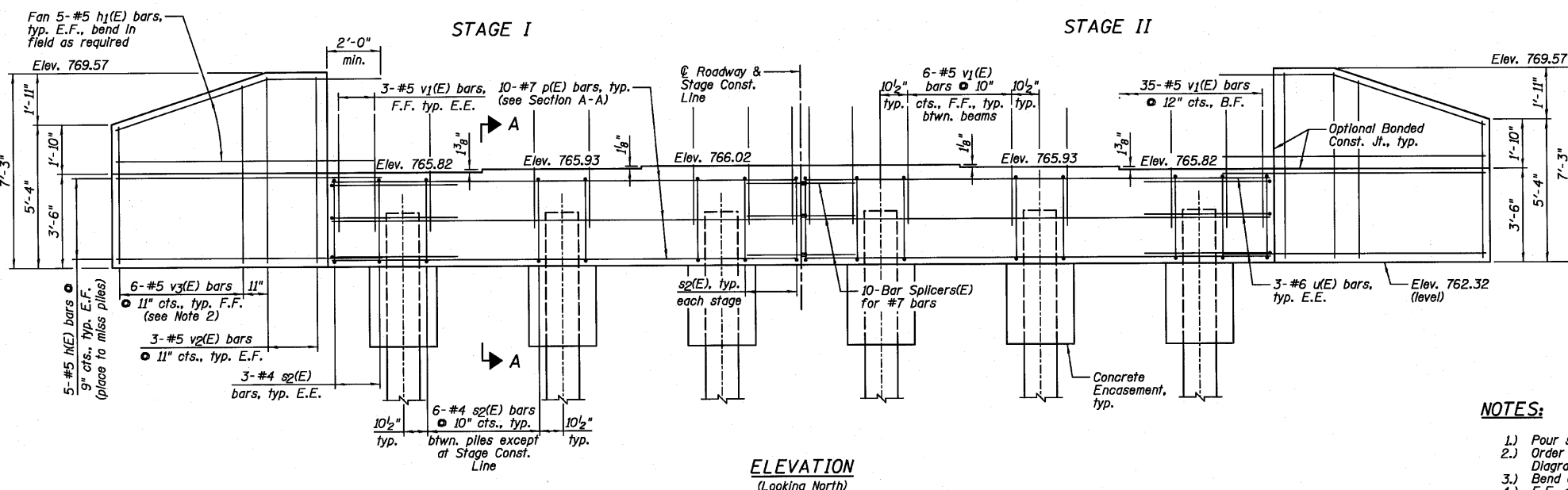
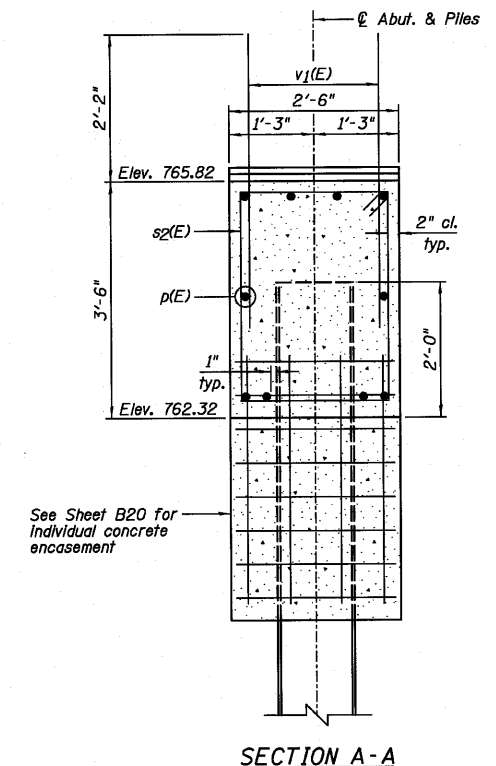
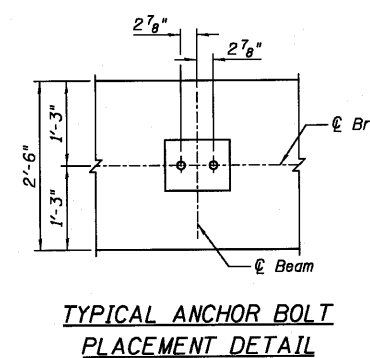
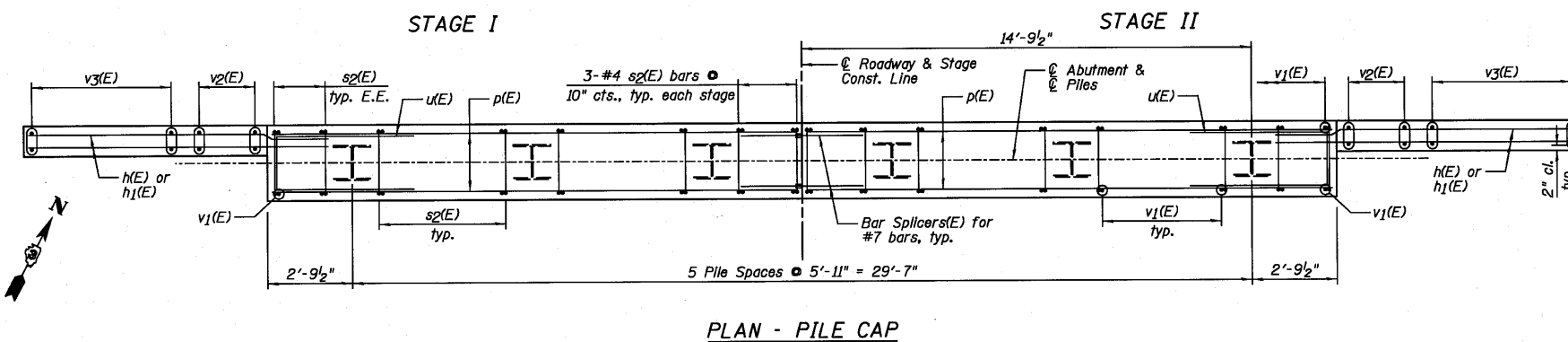
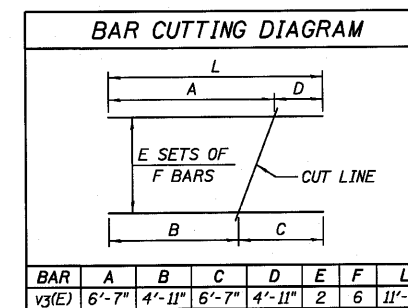
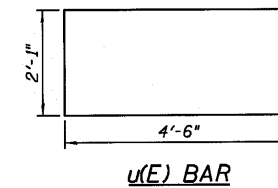
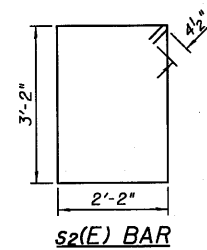
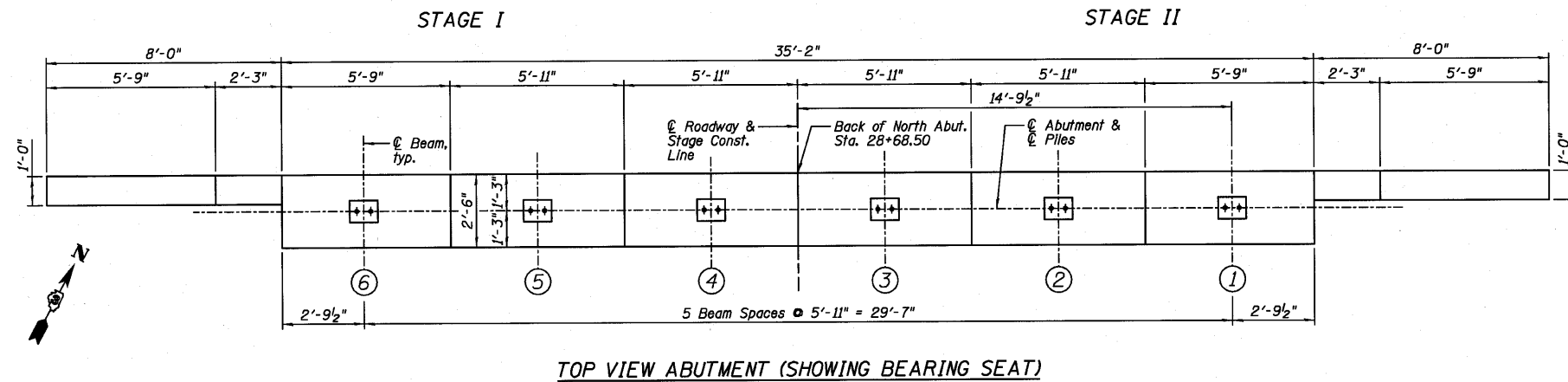


