# SEMINARY

# DRAINAGE REPORT

***Date:*** **10-31-2024**

***Located in:*** **Bryant, Arkansas**

***Prepared for:***
**City of Bryant, Arkansas**

**Prepared by:**

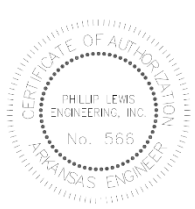
PHILLIP LEWIS ENGINEERING

Structural + Civil Consultants

23620 Interstate 30 | Bryant, AR
PH: 501-350-9840

# *CERTIFICATION*

I hereby state that this Final Drainage has been prepared by me or under my supervision and meets the standard of care and expertise which is usual and customary in this community of professional engineers. The analysis has been prepared utilizing procedures and practices by the City of Bryant and within the standard accepted practices.







DATE: 10-31-2024

Phillip A. Lewis, PE.

# PROJECT LOCATION MAP




# DESCRIPTION OF PROPERTY

The proposed project is for the consruction of a new Seminary located along Highway 5. The proposed development is a 20,000 sq. ft. building, public road and parking lot.

The intent of this drainage analysis is to adequately size the storm sewer system and summarize pre and post runoff conditions.

The existing ground coverage for the entire development drainage basin consists of and natural vegetation (2%-7% slope), hydrologic soil group B/C.

According to FEMA Flood Insurance Rate Map, Panel 05125C0240E, this property lies within Zone X, areas determined to be outside the 0.2% annual chance floodplain. A copy of the map can be found in the appendix.

# DRAINAGE CRITERIA

In accordance with the requirements of the City of Bryant, the proposed developments drainage plan and this drainage report were developed with the criteria established in the Bryant Stormwater Management & Drainage Manual provided on cityofbryant.com.

All drainage calculations were performed using HydroCAD software to determine and analyze the changes in stormrunoff volume, flow rates, and design the outlet release structure.  Hydraflow Express software was used to appropriately design and size all storm sewer inlets, pipes and channels.

Calculations were performed using the Rational Method, using NOAA rainfall data, Runoff Coefficient table (Bryant Stormwater Management & Drainage Manual, Table 400-2) and the pipe and intlet structure sizes were determined by the 25-year storm event.

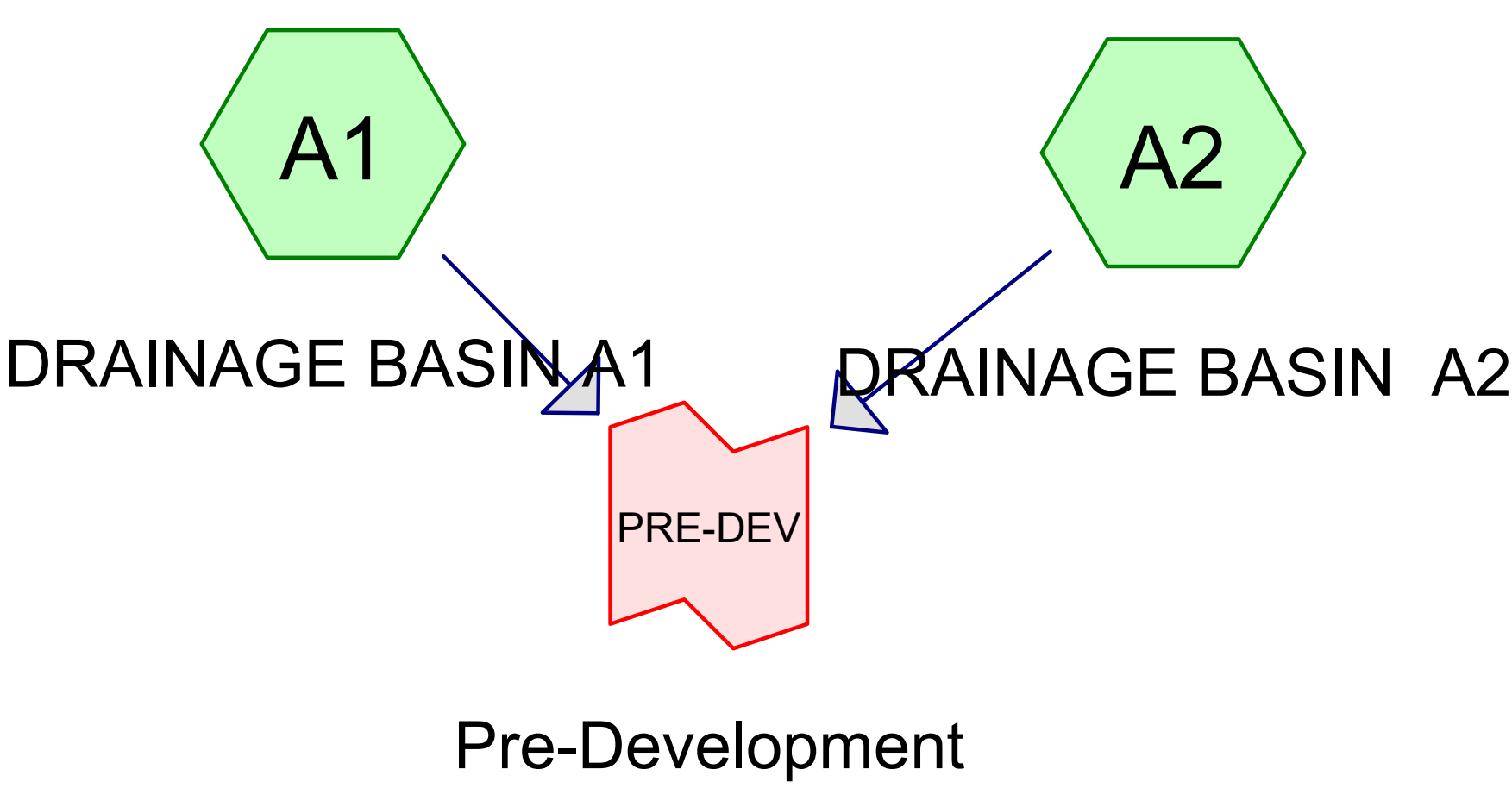
# PROPOSED DRAINAGE SYSTEM

This develompent is designed to capture the majority of runoff within the public road and parking lot curb and gutter. The storm sewer system will consist of with “Nyloplast” area inlets and standard concrete curb inlets. These inlets were sized based on there independent drainage basin flow rate and the slope that the inlets will be placed at.

Overall Pre-development and Post-development runoff/discharge rates are compared below:

| Storm Event | Pre-development Discharge (cfs) | Post-development Discharge (cfs) |
|---|---|---|
| 2-yr | 9.45 | 12.41 |
| 5-yr | 11.27 | 14.80 |
| 10-yr | 12.73 | 16.71 |
| 25-yr | 14.61 | 19.18 |
| 100-yr | 19.82 | 20.70 |

# PRE DEVELOPMENT HYDROGRAPHS




Pre-Development

Subcat Reach Pond Link

**Routing Diagram for Seminary Drainage**
Prepared by Phillip Lewis Engineering, Printed 10/9/2024
HydroCAD® 10.20-2c s/n 12520 © 2021 HydroCAD Software Solutions LLC

## Summary for Subcatchment A1: DRAINAGE BASIN A1

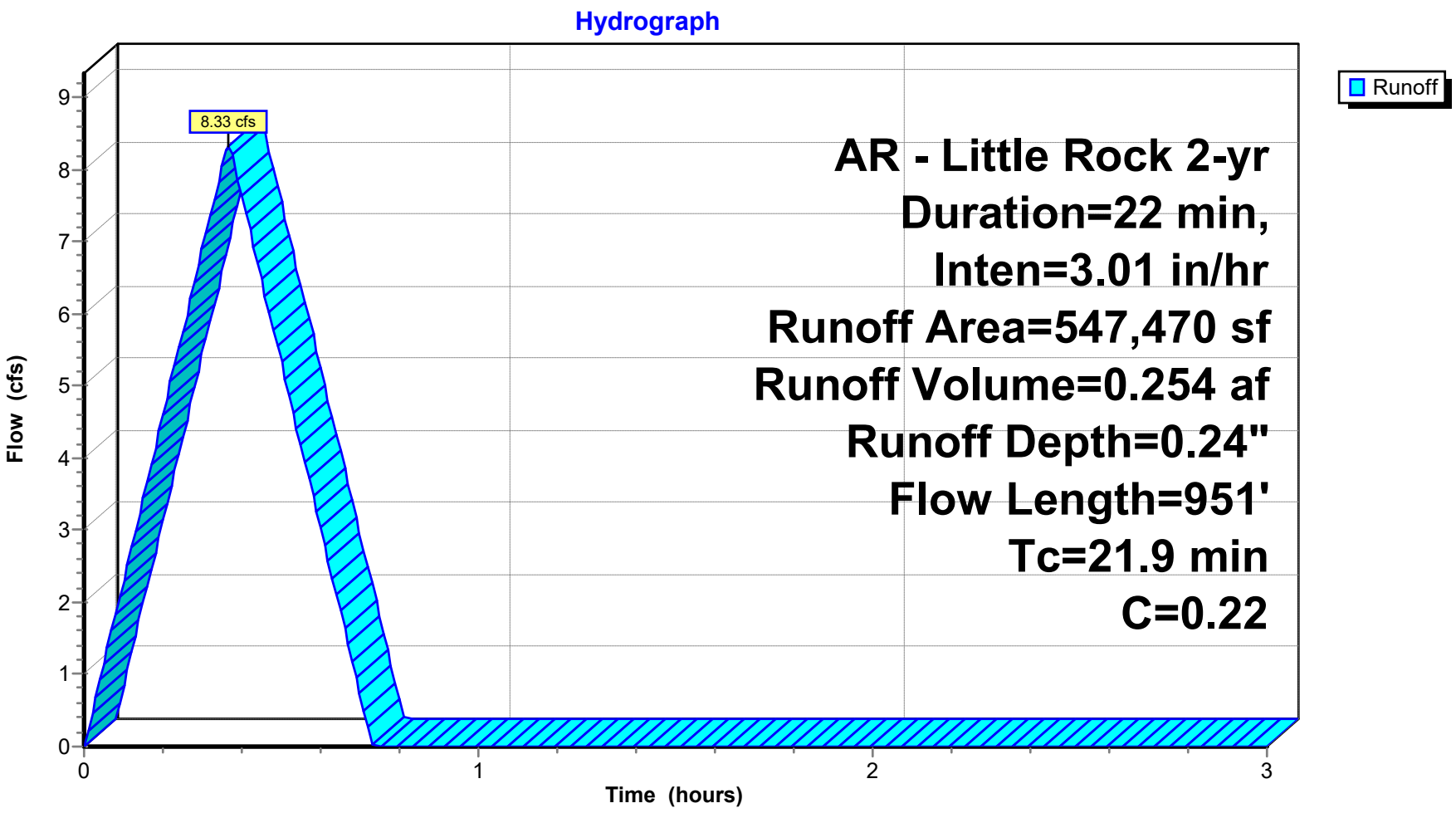
Runoff = 8.33 cfs @ 0.37 hrs, Volume= 0.254 af, Depth= 0.24"
Routed to Link PRE-DEV : Pre-Development

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=22 min, Inten=3.01 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 547,470 | 0.22 | Sandy Soil 2-7% per manual (undeveloped) |
| 547,470 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 10.2 | 96 | 0.0840 | 0.16 | | **Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 4.20" |
| 0.7 | 76 | 0.0710 | 1.87 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.7 | 76 | 0.0660 | 1.80 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.4 | 47 | 0.0660 | 1.80 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 28 | 0.0640 | 1.77 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 25 | 0.0590 | 1.70 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.8 | 80 | 0.0580 | 1.69 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 107 | 0.0430 | 1.45 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.7 | 42 | 0.0180 | 0.94 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.7 | 49 | 0.0300 | 1.21 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 2.5 | 158 | 0.0220 | 1.04 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.1 | 67 | 0.0200 | 0.99 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.1 | 45 | 0.0100 | 0.70 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.3 | 55 | 0.0100 | 0.70 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 21.9 | 951 | Total | | | |

### Subcatchment A1: DRAINAGE BASIN A1



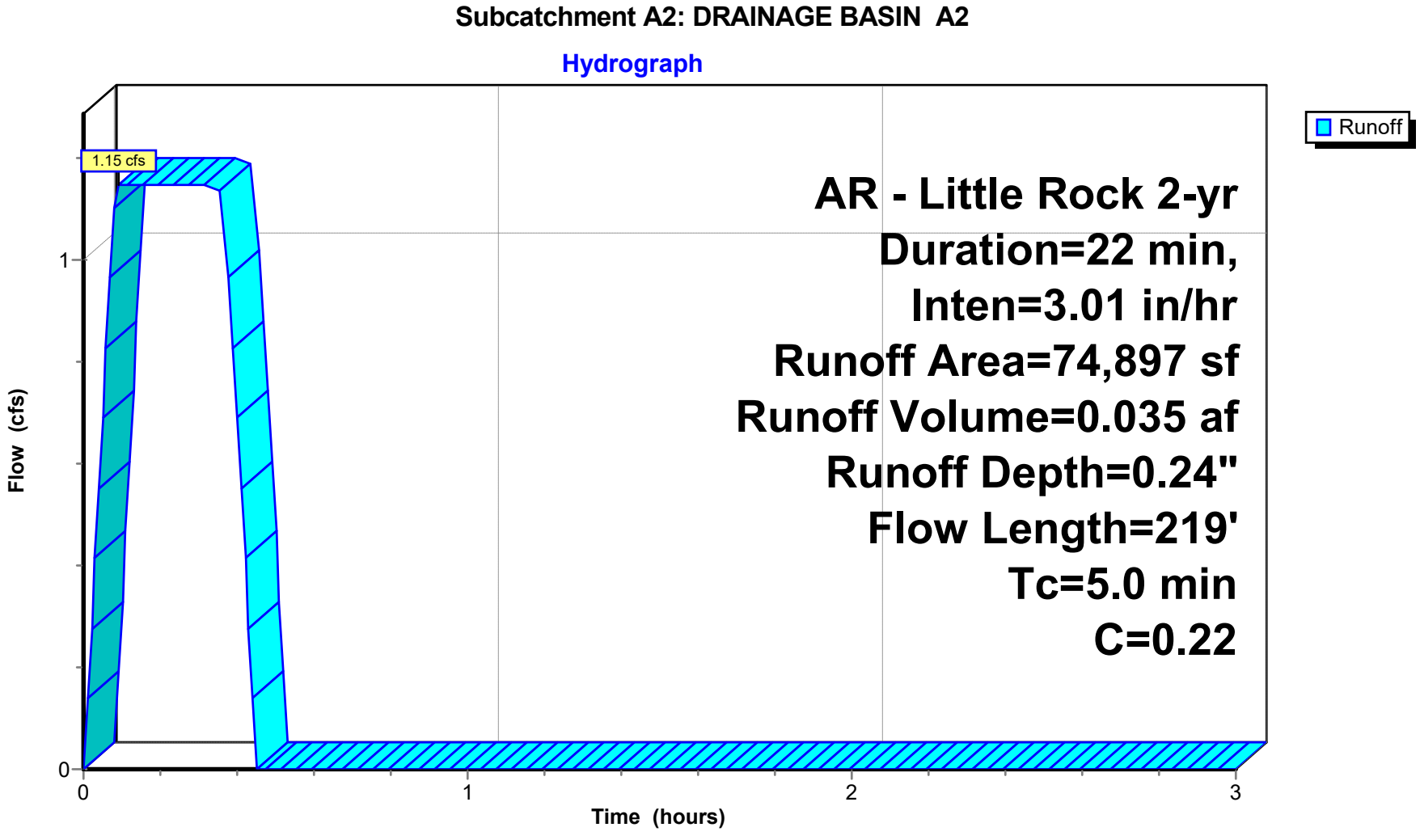
## Summary for Subcatchment A2: DRAINAGE BASIN A2

Runoff = 1.15 cfs @ 0.09 hrs, Volume= 0.035 af, Depth= 0.24"
Routed to Link PRE-DEV : Pre-Development

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=22 min, Inten=3.01 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 74,897 | 0.22 | 2-7% Sandy per LR Manual |
| 74,897 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.2 | 12 | 0.0330 | 1.27 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.9 | 144 | 0.0310 | 1.23 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 18 | 0.0200 | 0.99 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.6 | 45 | 0.0340 | 1.29 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 2.0 | | | | | **Direct Entry, min adjustment** |
| 5.0 | 219 | Total | | | |



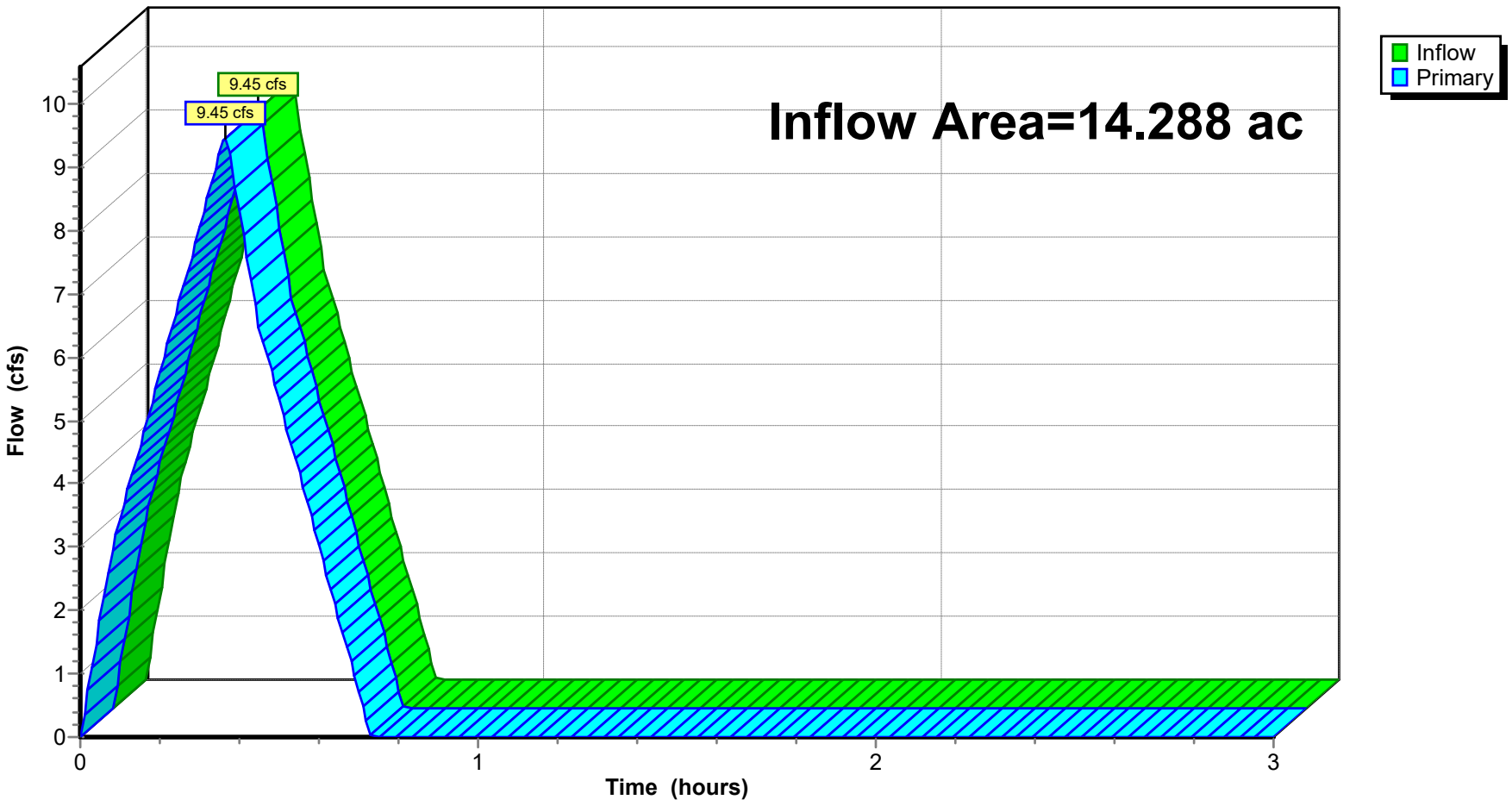
## Summary for Link PRE-DEV: Pre-Development

Inflow Area = 14.288 ac, 0.00% Impervious, Inflow Depth = 0.24" for 2-yr event
Inflow = 9.45 cfs @ 0.36 hrs, Volume= 0.289 af
Primary = 9.45 cfs @ 0.36 hrs, Volume= 0.289 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

## Link PRE-DEV: Pre-Development

### Hydrograph



## Summary for Subcatchment A1: DRAINAGE BASIN A1

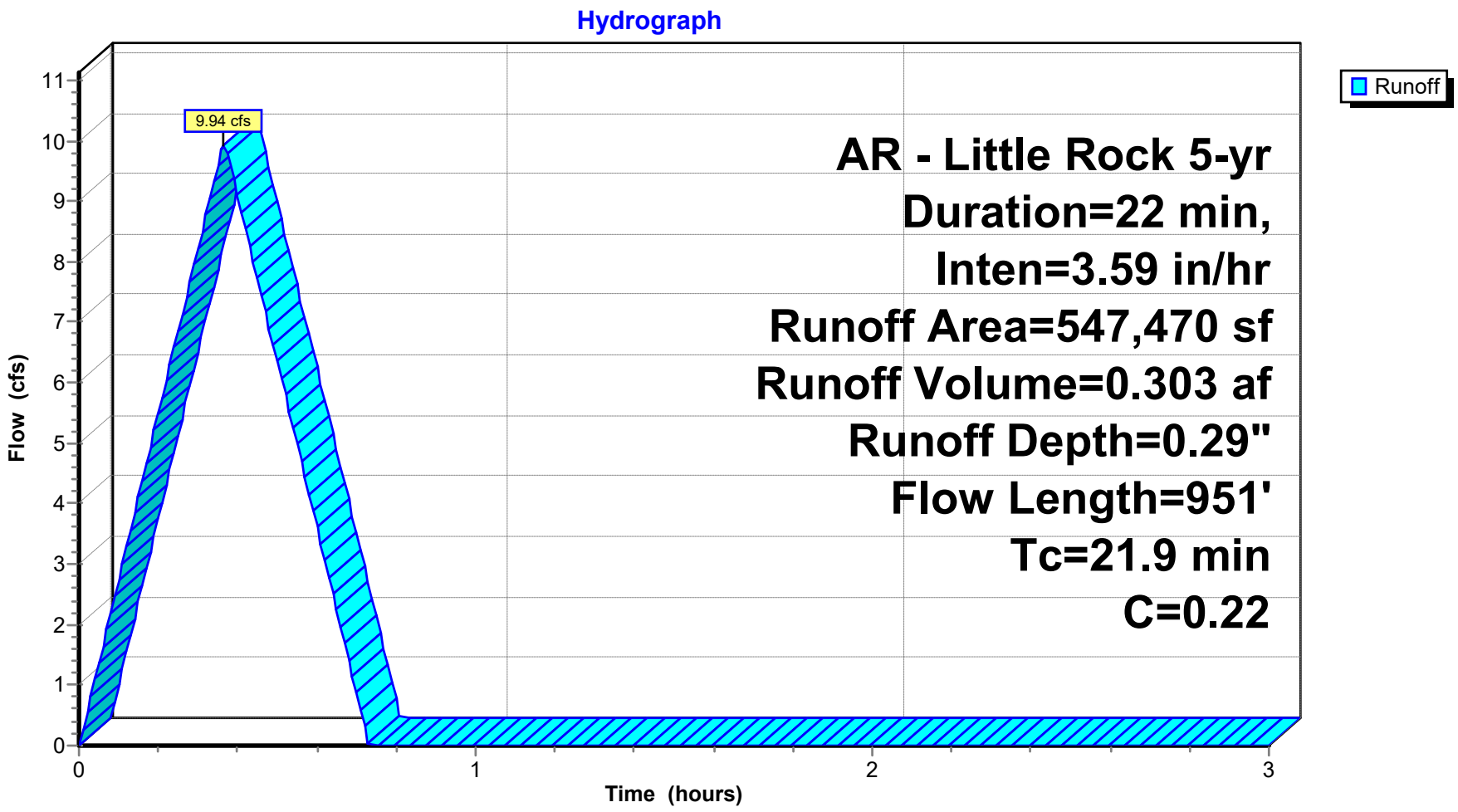
Runoff = 9.94 cfs @ 0.37 hrs, Volume= 0.303 af, Depth= 0.29"
Routed to Link PRE-DEV : Pre-Development

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=22 min, Inten=3.59 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 547,470 | 0.22 | Sandy Soil 2-7% per manual (undeveloped) |
| 547,470 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 10.2 | 96 | 0.0840 | 0.16 | | **Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 4.20" |
| 0.7 | 76 | 0.0710 | 1.87 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.7 | 76 | 0.0660 | 1.80 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.4 | 47 | 0.0660 | 1.80 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 28 | 0.0640 | 1.77 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 25 | 0.0590 | 1.70 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.8 | 80 | 0.0580 | 1.69 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 107 | 0.0430 | 1.45 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.7 | 42 | 0.0180 | 0.94 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.7 | 49 | 0.0300 | 1.21 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 2.5 | 158 | 0.0220 | 1.04 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.1 | 67 | 0.0200 | 0.99 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.1 | 45 | 0.0100 | 0.70 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.3 | 55 | 0.0100 | 0.70 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 21.9 | 951 | Total | | | |

### Subcatchment A1: DRAINAGE BASIN A1



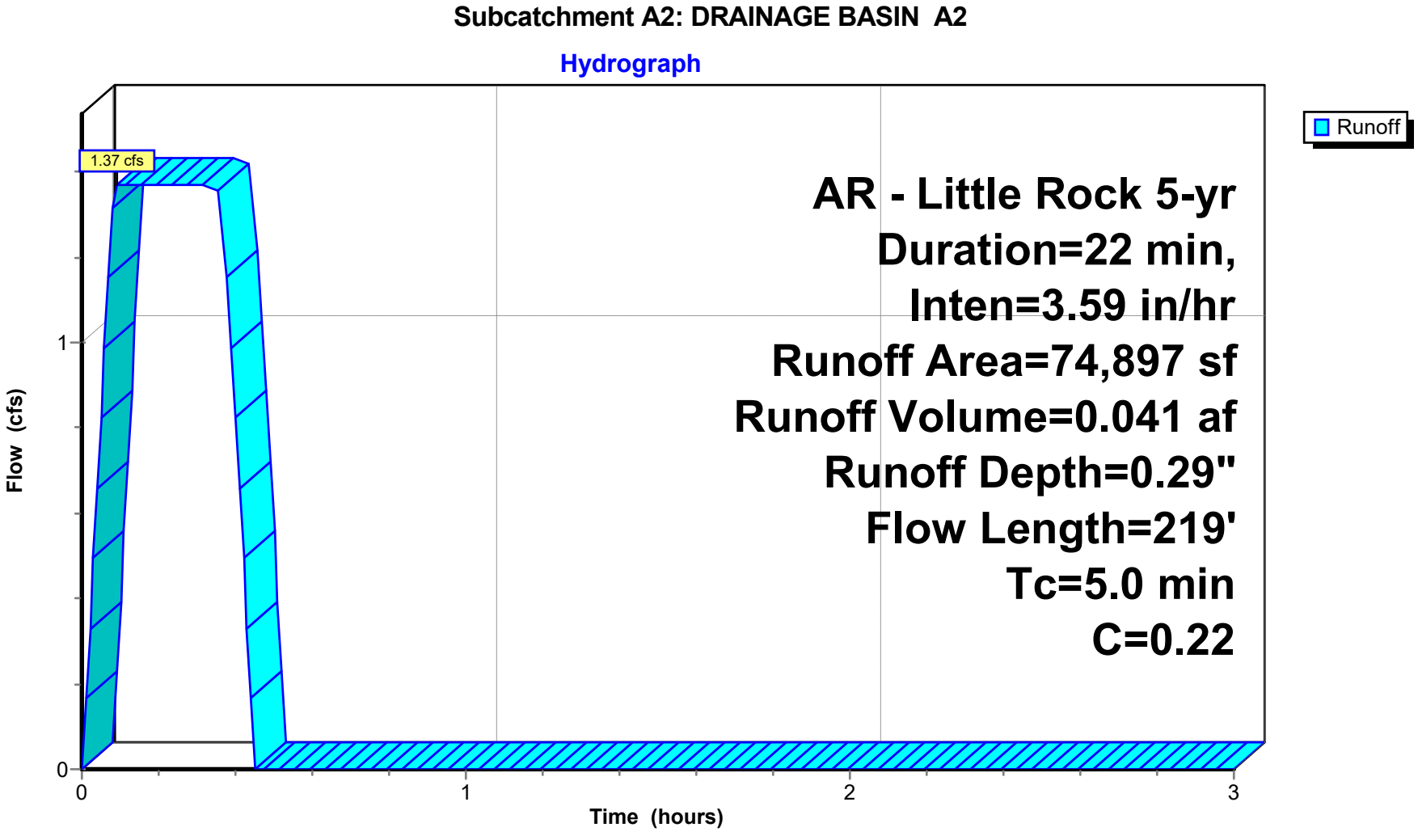
## Summary for Subcatchment A2: DRAINAGE BASIN A2

Runoff = 1.37 cfs @ 0.09 hrs, Volume= 0.041 af, Depth= 0.29"
Routed to Link PRE-DEV : Pre-Development

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=22 min, Inten=3.59 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 74,897 | 0.22 | 2-7% Sandy per LR Manual |
| 74,897 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.2 | 12 | 0.0330 | 1.27 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.9 | 144 | 0.0310 | 1.23 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 18 | 0.0200 | 0.99 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.6 | 45 | 0.0340 | 1.29 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 2.0 | | | | | **Direct Entry, min adjustment** |
| 5.0 | 219 | Total | | | |



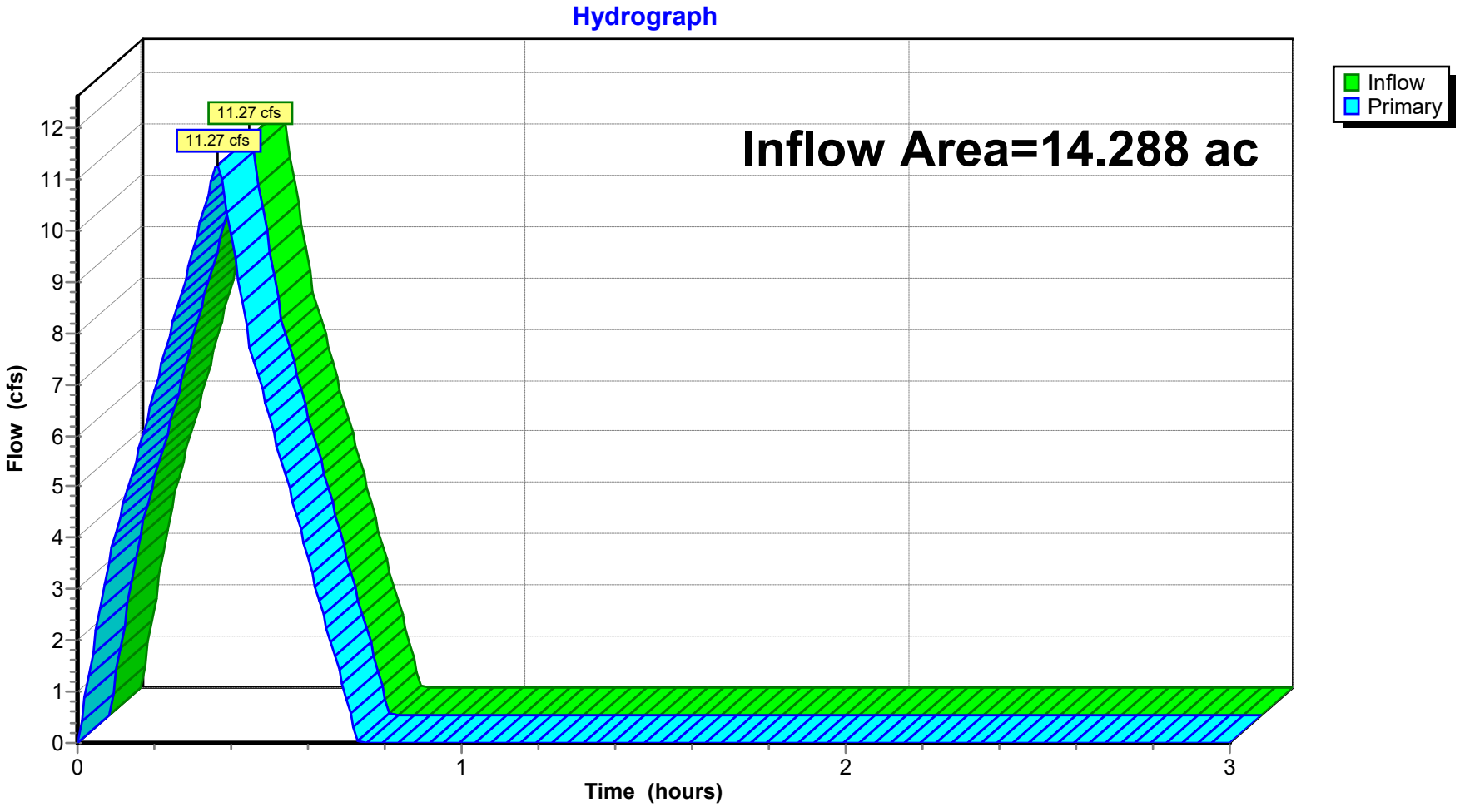
## Summary for Link PRE-DEV: Pre-Development

Inflow Area = 14.288 ac, 0.00% Impervious, Inflow Depth = 0.29" for 5-yr event
Inflow = 11.27 cfs @ 0.36 hrs, Volume= 0.345 af
Primary = 11.27 cfs @ 0.36 hrs, Volume= 0.345 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

### Link PRE-DEV: Pre-Development

**Hydrograph**



## Summary for Subcatchment A1: DRAINAGE BASIN A1

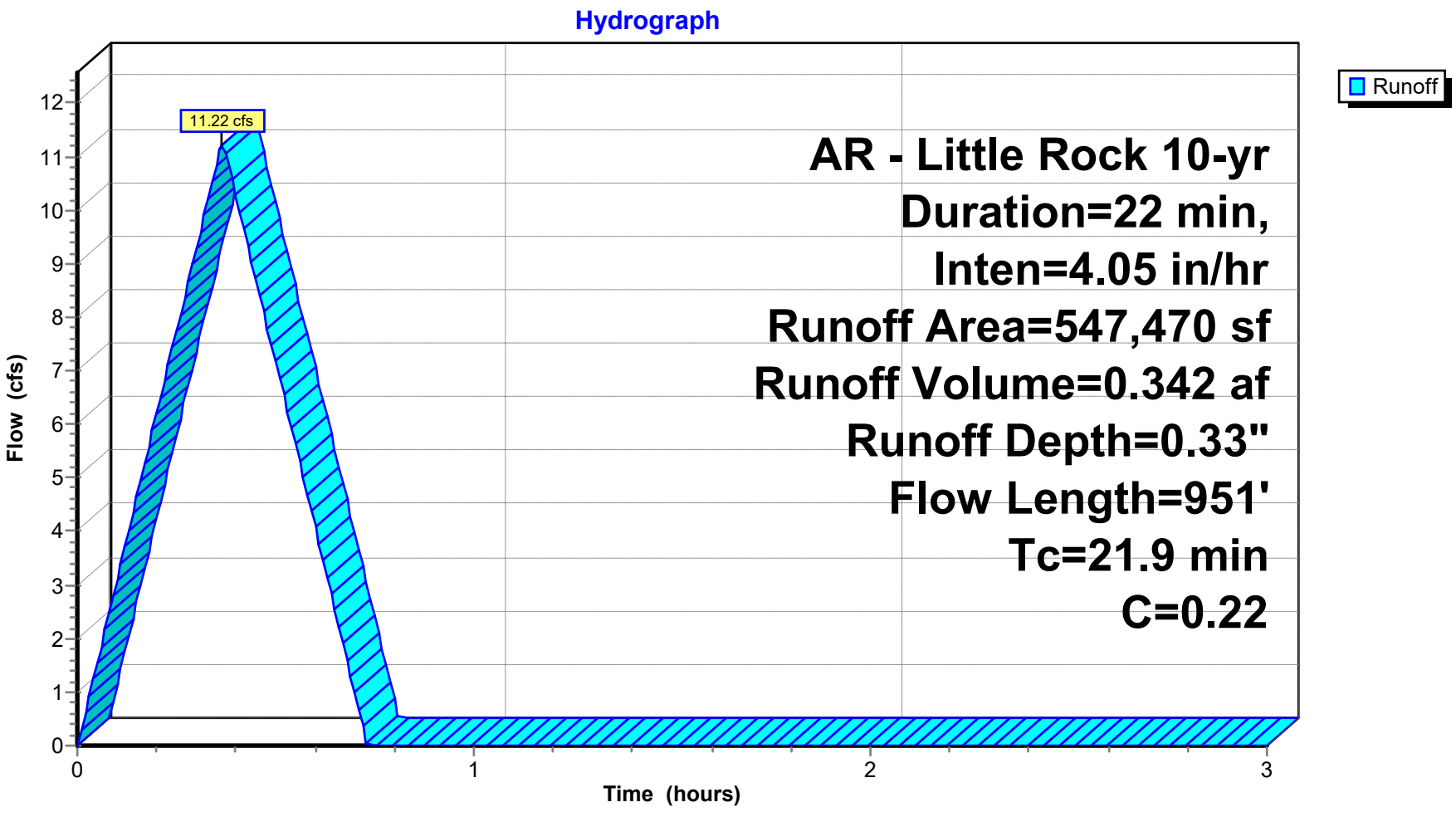
Runoff = 11.22 cfs @ 0.37 hrs, Volume= 0.342 af, Depth= 0.33"
Routed to Link PRE-DEV : Pre-Development

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=22 min, Inten=4.05 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 547,470 | 0.22 | Sandy Soil 2-7% per manual (undeveloped) |
| 547,470 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 10.2 | 96 | 0.0840 | 0.16 | | **Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 4.20" |
| 0.7 | 76 | 0.0710 | 1.87 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.7 | 76 | 0.0660 | 1.80 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.4 | 47 | 0.0660 | 1.80 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 28 | 0.0640 | 1.77 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 25 | 0.0590 | 1.70 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
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| 1.2 | 107 | 0.0430 | 1.45 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
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| 2.5 | 158 | 0.0220 | 1.04 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.1 | 67 | 0.0200 | 0.99 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.1 | 45 | 0.0100 | 0.70 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.3 | 55 | 0.0100 | 0.70 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 21.9 | 951 | Total | | | |

### Subcatchment A1: DRAINAGE BASIN A1



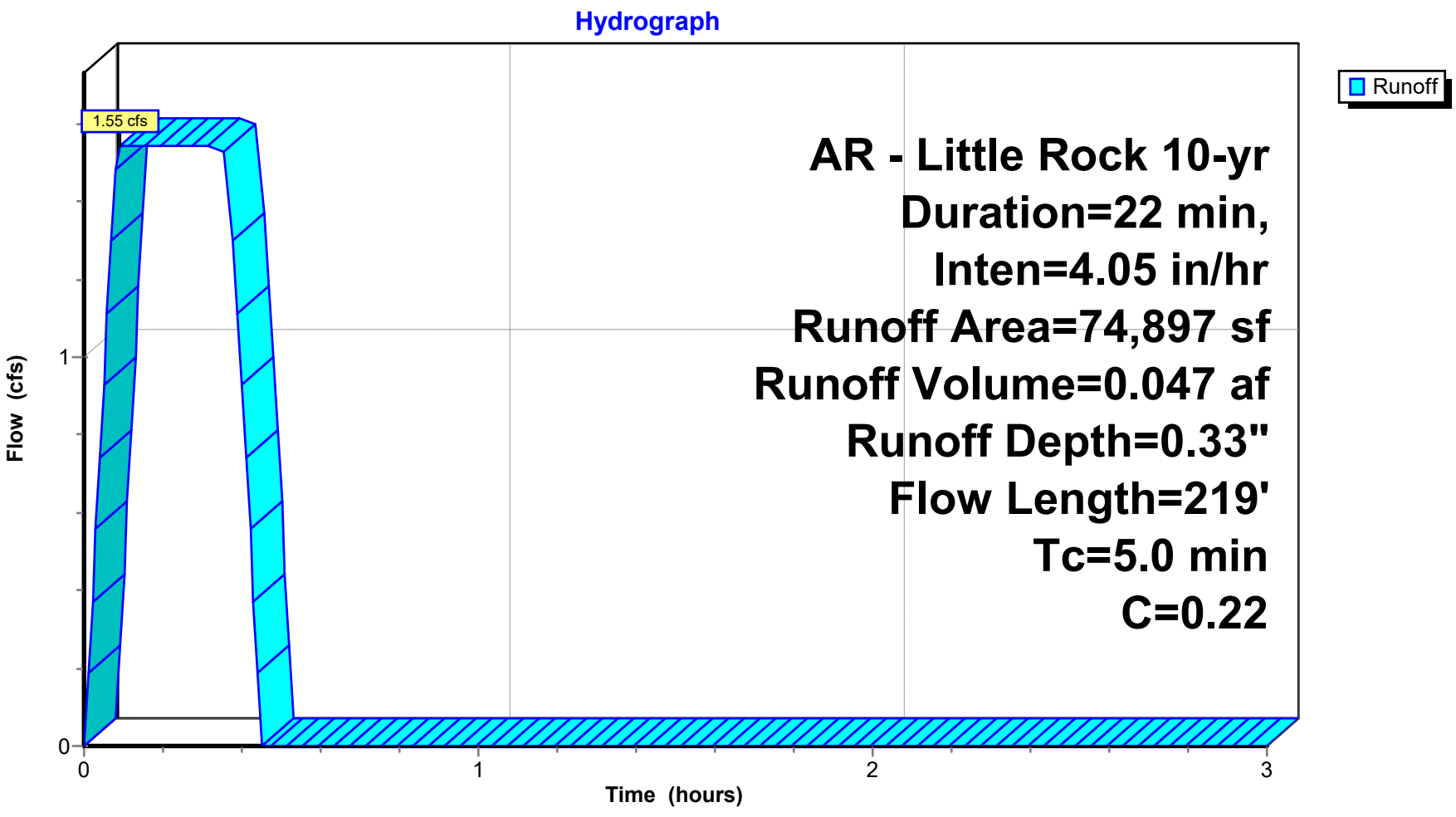
## Summary for Subcatchment A2: DRAINAGE BASIN A2

Runoff = 1.55 cfs @ 0.09 hrs, Volume= 0.047 af, Depth= 0.33"
Routed to Link PRE-DEV : Pre-Development

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=22 min, Inten=4.05 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 74,897 | 0.22 | 2-7% Sandy per LR Manual |
| 74,897 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.2 | 12 | 0.0330 | 1.27 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
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| 0.6 | 45 | 0.0340 | 1.29 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 2.0 | | | | | **Direct Entry, min adjustment** |
| 5.0 | 219 | Total | | | |



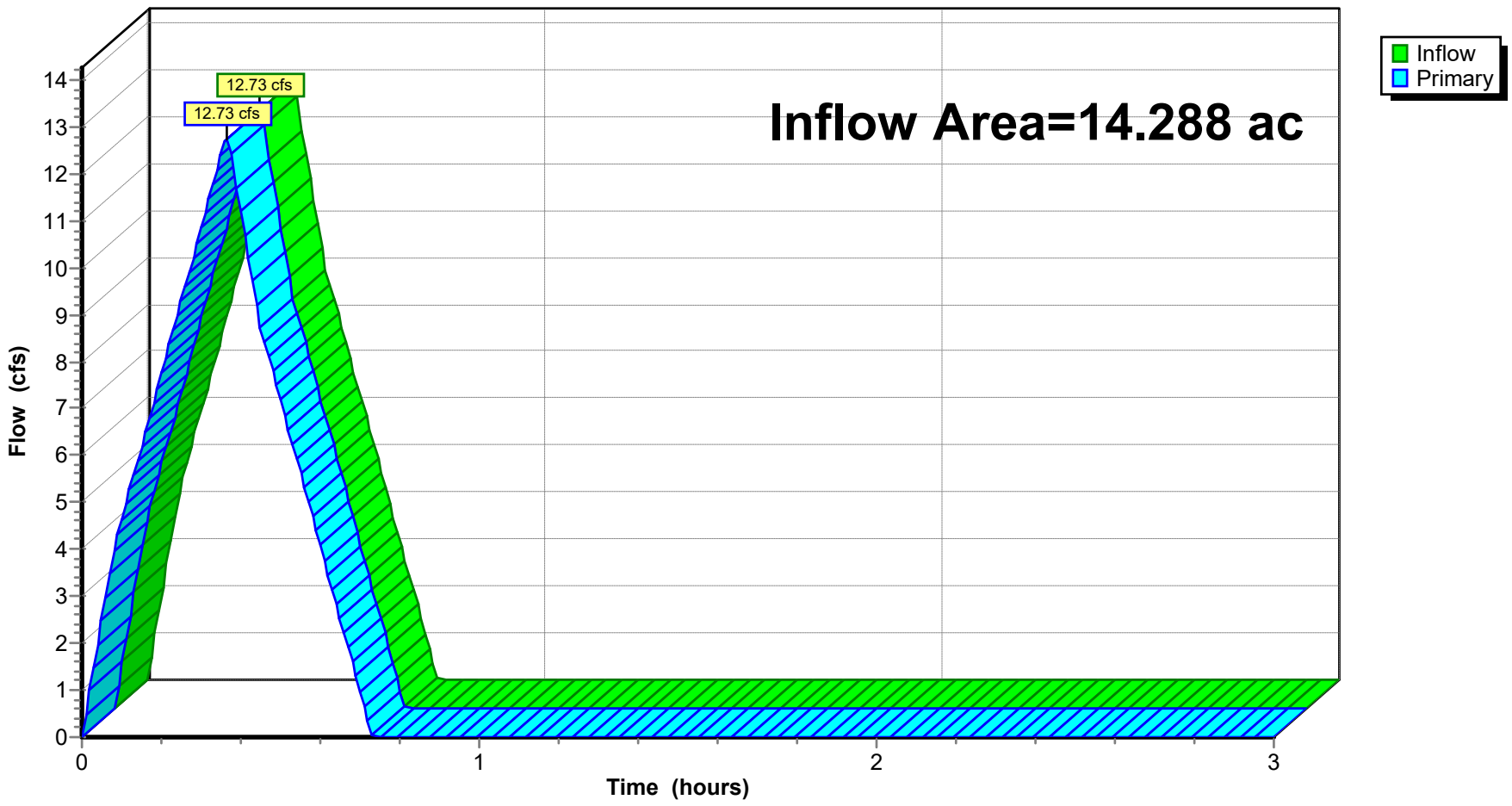
## Summary for Link PRE-DEV: Pre-Development

Inflow Area = 14.288 ac, 0.00% Impervious, Inflow Depth = 0.33" for 10-yr event
Inflow = 12.73 cfs @ 0.36 hrs, Volume= 0.389 af
Primary = 12.73 cfs @ 0.36 hrs, Volume= 0.389 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

## Link PRE-DEV: Pre-Development

### Hydrograph



## Summary for Subcatchment A1: DRAINAGE BASIN A1

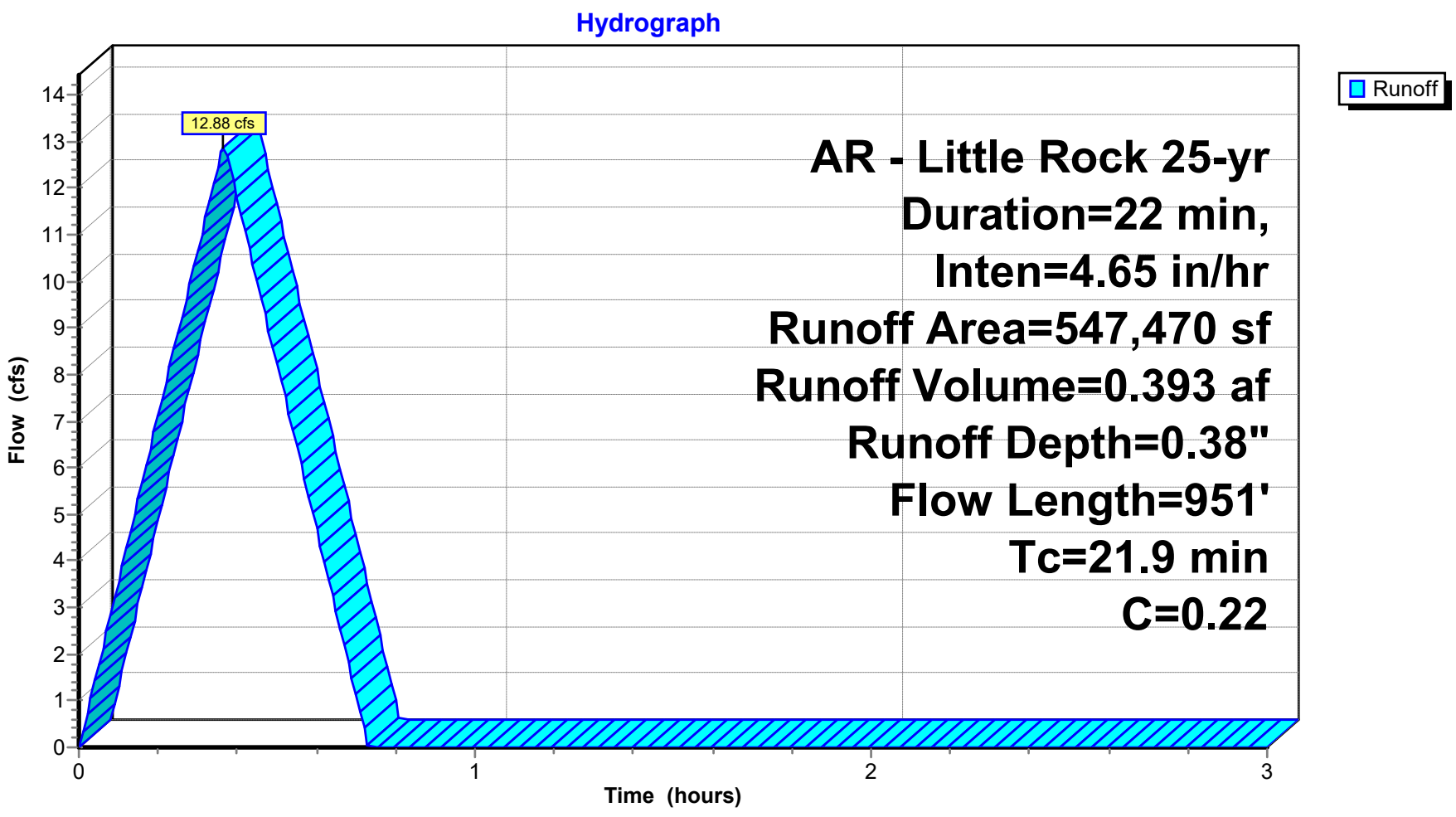
Runoff = 12.88 cfs @ 0.37 hrs, Volume= 0.393 af, Depth= 0.38"
Routed to Link PRE-DEV : Pre-Development

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=22 min, Inten=4.65 in/hr

| Area (sf) | C | Description |
|---|---|---|
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| 1.1 | 45 | 0.0100 | 0.70 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.3 | 55 | 0.0100 | 0.70 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 21.9 | 951 | Total | | | |

### Subcatchment A1: DRAINAGE BASIN A1



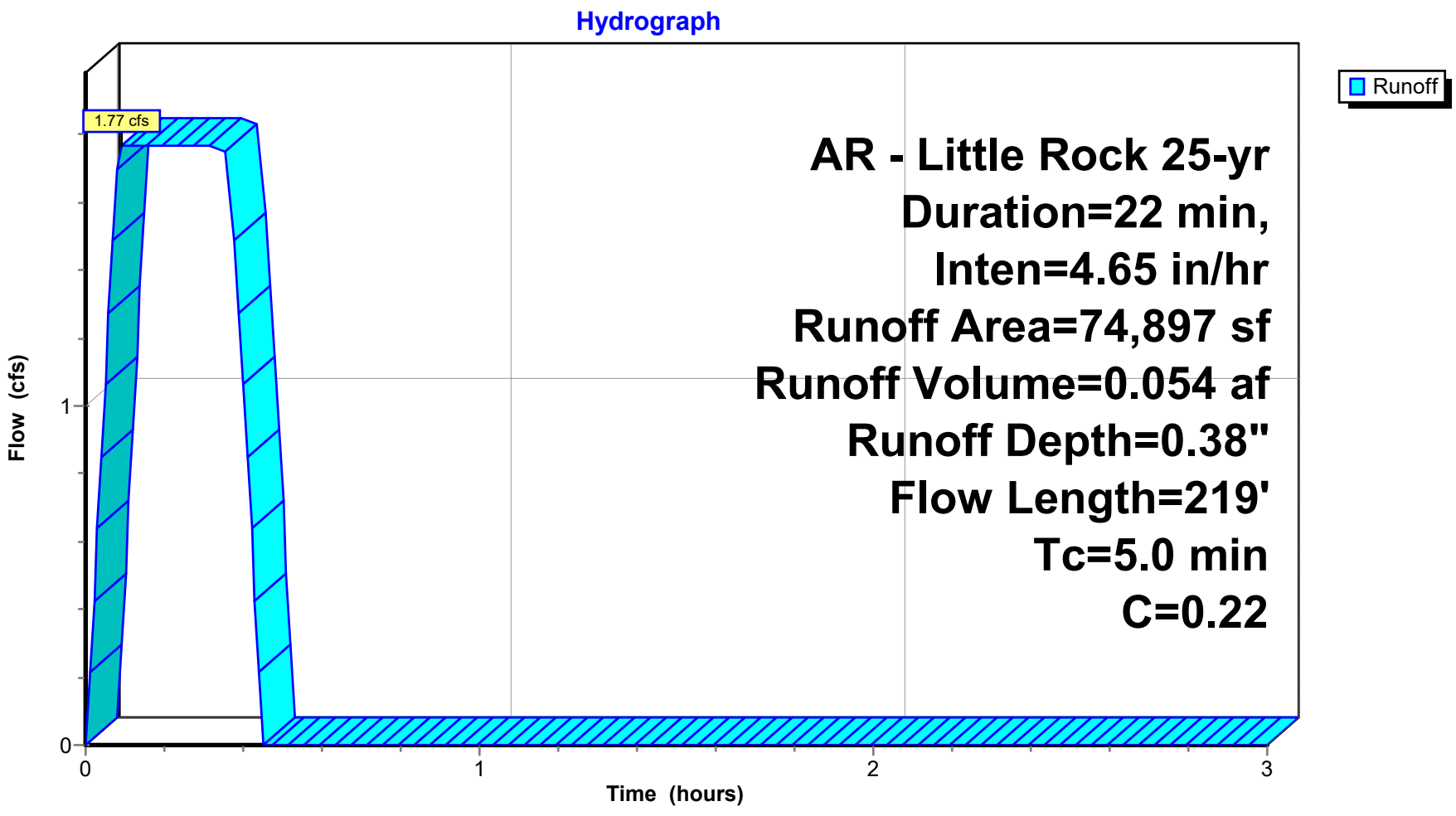
## Summary for Subcatchment A2: DRAINAGE BASIN A2

Runoff = 1.77 cfs @ 0.09 hrs, Volume= 0.054 af, Depth= 0.38"
Routed to Link PRE-DEV : Pre-Development

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=22 min, Inten=4.65 in/hr

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| 2.0 | | | | | **Direct Entry, min adjustment** |
| 5.0 | 219 | Total | | | |



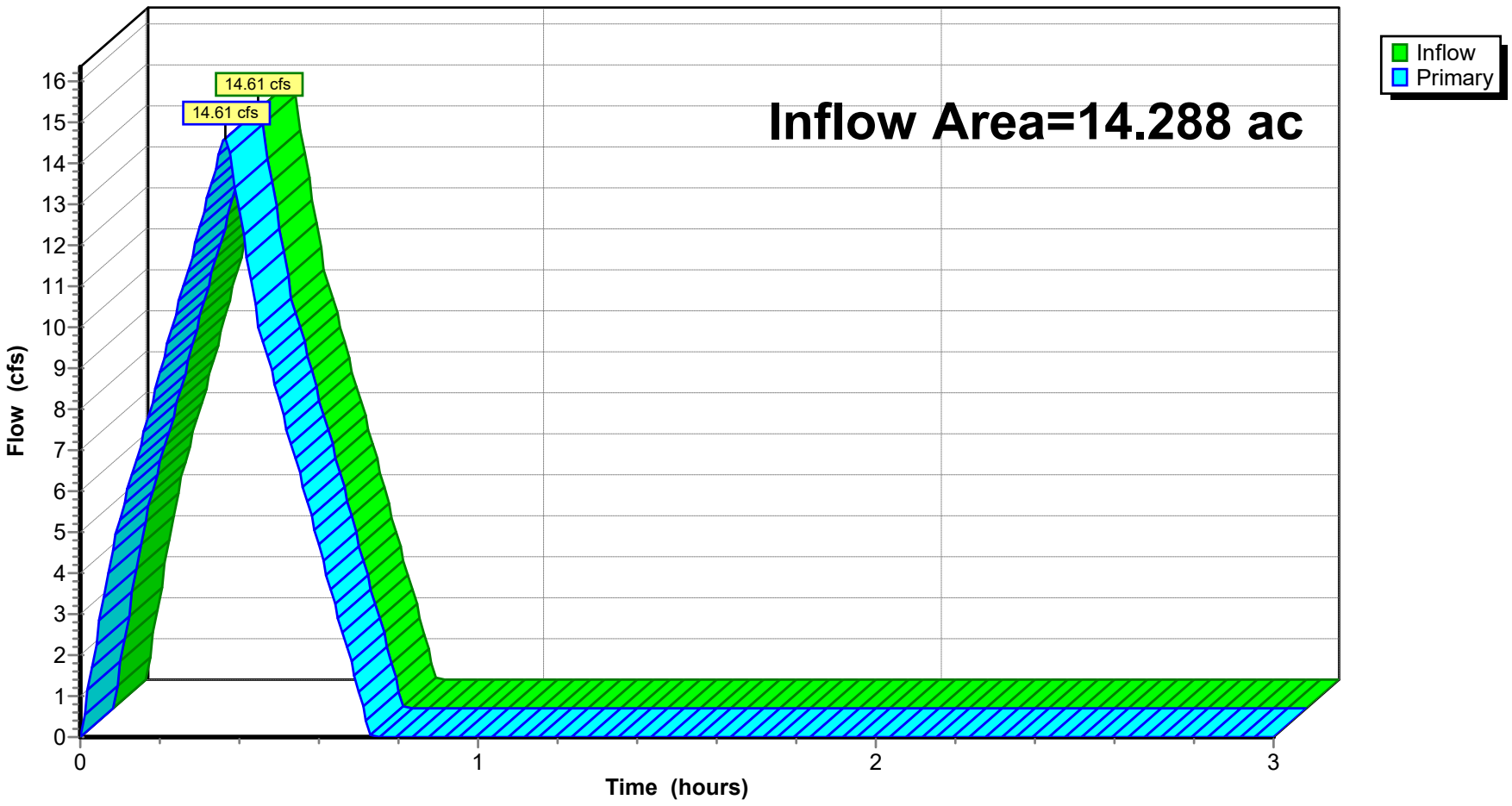
## Summary for Link PRE-DEV: Pre-Development

Inflow Area = 14.288 ac, 0.00% Impervious, Inflow Depth = 0.38" for 25-yr event
Inflow = 14.61 cfs @ 0.36 hrs, Volume= 0.447 af
Primary = 14.61 cfs @ 0.36 hrs, Volume= 0.447 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

## Link PRE-DEV: Pre-Development

### Hydrograph



## Summary for Subcatchment A1: DRAINAGE BASIN A1

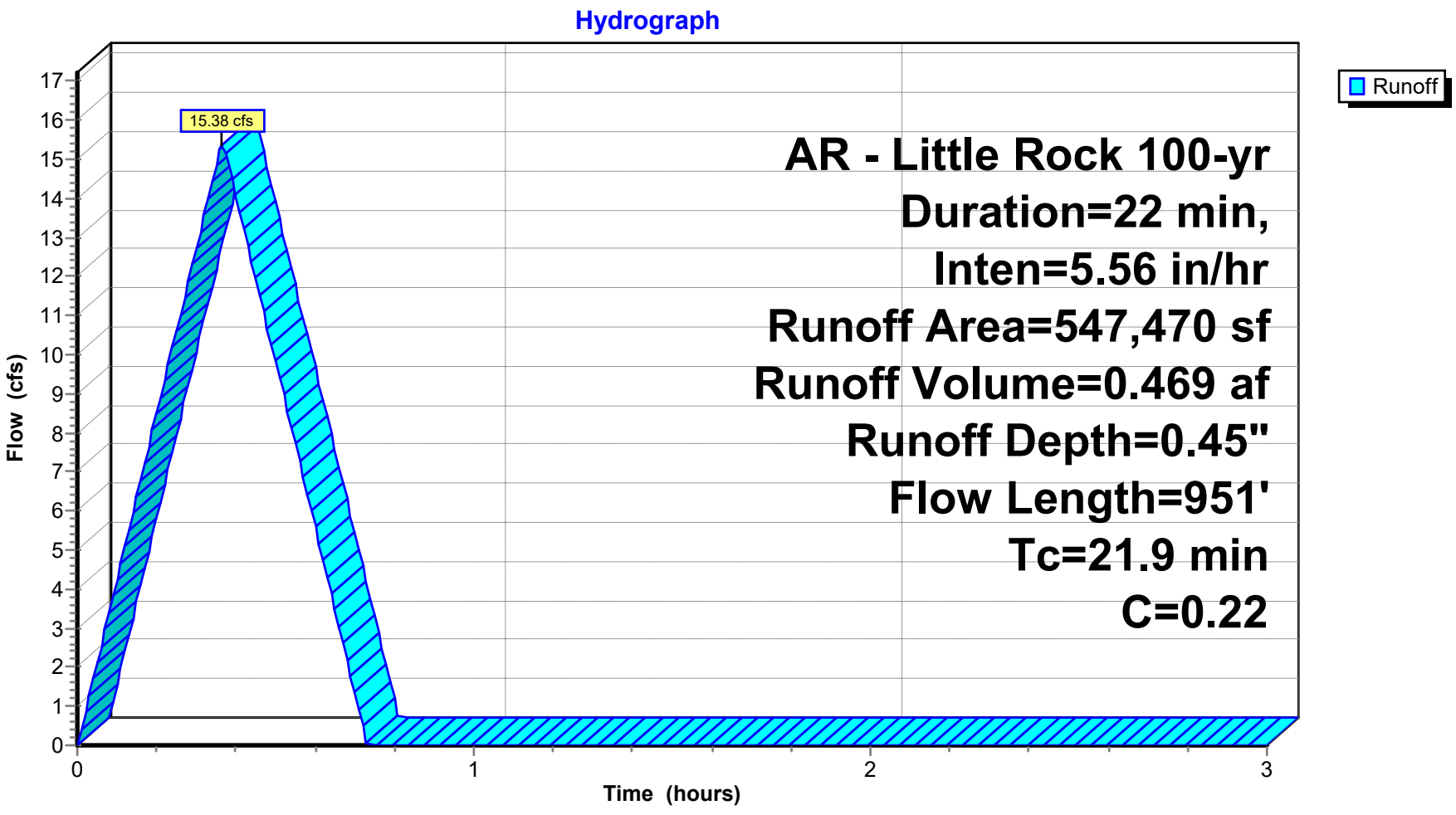
Runoff = 15.38 cfs @ 0.37 hrs, Volume= 0.469 af, Depth= 0.45"
Routed to Link PRE-DEV : Pre-Development

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=22 min, Inten=5.56 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 547,470 | 0.22 | Sandy Soil 2-7% per manual (undeveloped) |
| 547,470 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 10.2 | 96 | 0.0840 | 0.16 | | **Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 4.20" |
| 0.7 | 76 | 0.0710 | 1.87 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.7 | 76 | 0.0660 | 1.80 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.4 | 47 | 0.0660 | 1.80 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 28 | 0.0640 | 1.77 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 25 | 0.0590 | 1.70 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.8 | 80 | 0.0580 | 1.69 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 107 | 0.0430 | 1.45 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.7 | 42 | 0.0180 | 0.94 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.7 | 49 | 0.0300 | 1.21 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 2.5 | 158 | 0.0220 | 1.04 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.1 | 67 | 0.0200 | 0.99 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.1 | 45 | 0.0100 | 0.70 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.3 | 55 | 0.0100 | 0.70 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 21.9 | 951 | Total | | | |

### Subcatchment A1: DRAINAGE BASIN A1



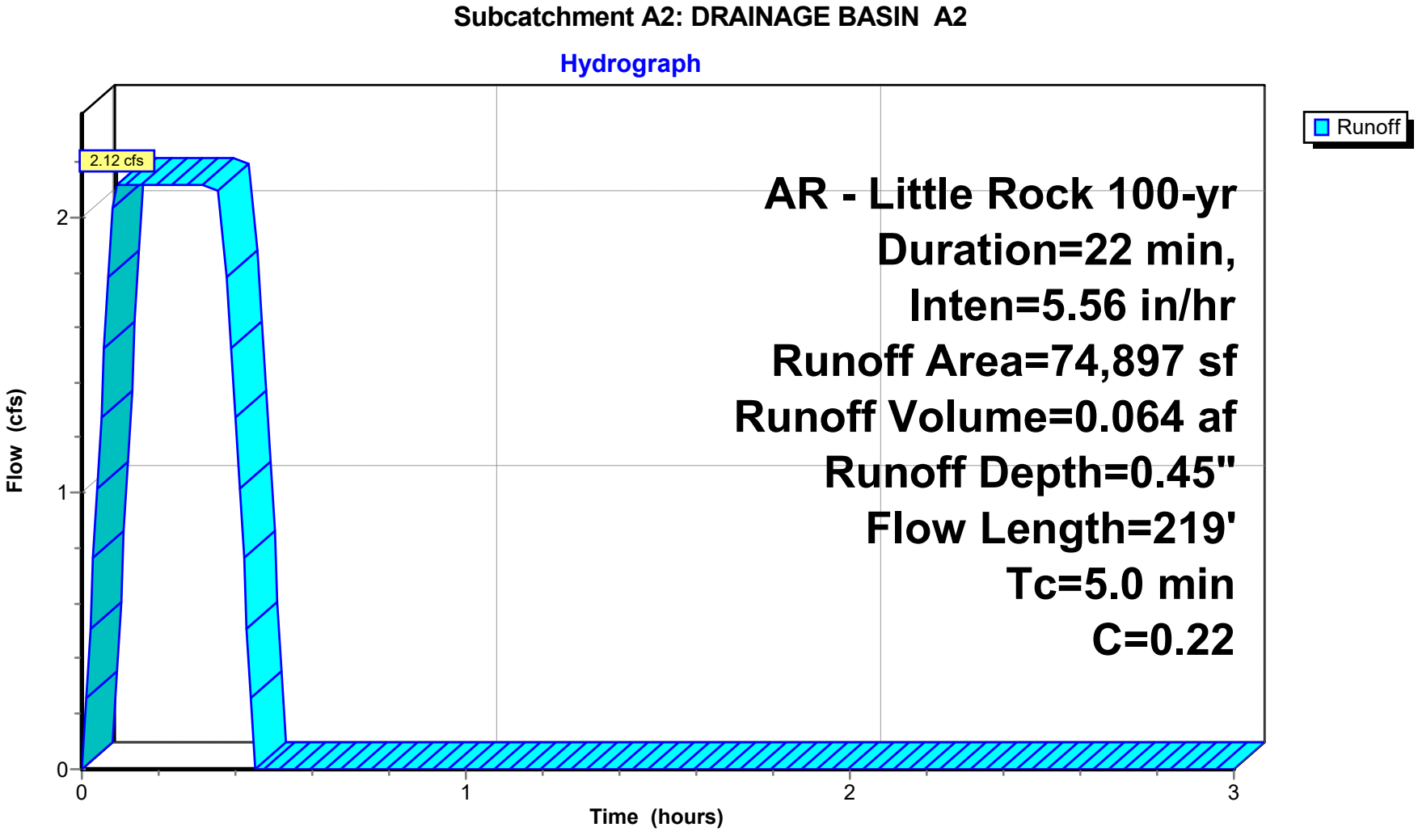
## Summary for Subcatchment A2: DRAINAGE BASIN A2

Runoff = 2.12 cfs @ 0.09 hrs, Volume= 0.064 af, Depth= 0.45"
Routed to Link PRE-DEV : Pre-Development

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=22 min, Inten=5.56 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 74,897 | 0.22 | 2-7% Sandy per LR Manual |
| 74,897 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.2 | 12 | 0.0330 | 1.27 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.9 | 144 | 0.0310 | 1.23 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 18 | 0.0200 | 0.99 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.6 | 45 | 0.0340 | 1.29 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 2.0 | | | | | **Direct Entry, min adjustment** |
| 5.0 | 219 | Total | | | |



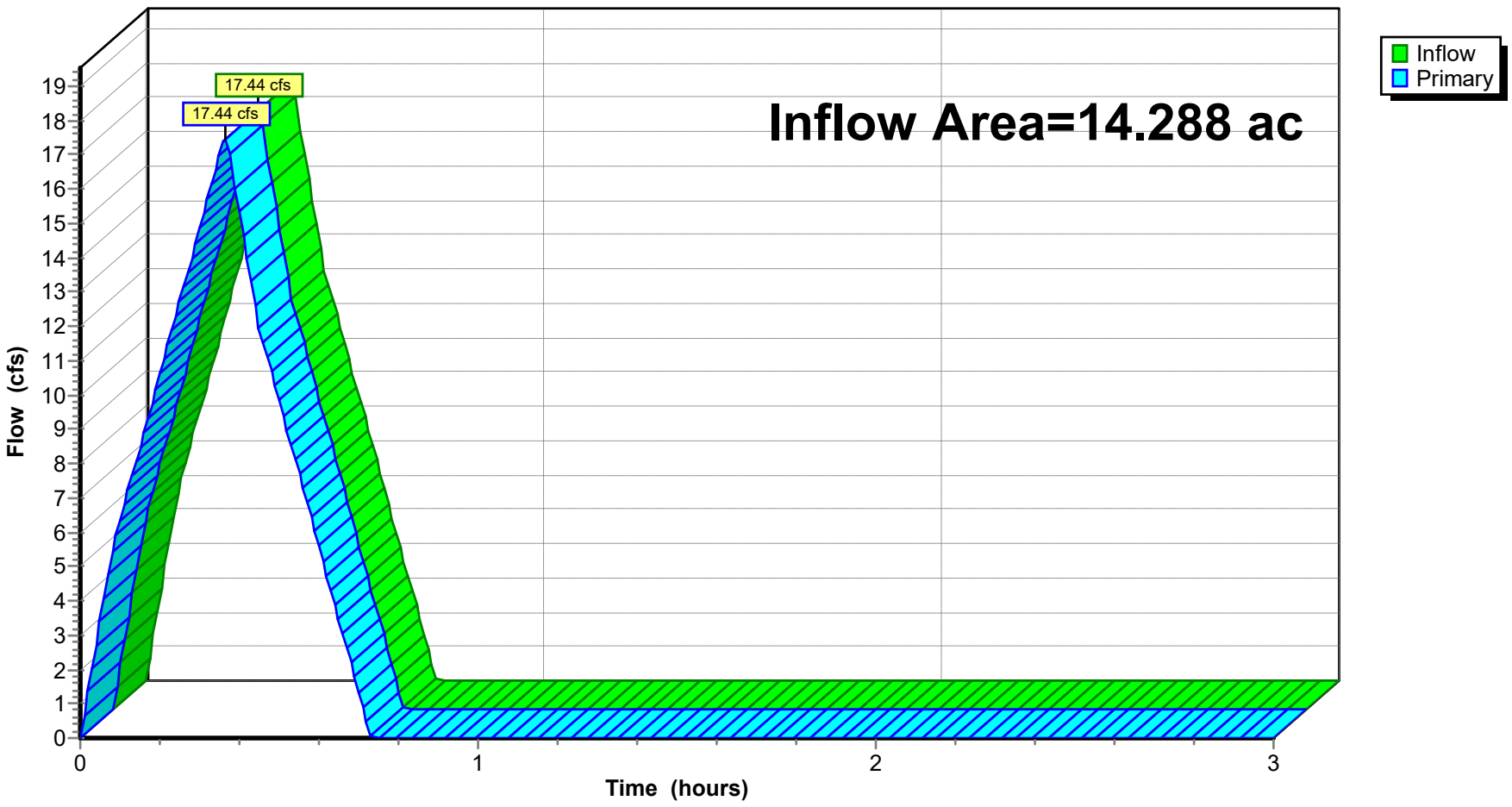
## Summary for Link PRE-DEV: Pre-Development

Inflow Area = 14.288 ac, 0.00% Impervious, Inflow Depth = 0.45" for 100-yr event
Inflow = 17.44 cfs @ 0.36 hrs, Volume= 0.533 af
Primary = 17.44 cfs @ 0.36 hrs, Volume= 0.533 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

## Link PRE-DEV: Pre-Development

### Hydrograph



## Summary for Subcatchment A1: DRAINAGE BASIN A1

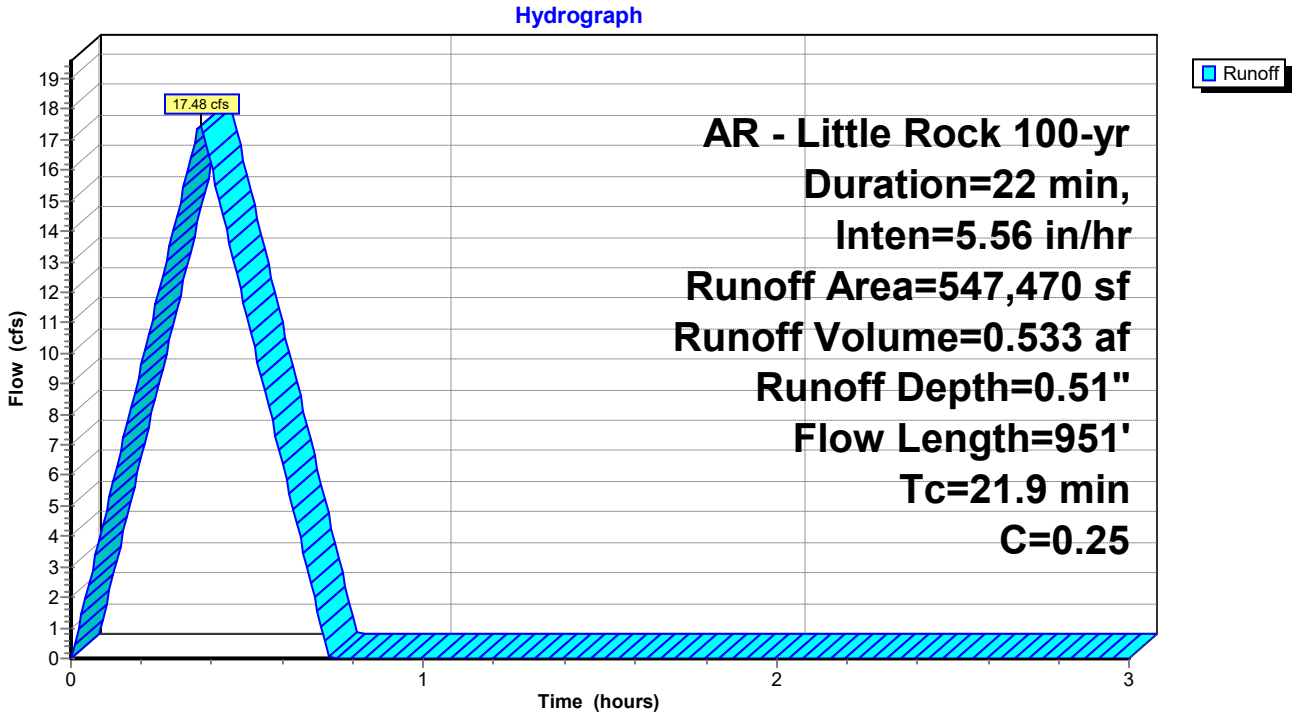
Runoff = 17.48 cfs @ 0.37 hrs, Volume= 0.533 af, Depth= 0.51"
Routed to Link PRE-DEV : Pre-Development

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=22 min, Inten=5.56 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 547,470 | 0.25 | Sandy Soil 2-7% per manual (undeveloped) |
| 547,470 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 10.2 | 96 | 0.0840 | 0.16 | | **Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 4.20" |
| 0.7 | 76 | 0.0710 | 1.87 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.7 | 76 | 0.0660 | 1.80 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.4 | 47 | 0.0660 | 1.80 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 28 | 0.0640 | 1.77 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.2 | 25 | 0.0590 | 1.70 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.8 | 80 | 0.0580 | 1.69 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.2 | 107 | 0.0430 | 1.45 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.7 | 42 | 0.0180 | 0.94 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.7 | 49 | 0.0300 | 1.21 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 2.5 | 158 | 0.0220 | 1.04 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.1 | 67 | 0.0200 | 0.99 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.1 | 45 | 0.0100 | 0.70 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.3 | 55 | 0.0100 | 0.70 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 21.9 | 951 | Total | | | |

## Subcatchment A1: DRAINAGE BASIN A1



## Summary for Subcatchment A2: DRAINAGE BASIN A2

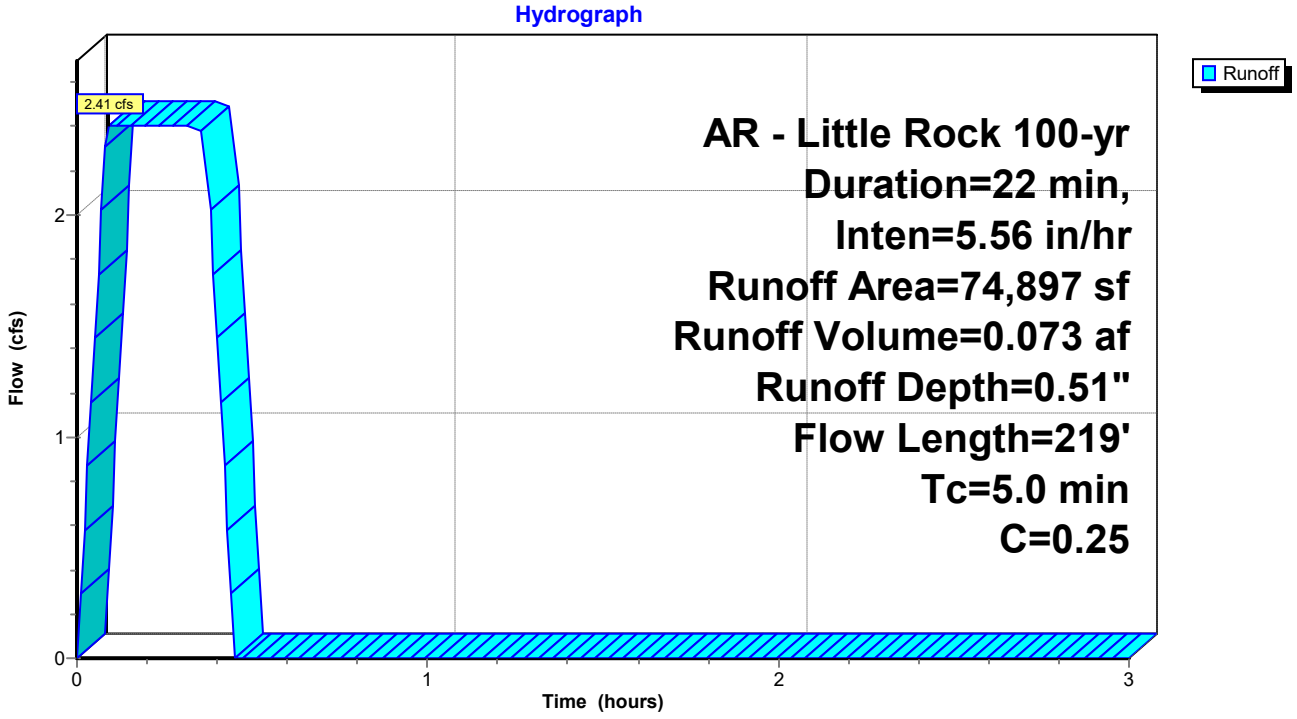
Runoff = 2.41 cfs @ 0.09 hrs, Volume= 0.073 af, Depth= 0.51"
Routed to Link PRE-DEV : Pre-Development

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=22 min, Inten=5.56 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 74,897 | 0.25 | 2-7% Sandy per LR Manual |
| 74,897 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.2 | 12 | 0.0330 | 1.27 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 1.9 | 144 | 0.0310 | 1.23 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.3 | 18 | 0.0200 | 0.99 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 0.6 | 45 | 0.0340 | 1.29 | | **Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps |
| 2.0 | | | | | **Direct Entry, min adjustment** |
| 5.0 | 219 | Total | | | |

## Subcatchment A2: DRAINAGE BASIN A2

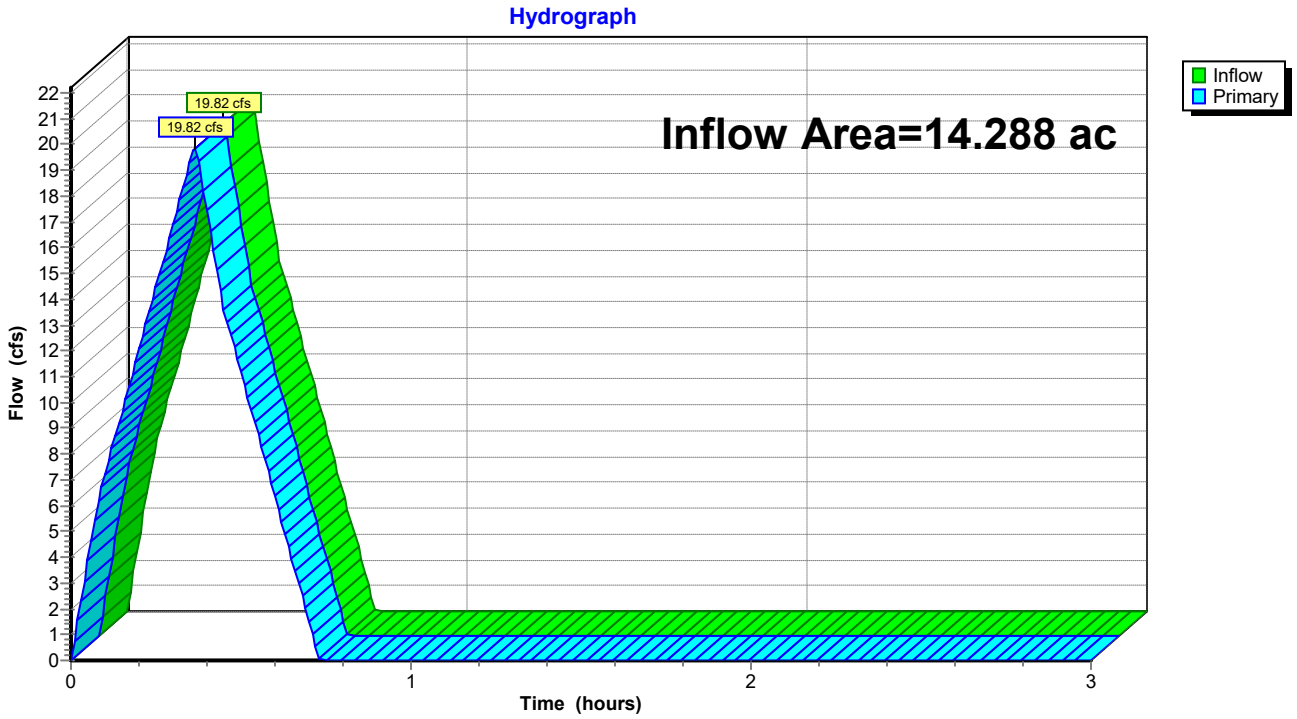


## Summary for Link PRE-DEV: Pre-Development

Inflow Area = 14.288 ac, 0.00% Impervious, Inflow Depth = 0.51" for 100-yr event
Inflow = 19.82 cfs @ 0.36 hrs, Volume= 0.606 af
Primary = 19.82 cfs @ 0.36 hrs, Volume= 0.606 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

## Link PRE-DEV: Pre-Development



# POST DEVELOPMENT HYDROGRAPHS

## Summary for Subcatchment DB-B1: Drainage Basin B1

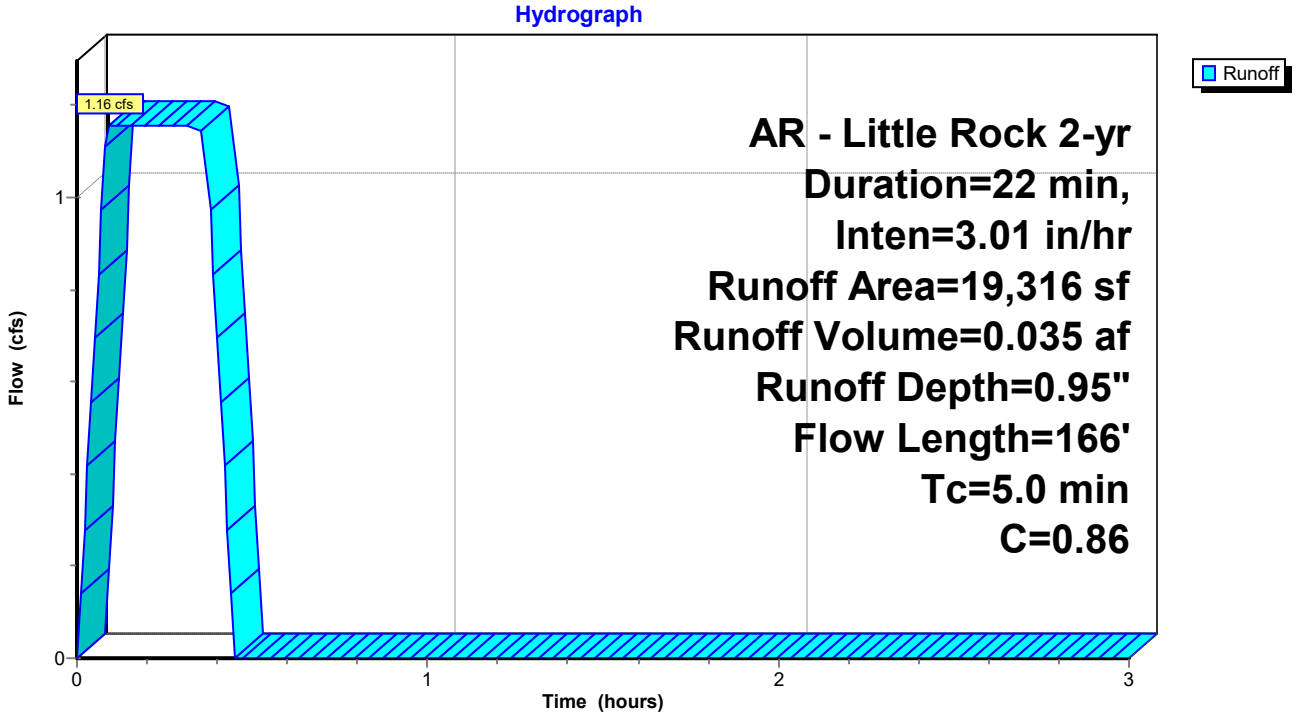
Runoff = 1.16 cfs @ 0.09 hrs, Volume= 0.035 af, Depth= 0.95"
Routed to Pond CI-A1 : CURB INLET A1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=22 min, Inten=3.01 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 1,941 | 0.30 | Sandy Soil 2-7% per manual |
| 17,375 | 0.92 | Paved Areas |
| 19,316 | 0.86 | Weighted Average |
| 19,316 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 3.5 | 33 | 0.0200 | 0.16 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.6 | 67 | 0.0350 | 1.82 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.5 | 66 | 0.0100 | 2.03 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 0.4 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 166 | Total | | | |

## Subcatchment DB-B1: Drainage Basin B1



## Summary for Subcatchment DB-B10: Drainage Basin B10

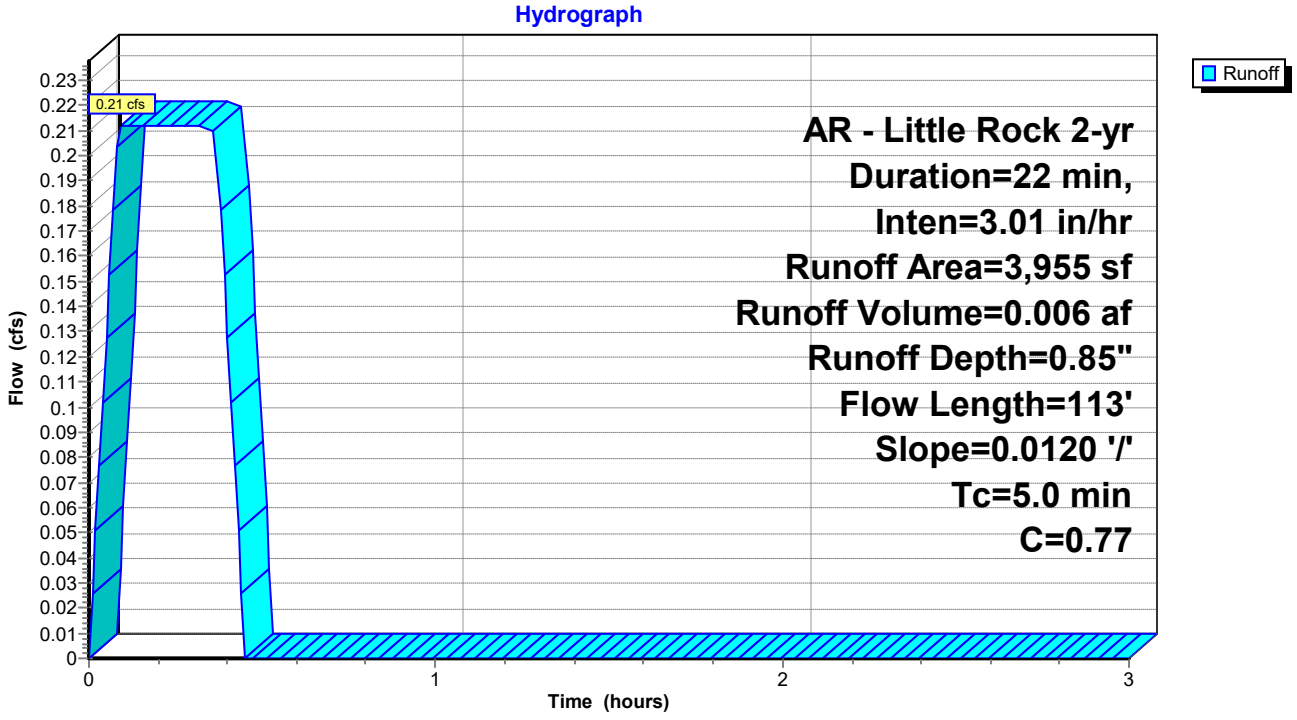
Runoff = 0.21 cfs @ 0.09 hrs, Volume= 0.006 af, Depth= 0.85"
Routed to Pond CI-C4 : CURB INLET C4

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=22 min, Inten=3.01 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 959 | 0.30 | Sandy Soil 2-7% per manual |
| 2,996 | 0.92 | Paved Areas |
| 3,955 | 0.77 | Weighted Average |
| 3,955 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.4 | 113 | 0.0120 | 1.32 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 3.6 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 113 | Total | | | |

## Subcatchment DB-B10: Drainage Basin B10



## Summary for Subcatchment DB-B11: Drainage Basin B11

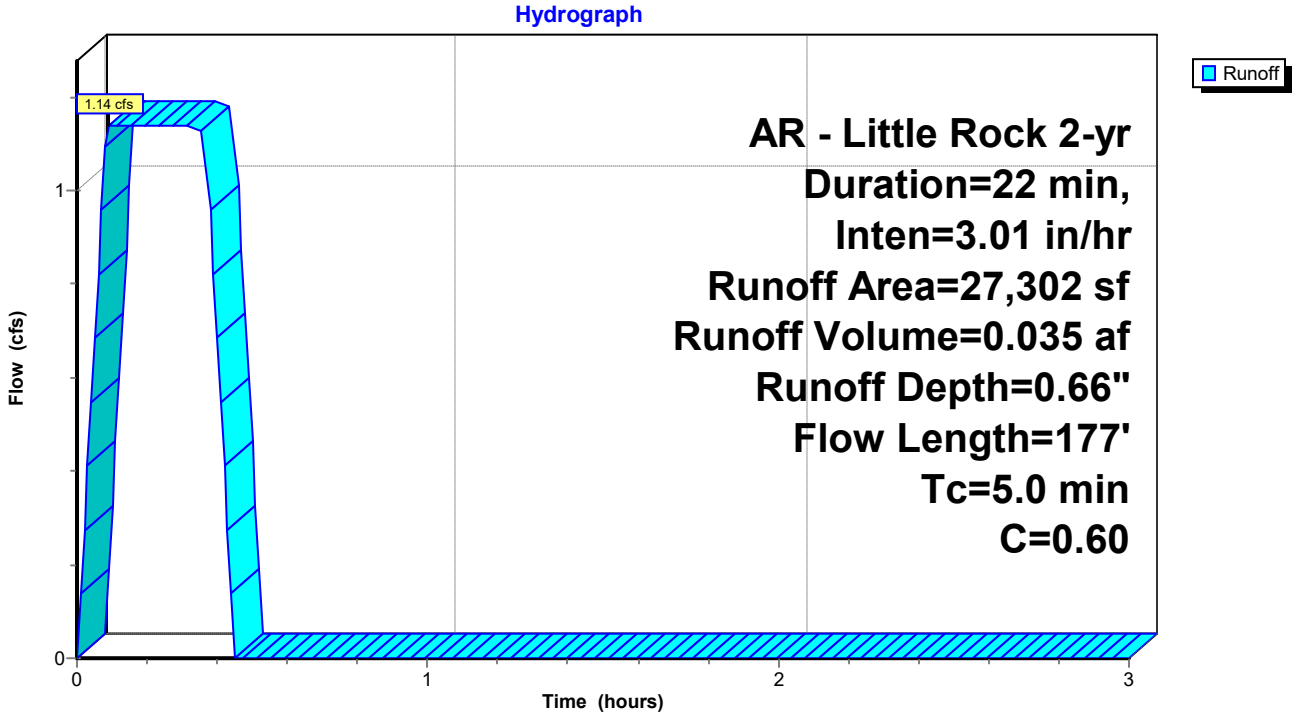
Runoff = 1.14 cfs @ 0.09 hrs, Volume= 0.035 af, Depth= 0.66"
Routed to Pond CI-D1 : CURB INLET D1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=22 min, Inten=3.01 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 15,547 | 0.35 | Sandy Soil 2-7% per manual |
| 11,755 | 0.92 | Paved Areas |
| 27,302 | 0.60 | Weighted Average |
| 27,302 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.2 | 65 | 0.3300 | 4.44 | | **Sheet Flow, Roof** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.2 | 69 | 0.1750 | 6.27 | | **Shallow Concentrated Flow, Greenspace** Grassed Waterway Kv= 15.0 fps |
| 0.2 | 43 | 0.0500 | 4.54 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 4.4 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 177 | Total | | | |

## Subcatchment DB-B11: Drainage Basin B11



## Summary for Subcatchment DB-B12: Drainage Basin B12

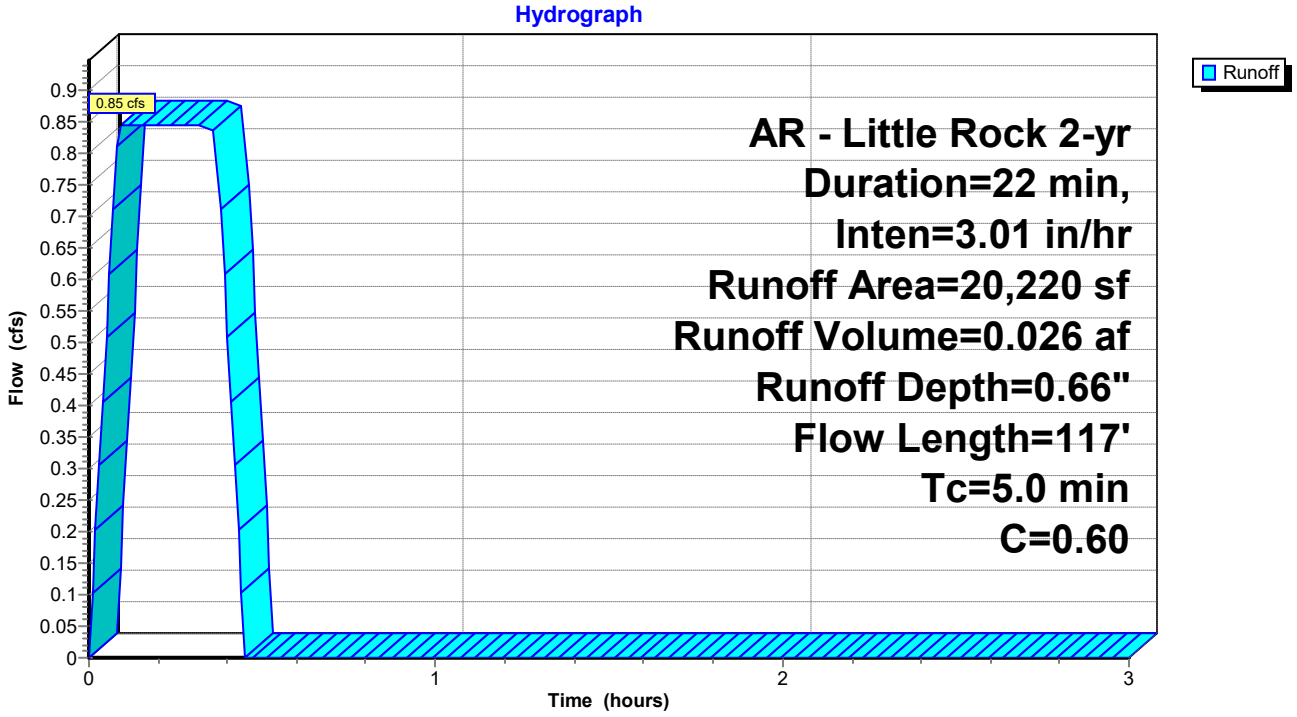
Runoff = 0.85 cfs @ 0.09 hrs, Volume= 0.026 af, Depth= 0.66"
Routed to Pond CI-C5 : CURB INLET C5

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=22 min, Inten=3.01 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 11,502 | 0.35 | Sandy Soil 2-7% per manual |
| 8,718 | 0.92 | Paved Areas |
| 20,220 | 0.60 | Weighted Average |
| 20,220 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 2.0 | 26 | 0.0500 | 0.21 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.5 | 38 | 0.2360 | 0.43 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.1 | 28 | 0.2390 | 0.41 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.4 | 25 | 0.0180 | 1.15 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 5.0 | 117 | Total | | | |

## Subcatchment DB-B12: Drainage Basin B12



## Summary for Subcatchment DB-B13: DRAINAGE BASIN B13

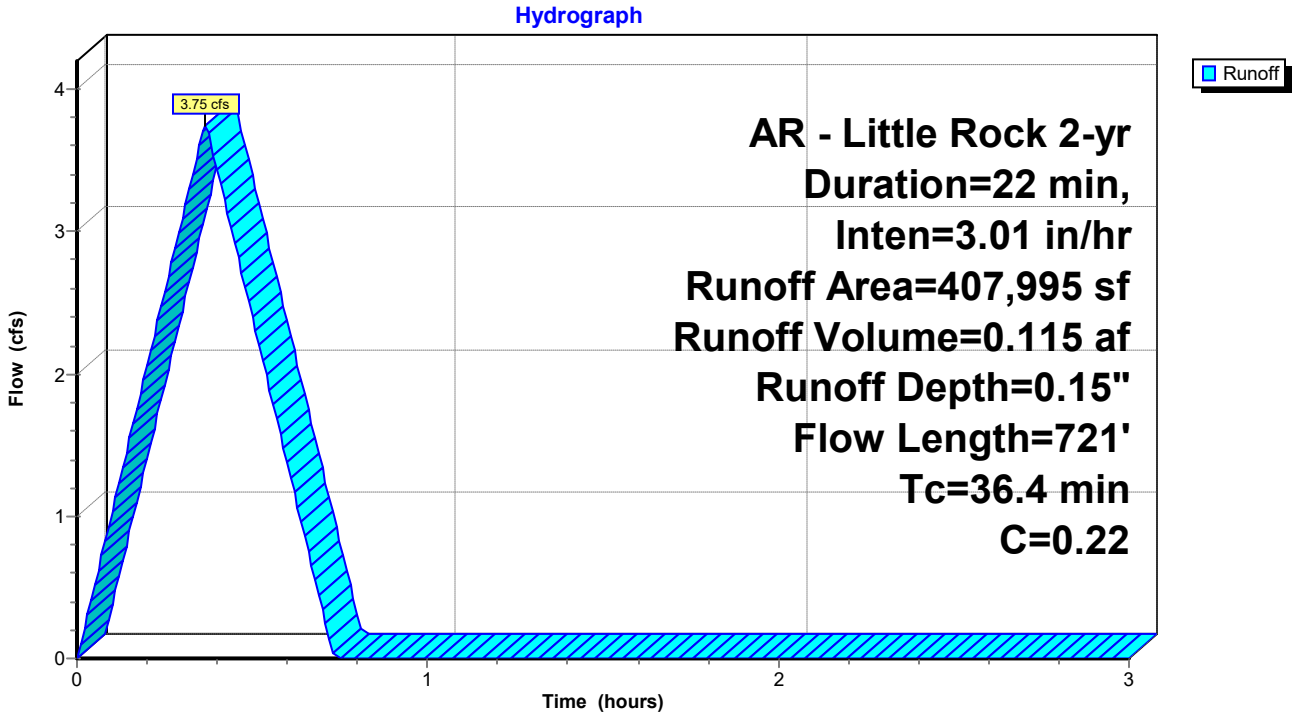
Runoff = 3.75 cfs @ 0.37 hrs, Volume= 0.115 af, Depth= 0.15"
Routed to Link POST-DEV : Post-Development

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=22 min, Inten=3.01 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 407,995 | 0.22 | Sandy Soil 2-7% Per Manual |
| 407,995 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.5 | 67 | 0.6600 | 0.73 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.2 | 46 | 0.5900 | 0.65 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 3.2 | 147 | 0.5100 | 0.77 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.8 | 63 | 0.3800 | 0.58 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 8.5 | 70 | 0.0100 | 0.14 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 4.8 | 163 | 0.2200 | 0.56 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 2.4 | 65 | 0.2000 | 0.45 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 6.3 | 48 | 0.0100 | 0.13 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 6.7 | 52 | 0.0100 | 0.13 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 36.4 | 721 | Total | | | |

## Subcatchment DB-B13: DRAINAGE BASIN B13



## Summary for Subcatchment DB-B14: DRAINAGE BASIN B14

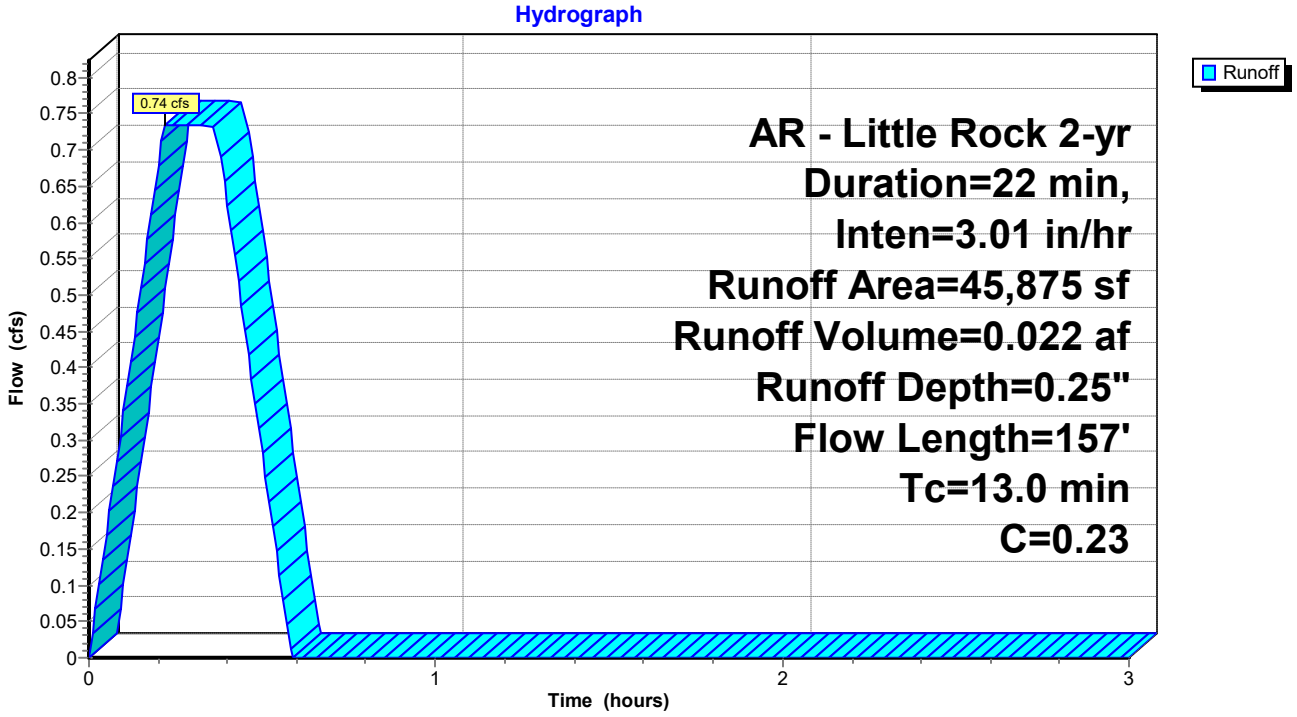
Runoff = 0.74 cfs @ 0.22 hrs, Volume= 0.022 af, Depth= 0.25"
Routed to Link POST-DEV : Post-Development

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=22 min, Inten=3.01 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 45,016 | 0.22 | Sandy Soil 2-7% Per Manual |
| 859 | 0.92 | Paved Areas |
| 45,875 | 0.23 | Weighted Average |
| 45,875 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 2.5 | 15 | 0.0100 | 0.10 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 5.2 | 78 | 0.0420 | 0.25 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 2.8 | 38 | 0.0480 | 0.23 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 2.5 | 26 | 0.0280 | 0.17 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 13.0 | 157 | Total | | | |

## Subcatchment DB-B14: DRAINAGE BASIN B14



## Summary for Subcatchment DB-B2: Drainage Basin B2

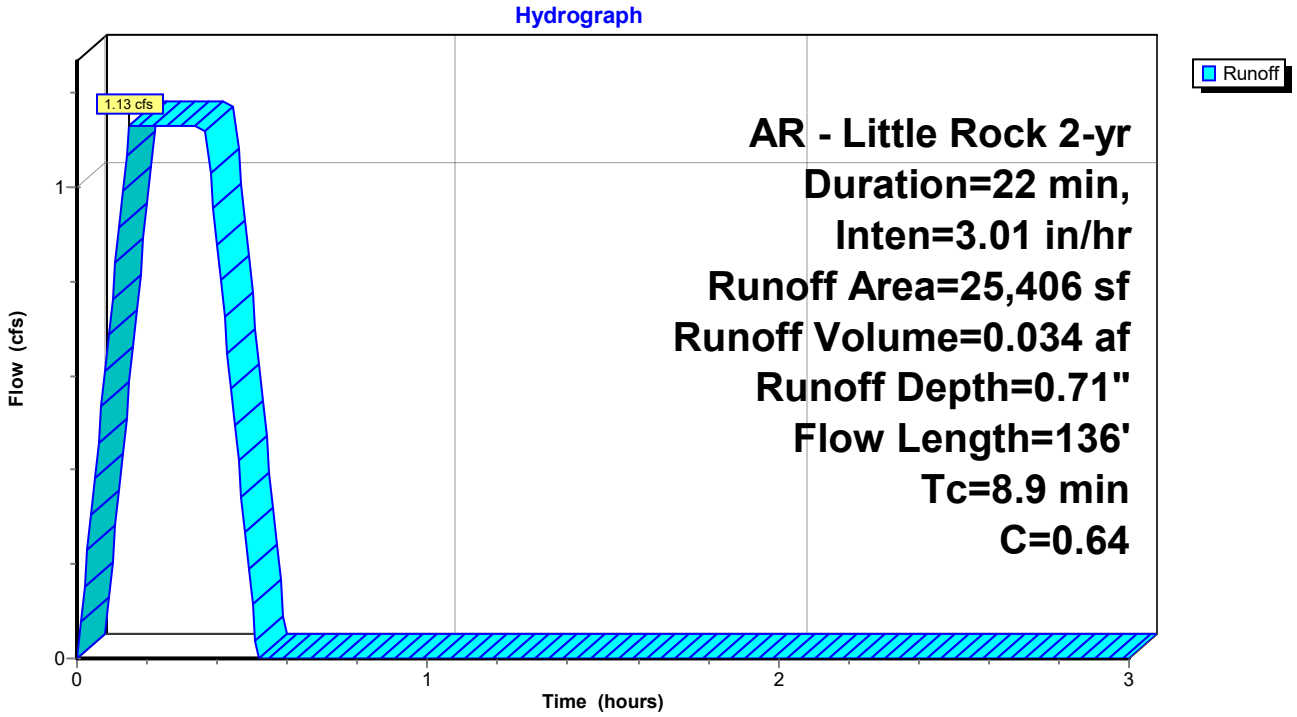
Runoff = 1.13 cfs @ 0.15 hrs, Volume= 0.034 af, Depth= 0.71"
Routed to Pond CI-A2 : CURB INLET A2

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=22 min, Inten=3.01 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 11,388 | 0.30 | Sandy Soil 2-7% per manual |
| 14,018 | 0.92 | Paved Areas |
| 25,406 | 0.64 | Weighted Average |
| 25,406 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 7.2 | 57 | 0.0100 | 0.13 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.8 | 19 | 0.2480 | 0.38 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.2 | 14 | 0.0150 | 0.95 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.3 | 34 | 0.0600 | 1.97 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.2 | 12 | 0.0350 | 1.29 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.2 | | | | | **Direct Entry, Minimum Adjustment** |
| 8.9 | 136 | Total | | | |

## Subcatchment DB-B2: Drainage Basin B2



## Summary for Subcatchment DB-B3: Drainage Basin B3

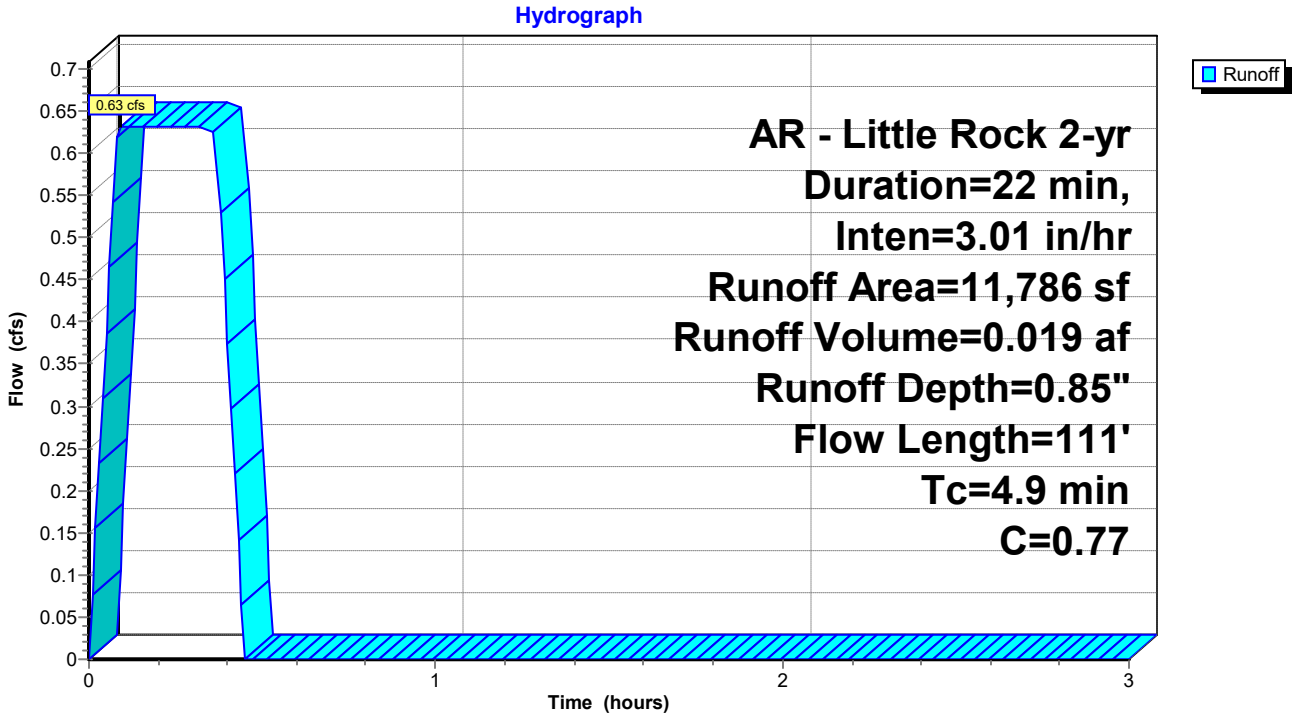
Runoff = 0.63 cfs @ 0.09 hrs, Volume= 0.019 af, Depth= 0.85"
Routed to Pond CI-A3 : CURB INLET A3

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=22 min, Inten=3.01 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 2,920 | 0.30 | Sandy Soil 2-7% per manual |
| 8,866 | 0.92 | Paved Areas |
| 11,786 | 0.77 | Weighted Average |
| 11,786 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.8 | 19 | 0.2500 | 0.38 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.2 | 16 | 0.0290 | 1.27 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.6 | 38 | 0.0100 | 0.98 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.3 | 38 | 0.0100 | 2.03 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 3.0 | | | | | **Direct Entry, Minimum Adjustment** |
| 4.9 | 111 | Total | | | |

