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Summary for Subcatchment S-1: Tributary toward BVW

Runoff 0.11 cfs @ 13.78 hrs, Volume= 0.065 af, Depth= 0.13"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 2-yr Rainfall=3.40"

	Α	rea (sf)	CN I	Description							
	1	50,613	30 \	Woods, Go	od, HSG A						
		43,177	55	Woods, Go	/oods, Good, HSG B						
		50,419	68 -	50% Grass cover, Poor, HSG A							
		2,419	79 ·	<50% Gras	50% Grass cover, Poor, HSG B						
*		20,948	98	Existing Pa	vement						
*		899	98 l	Existing Ro	of						
*		1,574	98 l	Existing Co	ncrete						
*		1,421	77	Gravel & Ru	ubble Stock	xpiles					
	2	271,470	48 \	Weighted A	verage						
	2	248,049		Pervious Ar	rea						
		23,421		mpervious	Area						
				-							
	Tc	Length	Slope	Velocity	Capacity	Description					
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	14.7	50	0.0120	0.06		Sheet Flow, AB					
						Woods: Light underbrush n= 0.400 P2= 3.40"					
	4.0	120	0.0100	0.50		Shallow Concentrated Flow, bc					
_						Woodland Kv= 5.0 fps					
	18.7	170	Total								

Summary for Subcatchment S-1A: Tributary to Culvert at North Side of Building

Runoff 0.11 cfs @ 12.53 hrs, Volume= 0.033 af, Depth= 0.20"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 2-yr Rainfall=3.40"

	Α	rea (sf)	CN [Description								
		43,289	30 V	Voods, Go	oods, Good, HSG A							
		32,140	68 <	50% Gras	50% Grass cover, Poor, HSG A							
*		1,901	98 E	xisting Roof								
*		11,009	77 (Gravel & Ru	ravel & Rubble Stockpiles							
		88,339	51 \	Weighted Average								
		86,438	F	Pervious Area								
		1,901	I	mpervious	Area							
				-								
	Tc	Length	Slope	Velocity	Capacity	Description						
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)							
	8.3	50	0.0500	0.10		Sheet Flow, AB						
						Woods: Light underbrush n= 0.400 P2= 3.40"						
	6.7	200	0.0100	0.50		Shallow Concentrated Flow, BC						
						Woodland Kv= 5.0 fps						
	15.0	250	Total	•								

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Summary for Subcatchment S-1B: Tributary to Small Depression at NE Corner of Building

Runoff 0.12 cfs @ 12.10 hrs, Volume= 0.009 af. Depth= 1.11"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 2-yr Rainfall=3.40"

Α	rea (sf)	CN	Description							
	3,457	68	<50% Gras	<50% Grass cover, Poor, HSG A						
*	656	98	Existing Co	Existing Concrete						
	4,113	73	Weighted A	eighted Average						
	3,457		Pervious Area							
	656		Impervious	Area						
т.		Ola -		0	Description					
Tc	Length	Slope	,	Capacity	Description					
(min)	(feet)	(ft/ft) (ft/sec)	(cfs)						
6.0				Direct Entry, TR-55 Minimum						

Direct Entry, TR-55 Minimum

Summary for Subcatchment S-1C: Tributary to Depression at NW corner of Building

Runoff 0.24 cfs @ 12.37 hrs, Volume= 0.037 af, Depth= 0.49"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 2-yr Rainfall=3.40"

	Α	rea (sf)	CN I	Description						
		17,356	45 \	Noods, Poo	or, HSG A					
		15,021	68 -	<50% Gras	s cover, Po	or, HSG A				
*		1,901	98 I	Existing Ro	isting Roof					
*		5,087	77 (Gravel & Ru	avel & Rubble Stockpiles					
		39,365	60 \	Weighted Average						
		37,464	I	Pervious Area						
		1,901	I	mpervious	Area					
		,		•						
	Tc	Length	Slope	Velocity	Capacity	Description				
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	<u> </u>				
	15.8	50	0.0100	0.05		Sheet Flow, AB				
						Woods: Light underbrush n= 0.400 P2= 3.40"				
	3.3	100	0.0100	0.50		Shallow Concentrated Flow, BC				
						Woodland Kv= 5.0 fps				
	19.1	150	Total			·				

Summary for Subcatchment S-2: Tributary to Existing Drain Basin Resource Area

Runoff 19.35 cfs @ 12.08 hrs, Volume= 1.511 af, Depth= 3.06"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 2-yr Rainfall=3.40"

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	Area (sf) CN	Description					
	7,500	3 68	<50% Grass	<50% Grass cover, Poor, HSG A				
	4,321	1 79	<50% Grass	<50% Grass cover, Poor, HSG B				
*	92,147	7 98	Exisitng Pav	ement/Co	oncrete			
*	94,397	7 98	Existing Roo	of				
*	60,155	5 98	Existing Bas	Existing Basin @ Elev=71.7				
	258,520	97	Weighted Av	verage				
	11,821	1	Pervious Are	ea				
	246,699	9	Impervious /	Area				
/	Tc Leng		,	Capacity	Description			
	nin) (fee	et) (ft/	ft) (ft/sec)	(cfs)				
	6.0				Direct Entry, TR-55 Minimum			

Summary for Subcatchment S-2A: Tributary to Depression at SE Corner of Building

Runoff = 2.83 cfs @ 12.20 hrs, Volume= 0.267 af, Depth= 1.36"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 2-yr Rainfall=3.40"

	Α	rea (sf)	CN	Description						
	20,817 30 Woods, Good, HSG A									
		24,816	68	68 <50% Grass cover, Poor, HSG A						
*		57,081	1 98 Rooftop							
	1	02,714	77	Weighted A	verage					
		45,633		Pervious Ar	ea					
		57,081		mpervious	Area					
	Tc	Length	Slope		Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	8.0	50	0.0200	0.10		Sheet Flow, AB				
						Grass: Dense n= 0.240 P2= 3.40"				
	1.3	80	0.0200	0.99		Shallow Concentrated Flow, BC				
						Short Grass Pasture Kv= 7.0 fps				
	4.9	190	0.0170	0.65		Shallow Concentrated Flow, CD				
_						Woodland Kv= 5.0 fps				
	14.2	320	Total							

Summary for Subcatchment S-2B: Tributary to Depression at SW Corner of Building

Runoff = 0.60 cfs @ 12.11 hrs, Volume= 0.048 af, Depth= 0.95"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 2-yr Rainfall=3.40"

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	Α	rea (sf)	CN D	CN Description						
		25,300	68 <	68 <50% Grass cover, Poor, HSG A						
*		1,410	98 E	Existing Concrete						
		26,710	70 V	Veighted A	verage					
		25,300	P	ervious Ar	rea					
		1,410	Ir	npervious	Area					
	Tc	Length	Slope	Velocity	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	5.0	50	0.0250	0.17		Sheet Flow, AB				
						Grass: Short n= 0.150 P2= 3.40"				
	1.8	130	0.0280	1.17		Shallow Concentrated Flow, BC				
						Short Grass Pasture Kv= 7.0 fps				
	6.8	180	Total							

Summary for Subcatchment S-2C: Tributary to Depression West of Building

Runoff 0.12 cfs @ 12.14 hrs, Volume= 0.017 af, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 2-yr Rainfall=3.40"

_	Α	rea (sf)	CN	Description							
_		7,393	30	Woods, Go	Woods, Good, HSG A						
		15,827	68	<50% Gras	<50% Grass cover, Poor, HSG A						
*		384	98	Existing Ro	Existing Roof						
		23,604	57	Weighted A	Weighted Average						
		23,220		Pervious Ar							
		384		Impervious	Area						
	Tc	Length	Slope	,	Capacity	Description					
_	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)						
	6.0					Direct Entry, TR-55 Minimum					

Direct Entry, TR-55 Minimum

Summary for Reach SR: Site Runoff to BVW

Inflow Area = 18.706 ac, 40.92% Impervious, Inflow Depth > 0.62" for 2-yr event

Inflow 0.97 cfs @ 15.06 hrs, Volume= 0.969 af

Outflow 0.97 cfs @ 15.06 hrs, Volume= 0.969 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3

