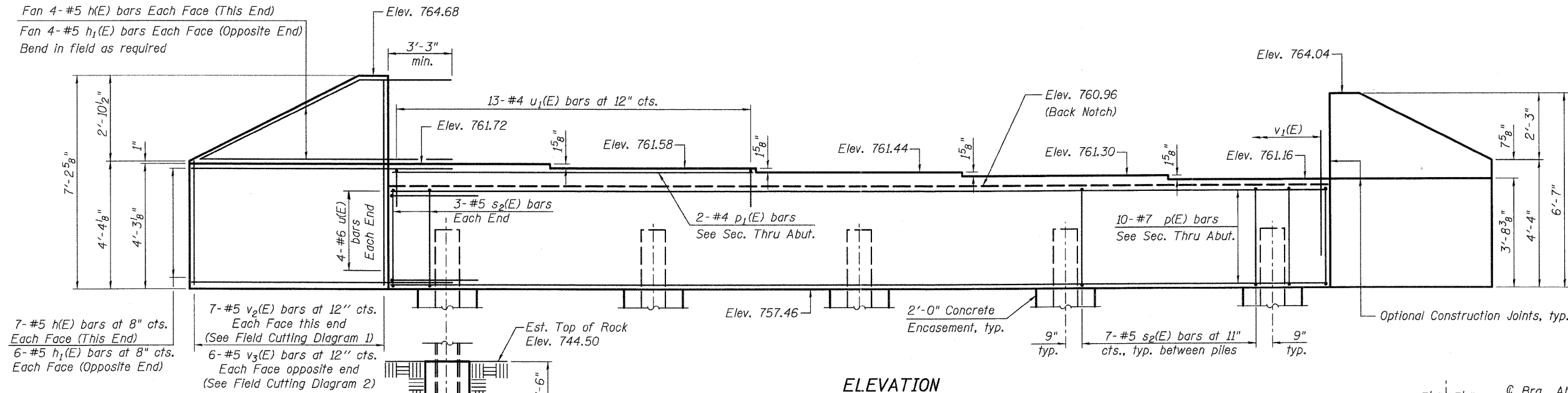
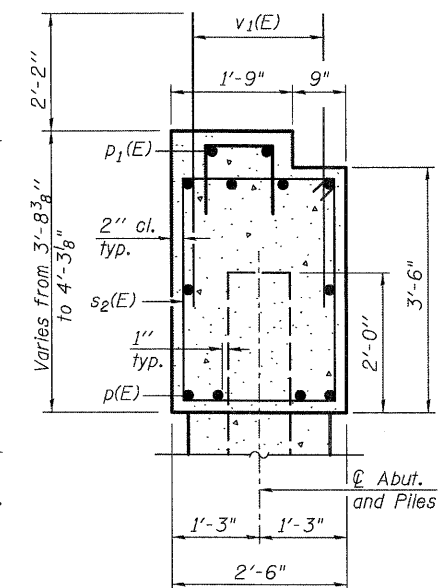


Fan 4-#5 h(E) bars Each Face (This End)  
 Fan 4-#5 h<sub>1</sub>(E) bars Each Face (Opposite End)  
 Bend in field as required

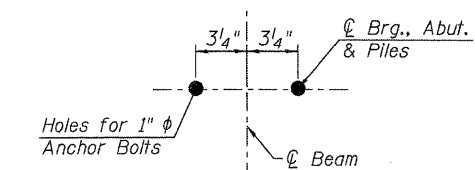
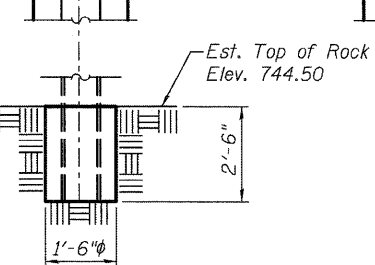


