

**Eagle Ridge Phase 6
Weber County, Utah**

4/18/2017



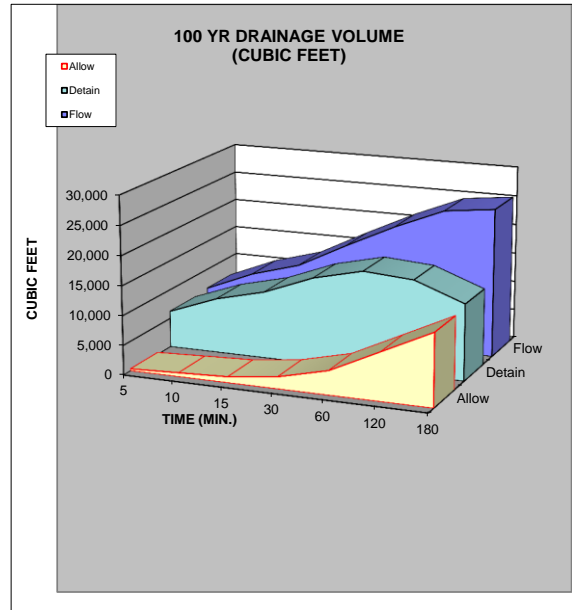
Areas	Total Site		
	Sq. Ft.	Acre	C
Hard Surface	82,729	1.8992	0.85
Landscape	413,382	9.4899	0.15
Total/Weighted	496,111	11.3891	0.27

Allow Release Rate (cfs/acre) **0.100**
Q Allowable (cfs) 1.14

100yr

MIN	Runoff Vol (cf) Allowable	*Inch / Hr i100	Total Vol (cf) 100 YEAR	Detain Vol (cf) Difference
5	342	7.24	6,598	6,256
10	683	5.51	10,043	9,360
15	1,025	4.55	12,440	11,415
30	2,050	3.06	16,732	14,682
60	4,100	1.9	20,779	16,678
120	8,200	1.11	24,278	16,078
180	12,300	0.77	25,262	12,962
360	24,600	0.44	28,871	4,271
720	35,433	0.27	35,433	0
1440	41,995	0.16	41,995	0

*NOAA Data



	CUBIC FEET	CUBIC YARDS
100 YEAR STORM RECOMMENDED MIN. VOLUME DETAINED	16,678	618

Orifice Calculation

- H = **3** Maximum water height (ft)
- Q = 1.14 Flowrate out of orifice (cfs)
- Cc = 0.62 Coefficient of Contraction
- Cv = 0.98 Coefficient of Velocity
- Area = 0.135 Orifice Area (ft²)
- Π = 3.14
- g = 32.17 Gravitational Constant
- d = 4.97 Orifice Diameter (in)
- d = 4 1/4" Orifice**