



NOTES:

1. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
2. CONCRETE SHALL HAVE TRANSVERSE JOINTS AT WEEP HOLE LOCATIONS. REDWOOD EXPANSION JOINTS ARE REQUIRED A MAXIMUM OF EVERY 200 FEET. CONSTRUCTION JOINTS SHALL BE PLACED WHEN CONCRETING OPERATIONS CEASE FOR MORE THAN 30 MINUTES.
3. WHEN VERTICAL HEIGHT OF SLOPED RIPRAP IS MORE THAN 5 FEET, INSTALL AN ADDITIONAL ROW OF WEEP HOLES AT THE MIDPOINT OF THE RIPRAP.
4. CONTINUOUS GRAVEL TRENCH SHALL BE 6 INCHES THICK WRAPPED IN FILTER FABRIC (MIRAFI 140 NS OR FUNCTIONAL EQUIVALENT). DRAINAGE MATERIAL TO CONSIST OF GRAVEL GRADED WITHIN THE FOLLOWING LIMITS:

SIEVE SIZE	% PASSING (BY WEIGHT)
1"	100
3/4"	90-100
3/8"	20-55
NO.4	0-5
5. FENCE POSTS SHALL NOT BE EMBEDDED IN THE CONCRETE.
6. THE UPSTREAM AND DOWNSTREAM ENDS OF RIPRAP SHALL HAVE A 3 FOOT DEEP TOE WALL, UNLESS CONNECTING TO ANOTHER STRUCTURE.
7. RIPRAP TO BE FORMED ON UNDISTURBED SOIL CUT TO GRADE. IF TO BE PLACED ON FILL, ALL FILL SHALL BE PLACED ON BENCHES CUT IN UNDISTURBED SOIL AND FILLED IN 8" LOOSE LIFTS, EACH COMPACTED TO 95% STANDARD PROCTOR DENSITY. THE FILL SO COMPACTED SHALL THEN BE CUT TO GRADE.



STORM DRAIN CONSTRUCTION DETAILS
CONCRETE RIPRAP

REVISION DATE:
2/1/2024

SHEET: D-03