Summary for Pond 1A: Storage Behind Culvert

Inflow Area =	2.028 ac,	2.15% Impervious, Inflow De	epth = 0.20" for 2-yr event
Inflow =	0.11 cfs @	12.53 hrs, Volume=	0.033 af
Outflow =	0.11 cfs @	12.53 hrs, Volume=	0.033 af, Atten= 0%, Lag= 0.3 min
Discarded =	0.01 cfs @	12.53 hrs, Volume=	0.004 af
Primary =	0.10 cfs @	12.53 hrs, Volume=	0.030 af

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Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3 Peak Elev= 75.76' @ 12.53 hrs Surf.Area= 54 sf Storage= 1 cf

Plug-Flow detention time= 0.1 min calculated for 0.033 af (100% of inflow) Center-of-Mass det. time= 0.1 min (987.6 - 987.5)

Volume	Inve	ert Avai	I.Storage	Storage Descripti	on		
#1	75.7	0'	11,295 cf	Custom Stage D	ata (Irregular)List	ed below (Recald	;)
Elevatio		Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
75.7	-	2	2.0	0	0	2	
76.0	_	954	345.0	100	100	9,474	
77.0)()	27,508	674.0	11,195	11,295	36,157	
Device	Routing	In	vert Outle	et Devices			
#1	Primary	75		'W x 2.00'H x 31	•		
				30-75° wingwalls,			
				et Invert= 75.66'			
#2	Discarde	d 75		.013 Concrete pip 0 in/hr Exfiltratior			

Discarded OutFlow Max=0.01 cfs @ 12.53 hrs HW=75.76' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.10 cfs @ 12.53 hrs HW=75.76' TW=75.63' (Dynamic Tailwater) 1=Culvert (Barrel Controls 0.10 cfs @ 0.56 fps)

Summary for Pond 1B: Small Depression at NE Corner of Building

Inflow Area =	2.122 ac,	2.77% Impervious, Inflow De	epth = 0.22" for 2-yr event
Inflow =	0.13 cfs @	12.49 hrs, Volume=	0.039 af
Outflow =	0.13 cfs @	12.49 hrs, Volume=	0.039 af, Atten= 0%, Lag= 0.1 min
Discarded =	0.00 cfs @	12.49 hrs, Volume=	0.001 af
Primary =	0.13 cfs @	12.49 hrs, Volume=	0.037 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3 Peak Elev= 75.63' @ 12.49 hrs Surf.Area= 15 sf Storage= 1 cf

Plug-Flow detention time= 0.1 min calculated for 0.039 af (100% of inflow) Center-of-Mass det. time= 0.1 min (957.1 - 957.0)

V	olume	Invert	Avail	.Storage	Storage Description	n	
	#1	75.54'		457 cf	Custom Stage Da	ta (Irregular) List	ed below (Recalc)
E	Elevation (feet)		Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
	75.54		2	2.0	0	0	2
	76.00		193	85.0	33	33	577
	77.00		709	107.0	424	457	927

Volume

Invert

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Device	Routing	Invert	Outlet Devices
#1	Primary	75.54'	4.00' W x 2.00' H x 45.0' long Culvert
			Box, 30-75° wingwalls, square crown, Ke= 0.400
			Outlet Invert= 75.53' S= 0.0002 '/' Cc= 0.900
			n= 0.013 Concrete pipe, bends & connections
#2	Discarded	75.54'	8.270 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.00 cfs @ 12.49 hrs HW=75.63' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.13 cfs @ 12.49 hrs HW=75.63' TW=0.00' (Dynamic Tailwater) 1=Culvert (Barrel Controls 0.13 cfs @ 0.47 fps)

Summary for Pond 1C: Storage Behind Culvert

Inflow Area =	0.904 ac,	4.83% Impervious, Inflow D	epth = 0.49" for 2-yr event
Inflow =	0.24 cfs @	12.37 hrs, Volume=	0.037 af
Outflow =	0.24 cfs @	12.39 hrs, Volume=	0.037 af, Atten= 0%, Lag= 1.2 min
Discarded =	0.06 cfs @	12.39 hrs, Volume=	0.009 af
Primary =	0.18 cfs @	12.39 hrs, Volume=	0.027 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3 Peak Elev= 77.67' @ 12.39 hrs Surf.Area= 310 sf Storage= 10 cf

Avail.Storage Storage Description

Plug-Flow detention time= 0.4 min calculated for 0.037 af (100% of inflow) Center-of-Mass det. time= 0.4 min (924.9 - 924.5)

VOIGITIC	11170	ort /wan	.Otorage	Otorage Description	1			
#1 77.58'		58'	4,907 cf	Custom Stage Dat	a (Irregular)Listed	below (Recalc)		
Elevation (fee	-	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)		
77.58		2	2.0	0	0	2		
78.0	00	5,752	313.0	821	821	7,798		
78.	50	10,860	398.0	4,086	4,907	12,611		
Device	Routing	Inv	ert Outle	Outlet Devices				
#1	Primary	77.	58' 4.00'	4.00' W x 2.00' H x 45.0' long Culvert				
			Box,	Box, 30-75° wingwalls, square crown, Ke= 0.400				
		Ο		Outlet Invert= 77.54' S= 0.0009 '/' Cc= 0.900				
			n=0.	n= 0.013 Concrete pipe, bends & connections				
#2	Discarde	d 77.	58' 8.270	70 in/hr Exfiltration over Surface area				

Discarded OutFlow Max=0.06 cfs @ 12.39 hrs HW=77.67' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=0.18 cfs @ 12.39 hrs HW=77.67' TW=0.00' (Dynamic Tailwater) 1=Culvert (Barrel Controls 0.18 cfs @ 0.65 fps)

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Summary for Pond 2A: Depression at SE Corner of Building

Inflow Area = 2.358 ac, 55.57% Impervious, Inflow Depth = 1.36" for 2-yr event

Inflow = 2.83 cfs @ 12.20 hrs, Volume= 0.267 af

Outflow = 2.27 cfs @ 12.32 hrs, Volume= 0.267 af, Atten= 20%, Lag= 7.3 min

Discarded = 0.68 cfs @ 12.32 hrs, Volume= 0.056 af Primary = 1.59 cfs @ 12.32 hrs, Volume= 0.211 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3 Peak Elev= 74.64' @ 12.32 hrs Surf.Area= 3,559 sf Storage= 805 cf

Plug-Flow detention time= 2.5 min calculated for 0.266 af (100% of inflow)

Center-of-Mass det. time= 2.5 min (859.1 - 856.6)

gular)Listed below (Recalc)					
m.Store Wet.Area pic-feet) (sq-ft)					
0 2					
1 10					
2,868 33,007					
15,196 34,316					
33,995 39,770					
12.0" x 44.0' long Culvert RCP, sq.cut end projecting, Ke= 0.500					
0 '/' Cc= 0.900					
n= 0.013 Concrete pipe, bends & connections					
8.270 in/hr Exfiltration over Surface area above invert Excluded Surface area = 3 sf					
: (C					

Discarded OutFlow Max=0.68 cfs @ 12.32 hrs HW=74.64' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.68 cfs)

Primary OutFlow Max=1.59 cfs @ 12.32 hrs HW=74.64' TW=72.36' (Dynamic Tailwater) 1=Culvert (Barrel Controls 1.59 cfs @ 3.53 fps)

Summary for Pond 2B: Depression at SW Corner of Building

Inflow Area =	0.613 ac,	5.28% Impervious, Inflow	Depth = 0.95"	for 2-yr event
Inflow =	0.60 cfs @	12.11 hrs, Volume=	0.048 af	
Outflow =	0.53 cfs @	12.16 hrs, Volume=	0.048 af, Atte	en= 12%, Lag= 2.8 min
Discarded =	0.13 cfs @	12.16 hrs, Volume=	0.013 af	-
Primary =	0.41 cfs @	12.16 hrs, Volume=	0.035 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3 Peak Elev= 74.69' @ 12.16 hrs Surf.Area= 657 sf Storage= 79 cf

