

CALABRO - 3106 ALBANY POST ROAD, BUCHANAN

STORMWATER CALCULATIONS

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

$$S = \frac{1000}{CN} - 10$$

Q = Runoff (in)

P = Rainfall (in)

S = Potential maximum retention after runoff begins (in)

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

Existing Conditions	
CN =	89
S =	1.24
Q =	7.91 in

Proposed Conditions	
CN =	98
S =	0.20
Q =	9.00 in

*Existing CN for Gravel Roads, soil group C

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

4,772 ft ²
435 ft ³

Runoff Area (Proposed Impervious Area = 11,921 sf - Existing Impervious Area = 7,943 sf + 10% of Existing Impervious Area = 794 sf = 4,772 sf)

Runoff Volume = Runoff Area * Q Δ

Treatment Capacity

ft³

Capacity of Cultec 330XLHD chamber w/ stone per manufacturer specs (includes 6" stone base, 6" stone above crown, 3" stone each side)

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

**6 Cultec chambers are required, 9 Cultec chambers are Proposed

10-Nov-25