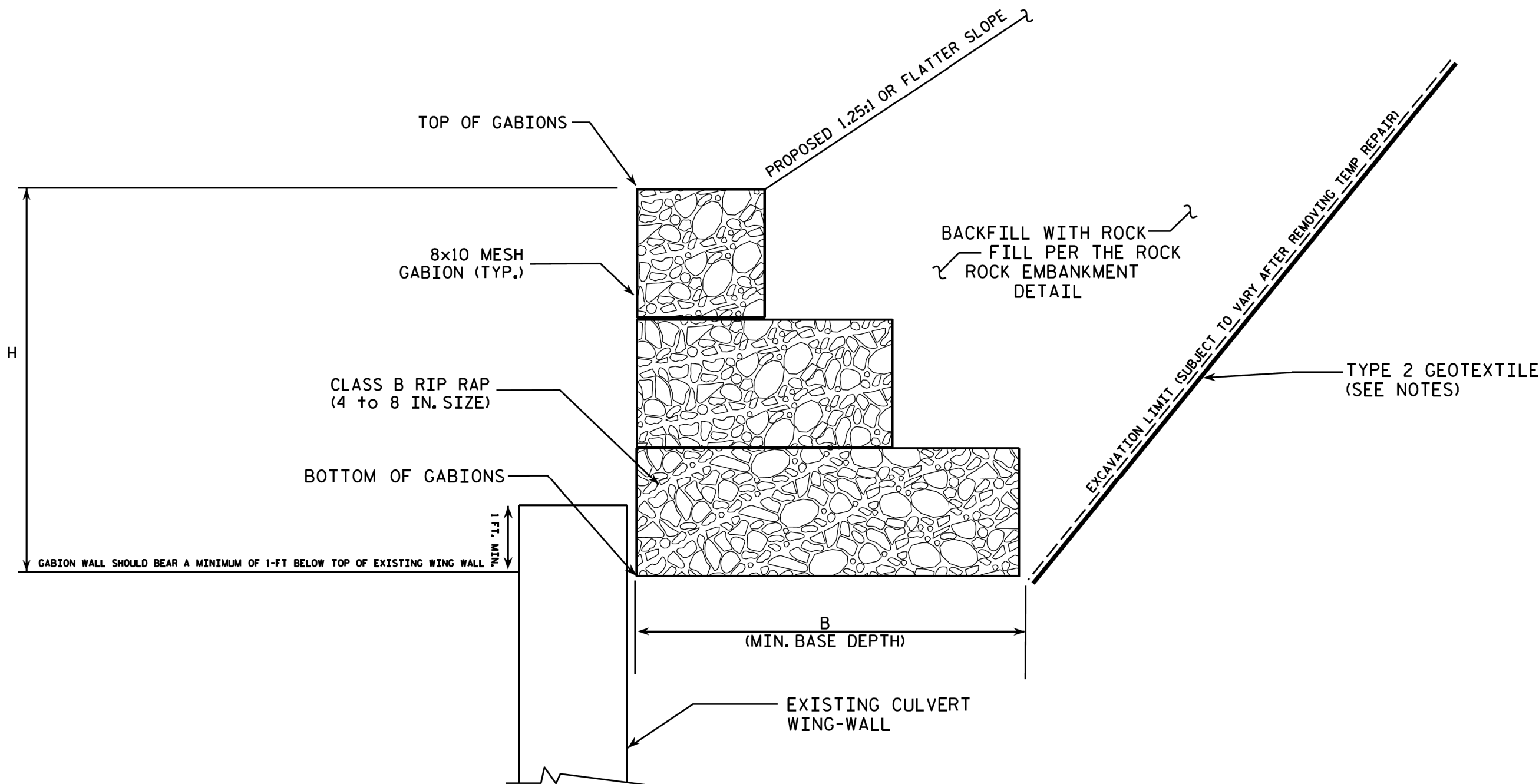


TYPICAL SECTION - B/H = 1.0 (MIN.)
N.T.S.



TYPICAL SECTION - B/H = 1.0 (MIN.)
N.T.S.

FOR GABION RETAINING WALL, SEE PROVISION.

ALL WORKMANSHIP TO BE IN ACCORDANCE WITH NCDOT AND GABION MANUFACTURER'S SPECIFICATIONS.

REMOVE THE TEMPORARY REPAIRS (RIP RAP AND BOULDERS) AND ANY LOOSE DEBRIS ON THE SURFACES OF THE SLOPES AND FROM BEHIND THE CULVERT WING-WALL TO UNDISTURBED IN-SITU MATERIALS TO THE SATISFACTION OF THE ENGINEER BEFORE CONSTRUCTING GABION WALLS.

