### D. Summary:

The subject site complies with the Town of Hudson Stormwater Management and Erosion Control Regulations and NHDES Regulations Env-Wq 1500 in regard to stormwater treatment and groundwater recharge volume. Proposed stormwater best management practices (BMP) are designed in accordance with the <a href="New Hampshire Stormwater Manual Volume 2: Post-Construction Best Management Practices Selection and Design">New Hampshire Stormwater Manual Volume 2: Post-Construction Best Management Practices Selection and Design and BMP worksheets provided by the New Hampshire Department of Environmental Services. In addition, stormwater discharges, in terms of peak rate of runoff and total volume, are consistent with the Town of Hudson Stormwater Regulations and NHDES Regulations Env-Wq 1500. The results are reported below in Table 1 and 2.

Table 1: Peak Runoff (Env-Wq 1507.06)

Site Pre-Development vs. Post Development (Peak Discharge Rate in cfs)									
Description 2-Year 10-Year 25-Year 50-Year									
24-hr Rainfall	2.96	2.96 in/hr		4.47 in/hr		5.66 in/hr		6.77 in/hr	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	
Α	4.72	3.42	9.13	6.25	12.81	10.35	17.16	14.30	
В	3.14	2.28	6.11	4.78	8.58	7.91	11.32	10.33	
С	5.64	3.84	11.93	10.94	17.38	15.49	23.00	22.54	

Table 2: Channel Protection Requirements (Env-Wq 1507.05)

Site Pre-Development vs. Post Development (Storm Volume in Acre-Feet)							
Description	2-Year						
24-hr Rainfall	2.97 in/hr						
	Pre Post Comments						
Α	<b>3.44</b> 3.42 Complies with Env-Wq 1507.0		Complies with Env-Wq 1507.05 (b)(3)				
В	<b>2.28</b> Complies with Env-Wq 1507.05 (kg		Complies with Env-Wq 1507.05 (b)(3)				
С	3.89	3.84	Complies with Env-Wq 1507.05 (b)(3)				



# FILTRATION PRACTICE DESIGN CRITERIA (Env-Wq 1508.07)

### Type/Node Name: Bioretention Pond #1

Enter the type of filtration practice (e.g., bioretention system) and the node name in the drainage analysis, if applicable.

yes		Check if you reviewed the restrictions on unlined systems outlined in Env-Wq 1508.0	7(a).
2.51	- ac	A = Area draining to the practice	, ,
1.39	ac	A <sub>I</sub> = Impervious area draining to the practice	
	decimal	I = Percent impervious area draining to the practice, in decimal form	
	unitless	Rv = Runoff coefficient = 0.05 + (0.9 x I)	
	ac-in	WQV= 1" x Rv x A	
4,997	cf	WQV conversion (ac-in x 43,560 sf/ac x 1ft/12")	
1,249	cf	25% x WQV (check calc for sediment forebay volume)	
3,748	cf	75% x WQV (check calc for surface sand filter volume)	
Fore	ebay	Method of Pretreatment? (not required for clean or roof runoff)	
1,250	cf	V <sub>SED</sub> = Sediment forebay volume, if used for pretreatment	<u>&gt;</u> 25%WQV
Calculate ti	me to drain	if system IS NOT underdrained:	
	sf	A <sub>SA</sub> = Surface area of the practice	
	- iph	Ksat <sub>DESIGN</sub> = Design infiltration rate <sup>1</sup>	
	<u>-</u>	If Ksat (prior to factor of safety) is < 0.50 iph, has an underdrain been provided?	
	Yes/No	(Use the calculations below)	
_	hours	$T_{DRAIN} = Drain time = V / (A_{SA} * I_{DESIGN})$	< 72-hrs
		if system IS underdrained:	
291.88		E <sub>WQV</sub> = Elevation of WQV (attach stage-storage table)	
0.69	_	$Q_{WOV}$ = Discharge at the $E_{WOV}$ (attach stage-discharge table)	
	_		< 72-hrs
4.02	hours	$T_{DRAIN} = Drain time = 2WQV/Q_{WQV}$	< 72-hrs
4.02 286.25	hours feet	$T_{DRAIN}$ = Drain time = $2WQV/Q_{WQV}$ $E_{FC}$ = Elevation of the bottom of the filter course material <sup>2</sup>	< 72-hrs
4.02	hours feet	$T_{DRAIN} = Drain time = 2WQV/Q_{WQV}$	<u>&lt;</u> 72-hrs
4.02 286.25	hours feet feet	$T_{DRAIN}$ = Drain time = $2WQV/Q_{WQV}$ $E_{FC}$ = Elevation of the bottom of the filter course material <sup>2</sup>	
4.02 286.25 285.25	hours feet feet feet	$T_{DRAIN}$ = Drain time = $2WQV/Q_{WQV}$ $E_{FC}$ = Elevation of the bottom of the filter course material $^2$ $E_{UD}$ = Invert elevation of the underdrain (UD), if applicable	it)
4.02 286.25 285.25 288.60	hours feet feet feet feet	$T_{DRAIN}$ = Drain time = $2WQV/Q_{WQV}$ $E_{FC}$ = Elevation of the bottom of the filter course material $^2$ $E_{UD}$ = Invert elevation of the underdrain (UD), if applicable $E_{SHWT}$ = Elevation of SHWT (if none found, enter the lowest elevation of the test p	it)
4.02 286.25 285.25 288.60 288.60 1.00	hours feet feet feet feet feet	$T_{DRAIN}$ = Drain time = $2WQV/Q_{WQV}$ $E_{FC}$ = Elevation of the bottom of the filter course material $^2$ $E_{UD}$ = Invert elevation of the underdrain (UD), if applicable $E_{SHWT}$ = Elevation of SHWT (if none found, enter the lowest elevation of the test p $E_{ROCK}$ = Elevation of bedrock (if none found, enter the lowest elevation of the test D $E_{CL}$ = Depth to UD from the bottom of the filter course	it) pit)
4.02 286.25 285.25 288.60 288.60 1.00 (2.35)	hours feet feet feet feet feet feet feet	$\begin{split} &T_{DRAIN} = Drain \ time = 2WQV/Q_{WQV} \\ &E_{FC} = Elevation \ of \ the \ bottom \ of \ the \ filter \ course \ material^2 \\ &E_{UD} = Invert \ elevation \ of \ the \ underdrain \ (UD), \ if \ applicable \\ &E_{SHWT} = Elevation \ of \ SHWT \ (if \ none \ found, \ enter \ the \ lowest \ elevation \ of \ the \ test \ p \\ &E_{ROCK} = Elevation \ of \ bedrock \ (if \ none \ found, \ enter \ the \ lowest \ elevation \ of \ the \ test \ D_{FC \ to \ UD} = Depth \ to \ UD \ from \ the \ bottom \ of \ the \ filter \ course \\ &D_{FC \ to \ ROCK} = Depth \ to \ bedrock \ from \ the \ bottom \ of \ the \ filter \ course \end{split}$	it) pit) ≥ 1' ≥ 1'
4.02 286.25 285.25 288.60 288.60 1.00 (2.35)	hours feet feet feet feet feet feet feet fee	$T_{DRAIN} = Drain time = 2WQV/Q_{WQV}$ $E_{FC} = Elevation of the bottom of the filter course material^2$ $E_{UD} = Invert elevation of the underdrain (UD), if applicable$ $E_{SHWT} = Elevation of SHWT (if none found, enter the lowest elevation of the test power of the total power of the test powe$	it) pit) ≥ <b>1'</b>
4.02 286.25 285.25 288.60 288.60 1.00 (2.35) (2.35)	hours feet feet feet feet feet feet feet ft	$\begin{split} &T_{DRAIN} = Drain \ time = 2WQV/Q_{WQV} \\ &E_{FC} = Elevation \ of \ the \ bottom \ of \ the \ filter \ course \ material^2 \\ &E_{UD} = Invert \ elevation \ of \ the \ underdrain \ (UD), \ if \ applicable \\ &E_{SHWT} = Elevation \ of \ SHWT \ (if \ none \ found, \ enter \ the \ lowest \ elevation \ of \ the \ test \ p \\ &E_{ROCK} = Elevation \ of \ bedrock \ (if \ none \ found, \ enter \ the \ lowest \ elevation \ of \ the \ test \\ &D_{FC \ to \ UD} = Depth \ to \ UD \ from \ the \ bottom \ of \ the \ filter \ course \\ &D_{FC \ to \ SHWT} = Depth \ to \ SHWT \ from \ the \ bottom \ of \ the \ filter \ course \\ &Peak \ elevation \ of \ the \ 50-year \ storm \ event \ (infiltration \ can \ be \ used \ in \ analysis) \end{split}$	it) pit) ≥ 1' ≥ 1'
4.02 286.25 285.25 288.60 288.60 1.00 (2.35) (2.35) 293.47 294.00	hours feet feet feet feet feet feet feet ft	$\begin{split} &T_{DRAIN} = Drain \ time = 2WQV/Q_{WQV} \\ &E_{FC} = Elevation \ of \ the \ bottom \ of \ the \ filter \ course \ material^2 \\ &E_{UD} = Invert \ elevation \ of \ the \ underdrain \ (UD), \ if \ applicable \\ &E_{SHWT} = Elevation \ of \ SHWT \ (if \ none \ found, \ enter \ the \ lowest \ elevation \ of \ the \ test \ p \\ &E_{ROCK} = Elevation \ of \ bedrock \ (if \ none \ found, \ enter \ the \ lowest \ elevation \ of \ the \ test \ p \\ &D_{FC \ to \ UD} = Depth \ to \ UD \ from \ the \ bottom \ of \ the \ filter \ course \\ &D_{FC \ to \ SHWT} = Depth \ to \ SHWT \ from \ the \ bottom \ of \ the \ filter \ course \\ &Peak \ elevation \ of \ the \ 50-year \ storm \ event \ (infiltration \ can \ be \ used \ in \ analysis) \\ &Elevation \ of \ the \ top \ of \ the \ practice \end{aligned}$	it) pit) ≥ 1' ≥ 1' ≥ 1'
4.02 286.25 285.25 288.60 288.60 1.00 (2.35) (2.35) 293.47 294.00 YES	hours feet feet feet feet feet feet ft ft	$\begin{split} &T_{DRAIN} = Drain \ time = 2WQV/Q_{WQV} \\ &E_{FC} = Elevation \ of \ the \ bottom \ of \ the \ filter \ course \ material^2 \\ &E_{UD} = Invert \ elevation \ of \ the \ underdrain \ (UD), \ if \ applicable \\ &E_{SHWT} = Elevation \ of \ SHWT \ (if \ none \ found, \ enter \ the \ lowest \ elevation \ of \ the \ test \ p \\ &E_{ROCK} = Elevation \ of \ bedrock \ (if \ none \ found, \ enter \ the \ lowest \ elevation \ of \ the \ test \\ &D_{FC \ to \ UD} = Depth \ to \ UD \ from \ the \ bottom \ of \ the \ filter \ course \\ &D_{FC \ to \ SHWT} = Depth \ to \ bedrock \ from \ the \ bottom \ of \ the \ filter \ course \\ &D_{FC \ to \ SHWT} = Depth \ to \ SHWT \ from \ the \ bottom \ of \ the \ filter \ course \\ &Peak \ elevation \ of \ the \ 50-year \ storm \ event \ (infiltration \ can \ be \ used \ in \ analysis) \\ &Elevation \ of \ the \ top \ of \ the \ practice \\ &50 \ peak \ elevation \ \leq Elevation \ of \ the \ top \ of \ the \ practice \end{aligned}$	it) pit) ≥ 1' ≥ 1'
4.02 286.25 285.25 288.60 288.60 1.00 (2.35) (2.35) 293.47 294.00 YES	hours feet feet feet feet feet feet ft ft	$\begin{split} &T_{DRAIN} = Drain \ time = 2WQV/Q_{WQV} \\ &E_{FC} = Elevation \ of \ the \ bottom \ of \ the \ filter \ course \ material^2 \\ &E_{UD} = Invert \ elevation \ of \ the \ underdrain \ (UD), \ if \ applicable \\ &E_{SHWT} = Elevation \ of \ SHWT \ (if \ none \ found, \ enter \ the \ lowest \ elevation \ of \ the \ test \ p \\ &E_{ROCK} = Elevation \ of \ bedrock \ (if \ none \ found, \ enter \ the \ lowest \ elevation \ of \ the \ test \ p \\ &D_{FC \ to \ UD} = Depth \ to \ UD \ from \ the \ bottom \ of \ the \ filter \ course \\ &D_{FC \ to \ SHWT} = Depth \ to \ SHWT \ from \ the \ bottom \ of \ the \ filter \ course \\ &Peak \ elevation \ of \ the \ 50-year \ storm \ event \ (infiltration \ can \ be \ used \ in \ analysis) \\ &Elevation \ of \ the \ top \ of \ the \ practice \end{aligned}$	it) pit) ≥ 1' ≥ 1' ≥ 1'
4.02 286.25 285.25 288.60 288.60 1.00 (2.35) (2.35) 293.47 294.00 YES	hours feet feet feet feet feet feet ft ft sand filter ac	$T_{DRAIN} = Drain time = 2WQV/Q_{WQV}$ $E_{FC} = Elevation of the bottom of the filter course material^2$ $E_{UD} = Invert elevation of the underdrain (UD), if applicable$ $E_{SHWT} = Elevation of SHWT (if none found, enter the lowest elevation of the test possible to the possible to$	it) pit) ≥ 1' ≥ 1' ≥ 1'  ← yes < 10 ac
4.02 286.25 285.25 288.60 288.60 1.00 (2.35) (2.35) 293.47 294.00 YES	hours feet feet feet feet feet feet ft tt sand filter	$\begin{split} &T_{DRAIN} = Drain \ time = 2WQV/Q_{WQV} \\ &E_{FC} = Elevation \ of \ the \ bottom \ of \ the \ filter \ course \ material^2 \\ &E_{UD} = Invert \ elevation \ of \ the \ underdrain \ (UD), \ if \ applicable \\ &E_{SHWT} = Elevation \ of \ SHWT \ (if \ none \ found, \ enter \ the \ lowest \ elevation \ of \ the \ test \ p \\ &E_{ROCK} = Elevation \ of \ bedrock \ (if \ none \ found, \ enter \ the \ lowest \ elevation \ of \ the \ test \\ &D_{FC \ to \ UD} = Depth \ to \ UD \ from \ the \ bottom \ of \ the \ filter \ course \\ &D_{FC \ to \ ROCK} = Depth \ to \ bedrock \ from \ the \ bottom \ of \ the \ filter \ course \\ &D_{FC \ to \ SHWT} = Depth \ to \ SHWT \ from \ the \ bottom \ of \ the \ filter \ course \\ &Peak \ elevation \ of \ the \ 50-year \ storm \ event \ (infiltration \ can \ be \ used \ in \ analysis) \\ &Elevation \ of \ the \ top \ of \ the \ practice \\ &o \ peak \ elevation \ \leq Elevation \ of \ the \ top \ of \ the \ practice \\ &o \ underground \ sand \ filter \ is \ proposed: \end{split}$	it) pit) ≥ 1' ≥ 1' ≥ 1'
4.02 286.25 285.25 288.60 288.60 1.00 (2.35) (2.35) 293.47 294.00 YES If a surface	hours feet feet feet feet feet feet ft tt sand filter ac cf inches	$\begin{split} &T_{DRAIN} = \text{Drain time} = 2 \text{WQV/Q}_{\text{WQV}} \\ &E_{FC} = \text{Elevation of the bottom of the filter course material}^2 \\ &E_{UD} = \text{Invert elevation of the underdrain (UD), if applicable} \\ &E_{SHWT} = \text{Elevation of SHWT (if none found, enter the lowest elevation of the test p} \\ &E_{ROCK} = \text{Elevation of bedrock (if none found, enter the lowest elevation of the test} \\ &D_{FC \text{ to } UD} = \text{Depth to UD from the bottom of the filter course} \\ &D_{FC \text{ to } ROCK} = \text{Depth to bedrock from the bottom of the filter course} \\ &D_{FC \text{ to } SHWT} = \text{Depth to SHWT from the bottom of the filter course} \\ &Peak \text{ elevation of the 50-year storm event (infiltration can be used in analysis)} \\ &Elevation \text{ of the top of the practice} \\ &50 \text{ peak elevation} \leq \text{Elevation of the top of the practice} \\ &\text{Or underground sand filter is proposed:} \\ &\text{Drainage Area check.} \\ &V = \text{Volume of storage}^3 \text{ (attach a stage-storage table)} \\ &D_{FC} = \text{Filter course thickness} \end{aligned}$	it) pit) ≥ 1' ≥ 1' ≥ 1'
4.02 286.25 285.25 288.60 288.60 1.00 (2.35) (2.35) 293.47 294.00 YES	hours feet feet feet feet feet feet ft tt sand filter ac cf inches	$\begin{split} &T_{DRAIN} = Drain \ time = 2WQV/Q_{WQV} \\ &E_{FC} = Elevation \ of \ the \ bottom \ of \ the \ filter \ course \ material^2 \\ &E_{UD} = Invert \ elevation \ of \ the \ underdrain \ (UD), \ if \ applicable \\ &E_{SHWT} = Elevation \ of \ SHWT \ (if \ none \ found, \ enter \ the \ lowest \ elevation \ of \ the \ test \ p \\ &E_{ROCK} = Elevation \ of \ bedrock \ (if \ none \ found, \ enter \ the \ lowest \ elevation \ of \ the \ test \ D_{FC \ to \ UD} = Depth \ to \ UD \ from \ the \ bottom \ of \ the \ filter \ course \\ &D_{FC \ to \ ROCK} = Depth \ to \ bedrock \ from \ the \ bottom \ of \ the \ filter \ course \\ &D_{FC \ to \ SHWT} = Depth \ to \ SHWT \ from \ the \ bottom \ of \ the \ filter \ course \\ &Peak \ elevation \ of \ the \ 50-year \ storm \ event \ (infiltration \ can \ be \ used \ in \ analysis) \\ &Elevation \ of \ the \ top \ of \ the \ practice \\ &SO \ peak \ elevation \ \leq Elevation \ of \ the \ top \ of \ the \ practice \\ ⩔ \ underground \ sand \ filter \ is \ proposed: \\ &Drainage \ Area \ check. \\ &V = Volume \ of \ storage^3 \ (attach \ a \ stage-storage \ table) \end{aligned}$	it) pit) ≥ 1' ≥ 1' ≥ 1'

If a biorete	ntion ar	ea i	is proposed:	
YES	ac		Drainage Area no larger than 5 ac?	← yes
5,642	cf		V = Volume of storage <sup>3</sup> (attach a stage-storage table)	<u>&gt;</u> WQV
18.0	inches		D <sub>FC</sub> = Filter course thickness	18", or 24" if within GPA
Sheet		49	Note what sheet in the plan set contains the filter course specification	
3.0	:1		Pond side slopes	<u>&gt; 3</u> :1
Sheet		49	Note what sheet in the plan set contains the planting plans and surface cover	
If porous p	avemen	t is	proposed:	
			Type of pavement proposed (Concrete? Asphalt? Pavers? Etc.)	
	acres		A <sub>SA</sub> = Surface area of the pervious pavement	
	:1		Ratio of the contributing area to the pervious surface area	≤ 5:1
	inches		D <sub>FC</sub> = Filter course thickness	12", or 18" if within GPA
	-			mod. 304.1 (see
Sheet			Note what sheet in the plan set contains the filter course spec.	spec)

- 1. Rate of the limiting layer (either the filter course or the underlying soil). Ksat<sub>design</sub> includes factor of safey. See Env-Wq 1504.14 for guidance on determining the infiltration rate.
- 2. See lines 34, 40 and 48 for required depths of filter media.
- 3. Volume without depending on infiltration. The volume includes the storage above the filter (but below the invert of the outlet stucture, if any), the filter media voids, and the pretreatment area. The storage above the filter media shall not include the volume above the outlet structure, if any.

Designer's Notes:

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### Stage-Discharge for Pond 1P: Bioretention Pond #1

Elevation	Discharge	Primary	Secondary
(feet)	(cfs)	(cfs)	(cfs)
288.00	0.00	0.00	0.00
288.10	0.11	0.11	0.00
288.20	0.12	0.12	0.00
288.30	0.12	0.12	0.00
288.40	0.13	0.13	0.00
288.50 288.60	0.14 0.15	0.14 0.15	0.00 0.00
288.70	0.13	0.15	0.00
288.80	0.10	0.10	0.00
288.90	0.17	0.17	0.00
289.00	0.18	0.18	0.00
289.10	0.19	0.19	0.00
289.20	0.20	0.20	0.00
289.30	0.21	0.21	0.00
289.40	0.21	0.21	0.00
289.50	0.22	0.22	0.00
289.60	0.23	0.23	0.00
289.70	0.24	0.24	0.00
289.80 289.90	0.25 0.26	0.25 0.26	0.00 0.00
290.00	0.26	0.26	0.00
290.00	0.20	0.20	0.00
290.20	0.29	0.29	0.00
290.30	0.30	0.30	0.00
290.40	0.31	0.31	0.00
290.50	0.32	0.32	0.00
290.60	0.33	0.33	0.00
290.70	0.34	0.34	0.00
290.80	0.35	0.35	0.00
290.90	0.36	0.36	0.00
291.00	0.37	0.37	0.00
291.10 291.20	0.41 0.44	0.41 0.44	0.00 0.00
291.20	0.44	0.44	0.00
291.40	0.51	0.51	0.00
291.50	0.55	0.55	0.00
291.60	0.59	0.59	0.00
291.70	0.62	0.62	0.00
291.80	0.66	0.66	0.00
291.90	0.70	0.70	0.00
292.00	0.73	0.73	0.00
292.10	0.75	0.75	0.00
292.20	0.82	0.82	0.00
292.30	0.98	0.98 1.23	0.00
292.40 292.50	1.23 1.55	1.23	0.00
292.60	1.95	1.95	0.00
292.70	2.40	2.40	0.00
292.80	2.90	2.90	0.00
292.90	3.43	3.43	0.00
293.00	3.97	3.97	0.00
293.10	4.52	4.52	0.00

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
293.20	5.04	5.04	0.00
293.30	5.49	5.49	0.00
293.40	5.85	5.85	0.00
293.50	6.21	6.21	0.00
293.60	8.21	8.21	0.00
293.70	10.83	10.83	0.00
293.80	10.89	10.89	0.00
293.90	11.28	10.96	0.31
294.00	11.92	11.03	0.89

Storage (cubic-feet)

9,698

10,115

10,541

10,974

11,416

11,866

12,324

12,790

13,264

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### Stage-Area-Storage for Pond 1P: Bioretention Pond #1

Surface

(sq-ft)

4,133

4,214

4,295

4,377

4,458

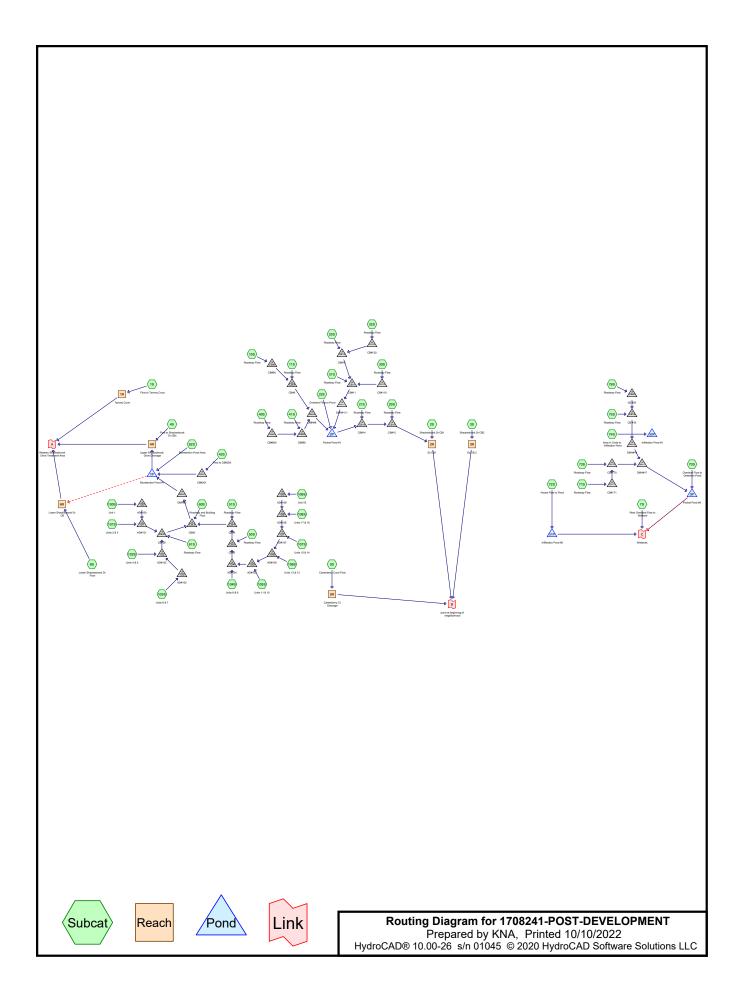
4,539

4,620

4,701

4,782

	_		
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)
288.00	434	0	293.20
288.10	469	45	293.30
288.20	505	94	293.40
288.30	540	146	293.50
288.40	575	202	293.60
288.50	611	261	293.70
288.60	646	324	293.80
288.70	681	390	293.90
288.80	716	460	294.00
288.90	752	534	234.00
289.00	787	611	
289.10	822	691	
289.20	858	775	
	893		
289.30		862	
289.40	928	954	
289.50	964	1,048	
289.60	999	1,146	
289.70	1,034	1,248	
289.80	1,069	1,353	
289.90	1,105	1,462	
290.00	1,140	1,574	
290.10	1,186	1,690	
290.20	1,232	1,811	
290.30	1,277	1,937	
290.40	1,323	2,067	
290.50	1,369	2,201	
290.60	1,415	2,340	
290.70	1,461	2,484	
290.80	1,506	2,633	
290.90	1,552	2,785	
291.00	1,598	2,943	
291.10	1,754	3,111	
291.20	1,910	3,294	
291.30	2,067	3,493	
291.40	2,223	3,707	
291.50	2,379	3,937	
291.60	2,535	4,183	
291.70	2,691	4,444	
291.80	2,848	4,721	
291.90	3,004	5,014	
292.00	3,160	5,322	
292.10	3,241	5,642	
292.20	3,322	5,970	
292.30	3,403	6,306	
292.40	3,484	6,651	
292.50	3,566	7,003	
292.60	3,647	7,364	
292.70	3,728	7,733	
292.80	3,809	8,110	
292.90	3,890	8,494	
293.00	3,971	8,888	
293.10	4,052	9,289	



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### Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
5.51	39	>75% Grass cover, Good, HSG A (1S, 2S, 3S, 4S, 5S, 6S, 7S, 10S, 11S, 20S, 21S, 22S, 30S, 31S, 32S, 33S, 40S, 41S, 42S, 50S, 51S, 60S, 61S, 62S, 70S, 71S, 72S, 73S, 74S, 75S, 76S)
0.23	74	>75% Grass cover, Good, HSG C (7S, 40S, 42S, 72S, 74S)
4.24	80	>75% Grass cover, Good, HSG D (1S, 2S, 3S, 4S, 7S, 10S, 11S, 20S, 21S, 22S, 30S, 31S, 32S, 33S, 40S, 41S, 42S, 70S, 71S, 72S, 74S, 75S, 76S)
2.39	98	Paved parking, HSG A (2S, 3S, 4S, 5S, 6S, 20S, 21S, 22S, 30S, 31S, 32S, 33S, 40S, 41S, 42S, 50S, 51S, 60S, 61S, 71S, 72S, 73S, 75S, 76S)
0.00	98	Paved parking, HSG C (40S)
0.65	98	Paved parking, HSG D (10S, 21S, 30S, 31S, 32S, 40S, 41S, 71S, 72S, 75S, 76S)
1.71	98	Roofs, HSG A (1S, 3S, 5S, 6S, 7S, 10S, 11S, 21S, 22S, 33S, 40S, 41S, 42S, 51S, 60S, 70S, 71S, 72S, 74S, 75S, 76S, 100S, 101S, 102S, 103S, 104S, 105S, 106S, 107S, 108S, 109S)
0.04	98	Roofs, HSG C (7S, 40S, 42S, 74S)
1.21	98	Roofs, HSG D (1S, 2S, 7S, 11S, 20S, 21S, 22S, 32S, 33S, 40S, 41S, 42S, 70S, 71S, 72S, 74S, 75S, 76S)
0.08	30	Woods, Good, HSG A (3S, 6S)
0.26	55	Woods, Good, HSG B (7S)
0.60	70	Woods, Good, HSG C (7S)
3.74	77	Woods, Good, HSG D (1S, 3S, 4S, 7S, 32S, 42S, 70S, 76S)
20.68	73	TOTAL AREA

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### Soil Listing (all nodes)

Area	Soil	Subcatchment
(acres)	Group	Numbers
9.70	HSG A	1S, 2S, 3S, 4S, 5S, 6S, 7S, 10S, 11S, 20S, 21S, 22S, 30S, 31S, 32S, 33S, 40S,
		41S, 42S, 50S, 51S, 60S, 61S, 62S, 70S, 71S, 72S, 73S, 74S, 75S, 76S, 100S,
		101S, 102S, 103S, 104S, 105S, 106S, 107S, 108S, 109S
0.26	HSG B	7S
0.87	HSG C	7S, 40S, 42S, 72S, 74S
9.85	HSG D	1S, 2S, 3S, 4S, 7S, 10S, 11S, 20S, 21S, 22S, 30S, 31S, 32S, 33S, 40S, 41S,
		42S, 70S, 71S, 72S, 74S, 75S, 76S
0.00	Other	
20.68		TOTAL AREA

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: Flow to Tammy Court Runoff Area=57,559 sf 17.28% Impervious Runoff Depth>1.29" Flow Length=263' Slope=0.6600 '/' Tc=6.0 min CN=WQ Runoff=1.86 cfs 0.142 af

**Subcatchment2S: Shadowbrook Dr CB1** Runoff Area=7,546 sf 57.32% Impervious Runoff Depth>1.79" Flow Length=300' Slope=0.0200 '/' Tc=6.0 min CN=WQ Runoff=0.32 cfs 0.026 af

**Subcatchment3S: Shadowbrook Dr CB2** Runoff Area=24,663 sf 8.93% Impervious Runoff Depth>0.99" Flow Length=344' Tc=8.6 min CN=WQ Runoff=0.56 cfs 0.047 af

**Subcatchment4S: Flow to Shadowbrook** Runoff Area=11,312 sf 38.41% Impervious Runoff Depth>1.69" Tc=6.0 min CN=WQ Runoff=0.47 cfs 0.037 af

**Subcatchment5S: Canterberry Court Flow** Runoff Area=36,412 sf 15.94% Impervious Runoff Depth>0.43" Flow Length=187' Tc=6.0 min CN=WQ Runoff=0.37 cfs 0.030 af

**Subcatchment6S: Lower Shadowbrook Dr** Runoff Area=72,715 sf 12.69% Impervious Runoff Depth>0.35" Flow Length=137' Tc=6.0 min CN=WQ Runoff=0.59 cfs 0.048 af

**Subcatchment7S: Rear Overland Flow to** Runoff Area=85,028 sf 6.43% Impervious Runoff Depth>0.84" Flow Length=183' Tc=11.5 min CN=WQ Runoff=1.43 cfs 0.137 af

Subcatchment10S: Roadway Flow Runoff Area=13,692 sf 72.11% Impervious Runoff Depth>1.97" Flow Length=307' Slope=0.0150 '/' Tc=6.0 min CN=WQ Runoff=0.64 cfs 0.052 af

**Subcatchment11S: Roadway Flow**Runoff Area=25,722 sf 45.39% Impervious Runoff Depth>1.80"
Flow Length=279' Tc=6.0 min CN=WQ Runoff=1.13 cfs 0.089 af

Subcatchment20S: Roadway Flow

Runoff Area=2,774 sf 40.41% Impervious Runoff Depth>1.54"

Flow Length=65' Tc=6.0 min CN=WQ Runoff=0.10 cfs 0.008 af

**Subcatchment21S: Roadway Flow**Runoff Area=9,904 sf 37.65% Impervious Runoff Depth>1.50"
Flow Length=203' Tc=6.0 min CN=WQ Runoff=0.36 cfs 0.028 af

Subcatchment22S: Overland Flow to Pond Runoff Area=17,710 sf 12.85% Impervious Runoff Depth>0.90" Flow Length=47' Slope=0.2127 '/' Tc=6.0 min CN=WQ Runoff=0.40 cfs 0.031 af

**Subcatchment30S: Roadway Flow**Runoff Area=14,714 sf 52.43% Impervious Runoff Depth>2.00"
Flow Length=276' Tc=6.0 min CN=WQ Runoff=0.72 cfs 0.056 af

**Subcatchment31S: Roadway Flow**Runoff Area=17,194 sf 38.30% Impervious Runoff Depth>1.52"
Flow Length=230' Tc=6.0 min CN=WQ Runoff=0.64 cfs 0.050 af

**Subcatchment32S: Roadway Flow**Runoff Area=21,651 sf 47.90% Impervious Runoff Depth>1.87"
Flow Length=223' Tc=6.0 min CN=WQ Runoff=0.98 cfs 0.077 af

**Subcatchment33S: Roadway Flow**Runoff Area=10,356 sf 52.43% Impervious Runoff Depth>1.63"
Flow Length=257' Tc=6.0 min CN=WQ Runoff=0.40 cfs 0.032 af

## **1708241-POST-DEVELOPMENT**Prepared by KNA Type III 24-hr 2-yr Rainfall=2.96" Printed 10/10/2022

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Subcatchment40S: Roadway Flow	Runoff Area=11,	,686 sf 72.9	9% Imperv	ious Runoff Depth>2.08"
Flow Length=263'	Slope=0.0150 '/'	Tc=6.0 min	CN=WQ	Runoff=0.57 cfs 0.046 af

**Subcatchment41S: Roadway Flow**Runoff Area=16,070 sf 43.83% Impervious Runoff Depth>1.82"
Flow Length=268' Tc=6.5 min CN=WQ Runoff=0.71 cfs 0.056 af

Subcatchment42S: Flow to CB#200 Runoff Area=29,920 sf 40.43% Impervious Runoff Depth>1.71" Flow Length=385' Tc=6.0 min CN=WQ Runoff=1.24 cfs 0.098 af

**Subcatchment50S: Roadway Flow**Runoff Area=12,898 sf 58.95% Impervious Runoff Depth>1.61"
Flow Length=300' Tc=6.0 min CN=WQ Runoff=0.49 cfs 0.040 af

**Subcatchment51S: Roadway Flow**Runoff Area=12,915 sf 65.19% Impervious Runoff Depth>1.78"
Flow Length=163' Tc=6.0 min CN=WQ Runoff=0.54 cfs 0.044 af

**Subcatchment60S: Roadway and Building** Runoff Area=23,012 sf 40.57% Impervious Runoff Depth>1.11" Flow Length=220' Tc=6.0 min CN=WQ Runoff=0.60 cfs 0.049 af

Subcatchment61S: Roadway Flow Runoff Area=7,564 sf 83.43% Impervious Runoff Depth>2.28" Flow Length=152' Slope=0.0200 '/' Tc=6.0 min CN=WQ Runoff=0.41 cfs 0.033 af

**Subcatchment62S: Bioretention Pond Area** Runoff Area=6,453 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=39 Runoff=0.00 cfs 0.000 af

**Subcatchment70S: Overland Flow to**Runoff Area=128,858 sf 1.40% Impervious Runoff Depth>0.99"
Flow Length=745' Tc=14.6 min CN=WQ Runoff=2.52 cfs 0.244 af

Subcatchment71S: Roadway Flow

Runoff Area=26,495 sf 66.16% Impervious Runoff Depth>1.97"

Flow Length=300' Tc=6.0 min CN=WQ Runoff=1.24 cfs 0.100 af

**Subcatchment72S: House Flow to Pond** Runoff Area=49,031 sf 39.15% Impervious Runoff Depth>1.21" Flow Length=127' Tc=6.0 min CN=WQ Runoff=1.41 cfs 0.113 af

Subcatchment73S: Roadway Flow
Runoff Area=5,932 sf 76.82% Impervious Runoff Depth>2.09"
Flow Length=200' Slope=0.0200 '/' Tc=6.0 min CN=WQ Runoff=0.29 cfs 0.024 af

**Subcatchment74S: Area in Circle to**Runoff Area=17,656 sf 37.64% Impervious Runoff Depth>1.18"
Flow Length=40' Slope=0.1000 '/' Tc=6.0 min CN=WQ Runoff=0.50 cfs 0.040 af

Subcatchment75S: Roadway Flow
Runoff Area=13,639 sf 67.50% Impervious Runoff Depth>2.04"
Flow Length=196' Slope=0.0200 '/' Tc=6.0 min CN=WQ Runoff=0.66 cfs 0.053 af

Subcatchment76S: Roadway Flow

Runoff Area=93,020 sf 28.84% Impervious Runoff Depth>1.46"

Flow Length=468' Tc=9.0 min CN=WQ Runoff=3.01 cfs 0.260 af

Subcatchment100S: Unit 1 Runoff Area=920 sf 100.00% Impervious Runoff Depth>2.73"

Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af

Subcatchment101S: Units 2 & 3 Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>2.73"

Tc=6.0 min CN=98 Runoff=0.12 cfs 0.010 af

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Subcatchment102S: Units 4 & 5 Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>2.73"

Tc=6.0 min CN=98 Runoff=0.12 cfs 0.010 af

Subcatchment103S: Units 6 & 7 Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>2.73"

Tc=6.0 min CN=98 Runoff=0.12 cfs 0.010 af

Subcatchment104S: Units 8 & 9 Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>2.73"

Tc=6.0 min CN=98 Runoff=0.12 cfs 0.010 af

Subcatchment105S: Units 11 & 10 Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>2.73"

Tc=6.0 min CN=98 Runoff=0.12 cfs 0.010 af

Subcatchment106S: Units 13 & 12 Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>2.73"

Tc=6.0 min CN=98 Runoff=0.12 cfs 0.010 af

Subcatchment107S: Units 15 & 14 Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>2.73"

Tc=6.0 min CN=98 Runoff=0.12 cfs 0.010 af

Subcatchment108S: Units 17 & 16 Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>2.73"

Tc=6.0 min CN=98 Runoff=0.12 cfs 0.010 af

Subcatchment109S: Unit 18 Runoff Area=920 sf 100.00% Impervious Runoff Depth>2.73"

Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af

Reach 1R: Tammy Court Inflow=1.86 cfs 0.142 af

Outflow=1.86 cfs 0.142 af

Reach 2R: Ex CB1 Inflow=1.37 cfs 0.538 af

Outflow=1.37 cfs 0.538 af

Reach 3R: Ex CB 2 Inflow=0.56 cfs 0.047 af

Outflow=0.56 cfs 0.047 af

Reach 4R: Upper Shadowbrook Drive Drainage Inflow=1.00 cfs 0.386 af

Outflow=1.00 cfs 0.386 af

Reach 5R: Canterberry Ct Drainage Inflow=0.37 cfs 0.030 af

Outflow=0.37 cfs 0.030 af

Reach 6R: Lower Shadowbrook Dr CB Inflow=0.59 cfs 0.048 af

Outflow=0.59 cfs 0.048 af

Pond 1P: Bioretention Pond #1 Peak Elev=292.12' Storage=5,701 cf Inflow=4.34 cfs 0.349 af

Primary=0.76 cfs 0.349 af Secondary=0.00 cfs 0.000 af Outflow=0.76 cfs 0.349 af

Pond 2P: Pocket Pond #1 Peak Elev=311.76' Storage=14,665 cf Inflow=6.17 cfs 0.489 af

Outflow=1.01 cfs 0.476 af

**Pond 3P: Pocket Pond #2** Peak Elev=273.96' Storage=13,156 cf Inflow=7.01 cfs 0.681 af

Primary=3.08 cfs 0.667 af Secondary=0.00 cfs 0.000 af Outflow=3.08 cfs 0.667 af

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Pond 30P: Infiltration Pond #1 Peak Elev=280.44' Storage=675 cf Inflow=0.50 cfs 0.040 af Outflow=0.04 cfs 0.040 af

Pond 31P: Infiltration Pond #2 Peak Elev=274.65' Storage=2,155 cf Inflow=1.41 cfs 0.113 af

Discarded=0.08 cfs 0.104 af Primary=0.00 cfs 0.000 af Outflow=0.08 cfs 0.104 af

Pond 100: AD#100 Peak Elev=295.94' Inflow=0.06 cfs 0.005 af

8.0" Round Culvert n=0.013 L=58.1' S=0.0251 '/' Outflow=0.06 cfs 0.005 af

Pond 101: AD#101 Peak Elev=294.48' Inflow=0.18 cfs 0.014 af 8.0" Round Culvert n=0.013 L=37.0' S=0.0500 '/' Outflow=0.18 cfs 0.014 af

Pond 102: AD#102 Peak Elev=293.24' Inflow=0.24 cfs 0.019 af

Pond 102: AD#102 Peak Elev=293.24' Inflow=0.24 cfs 0.019 af 8.0" Round Culvert n=0.013 L=27.4' S=0.0201'/' Outflow=0.24 cfs 0.019 af

Pond 103: AD#103 Peak Elev=294.42' Inflow=0.12 cfs 0.010 af 8.0" Round Culvert n=0.013 L=59.0' S=0.0200 '/' Outflow=0.12 cfs 0.010 af

Pond 104: AD#104 Peak Elev=295.76' Inflow=0.65 cfs 0.053 af

8.0" Round Culvert n=0.013 L=16.6' S=0.0367 '/' Outflow=0.65 cfs 0.053 af

Pond 105; AD#105 Peak Elev=297.96' Inflow=0.53 cfs 0.043 af

8.0" Round Culvert n=0.013 L=53.8' S=0.0400'/' Outflow=0.53 cfs 0.043 af

Pond 106: AD#106 Peak Elev=300.24' Inflow=0.41 cfs 0.034 af

8.0" Round Culvert n=0.013 L=55.9' S=0.0401 '/' Outflow=0.41 cfs 0.034 af

8.0" Round Culvert n=0.013 L=64.0' S=0.0450 '/' Outflow=0.30 cfs 0.024 af

Pond 107: AD#107 Peak Elev=303.18' Inflow=0.30 cfs 0.024 af

Pond 108: AD#108 Peak Elev=306.08' Inflow=0.18 cfs 0.014 af

8.0" Round Culvert n=0.013 L=64.5' S=0.0448 '/' Outflow=0.18 cfs 0.014 af

Pond 109: AD#109 Peak Elev=308.82' Inflow=0.06 cfs 0.005 af

8.0" Round Culvert n=0.013 L=49.9' S=0.0549 '/' Outflow=0.06 cfs 0.005 af

Pond CB11: CB#11 Peak Elev=311.76' Inflow=2.74 cfs 0.216 af 18.0" Round Culvert n=0.013 L=30.3' S=0.0050 '/' Outflow=2.74 cfs 0.216 af

Pond CB110: CB#110 Peak Elev=311.76' Inflow=0.72 cfs 0.056 af

15.0" Round Culvert n=0.013 L=22.0' S=0.0050 '/' Outflow=0.72 cfs 0.056 af

Pond CB12: CB#12 Peak Elev=313.57' Inflow=1.38 cfs 0.110 af

15.0" Round Culvert n=0.013 L=106.0' S=0.0263 '/' Outflow=1.38 cfs 0.110 af

Pond CB120: CB#120 Peak Elev=313.85' Inflow=0.98 cfs 0.077 af 15.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=0.98 cfs 0.077 af

Pond CB14: CB#14 Peak Elev=308.28' Inflow=1.08 cfs 0.504 af 15.0" Round Culvert n=0.013 L=37.9' S=0.0150 '/' Outflow=1.08 cfs 0.504 af

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Pond CB15: CB#15	Peak Elev=307.62' Inflow=1.10 cfs 0.512 af 15.0" Round Culvert n=0.013 L=120.0' S=0.0539 '/' Outflow=1.10 cfs 0.512 af
Pond CB170: CB#170	Peak Elev=278.50' Inflow=1.53 cfs 0.124 af 15.0" Round Culvert n=0.013 L=36.7' S=0.0199 '/' Outflow=1.53 cfs 0.124 af
Pond CB171: CB#171	Peak Elev=278.81' Inflow=1.24 cfs 0.100 af 15.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=1.24 cfs 0.100 af
Pond CB19: CB #19	Peak Elev=277.60' Inflow=3.64 cfs 0.313 af 18.0" Round Culvert n=0.013 L=33.8' S=0.0151 '/' Outflow=3.64 cfs 0.313 af
Pond CB20: CB #20	Peak Elev=278.07' Inflow=3.01 cfs 0.260 af 18.0" Round Culvert n=0.013 L=22.0' S=0.0200 '/' Outflow=3.01 cfs 0.260 af
Pond CB201: CB#201	Peak Elev=292.49' Inflow=1.24 cfs 0.098 af 15.0" Round Culvert n=0.013 L=82.0' S=0.0052 '/' Outflow=1.24 cfs 0.098 af
Pond CB3: CB#3	Peak Elev=293.05' Inflow=3.10 cfs 0.252 af 15.0" Round Culvert n=0.013 L=80.0' S=0.0100 '/' Outflow=3.10 cfs 0.252 af
Pond CB30: CB#30	Peak Elev=293.09' Inflow=0.82 cfs 0.067 af 15.0" Round Culvert n=0.013 L=22.0' S=0.0050 '/' Outflow=0.82 cfs 0.067 af
Pond CB4: CB#4	Peak Elev=294.87' Inflow=1.68 cfs 0.136 af 15.0" Round Culvert n=0.013 L=80.9' S=0.0205 '/' Outflow=1.68 cfs 0.136 af
Pond CB5: CB#5	Peak Elev=295.14' Inflow=1.14 cfs 0.092 af 15.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=1.14 cfs 0.092 af
Pond CB80: CB#80	Peak Elev=311.76' Inflow=1.28 cfs 0.102 af 15.0" Round Culvert n=0.013 L=15.1' S=0.0053 '/' Outflow=1.28 cfs 0.102 af
Pond CB800: CB#800	Peak Elev=311.76' Inflow=0.57 cfs 0.046 af 15.0" Round Culvert n=0.013 L=22.7' S=0.0048 '/' Outflow=0.57 cfs 0.046 af
Pond CB9: CB#9	Peak Elev=314.69' Inflow=1.76 cfs 0.140 af 15.0" Round Culvert n=0.013 L=203.6' S=0.0174 '/' Outflow=1.76 cfs 0.140 af
Pond CB90: CB#90	Peak Elev=315.11' Inflow=0.64 cfs 0.052 af 15.0" Round Culvert n=0.013 L=29.8' S=0.0201 '/' Outflow=0.64 cfs 0.052 af
Pond DMH111: DMH#111	Peak Elev=311.76' Inflow=2.74 cfs 0.216 af 24.0" Round Culvert n=0.013 L=40.3' S=0.0050 '/' Outflow=2.74 cfs 0.216 af
Pond DMH17: DMH#17	Peak Elev=275.87' Inflow=5.11 cfs 0.437 af 24.0" Round Culvert n=0.013 L=279.8' S=0.0100 '/' Outflow=5.11 cfs 0.437 af
Pond DMH18: DMH#18	Peak Elev=276.97' Inflow=3.64 cfs 0.313 af 18.0" Round Culvert n=0.013 L=71.6' S=0.0149 '/' Outflow=3.64 cfs 0.313 af

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Peak Elev=292.23' Inflow=3.10 cfs 0.252 af Pond DMH2: DMH#2

18.0" Round Culvert n=0.013 L=50.2' S=0.0030 '/' Outflow=3.10 cfs 0.252 af

Pond DMH8: DMH#8 Peak Elev=311.76' Inflow=3.04 cfs 0.243 af

18.0" Round Culvert n=0.013 L=13.4' S=0.0052 '/' Outflow=3.04 cfs 0.243 af

Link A: Western Shadowbrook Drive Treatment Area Inflow=3.42 cfs 0.576 af

Primary=3.42 cfs 0.576 af

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Inflow=2.28 cfs 0.615 af Link B: pond at beginning of neighborhood

Primary=2.28 cfs 0.615 af

Link C: Wetlands Inflow=3.83 cfs 0.804 af

Primary=3.83 cfs 0.804 af

Total Runoff Area = 20.68 ac Runoff Volume = 2.176 af Average Runoff Depth = 1.26" 29.06% Impervious = 6.01 ac 70.94% Pervious = 14.67 ac

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### **Summary for Subcatchment 1S: Flow to Tammy Court**

Runoff = 1.86 cfs @ 12.09 hrs, Volume= 0.142 af, Depth> 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=2.96"

_	Α	rea (sf)	CN	Description		
		3,365	98	Roofs, HSC	G D	
		6,582	98	Roofs, HSC	θA	
		34,775	80	>75% Gras	s cover, Go	ood, HSG D
		8,430	39	>75% Gras	s cover, Go	ood, HSG A
		4,407	77	Woods, Go	od, HSG D	
		57,559	,	Weighted A	verage	
		47,612		82.72% Pe	rvious Area	
		9,947		17.28% Imp	pervious Ar	ea
	Тс	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	1.5	50	0.6600	0.57		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	0.6	213	0.6600	5.69		Shallow Concentrated Flow,
_						Short Grass Pasture Kv= 7.0 fps
	2.1	263	Total	Incressed	o minimum	Tc = 6.0 min

2.1 263 Total, Increased to minimum Tc = 6.0 min

#### **Summary for Subcatchment 2S: Shadowbrook Dr CB1**

Runoff = 0.32 cfs @ 12.09 hrs, Volume= 0.026 af, Depth> 1.79"

	Ar	ea (sf)	CN Description						
		4,085	98 F	Paved park	ing, HSG A	1			
		240	98 F	Roofs, HSC	βĎ				
		1,432	80 >	75% Gras	s cover, Go	ood, HSG D			
		1,789	39 >	75% Gras	s cover, Go	ood, HSG A			
		7,546	٧	Veighted A	verage				
		3,221	4	2.68% Per	vious Area				
		4,325	5	7.32% Imp	ervious Ar	ea			
	Тс	Length	Slope	Velocity	Capacity	Description			
(m	nin)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
	0.7	50	0.0200	1.14		Sheet Flow,			
						Smooth surfaces n= 0.011 P2= 2.89"			
	1.5	250	0.0200	2.87		Shallow Concentrated Flow,			
						Paved Kv= 20.3 fps			
	2.2	300	Total, I	ncreased t	o minimum	n Tc = 6.0 min			

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### **Summary for Subcatchment 3S: Shadowbrook Dr CB2**

Runoff = 0.56 cfs @ 12.13 hrs, Volume= 0.047 af, Depth> 0.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=2.96"

A	rea (sf)	CN I	Description						
	257	98 F	98 Roofs, HSG A						
	6,196	80 >	>75% Gras	s cover, Go	ood, HSG D				
	5,530	39 >	>75% Gras	s cover, Go	ood, HSG A				
	10,329	77 \	Noods, Go	od, HSG D					
	405	30 \	Noods, Go	od, HSG A					
	1,946	98 I	Paved park	ing, HSG A	1				
	24,663	1	Weighted A	verage					
	22,460	(	91.07% Pei	vious Area					
	2,203	8	3.93% Impe	ervious Are	a				
Tc	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
6.3	50	0.1200	0.13		Sheet Flow,				
					Woods: Light underbrush n= 0.400 P2= 2.89"				
1.9	226	0.1500	1.94		Shallow Concentrated Flow,				
					Woodland Kv= 5.0 fps				
0.3	48	0.1300	2.52		Shallow Concentrated Flow,				
					Short Grass Pasture Kv= 7.0 fps				
0.1	20	0.0200	2.87		Shallow Concentrated Flow,				
					Paved Kv= 20.3 fps				
8.6	344	Total							

### **Summary for Subcatchment 4S: Flow to Shadowbrook Dr CBs**

Runoff = 0.47 cfs @ 12.09 hrs, Volume= 0.037 af, Depth> 1.69"

Area (sf)	CN	Description					
2,537	80	>75% Grass cover, Good, HSG D					
400	39	>75% Grass cover, Good, HSG A					
0	74	>75% Grass cover, Good, HSG C					
4,345	98	Paved parking, HSG A					
4,030	77	Woods, Good, HSG D					
11,312		Weighted Average					
6,967		61.59% Pervious Area					
4,345		38.41% Impervious Area					

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Tc	Length	Slope	Velocity	Capacity	Description
 (min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
6.0	Direct Entry,				

### **Summary for Subcatchment 5S: Canterberry Court Flow**

Runoff = 0.37 cfs @ 12.09 hrs, Volume= 0.030 af, Depth> 0.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=2.96"

	Area (sf)	CN [	Description		
	1,564	98 F	Roofs, HSG	Α	
	30,607	39 >	75% Gras	s cover, Go	ood, HSG A
	4,241	98 F	Paved park	ing, HSG A	
	36,412	٧	Veighted A	verage	
	30,607	8	34.06% Per	vious Area	
	5,805	1	5.94% Imp	ervious Ar	ea
Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
2.6	50	0.1600	0.32		Sheet Flow,
					Grass: Short n= 0.150 P2= 2.89"
0.7	137	0.2000	3.13		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
3.3	187	Total, I	ncreased t	o minimum	Tc = 6.0 min

#### Summary for Subcatchment 6S: Lower Shadowbrook Dr Flow

Runoff = 0.59 cfs @ 12.09 hrs, Volume= 0.048 af, Depth> 0.35"

Area (sf)	CN	Description						
1,440	98	Roofs, HSG A						
3,236	30	Woods, Good, HSG A						
60,250	39	>75% Grass cover, Good, HSG A						
7,789	98	Paved parking, HSG A						
72,715		Weighted Average						
63,486		87.31% Pervious Area						
9,229		12.69% Impervious Area						

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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description	
Ī	2.6	50	0.1600	0.32		Sheet Flow,	
						Grass: Short n= 0.150 P2= 2.89"	
	0.1	38	0.4500	4.70		Shallow Concentrated Flow,	
						Short Grass Pasture Kv= 7.0 fps	
	0.3	49	0.3600	3.00		Shallow Concentrated Flow,	
_						Woodland Kv= 5.0 fps	
	2.0	127	Total	naraaaad t	a minimum	To = 6.0 min	_

3.0 137 Total, Increased to minimum Tc = 6.0 min

#### **Summary for Subcatchment 7S: Rear Overland Flow to Wetland**

Runoff = 1.43 cfs @ 12.17 hrs, Volume= 0.137 af, Depth> 0.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=2.96"

A	rea (sf)	CN E	Description				
	2,935	98 F	Roofs, HSG	D D			
	2,417	98 F	Roofs, HSG	βA			
	118	98 F	Roofs, HSG	S C			
	10,710	80 >	75% Gras	s cover, Go	ood, HSG D		
	8,039	39 >	75% Gras	s cover, Go	ood, HSG A		
	4,292	74 >	75% Gras	s cover, Go	ood, HSG C		
	19,271	77 V	Voods, Go	od, HSG D			
	26,053	70 V	Voods, Go	od, HSG C			
	11,193	55 V	Voods, Go	od, HSG B			
	85,028	٧	Veighted A	verage			
	79,558	g	3.57% Per	vious Area			
	5,470	6	5.43% Impe	ervious Are	a		
Tc	Length	Slope	Velocity	Capacity	Description		
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
9.8	50	0.0400	0.08		Sheet Flow,		
					Woods: Light underbrush n= 0.400 P2= 2.89"		
1.7	133	0.0650	1.27		Shallow Concentrated Flow,		
					Woodland Kv= 5.0 fps		
11.5	183	Total					

### **Summary for Subcatchment 10S: Roadway Flow**

Runoff = 0.64 cfs @ 12.09 hrs, Volume= 0.052 af, Depth> 1.97"

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	rea (sf)	CN [	Description		
	3,052	98 F	Roofs, HSG	βA	
	12	80 >	75% Gras	s cover, Go	ood, HSG D
	3,807	39 >	75% Gras	s cover, Go	ood, HSG A
	506	98 F	Paved park	ing, HSG D	
	6,315	98 F	Roofs, HSC	βĂ	
	13,692	V	Veighted A	verage	
	3,819	2	27.89% Per	rvious Area	
	9,873	7	2.11% lmp	pervious Ar	ea
Tc	Length	Slope	Velocity	Capacity	Description
<u>(min)</u>	(feet)	(ft/ft)	(ft/sec)	(cfs)	
0.8	50	0.0150	1.01		Sheet Flow,
					Smooth surfaces n= 0.011 P2= 2.89"
1.7	257	0.0150	2.49		Shallow Concentrated Flow,
					Paved Kv= 20.3 fps
2.5	307	Total, I	ncreased t	o minimum	Tc = 6.0 min

### **Summary for Subcatchment 11S: Roadway Flow**

Runoff = 1.13 cfs @ 12.09 hrs, Volume= 0.089 af, Depth> 1.80"

A	rea (sf)	CN E	Description						
	6,240	98 F	98 Roofs, HSG D						
	11,906	80 >	75% Gras	s cover, Go	ood, HSG D				
	2,142	39 >	75% Gras	s cover, Go	ood, HSG A				
	1,643	98 F	Roofs, HSG	G D					
	3,791	98 F	Roofs, HSG	6 A					
	25,722	٧	Veighted A	verage					
	14,048	5	4.61% Per	vious Area					
	11,674	4	5.39% Imp	ervious Ar	ea				
Tc	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
1.1	24	0.3300	0.37		Sheet Flow,				
					Grass: Short n= 0.150 P2= 2.89"				
2.3	26	0.0600	0.19		Sheet Flow,				
					Grass: Short n= 0.150 P2= 2.89"				
8.0	46	0.0200	0.99		Shallow Concentrated Flow,				
					Short Grass Pasture Kv= 7.0 fps				
1.2	183	0.0150	2.49		Shallow Concentrated Flow,				
					Paved Kv= 20.3 fps				
5.4	279	Total, I	ncreased t	o minimum	n Tc = 6.0 min				

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### **Summary for Subcatchment 20S: Roadway Flow**

Runoff = 0.10 cfs @ 12.09 hrs, Volume= 0.008 af, Depth> 1.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=2.96"

	Α	rea (sf)	CN								
		396	98	98 Roofs, HSG D							
		993	80	80 >75% Grass cover, Good, HSG D							
		660	39	>75% Grass cover, Good, HSG A							
_		725	98	Paved park	ing, HSG A	1					
		2,774	1	Weighted A	verage						
		1,653	;	59.59% Pei	vious Area						
		1,121		40.41% Imp	ervious Ar	ea					
	Tc	Length	Slope	•	Capacity	Description					
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	4.1	50	0.0500	0.20		Sheet Flow,					
						Grass: Short n= 0.150 P2= 2.89"					
	0.1	15	0.0200	2.87		Shallow Concentrated Flow,					
_						Paved Kv= 20.3 fps					
	42	65	Total	Increased t	o minimum	$T_{\rm C} = 6.0  \text{min}$					

#### 65 Total, Increased to minimum Tc = 6.0 min

#### **Summary for Subcatchment 21S: Roadway Flow**

Runoff = 0.36 cfs @ 12.09 hrs, Volume= 0.028 af, Depth> 1.50"

Area (sf)	CN	Description			
1,651	98	Roofs, HSG D			
365	98	Roofs, HSG A			
3,879	80	>75% Grass cover, Good, HSG D			
2,296	39	>75% Grass cover, Good, HSG A			
4	98	Paved parking, HSG D			
1,709	98	Paved parking, HSG A			
9,904		Weighted Average			
6,175		62.35% Pervious Area			
3,729		37.65% Impervious Area			

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_	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	2.9	50	0.1200	0.29		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	0.9	98	0.0700	1.85		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	0.3	55	0.0200	2.87		Shallow Concentrated Flow,
_						Paved Kv= 20.3 fps
	4.4	000	T . 4 . 1 L			T. O O marin

<sup>4.1 203</sup> Total, Increased to minimum Tc = 6.0 min

#### **Summary for Subcatchment 22S: Overland Flow to Pond**

Runoff = 0.40 cfs @ 12.09 hrs, Volume= 0.031 af, Depth> 0.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=2.96"

Ar	ea (sf)	CN I	Description						
	1,512	98 F	Roofs, HSG D						
	645	98 I	Roofs, HSG A						
	8,034	80 >	>75% Grass cover, Good, HSG D						
	7,400	39 >	>75% Gras	s cover, Go	ood, HSG A				
	119	98 I	Paved park	ing, HSG A	1				
	17,710	1	Weighted Average						
	15,434	8	37.15% Per	vious Area					
	2,276	•	12.85% Imp	ervious Ar	ea				
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description				
2.2	47	0.2127	0.36		Sheet Flow, Grass: Short	n= 0.150	P2= 2.89"		
2.2	47	Total,	Increased t	o minimum	Tc = 6.0 min				

### **Summary for Subcatchment 30S: Roadway Flow**

Runoff = 0.72 cfs @ 12.09 hrs, Volume= 0.056 af, Depth> 2.00"

Area (sf)	CN	Description		
4,540	98	Paved parking, HSG D		
6,935	80	>75% Grass cover, Good, HSG D		
65	39	>75% Grass cover, Good, HSG A		
1,636	98	Paved parking, HSG D		
1,538	98	Paved parking, HSG A		
14,714		Weighted Average		
7,000		47.57% Pervious Area		
7,714		52.43% Impervious Area		

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.6	50	0.1600	0.32		Sheet Flow,
					Grass: Short n= 0.150 P2= 2.89"
1.1	64	0.0200	0.99		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
0.9	162	0.0200	2.87		Shallow Concentrated Flow,
					Paved Kv= 20.3 fps
4.0	070	T . 4 . 1 . 1.			T. O.O. and in

<sup>4.6 276</sup> Total, Increased to minimum Tc = 6.0 min

### **Summary for Subcatchment 31S: Roadway Flow**

Runoff = 0.64 cfs @ 12.09 hrs, Volume= 0.050 af, Depth> 1.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=2.96"

A	rea (sf)	CN D	escription						
	2,626	98 P	Paved parking, HSG D						
	1,214		Paved parking, HSG A						
	6,749		>75% Grass cover, Good, HSG D						
	3,860			•	ood, HSG A				
	2,745	98 P	aved park	ing, HSG A	1				
	17,194		Veighted A	•					
	10,609	6	1.70% Per	vious Area					
	6,585	3	8.30% Imp	pervious Ar	ea				
_		01			<b>B</b> 1.0				
Tc	Length	Slope	Velocity	Capacity	Description				
<u>(min)</u>	(feet)	(ft/ft)	(ft/sec)	(cfs)					
2.1	50	0.2800	0.40		Sheet Flow,				
					Grass: Short n= 0.150 P2= 2.89"				
0.3	60	0.2000	3.13		Shallow Concentrated Flow,				
					Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps				
0.3 0.7	60 120	0.2000 0.0200	3.13 2.87		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow,				
		0.0200	2.87		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps				

### **Summary for Subcatchment 32S: Roadway Flow**

Runoff = 0.98 cfs @ 12.09 hrs, Volume= 0.077 af, Depth> 1.87"

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A	rea (sf)	CN E	Description					
	5,015	98 F	98 Roofs, HSG D					
	8,256	80 >	75% Gras	s cover, Go	ood, HSG D			
	991	39 >	·75% Gras	s cover, Go	ood, HSG A			
	1,964	98 F	98 Paved parking, HSG D					
	3,391			ing, HSG A				
	2,034	77 V	Voods, Go	od, HSG D				
	21,651	٧	Veighted A	verage				
	11,281	5	52.10% Pei	vious Area				
	10,370	4	.7.90% Imp	pervious Ar	ea			
Тс	Length	Slope	Velocity		Description			
<u>(min)</u>	(feet)	(ft/ft)	(ft/sec)	(cfs)				
4.0	40	0.2500	0.17		Sheet Flow,			
					Woods: Light underbrush n= 0.400 P2= 2.89"			
0.7	10	0.2000	0.26		Sheet Flow,			
					Grass: Short n= 0.150 P2= 2.89"			
0.3	63	0.3300	4.02		Shallow Concentrated Flow,			
					Short Grass Pasture Kv= 7.0 fps			
0.6	110	0.0200	2.87		Shallow Concentrated Flow,			
					Paved Kv= 20.3 fps			
5.6	223	Total, I	ncreased t	o minimum	Tc = 6.0 min			

