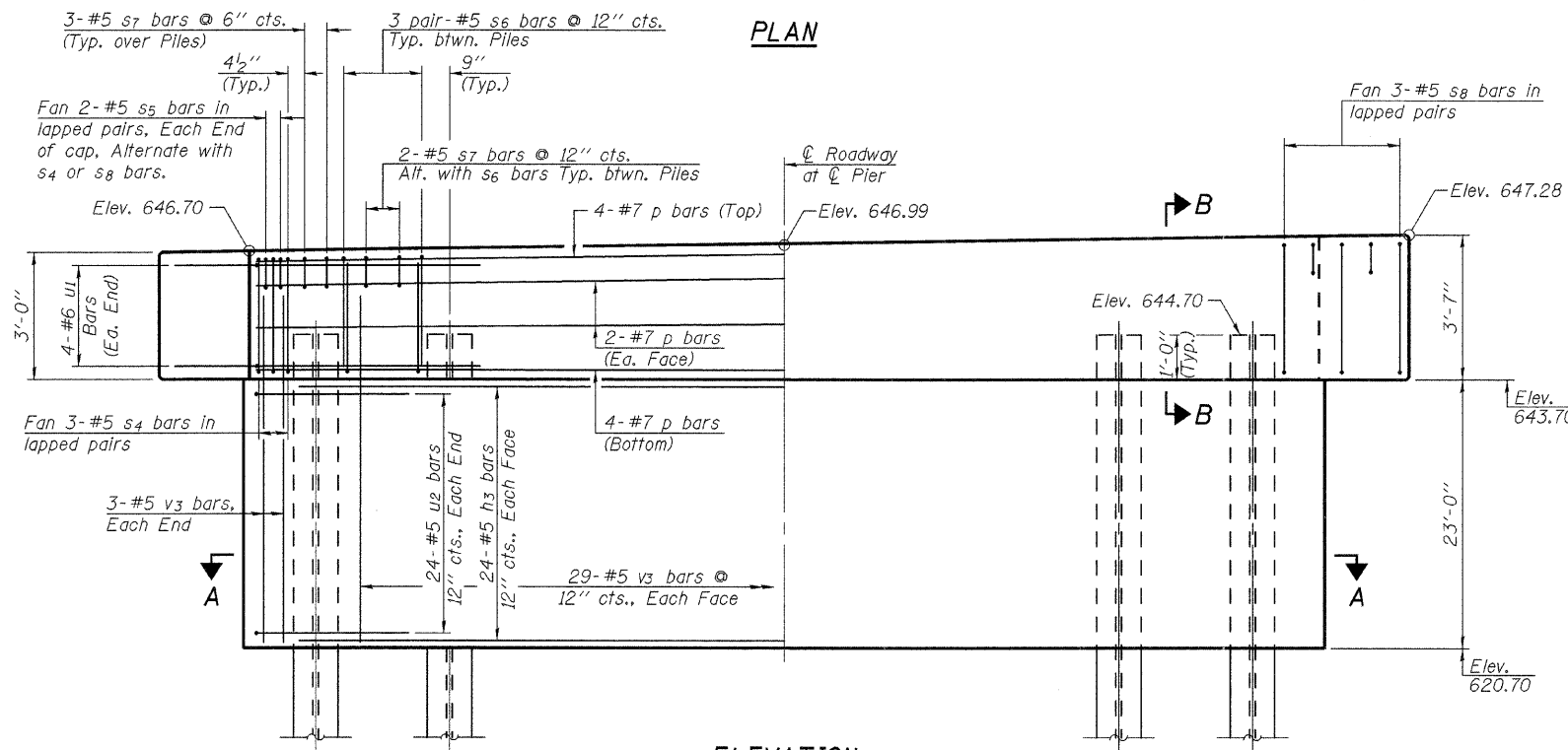
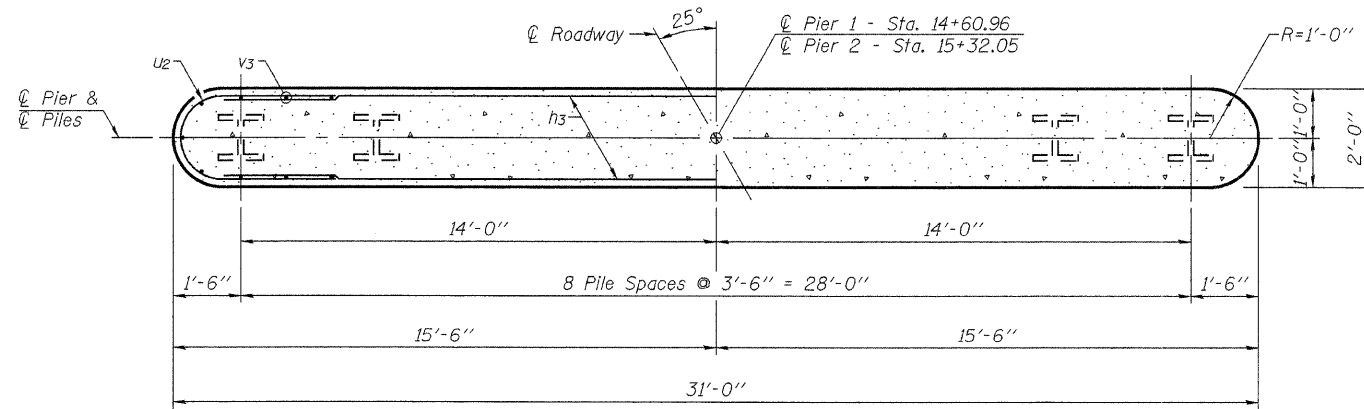


