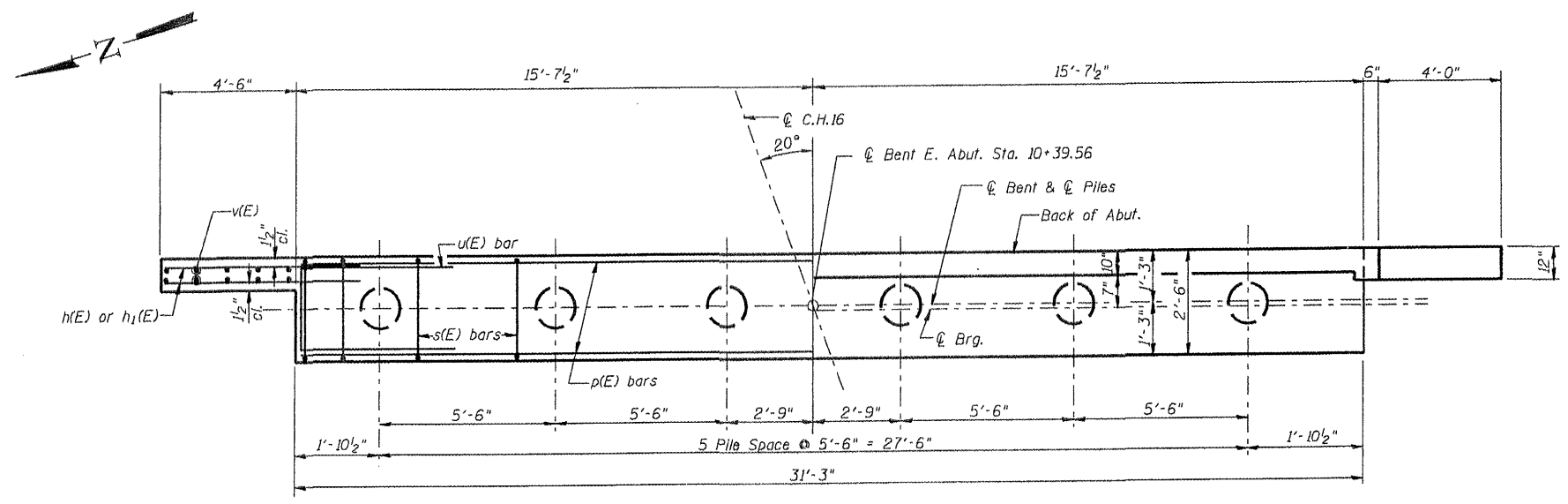


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 16	05-00096-01-BR	KNOX	12	9
FED. ROAD DIST. NO.		KLING STUBBINS	PROJECT	