#### **Summary for Subcatchment 33S: Roadway Flow**

Runoff = 0.40 cfs @ 12.09 hrs, Volume= 0.032 af, Depth> 1.63"

A	rea (sf)	CN D	escription					
	948	98 R	98 Roofs, HSG D					
	395	98 R	Roofs, HSG A					
	1,701	80 >	>75% Grass cover, Good, HSG D					
	3,225	39 >	75% Gras	s cover, Go	ood, HSG A			
	4,087	98 P	aved park	ing, HSG A				
	10,356	٧	Veighted A	verage				
	4,926	4	7.57% Per	rvious Area				
	5,430	5	2.43% Imp	pervious Ar	ea			
_		•						
Tc	Length	Slope	Velocity	Capacity	Description			
(min)	Length (feet)	(ft/ft)	(ft/sec)	Capacity (cfs)	Description			
	•	•	,		Description Sheet Flow,			
(min) 2.6	(feet) 50	(ft/ft) 0.1600	(ft/sec) 0.32		Sheet Flow, Grass: Short n= 0.150 P2= 2.89"			
(min)	(feet)	(ft/ft)	(ft/sec)		Sheet Flow, Grass: Short n= 0.150 P2= 2.89" Shallow Concentrated Flow,			
(min) 2.6 0.2	(feet) 50 37	(ft/ft) 0.1600 0.2000	(ft/sec) 0.32 3.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.89" Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps			
(min) 2.6	(feet) 50	(ft/ft) 0.1600	(ft/sec) 0.32		Sheet Flow, Grass: Short n= 0.150 P2= 2.89" Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow,			
(min) 2.6 0.2	(feet) 50 37	(ft/ft) 0.1600 0.2000 0.0200	(ft/sec) 0.32 3.13 2.87	(cfs)	Sheet Flow, Grass: Short n= 0.150 P2= 2.89" Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps			

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### **Summary for Subcatchment 40S: Roadway Flow**

Runoff = 0.57 cfs @ 12.09 hrs, Volume= 0.046 af, Depth> 2.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=2.96"

	Α	rea (sf)	CN E	escription							
		752	98 F	98 Roofs, HSG D							
		1,321	98 F								
		391	98 F	Roofs, HSG C							
		780	80 >	>75% Grass cover, Good, HSG D							
		2,326	39 >	75% Gras	s cover, Go	ood, HSG A					
		50	74 >	·75% Gras	s cover, Go	ood, HSG C					
		1,115	98 F	Paved park	ing, HSG [	)					
		4,921			ing, HSG A						
		30	98 F	Paved park	ing, HSG C						
		11,686	٧	Veighted A	verage						
		3,156	2	7.01% Pe	rvious Area	l					
		8,530	7	2.99% lmp	pervious Ar	ea					
	Tc	Length	Slope	Velocity	Capacity	Description					
(	min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	8.0	50	0.0150	1.01		Sheet Flow,					
						Smooth surfaces n= 0.011 P2= 2.89"					
	1.4	213	0.0150	2.49		Shallow Concentrated Flow,					
						Paved Kv= 20.3 fps					
	2.2	263	Total, I	ncreased t	to minimum	n Tc = 6.0 min					

### **Summary for Subcatchment 41S: Roadway Flow**

Runoff = 0.71 cfs @ 12.10 hrs, Volume= 0.056 af, Depth> 1.82"

Area (sf)	CN	Description		
2,949	98	Roofs, HSG D		
157	98	Roofs, HSG A		
8,262	80	>75% Grass cover, Good, HSG D		
765	39	>75% Grass cover, Good, HSG A		
1,393	98	Paved parking, HSG D		
2,544	98	Paved parking, HSG A		
16,070		Weighted Average		
9,027		56.17% Pervious Area		
7,043		43.83% Impervious Area		

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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	4.5	40	0.0250	0.15		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	0.5	10	0.3300	0.31		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	0.6	80	0.1000	2.21		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	0.9	138	0.0150	2.49		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
_	6.5	268	Total			·

#### **Summary for Subcatchment 42S: Flow to CB#200**

Runoff = 1.24 cfs @ 12.09 hrs, Volume= 0.098 af, Depth> 1.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=2.96"

A	rea (sf)	CN [	CN Description						
	1,682	39 >	39 >75% Grass cover, Good, HSG A						
	10,383	80 >	>75% Grass cover, Good, HSG D						
	3,530	74 >	4 >75% Grass cover, Good, HSG C						
	6,936	98 F	B Paved parking, HSG A						
	2,228	77 \	Voods, Go	od, HSG D					
	170	98 F	Roofs, HSC	θA					
	90	98 F	Roofs, HSC	S C					
	2,670	98 F	Roofs, HSG	G D					
	1,237	98 F	loofs, HSG A						
	994	98 F	Roofs, HSG C						
	29,920	\	Veighted A	verage					
	17,823	5	59.57% Pei	rvious Area	1				
	12,097	4	0.43% Imp	pervious Ar	rea				
Tc	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
0.7	50	0.0200	1.14		Sheet Flow,				
					Smooth surfaces n= 0.011 P2= 2.89"				
1.2	335	0.0500	4.54		Shallow Concentrated Flow,				
					Paved Kv= 20.3 fps				
1.9	385	Total, Increased to minimum Tc = 6.0 min							

### **Summary for Subcatchment 50S: Roadway Flow**

Runoff = 0.49 cfs @ 12.09 hrs, Volume= 0.040 af, Depth> 1.61"

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_	Α	rea (sf)	CN D	CN Description						
		5,295	39 >	39 >75% Grass cover, Good, HSG A						
_		7,603	98 P	aved park	ing, HSG A	1				
		12,898	V	Weighted Average						
		5,295	4	1.05% Per	vious Area					
		7,603	5	8.95% Imp	ervious Ar	ea				
	Tc	Length	Slope	Velocity	Capacity	Description				
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	0.5	50	0.0550	1.71		Sheet Flow,				
						Smooth surfaces n= 0.011 P2= 2.89"				
	0.9	250	0.0500	4.54		Shallow Concentrated Flow,				
						Paved Kv= 20.3 fps				
	1.4	300	Total, I	ncreased t	o minimum	Tc = 6.0 min				

### **Summary for Subcatchment 51S: Roadway Flow**

Runoff = 0.54 cfs @ 12.09 hrs, Volume= 0.044 af, Depth> 1.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=2.96"

	A	rea (sf)	CN D	CN Description								
		3,027	98 F	98 Roofs, HSG A								
		4,496	39 >	39 >75% Grass cover, Good, HSG A								
_		5,392	98 P	98 Paved parking, HSG A								
		12,915	V	Veighted A	verage							
		4,496	3	4.81% Per	vious Area	l .						
		8,419	6	5.19% lmp	ervious Ar	ea						
	Tc	Length	Slope	Velocity	Capacity	Description						
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)							
	3.4	50	0.0800	0.25		Sheet Flow,						
						Grass: Short n= 0.150 P2= 2.89"						
	0.6	76	0.0900	2.10		Shallow Concentrated Flow,						
						Short Grass Pasture Kv= 7.0 fps						
	0.1	37	0.0500	4.54		Shallow Concentrated Flow,						
_						Paved Kv= 20.3 fps						
	11	163	Total I	ncreased t	a minimum	Tc = 6.0 min						

<sup>4.1 163</sup> Total, Increased to minimum Tc = 6.0 min

### Summary for Subcatchment 60S: Roadway and Building Flow

Runoff = 0.60 cfs @ 12.09 hrs, Volume= 0.049 af, Depth> 1.11"

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_	Α	rea (sf)	CN D	CN Description							
		3,213	98 R	98 Roofs, HSG A							
		13,675	39 >	39 >75% Grass cover, Good, HSG A							
_		6,124	98 P	98 Paved parking, HSG A							
		23,012	٧	Veighted A	verage						
		13,675	5	9.43% Per	vious Area						
		9,337	4	0.57% Imp	ervious Ar	ea					
	Tc	Length	Slope	Velocity	Capacity	Description					
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	2.6	50	0.1600	0.32		Sheet Flow,					
						Grass: Short n= 0.150 P2= 2.89"					
	2.6	155	0.0200	0.99		Shallow Concentrated Flow,					
						Short Grass Pasture Kv= 7.0 fps					
	0.1	15	0.0200	2.87		Shallow Concentrated Flow,					
_						Paved Kv= 20.3 fps					
	5.3	220	Total, I	ncreased t	o minimum	Tc = 6.0 min					

### **Summary for Subcatchment 61S: Roadway Flow**

Runoff = 0.41 cfs @ 12.09 hrs, Volume= 0.033 af, Depth> 2.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=2.96"

	Area (st)	CN L	escription						
	1,253	39 >	39 >75% Grass cover, Good, HSG A						
	6,311	98 F	98 Paved parking, HSG A						
	7,564	V	Weighted Average						
	1,253	1	6.57% Per	vious Area					
	6,311	8	3.43% Imp	ervious Ar	ea				
To	3	Slope	Velocity	Capacity	Description				
(min	) (feet)	(ft/ft)	(ft/sec)	(cfs)					
0.7	7 50	0.0200	1.14		Sheet Flow,				
					Smooth surfaces n= 0.011 P2= 2.89"				
0.6	5 102	0.0200	2.87		Shallow Concentrated Flow,				
					Paved Kv= 20.3 fps				
1.3	3 152	Total, I	Total, Increased to minimum Tc = 6.0 min						

### **Summary for Subcatchment 62S: Bioretention Pond Area**

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

### Type III 24-hr 2-yr Rainfall=2.96"

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A	rea (sf)	CN E	escription						
	6,453	39 >	>75% Grass cover, Good, HSG A						
	6,453	1	100.00% Pervious Area						
т.	ما المراجع ال	Clana	\/alaaitu	Conneity	Description				
Tc		Slope	,	. ,	Description				
<u>(min)</u>	(feet)	(ft/ft)	(ft/sec)	(cfs)					
6.0					Direct Entry,				

#### **Summary for Subcatchment 70S: Overland Flow to Detention Pond**

Runoff = 2.52 cfs @ 12.21 hrs, Volume= 0.244 af, Depth> 0.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=2.96"

	A	rea (sf)	CN	Description								
		607	98	98 Roofs, HSG D								
		1,192	98	98 Roofs, HSG A								
		24,819	80	30 >75% Grass cover, Good, HSG D								
		13,185			,	ood, HSG A						
_		89,055	77	Woods, Go	<u>od, HSG D</u>							
		28,858		Weighted A								
	1	27,059		98.60% Pei	rvious Area							
		1,799		1.40% Impe	ervious Are	a						
	т.	1	Clana	Valacity	Consoitu	Description						
	Tc	Length	Slope	•	Capacity	Description						
_	(min)	(feet)	(ft/ft)		(cfs)							
	7.5	50	0.0800	0.11		Sheet Flow,						
						Woods: Light underbrush n= 0.400 P2= 2.89"						
	3.6	391	0.1300	1.80		Shallow Concentrated Flow,						
						Woodland Kv= 5.0 fps						
	3.5	304	0.0430	1.45		Shallow Concentrated Flow,						
_						Short Grass Pasture Kv= 7.0 fps						
	14.6	745	Total									

### **Summary for Subcatchment 71S: Roadway Flow**

Runoff = 1.24 cfs @ 12.09 hrs, Volume= 0.100 af, Depth> 1.97"

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	Α	rea (sf)	CN [	Description					
		2,572	98 F	98 Roofs, HSG D					
		3,565	98 F	Roofs, HSC	θA				
		3,581	80 >	>75% Grass cover, Good, HSG D					
		5,385	39 >	>75% Gras	s cover, Go	ood, HSG A			
		1,533	98 F	Paved park	ing, HSG D	)			
_		9,859	98 F	Paved park	ing, HSG A	1			
	26,495 Weighted Average								
		8,966	3	33.84% Pe	rvious Area				
		17,529	(	6.16% Imp	pervious Ar	ea			
	Tc	Length	Slope	,	Capacity	Description			
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
	3.4	50	0.0800	0.25		Sheet Flow,			
						Grass: Short n= 0.150 P2= 2.89"			
	1.5	250	0.0200	2.87		Shallow Concentrated Flow,			
_						Paved Kv= 20.3 fps			
	4 9	300	Total	Increased t	o minimum	Tc = 6.0 min			

### **Summary for Subcatchment 72S: House Flow to Pond**

Runoff = 1.41 cfs @ 12.09 hrs, Volume= 0.113 af, Depth> 1.21"

A	rea (sf)	CN E	escription					
	2,848	98 F	98 Roofs, HSG D					
	9,725	98 F	Roofs, HSG	θA				
	23,884	39 >	75% Gras	s cover, Go	ood, HSG A			
	4,734	80 >	75% Gras	s cover, Go	ood, HSG D			
	1,216	74 >	75% Gras	s cover, Go	ood, HSG C			
	1,330	98 F	Paved park	ing, HSG D				
	5,294	98 F	Paved park	ing, HSG A	<b>\</b>			
	49,031	V	Veighted A	verage				
	29,834	6	0.85% Pei	rvious Area				
	19,197	3	9.15% Imp	pervious Ar	ea			
Tc	Length	Slope	Velocity	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
0.7	50	0.0200	1.14		Sheet Flow,			
					Smooth surfaces n= 0.011 P2= 2.89"			
0.3	77	0.3100	3.90		Shallow Concentrated Flow,			
					Short Grass Pasture Kv= 7.0 fps			
1.0	127	Total, I	Total, Increased to minimum Tc = 6.0 min					

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### **Summary for Subcatchment 73S: Roadway Flow**

Runoff = 0.29 cfs @ 12.09 hrs, Volume= 0.024 af, Depth> 2.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=2.96"

A	rea (sf)	CN Description							
	1,375	39 >	39 >75% Grass cover, Good, HSG A						
	4,557	98 P	98 Paved parking, HSG A						
	5,932	V	Weighted Average						
	1,375	2	3.18% Per	vious Area					
	4,557	7	6.82% Imp	ervious Ar	ea				
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description				
0.7	50	0.0200	1.14		Sheet Flow,				
0.9	150	0.0200	2.87		Smooth surfaces n= 0.011 P2= 2.89"  Shallow Concentrated Flow, Paved Kv= 20.3 fps				
1.6	200	Total, I	Total, Increased to minimum Tc = 6.0 min						

#### Summary for Subcatchment 74S: Area in Circle to Infiltration Pond

Runoff = 0.50 cfs @ 12.09 hrs, Volume= 0.040 af, Depth> 1.18"

A	rea (sf)	CN [	Description						
	4,851	98 F	Roofs, HSG A						
	8,558	39 >	75% Gras	s cover, Go	ood, HSG A				
	1,547	98 F	Roofs, HSG	G D					
	248	98 F	Roofs, HSG	G C					
	1,588	80 >	75% Gras	s cover, Go	ood, HSG D				
	864	74 >	75% Gras	s cover, Go	ood, HSG C				
	17,656	٧	Veighted A	verage					
	11,010	6	32.36% Per	vious Area	l				
	6,646	3	37.64% lmp	ervious Ar	ea				
Tc	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
2.6	40	0.1000	0.26		Sheet Flow,				
					Grass: Short	n= 0.150	P2= 2.89"		
2.6	40	Total, I	ncreased t	o minimum	Tc = 6.0 min				

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### **Summary for Subcatchment 75S: Roadway Flow**

Runoff = 0.66 cfs @ 12.09 hrs, Volume= 0.053 af, Depth> 2.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=2.96"

_	Α	rea (sf)	CN I	Description						
		295	98 I	Roofs, HSG D						
		1,380	98 I	Roofs, HSC	βA					
		2,209	80 :	>75% Gras	s cover, Go	ood, HSG D				
		2,224	39 :	>75% Gras	s cover, Go	ood, HSG A				
		4,186	98 I	Paved park	ing, HSG D	)				
_		3,345	98 I	Paved park	ing, HSG A	A				
		4,433	;	32.50% Pervious Area						
		9,206	(	37.50% lm	pervious Ar	ea				
	Тс	Length	Slope	•	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	0.7	50	0.0200	1.14		Sheet Flow,				
						Smooth surfaces n= 0.011 P2= 2.89"				
	0.8	146	0.0200	2.87		Shallow Concentrated Flow,				
_						Paved Kv= 20.3 fps				
	15	106	Total	Increased t	to minimum	$T_{\rm C} = 6.0  \text{min}$				

1.5 196 Total, Increased to minimum Tc = 6.0 min

#### **Summary for Subcatchment 76S: Roadway Flow**

Runoff = 3.01 cfs @ 12.13 hrs, Volume= 0.260 af, Depth> 1.46"

Area (sf)	CN	Description				
14,560	98	Roofs, HSG D				
1,133	98	Roofs, HSG A				
24,384	80	75% Grass cover, Good, HSG D				
10,102	39	>75% Grass cover, Good, HSG A				
31,709	77	Woods, Good, HSG D				
7,686	98	Paved parking, HSG D				
3,446	98	Paved parking, HSG A				
93,020		Weighted Average				
66,195		71.16% Pervious Area				
26,825		28.84% Impervious Area				

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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	6.3	50	0.1200	0.13		Sheet Flow,
						Woods: Light underbrush n= 0.400 P2= 2.89"
	0.9	130	0.2150	2.32		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	1.0	120	0.0830	2.02		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	8.0	168	0.0300	3.52		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
_	9.0	468	Total			

### **Summary for Subcatchment 100S: Unit 1**

Runoff = 0.06 cfs @ 12.09 hrs, Volume= 0.005 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=2.96"

A	rea (sf)	CN [	Description					
	920	98 F	Roofs, HSG	A A				
•	920	1	100.00% Impervious Area					
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description			
6.0					Direct Entry,			

### Summary for Subcatchment 101S: Units 2 & 3

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=2.96"

A	rea (sf)	CN I	Description							
	1,840	98 I	98 Roofs, HSG A							
	1,840	•	100.00% Impervious Area							
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description					
6.0					Direct Entry,					

### Summary for Subcatchment 102S: Units 4 & 5

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Depth> 2.73"

Type III 24-hr 2-yr Rainfall=2.96" Printed 10/10/2022

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A	rea (sf)	CN [	Description						
	1,840	98 F	Roofs, HSG A						
	1,840	1	100.00% Impervious Area						
Tc	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	Bescription				
6.0					Direct Entry,				

#### Summary for Subcatchment 103S: Units 6 & 7

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=2.96"

A	rea (sf)	CN [	Description						
	1,840	98 F	Roofs, HSG A						
	1,840	•	100.00% Impervious Area						
Тс	Length	Slope	,	. ,	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
6.0					Direct Entry,				

#### Summary for Subcatchment 104S: Units 8 & 9

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=2.96"

A	rea (sf)	CN [	Description						
	1,840	98 F	Roofs, HSG A						
	1,840	1	100.00% Impervious Area						
_		01			<b>—</b>				
Tc	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
6.0					Direct Entry.				

### Summary for Subcatchment 105S: Units 11 & 10

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Depth> 2.73"

Type III 24-hr 2-yr Rainfall=2.96" Printed 10/10/2022

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A	rea (sf)	CN [	Description							
	1,840	98 F	98 Roofs, HSG A							
	1,840	1	100.00% Impervious Area							
-		01	\	0 :						
	Length	Slope	,	Capacity	Description					
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
6.0					Direct Entry,					

#### Summary for Subcatchment 106S: Units 13 & 12

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=2.96"

A	rea (sf)	CN [	Description						
	1,840	98 F	98 Roofs, HSG A						
	1,840	1	100.00% Impervious Area						
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)					
6.0	•				Direct Entry,				

#### Summary for Subcatchment 107S: Units 15 & 14

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=2.96"

A	rea (sf)	CN [	Description						
	1,840	98 F	Roofs, HSG A						
	1,840	1	100.00% Impervious Area						
_		01			<b>—</b>				
Tc	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
6.0					Direct Entry.				

### Summary for Subcatchment 108S: Units 17 & 16

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Depth> 2.73"

Type III 24-hr 2-yr Rainfall=2.96"

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A	rea (sf)	CN I	Description							
	1,840	98 I	98 Roofs, HSG A							
	1,840		100.00% Impervious Area							
_				_						
Tc	Length	Slope	Velocity	Capacity	Description					
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
6.0					Direct Entry,					

#### **Summary for Subcatchment 109S: Unit 18**

Runoff = 0.06 cfs @ 12.09 hrs, Volume= 0.005 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr Rainfall=2.96"

A	rea (sf)	CN E	Description							
	920	98 F	8 Roofs, HSG A							
	920	1	100.00% Impervious Area							
To	Longth	Clono	Volocity	Canacity	Description					
Tc (min)	Length (feet)	Slope (ft/ft)	(ft/sec)	Capacity (cfs)	Description					
6.0		( ' )			Direct Entry,					

#### **Summary for Reach 1R: Tammy Court**

Inflow Area = 1.32 ac, 17.28% Impervious, Inflow Depth > 1.29" for 2-yr event

Inflow = 1.86 cfs @ 12.09 hrs, Volume= 0.142 af

Outflow = 1.86 cfs @ 12.09 hrs, Volume= 0.142 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Summary for Reach 2R: Ex CB1

Inflow Area = 3.88 ac, 46.55% Impervious, Inflow Depth > 1.66" for 2-yr event

Inflow = 1.37 cfs @ 12.10 hrs, Volume= 0.538 af

Outflow = 1.37 cfs @ 12.10 hrs, Volume= 0.538 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Summary for Reach 3R: Ex CB 2

Inflow Area = 0.57 ac, 8.93% Impervious, Inflow Depth > 0.99" for 2-yr event

Inflow = 0.56 cfs @ 12.13 hrs, Volume= 0.047 af

Outflow = 0.56 cfs @ 12.13 hrs, Volume= 0.047 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

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#### Summary for Reach 4R: Upper Shadowbrook Drive Drainage

Inflow Area = 2.77 ac, 53.61% Impervious, Inflow Depth > 1.67" for 2-yr event

Inflow = 1.00 cfs @ 12.12 hrs, Volume= 0.386 af

Outflow = 1.00 cfs @ 12.12 hrs, Volume= 0.386 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

#### **Summary for Reach 5R: Canterberry Ct Drainage**

Inflow Area = 0.84 ac, 15.94% Impervious, Inflow Depth > 0.43" for 2-yr event

Inflow = 0.37 cfs @ 12.09 hrs, Volume= 0.030 af

Outflow = 0.37 cfs @ 12.09 hrs, Volume= 0.030 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

#### Summary for Reach 6R: Lower Shadowbrook Dr CB

Inflow Area = 1.67 ac, 12.69% Impervious, Inflow Depth > 0.35" for 2-yr event

Inflow = 0.59 cfs @ 12.09 hrs, Volume= 0.048 af

Outflow = 0.59 cfs @ 12.09 hrs, Volume= 0.048 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Summary for Pond 1P: Bioretention Pond #1

Inflow Area = 2.51 ac, 55.18% Impervious, Inflow Depth > 1.67" for 2-yr event

Inflow = 4.34 cfs @ 12.09 hrs, Volume= 0.349 af

Outflow = 0.76 cfs @ 12.55 hrs, Volume= 0.349 af, Atten= 83%, Lag= 27.9 min

Primary = 0.76 cfs @ 12.55 hrs, Volume= 0.349 af Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 292.12' @ 12.55 hrs Surf.Area= 3,256 sf Storage= 5,701 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 88.4 min ( 855.3 - 766.9 )

Volume	Invert	Avail.Storage	Storage Description
#1	288.00'	13,264 cf	Custom Stage Data (Prismatic)Listed below (Recalc)

Elevation	Surf.Area	Inc.Store	Cum.Store
(feet)	(sq-ft)	(cubic-feet)	(cubic-feet)
288.00	434	0	0
290.00	1,140	1,574	1,574
291.00	1,598	1,369	2,943
292.00	3,160	2,379	5,322
294.00	4,782	7,942	13,264

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Device	Routing	Invert	Outlet Devices
#1	Secondary	293.80'	
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60
			Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Device 5	288.00'	10.000 in/hr Exfiltration over Surface area
#3	Device 5	292.10'	15.0" Vert. Orifice/Grate C= 0.600
#4	Device 5	293.50'	<b>48.0" x 48.0" Horiz. Orifice/Grate</b> C= 0.600
			Limited to weir flow at low heads
#5	Primary	285.00'	12.0" Round Culvert
	-		L= 55.3' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 285.00' / 283.04' S= 0.0354 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.76 cfs @ 12.55 hrs HW=292.12' TW=0.00' (Dynamic Tailwater)

**5=Culvert** (Passes 0.76 cfs of 9.73 cfs potential flow)

**2=Exfiltration** (Exfiltration Controls 0.75 cfs)

-3=Orifice/Grate (Orifice Controls 0.00 cfs @ 0.46 fps)

-4=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=288.00' TW=0.00' (Dynamic Tailwater) 1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

#### **Summary for Pond 2P: Pocket Pond #1**

Inflow Area = 3.42 ac, 46.71% Impervious, Inflow Depth > 1.72" for 2-yr event

Inflow = 6.17 cfs @ 12.09 hrs, Volume= 0.489 af

Outflow = 1.01 cfs @ 12.58 hrs, Volume= 0.476 af, Atten= 84%, Lag= 29.3 min

Primary = 1.01 cfs @ 12.58 hrs, Volume= 0.476 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Starting Elev= 309.79' Surf.Area= 3,009 sf Storage= 5,826 cf

Peak Elev= 311.76' @ 12.58 hrs Surf.Area= 6,282 sf Storage= 14,665 cf (8,839 cf above start)

Plug-Flow detention time= 309.6 min calculated for 0.342 af (70% of inflow)

Center-of-Mass det. time= 122.4 min (903.1 - 780.7)

Volume	Invert	Avail.S	storage	Storage Description	n	
#1	306.00'	27	,930 cf	Custom Stage Da	<b>ta (Irregular)</b> Liste	d below (Recalc)
Elevation (feet)	Surf. <i>F</i>	Area q-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
	,			(CUDIC-ICCI)	(cabic-icct)	<u> </u>
306.00		306	196.0	0	0	306
308.00	1,	,616	240.0	1,750	1,750	1,894
310.00	3,	,201	285.0	4,728	6,478	3,846
312.00	6,	785	438.0	9,764	16,242	12,678
313.50	8.	844	470.0	11,688	27,930	15,088

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#3

Device 4

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Device	Routing	Invert	Outlet Devices
#1	Device 4	309.80'	4.5" Vert. Orifice/Grate C= 0.600
#2	Device 4	311.50'	<b>14.0" Vert. Orifice/Grate</b> C= 0.600
#3	Device 4	313.10'	<b>48.0" x 48.0" Horiz. Orifice/Grate</b> C= 0.600
			Limited to weir flow at low heads
#4	Primary	309.75'	15.0" Round Culvert
			L= 93.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 309.75' / 307.89' S= 0.0200 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.01 cfs @ 12.58 hrs HW=311.76' TW=308.28' (Dynamic Tailwater)

**4=Culvert** (Passes 1.01 cfs of 6.95 cfs potential flow)

-1=Orifice/Grate (Orifice Controls 0.71 cfs @ 6.41 fps)

-2=Orifice/Grate (Orifice Controls 0.30 cfs @ 1.73 fps)

-3=Orifice/Grate (Controls 0.00 cfs)

### **Summary for Pond 3P: Pocket Pond #2**

Inflow Area = 6.15 ac, 22.36% Impervious, Inflow Depth > 1.33" for 2-yr event

Inflow = 7.01 cfs @ 12.13 hrs, Volume= 0.681 af

Outflow = 3.08 cfs @ 12.47 hrs, Volume= 0.667 af, Atten= 56%, Lag= 20.6 min

 Primary =
 3.08 cfs @ 12.47 hrs, Volume=
 0.667 af

 Secondary =
 0.00 cfs @ 0.00 hrs, Volume=
 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Starting Elev= 271.98' Surf.Area= 2,847 sf Storage= 5,675 cf

Peak Elev= 273.96' @ 12.47 hrs Surf.Area= 4,722 sf Storage= 13,156 cf (7,481 cf above start)

Plug-Flow detention time= 162.2 min calculated for 0.536 af (79% of inflow)

Center-of-Mass det. time= 34.9 min (847.3 - 812.4)

Volume	Invert	Avail.Sto	rage Storage	Description	
#1	268.00'	25,01	13 cf Custon	n Stage Data (Pi	rismatic)Listed below (Recalc)
Elevation	on Su	ırf.Area	Inc.Store	Cum.Store	
(fee	et)	(sq-ft)	(cubic-feet)	(cubic-feet)	
268.0	00	408	0	0	
269.0	00	790	599	599	
270.0	00	1,250	1,020	1,619	
272.0	00	2,863	4,113	5,732	
274.0	00	4,762	7,625	13,357	
276.0	00	6,894	11,656	25,013	
		•	•	•	
Device	Routing	Invert	Outlet Device	es	
#1	Device 4	272.00'	9.0" Vert. Or	rifice/Grate C=	0.600
#2	Secondary	275.35'	10.0' long x	4.0' breadth Br	oad-Crested Rectangular Weir
			Head (feet) (	0.20 0.40 0.60	0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00 3.	50 4.00 4.50 5	.00 5.50

2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

273.80' **24.0" W x 10.0" H Vert. Orifice/Grate** C= 0.600

Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66

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min

#4	Primary	272.00'	18.0" Round Culvert
			L= 105.7' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 272.00' / 271.57' S= 0.0041 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#5	Primary	275.70'	48.0" x 48.0" Horiz. Orifice/Grate C= 0.600
			Limited to weir flow at low heads

**Primary OutFlow** Max=3.07 cfs @ 12.47 hrs HW=273.96' TW=0.00' (Dynamic Tailwater)

4=Culvert (Passes 3.07 cfs of 7.55 cfs potential flow)

1=Orifice/Grate (Orifice Controls 2.67 cfs @ 6.05 fps)

☐3=Orifice/Grate (Orifice Controls 0.39 cfs @ 1.26 fps)

-5=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=271.98' TW=0.00' (Dynamic Tailwater) 2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

#### Summary for Pond 30P: Infiltration Pond #1

Inflow Area = 0.41 ac, 37.64% Impervious, Inflow Depth > 1.18" for 2-yr event

Inflow = 0.50 cfs @ 12.09 hrs, Volume= 0.040 af

Outflow = 0.04 cfs @ 13.06 hrs, Volume= 0.040 af, Atten= 91%, Lag= 58.5 min

Discarded = 0.04 cfs @ 13.06 hrs, Volume= 0.040 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 280.44' @ 13.06 hrs Surf.Area= 1,822 sf Storage= 675 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 135.6 min ( 905.5 - 769.9 )

Volume	Invert	Avail.Sto	rage Storag	e Description	
#1	280.00'	5,1	66 cf Custo	m Stage Data (Pi	rismatic)Listed below (Recalc)
Elevatio		urf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	
280.0	00	1,214	0	0	
282.0	00	3,952	5,166	5,166	
Device	Routing	Invert	Outlet Device	ces	
#1	Discarded	280.00'	1.000 in/hr	Exfiltration over	Surface area

**Discarded OutFlow** Max=0.04 cfs @ 13.06 hrs HW=280.44' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.04 cfs)

# **Summary for Pond 31P: Infiltration Pond #2**

Inflow Area =	1.13 ac, 39.15% Impervious, Inflow	Depth > 1.21" for 2-yr event
Inflow =	1.41 cfs @ 12.09 hrs, Volume=	0.113 af
Outflow =	0.08 cfs @ 13.90 hrs, Volume=	0.104 af, Atten= 94%, Lag= 108.7 r
Discarded =	0.08 cfs @ 13.90 hrs Volume=	0 104 af

Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.104 ar

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Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 274.65' @ 13.90 hrs Surf.Area= 3,637 sf Storage= 2,155 cf

Plug-Flow detention time= 222.4 min calculated for 0.104 af (92% of inflow)

Center-of-Mass det. time= 180.9 min ( 949.1 - 768.2 )

Volume	Invert	Avail.Stor	age Storage	Description		
#1	274.00'	7,93	8 cf Custom	n Stage Data (Pr	ismatic)Listed below (Recalc)	
Elevatio		rf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)		
274.0		3,030	0	0		
276.0	00	4,908	7,938	7,938		
Device	Routing	Invert	Outlet Device	es		
#1	Device 3	275.00'	3.0" Vert. Or	ifice/Grate C= (	0.600	
#2	Discarded	274.00'	1.000 in/hr E	xfiltration over	Surface area	
#3	Primary	274.16'	15.0" Round	l Culvert		
	•		L= 32.2' CPI	P, square edge h	eadwall, Ke= 0.500	
			Inlet / Outlet I	nvert= 274.16' / 2	274.00' S= 0.0050 '/' Cc= 0.900	
#4	Primary	276.40'	24.0" x 24.0"	rrugated PE, smo ' <b>Horiz. Orifice/G</b> ir flow at low hea		

**Discarded OutFlow** Max=0.08 cfs @ 13.90 hrs HW=274.65' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.08 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=274.00' TW=0.00' (Dynamic Tailwater)

-3=Culvert (Controls 0.00 cfs)

1=Orifice/Grate (Controls 0.00 cfs)

-4=Orifice/Grate (Controls 0.00 cfs)

# Summary for Pond 100: AD#100

Inflow Area = 0.02 ac,100.00% Impervious, Inflow Depth > 2.73" for 2-yr event

Inflow = 0.06 cfs @ 12.09 hrs, Volume= 0.005 af

Outflow = 0.06 cfs @ 12.09 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.0 min

Primary = 0.06 cfs @ 12.09 hrs, Volume= 0.005 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 295.94' @ 12.09 hrs

Flood Elev= 297.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	295.81'	8.0" Round Culvert
			L= 58.1' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 295.81' / 294.35' S= 0.0251 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.06 cfs @ 12.09 hrs HW=295.94' TW=294.48' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.06 cfs @ 1.22 fps)

Type III 24-hr 2-yr Rainfall=2.96" Printed 10/10/2022

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### **Summary for Pond 101: AD#101**

Inflow Area = 0.06 ac,100.00% Impervious, Inflow Depth > 2.73" for 2-yr event

Inflow = 0.18 cfs @ 12.09 hrs, Volume= 0.014 af

Outflow = 0.18 cfs @ 12.09 hrs, Volume= 0.014 af, Atten= 0%, Lag= 0.0 min

Primary = 0.18 cfs @ 12.09 hrs, Volume= 0.014 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 294.48' @ 12.09 hrs

Flood Elev= 297.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	294.25'	8.0" Round Culvert L= 37.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 294.25' / 292.40' S= 0.0500 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.17 cfs @ 12.09 hrs HW=294.48' TW=293.01' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.17 cfs @ 1.63 fps)

### Summary for Pond 102: AD#102

Inflow Area = 0.08 ac,100.00% Impervious, Inflow Depth > 2.73" for 2-yr event

Inflow = 0.24 cfs @ 12.09 hrs, Volume= 0.019 af

Outflow = 0.24 cfs @ 12.09 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min

Primary = 0.24 cfs @ 12.09 hrs, Volume= 0.019 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 293.24' @ 12.13 hrs

Flood Elev= 297.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	292.95'	8.0" Round Culvert
			L= 27.4' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 292.95' / 292.40' S= 0.0201 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.18 cfs @ 12.09 hrs HW=293.23' TW=293.01' (Dynamic Tailwater) 1=Culvert (Outlet Controls 0.18 cfs @ 1.93 fps)

# Summary for Pond 103: AD#103

Inflow Area = 0.04 ac,100.00% Impervious, Inflow Depth > 2.73" for 2-yr event

Inflow = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af

Outflow = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min

Primary = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 294.42' @ 12.09 hrs

Flood Elev= 297.40'

# Type III 24-hr 2-yr Rainfall=2.96"

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Device	Routing	Invert	Outlet Devices
#1	Primary	294.23'	8.0" Round Culvert
	-		L= 59.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 294.23' / 293.05' S= 0.0200 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.12 cfs @ 12.09 hrs HW=294.41' TW=293.23' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.12 cfs @ 1.46 fps)

#### Summary for Pond 104: AD#104

Inflow Area = 0.23 ac,100.00% Impervious, Inflow Depth > 2.73" for 2-yr event

Inflow = 0.65 cfs @ 12.09 hrs, Volume= 0.053 af

Outflow = 0.65 cfs @ 12.09 hrs, Volume= 0.053 af, Atten= 0%, Lag= 0.0 min

Primary = 0.65 cfs @ 12.09 hrs, Volume= 0.053 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 295.76' @ 12.09 hrs

Flood Elev= 299.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	295.27'	8.0" Round Culvert
			L= 16.6' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 295.27' / 294.66' S= 0.0367 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.63 cfs @ 12.09 hrs HW=295.75' TW=295.13' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.63 cfs @ 2.36 fps)

## **Summary for Pond 105: AD#105**

Inflow Area = 0.19 ac,100.00% Impervious, Inflow Depth > 2.73" for 2-yr event

Inflow = 0.53 cfs @ 12.09 hrs, Volume= 0.043 af

Outflow = 0.53 cfs @ 12.09 hrs, Volume= 0.043 af, Atten= 0%, Lag= 0.0 min

Primary = 0.53 cfs @ 12.09 hrs, Volume= 0.043 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 297.96' @ 12.09 hrs

Flood Elev= 301.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	297.53'	8.0" Round Culvert  L= 53.8' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 297.53' / 295.38' S= 0.0400 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.52 cfs @ 12.09 hrs HW=297.95' TW=295.75' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.52 cfs @ 2.22 fps)

Type III 24-hr 2-yr Rainfall=2.96" Printed 10/10/2022

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### **Summary for Pond 106: AD#106**

Inflow Area = 0.15 ac,100.00% Impervious, Inflow Depth > 2.73" for 2-yr event

Inflow = 0.41 cfs @ 12.09 hrs, Volume= 0.034 af

Outflow = 0.41 cfs @ 12.09 hrs, Volume= 0.034 af, Atten= 0%, Lag= 0.0 min

Primary = 0.41 cfs @ 12.09 hrs, Volume= 0.034 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 300.24' @ 12.09 hrs

Flood Elev= 303.80'

00 f

Primary OutFlow Max=0.40 cfs @ 12.09 hrs HW=300.24' TW=297.95' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.40 cfs @ 2.06 fps)

### Summary for Pond 107: AD#107

Inflow Area = 0.11 ac,100.00% Impervious, Inflow Depth > 2.73" for 2-yr event

Inflow = 0.30 cfs @ 12.09 hrs, Volume= 0.024 af

Outflow = 0.30 cfs @ 12.09 hrs, Volume= 0.024 af, Atten= 0%, Lag= 0.0 min

Primary = 0.30 cfs @ 12.09 hrs, Volume= 0.024 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 303.18' @ 12.09 hrs

Flood Elev= 306.63'

Device	Routing	Invert	Outlet Devices
#1	Primary	302.85'	8.0" Round Culvert
			L= 64.0' CPP, mitered to conform to fill, Ke= 0.700
			Inlet / Outlet Invert= 302.85' / 299.97' S= 0.0450 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.29 cfs @ 12.09 hrs HW=303.17' TW=300.24' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.29 cfs @ 1.71 fps)

# Summary for Pond 108: AD#108

Inflow Area = 0.06 ac,100.00% Impervious, Inflow Depth > 2.73" for 2-yr event

Inflow = 0.18 cfs @ 12.09 hrs, Volume= 0.014 af

Outflow = 0.18 cfs @ 12.09 hrs, Volume= 0.014 af, Atten= 0%, Lag= 0.0 min

Primary = 0.18 cfs @ 12.09 hrs, Volume= 0.014 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 306.08' @ 12.09 hrs

Flood Elev= 309.80'

#### Type III 24-hr 2-yr Rainfall=2.96" Printed 10/10/2022

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Device	Routing	Invert	Outlet Devices
#1	Primary	305.85'	8.0" Round Culvert
			L= 64.5' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 305.85' / 302.96' S= 0.0448 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.17 cfs @ 12.09 hrs HW=306.08' TW=303.17' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.17 cfs @ 1.63 fps)

#### Summary for Pond 109: AD#109

Inflow Area = 0.02 ac,100.00% Impervious, Inflow Depth > 2.73" for 2-yr event

Inflow = 0.06 cfs @ 12.09 hrs, Volume= 0.005 af

Outflow = 0.06 cfs @ 12.09 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.0 min

Primary = 0.06 cfs @ 12.09 hrs, Volume= 0.005 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 308.82' @ 12.09 hrs

Flood Elev= 311.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	308.69'	8.0" Round Culvert
			L= 49.9' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 308.69' / 305.95' S= 0.0549 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.06 cfs @ 12.09 hrs HW=308.82' TW=306.08' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.06 cfs @ 1.22 fps)

### **Summary for Pond CB11: CB#11**

Inflow Area = 1.47 ac, 47.09% Impervious, Inflow Depth > 1.77" for 2-yr event

Inflow = 2.74 cfs @ 12.09 hrs, Volume= 0.216 af

Outflow = 2.74 cfs @ 12.09 hrs, Volume= 0.216 af, Atten= 0%, Lag= 0.0 min

Primary = 2.74 cfs @ 12.09 hrs, Volume= 0.216 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 311.76' @ 12.67 hrs

Flood Elev= 314.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	310.04'	18.0" Round Culvert
			L= 30.3' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 310.04' / 309.89' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=1.59 cfs @ 12.09 hrs HW=311.14' TW=311.06' (Dynamic Tailwater) 1=Culvert (Outlet Controls 1.59 cfs @ 1.60 fps)

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## **Summary for Pond CB110: CB#110**

Inflow Area = 0.34 ac, 52.43% Impervious, Inflow Depth > 2.00" for 2-yr event

Inflow = 0.72 cfs @ 12.09 hrs, Volume= 0.056 af

Outflow = 0.72 cfs @ 12.09 hrs, Volume= 0.056 af, Atten= 0%, Lag= 0.0 min

Primary = 0.72 cfs @ 12.09 hrs, Volume= 0.056 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 311.76' @ 12.72 hrs

Flood Elev= 314.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	310.25'	15.0" Round Culvert
			L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 310.25' / 310.14' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=311.06' TW=311.14' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

### **Summary for Pond CB12: CB#12**

Inflow Area = 0.73 ac, 49.36% Impervious, Inflow Depth > 1.79" for 2-yr event

Inflow = 1.38 cfs @ 12.09 hrs, Volume= 0.110 af

Outflow = 1.38 cfs @ 12.09 hrs, Volume= 0.110 af, Atten= 0%, Lag= 0.0 min

Primary = 1.38 cfs @ 12.09 hrs, Volume= 0.110 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 313.57' @ 12.09 hrs

Flood Elev= 317.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	313.00'	15.0" Round Culvert
	-		L= 106.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 313.00' / 310.21' S= 0.0263 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.35 cfs @ 12.09 hrs HW=313.56' TW=311.14' (Dynamic Tailwater) 1=Culvert (Inlet Controls 1.35 cfs @ 2.55 fps)

# Summary for Pond CB120: CB#120

Inflow Area = 0.50 ac, 47.90% Impervious, Inflow Depth > 1.87" for 2-yr event

Inflow = 0.98 cfs @ 12.09 hrs, Volume= 0.077 af

Outflow = 0.98 cfs @ 12.09 hrs, Volume= 0.077 af, Atten= 0%, Lag= 0.0 min

Primary = 0.98 cfs @ 12.09 hrs, Volume= 0.077 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 313.85' @ 12.10 hrs

Flood Elev= 317.25'

Type III 24-hr 2-yr Rainfall=2.96"

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Device	Routing	Invert	Outlet Devices
#1	Primary	313.32'	15.0" Round Culvert
	-		L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 313.32' / 313.10' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.90 cfs @ 12.09 hrs HW=313.84' TW=313.56' (Dynamic Tailwater) 1=Culvert (Outlet Controls 0.90 cfs @ 2.78 fps)

#### **Summary for Pond CB14: CB#14**

Inflow Area = 3.64 ac, 46.14% Impervious, Inflow Depth > 1.66" for 2-yr event

Inflow = 1.08 cfs @ 12.53 hrs, Volume= 0.504 af

Outflow = 1.08 cfs @ 12.53 hrs, Volume= 0.504 af, Atten= 0%, Lag= 0.0 min

Primary = 1.08 cfs @ 12.53 hrs, Volume= 0.504 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 308.28' @ 12.53 hrs

Flood Elev= 312.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	307.79'	15.0" Round Culvert
	-		L= 37.9' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 307.79' / 307.22' S= 0.0150 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.08 cfs @ 12.53 hrs HW=308.28' TW=307.62' (Dynamic Tailwater) 1=Culvert (Inlet Controls 1.08 cfs @ 2.39 fps)

### **Summary for Pond CB15: CB#15**

Inflow Area = 3.71 ac, 46.04% Impervious, Inflow Depth > 1.66" for 2-yr event

Inflow = 1.10 cfs @ 12.52 hrs, Volume= 0.512 af

Outflow = 1.10 cfs @ 12.52 hrs, Volume= 0.512 af, Atten= 0%, Lag= 0.0 min

Primary = 1.10 cfs @ 12.52 hrs, Volume= 0.512 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 307.62' @ 12.52 hrs

Flood Elev= 312.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	307.12'	15.0" Round Culvert
			L= 120.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 307.12' / 300.65' S= 0.0539 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.10 cfs @ 12.52 hrs HW=307.62' TW=0.00' (Dynamic Tailwater) 1=Culvert (Inlet Controls 1.10 cfs @ 2.40 fps)

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### **Summary for Pond CB170: CB#170**

Inflow Area = 0.74 ac, 68.11% Impervious, Inflow Depth > 1.99" for 2-yr event

Inflow = 1.53 cfs @ 12.09 hrs, Volume= 0.124 af

Outflow = 1.53 cfs @ 12.09 hrs, Volume= 0.124 af, Atten= 0%, Lag= 0.0 min

Primary = 1.53 cfs @ 12.09 hrs, Volume= 0.124 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 278.50' @ 12.09 hrs

Flood Elev= 281.97'

Device	Routing	Invert	Outlet Devices
#1	Primary	277.90'	15.0" Round Culvert
			L= 36.7' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 277.90' / 277.17' S= 0.0199 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.49 cfs @ 12.09 hrs HW=278.49' TW=275.84' (Dynamic Tailwater) 1=Culvert (Inlet Controls 1.49 cfs @ 2.62 fps)

### **Summary for Pond CB171: CB#171**

Inflow Area = 0.61 ac, 66.16% Impervious, Inflow Depth > 1.97" for 2-yr event

Inflow = 1.24 cfs @ 12.09 hrs, Volume= 0.100 af

Outflow = 1.24 cfs @ 12.09 hrs, Volume= 0.100 af, Atten= 0%, Lag= 0.0 min

Primary = 1.24 cfs @ 12.09 hrs, Volume= 0.100 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 278.81' @ 12.10 hrs

Flood Elev= 281.97'

Device	Routing	Invert	Outlet Devices
#1	Primary	278.22'	15.0" Round Culvert
			L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 278.22' / 278.00' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.15 cfs @ 12.09 hrs HW=278.80' TW=278.49' (Dynamic Tailwater) 1=Culvert (Outlet Controls 1.15 cfs @ 3.01 fps)

# Summary for Pond CB19: CB #19

Inflow Area = 2.45 ac, 33.78% Impervious, Inflow Depth > 1.53" for 2-yr event

Inflow = 3.64 cfs @ 12.12 hrs, Volume= 0.313 af

Outflow = 3.64 cfs @ 12.12 hrs, Volume= 0.313 af, Atten= 0%, Lag= 0.0 min

Primary = 3.64 cfs @ 12.12 hrs, Volume= 0.313 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 277.60' @ 12.14 hrs

Flood Elev= 281.21'

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Device	Routing	Invert	Outlet Devices
#1	Primary	276.67'	18.0" Round Culvert
			L= 33.8' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 276.67' / 276.16' S= 0.0151 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=3.38 cfs @ 12.12 hrs HW=277.58' TW=276.95' (Dynamic Tailwater) 1=Culvert (Outlet Controls 3.38 cfs @ 4.31 fps)

#### **Summary for Pond CB20: CB #20**

Inflow Area = 2.14 ac, 28.84% Impervious, Inflow Depth > 1.46" for 2-yr event

Inflow = 3.01 cfs @ 12.13 hrs, Volume= 0.260 af

Outflow = 3.01 cfs @ 12.13 hrs, Volume= 0.260 af, Atten= 0%, Lag= 0.0 min

Primary = 3.01 cfs @ 12.13 hrs, Volume= 0.260 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 278.07' @ 12.15 hrs

Flood Elev= 281.21'

Device	Routing	Invert	Outlet Devices
#1	Primary	277.21'	18.0" Round Culvert
	-		L= 22.0' RCP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 277.21' / 276.77' S= 0.0200 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=2.78 cfs @ 12.13 hrs HW=278.05' TW=277.59' (Dynamic Tailwater) 1=Culvert (Outlet Controls 2.78 cfs @ 3.91 fps)

## Summary for Pond CB201: CB#201

Inflow Area = 0.69 ac, 40.43% Impervious, Inflow Depth > 1.71" for 2-yr event

Inflow = 1.24 cfs @ 12.09 hrs, Volume= 0.098 af

Outflow = 1.24 cfs @ 12.09 hrs, Volume= 0.098 af, Atten= 0%, Lag= 0.0 min

Primary = 1.24 cfs @ 12.09 hrs, Volume= 0.098 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 292.49' @ 12.09 hrs

Flood Elev= 300.43'

Device	Routing	Invert	Outlet Devices
#1	Primary	291.88'	15.0" Round Culvert L= 82.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 291.88' / 291.45' S= 0.0052 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.21 cfs @ 12.09 hrs HW=292.48' TW=291.34' (Dynamic Tailwater) 1=Culvert (Barrel Controls 1.21 cfs @ 3.02 fps)

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### **Summary for Pond CB3: CB#3**

Inflow Area = 1.67 ac, 66.11% Impervious, Inflow Depth > 1.80" for 2-yr event

Inflow = 3.10 cfs @ 12.09 hrs, Volume= 0.252 af

Outflow = 3.10 cfs @ 12.09 hrs, Volume= 0.252 af, Atten= 0%, Lag= 0.0 min

Primary = 3.10 cfs @ 12.09 hrs, Volume= 0.252 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 293.05' @ 12.10 hrs

Flood Elev= 296.31'

Device	Routing	Invert	Outlet Devices
#1	Primary	292.09'	15.0" Round Culvert L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 292.09' / 291.29' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=2.89 cfs @ 12.09 hrs HW=293.03' TW=292.22' (Dynamic Tailwater) 1=Culvert (Outlet Controls 2.89 cfs @ 4.05 fps)

### Summary for Pond CB30: CB#30

Inflow Area = 0.32 ac, 91.05% Impervious, Inflow Depth > 2.48" for 2-yr event

Inflow = 0.82 cfs @ 12.09 hrs, Volume= 0.067 af

Outflow = 0.82 cfs @ 12.09 hrs, Volume= 0.067 af, Atten= 0%, Lag= 0.0 min

Primary = 0.82 cfs @ 12.09 hrs, Volume= 0.067 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 293.09' @ 12.14 hrs

Flood Elev= 296.31'

Device	Routing	Invert	Outlet Devices
#1	Primary	292.30'	15.0" Round Culvert
			L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 292.30' / 292.19' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=293.01' TW=293.03' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

# **Summary for Pond CB4: CB#4**

Inflow Area = 0.82 ac, 72.75% Impervious, Inflow Depth > 1.98" for 2-yr event

Inflow = 1.68 cfs @ 12.09 hrs, Volume= 0.136 af

Outflow = 1.68 cfs @ 12.09 hrs, Volume= 0.136 af, Atten= 0%, Lag= 0.0 min

Primary = 1.68 cfs @ 12.09 hrs, Volume= 0.136 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 294.87' @ 12.09 hrs

Flood Elev= 298.00'

Type III 24-hr 2-yr Rainfall=2.96"

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Device	Routing	Invert	Outlet Devices
#1	Primary	294.24'	15.0" Round Culvert
			L= 80.9' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 294.24' / 292.58' S= 0.0205 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.64 cfs @ 12.09 hrs HW=294.86' TW=293.03' (Dynamic Tailwater) 1=Culvert (Inlet Controls 1.64 cfs @ 2.68 fps)

#### **Summary for Pond CB5: CB#5**

Inflow Area = 0.53 ac, 77.00% Impervious, Inflow Depth > 2.10" for 2-yr event

Inflow = 1.14 cfs @ 12.09 hrs, Volume= 0.092 af

Outflow = 1.14 cfs @ 12.09 hrs, Volume= 0.092 af, Atten= 0%, Lag= 0.0 min

Primary = 1.14 cfs @ 12.09 hrs, Volume= 0.092 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 295.14' @ 12.10 hrs

Flood Elev= 298.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	294.56'	15.0" Round Culvert
			L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 294.56' / 294.34' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.03 cfs @ 12.09 hrs HW=295.13' TW=294.86' (Dynamic Tailwater) 1=Culvert (Outlet Controls 1.03 cfs @ 2.78 fps)

## **Summary for Pond CB80: CB#80**

Inflow Area = 0.64 ac, 56.11% Impervious, Inflow Depth > 1.93" for 2-yr event

Inflow = 1.28 cfs @ 12.09 hrs, Volume= 0.102 af

Outflow = 1.28 cfs @ 12.09 hrs, Volume= 0.102 af, Atten= 0%, Lag= 0.0 min

Primary = 1.28 cfs @ 12.09 hrs, Volume= 0.102 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 311.76' @ 12.67 hrs

Flood Elev= 314.01'

Device	Routing	Invert	Outlet Devices
#1	Primary	310.06'	15.0" Round Culvert
			L= 15.1' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 310.06' / 309.98' S= 0.0053 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=311.07' TW=311.14' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

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### **Summary for Pond CB800: CB#800**

Inflow Area = 0.27 ac, 72.99% Impervious, Inflow Depth > 2.08" for 2-yr event

Inflow = 0.57 cfs @ 12.09 hrs, Volume= 0.046 af

Outflow = 0.57 cfs @ 12.09 hrs, Volume= 0.046 af, Atten= 0%, Lag= 0.0 min

Primary = 0.57 cfs @ 12.09 hrs, Volume= 0.046 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 311.76' @ 12.72 hrs

Flood Elev= 314.01'

Device	Routing	Invert	Outlet Devices
#1	Primary	310.27'	15.0" Round Culvert
			L= 22.7' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 310.27' / 310.16' S= 0.0048 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=310.95' TW=311.05' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

### **Summary for Pond CB9: CB#9**

Inflow Area = 0.90 ac, 54.67% Impervious, Inflow Depth > 1.86" for 2-yr event

Inflow = 1.76 cfs @ 12.09 hrs, Volume= 0.140 af

Outflow = 1.76 cfs @ 12.09 hrs, Volume= 0.140 af, Atten= 0%, Lag= 0.0 min

Primary = 1.76 cfs @ 12.09 hrs, Volume= 0.140 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 314.69' @ 12.09 hrs

Flood Elev= 317.43'

Device	Routing	Invert	Outlet Devices
#1	Primary	314.04'	15.0" Round Culvert
			L= 203.6' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 314.04' / 310.50' S= 0.0174 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.72 cfs @ 12.09 hrs HW=314.68' TW=311.13' (Dynamic Tailwater)
—1=Culvert (Inlet Controls 1.72 cfs @ 2.72 fps)

# **Summary for Pond CB90: CB#90**

Inflow Area = 0.31 ac, 72.11% Impervious, Inflow Depth > 1.97" for 2-yr event

Inflow = 0.64 cfs @ 12.09 hrs, Volume= 0.052 af

Outflow = 0.64 cfs @ 12.09 hrs, Volume= 0.052 af, Atten= 0%, Lag= 0.0 min

Primary = 0.64 cfs @ 12.09 hrs, Volume= 0.052 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 315.11' @ 12.09 hrs

Flood Elev= 317.72'

Type III 24-hr 2-yr Rainfall=2.96"

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Device	Routing	Invert	Outlet Devices
#1	Primary	314.74'	15.0" Round Culvert
			L= 29.8' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 314.74' / 314.14' S= 0.0201 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.60 cfs @ 12.09 hrs HW=315.11' TW=314.68' (Dynamic Tailwater) 1=Culvert (Outlet Controls 0.60 cfs @ 2.97 fps)

#### **Summary for Pond DMH111: DMH#111**

Inflow Area = 1.47 ac, 47.09% Impervious, Inflow Depth > 1.77" for 2-yr event

Inflow = 2.74 cfs @ 12.09 hrs, Volume= 0.216 af

Outflow = 2.74 cfs @ 12.09 hrs, Volume= 0.216 af, Atten= 0%, Lag= 0.0 min

Primary = 2.74 cfs @ 12.09 hrs, Volume= 0.216 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 311.76' @ 12.63 hrs

Flood Elev= 314.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	309.79'	24.0" Round Culvert
			L= 40.3' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 309.79' / 309.59' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=311.06' TW=311.14' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

## **Summary for Pond DMH17: DMH#17**

Inflow Area = 3.19 ac, 41.78% Impervious, Inflow Depth > 1.64" for 2-yr event

Inflow = 5.11 cfs @ 12.11 hrs, Volume= 0.437 af

Outflow = 5.11 cfs @ 12.11 hrs, Volume= 0.437 af, Atten= 0%, Lag= 0.0 min

Primary = 5.11 cfs @ 12.11 hrs, Volume= 0.437 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 275.87' @ 12.11 hrs

Flood Elev= 279.48'

Device	Routing	Invert	Outlet Devices
#1	Primary	274.89'	24.0" Round Culvert
			L= 279.8' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 274.89' / 272.09' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=5.02 cfs @ 12.11 hrs HW=275.86' TW=273.21' (Dynamic Tailwater) 1=Culvert (Inlet Controls 5.02 cfs @ 3.35 fps)

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### **Summary for Pond DMH18: DMH#18**

Inflow Area = 2.45 ac, 33.78% Impervious, Inflow Depth > 1.53" for 2-yr event

Inflow = 3.64 cfs @ 12.12 hrs, Volume= 0.313 af

Outflow = 3.64 cfs @ 12.12 hrs, Volume= 0.313 af, Atten= 0%, Lag= 0.0 min

Primary = 3.64 cfs @ 12.12 hrs, Volume= 0.313 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 276.97' @ 12.12 hrs

Flood Elev= 281.88'

Device	Routing	Invert	Outlet Devices
#1	Primary	276.06'	18.0" Round Culvert
			L= 71.6' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 276.06' / 274.99' S= 0.0149 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=3.54 cfs @ 12.12 hrs HW=276.95' TW=275.85' (Dynamic Tailwater) 1=Culvert (Inlet Controls 3.54 cfs @ 3.22 fps)

### **Summary for Pond DMH2: DMH#2**

Inflow Area = 1.67 ac, 66.11% Impervious, Inflow Depth > 1.80" for 2-yr event

Inflow = 3.10 cfs @ 12.09 hrs, Volume= 0.252 af

Outflow = 3.10 cfs @ 12.09 hrs, Volume= 0.252 af, Atten= 0%, Lag= 0.0 min

Primary = 3.10 cfs @ 12.09 hrs, Volume= 0.252 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 292.23' @ 12.09 hrs

Flood Elev= 297.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	291.19'	18.0" Round Culvert
			L= 50.2' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 291.19' / 291.04' S= 0.0030 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=3.02 cfs @ 12.09 hrs HW=292.22' TW=291.31' (Dynamic Tailwater) 1=Culvert (Barrel Controls 3.02 cfs @ 3.30 fps)

# **Summary for Pond DMH8: DMH#8**

Inflow Area = 1.54 ac, 55.26% Impervious, Inflow Depth > 1.89" for 2-yr event

Inflow = 3.04 cfs @ 12.09 hrs, Volume= 0.243 af

Outflow = 3.04 cfs @ 12.09 hrs, Volume= 0.243 af, Atten= 0%, Lag= 0.0 min

Primary = 3.04 cfs @ 12.09 hrs, Volume= 0.243 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 311.76' @ 12.62 hrs

Flood Elev= 314.00'

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Type III 24-hr 2-yr Rainfall=2.96" Printed 10/10/2022

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Device	Routing	Invert	Outlet Devices
#1	Primary	309.88'	18.0" Round Culvert
			L= 13.4' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 309.88' / 309.81' S= 0.0052 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=311.13' TW=311.15' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

#### **Summary for Link A: Western Shadowbrook Drive Treatment Area**

Inflow Area = 5.76 ac, 33.42% Impervious, Inflow Depth > 1.20" for 2-yr event

Inflow = 3.42 cfs @ 12.10 hrs, Volume= 0.576 af

Primary = 3.42 cfs @ 12.10 hrs, Volume= 0.576 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Summary for Link B: pond at beginning of neighborhood

Inflow Area = 5.28 ac, 37.67% Impervious, Inflow Depth > 1.40" for 2-yr event

Inflow = 2.28 cfs @ 12.10 hrs, Volume= 0.615 af

Primary = 2.28 cfs @ 12.10 hrs, Volume= 0.615 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### **Summary for Link C: Wetlands**

Inflow Area = 9.23 ac, 21.04% Impervious, Inflow Depth > 1.05" for 2-yr event

Inflow = 3.83 cfs @ 12.42 hrs, Volume= 0.804 af

Primary = 3.83 cfs @ 12.42 hrs, Volume= 0.804 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

- Subcatchment1S: Flow to Tammy Court Runoff Area=57,559 sf 17.28% Impervious Runoff Depth>2.73" Flow Length=263' Slope=0.6600 '/' Tc=6.0 min AMC Adjusted CN=WQ Runoff=3.70 cfs 0.300 af
- **Subcatchment2S: Shadowbrook Dr CB1** Runoff Area=7,546 sf 57.32% Impervious Runoff Depth>2.73" Flow Length=300' Slope=0.0200 '/' Tc=6.0 min AMC Adjusted CN=WQ Runoff=0.49 cfs 0.039 af
- **Subcatchment3S: Shadowbrook Dr CB2** Runoff Area=24,663 sf 8.93% Impervious Runoff Depth>2.73" Flow Length=344' Tc=8.6 min AMC Adjusted CN=WQ Runoff=1.47 cfs 0.129 af
- **Subcatchment4S: Flow to Shadowbrook** Runoff Area=11,312 sf 38.41% Impervious Runoff Depth>2.73" Tc=6.0 min AMC Adjusted CN=WQ Runoff=0.73 cfs 0.059 af
- **Subcatchment5S: Canterberry Court Flow** Runoff Area=36,412 sf 15.94% Impervious Runoff Depth>2.73" Flow Length=187' Tc=6.0 min AMC Adjusted CN=WQ Runoff=2.34 cfs 0.190 af
- **Subcatchment6S: Lower Shadowbrook Dr** Runoff Area=72,715 sf 12.69% Impervious Runoff Depth>2.73" Flow Length=137' Tc=6.0 min AMC Adjusted CN=WQ Runoff=4.67 cfs 0.379 af
- **Subcatchment7S: Rear Overland Flow to**Runoff Area=85,028 sf 6.43% Impervious Runoff Depth>2.72"
  Flow Length=183' Tc=11.5 min AMC Adjusted CN=WQ Runoff=4.66 cfs 0.443 af
- **Subcatchment10S: Roadway Flow** Runoff Area=13,692 sf 72.11% Impervious Runoff Depth>2.73" Flow Length=307' Slope=0.0150 '/' Tc=6.0 min AMC Adjusted CN=WQ Runoff=0.88 cfs 0.071 af
- **Subcatchment11S: Roadway Flow**Runoff Area=25,722 sf 45.39% Impervious Runoff Depth>2.73"
  Flow Length=279' Tc=6.0 min AMC Adjusted CN=WQ Runoff=1.65 cfs 0.134 af
- **Subcatchment20S: Roadway Flow** Runoff Area=2,774 sf 40.41% Impervious Runoff Depth>2.73" Flow Length=65' Tc=6.0 min AMC Adjusted CN=WQ Runoff=0.18 cfs 0.014 af
- **Subcatchment21S: Roadway Flow**Runoff Area=9,904 sf 37.65% Impervious Runoff Depth>2.73"
  Flow Length=203' Tc=6.0 min AMC Adjusted CN=WQ Runoff=0.64 cfs 0.052 af
- **Subcatchment22S: Overland Flow to Pond** Runoff Area=17,710 sf 12.85% Impervious Runoff Depth>2.73" Flow Length=47' Slope=0.2127 '/' Tc=6.0 min AMC Adjusted CN=WQ Runoff=1.14 cfs 0.092 af
- **Subcatchment30S: Roadway Flow** Runoff Area=14,714 sf 52.43% Impervious Runoff Depth>2.73" Flow Length=276' Tc=6.0 min AMC Adjusted CN=WQ Runoff=0.95 cfs 0.077 af
- **Subcatchment31S: Roadway Flow** Runoff Area=17,194 sf 38.30% Impervious Runoff Depth>2.73" Flow Length=230' Tc=6.0 min AMC Adjusted CN=WQ Runoff=1.11 cfs 0.090 af
- **Subcatchment32S: Roadway Flow**Runoff Area=21,651 sf 47.90% Impervious Runoff Depth>2.73"
  Flow Length=223' Tc=6.0 min AMC Adjusted CN=WQ Runoff=1.39 cfs 0.113 af
- **Subcatchment33S: Roadway Flow** Runoff Area=10,356 sf 52.43% Impervious Runoff Depth>2.73" Flow Length=257' Tc=6.0 min AMC Adjusted CN=WQ Runoff=0.67 cfs 0.054 af

