

Attachment 2.12-6

RETENTION POND VOLUME

Henrietta

Estimate the volume of the proposed retention basin.

Volume of Water to be Retained

Source: Kings County, CA Public Works Improvement Standards Manual

Volume of Runoff to be Contained (10 yr 10 day storm): $V_{req} (ft^3) = C A R$

C* = Runoff Coef.	0.80
A = Drainage Area (ft ²)	390000
R = Runoff (ft) for 10 yr, 10 day storm	0.400

$V_{req} = 124800.00 \text{ ft}^3$

*Estimate

Based on the preliminary geological report, the groundwater in this area is a minimum of 6 ft below surface. Therefore the depth of the pond should not greater than 2.5 ft.

Side slopes shall be no steeper than 3:1

Volume =	124800.00 ft ³	
Depth =	2.5 ft	
Approx. Area =	49920 ft ²	1.1460055 ac

** Bottom of the pond must be at least 6 ft below the top of foundation for the units in order to gravity drain the site. (based on pipe slopes of 0.3% and minimum pipe cover of 30 inches in traffic areas)