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	20	#5	9'-10"	—
h ₁ (E)	20	#5	10'-1"	—
p(E)	20	#7	17'-3"	—
sp(E)	36	#4	11'-5"	□
u(E)	6	#6	11'-1"	□
v ₁ (E)	71	#5	4'-4"	—
v ₂ (E)	12	#5	6'-11"	—
v ₃ (E)	12	#5	11'-6"	—
Item		Unit	Quantity	
Porous Granular Embankment, Special		Cu. Yd.	58	
Structure Excavation		Cu. Yd.	73	
Concrete Structures		Cu. Yd.	15.6	
Concrete Encasement		Cu. Yd.	3.3	
Reinforcement Bars, Epoxy Coated		Pound	2,050	
Furnishing Steel Piles HP14x73		Foot	135	
Driving Piles		Foot	135	
Test Pile Steel HP14x73		Each	1	
Geocomposite Wall Drain Structures 4"		Sq. Yd.	33	
Pipe Underdrains for Structures 4"		Foot	69	



NOTES:

- 1) Pour steps monolithically with cap.
- 2) Order v₃(E) bars full length. Cut according to Bar Cutting Diagram. Use remainder of bars in opposite face of wingwall.
- 3) Bend or cut h(E) bars to miss piles.
- 4) E.E. denotes Each End, F.F. denotes Front Face, B.F. denotes Back Face and E.F. denotes Each Face.
- 5) See Sheet B21 for Bar Splicer Details.

PILE DATA:

Pile Type and Size	Steel - HP14x73
Nominal Required Bearing	276 klps
Factored Resistance Available	152 klps
Estimated Pile Length	27 Feet
Number of Production Piles	5
Number of Test Piles	1

DESIGNED	SDH
CHECKED	JML
DRAWN	DJM
CHECKED	MSW

DATE 10/08/10

Farnsworth GROUP, INC.
2709 McGraw Drive
Bloomington, Illinois 61704
309/663-8435, 309/663-1571 fax

SHEET NO. B17
23 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	(101 BR)BR	BUREAU	47	31
CONTRACT NO. 66910				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		