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- Runoff Area=11,686 sf 72.99% Impervious Runoff Depth>2.73" Subcatchment40S: Roadway Flow Flow Length=263' Slope=0.0150 '/' Tc=6.0 min AMC Adjusted CN=WQ Runoff=0.75 cfs 0.061 af
- Runoff Area=16,070 sf 43.83% Impervious Runoff Depth>2.73" Subcatchment41S: Roadway Flow Flow Length=268' Tc=6.5 min AMC Adjusted CN=WQ Runoff=1.02 cfs 0.084 af
- Subcatchment42S: Flow to CB#200 Runoff Area=29,920 sf 40.43% Impervious Runoff Depth>2.73" Flow Length=385' Tc=6.0 min AMC Adjusted CN=WQ Runoff=1.92 cfs 0.156 af
- Runoff Area=12,898 sf 58.95% Impervious Runoff Depth>2.73" Subcatchment 50S: Roadway Flow Flow Length=300' Tc=6.0 min AMC Adjusted CN=WQ Runoff=0.83 cfs 0.067 af
- Subcatchment51S: Roadway Flow Runoff Area=12,915 sf 65.19% Impervious Runoff Depth>2.73" Flow Length=163' Tc=6.0 min AMC Adjusted CN=WQ Runoff=0.83 cfs 0.067 af
- Subcatchment60S: Roadway and Building Runoff Area=23,012 sf 40.57% Impervious Runoff Depth>2.73" Flow Length=220' Tc=6.0 min AMC Adjusted CN=WQ Runoff=1.48 cfs 0.120 af
- Runoff Area=7,564 sf 83.43% Impervious Runoff Depth>2.73" Subcatchment61S: Roadway Flow Flow Length=152' Slope=0.0200 '/' Tc=6.0 min AMC Adjusted CN=WQ Runoff=0.49 cfs 0.039 af
- Subcatchment62S: Bioretention Pond Area Runoff Area=6,453 sf 0.00% Impervious Runoff Depth>2.73" Tc=6.0 min AMC Adjusted CN=98 Runoff=0.41 cfs 0.034 af
- Runoff Area=128,858 sf 1.40% Impervious Runoff Depth>2.72" Subcatchment 70S: Overland Flow to Flow Length=745' Tc=14.6 min AMC Adjusted CN=WQ Runoff=6.50 cfs 0.671 af
- Runoff Area=26,495 sf 66.16% Impervious Runoff Depth>2.73" Subcatchment71S: Roadway Flow Flow Length=300' Tc=6.0 min AMC Adjusted CN=WQ Runoff=1.70 cfs 0.138 af
- Subcatchment72S: House Flow to Pond Runoff Area=49,031 sf 39.15% Impervious Runoff Depth>2.73" Flow Length=127' Tc=6.0 min AMC Adjusted CN=WQ Runoff=3.15 cfs 0.256 af
- Runoff Area=5,932 sf 76.82% Impervious Runoff Depth>2.73" Subcatchment73S: Roadway Flow Flow Length=200' Slope=0.0200 '/' Tc=6.0 min AMC Adjusted CN=WQ Runoff=0.38 cfs 0.031 af
- Runoff Area=17,656 sf 37.64% Impervious Runoff Depth>2.73" Subcatchment74S: Area in Circle to Flow Length=40' Slope=0.1000'/' Tc=6.0 min AMC Adjusted CN=WQ Runoff=1.13 cfs 0.092 af
- Runoff Area=13,639 sf 67.50% Impervious Runoff Depth>2.73" Subcatchment75S: Roadway Flow Flow Length=196' Slope=0.0200 '/' Tc=6.0 min AMC Adjusted CN=WQ Runoff=0.88 cfs 0.071 af
- Subcatchment76S: Roadway Flow Runoff Area=93,020 sf 28.84% Impervious Runoff Depth>2.73" Flow Length=468' Tc=9.0 min AMC Adjusted CN=WQ Runoff=5.47 cfs 0.485 af
- Subcatchment 100S: Unit 1 Runoff Area=920 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af
- Subcatchment 101S: Units 2 & 3 Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=0.12 cfs 0.010 af

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Subcatchment102S: Units 4 & 5	Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=0.12 cfs 0.010 af
Subcatchment103S: Units 6 & 7	Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=0.12 cfs 0.010 af
Subcatchment104S: Units 8 & 9	Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=0.12 cfs 0.010 af
Subcatchment105S: Units 11 & 10	Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=0.12 cfs 0.010 af
Subcatchment106S: Units 13 & 12	Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=0.12 cfs 0.010 af
Subcatchment107S: Units 15 & 14	Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=0.12 cfs 0.010 af
Subcatchment108S: Units 17 & 16	Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=0.12 cfs 0.010 af
Subcatchment109S: Unit 18	Runoff Area=920 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af
Reach 1R: Tammy Court	Inflow=3.70 cfs 0.300 af Outflow=3.70 cfs 0.300 af
Reach 2R: Ex CB1	Inflow=3.63 cfs 0.865 af Outflow=3.63 cfs 0.865 af
Reach 3R: Ex CB 2	Inflow=1.47 cfs 0.129 af Outflow=1.47 cfs 0.129 af
Reach 4R: Upper Shadowbrook Drive Drai	Inflow=3.30 cfs 0.629 af Outflow=3.30 cfs 0.629 af
Reach 5R: Canterberry Ct Drainage	Inflow=2.34 cfs 0.190 af Outflow=2.34 cfs 0.190 af
Reach 6R: Lower Shadowbrook Dr CB	Inflow=4.67 cfs 0.379 af Outflow=4.67 cfs 0.379 af
Pond 1P: Bioretention Pond #1 Primary=2.98 cfs (	Peak Elev=292.82' Storage=8,168 cf Inflow=7.03 cfs 0.570 af 0.570 af Secondary=0.00 cfs 0.000 af Outflow=2.98 cfs 0.570 af
Pond 2P: Pocket Pond #1	Peak Elev=312.30' Storage=18,307 cf Inflow=9.55 cfs 0.776 af

 Pond 3P: Pocket Pond #2
 Peak Elev=274.83' Storage=17,656 cf
 Inflow=13.87 cfs
 1.397 af

 Primary=9.46 cfs
 1.380 af
 Secondary=0.00 cfs
 0.000 af
 Outflow=9.46 cfs
 1.380 af

Outflow=3.17 cfs 0.760 af

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Pond 30P: Infiltration Pond #1 Peak Elev=281.06' Storage=2,049 cf Inflow=1.13 cfs 0.092 af

Outflow=0.06 cfs 0.071 af

Pond 31P: Infiltration Pond #2 Peak Elev=275.49' Storage=5,574 cf Inflow=3.15 cfs 0.256 af Discarded=0.10 cfs 0.135 af Primary=0.14 cfs 0.055 af Outflow=0.25 cfs 0.190 af

Pond 100: AD#100 Peak Elev=295.94' Inflow=0.06 cfs 0.005 af 8.0" Round Culvert n=0.013 L=58.1' S=0.0251 '/' Outflow=0.06 cfs 0.005 af

Pond 101: AD#101 Peak Elev=294.48' Inflow=0.18 cfs 0.014 af

8.0" Round Culvert n=0.013 L=37.0' S=0.0500 '/' Outflow=0.18 cfs 0.014 af

8.0" Round Culvert n=0.013 L=64.0' S=0.0450 '/' Outflow=0.30 cfs 0.024 af

Pond 102: AD#102 Peak Elev=293.44' Inflow=0.24 cfs 0.019 af

8.0" Round Culvert n=0.013 L=27.4' S=0.0201 '/' Outflow=0.24 cfs 0.019 af

Pond 103: AD#103 Peak Elev=294.42' Inflow=0.12 cfs 0.010 af 8.0" Round Culvert n=0.013 L=59.0' S=0.0200 '/' Outflow=0.12 cfs 0.010 af

Pond 104: AD#104 Peak Elev=295.76' Inflow=0.65 cfs 0.053 af 8.0" Round Culvert n=0.013 L=16.6' S=0.0367 '/' Outflow=0.65 cfs 0.053 af

Pond 105: AD#105 Peak Elev=297.96' Inflow=0.53 cfs 0.043 af

8.0" Round Culvert n=0.013 L=53.8' S=0.0400 '/' Outflow=0.53 cfs 0.043 af

Pond 106: AD#106 Peak Elev=300.24' Inflow=0.41 cfs 0.034 af 8.0" Round Culvert n=0.013 L=55.9' S=0.0401'/' Outflow=0.41 cfs 0.034 af

Pond 107: AD#107 Peak Elev=303.18' Inflow=0.30 cfs 0.024 af

Pond 108: AD#108 Peak Elev=306.08' Inflow=0.18 cfs 0.014 af 8.0" Round Culvert n=0.013 L=64.5' S=0.0448 '/' Outflow=0.18 cfs 0.014 af

Pond 109: AD#109 Peak Elev=308.82' Inflow=0.06 cfs 0.005 af

8.0" Round Culvert n=0.013 L=49.9' S=0.0549 '/' Outflow=0.06 cfs 0.005 af

Pond CB11: CB#11 Peak Elev=312.32' Inflow=4.11 cfs 0.333 af 18.0" Round Culvert n=0.013 L=30.3' S=0.0050 '/' Outflow=4.11 cfs 0.333 af

Pond CB110: CB#110 Peak Elev=312.32' Inflow=0.95 cfs 0.077 af 15.0" Round Culvert n=0.013 L=22.0' S=0.0050 '/' Outflow=0.95 cfs 0.077 af

Pond CB12: CB#12 Peak Elev=313.71' Inflow=2.06 cfs 0.167 af 15.0" Round Culvert n=0.013 L=106.0' S=0.0263 '/' Outflow=2.06 cfs 0.167 af

13.0 Round Culvert 11-0.013 E-100.0 3-0.0203 / Outilow-2.00 dis 0.107 al

Pond CB120: CB#120 Peak Elev=313.98' Inflow=1.39 cfs 0.113 af 15.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=1.39 cfs 0.113 af

Pond CB14: CB#14 Peak Elev=308.78' Inflow=3.39 cfs 0.811 af

15.0" Round Culvert n=0.013 L=37.9' S=0.0150 '/' Outflow=3.39 cfs 0.811 af

Peak Elev=278.61' Inflow=2.08 cfs 0.169 af Pond CB170: CB#170 15.0" Round Culvert n=0.013 L=36.7' S=0.0199'/' Outflow=2.08 cfs 0.169 af

Pond CB171: CB#171 Peak Elev=278.94' Inflow=1.70 cfs 0.138 af 15.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=1.70 cfs 0.138 af

Peak Elev=278.03' Inflow=6.29 cfs 0.556 af Pond CB19: CB #19 18.0" Round Culvert n=0.013 L=33.8' S=0.0151'/' Outflow=6.29 cfs 0.556 af

Pond CB20: CB #20 Peak Elev=278.51' Inflow=5.47 cfs 0.485 af 18.0" Round Culvert n=0.013 L=22.0' S=0.0200'/' Outflow=5.47 cfs 0.485 af

Pond CB201: CB#201 Peak Elev=292.86' Inflow=1.92 cfs 0.156 af 15.0" Round Culvert n=0.013 L=82.0' S=0.0052 '/' Outflow=1.92 cfs 0.156 af

Peak Elev=293.39' Inflow=4.69 cfs 0.381 af Pond CB3: CB#3 15.0" Round Culvert n=0.013 L=80.0' S=0.0100 '/' Outflow=4.69 cfs 0.381 af

Peak Elev=293.41' Inflow=0.90 cfs 0.073 af Pond CB30: CB#30 15.0" Round Culvert n=0.013 L=22.0' S=0.0050 '/' Outflow=0.90 cfs 0.073 af

Peak Elev=295.00' Inflow=2.31 cfs 0.187 af Pond CB4: CB#4 15.0" Round Culvert n=0.013 L=80.9' S=0.0205 '/' Outflow=2.31 cfs 0.187 af

Peak Elev=295.26' Inflow=1.48 cfs 0.120 af Pond CB5: CB#5 15.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=1.48 cfs 0.120 af

Peak Elev=312.33' Inflow=1.77 cfs 0.145 af **Pond CB80: CB#80** 15.0" Round Culvert n=0.013 L=15.1' S=0.0053'/' Outflow=1.77 cfs 0.145 af

Peak Elev=312.33' Inflow=0.75 cfs 0.061 af Pond CB800: CB#800 15.0" Round Culvert n=0.013 L=22.7' S=0.0048 '/' Outflow=0.75 cfs 0.061 af

Peak Elev=314.84' Inflow=2.53 cfs 0.206 af Pond CB9: CB#9 15.0" Round Culvert n=0.013 L=203.6' S=0.0174 '/' Outflow=2.53 cfs 0.206 af

Peak Elev=315.21' Inflow=0.88 cfs 0.071 af Pond CB90: CB#90 15.0" Round Culvert n=0.013 L=29.8' S=0.0201'/' Outflow=0.88 cfs 0.071 af

Pond DMH111: DMH#111 Peak Elev=312.30' Inflow=4.11 cfs 0.333 af 24.0" Round Culvert n=0.013 L=40.3' S=0.0050 '/' Outflow=4.11 cfs 0.333 af

Pond DMH17: DMH#17 Peak Elev=276.23' Inflow=8.31 cfs 0.725 af 24.0" Round Culvert n=0.013 L=279.8' S=0.0100 '/' Outflow=8.31 cfs 0.725 af

Pond DMH18: DMH#18 Peak Elev=277.36' Inflow=6.29 cfs 0.556 af 18.0" Round Culvert n=0.013 L=71.6' S=0.0149 '/' Outflow=6.29 cfs 0.556 af

Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

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Peak Elev=292.86' Inflow=4.69 cfs 0.381 af Pond DMH2: DMH#2

18.0" Round Culvert n=0.013 L=50.2' S=0.0030 '/' Outflow=4.69 cfs 0.381 af

Pond DMH8: DMH#8 Peak Elev=312.32' Inflow=4.30 cfs 0.350 af

18.0" Round Culvert n=0.013 L=13.4' S=0.0052 '/' Outflow=4.30 cfs 0.350 af

Link A: Western Shadowbrook Drive Treatment Area Inflow=10.37 cfs 1.309 af

Primary=10.37 cfs 1.309 af

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Link B: pond at beginning of neighborhood Inflow=6.65 cfs 1.184 af

Primary=6.65 cfs 1.184 af

Link C: Wetlands Inflow=13.25 cfs 1.879 af

Primary=13.25 cfs 1.879 af

Total Runoff Area = 20.68 ac Runoff Volume = 4.697 af Average Runoff Depth = 2.73" 29.06% Impervious = 6.01 ac 70.94% Pervious = 14.67 ac

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### **Summary for Subcatchment 1S: Flow to Tammy Court**

Runoff = 3.70 cfs @ 12.09 hrs, Volume= 0.300 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

A	rea (sf)	CN /	Adj Desc	cription	
	3,365	98	98 Roof	s, HSG D	
	6,582	98	98 Roof	s, HSG A	
	34,775	80	98 >759	% Grass co	ver, Good, HSG D
	8,430	39	98 >759	% Grass co	ver, Good, HSG A
	4,407	77	98 Woo	ds, Good, I	HSG D
	57,559		Weig	hted Avera	age
	47,612		82.7	2% Perviou	us Area
	9,947		17.2	8% Impervi	ious Area
Tc	Length	Slope		Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
1.5	50	0.6600	0.57		Sheet Flow,
					Grass: Short n= 0.150 P2= 2.89"
0.6	213	0.6600	5.69		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
2.4	262	Total I	norogod t	o minimum	To = 6.0 min

<sup>2.1 263</sup> Total, Increased to minimum Tc = 6.0 min

## **Summary for Subcatchment 2S: Shadowbrook Dr CB1**

Runoff = 0.49 cfs @ 12.09 hrs, Volume= 0.039 af, Depth> 2.73"

A	rea (sf)	CN /	Adj Desc	cription	
	4,085	98	98 Pave	ed parking,	HSG A
	240	98	98 Roof	s, HSG D	
	1,432	80	98 >75%	% Grass co	ver, Good, HSG D
	1,789	39	98 >75%	<sup>6</sup> Grass co	ver, Good, HSG A
	7,546		Weig	hted Avera	age
	3,221		42.6	8% Perviou	us Area
	4,325		57.3	2% Impervi	ious Area
Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
0.7	50	0.0200	1.14		Sheet Flow,
					Smooth surfaces n= 0.011 P2= 2.89"
1.5	250	0.0200	2.87		Shallow Concentrated Flow,
					Paved Kv= 20.3 fps

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## **Summary for Subcatchment 3S: Shadowbrook Dr CB2**

Runoff = 1.47 cfs @ 12.12 hrs, Volume= 0.129 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

A	rea (sf)	CN /	Adj Desc	cription		
	257	98	98 Roof	s, HSG A		
	6,196	80	98 >75%	% Grass co	ver, Good, HSG D	
	5,530	39	98 >75%	% Grass co	ver, Good, HSG A	
	10,329	77	98 Woo	ds, Good, I	HSG D	
	405	30	98 Woo	ds, Good, I	HSG A	
	1,946	98	98 Pave	ed parking,	HSG A	
	24,663			ghted Avera		
	22,460			7% Pervioι		
	2,203		8.93	8.93% Impervious Area		
_						
Tc	Length	Slope	Velocity	Capacity	Description	
(min)	(feet)	(ft/ft)	(ft/sec)	Capacity (cfs)	·	
	•		•	•	Sheet Flow,	
(min) 6.3	(feet) 50	(ft/ft) 0.1200	(ft/sec) 0.13	•	Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.89"	
(min)	(feet) 50	(ft/ft)	(ft/sec)	•	Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.89" Shallow Concentrated Flow,	
(min) 6.3 1.9	(feet) 50 226	(ft/ft) 0.1200 0.1500	(ft/sec) 0.13 1.94	•	Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.89" Shallow Concentrated Flow, Woodland Kv= 5.0 fps	
(min) 6.3	(feet) 50	(ft/ft) 0.1200	(ft/sec) 0.13	•	Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.89" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow,	
(min) 6.3 1.9 0.3	(feet) 50 226 48	(ft/ft) 0.1200 0.1500 0.1300	(ft/sec) 0.13 1.94 2.52	•	Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.89" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps	
(min) 6.3 1.9	(feet) 50 226	(ft/ft) 0.1200 0.1500	(ft/sec) 0.13 1.94	•	Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.89" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow,	
(min) 6.3 1.9 0.3	(feet) 50 226 48	(ft/ft) 0.1200 0.1500 0.1300	(ft/sec) 0.13 1.94 2.52	•	Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.89" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps	

# **Summary for Subcatchment 4S: Flow to Shadowbrook Dr CBs**

Runoff = 0.73 cfs @ 12.09 hrs, Volume= 0.059 af, Depth> 2.73"

Area (sf)	CN	Adj	Description
2,537	80	98	>75% Grass cover, Good, HSG D
400	39	98	>75% Grass cover, Good, HSG A
0	74	98	>75% Grass cover, Good, HSG C
4,345	98	98	Paved parking, HSG A
4,030	77	98	Woods, Good, HSG D
11,312			Weighted Average
6,967			61.59% Pervious Area
4,345			38.41% Impervious Area

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Тс	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	·
6.0	·	·			Direct Entry,

# **Summary for Subcatchment 5S: Canterberry Court Flow**

Runoff = 2.34 cfs @ 12.09 hrs, Volume= 0.190 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

_	Α	rea (sf)	CN	Adj Desc	cription	
		1,564	98	98 Roof	fs, HSG A	
		30,607	39	98 >759	% Grass co	ver, Good, HSG A
_		4,241	98	98 Pave	ed parking,	HSG A
		36,412		Weig	ghted Avera	age
		30,607		84.0	6% Pervioυ	us Area
		5,805		15.9	4% Impervi	ious Area
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	2.6	50	0.1600	0.32		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	0.7	137	0.2000	3.13		Shallow Concentrated Flow,
_						Short Grass Pasture Kv= 7.0 fps
	3 3	187	Total	Incressed t	to minimum	$T_{\rm C} = 6.0  \text{min}$

3.3 187 Total, Increased to minimum Tc = 6.0 min

# Summary for Subcatchment 6S: Lower Shadowbrook Dr Flow

Runoff = 4.67 cfs @ 12.09 hrs, Volume= 0.379 af, Depth> 2.73"

Area (sf)	CN	Adj	Description
1,440	98	98	Roofs, HSG A
3,236	30	98	Woods, Good, HSG A
60,250	39	98	>75% Grass cover, Good, HSG A
7,789	98	98	Paved parking, HSG A
72,715			Weighted Average
63,486			87.31% Pervious Area
9,229			12.69% Impervious Area

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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
-	2.6	50	0.1600	0.32	, ,	Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	0.1	38	0.4500	4.70		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	0.3	49	0.3600	3.00		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
_	2.0	127	Total I	naraaaad t	a minimum	To = 6.0 min

3.0 137 Total, Increased to minimum Tc = 6.0 min

### **Summary for Subcatchment 7S: Rear Overland Flow to Wetland**

Runoff = 4.66 cfs @ 12.15 hrs, Volume= 0.443 af, Depth> 2.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

_	Α	rea (sf)	CN .	Adj De:	scription	
		2,935	98	98 Ro	ofs, HSG D	
		2,417	98	98 Ro	ofs, HSG A	
		118	98	98 Ro	ofs, HSG C	
		10,710	80	98 >75	5% Grass co	ver, Good, HSG D
		8,039	39			ver, Good, HSG A
		4,292	74			ver, Good, HSG C
		19,271	77		ods, Good,	
		26,053	70		ods, Good,	
_		11,193	55	98 Wo	ods, Good,	HSG B
		85,028			ighted Avera	
		79,558		93.	57% Perviοι	us Area
		5,470		6.4	3% Impervio	ous Area
	_					
	Tc	Length	Slope			Description
_	(min)	(feet)	(ft/ft)	(ft/sec	, , ,	
	9.8	50	0.0400	0.08	3	Sheet Flow,
						Woods: Light underbrush n= 0.400 P2= 2.89"
	1.7	133	0.0650	1.27	7	Shallow Concentrated Flow,
_						Woodland Kv= 5.0 fps
	11.5	183	Total			

# **Summary for Subcatchment 10S: Roadway Flow**

Runoff = 0.88 cfs @ 12.09 hrs, Volume= 0.071 af, Depth> 2.73"

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	A	rea (sf)	CN A	Adj De	escription	
		3,052	98	98 R	oofs, HSG A	
		12	80	98 >7	'5% Grass co	over, Good, HSG D
		3,807	39	98 >7	'5% Grass co	over, Good, HSG A
		506	98	98 Pa	aved parking,	HSG D
		6,315	98	98 R	oofs, HSG A	
		13,692		W	eighted Avera	age
		3,819		27	'.89% Pervio	us Area
		9,873		72	2.11% Imperv	rious Area
	Тс	Length	Slope		, ,	Description
(m	in)	(feet)	(ft/ft)	(ft/se	c) (cfs)	
(	8.0	50	0.0150	1.0	)1	Sheet Flow,
						Smooth surfaces n= 0.011 P2= 2.89"
•	1.7	257	0.0150	2.4	.9	Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	2.5	307	Total, I	Increase	d to minimun	n Tc = 6.0 min

# **Summary for Subcatchment 11S: Roadway Flow**

Runoff = 1.65 cfs @ 12.09 hrs, Volume= 0.134 af, Depth> 2.73"

	Aı	rea (sf)	CN	Adj Des	cription	
		6,240	98	98 Roo	fs, HSG D	
		11,906	80	98 >75	% Grass co	ver, Good, HSG D
		2,142	39	98 >75	% Grass co	ver, Good, HSG A
		1,643	98	98 Roo	fs, HSG D	
		3,791	98	98 Roo	fs, HSG A	
		25,722		Wei	ghted Avera	age
		14,048		54.6	1% Perviou	ıs Area
		11,674		45.3	9% Impervi	ious Area
	Tc	Length	Slope	•		Description
(m	nin)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	1.1	24	0.3300	0.37		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	2.3	26	0.0600	0.19		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	8.0	46	0.0200	0.99		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	1.2	183	0.0150	2.49		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	54	279	Total	Increased	to minimum	n Tc = 6.0 min

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## **Summary for Subcatchment 20S: Roadway Flow**

Runoff = 0.18 cfs @ 12.09 hrs, Volume= 0.014 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

_	Α	rea (sf)	CN	Adj Desc	cription	
		396	98	98 Roof	s, HSG D	
		993	80	98 >75%	% Grass co	ver, Good, HSG D
		660	39	98 >75%	% Grass co	ver, Good, HSG A
_		725	98	98 Pave	ed parking,	HSG A
		2,774		Weig	hted Avera	age
		1,653		59.5	9% Perviou	is Area
		1,121		40.4	1% Impervi	ous Area
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	4.1	50	0.0500	0.20		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	0.1	15	0.0200	2.87		Shallow Concentrated Flow,
_						Paved Kv= 20.3 fps
	42	65	Total	Increased t	n minimum	$T_{\rm C} = 6.0  \text{min}$

<sup>65</sup> Total, Increased to minimum Tc = 6.0 min

### **Summary for Subcatchment 21S: Roadway Flow**

Runoff = 0.64 cfs @ 12.09 hrs, Volume= 0.052 af, Depth> 2.73"

 Area (sf)	CN	Adj	Description
1,651	98	98	Roofs, HSG D
365	98	98	Roofs, HSG A
3,879	80	98	>75% Grass cover, Good, HSG D
2,296	39	98	>75% Grass cover, Good, HSG A
4	98	98	Paved parking, HSG D
 1,709	98	98	Paved parking, HSG A
 9,904			Weighted Average
6,175			62.35% Pervious Area
3,729			37.65% Impervious Area

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.9	50	0.1200	0.29		Sheet Flow,
					Grass: Short n= 0.150 P2= 2.89"
0.9	98	0.0700	1.85		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
0.3	55	0.0200	2.87		Shallow Concentrated Flow,
					Paved Kv= 20.3 fps
11	202	Total	noroood t	a minimum	To = 6.0 min

<sup>4.1 203</sup> Total, Increased to minimum Tc = 6.0 min

### **Summary for Subcatchment 22S: Overland Flow to Pond**

Runoff = 1.14 cfs @ 12.09 hrs, Volume= 0.092 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

A	rea (sf)	CN /	Adj Des	scription	
	1,512	98	98 Ro	ofs, HSG D	
	645	98	98 Ro	ofs, HSG A	
	8,034	80	98 >75	5% Grass co	over, Good, HSG D
	7,400	39	98 >75	5% Grass co	over, Good, HSG A
	119	98	98 Pav	ed parking,	HSG A
	17,710		We	ighted Avera	age
	15,434		87.	15% Perviou	us Area
	2,276		12.	85% Imperv	ious Area
Tc	Length	Slope	Velocity	/ Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec	(cfs)	
2.2	47	0.2127	0.36	6	Sheet Flow,
					Grass: Short n= 0.150 P2= 2.89"

<sup>2.2 47</sup> Total, Increased to minimum Tc = 6.0 min

# **Summary for Subcatchment 30S: Roadway Flow**

Runoff = 0.95 cfs @ 12.09 hrs, Volume= 0.077 af, Depth> 2.73"

Area (sf)	CN	Adj	Description
4,540	98	98	Paved parking, HSG D
6,935	80	98	>75% Grass cover, Good, HSG D
65	39	98	>75% Grass cover, Good, HSG A
1,636	98	98	Paved parking, HSG D
1,538	98	98	Paved parking, HSG A
14,714			Weighted Average
7,000			47.57% Pervious Area
7,714			52.43% Impervious Area

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_	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	2.6	50	0.1600	0.32		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	1.1	64	0.0200	0.99		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	0.9	162	0.0200	2.87		Shallow Concentrated Flow,
_						Paved Kv= 20.3 fps
-	4.0	070	<b>T</b> · · ·			<b>T</b> 00 :

<sup>4.6 276</sup> Total, Increased to minimum Tc = 6.0 min

### **Summary for Subcatchment 31S: Roadway Flow**

Runoff = 1.11 cfs @ 12.09 hrs, Volume= 0.090 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

A	rea (sf)	CN A	Adj Desc	cription			
	2,626	98	98 Pave	Paved parking, HSG D			
	1,214	98	98 Pave	Paved parking, HSG A			
	6,749	80		>75% Grass cover, Good, HSG D			
	3,860			>75% Grass cover, Good, HSG A			
	2,745	98	98 Pave	Paved parking, HSG A			
	17,194		Weig	ghted Avera	age		
	10,609		61.70	0% Pervioι	is Area		
	6,585		38.30	0% Impervi	ous Area		
Тс	Length	Slope	Velocity	Capacity	Description		
Tc (min)	Length (feet)	(ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description		
	• .		,		Sheet Flow,		
(min) 2.1	(feet)	(ft/ft) 0.2800	(ft/sec) 0.40		<u> </u>		
(min)	(feet)	(ft/ft)	(ft/sec)		Sheet Flow, Grass: Short n= 0.150 P2= 2.89" Shallow Concentrated Flow,		
(min) 2.1 0.3	(feet) 50	(ft/ft) 0.2800 0.2000	(ft/sec) 0.40 3.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.89" Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps		
(min) 2.1	(feet) 50	(ft/ft) 0.2800	(ft/sec) 0.40		Sheet Flow, Grass: Short n= 0.150 P2= 2.89" Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow,		
(min) 2.1 0.3	(feet) 50 60	(ft/ft) 0.2800 0.2000	(ft/sec) 0.40 3.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.89" Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps		

#### **Summary for Subcatchment 32S: Roadway Flow**

Runoff = 1.39 cfs @ 12.09 hrs, Volume= 0.113 af, Depth> 2.73"

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A	rea (sf)	CN /	Adj Desc	ription	
	5,015	98	98 Roof	s, HSG D	
	8,256	80	98 >75%	6 Grass co	ver, Good, HSG D
	991	39	98 >75%	6 Grass co	ver, Good, HSG A
	1,964	98	98 Pave	ed parking,	HSG D
	3,391	98	98 Pave	ed parking,	HSG A
	2,034	77	98 Woo	ds, Good, I	HSG D
	21,651		Weig	hted Avera	age
	11,281		52.1	0% Perviou	us Area
	10,370		47.9	0% Impervi	ious Area
Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
4.0	40	0.2500	0.17		Sheet Flow,
					Woods: Light underbrush n= 0.400 P2= 2.89"
0.7	10	0.2000	0.26		Sheet Flow,
					Grass: Short n= 0.150 P2= 2.89"
0.3	63	0.3300	4.02		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
0.6	110	0.0200	2.87		Shallow Concentrated Flow,
					Paved Kv= 20.3 fps
5.6	223	Total, I	ncreased t	o minimum	n Tc = 6.0 min

# **Summary for Subcatchment 33S: Roadway Flow**

Runoff = 0.67 cfs @ 12.09 hrs, Volume= 0.054 af, Depth> 2.73"

A	rea (sf)	CN A	Adj Desc	cription			
	948	98	98 Roof	s, HSG D			
	395	98	98 Roof	s, HSG A			
	1,701	80	98 >75%	<sup>6</sup> Grass co  √  √  √  √  √  √  √  √  √  √  √  √  √	ver, Good, HSG D		
	3,225	39	98 >75%	<sup>6</sup> Grass co  √  √  √  √  √  √  √  √  √  √  √  √  √	ver, Good, HSG A		
	4,087	98	98 Pave	Paved parking, HSG A			
	10,356		Weig	hted Avera	nge		
	4,926		47.5	7% Perviou	s Area		
	5,430		52.43	3% Impervi	ous Area		
_				_			
T_	l anath	OI	\/_ i	Canacity	Description		
Tc	Length	Slope	Velocity	Capacity	Description		
(min)	(feet)	Slope (ft/ft)	(ft/sec)	(cfs)	Description		
	•		,		Sheet Flow,		
(min)	(feet)	(ft/ft)	(ft/sec) 0.32				
(min)	(feet)	(ft/ft)	(ft/sec)		Sheet Flow, Grass: Short n= 0.150 P2= 2.89" Shallow Concentrated Flow,		
(min) 2.6 0.2	(feet) 50	(ft/ft) 0.1600	(ft/sec) 0.32 3.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.89" Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps		
(min) 2.6	(feet) 50	(ft/ft) 0.1600	(ft/sec) 0.32		Sheet Flow, Grass: Short n= 0.150 P2= 2.89" Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow,		
(min) 2.6 0.2	(feet) 50 37	(ft/ft) 0.1600 0.2000	(ft/sec) 0.32 3.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.89" Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps		

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## **Summary for Subcatchment 40S: Roadway Flow**

Runoff = 0.75 cfs @ 12.09 hrs, Volume= 0.061 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

A	rea (sf)	CN	Adj De	scription			
	752	98	98 Ro	ofs, HSG D			
	1,321	98	98 Ro	ofs, HSG A			
	391	98	98 Ro	ofs, HSG C			
	780	80	98 >7	>75% Grass cover, Good, HSG D			
	2,326	39	98 >7	>75% Grass cover, Good, HSG A			
	50	74	98 >7	>75% Grass cover, Good, HSG C			
	1,115	98		ved parking,			
	4,921	98		ved parking,			
	30	98	98 Pa	ved parking,	HSG C		
	11,686		We	eighted Avera	age		
	3,156		27	.01% Perviou	us Area		
	8,530		72	.99% Imperv	rious Area		
_							
Tc	Length	Slope			Description		
(min)	(feet)	(ft/ft)	(ft/sec	c) (cfs)			
8.0	50	0.0150	1.0	1	Sheet Flow,		
					Smooth surfaces n= 0.011 P2= 2.89"		
1.4	213	0.0150	2.4	9	Shallow Concentrated Flow,		
					Paved Kv= 20.3 fps		
22	263	Total	Increase	d to minimun	n Tc = 6 0 min		

263 Total, Increased to minimum Tc = 6.0 min

# **Summary for Subcatchment 41S: Roadway Flow**

Runoff = 1.02 cfs @ 12.09 hrs, Volume= 0.084 af, Depth> 2.73"

Area (sf)	CN	Adj	Description	
2,949	98	98	Roofs, HSG D	
157	98	98	Roofs, HSG A	
8,262	80	98	>75% Grass cover, Good, HSG D	
765	39	98	>75% Grass cover, Good, HSG A	
1,393	98	98	Paved parking, HSG D	
2,544	98	98	Paved parking, HSG A	
16,070			Weighted Average	
9,027			56.17% Pervious Area	
7,043	3		43.83% Impervious Area	

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	40	0.0250	0.15		Sheet Flow,
					Grass: Short n= 0.150 P2= 2.89"
0.5	10	0.3300	0.31		Sheet Flow,
					Grass: Short n= 0.150 P2= 2.89"
0.6	80	0.1000	2.21		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
0.9	138	0.0150	2.49		Shallow Concentrated Flow,
					Paved Kv= 20.3 fps
6.5	268	Total			

### **Summary for Subcatchment 42S: Flow to CB#200**

Runoff = 1.92 cfs @ 12.09 hrs, Volume= 0.156 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

A	rea (sf)	CN .	Adj Des	cription	
	1,682	39	98 >75	% Grass co	ver, Good, HSG A
	10,383	80	98 >75	% Grass co	ver, Good, HSG D
	3,530	74	98 >75	% Grass co	ver, Good, HSG C
	6,936	98	98 Pav	ed parking,	HSG A
	2,228	77	98 Woo	ods, Good, I	HSG D
	170	98	98 Roc	fs, HSG A	
	90	98	98 Roc	fs, HSG C	
	2,670	98	98 Roc	fs, HSG D	
	1,237	98	98 Roc	fs, HSG A	
	994	98	98 Roc	fs, HSG C	
	29,920		Wei	ghted Avera	age
	17,823		59.5	7% Pervioυ	us Area
	12,097		40.4	3% Imperv	ious Area
Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
0.7	50	0.0200	1.14		Sheet Flow,
					Smooth surfaces n= 0.011 P2= 2.89"
1.2	335	0.0500	4.54		Shallow Concentrated Flow,
					Paved Kv= 20.3 fps
1.9	385	Total.	Increased	to minimum	Tc = 6.0 min

.9 385 Total, Increased to minimum Tc = 6.0 min

# **Summary for Subcatchment 50S: Roadway Flow**

Runoff = 0.83 cfs @ 12.09 hrs, Volume= 0.067 af, Depth> 2.73"

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_	Α	rea (sf)	CN	Adj Des	Description					
		5,295	39	98 >75	75% Grass cover, Good, HSG A					
_		7,603	98	98 Pav	Paved parking, HSG A					
		12,898		Wei	ghted Avera	age				
		5,295		41.0	5% Perviou	us Area				
		7,603		58.9	5% Impervi	ious Area				
	Tc	Length	Slope	Velocity	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	0.5	50	0.0550	1.71		Sheet Flow,				
						Smooth surfaces n= 0.011 P2= 2.89"				
	0.9	250	0.0500	4.54		Shallow Concentrated Flow,				
_						Paved Kv= 20.3 fps				
	1 4	300	Total	Increased	to minimum	Tc = 6.0 min				

Total, Increased to minimum Tc = 6.0 min

### **Summary for Subcatchment 51S: Roadway Flow**

Runoff = 0.83 cfs @ 12.09 hrs, Volume=

0.067 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

_	Α	rea (sf)	CN	Adj Desc	Description					
		3,027	98	98 Roof	Roofs, HSG A					
		4,496	39	98 >759	>75% Grass cover, Good, HSG A					
_		5,392	98	98 Pave	Paved parking, HSG A					
		12,915		Weig	Weighted Average					
		4,496		34.8	1% Pervioι	us Area				
		8,419		65.1	9% Impervi	ious Area				
	Тс	Length	Slope		Capacity	Description				
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	3.4	50	0.0800	0.25		Sheet Flow,				
						Grass: Short n= 0.150 P2= 2.89"				
	0.6	76	0.0900	2.10		Shallow Concentrated Flow,				
						Short Grass Pasture Kv= 7.0 fps				
	0.1	37	0.0500	4.54		Shallow Concentrated Flow,				
						Paved Kv= 20.3 fps				

4.1 163 Total, Increased to minimum Tc = 6.0 min

# Summary for Subcatchment 60S: Roadway and Building Flow

Runoff = 1.48 cfs @ 12.09 hrs, Volume= 0.120 af, Depth> 2.73"

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A	rea (sf)	CN /	Adj Desc	ription					
	3,213	98	98 Roof	s, HSG A					
	13,675	39	98 >75%	6 Grass co	ver, Good, HSG A				
	6,124	98	98 Pave	ed parking,	HSG A				
	23,012		Weighted Average						
	13,675		_	3% Perviou					
	9,337		40.5	7% Impervi	ous Area				
	·								
Tc	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
2.6	50	0.1600	0.32		Sheet Flow,				
					Grass: Short n= 0.150 P2= 2.89"				
2.6	155	0.0200	0.99		Shallow Concentrated Flow,				
					Short Grass Pasture Kv= 7.0 fps				
0.1	15	0.0200	2.87		Shallow Concentrated Flow,				
					Paved Kv= 20.3 fps				
5.3	220	Total, I	ncreased t	o minimum	Tc = 6.0 min				

## **Summary for Subcatchment 61S: Roadway Flow**

Runoff = 0.49 cfs @ 12.09 hrs, Volume= 0.039 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

_	Α	rea (sf)	CN	Adj Desc	Description						
		1,253	39	98 >759	>75% Grass cover, Good, HSG A						
_		6,311	98	98 Pave	Paved parking, HSG A						
_		7,564		Weig	Weighted Average						
		1,253		16.5	16.57% Pervious Area						
		6,311		83.4	3% Impervi	ious Area					
	Tc	Length	Slope	,	Capacity	Description					
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	0.7	50	0.0200	1.14		Sheet Flow,					
						Smooth surfaces n= 0.011 P2= 2.89"					
	0.6	102	0.0200	2.87		Shallow Concentrated Flow,					
_						Paved Kv= 20.3 fps					
	4.0	450	T ( )			T 00 :					

1.3 152 Total, Increased to minimum Tc = 6.0 min

# **Summary for Subcatchment 62S: Bioretention Pond Area**

Runoff = 0.41 cfs @ 12.09 hrs, Volume= 0.034 af, Depth> 2.73"

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A	rea (sf)	CN .	Adj Desc	Description					
	6,453	39	98 >759	>75% Grass cover, Good, HSG A					
	6,453		Weighted Average						
	6,453		100.	100.00% Pervious Area					
Тс	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
6.0					Direct Entry,				

# **Summary for Subcatchment 70S: Overland Flow to Detention Pond**

Runoff = 6.50 cfs @ 12.19 hrs, Volume= 0.671 af, Depth> 2.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

_	Α	rea (sf)	CN /	Adj Desc	cription	
		607	98	98 Root	fs, HSG D	
		1,192	98	98 Root	fs, HSG A	
		24,819	80	98 >759	% Grass co	ver, Good, HSG D
		13,185	39			ver, Good, HSG A
_		89,055	77	98 Woo	ds, Good, I	HSG D
		28,858			ghted Avera	
	1	27,059			0% Pervioι	
		1,799		1.40	% Impervio	us Area
	To	Longth	Slope	Velocity	Capacity	Description
	Tc (min)	Length (feet)	(ft/ft)	(ft/sec)	(cfs)	Description
-	7.5	. ,			(013)	Chaot Flour
	7.5	50	0.0800	0.11		Sheet Flow,
	3.6	391	0.1300	1.80		Woods: Light underbrush n= 0.400 P2= 2.89" <b>Shallow Concentrated Flow,</b>
	3.0	391	0.1300	1.00		Woodland Kv= 5.0 fps
	3.5	304	0.0430	1.45		Shallow Concentrated Flow,
	3.5	304	0.0430	1.40		Short Grass Pasture Kv= 7.0 fps
-	116	715	Total			Chart Class Lactars 1tt 1.0 ips
	14.6	745	Total			

## **Summary for Subcatchment 71S: Roadway Flow**

Runoff = 1.70 cfs @ 12.09 hrs, Volume= 0.138 af, Depth> 2.73"

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	Α	rea (sf)	CN /	Adj Desc	cription	
		2,572	98	98 Root	s, HSG D	
		3,565	98	98 Root	s, HSG A	
		3,581	80	98 >759	% Grass co	ver, Good, HSG D
		5,385	39	98 >759	% Grass co	ver, Good, HSG A
		1,533	98	98 Pave	ed parking,	HSG D
		9,859	98	98 Pave	ed parking,	HSG A
		26,495		Weig	ghted Avera	age
		8,966		33.8	4% Perviou	is Area
		17,529		66.1	6% Impervi	ous Area
	Тс	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	3.4	50	0.0800	0.25		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	1.5	250	0.0200	2.87		Shallow Concentrated Flow,
_						Paved Kv= 20.3 fps
	4.9	300	Total. I	ncreased t	o minimum	$T_{c} = 6.0 \text{ min}$

## **Summary for Subcatchment 72S: House Flow to Pond**

Runoff = 3.15 cfs @ 12.09 hrs, Volume= 0.256 af, Depth> 2.73"

A	rea (sf)	CN /	Adj Desc	cription	
	2,848	98	98 Root	fs, HSG D	
	9,725	98	98 Roof	fs, HSG A	
	23,884	39	98 >759	% Grass co	ver, Good, HSG A
	4,734	80	98 >759	% Grass co	ver, Good, HSG D
	1,216	74	98 >759	% Grass co	ver, Good, HSG C
	1,330	98	98 Pave	ed parking,	HSG D
	5,294	98	98 Pave	ed parking,	HSG A
,	49,031		Weig	hted Avera	age
	29,834		60.8	5% Pervioι	us Area
	19,197		39.1	5% Impervi	ious Area
				-	
Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
0.7	50	0.0200	1.14		Sheet Flow,
					Smooth surfaces n= 0.011 P2= 2.89"
0.3	77	0.3100	3.90		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
1.0	127	Total, I	ncreased	to minimum	n Tc = 6.0 min

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## **Summary for Subcatchment 73S: Roadway Flow**

Runoff = 0.38 cfs @ 12.09 hrs, Volume= 0.031 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

A	rea (sf)	CN A	Adj Desc	Description					
	1,375	39	98 >75%	>75% Grass cover, Good, HSG A					
	4,557	98	98 Pave	Paved parking, HSG A					
	5,932		Weighted Average						
	1,375		23.18	8% Perviou	is Area				
	4,557		76.8	2% Impervi	ous Area				
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description				
0.7	50	0.0200	1.14		Sheet Flow,				
0.9	150	0.0200	2.87		Smooth surfaces n= 0.011 P2= 2.89"  Shallow Concentrated Flow, Paved Kv= 20.3 fps				
1.6	200	Total, I	ncreased t	o minimum	Tc = 6.0 min				

#### Summary for Subcatchment 74S: Area in Circle to Infiltration Pond

Runoff = 1.13 cfs @ 12.09 hrs, Volume= 0.092 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

	Α	rea (sf)	CN	Adj [	Description					
		4,851	98	98 F	Roofs, HSC	A				
		8,558	39	98 >	>75% Gras	s co	ver, Good, HSG A			
		1,547	98	98 F	Roofs, HSG D					
		248	98	98 F	Roofs, HSG C					
		1,588	80	98 >	>75% Gras	s co	ver, Good, HSG D			
		864	74	98 >	>75% Gras	s co	ver, Good, HSG C			
		17,656		1	Neighted A	vera	age			
		11,010		(	32.36% Pei	viou	us Area			
		6,646		3	37.64% Imp	erv	ious Area			
	Tc	Length	Slope	Velo	city Capa	city	Description			
	(min)	(feet)	(ft/ft)	(ft/s	ec) (d	cfs)				
Ī	2.6	40	0.1000	0	.26		Sheet Flow,			
							Grass: Short n= 0.150 P2= 2.89"			
_	2.6	40	Total	Incress	sed to minir	num	Tc = 6.0 min			

2.6 40 Total, Increased to minimum Tc = 6.0 min

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### **Summary for Subcatchment 75S: Roadway Flow**

Runoff = 0.88 cfs @ 12.09 hrs, Volume= 0.071 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

_	Α	rea (sf)	CN .	Adj Des	cription	
		295	98	98 Roo	fs, HSG D	
		1,380	98	98 Roo	fs, HSG A	
		2,209	80	98 >75	% Grass co	ver, Good, HSG D
		2,224	39	98 >75	% Grass co	ver, Good, HSG A
		4,186	98	98 Pav	ed parking,	HSG D
_		3,345	98	98 Pav	ed parking,	HSG A
		13,639		Wei	ghted Avera	age
		4,433		32.5	0% Perviou	us Area
		9,206		67.5	0% Impervi	ious Area
	Tc	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	0.7	50	0.0200	1.14		Sheet Flow,
						Smooth surfaces n= 0.011 P2= 2.89"
	8.0	146	0.0200	2.87		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	15	196	Total	Incressed	to minimum	$T_{\rm C} = 6.0  \text{min}$

1.5 196 Total, Increased to minimum Tc = 6.0 min

### **Summary for Subcatchment 76S: Roadway Flow**

Runoff = 5.47 cfs @ 12.12 hrs, Volume= 0.485 af, Depth> 2.73"

Area (sf)	CN	Adj	Description				
14,560	98	98	Roofs, HSG D				
1,133	98	98	Roofs, HSG A				
24,384	80	98	>75% Grass cover, Good, HSG D				
10,102	39	98	>75% Grass cover, Good, HSG A				
31,709	77	98	Woods, Good, HSG D				
7,686	98	98	Paved parking, HSG D				
3,446	98	98	Paved parking, HSG A				
93,020			Weighted Average				
66,195			71.16% Pervious Area				
26,825			28.84% Impervious Area				

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_	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	6.3	50	0.1200	0.13		Sheet Flow,
						Woods: Light underbrush n= 0.400 P2= 2.89"
	0.9	130	0.2150	2.32		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	1.0	120	0.0830	2.02		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	8.0	168	0.0300	3.52		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
_	9.0	468	Total			

## **Summary for Subcatchment 100S: Unit 1**

Runoff = 0.06 cfs @ 12.09 hrs, Volume=

0.005 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

_	Α	rea (sf)	CN I	Description		
		920	98	Roofs, HSC	Α	
		920		100.00% In	npervious A	Area
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	6.0					Direct Entry.

# Summary for Subcatchment 101S: Units 2 & 3

Runoff = 0.12 cfs @ 12.09 hrs, Volume=

0.010 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

	rea (sf)	CN [	Description						
	1,840	98 F	8 Roofs, HSG A						
	1,840	•	100.00% Impervious Area						
Тс	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
6.0					Direct Entry,				

## Summary for Subcatchment 102S: Units 4 & 5

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Depth> 2.73"

Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

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	rea (sf)	CN [	Description					
	1,840	98 F	Roofs, HSG A					
	1,840	1	100.00% Impervious Area					
_				_				
Tc	Length	Slope	Velocity	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
6.0					Direct Entry,			

### Summary for Subcatchment 103S: Units 6 & 7

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

A	rea (sf)	CN [	Description						
	1,840	98 F	98 Roofs, HSG A						
	1,840	•	100.00% Impervious Area						
Тс	Length	Slope	,	. ,	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
6.0					Direct Entry,				

## Summary for Subcatchment 104S: Units 8 & 9

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

 Α	rea (sf)	CN [	Description						
	1,840	98 F	Roofs, HSG A						
	1,840	1	100.00% Impervious Area						
Tc	Length	Slope	Velocity	Capacity	Description				
 (min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
 6.0					Direct Entry.				

## Summary for Subcatchment 105S: Units 11 & 10

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Depth> 2.73"

Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

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A	rea (sf)	CN	Description						
	1,840	98	98 Roofs, HSG A						
	1,840		100.00% Impervious Area						
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description				
6.0		_			Direct Entry,				

### Summary for Subcatchment 106S: Units 13 & 12

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

Α	rea (sf)	CN [	Description					
	1,840	98 F	98 Roofs, HSG A					
	1,840	1	100.00% Impervious Area					
То	Longth	Clana	Volosity	Consoity	Description			
Tc (min)	Length (feet)	Slope (ft/ft)	(ft/sec)	Capacity (cfs)	Description			
6.0	(.301)	(1411)	(12000)	(0.0)	Direct Entry,			

## Summary for Subcatchment 107S: Units 15 & 14

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

A	rea (sf)	CN [	Description					
	1,840	98 F	Roofs, HSG	A A				
	1,840	1	100.00% Impervious Area					
_		01			<b>—</b>			
Tc	Length	Slope	Velocity	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
6.0					Direct Entry.			

# Summary for Subcatchment 108S: Units 17 & 16

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Depth> 2.73"

Type III 24-hr 2-y	yr-frozen Rainfall=2.9	6", AMC=4
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	Α	rea (sf)	CN	Description					
		1,840	98	Roofs, HSG A					
		1,840		100.00% Impervious Area					
	Тс	Length	Slope	Velocity	Capacity	Description			
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	•			
Ī	6.0					Direct Entry,			

### **Summary for Subcatchment 109S: Unit 18**

Runoff = 0.06 cfs @ 12.09 hrs, Volume= 0.005 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

A	rea (sf)	CN E	<b>Description</b>				
	920	98 F	Roofs, HSG	A A			
,	920	100.00% Impervious Area					
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description		
6.0		•			Direct Entry,		

## **Summary for Reach 1R: Tammy Court**

Inflow Area = 1.32 ac, 17.28% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event Inflow = 0.300 af

Outflow = 3.70 cfs @ 12.09 hrs, Volume= 0.300 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

# Summary for Reach 2R: Ex CB1

Inflow Area = 3.88 ac, 46.55% Impervious, Inflow Depth > 2.68" for 2-yr-frozen event

Inflow = 3.63 cfs @ 12.32 hrs, Volume= 0.865 af

Outflow = 3.63 cfs @ 12.32 hrs, Volume= 0.865 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

# Summary for Reach 3R: Ex CB 2

Inflow Area = 0.57 ac, 8.93% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 1.47 cfs @ 12.12 hrs, Volume= 0.129 af

Outflow = 1.47 cfs @ 12.12 hrs, Volume= 0.129 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

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## **Summary for Reach 4R: Upper Shadowbrook Drive Drainage**

Inflow Area = 2.77 ac, 53.61% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 3.30 cfs @ 12.27 hrs, Volume= 0.629 af

Outflow = 3.30 cfs @ 12.27 hrs, Volume= 0.629 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### **Summary for Reach 5R: Canterberry Ct Drainage**

Inflow Area = 0.84 ac, 15.94% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 2.34 cfs @ 12.09 hrs, Volume= 0.190 af

Outflow = 2.34 cfs @ 12.09 hrs, Volume= 0.190 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

#### Summary for Reach 6R: Lower Shadowbrook Dr CB

Inflow Area = 1.67 ac, 12.69% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 4.67 cfs @ 12.09 hrs, Volume= 0.379 af

Outflow = 4.67 cfs @ 12.09 hrs, Volume= 0.379 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

## Summary for Pond 1P: Bioretention Pond #1

Inflow Area = 2.51 ac, 55.18% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 7.03 cfs @ 12.09 hrs, Volume= 0.570 af

Outflow = 2.98 cfs @ 12.29 hrs, Volume= 0.570 af, Atten= 58%, Lag= 12.1 min

Primary = 2.98 cfs @ 12.29 hrs, Volume= 0.570 af Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 292.82' @ 12.29 hrs Surf.Area= 3,821 sf Storage= 8,168 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 83.3 min ( 840.9 - 757.6 )

Volume	Invert	Avail.Storage	Storage Description
#1	288.00'	13,264 cf	Custom Stage Data (Prismatic)Listed below (Recalc)

Elevation	Surf.Area	Inc.Store	Cum.Store
(feet)	(sq-ft)	(cubic-feet)	(cubic-feet)
288.00	434	0	0
290.00	1,140	1,574	1,574
291.00	1,598	1,369	2,943
292.00	3,160	2,379	5,322
294.00	4,782	7,942	13,264

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Device	Routing	Invert	Outlet Devices
#1	Secondary	293.80'	4.0' 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
			Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Device 5	288.00'	10.000 in/hr Exfiltration over Surface area
#3	Device 5	292.10'	15.0" Vert. Orifice/Grate C= 0.600
#4	Device 5	293.50'	<b>48.0" x 48.0" Horiz. Orifice/Grate</b> C= 0.600
			Limited to weir flow at low heads
#5	Primary	285.00'	12.0" Round Culvert
	•		L= 55.3' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 285.00' / 283.04' S= 0.0354 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.97 cfs @ 12.29 hrs HW=292.81' TW=0.00' (Dynamic Tailwater)

**-5=Culvert** (Passes 2.97 cfs of 10.23 cfs potential flow)

**-2=Exfiltration** (Exfiltration Controls 0.88 cfs)

-3=Orifice/Grate (Orifice Controls 2.08 cfs @ 2.88 fps)

-4=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=288.00' TW=0.00' (Dynamic Tailwater) 1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

#### Summary for Pond 2P: Pocket Pond #1

Inflow Area = 3.42 ac, 46.71% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event Inflow 9.55 cfs @ 12.09 hrs, Volume= 0.776 af

Outflow 3.17 cfs @ 12.37 hrs, Volume= 0.760 af, Atten= 67%, Lag= 17.2 min

3.17 cfs @ 12.37 hrs, Volume= 0.760 af Primary =

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Starting Elev= 309.79' Surf.Area= 3,009 sf Storage= 5,826 cf

Peak Elev= 312.30' @ 12.37 hrs Surf.Area= 7,170 sf Storage= 18,307 cf (12,482 cf above start)

Plug-Flow detention time= 240.3 min calculated for 0.626 af (81% of inflow)

Avail Storage Storage Description

Center-of-Mass det. time= 104.9 min (862.6 - 757.7)

Invert

Volume

VOIGITIO	IIIVOIT	/ \ \ u	ii.Otorago	Otorage Decempt	OH	
#1	306.00'		27,930 cf	Custom Stage D	ata (Irregular)List	ted below (Recalc
Elevatio		f.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
306.0	00	306	196.0	0	0	306
308.0	00	1,616	240.0	1,750	1,750	1,894
310.0	00	3,201	285.0	4,728	6,478	3,846
312.0	00	6,785	438.0	9,764	16,242	12,678
313.5	50	8,844	470.0	11,688	27,930	15,088

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#3

Device 4

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Device	Routing	Invert	Outlet Devices
#1	Device 4	309.80'	4.5" Vert. Orifice/Grate C= 0.600
#2	Device 4	311.50'	14.0" Vert. Orifice/Grate C= 0.600
#3	Device 4	313.10'	<b>48.0" x 48.0" Horiz. Orifice/Grate</b> C= 0.600
			Limited to weir flow at low heads
#4	Primary	309.75'	15.0" Round Culvert
			L= 93.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 309.75' / 307.89' S= 0.0200 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=3.16 cfs @ 12.37 hrs HW=312.29' TW=308.78' (Dynamic Tailwater)

**4=Culvert** (Passes 3.16 cfs of 8.19 cfs potential flow)

1=Orifice/Grate (Orifice Controls 0.81 cfs @ 7.31 fps)

-2=Orifice/Grate (Orifice Controls 2.35 cfs @ 3.03 fps)

-3=Orifice/Grate (Controls 0.00 cfs)

### **Summary for Pond 3P: Pocket Pond #2**

Inflow Are	ea =	6.15 ac, 22	2.36% Impervious	Inflow Depth >	2.72"	for 2-yr-f	rozen event
Inflow	=	13.87 cfs @	12.14 hrs, Volur	ne= 1.39°	7 af	•	
Outflow	=	9.46 cfs @	12.30 hrs, Volur	ne= 1.380	0 af, A	tten= 32%,	Lag= 9.8 min
Duine	_	0.46.56	40.00   \/-	4 20	ر م		•

 Primary
 =
 9.46 cfs @ 12.30 hrs, Volume=
 1.380 af

 Secondary =
 0.00 cfs @ 0.00 hrs, Volume=
 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Starting Elev= 271.98' Surf.Area= 2,847 sf Storage= 5,675 cf Peak Elev= 274.83' @ 12.30 hrs Surf.Area= 5,643 sf Storage= 17,656 cf (11,981 cf above start)

Plug-Flow detention time= 112.8 min calculated for 1.248 af (89% of inflow) Center-of-Mass det. time= 28.8 min (790.7 - 761.9)

Volume	Invert	Avail.Sto	rage Storag	e Description	
#1	268.00'	25,0	13 cf Custo	m Stage Data (P	rismatic)Listed below (Recalc)
Elevation	Su	ırf.Area	Inc.Store	Cum.Store	
(feet)		(sq-ft)	(cubic-feet)	(cubic-feet)	
268.00		408	0	0	
269.00	)	790	599	599	
270.00	)	1,250	1,020	1,619	
272.00	1	2,863	4,113	5,732	
274.00	1	4,762	7,625	13,357	
276.00		6,894	11,656	25,013	
Device I	Routing	Invert	Outlet Devic	es	
#1 [	Device 4	272.00'	9.0" Vert. O	rifice/Grate C=	0.600
#2	Secondary	275.35'			oad-Crested Rectangular Weir 0.80 1.00 1.20 1.40 1.60 1.80 2.00

2.50 3.00 3.50 4.00 4.50 5.00 5.50

273.80' **24.0" W x 10.0" H Vert. Orifice/Grate** C= 0.600

2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66

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#1

Discarded

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#4 Primary 272.00' 18.0" Round Culvert

L= 105.7' CPP, square edge headwall, Ke= 0.500

Inlet / Outlet Invert= 272.00 / 271.57 S= 0.0041 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

#5 Primary 275.70' **48.0" x 48.0" Horiz. Orifice/Grate** C= 0.600

Limited to weir flow at low heads

**Primary OutFlow** Max=9.46 cfs @ 12.30 hrs HW=274.83' TW=0.00' (Dynamic Tailwater)

**-4=Culvert** (Passes 9.46 cfs of 10.14 cfs potential flow)

1=Orifice/Grate (Orifice Controls 3.33 cfs @ 7.54 fps)

**3=Orifice/Grate** (Orifice Controls 6.13 cfs @ 3.68 fps)

-5=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=271.98' TW=0.00' (Dynamic Tailwater) 2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

#### Summary for Pond 30P: Infiltration Pond #1

Inflow Area = 0.41 ac, 37.64% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 1.13 cfs @ 12.09 hrs, Volume= 0.092 af

Outflow = 0.06 cfs @ 14.00 hrs, Volume= 0.071 af, Atten= 95%, Lag= 114.8 min

Discarded = 0.06 cfs @ 14.00 hrs, Volume= 0.071 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 281.06' @ 14.00 hrs Surf.Area= 2,661 sf Storage= 2,049 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 184.2 min (941.8 - 757.6)

Volume	Inver	t Avail.St	orage S	Storage	Description	
#1	280.00	)' 5,1	166 cf (	Custom	Stage Data (Pr	rismatic)Listed below (Recalc)
Elevation (feet)	_	Surf.Area (sq-ft)	Inc.S (cubic-	Store feet)	Cum.Store (cubic-feet)	
280.00		1,214		0	0	
282.00		3,952	5	5,166	5,166	
Device F	Routing	Invert	Outlet	t Devices	5	

280.00' 1.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.06 cfs @ 14.00 hrs HW=281.06' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.06 cfs)

## **Summary for Pond 31P: Infiltration Pond #2**

Inflow Area =	1.13 ac, 39.15% Impervious, Inflow D	Depth > 2.73" for 2-yr-frozen event
Inflow =	3.15 cfs @ 12.09 hrs, Volume=	0.256 af
Outflow =	0.25 cfs @ 13.11 hrs, Volume=	0.190 af, Atten= 92%, Lag= 61.2 min
Discarded =	0.10 cfs @ 13.11 hrs. Volume=	0.135 af

Discarded = 0.10 cfs @ 13.11 hrs, Volume= 0.135 af Primary = 0.14 cfs @ 13.11 hrs, Volume= 0.055 af

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Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 275.49' @ 13.11 hrs Surf.Area= 4,433 sf Storage= 5,574 cf

Plug-Flow detention time= 227.9 min calculated for 0.190 af (74% of inflow)

Center-of-Mass det. time= 142.3 min ( 900.0 - 757.6 )

Volume	Invert	Avail.Stor	rage Storage	Description	
#1	274.00'	7,93	88 cf Custom	Stage Data (Pr	ismatic)Listed below (Recalc)
Elevation (fee 274.0 276.0	et) 00	rf.Area (sq-ft) 3,030 4,908	Inc.Store (cubic-feet) 0 7,938	Cum.Store (cubic-feet) 0 7,938	
Device	Routing	Invert	Outlet Devices	5	
#1	Device 3	275.00'	3.0" Vert. Ori	fice/Grate C=	0.600
#2	Discarded	274.00'	1.000 in/hr Ex	filtration over	Surface area
#3	Primary	274.16'	15.0" Round		
#4	Primary	276.40'	Inlet / Outlet Ir n= 0.013 Corr 24.0" x 24.0"	nvert= 274.16' / 2	

