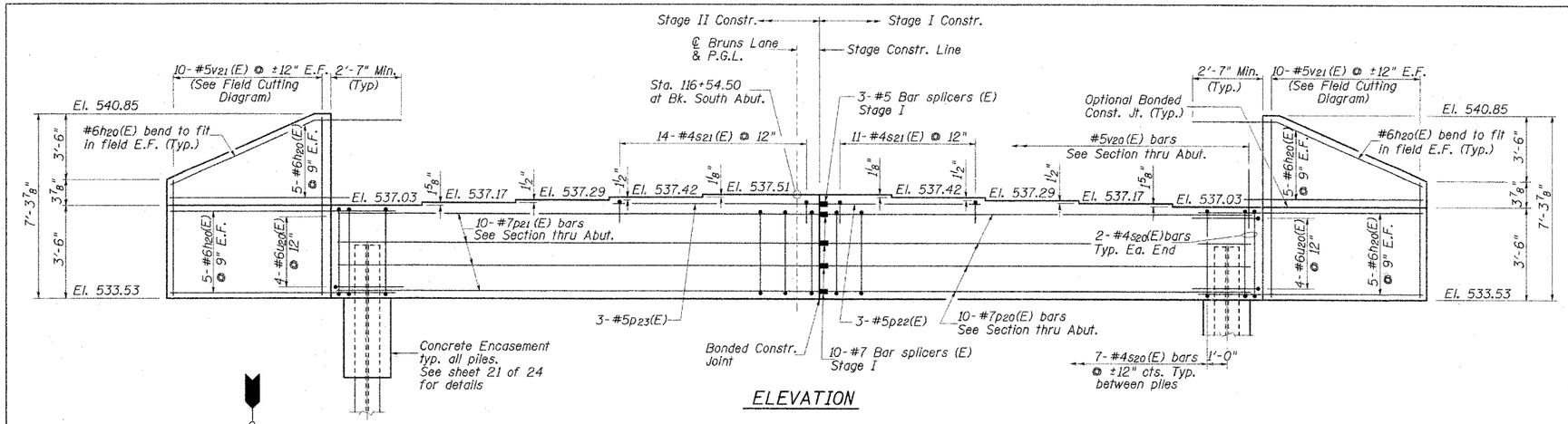
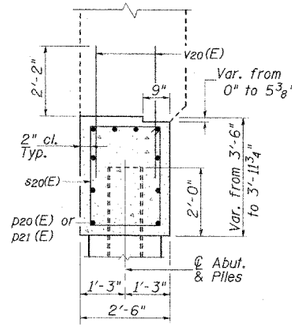
93444

F.A.U. RTE.	SECTION *	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00444-00-BR	SANGAMON	33	23
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

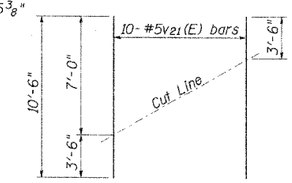
*CITY OF SPRINGFIELD SHEET 17 OF 24 SHEETS



