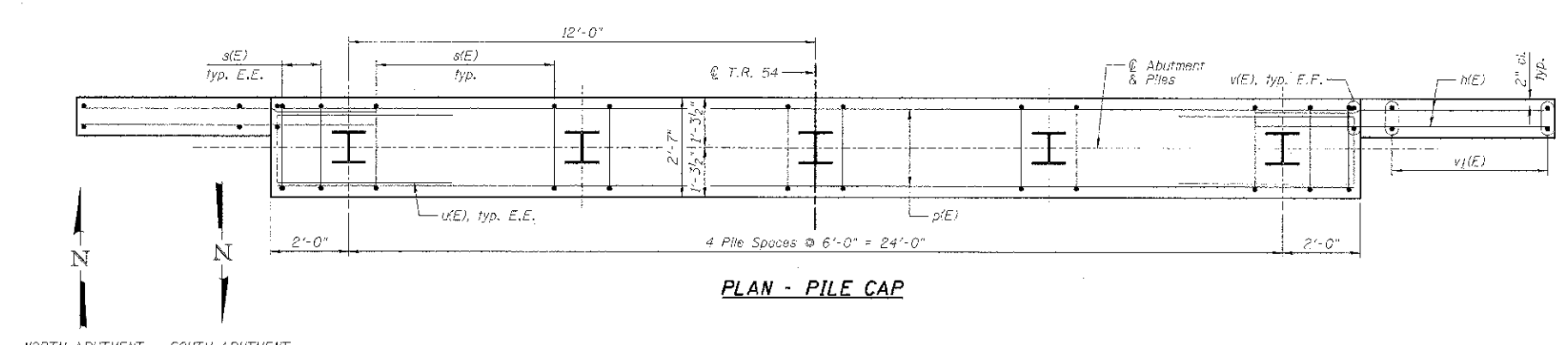
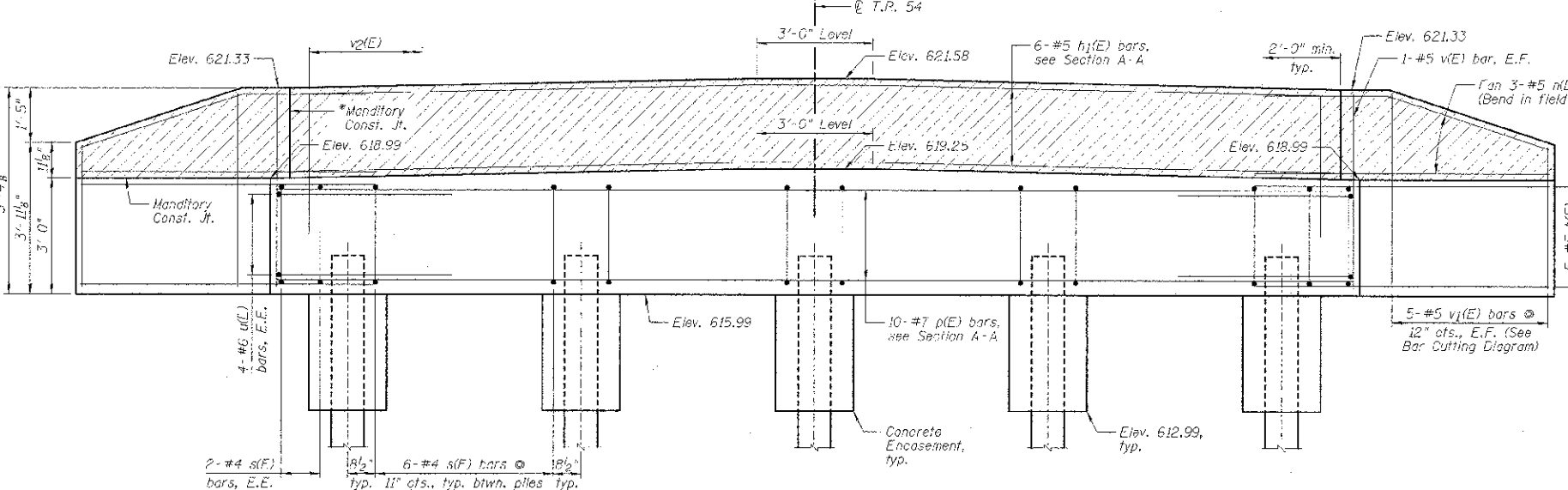


