# Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected  Worksheet Protected

**Stormwater Facility Name:** **Detention Basin C**

**Facility Location & Jurisdiction:** **Gleneagle Golf Course Infill Project, El Paso County**

**User Input: Watershed Characteristics**

| | | |
|---|---|---|
| Watershed Slope = | 0.025 | ft/ft |
| Watershed Length = | 1450 | ft |
| Watershed Area = | 14.92 | acres |
| Watershed Imperviousness = | 15.9% | percent |
| Percentage Hydrologic Soil Group A = | | percent |
| Percentage Hydrologic Soil Group B = | 100.0% | percent |
| Percentage Hydrologic Soil Groups C/D = | | percent |

Location for 1-hr Rainfall Depths (use dropdown):

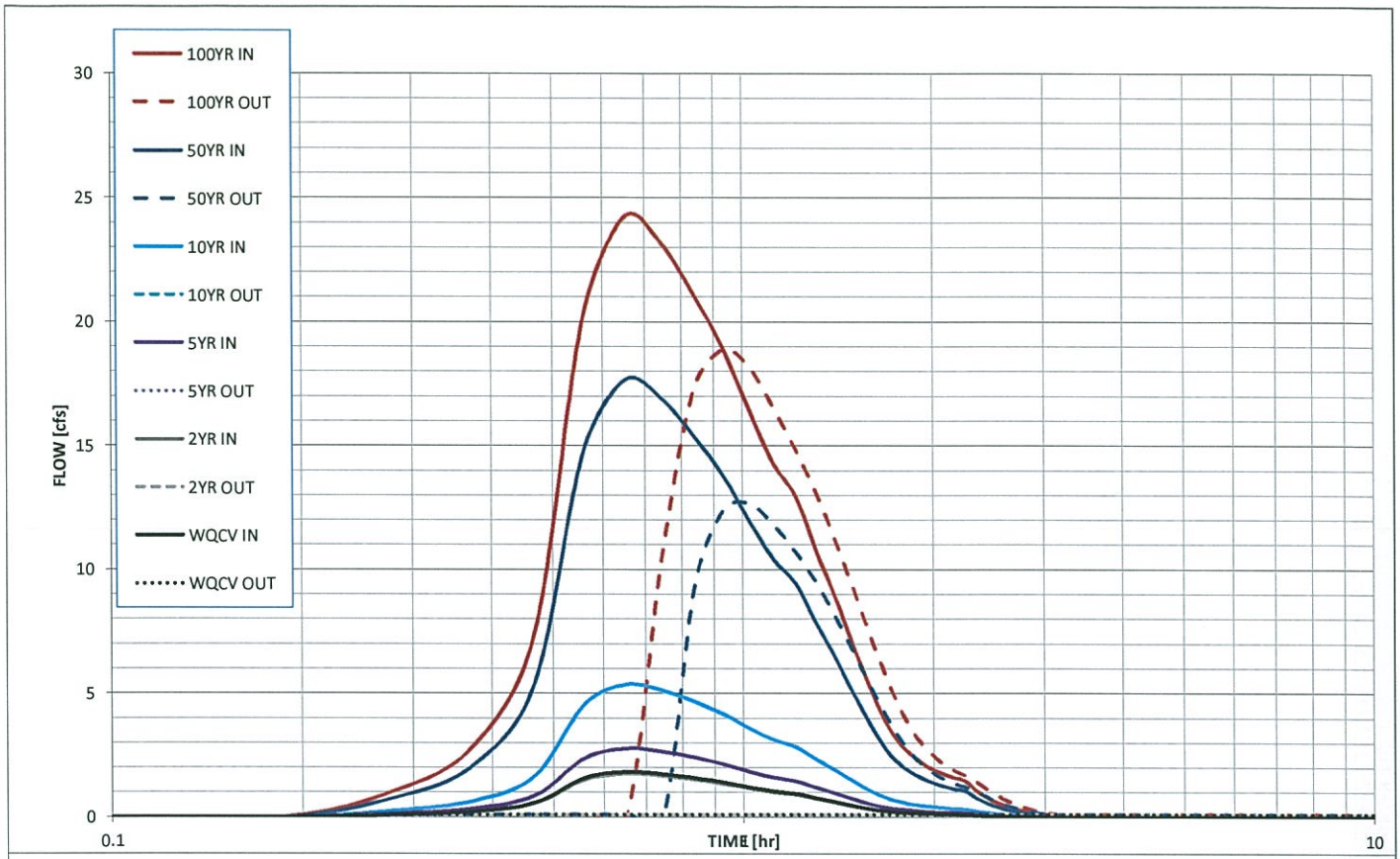
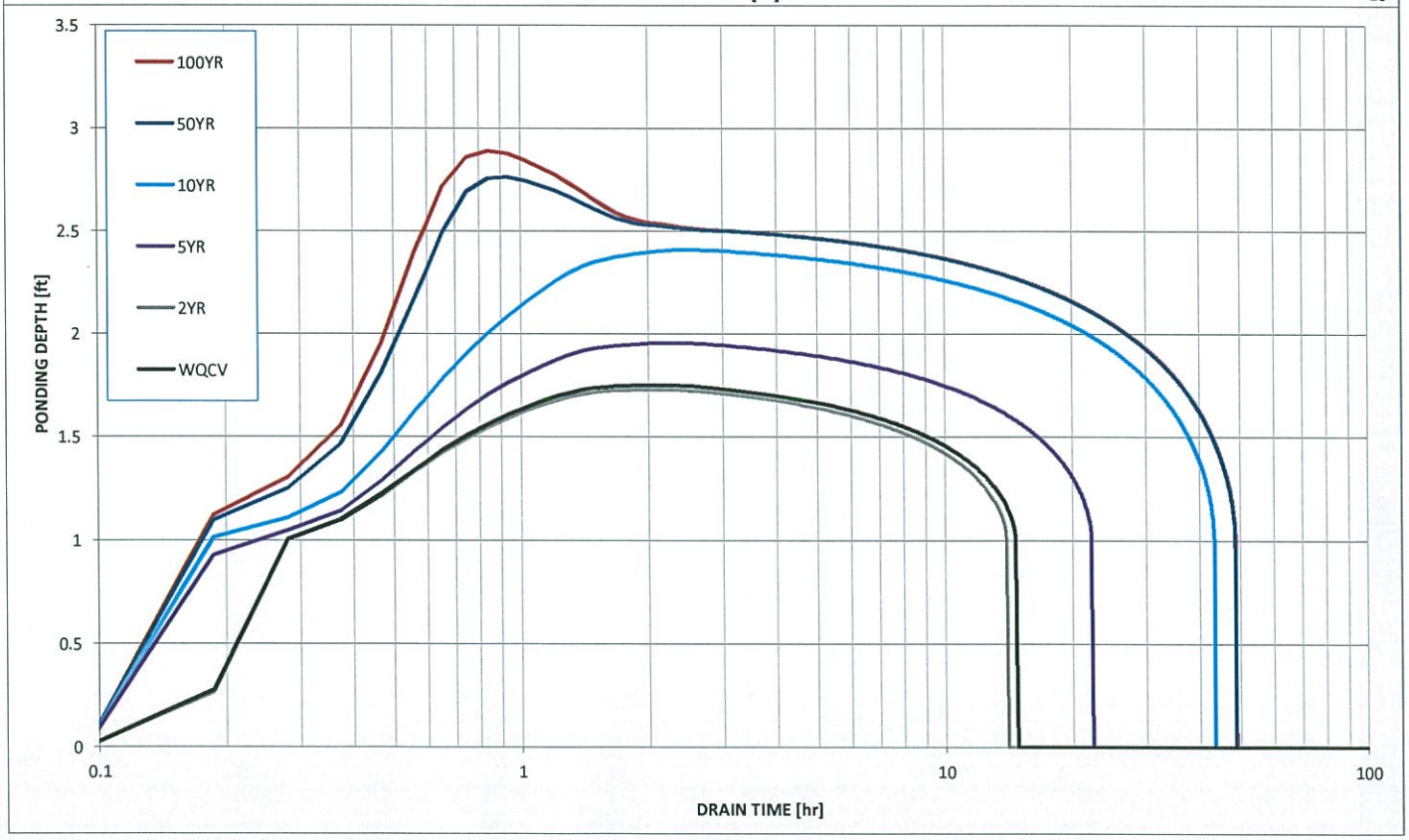
Parker - Town Hall