## Subcatchment DB-B3: Drainage Basin B3



## Summary for Subcatchment DB-B4: Drainage Basin B4

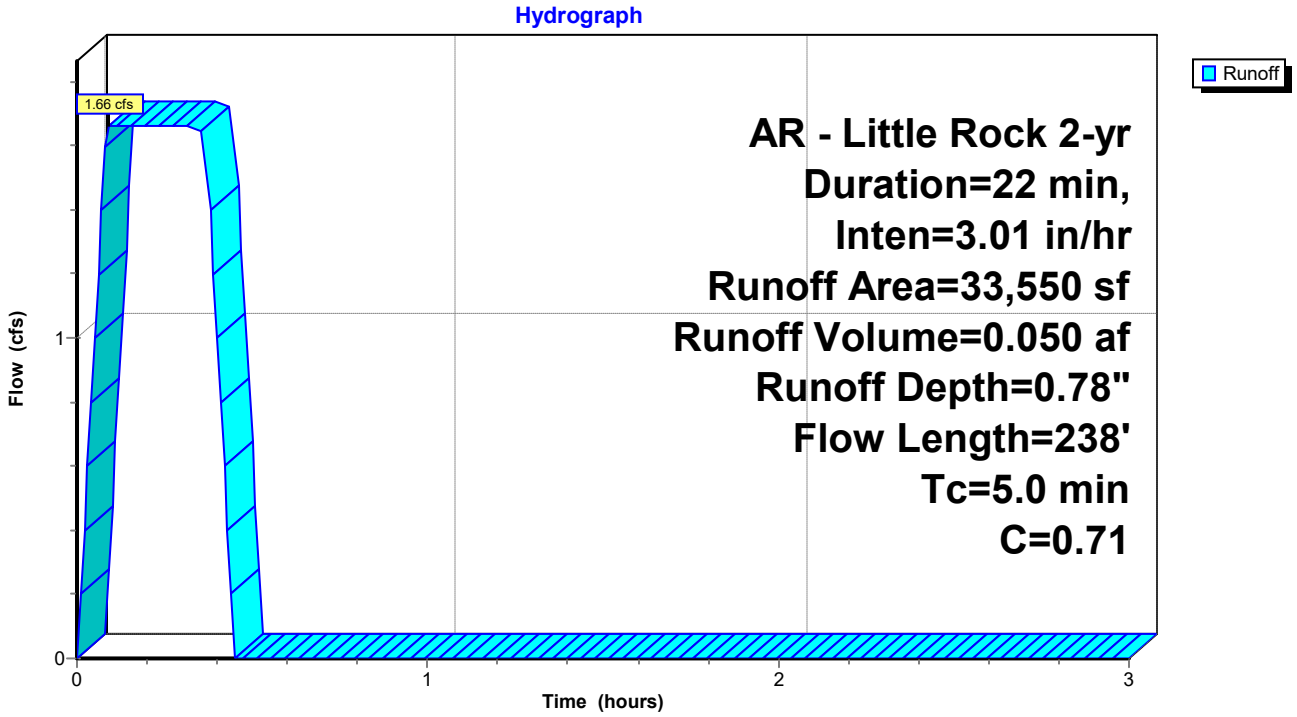
Runoff = 1.66 cfs @ 0.09 hrs, Volume= 0.050 af, Depth= 0.78"
Routed to Pond CI-A4 : CURB INLET A4

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=22 min, Inten=3.01 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 11,568 | 0.30 | Sandy Soil 2-7% per manual |
| 21,982 | 0.92 | Paved Areas |
| 33,550 | 0.71 | Weighted Average |
| 33,550 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.4 | 48 | 0.0530 | 2.01 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.3 | 25 | 0.0310 | 1.42 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.6 | 14 | 0.0020 | 0.42 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.9 | 66 | 0.0130 | 1.22 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.4 | 59 | 0.0120 | 2.22 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 0.5 | 19 | 0.0010 | 0.64 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 0.0 | 7 | 0.0700 | 5.37 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 1.9 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 238 | Total | | | |

## Subcatchment DB-B4: Drainage Basin B4



## Summary for Subcatchment DB-B5: Drainage Basin B5

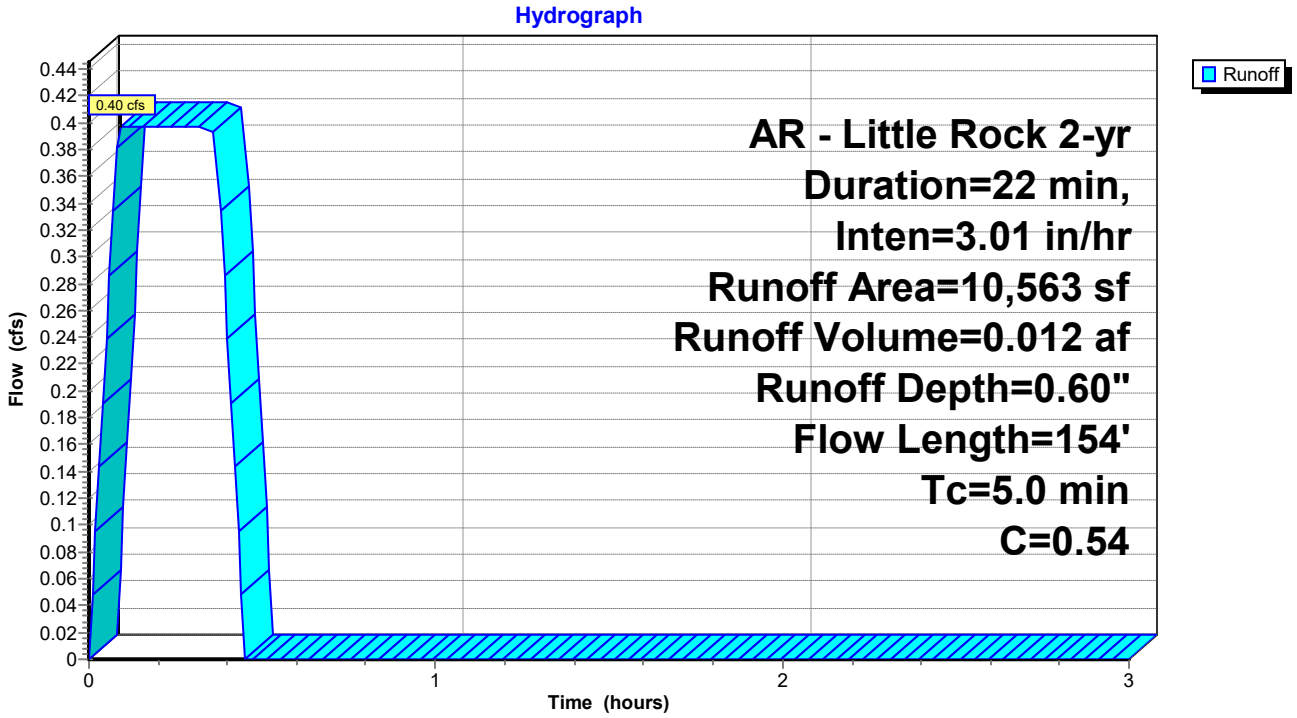
Runoff = 0.40 cfs @ 0.09 hrs, Volume= 0.012 af, Depth= 0.60"
Routed to Pond CI-A5 : CURB INLET A5

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=22 min, Inten=3.01 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 6,980 | 0.35 | Sandy Soil 2-7% per manual |
| 3,583 | 0.92 | Paved Areas |
| 10,563 | 0.54 | Weighted Average |
| 10,563 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.2 | 19 | 0.0920 | 0.26 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.9 | 39 | 0.1260 | 0.34 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.5 | 66 | 0.0540 | 2.16 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.1 | 30 | 0.0500 | 4.54 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 1.3 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 154 | Total | | | |

## Subcatchment DB-B5: Drainage Basin B5



## Summary for Subcatchment DB-B6: Drainage Basin B6

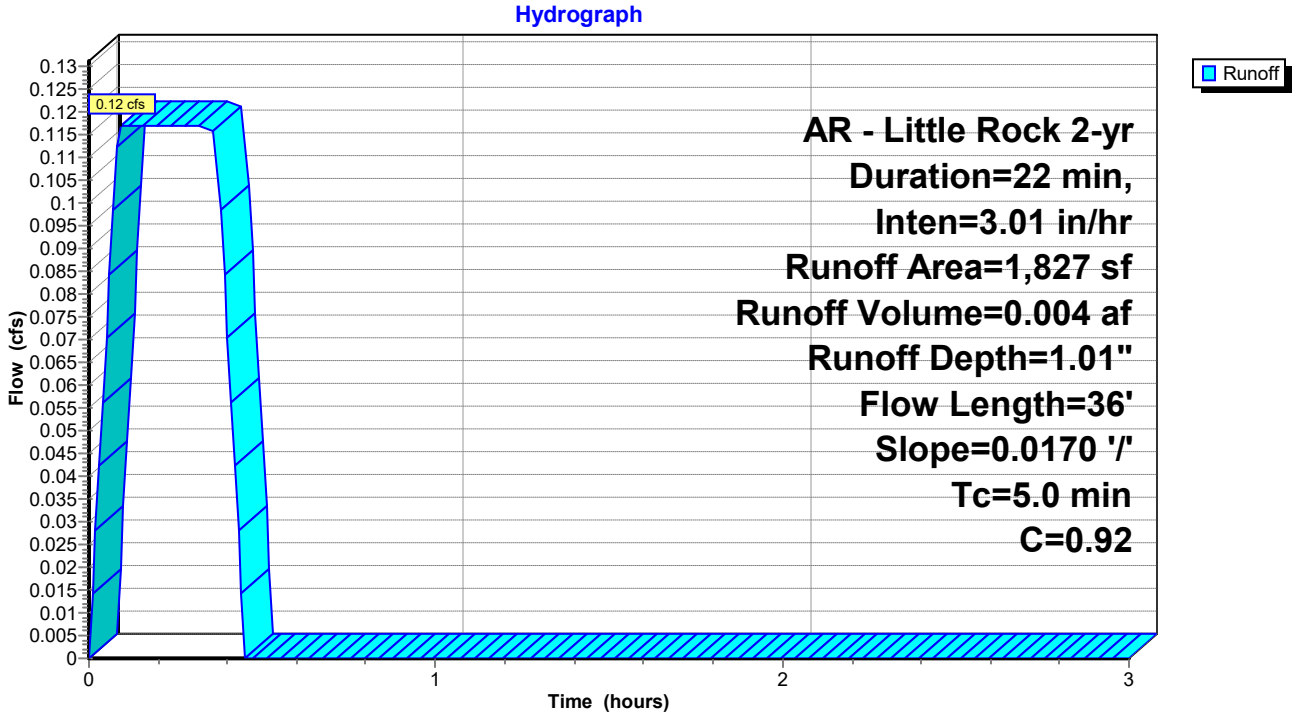
Runoff = 0.12 cfs @ 0.09 hrs, Volume= 0.004 af, Depth= 1.01"
Routed to Pond AI-B1 : AREA INLET B1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=22 min, Inten=3.01 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 0 | 0.30 | Sandy Soil 2-7% per manual |
| 1,827 | 0.92 | Paved Areas |
| 1,827 | 0.92 | Weighted Average |
| 1,827 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.5 | 36 | 0.0170 | 1.20 | | **Sheet Flow, Concrete** Smooth surfaces n= 0.011 P2= 4.20" |
| 4.5 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 36 | Total | | | |

## Subcatchment DB-B6: Drainage Basin B6



## Summary for Subcatchment DB-B7: Drainage Basin B7

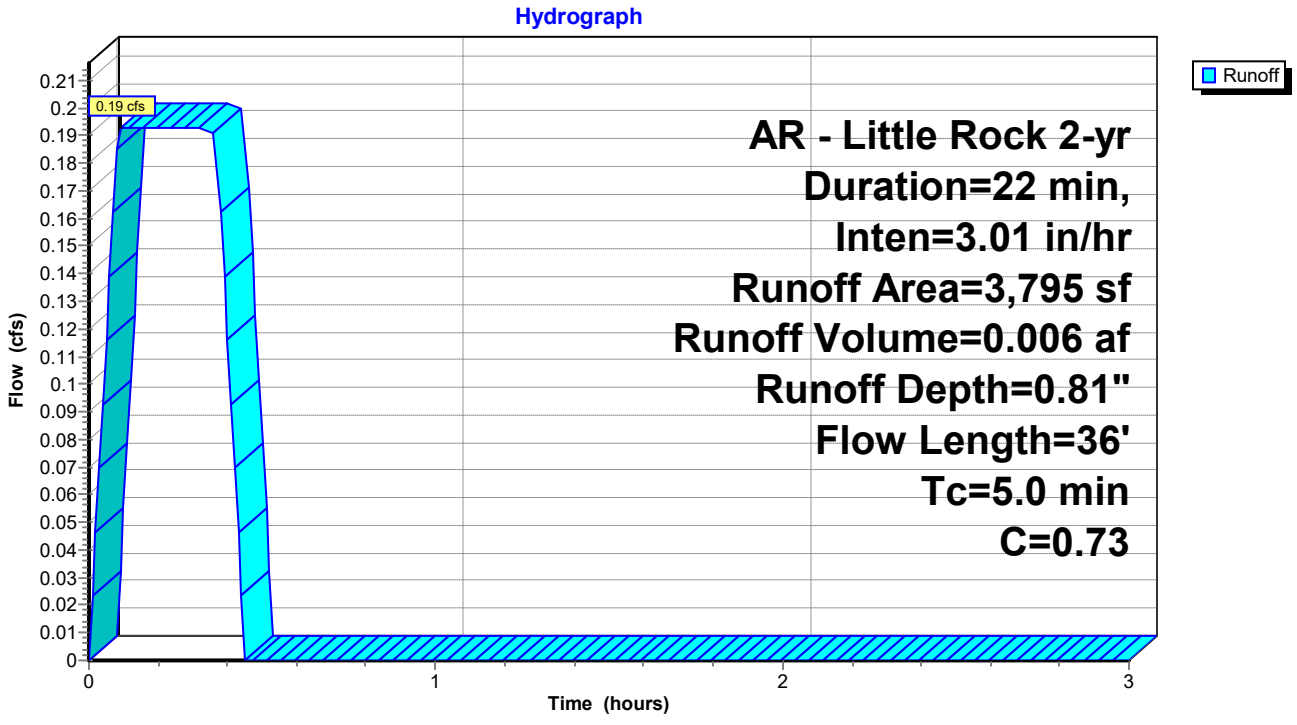
Runoff = 0.19 cfs @ 0.09 hrs, Volume= 0.006 af, Depth= 0.81"
Routed to Pond AI-B2 : AREA INLET B2

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=22 min, Inten=3.01 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 1,158 | 0.30 | Sandy Soil 2-7% per manual |
| 2,637 | 0.92 | Paved Areas |
| 3,795 | 0.73 | Weighted Average |
| 3,795 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.8 | 24 | 0.0020 | 0.47 | | **Sheet Flow, Concrete** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.2 | 12 | 0.0160 | 0.94 | | **Sheet Flow, Concrete** Smooth surfaces n= 0.011 P2= 4.20" |
| 4.0 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 36 | Total | | | |

## Subcatchment DB-B7: Drainage Basin B7



## Summary for Subcatchment DB-B8: Drainage Basin B8

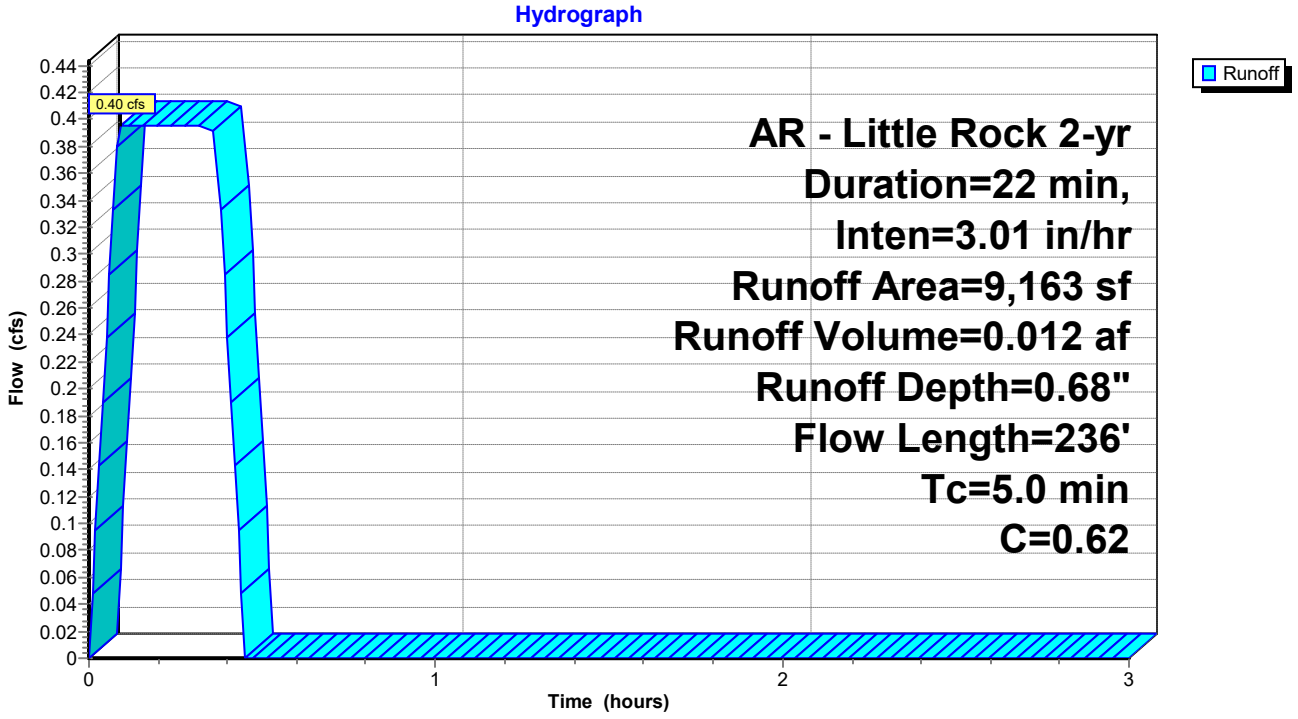
Runoff = 0.40 cfs @ 0.09 hrs, Volume= 0.012 af, Depth= 0.68"
Routed to Pond CI-C1 : CURB INLET C1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=22 min, Inten=3.01 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 4,431 | 0.30 | Sadny Soil 2-7% per manual |
| 4,732 | 0.92 | Paved Areas |
| 9,163 | 0.62 | Weighted Average |
| 9,163 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.4 | 33 | 0.0210 | 1.29 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.6 | 91 | 0.0620 | 2.43 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.8 | 112 | 0.0490 | 2.31 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 3.2 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 236 | Total | | | |

## Subcatchment DB-B8: Drainage Basin B8



## Summary for Subcatchment DB-B9: Drainage Basin B9

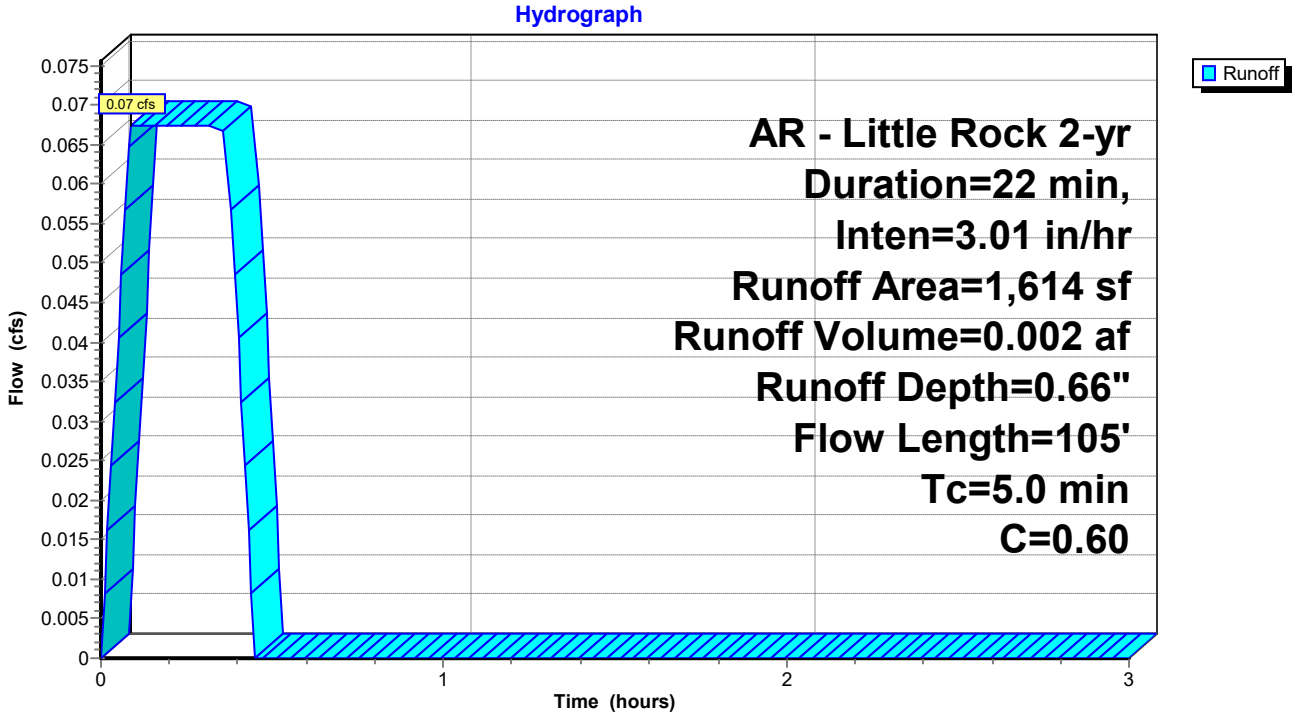
Runoff = 0.07 cfs @ 0.09 hrs, Volume= 0.002 af, Depth= 0.66"
Routed to Pond CI-C2 : CURB INLET C2

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=22 min, Inten=3.01 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 826 | 0.30 | Sandy Soil 2-7% per manual |
| 788 | 0.92 | Paved Areas |
| 1,614 | 0.60 | Weighted Average |
| 1,614 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.0 | 62 | 0.0100 | 1.09 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.0 | 8 | 0.0230 | 3.08 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 0.2 | 35 | 0.0140 | 2.40 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 3.8 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 105 | Total | | | |

## Subcatchment DB-B9: Drainage Basin B9



## Summary for Pond AI-B1: AREA INLET B1

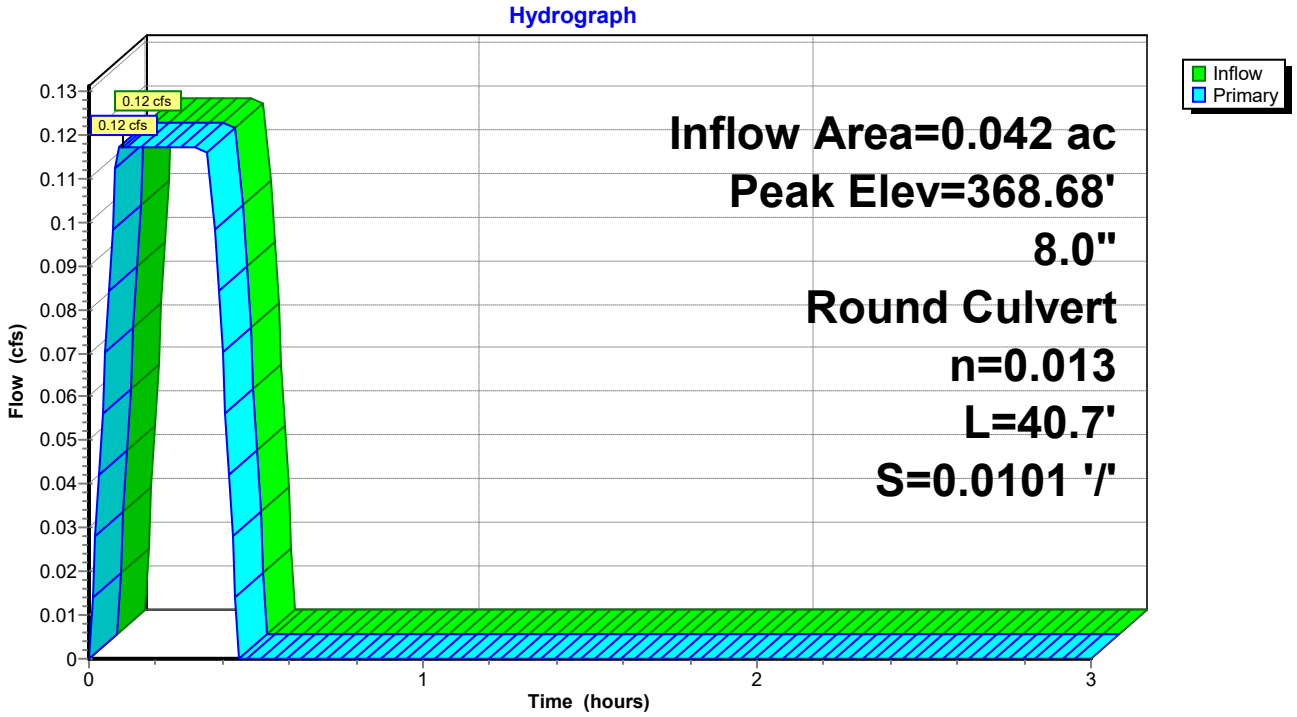
Inflow Area = 0.042 ac, 0.00% Impervious, Inflow Depth = 1.01" for 2-yr event
Inflow = 0.12 cfs @ 0.09 hrs, Volume= 0.004 af
Outflow = 0.12 cfs @ 0.10 hrs, Volume= 0.004 af, Atten= 0%, Lag= 0.6 min
Primary = 0.12 cfs @ 0.10 hrs, Volume= 0.004 af
Routed to Pond AI-B2 : AREA INLET B2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 368.68' @ 0.09 hrs

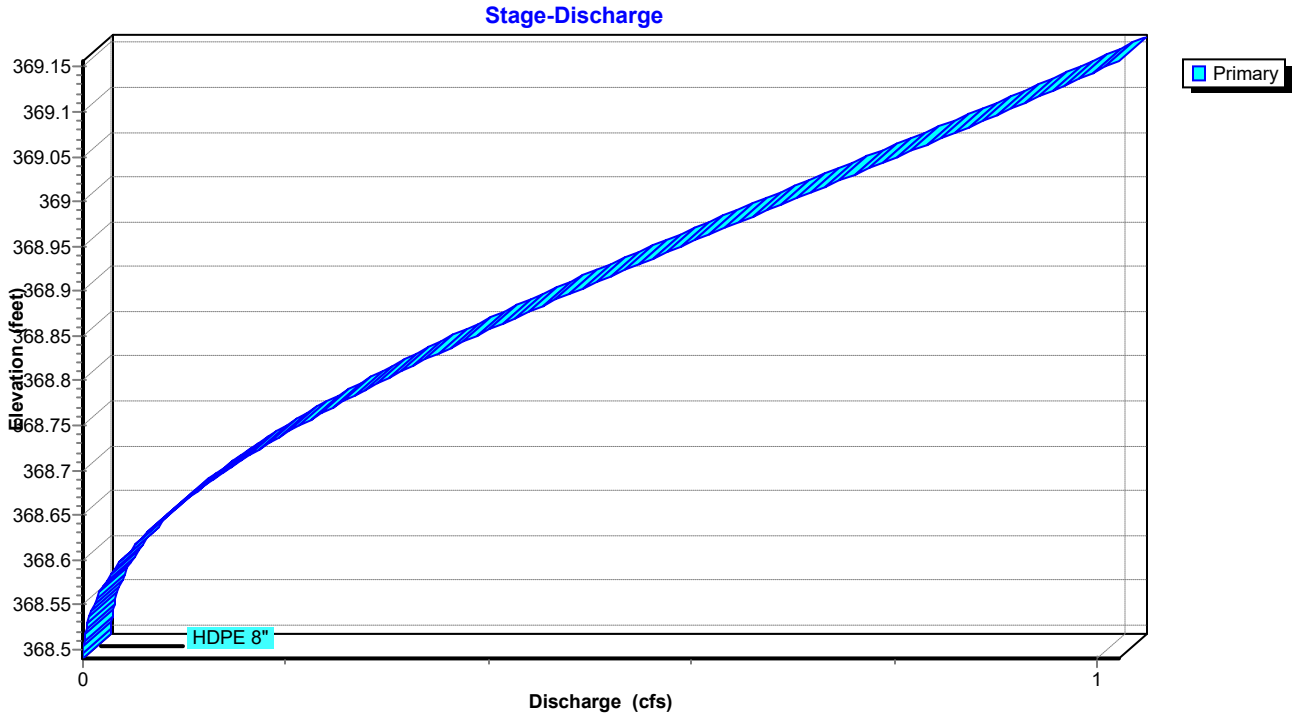
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 368.49' | **8.0" Round HDPE 8"** L= 40.7' Ke= 0.100<br>Inlet / Outlet Invert= 368.49' / 368.08' S= 0.0101 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.35 sf |

**Primary OutFlow** Max=0.12 cfs @ 0.10 hrs HW=368.68' (Free Discharge)
**1=HDPE 8"** (Barrel Controls 0.12 cfs @ 2.14 fps)

## Pond AI-B1: AREA INLET B1



## Pond AI-B1: AREA INLET B1



## Summary for Pond AI-B2: AREA INLET B2

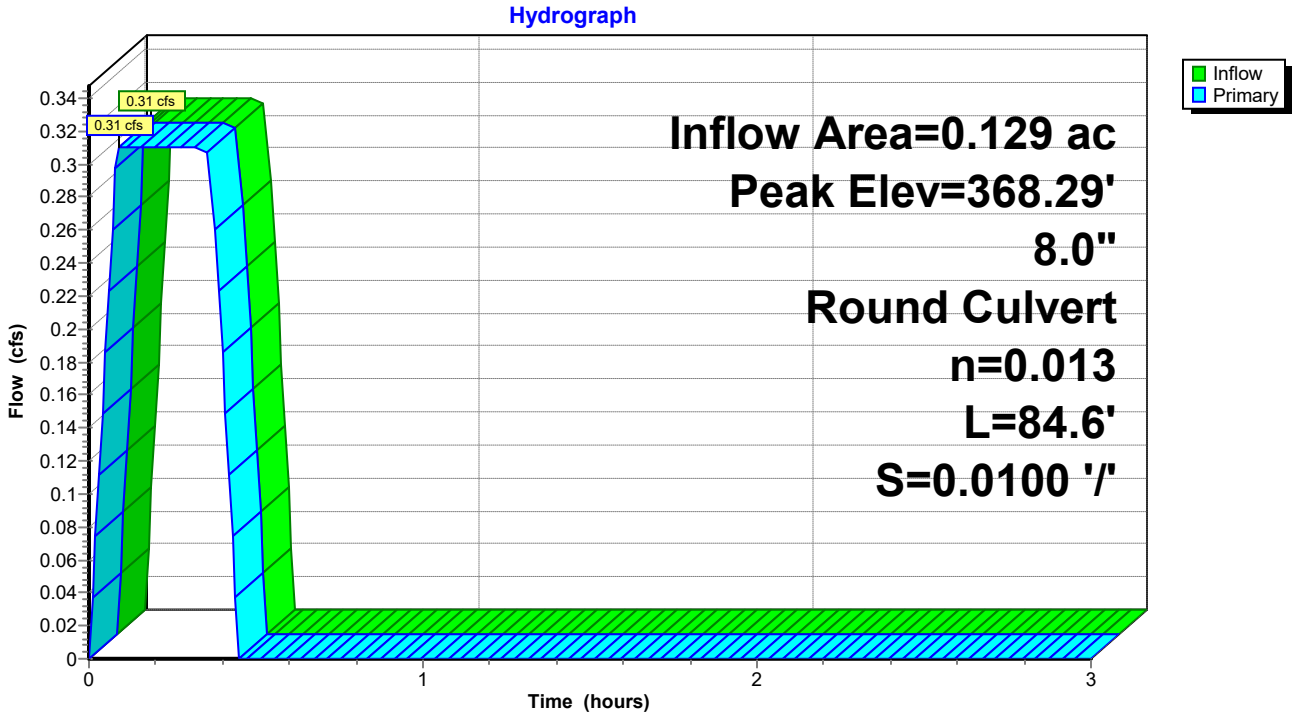
Inflow Area = 0.129 ac, 0.00% Impervious, Inflow Depth = 0.87" for 2-yr event
Inflow = 0.31 cfs @ 0.10 hrs, Volume= 0.009 af
Outflow = 0.31 cfs @ 0.09 hrs, Volume= 0.009 af, Atten= 0%, Lag= 0.0 min
Primary = 0.31 cfs @ 0.09 hrs, Volume= 0.009 af
Routed to Pond CI-A2 : CURB INLET A2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 368.29' @ 0.09 hrs

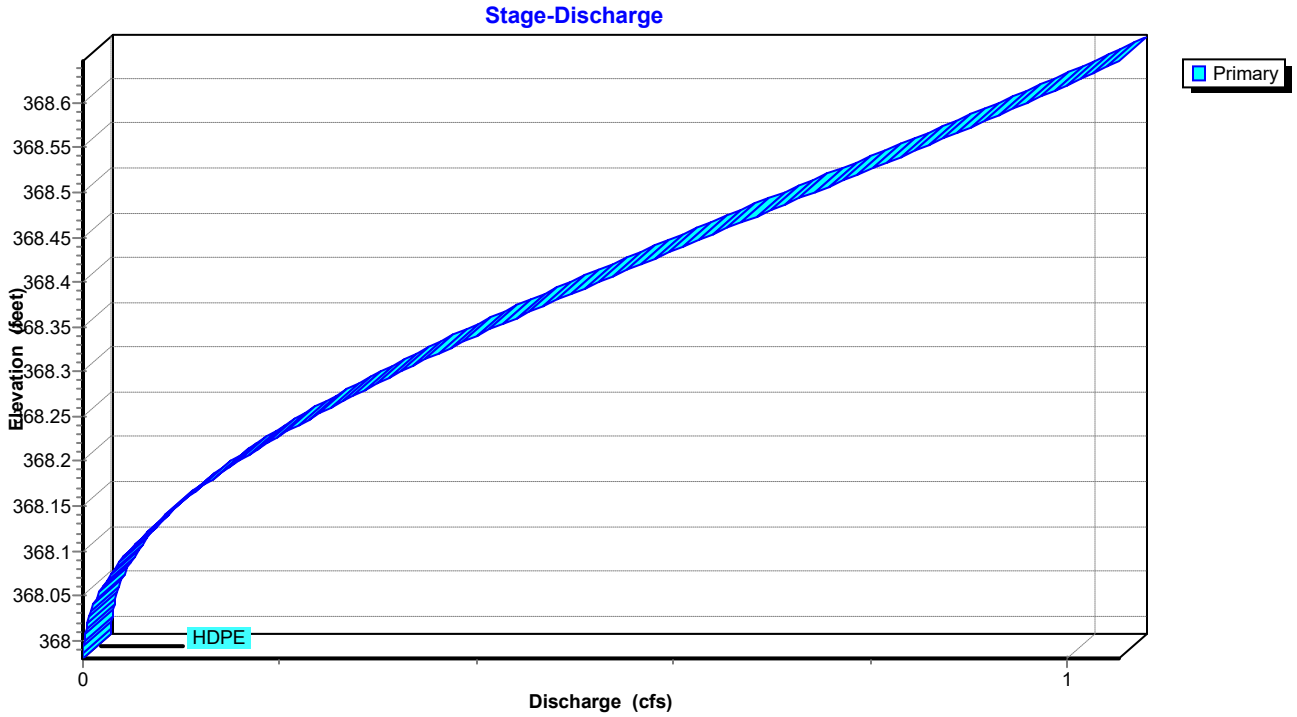
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 367.98' | **8.0" Round HDPE** L= 84.6' Ke= 0.100<br>Inlet / Outlet Invert= 367.98' / 367.13' S= 0.0100 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.35 sf |

**Primary OutFlow** Max=0.31 cfs @ 0.09 hrs HW=368.29' (Free Discharge)
**1=HDPE** (Barrel Controls 0.31 cfs @ 2.83 fps)

## Pond AI-B2: AREA INLET B2



## Pond AI-B2: AREA INLET B2



## Summary for Pond CI-A1: CURB INLET A1

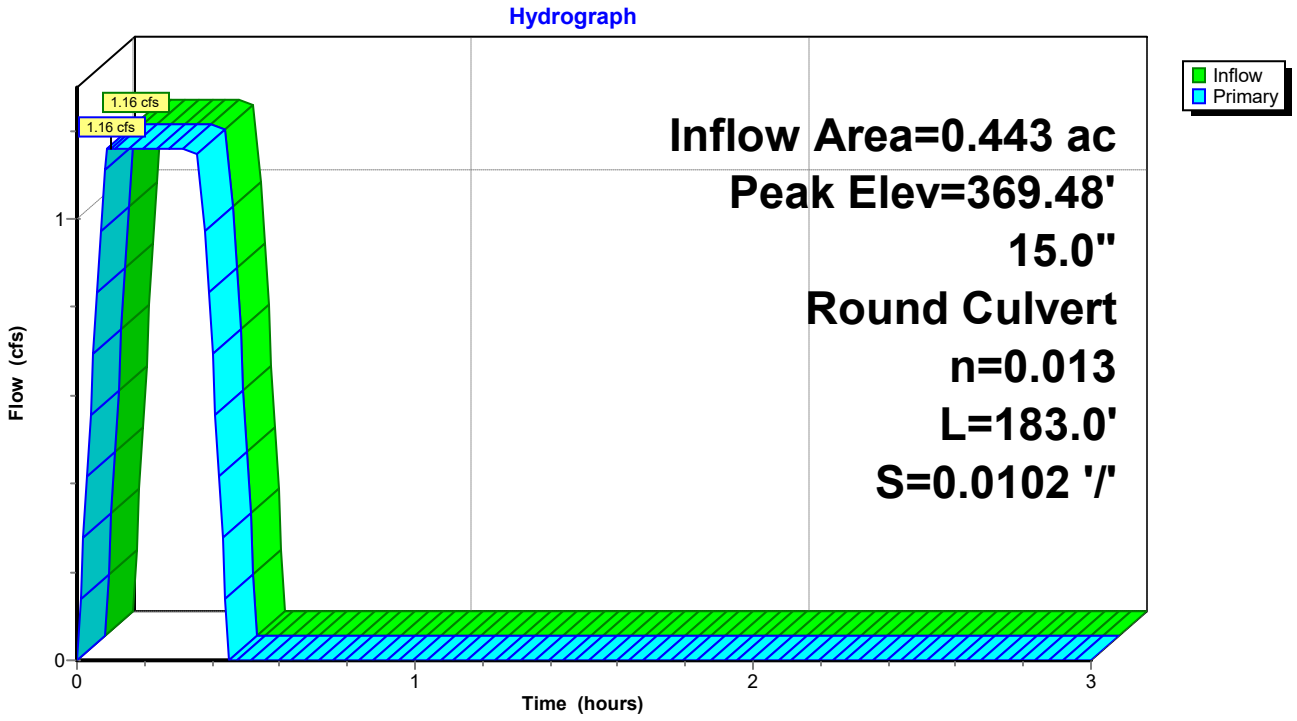
Inflow Area = 0.443 ac, 0.00% Impervious, Inflow Depth = 0.95" for 2-yr event
Inflow = 1.16 cfs @ 0.09 hrs, Volume= 0.035 af
Outflow = 1.16 cfs @ 0.10 hrs, Volume= 0.035 af, Atten= 0%, Lag= 0.6 min
Primary = 1.16 cfs @ 0.10 hrs, Volume= 0.035 af
Routed to Pond CI-A2 : CURB INLET A2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 369.48' @ 0.09 hrs

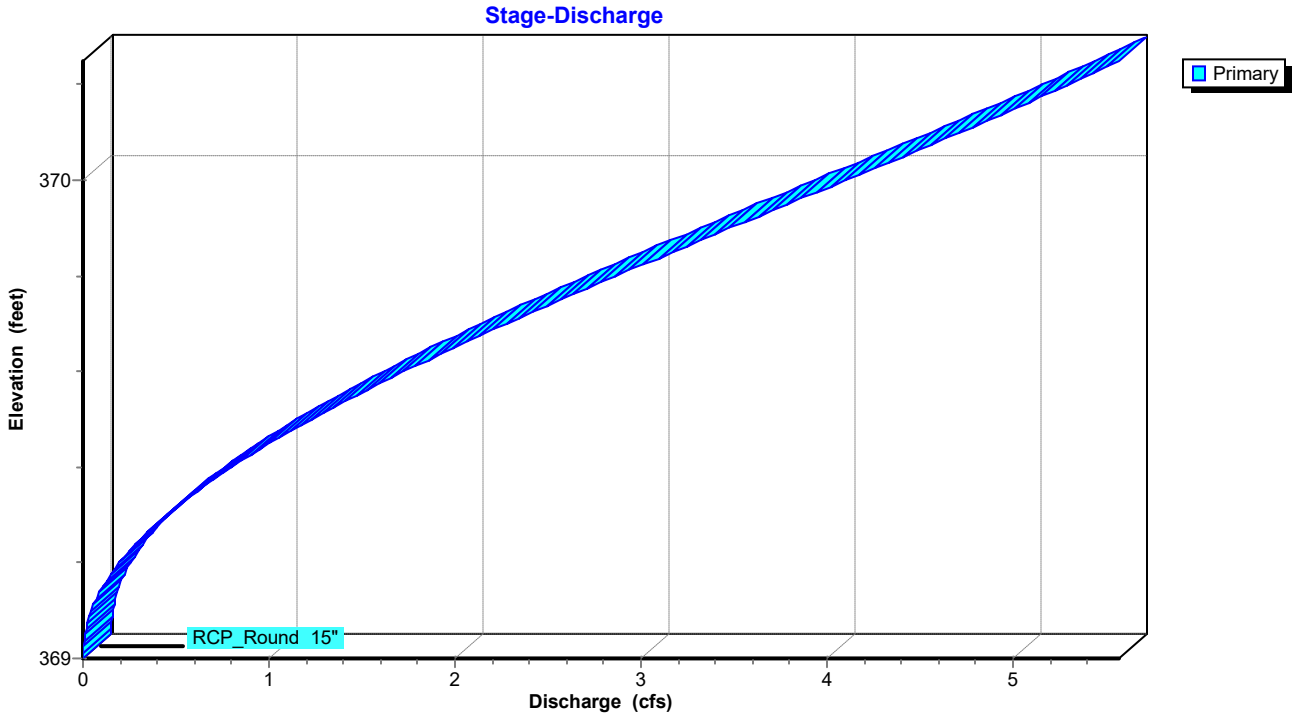
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 369.00' | **15.0" Round RCP_Round 15"**<br>L= 183.0' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 369.00' / 367.13' S= 0.0102 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.23 sf |

**Primary OutFlow** Max=1.16 cfs @ 0.10 hrs HW=369.48' (Free Discharge)
**1=RCP_Round 15"** (Barrel Controls 1.16 cfs @ 3.90 fps)

## Pond CI-A1: CURB INLET A1



## Pond CI-A1: CURB INLET A1



## Summary for Pond CI-A2: CURB INLET A2

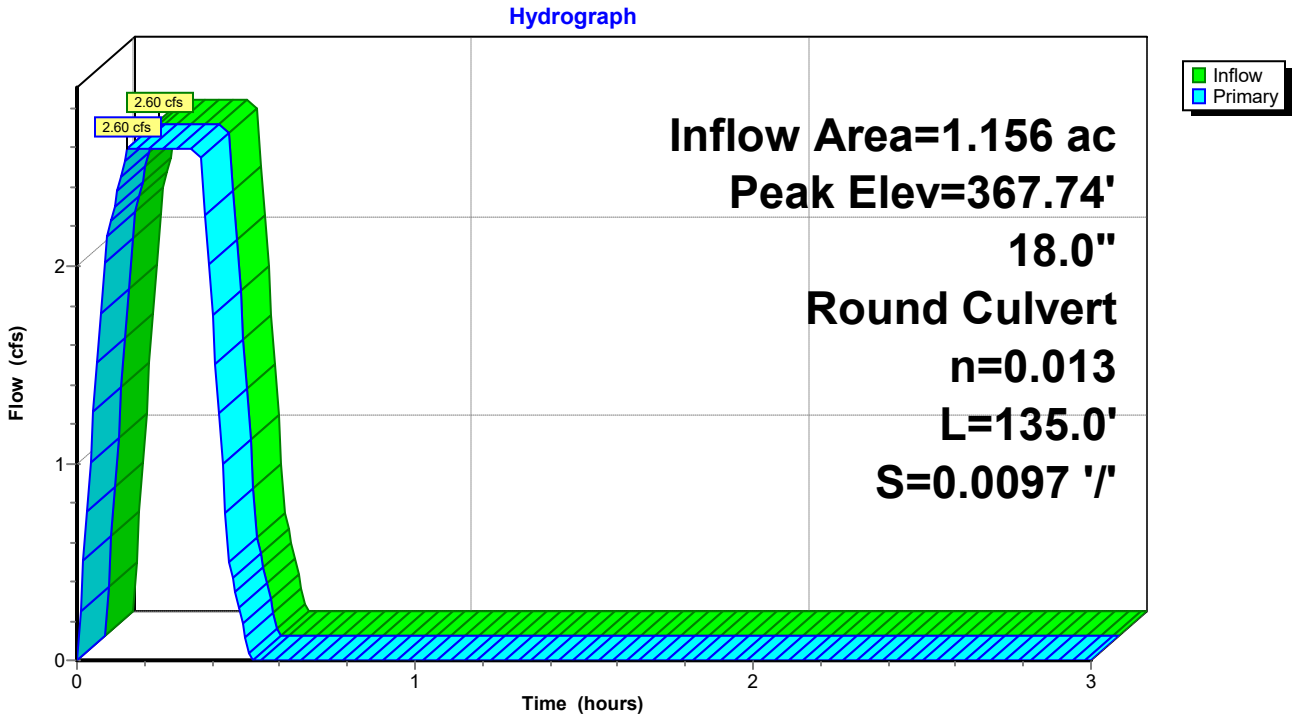
Inflow Area = 1.156 ac, 0.00% Impervious, Inflow Depth = 0.82" for 2-yr event
Inflow = 2.60 cfs @ 0.16 hrs, Volume= 0.079 af
Outflow = 2.60 cfs @ 0.15 hrs, Volume= 0.079 af, Atten= 0%, Lag= 0.0 min
Primary = 2.60 cfs @ 0.15 hrs, Volume= 0.079 af
Routed to Pond CI-A3 : CURB INLET A3

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 367.74' @ 0.15 hrs

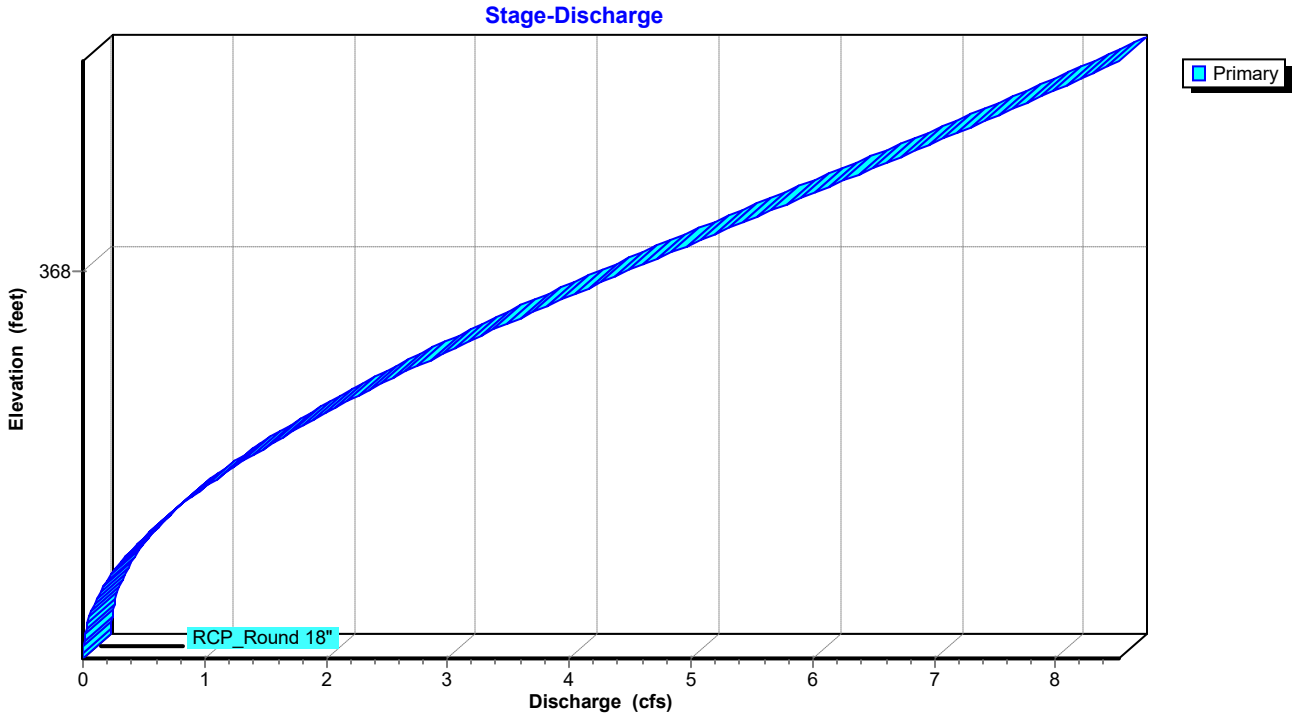
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 367.03' | **18.0" Round RCP_Round 18"**<br>L= 135.0' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 367.03' / 365.72' S= 0.0097 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf |

**Primary OutFlow** Max=2.60 cfs @ 0.15 hrs HW=367.74' (Free Discharge)
**1=RCP_Round 18"** (Barrel Controls 2.60 cfs @ 4.61 fps)

## Pond CI-A2: CURB INLET A2



## Pond CI-A2: CURB INLET A2



## Summary for Pond CI-A3: CURB INLET A3

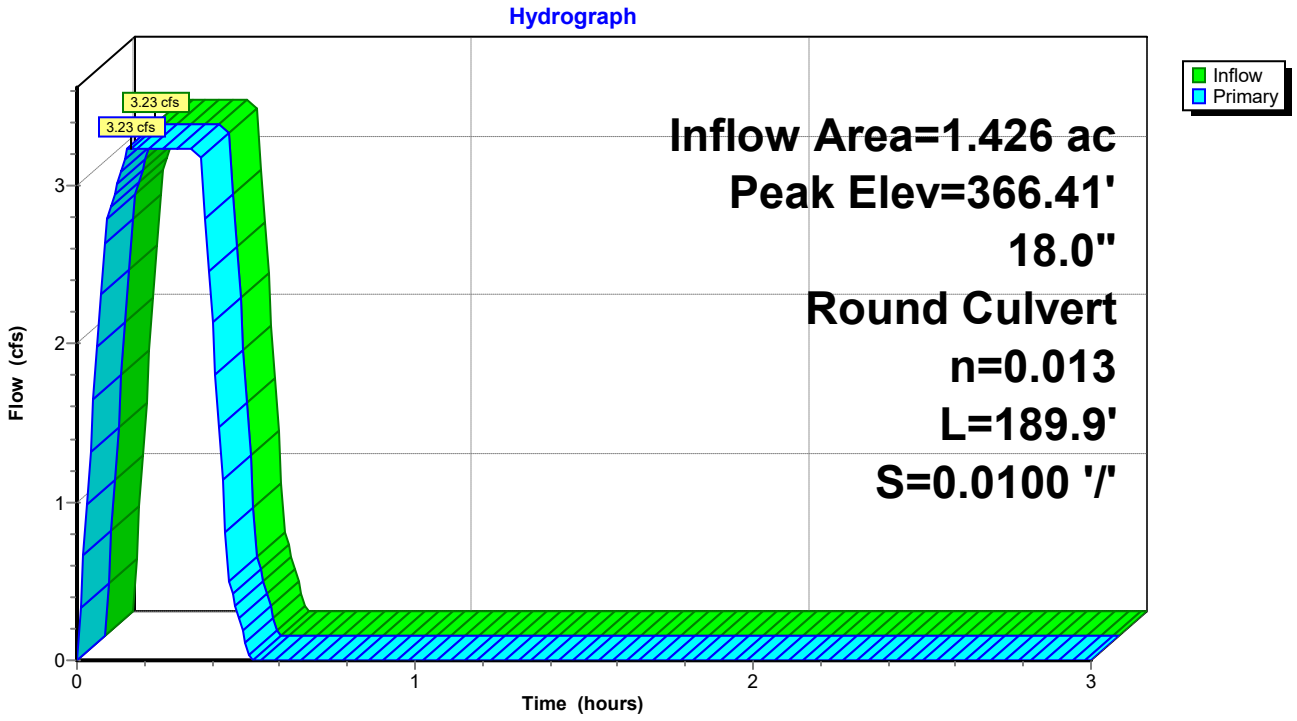
Inflow Area = 1.426 ac, 0.00% Impervious, Inflow Depth = 0.82" for 2-yr event
Inflow = 3.23 cfs @ 0.15 hrs, Volume= 0.098 af
Outflow = 3.23 cfs @ 0.16 hrs, Volume= 0.098 af, Atten= 0%, Lag= 0.6 min
Primary = 3.23 cfs @ 0.16 hrs, Volume= 0.098 af
Routed to Pond CI-A4 : CURB INLET A4

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 366.41' @ 0.15 hrs

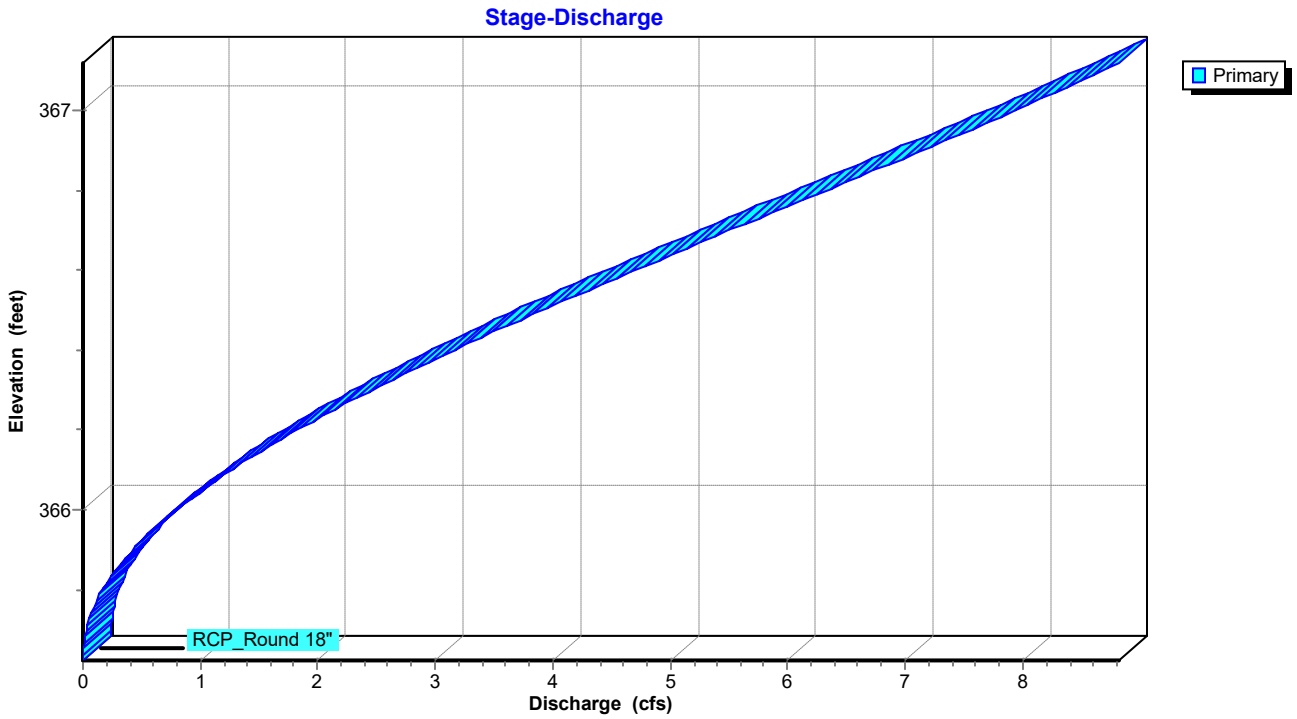
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 365.62' | **18.0" Round RCP_Round 18"**<br>L= 189.9' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 365.62' / 363.72' S= 0.0100 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf |

**Primary OutFlow** Max=3.23 cfs @ 0.16 hrs HW=366.41' (Free Discharge)
**1=RCP_Round 18"** (Barrel Controls 3.23 cfs @ 4.99 fps)

## Pond CI-A3: CURB INLET A3



## Pond CI-A3: CURB INLET A3



## Summary for Pond CI-A4: CURB INLET A4

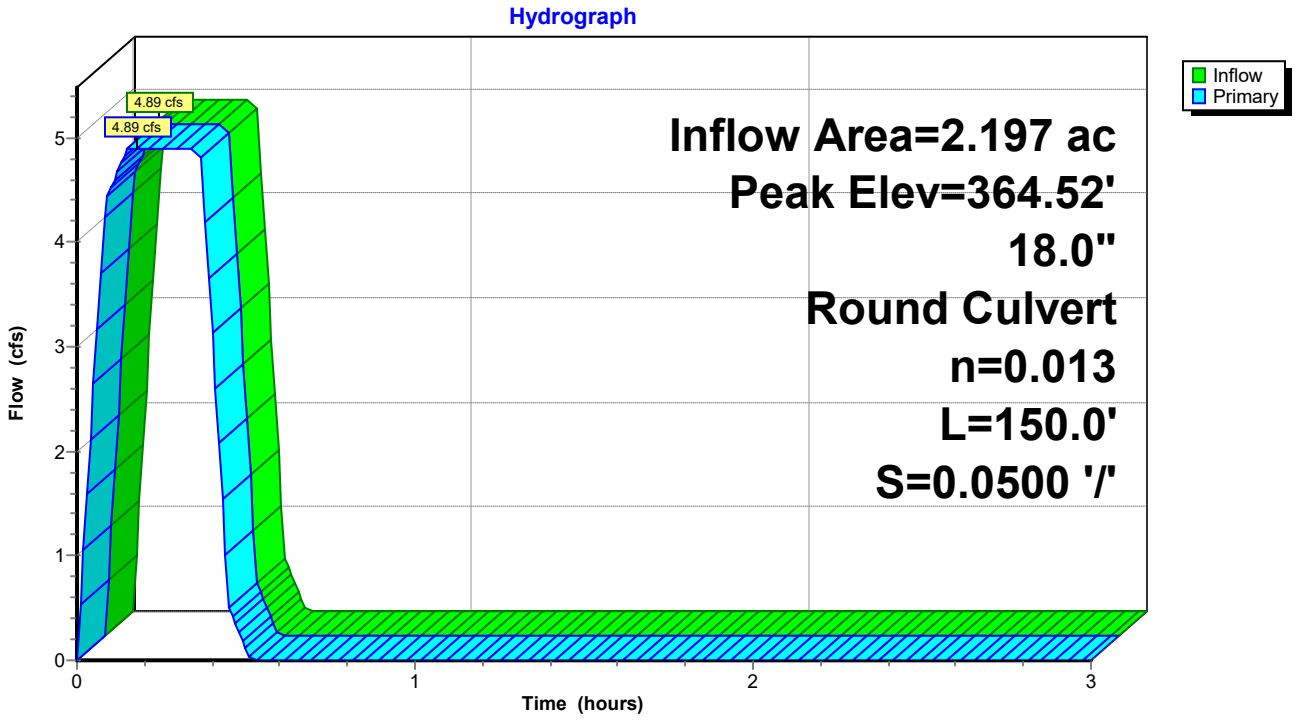
Inflow Area = 2.197 ac, 0.00% Impervious, Inflow Depth = 0.81" for 2-yr event
Inflow = 4.89 cfs @ 0.16 hrs, Volume= 0.148 af
Outflow = 4.89 cfs @ 0.18 hrs, Volume= 0.148 af, Atten= 0%, Lag= 1.2 min
Primary = 4.89 cfs @ 0.18 hrs, Volume= 0.148 af
Routed to Pond CI-A5 : CURB INLET A5

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 364.52' @ 0.15 hrs

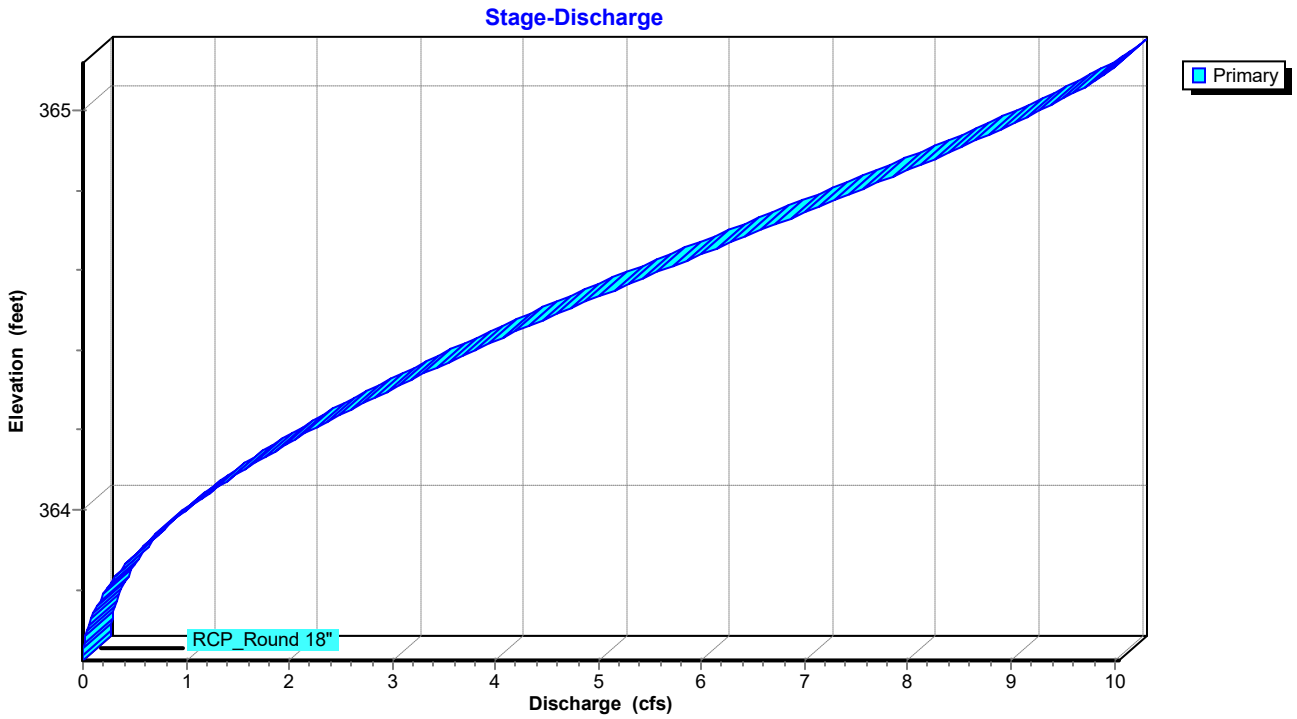
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 363.62' | **18.0" Round RCP_Round 18"**<br>L= 150.0' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 363.62' / 356.12' S= 0.0500 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf |

**Primary OutFlow** Max=4.89 cfs @ 0.18 hrs HW=364.52' (Free Discharge)
**1=RCP_Round 18"** (Inlet Controls 4.89 cfs @ 4.41 fps)

## Pond CI-A4: CURB INLET A4



## Pond CI-A4: CURB INLET A4



## Summary for Pond CI-A5: CURB INLET A5

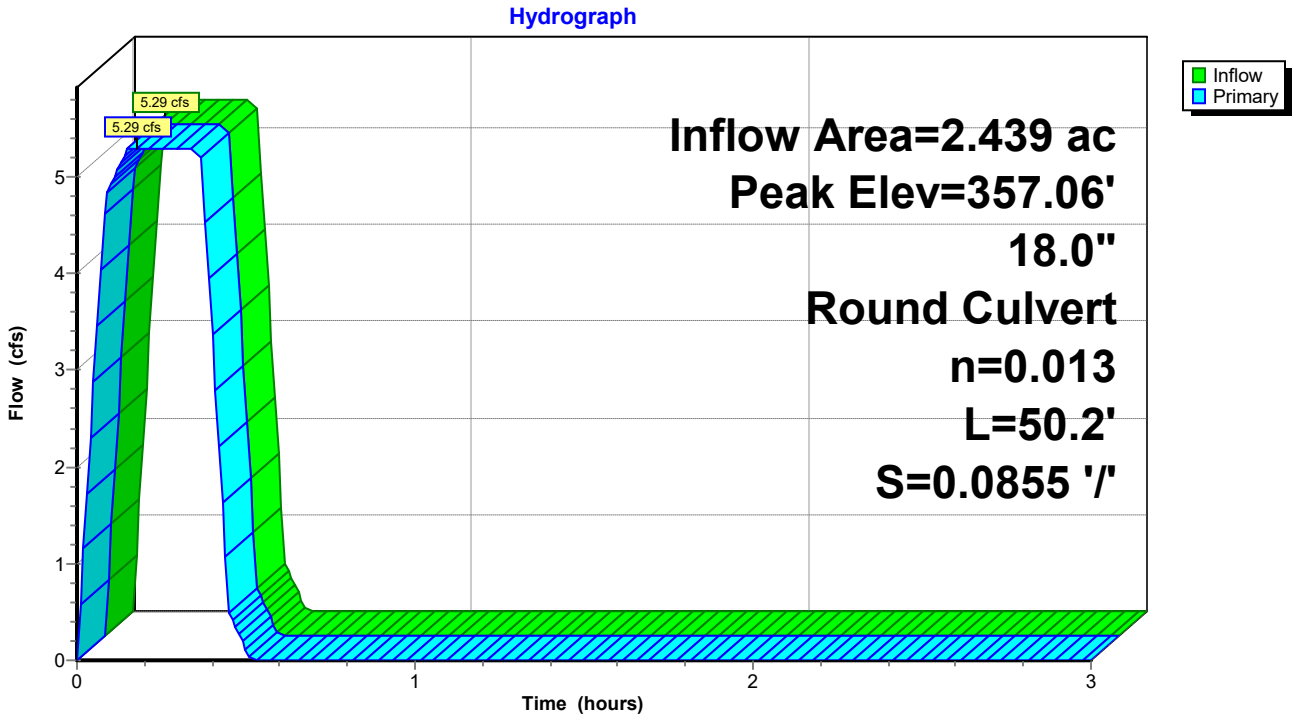
Inflow Area = 2.439 ac, 0.00% Impervious, Inflow Depth = 0.79" for 2-yr event
Inflow = 5.29 cfs @ 0.18 hrs, Volume= 0.160 af
Outflow = 5.29 cfs @ 0.18 hrs, Volume= 0.160 af, Atten= 0%, Lag= 0.0 min
Primary = 5.29 cfs @ 0.18 hrs, Volume= 0.160 af
Routed to Link POST-DEV : Post-Development

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 357.06' @ 0.18 hrs

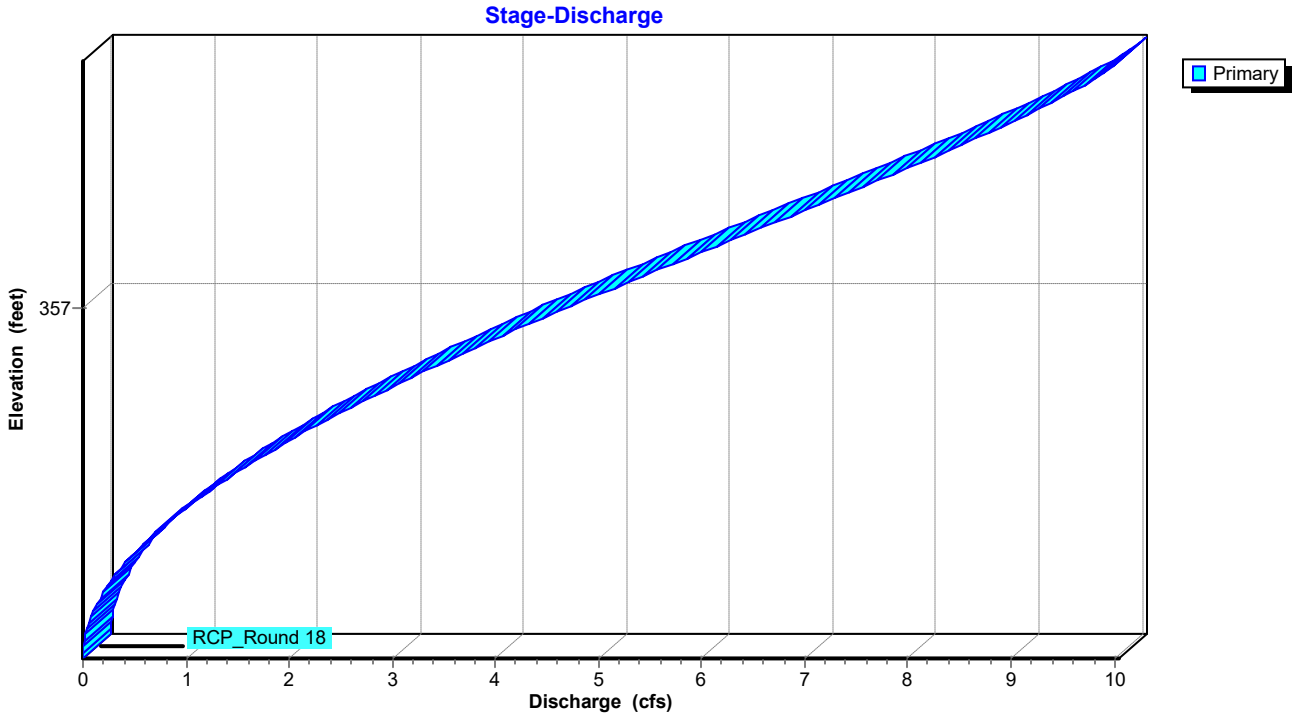
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 356.12' | **18.0" Round RCP_Round 18**<br>L= 50.2' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 356.12' / 351.83' S= 0.0855 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf |

**Primary OutFlow** Max=5.29 cfs @ 0.18 hrs HW=357.06' (Free Discharge)
**1=RCP_Round 18** (Inlet Controls 5.29 cfs @ 4.51 fps)

## Pond CI-A5: CURB INLET A5



## Pond CI-A5: CURB INLET A5



## Summary for Pond CI-C1: CURB INLET C1

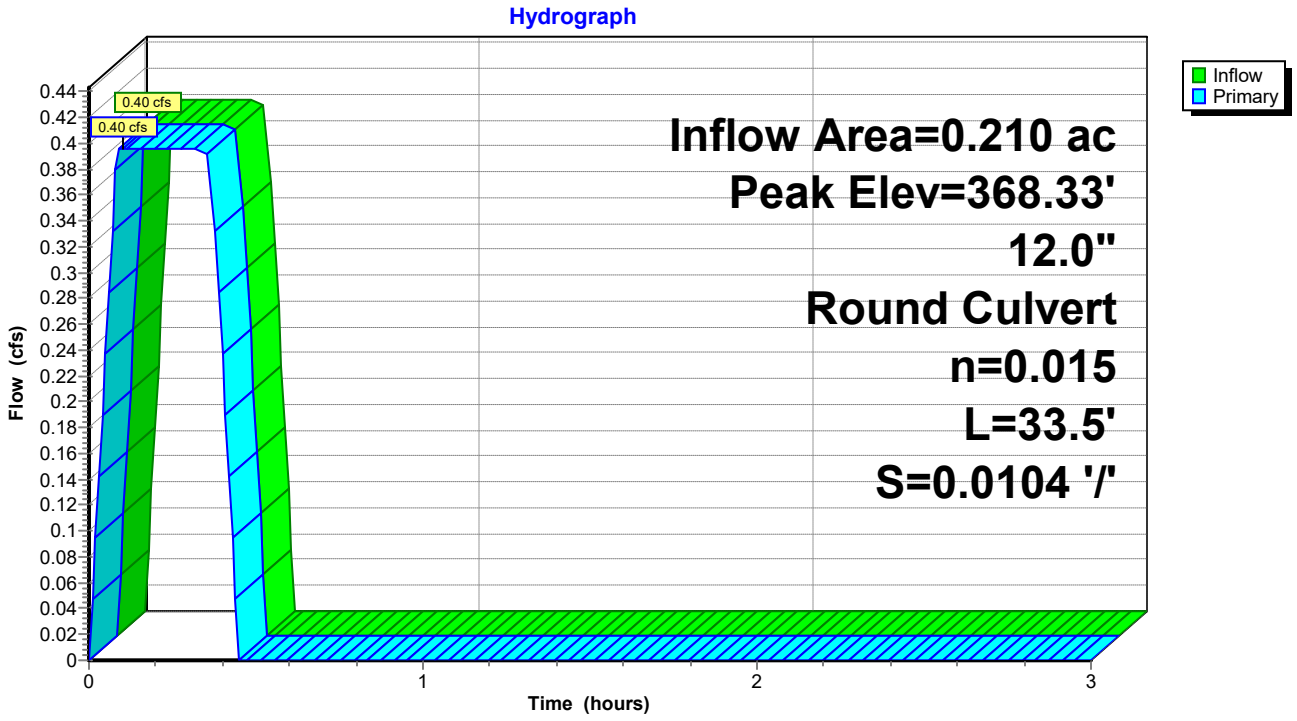
Inflow Area = 0.210 ac, 0.00% Impervious, Inflow Depth = 0.68" for 2-yr event
Inflow = 0.40 cfs @ 0.09 hrs, Volume= 0.012 af
Outflow = 0.40 cfs @ 0.10 hrs, Volume= 0.012 af, Atten= 0%, Lag= 0.6 min
Primary = 0.40 cfs @ 0.10 hrs, Volume= 0.012 af
Routed to Pond CI-C2 : CURB INLET C2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 368.33' @ 0.09 hrs

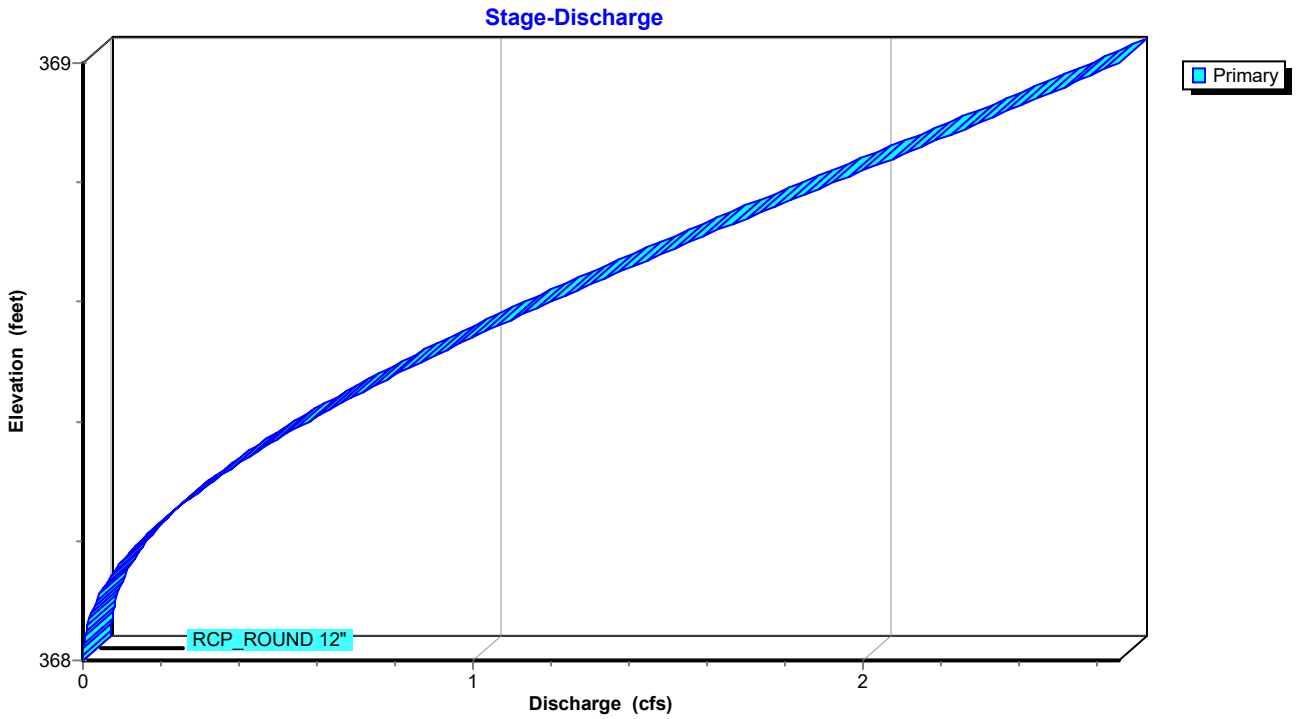
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 368.00' | **12.0" Round RCP_ROUND 12"**<br>L= 33.5' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 368.00' / 367.65' S= 0.0104 '/' Cc= 0.900<br>n= 0.015 Concrete sewer w/manholes & inlets, Flow Area= 0.79 sf |

**Primary OutFlow** Max=0.40 cfs @ 0.10 hrs HW=368.33' (Free Discharge)
**1=RCP_ROUND 12"** (Barrel Controls 0.40 cfs @ 2.64 fps)

## Pond CI-C1: CURB INLET C1



## Pond CI-C1: CURB INLET C1



## Summary for Pond CI-C2: CURB INLET C2

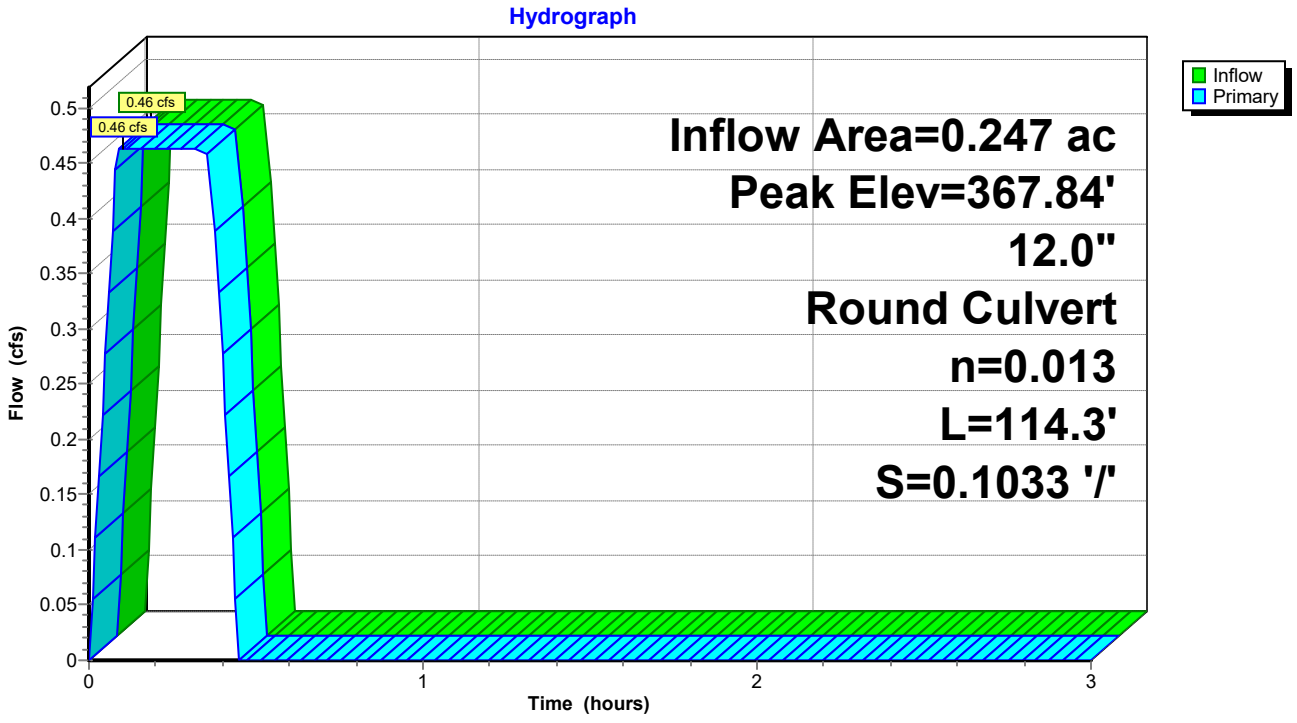
Inflow Area = 0.247 ac, 0.00% Impervious, Inflow Depth = 0.68" for 2-yr event
Inflow = 0.46 cfs @ 0.10 hrs, Volume= 0.014 af
Outflow = 0.46 cfs @ 0.10 hrs, Volume= 0.014 af, Atten= 0%, Lag= 0.0 min
Primary = 0.46 cfs @ 0.10 hrs, Volume= 0.014 af
Routed to Pond JB-C3 : JUNCTION BOX C3

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 367.84' @ 0.09 hrs

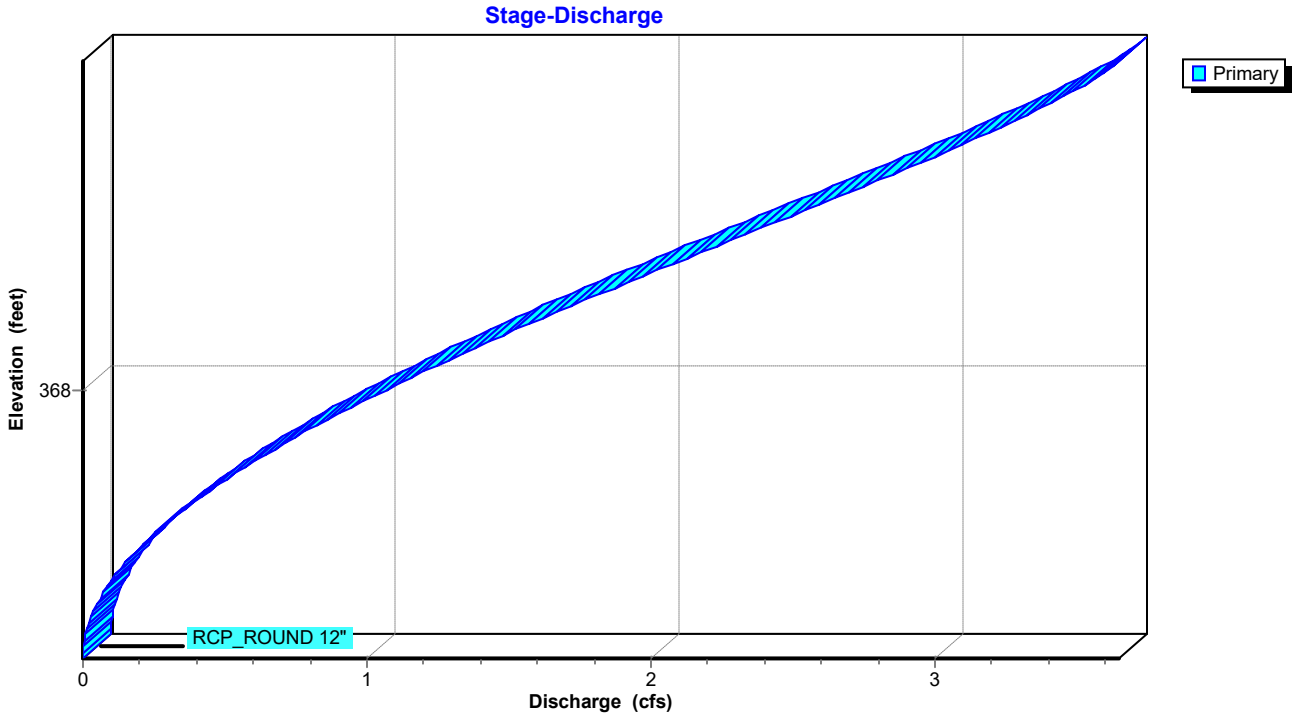
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 367.55' | **12.0" Round RCP_ROUND 12"**<br>L= 114.3' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 367.55' / 355.74' S= 0.1033 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=0.46 cfs @ 0.10 hrs HW=367.84' (Free Discharge)
**1=RCP_ROUND 12"** (Inlet Controls 0.46 cfs @ 2.49 fps)

## Pond CI-C2: CURB INLET C2



## Pond CI-C2: CURB INLET C2



## Summary for Pond CI-C4: CURB INLET C4

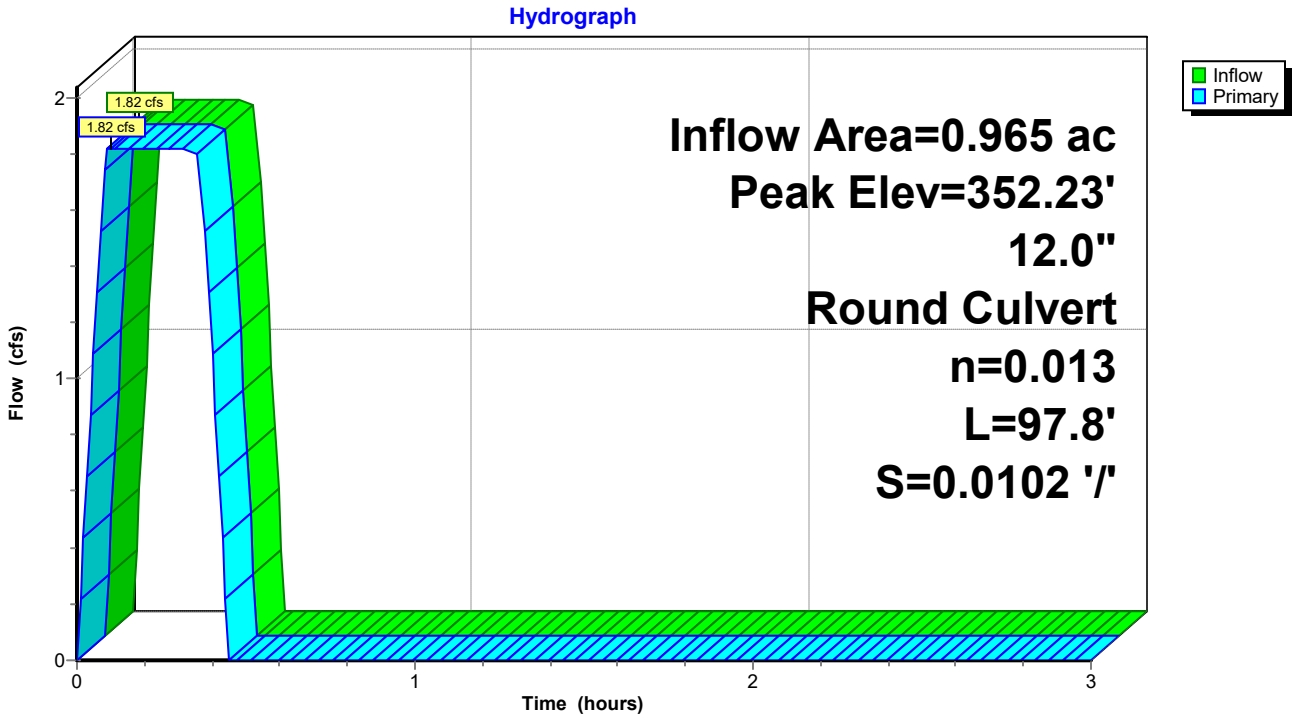
Inflow Area = 0.965 ac, 0.00% Impervious, Inflow Depth = 0.68" for 2-yr event
Inflow = 1.82 cfs @ 0.10 hrs, Volume= 0.055 af
Outflow = 1.82 cfs @ 0.10 hrs, Volume= 0.055 af, Atten= 0%, Lag= 0.0 min
Primary = 1.82 cfs @ 0.10 hrs, Volume= 0.055 af
Routed to Pond CI-C5 : CURB INLET C5

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 352.23' @ 0.09 hrs

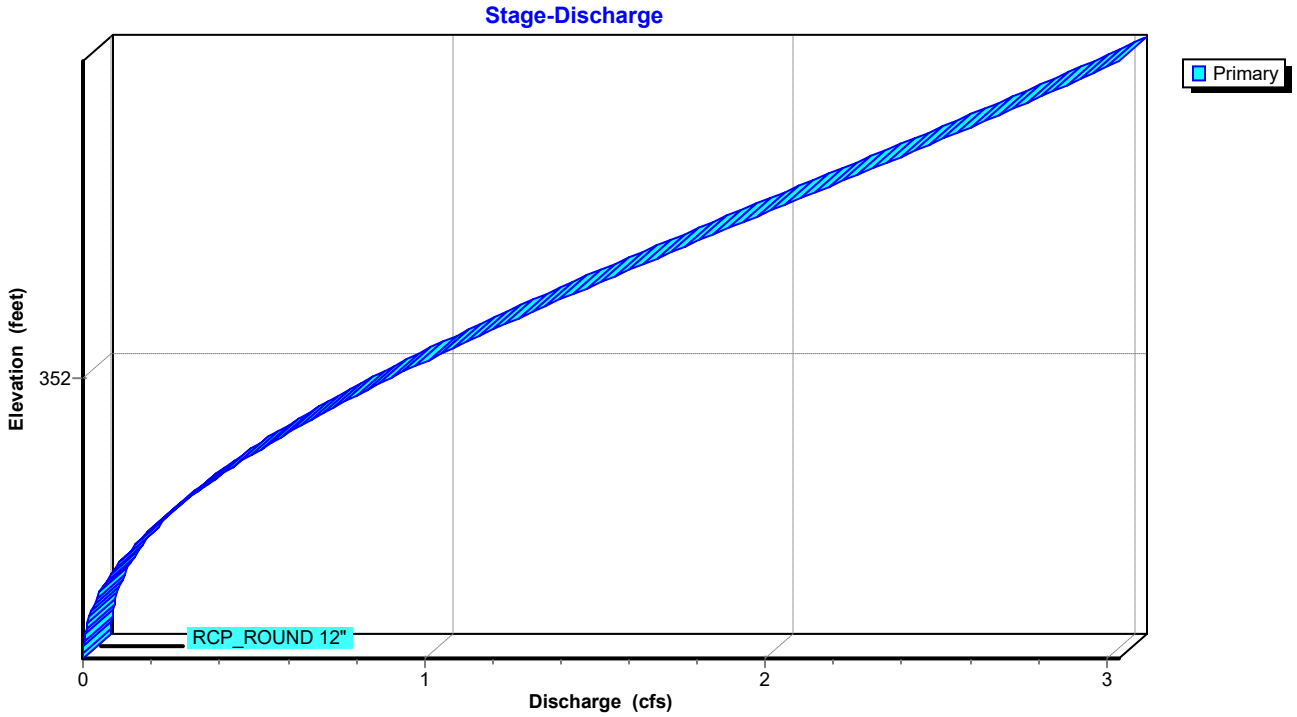
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 351.53' | **12.0" Round RCP_ROUND 12"**<br>L= 97.8' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 351.53' / 350.53' S= 0.0102 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=1.82 cfs @ 0.10 hrs HW=352.23' (Free Discharge)
**1=RCP_ROUND 12"** (Barrel Controls 1.82 cfs @ 4.33 fps)

## Pond CI-C4: CURB INLET C4



## Pond CI-C4: CURB INLET C4



## Summary for Pond CI-C5: CURB INLET C5

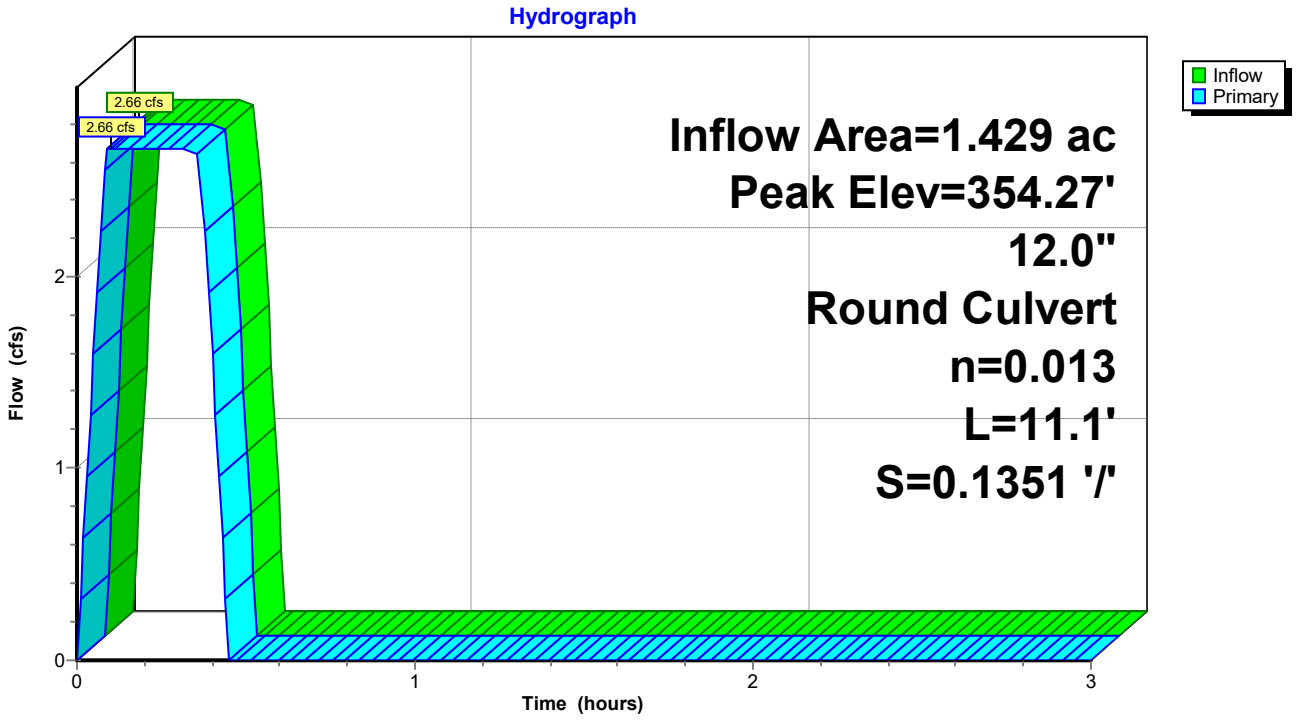
Inflow Area = 1.429 ac, 0.00% Impervious, Inflow Depth = 0.68" for 2-yr event
Inflow = 2.66 cfs @ 0.10 hrs, Volume= 0.081 af
Outflow = 2.66 cfs @ 0.10 hrs, Volume= 0.081 af, Atten= 0%, Lag= 0.0 min
Primary = 2.66 cfs @ 0.10 hrs, Volume= 0.081 af
Routed to Link POST-DEV : Post-Development

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 354.27' @ 0.09 hrs

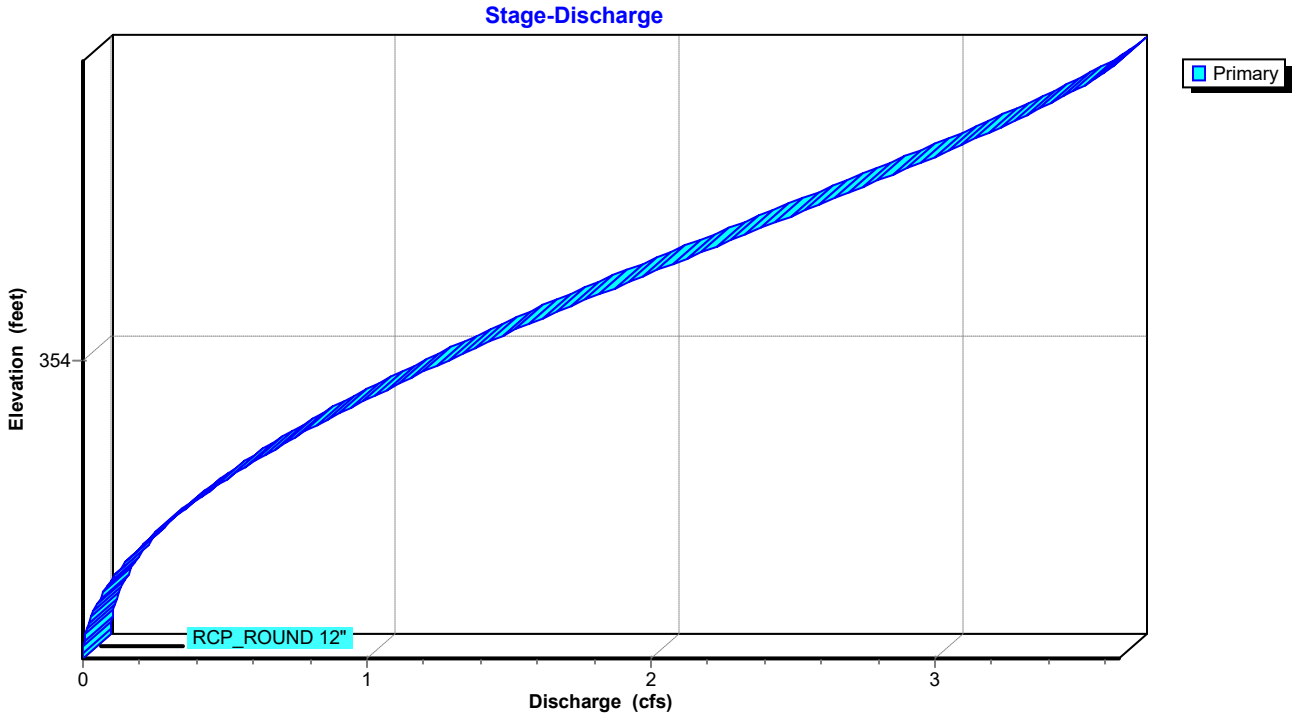
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 353.50' | **12.0" Round RCP_ROUND 12"**<br>L= 11.1' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 353.50' / 352.00' S= 0.1351 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=2.66 cfs @ 0.10 hrs HW=354.27' (Free Discharge)
**1=RCP_ROUND 12"** (Inlet Controls 2.66 cfs @ 4.08 fps)

## Pond CI-C5: CURB INLET C5



## Pond CI-C5: CURB INLET C5



## Summary for Pond CI-D1: CURB INLET D1

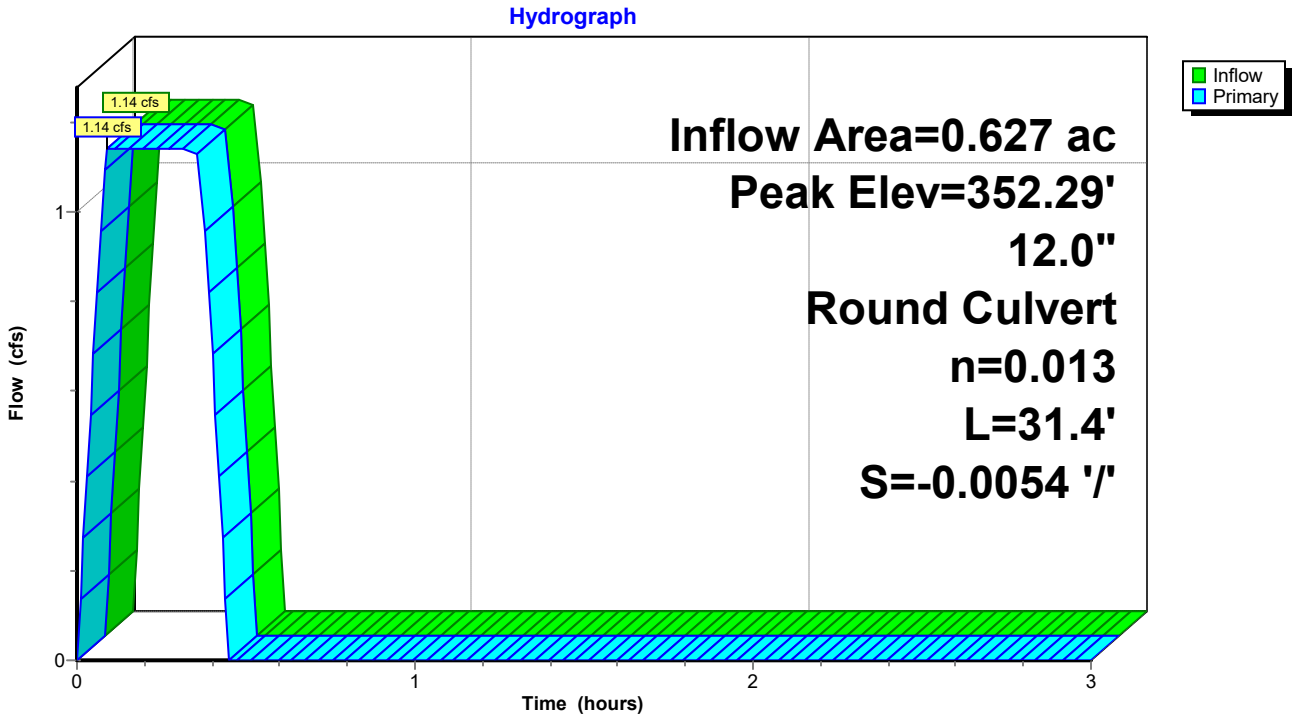
Inflow Area = 0.627 ac, 0.00% Impervious, Inflow Depth = 0.66" for 2-yr event
Inflow = 1.14 cfs @ 0.09 hrs, Volume= 0.035 af
Outflow = 1.14 cfs @ 0.09 hrs, Volume= 0.035 af, Atten= 0%, Lag= 0.0 min
Primary = 1.14 cfs @ 0.09 hrs, Volume= 0.035 af
Routed to Pond CI-C4 : CURB INLET C4

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 352.29' @ 0.09 hrs

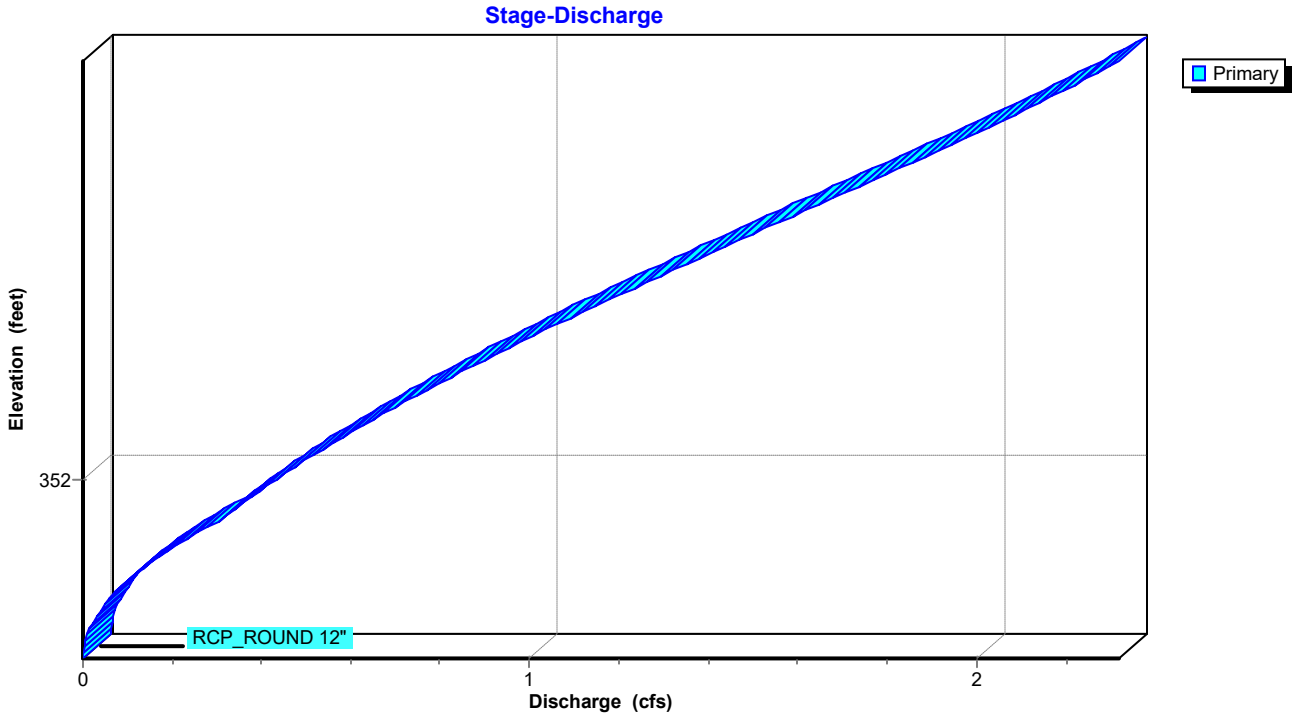
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 351.70' | **12.0" Round RCP_ROUND 12"**<br>L= 31.4' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 351.53' / 351.70' S= -0.0054 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=1.14 cfs @ 0.09 hrs HW=352.29' (Free Discharge)
**1=RCP_ROUND 12"** (Barrel Controls 1.14 cfs @ 2.48 fps)

## Pond CI-D1: CURB INLET D1



## Pond CI-D1: CURB INLET D1



## Summary for Pond JB-C3: JUNCTION BOX C3

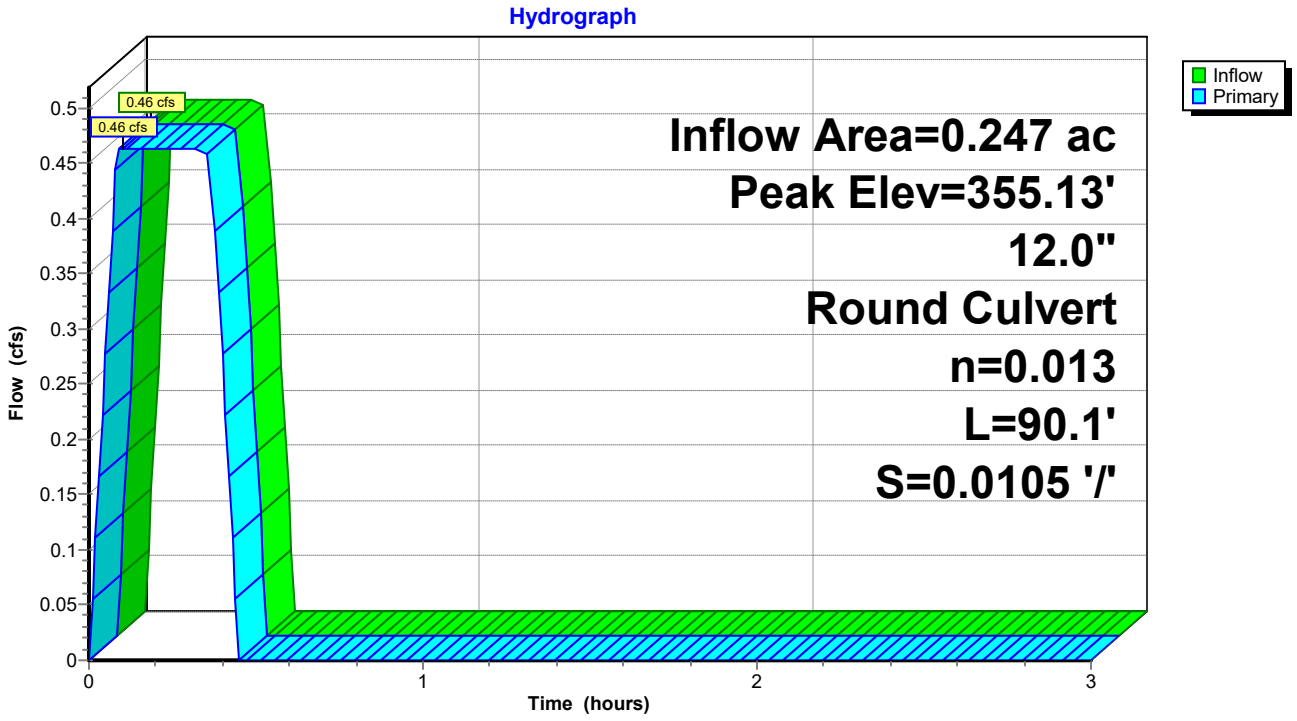
Inflow Area = 0.247 ac, 0.00% Impervious, Inflow Depth = 0.68" for 2-yr event
Inflow = 0.46 cfs @ 0.10 hrs, Volume= 0.014 af
Outflow = 0.46 cfs @ 0.10 hrs, Volume= 0.014 af, Atten= 0%, Lag= 0.0 min
Primary = 0.46 cfs @ 0.10 hrs, Volume= 0.014 af
Routed to Pond CI-C4 : CURB INLET C4

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 355.13' @ 0.09 hrs

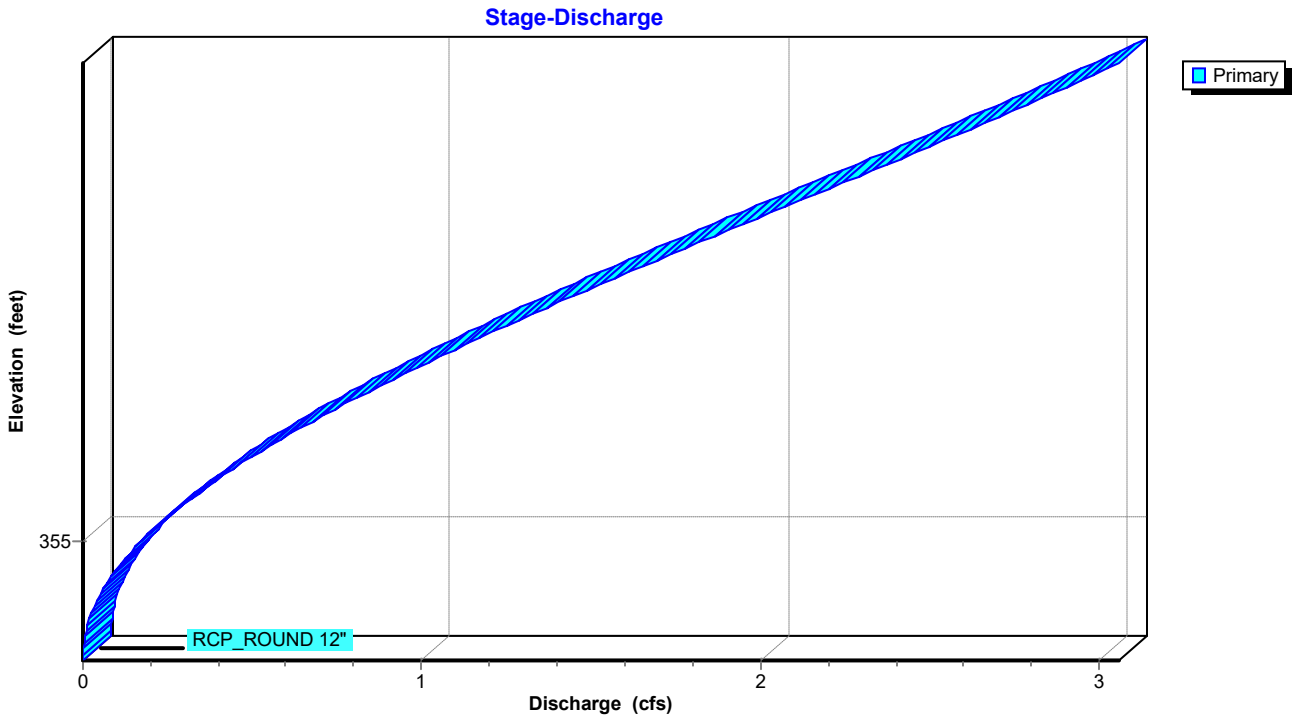
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 354.80' | **12.0" Round RCP_ROUND 12"**<br>L= 90.1' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 354.80' / 353.85' S= 0.0105 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=0.46 cfs @ 0.10 hrs HW=355.13' (Free Discharge)
**1=RCP_ROUND 12"** (Barrel Controls 0.46 cfs @ 3.09 fps)

## Pond JB-C3: JUNCTION BOX C3



## Pond JB-C3: JUNCTION BOX C3

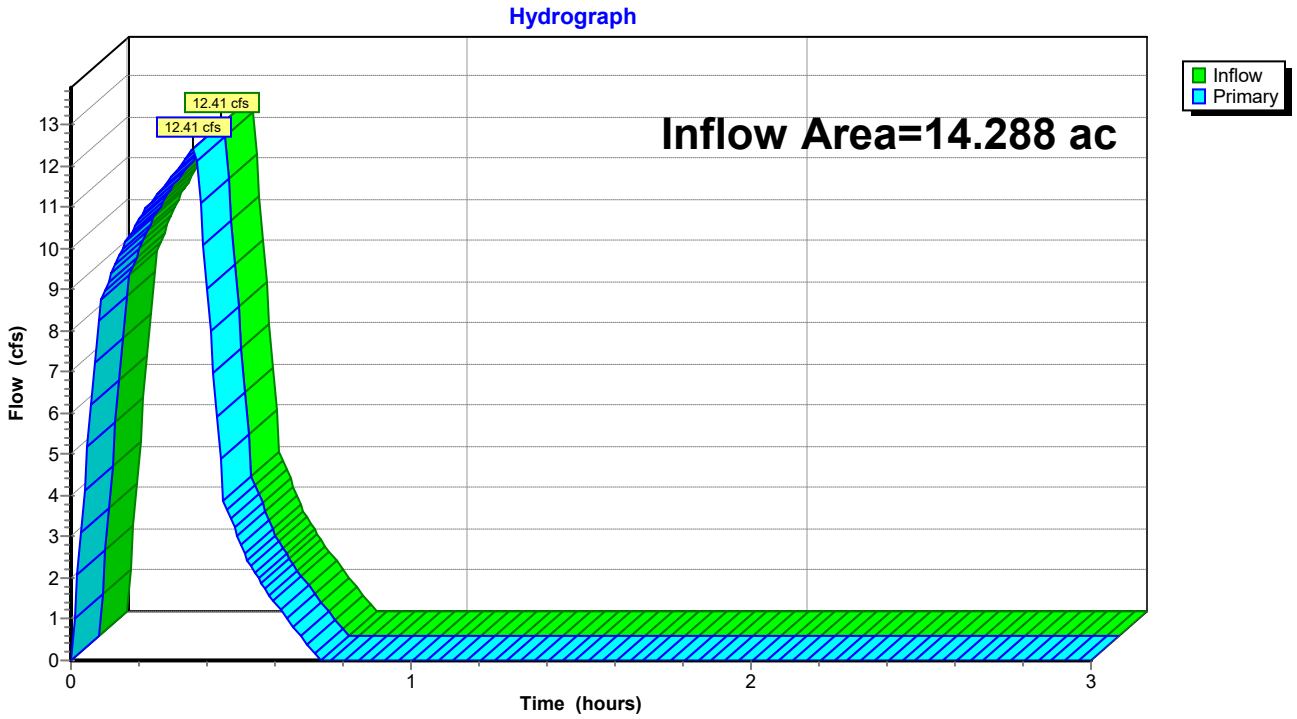


## Summary for Link POST-DEV: Post-Development

Inflow Area = 14.288 ac, 0.00% Impervious, Inflow Depth = 0.32" for 2-yr event
Inflow = 12.41 cfs @ 0.36 hrs, Volume= 0.378 af
Primary = 12.41 cfs @ 0.36 hrs, Volume= 0.378 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