TOP VIEW ABUTMENT



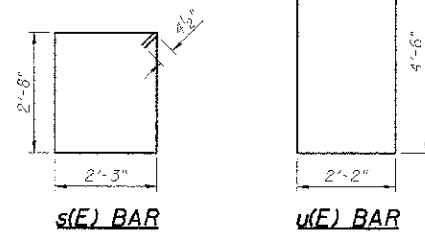
PLAN - PILE CAP



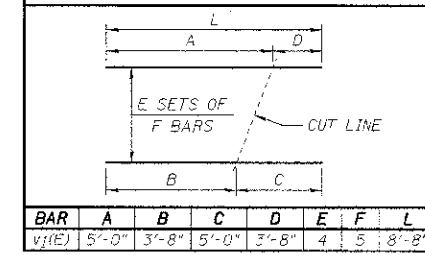
ELEVATION



LEGEND

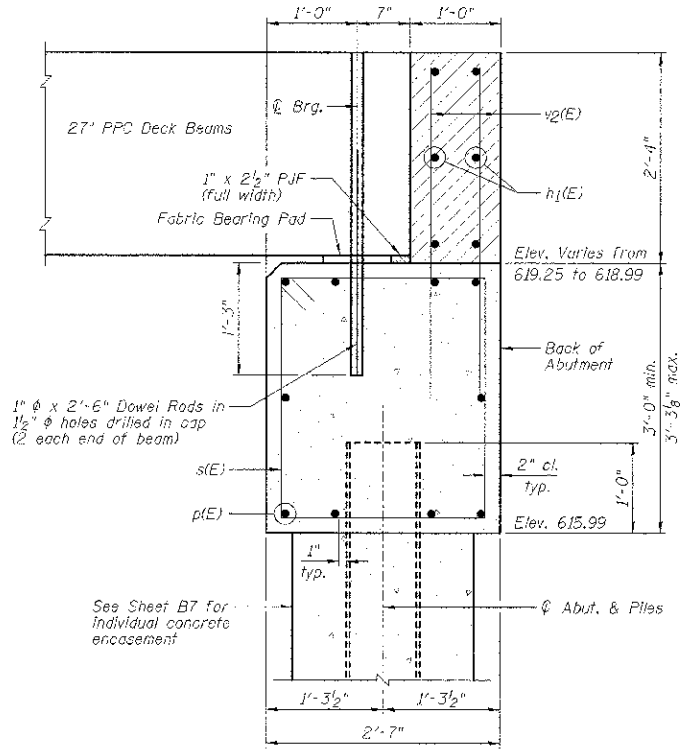


BAR CUTTING DIAGRAM



**TWO ABUTMENTS
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h1(E)	64	#5	7'-7"	
h2(E)	12	#5	25'-8"	
p(E)	20	#7	27'-8"	
s(E)	96	#4	10'-7"	
u(E)	16	#6	11'-2"	
v(E)	8	#5	5'-0"	
v1(E)	20	#5	8'-8"	
v2(E)	108	#5	3'-8"	
Item	Unit	Quantity		
Concrete Structures	Cu. Yd.	25.2		
Concrete Encasement	Cu. Yd.	3.6		
Reinforcement Bars, Epoxy Coated	Pound	3,270		
Furnishing Steel Piles HP10x42	Foot	305		
Driving Piles	Foot	305		
Test Pile Steel HP10x42	Each	1		
Pipe Underdrains For Structures 4"	Foot	120		
Porous Granular Embankment, Special	Cu. Yd.	58		



SECTION A-A

SOUTH ABUTMENT PILE DATA:

Type	HP10x42 Steel
No. Req'd.	4+1 Test Pile
Est. Length	35 feet
Nominal Required Bearing	335 kips
Factored Resistance Available	184 kips

NORTH ABUTMENT PILE DATA:

Type	HP10x42 Steel
No. Req'd.	5
Est. Length	33 feet
Nominal Required Bearing	335 kips
Factored Resistance Available	184 kips

NOTES:

- 1.) E.E. denotes Each End & E.F. denotes Each Face.
- 2.) Order v1(E) bars full length. Cut according to Bar Cutting Diagram. Use remainder of v1(E) bars in opposite face of wingwall.

Farnsworth GROUP, INC.
2700 McDermott Drive
Evanston, Illinois 61124
309.663.6435, 309.963.1574 fax

DESIGNED - CEE
CHECKED - JML
DRAWN - DJM
DATE - 01/18/13

REVISED
RFV/SFD
REVISED
CHECKED - MSW

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ABUTMENTS
STRUCTURE NO. 053-4204**

SHEET NO. 66 OF 9 SHEETS

T.R. SECTION COUNTY TOTAL SHEETS
54 3-17129-01-BR LIVINGSTON 16 21
CONTRACT NO. 87503
ILLINOIS FED. AID PROJECT