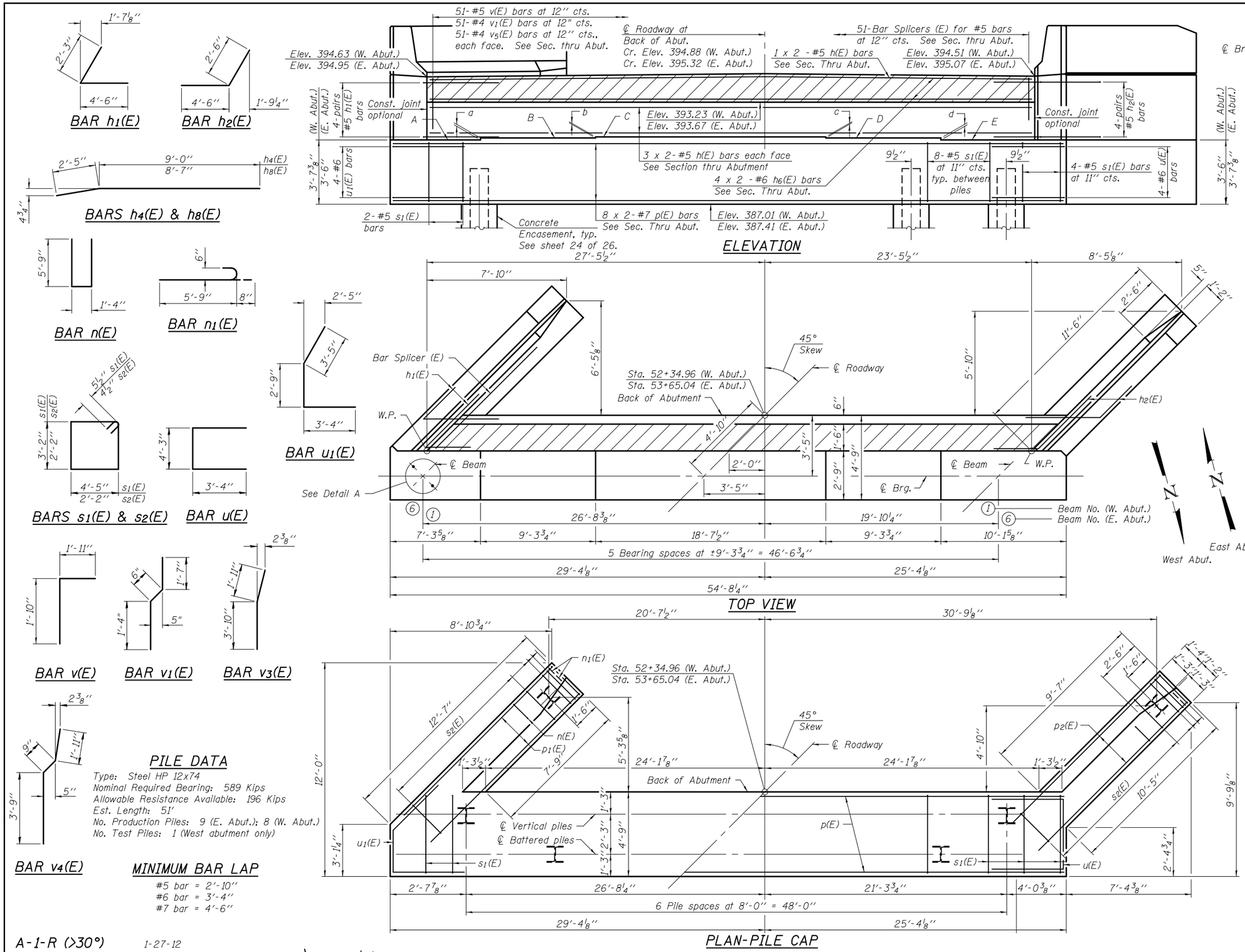

PILE DATA

Type: Steel HP 12x74
Nominal Required Bearing: 589 Kips
Allowable Resistance Available: 196 Kips
Est. Length: 51'
No. Production Piles: 9 (E. Abut.); 8 (W. Abut.)
No. Test Piles: 1 (West abutment only)

MINIMUM BAR LAP

#5 bar = 2'-10"
#6 bar = 3'-4"
#7 bar = 4'-6"

TWO ABUTMENTS BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	28	#5	26'-9"	
h_1(E)	16	#5	6'-9"	
h_2(E)	16	#5	7'-0"	
h_3(E)	16	#4	12'-4"	
h_4(E)	12	#4	11'-5"	
h_5(E)	4	#4	12'-0"	
h_6(E)	16	#6	27'-0"	
h_7(E)	16	#4	10'-2"	
h_8(E)	12	#4	11'-0"	
h_9(E)	4	#4	10'-4"	
n(E)	34	#6	12'-10"	
n_1(E)	24	#6	6'-5"	
p(E)	32	#7	29'-6"	
p_1(E)	12	#7	12'-3"	
p_2(E)	12	#7	11'-0"	
s_1(E)	108	#5	16'-1"	
s_2(E)	52	#4	9'-5"	
u(E)	8	#6	10'-11"	
u_1(E)	8	#6	9'-6"	
v(E)	102	#5	3'-9"	
v_1(E)	102	#4	3'-5"	
v_2(E)	48	#6	6'-6"	
v_3(E)	12	#6	5'-9"	
v_4(E)	36	#6	6'-5"	
v_5(E)	204	#4	5'-0"	
Structure Excavation		Cu. Yd.	124.4	
Concrete Structures		Cu. Yd.	112.2	
Reinforcement Bars, Epoxy Coated		Pound	10,160	
Furnishing Steel Piles, HP 12x74		Foot	867	
Driving Piles		Foot	867	
Test Pile Steel HP 12x74		Each	1	
Concrete Encasement		Cu. Yd.	6.3	
Concrete Sealer		Sq. Ft.	301	

For details of Bar Splicers, see sheet 25 of 26.
Bars indicated thus 8 x 2-#7 etc. indicates 8 lines of bars with 2 lengths per line.
For Section thru Abutment, see sheet 21 of 26.

Dim./ Elev.	West Abutment	East Abutment
a	1¼"	1¾"
b	⅞"	1½"
c	1½"	⅞"
d	1¾"	1¼"
A	390.62	390.91
B	390.72	391.06
C	390.79	391.19
D	390.66	391.12
E	390.51	391.02

A-1-R (>30°) 1-27-12

DESIGNED - MARK D. SHAFFER	EXAMINED	DATE - JANUARY 24, 2014	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - STEPHEN M. RYAN	ACTING ENGINEER OF BRIDGE DESIGN		
DRAWN - MICHAEL B. MOSSMAN	PASSED	REVISED	
CHECKED - F.T. / G.R.A.	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

ABUTMENTS
STRUCTURE NO. 100 – 0081
SHEET NO. 20 OF 26 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9588	39B-2	WILLIAMSON	224	113

CONTRACT NO. 78277
ILLINOIS FED. AID PROJECT