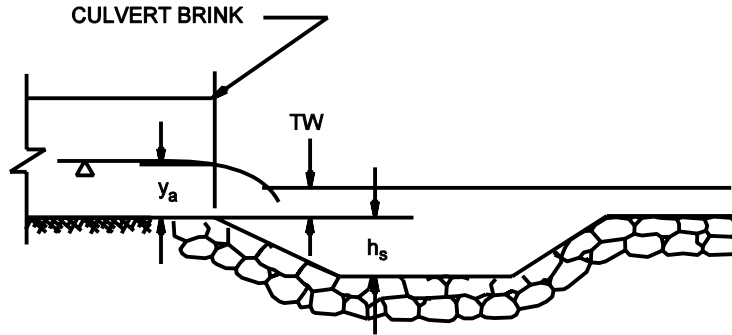
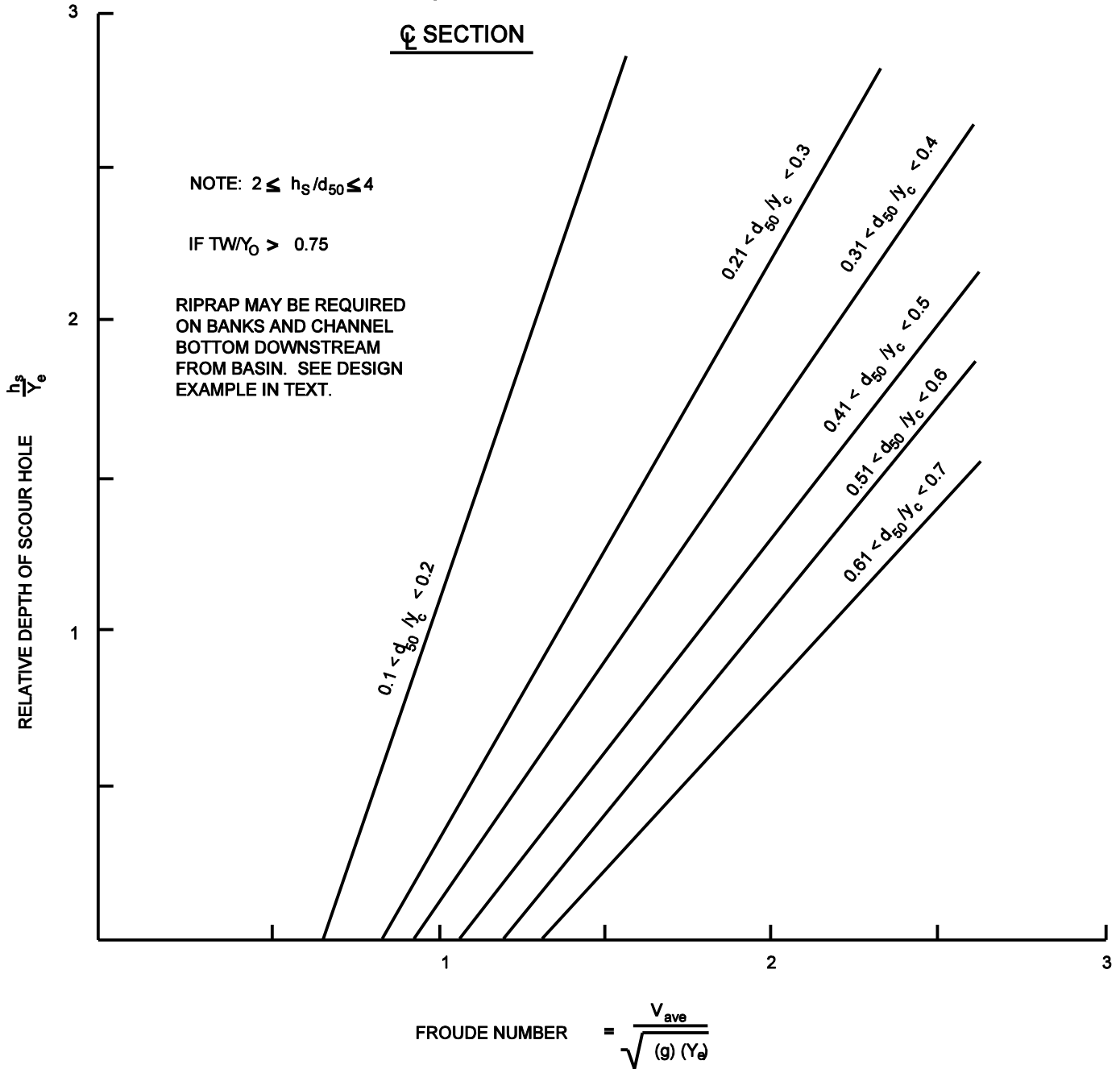


$$V_{ave} = \frac{\text{DESIGN DISCHARGE (Q)}}{\text{WETTED AREA AT BRINK OF CULVERT}}$$



d_{50} = THE MEDIAN SIZE OF ROCK BY WEIGHT. ROUNDED ROCK OR ANGULAR ROCK.

y_a = EQUIVALENT BRINK DEPTH
 = BRINK DEPTH FOR BOX CULVERT
 = $(A/2)^{0.5}$ FOR NON-RECTANGULAR SECTIONS



RIPRAP BASIN DEPTH OF SCOUR

Figure 34-8B