ELEVATION

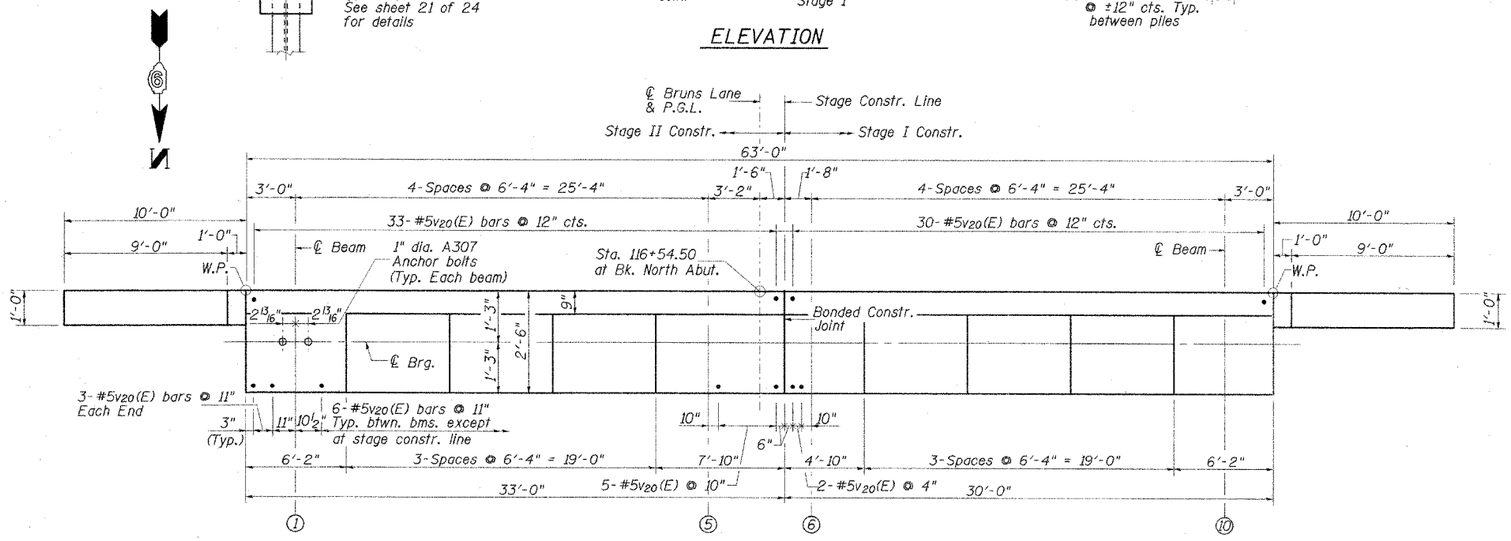


SECTION THRU ABUTMENT

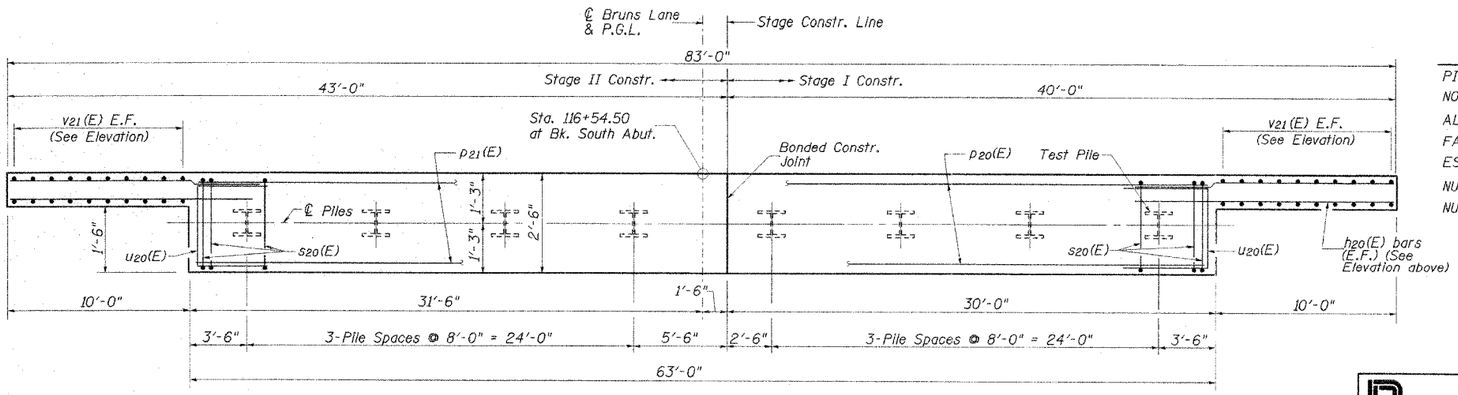


FIELD CUTTING DIAGRAM

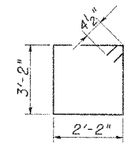
Order v21(E) full length. Cut as shown and use remainder of bars in opposite face.



TOP VIEW

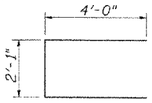


PILE CAP PLAN



BAR s20(E)

BAR s21(E)



BAR u20(E)

SOUTH ABUT. BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h20(E)	40	#6	13'-0"	——
p20(E)	10	#7	29'-8"	——
p21(E)	10	#7	32'-8"	——
p22(E)	3	#5	10'-10"	——
p23(E)	3	#5	13'-10"	——
s20(E)	53	#4	11'-5"	⌐¬
s21(E)	25	#4	5'-5"	⌐¬
u20(E)	8	#6	10'-1"	⌐¬
v20(E)	124	#5	4'-4"	——
v21(E)	20	#5	10'-6"	——
Concrete Structures		Cu. Yd.	25.7	
Concrete Encasement		Cu. Yd.	2.8	
Reinforcement Bars, Epoxy Coated		Pound	3530	
Structure Excavation		Cu. Yd.	184	
Bar Splicers		Each	13	
Furnishing Steel Piles HP 12x53		Foot	347	
Driving Piles		Foot	347	
Test Pile Steel HP 12x53		Each	1	

PILE DATA

PILE TYPE AND SIZE:	HP 12x53
NOMINAL REQUIRED BEARING:	419 kips
ALLOWABLE RESISTANCE AVAILABLE:	140 kips
FACTORED RESISTANCE AVAILABLE:	209 kips
ESTIMATED PILE LENGTH:	49.5 Ft.
NUMBER OF PRODUCTION PILES:	7
NUMBER OF TEST PILES:	1

NOTES:

1. Pour steps monolithically with cap.
2. Space reinforcement to miss anchor bolts.
3. See Sheet 2 of 24 for abutment backfill requirements.
4. See Sheet 20 of 24 for bar splicer details.
5. See Sheet 21 of 24 for steel H-pile details.

REVISIONS NAME	DATE

CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

CITY OF SPRINGFIELD, ILLINOIS

SOUTH ABUTMENT

FAU 8006-BRUNS LANE OVER SPRING CREEK
SECTION 05-00444-00-BR
SANGAMON COUNTY
STATION 115+77.50 S.N. 084-6017

SCALE: NONE DRAWN BY: GLD
DATE: 6/19/07 CHECKED BY: WK

L:\Springfield\050250\Draw\Sheets\SOUTH ABUTMENT.dgn
6/22/2007