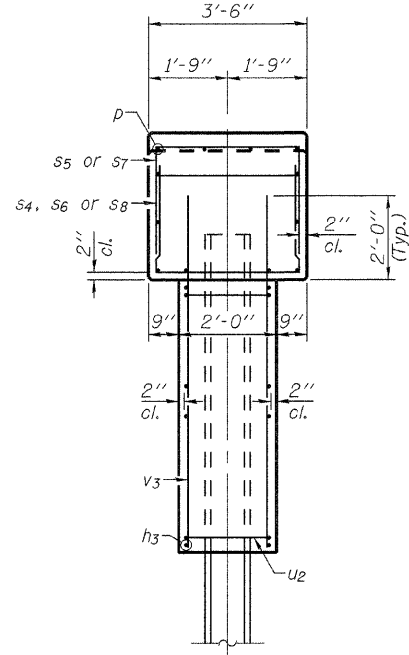
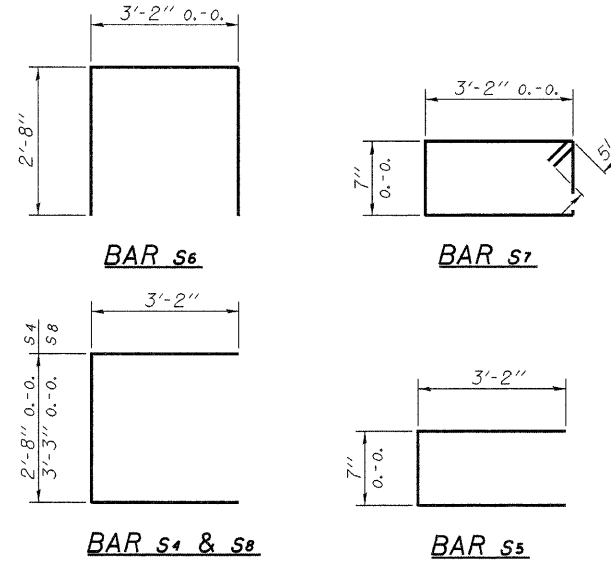
**PLAN**



