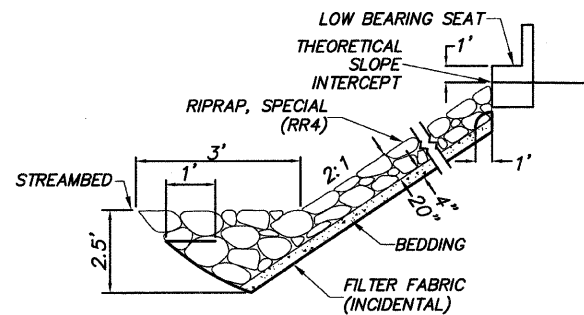


BM #1 - TOP OF WELL CASING
102' RT. STA. 3+24
ELEV. - 100.00 (ASSUMED)

EXISTING STRUCTURE - SN. 001-3220
42' x 16' STEEL TRUSS BRIDGE WITH A
TIMBER PLANK DECK ON MASONRY
ABUTMENTS WITH MASONRY WINGWALLS

SALVAGE - NO SALVAGEABLE MATERIALS.



ITEM	UNIT	BENT 1	BENT 2	TOTAL
RIPRAP, SPECIAL	TON	160	145	305
FILTER FABRIC	SQ. YD.	130	120	250

FILTER FABRIC AND BEDDING MATERIALS SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE PER TON FOR RIPRAP, SPECIAL

RIPRAP PLACEMENT DETAIL

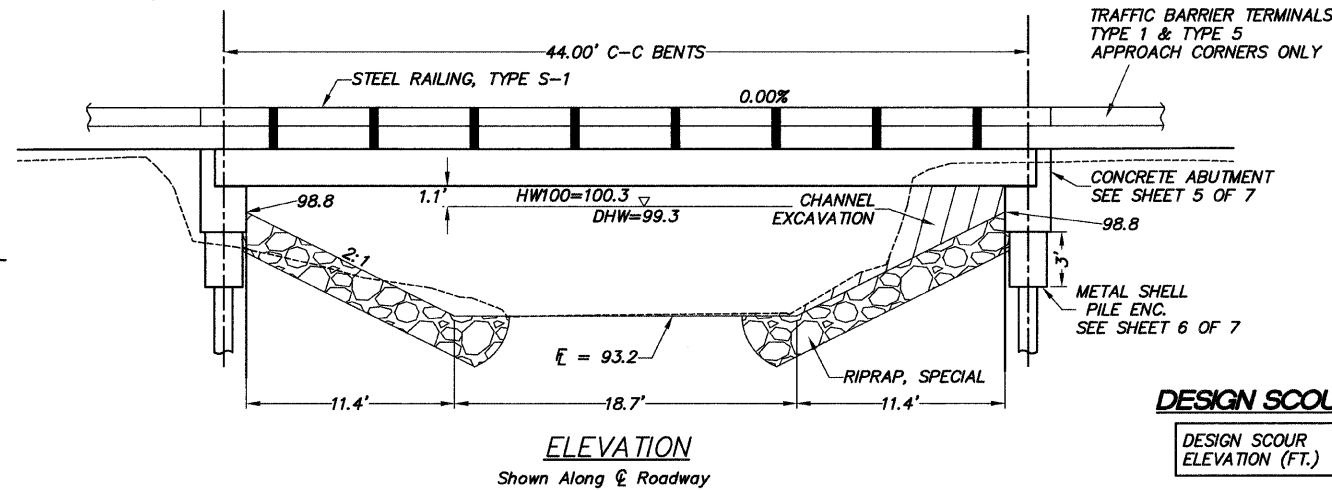


I Certify That to the Best of my Knowledge, Information and Belief, the Revised Standard Detail Sheets and/or Special Component Sheets Included with the Standard Bridge Detail Sheets are Structurally Adequate for the Design Loading Shown on the Plans and Comply with the Requirements of the Current AASHTO Standard Specifications for Highway Bridges.

D.S.P. 2-18-10
David S. Poland Date
Licensed Structural Engineer
State of Illinois No. 81-005124
expires 11/30/2010

I Certify That to the Best of my Knowledge, Information and Belief, the Bridge Plans and, if Included, Revised or Special Non-Standard Detail Sheets Incorporated with the Standard Plans are Structurally Adequate for the Seismic Design Loadings Shown on the Plans and Specified by the Current AASHTO Standard Specifications for Highway Bridges.

