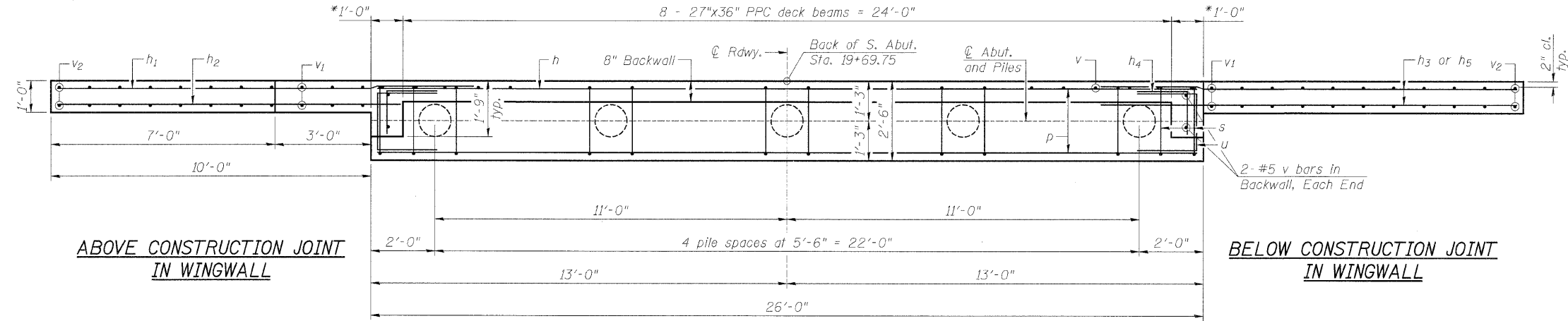


**SECTION THRU ABUTMENT**

**BILL OF MATERIAL**

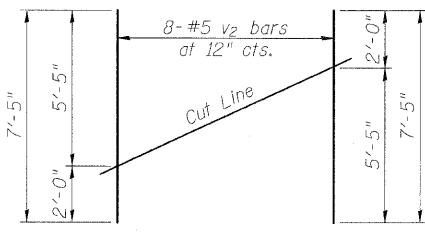
Bar	No.	Size	Length	Shape
h	3	#5	25'-8"	
h1	6	#4	10'-3"	
h2	6	#4	8'-4"	
h3	20	#6	13'-1"	
h4	6	#5	3'-3"	
h5	4	#4	5'-10"	
p	10	#7	25'-8"	
s	28	#4	11'-5"	
u	10	#6	7'-1"	
v	31	#5	4'-4"	
v1	12	#5	5'-6"	
v2	16	#5	7'-5"	
Concrete Structures		Cu. Yd.	13.7	
Reinforcement Bars		Pound	1,770	
Furnishing Metal Shell Piles 12" x 0.250"		Foot	132	
Driving Piles		Foot	132	
Test Pile Metal Shells		Each	1	
** Porous Granular Embankment, Special		Ton	56	



**PLAN**

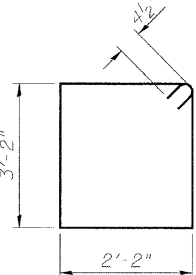
**PILE DATA**

Type: Metal Shell 12"  $\phi$  x 0.250" walls  
 Nominal Required Bearing: 244 kips  
 Factored Resistance Available: 135 kips  
 Est. Length: 33'  
 No. Production Piles: 4  
 No. Test Piles: 1

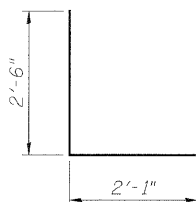


**FIELD CUTTING DIAGRAM**

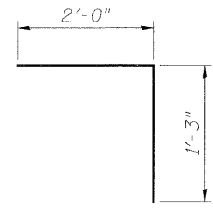
Order v2 bars full length. Cut as shown and use remainder of bars in opposite face.



**BAR s**



**BAR u**



**BAR h4**

**NOTES:**

- Hatched portion of wingwalls to be poured with the backwall after the deck beams have been installed and grout has cured for a minimum of 24 hours.
- All exposed edges shall have standard 3/4" chamfers, except as noted.
- Space reinforcement in cap to miss dowel rods.
- After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure a min. of 24 hours prior to grouting the shear keys.
- For pile details, see Structural Sheet 8 of 9.
- \* May vary due to overrun of beams.
- \*\* For Drainage Details, see Structural Sheet 2 of 9.

FILE = S:\PROJECTS\2012\1271010\_BureauCo\_TRIUMPHDESIGNSTRUCTURE\2012\1271010\_S\_Abnt.dwg

**WILLET HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0267  
 T: 815-284-3381 DESIGN FIRM: #154-00918

DESIGNED - MICHAEL WAGNER	REVISED -
CHECKED - BRIAN CONVERSE	REVISED -
DRAWN - RON ALLEN	REVISED -
CHECKED - MEGAN CACKLEY	REVISED -

**BUREAU COUNTY**  
**T.R. 106 (850 E. ST.) OVER HICKORY CREEK**  
**STATION 20 + 00**

**SOUTH ABUTMENT DETAILS**  
**STRUCTURE NO. 006-4218**  
 STRUCTURAL SHEET NO. 5 OF 9 SHEETS

TWP. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
106	08-15119-00-BR	BUREAU	18	11
WHA# 1287D10		CONTRACT NO. 87523		
ILLINOIS/FED. AID PROJECT BR05-001(086)				