

Channel Report

<Name>

User-defined

Invert Elev (ft) = 851.00
Slope (%) = 0.01
N-Value = 0.040

Highlighted

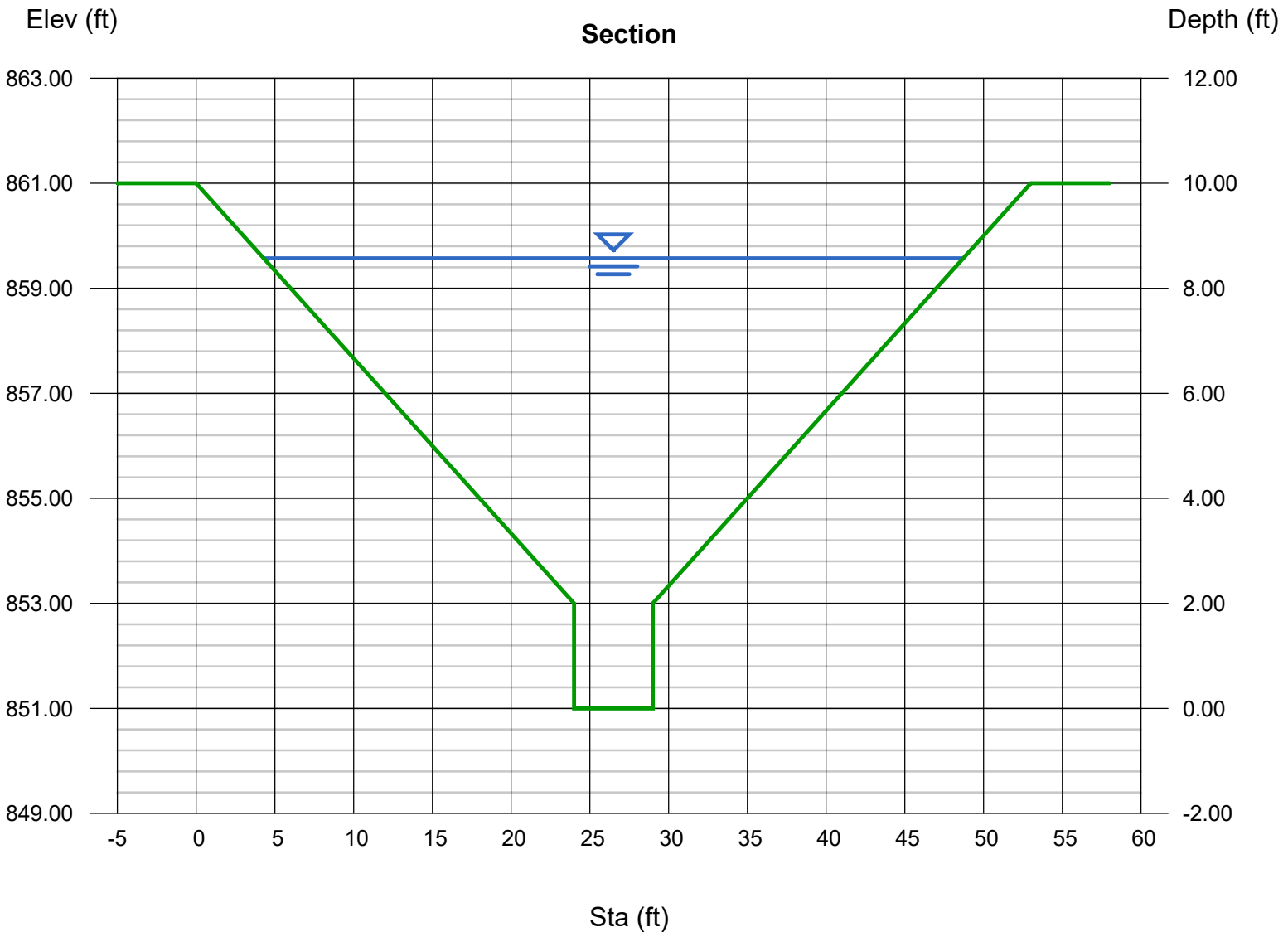
Depth (ft) = 8.57
Q (cfs) = 145.02
Area (sqft) = 172.35
Velocity (ft/s) = 0.84
Wetted Perim (ft) = 50.55
Crit Depth, Yc (ft) = 3.17
Top Width (ft) = 44.42
EGL (ft) = 8.58

Calculations

Compute by: Known Q
Known Q (cfs) = 145.02

(Sta, El, n)-(Sta, El, n)...

