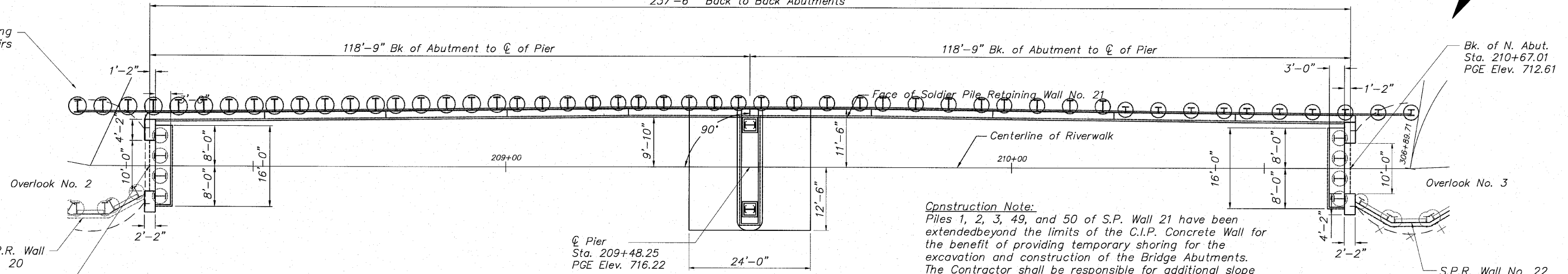


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

237'-6" Back to Back Abutments



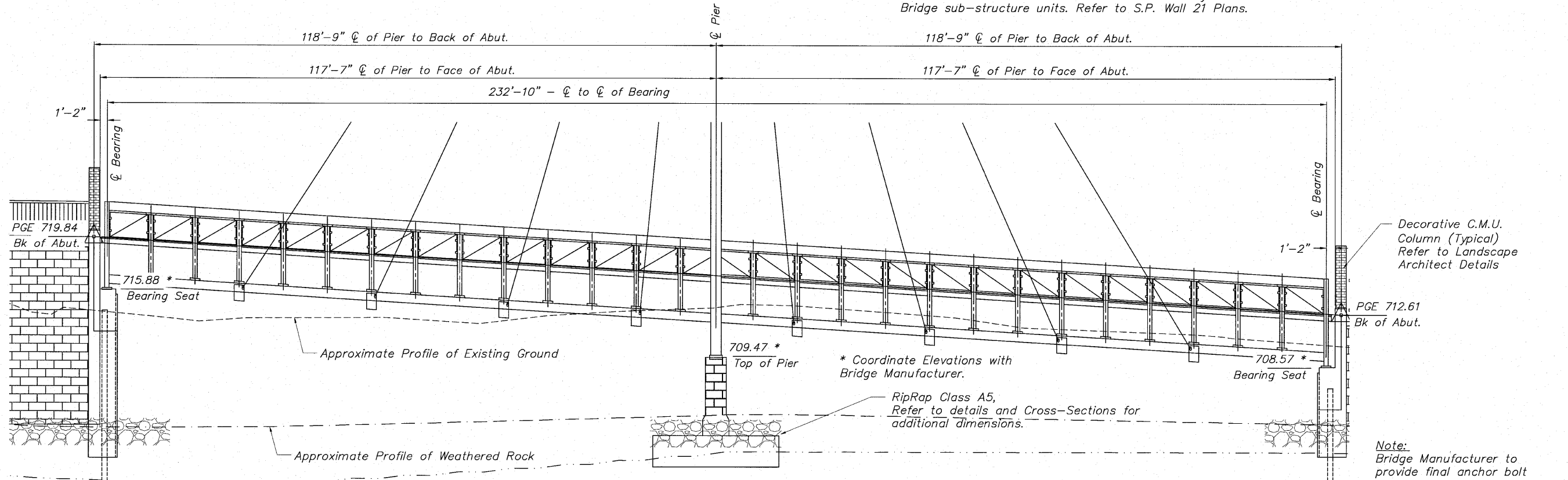
Not Showing South Stairs for Clarity



Construction Note:

Piles 1, 2, 3, 49, and 50 of S.P. Wall 21 have been extended beyond the limits of the C.I.P. Concrete Wall for the benefit of providing temporary shoring for the excavation and construction of the Bridge Abutments. The Contractor shall be responsible for additional slope protection beyond at no additional cost to the contract. The contractor shall coordinate the construction of S.P. Wall 21 with the limits of the Cable-Stayed Bridge sub-structure units. Refer to S.P. Wall 21 Plans.

SUBSTRUCTURE LAYOUT



SUBSTRUCTURE PROFILE

Cable Tower Reaction Table

	+ Downward Load		- Upward Load	
	P (Kips)	M (K-Ft.)	L (Kips)	
Dead Load	177.0			
Uniform Live Load	91.2	52.8		
Wind Uplift (20 psf)	14.9 / -7.6			
Wind	14.9 / -7.6	182.6		
Wind at 45°	±8.4	149	7.9	

P - Vertical Load Each Base Plate (2 per Pier)
M - Moment Load Per Pier (1 per Pier)
L - Longitudinal Load Each Base Plate (2 per Pier)

Installation Tower Reaction Table

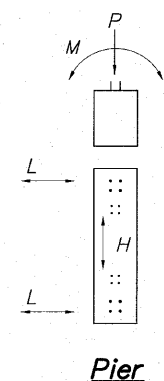
	+ Downward Load		- Upward Load	
	P (Kips)	H (Kips)		
Dead Load	44.6			
Construction LL (20 psf)	17.9			
Wind	±8.8	34.5		
Wind at 45°				19.1

P - Vertical Load Each Base Plate (2 per Pier)
H - Horizontal Load Per Pier (1 per Pier)

Abutment Reaction Table

	+ Downward Load		- Upward Load	
	P (Kips)	H (Kips)	L (Kips)	
Dead Load	30.9			
Uniform Live Load	23.7 / -8.1			
Vehicle Load	10.0			
Wind Uplift (20 psf)	24.2 / -8.1			
Wind	±7.3	10.1		
Wind at 45°	±6.7	5.3	9.7	
Thermal				3.5

P - Vertical Load Each Base Plate (4 per Bridge)
H - Horizontal Load Per Abutment (2 per Bridge)
L - Longitudinal Load Each Base Plate (4 per Bridge)



**SUBSTRUCTURE LAYOUT
CABLE-STAYED PEDESTRIAN BRIDGE
PEDESTRIAN RIVERWALK
ALONG THE ROCK RIVER
WINNEBAGO COUNTY
SECTION NO. 06-00543-00-BT
STATION 209+48.25
STRUCTURE NO. 101-6350**

DESIGNED	C7B
CHECKED	AAG
DRAWN	JAW
PEER REVIEWED	

McClure
Engineering Associates, Inc.
7282 Argue Drive
Rockford, Illinois 61107-5837
(815) 398-2332 Fax (815) 398-2496
Design Firm License: Illinois #184-000816
Copyright 2010 By McClure Engineering Associates, Inc.

SHEET NO. 2 II SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		06-00543-00-BT	WINNEBAGO	148	57
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		85521