STANDARD DETAIL DRAWINGS

NOMINAL THICKNESS OF RIPRAP LAYER (mm) — axis values: 2500, 2000, 1500, 1200, 1000, 700, 550, 450, 350

RIPRAP CLASS (kg) — axis values: 4000, 2000, 1000, 500, 250, 100, 50, 25, 10

SLOPE OF BANK curves: 1:1, 1.5:1, 2:1, 3:1, 4:1, 12:1 (or bottom)

V_S = VELOCITY AGAINST BANK (m/s) — axis values: 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0
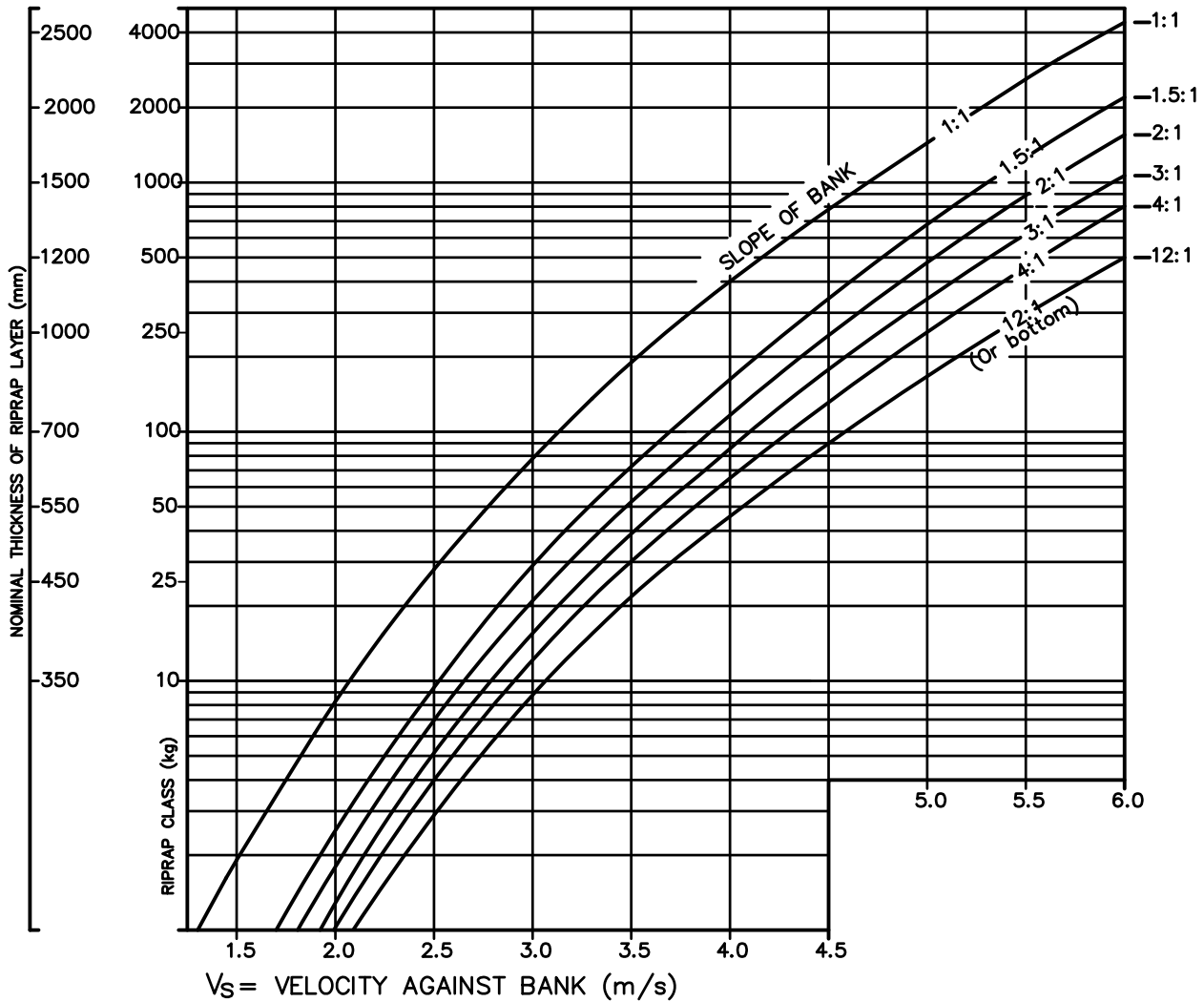
SIZE OF ROCK AND THICKNESS OF PROTECTION BLANKET THAT WILL RESIST DISPLACEMENT FOR VARIOUS VELOCITIES AND BANKSIDE SLOPES.

Notes:

1. Adapted from report of Sub−committee on slope protection, Am. Soc. Civil Engineers Proc. June 1948.

2. Density of stone assumed at 2,640 kg/m .

3. Enter graph at known velocity to intersection with desired slope curve. Move horizontally to required riprap class and thickness.

4. V_M = mean stream velocity.

5. For parallel flow along tangent bank; $V_S = 2/3\ V_M$

6. For impinging flow against curved bank; $V_S = 4/3\ V_M$

7. For direct impingement on the bank; $V_S = 2_M V$

8. The riprap class No. is the mass (kg) of the 50% rock size (i.e., at least half of the riprap must be heavier than its class mass).

9. Do not interpolate between riprap classes. Use the next highest class.

RIPRAP DESIGN CHART

SS-S57

DATE: MAY08/02