

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 16	#	Vermilion	12	9
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

**BILL OF MATERIAL - 2 ABUTS.**

Bar	No.	Size	Length	Shape
h <sub>10</sub>	16	# 5	9'-5"	—
h <sub>11</sub>	16	# 5	10'-1"	—
h <sub>12</sub>	4	# 5	7'-7"	—
h <sub>13</sub>	4	# 5	7'-0"	—
h <sub>14</sub>	4	# 5	4'-10"	—
h <sub>15</sub>	4	# 5	4'-3"	—
h <sub>16</sub>	4	# 5	7'-10"	—
h <sub>17</sub>	4	# 5	7'-3"	—
h <sub>20</sub>	12	# 4	29'-0"	—
h <sub>21</sub>	8	# 4	5'-0"	—
p <sub>10</sub>	24	# 6	29'-0"	—
s <sub>10</sub>	62	# 5	12'-1"	—
u <sub>10</sub>	16	# 6	12'-3"	—
v <sub>1</sub>	16	# 5	5'-6"	—
v <sub>2</sub>	8	# 5	5'-5"	—
v <sub>3</sub>	8	# 5	5'-3"	—
v <sub>4</sub>	8	# 5	5'-0"	—
v <sub>5</sub>	8	# 5	4'-9"	—
v <sub>6</sub>	8	# 5	4'-6"	—
v <sub>7</sub>	8	# 5	4'-3"	—
v <sub>8</sub>	8	# 5	4'-0"	—
v <sub>9</sub>	8	# 5	3'-9"	—
v <sub>20</sub>	120	# 4	4'-0"	—
Concrete Structures		Cu. Yds.	32.6	
Reinforcement Bars		Lbs.	3,590	
Test Pile, Steel HP10x42		Each	2	
Furnishing Steel Piles HP10x42		Foot	500	
Driving Piles		Foot	500	
Metal Shoes		Each	12	
Name Plate		Each	1	
Concrete Cut-off Wall		Cu. Yds.	5.4	
Structure Excavation		Cu. Yds.	150	
Controlled Low-Strength Material		Cu. Yds.	67.5	

**NOTES:**

Controlled Low-Strength Material shall be placed behind the abutment up to 6" from finished grade or the bottom of the Aggregate Surface Course, Type B.

Backwall and the tops of wingwalls shall be poured after beams are in place.

**PILE DATA**

Type: Steel HP 10x42

Nominal Required Bearing: 260 kips

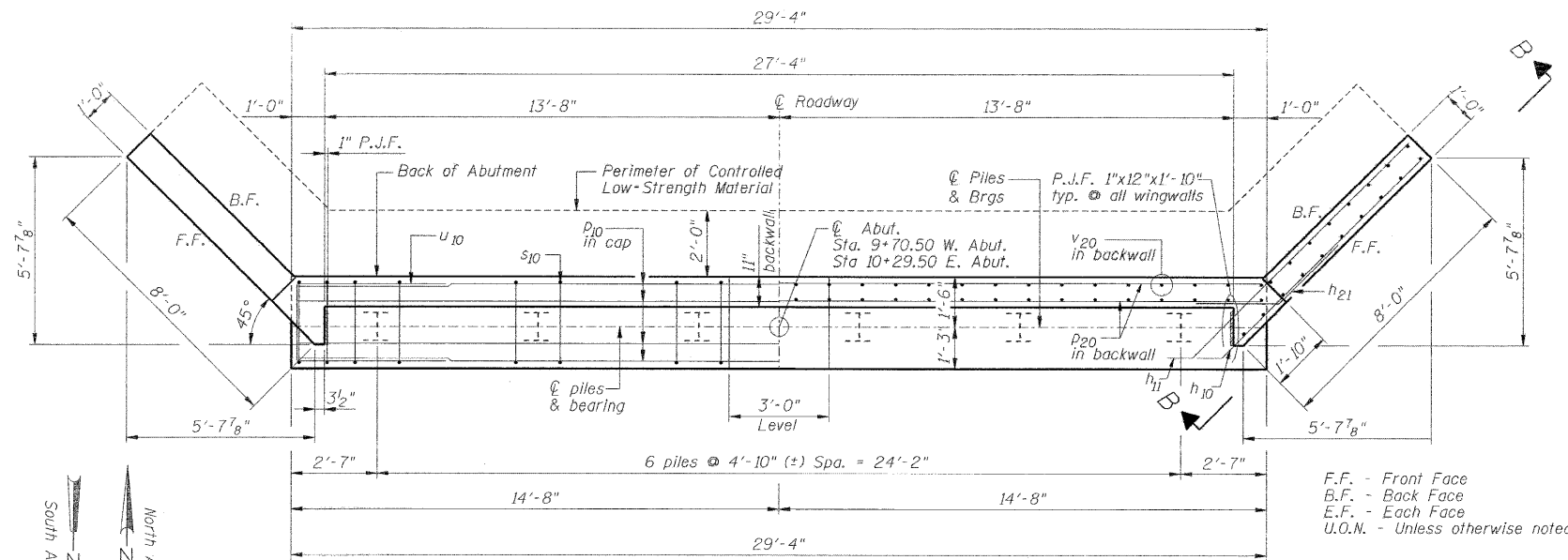
Factored Resistance Available: 130 kips

Estimated Length: 50 ft.

