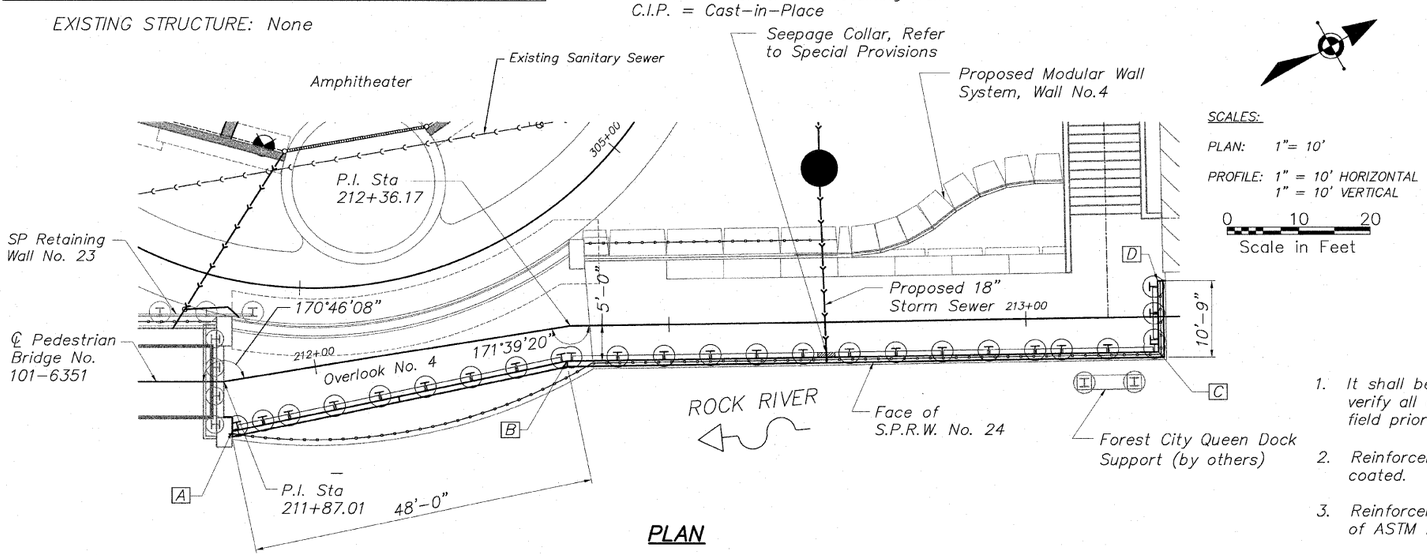
BENCHMARK

NO.	DESCRIPTION	ELEVATION
	North Bonnet Bolt on Fire Hydrant South Of Museum Entrance on the East side of N. Main Street	736.60

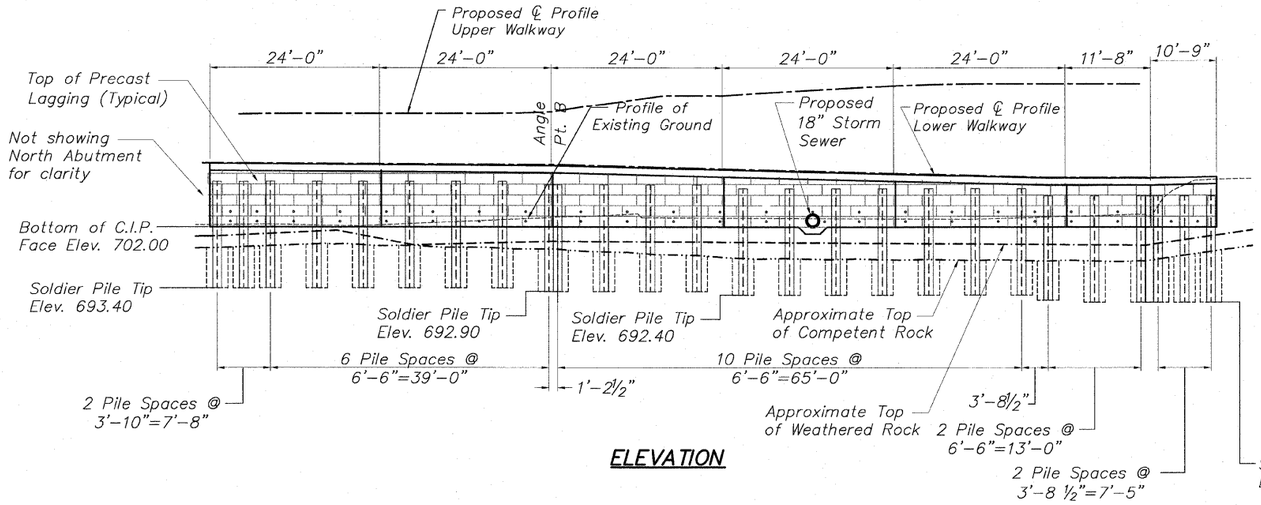
Notes: Wall Offsets are Measured from the ℄ of the Pedestrian Walkway to the Back Face of the Cast-In-Place Portion of the Soldier Pile Wall.

S.P.R.W. = Soldier Pile Retaining Wall
C.I.P. = Cast-in-Place

EXISTING STRUCTURE: None



PLAN



ELEVATION

WALL INFORMATION CHART

Reference Point	Station to Back Face of Wall	Offset to Back Face of Wall
A	211+87.04	7.09' Rt.
B	212+34.90	4.87' Rt.
C	213+18.55	5.00' Rt.
D	213+18.55	5.00' Lt.

