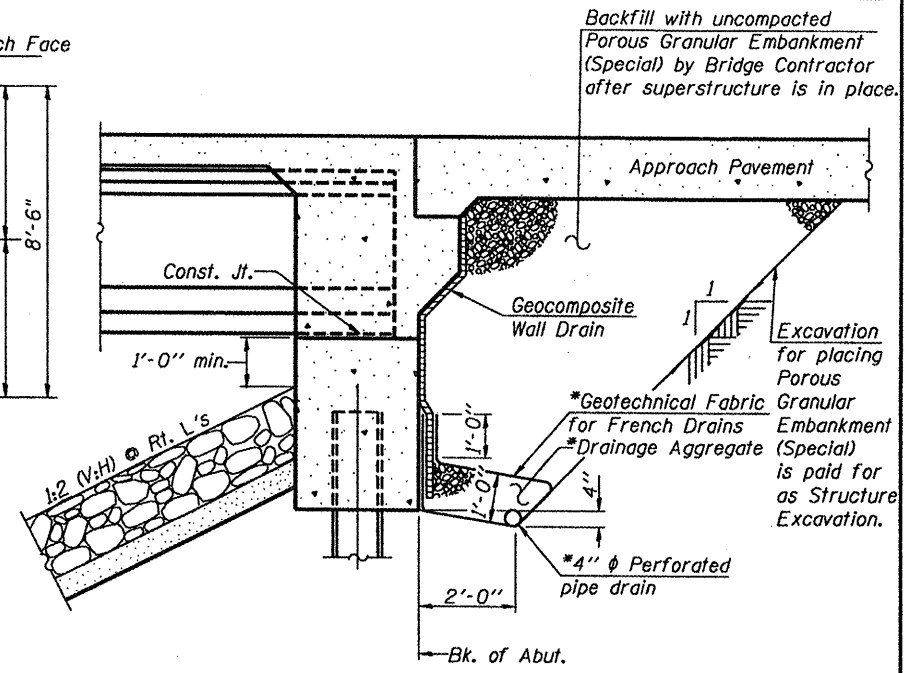
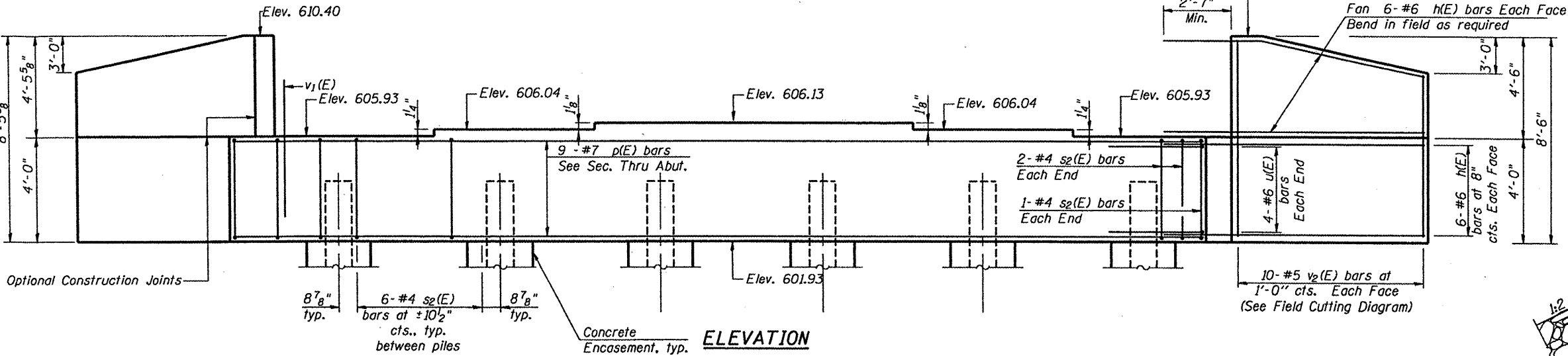


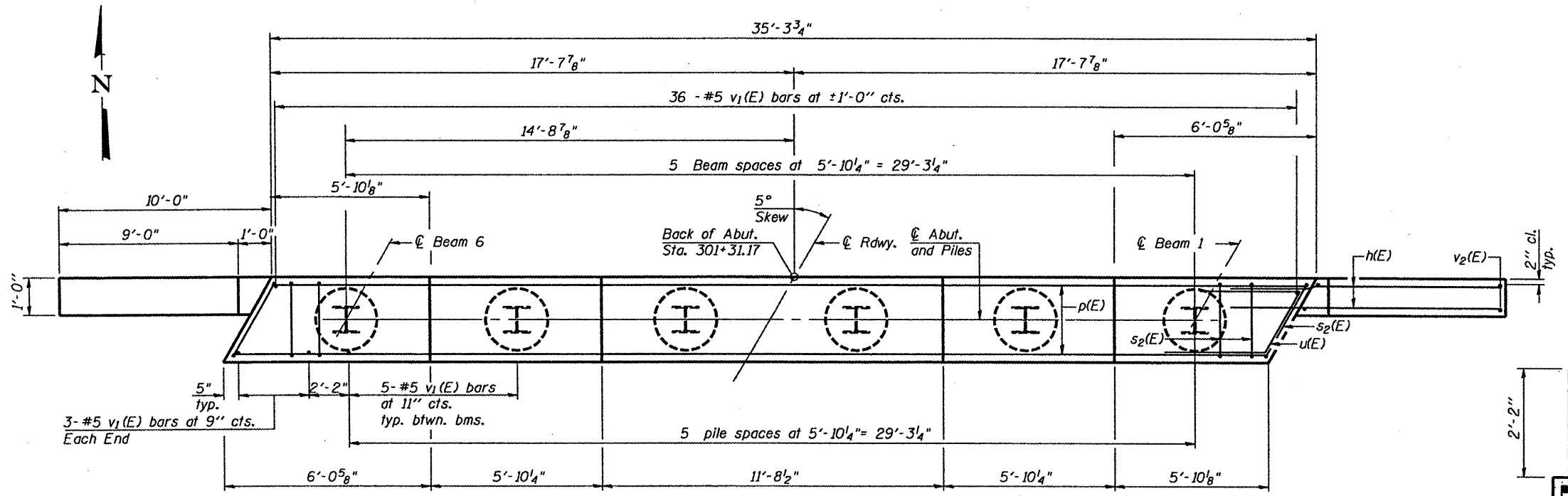
Notes: Pour steps monolithically with cap.



SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

*Included in the cost of Pipe Underdrains for Structures.

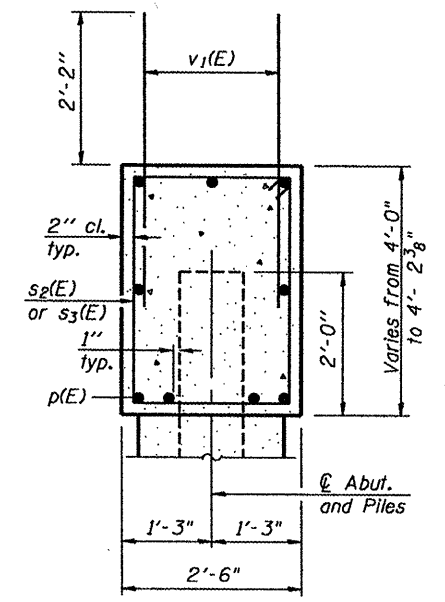
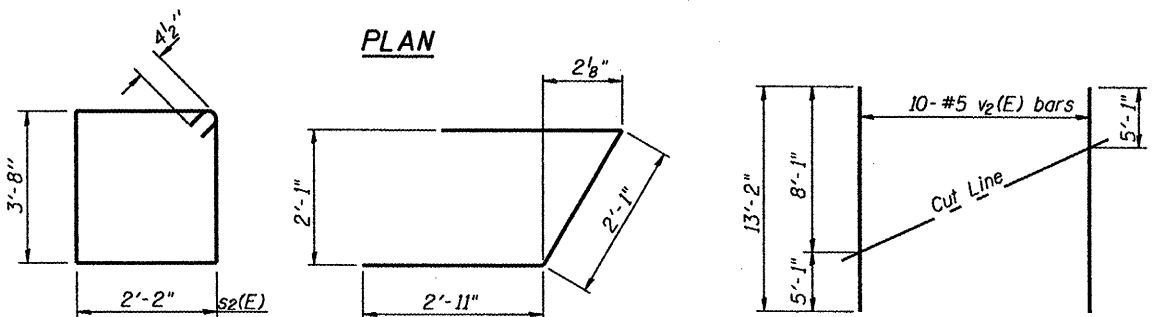
Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



BILL OF MATERIAL

Bar No.	Size	Length	Shape
h(E)	#6	12'-7"	—
p(E)	#7	34'-11"	—
s ₂ (E)	#4	12'-5"	□
u(E)	#6	7'-11"	┘
v ₁ (E)	#5	4'-4"	—
v ₂ (E)	#5	13'-2"	—
Structure Excavation	Cu. Yd.	97	
Concrete Structures	Cu. Yd.	18.7	
Reinforcement Bars, Epoxy Coated	Pound	2520	
Furnishing Steel Piles, HP12x53	Foot	420	
Driving Piles	Foot	420	
Test Pile, Steel HP12x53	Each	1	
Concrete Encasement	Cu. Yd.	2.1	

For details of piles and Concrete Encasement, see sheet 14 of 17.



PILE DATA

Type: HP12x53
Nominal Required Bearing: 375 kips
Factored Resistance Available: 187.5 kips
Est. Length: 84 feet
No. Production Piles: 5
No. Test Piles: 1

Piles shall be driven through 18" diameter precored holes extending to elevation 593.5 according to Article 512.09(c) of the Standard Specifications. Piles shall be driven as soon as possible after precoring is completed. Cost included in driving piles.

DESIGNED	MJJ
CHECKED	ALN
DRAWN	ASW
CHECKED	ALN

THOUVENOT, WADE & MOERCHEN, INC.
SWANSEA • WATERLOO • EDWARDSVILLE • CARBONDALE • ST. CHARLES

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Fax: 618.624.8688



SHEET NO. 12
SHEETS 17

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
534	109BR-2	HENDERSON	490	439
CONTRACT NO. 88773				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

**NORTH ABUTMENT DETAILS
STRUCTURE NO. 036-0069**

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