NHDES ALTERATION OF TERRAIN PERMIT APPLICATION & DRAINAGE ANALYSIS

Friars Drive

Map 209 Lot 001-000 Friars Drive – Sagamore Industrial Park Hudson, New Hampshire 03051

PREPARED FOR:

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PREPARED BY:



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Date: October 4, 2021



Table of Contents:



I. APPLICATION

- A. Copy of Signed Application
- B. Copy of Check
- C. USGS Map
- D. Copy of Proof of Delivery to Municipality
- E. Application Checklist

II. STORMWATER MANAGEMENT REPORT NARRATIVE

- A. Executive Summary
- B. Existing Site Conditions
- C. Proposed Site Conditions
- D. Stormwater Treatment
- E. Groundwater Recharge

III. SUPPLEMENTAL SITE REVIEW CRITERIA

- A. Web GIS Printout AoT Screening Layers & Surface Water Impairment
- B. NHB Letter
- C. Northeast Regional Climate Center Extreme Precipitation Tables
- D. Web Soil Survey Map
- E. Aerial Photograph
- F. Site Photographs
- G. Rip Rap Calculations

IV. STORMWATER ANALYSIS

- A. Groundwater Recharge Volume Calculations
- B. Best Management Practice Worksheets
 - i. PC-BMP Worksheet
 - ii. PC-Stage-Storage
 - iii. PD-BMP Worksheet
 - iv. PD-Stage-Storage
- C. Drainage Analysis
 - i. Pre-Development Drainage Diagram
 - ii. Pre-Development Area Listing and Soil Listing
 - iii. HydroCAD Output, Existing 2-Year Storm, Node List
 - iv. HydroCAD Output, Existing 10-Year Storm, Node List & Full Summary
 - v. HydroCAD Output, Existing 25-Year Storm, Node List & Full Summary

- vi. HydroCAD Output, Existing 50-Year Storm, Node List
- vii. Post-Development Drainage Diagram
- viii. Post-Development Area Listing and Soil Listing
- ix. HydroCAD Output, Proposed 2-Year Storm, Node List
- x. HydroCAD Output, Proposed 10-Year Storm, Node List & Full Summary
- xi. HydroCAD Output, Proposed 25-Year Storm, Node List & Full Summary
- xii. HydroCAD Output, Proposed 50-Year Storm, Node List

V. SITE SPECIFIC SOIL SURVEY REPORT

VI. MAINTENANCE AND INSPECTION

VII. INFILTRATION PRACTICE SUPPLEMENTAL CRITERIA

- A. Infiltration Feasibility Report
- B. Registration and Notification Form for Stormwater Infiltration

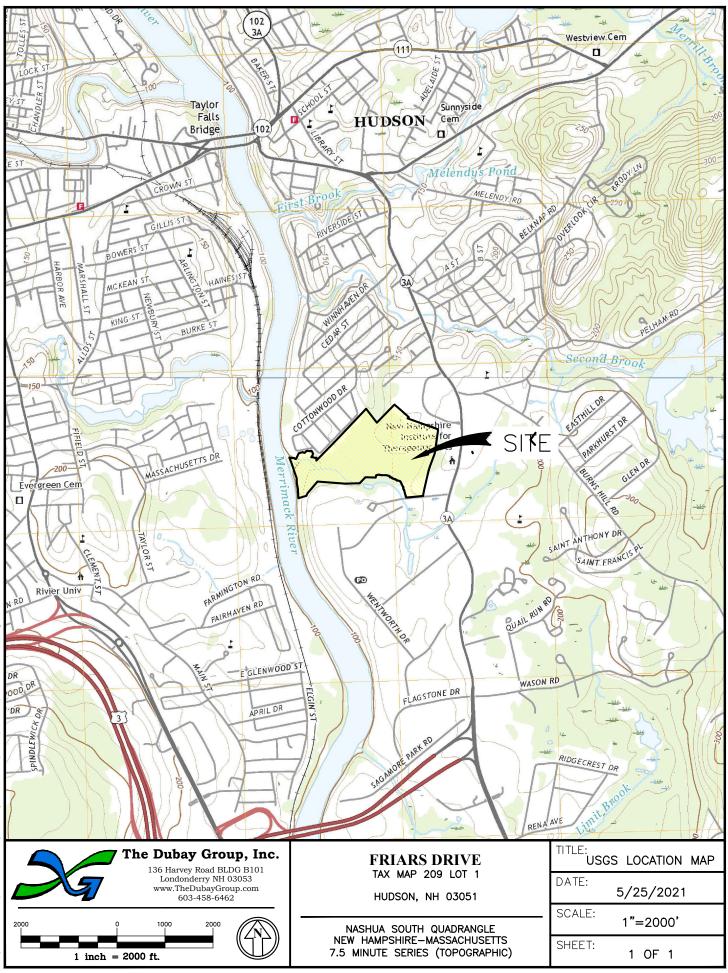
VIII. DRAINAGE AREA PLANS

- A. Project Area Plan
- B. Color Coded Soil Plan
- C. Pre-Development Drainage Area Plan
- D. Post-Development Drainage Area Plan

NHDES Alteration of Terrain

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I. STORMWATER MANAGEMENT REPORT NARRATIVE

A. Executive Summary

The purpose of this project is to develop Map 209 Lot 1, located on Friars Drive within the Sagamore Industrial Park in Hudson, New Hampshire. The project consists of one new commercial building. The site is located within the General and Industrial Zones, and the planned design meets Town Ordinances and Regulations. The site soils are SCS Hydrologic Soil Group "A". No wetlands or buffer impacts are proposed, no work is proposed along the Shoreland District.

The proposed drainage mitigation has been designed in accordance with NHDES requirements, specifically Chapter Env-Wq 1500. This design combines many Best Management Practices (BMP's) to collect, retain, treat, and infiltrate the stormwater. A detailed description of the BMP's used to treat the stormwater runoff and mitigation of the supplemental flow is outlined in the subsequent sections of the narrative and within other sections of this report.

B. Existing Site Conditions

The proposed project is located at Friars Drive in Hudson, NH. The site is mostly wooded with existing power line easements consuming the riverfront areas and existing sewer interceptor gravity main traversing the property.

Site location is detailed in *Section III. Supplemental Site Review Criteria* and consists of aerial photography, scs soil mapping, etc.

A Site-Specific Soil Survey was performed in 2021 by Gove Environmental Services, Inc. and our office. The site consists primarily of very well-drained soils. For the purposes of analysis, the proposed development area site soils are mainly classified as hydrologic group "A". A copy of the Site-Specific Soil Survey Report has been included in *Section V. Site Specific Soil Survey* of the report and color-coded soil map delineations have been included in *Section VIII. Drainage Area Plans* of the report.

Runoff from the site is directed primarily from the northeast toward the southwest. At most locations, the runoff naturally sheet flows across the site, following the undulating terrain, into areas that collect at the southern property line along Fuller Brook and to the westerly portions along the river. The area is primarily developed along both sides of the brook and river on adjacent parcels. Design points for a site are usually a wetland, swale, existing drainage structure, culvert, or simple area of natural sheet flow where a subject site discharges runoff onto an abutting property or right-of-way. These design points remain the same in the pre-and post-development conditions to provide a point of comparison in analyzing the peak runoff or volume change on a site. The design points evaluated in this report are summarized below:

Design Point #1: This design point is located at the northeast property corner where runoff

naturally sheet flows offsite to a natural depression.

<u>Design Point #2</u>: This design point is located at the Merrimack River. The area that flows to this design point remain undisturbed.

<u>Design Point # 3:</u> This design point is the main analysis point for the disturbed portion of the project located towards the western side of the property. The design point 3 is two (2) 4-foot culverts located in Fuller Brook.

<u>Design Point #4</u>: This design point is the northeastern property line which abuts single family residences.

<u>Design Point #5</u>: This design point is the norther portion of the property where Willard Street dead ends.

<u>Design Point #6</u>: This design point is located along the norther property line where the property abuts multi-family buildings.

C. Proposed Site Conditions

The proposed development consists of a single commercial 500 KSF and supporting infrastructure within the Sagamore Industrial Park. The soil for the majority of the property is excellent.

Much of the site drainage is collected via a closed drainage system which flows to two (2) infiltration ponds. The infiltration ponds provide treatment through ground infiltration as well as mitigate peak flows associated with large storm events. Emergency overflows are proposed to ensure the system functions properly during all storm events. The systems have been designed to fully mitigate the 50-year design storm (and other storms as required) for both peak flow and volume, as required by the Town of Hudson Stormwater Regulations and NHDES AOT Regulations.

The drainage tabulation on the following page outlines the pre- and post-development conditions. Runoff during post-development conditions have been decreased compared to the runoff from pre-development conditions in all design points except design point #2. This is simply due to a reduction of total area to that design point. The total runoff curve number (CN) is lowered by reducing the total area discharging to the design point, thus showing an increase in flows. There is a reduction in runoff to design point #3 and no discharge from the either pond during the 50-year storm event. The contributing area to design point #3 includes the majority of the proposed disturbed area.

NHDES Env-Wq 1507.06 - Peak Runoff Control, requires no increase in the peak flow rate of the site during the 2-year, 10-year, 25-year, and 50-year, 24-hour design storms for all design points on-site. Using the proposed infiltration practices and with the ability to store the excess runoff, the peak flows have been mitigated as required. The data provided demonstrates comparison of the pre- and post-development peak runoff flows.

Design	Existing Conditions	Developed Conditions	Change
Storm	Peak Flow Runoff Rate	Peak Flow Runoff Rate	0
		POINT #1	
	Node Label - L1	Node Label - L1	
2-Year	0.00	0.00	0.0
10-Year	0.00	0.00	0.0
25-Year	0.01	0.01	0.0
50-Year	0.03	0.03	0.0
		POINT #2	
	Node Label – L2	Node Label – L2	
2-Year	0.02	0.02	0.0
10-Year	0.71	0.98	0.27
25-Year	3.34	4.16	0.82
50-Year	8.18	9.98	1.80
		POINT #3	
	Node Label – L3	Node Label – L3	
2-Year	0.00	0.00	0.0
10-Year	0.10	0.08	-0.02
25-Year	0.69	0.45	-0.24
50-Year	2.53	1.81	-0.72
		POINT #4	
	Node Label – L4	Node Label – L4	
2-Year	0.00	0.00	0.0
10-Year	0.00	0.00	0.0
25-Year	0.03	0.02	-0.01
50-Year	0.13	0.11	-0.02
		POINT #5	
0 XX	Node Label – L5	Node Label – L5	0.0
2-Year	0.00	0.00	0.0
10-Year	0.00	0.00	0.0
25-Year	0.02	0.01	-0.01
50-Year	0.10	0.04	-0.06
	DESIGN Node Label – L5	POINT #5 Node Label – L5	
2-Year	0.00	0.00	0.0
10-Year	0.00	0.00	0.0
25-Year	0.00	0.00	0.0
50-Year	0.01	0.01	0.0

Table 1- Pre vs. Post Runoff Analysis

NHDES Env-Wq 1507.05 – Channel Protection, requires mitigation to minimize the impact to downstream receiving waters and wetlands due to development. One acceptable approach is to show a reduction in runoff rate and not increase the post development volume over the pre-development volume by more than 0.1 acre-feet to the nearest water body during the 2-year storm event. All design points will show a reduction or equalization in runoff rate and volume for the proper design points.

Design	Existing Conditions	Developed Conditions	Changa
Storm	Peak Flow Runoff Volume	Peak Flow Runoff Volume	Change
	DESIG	GN POINT #1	
	Node Label - L1	Node Label - L1	
2-Year	0.0	0.0	0.0
	DESIG	GN POINT #2	
	Node Label – L2	Node Label – L2	
2-Year	546 (0.013 a-f)	618 (0.014 a-f)	+72 (0.001 a-f)
	DESIG	GN POINT #3	
	Node Label – L3	Node Label – L3	
2-Year	0.0	0.0	0.0
	DESIG	GN POINT #4	
	Node Label – L4	Node Label – L4	
2-Year	0.0	0.0	0.0
		GN POINT #5	
	Node Label – L5	Node Label – L5	
2-Year	0.0	0.0	0.0
		GN POINT #6	
		Node Label – L6	
2-Year	0.0	0.0	0.0

Table 2- Pre vs. Post Runoff Volume Analysis

D. Stormwater Treatment

In the design of the subject site, utilizing approved Best Management Practices (BMP's) is critical in minimizing pollutant discharge to the various surface waters. This site has been designed in accordance with NHDES Env-Wq 1500 to meet the requirements for stormwater treatment. There are many acceptable methods to provide adequate treatment. This site utilizes pollutant removal through absorption of pollutants onto soil particles and biological/chemical uptake or decomposition within the infiltration practices and the in-situ soils to meet treatment. Additionally, the site utilizes detention practices (ponds) for portions of the site to detain the runoff, which allows for settling of particles/pollutants, and to meter the flow to the design points. Separate NHDES BMP worksheets are provided for each treatment practice within *Section IV. Stormwater Analysis* of the report.

E. Groundwater Recharge

In an effort to reduce the amount of runoff produced from a developed site, it is important to recharge water where possible. NHDES requires a calculated volume of water from a developed site be recharged. This volume is based on the area of development and the type of soils within that area. A copy of the Groundwater Recharge Volume (GRV) worksheet has been included within *Section IV. Stormwater Analysis* of the report.

Groundwater recharge is met by designing infiltration within multiple ponds. An acceptable way to confirm groundwater recharge is to use the 2-year discarded flow amount on-site. The discarded flows are outlined. Collectively, this results in an extensive volume of discarded flow

at the 2-year storm event. This exceeds the minimum requirements for the required gallons of storage.

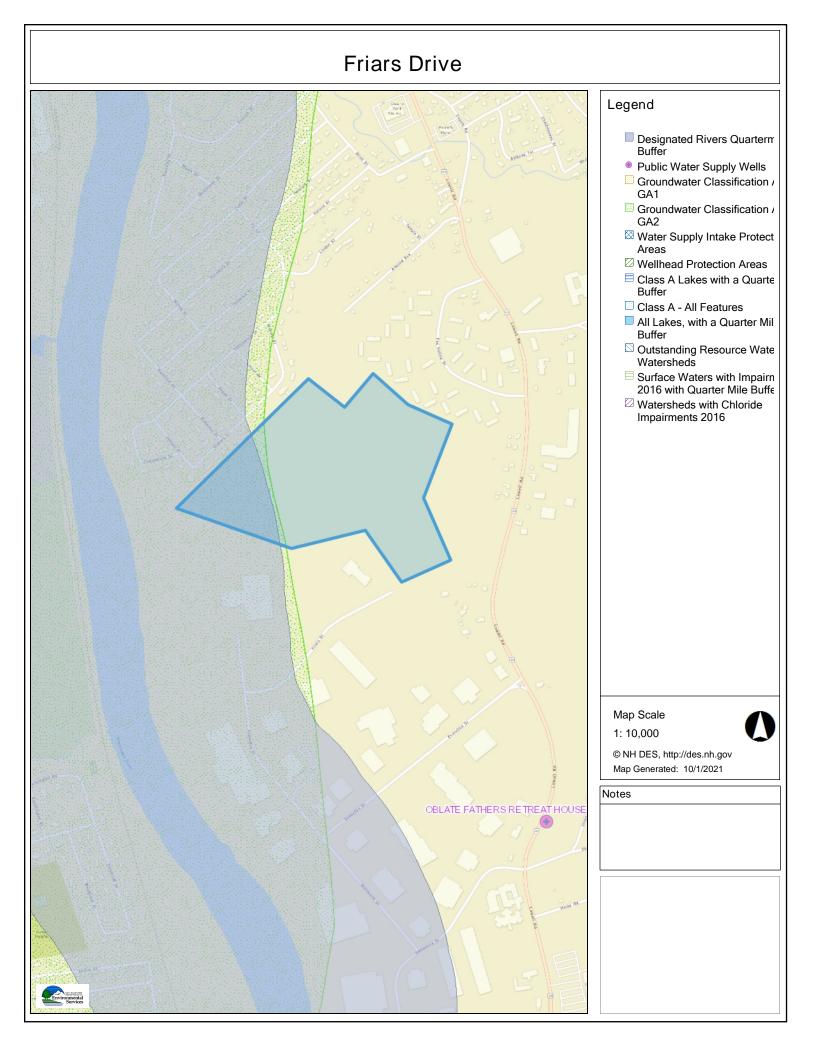
Pond	2-Year Discarded Volume (CF/ <i>Gal</i>)	10-Year Discarded Volume (CF/ <i>Gal</i>)	25-Year Discarded Volume (CF/ <i>Gal</i>)	50-Year Discarded Volume (CF/ <i>Gal</i>)
Infiltration	114,126	190,068	225,151	248,075
Pond - PC	853,721	1,421,807	1,684,246	1,855,730
Infiltration	121,138	164,971	192,468	213,535
Pond - PD	906,175	1,124,069	1,439,761	1,597,353
<u>Total</u>	235,264 CF 1,759,896 Gal	355,039 CF 2,545,876 Gal	417,619 CF 3,124,007 Gal	461,610 CF 3,453,265 Gal

Table 3- Pre vs. Post Discarded Volume Analysis

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Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Smoothing	Yes
State	New Hampshire
Location	
Longitude	71.432 degrees West
Latitude	42.745 degrees North
Elevation	0 feet
Date/Time	Tue, 25 May 2021 08:30:32 -0400

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.27	0.42	0.52	0.68	0.85	1.07	1yr	0.74	1.01	1.24	1.56	1.97	2.48	2.72	1yr	2.20	2.62	3.05	3.74	4.36	1yr
2yr	0.33	0.51	0.64	0.84	1.06	1.33	2yr	0.91	1.22	1.53	1.91	2.38	2.96	3.29	2yr	2.62	3.17	3.68	4.40	5.00	2yr
5yr	0.39	0.61	0.77	1.03	1.32	1.67	5yr	1.14	1.52	1.94	2.42	3.01	3.74	4.19	5yr	3.31	4.03	4.66	5.53	6.25	5yr
10yr	0.44	0.70	0.88	1.20	1.56	1.99	10yr	1.34	1.80	2.32	2.91	3.61	4.47	5.02	10yr	3.95	4.83	5.57	6.57	7.40	10yr
25yr	0.53	0.84	1.06	1.47	1.95	2.51	25yr	1.68	2.25	2.93	3.68	4.58	5.65	6.40	25yr	5.00	6.15	7.07	8.26	9.26	25yr
50yr	0.59	0.95	1.22	1.71	2.31	3.01	50yr	1.99	2.67	3.53	4.43	5.49	6.75	7.68	50yr	5.97	7.39	8.47	9.82	10.98	50yr
100yr	0.68	1.10	1.42	2.01	2.74	3.59	100yr	2.36	3.17	4.21	5.30	6.57	8.07	9.23	100yr	7.14	8.88	10.15	11.69	13.01	100yr
200yr	0.77	1.26	1.64	2.35	3.25	4.29	200yr	2.80	3.76	5.04	6.36	7.88	9.64	11.10	200yr	8.54	10.68	12.16	13.92	15.43	200yr
500yr	0.93	1.53	2.00	2.90	4.07	5.42	500yr	3.52	4.71	6.39	8.07	10.00	12.23	14.17	500yr	10.82	13.63	15.47	17.53	19.35	500yr

Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.23	0.35	0.42	0.57	0.70	0.80	1yr	0.61	0.79	1.06	1.33	1.68	2.29	2.56	1yr	2.03	2.46	2.72	3.02	3.78	1yr
2yr	0.32	0.49	0.60	0.81	1.00	1.20	2yr	0.87	1.18	1.37	1.79	2.30	2.90	3.21	2yr	2.57	3.09	3.58	4.29	4.89	2yr
5yr	0.36	0.56	0.69	0.95	1.20	1.42	5yr	1.04	1.39	1.63	2.12	2.70	3.51	3.91	5yr	3.11	3.76	4.30	5.17	5.86	5yr
10yr	0.40	0.61	0.75	1.05	1.36	1.61	10yr	1.18	1.57	1.82	2.39	3.05	4.06	4.53	10yr	3.59	4.36	4.95	5.92	6.70	10yr
25yr	0.45	0.69	0.85	1.22	1.60	1.88	25yr	1.38	1.84	2.14	2.82	3.55	4.91	5.53	25yr	4.35	5.32	5.95	7.10	8.00	25yr
50yr	0.49	0.75	0.93	1.34	1.80	2.13	50yr	1.55	2.09	2.42	3.20	4.00	5.69	6.44	50yr	5.03	6.20	6.85	8.15	9.14	50yr
100yr	0.54	0.81	1.02	1.47	2.01	2.41	100yr	1.74	2.36	2.73	3.49	4.50	6.52	7.54	100yr	5.77	7.25	7.90	9.37	10.42	100yr
200yr	0.59	0.89	1.12	1.63	2.27	2.73	200yr	1.96	2.67	3.07	3.95	5.10	7.55	8.82	200yr	6.68	8.48	9.11	10.77	11.91	200yr
500yr	0.67	1.00	1.28	1.86	2.65	3.23	500yr	2.28	3.16	3.61	4.65	6.04	9.18	10.92	500yr	8.13	10.50	10.99	12.94	14.19	500yr

Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.31	0.48	0.58	0.78	0.96	1.13	1yr	0.83	1.10	1.28	1.66	2.10	2.64	2.88	1yr	2.33	2.77	3.42	4.21	4.78	1yr
2yr	0.35	0.54	0.67	0.91	1.12	1.31	2yr	0.97	1.29	1.49	1.93	2.48	3.06	3.40	2yr	2.71	3.27	3.79	4.51	5.15	2yr
5yr	0.44	0.67	0.83	1.15	1.46	1.68	5yr	1.26	1.64	1.90	2.44	3.06	4.02	4.53	5yr	3.56	4.36	5.01	5.93	6.66	5yr
10yr	0.53	0.81	1.00	1.40	1.81	2.05	10yr	1.56	2.00	2.32	2.92	3.64	4.97	5.63	10yr	4.40	5.41	6.20	7.28	8.12	10yr
25yr	0.68	1.03	1.28	1.83	2.41	2.66	25yr	2.08	2.60	3.00	3.70	4.54	6.58	7.51	25yr	5.83	7.22	8.25	9.56	10.59	25yr
50yr	0.82	1.25	1.55	2.23	3.00	3.24	50yr	2.59	3.17	3.65	4.43	5.37	8.15	9.34	50yr	7.21	8.98	10.22	11.76	12.95	50yr
100yr	1.00	1.51	1.89	2.73	3.75	3.96	100yr	3.23	3.88	4.45	5.50	6.37	10.17	11.60	100yr	9.00	11.15	12.68	14.48	15.86	100yr
200yr	1.21	1.83	2.32	3.35	4.68	4.84	200yr	4.03	4.73	5.41	6.61	7.55	12.60	14.40	200yr	11.15	13.85	15.73	17.83	19.43	200yr
500yr	1.58	2.36	3.03	4.41	6.27	6.28	500yr	5.41	6.14	7.03	8.46	9.45	16.73	19.13	500yr	14.81	18.40	20.93	23.49	25.41	500yr





United States Department of Agriculture

Natural Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants Custom Soil Resource Report for Hillsborough County, New Hampshire, Eastern Part



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/? cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

Preface	2
How Soil Surveys Are Made	
Soil Map	
Soil Map	
Legend	10
Map Unit Legend	
Map Unit Descriptions	
Hillsborough County, New Hampshire, Eastern Part	
HsC—Hinckley loamy sand, 8 to 15 percent slopes	14
Om—Occum fine sandy loam, high bottom	15
PiA—Pipestone loamy sand, 0 to 3 percent slopes	
W—Water (less than 40 acres)	
WdB—Windsor loamy sand, 3 to 8 percent slopes	
WdC—Windsor loamy sand, 8 to 15 percent slopes	19
WdD—Windsor loamy sand, 15 to 35 percent slopes	20
References	23

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



	MAP L	EGEND)	MAP INFORMATION
	erest (AOI) Area of Interest (AOI)	8	Spoil Area Stony Spot	The soil surveys that comprise your AOI were mapped at 1:20,000.
Soils	Soil Map Unit Polygons Soil Map Unit Lines Soil Map Unit Points	Ø0 ♥ △	Very Stony Spot Wet Spot Other	Warning: Soil Map may not be valid at this scale. Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil
്യ	Point Features Blowout	✓ Water Fea	Special Line Features atures Streams and Canals	line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.
⊠ × ◇	Borrow Pit Clay Spot Closed Depression	Transport	t ation Rails Interstate Highways	Please rely on the bar scale on each map sheet for map measurements.
:	Gravel Pit Gravelly Spot	~	US Routes Major Roads	Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)
ید ۸	Landfill Lava Flow Marsh or swamp	Backgrou	Local Roads I nd Aerial Photography	Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more
* 0 0	Mine or Quarry Miscellaneous Water Perennial Water			accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.
~ +	Rock Outcrop Saline Spot			Soil Survey Area: Hillsborough County, New Hampshire, Eastern Part Survey Area Data: Version 22, May 29, 2020
:: = 0	Sandy Spot Severely Eroded Spot Sinkhole			Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.
) S	Slide or Slip Sodic Spot			Date(s) aerial images were photographed: May 22, 2015—Jun 14, 2017 The orthophoto or other base map on which the soil lines were
				compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
HsC	Hinckley loamy sand, 8 to 15 percent slopes	20.2	28.8%
Om	Occum fine sandy loam, high bottom	5.1	7.3%
PiA	Pipestone loamy sand, 0 to 3 percent slopes	0.5	0.7%
W	Water (less than 40 acres)	0.2	0.3%
WdB	Windsor loamy sand, 3 to 8 percent slopes	35.2	50.2%
WdC	Windsor loamy sand, 8 to 15 percent slopes	5.1	7.3%
WdD	Windsor loamy sand, 15 to 35 percent slopes	3.8	5.4%
Totals for Area of Interest		70.1	100.0%

Map Unit Legend

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor

components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Hillsborough County, New Hampshire, Eastern Part

HsC—Hinckley loamy sand, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2svm9 Elevation: 0 to 1,480 feet Mean annual precipitation: 36 to 71 inches Mean annual air temperature: 39 to 55 degrees F Frost-free period: 140 to 240 days Farmland classification: Not prime farmland

Map Unit Composition

Hinckley and similar soils: 85 percent *Minor components:* 15 percent *Estimates are based on observations, descriptions, and transects of the mapunit.*

Description of Hinckley

Setting

Landform: Kames, kame terraces, moraines, outwash deltas, eskers, outwash terraces, outwash plains

Landform position (two-dimensional): Shoulder, toeslope, footslope, backslope Landform position (three-dimensional): Nose slope, side slope, crest, head slope, riser

Down-slope shape: Linear, concave, convex

Across-slope shape: Convex, linear, concave

Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 8 inches: loamy sand

Bw1 - 8 to 11 inches: gravelly loamy sand

Bw2 - 11 to 16 inches: gravelly loamy sand

BC - 16 to 19 inches: very gravelly loamy sand

C - 19 to 65 inches: very gravelly sand

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water capacity: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 4e Hydrologic Soil Group: A *Ecological site:* F144AY022MA - Dry Outwash *Hydric soil rating:* No

Minor Components

Windsor

Percent of map unit: 5 percent

Landform: Kames, kame terraces, moraines, outwash deltas, eskers, outwash terraces, outwash plains

Landform position (two-dimensional): Shoulder, backslope, footslope, toeslope Landform position (three-dimensional): Nose slope, side slope, crest, head slope, riser

Down-slope shape: Linear, concave, convex *Across-slope shape:* Convex, linear, concave

Hydric soil rating: No

Sudbury

Percent of map unit: 5 percent Landform: Kame terraces, moraines, outwash deltas, outwash terraces, outwash plains Landform position (two-dimensional): Backslope, footslope Landform position (three-dimensional): Base slope, tread Down-slope shape: Concave, linear Across-slope shape: Linear, concave

Hydric soil rating: No

Merrimac

Percent of map unit: 5 percent

Landform: Kames, moraines, eskers, outwash terraces, outwash plains Landform position (two-dimensional): Shoulder, backslope, footslope, toeslope Landform position (three-dimensional): Side slope, crest, head slope, nose slope, riser

Down-slope shape: Convex *Across-slope shape:* Convex *Hydric soil rating:* No

Om—Occum fine sandy loam, high bottom

Map Unit Setting

National map unit symbol: 9fd7 Elevation: 100 to 520 feet Mean annual precipitation: 44 to 47 inches Mean annual air temperature: 48 degrees F Frost-free period: 155 to 160 days Farmland classification: Prime farmland if protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Occum and similar soils: 85 percent Minor components: 15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Occum

Setting

Parent material: Sandy and/or coarse-loamy alluvium derived from granite, gneiss or schist

Typical profile

H1 - 0 to 9 inches: fine sandy loam *H2 - 9 to 25 inches:* fine sandy loam *H3 - 25 to 60 inches:* loamy fine sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 48 to 72 inches
Frequency of flooding: RareNone
Frequency of ponding: None
Available water capacity: Low (about 5.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 1 Hydrologic Soil Group: B Ecological site: F144AY010NH - Sandy High Floodplain Hydric soil rating: No

Minor Components

Pootatuck

Percent of map unit: 15 percent *Hydric soil rating:* No

PiA—Pipestone loamy sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 9fdl Elevation: 0 to 1,000 feet Mean annual precipitation: 27 to 55 inches Mean annual air temperature: 45 to 52 degrees F Frost-free period: 120 to 200 days Farmland classification: Not prime farmland

Map Unit Composition

Pipestone and similar soils: 90 percent *Minor components:* 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pipestone

Setting

Landform: Outwash terraces *Parent material:* Sandy outwash derived mainly from granite, gneiss and schist

Typical profile

H1 - 0 to 9 inches: loamy sand
H2 - 9 to 22 inches: sand
H3 - 22 to 61 inches: coarse sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 4w Hydrologic Soil Group: A/D Ecological site: F144AY027MA - Moist Sandy Outwash Hydric soil rating: Yes

Minor Components

Saugatuck

Percent of map unit: 5 percent Landform: Outwash terraces Hydric soil rating: Yes

Deerfield

Percent of map unit: 5 percent Hydric soil rating: No

W—Water (less than 40 acres)

Map Unit Composition

Water < 40: 100 percent *Estimates are based on observations, descriptions, and transects of the mapunit.*

WdB—Windsor loamy sand, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2svkf Elevation: 0 to 1,210 feet Mean annual precipitation: 36 to 71 inches Mean annual air temperature: 39 to 55 degrees F Frost-free period: 140 to 240 days Farmland classification: Farmland of local importance

Map Unit Composition

Windsor, loamy sand, and similar soils: 85 percent Minor components: 15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Windsor, Loamy Sand

Setting

Landform: Deltas, outwash terraces, dunes, outwash plains Landform position (three-dimensional): Riser, tread Down-slope shape: Linear, convex Across-slope shape: Linear, convex Parent material: Loose sandy glaciofluvial deposits derived from granite and/or loose sandy glaciofluvial deposits derived from schist and/or loose sandy

loose sandy glaciofluvial deposits derived from schist and/or loose sandy glaciofluvial deposits derived from gneiss

Typical profile

O - 0 to 1 inches: moderately decomposed plant material

A - 1 to 3 inches: loamy sand

Bw - 3 to 25 inches: loamy sand

C - 25 to 65 inches: sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water capacity: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 2s Hydrologic Soil Group: A Ecological site: F144AY022MA - Dry Outwash Hydric soil rating: No

Minor Components

Hinckley, loamy sand

Percent of map unit: 10 percent Landform: Kames, deltas, eskers, outwash plains Landform position (two-dimensional): Summit, shoulder, backslope Landform position (three-dimensional): Nose slope, side slope, crest, head slope, rise Down-slope shape: Convex Across-slope shape: Convex, linear Hydric soil rating: No

Deerfield, loamy sand

Percent of map unit: 5 percent Landform: Terraces, deltas, outwash plains Landform position (two-dimensional): Footslope Landform position (three-dimensional): Tread, talf Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

WdC—Windsor loamy sand, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2svkq Elevation: 0 to 1,260 feet Mean annual precipitation: 36 to 71 inches Mean annual air temperature: 39 to 55 degrees F Frost-free period: 140 to 240 days Farmland classification: Not prime farmland

Map Unit Composition

Windsor and similar soils: 85 percent *Minor components:* 15 percent *Estimates are based on observations, descriptions, and transects of the mapunit.*

Description of Windsor

Setting

Landform: — error in exists on — Landform position (two-dimensional): Summit, shoulder, backslope Landform position (three-dimensional): Side slope, riser Down-slope shape: Convex Across-slope shape: Linear, convex

Parent material: Loose sandy glaciofluvial deposits derived from granite and/or loose sandy glaciofluvial deposits derived from schist and/or loose sandy glaciofluvial deposits derived from gneiss

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

Ap - 1 to 11 inches: loamy sand *Bw* - 11 to 31 inches: loamy sand *C* - 31 to 65 inches: sand

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water capacity: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 3e Hydrologic Soil Group: A Ecological site: F144AY022MA - Dry Outwash Hydric soil rating: No

Minor Components

Hinckley

Percent of map unit: 10 percent Landform: Kames, deltas, eskers, outwash plains Landform position (two-dimensional): Summit, shoulder, backslope Landform position (three-dimensional): Crest, head slope, nose slope, side slope, rise Down-slope shape: Convex Across-slope shape: Convex, linear Hydric soil rating: No

Deerfield

Percent of map unit: 5 percent Landform: Terraces, deltas, outwash plains Landform position (two-dimensional): Footslope Landform position (three-dimensional): Tread, talf Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

WdD—Windsor loamy sand, 15 to 35 percent slopes

Map Unit Setting

National map unit symbol: 2svl4 Elevation: 0 to 680 feet Mean annual precipitation: 36 to 71 inches *Mean annual air temperature:* 39 to 55 degrees F *Frost-free period:* 140 to 240 days *Farmland classification:* Not prime farmland

Map Unit Composition

Windsor and similar soils: 90 percent *Minor components:* 10 percent *Estimates are based on observations, descriptions, and transects of the mapunit.*

Description of Windsor

Setting

Landform: Deltas, outwash terraces, dunes, outwash plains Landform position (three-dimensional): Riser, tread Down-slope shape: Linear, convex Across-slope shape: Linear, convex

Parent material: Loose sandy glaciofluvial deposits derived from granite and/or loose sandy glaciofluvial deposits derived from schist and/or loose sandy glaciofluvial deposits derived from gneiss

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 3 inches: loamy sand

Bw - 3 to 25 inches: loamy sand

C - 25 to 65 inches: sand

Properties and qualities

Slope: 15 to 35 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water capacity: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 4e Hydrologic Soil Group: A Ecological site: F144AY022MA - Dry Outwash Hydric soil rating: No

Minor Components

Hinckley

Percent of map unit: 5 percent Landform: Kames, deltas, eskers, outwash plains Landform position (two-dimensional): Summit, shoulder, backslope Landform position (three-dimensional): Nose slope, side slope, crest, head slope, rise Down-slope shape: Convex Across-slope shape: Convex, linear Hydric soil rating: No

Merrimac

Percent of map unit: 5 percent Landform: Kames, moraines, eskers, outwash terraces, stream terraces, outwash plains Landform position (three-dimensional): Rise Down-slope shape: Convex Across-slope shape: Convex Hydric soil rating: No

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 1 inch = 500 ft.

TAX MAP 209 LOT 1 HUDSON, NH 03051

TITLE: AERIAL	LOCATION N	<i>I</i> AP
DATE:	5/25/2021	
SCALE:	1"=500'	
SHEET:	1 OF 1	

NHDES Alteration of Terrain

IV. STORMWATER ANALYSIS

- A. Groundwater Recharge Volume Calculations
- B. Best Management Practice Worksheets
 - i. PC-Stage-Storage
 - ii. PD-BMP Worksheet
 - iii. PD-Stage-Storage
 - iv. PD-BMP Worksheet
- C. Drainage Analysis
 - i. Pre-Development Drainage Diagram
 - ii. Pre-Development Area Listing and Soil Listing
 - iii. HydroCAD Output, Existing 2-Year Storm, Node List
 - iv. HydroCAD Output, Existing 10-Year Storm, Node List & Full Summary
 - v. HydroCAD Output, Existing 25-Year Storm, Node List & Full Summary
 - vi. HydroCAD Output, Existing 50-Year Storm, Node List
 - vii. Post-Development Drainage Diagram
 - viii. Post-Development Area Listing and Soil Listing
 - ix. HydroCAD Output, Proposed 2-Year Storm, Node List
 - x. HydroCAD Output, Proposed 10-Year Storm, Node List & Full Summary
 - xi. HydroCAD Output, Proposed 25-Year Storm, Node List & Full Summary
 - xii. HydroCAD Output, Proposed 50-Year Storm, Node List

RIP RAP OUTLET PROTECTION CALCULATIONS

161 LOWELL ROAD HUDSON, NH TDG PROJECT #475

The purpose of this spreadsheet is to calculate the dimensions of rip rap required to help prevent soil loss for the 25-year storm event

Input values required are:

Q = peak flow, CFS Do = diameter of outlet or width of channel, ft Tw = tailwater at end of apron, ft

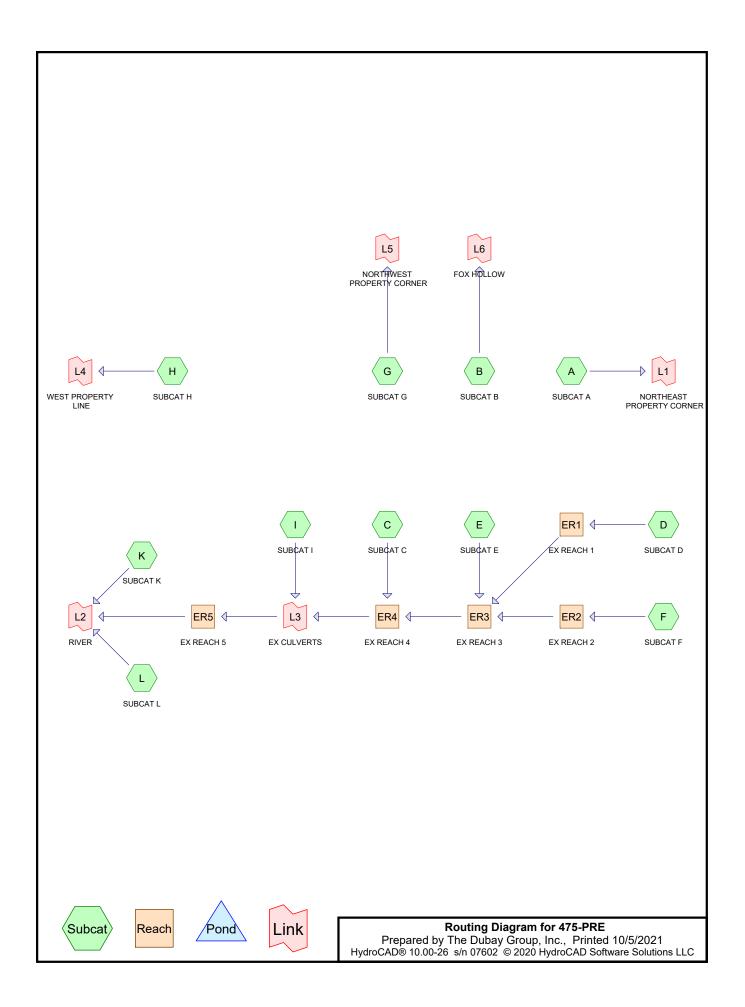
Depending on the tailwater conditions, one of the following formulas is used:

	Tw < 1/2Do	<u>OR</u>	$Tw \ge 1/2Do$
	\checkmark		\checkmark
Length of Apron (L	a): La = 1.8Q/(Do) ^{1.5} +7Do		$La = 3.0Q/(Do)^{1.5}+7Do$
	\checkmark		\checkmark
Width of Apron:	W1=3*Do		W1=3*Do

If defined channel, use channel width for W1 and W2

 $d50 = (0.02 * Q^{1.3})/(Tw*Do)$

											Ripra	ap Grada	tion Env	relope	Riprap
		In	put Valı	ies		Calc	ulated Ou	ıtput		Use	d100	d85	d50	d15	Depth
Structure & Description			Do (ft)	Tw (ft)	La	W1	W2	d50, ft	d50, in	d50 in.	in.	in.	in.	in.	in.
FES-E1	Culvert from CB-E3	9.77	2.00	1.56	24	6	16	0.1	1.49	6	9	8	6	3	15
FES-E2	Culvert from CB-E11	21.16	2.50	2.50	34	8	21	0.2	2.03	6	9	8	6	3	15
FES-E3	Culvert from CB-E10	32.14	3.50	3.50	39	11	26	0.1	1.78	6	9	8	6	3	15
FES-D1	Culvert from DMH-D4	22.91	2.50	2.44	35	8	21	0.2	2.31	6	9	8	6	3	15
FES-D2	Culvert from CB-D11	14.26	2.00	1.87	29	6	18	0.2	2.03	6	9	8	6	3	15
FES-D3	Culvert from OCS-D1	0.00	2.00	0.00	14	6	20	0.0	0.00	6	9	8	6	3	15
FES-C1	Culvert from DMH-C10	31.26	3.00	2.55	39	9	25	0.2	2.75	6	9	8	6	3	15
FES-C2	Culvert from DMH-C11	39.64	3.50	2.77	43	11	28	0.2	2.96	6	9	8	6	3	15
FES-C3	Culvert from OCS-C1	0.00	2.00	0.00	14	6	20	0.0	0.00	6	9	8	6	3	15



FRIARS DRIVE PRE-DEVELOPMENT

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Printed 10/5/2021 Page 2

Area Listing (all nodes)

CN	Description
	(subcatchment-numbers)
39	>75% Grass cover, Good, HSG A (A, D, F, H, K, L)
61	>75% Grass cover, Good, HSG B (K)
30	Brush, Good, HSG A (C, E, I)
48	Brush, Good, HSG B (L)
98	Ex. Building (K)
98	Ex. Pavement (F, K)
98	Ex. Wetland (C, E, F, I, K)
30	Woods, Good, HSG A (A, B, C, D, E, F, G, H, I, K, L)
55	Woods, Good, HSG B (K, L)
34	TOTAL AREA
	39 61 30 48 98 98 98 30 55

FRIARS DRIVE PRE-DEVELOPMENT

Printed 10/5/2021 Page 3

Soil Listing (all nodes)

Area	Soil	Subcatchment
(sq-ft)	Group	Numbers
3,364,021	HSG A	A, B, C, D, E, F, G, H, I, K, L
223,709	HSG B	K, L
0	HSG C	
0	HSG D	
91,485	Other	C, E, F, I, K
3,679,215		TOTAL AREA

	FRIARS DRIVE PRE-DEVELOPMENT
475-PRE	Type III 24-hr 2-YR Rainfall=2.96"
Prepared by The Dubay Group, Inc.	Printed 10/5/2021
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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-CN Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentA: SUBCATA	Runoff Area=64,784 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf
Subcatchment B: SUBCAT B	Runoff Area=24,585 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf
Subcatchment C: SUBCAT C	Runoff Area=889,364 sf 0.21% Impervious Runoff Depth=0.00" Tc=50.2 min CN=30 Runoff=0.00 cfs 0 cf
Subcatchment D: SUBCAT D	Runoff Area=202,103 sf 0.00% Impervious Runoff Depth=0.00" Flow Length=530' Tc=18.3 min CN=32 Runoff=0.00 cfs 0 cf
Subcatchment E: SUBCAT E	Runoff Area=301,475 sf 1.33% Impervious Runoff Depth=0.00" Flow Length=630' Tc=14.0 min CN=31 Runoff=0.00 cfs 0 cf
Subcatchment F: SUBCAT F	Runoff Area=272,134 sf 9.95% Impervious Runoff Depth=0.00" Flow Length=825' Tc=11.7 min CN=40 Runoff=0.00 cfs 0 cf
Subcatchment G: SUBCAT G	Runoff Area=181,015 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf
Subcatchment H: SUBCAT H	Runoff Area=253,913 sf 0.00% Impervious Runoff Depth=0.00" Flow Length=530' Tc=11.7 min CN=30 Runoff=0.00 cfs 0 cf
SubcatchmentI: SUBCATI	Runoff Area=858,258 sf 3.91% Impervious Runoff Depth=0.00" Flow Length=1,590' Tc=31.7 min CN=33 Runoff=0.00 cfs 0 cf
Subcatchment K: SUBCAT K	Runoff Area=318,471 sf 7.84% Impervious Runoff Depth>0.02" Flow Length=1,223' Tc=10.6 min CN=45 Runoff=0.02 cfs 546 cf
SubcatchmentL: SUBCATL	Runoff Area=313,113 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=39 Runoff=0.00 cfs 0 cf
Reach ER1: EX REACH 1	Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf n=0.030 L=755.0' S=0.0252 '/' Capacity=66.94 cfs Outflow=0.00 cfs 0 cf
Reach ER2: EX REACH 2	Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf n=0.030 L=260.0' S=0.0154 '/' Capacity=159.63 cfs Outflow=0.00 cfs 0 cf
Reach ER3: EX REACH 3	Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf n=0.030 L=256.0' S=0.0078 '/' Capacity=113.75 cfs Outflow=0.00 cfs 0 cf
Reach ER4: EX REACH 4	Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf n=0.030 L=1,291.0' S=0.0187 '/' Capacity=176.06 cfs Outflow=0.00 cfs 0 cf
Reach ER5: EX REACH 5	Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf n=0.030 L=1,085.0' S=0.0224 '/' Capacity=192.80 cfs Outflow=0.00 cfs 0 cf

	FRIARS DRIVE PRE-DEVELOPMENT
475-PRE	Type III 24-hr 2-YR Rainfall=2.96"
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Link L1: NORTHEAST PROPERTY CORNER	Inflow=0.00 cfs 0 cf
	Primary=0.00 cfs 0 cf
Link L2: RIVER	Inflow=0.02 cfs 546 cf
	Primary=0.02 cfs 546 cf
Link L3: EX CULVERTS	Inflow=0.00 cfs 0 cf
	Primary=0.00 cfs 0 cf
Link L4: WEST PROPERTY LINE	Inflow=0.00 cfs 0 cf
	Primary=0.00 cfs 0 cf
Link L5: NORTHWEST PROPERTY CORNER	Inflow=0.00 cfs 0 cf
	Primary=0.00 cfs 0 cf
Link L6: FOX HOLLOW	Inflow=0.00 cfs 0 cf
	Primary=0.00 cfs 0 cf

Total Runoff Area = 3,679,215 sf Runoff Volume = 546 cfAverage Runoff Depth = 0.00"97.51% Pervious = 3,587,730 sf2.49% Impervious = 91,485 sf

	FRIARS DRIVE PRE-DE	VELOPMENT
475-PRE	Type III 24-hr 2-YR R	ainfall=2.96"
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Summary for Subcatchment A: SUBCAT A

Runoff	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Depth= 0.00"
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Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
		835	39	>75% Gras	>75% Grass cover, Good, HSG A					
		63,949	30	Woods, Go	Noods, Good, HSG A					
*		0	98	Ex. Wetland	Ex. Wetland					
*		0	98	Ex. Building	Ex. Building					
*		0	98	Ex. Pavement						
		64,784	30) Weighted Average						
		64,784		100.00% Pervious Area						
	Tc (min)	Length (feet)		Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs)						
	6.0	6.0 Direct Entry,								
	Summary for Subcatchment B: SUBCAT B									

Runoff	=	0 00 cfs @	0.00 hrs, Volume=	0 cf, Depth= 0.00"
Nullon	_	0.00 CIS @		0 cl, Deptil- 0.00

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

	Area (sf)	CN	Description		
	0	39	>75% Gras	s cover, Go	ood, HSG A
	24,585	30	Woods, Go	od, HSG A	N
*	0	98	Ex. Wetland	ł	
*	0	98	Ex. Building	l	
*	0	98	Ex. Paveme	ent	
	24,585	30	Weighted A	verage	
	24,585		100.00% Pe	ervious Are	ea
_					
Т	5	Slop		Capacity	Description
(min) (feet)	(ft/f	t) (ft/sec)	(cfs)	
6.	C				Direct Entry,

Summary for Subcatchment C: SUBCAT C

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

475-PRE

0 cf, Depth= 0.00"

Page 7

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_	A	rea (sf)	CN	Description		
		10,208	30	Brush, Goo	d, HSG A	
	8	77,266	30	Woods, Goo	od, HSG A	N Contraction of the second
*		1,890	98	Ex. Wetland	l	
*		0	98	Ex. Building		
*		0	98	Ex. Paveme	ent	
		889,364 30 Weighted Average 887,474 99.79% Pervious Area				3
		1,890		0.21% Impe	rvious Area	a
_	Tc (min)	Length (feet)	Slop (ft/ft		Capacity (cfs)	Description
	50.2					Direct Entry,

Summary for Subcatchment D: SUBCAT D

Runoff =	0.00 cfs @	0.00 hrs,	Volume=
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Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-YR Rainfall=2.96"

	А	rea (sf)	CN E	escription		
		40,833	39 >	75% Grass	s cover. Go	bod, HSG A
		61,270			od, HSG A	
*		´ 0		x. Wetland	,	
*		0		x. Building	l	
*		0		x. Paveme		
_	2	02,103	32 V	Veighted A	verage	
		02,103		100.00% Pervious Area		a
	202,100		-			-
	Тс	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
_	7.4	50	0.0800	0.11	\$ *	Sheet Flow,
				••••		Woods: Light underbrush n= 0.400 P2= 2.95"
	0.9	100	0.1400	1.87		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	10.0	380	0.0160	0.63		Shallow Concentrated Flow,
						Woodland $Kv = 5.0 \text{ fps}$
_	18.3	530	Total			•

Summary for Subcatchment E: SUBCAT E

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

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475-PRE

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	A	rea (sf)	CN I	Description		
		13,501	30	Brush, Goo	d, HSG A	
	2	83,954	30	Noods, Go	od, HSG A	
*		4,020	98	Ex. Wetland	ł	
*		0	98	Ex. Building	1	
*		0	98	Ex. Paveme	ent	
	3	01,475		Neighted A		
	2	97,455	ę	98.67% Pei	vious Area	
		4,020		1.33% Impe	ervious Area	а
	Тс	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= 2.95"
	0.9	100	0.1400	1.87		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	6.4	330	0.0300	0.87		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	0.4	150	0.0200	6.50	182.01	Trap/Vee/Rect Channel Flow,
						Bot.W=25.00' D=1.00' Z= 3.0 '/' Top.W=31.00'
						n= 0.030
	14 0	630	Total			

14.0 630 Total

Summary for Subcatchment F: SUBCAT F

0 cf, Depth= 0.00"

Runoff = 0.00 cfs @ 0.00 hrs, Volume=

	A	rea (sf)	CN I	Description		
	1	02,210	39 >	>75% Gras	s cover, Go	ood, HSG A
	1	42,851	30 \	Noods, Go	od, HSG A	
*		15,394	98 I	Ex. Wetland	ł	
*		0	98 I	Ex. Building	1	
*		11,679	98 I	<u>Ex. Paveme</u>	ent	
	272,134 40 Weighted Average					
	245,061				vious Area	
		27,073	ę	9.95% Impe	ervious Area	а
	Тс	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	Description
_	6.3	<u>(1001)</u> 50	0.1200	0.13	(013)	Shoot Elow
	0.5	50	0.1200	0.15		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95"
	4.5	410	0.0930	1.52		Shallow Concentrated Flow,
	4.0	410	0.0000	1.02		Woodland Kv= 5.0 fps
	0.9	365	0.0200	6.50	182.01	Trap/Vee/Rect Channel Flow,
	,					Bot.W=25.00' D=1.00' Z= 3.0 '/' Top.W=31.00'
						n= 0.030
_	11.7	825	Total			

Summary for Subcatchment G: SUBCAT G

Runoff	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Depth= 0.00"
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Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
	0 39 >75% Grass cover, Good, HSG A									
	1	81,015	30	Woods, Go	od, HSG A					
*		0	98	Ex. Wetland	b					
*		0	98	Ex. Building	1					
*		0	98	Ex. Paveme	ent					
	1	181,015 30 Weighted Average								
	1	81,015		100.00% Pe		a				
	Tc (min)	Length (feet)	Slope (ft/ft	,	Capacity (cfs)	Description				
	6.0 Direct Entry,									
	Summary for Subcatchment H: SUBCAT H									

Runoff	_	0.00 cfs @	0.00 hrs, Volume=	0 cf, Depth= 0.00"
Runon	_	0.00 CIS @		0 cl, Deptil- 0.00

	A	rea (sf)	CN [Description					
	5,832 39 >75% Grass cover, Good, HSG A								
	2	48,081	30 \	Voods, Go	od, HSG A				
*		0	98 E	Ex. Wetland	ł				
*		0	98 E	98 Ex. Building					
*		0	98 E	Ex. Paveme	ent				
	2	53,913	30 \	Veighted A	verage				
	2	53,913		•	ervious Are	а			
	Tc	Length	Slope	Velocity	Capacity	Description			
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
_	4.5	50	0.2800	0.19		Sheet Flow,			
						Woods: Light underbrush n= 0.400 P2= 2.95"			
	7.2	480	0.0500	1.12		Shallow Concentrated Flow,			
						Woodland Kv= 5.0 fps			
	11.7	530	Total						

Summary for Subcatchment I: SUBCAT I

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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		
		35,941	30 E	Brush, Goo	d, HSG A	
	7	88,781	30 \	Voods, Go	od, HSG A	
*		33,536	98 I	Ex. Wetland	b	
*		0	98 I	Ex. Building	1	
*		0		Ex. Paveme		
_	8	58,258	33 \	Veighted A	verage	
	8	24,722	Ç	96.09% Pei	vious Area	
		33,536	3	3.91% Impe	ervious Area	a
	Тс	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	9.7	50	0.0400	0.09		Sheet Flow,
						Woods: Light underbrush n= 0.400 P2= 2.95"
	19.8	750	0.0160	0.63		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	0.3	40	0.2000	2.24		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	1.9	750	0.0200	6.50	182.01	Trap/Vee/Rect Channel Flow,
						Bot.W=25.00' D=1.00' Z= 3.0 '/' Top.W=31.00'
						n= 0.030
	31.7	1,590	Total			

Summary for Subcatchment K: SUBCAT K

Runoff = 0.02 cfs @ 17.20 hrs, Volume=

546 cf, Depth> 0.02"

	Area (sf)	CN	Description
	30,443	61	>75% Grass cover, Good, HSG B
	67,128	55	Woods, Good, HSG B
*	16,485	98	Ex. Wetland
*	7,709	98	Ex. Building
*	772	98	Ex. Pavement
	36,534	39	>75% Grass cover, Good, HSG A
	159,400	30	Woods, Good, HSG A
	318,471	45	Weighted Average
	293,505		92.16% Pervious Area
	24,966		7.84% Impervious Area

475-PRE

Page 11

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10.6 1,223 Total

Summary for Subcatchment L: SUBCAT L

Runoff	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Depth= 0.00"
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Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-YR Rainfall=2.96"

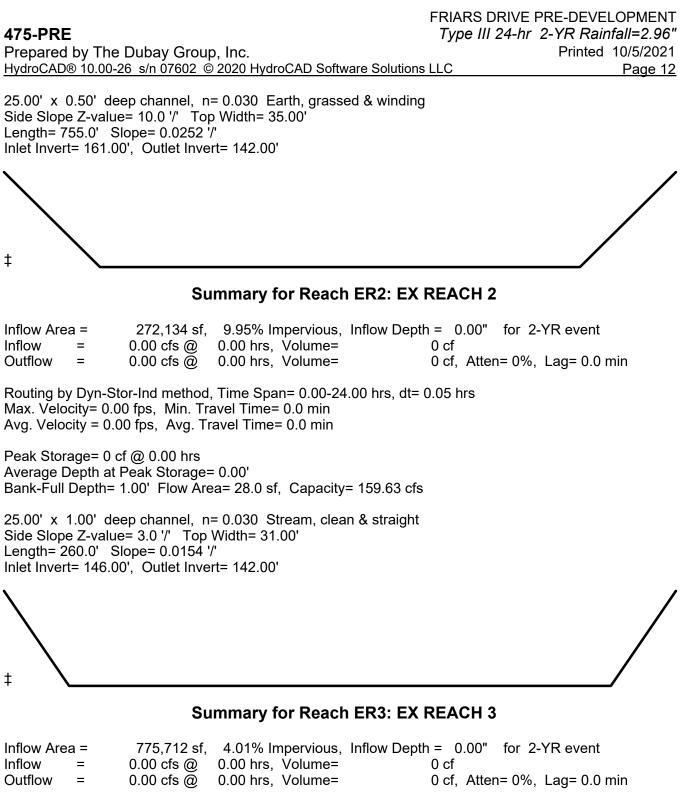
	Area (sf)	CN	Description
	75,110	48	Brush, Good, HSG B
	51,028	55	Woods, Good, HSG B
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	24,329	39	>75% Grass cover, Good, HSG A
	162,646	30	Woods, Good, HSG A
	313,113	39	Weighted Average
	313,113		100.00% Pervious Area
	Tc Length	Slop	be Velocity Capacity Description
(n	nin) (feet)	(ft/	ft) (ft/sec) (cfs)
	6.0		Direct Entry,

Summary for Reach ER1: EX REACH 1

Inflow Are	a =	202,103 sf,	0.00% Impervious,	Inflow Depth = 0.00"	for 2-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Outflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atter	n= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 0.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 0.50' Flow Area= 15.0 sf, Capacity= 66.94 cfs



Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 0.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 113.75 cfs

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Type III 24-hr 2-YR Rainfall=2.96"Prepared by The Dubay Group, Inc.Printed 10/5/2021HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLCPage 13

25.00' x 1.00' deep channel, n= 0.030 Stream, clean & straight Side Slope Z-value= 3.0 '/' Top Width= 31.00' Length= 256.0' Slope= 0.0078 '/' Inlet Invert= 142.00', Outlet Invert= 140.00'



Summary for Reach ER4: EX REACH 4

Inflow Are	a =	1,665,076 sf,	1.98% Impervious,	Inflow Depth = 0.00"	for 2-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Outflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atter	n= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 0.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 176.06 cfs

25.00' x 1.00' deep channel, n= 0.030 Stream, clean & straight Side Slope Z-value= 3.0 '/' Top Width= 31.00' Length= 1,291.0' Slope= 0.0187 '/' Inlet Invert= 140.00', Outlet Invert= 115.84'



Summary for Reach ER5: EX REACH 5

 Inflow Area =
 2,523,334 sf,
 2.64% Impervious, Inflow Depth =
 0.00" for 2-YR event

 Inflow =
 0.00 cfs @
 0.00 hrs, Volume=
 0 cf

 Outflow =
 0.00 cfs @
 0.00 hrs, Volume=
 0 cf, Atten= 0%, Lag= 0.0 min

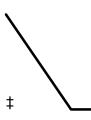
Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

475-PRE

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Peak Storage= 0 cf @ 0.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 192.80 cfs

25.00' x 1.00' deep channel, n= 0.030 Stream, clean & straight Side Slope Z-value= 3.0 '/' Top Width= 31.00' Length= 1,085.0' Slope= 0.0224 '/' Inlet Invert= 115.35', Outlet Invert= 91.00'



Summary for Link L1: NORTHEAST PROPERTY CORNER

Inflow Are	a =	64,784 sf,	0.00% Impervious,	Inflow Depth = 0.00"	for 2-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Primary	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atter	n= 0%, Lag= 0.0 min

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

Summary for Link L2: RIVER

Inflow Area	a =	3,154,918 sf,	2.90% Impervious,	Inflow Depth > 0.00)" for 2-YR event
Inflow	=	0.02 cfs @ 1	17.20 hrs, Volume=	546 cf	
Primary	=	0.02 cfs @ 1	17.20 hrs, Volume=	546 cf, At	ten= 0%, Lag= 0.0 min

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

Summary for Link L3: EX CULVERTS

Inflow Are	a =	2,523,334 sf,	2.64% Impervious,	Inflow Depth = 0.00"	for 2-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Primary	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atter	n= 0%, Lag= 0.0 min

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

Summary for Link L4: WEST PROPERTY LINE

Inflow Area = 253,913 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-YR event 0.00 hrs, Volume= Inflow = 0.00 cfs @ 0 cf 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min Primary =

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

475-PREFRIARS DRIVE PRE-DEVELOPMENT
Type III 24-hr 2-YR Rainfall=2.96"Prepared by The Dubay Group, Inc.Printed 10/5/2021HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLCPage 15

Summary for Link L5: NORTHWEST PROPERTY CORNER

Inflow Area	a =	181,015 sf,	0.00% Impervious,	Inflow Depth = 0.00"	for 2-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Primary	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atter	n= 0%, Lag= 0.0 min

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

Summary for Link L6: FOX HOLLOW

Inflow Area	a =	24,585 sf,	0.00% Impervious,	Inflow Depth = 0.00"	for 2-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Primary	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atter	n= 0%, Lag= 0.0 min

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

		VE PRE-DEVELOPMENT
475-PRE	Type III 24-I	hr 10-YR Rainfall=4.47"
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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-CN Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentA: SUBCAT	A Runoff Area=64,784 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf
Subcatchment B: SUBCA1	B Runoff Area=24,585 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf
Subcatchment C: SUBCA1	C Runoff Area=889,364 sf 0.21% Impervious Runoff Depth=0.00" Tc=50.2 min CN=30 Runoff=0.00 cfs 0 cf
Subcatchment D: SUBCA1	D Runoff Area=202,103 sf 0.00% Impervious Runoff Depth>0.00" Flow Length=530' Tc=18.3 min CN=32 Runoff=0.00 cfs 35 cf
Subcatchment E: SUBCAT	E Runoff Area=301,475 sf 1.33% Impervious Runoff Depth>0.00" Flow Length=630' Tc=14.0 min CN=31 Runoff=0.00 cfs 0 cf
Subcatchment F: SUBCAT	F Runoff Area=272,134 sf 9.95% Impervious Runoff Depth>0.13" Flow Length=825' Tc=11.7 min CN=40 Runoff=0.11 cfs 2,952 cf
Subcatchment G: SUBCA	GRunoff Area=181,015 sf0.00% ImperviousRunoff Depth=0.00"Tc=6.0 minCN=30Runoff=0.00 cfs0 cf
SubcatchmentH: SUBCAT	H Runoff Area=253,913 sf 0.00% Impervious Runoff Depth=0.00" Flow Length=530' Tc=11.7 min CN=30 Runoff=0.00 cfs 0 cf
SubcatchmentI: SUBCAT	Runoff Area=858,258 sf 3.91% Impervious Runoff Depth>0.01" Flow Length=1,590' Tc=31.7 min CN=33 Runoff=0.03 cfs 529 cf
Subcatchment K: SUBCA1	KRunoff Area=318,471 sf7.84% ImperviousRunoff Depth>0.29"Flow Length=1,223'Tc=10.6 minCN=45Runoff=0.71 cfs7,605 cf
SubcatchmentL: SUBCAT	L Runoff Area=313,113 sf 0.00% Impervious Runoff Depth>0.11" Tc=6.0 min CN=39 Runoff=0.10 cfs 2,756 cf
Reach ER1: EX REACH 1	Avg. Flow Depth=0.00' Max Vel=0.23 fps Inflow=0.00 cfs 35 cf n=0.030 L=755.0' S=0.0252 '/' Capacity=66.94 cfs Outflow=0.00 cfs 24 cf
Reach ER2: EX REACH 2	Avg. Flow Depth=0.01' Max Vel=0.35 fps Inflow=0.11 cfs 2,952 cf n=0.030 L=260.0' S=0.0154 '/' Capacity=159.63 cfs Outflow=0.11 cfs 2,913 cf
Reach ER3: EX REACH 3	Avg. Flow Depth=0.02' Max Vel=0.29 fps Inflow=0.11 cfs 2,938 cf n=0.030 L=256.0' S=0.0078 '/' Capacity=113.75 cfs Outflow=0.11 cfs 2,878 cf
Reach ER4: EX REACH 4	Avg. Flow Depth=0.01' Max Vel=0.36 fps Inflow=0.11 cfs 2,878 cf n=0.030 L=1,291.0' S=0.0187 '/' Capacity=176.06 cfs Outflow=0.10 cfs 2,671 cf
Reach ER5: EX REACH 5	Avg. Flow Depth=0.01' Max Vel=0.36 fps Inflow=0.10 cfs 3,200 cf n=0.030 L=1,085.0' S=0.0224 '/' Capacity=192.80 cfs Outflow=0.09 cfs 2,940 cf

475-PRE	Type III 24-hr 10-YR Rainfall=4.47"
Prepared by The Dubay Group, Inc.	Printed 10/5/2021
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Link L1: NORTHEAST PROPERTY CORNER	Inflow=0.00 cfs 0 cf
	Primary=0.00 cfs 0 cf
Link L2: RIVER	Inflow=0.71 cfs 13,301 cf
	Primary=0.71 cfs 13,301 cf
Link L3: EX CULVERTS	Inflow=0.10 cfs 3,200 cf
	Primary=0.10 cfs 3,200 cf
Link L4: WEST PROPERTY LINE	Inflow=0.00 cfs_0 cf
	Primary=0.00 cfs 0 cf
Link L5: NORTHWEST PROPERTY CORNER	Inflow=0.00 cfs 0 cf Primary=0.00 cfs 0 cf
Link L6: FOX HOLLOW	Inflow=0.00 cfs 0 cf
	Primary=0.00 cfs 0 cf

FRIARS DRIVE PRE-DEVELOPMENT

 Total Runoff Area = 3,679,215 sf
 Runoff Volume = 13,877 cf
 Average Runoff Depth = 0.05"

 97.51% Pervious = 3,587,730 sf
 2.49% Impervious = 91,485 sf

	FRIARS DRIVE	E PRE-DEVE	LOPMENT
475-PRE	Type III 24-hr	10-YR Rair	nfall=4.47"
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Summary for Subcatchment A: SUBCAT A

Runoff = 0.00 cfs @ 0.00 hrs, Volume=	0 cf, Depth= 0.00"
---------------------------------------	--------------------

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
		835	39	39 >75% Grass cover, Good, HSG A						
		63,949	30	30 Woods, Good, HSG A						
*		0	98	Ex. Wetland						
*		0	98	8 Ex. Building						
*		0	98	98 Ex. Pavement						
		64,784	30	30 Weighted Average						
		64,784		100.00% Pervious Area						
	Тс	Length	Slop	e Velocity	Capacity	Description				
	(min)	(feet)	(ft/f	ft) (ft/sec)	(cfs)					
	6.0					Direct Entry,				
	Summary for Subcatchment B: SUBCAT B									

Summary for Subcatchment B: SUBCAT B

Runoff	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Depth= 0.00"
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Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
	0	39	>75% Gras	s cover, Go	ood, HSG A			
	24,585	30	Woods, Go	od, HSG A	N .			
*	0	98	Ex. Wetland					
*	0	98	Ex. Building	l				
*	0	98	Ex. Paveme	ent				
	24,585	30	Weighted A	verage				
	24,585		100.00% Pe	ervious Are	ea			
То	Longth	Slope	Volocity	Capacity	Description			
Tc	Length	Slope	,	Capacity	Description			
(min)	(feet)	(ft/ft) (ft/sec)	(cfs)				
6.0					Direct Entry,			

Summary for Subcatchment C: SUBCAT C

0.00 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00" Runoff =

FRIARS DRIVE PRE-DEVELOPMENT *Type III 24-hr 10-YR Rainfall=4.47"* Printed 10/5/2021 LLC Page 4

35 cf, Depth> 0.00"

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	Area	(sf)	CN	Description			
	10,2	208	30	Brush, Goo	d, HSG A		
	877,2	266	30	Woods, Go	od, HSG A		
*	1,8	390	98	Ex. Wetland	ł		
*		0	98	Ex. Building	l		
*		0	98	Ex. Paveme	ent		
	889,364 30 Weighted Average				verage		
	887,474 99.79% Pervious Area						
	1,890 0.21% Impervious Area				ervious Area	а	
				-			
	Tc Le	ngth	Slope	e Velocity	Capacity	Description	
(n	nin) (t	feet)	(ft/ft) (ft/sec)	(cfs)		
5	50.2					Direct Entry,	
						•	

Summary for Subcatchment D: SUBCAT D

Runoff = 0.00 cfs @ 24.00 hrs, Volume=

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"

		()				
_	<u> </u>	rea (sf)	CN E	escription		
		40,833	39 >	75% Gras	s cover, Go	bod, HSG A
	1	61,270	30 V	Voods, Go	od, HSG A	
*		, 0		x. Wetland		
*		0		x. Building	- 	
*		Õ		x. Paveme		
_	202,103 32 Weighted Average					
					ervious Are	
	2	02,103	I	00.00% Pe	ervious Are	a
	Тс	Length	Slope	Velocity	Capacity	Description
		•				Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	7.4	50	0.0800	0.11		Sheet Flow,
						Woods: Light underbrush n= 0.400 P2= 2.95"
	0.9	100	0.1400	1.87		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	10.0	380	0.0160	0.63		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	18.3	530	Total			

Summary for Subcatchment E: SUBCAT E

Runoff = 0.00 cfs @ 24.00 hrs, Volume= 0 cf, Depth> 0.00"

FRIARS DRIVE PRE-DEVELOPMENT Type III 24-hr 10-YR Rainfall=4.47" Printed 10/5/2021 LLC Page 5

475-PRE

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	A	rea (sf)	CN I	Description		
		13,501	30	Brush, Goo	d, HSG A	
	2	83,954	30	Woods, Go	od, HSG A	
*		4,020	98	Ex. Wetland	b	
*		0	98	Ex. Building	9	
*		0	98	Ex. Paveme	ent	
	3	01,475	31	Weighted A	verage	
	2	97,455	ę	98.67% Pei	rvious Area	
		4,020		1.33% Impe	ervious Area	a
	Тс	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= 2.95"
	0.9	100	0.1400	1.87		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	6.4	330	0.0300	0.87		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	0.4	150	0.0200	6.50	182.01	Trap/Vee/Rect Channel Flow,
						Bot.W=25.00' D=1.00' Z= 3.0 '/' Top.W=31.00'
						n= 0.030
	14 0	630	Total			

14.0 630 Total

Summary for Subcatchment F: SUBCAT F

Runoff = 0.11 cfs @ 13.89 hrs, Volume= 2,952 cf, Depth> 0.13"

	A	rea (sf)	CN E	Description		
	1	02,210	39 >	75% Gras	s cover, Go	bod, HSG A
	1	42,851			od, HSG A	
*		15,394		x. Wetland		
*		0	98 E	x. Building	1	
*		11,679	98 E	Ex. Paveme	ent	
	272,134 40 Weighted Average			Veighted A	verage	
	245,061		ç	0.05% Per	vious Area	
	27,073		9.95% Impervious Area			a
	Тс	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= 2.95"
	4.5	410	0.0930	1.52		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	0.9	365	0.0200	6.50	182.01	Trap/Vee/Rect Channel Flow,
						Bot.W=25.00' D=1.00' Z= 3.0 '/' Top.W=31.00'
						n= 0.030
	11 7	825	Total			

Summary for Subcatchment G: SUBCAT G

Runoff	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Depth= 0.00"
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Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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				
		0	39	>75% Gras	s cover, Go	bod, HSG A		
	1	81,015	30	Woods, Go	od, HSG A			
*		0	98	Ex. Wetland				
*		0	98	Ex. Building	1			
*		0	98	Ex. Paveme	ent			
		81,015 81,015	30 Weighted Average 100.00% Pervious Area					
	•	• .,• .•				-		
	Тс	Length	Slope	e Velocity	Capacity	Description		
(min)	(feet)	(ft/ft) (ft/sec)	(cfs)			
	6.0					Direct Entry,		
	Summary for Subastabrant H: SUPCAT H							

Summary for Subcatchment H: SUBCAT H

D "				
Runoff	=	0.00 cts @	0.00 hrs, Volume=	0 cf, Depth= 0.00"

	A	rea (sf)	CN [Description			
		5,832	39 >	>75% Gras	s cover, Go	ood, HSG A	
	2	48,081		Voods, Go			
*		0	98 E	Ex. Wetland	ł		
*		0	98 E	Ex. Building	1		
*		0	98 E	Ex. Paveme	ent		
	2	53,913	3,913 30 Weighted Average				
	2	53,913		100.00% Pe	ervious Are	а	
	Tc	Length	Slope	Velocity	Capacity	Description	
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)		
_	4.5	50	0.2800	0.19		Sheet Flow,	
						Woods: Light underbrush n= 0.400 P2= 2.95"	
	7.2	480	0.0500	1.12		Shallow Concentrated Flow,	
						Woodland Kv= 5.0 fps	
	11.7	530	Total			· · · · ·	

0.03 cfs @ 23.36 hrs, Volume= Runoff 529 cf, Depth> 0.01" =

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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		
		35,941	30	Brush, Goo	d, HSG A	
	7	88,781	30	Woods, Go	od, HSG A	
*		33,536	98	Ex. Wetland	d i	
*		0	98	Ex. Building	1	
*		0		Ex. Paveme		
_	8	58,258	33	Weighted A	verage	
	8	24,722	9	96.09% Pei	vious Area	
		33,536	;	3.91% Impe	ervious Area	a
	Тс	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	9.7	50	0.0400	0.09		Sheet Flow,
						Woods: Light underbrush n= 0.400 P2= 2.95"
	19.8	750	0.0160	0.63		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	0.3	40	0.2000	2.24		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	1.9	750	0.0200	6.50	182.01	Trap/Vee/Rect Channel Flow,
						Bot.W=25.00' D=1.00' Z= 3.0 '/' Top.W=31.00'
_						n= 0.030
	31.7	1,590	Total			

Summary for Subcatchment K: SUBCAT K

0.71 cfs @ 12.45 hrs, Volume= Runoff =

7,605 cf, Depth> 0.29"

Page 7

	Area (sf)	CN	Description
	30,443	61	>75% Grass cover, Good, HSG B
	67,128	55	Woods, Good, HSG B
*	16,485	98	Ex. Wetland
*	7,709	98	Ex. Building
*	772	98	Ex. Pavement
	36,534	39	>75% Grass cover, Good, HSG A
	159,400	30	Woods, Good, HSG A
	318,471	45	Weighted Average
	293,505		92.16% Pervious Area
	24,966		7.84% Impervious Area

475-PRE

FRIARS DRIVE PRE-DEVELOPMENT Type III 24-hr 10-YR Rainfall=4.47" Printed 10/5/2021

Page 8

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.6	50	0.1600	0.15		Sheet Flow,
					Woods: Light underbrush n= 0.400 P2= 2.95"
2.4	226	0.1000	1.58		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
0.2	32	0.5000	3.54		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
2.4	915	0.0200	6.40	147.25	Trap/Vee/Rect Channel Flow,
					Bot.W=20.00' D=1.00' Z= 3.0 '/' Top.W=26.00'
					n= 0.030 Earth, grassed & winding
40.0	4 000	Tatal			

10.6 1,223 Total

Summary for Subcatchment L: SUBCAT L

Runoff = 0.10 cfs @ 14.75 hrs, Volume= 2,756 cf, Depth> 0.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"

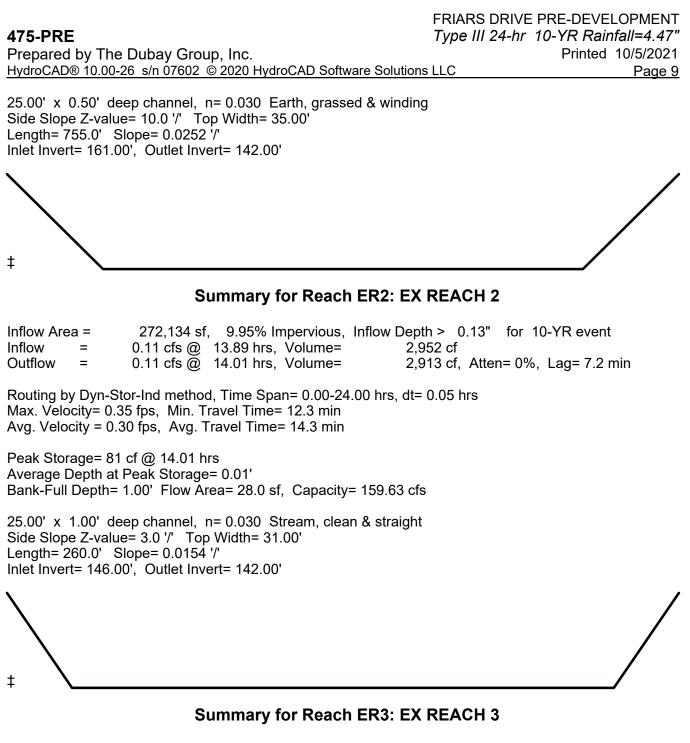
	Area (sf)	CN	Description			
	75,110	48	Brush, Good, HSG B			
	51,028	55	Woods, Good, HSG B			
*	0	98	Ex. Wetland			
*	0	98	Ex. Building			
*	0	98	Ex. Pavement			
	24,329	39	>75% Grass cover, Good, HSG A			
	162,646	30	Woods, Good, HSG A			
	313,113	39	Weighted Average			
	313,113		100.00% Pervious Area			
(m	Tc Length hin) (feet)	Slop (ft/				
	6.0	(10	Direct Entry,			
	0.0					

Summary for Reach ER1: EX REACH 1

Inflow Area =	202,103 sf, 0.00% Impervious,	Inflow Depth > 0.00" for 10-YR event
Inflow =	0.00 cfs @ 24.00 hrs, Volume=	35 cf
Outflow =	0.00 cfs @ 24.00 hrs, Volume=	24 cf, Atten= 12%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.23 fps, Min. Travel Time= 54.8 min Avg. Velocity = 0.23 fps, Avg. Travel Time= 54.8 min

Peak Storage= 10 cf @ 24.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 0.50' Flow Area= 15.0 sf, Capacity= 66.94 cfs



 Inflow Area =
 775,712 sf,
 4.01% Impervious,
 Inflow Depth >
 0.05"
 for
 10-YR event

 Inflow =
 0.11 cfs @
 14.01 hrs,
 Volume=
 2,938 cf

 Outflow =
 0.11 cfs @
 14.81 hrs,
 Volume=
 2,878 cf,
 Atten= 0%,
 Lag= 48.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.29 fps, Min. Travel Time= 14.9 min Avg. Velocity = 0.24 fps, Avg. Travel Time= 18.1 min

Peak Storage= 98 cf @ 14.81 hrs Average Depth at Peak Storage= 0.02' Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 113.75 cfs

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Type III 24-hr 10-YR Rainfall=4.47"Prepared by The Dubay Group, Inc.Printed 10/5/2021HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLCPage 10

25.00' x 1.00' deep channel, n= 0.030 Stream, clean & straight Side Slope Z-value= 3.0 '/' Top Width= 31.00' Length= 256.0' Slope= 0.0078 '/' Inlet Invert= 142.00', Outlet Invert= 140.00'



Summary for Reach ER4: EX REACH 4

Inflow Area =	1,665,076 sf, 1.98% Impervious,	Inflow Depth > 0.02" for 10-YR event
Inflow =	0.11 cfs @ 14.81 hrs, Volume=	2,878 cf
Outflow =	0.10 cfs @ 15.70 hrs, Volume=	2,671 cf, Atten= 7%, Lag= 53.4 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.36 fps, Min. Travel Time= 59.9 min Avg. Velocity = 0.32 fps, Avg. Travel Time= 66.9 min

Peak Storage= 368 cf @ 15.70 hrs Average Depth at Peak Storage= 0.01' Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 176.06 cfs

25.00' x 1.00' deep channel, n= 0.030 Stream, clean & straight Side Slope Z-value= 3.0 '/' Top Width= 31.00' Length= 1,291.0' Slope= 0.0187 '/' Inlet Invert= 140.00', Outlet Invert= 115.84'



Summary for Reach ER5: EX REACH 5

 Inflow Area =
 2,523,334 sf,
 2.64% Impervious,
 Inflow Depth >
 0.02"
 for
 10-YR event

 Inflow =
 0.10 cfs @
 15.70 hrs,
 Volume=
 3,200 cf

 Outflow =
 0.09 cfs @
 16.47 hrs,
 Volume=
 2,940 cf,
 Atten= 7%,
 Lag= 46.2 min

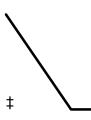
Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.36 fps, Min. Travel Time= 49.9 min Avg. Velocity = 0.35 fps, Avg. Travel Time= 52.3 min

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Peak Storage= 284 cf @ 16.47 hrs Average Depth at Peak Storage= 0.01' Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 192.80 cfs

25.00' x 1.00' deep channel, n= 0.030 Stream, clean & straight Side Slope Z-value= 3.0 '/' Top Width= 31.00' Length= 1,085.0' Slope= 0.0224 '/' Inlet Invert= 115.35', Outlet Invert= 91.00'



Summary for Link L1: NORTHEAST PROPERTY CORNER

Inflow Are	a =	64,784 sf,	0.00% Impervious,	Inflow Depth = 0.00"	for 10-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Primary	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atter	n= 0%, Lag= 0.0 min

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

Summary for Link L2: RIVER

Inflow Area =	3,154,918 sf,	2.90% Impervious,	Inflow Depth > 0.05"	for 10-YR event
Inflow =	0.71 cfs @ 1	12.45 hrs, Volume=	13,301 cf	
Primary =	0.71 cfs @ 1	12.45 hrs, Volume=	13,301 cf, Atte	n= 0%, Lag= 0.0 min

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

Summary for Link L3: EX CULVERTS

Inflow Area	ı =	2,523,334 sf,	2.64% Impervious,	Inflow Depth > 0.02	' for 10-YR event
Inflow	=	0.10 cfs @ 1	15.70 hrs, Volume=	3,200 cf	
Primary	=	0.10 cfs @ 1	15.70 hrs, Volume=	3,200 cf, Att	en= 0%, Lag= 0.0 min

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

Summary for Link L4: WEST PROPERTY LINE

Inflow Area = 253,913 sf, 0.00% Impervious, Inflow Depth = 0.00" for 10-YR event 0.00 hrs, Volume= Inflow = 0.00 cfs @ 0 cf 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min Primary =

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

475-PREFRIARS DRIVE PRE-DEVELOPMENT
Type III 24-hr 10-YR Rainfall=4.47"Prepared by The Dubay Group, Inc.Printed 10/5/2021HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLCPage 12

Summary for Link L5: NORTHWEST PROPERTY CORNER

Inflow Are	a =	181,015 sf,	0.00% Impervious,	Inflow Depth = 0.00"	for 10-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Primary	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atter	n= 0%, Lag= 0.0 min

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

Summary for Link L6: FOX HOLLOW

Inflow Are	a =	24,585 sf,	0.00% Impervious,	Inflow Depth = 0.00"	for 10-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Primary	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atter	n= 0%, Lag= 0.0 min

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

FRIARS DRIVE PRE-DEVELOPMENT Type III 24-hr 25-YR Rainfall=5.65" 475-PRE Prepared by The Dubay Group, Inc. Printed 10/5/2021 HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLC Page 1 Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points Runoff by SCS TR-20 method, UH=SCS, Weighted-CN Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method SubcatchmentA: SUBCATA Runoff Area=64,784 sf 0.00% Impervious Runoff Depth>0.04" Tc=6.0 min CN=30 Runoff=0.01 cfs 213 cf Runoff Area=24,585 sf 0.00% Impervious Runoff Depth>0.04" Subcatchment B: SUBCAT B Tc=6.0 min CN=30 Runoff=0.00 cfs 81 cf Subcatchment C: SUBCAT C Runoff Area=889,364 sf 0.21% Impervious Runoff Depth>0.04" Tc=50.2 min CN=30 Runoff=0.09 cfs 2,727 cf Runoff Area=202,103 sf 0.00% Impervious Runoff Depth>0.09" Subcatchment D: SUBCAT D Flow Length=530' Tc=18.3 min CN=32 Runoff=0.05 cfs 1,432 cf Runoff Area=301,475 sf 1.33% Impervious Runoff Depth>0.06" Subcatchment E: SUBCAT E Flow Length=630' Tc=14.0 min CN=31 Runoff=0.05 cfs 1,515 cf Runoff Area=272,134 sf 9.95% Impervious Runoff Depth>0.40" Subcatchment F: SUBCAT F Flow Length=825' Tc=11.7 min CN=40 Runoff=0.89 cfs 8,975 cf Runoff Area=181,015 sf 0.00% Impervious Runoff Depth>0.04" Subcatchment G: SUBCAT G Tc=6.0 min CN=30 Runoff=0.02 cfs 596 cf Runoff Area=253,913 sf 0.00% Impervious Runoff Depth>0.04" Subcatchment H: SUBCAT H Flow Length=530' Tc=11.7 min CN=30 Runoff=0.03 cfs 829 cf Runoff Area=858,258 sf 3.91% Impervious Runoff Depth>0.11" SubcatchmentI: SUBCATI Flow Length=1,590' Tc=31.7 min CN=33 Runoff=0.30 cfs 8,023 cf Runoff Area=318,471 sf 7.84% Impervious Runoff Depth>0.66" Subcatchment K: SUBCAT K Flow Length=1,223' Tc=10.6 min CN=45 Runoff=2.58 cfs 17,610 cf Runoff Area=313,113 sf 0.00% Impervious Runoff Depth>0.35" SubcatchmentL: SUBCATL Tc=6.0 min CN=39 Runoff=0.86 cfs 9,114 cf Reach ER1: EX REACH 1 Avg. Flow Depth=0.01' Max Vel=0.30 fps Inflow=0.05 cfs 1,432 cf n=0.030 L=755.0' S=0.0252 '/' Capacity=66.94 cfs Outflow=0.05 cfs 1.338 cf

 Reach ER2: EX REACH 2
 Avg. Flow Depth=0.04'
 Max Vel=0.77 fps
 Inflow=0.89 cfs
 8,975 cf

 n=0.030
 L=260.0'
 S=0.0154 '/'
 Capacity=159.63 cfs
 Outflow=0.85 cfs
 8,904 cf

 Reach ER3: EX REACH 3
 Avg. Flow Depth=0.05'
 Max Vel=0.60 fps
 Inflow=0.85 cfs
 11,756 cf

 n=0.030
 L=256.0'
 S=0.0078 '/'
 Capacity=113.75 cfs
 Outflow=0.78 cfs
 11,633 cf

 Reach ER4: EX REACH 4
 Avg. Flow Depth=0.03'
 Max Vel=0.63 fps
 Inflow=0.78 cfs
 14,361 cf

 n=0.030
 L=1,291.0'
 S=0.0187 '/'
 Capacity=176.06 cfs
 Outflow=0.44 cfs
 13,726 cf

 Reach ER5: EX REACH 5
 Avg. Flow Depth=0.03'
 Max Vel=0.79 fps
 Inflow=0.69 cfs
 21,749 cf

 n=0.030
 L=1,085.0'
 S=0.0224 '/'
 Capacity=192.80 cfs
 Outflow=0.69 cfs
 21,083 cf

	FRIARS DRIVE PRE-DEVELOPMENT
475-PRE	Type III 24-hr 25-YR Rainfall=5.65"
Prepared by The Dubay Group, Inc.	Printed 10/5/2021
HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions	s LLC Page 2
Link L1: NORTHEAST PROPERTY CORNER	Inflow=0.01 cfs 213 cf
	Primary=0.01 cfs 213 cf
Link L2: RIVER	Inflow=3.34 cfs 47,807 cf
	Primary=3.34 cfs 47,807 cf
Link L3: EX CULVERTS	Inflow=0.69 cfs 21,749 cf
	Primary=0.69 cfs 21,749 cf
Link L4: WEST PROPERTY LINE	Inflow=0.03 cfs 829 cf
	Primary=0.03 cfs 829 cf
Link L5: NORTHWEST PROPERTY CORNER	Inflow=0.02 cfs 596 cf
	Primary=0.02 cfs 596 cf
Link L6: FOX HOLLOW	Inflow=0.00 cfs 81 cf
	Primary=0.00 cfs 81 cf

 Total Runoff Area = 3,679,215 sf
 Runoff Volume = 51,115 cf
 Average Runoff Depth = 0.17"

 97.51% Pervious = 3,587,730 sf
 2.49% Impervious = 91,485 sf

Summary for Subcatchment A: SUBCAT A

Runoff	=	0.01 cfs @	17.13 hrs,	Volume=	213 cf,	Depth> (0.04"
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Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	Area (sf)	CN	Description		
	835	39	>75% Grass	s cover, Go	ood, HSG A
	63,949	30	Woods, Goo	od, HSG A	
*	0	98	Ex. Wetland	l	
*	0	98	Ex. Building		
*	0	98	Ex. Paveme	ent	
	64,784 64,784	30	Weighted A 100.00% Pe		а
(Tc Length (min) (feet)	Sloı (ft/	,	Capacity (cfs)	Description
	6.0				Direct Entry,
			Summar	w for Sul	heatchment B: SUBCAT B

Summary for Subcatchment B: SUBCAT B

	Runoff	=	0.00 cfs @	17.13 hrs,	Volume=	81 cf,	Depth>	0.04"
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Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	Area (sf)	CN	Description
	0	39	>75% Grass cover, Good, HSG A
	24,585	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	24,585	30	Weighted Average
	24,585		100.00% Pervious Area
	-		
	Tc Length	Slop	pe Velocity Capacity Description
(n	nin) (feet)	(ft/	/ft) (ft/sec) (cfs)
	60		Direct Entry

6.0

Direct Entry,

Summary for Subcatchment C: SUBCAT C

Runoff = 0.09 cfs @ 17.80 hrs, Volume= 2,727 cf, Depth> 0.04"

FRIARS DRIVE PRE-DEVELOPMENT *Type III 24-hr 25-YR Rainfall=5.65"* Printed 10/5/2021 LLC Page 4

475-PRE

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	A	rea (sf)	CN	Description		
		10,208	30	Brush, Goo	d, HSG A	
	8	77,266	30	Woods, Go	od, HSG A	N N N N N N N N N N N N N N N N N N N
*		1,890	98	Ex. Wetland	1	
*		0	98	Ex. Building	l	
*		0	98	Ex. Paveme	ent	
	8	89,364	30	Weighted A	verage	
	887,474 99.79% Pervious Area				vious Area	a
	1,890 0.21% Impervious Area			0.21% Impe	ervious Area	a
	-		~		• •	
	Tc	Length	Slope		Capacity	Description
()	min)	(feet)	(ft/ft) (ft/sec)	(cfs)	
ę	50.2					Direct Entry,
						-

Summary for Subcatchment D: SUBCAT D

Runoff = 0.05 cfs @ 15.43 hrs, Volume= 1,432 cf, Depth> 0.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	А	rea (sf)	CN E	escription						
		40,833								
	1	61,270	30 V	Voods, Go	od, HSG A					
*		0	98 E	x. Wetland	1					
*		0	98 E	x. Building	l					
*		0	98 E	x. Paveme	ent					
_	2	02,103	32 V	Veighted A	verage					
	202,103 100.00% Pervious Area					a				
		,								
	Тс	Length	Slope	Velocity	Capacity	Description				
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
_	7.4	50	0.0800	0.11		Sheet Flow,				
						Woods: Light underbrush n= 0.400 P2= 2.95"				
	0.9	100	0.1400	1.87		Shallow Concentrated Flow,				
						Woodland Kv= 5.0 fps				
	10.0	380	0.0160	0.63		Shallow Concentrated Flow,				
						Woodland Kv= 5.0 fps				
	18.3	530	Total			· · · ·				

Summary for Subcatchment E: SUBCAT E

Runoff = 0.05 cfs @ 15.74 hrs, Volume= 1,515 cf, Depth> 0.06"

FRIARS DRIVE PRE-DEVELOPMENT Type III 24-hr 25-YR Rainfall=5.65" Printed 10/5/2021 Page 5

475-PRE

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	A	rea (sf)	CN I	Description		
		13,501	30 I	Brush, Goo	d, HSG A	
	2	83,954	30 \	Noods, Go	od, HSG A	
*		4,020	98 I	Ex. Wetland	b	
*		0	98 I	Ex. Building	9	
*		0	98 I	Ex. Paveme	ent	
	3	01,475	31 \	Neighted A	verage	
	297,455 98.67% Pervious Area					
	4,020 1.33% Impervious Area				ervious Area	a
	Тс	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= 2.95"
	0.9	100	0.1400	1.87		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	6.4	330	0.0300	0.87		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	0.4	150	0.0200	6.50	182.01	Trap/Vee/Rect Channel Flow,
						Bot.W=25.00' D=1.00' Z= 3.0 '/' Top.W=31.00'
						n= 0.030
	1/ 0	630	Total			

14.0 630 Total

Summary for Subcatchment F: SUBCAT F

Runoff	=	0.89 cfs @	12.45 hrs.	Volume=	8,975 cf, Depth> ().40"
rtanon		0.00 010 00	1 <u>2</u> .101110,	Volumo		

_	A	rea (sf)	CN [Description		
	1	02,210	39 >	>75% Gras	s cover, Go	ood, HSG A
	1	42,851	30 \	Voods, Go	od, HSG A	
*		15,394	98 E	Ex. Wetland	b	
*		0	98 E	Ex. Building	3	
*		11,679	98 E	Ex. Paveme	ent	
	2	272,134 245,061 27,073	ç		verage rvious Area ervious Area	
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	6.3	50	0.1200	0.13		Sheet Flow,
	4.5	410	0.0930	1.52		Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, Woodland Kv= 5.0 fps
	0.9	365	0.0200	6.50	182.01	Trap/Vee/Rect Channel Flow, Bot.W=25.00' D=1.00' Z= 3.0 '/' Top.W=31.00' n= 0.030
	11 7	825	Total			

Summary for Subcatchment G: SUBCAT G

Runoff = 0.02 cfs @ 17.13 hrs, Volume= 596 cf, Depth>	0.04"
---	-------

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	Area (sf)	CN	Description		
	0	39	>75% Grass	s cover, Go	bod, HSG A
	181,015	30	Woods, Goo	od, HSG A	
*	0	98	Ex. Wetland	l	
*	0	98	Ex. Building		
*	0	98	Ex. Paveme	ent	
	181,015 181,015	30	Weighted A 100.00% Pe		a
(Tc Length min) (feet)	Slop (ft/		Capacity (cfs)	Description
	6.0				Direct Entry,

Summary for Subcatchment H: SUBCAT H

Runoff = 0.03 cfs @ 17.21 hrs, Volume= 829 cf, Depth> 0.
--

	A	rea (sf)	CN [Description				
		5,832	39 >	75% Gras	s cover, Go	bod, HSG A		
	2	48,081	30 \	Voods, Go	od, HSG A			
*		0	98 E	Ex. Wetland	t			
*		0	98 E	Ex. Building	1			
* 0 98 Ex. Pavement								
	253,913 30 Weighted Average				verage			
	253,913			100.00% Pervious Area				
	Tc	Length	Slope	Velocity	Capacity	Description		
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
_	4.5	50	0.2800	0.19		Sheet Flow,		
						Woods: Light underbrush n= 0.400 P2= 2.95"		
	7.2	480	0.0500	1.12		Shallow Concentrated Flow,		
						Woodland Kv= 5.0 fps		
	11.7	530	Total					

Page 7

Runoff 0.30 cfs @ 15.30 hrs, Volume= 8,023 cf, Depth> 0.11" =

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	A	rea (sf)	CN	Description		
		35,941	30	Brush, Goo	d, HSG A	
	7	88,781	30	Woods, Go	od, HSG A	
*		33,536	98	Ex. Wetland	ł	
*		0	98	Ex. Building	l	
*		0	98	Ex. Paveme	ent	
	858,258 33 Weighted Average				verage	
	824,722 96.09% Pervious Area					
	33,536 3.91% Impervious Area			3.91% Impe	ervious Area	а
	Тс	Length	Slope		Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	9.7	50	0.0400	0.09		Sheet Flow,
						Woods: Light underbrush n= 0.400 P2= 2.95"
	19.8	750	0.0160	0.63		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	0.3	40	0.2000	2.24		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	1.9	750	0.0200	6.50	182.01	Trap/Vee/Rect Channel Flow,
						Bot.W=25.00' D=1.00' Z= 3.0 '/' Top.W=31.00'
_						n= 0.030
	31.7	1,590	Total			

Summary for Subcatchment K: SUBCAT K

2.58 cfs @ 12.26 hrs, Volume= 17,610 cf, Depth> 0.66" Runoff =

	Area (sf)	CN	Description
	30,443	61	>75% Grass cover, Good, HSG B
	67,128	55	Woods, Good, HSG B
*	16,485	98	Ex. Wetland
*	7,709	98	Ex. Building
*	772	98	Ex. Pavement
	36,534	39	>75% Grass cover, Good, HSG A
	159,400	30	Woods, Good, HSG A
	318,471	45	Weighted Average
	293,505		92.16% Pervious Area
	24,966		7.84% Impervious Area

475-PRE

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Page 8

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Slope Velocity Capacity Description Tc Length (min) (feet) (ft/ft) (ft/sec) (cfs) 50 0.1600 5.6 0.15 Sheet Flow, Woods: Light underbrush n= 0.400 P2= 2.95" 2.4 226 0.1000 1.58 Shallow Concentrated Flow. Woodland Kv= 5.0 fps 0.2 32 0.5000 3.54 Shallow Concentrated Flow, Woodland Kv= 5.0 fps 2.4 915 0.0200 6.40 147.25 Trap/Vee/Rect Channel Flow, Bot.W=20.00' D=1.00' Z= 3.0 '/' Top.W=26.00' n= 0.030 Earth, grassed & winding

10.6 1,223 Total

Summary for Subcatchment L: SUBCAT L

Runoff = 0.86 cfs @ 12.38 hrs, Volume= 9,114 cf, Depth> 0.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

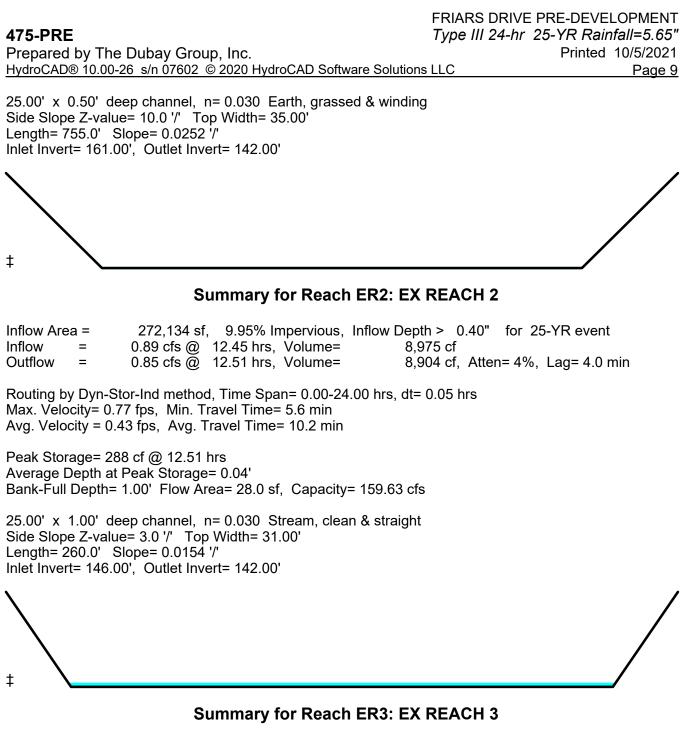
	Area (sf)	CN	Description			
	75,110	48	Brush, Good, HSG B			
	51,028	55	Woods, Good, HSG B			
*	0	98	Ex. Wetland			
*	0	98	Ex. Building			
*	0	98	x. Pavement			
	24,329	39	75% Grass cover, Good, HSG A			
	162,646	30	bods, Good, HSG A			
	313,113	39	39 Weighted Average			
	313,113		100.00% Pervious Area			
	Tc Length	Slop	be Velocity Capacity Description			
(n	nin) (feet)	(ft/	ft) (ft/sec) (cfs)			
	6.0		Direct Entry,			