## Link POST-DEV: Post-Development



## Summary for Subcatchment DB-B1: Drainage Basin B1

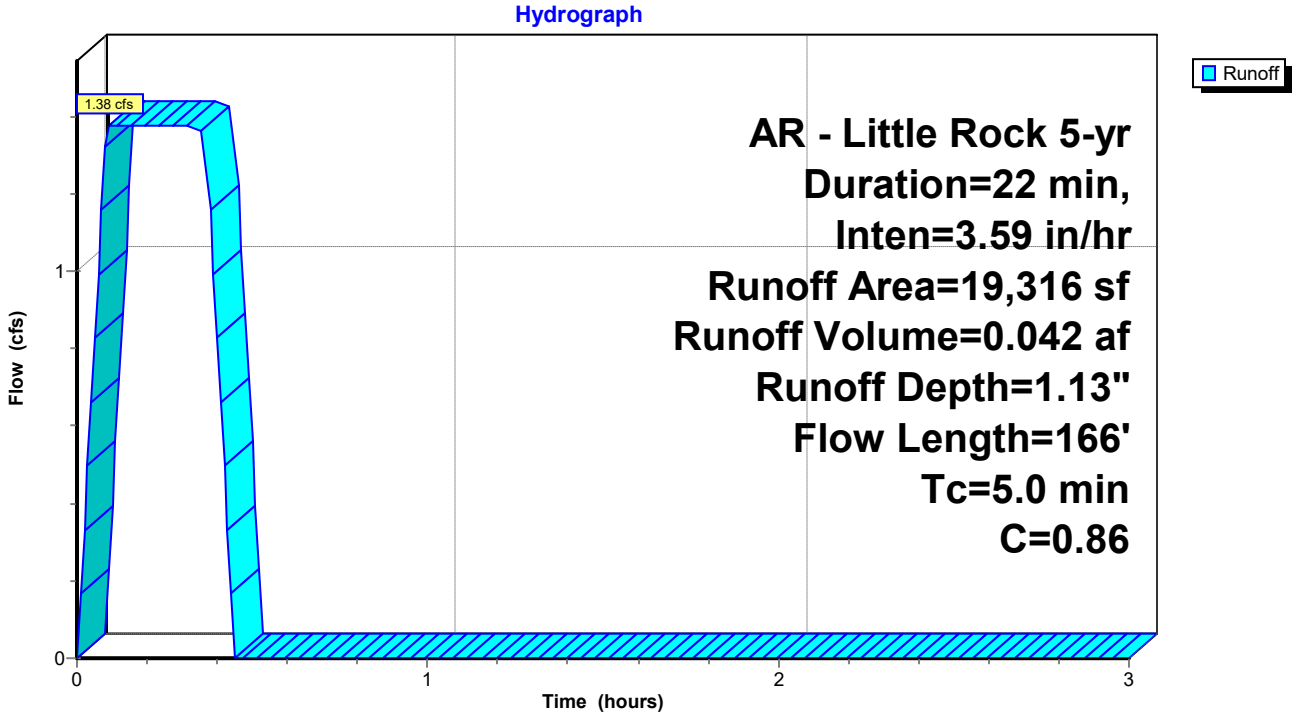
Runoff = 1.38 cfs @ 0.09 hrs, Volume= 0.042 af, Depth= 1.13"
Routed to Pond CI-A1 : CURB INLET A1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=22 min, Inten=3.59 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 1,941 | 0.30 | Sandy Soil 2-7% per manual |
| 17,375 | 0.92 | Paved Areas |
| 19,316 | 0.86 | Weighted Average |
| 19,316 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 3.5 | 33 | 0.0200 | 0.16 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.6 | 67 | 0.0350 | 1.82 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.5 | 66 | 0.0100 | 2.03 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 0.4 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 166 | Total | | | |

## Subcatchment DB-B1: Drainage Basin B1



## Summary for Subcatchment DB-B10: Drainage Basin B10

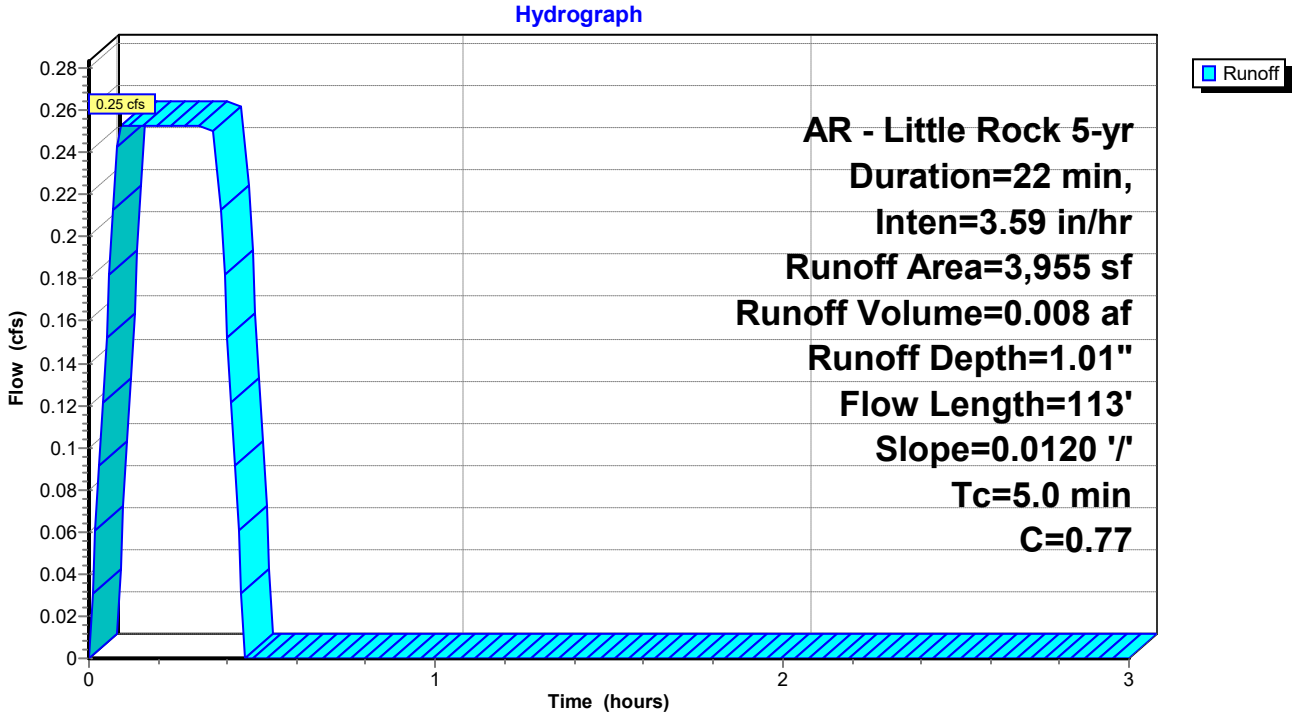
Runoff = 0.25 cfs @ 0.09 hrs, Volume= 0.008 af, Depth= 1.01"
Routed to Pond CI-C4 : CURB INLET C4

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=22 min, Inten=3.59 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 959 | 0.30 | Sandy Soil 2-7% per manual |
| 2,996 | 0.92 | Paved Areas |
| 3,955 | 0.77 | Weighted Average |
| 3,955 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.4 | 113 | 0.0120 | 1.32 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 3.6 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 113 | Total | | | |

## Subcatchment DB-B10: Drainage Basin B10



## Summary for Subcatchment DB-B11: Drainage Basin B11

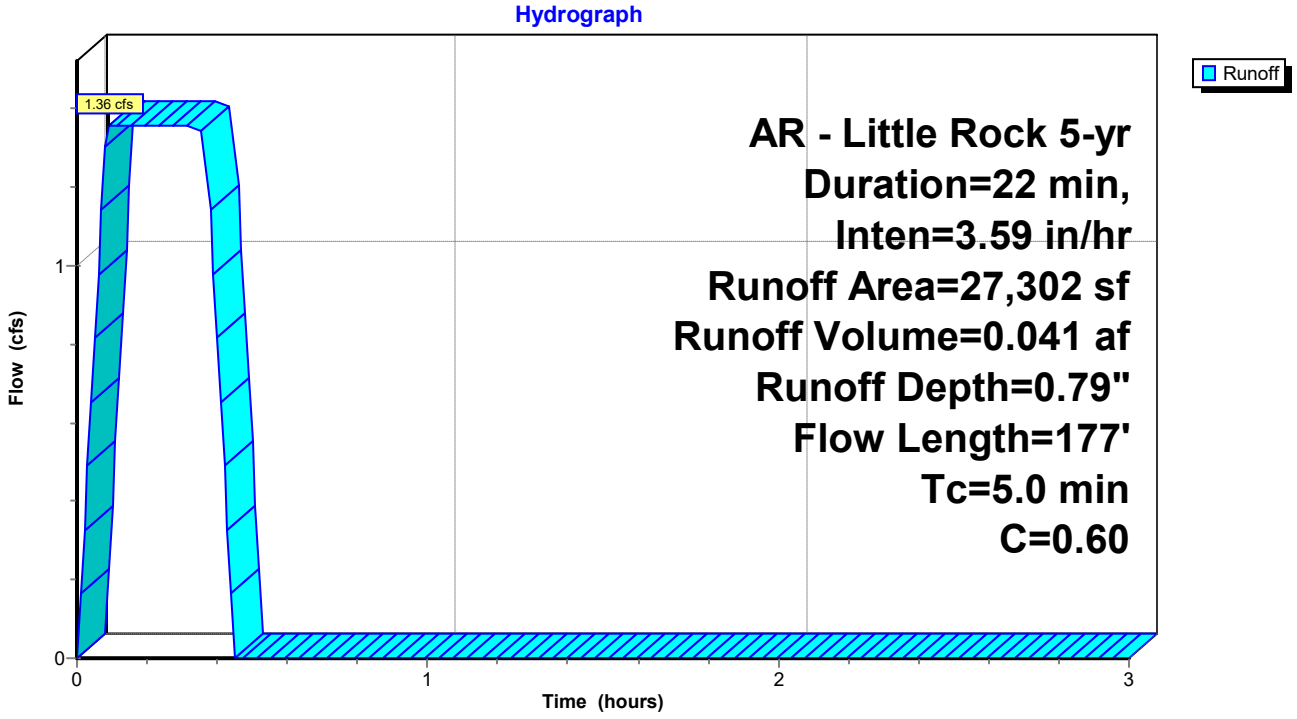
Runoff = 1.36 cfs @ 0.09 hrs, Volume= 0.041 af, Depth= 0.79"
Routed to Pond CI-D1 : CURB INLET D1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=22 min, Inten=3.59 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 15,547 | 0.35 | Sandy Soil 2-7% per manual |
| 11,755 | 0.92 | Paved Areas |
| 27,302 | 0.60 | Weighted Average |
| 27,302 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.2 | 65 | 0.3300 | 4.44 | | **Sheet Flow, Roof** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.2 | 69 | 0.1750 | 6.27 | | **Shallow Concentrated Flow, Greenspace** Grassed Waterway Kv= 15.0 fps |
| 0.2 | 43 | 0.0500 | 4.54 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 4.4 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 177 | Total | | | |

## Subcatchment DB-B11: Drainage Basin B11



## Summary for Subcatchment DB-B12: Drainage Basin B12

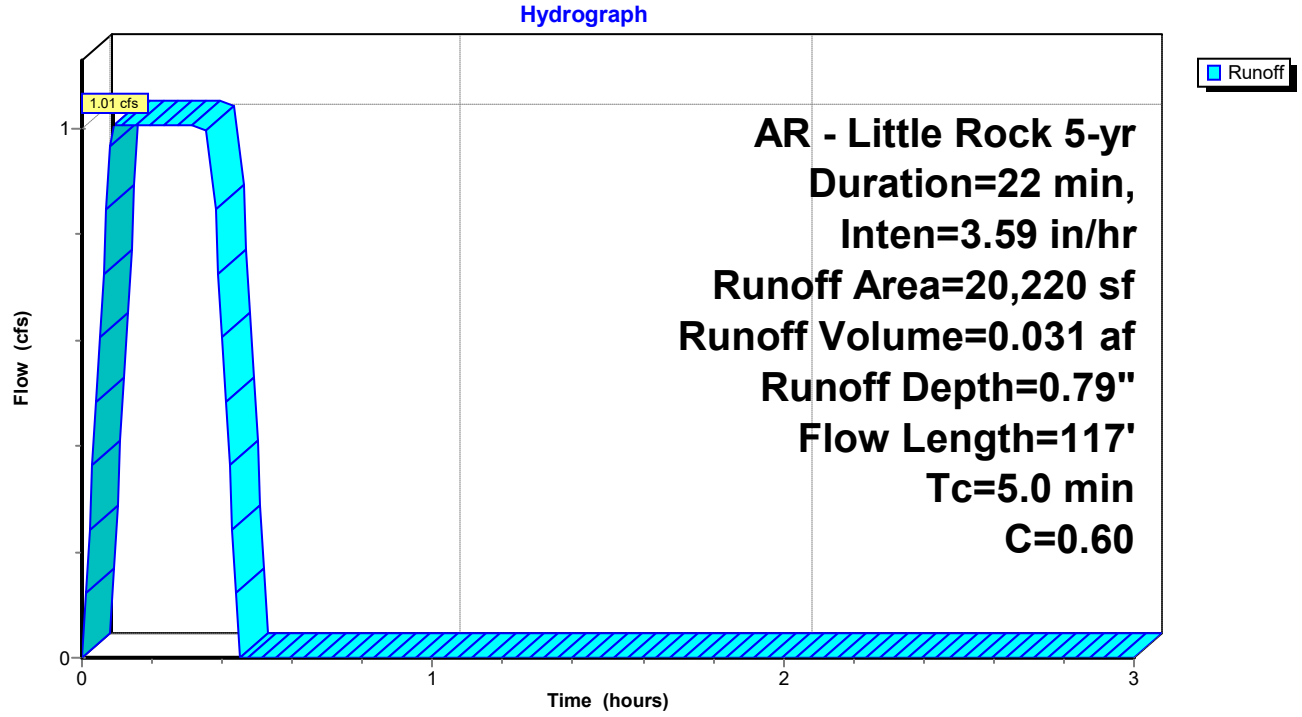
Runoff = 1.01 cfs @ 0.09 hrs, Volume= 0.031 af, Depth= 0.79"
Routed to Pond CI-C5 : CURB INLET C5

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=22 min, Inten=3.59 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 11,502 | 0.35 | Sandy Soil 2-7% per manual |
| 8,718 | 0.92 | Paved Areas |
| 20,220 | 0.60 | Weighted Average |
| 20,220 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 2.0 | 26 | 0.0500 | 0.21 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.5 | 38 | 0.2360 | 0.43 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.1 | 28 | 0.2390 | 0.41 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.4 | 25 | 0.0180 | 1.15 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 5.0 | 117 | Total | | | |

## Subcatchment DB-B12: Drainage Basin B12



## Summary for Subcatchment DB-B13: DRAINAGE BASIN B13

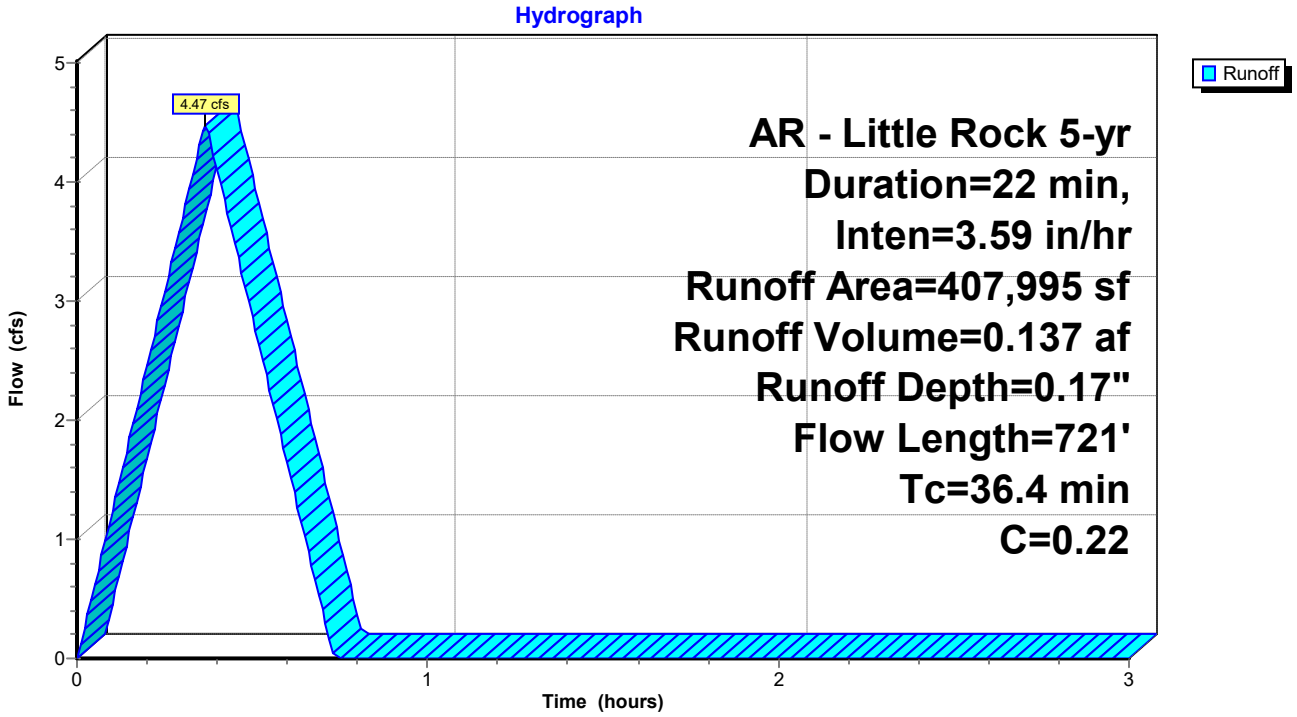
Runoff = 4.47 cfs @ 0.37 hrs, Volume= 0.137 af, Depth= 0.17"
Routed to Link POST-DEV : Post-Development

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=22 min, Inten=3.59 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 407,995 | 0.22 | Sandy Soil 2-7% Per Manual |
| 407,995 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.5 | 67 | 0.6600 | 0.73 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.2 | 46 | 0.5900 | 0.65 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 3.2 | 147 | 0.5100 | 0.77 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.8 | 63 | 0.3800 | 0.58 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 8.5 | 70 | 0.0100 | 0.14 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 4.8 | 163 | 0.2200 | 0.56 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 2.4 | 65 | 0.2000 | 0.45 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 6.3 | 48 | 0.0100 | 0.13 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 6.7 | 52 | 0.0100 | 0.13 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 36.4 | 721 | Total | | | |

## Subcatchment DB-B13: DRAINAGE BASIN B13



## Summary for Subcatchment DB-B14: DRAINAGE BASIN B14

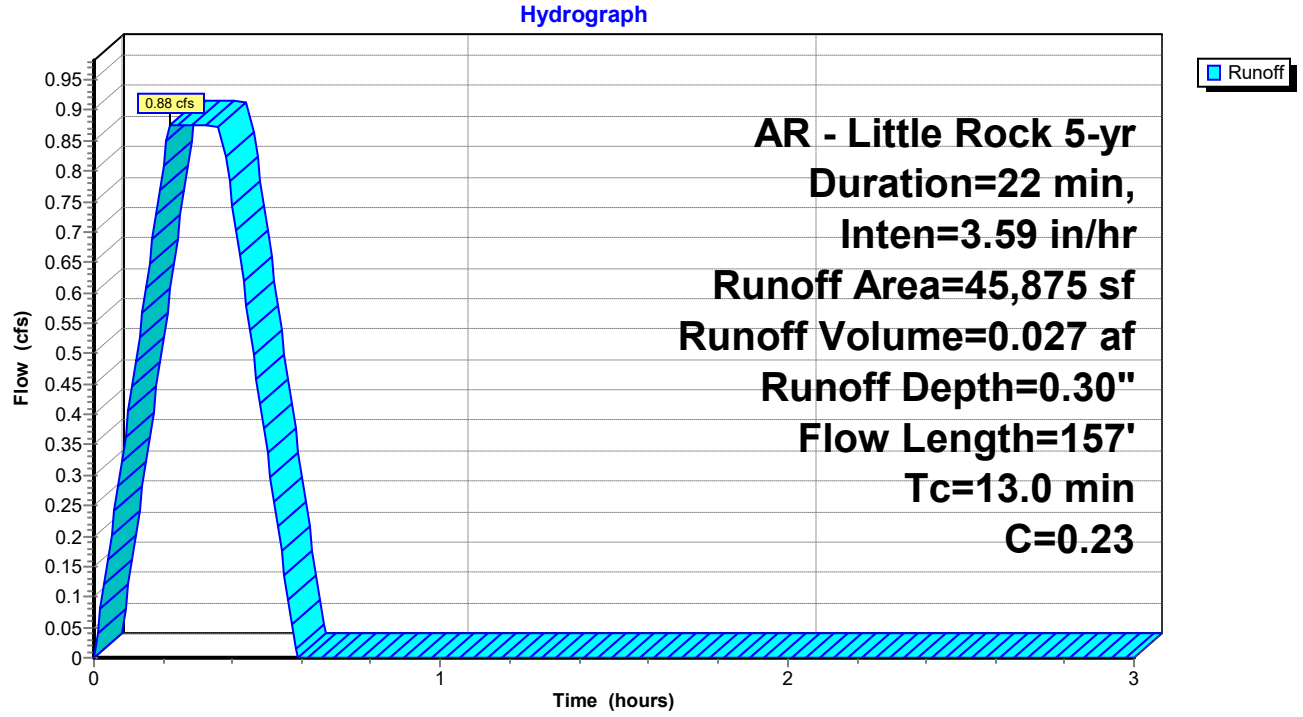
Runoff = 0.88 cfs @ 0.22 hrs, Volume= 0.027 af, Depth= 0.30"
Routed to Link POST-DEV : Post-Development

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=22 min, Inten=3.59 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 45,016 | 0.22 | Sandy Soil 2-7% Per Manual |
| 859 | 0.92 | Paved Areas |
| 45,875 | 0.23 | Weighted Average |
| 45,875 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 2.5 | 15 | 0.0100 | 0.10 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 5.2 | 78 | 0.0420 | 0.25 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 2.8 | 38 | 0.0480 | 0.23 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 2.5 | 26 | 0.0280 | 0.17 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 13.0 | 157 | Total | | | |

## Subcatchment DB-B14: DRAINAGE BASIN B14



## Summary for Subcatchment DB-B2: Drainage Basin B2

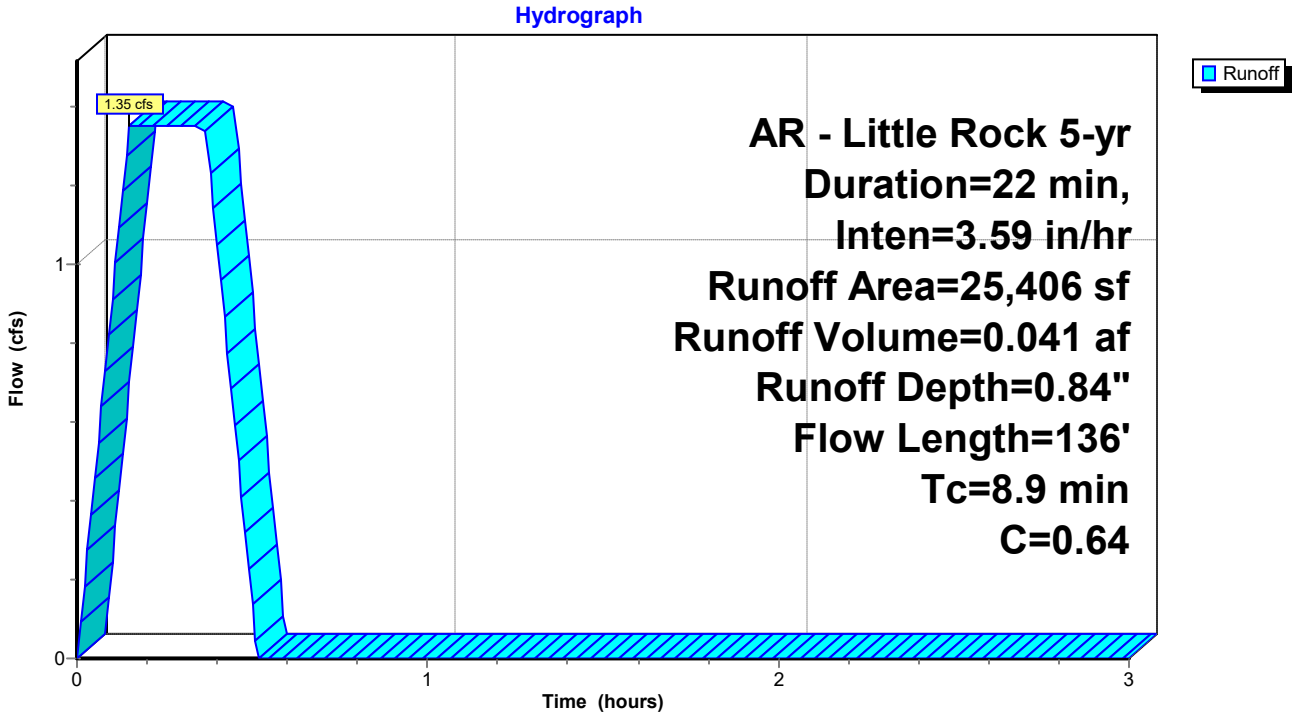
Runoff = 1.35 cfs @ 0.15 hrs, Volume= 0.041 af, Depth= 0.84"
Routed to Pond CI-A2 : CURB INLET A2

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=22 min, Inten=3.59 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 11,388 | 0.30 | Sandy Soil 2-7% per manual |
| 14,018 | 0.92 | Paved Areas |
| 25,406 | 0.64 | Weighted Average |
| 25,406 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 7.2 | 57 | 0.0100 | 0.13 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.8 | 19 | 0.2480 | 0.38 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.2 | 14 | 0.0150 | 0.95 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.3 | 34 | 0.0600 | 1.97 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.2 | 12 | 0.0350 | 1.29 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.2 | | | | | **Direct Entry, Minimum Adjustment** |
| 8.9 | 136 | Total | | | |

## Subcatchment DB-B2: Drainage Basin B2



## Summary for Subcatchment DB-B3: Drainage Basin B3

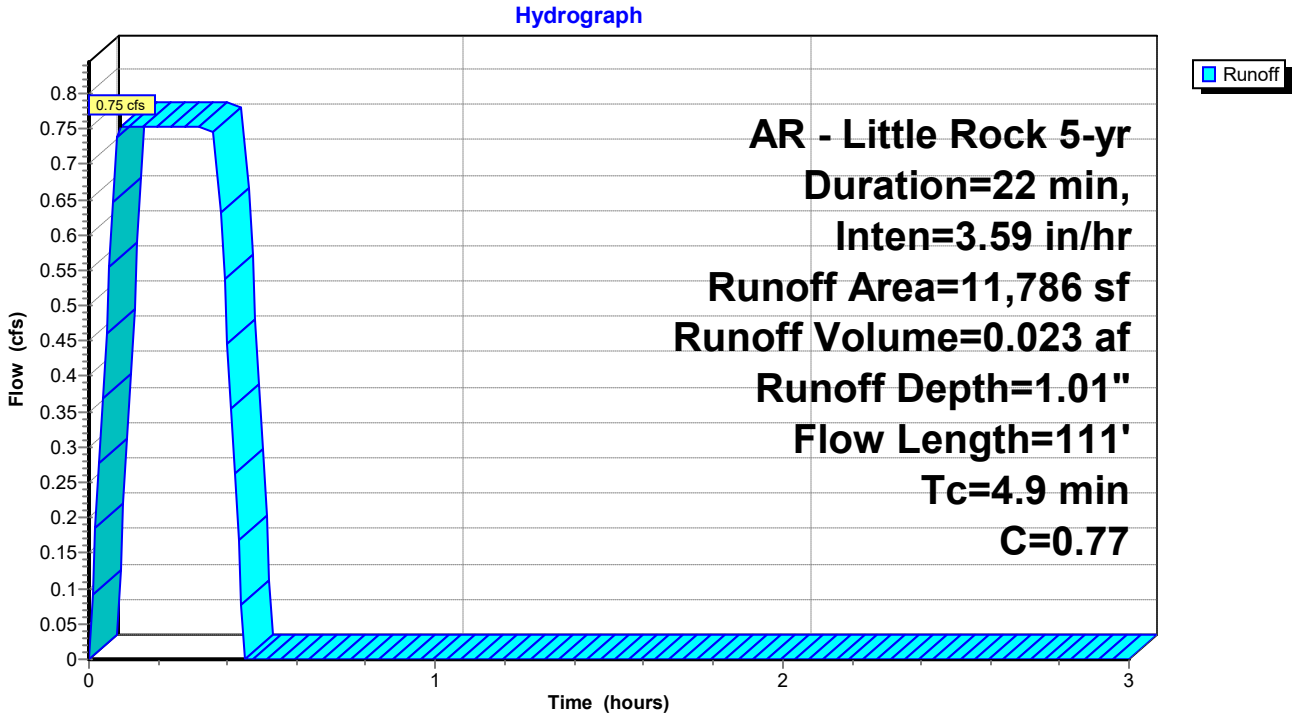
Runoff = 0.75 cfs @ 0.09 hrs, Volume= 0.023 af, Depth= 1.01"
Routed to Pond CI-A3 : CURB INLET A3

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=22 min, Inten=3.59 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 2,920 | 0.30 | Sandy Soil 2-7% per manual |
| 8,866 | 0.92 | Paved Areas |
| 11,786 | 0.77 | Weighted Average |
| 11,786 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.8 | 19 | 0.2500 | 0.38 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.2 | 16 | 0.0290 | 1.27 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.6 | 38 | 0.0100 | 0.98 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.3 | 38 | 0.0100 | 2.03 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 3.0 | | | | | **Direct Entry, Minimum Adjustment** |
| 4.9 | 111 | Total | | | |

## Subcatchment DB-B3: Drainage Basin B3



## Summary for Subcatchment DB-B4: Drainage Basin B4

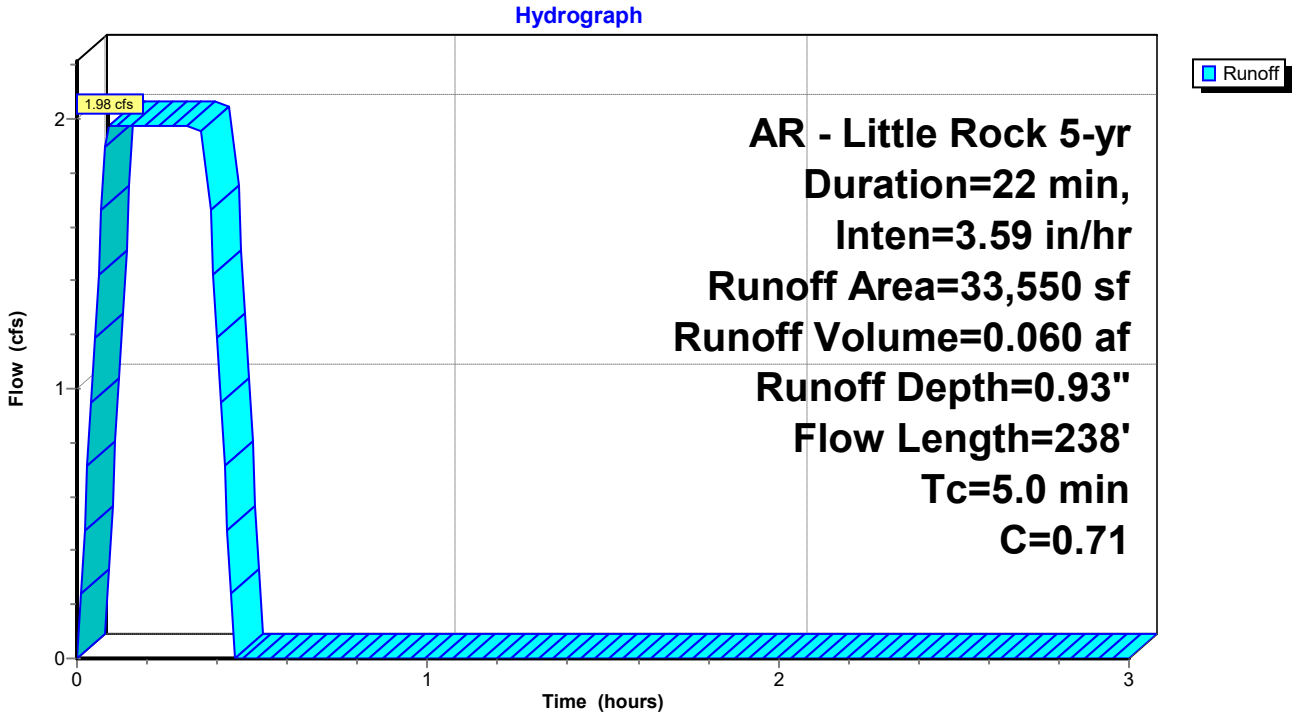
Runoff = 1.98 cfs @ 0.09 hrs, Volume= 0.060 af, Depth= 0.93"
Routed to Pond CI-A4 : CURB INLET A4

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=22 min, Inten=3.59 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 11,568 | 0.30 | Sandy Soil 2-7% per manual |
| 21,982 | 0.92 | Paved Areas |
| 33,550 | 0.71 | Weighted Average |
| 33,550 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.4 | 48 | 0.0530 | 2.01 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.3 | 25 | 0.0310 | 1.42 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.6 | 14 | 0.0020 | 0.42 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.9 | 66 | 0.0130 | 1.22 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.4 | 59 | 0.0120 | 2.22 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 0.5 | 19 | 0.0010 | 0.64 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 0.0 | 7 | 0.0700 | 5.37 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 1.9 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 238 | Total | | | |

## Subcatchment DB-B4: Drainage Basin B4



## Summary for Subcatchment DB-B5: Drainage Basin B5

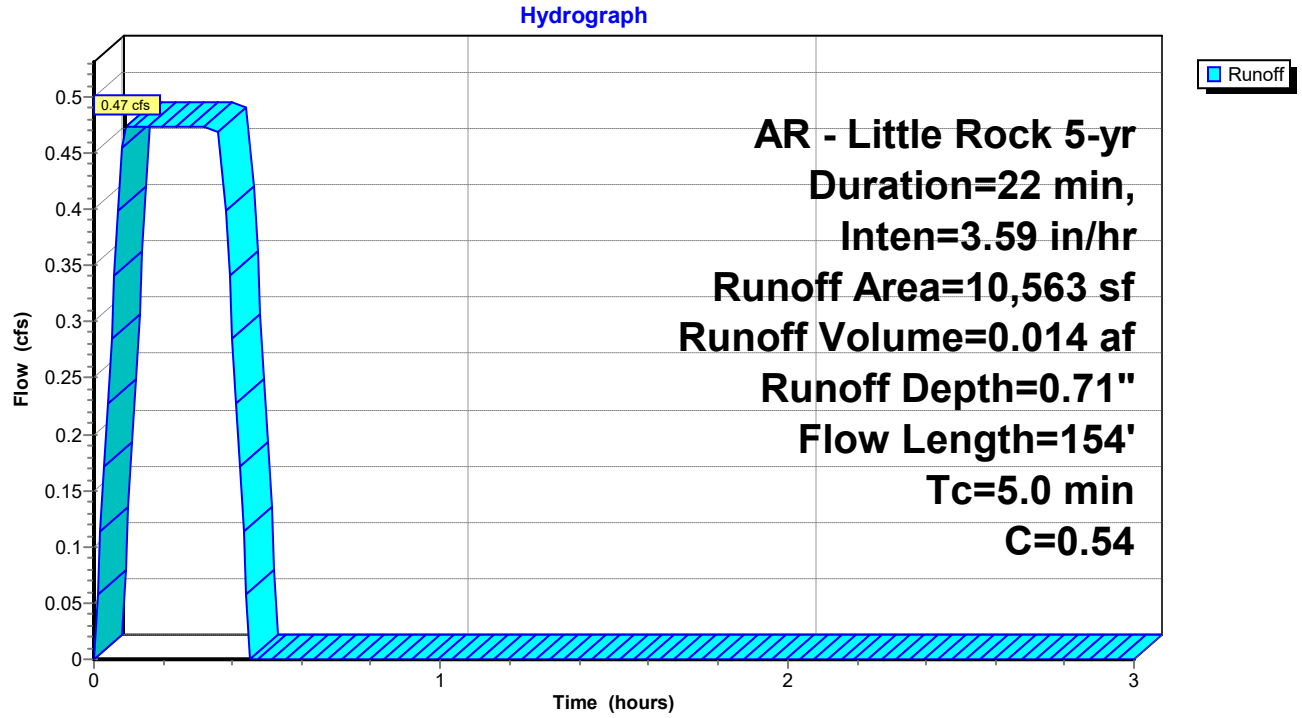
Runoff = 0.47 cfs @ 0.09 hrs, Volume= 0.014 af, Depth= 0.71"
Routed to Pond CI-A5 : CURB INLET A5

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=22 min, Inten=3.59 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 6,980 | 0.35 | Sandy Soil 2-7% per manual |
| 3,583 | 0.92 | Paved Areas |
| 10,563 | 0.54 | Weighted Average |
| 10,563 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.2 | 19 | 0.0920 | 0.26 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.9 | 39 | 0.1260 | 0.34 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.5 | 66 | 0.0540 | 2.16 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.1 | 30 | 0.0500 | 4.54 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 1.3 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 154 | Total | | | |

## Subcatchment DB-B5: Drainage Basin B5



## Summary for Subcatchment DB-B6: Drainage Basin B6

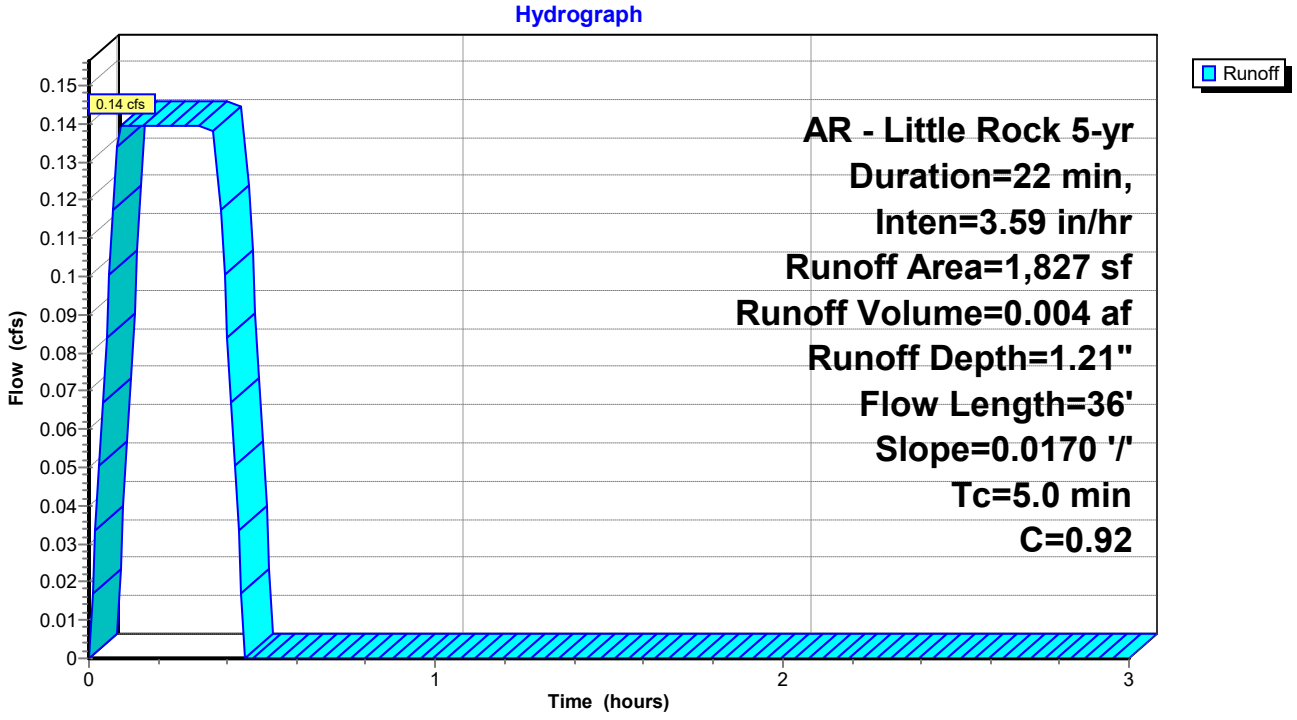
Runoff = 0.14 cfs @ 0.09 hrs, Volume= 0.004 af, Depth= 1.21"
Routed to Pond AI-B1 : AREA INLET B1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=22 min, Inten=3.59 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 0 | 0.30 | Sandy Soil 2-7% per manual |
| 1,827 | 0.92 | Paved Areas |
| 1,827 | 0.92 | Weighted Average |
| 1,827 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.5 | 36 | 0.0170 | 1.20 | | **Sheet Flow, Concrete** Smooth surfaces n= 0.011 P2= 4.20" |
| 4.5 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 36 | Total | | | |

## Subcatchment DB-B6: Drainage Basin B6



## Summary for Subcatchment DB-B7: Drainage Basin B7

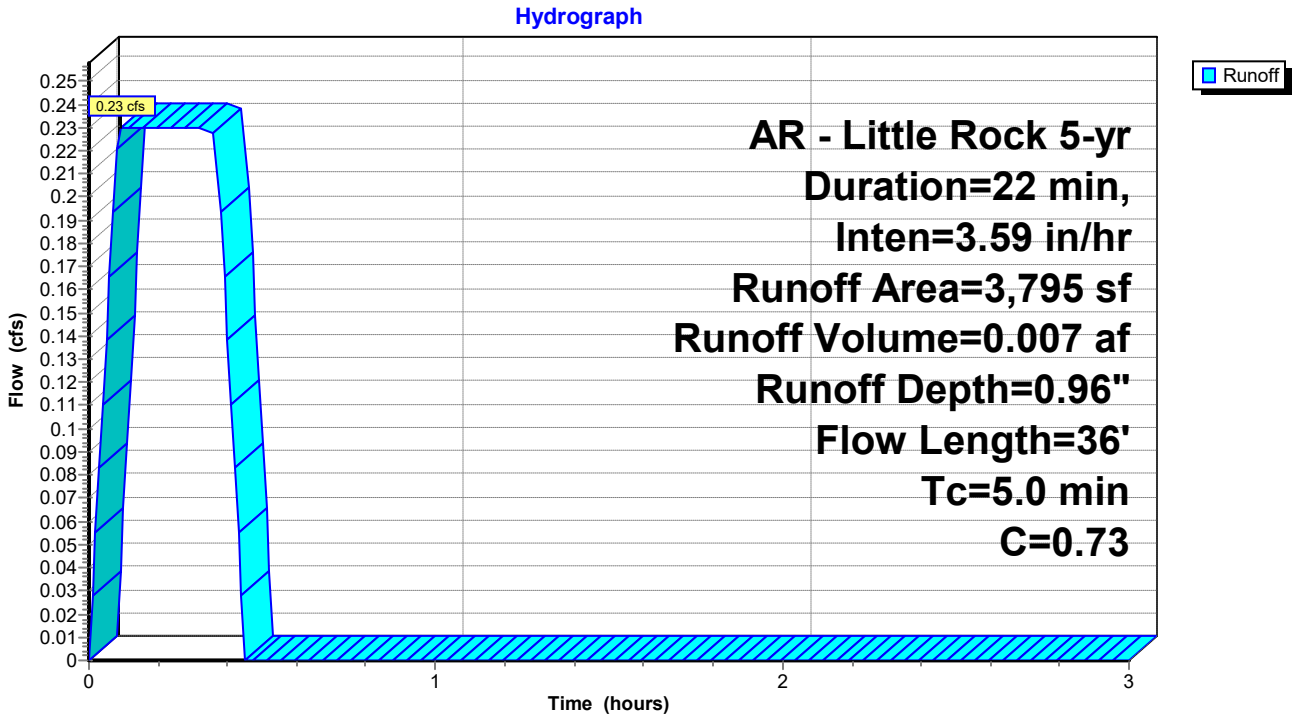
Runoff = 0.23 cfs @ 0.09 hrs, Volume= 0.007 af, Depth= 0.96"
Routed to Pond AI-B2 : AREA INLET B2

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=22 min, Inten=3.59 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 1,158 | 0.30 | Sandy Soil 2-7% per manual |
| 2,637 | 0.92 | Paved Areas |
| 3,795 | 0.73 | Weighted Average |
| 3,795 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.8 | 24 | 0.0020 | 0.47 | | **Sheet Flow, Concrete** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.2 | 12 | 0.0160 | 0.94 | | **Sheet Flow, Concrete** Smooth surfaces n= 0.011 P2= 4.20" |
| 4.0 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 36 | Total | | | |

## Subcatchment DB-B7: Drainage Basin B7



## Summary for Subcatchment DB-B8: Drainage Basin B8

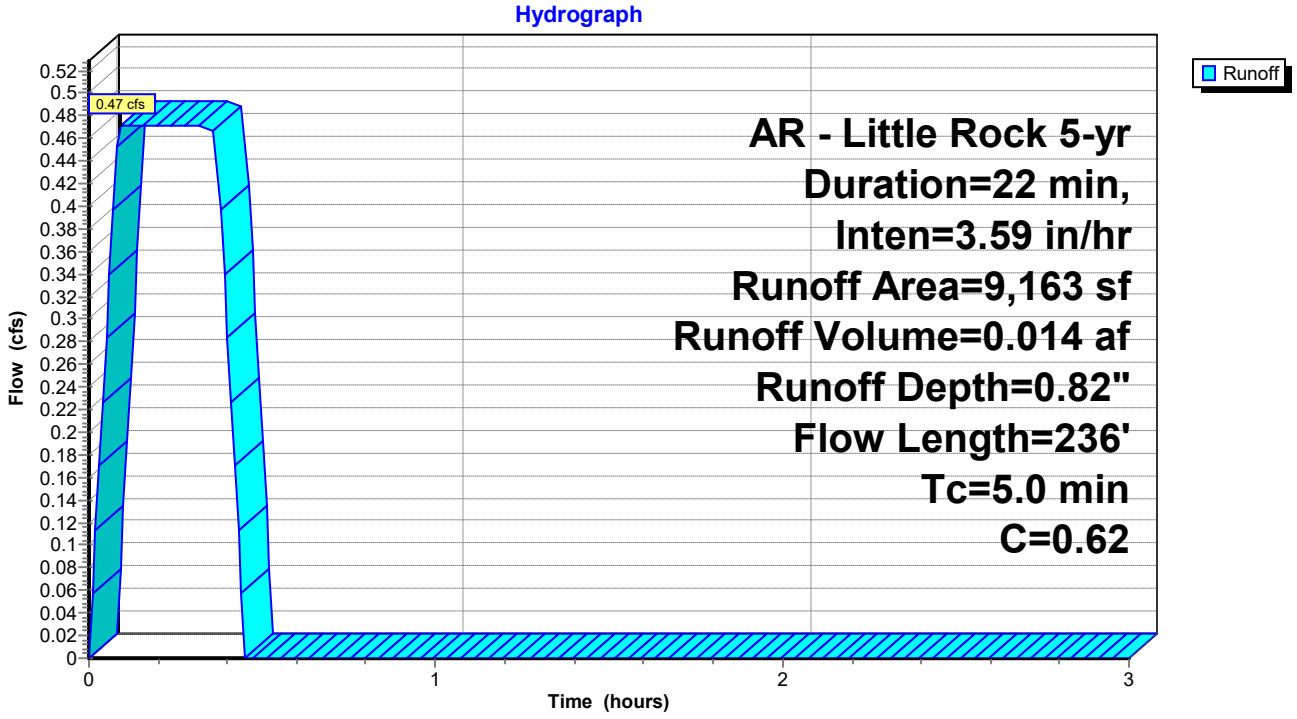
Runoff = 0.47 cfs @ 0.09 hrs, Volume= 0.014 af, Depth= 0.82"
Routed to Pond CI-C1 : CURB INLET C1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=22 min, Inten=3.59 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 4,431 | 0.30 | Sadny Soil 2-7% per manual |
| 4,732 | 0.92 | Paved Areas |
| 9,163 | 0.62 | Weighted Average |
| 9,163 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.4 | 33 | 0.0210 | 1.29 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.6 | 91 | 0.0620 | 2.43 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.8 | 112 | 0.0490 | 2.31 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 3.2 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 236 | Total | | | |

## Subcatchment DB-B8: Drainage Basin B8



## Summary for Subcatchment DB-B9: Drainage Basin B9

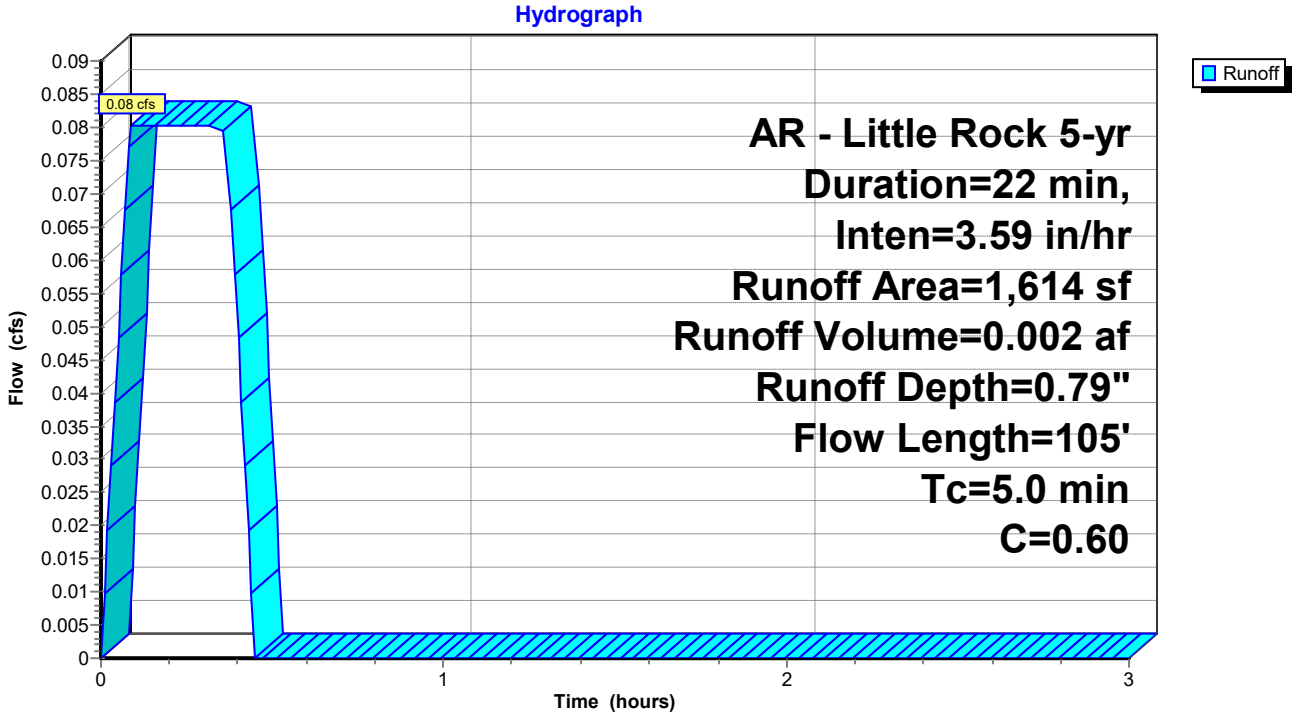
Runoff = 0.08 cfs @ 0.09 hrs, Volume= 0.002 af, Depth= 0.79"
Routed to Pond CI-C2 : CURB INLET C2

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=22 min, Inten=3.59 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 826 | 0.30 | Sandy Soil 2-7% per manual |
| 788 | 0.92 | Paved Areas |
| 1,614 | 0.60 | Weighted Average |
| 1,614 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.0 | 62 | 0.0100 | 1.09 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.0 | 8 | 0.0230 | 3.08 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 0.2 | 35 | 0.0140 | 2.40 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 3.8 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 105 | Total | | | |

## Subcatchment DB-B9: Drainage Basin B9



## Summary for Pond AI-B1: AREA INLET B1

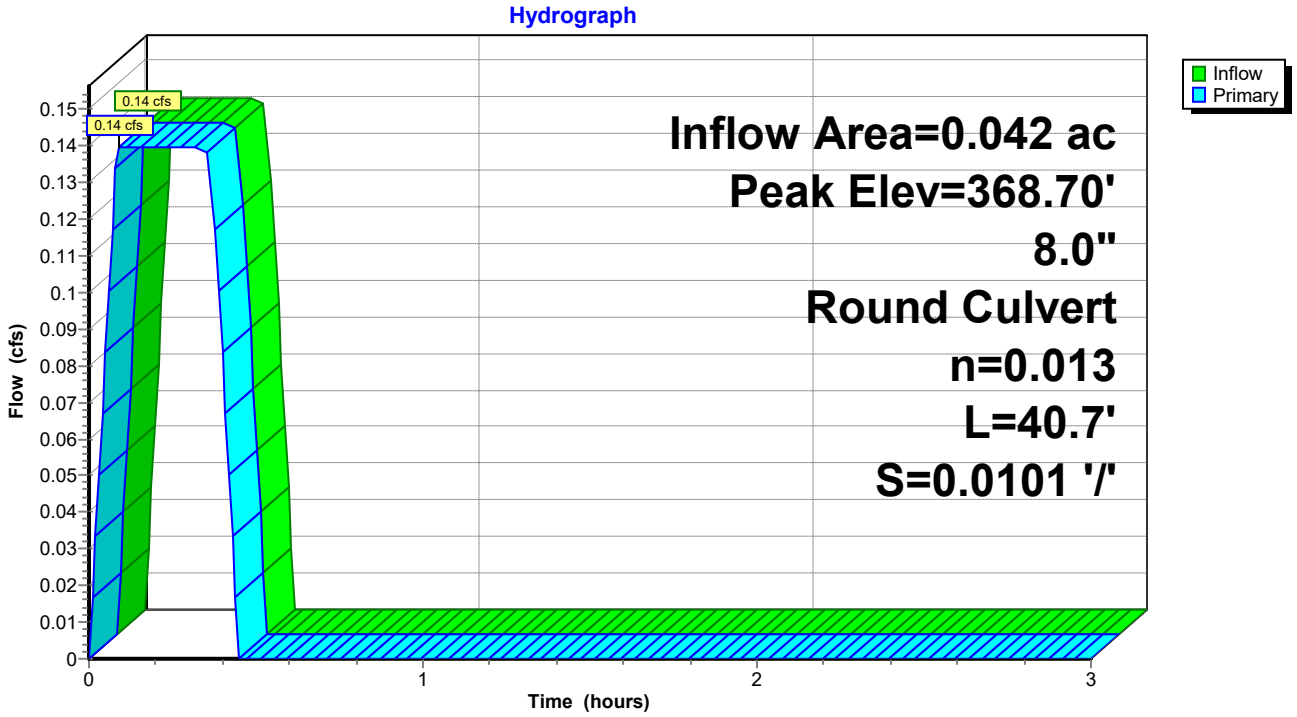
Inflow Area = 0.042 ac, 0.00% Impervious, Inflow Depth = 1.21" for 5-yr event
Inflow = 0.14 cfs @ 0.09 hrs, Volume= 0.004 af
Outflow = 0.14 cfs @ 0.09 hrs, Volume= 0.004 af, Atten= 0%, Lag= 0.0 min
Primary = 0.14 cfs @ 0.09 hrs, Volume= 0.004 af
Routed to Pond AI-B2 : AREA INLET B2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 368.70' @ 0.09 hrs

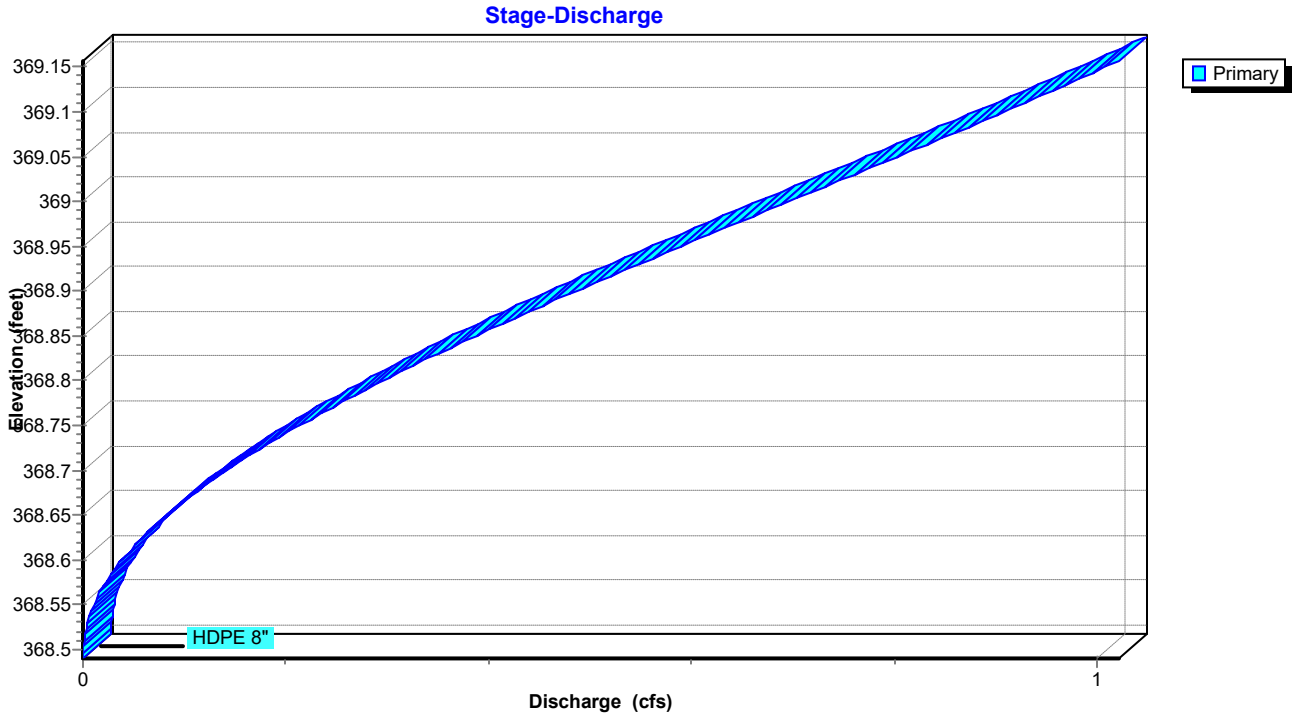
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 368.49' | **8.0" Round HDPE 8"** L= 40.7' Ke= 0.100<br>Inlet / Outlet Invert= 368.49' / 368.08' S= 0.0101 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.35 sf |

**Primary OutFlow** Max=0.14 cfs @ 0.09 hrs HW=368.70' (Free Discharge)
**1=HDPE 8"** (Barrel Controls 0.14 cfs @ 2.24 fps)

## Pond AI-B1: AREA INLET B1



## Pond AI-B1: AREA INLET B1



## Summary for Pond AI-B2: AREA INLET B2

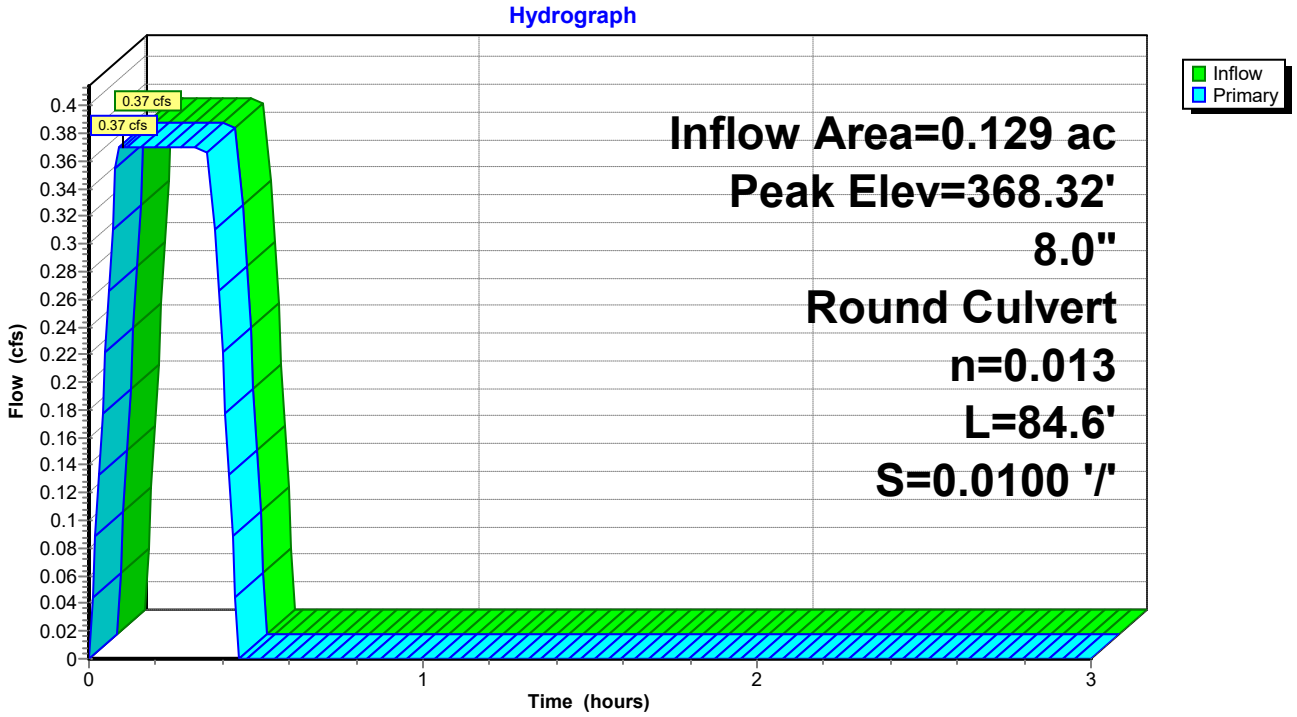
Inflow Area = 0.129 ac, 0.00% Impervious, Inflow Depth = 1.04" for 5-yr event
Inflow = 0.37 cfs @ 0.09 hrs, Volume= 0.011 af
Outflow = 0.37 cfs @ 0.10 hrs, Volume= 0.011 af, Atten= 0%, Lag= 0.6 min
Primary = 0.37 cfs @ 0.10 hrs, Volume= 0.011 af
Routed to Pond CI-A2 : CURB INLET A2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 368.32' @ 0.09 hrs

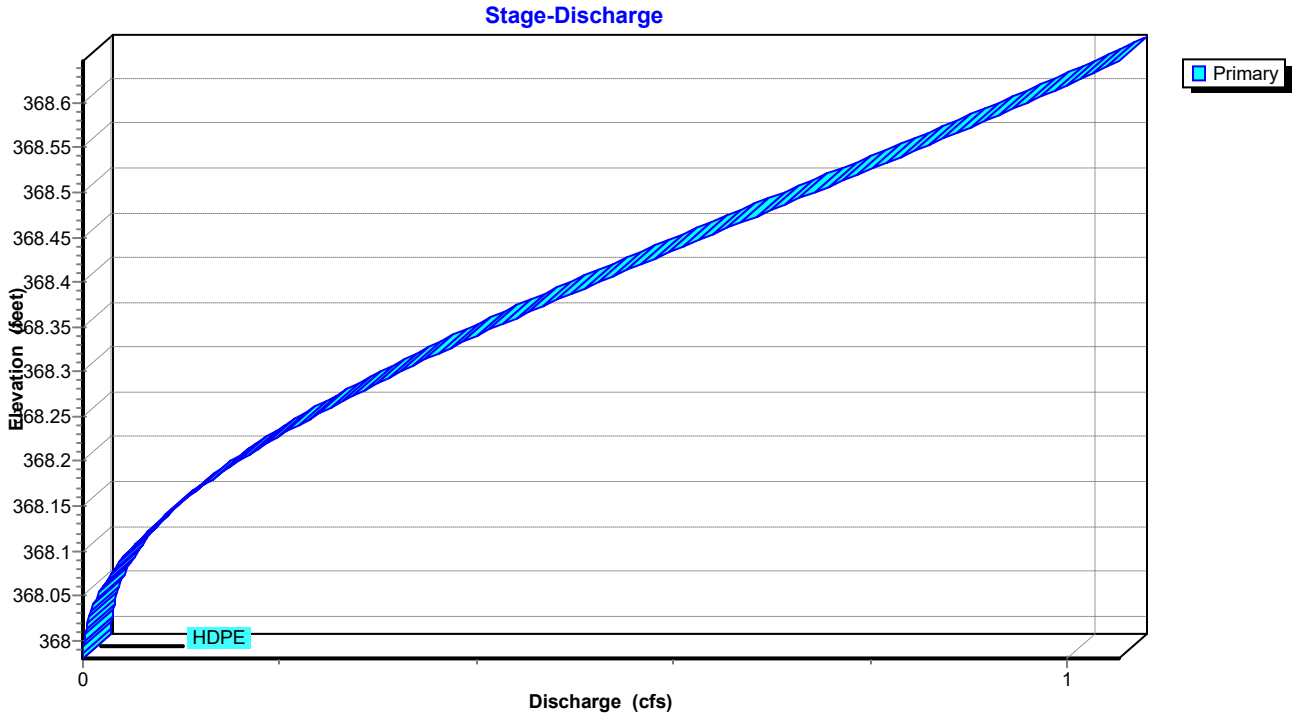
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 367.98' | **8.0" Round HDPE** L= 84.6' Ke= 0.100<br>Inlet / Outlet Invert= 367.98' / 367.13' S= 0.0100 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.35 sf |

**Primary OutFlow** Max=0.37 cfs @ 0.10 hrs HW=368.32' (Free Discharge)
**1=HDPE** (Barrel Controls 0.37 cfs @ 2.96 fps)

## Pond AI-B2: AREA INLET B2



## Pond AI-B2: AREA INLET B2



## Summary for Pond CI-A1: CURB INLET A1

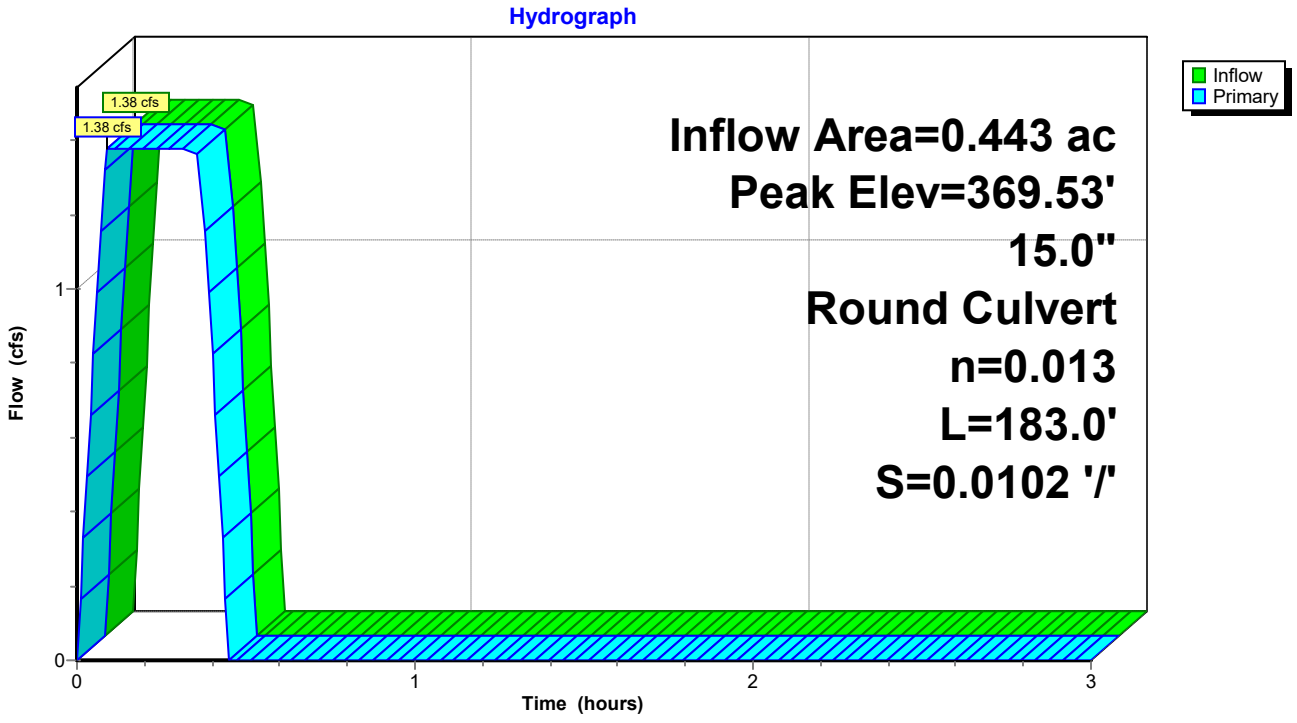
Inflow Area = 0.443 ac, 0.00% Impervious, Inflow Depth = 1.13" for 5-yr event
Inflow = 1.38 cfs @ 0.09 hrs, Volume= 0.042 af
Outflow = 1.38 cfs @ 0.09 hrs, Volume= 0.042 af, Atten= 0%, Lag= 0.0 min
Primary = 1.38 cfs @ 0.09 hrs, Volume= 0.042 af
Routed to Pond CI-A2 : CURB INLET A2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 369.53' @ 0.09 hrs

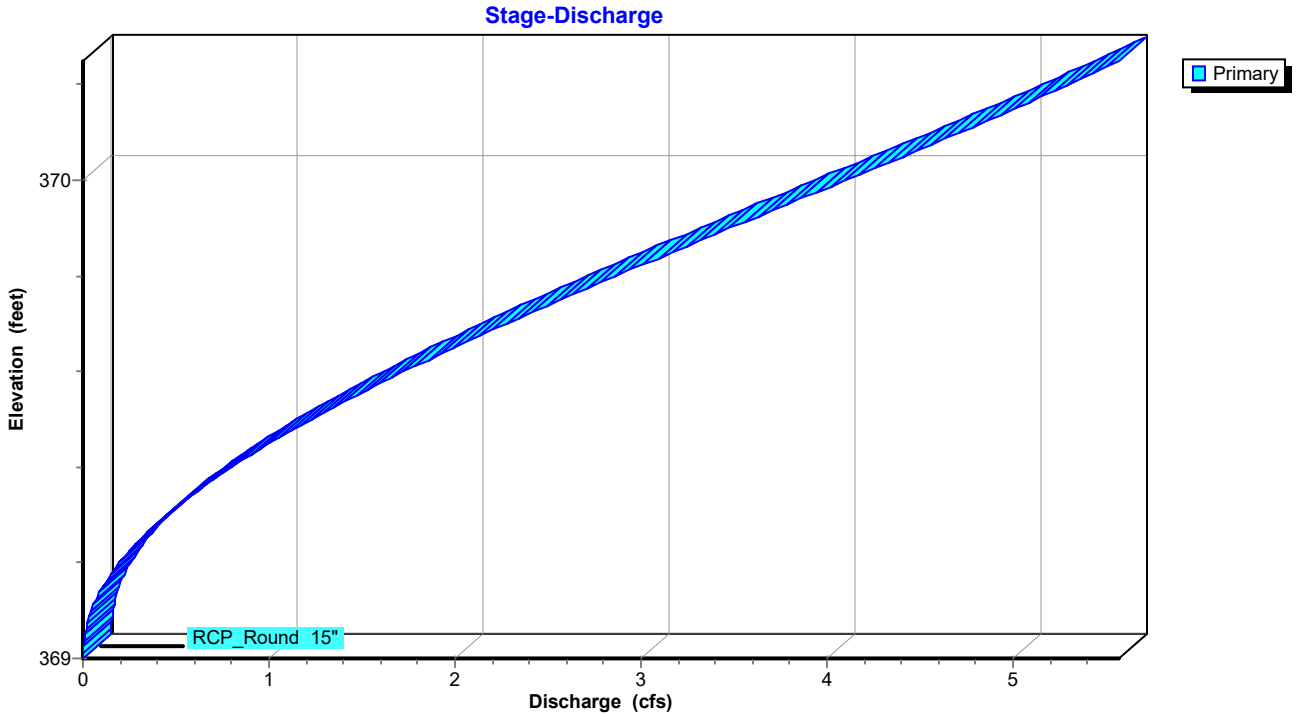
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 369.00' | **15.0" Round RCP_Round 15"**<br>L= 183.0' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 369.00' / 367.13' S= 0.0102 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.23 sf |

**Primary OutFlow** Max=1.38 cfs @ 0.09 hrs HW=369.53' (Free Discharge)
**1=RCP_Round 15"** (Barrel Controls 1.38 cfs @ 4.09 fps)

## Pond CI-A1: CURB INLET A1



## Pond CI-A1: CURB INLET A1



## Summary for Pond CI-A2: CURB INLET A2

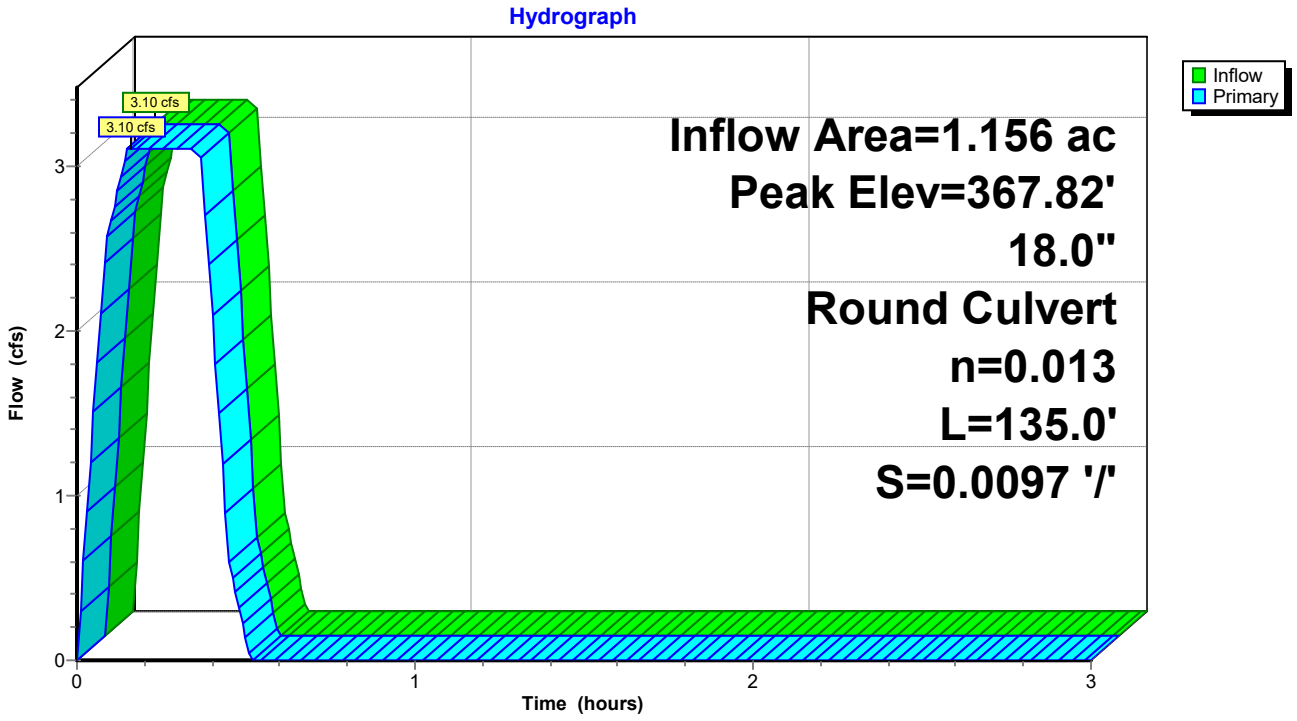
Inflow Area = 1.156 ac, 0.00% Impervious, Inflow Depth = 0.98" for 5-yr event
Inflow = 3.10 cfs @ 0.15 hrs, Volume= 0.094 af
Outflow = 3.10 cfs @ 0.16 hrs, Volume= 0.094 af, Atten= 0%, Lag= 0.6 min
Primary = 3.10 cfs @ 0.16 hrs, Volume= 0.094 af
Routed to Pond CI-A3 : CURB INLET A3

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 367.82' @ 0.15 hrs

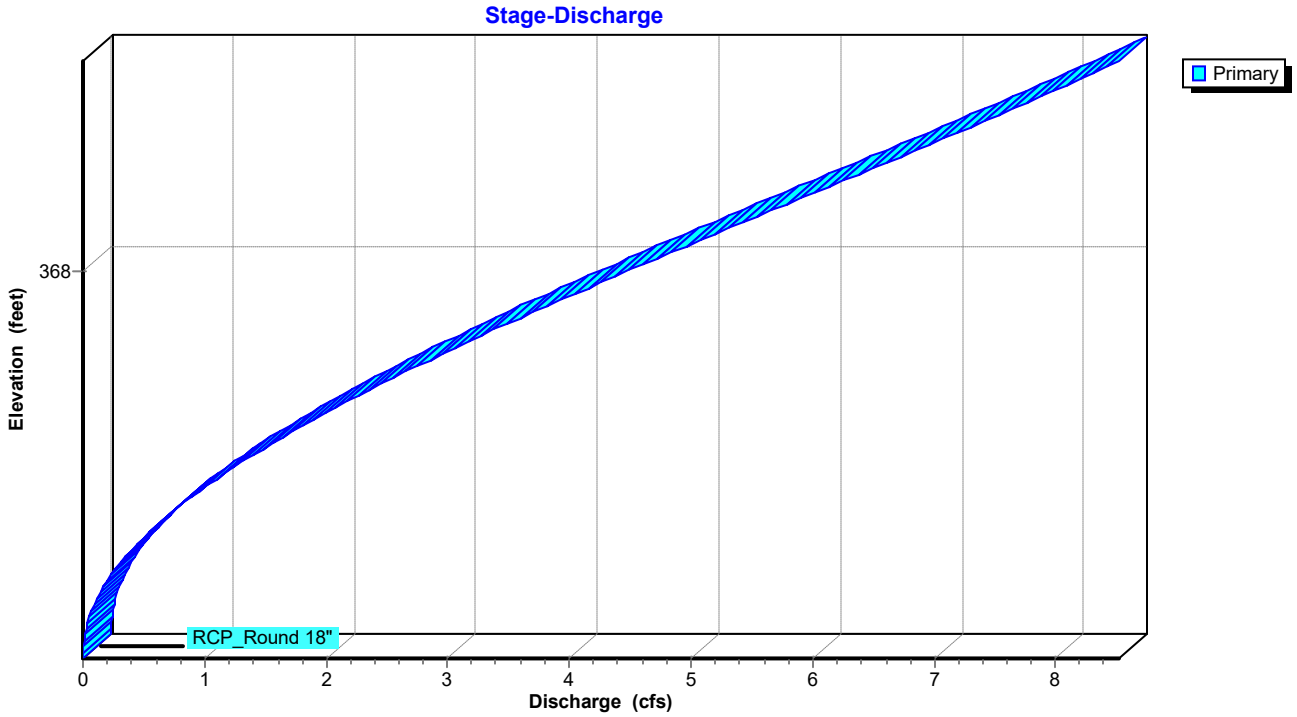
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 367.03' | **18.0" Round RCP_Round 18"**<br>L= 135.0' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 367.03' / 365.72' S= 0.0097 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf |

**Primary OutFlow** Max=3.10 cfs @ 0.16 hrs HW=367.82' (Free Discharge)
**1=RCP_Round 18"** (Barrel Controls 3.10 cfs @ 4.81 fps)

## Pond CI-A2: CURB INLET A2



## Pond CI-A2: CURB INLET A2



## Summary for Pond CI-A3: CURB INLET A3

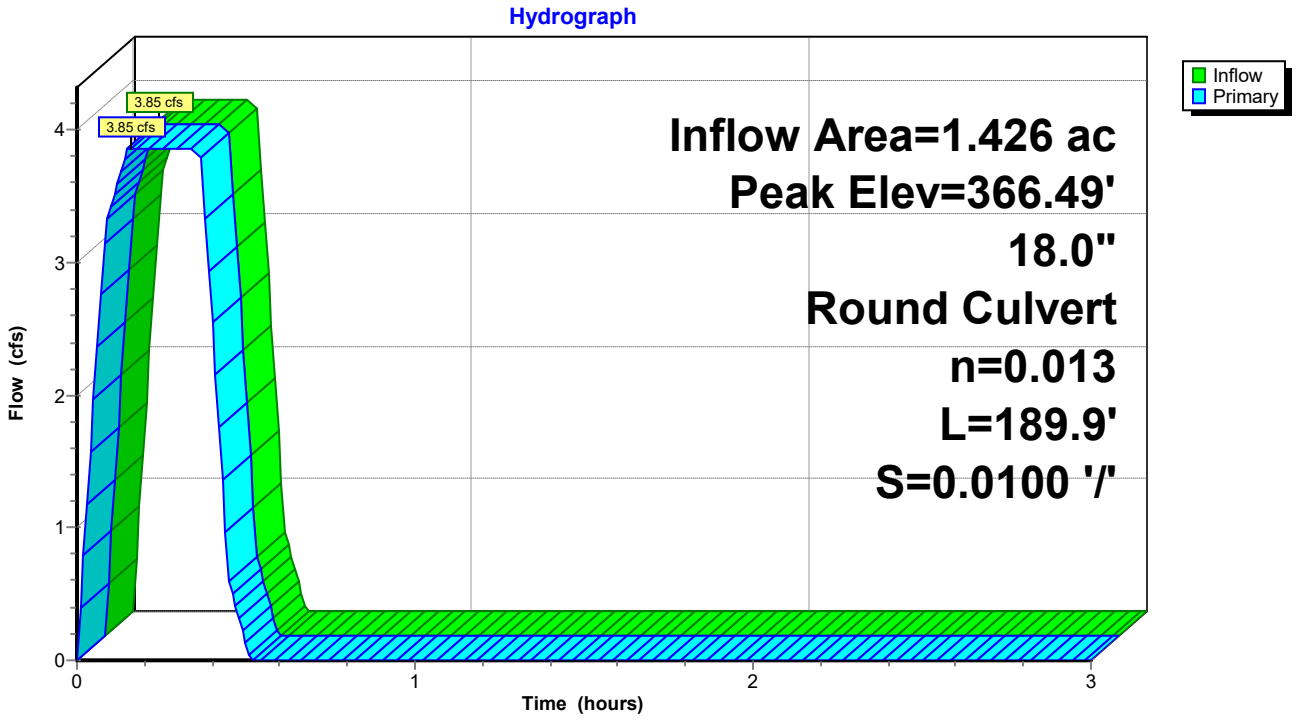
Inflow Area = 1.426 ac, 0.00% Impervious, Inflow Depth = 0.98" for 5-yr event
Inflow = 3.85 cfs @ 0.16 hrs, Volume= 0.117 af
Outflow = 3.85 cfs @ 0.16 hrs, Volume= 0.117 af, Atten= 0%, Lag= 0.0 min
Primary = 3.85 cfs @ 0.16 hrs, Volume= 0.117 af
Routed to Pond CI-A4 : CURB INLET A4

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 366.49' @ 0.15 hrs

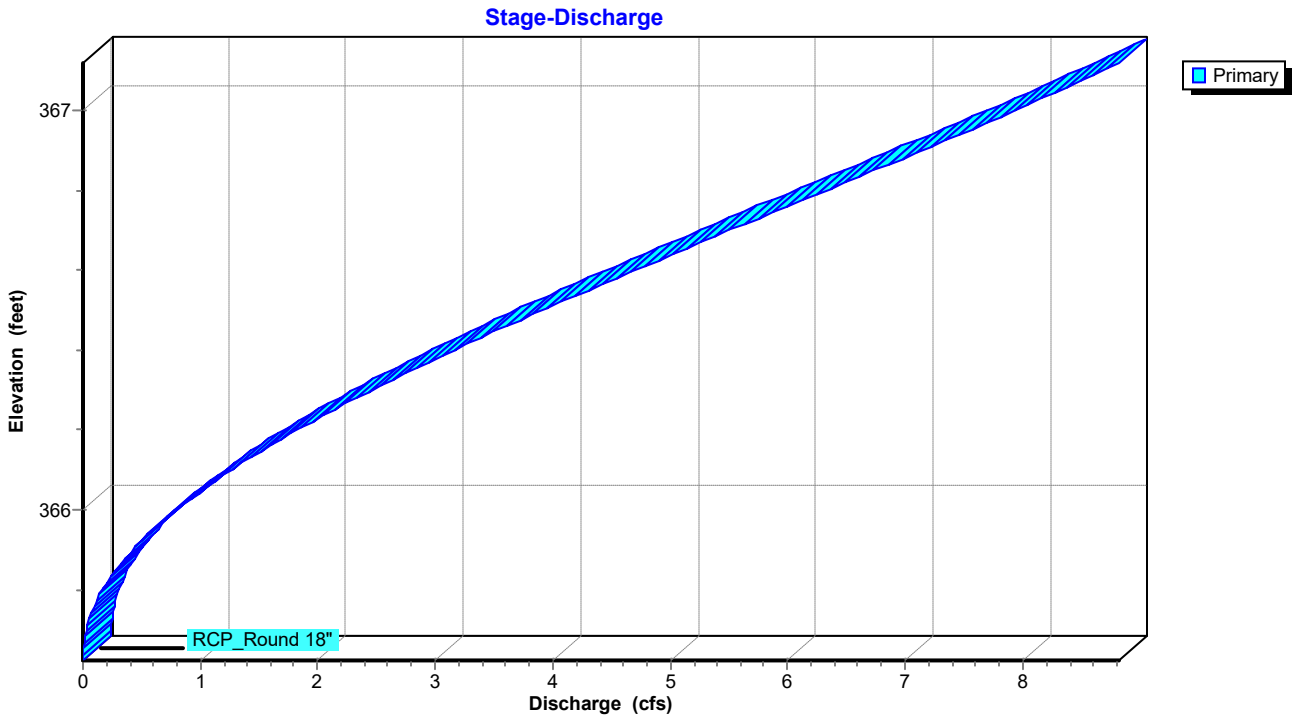
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 365.62' | **18.0" Round RCP_Round 18"**<br>L= 189.9' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 365.62' / 363.72' S= 0.0100 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf |

**Primary OutFlow** Max=3.85 cfs @ 0.16 hrs HW=366.49' (Free Discharge)
**1=RCP_Round 18"** (Barrel Controls 3.85 cfs @ 5.21 fps)

## Pond CI-A3: CURB INLET A3



## Pond CI-A3: CURB INLET A3



## Summary for Pond CI-A4: CURB INLET A4

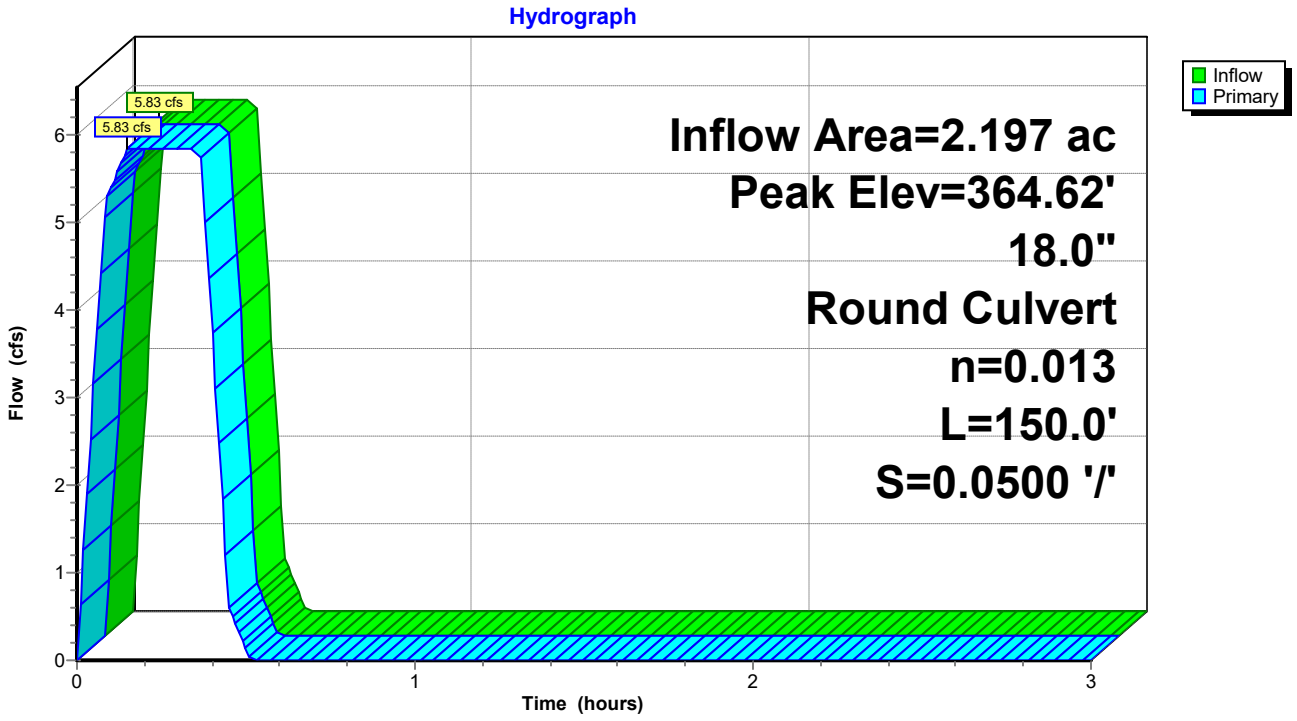
Inflow Area = 2.197 ac, 0.00% Impervious, Inflow Depth = 0.97" for 5-yr event
Inflow = 5.83 cfs @ 0.16 hrs, Volume= 0.177 af
Outflow = 5.83 cfs @ 0.15 hrs, Volume= 0.177 af, Atten= 0%, Lag= 0.0 min
Primary = 5.83 cfs @ 0.15 hrs, Volume= 0.177 af
Routed to Pond CI-A5 : CURB INLET A5

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 364.62' @ 0.15 hrs

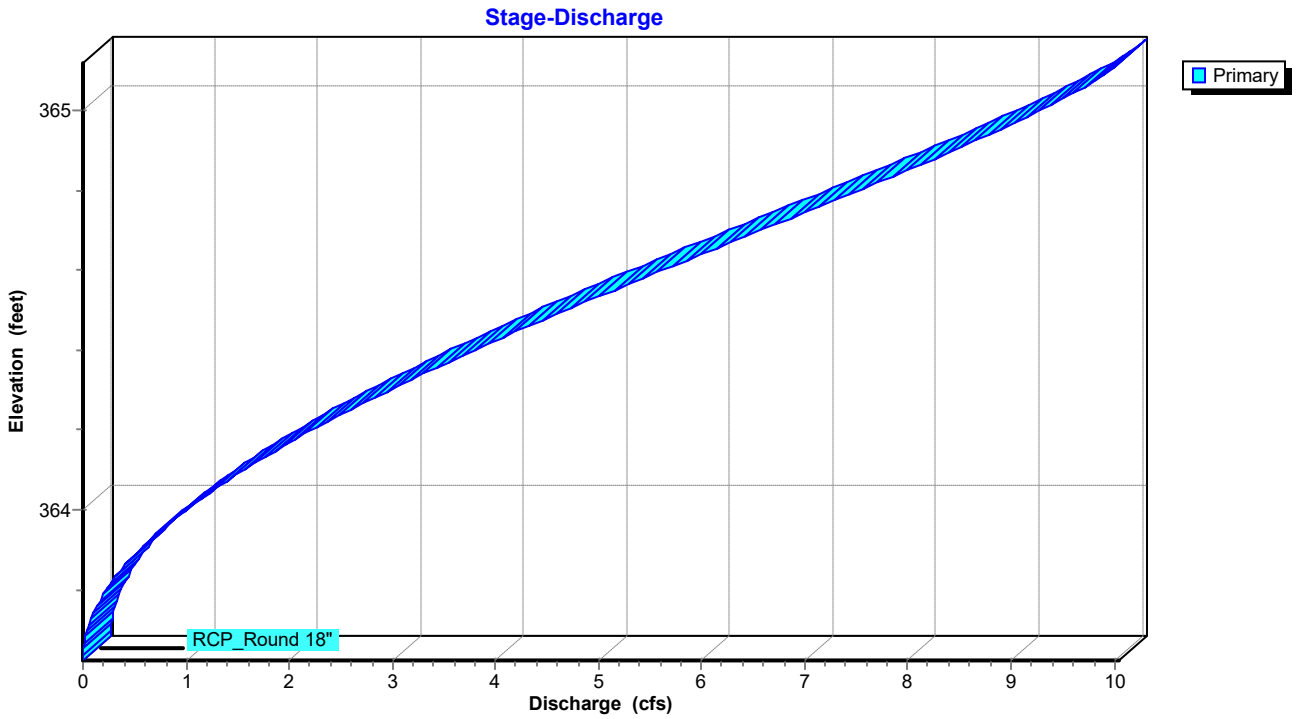
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 363.62' | **18.0" Round RCP_Round 18"**<br>L= 150.0' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 363.62' / 356.12' S= 0.0500 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf |

**Primary OutFlow** Max=5.83 cfs @ 0.15 hrs HW=364.62' (Free Discharge)
**1=RCP_Round 18"** (Inlet Controls 5.83 cfs @ 4.65 fps)

## Pond CI-A4: CURB INLET A4



## Pond CI-A4: CURB INLET A4



## Summary for Pond CI-A5: CURB INLET A5

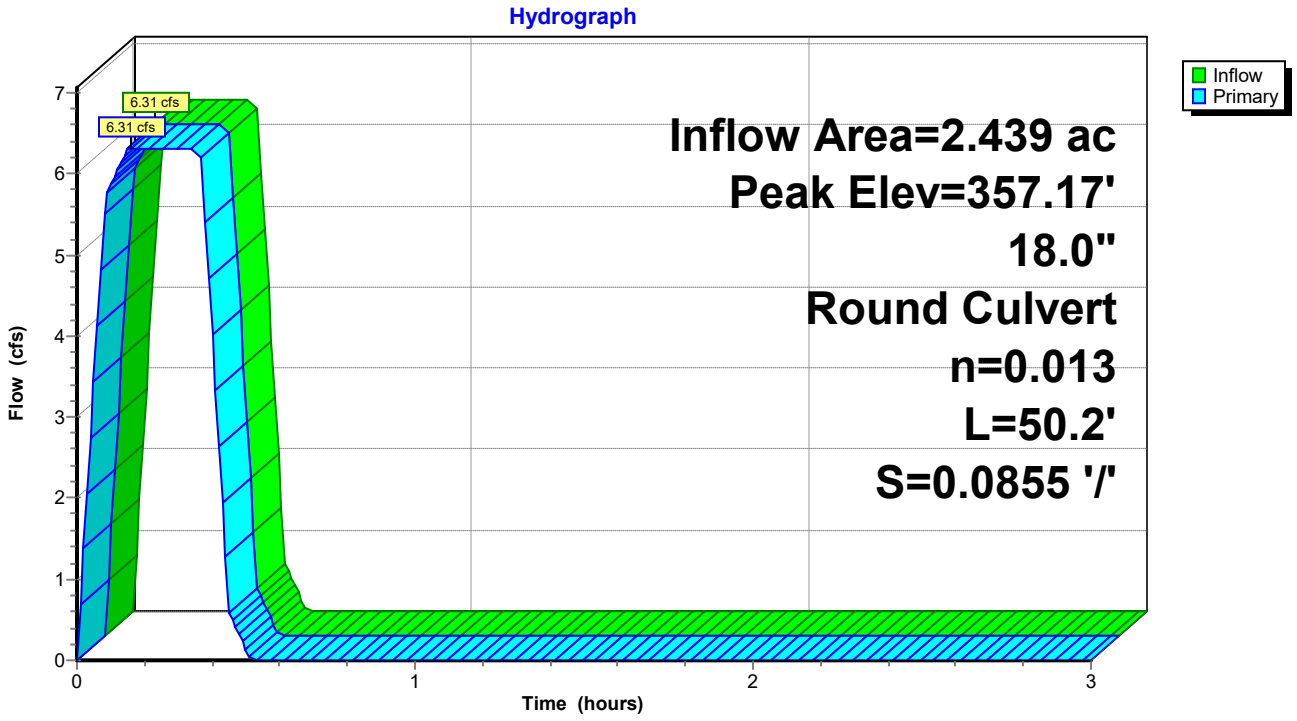
Inflow Area = 2.439 ac, 0.00% Impervious, Inflow Depth = 0.94" for 5-yr event
Inflow = 6.31 cfs @ 0.15 hrs, Volume= 0.191 af
Outflow = 6.31 cfs @ 0.16 hrs, Volume= 0.191 af, Atten= 0%, Lag= 0.6 min
Primary = 6.31 cfs @ 0.16 hrs, Volume= 0.191 af
Routed to Link POST-DEV : Post-Development

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 357.17' @ 0.15 hrs

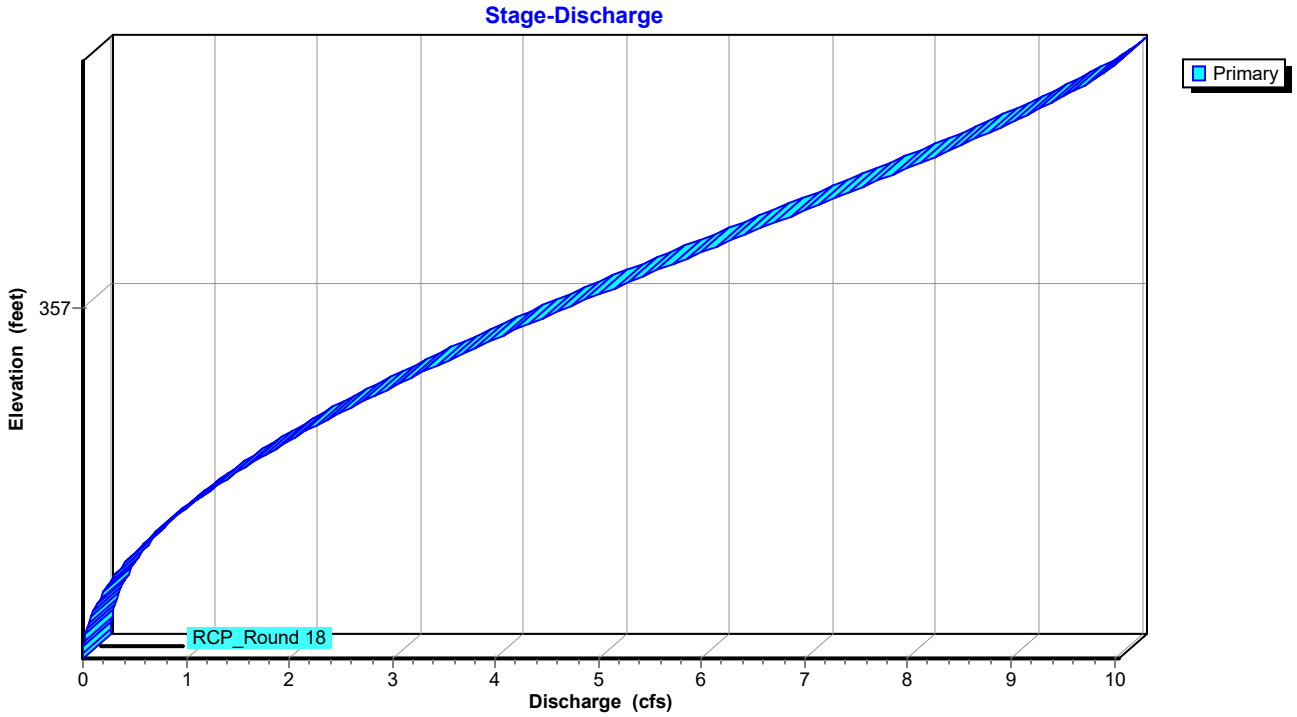
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 356.12' | **18.0" Round RCP_Round 18**<br>L= 50.2' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 356.12' / 351.83' S= 0.0855 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf |

**Primary OutFlow** Max=6.31 cfs @ 0.16 hrs HW=357.17' (Free Discharge)
**1=RCP_Round 18** (Inlet Controls 6.31 cfs @ 4.76 fps)

## Pond CI-A5: CURB INLET A5



## Pond CI-A5: CURB INLET A5



## Summary for Pond CI-C1: CURB INLET C1

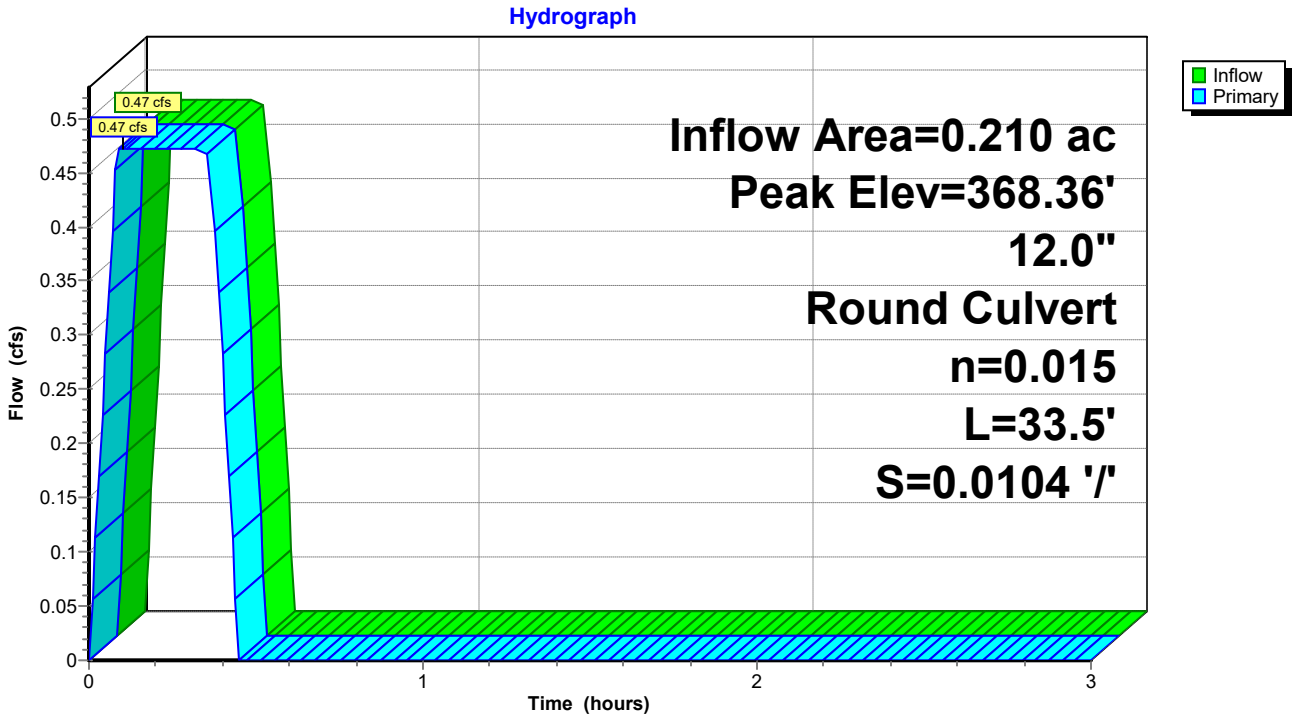
Inflow Area = 0.210 ac, 0.00% Impervious, Inflow Depth = 0.82" for 5-yr event
Inflow = 0.47 cfs @ 0.09 hrs, Volume= 0.014 af
Outflow = 0.47 cfs @ 0.10 hrs, Volume= 0.014 af, Atten= 0%, Lag= 0.6 min
Primary = 0.47 cfs @ 0.10 hrs, Volume= 0.014 af
Routed to Pond CI-C2 : CURB INLET C2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 368.36' @ 0.09 hrs

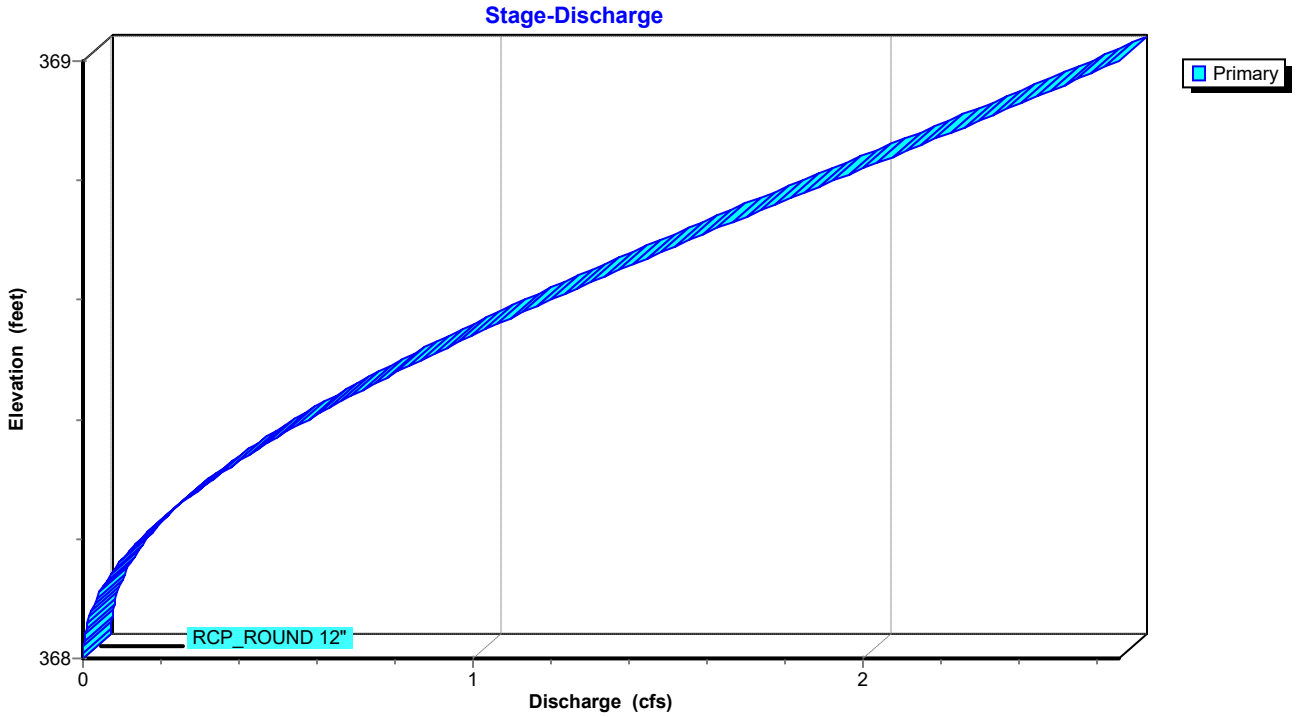
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 368.00' | **12.0" Round RCP_ROUND 12"**<br>L= 33.5' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 368.00' / 367.65' S= 0.0104 '/' Cc= 0.900<br>n= 0.015 Concrete sewer w/manholes & inlets, Flow Area= 0.79 sf |

**Primary OutFlow** Max=0.47 cfs @ 0.10 hrs HW=368.36' (Free Discharge)
**1=RCP_ROUND 12"** (Barrel Controls 0.47 cfs @ 2.76 fps)

## Pond CI-C1: CURB INLET C1



## Pond CI-C1: CURB INLET C1



## Summary for Pond CI-C2: CURB INLET C2

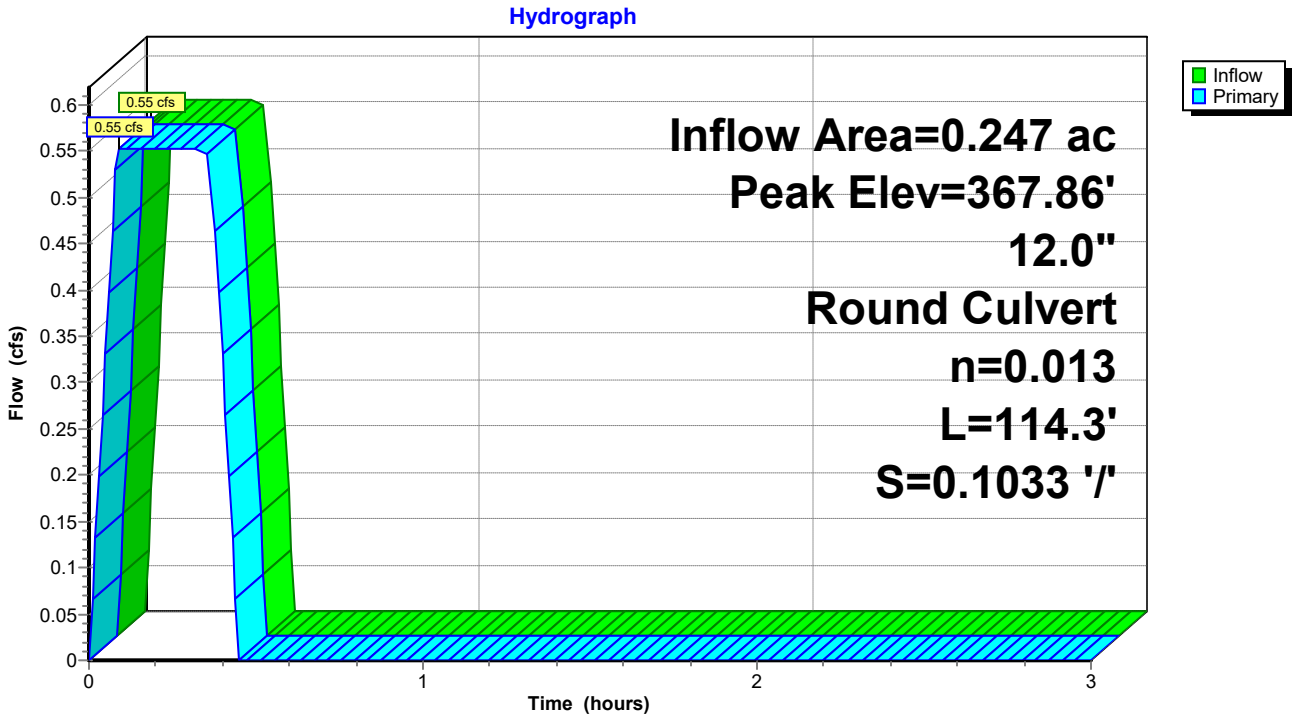
Inflow Area = 0.247 ac, 0.00% Impervious, Inflow Depth = 0.81" for 5-yr event
Inflow = 0.55 cfs @ 0.10 hrs, Volume= 0.017 af
Outflow = 0.55 cfs @ 0.09 hrs, Volume= 0.017 af, Atten= 0%, Lag= 0.0 min
Primary = 0.55 cfs @ 0.09 hrs, Volume= 0.017 af
Routed to Pond JB-C3 : JUNCTION BOX C3

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 367.86' @ 0.09 hrs

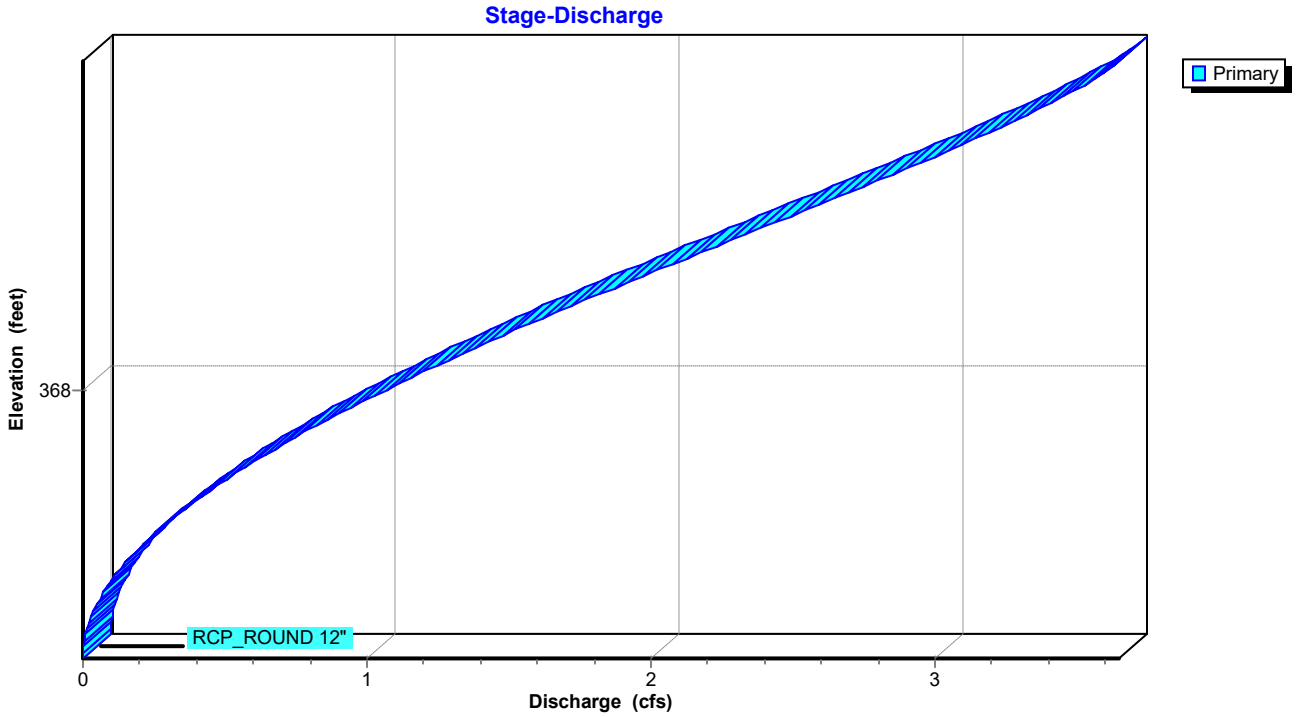
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 367.55' | **12.0" Round RCP_ROUND 12"**<br>L= 114.3' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 367.55' / 355.74' S= 0.1033 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=0.55 cfs @ 0.09 hrs HW=367.86' (Free Discharge)
**1=RCP_ROUND 12"** (Inlet Controls 0.55 cfs @ 2.61 fps)

## Pond CI-C2: CURB INLET C2



## Pond CI-C2: CURB INLET C2



## Summary for Pond CI-C4: CURB INLET C4

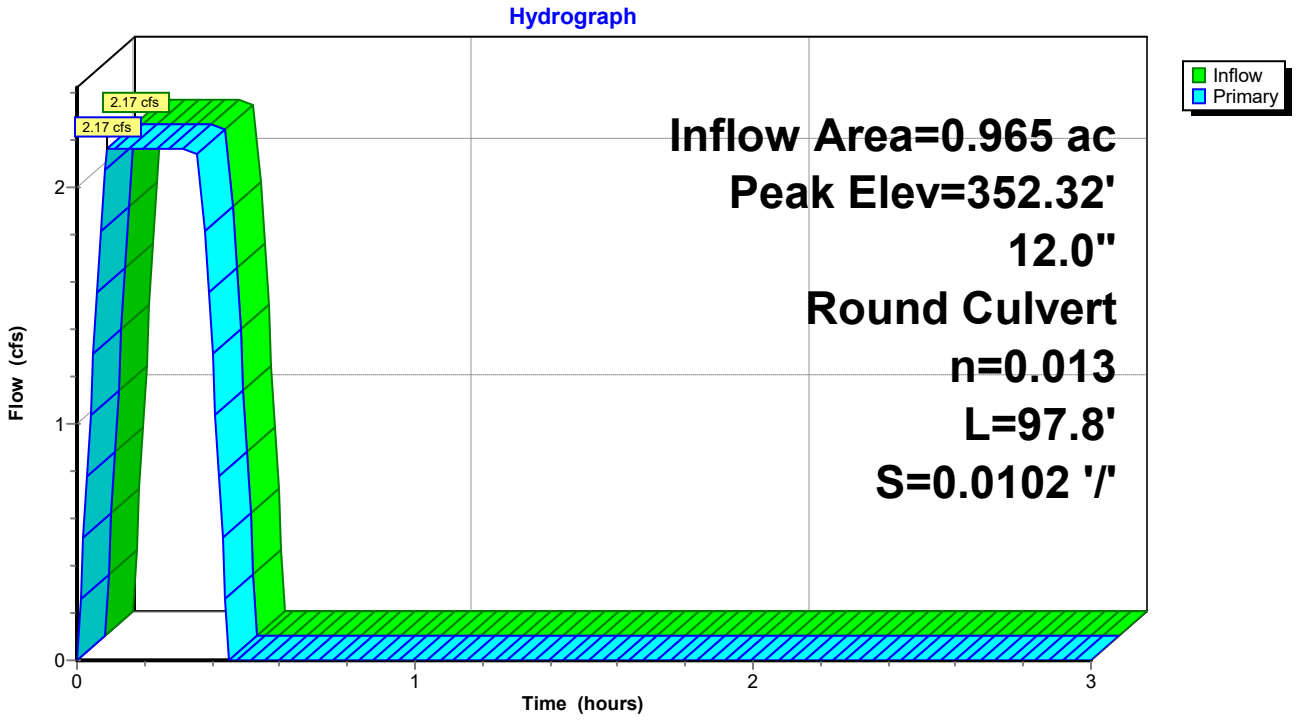
Inflow Area = 0.965 ac, 0.00% Impervious, Inflow Depth = 0.82" for 5-yr event
Inflow = 2.17 cfs @ 0.09 hrs, Volume= 0.066 af
Outflow = 2.17 cfs @ 0.09 hrs, Volume= 0.066 af, Atten= 0%, Lag= 0.0 min
Primary = 2.17 cfs @ 0.09 hrs, Volume= 0.066 af
Routed to Pond CI-C5 : CURB INLET C5

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 352.32' @ 0.09 hrs

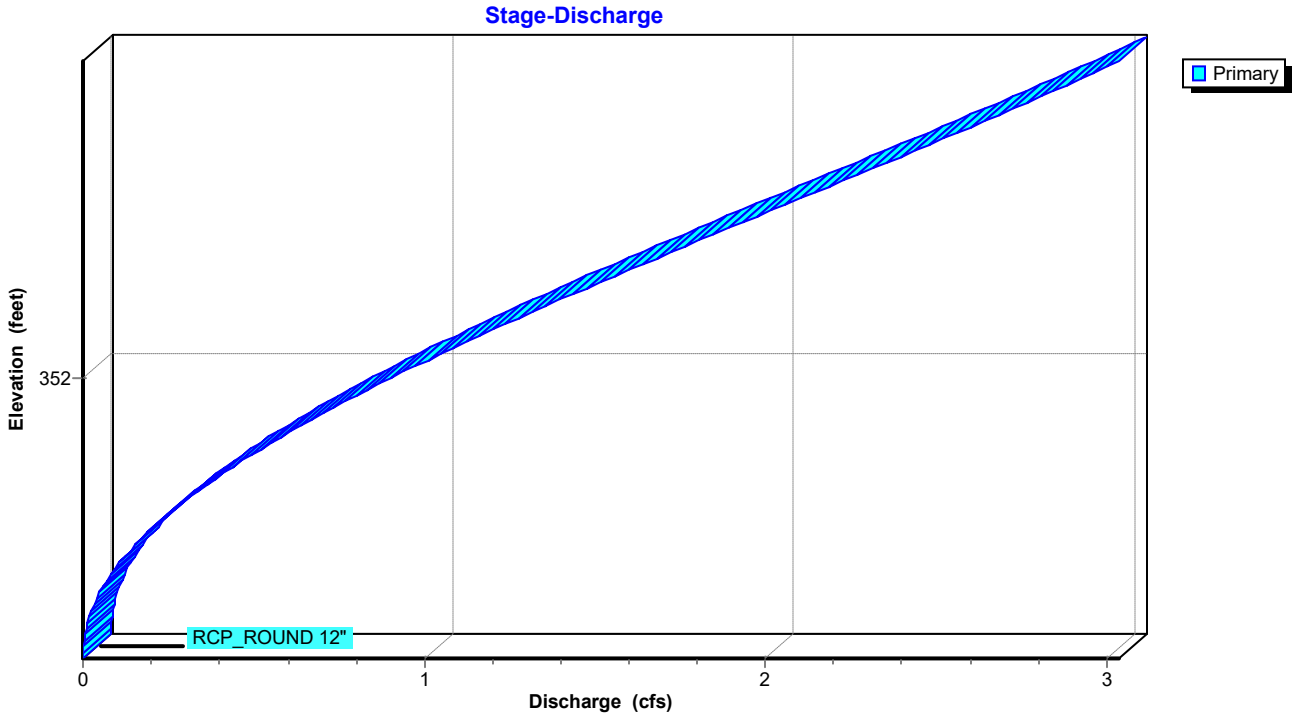
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 351.53' | **12.0" Round RCP_ROUND 12"**<br>L= 97.8' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 351.53' / 350.53' S= 0.0102 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=2.17 cfs @ 0.09 hrs HW=352.32' (Free Discharge)
**1=RCP_ROUND 12"** (Barrel Controls 2.17 cfs @ 4.50 fps)

## Pond CI-C4: CURB INLET C4



## Pond CI-C4: CURB INLET C4



## Summary for Pond CI-C5: CURB INLET C5

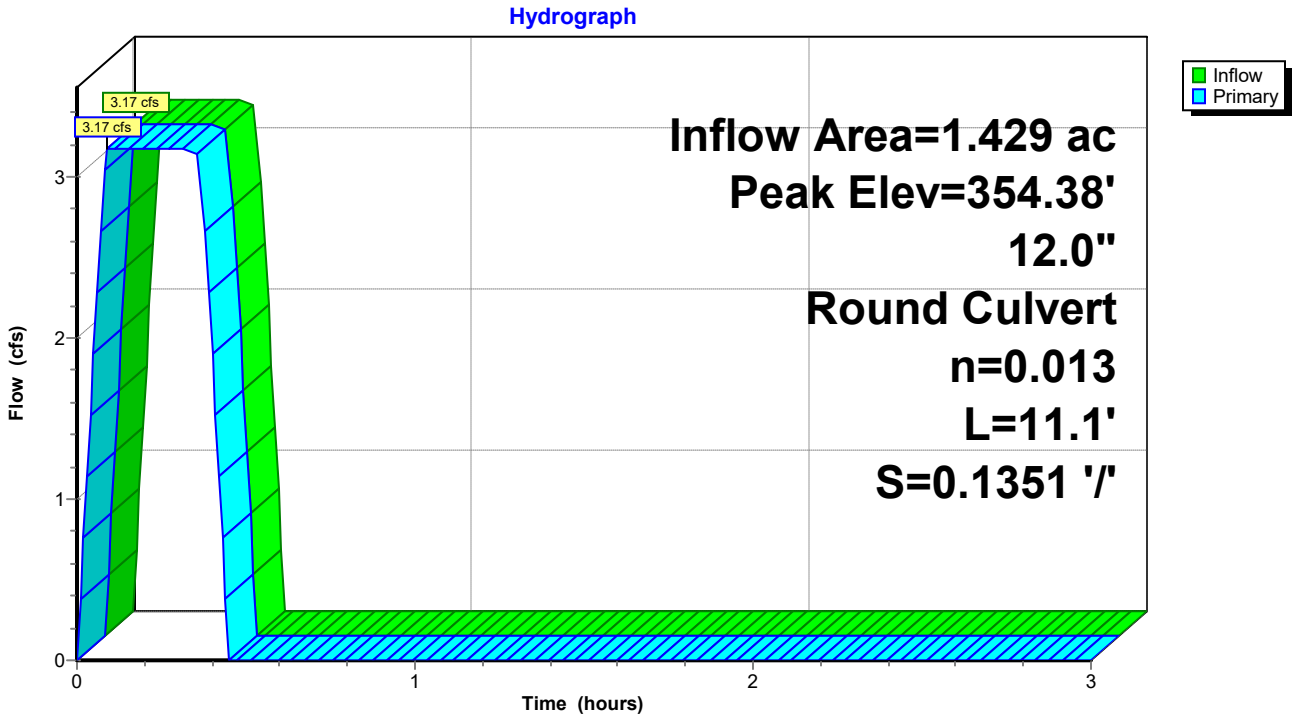
Inflow Area = 1.429 ac, 0.00% Impervious, Inflow Depth = 0.81" for 5-yr event
Inflow = 3.17 cfs @ 0.09 hrs, Volume= 0.096 af
Outflow = 3.17 cfs @ 0.09 hrs, Volume= 0.096 af, Atten= 0%, Lag= 0.0 min
Primary = 3.17 cfs @ 0.09 hrs, Volume= 0.096 af
Routed to Link POST-DEV : Post-Development

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 354.38' @ 0.09 hrs

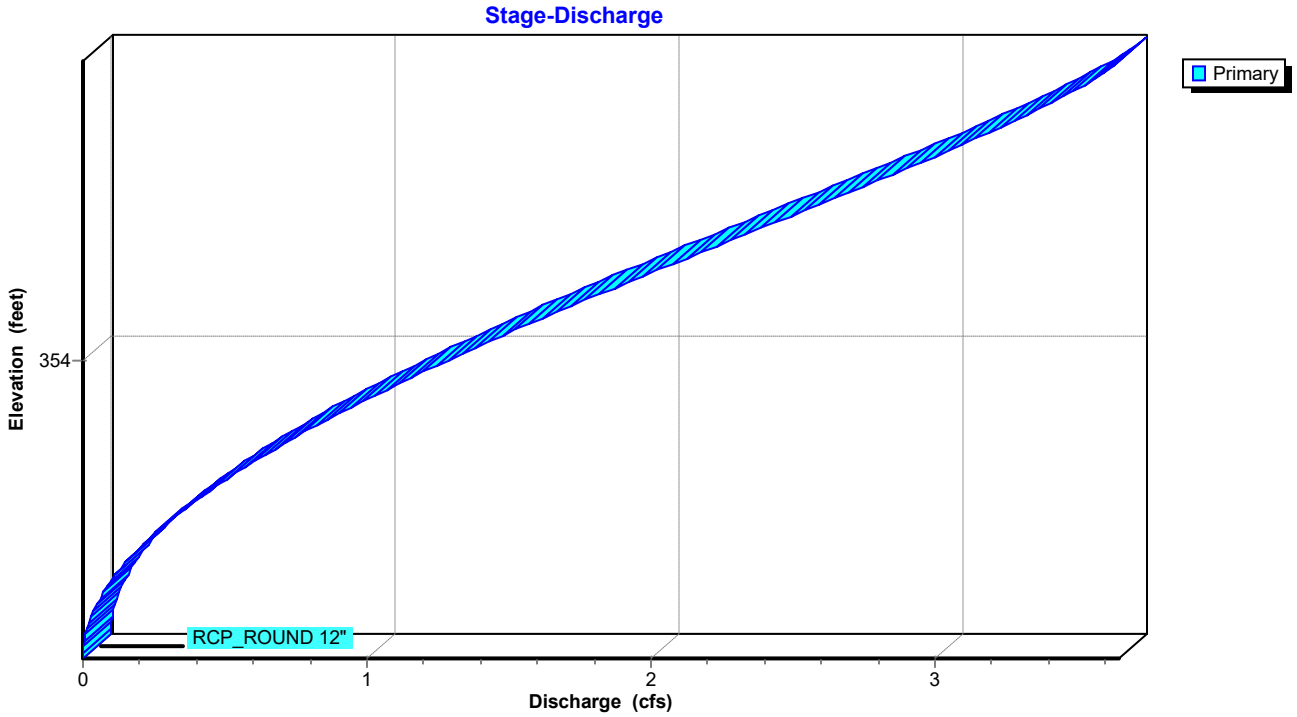
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 353.50' | **12.0" Round RCP_ROUND 12"**<br>L= 11.1' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 353.50' / 352.00' S= 0.1351 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=3.17 cfs @ 0.09 hrs HW=354.38' (Free Discharge)
**1=RCP_ROUND 12"** (Inlet Controls 3.17 cfs @ 4.35 fps)

## Pond CI-C5: CURB INLET C5



## Pond CI-C5: CURB INLET C5



## Summary for Pond CI-D1: CURB INLET D1

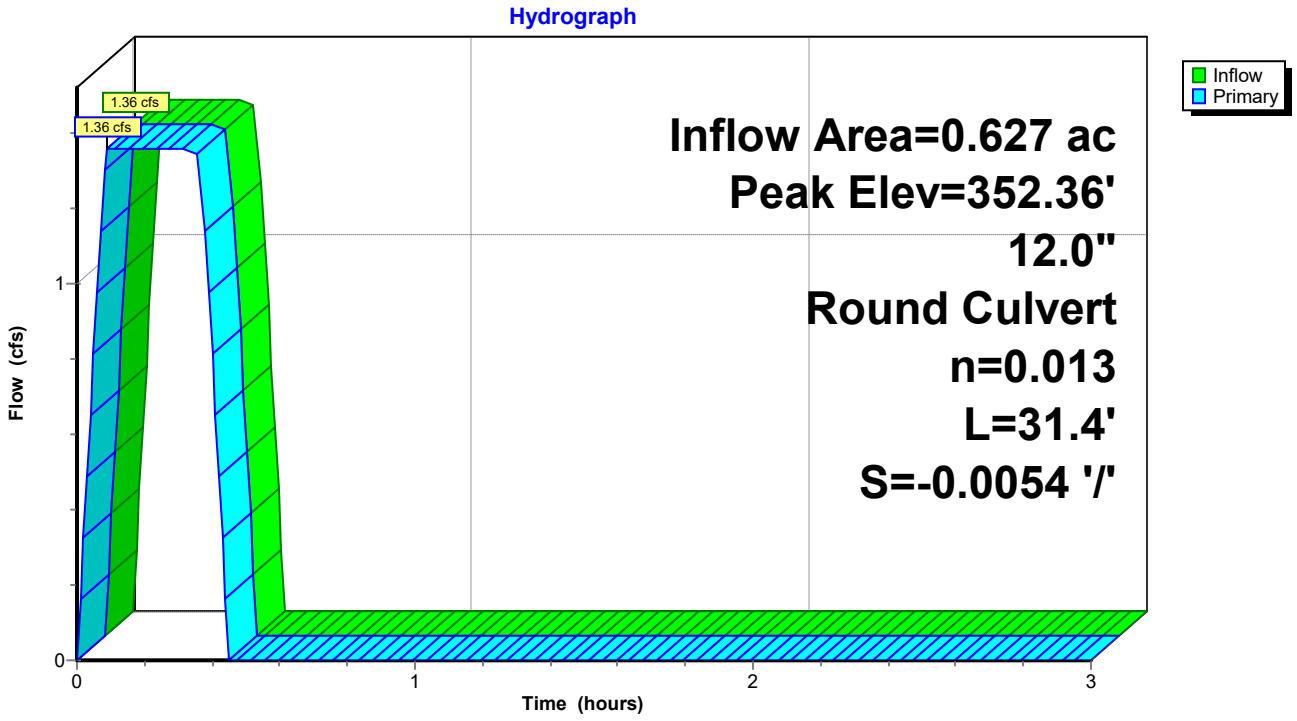
Inflow Area = 0.627 ac, 0.00% Impervious, Inflow Depth = 0.79" for 5-yr event
Inflow = 1.36 cfs @ 0.09 hrs, Volume= 0.041 af
Outflow = 1.36 cfs @ 0.09 hrs, Volume= 0.041 af, Atten= 0%, Lag= 0.0 min
Primary = 1.36 cfs @ 0.09 hrs, Volume= 0.041 af
Routed to Pond CI-C4 : CURB INLET C4

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 352.36' @ 0.09 hrs

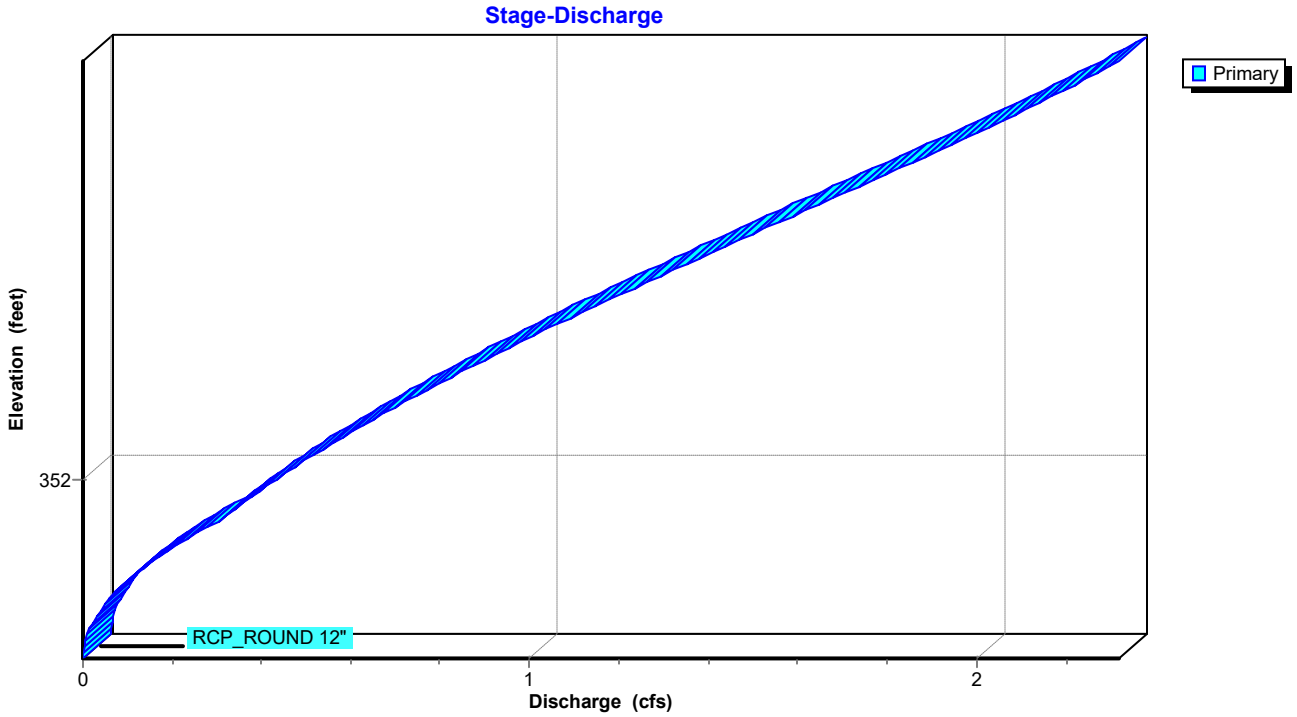
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 351.70' | **12.0" Round RCP_ROUND 12"**<br>L= 31.4' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 351.53' / 351.70' S= -0.0054 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=1.36 cfs @ 0.09 hrs HW=352.36' (Free Discharge)
**1=RCP_ROUND 12"** (Barrel Controls 1.36 cfs @ 2.63 fps)

## Pond CI-D1: CURB INLET D1



## Pond CI-D1: CURB INLET D1



## Summary for Pond JB-C3: JUNCTION BOX C3

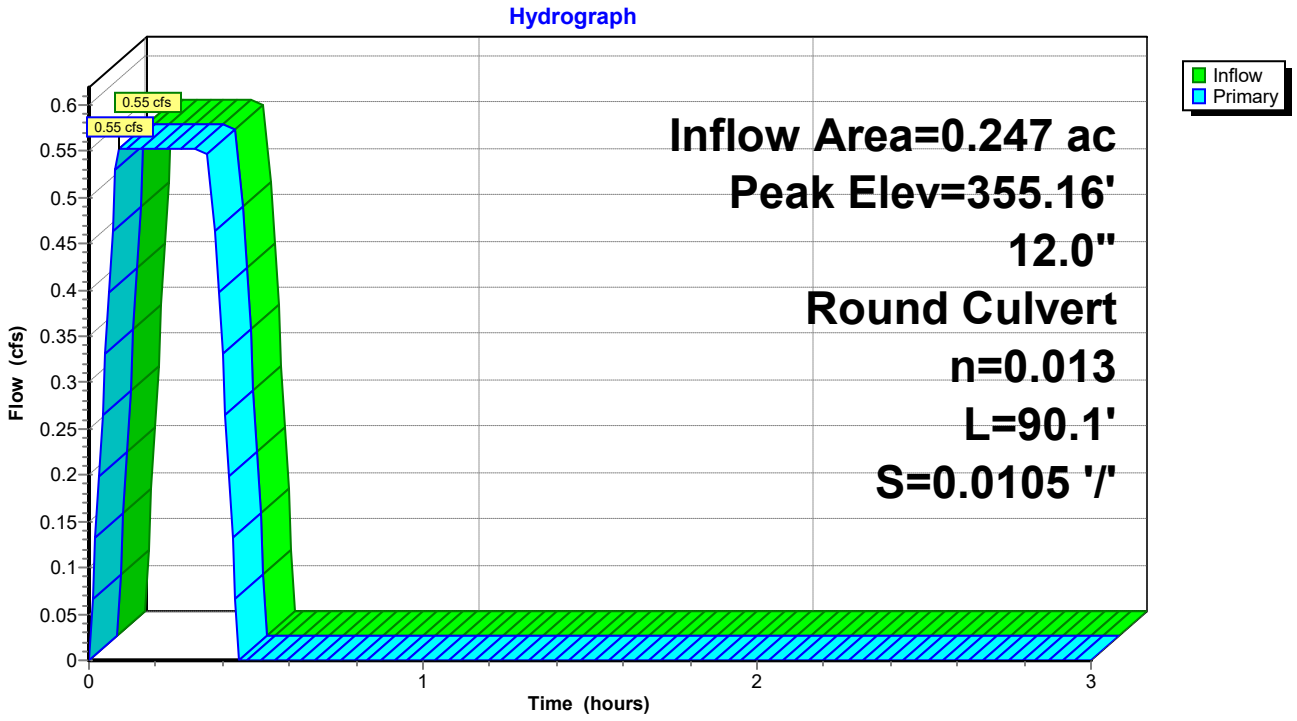
Inflow Area = 0.247 ac, 0.00% Impervious, Inflow Depth = 0.81" for 5-yr event
Inflow = 0.55 cfs @ 0.09 hrs, Volume= 0.017 af
Outflow = 0.55 cfs @ 0.09 hrs, Volume= 0.017 af, Atten= 0%, Lag= 0.0 min
Primary = 0.55 cfs @ 0.09 hrs, Volume= 0.017 af
Routed to Pond CI-C4 : CURB INLET C4

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 355.16' @ 0.09 hrs

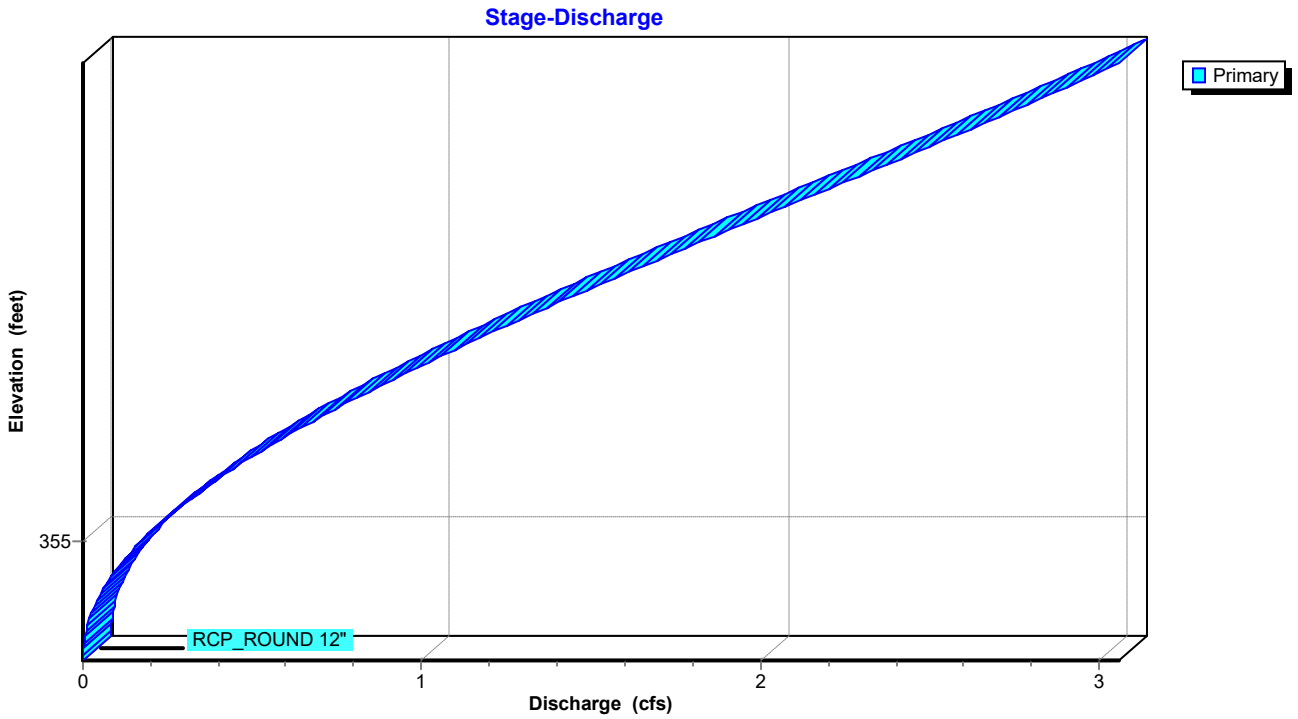
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 354.80' | **12.0" Round RCP_ROUND 12"**<br>L= 90.1' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 354.80' / 353.85' S= 0.0105 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=0.55 cfs @ 0.09 hrs HW=355.16' (Free Discharge)
**1=RCP_ROUND 12"** (Barrel Controls 0.55 cfs @ 3.24 fps)

## Pond JB-C3: JUNCTION BOX C3



## Pond JB-C3: JUNCTION BOX C3

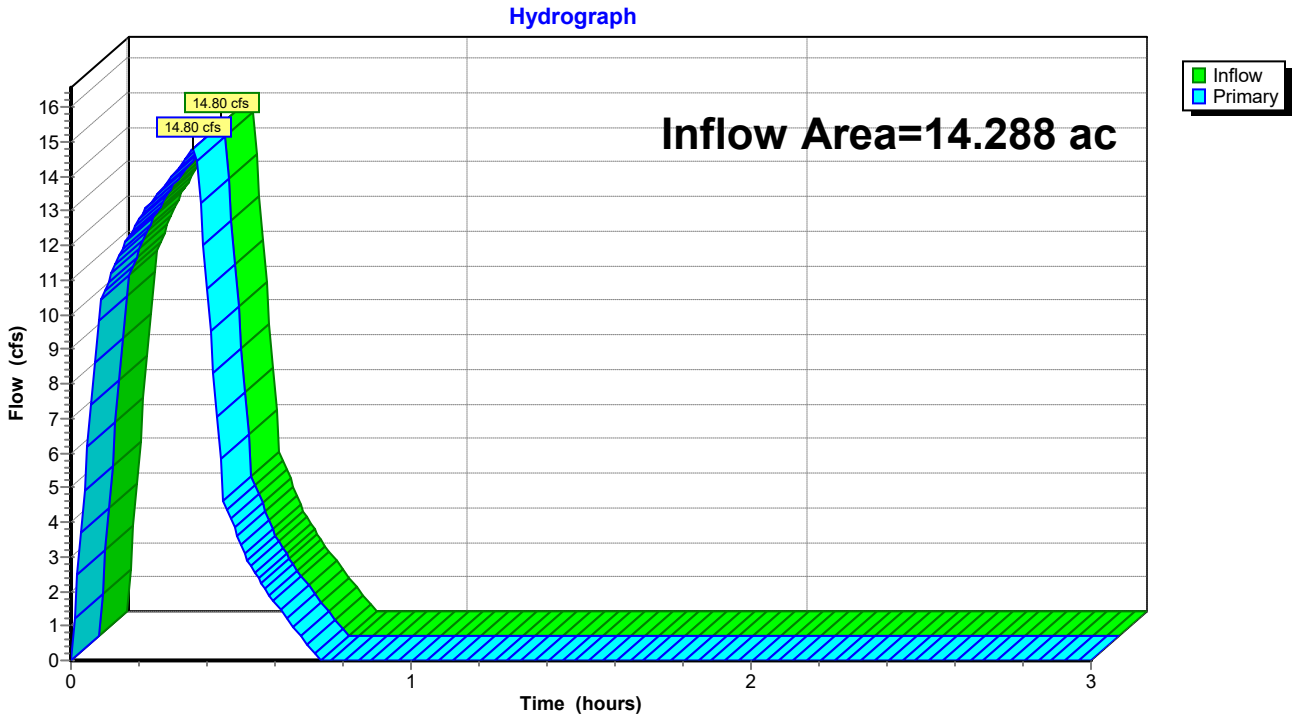


## Summary for Link POST-DEV: Post-Development

Inflow Area = 14.288 ac, 0.00% Impervious, Inflow Depth = 0.38" for 5-yr event
Inflow = 14.80 cfs @ 0.36 hrs, Volume= 0.450 af
Primary = 14.80 cfs @ 0.36 hrs, Volume= 0.450 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

## Link POST-DEV: Post-Development



## Summary for Subcatchment DB-B1: Drainage Basin B1

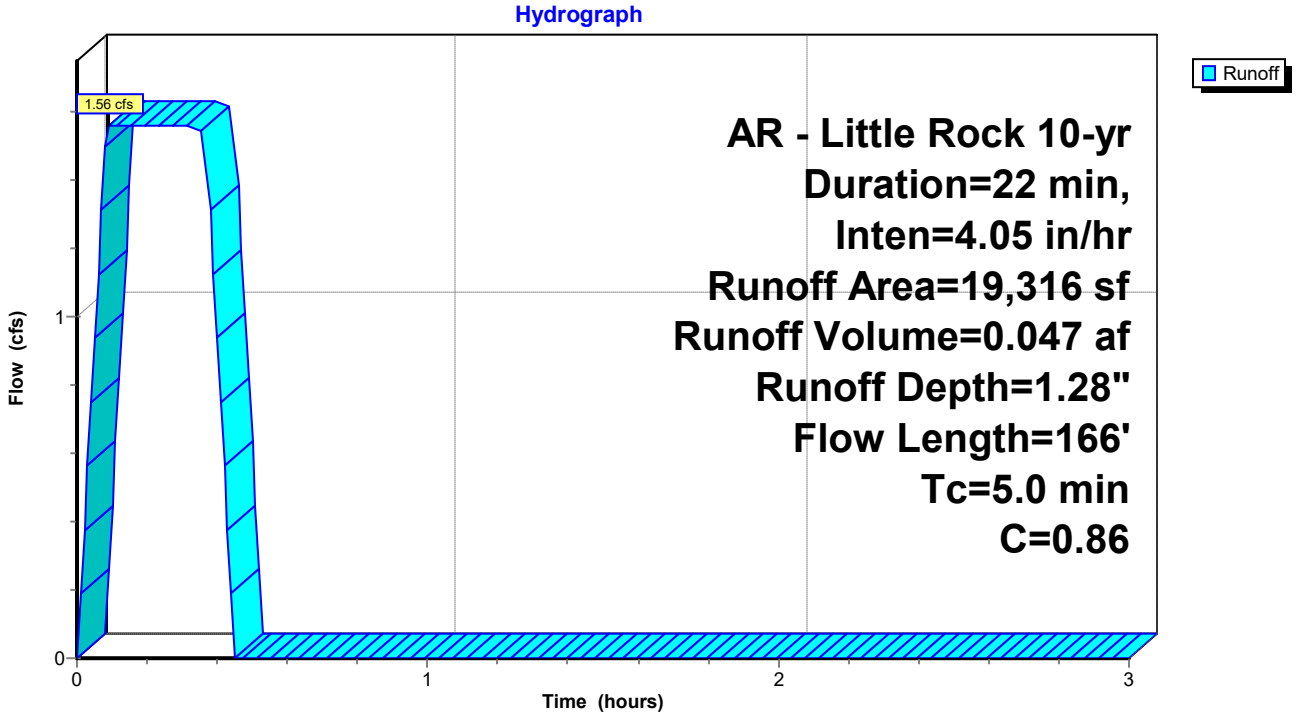
Runoff = 1.56 cfs @ 0.09 hrs, Volume= 0.047 af, Depth= 1.28"
Routed to Pond CI-A1 : CURB INLET A1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=22 min, Inten=4.05 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 1,941 | 0.30 | Sandy Soil 2-7% per manual |
| 17,375 | 0.92 | Paved Areas |
| 19,316 | 0.86 | Weighted Average |
| 19,316 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 3.5 | 33 | 0.0200 | 0.16 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.6 | 67 | 0.0350 | 1.82 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.5 | 66 | 0.0100 | 2.03 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 0.4 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 166 | Total | | | |

## Subcatchment DB-B1: Drainage Basin B1



## Summary for Subcatchment DB-B10: Drainage Basin B10

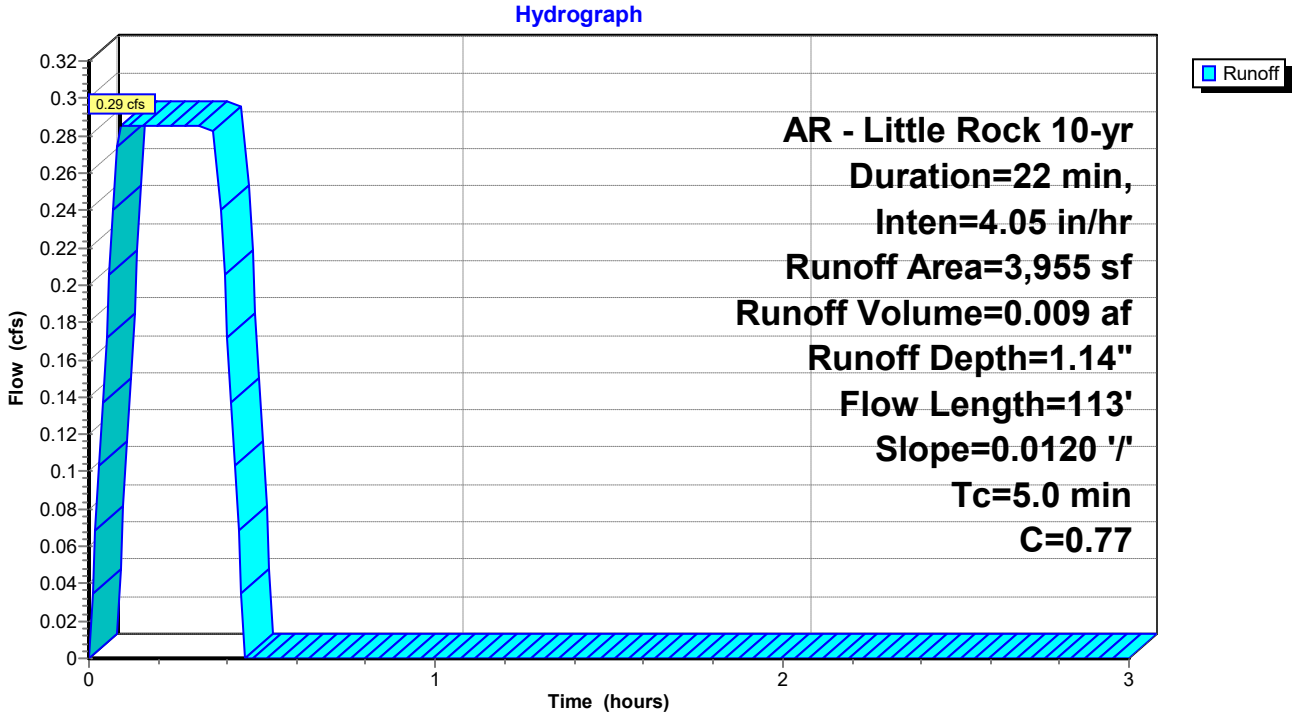
Runoff = 0.29 cfs @ 0.09 hrs, Volume= 0.009 af, Depth= 1.14"
Routed to Pond CI-C4 : CURB INLET C4

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=22 min, Inten=4.05 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 959 | 0.30 | Sandy Soil 2-7% per manual |
| 2,996 | 0.92 | Paved Areas |
| 3,955 | 0.77 | Weighted Average |
| 3,955 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.4 | 113 | 0.0120 | 1.32 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 3.6 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 113 | Total | | | |

## Subcatchment DB-B10: Drainage Basin B10



## Summary for Subcatchment DB-B11: Drainage Basin B11

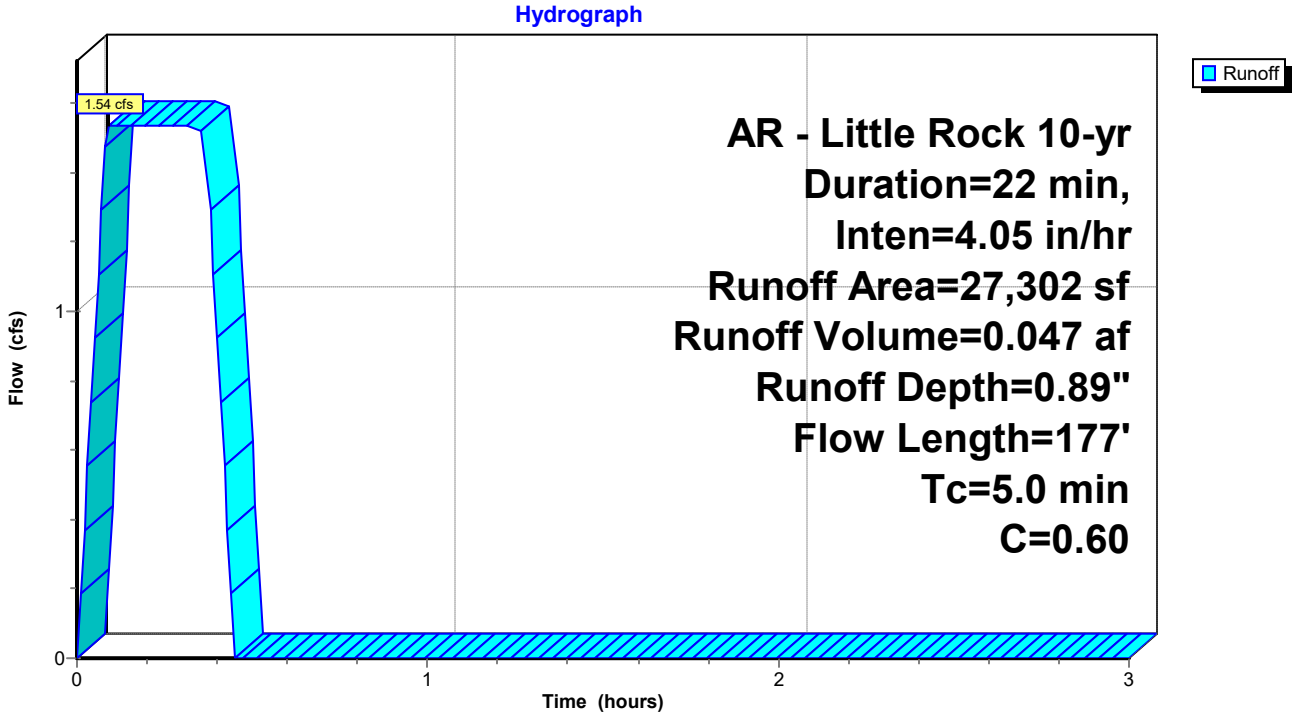
Runoff = 1.54 cfs @ 0.09 hrs, Volume= 0.047 af, Depth= 0.89"
Routed to Pond CI-D1 : CURB INLET D1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=22 min, Inten=4.05 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 15,547 | 0.35 | Sandy Soil 2-7% per manual |
| 11,755 | 0.92 | Paved Areas |
| 27,302 | 0.60 | Weighted Average |
| 27,302 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.2 | 65 | 0.3300 | 4.44 | | **Sheet Flow, Roof** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.2 | 69 | 0.1750 | 6.27 | | **Shallow Concentrated Flow, Greenspace** Grassed Waterway Kv= 15.0 fps |
| 0.2 | 43 | 0.0500 | 4.54 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 4.4 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 177 | Total | | | |

## Subcatchment DB-B11: Drainage Basin B11



## Summary for Subcatchment DB-B12: Drainage Basin B12

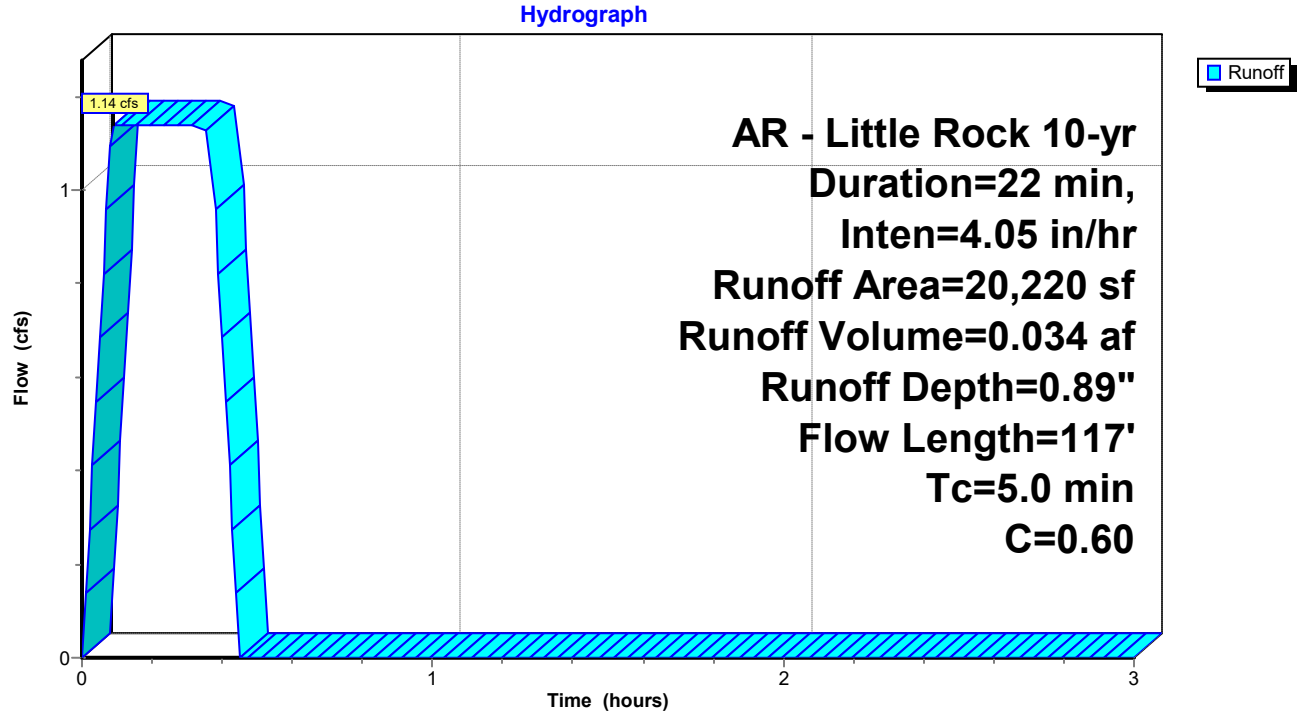
Runoff = 1.14 cfs @ 0.09 hrs, Volume= 0.034 af, Depth= 0.89"
Routed to Pond CI-C5 : CURB INLET C5

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=22 min, Inten=4.05 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 11,502 | 0.35 | Sandy Soil 2-7% per manual |
| 8,718 | 0.92 | Paved Areas |
| 20,220 | 0.60 | Weighted Average |
| 20,220 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 2.0 | 26 | 0.0500 | 0.21 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.5 | 38 | 0.2360 | 0.43 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.1 | 28 | 0.2390 | 0.41 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.4 | 25 | 0.0180 | 1.15 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 5.0 | 117 | Total | | | |

## Subcatchment DB-B12: Drainage Basin B12



## Summary for Subcatchment DB-B13: DRAINAGE BASIN B13

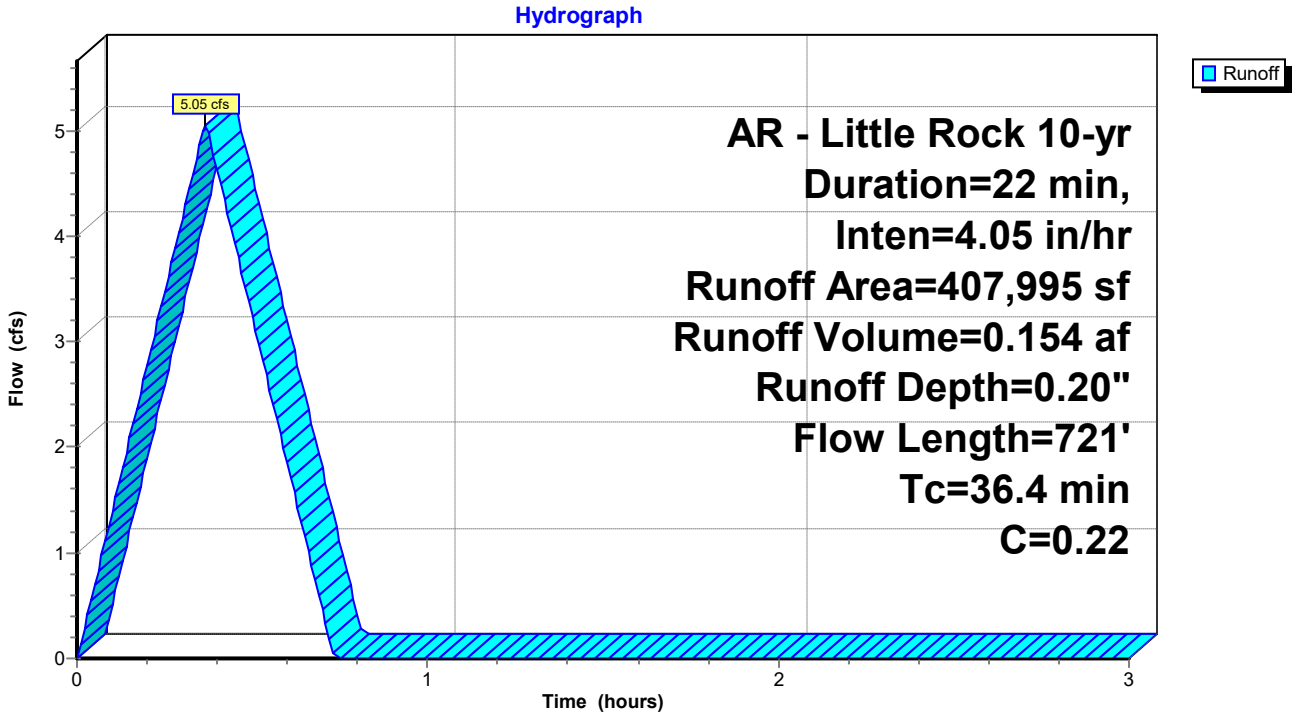
Runoff = 5.05 cfs @ 0.37 hrs, Volume= 0.154 af, Depth= 0.20"
Routed to Link POST-DEV : Post-Development

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=22 min, Inten=4.05 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 407,995 | 0.22 | Sandy Soil 2-7% Per Manual |
| 407,995 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.5 | 67 | 0.6600 | 0.73 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.2 | 46 | 0.5900 | 0.65 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 3.2 | 147 | 0.5100 | 0.77 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.8 | 63 | 0.3800 | 0.58 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 8.5 | 70 | 0.0100 | 0.14 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 4.8 | 163 | 0.2200 | 0.56 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 2.4 | 65 | 0.2000 | 0.45 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 6.3 | 48 | 0.0100 | 0.13 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 6.7 | 52 | 0.0100 | 0.13 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 36.4 | 721 | Total | | | |

## Subcatchment DB-B13: DRAINAGE BASIN B13



## Summary for Subcatchment DB-B14: DRAINAGE BASIN B14

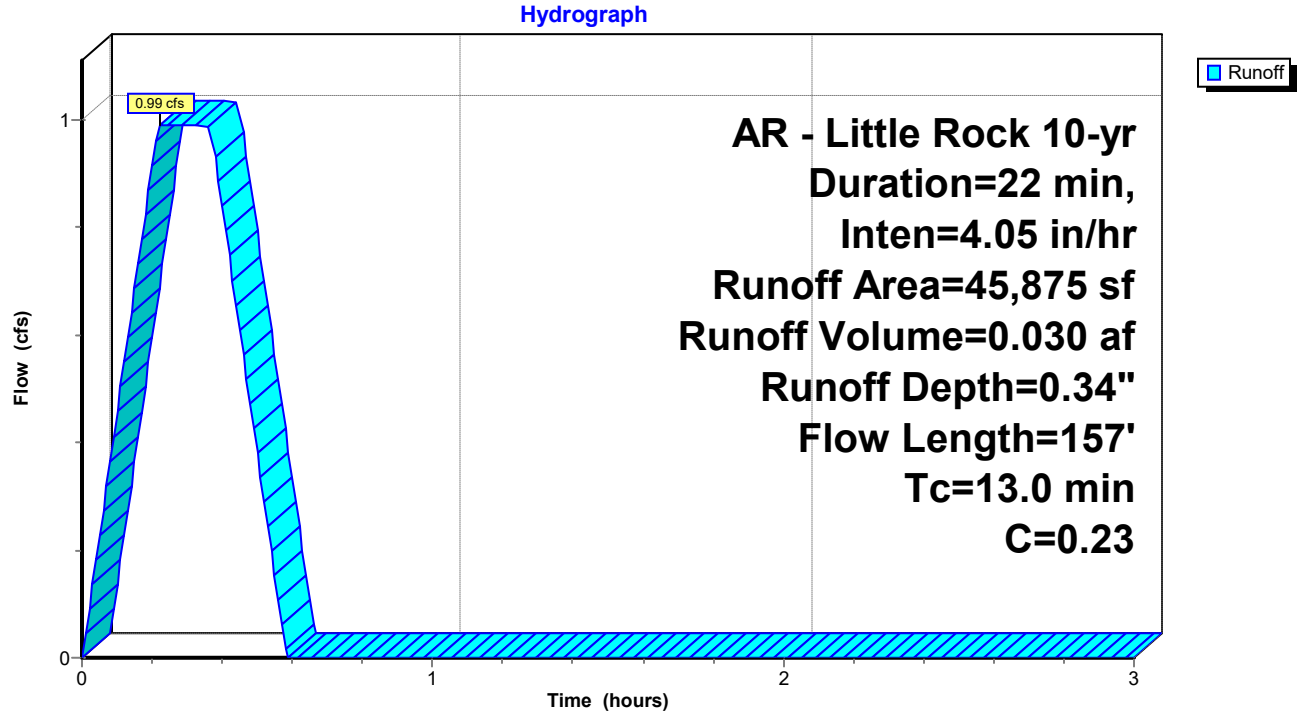
Runoff = 0.99 cfs @ 0.22 hrs, Volume= 0.030 af, Depth= 0.34"
Routed to Link POST-DEV : Post-Development

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=22 min, Inten=4.05 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 45,016 | 0.22 | Sandy Soil 2-7% Per Manual |
| 859 | 0.92 | Paved Areas |
| 45,875 | 0.23 | Weighted Average |
| 45,875 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 2.5 | 15 | 0.0100 | 0.10 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 5.2 | 78 | 0.0420 | 0.25 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 2.8 | 38 | 0.0480 | 0.23 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 2.5 | 26 | 0.0280 | 0.17 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 13.0 | 157 | Total | | | |

## Subcatchment DB-B14: DRAINAGE BASIN B14



## Summary for Subcatchment DB-B2: Drainage Basin B2

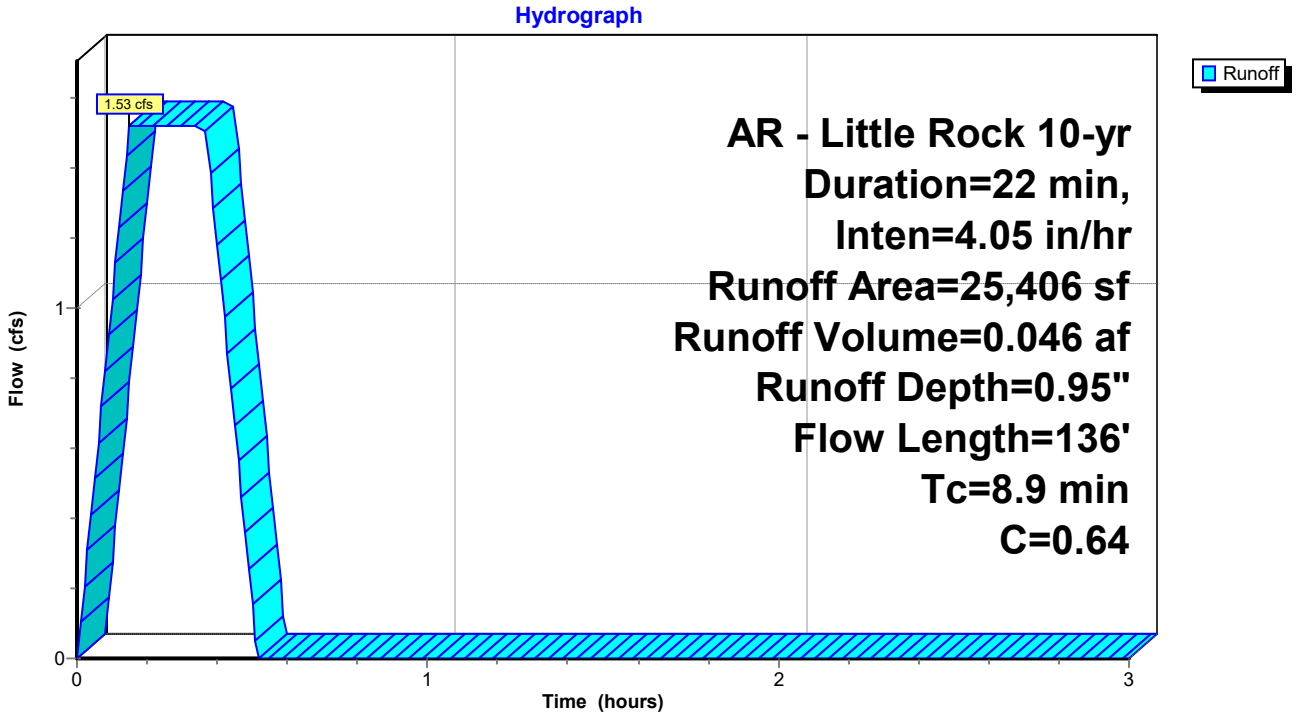
Runoff = 1.53 cfs @ 0.15 hrs, Volume= 0.046 af, Depth= 0.95"
Routed to Pond CI-A2 : CURB INLET A2

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=22 min, Inten=4.05 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 11,388 | 0.30 | Sandy Soil 2-7% per manual |
| 14,018 | 0.92 | Paved Areas |
| 25,406 | 0.64 | Weighted Average |
| 25,406 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 7.2 | 57 | 0.0100 | 0.13 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.8 | 19 | 0.2480 | 0.38 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.2 | 14 | 0.0150 | 0.95 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.3 | 34 | 0.0600 | 1.97 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.2 | 12 | 0.0350 | 1.29 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.2 | | | | | **Direct Entry, Minimum Adjustment** |
| 8.9 | 136 | Total | | | |

## Subcatchment DB-B2: Drainage Basin B2



## Summary for Subcatchment DB-B3: Drainage Basin B3

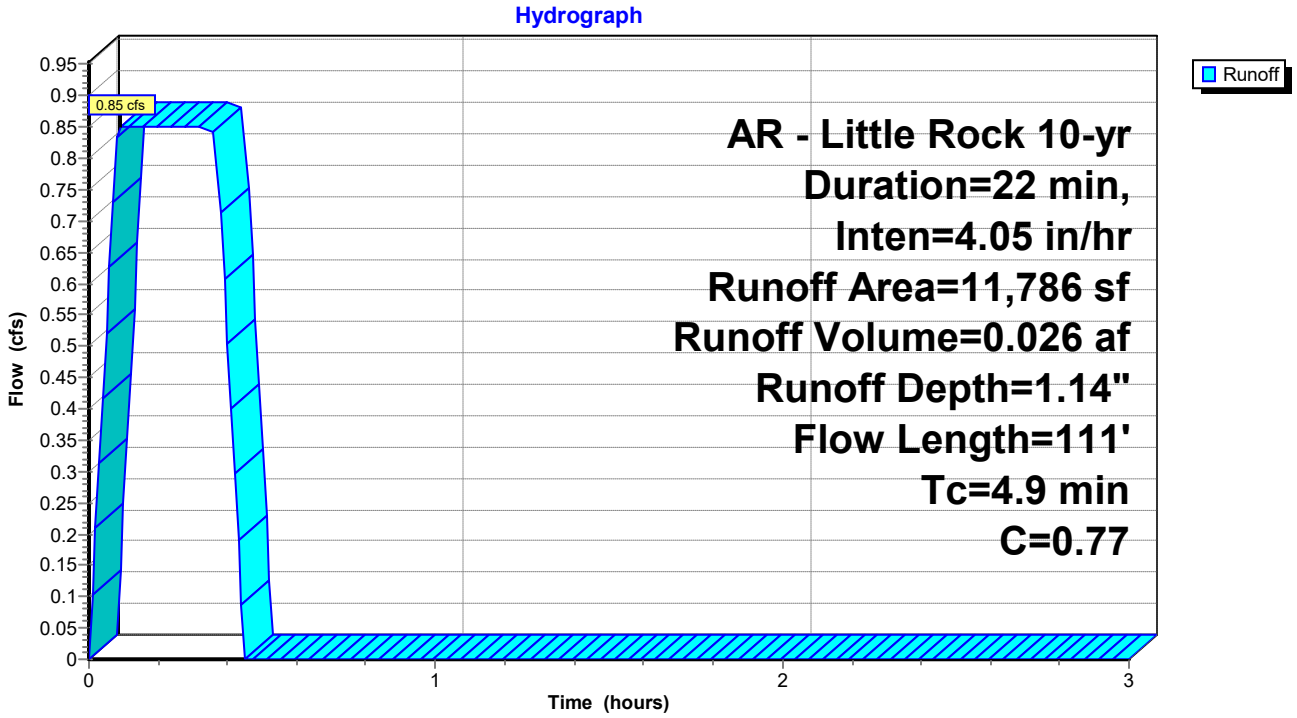
Runoff = 0.85 cfs @ 0.09 hrs, Volume= 0.026 af, Depth= 1.14"
Routed to Pond CI-A3 : CURB INLET A3

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=22 min, Inten=4.05 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 2,920 | 0.30 | Sandy Soil 2-7% per manual |
| 8,866 | 0.92 | Paved Areas |
| 11,786 | 0.77 | Weighted Average |
| 11,786 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.8 | 19 | 0.2500 | 0.38 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.2 | 16 | 0.0290 | 1.27 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.6 | 38 | 0.0100 | 0.98 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.3 | 38 | 0.0100 | 2.03 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 3.0 | | | | | **Direct Entry, Minimum Adjustment** |
| 4.9 | 111 | Total | | | |

## Subcatchment DB-B3: Drainage Basin B3



## Summary for Subcatchment DB-B4: Drainage Basin B4

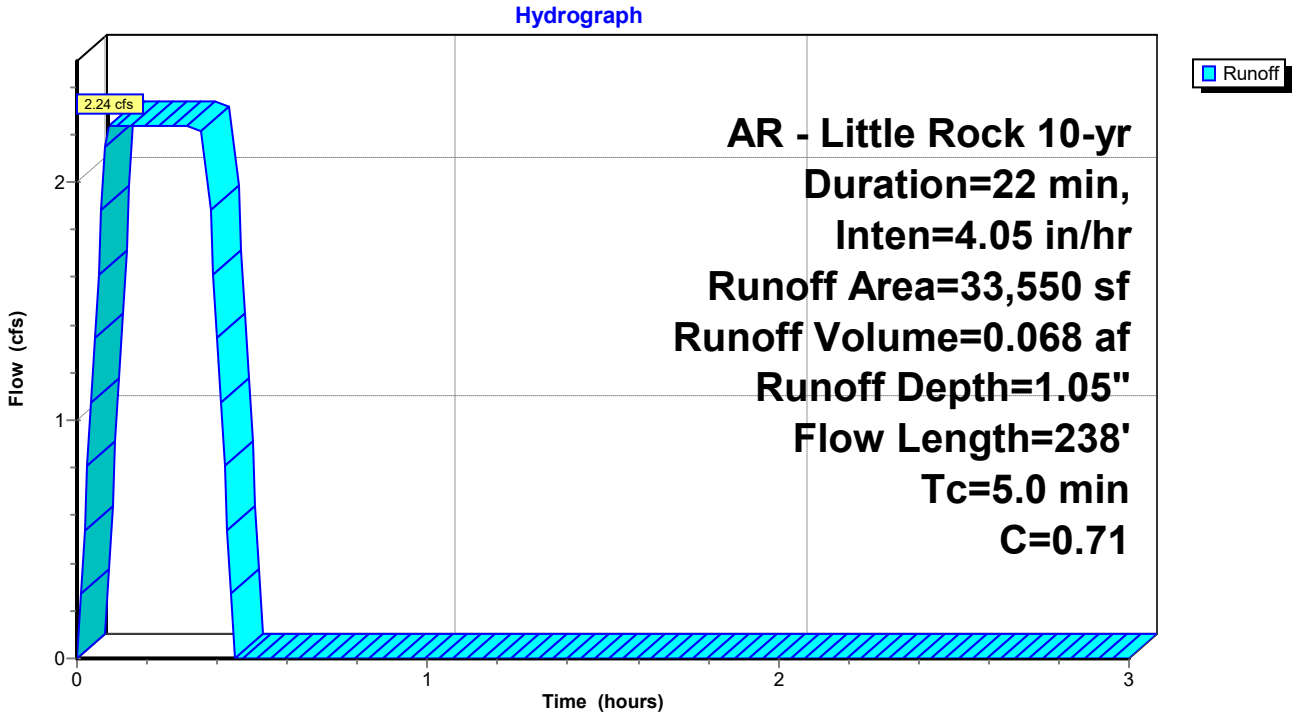
Runoff = 2.24 cfs @ 0.09 hrs, Volume= 0.068 af, Depth= 1.05"
Routed to Pond CI-A4 : CURB INLET A4

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=22 min, Inten=4.05 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 11,568 | 0.30 | Sandy Soil 2-7% per manual |
| 21,982 | 0.92 | Paved Areas |
| 33,550 | 0.71 | Weighted Average |
| 33,550 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.4 | 48 | 0.0530 | 2.01 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.3 | 25 | 0.0310 | 1.42 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.6 | 14 | 0.0020 | 0.42 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.9 | 66 | 0.0130 | 1.22 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.4 | 59 | 0.0120 | 2.22 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 0.5 | 19 | 0.0010 | 0.64 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 0.0 | 7 | 0.0700 | 5.37 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 1.9 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 238 | Total | | | |

## Subcatchment DB-B4: Drainage Basin B4



## Summary for Subcatchment DB-B5: Drainage Basin B5

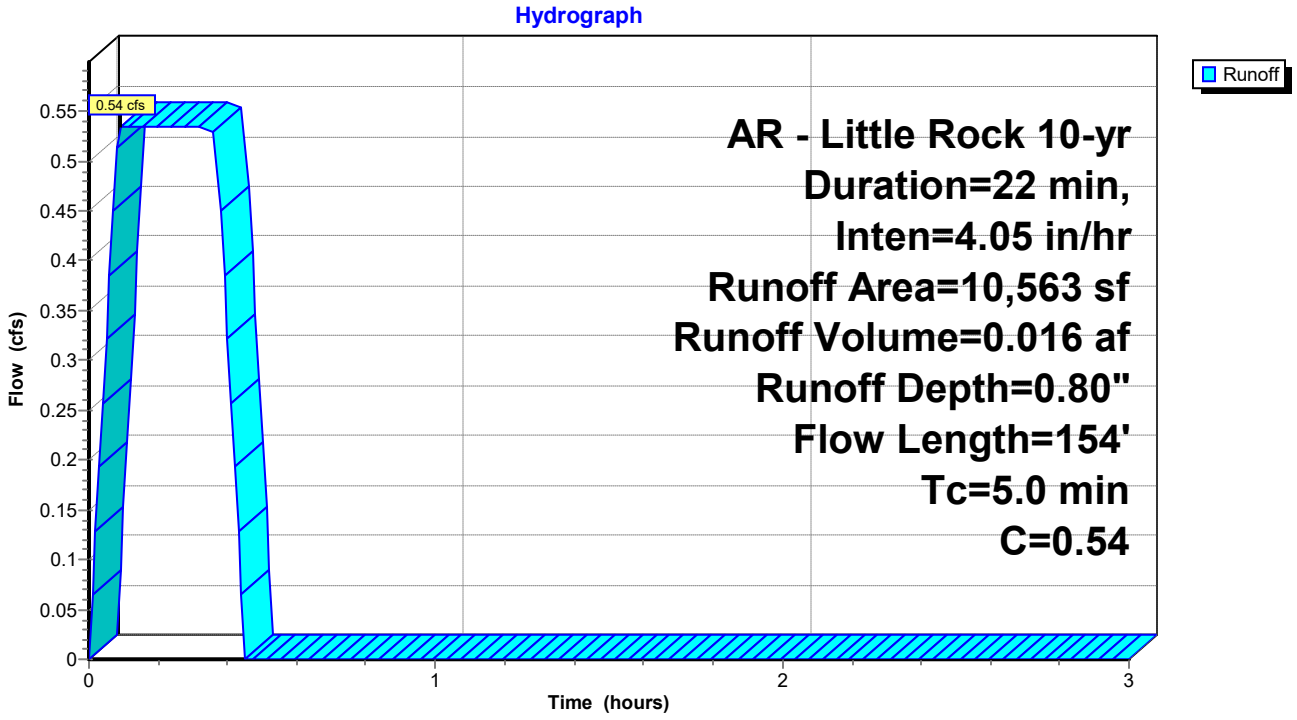
Runoff = 0.54 cfs @ 0.09 hrs, Volume= 0.016 af, Depth= 0.80"
Routed to Pond CI-A5 : CURB INLET A5

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=22 min, Inten=4.05 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 6,980 | 0.35 | Sandy Soil 2-7% per manual |
| 3,583 | 0.92 | Paved Areas |
| 10,563 | 0.54 | Weighted Average |
| 10,563 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.2 | 19 | 0.0920 | 0.26 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.9 | 39 | 0.1260 | 0.34 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.5 | 66 | 0.0540 | 2.16 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.1 | 30 | 0.0500 | 4.54 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 1.3 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 154 | Total | | | |

## Subcatchment DB-B5: Drainage Basin B5



## Summary for Subcatchment DB-B6: Drainage Basin B6

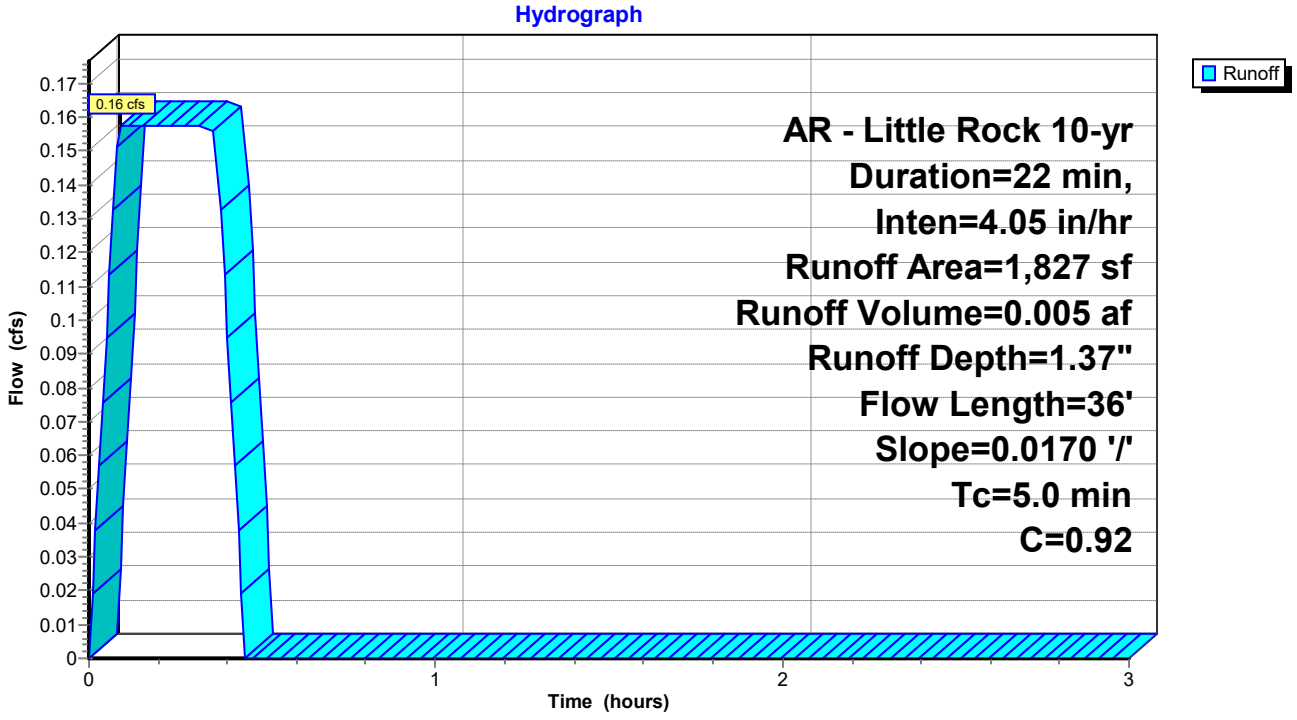
Runoff = 0.16 cfs @ 0.09 hrs, Volume= 0.005 af, Depth= 1.37"
Routed to Pond AI-B1 : AREA INLET B1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=22 min, Inten=4.05 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 0 | 0.30 | Sandy Soil 2-7% per manual |
| 1,827 | 0.92 | Paved Areas |
| 1,827 | 0.92 | Weighted Average |
| 1,827 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.5 | 36 | 0.0170 | 1.20 | | **Sheet Flow, Concrete** Smooth surfaces n= 0.011 P2= 4.20" |
| 4.5 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 36 | Total | | | |

## Subcatchment DB-B6: Drainage Basin B6



## Summary for Subcatchment DB-B7: Drainage Basin B7

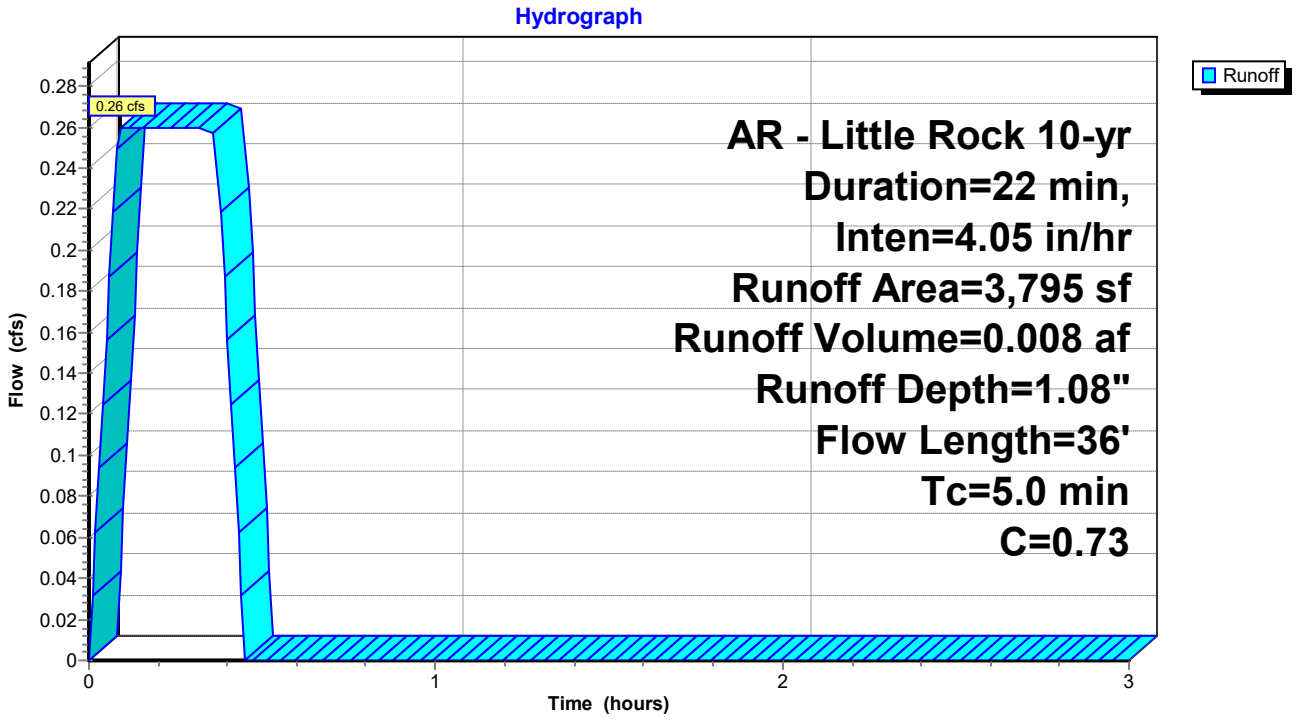
Runoff = 0.26 cfs @ 0.09 hrs, Volume= 0.008 af, Depth= 1.08"
Routed to Pond AI-B2 : AREA INLET B2

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=22 min, Inten=4.05 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 1,158 | 0.30 | Sandy Soil 2-7% per manual |
| 2,637 | 0.92 | Paved Areas |
| 3,795 | 0.73 | Weighted Average |
| 3,795 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.8 | 24 | 0.0020 | 0.47 | | **Sheet Flow, Concrete** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.2 | 12 | 0.0160 | 0.94 | | **Sheet Flow, Concrete** Smooth surfaces n= 0.011 P2= 4.20" |
| 4.0 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 36 | Total | | | |

## Subcatchment DB-B7: Drainage Basin B7



## Summary for Subcatchment DB-B8: Drainage Basin B8

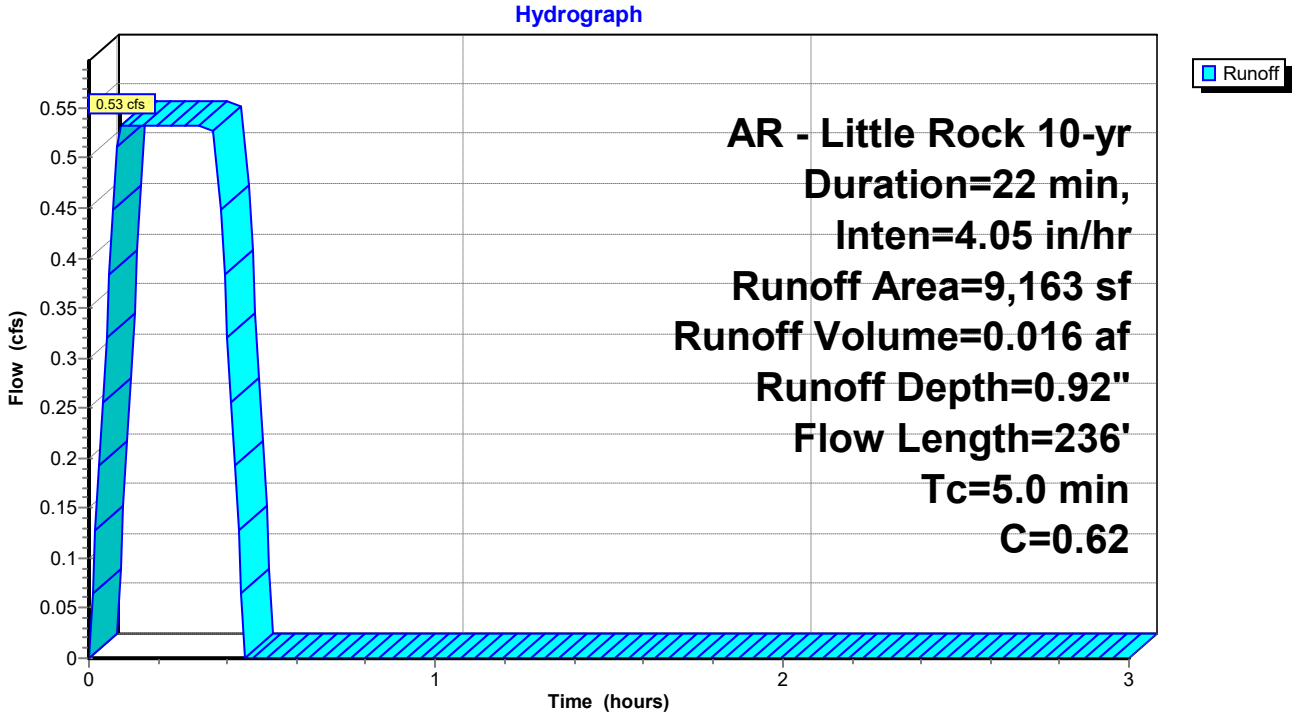
Runoff = 0.53 cfs @ 0.09 hrs, Volume= 0.016 af, Depth= 0.92"
Routed to Pond CI-C1 : CURB INLET C1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=22 min, Inten=4.05 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 4,431 | 0.30 | Sadny Soil 2-7% per manual |
| 4,732 | 0.92 | Paved Areas |
| 9,163 | 0.62 | Weighted Average |
| 9,163 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.4 | 33 | 0.0210 | 1.29 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.6 | 91 | 0.0620 | 2.43 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.8 | 112 | 0.0490 | 2.31 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 3.2 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 236 | Total | | | |

## Subcatchment DB-B8: Drainage Basin B8



## Summary for Subcatchment DB-B9: Drainage Basin B9

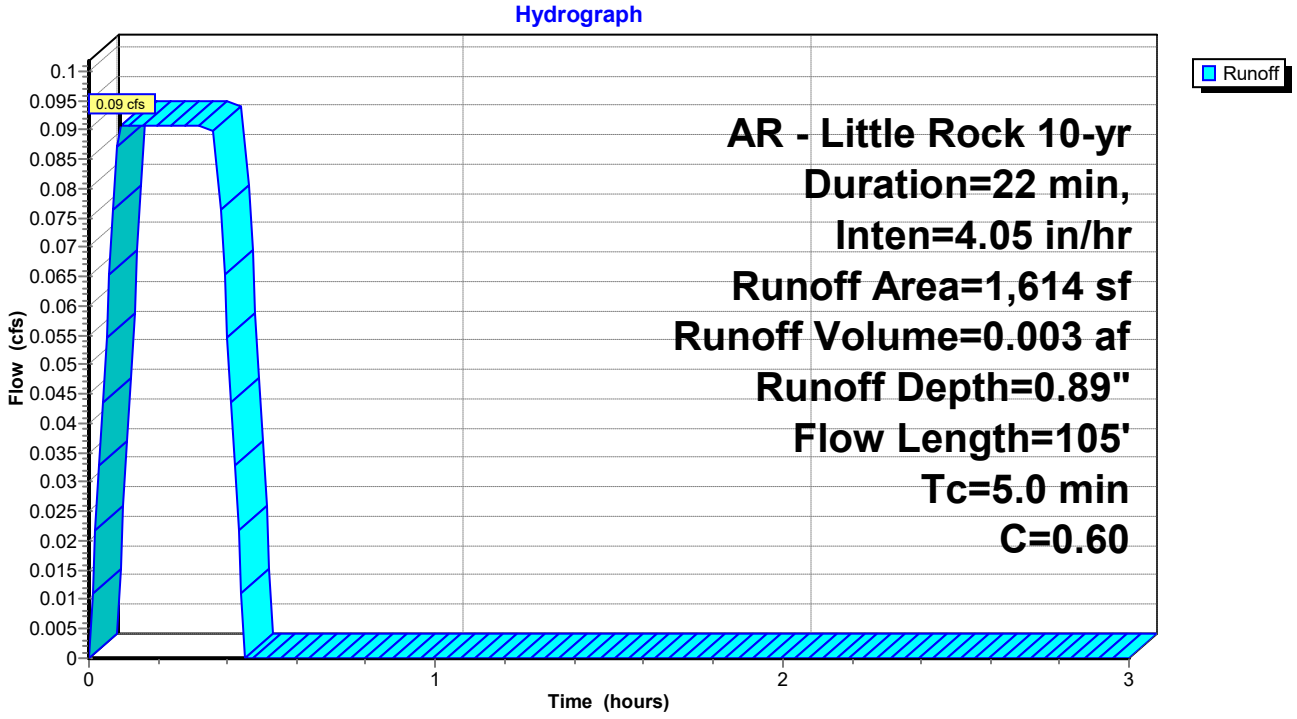
Runoff = 0.09 cfs @ 0.09 hrs, Volume= 0.003 af, Depth= 0.89"
Routed to Pond CI-C2 : CURB INLET C2

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=22 min, Inten=4.05 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 826 | 0.30 | Sandy Soil 2-7% per manual |
| 788 | 0.92 | Paved Areas |
| 1,614 | 0.60 | Weighted Average |
| 1,614 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.0 | 62 | 0.0100 | 1.09 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.0 | 8 | 0.0230 | 3.08 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 0.2 | 35 | 0.0140 | 2.40 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 3.8 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 105 | Total | | | |

## Subcatchment DB-B9: Drainage Basin B9



## Summary for Pond AI-B1: AREA INLET B1

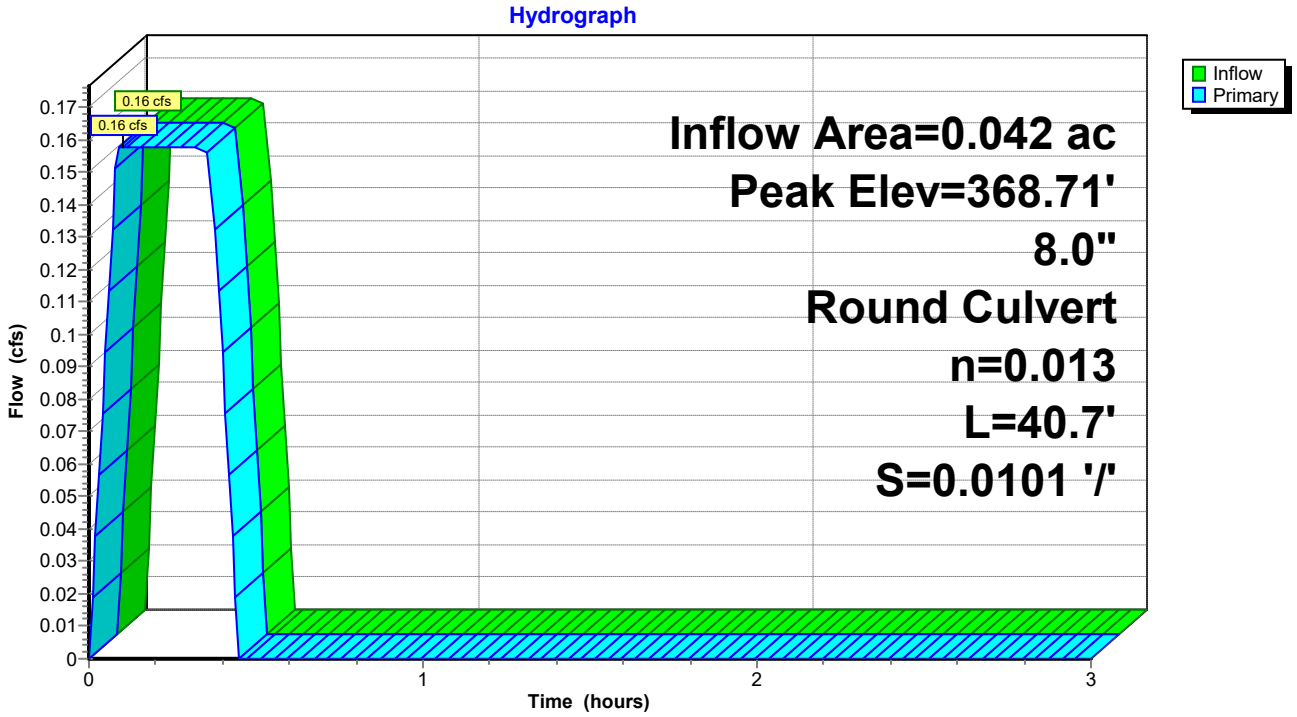
Inflow Area = 0.042 ac, 0.00% Impervious, Inflow Depth = 1.37" for 10-yr event
Inflow = 0.16 cfs @ 0.09 hrs, Volume= 0.005 af
Outflow = 0.16 cfs @ 0.10 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.6 min
Primary = 0.16 cfs @ 0.10 hrs, Volume= 0.005 af
Routed to Pond AI-B2 : AREA INLET B2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 368.71' @ 0.09 hrs

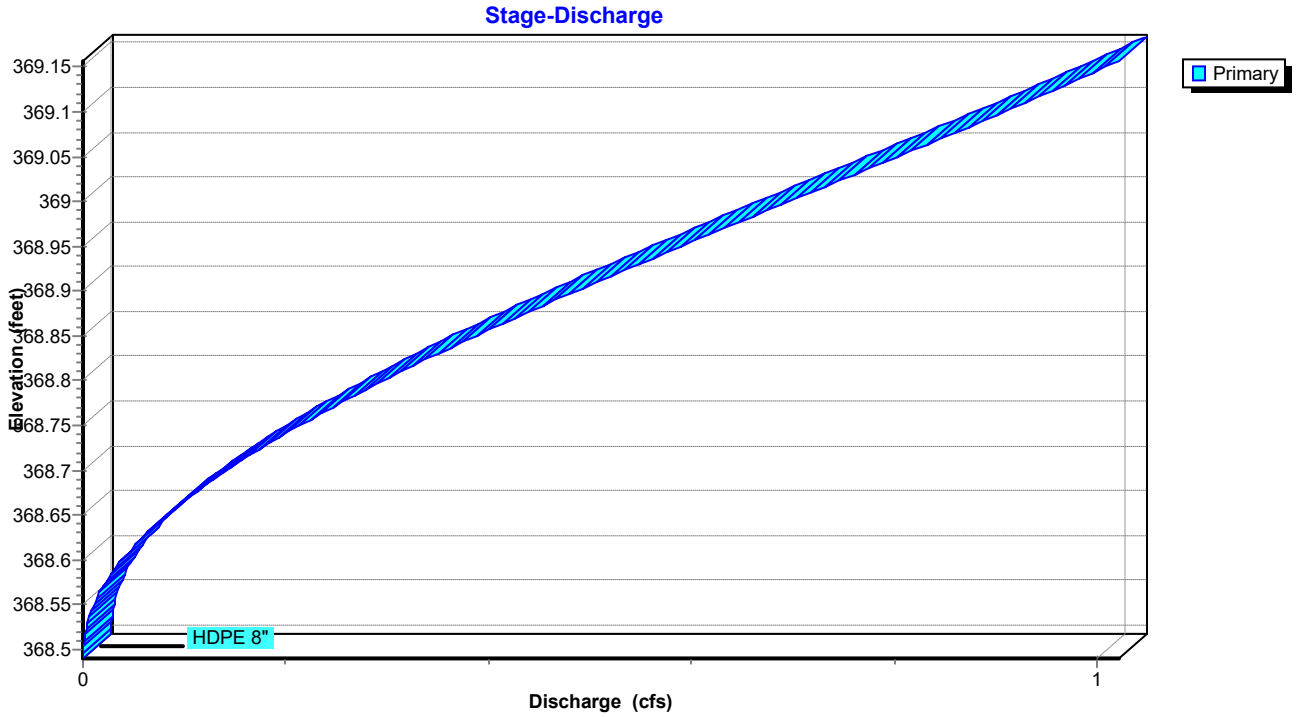
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 368.49' | **8.0" Round HDPE 8"** L= 40.7' Ke= 0.100<br>Inlet / Outlet Invert= 368.49' / 368.08' S= 0.0101 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.35 sf |

**Primary OutFlow** Max=0.16 cfs @ 0.10 hrs HW=368.71' (Free Discharge)
**1=HDPE 8"** (Barrel Controls 0.16 cfs @ 2.32 fps)

## Pond AI-B1: AREA INLET B1



## Pond AI-B1: AREA INLET B1



## Summary for Pond AI-B2: AREA INLET B2

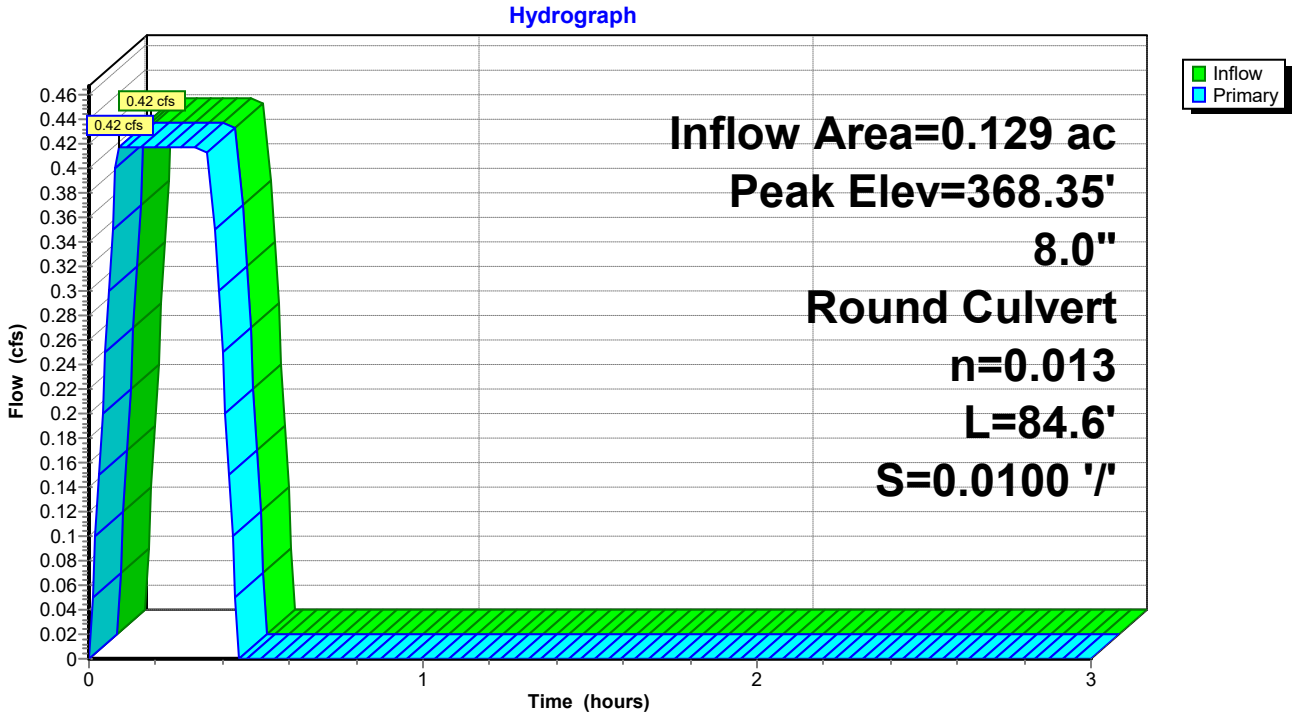
Inflow Area = 0.129 ac, 0.00% Impervious, Inflow Depth = 1.18" for 10-yr event
Inflow = 0.42 cfs @ 0.10 hrs, Volume= 0.013 af
Outflow = 0.42 cfs @ 0.09 hrs, Volume= 0.013 af, Atten= 0%, Lag= 0.0 min
Primary = 0.42 cfs @ 0.09 hrs, Volume= 0.013 af
Routed to Pond CI-A2 : CURB INLET A2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 368.35' @ 0.09 hrs

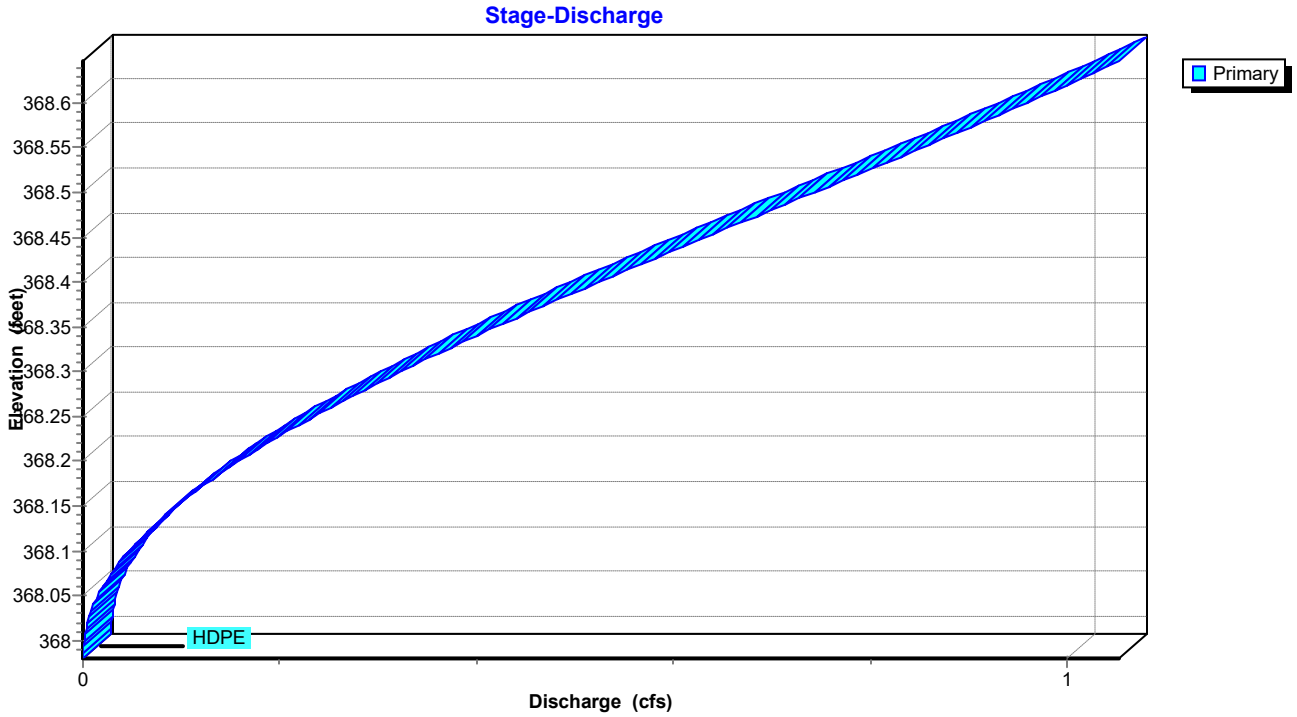
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 367.98' | **8.0" Round HDPE** L= 84.6' Ke= 0.100<br>Inlet / Outlet Invert= 367.98' / 367.13' S= 0.0100 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.35 sf |

**Primary OutFlow** Max=0.42 cfs @ 0.09 hrs HW=368.35' (Free Discharge)
**1=HDPE** (Barrel Controls 0.42 cfs @ 3.05 fps)

## Pond AI-B2: AREA INLET B2



## Pond AI-B2: AREA INLET B2



## Summary for Pond CI-A1: CURB INLET A1

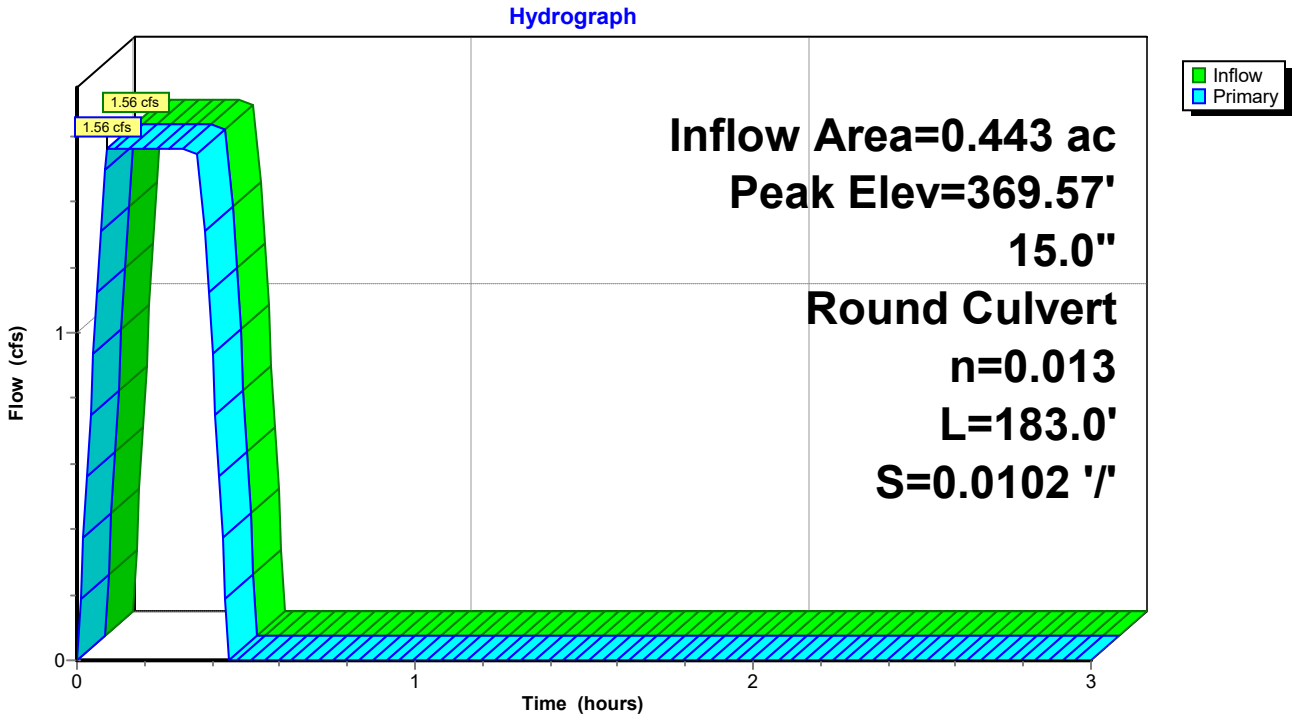
Inflow Area = 0.443 ac, 0.00% Impervious, Inflow Depth = 1.28" for 10-yr event
Inflow = 1.56 cfs @ 0.09 hrs, Volume= 0.047 af
Outflow = 1.56 cfs @ 0.09 hrs, Volume= 0.047 af, Atten= 0%, Lag= 0.0 min
Primary = 1.56 cfs @ 0.09 hrs, Volume= 0.047 af
Routed to Pond CI-A2 : CURB INLET A2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 369.57' @ 0.09 hrs

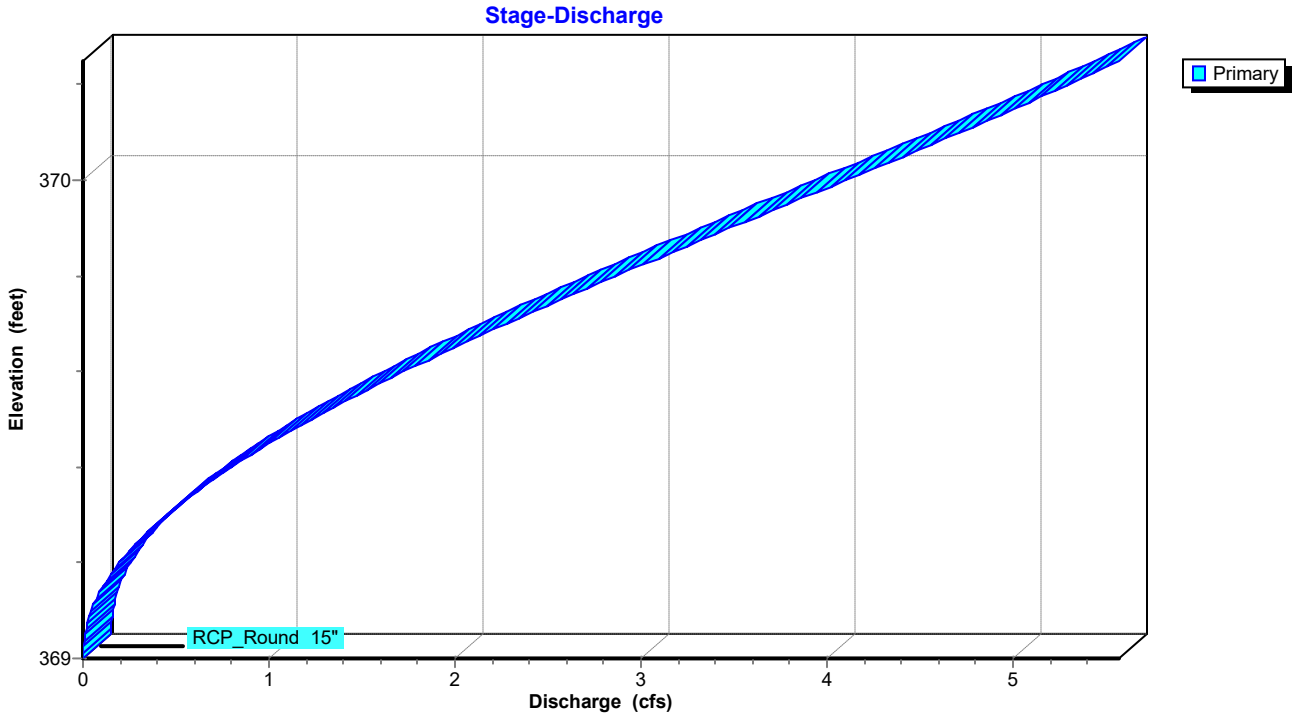
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 369.00' | **15.0" Round RCP_Round 15"**<br>L= 183.0' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 369.00' / 367.13' S= 0.0102 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.23 sf |

**Primary OutFlow** Max=1.56 cfs @ 0.09 hrs HW=369.57' (Free Discharge)
**1=RCP_Round 15"** (Barrel Controls 1.56 cfs @ 4.22 fps)

## Pond CI-A1: CURB INLET A1



## Pond CI-A1: CURB INLET A1



## Summary for Pond CI-A2: CURB INLET A2

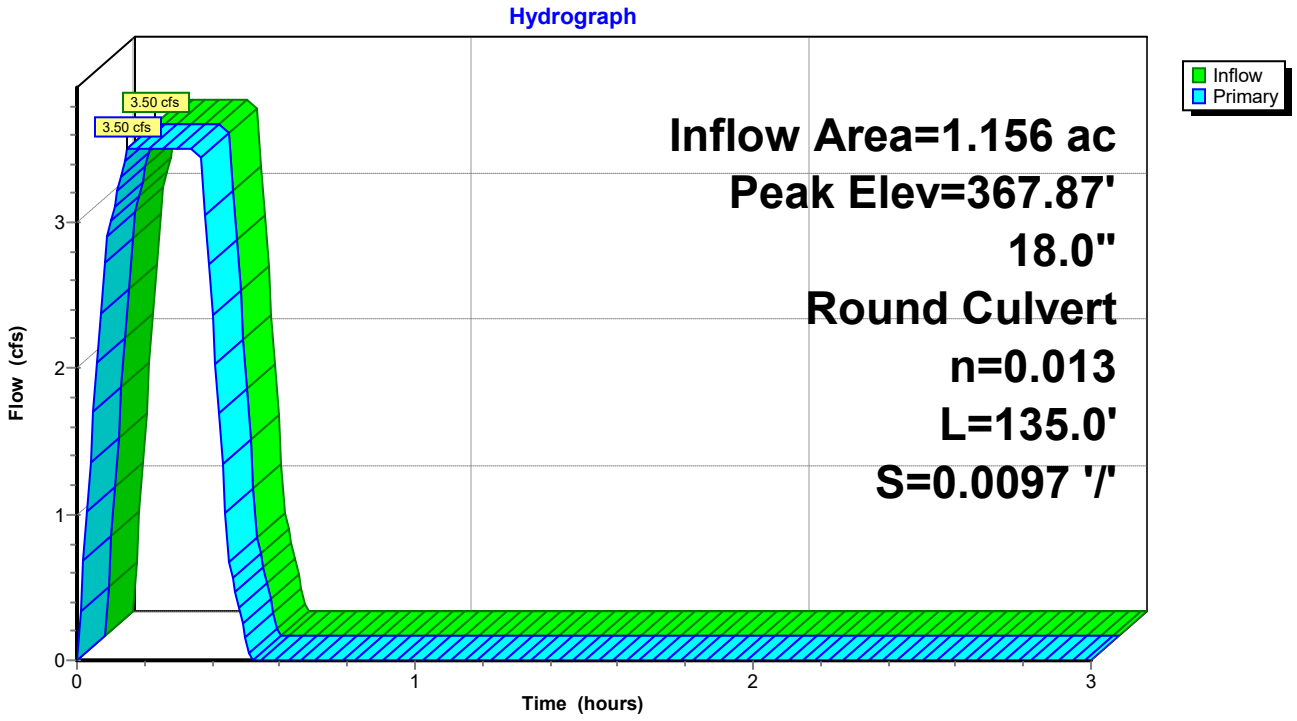
Inflow Area = 1.156 ac, 0.00% Impervious, Inflow Depth = 1.10" for 10-yr event
Inflow = 3.50 cfs @ 0.15 hrs, Volume= 0.106 af
Outflow = 3.50 cfs @ 0.15 hrs, Volume= 0.106 af, Atten= 0%, Lag= 0.0 min
Primary = 3.50 cfs @ 0.15 hrs, Volume= 0.106 af
Routed to Pond CI-A3 : CURB INLET A3

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 367.87' @ 0.15 hrs

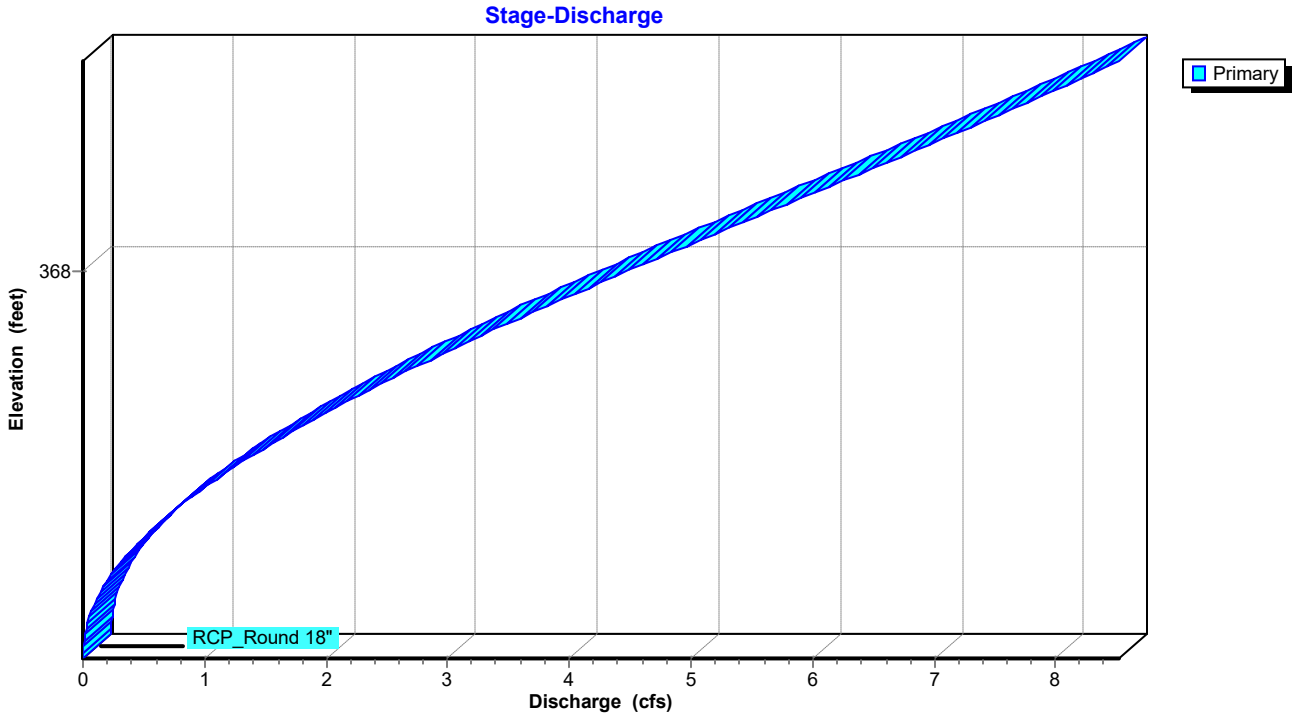
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 367.03' | **18.0" Round RCP_Round 18"**<br>L= 135.0' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 367.03' / 365.72' S= 0.0097 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf |

**Primary OutFlow** Max=3.50 cfs @ 0.15 hrs HW=367.87' (Free Discharge)
**1=RCP_Round 18"** (Barrel Controls 3.50 cfs @ 4.96 fps)

## Pond CI-A2: CURB INLET A2



## Pond CI-A2: CURB INLET A2



## Summary for Pond CI-A3: CURB INLET A3

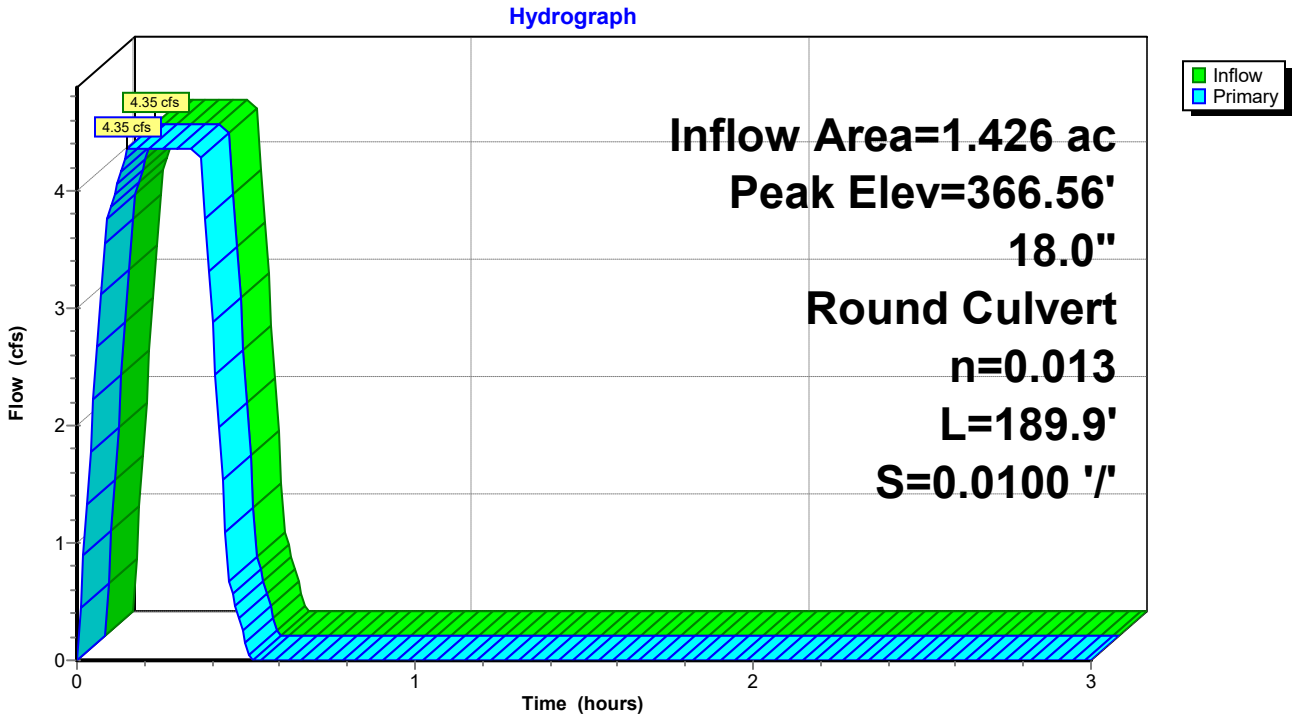
Inflow Area = 1.426 ac, 0.00% Impervious, Inflow Depth = 1.11" for 10-yr event
Inflow = 4.35 cfs @ 0.15 hrs, Volume= 0.132 af
Outflow = 4.35 cfs @ 0.15 hrs, Volume= 0.132 af, Atten= 0%, Lag= 0.0 min
Primary = 4.35 cfs @ 0.15 hrs, Volume= 0.132 af
Routed to Pond CI-A4 : CURB INLET A4

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 366.56' @ 0.15 hrs

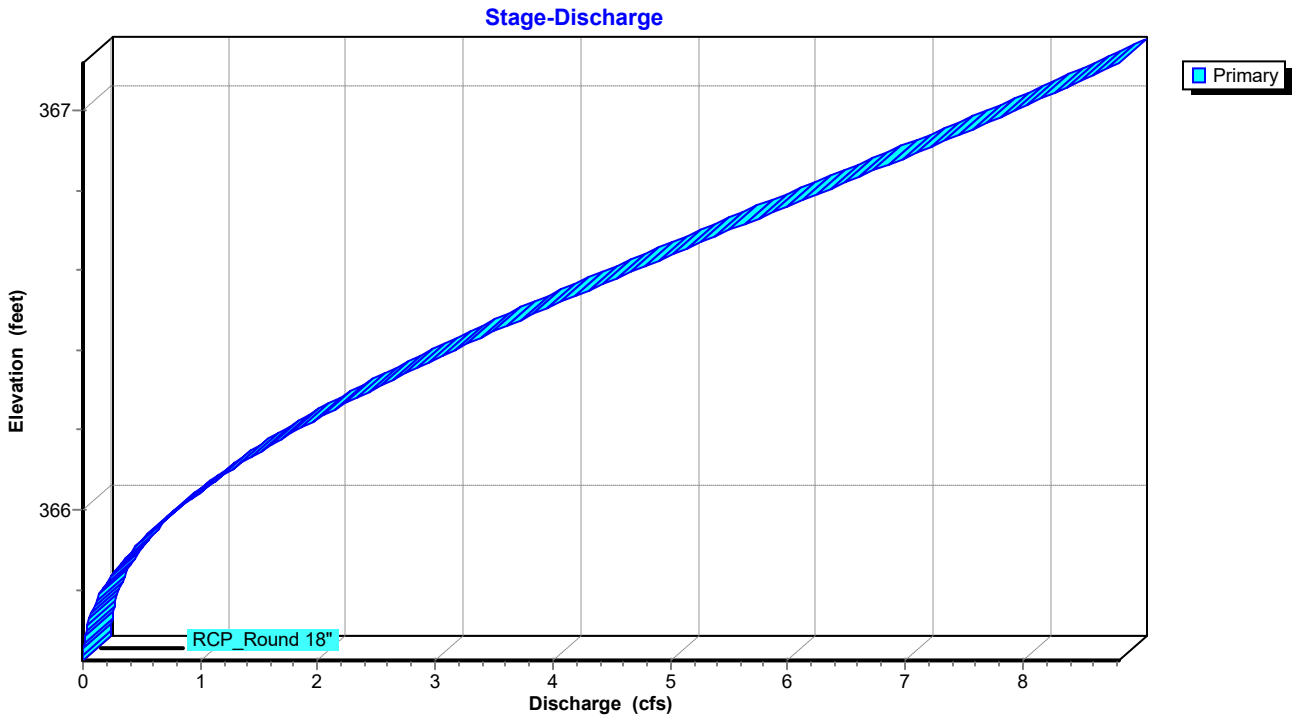
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 365.62' | **18.0" Round RCP_Round 18"**<br>L= 189.9' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 365.62' / 363.72' S= 0.0100 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf |

**Primary OutFlow** Max=4.35 cfs @ 0.15 hrs HW=366.56' (Free Discharge)
**1=RCP_Round 18"** (Barrel Controls 4.35 cfs @ 5.36 fps)

## Pond CI-A3: CURB INLET A3



## Pond CI-A3: CURB INLET A3



## Summary for Pond CI-A4: CURB INLET A4

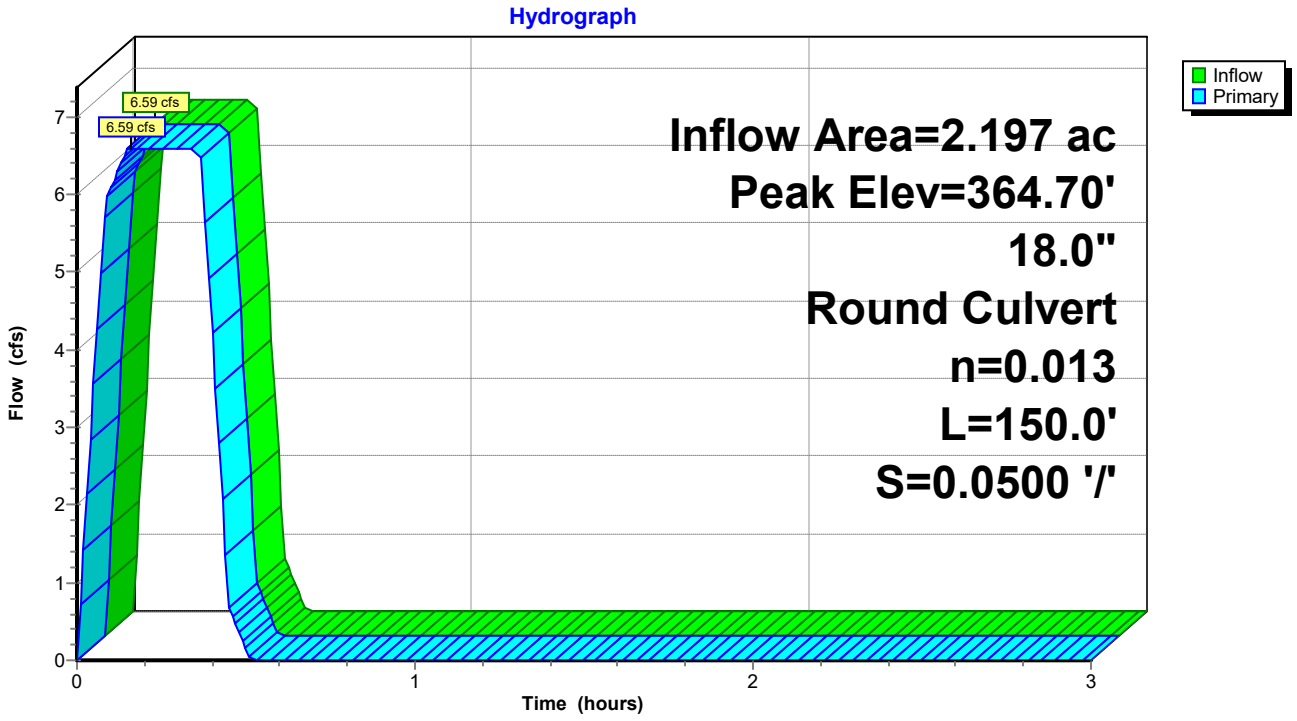
Inflow Area = 2.197 ac, 0.00% Impervious, Inflow Depth = 1.09" for 10-yr event
Inflow = 6.59 cfs @ 0.15 hrs, Volume= 0.200 af
Outflow = 6.59 cfs @ 0.16 hrs, Volume= 0.200 af, Atten= 0%, Lag= 0.6 min
Primary = 6.59 cfs @ 0.16 hrs, Volume= 0.200 af
Routed to Pond CI-A5 : CURB INLET A5

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 364.70' @ 0.15 hrs

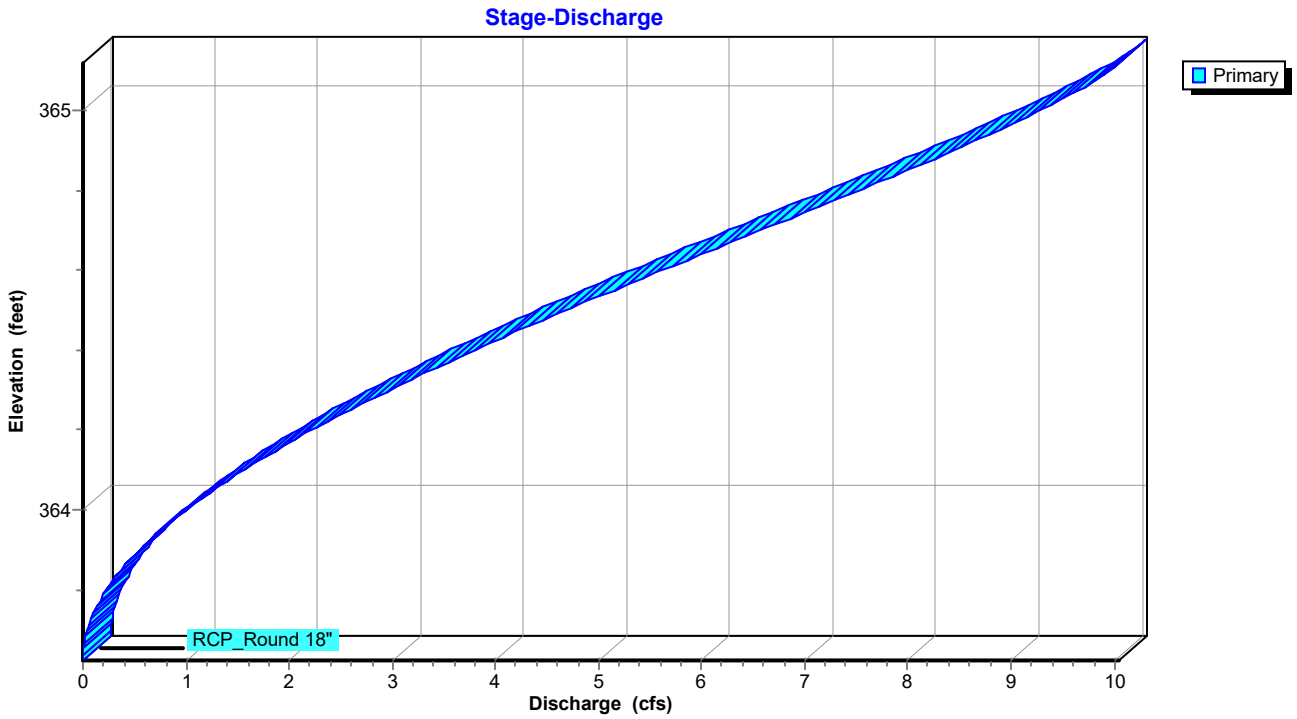
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 363.62' | **18.0" Round RCP_Round 18"**<br>L= 150.0' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 363.62' / 356.12' S= 0.0500 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf |

**Primary OutFlow** Max=6.59 cfs @ 0.16 hrs HW=364.70' (Free Discharge)
**1=RCP_Round 18"** (Inlet Controls 6.59 cfs @ 4.83 fps)

## Pond CI-A4: CURB INLET A4



## Pond CI-A4: CURB INLET A4



## Summary for Pond CI-A5: CURB INLET A5

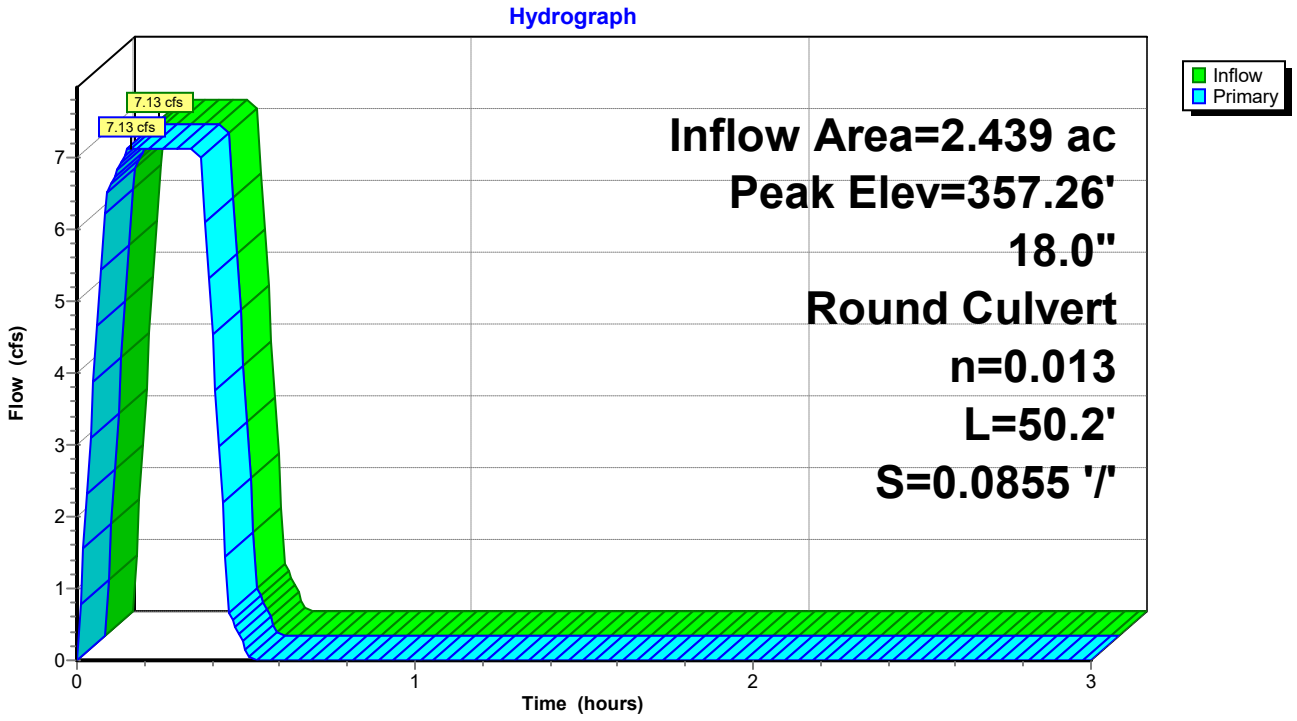
Inflow Area = 2.439 ac, 0.00% Impervious, Inflow Depth = 1.06" for 10-yr event
Inflow = 7.13 cfs @ 0.16 hrs, Volume= 0.216 af
Outflow = 7.13 cfs @ 0.16 hrs, Volume= 0.216 af, Atten= 0%, Lag= 0.0 min
Primary = 7.13 cfs @ 0.16 hrs, Volume= 0.216 af
Routed to Link POST-DEV : Post-Development

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 357.26' @ 0.15 hrs

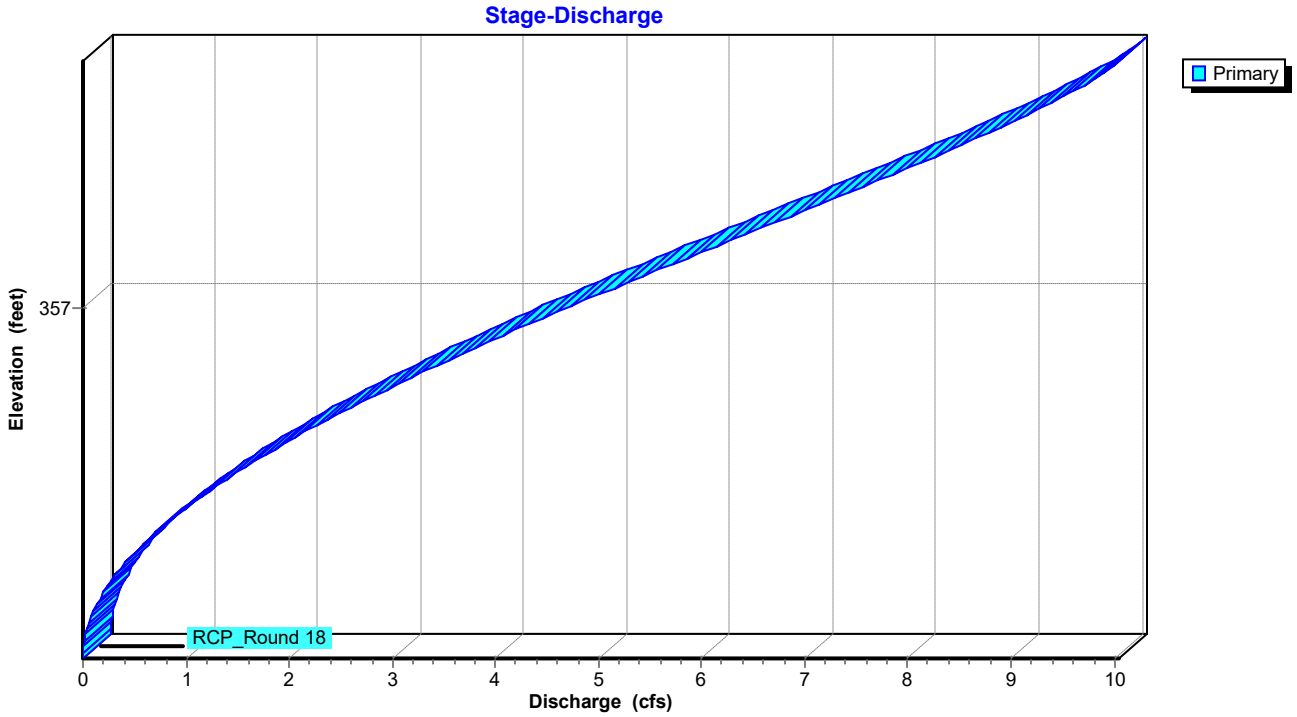
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 356.12' | **18.0" Round RCP_Round 18**<br>L= 50.2' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 356.12' / 351.83' S= 0.0855 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf |

**Primary OutFlow** Max=7.13 cfs @ 0.16 hrs HW=357.26' (Free Discharge)
**1=RCP_Round 18** (Inlet Controls 7.13 cfs @ 4.95 fps)

## Pond CI-A5: CURB INLET A5



## Pond CI-A5: CURB INLET A5



## Summary for Pond CI-C1: CURB INLET C1

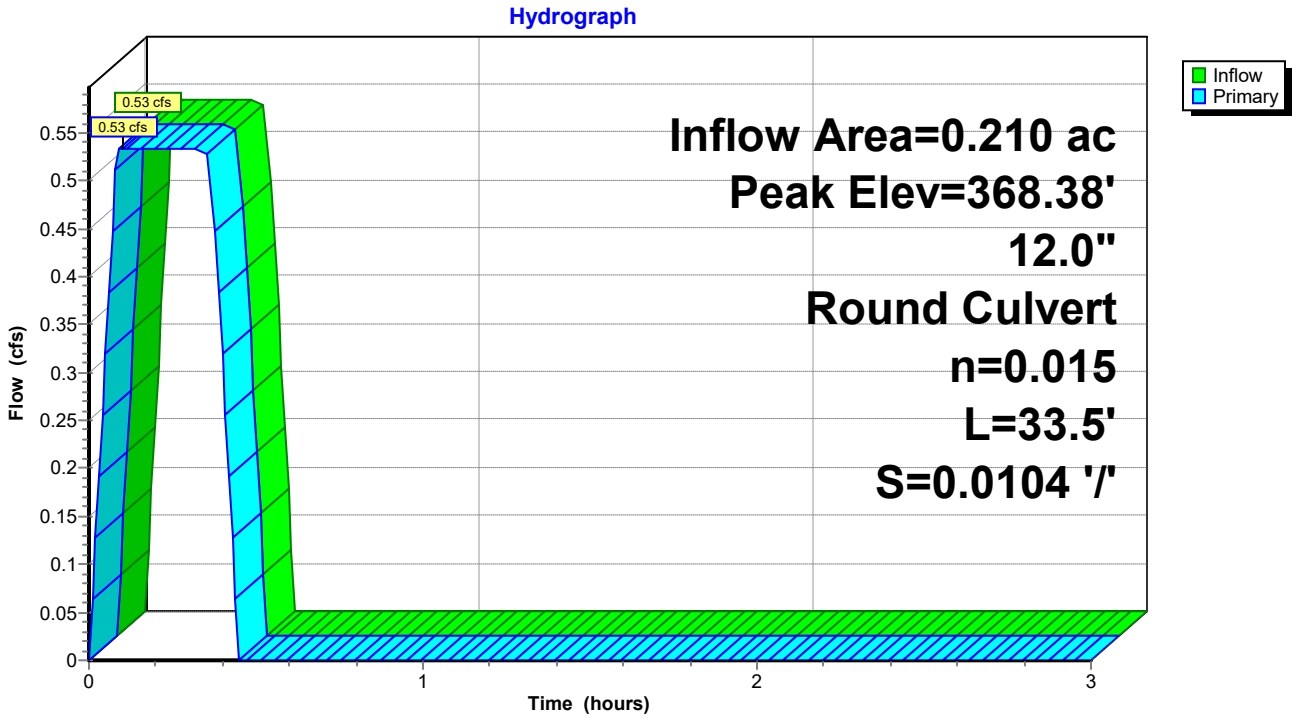
Inflow Area = 0.210 ac, 0.00% Impervious, Inflow Depth = 0.92" for 10-yr event
Inflow = 0.53 cfs @ 0.09 hrs, Volume= 0.016 af
Outflow = 0.53 cfs @ 0.10 hrs, Volume= 0.016 af, Atten= 0%, Lag= 0.6 min
Primary = 0.53 cfs @ 0.10 hrs, Volume= 0.016 af
Routed to Pond CI-C2 : CURB INLET C2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 368.38' @ 0.09 hrs

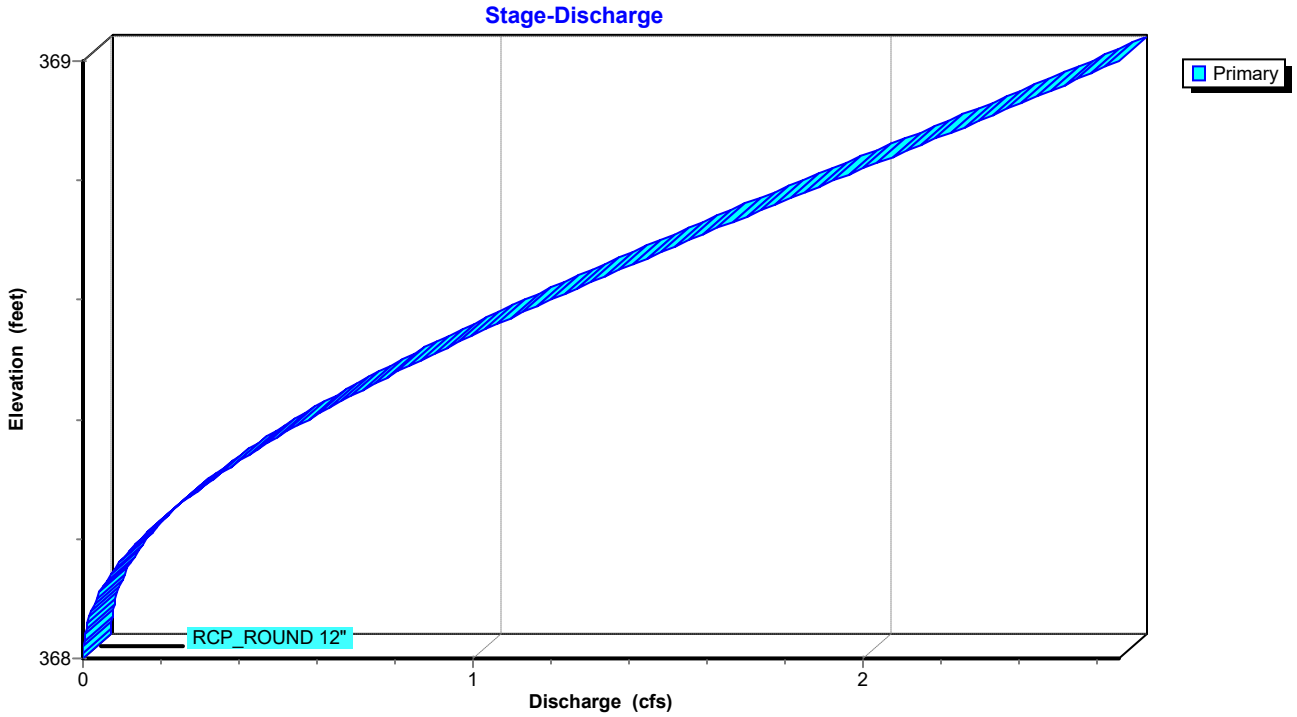
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 368.00' | **12.0" Round RCP_ROUND 12"**<br>L= 33.5' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 368.00' / 367.65' S= 0.0104 '/' Cc= 0.900<br>n= 0.015 Concrete sewer w/manholes & inlets, Flow Area= 0.79 sf |

**Primary OutFlow** Max=0.53 cfs @ 0.10 hrs HW=368.38' (Free Discharge)
**1=RCP_ROUND 12"** (Barrel Controls 0.53 cfs @ 2.85 fps)

## Pond CI-C1: CURB INLET C1



## Pond CI-C1: CURB INLET C1



## Summary for Pond CI-C2: CURB INLET C2

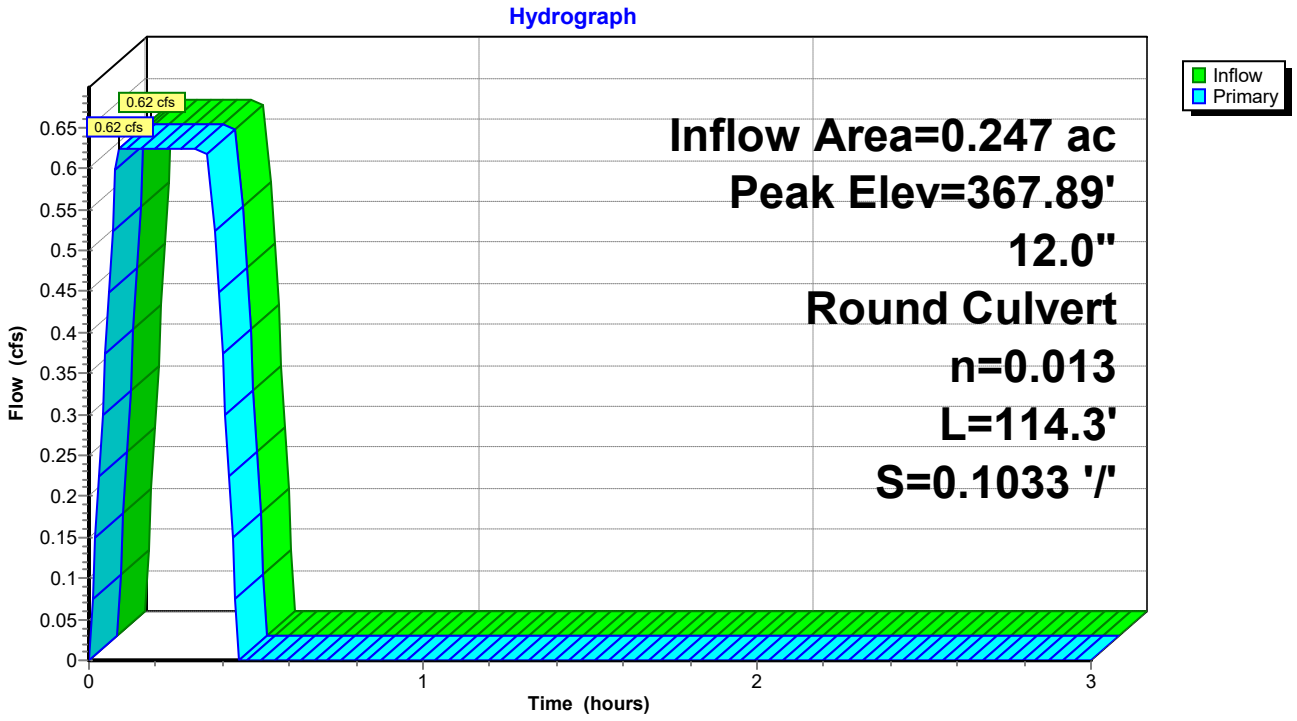
Inflow Area = 0.247 ac, 0.00% Impervious, Inflow Depth = 0.92" for 10-yr event
Inflow = 0.62 cfs @ 0.10 hrs, Volume= 0.019 af
Outflow = 0.62 cfs @ 0.09 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min
Primary = 0.62 cfs @ 0.09 hrs, Volume= 0.019 af
Routed to Pond JB-C3 : JUNCTION BOX C3

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 367.89' @ 0.09 hrs

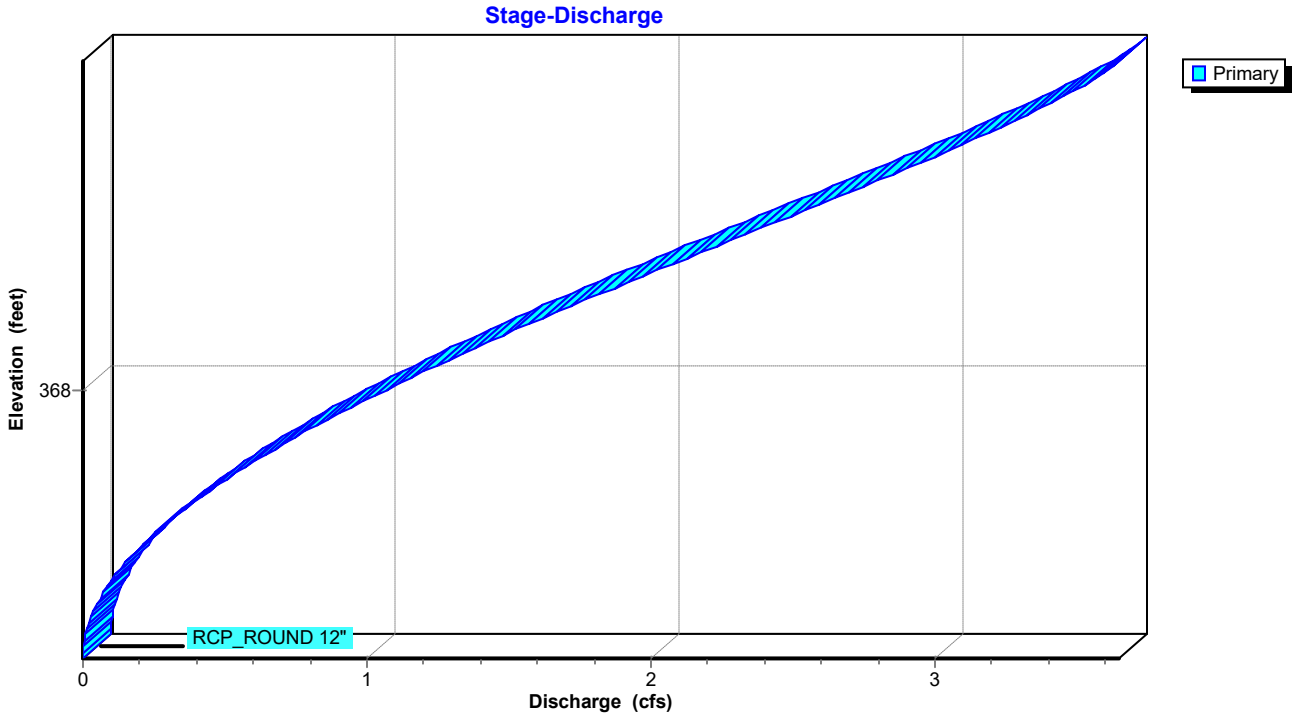
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 367.55' | **12.0" Round RCP_ROUND 12"**<br>L= 114.3' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 367.55' / 355.74' S= 0.1033 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=0.62 cfs @ 0.09 hrs HW=367.89' (Free Discharge)
**1=RCP_ROUND 12"** (Inlet Controls 0.62 cfs @ 2.69 fps)

## Pond CI-C2: CURB INLET C2



## Pond CI-C2: CURB INLET C2



## Summary for Pond CI-C4: CURB INLET C4

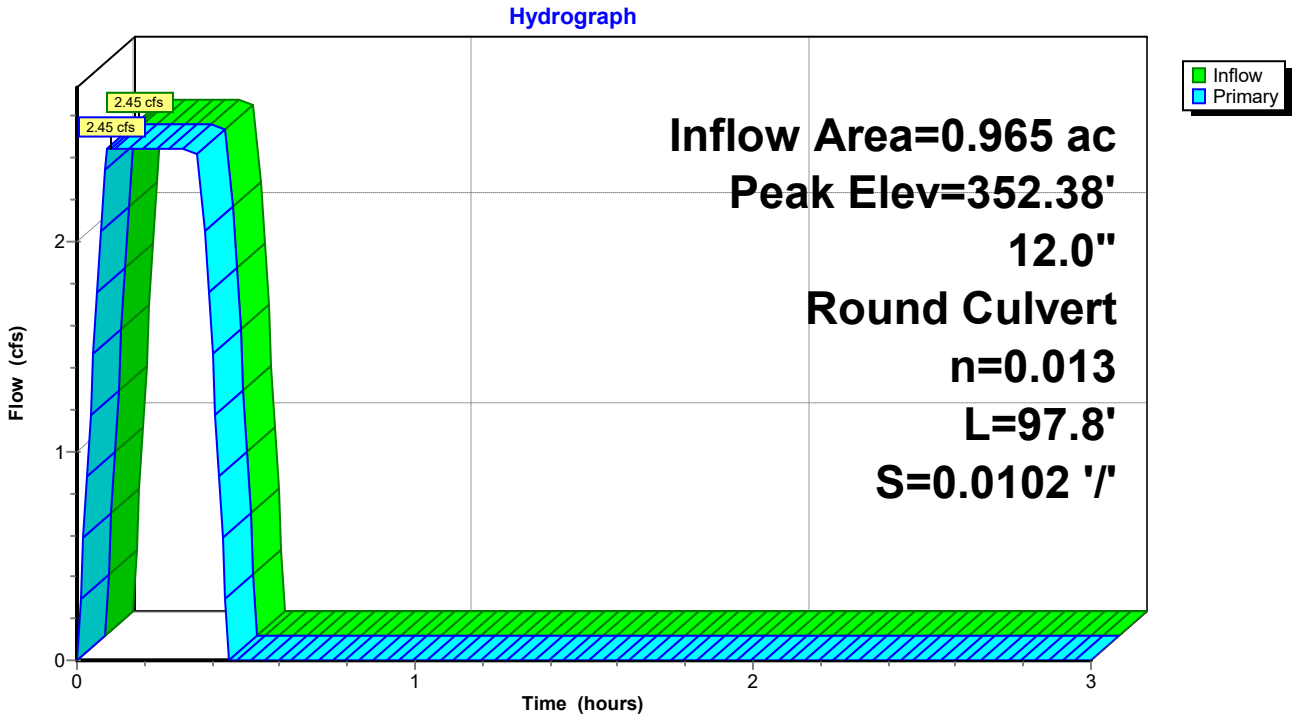
Inflow Area = 0.965 ac, 0.00% Impervious, Inflow Depth = 0.92" for 10-yr event
Inflow = 2.45 cfs @ 0.10 hrs, Volume= 0.074 af
Outflow = 2.45 cfs @ 0.10 hrs, Volume= 0.074 af, Atten= 0%, Lag= 0.0 min
Primary = 2.45 cfs @ 0.10 hrs, Volume= 0.074 af
Routed to Pond CI-C5 : CURB INLET C5

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 352.38' @ 0.10 hrs

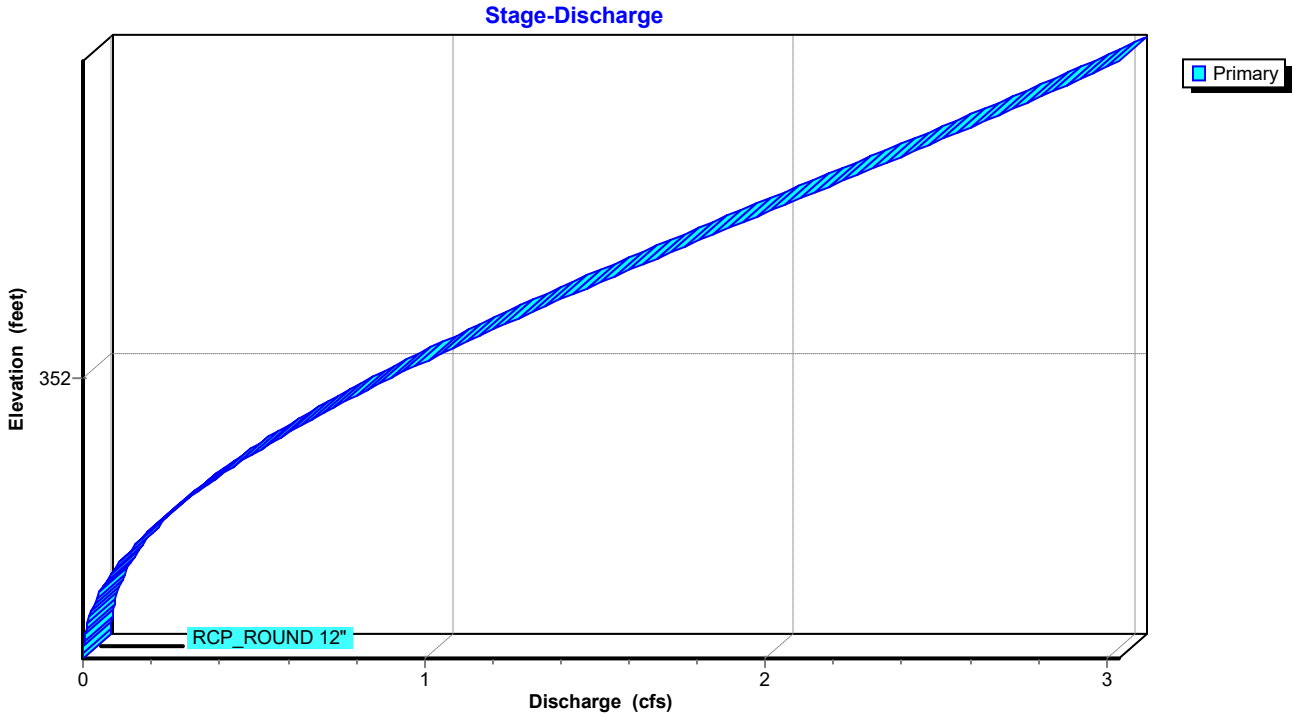
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 351.53' | **12.0" Round RCP_ROUND 12"**<br>L= 97.8' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 351.53' / 350.53' S= 0.0102 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=2.45 cfs @ 0.10 hrs HW=352.38' (Free Discharge)
**1=RCP_ROUND 12"** (Barrel Controls 2.45 cfs @ 4.62 fps)

## Pond CI-C4: CURB INLET C4



## Pond CI-C4: CURB INLET C4



## Summary for Pond CI-C5: CURB INLET C5

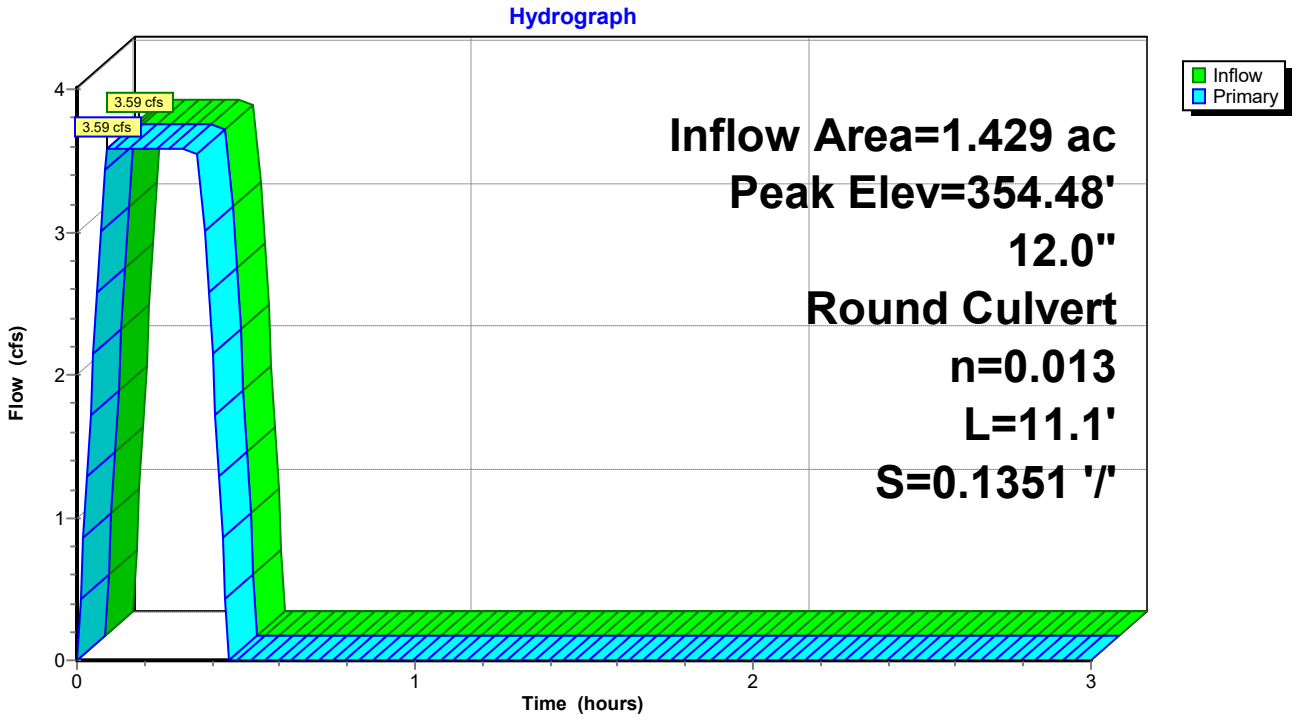
Inflow Area = 1.429 ac, 0.00% Impervious, Inflow Depth = 0.91" for 10-yr event
Inflow = 3.59 cfs @ 0.10 hrs, Volume= 0.109 af
Outflow = 3.59 cfs @ 0.09 hrs, Volume= 0.109 af, Atten= 0%, Lag= 0.0 min
Primary = 3.59 cfs @ 0.09 hrs, Volume= 0.109 af
Routed to Link POST-DEV : Post-Development

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 354.48' @ 0.09 hrs

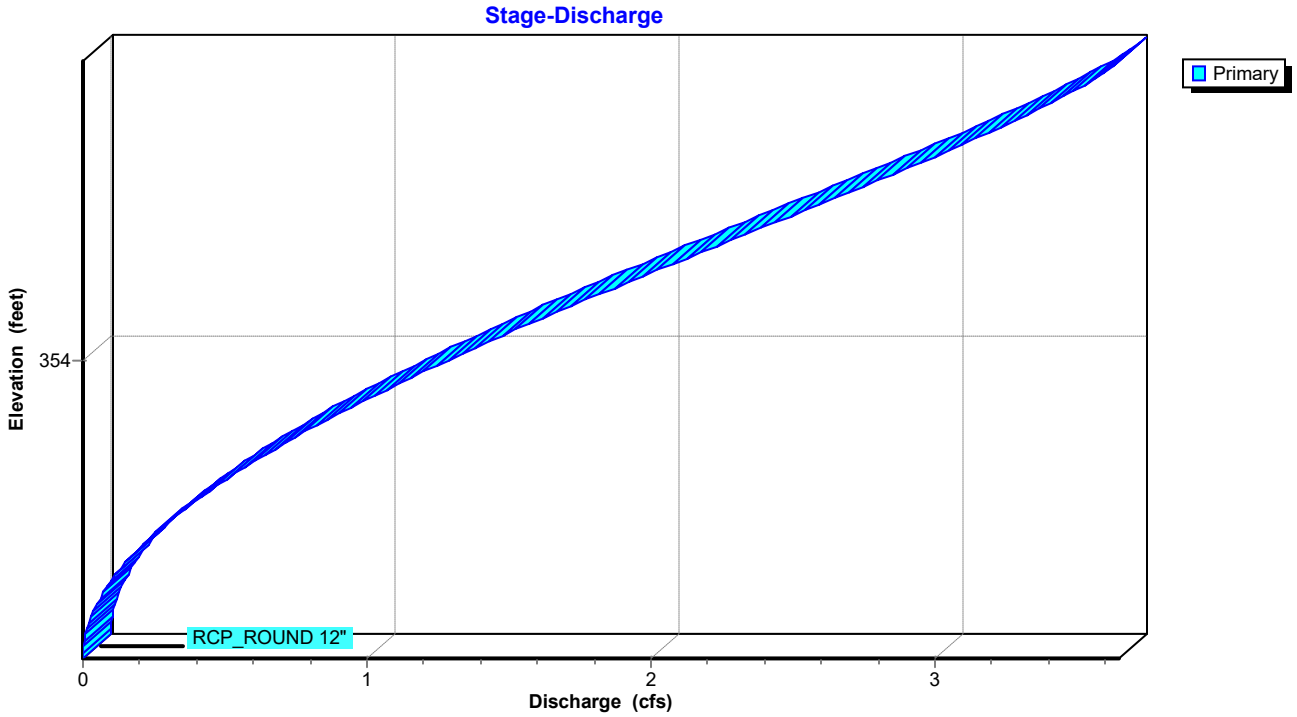
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 353.50' | **12.0" Round RCP_ROUND 12"**<br>L= 11.1' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 353.50' / 352.00' S= 0.1351 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=3.59 cfs @ 0.09 hrs HW=354.48' (Free Discharge)
**1=RCP_ROUND 12"** (Inlet Controls 3.59 cfs @ 4.59 fps)

## Pond CI-C5: CURB INLET C5



## Pond CI-C5: CURB INLET C5



## Summary for Pond CI-D1: CURB INLET D1

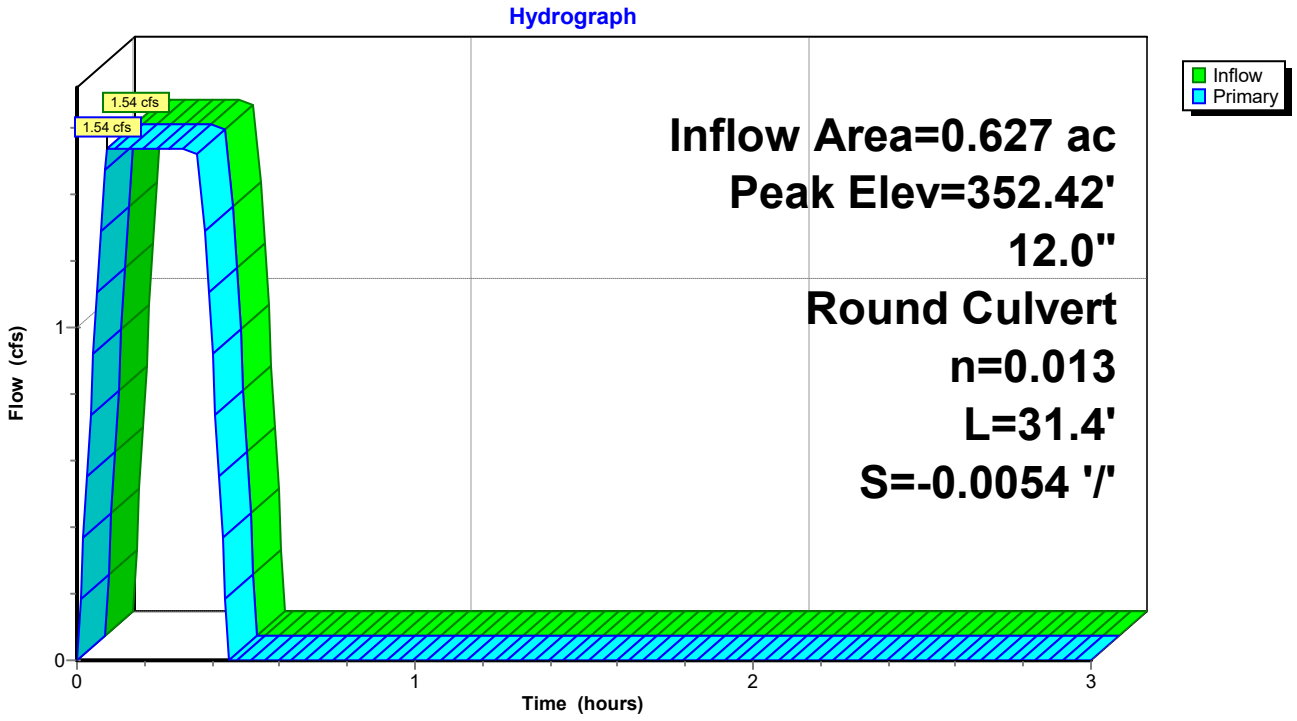
Inflow Area = 0.627 ac, 0.00% Impervious, Inflow Depth = 0.89" for 10-yr event
Inflow = 1.54 cfs @ 0.09 hrs, Volume= 0.047 af
Outflow = 1.54 cfs @ 0.09 hrs, Volume= 0.047 af, Atten= 0%, Lag= 0.0 min
Primary = 1.54 cfs @ 0.09 hrs, Volume= 0.047 af
Routed to Pond CI-C4 : CURB INLET C4

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 352.42' @ 0.09 hrs

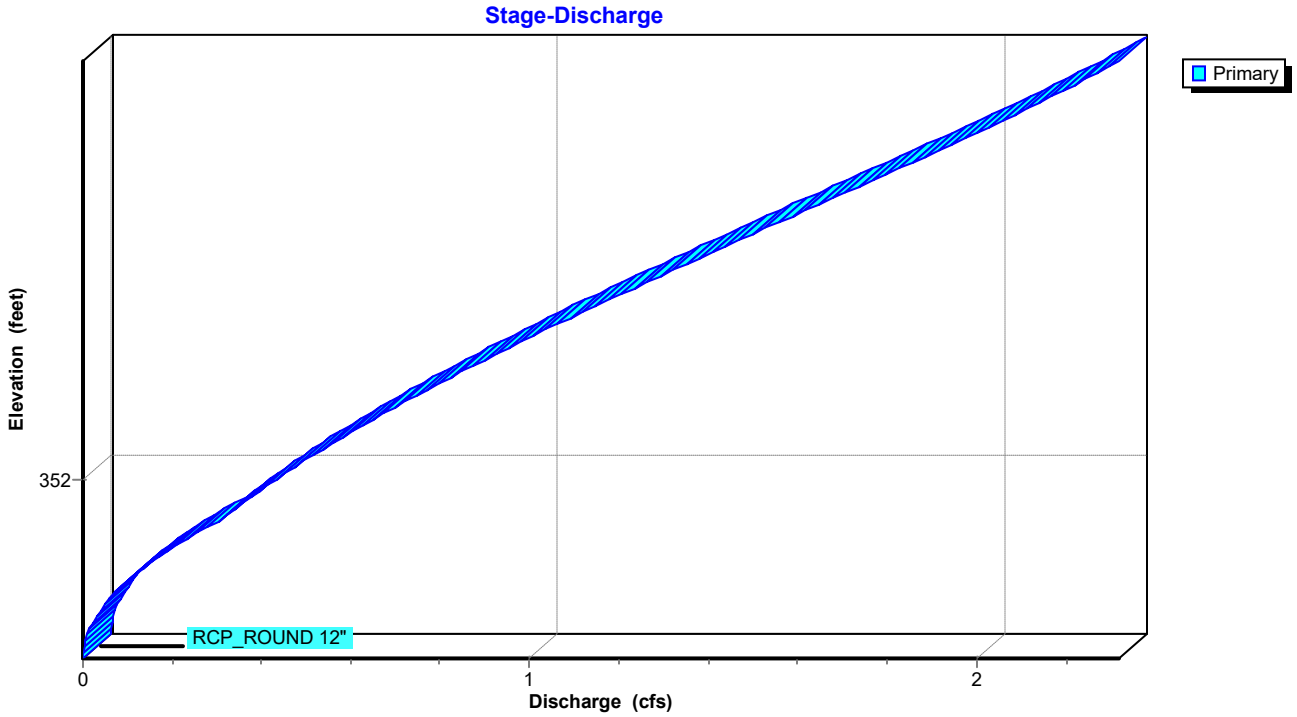
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 351.70' | **12.0" Round RCP_ROUND 12"**<br>L= 31.4' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 351.53' / 351.70' S= -0.0054 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=1.54 cfs @ 0.09 hrs HW=352.42' (Free Discharge)
**1=RCP_ROUND 12"** (Barrel Controls 1.54 cfs @ 2.75 fps)

## Pond CI-D1: CURB INLET D1



## Pond CI-D1: CURB INLET D1



## Summary for Pond JB-C3: JUNCTION BOX C3

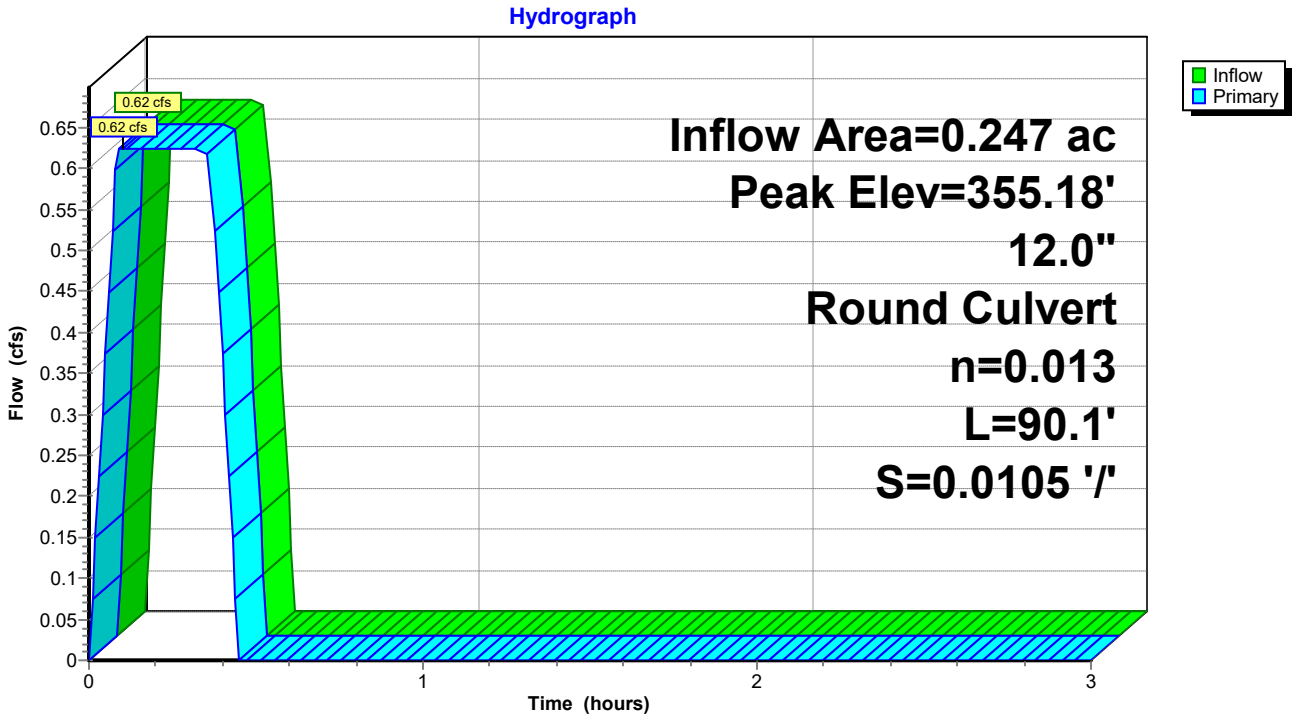
Inflow Area = 0.247 ac, 0.00% Impervious, Inflow Depth = 0.92" for 10-yr event
Inflow = 0.62 cfs @ 0.09 hrs, Volume= 0.019 af
Outflow = 0.62 cfs @ 0.10 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.6 min
Primary = 0.62 cfs @ 0.10 hrs, Volume= 0.019 af
Routed to Pond CI-C4 : CURB INLET C4

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 355.18' @ 0.09 hrs

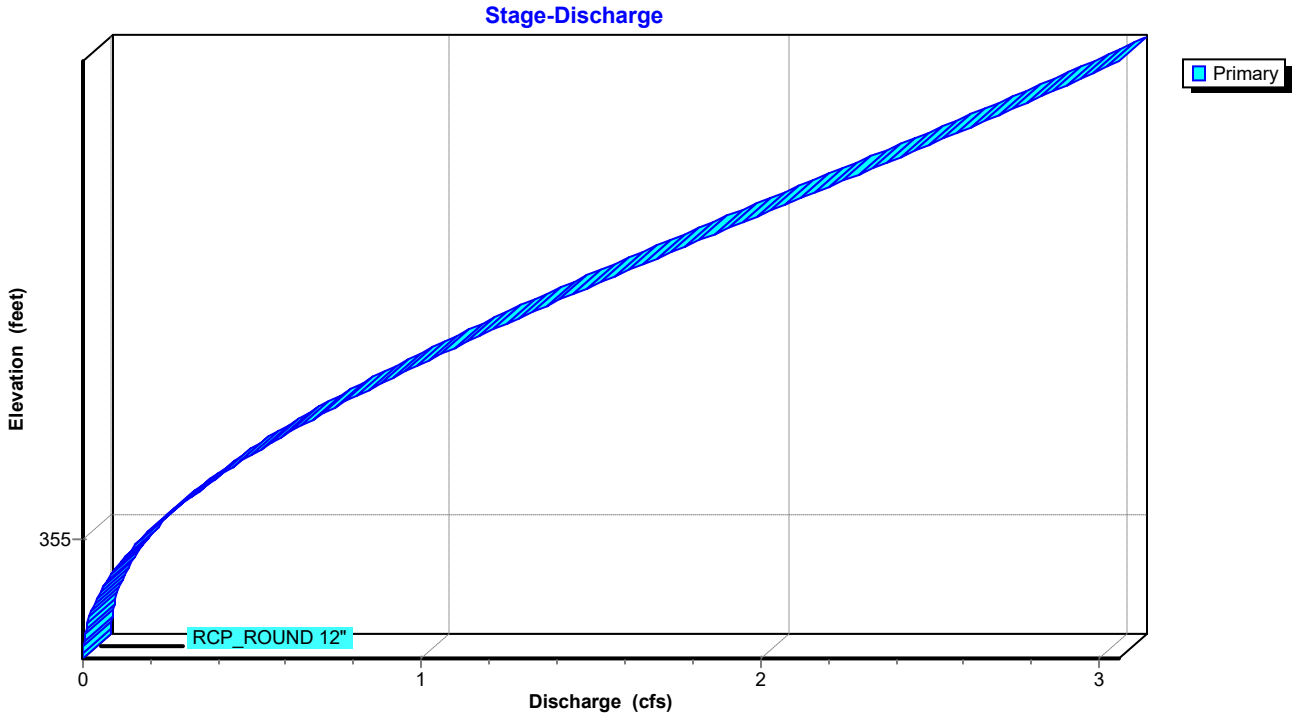
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 354.80' | **12.0" Round RCP_ROUND 12"**<br>L= 90.1' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 354.80' / 353.85' S= 0.0105 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=0.62 cfs @ 0.10 hrs HW=355.18' (Free Discharge)
**1=RCP_ROUND 12"** (Barrel Controls 0.62 cfs @ 3.34 fps)

## Pond JB-C3: JUNCTION BOX C3



## Pond JB-C3: JUNCTION BOX C3

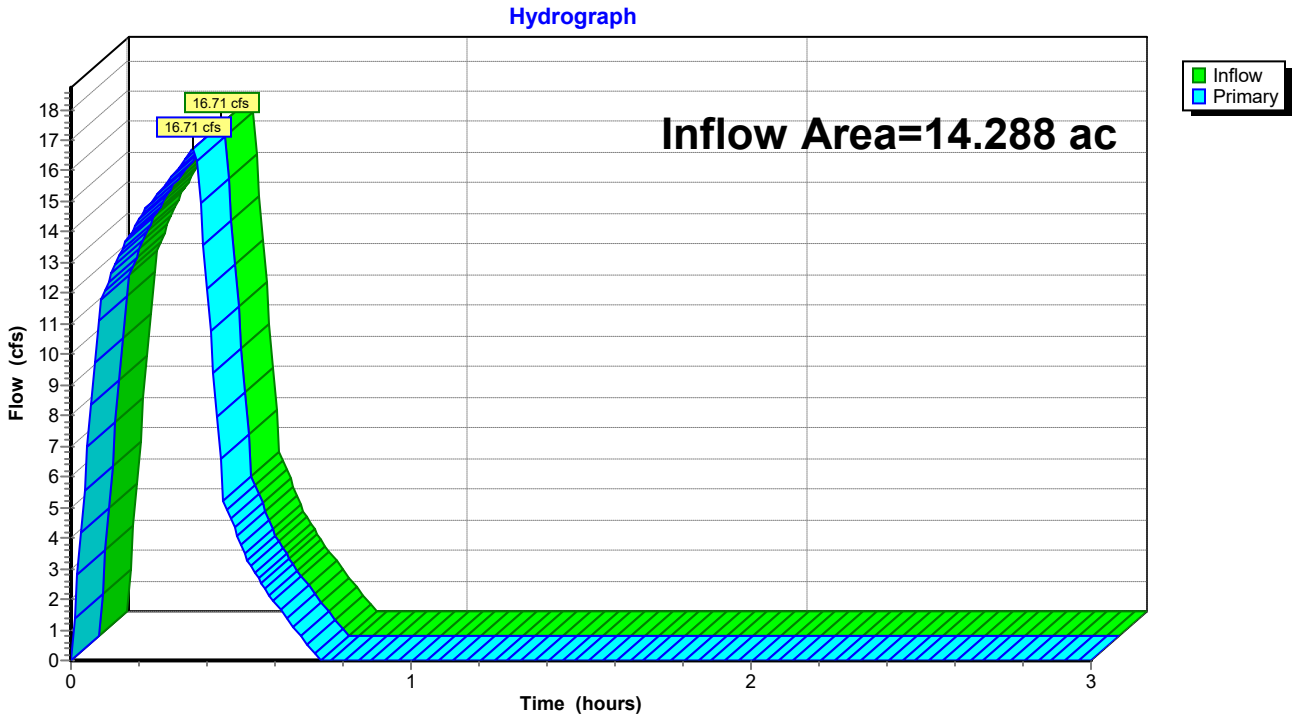


## Summary for Link POST-DEV: Post-Development

Inflow Area = 14.288 ac, 0.00% Impervious, Inflow Depth = 0.43" for 10-yr event
Inflow = 16.71 cfs @ 0.36 hrs, Volume= 0.509 af
Primary = 16.71 cfs @ 0.36 hrs, Volume= 0.509 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

## Link POST-DEV: Post-Development



## Summary for Subcatchment DB-B1: Drainage Basin B1

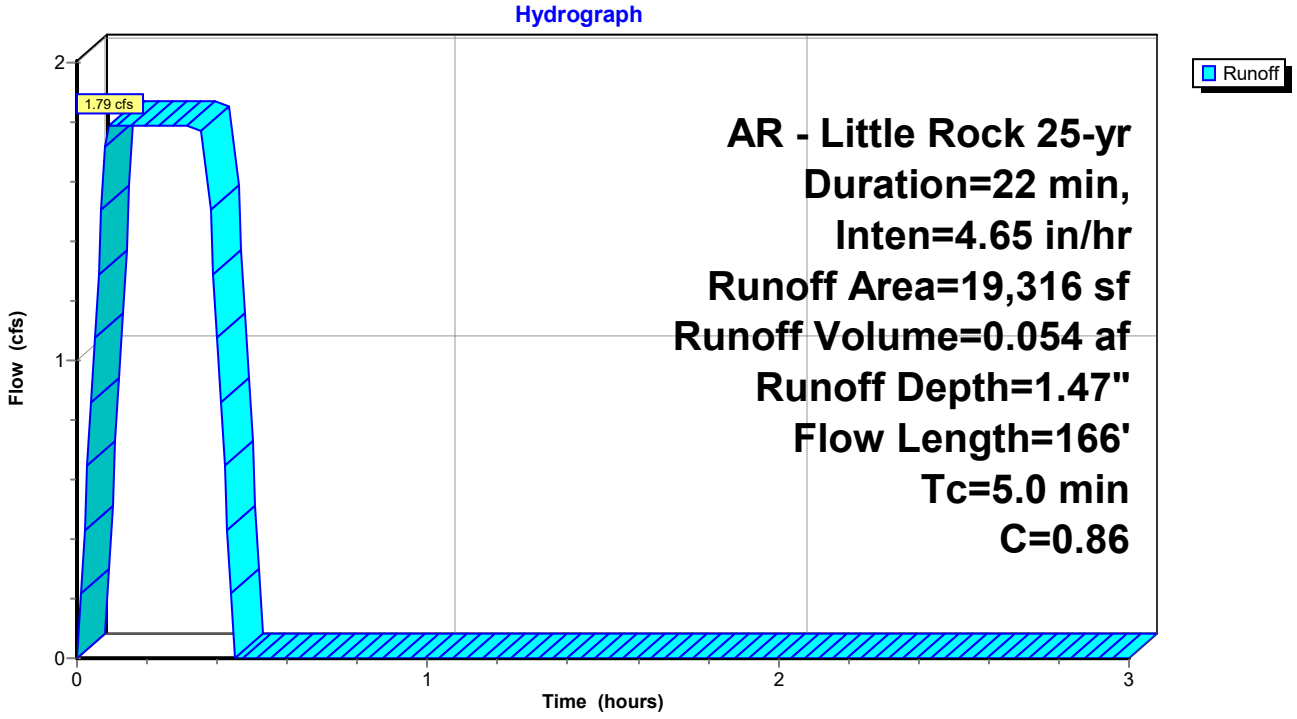
Runoff = 1.79 cfs @ 0.09 hrs, Volume= 0.054 af, Depth= 1.47"
Routed to Pond CI-A1 : CURB INLET A1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=22 min, Inten=4.65 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 1,941 | 0.30 | Sandy Soil 2-7% per manual |
| 17,375 | 0.92 | Paved Areas |
| 19,316 | 0.86 | Weighted Average |
| 19,316 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 3.5 | 33 | 0.0200 | 0.16 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.6 | 67 | 0.0350 | 1.82 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.5 | 66 | 0.0100 | 2.03 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 0.4 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 166 | Total | | | |

## Subcatchment DB-B1: Drainage Basin B1



## Summary for Subcatchment DB-B10: Drainage Basin B10

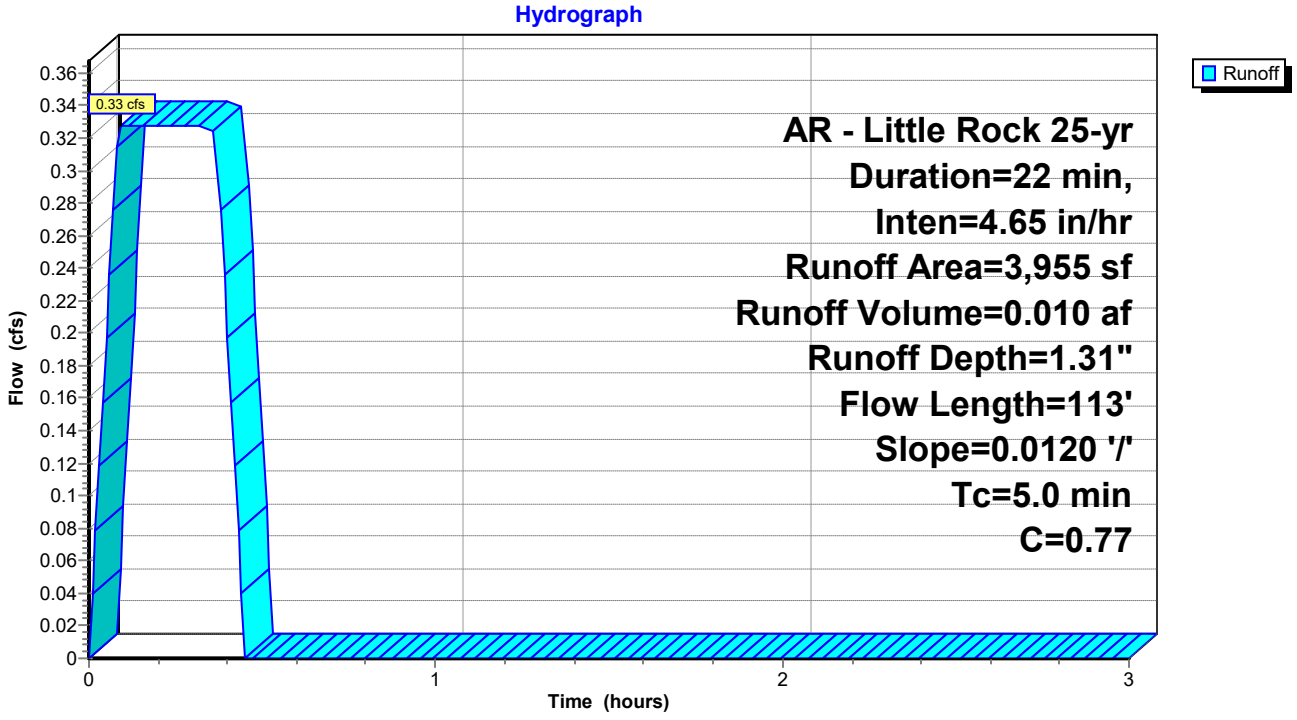
Runoff = 0.33 cfs @ 0.09 hrs, Volume= 0.010 af, Depth= 1.31"
Routed to Pond CI-C4 : CURB INLET C4

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=22 min, Inten=4.65 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 959 | 0.30 | Sandy Soil 2-7% per manual |
| 2,996 | 0.92 | Paved Areas |
| 3,955 | 0.77 | Weighted Average |
| 3,955 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.4 | 113 | 0.0120 | 1.32 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 3.6 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 113 | Total | | | |

## Subcatchment DB-B10: Drainage Basin B10



## Summary for Subcatchment DB-B11: Drainage Basin B11

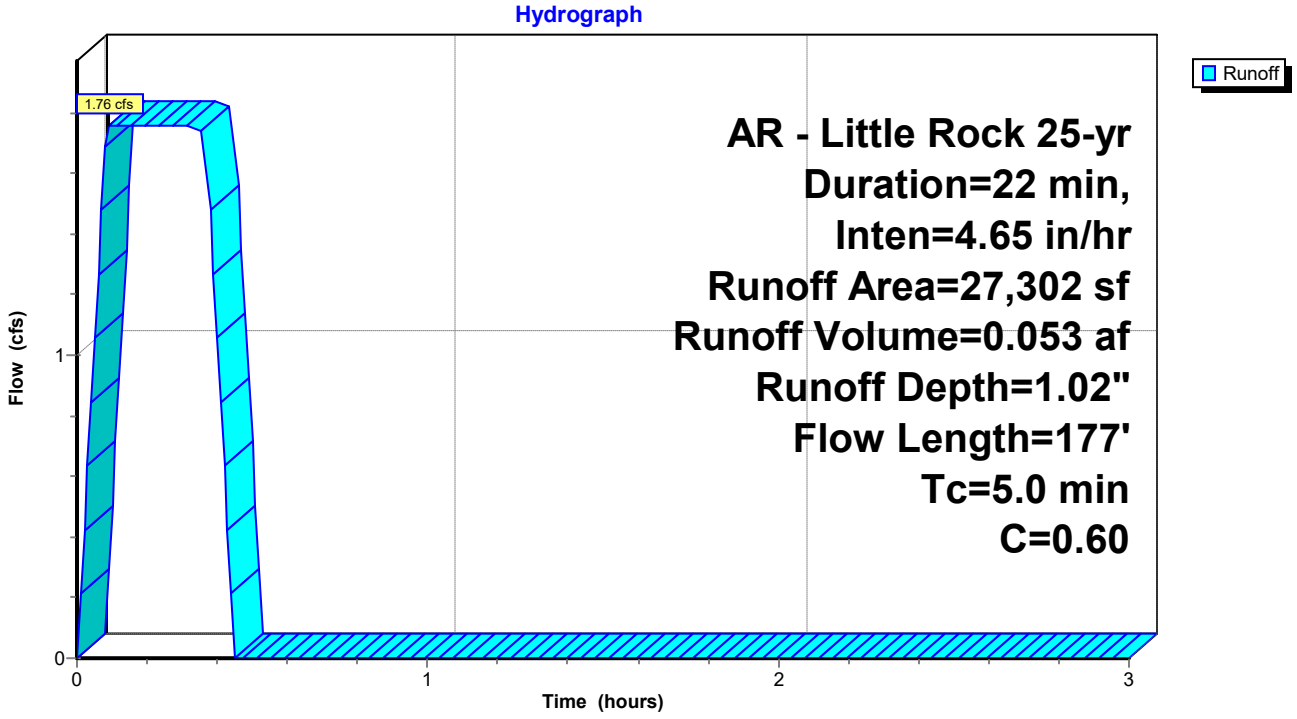
Runoff = 1.76 cfs @ 0.09 hrs, Volume= 0.053 af, Depth= 1.02"
Routed to Pond CI-D1 : CURB INLET D1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=22 min, Inten=4.65 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 15,547 | 0.35 | Sandy Soil 2-7% per manual |
| 11,755 | 0.92 | Paved Areas |
| 27,302 | 0.60 | Weighted Average |
| 27,302 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.2 | 65 | 0.3300 | 4.44 | | **Sheet Flow, Roof** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.2 | 69 | 0.1750 | 6.27 | | **Shallow Concentrated Flow, Greenspace** Grassed Waterway Kv= 15.0 fps |
| 0.2 | 43 | 0.0500 | 4.54 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 4.4 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 177 | Total | | | |

## Subcatchment DB-B11: Drainage Basin B11



## Summary for Subcatchment DB-B12: Drainage Basin B12

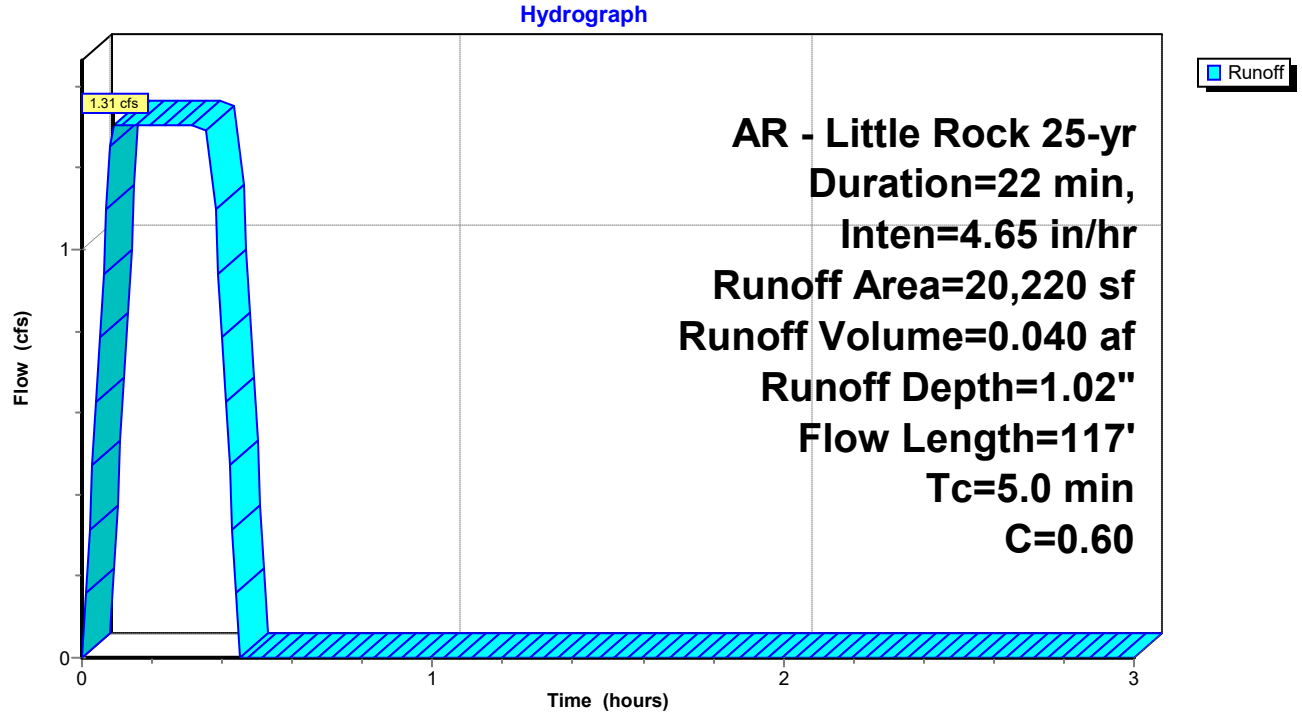
Runoff = 1.31 cfs @ 0.09 hrs, Volume= 0.040 af, Depth= 1.02"
Routed to Pond CI-C5 : CURB INLET C5

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=22 min, Inten=4.65 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 11,502 | 0.35 | Sandy Soil 2-7% per manual |
| 8,718 | 0.92 | Paved Areas |
| 20,220 | 0.60 | Weighted Average |
| 20,220 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 2.0 | 26 | 0.0500 | 0.21 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.5 | 38 | 0.2360 | 0.43 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.1 | 28 | 0.2390 | 0.41 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.4 | 25 | 0.0180 | 1.15 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 5.0 | 117 | Total | | | |

## Subcatchment DB-B12: Drainage Basin B12



## Summary for Subcatchment DB-B13: DRAINAGE BASIN B13

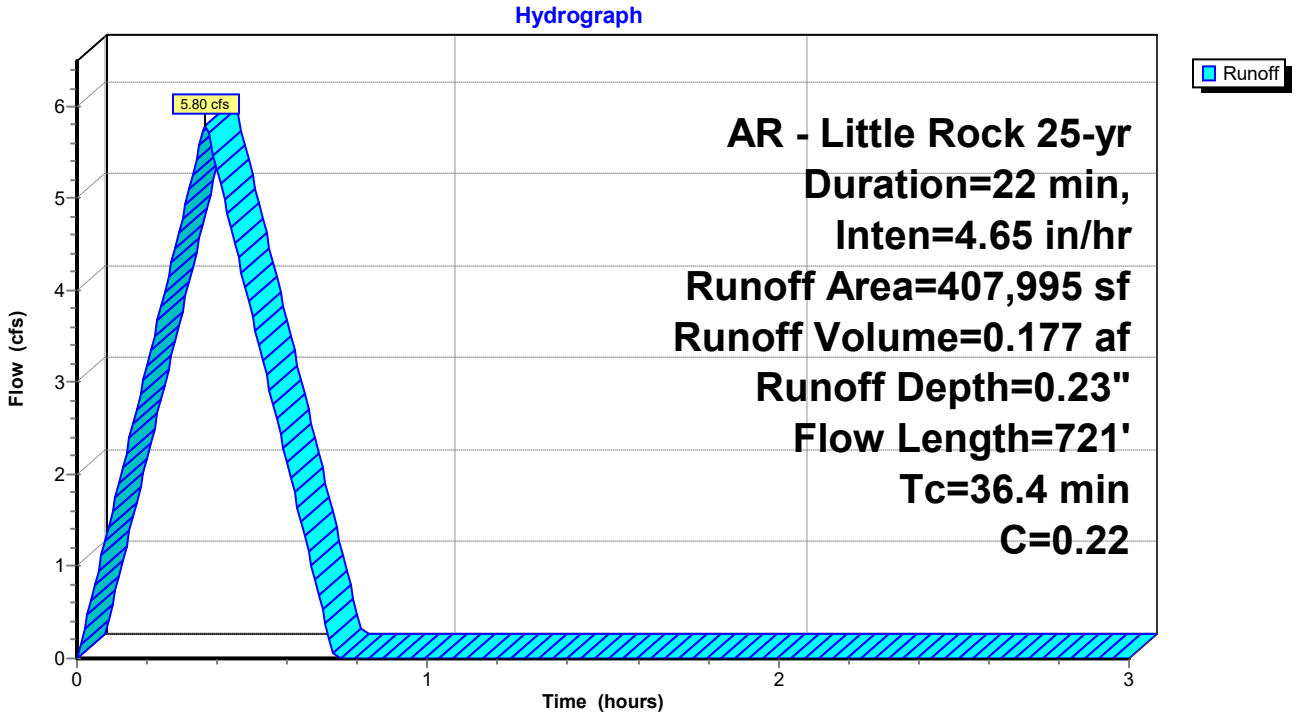
Runoff = 5.80 cfs @ 0.37 hrs, Volume= 0.177 af, Depth= 0.23"
Routed to Link POST-DEV : Post-Development

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=22 min, Inten=4.65 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 407,995 | 0.22 | Sandy Soil 2-7% Per Manual |
| 407,995 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.5 | 67 | 0.6600 | 0.73 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.2 | 46 | 0.5900 | 0.65 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 3.2 | 147 | 0.5100 | 0.77 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.8 | 63 | 0.3800 | 0.58 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 8.5 | 70 | 0.0100 | 0.14 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 4.8 | 163 | 0.2200 | 0.56 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 2.4 | 65 | 0.2000 | 0.45 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 6.3 | 48 | 0.0100 | 0.13 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 6.7 | 52 | 0.0100 | 0.13 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 36.4 | 721 | Total | | | |

## Subcatchment DB-B13: DRAINAGE BASIN B13



## Summary for Subcatchment DB-B14: DRAINAGE BASIN B14

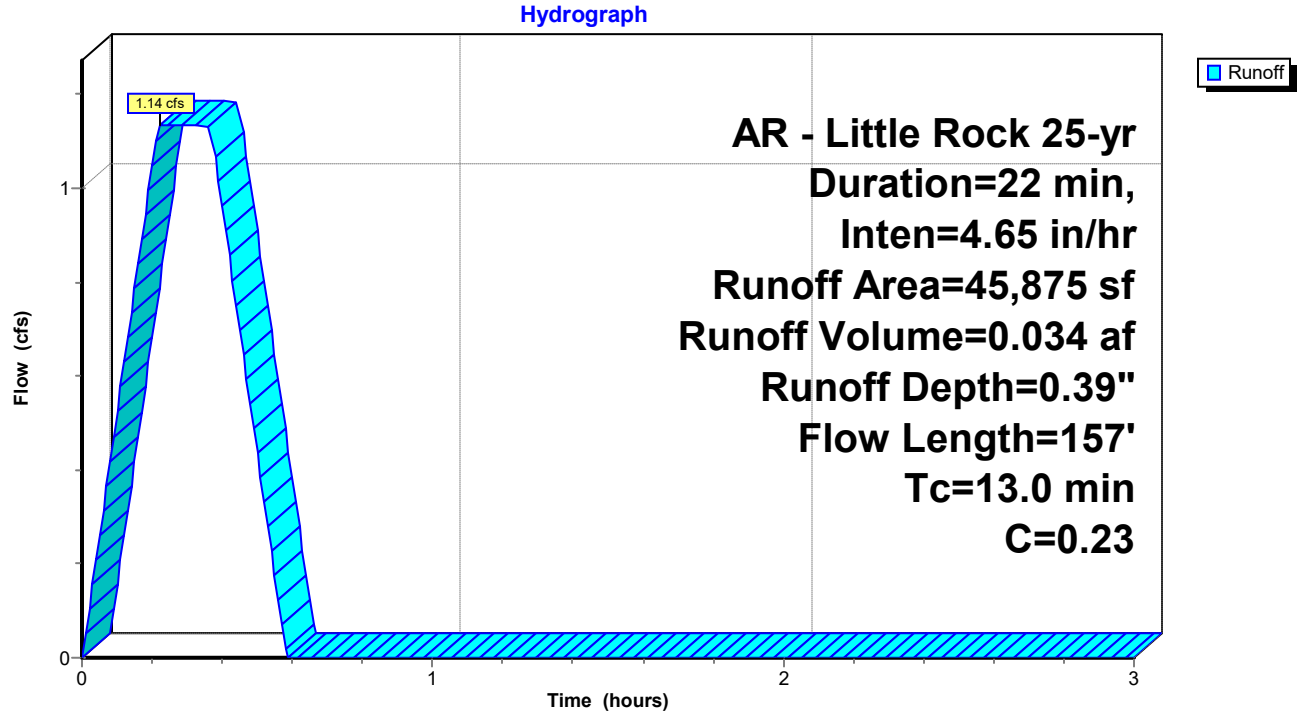
Runoff = 1.14 cfs @ 0.22 hrs, Volume= 0.034 af, Depth= 0.39"
Routed to Link POST-DEV : Post-Development

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=22 min, Inten=4.65 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 45,016 | 0.22 | Sandy Soil 2-7% Per Manual |
| 859 | 0.92 | Paved Areas |
| 45,875 | 0.23 | Weighted Average |
| 45,875 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 2.5 | 15 | 0.0100 | 0.10 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 5.2 | 78 | 0.0420 | 0.25 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 2.8 | 38 | 0.0480 | 0.23 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 2.5 | 26 | 0.0280 | 0.17 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 13.0 | 157 | Total | | | |

## Subcatchment DB-B14: DRAINAGE BASIN B14



## Summary for Subcatchment DB-B2: Drainage Basin B2

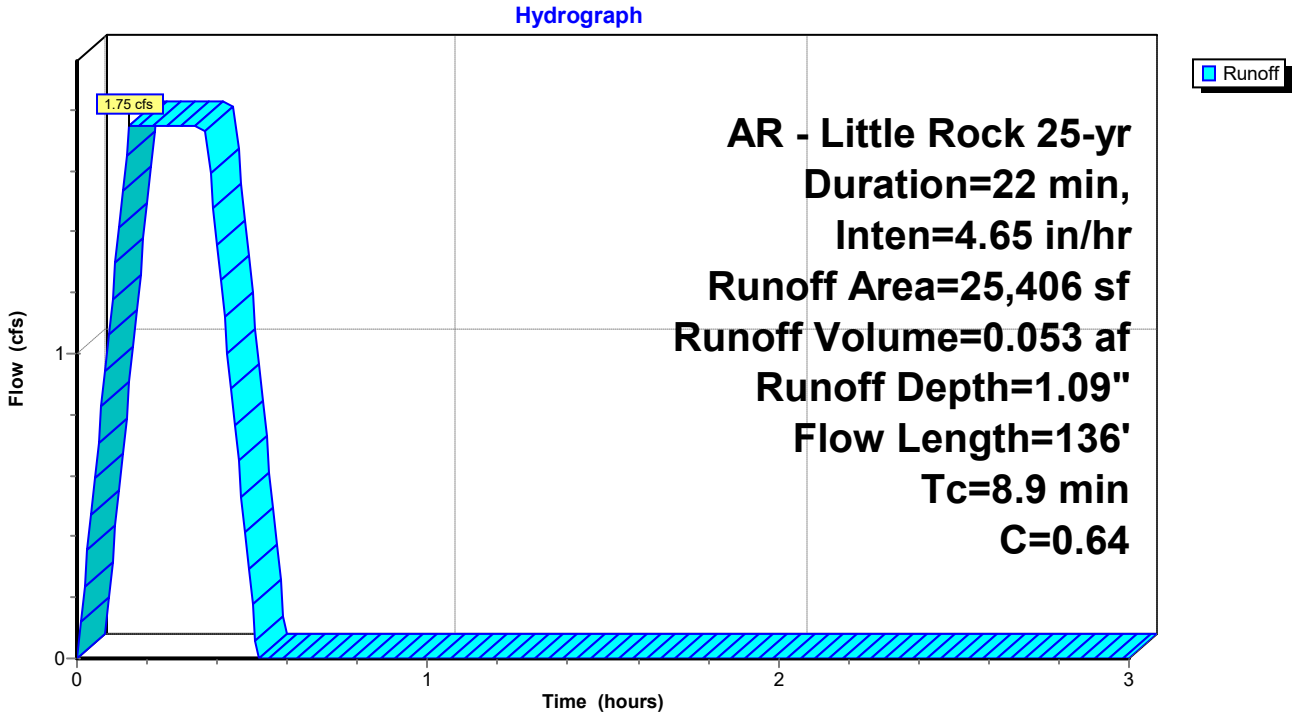
Runoff = 1.75 cfs @ 0.15 hrs, Volume= 0.053 af, Depth= 1.09"
Routed to Pond CI-A2 : CURB INLET A2

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=22 min, Inten=4.65 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 11,388 | 0.30 | Sandy Soil 2-7% per manual |
| 14,018 | 0.92 | Paved Areas |
| 25,406 | 0.64 | Weighted Average |
| 25,406 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 7.2 | 57 | 0.0100 | 0.13 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.8 | 19 | 0.2480 | 0.38 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.2 | 14 | 0.0150 | 0.95 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.3 | 34 | 0.0600 | 1.97 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.2 | 12 | 0.0350 | 1.29 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.2 | | | | | **Direct Entry, Minimum Adjustment** |
| 8.9 | 136 | Total | | | |

## Subcatchment DB-B2: Drainage Basin B2



## Summary for Subcatchment DB-B3: Drainage Basin B3

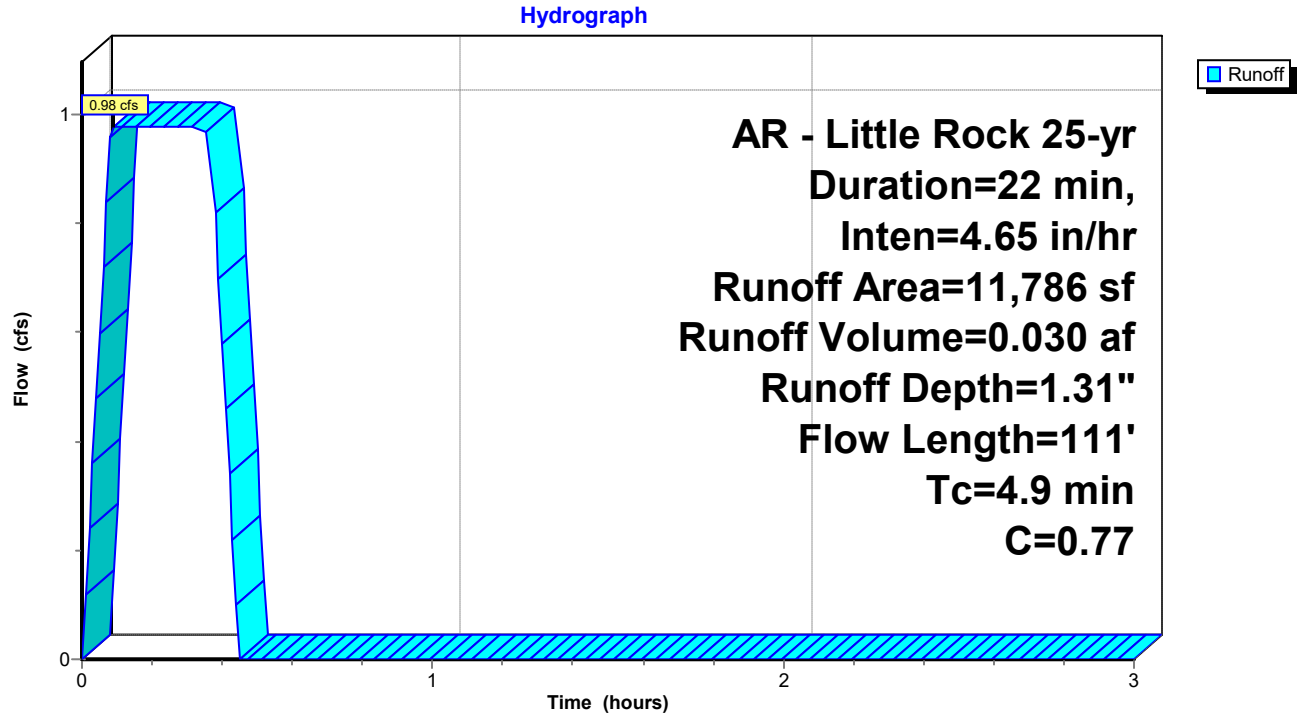
Runoff = 0.98 cfs @ 0.09 hrs, Volume= 0.030 af, Depth= 1.31"
Routed to Pond CI-A3 : CURB INLET A3

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=22 min, Inten=4.65 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 2,920 | 0.30 | Sandy Soil 2-7% per manual |
| 8,866 | 0.92 | Paved Areas |
| 11,786 | 0.77 | Weighted Average |
| 11,786 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.8 | 19 | 0.2500 | 0.38 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.2 | 16 | 0.0290 | 1.27 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.6 | 38 | 0.0100 | 0.98 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.3 | 38 | 0.0100 | 2.03 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 3.0 | | | | | **Direct Entry, Minimum Adjustment** |
| 4.9 | 111 | Total | | | |

## Subcatchment DB-B3: Drainage Basin B3



## Summary for Subcatchment DB-B4: Drainage Basin B4

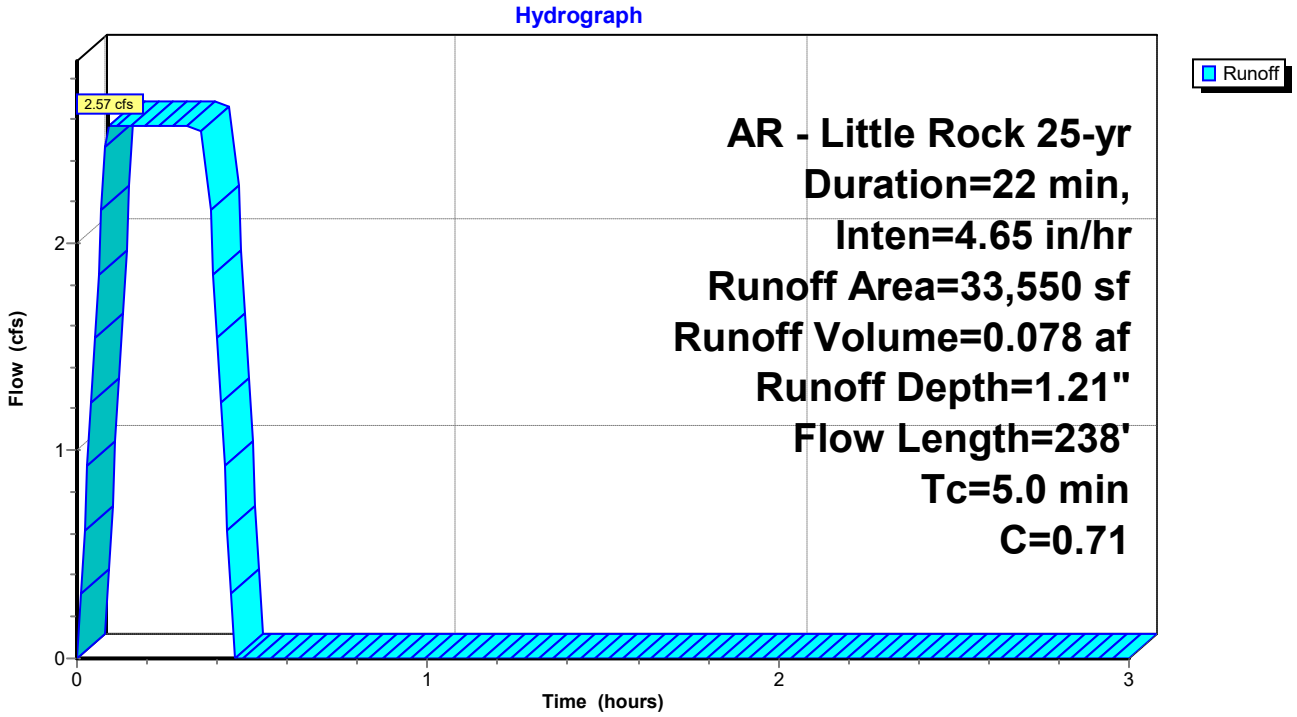
Runoff = 2.57 cfs @ 0.09 hrs, Volume= 0.078 af, Depth= 1.21"
Routed to Pond CI-A4 : CURB INLET A4

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=22 min, Inten=4.65 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 11,568 | 0.30 | Sandy Soil 2-7% per manual |
| 21,982 | 0.92 | Paved Areas |
| 33,550 | 0.71 | Weighted Average |
| 33,550 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.4 | 48 | 0.0530 | 2.01 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.3 | 25 | 0.0310 | 1.42 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.6 | 14 | 0.0020 | 0.42 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.9 | 66 | 0.0130 | 1.22 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.4 | 59 | 0.0120 | 2.22 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 0.5 | 19 | 0.0010 | 0.64 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 0.0 | 7 | 0.0700 | 5.37 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 1.9 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 238 | Total | | | |

## Subcatchment DB-B4: Drainage Basin B4



## Summary for Subcatchment DB-B5: Drainage Basin B5

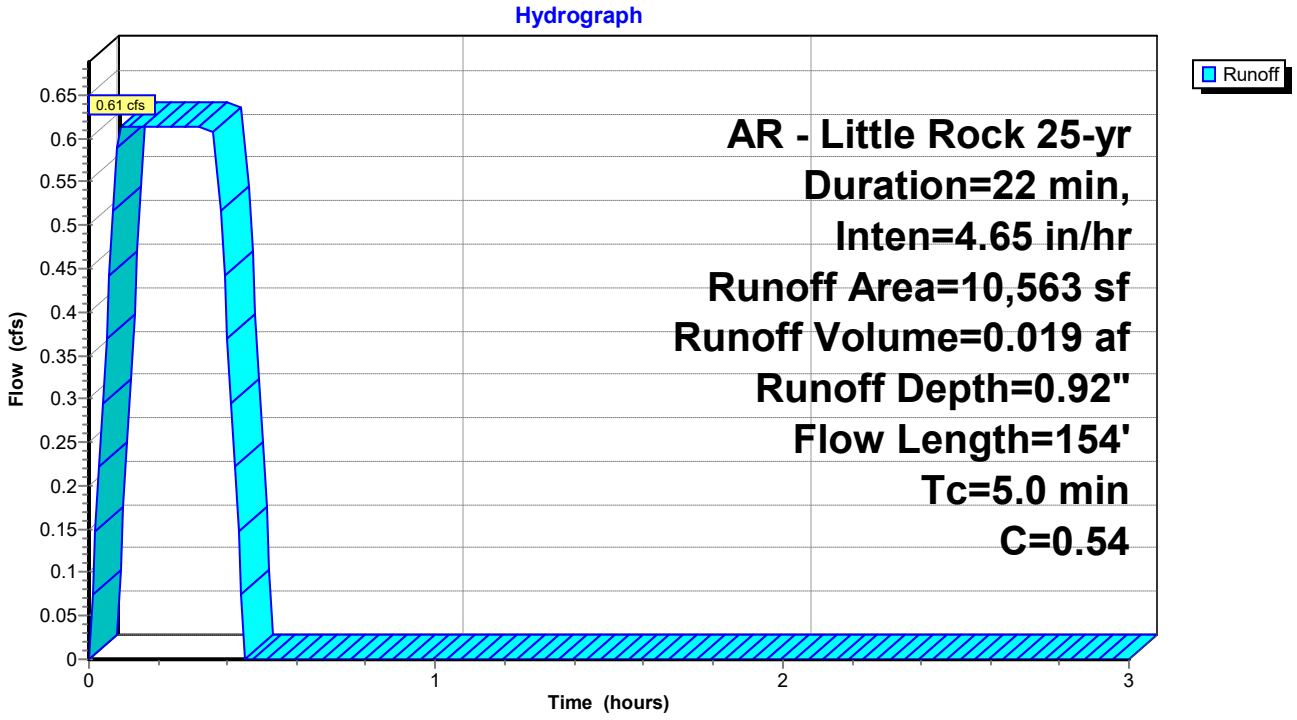
Runoff = 0.61 cfs @ 0.09 hrs, Volume= 0.019 af, Depth= 0.92"
Routed to Pond CI-A5 : CURB INLET A5

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=22 min, Inten=4.65 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 6,980 | 0.35 | Sandy Soil 2-7% per manual |
| 3,583 | 0.92 | Paved Areas |
| 10,563 | 0.54 | Weighted Average |
| 10,563 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.2 | 19 | 0.0920 | 0.26 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.9 | 39 | 0.1260 | 0.34 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.5 | 66 | 0.0540 | 2.16 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.1 | 30 | 0.0500 | 4.54 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 1.3 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 154 | Total | | | |

## Subcatchment DB-B5: Drainage Basin B5



## Summary for Subcatchment DB-B6: Drainage Basin B6

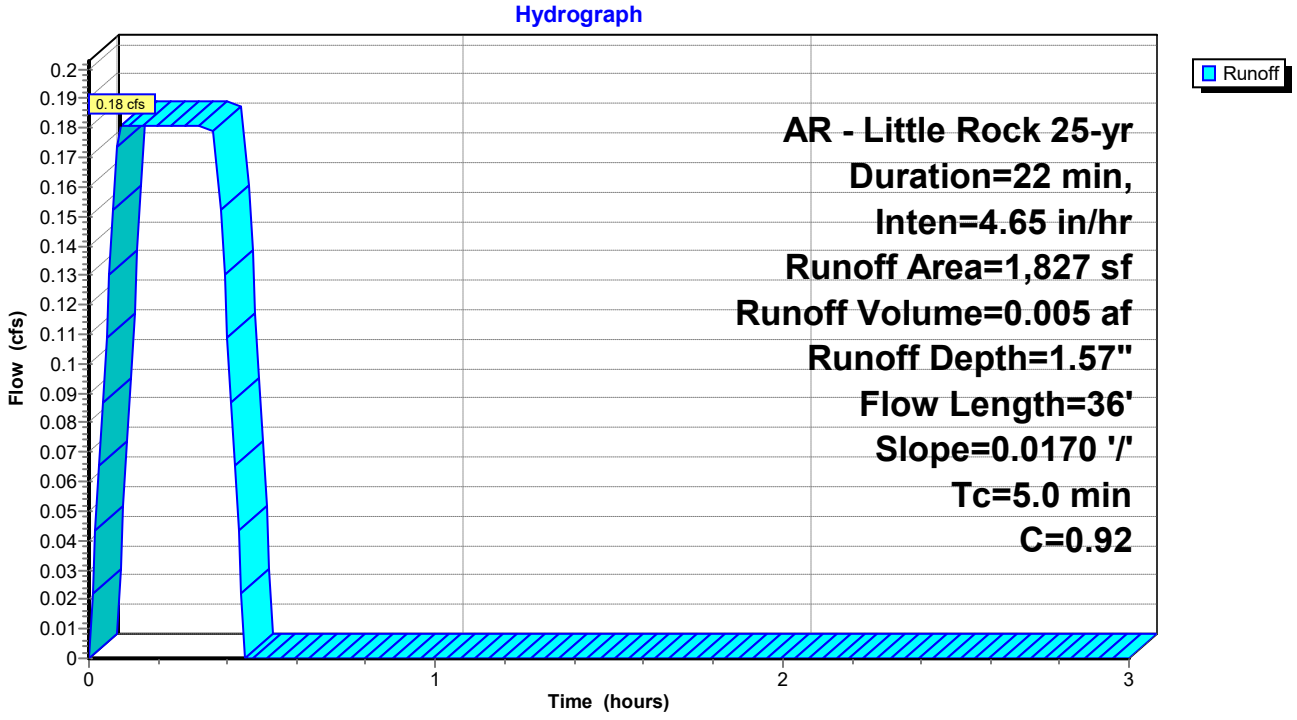
Runoff = 0.18 cfs @ 0.09 hrs, Volume= 0.005 af, Depth= 1.57"
Routed to Pond AI-B1 : AREA INLET B1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=22 min, Inten=4.65 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 0 | 0.30 | Sandy Soil 2-7% per manual |
| 1,827 | 0.92 | Paved Areas |
| 1,827 | 0.92 | Weighted Average |
| 1,827 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.5 | 36 | 0.0170 | 1.20 | | **Sheet Flow, Concrete** Smooth surfaces n= 0.011 P2= 4.20" |
| 4.5 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 36 | Total | | | |

## Subcatchment DB-B6: Drainage Basin B6



## Summary for Subcatchment DB-B7: Drainage Basin B7

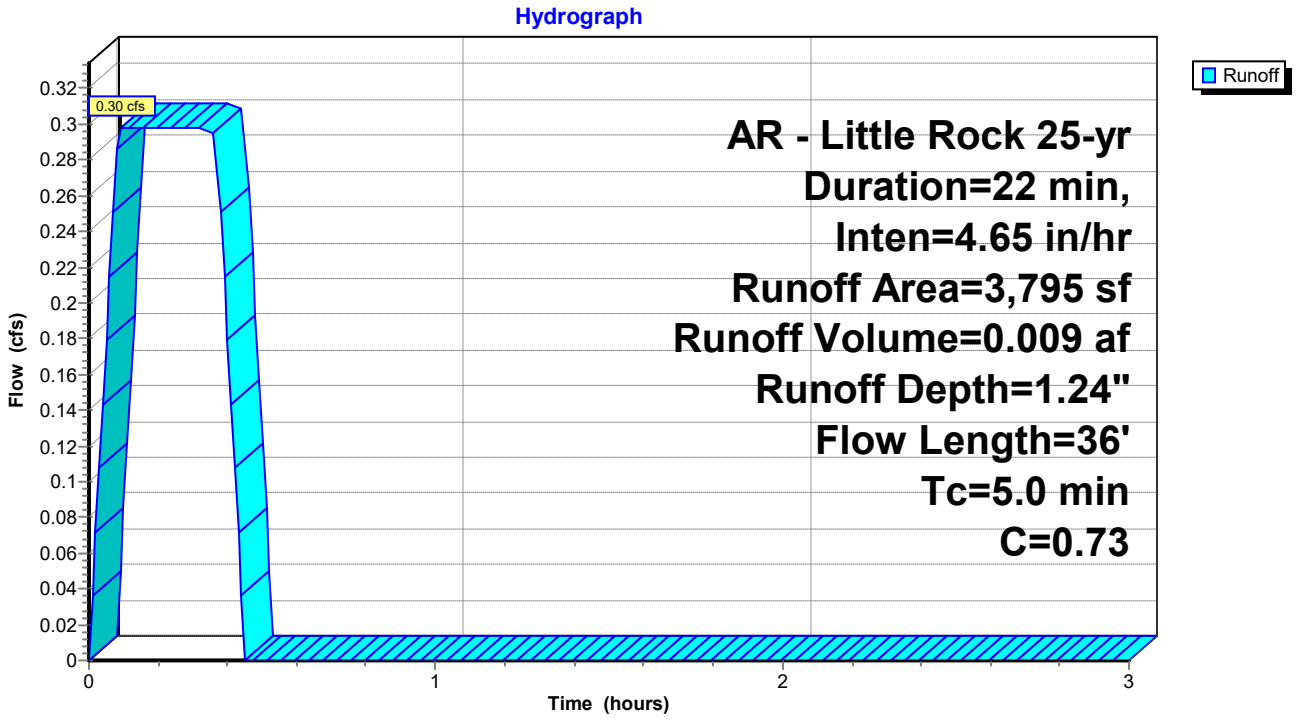
Runoff = 0.30 cfs @ 0.09 hrs, Volume= 0.009 af, Depth= 1.24"
Routed to Pond AI-B2 : AREA INLET B2

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=22 min, Inten=4.65 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 1,158 | 0.30 | Sandy Soil 2-7% per manual |
| 2,637 | 0.92 | Paved Areas |
| 3,795 | 0.73 | Weighted Average |
| 3,795 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.8 | 24 | 0.0020 | 0.47 | | **Sheet Flow, Concrete** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.2 | 12 | 0.0160 | 0.94 | | **Sheet Flow, Concrete** Smooth surfaces n= 0.011 P2= 4.20" |
| 4.0 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 36 | Total | | | |

## Subcatchment DB-B7: Drainage Basin B7



## Summary for Subcatchment DB-B8: Drainage Basin B8

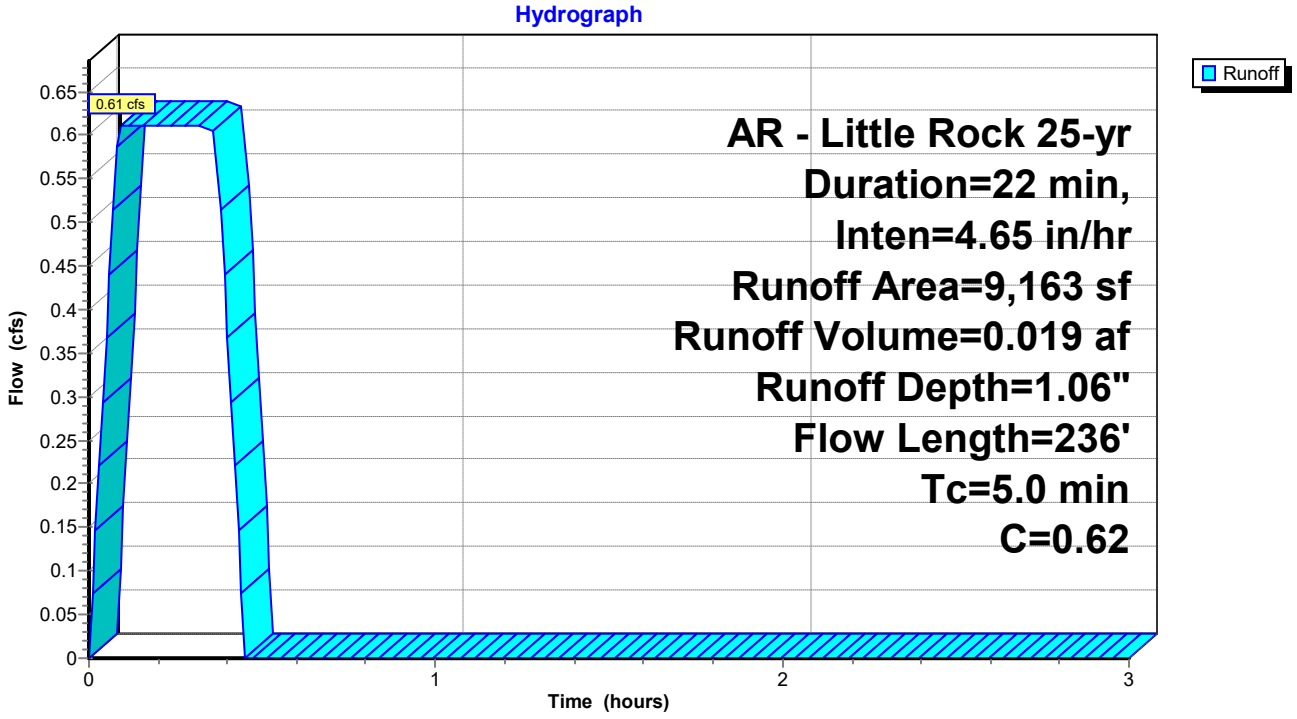
Runoff = 0.61 cfs @ 0.09 hrs, Volume= 0.019 af, Depth= 1.06"
Routed to Pond CI-C1 : CURB INLET C1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=22 min, Inten=4.65 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 4,431 | 0.30 | Sadny Soil 2-7% per manual |
| 4,732 | 0.92 | Paved Areas |
| 9,163 | 0.62 | Weighted Average |
| 9,163 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.4 | 33 | 0.0210 | 1.29 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.6 | 91 | 0.0620 | 2.43 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.8 | 112 | 0.0490 | 2.31 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 3.2 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 236 | Total | | | |

## Subcatchment DB-B8: Drainage Basin B8



## Summary for Subcatchment DB-B9: Drainage Basin B9

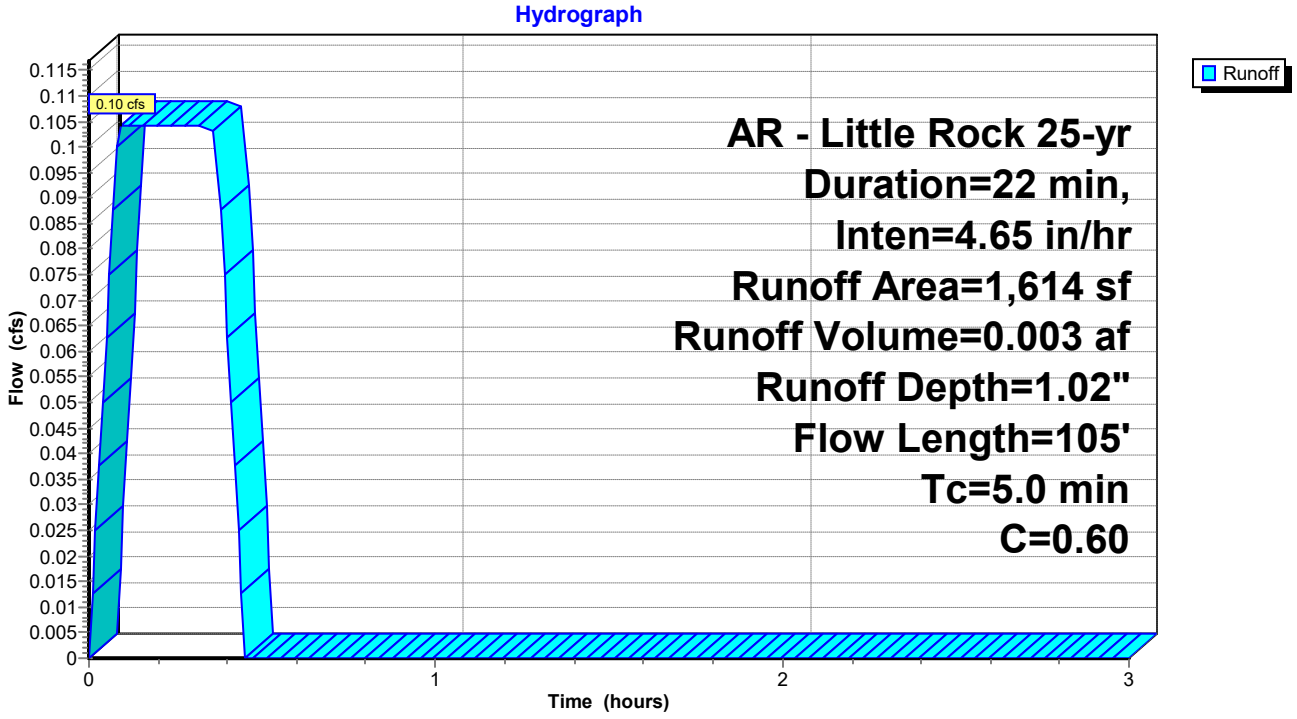
Runoff = 0.10 cfs @ 0.09 hrs, Volume= 0.003 af, Depth= 1.02"
Routed to Pond CI-C2 : CURB INLET C2

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=22 min, Inten=4.65 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 826 | 0.30 | Sandy Soil 2-7% per manual |
| 788 | 0.92 | Paved Areas |
| 1,614 | 0.60 | Weighted Average |
| 1,614 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.0 | 62 | 0.0100 | 1.09 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.0 | 8 | 0.0230 | 3.08 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 0.2 | 35 | 0.0140 | 2.40 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 3.8 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 105 | Total | | | |

## Subcatchment DB-B9: Drainage Basin B9



## Summary for Pond AI-B1: AREA INLET B1

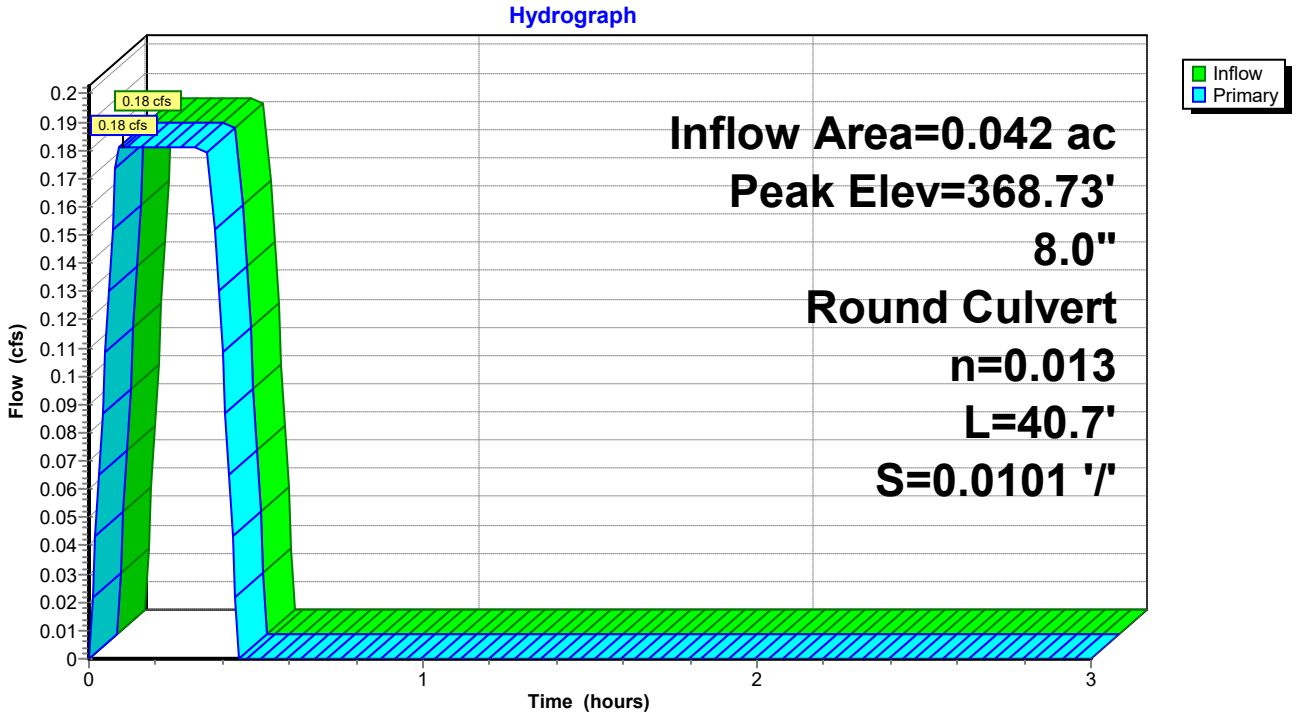
Inflow Area = 0.042 ac, 0.00% Impervious, Inflow Depth = 1.57" for 25-yr event
Inflow = 0.18 cfs @ 0.09 hrs, Volume= 0.005 af
Outflow = 0.18 cfs @ 0.10 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.6 min
Primary = 0.18 cfs @ 0.10 hrs, Volume= 0.005 af
Routed to Pond AI-B2 : AREA INLET B2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 368.73' @ 0.09 hrs

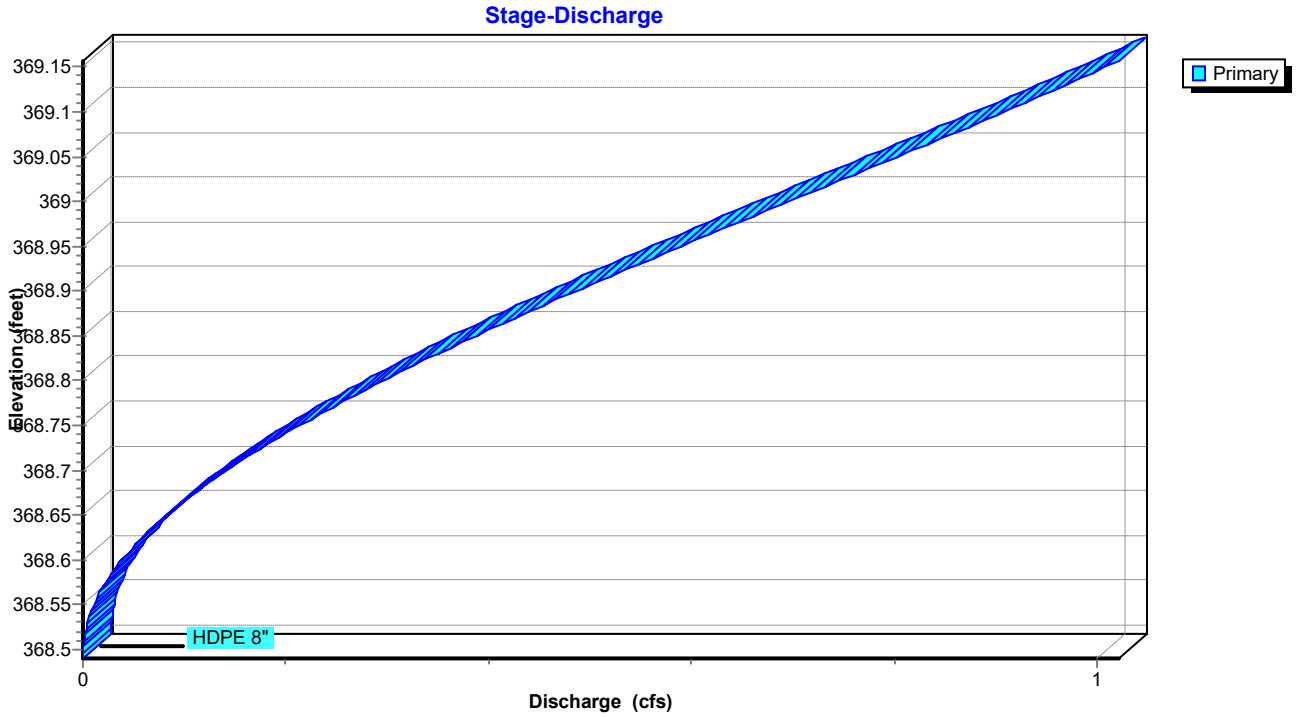
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 368.49' | **8.0" Round HDPE 8"** L= 40.7' Ke= 0.100<br>Inlet / Outlet Invert= 368.49' / 368.08' S= 0.0101 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.35 sf |