Plug-Flow detention time= 1.4 min calculated for 0.048 af (100% of inflow) Center-of-Mass det. time= 1.4 min (873.4 - 872.0)

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Volume	Inve	rt Avail.	Storage	Storage Description	on			
#1	74.35	5' 1	4,436 cf	Custom Stage Da	ata (Irregular)Liste	ed below (Recalc)		
Elevation (fee	• • • • • • • • • • • • • • • • • • • •	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)		
74.3	35	2	2.0	0	0	2		
75.0	00	2,273	200.0	508	508	3,185		
76.0	00	5,058	288.0	3,574	4,081	6,612		
77.0	00	7,587	358.0	6,280	10,361	10,224		
77.5	50	8,725	416.0	4,075	14,436	13,802		
Device	Routing	Inv	ert Outle	et Devices				
#1	Primary	74.3	35' 12.0	" x 45.0' long Culv	vert RCP, sq.cut	end projecting, Ke= 0.500	0	
#2	Discarded	I 74.3	n= 0	Outlet Invert= 73.99' S= 0.0080 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections 8.270 in/hr Exfiltration over Surface area				

Discarded OutFlow Max=0.13 cfs @ 12.16 hrs HW=74.69' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.13 cfs)

Primary OutFlow Max=0.41 cfs @ 12.16 hrs HW=74.69' TW=72.26' (Dynamic Tailwater) 1=Culvert (Barrel Controls 0.41 cfs @ 2.58 fps)

Summary for Pond 2C: Depression West of Building

Inflow Area =	0.542 ac,	1.63% Impervious, Inflow De	epth = 0.38" for 2-yr event
Inflow =	0.12 cfs @	12.14 hrs, Volume=	0.017 af
Outflow =	0.11 cfs @	12.22 hrs, Volume=	0.017 af, Atten= 8%, Lag= 4.5 min
Discarded =	0.07 cfs @	12.22 hrs, Volume=	0.012 af
Primary =	0.04 cfs @	12.22 hrs, Volume=	0.006 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3 Peak Elev= 75.71' @ 12.22 hrs Surf.Area= 343 sf Storage= 13 cf

Plug-Flow detention time= 1.2 min calculated for 0.017 af (100% of inflow) Center-of-Mass det. time= 1.2 min (930.9 - 929.7)

Volume	ln۱	vert Ava	ail.Storage	Storage Description			
#1	75.	60'	15,028 cf	Custom Stage Data	(Irregular) Liste	ed below (Recalc)	
Elevatio		Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
75.6	60	2	2.0	0	0	2	
76.0	00	4,193	270.0	572	572	5,803	
77.0	00	7,571	341.0	5,799	6,371	9,269	
78.0	00	9,791	412.0	8,657	15,028	13,540	
Device	Routing	lı	nvert Outle	et Devices			
#1	Primary	7	5.60' 12.0 '	' x 37.0' long Culve	rt RCP, sq.cut	end projecting, Ke= 0.500	0

12.0" x 37.0' long Culvert RCP, sq.cut end projecting, Ke= 0.500 Outlet Invert= 75.30' S= 0.0081 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections

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#2 Discarded 75.60' **8.270 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.07 cfs @ 12.22 hrs HW=75.71' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.07 cfs)

Primary OutFlow Max=0.04 cfs @ 12.22 hrs HW=75.71' TW=72.30' (Dynamic Tailwater) 1=Culvert (Barrel Controls 0.04 cfs @ 1.39 fps)

Summary for Pond EDB: Existing Detention Basin

Inflow Area = 9.448 ac, 74.25% Impervious, Inflow Depth = 2.24" for 2-yr event

Inflow = 20.57 cfs @ 12.09 hrs, Volume= 1.762 af

Outflow = 0.79 cfs @ 15.71 hrs, Volume= 0.839 af, Atten= 96%, Lag= 217.7 min

Primary = 0.79 cfs @ 15.71 hrs, Volume= 0.839 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3 Peak Elev= 72.58' @ 15.71 hrs Surf.Area= 66,451 sf Storage= 56,255 cf

Plug-Flow detention time= 540.5 min calculated for 0.839 af (48% of inflow)

Center-of-Mass det. time= 412.1 min (1,191.9 - 779.8)

Volume	Inv	ert Avai	I.Storage	Storage Description	on				
#1	71.	70' 1	55,808 cf	8 cf Custom Stage Data (Irregular)Listed below		ed below (Recalc)			
		Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)			
71.7	70	60,155	952.0	0	0	60,155			
72.0	00	63,529	1,023.0	18,550	18,550	71,318			
73.0	00	68,606	1,069.0	66,051	84,602	79,047			
74.0	00	73,838	1,080.0	71,206	155,808	81,213			
Device	Routing	In	vert Outl	et Devices					
#1	Primary	72	.01' 12.0	2.0" x 3.0' long Culvert RCP, square edge headwall, Ke= 0.500					
	,		Outl	Outlet Invert= 72.00' S= 0.0033 '/' Cc= 0.900					
			n= 0	.013 Concrete pipe	e, bends & connec	ctions			
#2	Primary	ry 73.30'		' long x 10.0' brea	dth Broad-Crest	ed Rectangular Weir			
			Hea	d (feet) 0.20 0.40	0.60 0.80 1.00	1.20 1.40 1.60			
			Coe	f. (English) 2.49 2	.56 2.70 2.69 2.6	68 2.69 2.67 2.64			

Primary OutFlow Max=0.79 cfs @ 15.71 hrs HW=72.58' TW=0.00' (Dynamic Tailwater)

1=Culvert (Barrel Controls 0.79 cfs @ 2.47 fps)

-2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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Summary for Subcatchment S-1: Tributary toward BVW

Runoff = 1.43 cfs @ 12.45 hrs, Volume= 0.267 af, Depth= 0.51"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 10-yr Rainfall=4.80"

	Α	rea (sf)	CN I	Description				
150,613 30 Woods, Good, HSG A								
43,177 55 Woods, Good, HSG B								
		50,419	68 -	<50% Gras	s cover, Po	or, HSG A		
		2,419	79 ·	<50% Gras	s cover, Po	or, HSG B		
*		20,948	98	Existing Pa	vement			
*		899	98 l	Existing Ro	of			
*		1,574	98 l	Existing Co	ncrete			
*		1,421	77	Gravel & Ru	ubble Stock	xpiles		
	2	271,470	48 \	Weighted A	verage			
	2	248,049		Pervious Area				
		23,421		mpervious	Area			
				-				
	Tc	Length	Slope	Velocity	Capacity	Description		
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
	14.7	50	0.0120	0.06		Sheet Flow, AB		
						Woods: Light underbrush n= 0.400 P2= 3.40"		
	4.0	120	0.0100	0.50		Shallow Concentrated Flow, bc		
_						Woodland Kv= 5.0 fps		
	18.7	170	Total					

Summary for Subcatchment S-1A: Tributary to Culvert at North Side of Building

Runoff = 0.75 cfs @ 12.29 hrs, Volume= 0.112 af, Depth= 0.66"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 10-yr Rainfall=4.80"

	Α	rea (sf)	CN	Description							
		43,289	30	Voods, Good, HSG A							
		32,140	68	<50% Gras	s cover, Po	or, HSG A					
*		1,901	98	Existing Ro	of						
*		11,009	77	Gravel & Ru	ubble Stock	xpiles					
		88,339	51	Weighted A	verage						
		86,438		Pervious Ar	ea $$						
		1,901		Impervious	Area						
				-							
	Tc	Length	Slope	Velocity	Capacity	Description					
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	8.3	50	0.0500	0.10		Sheet Flow, AB					
						Woods: Light underbrush n= 0.400 P2= 3.40"					
	6.7	200	0.0100	0.50		Shallow Concentrated Flow, BC					
						Woodland Kv= 5.0 fps					
	15.0	250	Total								