**Discarded OutFlow** Max=0.10 cfs @ 13.11 hrs HW=275.49' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.10 cfs)

Primary OutFlow Max=0.14 cfs @ 13.11 hrs HW=275.49' TW=0.00' (Dynamic Tailwater)

-3=Culvert (Passes 0.14 cfs of 4.12 cfs potential flow)

1=Orifice/Grate (Orifice Controls 0.14 cfs @ 2.92 fps)

-4=Orifice/Grate (Controls 0.00 cfs)

# **Summary for Pond 100: AD#100**

Inflow Area = 0.02 ac,100.00% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow 0.06 cfs @ 12.09 hrs. Volume= 0.005 af

Outflow 0.06 cfs @ 12.09 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.0 min =

Primary 0.06 cfs @ 12.09 hrs, Volume= 0.005 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 295.94' @ 12.09 hrs

Flood Elev= 297.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	295.81'	8.0" Round Culvert
			L= 58.1' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 295.81' / 294.35' S= 0.0251 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.06 cfs @ 12.09 hrs HW=295.94' TW=294.48' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.06 cfs @ 1.22 fps)

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### **Summary for Pond 101: AD#101**

Inflow Area = 0.06 ac,100.00% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 0.18 cfs @ 12.09 hrs, Volume= 0.014 af

Outflow = 0.18 cfs @ 12.09 hrs, Volume= 0.014 af, Atten= 0%, Lag= 0.0 min

Primary = 0.18 cfs @ 12.09 hrs, Volume= 0.014 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 294.48' @ 12.09 hrs

Flood Elev= 297.00'

Device Routing Invert Outlet Devices

#1 Primary

294.25'

8.0" Round Culvert

L= 37.0' CPP, square edge headwall, Ke= 0.500
Inlet / Outlet Invert= 294.25' / 292.40' S= 0.0500 '/' Cc= 0.900

n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.17 cfs @ 12.09 hrs HW=294.48' TW=293.24' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.17 cfs @ 1.63 fps)

### Summary for Pond 102: AD#102

Inflow Area = 0.08 ac,100.00% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 0.24 cfs @ 12.09 hrs, Volume= 0.019 af

Outflow = 0.24 cfs @ 12.09 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min

Primary = 0.24 cfs @ 12.09 hrs, Volume= 0.019 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 293.44' @ 12.19 hrs

Flood Elev= 297.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	292.95'	8.0" Round Culvert
			L= 27.4' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 292.95' / 292.40' S= 0.0201 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.08 cfs @ 12.09 hrs HW=293.27' TW=293.24' (Dynamic Tailwater) 1=Culvert (Outlet Controls 0.08 cfs @ 0.74 fps)

## Summary for Pond 103: AD#103

Inflow Area = 0.04 ac,100.00% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event Inflow = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af

Outflow = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min

Primary = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 294.42' @ 12.09 hrs

Flood Elev= 297.40'

## Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

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Device	Routing	Invert	Outlet Devices
#1	Primary	294.23'	8.0" Round Culvert
			L= 59.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 294.23' / 293.05' S= 0.0200 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.12 cfs @ 12.09 hrs HW=294.41' TW=293.27' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.12 cfs @ 1.46 fps)

#### Summary for Pond 104: AD#104

Inflow Area = 0.23 ac,100.00% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event Inflow = 0.65 cfs @ 12.09 hrs, Volume= 0.053 af

Outflow = 0.65 cfs @ 12.09 hrs, Volume= 0.053 af, Atten= 0%, Lag= 0.0 min

Primary = 0.65 cfs @ 12.09 hrs, Volume= 0.053 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 295.76' @ 12.09 hrs

Flood Elev= 299.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	295.27'	8.0" Round Culvert
			L= 16.6' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 295.27' / 294.66' S= 0.0367 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.63 cfs @ 12.09 hrs HW=295.75' TW=295.24' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.63 cfs @ 2.36 fps)

## **Summary for Pond 105: AD#105**

Inflow Area = 0.19 ac,100.00% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 0.53 cfs @ 12.09 hrs, Volume= 0.043 af

Outflow = 0.53 cfs @ 12.09 hrs, Volume= 0.043 af, Atten= 0%, Lag= 0.0 min

Primary = 0.53 cfs @ 12.09 hrs, Volume= 0.043 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 297.96' @ 12.09 hrs

Flood Elev= 301.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	297.53'	8.0" Round Culvert  L= 53.8' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 297.53' / 295.38' S= 0.0400 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.52 cfs @ 12.09 hrs HW=297.95' TW=295.75' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.52 cfs @ 2.22 fps)

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### **Summary for Pond 106: AD#106**

Inflow Area = 0.15 ac,100.00% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 0.41 cfs @ 12.09 hrs, Volume= 0.034 af

Outflow = 0.41 cfs @ 12.09 hrs, Volume= 0.034 af, Atten= 0%, Lag= 0.0 min

Primary = 0.41 cfs @ 12.09 hrs, Volume= 0.034 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 300.24' @ 12.09 hrs

Flood Elev= 303.80'

Device Routing Invert Outlet Devices

#1 Primary

299.87' 8.0" Round Culvert

L= 55.9' CPP, square edge headwall, Ke= 0.500
Inlet / Outlet Invert= 299.87' / 297.63' S= 0.0401 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.40 cfs @ 12.09 hrs HW=300.24' TW=297.95' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.40 cfs @ 2.06 fps)

### **Summary for Pond 107: AD#107**

Inflow Area = 0.11 ac,100.00% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 0.30 cfs @ 12.09 hrs, Volume= 0.024 af

Outflow = 0.30 cfs @ 12.09 hrs, Volume= 0.024 af, Atten= 0%, Lag= 0.0 min

Primary = 0.30 cfs @ 12.09 hrs, Volume= 0.024 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 303.18' @ 12.09 hrs

Flood Elev= 306.63'

Device	Routing	Invert	Outlet Devices
#1	Primary	302.85'	8.0" Round Culvert
			L= 64.0' CPP, mitered to conform to fill, Ke= 0.700
			Inlet / Outlet Invert= 302.85' / 299.97' S= 0.0450 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.29 cfs @ 12.09 hrs HW=303.17' TW=300.24' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.29 cfs @ 1.71 fps)

## Summary for Pond 108: AD#108

Inflow Are	a =	0.06 ac,100	0.00% Impervious,	Inflow Depth >	2.73"	for 2-yr-f	rozen event
Inflow	=	0.18 cfs @	12.09 hrs, Volum	e= 0.014	4 af	-	
Outflow	=	0 18 cfs @	12 09 hrs Volum	e= 0.014	4 af A	Atten= 0%	Iag=0.0 min

Primary = 0.18 cfs @ 12.09 hrs, Volume= 0.014 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 306.08' @ 12.09 hrs

Flood Elev= 309.80'

## Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

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Device	Routing	Invert	Outlet Devices
#1	Primary	305.85'	8.0" Round Culvert
			L= 64.5' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 305.85' / 302.96' S= 0.0448 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.17 cfs @ 12.09 hrs HW=306.08' TW=303.17' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.17 cfs @ 1.63 fps)

#### Summary for Pond 109: AD#109

Inflow Area = 0.02 ac,100.00% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event Inflow = 0.06 cfs @ 12.09 hrs, Volume= 0.005 af

Outflow = 0.06 cfs @ 12.09 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.0 min

Primary = 0.06 cfs @ 12.09 hrs, Volume= 0.005 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 308.82' @ 12.09 hrs

Flood Elev= 311.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	308.69'	8.0" Round Culvert
			L= 49.9' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 308.69' / 305.95' S= 0.0549 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.06 cfs @ 12.09 hrs HW=308.82' TW=306.08' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.06 cfs @ 1.22 fps)

## **Summary for Pond CB11: CB#11**

Inflow Area = 1.47 ac, 47.09% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 4.11 cfs @ 12.09 hrs, Volume= 0.333 af

Outflow = 4.11 cfs @ 12.09 hrs, Volume= 0.333 af, Atten= 0%, Lag= 0.0 min

Primary = 4.11 cfs @ 12.09 hrs, Volume= 0.333 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 312.32' @ 12.44 hrs

Flood Elev= 314.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	310.04'	18.0" Round Culvert
			L= 30.3' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 310.04' / 309.89' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=1.45 cfs @ 12.09 hrs HW=311.75' TW=311.72' (Dynamic Tailwater) 1=Culvert (Inlet Controls 1.45 cfs @ 0.82 fps)

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### **Summary for Pond CB110: CB#110**

Inflow Area = 0.34 ac, 52.43% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 0.95 cfs @ 12.09 hrs, Volume= 0.077 af

Outflow = 0.95 cfs @ 12.09 hrs, Volume= 0.077 af, Atten= 0%, Lag= 0.0 min

Primary = 0.95 cfs @ 12.09 hrs, Volume= 0.077 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 312.32' @ 12.49 hrs

Flood Elev= 314.00'

Device Routing Invert Outlet Devices

#1 Primary

310.25' 15.0" Round Culvert

L= 22.0' CPP, square edge headwall, Ke= 0.500
Inlet / Outlet Invert= 310.25' / 310.14' S= 0.0050 '/' Cc= 0.900

n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=311.56' TW=311.75' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

### **Summary for Pond CB12: CB#12**

Inflow Area = 0.73 ac, 49.36% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 2.06 cfs @ 12.09 hrs, Volume= 0.167 af

Outflow = 2.06 cfs @ 12.09 hrs, Volume= 0.167 af, Atten= 0%, Lag= 0.0 min

Primary = 2.06 cfs @ 12.09 hrs, Volume= 0.167 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 313.71' @ 12.09 hrs

Flood Elev= 317.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	313.00'	15.0" Round Culvert
			L= 106.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 313.00' / 310.21' S= 0.0263 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=2.00 cfs @ 12.09 hrs HW=313.70' TW=311.75' (Dynamic Tailwater) 1=Culvert (Inlet Controls 2.00 cfs @ 2.84 fps)

## Summary for Pond CB120: CB#120

Inflow Area	=	0.50 ac, 47	'.90% Imper	vious,	Inflow Dep	pth > 2.	.73"	for 2-yr-	frozen eve	ent
Inflow =	=	1.39 cfs @	12.09 hrs,	Volume	e=	0.113 a	ıf	-		
Outflow =	=	1.39 cfs @	12.09 hrs,	Volume	e=	0.113 a	f, Att	en= 0%,	Lag= 0.0	min
<b>D</b> :		400 ( )	40.00.1			0 1 1 0	-		•	

Primary = 1.39 cfs @ 12.09 hrs, Volume= 0.113 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 313.98' @ 12.10 hrs

Flood Elev= 317.25'

## Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

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Device	Routing	Invert	Outlet Devices
#1	Primary	313.32'	15.0" Round Culvert
	-		L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 313.32' / 313.10' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.24 cfs @ 12.09 hrs HW=313.97' TW=313.70' (Dynamic Tailwater) 1=Culvert (Outlet Controls 1.24 cfs @ 2.83 fps)

#### **Summary for Pond CB14: CB#14**

Inflow Area = 3.64 ac, 46.14% Impervious, Inflow Depth > 2.67" for 2-yr-frozen event Inflow = 3.39 cfs @ 12.35 hrs, Volume= 0.811 af

Outflow = 3.39 cfs @ 12.35 hrs, Volume= 0.811 af, Atten= 0%, Lag= 0.0 min

Primary = 3.39 cfs @ 12.35 hrs, Volume= 0.811 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 308.78' @ 12.36 hrs

Flood Elev= 312.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	307.79'	15.0" Round Culvert
	-		L= 37.9' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 307.79' / 307.22' S= 0.0150 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=3.38 cfs @ 12.35 hrs HW=308.78' TW=308.09' (Dynamic Tailwater) 1=Culvert (Outlet Controls 3.38 cfs @ 4.42 fps)

### **Summary for Pond CB15: CB#15**

Inflow Area = 3.71 ac, 46.04% Impervious, Inflow Depth > 2.67" for 2-yr-frozen event

Inflow = 3.45 cfs @ 12.34 hrs, Volume= 0.826 af

Outflow = 3.45 cfs @ 12.34 hrs, Volume= 0.826 af, Atten= 0%, Lag= 0.0 min

Primary = 3.45 cfs @ 12.34 hrs, Volume= 0.826 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 308.09' @ 12.34 hrs

Flood Elev= 312.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	307.12'	15.0" Round Culvert
			L= 120.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 307.12' / 300.65' S= 0.0539 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=3.45 cfs @ 12.34 hrs HW=308.09' TW=0.00' (Dynamic Tailwater) 1=Culvert (Inlet Controls 3.45 cfs @ 3.36 fps)

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### **Summary for Pond CB170: CB#170**

Inflow Area = 0.74 ac, 68.11% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 2.08 cfs @ 12.09 hrs, Volume= 0.169 af

Outflow = 2.08 cfs @ 12.09 hrs, Volume= 0.169 af, Atten= 0%, Lag= 0.0 min

Primary = 2.08 cfs @ 12.09 hrs, Volume= 0.169 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 278.61' @ 12.09 hrs

Flood Elev= 281.97'

Device Routing Invert Outlet Devices

#1 Primary 277.90' 15.0" Round Culvert

L= 36.7' CPP, square edge headwall, Ke= 0.500
Inlet / Outlet Invert= 277.90' / 277.17' S= 0.0199 '/' Cc= 0.900

n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=2.03 cfs @ 12.09 hrs HW=278.60' TW=276.17' (Dynamic Tailwater) 1=Culvert (Inlet Controls 2.03 cfs @ 2.85 fps)

### **Summary for Pond CB171: CB#171**

Inflow Area = 0.61 ac, 66.16% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 1.70 cfs @ 12.09 hrs, Volume= 0.138 af

Outflow = 1.70 cfs @ 12.09 hrs, Volume= 0.138 af, Atten= 0%, Lag= 0.0 min

Primary = 1.70 cfs @ 12.09 hrs, Volume= 0.138 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 278.94' @ 12.10 hrs

Flood Elev= 281.97'

Device	Routing	Invert	Outlet Devices
#1	Primary	278.22'	15.0" Round Culvert
			L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 278.22' / 278.00' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.56 cfs @ 12.09 hrs HW=278.93' TW=278.60' (Dynamic Tailwater) 1=Culvert (Outlet Controls 1.56 cfs @ 3.15 fps)

## Summary for Pond CB19: CB #19

Inflow Area = 2.45 ac, 33.78% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event Inflow = 0.556 af

Outflow = 6.29 cfs @ 12.12 hrs, Volume= 0.556 af, Atten= 0%, Lag= 0.0 min

Primary = 6.29 cfs @ 12.12 hrs, Volume= 0.556 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 278.03' @ 12.14 hrs

Flood Elev= 281.21'

## Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

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Device	Routing	Invert	Outlet Devices
#1	Primary	276.67'	18.0" Round Culvert
			L= 33.8' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 276.67' / 276.16' S= 0.0151 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=5.72 cfs @ 12.12 hrs HW=277.99' TW=277.33' (Dynamic Tailwater) 1=Culvert (Outlet Controls 5.72 cfs @ 4.61 fps)

#### **Summary for Pond CB20: CB #20**

Inflow Area = 2.14 ac, 28.84% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 5.47 cfs @ 12.12 hrs, Volume= 0.485 af

Outflow = 5.47 cfs @ 12.12 hrs, Volume= 0.485 af, Atten= 0%, Lag= 0.0 min

Primary = 5.47 cfs @ 12.12 hrs, Volume= 0.485 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 278.51' @ 12.15 hrs

Flood Elev= 281.21'

Device	Routing	Invert	Outlet Devices
#1	Primary	277.21'	18.0" Round Culvert
	-		L= 22.0' RCP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 277.21' / 276.77' S= 0.0200 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=4.74 cfs @ 12.12 hrs HW=278.47' TW=278.00' (Dynamic Tailwater)
—1=Culvert (Outlet Controls 4.74 cfs @ 4.05 fps)

### Summary for Pond CB201: CB#201

Inflow Area = 0.69 ac, 40.43% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 1.92 cfs @ 12.09 hrs, Volume= 0.156 af

Outflow = 1.92 cfs @ 12.09 hrs, Volume= 0.156 af, Atten= 0%, Lag= 0.0 min

Primary = 1.92 cfs @ 12.09 hrs, Volume= 0.156 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 292.86' @ 12.31 hrs

Flood Elev= 300.43'

Device	Routing	Invert	Outlet Devices
#1	Primary	291.88'	15.0" Round Culvert L= 82.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 291.88' / 291.45' S= 0.0052 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.39 cfs @ 12.09 hrs HW=292.68' TW=292.36' (Dynamic Tailwater) 1=Culvert (Outlet Controls 1.39 cfs @ 2.41 fps)

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### **Summary for Pond CB3: CB#3**

Inflow Area = 1.67 ac, 66.11% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 4.69 cfs @ 12.09 hrs, Volume= 0.381 af

Outflow = 4.69 cfs @ 12.09 hrs, Volume= 0.381 af, Atten= 0%, Lag= 0.0 min

Primary = 4.69 cfs @ 12.09 hrs, Volume= 0.381 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 293.39' @ 12.10 hrs

Flood Elev= 296.31'

Device Routing Invert Outlet Devices

#1 Primary

292.09'

15.0" Round Culvert

L= 80.0' CPP, square edge headwall, Ke= 0.500

Inlet / Outlet Invert= 292.09' / 291.29' S= 0.0100 '/' Cc= 0.900

n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=4.21 cfs @ 12.09 hrs HW=293.36' TW=292.55' (Dynamic Tailwater) 1=Culvert (Outlet Controls 4.21 cfs @ 4.21 fps)

### **Summary for Pond CB30: CB#30**

Inflow Area = 0.32 ac, 91.05% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 0.90 cfs @ 12.09 hrs, Volume= 0.073 af

Outflow = 0.90 cfs @ 12.09 hrs, Volume= 0.073 af, Atten= 0%, Lag= 0.0 min

Primary = 0.90 cfs @ 12.09 hrs, Volume= 0.073 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 293.41' @ 12.15 hrs

Flood Elev= 296.31'

Device	Routing	Invert	Outlet Devices
#1	Primary	292.30'	15.0" Round Culvert
			L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 292.30' / 292.19' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=293.24' TW=293.36' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

## **Summary for Pond CB4: CB#4**

Inflow Area = 0.82 ac, 72.75% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event Inflow = 0.187 af

Outflow = 2.31 cfs @ 12.09 hrs, Volume= 0.187 af, Atten= 0%, Lag= 0.0 min

Primary = 2.31 cfs @ 12.09 hrs, Volume= 0.187 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 295.00' @ 12.09 hrs

Flood Elev= 298.00'

## Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

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Device	Routing	Invert	Outlet Devices
#1	Primary	294.24'	15.0" Round Culvert
			L= 80.9' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 294.24' / 292.58' S= 0.0205 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=2.25 cfs @ 12.09 hrs HW=294.99' TW=293.36' (Dynamic Tailwater) 1=Culvert (Inlet Controls 2.25 cfs @ 2.94 fps)

#### **Summary for Pond CB5: CB#5**

Inflow Area = 0.53 ac, 77.00% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 1.48 cfs @ 12.09 hrs, Volume= 0.120 af

Outflow = 1.48 cfs @ 12.09 hrs, Volume= 0.120 af, Atten= 0%, Lag= 0.0 min

Primary = 1.48 cfs @ 12.09 hrs, Volume= 0.120 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 295.26' @ 12.11 hrs

Flood Elev= 298.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	294.56'	15.0" Round Culvert
			L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 294.56' / 294.34' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.31 cfs @ 12.09 hrs HW=295.24' TW=294.99' (Dynamic Tailwater) 1=Culvert (Outlet Controls 1.31 cfs @ 2.78 fps)

## **Summary for Pond CB80: CB#80**

Inflow Area = 0.64 ac, 56.11% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 1.77 cfs @ 12.09 hrs, Volume= 0.145 af

Outflow = 1.77 cfs @ 12.09 hrs, Volume= 0.145 af, Atten= 0%, Lag= 0.0 min

Primary = 1.77 cfs @ 12.09 hrs, Volume= 0.145 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 312.33' @ 12.43 hrs

Flood Elev= 314.01'

Device	Routing	Invert	Outlet Devices
#1	Primary	310.06'	15.0" Round Culvert
			L= 15.1' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 310.06' / 309.98' S= 0.0053 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=311.74' TW=311.90' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

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### **Summary for Pond CB800: CB#800**

Inflow Area = 0.27 ac, 72.99% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 0.75 cfs @ 12.09 hrs, Volume= 0.061 af

Outflow = 0.75 cfs @ 12.09 hrs, Volume= 0.061 af, Atten= 0%, Lag= 0.0 min

Primary = 0.75 cfs @ 12.09 hrs, Volume= 0.061 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 312.33' @ 12.48 hrs

Flood Elev= 314.01'

Device Routing Invert Outlet Devices

#1 Primary

310.27' 15.0" Round Culvert

L= 22.7' CPP, square edge headwall, Ke= 0.500
Inlet / Outlet Invert= 310.27' / 310.16' S= 0.0048 '/' Cc= 0.900

n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=311.48' TW=311.72' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

### **Summary for Pond CB9: CB#9**

Inflow Area = 0.90 ac, 54.67% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 2.53 cfs @ 12.09 hrs, Volume= 0.206 af

Outflow = 2.53 cfs @ 12.09 hrs, Volume= 0.206 af, Atten= 0%, Lag= 0.0 min

Primary = 2.53 cfs @ 12.09 hrs, Volume= 0.206 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 314.84' @ 12.09 hrs

Flood Elev= 317.43'

Device	Routing	Invert	Outlet Devices
#1	Primary	314.04'	15.0" Round Culvert L= 203.6' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 314.04' / 310.50' S= 0.0174 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=2.47 cfs @ 12.09 hrs HW=314.83' TW=311.88' (Dynamic Tailwater) 1=Culvert (Inlet Controls 2.47 cfs @ 3.02 fps)

## **Summary for Pond CB90: CB#90**

Inflow Area = 0.31 ac, 72.11% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event Inflow = 0.88 cfs @ 12.09 hrs, Volume= 0.071 af

Outflow = 0.88 cfs @ 12.09 hrs, Volume= 0.071 af, Atten= 0%, Lag= 0.0 min

Primary = 0.88 cfs @ 12.09 hrs, Volume= 0.071 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 315.21' @ 12.10 hrs

Flood Elev= 317.72'

## Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

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Device	Routing	Invert	Outlet Devices
#1	Primary	314.74'	15.0" Round Culvert
			L= 29.8' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 314.74' / 314.14' S= 0.0201 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.80 cfs @ 12.09 hrs HW=315.20' TW=314.83' (Dynamic Tailwater) 1=Culvert (Outlet Controls 0.80 cfs @ 2.92 fps)

#### **Summary for Pond DMH111: DMH#111**

Inflow Area = 1.47 ac, 47.09% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 4.11 cfs @ 12.09 hrs, Volume= 0.333 af

Outflow = 4.11 cfs @ 12.09 hrs, Volume= 0.333 af, Atten= 0%, Lag= 0.0 min

Primary = 4.11 cfs @ 12.09 hrs, Volume= 0.333 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 312.30' @ 12.42 hrs

Flood Elev= 314.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	309.79'	24.0" Round Culvert
	-		L= 40.3' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 309.79' / 309.59' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=311.72' TW=311.86' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

### **Summary for Pond DMH17: DMH#17**

Inflow Area = 3.19 ac, 41.78% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 8.31 cfs @ 12.11 hrs, Volume= 0.725 af

Outflow = 8.31 cfs @ 12.11 hrs, Volume= 0.725 af, Atten= 0%, Lag= 0.0 min

Primary = 8.31 cfs @ 12.11 hrs, Volume= 0.725 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 276.23' @ 12.12 hrs

Flood Elev= 279.48'

Device	Routing	Invert	Outlet Devices
#1	Primary	274.89'	24.0" Round Culvert
			L= 279.8' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 274.89' / 272.09' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=7.62 cfs @ 12.11 hrs HW=276.21' TW=274.33' (Dynamic Tailwater) 1=Culvert (Outlet Controls 7.62 cfs @ 4.91 fps)

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## **Summary for Pond DMH18: DMH#18**

Inflow Area = 2.45 ac, 33.78% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 6.29 cfs @ 12.12 hrs, Volume= 0.556 af

Outflow = 6.29 cfs @ 12.12 hrs, Volume= 0.556 af, Atten= 0%, Lag= 0.0 min

Primary = 6.29 cfs @ 12.12 hrs, Volume= 0.556 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 277.36' @ 12.12 hrs

Flood Elev= 281.88'

Device Routing Invert Outlet Devices

#1 Primary 276.06' 18.0" Round Culvert

L= 71.6' CPP, square edge headwall, Ke= 0.500

Inlet / Outlet Invert= 276.06' / 274.99' S= 0.0149 '/' Cc= 0.900

n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=6.14 cfs @ 12.12 hrs HW=277.33' TW=276.21' (Dynamic Tailwater) 1=Culvert (Inlet Controls 6.14 cfs @ 3.84 fps)

### **Summary for Pond DMH2: DMH#2**

Inflow Area = 1.67 ac, 66.11% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 4.69 cfs @ 12.09 hrs, Volume= 0.381 af

Outflow = 4.69 cfs @ 12.09 hrs, Volume= 0.381 af, Atten= 0%, Lag= 0.0 min

Primary = 4.69 cfs @ 12.09 hrs, Volume= 0.381 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 292.86' @ 12.31 hrs

Flood Elev= 297.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	291.19'	18.0" Round Culvert
			L= 50.2' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 291.19' / 291.04' S= 0.0030 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=2.96 cfs @ 12.09 hrs HW=292.55' TW=292.36' (Dynamic Tailwater)
—1=Culvert (Outlet Controls 2.96 cfs @ 2.32 fps)

## **Summary for Pond DMH8: DMH#8**

Inflow Area = 1.54 ac, 55.26% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event Inflow = 0.350 af

Outflow = 4.30 cfs @ 12.09 hrs, Volume= 0.350 af, Atten= 0%, Lag= 0.0 min

Primary = 4.30 cfs @ 12.09 hrs, Volume= 0.350 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 312.32' @ 12.39 hrs

Flood Elev= 314.00'

# Type III 24-hr 2-yr-frozen Rainfall=2.96", AMC=4

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Device	Routing	Invert	Outlet Devices
#1	Primary	309.88'	18.0" Round Culvert
			L= 13.4' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 309.88' / 309.81' S= 0.0052 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=1.30 cfs @ 12.09 hrs HW=311.89' TW=311.86' (Dynamic Tailwater) —1=Culvert (Inlet Controls 1.30 cfs @ 0.74 fps)

#### **Summary for Link A: Western Shadowbrook Drive Treatment Area**

Inflow Area = 5.76 ac, 33.42% Impervious, Inflow Depth > 2.73" for 2-yr-frozen event

Inflow = 10.37 cfs @ 12.10 hrs, Volume= 1.309 af

Primary = 10.37 cfs @ 12.10 hrs, Volume= 1.309 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

## Summary for Link B: pond at beginning of neighborhood

Inflow Area = 5.28 ac, 37.67% Impervious, Inflow Depth > 2.69" for 2-yr-frozen event

Inflow = 6.65 cfs @ 12.12 hrs, Volume= 1.184 af

Primary = 6.65 cfs @ 12.12 hrs, Volume= 1.184 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

## **Summary for Link C: Wetlands**

Inflow Area = 9.23 ac, 21.04% Impervious, Inflow Depth > 2.44" for 2-yr-frozen event

Inflow = 13.25 cfs @ 12.22 hrs, Volume= 1.879 af

Primary = 13.25 cfs @ 12.22 hrs, Volume= 1.879 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

#### Type III 24-hr 10-yr Rainfall=4.47" Printed 10/10/2022

#### 1708241-POST-DEVELOPMENT

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: Flow to Tammy Court Runoff Area=57,559 sf 17.28% Impervious Runoff Depth>2.38" Flow Length=263' Slope=0.6600 '/' Tc=6.0 min CN=WQ Runoff=3.46 cfs 0.263 af

Subcatchment2S: Shadowbrook Dr CB1 Runoff Area=7,546 sf 57.32% Impervious Runoff Depth>2.91" Flow Length=300' Slope=0.0200 '/' Tc=6.0 min CN=WQ Runoff=0.52 cfs 0.042 af

**Subcatchment3S: Shadowbrook Dr CB2** Runoff Area=24,663 sf 8.93% Impervious Runoff Depth>1.93" Flow Length=344' Tc=8.6 min CN=WQ Runoff=1.11 cfs 0.091 af

**Subcatchment4S: Flow to Shadowbrook** Runoff Area=11,312 sf 38.41% Impervious Runoff Depth>2.95" Tc=6.0 min CN=WQ Runoff=0.82 cfs 0.064 af

**Subcatchment5S: Canterberry Court Flow** Runoff Area=36,412 sf 15.94% Impervious Runoff Depth>0.76" Flow Length=187' Tc=6.0 min CN=WQ Runoff=0.57 cfs 0.053 af

**Subcatchment6S: Lower Shadowbrook Dr** Runoff Area=72,715 sf 12.69% Impervious Runoff Depth>0.62" Flow Length=137' Tc=6.0 min CN=WQ Runoff=0.90 cfs 0.087 af

**Subcatchment7S: Rear Overland Flow to** Runoff Area=85,028 sf 6.43% Impervious Runoff Depth>1.78" Flow Length=183' Tc=11.5 min CN=WQ Runoff=3.20 cfs 0.290 af

Subcatchment10S: Roadway Flow Runoff Area=13,692 sf 72.11% Impervious Runoff Depth>3.08" Flow Length=307' Slope=0.0150 '/' Tc=6.0 min CN=WQ Runoff=0.97 cfs 0.081 af

Subcatchment11S: Roadway Flow

Runoff Area=25,722 sf 45.39% Impervious Runoff Depth>3.06"

Flow Length=279' Tc=6.0 min CN=WQ Runoff=1.91 cfs 0.150 af

Subcatchment20S: Roadway Flow

Runoff Area=2,774 sf 40.41% Impervious Runoff Depth>2.61"

Flow Length=65' Tc=6.0 min CN=WQ Runoff=0.17 cfs 0.014 af

**Subcatchment21S: Roadway Flow**Runoff Area=9,904 sf 37.65% Impervious Runoff Depth>2.57"
Flow Length=203' Tc=6.0 min CN=WQ Runoff=0.61 cfs 0.049 af

**Subcatchment22S: Overland Flow to Pond** Runoff Area=17,710 sf 12.85% Impervious Runoff Depth>1.69" Flow Length=47' Slope=0.2127 '/' Tc=6.0 min CN=WQ Runoff=0.74 cfs 0.057 af

**Subcatchment30S: Roadway Flow**Runoff Area=14,714 sf 52.43% Impervious Runoff Depth>3.37"
Flow Length=276' Tc=6.0 min CN=WQ Runoff=1.20 cfs 0.095 af

Subcatchment31S: Roadway Flow

Runoff Area=17,194 sf 38.30% Impervious Runoff Depth>2.60"

Flow Length=230' Tc=6.0 min CN=WQ Runoff=1.08 cfs 0.086 af

Subcatchment32S: Roadway Flow

Runoff Area=21,651 sf 47.90% Impervious Runoff Depth>3.16"

Flow Length=223' Tc=6.0 min CN=WQ Runoff=1.66 cfs 0.131 af

**Subcatchment33S: Roadway Flow**Runoff Area=10,356 sf 52.43% Impervious Runoff Depth>2.65"
Flow Length=257' Tc=6.0 min CN=WQ Runoff=0.64 cfs 0.053 af

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Subcatchment40S: Roadway Flow
Runoff Area=11,686 sf 72.99% Impervious Runoff Depth>3.28"
Flow Length=263' Slope=0.0150 '/' Tc=6.0 min CN=WQ Runoff=0.89 cfs 0.073 af

**Subcatchment41S: Roadway Flow**Runoff Area=16,070 sf 43.83% Impervious Runoff Depth>3.11"
Flow Length=268' Tc=6.5 min CN=WQ Runoff=1.21 cfs 0.096 af

Subcatchment42S: Flow to CB#200 Runoff Area=29,920 sf 40.43% Impervious Runoff Depth>2.95" Flow Length=385' Tc=6.0 min CN=WQ Runoff=2.16 cfs 0.169 af

**Subcatchment50S: Roadway Flow**Runoff Area=12,898 sf 58.95% Impervious Runoff Depth>2.54"
Flow Length=300' Tc=6.0 min CN=WQ Runoff=0.74 cfs 0.063 af

**Subcatchment51S: Roadway Flow**Runoff Area=12,915 sf 65.19% Impervious Runoff Depth>2.80"
Flow Length=163' Tc=6.0 min CN=WQ Runoff=0.82 cfs 0.069 af

**Subcatchment60S: Roadway and Building** Runoff Area=23,012 sf 40.57% Impervious Runoff Depth>1.78" Flow Length=220' Tc=6.0 min CN=WQ Runoff=0.91 cfs 0.078 af

Subcatchment61S: Roadway Flow
Runoff Area=7,564 sf 83.43% Impervious Runoff Depth>3.55"
Flow Length=152' Slope=0.0200 '/' Tc=6.0 min CN=WQ Runoff=0.62 cfs 0.051 af

**Subcatchment62S: Bioretention Pond Area** Runoff Area=6,453 sf 0.00% Impervious Runoff Depth>0.11" Tc=6.0 min CN=39 Runoff=0.00 cfs 0.001 af

**Subcatchment70S: Overland Flow to**Runoff Area=128,858 sf 1.40% Impervious Runoff Depth>2.04"
Flow Length=745' Tc=14.6 min CN=WQ Runoff=5.35 cfs 0.504 af

**Subcatchment71S: Roadway Flow**Runoff Area=26,495 sf 66.16% Impervious Runoff Depth>3.15"
Flow Length=300' Tc=6.0 min CN=WQ Runoff=1.95 cfs 0.160 af

**Subcatchment72S: House Flow to Pond** Runoff Area=49,031 sf 39.15% Impervious Runoff Depth>1.99" Flow Length=127' Tc=6.0 min CN=WQ Runoff=2.24 cfs 0.187 af

**Subcatchment73S: Roadway Flow**Runoff Area=5,932 sf 76.82% Impervious Runoff Depth>3.28"
Flow Length=200' Slope=0.0200 '/' Tc=6.0 min CN=WQ Runoff=0.45 cfs 0.037 af

Subcatchment74S: Area in Circle to Runoff Area=17,656 sf 37.64% Impervious Runoff Depth>1.96" Flow Length=40' Slope=0.1000 '/' Tc=6.0 min CN=WQ Runoff=0.80 cfs 0.066 af

Subcatchment75S: Roadway Flow
Runoff Area=13,639 sf 67.50% Impervious Runoff Depth>3.27"
Flow Length=196' Slope=0.0200 '/' Tc=6.0 min CN=WQ Runoff=1.04 cfs 0.085 af

**Subcatchment76S: Roadway Flow**Runoff Area=93,020 sf 28.84% Impervious Runoff Depth>2.61"
Flow Length=468' Tc=9.0 min CN=WQ Runoff=5.44 cfs 0.465 af

Subcatchment100S: Unit 1 Runoff Area=920 sf 100.00% Impervious Runoff Depth>4.23"

Tc=6.0 min CN=98 Runoff=0.09 cfs 0.007 af

Subcatchment101S: Units 2 & 3 Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=0.18 cfs 0.015 af

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Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>4.23" Subcatchment 102S: Units 4 & 5 Tc=6.0 min CN=98 Runoff=0.18 cfs 0.015 af Subcatchment103S: Units 6 & 7 Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=0.18 cfs 0.015 af Subcatchment 104S: Units 8 & 9 Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=0.18 cfs 0.015 af Subcatchment 105S: Units 11 & 10 Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=0.18 cfs 0.015 af Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>4.23" Subcatchment 106S: Units 13 & 12 Tc=6.0 min CN=98 Runoff=0.18 cfs 0.015 af Subcatchment 107S: Units 15 & 14 Runoff Area=1.840 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=0.18 cfs 0.015 af Subcatchment 108S: Units 17 & 16 Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=0.18 cfs 0.015 af Runoff Area=920 sf 100.00% Impervious Runoff Depth>4.23" Subcatchment109S: Unit 18 Tc=6.0 min CN=98 Runoff=0.09 cfs 0.007 af Inflow=3.46 cfs 0.263 af Reach 1R: Tammy Court Outflow=3.46 cfs 0.263 af Inflow=3.86 cfs 0.907 af Reach 2R: Ex CB1 Outflow=3.86 cfs 0.907 af Reach 3R: Ex CB 2 Inflow=1.11 cfs 0.091 af Outflow=1.11 cfs 0.091 af Inflow=3.09 cfs 0.630 af Reach 4R: Upper Shadowbrook Drive Drainage Outflow=3.09 cfs 0.630 af Inflow=0.57 cfs 0.053 af Reach 5R: Canterberry Ct Drainage Outflow=0.57 cfs 0.053 af Reach 6R: Lower Shadowbrook Dr CB Inflow=0.90 cfs 0.087 af Outflow=0.90 cfs 0.087 af Pond 1P: Bioretention Pond #1 Peak Elev=292.77' Storage=7,995 cf Inflow=6.88 cfs 0.566 af Primary=2.74 cfs 0.566 af Secondary=0.00 cfs 0.000 af Outflow=2.74 cfs 0.566 af

Pond 2P: Pocket Pond #1 Peak Elev=312.34' Storage=18,642 cf Inflow=10.28 cfs 0.821 af

Outflow=3.40 cfs 0.802 af

Pond 3P: Pocket Pond #2 Peak Elev=274.69' Storage=16,919 cf Inflow=13.02 cfs 1.251 af Primary=8.57 cfs 1.233 af Secondary=0.00 cfs 0.000 af Outflow=8.57 cfs 1.233 af

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Pond 30P: Infiltration Pond #1 Peak Elev=280.74' Storage=1,278 cf Inflow=0.80 cfs 0.066 af Outflow=0.05 cfs 0.058 af

Pond 31P: Infiltration Pond #2 Peak Elev=275.12' Storage=3,993 cf Inflow=2.24 cfs 0.187 af

Discarded=0.09 cfs 0.125 af Primary=0.03 cfs 0.007 af Outflow=0.12 cfs 0.132 af

Pond 100: AD#100 Peak Elev=295.97' Inflow=0.09 cfs 0.007 af 8.0" Round Culvert n=0.013 L=58.1' S=0.0251 '/' Outflow=0.09 cfs 0.007 af

Pond 101: AD#101 Peak Elev=294.54' Inflow=0.27 cfs 0.022 af

8.0" Round Culvert n=0.013 L=37.0' S=0.0500 '/' Outflow=0.27 cfs 0.022 af

Pond 102: AD#102 Peak Elev=293.48' Inflow=0.36 cfs 0.030 af 8.0" Round Culvert n=0.013 L=27.4' S=0.0201'/' Outflow=0.36 cfs 0.030 af

Pond 103: AD#103 Peak Elev=294.46' Inflow=0.18 cfs 0.015 af

8.0" Round Culvert n=0.013 L=59.0' S=0.0200 '/' Outflow=0.18 cfs 0.015 af

Pond 104: AD#104 Peak Elev=295.95' Inflow=0.99 cfs 0.082 af

8.0" Round Culvert n=0.013 L=16.6' S=0.0367 '/' Outflow=0.99 cfs 0.082 af

Pond 105: AD#105 Peak Elev=298.10' Inflow=0.81 cfs 0.067 af

8.0" Round Culvert n=0.013 L=53.8' S=0.0400 '/' Outflow=0.81 cfs 0.067 af

Pond 106: AD#106 Peak Elev=300.35' Inflow=0.63 cfs 0.052 af 8.0" Round Culvert n=0.013 L=55.9' S=0.0401'/' Outflow=0.63 cfs 0.052 af

Pond 107: AD#107 Peak Elev=303.27' Inflow=0.45 cfs 0.037 af

8.0" Round Culvert n=0.013 L=64.0' S=0.0450 '/' Outflow=0.45 cfs 0.037 af

Pond 108: AD#108 Peak Elev=306.14' Inflow=0.27 cfs 0.022 af 8.0" Round Culvert n=0.013 L=64.5' S=0.0448 '/' Outflow=0.27 cfs 0.022 af

Pond 109: AD#109 Peak Elev=308.85' Inflow=0.09 cfs 0.007 af 8.0" Round Culvert n=0.013 L=49.9' S=0.0549 '/' Outflow=0.09 cfs 0.007 af

Pond CB11: CB#11 Peak Elev=312.37' Inflow=4.58 cfs 0.364 af 18.0" Round Culvert n=0.013 L=30.3' S=0.0050 '/' Outflow=4.58 cfs 0.364 af

Pond CB110: CB#110 Peak Elev=312.37' Inflow=1.20 cfs 0.095 af

15.0" Round Culvert n=0.013 L=22.0' S=0.0050 '/' Outflow=1.20 cfs 0.095 af

Pond CB12: CB#12 Peak Elev=313.76' Inflow=2.30 cfs 0.184 af

15.0" Round Culvert n=0.013 L=106.0' S=0.0263 '/' Outflow=2.30 cfs 0.184 af

Pond CB120: CB#120 Peak Elev=314.05' Inflow=1.66 cfs 0.131 af 15.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=1.66 cfs 0.131 af

Pond CB14: CB#14 Peak Elev=308.83' Inflow=3.61 cfs 0.851 af 15.0" Round Culvert n=0.013 L=37.9' S=0.0150 '/' Outflow=3.61 cfs 0.851 af

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Pond CB15: CB#15	Peak Elev=308.14' Inflow=3.67 cfs 0.865 af 15.0" Round Culvert n=0.013 L=120.0' S=0.0539 '/' Outflow=3.67 cfs 0.865 af
Pond CB170: CB#170	Peak Elev=278.67' Inflow=2.39 cfs 0.197 af 15.0" Round Culvert n=0.013 L=36.7' S=0.0199 '/' Outflow=2.39 cfs 0.197 af
Pond CB171: CB#171	Peak Elev=279.00' Inflow=1.95 cfs 0.160 af 15.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=1.95 cfs 0.160 af
Pond CB19: CB #19	Peak Elev=278.06' Inflow=6.44 cfs 0.550 af 18.0" Round Culvert n=0.013 L=33.8' S=0.0151 '/' Outflow=6.44 cfs 0.550 af
Pond CB20: CB #20	Peak Elev=278.53' Inflow=5.44 cfs 0.465 af 18.0" Round Culvert n=0.013 L=22.0' S=0.0200 '/' Outflow=5.44 cfs 0.465 af
Pond CB201: CB#201	Peak Elev=292.83' Inflow=2.16 cfs 0.169 af 15.0" Round Culvert n=0.013 L=82.0' S=0.0052 '/' Outflow=2.16 cfs 0.169 af
Pond CB3: CB#3	Peak Elev=293.40' Inflow=4.72 cfs 0.395 af 15.0" Round Culvert n=0.013 L=80.0' S=0.0100 '/' Outflow=4.72 cfs 0.395 af
Pond CB30: CB#30	Peak Elev=293.44' Inflow=1.25 cfs 0.103 af 15.0" Round Culvert n=0.013 L=22.0' S=0.0050 '/' Outflow=1.25 cfs 0.103 af
Pond CB4: CB#4	Peak Elev=295.05' Inflow=2.56 cfs 0.214 af 15.0" Round Culvert n=0.013 L=80.9' S=0.0205 '/' Outflow=2.56 cfs 0.214 af
Pond CB5: CB#5	Peak Elev=295.32' Inflow=1.73 cfs 0.145 af 15.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=1.73 cfs 0.145 af
Pond CB80: CB#80	Peak Elev=312.38' Inflow=2.09 cfs 0.169 af 15.0" Round Culvert n=0.013 L=15.1' S=0.0053 '/' Outflow=2.09 cfs 0.169 af
Pond CB800: CB#800	Peak Elev=312.38' Inflow=0.89 cfs 0.073 af 15.0" Round Culvert n=0.013 L=22.7' S=0.0048 '/' Outflow=0.89 cfs 0.073 af
Pond CB9: CB#9	Peak Elev=314.91' Inflow=2.87 cfs 0.231 af 15.0" Round Culvert n=0.013 L=203.6' S=0.0174 '/' Outflow=2.87 cfs 0.231 af
Pond CB90: CB#90	Peak Elev=315.24' Inflow=0.97 cfs 0.081 af 15.0" Round Culvert n=0.013 L=29.8' S=0.0201 '/' Outflow=0.97 cfs 0.081 af
Pond DMH111: DMH#111	Peak Elev=312.35' Inflow=4.58 cfs 0.364 af 24.0" Round Culvert n=0.013 L=40.3' S=0.0050 '/' Outflow=4.58 cfs 0.364 af
Pond DMH17: DMH#17	Peak Elev=276.23' Inflow=8.74 cfs 0.747 af 24.0" Round Culvert n=0.013 L=279.8' S=0.0100 '/' Outflow=8.74 cfs 0.747 af
Pond DMH18: DMH#18	Peak Elev=277.38' Inflow=6.44 cfs 0.550 af

18.0" Round Culvert n=0.013 L=71.6' S=0.0149 '/' Outflow=6.44 cfs 0.550 af

Type III 24-hr 10-yr Rainfall=4.47"

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Pond DMH2: DMH#2 Peak Elev=292.81' Inflow=4.72 cfs 0.395 af

18.0" Round Culvert n=0.013 L=50.2' S=0.0030 '/' Outflow=4.72 cfs 0.395 af

Pond DMH8: DMH#8 Peak Elev=312.37' Inflow=4.96 cfs 0.400 af

18.0" Round Culvert n=0.013 L=13.4' S=0.0052 '/' Outflow=4.96 cfs 0.400 af

Link A: Western Shadowbrook Drive Treatment Area Inflow=6.25 cfs 0.979 af

Primary=6.25 cfs 0.979 af

Link B: pond at beginning of neighborhood Inflow=4.78 cfs 1.051 af

Primary=4.78 cfs 1.051 af

Link C: Wetlands Inflow=10.94 cfs 1.531 af

Primary=10.94 cfs 1.531 af

Total Runoff Area = 20.68 ac Runoff Volume = 3.843 af Average Runoff Depth = 2.23" 70.94% Pervious = 14.67 ac 29.06% Impervious = 6.01 ac

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## **Summary for Subcatchment 1S: Flow to Tammy Court**

Runoff = 3.46 cfs @ 12.09 hrs, Volume= 0.263 af, Depth> 2.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.47"

A	rea (sf)	CN [	CN Description					
	3,365	98 F	Roofs, HSC	G D				
	6,582	98 F	Roofs, HSG	βA				
	34,775	80 >	75% Gras	s cover, Go	ood, HSG D			
	8,430	39 >	75% Gras	s cover, Go	ood, HSG A			
	4,407	77 \	Voods, Go	od, HSG D				
•	57,559	١	Veighted A	verage				
	47,612	8	32.72% Pei	rvious Area	l			
	9,947	1	7.28% Imp	pervious Ar	ea			
Tc	Length	Slope	Velocity	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
1.5	50	0.6600	0.57		Sheet Flow,			
					Grass: Short n= 0.150 P2= 2.89"			
0.6	213	0.6600	5.69		Shallow Concentrated Flow,			
					Short Grass Pasture Kv= 7.0 fps			
2.1	262	Total	norgood t	o minimum	To = 6.0 min			

<sup>2.1 263</sup> Total, Increased to minimum Tc = 6.0 min

### **Summary for Subcatchment 2S: Shadowbrook Dr CB1**

Runoff = 0.52 cfs @ 12.09 hrs, Volume= 0.042 af, Depth> 2.91"

A	rea (sf)	CN E	escription						
	4,085	98 F	98 Paved parking, HSG A						
	240	98 F	Roofs, HSG	G Ď					
	1,432	80 >	75% Gras	s cover, Go	ood, HSG D				
	1,789	39 >	75% Gras	s cover, Go	pod, HSG A				
	7,546	٧	Veighted A	verage					
	3,221	4	2.68% Per	vious Area					
	4,325	5	7.32% Imp	ervious Ar	ea				
Tc	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
0.7	50	0.0200	1.14		Sheet Flow,				
					Smooth surfaces n= 0.011 P2= 2.89"				
1.5	250	0.0200	2.87		Shallow Concentrated Flow,				
					Paved Kv= 20.3 fps				
					1 avea 111 - 20.0 1p3				

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## **Summary for Subcatchment 3S: Shadowbrook Dr CB2**

Runoff = 1.11 cfs @ 12.12 hrs, Volume= 0.091 af, Depth> 1.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.47"

A	rea (sf)	CN E	Description				
	257	98 Roofs, HSG A					
	6,196	80 >	75% Gras	s cover, Go	ood, HSG D		
	5,530	39 >	75% Gras	s cover, Go	ood, HSG A		
	10,329	77 V	Voods, Go	od, HSG D			
	405	30 V	Voods, Go	od, HSG A			
	1,946	98 F	Paved park	ing, HSG A	1		
	24,663	٧	Veighted A	verage			
	22,460	ç	01.07% Per	vious Area			
	2,203	8	3.93% Impe	ervious Are	a		
Tc	Length	Slope	•	Capacity	Description		
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
6.3	50	0.1200	0.13		Sheet Flow,		
					Woods: Light underbrush n= 0.400 P2= 2.89"		
1.9	226	0.1500	1.94		Shallow Concentrated Flow,		
					Woodland Kv= 5.0 fps		
0.3	48	0.1300	2.52		Shallow Concentrated Flow,		
					Short Grass Pasture Kv= 7.0 fps		
0.1	20	0.0200	2.87		Shallow Concentrated Flow,		
					Paved Kv= 20.3 fps		
8.6	344	Total					

## **Summary for Subcatchment 4S: Flow to Shadowbrook Dr CBs**

Runoff = 0.82 cfs @ 12.09 hrs, Volume= 0.064 af, Depth> 2.95"

Area (sf)	CN	Description
2,537	80	>75% Grass cover, Good, HSG D
400	39	>75% Grass cover, Good, HSG A
0	74	>75% Grass cover, Good, HSG C
4,345	98	Paved parking, HSG A
4,030	77	Woods, Good, HSG D
11,312		Weighted Average
6,967		61.59% Pervious Area
4,345		38.41% Impervious Area

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Тс	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	·
6.0	·	·			Direct Entry,

# **Summary for Subcatchment 5S: Canterberry Court Flow**

0.57 cfs @ 12.09 hrs, Volume= 0.053 af, Depth> 0.76" Runoff

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.47"

Aı	rea (sf)	CN D	escription							
	1,564	98 R	98 Roofs, HSG A							
	30,607	39 >	75% Gras	s cover, Go	ood, HSG A					
	4,241	98 P	aved park	ing, HSG A						
	36,412	٧	Veighted A	verage						
	30,607	8	4.06% Per	vious Area						
	5,805	1	5.94% Imp	ervious Ar	ea					
Tc	Length	Slope	Velocity	Capacity	Description					
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
2.6	50	0.1600	0.32		Sheet Flow,					
					Grass: Short n= 0.150 P2= 2.89"					
0.7	137	0.2000	3.13		Shallow Concentrated Flow,					
					Short Grass Pasture Kv= 7.0 fps					
3.3	187	Total, I	ncreased t	o minimum	Tc = 6.0 min					

# Summary for Subcatchment 6S: Lower Shadowbrook Dr Flow

0.90 cfs @ 12.09 hrs, Volume= 0.087 af, Depth> 0.62" Runoff

Area (sf)	CN	Description
1,440	98	Roofs, HSG A
3,236	30	Woods, Good, HSG A
60,250	39	>75% Grass cover, Good, HSG A
7,789	98	Paved parking, HSG A
72,715		Weighted Average
63,486		87.31% Pervious Area
9,229		12.69% Impervious Area

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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description	
-	2.6	50	0.1600	0.32		Sheet Flow,	_
						Grass: Short n= 0.150 P2= 2.89"	
	0.1	38	0.4500	4.70		Shallow Concentrated Flow,	
						Short Grass Pasture Kv= 7.0 fps	
	0.3	49	0.3600	3.00		Shallow Concentrated Flow,	
						Woodland Kv= 5.0 fps	
-	2.0	427	Tatal I			To = 0.0 min	_

3.0 137 Total, Increased to minimum Tc = 6.0 min

# **Summary for Subcatchment 7S: Rear Overland Flow to Wetland**

Runoff = 3.20 cfs @ 12.17 hrs, Volume= 0.290 af, Depth> 1.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.47"

	Α	rea (sf)	CN [	CN Description							
		2,935	98 F	98 Roofs, HSG D							
		2,417	98 F	Roofs, HSC	βA						
		118	98 F	Roofs, HSC	G C						
		10,710	80 >	>75% Gras	s cover, Go	ood, HSG D					
		8,039	39 >	>75% Gras	s cover, Go	ood, HSG A					
		4,292	74 >	•75% Gras	s cover, Go	ood, HSG C					
		19,271	77 V	Voods, Go	od, HSG D						
		26,053		,	od, HSG C						
		11,193	55 V	Voods, Go	od, HSG B						
		85,028	\	Weighted A	verage						
		79,558	ç	93.57% Pe	rvious Area						
		5,470	6	6.43% Impe	ervious Are	a					
	Tc	Length	Slope		Capacity	Description					
(	min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	9.8	50	0.0400	0.08		Sheet Flow,					
						Woods: Light underbrush n= 0.400 P2= 2.89"					
	1.7	133	0.0650	1.27		Shallow Concentrated Flow,					
						Woodland Kv= 5.0 fps					
	11.5	183	Total								

# **Summary for Subcatchment 10S: Roadway Flow**

Runoff = 0.97 cfs @ 12.09 hrs, Volume= 0.081 af, Depth> 3.08"

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A	rea (sf)	CN [	CN Description								
	3,052	98 F	98 Roofs, HSG A								
	12	80 >	,								
	3,807	39 >	75% Gras	s cover, Go	ood, HSG A						
	506	98 F	Paved park	ing, HSG D							
	6,315	98 F	Roofs, HSG	βA							
	13,692	\	Veighted A	verage							
	3,819	2	27.89% Per	vious Area							
	9,873	7	<mark>'</mark> 2.11% lmp	ervious Ar	ea						
Tc	Length	Slope		Capacity	Description						
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)							
0.8	50	0.0150	1.01		Sheet Flow,						
					Smooth surfaces n= 0.011 P2= 2.89"						
1.7	257	0.0150	2.49		Shallow Concentrated Flow,						
					Paved Kv= 20.3 fps						
2.5	307	Total, I	ncreased t	o minimum	n Tc = 6.0 min						

# **Summary for Subcatchment 11S: Roadway Flow**

Runoff = 1.91 cfs @ 12.09 hrs, Volume= 0.150 af, Depth> 3.06"

A	rea (sf)	CN E	Description		
	6,240	98 F	Roofs, HSG	G D	
	11,906	80 >	75% Gras	s cover, Go	ood, HSG D
	2,142	39 >	75% Gras	s cover, Go	ood, HSG A
	1,643	98 F	Roofs, HSG	G D	
	3,791	98 F	Roofs, HSG	6 A	
	25,722	٧	Veighted A	verage	
	14,048	5	4.61% Per	vious Area	
	11,674	4	5.39% Imp	ervious Ar	ea
Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
1.1	24	0.3300	0.37		Sheet Flow,
					Grass: Short n= 0.150 P2= 2.89"
2.3	26	0.0600	0.19		Sheet Flow,
					Grass: Short n= 0.150 P2= 2.89"
8.0	46	0.0200	0.99		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
1.2	183	0.0150	2.49		Shallow Concentrated Flow,
					Paved Kv= 20.3 fps
5.4	279	Total, I	ncreased t	o minimum	n Tc = 6.0 min

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# **Summary for Subcatchment 20S: Roadway Flow**

Runoff 0.17 cfs @ 12.09 hrs, Volume= 0.014 af, Depth> 2.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.47"

_	Aı	rea (sf)	CN [										
_		396	98 F	98 Roofs, HSG D									
		993	80 >	80 >75% Grass cover, Good, HSG D									
		660	39 >	39 >75% Grass cover, Good, HSG A									
_		725	98 F	Paved park	ing, HSG A	<b>\</b>							
		2,774	\	Weighted Average									
		1,653	5	59.59% Per	vious Area								
		1,121	4	10.41% Imp	ervious Ar	ea							
	Tc	Length	Slope	Velocity	Capacity	Description							
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	Description							
	4.1	50	0.0500	0.20		Sheet Flow,							
						Grass: Short n= 0.150 P2= 2.89"							
	0.1	15	0.0200	2.87		Shallow Concentrated Flow,							
_						Paved Kv= 20.3 fps							
	4.2	65	Total.	Increased t	o minimum	Tc = 6.0 min							

# **Summary for Subcatchment 21S: Roadway Flow**

Runoff 0.61 cfs @ 12.09 hrs, Volume= 0.049 af, Depth> 2.57"

Area (sf)	CN	Description
1,651	98	Roofs, HSG D
365	98	Roofs, HSG A
3,879	80	>75% Grass cover, Good, HSG D
2,296	39	>75% Grass cover, Good, HSG A
4	98	Paved parking, HSG D
1,709	98	Paved parking, HSG A
9,904		Weighted Average
6,175		62.35% Pervious Area
3,729		37.65% Impervious Area

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_	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	2.9	50	0.1200	0.29		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	0.9	98	0.0700	1.85		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	0.3	55	0.0200	2.87		Shallow Concentrated Flow,
_						Paved Kv= 20.3 fps
_	4.4	000	<del></del>	1.4		T 00 :

<sup>4.1 203</sup> Total, Increased to minimum Tc = 6.0 min

# **Summary for Subcatchment 22S: Overland Flow to Pond**

Runoff = 0.74 cfs @ 12.09 hrs, Volume= 0.057 af, Depth> 1.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.47"

A	rea (sf)	CN [	CN Description						
	1,512	98 F	Roofs, HSC	D D					
	645	98 F	Roofs, HSG	βA					
	8,034	80 >	>75% Gras	s cover, Go	ood, HSG D				
	7,400	39 >	75% Gras	s cover, Go	ood, HSG A				
	119	98 F	Paved park	ing, HSG A	١				
	17,710	\	Veighted A	verage					
	15,434	3	37.15% Pei	rvious Area	l				
	2,276	1	12.85% Imp	pervious Ar	ea				
Tc	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
2.2	47	0.2127	0.36		Sheet Flow,	·			
					Grass: Short	n= 0.150	P2= 2.89"		

<sup>2.2 47</sup> Total, Increased to minimum Tc = 6.0 min

# **Summary for Subcatchment 30S: Roadway Flow**

Runoff = 1.20 cfs @ 12.09 hrs, Volume= 0.095 af, Depth> 3.37"

Area (sf)	CN	Description
4,540	98	Paved parking, HSG D
6,935	80	>75% Grass cover, Good, HSG D
65	39	>75% Grass cover, Good, HSG A
1,636	98	Paved parking, HSG D
1,538	98	Paved parking, HSG A
14,714		Weighted Average
7,000		47.57% Pervious Area
7,714		52.43% Impervious Area

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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
Ī	2.6	50	0.1600	0.32		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	1.1	64	0.0200	0.99		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	0.9	162	0.0200	2.87		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
_	4.6	076	Tatal	4		

<sup>4.6 276</sup> Total, Increased to minimum Tc = 6.0 min

# **Summary for Subcatchment 31S: Roadway Flow**

Runoff = 1.08 cfs @ 12.09 hrs, Volume= 0.086 af, Depth> 2.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.47"

A	rea (sf)	CN D	escription						
	2,626	98 P	Paved parking, HSG D						
	1,214			ing, HSG A					
	6,749				ood, HSG D				
	3,860			,	ood, HSG A				
	2,745	98 P	aved park	ing, HSG A	·				
	17,194		Veighted A	•					
	10,609	6	1.70% Per	vious Area					
	6,585	3	8.30% Imp	pervious Ar	ea				
Tc	Length	Slope	Velocity	Capacity	Description				
(min)	Length (feet)	(ft/ft)	(ft/sec)	Capacity (cfs)	Description				
	•	•	,		Sheet Flow,				
(min) 2.1	(feet) 50	(ft/ft) 0.2800	(ft/sec) 0.40		Sheet Flow, Grass: Short n= 0.150 P2= 2.89"				
(min)	(feet)	(ft/ft)	(ft/sec)		Sheet Flow, Grass: Short n= 0.150 P2= 2.89" Shallow Concentrated Flow,				
(min) 2.1 0.3	(feet) 50 60	(ft/ft) 0.2800 0.2000	(ft/sec) 0.40 3.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.89" Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps				
(min) 2.1	(feet) 50	(ft/ft) 0.2800	(ft/sec) 0.40		Sheet Flow, Grass: Short n= 0.150 P2= 2.89" Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow,				
(min) 2.1 0.3	(feet) 50 60	(ft/ft) 0.2800 0.2000 0.0200	(ft/sec) 0.40 3.13 2.87	(cfs)	Sheet Flow, Grass: Short n= 0.150 P2= 2.89" Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps				

# **Summary for Subcatchment 32S: Roadway Flow**

Runoff = 1.66 cfs @ 12.09 hrs, Volume= 0.131 af, Depth> 3.16"

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A	rea (sf)	CN E	<b>Description</b>						
	5,015	98 F	98 Roofs, HSG D						
	8,256	80 >	75% Gras	s cover, Go	ood, HSG D				
	991	39 >	75% Gras	s cover, Go	ood, HSG A				
	1,964	98 F	Paved park	ing, HSG D					
	3,391			ing, HSG A					
	2,034	77 V	Voods, Go	od, HSG D					
	21,651	V	Veighted A	verage					
	11,281	5	2.10% Per	vious Area					
	10,370	4	7.90% lmp	ervious Ar	ea				
Tc	0	Slope	Velocity	Capacity	Description				
<u>(min)</u>	(feet)	(ft/ft)	(ft/sec)	(cfs)					
4.0	40	0.2500	0.17		Sheet Flow,				
					Woods: Light underbrush n= 0.400 P2= 2.89"				
0.7	10	0.2000	0.26		Sheet Flow,				
					Grass: Short n= 0.150 P2= 2.89"				
0.3	63	0.3300	4.02		Shallow Concentrated Flow,				
					Short Grass Pasture Kv= 7.0 fps				
0.6	110	0.0200	2.87		Shallow Concentrated Flow,				
					Paved Kv= 20.3 fps				
5.6	223	Total, I	ncreased t	o minimum	Tc = 6.0 min				

# **Summary for Subcatchment 33S: Roadway Flow**

Runoff = 0.64 cfs @ 12.09 hrs, Volume= 0.053 af, Depth> 2.65"

A	rea (sf)	CN D	escription							
	948	98 Roofs, HSG D								
	395	98 F	· · · · · · · · · · · · · · · · · · ·							
	1,701	80 >								
	3,225	39 >	75% Gras	s cover, Go	ood, HSG A					
	4,087	98 P	aved park	ing, HSG A	1					
	10,356	V	Veighted A	verage						
	4,926	4	7.57% Per	vious Area						
	5,430	5	2.43% Imp	ervious Ar	ea					
Тс	Length	Slope	Velocity	Capacity	Description					
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
2.6	50	0.1600	0.32		Sheet Flow,					
					Grass: Short n= 0.150 P2= 2.89"					
0.2	37	0.2000	3.13		Shallow Concentrated Flow,					
					Short Grass Pasture Kv= 7.0 fps					
1.0	170	0.0200	2.87		Shallow Concentrated Flow,					
					Paved Kv= 20.3 fps					
3.8	257	Total, I	ncreased t	o minimum	n Tc = 6.0 min					

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# **Summary for Subcatchment 40S: Roadway Flow**

Runoff = 0.89 cfs @ 12.09 hrs, Volume= 0.073 af, Depth> 3.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.47"

A	rea (sf)	CN I	Description					
	752	98 F	8 Roofs, HSG D					
	1,321	98 I	Roofs, HSG	βA				
	391	98 I	Roofs, HSG	G C				
	780	80 >	>75% Gras	s cover, Go	ood, HSG D			
	2,326	39 >	>75% Gras	s cover, Go	ood, HSG A			
	50	74	>75% Gras	s cover, Go	ood, HSG C			
	1,115	98 F	Paved park	ing, HSG D				
	4,921	98 F	Paved park	ing, HSG A	1			
	30	98 I	Paved park	ing, HSG C				
	11,686	1	Neighted A	verage				
	3,156	2	27.01% Pei	rvious Area	l e e e e e e e e e e e e e e e e e e e			
	8,530	7	72.99% Imp	pervious Ar	ea			
Tc	Length	Slope	Velocity	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
0.8	50	0.0150	1.01		Sheet Flow,			
					Smooth surfaces n= 0.011 P2= 2.89"			
1.4	213	0.0150	2.49		Shallow Concentrated Flow,			
					Paved Kv= 20.3 fps			
2.2	263	Total,	Increased t	o minimum	n Tc = 6.0 min			

# **Summary for Subcatchment 41S: Roadway Flow**

Runoff = 1.21 cfs @ 12.10 hrs, Volume= 0.096 af, Depth> 3.11"

Area (sf)	CN	Description			
2,949	98	Roofs, HSG D			
157	98	Roofs, HSG A			
8,262	80	>75% Grass cover, Good, HSG D			
765	39	>75% Grass cover, Good, HSG A			
1,393	98	Paved parking, HSG D			
2,544	98	Paved parking, HSG A			
16,070		Weighted Average			
9,027		56.17% Pervious Area			
7,043		43.83% Impervious Area			

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 Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	40	0.0250	0.15		Sheet Flow,
					Grass: Short n= 0.150 P2= 2.89"
0.5	10	0.3300	0.31		Sheet Flow,
					Grass: Short n= 0.150 P2= 2.89"
0.6	80	0.1000	2.21		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
0.9	138	0.0150	2.49		Shallow Concentrated Flow,
					Paved Kv= 20.3 fps
6.5	268	Total			

# **Summary for Subcatchment 42S: Flow to CB#200**

Runoff = 2.16 cfs @ 12.09 hrs, Volume= 0.169 af, Depth> 2.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.47"

Α	rea (sf)	CN D	escription		
	1,682	39 >	75% Gras	s cover, Go	ood, HSG A
	10,383	80 >	75% Gras	s cover, Go	ood, HSG D
	3,530	74 >	75% Gras	s cover, Go	ood, HSG C
	6,936	98 P	aved park	ing, HSG A	1
	2,228	77 V	Voods, Go	od, HSG D	
	170	98 F	Roofs, HSG	βA	
	90	98 F	Roofs, HSG	G C	
	2,670	98 F	Roofs, HSG	B D	
	1,237	98 F	Roofs, HSG	βA	
	994	98 F	Roofs, HSC	G C	
	29,920	V	Veighted A	verage	
	17,823	5	9.57% Per	rvious Area	1
	12,097	4	0.43% Imp	pervious Ar	rea
Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
0.7	50	0.0200	1.14		Sheet Flow,
					Smooth surfaces n= 0.011 P2= 2.89"
1.2	335	0.0500	4.54		Shallow Concentrated Flow,
					Paved Kv= 20.3 fps
1.9	385	Total, I	ncreased t	o minimum	n Tc = 6.0 min

# **Summary for Subcatchment 50S: Roadway Flow**

Runoff = 0.74 cfs @ 12.09 hrs, Volume= 0.063 af, Depth> 2.54"

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Ar	ea (sf)	CN Description						
	5,295	39 >	75% Grass	s cover, Go	od, HSG A			
	7,603	98 P	aved parki	ing, HSG A				
	12,898	V	Veighted A	verage				
	5,295	4	1.05% Per	vious Area				
	7,603	5	8.95% Imp	ervious Are	ea			
Tc	Length	Slope	Velocity	Capacity	Description			
<u>(min)</u>	(feet)	(ft/ft)	(ft/sec)	(cfs)				
0.5	50	0.0550	1.71		Sheet Flow,			
					Smooth surfaces n= 0.011 P2= 2.89"			
0.9	250	0.0500	4.54		Shallow Concentrated Flow,			
					Paved Kv= 20.3 fps			
1.4	300	Total, li	ncreased t	o minimum	Tc = 6.0 min			

# **Summary for Subcatchment 51S: Roadway Flow**

Runoff = 0.82 cfs @ 12.09 hrs, Volume= 0.069 af, Depth> 2.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.47"

		( 5)	O								
_	A	rea (sf)	CN D	CN Description							
		3,027	98 F	98 Roofs, HSG A							
		4,496	39 >	75% Gras	s cover. Go	ood, HSG A					
		5,392			ing, HSG A	•					
_		12,915		Veighted A		•					
		,			verage vious Area						
		4,496	_								
		8,419	6	5.19% Imp	pervious Ar	ea					
	Tc	Length	Slope	Velocity	Capacity	Description					
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	3.4	50	0.0800	0.25		Sheet Flow,					
	• • •		0.000	0.20		Grass: Short n= 0.150 P2= 2.89"					
	0.6	76	0.0900	2.10		Shallow Concentrated Flow,					
	0.0	70	0.0300	2.10		•					
	0.4	07	0.0500	4 5 4		Short Grass Pasture Kv= 7.0 fps					
	0.1	37	0.0500	4.54		Shallow Concentrated Flow,					
_						Paved Kv= 20.3 fps					
	11	162	Total I	naraacad t	a minimum	To = 6.0 min					

4.1 163 Total, Increased to minimum Tc = 6.0 min

# Summary for Subcatchment 60S: Roadway and Building Flow

Runoff = 0.91 cfs @ 12.09 hrs, Volume= 0.078 af, Depth> 1.78"

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_	Α	rea (sf)	CN D	CN Description							
		3,213	98 R	98 Roofs, HSG A							
		13,675	39 >	75% Gras	s cover, Go	ood, HSG A					
_		6,124	98 P	aved park	ing, HSG A	1					
		23,012	٧	Veighted A	verage						
		13,675	5	9.43% Per	vious Area						
		9,337	4	0.57% Imp	ervious Ar	ea					
	Tc	Length	Slope	Velocity	Capacity	Description					
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	2.6	50	0.1600	0.32		Sheet Flow,					
						Grass: Short n= 0.150 P2= 2.89"					
	2.6	155	0.0200	0.99		Shallow Concentrated Flow,					
						Short Grass Pasture Kv= 7.0 fps					
	0.1	15	0.0200	2.87		Shallow Concentrated Flow,					
_						Paved Kv= 20.3 fps					
	5.3	220	Total, I	ncreased t	o minimum	Tc = 6.0 min					

# **Summary for Subcatchment 61S: Roadway Flow**

Runoff = 0.62 cfs @ 12.09 hrs, Volume= 0.051 af, Depth> 3.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.47"

Aı	rea (st)	CN D	escription							
	1,253	39 >	39 >75% Grass cover, Good, HSG A							
	6,311	98 P	aved park	ing, HSG A	<b>.</b>					
	7,564	٧	Veighted A	verage						
	1,253	1	6.57% Per	vious Area						
	6,311	8	3.43% Imp	ervious Ar	ea					
Тс	Length	Slope			Description					
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
0.7	50	0.0200	1.14		Sheet Flow,					
					Smooth surfaces n= 0.011 P2= 2.89"					
0.6	102	0.0200	2.87		Shallow Concentrated Flow,					
					Paved Kv= 20.3 fps					
1.3	152	Total, I	ncreased t	o minimum	Tc = 6.0 min					
	Tc (min) 0.7 0.6	1,253 6,311 7,564 1,253 6,311 Tc Length (min) (feet) 0.7 50 0.6 102	1,253 39 > 6,311 98 P 7,564 W 1,253 1 6,311 8  Tc Length Slope (min) (feet) (ft/ft) 0.7 50 0.0200  0.6 102 0.0200	1,253 39 >75% Grass 6,311 98 Paved park 7,564 Weighted A 1,253 16.57% Per 6,311 83.43% Imp  Tc Length Slope Velocity (min) (feet) (ft/ft) (ft/sec) 0.7 50 0.0200 1.14  0.6 102 0.0200 2.87	1,253 39 >75% Grass cover, Go 6,311 98 Paved parking, HSG A 7,564 Weighted Average 1,253 16.57% Pervious Area 6,311 83.43% Impervious Ar  Tc Length Slope Velocity Capacity (min) (feet) (ft/ft) (ft/sec) (cfs) 0.7 50 0.0200 1.14  0.6 102 0.0200 2.87					

rotal, morodoca to minimum ro oto min

# **Summary for Subcatchment 62S: Bioretention Pond Area**

Runoff = 0.00 cfs @ 14.75 hrs, Volume= 0.001 af, Depth> 0.11"

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A	rea (sf)	CN D	escription						
	6,453	39 >	>75% Grass cover, Good, HSG A						
	6,453	1	00.00% Pe	ervious Are	ea				
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description				
6.0					Direct Entry,				

# **Summary for Subcatchment 70S: Overland Flow to Detention Pond**

Runoff = 5.35 cfs @ 12.21 hrs, Volume= 0.504 af, Depth> 2.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.47"

	Aı	rea (sf)	CN [	Description								
		607	98 F	8 Roofs, HSG D								
		1,192	98 F	Roofs, HSC	βA							
		24,819	80 >	•75% Gras	s cover, Go	ood, HSG D						
		13,185			,	ood, HSG A						
_		89,055	77 \	Voods, Go	od, HSG D							
	1	28,858		Veighted A	•							
	1	27,059	ξ	98.60% Pei	vious Area							
		1,799	1	1.40% Impe	ervious Are	a						
	То	Longth	Clana	Volocity	Consoitu	Description						
	Tc (min)	Length	Slope	•	Capacity	Description						
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)							
	7.5	50	0.0800	0.11		Sheet Flow,						
						Woods: Light underbrush n= 0.400 P2= 2.89"						
	3.6	391	0.1300	1.80		Shallow Concentrated Flow,						
						Woodland Kv= 5.0 fps						
	3.5	304	0.0430	1.45		Shallow Concentrated Flow,						
_						Short Grass Pasture Kv= 7.0 fps						
	14.6	745	Total									

# **Summary for Subcatchment 71S: Roadway Flow**

Runoff = 1.95 cfs @ 12.09 hrs, Volume= 0.160 af, Depth> 3.15"

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A	rea (sf)	CN [	Description						
	2,572	98 F	Roofs, HSG D						
	3,565	98 F	Roofs, HSC	βA					
	3,581	80 >	75% Gras	s cover, Go	ood, HSG D				
	5,385	39 >	75% Gras	s cover, Go	ood, HSG A				
	1,533	98 F	Paved park	ing, HSG D					
	9,859	98 F	Paved park	ing, HSG A	1				
	26,495	V	Veighted A	verage					
	8,966	3	3.84% Pei	rvious Area					
	17,529	6	6.16% Imp	pervious Ar	ea				
Tc	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
3.4	50	0.0800	0.25		Sheet Flow,				
					Grass: Short n= 0.150 P2= 2.89"				
1.5	250	0.0200	2.87		Shallow Concentrated Flow,				
					Paved Kv= 20.3 fps				
4.9	300	Total, I	ncreased t	to minimum	Tc = 6.0 min				

# **Summary for Subcatchment 72S: House Flow to Pond**

Runoff = 2.24 cfs @ 12.09 hrs, Volume= 0.187 af, Depth> 1.99"

A	rea (sf)	CN D	escription						
	2,848	98 F	98 Roofs, HSG D						
	9,725	98 F	Roofs, HSG	βA					
	23,884	39 >	75% Gras	s cover, Go	ood, HSG A				
	4,734			,	ood, HSG D				
	1,216			,	ood, HSG C				
	1,330		•	ing, HSG [					
	5,294	98 P	aved park	ing, HSG A					
	49,031	V	Veighted A	verage					
	29,834	6	0.85% Per	rvious Area					
	19,197	3	9.15% lmp	pervious Ar	ea				
Tc	Length	Slope	Velocity	Capacity	Description				
(min)_	(feet)	(ft/ft)	(ft/sec)	(cfs)					
0.7	50	0.0200	1.14		Sheet Flow,				
					Smooth surfaces n= 0.011 P2= 2.89"				
0.3	77	0.3100	3.90		Shallow Concentrated Flow,				
					Short Grass Pasture Kv= 7.0 fps				
1.0	127	Total, I	ncreased t	o minimum	Tc = 6.0 min				

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# **Summary for Subcatchment 73S: Roadway Flow**

Runoff = 0.45 cfs @ 12.09 hrs, Volume= 0.037 af, Depth> 3.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.47"

A	rea (sf)	CN D	escription						
	1,375	39 >	39 >75% Grass cover, Good, HSG A						
	4,557	98 P	98 Paved parking, HSG A						
	5,932	٧	Weighted Average						
	1,375	2	3.18% Per	vious Area					
	4,557	7	6.82% Imp	ervious Ar	ea				
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description				
0.7	50	0.0200	1.14		Sheet Flow,				
0.9	150	0.0200	2.87		Smooth surfaces n= 0.011 P2= 2.89"  Shallow Concentrated Flow, Paved Kv= 20.3 fps				
1.6	200	Total, I	ncreased t	o minimum	Tc = 6.0 min				

### Summary for Subcatchment 74S: Area in Circle to Infiltration Pond

Runoff = 0.80 cfs @ 12.09 hrs, Volume= 0.066 af, Depth> 1.96"

A	rea (sf)	CN [	Description					
	4,851	98 F	Roofs, HSC	A A				
	8,558	39 >	>75% Gras	s cover, Go	ood, HSG A			
	1,547	98 F	Roofs, HSG	B D				
	248	98 F	Roofs, HSG	G C				
	1,588	80 >	75% Gras	s cover, Go	ood, HSG D			
	864	74 >	>75% Gras	s cover, Go	ood, HSG C			
	17,656	\	Veighted A	verage				
	11,010	6	62.36% Pei	rvious Area	l			
	6,646	3	37.64% lmp	pervious Ar	ea			
Tc	Length	Slope	Velocity	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
2.6	40	0.1000	0.26		Sheet Flow,			
					Grass: Short	n= 0.150	P2= 2.89"	
2.6	40	Total,	Increased t	o minimum	n Tc = 6.0 min			

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# **Summary for Subcatchment 75S: Roadway Flow**

Runoff = 1.04 cfs @ 12.09 hrs, Volume= 0.085 af, Depth> 3.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.47"

	Area (sf)	CN [	Description		
	295	98 F	Roofs, HSG	G D	
	1,380	98 F	Roofs, HSG	βA	
	2,209	80 >	75% Gras	s cover, Go	ood, HSG D
	2,224	39 >	75% Gras	s cover, Go	ood, HSG A
	4,186			ing, HSG [	
	3,345	98 F	Paved park	ing, HSG A	1
	13,639	٧	Veighted A	verage	
	4,433	_		rvious Area	
	9,206	6	67.50% lmp	pervious Ar	ea
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0200	1.14		Sheet Flow,
0.8	146	0.0200	2.87		Smooth surfaces n= 0.011 P2= 2.89" <b>Shallow Concentrated Flow,</b> Paved Kv= 20.3 fps
1.5	196	Total I	ncreased t	o minimum	$T_{\rm C} = 6.0  \text{min}$

1.5 196 Total, Increased to minimum Tc = 6.0 min

### **Summary for Subcatchment 76S: Roadway Flow**

Runoff = 5.44 cfs @ 12.13 hrs, Volume= 0.465 af, Depth> 2.61"

Area (sf)	CN	Description					
14,560	98	Roofs, HSG D					
1,133	98	Roofs, HSG A					
24,384	80	>75% Grass cover, Good, HSG D					
10,102	39	>75% Grass cover, Good, HSG A					
31,709	77	Woods, Good, HSG D					
7,686	98	Paved parking, HSG D					
3,446	98	Paved parking, HSG A					
93,020		Weighted Average					
66,195		71.16% Pervious Area					
26,825		28.84% Impervious Area					

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 Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
 6.3	50	0.1200	0.13		Sheet Flow,
					Woods: Light underbrush n= 0.400 P2= 2.89"
0.9	130	0.2150	2.32		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
1.0	120	0.0830	2.02		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
8.0	168	0.0300	3.52		Shallow Concentrated Flow,
					Paved Kv= 20.3 fps
 9.0	468	Total			

# **Summary for Subcatchment 100S: Unit 1**

Runoff = 0.09 cfs @ 12.09 hrs, Volume= 0.007 af, Depth> 4.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.47"

A	rea (sf)	CN [	Description		
	920	98 F	Roofs, HSG	Α	
•	920	1	00.00% Im	pervious A	Area
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

# Summary for Subcatchment 101S: Units 2 & 3

Runoff = 0.18 cfs @ 12.09 hrs, Volume= 0.015 af, Depth> 4.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.47"

A	rea (sf)	CN D	escription		
	1,840	98 F	Roofs, HSG	Α	
	1,840	1	00.00% In	npervious A	Area
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	·				Direct Entry,

# Summary for Subcatchment 102S: Units 4 & 5

Runoff = 0.18 cfs @ 12.09 hrs, Volume= 0.015 af, Depth> 4.23"

Type III 24-hr 10-yr Rainfall=4.47" Printed 10/10/2022

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_	Α	rea (sf)	CN [	Description		
		1,840	98 F	Roofs, HSG	A A	
		1,840	•	100.00% Im	pervious A	Area
	То	Longth	Clana	Volosity	Consoity	Description
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	(cfs)	Description
_	6.0	,,	(1211)	( )	()	Direct Entry,

# Summary for Subcatchment 103S: Units 6 & 7

Runoff = 0.18 cfs @ 12.09 hrs, Volume= 0.015 af, Depth> 4.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.47"

Α	rea (sf)	CN [	Description					
	1,840	98 F	98 Roofs, HSG A					
	1,840	1	100.00% Impervious Area					
То	Longth	Clana	Volosity	Consoity	Description			
Tc (min)	Length (feet)	Slope (ft/ft)	(ft/sec)	Capacity (cfs)	Description			
6.0	(.301)	(1411)	(12000)	(0.0)	Direct Entry,			

# Summary for Subcatchment 104S: Units 8 & 9

Runoff = 0.18 cfs @ 12.09 hrs, Volume= 0.015 af, Depth> 4.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.47"

_	Α	rea (sf)	CN [	Description						
		1,840	98 F	98 Roofs, HSG A						
		1,840	1	100.00% Impervious Area						
	_				_					
	Tc	Length	Slope	Velocity	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	6.0					Direct Entry.				

# Summary for Subcatchment 105S: Units 11 & 10

Runoff = 0.18 cfs @ 12.09 hrs, Volume= 0.015 af, Depth> 4.23"

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A	rea (sf)	CN D	escription					
	1,840	98 F	98 Roofs, HSG A					
	1,840	1	100.00% Impervious Area					
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description			
6.0					Direct Entry,			

## Summary for Subcatchment 106S: Units 13 & 12

Runoff = 0.18 cfs @ 12.09 hrs, Volume= 0.015 af, Depth> 4.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.47"

A	rea (sf)	CN [	Description						
	1,840	98 F	98 Roofs, HSG A						
	1,840	1	100.00% Impervious Area						
Tc	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
6.0	-	-			Direct Entry,				

# Summary for Subcatchment 107S: Units 15 & 14

Runoff = 0.18 cfs @ 12.09 hrs, Volume= 0.015 af, Depth> 4.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.47"

A	rea (sf)	CN E	Description						
	1,840	98 F	98 Roofs, HSG A						
	1,840	1	100.00% Impervious Area						
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)					
6.0					Direct Entry,				

# Summary for Subcatchment 108S: Units 17 & 16

Runoff = 0.18 cfs @ 12.09 hrs, Volume= 0.015 af, Depth> 4.23"

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A	rea (sf)	CN I	Description					
	1,840	98 I	98 Roofs, HSG A					
	1,840	•	100.00% Impervious Area					
_		-			<b>–</b>			
Tc	Length	Slope	Velocity	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
6.0					Direct Entry,			

# **Summary for Subcatchment 109S: Unit 18**

Runoff = 0.09 cfs @ 12.09 hrs, Volume= 0.007 af, Depth> 4.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-yr Rainfall=4.47"

A	rea (sf)	CN E	Description					
	920	98 F	98 Roofs, HSG A					
	920	1	100.00% Impervious Area					
To	Longth	Clono	Volocity	Canacity	Description			
Tc (min)	Length (feet)	Slope (ft/ft)	(ft/sec)	Capacity (cfs)	Description			
6.0		( ' )			Direct Entry,			

# **Summary for Reach 1R: Tammy Court**

Inflow Area = 1.32 ac, 17.28% Impervious, Inflow Depth > 2.38" for 10-yr event

Inflow = 3.46 cfs @ 12.09 hrs, Volume= 0.263 af

Outflow = 3.46 cfs @ 12.09 hrs, Volume= 0.263 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

# Summary for Reach 2R: Ex CB1

Inflow Area = 3.88 ac, 46.55% Impervious, Inflow Depth > 2.80" for 10-yr event

Inflow = 3.86 cfs @ 12.34 hrs, Volume= 0.907 af

Outflow = 3.86 cfs @ 12.34 hrs, Volume= 0.907 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

# Summary for Reach 3R: Ex CB 2

Inflow Area = 0.57 ac, 8.93% Impervious, Inflow Depth > 1.93" for 10-yr event

Inflow = 1.11 cfs @ 12.12 hrs, Volume= 0.091 af

Outflow = 1.11 cfs @ 12.12 hrs, Volume= 0.091 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

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# **Summary for Reach 4R: Upper Shadowbrook Drive Drainage**

Inflow Area = 2.77 ac, 53.61% Impervious, Inflow Depth > 2.73" for 10-yr event

Inflow = 3.09 cfs @ 12.29 hrs, Volume= 0.630 af

Outflow = 3.09 cfs @ 12.29 hrs, Volume= 0.630 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

# **Summary for Reach 5R: Canterberry Ct Drainage**

Inflow Area = 0.84 ac, 15.94% Impervious, Inflow Depth > 0.76" for 10-yr event

Inflow = 0.57 cfs @ 12.09 hrs, Volume= 0.053 af

Outflow = 0.57 cfs @ 12.09 hrs, Volume= 0.053 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Summary for Reach 6R: Lower Shadowbrook Dr CB

Inflow Area = 1.67 ac, 12.69% Impervious, Inflow Depth > 0.62" for 10-yr event

Inflow = 0.90 cfs @ 12.09 hrs, Volume= 0.087 af

Outflow = 0.90 cfs @ 12.09 hrs, Volume= 0.087 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

# Summary for Pond 1P: Bioretention Pond #1

Inflow Area = 2.51 ac, 55.18% Impervious, Inflow Depth > 2.71" for 10-yr event

Inflow = 6.88 cfs @ 12.09 hrs, Volume= 0.566 af

Outflow = 2.74 cfs @ 12.32 hrs, Volume= 0.566 af, Atten= 60%, Lag= 13.7 min

Primary = 2.74 cfs @ 12.32 hrs, Volume= 0.566 af Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 292.77' @ 12.32 hrs Surf.Area= 3,784 sf Storage= 7,995 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 83.9 min ( 847.1 - 763.2 )

Volume	Invert	Avail.Storage	Storage Description
#1	288.00'	13,264 cf	Custom Stage Data (Prismatic)Listed below (Recalc)

Elevation	Surf.Area	Inc.Store	Cum.Store
(feet)	(sq-ft)	(cubic-feet)	(cubic-feet)
288.00	434	0	0
290.00	1,140	1,574	1,574
291.00	1,598	1,369	2,943
292.00	3,160	2,379	5,322
294.00	4.782	7.942	13.264

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Device	Routing	Invert	Outlet Devices
#1	Secondary	293.80'	<b>4.0' long x 10.0' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60
			Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Device 5	288.00'	10.000 in/hr Exfiltration over Surface area
#3	Device 5	292.10'	<b>15.0" Vert. Orifice/Grate</b> C= 0.600
#4	Device 5	293.50'	<b>48.0"</b> x <b>48.0"</b> Horiz. Orifice/Grate C= 0.600
			Limited to weir flow at low heads
#5	Primary	285.00'	12.0" Round Culvert
	-		L= 55.3' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 285.00' / 283.04' S= 0.0354 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.73 cfs @ 12.32 hrs HW=292.77' TW=0.00' (Dynamic Tailwater)

**-5=Culvert** (Passes 2.73 cfs of 10.19 cfs potential flow)

**-2=Exfiltration** (Exfiltration Controls 0.88 cfs)

-3=Orifice/Grate (Orifice Controls 1.86 cfs @ 2.78 fps)

-4=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=288.00' TW=0.00' (Dynamic Tailwater) 1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

### Summary for Pond 2P: Pocket Pond #1

Inflow Area = 3.42 ac, 46.71% Impervious, Inflow Depth > 2.89" for 10-yr event

10.28 cfs @ 12.09 hrs, Volume= Inflow = 0.821 af

Outflow 3.40 cfs @ 12.39 hrs, Volume= 0.802 af, Atten= 67%, Lag= 18.1 min =

Primary = 3.40 cfs @ 12.39 hrs, Volume= 0.802 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Starting Elev= 309.79' Surf.Area= 3,009 sf Storage= 5,826 cf

Peak Elev= 312.34' @ 12.39 hrs Surf.Area= 7,231 sf Storage= 18,642 cf (12,816 cf above start)

Plug-Flow detention time= 235.2 min calculated for 0.668 af (81% of inflow)

Center-of-Mass det. time= 103.4 min (878.6 - 775.2)

Volume	Invert	Avaii.	Storage	Storage Description	on .	
#1	306.00'	2	7,930 cf	Custom Stage Da	nta (Irregular)Liste	ed below (Recalc)
Elevation		.Area	Perim.	Inc.Store	Cum.Store	Wet.Area
(feet)	(:	sq-ft)	(feet)	(cubic-feet)	(cubic-feet)	(sq-ft)
306.00		306	196.0	0	0	306
308.00	1	1,616	240.0	1,750	1,750	1,894
310.00	3	3,201	285.0	4,728	6,478	3,846
312.00	6	5,785	438.0	9,764	16,242	12,678
313.50	8	3.844	470.0	11.688	27.930	15.088

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#3

Device 4

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Device	Routing	Invert	Outlet Devices
#1	Device 4	309.80'	4.5" Vert. Orifice/Grate C= 0.600
#2	Device 4	311.50'	14.0" Vert. Orifice/Grate C= 0.600
#3	Device 4	313.10'	<b>48.0" x 48.0" Horiz. Orifice/Grate</b> C= 0.600
			Limited to weir flow at low heads
#4	Primary	309.75'	15.0" Round Culvert
			L= 93.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 309.75' / 307.89' S= 0.0200 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=3.39 cfs @ 12.39 hrs HW=312.34' TW=308.83' (Dynamic Tailwater)

**-4=Culvert** (Passes 3.39 cfs of 8.29 cfs potential flow)

-1=Orifice/Grate (Orifice Controls 0.82 cfs @ 7.39 fps)

-2=Orifice/Grate (Orifice Controls 2.58 cfs @ 3.12 fps)

-3=Orifice/Grate (Controls 0.00 cfs)

# **Summary for Pond 3P: Pocket Pond #2**

Inflow Area = 6.15 ac, 22.36% Impervious, Inflow Depth > 2.44" for 10-yr event

Inflow 13.02 cfs @ 12.14 hrs, Volume= 1.251 af

Outflow 1.233 af, Atten= 34%, Lag= 11.2 min

8.57 cfs @ 12.32 hrs, Volume= 8.57 cfs @ 12.32 hrs, Volume= Primary 1.233 af 0.00 cfs @ 0.00 hrs, Volume= Secondary = 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Starting Elev= 271.98' Surf.Area= 2,847 sf Storage= 5,675 cf

Peak Elev= 274.69' @ 12.32 hrs Surf.Area= 5,502 sf Storage= 16,919 cf (11,245 cf above start)

Plug-Flow detention time= 114.0 min calculated for 1.101 af (88% of inflow)

Center-of-Mass det time= 29 1 min (833 7 - 804 6)

Center-c	DI-IVIASS UCI. I	uiiie– 29. i iii	111 ( 033.7 - 00	J4.0 )	
Volume	Invert	Avail.Sto	rage Storag	e Description	
#1	268.00'	25,01	13 cf Custo	m Stage Data (P	rismatic)Listed below (Recalc)
Elevatio		rf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	
268.0	00	408	0	0	
269.0	00	790	599	599	
270.0	00	1,250	1,020	1,619	
272.0	00	2,863	4,113	5,732	
274.0	00	4,762	7,625	13,357	
276.0	00	6,894	11,656	25,013	
Device	Routing	Invert	Outlet Device	ces	
#1	Device 4	272.00'	9.0" Vert. O	rifice/Grate C=	0.600
#2	Secondary	275.35'			oad-Crested Rectangular Weir
			Head (feet)	0.20 0.40 0.60	0.80 1.00 1.20 1.40 1.60 1.80 2.00
				3.50 4.00 4.50 5	
			Coef. (Engli	sh) 2.38 2.54 2.	69 2.68 2.67 2.67 2.65 2.66 2.66
			2.68 2.72 2	2.73 2.76 2.79 2	1.88 3.07 3.32

273.80' **24.0" W x 10.0" H Vert. Orifice/Grate** C= 0.600

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#4 Primary 272.00' **18.0" Round Culvert**L= 105.7' CPP, square edge headwall, Ke= 0.500
Inlet / Outlet Invert= 272.00' / 271.57' S= 0.0041 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#5 Primary 275.70' **48.0" x 48.0" Horiz. Orifice/Grate** C= 0.600
Limited to weir flow at low heads

Primary OutFlow Max=8.53 cfs @ 12.32 hrs HW=274.69' TW=0.00' (Dynamic Tailwater)

**4=Culvert** (Passes 8.53 cfs of 9.74 cfs potential flow)

1=Orifice/Grate (Orifice Controls 3.24 cfs @ 7.32 fps)

☐3=Orifice/Grate (Orifice Controls 5.29 cfs @ 3.18 fps)

-5=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=271.98' TW=0.00' (Dynamic Tailwater) 2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

### **Summary for Pond 30P: Infiltration Pond #1**

Inflow Area = 0.41 ac, 37.64% Impervious, Inflow Depth > 1.96" for 10-yr event

Inflow = 0.80 cfs @ 12.09 hrs, Volume= 0.066 af

Outflow = 0.05 cfs @ 13.81 hrs, Volume= 0.058 af, Atten= 94%, Lag= 103.4 min

Discarded = 0.05 cfs @ 13.81 hrs, Volume= 0.058 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 280.74' @ 13.81 hrs Surf.Area= 2,230 sf Storage= 1,278 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 171.7 min ( 942.3 - 770.6 )

Volume	Invert	Avail.Sto	rage Storag	e Description	
#1	280.00'	5,1	66 cf Custo	m Stage Data (Pi	rismatic)Listed below (Recalc)
Elevatio		urf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	
280.0	00	1,214	0	0	
282.0	00	3,952	5,166	5,166	
Device	Routing	Invert	Outlet Device	ces	
#1	Discarded	280.00'	1.000 in/hr	Exfiltration over	Surface area

**Discarded OutFlow** Max=0.05 cfs @ 13.81 hrs HW=280.74' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.05 cfs)

# **Summary for Pond 31P: Infiltration Pond #2**

Inflow Area = 1.13 ac, 39.15% Impervious, Inflow Depth > 1.99" for 10-yr event Inflow = 2.24 cfs @ 12.09 hrs, Volume= 0.187 af

Outflow = 0.12 cfs @ 14.28 hrs, Volume= 0.132 af, Atten= 95%, Lag= 131.2 min

Discarded = 0.09 cfs @ 14.28 hrs, Volume= 0.125 af Primary = 0.03 cfs @ 14.28 hrs, Volume= 0.007 af

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Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 275.12' @ 14.28 hrs Surf.Area= 4,084 sf Storage= 3,993 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow) Center-of-Mass det. time= 151.9 min ( 920.6 - 768.7 )

Volume	Invert	Avail.Sto		Description (Description	Samuel (Salara Langer (Danala)
#1	274.00'	7,93	38 cf Custom	Stage Data (Pr	rismatic)Listed below (Recalc)
Elevation	on Su	rf.Area	Inc.Store	Cum.Store	
(fee	et)	(sq-ft)	(cubic-feet)	(cubic-feet)	
274.0	00	3,030	0	0	
276.0	00	4,908	7,938	7,938	
Device	Routing	Invert	Outlet Devices	S	
#1	Device 3	275.00'	3.0" Vert. Ori	fice/Grate C=	0.600
#2	Discarded	274.00'	1.000 in/hr Ex	<b>xfiltration over</b>	Surface area
#3	Primary	274.16'	15.0" Round	Culvert	
				, i	eadwall, Ke= 0.500
					274.00' S= 0.0050 '/' Cc= 0.900
					ooth interior, Flow Area= 1.23 sf
#4	Primary	276.40'		Horiz. Orifice/C	
			Limited to well	r flow at low hea	ds

**Discarded OutFlow** Max=0.09 cfs @ 14.28 hrs HW=275.12' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.09 cfs)

Primary OutFlow Max=0.03 cfs @ 14.28 hrs HW=275.12' TW=0.00' (Dynamic Tailwater)

-3=Culvert (Passes 0.03 cfs of 2.53 cfs potential flow)

1=Orifice/Grate (Orifice Controls 0.03 cfs @ 1.19 fps)

-4=Orifice/Grate (Controls 0.00 cfs)

# **Summary for Pond 100: AD#100**

Inflow Area = 0.02 ac,100.00% Impervious, Inflow Depth > 4.23" for 10-yr event

Inflow 0.09 cfs @ 12.09 hrs. Volume= 0.007 af

Outflow 0.09 cfs @ 12.09 hrs, Volume= 0.007 af, Atten= 0%, Lag= 0.0 min =

Primary 0.09 cfs @ 12.09 hrs, Volume= 0.007 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 295.97' @ 12.09 hrs

Flood Elev= 297.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	295.81'	8.0" Round Culvert
			L= 58.1' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 295.81' / 294.35' S= 0.0251 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.09 cfs @ 12.09 hrs HW=295.97' TW=294.54' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.09 cfs @ 1.36 fps)

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# **Summary for Pond 101: AD#101**

Inflow Area = 0.06 ac,100.00% Impervious, Inflow Depth > 4.23" for 10-yr event

Inflow = 0.27 cfs @ 12.09 hrs, Volume= 0.022 af

Outflow = 0.27 cfs @ 12.09 hrs, Volume= 0.022 af, Atten= 0%, Lag= 0.0 min

Primary = 0.27 cfs @ 12.09 hrs, Volume= 0.022 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 294.54' @ 12.09 hrs

Flood Elev= 297.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	294.25'	8.0" Round Culvert L= 37.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 294.25' / 292.40' S= 0.0500 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.26 cfs @ 12.09 hrs HW=294.54' TW=293.28' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.26 cfs @ 1.83 fps)

# Summary for Pond 102: AD#102

Inflow Area = 0.08 ac,100.00% Impervious, Inflow Depth > 4.23" for 10-yr event

Inflow = 0.36 cfs @ 12.09 hrs, Volume= 0.030 af

Outflow = 0.36 cfs @ 12.09 hrs, Volume= 0.030 af, Atten= 0%, Lag= 0.0 min

Primary = 0.36 cfs @ 12.09 hrs, Volume= 0.030 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 293.48' @ 12.19 hrs

Flood Elev= 297.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	292.95'	8.0" Round Culvert
			L= 27.4' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 292.95' / 292.40' S= 0.0201 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.18 cfs @ 12.09 hrs HW=293.35' TW=293.28' (Dynamic Tailwater) 1=Culvert (Outlet Controls 0.18 cfs @ 1.19 fps)

# Summary for Pond 103: AD#103

Inflow Area = 0.04 ac,100.00% Impervious, Inflow Depth > 4.23" for 10-yr event

Inflow = 0.18 cfs @ 12.09 hrs, Volume= 0.015 af

Outflow = 0.18 cfs @ 12.09 hrs, Volume= 0.015 af, Atten= 0%, Lag= 0.0 min

Primary = 0.18 cfs @ 12.09 hrs, Volume= 0.015 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 294.46' @ 12.09 hrs

Flood Elev= 297.40'

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Device	Routing	Invert	Outlet Devices
#1	Primary	294.23'	8.0" Round Culvert
			L= 59.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 294.23' / 293.05' S= 0.0200 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.18 cfs @ 12.09 hrs HW=294.46' TW=293.35' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.18 cfs @ 1.64 fps)

### Summary for Pond 104: AD#104

Inflow Area = 0.23 ac,100.00% Impervious, Inflow Depth > 4.23" for 10-yr event

Inflow = 0.99 cfs @ 12.09 hrs, Volume= 0.082 af

Outflow = 0.99 cfs @ 12.09 hrs, Volume= 0.082 af, Atten= 0%, Lag= 0.0 min

Primary = 0.99 cfs @ 12.09 hrs, Volume= 0.082 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 295.95' @ 12.09 hrs

Flood Elev= 299.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	295.27'	8.0" Round Culvert
	-		L= 16.6' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 295.27' / 294.66' S= 0.0367 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.97 cfs @ 12.09 hrs HW=295.93' TW=295.30' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.97 cfs @ 2.77 fps)

# **Summary for Pond 105: AD#105**

Inflow Area = 0.19 ac,100.00% Impervious, Inflow Depth > 4.23" for 10-yr event

Inflow = 0.81 cfs @ 12.09 hrs, Volume= 0.067 af

Outflow = 0.81 cfs @ 12.09 hrs, Volume= 0.067 af, Atten= 0%, Lag= 0.0 min

Primary = 0.81 cfs @ 12.09 hrs, Volume= 0.067 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 298.10' @ 12.09 hrs

Flood Elev= 301.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	297.53'	8.0" Round Culvert L= 53.8' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 297.53' / 295.38' S= 0.0400 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.79 cfs @ 12.09 hrs HW=298.09' TW=295.93' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.79 cfs @ 2.54 fps)

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# **Summary for Pond 106: AD#106**

Inflow Area = 0.15 ac,100.00% Impervious, Inflow Depth > 4.23" for 10-yr event

Inflow = 0.63 cfs @ 12.09 hrs, Volume= 0.052 af

Outflow = 0.63 cfs @ 12.09 hrs, Volume= 0.052 af, Atten= 0%, Lag= 0.0 min

Primary = 0.63 cfs @ 12.09 hrs, Volume= 0.052 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 300.35' @ 12.09 hrs

Flood Elev= 303.80'

00 f

Primary OutFlow Max=0.61 cfs @ 12.09 hrs HW=300.34' TW=298.09' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.61 cfs @ 2.33 fps)

# **Summary for Pond 107: AD#107**

Inflow Area = 0.11 ac,100.00% Impervious, Inflow Depth > 4.23" for 10-yr event

Inflow = 0.45 cfs @ 12.09 hrs, Volume= 0.037 af

Outflow = 0.45 cfs @ 12.09 hrs, Volume= 0.037 af, Atten= 0%, Lag= 0.0 min

Primary = 0.45 cfs @ 12.09 hrs, Volume= 0.037 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 303.27' @ 12.09 hrs

Flood Elev= 306.63'

Device	Routing	Invert	Outlet Devices
#1	Primary	302.85'	8.0" Round Culvert
			L= 64.0' CPP, mitered to conform to fill, Ke= 0.700
			Inlet / Outlet Invert= 302.85' / 299.97' S= 0.0450 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.44 cfs @ 12.09 hrs HW=303.26' TW=300.34' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.44 cfs @ 1.93 fps)

# **Summary for Pond 108: AD#108**

Inflow Area = 0.06 ac,100.00% Impervious, Inflow Depth > 4.23" for 10-yr event

Inflow = 0.27 cfs @ 12.09 hrs, Volume= 0.022 af

Outflow = 0.27 cfs @ 12.09 hrs, Volume= 0.022 af, Atten= 0%, Lag= 0.0 min

Primary = 0.27 cfs @ 12.09 hrs, Volume= 0.022 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 306.14' @ 12.09 hrs

Flood Elev= 309.80'

# Type III 24-hr 10-yr Rainfall=4.47"

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Device	Routing	Invert	Outlet Devices
#1	Primary	305.85'	8.0" Round Culvert L= 64.5' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 305.85' / 302.96' S= 0.0448 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.26 cfs @ 12.09 hrs HW=306.14' TW=303.26' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.26 cfs @ 1.83 fps)

### Summary for Pond 109: AD#109

Inflow Area = 0.02 ac,100.00% Impervious, Inflow Depth > 4.23" for 10-yr event

Inflow = 0.09 cfs @ 12.09 hrs, Volume= 0.007 af

Outflow = 0.09 cfs @ 12.09 hrs, Volume= 0.007 af, Atten= 0%, Lag= 0.0 min

Primary = 0.09 cfs @ 12.09 hrs, Volume= 0.007 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 308.85' @ 12.09 hrs

Flood Elev= 311.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	308.69'	8.0" Round Culvert
			L= 49.9' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 308.69' / 305.95' S= 0.0549 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.09 cfs @ 12.09 hrs HW=308.85' TW=306.14' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.09 cfs @ 1.36 fps)

# **Summary for Pond CB11: CB#11**

Inflow Area = 1.47 ac, 47.09% Impervious, Inflow Depth > 2.98" for 10-yr event

Inflow = 4.58 cfs @ 12.09 hrs, Volume= 0.364 af

Outflow = 4.58 cfs @ 12.09 hrs, Volume= 0.364 af, Atten= 0%, Lag= 0.0 min

Primary = 4.58 cfs @ 12.09 hrs, Volume= 0.364 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 312.37' @ 12.45 hrs

Flood Elev= 314.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	310.04'	18.0" Round Culvert
			L= 30.3' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 310.04' / 309.89' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=2.21 cfs @ 12.09 hrs HW=311.78' TW=311.71' (Dynamic Tailwater) 1=Culvert (Inlet Controls 2.21 cfs @ 1.25 fps)

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# **Summary for Pond CB110: CB#110**

Inflow Area = 0.34 ac, 52.43% Impervious, Inflow Depth > 3.37" for 10-yr event

Inflow = 1.20 cfs @ 12.09 hrs, Volume= 0.095 af

Outflow = 1.20 cfs @ 12.09 hrs, Volume= 0.095 af, Atten= 0%, Lag= 0.0 min

Primary = 1.20 cfs @ 12.09 hrs, Volume= 0.095 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 312.37' @ 12.50 hrs

Flood Elev= 314.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	310.25'	15.0" Round Culvert
			L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 310.25' / 310.14' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=311.58' TW=311.78' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

### **Summary for Pond CB12: CB#12**

Inflow Area = 0.73 ac, 49.36% Impervious, Inflow Depth > 3.00" for 10-yr event

Inflow = 2.30 cfs @ 12.09 hrs, Volume= 0.184 af

Outflow = 2.30 cfs @ 12.09 hrs, Volume= 0.184 af, Atten= 0%, Lag= 0.0 min

Primary = 2.30 cfs @ 12.09 hrs, Volume= 0.184 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 313.76' @ 12.09 hrs

Flood Elev= 317.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	313.00'	15.0" Round Culvert
	-		L= 106.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 313.00' / 310.21' S= 0.0263 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=2.25 cfs @ 12.09 hrs HW=313.75' TW=311.77' (Dynamic Tailwater) 1=Culvert (Inlet Controls 2.25 cfs @ 2.94 fps)

# Summary for Pond CB120: CB#120

Inflow Area = 0.50 ac, 47.90% Impervious, Inflow Depth > 3.16" for 10-yr event

Inflow = 1.66 cfs @ 12.09 hrs, Volume= 0.131 af

Outflow = 1.66 cfs @ 12.09 hrs, Volume= 0.131 af, Atten= 0%, Lag= 0.0 min

Primary = 1.66 cfs @ 12.09 hrs, Volume= 0.131 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 314.05' @ 12.11 hrs

Flood Elev= 317.25'

# Type III 24-hr 10-yr Rainfall=4.47"

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Device	Routing	Invert	Outlet Devices
#1	Primary	313.32'	15.0" Round Culvert
	-		L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 313.32' / 313.10' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.49 cfs @ 12.09 hrs HW=314.03' TW=313.75' (Dynamic Tailwater) 1=Culvert (Outlet Controls 1.49 cfs @ 2.97 fps)

### **Summary for Pond CB14: CB#14**

Inflow Area = 3.64 ac, 46.14% Impervious, Inflow Depth > 2.80" for 10-yr event

Inflow = 3.61 cfs @ 12.37 hrs, Volume= 0.851 af

Outflow = 3.61 cfs @ 12.37 hrs, Volume= 0.851 af, Atten= 0%, Lag= 0.0 min

Primary = 3.61 cfs @ 12.37 hrs, Volume= 0.851 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 308.83' @ 12.38 hrs

Flood Elev= 312.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	307.79'	15.0" Round Culvert
			L= 37.9' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 307.79' / 307.22' S= 0.0150 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=3.59 cfs @ 12.37 hrs HW=308.83' TW=308.14' (Dynamic Tailwater) 1=Culvert (Outlet Controls 3.59 cfs @ 4.46 fps)

# **Summary for Pond CB15: CB#15**

Inflow Area = 3.71 ac, 46.04% Impervious, Inflow Depth > 2.80" for 10-yr event

Inflow = 3.67 cfs @ 12.36 hrs, Volume= 0.865 af

Outflow = 3.67 cfs @ 12.36 hrs, Volume= 0.865 af, Atten= 0%, Lag= 0.0 min

Primary = 3.67 cfs @ 12.36 hrs, Volume= 0.865 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 308.14' @ 12.36 hrs

Flood Elev= 312.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	307.12'	15.0" Round Culvert
			L= 120.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 307.12' / 300.65' S= 0.0539 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=3.67 cfs @ 12.36 hrs HW=308.14' TW=0.00' (Dynamic Tailwater) 1=Culvert (Inlet Controls 3.67 cfs @ 3.43 fps)

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# **Summary for Pond CB170: CB#170**

Inflow Area = 0.74 ac, 68.11% Impervious, Inflow Depth > 3.17" for 10-yr event

Inflow = 2.39 cfs @ 12.09 hrs, Volume= 0.197 af

Outflow = 2.39 cfs @ 12.09 hrs, Volume= 0.197 af, Atten= 0%, Lag= 0.0 min

Primary = 2.39 cfs @ 12.09 hrs, Volume= 0.197 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 278.67' @ 12.09 hrs

Flood Elev= 281.97'

Device	Routing	Invert	Outlet Devices
#1	Primary	277.90'	15.0" Round Culvert L= 36.7' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 277.90' / 277.17' S= 0.0199 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=2.33 cfs @ 12.09 hrs HW=278.66' TW=276.18' (Dynamic Tailwater) 1=Culvert (Inlet Controls 2.33 cfs @ 2.97 fps)

# **Summary for Pond CB171: CB#171**

Inflow Area = 0.61 ac, 66.16% Impervious, Inflow Depth > 3.15" for 10-yr event

Inflow = 1.95 cfs @ 12.09 hrs, Volume= 0.160 af

Outflow = 1.95 cfs @ 12.09 hrs, Volume= 0.160 af, Atten= 0%, Lag= 0.0 min

Primary = 1.95 cfs @ 12.09 hrs, Volume= 0.160 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 279.00' @ 12.10 hrs

Flood Elev= 281.97'

Device	Routing	Invert	Outlet Devices
#1	Primary	278.22'	15.0" Round Culvert
			L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 278.22' / 278.00' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.77 cfs @ 12.09 hrs HW=278.99' TW=278.66' (Dynamic Tailwater)
—1=Culvert (Outlet Controls 1.77 cfs @ 3.20 fps)

# Summary for Pond CB19: CB #19

Inflow Area = 2.45 ac, 33.78% Impervious, Inflow Depth > 2.70" for 10-yr event

Inflow = 6.44 cfs @ 12.12 hrs, Volume= 0.550 af

Outflow = 6.44 cfs @ 12.12 hrs, Volume= 0.550 af, Atten= 0%, Lag= 0.0 min

Primary = 6.44 cfs @ 12.12 hrs, Volume= 0.550 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 278.06' @ 12.14 hrs

Flood Elev= 281.21'

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Device	Routing	Invert	Outlet Devices
#1	Primary	276.67'	18.0" Round Culvert
	-		L= 33.8' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 276.67' / 276.16' S= 0.0151 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=5.83 cfs @ 12.12 hrs HW=278.01' TW=277.35' (Dynamic Tailwater) 1=Culvert (Outlet Controls 5.83 cfs @ 4.61 fps)

### **Summary for Pond CB20: CB #20**

Inflow Area = 2.14 ac, 28.84% Impervious, Inflow Depth > 2.61" for 10-yr event

Inflow = 5.44 cfs @ 12.13 hrs, Volume= 0.465 af

Outflow = 5.44 cfs @ 12.13 hrs, Volume= 0.465 af, Atten= 0%, Lag= 0.0 min

Primary = 5.44 cfs @ 12.13 hrs, Volume= 0.465 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 278.53' @ 12.16 hrs

Flood Elev= 281.21'

Device	Routing	Invert	Outlet Devices
#1	Primary	277.21'	18.0" Round Culvert
			L= 22.0' RCP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 277.21' / 276.77' S= 0.0200 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=4.73 cfs @ 12.13 hrs HW=278.48' TW=278.03' (Dynamic Tailwater) 1=Culvert (Outlet Controls 4.73 cfs @ 3.99 fps)

# Summary for Pond CB201: CB#201

Inflow Area = 0.69 ac, 40.43% Impervious, Inflow Depth > 2.95" for 10-yr event

Inflow = 2.16 cfs @ 12.09 hrs, Volume= 0.169 af

Outflow = 2.16 cfs @ 12.09 hrs, Volume= 0.169 af, Atten= 0%, Lag= 0.0 min

Primary = 2.16 cfs @ 12.09 hrs, Volume= 0.169 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 292.83' @ 12.32 hrs

Flood Elev= 300.43'

Device	Routing	Invert	Outlet Devices
#1	Primary	291.88'	15.0" Round Culvert
			L= 82.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 291.88' / 291.45' S= 0.0052 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.74 cfs @ 12.09 hrs HW=292.71' TW=292.27' (Dynamic Tailwater) 1=Culvert (Outlet Controls 1.74 cfs @ 2.86 fps)

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# **Summary for Pond CB3: CB#3**

Inflow Area = 1.67 ac, 66.11% Impervious, Inflow Depth > 2.83" for 10-yr event

Inflow = 4.72 cfs @ 12.09 hrs, Volume= 0.395 af

Outflow = 4.72 cfs @ 12.09 hrs, Volume= 0.395 af, Atten= 0%, Lag= 0.0 min

Primary = 4.72 cfs @ 12.09 hrs, Volume= 0.395 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 293.40' @ 12.10 hrs

Flood Elev= 296.31'

Device	Routing	Invert	Outlet Devices
#1	Primary	292.09'	15.0" Round Culvert L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 292.09' / 291.29' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=4.35 cfs @ 12.09 hrs HW=293.36' TW=292.51' (Dynamic Tailwater) 1=Culvert (Outlet Controls 4.35 cfs @ 4.32 fps)

# **Summary for Pond CB30: CB#30**

Inflow Area = 0.32 ac, 91.05% Impervious, Inflow Depth > 3.86" for 10-yr event

Inflow = 1.25 cfs @ 12.09 hrs, Volume= 0.103 af

Outflow = 1.25 cfs @ 12.09 hrs, Volume= 0.103 af, Atten= 0%, Lag= 0.0 min

Primary = 1.25 cfs @ 12.09 hrs, Volume= 0.103 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 293.44' @ 12.15 hrs

Flood Elev= 296.31'

Device	Routing	Invert	Outlet Devices
#1	Primary	292.30'	15.0" Round Culvert L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 292.30' / 292.19' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=293.28' TW=293.36' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

# **Summary for Pond CB4: CB#4**

Inflow Area = 0.82 ac, 72.75% Impervious, Inflow Depth > 3.11" for 10-yr event

Inflow = 2.56 cfs @ 12.09 hrs, Volume= 0.214 af

Outflow = 2.56 cfs @ 12.09 hrs, Volume= 0.214 af, Atten= 0%, Lag= 0.0 min

Primary = 2.56 cfs @ 12.09 hrs, Volume= 0.214 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 295.05' @ 12.09 hrs

Flood Elev= 298.00'

Type III 24-hr 10-yr Rainfall=4.47"

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Device	Routing	Invert	Outlet Devices
#1	Primary	294.24'	15.0" Round Culvert
			L= 80.9' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 294.24' / 292.58' S= 0.0205 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=2.49 cfs @ 12.09 hrs HW=295.03' TW=293.36' (Dynamic Tailwater) 1=Culvert (Inlet Controls 2.49 cfs @ 3.03 fps)

### **Summary for Pond CB5: CB#5**

Inflow Area = 0.53 ac, 77.00% Impervious, Inflow Depth > 3.28" for 10-yr event

Inflow = 1.73 cfs @ 12.09 hrs, Volume= 0.145 af

Outflow = 1.73 cfs @ 12.09 hrs, Volume= 0.145 af, Atten= 0%, Lag= 0.0 min

Primary = 1.73 cfs @ 12.09 hrs, Volume= 0.145 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 295.32' @ 12.11 hrs

Flood Elev= 298.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	294.56'	15.0" Round Culvert
			L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 294.56' / 294.34' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.53 cfs @ 12.09 hrs HW=295.30' TW=295.03' (Dynamic Tailwater) 1=Culvert (Outlet Controls 1.53 cfs @ 2.89 fps)

# **Summary for Pond CB80: CB#80**

Inflow Area = 0.64 ac, 56.11% Impervious, Inflow Depth > 3.18" for 10-yr event

Inflow = 2.09 cfs @ 12.09 hrs, Volume= 0.169 af

Outflow = 2.09 cfs @ 12.09 hrs, Volume= 0.169 af, Atten= 0%, Lag= 0.0 min

Primary = 2.09 cfs @ 12.09 hrs, Volume= 0.169 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 312.38' @ 12.44 hrs

Flood Elev= 314.01'

Device	Routing	Invert	Outlet Devices
#1	Primary	310.06'	15.0" Round Culvert
			L= 15.1' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 310.06' / 309.98' S= 0.0053 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=311.79' TW=311.95' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

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# **Summary for Pond CB800: CB#800**

Inflow Area = 0.27 ac, 72.99% Impervious, Inflow Depth > 3.28" for 10-yr event

Inflow = 0.89 cfs @ 12.09 hrs, Volume= 0.073 af

Outflow = 0.89 cfs @ 12.09 hrs, Volume= 0.073 af, Atten= 0%, Lag= 0.0 min

Primary = 0.89 cfs @ 12.09 hrs, Volume= 0.073 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 312.38' @ 12.49 hrs

Flood Elev= 314.01'

Device	Routing	Invert	Outlet Devices
#1	Primary	310.27'	15.0" Round Culvert L= 22.7' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 310.27' / 310.16' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=311.47' TW=311.75' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

# **Summary for Pond CB9: CB#9**

Inflow Area = 0.90 ac, 54.67% Impervious, Inflow Depth > 3.07" for 10-yr event

Inflow = 2.87 cfs @ 12.09 hrs, Volume= 0.231 af

Outflow = 2.87 cfs @ 12.09 hrs, Volume= 0.231 af, Atten= 0%, Lag= 0.0 min

Primary = 2.87 cfs @ 12.09 hrs, Volume= 0.231 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 314.91' @ 12.09 hrs

Flood Elev= 317.43'

Device	Routing	Invert	Outlet Devices
#1	Primary	314.04'	15.0" Round Culvert L= 203.6' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 314.04' / 310.50' S= 0.0174 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=2.80 cfs @ 12.09 hrs HW=314.89' TW=311.93' (Dynamic Tailwater) 1=Culvert (Inlet Controls 2.80 cfs @ 3.14 fps)

# **Summary for Pond CB90: CB#90**

Inflow Area = 0.31 ac, 72.11% Impervious, Inflow Depth > 3.08" for 10-yr event

Inflow = 0.97 cfs @ 12.09 hrs, Volume= 0.081 af

Outflow = 0.97 cfs @ 12.09 hrs, Volume= 0.081 af, Atten= 0%, Lag= 0.0 min

Primary = 0.97 cfs @ 12.09 hrs, Volume= 0.081 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 315.24' @ 12.10 hrs

Flood Elev= 317.72'

# Type III 24-hr 10-yr Rainfall=4.47"

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Device	Routing	Invert	Outlet Devices
#1	Primary	314.74'	15.0" Round Culvert
			L= 29.8' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 314.74' / 314.14' S= 0.0201 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.86 cfs @ 12.09 hrs HW=315.23' TW=314.89' (Dynamic Tailwater) —1=Culvert (Outlet Controls 0.86 cfs @ 2.85 fps)

### **Summary for Pond DMH111: DMH#111**

Inflow Area = 1.47 ac, 47.09% Impervious, Inflow Depth > 2.98" for 10-yr event

Inflow = 4.58 cfs @ 12.09 hrs, Volume= 0.364 af

Outflow = 4.58 cfs @ 12.09 hrs, Volume= 0.364 af, Atten= 0%, Lag= 0.0 min

Primary = 4.58 cfs @ 12.09 hrs, Volume= 0.364 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 312.35' @ 12.43 hrs

Flood Elev= 314.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	309.79'	24.0" Round Culvert
			L= 40.3' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 309.79' / 309.59' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=311.71' TW=311.85' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

# **Summary for Pond DMH17: DMH#17**

Inflow Area = 3.19 ac, 41.78% Impervious, Inflow Depth > 2.81" for 10-yr event

Inflow = 8.74 cfs @ 12.11 hrs, Volume= 0.747 af

Outflow = 8.74 cfs @ 12.11 hrs, Volume= 0.747 af, Atten= 0%, Lag= 0.0 min

Primary = 8.74 cfs @ 12.11 hrs, Volume= 0.747 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 276.23' @ 12.12 hrs

Flood Elev= 279.48'

Device	Routing	Invert	Outlet Devices
#1	Primary	274.89'	24.0" Round Culvert
			L= 279.8' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 274.89' / 272.09' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=8.18 cfs @ 12.11 hrs HW=276.22' TW=274.08' (Dynamic Tailwater) 1=Culvert (Outlet Controls 8.18 cfs @ 5.25 fps)

Type III 24-hr 10-yr Rainfall=4.47" Printed 10/10/2022

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### **Summary for Pond DMH18: DMH#18**

Inflow Area = 2.45 ac, 33.78% Impervious, Inflow Depth > 2.70" for 10-yr event

Inflow = 6.44 cfs @ 12.12 hrs, Volume= 0.550 af

Outflow = 6.44 cfs @ 12.12 hrs, Volume= 0.550 af, Atten= 0%, Lag= 0.0 min

Primary = 6.44 cfs @ 12.12 hrs, Volume= 0.550 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 277.38' @ 12.12 hrs

Flood Elev= 281.88'

Device	Routing	Invert	Outlet Devices
#1	Primary	276.06'	18.0" Round Culvert
			L= 71.6' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 276.06' / 274.99' S= 0.0149 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=6.27 cfs @ 12.12 hrs HW=277.35' TW=276.21' (Dynamic Tailwater) 1=Culvert (Inlet Controls 6.27 cfs @ 3.87 fps)

### **Summary for Pond DMH2: DMH#2**

Inflow Area = 1.67 ac, 66.11% Impervious, Inflow Depth > 2.83" for 10-yr event

Inflow = 4.72 cfs @ 12.09 hrs, Volume= 0.395 af

Outflow = 4.72 cfs @ 12.09 hrs, Volume= 0.395 af, Atten= 0%, Lag= 0.0 min

Primary = 4.72 cfs @ 12.09 hrs, Volume= 0.395 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 292.81' @ 12.34 hrs

Flood Elev= 297.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	291.19'	18.0" Round Culvert
			L= 50.2' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 291.19' / 291.04' S= 0.0030 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=3.38 cfs @ 12.09 hrs HW=292.51' TW=292.25' (Dynamic Tailwater) 1=Culvert (Outlet Controls 3.38 cfs @ 2.73 fps)

# **Summary for Pond DMH8: DMH#8**

Inflow Area = 1.54 ac, 55.26% Impervious, Inflow Depth > 3.11" for 10-yr event

Inflow = 4.96 cfs @ 12.09 hrs, Volume= 0.400 af

Outflow = 4.96 cfs @ 12.09 hrs, Volume= 0.400 af, Atten= 0%, Lag= 0.0 min

Primary = 4.96 cfs @ 12.09 hrs, Volume= 0.400 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 312.37' @ 12.40 hrs

Flood Elev= 314.00'

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Device	Routing	Invert	Outlet Devices
#1	Primary	309.88'	18.0" Round Culvert
			L= 13.4' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 309.88' / 309.81' S= 0.0052 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=2.46 cfs @ 12.09 hrs HW=311.94' TW=311.85' (Dynamic Tailwater) —1=Culvert (Inlet Controls 2.46 cfs @ 1.39 fps)

### **Summary for Link A: Western Shadowbrook Drive Treatment Area**

Inflow Area = 5.76 ac, 33.42% Impervious, Inflow Depth > 2.04" for 10-yr event

Inflow = 6.25 cfs @ 12.11 hrs, Volume= 0.979 af

Primary = 6.25 cfs @ 12.11 hrs, Volume= 0.979 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

## Summary for Link B: pond at beginning of neighborhood

Inflow Area = 5.28 ac, 37.67% Impervious, Inflow Depth > 2.39" for 10-yr event

Inflow = 4.78 cfs @ 12.15 hrs, Volume= 1.051 af

Primary = 4.78 cfs @ 12.15 hrs, Volume= 1.051 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

## **Summary for Link C: Wetlands**

Inflow Area = 9.23 ac, 21.04% Impervious, Inflow Depth > 1.99" for 10-yr event

Inflow = 10.94 cfs @ 12.27 hrs, Volume= 1.531 af

Primary = 10.94 cfs @ 12.27 hrs, Volume= 1.531 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

#### Type III 24-hr 25-yr Rainfall=5.66" Printed 10/10/2022

#### 1708241-POST-DEVELOPMENT

Subcatchment32S: Roadway Flow

Subcatchment33S: Roadway Flow

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: Flow to Tammy Court Runoff Area=57,559 sf 17.28% Impervious Runoff Depth>3.33" Flow Length=263' Slope=0.6600 '/' Tc=6.0 min CN=WQ Runoff=4.78 cfs 0.367 af Runoff Area=7,546 sf 57.32% Impervious Runoff Depth>3.85" Subcatchment2S: Shadowbrook Dr CB1 Flow Length=300' Slope=0.0200 '/' Tc=6.0 min CN=WQ Runoff=0.67 cfs 0.056 af Runoff Area=24,663 sf 8.93% Impervious Runoff Depth>2.77" Subcatchment3S: Shadowbrook Dr CB2 Flow Length=344' Tc=8.6 min CN=WQ Runoff=1.57 cfs 0.131 af Subcatchment4S: Flow to Shadowbrook Runoff Area=11,312 sf 38.41% Impervious Runoff Depth>4.01" Tc=6.0 min CN=WQ Runoff=1.11 cfs 0.087 af Subcatchment5S: Canterberry Court Flow Runoff Area=36,412 sf 15.94% Impervious Runoff Depth>1.16" Flow Length=187' Tc=6.0 min CN=WQ Runoff=0.72 cfs 0.081 af Subcatchment6S: Lower Shadowbrook Dr Runoff Area=72,715 sf 12.69% Impervious Runoff Depth>0.98" Flow Length=137' Tc=6.0 min CN=WQ Runoff=1.15 cfs 0.136 af Subcatchment7S: Rear Overland Flow to Runoff Area=85,028 sf 6.43% Impervious Runoff Depth>2.63" Flow Length=183' Tc=11.5 min CN=WQ Runoff=4.79 cfs 0.429 af Runoff Area=13,692 sf 72.11% Impervious Runoff Depth>4.01" Subcatchment10S: Roadway Flow Flow Length=307' Slope=0.0150 '/' Tc=6.0 min CN=WQ Runoff=1.23 cfs 0.105 af Subcatchment11S: Roadway Flow Runoff Area=25,722 sf 45.39% Impervious Runoff Depth>4.10" Flow Length=279' Tc=6.0 min CN=WQ Runoff=2.54 cfs 0.202 af Subcatchment 20S: Roadway Flow Runoff Area=2,774 sf 40.41% Impervious Runoff Depth>3.52" Flow Length=65' Tc=6.0 min CN=WQ Runoff=0.23 cfs 0.019 af Runoff Area=9,904 sf 37.65% Impervious Runoff Depth>3.48" Subcatchment21S: Roadway Flow Flow Length=203' Tc=6.0 min CN=WQ Runoff=0.82 cfs 0.066 af Subcatchment22S: Overland Flow to Pond Runoff Area=17,710 sf 12.85% Impervious Runoff Depth>2.42" Flow Length=47' Slope=0.2127'/' Tc=6.0 min CN=WQ Runoff=1.02 cfs 0.082 af Runoff Area=14,714 sf 52.43% Impervious Runoff Depth>4.48" Subcatchment30S: Roadway Flow Flow Length=276' Tc=6.0 min CN=WQ Runoff=1.59 cfs 0.126 af Subcatchment31S: Roadway Flow Runoff Area=17,194 sf 38.30% Impervious Runoff Depth>3.52" Flow Length=230' Tc=6.0 min CN=WQ Runoff=1.43 cfs 0.116 af

Runoff Area=21,651 sf 47.90% Impervious Runoff Depth>4.23"

Runoff Area=10,356 sf 52.43% Impervious Runoff Depth>3.52"

Flow Length=223' Tc=6.0 min CN=WQ Runoff=2.21 cfs 0.175 af

Flow Length=257' Tc=6.0 min CN=WQ Runoff=0.83 cfs 0.070 af

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Subcatchment40S: Roadway Flow
Runoff Area=11,686 sf 72.99% Impervious Runoff Depth>4.27"
Flow Length=263' Slope=0.0150 '/' Tc=6.0 min CN=WQ Runoff=1.14 cfs 0.095 af

Subcatchment41S: Roadway Flow

Runoff Area=16,070 sf 43.83% Impervious Runoff Depth>4.18"
Flow Length=268' Tc=6.5 min CN=WQ Runoff=1.61 cfs 0.128 af

Subcatchment42S: Flow to CB#200 Runoff Area=29,920 sf 40.43% Impervious Runoff Depth>3.99"

Flow Length=385' Tc=6.0 min CN=WQ Runoff=2.91 cfs 0.229 af

**Subcatchment50S: Roadway Flow**Runoff Area=12,898 sf 58.95% Impervious Runoff Depth>3.34"
Flow Length=300' Tc=6.0 min CN=WQ Runoff=0.95 cfs 0.082 af

**Subcatchment51S: Roadway Flow**Runoff Area=12,915 sf 65.19% Impervious Runoff Depth>3.66"
Flow Length=163' Tc=6.0 min CN=WQ Runoff=1.05 cfs 0.090 af

**Subcatchment60S: Roadway and Building** Runoff Area=23,012 sf 40.57% Impervious Runoff Depth>2.41" Flow Length=220' Tc=6.0 min CN=WQ Runoff=1.16 cfs 0.106 af

**Subcatchment61S: Roadway Flow**Runoff Area=7,564 sf 83.43% Impervious Runoff Depth>4.58"
Flow Length=152' Slope=0.0200 '/' Tc=6.0 min CN=WQ Runoff=0.78 cfs 0.066 af

**Subcatchment62S: Bioretention Pond Area** Runoff Area=6,453 sf 0.00% Impervious Runoff Depth>0.35" Tc=6.0 min CN=39 Runoff=0.02 cfs 0.004 af

**Subcatchment70S: Overland Flow to**Runoff Area=128,858 sf 1.40% Impervious Runoff Depth>2.97"
Flow Length=745' Tc=14.6 min CN=WQ Runoff=7.75 cfs 0.733 af

**Subcatchment71S: Roadway Flow**Runoff Area=26,495 sf 66.16% Impervious Runoff Depth>4.13"
Flow Length=300' Tc=6.0 min CN=WQ Runoff=2.51 cfs 0.209 af

**Subcatchment72S: House Flow to Pond** Runoff Area=49,031 sf 39.15% Impervious Runoff Depth>2.70" Flow Length=127' Tc=6.0 min CN=WQ Runoff=2.91 cfs 0.253 af

**Subcatchment73S: Roadway Flow**Runoff Area=5,932 sf 76.82% Impervious Runoff Depth>4.24"
Flow Length=200' Slope=0.0200 '/' Tc=6.0 min CN=WQ Runoff=0.57 cfs 0.048 af

**Subcatchment74S: Area in Circle to**Runoff Area=17,656 sf 37.64% Impervious Runoff Depth>2.66"
Flow Length=40' Slope=0.1000 '/' Tc=6.0 min CN=WQ Runoff=1.04 cfs 0.090 af

Subcatchment75S: Roadway Flow
Runoff Area=13,639 sf 67.50% Impervious Runoff Depth>4.28"
Flow Length=196' Slope=0.0200 '/' Tc=6.0 min CN=WQ Runoff=1.35 cfs 0.112 af

**Subcatchment76S: Roadway Flow**Runoff Area=93,020 sf 28.84% Impervious Runoff Depth>3.59"
Flow Length=468' Tc=9.0 min CN=WQ Runoff=7.44 cfs 0.640 af

Subcatchment100S: Unit 1 Runoff Area=920 sf 100.00% Impervious Runoff Depth>5.42"

Tc=6.0 min CN=98 Runoff=0.11 cfs 0.010 af

Subcatchment101S: Units 2 & 3 Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>5.42"

Tc=6.0 min CN=98 Runoff=0.23 cfs 0.019 af

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Subcatchment102S: Units 4 & 5	Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>5.42" Tc=6.0 min CN=98 Runoff=0.23 cfs 0.019 af
Subcatchment103S: Units 6 & 7	Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>5.42" Tc=6.0 min CN=98 Runoff=0.23 cfs 0.019 af
Subcatchment104S: Units 8 & 9	Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>5.42" Tc=6.0 min CN=98 Runoff=0.23 cfs 0.019 af
Subcatchment105S: Units 11 & 10	Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>5.42" Tc=6.0 min CN=98 Runoff=0.23 cfs 0.019 af
Subcatchment106S: Units 13 & 12	Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>5.42" Tc=6.0 min CN=98 Runoff=0.23 cfs 0.019 af
Subcatchment107S: Units 15 & 14	Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>5.42" Tc=6.0 min CN=98 Runoff=0.23 cfs 0.019 af
Subcatchment108S: Units 17 & 16	Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>5.42" Tc=6.0 min CN=98 Runoff=0.23 cfs 0.019 af
Subcatchment109S: Unit 18	Runoff Area=920 sf 100.00% Impervious Runoff Depth>5.42" Tc=6.0 min CN=98 Runoff=0.11 cfs 0.010 af
Reach 1R: Tammy Court	Inflow=4.78 cfs 0.367 af Outflow=4.78 cfs 0.367 af
Reach 2R: Ex CB1	Inflow=5.86 cfs 1.213 af Outflow=5.86 cfs 1.213 af
Reach 3R: Ex CB 2	Inflow=1.57 cfs 0.131 af Outflow=1.57 cfs 0.131 af
Reach 4R: Upper Shadowbrook Drive Dra	inage Inflow=5.30 cfs 0.830 af Outflow=5.30 cfs 0.830 af
Reach 5R: Canterberry Ct Drainage	Inflow=0.72 cfs 0.081 af Outflow=0.72 cfs 0.081 af
Reach 6R: Lower Shadowbrook Dr CB	Inflow=1.15 cfs 0.136 af Outflow=1.15 cfs 0.136 af

Pond 1P: Bioretention Pond #1 Peak Elev=293.13' Storage=9,403 cf Inflow=8.90 cfs 0.750 af

Primary=4.67 cfs 0.743 af Secondary=0.00 cfs 0.000 af Outflow=4.67 cfs 0.743 af

Pond 2P: Pocket Pond #1 Peak Elev=312.77' Storage=21,818 cf Inflow=13.60 cfs 1.099 af Outflow=5.14 cfs 1.073 af

Pond 3P: Pocket Pond #2 Peak Elev=275.29' Storage=20,381 cf Inflow=18.04 cfs 1.742 af

Primary=11.40 cfs 1.721 af Secondary=0.00 cfs 0.000 af Outflow=11.40 cfs 1.721 af

Pond CB11: CB#11

Peak Elev=296.16' Inflow=1.26 cfs 0.105 af

Peak Elev=312.83' Inflow=6.07 cfs 0.487 af

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Peak Elev=280.99' Storage=1,885 cf Inflow=1.04 cfs 0.090 af Pond 30P: Infiltration Pond #1 Outflow=0.06 cfs 0.070 af

Peak Elev=275.41' Storage=5,200 cf Inflow=2.91 cfs 0.253 af Pond 31P: Infiltration Pond #2

Discarded=0.10 cfs 0.135 af Primary=0.13 cfs 0.050 af Outflow=0.23 cfs 0.185 af

Pond 100: AD#100 Peak Elev=295.99' Inflow=0.11 cfs 0.010 af 8.0" Round Culvert n=0.013 L=58.1' S=0.0251 '/' Outflow=0.11 cfs 0.010 af

Peak Elev=294.58' Inflow=0.34 cfs 0.029 af Pond 101: AD#101

8.0" Round Culvert n=0.013 L=37.0' S=0.0500 '/' Outflow=0.34 cfs 0.029 af

Peak Elev=294.06' Inflow=0.46 cfs 0.038 af Pond 102: AD#102

8.0" Round Culvert n=0.013 L=27.4' S=0.0201'/' Outflow=0.46 cfs 0.038 af

Pond 103: AD#103 Peak Elev=294.50' Inflow=0.23 cfs 0.019 af 8.0" Round Culvert n=0.013 L=59.0' S=0.0200 '/' Outflow=0.23 cfs 0.019 af

Pond 104: AD#104 8.0" Round Culvert n=0.013 L=16.6' S=0.0367 '/' Outflow=1.26 cfs 0.105 af

Peak Elev=298.24' Inflow=1.03 cfs 0.086 af Pond 105: AD#105

8.0" Round Culvert n=0.013 L=53.8' S=0.0400 '/' Outflow=1.03 cfs 0.086 af

Peak Elev=300.43' Inflow=0.80 cfs 0.067 af Pond 106: AD#106

8.0" Round Culvert n=0.013 L=55.9' S=0.0401'/' Outflow=0.80 cfs 0.067 af

Peak Elev=303.34' Inflow=0.57 cfs 0.048 af Pond 107: AD#107 8.0" Round Culvert n=0.013 L=64.0' S=0.0450 '/' Outflow=0.57 cfs 0.048 af

Pond 108: AD#108 Peak Elev=306.18' Inflow=0.34 cfs 0.029 af

8.0" Round Culvert n=0.013 L=64.5' S=0.0448 '/' Outflow=0.34 cfs 0.029 af

Peak Elev=308.87' Inflow=0.11 cfs 0.010 af Pond 109: AD#109 8.0" Round Culvert n=0.013 L=49.9' S=0.0549'/' Outflow=0.11 cfs 0.010 af

18.0" Round Culvert n=0.013 L=30.3' S=0.0050'/' Outflow=6.07 cfs 0.487 af

Pond CB110: CB#110 Peak Elev=312.84' Inflow=1.59 cfs 0.126 af

15.0" Round Culvert n=0.013 L=22.0' S=0.0050 '/' Outflow=1.59 cfs 0.126 af

Pond CB12: CB#12 Peak Elev=313.90' Inflow=3.04 cfs 0.245 af

15.0" Round Culvert n=0.013 L=106.0' S=0.0263 '/' Outflow=3.04 cfs 0.245 af

Peak Elev=314.20' Inflow=2.21 cfs 0.175 af Pond CB120: CB#120 15.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=2.21 cfs 0.175 af

Pond CB14: CB#14 Peak Elev=309.48' Inflow=5.46 cfs 1.139 af

15.0" Round Culvert n=0.013 L=37.9' S=0.0150 '/' Outflow=5.46 cfs 1.139 af

Pond DMH18: DMH#18

Peak Elev=277.86' Inflow=8.74 cfs 0.751 af

18.0" Round Culvert n=0.013 L=71.6' S=0.0149 '/' Outflow=8.74 cfs 0.751 af

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Peak Elev=308.63' Inflow=5.56 cfs 1.158 af Pond CB15: CB#15 15.0" Round Culvert n=0.013 L=120.0' S=0.0539 '/' Outflow=5.56 cfs 1.158 af Peak Elev=278.80' Inflow=3.07 cfs 0.257 af Pond CB170: CB#170 15.0" Round Culvert n=0.013 L=36.7' S=0.0199'/' Outflow=3.07 cfs 0.257 af Pond CB171: CB#171 Peak Elev=279.15' Inflow=2.51 cfs 0.209 af 15.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=2.51 cfs 0.209 af Pond CB19: CB #19 Peak Elev=278.80' Inflow=8.74 cfs 0.751 af 18.0" Round Culvert n=0.013 L=33.8' S=0.0151 '/' Outflow=8.74 cfs 0.751 af Peak Elev=279.35' Inflow=7.44 cfs 0.640 af Pond CB20: CB #20 18.0" Round Culvert n=0.013 L=22.0' S=0.0200'/' Outflow=7.44 cfs 0.640 af Pond CB201: CB#201 Peak Elev=293.21' Inflow=2.91 cfs 0.229 af 15.0" Round Culvert n=0.013 L=82.0' S=0.0052'/ Outflow=2.91 cfs 0.229 af Peak Elev=293.99' Inflow=5.99 cfs 0.517 af Pond CB3: CB#3 15.0" Round Culvert n=0.013 L=80.0' S=0.0100'/' Outflow=5.99 cfs 0.517 af Peak Elev=294.03' Inflow=1.58 cfs 0.133 af Pond CB30: CB#30 15.0" Round Culvert n=0.013 L=22.0' S=0.0050 '/' Outflow=1.58 cfs 0.133 af Peak Elev=295.18' Inflow=3.25 cfs 0.278 af Pond CB4: CB#4 15.0" Round Culvert n=0.013 L=80.9' S=0.0205 '/' Outflow=3.25 cfs 0.278 af Peak Elev=295.46' Inflow=2.20 cfs 0.187 af Pond CB5: CB#5 15.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=2.20 cfs 0.187 af Peak Elev=312.87' Inflow=2.74 cfs 0.224 af **Pond CB80: CB#80** 15.0" Round Culvert n=0.013 L=15.1' S=0.0053 '/' Outflow=2.74 cfs 0.224 af Peak Elev=312.87' Inflow=1.14 cfs 0.095 af Pond CB800: CB#800 15.0" Round Culvert n=0.013 L=22.7' S=0.0048 '/' Outflow=1.14 cfs 0.095 af Peak Elev=315.08' Inflow=3.77 cfs 0.307 af Pond CB9: CB#9 15.0" Round Culvert n=0.013 L=203.6' S=0.0174 '/' Outflow=3.77 cfs 0.307 af Peak Elev=315.35' Inflow=1.23 cfs 0.105 af Pond CB90: CB#90 15.0" Round Culvert n=0.013 L=29.8' S=0.0201'/' Outflow=1.23 cfs 0.105 af Pond DMH111: DMH#111 Peak Elev=312.78' Inflow=6.07 cfs 0.487 af 24.0" Round Culvert n=0.013 L=40.3' S=0.0050 '/' Outflow=6.07 cfs 0.487 af Pond DMH17: DMH#17 Peak Elev=276.56' Inflow=11.70 cfs 1.008 af 24.0" Round Culvert n=0.013 L=279.8' S=0.0100'/ Outflow=11.70 cfs 1.008 af

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Pond DMH2: DMH#2 Peak Elev=293.23' Inflow=5.99 cfs 0.517 af

18.0" Round Culvert n=0.013 L=50.2' S=0.0030 '/' Outflow=5.99 cfs 0.517 af

Pond DMH8: DMH#8 Peak Elev=312.84' Inflow=6.51 cfs 0.530 af

18.0" Round Culvert n=0.013 L=13.4' S=0.0052 '/' Outflow=6.51 cfs 0.530 af

Link A: Western Shadowbrook Drive Treatment Area Inflow=10.35 cfs 1.333 af

Primary=10.35 cfs 1.333 af

Link B: pond at beginning of neighborhood Inflow=7.91 cfs 1.424 af

Primary=7.91 cfs 1.424 af

Link C: Wetlands Inflow=15.49 cfs 2.200 af

Primary=15.49 cfs 2.200 af

Total Runoff Area = 20.68 ac Runoff Volume = 5.304 af Average Runoff Depth = 3.08" 70.94% Pervious = 14.67 ac 29.06% Impervious = 6.01 ac

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## **Summary for Subcatchment 1S: Flow to Tammy Court**

Runoff = 4.78 cfs @ 12.09 hrs, Volume= 0.367 af, Depth> 3.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.66"

_	Α	rea (sf)	CN	Description		
		3,365	98	Roofs, HSC	G D	
		6,582	98	Roofs, HSC	βA	
		34,775	80	>75% Gras	s cover, Go	ood, HSG D
		8,430	39	>75% Gras	s cover, Go	ood, HSG A
_		4,407	77	Woods, Go	od, HSG D	
		57,559		Weighted A	verage	
		47,612		82.72% Pe	rvious Area	
		9,947		17.28% Imp	pervious Ar	ea
	Тс	Length	Slope		Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	1.5	50	0.6600	0.57		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	0.6	213	0.6600	5.69		Shallow Concentrated Flow,
_						Short Grass Pasture Kv= 7.0 fps
	2.1	263	Total	Increased t	to minimum	Tc = 6.0 min

#### 2.1 263 Total, Increased to minimum Tc = 6.0 min

## Summary for Subcatchment 2S: Shadowbrook Dr CB1

Runoff = 0.67 cfs @ 12.09 hrs, Volume= 0.056 af, Depth> 3.85"

_	Aı	rea (sf)	CN E	CN Description					
		4,085	98 F	98 Paved parking, HSG A					
		240	98 F	· · · · · · · · · · · · · · · · · · ·					
		1,432	80 >	>75% Grass cover, Good, HSG D					
		1,789	39 >	39 >75% Grass cover, Good, HSG A					
		7,546	٧	Weighted Average					
		3,221	4	2.68% Per	vious Area				
		4,325	5	7.32% Imp	ervious Ar	ea			
	Tc	Length	Slope	Velocity	Capacity	Description			
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
	0.7	50	0.0200	1.14		Sheet Flow,			
						Smooth surfaces n= 0.011 P2= 2.89"			
	1.5	250	0.0200	2.87		Shallow Concentrated Flow,			
						Paved Kv= 20.3 fps			
	2.2	300	Total, I	ncreased t	o minimum	Tc = 6.0 min			

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## **Summary for Subcatchment 3S: Shadowbrook Dr CB2**

Runoff = 1.57 cfs @ 12.12 hrs, Volume= 0.131 af, Depth> 2.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.66"

A	rea (sf)	CN I	Description		
	257	98 I	Roofs, HSC		
	6,196	80 :	>75% Gras	s cover, Go	ood, HSG D
	5,530	39 :	>75% Gras	s cover, Go	ood, HSG A
	10,329	77 \	Noods, Go	od, HSG D	
	405	30 \	Noods, Go	od, HSG A	
	1,946	98 I	Paved park	ing, HSG A	1
	24,663	'	Neighted A	verage	
	22,460	(	91.07% Pei	vious Area	
	2,203	8	3.93% Impe	ervious Are	a
Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
6.3	50	0.1200	0.13		Sheet Flow,
					Woods: Light underbrush n= 0.400 P2= 2.89"
1.9	226	0.1500	1.94		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
0.3	48	0.1300	2.52		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
0.1	20	0.0200	2.87		Shallow Concentrated Flow,
					Paved Kv= 20.3 fps
8.6	344	Total		·	

## **Summary for Subcatchment 4S: Flow to Shadowbrook Dr CBs**

Runoff = 1.11 cfs @ 12.09 hrs, Volume= 0.087 af, Depth> 4.01"

Area (sf)	CN	Description
2,537	80	>75% Grass cover, Good, HSG D
400	39	>75% Grass cover, Good, HSG A
0	74	>75% Grass cover, Good, HSG C
4,345	98	Paved parking, HSG A
4,030	77	Woods, Good, HSG D
11,312		Weighted Average
6,967		61.59% Pervious Area
4,345		38.41% Impervious Area

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Tc	Length	Slope	Velocity	Capacity	Description
 (min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
6.0					Direct Entry,

## **Summary for Subcatchment 5S: Canterberry Court Flow**

Runoff = 0.72 cfs @ 12.09 hrs, Volume= 0.081 af, Depth> 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.66"

_	Α	rea (sf)	CN [	Description		
		1,564	98 F	Roofs, HSG	A A	
		30,607	39 >	75% Gras	s cover, Go	ood, HSG A
_		4,241	98 F	Paved park	ing, HSG A	4
		36,412	V	Veighted A	verage	
		30,607	3	4.06% Per	vious Area	1
		5,805	1	5.94% Imp	ervious Ar	rea
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	2.6	50	0.1600	0.32		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	0.7	137	0.2000	3.13		Shallow Concentrated Flow,
_						Short Grass Pasture Kv= 7.0 fps
	3.3	187	Total I	ncreased t	o minimum	$T_{c} = 6.0 \text{ min}$

87 Total, Increased to minimum Tc = 6.0 min

# **Summary for Subcatchment 6S: Lower Shadowbrook Dr Flow**

Runoff = 1.15 cfs @ 12.09 hrs, Volume= 0.136 af, Depth> 0.98"

Area (sf)	CN	Description				
1,440	98	Roofs, HSG A				
3,236	30	30 Woods, Good, HSG A				
60,250	39	>75% Grass cover, Good, HSG A				
7,789	98	Paved parking, HSG A				
72,715		Weighted Average				
63,486		87.31% Pervious Area				
9,229		12.69% Impervious Area				

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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	2.6	50	0.1600	0.32		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	0.1	38	0.4500	4.70		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	0.3	49	0.3600	3.00		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
_	2.0	127	Total	naraaaad t	a minimum	To = 6.0 min

3.0 137 Total, Increased to minimum Tc = 6.0 min

### **Summary for Subcatchment 7S: Rear Overland Flow to Wetland**

Runoff = 4.79 cfs @ 12.16 hrs, Volume= 0.429 af, Depth> 2.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.66"

	Α	rea (sf)	CN E	Description		
		2,935	98 F	Roofs, HSC	G D	
		2,417	98 F	Roofs, HSC	βA	
		118	98 F	Roofs, HSC	G C	
		10,710	80 >	75% Gras	s cover, Go	ood, HSG D
		8,039	39 >	75% Gras	s cover, Go	ood, HSG A
		4,292	74 >	•75% Gras	s cover, Go	ood, HSG C
		19,271	77 V	Voods, Go	od, HSG D	
		26,053	70 V	Voods, Go	od, HSG C	
		11,193	55 V	Voods, Go	od, HSG B	
		85,028	V	Veighted A	verage	
		79,558	ç	3.57% Pe	rvious Area	
		5,470	6	6.43% Impe	ervious Are	a
	Тс	Length	Slope		Capacity	Description
(	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	9.8	50	0.0400	0.08		Sheet Flow,
						Woods: Light underbrush n= 0.400 P2= 2.89"
	1.7	133	0.0650	1.27		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	11.5	183	Total			

# **Summary for Subcatchment 10S: Roadway Flow**

Runoff = 1.23 cfs @ 12.09 hrs, Volume= 0.105 af, Depth> 4.01"

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A	rea (sf)	CN E	escription		
	3,052	98 F	Roofs, HSG	6 A	
	12	80 >	75% Gras	s cover, Go	ood, HSG D
	3,807	39 >	75% Gras	s cover, Go	ood, HSG A
	506	98 F	aved park	ing, HSG D	
	6,315	98 F	Roofs, HSG	S A	
	13,692	V	Veighted A	verage	
	3,819	2	7.89% Per	vious Area	
	9,873	7	2.11% Imp	ervious Ar	ea
Tc	Length	Slope	Velocity	Capacity	Description
<u>(min)</u>	(feet)	(ft/ft)	(ft/sec)	(cfs)	
8.0	50	0.0150	1.01		Sheet Flow,
					Smooth surfaces n= 0.011 P2= 2.89"
1.7	257	0.0150	2.49		Shallow Concentrated Flow,
					Paved Kv= 20.3 fps
2.5	307	Total, I	ncreased t	o minimum	n Tc = 6.0 min

## **Summary for Subcatchment 11S: Roadway Flow**

Runoff = 2.54 cfs @ 12.09 hrs, Volume= 0.202 af, Depth> 4.10"

A	rea (sf)	CN E	Description		
	6,240	98 F	Roofs, HSG	G D	
	11,906	80 >	75% Gras	s cover, Go	ood, HSG D
	2,142	39 >	75% Gras	s cover, Go	ood, HSG A
	1,643	98 F	Roofs, HSG	G D	
	3,791	98 F	Roofs, HSG	6 A	
	25,722	٧	Veighted A	verage	
	14,048	5	4.61% Per	vious Area	
	11,674	4	5.39% Imp	ervious Ar	ea
Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
1.1	24	0.3300	0.37		Sheet Flow,
					Grass: Short n= 0.150 P2= 2.89"
2.3	26	0.0600	0.19		Sheet Flow,
					Grass: Short n= 0.150 P2= 2.89"
8.0	46	0.0200	0.99		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
1.2	183	0.0150	2.49		Shallow Concentrated Flow,
					Paved Kv= 20.3 fps
5.4	279	Total, I	ncreased t	o minimum	n Tc = 6.0 min

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# **Summary for Subcatchment 20S: Roadway Flow**

Runoff 0.23 cfs @ 12.09 hrs, Volume= 0.019 af, Depth> 3.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.66"

	Aı	rea (sf)	CN I	Description		
		396	98 I	Roofs, HSC	G D	
		993	80 :	>75% Gras	s cover, Go	ood, HSG D
		660	39	>75% Gras	s cover, Go	ood, HSG A
_		725	98 I	Paved park	ing, HSG A	<b>\</b>
		2,774	'	Neighted A	verage	
		1,653	;	59.59% Pei	rvious Area	
		1,121	4	40.41% Imp	pervious Ar	ea
	To	Longth	Clana	Volocity	Canacity	Description
	Tc (min)	Length	Slope	•	Capacity	Description
_	(min)	(feet)	(ft/ft)		(cfs)	
	4.1	50	0.0500	0.20		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	0.1	15	0.0200	2.87		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	4.2	65	Total	Increased t	o minimum	Tc = 6.0 min

<sup>65</sup> Total, Increased to minimum Tc = 6.0 min

## **Summary for Subcatchment 21S: Roadway Flow**

Runoff 0.82 cfs @ 12.09 hrs, Volume= 0.066 af, Depth> 3.48"

Area (sf)	CN	Description			
1,651	98	Roofs, HSG D			
365	98	Roofs, HSG A			
3,879	80	75% Grass cover, Good, HSG D			
2,296	39	>75% Grass cover, Good, HSG A			
4	98	Paved parking, HSG D			
1,709	98	Paved parking, HSG A			
9,904		Weighted Average			
6,175		62.35% Pervious Area			
3,729		37.65% Impervious Area			

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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
-	2.9	50	0.1200	0.29	, ,	Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	0.9	98	0.0700	1.85		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	0.3	55	0.0200	2.87		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	1 1	202	Tatal	4		To = 6.0 min

Total, Increased to minimum Tc = 6.0 min 4.1

### **Summary for Subcatchment 22S: Overland Flow to Pond**

1.02 cfs @ 12.09 hrs, Volume= 0.082 af, Depth> 2.42" Runoff

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.66"

A	rea (sf)	CN [	Description					
	1,512	98 F	Roofs, HSG	D D				
	645	98 F	Roofs, HSG	βA				
	8,034	80 >	75% Gras	s cover, Go	ood, HSG D			
	7,400	39 >	75% Gras	s cover, Go	ood, HSG A			
	119	98 F	Paved park	ing, HSG A	١			
	17,710	٧	Veighted A	verage				
	15,434	8	37.15% Per	rvious Area	1			
	2,276	1	2.85% Imp	pervious Ar	ea			
-		01		0 "	<b>5</b>			
Tc	Length	Slope		Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
2.2	47	0.2127	0.36		Sheet Flow,			
					Grass: Short	n= 0.150	P2= 2.89"	
2.2	47	Total, I	ncreased t	o minimum	Tc = 6.0 min			 

#### Total, Increased to minimum Tc = 6.0 min

## **Summary for Subcatchment 30S: Roadway Flow**

1.59 cfs @ 12.09 hrs, Volume= 0.126 af, Depth> 4.48" Runoff

Area (sf)	CN	Description
4,540	98	Paved parking, HSG D
6,935	80	>75% Grass cover, Good, HSG D
65	39	>75% Grass cover, Good, HSG A
1,636	98	Paved parking, HSG D
1,538	98	Paved parking, HSG A
14,714		Weighted Average
7,000		47.57% Pervious Area
7,714		52.43% Impervious Area

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_	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description	_
	2.6	50	0.1600	0.32		Sheet Flow,	
						Grass: Short n= 0.150 P2= 2.89"	
	1.1	64	0.0200	0.99		Shallow Concentrated Flow,	
						Short Grass Pasture Kv= 7.0 fps	
	0.9	162	0.0200	2.87		Shallow Concentrated Flow,	
						Paved Kv= 20.3 fps	
_	4.0	070	<b>T</b> ( ) 1	1.4		T 00 :	-

<sup>4.6 276</sup> Total, Increased to minimum Tc = 6.0 min

### **Summary for Subcatchment 31S: Roadway Flow**

Runoff = 1.43 cfs @ 12.09 hrs, Volume= 0.116 af, Depth> 3.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.66"

A	rea (sf)	CN D	escription					
	2,626	98 P	Paved parking, HSG D					
	1,214			ing, HSG A				
	6,749				ood, HSG D			
	3,860			,	ood, HSG A			
	2,745	98 P	aved park	ing, HSG A	·			
	17,194		Veighted A	•				
	10,609	6	1.70% Per	vious Area				
	6,585	3	8.30% Imp	pervious Ar	ea			
Tc	Length	Slope	Velocity	Capacity	Description			
(min)	Length (feet)	(ft/ft)	(ft/sec)	Capacity (cfs)	Description			
	•	•	,		Sheet Flow,			
(min) 2.1	(feet) 50	(ft/ft) 0.2800	(ft/sec) 0.40		Sheet Flow, Grass: Short n= 0.150 P2= 2.89"			
(min)	(feet)	(ft/ft)	(ft/sec)		Sheet Flow, Grass: Short n= 0.150 P2= 2.89" Shallow Concentrated Flow,			
(min) 2.1 0.3	(feet) 50 60	(ft/ft) 0.2800 0.2000	(ft/sec) 0.40 3.13		Sheet Flow, Grass: Short n= 0.150 P2= 2.89" Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps			
(min) 2.1	(feet) 50	(ft/ft) 0.2800	(ft/sec) 0.40		Sheet Flow, Grass: Short n= 0.150 P2= 2.89" Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow,			
(min) 2.1 0.3	(feet) 50 60	(ft/ft) 0.2800 0.2000 0.0200	(ft/sec) 0.40 3.13 2.87	(cfs)	Sheet Flow, Grass: Short n= 0.150 P2= 2.89" Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps			

## **Summary for Subcatchment 32S: Roadway Flow**

Runoff = 2.21 cfs @ 12.09 hrs, Volume= 0.175 af, Depth> 4.23"

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A	rea (sf)	CN E	<b>Description</b>		
	5,015	98 F	Roofs, HSG	D D	
	8,256	80 >	75% Gras	s cover, Go	ood, HSG D
	991	39 >	75% Gras	s cover, Go	ood, HSG A
	1,964	98 F	Paved park	ing, HSG D	
	3,391			ing, HSG A	
	2,034	77 V	Voods, Go	od, HSG D	
	21,651	V	Veighted A	verage	
	11,281	5	2.10% Per	vious Area	
	10,370	4	7.90% lmp	ervious Ar	ea
Tc	Length	Slope	Velocity	Capacity	Description
<u>(min)</u>	(feet)	(ft/ft)	(ft/sec)	(cfs)	
4.0	40	0.2500	0.17		Sheet Flow,
					Woods: Light underbrush n= 0.400 P2= 2.89"
0.7	10	0.2000	0.26		Sheet Flow,
					Grass: Short n= 0.150 P2= 2.89"
0.3	63	0.3300	4.02		Shallow Concentrated Flow,
					Chart Crass Dastura IV. 70 fee
					Short Grass Pasture Kv= 7.0 fps
0.6	110	0.0200	2.87		Shallow Concentrated Flow,
0.6	110				· · · · · · · · · · · · · · · · · · ·

## **Summary for Subcatchment 33S: Roadway Flow**

Runoff = 0.83 cfs @ 12.09 hrs, Volume= 0.070 af, Depth> 3.52"

A	rea (sf)	CN D	escription					
	948	98 F	8 Roofs, HSG D					
	395	98 F	Roofs, HSG	βA				
	1,701	80 >	75% Gras	s cover, Go	ood, HSG D			
	3,225	39 >	75% Gras	s cover, Go	ood, HSG A			
	4,087	98 P	aved park	ing, HSG A	1			
	10,356	V	Veighted A	verage				
	4,926	4	7.57% Per	vious Area				
	5,430	5	2.43% Imp	ervious Ar	ea			
Тс	Length	Slope	Velocity	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
2.6	50	0.1600	0.32		Sheet Flow,			
					Grass: Short n= 0.150 P2= 2.89"			
0.2	37	0.2000	3.13		Shallow Concentrated Flow,			
					Short Grass Pasture Kv= 7.0 fps			
1.0	170	0.0200	2.87		Shallow Concentrated Flow,			
					Paved Kv= 20.3 fps			
3.8	257	Total, I	ncreased t	o minimum	n Tc = 6.0 min			

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# **Summary for Subcatchment 40S: Roadway Flow**

Runoff = 1.14 cfs @ 12.09 hrs, Volume= 0.095 af, Depth> 4.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.66"

A	rea (sf)	CN I	Description				
	752	98 F	Roofs, HSG D				
	1,321	98 I	Roofs, HSG	βA			
	391	98 I	Roofs, HSG	G C			
	780	80 >	>75% Gras	s cover, Go	ood, HSG D		
	2,326	39 >	>75% Gras	s cover, Go	ood, HSG A		
	50	74	>75% Gras	s cover, Go	ood, HSG C		
	1,115	98 F	Paved park	ing, HSG D			
	4,921	98 F	Paved park	ing, HSG A	1		
	30	98 I	Paved park	ing, HSG C			
	11,686	1	Neighted A	verage			
	3,156	2	27.01% Pei	rvious Area	l e e e e e e e e e e e e e e e e e e e		
	8,530	7	72.99% Imp	pervious Ar	ea		
Tc	Length	Slope	Velocity	Capacity	Description		
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
0.8	50	0.0150	1.01		Sheet Flow,		
					Smooth surfaces n= 0.011 P2= 2.89"		
1.4	213	0.0150	2.49		Shallow Concentrated Flow,		
					Paved Kv= 20.3 fps		
2.2	263	Total,	Increased t	o minimum	n Tc = 6.0 min		

### **Summary for Subcatchment 41S: Roadway Flow**

Runoff = 1.61 cfs @ 12.09 hrs, Volume= 0.128 af, Depth> 4.18"

Area (sf)	CN	Description						
2,949	98	Roofs, HSG D						
157	98	Roofs, HSG A						
8,262	80	>75% Grass cover, Good, HSG D						
765	39	>75% Grass cover, Good, HSG A						
1,393	98	Paved parking, HSG D						
2,544	98	Paved parking, HSG A						
16,070		Weighted Average						
9,027		56.17% Pervious Area						
7,043		43.83% Impervious Area						

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_	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	4.5	40	0.0250	0.15		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	0.5	10	0.3300	0.31		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	0.6	80	0.1000	2.21		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	0.9	138	0.0150	2.49		Shallow Concentrated Flow,
	0.0		0.0.00			Paved Kv= 20.3 fps
-	6.5	268	Total			

## **Summary for Subcatchment 42S: Flow to CB#200**

Runoff = 2.91 cfs @ 12.09 hrs, Volume= 0.229 af, Depth> 3.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.66"

A	rea (sf)	CN [	Description				
	1,682	39 >	9 >75% Grass cover, Good, HSG A				
	10,383	80 >	75% Gras	s cover, Go	ood, HSG D		
	3,530	74 >	75% Gras	s cover, Go	ood, HSG C		
	6,936	98 F	Paved park	ing, HSG A	<b>L</b>		
	2,228	77 \	Voods, Go	od, HSG D			
	170	98 F	Roofs, HSC	S A			
	90		Roofs, HSG				
	2,670		Roofs, HSG				
	1,237		Roofs, HSC				
	994	98 F	Roofs, HSC	3 C			
	29,920		Veighted A				
	17,823	5	59.57% Pei	rvious Area			
	12,097	4	10.43% lmp	pervious Ar	ea		
_				_			
Tc	Length	Slope	Velocity	Capacity	Description		
<u>(min)</u>	(feet)	(ft/ft)	(ft/sec)	(cfs)			
0.7	50	0.0200	1.14		Sheet Flow,		
					Smooth surfaces n= 0.011 P2= 2.89"		
1.2	335	0.0500	4.54		Shallow Concentrated Flow,		
					Paved Kv= 20.3 fps		
1.9	385	Total,	ncreased t	to minimum	Tc = 6.0 min		

## **Summary for Subcatchment 50S: Roadway Flow**

Runoff = 0.95 cfs @ 12.09 hrs, Volume= 0.082 af, Depth> 3.34"

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	Α	rea (sf)	CN D	escription		
		5,295	39 >	75% Gras	s cover, Go	ood, HSG A
		7,603	98 F	aved park	ing, HSG A	<b>\</b>
		12,898	V	Veighted A	verage	
		5,295	4	1.05% Per	vious Area	
		7,603	5	8.95% Imp	pervious Ar	ea
	_					
	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	0.5	50	0.0550	1.71		Sheet Flow,
						Smooth surfaces n= 0.011 P2= 2.89"
	0.9	250	0.0500	4.54		Shallow Concentrated Flow,
_						Paved Kv= 20.3 fps
	14	300	Total I	ncreased t	o minimum	$T_{\rm C} = 6.0  \text{min}$

300 Total, Increased to minimum Tc = 6.0 min

## **Summary for Subcatchment 51S: Roadway Flow**

Runoff = 1.05 cfs @ 12.09 hrs, Volume= 0.090 af, Depth> 3.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.66"

	Α	rea (sf)	CN E	Description		
		3,027	98 F	Roofs, HSC	A A	
		4,496	39 >	75% Gras	s cover, Go	ood, HSG A
		5,392	98 F	Paved park	ing, HSG A	<b>\</b>
		12,915	V	Veighted A	verage	
		4,496	3	4.81% Pei	vious Area	
		8,419	6	5.19% lmp	ervious Ar	ea
	Тс	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	3.4	50	0.0800	0.25		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	0.6	76	0.0900	2.10		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	0.1	37	0.0500	4.54		Shallow Concentrated Flow,
_						Paved Kv= 20.3 fps
	11	162	Total I	norgaed t	o minimum	$T_0 = 6.0 \text{ min}$

4.1 163 Total, Increased to minimum Tc = 6.0 min

# Summary for Subcatchment 60S: Roadway and Building Flow

Runoff = 1.16 cfs @ 12.09 hrs, Volume= 0.106 af, Depth> 2.41"

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_	Α	rea (sf)	CN D	escription						
		3,213	98 R	98 Roofs, HSG A						
		13,675	39 >	75% Gras	s cover, Go	ood, HSG A				
_		6,124	98 P	aved park	ing, HSG A	1				
		23,012	٧	Veighted A	verage					
		13,675	5	9.43% Per	vious Area					
		9,337	4	0.57% Imp	ervious Ar	ea				
	Tc	Length	Slope	Velocity	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	2.6	50	0.1600	0.32		Sheet Flow,				
						Grass: Short n= 0.150 P2= 2.89"				
	2.6	155	0.0200	0.99		Shallow Concentrated Flow,				
						Short Grass Pasture Kv= 7.0 fps				
	0.1	15	0.0200	2.87		Shallow Concentrated Flow,				
_						Paved Kv= 20.3 fps				
	5.3	220	Total, I	ncreased t	o minimum	Tc = 6.0 min				

## **Summary for Subcatchment 61S: Roadway Flow**

Runoff = 0.78 cfs @ 12.09 hrs, Volume= 0.066 af, Depth> 4.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.66"

	Area (st)	CN L	escription						
	1,253	39 >	39 >75% Grass cover, Good, HSG A						
	6,311	98 F	98 Paved parking, HSG A						
	7,564	V	Veighted A	verage					
	1,253	1	16.57% Pervious Area						
	6,311	8	83.43% Impervious Area						
To	3	Slope	Velocity	Capacity	Description				
(min	) (feet)	(ft/ft)	(ft/sec)	(cfs)					
0.7	7 50	0.0200	1.14		Sheet Flow,				
					Smooth surfaces n= 0.011 P2= 2.89"				
0.6	5 102	0.0200	2.87		Shallow Concentrated Flow,				
					Paved Kv= 20.3 fps				
1.3	3 152	Total, I	ncreased t	o minimum	Tc = 6.0 min				

## **Summary for Subcatchment 62S: Bioretention Pond Area**

Runoff = 0.02 cfs @ 12.38 hrs, Volume= 0.004 af, Depth> 0.35"

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A	rea (sf)	CN D	escription							
	6,453	39 >	39 >75% Grass cover, Good, HSG A							
	6,453	1	100.00% Pervious Area							
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description					
6.0					Direct Entry,					

### **Summary for Subcatchment 70S: Overland Flow to Detention Pond**

Runoff = 7.75 cfs @ 12.20 hrs, Volume= 0.733 af, Depth> 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.66"

	A	rea (sf)	CN	Description						
		607	98	98 Roofs, HSG D						
		1,192	98	Roofs, HSC	S A					
		24,819	80	>75% Gras	s cover, Go	ood, HSG D				
		13,185			,	ood, HSG A				
_		89,055	77	Woods, Go	<u>od, HSG D</u>					
		28,858		Weighted A						
	1	27,059		98.60% Pei	rvious Area					
		1,799		1.40% Impe	ervious Are	a				
	т.	ما المحمد ا	Clana	Valacity	Consoitu	Description				
	Tc	Length	Slope	•	Capacity	Description				
_	(min)	(feet)	(ft/ft)		(cfs)					
	7.5	50	0.0800	0.11		Sheet Flow,				
						Woods: Light underbrush n= 0.400 P2= 2.89"				
	3.6	391	0.1300	1.80		Shallow Concentrated Flow,				
						Woodland Kv= 5.0 fps				
	3.5	304	0.0430	1.45		Shallow Concentrated Flow,				
_						Short Grass Pasture Kv= 7.0 fps				
	14.6	745	Total							

## **Summary for Subcatchment 71S: Roadway Flow**

Runoff = 2.51 cfs @ 12.09 hrs, Volume= 0.209 af, Depth> 4.13"

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	Α	rea (sf)	CN E	Description		
		2,572	98 F	Roofs, HSG	D D	
		3,565	98 F	Roofs, HSG	βA	
		3,581	80 >	75% Gras	s cover, Go	ood, HSG D
		5,385	39 >	·75% Gras	s cover, Go	ood, HSG A
		1,533	98 F	Paved park	ing, HSG D	
		9,859	98 F	Paved park	ing, HSG A	l .
		26,495	٧	Veighted A	verage	
		8,966	3	3.84% Per	vious Area	
		17,529	6	6.16% lmp	pervious Ar	ea
	Тс	Length	Slope	Velocity	Capacity	Description
(	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	3.4	50	0.0800	0.25		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	1.5	250	0.0200	2.87		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
	4.9	300	Total, I	ncreased t	o minimum	Tc = 6.0 min

## **Summary for Subcatchment 72S: House Flow to Pond**

Runoff = 2.91 cfs @ 12.09 hrs, Volume= 0.253 af, Depth> 2.70"

A	rea (sf)	CN E	escription		
	2,848	98 F	Roofs, HSC	G D	
	9,725	98 F	Roofs, HSG	θA	
	23,884	39 >	75% Gras	s cover, Go	ood, HSG A
	4,734	80 >	75% Gras	s cover, Go	ood, HSG D
	1,216	74 >	75% Gras	s cover, Go	ood, HSG C
	1,330	98 F	Paved park	ing, HSG D	
	5,294	98 F	Paved park	ing, HSG A	<b>\</b>
	49,031	V	Veighted A	verage	
	29,834	6	0.85% Pei	rvious Area	
	19,197	3	9.15% Imp	pervious Ar	ea
Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
0.7	50	0.0200	1.14		Sheet Flow,
					Smooth surfaces n= 0.011 P2= 2.89"
0.3	77	0.3100	3.90		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
1.0	127	Total, I	ncreased t	to minimum	Tc = 6.0 min

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# **Summary for Subcatchment 73S: Roadway Flow**

Runoff = 0.57 cfs @ 12.09 hrs, Volume= 0.048 af, Depth> 4.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.66"

	Α	rea (sf)	CN [	CN Description					
		1,375	39 >	75% Gras	s cover, Go	ood, HSG A			
_		4,557	98 F	Paved park	ing, HSG A	· · · · · · · · · · · · · · · · · · ·			
		5,932	\	Veighted A	verage				
		1,375	2	23.18% Per	vious Area				
		4,557	7	76.82% Imp	ervious Ar	ea			
	Тс	Longth	Slope	Volocity	Canacity	Description			
	(min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description			
	0.7	50	0.0200	1.14		Sheet Flow,			
						Smooth surfaces n= 0.011 P2= 2.89"			
	0.9	150	0.0200	2.87		Shallow Concentrated Flow,			
_						Paved Kv= 20.3 fps			
	16	200	Total	Increased t	o minimum	$T_{\rm C} = 6.0  \text{min}$			

### Summary for Subcatchment 74S: Area in Circle to Infiltration Pond

Runoff = 1.04 cfs @ 12.09 hrs, Volume= 0.090 af, Depth> 2.66"

A	rea (sf)	CN [	Description					
	4,851	98 F	Roofs, HSC	A A				
	8,558	39 >	>75% Gras	s cover, Go	ood, HSG A			
	1,547	98 F	Roofs, HSG	B D				
	248	98 F	Roofs, HSG	G C				
	1,588	80 >	75% Gras	s cover, Go	ood, HSG D			
	864	74 >	>75% Gras	s cover, Go	ood, HSG C			
	17,656	\	Veighted A	verage				
	11,010	6	62.36% Pei	rvious Area	l			
	6,646	3	37.64% lmp	pervious Ar	ea			
Tc	Length	Slope	Velocity	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
2.6	40	0.1000	0.26		Sheet Flow,			
					Grass: Short	n= 0.150	P2= 2.89"	
2.6	40	Total,	Increased t	o minimum	n Tc = 6.0 min			

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# **Summary for Subcatchment 75S: Roadway Flow**

Runoff = 1.35 cfs @ 12.09 hrs, Volume= 0.112 af, Depth> 4.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.66"

_	Α	rea (sf)	CN	Description		
		295	98	Roofs, HSC	G D	
		1,380	98	Roofs, HSC	A S	
		2,209	80	>75% Gras	s cover, Go	ood, HSG D
		2,224	39	>75% Gras	s cover, Go	ood, HSG A
		4,186	98	Paved park	ing, HSG D	)
_		3,345	98	Paved park	ing, HSG A	1
		13,639	1	Weighted A	verage	
		4,433	;	32.50% Pe	rvious Area	
		9,206		67.50% lm	pervious Ar	ea
	Тс	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	0.7	50	0.0200	1.14		Sheet Flow,
						Smooth surfaces n= 0.011 P2= 2.89"
	8.0	146	0.0200	2.87		Shallow Concentrated Flow,
_						Paved Kv= 20.3 fps
	15	106	Total	Increased	to minimum	To = 6.0 min

1.5 196 Total, Increased to minimum Tc = 6.0 min

#### **Summary for Subcatchment 76S: Roadway Flow**

Runoff = 7.44 cfs @ 12.13 hrs, Volume= 0.640 af, Depth> 3.59"

Area (sf)	CN	Description					
14,560	98	Roofs, HSG D					
1,133	98	Roofs, HSG A					
24,384	80	>75% Grass cover, Good, HSG D					
10,102	39	>75% Grass cover, Good, HSG A					
31,709	77	Woods, Good, HSG D					
7,686	98	Paved parking, HSG D					
3,446	98	Paved parking, HSG A					
93,020		Weighted Average					
66,195		71.16% Pervious Area					
26,825		28.84% Impervious Area					

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 Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
 6.3	50	0.1200	0.13		Sheet Flow,
					Woods: Light underbrush n= 0.400 P2= 2.89"
0.9	130	0.2150	2.32		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
1.0	120	0.0830	2.02		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
8.0	168	0.0300	3.52		Shallow Concentrated Flow,
					Paved Kv= 20.3 fps
 9.0	468	Total			

## **Summary for Subcatchment 100S: Unit 1**

Runoff = 0.11 cfs @ 12.09 hrs, Volume= 0.010 af, Depth> 5.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.66"

A	rea (sf)	CN [	Description		
	920	98 F	Roofs, HSG	A A	
•	920	1	00.00% Im	pervious A	Area
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

# Summary for Subcatchment 101S: Units 2 & 3

Runoff = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af, Depth> 5.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.66"

A	rea (sf)	CN E	escription		
	1,840	98 F	Roofs, HSG	A A	
	1,840	1	00.00% Im	pervious A	Area
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

## Summary for Subcatchment 102S: Units 4 & 5

Runoff = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af, Depth> 5.42"

# Type III 24-hr 25-yr Rainfall=5.66"

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A	rea (sf)	CN I	Description					
	1,840	98 I	98 Roofs, HSG A					
	1,840	•	100.00% Im	npervious A	\rea			
Tc	Length	Slope	Velocity	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
6.0					Direct Entry,			

### Summary for Subcatchment 103S: Units 6 & 7

Runoff = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af, Depth> 5.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.66"

A	rea (sf)	CN [	Description		
	1,840	98 F	Roofs, HSC	Α	
	1,840	•	00.00% In	npervious A	Area
Тс	Length	Slope	,	. ,	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
6.0					Direct Entry,

## Summary for Subcatchment 104S: Units 8 & 9

Runoff = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af, Depth> 5.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.66"

_	Α	rea (sf)	CN [	Description		
		1,840	98 F	Roofs, HSG	Α	
		1,840	•	100.00% Im	npervious A	∖rea
	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	•
_	6.0				•	Direct Entry.

# Summary for Subcatchment 105S: Units 11 & 10

Runoff = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af, Depth> 5.42"

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	rea (sf)	CN I	Description					
	1,840	98 F	Roofs, HSG A					
	1,840	•	100.00% In	pervious A	\rea			
_		-						
Tc	Length	Slope	Velocity	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
6.0					Direct Entry,			

### Summary for Subcatchment 106S: Units 13 & 12

Runoff = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af, Depth> 5.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.66"

Α	rea (sf)	CN [	Description					
	1,840	98 F	Roofs, HSC	Α				
	1,840	1	100.00% Impervious Area					
То	Longth	Clana	Volosity	Consoity	Description			
Tc (min)	Length (feet)	Slope (ft/ft)	(ft/sec)	Capacity (cfs)	Description			
6.0	(.301)	(1411)	(12000)	(0.0)	Direct Entry,			

## Summary for Subcatchment 107S: Units 15 & 14

Runoff = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af, Depth> 5.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.66"

A	rea (sf)	CN [	Description					
	1,840	98 F	Roofs, HSG	A A				
	1,840	1	100.00% Impervious Area					
_		01			<b>—</b>			
Tc	Length	Slope	Velocity	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
6.0					Direct Entry.			

# Summary for Subcatchment 108S: Units 17 & 16

Runoff = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af, Depth> 5.42"

Type III 24-hr 25-yr Rainfall=5.66" Printed 10/10/2022

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A	rea (sf)	CN [	Description						
	1,840	98 F	8 Roofs, HSG A						
	1,840	•	100.00% Impervious Area						
_		0.1							
Tc	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
6.0					Direct Entry,				

### **Summary for Subcatchment 109S: Unit 18**

Runoff = 0.11 cfs @ 12.09 hrs, Volume= 0.010 af, Depth> 5.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-yr Rainfall=5.66"

A	rea (sf)	CN E	Description					
	920	98 F	Roofs, HSC	βA				
	920	1	100.00% Impervious Area					
To	Longth	Clono	Volocity	Canacity	Description			
Tc (min)	Length (feet)	Slope (ft/ft)	(ft/sec)	Capacity (cfs)	Description			
6.0		( ' )			Direct Entry,			

## **Summary for Reach 1R: Tammy Court**

Inflow Area = 1.32 ac, 17.28% Impervious, Inflow Depth > 3.33" for 25-yr event

Inflow = 4.78 cfs @ 12.09 hrs, Volume= 0.367 af

Outflow = 4.78 cfs @ 12.09 hrs, Volume= 0.367 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

# Summary for Reach 2R: Ex CB1

Inflow Area = 3.88 ac, 46.55% Impervious, Inflow Depth > 3.75" for 25-yr event

Inflow = 5.86 cfs @ 12.24 hrs, Volume= 1.213 af

Outflow = 5.86 cfs @ 12.24 hrs, Volume= 1.213 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

# Summary for Reach 3R: Ex CB 2

Inflow Area = 0.57 ac, 8.93% Impervious, Inflow Depth > 2.77" for 25-yr event

Inflow = 1.57 cfs @ 12.12 hrs, Volume= 0.131 af

Outflow = 1.57 cfs @ 12.12 hrs, Volume= 0.131 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

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## **Summary for Reach 4R: Upper Shadowbrook Drive Drainage**

Inflow Area = 2.77 ac, 53.61% Impervious, Inflow Depth > 3.59" for 25-yr event

Inflow = 5.30 cfs @ 12.21 hrs, Volume= 0.830 af

Outflow = 5.30 cfs @ 12.21 hrs, Volume= 0.830 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### **Summary for Reach 5R: Canterberry Ct Drainage**

Inflow Area = 0.84 ac, 15.94% Impervious, Inflow Depth > 1.16" for 25-yr event

Inflow = 0.72 cfs @ 12.09 hrs, Volume= 0.081 af

Outflow = 0.72 cfs @ 12.09 hrs, Volume= 0.081 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Summary for Reach 6R: Lower Shadowbrook Dr CB

Inflow Area = 1.67 ac, 12.69% Impervious, Inflow Depth > 0.98" for 25-yr event

Inflow = 1.15 cfs @ 12.09 hrs, Volume= 0.136 af

Outflow = 1.15 cfs @ 12.09 hrs, Volume= 0.136 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

## Summary for Pond 1P: Bioretention Pond #1

Inflow Area = 2.51 ac, 55.18% Impervious, Inflow Depth > 3.58" for 25-yr event

Inflow = 8.90 cfs @ 12.09 hrs, Volume= 0.750 af

Outflow = 4.67 cfs @ 12.23 hrs, Volume= 0.743 af, Atten= 48%, Lag= 8.6 min

Primary = 4.67 cfs @ 12.23 hrs, Volume= 0.743 af Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 293.13' @ 12.23 hrs Surf.Area= 4,075 sf Storage= 9,403 cf

Plug-Flow detention time= 79.9 min calculated for 0.743 af (99% of inflow)

Center-of-Mass det. time= 73.9 min (836.4 - 762.4)

Volume	Invert	Avail.Storage	Storage Description
#1	288.00'	13,264 cf	Custom Stage Data (Prismatic)Listed below (Recalc)

Elevation	Surf.Area	Inc.Store	Cum.Store
(feet)	(sq-ft)	(cubic-feet)	(cubic-feet)
288.00	434	0	0
290.00	1,140	1,574	1,574
291.00	1,598	1,369	2,943
292.00	3,160	2,379	5,322
294.00	4,782	7,942	13,264

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Device	Routing	Invert	Outlet Devices
#1	Secondary	293.80'	<b>4.0' long x 10.0' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60
			Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Device 5	288.00'	10.000 in/hr Exfiltration over Surface area
#3	Device 5	292.10'	<b>15.0" Vert. Orifice/Grate</b> C= 0.600
#4	Device 5	293.50'	<b>48.0"</b> x <b>48.0"</b> Horiz. Orifice/Grate C= 0.600
			Limited to weir flow at low heads
#5	Primary	285.00'	12.0" Round Culvert
	-		L= 55.3' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 285.00' / 283.04' S= 0.0354 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=4.65 cfs @ 12.23 hrs HW=293.12' TW=0.00' (Dynamic Tailwater)

**-5=Culvert** (Passes 4.65 cfs of 10.44 cfs potential flow)

**-2=Exfiltration** (Exfiltration Controls 0.94 cfs)

-3=Orifice/Grate (Orifice Controls 3.71 cfs @ 3.45 fps)

-4=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=288.00' TW=0.00' (Dynamic Tailwater) 1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

### Summary for Pond 2P: Pocket Pond #1

Inflow Area = 3.42 ac, 46.71% Impervious, Inflow Depth > 3.86" for 25-yr event

13.60 cfs @ 12.09 hrs, Volume= Inflow = 1.099 af

Outflow 5.14 cfs @ 12.34 hrs, Volume= 1.073 af, Atten= 62%, Lag= 15.3 min =

Primary = 5.14 cfs @ 12.34 hrs, Volume= 1.073 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Starting Elev= 309.79' Surf.Area= 3,009 sf Storage= 5,826 cf

Peak Elev= 312.77' @ 12.34 hrs Surf.Area= 7,801 sf Storage= 21,818 cf (15,992 cf above start)

Plug-Flow detention time= 201.7 min calculated for 0.937 af (85% of inflow)

Center-of-Mass det. time= 91.8 min (864.2 - 772.4)

Volume	Invert	Avail.S	storage	Storage Description	n	
#1	306.00'	0' 27,930 cf		Custom Stage Da	d below (Recalc)	
Elevation (feet)	Surf. <i>F</i>	Area q-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
	,			(CUDIC-ICCI)	(cabic-icct)	<u> </u>
306.00		306	196.0	0	0	306
308.00	1,	,616	240.0	1,750	1,750	1,894
310.00	3,	,201	285.0	4,728	6,478	3,846
312.00	6,	785	438.0	9,764	16,242	12,678
313.50	8.	844	470.0	11,688	27,930	15,088

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#3

Device 4

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Device	Routing	Invert	Outlet Devices
#1	Device 4	309.80'	4.5" Vert. Orifice/Grate C= 0.600
#2	Device 4	311.50'	14.0" Vert. Orifice/Grate C= 0.600
#3	Device 4	313.10'	<b>48.0" x 48.0" Horiz. Orifice/Grate</b> C= 0.600
			Limited to weir flow at low heads
#4	Primary	309.75'	15.0" Round Culvert
			L= 93.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 309.75' / 307.89' S= 0.0200 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=5.13 cfs @ 12.34 hrs HW=312.76' TW=309.48' (Dynamic Tailwater)

**-4=Culvert** (Passes 5.13 cfs of 9.13 cfs potential flow)

-1=Orifice/Grate (Orifice Controls 0.89 cfs @ 8.02 fps)

-2=Orifice/Grate (Orifice Controls 4.25 cfs @ 3.97 fps)

-3=Orifice/Grate (Controls 0.00 cfs)

### **Summary for Pond 3P: Pocket Pond #2**

Inflow Area = 6.15 ac, 22.36% Impervious, Inflow Depth > 3.40" for 25-yr event

Inflow = 18.04 cfs @ 12.14 hrs, Volume= 1.742 af

Outflow 1.721 af, Atten= 37%, Lag= 11.9 min

11.40 cfs @ 12.34 hrs, Volume= 11.40 cfs @ 12.34 hrs, Volume= Primary 1.721 af 0.00 cfs @ 0.00 hrs, Volume= Secondary = 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Starting Elev= 271.98' Surf.Area= 2,847 sf Storage= 5,675 cf

Peak Elev= 275.29' @ 12.34 hrs Surf.Area= 6,136 sf Storage= 20,381 cf (14,706 cf above start)

Plug-Flow detention time= 94.9 min calculated for 1.588 af (91% of inflow)

Center-of-Mass det. time= 26.9 min (826.7 - 799.8)

Volume	Invert	Avail Sto	rage Storage D	)escription	
					win mostic Victor de bolovy (Docodo)
#1	268.00'	25,0	13 CI Custom 3	Stage Data (Pi	rismatic)Listed below (Recalc)
Elevation	on Su	rf.Area	Inc.Store	Cum.Store	
(fee	et)	(sq-ft)	(cubic-feet)	(cubic-feet)	
268.0	00	408	0	0	
269.0	00	790	599	599	
270.0	00	1,250	1,020	1,619	
272.0	00	2,863	4,113	5,732	
274.0	00	4,762	7,625	13,357	
276.0	00	6,894	11,656	25,013	
Device	Routing	Invert	Outlet Devices		
#1	Device 4	272.00'	9.0" Vert. Orifi	co/Grate C=	0.600
#2	Secondary	275.35'			oad-Crested Rectangular Weir
<i></i>	o o o o	2.0.00			0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00 3.50		
					69 2.68 2.67 2.67 2.65 2.66 2.66
			2.68 2.72 2.73		

273.80' **24.0" W x 10.0" H Vert. Orifice/Grate** C= 0.600

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#4 Primary 272.00' **18.0" Round Culvert** 

L= 105.7' CPP, square edge headwall, Ke= 0.500

Inlet / Outlet Invert= 272.00 / 271.57 S= 0.0041 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

#5 Primary 275.70' **48.0" x 48.0" Horiz. Orifice/Grate** C= 0.600

Limited to weir flow at low heads

**Primary OutFlow** Max=11.39 cfs @ 12.34 hrs HW=275.28' TW=0.00' (Dynamic Tailwater)

**-4=Culvert** (Barrel Controls 11.39 cfs @ 6.45 fps)

1=Orifice/Grate (Passes < 3.63 cfs potential flow)

**3=Orifice/Grate** (Passes < 8.24 cfs potential flow)

-5=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=271.98' TW=0.00' (Dynamic Tailwater) 2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

### Summary for Pond 30P: Infiltration Pond #1

Inflow Area = 0.41 ac, 37.64% Impervious, Inflow Depth > 2.66" for 25-yr event

Inflow = 1.04 cfs @ 12.09 hrs, Volume= 0.090 af

Outflow = 0.06 cfs @ 14.46 hrs, Volume= 0.070 af, Atten= 94%, Lag= 142.1 min

Discarded = 0.06 cfs @ 14.46 hrs, Volume= 0.070 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 280.99' @ 14.46 hrs Surf.Area= 2,576 sf Storage= 1,885 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 170.4 min (943.3 - 772.9)

Volume	Inve	ert Avail	.Storage	Storage	Description	
#1	280.0	0'	5,166 cf	Custom	Stage Data (Pi	rismatic)Listed below (Recalc)
Elevation (feet	-	Surf.Area (sq-ft)		:.Store c-feet)	Cum.Store (cubic-feet)	
280.0	0	1,214		0	0	
282.0	0	3,952		5,166	5,166	
Device	Routing	lnv	ert Outl	et Device	S	

#1 Discarded 280.00' 1.000 in/hr Exfiltration over Surface area

**Discarded OutFlow** Max=0.06 cfs @ 14.46 hrs HW=280.99' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.06 cfs)

## Summary for Pond 31P: Infiltration Pond #2

Inflow Area = 1.13 ac, 39.15% Impervious, Inflow Depth > 2.70" for 25-yr event

Inflow = 2.91 cfs @ 12.09 hrs, Volume= 0.253 af

Outflow = 0.23 cfs @ 13.52 hrs, Volume= 0.185 af, Atten= 92%, Lag= 86.0 min

Discarded = 0.10 cfs @ 13.52 hrs, Volume= 0.135 af Primary = 0.13 cfs @ 13.52 hrs, Volume= 0.050 af

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Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 275.41' @ 13.52 hrs Surf.Area= 4,353 sf Storage= 5,200 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 130.4 min (901.4 - 771.0)

Volume	Invert	Avail.Sto	rage Storage I	Description	
#1	274.00'	7,93	88 cf Custom	Stage Data (Pr	rismatic)Listed below (Recalc)
Elevation (fee		rf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	
274.0	00	3,030	0	0	
276.0	00	4,908	7,938	7,938	
Device	Routing	Invert	Outlet Devices	3	
#1	Device 3	275.00'	3.0" Vert. Orif	fice/Grate C=	0.600
#2	Discarded	274.00'	1.000 in/hr Ex	filtration over	Surface area
#3	Primary	274.16'	15.0" Round	Culvert	
			L= 32.2' CPP	, square edge h	neadwall, Ke= 0.500
			Inlet / Outlet In	vert= 274.16' / 2	274.00' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corr	rugated PE, smo	ooth interior, Flow Area= 1.23 sf
#4	Primary	276.40'	24.0" x 24.0"	Horiz. Orifice/G	Grate C= 0.600
			Limited to weir	flow at low hea	ıds

