

Table 1
Peak Flow Rate Summary
Badger Prairie Health Care Center
Verona, Wisconsin

Storm Event	Existing Conditions <i>CFS</i>	West Pond No Detention <i>CFS</i>	East Pond No Detention <i>CFS</i>	No Detention Areas <i>CFS</i>	Total No Detention <i>CFS</i>	West Pond Detention <i>CFS</i>	East Pond Detention <i>CFS</i>	No Detention Areas <i>CFS</i>	Total with Detention <i>CFS</i>
1-yr, 24-hr	20.6	32.3	13.7	4.7	50.7	7.3	5.1	4.7	17.1
2-yr, 24-hr	34.1	39.0	21.2	6.2	66.4	11.7	7.0	6.7	25.4
10-yr, 24-hr	94.1	66.0	56.4	11.5	133.9	41.0	41.7	12.1	94.8
100-yr, 24-hr	199.0	107.4	117.1	19.1	243.6	77.0	73.8	20.0	170.8

Notes:

1. This table summarizes the peak flow rates for the entire BPHCC development, which includes the LSA.
2. Table obtained from Revision to Erosion Control and Stormwater Management Plan, BT Squared, May 28, 2008.

SUMMARY FOR HYDROGRAPH ADDITION
at Node: OFF-SITE

Existing
Conditions

HYG Directory: I:\3207\Calculations\Stormwater\Final Draft\

```

=====
Upstream Link ID  Upstream Node ID  HYG file      HYG ID        HYG tag
-----
ADDLINK 10        6 ACRE         work_pad.hyg  6 ACRE        Dev 1
ADDLINK 20        EAST DRAINAGE work_pad.hyg  EAST DRAINAGE Dev 1
ADDLINK 40        WEST DRAINAGE work_pad.hyg  WEST DRAINAGE Dev 1
=====

```

INFLOWS TO: OFF-SITE

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-----
HYG file      HYG ID        HYG tag      Volume      Peak Time      Peak Flow
ac-ft         hrs           cfs
-----
work_pad.hyg  6 ACRE        Dev 1        .304        12.1000        3.60
work_pad.hyg  EAST DRAINAGE Dev 1        .836        12.2100        7.76
work_pad.hyg  WEST DRAINAGE Dev 1        3.382       12.6200        14.57

```

TOTAL FLOW INTO: OFF-SITE

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-----
HYG file      HYG ID        HYG tag      Volume      Peak Time      Peak Flow
ac-ft         hrs           cfs
-----
work_pad.hyg  OFF-SITE      Dev 1        4.522       12.3900        20.62 ←

```

Type.... Node: Addition Summary
Name.... OFF-SITE
File.... I:\3207\Calculations\Stormwater\Final Draft\No_Detention.ppw
Storm... TypeII 24hr Tag: Dev 1

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Event: 1 yr ←

SUMMARY FOR HYDROGRAPH ADDITION
at Node: OFF-SITE

*No Detention
Area*

HYG Directory: I:\3207\Calculations\Stormwater\Final Draft\

```
=====
Upstream Link ID  Upstream Node ID  HYG file      HYG ID        HYG tag
-----
ADDLINK 40        NO DETENTION   work_pad.hyg  NO DETENTION  Dev 1
=====
```

INFLOWS TO: OFF-SITE

```
-----
HYG file          HYG ID          HYG tag        Volume      Peak Time     Peak Flow
ac-ft            hrs              cfs
-----
work_pad.hyg     NO DETENTION    Dev 1          .369        12.0800      4.72
```

TOTAL FLOW INTO: OFF-SITE

```
-----
HYG file          HYG ID          HYG tag        Volume      Peak Time     Peak Flow
ac-ft            hrs              cfs
-----
work_pad.hyg     OFF-SITE        Dev 1          .369        12.0800      4.72 ←
```

LEVEL POOL ROUTING SUMMARY

HYG Dir = I:\3207\Calculations\Stormwater\Final Draft\
Inflow HYG file = work_pad.hyg - WEST POND IN 1
Outflow HYG file = work_pad.hyg - WEST POND OUT 1

West Detention Pond

Pond Node Data = WEST POND
Pond Volume Data = WEST POND
Pond Outlet Data = SP ALT

No Infiltration

INITIAL CONDITIONS

Starting WS Elev = 958.50 ft
Starting Volume = .000 ac-ft
Starting Outflow = .00 cfs
Starting Infiltr. = .00 cfs
Starting Total Qout = .00 cfs
Time Increment = .0100 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

=====
Peak Inflow = 32.32 cfs at 12.0100 hrs
Peak Outflow = 7.26 cfs at 12.6500 hrs
=====

*← No detention
← With detention*

Peak Elevation = 961.55 ft
Peak Storage = .948 ac-ft
=====

MASS BALANCE (ac-ft)

+ Initial Vol = .000
+ HYG Vol IN = 3.254
- Infiltration = .000
- HYG Vol OUT = 3.254
- Retained Vol = .000

Unrouted Vol = -.000 ac-ft (.002% of Inflow Volume)

LEVEL POOL ROUTING SUMMARY

East Detention Pond

HYG Dir = I:\3207\Calculations\Stormwater\Final Draft\
Inflow HYG file = work_pad.hyg - EAST DITCH R IN Dev 1
Outflow HYG file = work_pad.hyg - EAST DITCH R OUT Dev 1

Pond Node Data = EAST DITCH R
Pond Volume Data = EAST DITCH R
Pond Outlet Data = SP ALT

No Infiltration

INITIAL CONDITIONS

Starting WS Elev = 962.00 ft
Starting Volume = .000 ac-ft
Starting Outflow = .00 cfs
Starting Infiltr. = .00 cfs
Starting Total Qout = .00 cfs
Time Increment = .0100 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

=====
Peak Inflow = 13.68 cfs at 12.3700 hrs
Peak Outflow = 5.12 cfs at 13.2000 hrs

Peak Elevation = 966.07 ft
Peak Storage = .664 ac-ft
=====

← No detention
← With detention

MASS BALANCE (ac-ft)

+ Initial Vol = .000
+ HYG Vol IN = 2.469
- Infiltration = .000
- HYG Vol OUT = 2.455
- Retained Vol = .013

Unrouted Vol = -.001 ac-ft (.023% of Inflow Volume)

WARNING: Outflow hydrograph truncated on right side.