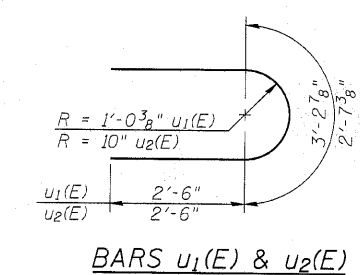
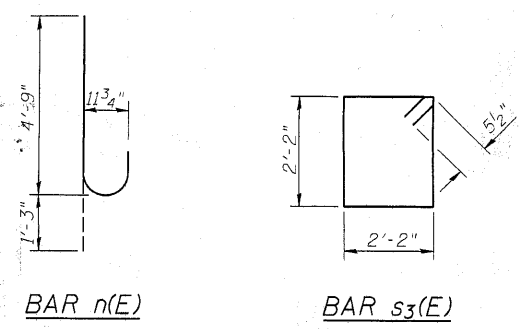
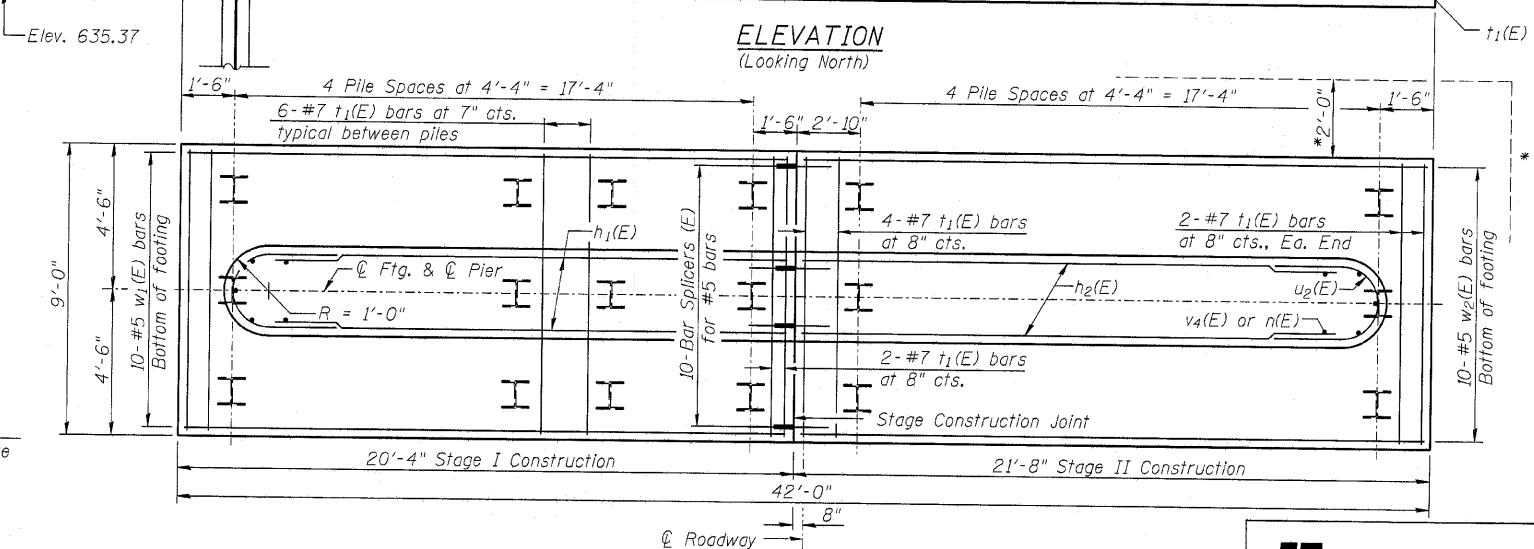
