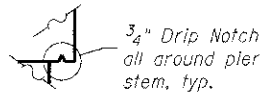


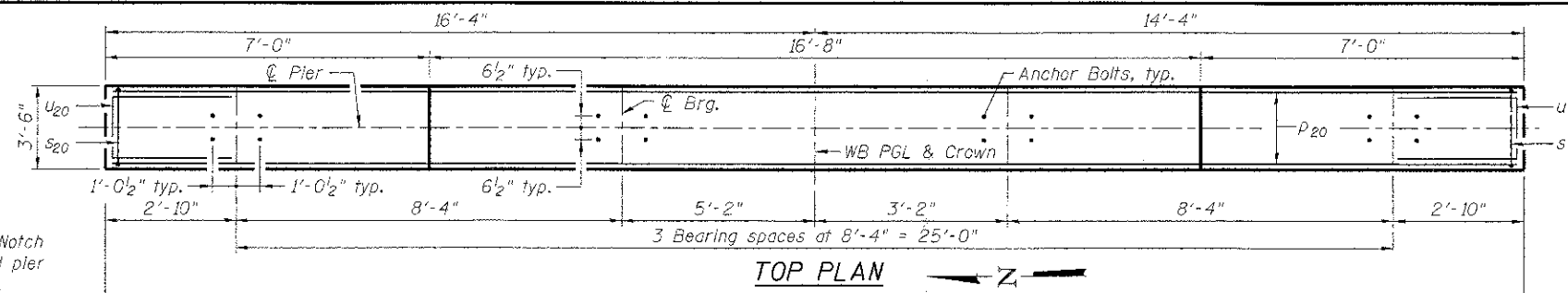
Notes:
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 For details of piles, see sheet S-35 of S-41.

MINIMUM BAR LAP

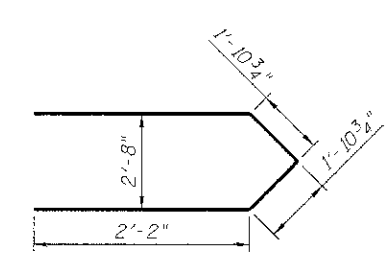
(Pier)
 #5 bar = 2'-2"
 #8 bar = 3'-8"