**Primary OutFlow** Max=0.18 cfs @ 0.10 hrs HW=368.73' (Free Discharge)
**1=HDPE 8"** (Barrel Controls 0.18 cfs @ 2.41 fps)

## Pond AI-B1: AREA INLET B1



## Pond AI-B1: AREA INLET B1



## Summary for Pond AI-B2: AREA INLET B2

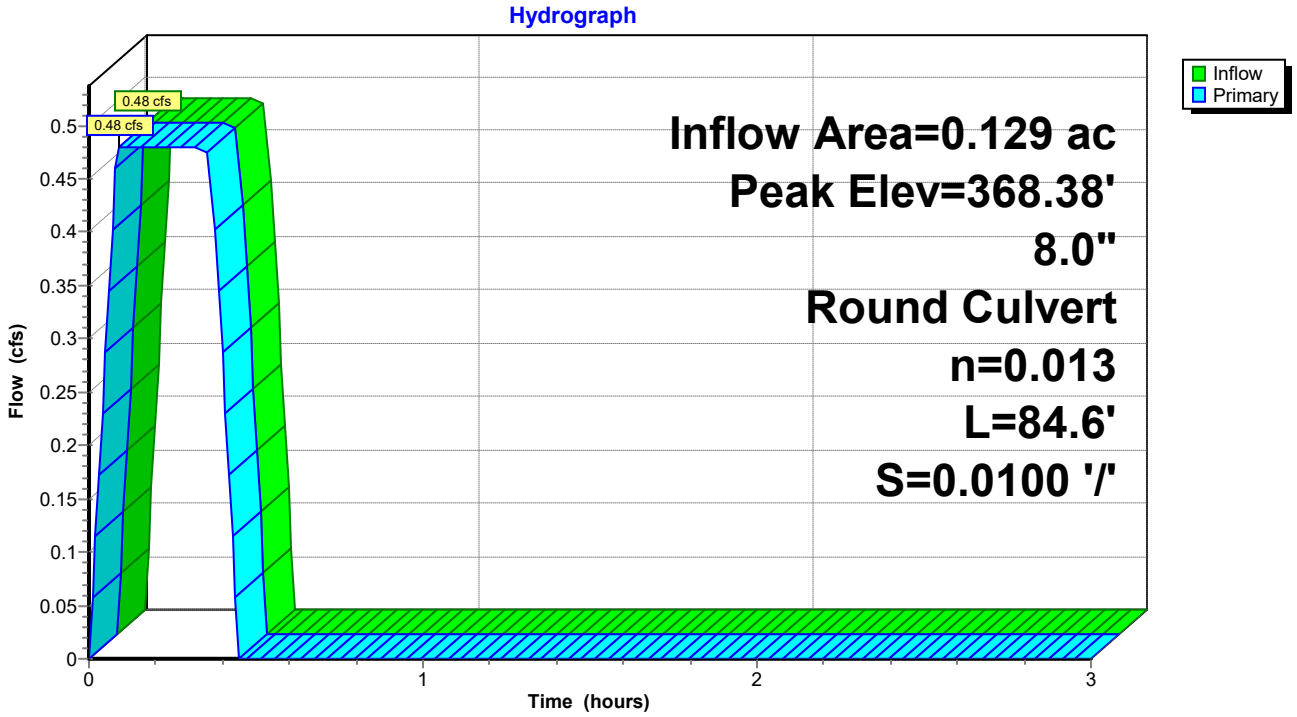
Inflow Area = 0.129 ac, 0.00% Impervious, Inflow Depth = 1.35" for 25-yr event
Inflow = 0.48 cfs @ 0.09 hrs, Volume= 0.015 af
Outflow = 0.48 cfs @ 0.09 hrs, Volume= 0.015 af, Atten= 0%, Lag= 0.0 min
Primary = 0.48 cfs @ 0.09 hrs, Volume= 0.015 af
Routed to Pond CI-A2 : CURB INLET A2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 368.38' @ 0.09 hrs

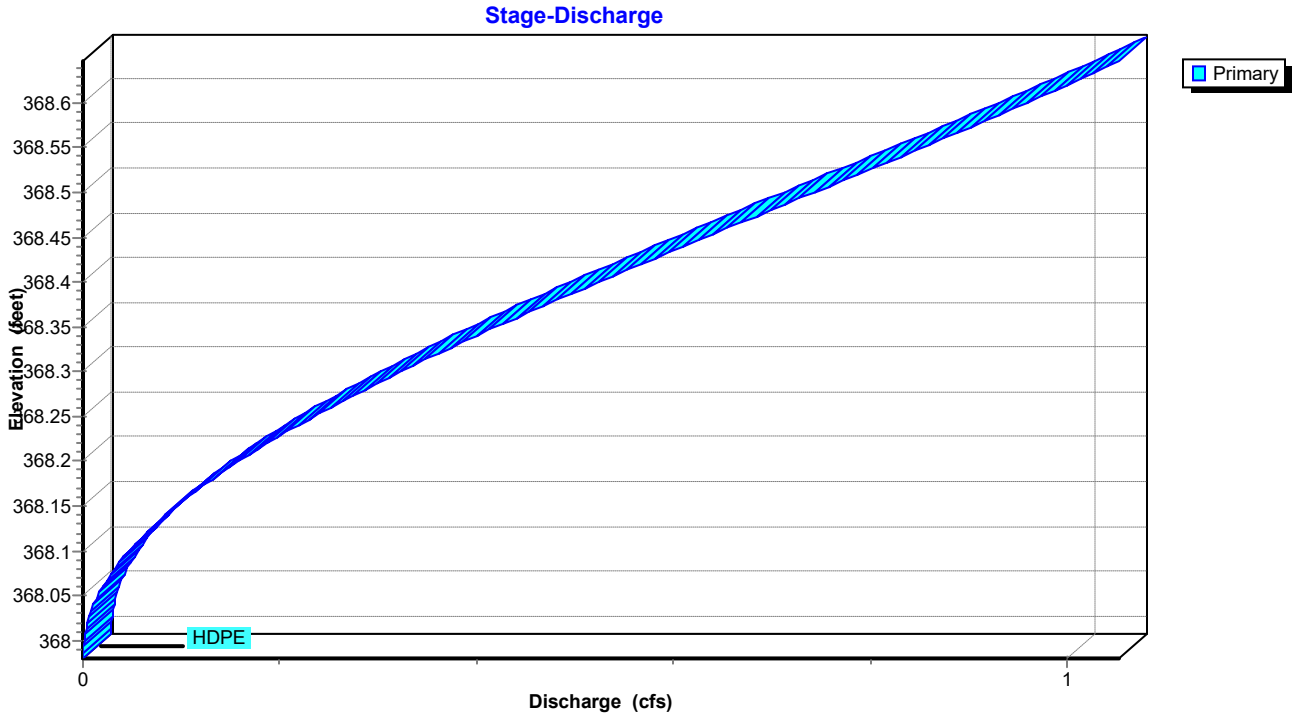
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 367.98' | **8.0" Round HDPE** L= 84.6' Ke= 0.100<br>Inlet / Outlet Invert= 367.98' / 367.13' S= 0.0100 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.35 sf |

**Primary OutFlow** Max=0.48 cfs @ 0.09 hrs HW=368.38' (Free Discharge)
**1=HDPE** (Barrel Controls 0.48 cfs @ 3.16 fps)

## Pond AI-B2: AREA INLET B2



## Pond AI-B2: AREA INLET B2



## Summary for Pond CI-A1: CURB INLET A1

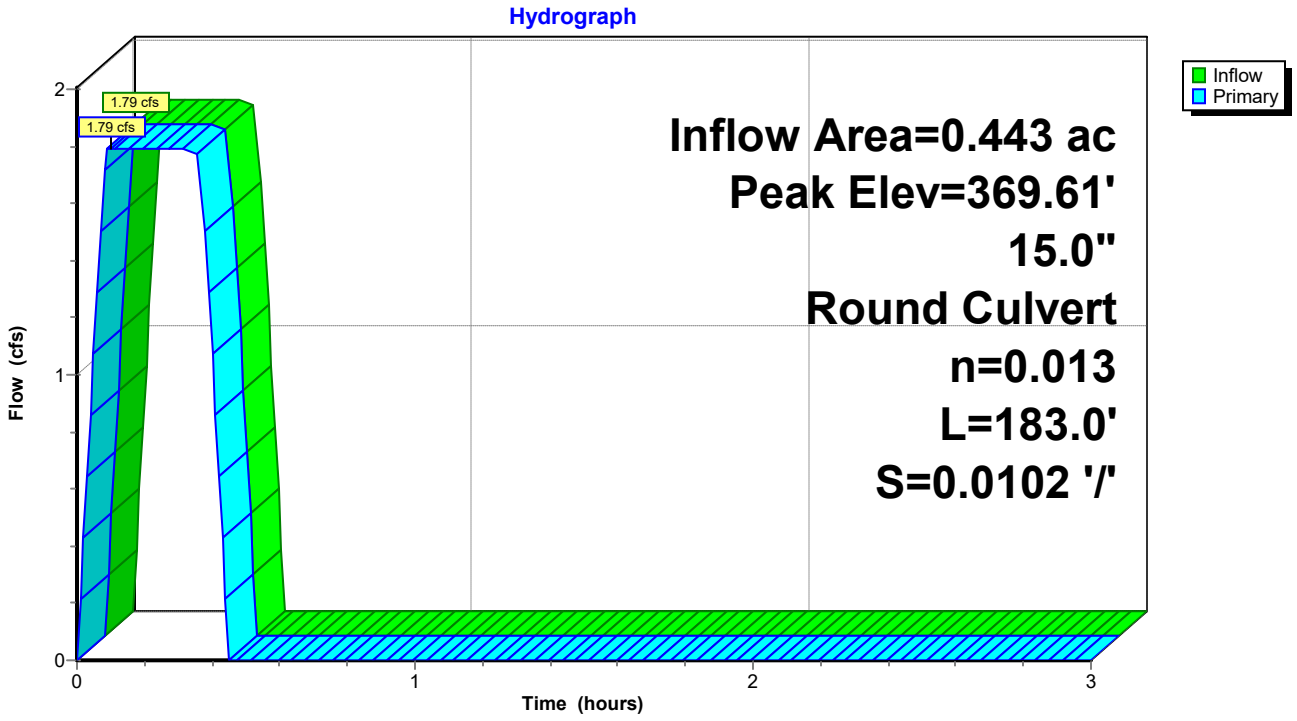
Inflow Area = 0.443 ac, 0.00% Impervious, Inflow Depth = 1.47" for 25-yr event
Inflow = 1.79 cfs @ 0.09 hrs, Volume= 0.054 af
Outflow = 1.79 cfs @ 0.10 hrs, Volume= 0.054 af, Atten= 0%, Lag= 0.6 min
Primary = 1.79 cfs @ 0.10 hrs, Volume= 0.054 af
Routed to Pond CI-A2 : CURB INLET A2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 369.61' @ 0.09 hrs

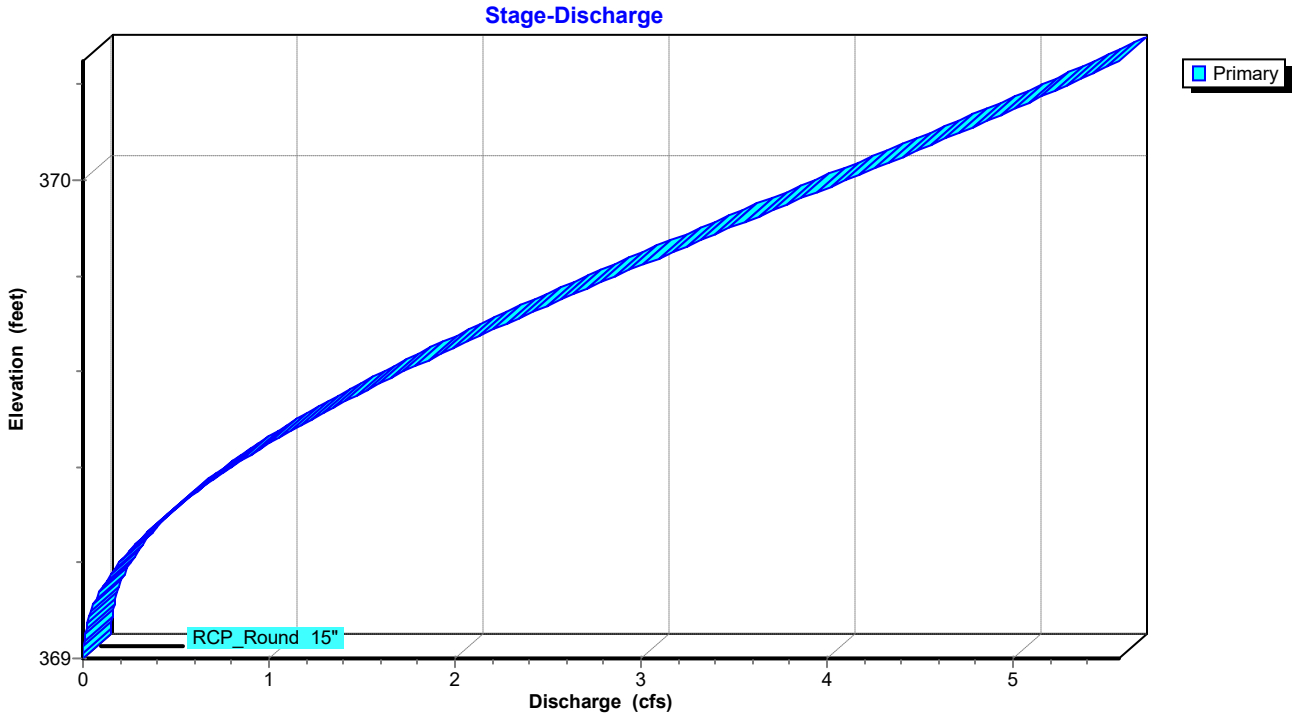
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 369.00' | **15.0" Round RCP_Round 15"**<br>L= 183.0' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 369.00' / 367.13' S= 0.0102 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.23 sf |

**Primary OutFlow** Max=1.79 cfs @ 0.10 hrs HW=369.61' (Free Discharge)
**1=RCP_Round 15"** (Barrel Controls 1.79 cfs @ 4.37 fps)

## Pond CI-A1: CURB INLET A1



## Pond CI-A1: CURB INLET A1



## Summary for Pond CI-A2: CURB INLET A2

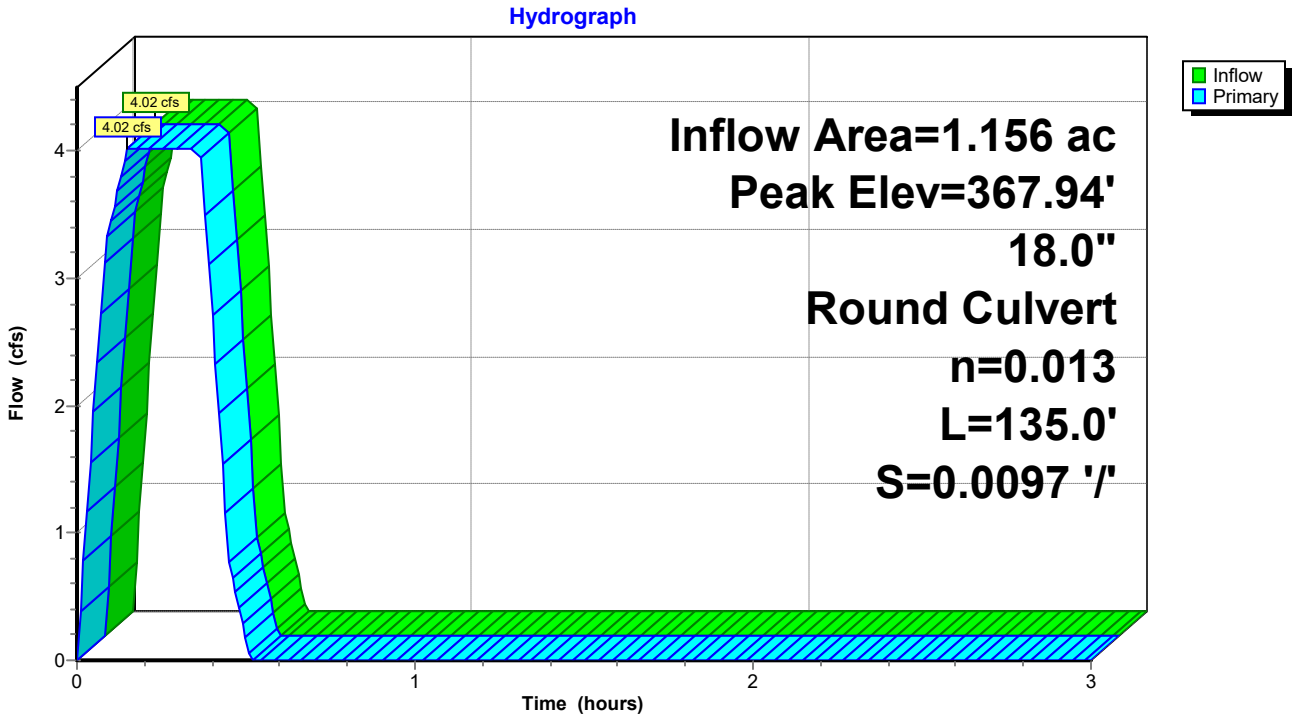
Inflow Area = 1.156 ac, 0.00% Impervious, Inflow Depth = 1.26" for 25-yr event
Inflow = 4.02 cfs @ 0.15 hrs, Volume= 0.122 af
Outflow = 4.02 cfs @ 0.15 hrs, Volume= 0.122 af, Atten= 0%, Lag= 0.0 min
Primary = 4.02 cfs @ 0.15 hrs, Volume= 0.122 af
Routed to Pond CI-A3 : CURB INLET A3

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 367.94' @ 0.15 hrs

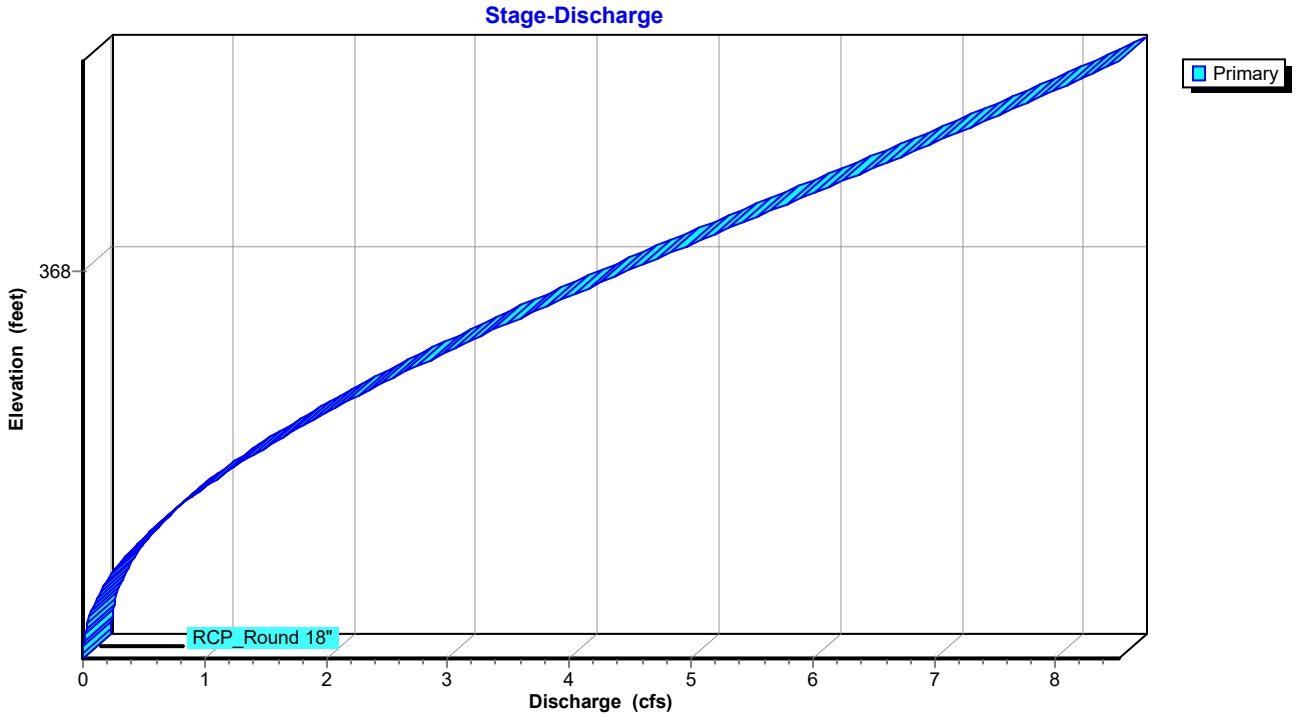
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 367.03' | **18.0" Round RCP_Round 18"**<br>L= 135.0' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 367.03' / 365.72' S= 0.0097 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf |

**Primary OutFlow** Max=4.02 cfs @ 0.15 hrs HW=367.94' (Free Discharge)
**1=RCP_Round 18"** (Barrel Controls 4.02 cfs @ 5.12 fps)

## Pond CI-A2: CURB INLET A2



## Pond CI-A2: CURB INLET A2



## Summary for Pond CI-A3: CURB INLET A3

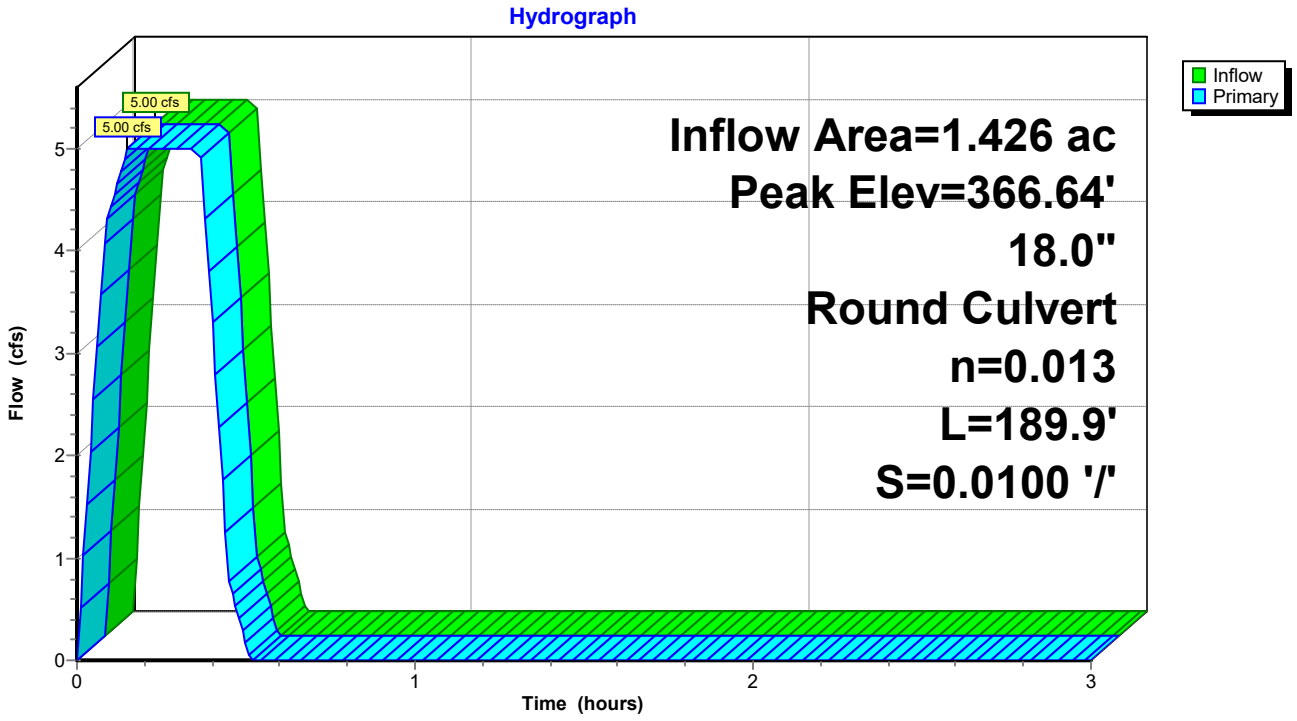
Inflow Area = 1.426 ac, 0.00% Impervious, Inflow Depth = 1.27" for 25-yr event
Inflow = 5.00 cfs @ 0.15 hrs, Volume= 0.151 af
Outflow = 5.00 cfs @ 0.15 hrs, Volume= 0.151 af, Atten= 0%, Lag= 0.0 min
Primary = 5.00 cfs @ 0.15 hrs, Volume= 0.151 af
Routed to Pond CI-A4 : CURB INLET A4

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 366.64' @ 0.15 hrs

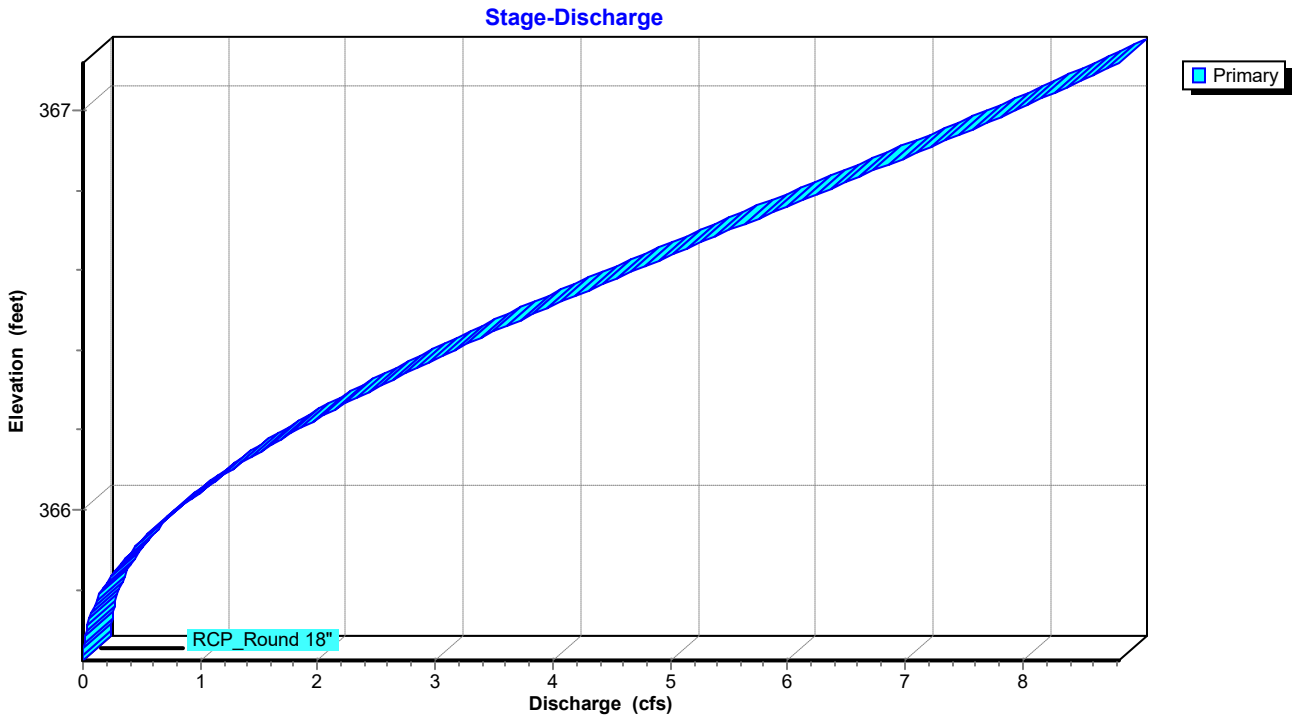
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 365.62' | **18.0" Round RCP_Round 18"**<br>L= 189.9' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 365.62' / 363.72' S= 0.0100 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf |

**Primary OutFlow** Max=5.00 cfs @ 0.15 hrs HW=366.64' (Free Discharge)
**1=RCP_Round 18"** (Barrel Controls 5.00 cfs @ 5.54 fps)

## Pond CI-A3: CURB INLET A3



## Pond CI-A3: CURB INLET A3



## Summary for Pond CI-A4: CURB INLET A4

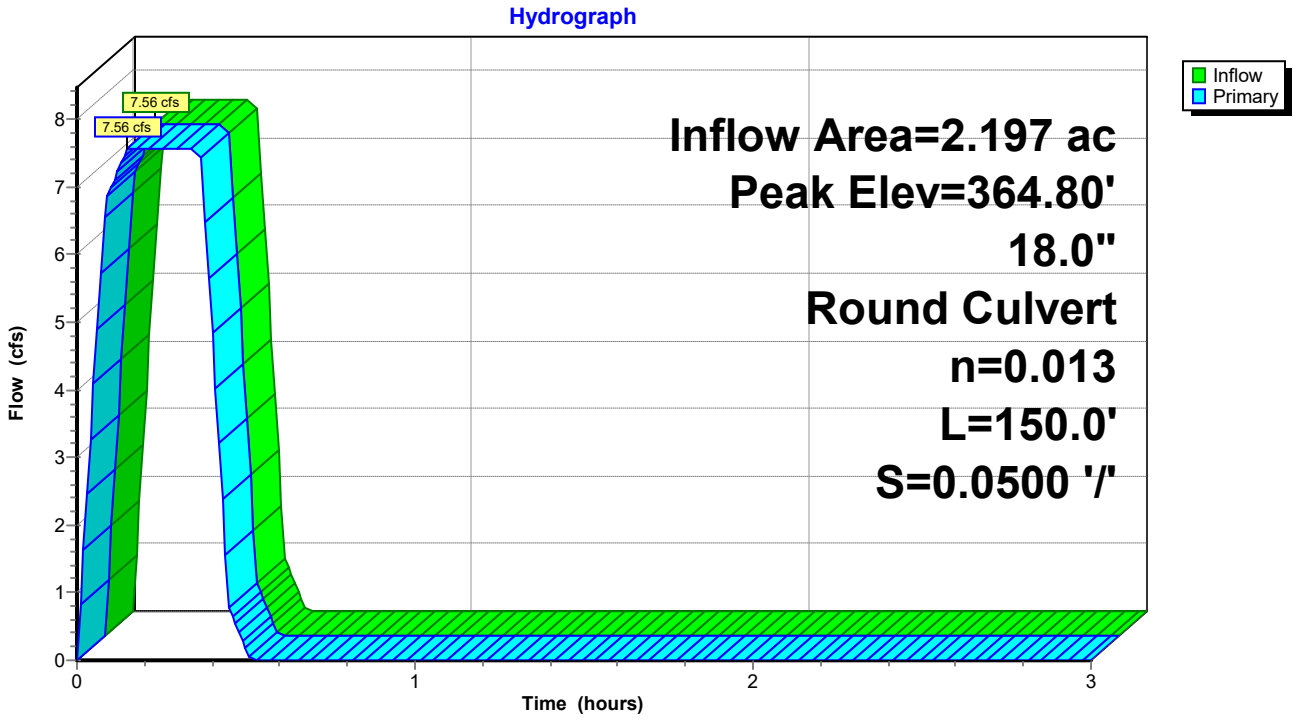
Inflow Area = 2.197 ac, 0.00% Impervious, Inflow Depth = 1.25" for 25-yr event
Inflow = 7.56 cfs @ 0.15 hrs, Volume= 0.229 af
Outflow = 7.56 cfs @ 0.15 hrs, Volume= 0.229 af, Atten= 0%, Lag= 0.0 min
Primary = 7.56 cfs @ 0.15 hrs, Volume= 0.229 af
Routed to Pond CI-A5 : CURB INLET A5

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 364.80' @ 0.15 hrs

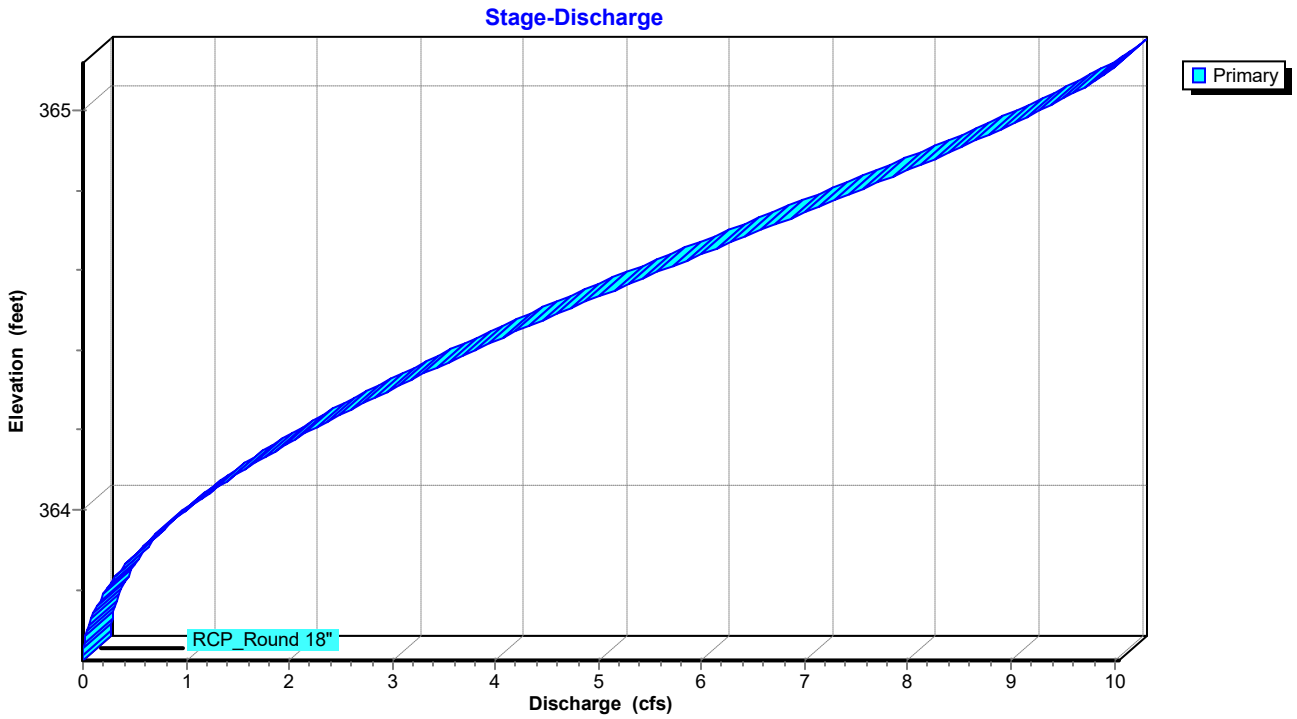
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 363.62' | **18.0" Round RCP_Round 18"**<br>L= 150.0' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 363.62' / 356.12' S= 0.0500 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf |

**Primary OutFlow** Max=7.56 cfs @ 0.15 hrs HW=364.80' (Free Discharge)
**1=RCP_Round 18"** (Inlet Controls 7.56 cfs @ 5.05 fps)

## Pond CI-A4: CURB INLET A4



## Pond CI-A4: CURB INLET A4



## Summary for Pond CI-A5: CURB INLET A5

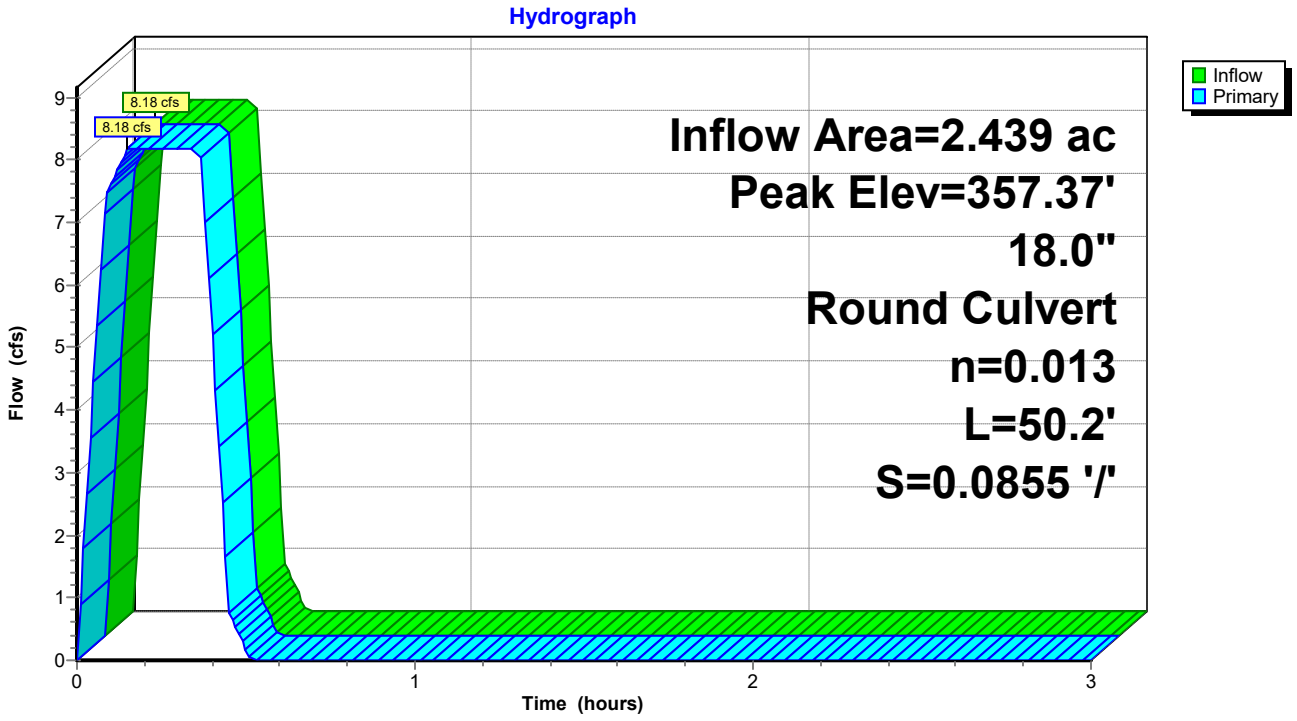
Inflow Area = 2.439 ac, 0.00% Impervious, Inflow Depth = 1.22" for 25-yr event
Inflow = 8.18 cfs @ 0.15 hrs, Volume= 0.248 af
Outflow = 8.18 cfs @ 0.15 hrs, Volume= 0.248 af, Atten= 0%, Lag= 0.0 min
Primary = 8.18 cfs @ 0.15 hrs, Volume= 0.248 af
Routed to Link POST-DEV : Post-Development

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 357.37' @ 0.15 hrs

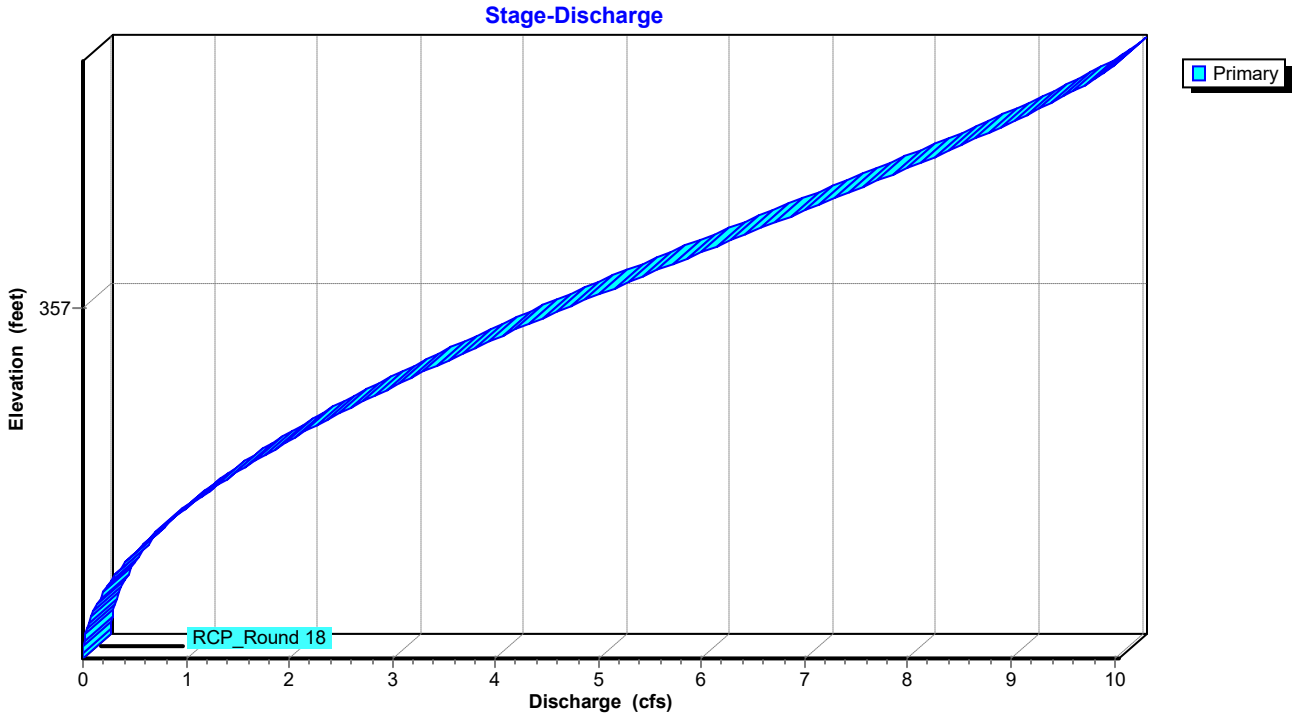
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 356.12' | **18.0" Round RCP_Round 18**<br>L= 50.2' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 356.12' / 351.83' S= 0.0855 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf |

**Primary OutFlow** Max=8.18 cfs @ 0.15 hrs HW=357.37' (Free Discharge)
**1=RCP_Round 18** (Inlet Controls 8.18 cfs @ 5.19 fps)

## Pond CI-A5: CURB INLET A5



## Pond CI-A5: CURB INLET A5



## Summary for Pond CI-C1: CURB INLET C1

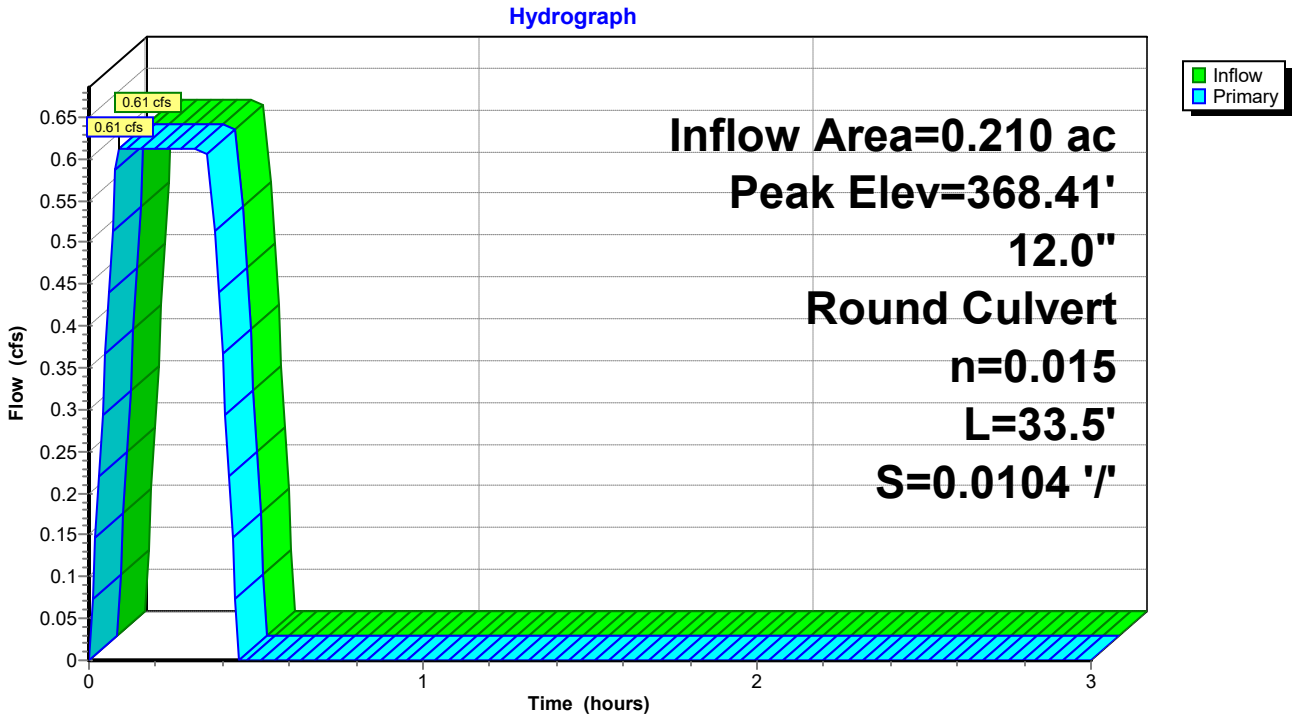
Inflow Area = 0.210 ac, 0.00% Impervious, Inflow Depth = 1.06" for 25-yr event
Inflow = 0.61 cfs @ 0.09 hrs, Volume= 0.019 af
Outflow = 0.61 cfs @ 0.09 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min
Primary = 0.61 cfs @ 0.09 hrs, Volume= 0.019 af
Routed to Pond CI-C2 : CURB INLET C2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 368.41' @ 0.09 hrs

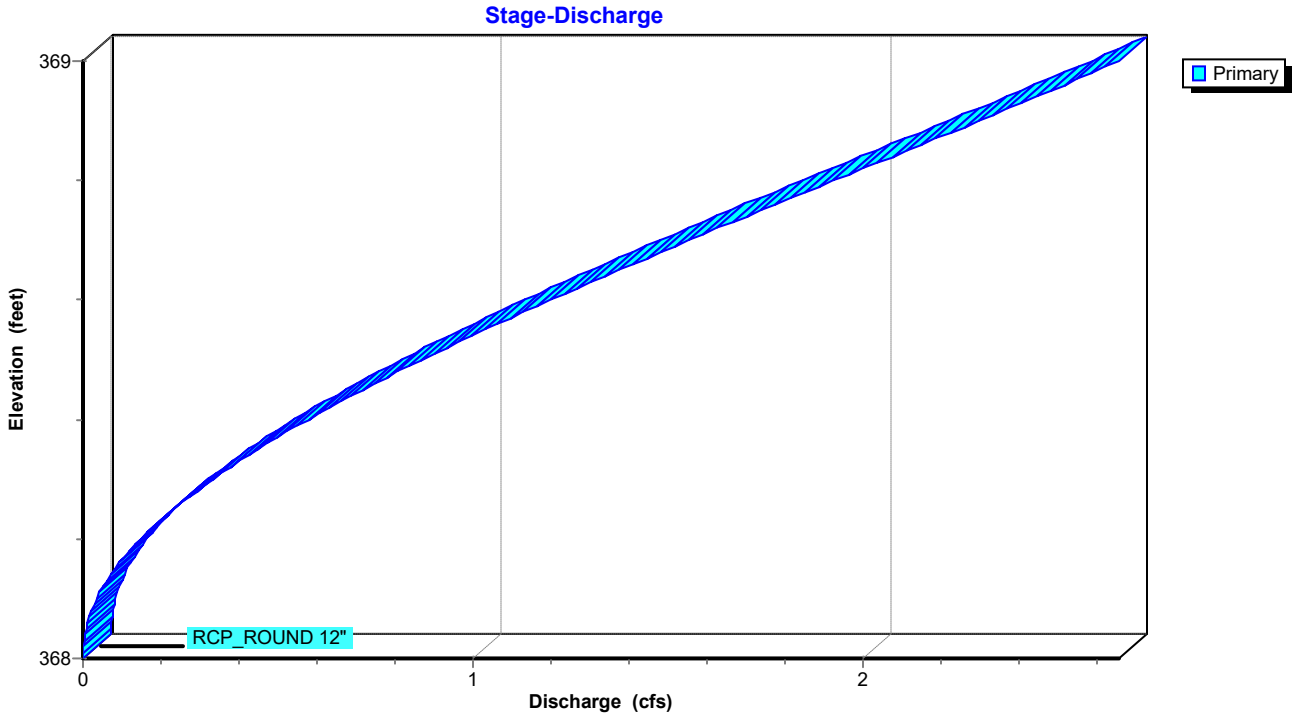
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 368.00' | **12.0" Round RCP_ROUND 12"**<br>L= 33.5' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 368.00' / 367.65' S= 0.0104 '/' Cc= 0.900<br>n= 0.015 Concrete sewer w/manholes & inlets, Flow Area= 0.79 sf |

**Primary OutFlow** Max=0.61 cfs @ 0.09 hrs HW=368.41' (Free Discharge)
**1=RCP_ROUND 12"** (Barrel Controls 0.61 cfs @ 2.95 fps)

## Pond CI-C1: CURB INLET C1



## Pond CI-C1: CURB INLET C1



## Summary for Pond CI-C2: CURB INLET C2

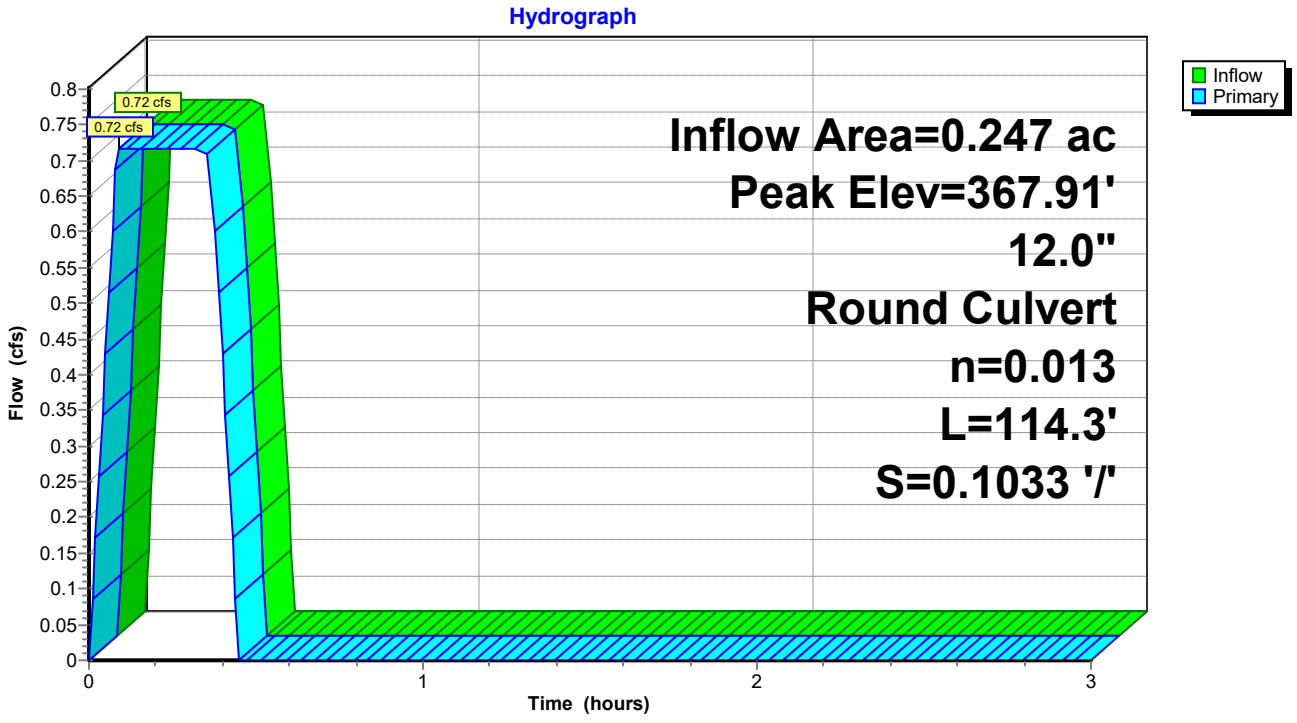
Inflow Area = 0.247 ac, 0.00% Impervious, Inflow Depth = 1.05" for 25-yr event
Inflow = 0.72 cfs @ 0.09 hrs, Volume= 0.022 af
Outflow = 0.72 cfs @ 0.09 hrs, Volume= 0.022 af, Atten= 0%, Lag= 0.0 min
Primary = 0.72 cfs @ 0.09 hrs, Volume= 0.022 af
Routed to Pond JB-C3 : JUNCTION BOX C3

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 367.91' @ 0.09 hrs

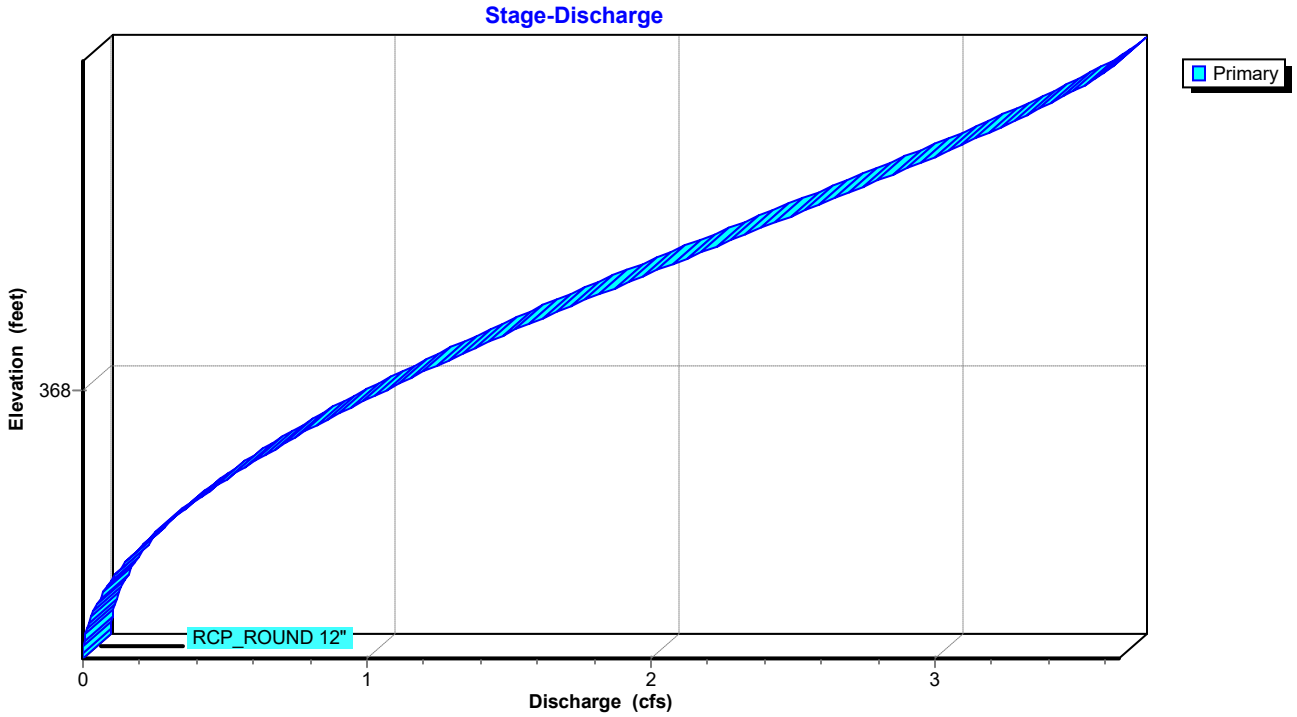
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 367.55' | **12.0" Round RCP_ROUND 12"**<br>L= 114.3' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 367.55' / 355.74' S= 0.1033 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=0.72 cfs @ 0.09 hrs HW=367.91' (Free Discharge)
**1=RCP_ROUND 12"** (Inlet Controls 0.72 cfs @ 2.79 fps)

## Pond CI-C2: CURB INLET C2



## Pond CI-C2: CURB INLET C2



## Summary for Pond CI-C4: CURB INLET C4

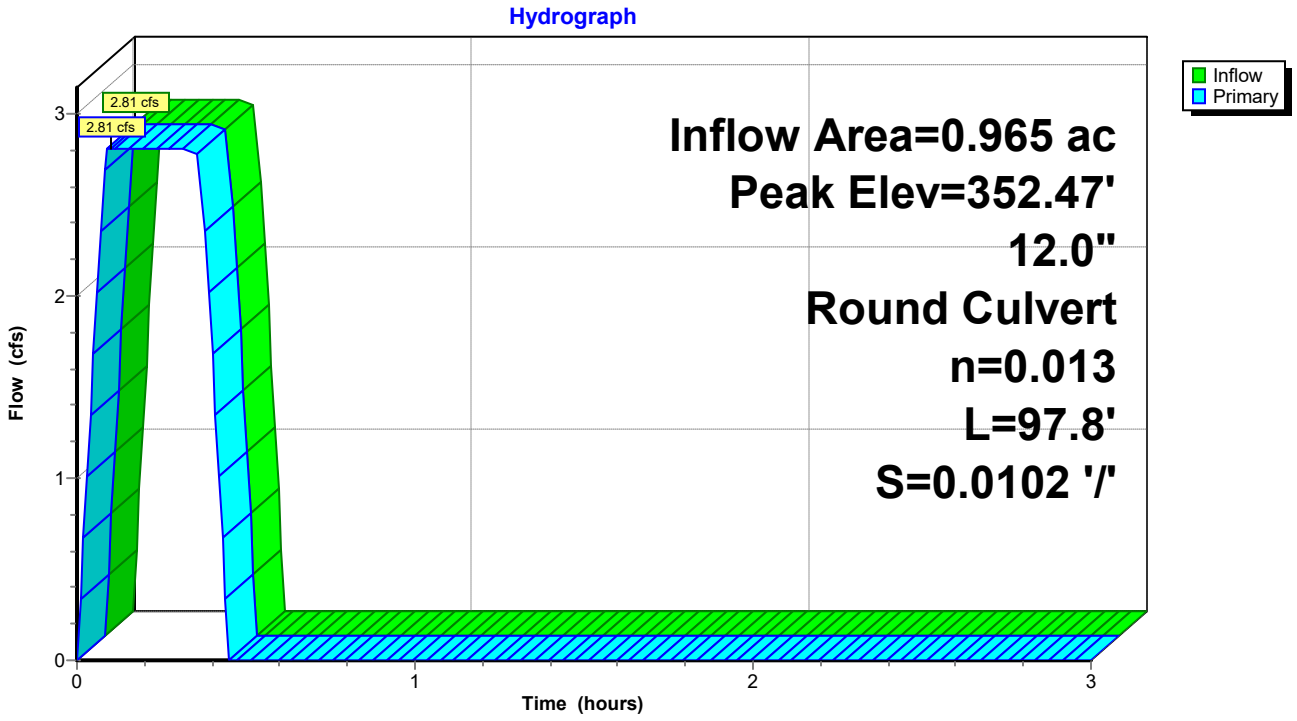
Inflow Area = 0.965 ac, 0.00% Impervious, Inflow Depth = 1.06" for 25-yr event
Inflow = 2.81 cfs @ 0.09 hrs, Volume= 0.085 af
Outflow = 2.81 cfs @ 0.10 hrs, Volume= 0.085 af, Atten= 0%, Lag= 0.6 min
Primary = 2.81 cfs @ 0.10 hrs, Volume= 0.085 af
Routed to Pond CI-C5 : CURB INLET C5

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 352.47' @ 0.09 hrs

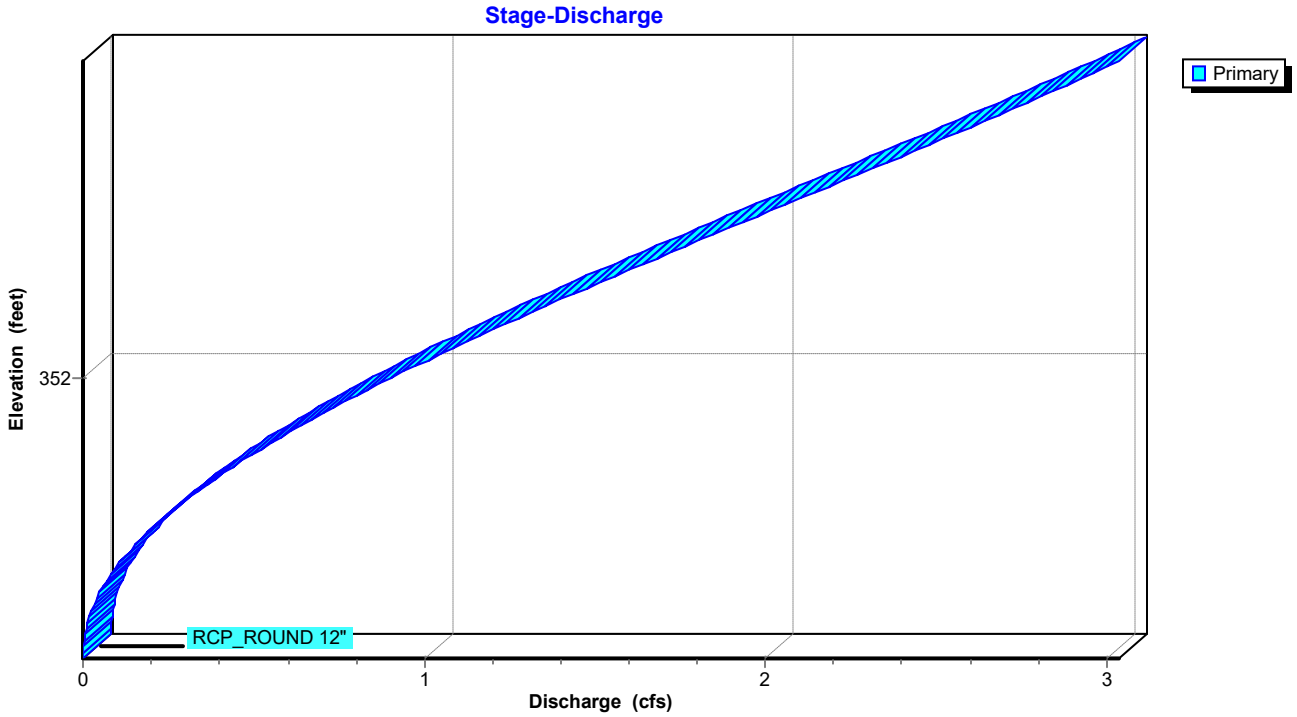
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 351.53' | **12.0" Round RCP_ROUND 12"**<br>L= 97.8' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 351.53' / 350.53' S= 0.0102 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=2.81 cfs @ 0.10 hrs HW=352.47' (Free Discharge)
**1=RCP_ROUND 12"** (Barrel Controls 2.81 cfs @ 4.74 fps)

## Pond CI-C4: CURB INLET C4



## Pond CI-C4: CURB INLET C4



## Summary for Pond CI-C5: CURB INLET C5

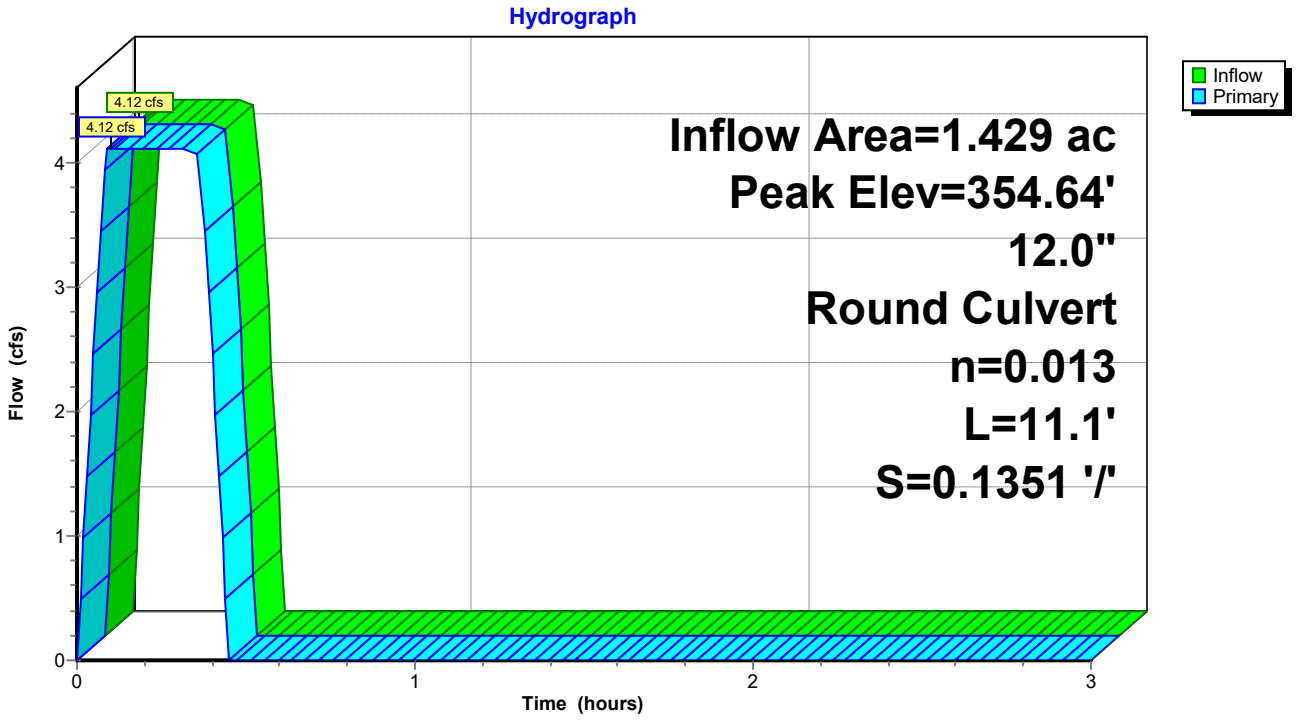
Inflow Area = 1.429 ac, 0.00% Impervious, Inflow Depth = 1.05" for 25-yr event
Inflow = 4.12 cfs @ 0.10 hrs, Volume= 0.125 af
Outflow = 4.12 cfs @ 0.10 hrs, Volume= 0.125 af, Atten= 0%, Lag= 0.0 min
Primary = 4.12 cfs @ 0.10 hrs, Volume= 0.125 af
Routed to Link POST-DEV : Post-Development

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 354.64' @ 0.09 hrs

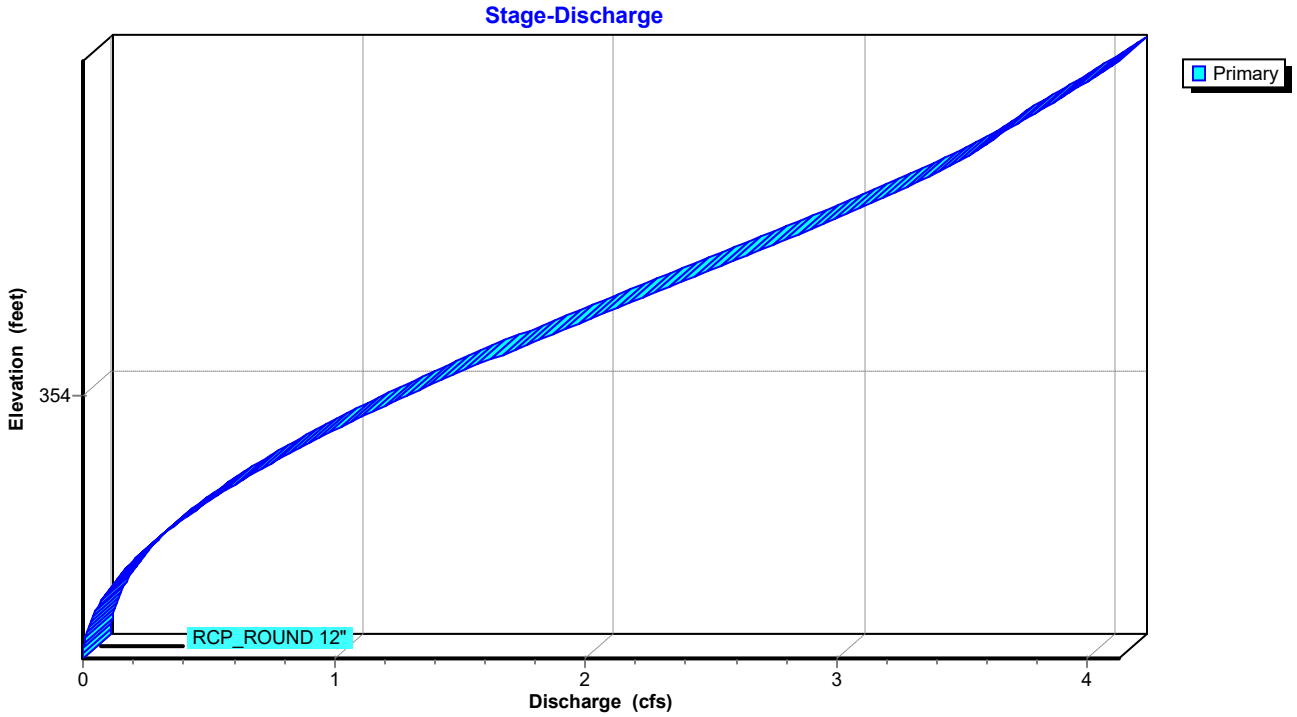
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 353.50' | **12.0" Round RCP_ROUND 12"**<br>L= 11.1' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 353.50' / 352.00' S= 0.1351 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=4.12 cfs @ 0.10 hrs HW=354.64' (Free Discharge)
**1=RCP_ROUND 12"** (Inlet Controls 4.12 cfs @ 5.24 fps)

## Pond CI-C5: CURB INLET C5



## Pond CI-C5: CURB INLET C5



## Summary for Pond CI-D1: CURB INLET D1

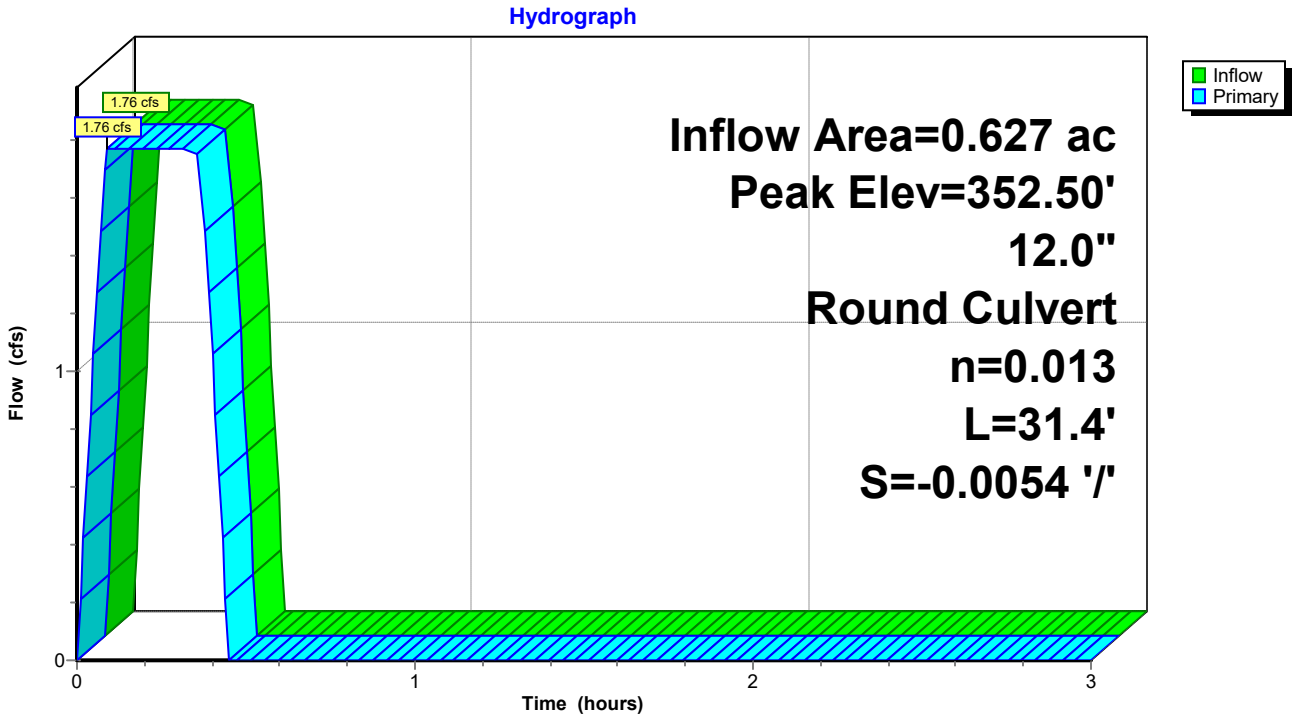
Inflow Area = 0.627 ac, 0.00% Impervious, Inflow Depth = 1.02" for 25-yr event
Inflow = 1.76 cfs @ 0.09 hrs, Volume= 0.053 af
Outflow = 1.76 cfs @ 0.09 hrs, Volume= 0.053 af, Atten= 0%, Lag= 0.0 min
Primary = 1.76 cfs @ 0.09 hrs, Volume= 0.053 af
Routed to Pond CI-C4 : CURB INLET C4

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 352.50' @ 0.09 hrs

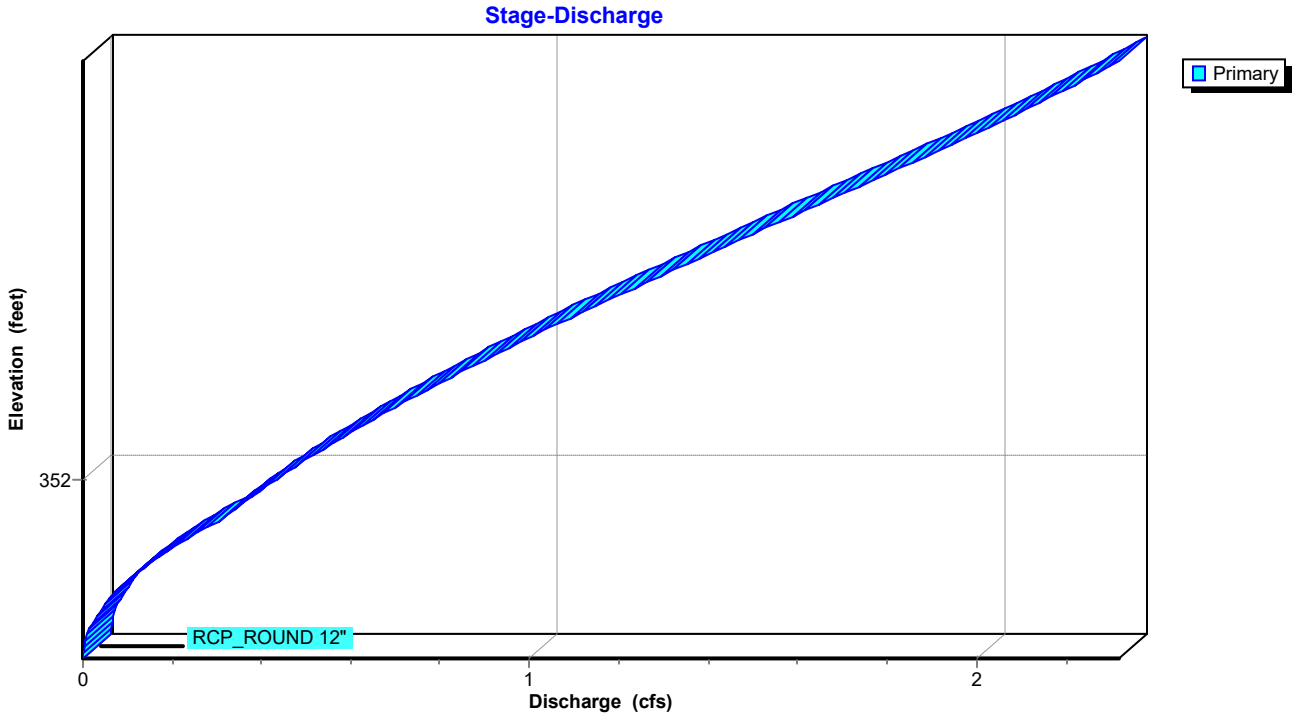
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 351.70' | **12.0" Round RCP_ROUND 12"**<br>L= 31.4' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 351.53' / 351.70' S= -0.0054 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=1.76 cfs @ 0.09 hrs HW=352.50' (Free Discharge)
**1=RCP_ROUND 12"** (Barrel Controls 1.76 cfs @ 2.89 fps)

## Pond CI-D1: CURB INLET D1



## Pond CI-D1: CURB INLET D1



## Summary for Pond JB-C3: JUNCTION BOX C3

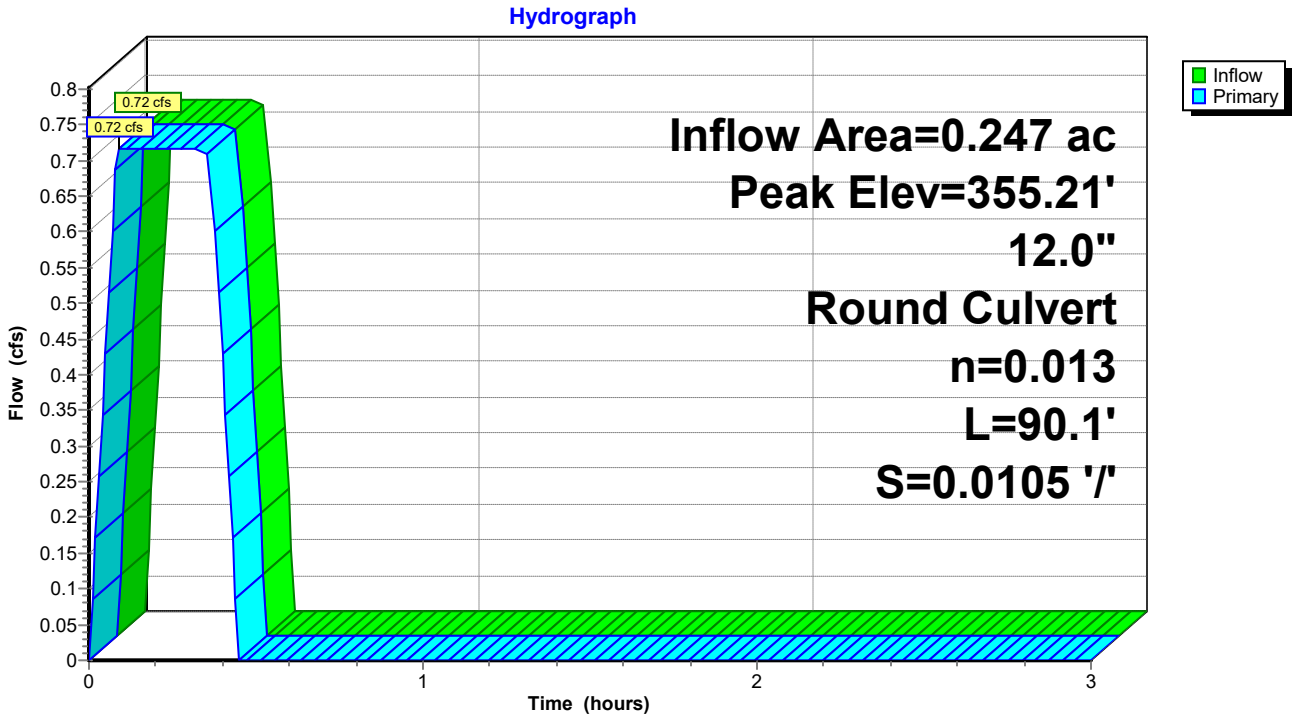
Inflow Area = 0.247 ac, 0.00% Impervious, Inflow Depth = 1.05" for 25-yr event
Inflow = 0.72 cfs @ 0.09 hrs, Volume= 0.022 af
Outflow = 0.72 cfs @ 0.09 hrs, Volume= 0.022 af, Atten= 0%, Lag= 0.0 min
Primary = 0.72 cfs @ 0.09 hrs, Volume= 0.022 af
Routed to Pond CI-C4 : CURB INLET C4

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 355.21' @ 0.09 hrs

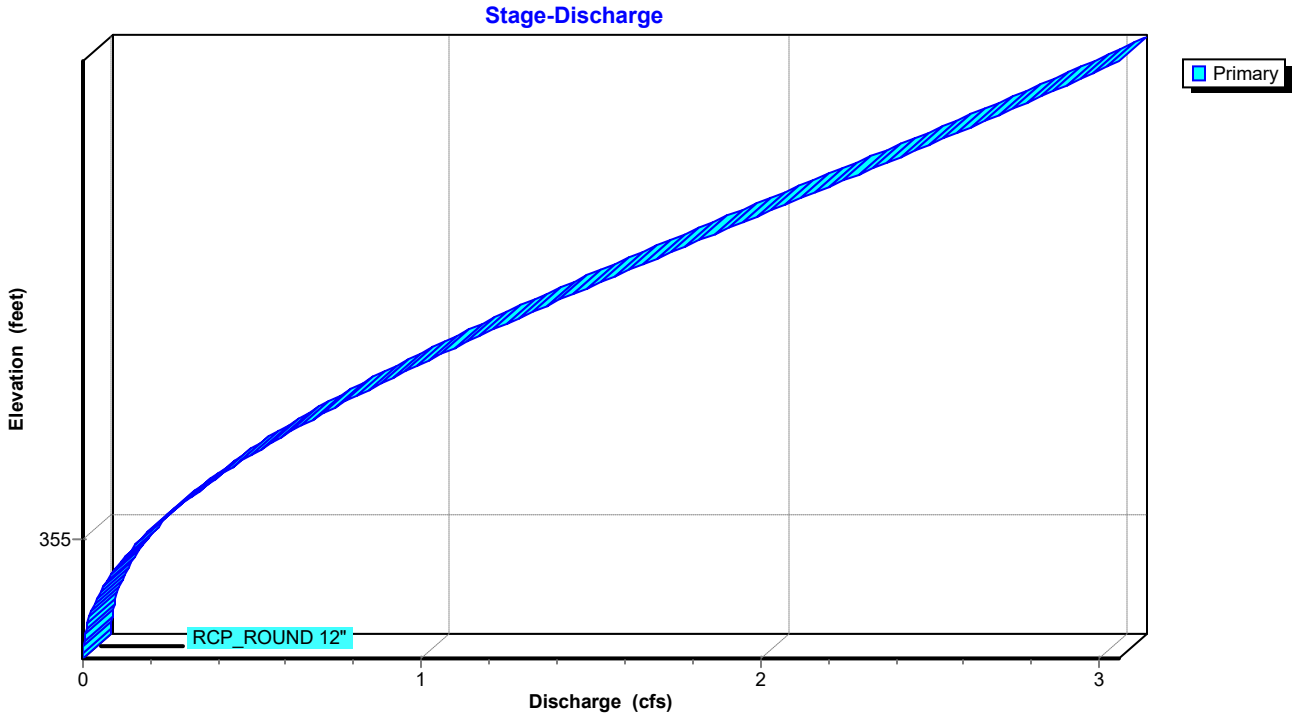
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 354.80' | **12.0" Round RCP_ROUND 12"**<br>L= 90.1' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 354.80' / 353.85' S= 0.0105 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=0.72 cfs @ 0.09 hrs HW=355.21' (Free Discharge)
**1=RCP_ROUND 12"** (Barrel Controls 0.72 cfs @ 3.47 fps)

## Pond JB-C3: JUNCTION BOX C3



## Pond JB-C3: JUNCTION BOX C3

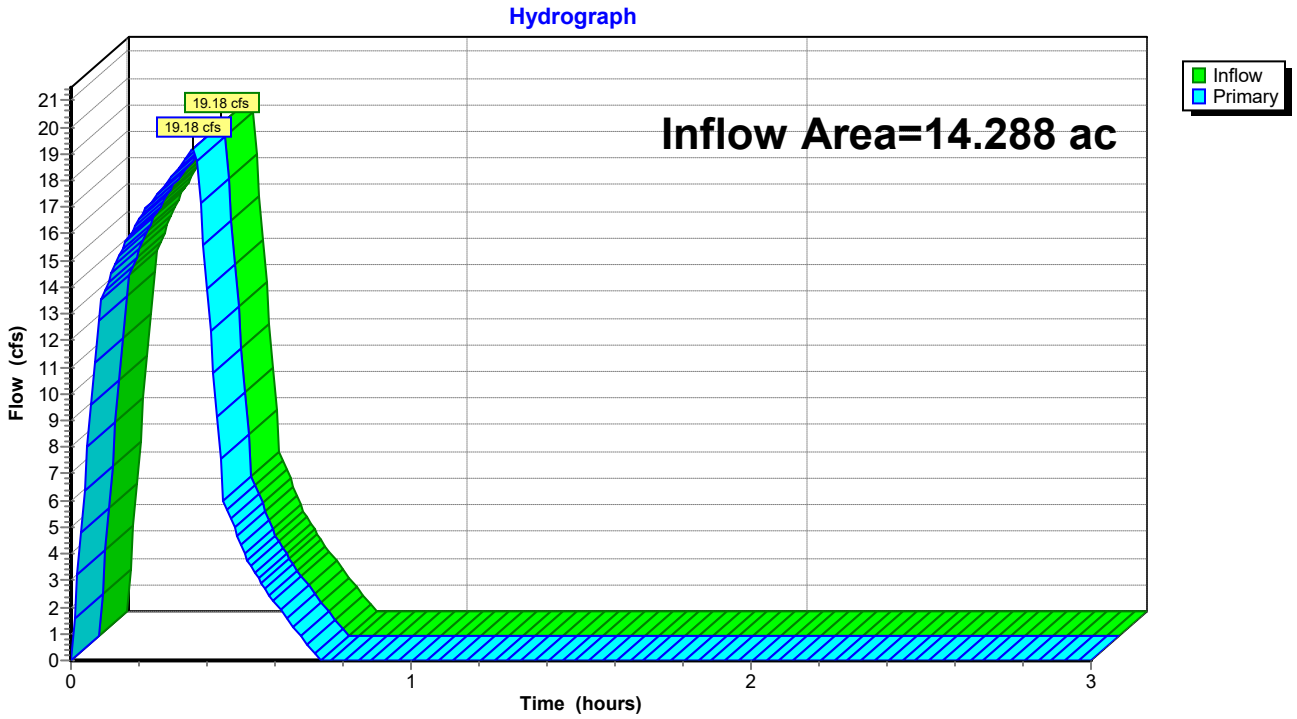


## Summary for Link POST-DEV: Post-Development

Inflow Area = 14.288 ac, 0.00% Impervious, Inflow Depth = 0.49" for 25-yr event
Inflow = 19.18 cfs @ 0.36 hrs, Volume= 0.584 af
Primary = 19.18 cfs @ 0.36 hrs, Volume= 0.584 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

## Link POST-DEV: Post-Development



## Summary for Subcatchment DB-B1: Drainage Basin B1

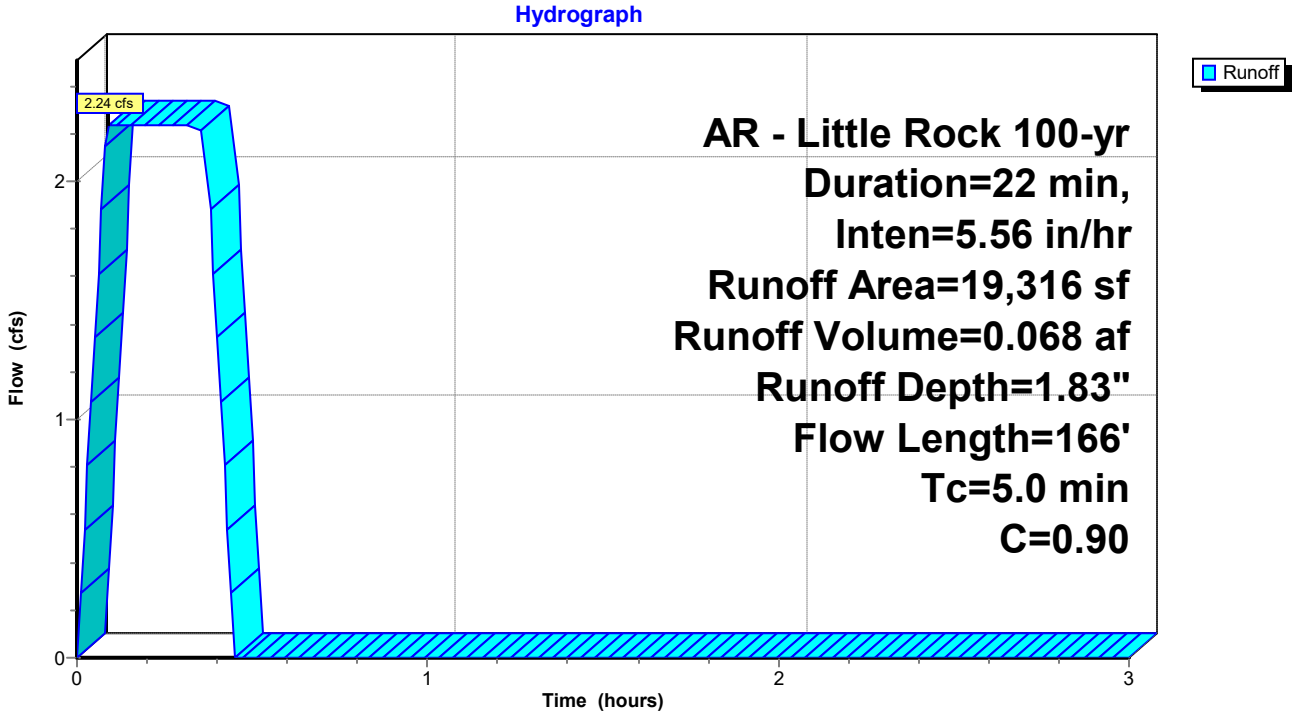
Runoff = 2.24 cfs @ 0.09 hrs, Volume= 0.068 af, Depth= 1.83"
Routed to Pond CI-A1 : CURB INLET A1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=22 min, Inten=5.56 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 1,941 | 0.45 | Sandy Soil 2-7% per manual |
| 17,375 | 0.95 | Paved Areas |
| 19,316 | 0.90 | Weighted Average |
| 1,941 | | 10.05% Pervious Area |
| 17,375 | | 89.95% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 3.5 | 33 | 0.0200 | 0.16 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.6 | 67 | 0.0350 | 1.82 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.5 | 66 | 0.0100 | 2.03 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 0.4 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 166 | Total | | | |

## Subcatchment DB-B1: Drainage Basin B1



## Summary for Subcatchment DB-B10: Drainage Basin B10

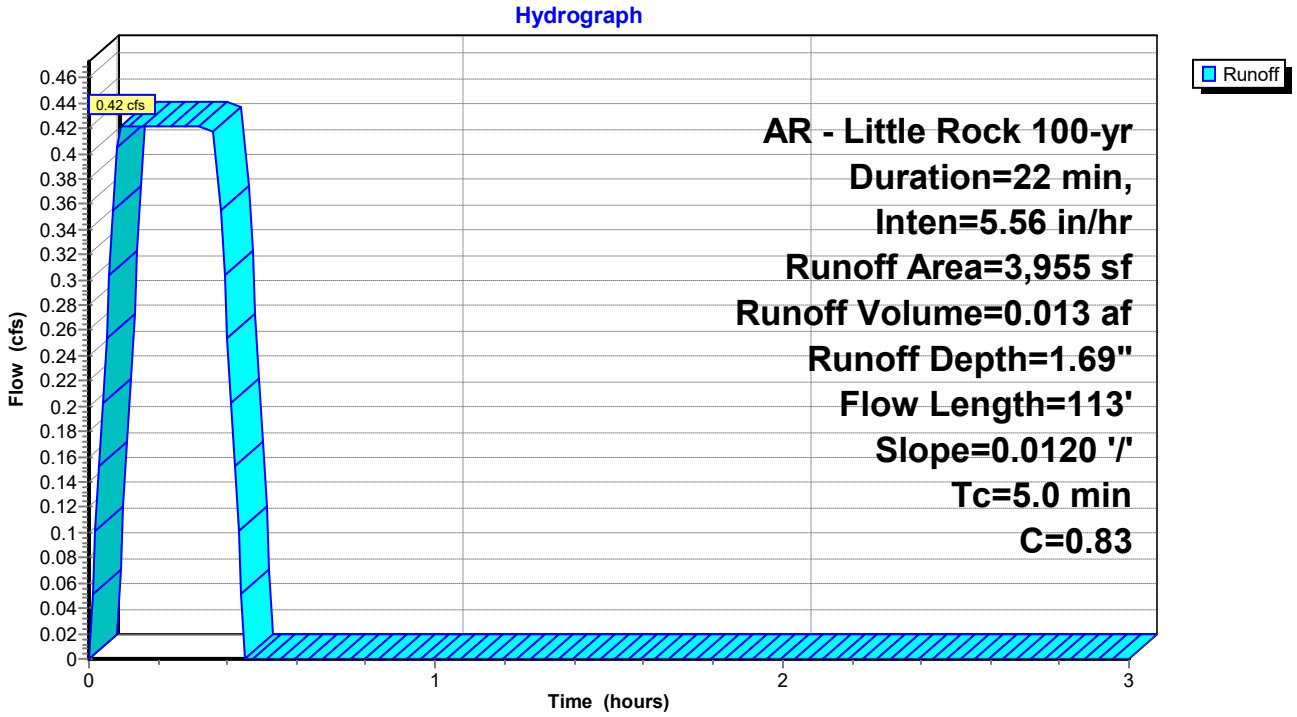
Runoff = 0.42 cfs @ 0.09 hrs, Volume= 0.013 af, Depth= 1.69"
Routed to Pond CI-C4 : CURB INLET C4

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=22 min, Inten=5.56 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 959 | 0.45 | Sandy Soil 2-7% per manual |
| 2,996 | 0.95 | Paved Areas |
| 3,955 | 0.83 | Weighted Average |
| 959 | | 24.25% Pervious Area |
| 2,996 | | 75.75% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.4 | 113 | 0.0120 | 1.32 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 3.6 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 113 | Total | | | |

## Subcatchment DB-B10: Drainage Basin B10



## Summary for Subcatchment DB-B11: Drainage Basin B11

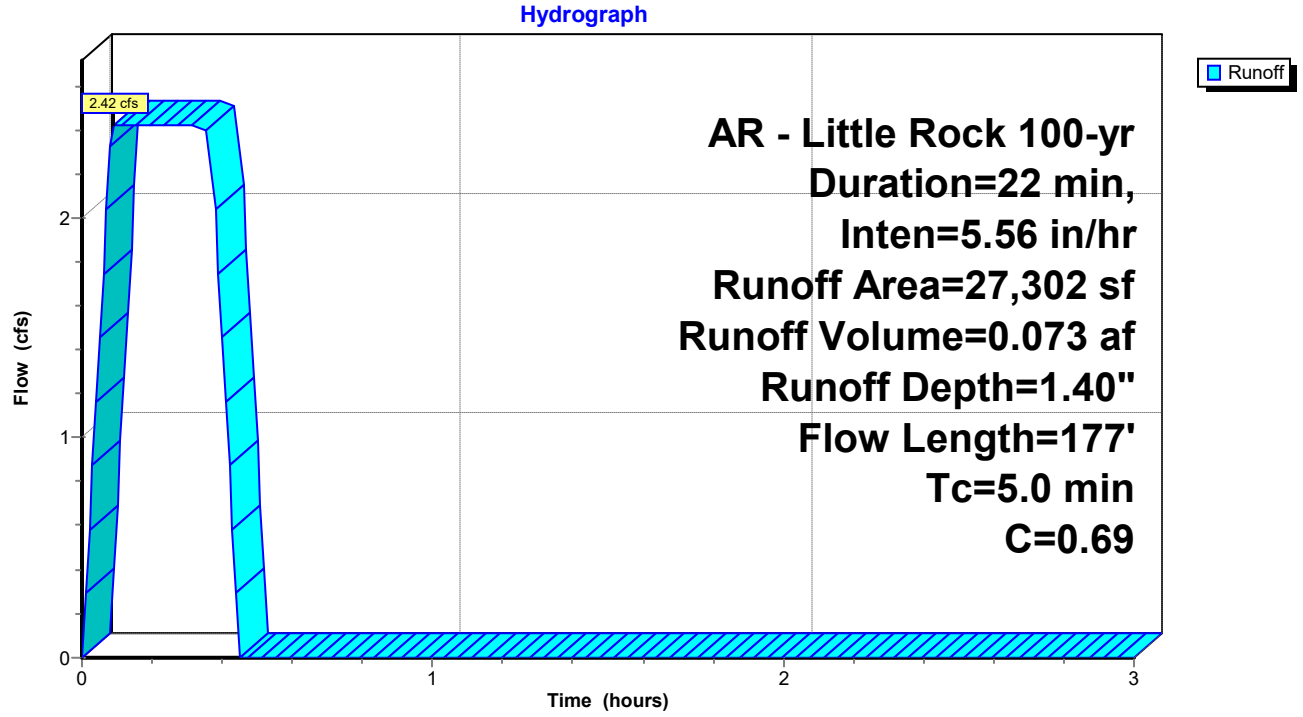
Runoff = 2.42 cfs @ 0.09 hrs, Volume= 0.073 af, Depth= 1.40"
Routed to Pond CI-D1 : CURB INLET D1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=22 min, Inten=5.56 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 15,547 | 0.50 | Sandy Soil 2-7% per manual |
| 11,755 | 0.95 | Paved Areas |
| 27,302 | 0.69 | Weighted Average |
| 15,547 | | 56.94% Pervious Area |
| 11,755 | | 43.06% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.2 | 65 | 0.3300 | 4.44 | | **Sheet Flow, Roof** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.2 | 69 | 0.1750 | 6.27 | | **Shallow Concentrated Flow, Greenspace** Grassed Waterway Kv= 15.0 fps |
| 0.2 | 43 | 0.0500 | 4.54 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 4.4 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 177 | Total | | | |

## Subcatchment DB-B11: Drainage Basin B11



## Summary for Subcatchment DB-B12: Drainage Basin B12

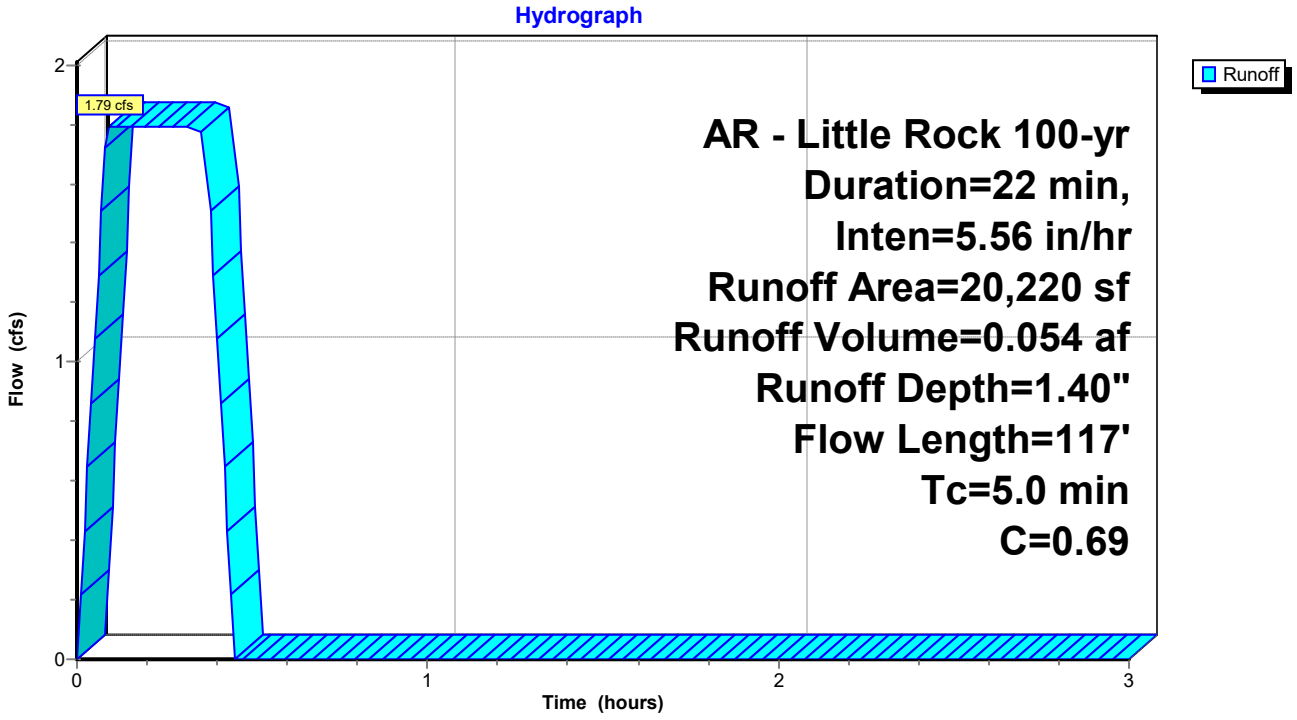
Runoff = 1.79 cfs @ 0.09 hrs, Volume= 0.054 af, Depth= 1.40"
Routed to Pond CI-C5 : CURB INLET C5

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=22 min, Inten=5.56 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 11,502 | 0.50 | Sandy Soil 2-7% per manual |
| 8,718 | 0.95 | Paved Areas |
| 20,220 | 0.69 | Weighted Average |
| 11,502 | | 56.88% Pervious Area |
| 8,718 | | 43.12% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 2.0 | 26 | 0.0500 | 0.21 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.5 | 38 | 0.2360 | 0.43 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.1 | 28 | 0.2390 | 0.41 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.4 | 25 | 0.0180 | 1.15 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 5.0 | 117 | Total | | | |

## Subcatchment DB-B12: Drainage Basin B12



## Summary for Subcatchment DB-B13: DRAINAGE BASIN B13

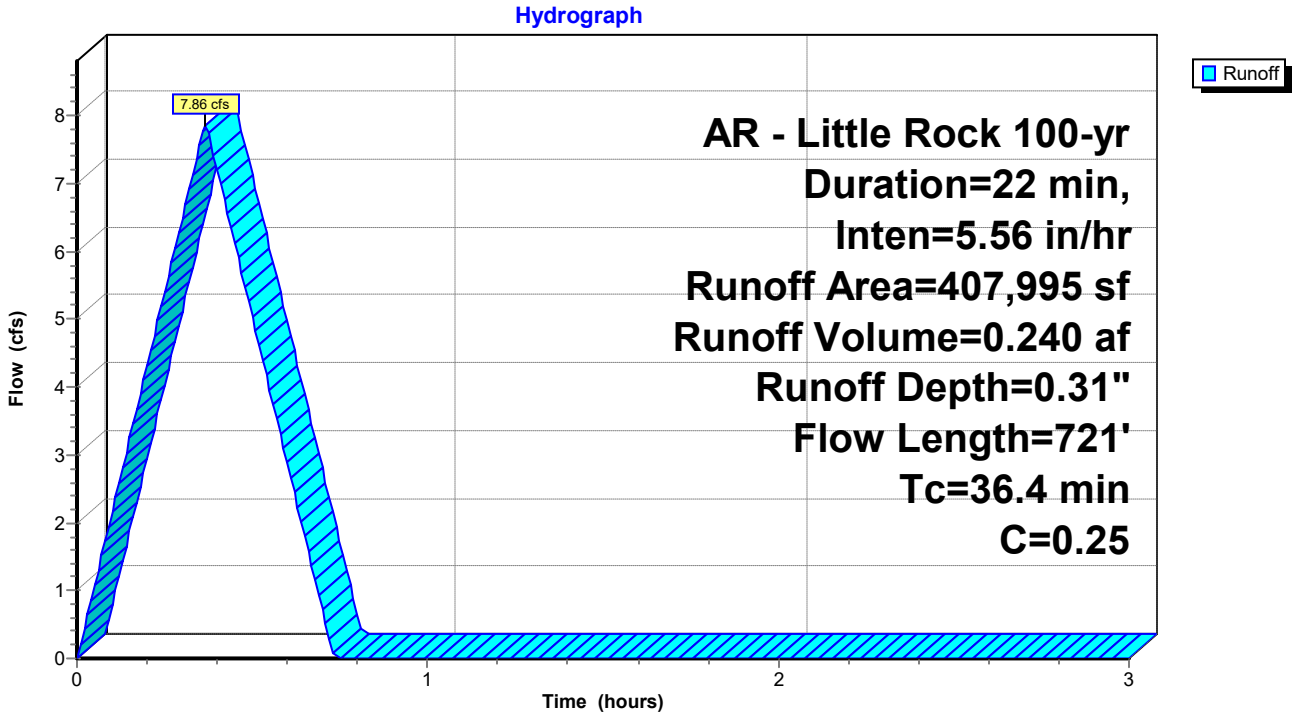
Runoff = 7.86 cfs @ 0.37 hrs, Volume= 0.240 af, Depth= 0.31"
Routed to Link POST-DEV : Post-Development

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=22 min, Inten=5.56 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 407,995 | 0.25 | Sandy Soil 2-7% Per Manual |
| 407,995 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.5 | 67 | 0.6600 | 0.73 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.2 | 46 | 0.5900 | 0.65 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 3.2 | 147 | 0.5100 | 0.77 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.8 | 63 | 0.3800 | 0.58 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 8.5 | 70 | 0.0100 | 0.14 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 4.8 | 163 | 0.2200 | 0.56 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 2.4 | 65 | 0.2000 | 0.45 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 6.3 | 48 | 0.0100 | 0.13 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 6.7 | 52 | 0.0100 | 0.13 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 36.4 | 721 | Total | | | |

## Subcatchment DB-B13: DRAINAGE BASIN B13



## Summary for Subcatchment DB-B14: DRAINAGE BASIN B14

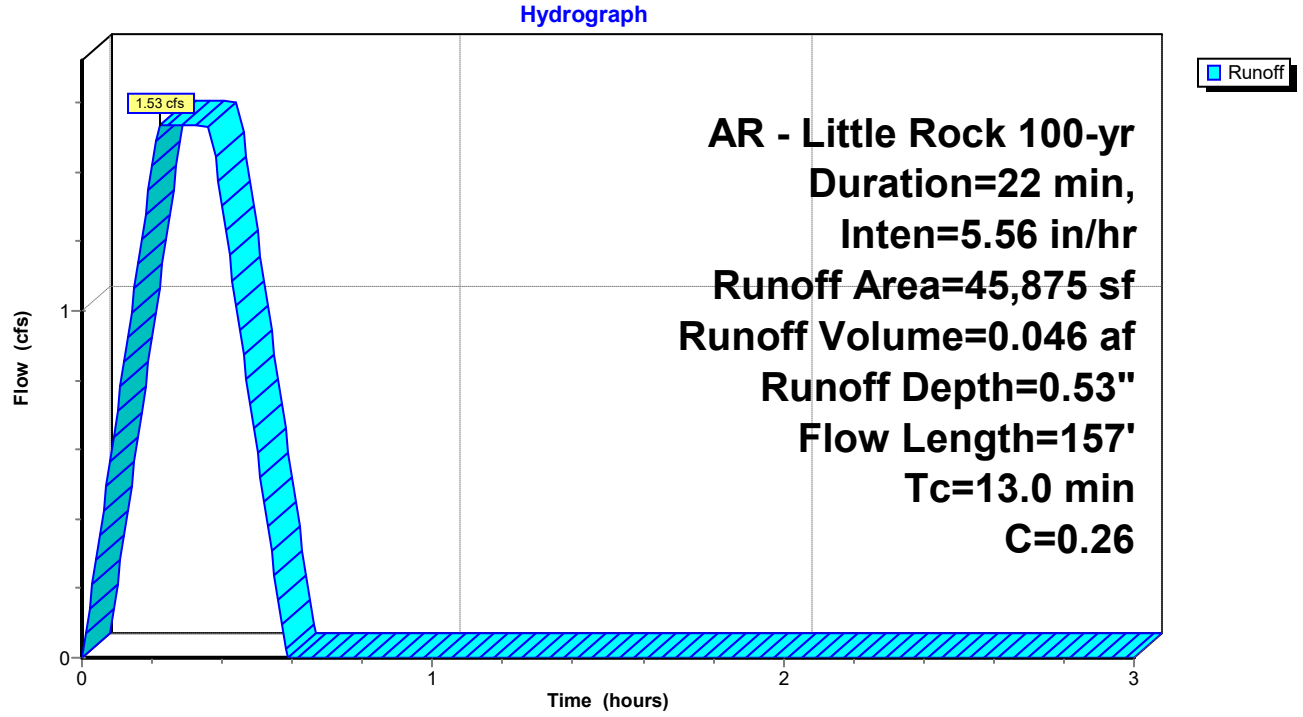
Runoff = 1.53 cfs @ 0.22 hrs, Volume= 0.046 af, Depth= 0.53"
Routed to Link POST-DEV : Post-Development

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=22 min, Inten=5.56 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 45,016 | 0.25 | Sandy Soil 2-7% Per Manual |
| 859 | 0.92 | Paved Areas |
| 45,875 | 0.26 | Weighted Average |
| 45,875 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 2.5 | 15 | 0.0100 | 0.10 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 5.2 | 78 | 0.0420 | 0.25 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 2.8 | 38 | 0.0480 | 0.23 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 2.5 | 26 | 0.0280 | 0.17 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 13.0 | 157 | Total | | | |

## Subcatchment DB-B14: DRAINAGE BASIN B14



## Summary for Subcatchment DB-B2: Drainage Basin B2

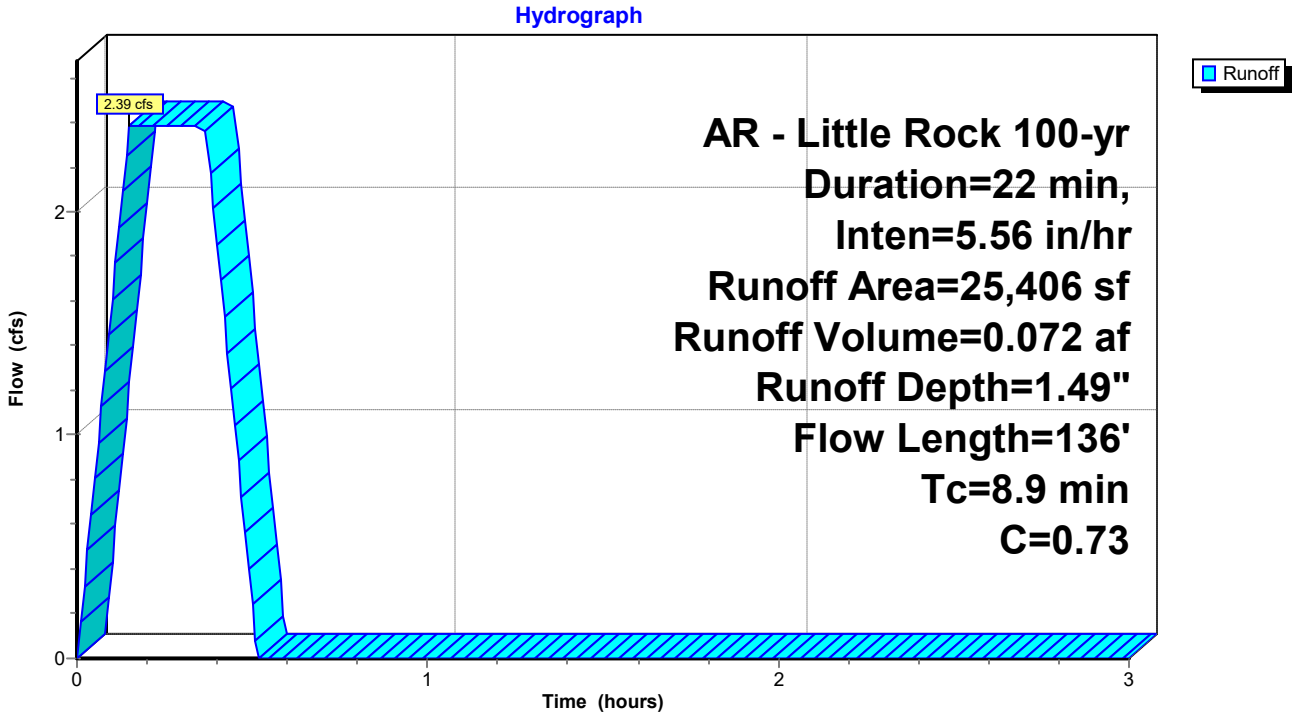
Runoff = 2.39 cfs @ 0.15 hrs, Volume= 0.072 af, Depth= 1.49"
Routed to Pond CI-A2 : CURB INLET A2

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=22 min, Inten=5.56 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 11,388 | 0.45 | Sandy Soil 2-7% per manual |
| 14,018 | 0.95 | Paved Areas |
| 25,406 | 0.73 | Weighted Average |
| 11,388 | | 44.82% Pervious Area |
| 14,018 | | 55.18% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 7.2 | 57 | 0.0100 | 0.13 | | **Sheet Flow, Greenspace** |
| | | | | | Grass: Short n= 0.150 P2= 4.20" |
| 0.8 | 19 | 0.2480 | 0.38 | | **Sheet Flow, Greenspace** |
| | | | | | Grass: Short n= 0.150 P2= 4.20" |
| 0.2 | 14 | 0.0150 | 0.95 | | **Sheet Flow, Pavement** |
| | | | | | Smooth surfaces n= 0.011 P2= 4.20" |
| 0.3 | 34 | 0.0600 | 1.97 | | **Sheet Flow, Pavement** |
| | | | | | Smooth surfaces n= 0.011 P2= 4.20" |
| 0.2 | 12 | 0.0350 | 1.29 | | **Sheet Flow, Pavement** |
| | | | | | Smooth surfaces n= 0.011 P2= 4.20" |
| 0.2 | | | | | **Direct Entry, Minimum Adjustment** |
| 8.9 | 136 | Total | | | |

## Subcatchment DB-B2: Drainage Basin B2



## Summary for Subcatchment DB-B3: Drainage Basin B3

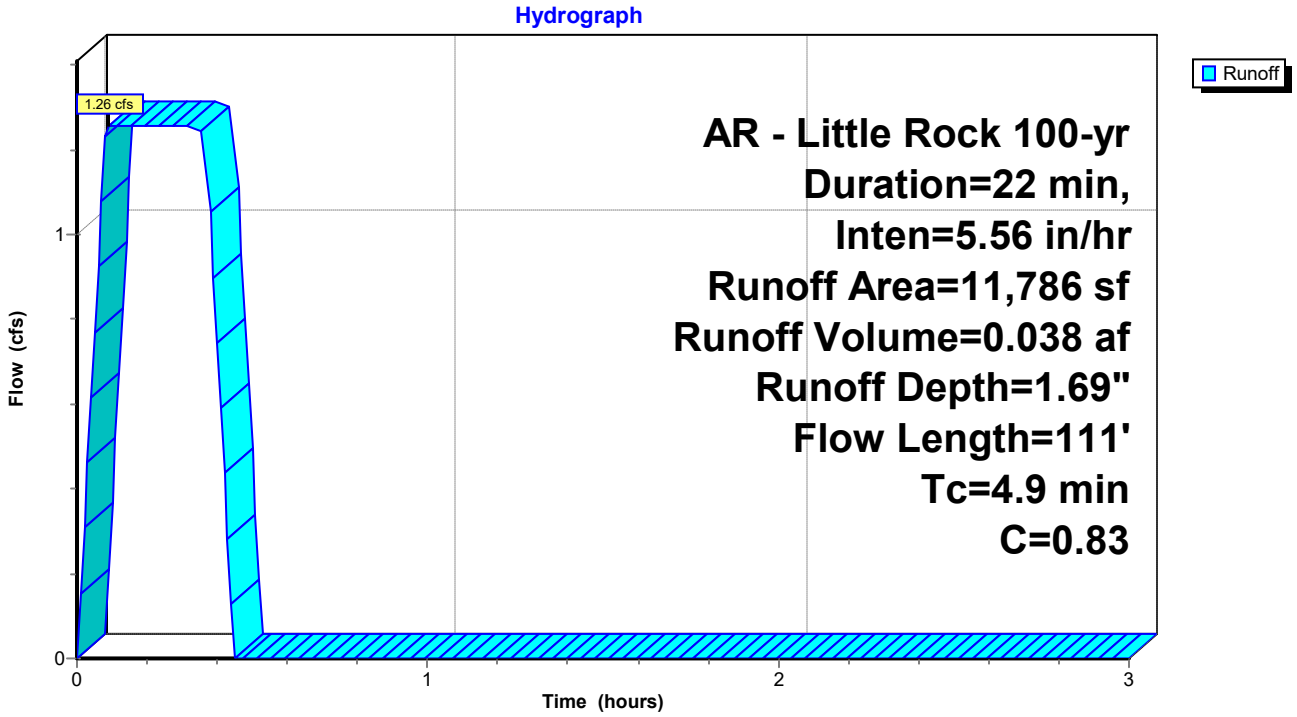
Runoff = 1.26 cfs @ 0.09 hrs, Volume= 0.038 af, Depth= 1.69"
Routed to Pond CI-A3 : CURB INLET A3