(0.00, 861.00)-(24.00, 853.00, 0.040)-(24.00, 851.00, 0.040)-(29.00, 851.00, 0.040)-(29.00, 853.00, 0.040)-(53.00, 861.00, 0.040)



Summary for Subcatchment 4S: Stream

Runoff = 41.01 cfs @ 12.12 hrs, Volume= 2.990 af, Depth= 1.20"

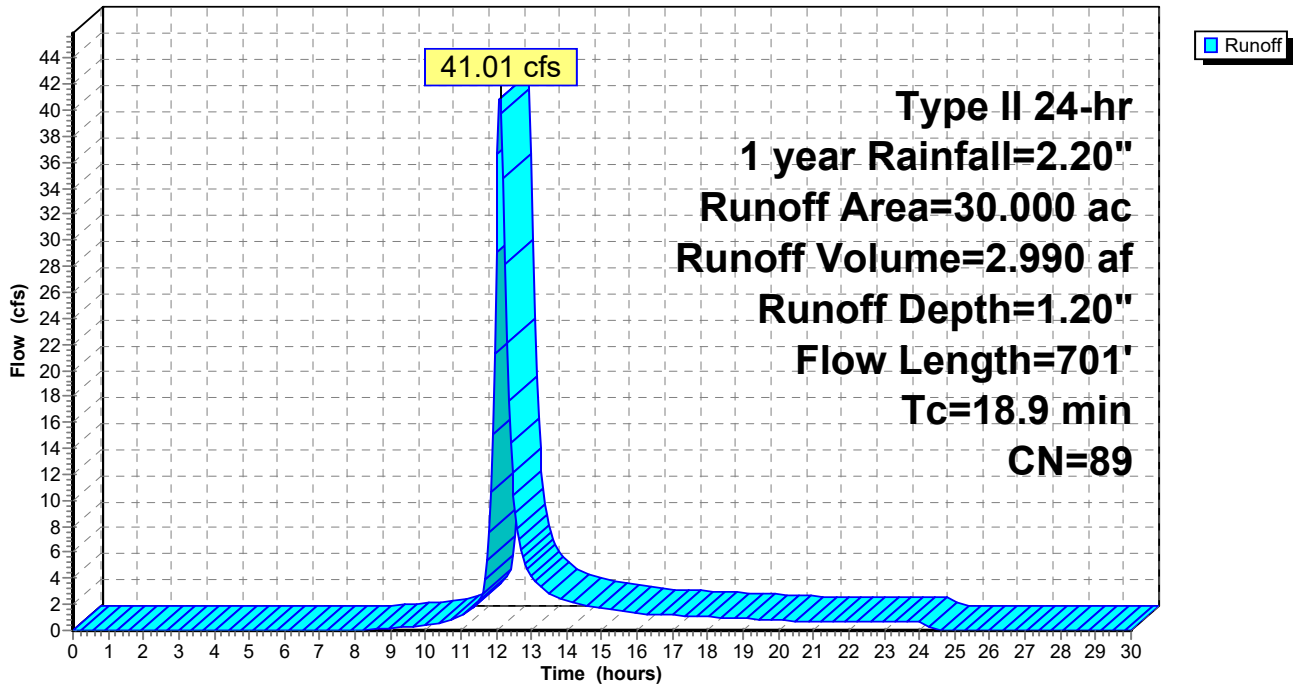
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type II 24-hr 1 year Rainfall=2.20"

Area (ac)	CN	Description
30.000	89	<50% Grass cover, Poor, HSG D
30.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	80	0.0200	1.19		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.63"
9.4					Direct Entry, pipe flow
6.3	49	0.1300	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.63"
2.1	572	0.0130	4.54	45.44	Channel Flow, Area= 10.0 sf Perim= 9.0' r= 1.11' n= 0.040 Winding stream, pools & shoals
18.9	701	Total			

Subcatchment 4S: Stream

Hydrograph



Summary for Subcatchment 4S: Stream

Runoff = 53.73 cfs @ 12.11 hrs, Volume= 3.922 af, Depth= 1.57"

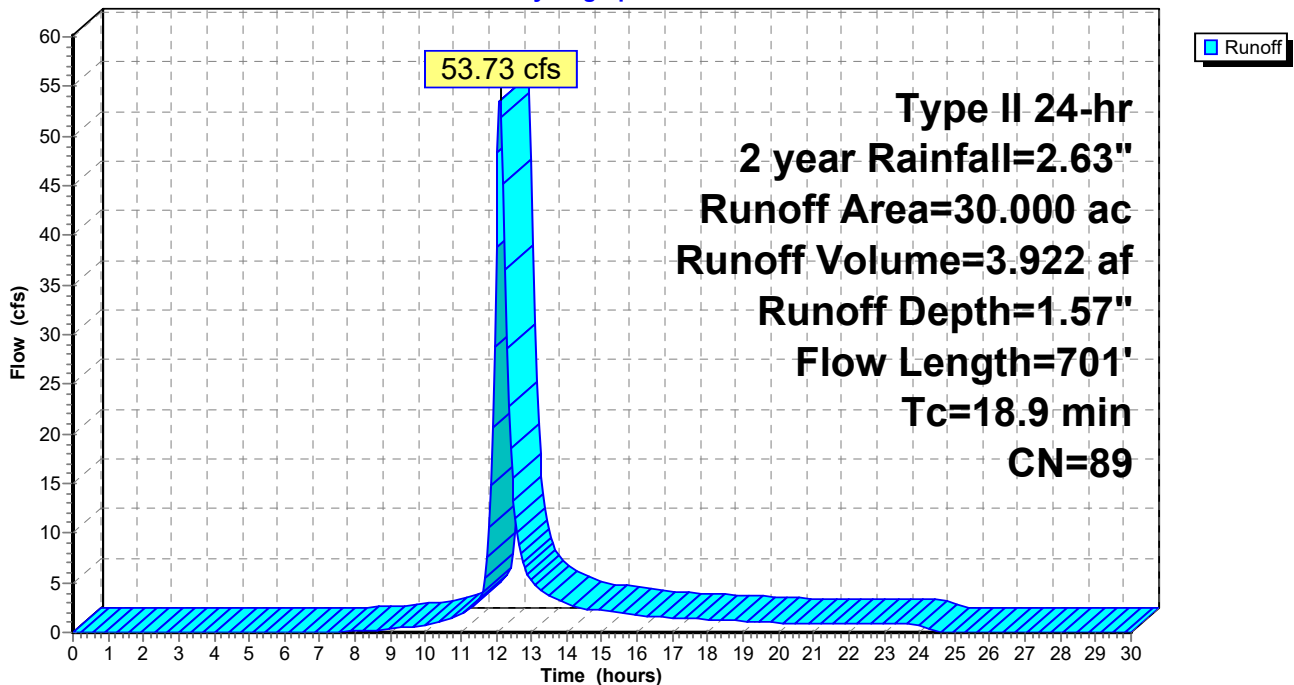
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type II 24-hr 2 year Rainfall=2.63"

Area (ac)	CN	Description
30.000	89	<50% Grass cover, Poor, HSG D
30.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	80	0.0200	1.19		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.63"
9.4					Direct Entry, pipe flow
6.3	49	0.1300	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.63"
2.1	572	0.0130	4.54	45.44	Channel Flow, Area= 10.0 sf Perim= 9.0' r= 1.11' n= 0.040 Winding stream, pools & shoals
18.9	701	Total			

Subcatchment 4S: Stream

Hydrograph



Summary for Subcatchment 4S: Stream

Runoff = 72.14 cfs @ 12.11 hrs, Volume= 5.295 af, Depth= 2.12"

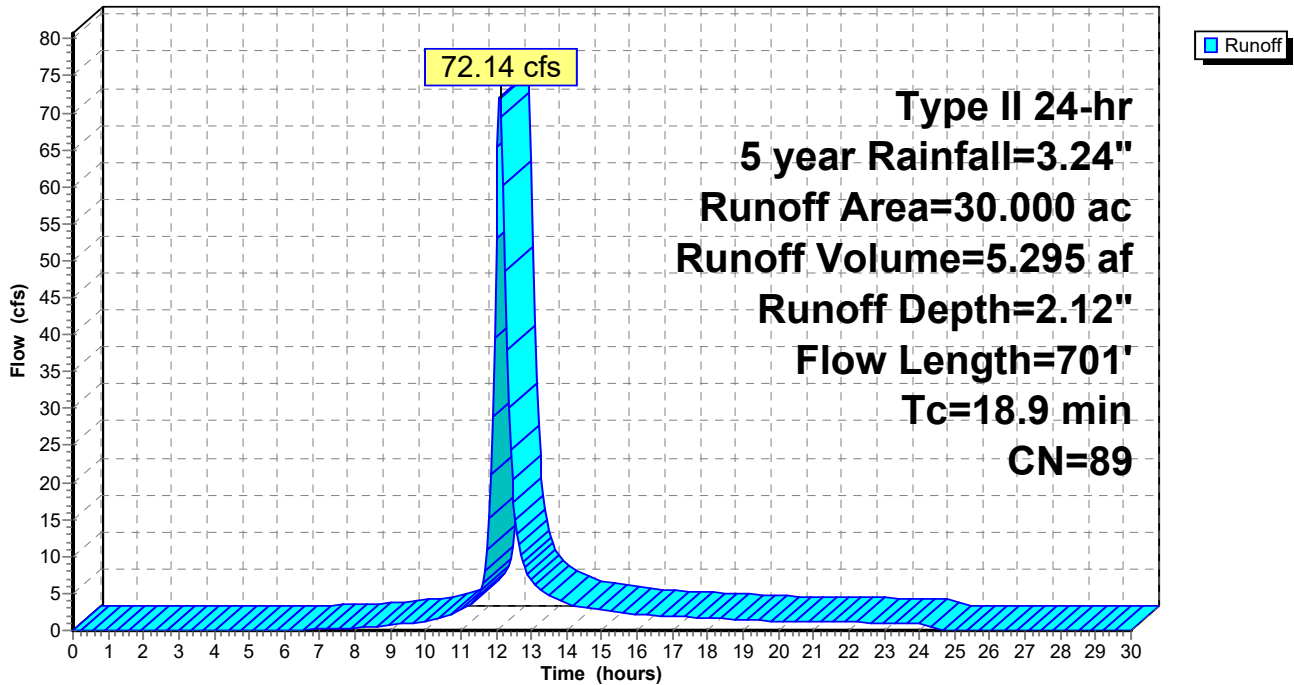
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type II 24-hr 5 year Rainfall=3.24"

Area (ac)	CN	Description
30.000	89	<50% Grass cover, Poor, HSG D
30.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	80	0.0200	1.19		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.63"
9.4					Direct Entry, pipe flow
6.3	49	0.1300	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.63"
2.1	572	0.0130	4.54	45.44	Channel Flow, Area= 10.0 sf Perim= 9.0' r= 1.11' n= 0.040 Winding stream, pools & shoals
18.9	701	Total			

Subcatchment 4S: Stream

Hydrograph



Summary for Subcatchment 4S: Stream

Runoff = 87.37 cfs @ 12.11 hrs, Volume= 6.450 af, Depth= 2.58"

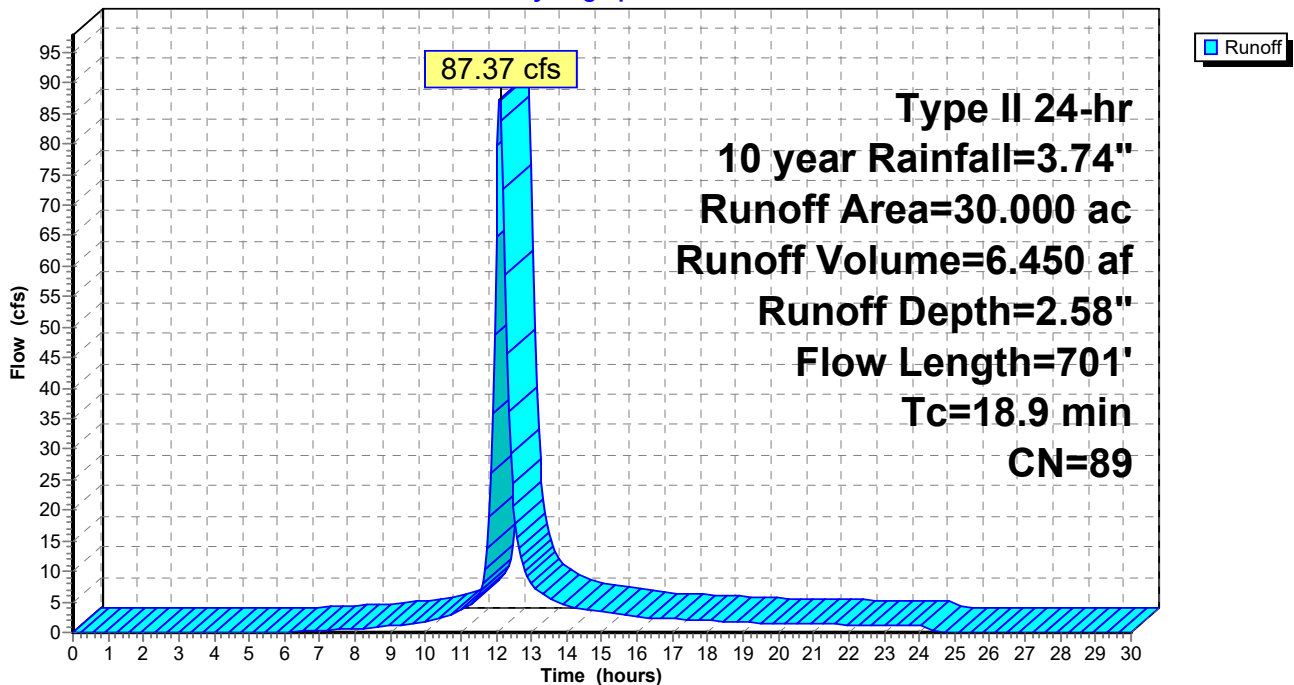
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10 year Rainfall=3.74"