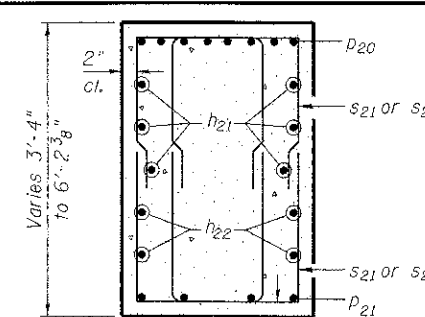
DRIP NOTCH DETAIL



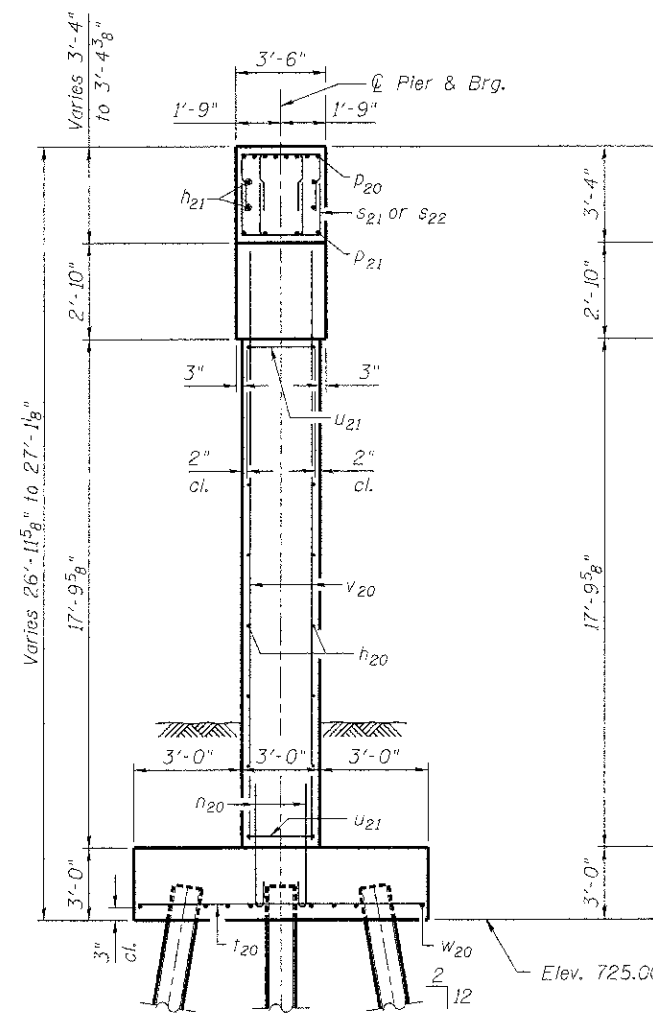
TOP PLAN



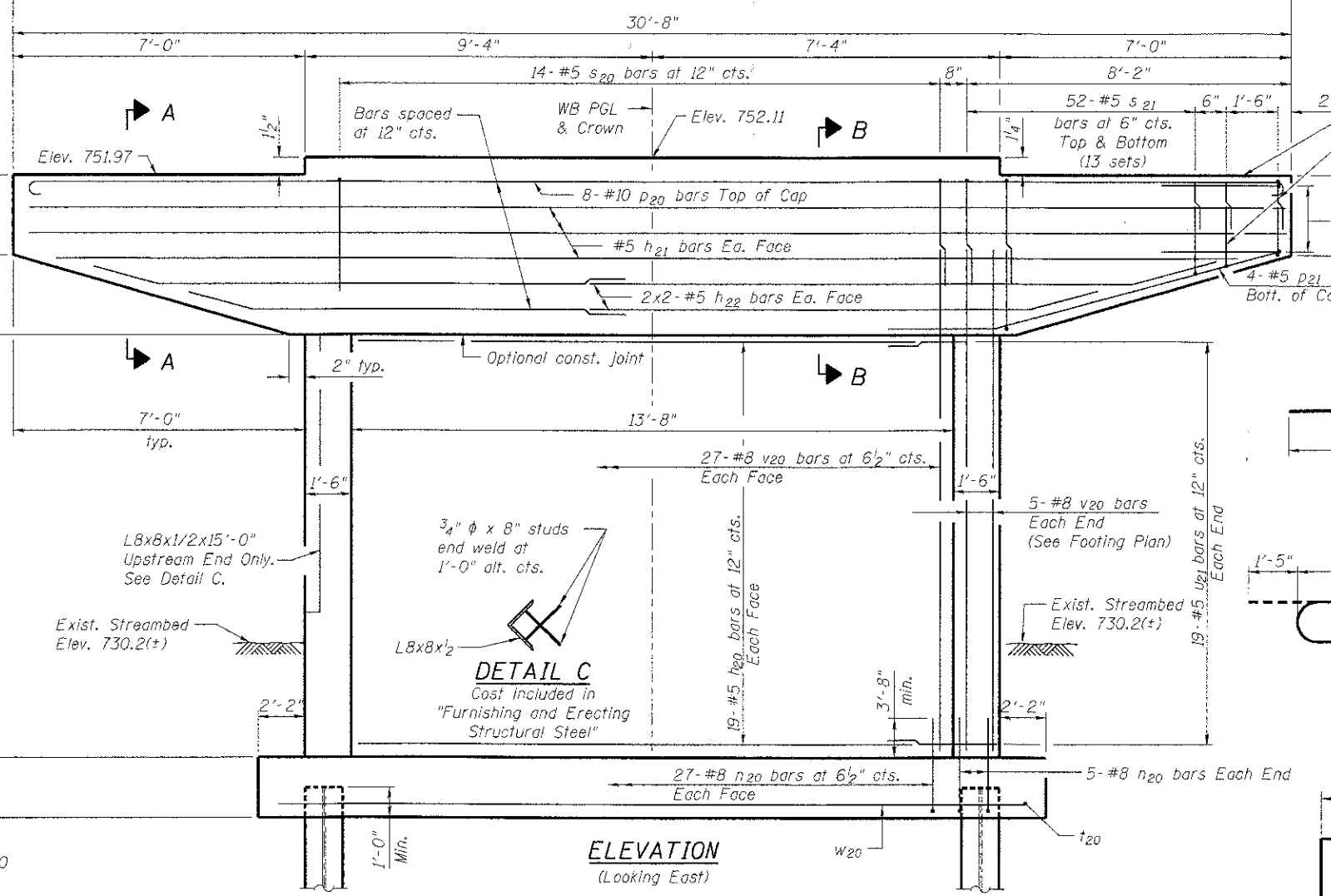
BAR U21



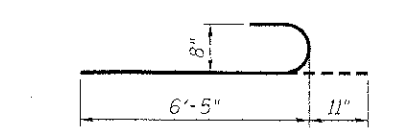
SECTION A-A



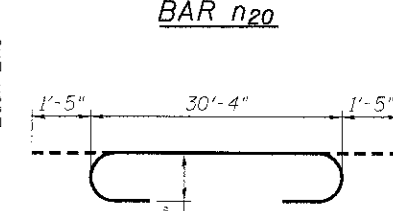
END VIEW



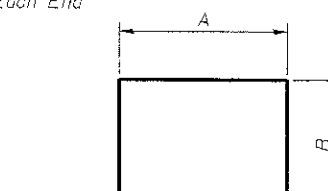
ELEVATION
(Looking East)



