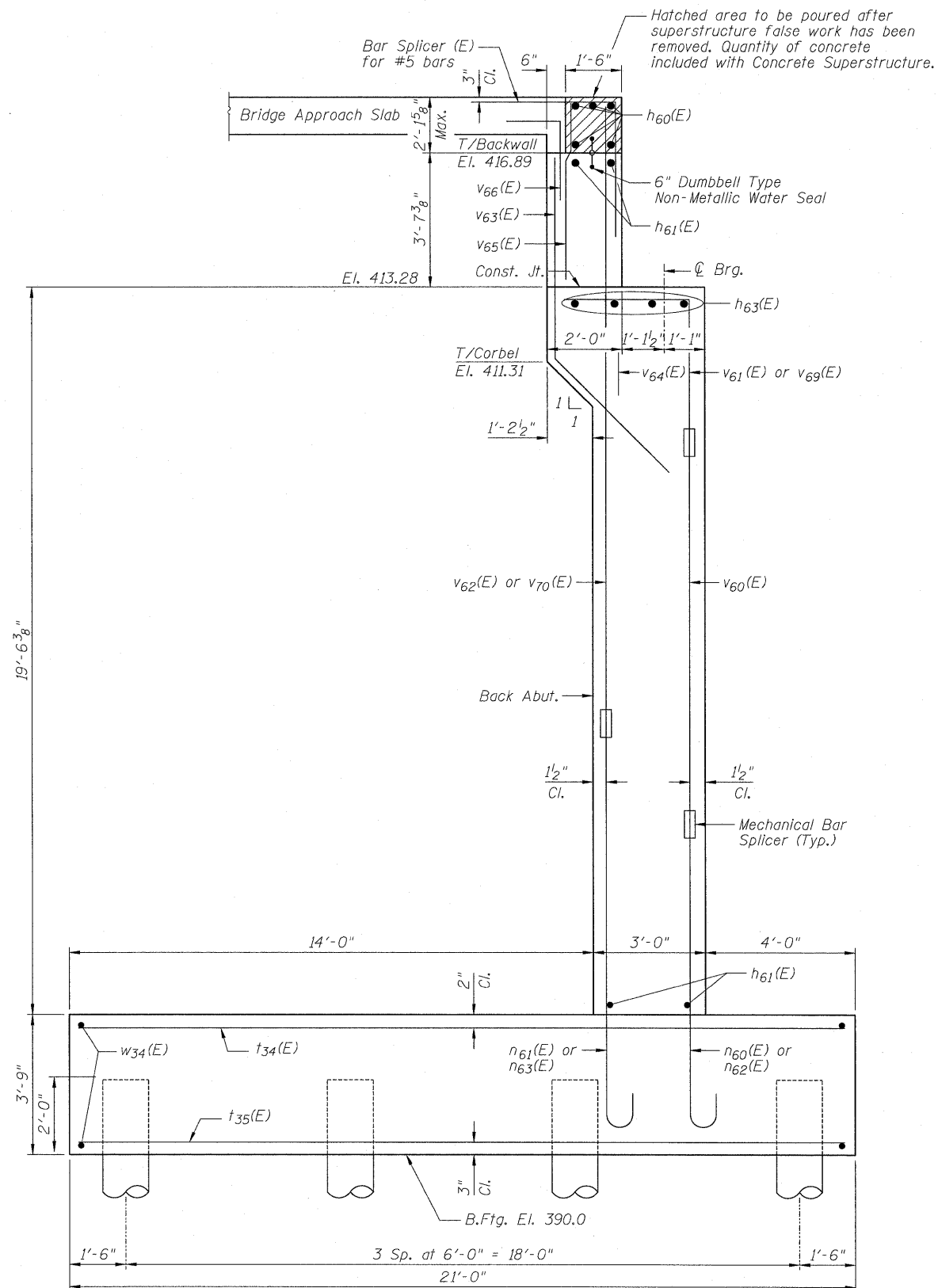
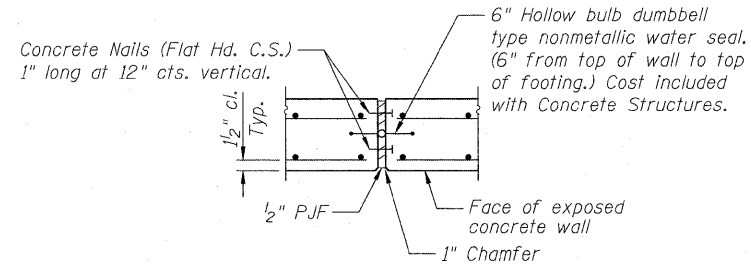


