hurley & stewart

**Alliance Cloud Services**

Stormwater Calculations

*November 5, 2026*

| Proposed Conditions | | |
|---|---|---|
| | Area (sft) | C Value |
| Grass | 35102 | 0.30 |
| Pavement | 19149 | 0.95 |
| Building | 0 | 1.00 |
| Gravel | 8967 | 0.60 |
| Basin | 4856 | 1.00 |
| | | |
| Total | 68074 | sft |
| | 1.56 | ac |
| C Value = | 0.57 | |

| Post-Dev Runoff Rate (2 Year - 24 hr) | | |
|---|---|---|
| I= | 0.112 | in/hr |
| Q = | 0.00 | cfs |
| (2 Year - 24 Hour Storm is infiltrated on site) | | |

| Post-Dev Runoff Rate (25 Year - 24 hr) | | |
|---|---|---|
| I= | 0.196 | in/hr |
| Q = | 0.00 | cfs |
| (25 Year - 24 Hour Storm is infiltrated on site) | | |

| Pre-Development Conditions | | |
|---|---|---|
| | Area (sft) | C Value |
| Grass | 50911 | 0.30 |
| Pavement | 17163 | 0.95 |
| Building | 0 | 1.00 |
| Gravel | 0 | 0.60 |
| Basin | 0 | 1.00 |
| | | |
| Total | 68074 | sft |
| | 1.56 | ac |
| C Value = | 0.46 | |

| Pre-Dev Runoff Rate (2 Year - 24 hr) | | |
|---|---|---|
| I= | 0.112 | in/hr |
| Q = | 0.08 | cfs |

| Pre-Dev Runoff Rate (25 Year - 24 hr) | | |
|---|---|---|
| I= | 0.196 | in/hr |
| Q = | 0.14 | cfs |

| | | |
|---|---|---|
| Measured Soil Permeability Rate = | 6.0 | in/hr |
| Factor of Safety | 2 | |
| Design Soil Permeability Rate | 3.0 | in/hr |
| Infiltration Area = | 2070 | sft |
| Infiltration Rate= | 0.14 | cfs |

| Time (hr) | Rainfall Intensity (in/hr) | Runoff Rate (cfs) | Infiltration Rate (cfs) | Runoff-Infiltration (cfs) | Storage Volume (cft) | Time to Empty (hr) |
|---|---|---|---|---|---|---|
| 0.17 | 8.46 | 7.50 | 0.14 | 7.36 | 4506 | 8.85 |
| 0.25 | 5.04 | 4.47 | 0.14 | 4.33 | 3896 | 7.65 |
| 0.5 | 3.55 | 3.15 | 0.14 | 3.01 | 5413 | 10.63 |
| 1 | 2.37 | 2.10 | 0.14 | 1.96 | 7059 | 13.87 |
| 2 | 1.48 | 1.31 | 0.14 | 1.17 | 8434 | 16.57 |
| 6 | 0.652 | 0.58 | 0.14 | 0.44 | 9437 | 18.54 |
| 12 | 0.356 | 0.32 | 0.14 | 0.17 | 7533 | 14.80 |
| 24 | 0.196 | 0.17 | 0.14 | 0.03 | 2804 | 5.51 |

| Proposed Basin Summary | | | |
|---|---|---|---|
| Elevation | Size (sft) | Volume (cft) | Cum. Volume (cft) |
| 754.5 | 2070 | 0 | 0 |
| 755.5 | 2898 | 2484 | 2484 |
| 756.5 | 3827 | 3363 | 5847 |
| 757.5 | 4856 | 4342 | 10188 |
| 758.5 | 5986 | 5421 | 15609 |
| Water Quality Elevation | 756.45 | | |
| 25 Year Retention Elevation | 757.32 | | |
| Freeboard Elevation | 758.50 | | |