BAR n20



BAR p20



BARS

A & B DIMENSIONS

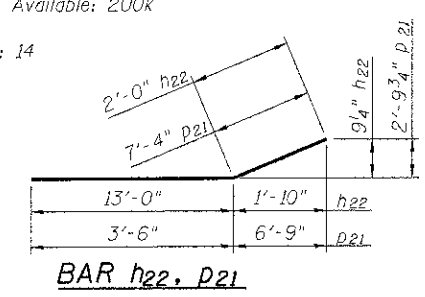
Bar	A	B
u20	3'-0 1/2"	2'-1"
s20	3'-2"	5'-5"
s21	2'-4"	4'-0"
s22	2'-4"	3'-1"

BILL OF MATERIAL

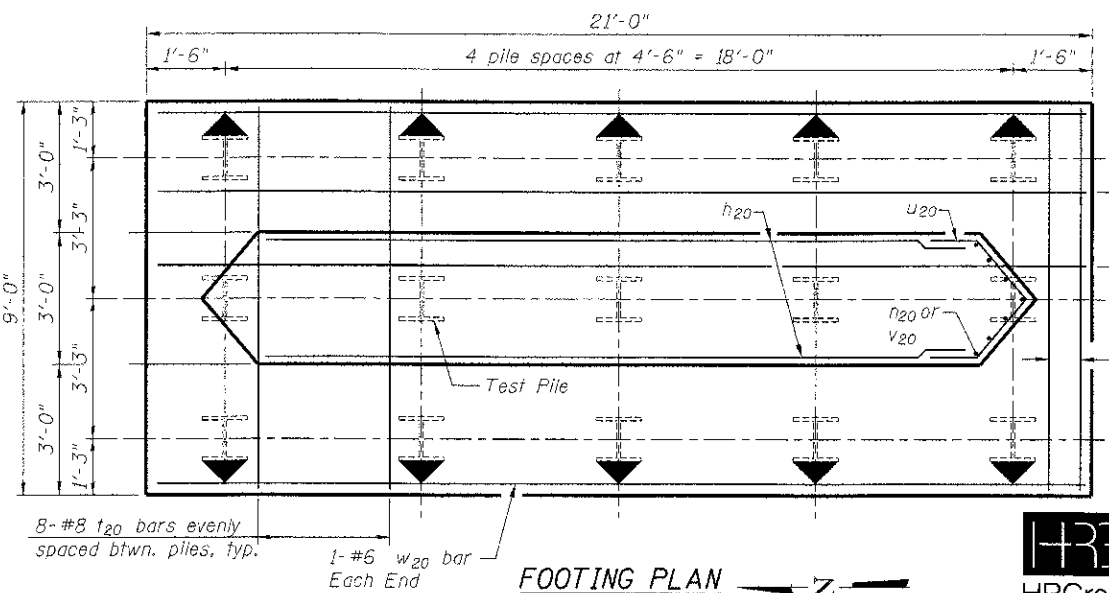
Bar	No.	Size	Length	Shape	
n20	38	#5	13'-4"	—	
n21	6	#5	30'-4"	—	
n22	8	#5	15'-0"	—	
n20	64	#8	7'-4"	—	
p20	8	#10	33'-2"	—	
p21	8	#5	10'-10"	—	
s20	14	#5	14'-0"	□	
s21	104	#5	10'-4"	□	
s22	16	#5	8'-6"	□	
t20	36	#8	8'-8"	—	
u20	8	#6	7'-3"	—	
u21	38	#5	8'-2"	—	
v20	64	#8	20'-9"	—	
w20	8	#6	20'-8"	—	
Concrete Structures				Cu. Yd.	73.3
Reinforcement Bars				Pound	9,840
Furnishing Steel Piles HP12X53				Foot	588
Pile Shoes				Each	15
Driving Piles				Foot	588
Test Pile Steel HP12X53				Each	1
Cofferdam (Type 2) (Location - 2)				Each	1
Cofferdam Excavation				Cu. Yd.	99
Seal Coat Concrete				Cu. Yd.	36.1

PILE DATA

Type: Steel - HP12x53
 Nominal Required Bearing: 400k
 Factored Resistance Available: 200k
 Est. Length: 42'
 No. Production Piles: 14
 No. Test Piles: 1



BAR h22, p21



FOOTING PLAN

DESIGNED	JMW
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

HRGreen.com
 Illinois Professional Design Firm
 # 184-001322

WB CHARLES J. MILLER ROAD BRIDGE		DATE: 7/23/12	
SHEET NO. S-31	F.A.U. RTE. 3860	SECTION 09-00372-00-PW	COUNTY McHENRY
S-41 SHEETS	TOTAL SHEETS 252		SHEET NO. 154
CONTRACT NO. 63633			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT