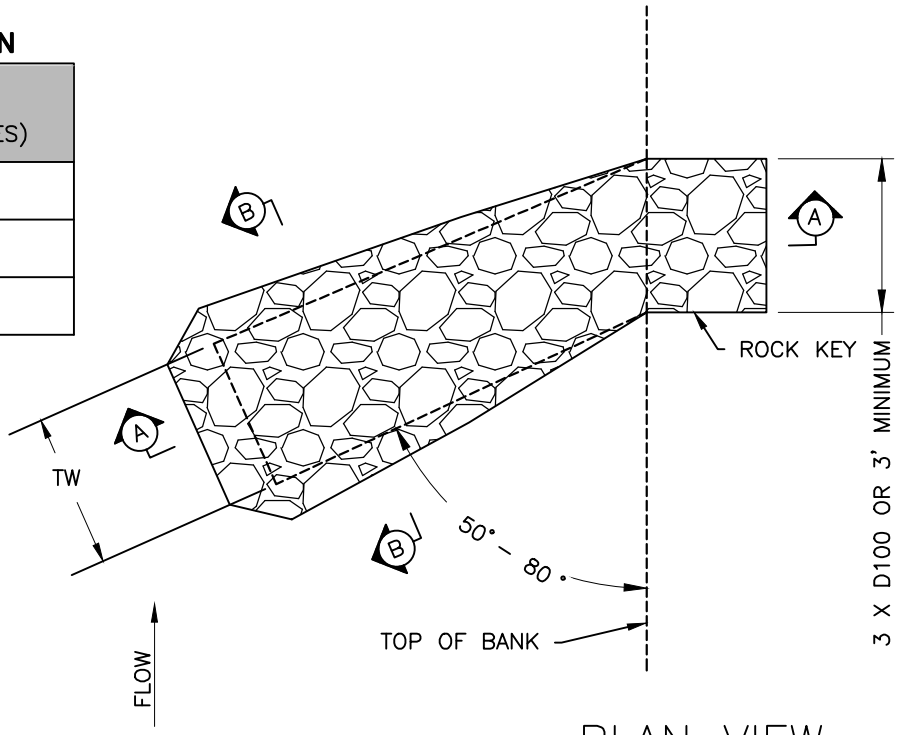
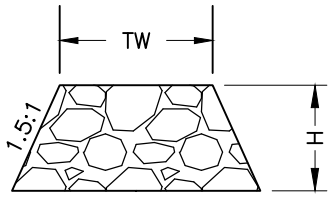
DRAWING NOT TO SCALE

ROCK SIZE AND GRADATION

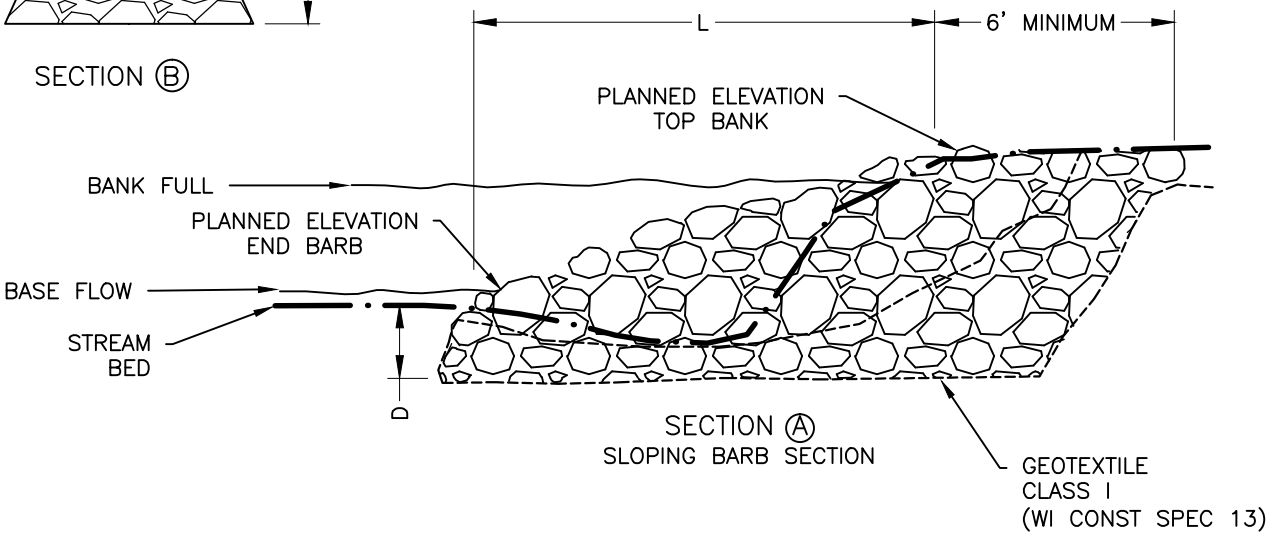
PERCENT PASSING BY WEIGHT	SIZE (INCHES)
100	4 X D_5
25 – 50	2 X D_5
0 – 5	D_5