**ELEVATION**

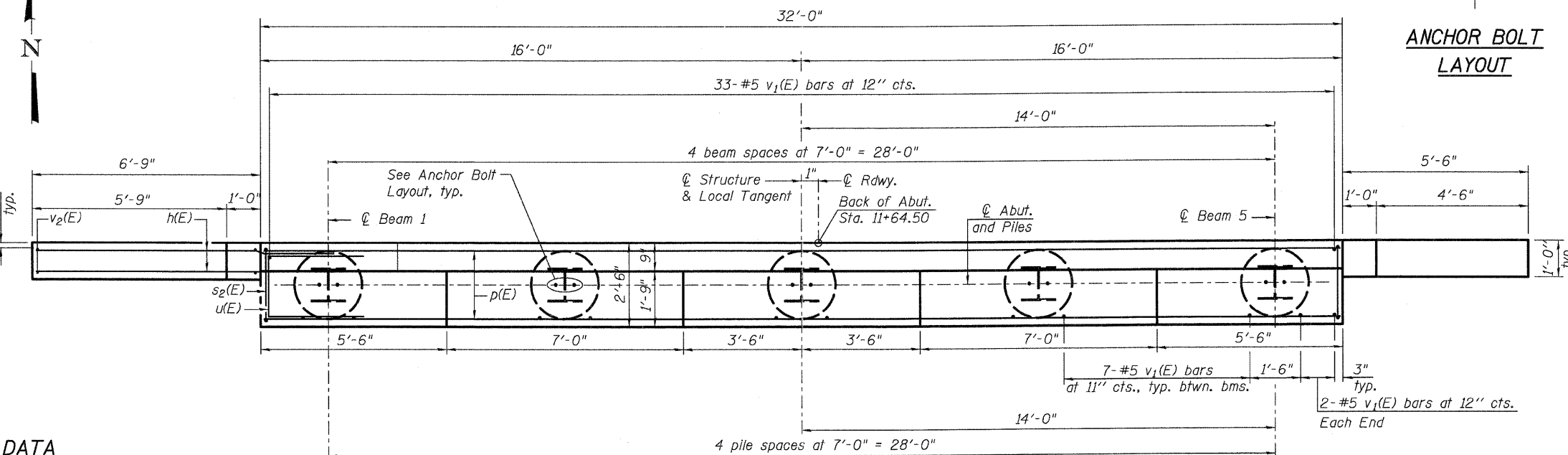


**SEC. THRU ABUT.**

7-#5 h(E) bars at 8" cts. Each Face (This End)  
 6-#5 h<sub>1</sub>(E) bars at 8" cts. Each Face (Opposite End)  
 7-#5 v<sub>2</sub>(E) bars at 12" cts. Each Face this end (See Field Cutting Diagram 1)  
 6-#5 v<sub>3</sub>(E) bars at 12" cts. Each Face opposite end (See Field Cutting Diagram 2)



**ANCHOR BOLT LAYOUT**



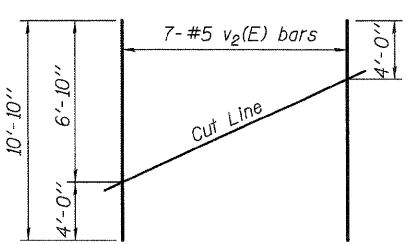
**PLAN**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	22	#5	10'-0"	
h <sub>1</sub> (E)	20	#5	8'-9"	
p(E)	10	#7	31'-8"	
p <sub>1</sub> (E)	2	#4	12'-2"	
s <sub>2</sub> (E)	34	#5	11'-7"	
u(E)	8	#6	10'-1"	
u <sub>1</sub> (E)	13	#4	3'-6"	
v <sub>1</sub> (E)	65	#5	4'-4"	
v <sub>2</sub> (E)	7	#5	10'-10"	
v <sub>3</sub> (E)	6	#5	10'-3"	
Structure Excavation		Cu. Yd.	98	
Concrete Structures		Cu. Yd.	14.0	
Concrete Encasement		Cu. Yd.	1.8	
Reinforcement Bars, Epoxy Coated		Pound	2,070	
Furnishing Steel Piles, HP 12x53		Foot	87.5	
Setting Piles in Rock		Each	5	

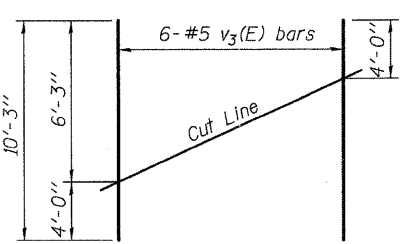
**PILE DATA**

Type: Steel HP 12x53  
 Nominal Required Bearing: Set in Rock  
 Factored Resistance Available: 209.5 kips  
 Est. Length: 17.50'  
 No. Production Piles: 5  
 No. Test Piles: 0  
 Estimated Top of Rock: 744.50  
 Rock Socket Depth: 2.5'  
 Rock Socket Diameter: 1'-6"



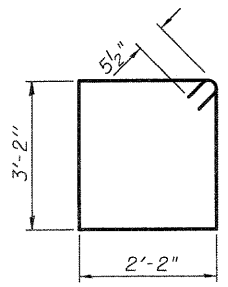
**FIELD CUTTING DIAGRAM 1**

Order v<sub>2</sub>(E) full length. Cut as shown and use remainder of bars in opposite face.

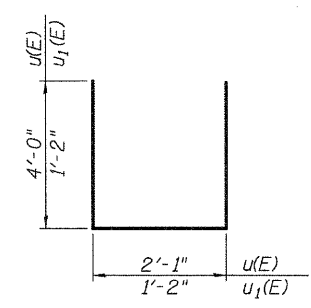


**FIELD CUTTING DIAGRAM 2**

Order v<sub>3</sub>(E) full length. Cut as shown and use remainder of bars in opposite face.



**BAR s<sub>2</sub>(E)**



**BAR u(E) & u<sub>1</sub>(E)**

Notes:  
 Pour steps monolithically with cap.  
 For details of piles and Concrete Encasement, see sheet 17 of 20.

FILE NAME = W:\Projects\2018\100025 Burr-Ferguson\1\00025\Structural\Drawings\0453080-016-Abut.dgn

**WILLS BURKE KELSEY ASSOCIATES LTD.**  
 116 West Main Street, Suite 201  
 St. Charles, Illinois 60174

USER NAME = nperris	DESIGNED - HLF	REVISED -
PLOT SCALE =	DRAWN - AEU	REVISED -
PLOT DATE = 10/18/2011	CHECKED - HLF	REVISED -
	DATE - AEU	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**NORTH ABUTMENT  
 STRUCTURE NO. 045-3080**  
 SHEET NO. 16 OF 19 SHEETS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0194	08-14117-00-BR	KANE	76	49
CONTRACT NO.				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				