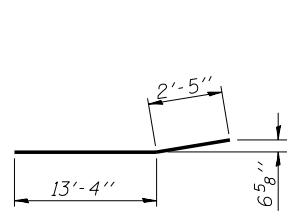
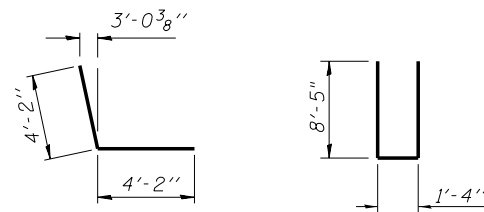


BAR h41(E)



BAR h43(E)



BAR h45(E)

BAR n31(E)

MINIMUM BAR LAP

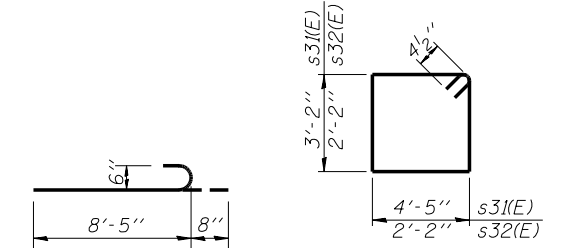
- #5 bar = 3'-3"
- #6 bar = 3'-10"
- #7 bar = 5'-2"

PILE DATA

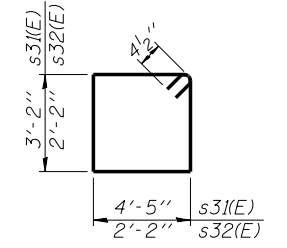
Type: HP 12x53 with pile shoes
 Nominal Required Bearing: 419 kips
 Factored Resistance Available: 230 kips
 Est. Length: 63 feet
 No. Production Piles: 14
 No. Test Piles: 1

**EAST ABUTMENT
 BILL OF MATERIAL**

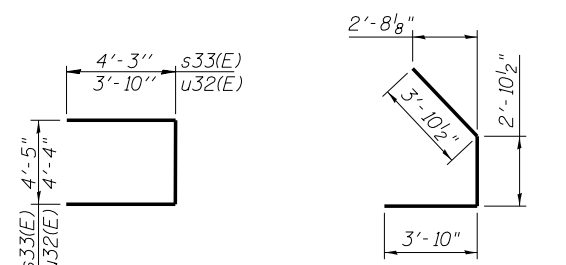
Bar	No.	Size	Length	Shape
h40(E)	20	#5	24'-11"	
h41(E)	14	#5	8'-4"	
h42(E)	12	#4	16'-9"	
h43(E)	16	#4	15'-9"	
h44(E)	10	#6	24'-5"	
h45(E)	14	#5	8'-4"	
h46(E)	10	#4	14'-6"	
h47(E)	4	#4	15'-9"	
n31(E)	28	#6	18'-2"	
n32(E)	12	#6	9'-1"	
p33(E)	16	#7	27'-0"	
p34(E)	12	#7	16'-9"	
p37(E)	6	#5	15'-2"	
p38(E)	3	#5	9'-4"	
s31(E)	77	#4	15'-11"	
s32(E)	34	#4	9'-5"	
s33(E)	37	#5	12'-11"	
u32(E)	4	#6	12'-0"	
u34(E)	4	#6	10'-7"	
v31(E)	46	#5	3'-9"	
v32(E)	46	#4	3'-0"	
v33(E)	34	#6	8'-8"	
v34(E)	6	#6	8'-1"	
v35(E)	28	#6	8'-10"	
v36(E)	46	#5	6'-8"	
v37(E)	46	#5	8'-0"	
Pile Shoes	Each		15	
Concrete Structures	Cu. Yd.		80.1	
Concrete Superstructures	Cu. Yd.		4.1	
Reinforcement Bars, Epoxy Coated	Pound		7,430	
Furnishing Steel Piles HP12x53	Foot		882	
Driving Piles	Foot		882	
Test Pile Steel HP12x53	Each		1	
Concrete Sealer	Sq. Ft.		566	
Form Liner Textured Surface	Sq. Ft.		188	



