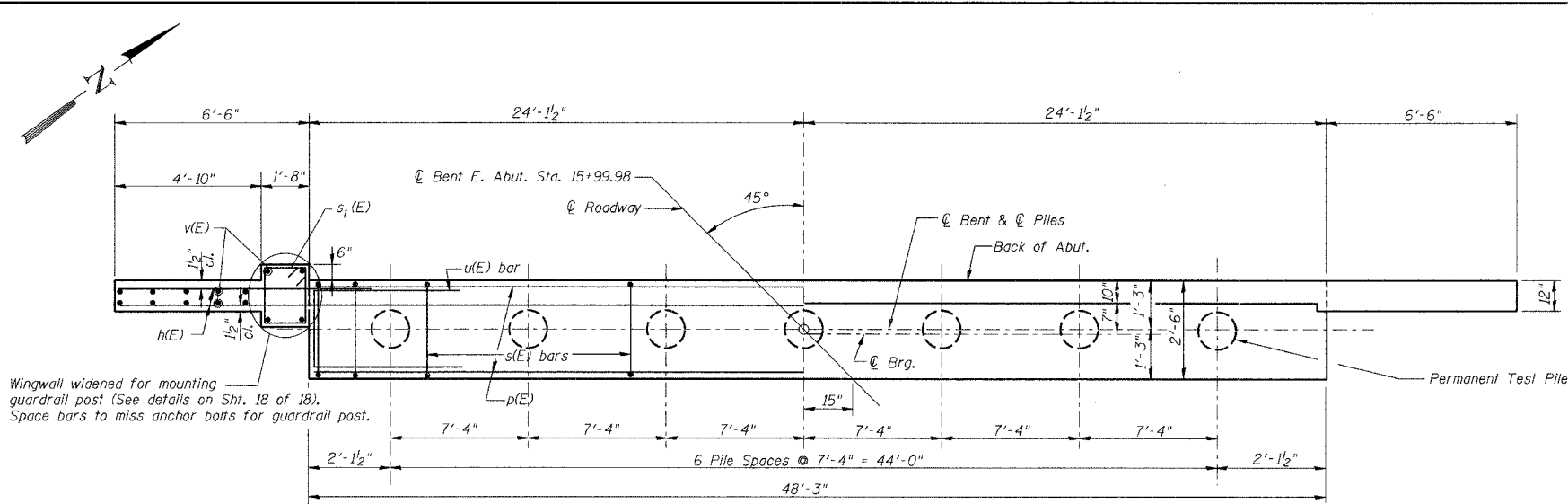
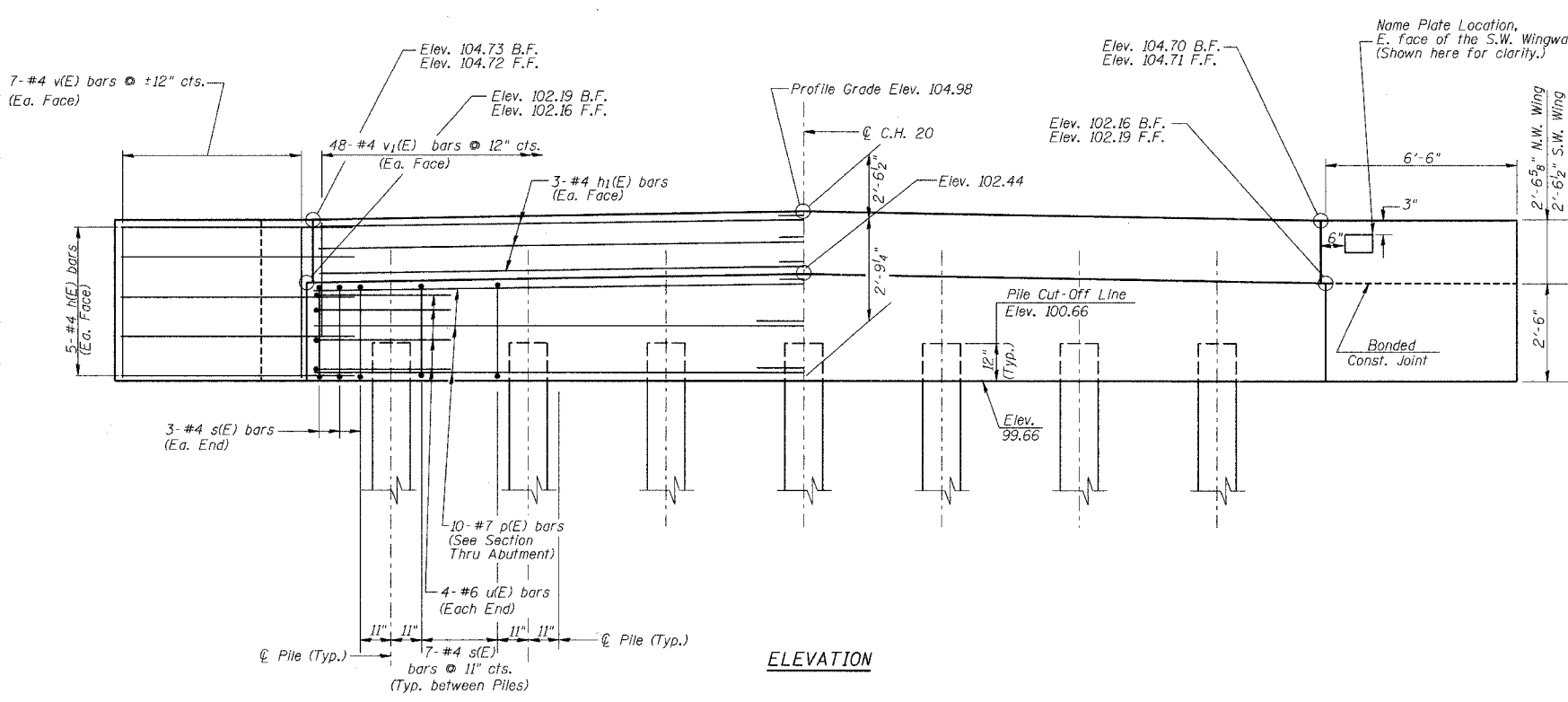