Area (ac)	CN	Description
30.000	89	<50% Grass cover, Poor, HSG D
30.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	80	0.0200	1.19		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.63"
9.4					Direct Entry, pipe flow
6.3	49	0.1300	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.63"
2.1	572	0.0130	4.54	45.44	Channel Flow, Area= 10.0 sf Perim= 9.0' r= 1.11' n= 0.040 Winding stream, pools & shoals
18.9	701	Total			

Subcatchment 4S: Stream

Hydrograph



Summary for Subcatchment 4S: Stream

Runoff = 108.74 cfs @ 12.11 hrs, Volume= 8.096 af, Depth= 3.24"

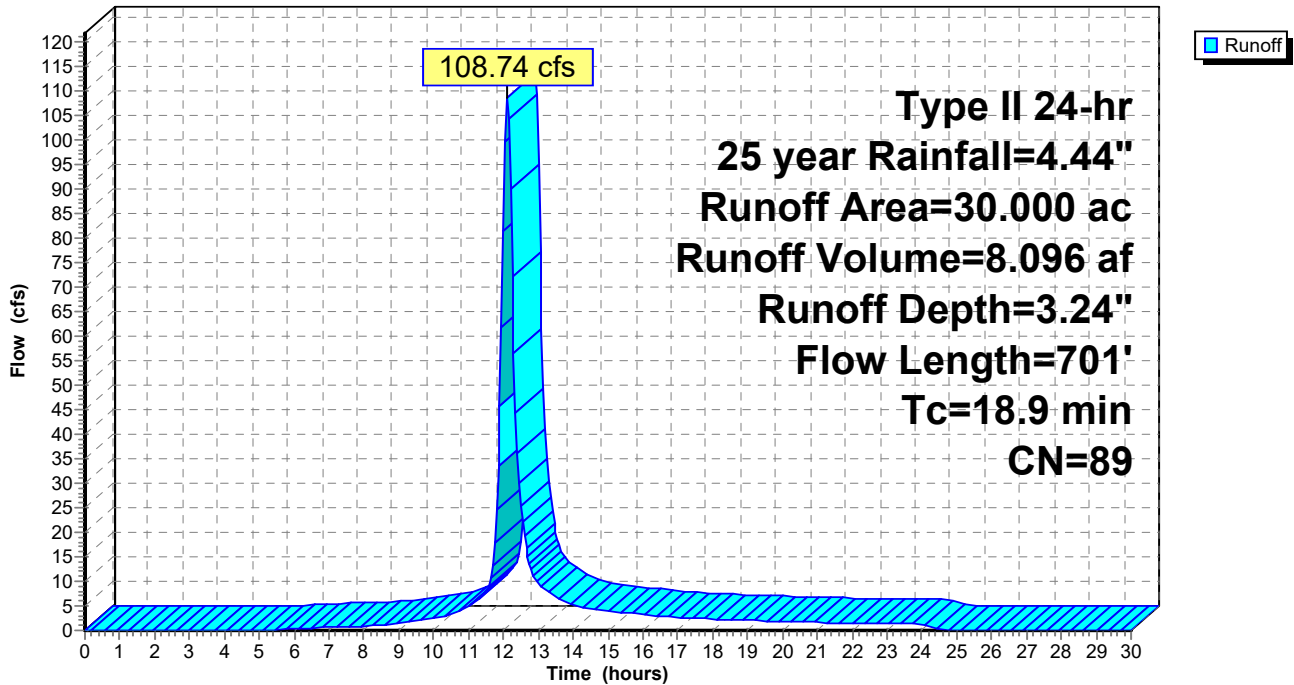
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type II 24-hr 25 year Rainfall=4.44"

Area (ac)	CN	Description
30.000	89	<50% Grass cover, Poor, HSG D
30.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	80	0.0200	1.19		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.63"
9.4					Direct Entry, pipe flow
6.3	49	0.1300	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.63"
2.1	572	0.0130	4.54	45.44	Channel Flow, Area= 10.0 sf Perim= 9.0' r= 1.11' n= 0.040 Winding stream, pools & shoals
18.9	701	Total			

Subcatchment 4S: Stream

Hydrograph



Summary for Subcatchment 4S: Stream

Runoff = 126.45 cfs @ 12.11 hrs, Volume= 9.478 af, Depth= 3.79"

