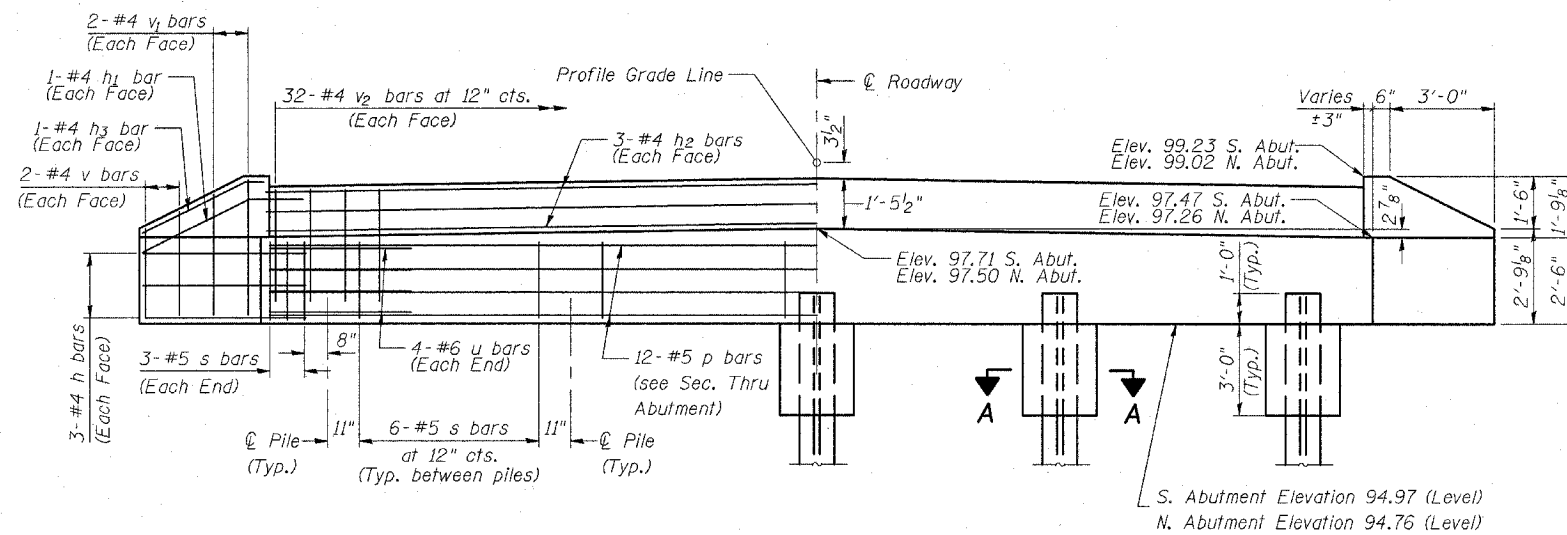


* Dowel rods to be drilled & grouted after beams are in place and allowed to cure (min. 24 hours) prior to grouting the shear keys.

SECTION THRU ABUTMENT
(At Right Angles)



FRONT ELEVATION
(S. Abut. shown
N. Abut. sim.)

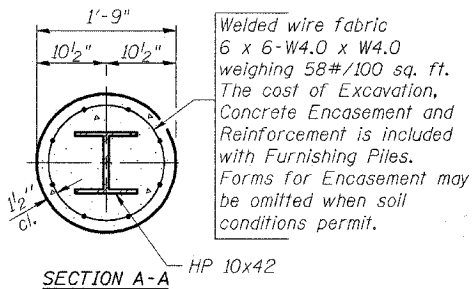
* Field bend h(E) and h1(E) bars as required to maintain 1/2" cl. within backwall

NOTES

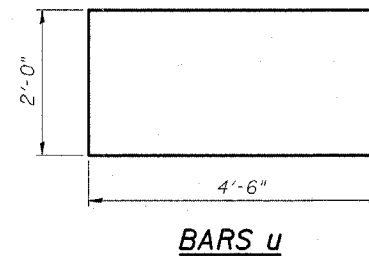
1. The Backwall and the portion of the wingwalls above the bonded construction joint shall be cast against the in-place beam.
2. Reinforcement bars shall conform to A.A.S.H.T.O. M-31, M-42 or M-53, Grade 60.
3. All reinforcement bars shall be epoxy coated.
4. A benchmark shall be installed in the flat portion of one of the wingwalls. A benchmark disk shall be furnished to the Contractor by the Engineer and installed as directed by the Engineer. Cost included with Concrete Structures.

PILE DATA-TWO ABUTMENTS

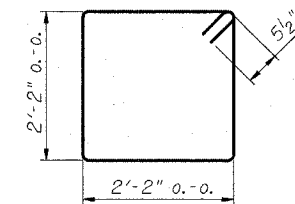
Type: Steel HP10X42
Capacity: Drive to Refusal
Estimated Length: 27 Feet (S. Abutment)
27 Feet (N. Abutment)
No. Required: 10



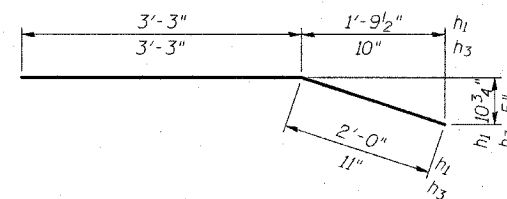
SECTION A-A
HP 10x42
PILE ENCASEMENT DETAIL



BARS u



BARS s



BARS h1 and h3

BILL OF MATERIAL FOR TWO ABUTMENTS

Bar	No.	Size	Length	Shape
h	24	#4	5'-0"	
h1	8	#4	5'-3"	
h2	12	#4	32'-6"	
h3	8	#4	4'-2"	
p	24	#5	32'-2"	
s	60	#5	9'-7"	
u	16	#6	11'-0"	
v	16	#4	2'-4"	
v1	16	#4	3'-1"	
v2	128	#4	2'-9"	
Concrete Structures			Cu. Yd.	20.4
Reinforcement Bars, Epoxy Coated			Pound	2350
Furnishing Steel Piles, HP 10x42			Foot	270
Driving Steel Piles			Foot	270
Concrete Encasement			Cu. Yd.	2.6

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.S. 405
SECTION 04-00035-01-BR
WARREN COUNTY
COUNTY HIGHWAY 1 OVER MIDDLE HENDERSON CREEK
PILE BENT ABUTMENTS
SCALE: VERT. DRAWN BY RLA
HORIZ. CHECKED BY JJT
DATE 02/06/06

HANSON Professional Services, Inc. Copyright Hanson Professional Services, Inc. 2006
 LAYOUT: RLA 10/11/05 rls
 DRAWN: RLA 02/02/06
 REVIEWED: JJT 02/02/06