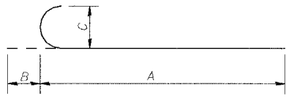
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

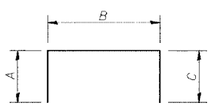
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 351	3277R	COOK	66	42
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract No. 62206



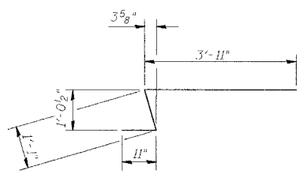
BARS n(E), n_1(E), n_2(E), n_3(E) & n_4(E) thru n_8(E)

	Bar	A	B	C
	n(E)	12'-6"	1'-3"	11 3/4"
	n_1(E)	4'-6"	7"	5"
	n_2(E)	4'-6"	7"	5"
	n_3(E)	9'-0"	1'-5"	1'-1 1/4"
	n_4(E)	8'-7"	10"	7"
	n_5(E)	5'-8"	10"	7"
	n_6(E)	3'-7"	7"	5"
	n_7(E)	23'-0"	1'-5"	1'-1 1/4"
(See Note 4)	n_8(E)	23'-1"	1'-5"	1'-1 1/4"

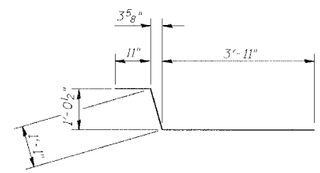


BARS u(E), u_1(E) & u_3(E)

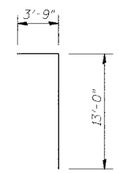
Bar	A	B	C
u(E)	2'-0"	4'-8"	2'-0"
u_1(E)	1'-8"	4'-8"	2'-0"
u_3(E)	10"	4'-8"	3'-5"



BAR u_2(E)



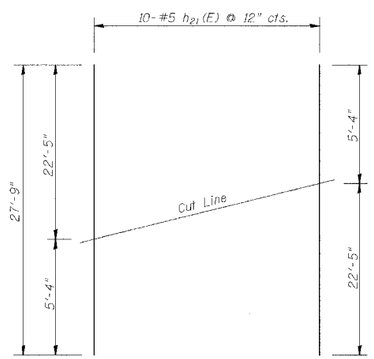
BAR u_4(E)



BAR u_5(E)