PLAN VIEW



SECTION Ⓑ

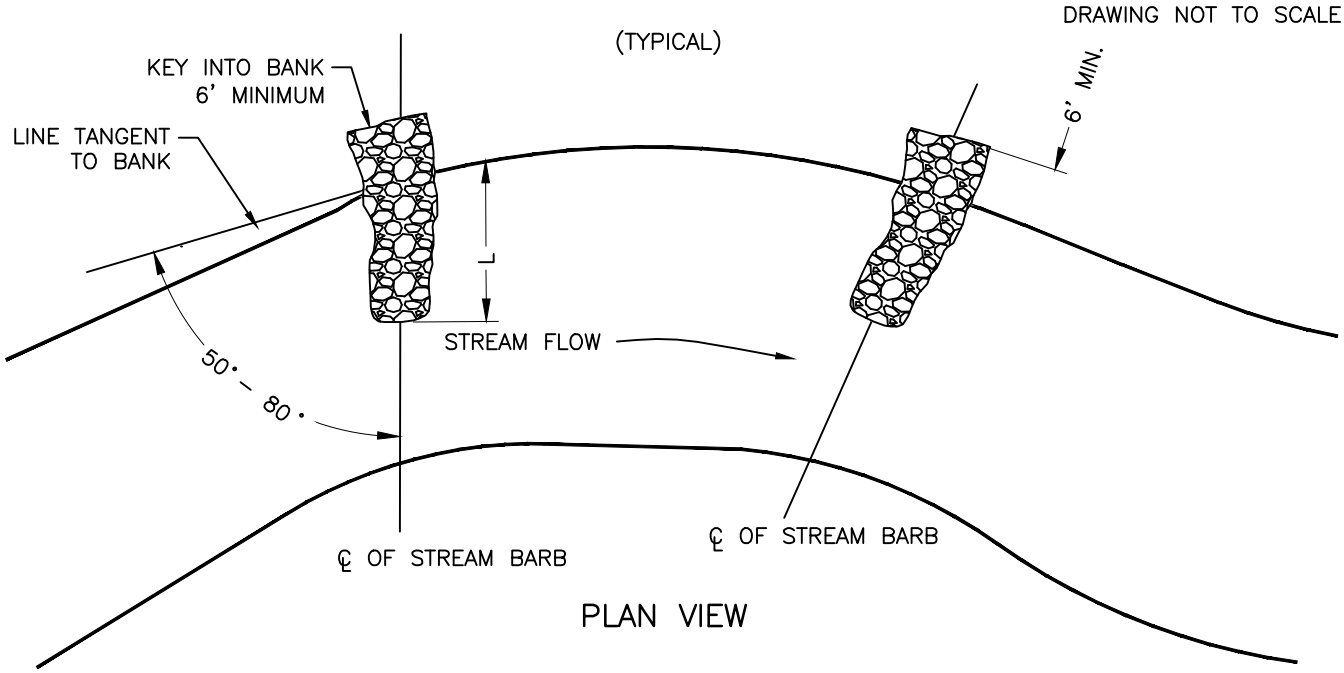


SECTION Ⓐ
SLOPING BARB SECTION

NOTES

1. THIS STANDARD DRAWING REQUIRES SUPPORTING TECHNICAL DOCUMENTATION PRIOR TO USE AND MUST BE ADAPTED TO THE SPECIFIC SITE.
2. SEE CHART ON SHEET 2 FOR DIMENSIONS AND ELEVATIONS.

USDA United States Department of Agriculture Natural Resources Conservation Service	STREAM BARBS – SLOPED CLIENT: COUNTY:	Date Designed Drawn Checked Approved	File Name WI–939 Date 08/14 Sheet of



DESIGN AND INSTALLATION

1. KEY BARB INTO STREAM BED A DEPTH, D, APPROXIMATELY D100 OR AT LEAST ONE FOOT BELOW THE BED.

2. THE MINIMUM ELEVATION OF THE BARB TOP PROJECTING INTO THE STREAM SHOULD BE EQUAL TO THE BASE FLOW ELEVATION.

3. THE MINIMUM ELEVATION OF THE ROCK ON TOP OF THE BANK SHOULD BE THE LESSER OF THE ORIGINAL BANK ELEVATION OR ONE FOOT ABOVE BANK FULL ELEVATION.

4. AN OPTION IS TO SLOPE THE TOP OF THE PROJECTING SECTION DOWN FROM THE BANKFULL FLOW ELEVATION TO THE BASE FLOW ELEVATION AT THE END OF THE BARB.

5. BARB TOP WIDTH, TW, SHOULD BE AT LEAST EQUAL TO 3 TIMES THE D100, BUT NOT LESS THAN 3'. IF EQUIPMENT MUST TRAVEL ON TOP OF THE BARB FOR CONSTRUCTION, USE 8 TO 10 FEET.

6. THE LENGTH OF THE BARB, L, MUST BE LONG ENOUGH TO CROSS THE STREAM THALWEG. (THE THALWEG BEING DEFINED AS THE DEEPEST PORTION OF THE CHANNEL.) 1.5 TO 2 TIMES THE DISTANCE FROM THE BANK TO THE THALWEG HAS PROVED SATISFACTORY ON SOME PROJECTS.

7. THE SPACING OF BARBS IS DEPENDENT ON THE STREAMFLOW LEAVING THE BARB AND ITS' INTERSECTION WITH THE BANK DOWNSTREAM. THE SPACING IS TYPICALLY 4 TO 5 TIMES THE BARB LENGTH. BEGIN INSTALLATION WITH THE UPSTREAM BARB, AND LOCATE SUBSEQUENT BARBS DOWNSTREAM BY OBSERVING WHERE THE FLOW MEETS THE BANK.

BARB NUMBER	L	D	H	TW	ROCK ELEVATION TOP BANK	ROCK ELEVATION TOP BARB