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=22 min, Inten=5.56 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 2,920 | 0.45 | Sandy Soil 2-7% per manual |
| 8,866 | 0.95 | Paved Areas |
| 11,786 | 0.83 | Weighted Average |
| 2,920 | | 24.78% Pervious Area |
| 8,866 | | 75.22% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.8 | 19 | 0.2500 | 0.38 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.2 | 16 | 0.0290 | 1.27 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.6 | 38 | 0.0100 | 0.98 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.3 | 38 | 0.0100 | 2.03 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 3.0 | | | | | **Direct Entry, Minimum Adjustment** |
| 4.9 | 111 | Total | | | |

## Subcatchment DB-B3: Drainage Basin B3



## Summary for Subcatchment DB-B4: Drainage Basin B4

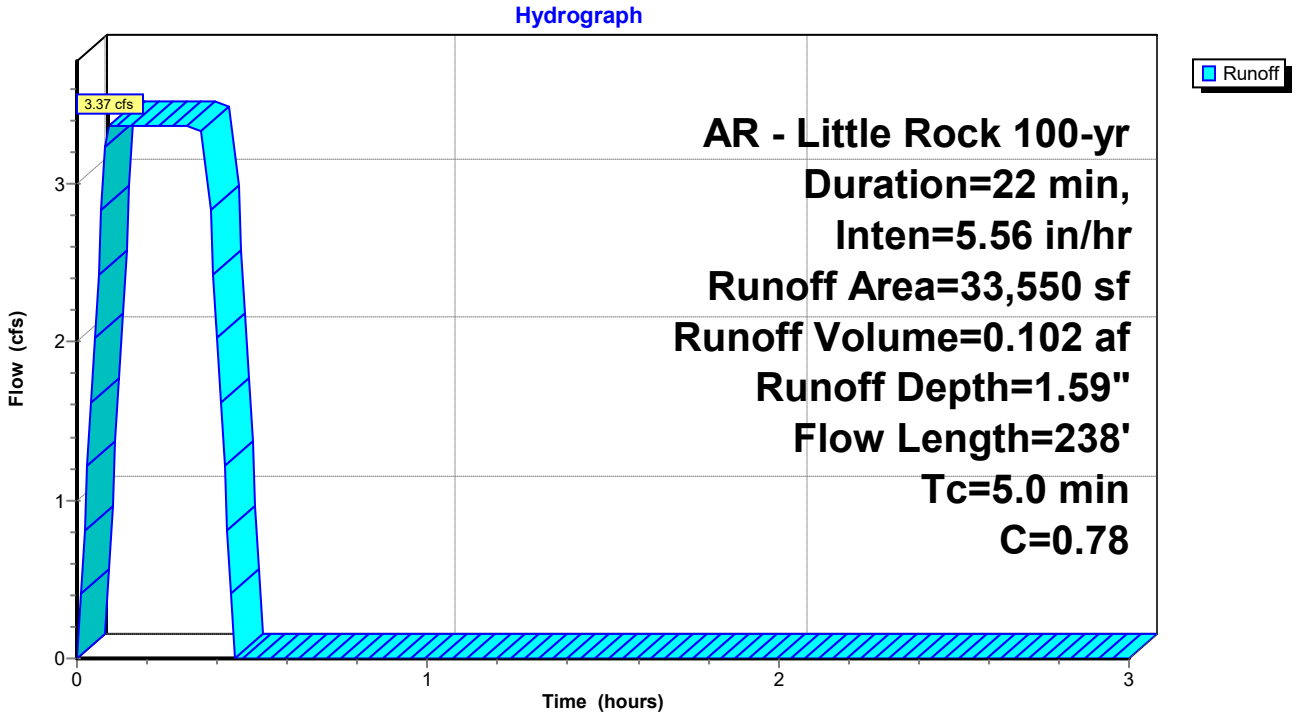
Runoff = 3.37 cfs @ 0.09 hrs, Volume= 0.102 af, Depth= 1.59"
Routed to Pond CI-A4 : CURB INLET A4

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=22 min, Inten=5.56 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 11,568 | 0.45 | Sandy Soil 2-7% per manual |
| 21,982 | 0.95 | Paved Areas |
| 33,550 | 0.78 | Weighted Average |
| 11,568 | | 34.48% Pervious Area |
| 21,982 | | 65.52% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.4 | 48 | 0.0530 | 2.01 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.3 | 25 | 0.0310 | 1.42 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.6 | 14 | 0.0020 | 0.42 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.9 | 66 | 0.0130 | 1.22 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.4 | 59 | 0.0120 | 2.22 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 0.5 | 19 | 0.0010 | 0.64 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 0.0 | 7 | 0.0700 | 5.37 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 1.9 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 238 | Total | | | |

## Subcatchment DB-B4: Drainage Basin B4



## Summary for Subcatchment DB-B5: Drainage Basin B5

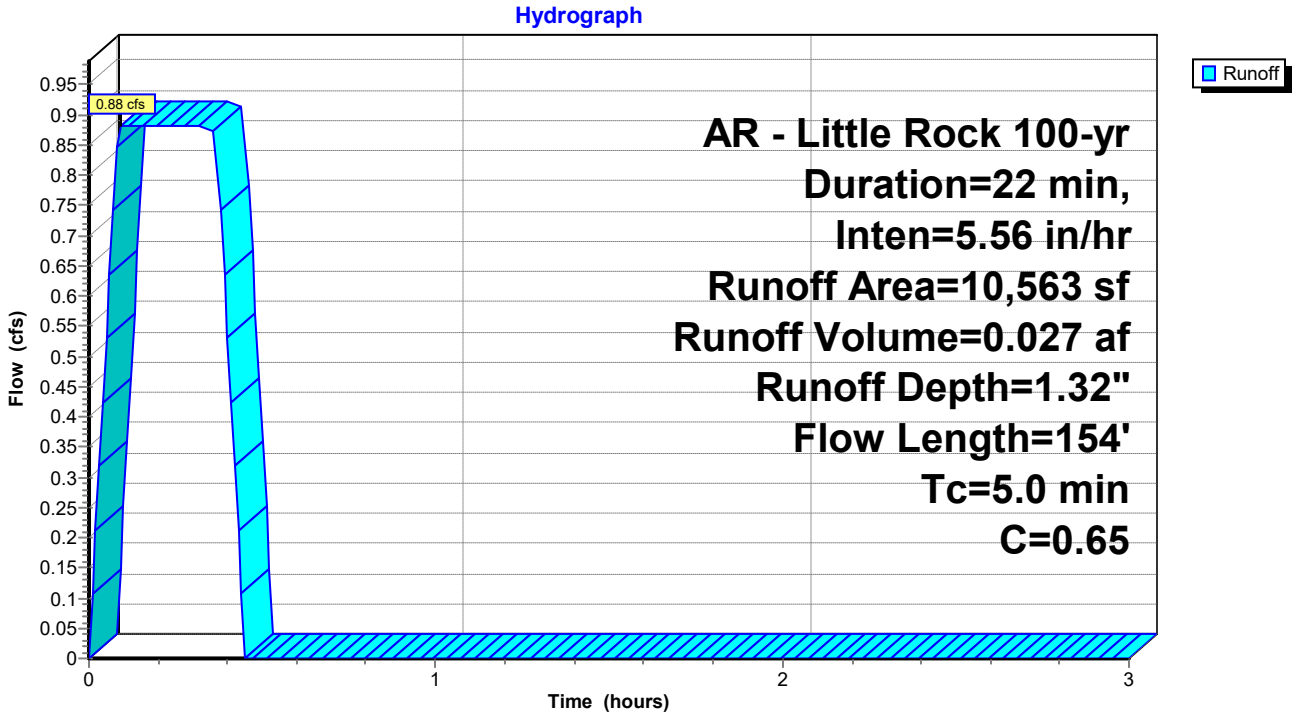
Runoff = 0.88 cfs @ 0.09 hrs, Volume= 0.027 af, Depth= 1.32"
Routed to Pond CI-A5 : CURB INLET A5

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=22 min, Inten=5.56 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 6,980 | 0.50 | Sandy Soil 2-7% per manual |
| 3,583 | 0.95 | Paved Areas |
| 10,563 | 0.65 | Weighted Average |
| 6,980 | | 66.08% Pervious Area |
| 3,583 | | 33.92% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.2 | 19 | 0.0920 | 0.26 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 1.9 | 39 | 0.1260 | 0.34 | | **Sheet Flow, Greenspace** Grass: Short n= 0.150 P2= 4.20" |
| 0.5 | 66 | 0.0540 | 2.16 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.1 | 30 | 0.0500 | 4.54 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 1.3 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 154 | Total | | | |

## Subcatchment DB-B5: Drainage Basin B5



## Summary for Subcatchment DB-B6: Drainage Basin B6

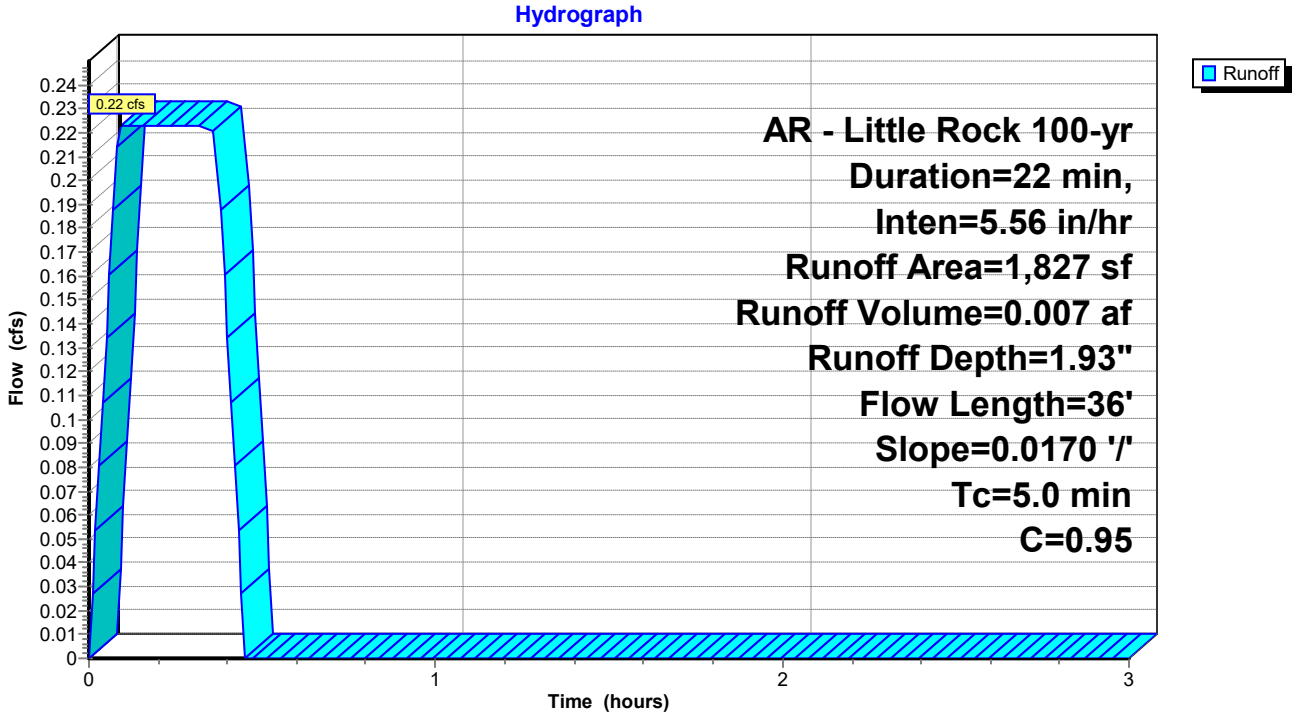
Runoff = 0.22 cfs @ 0.09 hrs, Volume= 0.007 af, Depth= 1.93"
Routed to Pond AI-B1 : AREA INLET B1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=22 min, Inten=5.56 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 0 | 0.45 | Sandy Soil 2-7% per manual |
| 1,827 | 0.95 | Paved Areas |
| 1,827 | 0.95 | Weighted Average |
| 1,827 | | 100.00% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.5 | 36 | 0.0170 | 1.20 | | **Sheet Flow, Concrete** Smooth surfaces n= 0.011 P2= 4.20" |
| 4.5 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 36 | Total | | | |

## Subcatchment DB-B6: Drainage Basin B6



## Summary for Subcatchment DB-B7: Drainage Basin B7

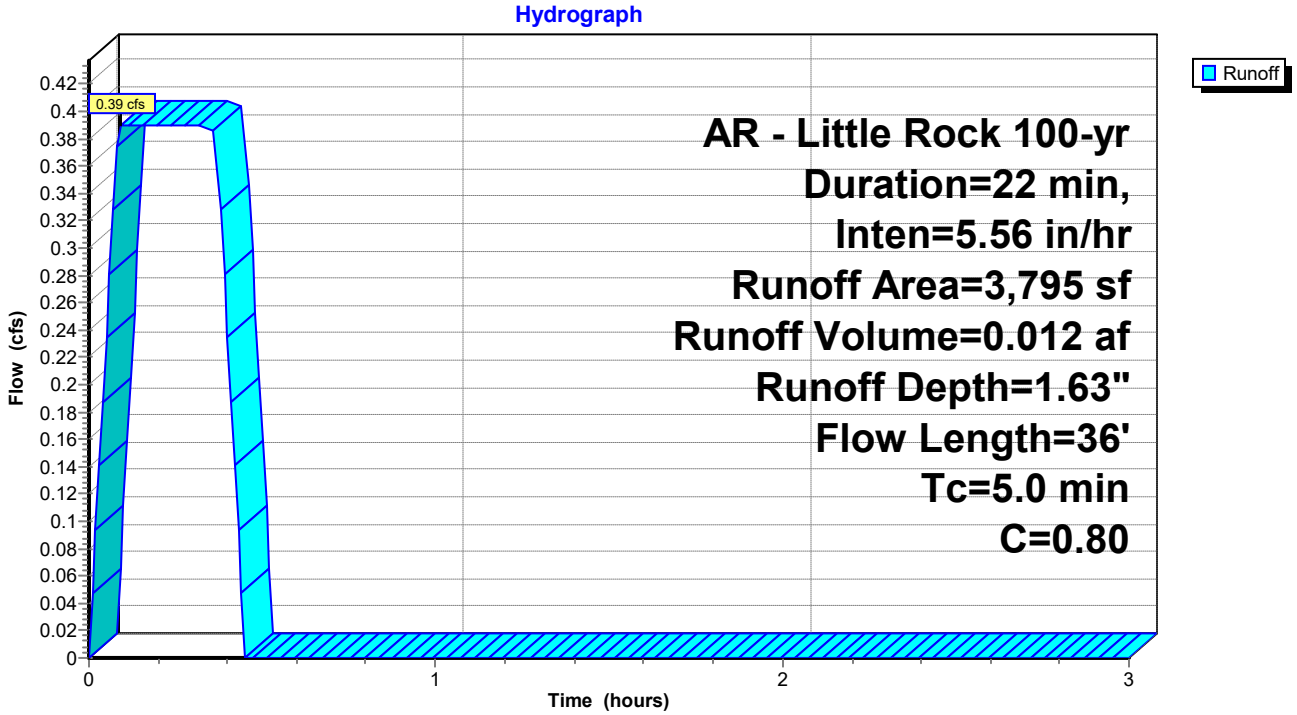
Runoff = 0.39 cfs @ 0.09 hrs, Volume= 0.012 af, Depth= 1.63"
Routed to Pond AI-B2 : AREA INLET B2

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=22 min, Inten=5.56 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 1,158 | 0.45 | Sandy Soil 2-7% per manual |
| 2,637 | 0.95 | Paved Areas |
| 3,795 | 0.80 | Weighted Average |
| 1,158 | | 30.51% Pervious Area |
| 2,637 | | 69.49% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.8 | 24 | 0.0020 | 0.47 | | **Sheet Flow, Concrete** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.2 | 12 | 0.0160 | 0.94 | | **Sheet Flow, Concrete** Smooth surfaces n= 0.011 P2= 4.20" |
| 4.0 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 36 | Total | | | |

## Subcatchment DB-B7: Drainage Basin B7



## Summary for Subcatchment DB-B8: Drainage Basin B8

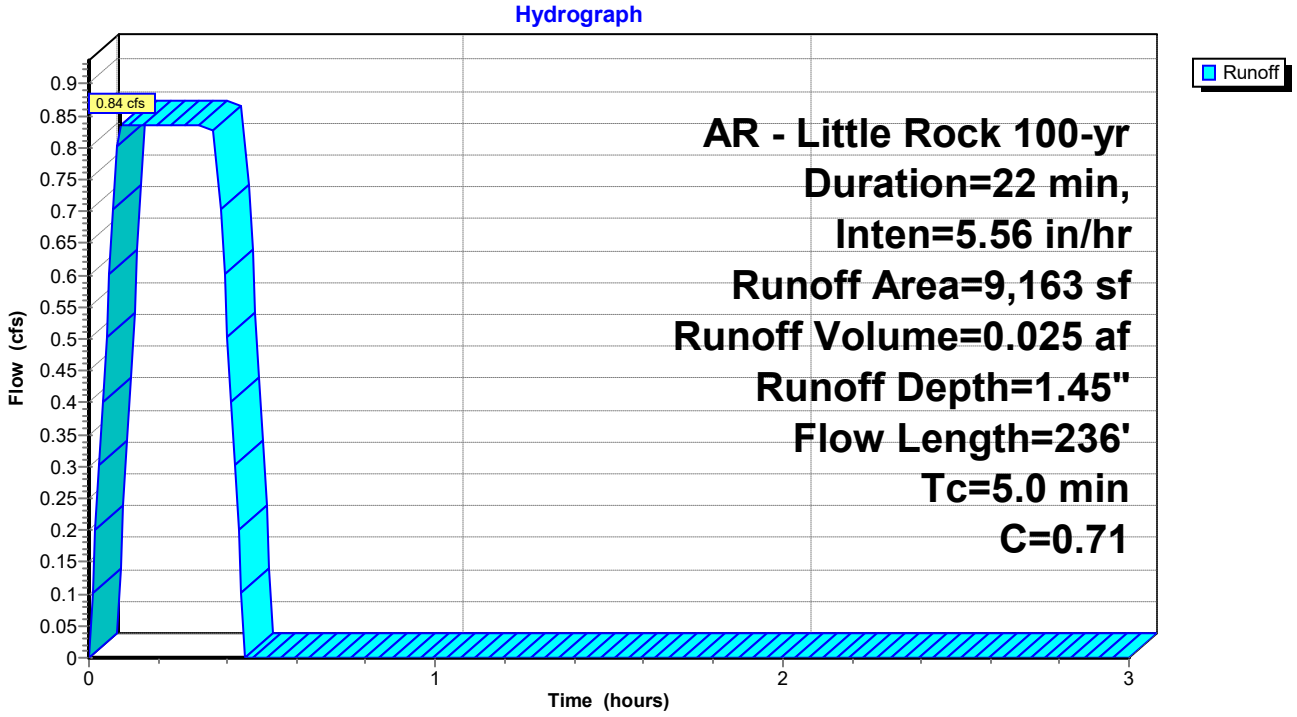
Runoff = 0.84 cfs @ 0.09 hrs, Volume= 0.025 af, Depth= 1.45"
Routed to Pond CI-C1 : CURB INLET C1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=22 min, Inten=5.56 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 4,431 | 0.45 | Sadny Soil 2-7% per manual |
| 4,732 | 0.95 | Paved Areas |
| 9,163 | 0.71 | Weighted Average |
| 4,431 | | 48.36% Pervious Area |
| 4,732 | | 51.64% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 0.4 | 33 | 0.0210 | 1.29 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.6 | 91 | 0.0620 | 2.43 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.8 | 112 | 0.0490 | 2.31 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 3.2 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 236 | Total | | | |

## Subcatchment DB-B8: Drainage Basin B8



## Summary for Subcatchment DB-B9: Drainage Basin B9

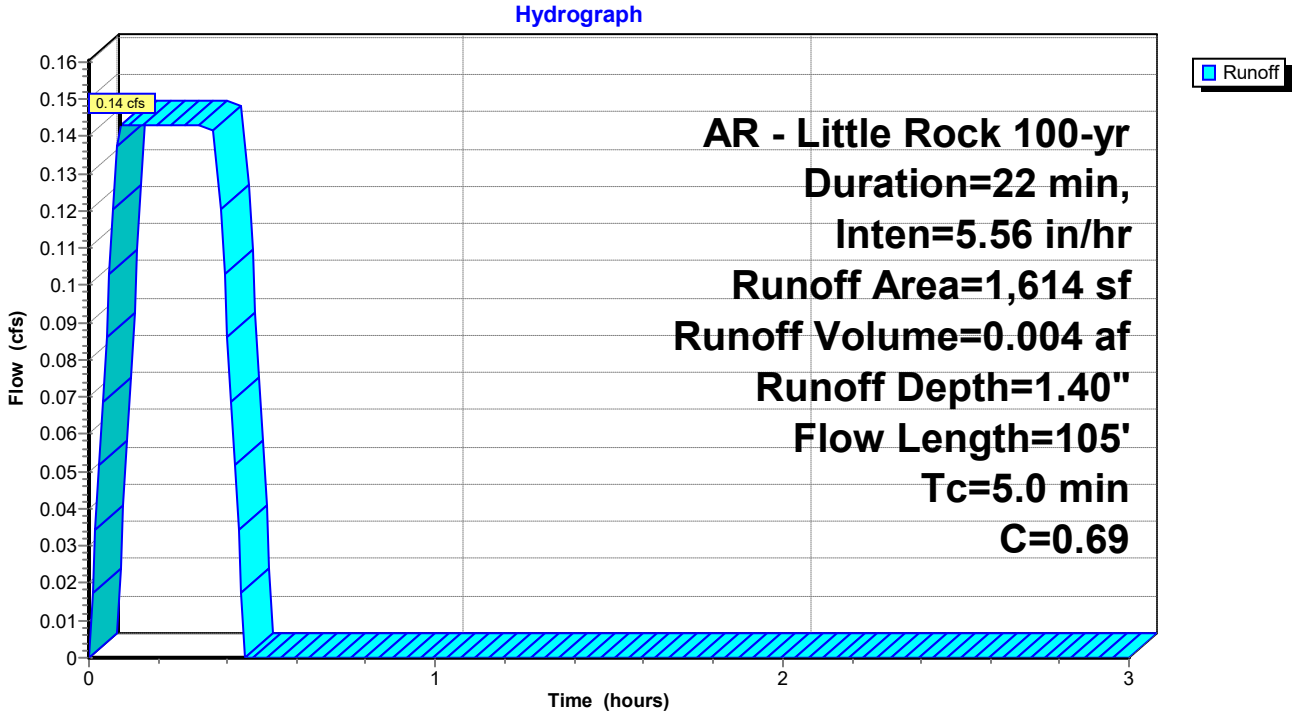
Runoff = 0.14 cfs @ 0.09 hrs, Volume= 0.004 af, Depth= 1.40"
Routed to Pond CI-C2 : CURB INLET C2

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=22 min, Inten=5.56 in/hr

| Area (sf) | C | Description |
|---|---|---|
| 826 | 0.45 | Sandy Soil 2-7% per manual |
| 788 | 0.95 | Paved Areas |
| 1,614 | 0.69 | Weighted Average |
| 826 | | 51.18% Pervious Area |
| 788 | | 48.82% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.0 | 62 | 0.0100 | 1.09 | | **Sheet Flow, Pavement** Smooth surfaces n= 0.011 P2= 4.20" |
| 0.0 | 8 | 0.0230 | 3.08 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 0.2 | 35 | 0.0140 | 2.40 | | **Shallow Concentrated Flow, Gutter** Paved Kv= 20.3 fps |
| 3.8 | | | | | **Direct Entry, Minimum Adjustment** |
| 5.0 | 105 | Total | | | |

## Subcatchment DB-B9: Drainage Basin B9



## Summary for Pond AI-B1: AREA INLET B1

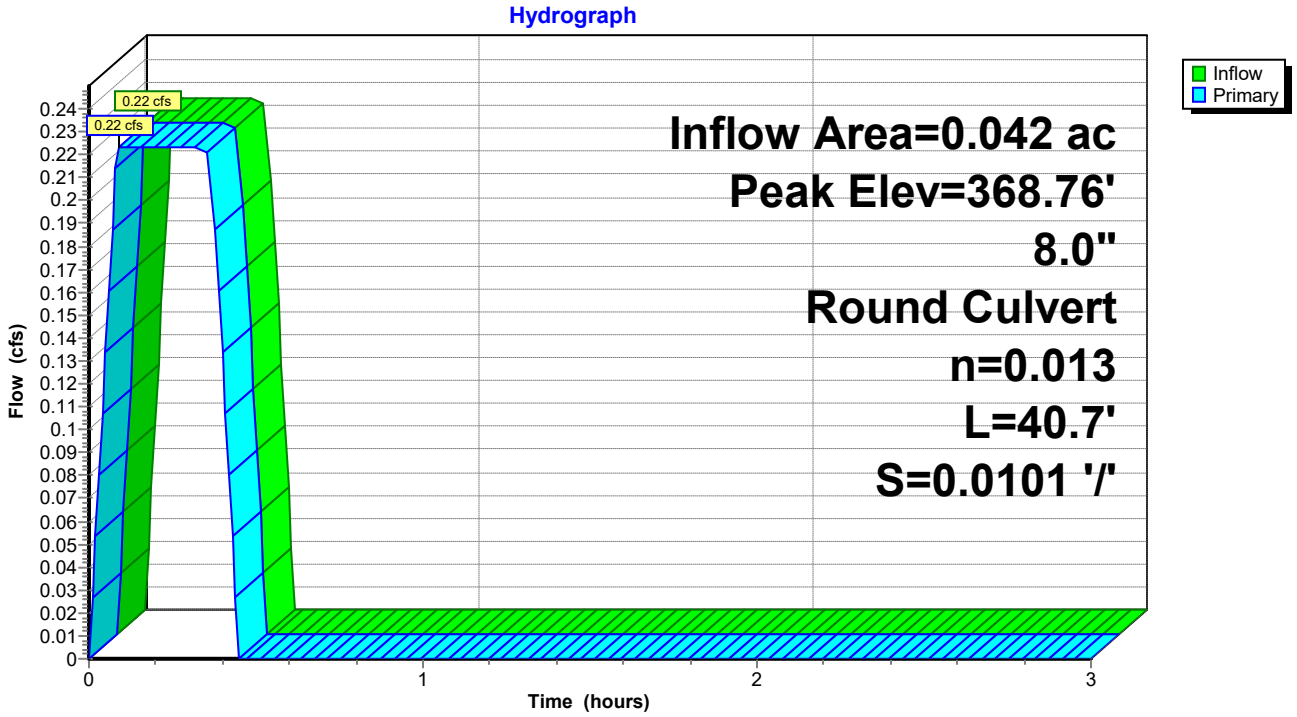
Inflow Area = 0.042 ac,100.00% Impervious, Inflow Depth = 1.93" for 100-yr event
Inflow = 0.22 cfs @ 0.09 hrs, Volume= 0.007 af
Outflow = 0.22 cfs @ 0.09 hrs, Volume= 0.007 af, Atten= 0%, Lag= 0.0 min
Primary = 0.22 cfs @ 0.09 hrs, Volume= 0.007 af
Routed to Pond AI-B2 : AREA INLET B2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 368.76' @ 0.09 hrs

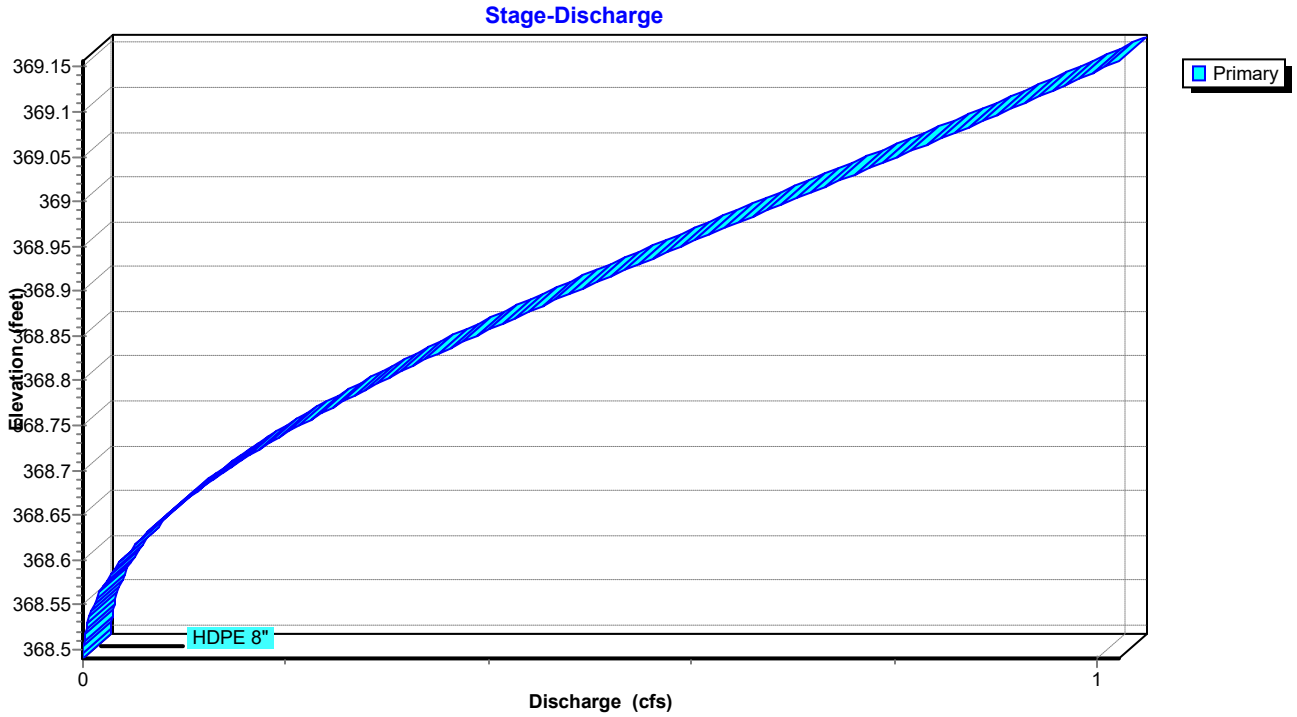
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 368.49' | **8.0" Round HDPE 8"** L= 40.7' Ke= 0.100<br>Inlet / Outlet Invert= 368.49' / 368.08' S= 0.0101 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.35 sf |

**Primary OutFlow** Max=0.22 cfs @ 0.09 hrs HW=368.76' (Free Discharge)
**1=HDPE 8"** (Barrel Controls 0.22 cfs @ 2.54 fps)

## Pond AI-B1: AREA INLET B1



## Pond AI-B1: AREA INLET B1



## Summary for Pond AI-B2: AREA INLET B2

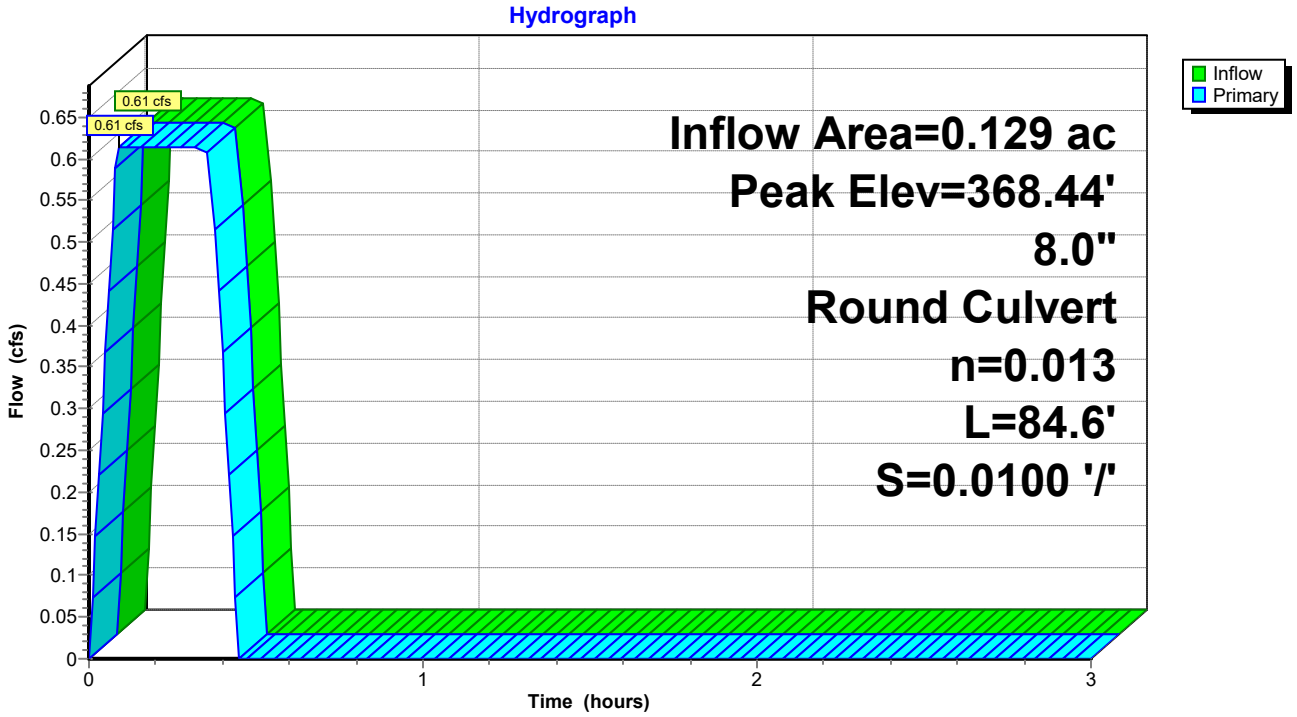
Inflow Area = 0.129 ac, 79.40% Impervious, Inflow Depth = 1.73" for 100-yr event
Inflow = 0.61 cfs @ 0.09 hrs, Volume= 0.019 af
Outflow = 0.61 cfs @ 0.09 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min
Primary = 0.61 cfs @ 0.09 hrs, Volume= 0.019 af
Routed to Pond CI-A2 : CURB INLET A2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 368.44' @ 0.09 hrs

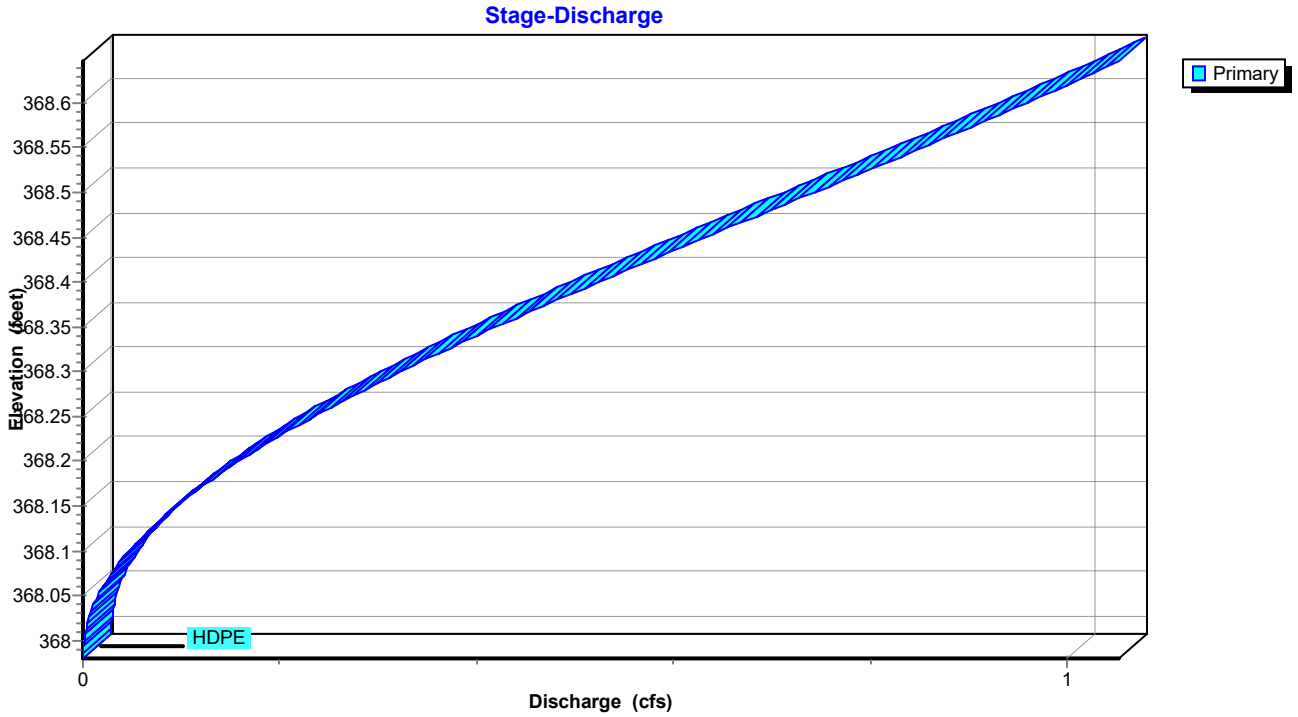
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 367.98' | **8.0" Round HDPE** L= 84.6' Ke= 0.100<br>Inlet / Outlet Invert= 367.98' / 367.13' S= 0.0100 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.35 sf |

**Primary OutFlow** Max=0.61 cfs @ 0.09 hrs HW=368.44' (Free Discharge)
**1=HDPE** (Barrel Controls 0.61 cfs @ 3.36 fps)

## Pond AI-B2: AREA INLET B2



## Pond AI-B2: AREA INLET B2



## Summary for Pond CI-A1: CURB INLET A1

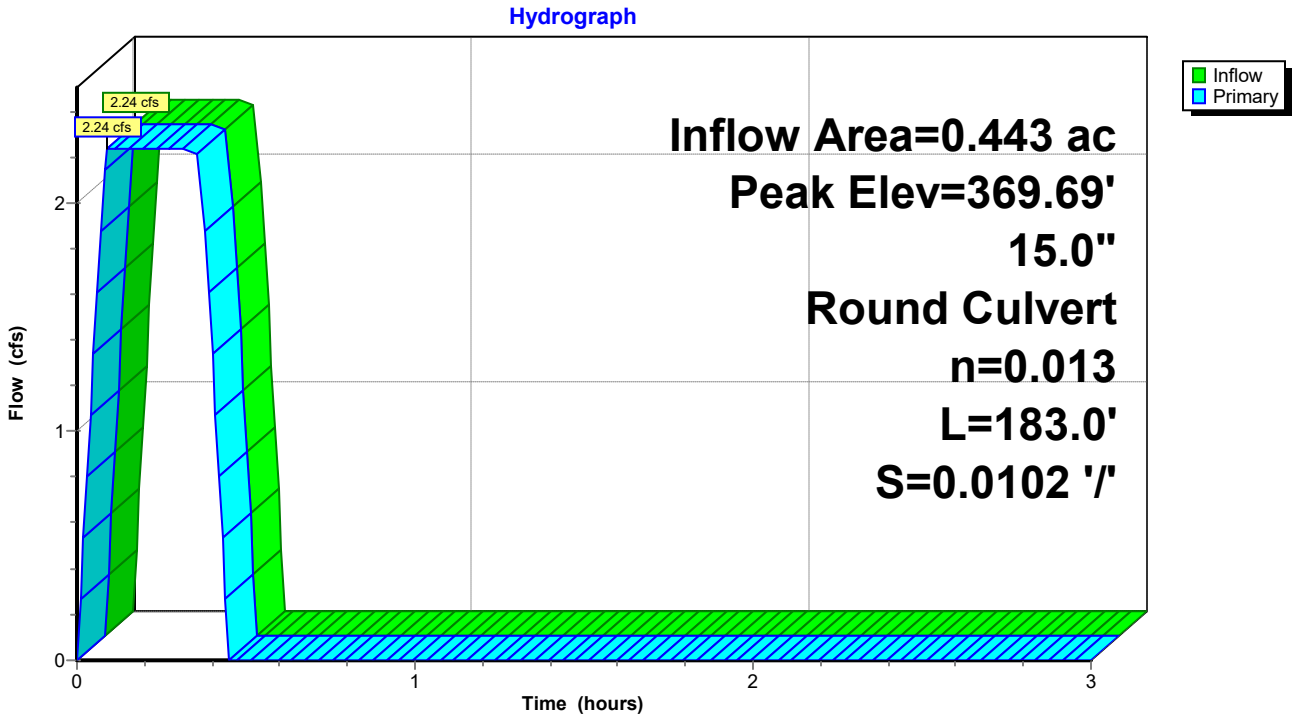
Inflow Area = 0.443 ac, 89.95% Impervious, Inflow Depth = 1.83" for 100-yr event
Inflow = 2.24 cfs @ 0.09 hrs, Volume= 0.068 af
Outflow = 2.24 cfs @ 0.09 hrs, Volume= 0.068 af, Atten= 0%, Lag= 0.0 min
Primary = 2.24 cfs @ 0.09 hrs, Volume= 0.068 af
Routed to Pond CI-A2 : CURB INLET A2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 369.69' @ 0.09 hrs

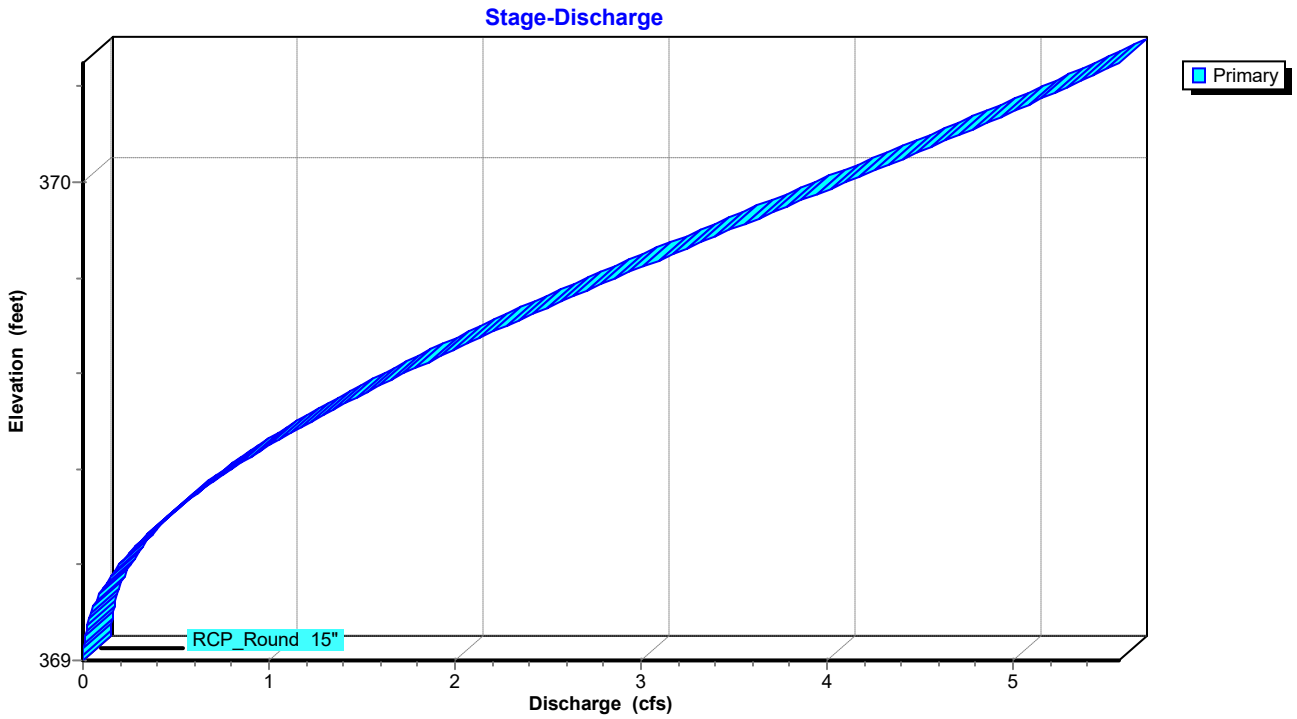
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 369.00' | **15.0" Round RCP_Round 15"**<br>L= 183.0' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 369.00' / 367.13' S= 0.0102 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.23 sf |

**Primary OutFlow** Max=2.24 cfs @ 0.09 hrs HW=369.69' (Free Discharge)
**1=RCP_Round 15"** (Barrel Controls 2.24 cfs @ 4.63 fps)

## Pond CI-A1: CURB INLET A1



## Pond CI-A1: CURB INLET A1



## Summary for Pond CI-A2: CURB INLET A2

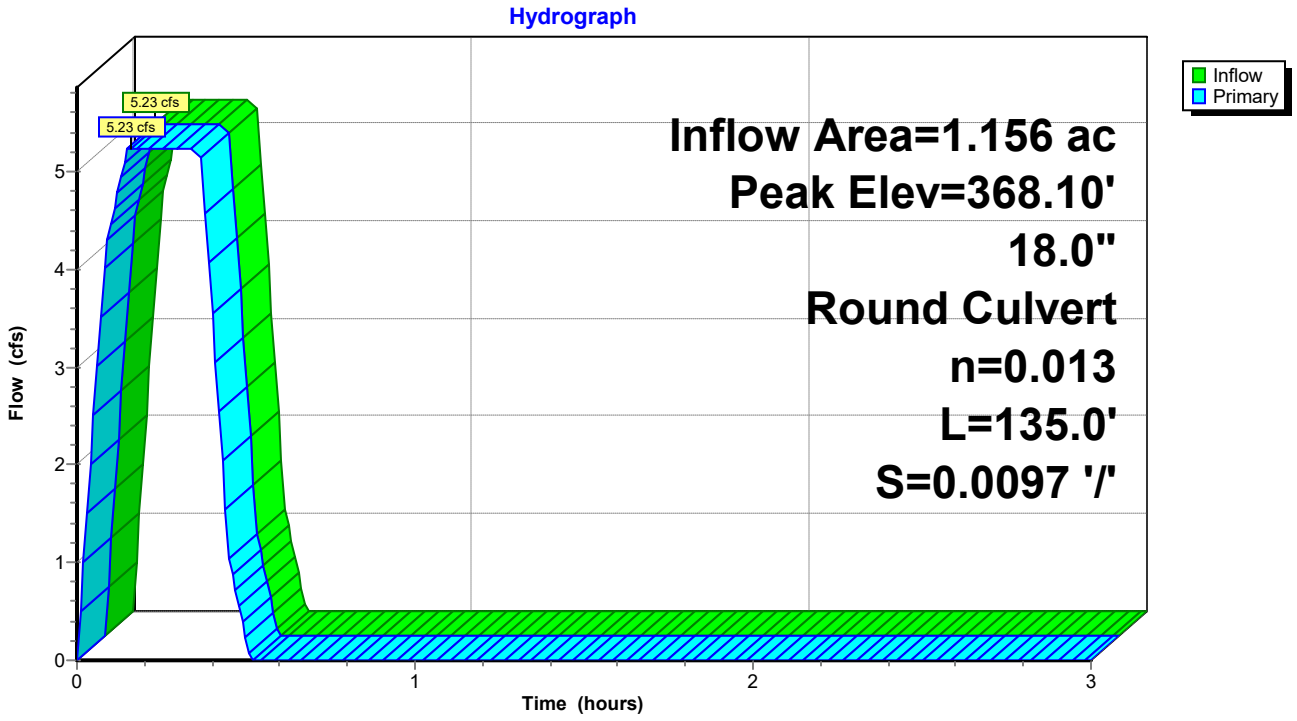
Inflow Area = 1.156 ac, 71.22% Impervious, Inflow Depth = 1.65" for 100-yr event
Inflow = 5.23 cfs @ 0.15 hrs, Volume= 0.159 af
Outflow = 5.23 cfs @ 0.16 hrs, Volume= 0.159 af, Atten= 0%, Lag= 0.6 min
Primary = 5.23 cfs @ 0.16 hrs, Volume= 0.159 af
Routed to Pond CI-A3 : CURB INLET A3

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 368.10' @ 0.15 hrs

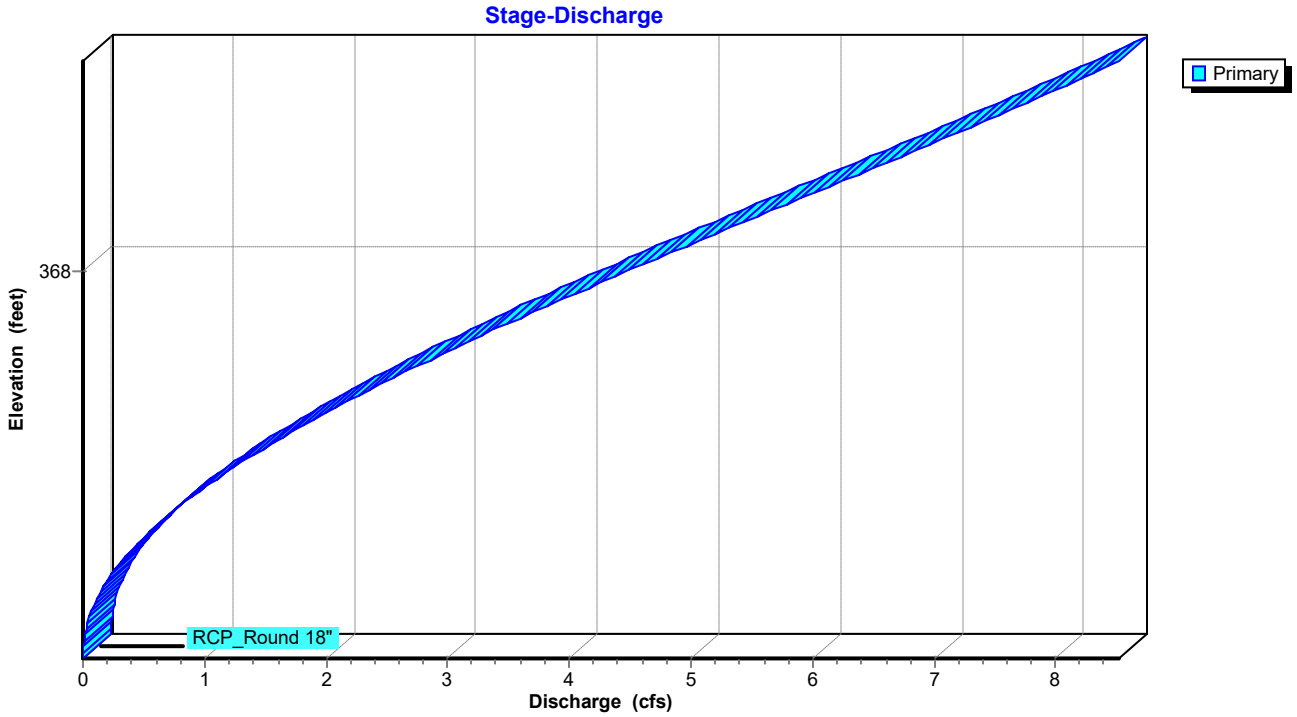
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 367.03' | **18.0" Round RCP_Round 18"**<br>L= 135.0' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 367.03' / 365.72' S= 0.0097 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf |

**Primary OutFlow** Max=5.23 cfs @ 0.16 hrs HW=368.10' (Free Discharge)
**1=RCP_Round 18"** (Barrel Controls 5.23 cfs @ 5.44 fps)

## Pond CI-A2: CURB INLET A2



## Pond CI-A2: CURB INLET A2



## Summary for Pond CI-A3: CURB INLET A3

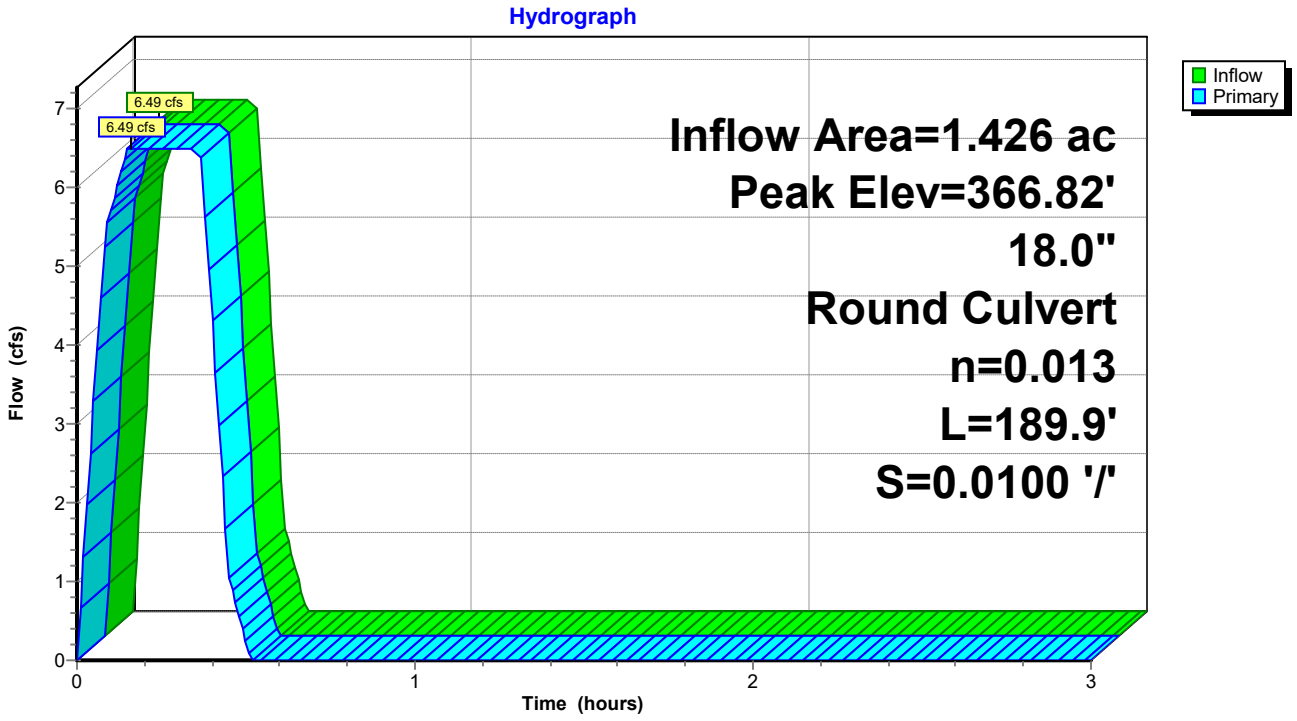
Inflow Area = 1.426 ac, 71.98% Impervious, Inflow Depth = 1.65" for 100-yr event
Inflow = 6.49 cfs @ 0.16 hrs, Volume= 0.197 af
Outflow = 6.49 cfs @ 0.16 hrs, Volume= 0.197 af, Atten= 0%, Lag= 0.0 min
Primary = 6.49 cfs @ 0.16 hrs, Volume= 0.197 af
Routed to Pond CI-A4 : CURB INLET A4

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 366.82' @ 0.15 hrs

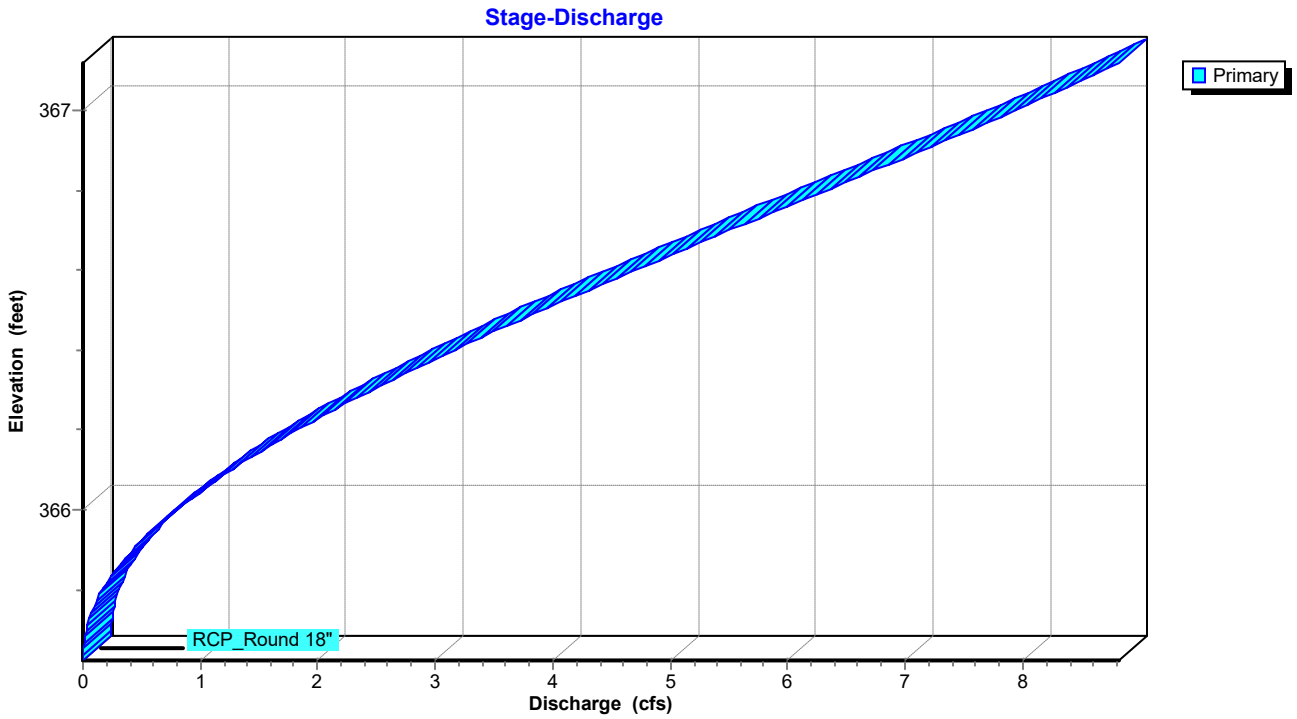
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 365.62' | **18.0" Round RCP_Round 18"**<br>L= 189.9' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 365.62' / 363.72' S= 0.0100 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf |

**Primary OutFlow** Max=6.49 cfs @ 0.16 hrs HW=366.82' (Free Discharge)
**1=RCP_Round 18"** (Barrel Controls 6.49 cfs @ 5.86 fps)

## Pond CI-A3: CURB INLET A3



## Pond CI-A3: CURB INLET A3



## Summary for Pond CI-A4: CURB INLET A4

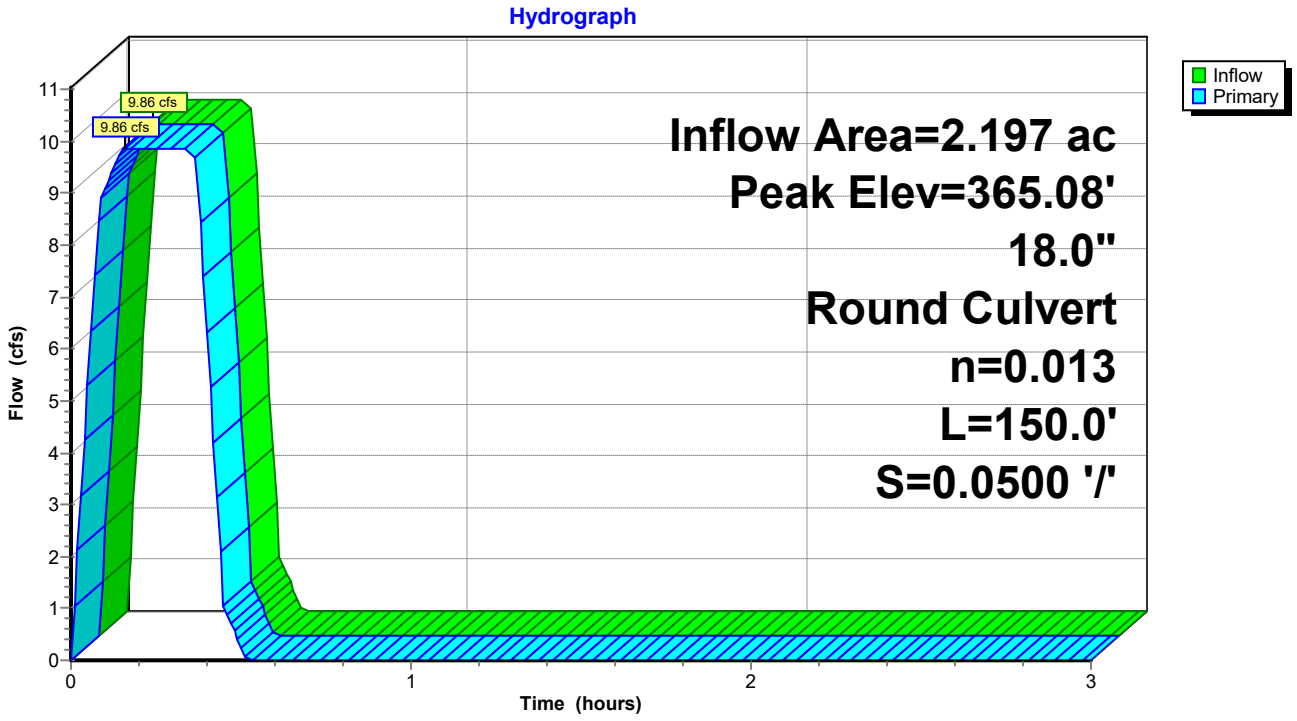
Inflow Area = 2.197 ac, 69.72% Impervious, Inflow Depth = 1.63" for 100-yr event
Inflow = 9.86 cfs @ 0.16 hrs, Volume= 0.299 af
Outflow = 9.86 cfs @ 0.16 hrs, Volume= 0.299 af, Atten= 0%, Lag= 0.0 min
Primary = 9.86 cfs @ 0.16 hrs, Volume= 0.299 af
Routed to Pond CI-A5 : CURB INLET A5

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 365.08' @ 0.15 hrs

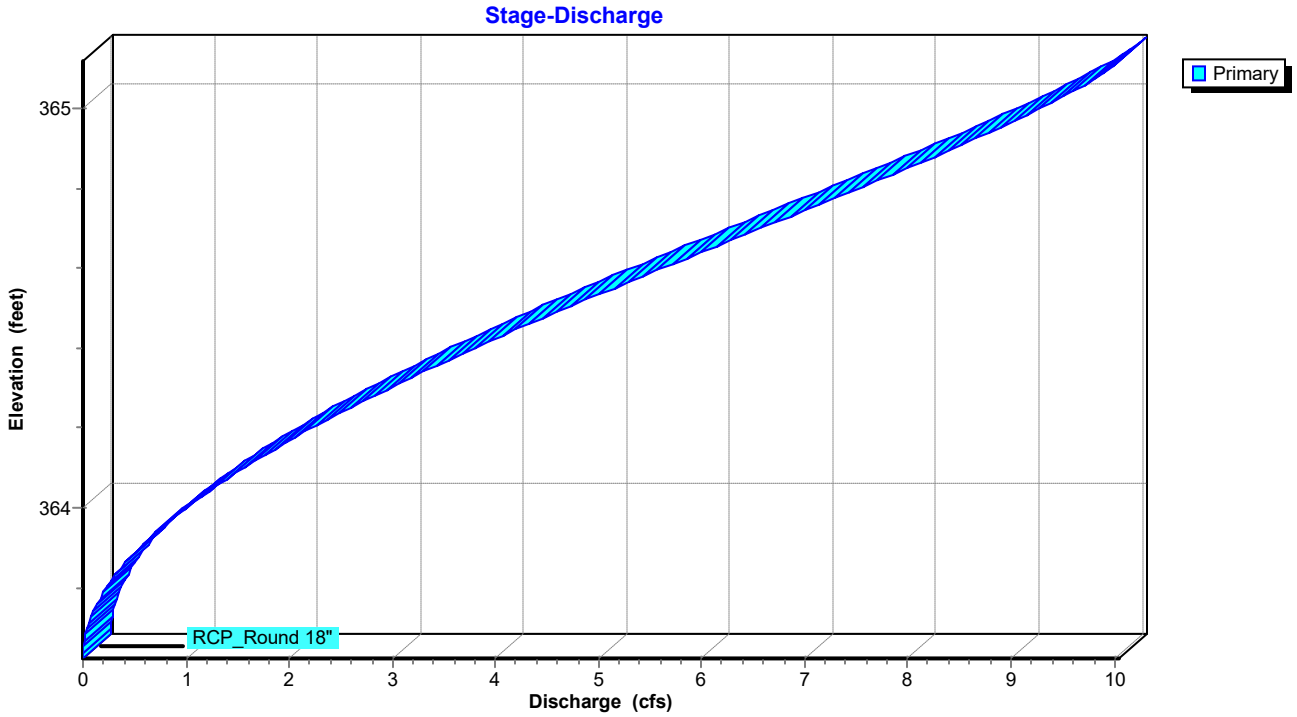
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 363.62' | **18.0" Round RCP_Round 18"**<br>L= 150.0' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 363.62' / 356.12' S= 0.0500 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf |

**Primary OutFlow** Max=9.86 cfs @ 0.16 hrs HW=365.08' (Free Discharge)
**1=RCP_Round 18"** (Inlet Controls 9.86 cfs @ 5.62 fps)

## Pond CI-A4: CURB INLET A4



## Pond CI-A4: CURB INLET A4



## Summary for Pond CI-A5: CURB INLET A5

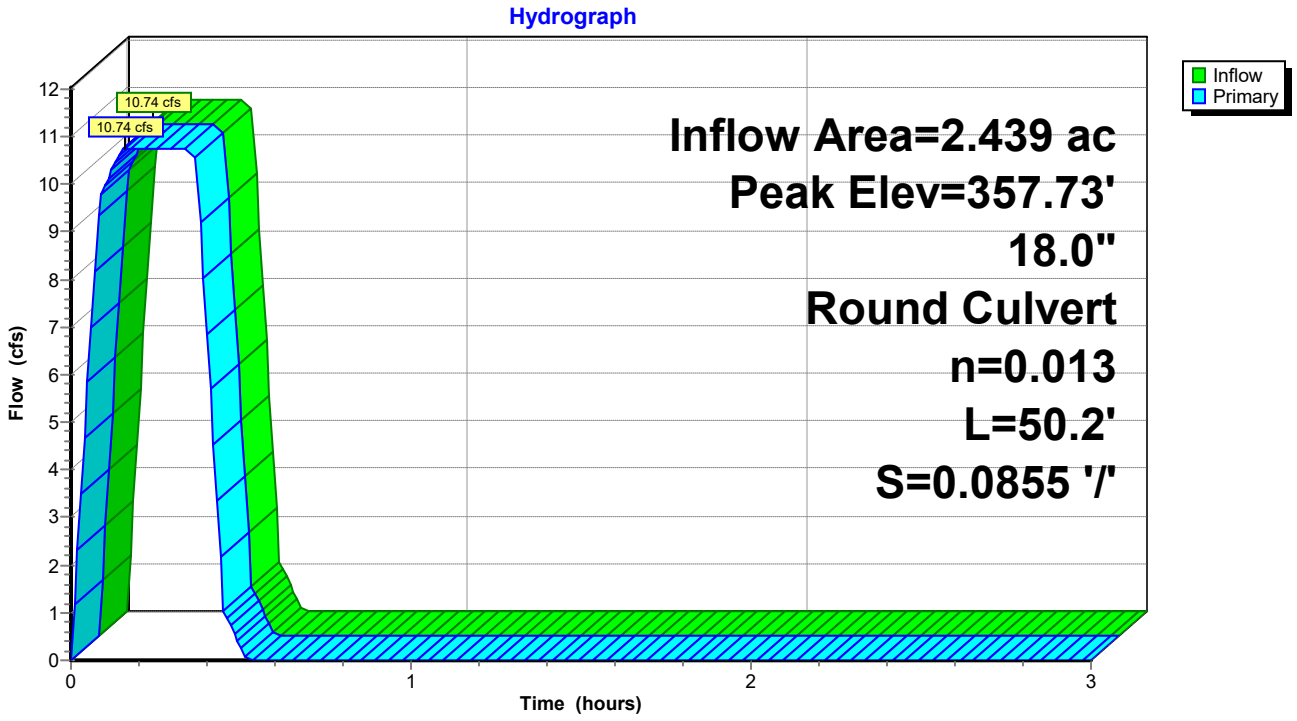
Inflow Area = 2.439 ac, 66.16% Impervious, Inflow Depth = 1.60" for 100-yr event
Inflow = 10.74 cfs @ 0.16 hrs, Volume= 0.325 af
Outflow = 10.74 cfs @ 0.16 hrs, Volume= 0.325 af, Atten= 0%, Lag= 0.0 min
Primary = 10.74 cfs @ 0.16 hrs, Volume= 0.325 af
Routed to Link POST-DEV : Post-Development

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 357.73' @ 0.15 hrs

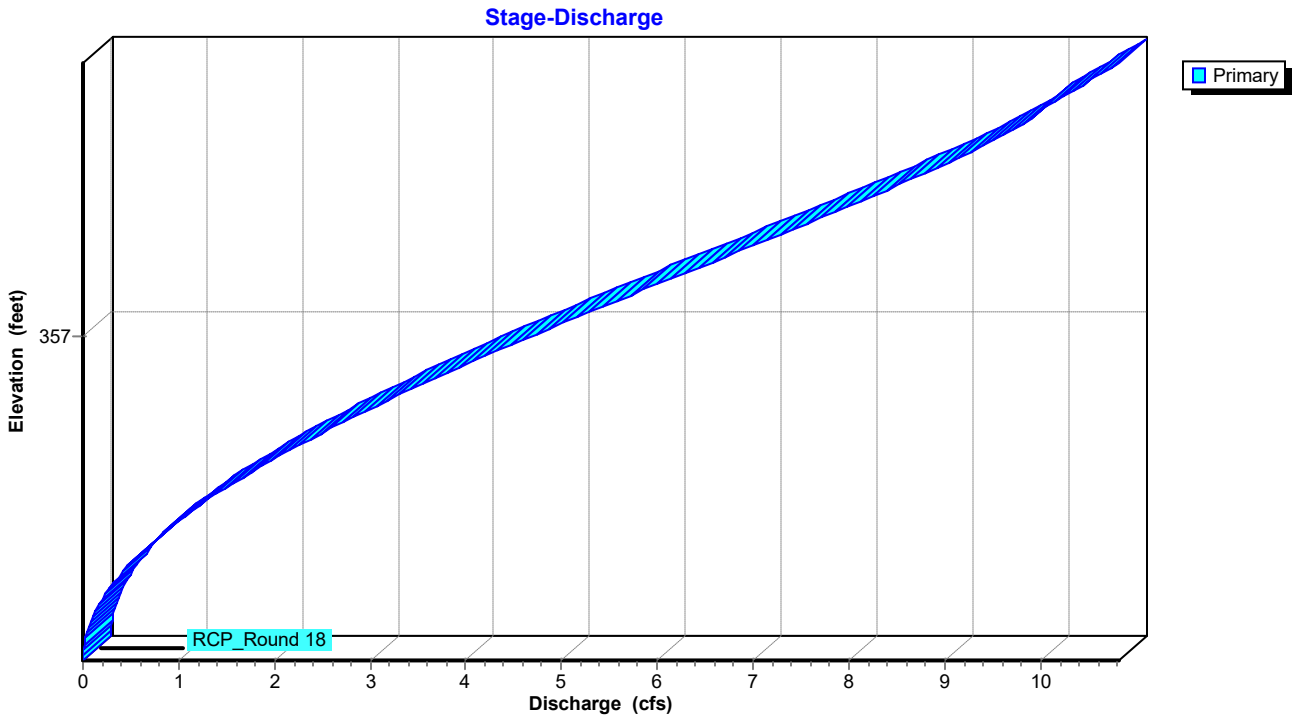
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 356.12' | **18.0" Round RCP_Round 18**<br>L= 50.2' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 356.12' / 351.83' S= 0.0855 '/' Cc= 0.900<br>n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf |

**Primary OutFlow** Max=10.74 cfs @ 0.16 hrs HW=357.73' (Free Discharge)
**1=RCP_Round 18** (Inlet Controls 10.74 cfs @ 6.08 fps)

## Pond CI-A5: CURB INLET A5



## Pond CI-A5: CURB INLET A5



## Summary for Pond CI-C1: CURB INLET C1

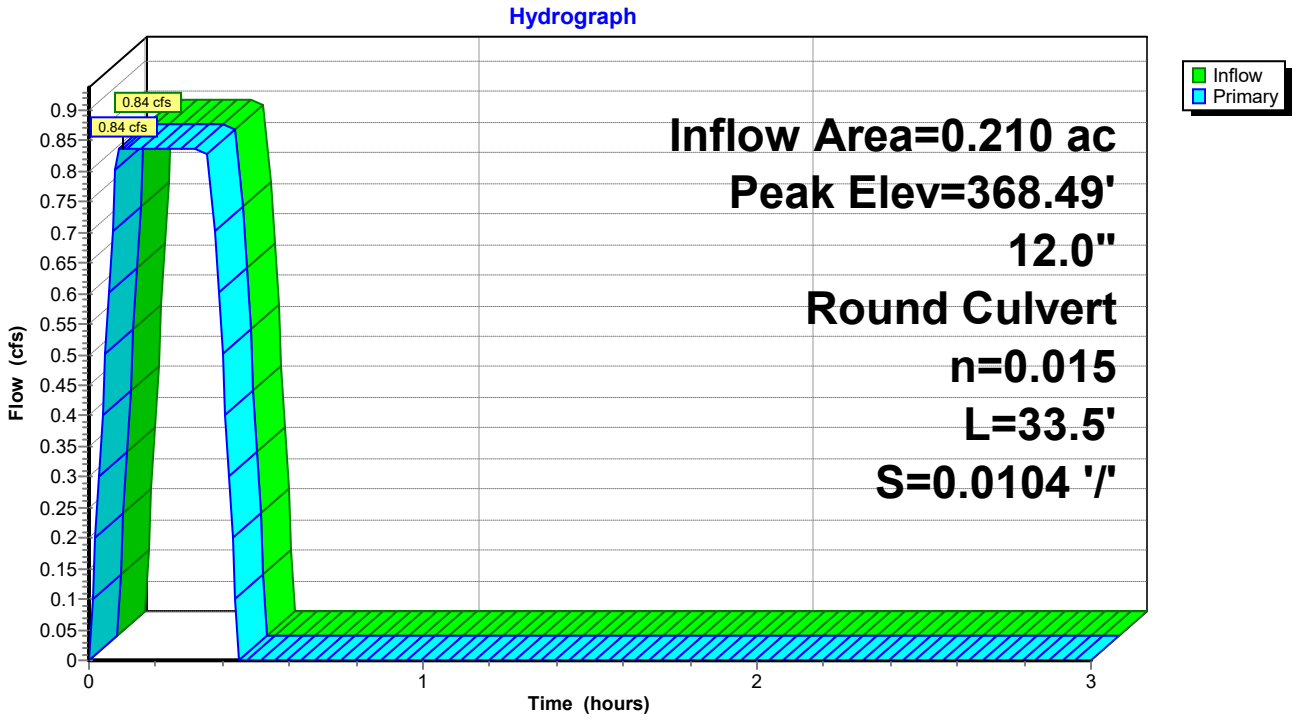
Inflow Area = 0.210 ac, 51.64% Impervious, Inflow Depth = 1.45" for 100-yr event
Inflow = 0.84 cfs @ 0.09 hrs, Volume= 0.025 af
Outflow = 0.84 cfs @ 0.10 hrs, Volume= 0.025 af, Atten= 0%, Lag= 0.6 min
Primary = 0.84 cfs @ 0.10 hrs, Volume= 0.025 af
Routed to Pond CI-C2 : CURB INLET C2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 368.49' @ 0.09 hrs

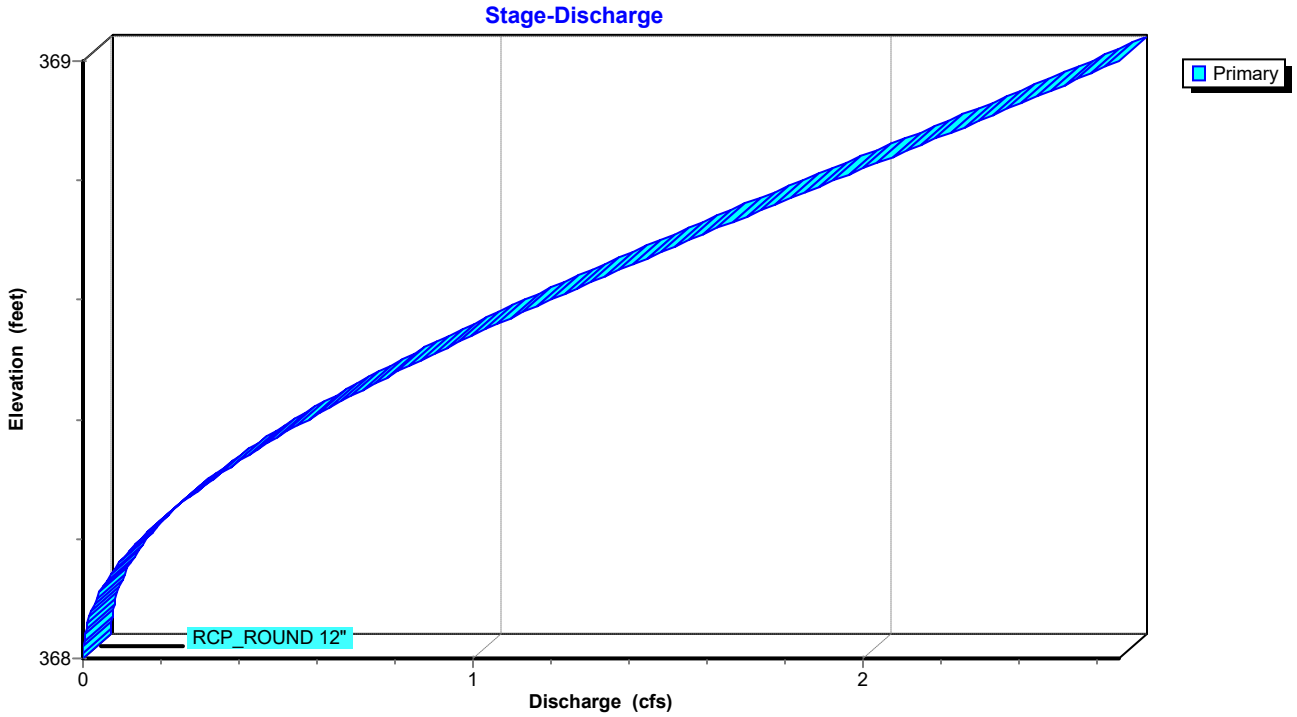
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 368.00' | **12.0" Round RCP_ROUND 12"**<br>L= 33.5' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 368.00' / 367.65' S= 0.0104 '/' Cc= 0.900<br>n= 0.015 Concrete sewer w/manholes & inlets, Flow Area= 0.79 sf |

**Primary OutFlow** Max=0.84 cfs @ 0.10 hrs HW=368.49' (Free Discharge)
**1=RCP_ROUND 12"** (Barrel Controls 0.84 cfs @ 3.20 fps)

## Pond CI-C1: CURB INLET C1



## Pond CI-C1: CURB INLET C1



## Summary for Pond CI-C2: CURB INLET C2

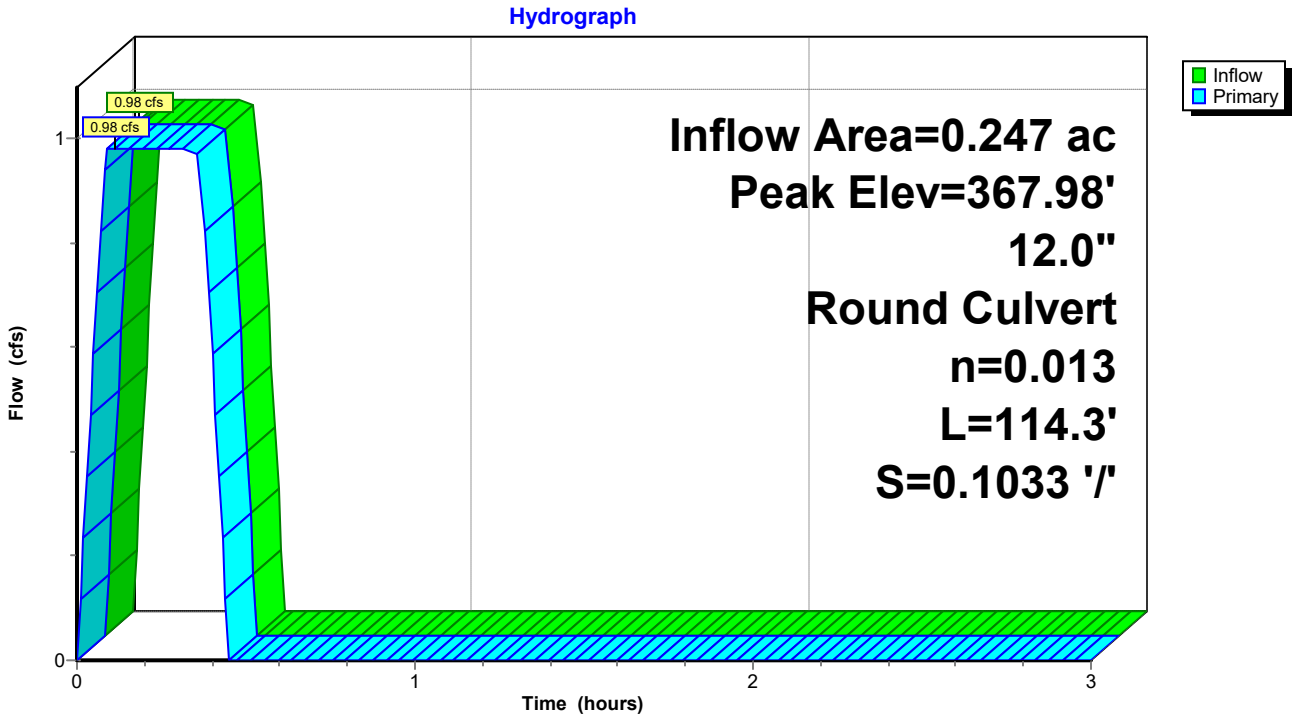
Inflow Area = 0.247 ac, 51.22% Impervious, Inflow Depth = 1.44" for 100-yr event
Inflow = 0.98 cfs @ 0.10 hrs, Volume= 0.030 af
Outflow = 0.98 cfs @ 0.11 hrs, Volume= 0.030 af, Atten= 0%, Lag= 0.6 min
Primary = 0.98 cfs @ 0.11 hrs, Volume= 0.030 af
Routed to Pond JB-C3 : JUNCTION BOX C3

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 367.98' @ 0.09 hrs

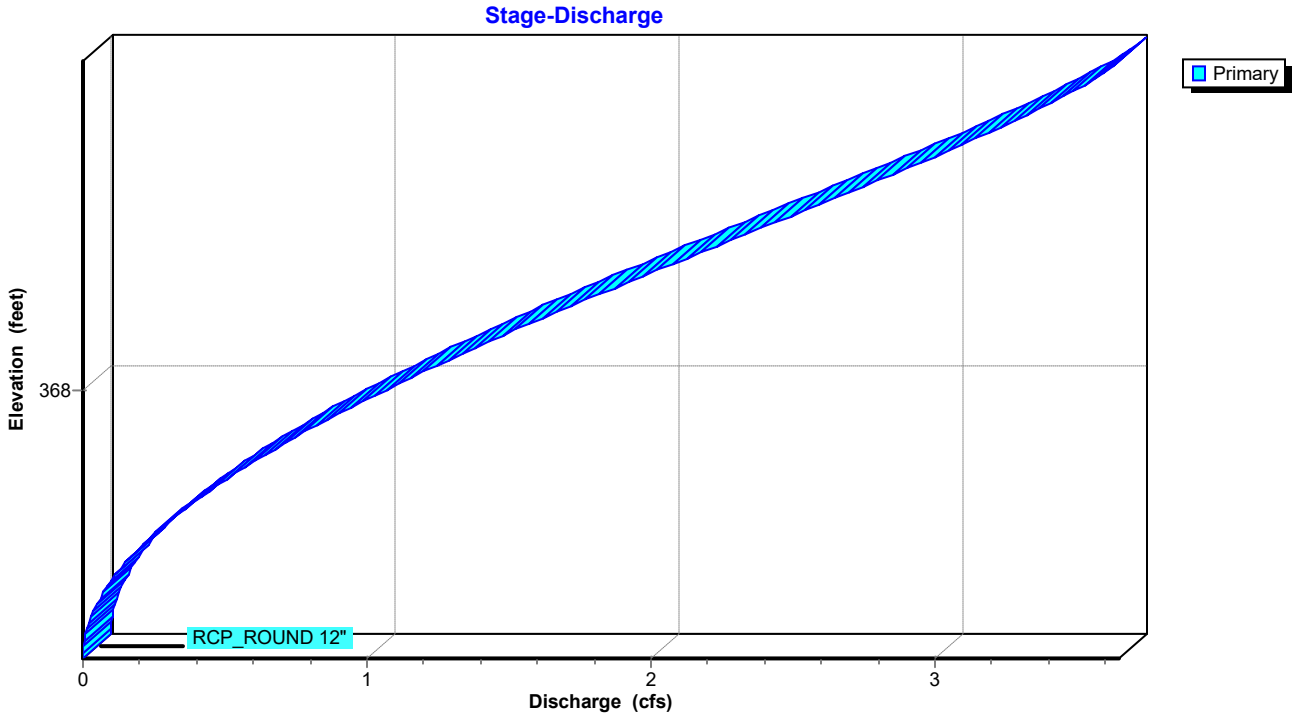
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 367.55' | **12.0" Round RCP_ROUND 12"**<br>L= 114.3' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 367.55' / 355.74' S= 0.1033 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=0.98 cfs @ 0.11 hrs HW=367.98' (Free Discharge)
**1=RCP_ROUND 12"** (Inlet Controls 0.98 cfs @ 3.04 fps)

## Pond CI-C2: CURB INLET C2



## Pond CI-C2: CURB INLET C2



## Summary for Pond CI-C4: CURB INLET C4

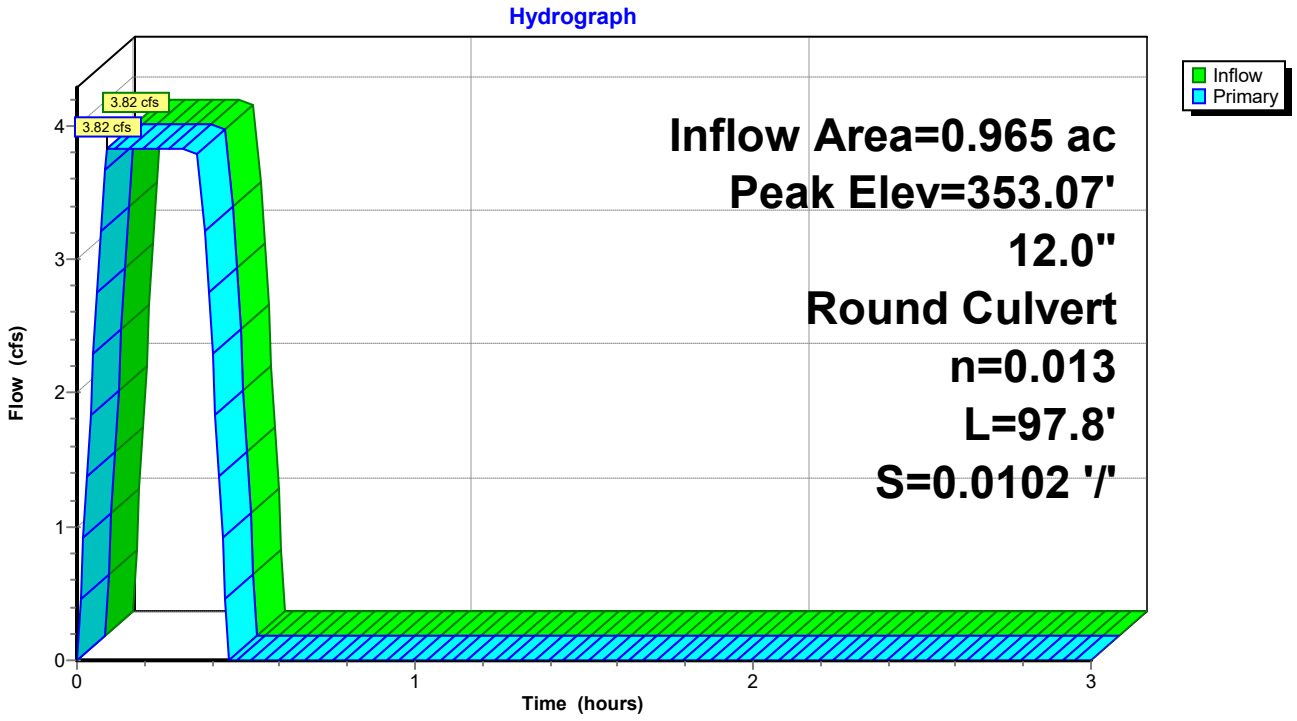
Inflow Area = 0.965 ac, 48.23% Impervious, Inflow Depth = 1.44" for 100-yr event
Inflow = 3.82 cfs @ 0.09 hrs, Volume= 0.116 af
Outflow = 3.82 cfs @ 0.09 hrs, Volume= 0.116 af, Atten= 0%, Lag= 0.0 min
Primary = 3.82 cfs @ 0.09 hrs, Volume= 0.116 af
Routed to Pond CI-C5 : CURB INLET C5

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 353.07' @ 0.09 hrs

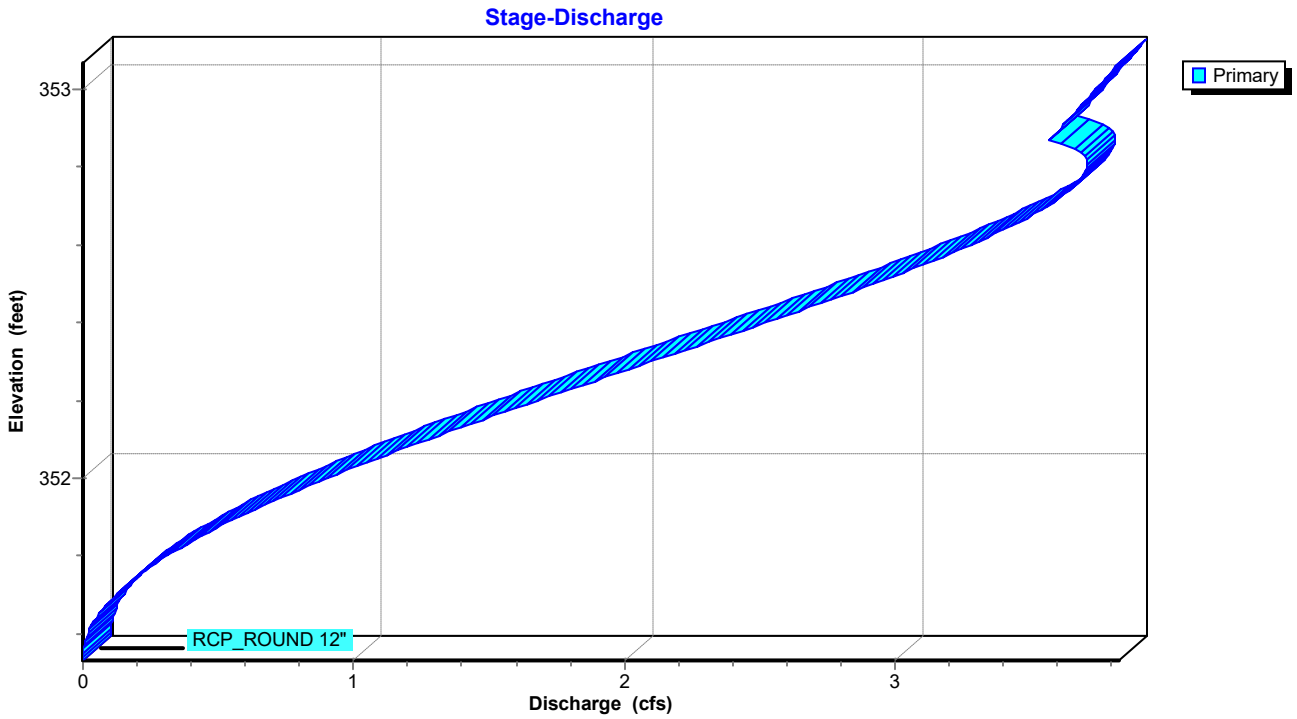
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 351.53' | **12.0" Round RCP_ROUND 12"**<br>L= 97.8' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 351.53' / 350.53' S= 0.0102 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=3.82 cfs @ 0.09 hrs HW=353.07' (Free Discharge)
**1=RCP_ROUND 12"** (Barrel Controls 3.82 cfs @ 4.87 fps)

## Pond CI-C4: CURB INLET C4



## Pond CI-C4: CURB INLET C4



## Summary for Pond CI-C5: CURB INLET C5

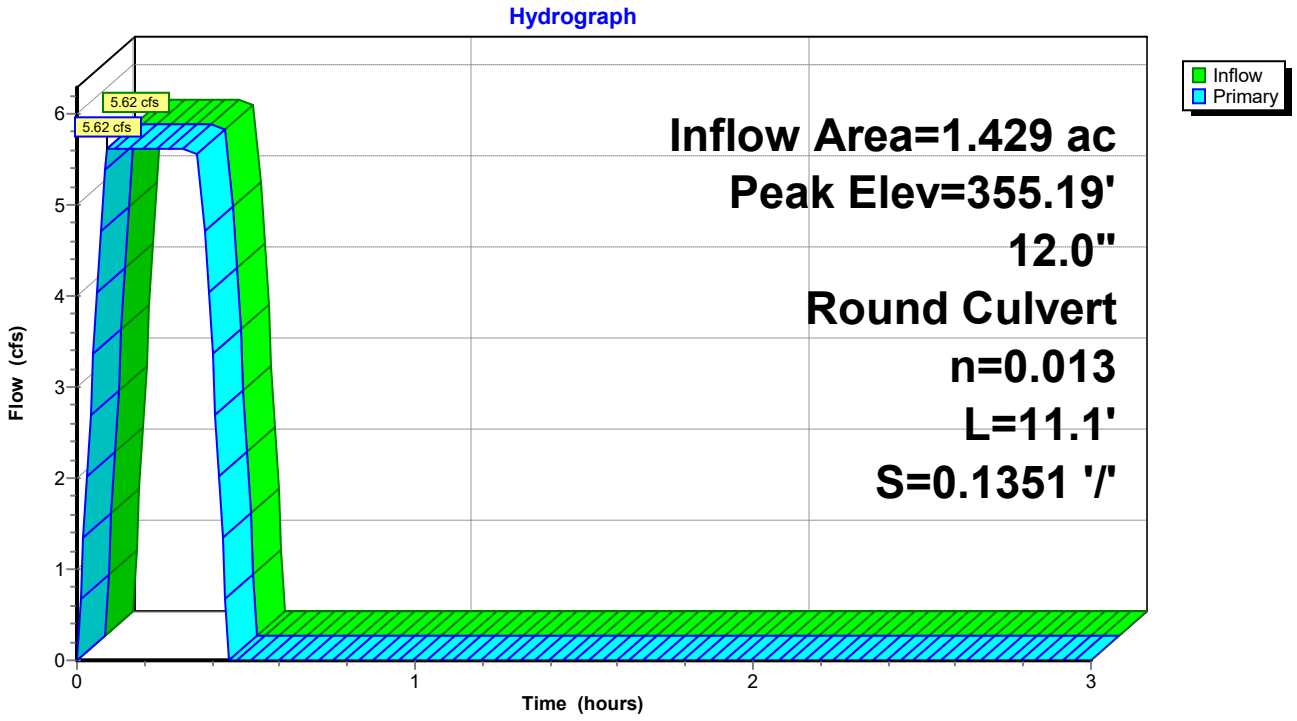
Inflow Area = 1.429 ac, 46.57% Impervious, Inflow Depth = 1.43" for 100-yr event
Inflow = 5.62 cfs @ 0.09 hrs, Volume= 0.170 af
Outflow = 5.62 cfs @ 0.09 hrs, Volume= 0.170 af, Atten= 0%, Lag= 0.0 min
Primary = 5.62 cfs @ 0.09 hrs, Volume= 0.170 af
Routed to Link POST-DEV : Post-Development

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 355.19' @ 0.09 hrs

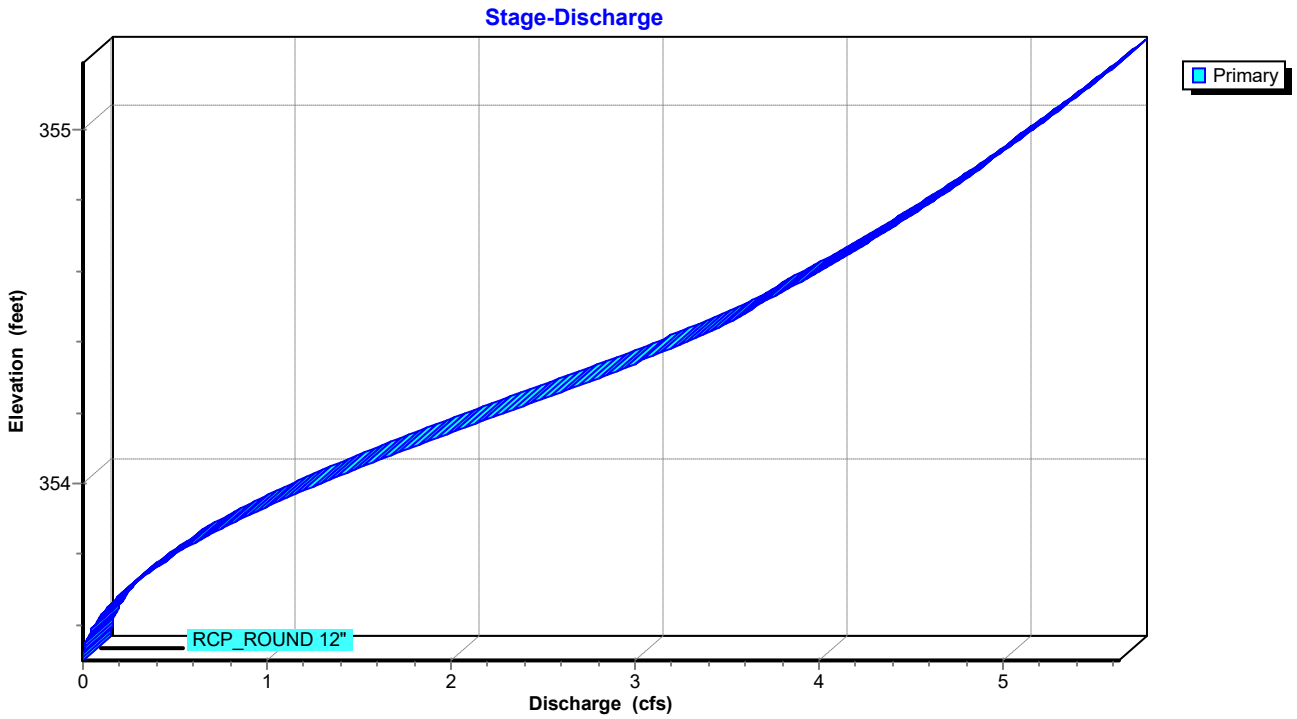
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 353.50' | **12.0" Round RCP_ROUND 12"**<br>L= 11.1' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 353.50' / 352.00' S= 0.1351 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=5.62 cfs @ 0.09 hrs HW=355.19' (Free Discharge)
**1=RCP_ROUND 12"** (Inlet Controls 5.62 cfs @ 7.15 fps)

## Pond CI-C5: CURB INLET C5



## Pond CI-C5: CURB INLET C5



## Summary for Pond CI-D1: CURB INLET D1

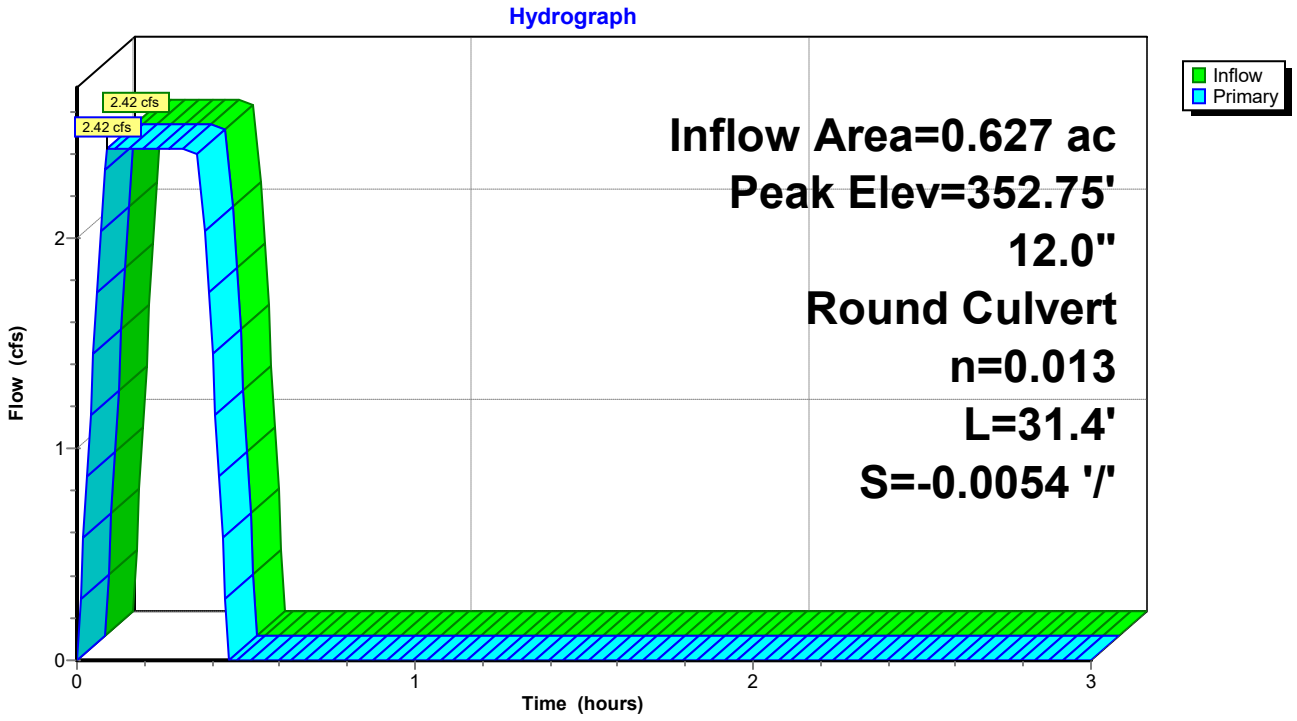
Inflow Area = 0.627 ac, 43.06% Impervious, Inflow Depth = 1.40" for 100-yr event
Inflow = 2.42 cfs @ 0.09 hrs, Volume= 0.073 af
Outflow = 2.42 cfs @ 0.09 hrs, Volume= 0.073 af, Atten= 0%, Lag= 0.0 min
Primary = 2.42 cfs @ 0.09 hrs, Volume= 0.073 af
Routed to Pond CI-C4 : CURB INLET C4

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 352.75' @ 0.09 hrs

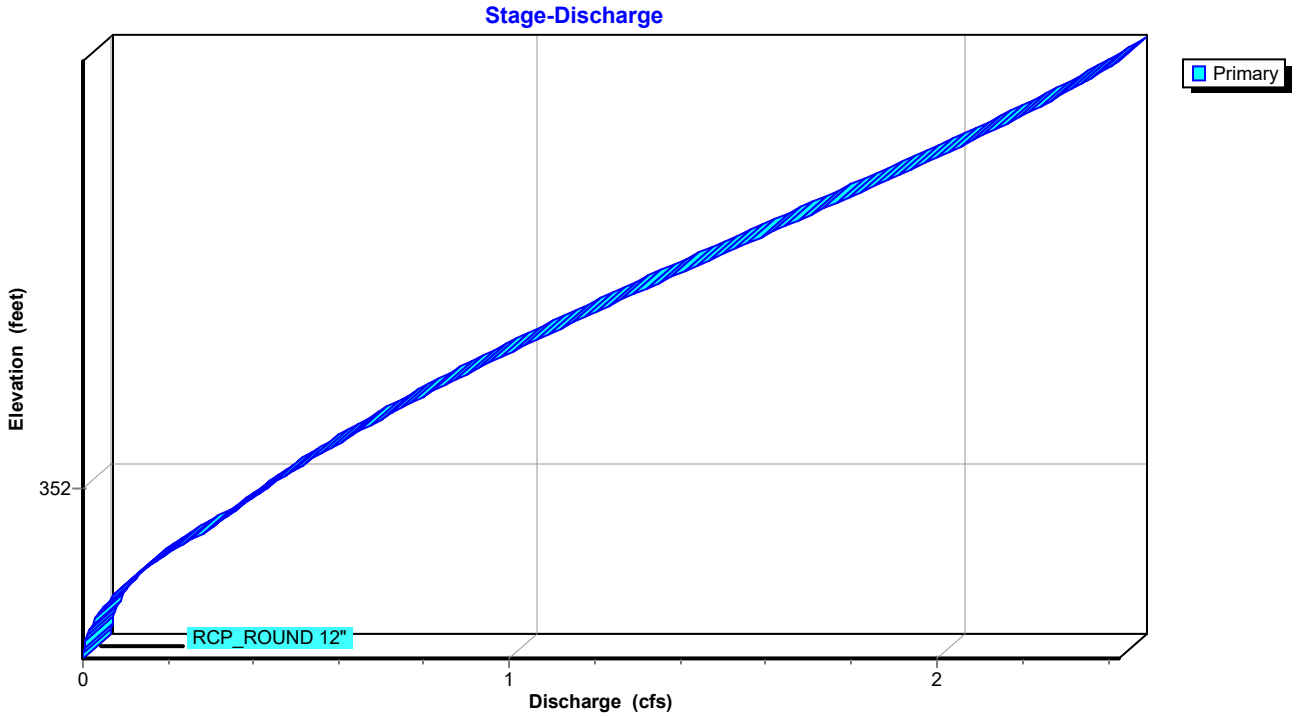
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 351.70' | **12.0" Round RCP_ROUND 12"**<br>L= 31.4' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 351.53' / 351.70' S= -0.0054 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=2.42 cfs @ 0.09 hrs HW=352.75' (Free Discharge)
**1=RCP_ROUND 12"** (Barrel Controls 2.42 cfs @ 3.22 fps)

## Pond CI-D1: CURB INLET D1



## Pond CI-D1: CURB INLET D1



## Summary for Pond JB-C3: JUNCTION BOX C3

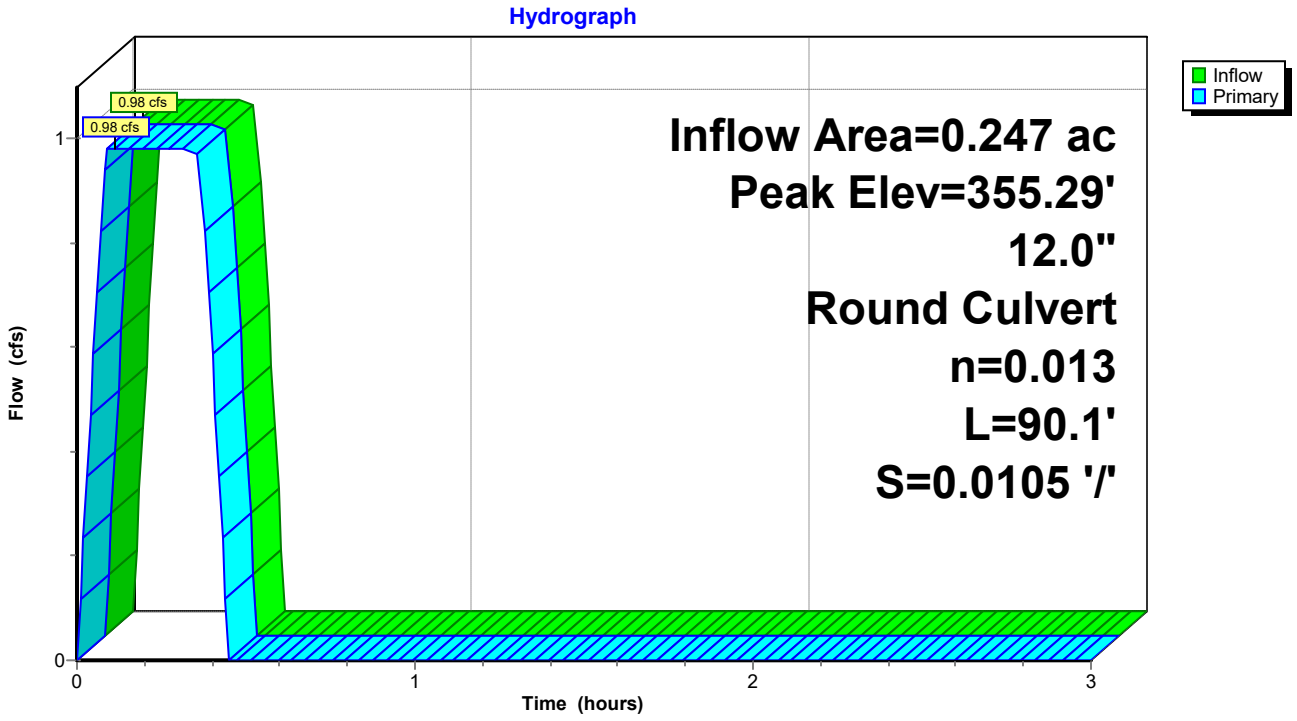
Inflow Area = 0.247 ac, 51.22% Impervious, Inflow Depth = 1.44" for 100-yr event
Inflow = 0.98 cfs @ 0.11 hrs, Volume= 0.030 af
Outflow = 0.98 cfs @ 0.11 hrs, Volume= 0.030 af, Atten= 0%, Lag= 0.0 min
Primary = 0.98 cfs @ 0.11 hrs, Volume= 0.030 af
Routed to Pond CI-C4 : CURB INLET C4

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 355.29' @ 0.09 hrs

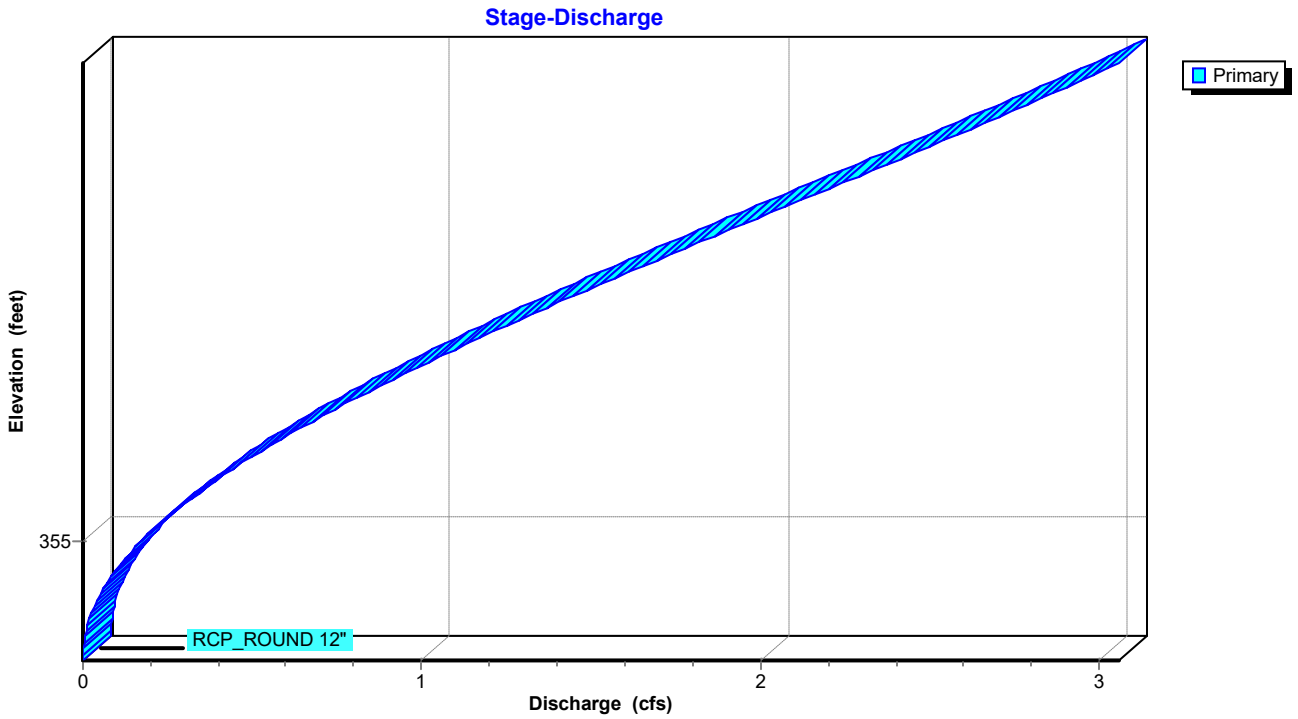
| Device | Routing | Invert | Outlet Devices |
|---|---|---|---|
| #1 | Primary | 354.80' | **12.0" Round RCP_ROUND 12"**<br>L= 90.1' RCP, rounded edge headwall, Ke= 0.100<br>Inlet / Outlet Invert= 354.80' / 353.85' S= 0.0105 '/' Cc= 0.900<br>n= 0.013, Flow Area= 0.79 sf |

**Primary OutFlow** Max=0.98 cfs @ 0.11 hrs HW=355.29' (Free Discharge)
└**1=RCP_ROUND 12"** (Barrel Controls 0.98 cfs @ 3.76 fps)

