

## DRAINAGE REPORT

December 19, 2023

**Property Located at:**

26 Platoz Drive  
Uncasville, CT

**Applicant:**

JOHN MANDES  
11 DEVONSHIRE DR  
WATERFORD, CT 06385

**Owner:**

MANDES ARTEMIS G  
11 DEVONSHIRE DR  
WATERFORD, CT 06385

**Prepared By:**

Timothy A. May, P.E.  
May Engineering, LLC  
1297 Route 163  
Oakdale, CT 03670



The proposed development is located at 26 Platoz Dr., Uncasville, CT. The 0.53-acre parcel has a previously approved site plan for a multifamily 4-unit apartment. The site was prepared and a concrete foundation constructed but development was not completed. The concrete foundation was removed due to the concrete being not suitable for construction. The site remained undeveloped and requires a new site plan for the proposed development of the parcel. The parcel is located in the R-20M zone. The applicant/owner John Mandes is proposing a plan of development for multifamily residential use; specifically proposed is a single 64' x 40' 4-unit apartment building, paved parking for 10 vehicles, stormwater infiltration for water quality volumes (WQV), and associated underground utilities.

## **SITE DESCRIPTION:**

The site is a 0.53-acre parcel located on the northeast side of Platoz Drive, located in the Town of Montville, CT. There are no wetlands or water courses located on this parcel. The soil type is primarily a hydraulic soil group B consisting of Charlton-Chatfield complex fine sandy loams. The soil types were evaluated for their permeability and have a moderate infiltration rate.

The existing stormwater drainage flow path is across the parcel in a southwesterly direction toward Platoz Drive. No evidence of channelized flows is observed. A majority of stormwater is typically retained onsite due to the topography and previous construction activities.

## **METHODOLOGY AND RESULTS:**

The stormwater runoff calculation was determined by the Soil Conservation Service SCS TR-20 method (HydroCAD® 10.00-22) using a weighted - CN coefficient to determine stormwater peak runoff and volumetric flows for existing and proposed development for storm events. The HydroCad Stormwater modeling was used to determine stormwater peak runoff flows for existing and proposed development for various storm events. The results correspond to an estimate of the amount of expected disturbed areas to be ~1/4 acre. The summary for existing and proposed development conditions is listed in the appendix of this report.

The proposed developed area contains 33% grassed lawn and 29% impervious area including roofs and pavement, with 38% remaining undisturbed wooded forest.

The stormwater galleys are designed to store and infiltrate stormwater from roof and paved areas. This is a beneficial part of the Water Quality Volume (WQV) reduction and stormwater management. Also, the amount of stormwater water quality flow (WQF) reduction by the stormwater infiltration trench will adequately provide stormwater storage up to and including the Q10 storm event. Please note the proposed stormwater infiltration trench with concrete 4x4 galleys is sized to remove a significant amount of stormwater runoff from the impervious portion (paved and roof areas).

Listed are the tabulated results for the existing and proposed development conditions.

| <b>Drainage Area<br/>Stormwater Flows</b> |                          |              |              |              |              |              |              |
|---|--------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
|   |                          | STORM EVENT  |              |              |              |              |              |
|   |                          | 2 yr         | 5 yr         | 10 yr        | 25 yr        | 50 yr        | 100 yr       |
| <u>Drainage Area Existing</u>             | Peak Flow<br>(CFS)       | 0.72         | 1.18         | 1.46         | 1.98         | 2.34         | 2.83         |
|   | Runoff<br>Volume<br>(AF) | 0.052        | 0.083        | 0.102        | 0.138        | 0.163        | 0.198        |
| <u>Drainage Area<br/>Proposed</u>         | Peak Flow<br>(CFS)       | <b>0.09</b>  | <b>0.66</b>  | <b>1.04</b>  | <b>1.62</b>  | <b>1.81</b>  | <b>2.29</b>  |
|   | Runoff<br>Volume<br>(AF) | <b>0.023</b> | <b>0.052</b> | <b>0.070</b> | <b>0.104</b> | <b>0.129</b> | <b>0.162</b> |

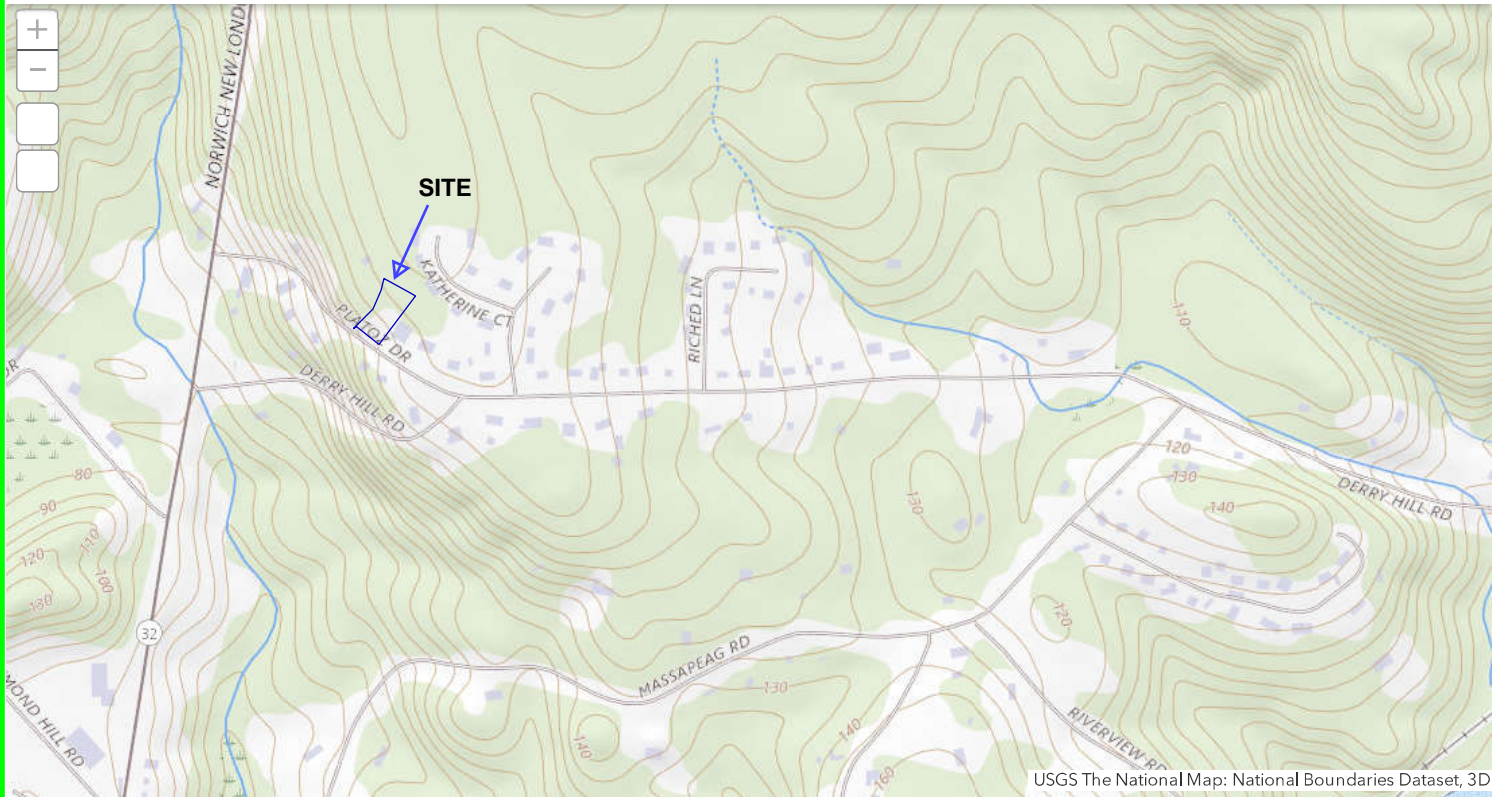
## SUMMARY

The proposed site development plan is for construction of a single 4-unit apartment building, paved parking and associated underground utilities. Stormwater runoff will be managed using BMPs that will contain and store the 1" WQV, using the stormwater infiltration trench with 4x4 concrete galleys. The WQF will be reduced as well. The stormwater infiltration trench provides pollutant and stormwater volume reduction. The stormwater infiltration trenches also provide groundwater recharge.