WQCV Treatment Method = Extended Detention

| User Defined Stage [ft] | User Defined Area [ft^2] | User Defined Stage [ft] | User Defined Discharge [cfs] |
|---|---|---|---|
| 0.00 | 0 | 0.00 | 0.00 |
| 0.33 | 0 | 0.33 | 0.10 |
| 0.80 | 0 | 0.80 | 0.10 |
| 0.90 | 43 | 0.90 | 0.10 |
| 1.00 | 294 | 1.00 | 0.10 |
| 2.00 | 15,213 | 2.00 | 0.10 |
| 2.09 | 16,022 | 2.09 | 0.10 |
| 2.50 | 19,261 | 2.50 | 0.10 |
| 3.00 | 20,275 | 3.00 | 24.40 |
| 4.00 | 22,359 | 4.00 | 28.70 |
| 4.50 | 23,426 | 4.50 | 72.40 |
| 5.00 | 24,515 | 5.00 | 91.00 |

**After completing and printing this worksheet to a pdf, go to:**
**https://maperture.digitaldataservices.com/gvh/?viewer=cswdif**
**create a new stormwater facility, and**
**attach the pdf of this worksheet to that record.**

**Routed Hydrograph Results**

| Design Storm Return Period = | WQCV | 2 Year | 5 Year | 10 Year | 50 Year | 100 Year | |
|---|---|---|---|---|---|---|---|
| One-Hour Rainfall Depth = | 0.53 | 0.82 | 1.10 | 1.34 | 1.98 | 2.29 | in |
| Calculated Runoff Volume = | 0.121 | 0.115 | 0.183 | 0.357 | 1.199 | 1.651 | acre-ft |
| OPTIONAL Override Runoff Volume = | | | | | | | acre-ft |
| Inflow Hydrograph Volume = | 0.120 | 0.115 | 0.182 | 0.357 | 1.198 | 1.650 | acre-ft |
| Time to Drain 97% of Inflow Volume = | 14.4 | 13.6 | **21.6** | 42.1 | 44.2 | 42.6 | hours |
| Time to Drain 99% of Inflow Volume = | 14.7 | 13.9 | 22.0 | 42.9 | 47.1 | **46.7** | hours |
| Maximum Ponding Depth = | 1.75 | 1.73 | 1.96 | 2.41 | 2.76 | 2.89 | ft |
| Maximum Ponded Area = | 0.26 | 0.26 | 0.33 | 0.43 | 0.45 | **0.46** | acres |
| Maximum Volume Stored = | 0.101 | 0.096 | 0.162 | 0.335 | 0.491 | 0.549 | acre-ft |

# Stormwater Detention and Infiltration Design Data Sheet