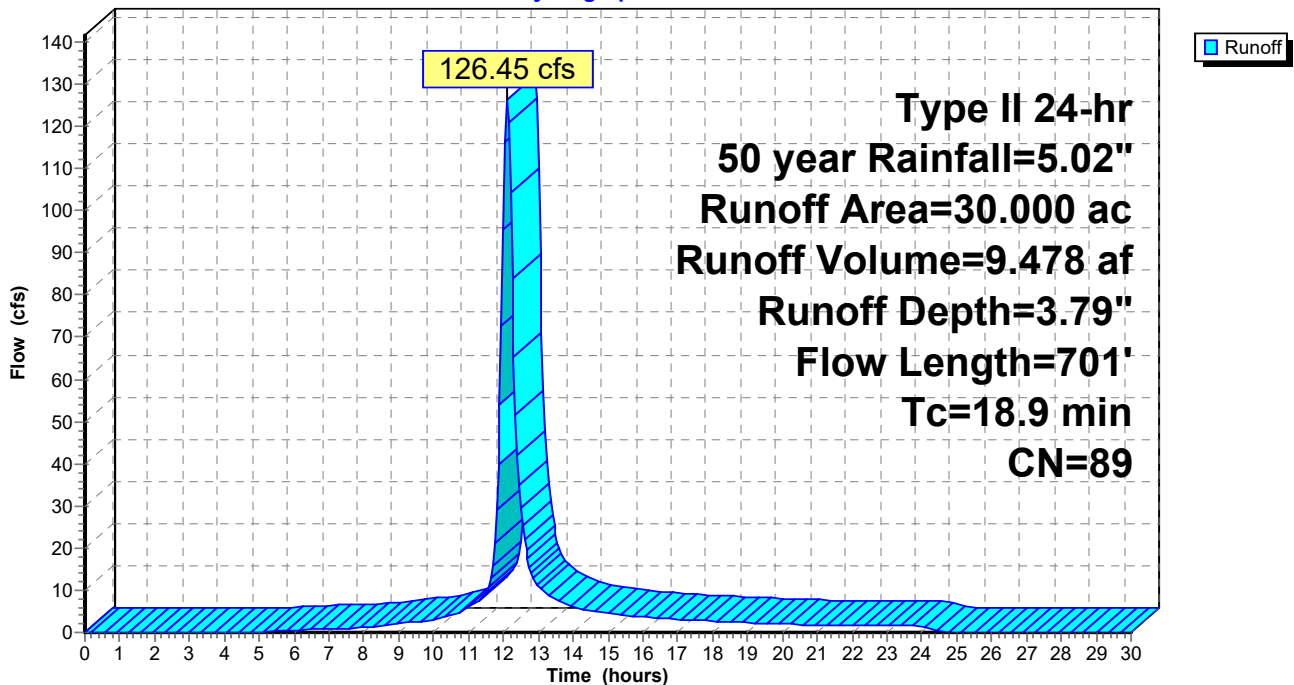
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type II 24-hr 50 year Rainfall=5.02"

Area (ac)	CN	Description
30.000	89	<50% Grass cover, Poor, HSG D
30.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	80	0.0200	1.19		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.63"
9.4					Direct Entry, pipe flow
6.3	49	0.1300	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.63"
2.1	572	0.0130	4.54	45.44	Channel Flow, Area= 10.0 sf Perim= 9.0' r= 1.11' n= 0.040 Winding stream, pools & shoals
18.9	701	Total			

Subcatchment 4S: Stream

Hydrograph



Summary for Subcatchment 4S: Stream

Runoff = **145.02 cfs** @ 12.11 hrs, Volume= 10.944 af, Depth= 4.38"

