Coastal Construction Manual

FORMULA CALCULATOR

11.6 Breaking Wave Load on Vertical Walls

γ :	62.40	Case 1: f_{brkw} =	lb/ft
C_p :		Case 2: f_{brkw} =	lb/ft
d_s :			

Case 1 : $f_{brkw} = 1.1C_p\gamma d_s^2 + 2.41\gamma d_s^2$

Case 2 : $f_{brkw} = 1.1C_p\gamma d_s^2 + 1.91\gamma d_s^2$

Compute Reset

f_{brkw} = total breaking wave load per unit length of wall (lb/ft) acting at the stillwater level

F_{brkw} = total breaking wave load (lb) acting at the stillwater level = f_{brkw} w, where w = width of wall in feet

γ = specific weight of water (62.4 lb/ft^3 for fresh water and 64.0 lb/ft^3 for salt water)

C_p = dynamic pressure coefficient from Table 11.1

d_s = design stillwater flood depth in feet

Note: Formula 11.6 includes the hydrostatic component calculated by Formula 11.3. If Formula 11.6 is used, do not add a lateral hydrostatic force from Formula 11.3.

Other Calculators