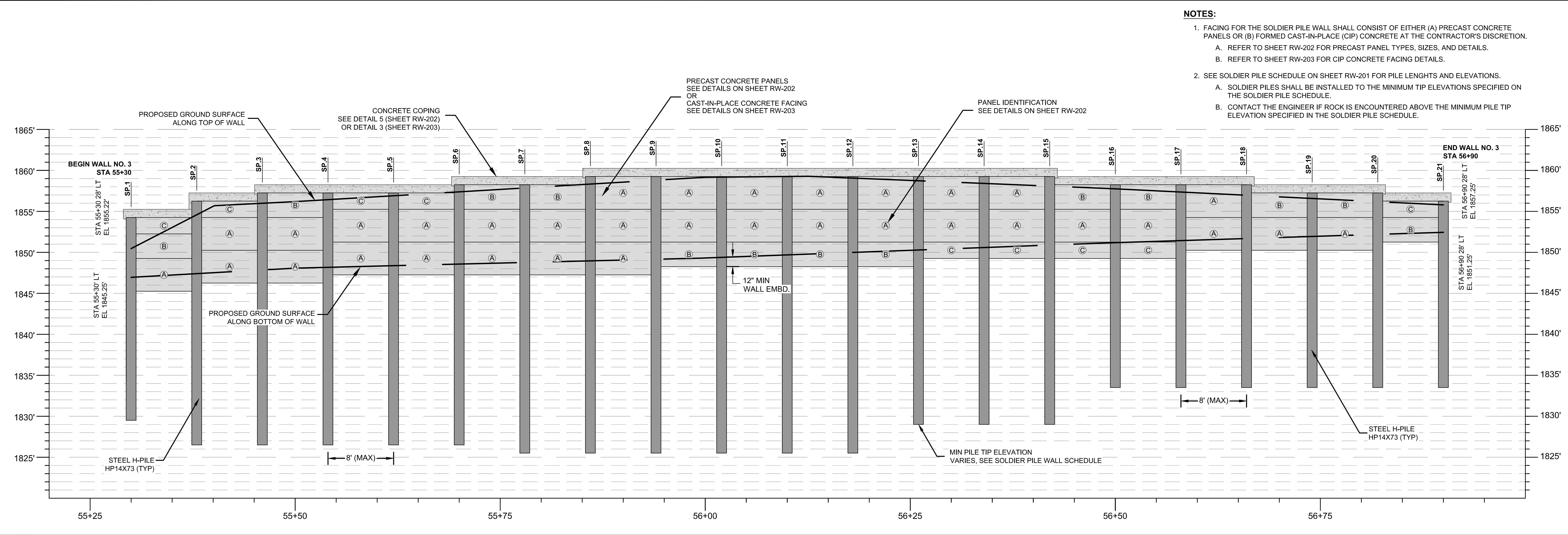




1 WALL NO. 3 - SOLDIER PILE RETAINING WALL PROFILE SCALE: 1" = 6'

SOLDIER PILE WALL SCHEDULE:

	SOLDIER PILE NUMBER																				
	SP.1	SP.2	SP.3	SP.4	SP.5	SP.6	SP.7	SP.8	SP.9	SP.10	SP.11	SP.12	SP.13	SP.14	SP.15	SP.16	SP.17	SP.18	SP.19	SP.20	SP.21
STATION NUMBER	55+30	55+38	55+46	55+54	55+62	55+70	55+78	55+86	55+94	56+02	56+10	56+18	56+26	56+34	56+42	56+50	56+58	56+66	56+74	56+82	56+90
MIN. PILE TIP ELEVATION, ft (SEE NOTE 9)	1829.50	1826.50	1826.50	1826.50	1826.50	1826.50	1825.50	1825.50	1825.50	1825.50	1825.50	1825.50	1829.00	1829.00	1829.00	1833.50	1833.50	1833.50	1833.50	1833.50	1833.50
TOP OF PILE ELEVATION, ft	1854.25	1856.25	1857.25	1857.25	1857.25	1858.25	1858.25	1859.25	1859.25	1859.25	1859.25	1859.25	1859.25	1859.25	1859.25	1858.25	1858.25	1858.25	1857.25	1857.25	1856.25
PILE LENGTH, ft	24.75	29.75	30.75	30.75	30.75	31.75	32.75	33.75	33.75	33.75	33.75	33.75	30.25	30.25	30.25	24.75	24.75	24.75	23.75	23.75	23.75
BOTTOM OF WALL FACING, ft	1845.25	1846.25	1846.25	1847.25	1847.25	1847.25	1847.25	1847.25	1848.25	1848.25	1848.25	1848.25	1849.25	1849.25	1849.25	1849.25	1850.25	1850.25	1850.25	1851.25	1851.25
TOP OF COPING ELEVATION, ft	1855.25	1857.25	1858.25	1858.25	1858.25	1859.25	1859.25	1860.25	1860.25	1860.25	1860.25	1860.25	1860.25	1860.25	1860.25	1859.25	1859.25	1859.25	1858.25	1858.25	1857.25
BOTTOM GROUND SURFACE ELEVATION, ft	1846.95	1847.40	1847.85	1848.17	1848.37	1848.56	1848.76	1848.96	1849.16	1849.39	1849.68	1849.98	1850.28	1850.58	1850.88	1851.18	1851.43	1851.68	1851.94	1852.19	1852.44
TOP GROUND SURFACE ELEVATION, ft	1850.46	1854.58	1855.98	1856.43	1856.90	1857.38	1857.85	1858.33	1858.80	1859.18	1859.25	1859.06	1858.73	1858.40	1858.08	1857.75	1857.34	1856.97	1856.57	1856.18	1855.79