## Pond JB-C3: JUNCTION BOX C3



## Pond JB-C3: JUNCTION BOX C3

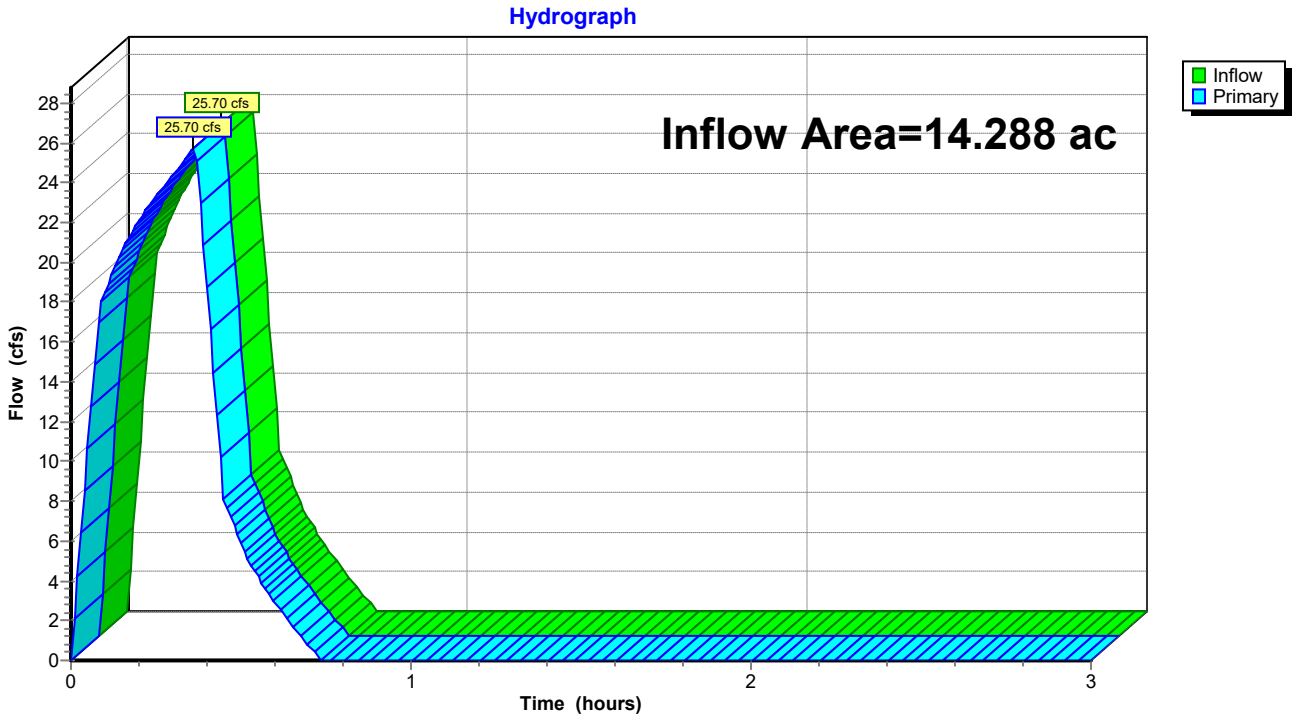


## Summary for Link POST-DEV: Post-Development

Inflow Area = 14.288 ac, 15.95% Impervious, Inflow Depth = 0.66" for 100-yr event
Inflow = 25.70 cfs @ 0.36 hrs, Volume= 0.782 af
Primary = 25.70 cfs @ 0.36 hrs, Volume= 0.782 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

## Link POST-DEV: Post-Development



# STROM SEWER SIZING

# Inlet Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Thursday, Sep 26 2024

## CI-A1 (25 YEAR)

**Curb Inlet**

| | |
|---|---|
| Location | = On grade |
| Curb Length (ft) | = 4.00 |
| Throat Height (in) | = 2.00 |
| Grate Area (sqft) | = -0- |
| Grate Width (ft) | = -0- |
| Grate Length (ft) | = -0- |

**Gutter**

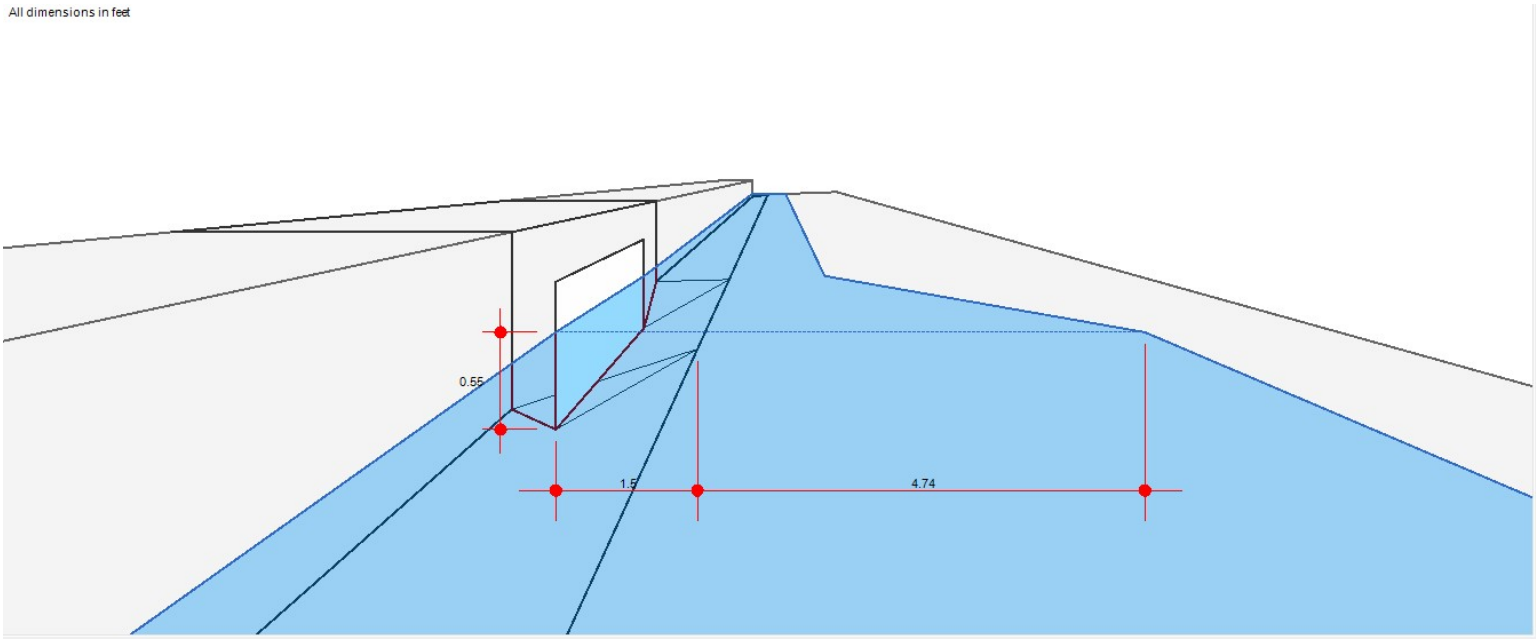
| | |
|---|---|
| Slope, Sw (ft/ft) | = 0.080 |
| Slope, Sx (ft/ft) | = 0.020 |
| Local Depr (in) | = 4.00 |
| Gutter Width (ft) | = 1.50 |
| Gutter Slope (%) | = 3.00 |
| Gutter n-value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Q (cfs) | = 1.79 |

**Highlighted**

| | |
|---|---|
| Q Total (cfs) | = 1.79 |
| Q Capt (cfs) | = 1.21 |
| Q Bypass (cfs) | = 0.58 |
| Depth at Inlet (in) | = 6.58 |
| Efficiency (%) | = 68 |
| Gutter Spread (ft) | = 6.24 |
| Gutter Vel (ft/s) | = 3.92 |
| Bypass Spread (ft) | = 3.19 |
| Bypass Depth (in) | = 1.84 |



# Inlet Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Oct 2 2024

## CI-A2 (25 YEAR)

**Curb Inlet**

| | |
|---|---|
| Location | = On grade |
| Curb Length (ft) | = 4.00 |
| Throat Height (in) | = 2.00 |
| Grate Area (sqft) | = -0- |
| Grate Width (ft) | = -0- |
| Grate Length (ft) | = -0- |

**Gutter**

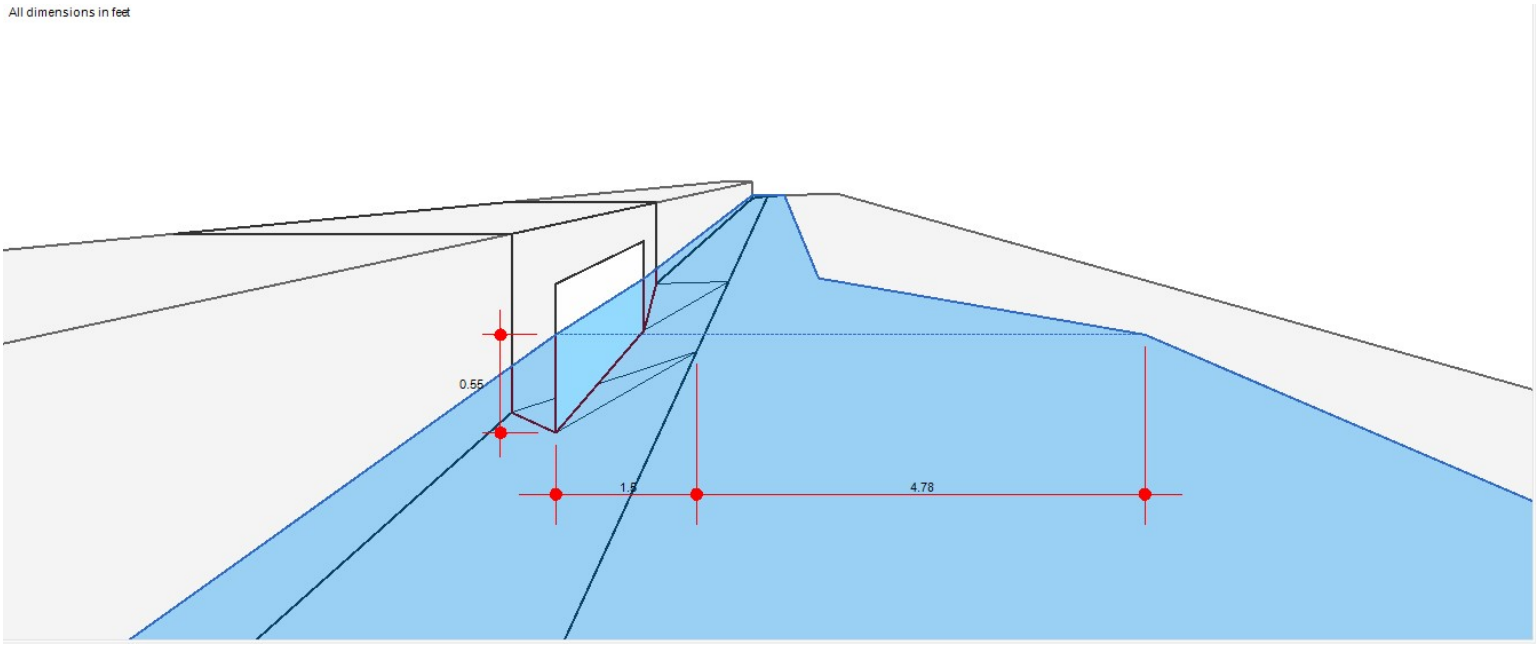
| | |
|---|---|
| Slope, Sw (ft/ft) | = 0.080 |
| Slope, Sx (ft/ft) | = 0.020 |
| Local Depr (in) | = 4.00 |
| Gutter Width (ft) | = 1.50 |
| Gutter Slope (%) | = 2.80 |
| Gutter n-value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Q (cfs) | = 1.75 |

**Highlighted**

| | |
|---|---|
| Q Total (cfs) | = 1.75 |
| Q Capt (cfs) | = 1.21 |
| Q Bypass (cfs) | = 0.54 |
| Depth at Inlet (in) | = 6.59 |
| Efficiency (%) | = 69 |
| Gutter Spread (ft) | = 6.28 |
| Gutter Vel (ft/s) | = 3.79 |
| Bypass Spread (ft) | = 3.10 |
| Bypass Depth (in) | = 1.82 |



# Inlet Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Oct 2 2024

## CI-A3 (25 YEAR)

**Curb Inlet**

| | |
|---|---|
| Location | = On grade |
| Curb Length (ft) | = 4.00 |
| Throat Height (in) | = 2.00 |
| Grate Area (sqft) | = -0- |
| Grate Width (ft) | = -0- |
| Grate Length (ft) | = -0- |

**Gutter**

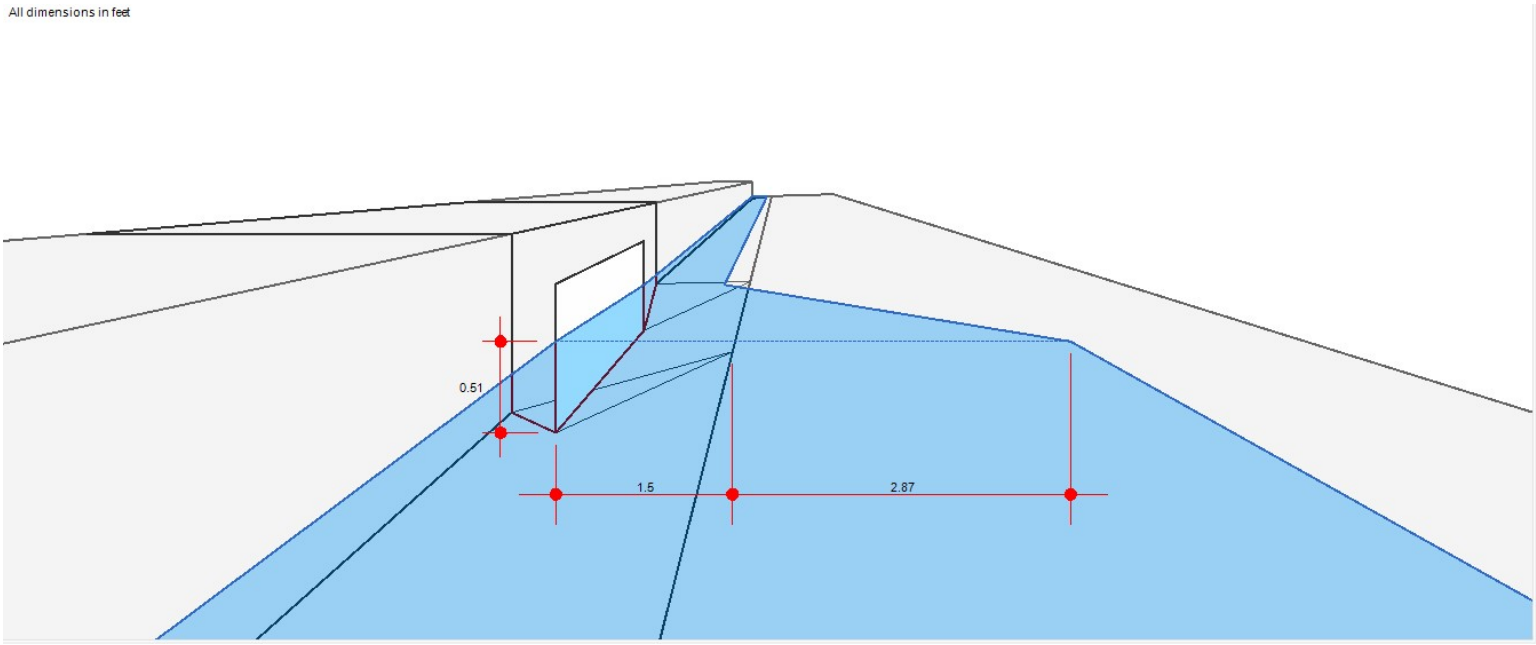
| | |
|---|---|
| Slope, Sw (ft/ft) | = 0.080 |
| Slope, Sx (ft/ft) | = 0.020 |
| Local Depr (in) | = 4.00 |
| Gutter Width (ft) | = 1.50 |
| Gutter Slope (%) | = 3.40 |
| Gutter n-value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Q (cfs) | = 0.98 |

**Highlighted**

| | |
|---|---|
| Q Total (cfs) | = 0.98 |
| Q Capt (cfs) | = 0.84 |
| Q Bypass (cfs) | = 0.14 |
| Depth at Inlet (in) | = 6.13 |
| Efficiency (%) | = 85 |
| Gutter Spread (ft) | = 4.37 |
| Gutter Vel (ft/s) | = 3.79 |
| Bypass Spread (ft) | = 1.14 |
| Bypass Depth (in) | = 1.09 |



# Inlet Report



## CI-A4

**Curb Inlet**

| | |
|---|---|
| Location | = On grade |
| Curb Length (ft) | = 4.00 |
| Throat Height (in) | = 2.00 |
| Grate Area (sqft) | = -0- |
| Grate Width (ft) | = -0- |
| Grate Length (ft) | = -0- |

**Gutter**

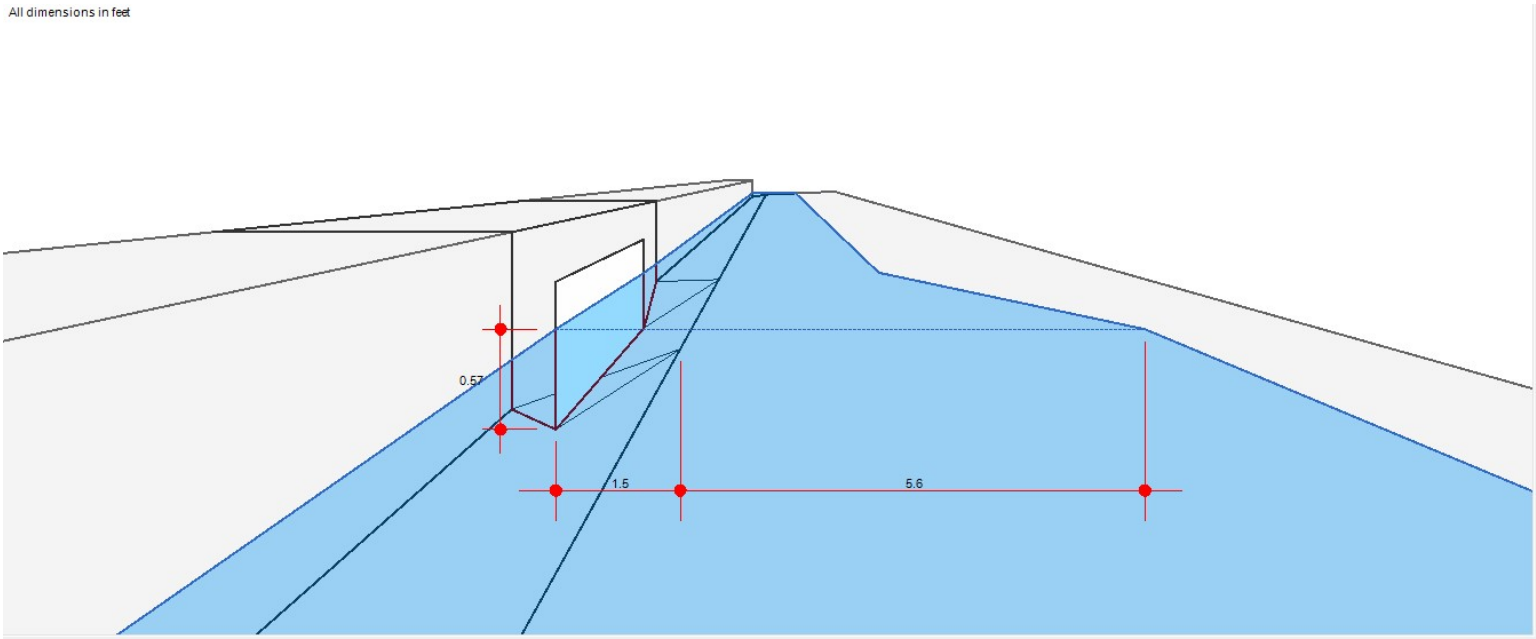
| | |
|---|---|
| Slope, Sw (ft/ft) | = 0.080 |
| Slope, Sx (ft/ft) | = 0.020 |
| Local Depr (in) | = 4.00 |
| Gutter Width (ft) | = 1.50 |
| Gutter Slope (%) | = 3.60 |
| Gutter n-value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Q (cfs) | = 2.57 |

**Highlighted**

| | |
|---|---|
| Q Total (cfs) | = 2.57 |
| Q Capt (cfs) | = 1.42 |
| Q Bypass (cfs) | = 1.15 |
| Depth at Inlet (in) | = 6.78 |
| Efficiency (%) | = 55 |
| Gutter Spread (ft) | = 7.10 |
| Gutter Vel (ft/s) | = 4.50 |
| Bypass Spread (ft) | = 4.72 |
| Bypass Depth (in) | = 2.21 |



# Inlet Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Thursday, Oct 31 2024

## CI-A5

**Curb Inlet**

| | |
|---|---|
| Location | = On grade |
| Curb Length (ft) | = 4.00 |
| Throat Height (in) | = 2.00 |
| Grate Area (sqft) | = -0- |
| Grate Width (ft) | = -0- |
| Grate Length (ft) | = -0- |

**Gutter**

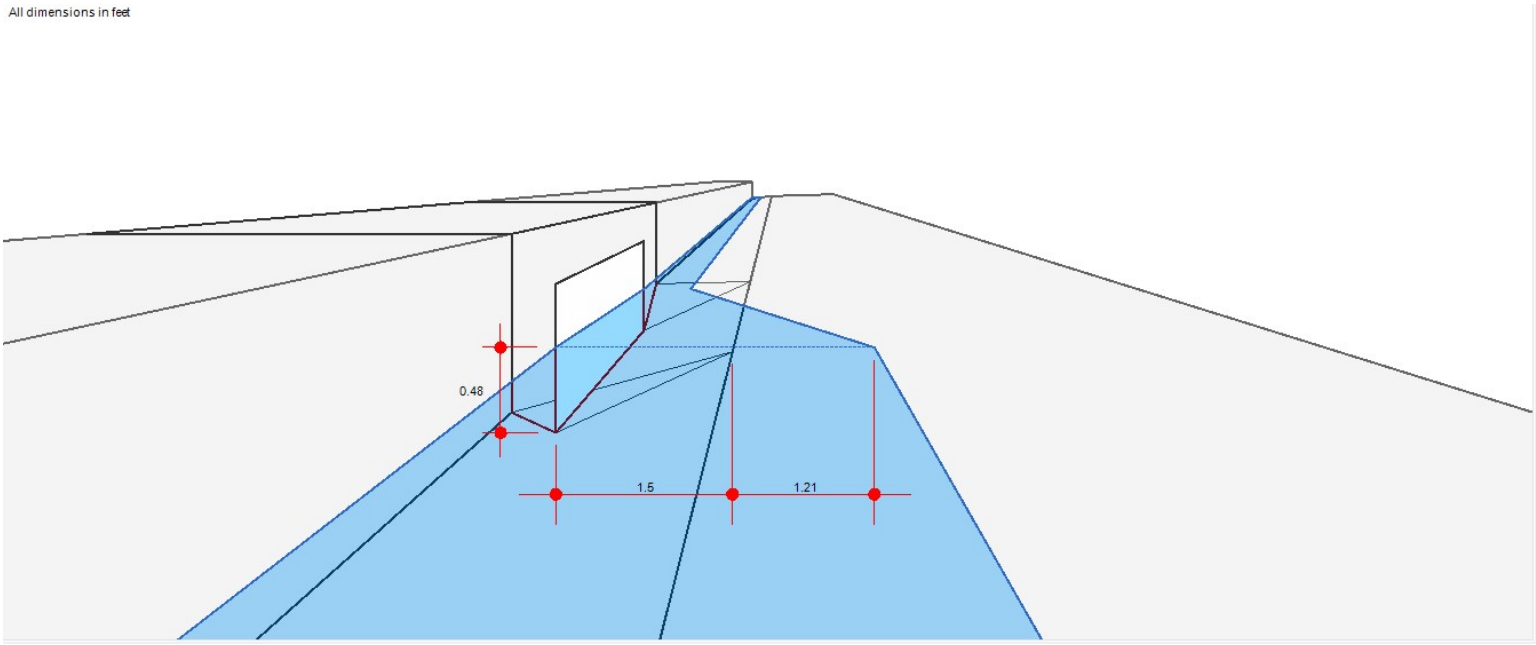
| | |
|---|---|
| Slope, Sw (ft/ft) | = 0.080 |
| Slope, Sx (ft/ft) | = 0.020 |
| Local Depr (in) | = 4.00 |
| Gutter Width (ft) | = 1.50 |
| Gutter Slope (%) | = 5.00 |
| Gutter n-value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Q (cfs) | = 0.61 |

**Highlighted**

| | |
|---|---|
| Q Total (cfs) | = 0.61 |
| Q Capt (cfs) | = 0.57 |
| Q Bypass (cfs) | = 0.04 |
| Depth at Inlet (in) | = 5.73 |
| Efficiency (%) | = 93 |
| Gutter Spread (ft) | = 2.71 |
| Gutter Vel (ft/s) | = 4.34 |
| Bypass Spread (ft) | = 0.66 |
| Bypass Depth (in) | = 0.63 |



# Inlet Report



## AI-B1 (25 YEAR)

**Drop Grate Inlet**

| | |
|---|---|
| Location | = Sag |
| Curb Length (ft) | = -0- |
| Throat Height (in) | = -0- |
| Grate Area (sqft) | = 1.00 |
| Grate Width (ft) | = 1.00 |
| Grate Length (ft) | = 1.00 |

**Gutter**

| | |
|---|---|
| Slope, Sw (ft/ft) | = 0.020 |
| Slope, Sx (ft/ft) | = 0.020 |
| Local Depr (in) | = -0- |
| Gutter Width (ft) | = 1.40 |
| Gutter Slope (%) | = -0- |
| Gutter n-value | = -0- |

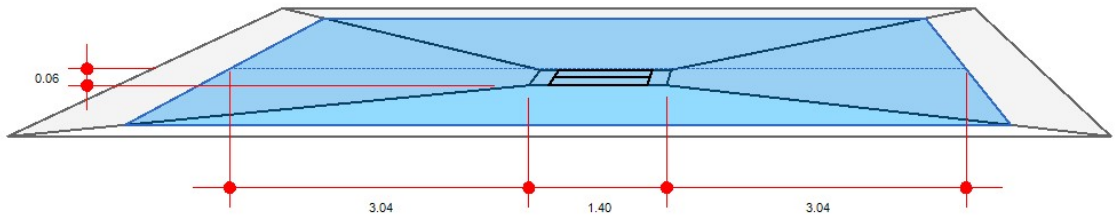
**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Q (cfs) | = 0.18 |

**Highlighted**

| | |
|---|---|
| Q Total (cfs) | = 0.18 |
| Q Capt (cfs) | = 0.18 |
| Q Bypass (cfs) | = -0- |
| Depth at Inlet (in) | = 0.73 |
| Efficiency (%) | = 100 |
| Gutter Spread (ft) | = 7.47 |
| Gutter Vel (ft/s) | = -0- |
| Bypass Spread (ft) | = -0- |
| Bypass Depth (in) | = -0- |

All dimensions in feet



# Inlet Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Oct 2 2024

## AI-B2 (25 YEAR)

**Drop Grate Inlet**

| | |
|---|---|
| Location | = Sag |
| Curb Length (ft) | = -0- |
| Throat Height (in) | = -0- |
| Grate Area (sqft) | = 1.00 |
| Grate Width (ft) | = 1.00 |
| Grate Length (ft) | = 1.00 |

**Gutter**

| | |
|---|---|
| Slope, Sw (ft/ft) | = 0.020 |
| Slope, Sx (ft/ft) | = 0.020 |
| Local Depr (in) | = -0- |
| Gutter Width (ft) | = 1.40 |
| Gutter Slope (%) | = -0- |
| Gutter n-value | = -0- |

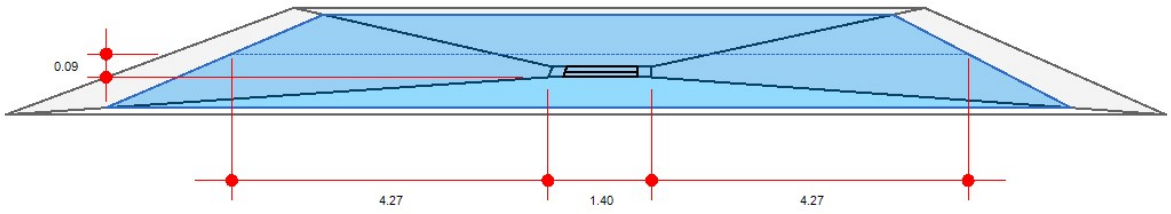
**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Q (cfs) | = 0.30 |

**Highlighted**

| | |
|---|---|
| Q Total (cfs) | = 0.30 |
| Q Capt (cfs) | = 0.30 |
| Q Bypass (cfs) | = -0- |
| Depth at Inlet (in) | = 1.02 |
| Efficiency (%) | = 100 |
| Gutter Spread (ft) | = 9.94 |
| Gutter Vel (ft/s) | = 3.79 |
| Bypass Spread (ft) | = -0- |
| Bypass Depth (in) | = -0- |

All dimensions in feet



# Inlet Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Oct 2 2024

## CI-C1 (25 YEAR)

**Curb Inlet**

| | |
|---|---|
| Location | = On grade |
| Curb Length (ft) | = 4.00 |
| Throat Height (in) | = 2.00 |
| Grate Area (sqft) | = -0- |
| Grate Width (ft) | = -0- |
| Grate Length (ft) | = -0- |

**Gutter**

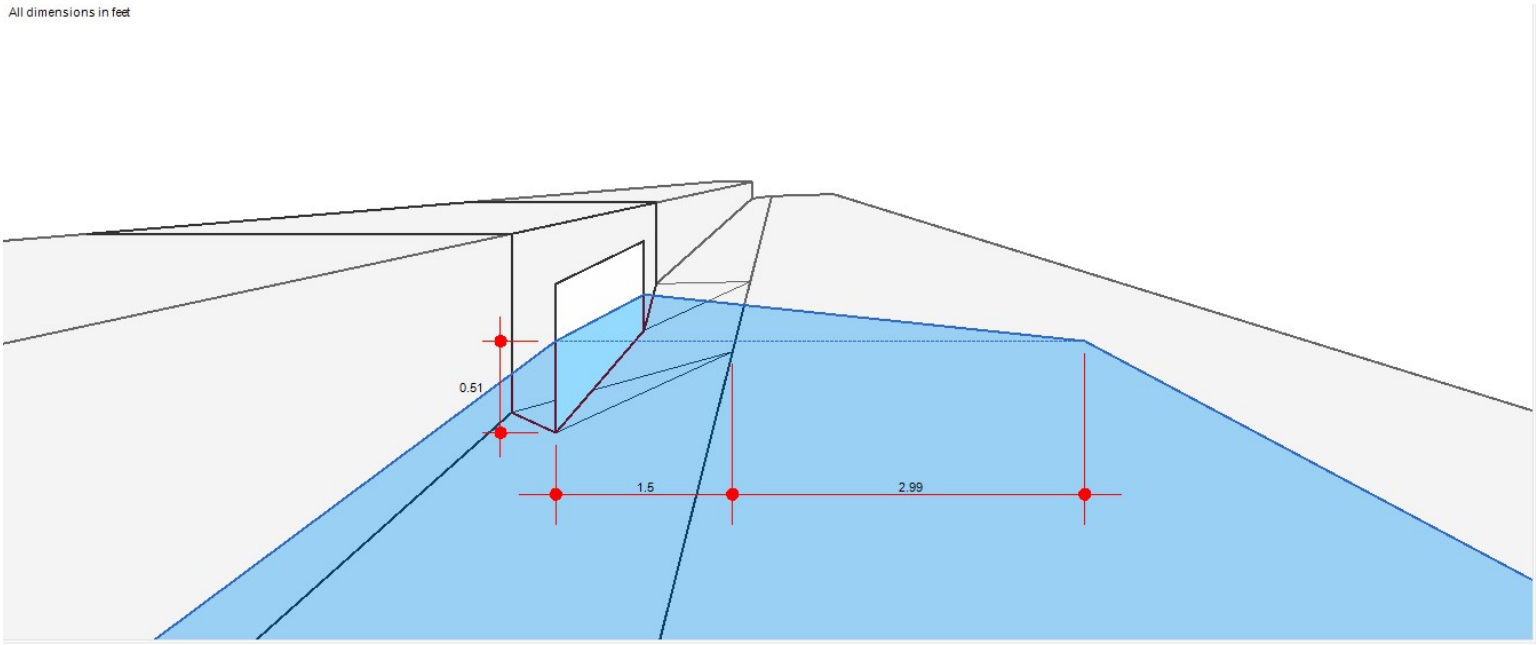
| | |
|---|---|
| Slope, Sw (ft/ft) | = 0.080 |
| Slope, Sx (ft/ft) | = 0.020 |
| Local Depr (in) | = 4.00 |
| Gutter Width (ft) | = 1.50 |
| Gutter Slope (%) | = 1.20 |
| Gutter n-value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Q (cfs) | = 0.61 |

**Highlighted**

| | |
|---|---|
| Q Total (cfs) | = 0.61 |
| Q Capt (cfs) | = 0.61 |
| Q Bypass (cfs) | = -0- |
| Depth at Inlet (in) | = 6.16 |
| Efficiency (%) | = 100 |
| Gutter Spread (ft) | = 4.49 |
| Gutter Vel (ft/s) | = 2.27 |
| Bypass Spread (ft) | = -0- |
| Bypass Depth (in) | = -0- |



# Inlet Report



## CI-C2 (25 YEAR)

**Curb Inlet**

| | |
|---|---|
| Location | = On grade |
| Curb Length (ft) | = 4.00 |
| Throat Height (in) | = 2.00 |
| Grate Area (sqft) | = -0- |
| Grate Width (ft) | = -0- |
| Grate Length (ft) | = -0- |

**Gutter**

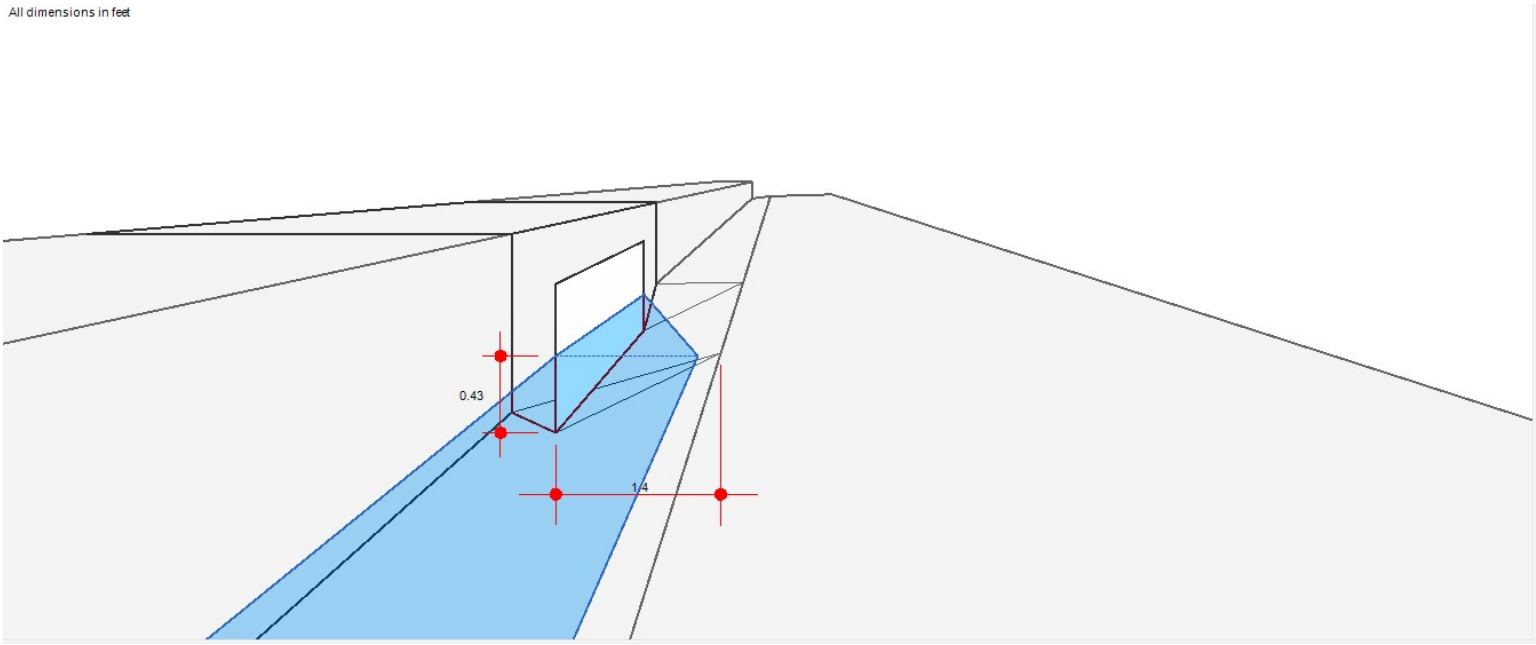
| | |
|---|---|
| Slope, Sw (ft/ft) | = 0.080 |
| Slope, Sx (ft/ft) | = 0.020 |
| Local Depr (in) | = 4.00 |
| Gutter Width (ft) | = 1.40 |
| Gutter Slope (%) | = 1.20 |
| Gutter n-value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Q (cfs) | = 0.10 |

**Highlighted**

| | |
|---|---|
| Q Total (cfs) | = 0.10 |
| Q Capt (cfs) | = 0.10 |
| Q Bypass (cfs) | = -0- |
| Depth at Inlet (in) | = 5.16 |
| Efficiency (%) | = 100 |
| Gutter Spread (ft) | = 1.21 |
| Gutter Vel (ft/s) | = 1.72 |
| Bypass Spread (ft) | = -0- |
| Bypass Depth (in) | = -0- |



# Inlet Report



## CI-C4 (25 YEAR)

**Curb Inlet**

| | |
|---|---|
| Location | = On grade |
| Curb Length (ft) | = 4.00 |
| Throat Height (in) | = 2.00 |
| Grate Area (sqft) | = -0- |
| Grate Width (ft) | = -0- |
| Grate Length (ft) | = -0- |

**Gutter**

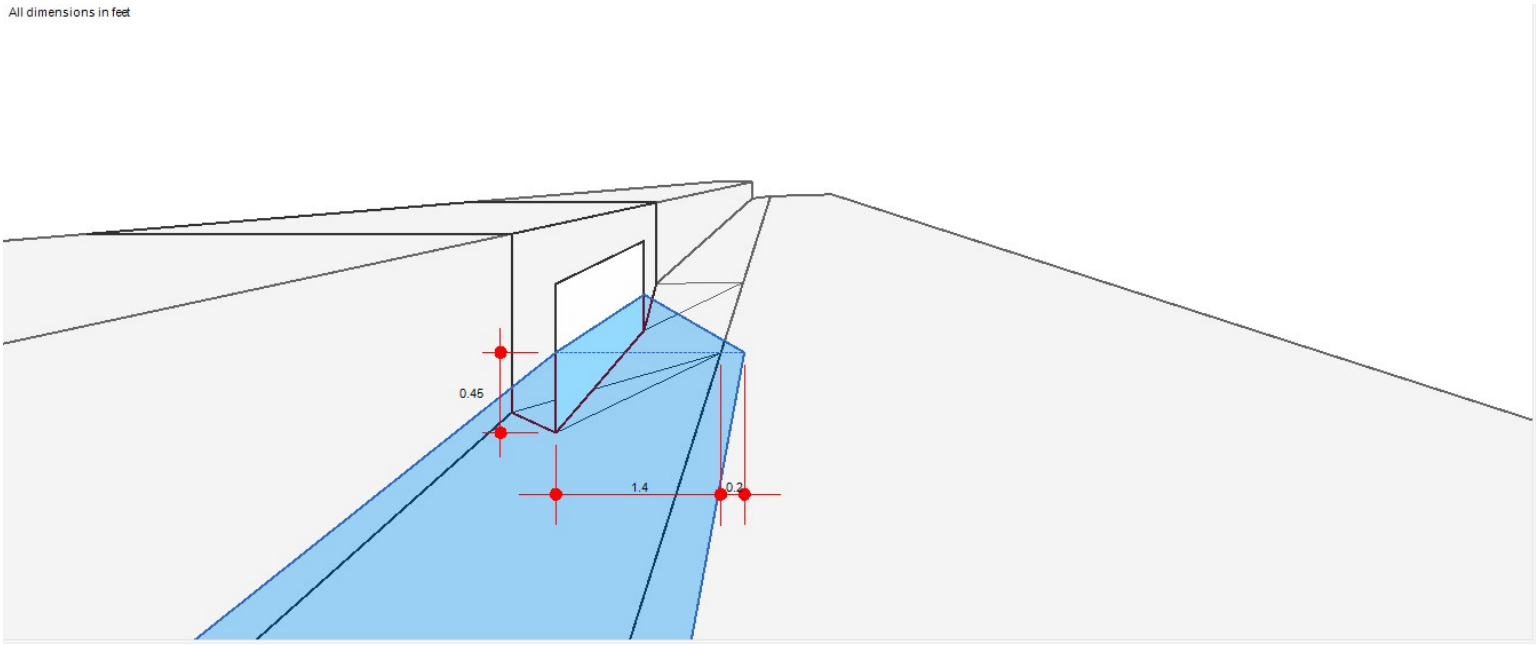
| | |
|---|---|
| Slope, Sw (ft/ft) | = 0.080 |
| Slope, Sx (ft/ft) | = 0.020 |
| Local Depr (in) | = 4.00 |
| Gutter Width (ft) | = 1.40 |
| Gutter Slope (%) | = 4.90 |
| Gutter n-value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Q (cfs) | = 0.33 |

**Highlighted**

| | |
|---|---|
| Q Total (cfs) | = 0.33 |
| Q Capt (cfs) | = 0.33 |
| Q Bypass (cfs) | = -0- |
| Depth at Inlet (in) | = 5.39 |
| Efficiency (%) | = 100 |
| Gutter Spread (ft) | = 1.60 |
| Gutter Vel (ft/s) | = 3.91 |
| Bypass Spread (ft) | = -0- |
| Bypass Depth (in) | = -0- |



# Inlet Report



## CI-C5 (25 YEAR)

**Curb Inlet**

| | |
|---|---|
| Location | = On grade |
| Curb Length (ft) | = 4.00 |
| Throat Height (in) | = 2.00 |
| Grate Area (sqft) | = -0- |
| Grate Width (ft) | = -0- |
| Grate Length (ft) | = -0- |

**Gutter**

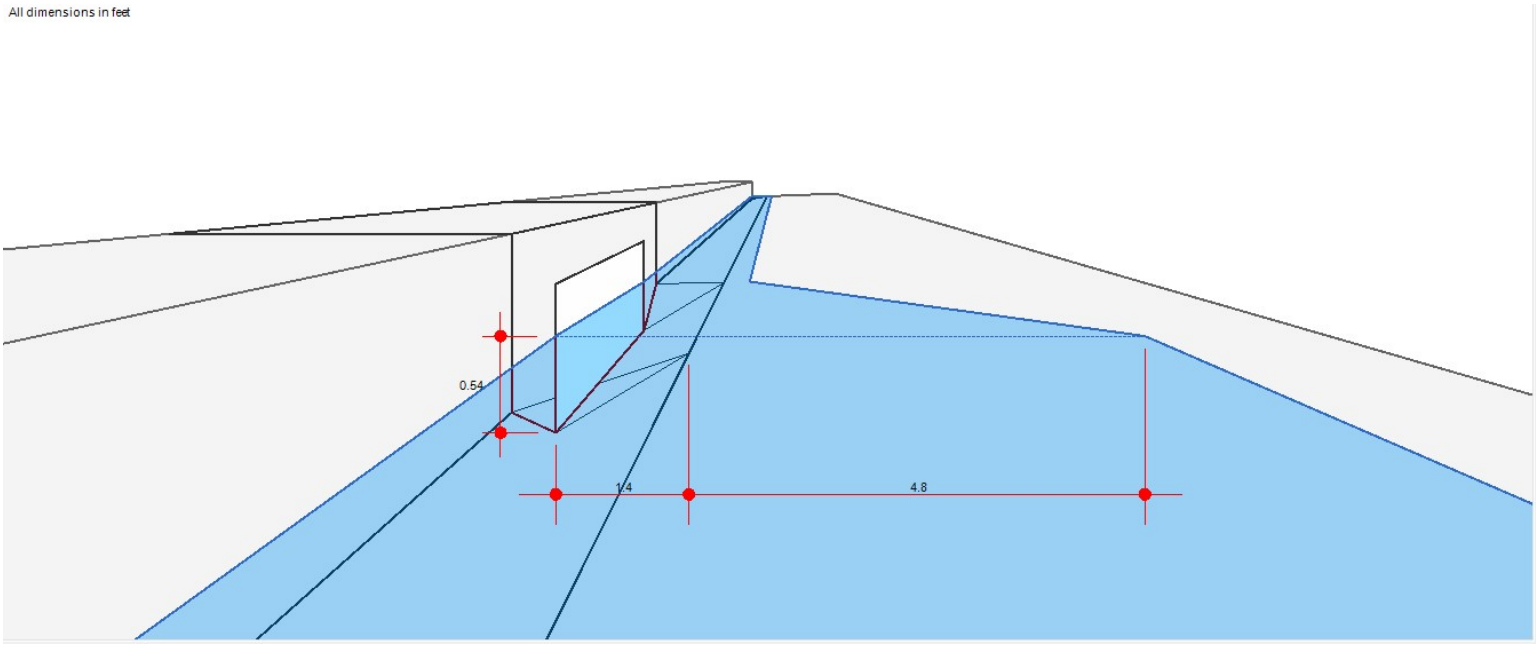
| | |
|---|---|
| Slope, Sw (ft/ft) | = 0.080 |
| Slope, Sx (ft/ft) | = 0.020 |
| Local Depr (in) | = 4.00 |
| Gutter Width (ft) | = 1.40 |
| Gutter Slope (%) | = 1.80 |
| Gutter n-value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Q (cfs) | = 1.31 |

**Highlighted**

| | |
|---|---|
| Q Total (cfs) | = 1.31 |
| Q Capt (cfs) | = 1.09 |
| Q Bypass (cfs) | = 0.22 |
| Depth at Inlet (in) | = 6.49 |
| Efficiency (%) | = 83 |
| Gutter Spread (ft) | = 6.20 |
| Gutter Vel (ft/s) | = 2.96 |
| Bypass Spread (ft) | = 1.85 |
| Bypass Depth (in) | = 1.45 |



# Inlet Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Oct 2 2024

## CI-D1 (25 YEAR)

**Curb Inlet**

| | |
|---|---|
| Location | = On grade |
| Curb Length (ft) | = 4.00 |
| Throat Height (in) | = 2.00 |
| Grate Area (sqft) | = -0- |
| Grate Width (ft) | = -0- |
| Grate Length (ft) | = -0- |

**Gutter**

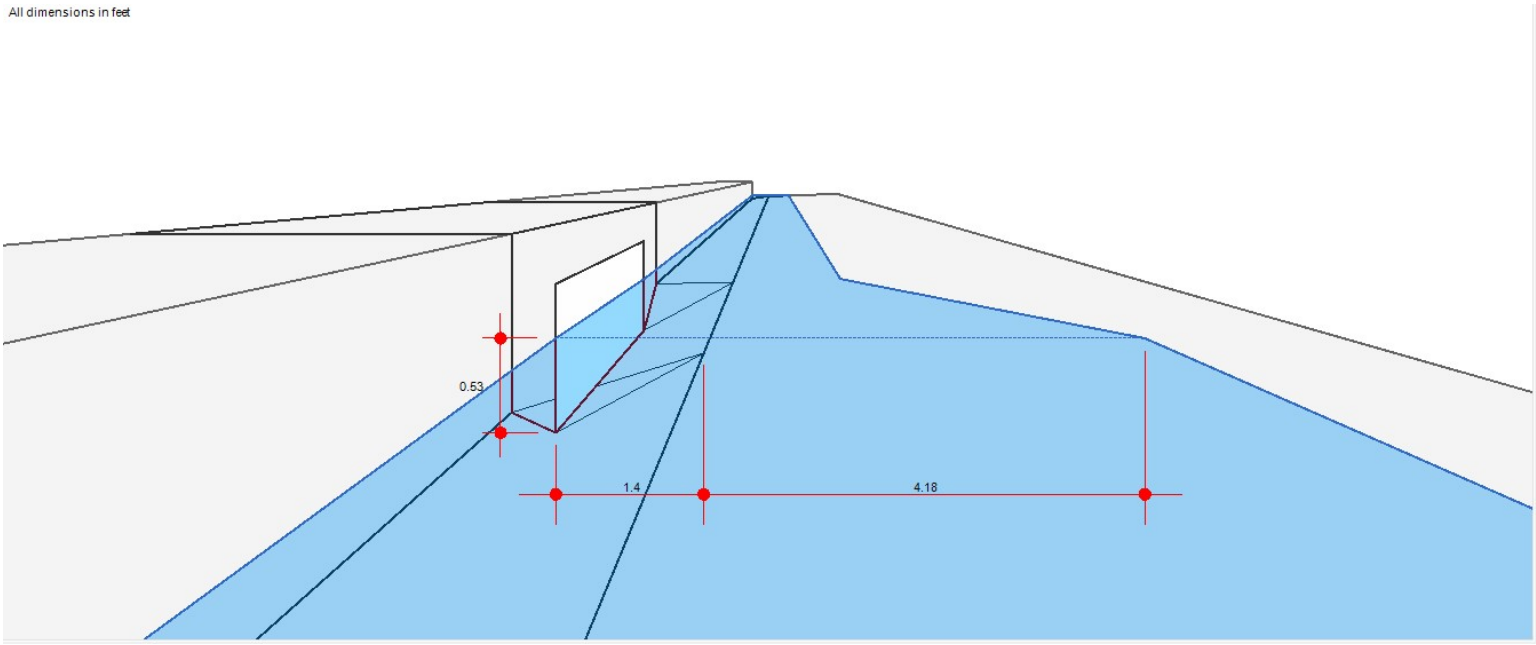
| | |
|---|---|
| Slope, Sw (ft/ft) | = 0.080 |
| Slope, Sx (ft/ft) | = 0.020 |
| Local Depr (in) | = 4.00 |
| Gutter Width (ft) | = 1.40 |
| Gutter Slope (%) | = 5.00 |
| Gutter n-value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Q (cfs) | = 1.76 |

**Highlighted**

| | |
|---|---|
| Q Total (cfs) | = 1.76 |
| Q Capt (cfs) | = 1.11 |
| Q Bypass (cfs) | = 0.65 |
| Depth at Inlet (in) | = 6.35 |
| Efficiency (%) | = 63 |
| Gutter Spread (ft) | = 5.58 |
| Gutter Vel (ft/s) | = 4.76 |
| Bypass Spread (ft) | = 3.10 |
| Bypass Depth (in) | = 1.75 |



# Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Oct 2 2024

## PIPE A1 (25 YEAR)

**Circular**

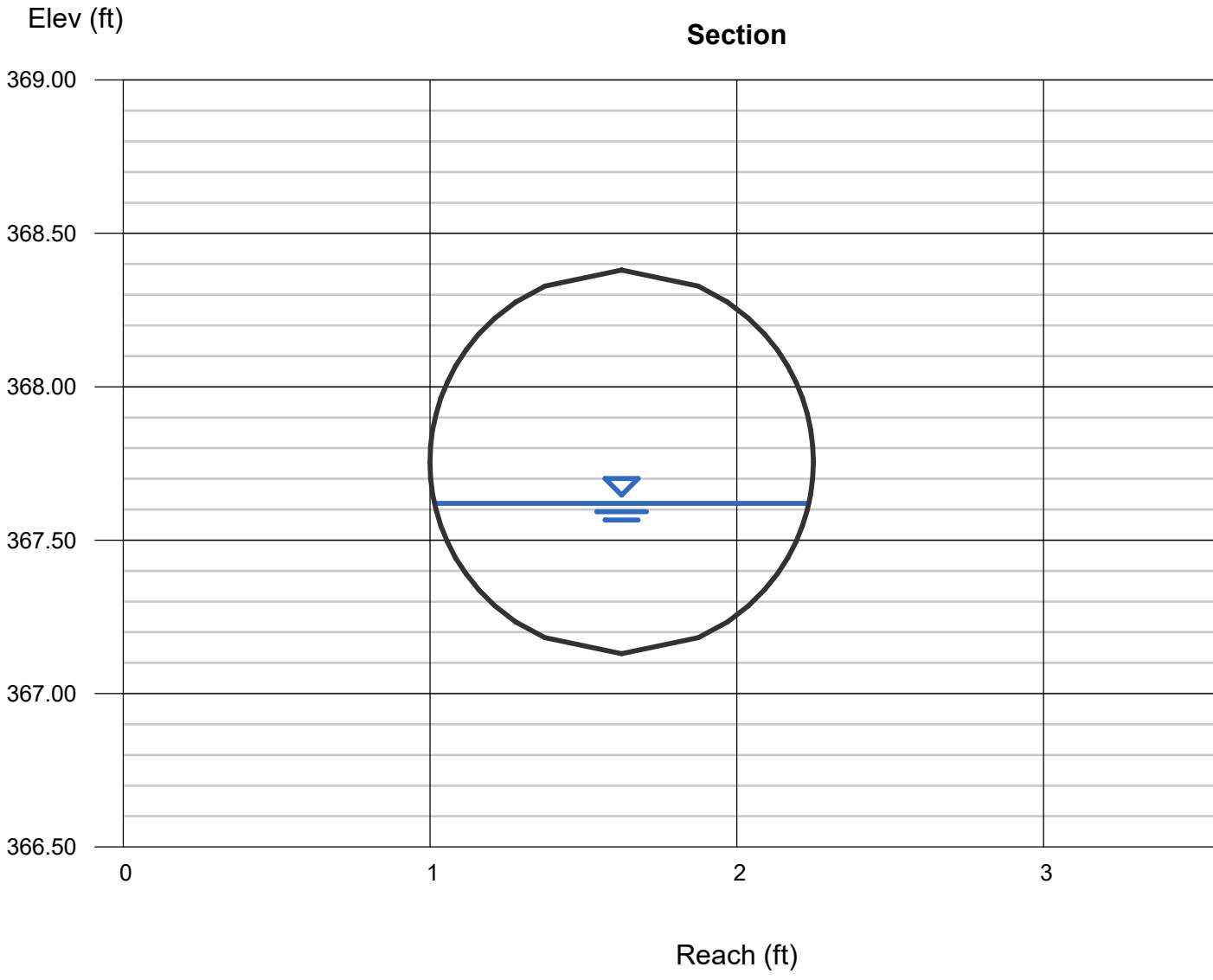
| | |
|---|---|
| Diameter (ft) | = 1.25 |
| Invert Elev (ft) | = 367.13 |
| Slope (%) | = 1.03 |
| N-Value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Known Q (cfs) | = 1.79 |

**Highlighted**

| | |
|---|---|
| Depth (ft) | = 0.49 |
| Q (cfs) | = 1.790 |
| Area (sqft) | = 0.45 |
| Velocity (ft/s) | = 4.00 |
| Wetted Perim (ft) | = 1.69 |
| Crit Depth, Yc (ft) | = 0.54 |
| Top Width (ft) | = 1.22 |
| EGL (ft) | = 0.74 |



# Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Oct 2 2024

## PIPE A2 (25 YEAR)

**Circular**

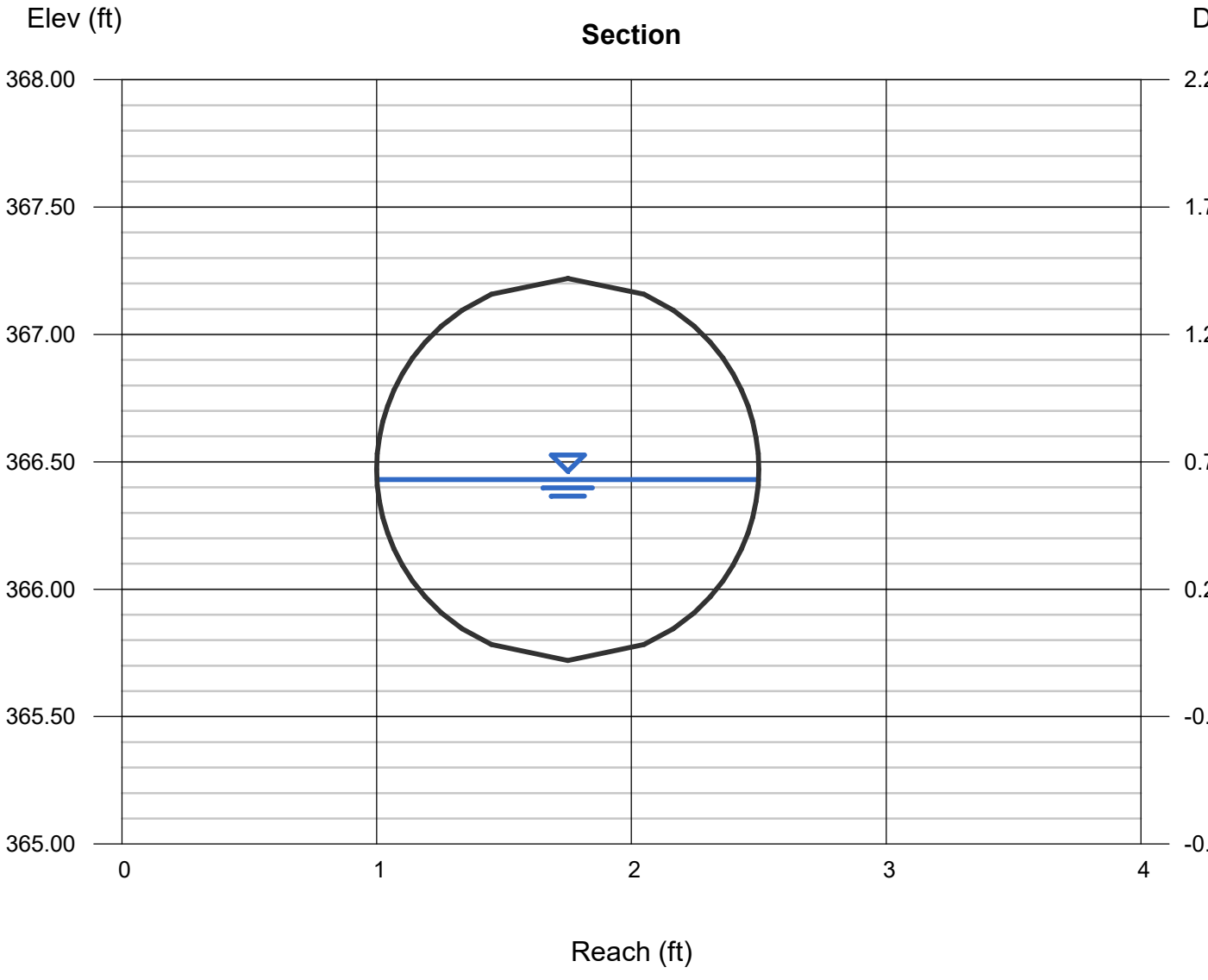
| | |
|---|---|
| Diameter (ft) | = 1.50 |
| Invert Elev (ft) | = 365.72 |
| Slope (%) | = 0.95 |
| N-Value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Known Q (cfs) | = 4.02 |

**Highlighted**

| | |
|---|---|
| Depth (ft) | = 0.71 |
| Q (cfs) | = 4.020 |
| Area (sqft) | = 0.83 |
| Velocity (ft/s) | = 4.86 |
| Wetted Perim (ft) | = 2.28 |
| Crit Depth, Yc (ft) | = 0.77 |
| Top Width (ft) | = 1.50 |
| EGL (ft) | = 1.08 |



# Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Oct 2 2024

## PIPE A3 (25 YEAR)

**Circular**

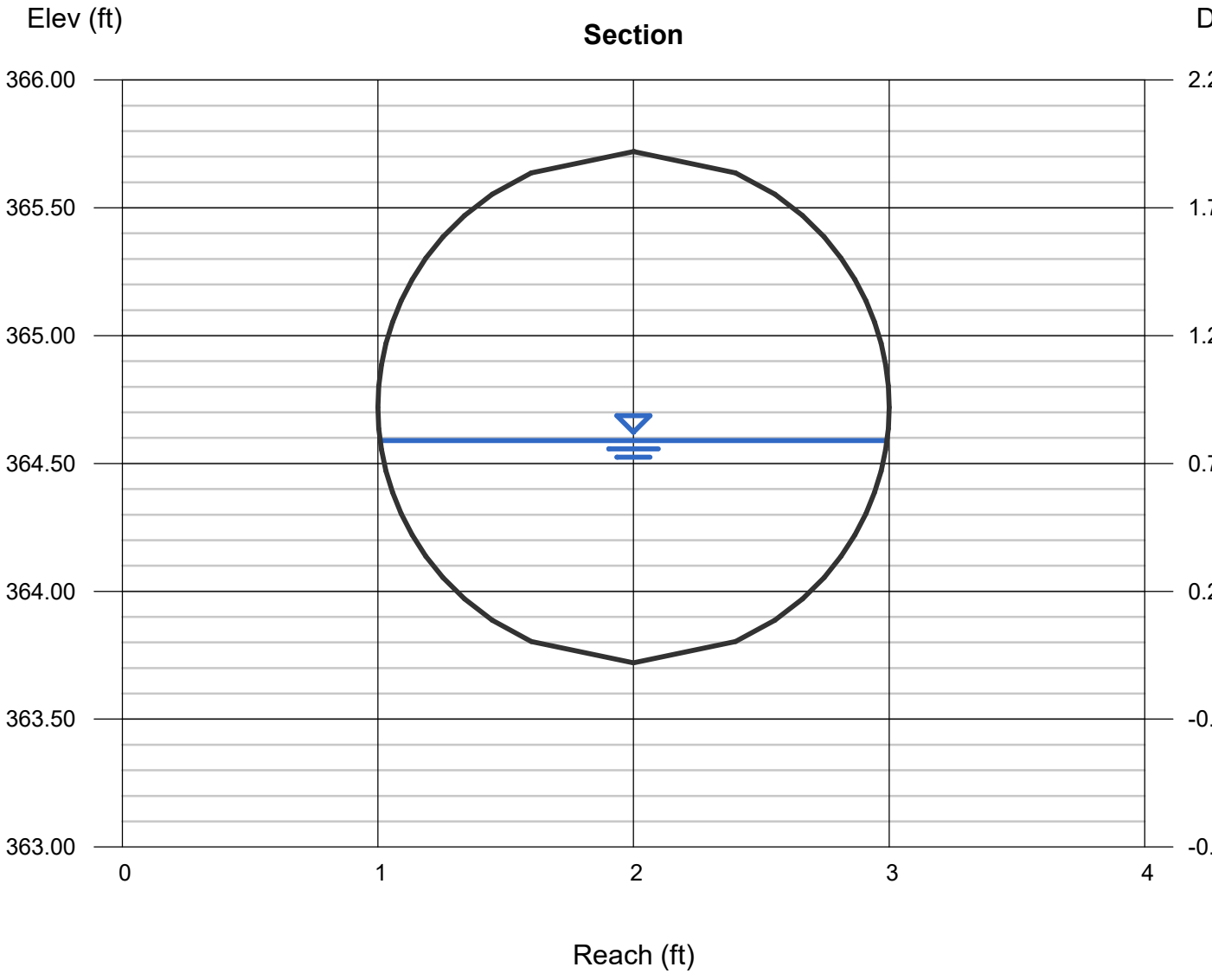
| | |
|---|---|
| Diameter (ft) | = 2.00 |
| Invert Elev (ft) | = 363.72 |
| Slope (%) | = 0.98 |
| N-Value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Known Q (cfs) | = 7.56 |

**Highlighted**

| | |
|---|---|
| Depth (ft) | = 0.87 |
| Q (cfs) | = 7.560 |
| Area (sqft) | = 1.32 |
| Velocity (ft/s) | = 5.72 |
| Wetted Perim (ft) | = 2.89 |
| Crit Depth, Yc (ft) | = 0.98 |
| Top Width (ft) | = 1.98 |
| EGL (ft) | = 1.38 |



# Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Oct 2 2024

## PIPE A4 (25 YEAR)

**Circular**

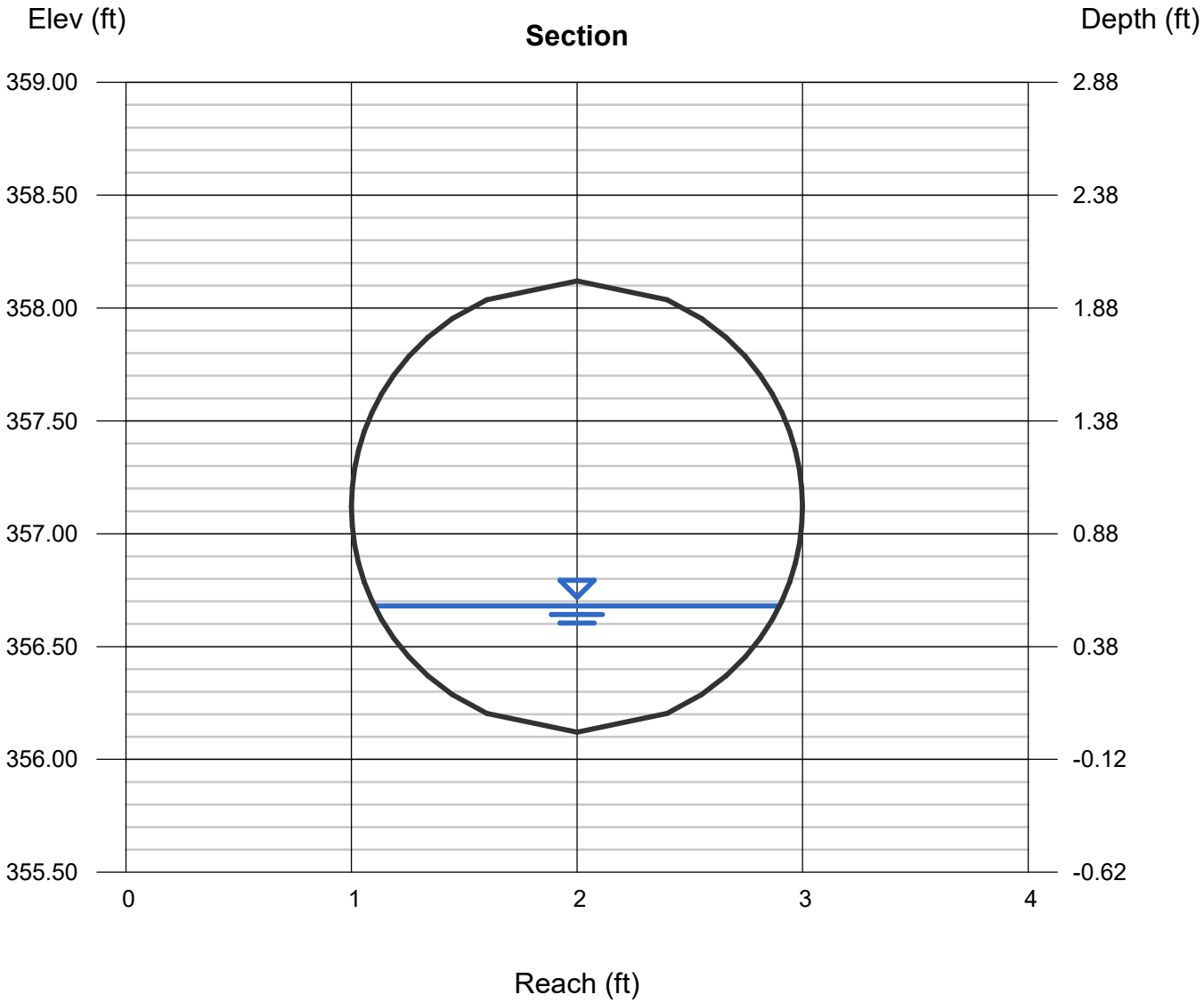
| | |
|---|---|
| Diameter (ft) | = 2.00 |
| Invert Elev (ft) | = 356.12 |
| Slope (%) | = 5.01 |
| N-Value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Known Q (cfs) | = 7.56 |

**Highlighted**

| | |
|---|---|
| Depth (ft) | = 0.56 |
| Q (cfs) | = 7.560 |
| Area (sqft) | = 0.73 |
| Velocity (ft/s) | = 10.39 |
| Wetted Perim (ft) | = 2.24 |
| Crit Depth, Yc (ft) | = 0.98 |
| Top Width (ft) | = 1.80 |
| EGL (ft) | = 2.24 |



# Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Thursday, Oct 31 2024

## PIPE A5 (25 YEAR)

**Circular**

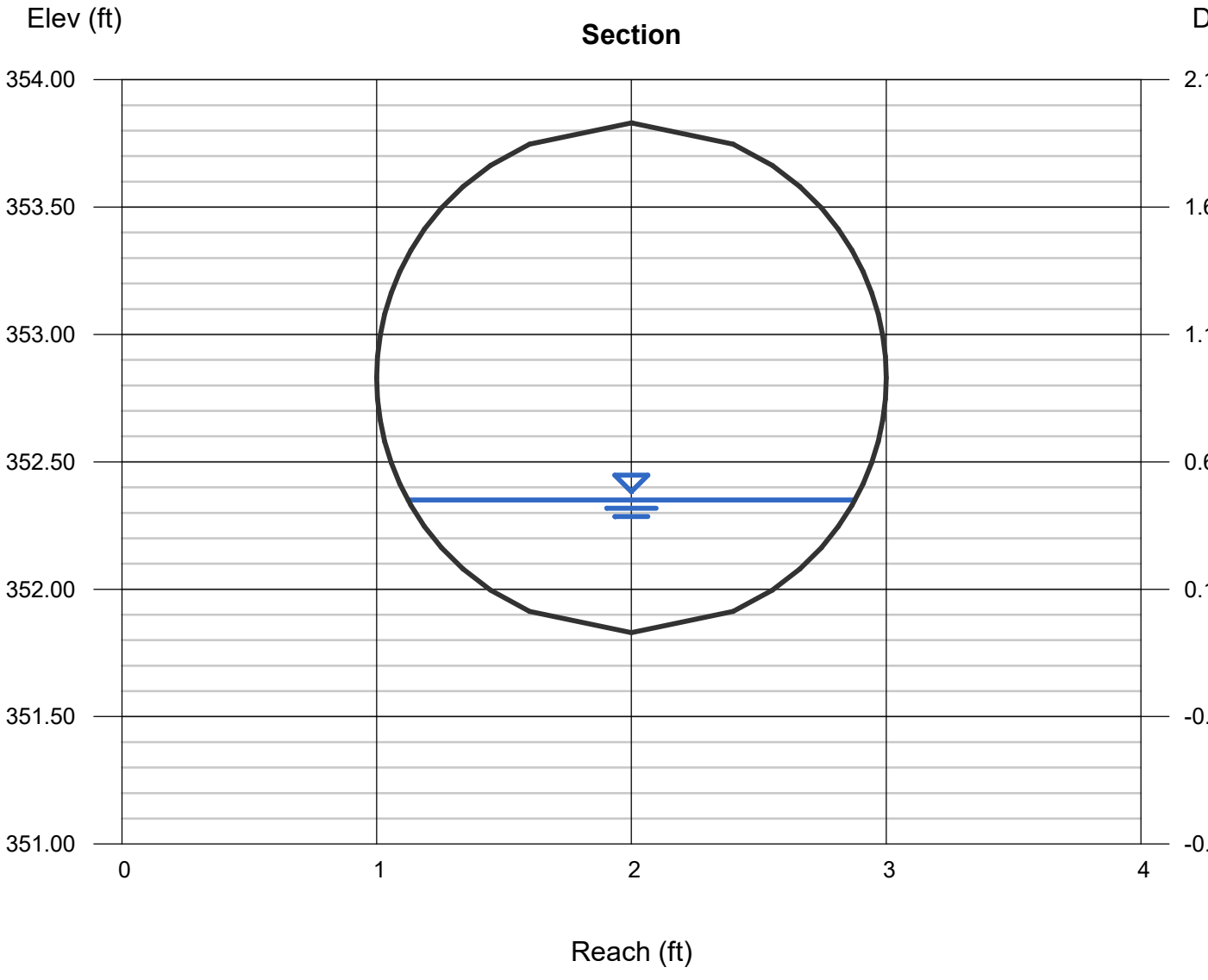
| | |
|---|---|
| Diameter (ft) | = 2.00 |
| Invert Elev (ft) | = 351.83 |
| Slope (%) | = 8.14 |
| N-Value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Known Q (cfs) | = 8.18 |

**Highlighted**

| | |
|---|---|
| Depth (ft) | = 0.52 |
| Q (cfs) | = 8.180 |
| Area (sqft) | = 0.66 |
| Velocity (ft/s) | = 12.46 |
| Wetted Perim (ft) | = 2.15 |
| Crit Depth, Yc (ft) | = 1.02 |
| Top Width (ft) | = 1.76 |
| EGL (ft) | = 2.93 |



# Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Oct 2 2024

## PIPE B1 (25 YEAR)

**Circular**

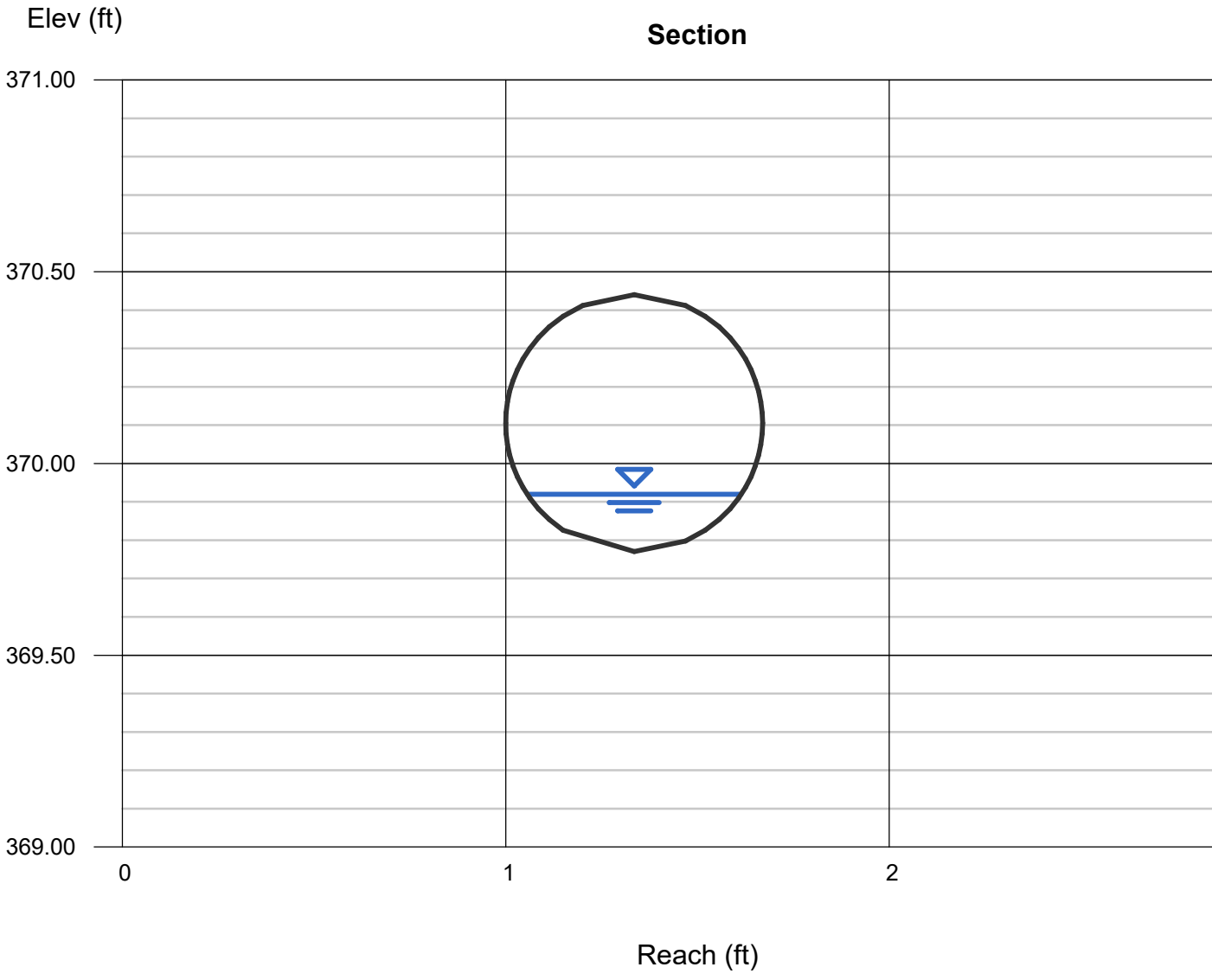
| | |
|---|---|
| Diameter (ft) | = 0.67 |
| Invert Elev (ft) | = 369.77 |
| Slope (%) | = 3.00 |
| N-Value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Known Q (cfs) | = 0.18 |

**Highlighted**

| | |
|---|---|
| Depth (ft) | = 0.15 |
| Q (cfs) | = 0.180 |
| Area (sqft) | = 0.06 |
| Velocity (ft/s) | = 3.02 |
| Wetted Perim (ft) | = 0.66 |
| Crit Depth, Yc (ft) | = 0.20 |
| Top Width (ft) | = 0.56 |
| EGL (ft) | = 0.29 |



# Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Oct 2 2024

## PIPE B2 (25 YEAR)

**Circular**

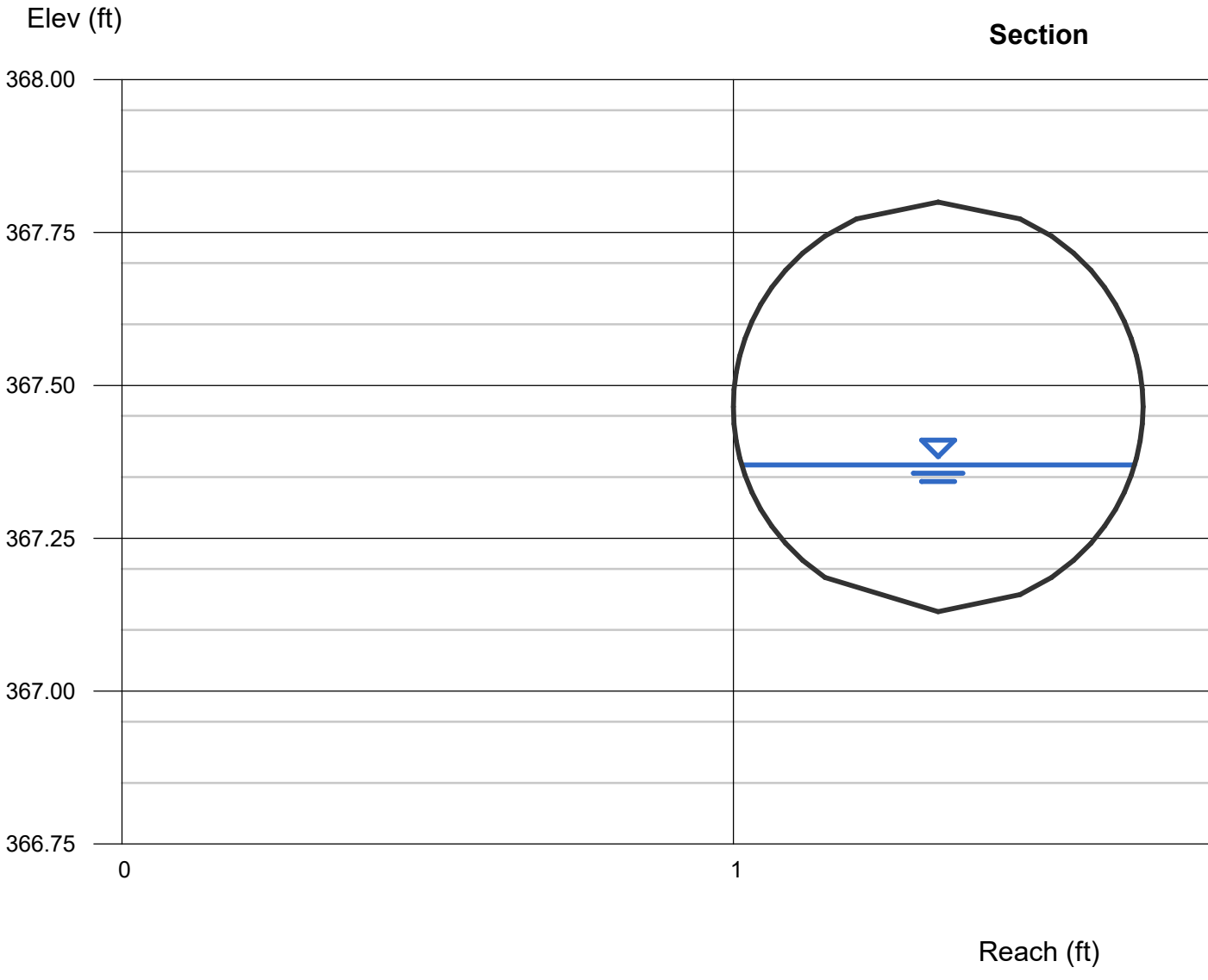
| | |
|---|---|
| Diameter (ft) | = 0.67 |
| Invert Elev (ft) | = 367.13 |
| Slope (%) | = 3.00 |
| N-Value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Known Q (cfs) | = 0.48 |

**Highlighted**

| | |
|---|---|
| Depth (ft) | = 0.24 |
| Q (cfs) | = 0.480 |
| Area (sqft) | = 0.11 |
| Velocity (ft/s) | = 4.22 |
| Wetted Perim (ft) | = 0.86 |
| Crit Depth, Yc (ft) | = 0.33 |
| Top Width (ft) | = 0.64 |
| EGL (ft) | = 0.52 |



# Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Oct 9 2024

## PIPE C1 (25 YEAR)

**Circular**

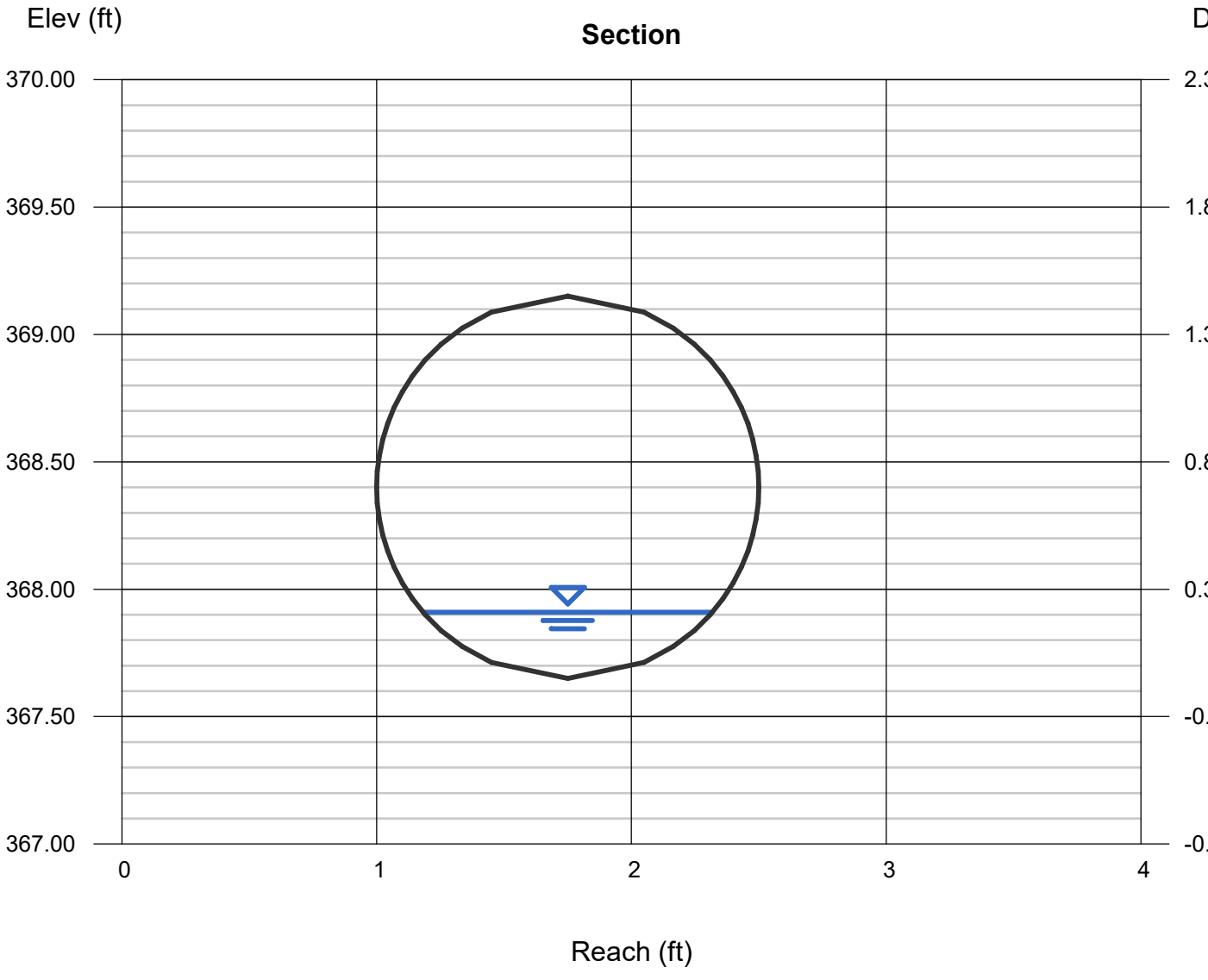
| | |
|---|---|
| Diameter (ft) | = 1.50 |
| Invert Elev (ft) | = 367.65 |
| Slope (%) | = 1.14 |
| N-Value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Known Q (cfs) | = 0.61 |

**Highlighted**

| | |
|---|---|
| Depth (ft) | = 0.26 |
| Q (cfs) | = 0.610 |
| Area (sqft) | = 0.21 |
| Velocity (ft/s) | = 2.97 |
| Wetted Perim (ft) | = 1.29 |
| Crit Depth, Yc (ft) | = 0.29 |
| Top Width (ft) | = 1.14 |
| EGL (ft) | = 0.40 |



# Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Oct 9 2024

## PIPE C2 (25 YEAR)

**Circular**

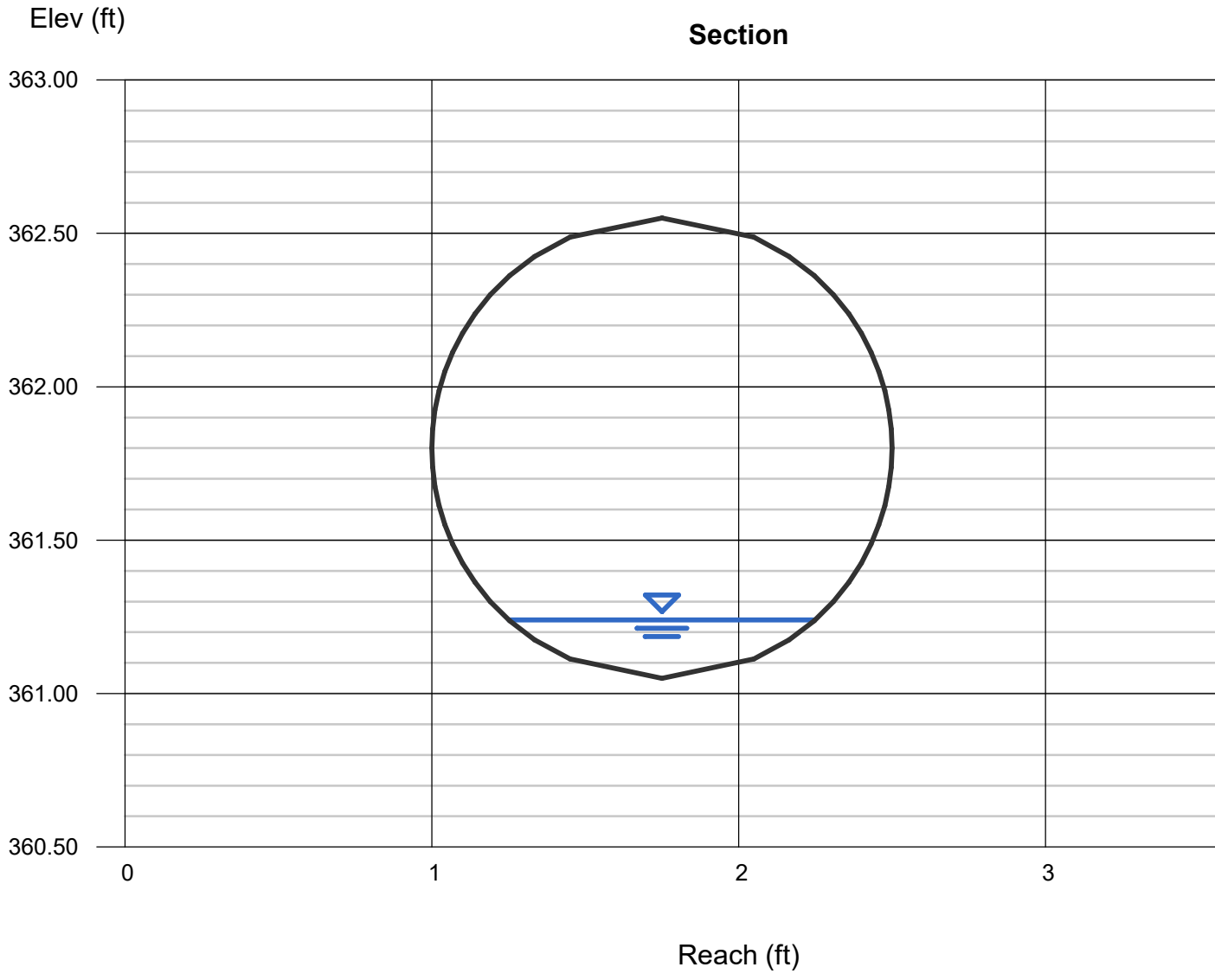
| | |
|---|---|
| Diameter (ft) | = 1.50 |
| Invert Elev (ft) | = 361.05 |
| Slope (%) | = 6.06 |
| N-Value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Known Q (cfs) | = 0.72 |

**Highlighted**

| | |
|---|---|
| Depth (ft) | = 0.19 |
| Q (cfs) | = 0.720 |
| Area (sqft) | = 0.13 |
| Velocity (ft/s) | = 5.49 |
| Wetted Perim (ft) | = 1.09 |
| Crit Depth, Yc (ft) | = 0.32 |
| Top Width (ft) | = 1.00 |
| EGL (ft) | = 0.66 |



# Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Oct 9 2024

## PIPE C3 (25 YEAR)

**Circular**

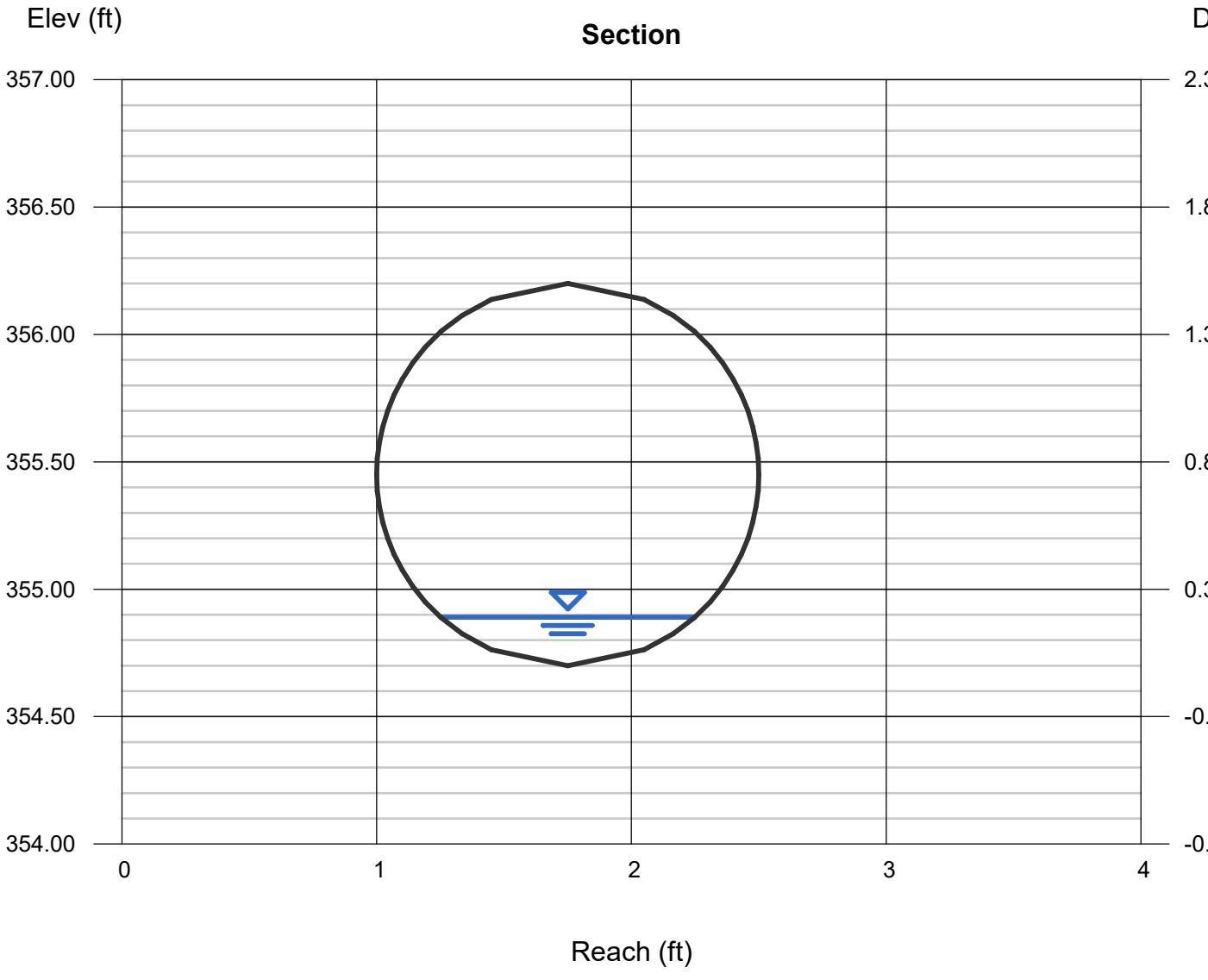
| | |
|---|---|
| Diameter (ft) | = 1.50 |
| Invert Elev (ft) | = 354.70 |
| Slope (%) | = 5.91 |
| N-Value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Known Q (cfs) | = 0.72 |

**Highlighted**

| | |
|---|---|
| Depth (ft) | = 0.19 |
| Q (cfs) | = 0.720 |
| Area (sqft) | = 0.13 |
| Velocity (ft/s) | = 5.49 |
| Wetted Perim (ft) | = 1.09 |
| Crit Depth, Yc (ft) | = 0.32 |
| Top Width (ft) | = 1.00 |
| EGL (ft) | = 0.66 |



# Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Oct 9 2024

## PIPE C4 (25 YEAR)

**Circular**

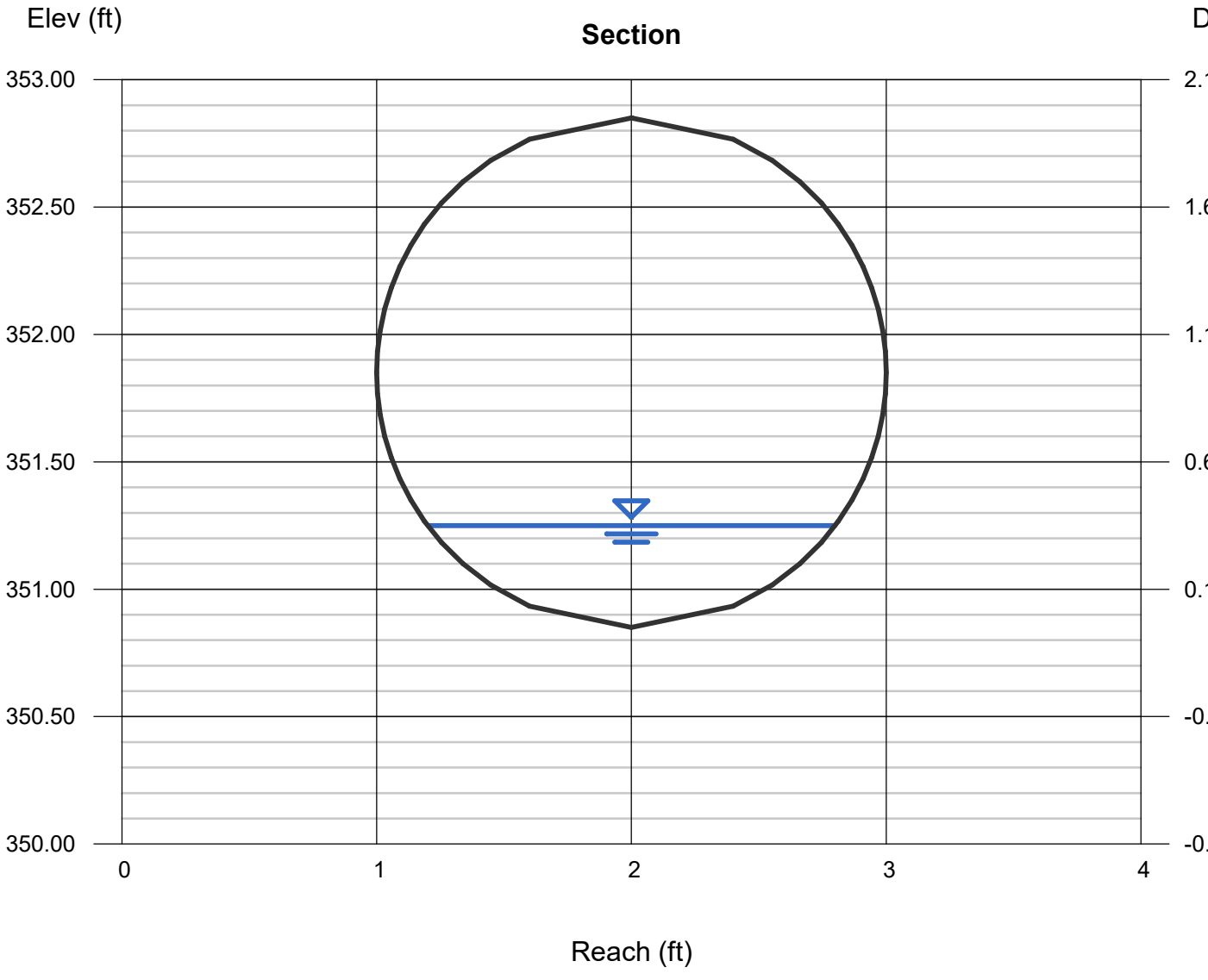
| | |
|---|---|
| Diameter (ft) | = 2.00 |
| Invert Elev (ft) | = 350.85 |
| Slope (%) | = 2.91 |
| N-Value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Known Q (cfs) | = 2.81 |

**Highlighted**

| | |
|---|---|
| Depth (ft) | = 0.40 |
| Q (cfs) | = 2.810 |
| Area (sqft) | = 0.45 |
| Velocity (ft/s) | = 6.23 |
| Wetted Perim (ft) | = 1.86 |
| Crit Depth, Yc (ft) | = 0.59 |
| Top Width (ft) | = 1.60 |
| EGL (ft) | = 1.00 |



# Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Thursday, Oct 31 2024

## PIPE C5 (25 YEAR)

**Circular**

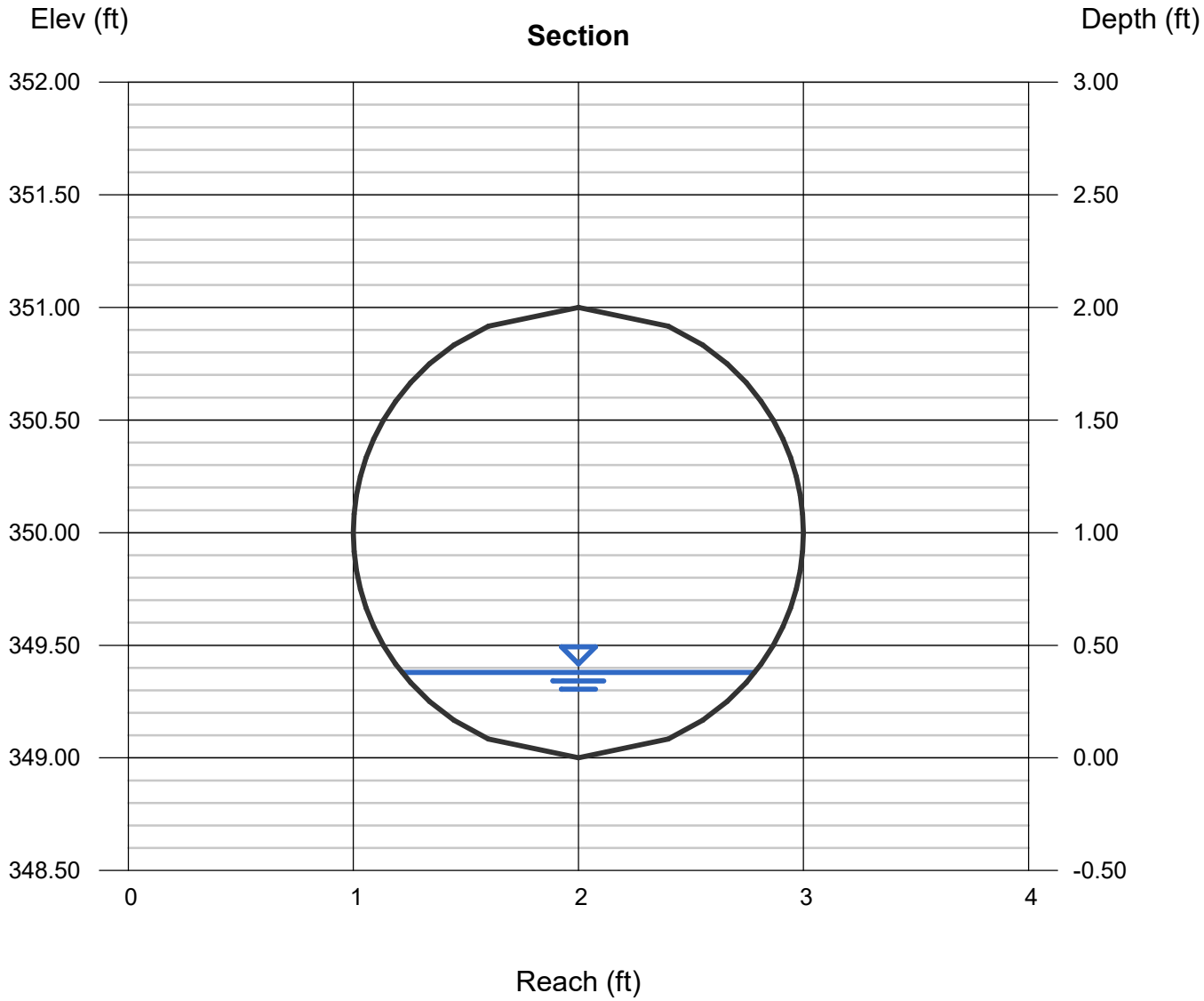
| | |
|---|---|
| Diameter (ft) | = 2.00 |
| Invert Elev (ft) | = 349.00 |
| Slope (%) | = 7.25 |
| N-Value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Known Q (cfs) | = 4.12 |

**Highlighted**

| | |
|---|---|
| Depth (ft) | = 0.38 |
| Q (cfs) | = 4.120 |
| Area (sqft) | = 0.42 |
| Velocity (ft/s) | = 9.83 |
| Wetted Perim (ft) | = 1.81 |
| Crit Depth, Yc (ft) | = 0.71 |
| Top Width (ft) | = 1.57 |
| EGL (ft) | = 1.88 |



# Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Oct 2 2024

## PIPE D1 (25 YEAR)

**Circular**

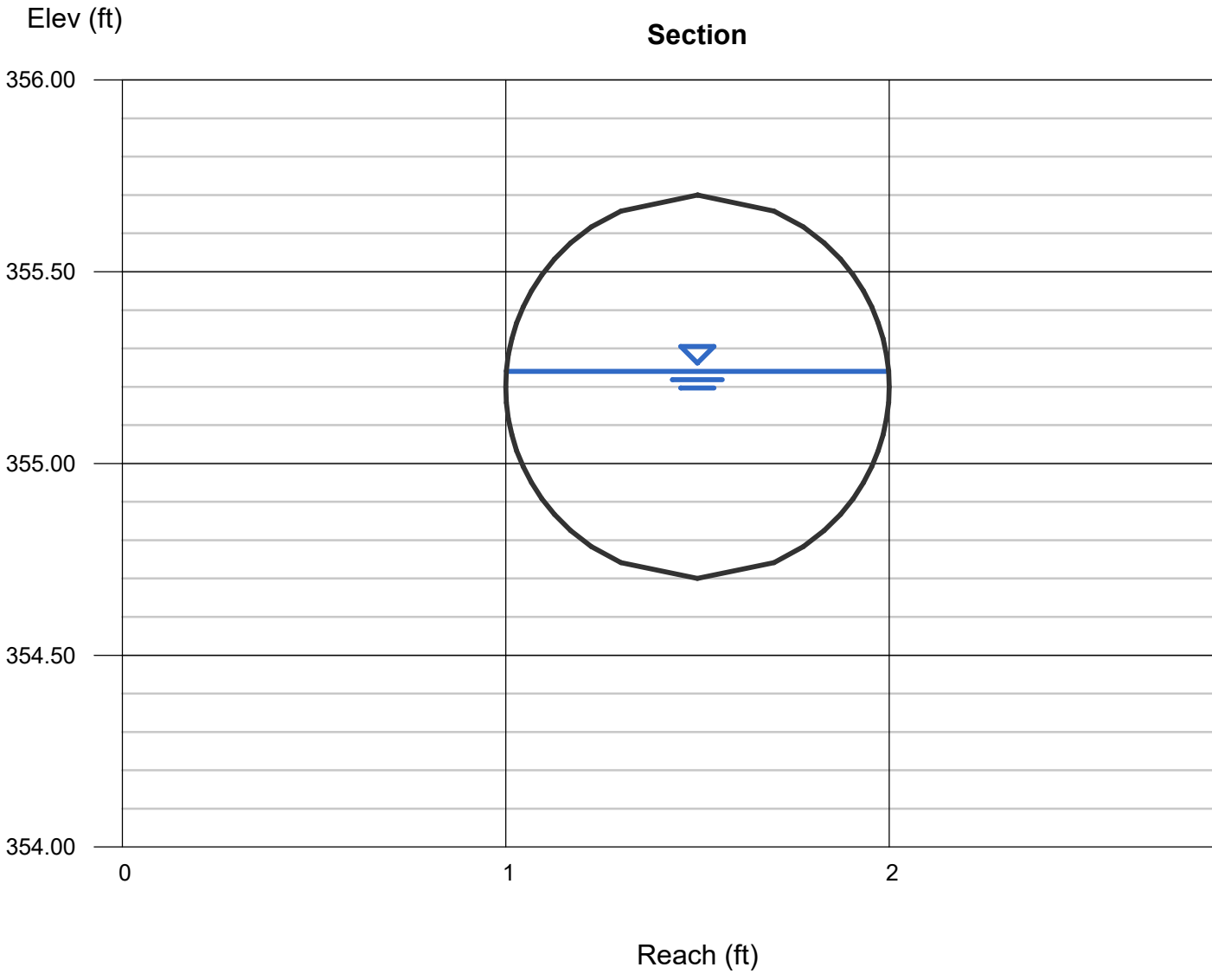
| | |
|---|---|
| Diameter (ft) | = 1.00 |
| Invert Elev (ft) | = 354.70 |
| Slope (%) | = 1.00 |
| N-Value | = 0.015 |

**Calculations**

| | |
|---|---|
| Compute by: | Known Q |
| Known Q (cfs) | = 1.76 |

**Highlighted**

| | |
|---|---|
| Depth (ft) | = 0.54 |
| Q (cfs) | = 1.760 |
| Area (sqft) | = 0.43 |
| Velocity (ft/s) | = 4.05 |
| Wetted Perim (ft) | = 1.65 |
| Crit Depth, Yc (ft) | = 0.57 |
| Top Width (ft) | = 1.00 |
| EGL (ft) | = 0.79 |



# DRAINAGE BASIN MAPS




# PRE DRAINAGE MAP

SCALE 1" = 50'

PHILLIP LEWIS ENGINEERING, INC.
Structural + Civil Consultants
23620 Interstate 30 | Bryant, Arkansas
PH: 501-350-9840

REVISION:

**BRYANT SEMINARY**
HIGHWAY 5
BRYANT, ARKANSAS

CERTIFICATE OF AUTHORIZATION
PHILLIP LEWIS ENGINEERING, INC.
ARKANSAS ENGINEER
No. 566

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9540
PHILLIP A. LEWIS

N

0 50'

1" = 50'-0"

PROJECT NUMBER:

SHEET ISSUE DATE:
10-31-2024

PAGE TITLE:
PRE DRAINAGE MAP

SHEET NUMBER:
C1.11




# POST DRAINAGE MAP

SCALE 1" = 50'

## GENERAL SITE NOTES

1. TOTAL NEW DEVELOPMENT AREA = (+/-) 1.12 ACRES
2. PROPERTY IS ZONED C-2
3. 43 PARKING SPACES PROVIDED INCLUDING 2 ADA ACCESSIBLE PARKING SPACES
4. ALL DIMENSIONS ARE TO THE BACK OF CURB AND/OR EDGE OF PAVEMENT
5. DAMAGE TO PUBLIC AND PRIVATE PROPERTY DUE TO HAULING OPERATIONS OR OPERATIONS OF CONSTRUCTION RELATED EQUIPMENT FROM A CONSTRUCTION SITE SHALL BE REPAIRED BY THE THE RESPONSIBLE PARTY PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
6. REPAIR, REPLACE, OR EXTEND EXISTING DAMAGED OR MISSING CURB AND GUTTER, SIDEWALK OR RAMPS WITHIN THE PUBLIC RIGHT OF WAY.
7. ALL SIGNAGE, PAVEMENT MARKING AND PARKING LOT STRIPING SHALL CONFORM TO REQUIREMENTS GIVEN IN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). MUTCD REQUIRES THAT PARKING SPACES BE MARKED IN WHITE.

CERTIFICATE OF AUTHORIZATION
PHILLIP LEWIS ENGINEERING, INC.
No. 566
ARKANSAS ENGINEER

N

0 50'

1" = 50'-0"

PHILLIP LEWIS ENGINEERING, INC.
Structural + Civil Consultants
23620 Interstate 30 | Bryant, Arkansas
PH: 501-350-9840

REVISION:

**BRYANT SEMINARY**
HIGHWAY 5
BRYANT, ARKANSAS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9540
PHILLIP A. LEWIS

PROJECT NUMBER:

SHEET ISSUE DATE:
10-31-2024

PAGE TITLE:
POST DRAINAGE MAP

SHEET NUMBER:
C1.12

# SOIL CLASSIFICATION MAPS

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for Saline County, Arkansas




August 30, 2024

# Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

# Custom Soil Resource Report
## Soil Map



## MAP LEGEND

**Area of Interest (AOI)**
- Area of Interest (AOI)

**Soils**
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

**Special Point Features**
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

**Water Features**
- Streams and Canals

**Transportation**
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

**Background**
- Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Saline County, Arkansas
Survey Area Data: Version 20, Sep 12, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 1, 2022—May 29, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Map Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| 16 | Ouachita silt loam, 0 to 1 percent slopes, frequently flooded | 3.6 | 25.0% |
| 22 | Savannah fine sandy loam, 3 to 8 percent slopes | 2.5 | 17.8% |
| 27 | Smithdale loamy sand, 8 to 12 percent slopes | 4.9 | 34.4% |
| 29 | Tiak silt loam, 3 to 8 percent slopes | 3.3 | 22.9% |
| **Totals for Area of Interest** | | **14.2** | **100.0%** |

# Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

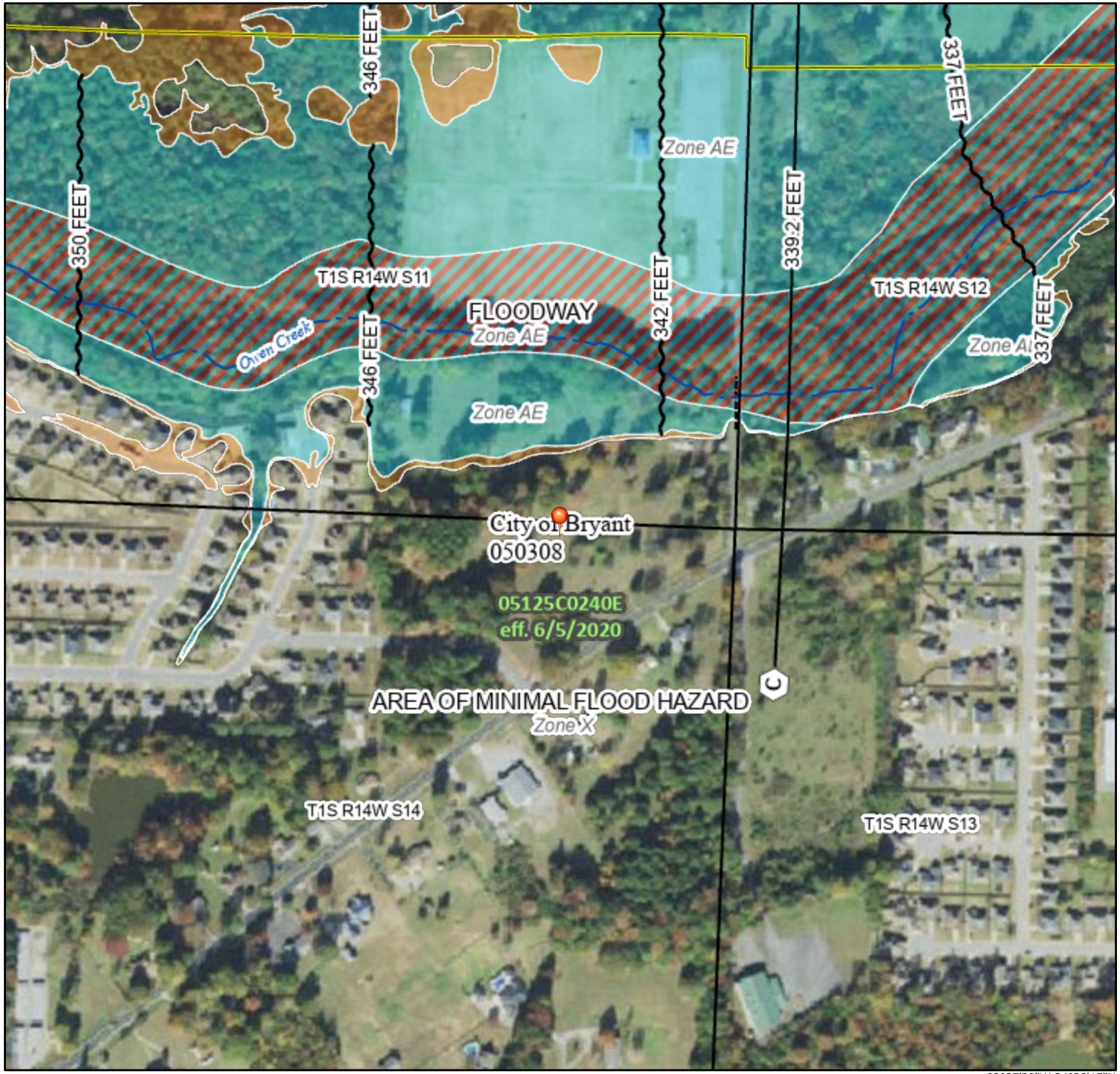
Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

# FEMA FLOOD INSURANCE RATE MAP

# National Flood Hazard Layer FIRMette

FEMA

92°28'7"W 34°38'45"N




92°27'30"W 34°38'15"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

*Basemap Imagery Source: USGS National Map 2023*

## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

**SPECIAL FLOOD HAZARD AREAS**
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

**OTHER AREAS OF FLOOD HAZARD**
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

**OTHER AREAS**
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

**GENERAL STRUCTURES**
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

**OTHER FEATURES**
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

**MAP PANELS**
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/9/2024 at 5:29 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.