Summary for Reach ER1: EX REACH 1

Inflow Area	a =	202,103 sf,	0.00% Impervious	Inflow Depth > 0.09"	for 25-YR event
Inflow	=	0.05 cfs @	15.43 hrs, Volume=	1,432 cf	
Outflow	=	0.05 cfs @	15.96 hrs, Volume=	1,338 cf, Atte	en= 4%, Lag= 31.7 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.30 fps, Min. Travel Time= 42.5 min Avg. Velocity = 0.26 fps, Avg. Travel Time= 48.8 min

Peak Storage= 126 cf @ 15.96 hrs Average Depth at Peak Storage= 0.01' Bank-Full Depth= 0.50' Flow Area= 15.0 sf, Capacity= 66.94 cfs



 Inflow Area =
 775,712 sf, 4.01% Impervious, Inflow Depth > 0.18" for 25-YR event

 Inflow =
 0.85 cfs @ 12.51 hrs, Volume=
 11,756 cf

 Outflow =
 0.78 cfs @ 12.61 hrs, Volume=
 11,633 cf, Atten= 8%, Lag= 5.6 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.60 fps, Min. Travel Time= 7.1 min Avg. Velocity = 0.39 fps, Avg. Travel Time= 10.9 min

Peak Storage= 331 cf @ 12.61 hrs Average Depth at Peak Storage= 0.05' Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 113.75 cfs

475-PREFRIARS DRIVE PRE-DEVELOPMENT
Type III 24-hr 25-YR Rainfall=5.65"Prepared by The Dubay Group, Inc.Printed 10/5/2021HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLCPage 10

25.00' x 1.00' deep channel, n= 0.030 Stream, clean & straight Side Slope Z-value= 3.0 '/' Top Width= 31.00' Length= 256.0' Slope= 0.0078 '/' Inlet Invert= 142.00', Outlet Invert= 140.00'



Summary for Reach ER4: EX REACH 4

Inflow Area	ı =	1,665,076 sf, 1.98% Impervious, Inflow Depth > 0.10" for 25-YR event	
Inflow	=	0.78 cfs @ 12.61 hrs, Volume= 14,361 cf	
Outflow	=	0.44 cfs @ 13.16 hrs, Volume= 13,726 cf, Atten= 43%, Lag= 33.0 min	J

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.63 fps, Min. Travel Time= 34.1 min Avg. Velocity = 0.55 fps, Avg. Travel Time= 38.9 min

Peak Storage= 907 cf @ 13.16 hrs Average Depth at Peak Storage= 0.03' Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 176.06 cfs

25.00' x 1.00' deep channel, n= 0.030 Stream, clean & straight Side Slope Z-value= 3.0 '/' Top Width= 31.00' Length= 1,291.0' Slope= 0.0187 '/' Inlet Invert= 140.00', Outlet Invert= 115.84'



Summary for Reach ER5: EX REACH 5

 Inflow Area =
 2,523,334 sf,
 2.64% Impervious,
 Inflow Depth >
 0.10"
 for
 25-YR event

 Inflow =
 0.69 cfs @
 15.68 hrs,
 Volume=
 21,749 cf

 Outflow =
 0.69 cfs @
 15.88 hrs,
 Volume=
 21,083 cf,
 Atten= 0%,
 Lag= 11.9 min

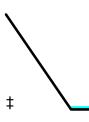
Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.79 fps, Min. Travel Time= 22.8 min Avg. Velocity = 0.69 fps, Avg. Travel Time= 26.2 min

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Peak Storage= 939 cf @ 15.88 hrs Average Depth at Peak Storage= 0.03' Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 192.80 cfs

25.00' x 1.00' deep channel, n= 0.030 Stream, clean & straight Side Slope Z-value= 3.0 '/' Top Width= 31.00' Length= 1,085.0' Slope= 0.0224 '/' Inlet Invert= 115.35', Outlet Invert= 91.00'



Summary for Link L1: NORTHEAST PROPERTY CORNER

Inflow Are	a =	64,784 sf,	0.00% Impervious,	Inflow Depth > 0.04"	for 25-YR event
Inflow	=	0.01 cfs @ 1	17.13 hrs, Volume=	213 cf	
Primary	=	0.01 cfs @ 1	17.13 hrs, Volume=	213 cf, Atte	n= 0%, Lag= 0.0 min

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

Summary for Link L2: RIVER

Inflow Area	a =	3,154,918 sf,	2.90% Impervious,	Inflow Depth >	0.18"	for 25-YR event
Inflow	=	3.34 cfs @ 1	2.33 hrs, Volume=	47,807 ct	F	
Primary	=	3.34 cfs @ 1	2.33 hrs, Volume=	47,807 ct	f, Atter	n= 0%, Lag= 0.0 min

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

Summary for Link L3: EX CULVERTS

Inflow Area	=	2,523,334 sf,	2.64% Impervious,	Inflow Depth > 0.10"	for 25-YR event
Inflow	=	0.69 cfs @ 1	15.68 hrs, Volume=	21,749 cf	
Primary	=	0.69 cfs @ 1	15.68 hrs, Volume=	21,749 cf, Atte	en= 0%, Lag= 0.0 min

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

Summary for Link L4: WEST PROPERTY LINE

Inflow Area = 253,913 sf, 0.00% Impervious, Inflow Depth > 0.04" for 25-YR event 0.03 cfs @ 17.21 hrs, Volume= Inflow 829 cf = 0.03 cfs @ 17.21 hrs, Volume= 829 cf, Atten= 0%, Lag= 0.0 min Primary =

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

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Type III 24-hr 25-YR Rainfall=5.65"Prepared by The Dubay Group, Inc.Printed 10/5/2021HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLCPage 12

Summary for Link L5: NORTHWEST PROPERTY CORNER

Inflow Area	a =	181,015 sf,	0.00% Impervious,	Inflow Depth > (0.04" for 25-YR event
Inflow	=	0.02 cfs @ 1	17.13 hrs, Volume=	596 cf	
Primary	=	0.02 cfs @ ´	17.13 hrs, Volume=	596 cf,	Atten= 0%, Lag= 0.0 min

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

Summary for Link L6: FOX HOLLOW

Inflow Are	a =	24,585 sf,	0.00% Impervious,	Inflow Depth > 0.04"	for 25-YR event
Inflow	=	0.00 cfs @ 1	17.13 hrs, Volume=	81 cf	
Primary	=	0.00 cfs @ 1	17.13 hrs, Volume=	81 cf, Atte	n= 0%, Lag= 0.0 min

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

 475-PRE
 FRIARS DRIVE PRE-DEVELOPMENT Type III 24-hr 50-YR Rainfall=6.75"

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 Page 1

 Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points Runoff by SCS TR-20 method, UH=SCS, Weighted-CN Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method
 Page 1

 Subcatchment A: SUBCAT A
 Runoff Area=64,784 sf 0.00% Impervious Runoff Depth>0.17" Tc=6.0 min CN=30 Runoff=0.03 cfs 919 cf

 Subcatchment B: SUBCAT B
 Runoff Area=24,585 sf 0.00% Impervious Runoff Depth>0.17"

Subcatchment C: SUBCAT C Runoff Area=889,364 sf 0.21% Impervious Runoff Depth>0.16" Tc=50.2 min CN=30 Runoff=0.46 cfs 12,130 cf

Subcatchment D: SUBCAT DRunoff Area=202,103 sf0.00% ImperviousRunoff Depth>0.26"Flow Length=530'Tc=18.3 minCN=32Runoff=0.18 cfs4,381 cf

Subcatchment E: SUBCAT ERunoff Area=301,475 sf1.33% ImperviousRunoff Depth>0.21"Flow Length=630'Tc=14.0 minCN=31Runoff=0.20 cfs5,355 cf

Subcatchment F: SUBCAT FRunoff Area=272,134 sf9.95% ImperviousRunoff Depth>0.75"Flow Length=825'Tc=11.7 minCN=40Runoff=2.33 cfs16,934 cf

Runoff Area=181,015 sf 0.00% Impervious Runoff Depth>0.17" Tc=6.0 min CN=30 Runoff=0.10 cfs 2,567 cf

Tc=6.0 min CN=30 Runoff=0.01 cfs 349 cf

Subcatchment H: SUBCAT HRunoff Area=253,913 sf0.00% ImperviousRunoff Depth>0.17"Flow Length=530'Tc=11.7 minCN=30Runoff=0.13 cfs3,583 cf

Subcatchment G: SUBCAT G

Subcatchment K: SUBCAT K

SubcatchmentI: SUBCATIRunoff Area=858,258 sf 3.91% ImperviousRunoff Depth>0.31"Flow Length=1,590'Tc=31.7 minCN=33Runoff=1.04 cfs 22,065 cf

Runoff Area=318,471 sf 7.84% Impervious Runoff Depth>1.12" Flow Length=1,223' Tc=10.6 min CN=45 Runoff=5.81 cfs 29,670 cf

Subcatchment L: SUBCAT LRunoff Area=313,113 sf0.00% ImperviousRunoff Depth>0.68"Tc=6.0 minCN=39Runoff=2.40 cfs17,734 cf

 Reach ER1: EX REACH 1
 Avg. Flow Depth=0.01'
 Max Vel=0.47 fps
 Inflow=0.18 cfs
 4,381 cf

 n=0.030
 L=755.0'
 S=0.0252 '/'
 Capacity=66.94 cfs
 Outflow=0.17 cfs
 4,243 cf

 Reach ER2: EX REACH 2
 Avg. Flow Depth=0.08'
 Max Vel=1.13 fps
 Inflow=2.33 cfs
 16,934 cf

 n=0.030
 L=260.0'
 S=0.0154 '/'
 Capacity=159.63 cfs
 Outflow=2.30 cfs
 16,843 cf

 Reach ER3: EX REACH 3
 Avg. Flow Depth=0.10'
 Max Vel=0.92 fps
 Inflow=2.31 cfs
 26,441 cf

 n=0.030
 L=256.0'
 S=0.0078 '/'
 Capacity=113.75 cfs
 Outflow=2.25 cfs
 26,268 cf

 Reach ER4: EX REACH 4
 Avg. Flow Depth=0.06'
 Max Vel=1.03 fps
 Inflow=2.25 cfs
 38,398 cf

 n=0.030
 L=1,291.0'
 S=0.0187 '/'
 Capacity=176.06 cfs
 Outflow=1.56 cfs
 37,436 cf

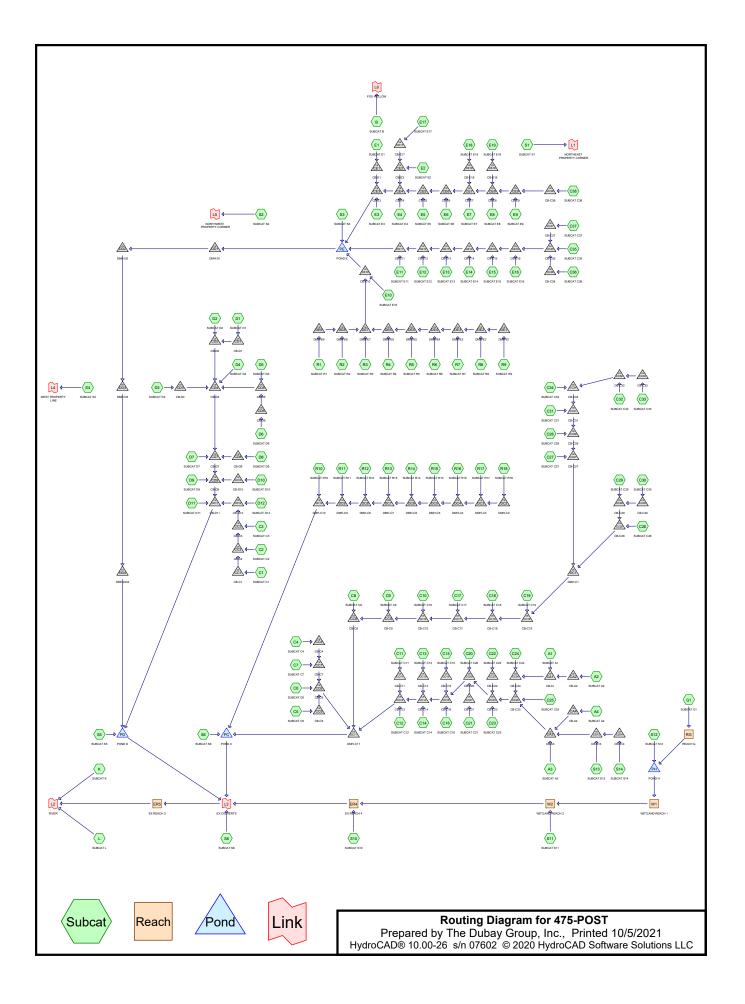
 Reach ER5: EX REACH 5
 Avg. Flow Depth=0.07'
 Max Vel=1.29 fps
 Inflow=2.53 cfs
 59,501 cf

 n=0.030
 L=1,085.0'
 S=0.0224 '/'
 Capacity=192.80 cfs
 Outflow=2.35 cfs
 58,498 cf

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Link L1: NORTHEAST PROPERTY CORNER	Inflow=0.03 cfs 919 cf Primary=0.03 cfs 919 cf
Link L2: RIVER	Inflow=8.18 cfs 105,902 cf Primary=8.18 cfs 105,902 cf
Link L3: EX CULVERTS	Inflow=2.53 cfs 59,501 cf Primary=2.53 cfs 59,501 cf
Link L4: WEST PROPERTY LINE	Inflow=0.13 cfs 3,583 cf Primary=0.13 cfs 3,583 cf
Link L5: NORTHWEST PROPERTY CORNER	Inflow=0.10 cfs 2,567 cf Primary=0.10 cfs 2,567 cf
Link L6: FOX HOLLOW	Inflow=0.01 cfs 349 cf Primary=0.01 cfs 349 cf

 Total Runoff Area = 3,679,215 sf
 Runoff Volume = 115,685 cf
 Average Runoff Depth = 0.38"

 97.51% Pervious = 3,587,730 sf
 2.49% Impervious = 91,485 sf



FRIARS DRIVE POST DEVELOPMENT

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Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
213,282	39	 >75% Grass cover, Good, HSG A (A1, A3, A4, C1, C10, C11, C12, C13, C15, C17, C18, C19, C2, C20, C21, C22, C23, C24, C26, C27, C28, C29, C3, C31, C32, C34, C35, C37, C38, C4, C5, C7, C8, C9, D10, D11, D12, D2, D3, D4, D5, D6, D7, D8, D9, E1, E10, E11, E12, E13, E14, E15, E16, E2, E3, E4, E5, E6, E7, E8, E9, K, L, S1, S12, S13, S14)
105,553	61	>75% Grass cover, Good, HSG B (K, L)
638,981	30	Brush, Good, HSG A (C33, C36, E17, E18, E19, G1, S10, S11, S2, S3, S4, S5, S6, S8)
7,709	98	Ex. Building (K)
13,340	98	Ex. Pavement (K, S11, S12, S13, S14)
71,325	98	Ex. Wetland (K, S10, S11, S8)
506,426	98	Proposed Building (R1, R10, R11, R12, R13, R14, R15, R16, R17, R18, R2, R3, R4, R5, R6, R7, R8, R9, S8)
655,142	98	Proposed Pavement (A1, A2, A3, A4, C1, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C2, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C3, C30, C31, C32, C33, C34, C35, C36, C37, C38, C4, C5, C6, C7, C8, C9, D1, D10, D11, D12, D2, D3, D4, D5, D6, D7, D8, D9, E1, E10, E11, E12, E13, E14, E15, E16, E2, E3, E4, E5, E6, E7, E8, E9, S12, S13, S14)
1,289,301	30	Woods, Good, HSG A (B, E17, E19, G1, K, L, S1, S10, S11, S2, S3, S4, S5, S6, S8)
118,156	55	Woods, Good, HSG B (K, L)
3,619,215	56	TOTAL AREA

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475-POST

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
2,141,564	HSG A	A1, A3, A4, B, C1, C10, C11, C12, C13, C15, C17, C18, C19, C2, C20, C21, C22, C23, C24, C26, C27, C28, C29, C3, C31, C32, C33, C34, C35, C36, C37, C38, C4, C5, C7, C8, C9, D10, D11, D12, D2, D3, D4, D5, D6, D7, D8, D9, E1, E10, E11, E12, E13, E14, E15, E16, E17, E18, E19, E2, E3, E4, E5, E6, E7, E8, E9, G1, K, L, S1, S10, S11, S12, S13, S14, S2, S3, S4, S5, S6, S8
223,709	HSG B	K, L
0	HSG C	
0	HSG D	
1,253,942	Other	A1, A2, A3, A4, C1, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C2, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C3, C30, C31, C32, C33, C34, C35, C36, C37, C38, C4, C5, C6, C7, C8, C9, D1, D10, D11, D12, D2, D3, D4, D5, D6, D7, D8, D9, E1, E10, E11, E12, E13, E14, E15, E16, E2, E3, E4, E5, E6, E7, E8, E9, K, R1, R10, R11, R12, R13, R14, R15, R16, R17, R18, R2, R3, R4, R5, R6, R7, R8, R9, S10, S11, S12, S13, S14, S8
3,619,215		TOTAL AREA

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 2-YR Rainfall=2.96"
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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-CN Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentA1: SUBCATA1	Runoff Area=4,895 sf 63.11% Impervious Runoff Depth>0.99" Tc=6.0 min CN=76 Runoff=0.12 cfs 403 cf
Subcatchment A2: SUBCAT A2	Runoff Area=5,412 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=0.35 cfs 1,230 cf
Subcatchment A3: SUBCAT A3	Runoff Area=5,889 sf 94.62% Impervious Runoff Depth>2.41" Tc=6.0 min CN=95 Runoff=0.35 cfs 1,182 cf
Subcatchment A4: SUBCAT A4	Runoff Area=6,616 sf 89.62% Impervious Runoff Depth>2.12" Tc=6.0 min CN=92 Runoff=0.36 cfs 1,170 cf
Subcatchment B: SUBCAT B	Runoff Area=24,585 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf
Subcatchment C1: SUBCAT C1	Runoff Area=6,254 sf 34.70% Impervious Runoff Depth>0.29" Tc=6.0 min CN=59 Runoff=0.02 cfs 151 cf
Subcatchment C10: SUBCAT C10	Runoff Area=26,752 sf 95.25% Impervious Runoff Depth>2.41" Tc=6.0 min CN=95 Runoff=1.61 cfs 5,370 cf
Subcatchment C11: SUBCAT C11	Runoff Area=6,044 sf 71.33% Impervious Runoff Depth>1.28" Tc=6.0 min CN=81 Runoff=0.20 cfs 645 cf
Subcatchment C12: SUBCAT C12	Runoff Area=8,341 sf 76.62% Impervious Runoff Depth>1.48" Tc=6.0 min CN=84 Runoff=0.33 cfs 1,030 cf
Subcatchment C13: SUBCAT C13	Runoff Area=3,872 sf 77.27% Impervious Runoff Depth>1.55" Tc=6.0 min CN=85 Runoff=0.16 cfs 501 cf
Subcatchment C14: SUBCAT C14	Runoff Area=2,992 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=0.19 cfs 680 cf
Subcatchment C15: SUBCAT C15	Runoff Area=3,872 sf 81.40% Impervious Runoff Depth>1.70" Tc=6.0 min CN=87 Runoff=0.17 cfs 549 cf
Subcatchment C16: SUBCAT C16	Runoff Area=2,992 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=0.19 cfs 680 cf
Subcatchment C17: SUBCAT C17	Runoff Area=25,506 sf 95.04% Impervious Runoff Depth>2.41" Tc=6.0 min CN=95 Runoff=1.54 cfs 5,120 cf
Subcatchment C18: SUBCAT C18	Runoff Area=27,087 sf 99.38% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=1.74 cfs 6,155 cf
Subcatchment C19: SUBCAT C19	Runoff Area=41,584 sf 80.98% Impervious Runoff Depth>1.70" Tc=6.0 min CN=87 Runoff=1.87 cfs 5,901 cf

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Subcatchment C2: SUBCAT C2	Runoff Area=4,249 sf 80.40% Impervious Runoff Depth>1.63" Tc=6.0 min CN=86 Runoff=0.18 cfs 576 cf
SubcatchmentC20: SUBCAT C20	Runoff Area=3,692 sf 81.61% Impervious Runoff Depth>1.70" Tc=6.0 min CN=87 Runoff=0.17 cfs 524 cf
Subcatchment C21: SUBCAT C21	Runoff Area=3,610 sf 79.03% Impervious Runoff Depth>1.63" Tc=6.0 min CN=86 Runoff=0.16 cfs 489 cf
Subcatchment C22: SUBCAT C22	Runoff Area=3,940 sf 77.16% Impervious Runoff Depth>1.55" Tc=6.0 min CN=85 Runoff=0.16 cfs 510 cf
Subcatchment C23: SUBCAT C23	Runoff Area=3,424 sf 90.30% Impervious Runoff Depth>2.12" Tc=6.0 min CN=92 Runoff=0.19 cfs 605 cf
Subcatchment C24: SUBCAT C24	Runoff Area=11,181 sf 56.94% Impervious Runoff Depth>0.83" Tc=6.0 min CN=73 Runoff=0.23 cfs 775 cf
Subcatchment C25: SUBCAT C25	Runoff Area=5,747 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=0.37 cfs 1,306 cf
Subcatchment C26: SUBCAT C26	Runoff Area=2,533 sf 92.22% Impervious Runoff Depth>2.21" Tc=6.0 min CN=93 Runoff=0.14 cfs 467 cf
Subcatchment C27: SUBCAT C27	Runoff Area=8,243 sf 88.85% Impervious Runoff Depth>2.03" Tc=6.0 min CN=91 Runoff=0.44 cfs 1,396 cf
Subcatchment C28: SUBCAT C28	Runoff Area=9,089 sf 85.50% Impervious Runoff Depth>1.86" Tc=6.0 min CN=89 Runoff=0.44 cfs 1,410 cf
Subcatchment C29: SUBCAT C29	Runoff Area=4,785 sf 67.29% Impervious Runoff Depth>1.16" Tc=6.0 min CN=79 Runoff=0.14 cfs 462 cf
Subcatchment C3: SUBCAT C3	Runoff Area=1,309 sf 87.47% Impervious Runoff Depth>2.03" Tc=6.0 min CN=91 Runoff=0.07 cfs 222 cf
Subcatchment C30: SUBCAT C30	Runoff Area=3,220 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=0.21 cfs 732 cf
Subcatchment C31: SUBCAT C31	Runoff Area=9,362 sf 86.57% Impervious Runoff Depth>1.95" Tc=6.0 min CN=90 Runoff=0.48 cfs 1,518 cf
Subcatchment C32: SUBCAT C32	Runoff Area=4,710 sf 67.69% Impervious Runoff Depth>1.16" Tc=6.0 min CN=79 Runoff=0.14 cfs 455 cf
Subcatchment C33: SUBCAT C33	Runoff Area=6,131 sf 52.05% Impervious Runoff Depth>0.49" Tc=6.0 min CN=65 Runoff=0.06 cfs 249 cf
Subcatchment C34: SUBCAT C34	Runoff Area=8,792 sf 87.89% Impervious Runoff Depth>2.03" Tc=6.0 min CN=91 Runoff=0.46 cfs 1,489 cf

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SubcatchmentC35: SUBCATC35	Runoff Area=3,541 sf 65.66% Impervious Runoff Depth>1.10" Tc=6.0 min CN=78 Runoff=0.10 cfs 324 cf
Subcatchment C36: SUBCAT C36	Runoff Area=4,686 sf 33.91% Impervious Runoff Depth>0.14" Tc=6.0 min CN=53 Runoff=0.00 cfs 55 cf
SubcatchmentC37: SUBCATC37	Runoff Area=10,601 sf 53.01% Impervious Runoff Depth>0.69" Tc=6.0 min CN=70 Runoff=0.17 cfs 611 cf
Subcatchment C38: SUBCAT C38	Runoff Area=6,400 sf 79.30% Impervious Runoff Depth>1.63" Tc=6.0 min CN=86 Runoff=0.28 cfs 868 cf
SubcatchmentC4: SUBCATC4	Runoff Area=5,937 sf 33.28% Impervious Runoff Depth>0.29" Tc=6.0 min CN=59 Runoff=0.02 cfs 143 cf
SubcatchmentC5: SUBCATC5	Runoff Area=5,125 sf 32.45% Impervious Runoff Depth>0.26" Tc=6.0 min CN=58 Runoff=0.01 cfs 111 cf
SubcatchmentC6: SUBCATC6	Runoff Area=2,104 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=0.14 cfs 478 cf
Subcatchment C7: SUBCAT C7	Runoff Area=2,469 sf 80.19% Impervious Runoff Depth>1.63" Tc=6.0 min CN=86 Runoff=0.11 cfs 335 cf
Subcatchment C8: SUBCAT C8	Runoff Area=31,789 sf 87.55% Impervious Runoff Depth>2.03" Tc=6.0 min CN=91 Runoff=1.68 cfs 5,384 cf
Subcatchment C9: SUBCAT C9	Runoff Area=26,752 sf 99.34% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=1.72 cfs 6,079 cf
Subcatchment D1: SUBCAT D1	Runoff Area=6,306 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=0.41 cfs 1,433 cf
Subcatchment D10: SUBCAT D10	Runoff Area=8,279 sf 85.05% Impervious Runoff Depth>1.86" Tc=6.0 min CN=89 Runoff=0.40 cfs 1,285 cf
Subcatchment D11: SUBCAT D11	Runoff Area=22,108 sf 71.77% Impervious Runoff Depth>1.28" Tc=6.0 min CN=81 Runoff=0.74 cfs 2,361 cf
Subcatchment D12: SUBCAT D12	Runoff Area=8,350 sf 88.55% Impervious Runoff Depth>2.03" Tc=6.0 min CN=91 Runoff=0.44 cfs 1,414 cf
Subcatchment D2: SUBCAT D2	Runoff Area=1,690 sf 84.14% Impervious Runoff Depth>1.86" Tc=6.0 min CN=89 Runoff=0.08 cfs 262 cf
Subcatchment D3: SUBCAT D3	Runoff Area=34,598 sf 51.01% Impervious Runoff Depth>0.65" Tc=6.0 min CN=69 Runoff=0.50 cfs 1,867 cf

Subcatchment D4: SUBCAT D4

Runoff Area=3,657 sf 72.49% Impervious Runoff Depth>1.35" Tc=6.0 min CN=82 Runoff=0.13 cfs 410 cf

475-POST

FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 2-YR Rainfall=2.96"

4/5-PUSI Bropared by The Dubay Croup Inc	Type III 24-nr 2-YR Raintail=2.96 Printed 10/5/2021
Prepared by The Dubay Group, Inc. HydroCAD® 10.00-26 s/n 07602 © 2020 Hydro	
<u> </u>	-
Subcatchment D5: SUBCAT D5	Runoff Area=6,341 sf 62.81% Impervious Runoff Depth>0.99"
	Tc=6.0 min CN=76 Runoff=0.16 cfs 522 cf
Subcatchment D6: SUBCAT D6	Runoff Area=6,633 sf 75.95% Impervious Runoff Depth>1.48"
	Tc=6.0 min CN=84 Runoff=0.26 cfs 819 cf
Subcatchment D7: SUBCAT D7	Runoff Area=17,040 sf 81.32% Impervious Runoff Depth>1.70" Tc=6.0 min CN=87 Runoff=0.77 cfs 2,418 cf
Subcatchment D8: SUBCAT D8	Runoff Area=7,740 sf 84.12% Impervious Runoff Depth>1.86"
	Tc=6.0 min CN=89 Runoff=0.38 cfs 1,201 cf
Subcatchment D9: SUBCAT D9	Runoff Area=19,265 sf 81.28% Impervious Runoff Depth>1.70"
	Tc=6.0 min CN=87 Runoff=0.87 cfs 2,734 cf
	Runoff Area=5,639 sf 95.66% Impervious Runoff Depth>2.41"
Subcatchment E1: SUBCAT E1	Tc=6.0 min CN=95 Runoff= 0.34 cfs 1,132 cf
Subcatchment E10: SUBCAT E10	Runoff Area=11,128 sf 61.34% Impervious Runoff Depth>0.93"
	Tc=6.0 min CN=75 Runoff=0.26 cfs 866 cf
Subcatchment E11: SUBCAT E11	Runoff Area=23,375 sf 93.96% Impervious Runoff Depth>2.31"
	Tc=6.0 min CN=94 Runoff=1.37 cfs 4,499 cf
Subcatchment E12: SUBCAT E12	Runoff Area=18,833 sf 95.13% Impervious Runoff Depth>2.41"
Subcatchinente 12. SOBCATE 12	Tc= $6.0 \text{ min } \text{CN}=95 \text{ Runoff}=1.13 \text{ cfs } 3,780 \text{ cf}$
Subcatchment E13: SUBCAT E13	Runoff Area=35,467 sf 94.58% Impervious Runoff Depth>2.41"
	Tc=6.0 min CN=95 Runoff=2.14 cfs 7,119 cf
Subcatchment E14: SUBCAT E14	Runoff Area=27,808 sf 98.14% Impervious Runoff Depth>2.62"
	Tc=6.0 min CN=97 Runoff=1.76 cfs 6,064 cf
Subcatchment E15: SUBCAT E15	Runoff Area=32,392 sf 98.14% Impervious Runoff Depth>2.62"
	Tc=6.0 min CN=97 Runoff=2.05 cfs 7,064 cf
SubcatchmentE16: SUBCATE16	Runoff Area=30,721 sf 76.36% Impervious Runoff Depth>1.48" Tc=6.0 min CN=84 Runoff=1.20 cfs 3,794 cf
Subcatchment E17: SUBCAT E17	Runoff Area=120,518 sf 0.00% Impervious Runoff Depth=0.00"
	Flow Length=190' Tc=7.2 min CN=30 Runoff=0.00 cfs 0 cf
Subcatchment E18: SUBCAT E18	Runoff Area=11,752 sf 0.00% Impervious Runoff Depth=0.00"
	Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf
Subcatchment E19: SUBCAT E19	Runoff Area=75,753 sf 0.00% Impervious Runoff Depth=0.00"
Subcalchinente 13. SUBCATE 13	Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf
Subcatchment E2: SUBCAT E2	Runoff Area=6,746 sf 96.37% Impervious Runoff Depth>2.51" Tc=6.0 min CN=96 Runoff=0.42 cfs 1,412 cf

475-POST	FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 2-YR Rainfall=2.96"
Prepared by The Dubay Group, Inc. HydroCAD® 10.00-26 s/n 07602 © 2020 Hyd	droCAD Software Solutions LLC Printed 10/5/2021
Subcatchment E3: SUBCAT E3	Runoff Area=10,197 sf 93.34% Impervious Runoff Depth>2.31" Tc=6.0 min CN=94 Runoff=0.60 cfs 1,963 cf
Subcatchment E4: SUBCAT E4	Runoff Area=11,078 sf 88.18% Impervious Runoff Depth>2.03" Tc=6.0 min CN=91 Runoff=0.59 cfs 1,876 cf
Subcatchment E5: SUBCAT E5	Runoff Area=9,740 sf 67.06% Impervious Runoff Depth>1.16" Tc=6.0 min CN=79 Runoff=0.29 cfs 940 cf
Subcatchment E6: SUBCAT E6	Runoff Area=13,215 sf 67.23% Impervious Runoff Depth>1.16" Tc=6.0 min CN=79 Runoff=0.40 cfs 1,275 cf
Subcatchment E7: SUBCAT E7	Runoff Area=9,100 sf 90.92% Impervious Runoff Depth>2.21" Tc=6.0 min CN=93 Runoff=0.52 cfs 1,679 cf
Subcatchment E8: SUBCAT E8	Runoff Area=12,697 sf 90.53% Impervious Runoff Depth>2.12" Tc=6.0 min CN=92 Runoff=0.70 cfs 2,245 cf
Subcatchment E9: SUBCAT E9	Runoff Area=3,988 sf 94.93% Impervious Runoff Depth>2.41" Tc=6.0 min CN=95 Runoff=0.24 cfs 800 cf
Subcatchment G1: SUBCAT G1	Runoff Area=203,535 sf 0.00% Impervious Runoff Depth=0.00" Flow Length=1,090' Tc=11.8 min CN=30 Runoff=0.00 cfs 0 cf
Subcatchment K: SUBCAT K	Runoff Area=318,471 sf 7.84% Impervious Runoff Depth>0.02" Flow Length=1,223' Tc=10.6 min CN=45 Runoff=0.02 cfs 546 cf
SubcatchmentL: SUBCATL	Runoff Area=313,113 sf 0.00% Impervious Runoff Depth>0.00" Tc=6.0 min CN=42 Runoff=0.01 cfs 72 cf
Subcatchment R1: SUBCAT R1	Runoff Area=7,200 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=0.46 cfs 1,636 cf
Subcatchment R10: SUBCAT R10	Runoff Area=32,400 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=2.08 cfs 7,362 cf
Subcatchment R11: SUBCAT R11	Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=2.02 cfs 7,158 cf
Subcatchment R12: SUBCAT R12	Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=2.02 cfs 7,158 cf
Subcatchment R13: SUBCAT R13	Runoff Area=26,325 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=1.69 cfs 5,982 cf
Subcatchment R14: SUBCAT R14	Runoff Area=28,575 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=1.84 cfs 6,493 cf
Subcatchment R15: SUBCAT R15	Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=2.02 cfs 7,158 cf

FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 2-YR Rainfall=2.96"

475-POST Prepared by The Dubay Group, Inc. Printed 10/5/2021 HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLC Page 9 Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>2.73" Subcatchment R16: SUBCAT R16 Tc=6.0 min CN=98 Runoff=2.02 cfs 7,158 cf Subcatchment R17: SUBCAT R17 Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=2.02 cfs 7,158 cf Runoff Area=7,200 sf 100.00% Impervious Runoff Depth>2.73" Subcatchment R18: SUBCAT R18 Tc=6.0 min CN=98 Runoff=0.46 cfs 1,636 cf Subcatchment R2: SUBCAT R2 Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=2.02 cfs 7,158 cf Subcatchment R3: SUBCAT R3 Runoff Area=56,700 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=3.64 cfs 12,884 cf Subcatchment R4: SUBCAT R4 Runoff Area=26,325 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=1.69 cfs 5,982 cf Subcatchment R5: SUBCAT R5 Runoff Area=28,575 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=1.84 cfs 6,493 cf Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>2.73" Subcatchment R6: SUBCAT R6 Tc=6.0 min CN=98 Runoff=2.02 cfs 7,158 cf Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>2.73" Subcatchment R7: SUBCAT R7 Tc=6.0 min CN=98 Runoff=2.02 cfs 7,158 cf Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>2.73" Subcatchment R8: SUBCAT R8 Tc=6.0 min CN=98 Runoff=2.02 cfs 7,158 cf Subcatchment R9: SUBCAT R9 Runoff Area=7,200 sf 100.00% Impervious Runoff Depth>2.73" Tc=6.0 min CN=98 Runoff=0.46 cfs 1,636 cf Runoff Area=57,112 sf 0.00% Impervious Runoff Depth=0.00" Subcatchment S1: SUBCAT S1 Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf Subcatchment S10: SUBCAT S10 Runoff Area=96,652 sf 6.11% Impervious Runoff Depth=0.00" Flow Length=455' Tc=12.0 min CN=34 Runoff=0.00 cfs 0 cf Runoff Area=113,276 sf 14.81% Impervious Runoff Depth=0.00" Subcatchment S11: SUBCAT S11 Flow Length=327' Tc=6.0 min CN=40 Runoff=0.00 cfs 0 cf Subcatchment S12: SUBCAT S12 Runoff Area=23,144 sf 3.59% Impervious Runoff Depth>0.00" Tc=6.0 min CN=41 Runoff=0.00 cfs 1 cf Runoff Area=13.348 sf 89.17% Impervious Runoff Depth>2.12" Subcatchment S13: SUBCAT S13 Tc=6.0 min CN=92 Runoff=0.73 cfs 2,360 cf Runoff Area=11,820 sf 88.58% Impervious Runoff Depth>2.03" Subcatchment S14: SUBCAT S14 Tc=6.0 min CN=91 Runoff=0.63 cfs 2,002 cf

FRIARS DRIVE POST DEVELOPMENT

475-POST	Type III 24-hr 2-YR Rainfall=2.96"
Prepared by The Dubay Group, Inc.	Printed 10/5/2021
HydroCAD® 10.00-26 s/n 07602 © 2020 Hydro	CAD Software Solutions LLC Page 10
Subcatchment S2: SUBCAT S2	Runoff Area=71,723 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf
Subcatchment S3: SUBCAT S3	Runoff Area=100,949 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf
Subcatchment S4: SUBCAT S4	Runoff Area=212,906 sf 0.00% Impervious Runoff Depth=0.00" Flow Length=530' Tc=11.7 min CN=30 Runoff=0.00 cfs 0 cf
Subcatchment S5: SUBCAT S5	Runoff Area=52,646 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf
SubcatchmentS6: SUBCATS6	Runoff Area=71,750 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf
SubcatchmentS8: SUBCATS8	Runoff Area=446,502 sf 8.05% Impervious Runoff Depth=0.00" Flow Length=2,253' Tc=13.6 min CN=35 Runoff=0.00 cfs 0 cf
Reach ER4: EX REACH 4 n=0.030 L=1	Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf ,291.0' S=0.0187 '/' Capacity=176.06 cfs Outflow=0.00 cfs 0 cf
Reach ER5: EX REACH 5 n=0.030 L=1	Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf ,085.0' S=0.0224 '/' Capacity=192.80 cfs Outflow=0.00 cfs 0 cf
Reach RG: REACH G 12.0" Round Pipe n=0.012	Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf L=180.0' S=0.0278 '/' Capacity=6.43 cfs Outflow=0.00 cfs 0 cf
Reach W1: WETLAND REACH 1 n=0.030 Li	Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf =420.0' S=0.0190 '/' Capacity=177.62 cfs Outflow=0.00 cfs 0 cf
Reach W2: WETLAND REACH 2 n=0.030 Li	Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf =480.0' S=0.0083 '/' Capacity=117.48 cfs Outflow=0.00 cfs 0 cf
Pond CA1: CB-A1 12.0" Round	Peak Elev=156.08' Inflow=0.47 cfs 1,632 cf Culvert n=0.012 L=83.0' S=0.0100 '/' Outflow=0.47 cfs 1,632 cf
Pond CA2: CB-A2 12.0" Round	Peak Elev=156.54' Inflow=0.35 cfs 1,230 cf Culvert n=0.012 L=41.0' S=0.0100 '/' Outflow=0.35 cfs 1,230 cf
Pond CA3: CB-A3 18.0" Round C	Peak Elev=154.65' Inflow=2.07 cfs 6,714 cf Culvert n=0.012 L=169.0' S=0.0050 '/' Outflow=2.07 cfs 6,714 cf
Pond CA4: CB-A4 12.0" Round	Peak Elev=155.23' Inflow=0.36 cfs 1,170 cf Culvert n=0.012 L=50.0' S=0.0100 '/' Outflow=0.36 cfs 1,170 cf
Pond CC1: CB-C1 12.0" Rour	Peak Elev=159.34' Inflow=0.02 cfs 151 cf nd Culvert n=0.012 L=33.0' S=0.0048 '/' Outflow=0.02 cfs 151 cf
Pond CC10: CB-C10 30.0" Round Co	Peak Elev=152.92' Inflow=9.27 cfs 30,723 cf ulvert n=0.012 L=170.0' S=0.0050 '/' Outflow=9.27 cfs 30,723 cf

475-POST Prepared by The Dubay <u>HydroCAD® 10.00-26_s/n 07</u>	FRIARS DRIVE POST DEVELOPMENT <i>Type III 24-hr 2-YR Rainfall=2.96"</i> Group, Inc. Printed 10/5/2021 7602 © 2020 HydroCAD Software Solutions LLC Page 11
Pond CC11: CB-C11	Peak Elev=155.97' Inflow=0.20 cfs 645 cf 12.0" Round Culvert n=0.012 L=30.0' S=0.0200 '/' Outflow=0.20 cfs 645 cf
Pond CC12: CB-C12	Peak Elev=148.80' Inflow=5.05 cfs 16,642 cf 24.0" Round Culvert n=0.012 L=70.0' S=0.0050 '/' Outflow=5.05 cfs 16,642 cf
Pond CC13: CB-C13	Peak Elev=155.94' Inflow=0.16 cfs 501 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0200 '/' Outflow=0.16 cfs 501 cf
Pond CC14: CB-C14	Peak Elev=149.69' Inflow=4.52 cfs 14,966 cf 24.0" Round Culvert n=0.012 L=172.0' S=0.0050 '/' Outflow=4.52 cfs 14,966 cf
Pond CC15: CB-C15	Peak Elev=155.95' Inflow=0.17 cfs 549 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0200 '/' Outflow=0.17 cfs 549 cf
Pond CC16: CB-C16	Peak Elev=150.59' Inflow=4.17 cfs 13,785 cf 24.0" Round Culvert n=0.012 L=172.0' S=0.0050 '/' Outflow=4.17 cfs 13,785 cf
Pond CC17: CB-C17	Peak Elev=153.70' Inflow=7.66 cfs 25,353 cf 30.0" Round Culvert n=0.012 L=165.0' S=0.0050 '/' Outflow=7.66 cfs 25,353 cf
Pond CC18: CB-C18	Peak Elev=154.48' Inflow=6.12 cfs 20,233 cf 30.0" Round Culvert n=0.012 L=168.0' S=0.0050 '/' Outflow=6.12 cfs 20,233 cf
Pond CC19: CB-C19	Peak Elev=155.72' Inflow=4.38 cfs 14,078 cf 24.0" Round Culvert n=0.012 L=181.0' S=0.0050 '/' Outflow=4.38 cfs 14,078 cf
Pond CC2: CB-C2	Peak Elev=159.24' Inflow=0.20 cfs 727 cf 12.0" Round Culvert n=0.012 L=56.0' S=0.0050 '/' Outflow=0.20 cfs 727 cf
Pond CC20: CB-C20	Peak Elev=151.49' Inflow=3.81 cfs 12,556 cf 24.0" Round Culvert n=0.012 L=169.0' S=0.0050 '/' Outflow=3.81 cfs 12,556 cf
Pond CC21: CB-C21	Peak Elev=155.94' Inflow=0.16 cfs 489 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0200 '/' Outflow=0.16 cfs 489 cf
Pond CC22: CB-C22	Peak Elev=155.94' Inflow=0.16 cfs 510 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0200 '/' Outflow=0.16 cfs 510 cf
Pond CC23: CB-C23	Peak Elev=152.41' Inflow=3.49 cfs 11,542 cf 24.0" Round Culvert n=0.012 L=173.0' S=0.0050 '/' Outflow=3.49 cfs 11,542 cf
Pond CC24: CB-C24	Peak Elev=155.23' Inflow=0.69 cfs 2,407 cf 12.0" Round Culvert n=0.012 L=42.0' S=0.0290 '/' Outflow=0.69 cfs 2,407 cf
Pond CC25: CB-C25	Peak Elev=153.41' Inflow=3.14 cfs 10,427 cf 24.0" Round Culvert n=0.012 L=190.0' S=0.0050 '/' Outflow=3.14 cfs 10,427 cf
Pond CC26: CB-C26	Peak Elev=158.51' Inflow=0.49 cfs 1,661 cf 12.0" Round Culvert n=0.012 L=41.0' S=0.0224 '/' Outflow=0.49 cfs 1,661 cf

FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 2-YR Rainfall=2.96" 475-POST Prepared by The Dubay Group, Inc. Printed 10/5/2021 HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLC Page 12 Peak Elev=158.18' Inflow=2.02 cfs 6,517 cf Pond CC27: CB-C27 18.0" Round Culvert n=0.012 L=122.0' S=0.0050 '/' Outflow=2.02 cfs 6.517 cf Peak Elev=158.88' Inflow=1.58 cfs 5,121 cf Pond CC28: CB-C28 15.0" Round Culvert n=0.012 L=101.0' S=0.0050 '/' Outflow=1.58 cfs 5,121 cf Peak Elev=160.09' Inflow=0.35 cfs 1,193 cf Pond CC29: CB-C29 12.0" Round Culvert n=0.012 L=77.0' S=0.0200 '/' Outflow=0.35 cfs 1,193 cf Peak Elev=158.91' Inflow=0.27 cfs 948 cf Pond CC3: CB-C3 12.0" Round Culvert n=0.012 L=75.0' S=0.0049 '/' Outflow=0.27 cfs 948 cf Pond CC30: CB-C30 Peak Elev=160.64' Inflow=0.21 cfs 732 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0200 '/' Outflow=0.21 cfs 732 cf Peak Elev=159.55' Inflow=1.14 cfs 3,711 cf Pond CC31: CB-C31 15.0" Round Culvert n=0.012 L=133.0' S=0.0050 '/' Outflow=1.14 cfs 3,711 cf Pond CC32: CB-C32 Peak Elev=161.52' Inflow=0.20 cfs 703 cf 12.0" Round Culvert n=0.012 L=53.0' S=0.0292 '/' Outflow=0.20 cfs 703 cf Peak Elev=162.26' Inflow=0.06 cfs 249 cf Pond CC33: CB-C33 12.0" Round Culvert n=0.012 L=26.0' S=0.0288 '/' Outflow=0.06 cfs 249 cf Peak Elev=160.11' Inflow=0.66 cfs 2,192 cf Pond CC34: CB-C34 12.0" Round Culvert n=0.012 L=88.0' S=0.0050 '/' Outflow=0.66 cfs 2,192 cf Peak Elev=159.23' Inflow=0.27 cfs 990 cf Pond CC35: CB-C35 12.0" Round Culvert n=0.012 L=90.0' S=0.0303 '/' Outflow=0.27 cfs 990 cf Pond CC36: CB-C36 Peak Elev=160.18' Inflow=0.00 cfs 55 cf 12.0" Round Culvert n=0.012 L=40.0' S=0.0267 '/' Outflow=0.00 cfs 55 cf Peak Elev=159.48' Inflow=0.17 cfs 611 cf Pond CC37: CB-C37 12.0" Round Culvert n=0.012 L=34.0' S=0.0050 '/' Outflow=0.17 cfs 611 cf Peak Elev=161.56' Inflow=0.28 cfs 868 cf Pond CC38: CB-C38 12.0" Round Culvert n=0.012 L=120.0' S=0.0179 '/' Outflow=0.28 cfs 868 cf Peak Elev=157.57' Inflow=0.02 cfs 143 cf Pond CC4: CB-C4 12.0" Round Culvert n=0.012 L=26.0' S=0.0100 '/' Outflow=0.02 cfs 143 cf Peak Elev=159.51' Inflow=0.01 cfs 111 cf Pond CC5: CB-C5 12.0" Round Culvert n=0.012 L=30.0' S=0.0100 '/' Outflow=0.01 cfs 111 cf Peak Elev=156.67' Inflow=0.26 cfs 1,067 cf Pond CC6: CB-C6 12.0" Round Culvert n=0.012 L=73.0' S=0.0100 '/' Outflow=0.26 cfs 1,067 cf Peak Elev=157.31' Inflow=0.12 cfs 478 cf Pond CC7: CB-C7

12.0" Round Culvert n=0.012 L=62.0' S=0.0100 '/' Outflow=0.12 cfs 478 cf

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Pond CC8: CB-C8	Peak Elev=150.74' Inflow=12.67 cfs 42,185 cf 36.0" Round Culvert n=0.012 L=85.0' S=0.0051 '/' Outflow=12.67 cfs 42,185 cf
Pond CC9: CB-C9	Peak Elev=152.02' Inflow=10.99 cfs 36,801 cf 30.0" Round Culvert n=0.012 L=170.0' S=0.0050 '/' Outflow=10.99 cfs 36,801 cf
Pond CD1: CB-D1	Peak Elev=159.40' Inflow=0.41 cfs 1,433 cf 12.0" Round Culvert n=0.012 L=144.0' S=0.0050 '/' Outflow=0.41 cfs 1,433 cf
Pond CD10: CB-D10	Peak Elev=159.07' Inflow=0.40 cfs 1,285 cf 12.0" Round Culvert n=0.012 L=121.0' S=0.0300 '/' Outflow=0.40 cfs 1,285 cf
Pond CD11: CB-D11	Peak Elev=154.52' Inflow=5.39 cfs 17,674 cf 24.0" Round Culvert n=0.012 L=264.0' S=0.0133 '/' Outflow=5.39 cfs 17,674 cf
Pond CD12: CB-D12	Peak Elev=158.57' Inflow=0.71 cfs 2,362 cf 12.0" Round Culvert n=0.012 L=121.0' S=0.0299 '/' Outflow=0.71 cfs 2,362 cf
Pond CD2: CB-D2	Peak Elev=158.58' Inflow=0.49 cfs 1,695 cf 12.0" Round Culvert n=0.012 L=91.0' S=0.0189 '/' Outflow=0.49 cfs 1,695 cf
Pond CD3: CB-D3	Peak Elev=157.16' Inflow=0.50 cfs 1,867 cf 12.0" Round Culvert n=0.012 L=48.0' S=0.0050 '/' Outflow=0.50 cfs 1,867 cf
Pond CD4: CB-D4	Peak Elev=156.62' Inflow=1.53 cfs 5,313 cf 18.0" Round Culvert n=0.012 L=165.0' S=0.0050 '/' Outflow=1.53 cfs 5,313 cf
Pond CD5: CB-D5	Peak Elev=158.07' Inflow=0.42 cfs 1,341 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0477 '/' Outflow=0.42 cfs 1,341 cf
Pond CD6: CB-D6	Peak Elev=158.43' Inflow=0.26 cfs 819 cf 12.0" Round Culvert n=0.012 L=33.0' S=0.0100 '/' Outflow=0.26 cfs 819 cf
Pond CD7: CB-D7	Peak Elev=155.51' Inflow=2.67 cfs 8,932 cf 24.0" Round Culvert n=0.012 L=93.0' S=0.0051 '/' Outflow=2.67 cfs 8,932 cf
Pond CD8: CB-D8	Peak Elev=159.05' Inflow=0.38 cfs 1,201 cf 12.0" Round Culvert n=0.012 L=121.0' S=0.0253 '/' Outflow=0.38 cfs 1,201 cf
Pond CD9: CB-D9	Peak Elev=155.10' Inflow=3.94 cfs 12,950 cf 24.0" Round Culvert n=0.012 L=100.0' S=0.0050 '/' Outflow=3.94 cfs 12,950 cf
Pond CE1: CB-E1	Peak Elev=161.14' Inflow=0.34 cfs 1,132 cf 12.0" Round Culvert n=0.012 L=101.0' S=0.0661 '/' Outflow=0.34 cfs 1,132 cf
Pond CE10: CB-E10	Peak Elev=152.29' Inflow=16.46 cfs 58,127 cf 42.0" Round Culvert n=0.012 L=43.0' S=0.0049 '/' Outflow=16.46 cfs 58,127 cf
Pond CE11: CB-E11	Peak Elev=152.40' Inflow=9.91 cfs 33,311 cf 30.0" Round Culvert n=0.012 L=104.0' S=0.0050 '/' Outflow=9.91 cfs 33,311 cf

FRIARS DRIVE POST DEVELOPMENT

Type III 24-hr 2-YR Rainfall=2.96" Printed 10/5/2021

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Pond CE12: CB-E12	Peak Elev=153.07' Inflow=8.54 cfs 28,811 cf 30.0" Round Culvert n=0.012 L=127.0' S=0.0050 '/' Outflow=8.54 cfs 28,811 cf
Pond CE13: CB-E13	Peak Elev=153.84' Inflow=7.40 cfs 25,031 cf 30.0" Round Culvert n=0.012 L=161.0' S=0.0050 '/' Outflow=7.40 cfs 25,031 cf
Pond CE14: CB-E14	Peak Elev=154.93' Inflow=5.27 cfs 17,912 cf 24.0" Round Culvert n=0.012 L=155.0' S=0.0050 '/' Outflow=5.27 cfs 17,912 cf
Pond CE15: CB-E15	Peak Elev=155.56' Inflow=3.51 cfs 11,848 cf 24.0" Round Culvert n=0.012 L=134.0' S=0.0050 '/' Outflow=3.51 cfs 11,848 cf
Pond CE16: CB-E16	Peak Elev=156.36' Inflow=1.47 cfs 4,784 cf 18.0" Round Culvert n=0.012 L=127.0' S=0.0050 '/' Outflow=1.47 cfs 4,784 cf
Pond CE17: CB-E17	Peak Elev=161.49' Inflow=0.00 cfs 0 cf 12.0" Round Culvert n=0.012 L=64.0' S=0.0100 '/' Outflow=0.00 cfs 0 cf
Pond CE18: CB-E18	Peak Elev=156.59' Inflow=0.00 cfs 0 cf 12.0" Round Culvert n=0.012 L=49.0' S=0.0051 '/' Outflow=0.00 cfs 0 cf
Pond CE19: CB-E19	Peak Elev=157.30' Inflow=0.00 cfs 0 cf 12.0" Round Culvert n=0.012 L=49.0' S=0.0051 '/' Outflow=0.00 cfs 0 cf
Pond CE2: CB-E2	Peak Elev=161.07' Inflow=0.42 cfs 1,412 cf 12.0" Round Culvert n=0.012 L=101.0' S=0.0612 '/' Outflow=0.42 cfs 1,412 cf
Pond CE3: CB-E3	Peak Elev=154.14' Inflow=4.35 cfs 14,190 cf 24.0" Round Culvert n=0.012 L=178.0' S=0.0050 '/' Outflow=4.35 cfs 14,190 cf
Pond CE4: CB-E4	Peak Elev=154.52' Inflow=3.42 cfs 11,095 cf 24.0" Round Culvert n=0.012 L=60.0' S=0.0050 '/' Outflow=3.42 cfs 11,095 cf
Pond CE5: CB-E5	Peak Elev=155.26' Inflow=2.41 cfs 7,807 cf 18.0" Round Culvert n=0.012 L=76.0' S=0.0050 '/' Outflow=2.41 cfs 7,807 cf
Pond CE6: CB-E6	Peak Elev=156.01' Inflow=2.12 cfs 6,867 cf 18.0" Round Culvert n=0.012 L=140.0' S=0.0050 '/' Outflow=2.12 cfs 6,867 cf
Pond CE7: CB-E7	Peak Elev=156.69' Inflow=1.73 cfs 5,592 cf 15.0" Round Culvert n=0.012 L=95.0' S=0.0049 '/' Outflow=1.73 cfs 5,592 cf
Pond CE8: CB-E8	Peak Elev=157.36' Inflow=1.21 cfs 3,913 cf 15.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=1.21 cfs 3,913 cf
Pond CE9: CB-E9	Peak Elev=159.41' Inflow=0.52 cfs 1,668 cf 12.0" Round Culvert n=0.012 L=94.0' S=0.0218 '/' Outflow=0.52 cfs 1,668 cf
Pond CS13: CB-S13	Peak Elev=155.52' Inflow=1.36 cfs 4,362 cf 15.0" Round Culvert n=0.012 L=145.0' S=0.0050 '/' Outflow=1.36 cfs 4,362 cf

475-POST

FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 2-YR Rainfall=2.96"

475-POST	FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 2-YR Rainfall=2.96"
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Pond CS14: CB-S14	Peak Elev=156.56' Inflow=0.63 cfs 2,002 cf 12.0" Round Culvert n=0.012 L=101.0' S=0.0100 '/' Outflow=0.63 cfs 2,002 cf
Pond DC1: DMH-C1	Peak Elev=157.47' Inflow=2.51 cfs 8,178 cf 18.0" Round Culvert n=0.012 L=155.0' S=0.0096 '/' Outflow=2.51 cfs 8,178 cf
Pond DC10: DMH-C10	Peak Elev=151.64' Inflow=16.20 cfs 57,261 cf 36.0" Round Culvert n=0.012 L=247.0' S=0.0050 '/' Outflow=16.20 cfs 57,261 cf
Pond DC11: DMH-C11	Peak Elev=147.57' Inflow=17.98 cfs 59,894 cf 42.0" Round Culvert n=0.012 L=174.0' S=0.0050 '/' Outflow=17.98 cfs 59,894 cf
Pond DC2: DMH-C2	Peak Elev=158.11' Inflow=0.46 cfs 1,636 cf 12.0" Round Culvert n=0.012 L=136.0' S=0.0060 '/' Outflow=0.46 cfs 1,636 cf
Pond DC3: DMH-C3	Peak Elev=157.24' Inflow=2.49 cfs 8,794 cf 18.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=2.49 cfs 8,794 cf
Pond DC4: DMH-C4	Peak Elev=156.34' Inflow=4.51 cfs 15,951 cf 24.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=4.51 cfs 15,951 cf
Pond DC5: DMH-C5	Peak Elev=155.71' Inflow=6.54 cfs 23,109 cf 24.0" Round Culvert n=0.012 L=117.0' S=0.0050 '/' Outflow=6.54 cfs 23,109 cf
Pond DC6: DMH-C6	Peak Elev=154.80' Inflow=8.37 cfs 29,602 cf 30.0" Round Culvert n=0.012 L=117.0' S=0.0050 '/' Outflow=8.37 cfs 29,602 cf
Pond DC7: DMH-C7	Peak Elev=154.25' Inflow=10.07 cfs 35,584 cf 30.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=10.07 cfs 35,584 cf
Pond DC8: DMH-C8	Peak Elev=153.51' Inflow=12.09 cfs 42,741 cf 30.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=12.09 cfs 42,741 cf
Pond DC9: DMH-C9	Peak Elev=152.45' Inflow=14.12 cfs 49,899 cf 36.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=14.12 cfs 49,899 cf
Pond DD1: DMH-D1	Peak Elev=151.02' Inflow=15.82 cfs 103,499 cf 30.0" Round Culvert n=0.012 L=273.0' S=0.0050 '/' Outflow=15.82 cfs 103,499 cf
Pond DD2: DMH-D2	Peak Elev=149.64' Inflow=15.82 cfs 103,499 cf 30.0" Round Culvert n=0.012 L=183.0' S=0.0050 '/' Outflow=15.82 cfs 103,499 cf
Pond DD3: DMH-D3	Peak Elev=148.62' Inflow=15.82 cfs 103,499 cf 30.0" Round Culvert n=0.012 L=131.0' S=0.0050 '/' Outflow=15.82 cfs 103,499 cf
Pond DD4: DMH-DD4	Peak Elev=147.71' Inflow=15.82 cfs 103,499 cf 30.0" Round Culvert n=0.012 L=133.0' S=0.0050 '/' Outflow=15.82 cfs 103,499 cf

Pond DE1: DMH-E1 Peak Elev=158.11' Inflow=0.46 cfs 1,636 cf 12.0" Round Culvert n=0.012 L=136.0' S=0.0060 '/' Outflow=0.46 cfs 1,636 cf

FRIARS DRIVE POST DEVELOPMENT

Type III 24-hr 2-YR Rainfall=2.96" Printed 10/5/2021

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HydroCAD® 10.00-26 s/n	D7602 © 2020 HydroCAD Software Solutions LLC Page 16
Pond DE2: DMH-E2	Peak Elev=157.24' Inflow=2.49 cfs 8,794 cf 18.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=2.49 cfs 8,794 cf
Pond DE3: DMH-E3	Peak Elev=156.34' Inflow=4.51 cfs 15,951 cf 24.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=4.51 cfs 15,951 cf
Pond DE4: DMH-E4	Peak Elev=155.71' Inflow=6.54 cfs 23,109 cf 24.0" Round Culvert n=0.012 L=117.0' S=0.0050 '/' Outflow=6.54 cfs 23,109 cf
Pond DE5: DMH-E5	Peak Elev=154.78' Inflow=8.37 cfs 29,602 cf 30.0" Round Culvert n=0.012 L=117.0' S=0.0050 '/' Outflow=8.37 cfs 29,602 cf
Pond DE6: DMH-E9	Peak Elev=154.13' Inflow=10.07 cfs 35,584 cf 30.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=10.07 cfs 35,584 cf
Pond DE7: DMH-E7	Peak Elev=152.86' Inflow=16.20 cfs 57,261 cf 42.0" Round Culvert n=0.012 L=78.0' S=0.0050 '/' Outflow=16.20 cfs 57,261 cf
Pond DE8: DMH-E8	Peak Elev=156.16' Inflow=2.49 cfs 8,794 cf 18.0" Round Culvert n=0.012 L=136.0' S=0.0178 '/' Outflow=2.49 cfs 8,794 cf
Pond DE9: DMH-E9	Peak Elev=158.99' Inflow=0.46 cfs 1,636 cf 12.0" Round Culvert n=0.012 L=136.0' S=0.0200 '/' Outflow=0.46 cfs 1,636 cf
Pond PC: POND C	Peak Elev=145.55' Storage=41,788 cf Inflow=34.17 cfs 117,155 cf Discarded=3.61 cfs 117,126 cf Primary=0.00 cfs 0 cf Outflow=3.61 cfs 117,126 cf
Pond PD: POND D	Peak Elev=144.38' Storage=49,230 cf Inflow=19.56 cfs 121,172 cf Discarded=2.73 cfs 121,138 cf Primary=0.00 cfs 0 cf Outflow=2.73 cfs 121,138 cf
Pond PE: POND E	Peak Elev=152.09' Storage=37,388 cf Inflow=30.71 cfs 105,628 cf Outflow=15.82 cfs 103,499 cf
Pond PH: POND H	Peak Elev=150.00' Storage=13,654 cf Inflow=0.00 cfs 1 cf Outflow=0.00 cfs 0 cf
Link L1: NORTHEASTP	ROPERTY CORNERInflow=0.00 cfs0 cfPrimary=0.00 cfs0 cf
Link L2: RIVER	Inflow=0.02 cfs 618 cf Primary=0.02 cfs 618 cf
Link L3: EX CULVERTS	Inflow=0.00 cfs 0 cf Primary=0.00 cfs 0 cf
Link L4: WEST PROPER	RTY LINEInflow=0.00 cfs0 cfPrimary=0.00 cfs0 cf
Link L5: NORTHWEST PROPERTY CORNERInflow=0.00 cfsPrimary=0.00 cfsPrimary=0.00 cfs	

475-POST

Link L6: FOX HOLLOW

Inflow=0.00 cfs 0 cf Primary=0.00 cfs 0 cf

Total Runoff Area = 3,619,215 sf Runoff Volume = 241,076 cf Average Runoff Depth = 0.80" 65.35% Pervious = 2,365,273 sf 34.65% Impervious = 1,253,942 sf

Summary for Subcatchment A1: SUBCAT A1

Runoff = 0.12 cfs @ 12.10 hrs, Volume= 403 cf, Depth> 0.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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		
*		3,089	98	Proposed F	avement	
		1,806	39	>75% Gras	s cover, Go	bod, HSG A
		4,895	76	Weighted Average		
		1,806		36.89% Pervious Area		
		3,089		63.11% Impervious Area		
	Тс	Length	Slop	e Velocity	Capacity	Description
(I	min)	(feet)	(ft/ft	t) (ft/sec)	(cfs)	
	6.0					Direct Entry,

Summary for Subcatchment A2: SUBCAT A2

Runoff = 0.35 cfs @ 12.09 hrs, Volume= 1,230 cf, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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		
*		5,412	98	Proposed P	avement	
		0	39	>75% Gras	s cover, Go	bod, HSG A
		5,412	98	Weighted Average		
		5,412		100.00% Im	pervious A	vrea
	Tc (min)	Length (feet)	Slope (ft/ft	,	Capacity (cfs)	Description
	6.0	((10/10	, ((010)	Direct Entry,

Summary for Subcatchment A3: SUBCAT A3

Runoff = 0.35 cfs @ 12.09 hrs, Volume= 1,182 cf, Depth> 2.41"

	Area (sf)	CN	Description			
*	5,572	98	Proposed Pavement			
	317	39	>75% Grass cover, Good, HSG A			
	5,889	95	Weighted Average			
	317		5.38% Pervious Area			
	5,572		94.62% Impervious Area			

FRIARS DRIVE POST DEVELOPMENT475-POSTType III 24-hr2-YR Rainfall=2.96"Prepared by The Dubay Group, Inc.Printed 10/5/2021HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLCPage 19				
Tc Lengt (min) (fee				
6.0	Direct Entry,			
	Summary for Subcatchment A4: SUBCAT A4			
Runoff =	0.36 cfs @ 12.09 hrs, Volume= 1,170 cf, Depth> 2.12"			
	TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs -YR Rainfall=2.96"			
Area (sf)	CN Description			
* 5,929 687				
6,616	92 Weighted Average			
687				
5,929	89.62% Impervious Area			
Tc Lengt (min) (fee				
6.0	Direct Entry,			
	Summary for Subcatchment B: SUBCAT B			
Runoff =	0.00 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"			
	TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs -YR Rainfall=2.96"			
Area (sf)	CN Description			
0 24,585				
* 0	98 Ex. Wetland			
* 0 * 0				
24,585 24,585	30 Weighted Average			
Tc Lengt (min) (fee	t) (ft/ft) (ft/sec) (cfs)			
6.0	Direct Entry,			
	Summary for Subcatchment C1: SUBCAT C1			

Runoff = 0.02 cfs @ 12.27 hrs, Volume= 151 cf, Depth> 0.29"

FRIARS DRIVE POST DEVELOPMENT *Type III 24-hr 2-YR Rainfall=2.96"* Printed 10/5/2021 as LLC Page 20

475-POST

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_	A	rea (sf)	CN	Description						
*		2,170	98	Proposed Pavement						
_		4,084	39	>75% Grass cover, Good, HSG A						
		6,254	59	Veighted Average						
		4,084		65.30% Pervious Area						
		2,170	:	34.70% Imp	pervious Ar	rea				
	Тс	Length	Slope	Velocity	Capacity	Description				
_	(min)	(feet)	(ft/ft)							
	6.0					Direct Entry,				

Summary for Subcatchment C10: SUBCAT C10

Runoff = 1.61 cfs @ 12.09 hrs, Volume= 5,370 cf, Depth> 2.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
*		25,480		Proposed Pavement					
_		1,272	39	>75% Gras	s cover, Go	bod, HSG A			
		26,752	95	Weighted Average					
		1,272		4.75% Pervious Area					
		25,480		95.25% Imp	pervious Ar	ea			
	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description			
	6.0					Direct Entry,			

Summary for Subcatchment C11: SUBCAT C11

Runoff = 0.20 cfs @ 12.10 hrs, Volume= 645 cf, Depth> 1.28"

	Area (sf)	CN	Description						
*	4,311	98	Proposed Pavement						
	1,733	39	>75% Grass cover, Good, HSG A						
	6,044	81	Weighted Average						
	1,733		28.67% Pervious Area						
	4,311		71.33% Imp	pervious Ar	ea				
T (mir	c Length n) (feet)	Slope (ft/ft	,	Capacity (cfs)	Description				
6.	0				Direct Entry,				

Summary for Subcatchment C12: SUBCAT C12

Runoff = 0.33 cfs @ 12.09 hrs, Volume= 1,030 cf, Depth> 1.48"

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

	Ai	rea (sf)	CN	Description						
*		6,391	98	Proposed F	avement					
		1,950	39	>75% Gras	s cover, Go	bod, HSG A				
		8,341	84	Weighted Average						
		1,950		23.38% Pervious Area						
		6,391		76.62% Imp	pervious Are	ea				
	та	l e re erthe	Clar	• Valesity	Conseitu	Description				
1.	Tc	Length	Slop		Capacity	Description				
(r	min)	(feet)	(ft/f	ft) (ft/sec) (cfs)						
	6.0					Direct Entry,				

Summary for Subcatchment C13: SUBCAT C13

Runoff = 0.16 cfs @ 12.09 hrs, Volume= 501 cf, Depth> 1.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		2,992	98	Proposed Pavement						
		880	39	>75% Gras	s cover, Go	bod, HSG A				
		3,872	85	Weighted Average						
		880		22.73% Pervious Area						
		2,992		77.27% Impervious Area						
	Тс	Length	Slope	,	Capacity	Description				
_	(min)	(feet)	(ft/ft	t) (ft/sec) (cfs)						
	6.0					Direct Entry,				
						•				

Summary for Subcatchment C14: SUBCAT C14

Runoff = 0.19 cfs @ 12.09 hrs, Volume= 680 cf, Depth> 2.73"

	Area (sf)	CN	Description
*	2,992	98	Proposed Pavement
	0	39	>75% Grass cover, Good, HSG A
	2,992 2,992	98	Weighted Average 100.00% Impervious Area

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Tc (min)									
6.0		Direct Entry,							
		Summary for Subcatchment C15: SUBCAT C1	5						
Runoff	=	0.17 cfs @ 12.09 hrs, Volume= 549 cf, Depth> 1	1.70"						
	Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-YR Rainfall=2.96"								
A	rea (sf)	N Description							
*	3,152	98 Proposed Pavement							
	720 3,872 720 3,152	 39 >75% Grass cover, Good, HSG A 37 Weighted Average 18.60% Pervious Area 81.40% Impervious Area 							
Tc (min)	Length (feet)	Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs)							
6.0		Direct Entry,							
		Summary for Subcatchment C16: SUBCAT C10	6						
Runoff	=	0.19 cfs @ 12.09 hrs, Volume= 680 cf, Depth> 2	2.73"						
		0 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 h Rainfall=2.96"	rs, dt= 0.05 hrs						
A	rea (sf)	N Description							
*	2,992 0	 Proposed Pavement >75% Grass cover, Good, HSG A 							
	2,992 2,992	 Weighted Average 100.00% Impervious Area 							
Tc (min)	Length (feet)	Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs)							
6.0		Direct Entry,							

Summary for Subcatchment C17: SUBCAT C17

Runoff = 1.54 cfs @ 12.09 hrs, Volume= 5,120 cf, Depth> 2.41"

FRIARS DRIVE POST DEVELOPMENT *Type III 24-hr 2-YR Rainfall=2.96"* Printed 10/5/2021 as LLC Page 23

475-POST

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	A	rea (sf)	CN	Description						
*		24,242	98	Proposed Pavement						
		1,264	39	>75% Grass cover, Good, HSG A						
		25,506	95	Weighted Average						
		1,264		4.96% Pervious Area						
		24,242		95.04% Imp	pervious Ar	ea				
	Tc	Length	Slope	,	Capacity	Description				
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	6.0					Direct Entry,				

Summary for Subcatchment C18: SUBCAT C18

Runoff = 1.74 cfs @ 12.09 hrs, Volume= 6,155 cf, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
*		26,918	98	Proposed Pavement					
		169	39	>75 ['] % Grass cover, Good, HSG A					
		27,087	98	Weighted Average					
		169		0.62% Pervious Area					
		26,918		99.38% Imp	pervious Ar	ea			
	та	L e le est le	Class	Volocity	Conseitu	Description			
	Tc	Length	Slope		Capacity	Description			
_	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)				
	6.0					Direct Entry,			
						-			

Summary for Subcatchment C19: SUBCAT C19

Runoff = 1.87 cfs @ 12.09 hrs, Volume= 5,901 cf, Depth> 1.70"

	A	rea (sf)	CN	Description						
*		33,675	98	Proposed Pavement						
_		7,909	39	>75% Grass cover, Good, HSG A						
		41,584	87	Veighted Average						
		7,909		19.02% Pervious Area						
		33,675		80.98% Imp	ervious Ar	ea				
	_		~		•	_				
	Tc	Length	Slope		Capacity	Description				
_	(min)	(feet)	(ft/ft	(ft/sec)	(cfs)					
	6.0					Direct Entry,				
						-				

Summary for Subcatchment C2: SUBCAT C2

Runoff = 0.18 cfs @ 12.09 hrs, Volume= 576 cf, Depth> 1.63"

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

	Ar	ea (sf)	CN	Description						
*		3,416	98	Proposed F	avement					
		833	39	>75% Grass cover, Good, HSG A						
		4,249	86	Weighted Average						
		833		19.60% Pervious Area						
		3,416		80.40% Imp	pervious Ar	ea				
1.		Length	Slope		Capacity	Description				
(min)	(feet)	(ft/ft)) (ft/sec)	(cfs)					
	6.0					Direct Entry,				

Summary for Subcatchment C20: SUBCAT C20

Runoff = 0.17 cfs @ 12.09 hrs, Volume= 524 cf, Depth> 1.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		3,013	98	Proposed Pavement						
		679	39	>75% Gras	s cover, Go	bod, HSG A				
		3,692	87	Weighted Average						
		679		18.39% Pervious Area						
		3,013		81.61% Impervious Area						
	Тс	Length	Slope	,	Capacity	Description				
_	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)					
	6.0					Direct Entry,				
						•				

Summary for Subcatchment C21: SUBCAT C21

Runoff = 0.16 cfs @ 12.09 hrs, Volume= 489 cf, Depth> 1.63"

	Area (sf)	CN	Description		
*	2,853	98	Proposed Pavement		
	757	39	>75% Grass cover, Good, HSG A		
	3,610	86	Weighted Average		
	757		20.97% Pervious Area		
	2,853		79.03% Impervious Area		

	d by The		Group, In 602 © 202	Type III	RIVE POST DEVELOPMENT 24-hr 2-YR Rainfall=2.96" Printed 10/5/2021 Page 25			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description			
6.0					Direct Entry,			
		Sı	ummary	for Subca	atchment C2	2: SUBCA	Г С22	
Runoff	=	0.16 cfs	s @ 12.0	9 hrs, Volu	ime=	510 cf, Dep	oth> 1.55"	
Type III 2	Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-YR Rainfall=2.96" Area (sf) CN Description							
*	3,040		Proposed P	avement				
	900	39 >	75% Gras	s cover, Go	od, HSG A			
	3,940		Veighted A					
	900 3,040		-	vious Area				
	3,040	1	7.10% ши	ervious Are	ea			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description			
6.0					Direct Entry,			
		Sı	ummary	for Subca	atchment C2	3: SUBCA	Г С23	

Runoff = 0.19 cfs @ 12.09 hrs, Volume= 605 cf, Depth> 2.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
*		3,092	98	Proposed Pavement					
		332	39	>75% Grass cover, Good, HSG A					
		3,424	92	Weighted Average					
		332		9.70% Pervious Area					
		3,092		90.30% Impervious Area					
	Тс	Length	Slope	Velocity	Capacity	Description			
	(min)	(feet)	(ft/ft	(ft/sec)	(cfs)				
	6.0					Direct Entry,			

Summary for Subcatchment C24: SUBCAT C24

Runoff = 0.23 cfs @ 12.10 hrs, Volume= 775 cf, Depth> 0.83"

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	Ar	rea (sf)	CN	Description					
*		6,366	98	Proposed Pavement					
		4,815	39	>75% Grass cover, Good, HSG A					
		11,181	73	Weighted A	verage				
		4,815		43.06% Pervious Area					
		6,366		56.94% Imp	pervious Ar	ea			
		Length	Slope		Capacity	Description			
((min)	(feet)	(ft/ft) (ft/sec)	(cfs)				
	6.0					Direct Entry,			

Summary for Subcatchment C25: SUBCAT C25

Runoff = 0.37 cfs @ 12.09 hrs, Volume= 1,306 cf, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
*		5,747	98	Proposed Pavement					
		0	39	>75% Grass cover, Good, HSG A					
		5,747	98	3 Weighted Average					
		5,747		100.00% Impervious Area					
		Length	Slop		Capacity	Description			
	(min)	(feet)	(ft/f	t) (ft/sec)	(cfs)				
	6.0					Direct Entry,			

Summary for Subcatchment C26: SUBCAT C26

Runoff = 0.14 cfs @ 12.09 hrs, Volume= 467 cf, Depth> 2.21"

	A	rea (sf)	CN	Description				
*		2,336	98	Proposed Pavement				
		197	39	>75% Grass cover, Good, HSG A				
		2,533	93	Weighted Average				
		197		7.78% Pervious Area				
		2,336		92.22% Impervious Area				
	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description		
_	6.0					Direct Entry,		

Summary for Subcatchment C27: SUBCAT C27

Runoff = 0.44 cfs @ 12.09 hrs, Volume= 1,396 cf, Depth> 2.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
*		7,324	98	Proposed F	avement				
_		919	39	>75% Grass cover, Good, HSG A					
		8,243	91	Weighted Average					
		919		11.15% Pervious Area					
		7,324		88.85% Imp	pervious Ar	ea			
	Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	Description			
	6.0					Direct Entry,			

Summary for Subcatchment C28: SUBCAT C28

Runoff = 0.44 cfs @ 12.09 hrs, Volume= 1,410 cf, Depth> 1.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
*		7,771	98	Proposed F	Pavement				
		1,318	39	>75% Gras	s cover, Go	bod, HSG A			
		9,089	89	Weighted Average					
		1,318		14.50% Per	rvious Area				
		7,771		85.50% Imp	pervious Ar	ea			
	Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	Description			
	6.0					Direct Entry,			

Summary for Subcatchment C29: SUBCAT C29

Runoff = 0.14 cfs @ 12.10 hrs, Volume= 462 cf, Depth> 1.16"

	Area (sf)	CN	Description
*	3,220	98	Proposed Pavement
	1,565	39	>75% Grass cover, Good, HSG A
	4,785	79	Weighted Average
	1,565		32.71% Pervious Area
	3,220		67.29% Impervious Area

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Tc (min)	Length (feet)	Slop (ft/f		ocity /sec)	Capacity (cfs)	Description		
6.0						Direct Entry,		
			Sum	mary	for Sub	catchment C	3: SUE	SCAT C3
Runoff	=	0.07	cfs @	12.0	9 hrs, Volu	ime=	222 cf,	Depth> 2.03"
Runoff by Type III 24					CS, Weigh	ted-CN, Time S	Span= 0.	00-24.00 hrs, dt= 0.05 hrs
Are	ea (sf)	CN	Descr					
*	1,145	98			avement			
	<u>164</u> 1,309	<u>39</u> 91			verage	ood, HSG A		
	164	51			vious Area			
	1,145				ervious Ar			
Tc (min)	Length (feet)	Slop (ft/f		ocity /sec)	Capacity (cfs)	Description		
6.0						Direct Entry,		
	Summary for Subcatchment C30: SUBCAT C30							
Runoff	=	0.21	cfs @	12.0	9 hrs, Volu	ime=	732 cf,	Depth> 2.73"
	Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		3,220	98	Proposed F	avement					
		0	39	>75% Gras	>75% Grass cover, Good, HSG A					
		3,220	98	Weighted A	verage					
		3,220		100.00% Impervious Area						
(Tc min)	Length (feet)	Slop (ft/fl		Capacity (cfs)	Description				
	6.0					Direct Entry,				

Summary for Subcatchment C31: SUBCAT C31

Runoff = 0.48 cfs @ 12.09 hrs, Volume= 1,518 cf, Depth> 1.95"

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	Α	rea (sf)	CN	Description						
*		8,105	98	Proposed F	avement					
		1,257	39	>75% Gras	>75% Grass cover, Good, HSG A					
		9,362	90	Weighted A	Weighted Average					
		1,257		13.43% Pervious Area						
		8,105		86.57% Impervious Area						
	Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	Description				
	6.0					Direct Entry,				

Summary for Subcatchment C32: SUBCAT C32

Runoff = 0.14 cfs @ 12.10 hrs, Volume= 455 cf, Depth> 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
*		3,188	98	Proposed F	avement				
_		1,522	39	>75% Gras	s cover, Go	bod, HSG A			
		4,710	79	Weighted Average					
		1,522		32.31% Pervious Area					
		3,188		67.69% Imp	pervious Ar	ea			
	Тс	Length	Slope	e Velocity	Capacity	Description			
	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)				
	6.0					Direct Entry,			
						-			

Summary for Subcatchment C33: SUBCAT C33

Runoff = 0.06 cfs @ 12.12 hrs, Volume= 249 cf, Depth> 0.49"

	A	rea (sf)	CN	Description		
*		3,191	98	Proposed P	avement	
		2,940	30	Brush, Goo	d, HSG A	
		6,131	65	Weighted A	verage	
		2,940		47.95% Per	vious Area	1
		3,191		52.05% Imp	pervious Are	ea
(Tc min)	Length (feet)	Slope (ft/ft	,	Capacity (cfs)	Description
	6.0					Direct Entry,

Summary for Subcatchment C34: SUBCAT C34

Runoff = 0.46 cfs @ 12.09 hrs, Volume= 1,489 cf, Depth> 2.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
*		7,727	98	Proposed F	avement				
_		1,065	39 :	>75% Grass cover, Good, HSG A					
		8,792		Weighted Average					
		1,065		12.11% Pervious Area					
		7,727	ł	37.89% Imp	pervious Ar	ea			
	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description			
	6.0					Direct Entry,			

Summary for Subcatchment C35: SUBCAT C35

Runoff = 0.10 cfs @ 12.10 hrs, Volume= 324 cf, Depth> 1.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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		
*		2,325	98	Proposed F	avement	
		1,216	39	>75% Gras	s cover, Go	bod, HSG A
		3,541	78	Weighted A	verage	
		1,216		34.34% Pei	vious Area	
		2,325		65.66% Imp	pervious Ar	ea
	Тс	Length	Slope	,	Capacity	Description
	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)	
	6.0					Direct Entry,
						•

Summary for Subcatchment C36: SUBCAT C36

Runoff = 0.00 cfs @ 12.44 hrs, Volume= 55 cf, Depth> 0.14"

	Area (sf)	CN	Description
*	1,589	98	Proposed Pavement
	3,097	30	Brush, Good, HSG A
	4,686	53	Weighted Average
	3,097		66.09% Pervious Area
	1,589		33.91% 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 C37	7: SUBCAT C37						
Runoff = 0.17 cfs @ 12.11 hrs, Volume=	611 cf, Depth> 0.69"						
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Sp Type III 24-hr 2-YR Rainfall=2.96"	oan= 0.00-24.00 hrs, dt= 0.05 hrs						
Area (sf) CN Description							
* 5,620 98 Proposed Pavement							
4,981 39 >75% Grass cover, Good, HSG A							
10,601 70 Weighted Average							
4,981 46.99% Pervious Area 5,620 53.01% Impervious Area							
3,020 33.01 /0 Impervious Area							
Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs)							
6.0 Direct Entry,							
Summary for Subcatchment C38: SUBCAT C38							

Runoff = 0.28 cfs @ 12.09 hrs, Volume= 868 cf, Depth> 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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							
*		5,075	98	Proposed Pavement							
		1,325	39	>75% Grass cover, Good, HSG A							
		6,400	86	Weighted A	Weighted Average						
		1,325		20.70% Pervious Area							
		5,075		79.30% Imp	pervious Ar	rea					
	Тс	Length	Slope	e Velocity	Capacity	Description					
(min)	(feet)	(ft/ft) (ft/sec)	(cfs)						
	6.0					Direct Entry,					

Summary for Subcatchment C4: SUBCAT C4

Runoff = 0.02 cfs @ 12.27 hrs, Volume= 143 cf, Depth> 0.29"

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	A	rea (sf)	CN	Description						
*		1,976	98	Proposed Pavement						
		3,961	39	>75% Grass cover, Good, HSG A						
		5,937	59	Weighted Average						
		3,961		66.72% Pervious Area						
		1,976		33.28% Imp	pervious Ar	rea				
	Тс	Length	Slope	Velocity	Capacity	Description				
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	6.0					Direct Entry,				

Summary for Subcatchment C5: SUBCAT C5

Runoff = 0.01 cfs @ 12.31 hrs, Volume= 111 cf, Depth> 0.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		1,663	98	Proposed Pavement						
		3,462	39	>75% Grass cover, Good, HSG A						
		5,125	58	Weighted Average						
		3,462		67.55% Pervious Area						
		1,663		32.45% Imp	pervious Ar	ea				
	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description				
	6.0					Direct Entry,				

Summary for Subcatchment C6: SUBCAT C6

Runoff = 0.14 cfs @ 12.09 hrs, Volume= 478 cf, Depth> 2.73"

	Area (sf)	CN	Description							
*	2,104	98	Proposed Pavement							
	0	39	>75% Gras	>75% Grass cover, Good, HSG A						
	2,104	98	Weighted A	Neighted Average						
	2,104		100.00% Impervious Area							
Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	Description					
6.0					Direct Entry,					

Summary for Subcatchment C7: SUBCAT C7

Runoff = 0.11 cfs @ 12.09 hrs, Volume= 335 cf, Depth> 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		1,980	98	Proposed F	avement					
		489	39	>75% Gras	s cover, Go	bod, HSG A				
		2,469	86	Weighted Average						
		489		19.81% Pervious Area						
		1,980		80.19% Imp	pervious Are	ea				
	_				_					
	Тс	Length	Slope		Capacity	Description				
(I	min)	(feet)	(ft/ft) (ft/sec)	(cfs)					
	6.0					Direct Entry,				
						-				
			x	/		Direct Entry,				

Summary for Subcatchment C8: SUBCAT C8

Runoff = 1.68 cfs @ 12.09 hrs, Volume= 5,384 cf, Depth> 2.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		27,832	98	Proposed P	avement					
		3,957	39	>75% Gras	s cover, Go	bod, HSG A				
		31,789	91	Weighted A	Weighted Average					
		3,957			12.45% Pervious Area					
		27,832		87.55% Imp	pervious Are	ea				
	Tc	Length	Slope	e Velocity	Capacity	Description				
	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)					
	6.0					Direct Entry,				

Summary for Subcatchment C9: SUBCAT C9

Runoff = 1.72 cfs @ 12.09 hrs, Volume= 6,079 cf, Depth> 2.73"

	Area (sf)	CN	Description		
*	26,576	98	Proposed Pavement		
	176	39	>75% Grass cover, Good, HSG A		
	26,752	98	Weighted Average		
	176		0.66% Pervious Area		
	26,576		99.34% 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 D1: SUBCAT D1								
Runoff = 0.41 cfs @ 12.09 hrs, Volume= 1,433 cf, Depth> 2.73"								
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-YR Rainfall=2.96"								
Area (sf) CN Description								
 * 6,306 98 Proposed Pavement 0 39 >75% Grass cover, Good, HSG A 								
6,306 98 Weighted Average 6,306 100.00% Impervious Area								
Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs)								
6.0 Direct Entry,								
Summary for Subcatchment D10: SUBCAT D10								
Runoff = 0.40 cfs @ 12.09 hrs, Volume= 1,285 cf, Depth> 1.86"								
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-YR Rainfall=2.96"								

	Area (sf)	CN [Description						
*	7,041	98 F	Proposed Pavement						
	1,238	39 >	>75% Grass cover, Good, HSG A						
	8,279	89 N	Weighted Average						
	1,238		14.95% Pervious Area						
	7,041	8	35.05% Imp	pervious Ar	ea				
	c Length	Slope		Capacity	Description				
(mir	n) (feet)	(ft/ft)	(ft/sec)	(cfs)					
6.	0				Direct Entry,				

Summary for Subcatchment D11: SUBCAT D11

Runoff = 0.74 cfs @ 12.10 hrs, Volume= 2,361 cf, Depth> 1.28"

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	A	rea (sf)	CN	Description						
*		15,866	98	Proposed Pavement						
_		6,242	39	>75% Grass cover, Good, HSG A						
		22,108	81	Weighted Average						
		6,242		28.23% Pervious Area						
		15,866		71.77% Imp	pervious Ar	ea				
	Тс	Length	Slope	Velocity	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	6.0					Direct Entry,				

Summary for Subcatchment D12: SUBCAT D12

Runoff = 0.44 cfs @ 12.09 hrs, Volume= 1,414 cf, Depth> 2.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		7,394	98	Proposed Pavement						
		956	39	>75% Grass cover, Good, HSG A						
		8,350	91	Weighted Average						
		956		11.45% Pervious Area						
		7,394		88.55% Imp	pervious Ar	ea				
	Тс	Length	Slope	,	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	6.0					Direct Entry,				

Summary for Subcatchment D2: SUBCAT D2

Runoff = 0.08 cfs @ 12.09 hrs, Volume= 262 cf, Depth> 1.86"

	Area	(sf)	CN	Description						
*	1,4	422	98	Proposed Pavement						
		268	39 :	>75% Grass cover, Good, HSG A						
	1,0	690	89	Weighted Average						
		268		15.86% Pervious Area						
	1,4	422	i	34.14% Imp	ervious Ar	ea				
(r		ngth feet)	Slope (ft/ft)		Capacity (cfs)	Description				
	6.0		(1010)	((010)	Direct Entry,				

Summary for Subcatchment D3: SUBCAT D3

Runoff = 0.50 cfs @ 12.11 hrs, Volume= 1,867 cf, Depth> 0.65"

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

	6.0					Direct Entry,				
	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)					
	Тс	Length	Slope	,	Capacity	Description				
		17,650		51.01% Imp	pervious Ar	ea				
		16,948		48.99% Pervious Area						
		34,598		Weighted Average						
		16,948	39	>75% Gras	s cover, Go	ood, HSG A				
*		17,650	98	Proposed Pavement						
	A	rea (sf)	CN	Description						

Summary for Subcatchment D4: SUBCAT D4

Runoff = 0.13 cfs @ 12.10 hrs, Volume= 410 cf, Depth> 1.35"

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

	А	rea (sf)	CN	Description					
*		2,651	98	Proposed F	avement				
		1,006	39	>75% Gras	s cover, Go	bod, HSG A			
		3,657	82	Weighted Average					
		1,006		27.51% Pervious Area					
		2,651		72.49% Imp	ea				
	Tc (min)	Length (feet)	Slope (ft/ft	,	Capacity (cfs)	Description			
	6.0					Direct Entry,			

Summary for Subcatchment D5: SUBCAT D5

Runoff = 0.16 cfs @ 12.10 hrs, Volume= 522 cf, Depth> 0.99"

	Area (sf)	CN	Description			
*	3,983	98	Proposed Pavement			
	2,358	39	>75% Grass cover, Good, HSG A			
	6,341	76	Weighted Average			
	2,358		37.19% Pervious Area			
	3,983		62.81% Impervious Area			

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description	
6.0					Direct Entry,	,
		S	Summary	for Sub	catchment D	D6: SUBCAT D6
Runoff	=	0.26 cf	s@ 12.0	9 hrs, Volu	ime=	819 cf, Depth> 1.48"
	y SCS TR 24-hr 2-Y			CS, Weigh	ted-CN, Time S	Span= 0.00-24.00 hrs, dt= 0.05 hrs
A	rea (sf)	CN E	Description			
*	5,038		Proposed F			
	1,595				ood, HSG A	
	6,633		Veighted A			
	1,595			vious Area		
	5,038	1	5.95% Imp	pervious Ar	ea	
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description	
6.0	· · · · ·		· · ·	· · · · ·	Direct Entry,	,
		ę	Summary	for Sub	catchment D	D7: SUBCAT D7

Runoff = 0.77 cfs @ 12.09 hrs, Volume= 2,418 cf, Depth> 1.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		13,857	98 I	Proposed Pavement						
		3,183	39 :	>75 ['] % Grass cover, Good, HSG A						
		17,040	87 \	Neighted A	verage					
		3,183		18.68% Pervious Area						
		13,857	8	31.32% Imp	pervious Are	ea				
	Тс	Length	Slope	Velocity	Capacity	Description				
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	6.0					Direct Entry,				

Summary for Subcatchment D8: SUBCAT D8

Runoff = 0.38 cfs @ 12.09 hrs, Volume= 1,201 cf, Depth> 1.86"

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475-POST

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	A	rea (sf)	CN	Description						
*		6,511	98	Proposed Pavement						
		1,229	39	>75 ['] % Gras	s cover, Go	ood, HSG A				
		7,740	89	Neighted Average						
		1,229		15.88% Pervious Area						
		6,511		84.12% Imp	pervious Ar	rea				
	Тс	Length	Slope	Velocity	Capacity	Description				
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	6.0					Direct Entry,				

Summary for Subcatchment D9: SUBCAT D9

Runoff = 0.87 cfs @ 12.09 hrs, Volume= 2,734 cf, Depth> 1.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
*		15,659	98	Proposed F	avement				
_		3,606	39	>75% Gras	s cover, Go	bod, HSG A			
		19,265	87	Weighted Average					
		3,606		18.72% Pervious Area					
		15,659		81.28% Imp	pervious Ar	ea			
	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description			
	6.0					Direct Entry,			

Summary for Subcatchment E1: SUBCAT E1

Runoff = 0.34 cfs @ 12.09 hrs, Volume= 1,132 cf, Depth> 2.41"

	A	rea (sf)	CN	Description		
*		5,394	98	Proposed P	avement	
		245	39	>75% Gras	s cover, Go	bod, HSG A
		5,639 245 5,394		Weighted A 4.34% Perv 95.66% Imp	ious Area	ea
	Tc (min)	Length (feet)	Slope (ft/ft	,	Capacity (cfs)	Description
	6.0					Direct Entry,

Summary for Subcatchment E10: SUBCAT E10

Runoff = 0.26 cfs @ 12.10 hrs, Volume= 866 cf, Depth> 0.93"

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

	Area (sf)	CN	Description						
*	6,826	98	Proposed F	avement					
	4,302	39	>75% Gras	s cover, Go	bod, HSG A				
	11,128	75	Weighted A	Weighted Average					
	4,302		38.66% Per	38.66% Pervious Area					
	6,826		61.34% Imp	61.34% Impervious Area					
	Tc Lenat			Conocity	Description				
(r	Tc Lengtl min) (feet		,	Capacity (cfs)	Description				
	6.0		· · · ·		Direct Entry,				

Summary for Subcatchment E11: SUBCAT E11

Runoff = 1.37 cfs @ 12.09 hrs, Volume= 4,499 cf, Depth> 2.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
*		21,962	98	Proposed F	avement				
		1,413	39	>75% Gras	s cover, Go	bod, HSG A			
		23,375	94	Weighted A	verage				
		1,413		6.04% Pervious Area					
		21,962		93.96% Impervious Area					
	Тс	Length	Slope		Capacity	Description			
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
	6.0					Direct Entry,			
						•			

Summary for Subcatchment E12: SUBCAT E12

Runoff = 1.13 cfs @ 12.09 hrs, Volume= 3,780 cf, Depth> 2.41"

	Area (sf)	CN	Description			
*	17,915	98	Proposed Pavement			
	918	39	>75% Grass cover, Good, HSG A			
	18,833	95	Weighted Average			
	918		4.87% Pervious Area			
	17,915		95.13% Impervious Area			

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Tc (min) 6.0	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description	,	
0.0					Direct Entry	,	
		S	ummary	for Subc	atchment E	13: SUE	SCAT E13
Runoff	=	2.14 ct	s @ 12.0	9 hrs, Volu	ime=	7,119 cf,	Depth> 2.41"
	y SCS TR 24-hr 2-Y			CS, Weigh	ted-CN, Time	Span= 0.0	00-24.00 hrs, dt= 0.05 hrs
	rea (sf)		Description				
*	33,543		Proposed P				
	1,924			· · · ·	ood, HSG A		
	35,467 1,924		Veighted A 5.42% Perv				
	33,543	-		bervious Area	ea		
	00,040	,	-1.00 /0 mil		ou -		
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description		
6.0					Direct Entry	/,	
		S	ummary	for Subc	atchment E	14: SUB	SCAT E14

Runoff = 1.76 cfs @ 12.09 hrs, Volume= 6,064 cf, Depth> 2.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		27,291	98	Proposed F	avement					
		517	39	>75 ['] % Gras	>75% Grass cover, Good, HSG A					
		27,808	,808 97 Weighted Average							
		517	517 1.86% Pervious Area							
		27,291		98.14% Imp	pervious Ar	rea				
	Тс	Length	Slope	,	Capacity	Description				
	(min)	(feet)	(ft/ft	(ft/sec)	(cfs)					
	6.0					Direct Entry,				

Summary for Subcatchment E15: SUBCAT E15

Runoff = 2.05 cfs @ 12.09 hrs, Volume= 7,064 cf, Depth> 2.62"

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_	A	rea (sf)	CN	Description					
*		31,789	98	Proposed F	avement				
_		603	39	>75% Grass cover, Good, HSG A					
		32,392 97 Weighted Average							
		603		1.86% Perv	ious Area				
		31,789		98.14% Imp	pervious Ar	ea			
_	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description			
	6.0					Direct Entry,			

Summary for Subcatchment E16: SUBCAT E16

Runoff = 1.20 cfs @ 12.09 hrs, Volume= 3,794 cf, Depth> 1.48"

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

_	Area (sf)	CN	Description					
*	23,459	98	Proposed F	avement				
_	7,262	39	>75% Gras	s cover, Go	bod, HSG A			
	30,721	84	Weighted A	Weighted Average				
	7,262		23.64% Per	23.64% Pervious Area				
	23,459		76.36% lmp	pervious Ar	ea			
	Tc Length (min) (feet)			Capacity (cfs)	Description			
	6.0				Direct Entry,			

Summary for Subcatchment E17: SUBCAT E17

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

	Area (sf)	CN	Description		
	30,658	30	Brush, Good, HSG A		
	89,860	30	Woods, Good, HSG A		
*	0	98	Ex. Wetland		
*	0	98	Ex. Building		
*	0	98	Ex. Pavement		
	120,518 120,518	30	Weighted Average 100.00% Pervious 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,		
0.5	55	0.1200	1.73		Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, Woodland Kv= 5.0 fps		
0.4	85	0.3300	4.02		Shallow Concentrated Flow,		
					Short Grass Pasture Kv= 7.0 fps		
7.2	190	Total					
Summary for Subcatchment E18: SUBCAT E18							
Runoff	=	0.00 cfs	s@ 0.0	0 hrs, Volu	me= 0 cf, Depth= 0.00"		

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

	Area (sf)	CN	Description				
	11,752	30	Brush, Goo	d, HSG A			
	0	30	Woods, Goo	od, HSG A			
*	0	98	Ex. Wetland	1			
*	0	98	Ex. Building				
*	0	98	Ex. Paveme	ent			
	11,752	30	Weighted A	verage			
	11,752		100.00% Pe	ervious Are	ea		
_							
Tc	5	Slop		Capacity	Description		
(min)	(feet)	(ft/f	t) (ft/sec)	(cfs)			
6.0					Direct Entry,		

Summary for Subcatchment E19: SUBCAT E19

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

	Area (sf)	CN	Description		
	43,151	30	Brush, Good, HSG A		
	32,602	30	Woods, Good, HSG A		
*	0	98	Ex. Wetland		
*	0	98	Ex. Building		
*	0	98	Ex. Pavement		
	75,753 75,753	30	Weighted Average 100.00% Pervious 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 E2: SUBCAT E2								
Runoff = 0.42 cfs @ 12.09 hrs, Volume= 1,4	412 cf, Depth> 2.51"							
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-YR Rainfall=2.96"								
Area (sf) CN Description								
* 6,501 98 Proposed Pavement								
245 39 >75% Grass cover, Good, HSG A								
6,746 96 Weighted Average								
245 3.63% Pervious Area								
6,501 96.37% Impervious Area								
Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs)								
6.0 Direct Entry,								
Summary for Subcatchment E3	: SUBCAT E3							
Runoff = 0.60 cfs @ 12.09 hrs, Volume= 1,9	963 cf, Depth> 2.31"							
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-YR Rainfall=2.96"								
Area (sf) CN Description								
* 9,518 98 Proposed Pavement								
679 39 >75% Grass cover, Good, HSG A								
10,197 94 Weighted Average								
679 6.66% Pervious Área								

		66% Perviou 3.34% Imper		а
Tc Le (min) (1	ngth Slope ^f eet) (ft/ft)	Velocity C (ft/sec)	apacity (cfs)	Description
6.0				Direct Entry,

Summary for Subcatchment E4: SUBCAT E4

Runoff = 0.59 cfs @ 12.09 hrs, Volume= 1,876 cf, Depth> 2.03"

FRIARS DRIVE POST DEVELOPMENT *Type III 24-hr 2-YR Rainfall=2.96"* Printed 10/5/2021 as LLC Page 44

475-POST

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_	А	rea (sf)	CN	Description						
*		9,769	98	Proposed F	avement					
_		1,309	39	>75 ['] % Gras	>75% Grass cover, Good, HSG A					
		11,078	91	Weighted Average						
		1,309		11.82% Pervious Area						
		9,769		88.18% Imp	ea					
	Тс	Length	Slope	Velocity	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	6.0					Direct Entry,				