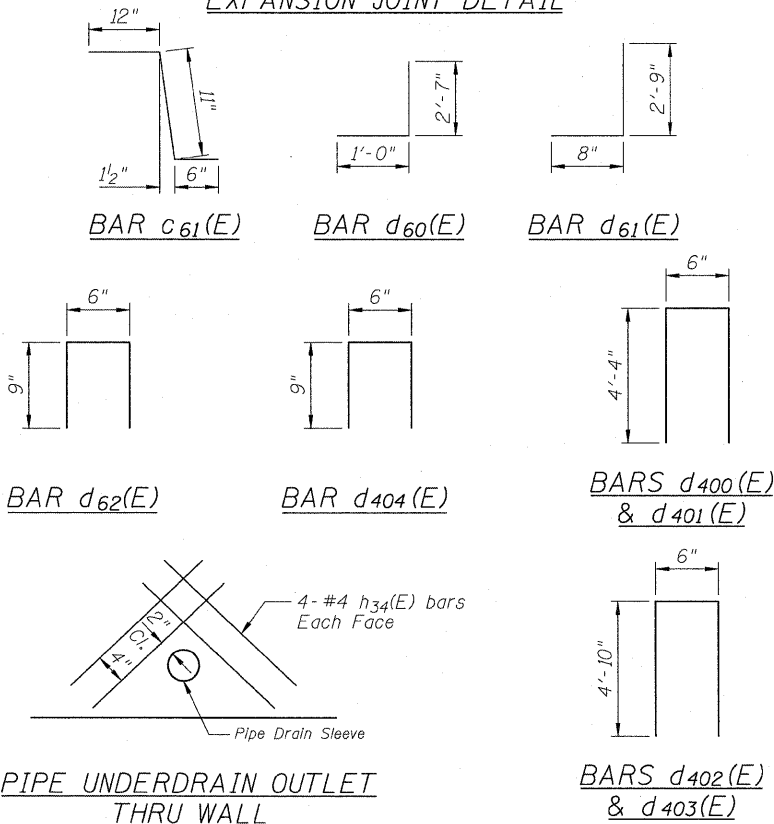
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



SECTION THRU ABUTMENT



EXPANSION JOINT DETAIL



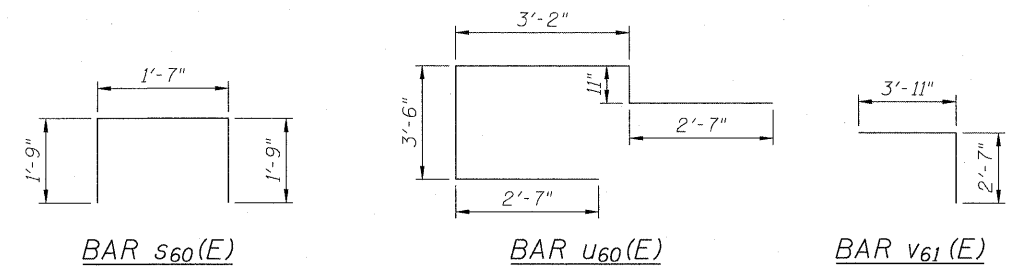
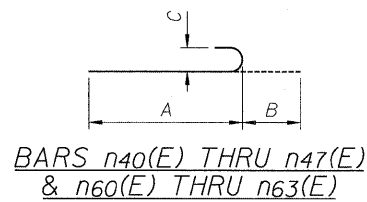
PIPE UNDERDRAIN OUTLET THRU WALL

