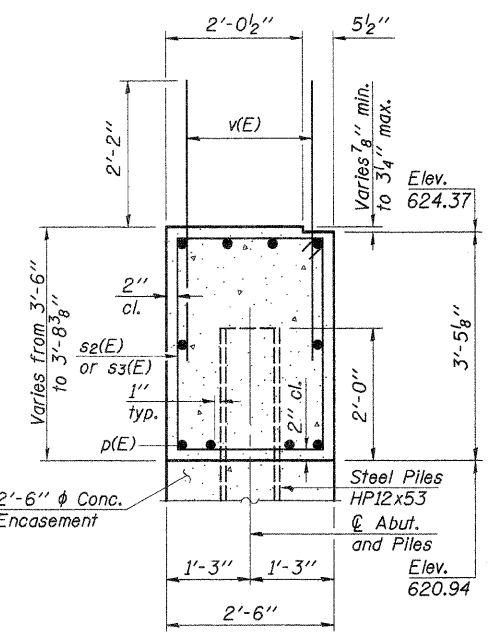
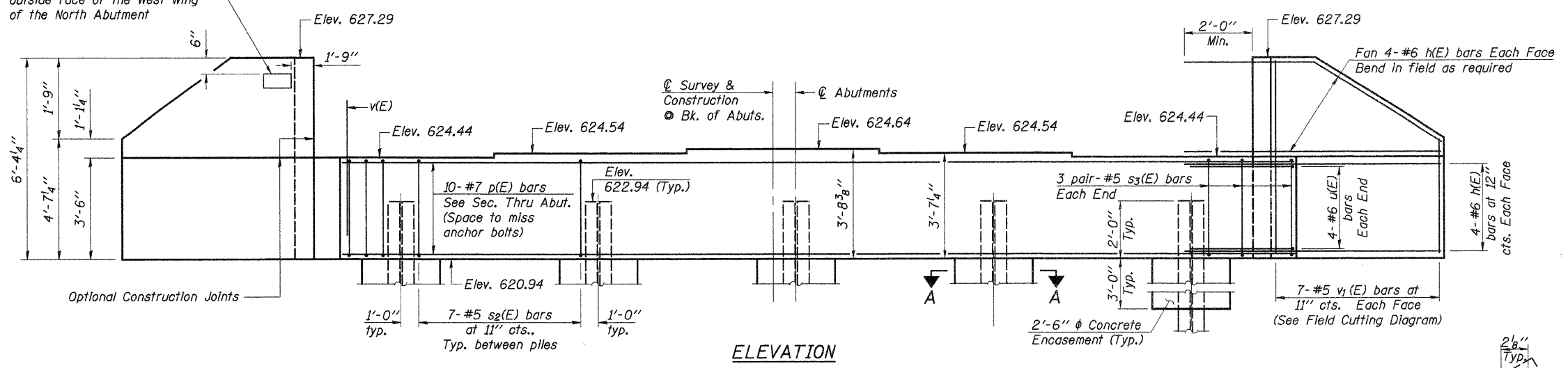


Notes: Four steps monolithically with cap.

Name Plate shall be placed on the outside face of the West Wing of the North Abutment