# APPENDIX

## Topography Map

26 Platoz Dr, Uncasville CT



Scale: 1:9,028  
Zoom Level: 16

600ft

-72.099 41.461 Long Lat

Scale: 1:9,028  
Zoom Level: 16

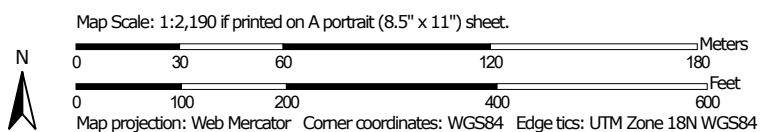
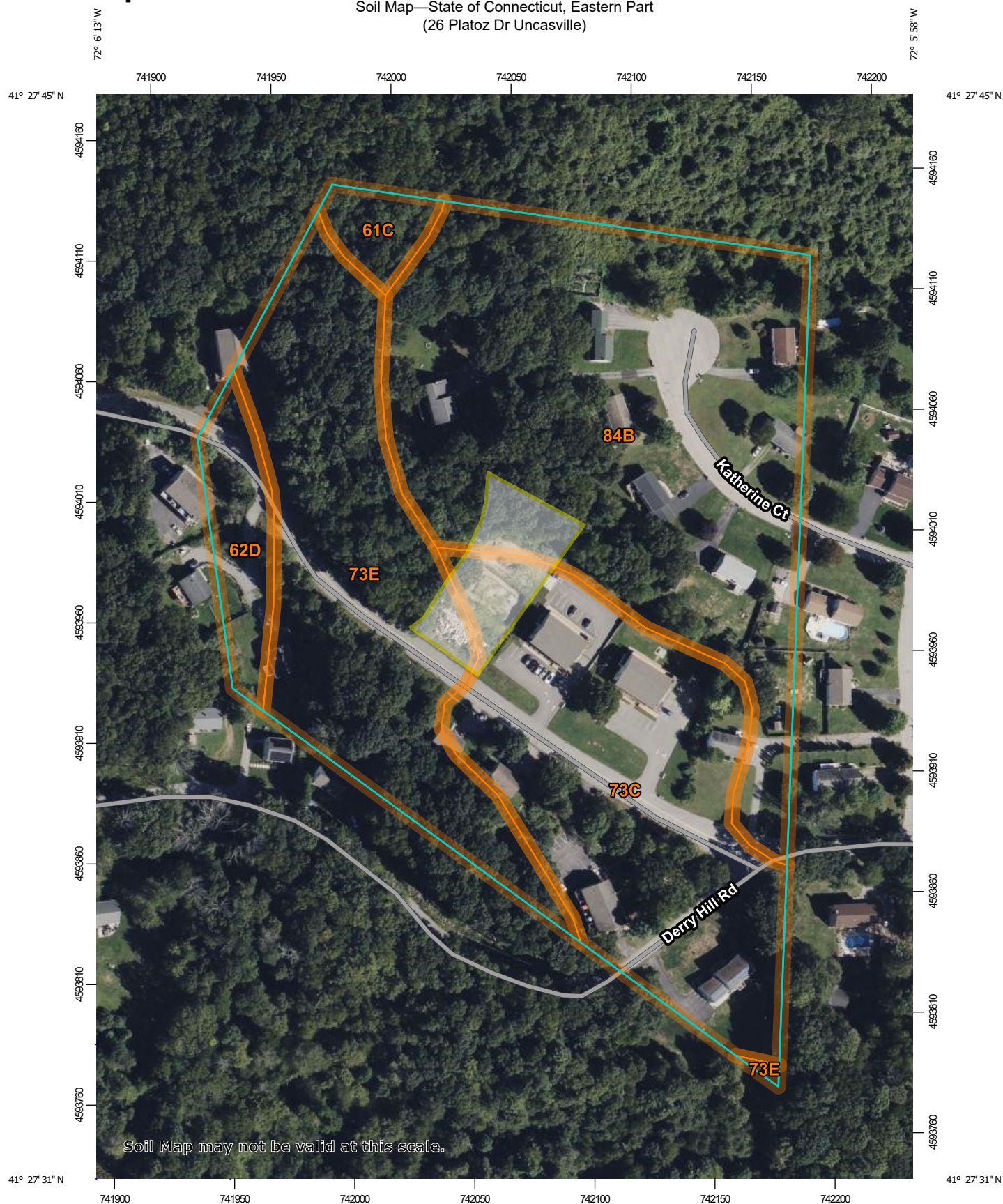
600ft

-72.099 41.461 Long Lat



# Soil Map

Soil Map—State of Connecticut, Eastern Part  
(26 Platoz Dr Uncasville)



**Natural Resources  
Conservation Service**

Web Soil Survey  
National Cooperative Soil Survey

12/26/2023  
Page 1 of 3

## 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 1:12,000.

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: State of Connecticut, Eastern Part

Survey Area Data: Version 1, Sep 15, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

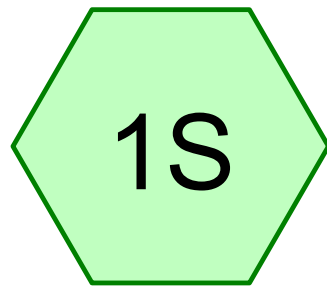
Date(s) aerial images were photographed: Jun 14, 2022—Oct 6, 2022

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.

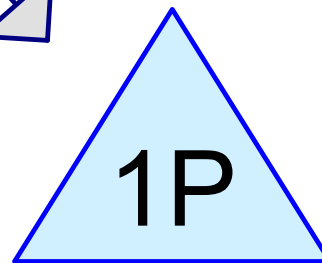
## Map Unit Legend

| Map Unit Symbol                    | Map Unit Name  | Acres in AOI | Percent of AOI |
|------------------------------------|--|--------------|----------------|
| 61C                                | Canton and Charlton fine sandy loams, 8 to 15 percent slopes, very stony       | 0.3          | 2.1%           |
| 62D                                | Canton and Charlton fine sandy loams, 15 to 35 percent slopes, extremely stony | 0.7          | 4.3%           |
| 73C                                | Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky                 | 4.4          | 27.0%          |
| 73E                                | Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky                | 3.9          | 24.0%          |
| 84B                                | Paxton and Montauk fine sandy loams, 3 to 8 percent slopes                     | 6.9          | 42.6%          |
| <b>Totals for Area of Interest</b> |  | <b>16.2</b>  | <b>100.0%</b>  |

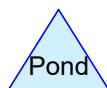
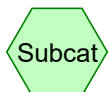
# HydroCad Existing Drainage Results



Existing



OutFall Existing



## Routing Diagram for Existing 26 Platoz Dr

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**Existing 26 Platoz Dr**

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**Area Listing (all nodes)**

| Area<br>(acres) | CN        | Description<br>(subcatchment-numbers) |
|-----------------|-----------|---------------------------------------|
| 0.413           | 79        | <50% Grass cover, Poor, HSG B (1S)    |
| 0.236           | 60        | Woods, Fair, HSG B (1S)               |
| <b>0.650</b>    | <b>72</b> | <b>TOTAL AREA</b>                     |

**Summary for Subcatchment 1S: Existing**

Runoff = 0.72 cfs @ 12.11 hrs, Volume= 0.052 af, Depth> 0.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-year Rainfall=3.40"

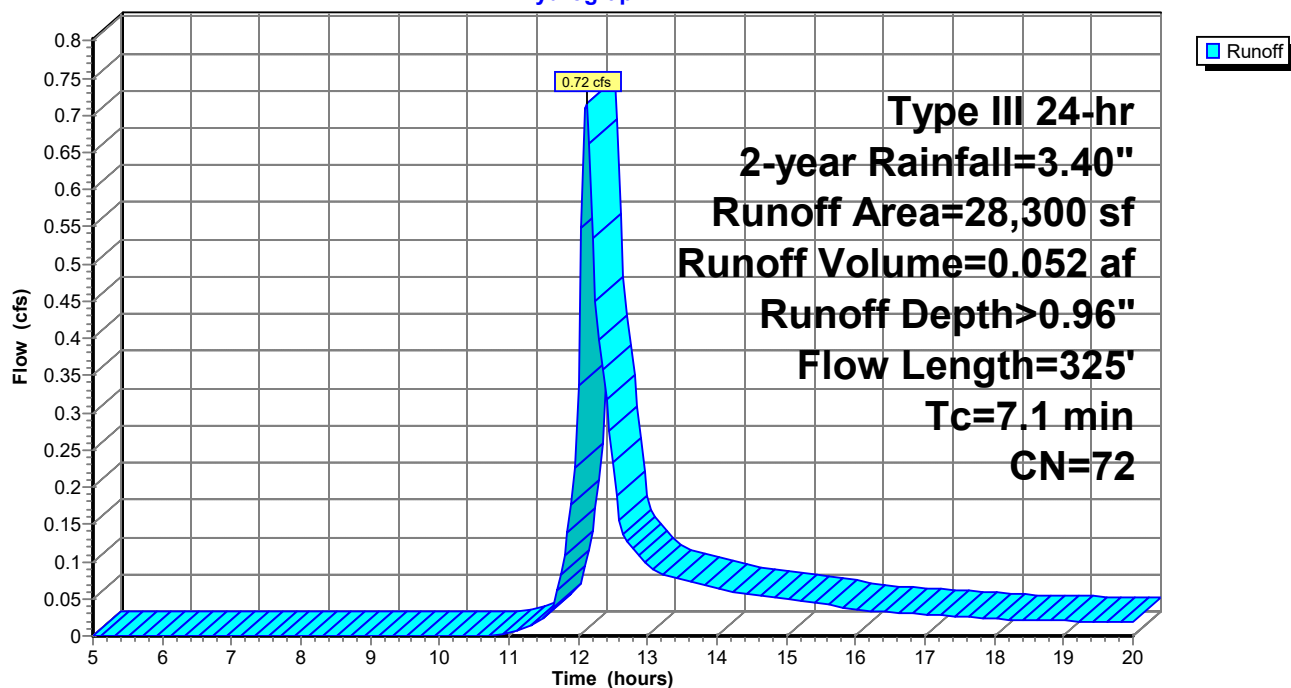
| Area (sf) | CN | Description                   |
|-----------|----|-------------------------------|
| 10,300    | 60 | Woods, Fair, HSG B            |
| 18,000    | 79 | <50% Grass cover, Poor, HSG B |
| 28,300    | 72 | Weighted Average              |
| 28,300    |    | 100.00% Pervious Area         |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description   |
|----------|---------------|---------------|-------------------|----------------|---|
| 4.6      | 30            | 0.0800        | 0.11              |                | <b>Sheet Flow, Sheet Flow</b>                       |
|          |               |               |                   |                | Woods: Light underbrush n= 0.400 P2= 3.35"          |
| 0.4      | 120           | 0.8000        | 4.47              |                | <b>Shallow Concentrated Flow, #1 Shallow conc</b>   |
|          |               |               |                   |                | Woodland Kv= 5.0 fps                                |
| 2.1      | 175           | 0.0200        | 1.41              |                | <b>Shallow Concentrated Flow, Shallow Concen #2</b> |
|          |               |               |                   |                | Nearly Bare & Untilled Kv= 10.0 fps                 |
| 7.1      | 325           | Total         |                   |                |   |

**Subcatchment 1S: Existing**

Hydrograph



**Summary for Subcatchment 1S: Existing**

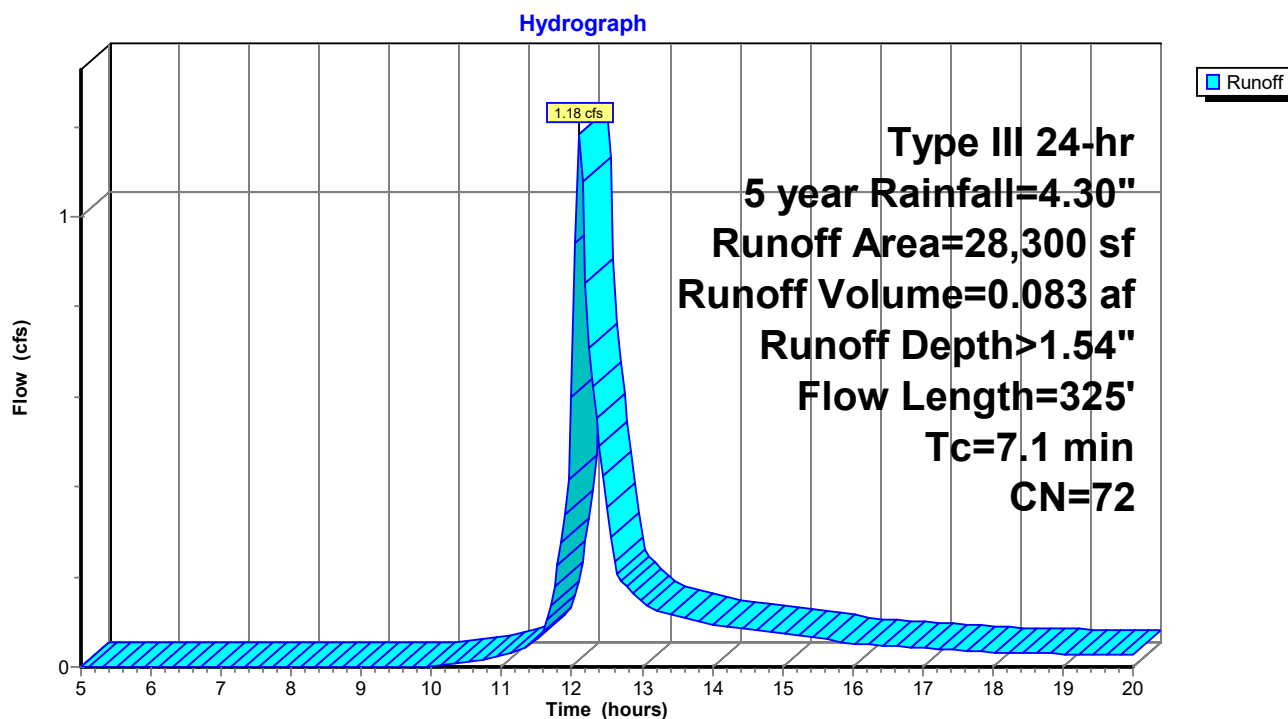
Runoff = 1.18 cfs @ 12.11 hrs, Volume= 0.083 af, Depth> 1.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 5 year Rainfall=4.30"

| Area (sf) | CN | Description                   |
|-----------|----|-------------------------------|
| 10,300    | 60 | Woods, Fair, HSG B            |
| 18,000    | 79 | <50% Grass cover, Poor, HSG B |
| 28,300    | 72 | Weighted Average              |
| 28,300    |    | 100.00% Pervious Area         |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description  |
|----------|---------------|---------------|-------------------|----------------|--|
| 4.6      | 30            | 0.0800        | 0.11              |                | <b>Sheet Flow, Sheet Flow</b><br>Woods: Light underbrush n= 0.400 P2= 3.35"                |
| 0.4      | 120           | 0.8000        | 4.47              |                | <b>Shallow Concentrated Flow, #1 Shallow conc</b><br>Woodland Kv= 5.0 fps                  |
| 2.1      | 175           | 0.0200        | 1.41              |                | <b>Shallow Concentrated Flow, Shallow Concen #2</b><br>Nearly Bare & Untilled Kv= 10.0 fps |
| 7.1      | 325           | Total         |                   |                |  |

**Subcatchment 1S: Existing**

**Summary for Subcatchment 1S: Existing**

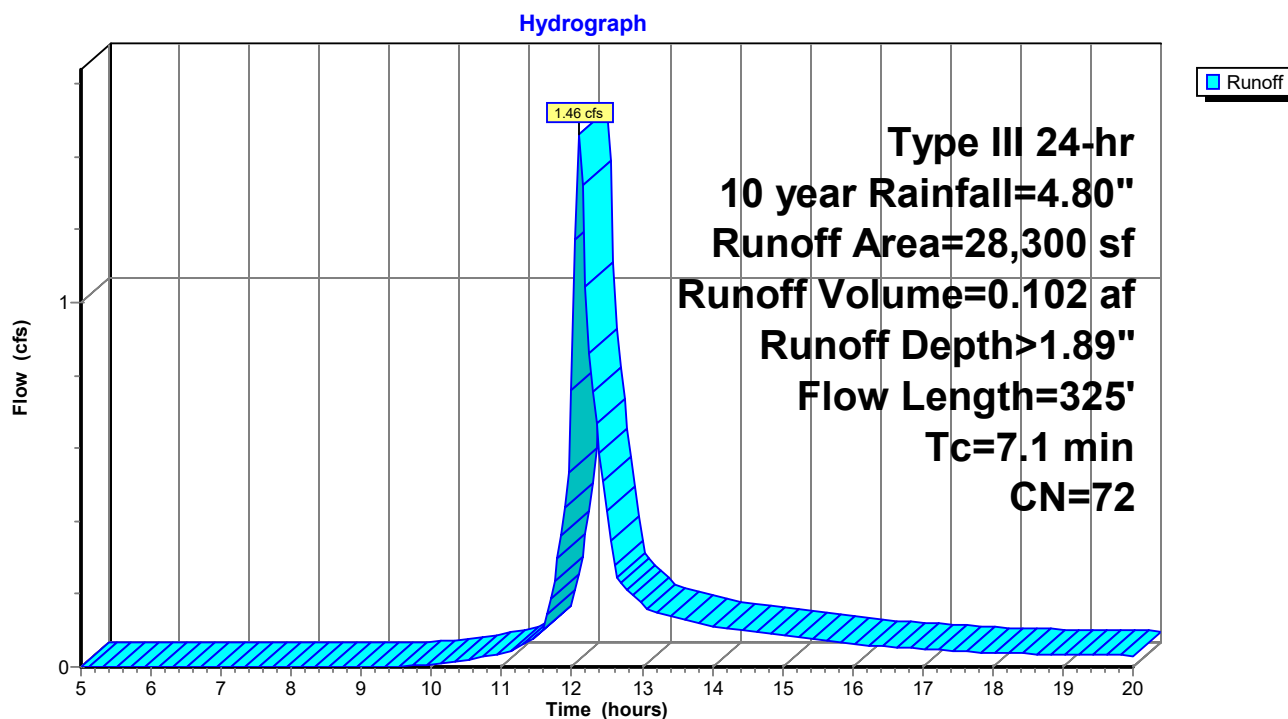
Runoff = 1.46 cfs @ 12.11 hrs, Volume= 0.102 af, Depth> 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10 year Rainfall=4.80"

| Area (sf) | CN | Description                   |
|-----------|----|-------------------------------|
| 10,300    | 60 | Woods, Fair, HSG B            |
| 18,000    | 79 | <50% Grass cover, Poor, HSG B |
| 28,300    | 72 | Weighted Average              |
| 28,300    |    | 100.00% Pervious Area         |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description  |
|----------|---------------|---------------|-------------------|----------------|--|
| 4.6      | 30            | 0.0800        | 0.11              |                | <b>Sheet Flow, Sheet Flow</b><br>Woods: Light underbrush n= 0.400 P2= 3.35"                |
| 0.4      | 120           | 0.8000        | 4.47              |                | <b>Shallow Concentrated Flow, #1 Shallow conc</b><br>Woodland Kv= 5.0 fps                  |
| 2.1      | 175           | 0.0200        | 1.41              |                | <b>Shallow Concentrated Flow, Shallow Concen #2</b><br>Nearly Bare & Untilled Kv= 10.0 fps |
| 7.1      | 325           | Total         |                   |                |  |

**Subcatchment 1S: Existing**

**Summary for Subcatchment 1S: Existing**

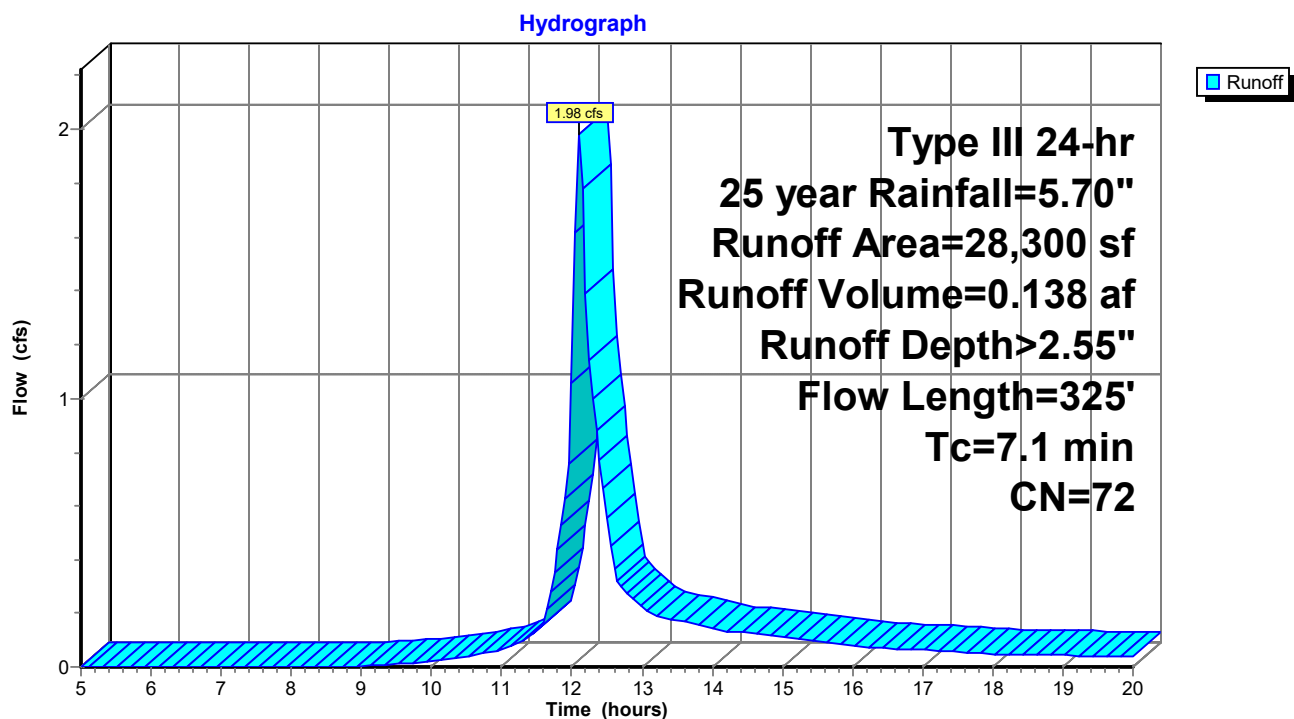
Runoff = 1.98 cfs @ 12.11 hrs, Volume= 0.138 af, Depth> 2.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25 year Rainfall=5.70"

| Area (sf) | CN | Description                   |
|-----------|----|-------------------------------|
| 10,300    | 60 | Woods, Fair, HSG B            |
| 18,000    | 79 | <50% Grass cover, Poor, HSG B |
| 28,300    | 72 | Weighted Average              |
| 28,300    |    | 100.00% Pervious Area         |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description   |
|----------|---------------|---------------|-------------------|----------------|---|
| 4.6      | 30            | 0.0800        | 0.11              |                | <b>Sheet Flow, Sheet Flow</b>                       |
|          |               |               |                   |                | Woods: Light underbrush n= 0.400 P2= 3.35"          |
| 0.4      | 120           | 0.8000        | 4.47              |                | <b>Shallow Concentrated Flow, #1 Shallow conc</b>   |
|          |               |               |                   |                | Woodland Kv= 5.0 fps                                |
| 2.1      | 175           | 0.0200        | 1.41              |                | <b>Shallow Concentrated Flow, Shallow Concen #2</b> |
|          |               |               |                   |                | Nearly Bare & Untilled Kv= 10.0 fps                 |
| 7.1      | 325           | Total         |                   |                |   |

**Subcatchment 1S: Existing**



**Summary for Subcatchment 1S: Existing**

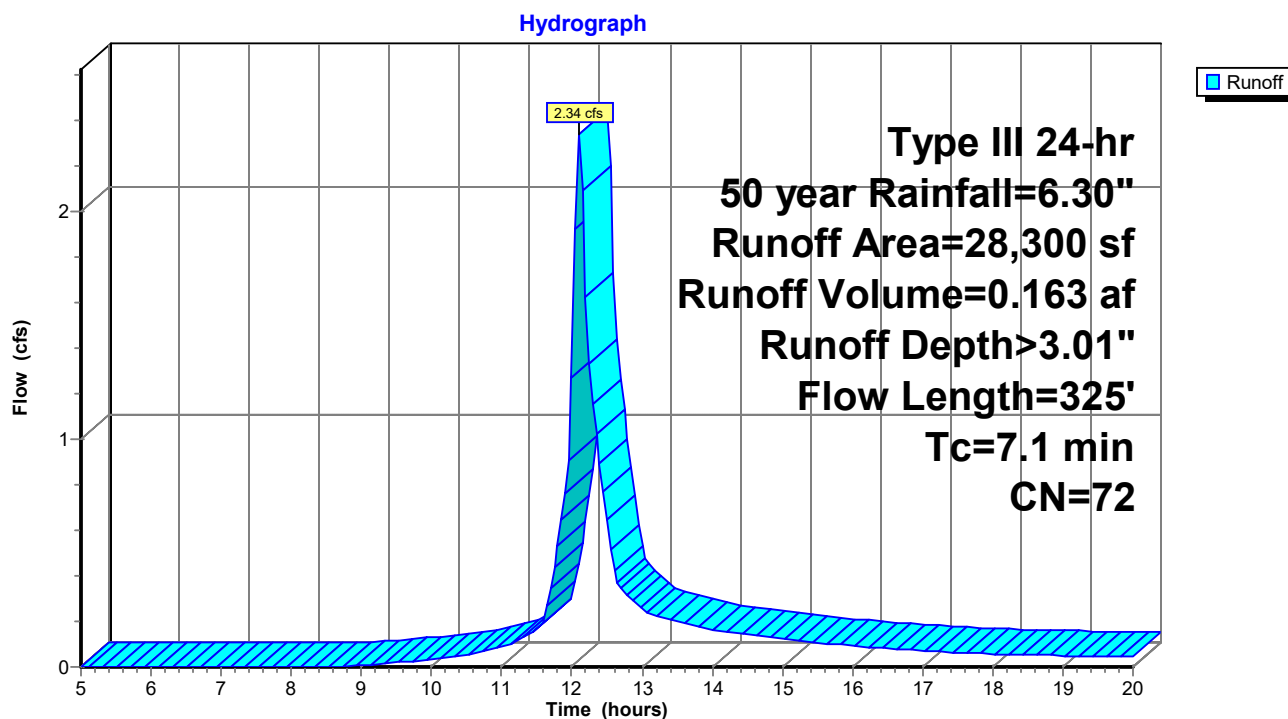
Runoff = 2.34 cfs @ 12.11 hrs, Volume= 0.163 af, Depth> 3.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 50 year Rainfall=6.30"

| Area (sf) | CN | Description                   |
|-----------|----|-------------------------------|
| 10,300    | 60 | Woods, Fair, HSG B            |
| 18,000    | 79 | <50% Grass cover, Poor, HSG B |
| 28,300    | 72 | Weighted Average              |
| 28,300    |    | 100.00% Pervious Area         |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description   |
|----------|---------------|---------------|-------------------|----------------|---|
| 4.6      | 30            | 0.0800        | 0.11              |                | <b>Sheet Flow, Sheet Flow</b>                       |
|          |               |               |                   |                | Woods: Light underbrush n= 0.400 P2= 3.35"          |
| 0.4      | 120           | 0.8000        | 4.47              |                | <b>Shallow Concentrated Flow, #1 Shallow conc</b>   |
|          |               |               |                   |                | Woodland Kv= 5.0 fps                                |
| 2.1      | 175           | 0.0200        | 1.41              |                | <b>Shallow Concentrated Flow, Shallow Concen #2</b> |
|          |               |               |                   |                | Nearly Bare & Untilled Kv= 10.0 fps                 |
| 7.1      | 325           | Total         |                   |                |   |

**Subcatchment 1S: Existing**

**Existing 26 Platoz Dr**

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Type III 24-hr 100 year Rainfall=7.10"

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**Summary for Subcatchment 1S: Existing**

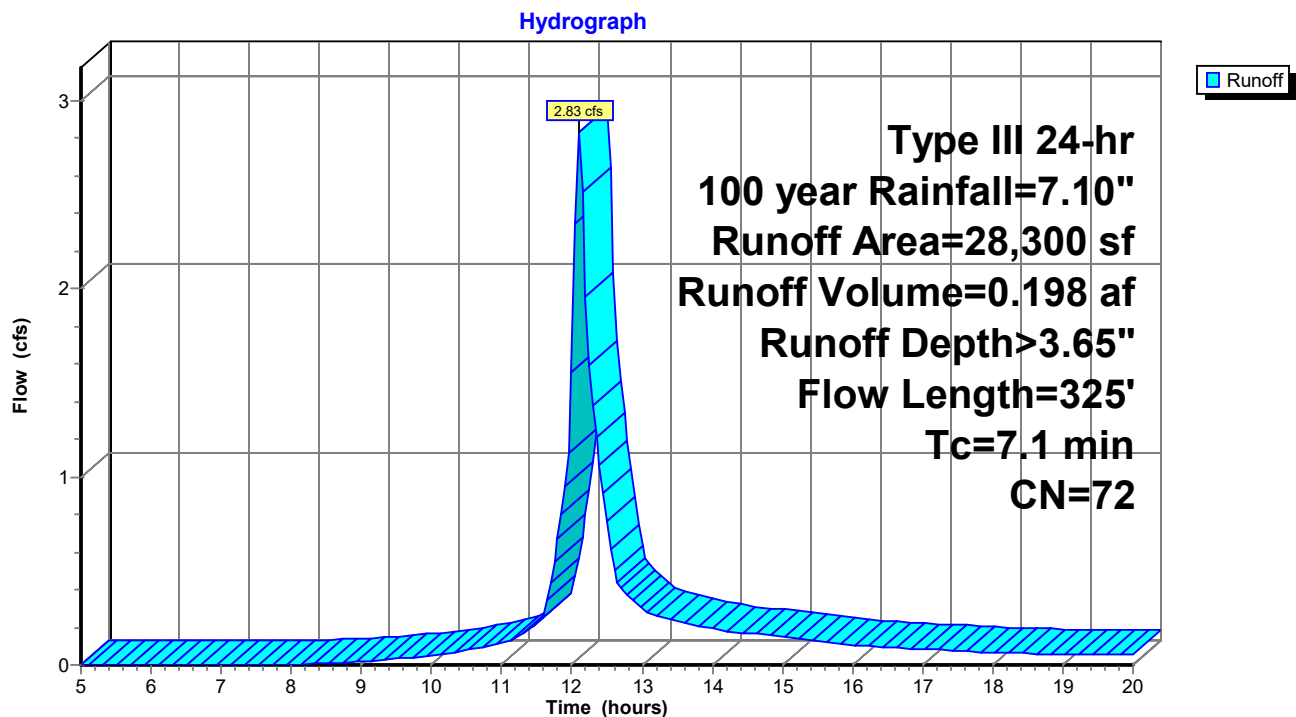
Runoff = 2.83 cfs @ 12.11 hrs, Volume= 0.198 af, Depth&gt; 3.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100 year Rainfall=7.10"

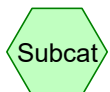
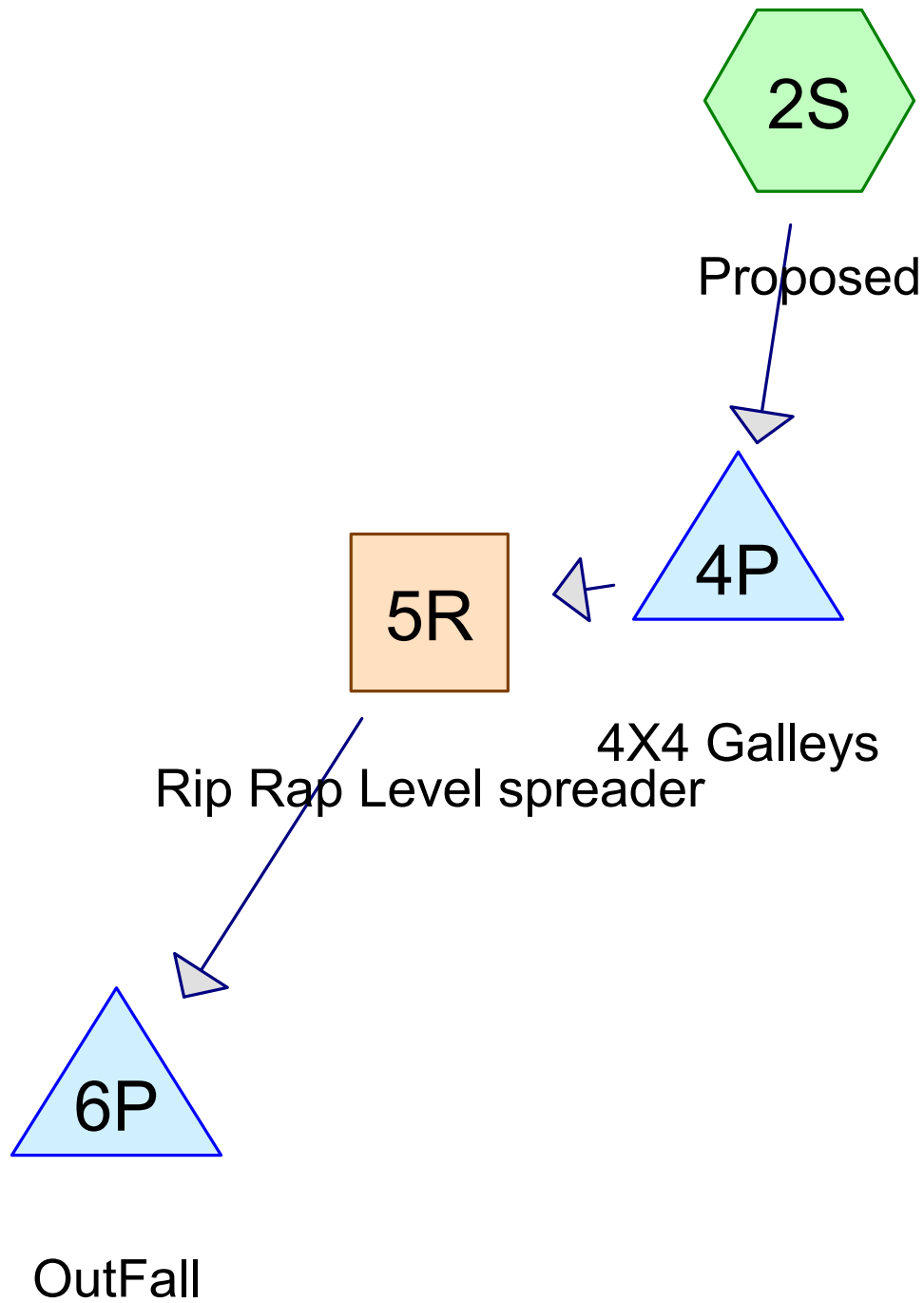
| Area (sf) | CN | Description                   |
|-----------|----|-------------------------------|
| 10,300    | 60 | Woods, Fair, HSG B            |
| 18,000    | 79 | <50% Grass cover, Poor, HSG B |
| 28,300    | 72 | Weighted Average              |
| 28,300    |    | 100.00% Pervious Area         |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description   |
|----------|---------------|---------------|-------------------|----------------|---|
| 4.6      | 30            | 0.0800        | 0.11              |                | <b>Sheet Flow, Sheet Flow</b>                       |
|          |               |               |                   |                | Woods: Light underbrush n= 0.400 P2= 3.35"          |
| 0.4      | 120           | 0.8000        | 4.47              |                | <b>Shallow Concentrated Flow, #1 Shallow conc</b>   |
|          |               |               |                   |                | Woodland Kv= 5.0 fps                                |
| 2.1      | 175           | 0.0200        | 1.41              |                | <b>Shallow Concentrated Flow, Shallow Concen #2</b> |
|          |               |               |                   |                | Nearly Bare & Untilled Kv= 10.0 fps                 |
| 7.1      | 325           | Total         |                   |                |   |

**Subcatchment 1S: Existing**

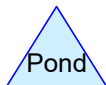
# HydroCad Proposed Drainage Results



Subcat



Reach



Pond



Link

## Routing Diagram for Proposed 26 Platoz Dr

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**Proposed 26 Platoz Dr**

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**Area Listing (all nodes)**

| Area<br>(acres) | CN        | Description<br>(subcatchment-numbers)                                   |
|-----------------|-----------|---|
| 0.210           | 61        | >75% Grass cover, Good, HSG B (2S)                                      |
| 0.194           | 98        | Pavedside wlks paved drive / roof to infiltrations, 50% imp, HSG A (2S) |
| 0.246           | 55        | Woods, Good, HSG B (2S)   |
| <b>0.650</b>    | <b>70</b> | <b>TOTAL AREA</b>   |

**Proposed 26 Platoz Dr***Type III 24-hr 2-year Rainfall=3.40"*

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**Summary for Subcatchment 2S: Proposed**

Runoff = 0.51 cfs @ 12.21 hrs, Volume= 0.046 af, Depth&gt; 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-year Rainfall=3.40"

|   | Area (sf) | CN | Description  |
|---|-----------|----|--|
| * | 8,467     | 98 | Pavedside wlks paved drive / roof to infiltrations, 50% imp, HSG A |
|   | 9,133     | 61 | >75% Grass cover, Good, HSG B                                      |
|   | 10,700    | 55 | Woods, Good, HSG B   |
|   | 28,300    | 70 | Weighted Average   |
|   | 24,067    |    | 85.04% Pervious Area   |
|   | 4,234     |    | 14.96% Impervious Area   |

| Tc<br>(min) | Length<br>(feet) | Slope<br>(ft/ft) | Velocity<br>(ft/sec) | Capacity<br>(cfs) | Description                                       |
|-------------|------------------|------------------|----------------------|-------------------|---|
| 4.6         | 30               | 0.0800           | 0.11                 |                   | <b>Sheet Flow, Sheet</b>                          |
|             |                  |                  |                      |                   | Woods: Light underbrush n= 0.400 P2= 3.35"        |
| 2.2         | 145              | 0.0500           | 1.12                 |                   | <b>Shallow Concentrated Flow, #1 Shallow</b>      |
|             |                  |                  |                      |                   | Woodland Kv= 5.0 fps                              |
| 5.4         | 160              | 0.0050           | 0.49                 |                   | <b>Shallow Concentrated Flow, #2 Shallow conc</b> |
|             |                  |                  |                      |                   | Short Grass Pasture Kv= 7.0 fps                   |
| 1.1         | 110              | 0.0600           | 1.71                 |                   | <b>Shallow Concentrated Flow, Shallow #3</b>      |
|             |                  |                  |                      |                   | Short Grass Pasture Kv= 7.0 fps                   |
| 13.3        | 445              | Total            |                      |                   |   |



**Proposed 26 Platoz Dr**

Prepared by May Engineering, LLC Timothy May, PE

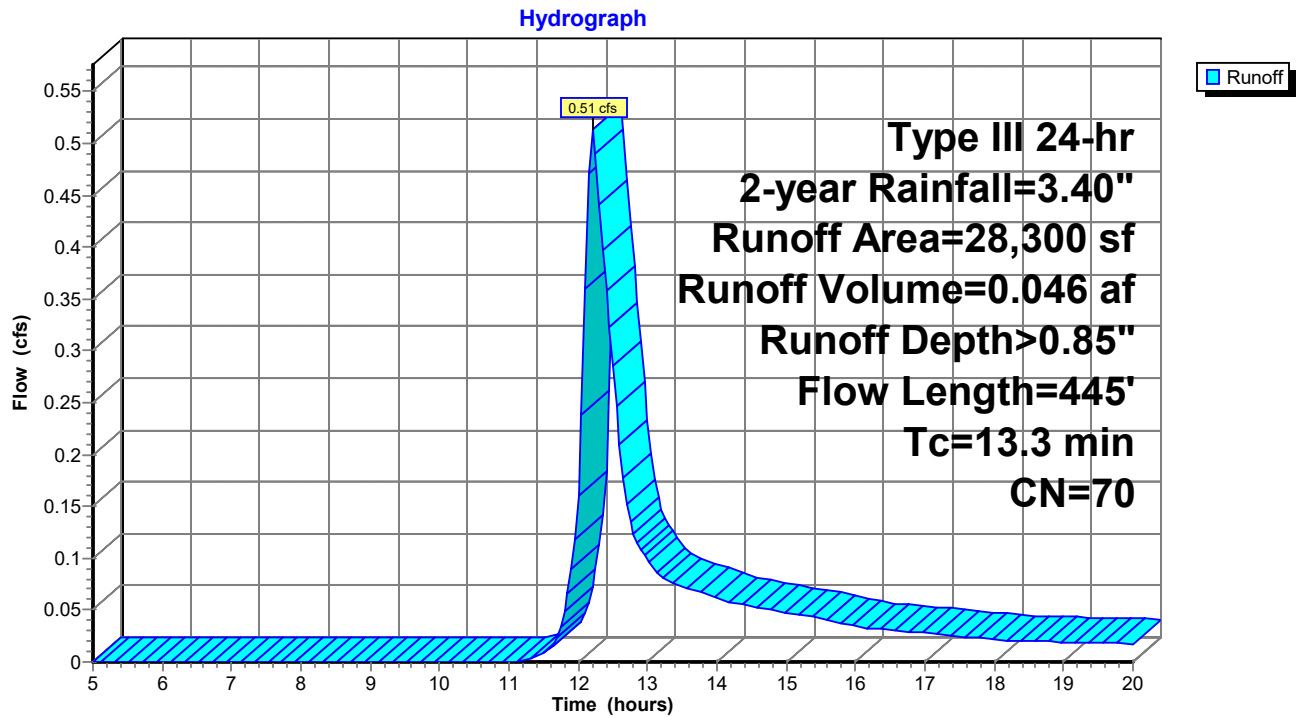
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Type III 24-hr 2-year Rainfall=3.40"

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**Subcatchment 2S: Proposed**



**Proposed 26 Platoz Dr***Type III 24-hr 5 year Rainfall=4.30"*

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**Summary for Subcatchment 2S: Proposed**

Runoff = 0.88 cfs @ 12.20 hrs, Volume= 0.076 af, Depth&gt; 1.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 5 year Rainfall=4.30"

|   | Area (sf) | CN | Description  |
|---|-----------|----|--|
| * | 8,467     | 98 | Pavedside wlks paved drive / roof to infiltrations, 50% imp, HSG A |
|   | 9,133     | 61 | >75% Grass cover, Good, HSG B                                      |
|   | 10,700    | 55 | Woods, Good, HSG B   |
|   | 28,300    | 70 | Weighted Average   |
|   | 24,067    |    | 85.04% Pervious Area   |
|   | 4,234     |    | 14.96% Impervious Area   |

| Tc<br>(min) | Length<br>(feet) | Slope<br>(ft/ft) | Velocity<br>(ft/sec) | Capacity<br>(cfs) | Description                                       |
|-------------|------------------|------------------|----------------------|-------------------|---|
| 4.6         | 30               | 0.0800           | 0.11                 |                   | <b>Sheet Flow, Sheet</b>                          |
|             |                  |                  |                      |                   | Woods: Light underbrush n= 0.400 P2= 3.35"        |
| 2.2         | 145              | 0.0500           | 1.12                 |                   | <b>Shallow Concentrated Flow, #1 Shallow</b>      |
|             |                  |                  |                      |                   | Woodland Kv= 5.0 fps                              |
| 5.4         | 160              | 0.0050           | 0.49                 |                   | <b>Shallow Concentrated Flow, #2 Shallow conc</b> |
|             |                  |                  |                      |                   | Short Grass Pasture Kv= 7.0 fps                   |
| 1.1         | 110              | 0.0600           | 1.71                 |                   | <b>Shallow Concentrated Flow, Shallow #3</b>      |
|             |                  |                  |                      |                   | Short Grass Pasture Kv= 7.0 fps                   |
| 13.3        | 445              | Total            |                      |                   |   |

**Proposed 26 Platoz Dr**

Prepared by May Engineering, LLC Timothy May, PE

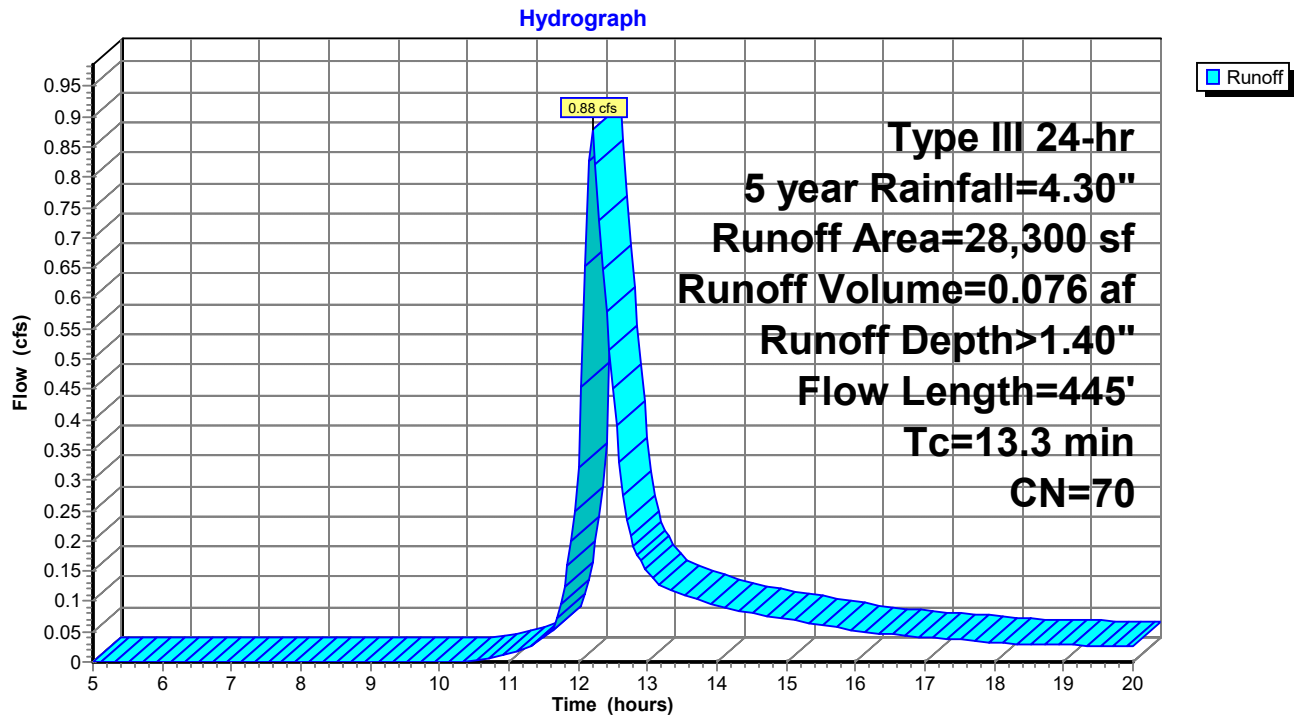
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Type III 24-hr 5 year Rainfall=4.30"