CONTRACT # B9427



PLAN

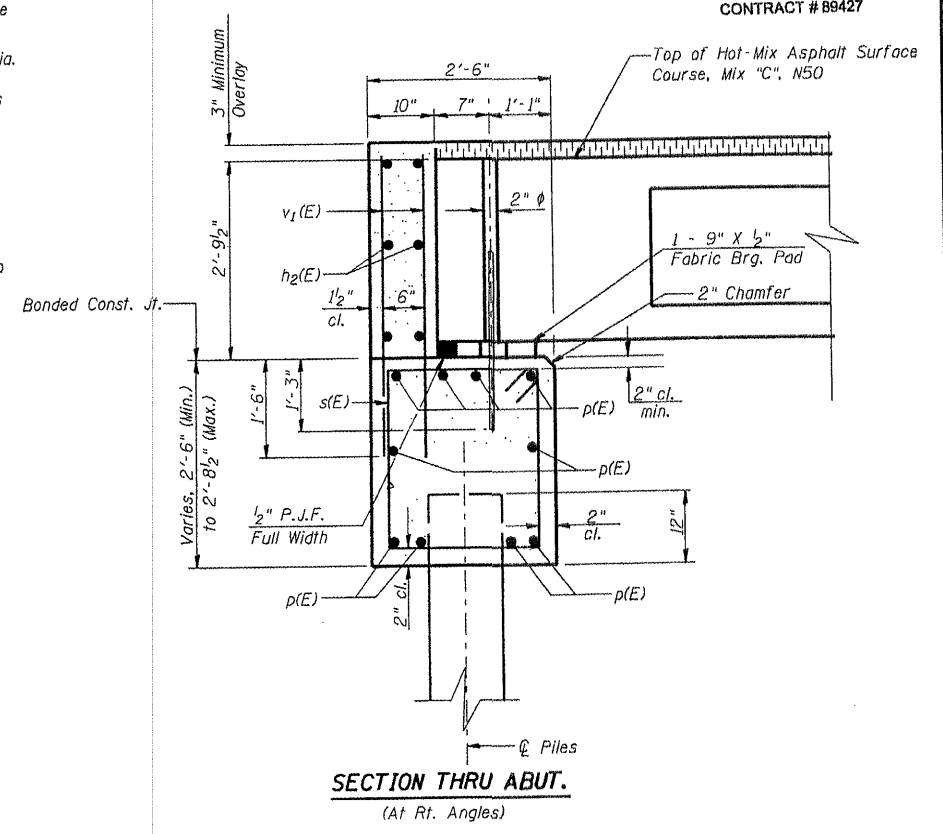
PILE DATA
 Type & Size: Metal Shell - 12" dia. x 0.250 in. walls
 Nominal Required Bearing: 296 Kips
 Factored Resistance Available: 148 Kips
 Estimated Length: 29'-0"
 No. Required: 5 plus 1 permanent test pile

NOTES

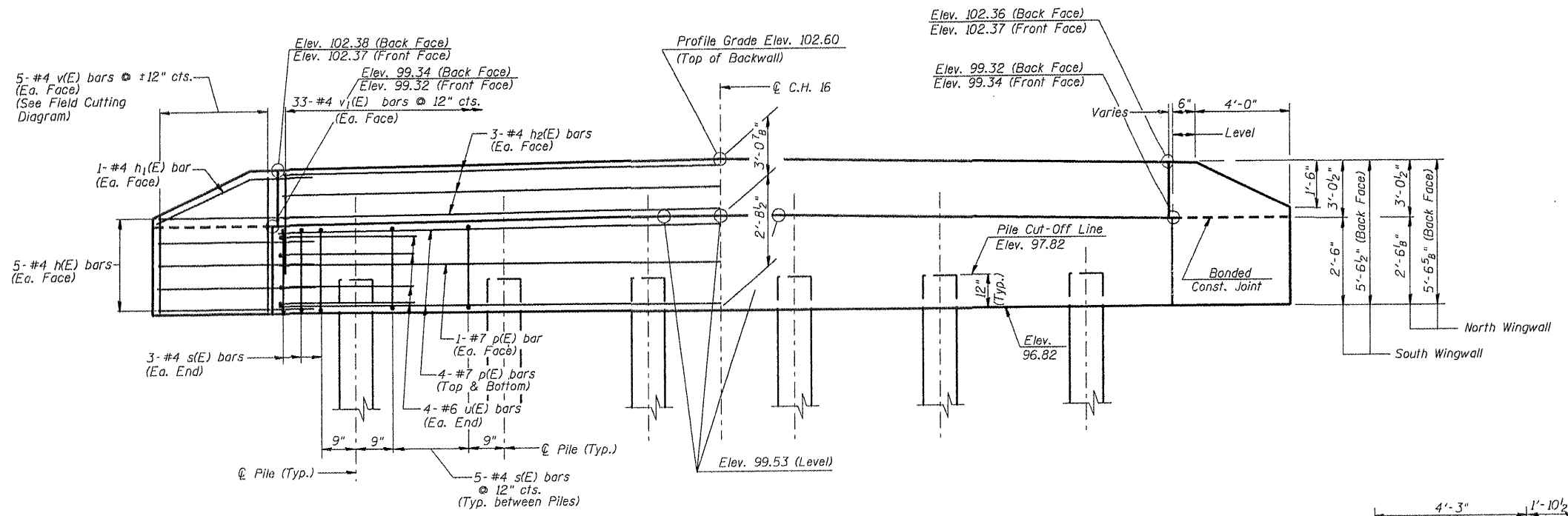
- The Backwall and the portion of the Wingwalls above the bonded construction joint shall be cast against the in-place beam.
- 1" dia. x 2'-6" dowel rods in 1 1/2" dia. holes drilled in cap (2 each beam). Dowel rods to be grouted after beams are in place and allowed to cure (min. 24 hrs.) prior to grouting the shear keys. The grout shall be an approved non-shrink grout.
- Reinforcement bars designated (E) shall be Epoxy coated.
- Reinforcement bars shall conform to the requirements of A.S.T.M. A706 Grade 60. See Special Provisions.
- Space reinforcement in cap to miss dowel rods.
- The Test Pile shall be driven to 110 percent of the Nominal Required Bearing indicated in the Pile Data information.

