

CALABRO - 3106 ALBANY POST ROAD, BUCHANAN

CULTEC CALCULATIONS

$$Q = \frac{(P - 0.2S)^2}{(P + 0.8S)} \qquad S = \frac{1000}{CN} - 10$$

Q = Runoff (in)

P = Rainfall (in)

S = Potential maximum retention after runoff begins (in)

P = in (100-year 24-hour rainfall)

Existing Conditions	
CN =	<input type="text" value="89"/>
S =	<input type="text" value="1.24"/>
Q =	<input type="text" value="7.91"/> in

Proposed Conditions	
CN =	<input type="text" value="98"/>
S =	<input type="text" value="0.20"/>
Q =	<input type="text" value="9.00"/> in

*Existing CN for Gravel Roads, soil group C

Q Δ (Proposed Runoff - Existing Runoff) = in.

<input type="text" value="4855"/> ft ²
<input type="text" value="442"/> ft ³

Runoff Area (Proposed Impervious Areas + 10% Existing Impervious Areas)

Runoff Volume = Runoff Area * Q Δ

Treatment Capacity

<input type="text" value="79.26"/> ft ³
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Capacity of Cultec 330XLHD chamber w/ stone per manufacturer specs (includes 6" stone base, 6" stone above crown, 3" stone each side)

<input type="text" value="5.6"/>

Number of cultec chambers required (Runoff Volume / Cultec Capacity)