BACKFILL THE RESULTING EXCAVATION BEHIND THE CULVERT WING-WALL AND BELOW THE GABIONS WITH CLASS VI SELECT MATERIALS. PRIOR TO BACKFILLING, COVER EXCAVATION LIMITS WITH TYPE 2 GEOTEXTILE.

IF LOOSE MATERIALS EXIST AT THE BOTTOM OF THE PROPOSED GABION WALL, UNDERCUT THE MATERIALS TO THE SATISFACTION OF THE ENGINEER BEFORE CONSTRUCTING GABION WALLS.

USE GALVANIZED & PVC COATED GABIONS WITH 8x10 MESH.

ARRANGE EMPTY GABIONS AS SHOWN. FASTEN ADJACENT UNITS AND HAND PLACE CLASS B RIP RAP (4 TO 8 IN. NOMINAL SIZE) IN GABIONS. PROVIDE GABION STIFFENERS WHERE REQUIRED. CLOSE LID AND FASTEN.

BACKFILL BEHIND GABIONS WITH ROCK FILL PER THE ROCK EMBANKMENT DETAIL. PRIOR TO BACKFILLING, COVER THE EXCAVATION LIMITS WITH TYPE 2 GEOTEXTILE.

PLACE NEXT COURSE OF EMPTY GABIONS, FASTEN ADJACENT UNITS TOGETHER, HAND PLACE RIP RAP IN GABIONS, PROVIDE GABION STIFFENERS WHERE REQUIRED, CLOSE AND FASTEN LID, INSTALL FABRIC ON GABION BACK, AND BACKFILL BEHIND GABIONS. GABIONS SHOULD BE BENCHED INTO EXISTING GROUND BEYOND FAILED AREA AT EACH END. REPEAT UNTIL TOP COURSE OF GABIONS IS INSTALLED.

GRADE ABOVE AND BEHIND GABIONS AT A SLOPE INCLINATION OF 2(H):1(V) OR FLATTER.

NO SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF SITE 1. THE INFORMATION PROVIDED FOR DESIGN WAS BASED ON VISUAL OBSERVATIONS AND APPROXIMATIONS AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

BEFORE BEGINNING GABION RETAINING WALL DESIGN AT SITE 1, SURVEY WALL LOCATION AND SUBMIT A WALL PROFILE VIEW (WALL ENVELOPE) FOR REVIEW. DO NOT START WALL DESIGN OR CONSTRUCTION UNTIL THE WALL ENVELOPE IS ACCEPTED.

DESIGN GABION RETAINING WALL FOR EXTERNAL AND GLOBAL STABILITY.

DESIGN GABION RETAINING WALL FOR A LIVE LOAD (TRAFFIC) SURCHARGE.

DESIGN GABION RETAINING WALL AT SITE 1 FOR THE FOLLOWING:
1) DESIGN HEIGHT (H) = WALL HEIGHT + WALL EMBEDMENT
2) DESIGN LIFE = 75 YEARS
3) IN-SITU ASSUMED MATERIAL PARAMETERS (RESIDUAL & ROADWAY EMBANKMENT SOILS):
UNIT WEIGHT, γ = 120 PCF
FRICTION ANGLE, ϕ = 30 DEGREES
COHESION, c = 0 PSF
4) IN-SITU ASSUMED MATERIAL PARAMETERS (WEATHERED ROCK)
UNIT WEIGHT, γ = 130 PCF
FRICTION ANGLE, ϕ = 41 DEGREES
COHESION, c = 0 PSF
5) GABION BACKFILL ASSUMED MATERIAL PARAMETERS (ROCK FILL)
UNIT WEIGHT, γ = 135 PCF
FRICTION ANGLE, ϕ = 40 DEGREES
COHESION, c = 0 PSF

TOTAL STRUCTURE QUANTITY = 108 SQ. FT.

TOTAL STRUCTURE QUANTITY INCLUDES EMBEDMENT BELOW GRADE

PROJECT NO.: DF18314.2045060

COUNTY: HENDERSON

GABION RETAINING WALL

SITE 1- BALD ROCK RD.

REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

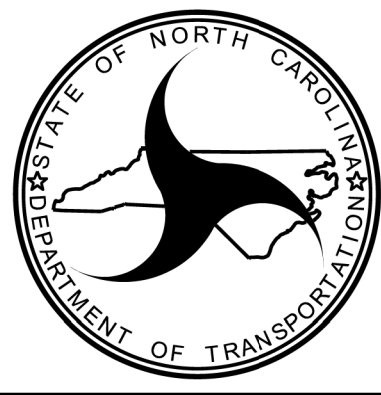
SHEET NO.

2G-1b

PREPARED BY: C. WANG, P.E.	DATE: 08/2025
REVIEWED BY: P. ALTON, P.E.	DATE: 08/2025



SINCE
Prepared in the Office of:
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NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GEOTECHNICAL
ENGINEERING UNIT