

Glencoe Pre Developed

Prepared by HP Inc.

HydroCAD® 10.10-5a s/n 11914 © 2020 HydroCAD Software Solutions LLC

Printed 3/1/2024

Page 2

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-Year	Type III 24-hr		Default	24.00	1	3.30	2
2	10-Year	Type III 24-hr		Default	24.00	1	4.90	2
3	25-Year	Type III 24-hr		Default	24.00	1	6.20	2

Glencoe Pre Developed

Prepared by HP Inc.

HydroCAD® 10.10-5a s/n 11914 © 2020 HydroCAD Software Solutions LLC

Printed 3/1/2024

Page 3

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.000	98	Impervious (Pre-1)
18.400	70	Woods, Good, HSG C (Pre-1, Pre-2)
53.100	77	Woods, Good, HSG D (Pre-1, Pre-2)
72.500	76	TOTAL AREA

Glencoe Pre Developed

Prepared by HP Inc.

HydroCAD® 10.10-5a s/n 11914 © 2020 HydroCAD Software Solutions LLC

Printed 3/1/2024

Page 4

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
18.400	HSG C	Pre-1, Pre-2
53.100	HSG D	Pre-1, Pre-2
1.000	Other	Pre-1
72.500		TOTAL AREA

Glencoe Pre Developed

Prepared by HP Inc.

HydroCAD® 10.10-5a s/n 11914 © 2020 HydroCAD Software Solutions LLC

Printed 3/1/2024

Page 5

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.000	1.000	1.000	Impervious	Pre-1
0.000	0.000	18.400	53.100	0.000	71.500	Woods, Good	Pre-1, Pre-2
0.000	0.000	18.400	53.100	1.000	72.500	TOTAL AREA	

Glencoe Pre Developed

Prepared by HP Inc.

HydroCAD® 10.10-5a s/n 11914 © 2020 HydroCAD Software Solutions LLC

Type III 24-hr 2-Year Rainfall=3.30"

Printed 3/1/2024

Page 6

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment Pre-1: PRE-1

Runoff Area=48.700 ac 2.05% Impervious Runoff Depth>1.11"
Flow Length=1,990' Tc=31.8 min CN=76 Runoff=37.07 cfs 4.499 af

Subcatchment Pre-2: Pre-2

Runoff Area=23.800 ac 0.00% Impervious Runoff Depth>1.04"
Flow Length=1,920' Tc=48.4 min CN=75 Runoff=13.79 cfs 2.070 af

Link AP-1: AP-1

Inflow=37.07 cfs 4.499 af
Primary=37.07 cfs 4.499 af

Link AP-2: AP-2

Inflow=13.79 cfs 2.070 af
Primary=13.79 cfs 2.070 af

Total Runoff Area = 72.500 ac Runoff Volume = 6.570 af Average Runoff Depth = 1.09"
98.62% Pervious = 71.500 ac 1.38% Impervious = 1.000 ac

Summary for Subcatchment Pre-1: PRE-1

Runoff = 37.07 cfs @ 12.47 hrs, Volume= 4.499 af, Depth> 1.11"

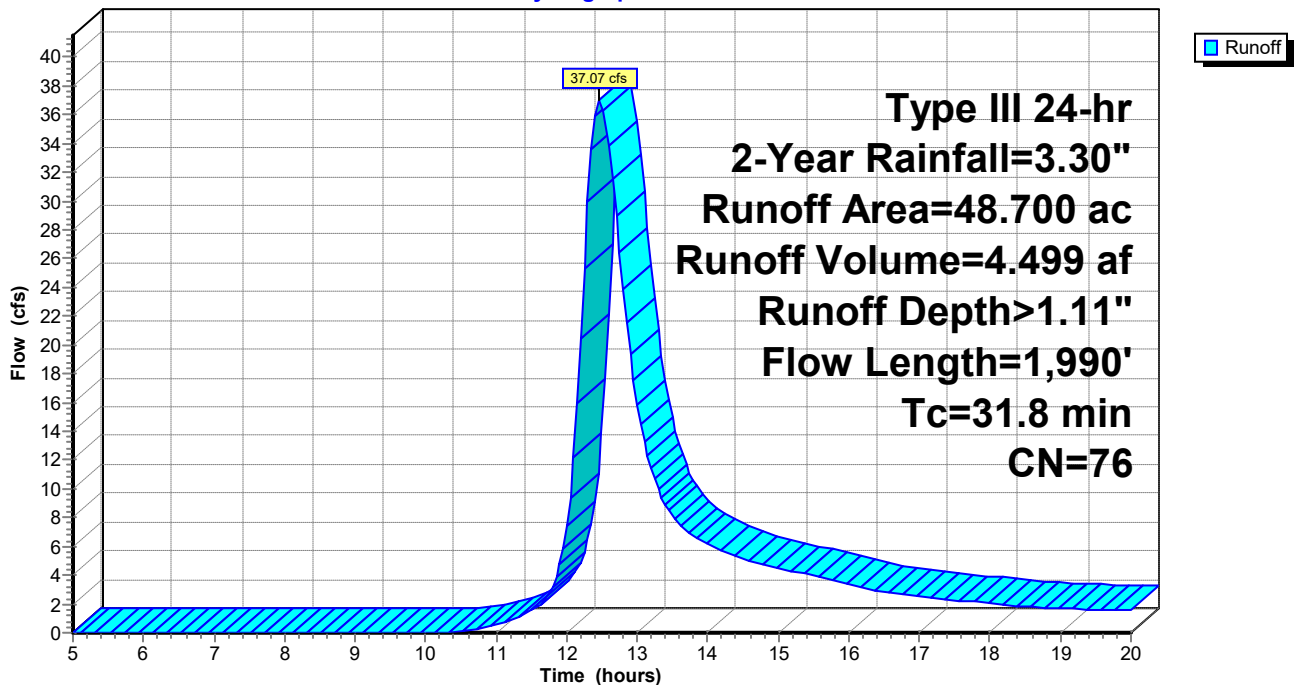
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (ac)	CN	Description
* 1.000	98	Impervious
12.900	70	Woods, Good, HSG C
34.800	77	Woods, Good, HSG D
48.700	76	Weighted Average
47.700		97.95% Pervious Area
1.000		2.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	100	0.0200	0.08		Sheet Flow, Pre-1A Woods: Light underbrush n= 0.400 P2= 3.30"
6.3	380	0.0400	1.00		Shallow Concentrated Flow, Pre-1B Woodland Kv= 5.0 fps
4.4	1,510	0.0190	5.78	34.70	Channel Flow, Pre-1C Area= 6.0 sf Perim= 5.0' r= 1.20' n= 0.040 Winding stream, pools & shoals
31.8	1,990	Total			