Summary for Subcatchment E5: SUBCAT E5

Runoff = 0.29 cfs @ 12.10 hrs, Volume= 940 cf, Depth> 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
*		6,532	98	Proposed F	avement				
		3,208	39	>75% Gras	s cover, Go	bod, HSG A			
		9,740	79	Weighted Average					
		3,208		32.94% Pervious Area					
		6,532		67.06% Imp	pervious Ar	ea			
	Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	Description			
	6.0	(1001)	(1010	/ (1/300)	(013)	Direct Entry,			
	0.0					Dirot Lifty,			

Summary for Subcatchment E6: SUBCAT E6

Runoff = 0.40 cfs @ 12.10 hrs, Volume= 1,275 cf, Depth> 1.16"

	Α	rea (sf)	CN	Description						
*		8,885	98	Proposed P	avement					
		4,330	39	>75% Gras	>75% Grass cover, Good, HSG A					
		13,215	79	Weighted Average						
		4,330		32.77% Pervious Area						
		8,885		67.23% Imp	pervious Are	ea				
	_		~		•					
	Tc	Length	Slope	,	Capacity	Description				
	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)					
	6.0					Direct Entry,				
						-				

Summary for Subcatchment E7: SUBCAT E7

Runoff = 0.52 cfs @ 12.09 hrs, Volume= 1,679 cf, Depth> 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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			
*		8,274	98	Proposed F	avement		
_		826	39	>75% Gras	s cover, Go	bod, HSG A	
		9,100	93	Weighted Average			
		826		9.08% Perv	ious Area		
		8,274		90.92% Imp	pervious Ar	ea	
	Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	Description	
	6.0					Direct Entry,	

Summary for Subcatchment E8: SUBCAT E8

Runoff = 0.70 cfs @ 12.09 hrs, Volume= 2,245 cf, Depth> 2.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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				
*		11,495	98	Proposed Pavement				
_		1,202	39	>75% Gras	s cover, Go	bod, HSG A		
		12,697	92	92 Weighted Average				
		1,202		9.47% Pervious Area				
		11,495		90.53% Imp	ea			
	Тс	Length	Slope		Capacity	Description		
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
	6.0					Direct Entry,		
						-		

Summary for Subcatchment E9: SUBCAT E9

Runoff = 0.24 cfs @ 12.09 hrs, Volume= 800 cf, Depth> 2.41"

	Area (sf)	CN	Description		
*	3,786	98	Proposed Pavement		
	202	39	>75% Grass cover, Good, HSG A		
	3,988	95	Weighted Average		
	202		5.07% Pervious Area		
	3,786		94.93% Impervious Area		

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,
		S	Summary	for Sub	catchment G1: SUBCAT G1
Runoff	=	0.00 cfs	s@ 0.0	0 hrs, Volu	ume= 0 cf, Depth= 0.00"
		R-20 metł ′R Rainfa		CS, Weigh	ted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
А	rea (sf)	CN D	escription		
	30,014		Brush, Goo	d, HSG A	
	73,521			od, HSG A	
*	0		x. Wetland		
*	0		x. Building		
*	0		x. Paveme		
	203,535		Veighted A		
Ż	203,535	1	00.00% Pe	ervious Are	a
Тс	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
7.4	50	0.0800	0.11	(0.0)	Sheet Flow,
	20	5.0000	0		Woods: Light underbrush n= 0.400 P2= 2.95"
2.3	214	0.1000	1.58		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
0.1	36	0.3300	4.02		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
2.0	790	0.0200	6.50	182.01	Trap/Vee/Rect Channel Flow,
					Bot.W=25.00' D=1.00' Z= 3.0 '/' Top.W=31.00'
	4 000	Tatal			n= 0.030 Stream, clean & straight

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11.8 1,090 Total

Summary for Subcatchment K: SUBCAT K

Runoff = 0.02 cfs @ 17.20 hrs, Volume= 546 cf, Depth> 0.02"

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Page 47

475-POST

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	A	rea (sf)	CN [Description				
		30,443	61 >75% Grass cover, Good, HSG B					
		67,128	55 V	5 Woods, Good, HSG B				
*		16,485	98 E	Ex. Wetland	b			
*		7,709	98 E	Ex. Building	1			
*		772	98 E	Ex. Paveme	ent			
		36,534	39 >	•75% Gras	s cover, Go	bod, HSG A		
	1	59,400	30 V	Voods, Go	od, HSG A			
	3	18,471	45 V	Veighted A	verage			
	2	93,505	ç	2.16% Pei	vious Area			
		24,966	7	'.84% Impe	ervious Are	а		
	Тс	Length	Slope	Velocity	Capacity	Description		
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
	5.6	50	0.1600	0.15		Sheet Flow,		
						Woods: Light underbrush n= 0.400 P2= 2.95"		
	2.4	226	0.1000	1.58		Shallow Concentrated Flow,		
						Woodland Kv= 5.0 fps		
	0.2	32	0.5000	3.54		Shallow Concentrated Flow,		
						Woodland Kv= 5.0 fps		
	2.4	915	0.0200	6.40	147.25			
						Bot.W=20.00' D=1.00' Z= 3.0 '/' Top.W=26.00'		
						n= 0.030 Earth, grassed & winding		
	400	4 000						

10.6 1,223 Total

Summary for Subcatchment L: SUBCAT L

Runoff = 0.01 cfs @ 23.95 hrs, Volume= 72 cf, Depth> 0.00"

	Area (sf)	CN	Description						
	75,110	61	>75% Grass cover, Good, HSG B						
	51,028	55	Noods, Good, HSG B						
*	0	98	Ex. Wetland						
*	0	98	Ex. Building						
*	0	98	Ex. Pavement						
	24,329	39	>75% Grass cover, Good, HSG A						
	162,646	30	Woods, Good, HSG A						
	313,113 42 Weighted Average								
	313,113		100.00% Pervious Area						
(m	Tc Length hin) (feet)	Slop (ft/							
	6.0		Direct Entry,						

FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 2-YR Rainfall=2.96"Prepared by The Dubay Group, Inc.Printed 10/5/2021HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLCPage 48								
Summary for Subcatchment R1: SUBCAT R1								
Runoff = 0.46 cfs @ 12.09 hrs, Volume= 1,636 cf, Depth> 2.73"								
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-YR Rainfall=2.96"								
Area (sf) CN Description								
* 7,200 98 Proposed Building								
7,200 100.00% Impervious Area								
Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs)								
6.0 Direct Entry,								
Summary for Subcatchment R10: SUBCAT R10								
Runoff = 2.08 cfs @ 12.09 hrs, Volume= 7,362 cf, Depth> 2.73"								
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-YR Rainfall=2.96"								
Area (sf) CN Description								
* 32,400 98 Proposed Building								
32,400 100.00% Impervious Area								
Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs)								
6.0 Direct Entry,								
Summary for Subcatchment R11: SUBCAT R11								

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

Runoff

=

	А	rea (sf)	CN	Description						
*		31,500	98	Proposed B	Proposed Building					
		31,500		100.00% Im	pervious A	Area				
	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description				
	6.0					Direct Entry,				

2.02 cfs @ 12.09 hrs, Volume= 7,158 cf, Depth> 2.73"

Summary for Subcatchment R12: SUBCAT R12

Runoff = 2.02 cfs @ 12.09 hrs, Volume= 7,158 cf, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		31,500	98	98 Proposed Building						
		31,500		100.00% In	npervious A	rea				
	Tc (min)	Length (feet)	Slope (ft/ft)		Capacity (cfs)	Description				
	6.0		Direct Entry,							
	Summary for Subcatchment R13: SUBCAT R13									

Runoff = 1.69 cfs @ 12.09 hrs, Volume= 5,982 cf, Depth> 2.73"

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

	Area (sf)	CN	Description					
*	26,325	98	Proposed B	uilding				
	26,325		100.00% Impervious Area					
(m	Tc Length in) (feet)	Slope (ft/ft	,	Capacity (cfs)	Description			
	6.0 Direct Entry,							
	Summary for Subcatchment R14: SUBCAT R14							
Runo	off =	1.84 (cfs @ 12.09	9 hrs, Volu	ime=	6,493 cf, Depth> 2.73"		
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
*		28,575	98 F	98 Proposed Building					
		28,575		100.00% In	npervious A	Area			
_	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description			
	6.0					Direct Entry,			

FRIARS DRIVE POST DEVELOPME475-POSTType III 24-hr2-YR Rainfall=2.9Prepared by The Dubay Group, Inc.Printed 10/5/20HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLCPage						
Summary for Subcatchment R15: SUBCAT R15						
Runoff = 2.02 cfs @ 12.09 hrs, Volume= 7,158 cf, Depth> 2.73"						
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-YR Rainfall=2.96"						
Area (sf) CN Description						
* 31,500 98 Proposed Building						
31,500 100.00% Impervious Area						
Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs)						
6.0 Direct Entry,						
Summary for Subcatchment R16: SUBCAT R16						
Runoff = 2.02 cfs @ 12.09 hrs, Volume= 7,158 cf, Depth> 2.73"						
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-YR Rainfall=2.96"						
Area (sf) CN Description						
* 31,500 98 Proposed Building						
31,500 100.00% Impervious Area						
Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs)						
6.0 Direct Entry,						
Summary for Subcatchment R17: SUBCAT R17						
Runoff = 2.02 cfs @ 12.09 hrs, Volume= 7,158 cf, Depth> 2.73"						
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		31,500	98	Proposed Building						
		31,500		100.00% Impervious Area						
	Тс	Length	Slope	Velocity	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	6.0					Direct Entry,				

Summary for Subcatchment R18: SUBCAT R18

Runoff = 0.46 cfs @ 12.09 hrs, Volume= 1,636 cf, Depth> 2.73"

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

A	rea (sf)	CN Des	scription					
*	7,200	98 Pro	98 Proposed Building					
	7,200	100	.00% In	npervious A	rea			
Tc (min)	Length (feet)		/elocity (ft/sec)	Capacity (cfs)	Description			
6.0		Direct Entry,						
	Summary for Subcatchment R2: SUBCAT R2							
Runoff	=	2.02 cfs (@ 12.0	9 hrs, Volu	me= 7	7,158 cf, Depth> 2.73"		

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

Area (sf) CN Description * 31,500 98 Proposed Bi							
31,500 100.00% Im	pervious Area						
Tc Length Slope Velocity (min) (feet) (ft/ft) (ft/sec)	Capacity Description (cfs)						
6.0	Direct Entry,						
Summary for Subcatchment R3: SUBCAT R3							
Runoff = 3.64 cfs @ 12.09	hrs, Volume= 12,884 cf, Depth> 2.73"						
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-YR Rainfall=2.96"							
Area (sf) CN Description							
* 56,700 98 Proposed Bi	uilding						
56,700 100.00% lm	pervious Area						

Description

 (min)
 (feet)
 (ft/ft)
 (ft/sec)
 (cfs)

 6.0
 Direct Entry,

Capacity

Slope Velocity

Тс

Length

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Summary for Subcatchment R4: SUBCAT R4							
Runoff = 1.69 cfs @ 12.09 hrs, Volume=	5,982 cf, Depth> 2.73"						
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time S Type III 24-hr 2-YR Rainfall=2.96"	Span= 0.00-24.00 hrs, dt= 0.05 hrs						
Area (sf) CN Description							
* 26,325 98 Proposed Building							
26,325 100.00% Impervious Area							
Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs)							
6.0 Direct Entry,							
Summary for Subactobrant F							
Summary for Subcatchment F	(5: SUBCAT R5						
Runoff = 1.84 cfs @ 12.09 hrs, Volume=	6,493 cf, Depth> 2.73"						
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time S Type III 24-hr 2-YR Rainfall=2.96"	Span= 0.00-24.00 hrs, dt= 0.05 hrs						
Area (sf) CN Description							
* 28,575 98 Proposed Building							
28,575 100.00% Impervious Area							
Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs)							
6.0 Direct Entry,							
Summary for Subactobrant F							
Summary for Subcatchment R6: SUBCAT R6							
Runoff = 2.02 cfs @ 12.09 hrs, Volume=	7,158 cf, Depth> 2.73"						
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time S Type III 24-hr 2-YR Rainfall=2.96"	Span= 0.00-24.00 hrs, dt= 0.05 hrs						
Area (sf) CN Description							
* 31,500 98 Proposed Building							

*	31,500	98 F	Proposed B	uilding	
	31,500		rea		
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

475-POSTFRIARS DRIVE POST DEVELOPMENT Type III 24-hr 2-YR Rainfall=2.96"Prepared by The Dubay Group, Inc.Printed 10/5/2021HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLCPage 53							
Summary for Subcatchment R7: SUBCAT R7							
Runoff = 2.02 cfs @ 12.09 hrs, Volume= 7,158 cf, Depth> 2.73"							
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-YR Rainfall=2.96"							
Area (sf) CN Description							
* 31,500 98 Proposed Building							
31,500 100.00% Impervious Area							
Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs)							
6.0 Direct Entry,							
Summary for Subcatchment R8: SUBCAT R8							
Runoff = 2.02 cfs @ 12.09 hrs, Volume= 7,158 cf, Depth> 2.73"							
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-YR Rainfall=2.96"							
Area (sf) CN Description							
* 31,500 98 Proposed Building							
31,500 100.00% Impervious Area							
Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs)							
6.0 Direct Entry,							
Summary for Subcatchment R9: SUBCAT R9							
Runoff = 0.46 cfs @ 12.09 hrs, Volume= 1,636 cf, Depth> 2.73"							
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-YR Rainfall=2.96"							
Area (sf) CN Description							
* 7,200 98 Proposed Building							
7,200 100.00% Impervious Area							
Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs)							
6.0Direct Entry,							

Summary for Subcatchment S1: SUBCAT S1

Runoff	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Depth= 0.00"
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Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
		816	39	>75% Gras	s cover, Go	bod, HSG A			
		56,296	30	Woods, Go	od, HSG A				
*		0	98	Ex. Wetland	ł				
*		0	98	Ex. Building	Ex. Building				
*		0	98	Ex. Paveme	ent				
		57,112 57,112	30	Weighted A 100.00% Pe		a			
	Tc (min)	Length (feet)	Slop (ft/f		Capacity (cfs)	Description			
	6.0					Direct Entry,			
				-					

Summary for Subcatchment S10: SUBCAT S10

Runoff	=	0.00 cfs @	0.00 hrs.	Volume=	0 cf.	Depth= 0.00"

	A	vrea (sf)	CN I	Description		
		19,991	30 I	Brush, Goo	d, HSG A	
		70,751	30	Noods, Go	od, HSG A	
*		5,910	98 I	Ex. Wetland	ł	
*		0	98 I	Ex. Building	1	
*		0	98 I	Ex. Paveme	ent	
		96,652	34 \	Neighted A	verage	
		90,742	ę	93.89% Per	vious Area	
		5,910	(6.11% Impe	ervious Area	ì
	Тс	Length	Slope		Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	9.7	50	0.0400	0.09		Sheet Flow,
						Woods: Light underbrush n= 0.400 P2= 2.95"
	1.5	105	0.0570	1.19		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	0.8	300	0.0200	6.50	182.01	Trap/Vee/Rect Channel Flow,
						Bot.W=25.00' D=1.00' Z= 3.0 '/' Top.W=31.00'
						n= 0.030
	12.0	455	Total			

Summary for Subcatchment S11: SUBCAT S11

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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		
		38,318	30	Brush, Goo	d, HSG A	
		58,186	30	Woods, Go	od, HSG A	
*		15,394	98	Ex. Wetland	ł	
*		0	98	Ex. Building	1	
*		1,378	98	Ex. Paveme	ent	
	1	13,276	40	Weighted A	verage	
		96,504		85.19% Per	vious Area	
		16,772		14.81% Imp	pervious Ar	ea
	Тс	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	4.8	50	0.2400	0.18		Sheet Flow,
						Woods: Light underbrush n= 0.400 P2= 2.95"
	0.5	62	0.1600	2.00		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	0.6	215	0.0200	6.50	182.01	Trap/Vee/Rect Channel Flow,
						Bot.W=25.00' D=1.00' Z= 3.0 '/' Top.W=31.00'
						n= 0.030
	5.9	327	Total,	Increased t	o minimum	Tc = 6.0 min

Summary for Subcatchment S12: SUBCAT S12

Runoff = 0.00 cfs @ 24.00 hrs, Volume= 1 cf, Depth> 0.00"

	Area (sf)	CN	Description
	22,313	39	>75% Grass cover, Good, HSG A
	0	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	573	98	Ex. Pavement
*	258	98	Proposed Pavement
	23,144	41	Weighted Average
	22,313		96.41% Pervious Area
	831		3.59% Impervious Area

475-PO	ST					Тур	be III 24-hr 2-YR Rainfall=2.96"		
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Tc (min)	Length (feet)	Slope (ft/ft)		Capacity (cfs)	Description				
6.0					Direct Entry	/,			
	Summary for Subcatchment S13: SUBCAT S13								
		3	ummary	tor Subc	atchment	513: SUB	CAT 513		
Runoff	=	0.73 c	fs @ 12.0	9 hrs, Volu	ime=	2,360 cf,	Depth> 2.12"		
Runoff by Type III 2				CS, Weigh	ted-CN, Time	Span= 0.0	00-24.00 hrs, dt= 0.05 hrs		
Ar	ea (sf)		Description						
	1,445				ood, HSG A				
	0		Woods, Go						
*	0		Ex. Wetland						
*	0		Ex. Building						
*	6,578		Ex. Paveme						
*	5,325		Proposed F						
1	3,348		Weighted A						
	1,445		10.83% Pei						
1	1,903	8	89.17% Imp	pervious Ar	ea				
Tc (min)	Length (feet)	Slope (ft/ft)		Capacity (cfs)	Description				
6.0					Direct Entry	/,			
Summary for Subcatchment S14: SUBCAT S14									
Runoff	=	0.63 c	fs @ 12.0	9 hrs, Volu	ime=	2,002 cf,	Depth> 2.03"		
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs									

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_	Area (sf)	CN	Description				
	1,350	39	>75% Grass cover, Good, HSG A				
	0	30	Woods, Good, HSG A				
*	0	98	Ex. Wetland				
*	0	98	Ex. Building				
*	4,039	98	Ex. Pavement				
*	6,431	98	Proposed Pavement				
	11,820	91	Weighted Average				
	1,350		11.42% Pervious Area				
	10,470		88.58% Impervious Area				
(m	Tc Length nin) (feet)	Slop (ft/					
	6.0		Direct Entry,				

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 2-YR Rainfall=2.96"
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Summary for Subcatchment S2: SUBCAT S2

Runoff	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Depth= 0.00"
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Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 2-YR Rainfall=2.96"

	Area (sf)	CN	Description					
	4,954	30	Brush, Good, HSG A					
	66,769	30	Woods, Good, HSG A					
*	0	98	Ex. Wetland					
*	0	98	Ex. Building					
*	0	98	Ex. Pavement					
	71,723	30	Weighted Average					
	71,723		100.00% Pervious Area					
Tc	0	Slop						
(min)		(ft/f						
6.0			Direct Entry,					
			Summary for Subcatchment S3: SUBCAT S3					
Runoff	=	0.00	0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"					
	Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs							
Type III	24-hr 2-Y	'R Rair	infall=2.96"					
	A		Description					
/	Area (sf)	CN	Description					
	76,797	30	Brush, Good, HSG A					
	24,152	30	Woods, Good, HSG A					
*	0	98	Ex Wetland					

		,		10000, 000	ou, 1100 <i>1</i> 1	•
ł	k	0	98 E	x. Wetland	ł	
ł	k	0	98 E	x. Building	l	
ł	k	0	98 E	Ex. Paveme	ent	
	1	00,949	30 V	Veighted A	verage	
	100.949 100.00% Pervious Area					ea
	Тс	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	·
	6.0					Direct Entry

6.0

Direct Entry,

Summary for Subcatchment S4: SUBCAT S4

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 2-YR Rainfall=2.96" Printed 10/5/2021 Page 58

475-POST

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	A	rea (sf)	CN [Description		
		61,547	30 E	Brush, Goo	d, HSG A	
	1	51,359	30 \	Voods, Go	od, HSG A	
*		0	98 E	Ex. Wetland	ł	
*		0	98 E	Ex. Building	I	
*		0	98 E	Ex. Paveme	ent	
	212,906 30 Weighted Average				verage	
	212,906 100.00% Pervious Area				ervious Are	a
	Тс	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	4.5	50	0.2800	0.19		Sheet Flow,
						Woods: Light underbrush n= 0.400 P2= 2.95"
	7.2	480	0.0500	1.12		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	11.7	530	Total			

Summary for Subcatchment S5: SUBCAT S5

Runoff =

0.00 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

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

	Area (sf)	CN	Description
	46,285	30	Brush, Good, HSG A
	6,361	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	52,646	30	Weighted Average
	52,646		100.00% Pervious Area
<u>(r</u>	Tc Length min) (feet)	Sloj (ft/	
	6.0		Direct Entry,

Summary for Subcatchment S6: SUBCAT S6

0.00 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00" Runoff =

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0 cf, Depth= 0.00"

Page 59

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	Area (sf)	CN	Description					
	68,947	30	Brush, Good	, HSG A				
	2,803	30	Woods, Goo	d, HSG A				
*	0	98	Ex. Wetland	Ex. Wetland				
*	0	98	Ex. Building					
*	0	98	Ex. Paveme	nt				
	71,750	30	Weighted Av	rage				
	71,750		100.00% Pe		ea			
	Tc Length	Slop		Capacity	Description			
(r	nin) (feet)	(ft/	ft) (ft/sec)	(cfs)				
	6.0				Direct Entry,			
					•			

Summary for Subcatchment S8: SUBCAT S8

Runoff = 0.00 cfs @ 0.00 hrs, Volume=

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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	escription		
	1	00,530	30 E	Brush, Goo	d, HSG A	
	3	10,010	30 V	Voods, Go	od, HSG A	
*		33,536	98 E	x. Wetland	ł	
*		0	98 E	x. Building	1	
*		0	98 E	x. Paveme	ent	
*		2,426	98 F	Proposed B	uilding	
	4	46,502	35 V	Veighted A	verage	
	4	10,540	9	1.95% Per	vious Area	
		35,962	8	.05% Impe	ervious Area	a
	_					
	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	3.9	50	0.4000	0.22		Sheet Flow,
	_					Woods: Light underbrush n= 0.400 P2= 2.95"
	5.0	353	0.0560	1.18		Shallow Concentrated Flow,
	. –					Woodland Kv= 5.0 fps
	4.7	1,850	0.0200	6.50	182.01	Trap/Vee/Rect Channel Flow,
						Bot.W=25.00' D=1.00' Z= 3.0 '/' Top.W=31.00'
						n= 0.030
	13.6	2,253	Total			

Summary for Reach ER4: EX REACH 4

Inflow Area	a =	436,607 sf,	5.39% Impervious,	Inflow Depth = 0.00"	for 2-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Outflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atter	n= 0%, Lag= 0.0 min

475-POST

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Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 0.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 176.06 cfs

25.00' x 1.00' deep channel, n= 0.030 Stream, clean & straight Side Slope Z-value= 3.0 '/' Top Width= 31.00' Length= 1,291.0' Slope= 0.0187 '/' Inlet Invert= 140.00', Outlet Invert= 115.84'



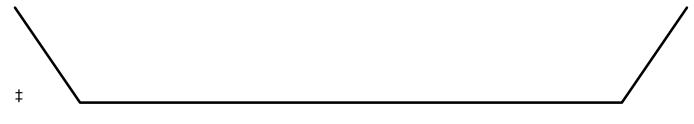
Summary for Reach ER5: EX REACH 5

2,621,305 sf, 46.88% Impervious, Inflow Depth = 0.00" for 2-YR event Inflow Area = Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cfOutflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 0.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 192.80 cfs

25.00' x 1.00' deep channel, n= 0.030 Stream, clean & straight Side Slope Z-value= 3.0 '/' Top Width= 31.00' Length= 1,085.0' Slope= 0.0224 '/' Inlet Invert= 115.35'. Outlet Invert= 91.00'



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Summary for Reach RG: REACH G

 Inflow Area =
 203,535 sf,
 0.00% Impervious,
 Inflow Depth =
 0.00"
 for 2-YR event

 Inflow =
 0.00 cfs @
 0.00 hrs,
 Volume=
 0 cf

 Outflow =
 0.00 cfs @
 0.00 hrs,
 Volume=
 0 cf,

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 0.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 6.43 cfs

12.0" Round Pipe n= 0.012 Length= 180.0' Slope= 0.0278 '/' Inlet Invert= 155.00', Outlet Invert= 150.00'

Summary for Reach W1: WETLAND REACH 1

 Inflow Area =
 226,679 sf,
 0.37% Impervious, Inflow Depth =
 0.00" for 2-YR event

 Inflow =
 0.00 cfs @
 0.00 hrs, Volume=
 0 cf

 Outflow =
 0.00 cfs @
 0.00 hrs, Volume=
 0 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 0.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 177.62 cfs

25.00' x 1.00' deep channel, n= 0.030 Earth, grassed & winding Side Slope Z-value= 3.0 '/' Top Width= 31.00' Length= 420.0' Slope= 0.0190 '/' Inlet Invert= 152.00', Outlet Invert= 144.00'

‡

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Summary for Reach W2: WETLAND REACH 2

5.18% Impervious. Inflow Depth = 0.00" for 2-YR event Inflow Area = 339.955 sf. 0.00 hrs, Volume= Inflow = 0.00 cfs @ 0 cf0 cf, Atten= 0%, Lag= 0.0 min 0.00 hrs, Volume= Outflow = 0.00 cfs @ Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min Peak Storage= 0 cf @ 0.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 117.48 cfs 25.00' x 1.00' deep channel, n= 0.030 Stream, clean & straight Side Slope Z-value= 3.0 '/' Top Width= 31.00' Length= 480.0' Slope= 0.0083 '/' Inlet Invert= 144.00', Outlet Invert= 140.00' ‡ Summary for Pond CA1: CB-A1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.08' @ 12.09 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.74'	12.0" Round Culvert L= 83.0' Ke= 0.500 Inlet / Outlet Invert= 155.74' / 154.91' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.46 cfs @ 12.09 hrs HW=156.08' TW=155.23' (Dynamic Tailwater) ☐ 1=Culvert (Inlet Controls 0.46 cfs @ 1.98 fps)

Summary for Pond CA2: CB-A2

 Inflow Area =
 5,412 sf,100.00% Impervious, Inflow Depth > 2.73" for 2-YR event

 Inflow =
 0.35 cfs @ 12.09 hrs, Volume=
 1,230 cf

 Outflow =
 0.35 cfs @ 12.09 hrs, Volume=
 1,230 cf, Atten= 0%, Lag= 0.0 min

 Primary =
 0.35 cfs @ 12.09 hrs, Volume=
 1,230 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.54' @ 12.09 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.25'	12.0" Round Culvert L= 41.0' Ke= 0.500 Inlet / Outlet Invert= 156.25' / 155.84' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.33 cfs @ 12.09 hrs HW=156.54' TW=156.08' (Dynamic Tailwater) -1=Culvert (Outlet Controls 0.33 cfs @ 2.68 fps)

Summary for Pond CA3: CB-A3

Inflow Area	a =	37,673 sf, 89.92% Impervious, Inflow Depth > 2.14" for 2-YR event
Inflow	=	2.07 cfs @ 12.09 hrs, Volume= 6,714 cf
Outflow	=	2.07 cfs @ 12.09 hrs, Volume= 6,714 cf, Atten= 0%, Lag= 0.0 min
Primary	=	2.07 cfs @ 12.09 hrs, Volume= 6,714 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.65' @ 12.09 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.93'	18.0" Round Culvert L= 169.0' Ke= 0.500 Inlet / Outlet Invert= 153.93' / 153.09' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=2.03 cfs @ 12.09 hrs HW=154.64' TW=153.40' (Dynamic Tailwater) -1=Culvert (Barrel Controls 2.03 cfs @ 3.58 fps)

Summary for Pond CA4: CB-A4

Inflow Area	a =	6,616 sf, 89.62% Impervious, Inflow Depth > 2.12" for 2-YR event	
Inflow	=	0.36 cfs @ 12.09 hrs, Volume= 1,170 cf	
Outflow	=	0.36 cfs @ 12.09 hrs, Volume= 1,170 cf, Atten= 0%, Lag= 0.0 m	nin
Primary	=	0.36 cfs @ 12.09 hrs, Volume= 1,170 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.23' @ 12.09 hrs Flood Elev= 159.00'

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Device	Routing	Invert	Outlet Devices
#1	Primary	154.93'	12.0" Round Culvert L= 50.0' Ke= 0.500 Inlet / Outlet Invert= 154.93' / 154.43' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.35 cfs @ 12.09 hrs HW=155.22' TW=154.64' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.35 cfs @ 1.84 fps)

Summary for Pond CC1: CB-C1

Inflow Area =	6,254 sf	, 34.70% Impervious,	Inflow Depth > 0.29"	for 2-YR event
Inflow =	0.02 cfs @	12.27 hrs, Volume=	151 cf	
Outflow =	0.02 cfs @	12.27 hrs, Volume=	151 cf, Atte	n= 0%, Lag= 0.0 min
Primary =	0.02 cfs @	12.27 hrs, Volume=	151 cf	2

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.34' @ 12.17 hrs Flood Elev= 162.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	159.25'	12.0" Round Culvert L= 33.0' Ke= 0.500 Inlet / Outlet Invert= 159.25' / 159.09' S= 0.0048 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.02 cfs @ 12.27 hrs HW=159.34' TW=159.17' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 0.02 cfs @ 0.97 fps)

Summary for Pond CC10: CB-C10

Inflow Area =	:	177,794 sf,	87.97% Impervious	, Inflow Depth > 2.07"	for 2-YR event
Inflow =		9.27 cfs @	12.09 hrs, Volume=	30,723 cf	
Outflow =		9.27 cfs @	12.09 hrs, Volume=	30,723 cf, Atte	en= 0%, Lag= 0.0 min
Primary =		9.27 cfs @	12.09 hrs, Volume=	30,723 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 152.92' @ 12.10 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	151.48'	30.0" Round Culvert L= 170.0' Ke= 0.500 Inlet / Outlet Invert= 151.48' / 150.63' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=8.54 cfs @ 12.09 hrs HW=152.89' TW=152.01' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 8.54 cfs @ 4.32 fps)

Summary for Pond CC11: CB-C11

Inflow Area =	6,044 sf, 71.33% Impervious,	Inflow Depth > 1.28" for 2-YR event
Inflow =	0.20 cfs @ 12.10 hrs, Volume=	645 cf
Outflow =	0.20 cfs @ 12.10 hrs, Volume=	645 cf,Atten= 0%,Lag= 0.0 min
Primary =	0.20 cfs @ 12.10 hrs, Volume=	645 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.97' @ 12.10 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.75'	12.0" Round Culvert L= 30.0' Ke= 0.500 Inlet / Outlet Invert= 155.75' / 155.15' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.20 cfs @ 12.10 hrs HW=155.97' TW=148.80' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.20 cfs @ 1.59 fps)

Summary for Pond CC12: CB-C12

Inflow Area	a =	107,687 sf, 82.94% Impervious, Inflow Depth > 1.85" for 2-YR event	
Inflow	=	5.05 cfs @ 12.09 hrs, Volume= 16,642 cf	
Outflow	=	5.05 cfs @12.09 hrs, Volume=16,642 cf, Atten= 0%, Lag= 0.0 m	nin
Primary	=	5.05 cfs @ 12.09 hrs, Volume= 16,642 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 148.80' @ 12.09 hrs Flood Elev= 158.93'

Device	Routing	Invert	Outlet Devices
#1	Primary	147.70'	24.0" Round Culvert L= 70.0' Ke= 0.500 Inlet / Outlet Invert= 147.70' / 147.35' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=4.94 cfs @ 12.09 hrs HW=148.79' TW=147.55' (Dynamic Tailwater) **1=Culvert** (Barrel Controls 4.94 cfs @ 4.09 fps)

Summary for Pond CC13: CB-C13

Inflow Area	ı =	3,872 sf, 77.27% Impervious, Inflow Depth > 1.55" for 2-YR event
Inflow	=	0.16 cfs @ 12.09 hrs, Volume= 501 cf
Outflow	=	0.16 cfs @ 12.09 hrs, Volume= 501 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.16 cfs @ 12.09 hrs, Volume= 501 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.94' @ 12.09 hrs Flood Elev= 159.00'

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Device	Routing	Invert	Outlet Devices
#1	Primary	155.75'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 155.75' / 155.23' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.16 cfs @ 12.09 hrs HW=155.94' TW=149.68' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.16 cfs @ 1.49 fps)

Summary for Pond CC14: CB-C14

Inflow Area	=	93,302 sf	, 84.26% Impervious	, Inflow Depth > 1	.92" for 2-YR event
Inflow :	=	4.52 cfs @	12.09 hrs, Volume=	14,966 cf	
Outflow :	=	4.52 cfs @	12.09 hrs, Volume=	14,966 cf,	Atten= 0%, Lag= 0.0 min
Primary :	=	4.52 cfs @	12.09 hrs, Volume=	14,966 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 149.69' @ 12.10 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	148.66'	24.0" Round Culvert L= 172.0' Ke= 0.500 Inlet / Outlet Invert= 148.66' / 147.80' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=4.23 cfs @ 12.09 hrs HW=149.68' TW=148.79' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 4.23 cfs @ 3.85 fps)

Summary for Pond CC15: CB-C15

Inflow Area	a =	3,872 sf, 81.40% Impervious, Inflow Depth > 1.70" for 2-YR event
Inflow	=	0.17 cfs @ 12.09 hrs, Volume= 549 cf
Outflow	=	0.17 cfs @ 12.09 hrs, Volume= 549 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.17 cfs @ 12.09 hrs, Volume= 549 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.95' @ 12.09 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.75'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 155.75' / 155.23' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.17 cfs @ 12.09 hrs HW=155.95' TW=150.58' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.17 cfs @ 1.52 fps)

Summary for Pond CC16: CB-C16

Inflow Area =	86,438 sf, 84.03% Impervious,	Inflow Depth > 1.91" for 2-YR event
Inflow =	4.17 cfs @ 12.09 hrs, Volume=	13,785 cf
Outflow =	4.17 cfs @ 12.09 hrs, Volume=	13,785 cf,Atten= 0%,Lag= 0.0 min
Primary =	4.17 cfs @ 12.09 hrs, Volume=	13,785 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 150.59' @ 12.10 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	149.62'	24.0" Round Culvert L= 172.0' Ke= 0.500 Inlet / Outlet Invert= 149.62' / 148.76' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=3.87 cfs @ 12.09 hrs HW=150.58' TW=149.68' (Dynamic Tailwater) -1=Culvert (Outlet Controls 3.87 cfs @ 3.81 fps)

Summary for Pond CC17: CB-C17

Inflow Area	a =	151,042 sf, 86.68% Imperv	vious, Inflow Depth > 2.0	01" for 2-YR event
Inflow	=	7.66 cfs @ 12.09 hrs, Volu	ume= 25,353 cf	
Outflow	=	7.66 cfs @ 12.09 hrs, Volu	ume= 25,353 cf, A	Atten= 0%, Lag= 0.0 min
Primary	=	7.66 cfs @ 12.09 hrs, Volu	ume= 25,353 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 153.70' @ 12.11 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	152.40'	30.0" Round Culvert L= 165.0' Ke= 0.500 Inlet / Outlet Invert= 152.40' / 151.58' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=6.84 cfs @ 12.09 hrs HW=153.67' TW=152.89' (Dynamic Tailwater) -1=Culvert (Outlet Controls 6.84 cfs @ 3.97 fps)

Summary for Pond CC18: CB-C18

Inflow Area =	125,536 sf, 84.98% Impervious,	Inflow Depth > 1.93" for 2-YR event
Inflow =	6.12 cfs @ 12.09 hrs, Volume=	20,233 cf
Outflow =	6.12 cfs @ 12.09 hrs, Volume=	20,233 cf, Atten= 0%, Lag= 0.0 min
Primary =	6.12 cfs @ 12.09 hrs, Volume=	20,233 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.48' @ 12.10 hrs Flood Elev= 159.00'

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Device	Routing	Invert	Outlet Devices
#1	Primary	153.34'	30.0" Round Culvert L= 168.0' Ke= 0.500 Inlet / Outlet Invert= 153.34' / 152.50' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=5.52 cfs @ 12.09 hrs HW=154.46' TW=153.67' (Dynamic Tailwater)

Summary for Pond CC19: CB-C19

Inflow Area =	98,449 sf,	, 81.01% Impervious,	Inflow Depth > 1.72"	for 2-YR event
Inflow =	4.38 cfs @	12.09 hrs, Volume=	14,078 cf	
Outflow =	4.38 cfs @	12.09 hrs, Volume=	14,078 cf, Atte	n= 0%, Lag= 0.0 min
Primary =	4.38 cfs @	12.09 hrs, Volume=	14,078 cf	2

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.72' @ 12.09 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	154.75'	24.0" Round Culvert L= 181.0' Ke= 0.500 Inlet / Outlet Invert= 154.75' / 153.84' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=4.29 cfs @ 12.09 hrs HW=155.71' TW=154.46' (Dynamic Tailwater) **1=Culvert** (Barrel Controls 4.29 cfs @ 4.23 fps)

Summary for Pond CC2: CB-C2

Inflow Area	a =	10,503 sf, 53.18% Impervious, Inflow Depth > 0.83" for 2-YR event	
Inflow	=	0.20 cfs @ 12.10 hrs, Volume= 727 cf	
Outflow	=	0.20 cfs @ 12.10 hrs, Volume= 727 cf, Atten= 0%, Lag= 0.0 mi	in
Primary	=	0.20 cfs @ 12.10 hrs, Volume= 727 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.24' @ 12.10 hrs Flood Elev= 162.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.99'	12.0" Round Culvert L= 56.0' Ke= 0.500 Inlet / Outlet Invert= 158.99' / 158.71' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.19 cfs @ 12.10 hrs HW=159.24' TW=158.91' (Dynamic Tailwater) -1=Culvert (Outlet Controls 0.19 cfs @ 1.90 fps)

Summary for Pond CC20: CB-C20

Inflow Area =	79,574 sf, 83.55% Impervious,	Inflow Depth > 1.89" for 2-YR event
Inflow =	3.81 cfs @ 12.09 hrs, Volume=	12,556 cf
Outflow =	3.81 cfs @ 12.09 hrs, Volume=	12,556 cf,Atten= 0%,Lag= 0.0 min
Primary =	3.81 cfs @ 12.09 hrs, Volume=	12,556 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 151.49' @ 12.10 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	150.57'	24.0" Round Culvert L= 169.0' Ke= 0.500 Inlet / Outlet Invert= 150.57' / 149.72' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=3.55 cfs @ 12.09 hrs HW=151.48' TW=150.58' (Dynamic Tailwater) -1=Culvert (Outlet Controls 3.55 cfs @ 3.76 fps)

Summary for Pond CC21: CB-C21

Inflow Area	a =	3,610 sf, 79.03% Impervious, Inflow Depth > 1.63" for 2-YR event
Inflow	=	0.16 cfs @ 12.09 hrs, Volume= 489 cf
Outflow	=	0.16 cfs @ 12.09 hrs, Volume= 489 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.16 cfs @ 12.09 hrs, Volume= 489 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.94' @ 12.09 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.75'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 155.75' / 155.23' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.15 cfs @ 12.09 hrs HW=155.94' TW=151.48' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.15 cfs @ 1.48 fps)

Summary for Pond CC22: CB-C22

Inflow Area	a =	3,940 sf, 77.16% Impervious, Inflow Depth > 1.55" for 2-YR event	
Inflow	=	0.16 cfs @ 12.09 hrs, Volume= 510 cf	
Outflow	=	0.16 cfs @ 12.09 hrs, Volume=	in
Primary	=	0.16 cfs @ 12.09 hrs, Volume= 510 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.94' @ 12.09 hrs Flood Elev= 159.00'

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Device	Routing	Invert	Outlet Devices
#1	Primary	155.75'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 155.75' / 155.23' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.16 cfs @ 12.09 hrs HW=155.94' TW=152.41' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.16 cfs @ 1.50 fps)

Summary for Pond CC23: CB-C23

Inflow Area	=	72,272 sf,	, 83.88% Impervious	, Inflow Depth > 1.	.92" for 2-YR event
Inflow =	=	3.49 cfs @	12.09 hrs, Volume=	11,542 cf	
Outflow =	=	3.49 cfs @	12.09 hrs, Volume=	11,542 cf,	Atten= 0%, Lag= 0.0 min
Primary =	=	3.49 cfs @	12.09 hrs, Volume=	11,542 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 152.41' @ 12.10 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	151.54'	24.0" Round Culvert L= 173.0' Ke= 0.500 Inlet / Outlet Invert= 151.54' / 150.67' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=3.27 cfs @ 12.09 hrs HW=152.40' TW=151.48' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 3.27 cfs @ 3.72 fps)

Summary for Pond CC24: CB-C24

Inflow Area =	21,488 sf, 69.19% Impervic	ous, Inflow Depth > 1.34" for 2-YR event
Inflow =	0.69 cfs @ 12.09 hrs, Volum	ne= 2,407 cf
Outflow =	0.69 cfs @ 12.09 hrs, Volum	ne= 2,407 cf, Atten= 0%, Lag= 0.0 min
Primary =	0.69 cfs @ 12.09 hrs, Volum	ne= 2,407 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.23' @ 12.09 hrs Flood Elev= 159.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	154.81'	12.0" Round Culvert L= 42.0' Ke= 0.500 Inlet / Outlet Invert= 154.81' / 153.59' S= 0.0290 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.68 cfs @ 12.09 hrs HW=155.23' TW=153.41' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.68 cfs @ 2.20 fps)

Summary for Pond CC25: CB-C25

Inflow Area =	64,908 sf,	83.95% Impervious,	Inflow Depth > 1.93" for 2-YR event	
Inflow =	3.14 cfs @	12.09 hrs, Volume=	10,427 cf	
Outflow =	3.14 cfs @	12.09 hrs, Volume=	10,427 cf, Atten= 0%, Lag= 0.0 min	
Primary =	3.14 cfs @	12.09 hrs, Volume=	10,427 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 153.41' @ 12.10 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	152.59'	24.0" Round Culvert L= 190.0' Ke= 0.500 Inlet / Outlet Invert= 152.59' / 151.64' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=2.96 cfs @ 12.09 hrs HW=153.40' TW=152.40' (Dynamic Tailwater) -1=Culvert (Outlet Controls 2.96 cfs @ 3.66 fps)

Summary for Pond CC26: CB-C26

Inflow Area	a =	10,538 sf, 83.28% Impervious, Inflow Depth > 1.89" for 2-YR event	
Inflow	=	0.49 cfs @ 12.09 hrs, Volume= 1,661 cf	
Outflow	=	0.49 cfs @_ 12.09 hrs, Volume=1,661 cf, Atten= 0%, Lag= 0.0 n	nin
Primary	=	0.49 cfs @ 12.09 hrs, Volume= 1,661 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.51' @ 12.09 hrs Flood Elev= 163.45'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.16'	12.0" Round Culvert L= 41.0' Ke= 0.500 Inlet / Outlet Invert= 158.16' / 157.24' S= 0.0224 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.48 cfs @ 12.09 hrs HW=158.51' TW=157.47' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.48 cfs @ 2.00 fps)

Summary for Pond CC27: CB-C27

Inflow Area =	=	46,327 sf,	80.53% Impervious,	Inflow Depth > 1.69"	for 2-YR event
Inflow =		2.02 cfs @	12.09 hrs, Volume=	6,517 cf	
Outflow =		2.02 cfs @	12.09 hrs, Volume=	6,517 cf, Atte	en= 0%, Lag= 0.0 min
Primary =		2.02 cfs @	12.09 hrs, Volume=	6,517 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.18' @ 12.10 hrs Flood Elev= 163.00'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 2-YR Rainfall=2.96"
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Device	Routing	Invert	Outlet Devices
#1	Primary	157.45'	18.0" Round Culvert L= 122.0' Ke= 0.500 Inlet / Outlet Invert= 157.45' / 156.84' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=1.92 cfs @ 12.09 hrs HW=158.17' TW=157.47' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 1.92 cfs @ 3.33 fps)

Summary for Pond CC28: CB-C28

Inflow Area =	38,084 sf, 78.73% Impervious,	Inflow Depth > 1.61" for 2-YR event
Inflow =	1.58 cfs @ 12.09 hrs, Volume=	5,121 cf
Outflow =	1.58 cfs @ 12.09 hrs, Volume=	5,121 cf, Atten= 0%, Lag= 0.0 min
Primary =	1.58 cfs @ 12.09 hrs, Volume=	5,121 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.88' @ 12.09 hrs Flood Elev= 163.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.20'	15.0" Round Culvert L= 101.0' Ke= 0.500 Inlet / Outlet Invert= 158.20' / 157.70' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.55 cfs @ 12.09 hrs HW=158.88' TW=158.17' (Dynamic Tailwater) **1=Culvert** (Barrel Controls 1.55 cfs @ 3.31 fps)

Summary for Pond CC29: CB-C29

Inflow Area	ı =	8,005 sf, 80.45% Impervious, Inflow Depth > 1.79" for 2-YR event	
Inflow	=	0.35 cfs @ 12.09 hrs, Volume= 1,193 cf	
Outflow	=	0.35 cfs @ 12.09 hrs, Volume= 1,193 cf, Atten= 0%, Lag= 0.0	min
Primary	=	0.35 cfs @ 12.09 hrs, Volume= 1,193 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 160.09' @ 12.09 hrs Flood Elev= 165.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	159.80'	12.0" Round Culvert L= 77.0' Ke= 0.500 Inlet / Outlet Invert= 159.80' / 158.26' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.34 cfs @ 12.09 hrs HW=160.09' TW=158.51' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.34 cfs @ 1.83 fps)

Summary for Pond CC3: CB-C3

Inflow Area	=	11,812 sf,	56.98% Impervious,	Inflow Depth > 0.96"	for 2-YR event
Inflow =	=	0.27 cfs @	12.10 hrs, Volume=	948 cf	
Outflow =	=	0.27 cfs @	12.10 hrs, Volume=	948 cf, Atte	en= 0%, Lag= 0.0 min
Primary =	=	0.27 cfs @	12.10 hrs, Volume=	948 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.91' @ 12.11 hrs Flood Elev= 163.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.61'	12.0" Round Culvert L= 75.0' Ke= 0.500 Inlet / Outlet Invert= 158.61' / 158.24' S= 0.0049 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.25 cfs @ 12.10 hrs HW=158.91' TW=158.56' (Dynamic Tailwater) -1=Culvert (Outlet Controls 0.25 cfs @ 1.91 fps)

Summary for Pond CC30: CB-C30

Inflow Area	a =	3,220 sf,100.00% Impervious, Inflow Depth > 2.73" for 2-YR event	
Inflow	=	0.21 cfs @ 12.09 hrs, Volume= 732 cf	
Outflow	=	0.21 cfs @ 12.09 hrs, Volume= 732 cf, Atten= 0%, Lag= 0.0	min
Primary	=	0.21 cfs @ 12.09 hrs, Volume= 732 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 160.64' @ 12.09 hrs Flood Elev= 165.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	160.42'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 160.42' / 159.90' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.20 cfs @ 12.09 hrs HW=160.64' TW=160.09' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.20 cfs @ 1.59 fps)

Summary for Pond CC31: CB-C31

Inflow Area	a =	28,995 sf, 76.60% Impervious, Inflow Depth > 1.54" for 2-YR event	
Inflow	=	1.14 cfs @ 12.09 hrs, Volume= 3,711 cf	
Outflow	=	1.14 cfs @ 12.09 hrs, Volume= 3,711 cf, Atten= 0%, Lag= 0.0 mi	in
Primary	=	1.14 cfs @ 12.09 hrs, Volume= 3,711 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.55' @ 12.10 hrs Flood Elev= 163.00'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 2-YR Rainfall=2.96"
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Device	Routing	Invert	Outlet Devices
#1	Primary	158.96'	15.0" Round Culvert L= 133.0' Ke= 0.500 Inlet / Outlet Invert= 158.96' / 158.30' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.08 cfs @ 12.09 hrs HW=159.54' TW=158.88' (Dynamic Tailwater) ☐ 1=Culvert (Outlet Controls 1.08 cfs @ 2.85 fps)

Summary for Pond CC32: CB-C32

Inflow Area =	10,841 sf, 58.84% Impervious,	Inflow Depth > 0.78" for 2-YR event
Inflow =	0.20 cfs @ 12.10 hrs, Volume=	703 cf
Outflow =	0.20 cfs @ 12.10 hrs, Volume=	703 cf, Atten= 0%, Lag= 0.0 min
Primary =	0.20 cfs @ 12.10 hrs, Volume=	703 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 161.52' @ 12.10 hrs Flood Elev= 165.40'

Device Routing Invert Outlet Devices	
#1 Primary 161.30' 12.0'' Round Culvert L= 53.0' Ke= 0.500 Inlet / Outlet Invert= 161.30' / 159.75' S= 0.0292 '/' Cc= 0. n= 0.012, Flow Area= 0.79 sf	.900

Primary OutFlow Max=0.20 cfs @ 12.10 hrs HW=161.51' TW=160.11' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.20 cfs @ 1.58 fps)

Summary for Pond CC33: CB-C33

Inflow Area	a =	6,131 sf, 52.05% Impervious, Inflow Depth > 0.49" for 2-YR event	
Inflow	=	0.06 cfs @ 12.12 hrs, Volume= 249 cf	
Outflow	=	0.06 cfs @ 12.12 hrs, Volume= 249 cf, Atten= 0%, Lag= 0.0 min	
Primary	=	0.06 cfs @ 12.12 hrs, Volume= 249 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 162.26' @ 12.12 hrs Flood Elev= 165.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	162.15'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 162.15' / 161.40' S= 0.0288 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.06 cfs @ 12.12 hrs HW=162.26' TW=161.51' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.06 cfs @ 1.14 fps)

Summary for Pond CC34: CB-C34

Inflow Area =	19,633 sf, 71.85% Impervious,	Inflow Depth > 1.34" for 2-YR event
Inflow =	0.66 cfs @ 12.09 hrs, Volume=	2,192 cf
Outflow =	0.66 cfs @ 12.09 hrs, Volume=	2,192 cf, Atten= 0%, Lag= 0.0 min
Primary =	0.66 cfs @ 12.09 hrs, Volume=	2,192 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 160.11' @ 12.10 hrs Flood Elev= 163.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	159.65'	12.0" Round Culvert L= 88.0' Ke= 0.500 Inlet / Outlet Invert= 159.65' / 159.21' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.65 cfs @ 12.09 hrs HW=160.11' TW=159.54' (Dynamic Tailwater) -1=Culvert (Barrel Controls 0.65 cfs @ 2.71 fps)

Summary for Pond CC35: CB-C35

Inflow Area	a =	18,828 sf, 50.64% Impervious, Inflow Depth > 0.63" for 2-YR event
Inflow	=	0.27 cfs @ 12.10 hrs, Volume= 990 cf
Outflow	=	0.27 cfs @ 12.10 hrs, Volume= 990 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.27 cfs @ 12.10 hrs, Volume= 990 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.23' @ 12.10 hrs Flood Elev= 162.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.98'	12.0" Round Culvert L= 90.0' Ke= 0.500 Inlet / Outlet Invert= 158.98' / 156.25' S= 0.0303 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.27 cfs @ 12.10 hrs HW=159.23' TW=156.35' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.27 cfs @ 1.71 fps)

Summary for Pond CC36: CB-C36

Inflow Area	a =	4,686 sf, 33.91% Impervious, Inflow Depth > 0.14" for 2-YR event
Inflow	=	0.00 cfs @ 12.44 hrs, Volume= 55 cf
Outflow	=	0.00 cfs @ 12.44 hrs, Volume= 55 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.00 cfs @ 12.44 hrs, Volume= 55 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 160.18' @ 12.44 hrs Flood Elev= 163.40'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 2-YR Rainfall=2.96"
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Device	Routing	Invert	Outlet Devices
#1	Primary	160.15'	12.0" Round Culvert L= 40.0' Ke= 0.500 Inlet / Outlet Invert= 160.15' / 159.08' S= 0.0267 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 12.44 hrs HW=160.18' TW=159.14' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.00 cfs @ 0.58 fps)

Summary for Pond CC37: CB-C37

Inflow Area	=	10,601 sf, 53.01% Impervious, Inflow Depth > 0.69" for 2-YR event
Inflow =	=	0.17 cfs @ 12.11 hrs, Volume= 611 cf
Outflow =	=	0.17 cfs @ 12.11 hrs, Volume= 611 cf, Atten= 0%, Lag= 0.0 min
Primary =	=	0.17 cfs @ 12.11 hrs, Volume= 611 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.48' @ 12.11 hrs Flood Elev= 162.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	159.25'	12.0" Round Culvert L= 34.0' Ke= 0.500 Inlet / Outlet Invert= 159.25' / 159.08' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.17 cfs @ 12.11 hrs HW=159.48' TW=159.23' (Dynamic Tailwater) **1=Culvert** (Barrel Controls 0.17 cfs @ 1.83 fps)

Summary for Pond CC38: CB-C38

Inflow Area	a =	6,400 sf,	79.30% Impervious,	Inflow Depth > 1.63"	for 2-YR event
Inflow	=	0.28 cfs @	12.09 hrs, Volume=	868 cf	
Outflow	=	0.28 cfs @	12.09 hrs, Volume=	868 cf, Atte	n= 0%, Lag= 0.0 min
Primary	=	0.28 cfs @	12.09 hrs, Volume=	868 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 161.56' @ 12.09 hrs Flood Elev= 164.55'

Device	Routing	Invert	Outlet Devices
#1	Primary	161.30'	12.0" Round Culvert L= 120.0' Ke= 0.500 Inlet / Outlet Invert= 161.30' / 159.15' S= 0.0179 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.27 cfs @ 12.09 hrs HW=161.55' TW=159.40' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.27 cfs @ 1.72 fps)

Summary for Pond CC4: CB-C4

 Inflow Area =
 5,937 sf, 33.28% Impervious, Inflow Depth > 0.29" for 2-YR event

 Inflow =
 0.02 cfs @ 12.27 hrs, Volume=
 143 cf

 Outflow =
 0.02 cfs @ 12.27 hrs, Volume=
 143 cf, Atten= 0%, Lag= 0.0 min

 Primary =
 0.02 cfs @ 12.27 hrs, Volume=
 143 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.57' @ 12.15 hrs Flood Elev= 160.75'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.50'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 157.50' / 157.24' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.02 cfs @ 12.27 hrs HW=157.57' TW=157.27' (Dynamic Tailwater) -1=Culvert (Barrel Controls 0.02 cfs @ 1.23 fps)

Summary for Pond CC5: CB-C5

Inflow Area	a =	5,125 sf, 32.45% Impervious, Inflow Depth > 0.26" for 2-YR event
Inflow	=	0.01 cfs @ 12.31 hrs, Volume= 111 cf
Outflow	=	0.01 cfs @ 12.31 hrs, Volume= 111 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.01 cfs @ 12.31 hrs, Volume= 111 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.51' @ 12.31 hrs Flood Elev= 162.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	159.45'	12.0" Round Culvert L= 30.0' Ke= 0.500 Inlet / Outlet Invert= 159.45' / 159.15' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.01 cfs @ 12.31 hrs HW=159.51' TW=156.60' (Dynamic Tailwater) -1=Culvert (Barrel Controls 0.01 cfs @ 1.13 fps)

Summary for Pond CC6: CB-C6

Inflow Area =	15,635 sf,	49.40% Impervious,	Inflow Depth > 0.82"	for 2-YR event
Inflow =	0.26 cfs @	12.10 hrs, Volume=	1,067 cf	
Outflow =	0.26 cfs @	12.10 hrs, Volume=	1,067 cf, Atte	n= 0%, Lag= 0.0 min
Primary =	0.26 cfs @	12.10 hrs, Volume=	1,067 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.67' @ 12.10 hrs Flood Elev= 162.70'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 2-YR Rainfall=2.96"
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Device	Routing	Invert	Outlet Devices
#1	Primary	156.42'	12.0" Round Culvert L= 73.0' Ke= 0.500 Inlet / Outlet Invert= 156.42' / 155.69' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.26 cfs @ 12.10 hrs HW=156.67' TW=147.56' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.26 cfs @ 1.70 fps)

Summary for Pond CC7: CB-C7

Inflow Area	=	8,406 sf, 47.06% Impervious, Inflow Depth > 0.68" for 2-YR event	
Inflow	=	0.12 cfs @ 12.10 hrs, Volume= 478 cf	
Outflow	=	0.12 cfs @12.10 hrs, Volume=478 cf, Atten= 0%, Lag= 0.0 mii	n
Primary	=	0.12 cfs @ 12.10 hrs, Volume= 478 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.31' @ 12.11 hrs Flood Elev= 160.75'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.14'	12.0" Round Culvert L= 62.0' Ke= 0.500 Inlet / Outlet Invert= 157.14' / 156.52' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.12 cfs @ 12.10 hrs HW=157.31' TW=156.67' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 0.12 cfs @ 2.10 fps)

Summary for Pond CC8: CB-C8

Inflow Area	a =	236,335 sf, 89.20% Impervious, Inflow Depth > 2.14" for 2-YR event	
Inflow	=	12.67 cfs @ 12.09 hrs, Volume= 42,185 cf	
Outflow	=	I2.67 cfs @ 12.09 hrs, Volume= 42,185 cf, Atten= 0%, Lag= 0.0 r	nin
Primary	=	12.67 cfs @ 12.09 hrs, Volume= 42,185 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 150.74' @ 12.09 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	149.18'	36.0" Round Culvert L= 85.0' Ke= 0.500 Inlet / Outlet Invert= 149.18' / 148.75' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 7.07 sf

Primary OutFlow Max=12.37 cfs @ 12.09 hrs HW=150.72' TW=147.54' (Dynamic Tailwater) ☐ 1=Culvert (Barrel Controls 12.37 cfs @ 4.92 fps)

Summary for Pond CC9: CB-C9

Inflow Area =	204,546 sf, 89.45% Impervious,	Inflow Depth > 2.16" for 2-YR event
Inflow =	10.99 cfs @ 12.09 hrs, Volume=	36,801 cf
Outflow =	10.99 cfs @ 12.09 hrs, Volume=	36,801 cf, Atten= 0%, Lag= 0.0 min
Primary =	10.99 cfs @ 12.09 hrs, Volume=	36,801 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 152.02' @ 12.09 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	150.53'	30.0" Round Culvert L= 170.0' Ke= 0.500 Inlet / Outlet Invert= 150.53' / 149.68' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=10.72 cfs @ 12.09 hrs HW=152.00' TW=150.72' (Dynamic Tailwater) -1=Culvert (Barrel Controls 10.72 cfs @ 5.12 fps)

Summary for Pond CD1: CB-D1

Inflow Area	a =	6,306 sf,100.00% Impervious, Inflow Depth > 2.73" for 2-YR event	
Inflow	=	0.41 cfs @ 12.09 hrs, Volume= 1,433 cf	
Outflow	=	0.41 cfs @ 12.09 hrs, Volume= 1,433 cf, Atten= 0%, Lag= 0.0 mir	۱
Primary	=	0.41 cfs @ 12.09 hrs, Volume= 1,433 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.40' @ 12.09 hrs Flood Elev= 162.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	159.05'	12.0" Round Culvert L= 144.0' Ke= 0.500 Inlet / Outlet Invert= 159.05' / 158.33' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.39 cfs @ 12.09 hrs HW=159.40' TW=158.57' (Dynamic Tailwater) -1=Culvert (Barrel Controls 0.39 cfs @ 2.41 fps)

Summary for Pond CD10: CB-D10

Inflow Area	a =	8,279 sf, 85.05% Impervious, Inflow Depth > 1.86" for 2-YR event	
Inflow	=	0.40 cfs @ 12.09 hrs, Volume= 1,285 cf	
Outflow	=	0.40 cfs @ 12.09 hrs, Volume= 1,285 cf, Atten= 0%, Lag= 0.0 i	min
Primary	=	0.40 cfs @ 12.09 hrs, Volume= 1,285 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.07' @ 12.09 hrs Flood Elev= 163.00'

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Device	Routing	Invert	Outlet Devices
#1	Primary	158.75'	12.0" Round Culvert L= 121.0' Ke= 0.500 Inlet / Outlet Invert= 158.75' / 155.12' S= 0.0300 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.40 cfs @ 12.09 hrs HW=159.06' TW=155.08' (Dynamic Tailwater) ☐ 1=Culvert (Inlet Controls 0.40 cfs @ 1.90 fps)

Summary for Pond CD11: CB-D11

Inflow Area =	153,819 sf	, 71.58% Impervious,	Inflow Depth > 1.38"	for 2-YR event
Inflow =	5.39 cfs @	12.09 hrs, Volume=	17,674 cf	
Outflow =	5.39 cfs @	12.09 hrs, Volume=	17,674 cf, Atte	n= 0%, Lag= 0.0 min
Primary =	5.39 cfs @	12.09 hrs, Volume=	17,674 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.52' @ 12.09 hrs Flood Elev= 163.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.52'	24.0" Round Culvert L= 264.0' Ke= 0.500 Inlet / Outlet Invert= 153.52' / 150.00' S= 0.0133 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=5.31 cfs @ 12.09 hrs HW=154.52' TW=142.57' (Dynamic Tailwater) -1=Culvert (Inlet Controls 5.31 cfs @ 3.40 fps)

Summary for Pond CD12: CB-D12

Inflow Area	a =	20,162 sf, 70.06% Impervious, Inflow Depth > 1.41" for 2-YR event	
Inflow	=	0.71 cfs @ 12.09 hrs, Volume= 2,362 cf	
Outflow	=	0.71 cfs @12.09 hrs, Volume=2,362 cf, Atten= 0%, Lag= 0.0 min	۱
Primary	=	0.71 cfs @ 12.09 hrs, Volume= 2,362 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.57' @ 12.09 hrs Flood Elev= 163.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.14'	12.0" Round Culvert L= 121.0' Ke= 0.500 Inlet / Outlet Invert= 158.14' / 154.52' S= 0.0299 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.69 cfs @ 12.09 hrs HW=158.56' TW=154.51' (Dynamic Tailwater)

Summary for Pond CD2: CB-D2

Inflow Area =	7,996 sf, 96.65% Impervious,	Inflow Depth > 2.54" for 2-YR event
Inflow =	0.49 cfs @ 12.09 hrs, Volume=	1,695 cf
Outflow =	0.49 cfs @ 12.09 hrs, Volume=	1,695 cf, Atten= 0%, Lag= 0.0 min
Primary =	0.49 cfs @ 12.09 hrs, Volume=	1,695 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.58' @ 12.09 hrs Flood Elev= 162.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.23'	12.0" Round Culvert L= 91.0' Ke= 0.500 Inlet / Outlet Invert= 158.23' / 156.51' S= 0.0189 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.48 cfs @ 12.09 hrs HW=158.57' TW=156.61' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.48 cfs @ 1.99 fps)

Summary for Pond CD3: CB-D3

Inflow Area	=	34,598 sf, 51.01% Impervious, Inflow Depth > 0.65" for 2-YR event	
Inflow	=	0.50 cfs @ 12.11 hrs, Volume= 1,867 cf	
Outflow	=).50 cfs @12.11 hrs, Volume=1,867 cf, Atten= 0%, Lag= 0.0 m	ıin
Primary	=	0.50 cfs @ 12.11 hrs, Volume= 1,867 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.16' @ 12.11 hrs Flood Elev= 160.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.75'	12.0" Round Culvert L= 48.0' Ke= 0.500 Inlet / Outlet Invert= 156.75' / 156.51' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.49 cfs @ 12.11 hrs HW=157.15' TW=156.61' (Dynamic Tailwater) -1=Culvert (Barrel Controls 0.49 cfs @ 2.46 fps)

Summary for Pond CD4: CB-D4

Inflow Area =	5	59,225 sf,	62.56% Impervi	ious, Inflow D	Depth >	1.08"	for 2-	YR event
Inflow =	1.5	3 cfs @	12.10 hrs, Volur	me=	5,313 cl	F		
Outflow =	1.5	3 cfs @	12.10 hrs, Volur	me=	5,313 ct	f, Atter	ו= 0%,	Lag= 0.0 min
Primary =	1.5	3 cfs @	12.10 hrs, Volur	me=	5,313 ct	F		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.62' @ 12.10 hrs Flood Elev= 162.10'

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Device	Routing	Invert	Outlet Devices
#1	Primary	156.01'	18.0" Round Culvert L= 165.0' Ke= 0.500 Inlet / Outlet Invert= 156.01' / 155.19' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=1.52 cfs @ 12.10 hrs HW=156.62' TW=155.51' (Dynamic Tailwater)

Summary for Pond CD5: CB-D5

Inflow Area	=	12,974 sf, 69.53% Impervious, Inflow Depth > 1.24" for 2-YR event	
Inflow	=	0.42 cfs @ 12.10 hrs, Volume= 1,341 cf	
Outflow	=	0.42 cfs @12.10 hrs, Volume=1,341 cf, Atten= 0%, Lag= 0.0 mir	n
Primary	=	0.42 cfs @ 12.10 hrs, Volume= 1,341 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.07' @ 12.10 hrs Flood Elev= 162.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.75'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 157.75' / 156.51' S= 0.0477 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.41 cfs @ 12.10 hrs HW=158.07' TW=156.62' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.41 cfs @ 1.92 fps)

Summary for Pond CD6: CB-D6

Inflow Area	a =	6,633 sf, 75.95% Impervious, Inflow Depth > 1.48" for 2-YR event	
Inflow	=	0.26 cfs @ 12.09 hrs, Volume= 819 cf	
Outflow	=	0.26 cfs @ 12.09 hrs, Volume= 819 cf, Atten= 0%, Lag= 0.0	min
Primary	=	0.26 cfs @ 12.09 hrs, Volume= 819 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.43' @ 12.10 hrs Flood Elev= 163.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.18'	12.0" Round Culvert L= 33.0' Ke= 0.500 Inlet / Outlet Invert= 158.18' / 157.85' S= 0.0100 '/' Cc= 0.900
			n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.25 cfs @ 12.09 hrs HW=158.43' TW=158.07' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 0.25 cfs @ 2.42 fps)

Summary for Pond CD7: CB-D7

Inflow Area =	84,005 sf, 68.35% Impervious,	Inflow Depth > 1.28" for 2-YR event
Inflow =	2.67 cfs @ 12.10 hrs, Volume=	8,932 cf
Outflow =	2.67 cfs @ 12.10 hrs, Volume=	8,932 cf, Atten= 0%, Lag= 0.0 min
Primary =	2.67 cfs @ 12.10 hrs, Volume=	8,932 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.51' @ 12.11 hrs Flood Elev= 163.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	154.69'	24.0" Round Culvert L= 93.0' Ke= 0.500 Inlet / Outlet Invert= 154.69' / 154.22' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=2.35 cfs @ 12.10 hrs HW=155.50' TW=155.09' (Dynamic Tailwater) -1=Culvert (Outlet Controls 2.35 cfs @ 2.91 fps)

Summary for Pond CD8: CB-D8

Inflow Are	a =	7,740 sf, 84.12% Impervious, Inflow Depth > 1.86" for 2-YR event
Inflow	=	0.38 cfs @ 12.09 hrs, Volume= 1,201 cf
Outflow	=	0.38 cfs @ 12.09 hrs, Volume= 1,201 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.38 cfs @ 12.09 hrs, Volume= 1,201 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.05' @ 12.09 hrs Flood Elev= 163.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.75'	12.0" Round Culvert L= 121.0' Ke= 0.500 Inlet / Outlet Invert= 158.75' / 155.69' S= 0.0253 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.37 cfs @ 12.09 hrs HW=159.05' TW=155.49' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.37 cfs @ 1.87 fps)

Summary for Pond CD9: CB-D9

Inflow Area	=	111,549 sf,	, 71.82% Impervious,	Inflow Depth > 1.39"	for 2-YR event
Inflow =	=	3.94 cfs @	12.09 hrs, Volume=	12,950 cf	
Outflow =	=	3.94 cfs @	12.09 hrs, Volume=	12,950 cf, Atte	n= 0%, Lag= 0.0 min
Primary =	=	3.94 cfs @	12.09 hrs, Volume=	12,950 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.10' @ 12.11 hrs Flood Elev= 163.00'

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Device	Routing	Invert	Outlet Devices
#1	Primary	154.12'	24.0" Round Culvert L= 100.0' Ke= 0.500 Inlet / Outlet Invert= 154.12' / 153.62' S= 0.0050 '/' Cc= 0.900
			n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=3.65 cfs @ 12.09 hrs HW=155.09' TW=154.52' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 3.65 cfs @ 3.54 fps)

Summary for Pond CE1: CB-E1

Inflow Area	a =	5,639 sf, 95.66% Impervious, Inflow Depth > 2.41" for 2-YR event	
Inflow	=	0.34 cfs @ 12.09 hrs, Volume= 1,132 cf	
Outflow	=	0.34 cfs @12.09 hrs, Volume=1,132 cf, Atten= 0%, Lag= 0.0 m	າin
Primary	=	0.34 cfs @ 12.09 hrs, Volume= 1,132 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 161.14' @ 12.09 hrs Flood Elev= 164.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	160.85'	12.0" Round Culvert L= 101.0' Ke= 0.500 Inlet / Outlet Invert= 160.85' / 154.17' S= 0.0661 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.33 cfs @ 12.09 hrs HW=161.13' TW=154.12' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.33 cfs @ 1.81 fps)

Summary for Pond CE10: CB-E10

Inflow Area	a =	263,128 sf, 98.37% Impervious, Inflow Depth > 2.65" for 2-YR event	
Inflow	=	16.46 cfs @ 12.09 hrs, Volume= 58,127 cf	
Outflow	=	16.46 cfs @ 12.09 hrs, Volume= 58,127 cf, Atten= 0%, Lag= 0.0 m	in
Primary	=	16.46 cfs @ 12.09 hrs, Volume= 58,127 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 152.29' @ 12.10 hrs Flood Elev= 159.75'

Device	Routing	Invert	Outlet Devices
#1	Primary	150.52'	42.0" Round Culvert L= 43.0' Ke= 0.500 Inlet / Outlet Invert= 150.52' / 150.31' S= 0.0049 '/' Cc= 0.900 n= 0.012, Flow Area= 9.62 sf

Primary OutFlow Max=14.53 cfs @ 12.09 hrs HW=152.28' TW=151.74' (Dynamic Tailwater) ☐ 1=Culvert (Outlet Controls 14.53 cfs @ 4.39 fps)

Summary for Pond CE11: CB-E11

 Inflow Area =
 187,424 sf, 88.30% Impervious, Inflow Depth > 2.13" for 2-YR event

 Inflow =
 9.91 cfs @ 12.09 hrs, Volume=
 33,311 cf

 Outflow =
 9.91 cfs @ 12.09 hrs, Volume=
 33,311 cf, Atten= 0%, Lag= 0.0 min

 Primary =
 9.91 cfs @ 12.09 hrs, Volume=
 33,311 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 152.40' @ 12.11 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	150.93'	30.0" Round Culvert L= 104.0' Ke= 0.500 Inlet / Outlet Invert= 150.93' / 150.41' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=8.28 cfs @ 12.09 hrs HW=152.37' TW=151.75' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 8.28 cfs @ 4.06 fps)

Summary for Pond CE12: CB-E12

Inflow Area =		164,049 sf, 87.49% Impervious, Inflow Depth > 2.11" for 2-YR event	
Inflow	=	8.54 cfs @ 12.09 hrs, Volume= 28,811 cf	
Outflow	=	8.54 cfs @ 12.09 hrs, Volume= 28,811 cf, Atten= 0%, Lag= 0.0 mir	n
Primary	=	8.54 cfs @ 12.09 hrs, Volume= 28,811 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 153.07' @ 12.11 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	151.66'	30.0" Round Culvert L= 127.0' Ke= 0.500 Inlet / Outlet Invert= 151.66' / 151.03' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=7.66 cfs @ 12.09 hrs HW=153.04' TW=152.37' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 7.66 cfs @ 3.99 fps)

Summary for Pond CE13: CB-E13

Inflow Area	a =	145,216 sf, 86.50% Impervious, Inflow Depth > 2.07" for 2-YR event	
Inflow	=	7.40 cfs @ 12.09 hrs, Volume= 25,031 cf	
Outflow	=	7.40 cfs @12.09 hrs, Volume=25,031 cf, Atten= 0%, Lag= 0.0 mii	n
Primary	=	7.40 cfs @ 12.09 hrs, Volume= 25,031 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 153.84' @ 12.11 hrs Flood Elev= 159.50'

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Device	Routing	Invert	Outlet Devices
#1	Primary	152.57'	30.0" Round Culvert L= 161.0' Ke= 0.500 Inlet / Outlet Invert= 152.57' / 151.76' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=6.59 cfs @ 12.09 hrs HW=153.81' TW=153.04' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 6.59 cfs @ 3.95 fps)

Summary for Pond CE14: CB-E14

Inflow Area	=	109,749 sf, 83.89% Impervious, Inflow Depth > 1.96" for 2-YR event
Inflow	=	5.27 cfs @ 12.09 hrs, Volume= 17,912 cf
Outflow	=	5.27 cfs @ 12.09 hrs, Volume= 17,912 cf, Atten= 0%, Lag= 0.0 min
Primary	=	5.27 cfs @ 12.09 hrs, Volume= 17,912 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.93' @ 12.09 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.85'	24.0" Round Culvert L= 155.0' Ke= 0.500 Inlet / Outlet Invert= 153.85' / 153.07' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=5.14 cfs @ 12.09 hrs HW=154.92' TW=153.81' (Dynamic Tailwater) **1=Culvert** (Barrel Controls 5.14 cfs @ 4.38 fps)

Summary for Pond CE15: CB-E15

Inflow Area	=	81,941 sf,	, 79.06% Impervious,	Inflow Depth > 1.74"	for 2-YR event
Inflow :	=	3.51 cfs @	12.09 hrs, Volume=	11,848 cf	
Outflow :	=	3.51 cfs @	12.09 hrs, Volume=	11,848 cf, Atte	en= 0%, Lag= 0.0 min
Primary :	=	3.51 cfs @	12.09 hrs, Volume=	11,848 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.56' @ 12.10 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	154.62'	24.0" Round Culvert L= 134.0' Ke= 0.500 Inlet / Outlet Invert= 154.62' / 153.95' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=3.25 cfs @ 12.09 hrs HW=155.54' TW=154.92' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 3.25 cfs @ 3.37 fps)

Summary for Pond CE16: CB-E16

Inflow Area =		49,549 sf, 66.59% Impervious, Inflow Depth > 1.16" for 2-YR ev	ent
Inflow	=	1.47 cfs @ 12.10 hrs, Volume= 4,784 cf	
Outflow	=	1.47 cfs @ 12.10 hrs, Volume= 4,784 cf, Atten= 0%, Lag=	0.0 min
Primary	=	1.47 cfs @ 12.10 hrs, Volume= 4,784 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.36' @ 12.10 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.75'	18.0" Round Culvert L= 127.0' Ke= 0.500 Inlet / Outlet Invert= 155.75' / 155.12' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=1.45 cfs @ 12.10 hrs HW=156.35' TW=155.55' (Dynamic Tailwater) -1=Culvert (Barrel Controls 1.45 cfs @ 3.24 fps)

Summary for Pond CE17: CB-E17

Inflow Area	a =	120,518 sf,	0.00% Impervious,	Inflow Depth = 0.00"	for 2-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Outflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atter	n= 0%, Lag= 0.0 min
Primary	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 161.49' @ 0.00 hrs Flood Elev= 163.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	161.49'	12.0" Round Culvert L= 64.0' Ke= 0.500
			Inlet / Outlet Invert= 161.49' / 160.85' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=161.49' TW=160.75' (Dynamic Tailwater)

Summary for Pond CE18: CB-E18

Inflow Area	a =	11,752 sf,	0.00% Impervious,	Inflow Depth = 0.00" for	2-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Outflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atten= 0%	, Lag= 0.0 min
Primary	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.59' @ 12.19 hrs Flood Elev= 159.50'

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Device	Routing	Invert	Outlet Devices
#1	Primary	156.50'	12.0" Round Culvert L= 49.0' Ke= 0.500 Inlet / Outlet Invert= 156.50' / 156.25' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=156.50' TW=155.97' (Dynamic Tailwater) ☐ 1=Culvert (Controls 0.00 cfs)

Summary for Pond CE19: CB-E19

Inflow Area	=	75,753 sf,	0.00% Impervious,	Inflow Depth = 0.00"	for 2-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Outflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atte	n= 0%, Lag= 0.0 min
Primary	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.30' @ 12.18 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.25'	12.0" Round Culvert L= 49.0' Ke= 0.500 Inlet / Outlet Invert= 157.25' / 157.00' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=157.25' TW=156.75' (Dynamic Tailwater)

Summary for Pond CE2: CB-E2

Inflow Area	=	127,264 sf,	5.11% Impervious,	Inflow Depth > 0.13"	for 2-YR event
Inflow	=	0.42 cfs @	12.09 hrs, Volume=	1,412 cf	
Outflow	=	0.42 cfs @	12.09 hrs, Volume=	1,412 cf, Atte	n= 0%, Lag= 0.0 min
Primary	=	0.42 cfs @	12.09 hrs, Volume=	1,412 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 161.07' @ 12.09 hrs Flood Elev= 164.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	160.75'	12.0" Round Culvert L= 101.0' Ke= 0.500 Inlet / Outlet Invert= 160.75' / 154.57' S= 0.0612 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.41 cfs @ 12.09 hrs HW=161.07' TW=154.49' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.41 cfs @ 1.91 fps)

Summary for Pond CE3: CB-E3

Inflow Area =	296,823 sf, 25.34% Impervious,	Inflow Depth > 0.57" for 2-YR event
Inflow =	4.35 cfs @ 12.09 hrs, Volume=	14,190 cf
Outflow =	4.35 cfs @ 12.09 hrs, Volume=	14,190 cf, Atten= 0%, Lag= 0.0 min
Primary =	4.35 cfs @ 12.09 hrs, Volume=	14,190 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.14' @ 12.09 hrs Flood Elev= 159.85'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.17'	24.0" Round Culvert L= 178.0' Ke= 0.500 Inlet / Outlet Invert= 153.17' / 152.28' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=4.26 cfs @ 12.09 hrs HW=154.12' TW=151.76' (Dynamic Tailwater) -1=Culvert (Barrel Controls 4.26 cfs @ 4.21 fps)

Summary for Pond CE4: CB-E4

Inflow Area =	:	280,987 sf,	, 21.47% Impervious	, Inflow Depth > (0.47" for 2-YR event
Inflow =		3.42 cfs @	12.09 hrs, Volume=	11,095 cf	
Outflow =		3.42 cfs @	12.09 hrs, Volume=	11,095 cf,	Atten= 0%, Lag= 0.0 min
Primary =		3.42 cfs @	12.09 hrs, Volume=	11,095 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.52' @ 12.11 hrs Flood Elev= 159.85'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.57'	24.0" Round Culvert L= 60.0' Ke= 0.500 Inlet / Outlet Invert= 153.57' / 153.27' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=3.07 cfs @ 12.09 hrs HW=154.50' TW=154.13' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 3.07 cfs @ 3.16 fps)

Summary for Pond CE5: CB-E5

Inflow Area =		142,645 sf, 30.88% Impervious, Inflow Depth > 0.66" for 2-YR event	
Inflow	=	2.41 cfs @ 12.09 hrs, Volume= 7,807 cf	
Outflow	=	2.41 cfs @ 12.09 hrs, Volume= 7,807 cf, Atten= 0%, Lag= 0.0 mir	n
Primary	=	2.41 cfs @ 12.09 hrs, Volume= 7,807 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.26' @ 12.09 hrs Flood Elev= 159.85'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 2-YR Rainfall=2.96"
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Device	Routing	Invert	Outlet Devices
#1	Primary	154.45'	18.0" Round Culvert L= 76.0' Ke= 0.500 Inlet / Outlet Invert= 154.45' / 154.07' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=2.37 cfs @ 12.09 hrs HW=155.25' TW=154.50' (Dynamic Tailwater)

Summary for Pond CE6: CB-E6

Inflow Area =	132,905 sf, 28.23% Impervious,	Inflow Depth > 0.62" for 2-YR event
Inflow =	2.12 cfs @ 12.09 hrs, Volume=	6,867 cf
Outflow =	2.12 cfs @ 12.09 hrs, Volume=	6,867 cf, Atten= 0%, Lag= 0.0 min
Primary =	2.12 cfs @ 12.09 hrs, Volume=	6,867 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.01' @ 12.10 hrs Flood Elev= 160.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.25'	18.0" Round Culvert L= 140.0' Ke= 0.500 Inlet / Outlet Invert= 155.25' / 154.55' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=2.00 cfs @ 12.09 hrs HW=156.00' TW=155.25' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 2.00 cfs @ 3.31 fps)

Summary for Pond CE7: CB-E7

Inflow Area =		119,690 sf	, 23.92% Impervious,	Inflow Depth > 0.56	for 2-YR event
Inflow	=	1.73 cfs @	12.09 hrs, Volume=	5,592 cf	
Outflow	=	1.73 cfs @	12.09 hrs, Volume=	5,592 cf, Att	en= 0%, Lag= 0.0 min
Primary	=	1.73 cfs @	12.09 hrs, Volume=	5,592 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.69' @ 12.09 hrs Flood Elev= 160.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.97'	15.0" Round Culvert L= 95.0' Ke= 0.500 Inlet / Outlet Invert= 155.97' / 155.50' S= 0.0049 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.69 cfs @ 12.09 hrs HW=156.68' TW=156.00' (Dynamic Tailwater) **1=Culvert** (Barrel Controls 1.69 cfs @ 3.37 fps)

Summary for Pond CE8: CB-E8

 Inflow Area =
 98,838 sf, 20.60% Impervious, Inflow Depth > 0.48" for 2-YR event

 Inflow =
 1.21 cfs @ 12.09 hrs, Volume=
 3,913 cf

 Outflow =
 1.21 cfs @ 12.09 hrs, Volume=
 3,913 cf, Atten= 0%, Lag= 0.0 min

 Primary =
 1.21 cfs @ 12.09 hrs, Volume=
 3,913 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.36' @ 12.10 hrs Flood Elev= 160.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.75'	15.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 156.75' / 156.07' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.14 cfs @ 12.09 hrs HW=157.35' TW=156.68' (Dynamic Tailwater)

Summary for Pond CE9: CB-E9

Inflow Area =		10,388 sf, 85.30% Impervious, Inflow Depth > 1.93" for 2-YR eve	ent
Inflow	=	0.52 cfs @ 12.09 hrs, Volume= 1,668 cf	
Outflow	=	0.52 cfs @_ 12.09 hrs, Volume= 1,668 cf, Atten= 0%, Lag= ().0 min
Primary	=	0.52 cfs @ 12.09 hrs, Volume= 1,668 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.41' @ 12.09 hrs Flood Elev= 162.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	159.05'	12.0" Round Culvert L= 94.0' Ke= 0.500 Inlet / Outlet Invert= 159.05' / 157.00' S= 0.0218 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.50 cfs @ 12.09 hrs HW=159.40' TW=157.35' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.50 cfs @ 2.03 fps)

Summary for Pond CS13: CB-S13

Inflow Area =		25,168 sf,	, 88.89% Impervious,	Inflow Depth > 2.08'	for 2-YR event
Inflow	=	1.36 cfs @	12.09 hrs, Volume=	4,362 cf	
Outflow	=	1.36 cfs @	12.09 hrs, Volume=	4,362 cf, Atte	en= 0%, Lag= 0.0 min
Primary	=	1.36 cfs @	12.09 hrs, Volume=	4,362 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.52' @ 12.09 hrs Flood Elev= 158.40'

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475-POST	Type III 24-hr 2-YR Rainfall=2.96"
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Device	Routing	Invert	Outlet Devices
#1	Primary	154.90'	15.0" Round Culvert L= 145.0' Ke= 0.500 Inlet / Outlet Invert= 154.90' / 154.18' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.32 cfs @ 12.09 hrs HW=155.51' TW=154.64' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 1.32 cfs @ 3.23 fps)

Summary for Pond CS14: CB-S14

Inflow Area =	: 11,	820 sf, 88.58% Im	pervious, Inflo	ow Depth > 2.0	3" for 2-YR event
Inflow =	0.63 (ofs @ 12.09 hrs,	Volume=	2,002 cf	
Outflow =	0.63 0	ofs @ 12.09 hrs,	Volume=	2,002 cf, A	Atten= 0%, Lag= 0.0 min
Primary =	0.63 (ofs @ 12.09 hrs,	Volume=	2,002 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.56' @ 12.09 hrs Flood Elev= 159.57'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.16'	12.0" Round Culvert L= 101.0' Ke= 0.500 Inlet / Outlet Invert= 156.16' / 155.15' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.61 cfs @ 12.09 hrs HW=156.55' TW=155.51' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.61 cfs @ 2.13 fps)

Summary for Pond DC1: DMH-C1

Inflow Area	=	56,865 sf, 81.04% Impervious, Inflo	ow Depth > 1.73" for 2-YR event
Inflow	=	2.51 cfs @ 12.09 hrs, Volume=	8,178 cf
Outflow	=	2.51 cfs @ 12.09 hrs, Volume=	8,178 cf, Atten= 0%, Lag= 0.0 min
Primary	=	2.51 cfs @ 12.09 hrs, Volume=	8,178 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.47' @ 12.09 hrs Flood Elev= 162.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.74'	18.0" Round Culvert L= 155.0' Ke= 0.500 Inlet / Outlet Invert= 156.74' / 155.25' S= 0.0096 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=2.46 cfs @ 12.09 hrs HW=157.47' TW=155.71' (Dynamic Tailwater) -1=Culvert (Inlet Controls 2.46 cfs @ 2.90 fps)

Summary for Pond DC10: DMH-C10

Inflow Area	=	252,000 sf,100.00% Impervious	, Inflow Depth > 2.73" for 2-YR event
Inflow	=	16.20 cfs @ 12.09 hrs, Volume=	57,261 cf
Outflow	=	16.20 cfs @ 12.09 hrs, Volume=	57,261 cf, Atten= 0%, Lag= 0.0 min
Primary	=	16.20 cfs @ 12.09 hrs, Volume=	57,261 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 151.64' @ 12.09 hrs Flood Elev= 164.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	149.95'	36.0" Round Culvert L= 247.0' Ke= 0.500 Inlet / Outlet Invert= 149.95' / 148.72' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 7.07 sf

Primary OutFlow Max=15.76 cfs @ 12.09 hrs HW=151.61' TW=144.82' (Dynamic Tailwater) -1=Culvert (Barrel Controls 15.76 cfs @ 5.66 fps)

Summary for Pond DC11: DMH-C11

Inflow Area	a =	359,657 sf, 85.59% Impervious, Inflow Depth > 2.00" for 2-YR event
Inflow	=	17.98 cfs @ 12.09 hrs, Volume= 59,894 cf
Outflow	=	17.98 cfs @ 12.09 hrs, Volume= 59,894 cf, Atten= 0%, Lag= 0.0 min
Primary	=	17.98 cfs @ 12.09 hrs, Volume= 59,894 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 147.57' @ 12.09 hrs Flood Elev= 160.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	145.85'	42.0" Round Culvert L= 174.0' Ke= 0.500 Inlet / Outlet Invert= 145.85' / 144.98' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 9.62 sf

Primary OutFlow Max=17.57 cfs @ 12.09 hrs HW=147.54' TW=144.83' (Dynamic Tailwater) -1=Culvert (Barrel Controls 17.57 cfs @ 5.57 fps)

Summary for Pond DC2: DMH-C2

Inflow Area	a =	7,200 sf,100.00% Impervious, Inflow Depth > 2.73" for 2-YR event
Inflow	=	0.46 cfs @ 12.09 hrs, Volume= 1,636 cf
Outflow	=	0.46 cfs @ 12.09 hrs, Volume= 1,636 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.46 cfs @ 12.09 hrs, Volume= 1,636 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.11' @ 12.09 hrs Flood Elev= 164.00'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 2-YR Rainfall=2.96"
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Device	Routing	Invert	Outlet Devices
#1	Primary	157.75'	12.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 157.75' / 156.93' S= 0.0060 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.44 cfs @ 12.09 hrs HW=158.11' TW=157.22' (Dynamic Tailwater) -1=Culvert (Outlet Controls 0.44 cfs @ 2.61 fps)

Summary for Pond DC3: DMH-C3

Inflow Area	=	38,700 sf	,100.00% Impervious	, Inflow Depth >	2.73"	for 2-YR event
Inflow =	=	2.49 cfs @	12.09 hrs, Volume=	8,794 c	f	
Outflow =	=	2.49 cfs @	12.09 hrs, Volume=	8,794 c	f, Atter	n= 0%, Lag= 0.0 min
Primary =	=	2.49 cfs @	12.09 hrs, Volume=	8,794 c	f	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.24' @ 12.09 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.43'	18.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 156.43' / 155.75' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=2.42 cfs @ 12.09 hrs HW=157.22' TW=156.32' (Dynamic Tailwater) -1=Culvert (Barrel Controls 2.42 cfs @ 3.70 fps)

Summary for Pond DC4: DMH-C4

Inflow Area	a =	70,200 sf,100.00% Impervious, Inflow Depth > 2.73" for 2-YR event
Inflow	=	4.51 cfs @ 12.09 hrs, Volume= 15,951 cf
Outflow	=	4.51 cfs @ 12.09 hrs, Volume= 15,951 cf, Atten= 0%, Lag= 0.0 min
Primary	=	4.51 cfs @ 12.09 hrs, Volume= 15,951 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.34' @ 12.10 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.25'	24.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 155.25' / 154.57' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=4.10 cfs @ 12.09 hrs HW=156.32' TW=155.70' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 4.10 cfs @ 3.49 fps)

Summary for Pond DC5: DMH-C5

Inflow Area =	101,700 sf,100.00% Impervious,	Inflow Depth > 2.73" for 2-YR event
Inflow =	6.54 cfs @ 12.09 hrs, Volume=	23,109 cf
Outflow =	6.54 cfs @ 12.09 hrs, Volume=	23,109 cf, Atten= 0%, Lag= 0.0 min
Primary =	6.54 cfs @ 12.09 hrs, Volume=	23,109 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.71' @ 12.09 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	154.47'	24.0" Round Culvert L= 117.0' Ke= 0.500 Inlet / Outlet Invert= 154.47' / 153.88' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=6.36 cfs @ 12.09 hrs HW=155.70' TW=154.76' (Dynamic Tailwater) -1=Culvert (Barrel Controls 6.36 cfs @ 4.51 fps)

Summary for Pond DC6: DMH-C6

Inflow Area	a =	130,275 sf,100.00% Impervious, Inflow Depth > 2.73" for 2-YR event
Inflow	=	8.37 cfs @ 12.09 hrs, Volume= 29,602 cf
Outflow	=	8.37 cfs @ 12.09 hrs, Volume= 29,602 cf, Atten= 0%, Lag= 0.0 min
Primary	=	8.37 cfs @ 12.09 hrs, Volume= 29,602 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.80' @ 12.11 hrs Flood Elev= 164.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.38'	30.0" Round Culvert L= 117.0' Ke= 0.500 Inlet / Outlet Invert= 153.38' / 152.79' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=7.11 cfs @ 12.09 hrs HW=154.76' TW=154.21' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 7.11 cfs @ 3.70 fps)

Summary for Pond DC7: DMH-C7

Inflow Area	a =	156,600 sf,100.00% Impervious, Inflow Depth > 2.73" for 2-YR event
Inflow	=	10.07 cfs @ 12.09 hrs, Volume= 35,584 cf
Outflow	=	10.07 cfs @ 12.09 hrs, Volume= 35,584 cf, Atten= 0%, Lag= 0.0 min
Primary	=	10.07 cfs @ 12.09 hrs, Volume= 35,584 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.25' @ 12.10 hrs Flood Elev= 160.80'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 2-YR Rainfall=2.96"
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Device Routing Invert Outlet Devices	
#1 Primary 152.69' 30.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 152.69' / 152.01' S= 0.0050 '/' Cc= (n= 0.012, Flow Area= 4.91 sf).900

Primary OutFlow Max=9.08 cfs @ 12.09 hrs HW=154.21' TW=153.49' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 9.08 cfs @ 4.17 fps)

Summary for Pond DC8: DMH-C8

Inflow Area	a =	188,100 sf,100.00% Impervious, Inflow Depth > 2.73" for 2-YR event
Inflow	=	12.09 cfs @ 12.09 hrs, Volume= 42,741 cf
Outflow	=	12.09 cfs @ 12.09 hrs, Volume= 42,741 cf, Atten= 0%, Lag= 0.0 min
Primary	=	12.09 cfs @ 12.09 hrs, Volume= 42,741 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 153.51' @ 12.09 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	151.91'	30.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 151.91' / 151.23' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=11.77 cfs @ 12.09 hrs HW=153.49' TW=152.41' (Dynamic Tailwater) **1=Culvert** (Barrel Controls 11.77 cfs @ 5.14 fps)

Summary for Pond DC9: DMH-C9

Inflow Area =		219,600 sf,100.00% Impervious, Inflow Depth > 2.73" for 2-YR event	
Inflow	=	14.12 cfs @ 12.09 hrs, Volume= 49,899 cf	
Outflow	=	14.12 cfs @ 12.09 hrs, Volume= 49,899 cf, Atten= 0%, Lag= 0.0 min	۱
Primary	=	14.12 cfs @ 12.09 hrs, Volume= 49,899 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 152.45' @ 12.10 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	150.73'	36.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 150.73' / 150.05' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 7.07 sf

Primary OutFlow Max=12.80 cfs @ 12.09 hrs HW=152.41' TW=151.61' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 12.80 cfs @ 4.54 fps)

Summary for Pond DD1: DMH-D1

Inflow Area =	=	848,324 sf, 58.89%	Impervious, Inf	flow Depth > 1.46"	for 2-YR event
Inflow =	=	15.82 cfs @ 12.23 hr	s, Volume=	103,499 cf	
Outflow =	=	15.82 cfs @ 12.23 hr	s, Volume=	103,499 cf, Atte	n= 0%, Lag= 0.0 min
Primary =	=	15.82 cfs @ 12.23 hr	s, Volume=	103,499 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 151.02' @ 12.27 hrs Flood Elev= 162.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	149.04'	30.0" Round Culvert L= 273.0' Ke= 0.500 Inlet / Outlet Invert= 149.04' / 147.67' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=15.45 cfs @ 12.23 hrs HW=151.01' TW=149.62' (Dynamic Tailwater) -1=Culvert (Outlet Controls 15.45 cfs @ 5.13 fps)

Summary for Pond DD2: DMH-D2

Inflow Area	a =	848,324 sf, 58.89% Impervious, Inflow Depth > 1.46" for 2-YR event	
Inflow	=	15.82 cfs @ 12.23 hrs, Volume= 103,499 cf	
Outflow	=	15.82 cfs @ 12.23 hrs, Volume= 103,499 cf, Atten= 0%, Lag= 0.0 mi	in
Primary	=	15.82 cfs @ 12.23 hrs, Volume= 103,499 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 149.64' @ 12.27 hrs Flood Elev= 164.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	147.57'	30.0" Round Culvert L= 183.0' Ke= 0.500 Inlet / Outlet Invert= 147.57' / 146.66' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=15.44 cfs @ 12.23 hrs HW=149.62' TW=148.61' (Dynamic Tailwater) -1=Culvert (Outlet Controls 15.44 cfs @ 4.88 fps)

Summary for Pond DD3: DMH-D3

Inflow Area	a =	848,324 sf, 58.89% Impervious, Inflow Depth > 1.46" for 2-YR event	
Inflow	=	5.82 cfs @ 12.23 hrs, Volume= 103,499 cf	
Outflow	=	5.82 cfs @ 12.23 hrs, Volume= 103,499 cf, Atten= 0%, Lag= 0.0 mir	n
Primary	=	5.82 cfs @ 12.23 hrs, Volume= 103,499 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 148.62' @ 12.25 hrs Flood Elev= 164.50'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 2-YR Rainfall=2.96"
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Device	Routing	Invert	Outlet Devices
#1	Primary	146.56'	30.0" Round Culvert L= 131.0' Ke= 0.500 Inlet / Outlet Invert= 146.56' / 145.91' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=15.61 cfs @ 12.23 hrs HW=148.61' TW=147.71' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 15.61 cfs @ 4.93 fps)

Summary for Pond DD4: DMH-DD4

Inflow Area	a =	848,324 sf, 58.89% Impervious, Inflow Depth > 1.46" for 2-YR event	
Inflow	=	15.82 cfs @ 12.23 hrs, Volume= 103,499 cf	
Outflow	=	15.82 cfs @ 12.23 hrs, Volume= 103,499 cf, Atten= 0%, Lag= 0.0 m	nin
Primary	=	15.82 cfs @ 12.23 hrs, Volume= 103,499 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 147.71' @ 12.23 hrs Flood Elev= 152.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	145.81'	30.0" Round Culvert L= 133.0' Ke= 0.500 Inlet / Outlet Invert= 145.81' / 145.15' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=15.78 cfs @ 12.23 hrs HW=147.71' TW=142.99' (Dynamic Tailwater) **1=Culvert** (Barrel Controls 15.78 cfs @ 5.47 fps)

Summary for Pond DE1: DMH-E1

Inflow Area =		7,200 sf,100.00% Impervious, Inflow Depth > 2.73" for 2-YR event
Inflow	=	0.46 cfs @ 12.09 hrs, Volume= 1,636 cf
Outflow	=	0.46 cfs @ 12.09 hrs, Volume= 1,636 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.46 cfs @ 12.09 hrs, Volume= 1,636 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.11' @ 12.09 hrs Flood Elev= 164.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.75'	12.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 157.75' / 156.93' S= 0.0060 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.44 cfs @ 12.09 hrs HW=158.11' TW=157.22' (Dynamic Tailwater)

475-POSTFRIARS DRIVE POST DEVELOPMENT
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Summary for Pond DE2: DMH-E2

Inflow Area =	38,700 sf,100.00% Impervious,	Inflow Depth > 2.73" for 2-YR event
Inflow =	2.49 cfs @ 12.09 hrs, Volume=	8,794 cf
Outflow =	2.49 cfs @ 12.09 hrs, Volume=	8,794 cf, Atten= 0%, Lag= 0.0 min
Primary =	2.49 cfs @ 12.09 hrs, Volume=	8,794 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.24' @ 12.09 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.43'	18.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 156.43' / 155.75' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=2.42 cfs @ 12.09 hrs HW=157.22' TW=156.32' (Dynamic Tailwater) -1=Culvert (Barrel Controls 2.42 cfs @ 3.70 fps)

Summary for Pond DE3: DMH-E3

Inflow Area	a =	70,200 sf,100.00% Impervious, Inflow Depth > 2.73" for 2-YR event
Inflow	=	4.51 cfs @ 12.09 hrs, Volume= 15,951 cf
Outflow	=	4.51 cfs @ 12.09 hrs, Volume= 15,951 cf, Atten= 0%, Lag= 0.0 min
Primary	=	4.51 cfs @ 12.09 hrs, Volume= 15,951 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.34' @ 12.10 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.25'	24.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 155.25' / 154.57' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=4.10 cfs @ 12.09 hrs HW=156.32' TW=155.70' (Dynamic Tailwater) -1=Culvert (Outlet Controls 4.10 cfs @ 3.49 fps)

Summary for Pond DE4: DMH-E4

Inflow Area	a =	101,700 sf,100.00% Impervious, Inflow Depth > 2.73" for 2-YR event	
Inflow	=	6.54 cfs @ 12.09 hrs, Volume= 23,109 cf	
Outflow	=	6.54 cfs @12.09 hrs, Volume=23,109 cf, Atten= 0%, Lag= 0.0 mi	n
Primary	=	6.54 cfs @ 12.09 hrs, Volume= 23,109 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.71' @ 12.09 hrs Flood Elev= 160.80'

	FRIARS DRIVE POST DEVELOPMENT
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Device	Routing	Invert	Outlet Devices
#1	Primary	154.47'	24.0" Round Culvert L= 117.0' Ke= 0.500 Inlet / Outlet Invert= 154.47' / 153.88' S= 0.0050 '/' Cc= 0.900
			n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=6.36 cfs @ 12.09 hrs HW=155.70' TW=154.75' (Dynamic Tailwater) ☐ 1=Culvert (Barrel Controls 6.36 cfs @ 4.51 fps)

Summary for Pond DE5: DMH-E5

Inflow Area =	130,275 sf,100.00% Impervious,	Inflow Depth > 2.73" for 2-YR event
Inflow =	8.37 cfs @ 12.09 hrs, Volume=	29,602 cf
Outflow =	8.37 cfs @ 12.09 hrs, Volume=	29,602 cf, Atten= 0%, Lag= 0.0 min
Primary =	8.37 cfs @ 12.09 hrs, Volume=	29,602 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.78' @ 12.10 hrs Flood Elev= 164.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.38'	30.0" Round Culvert L= 117.0' Ke= 0.500 Inlet / Outlet Invert= 153.38' / 152.79' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=7.56 cfs @ 12.09 hrs HW=154.75' TW=154.11' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 7.56 cfs @ 3.98 fps)

Summary for Pond DE6: DMH-E9

Inflow Area	a =	156,600 sf,100.00% Impervious, Inflow Depth > 2.73" for 2-YR event	
Inflow	=	10.07 cfs @ 12.09 hrs, Volume= 35,584 cf	
Outflow	=	10.07 cfs @ 12.09 hrs, Volume= 35,584 cf, Atten= 0%, Lag= 0.0 min	۱
Primary	=	10.07 cfs @ 12.09 hrs, Volume= 35,584 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.13' @ 12.09 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	152.69'	30.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 152.69' / 152.01' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=9.80 cfs @ 12.09 hrs HW=154.11' TW=152.81' (Dynamic Tailwater) **1=Culvert** (Barrel Controls 9.80 cfs @ 4.93 fps) 475-POSTFRIARS DRIVE POST DEVELOPMENT
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Summary for Pond DE7: DMH-E7

Inflow Area	=	252,000 sf,100.00% Impervious	, Inflow Depth > 2.73" for 2-YR event
Inflow =	=	16.20 cfs @ 12.09 hrs, Volume=	57,261 cf
Outflow =	=	16.20 cfs @ 12.09 hrs, Volume=	57,261 cf, Atten= 0%, Lag= 0.0 min
Primary =	=	16.20 cfs @ 12.09 hrs, Volume=	57,261 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 152.86' @ 12.11 hrs Flood Elev= 161.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	151.01'	42.0" Round Culvert L= 78.0' Ke= 0.500 Inlet / Outlet Invert= 151.01' / 150.62' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 9.62 sf

Primary OutFlow Max=14.16 cfs @ 12.09 hrs HW=152.81' TW=152.27' (Dynamic Tailwater) -1=Culvert (Outlet Controls 14.16 cfs @ 4.14 fps)

Summary for Pond DE8: DMH-E8

Inflow Area	a =	38,700 sf,100.00% Impervious, Inflow Depth > 2.73" for 2-YR event
Inflow	=	2.49 cfs @ 12.09 hrs, Volume= 8,794 cf
Outflow	=	2.49 cfs @ 12.09 hrs, Volume= 8,794 cf, Atten= 0%, Lag= 0.0 min
Primary	=	2.49 cfs @ 12.09 hrs, Volume= 8,794 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.16' @ 12.09 hrs Flood Elev= 164.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.43'	18.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 155.43' / 153.01' S= 0.0178 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=2.42 cfs @ 12.09 hrs HW=156.15' TW=152.81' (Dynamic Tailwater) -1=Culvert (Inlet Controls 2.42 cfs @ 2.89 fps)

Summary for Pond DE9: DMH-E9

Inflow Area	a =	7,200 sf,100.00% Impervious, Inflow Depth > 2.73" for 2-YR event
Inflow	=	0.46 cfs @ 12.09 hrs, Volume= 1,636 cf
Outflow	=	0.46 cfs @ 12.09 hrs, Volume= 1,636 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.46 cfs @ 12.09 hrs, Volume= 1,636 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.99' @ 12.09 hrs Flood Elev= 164.00'

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475-POST	Type III 24-hr 2-YR Rainfall=2.96"
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Device	Routing	Invert	Outlet Devices
#1	Primary	158.65'	12.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 158.65' / 155.93' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.45 cfs @ 12.09 hrs HW=158.98' TW=156.15' (Dynamic Tailwater) ☐ 1=Culvert (Inlet Controls 0.45 cfs @ 1.97 fps)

Summary for Pond PC: POND C

Inflow Area =	683,407 sf, 81.92% Impervious,	Inflow Depth > 2.06" for 2-YR event
Inflow =	34.17 cfs @ 12.09 hrs, Volume=	117,155 cf
Outflow =	3.61 cfs @ 12.85 hrs, Volume=	117,126 cf, Atten= 89%, Lag= 45.7 min
Discarded =	3.61 cfs @ 12.85 hrs, Volume=	117,126 cf
Primary =	0.00 cfs @ 0.00 hrs, Volume=	0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 145.55' @ 12.85 hrs Surf.Area= 31,116 sf Storage= 41,788 cf Flood Elev= 150.00' Surf.Area= 44,250 sf Storage= 211,891 cf

Plug-Flow detention time= 90.7 min of	calculated for 117,126 cf (100% of inflow)
Center-of-Mass det. time= 90.5 min ((866.3 - 775.9)

Volume	Inver	t Avail.Sto	rage Storage	Description		
#1	144.00	' 211,8	91 cf Custom	n Stage Data (Coni	c) Listed below (Re	ecalc)
Elevatio (fee		Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
144.(23,000	0	0	23,000	
146.0	00	33,700	56,360	56,360	33,766	
148.0	00	38,850	72,489	128,849	39,090	
150.0	00	44,250	83,041	211,891	44,679	
Device	Routing	Invert	Outlet Device	S		
#1	Discarded	144.00'	5.000 in/hr E	xfiltration over We	etted area Phase	-In= 0.01'
#2	Primary	146.00'	24.0" Round	I Culvert L= 36.0'	Ke= 0.500	
#3	Device 2	149.00'	Inlet / Outlet I n= 0.012, Flo 36.0" x 48.0"	nvert= 146.00' / 14 ow Area= 3.14 sf Horiz. Orifice/Gra ir flow at low heads	4.20' S= 0.0500 '/ te C= 0.600	" Cc= 0.900

Discarded OutFlow Max=3.61 cfs @ 12.85 hrs HW=145.55' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 3.61 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=144.00' TW=0.00' (Dynamic Tailwater) -2=Culvert (Controls 0.00 cfs) -3=Orifice/Grate (Controls 0.00 cfs)

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Summary for Pond PD: POND D

Inflow Area =	1,054,789 sf, 57.80% Impervious,	Inflow Depth > 1.38" for 2-YR event
Inflow =	19.56 cfs @ 12.15 hrs, Volume=	121,172 cf
Outflow =	2.73 cfs @ 13.90 hrs, Volume=	121,138 cf, Atten= 86%, Lag= 105.2 min
Discarded =	2.73 cfs @ 13.90 hrs, Volume=	121,138 cf
Primary =	0.00 cfs @ 0.00 hrs, Volume=	0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 144.38' @ 13.90 hrs Surf.Area= 23,403 sf Storage= 49,230 cf Flood Elev= 150.00' Surf.Area= 37,700 sf Storage= 225,094 cf

Plug-Flow detention time= 165.2 min calculated for 121,138 cf (100% of inflow) Center-of-Mass det. time= 165.1 min (974.0 - 808.9)

Volume	Inver	t Avail.Sto	rage Storage	Description		
#1	142.00	225,09	94 cf Custom	Stage Data (Coni	c) Listed below (Re	calc)
Elevatic (fee 142.0 144.0 146.0 148.0 150.0	90 90 90 90 90	urf.Area (sq-ft) 18,500 22,150 29,150 33,300 37,700	Inc.Store (cubic-feet) 0 40,595 51,140 62,404 70,955	Cum.Store (cubic-feet) 0 40,595 91,735 154,139 225,094	Wet.Area (sq-ft) 18,500 22,287 29,378 33,713 38,311	
Device	Routing	Invert	Outlet Devices	6		
#1	Discarded	142.00'	••••••		etted area Phase-	ln= 0.01'
#2 #3	Primary Device 2	146.00' 149.00'	Inlet / Outlet Ir n= 0.012, Flo	Culvert L= 122.0 nvert= 146.00' / 14 w Area= 3.14 sf Horiz. Orifice/Gra	4.17' S= 0.0150 '/'	Cc= 0.900
			Limited to wei	r flow at low heads		

Discarded OutFlow Max=2.73 cfs @ 13.90 hrs HW=144.38' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 2.73 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=142.00' TW=0.00' (Dynamic Tailwater) -2=Culvert (Controls 0.00 cfs)

3=Orifice/Grate (Controls 0.00 cfs)

Summary for Pond PE: POND E

Inflow Area =	848,324 sf, 58.89% Impervious,	Inflow Depth > 1.49" for 2-YR event
Inflow =	30.71 cfs @ 12.09 hrs, Volume=	105,628 cf
Outflow =	15.82 cfs @ 12.23 hrs, Volume=	103,499 cf, Atten= 48%, Lag= 8.6 min
Primary =	15.82 cfs @ 12.23 hrs, Volume=	103,499 cf

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

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Starting Elev= 150.00' Surf.Area= 9,000 sf Storage= 15,000 cf Peak Elev= 152.09' @ 12.24 hrs Surf.Area= 12,418 sf Storage= 37,388 cf (22,388 cf above start) Flood Elev= 160.00' Surf.Area= 30,200 sf Storage= 200,400 cf (185,400 cf above start)

Plug-Flow detention time= 139.0 min calculated for 88,499 cf (84% of inflow) Center-of-Mass det. time= 32.3 min (805.9 - 773.6)

Volume	Inve	ert Avail.Sto	rage Storage Description						
#1	148.0	0' 200,40	00 cf Cu	istom St	tage Data (Pr	rismatic	Listed below	v (Recalc)	
Elevatio (fee		Surf.Area (sq-ft)	Inc.Sto (cubic-fee		Cum.Store (cubic-feet)				
148.0	00	6,000	•	0	0				
150.0	00	9,000	15,0	00	15,000				
152.0	00	12,250	21,2		36,250				
154.0	00	15,900	28,1		64,400				
156.0	00	20,150	36,0		100,450				
158.0		24,800	44,9		145,400				
160.0	00	30,200	55,0	00	200,400				
Device	Routing	Invert	Outlet D	evices					
#1	Primary	149.90'	Inlet / Or	utlet Inve	ulvert L= 153 ert= 149.90' / Area= 4.91 sf	149.14'		/' Cc= 0.900	
#2 #3	Device 1 Device 1	150.00' 157.50'	24.0" Vert. Orifice/Grate C= 0.600 36.0" x 48.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads						

Primary OutFlow Max=15.74 cfs @ 12.23 hrs HW=152.09' TW=151.01' (Dynamic Tailwater) **1=Culvert** (Passes 15.74 cfs of 18.06 cfs potential flow)

2=Orifice/Grate (Orifice Controls 15.74 cfs @ 5.01 fps)

3=Orifice/Grate (Controls 0.00 cfs)

Summary for Pond PH: POND H

Inflow Area =	226,679 sf, 0.37% Impervious,	Inflow Depth > 0.00" for 2-YR event
Inflow =	0.00 cfs @ 24.00 hrs, Volume=	1 cf
Outflow =	0.00 cfs @ 0.00 hrs, Volume=	0 cf, Atten= 100%, Lag= 0.0 min
Primary =	0.00 cfs @ 0.00 hrs, Volume=	0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Starting Elev= 150.00' Surf.Area= 5,950 sf Storage= 13,653 cf Peak Elev= 150.00' @ 24.00 hrs Surf.Area= 5,950 sf Storage= 13,654 cf (1 cf above start) Flood Elev= 154.00' Surf.Area= 11,300 sf Storage= 47,909 cf (34,256 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow) Center-of-Mass det. time= (not calculated: no outflow)

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Volume	Inve	ert Avail.Sto	rage Storage [Description		
#1	146.0	00' 47,90	09 cf Custom	Stage Data (Conic	c) Listed below (Re	calc)
Elevatio (fee		Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
146.0 148.0 150.0 152.0 154.0	00 00 00	1,500 3,225 5,950 8,574 11,300	0 4,616 9,037 14,444 19,811	0 4,616 13,653 28,098 47,909	1,500 3,258 6,024 8,716 11,532	
Device	Routing	Invert	Outlet Devices			
#1	Primary	150.00'	Inlet / Outlet In	Culvert L= 22.0' vert= 150.00' / 149 v Area= 1.23 sf	Ke= 0.500 9.78' S= 0.0100 '/'	Cc= 0.900
#2 #3	Device 1 Primary	150.00' 153.50'	3.0" Vert. Orif	ice/Grate C= 0.60		

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=150.00' TW=152.00' (Dynamic Tailwater) 1=Culvert (Controls 0.00 cfs) 2=Orifice/Grate (Controls 0.00 cfs) 3=Orifice/Grate (Controls 0.00 cfs)

Summary for Link L1: NORTHEAST PROPERTY CORNER

Inflow Are	a =	57,112 sf,	0.00% Impervious,	Inflow Depth = 0.00"	for 2-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Primary	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atter	n= 0%, Lag= 0.0 min

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

Summary for Link L2: RIVER

Inflow Are	a =	3,252,889 sf, 38.55% Impervious, Inflow Depth > 0.00" for 2-YR event
Inflow	=	0.02 cfs @ 21.97 hrs, Volume= 618 cf
Primary	=	0.02 cfs @ 21.97 hrs, Volume= 618 cf, Atten= 0%, Lag= 0.0 min

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

Summary for Link L3: EX CULVERTS

Inflow Are	a =	2,621,305 sf,	46.88% Impervious,	Inflow Depth = 0.00"	for 2-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Primary	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atter	n= 0%, Lag= 0.0 min

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

Summary for Link L4: WEST PROPERTY LINE

Inflow Are	a =	212,906 sf,	0.00% Impervious,	Inflow Depth = 0.00"	for 2-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Primary	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atter	n= 0%, Lag= 0.0 min

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

Summary for Link L5: NORTHWEST PROPERTY CORNER

Inflow Area	a =	71,723 sf,	0.00% Impervious,	Inflow Depth = 0.00"	for 2-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Primary	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atter	n= 0%, Lag= 0.0 min

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

Summary for Link L6: FOX HOLLOW

Inflow Are	a =	24,585 sf,	0.00% Impervious,	Inflow Depth = 0.00"	for 2-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Primary	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atter	n= 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-CN Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentA1: SUBCATA1	Runoff Area=4,895 sf 63.11% Impervious Runoff Depth>2.10" Tc=6.0 min CN=76 Runoff=0.27 cfs 858 cf
Subcatchment A2: SUBCAT A2	Runoff Area=5,412 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=0.53 cfs 1,908 cf
Subcatchment A3: SUBCAT A3	Runoff Area=5,889 sf 94.62% Impervious Runoff Depth>3.89" Tc=6.0 min CN=95 Runoff=0.56 cfs 1,910 cf
Subcatchment A4: SUBCAT A4	Runoff Area=6,616 sf 89.62% Impervious Runoff Depth>3.57" Tc=6.0 min CN=92 Runoff=0.59 cfs 1,968 cf
Subcatchment B: SUBCAT B	Runoff Area=24,585 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf
Subcatchment C1: SUBCAT C1	Runoff Area=6,254 sf 34.70% Impervious Runoff Depth>0.94" Tc=6.0 min CN=59 Runoff=0.13 cfs 492 cf
Subcatchment C10: SUBCAT C10	Runoff Area=26,752 sf 95.25% Impervious Runoff Depth>3.89" Tc=6.0 min CN=95 Runoff=2.53 cfs 8,678 cf
Subcatchment C11: SUBCAT C11	Runoff Area=6,044 sf 71.33% Impervious Runoff Depth>2.52" Tc=6.0 min CN=81 Runoff=0.40 cfs 1,269 cf
Subcatchment C12: SUBCAT C12	Runoff Area=8,341 sf 76.62% Impervious Runoff Depth>2.79" Tc=6.0 min CN=84 Runoff=0.61 cfs 1,937 cf
Subcatchment C13: SUBCAT C13	Runoff Area=3,872 sf 77.27% Impervious Runoff Depth>2.88" Tc=6.0 min CN=85 Runoff=0.29 cfs 929 cf
Subcatchment C14: SUBCAT C14	Runoff Area=2,992 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=0.29 cfs 1,055 cf
Subcatchment C15: SUBCAT C15	Runoff Area=3,872 sf 81.40% Impervious Runoff Depth>3.07" Tc=6.0 min CN=87 Runoff=0.31 cfs 990 cf
Subcatchment C16: SUBCAT C16	Runoff Area=2,992 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=0.29 cfs 1,055 cf
Subcatchment C17: SUBCAT C17	Runoff Area=25,506 sf 95.04% Impervious Runoff Depth>3.89" Tc=6.0 min CN=95 Runoff=2.42 cfs 8,273 cf
Subcatchment C18: SUBCAT C18	Runoff Area=27,087 sf 99.38% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=2.65 cfs 9,552 cf
Subcatchment C19: SUBCAT C19	Runoff Area=41,584 sf 80.98% Impervious Runoff Depth>3.07" Tc=6.0 min CN=87 Runoff=3.32 cfs 10,634 cf

FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 10-YR Rainfall=4.47" 475-POST Prepared by The Dubay Group, Inc. Printed 10/5/2021 HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLC Page 2 Runoff Area=4,249 sf 80.40% Impervious Runoff Depth>2.97" Subcatchment C2: SUBCAT C2 Tc=6.0 min CN=86 Runoff=0.33 cfs 1,053 cf Subcatchment C20: SUBCAT C20 Runoff Area=3,692 sf 81.61% Impervious Runoff Depth>3.07" Tc=6.0 min CN=87 Runoff=0.29 cfs 944 cf Runoff Area=3,610 sf 79.03% Impervious Runoff Depth>2.97" Subcatchment C21: SUBCAT C21 Tc=6.0 min CN=86 Runoff=0.28 cfs 894 cf Runoff Area=3,940 sf 77.16% Impervious Runoff Depth>2.88" Subcatchment C22: SUBCAT C22 Tc=6.0 min CN=85 Runoff=0.30 cfs 945 cf Subcatchment C23: SUBCAT C23 Runoff Area=3,424 sf 90.30% Impervious Runoff Depth>3.57" Tc=6.0 min CN=92 Runoff=0.31 cfs 1,019 cf Subcatchment C24: SUBCAT C24 Runoff Area=11,181 sf 56.94% Impervious Runoff Depth>1.87" Tc=6.0 min CN=73 Runoff=0.55 cfs 1,743 cf Subcatchment C25: SUBCAT C25 Runoff Area=5,747 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=0.56 cfs 2,027 cf Runoff Area=2,533 sf 92.22% Impervious Runoff Depth>3.68" Subcatchment C26: SUBCAT C26 Tc=6.0 min CN=93 Runoff=0.23 cfs 776 cf Subcatchment C27: SUBCAT C27 Runoff Area=8,243 sf 88.85% Impervious Runoff Depth>3.47" Tc=6.0 min CN=91 Runoff=0.73 cfs 2.381 cf Subcatchment C28: SUBCAT C28 Runoff Area=9,089 sf 85.50% Impervious Runoff Depth>3.26" Tc=6.0 min CN=89 Runoff=0.76 cfs 2,472 cf Subcatchment C29: SUBCAT C29 Runoff Area=4,785 sf 67.29% Impervious Runoff Depth>2.35" Tc=6.0 min CN=79 Runoff=0.30 cfs 937 cf Runoff Area=1,309 sf 87.47% Impervious Runoff Depth>3.47" Subcatchment C3: SUBCAT C3 Tc=6.0 min CN=91 Runoff=0.12 cfs 378 cf Runoff Area=3,220 sf 100.00% Impervious Runoff Depth>4.23" Subcatchment C30: SUBCAT C30 Tc=6.0 min CN=98 Runoff=0.32 cfs 1,135 cf Subcatchment C31: SUBCAT C31 Runoff Area=9,362 sf 86.57% Impervious Runoff Depth>3.36" Tc=6.0 min CN=90 Runoff=0.81 cfs 2,625 cf Subcatchment C32: SUBCAT C32 Runoff Area=4,710 sf 67.69% Impervious Runoff Depth>2.35" Tc=6.0 min CN=79 Runoff=0.29 cfs 922 cf Runoff Area=6,131 sf 52.05% Impervious Runoff Depth>1.31" Subcatchment C33: SUBCAT C33 Tc=6.0 min CN=65 Runoff=0.20 cfs 669 cf Runoff Area=8,792 sf 87.89% Impervious Runoff Depth>3.47" SubcatchmentC34: SUBCATC34 Tc=6.0 min CN=91 Runoff=0.77 cfs 2,540 cf

FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 10-YR Rainfall=4.47"

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Subcatchment C35: SUBCAT C35	Runoff Area=3,541 sf 65.66% Impervious Runoff Depth>2.27"
	Tc=6.0 min CN=78 Runoff=0.21 cfs 669 cf
Subcatchment C36: SUBCAT C36	Runoff Area=4,686 sf 33.91% Impervious Runoff Depth>0.63"
	Tc=6.0 min CN=53 Runoff=0.05 cfs 245 cf
SubcatchmentC37: SUBCATC37	Runoff Area=10,601 sf 53.01% Impervious Runoff Depth>1.65" Tc=6.0 min CN=70 Runoff=0.45 cfs 1,458 cf
Subcatchment C38: SUBCAT C38	Runoff Area=6,400 sf 79.30% Impervious Runoff Depth>2.97"
	Tc=6.0 min CN=86 Runoff=0.50 cfs 1,586 cf
Subcatchment C4: SUBCAT C4	Runoff Area=5,937 sf 33.28% Impervious Runoff Depth>0.94"
	Tc=6.0 min CN=59 Runoff=0.12 cfs 467 cf
Subcatchment C5: SUBCAT C5	Runoff Area=5,125 sf 32.45% Impervious Runoff Depth>0.89" Tc=6.0 min CN=58 Runoff=0.10 cfs 379 cf
Subcatchment C6: SUBCAT C6	Runoff Area=2,104 sf 100.00% Impervious Runoff Depth>4.23"
	Tc=6.0 min CN=98 Runoff=0.21 cfs 742 cf
Subcatchment C7: SUBCAT C7	Runoff Area=2,469 sf 80.19% Impervious Runoff Depth>2.97"
Subcatchment of . SOBOAT Of	Tc=6.0 min CN=86 Runoff=0.19 cfs 612 cf
Subcatchment C8: SUBCAT C8	Runoff Area=31,789 sf 87.55% Impervious Runoff Depth>3.47" Tc=6.0 min CN=91 Runoff=2.80 cfs 9,183 cf
	10-0.0 min CN-91 Runon-2.00 crs 9,103 cr
Subcatchment C9: SUBCAT C9	Runoff Area=26,752 sf 99.34% Impervious Runoff Depth>4.23"
	Tc=6.0 min CN=98 Runoff=2.62 cfs 9,433 cf
Subcatchment D1: SUBCAT D1	Runoff Area=6,306 sf 100.00% Impervious Runoff Depth>4.23"
	Tc=6.0 min CN=98 Runoff=0.62 cfs $2,224$ cf
Subcatchment D10: SUBCAT D10	Runoff Area=8,279 sf 85.05% Impervious Runoff Depth>3.26" Tc=6.0 min CN=89 Runoff=0.70 cfs 2,252 cf
Subcatchment D11: SUBCAT D11	Runoff Area=22,108 sf 71.77% Impervious Runoff Depth>2.52"
	Tc=6.0 min CN=81 Runoff=1.47 cfs 4,643 cf
Subcatchment D12: SUBCAT D12	Runoff Area=8,350 sf 88.55% Impervious Runoff Depth>3.47"
	Tc=6.0 min CN=91 Runoff=0.73 cfs 2,412 cf
Subsetshment D2: SUDCAT D2	Dunoff Area-1 600 of 94 140/ Importance Dunoff Donths 2 26"
Subcatchment D2: SUBCAT D2	Runoff Area=1,690 sf 84.14% Impervious Runoff Depth>3.26" Tc=6.0 min CN=89 Runoff=0.14 cfs 460 cf
Subcatchment D3: SUBCAT D3	Runoff Area=34,598 sf 51.01% Impervious Runoff Depth>1.58"
	Tc=6.0 min CN=69 Runoff=1.40 cfs 4,555 cf
Subcatchment D4: SUBCAT D4	Runoff Area=3,657 sf 72.49% Impervious Runoff Depth>2.61"
	Tc=6.0 min CN=82 Runoff=0.25 cfs 795 cf

475-POST

FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 10-YR Rainfall=4 47"

475-POST	Type III 24-hr 10-YR Rainfall=4.47"
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SubcatchmentD5: SUBCAT D5	Runoff Area=6,341 sf 62.81% Impervious Runoff Depth>2.10" Tc=6.0 min CN=76 Runoff=0.35 cfs 1,112 cf
SubcatchmentD6: SUBCAT D6	Runoff Area=6,633 sf 75.95% Impervious Runoff Depth>2.79" Tc=6.0 min CN=84 Runoff=0.49 cfs 1,541 cf
Subcatchment D7: SUBCAT D7	Runoff Area=17,040 sf 81.32% Impervious Runoff Depth>3.07" Tc=6.0 min CN=87 Runoff=1.36 cfs 4,357 cf
Subcatchment D8: SUBCAT D8	Runoff Area=7,740 sf 84.12% Impervious Runoff Depth>3.26" Tc=6.0 min CN=89 Runoff=0.65 cfs 2,105 cf
Subcatchment D9: SUBCAT D9	Runoff Area=19,265 sf 81.28% Impervious Runoff Depth>3.07" Tc=6.0 min CN=87 Runoff=1.54 cfs 4,926 cf
SubcatchmentE1: SUBCATE1	Runoff Area=5,639 sf 95.66% Impervious Runoff Depth>3.89" Tc=6.0 min CN=95 Runoff=0.53 cfs 1,829 cf
SubcatchmentE10: SUBCATE10	Runoff Area=11,128 sf 61.34% Impervious Runoff Depth>2.02" Tc=6.0 min CN=75 Runoff=0.59 cfs 1,878 cf
Subcatchment E11: SUBCAT E11	Runoff Area=23,375 sf 93.96% Impervious Runoff Depth>3.78" Tc=6.0 min CN=94 Runoff=2.18 cfs 7,370 cf
Subcatchment E12: SUBCAT E12	Runoff Area=18,833 sf 95.13% Impervious Runoff Depth>3.89" Tc=6.0 min CN=95 Runoff=1.78 cfs 6,109 cf
Subcatchment E13: SUBCAT E13	Runoff Area=35,467 sf 94.58% Impervious Runoff Depth>3.89" Tc=6.0 min CN=95 Runoff=3.36 cfs 11,505 cf
Subcatchment E14: SUBCAT E14	Runoff Area=27,808 sf 98.14% Impervious Runoff Depth>4.12" Tc=6.0 min CN=97 Runoff=2.70 cfs 9,539 cf
SubcatchmentE15: SUBCATE15	Runoff Area=32,392 sf 98.14% Impervious Runoff Depth>4.12" Tc=6.0 min CN=97 Runoff=3.14 cfs 11,112 cf
SubcatchmentE16: SUBCATE16	Runoff Area=30,721 sf 76.36% Impervious Runoff Depth>2.79" Tc=6.0 min CN=84 Runoff=2.25 cfs 7,136 cf
Subcatchment E17: SUBCAT E17	Runoff Area=120,518 sf 0.00% Impervious Runoff Depth=0.00" Flow Length=190' Tc=7.2 min CN=30 Runoff=0.00 cfs 0 cf
Subcatchment E18: SUBCAT E18	Runoff Area=11,752 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf
Subcatchment E19: SUBCAT E19	Runoff Area=75,753 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf
Subcatchment E2: SUBCAT E2	Runoff Area=6,746 sf 96.37% Impervious Runoff Depth>4.00" Tc=6.0 min CN=96 Runoff=0.65 cfs 2,251 cf

475-POST

Prepared by The Dubay Group, Inc.Printed 10/5/2021HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLCPage 5SubcatchmentE3: SUBCAT E3Runoff Area=10,197 sf 93.34% Impervious Runoff Depth>3.78"
Tc=6.0 min CN=94 Runoff=0.95 cfs 3,215 cfSubcatchmentE4: SUBCAT E4Runoff Area=11,078 sf 88.18% Impervious Runoff Depth>3.47"
Tc=6.0 min CN=91 Runoff=0.98 cfs 3,200 cfSubcatchmentE5: SUBCAT E5Runoff Area=9,740 sf 67.06% Impervious Runoff Depth>2.35"
Tc=6.0 min CN=79 Runoff=0.60 cfs 1,907 cfSubcatchmentE6: SUBCAT E6Runoff Area=13,215 sf 67.23% Impervious Runoff Depth>2.35"
Tc=6.0 min CN=79 Runoff=0.82 cfs 2,587 cfSubcatchmentE7: SUBCAT E7Runoff Area=9,100 sf 90.92% Impervious Runoff Depth>3.68"

Runoff Area=9,100 sf 90.92% Impervious Runoff Depth>3.68" Tc=6.0 min CN=93 Runoff=0.83 cfs 2,788 cf

Runoff Area=12,697 sf 90.53% Impervious Runoff Depth>3.57" Tc=6.0 min CN=92 Runoff=1.14 cfs 3,778 cf

Runoff Area=3,988 sf 94.93% Impervious Runoff Depth>3.89" Tc=6.0 min CN=95 Runoff=0.38 cfs 1,294 cf

Runoff Area=203,535 sf 0.00% Impervious Runoff Depth=0.00" Flow Length=1,090' Tc=11.8 min CN=30 Runoff=0.00 cfs 0 cf

Runoff Area=318,471 sf 7.84% Impervious Runoff Depth>0.29" Flow Length=1,223' Tc=10.6 min CN=45 Runoff=0.71 cfs 7,605 cf

Runoff Area=313,113 sf 0.00% Impervious Runoff Depth>0.19" Tc=6.0 min CN=42 Runoff=0.28 cfs 4,892 cf

Runoff Area=7,200 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=0.70 cfs 2,539 cf

Runoff Area=32,400 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=3.17 cfs 11,425 cf

Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=3.08 cfs 11,108 cf

Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=3.08 cfs 11,108 cf

Runoff Area=26,325 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=2.58 cfs 9,283 cf

unoff Area=28,575 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=2.80 cfs 10,076 cf

Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=3.08 cfs 11,108 cf

	Tc=6.0 m
Subcatchment E5: SUBCAT E5	Runoff Area=9,740 sf 67. Tc=6.0 m
Subcatchment E6: SUBCAT E6	Runoff Area=13,215 sf 67. Tc=6.0 m
Subcatchment E7: SUBCAT E7	Runoff Area=9,100 sf 90. Tc=6.0 m
Subcatchment E8: SUBCAT E8	Runoff Area=12,697 sf 90. Tc=6.0 m
Subcatchment E9: SUBCAT E9	Runoff Area=3,988 sf 94. Tc=6.0 m
Subcatchment G1: SUBCAT G1	Runoff Area=203,535 sf 0. Flow Length=1,090' Tc=11
Subcatchment K: SUBCAT K	Runoff Area=318,471 sf 7. Flow Length=1,223' Tc=10.6 m
SubcatchmentL: SUBCATL	Runoff Area=313,113 sf 0. Tc=6.0 m
Subcatchment R1: SUBCAT R1	Runoff Area=7,200 sf 100. Tc=6.0 m
Subcatchment R10: SUBCAT R10	Runoff Area=32,400 sf 100. Tc=6.0 mir
Subcatchment R11: SUBCAT R11	Runoff Area=31,500 sf 100. Tc=6.0 mir
Subcatchment R12: SUBCAT R12	Runoff Area=31,500 sf 100. Tc=6.0 mir
Subcatchment R13: SUBCAT R13	Runoff Area=26,325 sf 100. Tc=6.0 m
Subcatchment R14: SUBCAT R14	Runoff Area=28,575 sf 100. Tc=6.0 mir
Subcatchment R15: SUBCAT R15	Runoff Area=31,500 sf 100. Tc=6.0 mir

FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 10-YR Rainfall=4.47"

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Subcatchment R16: SUBCAT R16	Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=3.08 cfs 11,108 cf
Subcatchment R17: SUBCAT R17	Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=3.08 cfs 11,108 cf
Subcatchment R18: SUBCAT R18	Runoff Area=7,200 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=0.70 cfs 2,539 cf
Subcatchment R2: SUBCAT R2	Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=3.08 cfs 11,108 cf
Subcatchment R3: SUBCAT R3	Runoff Area=56,700 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=5.55 cfs 19,994 cf
Subcatchment R4: SUBCAT R4	Runoff Area=26,325 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=2.58 cfs 9,283 cf
Subcatchment R5: SUBCAT R5	Runoff Area=28,575 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=2.80 cfs 10,076 cf
Subcatchment R6: SUBCAT R6	Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=3.08 cfs 11,108 cf
Subcatchment R7: SUBCAT R7	Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=3.08 cfs 11,108 cf
Subcatchment R8: SUBCAT R8	Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=3.08 cfs 11,108 cf
Subcatchment R9: SUBCAT R9	Runoff Area=7,200 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=0.70 cfs 2,539 cf
SubcatchmentS1: SUBCATS1	Runoff Area=57,112 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf
SubcatchmentS10: SUBCATS10	Runoff Area=96,652 sf 6.11% Impervious Runoff Depth>0.02" Flow Length=455' Tc=12.0 min CN=34 Runoff=0.01 cfs 136 cf
SubcatchmentS11: SUBCATS11	Runoff Area=113,276 sf 14.81% Impervious Runoff Depth>0.13" Flow Length=327' Tc=6.0 min CN=40 Runoff=0.05 cfs 1,234 cf
Subcatchment S12: SUBCAT S12	Runoff Area=23,144 sf 3.59% Impervious Runoff Depth>0.16" Tc=6.0 min CN=41 Runoff=0.01 cfs 305 cf
SubcatchmentS13: SUBCATS13	Runoff Area=13,348 sf 89.17% Impervious Runoff Depth>3.57" Tc=6.0 min CN=92 Runoff=1.20 cfs 3,971 cf
SubcatchmentS14: SUBCATS14	Runoff Area=11,820 sf 88.58% Impervious Runoff Depth>3.47" Tc=6.0 min CN=91 Runoff=1.04 cfs 3,415 cf

475-POST

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Type III 24-hr 10-YR Rainfall=4.47" Printed 10/5/2021

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HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLC Page 7					
SubcatchmentS2: SUBCATS2	Runoff Area=71,723 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf				
Subcatchment S3: SUBCAT S3	Runoff Area=100,949 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf				
Subcatchment S4: SUBCAT S4	Runoff Area=212,906 sf 0.00% Impervious Runoff Depth=0.00" Flow Length=530' Tc=11.7 min CN=30 Runoff=0.00 cfs 0 cf				
Subcatchment S5: SUBCAT S5	Runoff Area=52,646 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf				
Subcatchment S6: SUBCAT S6	Runoff Area=71,750 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf				
Subcatchment S8: SUBCAT S8 Flo	Runoff Area=446,502 sf 8.05% Impervious Runoff Depth>0.03" w Length=2,253' Tc=13.6 min CN=35 Runoff=0.04 cfs 1,079 cf				
	vg. Flow Depth=0.01' Max Vel=0.31 fps Inflow=0.04 cfs 1,329 cf I.0' S=0.0187 '/' Capacity=176.06 cfs Outflow=0.04 cfs 1,225 cf				
	vg. Flow Depth=0.01' Max Vel=0.34 fps Inflow=0.08 cfs 2,304 cf 5.0' S=0.0224 '/' Capacity=192.80 cfs Outflow=0.07 cfs 2,119 cf				
Reach RG: REACH G 12.0" Round Pipe n=0.012	Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf L=180.0' S=0.0278 '/' Capacity=6.43 cfs Outflow=0.00 cfs 0 cf				
Reach W1: WETLAND REACH 1 n=0.030 L	Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf =420.0' S=0.0190 '/' Capacity=177.62 cfs Outflow=0.00 cfs 0 cf				
	vg. Flow Depth=0.01' Max Vel=0.21 fps Inflow=0.05 cfs 1,234 cf).0' S=0.0083 '/' Capacity=117.48 cfs Outflow=0.04 cfs 1,193 cf				
Pond CA1: CB-A1 12.0" Round	Peak Elev=156.20' Inflow=0.80 cfs 2,767 cf Culvert n=0.012 L=83.0' S=0.0100 '/' Outflow=0.80 cfs 2,767 cf				
Pond CA2: CB-A2 12.0" Round	Peak Elev=156.62' Inflow=0.53 cfs 1,908 cf Culvert n=0.012 L=41.0' S=0.0100 '/' Outflow=0.53 cfs 1,908 cf				
Pond CA3: CB-A3 18.0" Round C	Peak Elev=154.89' Inflow=3.39 cfs 11,265 cf ulvert n=0.012 L=169.0' S=0.0050 '/' Outflow=3.39 cfs 11,265 cf				
Pond CA4: CB-A4 12.0" Round	Peak Elev=155.33' Inflow=0.59 cfs 1,968 cf Culvert n=0.012 L=50.0' S=0.0100 '/' Outflow=0.59 cfs 1,968 cf				
Pond CC1: CB-C1 12.0" Rour	Peak Elev=159.49' Inflow=0.13 cfs 492 cf nd Culvert n=0.012 L=33.0' S=0.0048 '/' Outflow=0.13 cfs 492 cf				
Pond CC10: CB-C10 30.0" Round Cul	Peak Elev=153.47' Inflow=15.32 cfs 51,594 cf vert n=0.012 L=170.0' S=0.0050 '/' Outflow=15.32 cfs 51,594 cf				

475-POST Prepared by The Dubay <u>HydroCAD® 10.00-26 s/n 0</u>	FRIARS DRIVE POST DEVELOPMENT <i>Type III 24-hr 10-YR Rainfall=4.47"</i> Group, Inc. Printed 10/5/2021 7602 © 2020 HydroCAD Software Solutions LLC Page 8
Pond CC11: CB-C11	Peak Elev=156.06' Inflow=0.40 cfs 1,269 cf 12.0" Round Culvert n=0.012 L=30.0' S=0.0200 '/' Outflow=0.40 cfs 1,269 cf
Pond CC12: CB-C12	Peak Elev=149.23' Inflow=8.68 cfs 28,840 cf 24.0" Round Culvert n=0.012 L=70.0' S=0.0050 '/' Outflow=8.68 cfs 28,840 cf
Pond CC13: CB-C13	Peak Elev=156.02' Inflow=0.29 cfs 929 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0200 '/' Outflow=0.29 cfs 929 cf
Pond CC14: CB-C14	Peak Elev=150.10' Inflow=7.67 cfs 25,633 cf 24.0" Round Culvert n=0.012 L=172.0' S=0.0050 '/' Outflow=7.67 cfs 25,633 cf
Pond CC15: CB-C15	Peak Elev=156.02' Inflow=0.31 cfs 990 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0200 '/' Outflow=0.31 cfs 990 cf
Pond CC16: CB-C16	Peak Elev=150.97' Inflow=7.08 cfs 23,649 cf 24.0" Round Culvert n=0.012 L=172.0' S=0.0050 '/' Outflow=7.08 cfs 23,649 cf
Pond CC17: CB-C17	Peak Elev=154.20' Inflow=12.79 cfs 42,917 cf 30.0" Round Culvert n=0.012 L=165.0' S=0.0050 '/' Outflow=12.79 cfs 42,917 cf
Pond CC18: CB-C18	Peak Elev=154.92' Inflow=10.37 cfs 34,643 cf 30.0" Round Culvert n=0.012 L=168.0' S=0.0050 '/' Outflow=10.37 cfs 34,643 cf
Pond CC19: CB-C19	Peak Elev=156.09' Inflow=7.72 cfs 25,092 cf 24.0" Round Culvert n=0.012 L=181.0' S=0.0050 '/' Outflow=7.72 cfs 25,092 cf
Pond CC2: CB-C2	Peak Elev=159.38' Inflow=0.46 cfs 1,545 cf 12.0" Round Culvert n=0.012 L=56.0' S=0.0050 '/' Outflow=0.46 cfs 1,545 cf
Pond CC20: CB-C20	Peak Elev=151.84' Inflow=6.48 cfs 21,604 cf 24.0" Round Culvert n=0.012 L=169.0' S=0.0050 '/' Outflow=6.48 cfs 21,604 cf
Pond CC21: CB-C21	Peak Elev=156.01' Inflow=0.28 cfs 894 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0200 '/' Outflow=0.28 cfs 894 cf
Pond CC22: CB-C22	Peak Elev=156.02' Inflow=0.30 cfs 945 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0200 '/' Outflow=0.30 cfs 945 cf
Pond CC23: CB-C23	Peak Elev=152.74' Inflow=5.90 cfs 19,766 cf 24.0" Round Culvert n=0.012 L=173.0' S=0.0050 '/' Outflow=5.90 cfs 19,766 cf
Pond CC24: CB-C24	Peak Elev=155.42' Inflow=1.34 cfs 4,510 cf 12.0" Round Culvert n=0.012 L=42.0' S=0.0290 '/' Outflow=1.34 cfs 4,510 cf
Pond CC25: CB-C25	Peak Elev=153.71' Inflow=5.30 cfs 17,801 cf 24.0" Round Culvert n=0.012 L=190.0' S=0.0050 '/' Outflow=5.30 cfs 17,801 cf
Pond CC26: CB-C26	Peak Elev=158.63' Inflow=0.84 cfs 2,848 cf

Pond CC26: CB-C26 Peak Elev=158.63' Inflow=0.84 cfs 2,848 cf 12.0" Round Culvert n=0.012 L=41.0' S=0.0224 '/' Outflow=0.84 cfs 2,848 cf

FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 10-YR Rainfall=4.47" 475-POST Prepared by The Dubay Group, Inc. Printed 10/5/2021 HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLC Page 9 Peak Elev=158.48' Inflow=3.56 cfs 11.610 cf Pond CC27: CB-C27 18.0" Round Culvert n=0.012 L=122.0' S=0.0050 '/' Outflow=3.56 cfs 11.610 cf Peak Elev=159.17' Inflow=2.83 cfs 9,229 cf Pond CC28: CB-C28 15.0" Round Culvert n=0.012 L=101.0' S=0.0050 '/' Outflow=2.83 cfs 9,229 cf Peak Elev=160.19' Inflow=0.61 cfs 2,072 cf Pond CC29: CB-C29 12.0" Round Culvert n=0.012 L=77.0' S=0.0200 '/' Outflow=0.61 cfs 2,072 cf Peak Elev=159.08' Inflow=0.57 cfs 1,923 cf Pond CC3: CB-C3 12.0" Round Culvert n=0.012 L=75.0' S=0.0049 '/' Outflow=0.57 cfs 1,923 cf Pond CC30: CB-C30 Peak Elev=160.70' Inflow=0.32 cfs 1,135 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0200 '/' Outflow=0.32 cfs 1,135 cf Peak Elev=159.81' Inflow=2.07 cfs 6,756 cf Pond CC31: CB-C31 15.0" Round Culvert n=0.012 L=133.0' S=0.0050 '/' Outflow=2.07 cfs 6,756 cf Pond CC32: CB-C32 Peak Elev=161.65' Inflow=0.49 cfs 1,591 cf 12.0" Round Culvert n=0.012 L=53.0' S=0.0292 '/' Outflow=0.49 cfs 1.591 cf Peak Elev=162.37' Inflow=0.20 cfs 669 cf Pond CC33: CB-C33 12.0" Round Culvert n=0.012 L=26.0' S=0.0288 '/' Outflow=0.20 cfs 669 cf Pond CC34: CB-C34 Peak Elev=160.32' Inflow=1.26 cfs 4,131 cf 12.0" Round Culvert n=0.012 L=88.0' S=0.0050 '/' Outflow=1.26 cfs 4,131 cf Peak Elev=159.41' Inflow=0.71 cfs 2,372 cf Pond CC35: CB-C35 12.0" Round Culvert n=0.012 L=90.0' S=0.0303 '/' Outflow=0.71 cfs 2,372 cf Pond CC36: CB-C36 Peak Elev=160.25' Inflow=0.05 cfs 245 cf 12.0" Round Culvert n=0.012 L=40.0' S=0.0267 '/' Outflow=0.05 cfs 245 cf Peak Elev=159.64' Inflow=0.45 cfs 1,458 cf Pond CC37: CB-C37 12.0" Round Culvert n=0.012 L=34.0' S=0.0050 '/' Outflow=0.45 cfs 1,458 cf Pond CC38: CB-C38 Peak Elev=161.65' Inflow=0.50 cfs 1,586 cf 12.0" Round Culvert n=0.012 L=120.0' S=0.0179 '/' Outflow=0.50 cfs 1,586 cf Peak Elev=157.68' Inflow=0.12 cfs 467 cf Pond CC4: CB-C4 12.0" Round Culvert n=0.012 L=26.0' S=0.0100 '/' Outflow=0.12 cfs 467 cf Peak Elev=159.60' Inflow=0.10 cfs 379 cf Pond CC5: CB-C5 12.0" Round Culvert n=0.012 L=30.0' S=0.0100 '/' Outflow=0.10 cfs 379 cf Peak Elev=156.81' Inflow=0.62 cfs 2,200 cf Pond CC6: CB-C6

12.0" Round Culvert n=0.012 L=73.0' S=0.0100 '/' Outflow=0.62 cfs 2,200 cf

Pond CC7: CB-C7 Peak Elev=157.42' Inflow=0.31 cfs 1,079 cf 12.0" Round Culvert n=0.012 L=62.0' S=0.0100 '/' Outflow=0.31 cfs 1,079 cf

475-POST Prepared by The Dubay <u>HydroCAD® 10.00-26_s/n 07</u>	FRIARS DRIVE POST DEVELOPMENT <i>Type III 24-hr 10-YR Rainfall=4.47"</i> Group, Inc. Printed 10/5/2021 7602 © 2020 HydroCAD Software Solutions LLC Page 10
Pond CC8: CB-C8	Peak Elev=151.28' Inflow=20.74 cfs 70,211 cf 36.0" Round Culvert n=0.012 L=85.0' S=0.0051 '/' Outflow=20.74 cfs 70,211 cf
Pond CC9: CB-C9	Peak Elev=152.55' Inflow=17.94 cfs 61,028 cf 30.0" Round Culvert n=0.012 L=170.0' S=0.0050 '/' Outflow=17.94 cfs 61,028 cf
Pond CD1: CB-D1	Peak Elev=159.49' Inflow=0.62 cfs 2,224 cf 12.0" Round Culvert n=0.012 L=144.0' S=0.0050 '/' Outflow=0.62 cfs 2,224 cf
Pond CD10: CB-D10	Peak Elev=159.17' Inflow=0.70 cfs 2,252 cf 12.0" Round Culvert n=0.012 L=121.0' S=0.0300 '/' Outflow=0.70 cfs 2,252 cf
Pond CD11: CB-D11	Peak Elev=154.99' Inflow=10.26 cfs 33,305 cf 24.0" Round Culvert n=0.012 L=264.0' S=0.0133 '/' Outflow=10.26 cfs 33,305 cf
Pond CD12: CB-D12	Peak Elev=158.74' Inflow=1.31 cfs 4,335 cf 12.0" Round Culvert n=0.012 L=121.0' S=0.0299 '/' Outflow=1.31 cfs 4,335 cf
Pond CD2: CB-D2	Peak Elev=158.67' Inflow=0.76 cfs 2,683 cf 12.0" Round Culvert n=0.012 L=91.0' S=0.0189 '/' Outflow=0.76 cfs 2,683 cf
Pond CD3: CB-D3	Peak Elev=157.48' Inflow=1.40 cfs 4,555 cf 12.0" Round Culvert n=0.012 L=48.0' S=0.0050 '/' Outflow=1.40 cfs 4,555 cf
Pond CD4: CB-D4	Peak Elev=156.94' Inflow=3.24 cfs 10,686 cf 18.0" Round Culvert n=0.012 L=165.0' S=0.0050 '/' Outflow=3.24 cfs 10,686 cf
Pond CD5: CB-D5	Peak Elev=158.22' Inflow=0.84 cfs 2,652 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0477 '/' Outflow=0.84 cfs 2,652 cf
Pond CD6: CB-D6	Peak Elev=158.55' Inflow=0.49 cfs 1,541 cf 12.0" Round Culvert n=0.012 L=33.0' S=0.0100 '/' Outflow=0.49 cfs 1,541 cf
Pond CD7: CB-D7	Peak Elev=155.95' Inflow=5.25 cfs 17,148 cf 24.0" Round Culvert n=0.012 L=93.0' S=0.0051 '/' Outflow=5.25 cfs 17,148 cf
Pond CD8: CB-D8	Peak Elev=159.16' Inflow=0.65 cfs 2,105 cf 12.0" Round Culvert n=0.012 L=121.0' S=0.0253 '/' Outflow=0.65 cfs 2,105 cf
Pond CD9: CB-D9	Peak Elev=155.59' Inflow=7.48 cfs 24,327 cf 24.0" Round Culvert n=0.012 L=100.0' S=0.0050 '/' Outflow=7.48 cfs 24,327 cf
Pond CE1: CB-E1	Peak Elev=161.22' Inflow=0.53 cfs 1,829 cf 12.0" Round Culvert n=0.012 L=101.0' S=0.0661 '/' Outflow=0.53 cfs 1,829 cf
Pond CE10: CB-E10	Peak Elev=153.23' Inflow=25.26 cfs 90,739 cf 42.0" Round Culvert n=0.012 L=43.0' S=0.0049 '/' Outflow=25.26 cfs 90,739 cf
Pond CE11: CB-E11	Peak Elev=153.26' Inflow=16.12 cfs 55,142 cf 30.0" Round Culvert n=0.012 L=104.0' S=0.0050 '/' Outflow=16.12 cfs 55,142 cf

FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 10-YR Rainfall=4.47" 475-POST Prepared by The Dubay Group, Inc. Printed 10/5/2021 HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLC Page 11 Peak Elev=153.62' Inflow=13.94 cfs 47,773 cf Pond CE12: CB-E12 30.0" Round Culvert n=0.012 L=127.0' S=0.0050 '/' Outflow=13.94 cfs 47.773 cf Peak Elev=154.32' Inflow=12.15 cfs 41,664 cf Pond CE13: CB-E13 30.0" Round Culvert n=0.012 L=161.0' S=0.0050 '/' Outflow=12.15 cfs 41,664 cf Peak Elev=155.32' Inflow=8.80 cfs 30,159 cf Pond CE14: CB-E14 24.0" Round Culvert n=0.012 L=155.0' S=0.0050 '/' Outflow=8.80 cfs 30.159 cf Pond CE15: CB-E15 Peak Elev=155.94' Inflow=6.10 cfs 20,620 cf 24.0" Round Culvert n=0.012 L=134.0' S=0.0050 '/' Outflow=6.10 cfs 20.620 cf Pond CE16: CB-E16 Peak Elev=156.65' Inflow=2.96 cfs 9,508 cf 18.0" Round Culvert n=0.012 L=127.0' S=0.0050 '/' Outflow=2.96 cfs 9.508 cf Peak Elev=161.49' Inflow=0.00 cfs 0 cf Pond CE17: CB-E17 12.0" Round Culvert n=0.012 L=64.0' S=0.0100 '/' Outflow=0.00 cfs 0 cf Pond CE18: CB-E18 Peak Elev=156.71' Inflow=0.00 cfs 0 cf 12.0" Round Culvert n=0.012 L=49.0' S=0.0051 '/' Outflow=0.00 cfs 0 cf Peak Elev=157.37' Inflow=0.00 cfs 0 cf Pond CE19: CB-E19 12.0" Round Culvert n=0.012 L=49.0' S=0.0051 '/' Outflow=0.00 cfs 0 cf Peak Elev=161.16' Inflow=0.65 cfs 2,251 cf Pond CE2: CB-E2 12.0" Round Culvert n=0.012 L=101.0' S=0.0612 '/' Outflow=0.65 cfs 2,251 cf Peak Elev=154.48' Inflow=7.38 cfs 24,433 cf Pond CE3: CB-E3 24.0" Round Culvert n=0.012 L=178.0' S=0.0050 '/' Outflow=7.38 cfs 24.433 cf Pond CE4: CB-E4 Peak Elev=154.89' Inflow=5.89 cfs 19,389 cf 24.0" Round Culvert n=0.012 L=60.0' S=0.0050 '/' Outflow=5.89 cfs 19.389 cf Peak Elev=155.59' Inflow=4.27 cfs 13,938 cf Pond CE5: CB-E5 18.0" Round Culvert n=0.012 L=76.0' S=0.0050 '/' Outflow=4.27 cfs 13,938 cf Peak Elev=156.32' Inflow=3.67 cfs 12,032 cf Pond CE6: CB-E6 18.0" Round Culvert n=0.012 L=140.0' S=0.0050 '/' Outflow=3.67 cfs 12,032 cf Peak Elev=156.94' Inflow=2.85 cfs 9,445 cf Pond CE7: CB-E7 15.0" Round Culvert n=0.012 L=95.0' S=0.0049 '/' Outflow=2.85 cfs 9.445 cf Pond CE8: CB-E8 Peak Elev=157.59' Inflow=2.02 cfs 6,657 cf 15.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=2.02 cfs 6,657 cf Peak Elev=159.53' Inflow=0.87 cfs 2,879 cf Pond CE9: CB-E9 12.0" Round Culvert n=0.012 L=94.0' S=0.0218 '/' Outflow=0.87 cfs 2,879 cf Peak Elev=155.73' Inflow=2.24 cfs 7,386 cf Pond CS13: CB-S13

15.0" Round Culvert n=0.012 L=145.0' S=0.0050 '/' Outflow=2.24 cfs 7,386 cf

FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 10-YR Rainfall=4.47" Prepared by The Dubay Group, Inc. HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLC Printed 10/5/2021

HydroCAD® 10.00-26 s/n 0	7602 © 2020 HydroCAD Software Solutions LLC Page 12
Pond CS14: CB-S14	Peak Elev=156.69' Inflow=1.04 cfs 3,415 cf 12.0" Round Culvert n=0.012 L=101.0' S=0.0100 '/' Outflow=1.04 cfs 3,415 cf
Pond DC1: DMH-C1	Peak Elev=157.76' Inflow=4.40 cfs 14,458 cf 18.0" Round Culvert n=0.012 L=155.0' S=0.0096 '/' Outflow=4.40 cfs 14,458 cf
Pond DC10: DMH-C10	Peak Elev=152.13' Inflow=24.67 cfs 88,862 cf 36.0" Round Culvert n=0.012 L=247.0' S=0.0050 '/' Outflow=24.67 cfs 88,862 cf
Pond DC11: DMH-C11	Peak Elev=148.18' Inflow=30.03 cfs 101,251 cf 42.0" Round Culvert n=0.012 L=174.0' S=0.0050 '/' Outflow=30.03 cfs 101,251 cf
Pond DC2: DMH-C2	Peak Elev=158.22' Inflow=0.70 cfs 2,539 cf 12.0" Round Culvert n=0.012 L=136.0' S=0.0060 '/' Outflow=0.70 cfs 2,539 cf
Pond DC3: DMH-C3	Peak Elev=157.46' Inflow=3.79 cfs 13,647 cf 18.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=3.79 cfs 13,647 cf
Pond DC4: DMH-C4	Peak Elev=156.69' Inflow=6.87 cfs 24,754 cf 24.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=6.87 cfs 24,754 cf
Pond DC5: DMH-C5	Peak Elev=156.08' Inflow=9.96 cfs 35,862 cf 24.0" Round Culvert n=0.012 L=117.0' S=0.0050 '/' Outflow=9.96 cfs 35,862 cf
Pond DC6: DMH-C6	Peak Elev=155.26' Inflow=12.75 cfs 45,938 cf 30.0" Round Culvert n=0.012 L=117.0' S=0.0050 '/' Outflow=12.75 cfs 45,938 cf
Pond DC7: DMH-C7	Peak Elev=154.75' Inflow=15.33 cfs 55,221 cf 30.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=15.33 cfs 55,221 cf
Pond DC8: DMH-C8	Peak Elev=153.99' Inflow=18.41 cfs 66,329 cf 30.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=18.41 cfs 66,329 cf
Pond DC9: DMH-C9	Peak Elev=152.98' Inflow=21.50 cfs 77,437 cf 36.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=21.50 cfs 77,437 cf
Pond DD1: DMH-D1	Peak Elev=151.43' Inflow=20.00 cfs 167,663 cf 30.0" Round Culvert n=0.012 L=273.0' S=0.0050 '/' Outflow=20.00 cfs 167,663 cf
Pond DD2: DMH-D2	Peak Elev=150.05' Inflow=20.00 cfs 167,663 cf 30.0" Round Culvert n=0.012 L=183.0' S=0.0050 '/' Outflow=20.00 cfs 167,663 cf
Pond DD3: DMH-D3	Peak Elev=149.00' Inflow=20.00 cfs 167,663 cf 30.0" Round Culvert n=0.012 L=131.0' S=0.0050 '/' Outflow=20.00 cfs 167,663 cf
Pond DD4: DMH-DD4	Peak Elev=148.03' Inflow=20.00 cfs 167,663 cf 30.0" Round Culvert n=0.012 L=133.0' S=0.0050 '/' Outflow=20.00 cfs 167,663 cf
Pond DE1: DMH-E1	Peak Elev=158.22' Inflow=0.70 cfs 2,539 cf 12.0" Round Culvert n=0.012 L=136.0' S=0.0060 '/' Outflow=0.70 cfs 2,539 cf

475-POST

FRIARS DRIVE POST DEVELOPMENT

475-POST	Type III 24-hr 10-YR Rainfall=4.47"
Prepared by The Duba	y Group, Inc. Printed 10/5/2021
HydroCAD® 10.00-26 s/n	07602 © 2020 HydroCAD Software Solutions LLC Page 13
Pond DE2: DMH-E2	Peak Elev=157.46' Inflow=3.79 cfs 13,647 cf 18.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=3.79 cfs 13,647 cf
Pond DE3: DMH-E3	Peak Elev=156.69' Inflow=6.87 cfs 24,754 cf 24.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=6.87 cfs 24,754 cf
Pond DE4: DMH-E4	Peak Elev=156.08' Inflow=9.96 cfs 35,862 cf 24.0" Round Culvert n=0.012 L=117.0' S=0.0050 '/' Outflow=9.96 cfs 35,862 cf
Pond DE5: DMH-E5	Peak Elev=155.22' Inflow=12.75 cfs 45,938 cf 30.0" Round Culvert n=0.012 L=117.0' S=0.0050 '/' Outflow=12.75 cfs 45,938 cf
Pond DE6: DMH-E9	Peak Elev=154.54' Inflow=15.33 cfs 55,221 cf 30.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=15.33 cfs 55,221 cf
Pond DE7: DMH-E7	Peak Elev=153.42' Inflow=24.67 cfs 88,862 cf 42.0" Round Culvert n=0.012 L=78.0' S=0.0050 '/' Outflow=24.67 cfs 88,862 cf
Pond DE8: DMH-E8	Peak Elev=156.36' Inflow=3.79 cfs 13,647 cf 18.0" Round Culvert n=0.012 L=136.0' S=0.0178 '/' Outflow=3.79 cfs 13,647 cf
Pond DE9: DMH-E9	Peak Elev=159.07' Inflow=0.70 cfs 2,539 cf 12.0" Round Culvert n=0.012 L=136.0' S=0.0200 '/' Outflow=0.70 cfs 2,539 cf
Pond PC: POND C	Peak Elev=146.66' Storage=79,079 cf Inflow=54.69 cfs 190,113 cf Discarded=4.11 cfs 190,068 cf Primary=0.00 cfs 0 cf Outflow=4.11 cfs 190,068 cf
Pond PD: POND D	Peak Elev=146.13' Storage=95,618 cf Inflow=29.39 cfs 200,968 cf Discarded=3.43 cfs 164,971 cf Primary=0.00 cfs 0 cf Outflow=3.43 cfs 164,971 cf
Pond PE: POND E	Peak Elev=153.16' Storage=51,739 cf Inflow=48.75 cfs 170,315 cf Outflow=20.00 cfs 167,663 cf
Pond PH: POND H	Peak Elev=150.05' Storage=13,958 cf Inflow=0.01 cfs 305 cf Outflow=0.00 cfs 0 cf
Link L1: NORTHEASTP	ROPERTY CORNERInflow=0.00 cfs0 cfPrimary=0.00 cfs0 cf
Link L2: RIVER	Inflow=0.98 cfs 14,615 cf Primary=0.98 cfs 14,615 cf
Link L3: EX CULVERTS	Inflow=0.08 cfs 2,304 cf Primary=0.08 cfs 2,304 cf
Link L4: WEST PROPER	ATYLINEInflow=0.00 cfs0 cfPrimary=0.00 cfs0 cf
Link L5: NORTHWEST F	ROPERTY CORNERInflow=0.00 cfs0 cfPrimary=0.00 cfs0 cf

Link L6: FOX HOLLOW

Inflow=0.00 cfs 0 cf Primary=0.00 cfs 0 cf

Total Runoff Area = 3,619,215 sf Runoff Volume = 408,984 cf Average Runoff Depth = 1.36" 65.35% Pervious = 2,365,273 sf 34.65% Impervious = 1,253,942 sf

Summary for Subcatchment A1: SUBCAT A1

Runoff = 0.27 cfs @ 12.09 hrs, Volume= 858 cf, Depth> 2.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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				
*		3,089	98	Proposed F	Pavement			
_		1,806	39	>75% Gras	s cover, Go	bod, HSG A		
		4,895	76	Weighted A	verage			
		1,806		36.89% Pervious Area				
		3,089		63.11% Impervious Area				
	_		<u>.</u>		a <i>k</i>			
	Tc	Length	Slope		Capacity	Description		
_	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)			
	6.0					Direct Entry,		

Summary for Subcatchment A2: SUBCAT A2

Runoff = 0.53 cfs @ 12.09 hrs, Volume= 1,908 cf, Depth> 4.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"

	Area (sf)	CN	Description					
*	5,412	98	Proposed Pavement					
	0	39	>75% Gras	s cover, Go	bod, HSG A			
	5,412	98	Weighted Average					
	5,412		100.00% Impervious Area					
т	c Length	Slope	Velocity	Capacity	Description			
ı mir)	0	(ft/ft)		(cfs)	Description			
`		וויונ		(013)				
6.	.0				Direct Entry,			

Summary for Subcatchment A3: SUBCAT A3

Runoff = 0.56 cfs @ 12.09 hrs, Volume= 1,910 cf, Depth> 3.89"

	Area (sf)	CN	Description			
*	5,572	98	Proposed Pavement			
	317	39	>75% Grass cover, Good, HSG A			
	5,889	95	Weighted Average			
	317		5.38% Pervious Area			
	5,572		94.62% 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 A4: SUBCAT A4											
Runoff = 0.59 cfs @ 12.09 hrs, Volume= 1	l,968 cf, Depth> 3.57"										
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"											
Area (sf) CN Description											
* 5,929 98 Proposed Pavement											
687 39 >75% Grass cover, Good, HSG A 6,616 92 Weighted Average											
687 10.38% Pervious Area											
5,929 89.62% Impervious Area											
Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs)											
6.0 Direct Entry,											
Summary for Subcatchment E	S. SUBCAT B										
Runoff = 0.00 cfs @ 0.00 hrs, Volume=	0 cf, Depth= 0.00"										
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time S Type III 24-hr 10-YR Rainfall=4.47"	pan= 0.00-24.00 hrs, dt= 0.05 hrs										
Area (sf) CN Description											
0 39 >75% Grass cover, Good, HSG A											
24,585 30 Woods, Good, HSG A											
* 0 98 Ex. Wetland * 0 98 Ex. Building											
* 0 98 Ex. Pavement											
24,58530Weighted Average24,585100.00% Pervious Area											
Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs)											
6.0 Direct Entry,											
Summary for Subcatchment C1: SUBCAT C1											

Runoff = 0.13 cfs @ 12.11 hrs, Volume= 492 cf, Depth> 0.94"

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	A	rea (sf)	CN	Description							
*		2,170	98	Proposed Pavement							
		4,084	39	>75% Grass cover, Good, HSG A							
		6,254	59	Weighted A	Veighted Average						
		4,084		65.30% Pervious Area							
		2,170		34.70% lmp	pervious Ar	ea					
	Тс	Length	Slope	e Velocity	Capacity	Description					
_	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)						
	6.0					Direct Entry,					

Summary for Subcatchment C10: SUBCAT C10

Runoff = 2.53 cfs @ 12.09 hrs, Volume= 8,678 cf, Depth> 3.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		25,480		Proposed Pavement						
		1,272	39	>75% Grass cover, Good, HSG A						
		26,752	95	Weighted Average						
		1,272		4.75% Pervious Area						
		25,480		95.25% Imp	pervious Ar	ea				
	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description				
	6.0					Direct Entry,				

Summary for Subcatchment C11: SUBCAT C11

Runoff = 0.40 cfs @ 12.09 hrs, Volume= 1,269 cf, Depth> 2.52"

	Area (sf)	CN	Description							
*	4,311	98	Proposed Pavement							
	1,733	39	>75% Grass cover, Good, HSG A							
	6,044	81	Weighted A	Veighted Average						
	1,733		28.67% Pervious Area							
	4,311		71.33% Imp	pervious Ar	ea					
Tc (min)	5	Slope (ft/ft		Capacity (cfs)	Description					
6.0					Direct Entry,					

Summary for Subcatchment C12: SUBCAT C12

Runoff = 0.61 cfs @ 12.09 hrs, Volume= 1,937 cf, Depth> 2.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		6,391	98	Proposed Pavement						
		1,950	39	>75% Grass cover, Good, HSG A						
		8,341	84	Weighted Average						
		1,950		23.38% Pervious Area						
		6,391		76.62% Imp	pervious Ar	ea				
	Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	Description				
	6.0	(1001)	(1010	(14000)	(010)	Direct Entry,				

Summary for Subcatchment C13: SUBCAT C13

Runoff = 0.29 cfs @ 12.09 hrs, Volume= 929 cf, Depth> 2.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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							
*		2,992	98	Proposed Pavement							
		880	39	>75% Grass cover, Good, HSG A							
		3,872	85	Weighted Average							
		880		22.73% Pervious Area							
		2,992		77.27% Imp	pervious Ar	ea					
	Тс	Length	Slope	,	Capacity	Description					
	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)						
	6.0					Direct Entry,					
						-					

Summary for Subcatchment C14: SUBCAT C14

Runoff = 0.29 cfs @ 12.09 hrs, Volume= 1,055 cf, Depth> 4.23"

	Area (sf)	CN	Description			
*	2,992	98	Proposed Pavement			
	0	39	>75% Grass cover, Good, HSG A			
	2,992 2,992	98	Weighted Average 100.00% Impervious Area			

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Tc (min)	Length (feet)	Slop (ft/f		Capacity (cfs)	Description					
6.0					Direct Entry,					
Summary for Subcatchment C15: SUBCAT C15										
Runoff	=	0.31	cfs @ 12.0)9 hrs, Volu	ume=	990 cf, Depth> 3.07"				
	Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"									
Α	rea (sf)	CN	Descriptior	I						
*	3,152 720	98 39	Proposed >75% Gras		ood, HSG A					
	3,872	87	Weighted /	Average						
	720 3,152			rvious Area pervious Ar						
	3,132		01.4070 111	pervious Ar	ea					
Tc (min)	Length (feet)	Slop (ft/f		Capacity (cfs)	Description					
6.0					Direct Entry,					
		5	Summary	for Subc	atchment C1	I6: SUBCAT C16				
Runoff	=	0.29	cfs @ 12.0)9 hrs, Volu	ume=	1,055 cf, Depth> 4.23"				
Runoff b Type III 2	y SCS TR 24-hr 10-`	2-20 me YR Ra	ethod, UH=: infall=4.47"	SCS, Weigh	nted-CN, Time S	Span= 0.00-24.00 hrs, dt= 0.05 hrs				
А	rea (sf)	CN	Descriptior	ı						
*	2,992 0	98 39	Proposed I	Pavement	ood, HSG A					
	2,992	98	Weighted /	Average						
	2,992		100.00% Ir	npervious A	Area					
т.	المربع برالم	01	- \/-l:+	O a m a a i tu a	Description					

TcLengthSlopeVelocityCapacityDescription(min)(feet)(ft/ft)(ft/sec)(cfs)Direct Entry,6.0Direct Entry,

Summary for Subcatchment C17: SUBCAT C17

Runoff = 2.42 cfs @ 12.09 hrs, Volume= 8,273 cf, Depth> 3.89"

FRIARS DRIVE POST DEVELOPMENT *Type III 24-hr 10-YR Rainfall=4.47"* Printed 10/5/2021 s LLC Page 20

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_	A	rea (sf)	CN I	Description							
*		24,242	98 I	Proposed Pavement							
_		1,264	39 >	>75% Grass cover, Good, HSG A							
		25,506	95	Veighted Average							
		1,264	4	1.96% Perv	ious Area						
		24,242	9	95.04% Imp	pervious Ar	ea					
	Тс	Length	Slope	Velocity	Capacity	Description					
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	6.0					Direct Entry,					

Summary for Subcatchment C18: SUBCAT C18

Runoff = 2.65 cfs @ 12.09 hrs, Volume= 9,552 cf, Depth> 4.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		26,918	98	Proposed Pavement						
_		169	39	>75% Grass cover, Good, HSG A						
		27,087	98	Weighted Average						
		169		0.62% Pervious Area						
		26,918		99.38% Imp	pervious Ar	еа				
	Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	Description				
_	6.0	(1001)	(1010) (14000)	(010)	Direct Entry,				
						-				

Summary for Subcatchment C19: SUBCAT C19

Runoff = 3.32 cfs @ 12.09 hrs, Volume= 10,634 cf, Depth> 3.07"

	A	rea (sf)	CN	Description							
*		33,675	98	Proposed Pavement							
		7,909	39	>75% Grass cover, Good, HSG A							
		41,584		Neighted Average							
		7,909		19.02% Pervious Area							
		33,675		80.98% Imp	pervious Are	ea					
	-				• ••						
	Тс	Length	Slope		Capacity	Description					
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	6.0					Direct Entry,					

Summary for Subcatchment C2: SUBCAT C2

Runoff = 0.33 cfs @ 12.09 hrs, Volume= 1,053 cf, Depth> 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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				
*		3,416	98	Proposed F	avement			
		833	39	>75% Gras	s cover, Go	bod, HSG A		
		4,249	86	36 Weighted Average				
		833		19.60% Pei	vious Area			
		3,416		80.40% Imp	pervious Ar	ea		
	Тс	Length	Slope		Capacity	Description		
	(min)	(feet)	(ft/ft	(ft/sec)	(cfs)			
	6.0					Direct Entry,		

Summary for Subcatchment C20: SUBCAT C20

Runoff = 0.29 cfs @ 12.09 hrs, Volume= 944 cf, Depth> 3.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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			
*		3,013	98	Proposed F	Pavement		
		679	39	>75% Gras	s cover, Go	ood, HSG A	
		3,692	87	7 Weighted Average			
		679		18.39% Pei	rvious Area		
		3,013		81.61% Imp	pervious Ar	ea	
	Tc (min)	Length (feet)	Slope (ft/ft	,	Capacity (cfs)	Description	
	6.0					Direct Entry,	

Summary for Subcatchment C21: SUBCAT C21

Runoff = 0.28 cfs @ 12.09 hrs, Volume= 894 cf, Depth> 2.97"

	Area (sf)	CN	Description
*	2,853	98	Proposed Pavement
	757	39	>75% Grass cover, Good, HSG A
	3,610	86	Weighted Average
	757		20.97% Pervious Area
	2,853		79.03% Impervious Area

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Tc (min)	Length (feet)	Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs)					
6.0		Direct Entry,					
		Summary for Subcatchment C22: SUBCAT C22					
Runoff	=	0.30 cfs @ 12.09 hrs, Volume= 945 cf, Depth> 2.88"					
Type III 2	24-hr 10-	20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs R Rainfall=4.47"					
	rea (sf)	CN Description					
*	3,040	98 Proposed Pavement					
	900	 39 >75% Grass cover, Good, HSG A 85 Weighted Average 					
	3,940 900	85 Weighted Average 22.84% Pervious Area					
	3,040	77.16% Impervious Area					
Tc (min)	Length (feet)	Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs)					
6.0		Direct Entry,					
	Summary for Subcatchment C23: SUBCAT C23						

Runoff = 0.31 cfs @ 12.09 hrs, Volume= 1,019 cf, Depth> 3.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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							
*		3,092	98	Proposed Pavement							
		332	39	>75 ['] % Gras	75% Grass cover, Good, HSG A						
		3,424	92	Weighted Average							
		332		9.70% Perv	rious Area						
		3,092		90.30% Impervious Area							
	Тс	Length	Slope	Velocity	Capacity	Description					
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	6.0					Direct Entry,					

Summary for Subcatchment C24: SUBCAT C24

Runoff = 0.55 cfs @ 12.10 hrs, Volume= 1,743 cf, Depth> 1.87"

FRIARS DRIVE POST DEVELOPMENT *Type III 24-hr 10-YR Rainfall=4.47"* Printed 10/5/2021 s LLC Page 23

475-POST

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	Α	rea (sf)	CN	Description				
*		6,366	98	Proposed Pavement				
		4,815	39	>75% Gras	s cover, Go	bod, HSG A		
		11,181	81 73 Weighted Average					
		4,815		43.06% Pei	vious Area			
		6,366		56.94% Imp	pervious Ar	ea		
	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description		
_	6.0					Direct Entry,		

Summary for Subcatchment C25: SUBCAT C25

Runoff = 0.56 cfs @ 12.09 hrs, Volume= 2,027 cf, Depth> 4.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		5,747	98	8 Proposed Pavement						
		0	39	>75% Gras	s cover, Go	ood, HSG A				
		5,747	98	98 Weighted Average						
		5,747		100.00% In	npervious A	Area				
	Тс	Length	Slop		Capacity	Description				
	(min)	(feet)	(ft/ft	i) (ft/sec)	(cfs)					
	6.0					Direct Entry,				

Summary for Subcatchment C26: SUBCAT C26

Runoff = 0.23 cfs @ 12.09 hrs, Volume= 776 cf, Depth> 3.68"

	A	rea (sf)	CN	Description				
*		2,336	98	Proposed Pavement				
		197	39	>75 ['] % Gras	s cover, Go	ood, HSG A		
		2,533	93	Weighted Average				
		197		7.78% Pervious Area				
		2,336		92.22% Impervious Area				
	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description		
	6.0					Direct Entry,		

Summary for Subcatchment C27: SUBCAT C27

Runoff = 0.73 cfs @ 12.09 hrs, Volume= 2,381 cf, Depth> 3.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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				
*		7,324	98	Proposed F	avement			
_		919	39	>75% Gras	s cover, Go	bod, HSG A		
		8,243	91	91 Weighted Average				
		919		11.15% Per	vious Area			
		7,324		88.85% Imp	pervious Ar	ea		
	Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	Description		
	6.0					Direct Entry,		

Summary for Subcatchment C28: SUBCAT C28

Runoff = 0.76 cfs @ 12.09 hrs, Volume= 2,472 cf, Depth> 3.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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				
*		7,771	98	Proposed F	Pavement			
_		1,318	39	>75% Gras	s cover, Go	bod, HSG A		
		9,089	89	Weighted Average				
		1,318		14.50% Pervious Area				
		7,771		85.50% lmp	pervious Ar	ea		
	Tc (min)	Length (feet)	Slope (ft/ft	,	Capacity (cfs)	Description		
	6.0					Direct Entry,		

Summary for Subcatchment C29: SUBCAT C29

Runoff = 0.30 cfs @ 12.09 hrs, Volume= 937 cf, Depth> 2.35"

	Area (sf)	CN	Description
*	3,220	98	Proposed Pavement
	1,565	39	>75% Grass cover, Good, HSG A
	4,785	79	Weighted Average
	1,565		32.71% Pervious Area
	3,220		67.29% Impervious Area

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Tc (min)	Length (feet)	Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs)				
6.0		Direct Entry,				
		Summary for Subcatchment C3: SUBCAT C3				
Runoff	=	0.12 cfs @ 12.09 hrs, Volume= 378 cf, Depth> 3.47"				
Type III 2	Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47" Area (sf) CN Description					
*	1,145	98 Proposed Pavement				
	164	39 >75% Grass cover, Good, HSG A				
	1,309 164	91 Weighted Average 12.53% Pervious Area				
	1,145	87.47% Impervious Area				
Tc (min) 6.0	Length (feet)	Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs) Direct Entry,				
0.0		Broot Linty,				
		Summary for Subcatchment C30: SUBCAT C30				
Runoff	=	0.32 cfs @ 12.09 hrs, Volume= 1,135 cf, Depth> 4.23"				

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"

	Area	a (sf)	CN	Description						
*	3	3,220	98	Proposed Pavement						
		0	39	>75% Grass cover, Good, HSG A						
	3	3,220	98	Weighted Average						
	3	3,220		100.00% Impervious Area						
(n	Tc L nin)	ength (feet)	Slope (ft/ft	,	Capacity (cfs)	Description				
	6.0					Direct Entry,				

Summary for Subcatchment C31: SUBCAT C31

Runoff = 0.81 cfs @ 12.09 hrs, Volume= 2,625 cf, Depth> 3.36"

FRIARS DRIVE POST DEVELOPMENT *Type III 24-hr 10-YR Rainfall=4.47"* Printed 10/5/2021 as LLC Page 26

475-POST

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	А	rea (sf)	CN	Description					
*		8,105	98	Proposed F	avement				
_		1,257	39	>75% Grass cover, Good, HSG A					
		9,362	90	Weighted Average					
		1,257		13.43% Pervious Area					
		8,105		86.57% Impervious Area					
	Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	Description			
	6.0		(141)	/	()	Direct Entry,			

Summary for Subcatchment C32: SUBCAT C32

Runoff = 0.29 cfs @ 12.09 hrs, Volume= 922 cf, Depth> 2.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
*		3,188	98	Proposed F	avement				
_		1,522	39	>75% Gras	s cover, Go	bod, HSG A			
		4,710	79	Weighted Average					
		1,522		32.31% Pervious Area					
		3,188		67.69% Imp	pervious Ar	ea			
	Тс	Length	Slope	e Velocity	Capacity	Description			
_	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)				
	6.0					Direct Entry,			
						•			

Summary for Subcatchment C33: SUBCAT C33

Runoff = 0.20 cfs @ 12.10 hrs, Volume= 669 cf, Depth> 1.31"

	A	rea (sf)	CN	Description					
*		3,191	98	Proposed P	avement				
		2,940	30	Brush, Good, HSG A					
		6,131	65	Weighted Average					
		2,940		47.95% Pervious Area					
		3,191		52.05% Imp	pervious Are	ea			
(Tc min)	Length (feet)	Slope (ft/ft	,	Capacity (cfs)	Description			
	6.0					Direct Entry,			

Summary for Subcatchment C34: SUBCAT C34

Runoff = 0.77 cfs @ 12.09 hrs, Volume= 2,540 cf, Depth> 3.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
*		7,727	98	Proposed P	avement				
_		1,065	39 :	>75% Gras	s cover, Go	bod, HSG A			
		8,792	91	Weighted Average					
		1,065		12.11% Pervious Area					
		7,727	i	87.89% Impervious Area					
_	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description			
	6.0					Direct Entry,			

Summary for Subcatchment C35: SUBCAT C35

Runoff = 0.21 cfs @ 12.09 hrs, Volume= 669 cf, Depth> 2.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"

	А	rea (sf)	CN	Description					
*		2,325	98	Proposed F	avement				
		1,216	39	>75% Gras	s cover, Go	bod, HSG A			
		3,541	78	Weighted Average					
		1,216		34.34% Pervious Area					
		2,325		65.66% Impervious Area					
_	Tc (min)	Length (feet)	Slope (ft/ft	,	Capacity (cfs)	Description			
	6.0					Direct Entry,			

Summary for Subcatchment C36: SUBCAT C36

Runoff = 0.05 cfs @ 12.13 hrs, Volume= 245 cf, Depth> 0.63"

	Area (sf)	CN	Description			
*	1,589	98	Proposed Pavement			
	3,097	30	Brush, Good, HSG A			
	4,686	53	Weighted Average			
	3,097		66.09% Pervious Area			
	1,589		33.91% Impervious Area			

475-PC Prepare HydroCA	FRIARS DRIVE POST DEVELOPMENT <i>Type III 24-hr 10-YR Rainfall=4.47"</i> Printed 10/5/2021 tions LLC Page 28						
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description		
6.0					Direct Entry	,	
		Sı	ummary	for Subca	atchment C	37: SUBCAT C37	
Runoff	=	0.45 cfs	s @ 12.1	0 hrs, Volu	ime=	1,458 cf, Depth> 1.65"	
Type III 2	Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"						
*	<u>rea (sf)</u> 5,620		escription proposed P	avement			
	4,981				od, HSG A		
	10,601		Veighted A				
	4,981			vious Area			
	5,620	5	3.01% IIIIp	ervious Are	ea		
Tc (min)							
6.0					Direct Entry	,	
	Summary for Subcatchment C38: SUBCAT C38						

Runoff = 0.50 cfs @ 12.09 hrs, Volume= 1,586 cf, Depth> 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		5,075	98	Proposed Pavement						
		1,325	39	>75% Grass cover, Good, HSG A						
		6,400	86	Weighted A	Neighted Average					
		1,325		20.70% Pervious Area						
		5,075		79.30% Impervious Area						
	Тс	Length	Slope	e Velocity	Capacity	Description				
	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)					
	6.0					Direct Entry,				

Summary for Subcatchment C4: SUBCAT C4

Runoff = 0.12 cfs @ 12.11 hrs, Volume= 467 cf, Depth> 0.94"

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	Area (sf)	CN	Description						
*	1,976	98	Proposed Pavement						
	3,961	39	>75% Grass cover, Good, HSG A						
	5,937	59	Veighted Average						
	3,961		66.72% Pervious Area						
	1,976		33.28% Imp	pervious Ar	ea				
	Tc Length	Slope	,	Capacity	Description				
<u>(</u> mi		(ft/ft	(ft/sec)	(cfs)					
6	5.0				Direct Entry,				

Summary for Subcatchment C5: SUBCAT C5

Runoff = 0.10 cfs @ 12.11 hrs, Volume= 379 cf, Depth> 0.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"

	Area (sf)	CN	Description							
*	1,663	98	Proposed F	Proposed Pavement						
	3,462	39	>75% Gras	s cover, Go	bod, HSG A					
	5,125	58	Weighted A	Weighted Average						
	3,462		67.55% Pe	67.55% Pervious Area						
	1,663		32.45% lmp	pervious Ar	ea					
<u>(n</u>	Tc Length nin) (feet			Capacity (cfs)	Description					
	6.0				Direct Entry,					

Summary for Subcatchment C6: SUBCAT C6

Runoff = 0.21 cfs @ 12.09 hrs, Volume= 742 cf, Depth> 4.23"

	Area (sf)	CN	Description						
*	2,104	98	Proposed Pavement						
	0	39	>75% Gras	75% Grass cover, Good, HSG A					
	2,104	98	Weighted A	Veighted Average					
	2,104		100.00% Im	100.00% Impervious Area					
To (min)	5	Slope (ft/ft		Capacity (cfs)	Description				
6.0)				Direct Entry,				

Summary for Subcatchment C7: SUBCAT C7

Runoff = 0.19 cfs @ 12.09 hrs, Volume= 612 cf, Depth> 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"

	Ar	ea (sf)	CN	Description						
*		1,980	98	Proposed Pavement						
		489	39	>75% Grass cover, Good, HSG A						
		2,469 489 1,980		Weighted A 19.81% Pei 80.19% Imp	rvious Area					
(I	Tc min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	Description				
	6.0					Direct Entry,				

Summary for Subcatchment C8: SUBCAT C8

Runoff = 2.80 cfs @ 12.09 hrs, Volume= 9,183 cf, Depth> 3.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"

	Area (sf)	CN	Description						
*	27,832	98	Proposed Pavement						
	3,957	39	>75% Gras	s cover, Go	bod, HSG A				
	31,789	91	Weighted Average						
	3,957		12.45% Pervious Area						
	27,832		87.55% Imp	ea					
	Tc Length	Slope		Capacity	Description				
(m	in) (feet)	(ft/ft) (ft/sec)	(cfs)					
6	5.0				Direct Entry,				
					•				

Summary for Subcatchment C9: SUBCAT C9

Runoff = 2.62 cfs @ 12.09 hrs, Volume= 9,433 cf, Depth> 4.23"

	Area (sf)	CN	Description			
*	26,576	98	Proposed Pavement			
	176	39	>75% Grass cover, Good, HSG A			
	26,752	98	Weighted Average			
	176		0.66% Pervious Area			
	26,576		99.34% Impervious Area			

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Tc (min)	Length (feet)	Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs)							
6.0		Direct Entry,							
	Summary for Subcatchment D1: SUBCAT D1								
Runoff	=	0.62 cfs @ 12.09 hrs, Volume= 2,224 cf, Depth> 4.23"							
Type III 2		20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs R Rainfall=4.47" CN Description							
*	6,306	98 Proposed Pavement							
	0	39 >75% Grass cover, Good, HSG A							
	6,306 6,306	98 Weighted Average 100.00% Impervious Area							
Tc (min)	Length (feet)	Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs)							
6.0		Direct Entry,							
		Summary for Subcatchment D10: SUBCAT D10							
Runoff	=	0.70 cfs @ 12.09 hrs, Volume= 2,252 cf, Depth> 3.26"							

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"

	Ar	rea (sf)	CN	Description						
*		7,041	98	Proposed Pavement						
		1,238	39	>75% Gras	>75% Grass cover, Good, HSG A					
		8,279	89	Weighted A	Veighted Average					
		1,238		14.95% Per	14.95% Pervious Area					
		7,041		85.05% Imp	pervious Ar	ea				
		Length	Slope	,	Capacity	Description				
<u>(n</u>	nin)	(feet)	(ft/ft) (ft/sec)	(cfs)					
	6.0					Direct Entry,				

Summary for Subcatchment D11: SUBCAT D11

Runoff = 1.47 cfs @ 12.09 hrs, Volume= 4,643 cf, Depth> 2.52"

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_	A	rea (sf)	CN	Description							
*		15,866	98	Proposed Pavement							
_		6,242	39	>75 ['] % Grass cover, Good, HSG A							
		22,108	81	Weighted A							
		6,242		28.23% Pervious Area							
		15,866		71.77% Imp	pervious Ar	ea					
	Тс	Length	Slope	Velocity	Capacity	Description					
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	6.0					Direct Entry,					

Summary for Subcatchment D12: SUBCAT D12

0.73 cfs @ 12.09 hrs, Volume= 2,412 cf, Depth> 3.47" Runoff =

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
*		7,394	98	Proposed Pavement					
		956	39	>75% Grass cover, Good, HSG A					
		8,350	91	Weighted Average					
		956		11.45% Pervious Area					
		7,394		88.55% Imp	pervious Ar	ea			
	Тс	Length	Slope	e Velocity	Capacity	Description			
_	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)				
	6.0					Direct Entry,			

Summary for Subcatchment D2: SUBCAT D2

0.14 cfs @ 12.09 hrs, Volume= 460 cf, Depth> 3.26" Runoff =

	A	rea (sf)	CN	Description						
*		1,422	98	Proposed Pavement						
_		268	39	>75% Grass cover, Good, HSG A						
		1,690	89	Weighted Average						
		268		15.86% Pervious Area						
		1,422		84.14% Imp	pervious Are	ea				
	Тс	Length	Slope	e Velocity	Capacity	Description				
	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)					
	6.0					Direct Entry,				

Summary for Subcatchment D3: SUBCAT D3

Runoff = 1.40 cfs @ 12.10 hrs, Volume= 4,555 cf, Depth> 1.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
*		17,650	98	Proposed F	avement				
		16,948	39	>75% Gras	s cover, Go	bod, HSG A			
		34,598		Weighted Average					
		16,948		48.99% Pei	vious Area				
		17,650		51.01% Impervious Area					
	-			N / 1 · · ·	0				
	Tc	Length	Slope	,	Capacity	Description			
	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)				
	6.0					Direct Entry,			

Summary for Subcatchment D4: SUBCAT D4

Runoff = 0.25 cfs @ 12.09 hrs, Volume= 795 cf, Depth> 2.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		2,651	98	Proposed F	Pavement					
		1,006	39	>75% Gras	>75 ['] % Grass cover, Good, HSG A					
		3,657	82	Weighted A	Weighted Average					
		1,006		27.51% Pe	27.51% Pervious Area					
		2,651		72.49% Impervious Area						
	Tc (min)	Length (feet)	Slop (ft/ft	,	Capacity (cfs)	Description				
	6.0					Direct Entry,				

Summary for Subcatchment D5: SUBCAT D5

Runoff = 0.35 cfs @ 12.09 hrs, Volume= 1,112 cf, Depth> 2.10"

	Area (sf)	CN	Description	
*	3,983	98	Proposed Pavement	
	2,358	39	>75% Grass cover, Good, HSG A	
	6,341	76	Weighted Average	
	2,358		37.19% Pervious Area	
	3,983		62.81% Impervious Area	

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Tc (min) 6.0	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description Direct Entry		
0.0					Direct Entry	',	
		ę	Summary	for Sub	catchment	D6: SUBC	CAT D6
Runoff	=	0.49 cf	s@ 12.0	9 hrs, Volu	ime=	1,541 cf,	Depth> 2.79"
	y SCS TF 24-hr 10-			CS, Weigh	ted-CN, Time	Span= 0.00	0-24.00 hrs, dt= 0.05 hrs
A	rea (sf)		Description				
*	5,038		Proposed P				
	<u>1,595</u> 6,633		Veighted A	,	ood, HSG A		
	0,033 1,595	-		verage vious Area			
	5,038			pervious Ar			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description		
6.0					Direct Entry	Ι,	
		5	Summary	for Sub	catchment	D7: SUBC	CAT D7

Runoff = 1.36 cfs @ 12.09 hrs, Volume= 4,357 cf, Depth> 3.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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							
*		13,857	98	Proposed Pavement							
		3,183	39 :	>75% Grass cover, Good, HSG A							
		17,040	87								
		3,183		18.68% Per	vious Area	l					
		13,857	1	31.32% Imp	ervious Ar	ea					
	Тс	Length	Slope	Velocity	Capacity	Description					
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	6.0					Direct Entry,					

Summary for Subcatchment D8: SUBCAT D8

Runoff = 0.65 cfs @ 12.09 hrs, Volume= 2,105 cf, Depth> 3.26"

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	A	rea (sf)	CN	Description							
*		6,511	98	Proposed Pavement							
		1,229	39	>75 ['] % Gras	•75% Grass cover, Good, HSG A						
		7,740	89	Weighted A	/eighted Average						
		1,229		15.88% Pervious Area							
		6,511		84.12% Imp	pervious Ar	rea					
	Тс	Length	Slope	e Velocity	Capacity	Description					
((min)	(feet)	(ft/ft) (ft/sec)	(cfs)						
	6.0					Direct Entry,					

Summary for Subcatchment D9: SUBCAT D9

Runoff = 1.54 cfs @ 12.09 hrs, Volume= 4,926 cf, Depth> 3.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		15,659	98	Proposed P	avement					
_		3,606	39 :	>75% Grass cover, Good, HSG A						
		19,265	87	Weighted Average						
		3,606		18.72% Pervious Area						
		15,659	ä	81.28% Imp	pervious Ar	ea				
	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description				
	6.0					Direct Entry,				

Summary for Subcatchment E1: SUBCAT E1

Runoff = 0.53 cfs @ 12.09 hrs, Volume= 1,829 cf, Depth> 3.89"

	A	rea (sf)	CN	Description							
*		5,394	98	Proposed Pavement							
		245	39	>75% Gras	>75% Grass cover, Good, HSG A						
		5,639 245 5,394		Weighted A 4.34% Perv 95.66% Imp	ious Area	ea					
	Tc (min)	Length (feet)	Slope (ft/ft	,	Capacity (cfs)	Description					
	6.0					Direct Entry,					

Summary for Subcatchment E10: SUBCAT E10

Runoff = 0.59 cfs @ 12.10 hrs, Volume= 1,878 cf, Depth> 2.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
*		6,826	98	Proposed P	avement				
		4,302	39	>75% Gras	s cover, Go	bod, HSG A			
		11,128	75	Weighted Average					
		4,302		38.66% Pervious Area					
		6,826		61.34% Imp	pervious Ar	ea			
	_								
	Тс	Length	Slope	,	Capacity	Description			
	<u>(min)</u>	(feet)	(ft/ft) (ft/sec)	(cfs)				
	6.0					Direct Entry,			
						-			

Summary for Subcatchment E11: SUBCAT E11

Runoff = 2.18 cfs @ 12.09 hrs, Volume= 7,370 cf, Depth> 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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							
*		21,962	98	Proposed F	Proposed Pavement						
		1,413	39	>75% Gras	s cover, Go	bod, HSG A					
		23,375	94	Weighted A	Weighted Average						
		1,413		6.04% Pervious Area							
		21,962		93.96% Imp	pervious Ar	ea					
	Тс	Length	Slope	e Velocity	Capacity	Description					
	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)						
	6.0					Direct Entry,					
						• ·					

Summary for Subcatchment E12: SUBCAT E12

Runoff = 1.78 cfs @ 12.09 hrs, Volume= 6,109 cf, Depth> 3.89"

	Area (sf)	CN	Description	
*	17,915	98	Proposed Pavement	
	918	39	>75% Grass cover, Good, HSG A	
	18,833	95	Weighted Average	
	918		4.87% Pervious Area	
	17,915		95.13% 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 E13: SUBCAT E13						
Runoff = 3.36 cfs @ 12.09 hrs, Volume= 11,505 cf, Depth> 3.89"						
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"						
Area (sf) CN Description						
* 33,543 98 Proposed Pavement 1,924 39 >75% Grass cover, Good, HSG A						
35,46795Weighted Average1,9245.42% Pervious Area33,54394.58% Impervious Area						
Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs)						
6.0 Direct Entry,						

Summary for Subcatchment E14: SUBCAT E14

Runoff = 2.70 cfs @ 12.09 hrs, Volume= 9,539 cf, Depth> 4.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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							
*		27,291	98	Proposed Pavement							
		517	39 :	>75% Grass cover, Good, HSG A							
		27,808	808 97 Weighted Average								
517 1.86% Pervious Area											
		27,291	9	98.14% Imp	pervious Are	ea					
	Тс	Length	Slope	Velocity	Capacity	Description					
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	6.0					Direct Entry,					

Summary for Subcatchment E15: SUBCAT E15

Runoff = 3.14 cfs @ 12.09 hrs, Volume= 11,112 cf, Depth> 4.12"

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	A	rea (sf)	CN	Description							
*		31,789	98	Proposed Pavement							
		603	39	>75% Grass cover, Good, HSG A							
		32,392	97 Weighted Average								
		603		1.86% Perv	ious Area						
		31,789		98.14% Imp	pervious Ar	ea					
	Tc	Length	Slope	Velocity	Capacity	Description					
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	6.0					Direct Entry,					

Summary for Subcatchment E16: SUBCAT E16

Runoff = 2.25 cfs @ 12.09 hrs, Volume= 7,136 cf, Depth> 2.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		23,459	98	Proposed Pavement						
_		7,262	39	>75% Grass cover, Good, HSG A						
		30,721	84	Weighted Average						
		7,262		23.64% Pervious Area						
		23,459		76.36% Imp	pervious Ar	ea				
_	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description				
	6.0					Direct Entry,				

Summary for Subcatchment E17: SUBCAT E17

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

	Area (sf)	CN	Description			
	30,658	30	Brush, Good, HSG A			
	89,860	30	Woods, Good, HSG A			
*	0	98	x. Wetland			
*	0	98	Ex. Building			
*	0	98	Ex. Pavement			
	120,518 120,518	30	Weighted Average 100.00% Pervious 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,
0.5	55	0.1200	1.73		Woods: Light underbrush n= 0.400 P2= 2.95" Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.4	85	0.3300	4.02		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
7.2	190	Total			

Summary for Subcatchment E18: SUBCAT E18

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"

	Area (s	f) CN	D	Description						
	11,75	2 30	В	Brush, Goo	d, HSG A					
		0 30	V	Voods, Go	od, HSG A	N N N N N N N N N N N N N N N N N N N				
*		0 98	E	x. Wetland	ł					
*		0 98	E	x. Building	l					
*		0 98	E	x. Paveme	ent					
	11,75	2 30	V	Veighted A	verage					
	11,75	2			ervious Are	ea				
	Tc Leng	ith Slo	pe	Velocity	Capacity	Description				
<u>(n</u>	nin) (fee	et) (f	t/ft)	(ft/sec)	(cfs)					
	6.0					Direct Entry,				

Summary for Subcatchment E19: SUBCAT E19

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

	Area (sf)	CN	Description			
	43,151	30	Brush, Good, HSG A			
	32,602	30	Woods, Good, HSG A			
*	0	98	Ex. Wetland			
*	0	98	Ex. Building			
*	0	98	Ex. Pavement			
	75,753 75,753	30	Weighted Average 100.00% Pervious Area			

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Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs)												
6.0						Direct Entry	Ι,					
	Summary for Subcatchment E2: SUBCAT E2											
Runoff	=	0.65	cfs @	12.09 ł	nrs, Volu	ıme=	2,251 cf, Dep	th> 4.00"				
	y SCS TR 24-hr 10-`				S, Weigh	ited-CN, Time	Span= 0.00-24	.00 hrs, dt= 0.05 hrs				
Α	rea (sf)	CN	Descrip	otion								
*	6,501 245	98 39	Propos >75% C			ood, HSG A						
	6,746 245 6,501	96	Weighte 3.63% I 96.37%	Pervio		ea						
Tc (min)	Length (feet)	Slop (ft/f			Capacity (cfs)	Description						
6.0						Direct Entry	/,					
			Sumn	nary f	or Sub	catchment	E3: SUBCA1	Г Е 3				
Runoff	=	0.95	cfs @	12.09 ł	nrs, Volu	ime=	3,215 cf, Dep	th> 3.78"				
	y SCS TR 24-hr 10-`				S, Weigh	ited-CN, Time	Span= 0.00-24	.00 hrs, dt= 0.05 hrs				
А	rea (sf)	CN	Descrip	otion								
*												

	A	iea (si)	CN	Description						
*		9,518	98	Proposed Pavement						
		679	39	>75% Grass cover, Good, HSG A						
		10,197	94	Weighted Average						
		679		6.66% Pervious Area						
		9,518		93.34% Imp	pervious Ar	ea				
	_				-					
	Tc	Length	Slope	Velocity	Capacity	Description				
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	6.0					Direct Entry,				
						•				

Summary for Subcatchment E4: SUBCAT E4

Runoff = 0.98 cfs @ 12.09 hrs, Volume= 3,200 cf, Depth> 3.47"

FRIARS DRIVE POST DEVELOPMENT *Type III 24-hr 10-YR Rainfall=4.47"* Printed 10/5/2021 s LLC Page 41

475-POST

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_	A	rea (sf)	CN	Description							
*		9,769	98	Proposed Pavement							
_		1,309	39 :	75% Grass cover, Good, HSG A							
		11,078	91	Neighted A	/eighted Average						
		1,309		11.82% Pervious Area							
		9,769	ł	38.18% Imp	pervious Ar	ea					
	Tc	Length	Slope	Velocity	Capacity	Description					
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	6.0					Direct Entry,					

Summary for Subcatchment E5: SUBCAT E5

Runoff = 0.60 cfs @ 12.09 hrs, Volume= 1,907 cf, Depth> 2.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		6,532	98	Proposed Pavement						
_		3,208	39	>75% Grass cover, Good, HSG A						
		9,740	79	Weighted Average						
		3,208		32.94% Pervious Area						
		6,532		67.06% Imp	pervious Are	ea				
	Tc (min)	Length (feet)	Slope (ft/ft)		Capacity (cfs)	Description				
	6.0					Direct Entry,				

Summary for Subcatchment E6: SUBCAT E6

Runoff = 0.82 cfs @ 12.09 hrs, Volume= 2,587 cf, Depth> 2.35"

Description							
Proposed Pavement							
>75% Grass cover, Good, HSG A							
Veighted Average							
32.77% Pervious Area							
_							

Summary for Subcatchment E7: SUBCAT E7

Runoff = 0.83 cfs @ 12.09 hrs, Volume= 2,788 cf, Depth> 3.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		8,274	98	Proposed Pavement						
_		826	39	>75% Grass cover, Good, HSG A						
		9,100		Weighted Average						
		826		9.08% Perv	ious Area					
		8,274		90.92% Imp	pervious Ar	ea				
_	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description				
	6.0					Direct Entry,				

Summary for Subcatchment E8: SUBCAT E8

Runoff = 1.14 cfs @ 12.09 hrs, Volume= 3,778 cf, Depth> 3.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		11,495	98	Proposed F	avement					
_		1,202	39	>75% Gras	s cover, Go	bod, HSG A				
		12,697	92	Weighted A	Weighted Average					
		1,202		9.47% Pervious Area						
		11,495		90.53% Imp	pervious Ar	ea				
	Tc	Length	Slope	,	Capacity	Description				
_	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)					
	6.0					Direct Entry,				
						•				

Summary for Subcatchment E9: SUBCAT E9

Runoff = 0.38 cfs @ 12.09 hrs, Volume= 1,294 cf, Depth> 3.89"

	Area (sf)	CN	Description
*	3,786	98	Proposed Pavement
	202	39	>75% Grass cover, Good, HSG A
	3,988	95	Weighted Average
	202		5.07% Pervious Area
	3,786		94.93% Impervious Area

475-PC	DST				Type III 24-hr 10-YR Rainfall=4.47"
		e Dubav	Group, In	C.	Printed 10/5/2021
					O Software Solutions LLC Page 43
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	(1001)	(10,10)	(10000)	(010)	Direct Entry,
0.0					Dirot Entry,
		S	Summary	for Sub	catchment G1: SUBCAT G1
Runoff	=	0.00 cfs	s@ 0.0	0 hrs, Volu	me= 0 cf, Depth= 0.00"
	oy SCS TF 24-hr 10-			CS, Weigh	ted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
A	rea (sf)	CN D	escription		
	130,014		Brush, Goo		
	73,521			od, HSG A	
*	0		x. Wetland		
*	0		x. Building		
*	0		x. Paveme		
	203,535		Veighted A		
. 4	203,535	1	00.00% Pe	ervious Are	а
Тс	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	Decemption
7.4	50	0.0800	0.11		Sheet Flow,
					Woods: Light underbrush n= 0.400 P2= 2.95"
2.3	214	0.1000	1.58		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
0.1	36	0.3300	4.02		Shallow Concentrated Flow,
0.0	700	0 0000	0.50	400.04	Short Grass Pasture Kv= 7.0 fps
2.0	790	0.0200	6.50	182.01	Trap/Vee/Rect Channel Flow, Bot.W=25.00' D=1.00' Z= 3.0 '/' Top.W=31.00'
					n= 0.030 Stream, clean & straight
11.8	1 000	Total			

FRIARS DRIVE POST DEVELOPMENT

11.8 1,090 Total

Summary for Subcatchment K: SUBCAT K

Runoff = 0.71 cfs @ 12.45 hrs, Volume= 7,605 cf, Depth> 0.29"

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Page 44

475-POST

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	A	rea (sf)	CN E	escription						
		30,443	61 >	>75% Grass cover, Good, HSG B						
		67,128	55 V	loods, Good, HSG B						
*		16,485	98 E	x. Wetland						
*		7,709	98 E	x. Building	1					
*		772	98 E	x. Paveme	ent					
		36,534	39 >	75% Gras	s cover, Go	bod, HSG A				
	1	59,400	30 V	Voods, Go	od, HSG A					
	3	18,471	45 V	Veighted A	verage					
	2	93,505	9	2.16% Per	vious Area					
		24,966	7	.84% Impe	ervious Are	а				
	Tc	Length	Slope	Velocity	Capacity	Description				
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	5.6	50	0.1600	0.15		Sheet Flow,				
						Woods: Light underbrush n= 0.400 P2= 2.95"				
	2.4	226	0.1000	1.58		Shallow Concentrated Flow,				
						Woodland Kv= 5.0 fps				
	0.2	32	0.5000	3.54		Shallow Concentrated Flow,				
						Woodland Kv= 5.0 fps				
	2.4	915	0.0200	6.40	147.25					
	2.4	915	0.0200	6.40	147.25					
	2.4	915	0.0200	6.40	147.25	Trap/Vee/Rect Channel Flow,				

10.6 1,223 Total

Summary for Subcatchment L: SUBCAT L

Runoff = 0.28 cfs @ 12.47 hrs, Volume= 4,892 cf, Depth> 0.19"

	Area (sf)	CN	Description
	75,110	61	>75% Grass cover, Good, HSG B
	51,028	55	Woods, Good, HSG B
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	24,329	39	>75% Grass cover, Good, HSG A
	162,646	30	Woods, Good, HSG A
	313,113	42	Weighted Average
	313,113		100.00% Pervious Area
<u>(n</u>	Tc Length nin) (feet)	Slor (ft/	
	6.0		Direct Entry,

	FRIARS DRIVE	POST DEVE	LOPMENT
475-POST	Type III 24-hr	10-YR Rair	nfall=4.47"
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Summary for Subcatchment R1: SUBCAT R1

Runoff = 0.70 cfs @ 12.09 hrs, Volume= 2,539 cf, Depth> 4.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		7,200	98	8 Proposed Building						
		7,200		100.00% Impervious Area						
	Tc (min)	Length (feet)	Slop (ft/ft		Capacity (cfs)	Description				
	6.0	, <i>r</i>	•	<i></i>	· · ·	Direct Entry,				
	Ourses and for Outportaking and D40, OUDOAT D40									

Summary for Subcatchment R10: SUBCAT R10

Runoff = 3.17 cfs @ 12.09 hrs, Volume= 11,425 cf, Depth> 4.23"

A	rea (sf)	CN D	escription							
*	32,400	98 P	roposed B	uilding						
	32,400	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 R11: SUBCAT R11									
Runoff	=	3.08 cfs	s@ 12.0	9 hrs, Volu	ume= 11,108 cf, Depth> 4.23"					
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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						
*		31,500	98	Proposed Building						
		31,500		100.00% In	npervious A	Area				
	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description				
	6.0					Direct Entry,				

	FRIARS DRIVE	POST DEVE	LOPMENT
475-POST	Type III 24-hr	10-YR Rair	nfall=4.47"
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Summary for Subcatchment R12: SUBCAT R12

Runoff = 3.08 cfs @ 12.09 hrs, Volume= 11,108 cf, Depth> 4.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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							
*		31,500	98	98 Proposed Building							
	31,500 100.00% Impervious Area										
	Tc (min)	Length (feet)	Slope (ft/ft)		Capacity (cfs)						
	6.0			Direct Entry,							
	Summary for Subcatchment R13: SUBCAT R13										

Runoff = 2.58 cfs @ 12.09 hrs, Volume= 9,283 cf, Depth> 4.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"

	Area (sf)	CN I	Description							
*	26,325	98 I	Proposed B	uilding						
	26,325		100.00% Impervious Area							
(1	Tc Length min) (feet)	Slope (ft/ft)		Capacity (cfs)	Description					
	6.0				Direct Entry	,				
	Summary for Subcatchment R14: SUBCAT R14									
Rur	noff =	2.80 c	fs @ 12.0	9 hrs, Volu	ime=	10,076 cf, Depth> 4.23"				

_	A	rea (sf)	CN [Description				
*		28,575	98 F	Proposed Building				
		28,575		100.00% Im	npervious A	Area		
	Тс	Length	Slope	Velocity	Capacity	Description		
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
	6.0					Direct Entry,		

	FRIARS DRIVE	POST DEVE	LOPMENT
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Summary for Subcatchment R15: SUBCAT R15

Runoff = 3.08 cfs @ 12.09 hrs, Volume= 11,108 cf, Depth> 4.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
*		31,500	98	Proposed E	Building				
	31,500 100.00% Impervious Area								
	Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)				
	6.0					Direct Entry,			
	Summary for Subcatchment R16: SUBCAT R16								

Runoff = 3.08 cfs @ 12.09 hrs, Volume= 11,108 cf, Depth> 4.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"

	Area (sf)	CN	Description					
*	31,500	98	Proposed E	Building				
	31,500		100.00% In	npervious A	Area			
T (mir	c Length) (feet)	Slope (ft/ft)	,	Capacity (cfs)	· · · · · · · · · · · · · · · · · · ·			
6.	0				Direct Entry,			
	Summary for Subcatchment R17: SUBCAT R17							
Runof	=	3.08 c	fs @ 12.0	9 hrs, Volu	lume= 11,108 cf, Depth> 4.23"			

	A	rea (sf)	CN I	Description				
*		31,500	98	roposed Building				
		31,500		100.00% In	npervious A	Area		
	Тс	Length	Slope	Velocity	Capacity	Description		
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)			
	6.0					Direct Entry,		

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Summary for Subcatchment R18: SUBCAT R18

Runoff 0.70 cfs @ 12.09 hrs, Volume= 2,539 cf, Depth> 4.23" =

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
*		7,200	98	Proposed B	Building				
		7,200	100.00% Impervious Area						
	Tc (min)	Length (feet)	Slop (ft/fl		Capacity (cfs)	Description			
_	6.0					Direct Entry,			
	Commence for Cubectale set DO: CUDCAT DO								

Summary for Subcatchment R2: SUBCAT R2

Runoff 3.08 cfs @ 12.09 hrs, Volume= 11,108 cf, Depth> 4.23" =

A	rea (sf)	CN E	Description						
*	31,500	98 F	Proposed E	Building					
	31,500	1	100.00% In	npervious A	Area				
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	· · · · · · · · · · · · · · · · · · ·				
6.0	6.0 Direct Entry,								
Summary for Subcatchment R3: SUBCAT R3									
Runoff = 5.55 cfs @ 12.09 hrs, Volume= 19,994 cf, Depth> 4.23"									
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"									

_	А	rea (sf)	CN E	Description		
*		56,700	98 F	Proposed B	uilding	
	56,700 100.00% Impervious Are				npervious A	rea
	Тс	5	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	6.0					Direct Entry,

475-POST Type III 24-hr 10-YR Rainfall=4.	
	47'
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Summary for Subcatchment R4: SUBCAT R4

Runoff = 2.58 cfs @ 12.09 hrs, Volume= 9,283 cf, Depth> 4.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
*		26,325	98	Proposed E	Building				
	26,325 100.00% Impervious Area								
	Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	Description			
	6.0					Direct Entry,			
	Summary for Subcatchment R5: SUBCAT R5								

Runoff = 2.80 cfs @ 12.09 hrs, Volume= 10,076 cf, Depth> 4.23"

Area (sf)	CN Description							
* 28,575	98 Proposed Building							
28,575 100.00% Impervious Area								
Tc Lengtl (min) (feet								
6.0 Direct Entry,								
Summary for Subcatchment R6: SUBCAT R6								
Runoff =	3.08 cfs @ 12.09 hrs, Volume= 11,108 cf, Depth> 4.23"							
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"								

	А	rea (sf)	CN I	Description					
*		31,500	98 I	Proposed Building					
		31,500	100.00% Impervious A			Area			
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description			
	6.0					Direct Entry,			

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Summary for Subcatchment R7: SUBCAT R7

Runoff = 3.08 cfs @ 12.09 hrs, Volume= 11,108 cf, Depth> 4.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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					
*		31,500	98 I	Proposed E	Building				
	31,500 100.00% Impervious Area								
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description			
_	6.0		Direct Entry,						
	Summary for Subcatchment R8: SUBCAT R8								

Runoff = 3.08 cfs @ 12.09 hrs, Volume= 11,108 cf, Depth> 4.23"

Area (sf)	CN Description							
* 31,500	98 Proposed Building							
31,500	100.00% Impervious Area							
Tc Length (min) (feet)	Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs)							
6.0	Direct Entry,							
	Summary for Subcatchment R9: SUBCAT R9							
Runoff =	0.70 cfs @ 12.09 hrs, Volume= 2,539 cf, Depth> 4.23"							
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"								
Area (sf)	CN Description							

	A	rea (sr)	CN I	Description					
*		7,200	98 I	Proposed Building					
		7,200		100.00% Impervious Area					
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description			
	6.0	(1001)		(10,000)	(013)	Direct Entry,			

Summary for Subcatchment S1: SUBCAT S1

Runoff	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Depth= 0.00"
--------	---	------------	-------------------	--------------------

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"

	Area	(sf)	CN	Description			
	ł	816	39	>75% Grass	s cover, Go	ood, HSG A	
	56,2	296	30	Woods, Go	od, HSG A		
*		0	98	Ex. Wetland	1		
*		0	98	Ex. Building			
*		0	98	Ex. Paveme	ent		
	57, 57,		30	Weighted A 100.00% Pe		а	
_		ngth feet)	Slope (ft/ft	,	Capacity (cfs)	Description	
	6.0					Direct Entry,	

Summary for Subcatchment S10: SUBCAT S10

						_	
Runoff =	=	0.01 cfs @	21.76 hrs.	Volume=	136 cf.	Depth>	0.02"

_	A	vrea (sf)	CN	Description		
		19,991	30	Brush, Goo	d, HSG A	
		70,751	30	Woods, Go	od, HSG A	
*		5,910	98	Ex. Wetland	b	
*		0	98	Ex. Building]	
*		0	98	Ex. Paveme	ent	
		96,652	34	Weighted A	verage	
		90,742	1	93.89% Pei	vious Area	
		5,910		6.11% Impe	ervious Area	à
	Tc	Length	Slope		Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	9.7	50	0.0400	0.09		Sheet Flow,
						Woods: Light underbrush n= 0.400 P2= 2.95"
	1.5	105	0.0570	1.19		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	0.8	300	0.0200	6.50	182.01	Trap/Vee/Rect Channel Flow,
						Bot.W=25.00' D=1.00' Z= 3.0 '/' Top.W=31.00'
						n= 0.030
	12.0	455	Total			

Summary for Subcatchment S11: SUBCAT S11

Page 52

Runoff 0.05 cfs @ 13.80 hrs, Volume= 1,234 cf, Depth> 0.13" =

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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		
		38,318	30	Brush, Goo	d, HSG A	
		58,186	30	Woods, Go	od, HSG A	
*		15,394	98	Ex. Wetland	ł	
*		0	98	Ex. Building	1	
*		1,378	98	Ex. Paveme	ent	
	1	13,276	40	Weighted A	verage	
		96,504		85.19% Pei	vious Area	
		16,772		14.81% Imp	pervious Are	ea
	Тс	Length	Slope		Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	4.8	50	0.2400	0.18		Sheet Flow,
						Woods: Light underbrush n= 0.400 P2= 2.95"
	0.5	62	0.1600	2.00		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	0.6	215	0.0200	6.50	182.01	Trap/Vee/Rect Channel Flow,
						Bot.W=25.00' D=1.00' Z= 3.0 '/' Top.W=31.00'
						n= 0.030
	5.9	327	Total,	Increased t	o minimum	Tc = 6.0 min

Summary for Subcatchment S12: SUBCAT S12

Runoff =	0.01 cfs @	13.62 hrs,	Volume=	305 cf, Depth> 0.16"
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	Area (sf)	CN	Description
	22,313	39	>75% Grass cover, Good, HSG A
	0	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	573	98	Ex. Pavement
*	258	98	Proposed Pavement
	23,144	41	Weighted Average
	22,313		96.41% Pervious Area
	831		3.59% Impervious Area

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Tc (min)	Length (feet)	Slop (ft/ft		Capacity (cfs)	Description							
6.0					Direct Entry	/,						
Summary for Subcatchment S13: SUBCAT S13												
Runoff	=	1.20	cfs @ 12.0	9 hrs, Volu	ime=	3,971 cf,	Depth> 3.57"					
	Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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									
* *	1,445 0 0 6,578	39 30 98 98 98	>75% Gras Woods, Go Ex. Wetland Ex. Building Ex. Paveme	od, HSĠ A J J	ood, HSG A							
*	0,370 5,325	98	Proposed F									
	13,348 1,445 11,903	92	Weighted A 10.83% Per 89.17% Imp	vious Area								
Tc (min)	Length (feet)	Slop (ft/ft		Capacity (cfs)	Description							
6.0					Direct Entry	/,						
	Summary for Subcatchment S14: SUBCAT S14											
Runoff	=	1.04	cfs @ 12.0	9 hrs, Volu	ime=	3,415 cf,	Depth> 3.47"					
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"												

FRIARS DRIVE POST DEVELOPMENT

	Area (sf)	CN	Description					
	1,350	39	>75% Gras	s cover, Go	bod, HSG A			
	0	30	Woods, Go	od, HSG A				
*	0	98	Ex. Wetland	ł				
*	0	98	Ex. Building	l				
*	4,039	98	Ex. Paveme	ent				
*	6,431	98	Proposed Pavement					
	11,820	91	Weighted Average					
	1,350		11.42% Per	vious Area				
	10,470		88.58% Imp	pervious Are	ea			
To	0	Slop		Capacity	Description			
(min)) (feet)	(ft/f) (ft/sec)	(cfs)				
6.0)				Direct Entry,			

	FRIARS DRIVE I	POST DEVE	LOPMENT
475-POST	Type III 24-hr	10-YR Rain	nfall=4.47"
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Summary for Subcatchment S2: SUBCAT S2

Runoff	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Depth= 0.00"
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Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"

A	vrea (sf)	CN	Descri	otion					
	4,954	30	Brush,	Good	d, HSG A				
	66,769	30	Woods	, Goo	od, HSG A				
*	0	98	Ex. We	etland	l				
*	0	98	Ex. Bu						
*	0	98	Ex. Pa	veme	ent				
	71,723	30	Weight	ted A	verage				
	71,723		100.00	% Pe	ervious Are	a			
Tc (min)	(min) (feet) (ft/ft) (ft/sec) (cfs)								
6.0						Direct Entr	у,		
			Sum	nary	for Sub	catchment	S3:	SUBCAT S3	
Runoff	=	0.00	cfs @	0.00) hrs, Volu	ıme=		0 cf, Depth= 0.00"	
	Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"								
Δ	rea (cf)	CN	Descri	otion					

_	A	rea (sf)	CN	Description			
		76,797	30	Brush, Goo	d, HSG A		
		24,152	30	Woods, Go	od, HSG A		
*		0	98	Ex. Wetland	ł		
*		0	98	Ex. Building	l		
*		0	98	Ex. Paveme	ent		
	1	00,949	30	Weighted A	verage		
	1	00,949		100.00% Pe	ervious Are	a	
	Тс	Length	Slope	e Velocity	Capacity	Description	
_	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)		
	6.0					Direct Entry,	

Summary for Subcatchment S4: SUBCAT S4

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

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	A	rea (sf)	CN I	Description		
		61,547	30 E	Brush, Goo	d, HSG A	
	1	51,359	30 \	Voods, Go	od, HSG A	
*		0	98 I	Ex. Wetland	ł	
*		0	98 I	Ex. Building	1	
*		0	98 I	Ex. Paveme	ent	
	2	12,906	30 \	Veighted A	verage	
	212,906 100.00% Pervious Area					а
	Tc	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	4.5	50	0.2800	0.19		Sheet Flow,
						Woods: Light underbrush n= 0.400 P2= 2.95"
	7.2	480	0.0500	1.12		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	11.7	530	Total			·

Summary for Subcatchment S5: SUBCAT S5

Runoff = 0.00 cfs @ 0.00 k

0.00 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 10-YR Rainfall=4.47"

_	Area (sf)	CN	Description
	46,285	30	Brush, Good, HSG A
	6,361	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	52,646	30	Weighted Average
	52,646		100.00% Pervious Area
(n	Tc Length min) (feet)	Slop (ft/	
	6.0		Direct Entry,

Summary for Subcatchment S6: SUBCAT S6

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

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	Area (s	sf) CN	D	escription				
	68,94	47 30	В	rush, Goo	d, HSG A			
	2,80)3 30	V	loods, Goo	od, HSG A			
*		0 98	E	x. Wetland	ł			
*		0 98	E	x. Building				
*		0 98	E	Ex. Pavement				
	71,75	50 30	v	/eighted A	verage			
	71,75	50	1	00.00% Pe	ervious Are	а		
(n	Tc Leng nin) (fe		ope ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description		
	6.0					Direct Entry,		

Summary for Subcatchment S8: SUBCAT S8

Runoff = 0.04 cfs @ 17.34 hrs, Volume=

1,079 cf, Depth> 0.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, 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	00,530	30 E	Brush, Goo	d, HSG A	
	3	10,010	30 V	Voods, Go	od, HSG A	
*		33,536	98 E	x. Wetland	t	
*		0	98 E	x. Building]	
*		0	98 E	x. Paveme	ent	
*		2,426	<u>98</u> F	Proposed B	Building	
	4	46,502	35 V	Veighted A	verage	
	4	10,540	9	1.95% Per	vious Area	
		35,962	8	.05% Impe	ervious Area	3
	Тс	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	3.9	50	0.4000	0.22		Sheet Flow,
						Woods: Light underbrush n= 0.400 P2= 2.95"
	5.0	353	0.0560	1.18		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	4.7	1,850	0.0200	6.50	182.01	Trap/Vee/Rect Channel Flow,
						Bot.W=25.00' D=1.00' Z= 3.0 '/' Top.W=31.00'
						n= 0.030

Summary for Reach ER4: EX REACH 4

Inflow Area =	436,607 sf,	5.39% Impervious,	Inflow Depth > 0.04"	for 10-YR event
Inflow =	0.04 cfs @	15.10 hrs, Volume=	1,329 cf	
Outflow =	0.04 cfs @	16.63 hrs, Volume=	1,225 cf, Atte	n= 9%, Lag= 91.7 min

475-POST

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Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.31 fps, Min. Travel Time= 68.5 min

Avg. Velocity = 0.31 fps, Avg. Travel Time= 68.5 min

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Peak Storage= 165 cf @ 16.63 hrs Average Depth at Peak Storage= 0.01' Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 176.06 cfs

25.00' x 1.00' deep channel, n= 0.030 Stream, clean & straight Side Slope Z-value= 3.0 '/' Top Width= 31.00' Length= 1,291.0' Slope= 0.0187 '/' Inlet Invert= 140.00', Outlet Invert= 115.84'



Summary for Reach ER5: EX REACH 5

Inflow Area = 2,621,305 sf, 46.88% Impervious, Inflow Depth > 0.01" for 10-YR event 0.08 cfs @ 17.13 hrs, Volume= Inflow = 2.304 cf Outflow = 0.07 cfs @ 18.07 hrs, Volume= 2,119 cf, Atten= 5%, Lag= 56.5 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.34 fps, Min. Travel Time= 52.5 min Avg. Velocity = 0.34 fps, Avg. Travel Time= 52.5 min

Peak Storage= 226 cf @ 18.07 hrs Average Depth at Peak Storage= 0.01' Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 192.80 cfs

25.00' x 1.00' deep channel, n= 0.030 Stream, clean & straight Side Slope Z-value= 3.0 '/' Top Width= 31.00' Length= 1,085.0' Slope= 0.0224 '/' Inlet Invert= 115.35'. Outlet Invert= 91.00'



Summary for Reach RG: REACH G

 Inflow Area =
 203,535 sf,
 0.00% Impervious, Inflow Depth =
 0.00" for 10-YR event

 Inflow =
 0.00 cfs @
 0.00 hrs, Volume=
 0 cf

 Outflow =
 0.00 cfs @
 0.00 hrs, Volume=
 0 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 0.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 6.43 cfs

12.0" Round Pipe n= 0.012 Length= 180.0' Slope= 0.0278 '/' Inlet Invert= 155.00', Outlet Invert= 150.00'

Summary for Reach W1: WETLAND REACH 1

 Inflow Area =
 226,679 sf,
 0.37% Impervious, Inflow Depth =
 0.00" for 10-YR event

 Inflow =
 0.00 cfs @
 0.00 hrs, Volume=
 0 cf

 Outflow =
 0.00 cfs @
 0.00 hrs, Volume=
 0 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 0.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 177.62 cfs

25.00' x 1.00' deep channel, n= 0.030 Earth, grassed & winding Side Slope Z-value= 3.0 '/' Top Width= 31.00' Length= 420.0' Slope= 0.0190 '/' Inlet Invert= 152.00', Outlet Invert= 144.00'

‡

Summary for Reach W2: WETLAND REACH 2

339,955 sf, 5.18% Impervious, Inflow Depth > 0.04" for 10-YR event Inflow Area = 0.05 cfs @ 13.80 hrs, Volume= Inflow = 1.234 cf Outflow 0.04 cfs @ 15.10 hrs, Volume= 1,193 cf, Atten= 4%, Lag= 78.0 min = Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.21 fps, Min. Travel Time= 38.2 min Avg. Velocity = 0.21 fps, Avg. Travel Time= 38.2 min Peak Storage= 101 cf @ 15.10 hrs Average Depth at Peak Storage= 0.01' Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 117.48 cfs 25.00' x 1.00' deep channel, n= 0.030 Stream, clean & straight Side Slope Z-value= 3.0 '/' Top Width= 31.00' Length= 480.0' Slope= 0.0083 '/' Inlet Invert= 144.00', Outlet Invert= 140.00' ‡

Summary for Pond CA1: CB-A1

 Inflow Area =
 10,307 sf, 82.48% Impervious, Inflow Depth > 3.22" for 10-YR event

 Inflow =
 0.80 cfs @
 12.09 hrs, Volume=
 2,767 cf

 Outflow =
 0.80 cfs @
 12.09 hrs, Volume=
 2,767 cf, Atten= 0%, Lag= 0.0 min

 Primary =
 0.80 cfs @
 12.09 hrs, Volume=
 2,767 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.20' @ 12.09 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.74'	12.0" Round Culvert L= 83.0' Ke= 0.500 Inlet / Outlet Invert= 155.74' / 154.91' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.76 cfs @ 12.09 hrs HW=156.19' TW=155.41' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 0.76 cfs @ 3.25 fps)

Summary for Pond CA2: CB-A2

Inflow Area =	5,412 sf,100.00% Impervious,	Inflow Depth > 4.23" for 10-YR event
Inflow =	0.53 cfs @ 12.09 hrs, Volume=	1,908 cf
Outflow =	0.53 cfs @ 12.09 hrs, Volume=	1,908 cf, Atten= 0%, Lag= 0.0 min
Primary =	0.53 cfs @ 12.09 hrs, Volume=	1,908 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.62' @ 12.10 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.25'	12.0" Round Culvert L= 41.0' Ke= 0.500 Inlet / Outlet Invert= 156.25' / 155.84' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.50 cfs @ 12.09 hrs HW=156.62' TW=156.19' (Dynamic Tailwater) -1=Culvert (Outlet Controls 0.50 cfs @ 2.81 fps)

Summary for Pond CA3: CB-A3

Inflow Area	a =	37,673 sf, 89.92% Impervious, Inflow Depth > 3.59" for 10-YR event	
Inflow	=	3.39 cfs @ 12.09 hrs, Volume= 11,265 cf	
Outflow	=	3.39 cfs @12.09 hrs, Volume=11,265 cf, Atten= 0%, Lag= 0.0 mir	n
Primary	=	3.39 cfs @ 12.09 hrs, Volume= 11,265 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.89' @ 12.09 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.93'	18.0" Round Culvert L= 169.0' Ke= 0.500 Inlet / Outlet Invert= 153.93' / 153.09' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=3.31 cfs @ 12.09 hrs HW=154.87' TW=153.69' (Dynamic Tailwater) -1=Culvert (Barrel Controls 3.31 cfs @ 4.03 fps)

Summary for Pond CA4: CB-A4

Inflow Area	a =	6,616 sf, 89.62% Impervious, Inflow Depth > 3.57" for 10-YR	event
Inflow	=	0.59 cfs @ 12.09 hrs, Volume= 1,968 cf	
Outflow	=	0.59 cfs @ 12.09 hrs, Volume= 1,968 cf, Atten= 0%, Lag=	= 0.0 min
Primary	=	0.59 cfs @ 12.09 hrs, Volume= 1,968 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.33' @ 12.10 hrs Flood Elev= 159.00'

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Device	Routing	Invert	Outlet Devices
#1	Primary	154.93'	12.0" Round Culvert L= 50.0' Ke= 0.500 Inlet / Outlet Invert= 154.93' / 154.43' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.55 cfs @ 12.09 hrs HW=155.33' TW=154.87' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 0.55 cfs @ 2.79 fps)

Summary for Pond CC1: CB-C1

Inflow Area	ı =	6,254 sf, 34.70% Impervious, Inflow Depth > 0.94" for 10-YR event	
Inflow	=	0.13 cfs @ 12.11 hrs, Volume= 492 cf	
Outflow	=	0.13 cfs @ 12.11 hrs, Volume= 492 cf, Atten= 0%, Lag= 0.0 min	I
Primary	=	0.13 cfs @ 12.11 hrs, Volume= 492 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.49' @ 12.13 hrs Flood Elev= 162.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	159.25'	12.0" Round Culvert L= 33.0' Ke= 0.500 Inlet / Outlet Invert= 159.25' / 159.09' S= 0.0048 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.12 cfs @ 12.11 hrs HW=159.48' TW=159.38' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 0.12 cfs @ 1.26 fps)

Summary for Pond CC10: CB-C10

Inflow Area	a =	177,794 sf, 87.97% Impervious, Inflow Depth > 3.48" for 10-YR event	
Inflow	=	15.32 cfs @ 12.09 hrs, Volume= 51,594 cf	
Outflow	=	15.32 cfs @12.09 hrs, Volume=51,594 cf, Atten= 0%, Lag= 0.0 m	nin
Primary	=	15.32 cfs @ 12.09 hrs, Volume= 51,594 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 153.47' @ 12.11 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	151.48'	30.0" Round Culvert L= 170.0' Ke= 0.500
			Inlet / Outlet Invert= 151.48' / 150.63' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=13.77 cfs @ 12.09 hrs HW=153.42' TW=152.53' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 13.77 cfs @ 4.64 fps)

Summary for Pond CC11: CB-C11

Inflow Area =	6,044 sf, 71.33% Impervious,	Inflow Depth > 2.52" for 10-YR event
Inflow =	0.40 cfs @ 12.09 hrs, Volume=	1,269 cf
Outflow =	0.40 cfs @ 12.09 hrs, Volume=	1,269 cf, Atten= 0%, Lag= 0.0 min
Primary =	0.40 cfs @ 12.09 hrs, Volume=	1,269 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.06' @ 12.09 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.75'	12.0" Round Culvert L= 30.0' Ke= 0.500 Inlet / Outlet Invert= 155.75' / 155.15' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.39 cfs @ 12.09 hrs HW=156.06' TW=149.21' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.39 cfs @ 1.90 fps)

Summary for Pond CC12: CB-C12

Inflow Area	a =	107,687 sf, 82.94% Impervious, Inflow Depth > 3.21" for 10-YR event	
Inflow	=	8.68 cfs @ 12.09 hrs, Volume= 28,840 cf	
Outflow	=	8.68 cfs @ 12.09 hrs, Volume= 28,840 cf, Atten= 0%, Lag= 0.0 min	
Primary	=	8.68 cfs @ 12.09 hrs, Volume= 28,840 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 149.23' @ 12.09 hrs Flood Elev= 158.93'

Device	Routing	Invert	Outlet Devices
#1	Primary	147.70'	24.0" Round Culvert L= 70.0' Ke= 0.500
			Inlet / Outlet Invert= 147.70' / 147.35' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=8.47 cfs @ 12.09 hrs HW=149.20' TW=148.14' (Dynamic Tailwater) **1=Culvert** (Barrel Controls 8.47 cfs @ 4.64 fps)

Summary for Pond CC13: CB-C13

Inflow Area	=	3,872 sf	, 77.27% Impervious,	Inflow Depth > 2	.88" for 10-YR event
Inflow =	=	0.29 cfs @	12.09 hrs, Volume=	929 cf	
Outflow =	=	0.29 cfs @	12.09 hrs, Volume=	929 cf,	Atten= 0%, Lag= 0.0 min
Primary =	=	0.29 cfs @	12.09 hrs, Volume=	929 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.02' @ 12.09 hrs Flood Elev= 159.00'

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Device	Routing	Invert	Outlet Devices
#1	Primary	155.75'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 155.75' / 155.23' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.29 cfs @ 12.09 hrs HW=156.01' TW=150.08' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.29 cfs @ 1.74 fps)

Summary for Pond CC14: CB-C14

Inflow Area	=	93,302 sf,	84.26% Imp	pervious,	Inflow Depth >	3.30"	for 10-YR event
Inflow	=	7.67 cfs @ 1	2.09 hrs, \	/olume=	25,633 0	cf	
Outflow	=	7.67 cfs @ 1	2.09 hrs, \	/olume=	25,633 (cf, Atter	n= 0%, Lag= 0.0 min
Primary	=	7.67 cfs @ 1	2.09 hrs, \	/olume=	25,633 (of	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 150.10' @ 12.10 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	148.66'	24.0" Round Culvert L= 172.0' Ke= 0.500 Inlet / Outlet Invert= 148.66' / 147.80' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=7.01 cfs @ 12.09 hrs HW=150.07' TW=149.20' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 7.01 cfs @ 4.15 fps)

Summary for Pond CC15: CB-C15

Inflow Area	a =	3,872 sf, 81.40% Impervious, Inflow Depth > 3.07" for 10-YR event	
Inflow	=	0.31 cfs @ 12.09 hrs, Volume= 990 cf	
Outflow	=	0.31 cfs @12.09 hrs, Volume=990 cf, Atten= 0%, Lag= 0.0 min	۱
Primary	=	0.31 cfs @ 12.09 hrs, Volume= 990 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.02' @ 12.09 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.75'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 155.75' / 155.23' S= 0.0200 '/' Cc= 0.900
			n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.30 cfs @ 12.09 hrs HW=156.02' TW=150.94' (Dynamic Tailwater)

Summary for Pond CC16: CB-C16

Inflow Area =	86,438 sf, 84.03% Impervious,	Inflow Depth > 3.28" for 10-YR event
Inflow =	7.08 cfs @ 12.09 hrs, Volume=	23,649 cf
Outflow =	7.08 cfs @ 12.09 hrs, Volume=	23,649 cf, Atten= 0%, Lag= 0.0 min
Primary =	7.08 cfs @ 12.09 hrs, Volume=	23,649 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 150.97' @ 12.10 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	149.62'	24.0" Round Culvert L= 172.0' Ke= 0.500 Inlet / Outlet Invert= 149.62' / 148.76' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=6.34 cfs @ 12.09 hrs HW=150.94' TW=150.07' (Dynamic Tailwater) -1=Culvert (Outlet Controls 6.34 cfs @ 4.09 fps)

Summary for Pond CC17: CB-C17

Inflow Area =		151,042 sf, 86.68% Impervious, Inflow Depth > 3.41" for 10-YR event
Inflow	=	12.79 cfs @ 12.09 hrs, Volume= 42,917 cf
Outflow	=	12.79 cfs @ 12.09 hrs, Volume= 42,917 cf, Atten= 0%, Lag= 0.0 min
Primary	=	12.79 cfs @ 12.09 hrs, Volume= 42,917 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.20' @ 12.11 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	152.40'	30.0" Round Culvert L= 165.0' Ke= 0.500 Inlet / Outlet Invert= 152.40' / 151.58' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=10.82 cfs @ 12.09 hrs HW=154.15' TW=153.42' (Dynamic Tailwater) -1=Culvert (Outlet Controls 10.82 cfs @ 4.13 fps)

Summary for Pond CC18: CB-C18

Inflow Area =	125,536 sf,	84.98% Impervious,	Inflow Depth > 3.31"	for 10-YR event
Inflow =	10.37 cfs @	12.09 hrs, Volume=	34,643 cf	
Outflow =	10.37 cfs @	12.09 hrs, Volume=	34,643 cf, Atten	= 0%, Lag= 0.0 min
Primary =	10.37 cfs @	12.09 hrs, Volume=	34,643 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.92' @ 12.11 hrs Flood Elev= 159.00'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 10-YR Rainfall=4.47"
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Device	Routing	Invert	Outlet Devices
#1	Primary	153.34'	30.0" Round Culvert L= 168.0' Ke= 0.500 Inlet / Outlet Invert= 153.34' / 152.50' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=8.91 cfs @ 12.09 hrs HW=154.88' TW=154.15' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 8.91 cfs @ 4.01 fps)

Summary for Pond CC19: CB-C19

Inflow Area	=	98,449 sf, 81.01% Impervious, Inflow Depth > 3.06" for 1	0-YR event
Inflow	=	7.72 cfs @ 12.09 hrs, Volume= 25,092 cf	
Outflow	=	7.72 cfs @ 12.09 hrs, Volume= 25,092 cf, Atten= 0%	, Lag= 0.0 min
Primary	=	7.72 cfs @ 12.09 hrs, Volume= 25,092 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.09' @ 12.09 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	154.75'	24.0" Round Culvert L= 181.0' Ke= 0.500 Inlet / Outlet Invert= 154.75' / 153.84' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=7.39 cfs @ 12.09 hrs HW=156.08' TW=154.89' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 7.39 cfs @ 4.73 fps)

Summary for Pond CC2: CB-C2

Inflow Area	a =	10,503 sf, 53.18% Impervious, Inflow Depth > 1.77" for 10-YR event	
Inflow	=	0.46 cfs @ 12.10 hrs, Volume= 1,545 cf	
Outflow	=	0.46 cfs @12.10 hrs, Volume=1,545 cf, Atten= 0%, Lag= 0.0 mi	n
Primary	=	0.46 cfs @ 12.10 hrs, Volume= 1,545 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.38' @ 12.11 hrs Flood Elev= 162.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.99'	12.0" Round Culvert L= 56.0' Ke= 0.500 Inlet / Outlet Invert= 158.99' / 158.71' S= 0.0050 '/' Cc= 0.900
			n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.42 cfs @ 12.10 hrs HW=159.38' TW=159.07' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 0.42 cfs @ 2.21 fps)

Summary for Pond CC20: CB-C20

Inflow Area =	79,574 sf, 83.55% Impervious,	Inflow Depth > 3.26" for 10-YR event
Inflow =	6.48 cfs @ 12.09 hrs, Volume=	21,604 cf
Outflow =	6.48 cfs @ 12.09 hrs, Volume=	21,604 cf, Atten= 0%, Lag= 0.0 min
Primary =	6.48 cfs @ 12.09 hrs, Volume=	21,604 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 151.84' @ 12.10 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	150.57'	24.0" Round Culvert L= 169.0' Ke= 0.500 Inlet / Outlet Invert= 150.57' / 149.72' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=5.86 cfs @ 12.09 hrs HW=151.82' TW=150.94' (Dynamic Tailwater) -1=Culvert (Outlet Controls 5.86 cfs @ 4.07 fps)

Summary for Pond CC21: CB-C21

Inflow Area	a =	3,610 sf, 79.03% Impervious, Inflow Depth > 2.97" for 10-YR event	
Inflow	=	0.28 cfs @ 12.09 hrs, Volume= 894 cf	
Outflow	=	0.28 cfs @_ 12.09 hrs, Volume=894 cf, Atten= 0%, Lag= 0.0 min	i
Primary	=	0.28 cfs @ 12.09 hrs, Volume= 894 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.01' @ 12.09 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.75'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 155.75' / 155.23' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.27 cfs @ 12.09 hrs HW=156.01' TW=151.82' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.27 cfs @ 1.72 fps)

Summary for Pond CC22: CB-C22

Inflow Area	ı =	3,940 sf, 77.16% Impervious, Inflow Depth > 2.88" for 10-YR event	
Inflow	=	0.30 cfs @ 12.09 hrs, Volume= 945 cf	
Outflow	=	0.30 cfs @ 12.09 hrs, Volume= 945 cf, Atten= 0%, Lag= 0.0 m	nin
Primary	=	0.30 cfs @ 12.09 hrs, Volume= 945 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.02' @ 12.09 hrs Flood Elev= 159.00'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 10-YR Rainfall=4.47"
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Device	Routing	Invert	Outlet Devices
#1	Primary	155.75'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 155.75' / 155.23' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.29 cfs @ 12.09 hrs HW=156.01' TW=152.72' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.29 cfs @ 1.75 fps)

Summary for Pond CC23: CB-C23

Inflow Area	=	72,272 sf	, 83.88% Impervious	, Inflow Depth >	3.28"	for 10-YR event
Inflow	=	5.90 cfs @	12.09 hrs, Volume=	19,766 c	f	
Outflow	=	5.90 cfs @	12.09 hrs, Volume=	19,766 c	f, Atter	n= 0%, Lag= 0.0 min
Primary	=	5.90 cfs @	12.09 hrs, Volume=	19,766 c	f	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 152.74' @ 12.10 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	151.54'	24.0" Round Culvert L= 173.0' Ke= 0.500 Inlet / Outlet Invert= 151.54' / 150.67' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=5.38 cfs @ 12.09 hrs HW=152.71' TW=151.82' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 5.38 cfs @ 4.03 fps)

Summary for Pond CC24: CB-C24

Inflow Area	a =	21,488 sf, 69.19% Impervious, Inflow Depth > 2.52" for 10-YR event	t
Inflow	=	1.34 cfs @ 12.09 hrs, Volume= 4,510 cf	
Outflow	=	1.34 cfs @ 12.09 hrs, Volume= 4,510 cf, Atten= 0%, Lag= 0.0 i	min
Primary	=	1.34 cfs @ 12.09 hrs, Volume= 4,510 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.42' @ 12.09 hrs Flood Elev= 159.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	154.81'	12.0" Round Culvert L= 42.0' Ke= 0.500 Inlet / Outlet Invert= 154.81' / 153.59' S= 0.0290 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.32 cfs @ 12.09 hrs HW=155.42' TW=153.69' (Dynamic Tailwater) -1=Culvert (Inlet Controls 1.32 cfs @ 2.65 fps)

Summary for Pond CC25: CB-C25

Inflow Area =	64,908 sf, 83.95% Impervious,	Inflow Depth > 3.29" for 10-YR event
Inflow =	5.30 cfs @ 12.09 hrs, Volume=	17,801 cf
Outflow =	5.30 cfs @ 12.09 hrs, Volume=	17,801 cf,Atten= 0%,Lag= 0.0 min
Primary =	5.30 cfs @ 12.09 hrs, Volume=	17,801 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 153.71' @ 12.10 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	152.59'	24.0" Round Culvert L= 190.0' Ke= 0.500 Inlet / Outlet Invert= 152.59' / 151.64' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=4.88 cfs @ 12.09 hrs HW=153.69' TW=152.71' (Dynamic Tailwater) -1=Culvert (Outlet Controls 4.88 cfs @ 4.00 fps)

Summary for Pond CC26: CB-C26

Inflow Area	a =	10,538 sf, 83.28% Impervious, Inflow Depth > 3.24" for 10-YR event
Inflow	=	0.84 cfs @ 12.09 hrs, Volume= 2,848 cf
Outflow	=	0.84 cfs @ 12.09 hrs, Volume= 2,848 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.84 cfs @ 12.09 hrs, Volume= 2,848 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.63' @ 12.09 hrs Flood Elev= 163.45'

Cc= 0.900

Primary OutFlow Max=0.82 cfs @ 12.09 hrs HW=158.62' TW=157.75' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.82 cfs @ 2.32 fps)

Summary for Pond CC27: CB-C27

Inflow Area	a =	46,327 sf, 80.53% Impervious, Inflow Depth > 3.01" for 10-YR event	
Inflow	=	3.56 cfs @ 12.09 hrs, Volume= 11,610 cf	
Outflow	=	3.56 cfs @12.09 hrs, Volume=11,610 cf, Atten= 0%, Lag= 0.0 mi	in
Primary	=	3.56 cfs @ 12.09 hrs, Volume= 11,610 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.48' @ 12.10 hrs Flood Elev= 163.00'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 10-YR Rainfall=4.47"
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Device	Routing	Invert	Outlet Devices
#1	Primary	157.45'	18.0" Round Culvert L= 122.0' Ke= 0.500 Inlet / Outlet Invert= 157.45' / 156.84' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=3.31 cfs @ 12.09 hrs HW=158.46' TW=157.75' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 3.31 cfs @ 3.69 fps)

Summary for Pond CC28: CB-C28

Inflow Area	=	38,084 sf,	78.73% Impervious,	Inflow Depth >	2.91"	for 10-YR event
Inflow	=	2.83 cfs @	12.09 hrs, Volume=	9,229 cf		
Outflow	=	2.83 cfs @	12.09 hrs, Volume=	9,229 cf	, Atten	= 0%, Lag= 0.0 min
Primary	=	2.83 cfs @	12.09 hrs, Volume=	9,229 cf		-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.17' @ 12.10 hrs Flood Elev= 163.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.20'	15.0" Round Culvert L= 101.0' Ke= 0.500 Inlet / Outlet Invert= 158.20' / 157.70' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.68 cfs @ 12.09 hrs HW=159.16' TW=158.46' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 2.68 cfs @ 3.68 fps)

Summary for Pond CC29: CB-C29

Inflow Area	a =	8,005 sf, 80.45% Impervious, Inflow Depth > 3.11" for 10-YR event	
Inflow	=	0.61 cfs @ 12.09 hrs, Volume= 2,072 cf	
Outflow	=	0.61 cfs @ 12.09 hrs, Volume= 2,072 cf, Atten= 0%, Lag= 0.0 m	in
Primary	=	0.61 cfs @ 12.09 hrs, Volume= 2,072 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 160.19' @ 12.09 hrs Flood Elev= 165.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	159.80'	12.0" Round Culvert L= 77.0' Ke= 0.500 Inlet / Outlet Invert= 159.80' / 158.26' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.60 cfs @ 12.09 hrs HW=160.19' TW=158.62' (Dynamic Tailwater)

Summary for Pond CC3: CB-C3

Inflow Area =	11,812 sf, 56.98% Impervious,	Inflow Depth > 1.95" for 10-YR event
Inflow =	0.57 cfs @ 12.09 hrs, Volume=	1,923 cf
Outflow =	0.57 cfs @ 12.09 hrs, Volume=	1,923 cf, Atten= 0%, Lag= 0.0 min
Primary =	0.57 cfs @ 12.09 hrs, Volume=	1,923 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.08' @ 12.11 hrs Flood Elev= 163.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.61'	12.0" Round Culvert L= 75.0' Ke= 0.500 Inlet / Outlet Invert= 158.61' / 158.24' S= 0.0049 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.53 cfs @ 12.09 hrs HW=159.07' TW=158.74' (Dynamic Tailwater) -1=Culvert (Outlet Controls 0.53 cfs @ 2.22 fps)

Summary for Pond CC30: CB-C30

Inflow Area	a =	3,220 sf,100.00% Impervious, Inflow Depth > 4.23" for 10-YR event	
Inflow	=	0.32 cfs @ 12.09 hrs, Volume= 1,135 cf	
Outflow	=	0.32 cfs @ 12.09 hrs, Volume= 1,135 cf, Atten= 0%, Lag= 0.0 min	
Primary	=	0.32 cfs @ 12.09 hrs, Volume= 1,135 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 160.70' @ 12.09 hrs Flood Elev= 165.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	160.42'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 160.42' / 159.90' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.31 cfs @ 12.09 hrs HW=160.69' TW=160.19' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.31 cfs @ 1.78 fps)

Summary for Pond CC31: CB-C31

Inflow Area	a =	28,995 sf, 76.60% Impervious, Inflow Depth > 2.80" for 10-YR even	nt
Inflow	=	2.07 cfs @ 12.09 hrs, Volume= 6,756 cf	
Outflow	=	2.07 cfs @ 12.09 hrs, Volume= 6,756 cf, Atten= 0%, Lag= 0.0	min
Primary	=	2.07 cfs @ 12.09 hrs, Volume= 6,756 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.81' @ 12.10 hrs Flood Elev= 163.00'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 10-YR Rainfall=4.47"
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Device	Routing	Invert	Outlet Devices
#1	Primary	158.96'	15.0" Round Culvert L= 133.0' Ke= 0.500 Inlet / Outlet Invert= 158.96' / 158.30' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.91 cfs @ 12.09 hrs HW=159.79' TW=159.16' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 1.91 cfs @ 3.13 fps)

Summary for Pond CC32: CB-C32

Inflow Area	=	10,841 sf,	58.84% Impervious,	Inflow Depth > 1.	.76" for 10-YR event
Inflow =	=	0.49 cfs @	12.10 hrs, Volume=	1,591 cf	
Outflow =	=	0.49 cfs @	12.10 hrs, Volume=	1,591 cf,	Atten= 0%, Lag= 0.0 min
Primary =	=	0.49 cfs @	12.10 hrs, Volume=	1,591 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 161.65' @ 12.10 hrs Flood Elev= 165.40'

Device Routing	Invert	Outlet Devices
#1 Primary	161.30'	12.0" Round Culvert L= 53.0' Ke= 0.500 Inlet / Outlet Invert= 161.30' / 159.75' S= 0.0292 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.49 cfs @ 12.10 hrs HW=161.65' TW=160.32' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.49 cfs @ 2.01 fps)

Summary for Pond CC33: CB-C33

Inflow Area	a =	6,131 sf, 52.05% Impervious, Inflow Depth > 1.31" for 10-YR event	
Inflow	=	0.20 cfs @ 12.10 hrs, Volume= 669 cf	
Outflow	=	0.20 cfs @_ 12.10 hrs, Volume=669 cf, Atten= 0%, Lag= 0.0 mir	۱
Primary	=	0.20 cfs @ 12.10 hrs, Volume= 669 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 162.37' @ 12.10 hrs Flood Elev= 165.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	162.15'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 162.15' / 161.40' S= 0.0288 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.20 cfs @ 12.10 hrs HW=162.37' TW=161.65' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.20 cfs @ 1.58 fps)

Summary for Pond CC34: CB-C34

 Inflow Area =
 19,633 sf, 71.85% Impervious, Inflow Depth > 2.53" for 10-YR event

 Inflow =
 1.26 cfs @ 12.09 hrs, Volume=
 4,131 cf

 Outflow =
 1.26 cfs @ 12.09 hrs, Volume=
 4,131 cf, Atten= 0%, Lag= 0.0 min

 Primary =
 1.26 cfs @ 12.09 hrs, Volume=
 4,131 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 160.32' @ 12.10 hrs Flood Elev= 163.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	159.65'	12.0" Round Culvert L= 88.0' Ke= 0.500 Inlet / Outlet Invert= 159.65' / 159.21' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.16 cfs @ 12.09 hrs HW=160.31' TW=159.79' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 1.16 cfs @ 2.95 fps)

Summary for Pond CC35: CB-C35

Inflow Area	a =	18,828 sf, 50.64% Impervious, Inflow Depth > 1.51" for 10-YR event
Inflow	=	0.71 cfs @ 12.10 hrs, Volume= 2,372 cf
Outflow	=	0.71 cfs @ 12.10 hrs, Volume= 2,372 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.71 cfs @ 12.10 hrs, Volume= 2,372 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.41' @ 12.10 hrs Flood Elev= 162.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.98'	12.0" Round Culvert L= 90.0' Ke= 0.500 Inlet / Outlet Invert= 158.98' / 156.25' S= 0.0303 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.71 cfs @ 12.10 hrs HW=159.41' TW=156.64' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.71 cfs @ 2.22 fps)

Summary for Pond CC36: CB-C36

Inflow Area	a =	4,686 sf, 33.91% Impervious, Inflow Depth > 0.63" for 10-YR event	
Inflow	=	0.05 cfs @ 12.13 hrs, Volume= 245 cf	
Outflow	=	0.05 cfs @ 12.13 hrs, Volume= 245 cf, Atten= 0%, Lag= 0.0 m	in
Primary	=	0.05 cfs @ 12.13 hrs, Volume= 245 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 160.25' @ 12.13 hrs Flood Elev= 163.40'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 10-YR Rainfall=4.47"
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Device	Routing	Invert	Outlet Devices
#1	Primary	160.15'	12.0" Round Culvert L= 40.0' Ke= 0.500 Inlet / Outlet Invert= 160.15' / 159.08' S= 0.0267 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.05 cfs @ 12.13 hrs HW=160.25' TW=159.39' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.05 cfs @ 1.10 fps)

Summary for Pond CC37: CB-C37

Inflow Area =	10,601 sf	, 53.01% Impervious,	Inflow Depth > 1.65'	for 10-YR event
Inflow =	0.45 cfs @	12.10 hrs, Volume=	1,458 cf	
Outflow =	0.45 cfs @	12.10 hrs, Volume=	1,458 cf, Atte	en= 0%, Lag= 0.0 min
Primary =	0.45 cfs @	12.10 hrs, Volume=	1,458 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.64' @ 12.11 hrs Flood Elev= 162.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	159.25'	12.0" Round Culvert L= 34.0' Ke= 0.500 Inlet / Outlet Invert= 159.25' / 159.08' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.42 cfs @ 12.10 hrs HW=159.64' TW=159.40' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 0.42 cfs @ 2.21 fps)

Summary for Pond CC38: CB-C38

Inflow Area	=	6,400 sf,	, 79.30% Impervious,	Inflow Depth > 2.97"	for 10-YR event
Inflow :	=	0.50 cfs @	12.09 hrs, Volume=	1,586 cf	
Outflow :	=	0.50 cfs @	12.09 hrs, Volume=	1,586 cf, Atte	n= 0%, Lag= 0.0 min
Primary :	=	0.50 cfs @	12.09 hrs, Volume=	1,586 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 161.65' @ 12.09 hrs Flood Elev= 164.55'

Device	Routing	Invert	Outlet Devices
#1	Primary	161.30'	12.0" Round Culvert L= 120.0' Ke= 0.500 Inlet / Outlet Invert= 161.30' / 159.15' S= 0.0179 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.49 cfs @ 12.09 hrs HW=161.65' TW=159.52' (Dynamic Tailwater)

Summary for Pond CC4: CB-C4

 Inflow Area =
 5,937 sf, 33.28% Impervious, Inflow Depth > 0.94" for 10-YR event

 Inflow =
 0.12 cfs @ 12.11 hrs, Volume=
 467 cf

 Outflow =
 0.12 cfs @ 12.11 hrs, Volume=
 467 cf, Atten= 0%, Lag= 0.0 min

 Primary =
 0.12 cfs @ 12.11 hrs, Volume=
 467 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.68' @ 12.12 hrs Flood Elev= 160.75'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.50'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 157.50' / 157.24' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.12 cfs @ 12.11 hrs HW=157.68' TW=157.41' (Dynamic Tailwater) -1=Culvert (Outlet Controls 0.12 cfs @ 1.93 fps)

Summary for Pond CC5: CB-C5

Inflow Area	a =	5,125 sf, 32.45% Impervious, Inflow Depth > 0.89" for 10-YR event
Inflow	=	0.10 cfs @ 12.11 hrs, Volume= 379 cf
Outflow	=	0.10 cfs @ 12.11 hrs, Volume= 379 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.10 cfs @ 12.11 hrs, Volume= 379 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.60' @ 12.11 hrs Flood Elev= 162.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	159.45'	12.0" Round Culvert L= 30.0' Ke= 0.500 Inlet / Outlet Invert= 159.45' / 159.15' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.10 cfs @ 12.11 hrs HW=159.60' TW=156.81' (Dynamic Tailwater) -1=Culvert (Barrel Controls 0.10 cfs @ 1.94 fps)

Summary for Pond CC6: CB-C6

Inflow Area	a =	15,635 sf, 49.40% Impervious, Inflow Depth > 1.69" for 10-YR event	
Inflow	=	0.62 cfs @ 12.10 hrs, Volume= 2,200 cf	
Outflow	=	0.62 cfs @ 12.10 hrs, Volume= 2,200 cf, Atten= 0%, Lag= 0.0 mir	٦
Primary	=	0.62 cfs @ 12.10 hrs, Volume= 2,200 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.81' @ 12.10 hrs Flood Elev= 162.70'

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Device	Routing	Invert	Outlet Devices
#1	Primary	156.42'	12.0" Round Culvert L= 73.0' Ke= 0.500 Inlet / Outlet Invert= 156.42' / 155.69' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.61 cfs @ 12.10 hrs HW=156.81' TW=148.16' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.61 cfs @ 2.13 fps)

Summary for Pond CC7: CB-C7

Inflow Area	a =	8,406 sf, 47.06% Impervious, Inflow Depth > 1.54" for 10-YR event	
Inflow	=	0.31 cfs @ 12.10 hrs, Volume= 1,079 cf	
Outflow	=	0.31 cfs @ 12.10 hrs, Volume= 1,079 cf, Atten= 0%, Lag= 0.0 m	in
Primary	=	0.31 cfs @ 12.10 hrs, Volume= 1,079 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.42' @ 12.10 hrs Flood Elev= 160.75'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.14'	12.0" Round Culvert L= 62.0' Ke= 0.500 Inlet / Outlet Invert= 157.14' / 156.52' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.31 cfs @ 12.10 hrs HW=157.42' TW=156.81' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 0.31 cfs @ 2.61 fps)

Summary for Pond CC8: CB-C8

Inflow Area	a =	236,335 sf, 89.20% Impervious, Inflow Depth > 3.56" for 10-YR event	
Inflow	=	20.74 cfs @ 12.09 hrs, Volume= 70,211 cf	
Outflow	=	20.74 cfs @ 12.09 hrs, Volume= 70,211 cf, Atten= 0%, Lag= 0.0 m	nin
Primary	=	20.74 cfs @ 12.09 hrs, Volume= 70,211 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 151.28' @ 12.09 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	149.18'	36.0" Round Culvert L= 85.0' Ke= 0.500 Inlet / Outlet Invert= 149.18' / 148.75' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 7.07 sf

Primary OutFlow Max=20.21 cfs @ 12.09 hrs HW=151.24' TW=148.14' (Dynamic Tailwater) ☐ 1=Culvert (Barrel Controls 20.21 cfs @ 5.50 fps)

Summary for Pond CC9: CB-C9

Inflow Area =	204,546 sf, 89.45% Impervious,	Inflow Depth > 3.58" for 10-YR event
Inflow =	17.94 cfs @ 12.09 hrs, Volume=	61,028 cf
Outflow =	17.94 cfs @ 12.09 hrs, Volume=	61,028 cf,Atten= 0%,Lag= 0.0 min
Primary =	17.94 cfs @ 12.09 hrs, Volume=	61,028 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 152.55' @ 12.09 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	150.53'	30.0" Round Culvert L= 170.0' Ke= 0.500 Inlet / Outlet Invert= 150.53' / 149.68' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=17.05 cfs @ 12.09 hrs HW=152.52' TW=151.24' (Dynamic Tailwater) -1=Culvert (Outlet Controls 17.05 cfs @ 5.56 fps)

Summary for Pond CD1: CB-D1

Inflow Area	a =	6,306 sf,100.00% Impervious, Inflow Depth > 4.23" for 10-YR event
Inflow	=	0.62 cfs @ 12.09 hrs, Volume= 2,224 cf
Outflow	=	0.62 cfs @ 12.09 hrs, Volume= 2,224 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.62 cfs @ 12.09 hrs, Volume= 2,224 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.49' @ 12.09 hrs Flood Elev= 162.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	159.05'	12.0" Round Culvert L= 144.0' Ke= 0.500 Inlet / Outlet Invert= 159.05' / 158.33' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.60 cfs @ 12.09 hrs HW=159.49' TW=158.67' (Dynamic Tailwater) -1=Culvert (Outlet Controls 0.60 cfs @ 2.68 fps)

Summary for Pond CD10: CB-D10

Inflow Area	a =	8,279 sf, 85.05% Impervious, Inflow Depth > 3.26" for 10-YR event	
Inflow	=	0.70 cfs @ 12.09 hrs, Volume= 2,252 cf	
Outflow	=	0.70 cfs @ 12.09 hrs, Volume= 2,252 cf, Atten= 0%, Lag= 0.0 mi	in
Primary	=	0.70 cfs @ 12.09 hrs, Volume= 2,252 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.17' @ 12.09 hrs Flood Elev= 163.00'

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Device	Routing	Invert	Outlet Devices
#1	Primary	158.75'	12.0" Round Culvert L= 121.0' Ke= 0.500 Inlet / Outlet Invert= 158.75' / 155.12' S= 0.0300 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.68 cfs @ 12.09 hrs HW=159.17' TW=155.55' (Dynamic Tailwater) ☐ 1=Culvert (Inlet Controls 0.68 cfs @ 2.20 fps)

Summary for Pond CD11: CB-D11

Inflow Area	ı =	153,819 sf, 71.58% Impervious, Inflow Depth > 2.60" for 10-YR event	
Inflow	=	10.26 cfs @ 12.09 hrs, Volume= 33,305 cf	
Outflow	=	10.26 cfs @ 12.09 hrs, Volume=	۱
Primary	=	10.26 cfs @ 12.09 hrs, Volume= 33,305 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.99' @ 12.09 hrs Flood Elev= 163.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.52'	24.0" Round Culvert L= 264.0' Ke= 0.500 Inlet / Outlet Invert= 153.52' / 150.00' S= 0.0133 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=10.06 cfs @ 12.09 hrs HW=154.98' TW=143.32' (Dynamic Tailwater) ☐ 1=Culvert (Inlet Controls 10.06 cfs @ 4.11 fps)

Summary for Pond CD12: CB-D12

Inflow Area	=	20,162 sf,	70.06% Impervious,	Inflow Depth > 2.58"	for 10-YR event
Inflow =	=	1.31 cfs @	12.09 hrs, Volume=	4,335 cf	
Outflow =	=	1.31 cfs @	12.09 hrs, Volume=	4,335 cf, Atte	n= 0%, Lag= 0.0 min
Primary =	=	1.31 cfs @	12.09 hrs, Volume=	4,335 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.74' @ 12.09 hrs Flood Elev= 163.00'

Device	Routing	Invert	Outlet Devices
#1	Primary		12.0" Round Culvert L= 121.0' Ke= 0.500 Inlet / Outlet Invert= 158.14' / 154.52' S= 0.0299 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.28 cfs @ 12.09 hrs HW=158.74' TW=154.97' (Dynamic Tailwater)

Summary for Pond CD2: CB-D2

Inflow Area =	7,996 sf, 96.65% Impervious,	Inflow Depth > 4.03" for 10-YR event
Inflow =	0.76 cfs @ 12.09 hrs, Volume=	2,683 cf
Outflow =	0.76 cfs @ 12.09 hrs, Volume=	2,683 cf, Atten= 0%, Lag= 0.0 min
Primary =	0.76 cfs @ 12.09 hrs, Volume=	2,683 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.67' @ 12.09 hrs Flood Elev= 162.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.23'	12.0" Round Culvert L= 91.0' Ke= 0.500 Inlet / Outlet Invert= 158.23' / 156.51' S= 0.0189 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.74 cfs @ 12.09 hrs HW=158.67' TW=156.93' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.74 cfs @ 2.25 fps)

Summary for Pond CD3: CB-D3

Inflow Area	a =	34,598 sf, 51.01% Impervious, Inflow Depth > 1.58" for 10-YR event
Inflow	=	1.40 cfs @ 12.10 hrs, Volume= 4,555 cf
Outflow	=	1.40 cfs @ 12.10 hrs, Volume= 4,555 cf, Atten= 0%, Lag= 0.0 min
Primary	=	1.40 cfs @ 12.10 hrs, Volume= 4,555 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.48' @ 12.10 hrs Flood Elev= 160.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.75'	12.0" Round Culvert L= 48.0' Ke= 0.500 Inlet / Outlet Invert= 156.75' / 156.51' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.39 cfs @ 12.10 hrs HW=157.48' TW=156.94' (Dynamic Tailwater) -1=Culvert (Barrel Controls 1.39 cfs @ 3.17 fps)

Summary for Pond CD4: CB-D4

Inflow Area	a =	59,225 sf, 62.56% Impervious, Inflow Depth > 2.17" for 10-YR event	
Inflow	=	3.24 cfs @ 12.09 hrs, Volume= 10,686 cf	
Outflow	=	3.24 cfs @ 12.09 hrs, Volume= 10,686 cf, Atten= 0%, Lag= 0.0 mir	n
Primary	=	3.24 cfs @ 12.09 hrs, Volume= 10,686 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.94' @ 12.10 hrs Flood Elev= 162.10'

	FRIARS DRIVE POST DEVELOPMENT
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Device	Routing	Invert	Outlet Devices
#1	Primary	156.01'	18.0" Round Culvert L= 165.0' Ke= 0.500 Inlet / Outlet Invert= 156.01' / 155.19' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=3.14 cfs @ 12.09 hrs HW=156.94' TW=155.92' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 3.14 cfs @ 3.93 fps)

Summary for Pond CD5: CB-D5

Inflow Area	a =	12,974 sf, 69.53% Impervious, Inflow Depth > 2.45" for 10-YR even	ıt
Inflow	=	0.84 cfs @ 12.09 hrs, Volume= 2,652 cf	
Outflow	=	0.84 cfs @ 12.09 hrs, Volume= 2,652 cf, Atten= 0%, Lag= 0.0	min
Primary	=	0.84 cfs @ 12.09 hrs, Volume= 2,652 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.22' @ 12.09 hrs Flood Elev= 162.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.75'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 157.75' / 156.51' S= 0.0477 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.82 cfs @ 12.09 hrs HW=158.21' TW=156.93' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.82 cfs @ 2.31 fps)

Summary for Pond CD6: CB-D6

Inflow Area	a =	6,633 sf, 75.95% Impervious, Inflow Depth > 2.79" for 10-YR event	
Inflow	=	0.49 cfs @ 12.09 hrs, Volume= 1,541 cf	
Outflow	=	0.49 cfs @12.09 hrs, Volume=1,541 cf, Atten= 0%, Lag= 0.0 n	nin
Primary	=	0.49 cfs @ 12.09 hrs, Volume= 1,541 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.55' @ 12.10 hrs Flood Elev= 163.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.18'	12.0" Round Culvert L= 33.0' Ke= 0.500 Inlet / Outlet Invert= 158.18' / 157.85' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.45 cfs @ 12.09 hrs HW=158.54' TW=158.21' (Dynamic Tailwater)

Summary for Pond CD7: CB-D7

Inflow Area =	84,005 sf, 68.35% Impervious,	Inflow Depth > 2.45" for 10-YR event
Inflow =	5.25 cfs @ 12.09 hrs, Volume=	17,148 cf
Outflow =	5.25 cfs @ 12.09 hrs, Volume=	17,148 cf, Atten= 0%, Lag= 0.0 min
Primary =	5.25 cfs @ 12.09 hrs, Volume=	17,148 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.95' @ 12.12 hrs Flood Elev= 163.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	154.69'	24.0" Round Culvert L= 93.0' Ke= 0.500 Inlet / Outlet Invert= 154.69' / 154.22' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=4.18 cfs @ 12.09 hrs HW=155.91' TW=155.56' (Dynamic Tailwater) -1=Culvert (Outlet Controls 4.18 cfs @ 2.98 fps)

Summary for Pond CD8: CB-D8

Inflow Area	a =	7,740 sf, 84.12% Impervious, Inflow Depth > 3.26" for 10-YR event	
Inflow	=	0.65 cfs @ 12.09 hrs, Volume= 2,105 cf	
Outflow	=	0.65 cfs @ 12.09 hrs, Volume= 2,105 cf, Atten= 0%, Lag= 0.0 min	۱
Primary	=	0.65 cfs @ 12.09 hrs, Volume= 2,105 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.16' @ 12.09 hrs Flood Elev= 163.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.75'	12.0" Round Culvert L= 121.0' Ke= 0.500 Inlet / Outlet Invert= 158.75' / 155.69' S= 0.0253 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.64 cfs @ 12.09 hrs HW=159.15' TW=155.90' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.64 cfs @ 2.16 fps)

Summary for Pond CD9: CB-D9

Inflow Area	ı =	111,549 sf, 71.82% Impervious, Inflow Depth > 2.62" for 10-YR ever	nt
Inflow	=	7.48 cfs @ 12.09 hrs, Volume= 24,327 cf	
Outflow	=	7.48 cfs @12.09 hrs, Volume=24,327 cf, Atten= 0%, Lag= 0.0) min
Primary	=	7.48 cfs @ 12.09 hrs, Volume= 24,327 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.59' @ 12.11 hrs Flood Elev= 163.00'

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Device	Routing	Invert	Outlet Devices
#1	Primary	154.12'	24.0" Round Culvert L= 100.0' Ke= 0.500 Inlet / Outlet Invert= 154.12' / 153.62' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=6.67 cfs @ 12.09 hrs HW=155.56' TW=154.98' (Dynamic Tailwater)

Summary for Pond CE1: CB-E1

Inflow Area	=	5,639 sf, 95.66%	Impervious,	Inflow Depth >	3.89"	for 10-YR event
Inflow	=	0.53 cfs @ 12.09 hrs	s, Volume=	1,829 c	f	
Outflow	=	0.53 cfs @ 12.09 hrs	s, Volume=	1,829 c	f, Atter	n= 0%, Lag= 0.0 min
Primary	=	0.53 cfs @ 12.09 hrs	s, Volume=	1,829 c	f	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 161.22' @ 12.09 hrs Flood Elev= 164.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	160.85'	12.0" Round Culvert L= 101.0' Ke= 0.500 Inlet / Outlet Invert= 160.85' / 154.17' S= 0.0661 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.52 cfs @ 12.09 hrs HW=161.21' TW=154.46' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.52 cfs @ 2.04 fps)

Summary for Pond CE10: CB-E10

Inflow Area	a =	263,128 sf, 98.37% Impervious, Inflow Depth > 4.14" for 10-YR eve	ent
Inflow	=	25.26 cfs @ 12.09 hrs, Volume= 90,739 cf	
Outflow	=	25.26 cfs @ 12.09 hrs, Volume= 90,739 cf, Atten= 0%, Lag= 0.	0 min
Primary	=	25.26 cfs @ 12.09 hrs, Volume= 90,739 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 153.23' @ 12.33 hrs Flood Elev= 159.75'

Device	Routing	Invert	Outlet Devices
#1	Primary	150.52'	42.0" Round Culvert L= 43.0' Ke= 0.500 Inlet / Outlet Invert= 150.52' / 150.31' S= 0.0049 '/' Cc= 0.900 n= 0.012, Flow Area= 9.62 sf

Primary OutFlow Max=17.39 cfs @ 12.09 hrs HW=152.83' TW=152.48' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 17.39 cfs @ 3.66 fps)

Summary for Pond CE11: CB-E11

 Inflow Area =
 187,424 sf, 88.30% Impervious, Inflow Depth > 3.53" for 10-YR event

 Inflow =
 16.12 cfs @ 12.09 hrs, Volume=
 55,142 cf

 Outflow =
 16.12 cfs @ 12.09 hrs, Volume=
 55,142 cf, Atten= 0%, Lag= 0.0 min

 Primary =
 16.12 cfs @ 12.09 hrs, Volume=
 55,142 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 153.26' @ 12.32 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	150.93'	30.0" Round Culvert L= 104.0' Ke= 0.500 Inlet / Outlet Invert= 150.93' / 150.41' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=11.71 cfs @ 12.09 hrs HW=152.96' TW=152.49' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 11.71 cfs @ 3.73 fps)

Summary for Pond CE12: CB-E12

 Inflow Area =
 164,049 sf, 87.49% Impervious, Inflow Depth > 3.49" for 10-YR event

 Inflow =
 13.94 cfs @
 12.09 hrs, Volume=
 47,773 cf

 Outflow =
 13.94 cfs @
 12.09 hrs, Volume=
 47,773 cf, Atten= 0%, Lag= 0.0 min

 Primary =
 13.94 cfs @
 12.09 hrs, Volume=
 47,773 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 153.62' @ 12.12 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	151.66'	30.0" Round Culvert L= 127.0' Ke= 0.500 Inlet / Outlet Invert= 151.66' / 151.03' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=11.45 cfs @ 12.09 hrs HW=153.55' TW=152.96' (Dynamic Tailwater) -1=Culvert (Outlet Controls 11.45 cfs @ 3.97 fps)

Summary for Pond CE13: CB-E13

Inflow Area	a =	145,216 sf, 86.50% Impervious, Inflow Depth > 3.44" for 10-YR event	
Inflow	=	12.15 cfs @ 12.09 hrs, Volume= 41,664 cf	
Outflow	=	12.15 cfs @ 12.09 hrs, Volume= 41,664 cf, Atten= 0%, Lag= 0.0 mir	n
Primary	=	12.15 cfs @ 12.09 hrs, Volume= 41,664 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.32' @ 12.11 hrs Flood Elev= 159.50'

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Device	Routing	Invert	Outlet Devices
#1	Primary	152.57'	30.0" Round Culvert L= 161.0' Ke= 0.500 Inlet / Outlet Invert= 152.57' / 151.76' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=10.29 cfs @ 12.09 hrs HW=154.27' TW=153.56' (Dynamic Tailwater) ☐ 1=Culvert (Outlet Controls 10.29 cfs @ 4.09 fps)

Summary for Pond CE14: CB-E14

Inflow Area =	109,749 sf, 83.89% Impervious,	Inflow Depth > 3.30" for 10-YR event
Inflow =	8.80 cfs @ 12.09 hrs, Volume=	30,159 cf
Outflow =	8.80 cfs @ 12.09 hrs, Volume=	30,159 cf, Atten= 0%, Lag= 0.0 min
Primary =	8.80 cfs @ 12.09 hrs, Volume=	30,159 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.32' @ 12.10 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.85'	24.0" Round Culvert L= 155.0' Ke= 0.500 Inlet / Outlet Invert= 153.85' / 153.07' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=8.14 cfs @ 12.09 hrs HW=155.30' TW=154.27' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 8.14 cfs @ 4.67 fps)

Summary for Pond CE15: CB-E15

Inflow Area	a =	81,941 sf, 79.06% Impervious, Inflow Depth > 3.02" for 10-YR event	
Inflow	=	6.10 cfs @ 12.09 hrs, Volume= 20,620 cf	
Outflow	=	6.10 cfs @ 12.09 hrs, Volume= 20,620 cf, Atten= 0%, Lag= 0.0 min	
Primary	=	6.10 cfs @ 12.09 hrs, Volume= 20,620 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.94' @ 12.11 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	154.62'	24.0" Round Culvert L= 134.0' Ke= 0.500 Inlet / Outlet Invert= 154.62' / 153.95' S= 0.0050 '/' Cc= 0.900
			n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=5.49 cfs @ 12.09 hrs HW=155.91' TW=155.30' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 5.49 cfs @ 3.64 fps)

Summary for Pond CE16: CB-E16

Inflow Area =	49,549 sf, 66.59% Impervious,	Inflow Depth > 2.30" for 10-YR event
Inflow =	2.96 cfs @ 12.09 hrs, Volume=	9,508 cf
Outflow =	2.96 cfs @ 12.09 hrs, Volume=	9,508 cf, Atten= 0%, Lag= 0.0 min
Primary =	2.96 cfs @ 12.09 hrs, Volume=	9,508 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.65' @ 12.10 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.75'	18.0" Round Culvert L= 127.0' Ke= 0.500 Inlet / Outlet Invert= 155.75' / 155.12' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=2.67 cfs @ 12.09 hrs HW=156.64' TW=155.92' (Dynamic Tailwater) -1=Culvert (Outlet Controls 2.67 cfs @ 3.53 fps)

Summary for Pond CE17: CB-E17

Inflow Area	a =	120,518 sf,	0.00% Impervious,	Inflow Depth = 0.00" for 10-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf
Outflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.00 cfs @	0.00 hrs, Volume=	0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 161.49' @ 0.00 hrs Flood Elev= 163.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	161.49'	12.0" Round Culvert L= 64.0' Ke= 0.500
			Inlet / Outlet Invert= 161.49' / 160.85' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=161.49' TW=160.75' (Dynamic Tailwater)

Summary for Pond CE18: CB-E18

Inflow Area	a =	11,752 sf,	0.00% Impervious,	Inflow Depth = 0.00" for 10-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf
Outflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.00 cfs @	0.00 hrs, Volume=	0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.71' @ 12.24 hrs Flood Elev= 159.50'

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Device	Routing	Invert	Outlet Devices
#1	Primary	156.50'	12.0" Round Culvert L= 49.0' Ke= 0.500 Inlet / Outlet Invert= 156.50' / 156.25' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=156.50' TW=155.97' (Dynamic Tailwater) ☐ 1=Culvert (Controls 0.00 cfs)

Summary for Pond CE19: CB-E19

Inflow Area	=	75,753 sf,	0.00% Impervious,	Inflow Depth = 0.00"	for 10-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Outflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atten	n= 0%, Lag= 0.0 min
Primary :	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.37' @ 12.24 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.25'	12.0" Round Culvert L= 49.0' Ke= 0.500 Inlet / Outlet Invert= 157.25' / 157.00' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=157.25' TW=156.75' (Dynamic Tailwater)

Summary for Pond CE2: CB-E2

Inflow Area =	:	127,264 sf,	5.11% Impervious	Inflow Depth > 0.21	' for 10-YR event
Inflow =	C).65 cfs @	12.09 hrs, Volume=	2,251 cf	
Outflow =	C).65 cfs @	12.09 hrs, Volume=	2,251 cf, Att	en= 0%, Lag= 0.0 min
Primary =	C).65 cfs @	12.09 hrs, Volume=	2,251 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 161.16' @ 12.09 hrs Flood Elev= 164.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	160.75'	12.0" Round Culvert L= 101.0' Ke= 0.500 Inlet / Outlet Invert= 160.75' / 154.57' S= 0.0612 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.63 cfs @ 12.09 hrs HW=161.15' TW=154.85' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.63 cfs @ 2.15 fps)

Summary for Pond CE3: CB-E3

Inflow Area =	296,823 sf, 25.34% Impervious,	Inflow Depth > 0.99" for 10-YR event
Inflow =	7.38 cfs @ 12.09 hrs, Volume=	24,433 cf
Outflow =	7.38 cfs @ 12.09 hrs, Volume=	24,433 cf, Atten= 0%, Lag= 0.0 min
Primary =	7.38 cfs @ 12.09 hrs, Volume=	24,433 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.48' @ 12.09 hrs Flood Elev= 159.85'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.17'	24.0" Round Culvert L= 178.0' Ke= 0.500 Inlet / Outlet Invert= 153.17' / 152.28' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=7.20 cfs @ 12.09 hrs HW=154.46' TW=152.49' (Dynamic Tailwater) -1=Culvert (Barrel Controls 7.20 cfs @ 4.77 fps)

Summary for Pond CE4: CB-E4

Inflow Area =	280,987 sf	, 21.47% Impervious,	Inflow Depth > 0.83"	for 10-YR event
Inflow =	5.89 cfs @	12.09 hrs, Volume=	19,389 cf	
Outflow =	5.89 cfs @	12.09 hrs, Volume=	19,389 cf, Atte	n= 0%, Lag= 0.0 min
Primary =	5.89 cfs @	12.09 hrs, Volume=	19,389 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.89' @ 12.11 hrs Flood Elev= 159.85'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.57'	24.0" Round Culvert L= 60.0' Ke= 0.500 Inlet / Outlet Invert= 153.57' / 153.27' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=5.15 cfs @ 12.09 hrs HW=154.86' TW=154.46' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 5.15 cfs @ 3.43 fps)

Summary for Pond CE5: CB-E5

Inflow Area =	142,645 sf, 30.88% Impervious,	Inflow Depth > 1.17" for 10-YR event
Inflow =	4.27 cfs @ 12.09 hrs, Volume=	13,938 cf
Outflow =	4.27 cfs @ 12.09 hrs, Volume=	13,938 cf, Atten= 0%, Lag= 0.0 min
Primary =	4.27 cfs @ 12.09 hrs, Volume=	13,938 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.59' @ 12.09 hrs Flood Elev= 159.85'

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Device	Routing	Invert	Outlet Devices
#1	Primary	154.45'	18.0" Round Culvert L= 76.0' Ke= 0.500 Inlet / Outlet Invert= 154.45' / 154.07' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=4.18 cfs @ 12.09 hrs HW=155.58' TW=154.86' (Dynamic Tailwater)

Summary for Pond CE6: CB-E6

Inflow Area	=	132,905 sf	, 28.23% Impervious	Inflow Depth > 1.0	9" for 10-YR event
Inflow :	=	3.67 cfs @	12.09 hrs, Volume=	12,032 cf	
Outflow :	=	3.67 cfs @	12.09 hrs, Volume=	12,032 cf, A	tten= 0%, Lag= 0.0 min
Primary :	=	3.67 cfs @	12.09 hrs, Volume=	12,032 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.32' @ 12.10 hrs Flood Elev= 160.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.25'	18.0" Round Culvert L= 140.0' Ke= 0.500 Inlet / Outlet Invert= 155.25' / 154.55' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=3.37 cfs @ 12.09 hrs HW=156.30' TW=155.58' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 3.37 cfs @ 3.60 fps)

Summary for Pond CE7: CB-E7

Inflow Area	a =	119,690 sf, 23.92% Impervious, Inflow Depth > 0.95" for 10-YR even	nt
Inflow	=	2.85 cfs @ 12.09 hrs, Volume= 9,445 cf	
Outflow	=	2.85 cfs @12.09 hrs, Volume=9,445 cf, Atten= 0%, Lag= 0.0) min
Primary	=	2.85 cfs @ 12.09 hrs, Volume= 9,445 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.94' @ 12.10 hrs Flood Elev= 160.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.97'	15.0" Round Culvert L= 95.0' Ke= 0.500 Inlet / Outlet Invert= 155.97' / 155.50' S= 0.0049 '/' Cc= 0.900
			n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.63 cfs @ 12.09 hrs HW=156.93' TW=156.30' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 2.63 cfs @ 3.58 fps)

Summary for Pond CE8: CB-E8

Inflow Area =	98,838 sf, 20.60% Impervious,	Inflow Depth > 0.81" for 10-YR event
Inflow =	2.02 cfs @ 12.09 hrs, Volume=	6,657 cf
Outflow =	2.02 cfs @ 12.09 hrs, Volume=	6,657 cf, Atten= 0%, Lag= 0.0 min
Primary =	2.02 cfs @ 12.09 hrs, Volume=	6,657 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.59' @ 12.10 hrs Flood Elev= 160.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.75'	15.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 156.75' / 156.07' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.86 cfs @ 12.09 hrs HW=157.57' TW=156.93' (Dynamic Tailwater) -1=Culvert (Outlet Controls 1.86 cfs @ 3.11 fps)

Summary for Pond CE9: CB-E9

Inflow Area	a =	10,388 sf, 85.30% Impervious, Inflow Depth > 3.33" for 10-YR event	
Inflow	=	0.87 cfs @ 12.09 hrs, Volume= 2,879 cf	
Outflow	=	0.87 cfs @ 12.09 hrs, Volume= 2,879 cf, Atten= 0%, Lag= 0.0 min	
Primary	=	0.87 cfs @ 12.09 hrs, Volume= 2,879 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.53' @ 12.09 hrs Flood Elev= 162.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	159.05'	12.0" Round Culvert L= 94.0' Ke= 0.500
			Inlet / Outlet Invert= 159.05' / 157.00' S= 0.0218 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.85 cfs @ 12.09 hrs HW=159.52' TW=157.57' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.85 cfs @ 2.34 fps)

Summary for Pond CS13: CB-S13

Inflow Area =	=	25,168 sf,	88.89% Impervious,	Inflow Depth > 3.52'	for 10-YR event
Inflow =		2.24 cfs @	12.09 hrs, Volume=	7,386 cf	
Outflow =		2.24 cfs @	12.09 hrs, Volume=	7,386 cf, Atte	en= 0%, Lag= 0.0 min
Primary =		2.24 cfs @	12.09 hrs, Volume=	7,386 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.73' @ 12.09 hrs Flood Elev= 158.40'

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Device	Routing	Invert	Outlet Devices
#1	Primary	154.90'	15.0" Round Culvert L= 145.0' Ke= 0.500 Inlet / Outlet Invert= 154.90' / 154.18' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.12 cfs @ 12.09 hrs HW=155.72' TW=154.87' (Dynamic Tailwater)

Summary for Pond CS14: CB-S14

Inflow Area	=	11,820 sf,	88.58% Imperviou	s, Inflow Depth >	3.47"	for 10-YR event
Inflow	=	1.04 cfs @ 1	12.09 hrs, Volume	= 3,415 c	f	
Outflow	=	1.04 cfs @	12.09 hrs, Volume	= 3,415 c	f, Atter	n= 0%, Lag= 0.0 min
Primary	=	1.04 cfs @ ´	12.09 hrs, Volume	= 3,415 c	f	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.69' @ 12.09 hrs Flood Elev= 159.57'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.16'	12.0" Round Culvert L= 101.0' Ke= 0.500 Inlet / Outlet Invert= 156.16' / 155.15' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.01 cfs @ 12.09 hrs HW=156.68' TW=155.72' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 1.01 cfs @ 3.55 fps)

Summary for Pond DC1: DMH-C1

Inflow Area	a =	56,865 sf, 81.04% Impervious, Inflow Depth > 3.05" for 10-YR event	
Inflow	=	4.40 cfs @ 12.09 hrs, Volume= 14,458 cf	
Outflow	=	4.40 cfs @12.09 hrs, Volume=14,458 cf, Atten= 0%, Lag= 0.0 mi	nin
Primary	=	4.40 cfs @ 12.09 hrs, Volume= 14,458 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.76' @ 12.09 hrs Flood Elev= 162.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.74'	18.0" Round Culvert L= 155.0' Ke= 0.500 Inlet / Outlet Invert= 156.74' / 155.25' S= 0.0096 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=4.30 cfs @ 12.09 hrs HW=157.75' TW=156.08' (Dynamic Tailwater) -1=Culvert (Inlet Controls 4.30 cfs @ 3.41 fps)

Summary for Pond DC10: DMH-C10

Inflow Area =	252,000 sf,100.00% Impervious,	Inflow Depth > 4.23" for 10-YR event
Inflow =	24.67 cfs @ 12.09 hrs, Volume=	88,862 cf
Outflow =	24.67 cfs @ 12.09 hrs, Volume=	88,862 cf, Atten= 0%, Lag= 0.0 min
Primary =	24.67 cfs @ 12.09 hrs, Volume=	88,862 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 152.13' @ 12.09 hrs Flood Elev= 164.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	149.95'	36.0" Round Culvert L= 247.0' Ke= 0.500 Inlet / Outlet Invert= 149.95' / 148.72' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 7.07 sf

Primary OutFlow Max=24.00 cfs @ 12.09 hrs HW=152.10' TW=145.49' (Dynamic Tailwater) -1=Culvert (Barrel Controls 24.00 cfs @ 6.22 fps)

Summary for Pond DC11: DMH-C11

Inflow Are	a =	359,657 sf, 85.59% Impervious, Inflow Depth > 3.38" for 10-YR event
Inflow	=	30.03 cfs @ 12.09 hrs, Volume= 101,251 cf
Outflow	=	30.03 cfs @ 12.09 hrs, Volume= 101,251 cf, Atten= 0%, Lag= 0.0 min
Primary	=	30.03 cfs @ 12.09 hrs, Volume= 101,251 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 148.18' @ 12.09 hrs Flood Elev= 160.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	145.85'	42.0" Round Culvert L= 174.0' Ke= 0.500 Inlet / Outlet Invert= 145.85' / 144.98' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 9.62 sf

Primary OutFlow Max=29.29 cfs @ 12.09 hrs HW=148.14' TW=145.50' (Dynamic Tailwater) -1=Culvert (Barrel Controls 29.29 cfs @ 6.23 fps)

Summary for Pond DC2: DMH-C2

Inflow Area	=	7,200 sf,100.00% Impervious, Inflow Depth > 4.23" for 10-YR event	
Inflow	=	0.70 cfs @ 12.09 hrs, Volume= 2,539 cf	
Outflow	=	0.70 cfs @ 12.09 hrs, Volume= 2,539 cf, Atten= 0%, Lag= 0.0 mi	in
Primary	=	0.70 cfs @ 12.09 hrs, Volume= 2,539 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.22' @ 12.10 hrs Flood Elev= 164.00'

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475-POST	Type III 24-hr 10-YR Rainfall=4.47"
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Device	Routing	Invert	Outlet Devices
#1	Primary	157.75'	12.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 157.75' / 156.93' S= 0.0060 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.66 cfs @ 12.09 hrs HW=158.21' TW=157.45' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 0.66 cfs @ 2.71 fps)

Summary for Pond DC3: DMH-C3

Inflow Area	=	38,700 sf,100.00% Impervious, Inflow Depth > 4.23" for 10-YR event	
Inflow	=	3.79 cfs @ 12.09 hrs, Volume= 13,647 cf	
Outflow	=	3.79 cfs @_ 12.09 hrs, Volume= 13,647 cf, Atten= 0%, Lag= 0.0 mi	in
Primary	=	3.79 cfs @ 12.09 hrs, Volume= 13,647 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.46' @ 12.10 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.43'	18.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 156.43' / 155.75' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=3.43 cfs @ 12.09 hrs HW=157.45' TW=156.65' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 3.43 cfs @ 3.79 fps)

Summary for Pond DC4: DMH-C4

Inflow Area	=	70,200 sf,100.00% Impervious, Inflow Depth > 4.23" for 10-YR event	
Inflow	=	6.87 cfs @ 12.09 hrs, Volume= 24,754 cf	
Outflow	=	6.87 cfs @_12.09 hrs, Volume= 24,754 cf, Atten= 0%, Lag= 0.0 mi	n
Primary	=	6.87 cfs @ 12.09 hrs, Volume= 24,754 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.69' @ 12.11 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.25'	24.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 155.25' / 154.57' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=6.08 cfs @ 12.09 hrs HW=156.65' TW=156.06' (Dynamic Tailwater) -1=Culvert (Outlet Controls 6.08 cfs @ 3.63 fps)

Summary for Pond DC5: DMH-C5

Inflow Area =	101,700 sf,100.00% Impervious,	Inflow Depth > 4.23" for 10-YR event
Inflow =	9.96 cfs @ 12.09 hrs, Volume=	35,862 cf
Outflow =	9.96 cfs @ 12.09 hrs, Volume=	35,862 cf, Atten= 0%, Lag= 0.0 min
Primary =	9.96 cfs @ 12.09 hrs, Volume=	35,862 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.08' @ 12.10 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	154.47'	24.0" Round Culvert L= 117.0' Ke= 0.500 Inlet / Outlet Invert= 154.47' / 153.88' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=9.07 cfs @ 12.09 hrs HW=156.06' TW=155.19' (Dynamic Tailwater) -1=Culvert (Outlet Controls 9.07 cfs @ 4.65 fps)

Summary for Pond DC6: DMH-C6

Inflow Area =		130,275 sf,100.00% Impervious, Inflow Depth > 4.23" for 10-YR event
Inflow	=	12.75 cfs @ 12.09 hrs, Volume= 45,938 cf
Outflow	=	12.75 cfs @ 12.09 hrs, Volume= 45,938 cf, Atten= 0%, Lag= 0.0 min
Primary	=	12.75 cfs @ 12.09 hrs, Volume= 45,938 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.26' @ 12.12 hrs Flood Elev= 164.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.38'	30.0" Round Culvert L= 117.0' Ke= 0.500 Inlet / Outlet Invert= 153.38' / 152.79' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=10.11 cfs @ 12.09 hrs HW=155.19' TW=154.69' (Dynamic Tailwater) -1=Culvert (Outlet Controls 10.11 cfs @ 3.70 fps)

Summary for Pond DC7: DMH-C7

Inflow Are	a =	156,600 sf,100.00% Impervious, Inflow Depth > 4.23" for 10-YR event
Inflow	=	15.33 cfs @ 12.09 hrs, Volume= 55,221 cf
Outflow	=	15.33 cfs @ 12.09 hrs, Volume= 55,221 cf, Atten= 0%, Lag= 0.0 min
Primary	=	15.33 cfs @ 12.09 hrs, Volume= 55,221 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.75' @ 12.11 hrs Flood Elev= 160.80'

	FRIARS DRIVE POST DEVELOPMENT	-
475-POST	Type III 24-hr 10-YR Rainfall=4.47'	
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Device	Routing	Invert	Outlet Devices
#1	Primary	152.69'	30.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 152.69' / 152.01' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=13.47 cfs @ 12.09 hrs HW=154.69' TW=153.97' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 13.47 cfs @ 4.38 fps)

Summary for Pond DC8: DMH-C8

Inflow Area =		188,100 sf,100.00% Impervious, Inflow Depth > 4.23" for 10-YR event
Inflow	=	18.41 cfs @ 12.09 hrs, Volume= 66,329 cf
Outflow	=	18.41 cfs @ 12.09 hrs, Volume= 66,329 cf, Atten= 0%, Lag= 0.0 min
Primary	=	18.41 cfs @ 12.09 hrs, Volume= 66,329 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 153.99' @ 12.10 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	151.91'	30.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 151.91' / 151.23' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=16.77 cfs @ 12.09 hrs HW=153.97' TW=152.92' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 16.77 cfs @ 5.28 fps)

Summary for Pond DC9: DMH-C9

Inflow Area =		219,600 sf,100.00% Impervious, Inflow Depth > 4.23" for 10-YR even	nt
Inflow	=	21.50 cfs @ 12.09 hrs, Volume= 77,437 cf	
Outflow	=	21.50 cfs @ 12.09 hrs, Volume= 77,437 cf, Atten= 0%, Lag= 0.0) min
Primary	=	21.50 cfs @ 12.09 hrs, Volume= 77,437 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 152.98' @ 12.11 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	150.73'	36.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 150.73' / 150.05' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 7.07 sf

Primary OutFlow Max=19.09 cfs @ 12.09 hrs HW=152.92' TW=152.10' (Dynamic Tailwater) ☐ 1=Culvert (Outlet Controls 19.09 cfs @ 4.82 fps)

Summary for Pond DD1: DMH-D1

Inflow Area =	848,324 sf, 58.89% Impervious,	Inflow Depth > 2.37" for 10-YR event
Inflow =	20.00 cfs @ 12.23 hrs, Volume=	167,663 cf
Outflow =	20.00 cfs @ 12.23 hrs, Volume=	167,663 cf,Atten= 0%,Lag= 0.0 min
Primary =	20.00 cfs @ 12.23 hrs, Volume=	167,663 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 151.43' @ 12.30 hrs Flood Elev= 162.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	149.04'	30.0" Round Culvert L= 273.0' Ke= 0.500 Inlet / Outlet Invert= 149.04' / 147.67' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=19.66 cfs @ 12.23 hrs HW=151.41' TW=150.04' (Dynamic Tailwater) -1=Culvert (Outlet Controls 19.66 cfs @ 5.26 fps)

Summary for Pond DD2: DMH-D2

Inflow Area	a =	848,324 sf, 58.89% Impervious, Inflow Depth > 2.37" for 10-YR event
Inflow	=	20.00 cfs @ 12.23 hrs, Volume= 167,663 cf
Outflow	=	20.00 cfs @ 12.23 hrs, Volume= 167,663 cf, Atten= 0%, Lag= 0.0 min
Primary	=	20.00 cfs @ 12.23 hrs, Volume= 167,663 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 150.05' @ 12.29 hrs Flood Elev= 164.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	147.57'	30.0" Round Culvert L= 183.0' Ke= 0.500 Inlet / Outlet Invert= 147.57' / 146.66' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=19.76 cfs @ 12.23 hrs HW=150.04' TW=148.99' (Dynamic Tailwater) -1=Culvert (Outlet Controls 19.76 cfs @ 5.07 fps)

Summary for Pond DD3: DMH-D3

Inflow Area	a =	848,324 sf, 58.89% Impervious, Inflow Depth > 2.37" for 10-YR event
Inflow	=	20.00 cfs @ 12.23 hrs, Volume= 167,663 cf
Outflow	=	20.00 cfs @ 12.23 hrs, Volume= 167,663 cf, Atten= 0%, Lag= 0.0 min
Primary	=	20.00 cfs @ 12.23 hrs, Volume= 167,663 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 149.00' @ 12.26 hrs Flood Elev= 164.50'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 10-YR Rainfall=4.47"
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Device	Routing	Invert	Outlet Devices
#1	Primary	146.56'	30.0" Round Culvert L= 131.0' Ke= 0.500 Inlet / Outlet Invert= 146.56' / 145.91' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=19.89 cfs @ 12.23 hrs HW=148.99' TW=148.03' (Dynamic Tailwater) ☐ 1=Culvert (Outlet Controls 19.89 cfs @ 5.18 fps)

Summary for Pond DD4: DMH-DD4

Inflow Area	=	848,324 sf, 58.89% Impervious, Inflow Depth > 2.37" for 10-YR event	
Inflow	=	20.00 cfs @ 12.23 hrs, Volume= 167,663 cf	
Outflow	=	20.00 cfs @ 12.23 hrs, Volume= 167,663 cf, Atten= 0%, Lag= 0.0 min	۱
Primary	=	20.00 cfs @ 12.23 hrs, Volume= 167,663 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 148.03' @ 12.23 hrs Flood Elev= 152.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	145.81'	30.0" Round Culvert L= 133.0' Ke= 0.500 Inlet / Outlet Invert= 145.81' / 145.15' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=19.99 cfs @ 12.23 hrs HW=148.03' TW=143.89' (Dynamic Tailwater) **1=Culvert** (Barrel Controls 19.99 cfs @ 5.76 fps)

Summary for Pond DE1: DMH-E1

Inflow Area	a =	7,200 sf,100.00% Impervious, Inflow Depth > 4.23" for 10-YR event	
Inflow	=	0.70 cfs @ 12.09 hrs, Volume= 2,539 cf	
Outflow	=	0.70 cfs @_ 12.09 hrs, Volume= 2,539 cf, Atten= 0%, Lag= 0.0 m	in
Primary	=	0.70 cfs @ 12.09 hrs, Volume= 2,539 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.22' @ 12.10 hrs Flood Elev= 164.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.75'	12.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 157.75' / 156.93' S= 0.0060 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.66 cfs @ 12.09 hrs HW=158.21' TW=157.45' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 0.66 cfs @ 2.71 fps)

Summary for Pond DE2: DMH-E2

Inflow Area =	38,700 sf,100.00% Impervious,	Inflow Depth > 4.23" for 10-YR event
Inflow =	3.79 cfs @ 12.09 hrs, Volume=	13,647 cf
Outflow =	3.79 cfs @ 12.09 hrs, Volume=	13,647 cf, Atten= 0%, Lag= 0.0 min
Primary =	3.79 cfs @ 12.09 hrs, Volume=	13,647 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.46' @ 12.10 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.43'	18.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 156.43' / 155.75' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=3.43 cfs @ 12.09 hrs HW=157.45' TW=156.65' (Dynamic Tailwater) -1=Culvert (Outlet Controls 3.43 cfs @ 3.79 fps)

Summary for Pond DE3: DMH-E3

Inflow Area	a =	70,200 sf,100.00% Impervious, Inflow Depth > 4.23" for 10-YR event
Inflow	=	6.87 cfs @ 12.09 hrs, Volume= 24,754 cf
Outflow	=	6.87 cfs @ 12.09 hrs, Volume= 24,754 cf, Atten= 0%, Lag= 0.0 min
Primary	=	6.87 cfs @ 12.09 hrs, Volume= 24,754 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.69' @ 12.11 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.25'	24.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 155.25' / 154.57' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=6.08 cfs @ 12.09 hrs HW=156.65' TW=156.06' (Dynamic Tailwater) -1=Culvert (Outlet Controls 6.08 cfs @ 3.63 fps)

