

Mountain View Housing Complex Rev. E

Prepared by Applied Microcomputer Systems

HydroCAD® 7.00 s/n 000438 © 1986-2003 Applied Microcomputer Systems

Type II 24-hr 25-Year Rainfall=4.30"

Page 5

10/10/03

Pond 1P: New Pond 1

Inflow Area = 152.500 ac, Inflow Depth = 0.88" for 25-Year event
 Inflow = 60.54 cfs @ 12.30 hrs, Volume= 11.236 af
 Outflow = 23.17 cfs @ 13.51 hrs, Volume= 11.073 af, Atten= 62%, Lag= 72.9 min
 Primary = 12.25 cfs @ 13.51 hrs, Volume= 9.276 af
 Secondary = 10.92 cfs @ 13.51 hrs, Volume= 1.798 af

Routing by Stor-Ind method, Time Span= 10.00-40.00 hrs, dt= 0.10 hrs
 Peak Elev= 54.49' @ 13.51 hrs Surf.Area= 1.423 ac Storage= 3.156 af
 Flood Elev= 55.00' Surf.Area= 1.500 ac Storage= 3.850 af
 Plug-Flow detention time= 105.7 min calculated for 11.036 af (98% of inflow)
 Center-of-Mass det. time= 98.7 min (1,020.0 - 921.3)

#	Invert	Avail.Storage	Storage Description
1	50.00'	7.350 af	Custom Stage Data (Prismatic) Listed below

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
50.00	0.200	0.000	0.000
52.50	0.400	0.750	0.750
53.00	1.200	0.400	1.150
55.00	1.500	2.700	3.850
57.00	2.000	3.500	7.350

#	Routing	Invert	Outlet Devices
1	Primary	50.00'	24.0" x 12.0' long Culvert RCP, groove end projecting, Ke= 0.200 Outlet Invert= 49.60' S= 0.0333 '/' n= 0.013 Cc= 0.900
2	Device 1	50.50'	16.0" Vert. Orifice plate at culvert inlet C= 0.600
3	Secondary	53.60'	5.0' long x 2.5' breadth BC Rectangular Overflow Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 Coef. (English) 2.48 2.60 2.60 2.60 2.64 2.65 2.68 2.75 2.74 2.76 2.89 3.05 3.19 3.32

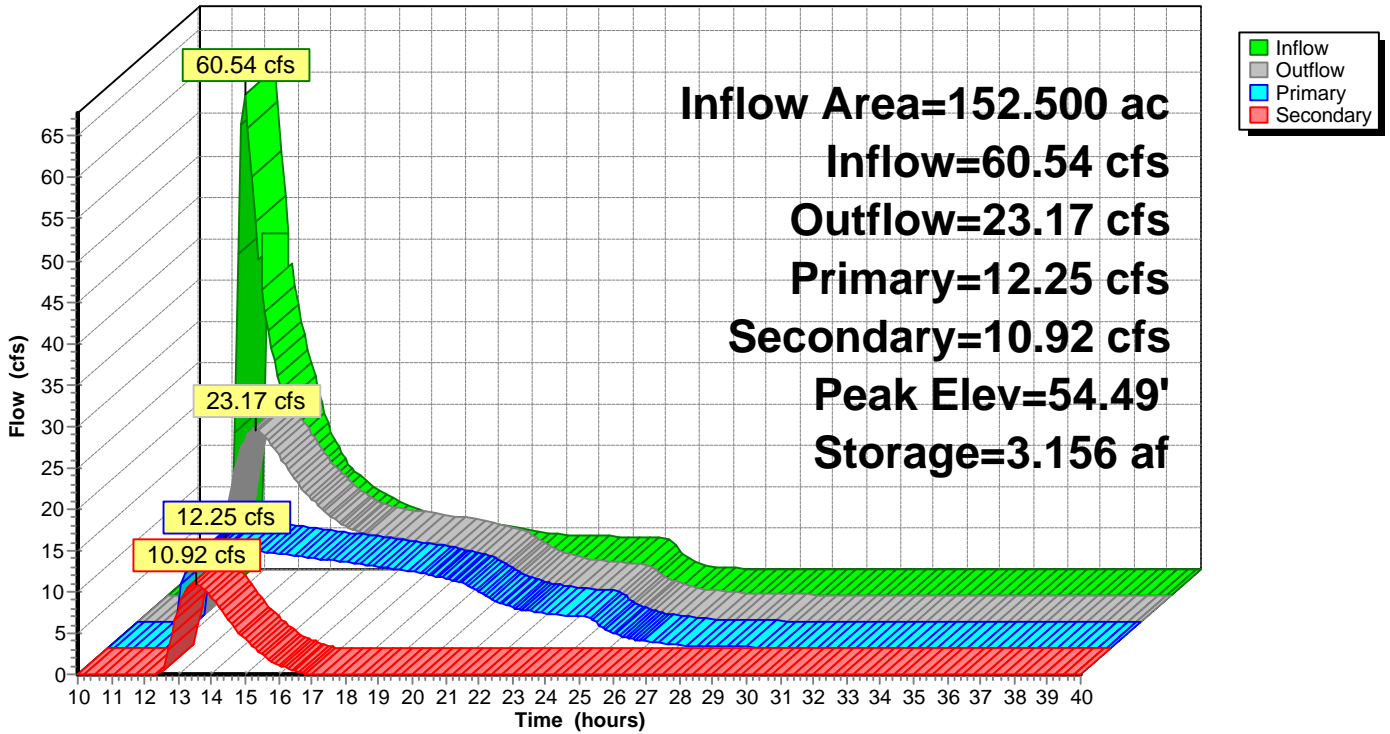
Primary OutFlow Max=12.25 cfs @ 13.51 hrs HW=54.49' TW=49.00' (Fixed TW Elev= 49.00')

- ↑1=Culvert (Passes 12.25 cfs of 35.30 cfs potential flow)
- ↑2=Orifice plate at culvert inlet (Orifice Controls 12.25 cfs @ 8.8 fps)

Secondary OutFlow Max=10.90 cfs @ 13.51 hrs HW=54.49' (Free Discharge)

- ↑3=BC Rectangular Overflow Weir (Weir Controls 10.90 cfs @ 2.5 fps)

Pond 1P: New Pond 1
 Hydrograph



Pond 1P: New Pond 1
 Stage-Discharge