**Discarded OutFlow** Max=0.10 cfs @ 13.52 hrs HW=275.41' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.10 cfs)

Primary OutFlow Max=0.13 cfs @ 13.52 hrs HW=275.41' TW=0.00' (Dynamic Tailwater)

-3=Culvert (Passes 0.13 cfs of 3.77 cfs potential flow)

1=Orifice/Grate (Orifice Controls 0.13 cfs @ 2.56 fps)

-4=Orifice/Grate (Controls 0.00 cfs)

# **Summary for Pond 100: AD#100**

Inflow Area = 0.02 ac,100.00% Impervious, Inflow Depth > 5.42" for 25-yr event

Inflow 0.11 cfs @ 12.09 hrs. Volume= 0.010 af

0.11 cfs @ 12.09 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min Outflow =

Primary 0.11 cfs @ 12.09 hrs, Volume= 0.010 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 295.99' @ 12.09 hrs

Flood Elev= 297.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	295.81'	8.0" Round Culvert
			L= 58.1' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 295.81' / 294.35' S= 0.0251 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.11 cfs @ 12.09 hrs HW=295.99' TW=294.58' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.11 cfs @ 1.45 fps)

Type III 24-hr 25-yr Rainfall=5.66" Printed 10/10/2022

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### **Summary for Pond 101: AD#101**

Inflow Area = 0.06 ac,100.00% Impervious, Inflow Depth > 5.42" for 25-yr event

Inflow = 0.34 cfs @ 12.09 hrs, Volume= 0.029 af

Outflow = 0.34 cfs @ 12.09 hrs, Volume= 0.029 af, Atten= 0%, Lag= 0.0 min

Primary = 0.34 cfs @ 12.09 hrs, Volume= 0.029 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 294.58' @ 12.09 hrs

Flood Elev= 297.00'

Device	Routing	Invert	Outlet Devices
	Primary	294.25'	8.0" Round Culvert L= 37.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 294.25' / 292.40' S= 0.0500 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.33 cfs @ 12.09 hrs HW=294.58' TW=293.57' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.33 cfs @ 1.95 fps)

### Summary for Pond 102: AD#102

Inflow Area = 0.08 ac,100.00% Impervious, Inflow Depth > 5.42" for 25-yr event

Inflow = 0.46 cfs @ 12.09 hrs, Volume= 0.038 af

Outflow = 0.46 cfs @ 12.09 hrs, Volume= 0.038 af, Atten= 0%, Lag= 0.0 min

Primary = 0.46 cfs @ 12.09 hrs, Volume= 0.038 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 294.06' @ 12.21 hrs

Flood Elev= 297.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	292.95'	8.0" Round Culvert
			L= 27.4' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 292.95' / 292.40' S= 0.0201 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=293.46' TW=293.57' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

## Summary for Pond 103: AD#103

Inflow Area = 0.04 ac,100.00% Impervious, Inflow Depth > 5.42" for 25-yr event

Inflow = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af

Outflow = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min

Primary = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 294.50' @ 12.09 hrs

Flood Elev= 297.40'

Type III 24-hr 25-yr Rainfall=5.66"

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Device	Routing	Invert	Outlet Devices
#1	Primary	294.23'	8.0" Round Culvert L= 59.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 294.23' / 293.05' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.22 cfs @ 12.09 hrs HW=294.49' TW=293.46' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.22 cfs @ 1.74 fps)

### Summary for Pond 104: AD#104

Inflow Area = 0.23 ac,100.00% Impervious, Inflow Depth > 5.42" for 25-yr event

Inflow = 1.26 cfs @ 12.09 hrs, Volume= 0.105 af

Outflow = 1.26 cfs @ 12.09 hrs, Volume= 0.105 af, Atten= 0%, Lag= 0.0 min

Primary = 1.26 cfs @ 12.09 hrs, Volume= 0.105 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 296.16' @ 12.09 hrs

Flood Elev= 299.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	295.27'	8.0" Round Culvert
			L= 16.6' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 295.27' / 294.66' S= 0.0367 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.22 cfs @ 12.09 hrs HW=296.13' TW=295.43' (Dynamic Tailwater) 1=Culvert (Inlet Controls 1.22 cfs @ 3.51 fps)

## **Summary for Pond 105: AD#105**

Inflow Area = 0.19 ac,100.00% Impervious, Inflow Depth > 5.42" for 25-yr event

Inflow = 1.03 cfs @ 12.09 hrs, Volume= 0.086 af

Outflow = 1.03 cfs @ 12.09 hrs, Volume= 0.086 af, Atten= 0%, Lag= 0.0 min

Primary = 1.03 cfs @ 12.09 hrs, Volume= 0.086 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 298.24' @ 12.09 hrs

Flood Elev= 301.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	297.53'	8.0" Round Culvert L= 53.8' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 297.53' / 295.38' S= 0.0400 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.00 cfs @ 12.09 hrs HW=298.22' TW=296.13' (Dynamic Tailwater) 1=Culvert (Inlet Controls 1.00 cfs @ 2.87 fps)

Type III 24-hr 25-yr Rainfall=5.66" Printed 10/10/2022

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### **Summary for Pond 106: AD#106**

Inflow Area = 0.15 ac,100.00% Impervious, Inflow Depth > 5.42" for 25-yr event

Inflow = 0.80 cfs @ 12.09 hrs, Volume= 0.067 af

Outflow = 0.80 cfs @ 12.09 hrs, Volume= 0.067 af, Atten= 0%, Lag= 0.0 min

Primary = 0.80 cfs @ 12.09 hrs, Volume= 0.067 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 300.43' @ 12.09 hrs

Flood Elev= 303.80'

Device Routing Invert Outlet Devices

#1 Primary

299.87' 8.0" Round Culvert

L= 55.9' CPP, square edge headwall, Ke= 0.500
Inlet / Outlet Invert= 299.87' / 297.63' S= 0.0401'/' Cc= 0.900

n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.78 cfs @ 12.09 hrs HW=300.42' TW=298.22' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.78 cfs @ 2.53 fps)

### **Summary for Pond 107: AD#107**

Inflow Area = 0.11 ac,100.00% Impervious, Inflow Depth > 5.42" for 25-yr event

Inflow = 0.57 cfs @ 12.09 hrs, Volume= 0.048 af

Outflow = 0.57 cfs @ 12.09 hrs, Volume= 0.048 af, Atten= 0%, Lag= 0.0 min

Primary = 0.57 cfs @ 12.09 hrs, Volume= 0.048 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 303.34' @ 12.09 hrs

Flood Elev= 306.63'

Device	Routing	Invert	Outlet Devices
#1	Primary	302.85'	8.0" Round Culvert
			L= 64.0' CPP, mitered to conform to fill, Ke= 0.700
			Inlet / Outlet Invert= 302.85' / 299.97' S= 0.0450 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.56 cfs @ 12.09 hrs HW=303.33' TW=300.42' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.56 cfs @ 2.08 fps)

## Summary for Pond 108: AD#108

Inflow Area = 0.06 ac,100.00% Impervious, Inflow Depth > 5.42" for 25-yr event

Inflow = 0.34 cfs @ 12.09 hrs, Volume= 0.029 af

Outflow = 0.34 cfs @ 12.09 hrs, Volume= 0.029 af, Atten= 0%, Lag= 0.0 min

Primary = 0.34 cfs @ 12.09 hrs, Volume= 0.029 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 306.18' @ 12.09 hrs

Flood Elev= 309.80'

Type III 24-hr 25-yr Rainfall=5.66"

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Device	Routing	Invert	Outlet Devices
#1	Primary	305.85'	8.0" Round Culvert
			L= 64.5' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 305.85' / 302.96' S= 0.0448 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.33 cfs @ 12.09 hrs HW=306.18' TW=303.33' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.33 cfs @ 1.95 fps)

### Summary for Pond 109: AD#109

Inflow Area = 0.02 ac,100.00% Impervious, Inflow Depth > 5.42" for 25-yr event

Inflow = 0.11 cfs @ 12.09 hrs, Volume= 0.010 af

Outflow = 0.11 cfs @ 12.09 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min

Primary = 0.11 cfs @ 12.09 hrs, Volume= 0.010 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 308.87' @ 12.09 hrs

Flood Elev= 311.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	308.69'	8.0" Round Culvert
			L= 49.9' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 308.69' / 305.95' S= 0.0549 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.11 cfs @ 12.09 hrs HW=308.87' TW=306.18' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.11 cfs @ 1.45 fps)

## Summary for Pond CB11: CB#11

Inflow Area = 1.47 ac, 47.09% Impervious, Inflow Depth > 3.98" for 25-yr event

Inflow = 6.07 cfs @ 12.09 hrs, Volume= 0.487 af

Outflow = 6.07 cfs @ 12.09 hrs, Volume= 0.487 af, Atten= 0%, Lag= 0.0 min

Primary = 6.07 cfs @ 12.09 hrs, Volume= 0.487 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 312.83' @ 12.38 hrs

Flood Elev= 314.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	310.04'	18.0" Round Culvert
			L= 30.3' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 310.04' / 309.89' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=4.10 cfs @ 12.09 hrs HW=312.44' TW=312.21' (Dynamic Tailwater) 1=Culvert (Inlet Controls 4.10 cfs @ 2.32 fps)

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### **Summary for Pond CB110: CB#110**

Inflow Area = 0.34 ac, 52.43% Impervious, Inflow Depth > 4.48" for 25-yr event

Inflow = 1.59 cfs @ 12.09 hrs, Volume= 0.126 af

Outflow = 1.59 cfs @ 12.09 hrs, Volume= 0.126 af, Atten= 0%, Lag= 0.0 min

Primary = 1.59 cfs @ 12.09 hrs, Volume= 0.126 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 312.84' @ 12.42 hrs

Flood Elev= 314.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	310.25'	15.0" Round Culvert L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 310.25' / 310.14' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=312.18' TW=312.44' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

### **Summary for Pond CB12: CB#12**

Inflow Area = 0.73 ac, 49.36% Impervious, Inflow Depth > 4.00" for 25-yr event

Inflow = 3.04 cfs @ 12.09 hrs, Volume= 0.245 af

Outflow = 3.04 cfs @ 12.09 hrs, Volume= 0.245 af, Atten= 0%, Lag= 0.0 min

Primary = 3.04 cfs @ 12.09 hrs, Volume= 0.245 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 313.90' @ 12.09 hrs

Flood Elev= 317.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	313.00'	15.0" Round Culvert
			L= 106.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 313.00' / 310.21' S= 0.0263 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=2.97 cfs @ 12.09 hrs HW=313.88' TW=312.44' (Dynamic Tailwater) 1=Culvert (Inlet Controls 2.97 cfs @ 3.20 fps)

## **Summary for Pond CB120: CB#120**

Inflow Area = 0.50 ac, 47.90% Impervious, Inflow Depth > 4.23" for 25-yr event

Inflow = 2.21 cfs @ 12.09 hrs, Volume= 0.175 af

Outflow = 2.21 cfs @ 12.09 hrs, Volume= 0.175 af, Atten= 0%, Lag= 0.0 min

Primary = 2.21 cfs @ 12.09 hrs, Volume= 0.175 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 314.20' @ 12.11 hrs

Flood Elev= 317.25'

Type III 24-hr 25-yr Rainfall=5.66"

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Device	Routing	Invert	Outlet Devices
#1	Primary	313.32'	15.0" Round Culvert
	-		L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 313.32' / 313.10' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.94 cfs @ 12.09 hrs HW=314.18' TW=313.88' (Dynamic Tailwater) 1=Culvert (Outlet Controls 1.94 cfs @ 3.06 fps)

### **Summary for Pond CB14: CB#14**

Inflow Area = 3.64 ac, 46.14% Impervious, Inflow Depth > 3.75" for 25-yr event

Inflow = 5.46 cfs @ 12.31 hrs, Volume= 1.139 af

Outflow = 5.46 cfs @ 12.31 hrs, Volume= 1.139 af, Atten= 0%, Lag= 0.0 min

Primary = 5.46 cfs @ 12.31 hrs, Volume= 1.139 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 309.48' @ 12.32 hrs

Flood Elev= 312.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	307.79'	15.0" Round Culvert
	-		L= 37.9' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 307.79' / 307.22' S= 0.0150 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=5.45 cfs @ 12.31 hrs HW=309.48' TW=308.63' (Dynamic Tailwater) 1=Culvert (Inlet Controls 5.45 cfs @ 4.44 fps)

## **Summary for Pond CB15: CB#15**

Inflow Area = 3.71 ac, 46.04% Impervious, Inflow Depth > 3.75" for 25-yr event

Inflow = 5.56 cfs @ 12.29 hrs, Volume= 1.158 af

Outflow = 5.56 cfs @ 12.29 hrs, Volume= 1.158 af, Atten= 0%, Lag= 0.0 min

Primary = 5.56 cfs @ 12.29 hrs, Volume= 1.158 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 308.63' @ 12.29 hrs

Flood Elev= 312.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	307.12'	15.0" Round Culvert
			L= 120.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 307.12' / 300.65' S= 0.0539 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=5.56 cfs @ 12.29 hrs HW=308.63' TW=0.00' (Dynamic Tailwater) 1=Culvert (Inlet Controls 5.56 cfs @ 4.53 fps)

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## **Summary for Pond CB170: CB#170**

Inflow Area = 0.74 ac, 68.11% Impervious, Inflow Depth > 4.15" for 25-yr event

Inflow 3.07 cfs @ 12.09 hrs. Volume= 0.257 af

Outflow 3.07 cfs @ 12.09 hrs, Volume= 0.257 af, Atten= 0%, Lag= 0.0 min =

Primary 3.07 cfs @ 12.09 hrs, Volume= 0.257 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 278.80' @ 12.09 hrs

Flood Elev= 281.97'

Device	Routing	Invert	Outlet Devices
#1	Primary	277.90'	15.0" Round Culvert L= 36.7' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 277.90' / 277.17' S= 0.0199 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=2.99 cfs @ 12.09 hrs HW=278.79' TW=276.48' (Dynamic Tailwater) 1=Culvert (Inlet Controls 2.99 cfs @ 3.21 fps)

### **Summary for Pond CB171: CB#171**

0.61 ac, 66.16% Impervious, Inflow Depth > 4.13" for 25-yr event Inflow Area =

Inflow 2.51 cfs @ 12.09 hrs, Volume= 0.209 af

Outflow 2.51 cfs @ 12.09 hrs, Volume= 0.209 af. Atten= 0%. Lag= 0.0 min

2.51 cfs @ 12.09 hrs, Volume= Primary 0.209 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 279.15' @ 12.10 hrs

Flood Elev= 281.97'

Device	Routing	Invert	Outlet Devices
#1	Primary	278.22'	15.0" Round Culvert
			L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 278.22' / 278.00' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=2.25 cfs @ 12.09 hrs HW=279.12' TW=278.79' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 2.25 cfs @ 3.31 fps)

# **Summary for Pond CB19: CB #19**

Inflow Area = 2.45 ac, 33.78% Impervious, Inflow Depth > 3.68" for 25-yr event

Inflow 8.74 cfs @ 12.12 hrs, Volume= 0.751 af

Outflow 8.74 cfs @ 12.12 hrs, Volume= 0.751 af, Atten= 0%, Lag= 0.0 min =

8.74 cfs @ 12.12 hrs, Volume= Primary 0.751 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 278.80' @ 12.15 hrs

Flood Elev= 281.21'

Type III 24-hr 25-yr Rainfall=5.66"

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Device	Routing	Invert	Outlet Devices
#1	Primary	276.67'	18.0" Round Culvert
	-		L= 33.8' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 276.67' / 276.16' S= 0.0151 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=7.55 cfs @ 12.12 hrs HW=278.60' TW=277.81' (Dynamic Tailwater) 1=Culvert (Inlet Controls 7.55 cfs @ 4.27 fps)

### **Summary for Pond CB20: CB #20**

Inflow Area = 2.14 ac, 28.84% Impervious, Inflow Depth > 3.59" for 25-yr event

Inflow = 7.44 cfs @ 12.13 hrs, Volume= 0.640 af

Outflow = 7.44 cfs @ 12.13 hrs, Volume= 0.640 af, Atten= 0%, Lag= 0.0 min

Primary = 7.44 cfs @ 12.13 hrs, Volume= 0.640 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 279.35' @ 12.18 hrs

Flood Elev= 281.21'

Device	Routing	Invert	Outlet Devices
#1	Primary	277.21'	18.0" Round Culvert
	-		L= 22.0' RCP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 277.21' / 276.77' S= 0.0200 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=5.18 cfs @ 12.13 hrs HW=279.01' TW=278.64' (Dynamic Tailwater) 1=Culvert (Inlet Controls 5.18 cfs @ 2.93 fps)

## Summary for Pond CB201: CB#201

Inflow Area = 0.69 ac, 40.43% Impervious, Inflow Depth > 3.99" for 25-yr event

Inflow = 2.91 cfs @ 12.09 hrs, Volume= 0.229 af

Outflow = 2.91 cfs @ 12.09 hrs, Volume= 0.229 af, Atten= 0%, Lag= 0.0 min

Primary = 2.91 cfs @ 12.09 hrs, Volume= 0.229 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 293.21' @ 12.26 hrs

Flood Elev= 300.43'

Device	Routing	Invert	Outlet Devices
#1	Primary	291.88'	15.0" Round Culvert L= 82.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 291.88' / 291.45' S= 0.0052 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.85 cfs @ 12.09 hrs HW=293.00' TW=292.79' (Dynamic Tailwater) 1=Culvert (Outlet Controls 1.85 cfs @ 2.10 fps)

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## **Summary for Pond CB3: CB#3**

Inflow Area = 1.67 ac, 66.11% Impervious, Inflow Depth > 3.70" for 25-yr event

Inflow = 5.99 cfs @ 12.09 hrs, Volume= 0.517 af

Outflow = 5.99 cfs @ 12.09 hrs, Volume= 0.517 af, Atten= 0%, Lag= 0.0 min

Primary = 5.99 cfs @ 12.09 hrs, Volume= 0.517 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 293.99' @ 12.11 hrs

Flood Elev= 296.31'

Device	Routing	Invert	Outlet Devices
#1	Primary	292.09'	15.0" Round Culvert L= 80.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 292.09' / 291.29' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=5.11 cfs @ 12.09 hrs HW=293.88' TW=292.97' (Dynamic Tailwater) 1=Culvert (Outlet Controls 5.11 cfs @ 4.16 fps)

### **Summary for Pond CB30: CB#30**

Inflow Area = 0.32 ac, 91.05% Impervious, Inflow Depth > 4.97" for 25-yr event

Inflow = 1.58 cfs @ 12.09 hrs, Volume= 0.133 af

Outflow = 1.58 cfs @ 12.09 hrs, Volume= 0.133 af, Atten= 0%, Lag= 0.0 min

Primary = 1.58 cfs @ 12.09 hrs, Volume= 0.133 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 294.03' @ 12.16 hrs

Flood Elev= 296.31'

Device	Routing	Invert	Outlet Devices
#1	Primary	292.30'	15.0" Round Culvert
			L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 292.30' / 292.19' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=293.57' TW=293.88' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

## **Summary for Pond CB4: CB#4**

Inflow Area = 0.82 ac, 72.75% Impervious, Inflow Depth > 4.04" for 25-yr event

Inflow = 3.25 cfs @ 12.09 hrs, Volume= 0.278 af

Outflow = 3.25 cfs @ 12.09 hrs, Volume= 0.278 af, Atten= 0%, Lag= 0.0 min

Primary = 3.25 cfs @ 12.09 hrs, Volume= 0.278 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 295.18' @ 12.09 hrs

Flood Elev= 298.00'

Type III 24-hr 25-yr Rainfall=5.66" Printed 10/10/2022

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Device	Routing	Invert	Outlet Devices
#1	Primary	294.24'	15.0" Round Culvert
	-		L= 80.9' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 294.24' / 292.58' S= 0.0205 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=3.16 cfs @ 12.09 hrs HW=295.16' TW=293.88' (Dynamic Tailwater) 1=Culvert (Inlet Controls 3.16 cfs @ 3.27 fps)

### **Summary for Pond CB5: CB#5**

Inflow Area = 0.53 ac, 77.00% Impervious, Inflow Depth > 4.25" for 25-yr event

Inflow = 2.20 cfs @ 12.09 hrs, Volume= 0.187 af

Outflow = 2.20 cfs @ 12.09 hrs, Volume= 0.187 af, Atten= 0%, Lag= 0.0 min

Primary = 2.20 cfs @ 12.09 hrs, Volume= 0.187 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 295.46' @ 12.11 hrs

Flood Elev= 298.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	294.56'	15.0" Round Culvert
			L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 294.56' / 294.34' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.91 cfs @ 12.09 hrs HW=295.43' TW=295.16' (Dynamic Tailwater) 1=Culvert (Outlet Controls 1.91 cfs @ 2.94 fps)

## **Summary for Pond CB80: CB#80**

Inflow Area = 0.64 ac, 56.11% Impervious, Inflow Depth > 4.22" for 25-yr event

Inflow = 2.74 cfs @ 12.09 hrs, Volume= 0.224 af

Outflow = 2.74 cfs @ 12.09 hrs, Volume= 0.224 af, Atten= 0%, Lag= 0.0 min

Primary = 2.74 cfs @ 12.09 hrs, Volume= 0.224 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 312.87' @ 12.36 hrs

Flood Elev= 314.01'

Device	Routing	Invert	Outlet Devices
#1	Primary	310.06'	15.0" Round Culvert
			L= 15.1' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 310.06' / 309.98' S= 0.0053 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=312.50' TW=312.63' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

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### **Summary for Pond CB800: CB#800**

Inflow Area = 0.27 ac, 72.99% Impervious, Inflow Depth > 4.27" for 25-yr event

Inflow = 1.14 cfs @ 12.09 hrs, Volume= 0.095 af

Outflow = 1.14 cfs @ 12.09 hrs, Volume= 0.095 af, Atten= 0%, Lag= 0.0 min

Primary = 1.14 cfs @ 12.09 hrs, Volume= 0.095 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 312.87' @ 12.41 hrs

Flood Elev= 314.01'

Device	Routing	Invert	Outlet Devices
#1	Primary	310.27'	15.0" Round Culvert
			L= 22.7' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 310.27' / 310.16' S= 0.0048 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=312.05' TW=312.46' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

### **Summary for Pond CB9: CB#9**

Inflow Area = 0.90 ac, 54.67% Impervious, Inflow Depth > 4.07" for 25-yr event

Inflow = 3.77 cfs @ 12.09 hrs, Volume= 0.307 af

Outflow = 3.77 cfs @ 12.09 hrs, Volume= 0.307 af, Atten= 0%, Lag= 0.0 min

Primary = 3.77 cfs @ 12.09 hrs, Volume= 0.307 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 315.08' @ 12.09 hrs

Flood Elev= 317.43'

Device	Routing	Invert	Outlet Devices
#1	Primary	314.04'	15.0" Round Culvert
			L= 203.6' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 314.04' / 310.50' S= 0.0174 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=3.67 cfs @ 12.09 hrs HW=315.06' TW=312.61' (Dynamic Tailwater) 1=Culvert (Inlet Controls 3.67 cfs @ 3.43 fps)

## Summary for Pond CB90: CB#90

Inflow Area = 0.31 ac, 72.11% Impervious, Inflow Depth > 4.01" for 25-yr event

Inflow = 1.23 cfs @ 12.09 hrs, Volume= 0.105 af

Outflow = 1.23 cfs @ 12.09 hrs, Volume= 0.105 af, Atten= 0%, Lag= 0.0 min

Primary = 1.23 cfs @ 12.09 hrs, Volume= 0.105 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 315.35' @ 12.11 hrs

Flood Elev= 317.72'

Type III 24-hr 25-yr Rainfall=5.66" Printed 10/10/2022

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Device	Routing	Invert	Outlet Devices
#1	Primary	314.74'	15.0" Round Culvert
			L= 29.8' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 314.74' / 314.14' S= 0.0201 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.04 cfs @ 12.09 hrs HW=315.33' TW=315.06' (Dynamic Tailwater) 1=Culvert (Outlet Controls 1.04 cfs @ 2.68 fps)

### **Summary for Pond DMH111: DMH#111**

Inflow Area = 1.47 ac, 47.09% Impervious, Inflow Depth > 3.98" for 25-yr event

Inflow = 6.07 cfs @ 12.09 hrs, Volume= 0.487 af

Outflow = 6.07 cfs @ 12.09 hrs, Volume= 0.487 af, Atten= 0%, Lag= 0.0 min

Primary = 6.07 cfs @ 12.09 hrs, Volume= 0.487 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 312.78' @ 12.38 hrs

Flood Elev= 314.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	309.79'	24.0" Round Culvert
	-		L= 40.3' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 309.79' / 309.59' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=312.21' TW=312.31' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

## **Summary for Pond DMH17: DMH#17**

Inflow Area = 3.19 ac, 41.78% Impervious, Inflow Depth > 3.79" for 25-yr event

Inflow = 11.70 cfs @ 12.11 hrs, Volume= 1.008 af

Outflow = 11.70 cfs @ 12.11 hrs, Volume= 1.008 af, Atten= 0%, Lag= 0.0 min

Primary = 11.70 cfs @ 12.11 hrs, Volume= 1.008 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 276.56' @ 12.12 hrs

Flood Elev= 279.48'

Device	Routing	Invert	Outlet Devices
#1	Primary	274.89'	24.0" Round Culvert
			L= 279.8' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 274.89' / 272.09' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=10.63 cfs @ 12.11 hrs HW=276.53' TW=274.63' (Dynamic Tailwater) 1=Culvert (Outlet Controls 10.63 cfs @ 5.23 fps)

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### **Summary for Pond DMH18: DMH#18**

Inflow Area = 2.45 ac, 33.78% Impervious, Inflow Depth > 3.68" for 25-yr event

Inflow = 8.74 cfs @ 12.12 hrs, Volume= 0.751 af

Outflow = 8.74 cfs @ 12.12 hrs, Volume= 0.751 af, Atten= 0%, Lag= 0.0 min

Primary = 8.74 cfs @ 12.12 hrs, Volume= 0.751 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 277.86' @ 12.12 hrs

Flood Elev= 281.88'

Device	Routing	Invert	Outlet Devices
#1	Primary	276.06'	18.0" Round Culvert
			L= 71.6' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 276.06' / 274.99' S= 0.0149 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=8.52 cfs @ 12.12 hrs HW=277.81' TW=276.53' (Dynamic Tailwater) 1=Culvert (Inlet Controls 8.52 cfs @ 4.82 fps)

### **Summary for Pond DMH2: DMH#2**

Inflow Area = 1.67 ac, 66.11% Impervious, Inflow Depth > 3.70" for 25-yr event

Inflow = 5.99 cfs @ 12.09 hrs, Volume= 0.517 af

Outflow = 5.99 cfs @ 12.09 hrs, Volume= 0.517 af, Atten= 0%, Lag= 0.0 min

Primary = 5.99 cfs @ 12.09 hrs, Volume= 0.517 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 293.23' @ 12.25 hrs

Flood Elev= 297.80'

Device	Routing	Invert	Outlet Devices	
#1	Primary	291.19'	18.0" Round Culvert	
			L= 50.2' CPP, square edge headwall, Ke= 0.500	
			Inlet / Outlet Invert= 291.19' / 291.04' S= 0.0030 '/' Cc= 0.900	
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf	

Primary OutFlow Max=3.76 cfs @ 12.09 hrs HW=292.97' TW=292.78' (Dynamic Tailwater) 1=Culvert (Inlet Controls 3.76 cfs @ 2.13 fps)

# **Summary for Pond DMH8: DMH#8**

Inflow Area = 1.54 ac, 55.26% Impervious, Inflow Depth > 4.13" for 25-yr event

Inflow = 6.51 cfs @ 12.09 hrs, Volume= 0.530 af

Outflow = 6.51 cfs @ 12.09 hrs, Volume= 0.530 af, Atten= 0%, Lag= 0.0 min

Primary = 6.51 cfs @ 12.09 hrs, Volume= 0.530 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 312.84' @ 12.33 hrs

Flood Elev= 314.00'

Type III 24-hr 25-yr Rainfall=5.66" Printed 10/10/2022

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Device	Routing	Invert	Outlet Devices
#1	Primary	309.88'	18.0" Round Culvert
			L= 13.4' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 309.88' / 309.81' S= 0.0052 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=4.73 cfs @ 12.09 hrs HW=312.62' TW=312.31' (Dynamic Tailwater) —1=Culvert (Inlet Controls 4.73 cfs @ 2.67 fps)

### **Summary for Link A: Western Shadowbrook Drive Treatment Area**

Inflow Area = 5.76 ac, 33.42% Impervious, Inflow Depth > 2.78" for 25-yr event

Inflow = 10.35 cfs @ 12.12 hrs, Volume= 1.333 af

Primary = 10.35 cfs @ 12.12 hrs, Volume= 1.333 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

## Summary for Link B: pond at beginning of neighborhood

Inflow Area = 5.28 ac, 37.67% Impervious, Inflow Depth > 3.24" for 25-yr event

Inflow = 7.91 cfs @ 12.15 hrs, Volume= 1.424 af

Primary = 7.91 cfs @ 12.15 hrs, Volume= 1.424 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

## **Summary for Link C: Wetlands**

Inflow Area = 9.23 ac, 21.04% Impervious, Inflow Depth > 2.86" for 25-yr event

Inflow = 15.49 cfs @ 12.21 hrs, Volume= 2.200 af

Primary = 15.49 cfs @ 12.21 hrs, Volume= 2.200 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Type III 24-hr 50-yr Rainfall=6.77" Printed 10/10/2022

#### 1708241-POST-DEVELOPMENT

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: Flow to Tammy Court Runoff Area=57,559 sf 17.28% Impervious Runoff Depth>4.25" Flow Length=263' Slope=0.6600 '/' Tc=6.0 min CN=WQ Runoff=6.08 cfs 0.468 af

**Subcatchment2S: Shadowbrook Dr CB1** Runoff Area=7,546 sf 57.32% Impervious Runoff Depth>4.75" Flow Length=300' Slope=0.0200 '/' Tc=6.0 min CN=WQ Runoff=0.82 cfs 0.069 af

**Subcatchment3S: Shadowbrook Dr CB2** Runoff Area=24,663 sf 8.93% Impervious Runoff Depth>3.60" Flow Length=344' Tc=8.6 min CN=WQ Runoff=2.04 cfs 0.170 af

**Subcatchment4S: Flow to Shadowbrook** Runoff Area=11,312 sf 38.41% Impervious Runoff Depth>5.02" Tc=6.0 min CN=WQ Runoff=1.39 cfs 0.109 af

**Subcatchment5S: Canterberry Court Flow** Runoff Area=36,412 sf 15.94% Impervious Runoff Depth>1.62" Flow Length=187' Tc=6.0 min CN=WQ Runoff=1.04 cfs 0.113 af

**Subcatchment6S: Lower Shadowbrook Dr** Runoff Area=72,715 sf 12.69% Impervious Runoff Depth>1.40" Flow Length=137' Tc=6.0 min CN=WQ Runoff=1.73 cfs 0.195 af

**Subcatchment7S: Rear Overland Flow to** Runoff Area=85,028 sf 6.43% Impervious Runoff Depth>3.49" Flow Length=183' Tc=11.5 min CN=WQ Runoff=6.39 cfs 0.568 af

Subcatchment10S: Roadway Flow Runoff Area=13,692 sf 72.11% Impervious Runoff Depth>4.90" Flow Length=307' Slope=0.0150 '/' Tc=6.0 min CN=WQ Runoff=1.49 cfs 0.128 af

**Subcatchment11S: Roadway Flow**Runoff Area=25,722 sf 45.39% Impervious Runoff Depth>5.09"
Flow Length=279' Tc=6.0 min CN=WQ Runoff=3.14 cfs 0.251 af

**Subcatchment20S: Roadway Flow**Runoff Area=2,774 sf 40.41% Impervious Runoff Depth>4.40"
Flow Length=65' Tc=6.0 min CN=WQ Runoff=0.29 cfs 0.023 af

**Subcatchment21S: Roadway Flow**Runoff Area=9,904 sf 37.65% Impervious Runoff Depth>4.37"
Flow Length=203' Tc=6.0 min CN=WQ Runoff=1.02 cfs 0.083 af

Subcatchment22S: Overland Flow to Pond Runoff Area=17,710 sf 12.85% Impervious Runoff Depth>3.16" Flow Length=47' Slope=0.2127 '/' Tc=6.0 min CN=WQ Runoff=1.32 cfs 0.107 af

**Subcatchment30S: Roadway Flow**Runoff Area=14,714 sf 52.43% Impervious Runoff Depth>5.54"
Flow Length=276' Tc=6.0 min CN=WQ Runoff=1.96 cfs 0.156 af

Subcatchment31S: Roadway Flow

Runoff Area=17,194 sf 38.30% Impervious Runoff Depth>4.41"

Flow Length=230' Tc=6.0 min CN=WQ Runoff=1.79 cfs 0.145 af

**Subcatchment32S: Roadway Flow**Runoff Area=21,651 sf 47.90% Impervious Runoff Depth>5.26"
Flow Length=223' Tc=6.0 min CN=WQ Runoff=2.74 cfs 0.218 af

**Subcatchment33S: Roadway Flow**Runoff Area=10,356 sf 52.43% Impervious Runoff Depth>4.37"
Flow Length=257' Tc=6.0 min CN=WQ Runoff=1.02 cfs 0.087 af

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Subcatchment40S: Roadway Flow Runoff Area=11,686 sf 72.99% Impervious Runoff Depth>5.22" Flow Length=263' Slope=0.0150 '/' Tc=6.0 min CN=WQ Runoff=1.38 cfs 0.117 af

**Subcatchment41S: Roadway Flow**Runoff Area=16,070 sf 43.83% Impervious Runoff Depth>5.20"
Flow Length=268' Tc=6.5 min CN=WQ Runoff=2.00 cfs 0.160 af

Subcatchment42S: Flow to CB#200 Runoff Area=29,920 sf 40.43% Impervious Runoff Depth>4.99" Flow Length=385' Tc=6.0 min CN=WQ Runoff=3.63 cfs 0.286 af

**Subcatchment50S: Roadway Flow**Runoff Area=12,898 sf 58.95% Impervious Runoff Depth>4.13"
Flow Length=300' Tc=6.0 min CN=WQ Runoff=1.16 cfs 0.102 af

**Subcatchment51S: Roadway Flow**Runoff Area=12,915 sf 65.19% Impervious Runoff Depth>4.49"
Flow Length=163' Tc=6.0 min CN=WQ Runoff=1.28 cfs 0.111 af

**Subcatchment60S: Roadway and Building** Runoff Area=23,012 sf 40.57% Impervious Runoff Depth>3.06" Flow Length=220' Tc=6.0 min CN=WQ Runoff=1.46 cfs 0.135 af

**Subcatchment61S: Roadway Flow**Runoff Area=7,564 sf 83.43% Impervious Runoff Depth>5.56"
Flow Length=152' Slope=0.0200 '/' Tc=6.0 min CN=WQ Runoff=0.95 cfs 0.080 af

**Subcatchment62S: Bioretention Pond Area** Runoff Area=6,453 sf 0.00% Impervious Runoff Depth>0.69" Tc=6.0 min CN=39 Runoff=0.05 cfs 0.008 af

**Subcatchment70S: Overland Flow to**Runoff Area=128,858 sf 1.40% Impervious Runoff Depth>3.89"
Flow Length=745' Tc=14.6 min CN=WQ Runoff=10.11 cfs 0.959 af

**Subcatchment71S: Roadway Flow**Runoff Area=26,495 sf 66.16% Impervious Runoff Depth>5.06"
Flow Length=300' Tc=6.0 min CN=WQ Runoff=3.06 cfs 0.257 af

**Subcatchment72S: House Flow to Pond** Runoff Area=49,031 sf 39.15% Impervious Runoff Depth>3.42" Flow Length=127' Tc=6.0 min CN=WQ Runoff=3.67 cfs 0.321 af

**Subcatchment73S: Roadway Flow**Runoff Area=5,932 sf 76.82% Impervious Runoff Depth>5.17"
Flow Length=200' Slope=0.0200 '/' Tc=6.0 min CN=WQ Runoff=0.69 cfs 0.059 af

Subcatchment74S: Area in Circle to Runoff Area=17,656 sf 37.64% Impervious Runoff Depth>3.38" Flow Length=40' Slope=0.1000 '/' Tc=6.0 min CN=WQ Runoff=1.31 cfs 0.114 af

Subcatchment75S: Roadway Flow
Runoff Area=13,639 sf 67.50% Impervious Runoff Depth>5.24"
Flow Length=196' Slope=0.0200 '/' Tc=6.0 min CN=WQ Runoff=1.64 cfs 0.137 af

**Subcatchment76S: Roadway Flow**Runoff Area=93,020 sf 28.84% Impervious Runoff Depth>4.55"
Flow Length=468' Tc=9.0 min CN=WQ Runoff=9.39 cfs 0.809 af

Subcatchment100S: Unit 1 Runoff Area=920 sf 100.00% Impervious Runoff Depth>6.53"

Tc=6.0 min CN=98 Runoff=0.14 cfs 0.011 af

Subcatchment101S: Units 2 & 3 Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>6.53" Tc=6.0 min CN=98 Runoff=0.27 cfs 0.023 af

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Page 190 Subcatchment 102S: Units 4 & 5 Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>6.53" Tc=6.0 min CN=98 Runoff=0.27 cfs 0.023 af Subcatchment 103S: Units 6 & 7 Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>6.53" Tc=6.0 min CN=98 Runoff=0.27 cfs 0.023 af Subcatchment 104S: Units 8 & 9 Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>6.53" Tc=6.0 min CN=98 Runoff=0.27 cfs 0.023 af Subcatchment 105S: Units 11 & 10 Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>6.53" Tc=6.0 min CN=98 Runoff=0.27 cfs 0.023 af Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>6.53" Subcatchment 106S: Units 13 & 12 Tc=6.0 min CN=98 Runoff=0.27 cfs 0.023 af Subcatchment 107S: Units 15 & 14 Runoff Area=1.840 sf 100.00% Impervious Runoff Depth>6.53" Tc=6.0 min CN=98 Runoff=0.27 cfs 0.023 af Subcatchment 108S: Units 17 & 16 Runoff Area=1,840 sf 100.00% Impervious Runoff Depth>6.53" Tc=6.0 min CN=98 Runoff=0.27 cfs 0.023 af Runoff Area=920 sf 100.00% Impervious Runoff Depth>6.53" Subcatchment109S: Unit 18 Tc=6.0 min CN=98 Runoff=0.14 cfs 0.011 af Inflow=6.08 cfs 0.468 af Reach 1R: Tammy Court Outflow=6.08 cfs 0.468 af Inflow=7.88 cfs 1.506 af Reach 2R: Ex CB1 Outflow=7.88 cfs 1.506 af Reach 3R: Ex CB 2 Inflow=2.04 cfs 0.170 af Outflow=2.04 cfs 0.170 af Inflow=6.96 cfs 1.023 af Reach 4R: Upper Shadowbrook Drive Drainage Outflow=6.96 cfs 1.023 af Inflow=1.04 cfs 0.113 af Reach 5R: Canterberry Ct Drainage Outflow=1.04 cfs 0.113 af Reach 6R: Lower Shadowbrook Dr CB Inflow=1.73 cfs 0.195 af Outflow=1.73 cfs 0.195 af Pond 1P: Bioretention Pond #1 Peak Elev=293.47' Storage=10,827 cf Inflow=10.97 cfs 0.929 af Primary=6.09 cfs 0.915 af Secondary=0.00 cfs 0.000 af Outflow=6.09 cfs 0.915 af

Pond 2P: Pocket Pond #1 Peak Elev=313.16' Storage=25,017 cf Inflow=16.84 cfs 1.368 af

Outflow=6.98 cfs 1.331 af

Pond 3P: Pocket Pond #2 Peak Elev=275.70' Storage=22,963 cf Inflow=22.96 cfs 2.220 af

Primary=12.40 cfs 2.114 af Secondary=5.04 cfs 0.084 af Outflow=17.44 cfs 2.197 af

Pond 109: AD#109

Peak Elev=308.89' Inflow=0.14 cfs 0.011 af

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Pond 30P: Infiltration Pond #1 Peak Elev=281.24' Storage=2,550 cf Inflow=1.31 cfs 0.114 af Outflow=0.07 cfs 0.080 af

Pond 31P: Infiltration Pond #2 Peak Elev=275.74' Storage=6,686 cf Inflow=3.67 cfs 0.321 af

Discarded=0.11 cfs 0.144 af Primary=0.19 cfs 0.098 af Outflow=0.29 cfs 0.242 af

Pond 100: AD#100 Peak Elev=296.01' Inflow=0.14 cfs 0.011 af 8.0" Round Culvert n=0.013 L=58.1' S=0.0251 '/' Outflow=0.14 cfs 0.011 af

Pond 101: AD#101 Peak Elev=295.21' Inflow=0.41 cfs 0.034 af 8.0" Round Culvert n=0.013 L=37.0' S=0.0500 '/' Outflow=0.41 cfs 0.034 af

Pond 102: AD#102 Peak Elev=295.23' Inflow=0.55 cfs 0.046 af

8.0" Round Culvert n=0.013 L=27.4' S=0.0201 '/' Outflow=0.55 cfs 0.046 af

Pond 103: AD#103 Peak Elev=295.23' Inflow=0.27 cfs 0.023 af 8.0" Round Culvert n=0.013 L=59.0' S=0.0200 '/' Outflow=0.27 cfs 0.023 af

Pond 104: AD#104 Peak Elev=296.40' Inflow=1.51 cfs 0.126 af

8.0" Round Culvert n=0.013 L=16.6' S=0.0367 '/' Outflow=1.51 cfs 0.126 af

Pond 105: AD#105 Peak Elev=298.40' Inflow=1.23 cfs 0.103 af

8.0" Round Culvert n=0.013 L=53.8' S=0.0400 '/' Outflow=1.23 cfs 0.103 af

Pond 106: AD#106 Peak Elev=300.52' Inflow=0.96 cfs 0.080 af 8.0" Round Culvert n=0.013 L=55.9' S=0.0401'/' Outflow=0.96 cfs 0.080 af

Pond 107: AD#107 Peak Elev=303.40' Inflow=0.68 cfs 0.057 af

8.0" Round Culvert n=0.013 L=64.0' S=0.0450 '/' Outflow=0.68 cfs 0.057 af

Pond 108: AD#108 Peak Elev=306.22' Inflow=0.41 cfs 0.034 af 8.0" Round Culvert n=0.013 L=64.5' S=0.0448 '/' Outflow=0.41 cfs 0.034 af

8.0" Round Culvert n=0.013 L=49.9' S=0.0549 '/' Outflow=0.14 cfs 0.011 af

Pond CB11: CB#11 Peak Elev=313.29' Inflow=7.51 cfs 0.605 af 18.0" Round Culvert n=0.013 L=30.3' S=0.0050 '/' Outflow=7.51 cfs 0.605 af

Pond CB110: CB#110 Peak Elev=313.30' Inflow=1.96 cfs 0.156 af 15.0" Round Culvert n=0.013 L=22.0' S=0.0050 '/' Outflow=1.96 cfs 0.156 af

Pond CB12: CB#12 Peak Elev=314.03' Inflow=3.76 cfs 0.304 af 15.0" Round Culvert n=0.013 L=106.0' S=0.0263 '/' Outflow=3.76 cfs 0.304 af

Pond CB120; CB#120 Peak Elev=314.34' Inflow=2.74 cfs 0.218 af

15.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=2.74 cfs 0.218 af

Pond CB14: CB#14 Peak Elev=310.88' Inflow=7.41 cfs 1.414 af

15.0" Round Culvert n=0.013 L=37.9' S=0.0150 '/' Outflow=7.41 cfs 1.414 af

Pond DMH18: DMH#18

Peak Elev=278.49' Inflow=10.98 cfs 0.946 af

18.0" Round Culvert n=0.013 L=71.6' S=0.0149'/' Outflow=10.98 cfs 0.946 af

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Peak Elev=309.37' Inflow=7.53 cfs 1.437 af Pond CB15: CB#15 15.0" Round Culvert n=0.013 L=120.0' S=0.0539 '/' Outflow=7.53 cfs 1.437 af Peak Elev=278.93' Inflow=3.74 cfs 0.315 af Pond CB170: CB#170 15.0" Round Culvert n=0.013 L=36.7' S=0.0199'/ Outflow=3.74 cfs 0.315 af Pond CB171: CB#171 Peak Elev=279.28' Inflow=3.06 cfs 0.257 af 15.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=3.06 cfs 0.257 af Peak Elev=279.94' Inflow=10.98 cfs 0.946 af Pond CB19: CB #19 18.0" Round Culvert n=0.013 L=33.8' S=0.0151 '/' Outflow=10.98 cfs 0.946 af Peak Elev=280.81' Inflow=9.39 cfs 0.809 af Pond CB20: CB #20 18.0" Round Culvert n=0.013 L=22.0' S=0.0200 '/' Outflow=9.39 cfs 0.809 af Pond CB201: CB#201 Peak Elev=293.57' Inflow=3.63 cfs 0.286 af 15.0" Round Culvert n=0.013 L=82.0' S=0.0052'/ Outflow=3.63 cfs 0.286 af Peak Elev=295.14' Inflow=7.31 cfs 0.635 af Pond CB3: CB#3 15.0" Round Culvert n=0.013 L=80.0' S=0.0100 '/' Outflow=7.31 cfs 0.635 af Peak Elev=295.20' Inflow=1.90 cfs 0.161 af Pond CB30: CB#30 15.0" Round Culvert n=0.013 L=22.0' S=0.0050 '/' Outflow=1.90 cfs 0.161 af Peak Elev=295.54' Inflow=3.94 cfs 0.339 af Pond CB4: CB#4 15.0" Round Culvert n=0.013 L=80.9' S=0.0205 '/' Outflow=3.94 cfs 0.339 af Peak Elev=295.65' Inflow=2.67 cfs 0.228 af Pond CB5: CB#5 15.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=2.67 cfs 0.228 af Peak Elev=313.55' Inflow=3.37 cfs 0.276 af **Pond CB80: CB#80** 15.0" Round Culvert n=0.013 L=15.1' S=0.0053'/' Outflow=3.37 cfs 0.276 af Peak Elev=313.57' Inflow=1.38 cfs 0.117 af Pond CB800: CB#800 15.0" Round Culvert n=0.013 L=22.7' S=0.0048 '/' Outflow=1.38 cfs 0.117 af Peak Elev=315.27' Inflow=4.63 cfs 0.379 af Pond CB9: CB#9 15.0" Round Culvert n=0.013 L=203.6' S=0.0174 '/' Outflow=4.63 cfs 0.379 af Peak Elev=315.48' Inflow=1.49 cfs 0.128 af Pond CB90: CB#90 15.0" Round Culvert n=0.013 L=29.8' S=0.0201'/' Outflow=1.49 cfs 0.128 af Pond DMH111: DMH#111 Peak Elev=313.19' Inflow=7.51 cfs 0.605 af 24.0" Round Culvert n=0.013 L=40.3' S=0.0050 '/' Outflow=7.51 cfs 0.605 af Pond DMH17: DMH#17 Peak Elev=276.89' Inflow=14.58 cfs 1.261 af 24.0" Round Culvert n=0.013 L=279.8' S=0.0100'/ Outflow=14.58 cfs 1.261 af

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**Pond DMH2: DMH#2** Peak Elev=293.67' Inflow=7.31 cfs 0.635 af

18.0" Round Culvert n=0.013 L=50.2' S=0.0030 '/' Outflow=7.31 cfs 0.635 af

Pond DMH8: DMH#8 Peak Elev=313.37' Inflow=8.01 cfs 0.655 af

18.0" Round Culvert n=0.013 L=13.4' S=0.0052 '/' Outflow=8.01 cfs 0.655 af

Link A: Western Shadowbrook Drive Treatment Area Inflow=14.30 cfs 1.687 af

Primary=14.30 cfs 1.687 af

Link B: pond at beginning of neighborhood Inflow=10.33 cfs 1.788 af

Primary=10.33 cfs 1.788 af

Link C: Wetlands Inflow=22.54 cfs 2.862 af

Primary=22.54 cfs 2.862 af

Total Runoff Area = 20.68 ac Runoff Volume = 6.749 af Average Runoff Depth = 3.92" 70.94% Pervious = 14.67 ac 29.06% Impervious = 6.01 ac

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## **Summary for Subcatchment 1S: Flow to Tammy Court**

Runoff = 6.08 cfs @ 12.09 hrs, Volume= 0.468 af, Depth> 4.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

_	Α	rea (sf)	CN	Description		
		3,365	98	Roofs, HSC	G D	
		6,582	98	Roofs, HSC	βA	
		34,775	80	>75% Gras	s cover, Go	ood, HSG D
		8,430	39	>75% Gras	s cover, Go	ood, HSG A
_		4,407	77	Woods, Go	od, HSG D	
		57,559		Weighted A	verage	
		47,612		82.72% Pe	rvious Area	
		9,947		17.28% Imp	pervious Ar	ea
	Тс	Length	Slope		Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	1.5	50	0.6600	0.57		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	0.6	213	0.6600	5.69		Shallow Concentrated Flow,
_						Short Grass Pasture Kv= 7.0 fps
	2.1	263	Total	Increased t	to minimum	Tc = 6.0 min

#### 2.1 263 Total, Increased to minimum Tc = 6.0 min

## **Summary for Subcatchment 2S: Shadowbrook Dr CB1**

Runoff = 0.82 cfs @ 12.09 hrs, Volume= 0.069 af, Depth> 4.75"

_	A	rea (sf)	CN [	CN Description						
		4,085	98 F	8 Paved parking, HSG A						
		240	98 F	Roofs, HSC	βĎ					
		1,432	80 >	>75% Gras	s cover, Go	ood, HSG D				
_		1,789	39 >	75% Gras	s cover, Go	ood, HSG A				
		7,546	١	Weighted Average						
		3,221	4	l2.68% Per	vious Area					
		4,325	5	57.32% Imp	ervious Ar	ea				
	Tc	Length	Slope	Velocity	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	0.7	50	0.0200	1.14		Sheet Flow,				
						Smooth surfaces n= 0.011 P2= 2.89"				
	1.5	250	0.0200	2.87		Shallow Concentrated Flow,				
_						Paved Kv= 20.3 fps				
_	2.2	300	Total,	Increased t	o minimum	Tc = 6.0 min				

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## **Summary for Subcatchment 3S: Shadowbrook Dr CB2**

Runoff = 2.04 cfs @ 12.12 hrs, Volume= 0.170 af, Depth> 3.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

A	rea (sf)	CN E	Description					
	257	98 F	Roofs, HSG A					
	6,196	80 >	75% Gras	s cover, Go	ood, HSG D			
	5,530	39 >	75% Gras	s cover, Go	ood, HSG A			
	10,329	77 V	Voods, Go	od, HSG D				
	405	30 V	Voods, Go	od, HSG A				
	1,946	98 F	Paved park	ing, HSG A	1			
	24,663	٧	Veighted A	verage				
	22,460	ç	01.07% Per	vious Area				
	2,203	8	3.93% Impe	ervious Are	a			
Tc	Length	Slope	•	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
6.3	50	0.1200	0.13		Sheet Flow,			
					Woods: Light underbrush n= 0.400 P2= 2.89"			
1.9	226	0.1500	1.94		Shallow Concentrated Flow,			
					Woodland Kv= 5.0 fps			
0.3	48	0.1300	2.52		Shallow Concentrated Flow,			
					Short Grass Pasture Kv= 7.0 fps			
0.1	20	0.0200	2.87		Shallow Concentrated Flow,			
					Paved Kv= 20.3 fps			
8.6	344	Total						

## **Summary for Subcatchment 4S: Flow to Shadowbrook Dr CBs**

Runoff = 1.39 cfs @ 12.09 hrs, Volume= 0.109 af, Depth> 5.02"

Area (sf)	CN	Description			
2,537	80	>75% Grass cover, Good, HSG D			
400	39	>75% Grass cover, Good, HSG A			
0	74 >75% Grass cover, Good, HSG C				
4,345	98	Paved parking, HSG A			
4,030	77	Woods, Good, HSG D			
11,312	11,312 Weighted Average				
6,967 61.59% Pervious Area					
4,345	38.41% Impervious Area				

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Тс	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	·
6.0	.0 Direct Entry,				

## **Summary for Subcatchment 5S: Canterberry Court Flow**

Runoff = 1.04 cfs @ 12.10 hrs, Volume= 0.113 af, Depth> 1.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

A	rea (sf)	CN E	Description		
	1,564	98 F	Roofs, HSG	A A	
	30,607	39 >	·75% Gras	s cover, Go	ood, HSG A
	4,241	98 F	Paved park	ing, HSG A	·
	36,412	٧	Veighted A	verage	
	30,607	8	4.06% Per	vious Area	
	5,805	1	5.94% Imp	ervious Ar	ea
Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
2.6	50	0.1600	0.32		Sheet Flow,
					Grass: Short n= 0.150 P2= 2.89"
0.7	137	0.2000	3.13		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
3.3	187	Total, I	ncreased t	o minimum	Tc = 6.0 min

# Summary for Subcatchment 6S: Lower Shadowbrook Dr Flow

Runoff = 1.73 cfs @ 12.11 hrs, Volume= 0.195 af, Depth> 1.40"

Area (sf)	CN	Description			
1,440	98	Roofs, HSG A			
3,236	30	Woods, Good, HSG A			
60,250	39	>75% Grass cover, Good, HSG A			
7,789	98	Paved parking, HSG A			
72,715 Weighted Average		Weighted Average			
63,486					
9,229	9,229 12.69% Impervious Area				

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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	2.6	50	0.1600	0.32		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	0.1	38	0.4500	4.70		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	0.3	49	0.3600	3.00		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
_		407	<del></del>			T 00 :

<sup>3.0 137</sup> Total, Increased to minimum Tc = 6.0 min

### **Summary for Subcatchment 7S: Rear Overland Flow to Wetland**

Runoff = 6.39 cfs @ 12.16 hrs, Volume= 0.568 af, Depth> 3.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

	Α	rea (sf)	CN E	Description							
		2,935	98 F	Roofs, HSG D							
		2,417	98 F	Roofs, HSC	βA						
		118	98 F	Roofs, HSC	G C						
		10,710	80 >	75% Gras	s cover, Go	ood, HSG D					
		8,039	39 >	75% Gras	s cover, Go	ood, HSG A					
		4,292	74 >	•75% Gras	s cover, Go	ood, HSG C					
		19,271	77 V	Voods, Go	od, HSG D						
		26,053	70 V	Voods, Go	od, HSG C						
		11,193	55 V	Voods, Go	od, HSG B						
		85,028	V	Veighted A	verage						
		79,558	ç	3.57% Pe	rvious Area						
		5,470	6	6.43% Impe	ervious Are	a					
	Тс	Length	Slope		Capacity	Description					
(	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	9.8	50	0.0400	0.08		Sheet Flow,					
						Woods: Light underbrush n= 0.400 P2= 2.89"					
	1.7	133	0.0650	1.27		Shallow Concentrated Flow,					
						Woodland Kv= 5.0 fps					
	11.5	183	Total								

# **Summary for Subcatchment 10S: Roadway Flow**

Runoff = 1.49 cfs @ 12.09 hrs, Volume= 0.128 af, Depth> 4.90"

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A	rea (sf)	CN [	CN Description								
	3,052	98 F	98 Roofs, HSG A								
	12	80 >	75% Gras	s cover, Go	ood, HSG D						
	3,807	39 >	75% Gras	s cover, Go	ood, HSG A						
	506	98 F	Paved park	ing, HSG D							
	6,315	98 F	Roofs, HSG	S A							
	13,692	\	Veighted A	verage							
	3,819	2	27.89% Pervious Area								
	9,873	7	<mark>'</mark> 2.11% lmp	ervious Ar	ea						
Tc	Length	Slope		Capacity	Description						
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)							
8.0	50	0.0150	1.01		Sheet Flow,						
					Smooth surfaces n= 0.011 P2= 2.89"						
1.7	257	0.0150	2.49		Shallow Concentrated Flow,						
					Paved Kv= 20.3 fps						
2.5	307	Total, I	ncreased t	o minimum	n Tc = 6.0 min						

## **Summary for Subcatchment 11S: Roadway Flow**

Runoff = 3.14 cfs @ 12.09 hrs, Volume= 0.251 af, Depth> 5.09"

_	Α	rea (sf)	CN	Description							
		6,240	98	98 Roofs, HSG D							
		11,906	80	>75% Gras	s cover, Go	ood, HSG D					
		2,142	39	>75% Gras	s cover, Go	ood, HSG A					
		1,643	98	Roofs, HSC	G D						
_		3,791	98	Roofs, HSC	6 A						
		25,722		Weighted A							
		14,048		54.61% Pei							
		11,674		45.39% Imp	pervious Ar	ea					
	_		01								
	Tc	Length	•	•	Capacity	Description					
_	(min)	(feet)	(ft/ft		(cfs)						
	1.1	24	0.3300	0.37		Sheet Flow,					
						Grass: Short n= 0.150 P2= 2.89"					
	2.3	26	0.0600	0.19		Sheet Flow,					
	0.0	40	0.000			Grass: Short n= 0.150 P2= 2.89"					
	8.0	46	0.0200	0.99		Shallow Concentrated Flow,					
	4.0	400	0.0450	0.40		Short Grass Pasture Kv= 7.0 fps					
	1.2	183	0.0150	2.49		Shallow Concentrated Flow,					
_						Paved Kv= 20.3 fps					
	54	279	Total	Increased t	o minimum	$T_{c} = 6.0 \text{ min}$					

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# **Summary for Subcatchment 20S: Roadway Flow**

Runoff 0.29 cfs @ 12.09 hrs, Volume= 0.023 af, Depth> 4.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

_	Aı	rea (sf)	CN [	CN Description								
_		396	98 F	Roofs, HSG D								
		993	80 >	75% Grass cover, Good, HSG D								
		660	39 >	75% Grass cover, Good, HSG A								
_		725	98 F	Paved park	ing, HSG A	<b>\</b>						
		2,774	\	Weighted Average								
		1,653	5	59.59% Per	vious Area							
		1,121	4	10.41% Imp	ervious Ar	ea						
	Tc	Length	Slope	Velocity	Capacity	Description						
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	Description						
	4.1	50	0.0500	0.20		Sheet Flow,						
						Grass: Short n= 0.150 P2= 2.89"						
	0.1	15	0.0200	2.87		Shallow Concentrated Flow,						
_						Paved Kv= 20.3 fps						
	4.2	65	Total.	Total. Increased to minimum Tc = 6.0 min								

## **Summary for Subcatchment 21S: Roadway Flow**

Runoff 1.02 cfs @ 12.09 hrs, Volume= 0.083 af, Depth> 4.37"

Area (sf)	CN	Description				
1,651	98	Roofs, HSG D				
365	98	Roofs, HSG A				
3,879	80	>75% Grass cover, Good, HSG D				
2,296	39	>75% Grass cover, Good, HSG A				
4	98	Paved parking, HSG D				
1,709	98	Paved parking, HSG A				
9,904		Weighted Average				
6,175		62.35% Pervious Area				
3,729		37.65% Impervious Area				

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_	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	2.9	50	0.1200	0.29		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	0.9	98	0.0700	1.85		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	0.3	55	0.0200	2.87		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
_	- 4 4	200	<del>-</del>			T 00 :

<sup>4.1 203</sup> Total, Increased to minimum Tc = 6.0 min

### **Summary for Subcatchment 22S: Overland Flow to Pond**

Runoff = 1.32 cfs @ 12.09 hrs, Volume= 0.107 af, Depth> 3.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

Aı	rea (sf)	CN I	l Description							
	1,512	98	8 Roofs, HSG D							
	645	98 I	Roofs, HSG	βA						
	8,034	80 :	>75% Gras	s cover, Go	ood, HSG D					
	7,400	39 :	>75% Gras	s cover, Go	ood, HSG A					
	119	98 I	Paved park	ing, HSG A	1					
	17,710	,	Weighted A	verage						
	15,434	;	87.15% Per	vious Area						
	2,276	•	12.85% Imp	pervious Ar	ea					
Тс	Length	Slope	,	Capacity	Description					
(min)_	(feet)	(ft/ft)	(ft/sec)	(cfs)						
2.2	47	0.2127	0.36		Sheet Flow,					
					Grass: Short	n= 0.150	P2= 2.89"			
2.2	47	Total,	Increased t	o minimum	Tc = 6.0 min					

## **Summary for Subcatchment 30S: Roadway Flow**

Runoff = 1.96 cfs @ 12.09 hrs, Volume= 0.156 af, Depth> 5.54"

Area (sf)	CN	Description			
4,540	98	Paved parking, HSG D			
6,935	80	>75% Grass cover, Good, HSG D			
65	39	>75% Grass cover, Good, HSG A			
1,636	98	Paved parking, HSG D			
1,538	98	Paved parking, HSG A			
14,714		Weighted Average			
7,000		47.57% Pervious Area			
7,714		52.43% Impervious Area			

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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
_	2.6	50	0.1600	0.32		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	1.1	64	0.0200	0.99		Shallow Concentrated Flow,
						Short Grass Pasture Kv= 7.0 fps
	0.9	162	0.0200	2.87		Shallow Concentrated Flow,
						Paved Kv= 20.3 fps
_	16	276	Total I	norogod t	o minimum	To = 6.0 min

<sup>4.6 276</sup> Total, Increased to minimum Tc = 6.0 min

### **Summary for Subcatchment 31S: Roadway Flow**

Runoff = 1.79 cfs @ 12.09 hrs, Volume= 0.145 af, Depth> 4.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

Are	ea (sf)	CN D	escription							
	2,626	98 P	Paved parking, HSG D							
	1,214	98 P	aved park	ing, HSG A	1					
	6,749	80 >	75% Grass cover, Good, HSG D							
	3,860			,	ood, HSG A					
	2,745	98 P	aved park	ing, HSG A						
1	7,194		Veighted A							
1	0,609	6	1.70% Per	vious Area						
	6,585	3	8.30% Imp	pervious Ar	ea					
	Length	Slope	Velocity	Capacity	Description					
<u>(min)</u>	(feet)	(ft/ft)	(ft/sec)	(cfs)						
2.1	50	0.2800	0.40		Sheet Flow,					
					Grass: Short n= 0.150 P2= 2.89"					
0.3	60	0.2000	3.13		Shallow Concentrated Flow,					
					Short Grass Pasture Kv= 7.0 fps					
0.7	120	0.0200	2.87		Shallow Concentrated Flow,					
					Paved Kv= 20.3 fps					
3.1	230	Total, I	ncreased t	o minimum	n Tc = 6.0 min					

# **Summary for Subcatchment 32S: Roadway Flow**

Runoff = 2.74 cfs @ 12.09 hrs, Volume= 0.218 af, Depth> 5.26"

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A	rea (sf)	CN E	<b>Description</b>							
	5,015	98 F	98 Roofs, HSG D							
	8,256	80 >	75% Gras	s cover, Go	ood, HSG D					
	991	39 >	75% Gras	s cover, Go	ood, HSG A					
	1,964	98 F	Paved park	ing, HSG D						
	3,391	98 F	Paved park	ing, HSG A						
	2,034	77 V	Voods, Go	od, HSG D						
	21,651	٧	Veighted A	verage						
	11,281	5	2.10% Per	vious Area						
	10,370	4	7.90% Imp	ervious Ar	ea					
Тс	Length	Slope	Velocity	• •	Description					
<u>(min)</u>	(feet)	(ft/ft)	(ft/sec)	(cfs)						
4.0	40	0.2500	0.17		Sheet Flow,					
					Woods: Light underbrush n= 0.400 P2= 2.89"					
0.7	10	0.2000	0.26		Sheet Flow,					
					Grass: Short n= 0.150 P2= 2.89"					
0.3	63	0.3300	4.02		Shallow Concentrated Flow,					
					Short Grass Pasture Kv= 7.0 fps					
0.6	110	0.0200	2.87		Shallow Concentrated Flow,					
					Paved Kv= 20.3 fps					
5.6	223	Total, I	ncreased t	o minimum	Tc = 6.0 min					