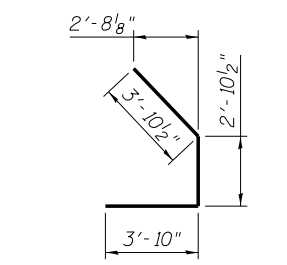
BAR n32(E)



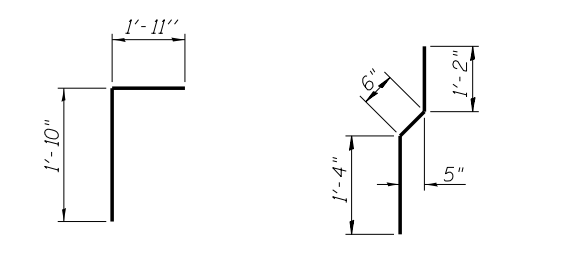
BARS s31(E) & s32(E)



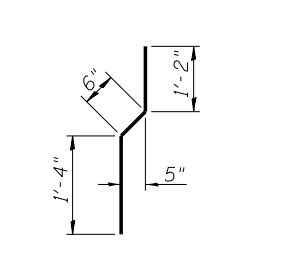
BAR s33(E) & u32(E)



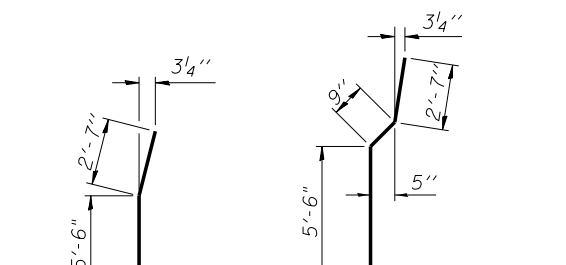
BAR u34(E)



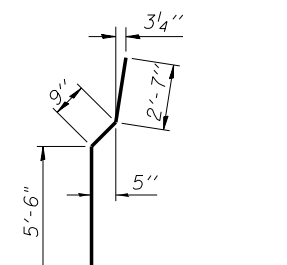
BAR v31(E)



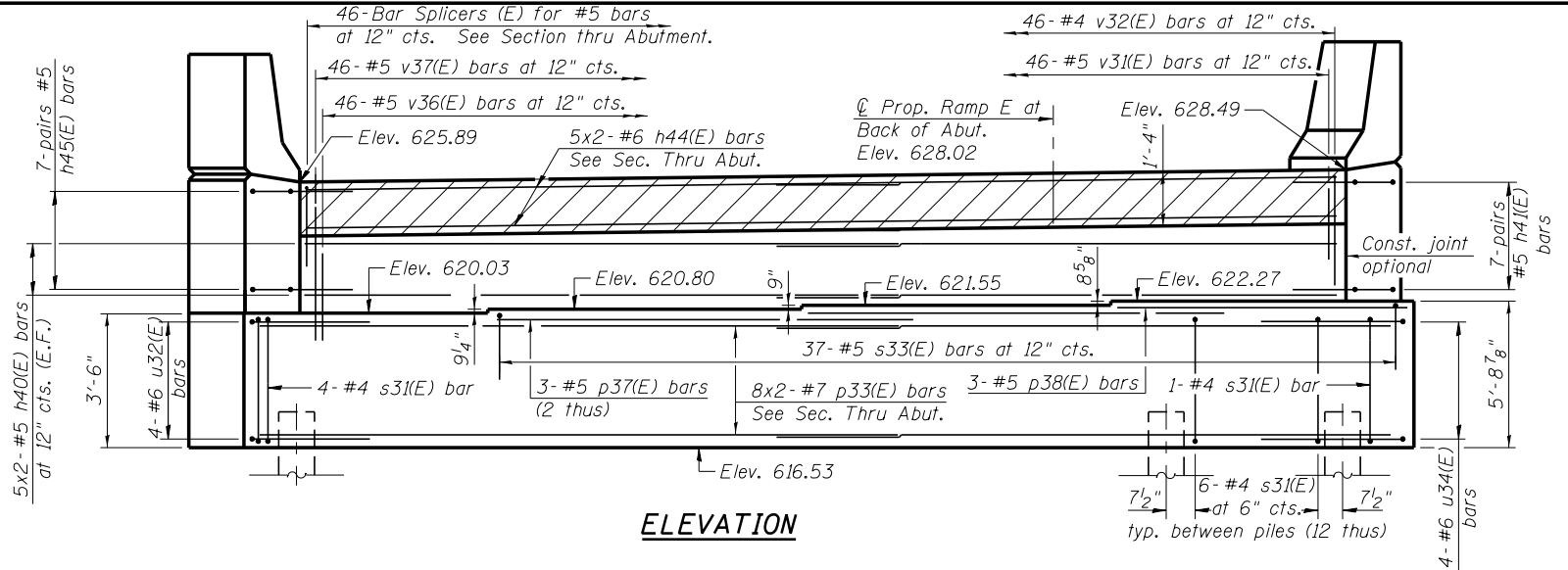
BAR v32(E)