Estimated Quantities	
RW Number	Square Feet
3	1,726

NOTES:

- FOR RETAINING WALL NO. 3, SEE SOLDIER PILE RETAINING WALLS PROVISION.
- DRILLED IN H-PILES ARE REQUIRED FOR RETAINING WALL NO. 3.
- FACING FOR THE SOLDIER PILE WALL SHALL CONSIST OF EITHER (A) PRECAST CONCRETE PANELS OR (B) FORMED CAST-IN-PLACE (CIP) CONCRETE AT THE CONTRACTOR'S DISCRETION.
 - PRECAST CONCRETE PANELS SHALL MEET SECTION 1077 OF THE STANDARD SPECIFICATIONS. REFER TO SHEET RW-202 FOR PRECAST PANEL TYPES, SIZES, AND DETAILS.
 - REFER TO SHEET RW-203 FOR CIP CONCRETE FACING DETAILS.
- A NATURAL STONE ARCHITECTURAL FINISH IS REQUIRED FOR THE PRECAST CONCRETE PANELS OR CIP CONCRETE FACING FOR RETAINING WALL NO. 3.
- PAINT GALVANIZED H-PILES GRAY IN ACCORDANCE WITH ARTICLE 422-13 OF THE STANDARD SPECIFICATIONS FOR RETAINING WALL NO. 3 IF PRECAST PANELS ARE USED AND PILES ARE EXPOSED.
- A FENCE OR HANDRAIL IS REQUIRED ON THE TOP OF RETAINING WALL NO. 3. SEE ROADWAY PLANS FOR FENCE OR HANDRAIL ATTACHMENT DETAILS.
- RETAINING WALL NO. 3 HAS BEEN DESIGNED FOR THE FOLLOWING:
 - DESIGN HEIGHT H = WALL HEIGHT + WALL EMBEDMENT
 - DESIGN LIFE = 100 YEARS
 - MINIMUM PANEL EMBEDMENT = 12 INCHES
 - MINIMUM PILE DEPTH = VARIES (SEE SOLDIER PILE RETAINING WALL SCHEDULE)
 - IN-SITU ASSUMED MATERIAL PARAMETERS TO DEPTH OF 5 FEET BELOW BOTTOM OF WALL:
UNIT WEIGHT, $\gamma = 110$ PCF
FRICTION ANGLE, $\phi' = 29^\circ$
COHESION, $c' = 0$ PSF
 - IN-SITU ASSUMED MATERIAL PARAMETERS FOR DEPTHS GREATER THAN 5 FEET BELOW BOTTOM OF WALL:
UNIT WEIGHT, $\gamma = 115$ PCF
FRICTION ANGLE, $\phi' = 30^\circ$
COHESION, $c = 0$ PSF
 - SURCHARGE LOAD = 250 PSF (TRAFFIC) LIVE LOAD
- BEFORE BEGINNING SOLDIER PILE CONSTRUCTION FOR RETAINING WALL NO. 3, SURVEY WALL LOCATION. NOTIFY THE ENGINEER IF THE SURVEYED WALL ELEVATIONS DEVIATE FROM THOSE SHOWN ON THE WALL PROFILES OR REFERENCED IN THE SOLDIER PILE WALL SCHEDULE BY MORE THAN 1 FT.
- CONTACT THE ENGINEER IF ROCK IS ENCOUNTERED ABOVE THE MINIMUM PILE TIP ELEVATION SPECIFIED IN THE SOLDIER PILE RETAINING WALL SCHEDULE.
- VOIDS BEHIND LAGGING SHALL BE FILLED WITH #57 STONE.
- WALL AREA INCLUDES EMBEDMENT AND COPING.

ECS SOUTHEAST, LLP
1900 HENDERSONVILLE ROAD
ASHEVILLE, NC 28803
(828) 665-2307
NC REGISTERED ENGINEERING FIRM # F-1075

RETAINING WALLS

PROJECT: R-5863
US 64 BUSINESS
FROM US 64 TO SR 107 (MAIN STREET)
CLAY COUNTY, NORTH CAROLINA

SOLDIER PILE RETAINING WALL

ECS REVISIONS	
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PRINCIPAL MAM	DESIGNER RTS
SCALE 1"=6'	
PROJECT NO. R-5863	
SHEET W-5	
DATE 10/04/2023	