

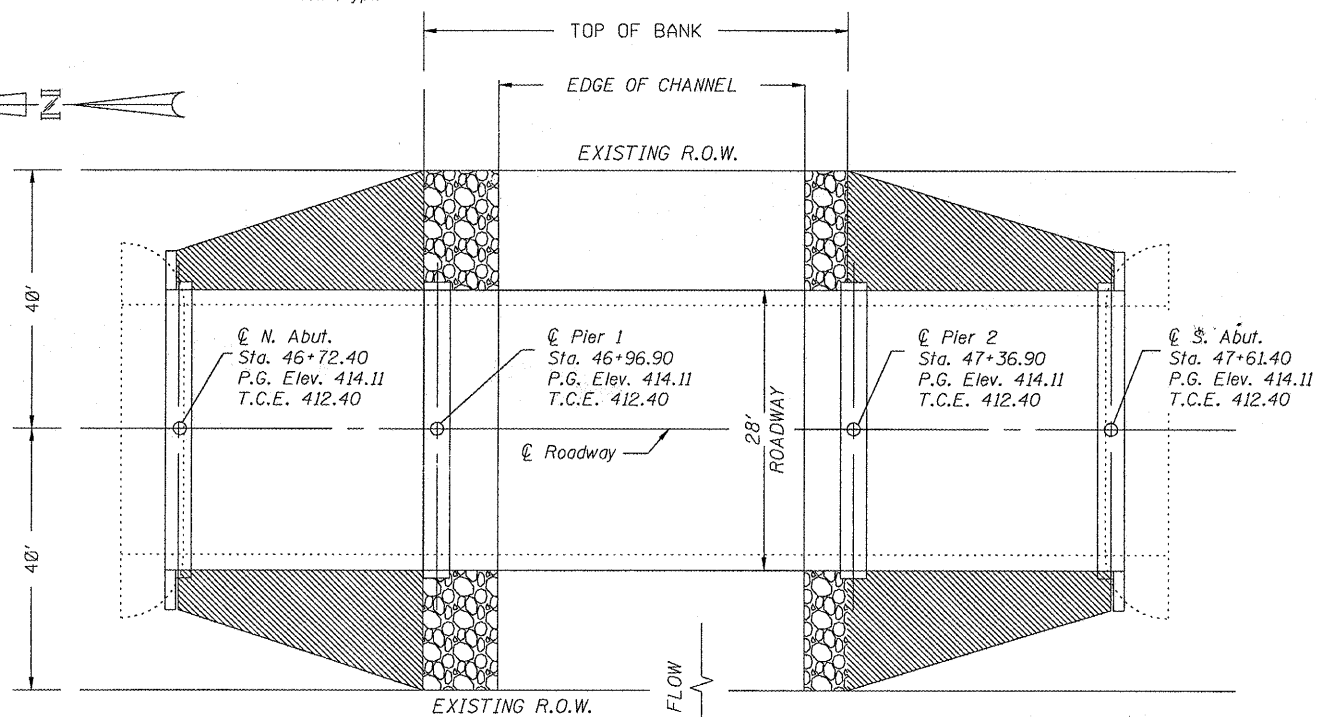
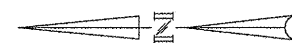
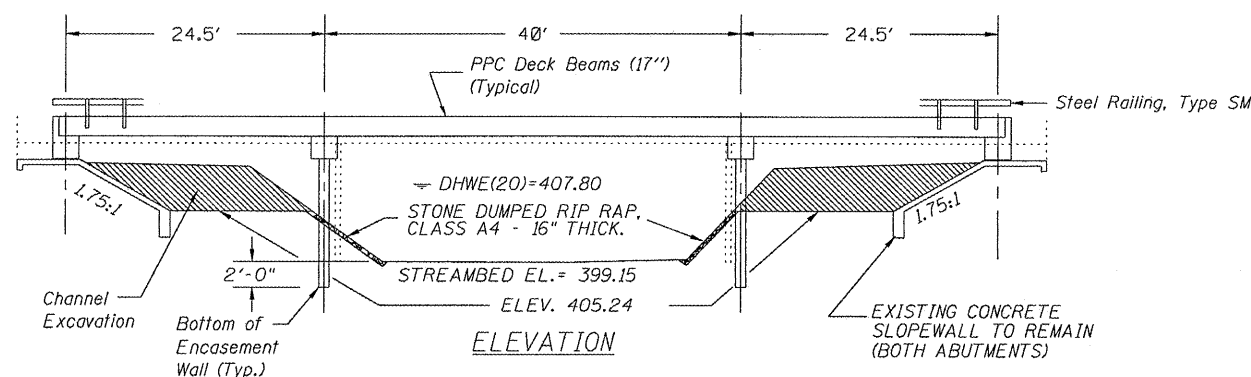
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE	COUNTY	SECTION	SHEET/OF
FAS 863	RANDOLPH	06-00039-05-BR	5/14
CONTRACT NO. 97355			

B.M. - Square in top of N.E. Wing  
Sta 46+67. Elev 413.95.

Existing Structure:  
3- Span, 100 ft. long, 22 ft.  
wide Steel I-Beam Structure  
on wood piles, with  
concrete deck.