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Summary for Subcatchment S-1B: Tributary to Small Depression at NE Corner of Building

Runoff 0.23 cfs @ 12.09 hrs, Volume= 0.017 af. Depth= 2.12"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 10-yr Rainfall=4.80"

	Α	rea (sf)	CN	Description							
		3,457	68	<50% Gras	50% Grass cover, Poor, HSG A						
*		656	98	Existing Concrete							
		4,113 3,457 656		Weighted A Pervious Ar Impervious	ea						
	Tc (min)	Length (feet)	Slope (ft/ft	,	Capacity (cfs)	Description					
						D' (E (TD FF M')					

6.0 **Direct Entry, TR-55 Minimum**

Summary for Subcatchment S-1C: Tributary to Depression at NW corner of Building

Runoff 0.75 cfs @ 12.29 hrs, Volume= 0.089 af, Depth= 1.19"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 10-yr Rainfall=4.80"

	A	rea (st)	CN	Description							
		17,356	45 \	Woods, Po	or, HSG A						
		15,021	68 -	<50% Gras	50% Grass cover, Poor, HSG A						
*		1,901	98	Existing Ro	of						
*		5,087	77	Gravel & Ru	ubble Stock	xpiles					
		39,365	60 '	Weighted A	verage						
		37,464	I	Pervious Ar	ea						
		1,901		Impervious	Area						
	Tc	Length	Slope	,	Capacity	Description					
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	15.8	50	0.0100	0.05		Sheet Flow, AB					
						Woods: Light underbrush n= 0.400 P2= 3.40"					
	3.3	100	0.0100	0.50		Shallow Concentrated Flow, BC					
_						Woodland Kv= 5.0 fps					
	19.1	150	Total								

Summary for Subcatchment S-2: Tributary to Existing Drain Basin Resource Area

Runoff 27.65 cfs @ 12.08 hrs, Volume= 2.200 af, Depth= 4.45"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 10-yr Rainfall=4.80"

6.0

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	Area (sf)	CN	Description
	7,500	68	<50% Grass cover, Poor, HSG A
	4,321	79	<50% Grass cover, Poor, HSG B
*	92,147	98	Exisitng Pavement/Concrete
*	94,397	98	Existing Roof
*	60,155	98	Existing Basin @ Elev=71.7
	258,520 11,821 246,699	97	Weighted Average Pervious Area Impervious Area
	2.0,000		mporrious rusu
	Tc Length	Slop	e Velocity Capacity Description
(min) (feet)	(ft/	(t) (ft/sec) (cfs)

Summary for Subcatchment S-2A: Tributary to Depression at SE Corner of Building

Direct Entry, TR-55 Minimum

Runoff = 5.24 cfs @ 12.20 hrs, Volume= 0.483 af, Depth= 2.46"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 10-yr Rainfall=4.80"

	Area (sf) CN Description							
	20,817 30 Woods, Good, HSG A							
	24,816 68 <50% Grass cover, Poor, HSG A							
*	· · · · · · · · · · · · · · · · · · ·							
	102,714 77 Weighted Average				verage			
		45,633	F	Pervious Ar	ea 🌷			
		57,081	I	mpervious	Area			
	,							
	Tc	Length	Slope	Velocity	Capacity	Description		
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)		_	
	8.0	50	0.0200	0.10		Sheet Flow, AB		
						Grass: Dense n= 0.240 P2= 3.40"		
	1.3	80	0.0200	0.99		Shallow Concentrated Flow, BC		
						Short Grass Pasture Kv= 7.0 fps		
	4.9	190	0.0170	0.65		Shallow Concentrated Flow, CD		
_						Woodland Kv= 5.0 fps	_	
	14.2	320	Total					

Summary for Subcatchment S-2B: Tributary to Depression at SW Corner of Building

Runoff = 1.29 cfs @ 12.10 hrs, Volume= 0.097 af, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 10-yr Rainfall=4.80"

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_	Α	rea (sf)	CN E	CN Description						
_		25,300 68 <50% Grass cover, Poor, HSG A								
4		1,410	98 E	Existing Concrete						
	26,710 70 Weighted Average									
	25,300 Pervious Area									
	1,410 Impervious Area									
	Tc	Length	Slope	Velocity	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	5.0	50	0.0250	0.17		Sheet Flow, AB				
						Grass: Short n= 0.150 P2= 3.40"				
	1.8 130		0.0280	1.17		Shallow Concentrated Flow, BC				
						Short Grass Pasture Kv= 7.0 fps				
	6.8	180	Total							

Summary for Subcatchment S-2C: Tributary to Depression West of Building

Runoff = 0.52 cfs @ 12.11 hrs, Volume= 0.045 af, Depth= 1.00"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 10-yr Rainfall=4.80"

	A	rea (sf)	CN	Description		
		7,393	30	Woods, Go	od, HSG A	
		15,827	68	<50% Gras	s cover, Po	or, HSG A
*		384	98	Existing Ro	of	
		23,604	57	Weighted A	verage	
		23,220		Pervious Ar	ea Ü	
		384		Impervious	Area	
	_					
	Tc	Length	Slop	•	Capacity	Description
(m	in)	(feet)	(ft/ft) (ft/sec)	(cfs)	
6	6.0					Direct Entry, TR-55 Minimum

•

Summary for Reach SR: Site Runoff to BVW

Inflow Area = 18.706 ac, 40.92% Impervious, Inflow Depth > 1.33" for 10-yr event

Inflow = 3.88 cfs @ 12.45 hrs, Volume= 2.069 af

Outflow = 3.88 cfs @ 12.45 hrs, Volume= 2.069 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3

Summary for Pond 1A: Storage Behind Culvert

Inflow Area =	2.028 ac,	2.15% Impervious, Inflow De	epth = 0.66" for 10-yr event
Inflow =	0.75 cfs @	12.29 hrs, Volume=	0.112 af
Outflow =	0.75 cfs @	12.32 hrs, Volume=	0.112 af, Atten= 0%, Lag= 1.3 min
Discarded =	0.07 cfs @	12.32 hrs, Volume=	0.011 af
Primary =	0.68 cfs @	12.32 hrs, Volume=	0.101 af

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Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3 Peak Elev= 75.88' @ 12.32 hrs Surf.Area= 384 sf Storage= 25 cf

Plug-Flow detention time= 0.3 min calculated for 0.112 af (100% of inflow) Center-of-Mass det. time= 0.3 min (923.6 - 923.4)

Volume	Inve		I.Storage	Storage Description			
#1	75.7	0'	11,295 cf	Custom Stage Da	ata (Irregular)Liste	ed below (Recald	;)
Elevatio		Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
75.7	70	2	2.0	0	0	2	
76.0	00	954	345.0	100	100	9,474	
77.0	00	27,508	674.0	11,195	11,295	36,157	
Device	Routing	In	vert Outle	et Devices			
#1	Primary	75		'W x 2.00'H x 31.			
				30-75° wingwalls,			
•				et Invert= 75.66' S	0.00.07	0.000	
#2	Discarde	d 75		.013 Concrete pipe of in/hr Exfiltration			

Discarded OutFlow Max=0.07 cfs @ 12.32 hrs HW=75.88' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.07 cfs)

Primary OutFlow Max=0.68 cfs @ 12.32 hrs HW=75.88' TW=75.78' (Dynamic Tailwater) 1=Culvert (Barrel Controls 0.68 cfs @ 1.22 fps)

Summary for Pond 1B: Small Depression at NE Corner of Building

Inflow Area =	2.122 ac,	2.77% Impervious, Inflow De	epth = 0.67" for 10-yr event
Inflow =	0.78 cfs @	12.30 hrs, Volume=	0.118 af
Outflow =	0.78 cfs @	12.30 hrs, Volume=	0.118 af, Atten= 0%, Lag= 0.2 min
Discarded =	0.01 cfs @	12.30 hrs, Volume=	0.003 af
Primary =	0.77 cfs @	12.30 hrs, Volume=	0.115 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3 Peak Elev= 75.78' @ 12.30 hrs Surf.Area= 62 sf Storage= 6 cf