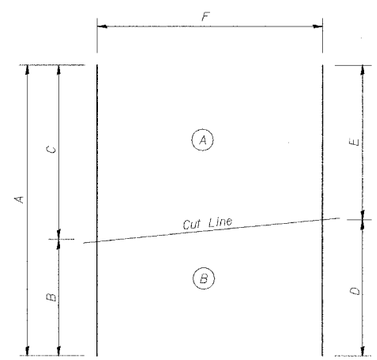
BILL OF MATERIAL - SOUTH ABUTMENT

	Bar	No.	Size	Length	Shape	Bar	No.	Size	Length	Shape
	h_2(E)	3	#5	9'-7"		v(E)	50	#7	6'-5"	
	h_3(E)	3	#5	6'-9"		v_1(E)	50	#5	6'-5"	
	h_4(E)	3	#5	3'-6"		v_2(E)	56	#5	9'-2"	
	h_5(E)	5	#5	3'-3"		v_3(E)	28	#5	8'-3"	
	h_6(E)	3	#5	2'-11"		v_4(E)	36	#5	13'-10"	
	h_7(E)	3	#5	2'-8"		v_5(E)	14	#5	13'-11"	
	h_8(E)	3	#5	2'-4"		v_6(E)	18	#8	13'-11"	
	h_9(E)	3	#5	2'-1"		v_7(E)	2	#5	16'-4"	
	h_{10}(E)	3	#5	1'-9"		v_8(E)	2	#6	16'-4"	
	h_{11}(E)	3	#5	1'-6"		v_{10}(E)	12	#6	26'-7"	
	h_{12}(E)	3	#5	1'-2"						
	h_{18}(E)	30	#5	13'-9"						
	h_{19}(E)	72	#5	28'-3"		v_{14}(E)	12	#5	20'-8"	
	h_{20}(E)	10	#5	23'-8"		v_{15}(E)	5	#6	14'-9"	
	h_{21}(E)	10	#5	27'-9"		v_{16}(E)	1	#6	4'-6"	
	h_{22}(E)	2	#5	26'-6"		v_{17}(E)	1	#5	4'-6"	
	n(E)	110	#9	13'-9"		w_7(E)	68	#7	29'-0"	
	n_1(E)	92	#5	5'-1"		w_8(E)	9	#5	23'-7"	
	n_2(E)	12	#5	5'-1"		w_9(E)	9	#7	23'-7"	
	n_3(E)	15	#10	10'-5"		w_{10}(E)	3	#5	26'-5"	
	n_4(E)	26	#7	9'-5"		w_{11}(E)	3	#7	26'-5"	
	n_5(E)	11	#7	6'-6"		w_{12}(E)	2	#5	24'-4"	
	n_6(E)	27	#5	4'-2"						
	n_7(E)	240	#10	24'-5"						
(See Note 4)	n_8(E)	91	#10	24'-6"						
	sp_2	12	#5	19'-2"						
	sp_3	7	#5	20'-2"		Porous Granular Embankment, Special			Cu. Yd.	407
	t(E)	74	#10	16'-5"		Structure Excavation			Cu. Yd.	226
	t_1(E)	56	#6	16'-5"		Concrete Structures			Cu. Yd.	354.3
	t_6(E)	9	#7	26'-8"		Reinforcement Bars			Lbs.	7,960
	t_7(E)	7	#7	21'-0"		Reinforcement Bars, Epoxy Coated			Lbs.	63,880
	t_8(E)	14	#5	23'-8"						
	t_9(E)	1	#7	8'-10"		Bridge Seat Sealer			Sq. Ft.	192
	t_{10}(E)	1	#5	8'-10"		Pipe Underdrains For Structures 6"			Foot	83
						Geocomposite Wall Drain			Sq. Yd.	109
	u(E)	104	#5	8'-8"		Braced Excavation			Cu. Yd.	248
	u_1(E)	3	#5	8'-4"		Drilled Shaft in Soil 54"			Foot	192.0
	u_2(E)	3	#5	5'-11"		Drilled Shaft in Soil 36"			Foot	119.0
	u_3(E)	3	#5	8'-11"		Drilled Shaft in Rock 48"			Foot	36.0
	u_4(E)	3	#5	5'-11"		Drilled Shaft in Rock 30"			Foot	21.0
	u_5(E)	45	#5	16'-9"		Permanent Steel Sheet Piling			Sq. Ft.	952



FIELD CUTTING DIAGRAM #3

Order bars full length. Cut bars in field as shown. Use top half in F.F. and bottom half in B.F. for h_{21}(E) bars.



FIELD CUTTING DIAGRAM #4

Order bars full length. Cut bars in field as shown. Place patterns (A) & (B) side by side as shown on sheet 23 of 30 for t (E) bars, sheet 20 of 30 for v (E) bars and sheet 23 of 30 for w (E) bars.

Bar	A	B	C	D	E	F
t_6(E)	26'-8"	12'-2"	14'-6"	13'-3"	13'-5"	9-#7 bars @ 7" cts.
t_7(E)	21'-0"	9'-1"	11'-11"	10'-5"	10'-7"	7-#7 bars @ 11" cts.
t_8(E)	23'-8"	9'-1"	14'-7"	11'-9"	11'-11"	14-#5 bars @ 10" cts.
v_{10}(E)	26'-7"	10'-3"	16'-4"	13'-2"	13'-5"	12-#6 bars @ 6" cts.
v_{14}(E)	20'-8"	4'-8"	16'-0"	10'-0"	10'-8"	12-#5 bars @ ±11" cts.
v_{15}(E)	14'-9"	5'-0"	9'-9"	7'-2"	7'-7"	5-#6 bars @ 12" cts.
w_{10}(E)	26'-5"	2'-9"	23'-8"	11'-1"	15'-4"	3-#5 bars @ 12" cts.
w_{11}(E)	26'-5"	2'-9"	23'-8"	11'-1"	15'-4"	3-#7 bars @ 12" cts.

Notes:

1. Place backfill behind sidewalk retaining wall prior to backfilling behind abutment and abutment retaining wall.
2. Bars designated (E) shall be epoxy coated.
3. Length of Spiral given is Height of Spiral. Weight includes Weight of Spacers for Spiral.
4. IDOT Approved Mechanical Reinforcing Bar Splicer/Coupler (E) is allowed for the n_8(E) bars to allow hooks at top to be spliced on after shafts are poured. Cost included in Reinforcement Bars, Epoxy Coated.

SOUTH ABUTMENT - DETAILS

Date 3/27/06	Designed TDN	CN RAILROAD BRIDGE OVER U.S. 6 (159TH STREET) F.A.P. RTE. 351 SECTION 3277R COOK COUNTY STATION 92+24.25 STRUCTURE NO. 016-2754	Sheet No. 24 of 30
Revisions	Drawn BKN		
	Checked DCS		
	Approved KWB		
Prepared By:	URS 3040 N. University Ave., Suite 1 Decatur, IL.		URS Job No. 36430825