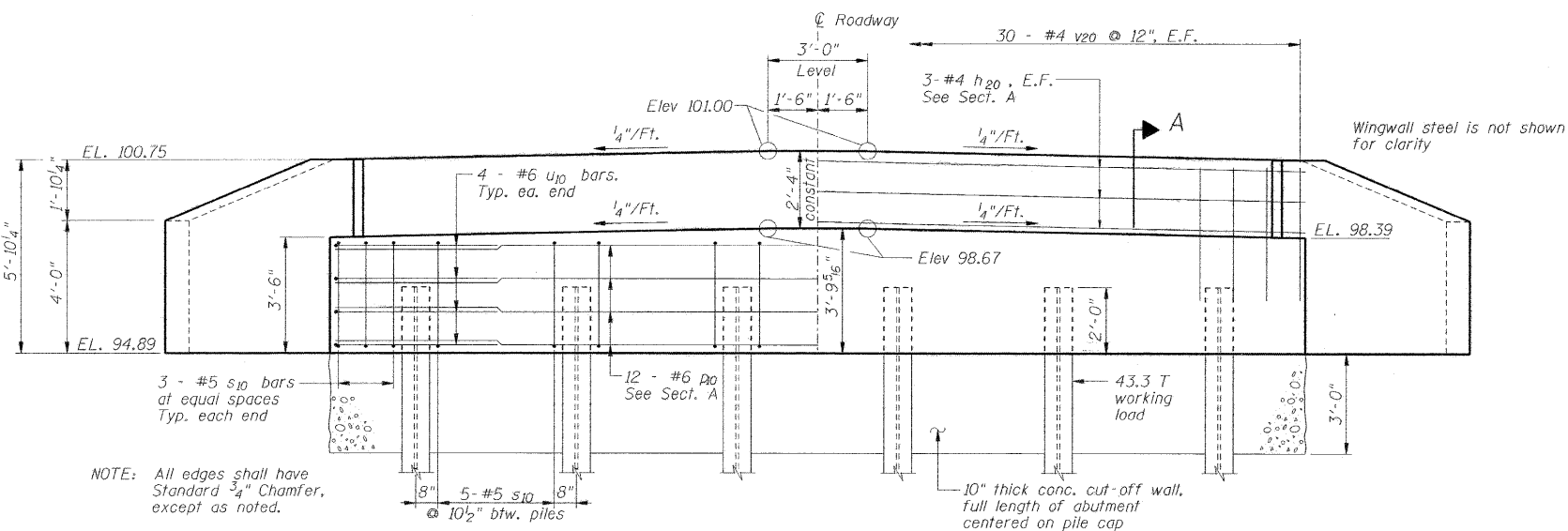
No. Required: 5 @ North Abutment  
5 @ South Abutment

Test Piles: 1 @ North Abutment  
1 @ South Abutment

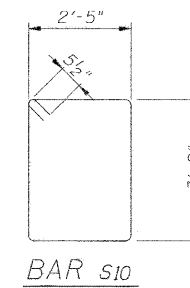
Note: The Steel H-piles shall be according to AASHTO M270 Grade 50.



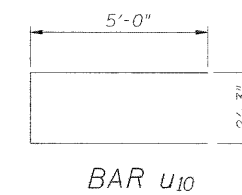
**PLAN**  
Symmetrical about C



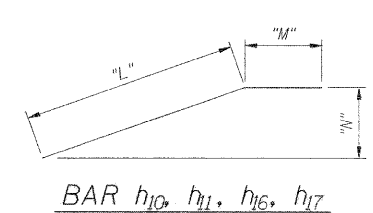
**ELEVATION**  
Symmetrical about C



BAR s<sub>10</sub>



BAR u<sub>10</sub>



BAR h<sub>10</sub>, h<sub>11</sub>, h<sub>16</sub>, h<sub>17</sub>

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**ABUTMENT DETAILS (SHEET 1 OF 2)**  
TR16 (170E) OVER BRANCH OF PIGEON CREEK  
SEC 10-02146-00-BR  
VERMILION COUNTY

SHEET 9  
DWG NO. 11050ABT.dgn  
DATE DEC 2011  
PROJ NO. 11050