## **Summary for Subcatchment 33S: Roadway Flow**

Runoff = 1.02 cfs @ 12.09 hrs, Volume= 0.087 af, Depth> 4.37"

A	rea (sf)	CN D	escription							
	948	98 F	98 Roofs, HSG D							
	395	98 F	Roofs, HSG	βA						
	1,701	80 >	75% Gras	s cover, Go	ood, HSG D					
	3,225	39 >	75% Gras	s cover, Go	ood, HSG A					
	4,087	98 P	aved park	ing, HSG A	1					
	10,356	V	Veighted A	verage						
	4,926	4	7.57% Per	vious Area						
	5,430	5	2.43% Imp	ervious Ar	ea					
Тс	Length	Slope	Velocity	Capacity	Description					
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
2.6	50	0.1600	0.32		Sheet Flow,					
					Grass: Short n= 0.150 P2= 2.89"					
0.2	37	0.2000	3.13		Shallow Concentrated Flow,					
					Short Grass Pasture Kv= 7.0 fps					
1.0	170	0.0200	2.87		Shallow Concentrated Flow,					
					Paved Kv= 20.3 fps					
3.8	257	Total, I	ncreased t	o minimum	n Tc = 6.0 min					

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# **Summary for Subcatchment 40S: Roadway Flow**

Runoff = 1.38 cfs @ 12.09 hrs, Volume= 0.117 af, Depth> 5.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

A	rea (sf)	CN [	Description				
	752	98 F	Roofs, HSC	G D			
	1,321	98 F	Roofs, HSG	θA			
	391	98 F	Roofs, HSG	G C			
	780	80 >	>75% Gras	s cover, Go	ood, HSG D		
	2,326	39 >	>75% Gras	s cover, Go	ood, HSG A		
	50	74 >	>75% Gras	s cover, Go	ood, HSG C		
	1,115	98 F	Paved park	ing, HSG D			
	4,921	98 F	Paved parking, HSG A				
	30	98 F	Paved park	ing, HSG C			
	11,686	\	Neighted A	verage			
	3,156	2	27.01% Pei	rvious Area			
	8,530	7	<sup>7</sup> 2.99% lm <mark>բ</mark>	pervious Ar	ea		
_							
Tc	Length	Slope	•		Description		
(min)_	(feet)	(ft/ft)	(ft/sec)	(cfs)			
0.8	50	0.0150	1.01		Sheet Flow,		
					Smooth surfaces n= 0.011 P2= 2.89"		
1.4	213	0.0150	2.49		Shallow Concentrated Flow,		
					Paved Kv= 20.3 fps		
2.2	263	Total,	Increased t	to minimum	n Tc = 6.0 min		

otal, increased to minimum re – 0.0 min

## **Summary for Subcatchment 41S: Roadway Flow**

Runoff = 2.00 cfs @ 12.09 hrs, Volume= 0.160 af, Depth> 5.20"

Area (sf)	CN	Description					
2,949	98	Roofs, HSG D					
157	98	Roofs, HSG A					
8,262	80	>75% Grass cover, Good, HSG D					
765	39	>75% Grass cover, Good, HSG A					
1,393	98	Paved parking, HSG D					
2,544	98	Paved parking, HSG A					
16,070		Weighted Average					
9,027		56.17% Pervious Area					
7,043		43.83% Impervious Area					

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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	4.5	40	0.0250	0.15		Sheet Flow,
	0.5	40	0.0000	0.04		Grass: Short n= 0.150 P2= 2.89"
	0.5	10	0.3300	0.31		Sheet Flow,
	0.6	80	0.1000	2.21		Grass: Short n= 0.150 P2= 2.89"
	0.0	00	0.1000	2.21		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
	0.9	138	0.0150	2.49		Shallow Concentrated Flow,
	0.0	100	0.0100	2.40		Paved Kv= 20.3 fps
_	6.5	268	Total			<u> </u>

## **Summary for Subcatchment 42S: Flow to CB#200**

Runoff = 3.63 cfs @ 12.09 hrs, Volume= 0.286 af, Depth> 4.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

A	rea (sf)	CN [	Description						
	1,682	39 >	39 >75% Grass cover, Good, HSG A						
	10,383	80 >	75% Gras	s cover, Go	ood, HSG D				
	3,530	74 >	75% Gras	s cover, Go	ood, HSG C				
	6,936	98 F	Paved park	ing, HSG A	1				
	2,228	77 \	Voods, Go	od, HSG D					
	170	98 F	Roofs, HSC	A S					
	90	98 F	Roofs, HSC	S C					
	2,670	98 F	Roofs, HSG	G D					
	1,237	98 F	Roofs, HSG	S A					
	994	98 F	Roofs, HSC	G C					
	29,920	\	Veighted A	verage					
	17,823	5	59.57% Pei	rvious Area	1				
	12,097	4	0.43% Imp	pervious Ar	rea				
Tc	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
0.7	50	0.0200	1.14		Sheet Flow,				
					Smooth surfaces n= 0.011 P2= 2.89"				
1.2	335	0.0500	4.54		Shallow Concentrated Flow,				
					Paved Kv= 20.3 fps				
1.9	385	Total,	ncreased t	to minimum	n Tc = 6.0 min				

## **Summary for Subcatchment 50S: Roadway Flow**

Runoff = 1.16 cfs @ 12.09 hrs, Volume= 0.102 af, Depth> 4.13"

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Ar	ea (sf)	CN D	CN Description							
	5,295	39 >	75% Gras	s cover, Go	ood, HSG A					
	7,603	98 P	aved park	ing, HSG A	·					
•	12,898	V	/eighted A	verage						
	5,295	4	1.05% Per	vious Area						
	7,603	58.95% Impervious Area								
Tc	Length	Slope	Velocity	Capacity	Description					
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
0.5	50	0.0550	1.71		Sheet Flow,					
					Smooth surfaces n= 0.011 P2= 2.89"					
0.9	250	0.0500	4.54		Shallow Concentrated Flow,					
					Paved Kv= 20.3 fps					
1.4	300	Total, Ir	ncreased t	o minimum	Tc = 6.0 min					

#### iai, increased to minimum re – 0.0 min

## **Summary for Subcatchment 51S: Roadway Flow**

Runoff = 1.28 cfs @ 12.09 hrs, Volume= 0.111 af, Depth> 4.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

		( 5)	O								
_	A	rea (sf)	CN D	CN Description							
		3,027	98 F	loofs, HSG	βA						
		4,496	39 >	75% Gras	s cover. Go	ood, HSG A					
		5,392			ing, HSG A	•					
_		12,915		Veighted A		•					
		,			verage vious Area						
		4,496	_								
		8,419	6	5.19% Imp	pervious Ar	ea					
	Tc	Length	Slope	Velocity	Capacity	Description					
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	3.4	50	0.0800	0.25		Sheet Flow,					
	• • •		0.000	0.20		Grass: Short n= 0.150 P2= 2.89"					
	0.6	76	0.0900	2.10		Shallow Concentrated Flow,					
	0.0	70	0.0300	2.10		•					
	0.4	07	0.0500	4 5 4		Short Grass Pasture Kv= 7.0 fps					
	0.1	37	0.0500	4.54		Shallow Concentrated Flow,					
_						Paved Kv= 20.3 fps					
	11	162	Total I	naraacad t	a minimum	To = 6.0 min					

<sup>4.1 163</sup> Total, Increased to minimum Tc = 6.0 min

# Summary for Subcatchment 60S: Roadway and Building Flow

Runoff = 1.46 cfs @ 12.09 hrs, Volume= 0.135 af, Depth> 3.06"

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_	Α	rea (sf)	CN D	escription						
		3,213	98 R	98 Roofs, HSG A						
		13,675	39 >	75% Gras	s cover, Go	ood, HSG A				
_		6,124	98 P	aved park	ing, HSG A	1				
		23,012	٧	Veighted A	verage					
		13,675	5	9.43% Per	vious Area					
		9,337	4	0.57% Imp	ervious Ar	ea				
	Tc	Length	Slope	Velocity	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	2.6	50	0.1600	0.32		Sheet Flow,				
						Grass: Short n= 0.150 P2= 2.89"				
	2.6	155	0.0200	0.99		Shallow Concentrated Flow,				
						Short Grass Pasture Kv= 7.0 fps				
	0.1	15	0.0200	2.87		Shallow Concentrated Flow,				
_						Paved Kv= 20.3 fps				
	5.3	220	Total, I	ncreased t	o minimum	Tc = 6.0 min				

## **Summary for Subcatchment 61S: Roadway Flow**

Runoff = 0.95 cfs @ 12.09 hrs, Volume= 0.080 af, Depth> 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

Aı	rea (st)	CN D	escription						
	1,253	39 >	39 >75% Grass cover, Good, HSG A						
	6,311	98 P	aved park	ing, HSG A	1				
	7,564	٧	Weighted Average						
	1,253	1	6.57% Per	vious Area					
	6,311	8	83.43% Impervious Area						
Tc		Slope	,		Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
0.7	50	0.0200	1.14		Sheet Flow,				
					Smooth surfaces n= 0.011 P2= 2.89"				
0.6	102	0.0200	2.87		Shallow Concentrated Flow,				
					Paved Kv= 20.3 fps				
1.3	152	Total, I	ncreased t	o minimum	Tc = 6.0 min				
	Tc (min) 0.7 0.6	6,311 7,564 1,253 6,311  Tc Length (min) (feet) 0.7 50 0.6 102	1,253 39 > 6,311 98 P 7,564 W 1,253 1 6,311 8  Tc Length Slope (min) (feet) (ft/ft) 0.7 50 0.0200  0.6 102 0.0200	1,253 39 >75% Grass 6,311 98 Paved park 7,564 Weighted A 1,253 16.57% Per 6,311 83.43% Imp  Tc Length Slope Velocity (min) (feet) (ft/ft) (ft/sec) 0.7 50 0.0200 1.14  0.6 102 0.0200 2.87	1,253 39 >75% Grass cover, Go 6,311 98 Paved parking, HSG A 7,564 Weighted Average 1,253 16.57% Pervious Area 6,311 83.43% Impervious Ar Tc Length Slope Velocity Capacity (min) (feet) (ft/ft) (ft/sec) (cfs) 0.7 50 0.0200 1.14 0.6 102 0.0200 2.87				

## **Summary for Subcatchment 62S: Bioretention Pond Area**

Runoff = 0.05 cfs @ 12.15 hrs, Volume= 0.008 af, Depth> 0.69"

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A	rea (sf)	CN E	Description							
	6,453	39 >	>75% Grass cover, Good, HSG A							
	6,453	1	100.00% Pervious Area							
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description					
6.0					Direct Entry,					

## **Summary for Subcatchment 70S: Overland Flow to Detention Pond**

Runoff = 10.11 cfs @ 12.20 hrs, Volume= 0.959 af, Depth> 3.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

	A	rea (sf)	CN	Description						
		607	98	98 Roofs, HSG D						
		1,192	98	Roofs, HSC	S A					
		24,819	80	>75% Gras	s cover, Go	ood, HSG D				
		13,185			,	ood, HSG A				
_		89,055	77	Woods, Go	<u>od, HSG D</u>					
		28,858		Weighted A						
	1	27,059		98.60% Pei	rvious Area					
		1,799		1.40% Impe	ervious Are	a				
	т.	1	Clana	Valacity	Consoitu	Description				
	Tc	Length	Slope	•	Capacity	Description				
_	(min)	(feet)	(ft/ft)		(cfs)					
	7.5	50	0.0800	0.11		Sheet Flow,				
						Woods: Light underbrush n= 0.400 P2= 2.89"				
	3.6	391	0.1300	1.80		Shallow Concentrated Flow,				
						Woodland Kv= 5.0 fps				
	3.5	304	0.0430	1.45		Shallow Concentrated Flow,				
_						Short Grass Pasture Kv= 7.0 fps				
	14.6	745	Total							

## **Summary for Subcatchment 71S: Roadway Flow**

Runoff = 3.06 cfs @ 12.09 hrs, Volume= 0.257 af, Depth> 5.06"

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	Α	rea (sf)	CN I	Description		
		2,572	98 I	Roofs, HSC	G D	
		3,565	98 I	Roofs, HSC	βA	
		3,581	80 :	>75% Gras	s cover, Go	ood, HSG D
		5,385	39	>75% Gras	s cover, Go	ood, HSG A
		1,533	98 I	Paved park	ing, HSG D	
_		9,859	98 I	Paved park	ing, HSG A	1
		26,495	1	Neighted A	verage	
		8,966	(	33.84% Pe	rvious Area	
		17,529	(	36.16% lm	pervious Ar	ea
	Тс	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	3.4	50	0.0800	0.25		Sheet Flow,
						Grass: Short n= 0.150 P2= 2.89"
	1.5	250	0.0200	2.87		Shallow Concentrated Flow,
_						Paved Kv= 20.3 fps
	4.9	300	Total.	Increased t	to minimum	n Tc = 6.0 min

## **Summary for Subcatchment 72S: House Flow to Pond**

Runoff = 3.67 cfs @ 12.09 hrs, Volume= 0.321 af, Depth> 3.42"

A	rea (sf)	CN E	escription				
	2,848	98 F	Roofs, HSC	G D			
	9,725	98 F	Roofs, HSG	θA			
	23,884	39 >	75% Gras	s cover, Go	ood, HSG A		
	4,734	80 >	75% Gras	s cover, Go	ood, HSG D		
	1,216	74 >	75% Gras	s cover, Go	ood, HSG C		
	1,330	98 F	Paved park	ing, HSG D			
	5,294	98 F	98 Paved parking, HSG A				
	49,031	V	Veighted A	verage			
	29,834	6	0.85% Pei	rvious Area			
	19,197	3	9.15% Imp	pervious Ar	ea		
Tc	Length	Slope	Velocity	Capacity	Description		
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
0.7	50	0.0200	1.14		Sheet Flow,		
					Smooth surfaces n= 0.011 P2= 2.89"		
0.3	77	0.3100	3.90		Shallow Concentrated Flow,		
					Short Grass Pasture Kv= 7.0 fps		
1.0	127	Total, I	ncreased t	to minimum	Tc = 6.0 min		

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# **Summary for Subcatchment 73S: Roadway Flow**

Runoff = 0.69 cfs @ 12.09 hrs, Volume= 0.059 af, Depth> 5.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

_	Aı	rea (sf)	CN E	CN Description						
		1,375	39 >	39 >75% Grass cover, Good, HSG A						
_		4,557	98 F	98 Paved parking, HSG A						
		5,932	٧	Weighted Average						
		1,375	2	23.18% Per	vious Area					
		4,557	7	'6.82% Imp	pervious Ar	ea				
_	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description				
	0.7	50	0.0200	1.14		Sheet Flow,				
	0.9	150	0.0200	2.87		Smooth surfaces n= 0.011 P2= 2.89"  Shallow Concentrated Flow, Paved Kv= 20.3 fps				
	1.6	200	Total, I	ncreased t	o minimum	Tc = 6.0 min				

### Summary for Subcatchment 74S: Area in Circle to Infiltration Pond

Runoff = 1.31 cfs @ 12.09 hrs, Volume= 0.114 af, Depth> 3.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

	Α	rea (sf)	CN	CN Description						
		4,851	98	Roofs, HSG	Α					
		8,558	39	>75% Gras	s cover, Go	ood, HSG A				
		1,547	98	Roofs, HSG	G D					
		248	98	Roofs, HSG	G C					
		1,588	80	>75% Gras	s cover, Go	ood, HSG D				
		864	74	>75% Gras	s cover, Go	ood, HSG C				
		17,656		Weighted A	verage					
		11,010		62.36% Pei	vious Area	1				
		6,646		37.64% Imp	ervious Ar	ea				
	Тс	Length	Slope	<ul><li>Velocity</li></ul>	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	2.6	40	0.1000	0.26		Sheet Flow,				
_						Grass: Short	n= 0.150	P2= 2.89"		
_	2.6	40	Total	Increased t	o minimum	$T_{\rm C} = 6.0  \text{min}$	_	<u> </u>	_	

2.6 40 Total, Increased to minimum Tc = 6.0 min

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# **Summary for Subcatchment 75S: Roadway Flow**

Runoff = 1.64 cfs @ 12.09 hrs, Volume= 0.137 af, Depth> 5.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

_	Α	rea (sf)	CN [	Description					
		295	98 F	98 Roofs, HSG D					
		1,380	98 F	Roofs, HSG A					
		2,209	80 >	>75% Grass cover, Good, HSG D					
		2,224	39 >	•75% Gras	s cover, Go	ood, HSG A			
		4,186	98 F	Paved park	ing, HSG D				
_		3,345	98 F	Paved park	ing, HSG A				
	13,639 Weighted Average								
	4,433 32.50% Pervious Area								
		9,206	67.50% Impervious Area						
	Тс	Length	Slope	,	Capacity	Description			
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
	0.7	50	0.0200	1.14		Sheet Flow,			
						Smooth surfaces n= 0.011 P2= 2.89"			
	8.0	146	0.0200	2.87		Shallow Concentrated Flow,			
_						Paved Kv= 20.3 fps			
	15	106	Total	Increased t	to minimum	Tc = 6.0 min			

1.5 196 Total, Increased to minimum Tc = 6.0 min

### **Summary for Subcatchment 76S: Roadway Flow**

Runoff = 9.39 cfs @ 12.13 hrs, Volume= 0.809 af, Depth> 4.55"

Area (sf)	CN	Description			
14,560	98	Roofs, HSG D			
1,133	98	Roofs, HSG A			
24,384	80	>75% Grass cover, Good, HSG D			
10,102	39	>75% Grass cover, Good, HSG A			
31,709	77	Woods, Good, HSG D			
7,686	98	Paved parking, HSG D			
3,446	98	Paved parking, HSG A			
93,020		Weighted Average			
66,195		71.16% Pervious Area			
26,825		28.84% Impervious Area			

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	50	0.1200	0.13		Sheet Flow,
					Woods: Light underbrush n= 0.400 P2= 2.89"
0.9	130	0.2150	2.32		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
1.0	120	0.0830	2.02		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
0.8	168	0.0300	3.52		Shallow Concentrated Flow,
					Paved Kv= 20.3 fps
9.0	468	Total			

## **Summary for Subcatchment 100S: Unit 1**

Runoff = 0.14 cfs @ 12.09 hrs, Volume= 0.011 af, Depth> 6.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

A	rea (sf)	CN [	Description		
	920	98 F	Roofs, HSG	A A	
•	920	920 100.00% Impervious A			Area
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

# Summary for Subcatchment 101S: Units 2 & 3

Runoff = 0.27 cfs @ 12.09 hrs, Volume= 0.023 af, Depth> 6.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

A	rea (sf)	CN E	Description				
	1,840	98 F	Roofs, HSG A				
	1,840	1	100.00% Impervious Area				
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description		
6.0					Direct Entry,		

## Summary for Subcatchment 102S: Units 4 & 5

Runoff = 0.27 cfs @ 12.09 hrs, Volume= 0.023 af, Depth> 6.53"

Type III 24-hr 50-yr Rainfall=6.77" Printed 10/10/2022

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A	rea (sf)	CN [	Description					
	1,840	98 F	Roofs, HSG	A A				
	1,840	1	100.00% Impervious Area					
-		01	\	0 :				
	Length	Slope	,	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
6.0					Direct Entry,			

## Summary for Subcatchment 103S: Units 6 & 7

Runoff = 0.27 cfs @ 12.09 hrs, Volume= 0.023 af, Depth> 6.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

A	rea (sf)	CN [	Description		
	1,840	98 F	Roofs, HSC	Α	
	1,840	1	00.00% In	npervious A	Area
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	
6.0	•				Direct Entry,

### Summary for Subcatchment 104S: Units 8 & 9

Runoff = 0.27 cfs @ 12.09 hrs, Volume= 0.023 af, Depth> 6.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

A	rea (sf)	CN [	Description		
	1,840	98 F	Roofs, HSG	A A	
	1,840	1	00.00% In	npervious A	Area
_		01			<b>—</b>
Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
6.0					Direct Entry.

## Summary for Subcatchment 105S: Units 11 & 10

Runoff = 0.27 cfs @ 12.09 hrs, Volume= 0.023 af, Depth> 6.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

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	Area (sf)	CN [	Description		
	1,840	98 F	Roofs, HSG	Α	
	1,840	1	\rea		
_	- 1 41-	Ola a	\/-  <del>:</del>  -	0	Description
T	9	Slope	•		Description
<u>(min</u>	) (feet)	(ft/ft)	(ft/sec)	(cfs)	
6.0	)				Direct Entry,

### Summary for Subcatchment 106S: Units 13 & 12

Runoff = 0.27 cfs @ 12.09 hrs, Volume= 0.023 af, Depth> 6.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

A	rea (sf)	CN [	Description		
	1,840	98 F	Roofs, HSC	Α	
	1,840	1	00.00% In	npervious A	Area
Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
6.0	-	-			Direct Entry,

### Summary for Subcatchment 107S: Units 15 & 14

Runoff = 0.27 cfs @ 12.09 hrs, Volume= 0.023 af, Depth> 6.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

 Α	rea (sf)	CN [	Description		
	1,840	98 F	Roofs, HSG	Α	
	1,840	1	00.00% In	npervious A	\rea
Tc	Length	Slope	Velocity	Capacity	Description
 (min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
 6.0					Direct Entry.

## Summary for Subcatchment 108S: Units 17 & 16

Runoff = 0.27 cfs @ 12.09 hrs, Volume= 0.023 af, Depth> 6.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

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_	Α	rea (sf)	CN I	Description		
		1,840	98 F	Roofs, HSC	Α	
		1,840	•	100.00% In	npervious A	rea
	_		0.1			
	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	6.0					Direct Entry,

### **Summary for Subcatchment 109S: Unit 18**

Runoff = 0.14 cfs @ 12.09 hrs, Volume= 0.011 af, Depth> 6.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 50-yr Rainfall=6.77"

A	rea (sf)	CN [	Description		
	920	98 F	Roofs, HSC	Α	
	920	1	00.00% In	npervious A	Area
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

### **Summary for Reach 1R: Tammy Court**

Inflow Area = 1.32 ac, 17.28% Impervious, Inflow Depth > 4.25" for 50-yr event

Inflow = 6.08 cfs @ 12.09 hrs, Volume= 0.468 af

Outflow = 6.08 cfs @ 12.09 hrs, Volume= 0.468 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

## Summary for Reach 2R: Ex CB1

Inflow Area = 3.88 ac, 46.55% Impervious, Inflow Depth > 4.66" for 50-yr event

Inflow = 7.88 cfs @ 12.30 hrs, Volume= 1.506 af

Outflow = 7.88 cfs @ 12.30 hrs, Volume= 1.506 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

## Summary for Reach 3R: Ex CB 2

Inflow Area = 0.57 ac, 8.93% Impervious, Inflow Depth > 3.60" for 50-yr event

Inflow = 2.04 cfs @ 12.12 hrs, Volume= 0.170 af

Outflow = 2.04 cfs @ 12.12 hrs, Volume= 0.170 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

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## **Summary for Reach 4R: Upper Shadowbrook Drive Drainage**

Inflow Area = 2.77 ac, 53.61% Impervious, Inflow Depth > 4.43" for 50-yr event

Inflow = 6.96 cfs @ 12.17 hrs, Volume= 1.023 af

Outflow = 6.96 cfs @ 12.17 hrs, Volume= 1.023 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### **Summary for Reach 5R: Canterberry Ct Drainage**

Inflow Area = 0.84 ac, 15.94% Impervious, Inflow Depth > 1.62" for 50-yr event

Inflow = 1.04 cfs @ 12.10 hrs, Volume= 0.113 af

Outflow = 1.04 cfs @ 12.10 hrs, Volume= 0.113 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Summary for Reach 6R: Lower Shadowbrook Dr CB

Inflow Area = 1.67 ac, 12.69% Impervious, Inflow Depth > 1.40" for 50-yr event

Inflow = 1.73 cfs @ 12.11 hrs, Volume= 0.195 af

Outflow = 1.73 cfs @ 12.11 hrs, Volume= 0.195 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Summary for Pond 1P: Bioretention Pond #1

Inflow Area = 2.51 ac, 55.18% Impervious, Inflow Depth > 4.44" for 50-yr event

Inflow = 10.97 cfs @ 12.09 hrs, Volume= 0.929 af

Outflow = 6.09 cfs @ 12.22 hrs, Volume= 0.915 af, Atten= 44%, Lag= 7.9 min

Primary = 6.09 cfs @ 12.22 hrs, Volume= 0.915 af Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 293.47' @ 12.22 hrs Surf.Area= 4,349 sf Storage= 10,827 cf

Plug-Flow detention time= 76.6 min calculated for 0.913 af (98% of inflow)

Center-of-Mass det. time= 66.6 min ( 828.4 - 761.8 )

Volume	Invert	Avail.Storage	Storage Description
#1	288.00'	13,264 cf	Custom Stage Data (Prismatic)Listed below (Recalc)

Elevation	Surf.Area	Inc.Store	Cum.Store
(feet)	(sq-ft)	(cubic-feet)	(cubic-feet)
288.00	434	0	0
290.00	1,140	1,574	1,574
291.00	1,598	1,369	2,943
292.00	3,160	2,379	5,322
294.00	4,782	7,942	13,264

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Device	Routing	Invert	Outlet Devices
#1	Secondary	293.80'	<b>4.0' long x 10.0' breadth Broad-Crested Rectangular Weir</b> Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60
			Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Device 5	288.00'	10.000 in/hr Exfiltration over Surface area
#3	Device 5	292.10'	<b>15.0" Vert. Orifice/Grate</b> C= 0.600
#4	Device 5	293.50'	<b>48.0"</b> x <b>48.0"</b> Horiz. Orifice/Grate C= 0.600
			Limited to weir flow at low heads
#5	Primary	285.00'	12.0" Round Culvert
	-		L= 55.3' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 285.00' / 283.04' S= 0.0354 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=6.06 cfs @ 12.22 hrs HW=293.46' TW=0.00' (Dynamic Tailwater)

**-5=Culvert** (Passes 6.06 cfs of 10.67 cfs potential flow)

-2=Exfiltration (Exfiltration Controls 1.00 cfs)

-3=Orifice/Grate (Orifice Controls 5.06 cfs @ 4.12 fps)

-4=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=288.00' TW=0.00' (Dynamic Tailwater) 1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

### Summary for Pond 2P: Pocket Pond #1

Inflow Area = 3.42 ac, 46.71% Impervious, Inflow Depth > 4.80" for 50-yr event

16.84 cfs @ 12.09 hrs, Volume= Inflow 1.368 af

Outflow 6.98 cfs @ 12.31 hrs, Volume= 1.331 af, Atten= 59%, Lag= 13.2 min =

6.98 cfs @ 12.31 hrs, Volume= 1.331 af Primary =

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Starting Elev= 309.79' Surf.Area= 3,009 sf Storage= 5,826 cf

Peak Elev= 313.16' @ 12.32 hrs Surf.Area= 8,355 sf Storage= 25,017 cf (19,191 cf above start)

Plug-Flow detention time= 181.0 min calculated for 1.197 af (88% of inflow)

Center-of-Mass det. time= 83.1 min ( 853.2 - 770.2 )

Volume	Invert	Avail	.Storage	Storage Descripti	on			
#1	306.00'	' 27,930 cf		Custom Stage Data (Irregular)Listed below (Recalc)				
Elevation (feet)		.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)		
306.00		306	196.0	0	0	306		
308.00		1,616	240.0	1,750	1,750	1,894		
310.00	;	3,201	285.0	4,728	6,478	3,846		
312.00	(	6,785	438.0	9,764	16,242	12,678		
313.50		8,844	470.0	11,688	27,930	15,088		

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#3

Device 4

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Device	Routing	Invert	Outlet Devices
#1	Device 4	309.80'	4.5" Vert. Orifice/Grate C= 0.600
#2	Device 4	311.50'	14.0" Vert. Orifice/Grate C= 0.600
#3	Device 4	313.10'	<b>48.0" x 48.0" Horiz. Orifice/Grate</b> C= 0.600
			Limited to weir flow at low heads
#4	Primary	309.75'	15.0" Round Culvert
			L= 93.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 309.75' / 307.89' S= 0.0200 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=6.90 cfs @ 12.31 hrs HW=313.16' TW=310.84' (Dynamic Tailwater)

**-4=Culvert** (Passes 6.90 cfs of 7.83 cfs potential flow)

-1=Orifice/Grate (Orifice Controls 0.81 cfs @ 7.34 fps)

-2=Orifice/Grate (Orifice Controls 5.34 cfs @ 4.99 fps)

-3=Orifice/Grate (Weir Controls 0.75 cfs @ 0.80 fps)

### **Summary for Pond 3P: Pocket Pond #2**

Inflow Area = 6.15 ac, 22.36% Impervious, Inflow Depth > 4.33" for 50-yr event

Inflow = 22.96 cfs @ 12.14 hrs, Volume= 2.220 af

Outflow 2.197 af, Atten= 24%, Lag= 8.2 min

17.44 cfs @ 12.27 hrs, Volume= 12.40 cfs @ 12.27 hrs, Volume= Primary 2.114 af 5.04 cfs @ 12.27 hrs, Volume= Secondary = 0.084 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Starting Elev= 271.98' Surf.Area= 2,847 sf Storage= 5,675 cf

Peak Elev= 275.70' @ 12.27 hrs Surf.Area= 6,569 sf Storage= 22,963 cf (17,288 cf above start)

Plug-Flow detention time= 83.0 min calculated for 2.063 af (93% of inflow)

Center-of-Mass det. time= 25.4 min (821.4 - 796.0)

Volume	Invert	Avail.Sto	rage Storage l	Description	
#1	268.00'	25,01	13 cf Custom	Stage Data (Pi	rismatic)Listed below (Recalc)
Elevation	on Su	rf.Area	Inc.Store	Cum.Store	
(fee	t)	(sq-ft)	(cubic-feet)	(cubic-feet)	
268.0	00	408	0	0	
269.0	00	790	599	599	
270.0	00	1,250	1,020	1,619	
272.0	00	2,863	4,113	5,732	
274.0	00	4,762	7,625	13,357	
276.0	00	6,894	11,656	25,013	
Device	Routing	Invert	Outlet Devices	6	
#1	Device 4	272.00'	9.0" Vert. Orif	fice/Grate C=	0.600
#2	Secondary	275.35'	10.0' long x 4	I.0' breadth Br	oad-Crested Rectangular Weir
			Head (feet) 0.	20 0.40 0.60	0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00 3.5	0 4.00 4.50 5	5.00 5.50
			Coef. (English	) 2.38 2.54 2.	69 2.68 2.67 2.67 2.65 2.66 2.66
			2.68 2.72 2.7	3 2.76 2.79 2	.88 3.07 3.32

273.80' **24.0" W x 10.0" H Vert. Orifice/Grate** C= 0.600

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#4 Primary 272.00' **18.0" Round Culvert**L= 105.7' CPP, square edge headwall, Ke= 0.500
Inlet / Outlet Invert= 272.00' / 271.57' S= 0.0041 '/' Cc= 0.900

n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

#5 Primary 275.70' **48.0" x 48.0" Horiz. Orifice/Grate** C= 0.600

Limited to weir flow at low heads

Primary OutFlow Max=12.37 cfs @ 12.27 hrs HW=275.68' TW=0.00' (Dynamic Tailwater)

**-4=Culvert** (Barrel Controls 12.37 cfs @ 7.00 fps)

—1=Orifice/Grate (Passes < 3.87 cfs potential flow)
—3=Orifice/Grate (Passes < 9.68 cfs potential flow)

-5=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=4.78 cfs @ 12.27 hrs HW=275.68' TW=0.00' (Dynamic Tailwater) 2=Broad-Crested Rectangular Weir (Weir Controls 4.78 cfs @ 1.43 fps)

### **Summary for Pond 30P: Infiltration Pond #1**

Inflow Area = 0.41 ac, 37.64% Impervious, Inflow Depth > 3.38" for 50-yr event

Inflow = 1.31 cfs @ 12.09 hrs, Volume= 0.114 af

Outflow = 0.07 cfs @ 14.98 hrs, Volume= 0.080 af, Atten= 95%, Lag= 173.1 min

Discarded = 0.07 cfs @ 14.98 hrs, Volume= 0.080 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 281.24' @ 14.98 hrs Surf.Area= 2,908 sf Storage= 2,550 cf

Plug-Flow detention time= 273.5 min calculated for 0.080 af (70% of inflow)

Center-of-Mass det. time= 170.2 min ( 944.4 - 774.2 )

Volume	Inv	<u>rert</u> Ava	il.Storage	Storage	Description		
#1	280.	00'	5,166 cf	Custom	n Stage Data (Pr	ismatic)Listed below (Re	calc)
Elevation (fee		Surf.Area (sq-ft)		ic.Store pic-feet)	Cum.Store (cubic-feet)		
280.0	00	1,214		0	0		
282.0	00	3,952		5,166	5,166		
Device	Routing	Ir	vert Ou	tlet Device	es		

#1 Discarded 280.00' 1.000 in/hr Exfiltration over Surface area

**Discarded OutFlow** Max=0.07 cfs @ 14.98 hrs HW=281.24' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 0.07 cfs)

## **Summary for Pond 31P: Infiltration Pond #2**

Inflow Area = 1.13 ac, 39.15% Impervious, Inflow Depth > 3.42" for 50-yr event

Inflow = 3.67 cfs @ 12.09 hrs, Volume = 0.321 af

Outflow = 0.29 cfs @ 13.51 hrs, Volume= 0.242 af, Atten= 92%, Lag= 85.4 min

Discarded = 0.11 cfs @ 13.51 hrs, Volume= 0.144 af Primary = 0.19 cfs @ 13.51 hrs, Volume= 0.098 af

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Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 275.74' @ 13.51 hrs Surf.Area= 4,662 sf Storage= 6,686 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 137.9 min ( 910.3 - 772.3 )

Volume	Invert	Avail.Stor	age Storage	Description	
#1	274.00'	7,93	8 cf Custom	Stage Data (Pr	rismatic)Listed below (Recalc)
Elevatio		rf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	
274.0	00	3,030	0	0	
276.0	00	4,908	7,938	7,938	
Device	Routing	Invert	Outlet Device	s	
#1	Device 3	275.00'	3.0" Vert. Or	ifice/Grate C=	0.600
#2	Discarded	274.00'	1.000 in/hr E	xfiltration over	Surface area
#3	Primary	274.16'	15.0" Round	l Culvert	
	•		L= 32.2' CPI	P, square edge h	neadwall, Ke= 0.500
					274.00' S= 0.0050 '/' Cc= 0.900 both interior, Flow Area= 1.23 sf
#4	Primary	276.40'	24.0" x 24.0"		Grate C= 0.600

**Discarded OutFlow** Max=0.11 cfs @ 13.51 hrs HW=275.74' (Free Discharge) **2=Exfiltration** (Exfiltration Controls 0.11 cfs)

Primary OutFlow Max=0.19 cfs @ 13.51 hrs HW=275.74' TW=0.00' (Dynamic Tailwater)

-3=Culvert (Passes 0.19 cfs of 4.93 cfs potential flow)

1=Orifice/Grate (Orifice Controls 0.19 cfs @ 3.77 fps)

-4=Orifice/Grate (Controls 0.00 cfs)

## **Summary for Pond 100: AD#100**

Inflow Area = 0.02 ac,100.00% Impervious, Inflow Depth > 6.53" for 50-yr event

Inflow 0.14 cfs @ 12.09 hrs. Volume= 0.011 af

0.14 cfs @ 12.09 hrs, Volume= 0.011 af, Atten= 0%, Lag= 0.0 min Outflow =

Primary 0.14 cfs @ 12.09 hrs, Volume= 0.011 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 296.01' @ 12.09 hrs

Flood Elev= 297.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	295.81'	8.0" Round Culvert
			L= 58.1' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 295.81' / 294.35' S= 0.0251 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior. Flow Area= 0.35 sf

Primary OutFlow Max=0.13 cfs @ 12.09 hrs HW=296.01' TW=294.61' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.13 cfs @ 1.52 fps)

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## Summary for Pond 101: AD#101

Inflow Area = 0.06 ac,100.00% Impervious, Inflow Depth > 6.53" for 50-yr event

Inflow = 0.41 cfs @ 12.09 hrs, Volume= 0.034 af

Outflow = 0.41 cfs @ 12.09 hrs, Volume= 0.034 af, Atten= 0%, Lag= 0.0 min

Primary = 0.41 cfs @ 12.09 hrs, Volume= 0.034 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 295.21' @ 12.21 hrs

Flood Elev= 297.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	294.25'	8.0" Round Culvert L= 37.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 294.25' / 292.40' S= 0.0500 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.35 cfs @ 12.09 hrs HW=294.61' TW=294.20' (Dynamic Tailwater) 1=Culvert (Outlet Controls 0.35 cfs @ 2.62 fps)

### Summary for Pond 102: AD#102

Inflow Area = 0.08 ac,100.00% Impervious, Inflow Depth > 6.53" for 50-yr event

Inflow = 0.55 cfs @ 12.09 hrs, Volume= 0.046 af

Outflow = 0.55 cfs @ 12.09 hrs, Volume= 0.046 af, Atten= 0%, Lag= 0.0 min

Primary = 0.55 cfs @ 12.09 hrs, Volume= 0.046 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 295.23' @ 12.21 hrs

Flood Elev= 297.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	292.95'	8.0" Round Culvert
			L= 27.4' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 292.95' / 292.40' S= 0.0201 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=293.61' TW=294.20' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

### Summary for Pond 103: AD#103

Inflow Area = 0.04 ac,100.00% Impervious, Inflow Depth > 6.53" for 50-yr event

Inflow = 0.27 cfs @ 12.09 hrs, Volume= 0.023 af

Outflow = 0.27 cfs @ 12.09 hrs, Volume= 0.023 af, Atten= 0%, Lag= 0.0 min

Primary = 0.27 cfs @ 12.09 hrs, Volume= 0.023 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 295.23' @ 12.26 hrs

Flood Elev= 297.40'

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Device	Routing	Invert	Outlet Devices
#1	Primary	294.23'	8.0" Round Culvert
			L= 59.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 294.23' / 293.05' S= 0.0200 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.27 cfs @ 12.09 hrs HW=294.52' TW=293.61' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.27 cfs @ 1.83 fps)

### Summary for Pond 104: AD#104

Inflow Area = 0.23 ac,100.00% Impervious, Inflow Depth > 6.53" for 50-yr event

Inflow = 1.51 cfs @ 12.09 hrs, Volume= 0.126 af

Outflow = 1.51 cfs @ 12.09 hrs, Volume= 0.126 af, Atten= 0%, Lag= 0.0 min

Primary = 1.51 cfs @ 12.09 hrs, Volume= 0.126 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 296.40' @ 12.09 hrs

Flood Elev= 299.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	295.27'	8.0" Round Culvert
	-		L= 16.6' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 295.27' / 294.66' S= 0.0367 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.47 cfs @ 12.09 hrs HW=296.36' TW=295.55' (Dynamic Tailwater) 1=Culvert (Inlet Controls 1.47 cfs @ 4.20 fps)

### **Summary for Pond 105: AD#105**

Inflow Area = 0.19 ac,100.00% Impervious, Inflow Depth > 6.53" for 50-yr event

Inflow = 1.23 cfs @ 12.09 hrs, Volume= 0.103 af

Outflow = 1.23 cfs @ 12.09 hrs, Volume= 0.103 af, Atten= 0%, Lag= 0.0 min

Primary = 1.23 cfs @ 12.09 hrs, Volume= 0.103 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 298.40' @ 12.09 hrs

Flood Elev= 301.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	297.53'	8.0" Round Culvert  L= 53.8' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 297.53' / 295.38' S= 0.0400 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.20 cfs @ 12.09 hrs HW=298.37' TW=296.36' (Dynamic Tailwater) 1=Culvert (Inlet Controls 1.20 cfs @ 3.44 fps)

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## **Summary for Pond 106: AD#106**

Inflow Area = 0.15 ac,100.00% Impervious, Inflow Depth > 6.53" for 50-yr event

Inflow = 0.96 cfs @ 12.09 hrs, Volume= 0.080 af

Outflow = 0.96 cfs @ 12.09 hrs, Volume= 0.080 af, Atten= 0%, Lag= 0.0 min

Primary = 0.96 cfs @ 12.09 hrs, Volume= 0.080 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 300.52' @ 12.09 hrs

Flood Elev= 303.80'

Device Ro	outing	Invert	Outlet Devices
			8.0" Round Culvert L= 55.9' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 299.87' / 297.63' S= 0.0401 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.93 cfs @ 12.09 hrs HW=300.51' TW=298.37' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.93 cfs @ 2.72 fps)

### **Summary for Pond 107: AD#107**

Inflow Area = 0.11 ac,100.00% Impervious, Inflow Depth > 6.53" for 50-yr event

Inflow = 0.68 cfs @ 12.09 hrs, Volume= 0.057 af

Outflow = 0.68 cfs @ 12.09 hrs, Volume= 0.057 af, Atten= 0%, Lag= 0.0 min

Primary = 0.68 cfs @ 12.09 hrs, Volume= 0.057 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 303.40' @ 12.09 hrs

Flood Elev= 306.63'

Device	Routing	Invert	Outlet Devices
#1	Primary	302.85'	8.0" Round Culvert L= 64.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 302.85' / 299.97' S= 0.0450 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.67 cfs @ 12.09 hrs HW=303.39' TW=300.51' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.67 cfs @ 2.20 fps)

### Summary for Pond 108: AD#108

Inflow Area = 0.06 ac,100.00% Impervious, Inflow Depth > 6.53" for 50-yr event

Inflow = 0.41 cfs @ 12.09 hrs, Volume= 0.034 af

Outflow = 0.41 cfs @ 12.09 hrs, Volume= 0.034 af, Atten= 0%, Lag= 0.0 min

Primary = 0.41 cfs @ 12.09 hrs, Volume= 0.034 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 306.22' @ 12.09 hrs

Flood Elev= 309.80'

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Device	Routing	Invert	Outlet Devices
#1	Primary	305.85'	8.0" Round Culvert
			L= 64.5' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 305.85' / 302.96' S= 0.0448 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.40 cfs @ 12.09 hrs HW=306.21' TW=303.39' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.40 cfs @ 2.05 fps)

### Summary for Pond 109: AD#109

Inflow Area = 0.02 ac,100.00% Impervious, Inflow Depth > 6.53" for 50-yr event

Inflow = 0.14 cfs @ 12.09 hrs, Volume= 0.011 af

Outflow = 0.14 cfs @ 12.09 hrs, Volume= 0.011 af, Atten= 0%, Lag= 0.0 min

Primary = 0.14 cfs @ 12.09 hrs, Volume= 0.011 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 308.89' @ 12.09 hrs

Flood Elev= 311.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	308.69'	8.0" Round Culvert
			L= 49.9' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 308.69' / 305.95' S= 0.0549 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.13 cfs @ 12.09 hrs HW=308.89' TW=306.21' (Dynamic Tailwater) 1=Culvert (Inlet Controls 0.13 cfs @ 1.52 fps)

## **Summary for Pond CB11: CB#11**

Inflow Area = 1.47 ac, 47.09% Impervious, Inflow Depth > 4.95" for 50-yr event

Inflow = 7.51 cfs @ 12.09 hrs, Volume= 0.605 af

Outflow = 7.51 cfs @ 12.09 hrs, Volume= 0.605 af, Atten= 0%, Lag= 0.0 min

Primary = 7.51 cfs @ 12.09 hrs, Volume= 0.605 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 313.29' @ 12.35 hrs

Flood Elev= 314.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	310.04'	18.0" Round Culvert
			L= 30.3' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 310.04' / 309.89' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=5.81 cfs @ 12.09 hrs HW=313.11' TW=312.64' (Dynamic Tailwater) 1=Culvert (Inlet Controls 5.81 cfs @ 3.29 fps)

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## **Summary for Pond CB110: CB#110**

Inflow Area = 0.34 ac, 52.43% Impervious, Inflow Depth > 5.54" for 50-yr event

Inflow = 1.96 cfs @ 12.09 hrs, Volume= 0.156 af

Outflow = 1.96 cfs @ 12.09 hrs, Volume= 0.156 af, Atten= 0%, Lag= 0.0 min

Primary = 1.96 cfs @ 12.09 hrs, Volume= 0.156 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 313.30' @ 12.39 hrs

Flood Elev= 314.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	310.25'	15.0" Round Culvert L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 310.25' / 310.14' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=312.78' TW=313.10' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

### **Summary for Pond CB12: CB#12**

Inflow Area = 0.73 ac, 49.36% Impervious, Inflow Depth > 4.97" for 50-yr event

Inflow = 3.76 cfs @ 12.09 hrs, Volume= 0.304 af

Outflow = 3.76 cfs @ 12.09 hrs, Volume= 0.304 af, Atten= 0%, Lag= 0.0 min

Primary = 3.76 cfs @ 12.09 hrs, Volume= 0.304 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 314.03' @ 12.11 hrs

Flood Elev= 317.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	313.00'	15.0" Round Culvert
			L= 106.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 313.00' / 310.21' S= 0.0263 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=3.16 cfs @ 12.09 hrs HW=314.02' TW=313.10' (Dynamic Tailwater) 1=Culvert (Outlet Controls 3.16 cfs @ 4.03 fps)

## Summary for Pond CB120: CB#120

Inflow Area = 0.50 ac, 47.90% Impervious, Inflow Depth > 5.26" for 50-yr event

Inflow = 2.74 cfs @ 12.09 hrs, Volume= 0.218 af

Outflow = 2.74 cfs @ 12.09 hrs, Volume= 0.218 af, Atten= 0%, Lag= 0.0 min

Primary = 2.74 cfs @ 12.09 hrs, Volume= 0.218 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 314.34' @ 12.11 hrs

Flood Elev= 317.25'

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Device	Routing	Invert	Outlet Devices
#1	Primary	313.32'	15.0" Round Culvert
			L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 313.32' / 313.10' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=2.34 cfs @ 12.09 hrs HW=314.31' TW=314.02' (Dynamic Tailwater) 1=Culvert (Outlet Controls 2.34 cfs @ 3.09 fps)

### **Summary for Pond CB14: CB#14**

Inflow Area = 3.64 ac, 46.14% Impervious, Inflow Depth > 4.66" for 50-yr event

Inflow = 7.41 cfs @ 12.30 hrs, Volume= 1.414 af

Outflow = 7.41 cfs @ 12.30 hrs, Volume= 1.414 af, Atten= 0%, Lag= 0.0 min

Primary = 7.41 cfs @ 12.30 hrs, Volume= 1.414 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 310.88' @ 12.33 hrs

Flood Elev= 312.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	307.79'	15.0" Round Culvert
	-		L= 37.9' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 307.79' / 307.22' S= 0.0150 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=7.17 cfs @ 12.30 hrs HW=310.83' TW=309.36' (Dynamic Tailwater) 1=Culvert (Inlet Controls 7.17 cfs @ 5.84 fps)

### **Summary for Pond CB15: CB#15**

Inflow Area = 3.71 ac, 46.04% Impervious, Inflow Depth > 4.65" for 50-yr event

Inflow = 7.53 cfs @ 12.30 hrs, Volume= 1.437 af

Outflow = 7.53 cfs @ 12.30 hrs, Volume= 1.437 af, Atten= 0%, Lag= 0.0 min

Primary = 7.53 cfs @ 12.30 hrs, Volume= 1.437 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 309.37' @ 12.30 hrs

Flood Elev= 312.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	307.12'	15.0" Round Culvert
			L= 120.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 307.12' / 300.65' S= 0.0539 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=7.52 cfs @ 12.30 hrs HW=309.37' TW=0.00' (Dynamic Tailwater) 1=Culvert (Inlet Controls 7.52 cfs @ 6.13 fps)

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## **Summary for Pond CB170: CB#170**

Inflow Area = 0.74 ac, 68.11% Impervious, Inflow Depth > 5.08" for 50-yr event

Inflow 3.74 cfs @ 12.09 hrs, Volume= 0.315 af

3.74 cfs @ 12.09 hrs, Volume= Outflow = 0.315 af, Atten= 0%, Lag= 0.0 min

Primary 3.74 cfs @ 12.09 hrs, Volume= 0.315 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 278.93' @ 12.09 hrs

Flood Elev= 281.97'

Device	Routing	Invert	Outlet Devices
#1	Primary	277.90'	15.0" Round Culvert L= 36.7' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 277.90' / 277.17' S= 0.0199 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=3.65 cfs @ 12.09 hrs HW=278.91' TW=276.80' (Dynamic Tailwater) 1=Culvert (Inlet Controls 3.65 cfs @ 3.43 fps)

### **Summary for Pond CB171: CB#171**

0.61 ac, 66.16% Impervious, Inflow Depth > 5.06" for 50-yr event Inflow Area =

Inflow 3.06 cfs @ 12.09 hrs, Volume= 0.257 af

Outflow 3.06 cfs @ 12.09 hrs, Volume= 0.257 af. Atten= 0%. Lag= 0.0 min

3.06 cfs @ 12.09 hrs, Volume= Primary = 0.257 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 279.28' @ 12.11 hrs

Flood Elev= 281.97'

Device	Routing	Invert	Outlet Devices
#1	Primary	278.22'	15.0" Round Culvert
			L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 278.22' / 278.00' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=2.70 cfs @ 12.09 hrs HW=279.25' TW=278.91' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 2.70 cfs @ 3.37 fps)

## **Summary for Pond CB19: CB #19**

Inflow Area = 2.45 ac, 33.78% Impervious, Inflow Depth > 4.63" for 50-yr event

Inflow 10.98 cfs @ 12.12 hrs, Volume= 0.946 af

Outflow 10.98 cfs @ 12.12 hrs, Volume= 0.946 af, Atten= 0%, Lag= 0.0 min =

10.98 cfs @ 12.12 hrs, Volume= Primary 0.946 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 279.94' @ 12.15 hrs

Flood Elev= 281.21'

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Device	Routing	Invert	Outlet Devices
#1	Primary	276.67'	18.0" Round Culvert
	-		L= 33.8' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 276.67' / 276.16' S= 0.0151 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=9.41 cfs @ 12.12 hrs HW=279.64' TW=278.42' (Dynamic Tailwater) 1=Culvert (Inlet Controls 9.41 cfs @ 5.33 fps)

### **Summary for Pond CB20: CB #20**

Inflow Area = 2.14 ac, 28.84% Impervious, Inflow Depth > 4.55" for 50-yr event

Inflow = 9.39 cfs @ 12.13 hrs, Volume= 0.809 af

Outflow = 9.39 cfs @ 12.13 hrs, Volume= 0.809 af, Atten= 0%, Lag= 0.0 min

Primary = 9.39 cfs @ 12.13 hrs, Volume= 0.809 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 280.81' @ 12.18 hrs

Flood Elev= 281.21'

Device	Routing	Invert	Outlet Devices
#1	Primary	277.21'	18.0" Round Culvert
			L= 22.0' RCP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 277.21' / 276.77' S= 0.0200 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=5.58 cfs @ 12.13 hrs HW=280.14' TW=279.71' (Dynamic Tailwater) 1=Culvert (Inlet Controls 5.58 cfs @ 3.16 fps)

## Summary for Pond CB201: CB#201

Inflow Area = 0.69 ac, 40.43% Impervious, Inflow Depth > 4.99" for 50-yr event

Inflow = 3.63 cfs @ 12.09 hrs, Volume= 0.286 af

Outflow = 3.63 cfs @ 12.09 hrs, Volume= 0.286 af, Atten= 0%, Lag= 0.0 min

Primary = 3.63 cfs @ 12.09 hrs, Volume= 0.286 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 293.57' @ 12.24 hrs

Flood Elev= 300.43'

Device	Routing	Invert	Outlet Devices
#1	Primary	291.88'	<b>15.0" Round Culvert</b> L= 82.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 291.88' / 291.45' S= 0.0052 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=2.28 cfs @ 12.09 hrs HW=293.33' TW=293.14' (Dynamic Tailwater) 1=Culvert (Outlet Controls 2.28 cfs @ 2.01 fps)

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## **Summary for Pond CB3: CB#3**

Inflow Area = 1.67 ac, 66.11% Impervious, Inflow Depth > 4.55" for 50-yr event

Inflow = 7.31 cfs @ 12.09 hrs, Volume= 0.635 af

Outflow = 7.31 cfs @ 12.09 hrs, Volume= 0.635 af, Atten= 0%, Lag= 0.0 min

Primary = 7.31 cfs @ 12.09 hrs, Volume= 0.635 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 295.14' @ 12.11 hrs

Flood Elev= 296.31'

Device	Routing	Invert	Outlet Devices
#1	Primary	292.09'	15.0" Round Culvert
			L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 292.09' / 291.29' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=6.28 cfs @ 12.09 hrs HW=294.94' TW=293.57' (Dynamic Tailwater) 1=Culvert (Outlet Controls 6.28 cfs @ 5.11 fps)

### **Summary for Pond CB30: CB#30**

Inflow Area = 0.32 ac, 91.05% Impervious, Inflow Depth > 6.00" for 50-yr event

Inflow = 1.90 cfs @ 12.09 hrs, Volume= 0.161 af

Outflow = 1.90 cfs @ 12.09 hrs, Volume= 0.161 af, Atten= 0%, Lag= 0.0 min

Primary = 1.90 cfs @ 12.09 hrs, Volume= 0.161 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 295.20' @ 12.16 hrs

Flood Elev= 296.31'

Device	Routing	Invert	Outlet Devices
#1	Primary	292.30'	15.0" Round Culvert L= 22.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 292.30' / 292.19' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=294.21' TW=294.91' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

### **Summary for Pond CB4: CB#4**

Inflow Area = 0.82 ac, 72.75% Impervious, Inflow Depth > 4.94" for 50-yr event

Inflow = 3.94 cfs @ 12.09 hrs, Volume= 0.339 af

Outflow = 3.94 cfs @ 12.09 hrs, Volume= 0.339 af, Atten= 0%, Lag= 0.0 min

Primary = 3.94 cfs @ 12.09 hrs, Volume= 0.339 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 295.54' @ 12.15 hrs

Flood Elev= 298.00'

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Device	Routing	Invert	Outlet Devices
#1	Primary	294.24'	15.0" Round Culvert
			L= 80.9' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 294.24' / 292.58' S= 0.0205 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=2.39 cfs @ 12.09 hrs HW=295.32' TW=294.93' (Dynamic Tailwater) 1=Culvert (Outlet Controls 2.39 cfs @ 2.85 fps)

### **Summary for Pond CB5: CB#5**

Inflow Area = 0.53 ac, 77.00% Impervious, Inflow Depth > 5.18" for 50-yr event

Inflow = 2.67 cfs @ 12.09 hrs, Volume= 0.228 af

Outflow = 2.67 cfs @ 12.09 hrs, Volume= 0.228 af, Atten= 0%, Lag= 0.0 min

Primary = 2.67 cfs @ 12.09 hrs, Volume= 0.228 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 295.65' @ 12.19 hrs

Flood Elev= 298.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	294.56'	15.0" Round Culvert
			L= 22.0' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 294.56' / 294.34' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=2.14 cfs @ 12.09 hrs HW=295.55' TW=295.32' (Dynamic Tailwater) 1=Culvert (Outlet Controls 2.14 cfs @ 2.80 fps)

## **Summary for Pond CB80: CB#80**

Inflow Area = 0.64 ac, 56.11% Impervious, Inflow Depth > 5.20" for 50-yr event

Inflow = 3.37 cfs @ 12.09 hrs, Volume= 0.276 af

Outflow = 3.37 cfs @ 12.09 hrs, Volume= 0.276 af, Atten= 0%, Lag= 0.0 min

Primary = 3.37 cfs @ 12.09 hrs, Volume= 0.276 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 313.55' @ 12.16 hrs

Flood Elev= 314.01'

Device	Routing	Invert	Outlet Devices
#1	Primary	310.06'	15.0" Round Culvert
			L= 15.1' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 310.06' / 309.98' S= 0.0053 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=313.18' TW=313.27' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

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### **Summary for Pond CB800: CB#800**

Inflow Area = 0.27 ac, 72.99% Impervious, Inflow Depth > 5.22" for 50-yr event

Inflow = 1.38 cfs @ 12.09 hrs, Volume= 0.117 af

Outflow = 1.38 cfs @ 12.09 hrs, Volume= 0.117 af, Atten= 0%, Lag= 0.0 min

Primary = 1.38 cfs @ 12.09 hrs, Volume= 0.117 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 313.57' @ 12.21 hrs

Flood Elev= 314.01'

Device	Routing	Invert	Outlet Devices
#1	Primary	310.27'	15.0" Round Culvert
			L= 22.7' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 310.27' / 310.16' S= 0.0048 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=312.60' TW=313.13' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

### **Summary for Pond CB9: CB#9**

Inflow Area = 0.90 ac, 54.67% Impervious, Inflow Depth > 5.03" for 50-yr event

Inflow = 4.63 cfs @ 12.09 hrs, Volume= 0.379 af

Outflow = 4.63 cfs @ 12.09 hrs, Volume= 0.379 af, Atten= 0%, Lag= 0.0 min

Primary = 4.63 cfs @ 12.09 hrs, Volume= 0.379 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 315.27' @ 12.09 hrs

Flood Elev= 317.43'

Device	Routing	Invert	Outlet Devices
#1	Primary	314.04'	15.0" Round Culvert
			L= 203.6' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 314.04' / 310.50' S= 0.0174 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=4.53 cfs @ 12.09 hrs HW=315.24' TW=313.25' (Dynamic Tailwater) 1=Culvert (Inlet Controls 4.53 cfs @ 3.74 fps)

### **Summary for Pond CB90: CB#90**

Inflow Area = 0.31 ac, 72.11% Impervious, Inflow Depth > 4.90" for 50-yr event

Inflow = 1.49 cfs @ 12.09 hrs, Volume= 0.128 af

Outflow = 1.49 cfs @ 12.09 hrs, Volume= 0.128 af, Atten= 0%, Lag= 0.0 min

Primary = 1.49 cfs @ 12.09 hrs, Volume= 0.128 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 315.48' @ 12.12 hrs

Flood Elev= 317.72'

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Device	Routing	Invert	Outlet Devices
#1	Primary	314.74'	15.0" Round Culvert
			L= 29.8' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 314.74' / 314.14' S= 0.0201 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.15 cfs @ 12.09 hrs HW=315.44' TW=315.24' (Dynamic Tailwater) 1=Culvert (Outlet Controls 1.15 cfs @ 2.34 fps)

### **Summary for Pond DMH111: DMH#111**

Inflow Area = 1.47 ac, 47.09% Impervious, Inflow Depth > 4.95" for 50-yr event

Inflow = 7.51 cfs @ 12.09 hrs, Volume= 0.605 af

Outflow = 7.51 cfs @ 12.09 hrs, Volume= 0.605 af, Atten= 0%, Lag= 0.0 min

Primary = 7.51 cfs @ 12.09 hrs, Volume= 0.605 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 313.19' @ 12.35 hrs

Flood Elev= 314.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	309.79'	24.0" Round Culvert
			L= 40.3' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 309.79' / 309.59' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=312.64' TW=312.67' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs)

### **Summary for Pond DMH17: DMH#17**

Inflow Area = 3.19 ac, 41.78% Impervious, Inflow Depth > 4.74" for 50-yr event

Inflow = 14.58 cfs @ 12.11 hrs, Volume= 1.261 af

Outflow = 14.58 cfs @ 12.11 hrs, Volume= 1.261 af, Atten= 0%, Lag= 0.0 min

Primary = 14.58 cfs @ 12.11 hrs, Volume= 1.261 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 276.89' @ 12.13 hrs

Flood Elev= 279.48'

Device	Routing	Invert	Outlet Devices
#1	Primary	274.89'	24.0" Round Culvert
			L= 279.8' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 274.89' / 272.09' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=13.13 cfs @ 12.11 hrs HW=276.87' TW=275.06' (Dynamic Tailwater) 1=Culvert (Outlet Controls 13.13 cfs @ 5.26 fps)

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### **Summary for Pond DMH18: DMH#18**

Inflow Area = 2.45 ac, 33.78% Impervious, Inflow Depth > 4.63" for 50-yr event

Inflow = 10.98 cfs @ 12.12 hrs. Volume= 0.946 af

Outflow = 10.98 cfs @ 12.12 hrs, Volume= 0.946 af, Atten= 0%, Lag= 0.0 min

Primary = 10.98 cfs @ 12.12 hrs, Volume= 0.946 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 278.49' @ 12.12 hrs

Flood Elev= 281.88'

Device	Routing	Invert	Outlet Devices
#1	Primary	276.06'	18.0" Round Culvert
			L= 71.6' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 276.06' / 274.99' S= 0.0149 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=10.52 cfs @ 12.12 hrs HW=278.42' TW=276.87' (Dynamic Tailwater) 1=Culvert (Outlet Controls 10.52 cfs @ 5.96 fps)

### **Summary for Pond DMH2: DMH#2**

Inflow Area = 1.67 ac, 66.11% Impervious, Inflow Depth > 4.55" for 50-yr event

Inflow = 7.31 cfs @ 12.09 hrs, Volume= 0.635 af

Outflow = 7.31 cfs @ 12.09 hrs, Volume= 0.635 af, Atten= 0%, Lag= 0.0 min

Primary = 7.31 cfs @ 12.09 hrs, Volume= 0.635 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 293.67' @ 12.14 hrs

Flood Elev= 297.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	291.19'	18.0" Round Culvert
			L= 50.2' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 291.19' / 291.04' S= 0.0030 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=5.58 cfs @ 12.09 hrs HW=293.57' TW=293.14' (Dynamic Tailwater) 1=Culvert (Inlet Controls 5.58 cfs @ 3.16 fps)

## **Summary for Pond DMH8: DMH#8**

Inflow Area = 1.54 ac, 55.26% Impervious, Inflow Depth > 5.10" for 50-yr event

Inflow = 8.01 cfs @ 12.09 hrs, Volume= 0.655 af

Outflow = 8.01 cfs @ 12.09 hrs, Volume= 0.655 af, Atten= 0%, Lag= 0.0 min

Primary = 8.01 cfs @ 12.09 hrs, Volume= 0.655 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Peak Elev= 313.37' @ 12.12 hrs

Flood Elev= 314.00'

Prepared by KNA

Type III 24-hr 50-yr Rainfall=6.77" Printed 10/10/2022

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Device	Routing	Invert	Outlet Devices
#1	Primary	309.88'	18.0" Round Culvert
	-		L= 13.4' CPP, square edge headwall, Ke= 0.500
			Inlet / Outlet Invert= 309.88' / 309.81' S= 0.0052 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=6.48 cfs @ 12.09 hrs HW=313.26' TW=312.68' (Dynamic Tailwater) —1=Culvert (Inlet Controls 6.48 cfs @ 3.66 fps)

### Summary for Link A: Western Shadowbrook Drive Treatment Area

Inflow Area = 5.76 ac, 33.42% Impervious, Inflow Depth > 3.51" for 50-yr event

Inflow = 14.30 cfs @ 12.11 hrs, Volume= 1.687 af

Primary = 14.30 cfs @ 12.11 hrs, Volume= 1.687 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### Summary for Link B: pond at beginning of neighborhood

Inflow Area = 5.28 ac, 37.67% Impervious, Inflow Depth > 4.06" for 50-yr event

Inflow = 10.33 cfs @ 12.13 hrs, Volume= 1.788 af

Primary = 10.33 cfs @ 12.13 hrs, Volume= 1.788 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

### **Summary for Link C: Wetlands**

Inflow Area = 9.23 ac, 21.04% Impervious, Inflow Depth > 3.72" for 50-yr event

Inflow = 22.54 cfs @ 12.26 hrs, Volume= 2.862 af

Primary = 22.54 cfs @ 12.26 hrs, Volume= 2.862 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