BAR v34(E)

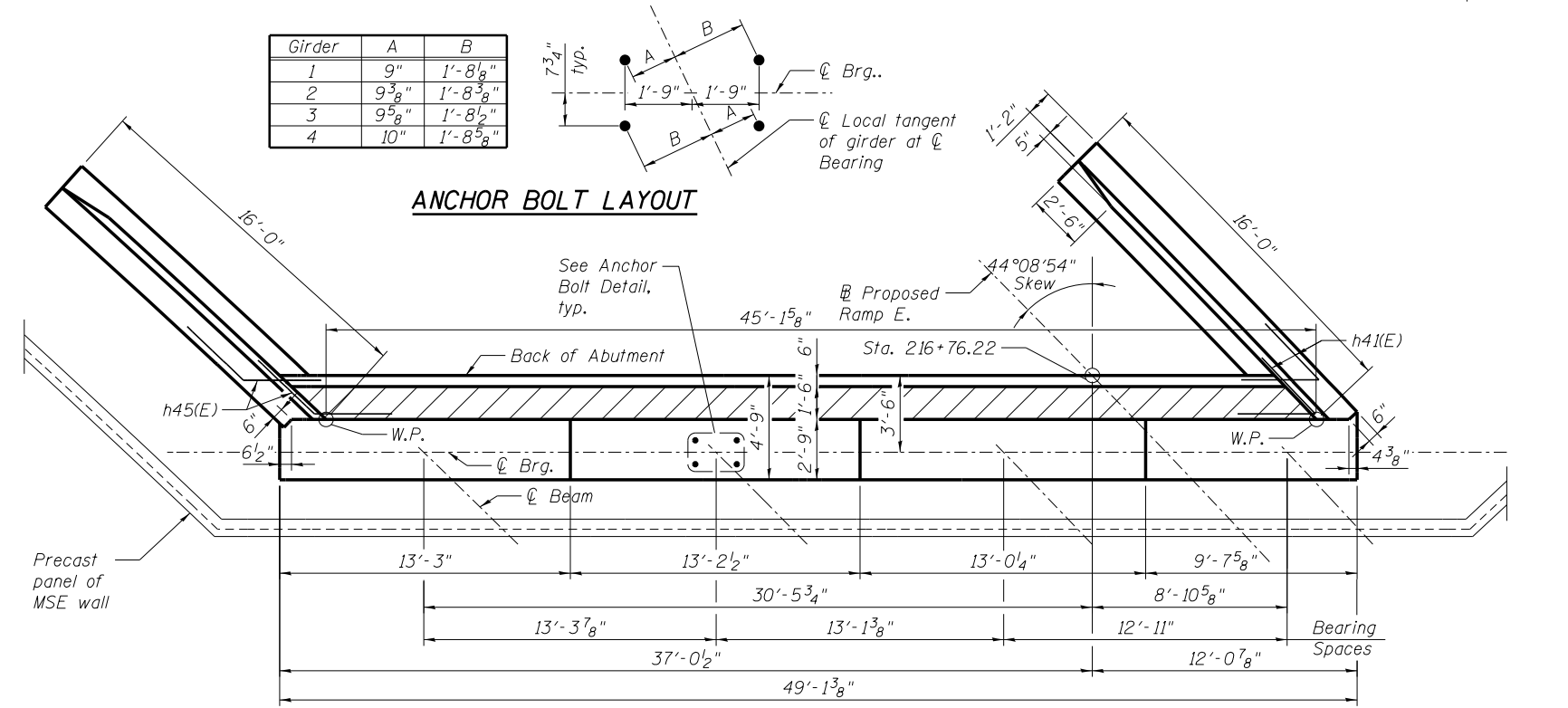


BAR v35(E)