DESIGNED	CTB
CHECKED	AAG
DRAWN	JAW
CHECKED	JWH

— 20

EXAMINED

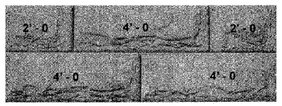
ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

MINIMUM BAR LAP

No. 4 bars 1'-8"
No. 5 bars 2'-2"
No. 6 bars 2'-7"



FORM LINER PATTERN

Milestone, Inc.
Pattern No. MS-1011
Weathered Limestone or Equal
(See Special Provisions)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALES:
PLAN: 1"= 10'
PROFILE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
0 10 20
Scale in Feet

HIGHWAY CLASSIFICATION

Rockford Pedestrian Riverwalk
Functional Class: Pedestrian

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications – 17th Edition

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi (Cast-in-place Concrete)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (Soldier Pile Steel)

PRECAST UNITS

f'c = 5,000 psi (Precast Concrete)
fy = 60,000 psi (Reinforcement)

GENERAL NOTES

1. It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering materials.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Reinforcement bars shall conform to the requirements of ASTM A706 Gr 60. See Special Provisions.
4. Reinforcing bars shall be lapped a minimum as shown on plans where splices occur. Radius bars shall be factory bent and delivered to the site with appropriate radius. Field bending will only be allowed to achieve form clearances.
5. Stud shear connectors shall be ¾" diameter x 4" granular or flux filled headed studs automatically end welded to the front flange in the field.
6. Protective coat shall be applied to all exposed surfaces of the wall and shall extend 1'-0" minimum below finished grade.
7. All construction joints shall be bonded.
8. The cost of cutting off any additional piling shall be included in the cost of "Drilling and Setting Soldier Piles".
9. Drilling and Setting of Soldier Piles will require drilling through layers of sand and gravel. Refer to boring logs. The use of temporary drill casings or drilling slurry may be required to keep holes open prior to placement of concrete at no additional cost to the contract. Refer to Special Provisions for Drilling and Setting Soldier Piles.
10. The approximate embedment depth for the soldier pile tip is as provided on the plans and considers a penetration into competent rock of 5.5 feet (minimum) based on the soil boring information and uniaxial compressive rock strength value of 4,000 PSI (minimum) as provided by Terracon Consultants, Inc. The actual top of rock elevation, which qualifies as competent rock meeting the minimum requirements of the design, shall be determined and field verified by the Geotechnical Engineer during the drilling operation at each soldier pile location. Final pile tip elevations shall be a minimum of 5.5 feet below actual top of competent rock elevations.
11. All exposed edges shall have a ¾" x 45° chamfer, except as shown otherwise. Chamfers on vertical edges shall be continued a minimum of one foot below finished ground level.
12. Exposed surfaces of concrete shall be given a "rubbed finish" except where form liner is specified.
13. Contractor shall be responsible for dewatering in accordance with the erosion control plan at no additional cost to the contract.
14. Backfill behind wall shall be placed to the lines and grades as shown on the plans. The Contractor shall take care to ensure the use of suitable material and proper compaction of all fill areas. Compaction shall be performed with a loose thickness of no more than 8" and each lift shall be compacted to a density equal to or greater than 95% standard proctor maximum dry density (ASTM D-698) taking care not to over compact the soil directly behind the wall. Moisture shall be within -2 to +3 percent of optimum. No heavy equipment shall be allowed within 6 feet of the wall during backfilling and compaction. Compaction shall be by hand method, "walk behind", equipment in the areas within 6 feet of the face of the wall.
15. Backfill of wall behind precast panels must be completed before placement of cast-in-place concrete face. Refer to Precast Panel Details, sheet for additional notes.

TOTAL BILL OF MATERIALS

SP WALL No. 24 AND LOOKOUT No. 4 SLAB

ITEM	UNITS	TOTAL
Structure Excavation	Cu. Yd.	270
Concrete Structures	Cu. Yd	95.2
Protective Coat	Sq. Yd.	113
Stud Shear Connectors	Each	264
Precast Concrete Lagging	Sq. Ft.	1,078
Furnishing Soldier Piles W Section	Foot	416
Drilling and Setting Soldier Piles in Rock	Cu. Ft.	1185
Drilling and Setting Soldier Piles in Soil	Cu. Ft.	761
Reinforcement Bars (Epoxy Coated)	Pound	8,185
Geocomposite Wall Drain	Sq. Yd.	50.2
Rubbed Finish	Sq. Ft.	136
Form Liner Textured Surface	Sq. Ft.	973
Staining Concrete Structures	Sq. Yd.	0
Rock Excavation for Structures, Special	Cu. Yd	10.0

INDEX OF WALL No. 24 SHEETS

Reviewed and Approved for Structural Adequacy Only

Todd C. Ude 11/2/10

TODD C. UDE 081-005784 EXP. 11/30/12 LICENSED STRUCTURAL ENGINEER STATE OF ILLINOIS

ALI A. GHARAMTI 081-006060 LICENSED STRUCTURAL ENGINEER OF MOLINE STATE OF ILLINOIS

Signature

10/27/10
Date

Exp: 11/30/12

GENERAL PLAN & ELEVATION SP WALL No. 24 PEDESTRIAN RIVERWALK ALONG THE ROCK RIVER WINNEBAGO COUNTY SECTION NO. 06-00543-00-BT STATION 211+87.04 TO STATION 213+18.55

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

SHEET NO. 1
7 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00543-00-BT	WINNEBAGO	148	99
		CONTRACT NO.		85521
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

H:\08-008 RIVERWALK MUSEUM\DESIGN\DRAWINGS\STRUCTURAL\GP&E\08-008 SP-WALL 24.DWG, GP&E WALL 24, 10/26/2010 6:23:03 PM, I.E. JWH