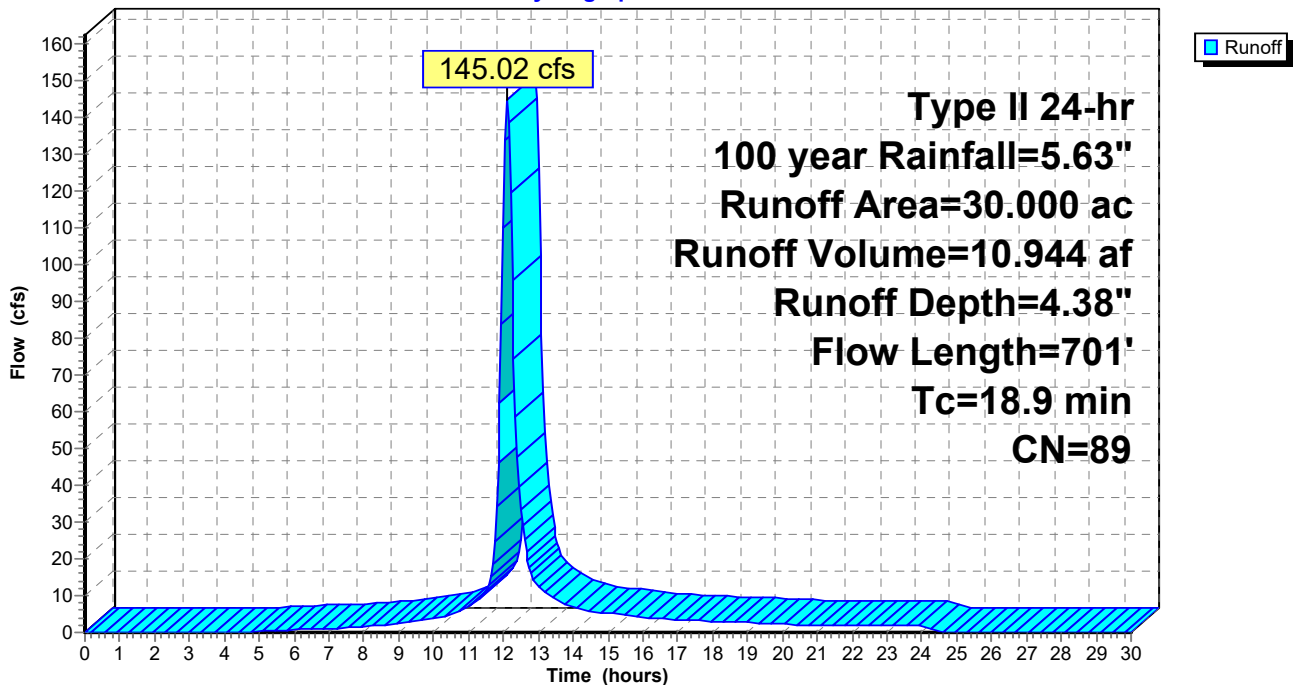
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100 year Rainfall=5.63"

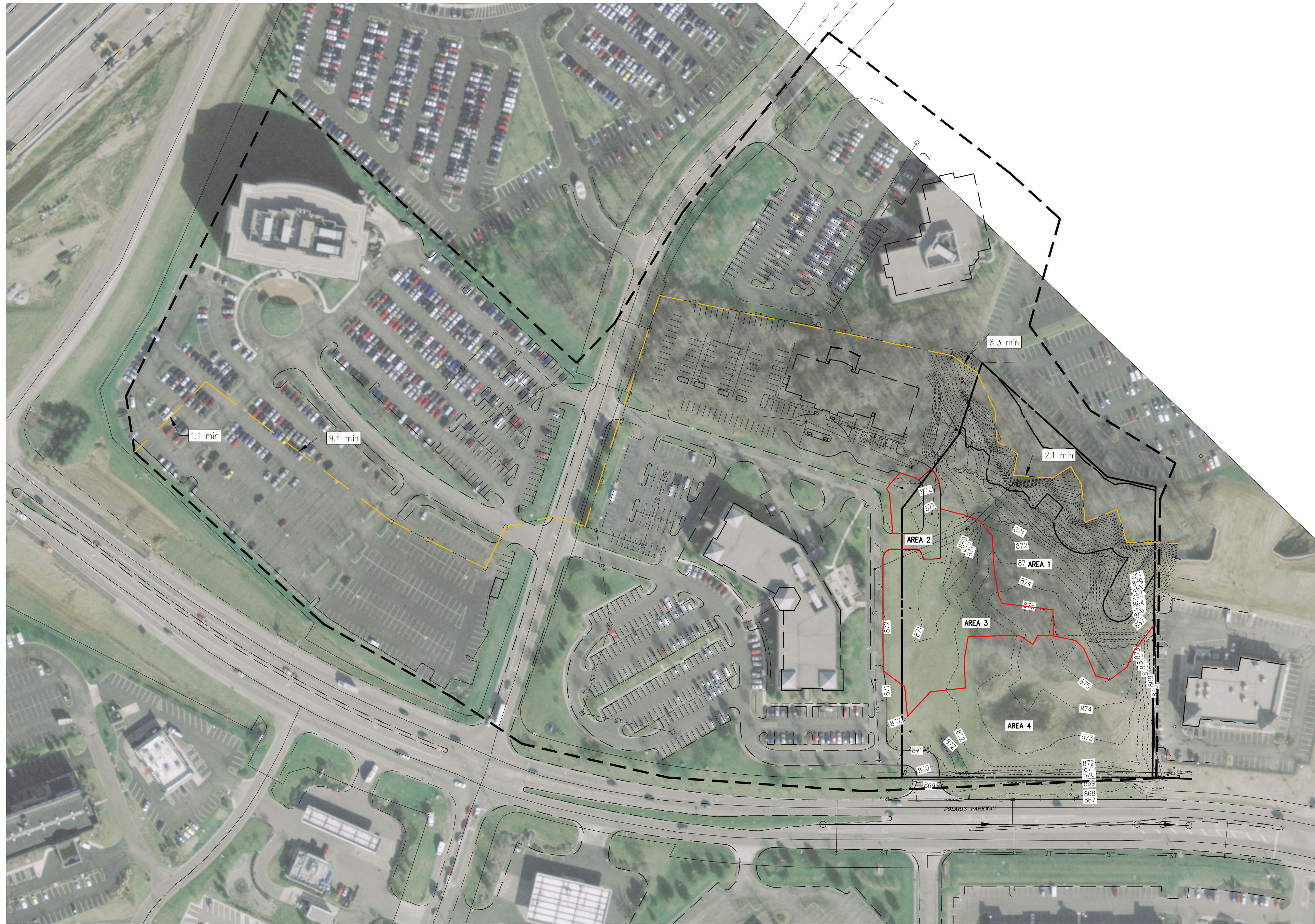
Area (ac)	CN	Description
30.000	89	<50% Grass cover, Poor, HSG D
30.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	80	0.0200	1.19		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.63"
9.4					Direct Entry, pipe flow
6.3	49	0.1300	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.63"
2.1	572	0.0130	4.54	45.44	Channel Flow, Area= 10.0 sf Perim= 9.0' r= 1.11' n= 0.040 Winding stream, pools & shoals
18.9	701	Total			

