



CASE I

$$\text{Str. Depth} + \text{Min. Cl.} + \text{N.W.S. (Des. Flood)} = \text{OK. El.}$$

CASE II

$$'x' + \text{Des. Flood stage with Backwater} = \text{OK. El.}$$

1 ('x' = Fin. Gr. to bottom of subgrade)

CASE III

$$'y' + \text{Base Flood stage with Backwater} = \text{OK. El.}$$

('y' = Fin. Gr. to edge of pavement)

Example: Des. Flood (Q<sub>50</sub>) N.W.S. = 100.0  
 Q<sub>50</sub> N.W.S. with BW = 102.0  
 Base Flood (Q<sub>100</sub>) N.W.S. with BW = 103.0  
 Sec. System; D.A. = 16 Sq. Mi.; Rating Terrain  
 structure depth = 2.0'  
 'x' ≈ 2.0'  
 'y' ≈ 0.25'

I. 100.0 = Q <sub>50</sub> N.W.S.	II. 102.0 = Q <sub>50</sub> NWS + BW	III. 103.0 = Q <sub>100</sub> with B.W.
1.5 = Min. Cl.	2.0 ≈ 'x'	0.25 ≈ 'y'
2.0 = Str. Depth	104.0	103.25
103.5		

CONTROLS.

Try to set Grade in increments of half-foot.