Plug-Flow detention time= 0.1 min calculated for 0.118 af (100% of inflow) Center-of-Mass det. time= 0.1 min (911.7 - 911.6)

V	olume	Invert	Avail	.Storage	Storage Description	n	
	#1	75.54'		457 cf	Custom Stage Da	ta (Irregular) List	ed below (Recalc)
E	Elevation (feet)		Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
	75.54		2	2.0	0	0	2
	76.00		193	85.0	33	33	577
	77.00		709	107.0	424	457	927

Volume

Invert

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Device	Routing	Invert	Outlet Devices
#1	Primary	75.54'	4.00' W x 2.00' H x 45.0' long Culvert
			Box, 30-75° wingwalls, square crown, Ke= 0.400
			Outlet Invert= 75.53' S= 0.0002 '/' Cc= 0.900
			n= 0.013 Concrete pipe, bends & connections
#2	Discarded	75.54'	8.270 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.01 cfs @ 12.30 hrs HW=75.78' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.77 cfs @ 12.30 hrs HW=75.78' TW=0.00' (Dynamic Tailwater) 1=Culvert (Barrel Controls 0.77 cfs @ 1.08 fps)

Summary for Pond 1C: Storage Behind Culvert

Inflow Area =	0.904 ac,	4.83% Impervious, Inflow D	Depth = 1.19" for 10-yr event
Inflow =	0.75 cfs @	12.29 hrs, Volume=	0.089 af
Outflow =	0.74 cfs @	12.34 hrs, Volume=	0.089 af, Atten= 2%, Lag= 2.8 min
Discarded =	0.20 cfs @	12.34 hrs, Volume=	0.023 af
Primary =	0.54 cfs @	12.34 hrs, Volume=	0.067 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3 Peak Elev= 77.75' @ 12.34 hrs Surf.Area= 1,044 sf Storage= 63 cf

Avail Storage Storage Description

Plug-Flow detention time= 0.7 min calculated for 0.089 af (100% of inflow) Center-of-Mass det. time= 0.7 min (891.4 - 890.7)

VOIGITIE	11117	oli Avali	.otorage	Storage Description	1		
#1	77.5	58'	4,907 cf	Custom Stage Dat	a (Irregular)Listed	below (Recalc)	
Elevatio		Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
77.5 78.0		2 5,752	2.0 313.0	0 821	0 821	7,798	
78.5		10,860	398.0	4,086	4,907	12,611	
Device	Routing	Inv	ert Outle	t Devices			
#1 Primary 77.58'		Box, Outle	4.00' W x 2.00' H x 45.0' long Culvert Box, 30-75° wingwalls, square crown, Ke= 0.400 Outlet Invert= 77.54' S= 0.0009 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections				
#2	Discarde	d 77.	58' 8.27 0) in/hr Exfiltration o	over Surface area		

Discarded OutFlow Max=0.20 cfs @ 12.34 hrs HW=77.75' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.20 cfs)

Primary OutFlow Max=0.54 cfs @ 12.34 hrs HW=77.75' TW=0.00' (Dynamic Tailwater) 1=Culvert (Barrel Controls 0.54 cfs @ 1.03 fps)

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Summary for Pond 2A: Depression at SE Corner of Building

Inflow Area = 2.358 ac, 55.57% Impervious, Inflow Depth = 2.46" for 10-yr event

Inflow = 5.24 cfs @ 12.20 hrs, Volume= 0.483 af

Outflow = 3.72 cfs @ 12.36 hrs, Volume= 0.483 af, Atten= 29%, Lag= 9.6 min

Discarded = 1.29 cfs @ 12.36 hrs, Volume= 0.119 af Primary = 2.44 cfs @ 12.36 hrs, Volume= 0.364 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3 Peak Elev= 74.90' @ 12.36 hrs Surf.Area= 6,729 sf Storage= 2,092 cf

Plug-Flow detention time= 4.2 min calculated for 0.483 af (100% of inflow)

Center-of-Mass det. time= 4.1 min (843.4 - 839.2)

gular)Listed below (Recalc)
m.Store Wet.Area pic-feet) (sq-ft)
0 2
1 10
2,868 33,007
15,196 34,316
33,995 39,770
P, sq.cut end projecting, Ke= 0.500
0 '/' Cc= 0.900
& connections
ırface area above invert
: (C

Discarded OutFlow Max=1.29 cfs @ 12.36 hrs HW=74.90' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 1.29 cfs)

Primary OutFlow Max=2.44 cfs @ 12.36 hrs HW=74.90' TW=72.70' (Dynamic Tailwater) 1=Culvert (Barrel Controls 2.44 cfs @ 3.87 fps)

Summary for Pond 2B: Depression at SW Corner of Building

Inflow Area =	0.613 ac,	5.28% Impervious, Inflow D	epth = 1.89" for 10-yr event
Inflow =	1.29 cfs @	12.10 hrs, Volume=	0.097 af
Outflow =	1.06 cfs @	12.16 hrs, Volume=	0.097 af, Atten= 18%, Lag= 3.6 min
Discarded =	0.26 cfs @	12.16 hrs, Volume=	0.025 af
Primary =	0.80 cfs @	12.16 hrs, Volume=	0.071 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3 Peak Elev= 74.84' @ 12.16 hrs Surf.Area= 1,339 sf Storage= 229 cf

Plug-Flow detention time= 1.9 min calculated for 0.097 af (100% of inflow) Center-of-Mass det. time= 1.9 min (852.5 - 850.6)

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Volume	Inve	rt Avail.	Storage	Storage Description	on		
#1	74.35	5' 1	4,436 cf	Custom Stage Da	ata (Irregular)Liste	ed below (Recalc)	
Elevation (fee	• • • • • • • • • • • • • • • • • • • •	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
74.3	35	2	2.0	0	0	2	
75.0	00	2,273	200.0	508	508	3,185	
76.0	00	5,058	288.0	3,574	4,081	6,612	
77.0	00	7,587	358.0	6,280	10,361	10,224	
77.5	50	8,725	416.0	4,075	14,436	13,802	
Device	Routing	Inv	ert Outle	et Devices			
#1	Primary	74.3	35' 12.0	" x 45.0' long Culv	vert RCP, sq.cut	end projecting, Ke= 0.500	0
#1 Primary #2 Discarde		I 74.3	n= 0	et Invert= 73.99' S .013 Concrete pipe 0 in/hr Exfiltration	e, bends & connec	etions	

Discarded OutFlow Max=0.26 cfs @ 12.16 hrs HW=74.84' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.26 cfs)

Primary OutFlow Max=0.80 cfs @ 12.16 hrs HW=74.84' TW=72.55' (Dynamic Tailwater) 1=Culvert (Barrel Controls 0.80 cfs @ 3.04 fps)

Summary for Pond 2C: Depression West of Building

Inflow Area =	0.542 ac,	1.63% Impervious, Inflow De	epth = 1.00" for 10-yr event
Inflow =	0.52 cfs @	12.11 hrs, Volume=	0.045 af
Outflow =	0.42 cfs @	12.17 hrs, Volume=	0.045 af, Atten= 20%, Lag= 4.0 min
Discarded =	0.25 cfs @	12.17 hrs, Volume=	0.029 af
Primary =	0.17 cfs @	12.17 hrs, Volume=	0.017 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3 Peak Elev= 75.82' @ 12.17 hrs Surf.Area= 1,286 sf Storage= 97 cf

Plug-Flow detention time= 2.1 min calculated for 0.045 af (100% of inflow) Center-of-Mass det. time= 2.1 min (891.0 - 888.9)

Volume	In	vert Ava	ail.Storage	Storage Description			
#1	75	.60'	15,028 cf	Custom Stage Data	(Irregular)List	ed below (Recalc)	
Elevatio		Surf.Area (sq-ft)		Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
75.6		4 102		0 572	0 572	2	
76.0 77.0		4,193 7,571		572 5,799	572 6,371	5,803 9,269	
78.0	00	9,791	412.0	8,657	15,028	13,540	
Device	Routing		nvert Outle	et Devices			
#1	Primary	7	5.60' 12.0 '	x 37.0' long Culver	t RCP, sq.cut	end projecting, Ke= 0.500	