NORTH ABUTMENT & WINGWALLS BILL OF MATERIAL

Bar	No.	Size	Length	Shape	Bar	No.	Size	Length	Shape
b60(E)	9	#5	1'-8"	—	s60(E)	27	#4	5'-1"	□
c60(E)	3	#5	8'-3"	—	t34(E)	168	#8	20'-8"	—
c61(E)	3	#5	2'-5"	—	t35(E)	150	#6	20'-8"	—
d60(E)	3	#6	3'-7"	J	t36(E)	96	#7	14'-8"	—
d61(E)	3	#4	3'-5"	J	t37(E)	100	#4	14'-8"	—
d62(E)	8	#4	2'-0"	□	u60(E)	50	#6	12'-9"	□
d400(E)	22	#5	9'-2"	□	v40(E)	37	#7	20'-10"	—
d401(E)	16	#5	9'-2"	□	v41(E)	16	#6	25'-1"	—
d402(E)	15	#5	10'-2"	□	v42(E)	50	#5	12'-0"	—
d403(E)	23	#5	10'-2"	□	v43(E)	22	#5	13'-0"	—
d404(E)	28	#4	2'-0"	□	v44(E)	34	#7	20'-11"	—
e400(E)	8	#4	21'-6"	—	v45(E)	15	#6	24'-4"	—
e401(E)	8	#4	14'-5"	—	v46(E)	53	#5	12'-0"	—
e402(E)	8	#4	13'-4"	—	v47(E)	23	#5	13'-6"	—
e403(E)	8	#4	21'-10"	—	v60(E)	66	#6	12'-2"	—
h34(E)	8	#4	4'-0"	—	v61(E)	33	#6	6'-6"	└
h40(E)	54	#6	14'-5"	—	v62(E)	78	#10	12'-1"	—
h41(E)	28	#5	21'-6"	—	v63(E)	78	#6	10'-8"	└
h42(E)	52	#6	13'-4"	—	v64(E)	66	#6	6'-6"	—
h43(E)	30	#5	21'-10"	—	v65(E)	78	#4	3'-2"	└
h60(E)	10	#6	33'-5"	—	v66(E)	75	#5	3'-7"	└
h61(E)	100	#6	33'-5"	—	v67(E)	3	#6	5'-10"	—
h62(E)	4	#4	25'-2"	—	v68(E)	3	#6	5'-8"	└
h63(E)	8	#6	33'-5"	—	v69(E)	33	#6	8'-2"	└
h64(E)	8	#4	1'-8"	—	v70(E)	77	#10	10'-1"	—
h65(E)	6	#4	1'-8"	—	w33(E)	106	#5	15'-8"	—
n40(E)	16	#6	6'-10"	┐	w34(E)	126	#5	24'-7"	—
n41(E)	37	#10	12'-11"	┐	w35(E)	102	#10	15'-8"	—
n42(E)	50	#6	6'-11"	┐	w36(E)	60	#5	21'-6"	—
n43(E)	22	#5	5'-7"	┐	Structure Excavation	Cu. Yd.	2,091		
n44(E)	34	#10	12'-2"	┐	Concrete Structures	Cu. Yd.	566.5		
n45(E)	15	#6	6'-10"	┐	Reinforcement Bars, Epoxy Coated	Pound	75,770		
n46(E)	53	#6	7'-5"	┐	Furnishing Metal Shell Piles 14"x0.312"	Foot	4,146		
n47(E)	23	#5	5'-7"	┐	Driving Piles	Foot	4,146		
n60(E)	33	#6	8'-9"	┐	Mechanical Splicers	Each	287		
n61(E)	78	#10	12'-3"	┐	Bar Splicers	Each	63		
n62(E)	33	#6	6'-9"	┐	Protective Coat	Sq. Yd.	29		
n63(E)	77	#10	14'-3"	┐	Concrete Sealer	Sq. Ft.	1,636		
					Porous Granular Embankment, Special	Cu. Yd.	356		

TABLE OF DIMENSIONS

Bar	A	B	C
n40(E)	6'-2"	8"	6"
n41(E)	11'-6"	1'-5"	1'-1 1/4"
n42(E)	6'-3"	8"	6"
n43(E)	5'-0"	7"	5"
n44(E)	10'-9"	1'-5"	1'-1 1/4"
n45(E)	6'-2"	8"	6"
n46(E)	6'-9"	8"	6"
n47(E)	5'-0"	7"	5"
n60(E)	8'-1"	8"	6"
n61(E)	10'-10"	1'-5"	1'-1 1/4"
n62(E)	6'-1"	8"	6"
n63(E)	12'-10"	1'-5"	1'-1 1/4"

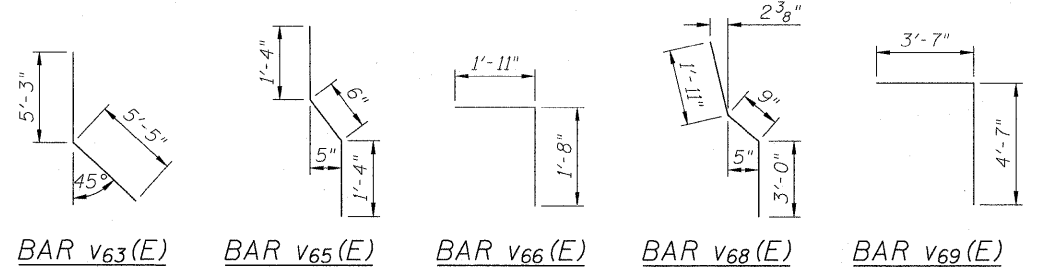


**ZROKA** engineering  
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4216 North Hermitage  
Chicago, IL 60613

DESIGNED	LAS
CHECKED	JLA
DRAWN	SAW
CHECKED	LAS

3-31-2010

MIN. BAR LAPS  
#5 bar = 2'-2"  
#6 bar = 2'-7"  
#9 bar = 5'-9"  
#10 bar = 7'-3"



NORTH ABUTMENT DETAILS  
STRUCTURE NO. 082-0377

SHEET NO. 35	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
44 SHEETS	64	82-1-2HB	ST. CLAIR	345	242
CONTRACT NO. 76C49					
ILLINOIS FED. AID PROJECT					
Revised 4/15/2010					