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 20	05-00195-00-BR	MACON	18	16
FED. ROAD DIST. NO.	ILLINOIS	PROJECT BRS-5491(0)		

CONTRACT NO. 95492

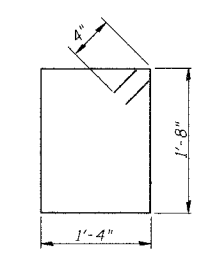
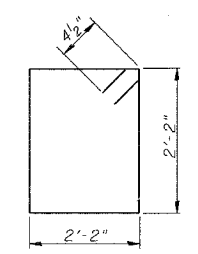
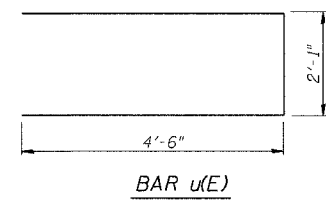
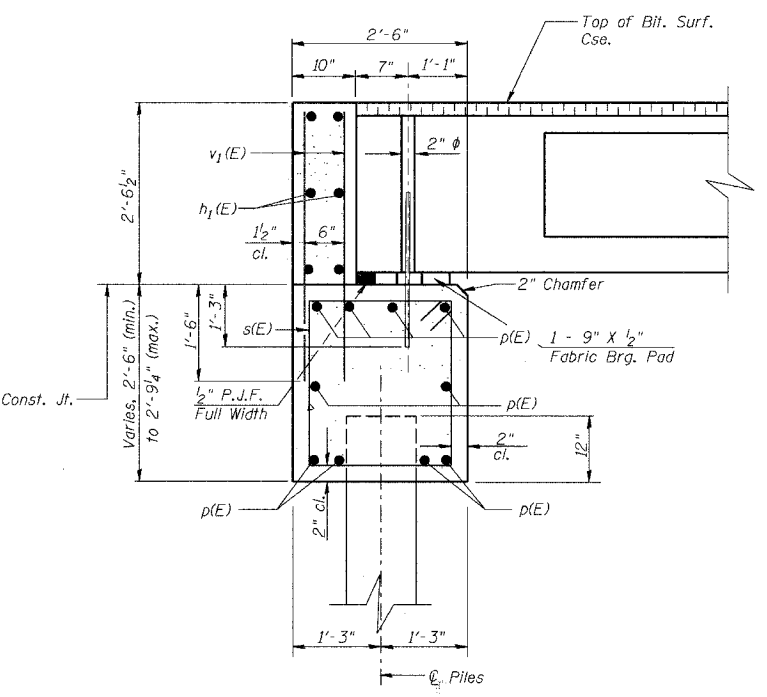


PILE DATA
 Type & Size: Metal Shell Piles - 12 in. dia. x 0.250 in. walls
 Nominal Required Bearing: 198 Kips
 Allowable Resistance Available: 66 Kips
 Est. Length: 27'-0"
 No. Required: 6 plus 1 permanent test pile (at end opposite of boring location)



- 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 (4 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.A.S.H.T.O. M-31 or M-322, Grade 60
 - Space reinforcement in cap to miss dowel rods.
 - The Steel H-Piles shall be according to AASHTO M270, Grade 50.
 - 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



BILL OF MATERIAL WEST ABUTMENT

Bar	No.	Size	Length	Shape
h(E)	20	#4	8'-0"	—
h1(E)	12	#4	25'-2"	—
p(E)	20	#7	26'-5"	—
s(E)	48	#4	9'-5"	□
s1(E)	5	#4	6'-8"	□
u(E)	8	#6	11'-1"	—
v(E)	28	#4	4'-8"	—
v1(E)	96	#4	3'-11"	—
Concrete Structures			Cu. Yd.	18.25
Reinforcement Bars, Epoxy Coated			Pound	2190
Furnishing Metal Shell Piles 12"			Foot	162
Driving and Filling Shells			Foot	162
Test Pile Metal Shells			Each	1

BAR SPLICES

Bar	Size	Min. Length
h1	#4	2'-5"
p	#7	4'-10"

WEST ABUTMENT

Date	Designed MJP	C.H. 20 OVER DRAINAGE DITCH SECTION 05-00195-00-BR MACON COUNTY STA. 15+66.99 PROP. STR. NO. 058-3377	Sheet No.
Revisions	Drawn MJP		4
	Checked KWB		
	Approved KWB		
Prepared by:	URS 345 East Ash Avenue Decatur, IL 62526		of 6 URS Job No. 36431466