Outlet Invert= 75.30' S= 0.0081 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections

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#2 Discarded 75.60' **8.270 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.25 cfs @ 12.17 hrs HW=75.82' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.25 cfs)

Primary OutFlow Max=0.17 cfs @ 12.17 hrs HW=75.82' TW=72.56' (Dynamic Tailwater) 1=Culvert (Barrel Controls 0.17 cfs @ 2.05 fps)

Summary for Pond EDB: Existing Detention Basin

Inflow Area = 9.448 ac, 74.25% Impervious, Inflow Depth = 3.37" for 10-yr event

Inflow = 29.90 cfs @ 12.09 hrs, Volume= 2.651 af

Outflow = 1.74 cfs @ 14.35 hrs, Volume= 1.620 af, Atten= 94%, Lag= 135.8 min

Primary = 1.74 cfs @ 14.35 hrs, Volume= 1.620 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3 Peak Elev= 72.91' @ 14.35 hrs Surf.Area= 68,130 sf Storage= 78,298 cf

Plug-Flow detention time= 480.8 min calculated for 1.619 af (61% of inflow)

Center-of-Mass det. time= 371.1 min (1,144.4 - 773.3)

Volume Invert		ert Avai	I.Storage	Storage Description	on		
#1	71.7	70' 1	55,808 cf	Custom Stage Data (Irregular)Listed below (Recalc)			
Elevatio		Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
71.7	70	60,155	952.0	0	0	60,155	
72.0	00	63,529	1,023.0	18,550	18,550	71,318	
73.0	00	68,606	1,069.0	66,051	84,602	79,047	
74.0	00	73,838	1,080.0	71,206	155,808	81,213	
Device	Routing	In	vert Outl	et Devices			
#1	Primary	72	.01' 12.0	" x 3.0' long Culv	ert RCP, square	edge headwall, Ke= 0.500	
	•			et Invert= 72.00' S			
			n= 0	= 0.013 Concrete pipe, bends & connections			
#2	Primary	73.30' 20.0 Hea		' long x 10.0' breadth Broad-Crested Rectangular Weir d (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 f. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64			

Primary OutFlow Max=1.74 cfs @ 14.35 hrs HW=72.91' TW=0.00' (Dynamic Tailwater)

1=Culvert (Barrel Controls 1.74 cfs @ 3.09 fps)

—2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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Summary for Subcatchment S-1: Tributary toward BVW

Runoff = 6.22 cfs @ 12.31 hrs, Volume= 0.774 af, Depth= 1.49"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 100-yr Rainfall=7.00"

	Α	rea (sf)	CN	Description								
	1	50,613	30	Woods, Go	od, HSG A							
		43,177	55	,								
		50,419	68	<50% Gras	s cover, Po	or, HSG A						
		2,419	79	<50% Gras	s cover, Po	or, HSG B						
*		20,948	98	Existing Pa	vement							
*		899	98	Existing Ro	of							
*		1,574	98	Existing Co	ncrete							
*		1,421	77	Gravel & Ru	ubble Stock	xpiles						
	2	71,470	48	Weighted A	verage							
	2	48,049		Pervious Ar	ea 🧻							
		23,421		Impervious	Area							
	Tc	Length	Slope	Velocity	Capacity	Description						
<u>(r</u>	min)	(feet)	(ft/ft)	(ft/sec)	(cfs)							
•	14.7	50	0.0120	0.06		Sheet Flow, AB						
						Woods: Light underbrush n= 0.400 P2= 3.40"						
	4.0	120	0.0100	0.50		Shallow Concentrated Flow, bc						
						Woodland Kv= 5.0 fps						
•	18.7	170	Total									

Summary for Subcatchment S-1A: Tributary to Culvert at North Side of Building

Runoff = 2.76 cfs @ 12.23 hrs, Volume= 0.297 af, Depth= 1.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 100-yr Rainfall=7.00"

	Α	rea (sf)	CN [Description								
		43,289	30 \	Noods, Go	od, HSG A							
		32,140	68 <	3 <50% Grass cover, Poor, HSG A								
*		1,901	98 E	Existing Ro	of							
*		11,009	77 (
		88,339	51 \	Weighted Average								
		86,438	F	Pervious Ar	rea							
		1,901	I	mpervious	Area							
	Tc	Length	Slope	Velocity	Capacity	Description						
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)							
	8.3	50	0.0500	0.10		Sheet Flow, AB						
						Woods: Light underbrush n= 0.400 P2= 3.40"						
	6.7	200	0.0100	0.50		Shallow Concentrated Flow, BC						
_						Woodland Kv= 5.0 fps						
	15.0	250	Total									

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Summary for Subcatchment S-1B: Tributary to Small Depression at NE Corner of Building

Runoff 0.44 cfs @ 12.09 hrs, Volume= 0.031 af. Depth= 3.94"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 100-yr Rainfall=7.00"

Α	rea (sf)	CN	Description								
	3,457	68	<50% Gras	0% Grass cover, Poor, HSG A							
*	656	98	Existing Co	isting Concrete							
	4,113	73	Weighted A	verage							
	3,457		Pervious A	ea							
	656		Impervious	Area							
т.		Ola -		0	Description						
Tc	Length	Slope	,	Capacity	Description						
(min)	(feet)	(ft/ft) (ft/sec)	(cfs)							
6.0					Direct Entry, TR-55 Minimum						

Summary for Subcatchment S-1C: Tributary to Depression at NW corner of Building

Runoff 1.83 cfs @ 12.28 hrs, Volume= 0.196 af, Depth= 2.60"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 100-yr Rainfall=7.00"

	A	rea (st)	CN	Description							
		17,356	45 \	Woods, Po	or, HSG A						
		15,021	68 -	<50% Gras	s cover, Po	or, HSG A					
*		1,901	98	Existing Ro	of						
*		5,087	77								
		39,365	60 '	Weighted A	verage						
		37,464	I	Pervious Ar	ea						
		1,901		Impervious	Area						
	Tc	Length	Slope	,	Capacity	Description					
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	15.8	50	0.0100	0.05		Sheet Flow, AB					
						Woods: Light underbrush n= 0.400 P2= 3.40"					
	3.3	100	0.0100	0.50		Shallow Concentrated Flow, BC					
_						Woodland Kv= 5.0 fps					
	19.1	150	Total								

Summary for Subcatchment S-2: Tributary to Existing Drain Basin Resource Area

Runoff 40.60 cfs @ 12.08 hrs, Volume= 3.285 af, Depth= 6.64"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 100-yr Rainfall=7.00"

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	Area (s	sf) CN	Description		
	7,50	00 68	<50% Gras	s cover, Po	oor, HSG A
	4,32	21 79	<50% Gras	s cover, Po	oor, HSG B
*	92,14	17 98	Exisitng Pa	vement/Co	ncrete
*	94,39	98	Existing Ro	of	
*	60,15	55 98	Existing Ba	sin @ Elev:	=71.7
	258,52	20 97	Weighted A	verage	
	11,82	21	Pervious A	ea	
	246,69	99	Impervious	Area	
	Tc Len	_	pe Velocity	Capacity	Description
(n	nin) (fe	et) (fi	/ft) (ft/sec)	(cfs)	
	6.0				Direct Entry, TR-55 Minimum

Summary for Subcatchment S-2A: Tributary to Depression at SE Corner of Building

Runoff = 9.31 cfs @ 12.19 hrs, Volume= 0.858 af, Depth= 4.37"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 100-yr Rainfall=7.00"

