Steel Sheet Piling Plan View
(Cover Plates Not Shown For Clarity)

Plan view labels:
- 1'-0" (Min.)
- 3'-3" (Max.) (Typ.)
- "S"
- "S"
- 1'-0" (Min.)
- 2'-6" (Max.) (Typ.)
- Corner Connector
- ℄ Abutment Bearing
- ℄ Sheet Piling
- Detail A (Typ.)
- Edge of Slab
- Face of Paving Notch
- ℄ Sheet Piling
- #14 Tie Rod Grade 75 Threaded Bar (Typ.)
- ℄ Roadway
- 2'-0"
- 90°
- 20'-0"
- 20'-0"
- 41'-0"
- 19'-6"
- 19'-6"
- 26-PZ27 @ 1'-6" = 39'-0"
- ▲ Guardrail Post (Typ.)
- 2 - C9x20 Walers (Typ.)
- ℄ Sheet Piling
- Corner Connector
- "N"-PZ27 @ 1'-6" = "W" (Typ.)

Sheet Pile Backwall and Wing Wall Quantities

Number of Sheet Piles	Per Wing	*N = W / 1.5'
	Backwall	26	Total = 2 x N + 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'-3"	5'-11"	4'-11"

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

Detail A labels:
- A
- Lock Nut
- Hardened Washer
- 2" x 6" x 6" Bearing ℄ With 2⅜"⌀ Hole for Tie Rod
- 2 - C9x20 Walers Back to Back
- ⅜" Stiffener ℄ (Typ.)
- 2¾"
- 2¾"
- Sheet Pile
- #14 Tie Rod
- A

Section A-A

Section A-A labels:
- Tight Fit (Typ.) ¾"/¾"
- ⅜" Stiffener ℄ (Typ.)
- C9x20 Waler (Typ.)
- Bearing Plate
- #14 Tie Rod
- Lock Nut
- Hardened Washer
- 2⅜"
- 2' (Typ.)
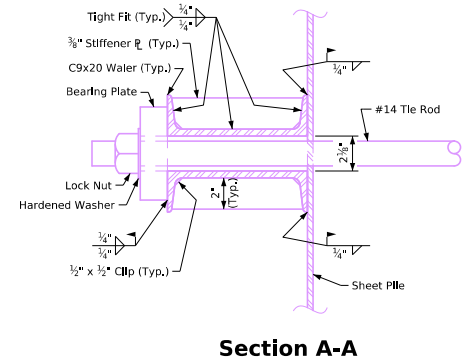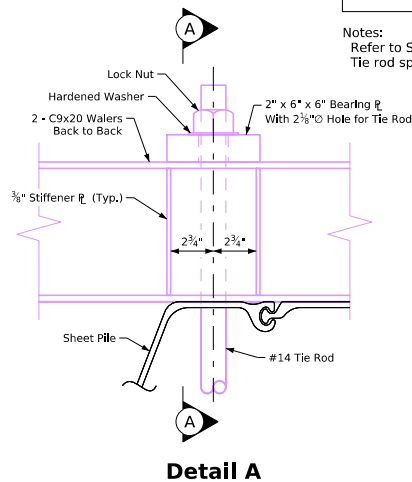- ¼"/¼"
- ½" x ½" Clip (Typ.)
- ¾"
- Sheet Pile
- ¾"/¾"

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.

IOWA DOT

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

Single Span Concrete Slab Bridges

July, 2025

Steel Sheet Piling Details
0° Skew

J30S-22-25

Latest Revision Date
Approved by Bridge Engineer