Subcatchment Pre-1: PRE-1

Hydrograph



Summary for Subcatchment Pre-2: Pre-2

Runoff = 13.79 cfs @ 12.71 hrs, Volume= 2.070 af, Depth> 1.04"

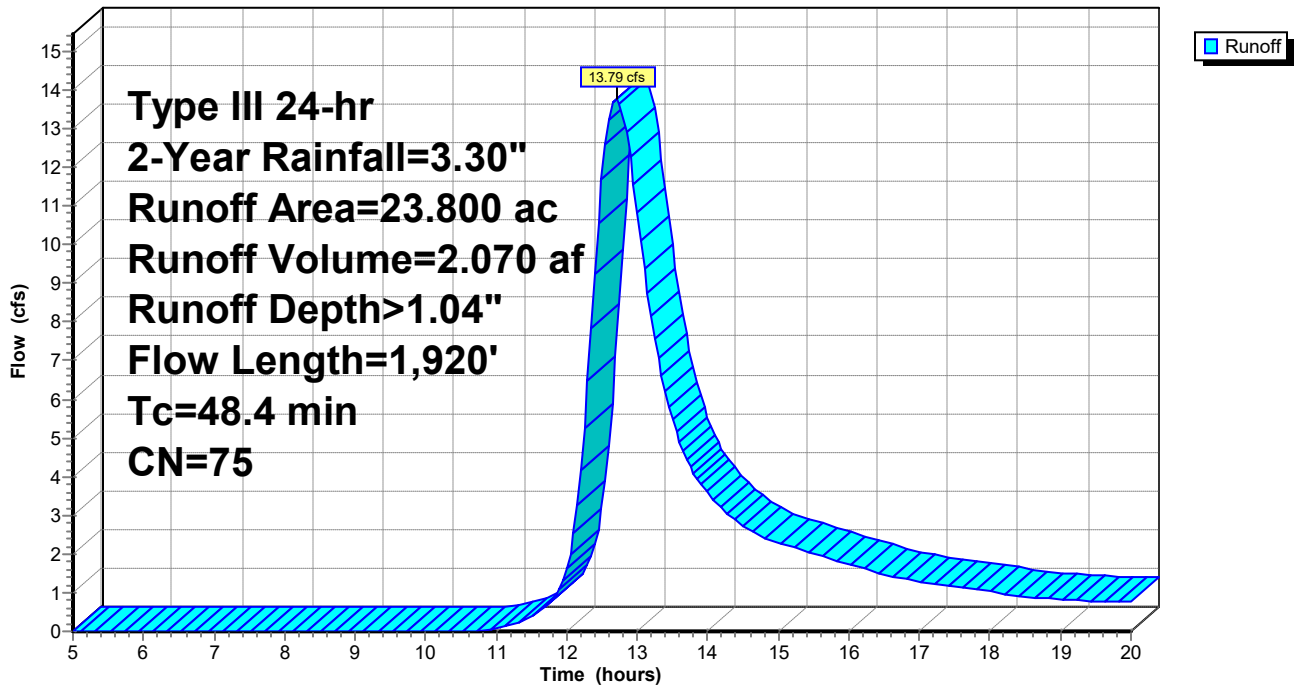
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.30"

Area (ac)	CN	Description
5.500	70	Woods, Good, HSG C
18.300	77	Woods, Good, HSG D
23.800	75	Weighted Average
23.800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.1290	0.17		Sheet Flow, Pre-2A
					Woods: Light underbrush n= 0.400 P2= 3.30"
38.4	1,820	0.0250	0.79		Shallow Concentrated Flow, Pre-2B
					Woodland Kv= 5.0 fps
48.4	1,920	Total			