Subcatchment 4S: Stream

Hydrograph



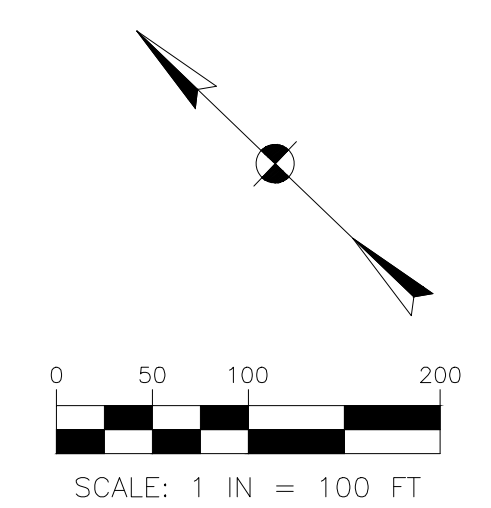


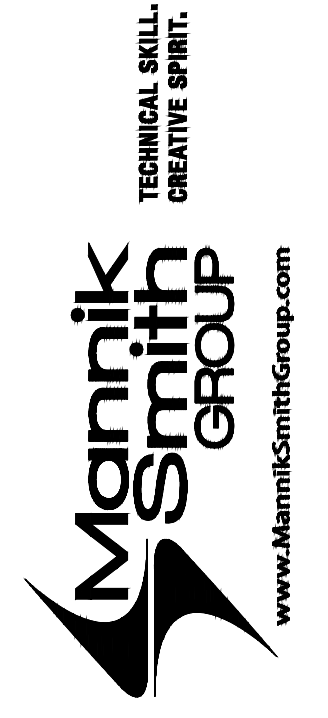
LEGEND

- STREAM TRIBUTARY AREA:
- SITE TRIBUTARY AREAS:
- TIME OF CONCENTRATION:

TRIBUTARY AREAS

	C-VALUE	AREA (AC)
AREA 1:	0.48	1.17
TRIBUTARY DIRECTLY TO STREAM		
AREA 2:	0.72	0.21
TRIBUTARY TO EX STRUCTURE 6 (CC-15621)		
AREA 3:	0.50	1.06
TRIBUTARY TO EX STRUCTURE 7 (CC-8057)		
AREA 4:	0.52	1.79
TRIBUTARY TO CURB AND GUTTER INLET (E-1411), UPSTREAM OF STREAM OUTLET		



NO.	DATE	BY	DESCRIPTION				
1160 DUBLIN ROAD SUITE 100 COLUMBUS, OH 43215 TEL: 614.441.4222 FAX: 888.486.7340		PROJECT DATE: 3/13/2018		PROJECT NO.: W3010004		DRAWN BY: DJM	
						CHECKED BY: SEF	
							
PREPARED FOR: WITNESS GROUP 600 ENTERPRISE DRIVE, LEWIS CENTER, OH 43035							
BADRIVISHAL LLC POLARIS PARKWAY COLUMBUS, OH							
TRIBUTARY MAP							
1							1