D.S.P. 2-18-10
David S. Poland Date
Licensed Structural Engineer
State of Illinois No. 81-005124
expires 11/30/2010



DESIGN SCOUR ELEVATION TABLE

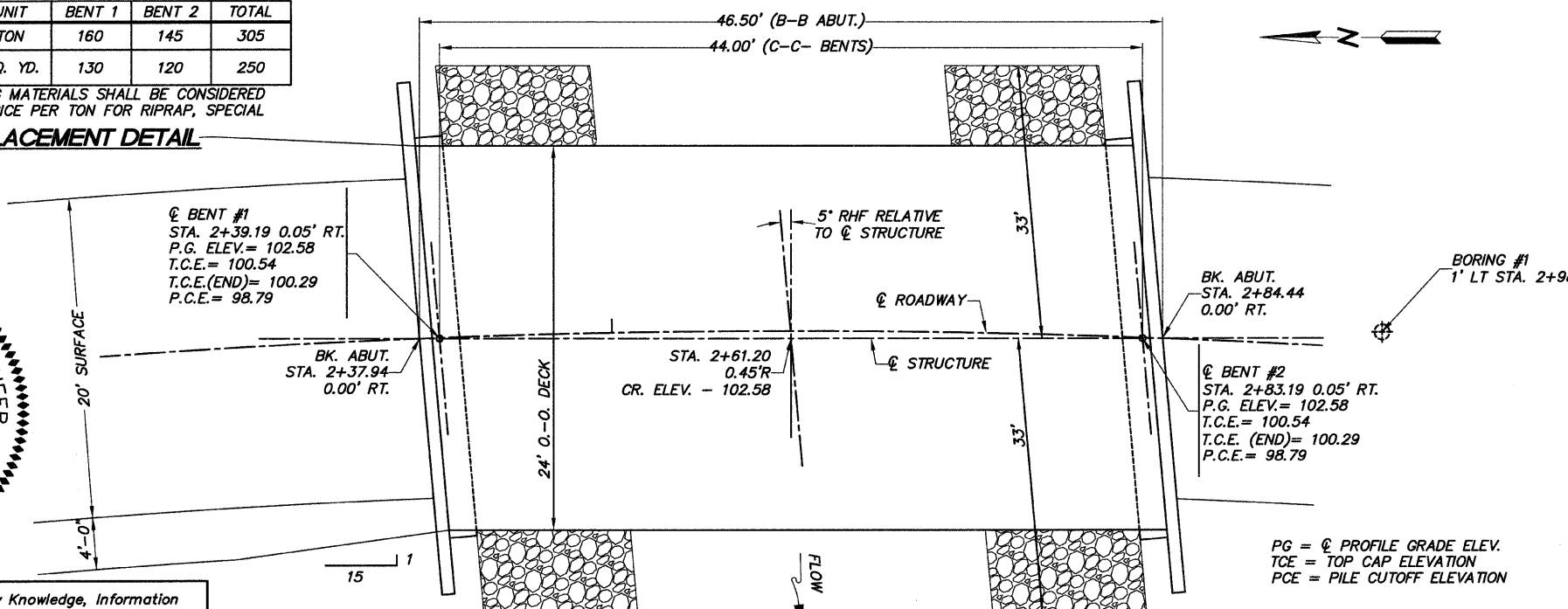
DESIGN SCOUR ELEVATION (FT.)	BENT #1	BENT #2
	97.79	97.79

GENERAL NOTES

- SEE SPECIAL PROVISIONS FOR BORING LOGS.
- WATERPROOFING MEMBRANE SYSTEM SHALL NOT BE REQUIRED ON THIS PROJECT.
- ALL GROUT ON THIS PROJECT SHALL BE NON-SHRINK.
- CORROSION INHIBITOR, PER ARTICLE 1020.05(b)(12) AND 1021.06 OF THE STANDARD SPECIFICATIONS, SHALL BE USED IN THE CONCRETE FOR PRECAST PRESTRESSED CONCRETE DECK BEAMS.
- STONE RIPRAP SHALL BE PLACED TO THE DIMENSIONS SHOWN OVER A GEOTECHNICAL FABRIC IN ACCORDANCE WITH THE RIPRAP PLACEMENT DETAIL AND APPLICABLE SPECIAL PROVISIONS.
- THE ENGINEER RESERVES THE RIGHT TO ALTER THE RIPRAP PLACEMENT DETAIL AND/OR ADJUST QUANTITIES TO FIT FIELD CONDITIONS.
- REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A706, GRADE 60. SEE SPECIAL PROVISIONS.
- THE CONTRACTOR SHALL DRIVE TEST PILES TO 110% OF THE NOMINAL REQUIRED BEARING SPECIFIED IN PRODUCTION LOCATIONS AT SUBSTRUCTURES SPECIFIED OF APPROVED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF PILES.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER.	SUBSTRUCTURE		TOTAL
			PIER	ABUT.	
CHANNEL EXCAVATION	CU. YD.	----	----	165	165
RIPRAP, SPECIAL	TON	----	----	305	305
HOT-MIX ASPHALT SURFACE CSE., MIX "C", N50	TON	15	----	----	15
REMOVAL OF EXISTING STRUCTURE	EACH	----	----	----	1
CONCRETE STRUCTURES	CU. YD.	----	----	17.2	17.2
P.P. CONCRETE DECK BEAMS 21" DEPTH	SQ. FT.	1,080	----	----	1,080
REINFORCEMENT BARS	POUND	----	----	2,240	2,240
STEEL RAILING, TYPE S-1	FOOT	90	----	----	90
FURNISHING METAL SHELL PILES 12"	FOOT	----	----	469	469
DRIVING PILES	FOOT	----	----	469	469
TEST PILE METAL SHELLS	EACH	----	----	1	1
CONCRETE ENCASEMENT	CU. YD.	----	----	3.7	3.7
NAME PLATES	EACH	----	----	1	1



