

SOIL AND WATER STREAMBANK STABILIZATION CHANNEL WORKSHEET 1

STREAM INFORMATION

1. STREAM NAME: _____
2. DRAINAGE AREA (DA): _____ MI² (= ACRES/640)
3. LOCATION (TOWN, COMMUNITY, COUNTY, ETC.): _____
4. LATITUDE / LONGITUDE: _____
5. DATE: _____
6. OBSERVER(S): _____
7. BENCH MARK LOCATION & ELEV: _____

STREAM CHANNEL MEASUREMENTS

8. DETERMINE CHANNEL CROSS-SECTIONAL AREA (A) AT FLOOD STAGE = $19.133 \cdot (DA)^{0.6539}$ = _____
THIS AREA IS REQUIRED FOR STABLE CHANNEL CONDITIONS.
9. DETERMINE CHANNEL WIDTH (W) AT FLOOD STAGE = $17.41 \cdot (DA)^{0.3692}$ = _____ FT
FINAL CHANNEL WIDTH MUST MEET THIS DIMENSION.
10. CALCULATE AVERAGE DEPTH (D) AT FLOOD STAGE = A / W = _____ FT
11. DETERMINE BENCH HEIGHT (Dmax) AS MEASURED FROM THE THALWEG = $(D) \cdot 1.55$ = _____ FT
12. MINIMUM BENCH WIDTH SHALL BE 10% OF CHANNEL WIDTH (0.1 * W) OR 3 FEET, WHICHEVER IS GREATER = _____ FT Elevation = _____

NOTE: BENCH ELEVATION SHALL PARALLEL WATER SURFACE SLOPE. THE ELEVATION DIFFERENCE BETWEEN THE BENCH AND WATER SURFACE (BASE FLOW) SHALL REMAIN CONSTANT.

* **Bench and channel dimensions may have been modified in Mecklenburg Stream Program to meet site constraints/requirements**

CONSTRUCTION NOTES

STABILIZED STREAMBANK (ABOVE BENCH) SHALL HAVE A SLOPE OF 2:1 OR FLATTER, UNLESS 1.5:1 HAS BEEN APPROVED BY MECKLENBURG SOIL AND WATER CONSERVATION DISTRICT.