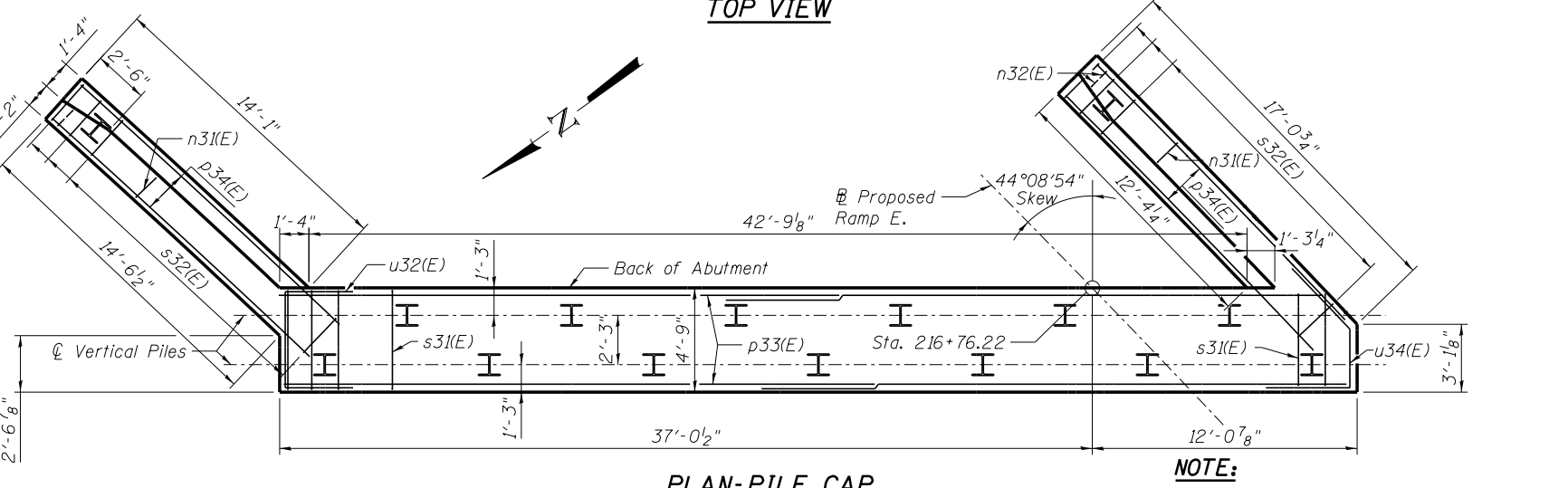
ELEVATION

Girder	A	B
1	9"	1'-8 1/2"
2	9 3/8"	1'-8 3/8"
3	9 5/8"	1'-8 1/2"
4	10"	1'-8 5/8"



ANCHOR BOLT LAYOUT

TOP VIEW



PLAN-PILE CAP

NOTE:
 1. See foundation plan, sheet SB3, for pile layout.

benesch
 engineers - scientists - planners
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 Chicago, Illinois 60601
 312-965-0450 Job No. 10093

FILE NAME = 0161512.60W77.031.East.AbutmentLdgn	USER NAME = ksnyder	DESIGNED - JHG	REVISED -
	PLOT SCALE =	CHECKED - KWS	REVISED -
	PLOT DATE = 6/23/2014	DRAWN - KMS	REVISED -
		CHECKED - KWS	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**EAST ABUTMENT
 STRUCTURE NO. 016-1512**
 SHEET NO. SB31 OF SB43 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
373	(0707-608&611)HB-B	COOK	177	147
CONTRACT NO. 60W77				
ILLINOIS FED. AID PROJECT				