DESIGN STRESSES

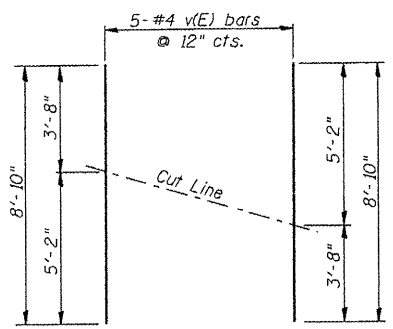
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi



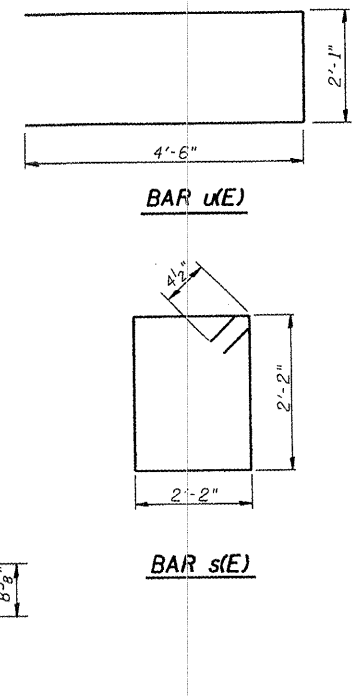
SECTION THRU ABUT.
(At Rt. Angles)



ELEVATION
(Looking East)



FIELD CUTTING DIAGRAM
 Order bars full length. Cut to fit as shown and use remainder of bars in other face.



BILL OF MATERIAL - EAST ABUTMENT

Bar	No.	Size	Length	Shape	
h(E)	20	#4	6'-0"	—	
h1(E)	4	#4	6'-3"	—	
h2(E)	6	#4	30'-11"	—	
p(E)	10	#7	30'-11"	—	
s(E)	31	#4	9'-5"	□	
u(E)	8	#6	11'-1"	—	
v(E)	10	#4	8'-10"	—	
v1(E)	66	#4	4'-5"	—	
Concrete Structures				Cu. Yd.	12.1
Reinforcement Bars, Epoxy Coated				Pound	1440
FURNISHING METAL SHELL PILES 12" X 0.250"				Foot	145
Test Pile Metal Shells				Each	1

EAST ABUTMENT

Date	Designed DCS	C.H. 16 OVER FITCH CREEK SECTION 05-00096-01-BR KNOX COUNTY STA. 10+00.00 PROP. STR. NO. 048-3389	Sheet No.	
Revisions	Drawn DCS		6	
	Checked MJP			of 7
	Approved KWB			URS Job No.
Prepared by:	URS 345 East Ash Avenue Decatur, IL 62526			36432317