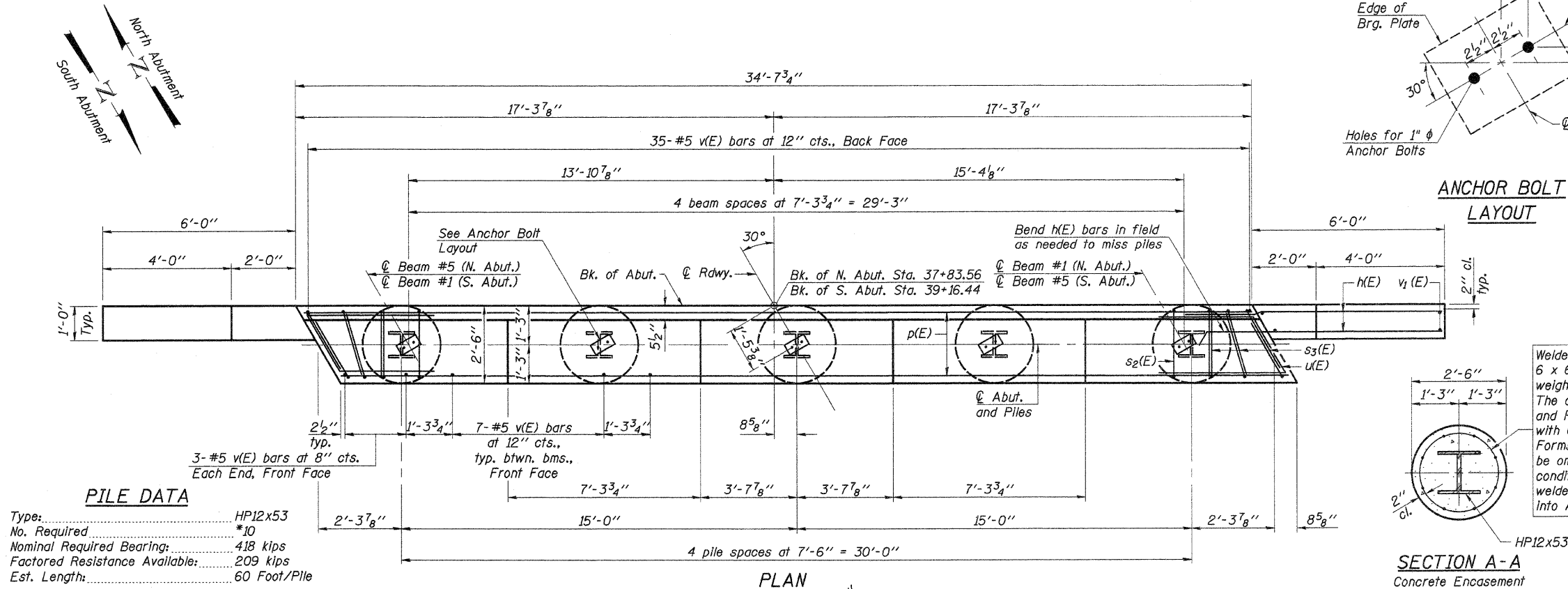


SEC. THRU ABUT.

2 ABUTMENTS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
k(E)	64	#6	8'-6"	—	
p(E)	20	#7	34'-3"	—	
s2(E)	56	#5	11'-7"	□	
s3(E)	24	#5	7'-6"	□	
u(E)	16	#6	13'-8"	△	
v(E)	138	#5	4'-4"	—	
v1(E)	28	#5	10'-6"	—	
Concrete Structures				Cu. Yd.	27.9
Reinforcement Bars, Epoxy Coated				Pound	4,340
Furnishing Steel Piles, HP12x53				Foot	540
Driving Piles				Foot	540
Test Pile, HP12x53				Each	1
Concrete Encasement				Cu. Yd.	5.5
Protective Coat				Sq. Yd.	11

For Pile Details See Sheet 13 of 16.
Reinforcement Bars designated (E) shall be epoxy coated.



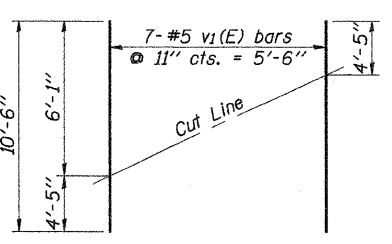
PILE DATA

Type: HP12x53
 No. Required: *10
 Nominal Required Bearing: 418 kips
 Factored Resistance Available: 209 kips
 Est. Length: 60 Foot/Pile

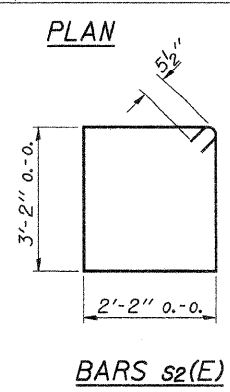
*Includes 1 Test Pile to be driven in a permanent location at the north abutment.
 The steel H-piles shall be according to AASHTO M270, Grade 50.
 The test piles shall be driven to 110 percent of the Nominal Required Bearing indicated above.

DESIGNED -	A.L.S.
CHECKED -	A.R.K.
DRAWN -	S.A.P.
CHECKED -	A.R.K. & A.L.S.

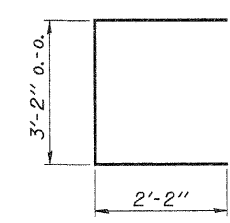
AI-L 11-1-06



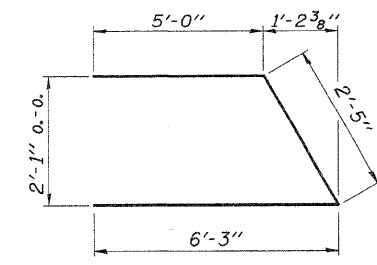
FIELD CUTTING DIAGRAM
Order v1(E) full length. Cut as shown and use remainder of bars in opposite face.



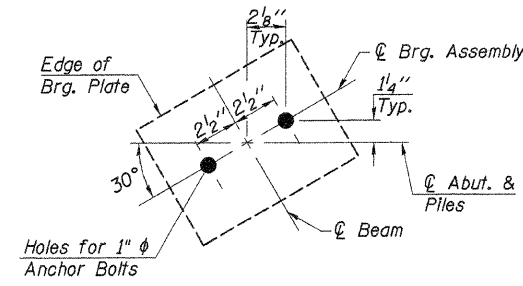
BARS s2(E)



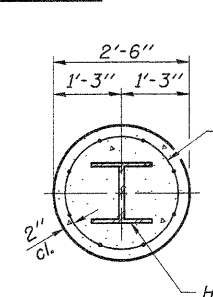
BARS s3(E)



BAR u(E)



ANCHOR BOLT LAYOUT



SECTION A-A
Concrete Encasement

Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation, and Reinforcement is included with Concrete Encasement. Forms for Encasement may be omitted when soil conditions permit. Extend welded wire fabric 2'-0" min. into Abutment cap.

ABUTMENTS
 SECTION 04-16101-02-BR
 MARTINTON ROAD DISTRICT
 IROQUOIS COUNTY
 STATION 38+50

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 SPRINGFIELD, IL 62711
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 www.fehr-graham.com

FEHR-GRAHAM & ASSOCIATES, LLC
 ENGINEERING AND SCIENCE CONSULTANTS
 P.O. BOX 10000, SPRINGFIELD, ILLINOIS 62708

JOB NO.: 48341
 FILE: ABUTS.DGN
 DATE: 12/04/09