Summary for Pond DE4: DMH-E4

Inflow Area	ı =	101,700 sf,100.00% Impe	ervious, Inflow Depth >	4.23"	for 10-YR event
Inflow	=	9.96 cfs @ 12.09 hrs, Vo	olume= 35,862	cf	
Outflow	=	9.96 cfs @ 12.09 hrs, Vo	olume= 35,862	cf, Atten	= 0%, Lag= 0.0 min
Primary	=	9.96 cfs @ 12.09 hrs, Vo	olume= 35,862	cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.08' @ 12.09 hrs Flood Elev= 160.80'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 10-YR Rainfall=4.47"
Prepared by The Dubay Group, Inc.	Printed 10/5/2021
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Device	Routing	Invert	Outlet Devices
#1	Primary	154.47'	24.0" Round Culvert L= 117.0' Ke= 0.500 Inlet / Outlet Invert= 154.47' / 153.88' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=9.21 cfs @ 12.09 hrs HW=156.06' TW=155.17' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 9.21 cfs @ 4.72 fps)

Summary for Pond DE5: DMH-E5

Inflow Area	a =	130,275 sf,100.00% Impervious, Inflow Depth > 4.23" for 10-YR event	
Inflow	=	12.75 cfs @ 12.09 hrs, Volume= 45,938 cf	
Outflow	=	12.75 cfs @ 12.09 hrs, Volume= 45,938 cf, Atten= 0%, Lag= 0.0 min	I
Primary	=	12.75 cfs @ 12.09 hrs, Volume= 45,938 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.22' @ 12.11 hrs Flood Elev= 164.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.38'	30.0" Round Culvert L= 117.0' Ke= 0.500 Inlet / Outlet Invert= 153.38' / 152.79' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=11.25 cfs @ 12.09 hrs HW=155.17' TW=154.52' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 11.25 cfs @ 4.20 fps)

Summary for Pond DE6: DMH-E9

Inflow Area	a =	156,600 sf,100.00% Impervious	, Inflow Depth > 4.23" for 10-YR event
Inflow	=	15.33 cfs @ 12.09 hrs, Volume=	55,221 cf
Outflow	=	15.33 cfs @ 12.09 hrs, Volume=	55,221 cf, Atten= 0%, Lag= 0.0 min
Primary	=	15.33 cfs @ 12.09 hrs, Volume=	55,221 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.54' @ 12.09 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	152.69'	30.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 152.69' / 152.01' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=14.91 cfs @ 12.09 hrs HW=154.52' TW=153.34' (Dynamic Tailwater) ☐ 1=Culvert (Barrel Controls 14.91 cfs @ 5.42 fps)

Summary for Pond DE7: DMH-E7

Inflow Area =	252,000 sf,100.00% Impervious,	Inflow Depth > 4.23" for 10-YR event
Inflow =	24.67 cfs @ 12.09 hrs, Volume=	88,862 cf
Outflow =	24.67 cfs @ 12.09 hrs, Volume=	88,862 cf, Atten= 0%, Lag= 0.0 min
Primary =	24.67 cfs @ 12.09 hrs, Volume=	88,862 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 153.42' @ 12.12 hrs Flood Elev= 161.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	151.01'	42.0" Round Culvert L= 78.0' Ke= 0.500 Inlet / Outlet Invert= 151.01' / 150.62' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 9.62 sf

Primary OutFlow Max=19.83 cfs @ 12.09 hrs HW=153.34' TW=152.83' (Dynamic Tailwater) -1=Culvert (Outlet Controls 19.83 cfs @ 4.14 fps)

Summary for Pond DE8: DMH-E8

Inflow Area	a =	38,700 sf,100.00% Impervious, Inflow Depth > 4.23" for 10-YR event
Inflow	=	3.79 cfs @ 12.09 hrs, Volume= 13,647 cf
Outflow	=	3.79 cfs @ 12.09 hrs, Volume= 13,647 cf, Atten= 0%, Lag= 0.0 min
Primary	=	3.79 cfs @ 12.09 hrs, Volume= 13,647 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.36' @ 12.09 hrs Flood Elev= 164.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.43'	18.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 155.43' / 153.01' S= 0.0178 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=3.69 cfs @ 12.09 hrs HW=156.35' TW=153.34' (Dynamic Tailwater) -1=Culvert (Inlet Controls 3.69 cfs @ 3.26 fps)

Summary for Pond DE9: DMH-E9

Inflow Area	ı =	7,200 sf,100.00% Impervious, Inflow Depth > 4.23" for 10-YR event
Inflow	=	0.70 cfs @ 12.09 hrs, Volume= 2,539 cf
Outflow	=	0.70 cfs @ 12.09 hrs, Volume= 2,539 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.70 cfs @ 12.09 hrs, Volume= 2,539 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.07' @ 12.09 hrs Flood Elev= 164.00'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 10-YR Rainfall=4.47"
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Device	Routing	Invert	Outlet Devices
#1	Primary	158.65'	12.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 158.65' / 155.93' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.69 cfs @ 12.09 hrs HW=159.07' TW=156.35' (Dynamic Tailwater) ☐ 1=Culvert (Inlet Controls 0.69 cfs @ 2.20 fps)

Summary for Pond PC: POND C

Inflow Area =	683,407 sf, 81.92% Impervious,	Inflow Depth > 3.34" for 10-YR event
Inflow =	54.69 cfs @ 12.09 hrs, Volume=	190,113 cf
Outflow =	4.11 cfs @ 13.27 hrs, Volume=	190,068 cf, Atten= 92%, Lag= 71.0 min
Discarded =	4.11 cfs @ 13.27 hrs, Volume=	190,068 cf
Primary =	0.00 cfs @ 0.00 hrs, Volume=	0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 146.66' @ 13.27 hrs Surf.Area= 35,354 sf Storage= 79,079 cf Flood Elev= 150.00' Surf.Area= 44,250 sf Storage= 211,891 cf

Plug-Flow detention time= 167.9 min of	calculated for 189,673 cf (100% of inflow)
Center-of-Mass det. time= 167.4 min ((934.5 - 767.0)

Volume	Inver	t Avail.Sto	rage Storage	e Description		
#1	144.00	' 211,8	91 cf Custon	n Stage Data (Coni	c)Listed below (Re	ecalc)
Elevatio (fee		Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
144.(23,000	0	0	23,000	
146.0	00	33,700	56,360	56,360	33,766	
148.0	00	38,850	72,489	128,849	39,090	
150.0	00	44,250	83,041	211,891	44,679	
Device	Routing	Invert	Outlet Device	es		
#1	Discarded	144.00'	5.000 in/hr E	xfiltration over We	etted area Phase	e-In= 0.01'
#2	Primary	146.00'	24.0" Round	d Culvert L= 36.0'	Ke= 0 500	
	,		Inlet / Outlet n= 0.012, Flo	Invert= 146.00' / 144 ow Area= 3.14 sf	4.20' S= 0.0500 '/	" Cc= 0.900
#3	Device 2	149.00'		' Horiz. Orifice/Gra Fir flow at low heads		

Discarded OutFlow Max=4.11 cfs @ 13.27 hrs HW=146.66' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 4.11 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=144.00' TW=0.00' (Dynamic Tailwater) -2=Culvert (Controls 0.00 cfs) -3=Orifice/Grate (Controls 0.00 cfs)

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Summary for Pond PD: POND D

Inflow Area =	1,054,789 sf, 57.80% Impervious,	Inflow Depth > 2.29" for 10-YR event
Inflow =	29.39 cfs @ 12.11 hrs, Volume=	200,968 cf
Outflow =	3.43 cfs @ 14.39 hrs, Volume=	164,971 cf, Atten= 88%, Lag= 136.7 min
Discarded =	3.43 cfs @ 14.39 hrs, Volume=	164,971 cf
Primary =	0.00 cfs @ 0.00 hrs, Volume=	0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 146.13' @ 14.39 hrs Surf.Area= 29,417 sf Storage= 95,618 cf Flood Elev= 150.00' Surf.Area= 37,700 sf Storage= 225,094 cf

Plug-Flow detention time= 243.2 min calculated for 164,971 cf (82% of inflow) Center-of-Mass det. time= 172.4 min (970.1 - 797.6)

Volume	Inver	t Avail.Sto	rage Storage [Description		
#1	142.00	' 225,09	94 cf Custom	Stage Data (Coni	c) Listed below (Re	calc)
Elevatio (fee 142.0 144.0 146.0 148.0 150.0	2t) 00 00 00 00 00	Surf.Area (sq-ft) 18,500 22,150 29,150 33,300 37,700	Inc.Store (cubic-feet) 0 40,595 51,140 62,404 70,955	Cum.Store (cubic-feet) 0 40,595 91,735 154,139 225,094	Wet.Area (sq-ft) 18,500 22,287 29,378 33,713 38,311	
Device	Routing	Invert	Outlet Devices			
#1 #2	Discarded Primary	142.00' 146.00'	••••••	filtration over We	tted area Phase-	In= 0.01'
#2	Device 2	149.00'	Inlet / Outlet Invert= $146.00' / 144.17' = 0.000' / Cc= 0.900$ n= 0.012, Flow Area= 3.14 sf 36.0" x 48.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads			

Discarded OutFlow Max=3.43 cfs @ 14.39 hrs HW=146.13' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 3.43 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=142.00' TW=0.00' (Dynamic Tailwater) -2=Culvert (Controls 0.00 cfs)

3=Orifice/Grate (Controls 0.00 cfs)

Summary for Pond PE: POND E

Inflow Area =		848,324 sf,	, 58.89% Impervious	, Inflow Depth >	2.41"	for 10-YR event
Inflow =	48	3.75 cfs @	12.09 hrs, Volume=	170,315 c	f	
Outflow =	20).00 cfs @	12.23 hrs, Volume=	167,663 c	f, Atter	n= 59%, Lag= 8.4 min
Primary =	20).00 cfs @	12.23 hrs, Volume=	167,663 c	f	

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

FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 10-YR Rainfall=4.47" Printed 10/5/2021

Page 100

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 10-YR Rainfall=4.47"
Prepared by The Dubay Group, Inc.	Printed 10/5/2021
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Starting Elev= 150.00' Surf.Area= 9,000 sf Storage= 15,000 cf Peak Elev= 153.16' @ 12.30 hrs Surf.Area= 14,373 sf Storage= 51,739 cf (36,739 cf above start) Flood Elev= 160.00' Surf.Area= 30,200 sf Storage= 200,400 cf (185,400 cf above start)

Plug-Flow detention time= 111.2 min calculated for 152,346 cf (89% of inflow) Center-of-Mass det. time= 30.0 min (794.8 - 764.9)

Volume	Inve	rt Avail.Sto	rage S	Storage D	escription				
#1	148.00	0' 200,40	00 cf C	Custom S	tage Data (Pr	rismatic)	Listed below	/ (Recalc)	
Elevatio	on s	Surf.Area	Inc.S	tore	Cum.Store				
(fee	et)	(sq-ft)	(cubic-f	eet)	(cubic-feet)				
148.0	00	6,000		0	0				
150.0	00	9,000	15,	,000	15,000				
152.0	00	12,250	21,	250	36,250				
154.0	00	15,900	28,	150	64,400				
156.0	-	20,150	,	,050	100,450				
158.0		24,800	,	950	145,400				
160.0	00	30,200	55,	,000	200,400				
Device	Routing	Invert	Outlet	Devices					
#1	Primary	149.90'	Inlet / (Outlet Inv	ert= 149.90' / Area= 4.91 sf	149.14'		/' Cc= 0.900	
#2	Device 1	150.00'		,	ice/Grate C=				
#3	Device 1	157.50'			oriz. Orifice/G low at low hea		= 0.600		

Primary OutFlow Max=19.71 cfs @ 12.23 hrs HW=153.11' TW=151.41' (Dynamic Tailwater) **1=Culvert** (Passes 19.71 cfs of 30.60 cfs potential flow)

2=Orifice/Grate (Orifice Controls 19.71 cfs @ 6.27 fps)

-3=Orifice/Grate (Controls 0.00 cfs)

Summary for Pond PH: POND H

Inflow Area =	226,679 sf, 0.37% Impervious,	Inflow Depth > 0.02" for 10-YR event
Inflow =	0.01 cfs @ 13.62 hrs, Volume=	305 cf
Outflow =	0.00 cfs @ 0.00 hrs, Volume=	0 cf, Atten= 100%, Lag= 0.0 min
Primary =	0.00 cfs @ 0.00 hrs, Volume=	0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Starting Elev= 150.00' Surf.Area= 5,950 sf Storage= 13,653 cf Peak Elev= 150.05' @ 24.00 hrs Surf.Area= 6,011 sf Storage= 13,958 cf (305 cf above start) Flood Elev= 154.00' Surf.Area= 11,300 sf Storage= 47,909 cf (34,256 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow) Center-of-Mass det. time= (not calculated: no outflow)

475-POST

•	D® 10.00-26			Software Solutions L	LC	Page 102
Volume	Invert	Avail.Sto	rage Storage	Description		
#1	146.00'	47,90	09 cf Custom	Stage Data (Coni	c) Listed below (Recal	c)
Elevatio (fee		rf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
146.0 148.0		1,500 3,225	0 4,616	0 4,616	1,500 3,258	
150.0	00	5,950	9,037	13,653	6,024	
152.0 154.0		8,574 11,300	14,444 19,811	28,098 47,909	8,716 11,532	
Device	Routing	Invert	Outlet Devices	5		
#1	Primary	150.00'		Culvert L= 22.0'	Ke= 0.500 9.78' S= 0.0100 '/' C	° 0 000
				w Area= 1.23 sf	9.76 5-0.0100 / C	.c- 0.900
#2 #3	Device 1 Primary	150.00' 153.50'		fice/Grate C= 0.6 D" H Vert. Orifice/		
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=150.00' TW=152.00' (Dynamic Tailwater)						

1=Culvert (Controls 0.00 cfs)

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2=Orifice/Grate (Controls 0.00 cfs)

-3=Orifice/Grate (Controls 0.00 cfs)

Summary for Link L1: NORTHEAST PROPERTY CORNER

Inflow Are	a =	57,112 sf,	0.00% Impervious,	Inflow Depth = 0.00"	for 10-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Primary	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atter	n= 0%, Lag= 0.0 min

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

Summary for Link L2: RIVER

Inflow Area	a =	3,252,889 sf, 38.55% Impervious, Inflow Depth > 0.05" for 10-YR event	
Inflow	=	0.98 cfs @ 12.46 hrs, Volume= 14,615 cf	
Primary	=	0.98 cfs @ 12.46 hrs, Volume= 14,615 cf, Atten= 0%, Lag= 0.0 mir	n

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

Summary for Link L3: EX CULVERTS

Inflow Area	a =	2,621,305 sf, 46	6.88% Impervious,	Inflow Depth >	0.01"	for 10-YR event
Inflow	=	0.08 cfs @ 17.	.13 hrs, Volume=	2,304 cf		
Primary	=	0.08 cfs @ 17.	.13 hrs, Volume=	2,304 cf	, Atten	= 0%, Lag= 0.0 min

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

475-POSTFRIARS DRIVE POST DEVELOPMENT
Type III 24-hr 10-YR Rainfall=4.47"Prepared by The Dubay Group, Inc.Printed 10/5/2021
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Summary for Link L4: WEST PROPERTY LINE

Inflow Are	a =	212,906 sf,	0.00% Impervious,	Inflow Depth = 0.00"	for 10-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Primary	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atter	n= 0%, Lag= 0.0 min

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

Summary for Link L5: NORTHWEST PROPERTY CORNER

Inflow Area	a =	71,723 sf,	0.00% Impervious,	Inflow Depth = 0.00"	for 10-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Primary	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atter	n= 0%, Lag= 0.0 min

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

Summary for Link L6: FOX HOLLOW

Inflow Are	a =	24,585 sf,	0.00% Impervious,	Inflow Depth = 0.00"	for 10-YR event
Inflow	=	0.00 cfs @	0.00 hrs, Volume=	0 cf	
Primary	=	0.00 cfs @	0.00 hrs, Volume=	0 cf, Atter	n= 0%, Lag= 0.0 min

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

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 25-YR Rainfall=5.65"
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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-CN Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentA1: SUBCATA1	Runoff Area=4,895 sf 63.11% Impervious Runoff Depth>3.08" Tc=6.0 min CN=76 Runoff=0.40 cfs 1,255 cf
Subcatchment A2: SUBCAT A2	Runoff Area=5,412 sf 100.00% Impervious Runoff Depth>5.41" Tc=6.0 min CN=98 Runoff=0.67 cfs 2,439 cf
Subcatchment A3: SUBCAT A3	Runoff Area=5,889 sf 94.62% Impervious Runoff Depth>5.06" Tc=6.0 min CN=95 Runoff=0.71 cfs 2,484 cf
Subcatchment A4: SUBCAT A4	Runoff Area=6,616 sf 89.62% Impervious Runoff Depth>4.72" Tc=6.0 min CN=92 Runoff=0.77 cfs 2,604 cf
Subcatchment B: SUBCAT B	Runoff Area=24,585 sf 0.00% Impervious Runoff Depth>0.04" Tc=6.0 min CN=30 Runoff=0.00 cfs 81 cf
Subcatchment C1: SUBCAT C1	Runoff Area=6,254 sf 34.70% Impervious Runoff Depth>1.62" Tc=6.0 min CN=59 Runoff=0.25 cfs 843 cf
Subcatchment C10: SUBCAT C10	Runoff Area=26,752 sf 95.25% Impervious Runoff Depth>5.06" Tc=6.0 min CN=95 Runoff=3.25 cfs 11,282 cf
Subcatchment C11: SUBCAT C11	Runoff Area=6,044 sf 71.33% Impervious Runoff Depth>3.56" Tc=6.0 min CN=81 Runoff=0.57 cfs 1,795 cf
Subcatchment C12: SUBCAT C12	Runoff Area=8,341 sf 76.62% Impervious Runoff Depth>3.87" Tc=6.0 min CN=84 Runoff=0.84 cfs 2,688 cf
Subcatchment C13: SUBCAT C13	Runoff Area=3,872 sf 77.27% Impervious Runoff Depth>3.97" Tc=6.0 min CN=85 Runoff=0.40 cfs 1,281 cf
Subcatchment C14: SUBCAT C14	Runoff Area=2,992 sf 100.00% Impervious Runoff Depth>5.41" Tc=6.0 min CN=98 Runoff=0.37 cfs 1,349 cf
Subcatchment C15: SUBCAT C15	Runoff Area=3,872 sf 81.40% Impervious Runoff Depth>4.18" Tc=6.0 min CN=87 Runoff=0.42 cfs 1,349 cf
Subcatchment C16: SUBCAT C16	Runoff Area=2,992 sf 100.00% Impervious Runoff Depth>5.41" Tc=6.0 min CN=98 Runoff=0.37 cfs 1,349 cf
Subcatchment C17: SUBCAT C17	Runoff Area=25,506 sf 95.04% Impervious Runoff Depth>5.06" Tc=6.0 min CN=95 Runoff=3.09 cfs 10,757 cf
Subcatchment C18: SUBCAT C18	Runoff Area=27,087 sf 99.38% Impervious Runoff Depth>5.41" Tc=6.0 min CN=98 Runoff=3.36 cfs 12,209 cf
Subcatchment C19: SUBCAT C19	Runoff Area=41,584 sf 80.98% Impervious Runoff Depth>4.18" Tc=6.0 min CN=87 Runoff=4.46 cfs 14,485 cf

FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 25-YR Rainfall=5.65"

475-POST	Type III 24-hr 25-YR Rainfall=5.65"
Prepared by The Dubay Group, Inc.	Printed 10/5/2021
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Subcatchment C2: SUBCAT C2	Runoff Area=4,249 sf 80.40% Impervious Runoff Depth>4.07" Tc=6.0 min CN=86 Runoff=0.45 cfs 1,443 cf
Subcatchment C20: SUBCAT C20	Runoff Area=3,692 sf 81.61% Impervious Runoff Depth>4.18" Tc=6.0 min CN=87 Runoff=0.40 cfs 1.286 cf
	10-0.0 min CN-07 Runon-0.40 CIS 1,200 CI
Subcatchment C21: SUBCAT C21	Runoff Area=3,610 sf 79.03% Impervious Runoff Depth>4.07"
	Tc=6.0 min CN=86 Runoff=0.38 cfs 1,226 cf
Subcatchment C22: SUBCAT C22	Runoff Area=3,940 sf 77.16% Impervious Runoff Depth>3.97"
	Tc=6.0 min CN=85 Runoff=0.41 cfs 1,304 cf
Subcatchment C23: SUBCAT C23	Runoff Area=3,424 sf 90.30% Impervious Runoff Depth>4.72"
	Tc=6.0 min CN=92 Runoff=0.40 cfs 1,347 cf
Subcatchment C24: SUBCAT C24	Runoff Area=11,181 sf 56.94% Impervious Runoff Depth>2.80"
Subcalchment C24. SOBCAT C24	Tc=6.0 min $CN=73$ Runoff=0.83 cfs 2,607 cf
Subcatchment C25: SUBCAT C25	Runoff Area=5,747 sf 100.00% Impervious Runoff Depth>5.41" Tc=6.0 min CN=98 Runoff=0.71 cfs 2,590 cf
Subcatchment C26: SUBCAT C26	Runoff Area=2,533 sf 92.22% Impervious Runoff Depth>4.83" Tc=6.0 min CN=93 Runoff=0.30 cfs 1,020 cf
Subcatchment C27: SUBCAT C27	Runoff Area=8,243 sf 88.85% Impervious Runoff Depth>4.61"
	Tc=6.0 min CN=91 Runoff=0.95 cfs 3,168 cf
Subcatchment C28: SUBCAT C28	Runoff Area=9,089 sf 85.50% Impervious Runoff Depth>4.39"
	Tc=6.0 min CN=89 Runoff=1.01 cfs 3,328 cf
Subcatchment C29: SUBCAT C29	Runoff Area=4,785 sf 67.29% Impervious Runoff Depth>3.37"
	Tc=6.0 min CN=79 Runoff=0.42 cfs 1,342 cf
Subcatchment C3: SUBCAT C3	Runoff Area=1,309 sf 87.47% Impervious Runoff Depth>4.61"
	Tc=6.0 min CN=91 Runoff=0.15 cfs 503 cf
Subcatchment C30: SUBCAT C30	Runoff Area=3,220 sf 100.00% Impervious Runoff Depth>5.41"
	Tc=6.0 min CN=98 Runoff=0.40 cfs 1,451 cf
Subcatchment C31: SUBCAT C31	Runoff Area=9,362 sf 86.57% Impervious Runoff Depth>4.50"
	Tc=6.0 min CN=90 Runoff=1.06 cfs 3,513 cf
Subcatchment C32: SUBCAT C32	Runoff Area=4,710 sf 67.69% Impervious Runoff Depth>3.37"
	Tc=6.0 min CN=79 Runoff=0.42 cfs $1,321$ cf
Subactabrant C22, SUDCAT C22	Pupoff Aroa-6 121 of 52 05% Importance Pupoff Deaths 2 40"
Subcatchment C33: SUBCAT C33	Runoff Area=6,131 sf 52.05% Impervious Runoff Depth>2.10" Tc=6.0 min CN=65 Runoff=0.33 cfs 1,072 cf
SubcatchmentC34: SUBCATC34	Runoff Area=8,792 sf 87.89% Impervious Runoff Depth>4.61" Tc=6.0 min CN=91 Runoff=1.01 cfs 3,379 cf

FI	RIARS DRIVE POST DEVELOPMENT
	Type III 24-hr 25-YR Rainfall=5.65"

475-POST Prepared by The Dubay Group, Inc. Printed 10/5/2021 HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLC Page 3 Runoff Area=3,541 sf 65.66% Impervious Runoff Depth>3.27" Subcatchment C35: SUBCAT C35 Tc=6.0 min CN=78 Runoff=0.31 cfs 965 cf Subcatchment C36: SUBCAT C36 Runoff Area=4,686 sf 33.91% Impervious Runoff Depth>1.18" Tc=6.0 min CN=53 Runoff=0.12 cfs 460 cf Runoff Area=10,601 sf 53.01% Impervious Runoff Depth>2.53" Subcatchment C37: SUBCAT C37 Tc=6.0 min CN=70 Runoff=0.70 cfs 2,233 cf Runoff Area=6,400 sf 79.30% Impervious Runoff Depth>4.07" Subcatchment C38: SUBCAT C38 Tc=6.0 min CN=86 Runoff=0.67 cfs 2,173 cf Subcatchment C4: SUBCAT C4 Runoff Area=5,937 sf 33.28% Impervious Runoff Depth>1.62" Tc=6.0 min CN=59 Runoff=0.23 cfs 800 cf Runoff Area=5,125 sf 32.45% Impervious Runoff Depth>1.54" Subcatchment C5: SUBCAT C5 Tc=6.0 min CN=58 Runoff=0.19 cfs 658 cf Subcatchment C6: SUBCAT C6 Runoff Area=2,104 sf 100.00% Impervious Runoff Depth>5.41" Tc=6.0 min CN=98 Runoff=0.26 cfs 948 cf Runoff Area=2,469 sf 80.19% Impervious Runoff Depth>4.07" Subcatchment C7: SUBCAT C7 Tc=6.0 min CN=86 Runoff=0.26 cfs 838 cf Subcatchment C8: SUBCAT C8 Runoff Area=31,789 sf 87.55% Impervious Runoff Depth>4.61" Tc=6.0 min CN=91 Runoff=3.66 cfs 12,217 cf Runoff Area=26,752 sf 99.34% Impervious Runoff Depth>5.41" Subcatchment C9: SUBCAT C9 Tc=6.0 min CN=98 Runoff=3.32 cfs 12,058 cf Subcatchment D1: SUBCAT D1 Runoff Area=6,306 sf 100.00% Impervious Runoff Depth>5.41" Tc=6.0 min CN=98 Runoff=0.78 cfs 2,842 cf Runoff Area=8,279 sf 85.05% Impervious Runoff Depth>4.39" Subcatchment D10: SUBCAT D10 Tc=6.0 min CN=89 Runoff=0.92 cfs 3,031 cf Subcatchment D11: SUBCAT D11 Runoff Area=22,108 sf 71.77% Impervious Runoff Depth>3.56" Tc=6.0 min CN=81 Runoff=2.07 cfs 6,565 cf Runoff Area=8,350 sf 88.55% Impervious Runoff Depth>4.61" Subcatchment D12: SUBCAT D12 Tc=6.0 min CN=91 Runoff=0.96 cfs 3,209 cf Subcatchment D2: SUBCAT D2 Runoff Area=1,690 sf 84.14% Impervious Runoff Depth>4.39" Tc=6.0 min CN=89 Runoff=0.19 cfs 619 cf Runoff Area=34,598 sf 51.01% Impervious Runoff Depth>2.44" Subcatchment D3: SUBCAT D3 Tc=6.0 min CN=69 Runoff=2.21 cfs 7,034 cf Subcatchment D4: SUBCAT D4

Runoff Area=3,657 sf 72.49% Impervious Runoff Depth>3.66" Tc=6.0 min CN=82 Runoff=0.35 cfs 1,116 cf

FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 25-YR Rainfall=5 65"

475-POST	Type III 24-hr 25-YR Rainfall=5.65"
Prepared by The Dubay Group, Inc.	Printed 10/5/2021
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SubcatchmentD5: SUBCAT D5	Runoff Area=6,341 sf 62.81% Impervious Runoff Depth>3.08" Tc=6.0 min CN=76 Runoff=0.52 cfs 1,626 cf
Subcatchment D6: SUBCAT D6	Runoff Area=6,633 sf 75.95% Impervious Runoff Depth>3.87" Tc=6.0 min CN=84 Runoff=0.67 cfs 2,137 cf
SubcatchmentD7: SUBCAT D7	Runoff Area=17,040 sf 81.32% Impervious Runoff Depth>4.18" Tc=6.0 min CN=87 Runoff=1.83 cfs 5,936 cf
Subcatchment D8: SUBCAT D8	Runoff Area=7,740 sf 84.12% Impervious Runoff Depth>4.39" Tc=6.0 min CN=89 Runoff=0.86 cfs 2,834 cf
Subcatchment D9: SUBCAT D9	Runoff Area=19,265 sf 81.28% Impervious Runoff Depth>4.18" Tc=6.0 min CN=87 Runoff=2.07 cfs 6,711 cf
Subcatchment E1: SUBCAT E1	Runoff Area=5,639 sf 95.66% Impervious Runoff Depth>5.06" Tc=6.0 min CN=95 Runoff=0.68 cfs 2,378 cf
Subcatchment E10: SUBCAT E10	Runoff Area=11,128 sf 61.34% Impervious Runoff Depth>2.98" Tc=6.0 min CN=75 Runoff=0.88 cfs 2,766 cf
Subcatchment E11: SUBCAT E11	Runoff Area=23,375 sf 93.96% Impervious Runoff Depth>4.95" Tc=6.0 min CN=94 Runoff=2.81 cfs 9,636 cf
Subcatchment E12: SUBCAT E12	Runoff Area=18,833 sf 95.13% Impervious Runoff Depth>5.06" Tc=6.0 min CN=95 Runoff=2.29 cfs 7,942 cf
Subcatchment E13: SUBCAT E13	Runoff Area=35,467 sf 94.58% Impervious Runoff Depth>5.06" Tc=6.0 min CN=95 Runoff=4.30 cfs 14,958 cf
Subcatchment E14: SUBCAT E14	Runoff Area=27,808 sf 98.14% Impervious Runoff Depth>5.29" Tc=6.0 min CN=97 Runoff=3.43 cfs 12,263 cf
Subcatchment E15: SUBCAT E15	Runoff Area=32,392 sf 98.14% Impervious Runoff Depth>5.29" Tc=6.0 min CN=97 Runoff=4.00 cfs 14,284 cf
Subcatchment E16: SUBCAT E16	Runoff Area=30,721 sf 76.36% Impervious Runoff Depth>3.87" Tc=6.0 min CN=84 Runoff=3.09 cfs 9,900 cf
Subcatchment E17: SUBCAT E17	Runoff Area=120,518 sf 0.00% Impervious Runoff Depth>0.04" Flow Length=190' Tc=7.2 min CN=30 Runoff=0.01 cfs 396 cf
Subcatchment E18: SUBCAT E18	Runoff Area=11,752 sf 0.00% Impervious Runoff Depth>0.04" Tc=6.0 min CN=30 Runoff=0.00 cfs 39 cf
Subcatchment E19: SUBCAT E19	Runoff Area=75,753 sf 0.00% Impervious Runoff Depth>0.04" Tc=6.0 min CN=30 Runoff=0.01 cfs 249 cf
Subcatchment E2: SUBCAT E2	Runoff Area=6,746 sf 96.37% Impervious Runoff Depth>5.18" Tc=6.0 min CN=96 Runoff=0.83 cfs 2,910 cf

475-POST

Prepared by The Dubay Group, Inc. Printed 10/5/2021 HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLC Page 5 Runoff Area=10,197 sf 93.34% Impervious Runoff Depth>4.95" Subcatchment E3: SUBCAT E3 Tc=6.0 min CN=94 Runoff=1.22 cfs 4,204 cf Subcatchment E4: SUBCAT E4 Runoff Area=11,078 sf 88.18% Impervious Runoff Depth>4.61" Tc=6.0 min CN=91 Runoff=1.28 cfs 4,258 cf Runoff Area=9,740 sf 67.06% Impervious Runoff Depth>3.37" Subcatchment E5: SUBCAT E5 Tc=6.0 min CN=79 Runoff=0.86 cfs 2,732 cf Runoff Area=13,215 sf 67.23% Impervious Runoff Depth>3.37" Subcatchment E6: SUBCAT E6 Tc=6.0 min CN=79 Runoff=1.17 cfs 3,707 cf Subcatchment E7: SUBCAT E7 Runoff Area=9,100 sf 90.92% Impervious Runoff Depth>4.83" Tc=6.0 min CN=93 Runoff=1.08 cfs 3,666 cf Subcatchment E8: SUBCAT E8 Runoff Area=12,697 sf 90.53% Impervious Runoff Depth>4.72" Tc=6.0 min CN=92 Runoff=1.49 cfs 4,997 cf Subcatchment E9: SUBCAT E9 Runoff Area=3,988 sf 94.93% Impervious Runoff Depth>5.06" Tc=6.0 min CN=95 Runoff=0.48 cfs 1,682 cf Runoff Area=203,535 sf 0.00% Impervious Runoff Depth>0.04" Subcatchment G1: SUBCAT G1 Flow Length=1,090' Tc=11.8 min CN=30 Runoff=0.02 cfs 664 cf Runoff Area=318,471 sf 7.84% Impervious Runoff Depth>0.66" Subcatchment K: SUBCAT K Flow Length=1,223' Tc=10.6 min CN=45 Runoff=2.58 cfs 17,610 cf SubcatchmentL: SUBCATL Runoff Area=313,113 sf 0.00% Impervious Runoff Depth>0.50" Tc=6.0 min CN=42 Runoff=1.61 cfs 13,007 cf Subcatchment R1: SUBCAT R1 Runoff Area=7,200 sf 100.00% Impervious Runoff Depth>5.41" Tc=6.0 min CN=98 Runoff=0.89 cfs 3,245 cf Runoff Area=32,400 sf 100.00% Impervious Runoff Depth>5.41" Subcatchment R10: SUBCAT R10 Tc=6.0 min CN=98 Runoff=4.02 cfs 14,604 cf Subcatchment R11: SUBCAT R11 Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>5.41" Tc=6.0 min CN=98 Runoff=3.91 cfs 14,199 cf Subcatchment R12: SUBCAT R12 Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>5.41" Tc=6.0 min CN=98 Runoff=3.91 cfs 14,199 cf Runoff Area=26,325 sf 100.00% Impervious Runoff Depth>5.41" Subcatchment R13: SUBCAT R13 Tc=6.0 min CN=98 Runoff=3.27 cfs 11,866 cf Runoff Area=28,575 sf 100.00% Impervious Runoff Depth>5.41" Subcatchment R14: SUBCAT R14 Tc=6.0 min CN=98 Runoff=3.54 cfs 12,880 cf Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>5.41" Subcatchment R15: SUBCAT R15 Tc=6.0 min CN=98 Runoff=3.91 cfs 14,199 cf

FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 25-YR Rainfall=5.65"

475-POST Prepared by The Dubay Group, Inc. Printed 10/5/2021 HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLC Page 6 Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>5.41" Subcatchment R16: SUBCAT R16 Tc=6.0 min CN=98 Runoff=3.91 cfs 14,199 cf Subcatchment R17: SUBCAT R17 Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>5.41" Tc=6.0 min CN=98 Runoff=3.91 cfs 14,199 cf Runoff Area=7,200 sf 100.00% Impervious Runoff Depth>5.41" Subcatchment R18: SUBCAT R18 Tc=6.0 min CN=98 Runoff=0.89 cfs 3,245 cf Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>5.41" Subcatchment R2: SUBCAT R2 Tc=6.0 min CN=98 Runoff=3.91 cfs 14,199 cf Runoff Area=56,700 sf 100.00% Impervious Runoff Depth>5.41" Subcatchment R3: SUBCAT R3 Tc=6.0 min CN=98 Runoff=7.03 cfs 25,557 cf Subcatchment R4: SUBCAT R4 Runoff Area=26,325 sf 100.00% Impervious Runoff Depth>5.41" Tc=6.0 min CN=98 Runoff=3.27 cfs 11,866 cf Subcatchment R5: SUBCAT R5 Runoff Area=28,575 sf 100.00% Impervious Runoff Depth>5.41" Tc=6.0 min CN=98 Runoff=3.54 cfs 12,880 cf Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>5.41" Subcatchment R6: SUBCAT R6 Tc=6.0 min CN=98 Runoff=3.91 cfs 14,199 cf Subcatchment R7: SUBCAT R7 Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>5.41" Tc=6.0 min CN=98 Runoff=3.91 cfs 14,199 cf Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>5.41" Subcatchment R8: SUBCAT R8 Tc=6.0 min CN=98 Runoff=3.91 cfs 14,199 cf Subcatchment R9: SUBCAT R9 Runoff Area=7,200 sf 100.00% Impervious Runoff Depth>5.41" Tc=6.0 min CN=98 Runoff=0.89 cfs 3,245 cf Runoff Area=57,112 sf 0.00% Impervious Runoff Depth>0.04" Subcatchment S1: SUBCAT S1 Tc=6.0 min CN=30 Runoff=0.01 cfs 188 cf Runoff Area=96,652 sf 6.11% Impervious Runoff Depth>0.15" Subcatchment S10: SUBCAT S10 Flow Length=455' Tc=12.0 min CN=34 Runoff=0.04 cfs 1,178 cf Runoff Area=113,276 sf 14.81% Impervious Runoff Depth>0.40" Subcatchment S11: SUBCAT S11 Flow Length=327' Tc=6.0 min CN=40 Runoff=0.39 cfs 3,747 cf Subcatchment S12: SUBCAT S12 Runoff Area=23,144 sf 3.59% Impervious Runoff Depth>0.45" Tc=6.0 min CN=41 Runoff=0.10 cfs 862 cf Runoff Area=13,348 sf 89.17% Impervious Runoff Depth>4.72" Subcatchment S13: SUBCAT S13 Tc=6.0 min CN=92 Runoff=1.56 cfs 5.253 cf Runoff Area=11,820 sf 88.58% Impervious Runoff Depth>4.61" Subcatchment S14: SUBCAT S14 Tc=6.0 min CN=91 Runoff=1.36 cfs 4,543 cf 475-POST

FRIARS DRIVE POST DEVELOPMENT

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SubcatchmentS2: SUBCATS2	Runoff Area=71,723 sf 0.00% Impervious Runoff Depth>0.04" Tc=6.0 min CN=30 Runoff=0.01 cfs 236 cf
SubcatchmentS3: SUBCATS3	Runoff Area=100,949 sf 0.00% Impervious Runoff Depth>0.04" Tc=6.0 min CN=30 Runoff=0.01 cfs 332 cf
Subcatchment S4: SUBCAT S4	Runoff Area=212,906 sf 0.00% Impervious Runoff Depth>0.04" Flow Length=530' Tc=11.7 min CN=30 Runoff=0.02 cfs 695 cf
SubcatchmentS5: SUBCATS5	Runoff Area=52,646 sf 0.00% Impervious Runoff Depth>0.04" Tc=6.0 min CN=30 Runoff=0.01 cfs 173 cf
SubcatchmentS6: SUBCATS6	Runoff Area=71,750 sf 0.00% Impervious Runoff Depth>0.04" Tc=6.0 min CN=30 Runoff=0.01 cfs 236 cf
Subcatchment S8: SUBCAT S8	Runoff Area=446,502 sf 8.05% Impervious Runoff Depth>0.18" Flow Length=2,253' Tc=13.6 min CN=35 Runoff=0.26 cfs 6,738 cf
Reach ER4: EX REACH 4 n=0.030 L=1	Avg. Flow Depth=0.02' Max Vel=0.46 fps Inflow=0.26 cfs 4,839 cf I,291.0' S=0.0187 '/' Capacity=176.06 cfs Outflow=0.19 cfs 4,587 cf
Reach ER5: EX REACH 5 n=0.030 L=1,	Avg. Flow Depth=0.03' Max Vel=0.67 fps Inflow=0.45 cfs 11,325 cf 085.0' S=0.0224 '/' Capacity=192.80 cfs Outflow=0.44 cfs 10,949 cf
Reach RG: REACH G 12.0" Round Pipe n=0.01	Avg. Flow Depth=0.04' Max Vel=1.90 fps Inflow=0.02 cfs 664 cf 2 L=180.0' S=0.0278 '/' Capacity=6.43 cfs Outflow=0.02 cfs 662 cf
Reach W1: WETLAND REACH 1 n=0.03	Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf 0 L=420.0' S=0.0190 '/' Capacity=177.62 cfs Outflow=0.00 cfs 0 cf
Reach W2: WETLAND REACH 2 n=0.030 L	Avg. Flow Depth=0.03' Max Vel=0.40 fps Inflow=0.39 cfs 3,747 cf =480.0' S=0.0083 '/' Capacity=117.48 cfs Outflow=0.26 cfs 3,661 cf
Pond CA1: CB-A1 12.0" Ro	Peak Elev=156.29' Inflow=1.07 cfs 3,695 cf ound Culvert n=0.012 L=83.0' S=0.0100 '/' Outflow=1.07 cfs 3,695 cf
Pond CA2: CB-A2 12.0" Ro	Peak Elev=156.69' Inflow=0.67 cfs 2,439 cf ound Culvert n=0.012 L=41.0' S=0.0100 '/' Outflow=0.67 cfs 2,439 cf
Pond CA3: CB-A3 18.0" Rour	Peak Elev=155.05' Inflow=4.41 cfs 14,883 cf nd Culvert n=0.012 L=169.0' S=0.0050 '/' Outflow=4.41 cfs 14,883 cf
Pond CA4: CB-A4 12.0" Ro	Peak Elev=155.43' Inflow=0.77 cfs 2,604 cf ound Culvert n=0.012 L=50.0' S=0.0100 '/' Outflow=0.77 cfs 2,604 cf
Pond CC1: CB-C1 12.0"	Peak Elev=159.59' Inflow=0.25 cfs 843 cf Round Culvert n=0.012 L=33.0' S=0.0048 '/' Outflow=0.25 cfs 843 cf
Pond CC10: CB-C10 30.0" Round	Peak Elev=153.91' Inflow=20.07 cfs 68,328 cf d Culvert n=0.012 L=170.0' S=0.0050 '/' Outflow=20.07 cfs 68,328 cf

FRIARS DRIVE POST DEVELOPMENT

475-POST	Type III 24-hr 25-YR Rainfall=5.65"
Prepared by The Dubay	Group, Inc. Printed 10/5/2021 7602 © 2020 HydroCAD Software Solutions LLC Page 8
Pond CC11: CB-C11	Peak Elev=156.13' Inflow=0.57 cfs 1,795 cf 12.0" Round Culvert n=0.012 L=30.0' S=0.0200 '/' Outflow=0.57 cfs 1,795 cf
Pond CC12: CB-C12	Peak Elev=149.54' Inflow=11.56 cfs 38,748 cf 24.0" Round Culvert n=0.012 L=70.0' S=0.0050 '/' Outflow=11.56 cfs 38,748 cf
Pond CC13: CB-C13	Peak Elev=156.06' Inflow=0.40 cfs 1,281 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0200 '/' Outflow=0.40 cfs 1,281 cf
Pond CC14: CB-C14	Peak Elev=150.42' Inflow=10.16 cfs 34,265 cf 24.0" Round Culvert n=0.012 L=172.0' S=0.0050 '/' Outflow=10.16 cfs 34,265 cf
Pond CC15: CB-C15	Peak Elev=156.07' Inflow=0.42 cfs 1,349 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0200 '/' Outflow=0.42 cfs 1,349 cf
Pond CC16: CB-C16	Peak Elev=151.25' Inflow=9.39 cfs 31,635 cf 24.0" Round Culvert n=0.012 L=172.0' S=0.0050 '/' Outflow=9.39 cfs 31,635 cf
Pond CC17: CB-C17	Peak Elev=154.60' Inflow=16.83 cfs 57,045 cf 30.0" Round Culvert n=0.012 L=165.0' S=0.0050 '/' Outflow=16.83 cfs 57,045 cf
Pond CC18: CB-C18	Peak Elev=155.26' Inflow=13.73 cfs 46,289 cf 30.0" Round Culvert n=0.012 L=168.0' S=0.0050 '/' Outflow=13.73 cfs 46,289 cf
Pond CC19: CB-C19	Peak Elev=156.37' Inflow=10.37 cfs 34,079 cf 24.0" Round Culvert n=0.012 L=181.0' S=0.0050 '/' Outflow=10.37 cfs 34,079 cf
Pond CC2: CB-C2	Peak Elev=159.49' Inflow=0.69 cfs 2,286 cf 12.0" Round Culvert n=0.012 L=56.0' S=0.0050 '/' Outflow=0.69 cfs 2,286 cf
Pond CC20: CB-C20	Peak Elev=152.10' Inflow=8.60 cfs 28,938 cf 24.0" Round Culvert n=0.012 L=169.0' S=0.0050 '/' Outflow=8.60 cfs 28,938 cf
Pond CC21: CB-C21	Peak Elev=156.05' Inflow=0.38 cfs 1,226 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0200 '/' Outflow=0.38 cfs 1,226 cf
Pond CC22: CB-C22	Peak Elev=156.07' Inflow=0.41 cfs 1,304 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0200 '/' Outflow=0.41 cfs 1,304 cf
Pond CC23: CB-C23	Peak Elev=152.97' Inflow=7.82 cfs 26,426 cf 24.0" Round Culvert n=0.012 L=173.0' S=0.0050 '/' Outflow=7.82 cfs 26,426 cf
Pond CC24: CB-C24	Peak Elev=155.57' Inflow=1.89 cfs 6,302 cf 12.0" Round Culvert n=0.012 L=42.0' S=0.0290 '/' Outflow=1.89 cfs 6,302 cf
Pond CC25: CB-C25	Peak Elev=153.92' Inflow=7.02 cfs 23,775 cf 24.0" Round Culvert n=0.012 L=190.0' S=0.0050 '/' Outflow=7.02 cfs 23,775 cf
Pond CC26: CB-C26	Peak Elev=158.71' Inflow=1.12 cfs 3,814 cf 12.0" Round Culvert n=0.012 L=41.0' S=0.0224 '/' Outflow=1.12 cfs 3,814 cf

FRIARS DRIVE POST DEVELOPMENT

475-POST	Type III 24-hr 25-YR Rainfall=5.65"
Prepared by The Dubay (
HydroCAD® 10.00-26 s/n 076	S02 © 2020 HydroCAD Software Solutions LLC Page 9
Pond CC27: CB-C27	Peak Elev=158.70' Inflow=4.78 cfs 15,780 cf 18.0" Round Culvert n=0.012 L=122.0' S=0.0050 '/' Outflow=4.78 cfs 15,780 cf
Pond CC28: CB-C28	Peak Elev=159.39' Inflow=3.83 cfs 12,612 cf 15.0" Round Culvert n=0.012 L=101.0' S=0.0050 '/' Outflow=3.83 cfs 12,612 cf
Pond CC29: CB-C29	Peak Elev=160.26' Inflow=0.82 cfs 2,794 cf 12.0" Round Culvert n=0.012 L=77.0' S=0.0200 '/' Outflow=0.82 cfs 2,794 cf
Pond CC3: CB-C3	Peak Elev=159.20' Inflow=0.84 cfs 2,789 cf 12.0" Round Culvert n=0.012 L=75.0' S=0.0049 '/' Outflow=0.84 cfs 2,789 cf
Pond CC30: CB-C30	Peak Elev=160.73' Inflow=0.40 cfs 1,451 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0200 '/' Outflow=0.40 cfs 1,451 cf
Pond CC31: CB-C31	Peak Elev=160.01' Inflow=2.82 cfs 9,284 cf 15.0" Round Culvert n=0.012 L=133.0' S=0.0050 '/' Outflow=2.82 cfs 9,284 cf
Pond CC32: CB-C32	Peak Elev=161.74' Inflow=0.75 cfs 2,393 cf 12.0" Round Culvert n=0.012 L=53.0' S=0.0292 '/' Outflow=0.75 cfs 2,393 cf
Pond CC33: CB-C33	Peak Elev=162.43' Inflow=0.33 cfs 1,072 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0288 '/' Outflow=0.33 cfs 1,072 cf
Pond CC34: CB-C34	Peak Elev=160.49' Inflow=1.76 cfs 5,772 cf 12.0" Round Culvert n=0.012 L=88.0' S=0.0050 '/' Outflow=1.76 cfs 5,772 cf
Pond CC35: CB-C35	Peak Elev=159.53' Inflow=1.13 cfs 3,657 cf 12.0" Round Culvert n=0.012 L=90.0' S=0.0303 '/' Outflow=1.13 cfs 3,657 cf
Pond CC36: CB-C36	Peak Elev=160.32' Inflow=0.12 cfs 460 cf 12.0" Round Culvert n=0.012 L=40.0' S=0.0267 '/' Outflow=0.12 cfs 460 cf
Pond CC37: CB-C37	Peak Elev=159.76' Inflow=0.70 cfs 2,233 cf 12.0" Round Culvert n=0.012 L=34.0' S=0.0050 '/' Outflow=0.70 cfs 2,233 cf
Pond CC38: CB-C38	Peak Elev=161.71' Inflow=0.67 cfs 2,173 cf 12.0" Round Culvert n=0.012 L=120.0' S=0.0179 '/' Outflow=0.67 cfs 2,173 cf
Pond CC4: CB-C4	Peak Elev=157.75' Inflow=0.23 cfs 800 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0100 '/' Outflow=0.23 cfs 800 cf
Pond CC5: CB-C5	Peak Elev=159.67' Inflow=0.19 cfs 658 cf 12.0" Round Culvert n=0.012 L=30.0' S=0.0100 '/' Outflow=0.19 cfs 658 cf
Pond CC6: CB-C6	Peak Elev=156.92' Inflow=0.94 cfs 3,245 cf 12.0" Round Culvert n=0.012 L=73.0' S=0.0100 '/' Outflow=0.94 cfs 3,245 cf
Pond CC7: CB-C7	Peak Elev=157.50' Inflow=0.49 cfs 1,638 cf 12.0" Round Culvert n=0.012 L=62.0' S=0.0100 '/' Outflow=0.49 cfs 1,638 cf

475-POST Prepared by The Dubay <u>HydroCAD® 10.00-26_s/n 07</u>	FRIARS DRIVE POST DEVELOPMENT <i>Type III 24-hr 25-YR Rainfall=5.65"</i> Group, Inc. Printed 10/5/2021 602 © 2020 HydroCAD Software Solutions LLC Page 10
Pond CC8: CB-C8	Peak Elev=151.66' Inflow=27.05 cfs 92,603 cf 36.0" Round Culvert n=0.012 L=85.0' S=0.0051 '/' Outflow=27.05 cfs 92,603 cf
Pond CC9: CB-C9	Peak Elev=152.97' Inflow=23.39 cfs 80,386 cf 30.0" Round Culvert n=0.012 L=170.0' S=0.0050 '/' Outflow=23.39 cfs 80,386 cf
Pond CD1: CB-D1	Peak Elev=159.55' Inflow=0.78 cfs 2,842 cf 12.0" Round Culvert n=0.012 L=144.0' S=0.0050 '/' Outflow=0.78 cfs 2,842 cf
Pond CD10: CB-D10	Peak Elev=159.24' Inflow=0.92 cfs 3,031 cf 12.0" Round Culvert n=0.012 L=121.0' S=0.0300 '/' Outflow=0.92 cfs 3,031 cf
Pond CD11: CB-D11	Peak Elev=155.39' Inflow=14.26 cfs 46,449 cf 24.0" Round Culvert n=0.012 L=264.0' S=0.0133 '/' Outflow=14.26 cfs 46,449 cf
Pond CD12: CB-D12	Peak Elev=158.87' Inflow=1.80 cfs 5,998 cf 12.0" Round Culvert n=0.012 L=121.0' S=0.0299 '/' Outflow=1.80 cfs 5,998 cf
Pond CD2: CB-D2	Peak Elev=158.74' Inflow=0.97 cfs 3,461 cf 12.0" Round Culvert n=0.012 L=91.0' S=0.0189 '/' Outflow=0.97 cfs 3,461 cf
Pond CD3: CB-D3	Peak Elev=157.74' Inflow=2.21 cfs 7,034 cf 12.0" Round Culvert n=0.012 L=48.0' S=0.0050 '/' Outflow=2.21 cfs 7,034 cf
Pond CD4: CB-D4	Peak Elev=157.18' Inflow=4.71 cfs 15,375 cf 18.0" Round Culvert n=0.012 L=165.0' S=0.0050 '/' Outflow=4.71 cfs 15,375 cf
Pond CD5: CB-D5	Peak Elev=158.32' Inflow=1.18 cfs 3,764 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0477 '/' Outflow=1.18 cfs 3,764 cf
Pond CD6: CB-D6	Peak Elev=158.63' Inflow=0.67 cfs 2,137 cf 12.0" Round Culvert n=0.012 L=33.0' S=0.0100 '/' Outflow=0.67 cfs 2,137 cf
Pond CD7: CB-D7	Peak Elev=156.31' Inflow=7.40 cfs 24,145 cf 24.0" Round Culvert n=0.012 L=93.0' S=0.0051 '/' Outflow=7.40 cfs 24,145 cf
Pond CD8: CB-D8	Peak Elev=159.23' Inflow=0.86 cfs 2,834 cf 12.0" Round Culvert n=0.012 L=121.0' S=0.0253 '/' Outflow=0.86 cfs 2,834 cf
Pond CD9: CB-D9	Peak Elev=155.98' Inflow=10.39 cfs 33,887 cf 24.0" Round Culvert n=0.012 L=100.0' S=0.0050 '/' Outflow=10.39 cfs 33,887 cf
Pond CE1: CB-E1	Peak Elev=161.27' Inflow=0.68 cfs 2,378 cf 12.0" Round Culvert n=0.012 L=101.0' S=0.0661 '/' Outflow=0.68 cfs 2,378 cf
Pond CE10: CB-E10	Peak Elev=154.08' Inflow=32.14 cfs 116,355 cf 42.0" Round Culvert n=0.012 L=43.0' S=0.0049 '/' Outflow=32.14 cfs 116,355 cf
Pond CE11: CB-E11	Peak Elev=154.12' Inflow=21.03 cfs 72,641 cf 30.0" Round Culvert n=0.012 L=104.0' S=0.0050 '/' Outflow=21.03 cfs 72,641 cf

475-POST	FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 25-YR Rainfall=5.65"
Prepared by The Dubay	Group, Inc. Printed 10/5/2021
Hydrocade 10.00-26 s/n 07	602 © 2020 HydroCAD Software Solutions LLC Page 11
Pond CE12: CB-E12	Peak Elev=154.19' Inflow=18.23 cfs 63,005 cf 30.0" Round Culvert n=0.012 L=127.0' S=0.0050 '/' Outflow=18.23 cfs 63,005 cf
Pond CE13: CB-E13	Peak Elev=154.70' Inflow=15.94 cfs 55,062 cf 30.0" Round Culvert n=0.012 L=161.0' S=0.0050 '/' Outflow=15.94 cfs 55,062 cf
Pond CE14: CB-E14	Peak Elev=155.63' Inflow=11.64 cfs 40,104 cf 24.0" Round Culvert n=0.012 L=155.0' S=0.0050 '/' Outflow=11.64 cfs 40,104 cf
Pond CE15: CB-E15	Peak Elev=156.24' Inflow=8.21 cfs 27,842 cf 24.0" Round Culvert n=0.012 L=134.0' S=0.0050 '/' Outflow=8.21 cfs 27,842 cf
Pond CE16: CB-E16	Peak Elev=156.89' Inflow=4.22 cfs 13,557 cf 18.0" Round Culvert n=0.012 L=127.0' S=0.0050 '/' Outflow=4.22 cfs 13,557 cf
Pond CE17: CB-E17	Peak Elev=161.55' Inflow=0.01 cfs 396 cf 12.0" Round Culvert n=0.012 L=64.0' S=0.0100 '/' Outflow=0.01 cfs 396 cf
Pond CE18: CB-E18	Peak Elev=156.77' Inflow=0.00 cfs 39 cf 12.0" Round Culvert n=0.012 L=49.0' S=0.0051 '/' Outflow=0.00 cfs 39 cf
Pond CE19: CB-E19	Peak Elev=157.44' Inflow=0.01 cfs 249 cf 12.0" Round Culvert n=0.012 L=49.0' S=0.0051'/' Outflow=0.01 cfs 249 cf
Pond CE2: CB-E2	Peak Elev=161.21' Inflow=0.83 cfs 3,306 cf 12.0" Round Culvert n=0.012 L=101.0' S=0.0612 '/' Outflow=0.83 cfs 3,306 cf
Pond CE3: CB-E3	Peak Elev=154.73' Inflow=9.77 cfs 33,389 cf 24.0" Round Culvert n=0.012 L=178.0' S=0.0050 '/' Outflow=9.77 cfs 33,389 cf
Pond CE4: CB-E4	Peak Elev=155.17' Inflow=7.86 cfs 26,808 cf 24.0" Round Culvert n=0.012 L=60.0' S=0.0050 '/' Outflow=7.86 cfs 26,808 cf
Pond CE5: CB-E5	Peak Elev=155.84' Inflow=5.76 cfs 19,244 cf 18.0" Round Culvert n=0.012 L=76.0' S=0.0050 '/' Outflow=5.76 cfs 19,244 cf
Pond CE6: CB-E6	Peak Elev=156.56' Inflow=4.89 cfs 16,512 cf 18.0" Round Culvert n=0.012 L=140.0' S=0.0050 '/' Outflow=4.89 cfs 16,512 cf
Pond CE7: CB-E7	Peak Elev=157.15' Inflow=3.72 cfs 12,806 cf 15.0" Round Culvert n=0.012 L=95.0' S=0.0049 '/' Outflow=3.72 cfs 12,806 cf
Pond CE8: CB-E8	Peak Elev=157.76' Inflow=2.64 cfs 9,101 cf 15.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=2.64 cfs 9,101 cf
Pond CE9: CB-E9	Peak Elev=159.61' Inflow=1.16 cfs 3,855 cf 12.0" Round Culvert n=0.012 L=94.0' S=0.0218 '/' Outflow=1.16 cfs 3,855 cf
Pond CS13: CB-S13	Peak Elev=155.90' Inflow=2.92 cfs 9,796 cf 15.0" Round Culvert n=0.012 L=145.0' S=0.0050 '/' Outflow=2.92 cfs 9,796 cf

FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 25-YR Rainfall=5.65"

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Pond CS14: CB-S14	Peak Elev=156.78' Inflow=1.36 cfs 4,543 cf 12.0" Round Culvert n=0.012 L=101.0' S=0.0100 '/' Outflow=1.36 cfs 4,543 cf
Pond DC1: DMH-C1	Peak Elev=157.98' Inflow=5.91 cfs 19,594 cf 18.0" Round Culvert n=0.012 L=155.0' S=0.0096 '/' Outflow=5.91 cfs 19,594 cf
Pond DC10: DMH-C10	Peak Elev=152.50' Inflow=31.26 cfs 113,589 cf 36.0" Round Culvert n=0.012 L=247.0' S=0.0050 '/' Outflow=31.26 cfs 113,589 cf
Pond DC11: DMH-C11	Peak Elev=148.62' Inflow=39.56 cfs 134,596 cf 42.0" Round Culvert n=0.012 L=174.0' S=0.0050 '/' Outflow=39.56 cfs 134,596 cf
Pond DC2: DMH-C2	Peak Elev=158.31' Inflow=0.89 cfs 3,245 cf 12.0" Round Culvert n=0.012 L=136.0' S=0.0060 '/' Outflow=0.89 cfs 3,245 cf
Pond DC3: DMH-C3	Peak Elev=157.66' Inflow=4.80 cfs 17,444 cf 18.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=4.80 cfs 17,444 cf
Pond DC4: DMH-C4	Peak Elev=156.97' Inflow=8.71 cfs 31,643 cf 24.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=8.71 cfs 31,643 cf
Pond DC5: DMH-C5	Peak Elev=156.37' Inflow=12.62 cfs 45,841 cf 24.0" Round Culvert n=0.012 L=117.0' S=0.0050 '/' Outflow=12.62 cfs 45,841 cf
Pond DC6: DMH-C6	Peak Elev=155.63' Inflow=16.16 cfs 58,721 cf 30.0" Round Culvert n=0.012 L=117.0' S=0.0050 '/' Outflow=16.16 cfs 58,721 cf
Pond DC7: DMH-C7	Peak Elev=155.15' Inflow=19.43 cfs 70,587 cf 30.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=19.43 cfs 70,587 cf
Pond DC8: DMH-C8	Peak Elev=154.37' Inflow=23.34 cfs 84,786 cf 30.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=23.34 cfs 84,786 cf
Pond DC9: DMH-C9	Peak Elev=153.38' Inflow=27.24 cfs 98,985 cf 36.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=27.24 cfs 98,985 cf
Pond DD1: DMH-D1	Peak Elev=151.76' Inflow=22.88 cfs 219,647 cf 30.0" Round Culvert n=0.012 L=273.0' S=0.0050 '/' Outflow=22.88 cfs 219,647 cf
Pond DD2: DMH-D2	Peak Elev=150.37' Inflow=22.88 cfs 219,647 cf 30.0" Round Culvert n=0.012 L=183.0' S=0.0050 '/' Outflow=22.88 cfs 219,647 cf
Pond DD3: DMH-D3	Peak Elev=149.27' Inflow=22.88 cfs 219,647 cf 30.0" Round Culvert n=0.012 L=131.0' S=0.0050 '/' Outflow=22.88 cfs 219,647 cf
Pond DD4: DMH-DD4	Peak Elev=148.25' Inflow=22.88 cfs 219,647 cf 30.0" Round Culvert n=0.012 L=133.0' S=0.0050 '/' Outflow=22.88 cfs 219,647 cf
Pond DE1: DMH-E1	Peak Elev=158.31' Inflow=0.89 cfs 3,245 cf 12.0" Round Culvert n=0.012 L=136.0' S=0.0060 '/' Outflow=0.89 cfs 3,245 cf

475-POST

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ATE DOST	Type III 24-hr 25-YR Rainfall=5.65"
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Pond DE2: DMH-E2	Peak Elev=157.66' Inflow=4.80 cfs 17,444 cf
	18.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=4.80 cfs 17,444 cf
Pond DE3: DMH-E3	Peak Elev=156.97' Inflow=8.71 cfs 31,643 cf 24.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=8.71 cfs 31,643 cf
Pond DE4: DMH-E4	Peak Elev=156.36' Inflow=12.62 cfs 45,841 cf
	24.0" Round Culvert n=0.012 L=117.0' S=0.0050 '/' Outflow=12.62 cfs 45,841 cf
Pond DE5: DMH-E5	Peak Elev=155.55' Inflow=16.16 cfs 58,721 cf
Ponu DES. Divin-ES	30.0" Round Culvert n=0.012 L=117.0' S=0.0050 '/' Outflow=16.16 cfs 58,721 cf
	···· · · · · · · · · · · · · · · · · ·
Pond DE6: DMH-E9	Peak Elev=154.85' Inflow=19.43 cfs 70,587 cf
	30.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=19.43 cfs 70,587 cf
Pond DE7: DMH-E7	Peak Elev=154.13' Inflow=31.26 cfs 113,589 cf
	42.0" Round Culvert n=0.012 L=78.0' S=0.0050 '/' Outflow=31.26 cfs 113,589 cf
Pond DE8: DMH-E8	Peak Elev=156.51' Inflow=4.80 cfs 17,444 cf 18.0" Round Culvert n=0.012 L=136.0' S=0.0178 '/' Outflow=4.80 cfs 17,444 cf
Pond DE9: DMH-E9	Peak Elev=159.13' Inflow=0.89 cfs 3,245 cf
	12.0" Round Culvert n=0.012 L=136.0' S=0.0200 '/' Outflow=0.89 cfs 3,245 cf
Pond PC: POND C	Peak Elev=147.59' Storage=113,010 cf Inflow=70.82 cfs 248,421 cf
	Discarded=4.39 cfs 225,151 cf Primary=0.00 cfs 0 cf Outflow=4.39 cfs 225,151 cf
Pond PD: POND D	Peak Elev=147.49' Storage=137,534 cf Inflow=35.37 cfs 266,270 cf Discarded=3.77 cfs 192,468 cf Primary=0.00 cfs 0 cf Outflow=3.77 cfs 192,468 cf
Pond PE: POND E	Peak Elev=154.03' Storage=64,856 cf Inflow=62.94 cfs 222,718 cf
	Outflow=22.88 cfs 219,647 cf
Pond PH: POND H	Peak Elev=150.25' Storage=15,175 cf Inflow=0.10 cfs 1,524 cf
	Outflow=0.00 cfs 0 cf
Link L1: NORTHEAST P	ROPERTY CORNER Inflow=0.01 cfs 188 cf Primary=0.01 cfs 188 cf
Link L2: RIVER	Inflow=4.16 cfs 41,566 cf
	Primary=4.16 cfs 41,566 cf
Link L3: EX CULVERTS	Inflow=0.45 cfs 11,325 cf
	Primary=0.45 cfs 11,325 cf
Link L4: WEST PROPER	
	Primary=0.02 cfs 695 cf
Link L5: NORTHWEST F	PROPERTY CORNER Inflow=0.01 cfs 236 cf
	Primary=0.01 cfs 236 cf

Link L6: FOX HOLLOW

Inflow=0.00 cfs 81 cf Primary=0.00 cfs 81 cf

Total Runoff Area = 3,619,215 sf Runoff Volume = 562,768 cf Average Runoff Depth = 1.87" 65.35% Pervious = 2,365,273 sf 34.65% Impervious = 1,253,942 sf

Summary for Subcatchment A1: SUBCAT A1

Runoff = 0.40 cfs @ 12.09 hrs, Volume= 1,255 cf, Depth> 3.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	Area (sf) CN	D	Description				
*	3,089	9 98	Р	roposed P	avement			
	1,806	6 39	>	75% Gras	s cover, Go	bod, HSG A		
	4,89	5 76	V	Weighted Average				
	1,806	6	3	36.89% Pervious Area				
	3,089	9	6	63.11% Impervious Area				
(m	Tc Leng nin) (fee		ope t/ft)	Velocity (ft/sec)	Capacity (cfs)	Description		
	6.0					Direct Entry,		

Summary for Subcatchment A2: SUBCAT A2

Runoff = 0.67 cfs @ 12.09 hrs, Volume= 2,439 cf, Depth> 5.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

_	A	rea (sf)	CN	Description					
*		5,412	98	Proposed Pavement					
		0	39	>75% Gras	s cover, Go	bod, HSG A			
		5,412	98	Weighted Average					
		5,412		100.00% Impervious Area					
	Tc (min)	Length (feet)	Slope (ft/ft	,	Capacity (cfs)	Description			
	6.0	((10/10	, ((010)	Direct Entry,			

Summary for Subcatchment A3: SUBCAT A3

Runoff = 0.71 cfs @ 12.09 hrs, Volume= 2,484 cf, Depth> 5.06"

	Area (sf)	CN	Description			
*	5,572	98	Proposed Pavement			
	317	39	•75 ['] % Grass cover, Good, HSG A			
	5,889	95	Weighted Average			
	317		5.38% Pervious Area			
	5,572		94.62% 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 A	4: SUBCAT A4
Runoff = 0.77 cfs @ 12.09 hrs, Volume= 2	,604 cf, Depth> 4.72"
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time S Type III 24-hr 25-YR Rainfall=5.65"	pan= 0.00-24.00 hrs, dt= 0.05 hrs
Area (sf) CN Description	
* 5,929 98 Proposed Pavement 687 39 >75% Grass cover, Good, HSG A	
6,616 92 Weighted Average	
687 10.38% Pervious Area 5,929 89.62% Impervious Area	
Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs)	
6.0 Direct Entry,	
Summary for Subcatchment E	B: SUBCAT B
Runoff = 0.00 cfs @ 17.13 hrs, Volume=	81 cf, Depth> 0.04"
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time S Type III 24-hr 25-YR Rainfall=5.65"	pan= 0.00-24.00 hrs, dt= 0.05 hrs
Area (sf) CN Description	
0 39 >75% Grass cover, Good, HSG A	
24,585 30 Woods, Good, HSG A * 0 98 Ex. Wetland	
* 0 98 Ex. Building	
* 0 98 Ex. Pavement	
24,58530Weighted Average24,585100.00% Pervious Area	
Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs)	

(ft/sec) (cfs) Direct Entry,

Summary for Subcatchment C1: SUBCAT C1

0.25 cfs @ 12.10 hrs, Volume= Runoff = 843 cf, Depth> 1.62"

6.0

FRIARS DRIVE POST DEVELOPMENT *Type III 24-hr 25-YR Rainfall=5.65"* Printed 10/5/2021 s LLC Page 17

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_	A	rea (sf)	CN	Description							
*		2,170	98	Proposed Pavement							
_		4,084	39	>75% Gras	>75% Grass cover, Good, HSG A						
		6,254	59	Weighted A	/eighted Average						
		4,084		65.30% Pei	vious Area	3					
		2,170		34.70% Imp	pervious Ar	rea					
	Тс	Length	Slope	e Velocity	Capacity	Description					
_	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)						
	6.0					Direct Entry,					

Summary for Subcatchment C10: SUBCAT C10

Runoff = 3.25 cfs @ 12.09 hrs, Volume= 11,282 cf, Depth> 5.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	A	rea (sf)	CN	Description					
*		25,480	98	Proposed F	avement				
		1,272	39	>75% Gras	s cover, Go	bod, HSG A			
		26,752	95	Weighted Average					
		1,272		4.75% Perv	rious Area				
		25,480		95.25% Imp	pervious Ar	ea			
	_		~		• •	_			
	Tc	Length	Slope		Capacity	Description			
	(min)	(feet)	(ft/ft)) (ft/sec)	(cfs)				
	6.0					Direct Entry,			
						•			

Summary for Subcatchment C11: SUBCAT C11

Runoff = 0.57 cfs @ 12.09 hrs, Volume= 1,795 cf, Depth> 3.56"

	A	rea (sf)	CN	Description					
*		4,311	98	Proposed Pavement					
		1,733	39	>75% Gras	s cover, Go	bod, HSG A			
		6,044	81	Weighted A	verage				
		1,733		28.67% Per	vious Area				
		4,311		71.33% Imp	pervious Ar	ea			
,		Length	Slope	,	Capacity	Description			
(I	min)	(feet)	(ft/ft) (ft/sec)	(cfs)				
	6.0					Direct Entry,			

Summary for Subcatchment C12: SUBCAT C12

Runoff = 0.84 cfs @ 12.09 hrs, Volume= 2,688 cf, Depth> 3.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	A	rea (sf)	CN	Description						
*		6,391	98	Proposed F	avement					
		1,950	39	>75% Gras	s cover, Go	bod, HSG A				
		8,341	84	Weighted A	Weighted Average					
		1,950		23.38% Per	vious Area					
		6,391		76.62% Imp	pervious Ar	ea				
	Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	Description				
	6.0		•	, , , , , ,	· · ·	Direct Entry,				

Summary for Subcatchment C13: SUBCAT C13

Runoff = 0.40 cfs @ 12.09 hrs, Volume= 1,281 cf, Depth> 3.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

_	A	rea (sf)	CN	Description		
*		2,992	98	Proposed P	avement	
		880	39	>75% Gras	s cover, Go	bod, HSG A
		3,872	85	Weighted A	verage	
		880		22.73% Per	vious Area	
		2,992		77.27% Imp	pervious Ar	ea
		Length	Slope	,	Capacity	Description
_	(min)	(feet)	(ft/ft	(ft/sec)	(cfs)	
	6.0					Direct Entry,
						-

Summary for Subcatchment C14: SUBCAT C14

Runoff = 0.37 cfs @ 12.09 hrs, Volume= 1,349 cf, Depth> 5.41"

	Area (sf)	CN	Description			
*	2,992	98	Proposed Pavement			
	0	39	>75% Grass cover, Good, HSG A			
	2,992 2,992	98	Weighted Average 100.00% Impervious Area			

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Tc (min)	Length (feet)	Slop (ft/f									
6.0			t) (ft/sec)	(cfs)	Direct Entry	l,					
	Summary for Subcatchment C15: SUBCAT C15										
Runoff	=	0.42	cfs @ 12.0	9 hrs, Volu	ıme=	1,349 cf, Depth> 4.18"					
			ethod, UH=s infall=5.65"	SCS, Weigh	ited-CN, Time	Span= 0.00-24.00 hrs, dt= 0.05 hrs					
Α	rea (sf)	CN	Description								
*	3,152 720	98 39	Proposed F >75% Gras		ood, HSG A						
	3,872 720 3,152	87		Average rvious Area pervious Ar							
Tc (min)	Length (feet)	Slop (ft/f		Capacity (cfs)	Description						
6.0				· · ·	Direct Entry	/,					
			Summary	for Subc	atchment C	16: SUBCAT C16					
Runoff	=	0.37	cfs @ 12.0	9 hrs, Volu	ıme=	1,349 cf, Depth> 5.41"					
	Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"										
Α	rea (sf)	CN	Description	1							
*	2,992 0	98 39	Proposed F >75% Gras		ood, HSG A						
	2,992 98 Weighted Average										

	2,992	1	00.00% Im	pervious A	rea	
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description	
6.0					Direct Entry,	

Summary for Subcatchment C17: SUBCAT C17

Runoff = 3.09 cfs @ 12.09 hrs, Volume= 10,757 cf, Depth> 5.06"

FRIARS DRIVE POST DEVELOPMENT *Type III 24-hr 25-YR Rainfall=5.65"* Printed 10/5/2021 s LLC Page 20

475-POST

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_	A	rea (sf)	CN	Description						
*		24,242	98	Proposed Pavement						
_		1,264	39	>75% Gras	s cover, Go	ood, HSG A				
		25,506	95	Weighted A	verage					
		1,264		4.96% Perv	ious Area					
		24,242		95.04% Imp	ervious Ar	rea				
	Тс	Length	Slope	Velocity	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec) (cfs)						
	6.0					Direct Entry,				

Summary for Subcatchment C18: SUBCAT C18

Runoff = 3.36 cfs @ 12.09 hrs, Volume= 12,209 cf, Depth> 5.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

_	A	rea (sf)	CN	Description					
*		26,918	98	Proposed F	avement				
_		169	39	>75% Gras	s cover, Go	bod, HSG A			
		27,087	98	Weighted A	Weighted Average				
		169		0.62% Perv	ious Area				
		26,918		99.38% Imp	pervious Ar	ea			
	Тс	Length	Slope	e Velocity	Capacity	Description			
	(min)	(feet)	(ft/ft		(cfs)	Description			
	6.0					Direct Entry,			

Summary for Subcatchment C19: SUBCAT C19

Runoff = 4.46 cfs @ 12.09 hrs, Volume= 14,485 cf, Depth> 4.18"

	A	rea (sf)	CN	Description		
*		33,675	98	Proposed P	avement	
		7,909	39	>75% Gras	s cover, Go	bod, HSG A
		41,584	87	Weighted A		
		7,909		19.02% Per		
		33,675		80.98% Imp	pervious Ar	ea
(n	Tc nin)	Length (feet)	Slope (ft/ft	,	Capacity (cfs)	Description
	6.0					Direct Entry,

Summary for Subcatchment C2: SUBCAT C2

Runoff = 0.45 cfs @ 12.09 hrs, Volume= 1,443 cf, Depth> 4.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

_	A	rea (sf)	CN	Description				
*		3,416	98	Proposed F	avement			
_		833	39	>75% Gras	s cover, Go	bod, HSG A		
		4,249	86	Weighted Average				
		833		19.60% Per	vious Area			
		3,416		80.40% Impervious Area				
	Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	Description		
	6.0					Direct Entry,		

Summary for Subcatchment C20: SUBCAT C20

Runoff = 0.40 cfs @ 12.09 hrs, Volume= 1,286 cf, Depth> 4.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	A	rea (sf)	CN	Description						
*		3,013	98	Proposed Pavement						
		679	39	>75% Gras	s cover, Go	bod, HSG A				
		3,692	87	Weighted Average						
		679		18.39% Pe	18.39% Pervious Area					
		3,013		81.61% Impervious Area						
	_				_					
	Тс	Length	Slope		Capacity	Description				
_	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)					
	6.0					Direct Entry,				
						•				

Summary for Subcatchment C21: SUBCAT C21

Runoff = 0.38 cfs @ 12.09 hrs, Volume= 1,226 cf, Depth> 4.07"

	Area (sf)	CN	Description
*	2,853	98	Proposed Pavement
	757	39	>75% Grass cover, Good, HSG A
	3,610	86	Weighted Average
	757		20.97% Pervious Area
	2,853		79.03% Impervious Area

	d by The		Group, In 7602 © 202) Software Solu	FRIARS DRIVE POST DEVELOPMENT <i>Type III 24-hr 25-YR Rainfall=5.65"</i> Printed 10/5/2021 tions LLC Page 22
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description	
6.0					Direct Entry	,
		S	ummary	for Subc	atchment C	22: SUBCAT C22
Runoff	=	0.41 c	fs @ 12.0	9 hrs, Volu	ime=	1,304 cf, Depth> 3.97"
			hod, UH=S fall=5.65"	CS, Weigh	ted-CN, Time	Span= 0.00-24.00 hrs, dt= 0.05 hrs
A	rea (sf)	CN [Description			
*	3,040		Proposed F			
	900	39 >	>75% Gras	s cover, Go	ood, HSG A	
	3,940		Neighted A			
	900			vious Area		
	3,040	1	7.16% Imp	pervious Ar	ea	
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description	
6.0					Direct Entry	,
		S	ummarv	for Subc	atchmont C	23. SUBCAT C23

Summary for Subcatchment C23: SUBCAT C23

Runoff = 0.40 cfs @ 12.09 hrs, Volume= 1,347 cf, Depth> 4.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	A	rea (sf)	CN	Description						
*		3,092	98	Proposed Pavement						
		332	39	>75% Gras	75% Grass cover, Good, HSG A					
		3,424	92	Weighted Average						
		332		9.70% Perv	ious Area					
		3,092		90.30% Impervious Area						
	Тс	Length	Slope	Velocity	Capacity	Description				
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	6.0					Direct Entry,				

Summary for Subcatchment C24: SUBCAT C24

Runoff = 0.83 cfs @ 12.09 hrs, Volume= 2,607 cf, Depth> 2.80"

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475-POST

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_	A	rea (sf)	CN	Description					
*		6,366	98	Proposed Pavement					
		4,815	39	>75% Gras	>75 Grass cover, Good, HSG A				
		11,181	81 73 Weighted Average						
		4,815		43.06% Pervious Area					
		6,366		56.94% Imp	pervious Ar	rea			
	Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	Description			
_	6.0	. /	•	· · · · ·		Direct Entry,			

Summary for Subcatchment C25: SUBCAT C25

Runoff = 0.71 cfs @ 12.09 hrs, Volume= 2,590 cf, Depth> 5.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	A	rea (sf)	CN	Description						
*		5,747	98	Proposed Pavement						
		0	39	>75 ['] % Grass cover, Good, HSG A						
		5,747	98	98 Weighted Average						
		5,747		100.00% Impervious Area						
	Tc (min)	Length (feet)	Slope (ft/ft	,	Capacity (cfs)	I				
	6.0					Direct Entry,				

Summary for Subcatchment C26: SUBCAT C26

Runoff = 0.30 cfs @ 12.09 hrs, Volume= 1,020 cf, Depth> 4.83"

	A	rea (sf)	CN	Description				
*		2,336	98	Proposed Pavement				
		197	39	>75 ['] % Gras	s cover, Go	ood, HSG A		
		2,533	93	Weighted Average				
		197		7.78% Pervious Area				
		2,336		92.22% Impervious Area				
	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description		
	6.0					Direct Entry,		

Summary for Subcatchment C27: SUBCAT C27

Runoff = 0.95 cfs @ 12.09 hrs, Volume= 3,168 cf, Depth> 4.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	A	rea (sf)	CN	Description				
*		7,324	98	Proposed F	vement			
		919	39	>75% Gras	s cover, Go	bod, HSG A		
		8,243	91	1 Weighted Average				
		919		11.15% Pe	rvious Area			
		7,324		88.85% Impervious Area				
	Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	Description		
	6.0					Direct Entry,		

Summary for Subcatchment C28: SUBCAT C28

Runoff = 1.01 cfs @ 12.09 hrs, Volume= 3,328 cf, Depth> 4.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	A	rea (sf)	CN	Description						
*		7,771	98	Proposed F	Pavement					
		1,318	39	>75% Gras	s cover, Go	bod, HSG A				
		9,089	89	Weighted Average						
		1,318			14.50% Pervious Area					
		7,771		85.50% Impervious Area						
_(Tc min)	Length (feet)	Slop (ft/ft	,	Capacity (cfs)	Description				
	6.0					Direct Entry,				

Summary for Subcatchment C29: SUBCAT C29

Runoff = 0.42 cfs @ 12.09 hrs, Volume= 1,342 cf, Depth> 3.37"

	Area (sf)	CN	Description
*	3,220	98	Proposed Pavement
	1,565	39	>75% Grass cover, Good, HSG A
	4,785	79	Weighted Average
	1,565		32.71% Pervious Area
	3,220		67.29% Impervious Area

	d by The	FRIARS DRIVE POST DEVELOPMENT <i>Type III 24-hr 25-YR Rainfall=5.65</i> ubay Group, Inc. Printed 10/5/2021 <u>s/n 07602 © 2020 HydroCAD Software Solutions LLC Page 25</u>	"
Tc (min)	Length (feet)	Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs)	_
6.0		Direct Entry,	
		Summary for Subcatchment C3: SUBCAT C3	
Runoff	=	.15 cfs @ 12.09 hrs, Volume= 503 cf, Depth> 4.61"	
Type III 2		0 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Rainfall=5.65" N Description	
* *	1,145	8 Proposed Pavement	-
	1,143	9 >75% Grass cover, Good, HSG A	
	1,309 164 1,145	 Weighted Average 12.53% Pervious Area 87.47% Impervious Area 	-
Tc (min)	Length (feet)	Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs)	
6.0		Direct Entry,	-
		Summary for Subcatchment C30: SUBCAT C30	
Runoff	=	.40 cfs @ 12.09 hrs, Volume= 1,451 cf, Depth> 5.41"	

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	A	rea (sf)	CN	Description	Description					
*		3,220	98	Proposed P	avement					
		0	39	>75% Gras	s cover, Go	bod, HSG A				
		3,220	98	Weighted A	/eighted Average					
		3,220		100.00% Impervious Area						
	Tc (min)	Length (feet)	Slope (ft/ft	,	Capacity (cfs)	Description				
	6.0					Direct Entry,				

Summary for Subcatchment C31: SUBCAT C31

Runoff = 1.06 cfs @ 12.09 hrs, Volume= 3,513 cf, Depth> 4.50"

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_	A	rea (sf)	CN	Description					
*		8,105	98	Proposed F	avement				
_		1,257	39	>75 ['] % Gras	s cover, Go	ood, HSG A			
		9,362	90	Weighted A	verage				
		1,257		13.43% Pe	vious Area	3			
		8,105		86.57% Imp	pervious Ar	rea			
	Тс	Length	Slope	e Velocity	Capacity	Description			
_	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)				
	6.0					Direct Entry,			

Summary for Subcatchment C32: SUBCAT C32

Runoff = 0.42 cfs @ 12.09 hrs, Volume= 1,321 cf, Depth> 3.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	A	rea (sf)	CN	Description					
*		3,188	98	Proposed F	avement				
		1,522	39	>75% Gras	s cover, Go	bod, HSG A			
		4,710	79	Weighted A	Neighted Average				
		1,522		32.31% Pervious Area					
		3,188		67.69% Impervious Area					
	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description			
	6.0					Direct Entry,			

Summary for Subcatchment C33: SUBCAT C33

Runoff = 0.33 cfs @ 12.10 hrs, Volume= 1,072 cf, Depth> 2.10"

	Area (sf)	CN	Description					
*	3,191	98	Proposed P	avement				
	2,940	30	Brush, Goo	d, HSG A				
	6,131			Veighted Average				
	2,940		47.95% Pervious Area					
	3,191		52.05% Imp	ervious Ar	ea			
T (mir	c Length	Slope (ft/ft)	,	Capacity (cfs)	Description			
6.	/ /	(1411)	(12000)	(0.0)	Direct Entry,			

Summary for Subcatchment C34: SUBCAT C34

Runoff = 1.01 cfs @ 12.09 hrs, Volume= 3,379 cf, Depth> 4.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

_	A	rea (sf)	CN	Description					
*		7,727	98	Proposed F	avement				
_		1,065	39	>75% Gras	s cover, Go	ood, HSG A			
		8,792	91	Weighted A	verage				
		1,065		12.11% Pei	vious Area				
		7,727		87.89% Imp	pervious Ar	ea			
	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description			
	6.0					Direct Entry,			

Summary for Subcatchment C35: SUBCAT C35

Runoff = 0.31 cfs @ 12.09 hrs, Volume= 965 cf, Depth> 3.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	A	rea (sf)	CN	Description						
*		2,325	98	Proposed F	avement					
		1,216	39	>75% Gras	s cover, Go	bod, HSG A				
		3,541	78	Weighted A	Veighted Average					
		1,216		34.34% Pei	34.34% Pervious Area					
		2,325		65.66% Imp	pervious Ar	ea				
	Тс	Length	Slope	,	Capacity	Description				
	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)					
	6.0					Direct Entry,				
						•				

Summary for Subcatchment C36: SUBCAT C36

Runoff = 0.12 cfs @ 12.11 hrs, Volume= 460 cf, Depth> 1.18"

	Area (sf)	CN	Description			
*	1,589	98	oposed Pavement			
	3,097	30	Brush, Good, HSG A			
	4,686	53	Weighted Average			
	3,097		66.09% Pervious Area			
	1,589		33.91% Impervious Area			

	y The Dub	ay Group, In n 07602 © 202	Туре	S DRIVE POST DEVELOPMENT III 24-hr 25-YR Rainfall=5.65" Printed 10/5/2021 Page 28		
	ength Slo (feet) (ft	pe Velocity /ft) (ft/sec)	Capacity (cfs)	Description		
6.0				Direct Entry	/,	
		Summary	for Subc	atchment C	37: SUB	CAT C37
Runoff :	= 0.70	0 cfs @ 12.1	0 hrs, Volu	ume=	2,233 cf,	Depth> 2.53"
		nethod, UH=s ainfall=5.65"	SCS, Weigh	ited-CN, Time	Span= 0.0	0-24.00 hrs, dt= 0.05 hrs
Area	(sf) CN	Description				
* 5,	620 98	Proposed F	Pavement			
4,	981 39	>75% Gras	s cover, Go	ood, HSG A		
,	601 70	Weighted A				
,	,981	46.99% Pe				
5,	620	53.01% Im	pervious Ar	ea		
(min) (ength Slo (feet) (ft	pe Velocity /ft) (ft/sec)	Capacity (cfs)	Description		
6.0				Direct Entry	/,	
	Summary for Subcatchment C38: SUBCAT C38					

Summary for Subcatchment C38: SUBCAT C38

Runoff = 0.67 cfs @ 12.09 hrs, Volume= 2,173 cf, Depth> 4.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	Area (sf)	CN I	Description					
*	5,075	98 I	Proposed P	avement				
	1,325	39 >	>75% Gras	s cover, Go	bod, HSG A			
	6,400	86 \	Neighted A	verage				
	1,325		20.70% Pervious Area					
	5,075	7	79.30% Imp	ervious Ar	ea			
	Tc Length	Slope	Velocity	Capacity	Description			
(m	in) (feet)	(ft/ft)						
6	6.0				Direct Entry,			

Summary for Subcatchment C4: SUBCAT C4

Runoff = 0.23 cfs @ 12.10 hrs, Volume= 800 cf, Depth> 1.62"

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	A	rea (sf)	CN	Description					
*		1,976	98	Proposed F	avement				
		3,961	39	>75 ['] % Gras	s cover, Go	bod, HSG A			
		5,937	59	Weighted A	verage				
		3,961		66.72% Pervious Area					
		1,976		33.28% Imp	pervious Ar	ea			
	Тс	Length	Slope	Velocity	Capacity	Description			
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
	6.0					Direct Entry,			

Summary for Subcatchment C5: SUBCAT C5

Runoff = 0.19 cfs @ 12.10 hrs, Volume= 658 cf, Depth> 1.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	A	rea (sf)	CN	Description					
*		1,663	98	Proposed F	avement				
		3,462	39	>75% Gras	s cover, Go	bod, HSG A			
		5,125	58	Weighted A	Weighted Average				
		3,462		67.55% Per	vious Area				
		1,663		32.45% Imp	pervious Ar	ea			
	Tc (min)	Length (feet)	Slope (ft/ft	,	Capacity (cfs)	Description			
	6.0	(1	(1411	()	()	Direct Entry,			

Summary for Subcatchment C6: SUBCAT C6

Runoff = 0.26 cfs @ 12.09 hrs, Volume= 948 cf, Depth> 5.41"

	A	rea (sf)	CN	Description	Description					
*		2,104	98	Proposed P	Proposed Pavement					
		0	39	>75% Gras	>75% Grass cover, Good, HSG A					
		2,104	98	Weighted A	Veighted Average					
		2,104		100.00% Impervious Area						
(r	Tc nin)	Length (feet)	Slop (ft/ft		Capacity (cfs)	Description				
	6.0					Direct Entry,				

Summary for Subcatchment C7: SUBCAT C7

Runoff = 0.26 cfs @ 12.09 hrs, Volume= 838 cf, Depth> 4.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	Ai	rea (sf)	CN	Description					
*		1,980	98	Proposed F	avement				
		489	39	>75% Grass cover, Good, HSG A					
		2,469	86	Weighted Average					
		489		19.81% Pervious Area					
		1,980		80.19% Impervious Area					
	_				_				
	Тс	Length	Slope		Capacity	Description			
(I	min)	(feet)	(ft/ft) (ft/sec)	(cfs)				
	6.0					Direct Entry,			
						-			
			x	/		Direct Entry,			

Summary for Subcatchment C8: SUBCAT C8

Runoff = 3.66 cfs @ 12.09 hrs, Volume= 12,217 cf, Depth> 4.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	Area (sf)	CN	Description	Description				
*	27,832	98	Proposed F	Proposed Pavement				
	3,957	39	>75% Gras	s cover, Go	bod, HSG A			
	31,789	91	Weighted A	Weighted Average				
	3,957		12.45% Pe	12.45% Pervious Area				
	27,832		87.55% Imp	pervious Ar	ea			
	Tc Length	n Slop	e Velocity	Capacity	Description			
(m	nin) (feet) (ft/	t) (ft/sec)	(cfs)				
	6.0				Direct Entry,			
					•			

Summary for Subcatchment C9: SUBCAT C9

Runoff = 3.32 cfs @ 12.09 hrs, Volume= 12,058 cf, Depth> 5.41"

	Area (sf)	CN	Description		
*	26,576	98	Proposed Pavement		
	176	39	>75% Grass cover, Good, HSG A		
	26,752	98	Weighted Average		
	176		0.66% Pervious Area		
	26,576		99.34% Impervious Area		

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Tc (min) 6.0	Length (feet)	Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs) Direct Entry,							
0.0									
		Summary for Subcatchment D1: SUBCAT D1							
Runoff	=	0.78 cfs @ 12.09 hrs, Volume= 2,842 cf, Depth> 5.41"							
Type III 2	24-hr 25-`	20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs R Rainfall=5.65"							
<u>A</u>	<u>rea (sf)</u> 6,306	CN Description							
	0,300	 98 Proposed Pavement 39 >75% Grass cover, Good, HSG A 							
	6,306 6,306	98 Weighted Average 100.00% Impervious Area							
Tc (min)	Length (feet)	Slope Velocity Capacity Description (ft/ft) (ft/sec) (cfs)							
6.0		Direct Entry,							
Summary for Subcatchment D10: SUBCAT D10									
Runoff	=	0.92 cfs @ 12.09 hrs, Volume= 3,031 cf, Depth> 4.39"							
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs									

Type III 24-hr 2	25-YR Rainfall=5.65"
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_	A	rea (sf)	CN	Description						
*		7,041	98	Proposed Pavement						
_		1,238	39	>75% Grass cover, Good, HSG A						
		8,279	89	Weighted Average						
		1,238		14.95% Pervious Area						
		7,041		85.05% Imp	pervious Ar	ea				
	Тс	Length	Slope	Velocity	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	6.0					Direct Entry,				

Summary for Subcatchment D11: SUBCAT D11

Runoff = 2.07 cfs @ 12.09 hrs, Volume= 6,565 cf, Depth> 3.56"

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	A	rea (sf)	CN	Description						
*		15,866	98	Proposed Pavement						
		6,242	39	>75% Grass cover, Good, HSG A						
		22,108	81	81 Weighted Average						
		6,242		28.23% Pervious Area						
		15,866		71.77% Imp	pervious Ar	ea				
	Тс	Length	Slope	Velocity	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	6.0					Direct Entry,				

Summary for Subcatchment D12: SUBCAT D12

Runoff = 0.96 cfs @ 12.09 hrs, Volume= 3,209 cf, Depth> 4.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	A	rea (sf)	CN	Description					
*		7,394	98	Proposed Pavement					
		956	39	>75% Grass cover, Good, HSG A					
		8,350	91	Weighted Average					
		956		11.45% Pervious Area					
		7,394		88.55% Imp	pervious Ar	ea			
	Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	Description			
	6.0					Direct Entry,			

Summary for Subcatchment D2: SUBCAT D2

Runoff = 0.19 cfs @ 12.09 hrs, Volume= 619 cf, Depth> 4.39"

	A	rea (sf)	CN	Description						
*		1,422	98	Proposed Pavement						
		268	39	>75% Grass cover, Good, HSG A						
		1,690		Weighted Average						
		268		15.86% Pervious Area						
		1,422		84.14% Imp	pervious Ar	ea				
	Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	Description				
	6.0			,		Direct Entry,				

Summary for Subcatchment D3: SUBCAT D3

Runoff = 2.21 cfs @ 12.10 hrs, Volume= 7,034 cf, Depth> 2.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	A	rea (sf)	CN	Description					
*		17,650	98	Proposed F	avement				
		16,948	39	>75% Grass cover, Good, HSG A					
		34,598	69	Weighted Average					
		16,948		48.99% Pervious Area					
		17,650		51.01% Imp	pervious Are	ea			
	т.	1	<u>Olan</u>	Valasita.	0 it -	Description			
	Tc	Length	Slope		Capacity	Description			
	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)				
	6.0					Direct Entry,			

Summary for Subcatchment D4: SUBCAT D4

Runoff = 0.35 cfs @ 12.09 hrs, Volume= 1,116 cf, Depth> 3.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

_	A	rea (sf)	CN	Description						
*		2,651	98	Proposed F	Proposed Pavement					
_		1,006	39	>75% Gras	>75 ['] % Grass cover, Good, HSG A					
		3,657	82	Weighted Average						
		1,006		27.51% Pervious Area						
		2,651		72.49% Imp	pervious Ar	ea				
	Tc	Length	Slope	e Velocity	Capacity	Description				
_	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)					
	6.0					Direct Entry,				
						• ·				

Summary for Subcatchment D5: SUBCAT D5

Runoff = 0.52 cfs @ 12.09 hrs, Volume= 1,626 cf, Depth> 3.08"

	Area (sf)	CN	Description
*	3,983	98	Proposed Pavement
	2,358	39	>75% Grass cover, Good, HSG A
	6,341	76	Weighted Average
	2,358		37.19% Pervious Area
	3,983		62.81% Impervious Area

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description				
6.0					Direct Entry	Ι,			
	Summary for Subcatchment D6: SUBCAT D6								
Runoff	=	0.67 cf	s @ 12.0	9 hrs, Volu	ime=	2,137 cf, Depth> 3.87"			
	y SCS TR 24-hr 25-			CS, Weigh	ted-CN, Time	Span= 0.00-24.00 hrs, dt= 0.05 hrs			
A	rea (sf)	CN [Description						
*	5,038	98 F	Proposed P	avement					
	1,595	39 >	•75% Gras	s cover, Go	ood, HSG A				
	6,633		Veighted A						
	1,595			vious Area					
	5,038	I	'5.95% Imp	pervious Ar	ea				
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description				
6.0					Direct Entry	Ι,			
	Summary for Subcatchment D7: SUBCAT D7								

Summary for Subcatchment D7: SUBCAT D7

Runoff = 1.83 cfs @ 12.09 hrs, Volume= 5,936 cf, Depth> 4.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	A	rea (sf)	CN	Description						
*		13,857	98	Proposed Pavement						
		3,183	39	>75% Grass cover, Good, HSG A						
		17,040	87	Veighted Average						
		3,183		18.68% Pervious Area						
		13,857		81.32% Imp	pervious Ar	rea				
	Тс	Length	Slope	Velocity	Capacity	Description				
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	6.0					Direct Entry,				

Summary for Subcatchment D8: SUBCAT D8

Runoff = 0.86 cfs @ 12.09 hrs, Volume= 2,834 cf, Depth> 4.39"

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475-POST

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	A	rea (sf)	CN	Description							
*		6,511	98	Proposed Pavement							
		1,229	39	>75% Grass cover, Good, HSG A							
		7,740	89	Weighted A	Veighted Average						
		1,229		15.88% Pervious Area							
		6,511		84.12% Imp	pervious Ar	ea					
	Тс	Length	Slope	e Velocity	Capacity	Description					
_	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)						
	6.0					Direct Entry,					

Summary for Subcatchment D9: SUBCAT D9

Runoff = 2.07 cfs @ 12.09 hrs, Volume= 6,711 cf, Depth> 4.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

_	A	rea (sf)	CN	Description					
*		15,659	98	Proposed Pavement					
_		3,606	39	>75% Grass cover, Good, HSG A					
		19,265	87	Weighted Average					
		3,606		18.72% Pervious Area					
		15,659		81.28% Imp	pervious Ar	ea			
	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description			
	6.0					Direct Entry,			

Summary for Subcatchment E1: SUBCAT E1

Runoff = 0.68 cfs @ 12.09 hrs, Volume= 2,378 cf, Depth> 5.06"

	A	rea (sf)	CN	Description							
*		5,394	98	Proposed Pavement							
		245	39	>75% Gras	>75% Grass cover, Good, HSG A						
		5,639 245 5,394	95	Weighted A 4.34% Perv 95.66% Imp	ious Area	ea					
	Tc (min)	Length (feet)	Slop (ft/ft	,	Capacity (cfs)	Description					
	6.0					Direct Entry,					

Summary for Subcatchment E10: SUBCAT E10

Runoff = 0.88 cfs @ 12.09 hrs, Volume= 2,766 cf, Depth> 2.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	Area (sf)	CN	Description							
*	6,826	98	Proposed F	avement						
	4,302	39	>75% Gras	>75% Grass cover, Good, HSG A						
	11,128	75	Weighted A	Weighted Average						
	4,302		38.66% Per	38.66% Pervious Area						
	6,826		61.34% Imp	61.34% Impervious Area						
	Tc Lenat			Conocity	Description					
(r	Tc Lengtl min) (feet		,	Capacity (cfs)	Description					
	6.0		· · · ·		Direct Entry,					

Summary for Subcatchment E11: SUBCAT E11

Runoff = 2.81 cfs @ 12.09 hrs, Volume= 9,636 cf, Depth> 4.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	Ar	rea (sf)	CN	Description						
*		21,962	98	Proposed F	avement					
		1,413	39	>75% Gras	s cover, Go	bod, HSG A				
		23,375	94	Weighted A	Neighted Average					
		1,413		6.04% Perv	6.04% Pervious Area					
	1	21,962		93.96% Imp	pervious Ar	ea				
	Тс	Length	Slope	,	Capacity	Description				
(I	min)	(feet)	(ft/ft) (ft/sec)	(cfs)					
	6.0					Direct Entry,				

Summary for Subcatchment E12: SUBCAT E12

Runoff = 2.29 cfs @ 12.09 hrs, Volume= 7,942 cf, Depth> 5.06"

	Area (sf)	CN	Description			
*	17,915	98	Proposed Pavement			
	918	39	>75% Grass cover, Good, HSG A			
	18,833	95	Weighted Average			
	918		4.87% Pervious Area			
	17,915		95.13% 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 E13: SUBCAT E13							
Runoff = 4.30 cfs @ 12.09 hrs, Volume= 14,958 cf, Depth> 5.06"							
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"							
Area (sf) CN Description							
* 33,543 98 Proposed Pavement							
1,924 39 >75% Grass cover, Good, HSG A							
35,467 95 Weighted Average							
1,924 5.42% Pervious Area							
33,543 94.58% Impervious Area							
Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs)							
6.0 Direct Entry,							

Summary for Subcatchment E14: SUBCAT E14

Runoff = 3.43 cfs @ 12.09 hrs, Volume= 12,263 cf, Depth> 5.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	A	rea (sf)	CN	Description						
*		27,291	98	Proposed Pavement						
		517	39 :	>75% Grass cover, Good, HSG A						
		27,808	97	Weighted Average						
		517		1.86% Perv	ious Area					
		27,291	9	98.14% Imp	pervious Ar	ea				
	Тс	Length	Slope	Velocity	Capacity	Description				
	(min)	(feet)	(ft/ft)	t) (ft/sec) (cfs)						
	6.0					Direct Entry,				

