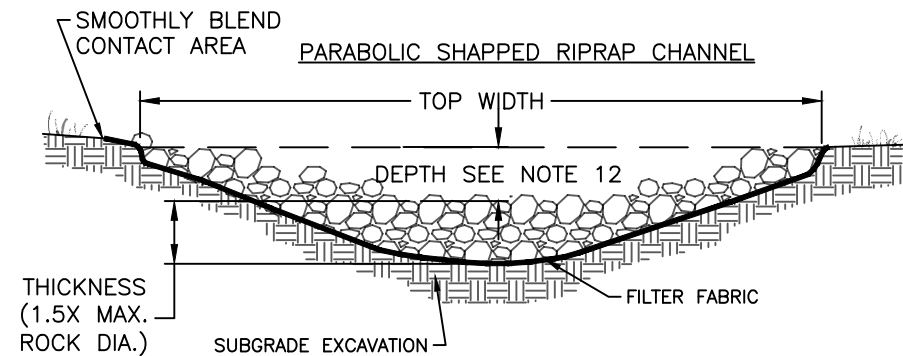
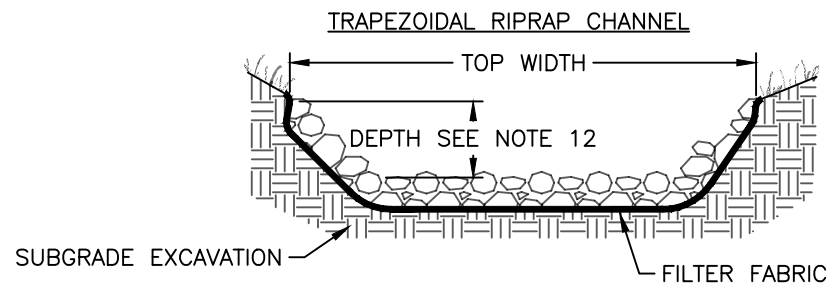
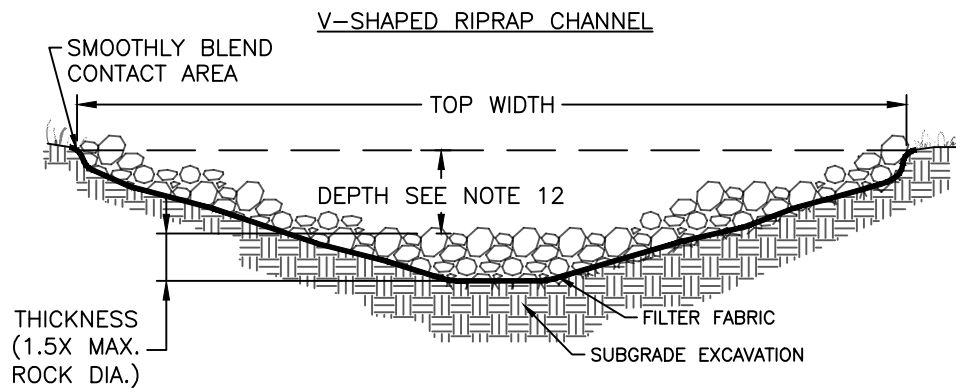


\\chfs\Engineering\Design Manual\Standard Details for 2023 Revision\CAD\CAD details\EC-200.dwg



**NOTES:**

1. CLEAR THE FOUNDATION AREA OF TREES, STUMPS, ROOTS, LOOSE ROCK, AND OTHER OBJECTIONABLE MATERIAL.
2. EXCAVATE THE CROSS SECTION TO THE LINES AND GRADES OF THE FOUNDATION OF THE LINER AS SHOWN ON THE PLANS. BRING OVER-EXCAVATED AREAS TO GRADE BY INCREASING THE THICKNESS OF THE LINER OR BY BACKFILLING WITH MOIST SOIL COMPACTED TO THE DENSITY OF THE SURROUNDING MATERIAL.
4. ROCK RIPRAP LININGS SHOULD BE INSTALLED PER NCDEQ STANDARDS AND SPECIFICATIONS
5. PLACE FILTERS, BEDDINGS, AND FOUNDATION DRAINS TO LINE AND GRADE IN THE MANNER SPECIFIED. PLACE FILTER AND BEDDING MATERIALS IMMEDIATELY AFTER SLOPE PREPARATION.
6. FOR SYNTHETIC FILTER FABRICS, OVERLAP THE DOWNSTREAM EDGE BY AT LEAST 12 INCHES WITH THE UPSTREAM EDGE WHICH IS BURIED A MINIMUM 12 INCHES IN A TRENCH. SPACE ANCHOR PINS EVERY 3 FEET ALONG THE OVERLAP.
7. SPREAD GRANULAR MATERIALS IN A UNIFORM LAYER. WHEN MORE THAN ONE GRADATION IS REQUIRED, SPREAD THE LAYERS SO THERE IS MINIMAL MIXING.
8. FILTER MATERIAL SHOULD CONSIST OF A LEAST 3 INCHES OF MATERIAL ON ALL SIDES OF THE DRAIN PIPE. THE DRAIN PIPE CONDUIT SHOULD BE A MINIMUM OF 4 INCHES IN DIAMETER.
9. PERFORM ALL CHANNEL CONSTRUCTION TO KEEP EROSION AND WATER POLLUTION TO A MINIMUM. IMMEDIATELY VEGETATE ALL DISTURBED AREAS OR OTHERWISE PROTECT THEM AGAINST SOIL EROSION.
10. PROPORTION THE CHANNEL WIDTH AND DEPTH TO MEET THE NEEDS OF DRAINAGE, CARRYING CAPACITY, FOUNDATION LIMITATIONS, AND SPECIFIC SITE CONDITIONS
11. FILTER FABRIC MUST BE INSTALLED BETWEEN ROCK AND SOIL
12. CHANNEL DEPTH SHALL PROVIDE A MINIMUM 6-IN. FREEBOARD DURING 10-YR STORM EVENT. FOR SITES EXCEEDING 1 ACRE OF LAND DISTURBANCE, MINIMUM DEPTH SHALL BE 18-IN.
13. TYPICAL MINIMUM CHANNEL RUNNING SLOPE SHALL BE 2% IN DIRECTION OF FLOW

Channel Lining Thickness	
Material	Minimum Thickness
Rock Riprap	1.5 times maximum stone diameter
Flagstone	4 inches including mortar

**MAINTENANCE:**

1. INSPECT CHANNELS AT LEAST WEEKLY AND AFTER EACH RAINFALL OF 1.0 INCH OR GREATER AND MAKE REPAIRS PROMPTLY. GIVE SPECIAL ATTENTION TO THE OUTLET AND INLET SECTIONS AND OTHER POINTS WHERE CONCENTRATED FLOW ENTERS.
2. CAREFULLY CHECK STABILITY AT ROAD CROSSINGS, LOOKING FOR INDICATION OF PIPING, SCOUR HOLES, OR BANK FAILURES. MAKE ANY REPAIRS IMMEDIATELY.
3. MAINTAIN ALL VEGETATION ADJACENT TO THE CHANNEL IN A HEALTHY, VIGOROUS CONDITION.
4. RESTORE STONE IN AREAS THAT HAVE LESS THAN THE MINIMUM THICKNESS

" NOT TO SCALE "



TOWN OF CHAPEL HILL  
STANDARD DETAIL

REVISIONS

05/2024

RIPRAP  
CHANNELS

DATE: 02/2017

EC-2.00