DESIGN SPECIFICATIONS

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS - 4th ED. WITH 2009 INTERIMS.

THIS DESIGN COMPLIES WITH ALL REQUIREMENTS OF THE CURRENT AASHTO GUIDE SPECIFICATIONS FOR SEISMIC DESIGN OF HIGHWAY BRIDGES

SEISMIC DATA

SEISMIC PERFORMANCE ZONE (SPZ) = 2
DESIGN SPECTRAL ACCELERATION AT 1.0 SEC. = 0.05
DESIGN SPECTRAL ACCELERATION AT 0.2 SEC = 0.10
SOIL SITE CLASS = E

LOADING HL-93

ALLOW 50#/SQ.FT. FOR FUTURE WEARING SURFACE

DESIGN STRESSES

(PRESTRESSED UNITS) (FIELD UNITS)
f_{ci} = 5.0 KSI f_c = 3.5 KSI
f_c = 6.0 KSI f_y = 60 KSI
f_y = 60 KSI

PILE DATA (2-ABUTMENTS)

PILE TYPE AND SIZE: 12" METAL SHELL (.179" WALL)
NOMINAL REQUIRED BEARING: 160 KIPS
FACTORED RESISTANCE AVAILABLE: 80 KIPS
ESTIMATED LENGTH: 67 FEET (BENT #1) 67 FEET (BENT #2)
NUMBER OF PRODUCTION PILES: 3 (BENT #1) 4 (BENT #2)
NUMBER OF TEST PILES: 1 (BENT #1)

HARKNESS CREEK
BUILT 20____ BY
ADAMS COUNTY
FALL CREEK SEC. 09-08111-00-BR
F.A. PROJ. BROS-0001(109)
STATION 2+61.20
STR. NO. 001-3430 LOADING HL-93

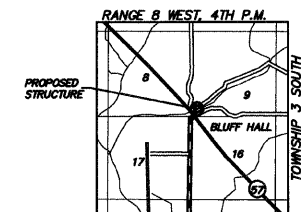
LETTERING FOR NAME PLATE

LOCATE NAME PLATE AT SOUTHWEST CORNER OF BRIDGE (SEE SHEET 5 OF 7)

WATERWAY INFORMATION

FLOOD	FLOOD FREQUENCY (YEAR)	FLOW VOLUME (CFS)	OPENING SQ. FT.		NATURAL H.W.E.	HEAD - FT.		HEADWATER ELEV.	
			EXISTING	PROPOSED		EXISTING	PROPOSED	EXISTING	PROPOSED
			DESIGN	BASE		DESIGN	BASE	DESIGN	BASE
DESIGN	15	1,213	175	191	99.3	0.0	0.0	99.6	99.6
BASE	100	2,160	216	237	100.3	1.0	1.0	101.5	101.5
OVERTOPPING									
MAX. CALC	500	3,020							

THE STRUCTURE HAS BEEN DESIGNED TO BE STABLE FOR SCOUR CONDITIONS IN ACCORDANCE WITH THE FHWA TECHNICAL ADVISORY T-5140.23 "EVALUATING SCOUR AT BRIDGES" AND HYDRAULIC ENGINEER CIRCULAR 18 - EVALUATING SCOUR AT BRIDGES.



LOCATION SKETCH

INDEX OF SHEETS

- BRIDGE GENERAL PLAN AND ELEVATION
- P.P.C. DECK BEAM SUPERSTRUCTURE
- P.P.C. 21"x48" DECK BEAM
- P.P.C. 21"x48" DECK BEAM DETAILS
- P.P.C. DECK BEAM PILE BENT ABUTMENT DETAILS
- METAL SHELL PILE DETAILS
- STEEL RAILING, TYPE S-1

GENERAL PLAN & ELEVATION

STRUCTURE NO. 001-3430
HARKNESS CREEK
ADAMS COUNTY
FALL CREEK SEC. 09-08111-00-BR
STATION 2+61.20