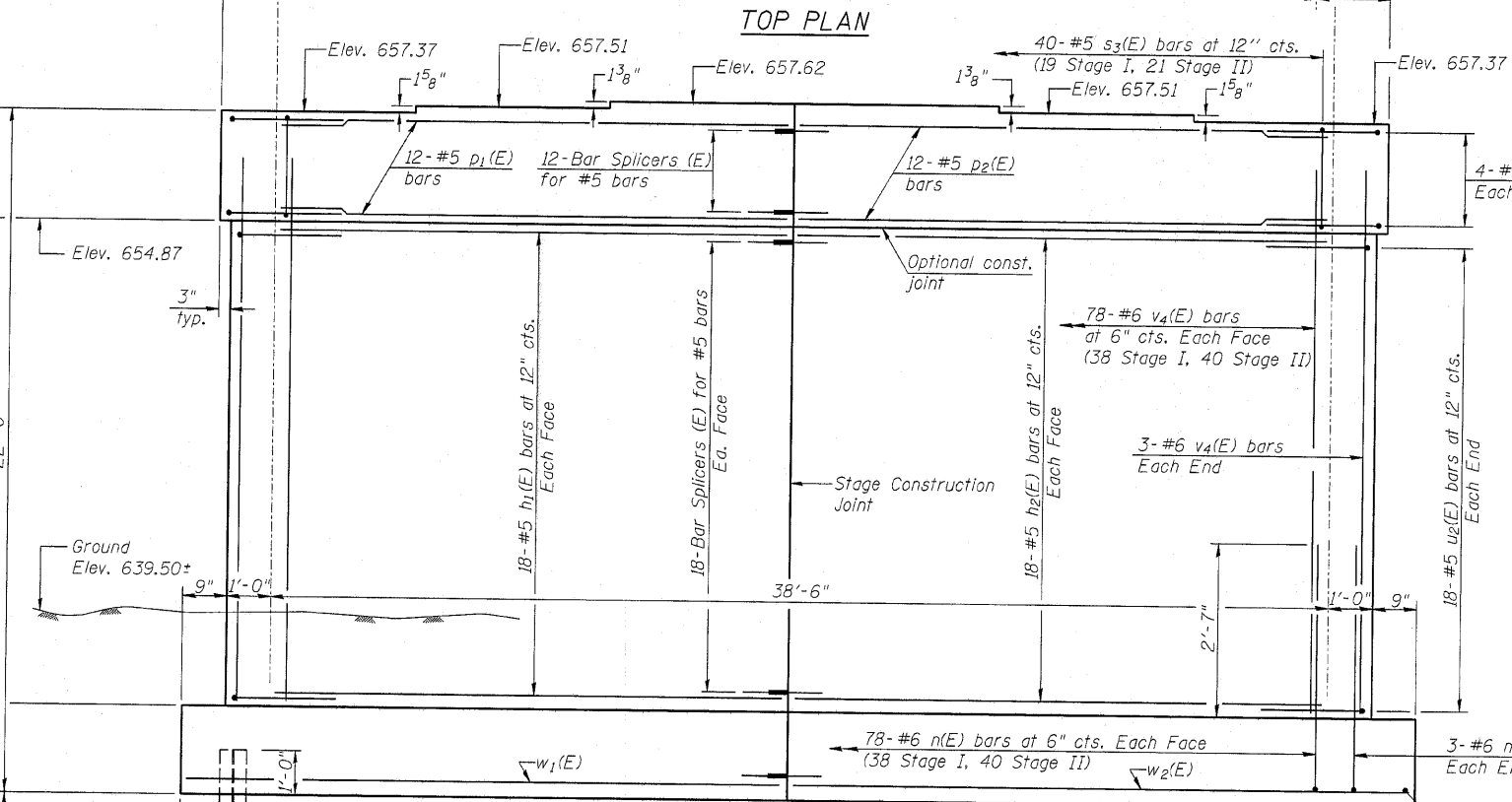
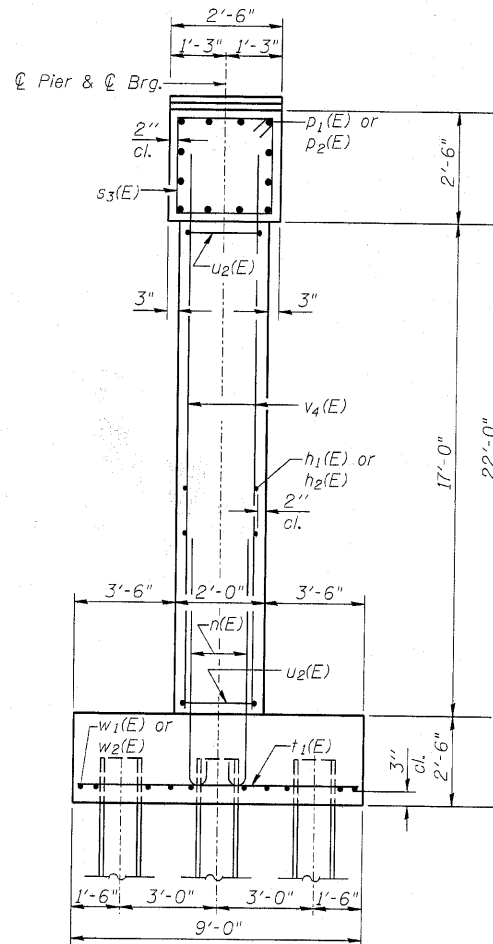
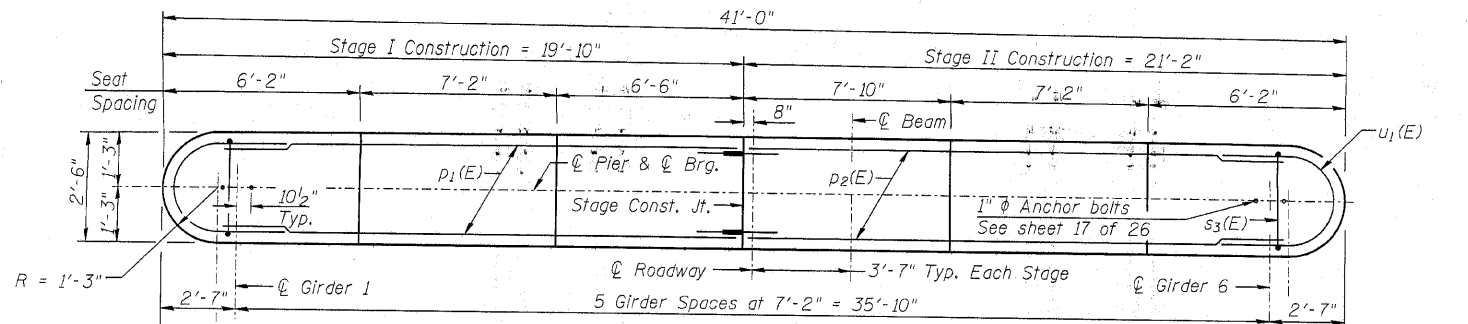