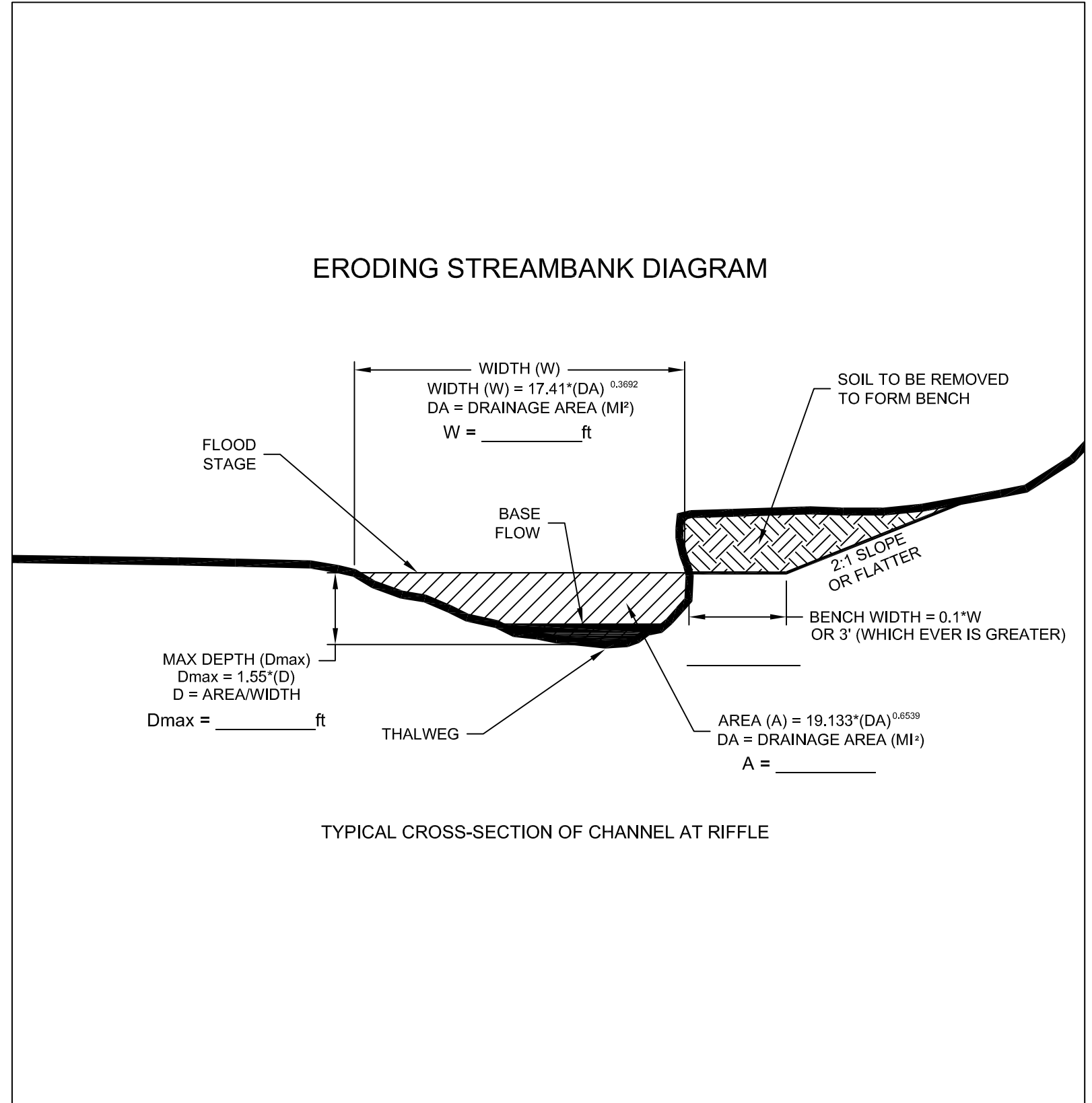
ESTABLISH PERMANENT VEGETATION ON ALL DISTURBED AREAS IN ACCORDANCE WITH THE USDA-NRCS CONSERVATION PRACTICE STANDARD CODE 342 (CRITICAL AREA PLANTING) OR OTHER GUIDANCE PROVIDED BY MECKLENBURG SOIL AND WATER CONSERVATION DISTRICT.

REGARDLESS SURFACE WATER CLASSIFICATIONS THE USE OF NATIVE GRASSES AND PLANTS IS A REQUIREMENT FOR COST SHARE. CONSULT THE NC WILDLIFE RESOURCES COMMISSION, NC DIVISION OF WATER QUALITY FOR GUIDANCE OR MECKLENBURG SOIL AND WATER CONSERVATION DISTRICT.

STREAMBANK FROM THE WATER'S EDGE TO THE BACK OF THE CONSTRUCTED BENCH SHALL BE COVERED WITH COIR MATTING (700g) AND ANCHORED AS RECOMMENDED BY THE MANUFACTURER.

ALL STREAMBANK SLOPES ABOVE THE CONSTRUCTED BENCH SHALL BE COVERED WITH EROSION CONTROL MATTING CONSISTING OF WOOD AND/OR STRAW FIBERS SANDWICHED BETWEEN TWO LAYERS OF NETTING (i.e. CURLEX). INSTALL BLANKET AS DIRECTED BY THE MANUFACTURER.

THE CONSTRUCTED BENCH AND STABILIZED STREAMBANK SHALL BE PLANTED WITH WOODY VEGETATION IN THE FORM OF LIVESTAKES (1 STEM PER 9 SQUARE FEET). FURTHER INFORMATION ON BUFFER PLANTING CAN BE FOUND AT: **GUIDELINES FOR RIPARIAN BUFFER RESTORATION** BY NC DENR - EEP, OCTOBER 2004



FIELD OFFICE: _____
 ADDRESS: _____
 PHONE: _____

LANDOWNER: _____
 ADDRESS: _____

REVISIONS			
NO.	BY	DATE	DESCRIPTION
1			
2			
3			
4			
5			

PROJECT #: _____ SCALE: **NTS**
 DRAWN BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____
 SHEET NO. _____ OF _____ FILENAME: _____