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**Subcatchment 2S: Proposed**



**Proposed 26 Platoz Dr***Type III 24-hr 10 year Rainfall=4.80"*

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**Summary for Subcatchment 2S: Proposed**

Runoff = 1.10 cfs @ 12.20 hrs, Volume= 0.094 af, Depth&gt; 1.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10 year Rainfall=4.80"

|   | Area (sf) | CN | Description  |
|---|-----------|----|--|
| * | 8,467     | 98 | Pavedside wlks paved drive / roof to infiltrations, 50% imp, HSG A |
|   | 9,133     | 61 | >75% Grass cover, Good, HSG B                                      |
|   | 10,700    | 55 | Woods, Good, HSG B   |
|   | 28,300    | 70 | Weighted Average   |
|   | 24,067    |    | 85.04% Pervious Area   |
|   | 4,234     |    | 14.96% Impervious Area   |

| Tc<br>(min) | Length<br>(feet) | Slope<br>(ft/ft) | Velocity<br>(ft/sec) | Capacity<br>(cfs) | Description                                       |
|-------------|------------------|------------------|----------------------|-------------------|---|
| 4.6         | 30               | 0.0800           | 0.11                 |                   | <b>Sheet Flow, Sheet</b>                          |
|             |                  |                  |                      |                   | Woods: Light underbrush n= 0.400 P2= 3.35"        |
| 2.2         | 145              | 0.0500           | 1.12                 |                   | <b>Shallow Concentrated Flow, #1 Shallow</b>      |
|             |                  |                  |                      |                   | Woodland Kv= 5.0 fps                              |
| 5.4         | 160              | 0.0050           | 0.49                 |                   | <b>Shallow Concentrated Flow, #2 Shallow conc</b> |
|             |                  |                  |                      |                   | Short Grass Pasture Kv= 7.0 fps                   |
| 1.1         | 110              | 0.0600           | 1.71                 |                   | <b>Shallow Concentrated Flow, Shallow #3</b>      |
|             |                  |                  |                      |                   | Short Grass Pasture Kv= 7.0 fps                   |
| 13.3        | 445              | Total            |                      |                   |   |

**Proposed 26 Platoz Dr**

Prepared by May Engineering, LLC Timothy May, PE

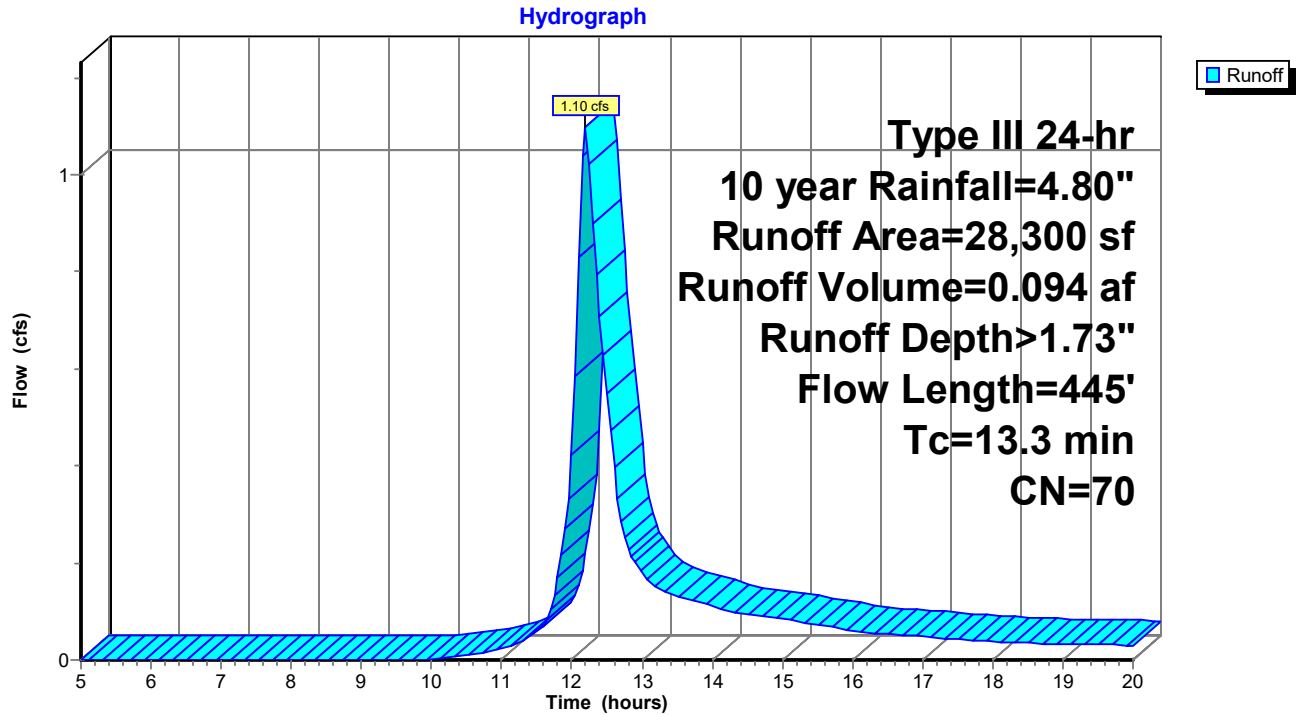
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Type III 24-hr 10 year Rainfall=4.80"

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**Subcatchment 2S: Proposed**





**Proposed 26 Platoz Dr**

Type III 24-hr 25 year Rainfall=5.70"

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**Summary for Subcatchment 2S: Proposed**

Runoff = 1.52 cfs @ 12.19 hrs, Volume= 0.128 af, Depth&gt; 2.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25 year Rainfall=5.70"

|   | Area (sf) | CN | Description  |
|---|-----------|----|--|
| * | 8,467     | 98 | Pavedside wlks paved drive / roof to infiltrations, 50% imp, HSG A |
|   | 9,133     | 61 | >75% Grass cover, Good, HSG B                                      |
|   | 10,700    | 55 | Woods, Good, HSG B   |
|   | 28,300    | 70 | Weighted Average   |
|   | 24,067    |    | 85.04% Pervious Area   |
|   | 4,234     |    | 14.96% Impervious Area   |

| Tc<br>(min) | Length<br>(feet) | Slope<br>(ft/ft) | Velocity<br>(ft/sec) | Capacity<br>(cfs) | Description                                       |
|-------------|------------------|------------------|----------------------|-------------------|---|
| 4.6         | 30               | 0.0800           | 0.11                 |                   | <b>Sheet Flow, Sheet</b>                          |
|             |                  |                  |                      |                   | Woods: Light underbrush n= 0.400 P2= 3.35"        |
| 2.2         | 145              | 0.0500           | 1.12                 |                   | <b>Shallow Concentrated Flow, #1 Shallow</b>      |
|             |                  |                  |                      |                   | Woodland Kv= 5.0 fps                              |
| 5.4         | 160              | 0.0050           | 0.49                 |                   | <b>Shallow Concentrated Flow, #2 Shallow conc</b> |
|             |                  |                  |                      |                   | Short Grass Pasture Kv= 7.0 fps                   |
| 1.1         | 110              | 0.0600           | 1.71                 |                   | <b>Shallow Concentrated Flow, Shallow #3</b>      |
|             |                  |                  |                      |                   | Short Grass Pasture Kv= 7.0 fps                   |
| 13.3        | 445              | Total            |                      |                   |   |