Summary for Subcatchment E15: SUBCAT E15

Runoff = 4.00 cfs @ 12.09 hrs, Volume= 14,284 cf, Depth> 5.29"

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_	А	rea (sf)	CN	Description							
*		31,789	98	Proposed Pavement							
		603	39	>75 ['] % Grass cover, Good, HSG A							
		32,392	97	Weighted A	verage						
		603		1.86% Perv	ious Area						
		31,789		98.14% Imp	pervious Ar	ea					
	Тс	Length	Slope	e Velocity	Capacity	Description					
_	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)						
	6.0					Direct Entry,					

Summary for Subcatchment E16: SUBCAT E16

Runoff = 3.09 cfs @ 12.09 hrs, Volume= 9,900 cf, Depth> 3.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	A	rea (sf)	CN	Description						
*		23,459	98	Proposed Pavement						
_		7,262	39 :	>75% Gras	s cover, Go	bod, HSG A				
		30,721	84	Weighted Average						
		7,262		23.64% Pervious Area						
		23,459		76.36% Imp	pervious Are	ea				
_	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description				
	6.0					Direct Entry,				

Summary for Subcatchment E17: SUBCAT E17

Runoff = 0.01 cfs @ 17.15 hrs, Volume= 396 cf, Depth> 0.04"

	Area (sf)	CN	Description	
	30,658	30,658 30 Brush, Good, HSG A		
	89,860	30	Woods, Good, HSG A	
*	0	98	Ex. Wetland	
*	0	98	Ex. Building	
*	0	98	Ex. Pavement	
	120,518 120,518	30	Weighted Average 100.00% Pervious Area	

	d by The		Group, In 602 © 202		FRIARS DRIVE POST DEVELOPMENT <i>Type III 24-hr 25-YR Rainfall=5.65"</i> Printed 10/5/2021 Software Solutions LLC Page 39
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= 2.95"
0.5	55	0.1200	1.73		Shallow Concentrated Flow,
0.0	00	0.1200	1.70		Woodland Kv= 5.0 fps
0.4	85	0.3300	4.02		Shallow Concentrated Flow,
0.4	00	0.0000	4.02		Short Grass Pasture Kv= 7.0 fps
					Short Glass Fasture RV-1.0 lps
7.2	190	Total			

Summary for Subcatchment E18: SUBCAT E18

Runoff = 0.00 cfs @ 17.13 hrs, Volume= 39 cf, Depth> 0.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	Area (sf)	CN	Description					
	11,752	30	Brush, Goo	d, HSG A				
	0	30	Woods, Go	od, HSG A				
*	0	98	Ex. Wetland	ł				
*	0	98	Ex. Building	Ex. Building				
*	0	98	Ex. Paveme	ent				
	11,752	30	Weighted A	verage				
	11,752		100.00% Pe		a			
Т	c Length	Slop	be Velocity	Capacity	Description			
(mir	n) (feet)	(ft/	ft) (ft/sec)	(cfs)				
6.	0				Direct Entry,			

Summary for Subcatchment E19: SUBCAT E19

Runoff = 0.01 cfs @ 17.13 hrs, Volume= 249 cf, Depth> 0.04"

	Area (sf)	CN	Description
	43,151	30	Brush, Good, HSG A
	32,602	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	75,753 75,753	30	Weighted Average 100.00% Pervious Area

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Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	Description				
6.0					Direct Entry	Ι,			
			Summar	y for Sub	catchment	E2: SUBCAT E2			
Runoff	=	0.83	cfs @ 12.0)9 hrs, Volu	ume=	2,910 cf, Depth> 5.18"			
			ethod, UH=: nfall=5.65"	SCS, Weigh	nted-CN, Time	Span= 0.00-24.00 hrs, dt= 0.05 hrs			
-	rea (sf)		Description						
*	6,501 245	98 39	Proposed >75% Gras		ood, HSG A				
	6,746 245 6,501	96	Weighted / 3.63% Per 96.37% Im		ea				
Tc (min)	Length (feet)	Slope (ft/ft	,	Capacity (cfs)	Description				
6.0					Direct Entry	Ι,			
			Summar	y for Sub	catchment	E3: SUBCAT E3			
Runoff	=	1.22 (cfs @ 12.0)9 hrs, Volu	ume=	4,204 cf, Depth> 4.95"			
	Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"								
A	rea (sf)	CN	Descriptior	1					

	A	rea (st)	CN	Description							
*		9,518	98	Proposed Pavement							
_		679	39	>75% Gras	s cover, Go	bod, HSG A					
		10,197	94	94 Weighted Average							
		679		6.66% Pervious Area							
		9,518		93.34% Imp	pervious Ar	ea					
	_				_						
	Tc	Length	Slope	e Velocity	Capacity	Description					
_	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)						
	6.0					Direct Entry,					
						•					

Summary for Subcatchment E4: SUBCAT E4

Runoff = 1.28 cfs @ 12.09 hrs, Volume= 4,258 cf, Depth> 4.61"

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475-POST

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	A	rea (sf)	CN	Description							
*		9,769	98	Proposed Pavement							
		1,309	39	>75% Gras	75% Grass cover, Good, HSG A						
		11,078	78 91 Weighted Average								
		1,309		11.82% Pe	vious Area	а					
		9,769		88.18% Imp	pervious Ar	rea					
	Tc	Length	Slope		Capacity						
	(min)	(feet)	(ft/ft	(ft/sec)	(cfs)						
	6.0					Direct Entry,					

Summary for Subcatchment E5: SUBCAT E5

Runoff = 0.86 cfs @ 12.09 hrs, Volume= 2,732 cf, Depth> 3.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	A	rea (sf)	CN I	Description							
*		6,532	98	Proposed Pavement							
_		3,208	39 :	>75% Gras	s cover, Go	ood, HSG A					
		9,740	79	Weighted Average							
		3,208		32.94% Pei	vious Area						
		6,532	(67.06% Imp	pervious Are	ea					
	Тс	Length	Slope	,	Capacity	Description					
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	6.0					Direct Entry,					

Summary for Subcatchment E6: SUBCAT E6

Runoff = 1.17 cfs @ 12.09 hrs, Volume= 3,707 cf, Depth> 3.37"

	A	rea (sf)	CN	Description							
*		8,885	98	Proposed Pavement							
		4,330	39	>75% Gras	s cover, Go	bod, HSG A					
		13,215	79 Weighted Average								
		4,330		32.77% Per	vious Area	1					
		8,885		67.23% Imp	pervious Are	ea					
	_		~		•						
	Tc	Length	Slope	,	Capacity	Description					
	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)						
	6.0					Direct Entry,					
						-					

Summary for Subcatchment E7: SUBCAT E7

Runoff = 1.08 cfs @ 12.09 hrs, Volume= 3,666 cf, Depth> 4.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

_	A	rea (sf)	CN	Description					
*		8,274	98	Proposed P	avement				
_		826	39	>75% Gras	s cover, Go	bod, HSG A			
		9,100	93	Weighted Average					
		826		9.08% Perv	ious Area				
		8,274		90.92% Imp	pervious Ar	ea			
	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description			
	6.0					Direct Entry,			

Summary for Subcatchment E8: SUBCAT E8

Runoff = 1.49 cfs @ 12.09 hrs, Volume= 4,997 cf, Depth> 4.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

_	A	rea (sf)	CN	Description					
*		11,495	98	Proposed F	avement				
		1,202	39	>75% Gras	s cover, Go	bod, HSG A			
_		12,697	92	92 Weighted Average					
		1,202		9.47% Perv	ious Area				
		11,495		90.53% Imp	pervious Ar	ea			
	Тс	Length	Slope		Capacity	Description			
_	(min)	(feet)	(ft/ft	(ft/sec)	(cfs)				
	6.0					Direct Entry,			
						-			

Summary for Subcatchment E9: SUBCAT E9

Runoff = 0.48 cfs @ 12.09 hrs, Volume= 1,682 cf, Depth> 5.06"

	Area (sf)	CN	Description			
*	3,786	98	Proposed Pavement			
	202	39	>75% Grass cover, Good, HSG A			
3,988 95 Weighted Average			Weighted Average			
	202		5.07% Pervious Area			
	3,786		94.93% Impervious Area			

	d by The		Group, In /602 © 202		Type III 24-hr 25-YR Rainfall=5.65" Printed 10/5/2021 O Software Solutions LLC Page 43							
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description							
6.0					Direct Entry,							
	Summary for Subcatchment G1: SUBCAT G1											
Runoff	=	0.02 cf	s@ 17.2	1 hrs, Volu	ime= 664 cf, Depth> 0.04"							
			hod, UH=S fall=5.65"	SCS, Weigh	ted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs							
A	rea (sf)	CN E	Description									
1	30,014		Brush, Goo									
	73,521			od, HSG A								
*	0		x. Wetland									
*	0 0		x. Building									
			X. Paveme									
	203,535 203,535		Veighted A	ervious Are	a							
2	.00,000	I	00.00701		α 							
Tc	Length	Slope	Velocity	Capacity	Description							
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)								
7.4	50	0.0800	0.11		Sheet Flow,							
					Woods: Light underbrush n= 0.400 P2= 2.95"							
2.3	214	0.1000	1.58		Shallow Concentrated Flow,							
0.1	36	0.3300	4.02		Woodland Kv= 5.0 fps Shallow Concentrated Flow,							
0.1	50	0.0000	4.02		Short Grass Pasture Kv= 7.0 fps							
2.0	790	0.0200	6.50	182.01	Trap/Vee/Rect Channel Flow, Bot.W=25.00' D=1.00' Z= 3.0 '/' Top.W=31.00' n= 0.030 Stream, clean & straight							

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11.8 1,090 Total

Summary for Subcatchment K: SUBCAT K

Runoff = 2.58 cfs @ 12.26 hrs, Volume= 17,610 cf, Depth> 0.66"

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Page 44

475-POST

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	A	rea (sf)	CN [Description						
		30,443	61 >	75% Gras	s cover, Go	bod, HSG B				
		67,128	55 V	Voods, Go	od, HSG B					
*		16,485	98 E	Ex. Wetland	b					
*		7,709	98 E	Ex. Building	1					
*		772	98 E	Ex. Pavement						
		36,534	39 >	•75% Gras	s cover, Go	bod, HSG A				
	1	59,400	30 V	Voods, Go	od, HSG A					
	318,471 45 Weighted Average									
	2	93,505	ç	2.16% Pei	vious Area					
	24,966 7.84% Impervious Area					а				
	Тс	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	5.6	50	0.1600	0.15		Sheet Flow,				
						Woods: Light underbrush n= 0.400 P2= 2.95"				
	2.4	226	0.1000	1.58		Shallow Concentrated Flow,				
						Woodland Kv= 5.0 fps				
	0.2	32	0.5000	3.54		Shallow Concentrated Flow,				
						Woodland Kv= 5.0 fps				
	2.4	915	0.0200	6.40	147.25					
						Bot.W=20.00' D=1.00' Z= 3.0 '/' Top.W=26.00'				
						n= 0.030 Earth, grassed & winding				
	400	4 000								

10.6 1,223 Total

Summary for Subcatchment L: SUBCAT L

Runoff = 1.61 cfs @ 12.30 hrs, Volume= 13,007 cf, Depth> 0.50"

	Area (sf)	CN	Description
	75,110	61	>75% Grass cover, Good, HSG B
	51,028	55	Woods, Good, HSG B
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	24,329	39	>75% Grass cover, Good, HSG A
	162,646	30	Woods, Good, HSG A
	313,113	42	Weighted Average
	313,113		100.00% Pervious Area
(n	Tc Length nin) (feet)	Slor (ft/	
	6.0		Direct Entry,

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Summary for Subcatchment R1: SUBCAT R1

Runoff = 0.89 cfs @ 12.09 hrs, Volume= 3,245 cf, Depth> 5.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

_	A	rea (sf)	CN	Description						
*		7,200	98	98 Proposed Building						
		7,200		100.00% Impervious Area						
	Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	Description				
	6.0					Direct Entry,				
	Summary for Subcatchment R10: SUBCAT R10									

Runoff = 4.02 cfs @ 12.09 hrs, Volume= 14,604 cf, Depth> 5.41"

Ar	ea (sf)	CN	Description						
*	32,400	98	Proposed B	uilding					
	32,400	0 100.00% Impervious Area							
Tc (min)	Length (feet)	Slop (ft/ft		Capacity (cfs)	Description				
6.0					Direct Entr	у,			
	Summary for Subcatchment R11: SUBCAT R11								
Runoff	=	3.91	cfs @ 12.0	9 hrs, Volu	ime=	14,199 cf, Depth> 5.41"			
	Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"								
Ar	ea (sf)	CN	Description						
* 4	31 500	98	Proposed P	uilding					

'	ype in 24-in 20-in (idamidal-0.00							
	А	rea (sf)	CN E	Description				
*		31,500	98 F	Proposed B	Building			
		31,500	1	00.00% In	npervious A	Area		
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description		
_	6.0	((1011)	((010)	Direct Entry,		

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Summary for Subcatchment R12: SUBCAT R12

Runoff = 3.91 cfs @ 12.09 hrs, Volume= 14,199 cf, Depth> 5.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

_	A	rea (sf)	CN I	Description						
*		31,500	98	98 Proposed Building						
31,500 100.00% Impervious Area										
_	Tc (min)	Length (feet)	Slope (ft/ft)		Capacity (cfs)	Description				
	6.0					Direct Entry,				
	Summary for Subcatchment R13: SUBCAT R13									

Runoff = 3.27 cfs @ 12.09 hrs, Volume= 11,866 cf, Depth> 5.41"

A	Area (sf)	CN E	Description						
*	26,325	98 F	Proposed E	Building					
	26,325	25 100.00% Impervious Area							
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description				
6.0	6.0 Direct Entry,								
	Summary for Subcatchment R14: SUBCAT R14								
Runoff	=	3.54 cf	fs @ 12.0	9 hrs, Volu	Ime= 12,880 cf, Depth> 5.41"				
	Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"								
		<u> </u>							

_	A	rea (sf)	CN [Description						
*		28,575	98 F	Proposed Building						
		28,575		100.00% Impervious Area						
	Тс	Length	Slope	Velocity	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	6.0					Direct Entry,				

	FRIARS DRIVE POST DEVELOPI	MENT
475-POST	Type III 24-hr 25-YR Rainfall=	5.65"
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Summary for Subcatchment R15: SUBCAT R15

Runoff = 3.91 cfs @ 12.09 hrs, Volume= 14,199 cf, Depth> 5.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

_	A	rea (sf)	CN	Description						
*		31,500	98	98 Proposed Building						
	31,500 100.00% Impervious Area									
	Tc (min)	Length (feet)	Slope (ft/ft	,	Capacity (cfs)	Description				
	6.0		Direct Entry,							
	Summary for Subcatchment R16: SUBCAT R16									

Runoff = 3.91 cfs @ 12.09 hrs, Volume= 14,199 cf, Depth> 5.41"

Area (s	f) CN	Description						
* 31,50	1,500 98 Proposed Building							
31,50	31,500 100.00% Impervious Area							
Tc Leng (min) (fe		ope Velocity Capacity Description /ft) (ft/sec) (cfs)						
6.0		Direct Entry,						
Summary for Subcatchment R17: SUBCAT R17								
Runoff =	3.91	1 cfs @ 12.09 hrs, Volume= 14,199 cf, Depth> 5.41"						
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"								
Area (s	Area (sf) CN Description							

_	A	rea (sr)	CN L	Description				
*		31,500	98 F	Proposed Building				
	31,500 100.00% Impervious Area					Area		
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description		
			(1011)	(11/300)	(013)			
_						Direct Entry,		

	FRIARS DRIVE	POST DEVE	LOPMENT
475-POST	Type III 24-hr	25-YR Rair	nfall=5.65"
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Summary for Subcatchment R18: SUBCAT R18

Runoff = 0.89 cfs @ 12.09 hrs, Volume= 3,245 cf, Depth> 5.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

_	A	rea (sf)	CN	Description						
*		7,200	98	98 Proposed Building						
		7,200	100.00% Impervious Area							
	Tc (min)	Length (feet)	Slope (ft/ft		Capacity (cfs)	•				
	6.0		Direct Entry,							
	Summary for Subcatchment R2: SUBCAT R2									

Runoff = 3.91 cfs @ 12.09 hrs, Volume= 14,199 cf, Depth> 5.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

Area (sf) CN Description							
<u>* 31,500 98 Proposed Building</u>							
31,500 100.00% Impervious Area							
Tc Length Slope Velocity Capacity Description (min) (feet) (ft/ft) (ft/sec) (cfs)							
6.0 Direct Entry,							
Summary for Subcatchment R3: SUBCAT R3							
Runoff = 7.03 cfs @ 12.09 hrs, Volume= 25,557 cf, Depth> 5.41"							
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"							
Area (sf) CN Description							
* 56,700 98 Proposed Building							
56,700 100.00% Impervious Area							

TcLengthSlopeVelocityCapacityDescription(min)(feet)(ft/ft)(ft/sec)(cfs)

6.0

Direct Entry,

A75-POST Type III 24-br 25-YR Rainfall=5.6		FRIARS DRIVE POST DEVELOPMENT
	475-POST	Type III 24-hr 25-YR Rainfall=5.65"
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Summary for Subcatchment R4: SUBCAT R4

Runoff = 3.27 cfs @ 12.09 hrs, Volume= 11,866 cf, Depth> 5.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

_	A	rea (sf)	CN I	Description						
*		26,325	98 I	98 Proposed Building						
	26,325 100.00% Impervious Area									
	Tc (min)	Length (feet)	Slope (ft/ft)		Capacity (cfs)	Description				
	6.0					Direct Entry,				
	Summary for Subcatchment R5: SUBCAT R5									

Runoff = 3.54 cfs @ 12.09 hrs, Volume= 12,880 cf, Depth> 5.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

Area (sf)	CN	Description						
<u>* 28,575</u>	28,575 98 Proposed Building							
28,575 100.00% Impervious Area								
Tc Lengt (min) (fee			Capacity (cfs)	Description				
6.0				Direct Entry,				
Summary for Subcatchment R6: SUBCAT R6								
Runoff =	3.91	cfs @ 12.09	9 hrs, Volu	me= 14,199 cf, Dep	oth> 5.41"			
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"								
Area (sf	CN	Description						
* 31,500	98	Proposed B	uilding					
31,500		100.00% lm	pervious A	еа				

Тс	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	-

6.0 Direct Entry,

	FRIARS DRIVE	POST DEVE	LOPMENT
475-POST	Type III 24-hr	25-YR Rain	fall=5.65"
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Summary for Subcatchment R7: SUBCAT R7

Runoff = 3.91 cfs @ 12.09 hrs, Volume= 14,199 cf, Depth> 5.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

Α	Area (sf) CN Description							
*	31,500	98 Pro	posed B	uilding				
31,500 100.00% Impervious Area								
Tc (min)	Length (feet)	Slope \ (ft/ft)	/elocity (ft/sec)	Capacity (cfs)	Description			
6.0	6.0 Direct Entry,							
	Summary for Subcatchment R8: SUBCAT R8							
Runoff	=	3.91 cfs (@ 12.0	9 hrs, Volu	ime=	14,199 cf,	Depth> 5.41	"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

<u>+</u>	<u>vrea (sf)</u> 31,500 31,500	98								
Tc (min)	Length (feet)	Slope (ft/ft)	e Velocity	Capacity (cfs)	Description					
6.0	6.0 Direct Entry,									
	Summary for Subcatchment R9: SUBCAT R9									
Runoff	=	0.89 c	fs @ 12.0	9 hrs, Volu	ime=	3,245 cf, Depth> 5.41"				
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"										
A	vrea (sf)	CN	Description							
*	7,200	98	Proposed B	uilding						
	7,200		100.00% In	pervious A	rea					

Description

 (min)
 (feet)
 (ft/ft)
 (ft/sec)
 (cfs)

 6.0
 Direct Entry,

Capacity

Slope Velocity

Tc Length

Summary for Subcatchment S1: SUBCAT S1

Runoff	=	0.01 cfs @	17.13 hrs,	Volume=	188 cf, Depth> 0).04"
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Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	A	rea (sf)	CN	Description		
		816	39	>75% Gras	s cover, Go	ood, HSG A
		56,296	30	Woods, Go	od, HSG A	N N N N N N N N N N N N N N N N N N N
*		0	98	Ex. Wetland	b	
*		0	98	Ex. Building	1	
*		0	98	Ex. Paveme	ent	
		57,112	30	Weighted A	verage	
		57,112		100.00% P	ervious Are	ea
	Tc	Length	Slop		Capacity	Description
_	(min)	(feet)	(ft/1	ft) (ft/sec)	(cfs)	
	6.0					Direct Entry,
						•

Summary for Subcatchment S10: SUBCAT S10

Runoff	=	0.04 cfs @	14.74 hrs,	Volume=	1,178 cf,	Depth>	0.15"
--------	---	------------	------------	---------	-----------	--------	-------

	A	vrea (sf)	CN I	Description		
		19,991	30 I	Brush, Goo	d, HSG A	
		70,751	30	Noods, Go	od, HSG A	
*		5,910	98 I	Ex. Wetland	ł	
*		0	98 I	Ex. Building	1	
*		0	98 I	Ex. Paveme	ent	
		96,652	34 \	Neighted A	verage	
		90,742	ę	93.89% Per	vious Area	
		5,910	(6.11% Impe	ervious Area	ì
	Тс	Length	Slope		Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	9.7	50	0.0400	0.09		Sheet Flow,
						Woods: Light underbrush n= 0.400 P2= 2.95"
	1.5	105	0.0570	1.19		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	0.8	300	0.0200	6.50	182.01	Trap/Vee/Rect Channel Flow,
						Bot.W=25.00' D=1.00' Z= 3.0 '/' Top.W=31.00'
						n= 0.030
	12.0	455	Total			

Summary for Subcatchment S11: SUBCAT S11

Runoff = 0.39 cfs @ 12.36 hrs, Volume= 3,747 cf, Depth> 0.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	A	rea (sf)	CN	Description		
		38,318	30	Brush, Goo	d, HSG A	
		58,186	30	Woods, Go	od, HSG A	
*		15,394	98	Ex. Wetland	ł	
*		0	98	Ex. Building	1	
*		1,378	98	Ex. Paveme	ent	
	1	13,276	40	Weighted A	verage	
		96,504	1	85.19% Pei	vious Area	
		16,772		14.81% Imp	pervious Are	ea
	Тс	Length	Slope		Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	4.8	50	0.2400	0.18		Sheet Flow,
						Woods: Light underbrush n= 0.400 P2= 2.95"
	0.5	62	0.1600	2.00		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	0.6	215	0.0200	6.50	182.01	Trap/Vee/Rect Channel Flow,
						Bot.W=25.00' D=1.00' Z= 3.0 '/' Top.W=31.00'
						n= 0.030
	5.9	327	Total,	Increased t	o minimum	Tc = 6.0 min

Summary for Subcatchment S12: SUBCAT S12

Runoff = 0.10 cfs @ 12.33 hrs, Volume= 862 cf, Depth> 0.45"

	Area (sf)	CN	Description				
	22,313	39	>75% Grass cover, Good, HSG A				
	0	30	/oods, Good, HSG A				
*	0	98	x. Wetland				
*	0	98	Ex. Building				
*	573	98	Ex. Pavement				
*	258	98	Proposed Pavement				
	23,144	41	Weighted Average				
	22,313		96.41% Pervious Area				
	831		3.59% Impervious Area				

475-PC						Type III 24-hr 25-YR Rainfall=5.65"				
	ed by The) Coffwara Cal	utions LLC	Printed 10/5/2021		
пушося						D Software Solu		Page 53		
Tc (min)	Length (feet)	Slop (ft/f			Capacity (cfs)	Description				
6.0	()			/	(/	Direct Entr	у,			
	Summary for Subcatchment S13: SUBCAT S13									
Runoff	=	1.56	cfs @ 1	2.09	hrs, Volu	ume=	5,253 cf, [Depth> 4.72"		
	Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"									
A	Area (sf)	CN	Descript	ion						
	1,445	39				ood, HSG A				
*	0 0	30 98	Ex. Wet		d, HSG A					
*	0	98	Ex. Buil							
*	6,578	98	Ex. Pav		nt					
*	5,325	98	Propose	ed Pa	vement					
	13,348	92	Weighte							
	1,445				ious Area					
	11,903		89.17%	Impe	ervious Ar	ea				
Tc (min)	Length (feet)	Slop (ft/f			Capacity (cfs)	Description				
6.0			, ,			Direct Entr	у,			
			Summa	ry f	or Subc	atchment S	614: SUBC	AT S14		
Runoff	=	1.36	cfs @ 1	2.09	hrs, Volu	ume=	4,543 cf, [Depth> 4.61"		
	by SCS TF 24-hr 25-				CS, Weigh	nted-CN, Time	e Span= 0.00	-24.00 hrs, dt= 0.05 hrs		
A	Area (sf)	CN	Descript	ion						
	1,350	39 20				ood, HSG A				
	0	30	vvoous,	9000	d, HSG A					

FRIARS DRIVE POST DEVELOPMENT

		1,350	39	275% Grass cover, Good, HSG A							
		0	30	Woods, Good, HSG A							
*		0	98	Ex. Wetland	b						
*		0	98	Ex. Building	3						
*		4,039	98	Ex. Paveme	ent						
*		6,431	98	Proposed F	Pavement						
_		11,820	91	Weighted Average							
		1,350		11.42% Pervious Area							
		10,470		88.58% Imp	pervious Are	rea					
	т.	1	<u>Olam</u>	Valasita.	O a m a aite i	Description					
	Тс	Length	Slope	,	Capacity	•					
_	(min)	(feet)	(ft/ft) (ft/sec)	(cfs)						
	6.0					Direct Entry,					
						-					

Summary for Subcatchment S2: SUBCAT S2

Runoff = 0.01 cfs @ 17.13 hrs, Volume= 236 cf, Depth> 0.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	Area (s	sf)	CN I	Description					
	4,95	54	30 E	Brush, Goo	d, HSG A				
	66,76	69	30 \	Noods, Go	od, HSG A				
*		0	98 I	Ex. Wetland	ł				
*		0	98 I	Ex. Building	l				
*		0	98 I	Ex. Pavement					
	71,72	23	30 \	Neighted A	verage				
	71,72	23			ervious Are	a			
	Tc Leng	gth	Slope	Velocity	Capacity	Description			
(min) (fe	eet)	(ft/ft)	(ft/sec)	(cfs)				
	6.0					Direct Entry,			
	Summary for Subcatchment S3: SUBCAT S3								
(I	71,72 Tc Leng <u>min) (fe</u>	23 gth	Slope (ft/ft)	100.00% Pe Velocity (ft/sec)	ervious Are Capacity (cfs)	Description Direct Entry,			

= 0.01 cfs @ 17.13 hrs, Volume= 332 cf, Depth> 0.04"

Runoff

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	Area (sf)	CN	Description		
	76,797	30	Brush, Goo	d, HSG A	
	24,152	30	Woods, Go	od, HSG A	
*	0	98	Ex. Wetland	ł	
*	0	98	Ex. Building	l	
*	0	98	Ex. Paveme	ent	
	100,949	30	Weighted A	verage	
	100,949		100.00% Pe	ervious Are	ea
Т	5	Slop		Capacity	Description
(min) (feet)	(ft/f	t) (ft/sec)	(cfs)	
6.0)				Direct Entry,

Summary for Subcatchment S4: SUBCAT S4

Runoff = 0.02 cfs @ 17.21 hrs, Volume= 695 cf, Depth> 0.04"

FRIARS DRIVE POST DEVELOPMENT *Type III 24-hr 25-YR Rainfall=5.65"* Printed 10/5/2021 <u>s LLC Page 55</u>

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	A	rea (sf)	CN [Description		
		61,547	30 E	Brush, Goo	d, HSG A	
	1	51,359	30 V	Voods, Go	od, HSG A	
*		0	98 E	Ex. Wetland	ł	
*		0	98 E	Ex. Building	1	
*		0	98 E	Ex. Paveme	ent	
	212,906 30 Weighted Average					
	212,906 100.00% Pervious Area					а
	Tc	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
_	4.5	50	0.2800	0.19		Sheet Flow,
						Woods: Light underbrush n= 0.400 P2= 2.95"
	7.2	480	0.0500	1.12		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	11.7	530	Total			·

Summary for Subcatchment S5: SUBCAT S5

Runoff = 0.01 cfs @ 17.13

0.01 cfs @ 17.13 hrs, Volume= 173 cf, Depth> 0.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	Area (sf)	CN	CN Description			
	46,285	30	Brush, Good	d, HSG A		
	6,361	30	Woods, Goo	od, HSG A	N .	
*	0	98	Ex. Wetland			
*	0	98	Ex. Building			
*	0	98	Ex. Paveme	ent		
	52,646	30	Weighted A	verage		
	52,646		100.00% Pe		ea	
To (min		Slop (ft/f		Capacity (cfs)	Description	
6.0)				Direct Entry,	

Summary for Subcatchment S6: SUBCAT S6

Runoff = 0.01 cfs @ 17.13 hrs, Volume= 236 cf, Depth> 0.04"

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	А	rea (sf)	CN	Description			
_		68,947	30	Brush, Goo	d. HSG A		
		2,803	30	Woods, Go	,		
*		0	98	Ex. Wetland	1		
*		0	98	Ex. Building			
*		0	98	Ex. Paveme	ent		
		71,750	30	Weighted A	verage		
		71,750		100.00% Pervious Area			
	Тс	Length	Slop		Capacity	Description	
	(min)	(feet)	(ft/f	t) (ft/sec)	(cfs)		
	6.0					Direct Entry,	
						•	

Summary for Subcatchment S8: SUBCAT S8

Runoff 0.26 cfs @ 13.83 hrs, Volume= =

6,738 cf, Depth> 0.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Type III 24-hr 25-YR Rainfall=5.65"

	A	rea (sf)	CN E	Description		
	1	00,530	30 E	Brush, Goo	d, HSG A	
	3	10,010	30 V	Voods, Go	od, HSG A	
*		33,536	98 E	x. Wetland	t	
*		0	98 E	x. Building	1	
*		0	98 E	x. Paveme	ent	
*		2,426	<u>98</u> F	Proposed B	uilding	
	4	46,502	35 V	Veighted A	verage	
	4	10,540	9	1.95% Per	vious Area	
		35,962	8	.05% Impe	ervious Area	3
	Тс	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	3.9	50	0.4000	0.22		Sheet Flow,
						Woods: Light underbrush n= 0.400 P2= 2.95"
	5.0	353	0.0560	1.18		Shallow Concentrated Flow,
						Woodland Kv= 5.0 fps
	4.7	1,850	0.0200	6.50	182.01	Trap/Vee/Rect Channel Flow,
						Bot.W=25.00' D=1.00' Z= 3.0 '/' Top.W=31.00'
						n= 0.030
	13.6	2,253	Total			

2,253 I otal

Summary for Reach ER4: EX REACH 4

Inflow Area =	436,607 sf, 5.39% Im	pervious, Inflow Depth >	0.13" for 25-YR event
Inflow =	0.26 cfs @ 12.58 hrs, V	Volume= 4,839 c	of
Outflow =	0.19 cfs @ 13.99 hrs, `	Volume= 4,587 c	of, Atten= 28%, Lag= 84.7 min

475-POST

FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 25-YR Rainfall=5.65" Printed 10/5/2021 HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLC Page 57

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

Max. Velocity= 0.46 fps, Min. Travel Time= 46.9 min Avg. Velocity = 0.36 fps, Avg. Travel Time= 59.1 min

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Peak Storage= 532 cf @ 13.99 hrs Average Depth at Peak Storage= 0.02' Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 176.06 cfs

25.00' x 1.00' deep channel, n= 0.030 Stream, clean & straight Side Slope Z-value= 3.0 '/' Top Width= 31.00' Length= 1,291.0' Slope= 0.0187 '/' Inlet Invert= 140.00', Outlet Invert= 115.84'



Summary for Reach ER5: EX REACH 5

Inflow Area = 2,621,305 sf, 46.88% Impervious, Inflow Depth > 0.05" for 25-YR event 0.45 cfs @ 13.88 hrs, Volume= Inflow = 11,325 cf Outflow 0.44 cfs @ 14.40 hrs, Volume= 10,949 cf, Atten= 2%, Lag= 30.7 min =

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.67 fps, Min. Travel Time= 27.2 min Avg. Velocity = 0.54 fps, Avg. Travel Time= 33.8 min

Peak Storage= 713 cf @ 14.40 hrs Average Depth at Peak Storage= 0.03' Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 192.80 cfs

25.00' x 1.00' deep channel, n= 0.030 Stream, clean & straight Side Slope Z-value= 3.0 '/' Top Width= 31.00' Length= 1,085.0' Slope= 0.0224 '/' Inlet Invert= 115.35'. Outlet Invert= 91.00'



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Summary for Reach RG: REACH G

 Inflow Area =
 203,535 sf,
 0.00% Impervious, Inflow Depth >
 0.04" for 25-YR event

 Inflow =
 0.02 cfs @
 17.21 hrs, Volume=
 664 cf

 Outflow =
 0.02 cfs @
 17.23 hrs, Volume=
 662 cf, Atten= 0%, Lag= 1.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 1.90 fps, Min. Travel Time= 1.6 min Avg. Velocity = 1.81 fps, Avg. Travel Time= 1.7 min

Peak Storage= 2 cf @ 17.23 hrs Average Depth at Peak Storage= 0.04' Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 6.43 cfs

12.0" Round Pipe n= 0.012 Length= 180.0' Slope= 0.0278 '/' Inlet Invert= 155.00', Outlet Invert= 150.00'

Summary for Reach W1: WETLAND REACH 1

 Inflow Area =
 226,679 sf,
 0.37% Impervious, Inflow Depth =
 0.00" for 25-YR event

 Inflow =
 0.00 cfs @
 0.00 hrs, Volume=
 0 cf

 Outflow =
 0.00 cfs @
 0.00 hrs, Volume=
 0 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 0.00 hrs Average Depth at Peak Storage= 0.00' Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 177.62 cfs

25.00' x 1.00' deep channel, n= 0.030 Earth, grassed & winding Side Slope Z-value= 3.0 '/' Top Width= 31.00' Length= 420.0' Slope= 0.0190 '/' Inlet Invert= 152.00', Outlet Invert= 144.00'

‡

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Summary for Reach W2: WETLAND REACH 2

Inflow Area = 339,955 sf, 5.18% Impervious, Inflow Depth > 0.13" for 25-YR event 0.39 cfs @ 12.36 hrs, Volume= Inflow = 3.747 cf 3,661 cf, Atten= 35%, Lag= 12.3 min Outflow 0.26 cfs @ 12.56 hrs, Volume= = Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Max. Velocity= 0.40 fps, Min. Travel Time= 20.0 min Avg. Velocity = 0.25 fps, Avg. Travel Time= 31.5 min Peak Storage= 309 cf @ 12.56 hrs Average Depth at Peak Storage= 0.03' Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 117.48 cfs 25.00' x 1.00' deep channel, n= 0.030 Stream, clean & straight Side Slope Z-value= 3.0 '/' Top Width= 31.00' Length= 480.0' Slope= 0.0083 '/' Inlet Invert= 144.00', Outlet Invert= 140.00' ‡

Summary for Pond CA1: CB-A1

 Inflow Area =
 10,307 sf, 82.48% Impervious, Inflow Depth > 4.30" for 25-YR event

 Inflow =
 1.07 cfs @ 12.09 hrs, Volume=
 3,695 cf

 Outflow =
 1.07 cfs @ 12.09 hrs, Volume=
 3,695 cf, Atten= 0%, Lag= 0.0 min

 Primary =
 1.07 cfs @ 12.09 hrs, Volume=
 3,695 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.29' @ 12.10 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.74'	12.0" Round Culvert L= 83.0' Ke= 0.500 Inlet / Outlet Invert= 155.74' / 154.91' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.00 cfs @ 12.09 hrs HW=156.28' TW=155.56' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 1.00 cfs @ 3.34 fps) 475-POSTFRIARS DRIVE POST DEVELOPMENT
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Summary for Pond CA2: CB-A2

Inflow Area	=	5,412 sf,100.00% Impervious, Inflow De	pth > 5.41" for 25-YR event
Inflow :	=	0.67 cfs @ 12.09 hrs, Volume= 2	,439 cf
Outflow :	=	0.67 cfs @ 12.09 hrs, Volume= 2	,439 cf, Atten= 0%, Lag= 0.0 min
Primary :	=	0.67 cfs @ 12.09 hrs, Volume= 2	,439 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.69' @ 12.10 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.25'	12.0" Round Culvert L= 41.0' Ke= 0.500 Inlet / Outlet Invert= 156.25' / 155.84' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.61 cfs @ 12.09 hrs HW=156.68' TW=156.28' (Dynamic Tailwater) -1=Culvert (Outlet Controls 0.61 cfs @ 2.83 fps)

Summary for Pond CA3: CB-A3

Inflow Area	a =	37,673 sf, 89.92% Impervious, Inflow Depth > 4.74" for 25-YR event
Inflow	=	4.41 cfs @ 12.09 hrs, Volume= 14,883 cf
Outflow	=	4.41 cfs @ 12.09 hrs, Volume= 14,883 cf, Atten= 0%, Lag= 0.0 min
Primary	=	4.41 cfs @ 12.09 hrs, Volume= 14,883 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.05' @ 12.09 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.93'	18.0" Round Culvert L= 169.0' Ke= 0.500 Inlet / Outlet Invert= 153.93' / 153.09' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=4.30 cfs @ 12.09 hrs HW=155.04' TW=153.89' (Dynamic Tailwater) -1=Culvert (Barrel Controls 4.30 cfs @ 4.28 fps)

Summary for Pond CA4: CB-A4

Inflow Area	a =	6,616 sf, 89.62% Impervious, Inflow Depth > 4.72" for 25-YR event
Inflow	=	0.77 cfs @ 12.09 hrs, Volume= 2,604 cf
Outflow	=	0.77 cfs @ 12.09 hrs, Volume= 2,604 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.77 cfs @ 12.09 hrs, Volume= 2,604 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.43' @ 12.11 hrs Flood Elev= 159.00'

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Device	Routing	Invert	Outlet Devices
#1	Primary	154.93'	12.0" Round Culvert L= 50.0' Ke= 0.500 Inlet / Outlet Invert= 154.93' / 154.43' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.68 cfs @ 12.09 hrs HW=155.41' TW=155.04' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 0.68 cfs @ 2.68 fps)

Summary for Pond CC1: CB-C1

Inflow Area	=	6,254 sf	, 34.70% Impervious,	Inflow Depth >	1.62"	for 25-YR event
Inflow	=	0.25 cfs @	12.10 hrs, Volume=	843 c	f	
Outflow	=	0.25 cfs @	12.10 hrs, Volume=	843 c	f, Atter	n= 0%, Lag= 0.0 min
Primary :	=	0.25 cfs @	12.10 hrs, Volume=	843 c	f	·

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.59' @ 12.13 hrs Flood Elev= 162.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	159.25'	12.0" Round Culvert L= 33.0' Ke= 0.500 Inlet / Outlet Invert= 159.25' / 159.09' S= 0.0048 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.20 cfs @ 12.10 hrs HW=159.58' TW=159.49' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 0.20 cfs @ 1.34 fps)

Summary for Pond CC10: CB-C10

Inflow Area	a =	177,794 sf, 87.97% Impervious, Inflow Depth > 4.61" for 25-YR event
Inflow	=	20.07 cfs @ 12.09 hrs, Volume= 68,328 cf
Outflow	=	20.07 cfs @ 12.09 hrs, Volume= 68,328 cf, Atten= 0%, Lag= 0.0 min
Primary	=	20.07 cfs @ 12.09 hrs, Volume= 68,328 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 153.91' @ 12.11 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	151.48'	30.0" Round Culvert L= 170.0' Ke= 0.500 Inlet / Outlet Invert= 151.48' / 150.63' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=17.57 cfs @ 12.09 hrs HW=153.83' TW=152.93' (Dynamic Tailwater) -1=Culvert (Outlet Controls 17.57 cfs @ 4.75 fps) 475-POSTFRIARS DRIVE POST DEVELOPMENT
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Summary for Pond CC11: CB-C11

Inflow Area =	6,044 sf, 71.33% Impervious,	Inflow Depth > 3.56" for 25-YR event
Inflow =	0.57 cfs @ 12.09 hrs, Volume=	1,795 cf
Outflow =	0.57 cfs @ 12.09 hrs, Volume=	1,795 cf, Atten= 0%, Lag= 0.0 min
Primary =	0.57 cfs @ 12.09 hrs, Volume=	1,795 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.13' @ 12.09 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.75'	12.0" Round Culvert L= 30.0' Ke= 0.500 Inlet / Outlet Invert= 155.75' / 155.15' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.55 cfs @ 12.09 hrs HW=156.12' TW=149.52' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.55 cfs @ 2.08 fps)

Summary for Pond CC12: CB-C12

Inflow Are	a =	107,687 sf, 82.94% Impervious, Inflow Depth > 4.32" for 25-YR event
Inflow	=	11.56 cfs @ 12.09 hrs, Volume= 38,748 cf
Outflow	=	11.56 cfs @ 12.09 hrs, Volume= 38,748 cf, Atten= 0%, Lag= 0.0 min
Primary	=	11.56 cfs @ 12.09 hrs, Volume= 38,748 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 149.54' @ 12.09 hrs Flood Elev= 158.93'

Device	Routing	Invert	Outlet Devices
#1	Primary	147.70'	24.0" Round Culvert L= 70.0' Ke= 0.500 Inlet / Outlet Invert= 147.70' / 147.35' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=11.28 cfs @ 12.09 hrs HW=149.51' TW=148.57' (Dynamic Tailwater) -1=Culvert (Barrel Controls 11.28 cfs @ 4.96 fps)

Summary for Pond CC13: CB-C13

Inflow Area	a =	3,872 sf, 77.27% Impervious, Inflow Depth > 3.97" for 25-YR eve	ent
Inflow	=	0.40 cfs @ 12.09 hrs, Volume= 1,281 cf	
Outflow	=	0.40 cfs @ 12.09 hrs, Volume= 1,281 cf, Atten= 0%, Lag= 0.	0 min
Primary	=	0.40 cfs @ 12.09 hrs, Volume= 1,281 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.06' @ 12.09 hrs Flood Elev= 159.00'

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Device	Routing	Invert	Outlet Devices
#1	Primary	155.75'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 155.75' / 155.23' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.39 cfs @ 12.09 hrs HW=156.06' TW=150.38' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.39 cfs @ 1.89 fps)

Summary for Pond CC14: CB-C14

Inflow Area	a =	93,302 sf, 84.26% Impervious, Inflow Depth > 4.41" for 25-YR event	
Inflow	=	10.16 cfs @ 12.09 hrs, Volume= 34,265 cf	
Outflow	=	10.16 cfs @12.09 hrs, Volume=34,265 cf, Atten= 0%, Lag= 0.0 min	۱
Primary	=	10.16 cfs @ 12.09 hrs, Volume= 34,265 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 150.42' @ 12.11 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	148.66'	24.0" Round Culvert L= 172.0' Ke= 0.500 Inlet / Outlet Invert= 148.66' / 147.80' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=9.13 cfs @ 12.09 hrs HW=150.37' TW=149.51' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 9.13 cfs @ 4.28 fps)

Summary for Pond CC15: CB-C15

Inflow Area	a =	3,872 sf, 81.40% Impervious, Inflow	Depth > 4.18" for 25-YR event
Inflow	=	0.42 cfs @ 12.09 hrs, Volume=	1,349 cf
Outflow	=	0.42 cfs @ 12.09 hrs, Volume=	1,349 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.42 cfs @ 12.09 hrs, Volume=	1,349 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.07' @ 12.09 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.75'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 155.75' / 155.23' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.41 cfs @ 12.09 hrs HW=156.07' TW=151.21' (Dynamic Tailwater)

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Summary for Pond CC16: CB-C16

 Inflow Area =
 86,438 sf, 84.03% Impervious, Inflow Depth > 4.39" for 25-YR event

 Inflow =
 9.39 cfs @ 12.09 hrs, Volume=
 31,635 cf

 Outflow =
 9.39 cfs @ 12.09 hrs, Volume=
 31,635 cf, Atten= 0%, Lag= 0.0 min

 Primary =
 9.39 cfs @ 12.09 hrs, Volume=
 31,635 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 151.25' @ 12.11 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	149.62'	24.0" Round Culvert L= 172.0' Ke= 0.500 Inlet / Outlet Invert= 149.62' / 148.76' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=8.15 cfs @ 12.09 hrs HW=151.21' TW=150.37' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 8.15 cfs @ 4.17 fps)

Summary for Pond CC17: CB-C17

 Inflow Area =
 151,042 sf, 86.68% Impervious, Inflow Depth > 4.53" for 25-YR event

 Inflow =
 16.83 cfs @ 12.09 hrs, Volume=
 57,045 cf

 Outflow =
 16.83 cfs @ 12.09 hrs, Volume=
 57,045 cf, Atten= 0%, Lag= 0.0 min

 Primary =
 16.83 cfs @ 12.09 hrs, Volume=
 57,045 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.60' @ 12.12 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	152.40'	30.0" Round Culvert L= 165.0' Ke= 0.500 Inlet / Outlet Invert= 152.40' / 151.58' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=13.51 cfs @ 12.09 hrs HW=154.51' TW=153.83' (Dynamic Tailwater) -1=Culvert (Outlet Controls 13.51 cfs @ 4.11 fps)

Summary for Pond CC18: CB-C18

Inflow Area	=	125,536 sf, 84.98% Impervious, Inflow Depth > 4.42" for 25-YR event	
Inflow	=	13.73 cfs @ 12.09 hrs, Volume= 46,289 cf	
Outflow	=	13.73 cfs @ 12.09 hrs, Volume= 46,289 cf, Atten= 0%, Lag= 0.0 mi	n
Primary	=	13.73 cfs @ 12.09 hrs, Volume= 46,289 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.26' @ 12.12 hrs Flood Elev= 159.00'

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Device	Routing	Invert	Outlet Devices
#1	Primary	153.34'	30.0" Round Culvert L= 168.0' Ke= 0.500 Inlet / Outlet Invert= 153.34' / 152.50' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=11.29 cfs @ 12.09 hrs HW=155.20' TW=154.52' (Dynamic Tailwater)

Summary for Pond CC19: CB-C19

Inflow Area	=	98,449 sf, 81.01% Impervious, Inflow Depth > 4.15" for 25-YR event	
Inflow	=	10.37 cfs @ 12.09 hrs, Volume= 34,079 cf	
Outflow	=	10.37 cfs @ 12.09 hrs, Volume= 34,079 cf, Atten= 0%, Lag= 0.0 r	min
Primary	=	10.37 cfs @ 12.09 hrs, Volume= 34,079 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.37' @ 12.10 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	154.75'	24.0" Round Culvert L= 181.0' Ke= 0.500 Inlet / Outlet Invert= 154.75' / 153.84' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=9.48 cfs @ 12.09 hrs HW=156.35' TW=155.20' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 9.48 cfs @ 4.83 fps)

Summary for Pond CC2: CB-C2

Inflow Area	a =	10,503 sf,	53.18% Impervious,	Inflow Depth > 2.61"	for 25-YR event
Inflow	=	0.69 cfs @	12.09 hrs, Volume=	2,286 cf	
Outflow	=	0.69 cfs @	12.09 hrs, Volume=	2,286 cf, Atte	n= 0%, Lag= 0.0 min
Primary	=	0.69 cfs @	12.09 hrs, Volume=	2,286 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.49' @ 12.11 hrs Flood Elev= 162.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.99'	12.0" Round Culvert L= 56.0' Ke= 0.500 Inlet / Outlet Invert= 158.99' / 158.71' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.61 cfs @ 12.09 hrs HW=159.48' TW=159.19' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 0.61 cfs @ 2.32 fps) 475-POSTFRIARS DRIVE POST DEVELOPMENT
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Summary for Pond CC20: CB-C20

Inflow Area =	79,574 sf, 83.55% Impervious,	Inflow Depth > 4.36" for 25-YR event
Inflow =	8.60 cfs @ 12.09 hrs, Volume=	28,938 cf
Outflow =	8.60 cfs @ 12.09 hrs, Volume=	28,938 cf, Atten= 0%, Lag= 0.0 min
Primary =	8.60 cfs @ 12.09 hrs, Volume=	28,938 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 152.10' @ 12.11 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	150.57'	24.0" Round Culvert L= 169.0' Ke= 0.500 Inlet / Outlet Invert= 150.57' / 149.72' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=7.59 cfs @ 12.09 hrs HW=152.06' TW=151.21' (Dynamic Tailwater) -1=Culvert (Outlet Controls 7.59 cfs @ 4.19 fps)

Summary for Pond CC21: CB-C21

Inflow Area	a =	3,610 sf, 79.03% Impervious, Inflow Depth > 4.07" for 25-YR event	
Inflow	=	0.38 cfs @ 12.09 hrs, Volume= 1,226 cf	
Outflow	=	0.38 cfs @ 12.09 hrs, Volume= 1,226 cf, Atten= 0%, Lag= 0.0 mi	in
Primary	=	0.38 cfs @ 12.09 hrs, Volume= 1,226 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.05' @ 12.09 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.75'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 155.75' / 155.23' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.37 cfs @ 12.09 hrs HW=156.05' TW=152.07' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.37 cfs @ 1.87 fps)

Summary for Pond CC22: CB-C22

Inflow Area	a =	3,940 sf, 77.16% Impervious, Inflow Depth > 3.97" for 25-YR event	t
Inflow	=	0.41 cfs @ 12.09 hrs, Volume= 1,304 cf	
Outflow	=	0.41 cfs @ 12.09 hrs, Volume= 1,304 cf, Atten= 0%, Lag= 0.0 r	min
Primary	=	0.41 cfs @ 12.09 hrs, Volume= 1,304 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.07' @ 12.09 hrs Flood Elev= 159.00'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 25-YR Rainfall=5.65"
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Device	Routing	Invert	Outlet Devices
#1	Primary	155.75'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 155.75' / 155.23' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.40 cfs @ 12.09 hrs HW=156.06' TW=152.95' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.40 cfs @ 1.90 fps)

Summary for Pond CC23: CB-C23

Inflow Area =	72,272 sf	, 83.88% Impervious,	Inflow Depth > 4.39	for 25-YR event
Inflow =	7.82 cfs @	12.09 hrs, Volume=	26,426 cf	
Outflow =	7.82 cfs @	12.09 hrs, Volume=	26,426 cf, Att	en= 0%, Lag= 0.0 min
Primary =	7.82 cfs @	12.09 hrs, Volume=	26,426 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 152.97' @ 12.10 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	151.54'	24.0" Round Culvert L= 173.0' Ke= 0.500 Inlet / Outlet Invert= 151.54' / 150.67' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=6.98 cfs @ 12.09 hrs HW=152.94' TW=152.06' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 6.98 cfs @ 4.17 fps)

Summary for Pond CC24: CB-C24

Inflow Area	=	21,488 sf,	69.19% Impervious,	Inflow Depth > 3.52"	for 25-YR event
Inflow =	=	1.89 cfs @	12.09 hrs, Volume=	6,302 cf	
Outflow =	=	1.89 cfs @	12.09 hrs, Volume=	6,302 cf, Atte	n= 0%, Lag= 0.0 min
Primary =	=	1.89 cfs @	12.09 hrs, Volume=	6,302 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.57' @ 12.09 hrs Flood Elev= 159.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	154.81'	12.0" Round Culvert L= 42.0' Ke= 0.500 Inlet / Outlet Invert= 154.81' / 153.59' S= 0.0290 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.85 cfs @ 12.09 hrs HW=155.56' TW=153.90' (Dynamic Tailwater) -1=Culvert (Inlet Controls 1.85 cfs @ 2.94 fps) 475-POSTFRIARS DRIVE POST DEVELOPMENT
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Summary for Pond CC25: CB-C25

Inflow Area =	64,908 sf, 83.95% Impervious,	Inflow Depth > 4.40" for 25-YR event
Inflow =	7.02 cfs @ 12.09 hrs, Volume=	23,775 cf
Outflow =	7.02 cfs @ 12.09 hrs, Volume=	23,775 cf, Atten= 0%, Lag= 0.0 min
Primary =	7.02 cfs @ 12.09 hrs, Volume=	23,775 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 153.92' @ 12.10 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	152.59'	24.0" Round Culvert L= 190.0' Ke= 0.500 Inlet / Outlet Invert= 152.59' / 151.64' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=6.35 cfs @ 12.09 hrs HW=153.90' TW=152.94' (Dynamic Tailwater) -1=Culvert (Outlet Controls 6.35 cfs @ 4.15 fps)

Summary for Pond CC26: CB-C26

Inflow Area	a =	10,538 sf, 83.28% Impervious, Inflow Depth > 4.34" for 25-YR ev	ent
Inflow	=	1.12 cfs @ 12.09 hrs, Volume= 3,814 cf	
Outflow	=	1.12 cfs @ 12.09 hrs, Volume= 3,814 cf, Atten= 0%, Lag= 0	.0 min
Primary	=	1.12 cfs @ 12.09 hrs, Volume= 3,814 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.71' @ 12.09 hrs Flood Elev= 163.45'

Device Routi	ng Invert	Outlet Devices
#1 Prima	0	12.0" Round Culvert L= 41.0' Ke= 0.500 Inlet / Outlet Invert= 158.16' / 157.24' S= 0.0224 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.10 cfs @ 12.09 hrs HW=158.70' TW=157.96' (Dynamic Tailwater) -1=Culvert (Inlet Controls 1.10 cfs @ 2.51 fps)

Summary for Pond CC27: CB-C27

Inflow Area =	46,327 sf, 80.53% Impervious,	Inflow Depth > 4.09" for 25-YR event
Inflow =	4.78 cfs @ 12.09 hrs, Volume=	15,780 cf
Outflow =	4.78 cfs @ 12.09 hrs, Volume=	15,780 cf, Atten= 0%, Lag= 0.0 min
Primary =	4.78 cfs @ 12.09 hrs, Volume=	15,780 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.70' @ 12.10 hrs Flood Elev= 163.00'

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Device	Routing	Invert	Outlet Devices
#1	Primary	157.45'	18.0" Round Culvert L= 122.0' Ke= 0.500 Inlet / Outlet Invert= 157.45' / 156.84' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=4.39 cfs @ 12.09 hrs HW=158.68' TW=157.96' (Dynamic Tailwater)

Summary for Pond CC28: CB-C28

Inflow Area	=	38,084 sf,	78.73% Impervious	Inflow Depth >	3.97"	for 25-YR event
Inflow :	=	3.83 cfs @	12.09 hrs, Volume=	12,612 c	f	
Outflow :	=	3.83 cfs @	12.09 hrs, Volume=	12,612 c	f, Atter	n= 0%, Lag= 0.0 min
Primary :	=	3.83 cfs @	12.09 hrs, Volume=	12,612 c	f	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.39' @ 12.10 hrs Flood Elev= 163.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.20'	15.0" Round Culvert L= 101.0' Ke= 0.500 Inlet / Outlet Invert= 158.20' / 157.70' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=3.50 cfs @ 12.09 hrs HW=159.37' TW=158.68' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 3.50 cfs @ 3.80 fps)

Summary for Pond CC29: CB-C29

Inflow Area	a =	8,005 sf, 80.45% Impervious, Inflow Depth > 4.19" for 25-YR event	
Inflow	=	0.82 cfs @ 12.09 hrs, Volume= 2,794 cf	
Outflow	=	0.82 cfs @12.09 hrs, Volume=2,794 cf, Atten= 0%, Lag= 0.0 mi	nin
Primary	=	0.82 cfs @ 12.09 hrs, Volume= 2,794 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 160.26' @ 12.09 hrs Flood Elev= 165.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	159.80'	12.0" Round Culvert L= 77.0' Ke= 0.500 Inlet / Outlet Invert= 159.80' / 158.26' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.80 cfs @ 12.09 hrs HW=160.26' TW=158.70' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.80 cfs @ 2.30 fps)

Summary for Pond CC3: CB-C3

Inflow Area	=	11,812 sf, 56.98% Impervious, Inflow Depth > 2.83" for 25-YR eve	ent
Inflow :	=	0.84 cfs @ 12.09 hrs, Volume= 2,789 cf	
Outflow :	=	0.84 cfs @12.09 hrs, Volume=2,789 cf, Atten= 0%, Lag= 0.	.0 min
Primary :	=	0.84 cfs @ 12.09 hrs, Volume= 2,789 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.20' @ 12.11 hrs Flood Elev= 163.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.61'	12.0" Round Culvert L= 75.0' Ke= 0.500 Inlet / Outlet Invert= 158.61' / 158.24' S= 0.0049 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.77 cfs @ 12.09 hrs HW=159.19' TW=158.87' (Dynamic Tailwater) -1=Culvert (Outlet Controls 0.77 cfs @ 2.35 fps)

Summary for Pond CC30: CB-C30

Inflow Area	a =	3,220 sf,100.00% Impervious, Inflow Depth > 5.41" for 25-YR eve	ent
Inflow	=	0.40 cfs @ 12.09 hrs, Volume= 1,451 cf	
Outflow	=	0.40 cfs @ 12.09 hrs, Volume= 1,451 cf, Atten= 0%, Lag= 0.0	0 min
Primary	=	0.40 cfs @ 12.09 hrs, Volume= 1,451 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 160.73' @ 12.09 hrs Flood Elev= 165.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	160.42'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 160.42' / 159.90' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.39 cfs @ 12.09 hrs HW=160.73' TW=160.26' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.39 cfs @ 1.89 fps)

Summary for Pond CC31: CB-C31

Inflow Area =	28,995 sf, 76.60% Impervious,	Inflow Depth > 3.84" for 25-YR event
Inflow =	2.82 cfs @ 12.09 hrs, Volume=	9,284 cf
Outflow =	2.82 cfs @ 12.09 hrs, Volume=	9,284 cf, Atten= 0%, Lag= 0.0 min
Primary =	2.82 cfs @ 12.09 hrs, Volume=	9,284 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 160.01' @ 12.11 hrs Flood Elev= 163.00'

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Device	Routing	Invert	Outlet Devices
#1	Primary	158.96'	15.0" Round Culvert L= 133.0' Ke= 0.500 Inlet / Outlet Invert= 158.96' / 158.30' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.56 cfs @ 12.09 hrs HW=159.98' TW=159.37' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 2.56 cfs @ 3.23 fps)

Summary for Pond CC32: CB-C32

Inflow Area	a =	10,841 sf, 58.84% Impervious, Inflow Depth > 2.65" for 25-YR eve	nt
Inflow	=	0.75 cfs @ 12.09 hrs, Volume= 2,393 cf	
Outflow	=	0.75 cfs @12.09 hrs, Volume=2,393 cf, Atten= 0%, Lag= 0.0	0 min
Primary	=	0.75 cfs @ 12.09 hrs, Volume= 2,393 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 161.74' @ 12.09 hrs Flood Elev= 165.40'

Device I	Routing	Invert	Outlet Devices
	Primary	161.30'	12.0" Round Culvert L= 53.0' Ke= 0.500 Inlet / Outlet Invert= 161.30' / 159.75' S= 0.0292 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.74 cfs @ 12.09 hrs HW=161.74' TW=160.49' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.74 cfs @ 2.25 fps)

Summary for Pond CC33: CB-C33

Inflow Area	=	6,131 sf, 52.05% Impervious, Inflow Depth > 2.10" for 25-YR event	
Inflow	=	0.33 cfs @ 12.10 hrs, Volume= 1,072 cf	
Outflow	=	0.33 cfs @12.10 hrs, Volume=1,072 cf, Atten= 0%, Lag= 0.0 min	1
Primary	=	0.33 cfs @ 12.10 hrs, Volume= 1,072 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 162.43' @ 12.10 hrs Flood Elev= 165.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	162.15'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 162.15' / 161.40' S= 0.0288 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.33 cfs @ 12.10 hrs HW=162.43' TW=161.74' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.33 cfs @ 1.81 fps)

Summary for Pond CC34: CB-C34

Inflow Area =	19,633 sf, 71.85% Impervious,	Inflow Depth > 3.53" for 25-YR event
Inflow =	1.76 cfs @ 12.09 hrs, Volume=	5,772 cf
Outflow =	1.76 cfs @ 12.09 hrs, Volume=	5,772 cf, Atten= 0%, Lag= 0.0 min
Primary =	1.76 cfs @ 12.09 hrs, Volume=	5,772 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 160.49' @ 12.11 hrs Flood Elev= 163.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	159.65'	12.0" Round Culvert L= 88.0' Ke= 0.500 Inlet / Outlet Invert= 159.65' / 159.21' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.55 cfs @ 12.09 hrs HW=160.48' TW=159.99' (Dynamic Tailwater) -1=Culvert (Outlet Controls 1.55 cfs @ 3.02 fps)

Summary for Pond CC35: CB-C35

Inflow Area	a =	18,828 sf, 50.64% Impervious, Inflow Depth > 2.33" for 25-YR event
Inflow	=	1.13 cfs @ 12.10 hrs, Volume= 3,657 cf
Outflow	=	1.13 cfs @ 12.10 hrs, Volume= 3,657 cf, Atten= 0%, Lag= 0.0 min
Primary	=	1.13 cfs @ 12.10 hrs, Volume= 3,657 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.53' @ 12.10 hrs Flood Elev= 162.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.98'	12.0" Round Culvert L= 90.0' Ke= 0.500 Inlet / Outlet Invert= 158.98' / 156.25' S= 0.0303 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.12 cfs @ 12.10 hrs HW=159.53' TW=156.88' (Dynamic Tailwater) -1=Culvert (Inlet Controls 1.12 cfs @ 2.52 fps)

Summary for Pond CC36: CB-C36

Inflow Area	a =	4,686 sf, 33.91% Impervious, Inflow Depth > 1.18" for 25-YR event
Inflow	=	0.12 cfs @ 12.11 hrs, Volume= 460 cf
Outflow	=	0.12 cfs @ 12.11 hrs, Volume= 460 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.12 cfs @ 12.11 hrs, Volume= 460 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 160.32' @ 12.11 hrs Flood Elev= 163.40'

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Device	Routing	Invert	Outlet Devices
#1	Primary	160.15'	12.0" Round Culvert L= 40.0' Ke= 0.500 Inlet / Outlet Invert= 160.15' / 159.08' S= 0.0267 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.12 cfs @ 12.11 hrs HW=160.32' TW=159.52' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.12 cfs @ 1.39 fps)

Summary for Pond CC37: CB-C37

Inflow Area =	=	10,601 sf	, 53.01% Impervious	Inflow Depth >	2.53"	for 25-YR event
Inflow =	:	0.70 cfs @	12.10 hrs, Volume=	2,233 cf	f	
Outflow =	:	0.70 cfs @	12.10 hrs, Volume=	2,233 cf	f, Atter	n= 0%, Lag= 0.0 min
Primary =	:	0.70 cfs @	12.10 hrs, Volume=	2,233 cf	f	5

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.76' @ 12.11 hrs Flood Elev= 162.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	159.25'	12.0" Round Culvert L= 34.0' Ke= 0.500 Inlet / Outlet Invert= 159.25' / 159.08' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.64 cfs @ 12.10 hrs HW=159.76' TW=159.53' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 0.64 cfs @ 2.33 fps)

Summary for Pond CC38: CB-C38

Inflow Area	a =	6,400 sf,	79.30% Impervious,	Inflow Depth > 4.0	7" for 25-YR event
Inflow	=	0.67 cfs @	12.09 hrs, Volume=	2,173 cf	
Outflow	=	0.67 cfs @	12.09 hrs, Volume=	2,173 cf, A	tten= 0%, Lag= 0.0 min
Primary	=	0.67 cfs @	12.09 hrs, Volume=	2,173 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 161.71' @ 12.09 hrs Flood Elev= 164.55'

Device	Routing	Invert	Outlet Devices
#1	Primary	161.30'	12.0" Round Culvert L= 120.0' Ke= 0.500 Inlet / Outlet Invert= 161.30' / 159.15' S= 0.0179 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.66 cfs @ 12.09 hrs HW=161.71' TW=159.60' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.66 cfs @ 2.18 fps)

Summary for Pond CC4: CB-C4

Inflow Area	=	5,937 sf, 33.28% Impervious, Inflow Depth > 1.62" for 25-YR event
Inflow	=	0.23 cfs @ 12.10 hrs, Volume= 800 cf
Outflow	=	0.23 cfs @ 12.10 hrs, Volume= 800 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.23 cfs @ 12.10 hrs, Volume= 800 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.75' @ 12.11 hrs Flood Elev= 160.75'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.50'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 157.50' / 157.24' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.22 cfs @ 12.10 hrs HW=157.75' TW=157.50' (Dynamic Tailwater) -1=Culvert (Outlet Controls 0.22 cfs @ 2.17 fps)

Summary for Pond CC5: CB-C5

Inflow Area	a =	5,125 sf, 32.45% Impervious, Inflow Depth > 1.54" for 25-YR event
Inflow	=	0.19 cfs @ 12.10 hrs, Volume= 658 cf
Outflow	=	0.19 cfs @ 12.10 hrs, Volume= 658 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.19 cfs @ 12.10 hrs, Volume= 658 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.67' @ 12.10 hrs Flood Elev= 162.70'

Device F	Routing	Invert	Outlet Devices
	Primary	159.45'	12.0" Round Culvert L= 30.0' Ke= 0.500 Inlet / Outlet Invert= 159.45' / 159.15' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.19 cfs @ 12.10 hrs HW=159.66' TW=156.92' (Dynamic Tailwater) -1=Culvert (Barrel Controls 0.19 cfs @ 2.31 fps)

Summary for Pond CC6: CB-C6

Inflow Area	a =	15,635 sf, 49.40% Impervious, Inflow Depth > 2.49" for 25-YR event	
Inflow	=	0.94 cfs @ 12.10 hrs, Volume= 3,245 cf	
Outflow	=	0.94 cfs @ 12.10 hrs, Volume=	in
Primary	=	0.94 cfs @ 12.10 hrs, Volume= 3,245 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.92' @ 12.09 hrs Flood Elev= 162.70'

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Device	Routing	Invert	Outlet Devices
#1	Primary	156.42'	12.0" Round Culvert L= 73.0' Ke= 0.500 Inlet / Outlet Invert= 156.42' / 155.69' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.93 cfs @ 12.10 hrs HW=156.92' TW=148.59' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.93 cfs @ 2.40 fps)

Summary for Pond CC7: CB-C7

Inflow Area :	=	8,406 sf	, 47.06% Impervious,	Inflow Depth >	2.34"	for 25-YR event
Inflow =	=	0.49 cfs @	12.10 hrs, Volume=	1,638 ct	f	
Outflow =	=	0.49 cfs @	12.10 hrs, Volume=	1,638 ct	f, Atter	n= 0%, Lag= 0.0 min
Primary =	=	0.49 cfs @	12.10 hrs, Volume=	1,638 ct	f	2

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.50' @ 12.10 hrs Flood Elev= 160.75'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.14'	12.0" Round Culvert L= 62.0' Ke= 0.500 Inlet / Outlet Invert= 157.14' / 156.52' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.47 cfs @ 12.10 hrs HW=157.49' TW=156.92' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 0.47 cfs @ 2.83 fps)

Summary for Pond CC8: CB-C8

Inflow Area =		236,335 sf, 89.20% Impervious, Inflow Deptl	n > 4.70" for 25-YR event
Inflow	=	27.05 cfs @ 12.09 hrs, Volume= 92,6	03 cf
Outflow	=	27.05 cfs @ 12.09 hrs, Volume= 92,6	03 cf, Atten= 0%, Lag= 0.0 min
Primary	=	27.05 cfs @ 12.09 hrs, Volume= 92,6	03 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 151.66' @ 12.09 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	149.18'	36.0" Round Culvert L= 85.0' Ke= 0.500 Inlet / Outlet Invert= 149.18' / 148.75' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 7.07 sf

Primary OutFlow Max=26.36 cfs @ 12.09 hrs HW=151.61' TW=148.57' (Dynamic Tailwater) **1=Culvert** (Barrel Controls 26.36 cfs @ 5.85 fps)

Summary for Pond CC9: CB-C9

Inflow Area =	204,546 sf, 89.45% Impervious,	Inflow Depth > 4.72" for 25-YR event
Inflow =	23.39 cfs @ 12.09 hrs, Volume=	80,386 cf
Outflow =	23.39 cfs @ 12.09 hrs, Volume=	80,386 cf,Atten= 0%,Lag= 0.0 min
Primary =	23.39 cfs @ 12.09 hrs, Volume=	80,386 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 152.97' @ 12.09 hrs Flood Elev= 159.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	150.53'	30.0" Round Culvert L= 170.0' Ke= 0.500 Inlet / Outlet Invert= 150.53' / 149.68' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=21.86 cfs @ 12.09 hrs HW=152.93' TW=151.61' (Dynamic Tailwater) -1=Culvert (Outlet Controls 21.86 cfs @ 5.77 fps)

Summary for Pond CD1: CB-D1

Inflow Area =		6,306 sf,100.00% Impervious, Inflow Depth > 5.41" for 25-YR event
Inflow	=	0.78 cfs @ 12.09 hrs, Volume= 2,842 cf
Outflow	=	0.78 cfs @ 12.09 hrs, Volume= 2,842 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.78 cfs @ 12.09 hrs, Volume= 2,842 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.55' @ 12.09 hrs Flood Elev= 162.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	159.05'	12.0" Round Culvert L= 144.0' Ke= 0.500 Inlet / Outlet Invert= 159.05' / 158.33' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.75 cfs @ 12.09 hrs HW=159.55' TW=158.73' (Dynamic Tailwater) -1=Culvert (Outlet Controls 0.75 cfs @ 2.82 fps)

Summary for Pond CD10: CB-D10

Inflow Area	a =	8,279 sf, 85.05% Impervious, Inflow Depth > 4.39" for 25-YR event	
Inflow	=	0.92 cfs @ 12.09 hrs, Volume= 3,031 cf	
Outflow	=	0.92 cfs @ 12.09 hrs, Volume= 3,031 cf, Atten= 0%, Lag= 0.0 mi	in
Primary	=	0.92 cfs @ 12.09 hrs, Volume= 3,031 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.24' @ 12.09 hrs Flood Elev= 163.00'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 25-YR Rainfall=5.65"
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Device	Routing	Invert	Outlet Devices
#1	Primary	158.75'	12.0" Round Culvert L= 121.0' Ke= 0.500 Inlet / Outlet Invert= 158.75' / 155.12' S= 0.0300 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.90 cfs @ 12.09 hrs HW=159.24' TW=155.91' (Dynamic Tailwater) ☐ 1=Culvert (Inlet Controls 0.90 cfs @ 2.37 fps)

Summary for Pond CD11: CB-D11

Inflow Area	a =	153,819 sf, 71.58% Impervious, Inflow Depth > 3.62" for 25-YR event
Inflow	=	14.26 cfs @ 12.09 hrs, Volume= 46,449 cf
Outflow	=	14.26 cfs @ 12.09 hrs, Volume= 46,449 cf, Atten= 0%, Lag= 0.0 min
Primary	=	14.26 cfs @ 12.09 hrs, Volume= 46,449 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.39' @ 12.09 hrs Flood Elev= 163.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.52'	24.0" Round Culvert L= 264.0' Ke= 0.500 Inlet / Outlet Invert= 153.52' / 150.00' S= 0.0133 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=13.97 cfs @ 12.09 hrs HW=155.36' TW=143.99' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 13.97 cfs @ 4.62 fps)

Summary for Pond CD12: CB-D12

Inflow Area =	20,162 sf, 70.06%	Impervious, Inflow Depth >	3.57" for 25-YR event
Inflow =	1.80 cfs @ 12.09 hrs	s, Volume= 5,998	cf
Outflow =	1.80 cfs @ 12.09 hrs	s, Volume= 5,998	cf, Atten= 0%, Lag= 0.0 min
Primary =	1.80 cfs @ 12.09 hrs	s, Volume= 5,998	cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.87' @ 12.09 hrs Flood Elev= 163.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.14'	12.0" Round Culvert L= 121.0' Ke= 0.500 Inlet / Outlet Invert= 158.14' / 154.52' S= 0.0299 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.77 cfs @ 12.09 hrs HW=158.86' TW=155.36' (Dynamic Tailwater)

Summary for Pond CD2: CB-D2

 Inflow Area =
 7,996 sf, 96.65% Impervious, Inflow Depth > 5.19" for 25-YR event

 Inflow =
 0.97 cfs @ 12.09 hrs, Volume=
 3,461 cf

 Outflow =
 0.97 cfs @ 12.09 hrs, Volume=
 3,461 cf, Atten= 0%, Lag= 0.0 min

 Primary =
 0.97 cfs @ 12.09 hrs, Volume=
 3,461 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.74' @ 12.09 hrs Flood Elev= 162.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.23'	12.0" Round Culvert L= 91.0' Ke= 0.500 Inlet / Outlet Invert= 158.23' / 156.51' S= 0.0189 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.94 cfs @ 12.09 hrs HW=158.73' TW=157.16' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.94 cfs @ 2.41 fps)

Summary for Pond CD3: CB-D3

Inflow Area	a =	34,598 sf, 51.01% Impervious, Inflow Depth > 2.44" for 25-YR event	
Inflow	=	2.21 cfs @ 12.10 hrs, Volume= 7,034 cf	
Outflow	=	2.21 cfs @ 12.10 hrs, Volume= 7,034 cf, Atten= 0%, Lag= 0.0 min	
Primary	=	2.21 cfs @ 12.10 hrs, Volume= 7,034 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.74' @ 12.10 hrs Flood Elev= 160.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.75'	12.0" Round Culvert L= 48.0' Ke= 0.500 Inlet / Outlet Invert= 156.75' / 156.51' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=2.18 cfs @ 12.10 hrs HW=157.73' TW=157.18' (Dynamic Tailwater) -1=Culvert (Barrel Controls 2.18 cfs @ 3.53 fps)

Summary for Pond CD4: CB-D4

Inflow Area =	59,225 sf, 62.56% Impervious,	Inflow Depth > 3.12" for 25-YR event
Inflow =	4.71 cfs @ 12.09 hrs, Volume=	15,375 cf
Outflow =	4.71 cfs @ 12.09 hrs, Volume=	15,375 cf, Atten= 0%, Lag= 0.0 min
Primary =	4.71 cfs @ 12.09 hrs, Volume=	15,375 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.18' @ 12.10 hrs Flood Elev= 162.10'

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475-POST	Type III 24-hr 25-YR Rainfall=5.65"
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Device	Routing	Invert	Outlet Devices
#1	Primary	156.01'	18.0" Round Culvert L= 165.0' Ke= 0.500 Inlet / Outlet Invert= 156.01' / 155.19' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=4.26 cfs @ 12.09 hrs HW=157.17' TW=156.23' (Dynamic Tailwater)

Summary for Pond CD5: CB-D5

Inflow Area	a =	12,974 sf, 69.53% Impervious, Inflow Depth > 3.48" for 25-YR event	
Inflow	=	1.18 cfs @ 12.09 hrs, Volume= 3,764 cf	
Outflow	=	1.18 cfs @12.09 hrs, Volume=3,764 cf, Atten= 0%, Lag= 0.0 min	1
Primary	=	1.18 cfs @ 12.09 hrs, Volume= 3,764 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.32' @ 12.09 hrs Flood Elev= 162.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.75'	12.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 157.75' / 156.51' S= 0.0477 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.16 cfs @ 12.09 hrs HW=158.31' TW=157.17' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 1.16 cfs @ 2.55 fps)

Summary for Pond CD6: CB-D6

Inflow Area	a =	6,633 sf, 75.95% Impervious, Inflow Depth > 3.87" for 25-YR event	
Inflow	=	0.67 cfs @ 12.09 hrs, Volume= 2,137 cf	
Outflow	=	0.67 cfs @ 12.09 hrs, Volume= 2,137 cf, Atten= 0%, Lag= 0.0 min	I
Primary	=	0.67 cfs @ 12.09 hrs, Volume= 2,137 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.63' @ 12.10 hrs Flood Elev= 163.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.18'	12.0" Round Culvert L= 33.0' Ke= 0.500 Inlet / Outlet Invert= 158.18' / 157.85' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.61 cfs @ 12.09 hrs HW=158.62' TW=158.31' (Dynamic Tailwater) -1=Culvert (Outlet Controls 0.61 cfs @ 2.67 fps)

Summary for Pond CD7: CB-D7

Inflow Area =	84,005 sf, 68.35% Impervious,	Inflow Depth > 3.45" for 25-YR event
Inflow =	7.40 cfs @ 12.09 hrs, Volume=	24,145 cf
Outflow =	7.40 cfs @ 12.09 hrs, Volume=	24,145 cf, Atten= 0%, Lag= 0.0 min
Primary =	7.40 cfs @ 12.09 hrs, Volume=	24,145 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.31' @ 12.14 hrs Flood Elev= 163.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	154.69'	24.0" Round Culvert L= 93.0' Ke= 0.500 Inlet / Outlet Invert= 154.69' / 154.22' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=5.28 cfs @ 12.09 hrs HW=156.22' TW=155.93' (Dynamic Tailwater) -1=Culvert (Outlet Controls 5.28 cfs @ 2.83 fps)

Summary for Pond CD8: CB-D8

Inflow Area	a =	7,740 sf, 84.12% Impervious, Inflow Depth > 4.39" for 25-YR event
Inflow	=	0.86 cfs @ 12.09 hrs, Volume= 2,834 cf
Outflow	=	0.86 cfs @ 12.09 hrs, Volume= 2,834 cf, Atten= 0%, Lag= 0.0 min
Primary	=	0.86 cfs @ 12.09 hrs, Volume= 2,834 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.23' @ 12.09 hrs Flood Elev= 163.00'

Device F	Routing	Invert	Outlet Devices
	Primary	158.75'	12.0" Round Culvert L= 121.0' Ke= 0.500 Inlet / Outlet Invert= 158.75' / 155.69' S= 0.0253 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.84 cfs @ 12.09 hrs HW=159.22' TW=156.21' (Dynamic Tailwater) -1=Culvert (Inlet Controls 0.84 cfs @ 2.33 fps)

Summary for Pond CD9: CB-D9

Inflow Area	a =	111,549 sf, 71.82% Impervious, Inflow Depth > 3.65" for 25-YR event
Inflow	=	10.39 cfs @ 12.09 hrs, Volume= 33,887 cf
Outflow	=	10.39 cfs @ 12.09 hrs, Volume= 33,887 cf, Atten= 0%, Lag= 0.0 min
Primary	=	10.39 cfs @ 12.09 hrs, Volume= 33,887 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.98' @ 12.11 hrs Flood Elev= 163.00'

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Device	Routing	Invert	Outlet Devices
#1	Primary	154.12'	24.0" Round Culvert L= 100.0' Ke= 0.500 Inlet / Outlet Invert= 154.12' / 153.62' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=8.85 cfs @ 12.09 hrs HW=155.92' TW=155.36' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 8.85 cfs @ 3.92 fps)

Summary for Pond CE1: CB-E1

Inflow Area	=	5,639 sf,	95.66% Impervious	, Inflow Depth >	5.06"	for 25-YR event
Inflow	=	0.68 cfs @	12.09 hrs, Volume=	2,378 c	of	
Outflow	=	0.68 cfs @	12.09 hrs, Volume=	2,378 c	of, Atter	n= 0%, Lag= 0.0 min
Primary	=	0.68 cfs @	12.09 hrs, Volume=	2,378 c	of	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 161.27' @ 12.09 hrs Flood Elev= 164.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	160.85'	12.0" Round Culvert L= 101.0' Ke= 0.500 Inlet / Outlet Invert= 160.85' / 154.17' S= 0.0661 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.67 cfs @ 12.09 hrs HW=161.26' TW=154.71' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.67 cfs @ 2.18 fps)

Summary for Pond CE10: CB-E10

Inflow Are	a =	263,128 sf, 98.37% Impervious, Inflow Depth > 5.31" for 25-YR event	
Inflow	=	32.14 cfs @ 12.09 hrs, Volume= 116,355 cf	
Outflow	=	32.14 cfs @ 12.09 hrs, Volume= 116,355 cf, Atten= 0%, Lag= 0.0 min	l
Primary	=	32.14 cfs @ 12.09 hrs, Volume= 116,355 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.08' @ 12.37 hrs Flood Elev= 159.75'

Device	Routing	Invert	Outlet Devices
#1	Primary	150.52'	42.0" Round Culvert L= 43.0' Ke= 0.500 Inlet / Outlet Invert= 150.52' / 150.31' S= 0.0049 '/' Cc= 0.900 n= 0.012, Flow Area= 9.62 sf

Primary OutFlow Max=17.87 cfs @ 12.09 hrs HW=153.29' TW=153.05' (Dynamic Tailwater)

Summary for Pond CE11: CB-E11

Inflow Area	=	187,424 sf, 88.30% Impervious,	Inflow Depth > 4.65" for 25-YR event
Inflow =	=	21.03 cfs @ 12.09 hrs, Volume=	72,641 cf
Outflow =	=	21.03 cfs @ 12.09 hrs, Volume=	72,641 cf,Atten= 0%,Lag= 0.0 min
Primary =	=	21.03 cfs @ 12.09 hrs, Volume=	72,641 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.12' @ 12.36 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	150.93'	30.0" Round Culvert L= 104.0' Ke= 0.500 Inlet / Outlet Invert= 150.93' / 150.41' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=13.65 cfs @ 12.09 hrs HW=153.45' TW=153.06' (Dynamic Tailwater) -1=Culvert (Outlet Controls 13.65 cfs @ 3.42 fps)

Summary for Pond CE12: CB-E12

Inflow Area	a =	164,049 sf, 87.49% Impervious, Inflow Depth > 4.61" for 25-YR event
Inflow	=	18.23 cfs @ 12.09 hrs, Volume= 63,005 cf
Outflow	=	18.23 cfs @ 12.09 hrs, Volume= 63,005 cf, Atten= 0%, Lag= 0.0 min
Primary	=	18.23 cfs @ 12.09 hrs, Volume= 63,005 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.19' @ 12.37 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	151.66'	30.0" Round Culvert L= 127.0' Ke= 0.500 Inlet / Outlet Invert= 151.66' / 151.03' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=13.86 cfs @ 12.09 hrs HW=153.97' TW=153.45' (Dynamic Tailwater) -1=Culvert (Outlet Controls 13.86 cfs @ 3.81 fps)

Summary for Pond CE13: CB-E13

Inflow Area	=	145,216 sf, 86.50% Impervious, Inflow Depth > 4.55" for 25-YR event	
Inflow	=	15.94 cfs @ 12.09 hrs, Volume= 55,062 cf	
Outflow	=	15.94 cfs @ 12.09 hrs, Volume=	nin
Primary	=	15.94 cfs @ 12.09 hrs, Volume= 55,062 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.70' @ 12.12 hrs Flood Elev= 159.50'

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Device	Routing	Invert	Outlet Devices
#1	Primary	152.57'	30.0" Round Culvert L= 161.0' Ke= 0.500 Inlet / Outlet Invert= 152.57' / 151.76' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=12.76 cfs @ 12.09 hrs HW=154.62' TW=153.97' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 12.76 cfs @ 4.02 fps)

Summary for Pond CE14: CB-E14

Inflow Area	a =	109,749 sf, 83.89% Impervious, Inflow Depth > 4.39" for 25-YR even	nt
Inflow	=	11.64 cfs @ 12.09 hrs, Volume= 40,104 cf	
Outflow	=	11.64 cfs @ 12.09 hrs, Volume= 40,104 cf, Atten= 0%, Lag= 0.0	min
Primary	=	11.64 cfs @ 12.09 hrs, Volume= 40,104 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.63' @ 12.10 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.85'	24.0" Round Culvert L= 155.0' Ke= 0.500 Inlet / Outlet Invert= 153.85' / 153.07' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=10.29 cfs @ 12.09 hrs HW=155.60' TW=154.63' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 10.29 cfs @ 4.70 fps)

Summary for Pond CE15: CB-E15

Inflow Area	=	81,941 sf,	79.06% Impervious,	Inflow Depth > 4.08	" for 25-YR event
Inflow =	=	8.21 cfs @	12.09 hrs, Volume=	27,842 cf	
Outflow =	=	8.21 cfs @	12.09 hrs, Volume=	27,842 cf, At	ten= 0%, Lag= 0.0 min
Primary =	=	8.21 cfs @	12.09 hrs, Volume=	27,842 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.24' @ 12.11 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	154.62'	24.0" Round Culvert L= 134.0' Ke= 0.500 Inlet / Outlet Invert= 154.62' / 153.95' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=7.13 cfs @ 12.09 hrs HW=156.19' TW=155.61' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 7.13 cfs @ 3.70 fps)

Summary for Pond CE16: CB-E16

Inflow Area =	49,549 sf, 66.59% Impervious,	Inflow Depth > 3.28" for 25-YR event
Inflow =	4.22 cfs @ 12.09 hrs, Volume=	13,557 cf
Outflow =	4.22 cfs @ 12.09 hrs, Volume=	13,557 cf, Atten= 0%, Lag= 0.0 min
Primary =	4.22 cfs @ 12.09 hrs, Volume=	13,557 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.89' @ 12.11 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.75'	18.0" Round Culvert L= 127.0' Ke= 0.500 Inlet / Outlet Invert= 155.75' / 155.12' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=3.66 cfs @ 12.09 hrs HW=156.87' TW=156.20' (Dynamic Tailwater) -1=Culvert (Outlet Controls 3.66 cfs @ 3.60 fps)

Summary for Pond CE17: CB-E17

Inflow Area	a =	120,518 sf,	0.00% Impervious,	Inflow Depth > 0.04"	for 25-YR event
Inflow	=	0.01 cfs @ 1	17.15 hrs, Volume=	396 cf	
Outflow	=	0.01 cfs @ 1	17.15 hrs, Volume=	396 cf, Atte	n= 0%, Lag= 0.0 min
Primary	=	0.01 cfs @ 1	17.15 hrs, Volume=	396 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 161.55' @ 17.15 hrs Flood Elev= 163.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	161.49'	12.0" Round Culvert L= 64.0' Ke= 0.500
			Inlet / Outlet Invert= 161.49' / 160.85' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.01 cfs @ 17.15 hrs HW=161.55' TW=160.83' (Dynamic Tailwater) -1=Culvert (Barrel Controls 0.01 cfs @ 1.12 fps)

Summary for Pond CE18: CB-E18

Inflow Area =	=	11,752 sf,	0.00% Impervious,	Inflow Depth >	0.04"	for 25-YR event
Inflow =	: 0).00 cfs @	17.13 hrs, Volume=	39 cf	•	
Outflow =	: 0).00 cfs @	17.12 hrs, Volume=	39 cf	f, Atten=	= 0%, Lag= 0.0 min
Primary =	: 0).00 cfs @	17.12 hrs, Volume=	39 cf	•	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.77' @ 12.28 hrs Flood Elev= 159.50'

	FRIARS DRIVE POST DEVELOPMENT
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Device	Routing	Invert	Outlet Devices
#1	Primary	156.50'	12.0" Round Culvert L= 49.0' Ke= 0.500 Inlet / Outlet Invert= 156.50' / 156.25' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 17.12 hrs HW=156.52' TW=156.13' (Dynamic Tailwater) **1=Culvert** (Barrel Controls 0.00 cfs @ 0.44 fps)

Summary for Pond CE19: CB-E19

Inflow Area	a =	75,753 sf,	0.00% Impervious,	Inflow Depth > 0.04	for 25-YR event
Inflow	=	0.01 cfs @ 1	17.13 hrs, Volume=	249 cf	
Outflow	=	0.01 cfs @ 1	17.13 hrs, Volume=	249 cf, Att	en= 0%, Lag= 0.1 min
Primary	=	0.01 cfs @ 1	17.13 hrs, Volume=	249 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.44' @ 12.29 hrs Flood Elev= 159.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.25'	12.0" Round Culvert L= 49.0' Ke= 0.500 Inlet / Outlet Invert= 157.25' / 157.00' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.01 cfs @ 17.13 hrs HW=157.30' TW=156.89' (Dynamic Tailwater) **1=Culvert** (Barrel Controls 0.01 cfs @ 0.78 fps)

Summary for Pond CE2: CB-E2

Inflow Area	=	127,264 sf,	5.11% Impervious,	Inflow Depth > 0.31	for 25-YR event
Inflow	=	0.83 cfs @	12.09 hrs, Volume=	3,306 cf	
Outflow	=	0.83 cfs @	12.09 hrs, Volume=	3,306 cf, Att	en= 0%, Lag= 0.0 min
Primary	=	0.83 cfs @	12.09 hrs, Volume=	3,306 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 161.21' @ 12.09 hrs Flood Elev= 164.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	160.75'	12.0" Round Culvert L= 101.0' Ke= 0.500 Inlet / Outlet Invert= 160.75' / 154.57' S= 0.0612 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.80 cfs @ 12.09 hrs HW=161.21' TW=155.11' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 0.80 cfs @ 2.30 fps)

Summary for Pond CE3: CB-E3

Inflow Area =	296,823 sf, 25.34% Impervious,	Inflow Depth > 1.35" for 25-YR event
Inflow =	9.77 cfs @ 12.09 hrs, Volume=	33,389 cf
Outflow =	9.77 cfs @ 12.09 hrs, Volume=	33,389 cf, Atten= 0%, Lag= 0.0 min
Primary =	9.77 cfs @ 12.09 hrs, Volume=	33,389 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.73' @ 12.09 hrs Flood Elev= 159.85'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.17'	24.0" Round Culvert L= 178.0' Ke= 0.500 Inlet / Outlet Invert= 153.17' / 152.28' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=9.52 cfs @ 12.09 hrs HW=154.71' TW=153.07' (Dynamic Tailwater) -1=Culvert (Barrel Controls 9.52 cfs @ 5.07 fps)

Summary for Pond CE4: CB-E4

Inflow Area =	=	280,987 sf	, 21.47% Impervious,	Inflow Depth > 1	.14" for 25-YR event
Inflow =	:	7.86 cfs @	12.09 hrs, Volume=	26,808 cf	
Outflow =	:	7.86 cfs @	12.09 hrs, Volume=	26,808 cf,	Atten= 0%, Lag= 0.0 min
Primary =	:	7.86 cfs @	12.09 hrs, Volume=	26,808 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.17' @ 12.11 hrs Flood Elev= 159.85'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.57'	24.0" Round Culvert L= 60.0' Ke= 0.500 Inlet / Outlet Invert= 153.57' / 153.27' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=6.73 cfs @ 12.09 hrs HW=155.12' TW=154.71' (Dynamic Tailwater) -1=Culvert (Outlet Controls 6.73 cfs @ 3.56 fps)

Summary for Pond CE5: CB-E5

Inflow Area =	=	142,645 sf,	, 30.88% Impervious,	Inflow Depth > 1.62	" for 25-YR event
Inflow =	:	5.76 cfs @	12.09 hrs, Volume=	19,244 cf	
Outflow =	:	5.76 cfs @	12.09 hrs, Volume=	19,244 cf, At	ten= 0%, Lag= 0.0 min
Primary =	:	5.76 cfs @	12.09 hrs, Volume=	19,244 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.84' @ 12.10 hrs Flood Elev= 159.85'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 25-YR Rainfall=5.65"
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Device	Routing	Invert	Outlet Devices
#1	Primary	154.45'	18.0" Round Culvert L= 76.0' Ke= 0.500 Inlet / Outlet Invert= 154.45' / 154.07' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=5.54 cfs @ 12.09 hrs HW=155.82' TW=155.12' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 5.54 cfs @ 4.29 fps)

Summary for Pond CE6: CB-E6

Inflow Area	=	132,905 sf,	28.23% Impervious	Inflow Depth > 1.49	9" for 25-YR event
Inflow =	=	4.89 cfs @	12.09 hrs, Volume=	16,512 cf	
Outflow =	=	4.89 cfs @	12.09 hrs, Volume=	16,512 cf, At	tten= 0%, Lag= 0.0 min
Primary =	=	4.89 cfs @	12.09 hrs, Volume=	16,512 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.56' @ 12.10 hrs Flood Elev= 160.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.25'	18.0" Round Culvert L= 140.0' Ke= 0.500 Inlet / Outlet Invert= 155.25' / 154.55' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=4.42 cfs @ 12.09 hrs HW=156.53' TW=155.82' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 4.42 cfs @ 3.71 fps)

Summary for Pond CE7: CB-E7

Inflow Area	=	119,690 sf	, 23.92% Impervious,	Inflow Depth > 1.28'	for 25-YR event
Inflow	=	3.72 cfs @	12.09 hrs, Volume=	12,806 cf	
Outflow	=	3.72 cfs @	12.09 hrs, Volume=	12,806 cf, Atte	en= 0%, Lag= 0.0 min
Primary	=	3.72 cfs @	12.09 hrs, Volume=	12,806 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.15' @ 12.10 hrs Flood Elev= 160.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.97'	15.0" Round Culvert L= 95.0' Ke= 0.500 Inlet / Outlet Invert= 155.97' / 155.50' S= 0.0049 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=3.29 cfs @ 12.09 hrs HW=157.13' TW=156.53' (Dynamic Tailwater) -1=Culvert (Outlet Controls 3.29 cfs @ 3.60 fps)

Summary for Pond CE8: CB-E8

Inflow Area =	=	98,838 sf,	20.60% Impervious,	Inflow Depth > 1.10"	for 25-YR event
Inflow =	2	2.64 cfs @	12.09 hrs, Volume=	9,101 cf	
Outflow =	2	2.64 cfs @	12.09 hrs, Volume=	9,101 cf, Atte	n= 0%, Lag= 0.0 min
Primary =	2	2.64 cfs @	12.09 hrs, Volume=	9,101 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.76' @ 12.10 hrs Flood Elev= 160.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.75'	15.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 156.75' / 156.07' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.37 cfs @ 12.09 hrs HW=157.73' TW=157.13' (Dynamic Tailwater) -1=Culvert (Outlet Controls 2.37 cfs @ 3.15 fps)

Summary for Pond CE9: CB-E9

Inflow Area	a =	10,388 sf, 85.30% Impervious, Inflow Depth > 4.45" for 25-YR event	
Inflow	=	1.16 cfs @ 12.09 hrs, Volume= 3,855 cf	
Outflow	=	1.16 cfs @ 12.09 hrs, Volume= 3,855 cf, Atten= 0%, Lag= 0.0 m	in
Primary	=	1.16 cfs @ 12.09 hrs, Volume= 3,855 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.61' @ 12.09 hrs Flood Elev= 162.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	159.05'	12.0" Round Culvert L= 94.0' Ke= 0.500 Inlet / Outlet Invert= 159.05' / 157.00' S= 0.0218 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.13 cfs @ 12.09 hrs HW=159.60' TW=157.73' (Dynamic Tailwater) -1=Culvert (Inlet Controls 1.13 cfs @ 2.53 fps)

Summary for Pond CS13: CB-S13

Inflow Area	a =	25,168 sf, 88.89% Im	pervious, Inflow	Depth > 4.67"	for 25-YR event
Inflow	=	2.92 cfs @ 12.09 hrs,	Volume=	9,796 cf	
Outflow	=	2.92 cfs @ 12.09 hrs,	Volume=	9,796 cf, Atter	n= 0%, Lag= 0.0 min
Primary	=	2.92 cfs @ 12.09 hrs,	Volume=	9,796 cf	-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.90' @ 12.10 hrs Flood Elev= 158.40'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 25-YR Rainfall=5.65"
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Device	Routing	Invert	Outlet Devices
#1	Primary	154.90'	15.0" Round Culvert L= 145.0' Ke= 0.500 Inlet / Outlet Invert= 154.90' / 154.18' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.74 cfs @ 12.09 hrs HW=155.88' TW=155.04' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 2.74 cfs @ 3.66 fps)

Summary for Pond CS14: CB-S14

Inflow Area =	11,820 sf, 88.58% Impervious,	Inflow Depth > 4.61" for 25-YR event
Inflow =	1.36 cfs @ 12.09 hrs, Volume=	4,543 cf
Outflow =	1.36 cfs @ 12.09 hrs, Volume=	4,543 cf, Atten= 0%, Lag= 0.0 min
Primary =	1.36 cfs @ 12.09 hrs, Volume=	4,543 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.78' @ 12.09 hrs Flood Elev= 159.57'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.16'	12.0" Round Culvert L= 101.0' Ke= 0.500 Inlet / Outlet Invert= 156.16' / 155.15' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.28 cfs @ 12.09 hrs HW=156.77' TW=155.88' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 1.28 cfs @ 3.62 fps)

Summary for Pond DC1: DMH-C1

Inflow Area	=	56,865 sf, 81.04% Impervious, Inflow Depth > 4.13" for 25-YR eve	ent
Inflow	=	5.91 cfs @ 12.09 hrs, Volume= 19,594 cf	
Outflow	=	5.91 cfs @ 12.09 hrs, Volume= 19,594 cf, Atten= 0%, Lag= 0.	0 min
Primary	=	5.91 cfs @ 12.09 hrs, Volume= 19,594 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.98' @ 12.09 hrs Flood Elev= 162.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.74'	18.0" Round Culvert L= 155.0' Ke= 0.500 Inlet / Outlet Invert= 156.74' / 155.25' S= 0.0096 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=5.77 cfs @ 12.09 hrs HW=157.96' TW=156.35' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 5.77 cfs @ 3.76 fps)

Summary for Pond DC10: DMH-C10

 Inflow Area =
 252,000 sf,100.00% Impervious, Inflow Depth > 5.41" for 25-YR event

 Inflow =
 31.26 cfs @ 12.09 hrs, Volume=
 113,589 cf

 Outflow =
 31.26 cfs @ 12.09 hrs, Volume=
 113,589 cf, Atten= 0%, Lag= 0.0 min

 Primary =
 31.26 cfs @ 12.09 hrs, Volume=
 113,589 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 152.50' @ 12.09 hrs Flood Elev= 164.00'

Device	Routing	Invert	Outlet Devices
#1	Primary		36.0" Round Culvert L= 247.0' Ke= 0.500 Inlet / Outlet Invert= 149.95' / 148.72' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 7.07 sf

Primary OutFlow Max=30.42 cfs @ 12.09 hrs HW=152.45' TW=146.05' (Dynamic Tailwater) **1=Culvert** (Barrel Controls 30.42 cfs @ 6.54 fps)

Summary for Pond DC11: DMH-C11

 Inflow Area =
 359,657 sf, 85.59% Impervious, Inflow Depth > 4.49" for 25-YR event

 Inflow =
 39.56 cfs @ 12.09 hrs, Volume=
 134,596 cf

 Outflow =
 39.56 cfs @ 12.09 hrs, Volume=
 134,596 cf, Atten= 0%, Lag= 0.0 min

 Primary =
 39.56 cfs @ 12.09 hrs, Volume=
 134,596 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 148.62' @ 12.09 hrs Flood Elev= 160.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	145.85'	42.0" Round Culvert L= 174.0' Ke= 0.500 Inlet / Outlet Invert= 145.85' / 144.98' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 9.62 sf

Primary OutFlow Max=38.56 cfs @ 12.09 hrs HW=148.57' TW=146.06' (Dynamic Tailwater) -1=Culvert (Barrel Controls 38.56 cfs @ 6.62 fps)

Summary for Pond DC2: DMH-C2

Inflow Area	=	7,200 sf,100.0	00% Impervious	Inflow Depth >	5.41"	for 25-YR event
Inflow =	=	0.89 cfs @ 12.09	9 hrs, Volume=	3,245 cf		
Outflow =	=	0.89 cfs @ 12.0	9 hrs, Volume=	3,245 cf	, Atten	i= 0%, Lag= 0.0 min
Primary =	=	0.89 cfs @ 12.0	9 hrs, Volume=	3,245 cf		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.31' @ 12.10 hrs Flood Elev= 164.00'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 25-YR Rainfall=5.65"
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Device	Routing	Invert	Outlet Devices
#1	Primary	157.75'	12.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 157.75' / 156.93' S= 0.0060 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.80 cfs @ 12.09 hrs HW=158.29' TW=157.63' (Dynamic Tailwater) ☐ 1=Culvert (Outlet Controls 0.80 cfs @ 2.68 fps)

