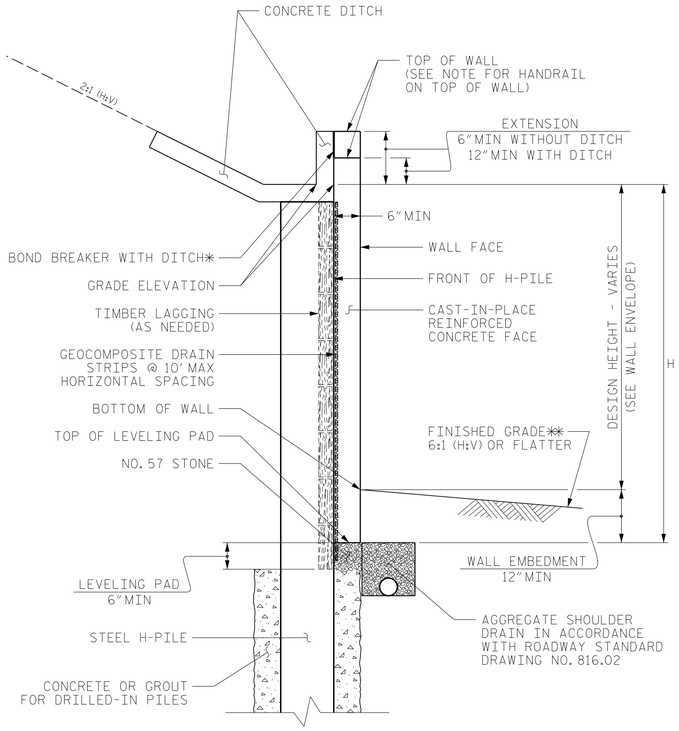
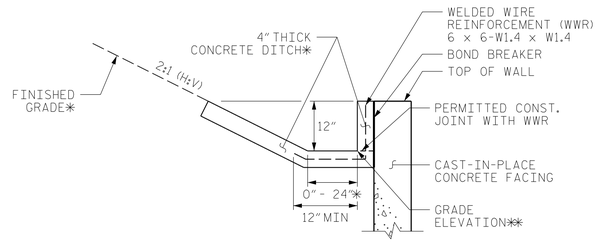


SOLDIER PILE WALL WITH CAST-IN-PLACE FACE - TYPICAL SECTION

*SEE CONCRETE DITCH BEHIND WALL DETAILS.
**SEE PLANS FOR FINISHED GRADE DETAILS.



CONCRETE DITCH BEHIND WALL WITH CONCRETE FACING

*SEE ROADWAY PLANS FOR CONCRETE DITCH AND FINISHED GRADE DETAILS.
**SEE WALL ENVELOPE FOR GRADE ELEVATIONS.

FOR CONCRETE DITCHES, SEE SECTION 850 OF THE STANDARD SPECIFICATIONS.

NOTES:

FOR SOLDIER PILE RETAINING WALLS, SEE SOLDIER PILE RETAINING WALLS PROVISION.

FOR STEEL BEAM GUARDRAIL, SEE ROADWAY PLANS AND SECTION 862 OF THE STANDARD SPECIFICATIONS.

A FENCE IS REQUIRED ON TOP OF RETAINING WALL NO. 1. SEE ROADWAY PLANS FOR FENCE OR HANDRAIL ATTACHMENT DETAILS.

AT THE CONTRACTOR'S OPTION, USE DRIVEN H-PILES FOR RETAINING WALL NO. 1.

USE A SOLDIER PILE RETAINING WALL WITH A CAST-IN-PLACE REINFORCED CONCRETE FACE FOR RETAINING WALL NO. 1.

BEFORE BEGINNING SOLDIER PILE WALL DESIGN FOR RETAINING WALL NO. 1, SURVEY WALL LOCATION AND SUBMIT A REVISED WALL PROFILE VIEW (WALL ENVELOPE) FOR REVIEW. DO NOT START WALL DESIGN OR CONSTRUCTION UNTIL THE REVISED WALL ENVELOPE IS ACCEPTED.

DESIGN RETAINING WALL NO. 1 FOR THE FOLLOWING:
1) H = DESIGN HEIGHT + WALL EMBEDMENT
2) DESIGN LIFE = 100 YEARS
3) MINIMUM WALL EMBEDMENT ELEVATION = 1 FT
4) MINIMUM PILE PENETRATION INTO ROCK = N/A
5) IN-SITU ASSUMED MATERIAL PARAMETERS ABOVE ELEVATION 664 FT:
   UNIT WEIGHT, γ = 110 LB/CF
   FRICTION ANGLE, ϕ = 28 DEGREES
   COHESION, c = 0 LB/SF
6) IN-SITU ASSUMED MATERIAL PARAMETERS BELOW ELEVATION 664 FT:
   UNIT WEIGHT, g = 120 LB/CF
   FRICTION ANGLE, f = 30 DEGREES
   COHESION, c = 0 LB/SF
7) IN-SITU ASSUMED MATERIAL PARAMETERS BELOW ELEVATION 628 FT:
   UNIT WEIGHT, g = 134 LB/CF
   FRICTION ANGLE, f = 34 DEGREES
   COHESION, c = 0 LB/SF

DESIGN RETAINING WALL NO. 1 FOR A LIVE LOAD (TRAFFIC) SURCHARGE.

AT THE CONTRACTOR'S OPTION, USE A TEMPORARY SLOPE INSTEAD OF TEMPORARY SUPPORT OF EXCAVATIONS FOR RETAINING WALL NO. 1.

PROJECT REFERENCE NO.	SHEET NO.
U-4910B	W-2
R/W SHEET NO.	

GEOTECHNICAL ENGINEER

Prepared in the Office of:
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT NO.: U-4910
CITY OF CONCORD, CABARRUS COUNTY
STATION: VARIES
SHEET 1 OF 1

PREPARED BY: HUNSBERGER, W. S.	DATE: 11/21
REVIEWED BY: HAMM, J. R.	DATE: 11/21

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

GEOTECHNICAL ENGINEERING UNIT

RETAINING WALL NO. 1

REVISIONS

NO.	BY	DATE	NO.	BY	DATE
			3		
			4		

SHEET NO. 2