	Α	rea (sf)	CN E	escription			
		20,817	30 V	Voods, Go	od, HSG A		
		24,816	68 <	:50% Gras	s cover, Po	or, HSG A	
*		57,081	98 F	Rooftop			
	1	02,714	77 V	Veighted A	verage		
		45,633		Pervious Ar	•		
		57,081	li	mpervious	Area		
				•			
	Tc	Length	Slope	Velocity	Capacity	Description	
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)		
	8.0	50	0.0200	0.10		Sheet Flow, AB	
						Grass: Dense n= 0.240 P2= 3.40"	
	1.3	80	0.0200	0.99		Shallow Concentrated Flow, BC	
						Short Grass Pasture Kv= 7.0 fps	
	4.9	190	0.0170	0.65		Shallow Concentrated Flow, CD	
						Woodland Kv= 5.0 fps	
	14.2	320	Total				

Summary for Subcatchment S-2B: Tributary to Depression at SW Corner of Building

Runoff = 2.53 cfs @ 12.10 hrs, Volume= 0.185 af, Depth= 3.62"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 100-yr Rainfall=7.00"

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	А	rea (sf)	CN E	escription						
		25,300	68 <	50% Gras	s cover, Po	or, HSG A				
*		1,410	98 E	xisting Co	ncrete					
		26,710	70 V	70 Weighted Average						
		25,300	F	ervious Ar	rea					
		1,410	li	mpervious	Area					
	Tc	Length	Slope	Velocity	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	5.0	50	0.0250	0.17		Sheet Flow, AB				
						Grass: Short n= 0.150 P2= 3.40"				
	1.8	130	0.0280	1.17		Shallow Concentrated Flow, BC				
						Short Grass Pasture Kv= 7.0 fps				
	6.8	180	Total	·						

Summary for Subcatchment S-2C: Tributary to Depression West of Building

Runoff = 1.40 cfs @ 12.10 hrs, Volume= 0.104 af, Depth= 2.31"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs Type III 24-hr 100-yr Rainfall=7.00"

_	Α	rea (sf)	CN	Description						
		7,393	30	Woods, Go	od, HSG A					
		15,827	68	<50% Grass cover, Poor, HSG A						
4	k	384	98	Existing Ro	of					
		23,604	57	Weighted A	verage					
		23,220		Pervious Ar	Pervious Area					
		384		Impervious	Area					
		Length	Slope	,	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					

6.0 **Direct Entry, TR-55 Minimum**

Summary for Reach SR: Site Runoff to BVW

Inflow Area = 18.706 ac, 40.92% Impervious, Inflow Depth > 2.65" for 100-yr event

Inflow = 12.31 cfs @ 12.32 hrs, Volume= 4.135 af

Outflow = 12.31 cfs @ 12.32 hrs, Volume= 4.135 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3

Summary for Pond 1A: Storage Behind Culvert

Inflow Area =	2.028 ac,	2.15% Impervious, Inflow De	epth = 1.76" for 100-yr event
Inflow =	2.76 cfs @	12.23 hrs, Volume=	0.297 af
Outflow =	2.65 cfs @	12.28 hrs, Volume=	0.297 af, Atten= 4%, Lag= 3.2 min
Discarded =	0.40 cfs @	12.28 hrs, Volume=	0.032 af
Primary =	2.24 cfs @	12.28 hrs, Volume=	0.265 af

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Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3 Peak Elev= 76.11' @ 12.28 hrs Surf.Area= 2,112 sf Storage= 267 cf

Plug-Flow detention time= 0.7 min calculated for 0.297 af (100% of inflow) Center-of-Mass det. time= 0.7 min (886.6 - 886.0)

Volume	Inve	ert Avail	l.Storage	Storage Description	on		
#1	75.7	0' 1	11,295 cf	Custom Stage Da	ata (Irregular) Listo	ed below (Recalc)
Elevatio		Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
75.7 76.0 77.0	00	2 954 27,508	2.0 345.0 674.0	0 100 11,195	0 100 11,295	9,474 36,157	
Device	Routing	Inv	vert Outle	et Devices			
#1	Primary	75.	Box, Outle	"W x 2.00" H x 31, 30-75° wingwalls, et Invert= 75.66' S .013 Concrete pipe	square crown, Ke S= 0.0013 '/' Cc=	0.900	
#2	Discarde	d 75.		0 in/hr Exfiltration			

Discarded OutFlow Max=0.40 cfs @ 12.28 hrs HW=76.11' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.40 cfs)

Primary OutFlow Max=2.24 cfs @ 12.28 hrs HW=76.11' TW=75.99' (Dynamic Tailwater) 1=Culvert (Outlet Controls 2.24 cfs @ 1.82 fps)

Summary for Pond 1B: Small Depression at NE Corner of Building

Inflow Area =	2.122 ac,	2.77% Impervious, Inflow De	epth = 1.67" for 100-yr event
Inflow =	2.44 cfs @	12.27 hrs, Volume=	0.296 af
Outflow =	2.44 cfs @	12.28 hrs, Volume=	0.296 af, Atten= 0%, Lag= 0.3 min
Discarded =	0.04 cfs @	12.28 hrs, Volume=	0.005 af
Primary =	2.41 cfs @	12.28 hrs, Volume=	0.290 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3 Peak Elev= 75.99' @ 12.28 hrs Surf.Area= 189 sf Storage= 32 cf

Plug-Flow detention time= 0.1 min calculated for 0.296 af (100% of inflow) Center-of-Mass det. time= 0.1 min (882.4 - 882.3)

V	olume	Invert	Avail	.Storage	Storage Description	n	
	#1	75.54'		457 cf	Custom Stage Da	ta (Irregular) List	ed below (Recalc)
E	Elevation (feet)		Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
	75.54		2	2.0	0	0	2
	76.00		193	85.0	33	33	577
	77.00		709	107.0	424	457	927

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Device	Routing	Invert	Outlet Devices
#1	Primary	75.54'	4.00' W x 2.00' H x 45.0' long Culvert
			Box, 30-75° wingwalls, square crown, Ke= 0.400
			Outlet Invert= 75.53' S= 0.0002 '/' Cc= 0.900
			n= 0.013 Concrete pipe, bends & connections
#2	Discarded	75.54'	8.270 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.04 cfs @ 12.28 hrs HW=75.99' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.04 cfs)

Primary OutFlow Max=2.41 cfs @ 12.28 hrs HW=75.99' TW=0.00' (Dynamic Tailwater) 1=Culvert (Barrel Controls 2.41 cfs @ 1.77 fps)

Summary for Pond 1C: Storage Behind Culvert

Inflow Area =	0.904 ac,	4.83% Impervious, Inflow D	Depth = 2.60" for 100-yr event
Inflow =	1.83 cfs @	12.28 hrs, Volume=	0.196 af
Outflow =	1.74 cfs @	12.34 hrs, Volume=	0.196 af, Atten= 5%, Lag= 3.7 min
Discarded =	0.51 cfs @	12.34 hrs, Volume=	0.052 af
Primary =	1.23 cfs @	12.34 hrs, Volume=	0.144 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3 Peak Elev= 77.86' @ 12.34 hrs Surf.Area= 2,662 sf Storage= 258 cf

Avail.Storage Storage Description

Plug-Flow detention time= 1.2 min calculated for 0.196 af (100% of inflow)

Center-of-Mass det. time= 1.2 min (866.9 - 865.7)

Invert

VOIGITIC	1117	ort /wan	.Otorage	Otorage Description	1		
#1	77.5	58'	4,907 cf	Custom Stage Dat	a (Irregular)Listed	below (Recalc)	
Elevation (fee		Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
77.5	58	2	2.0	0	0	2	
78.0	00	5,752	313.0	821	821	7,798	
78.5	50	10,860	398.0	4,086	4,907	12,611	
Device	Routing	Inv	ert Outle	t Devices			
#1	Primary	77.	58' 4.00'	W x 2.00' H x 45.0	' long Culvert		
			Box, 3	30-75° wingwalls, so	quare crown, Ke=	0.400	
			Outle	t Invert= 77.54' S=	: 0.0009 '/' Cc= 0.9	900	
			n = 0.0	n= 0.013 Concrete pipe, bends & connections			
#2	Discarde	ed 77.	58' 8.270	in/hr Exfiltration of	over Surface area		