Salvage: None



PLAN

- INDICATES CHANNEL EXCAVATION
- INDICATES STONE DUMPED RIP RAP

COX CREEK DRAINAGE DITCH  
BUILT 2008 BY  
RANDOLPH COUNTY  
SEC 06-00039-05-BR  
F.A.S. RT. 863 STA. 47+16.90  
STR NO 079-3195 LOADING HS20

LETTERING FOR NAME PLATE  
Locate Name Plate at Northwest  
Corner of Bridge (See Sht. 10 of 10)

GENERAL NOTES

- The contractor shall drive test piles, as specified, in permanent locations as directed by the Engineer before ordering the remaining piles.
- See Special Provisions for boring data.
- A corrosion inhibitor shall be used in the concrete for the precast prestressed deck beams, according to Article 1020.05(b)(12) of the Standard Specifications.
- All pile splices shall be accomplished by a complete joint penetration (CJP) weld of the entire cross-section.
- Reinforcement Bars shall conform to the requirements of ASTM A706 Grade 60 (IL Modified). See Special Provisions. This note supercedes notes on the Pier sheet.
- The Steel H-Piles shall be according to AASHTO M270 Grade 50.

INDEX OF SHEETS

- General Plan & Elevation
- Deck Beam Plan & Elevation
- 17" x 48" Deck Beams Spans 1 & 3
- 17" x 48" Deck Beams Span 2
- 17" x 48" Deck Beams Details
- Standard Railing Type SM
- Abutments
- Piers
- Piles
- Name Plate

TOTAL BILL OF MATERIAL

Item	Item	Super	Sub		Total
			Piers	Abuts.	
Removal of Existing Structures	Each				1
Hot-Mix Asphalt Surface Course, Mix "C", N70	Ton	41.8			41.8
Waterproof Membrane System	Sq. Yd	280			280
Concrete Structures	Cu. Yd.		17.2	19.8	37.0
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	2513			2513
Steel Bridge Railing, Type SM	Foot	180			180
Reinforcement Bars	Pound		1780	2520	4300
Furnishing Steel Piles HP10X42	Foot		580	449	1029
Driving Steel Piles	Foot		580	449	1029
Test Pile Steel HP10X42	Each		1	1	2
Name Plates	Each			1	1
Concrete Encasement	Cu. Yd.		14.6	2.8	17.4
Portland Cement Mortar Fairing Course	Foot	540			540
Stone Dumped Rip Rap Class A4	Ton				242
Channel Excavation	Cu.Yd.				257
Piles Shoes	Each		10	8	18
Structure Excavation Protection For Pile Bents	Each		2		2

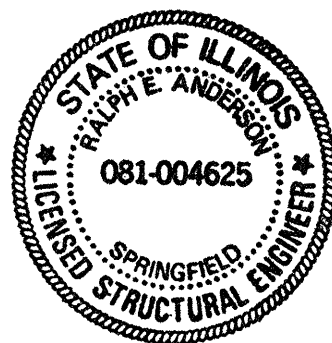
DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications - 17th ed.

LOADING HS20-44

SEISMIC DATA

Seismic Performance Category (SPC) = B  
Bedrock Acceleration Coefficient (A) = 0.129g  
Site Coefficient (S) = 1.0



Expires: November 30, 2008

DESIGNED	<i>[Signature]</i>
CHECKED	<i>[Signature]</i>
DRAWN	Shane Summer
CHECKED	<i>[Signature]</i>

EXAMINED	<i>[Signature]</i> May 1, 2008
PASSED	<i>[Signature]</i> ENGINEER OF STRUCTURAL SERVICES
	<i>[Signature]</i> ENGINEER OF BRIDGES AND STRUCTURES

NORTH ABUTMENT

Pile Type: Steel HP10x42 with pile shoes  
Allowable Resistance Available: 63 kips  
Nominal Required Bearing: 335 kips  
Estimated Length: 63 Ft  
Number of Production Piles: 3  
Number of Test Piles: 1

PIER #2

Pile Type: Steel HP10x42 with pile shoes  
Allowable Resistance Available: 80 kips  
Nominal Required Bearing: 335 kips  
Estimated Length: 65 Ft  
Number of Production Piles: 4  
Number of Test Piles: 1

PIER #1

Pile Type: Steel HP10x42 with pile shoes  
Allowable Resistance Available: 80 kips  
Nominal Required Bearing: 335 kips  
Estimated Length: 64 Ft  
Number of Production Piles: 5

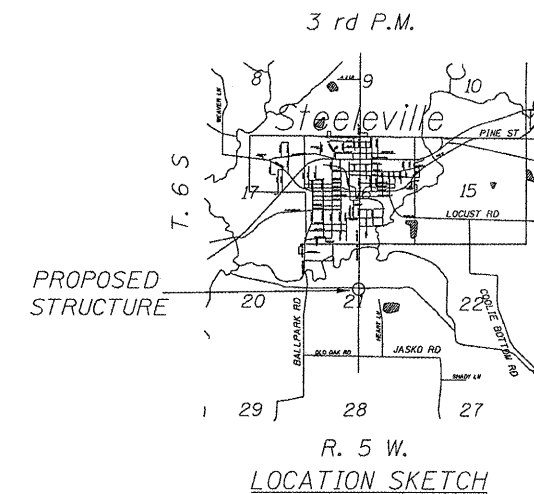
SOUTH ABUTMENT

Pile Type: Steel HP10x42 with pile shoes  
Allowable Resistance Available: 63 kips  
Nominal Required Bearing: 335 kips  
Estimated Length: 65 Ft  
Number of Production Piles: 4

WATERWAY INFORMATION

Drainage Area = 46.7 sq. mi. Low Grade Elev = 413.10 @ Sta. 53+25.89

Flood	Freq. Yr.	Q C.F.S.	Opening Sq.Ft.		Nat. H.W.E.	Head - Ft.		Headwater Elev.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	20	4046	413	413	407.80	0.79	0.79	408.59	408.59
Base	100	5794	457	457	408.37	1.05	1.05	409.42	409.42
Overtopping									
Max. Calc	500								



GENERAL PLAN & ELEVATION  
FAS 863  
OVER COX CREEK DRAINAGE DITCH  
SECTION 06-00039-05-BR  
RANDOLPH COUNTY  
STATION 47+16.90