**Proposed 26 Platoz Dr**

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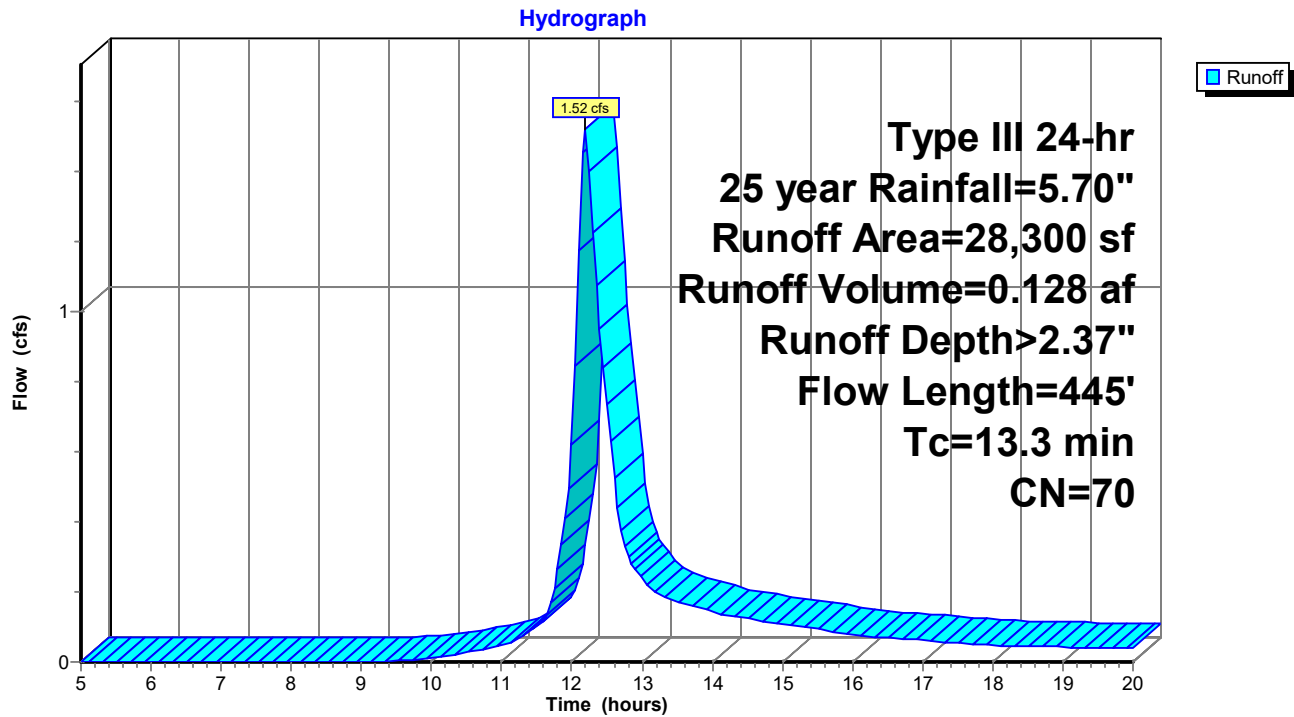
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Type III 24-hr 25 year Rainfall=5.70"

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**Subcatchment 2S: Proposed**



**Proposed 26 Platoz Dr***Type III 24-hr 50 year Rainfall=6.30"*

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**Summary for Subcatchment 2S: Proposed**

Runoff = 1.81 cfs @ 12.19 hrs, Volume= 0.152 af, Depth&gt; 2.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 50 year Rainfall=6.30"

|   | Area (sf) | CN | Description  |
|---|-----------|----|--|
| * | 8,467     | 98 | Pavedside wlks paved drive / roof to infiltrations, 50% imp, HSG A |
|   | 9,133     | 61 | >75% Grass cover, Good, HSG B                                      |
|   | 10,700    | 55 | Woods, Good, HSG B   |
|   | 28,300    | 70 | Weighted Average   |
|   | 24,067    |    | 85.04% Pervious Area   |
|   | 4,234     |    | 14.96% Impervious Area   |

| Tc<br>(min) | Length<br>(feet) | Slope<br>(ft/ft) | Velocity<br>(ft/sec) | Capacity<br>(cfs) | Description                                       |
|-------------|------------------|------------------|----------------------|-------------------|---|
| 4.6         | 30               | 0.0800           | 0.11                 |                   | <b>Sheet Flow, Sheet</b>                          |
|             |                  |                  |                      |                   | Woods: Light underbrush n= 0.400 P2= 3.35"        |
| 2.2         | 145              | 0.0500           | 1.12                 |                   | <b>Shallow Concentrated Flow, #1 Shallow</b>      |
|             |                  |                  |                      |                   | Woodland Kv= 5.0 fps                              |
| 5.4         | 160              | 0.0050           | 0.49                 |                   | <b>Shallow Concentrated Flow, #2 Shallow conc</b> |
|             |                  |                  |                      |                   | Short Grass Pasture Kv= 7.0 fps                   |
| 1.1         | 110              | 0.0600           | 1.71                 |                   | <b>Shallow Concentrated Flow, Shallow #3</b>      |
|             |                  |                  |                      |                   | Short Grass Pasture Kv= 7.0 fps                   |
| 13.3        | 445              | Total            |                      |                   |   |

**Proposed 26 Platoz Dr**

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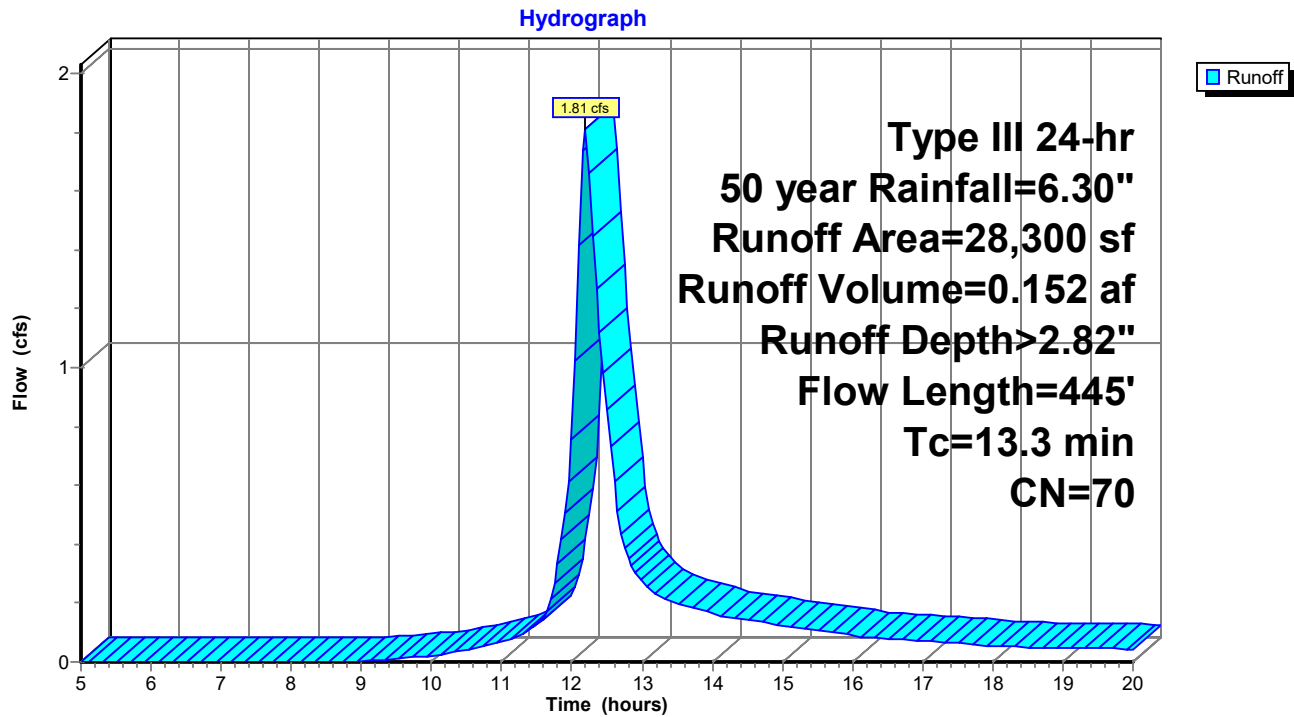
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Type III 24-hr 50 year Rainfall=6.30"

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**Subcatchment 2S: Proposed**



**Proposed 26 Platoz Dr**

Type III 24-hr 100 year Rainfall=7.10"

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**Summary for Subcatchment 2S: Proposed**

Runoff = 2.21 cfs @ 12.19 hrs, Volume= 0.186 af, Depth&gt; 3.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100 year Rainfall=7.10"

|   | Area (sf) | CN | Description  |
|---|-----------|----|--|
| * | 8,467     | 98 | Pavedside w/ks paved drive / roof to infiltrations, 50% imp, HSG A |
|   | 9,133     | 61 | >75% Grass cover, Good, HSG B                                      |
|   | 10,700    | 55 | Woods, Good, HSG B   |
|   | 28,300    | 70 | Weighted Average   |
|   | 24,067    |    | 85.04% Pervious Area   |
|   | 4,234     |    | 14.96% Impervious Area   |

| Tc<br>(min) | Length<br>(feet) | Slope<br>(ft/ft) | Velocity<br>(ft/sec) | Capacity<br>(cfs) | Description                                       |
|-------------|------------------|------------------|----------------------|-------------------|---|
| 4.6         | 30               | 0.0800           | 0.11                 |                   | <b>Sheet Flow, Sheet</b>                          |
|             |                  |                  |                      |                   | Woods: Light underbrush n= 0.400 P2= 3.35"        |
| 2.2         | 145              | 0.0500           | 1.12                 |                   | <b>Shallow Concentrated Flow, #1 Shallow</b>      |
|             |                  |                  |                      |                   | Woodland Kv= 5.0 fps                              |
| 5.4         | 160              | 0.0050           | 0.49                 |                   | <b>Shallow Concentrated Flow, #2 Shallow conc</b> |
|             |                  |                  |                      |                   | Short Grass Pasture Kv= 7.0 fps                   |
| 1.1         | 110              | 0.0600           | 1.71                 |                   | <b>Shallow Concentrated Flow, Shallow #3</b>      |
|             |                  |                  |                      |                   | Short Grass Pasture Kv= 7.0 fps                   |
| 13.3        | 445              | Total            |                      |                   |   |



**Proposed 26 Platoz Dr**

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Type III 24-hr 100 year Rainfall=7.10"

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**Subcatchment 2S: Proposed**