Discarded OutFlow Max=0.51 cfs @ 12.34 hrs HW=77.86' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.51 cfs)

Primary OutFlow Max=1.23 cfs @ 12.34 hrs HW=77.86' TW=0.00' (Dynamic Tailwater) 1=Culvert (Barrel Controls 1.23 cfs @ 1.45 fps)

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Summary for Pond 2A: Depression at SE Corner of Building

Inflow Area = 2.358 ac, 55.57% Impervious, Inflow Depth = 4.37" for 100-yr event

Inflow = 9.31 cfs @ 12.19 hrs, Volume= 0.858 af

Outflow = 5.14 cfs @ 12.44 hrs, Volume= 0.858 af, Atten= 45%, Lag= 14.8 min

Discarded = 1.98 cfs @ 12.44 hrs, Volume= 0.243 af Primary = 3.16 cfs @ 12.44 hrs, Volume= 0.615 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3 Peak Elev= 75.27' @ 12.44 hrs Surf.Area= 10,355 sf Storage= 5,427 cf

Plug-Flow detention time= 7.2 min calculated for 0.858 af (100% of inflow)

Center-of-Mass det. time= 7.2 min (829.9 - 822.7)

gular)Listed below (Recalc)
m.Store Wet.Area pic-feet) (sq-ft)
0 2
1 10
2,868 33,007
15,196 34,316
33,995 39,770
P, sq.cut end projecting, Ke= 0.500
0 '/' Cc= 0.900
& connections
ırface area above invert
: (C

Discarded OutFlow Max=1.98 cfs @ 12.44 hrs HW=75.27' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 1.98 cfs)

Primary OutFlow Max=3.16 cfs @ 12.44 hrs HW=75.27' TW=73.25' (Dynamic Tailwater) 1=Culvert (Barrel Controls 3.16 cfs @ 4.02 fps)

Summary for Pond 2B: Depression at SW Corner of Building

Inflow Area =	0.613 ac,	5.28% Impervious, Inflow	Depth = 3.62" for 100-yr event
Inflow =	2.53 cfs @	12.10 hrs, Volume=	0.185 af
Outflow =	1.87 cfs @	12.18 hrs, Volume=	0.185 af, Atten= 26%, Lag= 4.7 min
Discarded =	0.45 cfs @	12.18 hrs, Volume=	0.047 af
Primary =	1.42 cfs @	12.18 hrs, Volume=	0.138 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3 Peak Elev= 75.04' @ 12.18 hrs Surf.Area= 2,364 sf Storage= 601 cf

Plug-Flow detention time= 2.6 min calculated for 0.185 af (100% of inflow) Center-of-Mass det. time= 2.6 min (834.2 - 831.6)

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Volume	Inve	rt Avail	l.Storage	Storage Descripti	on			
#1	74.3	5'	14,436 cf	Custom Stage D	ata (Irregular)List	ted below (Recalc)		
Elevation (fee		Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)		
74.3	35	2	2.0	0	0	2		
75.0	00	2,273	200.0	508	508	3,185		
76.0	00	5,058	288.0	3,574	4,081	6,612		
77.0	00	7,587	358.0	6,280	10,361	10,224		
77.5	50	8,725	416.0	4,075	14,436	13,802		
Device	Routing	Inv	ert Outle	et Devices				
#1	Primary	74.	.35' 12.0	" x 45.0' long Cu	Ivert RCP, sq.cut	end projecting, Ke	= 0.500	
#2	Discarde	d 74.	n= 0	Outlet Invert= 73.99' S= 0.0080 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections				

Discarded OutFlow Max=0.45 cfs @ 12.18 hrs HW=75.04' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.45 cfs)

Primary OutFlow Max=1.42 cfs @ 12.18 hrs HW=75.04' TW=73.00' (Dynamic Tailwater) 1=Culvert (Barrel Controls 1.42 cfs @ 3.46 fps)

Summary for Pond 2C: Depression West of Building

Inflow Area =	0.542 ac,	1.63% Impervious, Inflow De	epth = 2.31" for 100-yr event
Inflow =	1.40 cfs @	12.10 hrs, Volume=	0.104 af
Outflow =	1.00 cfs @	12.18 hrs, Volume=	0.104 af, Atten= 29%, Lag= 5.0 min
Discarded =	0.59 cfs @	12.18 hrs, Volume=	0.064 af
Primary =	0.41 cfs @	12.18 hrs, Volume=	0.041 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3 Peak Elev= 75.94' @ 12.18 hrs Surf.Area= 3,085 sf Storage= 361 cf

Plug-Flow detention time= 3.2 min calculated for 0.104 af (100% of inflow) Center-of-Mass det. time= 3.2 min (864.1 - 860.9)

Volume	ln۱	vert Ava	il.Storage	Storage Description	on		
#1	75.	.60'	15,028 cf	Custom Stage D	ata (Irregular) List	ted below (Recalc)	
Elevation (fee		Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
75.6		2 4,193	2.0	0 572	0 572	2 5 902	
76.0 77.0		7,571	270.0 341.0	5,799	6,371	5,803 9,269	
78.0	00	9,791	412.0	8,657	15,028	13,540	
Device	Routing	<u>Ir</u>	nvert Outle	et Devices			
#1	Primary	7	5.60' 12.0	" x 37.0' long Cul	vert RCP, sq.cut	end projecting, Ke	≥= 0.500

Outlet Invert= 75.30' S= 0.0081 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections

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#2 Discarded 75.60' 8.270 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.59 cfs @ 12.18 hrs HW=75.94' (Free Discharge) **-2=Exfiltration** (Exfiltration Controls 0.59 cfs)

Primary OutFlow Max=0.41 cfs @ 12.18 hrs HW=75.94' TW=73.00' (Dynamic Tailwater) 1=Culvert (Barrel Controls 0.41 cfs @ 2.56 fps)

Summary for Pond EDB: Existing Detention Basin

Inflow Area = 9.448 ac, 74.25% Impervious, Inflow Depth = 5.18" for 100-yr event

Inflow 44.31 cfs @ 12.09 hrs, Volume= 4.079 af

4.63 cfs @ 13.17 hrs, Volume= Outflow 2.926 af, Atten= 90%, Lag= 65.1 min =

Primary 4.63 cfs @ 13.17 hrs, Volume= 2.926 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3 Peak Elev= 73.40' @ 13.17 hrs Surf.Area= 70,657 sf Storage= 112,206 cf

Plug-Flow detention time= 429.2 min calculated for 2.925 af (72% of inflow)

Center-of-Mass det. time= 334.8 min (1,101.9 - 767.0)

Volume	Inv	ert Ava	il.Storage	Storage Descripti	on		
#1	71.	70' 1	55,808 cf	Custom Stage D	ata (Irregular)Liste	ed below (Recalc)	
Elevation (fee		Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft <u>)</u>	
71.7	70	60,155	952.0	0	0	60,155	
72.0	00	63,529	1,023.0	18,550	18,550	71,318	
73.0	00	68,606	1,069.0	66,051	84,602	79,047	
74.0	00	73,838	1,080.0	71,206	155,808	81,213	
Device	Routing	In	vert Outl	et Devices			
#1	Primary	72	72.01' 12.0" x 3.0' long Culvert RCP, square edge headwall, Ke= 0.500				
	•		Outl	et Invert= 72.00' S	S= 0.0033 '/' Cc=	0.900	
			n= 0	0.013 Concrete pip	e, bends & connec	ctions	
#2	Primary	73	30' 20.0' long x 10.0' breadth Broad-Crested Rectangular Weir				
Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60			1.20 1.40 1.60				
			Coe	Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64			

Primary OutFlow Max=4.63 cfs @ 13.17 hrs HW=73.40' TW=0.00' (Dynamic Tailwater)

-1=Culvert (Barrel Controls 3.14 cfs @ 4.00 fps)

-2=Broad-Crested Rectangular Weir (Weir Controls 1.49 cfs @ 0.77 fps)