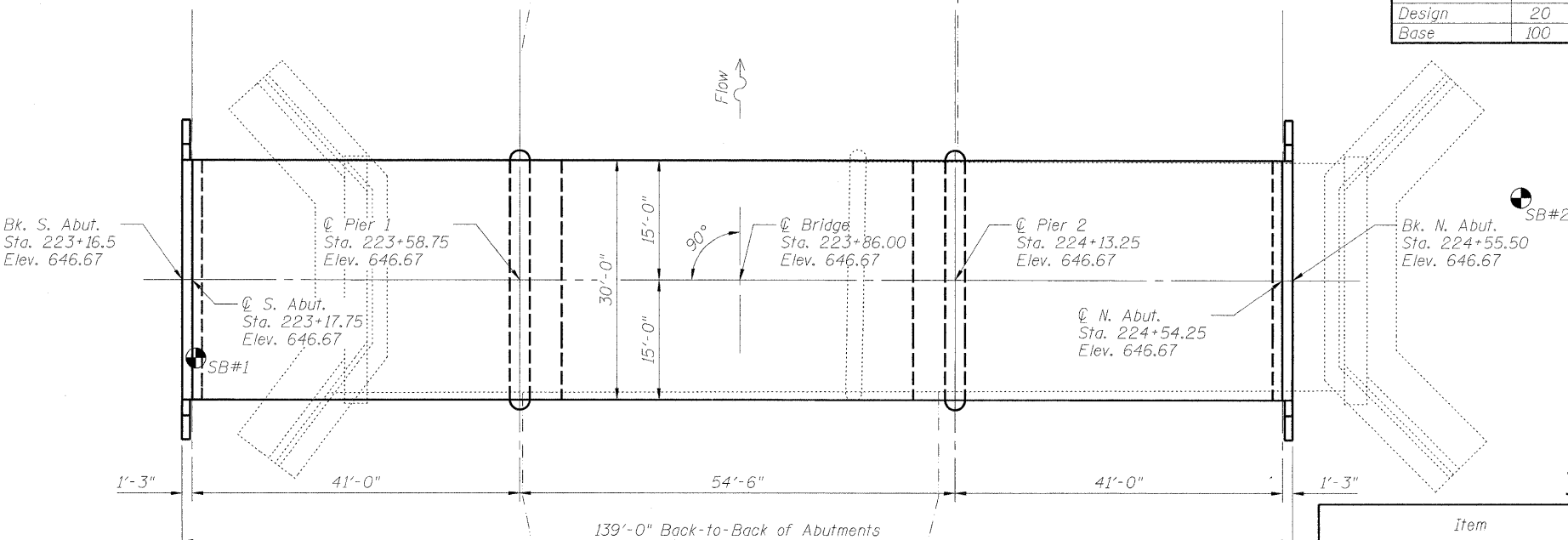


ELEVATION

WATERWAY INFORMATION

Flood		Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Nat. H.W.E. Exist.	Prop.	Head - Ft. Exist.	Prop.	Headwater El. Exist.	Prop.
Design		20	5400	812	883	643.03	0.15	0.15	0.15	643.18	643.18
Base		100	7790	974	1070	644.48	0.41	0.32	0.32	644.89	644.80

Drainage Area = 112.9 Sq. Mi. Low Grade Elev. = 646.67



PLAN

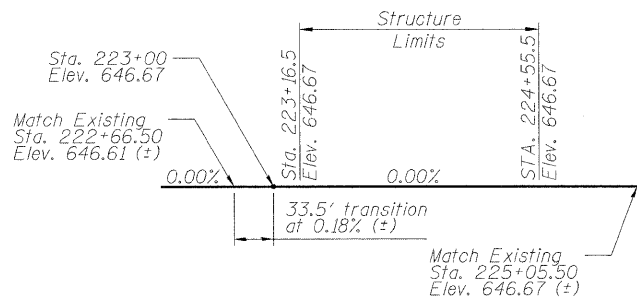
TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.	Total
Stone Riprap, Class A5	Sq. Yd.	---	720	720
Filter Fabric	Sq. Yd.	---	720	720
Structure Excavation	Cu. Yd.	---	93	93
Concrete Structures	Cu. Yd.	---	115.0	115.0
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	4102.5	---	4102.5
Steel Bridge Rail, Type SM	Foot	278	---	278
Reinforcement Bars, Epoxy Coated	Pound	---	8800	8800
Furnishing Metal Shells 14" X 0.250"	Foot	---	1200	1200
Driving Piles	Foot	---	1200	1200
Test Pile, Metal Shell	Each	---	4	4
Name Plates	Each	1	---	1
Concrete Encasement	Cu. Yd.	---	6.0	6.0
Underwater Structure Excavation Protection	Each	---	2	2
PC Mortar Fairing Course	Foot	1231	---	1231
Waterproofing Membrane System	Sq. Yd.	456.5	---	456.5
Hot Mix Asphalt Surface Cse, Mix "C", N50	Ton	53	---	53

STUART M. KEMP
 081-064897
 STATE OF ILLINOIS
 PROFESSIONAL ENGINEER
 SIGNATURE
 12/10/09
 DATE
 LIC. EXP. DATE: 11/30/2010

"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.'"

PROFILE GRADE
(Along ϕ Roadway)



LAYOUT: SMK 09/11/09
 DRAWN: JIM 12/11/09
 REVISION: SMK 12/11/09
 12/10/09
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 12/11/09

GENERAL PLAN & ELEVATION

LYNDON ROAD BRIDGE
 OVER ROCK CREEK
 F.A.S. ROUTE 76
 SECTION 06-00183-00-BR
 WHITESIDE COUNTY, ILLINOIS
 STRUCTURE NUMBER 098-3077
 STATION 223+86.00

SHEET NO. 1	F.A.S. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11 SHEETS	76	06-00183-00-BR	Whiteside	21	8

CONTRACT NO. 85506
 FED. ROAD DIST. NO. 2 | ILLINOIS FED. AID PROJECT