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Notes:  
Space reinforcement in cap to miss anchor bolts.  
Four steps monolithically with cap.  
For details of piles, see sheet 21 of 26.

PILE DATA

Type: Steel HP 12x53 with Pile Shoes  
Nominal Required Bearing: 338 kips  
Factored Resistance Available: 140 kips  
Est. Length: 32'  
No. Production Piles: 29  
No. Test Piles: 1

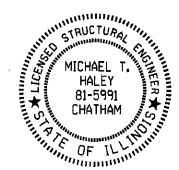


BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	36	#5	18'-5"	—
h2(E)	36	#5	19'-9"	—
n(E)	162	#6	6'-0"	U
p1(E)	12	#5	18'-5"	—
p2(E)	12	#5	19'-9"	—
s3(E)	40	#5	9'-7"	□
t1(E)	58	#7	8'-8"	—
u1(E)	8	#5	8'-3"	U
u2(E)	36	#5	7'-8"	U
v4(E)	162	#6	19'-0"	—
w1(E)	10	#5	20'-0"	—
w2(E)	10	#5	21'-4"	—
Cofferdam Excavation	Cu. Yd.		158	
Concrete Structures	Cu. Yd.		95.4	
Reinforcement Bars, Epoxy Coated	Pound		10210	
Furnishing Steel Piles HP 12x53	Foot		928	
Driving Piles	Foot		928	
Test Pile Steel HP 12x53	Each		1	
Pile Shoes	Each		30	
Cofferdams, Location 1	Each		1	
Seal Coat Concrete	Cu. Yd.		66.4	

PIER DETAILS  
STRUCTURE NO. 098-0117

\* Limits of Cofferdam Excavation, typical around perimeter of footing



Michael T. Haley  
Licensed Structural Engineer  
State of Illinois No. 81-5991  
Expires 11/30/2010  
Date: 9-17-10

Note: See sheet 2 of 26 for Seal Coat details.

**LE** LIN ENGINEERING, LTD.  
Consulting Engineers  
Chatham, Illinois  
Designed By: ADB  
Checked By: MTH  
Date: 04/2010  
Drawn By: ESH  
File: 098-0117.dgn

SHEET NO. 20  
26 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	8BR-1	WHITESIDE	90	54
CONTRACT NO. 84854				
ILLINOIS FED. AID PROJECT				