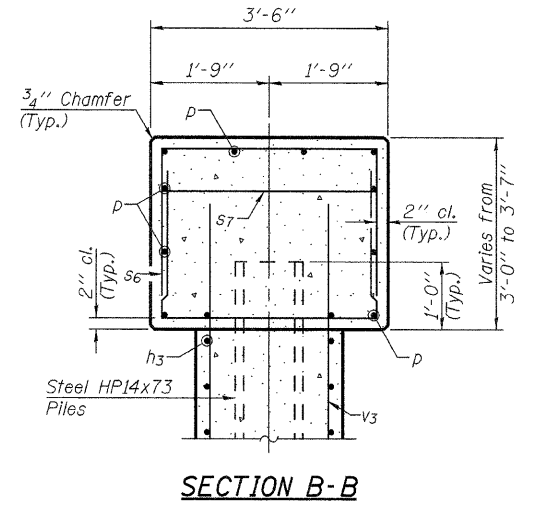
**ELEVATION**  
(Looking East)



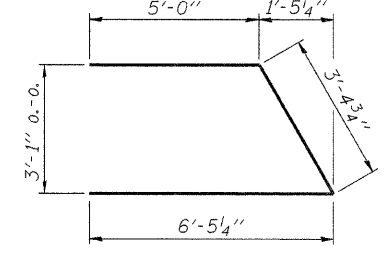
**SECTION A-A**



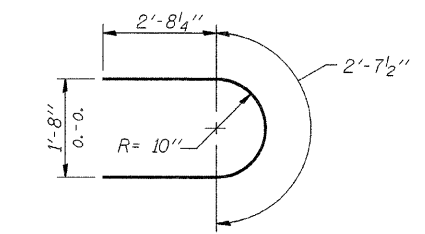
**END VIEW**



**SECTION B-B**



**BAR u1**



**BAR u2**

**BILL OF MATERIAL - 2 PIERS**

BAR	NO.	SIZE	LENGTH	SHAPE
h3	96	#5	28'-0"	—
p	24	#7	31'-8"	—
s4	12	#5	9'-0"	□
s5	16	#5	6'-11"	□
s6	96	#5	8'-6"	□
s7	86	#5	8'-5"	□
s8	12	#5	9'-7"	□
u1	16	#6	14'-10"	U
u2	96	#5	8'-0"	U
v3	128	#5	24'-10"	—
Concrete Structures		Cu. Yd.	131.5	
Reinforcement Bars		Pound	10,780	
Furnishing Steel Piles HPI4x73		Foot	992	
Driving Piles		Foot	992	
Test Pile Steel HPI4x73		Each	2	

**PILE DATA**

Type & Size.....Steel HPI4x73  
 No. Req'd.....\*18  
 Nominal Required Bearing.....326 kips (Pier 1)  
 311 kips (Pier 2)  
 Factored Resistance Available.....165 kips (Pier 1)  
 150 kips (Pier 2)  
 Estimated Length.....46 ft./pile (Pier 1)  
 78 ft./pile (Pier 2)

\*Includes 1 Test Pile to be driven in a permanent location at each pier.

The test piles shall be driven to 110 percent of the Nominal Required Bearing indicated above.

Pile driving shall not be terminated until the tip of the pile is below Elev. 600.0.

FILE NAME = 11-540_PIERS.DGN	USER NAME = S.A.P.	DESIGNED - A.L.S.	REVISED -
		CHECKED - A.R.K. & J.A.M.	REVISED -
		DRAWN - S.A.P.	REVISED -
		CHECKED - A.R.K.	REVISED -

DESIGNED - A.L.S.	REVISED -
CHECKED - A.R.K. & J.A.M.	REVISED -
DRAWN - S.A.P.	REVISED -
CHECKED - A.R.K.	REVISED -

**FEHR-GRAHAM & ASSOCIATES, LLC**  
 ENGINEERING AND SCIENCE CONSULTANTS  
 FREEPORT, IL ROCKFORD, IL ROCHELLE, IL MONROE, WI SPRINGFIELD, IL

**PIER DETAILS**  
 S.N. 021-4546

TWP. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
151	07-02122-01-BR	DOUGLAS	23	15
ILLINOIS			CONTRACT NO. 91473	
			BOURBON ROAD DISTRICT	