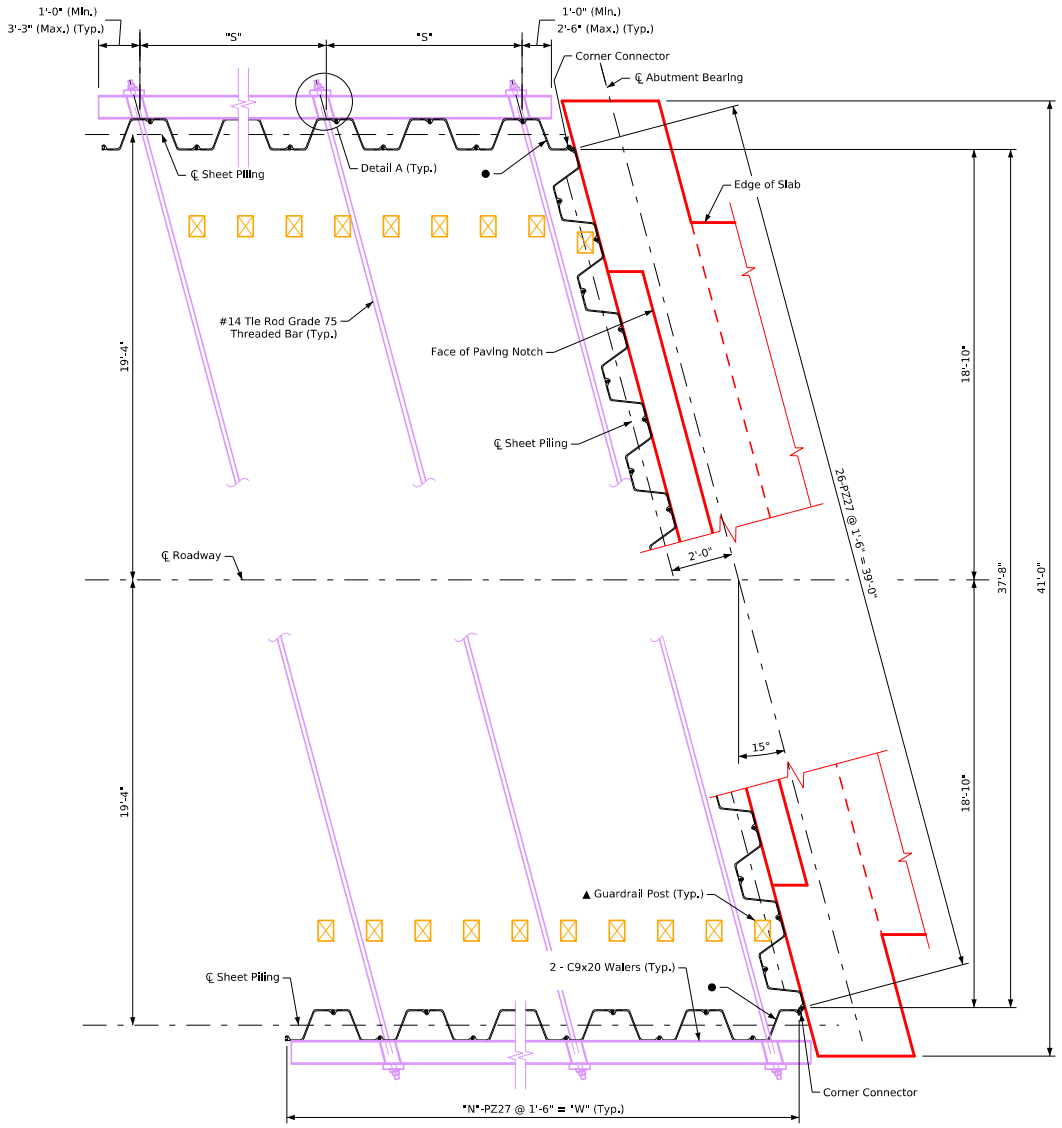


Steel Sheet Piling Plan View

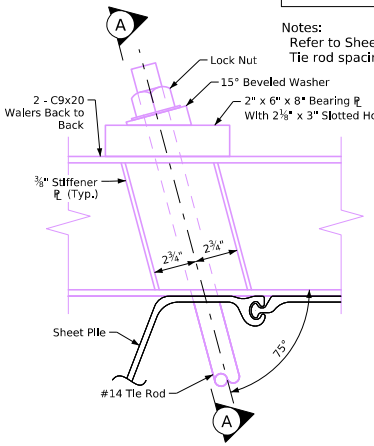
(Cover Plates Not Shown For Clarity)

Sheet Pile Backwall and Wing Wall Quantities			
Number of Sheet Piles	Per Wing	*N = W / 1.5'	Total = 2 x N + 26
	Backwall	26	
Sheet Pile Area		(D1 + D2 + L) x W + 26 x 1.5' x (L - 2')	
Number of Tie Rods		*T = W / S + 1	

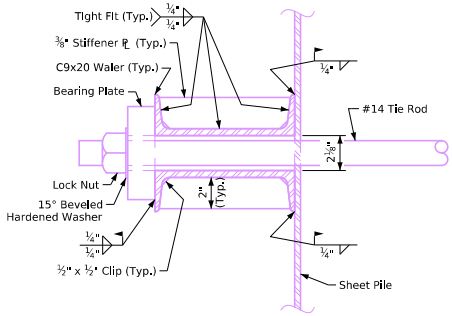
Notes:
All units are in feet.
Wing length "W" is to be calculated by the Engineer based on height from grade to top of berm "H" and wing slope.
* Number of wing wall sheet piles and tie rods shall be calculated as shown and rounded up to a whole number.
See Sheet J30S-24-25 for "D1" + "D2" values required (minimum embedment depths).

Table of Required Tie Rod Spacing					
Abutment Height "H"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"
Maximum Tie Rod Spacing "S"	9'-2"	8'-4"	7'-0"	5'-9"	4'-9"

Notes:
Refer to Sheet J30S-24-25 for sheet pile height ("H") details.
Tie rod spacing ("S") shall be selected to avoid conflicts with the guardrail posts.



Detail A



Section A-A

Notes:
● Top of sheet piling at wings to match top of abutment elevation. For sheet pile cover plate details, see Sheets J30S-24-25 and J30S-25-25.
▲ The guardrail post #15 (open & single slope concrete rails only) may require adjustment to ensure adequate clearance from the backwall sheeting and backwall cover plate.
See Sheet J30S-25-25 and roadway sheets for post locations.
The Bridge Contractor shall verify clearances for guardrail post installation, and make any necessary adjustments. Post #15 blockout lengths may be field adjusted to facilitate guardrail installation.

Latest Revision Date

Approved by Bridge Engineer

IOWA DOT

Standard Design - 30'-0" Roadway, Single Span Bridge

Single Span Concrete Slab Bridges

July, 2025

Steel Sheet Piling Details
15° Skew

J30S-23-25