Subcatchment Pre-2: Pre-2

Hydrograph



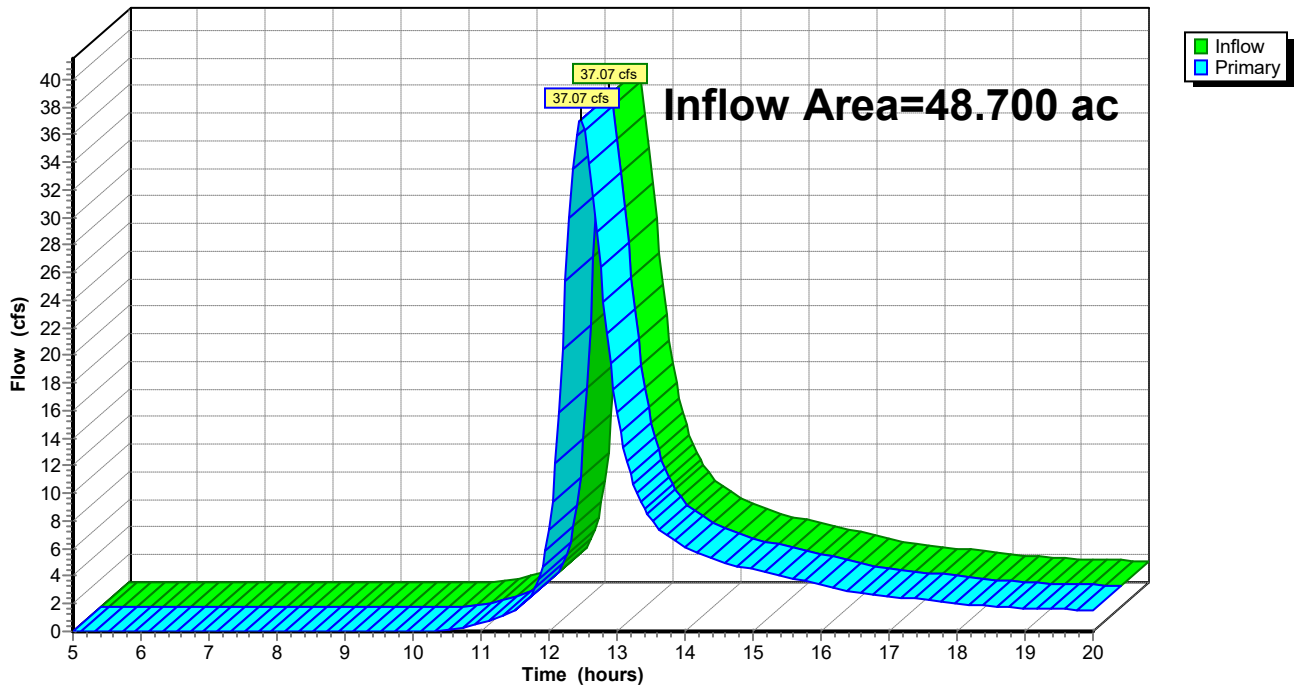
Summary for Link AP-1: AP-1

Inflow Area = 48.700 ac, 2.05% Impervious, Inflow Depth > 1.11" for 2-Year event
Inflow = 37.07 cfs @ 12.47 hrs, Volume= 4.499 af
Primary = 37.07 cfs @ 12.47 hrs, Volume= 4.499 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link AP-1: AP-1

Hydrograph



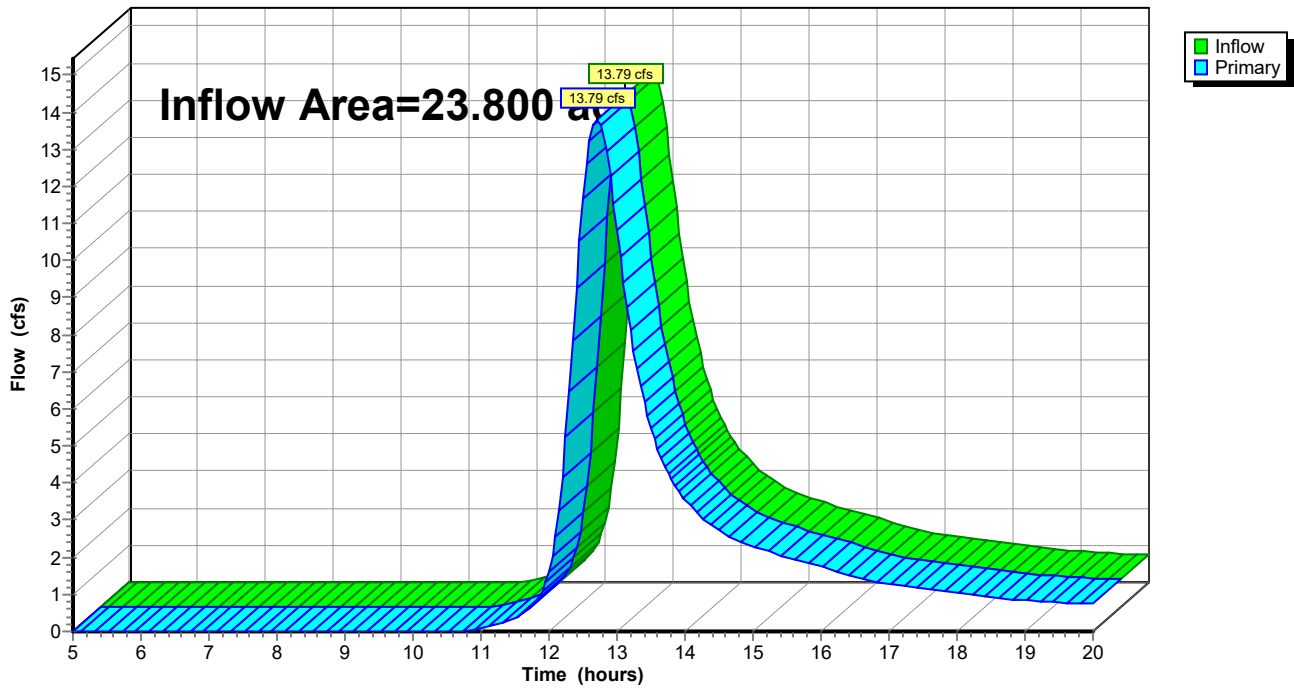
Summary for Link AP-2: AP-2

Inflow Area = 23.800 ac, 0.00% Impervious, Inflow Depth > 1.04" for 2-Year event
Inflow = 13.79 cfs @ 12.71 hrs, Volume= 2.070 af
Primary = 13.79 cfs @ 12.71 hrs, Volume= 2.070 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link AP-2: AP-2

Hydrograph



Glencoe Pre Developed

Prepared by HP Inc.

HydroCAD® 10.10-5a s/n 11914 © 2020 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=4.90"

Printed 3/1/2024

Page 11

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment Pre-1: PRE-1

Runoff Area=48.700 ac 2.05% Impervious Runoff Depth>2.26"
Flow Length=1,990' Tc=31.8 min CN=76 Runoff=76.69 cfs 9.160 af

Subcatchment Pre-2: Pre-2

Runoff Area=23.800 ac 0.00% Impervious Runoff Depth>2.16"
Flow Length=1,920' Tc=48.4 min CN=75 Runoff=29.23 cfs 4.287 af

Link AP-1: AP-1

Inflow=76.69 cfs 9.160 af
Primary=76.69 cfs 9.160 af

Link AP-2: AP-2

Inflow=29.23 cfs 4.287 af
Primary=29.23 cfs 4.287 af

Total Runoff Area = 72.500 ac Runoff Volume = 13.447 af Average Runoff Depth = 2.23"
98.62% Pervious = 71.500 ac 1.38% Impervious = 1.000 ac

Summary for Subcatchment Pre-1: PRE-1

Runoff = 76.69 cfs @ 12.45 hrs, Volume= 9.160 af, Depth> 2.26"

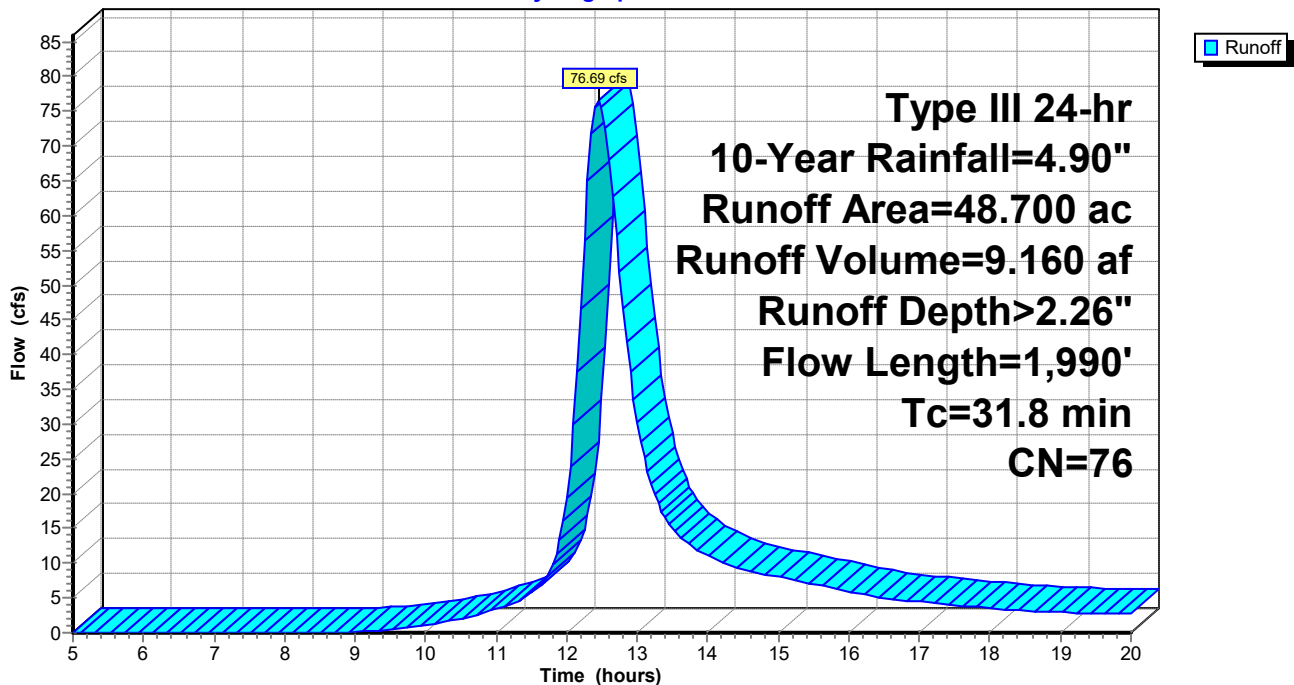
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.90"

Area (ac)	CN	Description
* 1.000	98	Impervious
12.900	70	Woods, Good, HSG C
34.800	77	Woods, Good, HSG D
48.700	76	Weighted Average
47.700		97.95% Pervious Area
1.000		2.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	100	0.0200	0.08		Sheet Flow, Pre-1A Woods: Light underbrush n= 0.400 P2= 3.30"
6.3	380	0.0400	1.00		Shallow Concentrated Flow, Pre-1B Woodland Kv= 5.0 fps
4.4	1,510	0.0190	5.78	34.70	Channel Flow, Pre-1C Area= 6.0 sf Perim= 5.0' r= 1.20' n= 0.040 Winding stream, pools & shoals
31.8	1,990	Total			

Subcatchment Pre-1: PRE-1

Hydrograph



Summary for Subcatchment Pre-2: Pre-2

Runoff = 29.23 cfs @ 12.67 hrs, Volume= 4.287 af, Depth> 2.16"

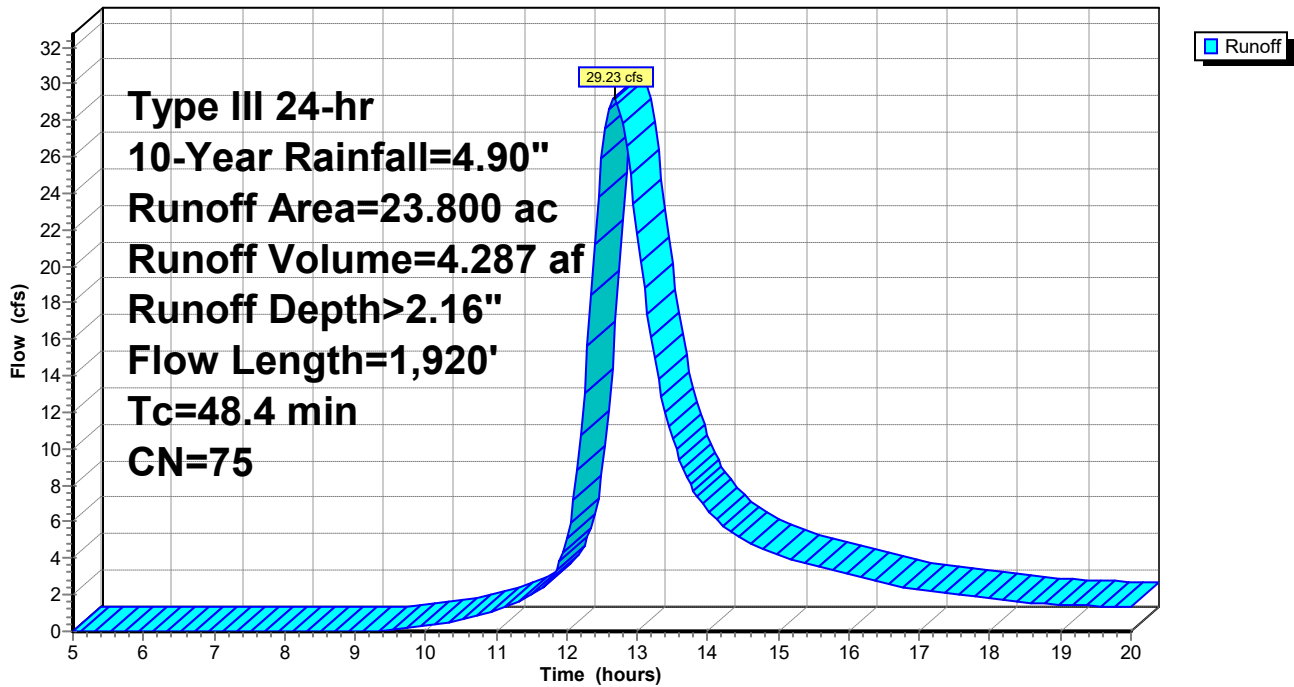
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.90"

Area (ac)	CN	Description
5.500	70	Woods, Good, HSG C
18.300	77	Woods, Good, HSG D
23.800	75	Weighted Average
23.800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.1290	0.17		Sheet Flow, Pre-2A
					Woods: Light underbrush n= 0.400 P2= 3.30"
38.4	1,820	0.0250	0.79		Shallow Concentrated Flow, Pre-2B
					Woodland Kv= 5.0 fps
48.4	1,920	Total			

Subcatchment Pre-2: Pre-2

Hydrograph



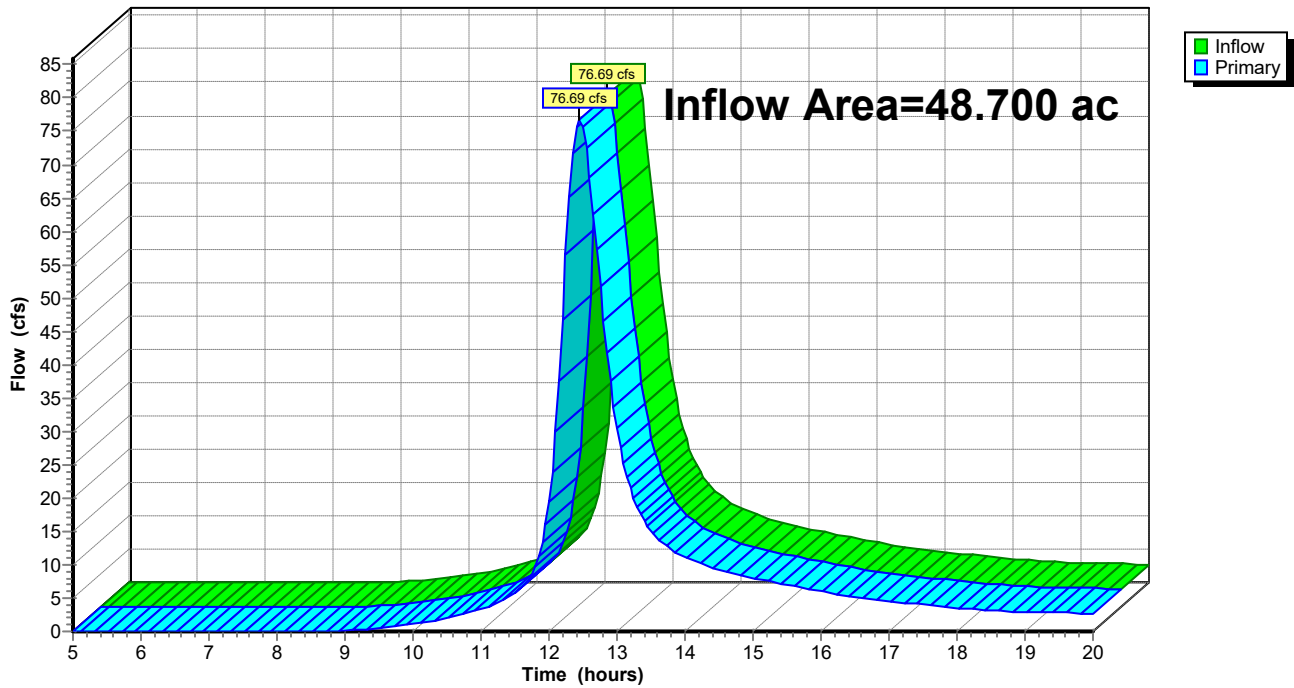
Summary for Link AP-1: AP-1

Inflow Area = 48.700 ac, 2.05% Impervious, Inflow Depth > 2.26" for 10-Year event
Inflow = 76.69 cfs @ 12.45 hrs, Volume= 9.160 af
Primary = 76.69 cfs @ 12.45 hrs, Volume= 9.160 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link AP-1: AP-1

Hydrograph



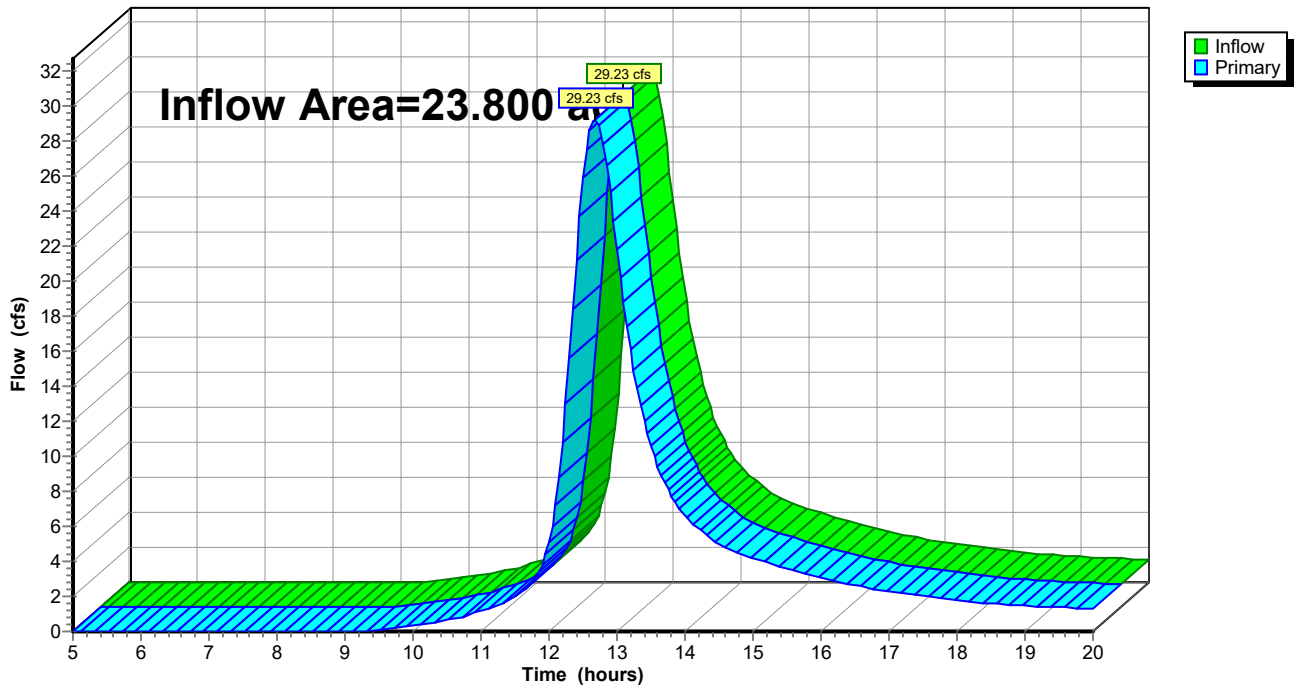
Summary for Link AP-2: AP-2

Inflow Area = 23.800 ac, 0.00% Impervious, Inflow Depth > 2.16" for 10-Year event
Inflow = 29.23 cfs @ 12.67 hrs, Volume= 4.287 af
Primary = 29.23 cfs @ 12.67 hrs, Volume= 4.287 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link AP-2: AP-2

Hydrograph



Glencoe Pre Developed

Prepared by HP Inc.

HydroCAD® 10.10-5a s/n 11914 © 2020 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=6.20"

Printed 3/1/2024

Page 16

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment Pre-1: PRE-1

Runoff Area=48.700 ac 2.05% Impervious Runoff Depth>3.29"
Flow Length=1,990' Tc=31.8 min CN=76 Runoff=111.47 cfs 13.349 af

Subcatchment Pre-2: Pre-2

Runoff Area=23.800 ac 0.00% Impervious Runoff Depth>3.17"
Flow Length=1,920' Tc=48.4 min CN=75 Runoff=42.89 cfs 6.294 af

Link AP-1: AP-1

Inflow=111.47 cfs 13.349 af
Primary=111.47 cfs 13.349 af

Link AP-2: AP-2

Inflow=42.89 cfs 6.294 af
Primary=42.89 cfs 6.294 af

Total Runoff Area = 72.500 ac Runoff Volume = 19.643 af Average Runoff Depth = 3.25"
98.62% Pervious = 71.500 ac 1.38% Impervious = 1.000 ac

Summary for Subcatchment Pre-1: PRE-1

Runoff = 111.47 cfs @ 12.44 hrs, Volume= 13.349 af, Depth> 3.29"

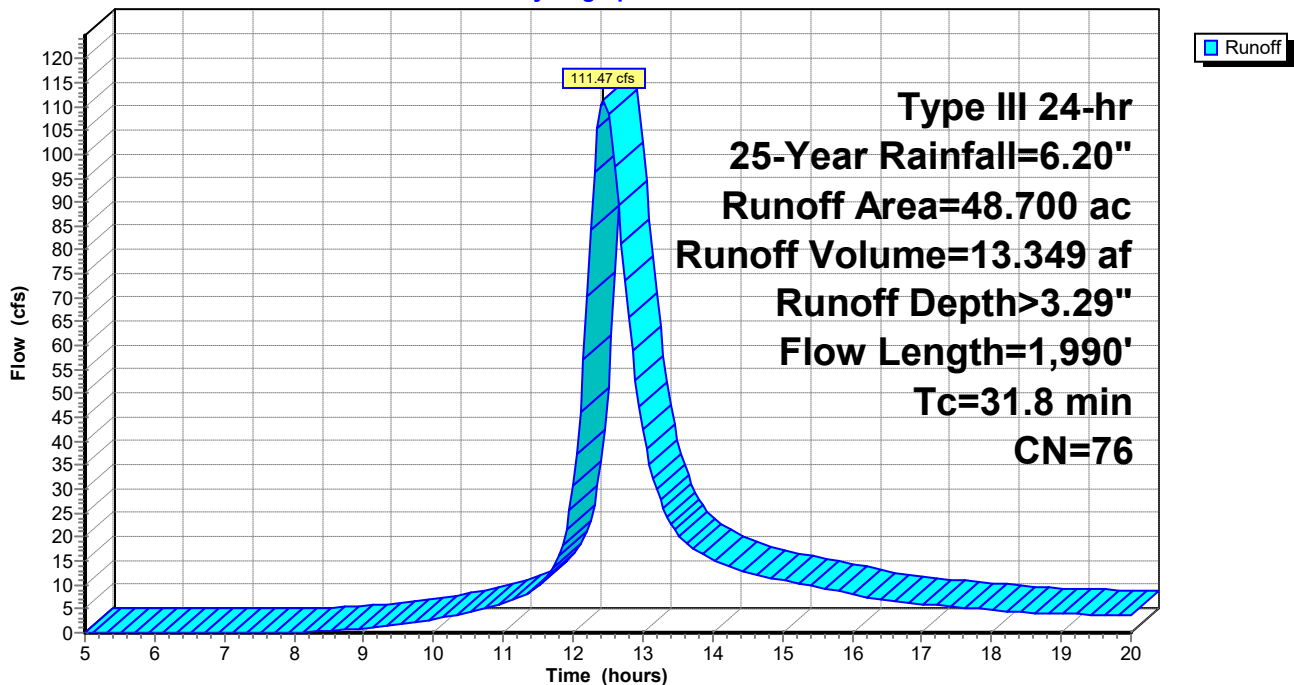
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=6.20"

Area (ac)	CN	Description
* 1.000	98	Impervious
12.900	70	Woods, Good, HSG C
34.800	77	Woods, Good, HSG D
48.700	76	Weighted Average
47.700		97.95% Pervious Area
1.000		2.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	100	0.0200	0.08		Sheet Flow, Pre-1A Woods: Light underbrush n= 0.400 P2= 3.30"
6.3	380	0.0400	1.00		Shallow Concentrated Flow, Pre-1B Woodland Kv= 5.0 fps
4.4	1,510	0.0190	5.78	34.70	Channel Flow, Pre-1C Area= 6.0 sf Perim= 5.0' r= 1.20' n= 0.040 Winding stream, pools & shoals
31.8	1,990	Total			

Subcatchment Pre-1: PRE-1

Hydrograph



Summary for Subcatchment Pre-2: Pre-2

Runoff = 42.89 cfs @ 12.66 hrs, Volume= 6.294 af, Depth> 3.17"

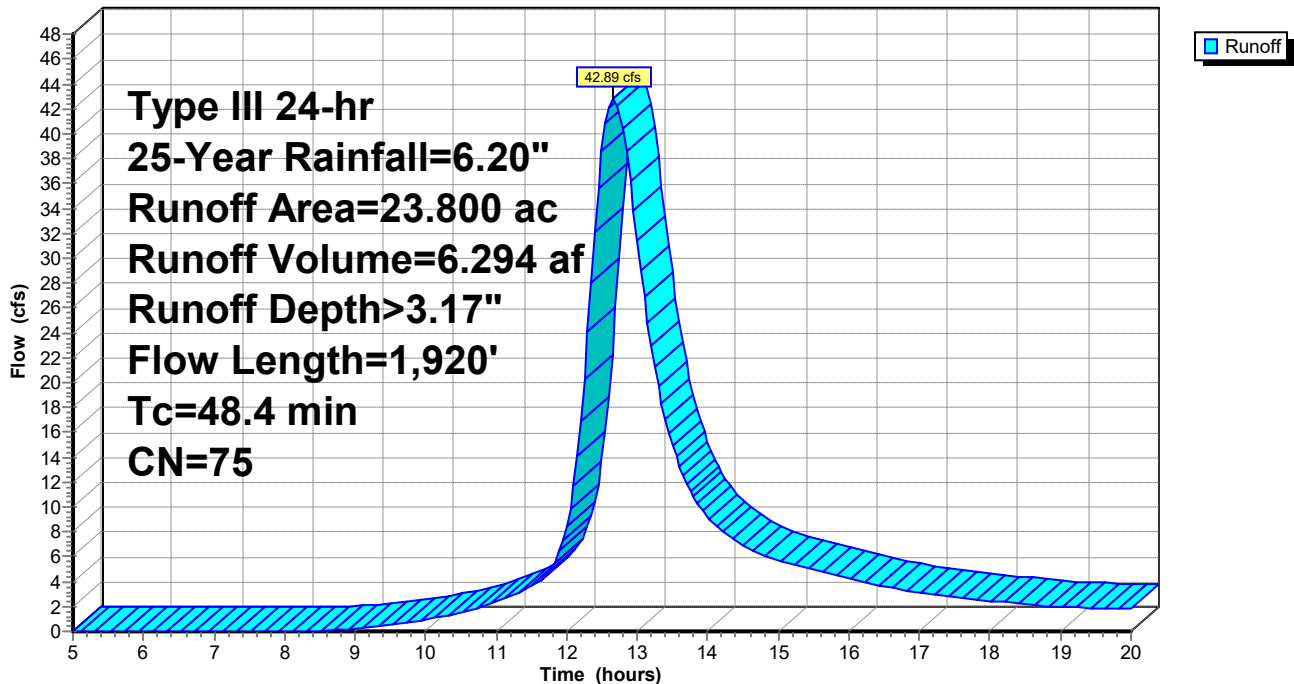
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25-Year Rainfall=6.20"

Area (ac)	CN	Description
5.500	70	Woods, Good, HSG C
18.300	77	Woods, Good, HSG D
23.800	75	Weighted Average
23.800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.1290	0.17		Sheet Flow, Pre-2A
					Woods: Light underbrush n= 0.400 P2= 3.30"
38.4	1,820	0.0250	0.79		Shallow Concentrated Flow, Pre-2B
					Woodland Kv= 5.0 fps
48.4	1,920	Total			

Subcatchment Pre-2: Pre-2

Hydrograph



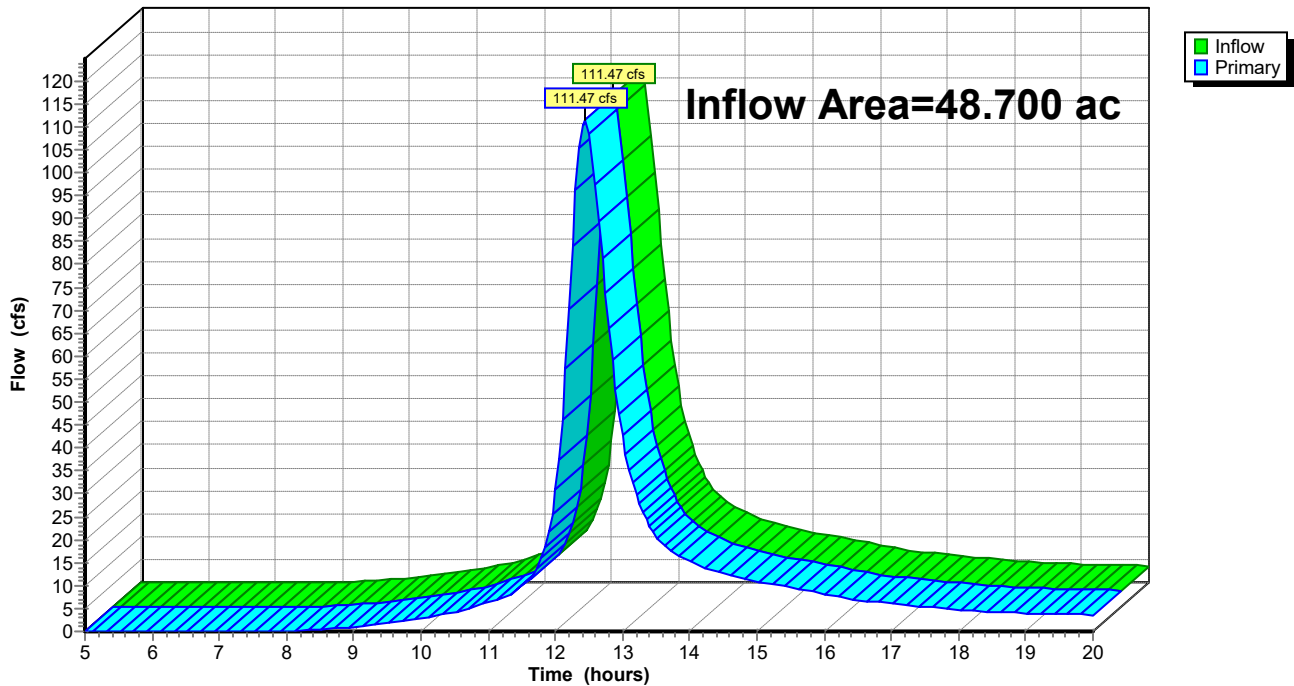
Summary for Link AP-1: AP-1

Inflow Area = 48.700 ac, 2.05% Impervious, Inflow Depth > 3.29" for 25-Year event
Inflow = 111.47 cfs @ 12.44 hrs, Volume= 13.349 af
Primary = 111.47 cfs @ 12.44 hrs, Volume= 13.349 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link AP-1: AP-1

Hydrograph



Summary for Link AP-2: AP-2

Inflow Area = 23.800 ac, 0.00% Impervious, Inflow Depth > 3.17" for 25-Year event
Inflow = 42.89 cfs @ 12.66 hrs, Volume= 6.294 af
Primary = 42.89 cfs @ 12.66 hrs, Volume= 6.294 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link AP-2: AP-2

Hydrograph