Summary for Pond DC3: DMH-C3

Inflow Area	a =	38,700 sf,100.00% Impervious, Inflow Depth > 5.41" for 25-YR even	nt
Inflow	=	4.80 cfs @ 12.09 hrs, Volume= 17,444 cf	
Outflow	=	4.80 cfs @ 12.09 hrs, Volume= 17,444 cf, Atten= 0%, Lag= 0.0) min
Primary	=	4.80 cfs @ 12.09 hrs, Volume= 17,444 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.66' @ 12.10 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.43'	18.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 156.43' / 155.75' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=4.16 cfs @ 12.09 hrs HW=157.63' TW=156.91' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 4.16 cfs @ 3.75 fps)

Summary for Pond DC4: DMH-C4

Inflow Area	a =	70,200 sf,100.00% Impervious, Inflow Depth > 5.41" for 25-YR event
Inflow	=	8.71 cfs @ 12.09 hrs, Volume= 31,643 cf
Outflow	=	8.71 cfs @ 12.09 hrs, Volume= 31,643 cf, Atten= 0%, Lag= 0.0 min
Primary	=	8.71 cfs @ 12.09 hrs, Volume= 31,643 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.97' @ 12.11 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.25'	24.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 155.25' / 154.57' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=7.46 cfs @ 12.09 hrs HW=156.91' TW=156.34' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 7.46 cfs @ 3.64 fps)

Summary for Pond DC5: DMH-C5

Inflow Area =	101,700 sf,100.00% Impervious,	Inflow Depth > 5.41" for 25-YR event
Inflow =	12.62 cfs @ 12.09 hrs, Volume=	45,841 cf
Outflow =	12.62 cfs @ 12.09 hrs, Volume=	45,841 cf, Atten= 0%, Lag= 0.0 min
Primary =	12.62 cfs @ 12.09 hrs, Volume=	45,841 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.37' @ 12.10 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	154.47'	24.0" Round Culvert L= 117.0' Ke= 0.500 Inlet / Outlet Invert= 154.47' / 153.88' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=10.92 cfs @ 12.09 hrs HW=156.34' TW=155.52' (Dynamic Tailwater) -1=Culvert (Outlet Controls 10.92 cfs @ 4.63 fps)

Summary for Pond DC6: DMH-C6

Inflow Area	a =	130,275 sf,100.00% Impervious, Inflow Depth > 5.41" for 25-YR event
Inflow	=	16.16 cfs @ 12.09 hrs, Volume= 58,721 cf
Outflow	=	16.16 cfs @ 12.09 hrs, Volume= 58,721 cf, Atten= 0%, Lag= 0.0 min
Primary	=	16.16 cfs @ 12.09 hrs, Volume= 58,721 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.63' @ 12.13 hrs Flood Elev= 164.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.38'	30.0" Round Culvert L= 117.0' Ke= 0.500 Inlet / Outlet Invert= 153.38' / 152.79' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=11.95 cfs @ 12.09 hrs HW=155.52' TW=155.06' (Dynamic Tailwater) -1=Culvert (Outlet Controls 11.95 cfs @ 3.60 fps)

Summary for Pond DC7: DMH-C7

Inflow Area	=	156,600 sf,100.00% Impervious, Inflow Depth > 5.41" for 25-Y	R event
Inflow	=	19.43 cfs @ 12.09 hrs, Volume= 70,587 cf	
Outflow	=	19.43 cfs @ 12.09 hrs, Volume= 70,587 cf, Atten= 0%, La	ag= 0.0 min
Primary	=	19.43 cfs @ 12.09 hrs, Volume= 70,587 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.15' @ 12.11 hrs Flood Elev= 160.80'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 25-YR Rainfall=5.65"
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Device	Routing	Invert	Outlet Devices
#1	Primary	152.69'	30.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 152.69' / 152.01' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=16.65 cfs @ 12.09 hrs HW=155.06' TW=154.34' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 16.65 cfs @ 4.46 fps)

Summary for Pond DC8: DMH-C8

Inflow Area	=	188,100 sf,100.00% Impervious, Inflow Depth > 5.41" for 25-YR event	
Inflow	=	23.34 cfs @ 12.09 hrs, Volume= 84,786 cf	
Outflow	=	23.34 cfs @ 12.09 hrs, Volume= 84,786 cf, Atten= 0%, Lag= 0.0 mir	n
Primary	=	23.34 cfs @ 12.09 hrs, Volume= 84,786 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.37' @ 12.10 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	151.91'	30.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 151.91' / 151.23' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=20.45 cfs @ 12.09 hrs HW=154.34' TW=153.30' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 20.45 cfs @ 5.35 fps)

Summary for Pond DC9: DMH-C9

Inflow Area	a =	219,600 sf,100.00% Impervious	, Inflow Depth > 5.41" for 25-YR event
Inflow	=	27.24 cfs @ 12.09 hrs, Volume=	98,985 cf
Outflow	=	27.24 cfs @ 12.09 hrs, Volume=	98,985 cf, Atten= 0%, Lag= 0.0 min
Primary	=	27.24 cfs @ 12.09 hrs, Volume=	98,985 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 153.38' @ 12.11 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	150.73'	36.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 150.73' / 150.05' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 7.07 sf

Primary OutFlow Max=23.81 cfs @ 12.09 hrs HW=153.30' TW=152.45' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 23.81 cfs @ 4.97 fps)

Summary for Pond DD1: DMH-D1

 Inflow Area =
 848,324 sf, 58.89% Impervious, Inflow Depth > 3.11" for 25-YR event

 Inflow =
 22.88 cfs @ 12.28 hrs, Volume=
 219,647 cf

 Outflow =
 22.88 cfs @ 12.28 hrs, Volume=
 219,647 cf, Atten= 0%, Lag= 0.0 min

 Primary =
 22.88 cfs @ 12.28 hrs, Volume=
 219,647 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 151.76' @ 12.34 hrs Flood Elev= 162.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	149.04'	30.0" Round Culvert L= 273.0' Ke= 0.500 Inlet / Outlet Invert= 149.04' / 147.67' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=22.63 cfs @ 12.28 hrs HW=151.74' TW=150.36' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 22.63 cfs @ 5.31 fps)

Summary for Pond DD2: DMH-D2

 Inflow Area =
 848,324 sf, 58.89% Impervious, Inflow Depth > 3.11" for 25-YR event

 Inflow =
 22.88 cfs @ 12.28 hrs, Volume=
 219,647 cf

 Outflow =
 22.88 cfs @ 12.28 hrs, Volume=
 219,647 cf, Atten= 0%, Lag= 0.0 min

 Primary =
 22.88 cfs @ 12.28 hrs, Volume=
 219,647 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 150.37' @ 12.32 hrs Flood Elev= 164.50'

Device	Routing	Invert	Outlet Devices
	Primary	147.57'	30.0" Round Culvert L= 183.0' Ke= 0.500 Inlet / Outlet Invert= 147.57' / 146.66' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=22.74 cfs @ 12.28 hrs HW=150.36' TW=149.27' (Dynamic Tailwater) -1=Culvert (Outlet Controls 22.74 cfs @ 5.18 fps)

Summary for Pond DD3: DMH-D3

Inflow Area	=	848,324 sf, 58.89% Impervious, Inflow Depth > 3.11" for 25-YR event	
Inflow	=	22.88 cfs @ 12.28 hrs, Volume= 219,647 cf	
Outflow	=	22.88 cfs @12.28 hrs, Volume=219,647 cf, Atten= 0%, Lag= 0.0 mir	nin
Primary	=	22.88 cfs @ 12.28 hrs, Volume= 219,647 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 149.27' @ 12.31 hrs Flood Elev= 164.50'

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 25-YR Rainfall=5.65"
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Device	Routing	Invert	Outlet Devices
#1	Primary	146.56'	30.0" Round Culvert L= 131.0' Ke= 0.500 Inlet / Outlet Invert= 146.56' / 145.91' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=22.84 cfs @ 12.28 hrs HW=149.27' TW=148.25' (Dynamic Tailwater) ☐ 1=Culvert (Outlet Controls 22.84 cfs @ 5.34 fps)

Summary for Pond DD4: DMH-DD4

Inflow Area	a =	848,324 sf, 58.89% Impervious, Inflow Depth > 3.11" for 25-YR event	
Inflow	=	22.88 cfs @ 12.28 hrs, Volume= 219,647 cf	
Outflow	=	22.88 cfs @ 12.28 hrs, Volume= 219,647 cf, Atten= 0%, Lag= 0.0 mir	۱
Primary	=	22.88 cfs @ 12.28 hrs, Volume= 219,647 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 148.25' @ 12.28 hrs Flood Elev= 152.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	145.81'	30.0" Round Culvert L= 133.0' Ke= 0.500 Inlet / Outlet Invert= 145.81' / 145.15' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=22.87 cfs @ 12.28 hrs HW=148.25' TW=144.84' (Dynamic Tailwater) **1=Culvert** (Barrel Controls 22.87 cfs @ 5.94 fps)

Summary for Pond DE1: DMH-E1

Inflow Area	a =	7,200 sf,100.00% Impervious, Inflow Depth > 5.41" for 25-YR event	
Inflow	=	0.89 cfs @ 12.09 hrs, Volume= 3,245 cf	
Outflow	=	0.89 cfs @12.09 hrs, Volume=3,245 cf, Atten= 0%, Lag= 0.0 min	1
Primary	=	0.89 cfs @ 12.09 hrs, Volume= 3,245 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 158.31' @ 12.10 hrs Flood Elev= 164.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.75'	12.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 157.75' / 156.93' S= 0.0060 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.80 cfs @ 12.09 hrs HW=158.29' TW=157.63' (Dynamic Tailwater) -1=Culvert (Outlet Controls 0.80 cfs @ 2.68 fps)

Summary for Pond DE2: DMH-E2

Inflow Area =	38,700 sf,100.00% Impervious,	Inflow Depth > 5.41" for 25-YR event
Inflow =	4.80 cfs @ 12.09 hrs, Volume=	17,444 cf
Outflow =	4.80 cfs @ 12.09 hrs, Volume=	17,444 cf, Atten= 0%, Lag= 0.0 min
Primary =	4.80 cfs @ 12.09 hrs, Volume=	17,444 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 157.66' @ 12.10 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.43'	18.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 156.43' / 155.75' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=4.16 cfs @ 12.09 hrs HW=157.63' TW=156.91' (Dynamic Tailwater) -1=Culvert (Outlet Controls 4.16 cfs @ 3.75 fps)

Summary for Pond DE3: DMH-E3

Inflow Area	a =	70,200 sf,100.00% Impervious, Inflow Depth > 5.41" for 25-YR event
Inflow	=	8.71 cfs @ 12.09 hrs, Volume= 31,643 cf
Outflow	=	8.71 cfs @ 12.09 hrs, Volume= 31,643 cf, Atten= 0%, Lag= 0.0 min
Primary	=	8.71 cfs @ 12.09 hrs, Volume= 31,643 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.97' @ 12.11 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.25'	24.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 155.25' / 154.57' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=7.51 cfs @ 12.09 hrs HW=156.91' TW=156.34' (Dynamic Tailwater) -1=Culvert (Outlet Controls 7.51 cfs @ 3.66 fps)

Summary for Pond DE4: DMH-E4

Inflow Are	a =	101,700 sf,100.00% Impervious, Inflow Depth > 5.41" for 25-YR event
Inflow	=	12.62 cfs @ 12.09 hrs, Volume= 45,841 cf
Outflow	=	12.62 cfs @ 12.09 hrs, Volume= 45,841 cf, Atten= 0%, Lag= 0.0 min
Primary	=	12.62 cfs @ 12.09 hrs, Volume= 45,841 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.36' @ 12.10 hrs Flood Elev= 160.80'

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Device	Routing	Invert	Outlet Devices
#1	Primary	154.47'	24.0" Round Culvert L= 117.0' Ke= 0.500 Inlet / Outlet Invert= 154.47' / 153.88' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=11.08 cfs @ 12.09 hrs HW=156.34' TW=155.48' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 11.08 cfs @ 4.72 fps)

Summary for Pond DE5: DMH-E5

Inflow Area	a =	130,275 sf,100.00% Impervious, Inflow Depth > 5.41" for 25-YR event
Inflow	=	16.16 cfs @ 12.09 hrs, Volume= 58,721 cf
Outflow	=	16.16 cfs @ 12.09 hrs, Volume= 58,721 cf, Atten= 0%, Lag= 0.0 min
Primary	=	16.16 cfs @ 12.09 hrs, Volume= 58,721 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 155.55' @ 12.11 hrs Flood Elev= 164.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.38'	30.0" Round Culvert L= 117.0' Ke= 0.500 Inlet / Outlet Invert= 153.38' / 152.79' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=14.00 cfs @ 12.09 hrs HW=155.48' TW=154.82' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 14.00 cfs @ 4.31 fps)

Summary for Pond DE6: DMH-E9

Inflow Area	a =	156,600 sf,100.00% Impervious,	Inflow Depth > 5.41" for 25-YR event
Inflow	=	19.43 cfs @ 12.09 hrs, Volume=	70,587 cf
Outflow	=	19.43 cfs @ 12.09 hrs, Volume=	70,587 cf, Atten= 0%, Lag= 0.0 min
Primary	=	19.43 cfs @ 12.09 hrs, Volume=	70,587 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.85' @ 12.09 hrs Flood Elev= 160.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	152.69'	30.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 152.69' / 152.01' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=17.91 cfs @ 12.09 hrs HW=154.82' TW=153.73' (Dynamic Tailwater) **1=Culvert** (Outlet Controls 17.91 cfs @ 5.41 fps)

Summary for Pond DE7: DMH-E7

Inflow Area =	252,000 sf,100.00% Impervious,	Inflow Depth > 5.41" for 25-YR event
Inflow =	31.26 cfs @ 12.09 hrs, Volume=	113,589 cf
Outflow =	31.26 cfs @ 12.09 hrs, Volume=	113,589 cf, Atten= 0%, Lag= 0.0 min
Primary =	31.26 cfs @ 12.09 hrs, Volume=	113,589 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 154.13' @ 12.40 hrs Flood Elev= 161.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	151.01'	42.0" Round Culvert L= 78.0' Ke= 0.500 Inlet / Outlet Invert= 151.01' / 150.62' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 9.62 sf

Primary OutFlow Max=22.91 cfs @ 12.09 hrs HW=153.73' TW=153.29' (Dynamic Tailwater) -1=Culvert (Outlet Controls 22.91 cfs @ 3.93 fps)

Summary for Pond DE8: DMH-E8

Inflow Area	a =	38,700 sf,100.00% Impervious, Inflow Depth > 5.41" for 25-YR event	
Inflow	=	4.80 cfs @ 12.09 hrs, Volume= 17,444 cf	
Outflow	=	4.80 cfs @ 12.09 hrs, Volume= 17,444 cf, Atten= 0%, Lag= 0.0 n	nin
Primary	=	4.80 cfs @ 12.09 hrs, Volume= 17,444 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 156.51' @ 12.09 hrs Flood Elev= 164.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.43'	18.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 155.43' / 153.01' S= 0.0178 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=4.67 cfs @ 12.09 hrs HW=156.49' TW=153.73' (Dynamic Tailwater) **1=Culvert** (Inlet Controls 4.67 cfs @ 3.50 fps)

Summary for Pond DE9: DMH-E9

Inflow Area =	7,200 sf	,100.00% Impervious,	Inflow Depth > 5.41"	for 25-YR event
Inflow =	0.89 cfs @	12.09 hrs, Volume=	3,245 cf	
Outflow =	0.89 cfs @	12.09 hrs, Volume=	3,245 cf, Atte	n= 0%, Lag= 0.0 min
Primary =	0.89 cfs @	12.09 hrs, Volume=	3,245 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 159.13' @ 12.09 hrs Flood Elev= 164.00'

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Device	Routing	Invert	Outlet Devices
#1	Primary	158.65'	12.0" Round Culvert L= 136.0' Ke= 0.500 Inlet / Outlet Invert= 158.65' / 155.93' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.87 cfs @ 12.09 hrs HW=159.13' TW=156.49' (Dynamic Tailwater) ☐ 1=Culvert (Inlet Controls 0.87 cfs @ 2.35 fps)

Summary for Pond PC: POND C

Inflow Area =	683,407 sf, 81.92% Impervious,	Inflow Depth > 4.36" for 25-YR event
Inflow =	70.82 cfs @ 12.09 hrs, Volume=	248,421 cf
Outflow =	4.39 cfs @ 13.75 hrs, Volume=	225,151 cf, Atten= 94%, Lag= 99.9 min
Discarded =	4.39 cfs @ 13.75 hrs, Volume=	225,151 cf
Primary =	0.00 cfs @ 0.00 hrs, Volume=	0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 147.59' @ 13.75 hrs Surf.Area= 37,755 sf Storage= 113,010 cf Flood Elev= 150.00' Surf.Area= 44,250 sf Storage= 211,891 cf

Plug-Flow detention time= 229.9 min calculated for 224,682 cf (90% of inflow)
Center-of-Mass det. time= 182.9 min (945.7 - 762.8)

Volume	Invert	t Avail.Sto	rage Storage	e Description		
#1	144.00	' 211,89	91 cf Custon	n Stage Data (Coni	c)Listed below (Re	calc)
Elevatio (fee	et)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
144.(23,000	0	0	23,000	
146.0		33,700	56,360	56,360	33,766	
148.0		38,850	72,489	128,849	39,090	
150.0	00	44,250	83,041	211,891	44,679	
Device	Routing	Invert	Outlet Device	es		
#1	Discarded	144.00'	5.000 in/hr E	xfiltration over We	etted area Phase-	-In= 0.01'
#2	Primary	146.00'	24.0" Round	d Culvert L= 36.0'	Ke= 0.500	
#3	Device 2	149.00'	n= 0.012, Flo 36.0" x 48.0'	Invert= 146.00' / 144 ow Area= 3.14 sf ' Horiz. Orifice/Gra eir flow at low heads	te C= 0.600	Cc= 0.900

Discarded OutFlow Max=4.39 cfs @ 13.75 hrs HW=147.59' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 4.39 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=144.00' TW=0.00' (Dynamic Tailwater) -2=Culvert (Controls 0.00 cfs) -3=Orifice/Grate (Controls 0.00 cfs)

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Summary for Pond PD: POND D

Inflow Area =	1,054,789 sf, 57.80% Impervious,	Inflow Depth > 3.03" for 25-YR event
Inflow =	35.37 cfs @ 12.11 hrs, Volume=	266,270 cf
Outflow =	3.77 cfs @ 14.88 hrs, Volume=	192,468 cf, Atten= 89%, Lag= 166.6 min
Discarded =	3.77 cfs @ 14.88 hrs, Volume=	192,468 cf
Primary =	0.00 cfs @ 0.00 hrs, Volume=	0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Peak Elev= 147.49' @ 14.88 hrs Surf.Area= 32,222 sf Storage= 137,534 cf Flood Elev= 150.00' Surf.Area= 37,700 sf Storage= 225,094 cf

Plug-Flow detention time= 263.5 min calculated for 192,468 cf (72% of inflow) Center-of-Mass det. time= 173.3 min (967.5 - 794.2)

Volume	Inver	t Avail.Sto	rage Storage [Description		
#1	142.00	' 225,09	94 cf Custom	Stage Data (Coni	c) Listed below (Re	calc)
Elevatio (fee 142.0 144.0 146.0 148.0 150.0	et) 20 20 20 20 20	Surf.Area (sq-ft) 18,500 22,150 29,150 33,300 37,700	Inc.Store (cubic-feet) 0 40,595 51,140 62,404 70,955	Cum.Store (cubic-feet) 0 40,595 91,735 154,139 225,094	Wet.Area (sq-ft) 18,500 22,287 29,378 33,713 38,311	
Device	Routing	Invert	Outlet Devices			
#1 #2	Discarded Primary	142.00' 146.00'	••••••	filtration over We	etted area Phase-	In= 0.01'
#2	Device 2	149.00'	Inlet / Outlet In n= 0.012, Flow 36.0" x 48.0" I		4.17' S= 0.0150 '/' te C= 0.600	Cc= 0.900

Discarded OutFlow Max=3.77 cfs @ 14.88 hrs HW=147.49' (Free Discharge) **1=Exfiltration** (Exfiltration Controls 3.77 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=142.00' TW=0.00' (Dynamic Tailwater) -2=Culvert (Controls 0.00 cfs)

3=Orifice/Grate (Controls 0.00 cfs)

Summary for Pond PE: POND E

Inflow Area =	848,324 sf, 58.89% Impervious,	Inflow Depth > 3.15" for 25-YR event
Inflow =	62.94 cfs @ 12.09 hrs, Volume=	222,718 cf
Outflow =	22.88 cfs @ 12.28 hrs, Volume=	219,647 cf, Atten= 64%, Lag= 11.5 min
Primary =	22.88 cfs @ 12.28 hrs, Volume=	219,647 cf

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

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 25-YR Rainfall=5.65"
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Starting Elev= 150.00' Surf.Area= 9,000 sf Storage= 15,000 cf Peak Elev= 154.03' @ 12.35 hrs Surf.Area= 15,961 sf Storage= 64,856 cf (49,856 cf above start) Flood Elev= 160.00' Surf.Area= 30,200 sf Storage= 200,400 cf (185,400 cf above start)

Plug-Flow detention time= 99.8 min calculated for 204,647 cf (92% of inflow) Center-of-Mass det. time= 29.7 min (791.9 - 762.2)

Volume	Inve	ert Avail.Sto	rage Sto	prage Description
#1	148.0	0' 200,40	00 cf Cu	stom Stage Data (Prismatic)Listed below (Recalc)
Elevatio (fee		Surf.Area (sq-ft)	Inc.Sto (cubic-fee	
148.0 150.0	00	6,000 9,000	15,00	0 0
152.0 154.0	00	12,250 15,900	21,25 28,15	50 36,250 50 64,400
156.0 158.0 160.0	00	20,150 24,800 30,200	36,05 44,95 55,00	50 145,400
Device	Routing	Invert	Outlet De	
#1	Primary	149.90'	Inlet / Ou	ound Culvert L= 153.0' Ke= 0.500 utlet Invert= 149.90' / 149.14' S= 0.0050 '/' Cc= 0.900 2, Flow Area= 4.91 sf
#2 #3	Device 1 Device 1	150.00' 157.50'	36.0" x 4	ert. Orifice/Grate C= 0.600 48.0" Horiz. Orifice/Grate C= 0.600 to weir flow at low heads

Primary OutFlow Max=22.69 cfs @ 12.28 hrs HW=153.99' TW=151.74' (Dynamic Tailwater) **1=Culvert** (Passes 22.69 cfs of 35.45 cfs potential flow)

2=Orifice/Grate (Orifice Controls 22.69 cfs @ 7.22 fps)

-3=Orifice/Grate (Controls 0.00 cfs)

Summary for Pond PH: POND H

Inflow Area =	226,679 sf, 0.37% Impervious,	Inflow Depth > 0.08" for 25-YR event
Inflow =	0.10 cfs @ 12.33 hrs, Volume=	1,524 cf
Outflow =	0.00 cfs @ 0.00 hrs, Volume=	0 cf, Atten= 100%, Lag= 0.0 min
Primary =	0.00 cfs @ 0.00 hrs, Volume=	0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs Starting Elev= 150.00' Surf.Area= 5,950 sf Storage= 13,653 cf Peak Elev= 150.25' @ 24.00 hrs Surf.Area= 6,251 sf Storage= 15,175 cf (1,522 cf above start) Flood Elev= 154.00' Surf.Area= 11,300 sf Storage= 47,909 cf (34,256 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow) Center-of-Mass det. time= (not calculated: no outflow)

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Volume	Inver	t Avail.Stor	age Storage [Description		
#1	146.00	' 47,90	9 cf Custom	Stage Data (Coni	c) Listed below (Reca	alc)
Elevatio (fee		urf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
146.0		1,500 3,225	0 4,616	0 4,616	1,500 3,258	
150.0 152.0	00	5,950 8,574	9,037 14,444	13,653 28,098	6,024 8,716	
154.0		11,300	19,811	47,909	11,532	
Device	Routing	Invert	Outlet Devices			
#1	Primary	150.00'	Inlet / Outlet In	Culvert L= 22.0' vert= 150.00' / 149 v Area= 1.23 sf	Ke= 0.500 9.78' S= 0.0100 '/'	Cc= 0.900
#2 #3	Device 1 Primary	150.00' 153.50'	3.0" Vert. Orif	ice/Grate C= 0.6 " H Vert. Orifice/		
Drimary		1ax-0.00 cfs @	0.00 hrs HW_{-}	150 00' TW=152	00' (Dynamic Tailw	(ator)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=150.00' TW=152.00' (Dynamic Tailwater) -1=Culvert (Controls 0.00 cfs) **2=Orifice/Grate** (Controls 0.00 cfs) -3=Orifice/Grate (Controls 0.00 cfs)

Summary for Link L1: NORTHEAST PROPERTY CORNER

Inflow Are	a =	57,112 sf,	0.00% Impervious,	Inflow Depth >	0.04"	for 25-YR event
Inflow	=	0.01 cfs @ 1	17.13 hrs, Volume=	188 c	f	
Primary	=	0.01 cfs @ 1	17.13 hrs, Volume=	188 ct	f, Atter	n= 0%, Lag= 0.0 min

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

Summary for Link L2: RIVER

Inflow Area	a =	3,252,889 sf, 38.55% Impervious, Inflow Depth > 0.15" for 25-	YR event
Inflow	=	4.16 cfs @ 12.28 hrs, Volume= 41,566 cf	
Primary	=	4.16 cfs @ 12.28 hrs, Volume= 41,566 cf, Atten= 0%, I	_ag= 0.0 min

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

Summary for Link L3: EX CULVERTS

Inflow Are	a =	2,621,305 sf,	46.88% Impervious,	Inflow Depth >	0.05"	for 25-YR event
Inflow	=	0.45 cfs @	13.88 hrs, Volume=	11,325 c	f	
Primary	=	0.45 cfs @	13.88 hrs, Volume=	11,325 c	f, Atter	n= 0%, Lag= 0.0 min

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

Summary for Link L4: WEST PROPERTY LINE

Inflow Area	=	212,906 sf,	0.00% Impervious,	Inflow Depth >	0.04"	for 25-YR event
Inflow =	=	0.02 cfs @	17.21 hrs, Volume=			
Primary =	=	0.02 cfs @	17.21 hrs, Volume=	695 c	of, Atter	n= 0%, Lag= 0.0 min

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

Summary for Link L5: NORTHWEST PROPERTY CORNER

Inflow Area	a =	71,723 sf,	0.00% Impervious,	Inflow Depth > 0.04"	for 25-YR event
Inflow	=	0.01 cfs @ 1	17.13 hrs, Volume=	236 cf	
Primary	=	0.01 cfs @ 1	17.13 hrs, Volume=	236 cf, Atte	n= 0%, Lag= 0.0 min

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

Summary for Link L6: FOX HOLLOW

Inflow Are	a =	24,585 sf,	0.00% Impervious,	Inflow Depth > 0.04"	for 25-YR event
Inflow	=	0.00 cfs @ 1	7.13 hrs, Volume=	81 cf	
Primary	=	0.00 cfs @ 1	7.13 hrs, Volume=	81 cf, Atte	n= 0%, Lag= 0.0 min

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

	FRIARS DRIVE POST DEVELOPMENT
475-POST	Type III 24-hr 50-YR Rainfall=6.75"
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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-CN Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment A1: SUBCAT A1	Runoff Area=4,895 sf 63.11% Impervious Runoff Depth>4.03" Tc=6.0 min CN=76 Runoff=0.52 cfs 1,645 cf
SubcatchmentA2: SUBCATA2	Runoff Area=5,412 sf 100.00% Impervious Runoff Depth>6.51" Tc=6.0 min CN=98 Runoff=0.80 cfs 2,935 cf
Subcatchment A3: SUBCAT A3	Runoff Area=5,889 sf 94.62% Impervious Runoff Depth>6.15" Tc=6.0 min CN=95 Runoff=0.86 cfs 3,020 cf
SubcatchmentA4: SUBCAT A4	Runoff Area=6,616 sf 89.62% Impervious Runoff Depth>5.80" Tc=6.0 min CN=92 Runoff=0.94 cfs 3,200 cf
Subcatchment B: SUBCAT B	Runoff Area=24,585 sf 0.00% Impervious Runoff Depth>0.17" Tc=6.0 min CN=30 Runoff=0.01 cfs 349 cf
Subcatchment C1: SUBCAT C1	Runoff Area=6,254 sf 34.70% Impervious Runoff Depth>2.33" Tc=6.0 min CN=59 Runoff=0.37 cfs 1,215 cf
Subcatchment C10: SUBCAT C10	Runoff Area=26,752 sf 95.25% Impervious Runoff Depth>6.15" Tc=6.0 min CN=95 Runoff=3.91 cfs 13,717 cf
Subcatchment C11: SUBCAT C11	Runoff Area=6,044 sf 71.33% Impervious Runoff Depth>4.57" Tc=6.0 min CN=81 Runoff=0.72 cfs 2,301 cf
Subcatchment C12: SUBCAT C12	Runoff Area=8,341 sf 76.62% Impervious Runoff Depth>4.90" Tc=6.0 min CN=84 Runoff=1.05 cfs 3,405 cf
Subcatchment C13: SUBCAT C13	Runoff Area=3,872 sf 77.27% Impervious Runoff Depth>5.01" Tc=6.0 min CN=85 Runoff=0.50 cfs 1,617 cf
Subcatchment C14: SUBCAT C14	Runoff Area=2,992 sf 100.00% Impervious Runoff Depth>6.51" Tc=6.0 min CN=98 Runoff=0.44 cfs 1,622 cf
Subcatchment C15: SUBCAT C15	Runoff Area=3,872 sf 81.40% Impervious Runoff Depth>5.23" Tc=6.0 min CN=87 Runoff=0.51 cfs 1,689 cf
Subcatchment C16: SUBCAT C16	Runoff Area=2,992 sf 100.00% Impervious Runoff Depth>6.51" Tc=6.0 min CN=98 Runoff=0.44 cfs 1,622 cf
Subcatchment C17: SUBCAT C17	Runoff Area=25,506 sf 95.04% Impervious Runoff Depth>6.15" Tc=6.0 min CN=95 Runoff=3.72 cfs 13,079 cf
Subcatchment C18: SUBCAT C18	Runoff Area=27,087 sf 99.38% Impervious Runoff Depth>6.51" Tc=6.0 min CN=98 Runoff=4.02 cfs 14,688 cf
Subcatchment C19: SUBCAT C19	Runoff Area=41,584 sf 80.98% Impervious Runoff Depth>5.23" Tc=6.0 min CN=87 Runoff=5.53 cfs 18,138 cf

FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 50-YR Rainfall=6.75"

475-POST	Type III 24-hr 50-YR Rainfall=6.75"
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Subcatchment C2: SUBCAT C2	Runoff Area=4,249 sf 80.40% Impervious Runoff Depth>5.12" Tc=6.0 min CN=86 Runoff=0.56 cfs 1,814 cf
SubcatchmentC20: SUBCAT C20	Runoff Area=3,692 sf 81.61% Impervious Runoff Depth>5.23" Tc=6.0 min CN=87 Runoff=0.49 cfs 1,610 cf
Subcatchment C21: SUBCAT C21	Runoff Area=3,610 sf 79.03% Impervious Runoff Depth>5.12" Tc=6.0 min CN=86 Runoff=0.47 cfs 1,541 cf
Subcatchment C22: SUBCAT C22	Runoff Area=3,940 sf 77.16% Impervious Runoff Depth>5.01" Tc=6.0 min CN=85 Runoff=0.51 cfs 1,645 cf
Subcatchment C23: SUBCAT C23	Runoff Area=3,424 sf 90.30% Impervious Runoff Depth>5.80" Tc=6.0 min CN=92 Runoff=0.49 cfs 1,656 cf
SubcatchmentC24: SUBCATC24	Runoff Area=11,181 sf 56.94% Impervious Runoff Depth>3.72" Tc=6.0 min CN=73 Runoff=1.10 cfs 3,464 cf
SubcatchmentC25: SUBCATC25	Runoff Area=5,747 sf 100.00% Impervious Runoff Depth>6.51" Tc=6.0 min CN=98 Runoff=0.85 cfs 3,116 cf
SubcatchmentC26: SUBCATC26	Runoff Area=2,533 sf 92.22% Impervious Runoff Depth>5.92" Tc=6.0 min CN=93 Runoff=0.36 cfs 1,250 cf
SubcatchmentC27: SUBCATC27	Runoff Area=8,243 sf 88.85% Impervious Runoff Depth>5.69" Tc=6.0 min CN=91 Runoff=1.16 cfs 3,908 cf
Subcatchment C28: SUBCAT C28	Runoff Area=9,089 sf 85.50% Impervious Runoff Depth>5.46" Tc=6.0 min CN=89 Runoff=1.24 cfs 4,136 cf
Subcatchment C29: SUBCAT C29	Runoff Area=4,785 sf 67.29% Impervious Runoff Depth>4.35" Tc=6.0 min CN=79 Runoff=0.55 cfs 1,736 cf
SubcatchmentC3: SUBCATC3	Runoff Area=1,309 sf 87.47% Impervious Runoff Depth>5.69" Tc=6.0 min CN=91 Runoff=0.18 cfs 621 cf
Subcatchment C30: SUBCAT C30	Runoff Area=3,220 sf 100.00% Impervious Runoff Depth>6.51" Tc=6.0 min CN=98 Runoff=0.48 cfs 1,746 cf
Subcatchment C31: SUBCAT C31	Runoff Area=9,362 sf 86.57% Impervious Runoff Depth>5.57" Tc=6.0 min CN=90 Runoff=1.30 cfs 4,349 cf
Subcatchment C32: SUBCAT C32	Runoff Area=4,710 sf 67.69% Impervious Runoff Depth>4.35" Tc=6.0 min CN=79 Runoff=0.54 cfs 1,708 cf
Subcatchment C33: SUBCAT C33	Runoff Area=6,131 sf 52.05% Impervious Runoff Depth>2.91" Tc=6.0 min CN=65 Runoff=0.47 cfs 1,486 cf
SubcatchmentC34: SUBCATC34	Runoff Area=8,792 sf 87.89% Impervious Runoff Depth>5.69" Tc=6.0 min CN=91 Runoff=1.23 cfs 4,168 cf

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475-POST	Type III 24-hr 50-YR Rainfall=6.75"
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SubcatchmentC35: SUBCATC35	Runoff Area=3,541 sf 65.66% Impervious Runoff Depth>4.25" Tc=6.0 min CN=78 Runoff=0.39 cfs 1,253 cf
SubcatchmentC36: SUBCATC36	Runoff Area=4,686 sf 33.91% Impervious Runoff Depth>1.79" Tc=6.0 min CN=53 Runoff=0.20 cfs 698 cf
SubcatchmentC37: SUBCATC37	Runoff Area=10,601 sf 53.01% Impervious Runoff Depth>3.41" Tc=6.0 min CN=70 Runoff=0.95 cfs 3,011 cf
SubcatchmentC38: SUBCATC38	Runoff Area=6,400 sf 79.30% Impervious Runoff Depth>5.12" Tc=6.0 min CN=86 Runoff=0.84 cfs 2,732 cf
Subcatchment C4: SUBCAT C4	Runoff Area=5,937 sf 33.28% Impervious Runoff Depth>2.33" Tc=6.0 min CN=59 Runoff=0.35 cfs 1,153 cf
Subcatchment C5: SUBCAT C5	Runoff Area=5,125 sf 32.45% Impervious Runoff Depth>2.24" Tc=6.0 min CN=58 Runoff=0.29 cfs 956 cf
SubcatchmentC6: SUBCATC6	Runoff Area=2,104 sf 100.00% Impervious Runoff Depth>6.51" Tc=6.0 min CN=98 Runoff=0.31 cfs 1,141 cf
SubcatchmentC7: SUBCATC7	Runoff Area=2,469 sf 80.19% Impervious Runoff Depth>5.12" Tc=6.0 min CN=86 Runoff=0.32 cfs 1,054 cf
Subcatchment C8: SUBCAT C8	Runoff Area=31,789 sf 87.55% Impervious Runoff Depth>5.69" Tc=6.0 min CN=91 Runoff=4.46 cfs 15,071 cf
Subcatchment C9: SUBCAT C9	Runoff Area=26,752 sf 99.34% Impervious Runoff Depth>6.51" Tc=6.0 min CN=98 Runoff=3.97 cfs 14,507 cf
Subcatchment D1: SUBCAT D1	Runoff Area=6,306 sf 100.00% Impervious Runoff Depth>6.51" Tc=6.0 min CN=98 Runoff=0.94 cfs 3,420 cf
Subcatchment D10: SUBCAT D10	Runoff Area=8,279 sf 85.05% Impervious Runoff Depth>5.46" Tc=6.0 min CN=89 Runoff=1.13 cfs 3,767 cf
Subcatchment D11: SUBCAT D11	Runoff Area=22,108 sf 71.77% Impervious Runoff Depth>4.57" Tc=6.0 min CN=81 Runoff=2.63 cfs 8,418 cf
Subcatchment D12: SUBCAT D12	Runoff Area=8,350 sf 88.55% Impervious Runoff Depth>5.69" Tc=6.0 min CN=91 Runoff=1.17 cfs 3,959 cf
Subcatchment D2: SUBCAT D2	Runoff Area=1,690 sf 84.14% Impervious Runoff Depth>5.46" Tc=6.0 min CN=89 Runoff=0.23 cfs 769 cf
Subcatchment D3: SUBCAT D3	Runoff Area=34,598 sf 51.01% Impervious Runoff Depth>3.31" Tc=6.0 min CN=69 Runoff=3.02 cfs 9,534 cf
Subcatchment D4: SUBCAT D4	Runoff Area=3,657 sf 72.49% Impervious Runoff Depth>4.68" Tc=6.0 min CN=82 Runoff=0.44 cfs 1,426 cf

FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 50-YR Rainfall=6.75"

475-POST	Type III 24-hr 50-YR Rainfall=6.75"
Prepared by The Dubay Group, Inc.	Printed 10/5/2021
HydroCAD® 10.00-26 s/n 07602 © 2020 Hyd	roCAD Software Solutions LLC Page 4
SubcatchmentD5: SUBCAT D5	Runoff Area=6,341 sf 62.81% Impervious Runoff Depth>4.03" Tc=6.0 min CN=76 Runoff=0.67 cfs 2,131 cf
Subcatchment D6: SUBCAT D6	Runoff Area=6,633 sf 75.95% Impervious Runoff Depth>4.90" Tc=6.0 min CN=84 Runoff=0.84 cfs 2,708 cf
Subcatchment D7: SUBCAT D7	Runoff Area=17,040 sf 81.32% Impervious Runoff Depth>5.23" Tc=6.0 min CN=87 Runoff=2.26 cfs 7,432 cf
Subcatchment D8: SUBCAT D8	Runoff Area=7,740 sf 84.12% Impervious Runoff Depth>5.46" Tc=6.0 min CN=89 Runoff=1.06 cfs 3,522 cf
Subcatchment D9: SUBCAT D9	Runoff Area=19,265 sf 81.28% Impervious Runoff Depth>5.23" Tc=6.0 min CN=87 Runoff=2.56 cfs 8,403 cf
Subcatchment E1: SUBCAT E1	Runoff Area=5,639 sf 95.66% Impervious Runoff Depth>6.15" Tc=6.0 min CN=95 Runoff=0.82 cfs 2,891 cf
Subcatchment E10: SUBCAT E10	Runoff Area=11,128 sf 61.34% Impervious Runoff Depth>3.93" Tc=6.0 min CN=75 Runoff=1.15 cfs 3,641 cf
Subcatchment E11: SUBCAT E11	Runoff Area=23,375 sf 93.96% Impervious Runoff Depth>6.04" Tc=6.0 min CN=94 Runoff=3.39 cfs 11,758 cf
Subcatchment E12: SUBCAT E12	Runoff Area=18,833 sf 95.13% Impervious Runoff Depth>6.15" Tc=6.0 min CN=95 Runoff=2.75 cfs 9,657 cf
Subcatchment E13: SUBCAT E13	Runoff Area=35,467 sf 94.58% Impervious Runoff Depth>6.15" Tc=6.0 min CN=95 Runoff=5.18 cfs 18,186 cf
Subcatchment E14: SUBCAT E14	Runoff Area=27,808 sf 98.14% Impervious Runoff Depth>6.39" Tc=6.0 min CN=97 Runoff=4.11 cfs 14,805 cf
Subcatchment E15: SUBCAT E15	Runoff Area=32,392 sf 98.14% Impervious Runoff Depth>6.39" Tc=6.0 min CN=97 Runoff=4.79 cfs 17,245 cf
Subcatchment E16: SUBCAT E16	Runoff Area=30,721 sf 76.36% Impervious Runoff Depth>4.90" Tc=6.0 min CN=84 Runoff=3.88 cfs 12,542 cf
Subcatchment E17: SUBCAT E17	Runoff Area=120,518 sf 0.00% Impervious Runoff Depth>0.17" Flow Length=190' Tc=7.2 min CN=30 Runoff=0.06 cfs 1,707 cf
Subcatchment E18: SUBCAT E18	Runoff Area=11,752 sf 0.00% Impervious Runoff Depth>0.17" Tc=6.0 min CN=30 Runoff=0.01 cfs 167 cf
Subcatchment E19: SUBCAT E19	Runoff Area=75,753 sf 0.00% Impervious Runoff Depth>0.17" Tc=6.0 min CN=30 Runoff=0.04 cfs 1,074 cf
Subcatchment E2: SUBCAT E2	Runoff Area=6,746 sf 96.37% Impervious Runoff Depth>6.27" Tc=6.0 min CN=96 Runoff=0.99 cfs 3,525 cf

475-POST

Type III 24-hr 50-YR Rainfall=6.75" Printed 10/5/2021

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Subcatchment E3: SUBCAT E3	Runoff Area=10,197 sf 93.34% Impervious Runoff Depth>6.04"
	Tc=6.0 min CN=94 Runoff=1.48 cfs 5,129 cf
Subcatchment E4: SUBCAT E4	Runoff Area=11,078 sf 88.18% Impervious Runoff Depth>5.69"
SubcatchinentL4. SOBOAT L4	Tc=6.0 min CN=91 Runoff=1.56 cfs $5,252$ cf
Subcatchment E5: SUBCAT E5	Runoff Area=9,740 sf 67.06% Impervious Runoff Depth>4.35"
	Tc=6.0 min CN=79 Runoff=1.11 cfs 3,533 cf
Subcatchment E6: SUBCAT E6	Runoff Area=13,215 sf 67.23% Impervious Runoff Depth>4.35"
	Tc=6.0 min CN=79 Runoff=1.51 cfs 4,793 cf
	Buneff Area=0 100 of 00.02% Impervious, Buneff Depth>E.02"
Subcatchment E7: SUBCAT E7	Runoff Area=9,100 sf 90.92% Impervious Runoff Depth>5.92" Tc=6.0 min CN=93 Runoff=1.31 cfs 4,489 cf
Subcatchment E8: SUBCAT E8	Runoff Area=12,697 sf 90.53% Impervious Runoff Depth>5.80"
	Tc=6.0 min CN=92 Runoff=1.80 cfs 6,141 cf
Subcatchment E9: SUBCAT E9	Runoff Area=3,988 sf 94.93% Impervious Runoff Depth>6.15"
	Tc=6.0 min CN=95 Runoff=0.58 cfs 2,045 cf
Subcatchment G1: SUBCAT G1	Runoff Area=203,535 sf 0.00% Impervious Runoff Depth>0.17"
Subcatchinient GT. SOBCAT GT	Flow Length=1,090' Tc=11.8 min CN=30 Runoff=0.11 cfs 2,872 cf
	-
Subcatchment K: SUBCAT K	Runoff Area=318,471 sf 7.84% Impervious Runoff Depth>1.12"
	Flow Length=1,223' Tc=10.6 min CN=45 Runoff=5.81 cfs 29,670 cf
SubcatchmentL: SUBCATL	Runoff Area=313,113 sf 0.00% Impervious Runoff Depth>0.89"
	Tc=6.0 min CN=42 Runoff=4.34 cfs 23,277 cf
Subcatchment R1: SUBCAT R1	Runoff Area=7,200 sf 100.00% Impervious Runoff Depth>6.51"
Subcatchine internet. SOBOAT NT	Tc=6.0 min CN=98 Runoff=1.07 cfs $3,904$ cf
Subcatchment R10: SUBCAT R10	Runoff Area=32,400 sf 100.00% Impervious Runoff Depth>6.51" Tc=6.0 min CN=98 Runoff=4.81 cfs 17,569 cf
Subcatchment R11: SUBCAT R11	Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>6.51"
	Tc=6.0 min CN=98 Runoff=4.68 cfs 17,081 cf
Subcatchment R12: SUBCAT R12	Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>6.51"
	Tc=6.0 min CN=98 Runoff=4.68 cfs 17,081 cf
Subcatchment R13: SUBCAT R13	Runoff Area=26,325 sf 100.00% Impervious Runoff Depth>6.51"
Subcalchinent R 13: SUBCAT R 13	Tc=6.0 min CN=98 Runoff=3.91 cfs $14,275$ cf
Subcatchment R14: SUBCAT R14	Runoff Area=28,575 sf 100.00% Impervious Runoff Depth>6.51"
	Tc=6.0 min CN=98 Runoff=4.24 cfs 15,495 cf
Subcatchment R15: SUBCAT R15	Runoff Area=31,500 sf 100.00% Impervious Runoff Depth>6.51"
	Tc=6.0 min CN=98 Runoff=4.68 cfs 17,081 cf

FRIARS DRIVE POST DEVELOPMENT Type III 24-hr 50-YR Rainfall=6.75"

SubcatchmentR16: SUBCATR16 Runoff Area=31,500 sf 100.00% Impervious Runoff Depth> Tc=6.0 min CN=98 Runoff=4.68 cfs 17,0	
Subcatchment R17: SUBCAT R17Runoff Area=31,500 sf100.00% ImperviousRunoff Depth>Tc=6.0 minCN=98Runoff=4.68 cfs17,00	
SubcatchmentR18: SUBCAT R18Runoff Area=7,200 sf 100.00% Impervious Runoff Depth> Tc=6.0 min CN=98 Runoff=1.07 cfs 3,9	
Subcatchment R2: SUBCAT R2Runoff Area=31,500 sf100.00% ImperviousRunoff Depth>Tc=6.0 minCN=98Runoff=4.68 cfs17,00	
SubcatchmentR3: SUBCATR3Runoff Area=56,700 sf100.00% ImperviousRunoff Depth>Tc=6.0 minCN=98Runoff=8.42 cfs30,7	
SubcatchmentR4: SUBCAT R4Runoff Area=26,325 sf100.00% ImperviousRunoff Depth>Tc=6.0 minCN=98Runoff=3.91 cfs14,2	
Subcatchment R5: SUBCAT R5Runoff Area=28,575 sf100.00% ImperviousRunoff Depth>Tc=6.0 minCN=98Runoff=4.24 cfs15,4	
Subcatchment R6: SUBCAT R6Runoff Area=31,500 sf100.00% ImperviousRunoff Depth>Tc=6.0 minCN=98Runoff=4.68 cfs17,0	
Subcatchment R7: SUBCAT R7Runoff Area=31,500 sf100.00% ImperviousRunoff Depth>Tc=6.0 minCN=98Runoff=4.68 cfs17,0	
Subcatchment R8: SUBCAT R8Runoff Area=31,500 sf100.00% ImperviousRunoff Depth>Tc=6.0 minCN=98Runoff=4.68 cfs17,0	
Subcatchment R9: SUBCAT R9Runoff Area=7,200 sf100.00% ImperviousRunoff Depth>Tc=6.0 minCN=98Runoff=1.07 cfs3,9	
Subcatchment S1: SUBCAT S1Runoff Area=57,112 sf0.00% ImperviousRunoff Depth>Tc=6.0 minCN=30Runoff=0.03 cfs8	
Subcatchment S10: SUBCAT S10Runoff Area=96,652 sf 6.11% Impervious Runoff Depth> Flow Length=455' Tc=12.0 min CN=34 Runoff=0.23 cfs 2,9	
Subcatchment S11: SUBCAT S11Runoff Area=113,276 sf14.81% ImperviousRunoff Depth>Flow Length=327'Tc=6.0 minCN=40Runoff=1.10 cfs7,0	
Subcatchment S12: SUBCAT S12Runoff Area=23,144 sf3.59% ImperviousRunoff Depth>Tc=6.0 minCN=41Runoff=0.27 cfs1,5	
SubcatchmentS13: SUBCAT S13Runoff Area=13,348 sf89.17% ImperviousRunoff Depth>Tc=6.0 minCN=92Runoff=1.90 cfs6,4	
SubcatchmentS14: SUBCAT S14Runoff Area=11,820 sf88.58% ImperviousRunoff Depth>Tc=6.0 minCN=91Runoff=1.66 cfs5,6	

475-POST

Prepared by The Dubay Group, Inc. Printed 10/5/2021 HydroCAD® 10.00-26 s/n 07602 © 2020 HydroCAD Software Solutions LLC Page 7 Runoff Area=71,723 sf 0.00% Impervious Runoff Depth>0.17" Subcatchment S2: SUBCAT S2 Tc=6.0 min CN=30 Runoff=0.04 cfs 1,017 cf Runoff Area=100,949 sf 0.00% Impervious Runoff Depth>0.17" Subcatchment S3: SUBCAT S3 Tc=6.0 min CN=30 Runoff=0.05 cfs 1,431 cf Runoff Area=212,906 sf 0.00% Impervious Runoff Depth>0.17" Subcatchment S4: SUBCAT S4 Flow Length=530' Tc=11.7 min CN=30 Runoff=0.11 cfs 3,005 cf Runoff Area=52,646 sf 0.00% Impervious Runoff Depth>0.17" Subcatchment S5: SUBCAT S5 Tc=6.0 min CN=30 Runoff=0.03 cfs 746 cf Runoff Area=71,750 sf 0.00% Impervious Runoff Depth>0.17" Subcatchment S6: SUBCAT S6 Tc=6.0 min CN=30 Runoff=0.04 cfs 1,017 cf Runoff Area=446,502 sf 8.05% Impervious Runoff Depth>0.42" Subcatchment S8: SUBCAT S8 Flow Length=2,253' Tc=13.6 min CN=35 Runoff=1.38 cfs 15,765 cf Reach ER4: EX REACH 4 Avg. Flow Depth=0.03' Max Vel=0.72 fps Inflow=1.04 cfs 9,897 cf n=0.030 L=1,291.0' S=0.0187 '/' Capacity=176.06 cfs Outflow=0.62 cfs 9,546 cf Avg. Flow Depth=0.05' Max Vel=1.07 fps Inflow=1.81 cfs 25,311 cf Reach ER5: EX REACH 5 n=0.030 L=1,085.0' S=0.0224 '/' Capacity=192.80 cfs Outflow=1.46 cfs 24,785 cf **Reach RG: REACH G** Avg. Flow Depth=0.09' Max Vel=3.07 fps Inflow=0.11 cfs 2,872 cf 12.0" Round Pipe n=0.012 L=180.0' S=0.0278 '/' Capacity=6.43 cfs Outflow=0.11 cfs 2,869 cf Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf Reach W1: WETLAND REACH 1 n=0.030 L=420.0' S=0.0190 '/' Capacity=177.62 cfs Outflow=0.00 cfs 0 cf **Reach W2: WETLAND REACH 2** Avg. Flow Depth=0.05' Max Vel=0.63 fps Inflow=1.10 cfs 7,066 cf n=0.030 L=480.0' S=0.0083 '/' Capacity=117.48 cfs Outflow=0.83 cfs 6,942 cf Peak Elev=156.38' Inflow=1.32 cfs 4,580 cf Pond CA1: CB-A1 12.0" Round Culvert n=0.012 L=83.0' S=0.0100 '/' Outflow=1.32 cfs 4,580 cf Peak Elev=156.74' Inflow=0.80 cfs 2,935 cf Pond CA2: CB-A2 12.0" Round Culvert n=0.012 L=41.0' S=0.0100 '/' Outflow=0.80 cfs 2,935 cf Peak Elev=155.20' Inflow=5.36 cfs 18,280 cf Pond CA3: CB-A3 18.0" Round Culvert n=0.012 L=169.0' S=0.0050 '/' Outflow=5.36 cfs 18.280 cf Pond CA4: CB-A4 Peak Elev=155.52' Inflow=0.94 cfs 3,200 cf 12.0" Round Culvert n=0.012 L=50.0' S=0.0100 '/' Outflow=0.94 cfs 3,200 cf Peak Elev=159.68' Inflow=0.37 cfs 1,215 cf Pond CC1: CB-C1 12.0" Round Culvert n=0.012 L=33.0' S=0.0048 '/' Outflow=0.37 cfs 1,215 cf Pond CC10: CB-C10 Peak Elev=154.37' Inflow=24.50 cfs 84,109 cf 30.0" Round Culvert n=0.012 L=170.0' S=0.0050 '/' Outflow=24.50 cfs 84,109 cf

Type III 24-hr 50-YR Rainfall=6.75" Printed 10/5/2021

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Pond CC11: CB-C11	Peak Elev=156.18' Inflow=0.72 cfs 2,301 cf 12.0" Round Culvert n=0.012 L=30.0' S=0.0200 '/' Outflow=0.72 cfs 2,301 cf
Pond CC12: CB-C12	Peak Elev=149.84' Inflow=14.26 cfs 48,149 cf 24.0" Round Culvert n=0.012 L=70.0' S=0.0050 '/' Outflow=14.26 cfs 48,149 cf
Pond CC13: CB-C13	Peak Elev=156.10' Inflow=0.50 cfs 1,617 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0200 '/' Outflow=0.50 cfs 1,617 cf
Pond CC14: CB-C14	Peak Elev=150.73' Inflow=12.48 cfs 42,442 cf 24.0" Round Culvert n=0.012 L=172.0' S=0.0050 '/' Outflow=12.48 cfs 42,442 cf
Pond CC15: CB-C15	Peak Elev=156.11' Inflow=0.51 cfs 1,689 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0200 '/' Outflow=0.51 cfs 1,689 cf
Pond CC16: CB-C16	Peak Elev=151.53' Inflow=11.54 cfs 39,203 cf 24.0" Round Culvert n=0.012 L=172.0' S=0.0050 '/' Outflow=11.54 cfs 39,203 cf
Pond CC17: CB-C17	Peak Elev=155.00' Inflow=20.59 cfs 70,391 cf 30.0" Round Culvert n=0.012 L=165.0' S=0.0050 '/' Outflow=20.59 cfs 70,391 cf
Pond CC18: CB-C18	Peak Elev=155.58' Inflow=16.87 cfs 57,313 cf 30.0" Round Culvert n=0.012 L=168.0' S=0.0050 '/' Outflow=16.87 cfs 57,313 cf
Pond CC19: CB-C19	Peak Elev=156.64' Inflow=12.85 cfs 42,624 cf 24.0" Round Culvert n=0.012 L=181.0' S=0.0050 '/' Outflow=12.85 cfs 42,624 cf
Pond CC2: CB-C2	Peak Elev=159.59' Inflow=0.93 cfs 3,029 cf 12.0" Round Culvert n=0.012 L=56.0' S=0.0050 '/' Outflow=0.93 cfs 3,029 cf
Pond CC20: CB-C20	Peak Elev=152.34' Inflow=10.58 cfs 35,892 cf 24.0" Round Culvert n=0.012 L=169.0' S=0.0050 '/' Outflow=10.58 cfs 35,892 cf
Pond CC21: CB-C21	Peak Elev=156.09' Inflow=0.47 cfs 1,541 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0200 '/' Outflow=0.47 cfs 1,541 cf
Pond CC22: CB-C22	Peak Elev=156.11' Inflow=0.51 cfs 1,645 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0200 '/' Outflow=0.51 cfs 1,645 cf
Pond CC23: CB-C23	Peak Elev=153.19' Inflow=9.62 cfs 32,740 cf 24.0" Round Culvert n=0.012 L=173.0' S=0.0050 '/' Outflow=9.62 cfs 32,740 cf
Pond CC24: CB-C24	Peak Elev=155.71' Inflow=2.42 cfs 8,043 cf 12.0" Round Culvert n=0.012 L=42.0' S=0.0290 '/' Outflow=2.42 cfs 8,043 cf
Pond CC25: CB-C25	Peak Elev=154.12' Inflow=8.63 cfs 29,439 cf 24.0" Round Culvert n=0.012 L=190.0' S=0.0050 '/' Outflow=8.63 cfs 29,439 cf
Pond CC26: CB-C26	Peak Elev=158.78' Inflow=1.39 cfs 4,731 cf 12.0" Round Culvert n=0.012 L=41.0' S=0.0224 '/' Outflow=1.39 cfs 4,731 cf

Type III 24-hr 50-YR Rainfall=6.75"

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Pond CC27: CB-C27	Peak Elev=158.93' Inflow=5.94 cfs 19,755 cf 18.0" Round Culvert n=0.012 L=122.0' S=0.0050 '/' Outflow=5.94 cfs 19,755 cf
Pond CC28: CB-C28	Peak Elev=159.62' Inflow=4.78 cfs 15,847 cf 15.0" Round Culvert n=0.012 L=101.0' S=0.0050 '/' Outflow=4.78 cfs 15,847 cf
Pond CC29: CB-C29	Peak Elev=160.32' Inflow=1.02 cfs 3,482 cf 12.0" Round Culvert n=0.012 L=77.0' S=0.0200 '/' Outflow=1.02 cfs 3,482 cf
Pond CC3: CB-C3	Peak Elev=159.32' Inflow=1.11 cfs 3,649 cf 12.0" Round Culvert n=0.012 L=75.0' S=0.0049 '/' Outflow=1.11 cfs 3,649 cf
Pond CC30: CB-C30	Peak Elev=160.76' Inflow=0.48 cfs 1,746 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0200 '/' Outflow=0.48 cfs 1,746 cf
Pond CC31: CB-C31	Peak Elev=160.22' Inflow=3.54 cfs 11,711 cf 15.0" Round Culvert n=0.012 L=133.0' S=0.0050 '/' Outflow=3.54 cfs 11,711 cf
Pond CC32: CB-C32	Peak Elev=161.82' Inflow=1.00 cfs 3,194 cf 12.0" Round Culvert n=0.012 L=53.0' S=0.0292 '/' Outflow=1.00 cfs 3,194 cf
Pond CC33: CB-C33	Peak Elev=162.49' Inflow=0.47 cfs 1,486 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0288 '/' Outflow=0.47 cfs 1,486 cf
Pond CC34: CB-C34	Peak Elev=160.67' Inflow=2.24 cfs 7,362 cf 12.0" Round Culvert n=0.012 L=88.0' S=0.0050 '/' Outflow=2.24 cfs 7,362 cf
Pond CC35: CB-C35	Peak Elev=159.65' Inflow=1.55 cfs 4,961 cf 12.0" Round Culvert n=0.012 L=90.0' S=0.0303 '/' Outflow=1.55 cfs 4,961 cf
Pond CC36: CB-C36	Peak Elev=160.37' Inflow=0.20 cfs 698 cf 12.0" Round Culvert n=0.012 L=40.0' S=0.0267 '/' Outflow=0.20 cfs 698 cf
Pond CC37: CB-C37	Peak Elev=159.87' Inflow=0.95 cfs 3,011 cf 12.0" Round Culvert n=0.012 L=34.0' S=0.0050 '/' Outflow=0.95 cfs 3,011 cf
Pond CC38: CB-C38	Peak Elev=161.77' Inflow=0.84 cfs 2,732 cf 12.0" Round Culvert n=0.012 L=120.0' S=0.0179 '/' Outflow=0.84 cfs 2,732 cf
Pond CC4: CB-C4	Peak Elev=157.82' Inflow=0.35 cfs 1,153 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0100 '/' Outflow=0.35 cfs 1,153 cf
Pond CC5: CB-C5	Peak Elev=159.72' Inflow=0.29 cfs 956 cf 12.0" Round Culvert n=0.012 L=30.0' S=0.0100 '/' Outflow=0.29 cfs 956 cf
Pond CC6: CB-C6	Peak Elev=157.01' Inflow=1.27 cfs 4,304 cf 12.0" Round Culvert n=0.012 L=73.0' S=0.0100 '/' Outflow=1.27 cfs 4,304 cf
Pond CC7: CB-C7	Peak Elev=157.57' Inflow=0.67 cfs 2,207 cf 12.0" Round Culvert n=0.012 L=62.0' S=0.0100 '/' Outflow=0.67 cfs 2,207 cf

475-POST Prepared by The Dubay <u>HydroCAD® 10.00-26_s/n 07</u>	FRIARS DRIVE POST DEVELOPMENT <i>Type III 24-hr 50-YR Rainfall=</i> 6.75" Group, Inc. Printed 10/5/2021 <u>7602 © 2020 HydroCAD Software Solutions LLC Page 10</u>
Pond CC8: CB-C8	Peak Elev=152.00' Inflow=32.94 cfs 113,686 cf 36.0" Round Culvert n=0.012 L=85.0' S=0.0051 '/' Outflow=32.94 cfs 113,686 cf
Pond CC9: CB-C9	Peak Elev=153.41' Inflow=28.47 cfs 98,615 cf 30.0" Round Culvert n=0.012 L=170.0' S=0.0050 '/' Outflow=28.47 cfs 98,615 cf
Pond CD1: CB-D1	Peak Elev=159.61' Inflow=0.94 cfs 3,420 cf 12.0" Round Culvert n=0.012 L=144.0' S=0.0050 '/' Outflow=0.94 cfs 3,420 cf
Pond CD10: CB-D10	Peak Elev=159.30' Inflow=1.13 cfs 3,767 cf 12.0" Round Culvert n=0.012 L=121.0' S=0.0300 '/' Outflow=1.13 cfs 3,767 cf
Pond CD11: CB-D11	Peak Elev=155.94' Inflow=18.07 cfs 59,138 cf 24.0" Round Culvert n=0.012 L=264.0' S=0.0133 '/' Outflow=18.07 cfs 59,138 cf
Pond CD12: CB-D12	Peak Elev=159.00' Inflow=2.28 cfs 7,608 cf 12.0" Round Culvert n=0.012 L=121.0' S=0.0299 '/' Outflow=2.28 cfs 7,608 cf
Pond CD2: CB-D2	Peak Elev=158.79' Inflow=1.17 cfs 4,189 cf 12.0" Round Culvert n=0.012 L=91.0' S=0.0189 '/' Outflow=1.17 cfs 4,189 cf
Pond CD3: CB-D3	Peak Elev=158.15' Inflow=3.02 cfs 9,534 cf 12.0" Round Culvert n=0.012 L=48.0' S=0.0050 '/' Outflow=3.02 cfs 9,534 cf
Pond CD4: CB-D4	Peak Elev=157.43' Inflow=6.14 cfs 19,987 cf 18.0" Round Culvert n=0.012 L=165.0' S=0.0050 '/' Outflow=6.14 cfs 19,987 cf
Pond CD5: CB-D5	Peak Elev=158.41' Inflow=1.51 cfs 4,839 cf 12.0" Round Culvert n=0.012 L=26.0' S=0.0477 '/' Outflow=1.51 cfs 4,839 cf
Pond CD6: CB-D6	Peak Elev=158.71' Inflow=0.84 cfs 2,708 cf 12.0" Round Culvert n=0.012 L=33.0' S=0.0100 '/' Outflow=0.84 cfs 2,708 cf
Pond CD7: CB-D7	Peak Elev=156.75' Inflow=9.46 cfs 30,942 cf 24.0" Round Culvert n=0.012 L=93.0' S=0.0051 '/' Outflow=9.46 cfs 30,942 cf
Pond CD8: CB-D8	Peak Elev=159.28' Inflow=1.06 cfs 3,522 cf 12.0" Round Culvert n=0.012 L=121.0' S=0.0253 '/' Outflow=1.06 cfs 3,522 cf
Pond CD9: CB-D9	Peak Elev=156.49' Inflow=13.15 cfs 43,112 cf 24.0" Round Culvert n=0.012 L=100.0' S=0.0050 '/' Outflow=13.15 cfs 43,112 cf
Pond CE1: CB-E1	Peak Elev=161.31' Inflow=0.82 cfs 2,891 cf 12.0" Round Culvert n=0.012 L=101.0' S=0.0661 '/' Outflow=0.82 cfs 2,891 cf
Pond CE10: CB-E10	Peak Elev=154.89' Inflow=38.55 cfs 140,293 cf 42.0" Round Culvert n=0.012 L=43.0' S=0.0049 '/' Outflow=38.55 cfs 140,293 cf
Pond CE11: CB-E11	Peak Elev=154.94' Inflow=25.64 cfs 89,154 cf 30.0" Round Culvert n=0.012 L=104.0' S=0.0050 '/' Outflow=25.64 cfs 89,154 cf

Type III 24-hr 50-YR Rainfall=6.75" Printed 10/5/2021

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	7602 © 2020 HydroCAD Software Solutions LLC Page 11
Pond CE12: CB-E12	Peak Elev=155.02' Inflow=22.25 cfs 77,396 cf 30.0" Round Culvert n=0.012 L=127.0' S=0.0050 '/' Outflow=22.25 cfs 77,396 cf
Pond CE13: CB-E13	Peak Elev=155.15' Inflow=19.50 cfs 67,739 cf 30.0" Round Culvert n=0.012 L=161.0' S=0.0050 '/' Outflow=19.50 cfs 67,739 cf
Pond CE14: CB-E14	Peak Elev=155.96' Inflow=14.32 cfs 49,553 cf 24.0" Round Culvert n=0.012 L=155.0' S=0.0050 '/' Outflow=14.32 cfs 49,553 cf
Pond CE15: CB-E15	Peak Elev=156.53' Inflow=10.21 cfs 34,748 cf 24.0" Round Culvert n=0.012 L=134.0' S=0.0050 '/' Outflow=10.21 cfs 34,748 cf
Pond CE16: CB-E16	Peak Elev=157.12' Inflow=5.43 cfs 17,503 cf 18.0" Round Culvert n=0.012 L=127.0' S=0.0050 '/' Outflow=5.43 cfs 17,503 cf
Pond CE17: CB-E17	Peak Elev=161.61' Inflow=0.06 cfs 1,707 cf 12.0" Round Culvert n=0.012 L=64.0' S=0.0100 '/' Outflow=0.06 cfs 1,707 cf
Pond CE18: CB-E18	Peak Elev=156.83' Inflow=0.01 cfs 167 cf 12.0" Round Culvert n=0.012 L=49.0' S=0.0051 '/' Outflow=0.01 cfs 167 cf
Pond CE19: CB-E19	Peak Elev=157.48' Inflow=0.04 cfs 1,074 cf 12.0" Round Culvert n=0.012 L=49.0' S=0.0051 '/' Outflow=0.04 cfs 1,074 cf
Pond CE2: CB-E2	Peak Elev=161.26' Inflow=0.99 cfs 5,232 cf 12.0" Round Culvert n=0.012 L=101.0' S=0.0612 '/' Outflow=0.99 cfs 5,232 cf
Pond CE3: CB-E3	Peak Elev=154.96' Inflow=11.99 cfs 43,479 cf 24.0" Round Culvert n=0.012 L=178.0' S=0.0050 '/' Outflow=11.99 cfs 43,479 cf
Pond CE4: CB-E4	Peak Elev=155.42' Inflow=9.69 cfs 35,458 cf 24.0" Round Culvert n=0.012 L=60.0' S=0.0050 '/' Outflow=9.69 cfs 35,458 cf
Pond CE5: CB-E5	Peak Elev=156.08' Inflow=7.15 cfs 24,974 cf 18.0" Round Culvert n=0.012 L=76.0' S=0.0050 '/' Outflow=7.15 cfs 24,974 cf
Pond CE6: CB-E6	Peak Elev=156.81' Inflow=6.04 cfs 21,441 cf 18.0" Round Culvert n=0.012 L=140.0' S=0.0050 '/' Outflow=6.04 cfs 21,441 cf
Pond CE7: CB-E7	Peak Elev=157.37' Inflow=4.53 cfs 16,648 cf 15.0" Round Culvert n=0.012 L=95.0' S=0.0049 '/' Outflow=4.53 cfs 16,648 cf
Pond CE8: CB-E8	Peak Elev=157.93' Inflow=3.22 cfs 11,992 cf 15.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=3.22 cfs 11,992 cf
Pond CE9: CB-E9	Peak Elev=159.68' Inflow=1.42 cfs 4,777 cf 12.0" Round Culvert n=0.012 L=94.0' S=0.0218 '/' Outflow=1.42 cfs 4,777 cf
Pond CS13: CB-S13	Peak Elev=156.05' Inflow=3.56 cfs 12,060 cf 15.0" Round Culvert n=0.012 L=145.0' S=0.0050 '/' Outflow=3.56 cfs 12,060 cf

Type III 24-hr 50-YR Rainfall=6.75" Printed 10/5/2021

HydroCAD® 10.00-26 s/n 0	7602 © 2020 HydroCAD Software Solutions LLC Page 12
Pond CS14: CB-S14	Peak Elev=156.88' Inflow=1.66 cfs 5,604 cf 12.0" Round Culvert n=0.012 L=101.0' S=0.0100 '/' Outflow=1.66 cfs 5,604 cf
Pond DC1: DMH-C1	Peak Elev=158.22' Inflow=7.32 cfs 24,486 cf 18.0" Round Culvert n=0.012 L=155.0' S=0.0096 '/' Outflow=7.32 cfs 24,486 cf
Pond DC10: DMH-C10	Peak Elev=152.84' Inflow=37.40 cfs 136,652 cf 36.0" Round Culvert n=0.012 L=247.0' S=0.0050 '/' Outflow=37.40 cfs 136,652 cf
Pond DC11: DMH-C11	Peak Elev=149.02' Inflow=48.46 cfs 166,139 cf 42.0" Round Culvert n=0.012 L=174.0' S=0.0050 '/' Outflow=48.46 cfs 166,139 cf
Pond DC2: DMH-C2	Peak Elev=158.39' Inflow=1.07 cfs 3,904 cf 12.0" Round Culvert n=0.012 L=136.0' S=0.0060 '/' Outflow=1.07 cfs 3,904 cf
Pond DC3: DMH-C3	Peak Elev=157.85' Inflow=5.74 cfs 20,986 cf 18.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=5.74 cfs 20,986 cf
Pond DC4: DMH-C4	Peak Elev=157.24' Inflow=10.42 cfs 38,067 cf 24.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=10.42 cfs 38,067 cf
Pond DC5: DMH-C5	Peak Elev=156.68' Inflow=15.09 cfs 55,149 cf 24.0" Round Culvert n=0.012 L=117.0' S=0.0050 '/' Outflow=15.09 cfs 55,149 cf
Pond DC6: DMH-C6	Peak Elev=156.01' Inflow=19.33 cfs 70,644 cf 30.0" Round Culvert n=0.012 L=117.0' S=0.0050 '/' Outflow=19.33 cfs 70,644 cf
Pond DC7: DMH-C7	Peak Elev=155.57' Inflow=23.24 cfs 84,919 cf 30.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=23.24 cfs 84,919 cf
Pond DC8: DMH-C8	Peak Elev=154.76' Inflow=27.92 cfs 102,001 cf 30.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=27.92 cfs 102,001 cf
Pond DC9: DMH-C9	Peak Elev=153.76' Inflow=32.59 cfs 119,082 cf 36.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=32.59 cfs 119,082 cf
Pond DD1: DMH-D1	Peak Elev=152.11' Inflow=25.14 cfs 270,908 cf 30.0" Round Culvert n=0.012 L=273.0' S=0.0050 '/' Outflow=25.14 cfs 270,908 cf
Pond DD2: DMH-D2	Peak Elev=150.71' Inflow=25.14 cfs 270,908 cf 30.0" Round Culvert n=0.012 L=183.0' S=0.0050 '/' Outflow=25.14 cfs 270,908 cf
Pond DD3: DMH-D3	Peak Elev=149.56' Inflow=25.14 cfs 270,908 cf 30.0" Round Culvert n=0.012 L=131.0' S=0.0050 '/' Outflow=25.14 cfs 270,908 cf
Pond DD4: DMH-DD4	Peak Elev=148.80' Inflow=25.14 cfs 270,908 cf 30.0" Round Culvert n=0.012 L=133.0' S=0.0050 '/' Outflow=25.14 cfs 270,908 cf
Pond DE1: DMH-E1	Peak Elev=158.39' Inflow=1.07 cfs 3,904 cf 12.0" Round Culvert n=0.012 L=136.0' S=0.0060 '/' Outflow=1.07 cfs 3,904 cf

475-POST

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Type III 24-hr 50-YR Rainfall=6.75" Printed 10/5/2021

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	07602 © 2020 HydroCAD Software Solutions LLC Page 13
Pond DE2: DMH-E2	Peak Elev=157.85' Inflow=5.74 cfs 20,986 cf 18.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=5.74 cfs 20,986 cf
	10.0 Round Cuivent n=0.012 E=130.0 3=0.0030 / Outhow=5.74 Cis 20,980 Ci
Pond DE3: DMH-E3	Peak Elev=157.24' Inflow=10.42 cfs 38,067 cf
	24.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=10.42 cfs 38,067 cf
Pond DE4: DMH-E4	Peak Elev=156.66' Inflow=15.09 cfs 55,149 cf
	24.0" Round Culvert n=0.012 L=117.0' S=0.0050 '/' Outflow=15.09 cfs 55,149 cf
David DEE: DMULEE	Deak Eleventes 86' Inflowente 22 efc. 70 644 ef
Pond DE5: DMH-E5	Peak Elev=155.86' Inflow=19.33 cfs 70,644 cf 30.0" Round Culvert n=0.012 L=117.0' S=0.0050 '/' Outflow=19.33 cfs 70,644 cf
Pond DE6: DMH-E9	Peak Elev=155.14' Inflow=23.24 cfs 84,919 cf
	30.0" Round Culvert n=0.012 L=136.0' S=0.0050 '/' Outflow=23.24 cfs 84,919 cf
Pond DE7: DMH-E7	Peak Elev=154.93' Inflow=37.40 cfs 136,652 cf
	42.0" Round Culvert n=0.012 L=78.0' S=0.0050 '/' Outflow=37.40 cfs 136,652 cf
Pond DE8: DMH-E8	Peak Elev=156.64' Inflow=5.74 cfs 20,986 cf
	18.0" Round Culvert n=0.012 L=136.0' S=0.0178 '/' Outflow=5.74 cfs 20,986 cf
Pond DE9: DMH-E9	Peak Elev=159.19' Inflow=1.07 cfs 3,904 cf
	12.0" Round Culvert n=0.012 L=136.0' S=0.0200 '/' Outflow=1.07 cfs 3,904 cf
Pond PC: POND C	Peak Elev=148.47' Storage=147,237 cf Inflow=85.86 cfs 303,808 cf Discarded=4.67 cfs 248,075 cf Primary=0.00 cfs 0 cf Outflow=4.67 cfs 248,075 cf
Pond PD: POND D	Peak Elev=148.78' Storage=180,629 cf Inflow=41.20 cfs 330,792 cf Discarded=4.10 cfs 213,535 cf Primary=0.00 cfs 0 cf Outflow=4.10 cfs 213,535 cf
	Distance 4.10 cls 213,333 cl Fillinary -0.00 cls 0 cl Outhow -4.10 cls 213,333 cl
Pond PE: POND E	Peak Elev=154.83' Storage=78,305 cf Inflow=76.18 cfs 274,357 cf
	Outflow=25.14 cfs 270,908 cf
Pond PH: POND H	Peak Elev=150.70' Storage=18,097 cf Inflow=0.27 cfs 4,449 cf
	Outflow=0.00 cfs 0 cf
Link L1: NORTHEAST P	ROPERTY CORNER Inflow=0.03 cfs 810 cf
	Primary=0.03 cfs 810 cf
Link L2: RIVER	Inflow=9.98 cfs 77,732 cf Primary=9.98 cfs 77,732 cf
Link L3: EX CULVERTS	Inflow=1.81 cfs 25,311 cf Primary=1.81 cfs 25,311 cf
Link L4: WEST PROPE	
	Primary=0.11 cfs 3,005 cf
Link L5: NORTHWEST	
	Primary=0.04 cfs 1,017 cf

Link L6: FOX HOLLOW

Inflow=0.01 cfs 349 cf Primary=0.01 cfs 349 cf

Total Runoff Area = 3,619,215 sf Runoff Volume = 726,415 cf Average Runoff Depth = 2.41" 65.35% Pervious = 2,365,273 sf 34.65% Impervious = 1,253,942 sf

NHDES Alteration of Terrain

V. SITE SPECIFIC SOIL SURVEY REPORT

NHDES Alteration of Terrain

VI. MAINTENANCE AND INSPECTION

NHDES ALTERATION OF TERRAIN PERMIT APPLICATION FRIARS DRIVE HUDSON, NEW HAMPSHIRE **OPERATION AND MAINTENANCE PROCEDURES FOR** STORMWATER MANAGEMENT SYSTEMS

Friars Drive

Map 209 Lot 001-000 Friars Drive – Sagamore Industrial Park Hudson, New Hampshire 03051

PREPARED FOR:

Lowell Road Property Owner, LLC 133 Pearl Street #300 Boston, MA 02110

PREPARED BY:



The Dubay Group, Inc.

136 Harvey Road Bldg B101 Londonderry, NH 03053 P: 603-458-6462 www.TheDubayGroup.com

October 4, 2021







Table of Contents:

POST CONSTRUCTION OPERATION AND MAINTENANCE PLAN

- A. Maintenance Schedule
- B. Owner and Responsible Party

PROPOSED SITE BMP'S

- A. Street Sweeping
- B. Catch Basins
- C. Treatment Swales
- D. Detention Basin/Sediment Forebay
- E. Stoned Lined Outlet Protection Area
- F. Snow & Ice Management

INSPECTION REPORTS

- A. Inspection & Maintenance Plan
- B. Site BMP Inspection Report
- C. Inspection & Maintenance Log

SNOW & ICE MANAGEMENT SUPPLEMENTAL CRITERIA

- A. Guidance for Salt-Use Minimization Efforts
- B. Snow & Ice Maintenance Checklist
- C. NHDES Anti-Icing BMP's
- D. Green SnowPro Deicing Application Rates
- E. Deicing Log

CONTROL OF INVASIVE SPECIES

A. Guide to Control Invasive Species

Post Construction Operation and Maintenance Plan

MAINTENANCE SCHEDULE			
Frequency	Actions	Follow-up	
Weekly (or after rain event)	Erosion Inspection, Clean Trash Racks	Take corrective action(s) if required	
Quarterly	Complete Stormwater Inspection Report Reviewing all structures and BMP's	File Stormwater Inspection Report and take any corrective actions as needed	
Semi Annually	Perform sediment removal from all structures and pipes as needed	Note any problem areas and inspect as necessary	

Property Owner:

Lowell Road Property Owner, LLC 133 Pearl Street #300 Boston, MA 02110

Responsible Parties:

Installation

Lowell Road Property Owner, LLC 133 Pearl Street #300 Boston, MA 02110 *Contact:*

Operation & Maintenance

Lowell Road Property Owner, LLC 133 Pearl Street #300 Boston, MA 02110 *Contact:*

The Owner shall be responsible for the installation, operation, and maintenance of all stormwater management systems after construction. The Owner shall include separate line items for the operation and maintenance of the systems in their yearly budget. A licensed professional shall be contracted to perform the inspections on behalf of the Owner. Photographs shall be taken of each BMP during each inspection. The Owner will maintain records of all inspection reports and be the responsible party for implementation of any maintenance recommendations provided by the licensed professional. Inspection and maintenance records including photographs of all BMPs shall be provided to New Hampshire Department of Environmental Services upon their request. All required maintenance shall be performed by a qualified contractor experienced with the particular BMP requiring the maintenance. All Stormwater related items and the respective operation and maintenance requirements for each have been detailed below.

Proposed Site BMP's

a) Street Sweeping

Sweeping should be conducted a minimum of twice a year. Once in the early fall and then immediately following spring (March/April) snowmelt to remove sand and other debris. Sweeping shall be conducted by a high efficiency vacuum sweeper. Pavement surfaces may be swept at other times, basically for aesthetic reasons, such as in the fall after leaves have dropped to remove accumulated debris. Since contaminants typically accumulate within 12 inches of the curb line, street cleaning operations should concentrate in cleaning curb and gutter lines for maximum pollutant removal efficiency. Other areas can also be swept periodically, probably on a less regular basis.

b) Catch Basins/Outlet Control Structures

Catch basins and OCS's are proposed on site with a minimum sump of 1-foot for OCS's and of 3-foot for catch basins. Catch basins and OCS's require frequent maintenance and are recommended to be inspected at least twice a year. Inspections should be performed in the spring after the snow melt and in the fall following the leaf drop. Inspections should note the level of accumulated sediment and condition of the structure. Corrective action shall be taken as necessary. Some basins may receive higher sediment loading than others and may require more frequent cleanings. Basins should be cleaned when sediment approaches half the sump depth. Cleaning shall be performed by a licensed vacuum truck company.

During inspections, if floating hydrocarbons are observed, the material should be removed immediately by skimming, absorbent materials, or other method and disposed of in accordance with state and federal regulations.

c) Grass Lined Swale/Vegetated Swales

Inspect soil and repair eroded areas monthly. Re-mulch void areas as needed. Remove litter and debris monthly. Remove invasive species and treat diseased vegetation as needed. Perform periodic mowing of the swale. Remove and replace dead vegetation twice per year (spring and fall).

d) Vegetated Detention Basin/Sediment Forebay

Inspect soil and repair eroded areas monthly. Re-mulch void areas as needed. Remove litter and debris monthly. Treat diseased vegetation as needed. Remove and replace dead vegetation twice per year (spring and fall)

Basin Maintenance Schedule		
Activity	Time of Year	Frequency
Inspect & remove trash	Year round	Monthly
Mulch	Spring	Annually
Remove dead vegetation	Fall or Spring	Annually
Replace dead vegetation	Spring	Annually
Prune	Spring or Fall	Annually
Replace entire media & all vegetation	Late Spring/early Summer	As needed

Pretreatment BMPs shall be inspected and cleaned during the regular bi-annual inspections.

<u>Clearing Inlets and Outlets:</u> The inlet and outlet of the Detention Basin should be checked periodically to ensure that flow structures are not blocked by debris. All pipes connecting the structures to the system should be checked for debris that may obstruct flow. Inspections should be conducted monthly during wet weather conditions from March to November

e) Infiltration Pond

The areas shall be inspected at least twice per year to ensure that they are operating as intended.

Inspect soil and repair eroded areas monthly. Re-mulch void areas as needed. Remove litter and debris monthly. Treat diseased vegetation as needed. Remove and replace dead vegetation twice per year (spring and fall). Embankments shall be mowed periodically, and woody vegetation shall be removed. Accumulated sediments shall be removed if necessary.

Infiltration Maintenance Schedule						
Activity	Time of Year	Frequency				
Inspect & remove trash	Year round	Monthly				
Mulch	Spring	Annually				
Remove dead vegetation	Fall or Spring	Annually				
Replace dead vegetation	Spring	Annually				
Prune	Spring or Fall	Annually				
Replace entire media & all vegetation	Late Spring/early Summer	As needed				

Pretreatment BMPs shall be inspected and cleaned during the regular bi-annual inspections.

<u>Clearing Inlets and Outlets:</u> The inlet and outlet of the Infiltration Basin should be checked periodically to ensure that flow structures are not blocked by debris. All pipes connecting the structures to the system should be checked for debris that may obstruct flow. Inspections should be conducted monthly during wet weather conditions from March to November.

Inspection of infiltration components at least twice annually and following any rainfall event exceeding 2.5 inches in a 24-hour period, with such maintenance or rehabilitation conducted as warranted by such inspection. If system does not drain within 72-hours following a rainfall event, then a qualified professional should assess the condition of the system and determine measures required to restore infiltration function.

f) Stone Lined Outlet Protection Areas

The areas shall be inspected at least once per year to ensure that they are operating as intended. The outlet structure shall be inspected for evidence of clogging or outflow release velocities that are greater than design flow.

g) Snow & Ice Management

The proposed development will result in greater than one acre of pavement, therefor will require a snow and ice management plan. The contractor responsible for the snow and ice management is required to be Green Snow-Pro certified. Please refer to the Snow & Ice Management supplemental Criteria section for guidance.

	S	Stormwa	ter Inspec	tion Report			
Project Name							
Inspecto Inspecto Type of I Regul Do you s	uspect that discharges	-	Sta nt D ve occurre		☐ Post-storm event Dection?		
	BMP Description	and O	nstalled perating perly?	Corrective Action Needed	Date for corrective action/responsible person		
	t Sweeping						
	idence of oil grease h Basins						
 Inlide Ev Ac Ev de Ev cration pa 	et and outlet clear of bris ridence of oil grease coumulated sediment ridence of structural terioration ridence of spalling or acking of structural rts her (specify)	 ☐ Yes ☐ Yes ☐ Yes ☐ Yes ☐ Yes 	 No No No No No 				
<u> </u>	e <u>tention</u> Isins/Forebay	🗌 Yes	🗌 No				
• Ba	isin bottom or trench rface clear of debris	🗌 Yes	🗌 No				
	et/Inflow pipes clear of bris	🗌 Yes	🗌 No				
• Ov	verflow spillway clear of bris	🗌 Yes	🗌 No				
• Ol	utlet clear of debris	🗌 Yes	🗌 No				
	isin dewaters between orms	🗌 Yes	🗌 No				
	cumulated sediment	🗌 Yes	🗌 No				
	nbankment erosion	🗌 Yes	🗌 No				
	nauthorized planting her (specify)	🗌 Yes	🗌 No				

	BMP Description	BMP Installed and Operating Properly?	Corrective Action Needed	Date for corrective action/responsible person
D	 Outlet Protection/Swales 	🗌 Yes 🗌 No		
	 Inlet/Inflow pipes clear of debris 	🗌 Yes 🗌 No		
	 Outlet clear of debris 	🗌 Yes 🗌 No		
	Evidence subsidence	🗌 Yes 🗌 No		
	Tree growth	🗌 Yes 🗌 No		
	 Other (specify) 			
Е	 Infiltration Basins 	🗌 Yes 🗌 No		
	 Basin bottom or trench surface clear of debris 	🗌 Yes 🗌 No		
	 Inlet/Inflow pipes clear of debris 	🗌 Yes 🗌 No		
	 Overflow spillway clear of debris 	🗌 Yes 🗌 No		
	 Outlet clear of debris 	🗌 Yes 🗌 No		
	 Basin dewaters between storms 	🗌 Yes 🗌 No		
	 Accumulated sediment 	🗌 Yes 🔲 No		
	 Embankment erosion 	🗌 Yes 🔲 No		
	 Depth of Permanent Pool 	Ft		
	 Unauthorized planting 	🗌 Yes 🗌 No		

Overall Site Issues

	BMP/activity	Implemented?	Maintained?	Corrective Action	Date for corrective action/responsible person
1	Is there evidence of sediment being tracked into the street?	🗌 Yes 🗌 No	🗌 Yes 🗌 No		
2	Is trash/litter collected and placed in covered dumpsters?	🗌 Yes 🔲 No	☐ Yes ☐ No		
3	Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other deleterious material?	☐ Yes ☐ No	☐ Yes ☐ No		
4	Are materials that are potential stormwater contaminants stored inside or under cover?	🗌 Yes 🔲 No	☐ Yes ☐ No		

Other Comments:

Inspection and Report prepared by:	
Print name:	

Signature:

Date:

Copies to:

COL	<i>ле</i> з ю.	
	Owner:	
	State:	

Inspection & Maintenance Log

Area of I & M	Date of Inspection	Description of Maintenance Activity	Responsible Party for Performing Inspection/Maintenance



WD-WMB-26

2016

Best Management Practices and Salt-Use Minimization Efforts In Chloride-Impaired Watersheds of New Hampshire

A Guidance Document for Private Developers and Contractors

Scientific studies in the southern part of New Hampshire determined over 40 streams have elevated levels of chloride. The elevated levels were high enough to be harmful to aquatic life, such as fish. Elevated levels can also be a drinking water health concern for people and animals, can lead to plant death, particularly along roadsides, and can cause damage to infrastructure and automobiles. The primary source of these chlorides is salt used for winter snow and ice management. The New Hampshire Department of Environmental Services (NHDES) calculated that a reduction of 25 percent to 45 percent salt use was needed in order to meet water quality standards. The studies also revealed that up to 50 percent of the salt load was coming from parking lots, driveways and private roads from salt that is used for de-icing.

NHDES encourages private developers and contractors, particularly those working within chlorideimpaired watersheds, to adopt best management practices (BMPs) and salt-use reduction methods that will help improve water quality. NHDES also encourages private developers and contractors to consider winter maintenance during project design. Salt-use reduction can lead to long-term cost-savings as a result of purchasing less salt and reduced impacts on vegetation (e.g., landscaping) and corrosion of infrastructure and vehicles. This guidance document is designed to help guide developers and contractors in ways to reduce the use of salt, plan for BMPs and salt reduction methods, include design considerations, and document their snow and ice management plans. Taken together, these are the basic elements of a Salt Minimization Plan.

A REDUCTION IN SALT-USE DOES NOT MEAN A REDUCTION IN SAFETY

Liability for damage or personal injury as a result of snow or ice is one of the main reasons that oversalting occurs and many contractors are reluctant to implement salt reduction practices for fear of increased liability. However, recent studies have found there are BMPs that can be used that optimize salt use, reduce the application frequency and amounts applied and, at the same time, achieve safe levels of service. In addition, as of November 2013, Commercial Salt Applicators certified by NHDES under RSA 489-C, and property owners or managers who hire them, are granted limited liability protection against damages arising from snow and ice conditions.

WHAT DOES ALL THIS MEAN FOR PRIVATE DEVELOPERS AND CONTRACTORS?

Implementation plans for chloride reduction have been developed for a number of places in New Hampshire. Some of these plans are required by permits or other regulatory requirements. The NHDOT, towns, and private contractors who maintain parking lots, sidewalks, and roadways will be required to follow the implementation plans through certain federal and state permits. In other places, watershedwide implementation plans have not yet been developed. In those areas, especially places that drain to chloride impaired waters, requirements to minimize salt usage are likely to be required of many new commercial and residential developments. Even in places with implementation plans, the need to reduce salt may be so extreme that it will require the concerted efforts of the state, municipalities and private landowners to restore water quality.

HOW CAN PRIVATE DEVELOPERS AND CONTRACTORS MINIMIZE SALT LOADING IN THE WATERSHED?

One of the most effective ways for private developers and contractors to reduce their portion of salt loading in the watershed is to learn more about winter maintenance BMPs and ways to be more effective at winter maintenance activities and to apply what is learned to current practices and future projects. There are three important ways for that to happen.

• GET TRAINED AS A GREEN SNOWPRO

The University of New Hampshire Technology Transfer Center (UNH T²) offers a full day Green SnowPro Training course focused on efficient, more environmentally friendly winter maintenance practices that do not compromise road, parking lot and sidewalk safety. The course covers the basics of salt reduction methods including equipment calibration and rate applications, pre-treatment methods, effective plowing and planning, salt accounting management and environmental impacts of salting. The course is offered several times a year. For more information, visit the UNH T² webpage at: <u>http://t2.unh.edu/green-snowpro-trainingand-nhdes-certification</u>.

BECOME A NEW HAMPSHIRE CERTIFIED SALT APPLICATOR

Individuals who attend the Green SnowPro Training and pass the exam are eligible to apply for voluntary NHDES Salt Applicator Certification. The NHDES Salt Applicator Certification program aims to improve efficiency in salt use and reduce the amount of salt used by commercial applicators. The NHDES salt applicator certificate carries the responsibility of annually reporting salt use to NHDES and attending a refresher training course every two years. The Salt Applicator Certificate has proven valuable to the private contractors as well as to their clients and their insurance carriers. To date, 800 individuals have become Certified Salt Applicators. For more information on how to become a NH Certified Salt Applicator or to find a list of Certified Salt Applicators

THE ANNUAL NEW HAMPSHIRE SALT SYMPOSIUM

Every year the NHDES hosts an annual NH Salt Symposium. Attendees are updated with the latest snow industry technologies and BMPs. The event counts toward continuing education credits for the NH Certified Green SnowPro Certificate, the New Hampshire Salt Applicator Certificate and T2 Roads Scholar Program Contact Hours. People interested in attending can learn more about the event or register online at <u>http://www.sima.org/new-</u> hampshire-salt-symposium.

refer to the NHDES webpage at: <u>http://des.nh.gov/organization/divisions/water/wmb/was/salt-reduction-initiative/salt-applicator-certification.htm</u>

• DEVELOP A SALT MINIMIZATION PLAN(s)

NHDES encourages developers and contractors to develop a Salt Minimization Plan as part of, or in addition to, their Winter Maintenance Plan or Winter Snow and Ice Control Policy to help reduce and manage the use of salt. Also referred to as Chloride Reduction Plans or Salt Reduction Plans, these plans vary from large, metropolitan city plans to single development plans. Where they exist, the plan should align with the objectives outlined in the town's or watershed's chloride reduction implementation plan. A general outline and description of what information goes into a Salt Minimization Plan is included as an attachment to this guidance document.

OTHER WAYS TO REDUCE SALT-LOADING IN THE WATERSHED

(See Attachment B for a checklist of smart salting practices.)

- Be aware. Find out what the salt loading reduction goals are within the watershed and town where work generally occurs or where the specific project is located.
- Re-evaluate current practices. Source reduction is identified as the most effective method for reducing chloride loading.
- Consider alternative de-icing materials such as calcium magnesium acetate (CMA) and limited use of abrasives (sand, sawdust, cat litter).
- Pre-wet salt with brine to reduce the loss of salt from bounce and scatter (up to a 30% reduction in loss) and increase melting times.
- Be proactive for storm events and anti-ice by applying a small amount of liquid chemical to pavements and overpasses *before* a storm to prevent ice from bonding with the surface.
- If applicable, keep pavement free of potholes and cracks which both minimize the ability for water to pond and/or infiltrate into the ground where ultimately they could end up in groundwater resources. In addition, pavement that is in good condition allows for snow and or ice to be mechanically removed.
- Consider future maintenance needs in project planning.
 - Include development amenities/features such as heated sidewalks or parking garages.
 - Limit the amount of impervious surfaces that require winter maintenance activities.
 Some options to achieve this are only including sidewalks on one side of the street, the use of porous paving materials and limited use of curb cuts.
 - Properly design parking lots or designated parking areas with appropriate winter maintenance and snow storage practices. This includes considering where plowed snow will be piled, avoiding melt drainage to flow back across cleared areas (freeze/thaw cycle).
 - Consider landscape vegetation that is more salt tolerant and that doesn't shade out sidewalks or parking areas from the sun during the winter.
- Share information with the town and other landowners in the watershed to help track where salt is being applied, what quantity, and how often or the level of service based on the winter management plan. Track what BMPs are being applied to help determine effectiveness.
- Spread the word and encourage co-workers and colleagues to become a New Hampshire Certified Green SnowPro. Educate clients about the benefits of hiring a New Hampshire Certified Green SnowPro. The NHDES has developed a flyer for businesses to share with their colleagues

or clients available on the NHDES website. A link for this flyer and other helpful information is included below.

• Attend the annual New Hampshire Salt Symposium. The event counts toward the continuing education requirement of the New Hampshire Salt Applicator Certificate and as T2 Road Scholar Program contact hours.

OTHER RESOURCES AND REFERENCES:

For the complete list of NHDES resources including links to training and certification application materials available, please visit our website. <u>http://des.nh.gov/organization/divisions/water/wmb/was/salt-reduction-initiative/index.htm</u>

Assessing the Efficacy of Current Road Salt Management Programs, University of Waterloo (2010) <u>http://www.saltinstitute.org/wp-content/uploads/2014/01/Road-Using-Best-Road-Salt-Management-Practices-Waterloo-2010-1.pdf</u>

Environment and Climate Change Canada – technical documents, BMPs and general information. <u>http://www.ec.gc.ca/sels-salts/default.asp?lang=En&n=DECEDD7C-1</u>

Finding Outstanding Resource Waters & Impaired Surface Waters with a 1-Mile Buffer for Development Projects, Quick Reference Guide, NHDES (2008) http://des.nh.gov/organization/divisions/water/wmb/tmdl/documents/onestop_gis_wgc_ref_guide.pdf

Green SnowPro Business Flyer, NHDES <u>http://des.nh.gov/organization/divisions/water/wmb/was/salt-reduction-initiative/documents/green-snowpro-business-flyer.pdf</u>

Pre-wetting and Anti-icing – Techniques for Winter Road Maintenance, a Wisconsin Transportation Bulletin - No. 22. http://epdfiles.engr.wisc.edu/pdf web files/tic/bulletins/Bltn 022 prewetting antiicing.pdf

Salt Reduction Best Management Practices (several Fact Sheet links available) <u>http://des.nh.gov/organization/divisions/water/wmb/was/salt-reduction-initiative/tech-assist-bmp-practices.htm</u>

Snow and Ice Removal for the Business Owner – Clean Water and Safe Parking Lots, NHDES (2014) <u>http://des.nh.gov/organization/commissioner/pip/factsheets/wmb/documents/wmb-24.pdf</u>

Snow Disposal Guidelines, NHDES (2015) http://des.nh.gov/organization/commissioner/pip/factsheets/wmb/documents/wmb-3.pdf

Road Salt and Water Quality, NHDES (2016) http://des.nh.gov/organization/commissioner/pip/factsheets/wmb/documents/wmb-4.pdf

Sensible Salting Strategy of Parking Lots and Sidewalks, The Salt Institute (2015) http://www.saltinstitute.org/research/sensible-salting-strategy-of-parking-lots-and-sidewalks/

Winter Parking Lot and Sidewalk Maintenance Manual, Minnesota Pollution Control Agency (2015) <u>https://www.pca.state.mn.us/sites/default/files/p-tr1-10.pdf</u>

ATTACHMENT A - DEVELOPING A SALT MINIMIZATION PLAN

Developing a Salt Minimization Plan will go a long way towards reducing salt-use, i.e., salt loading within the watershed. The development of this plan will help private developers and contractors to hone in on how much salt is needed, when it should be applied, where it needs to be applied, etc. with the ultimate goal of reducing salt-use without compromising safety. Salt-use reduction also leads to long-term cost-savings as a result of purchasing less salt and reduced impacts on vegetation (e.g., landscaping) and corrosion of infrastructure and vehicles, and a reduction in well replacements. Reduction in the use of salt does not mean a reduction in level of service or public safety; in fact many contractors who complete the Green SnowPro training course have been able to provide the same level of service while reducing their salt use by 30%.

It is important to anticipate that this will be a living document that will likely need to be updated at some point. Reduction goals may fluctuate from year to year due to improvements in technology and BMPs, a town's requirements, or state and federal permit conditions that result in private developers or contractors to alter practices, particularly as more development occurs. It is good practice to review and update the plan(s) annually, early in advance of the winter season so that there is time to make any necessary adjustments.

In general NHDES recommends that the plan include:

- Introduction/Background Identify the purpose and need for the plan. This section should describe any current chloride impairments and salt reduction goals within the watershed and town. If there is a Winter Maintenance Plan or Winter Snow and Ice Control Policy already in place, this section should briefly describe how this salt minimization plan fits in with the more general winter maintenance approach and BMP practices. It may be that many of the items below are already adequately covered in the broader Winter Maintenance Plan.
- **Development or Project Area Description** Describe the development. How many linear feet roadways or sidewalks are there? Discuss the main features and layout of the site including stormwater runoff /topography, as well as vegetation and shaded areas. Including a general map of the development that identifies these features is helpful.
- **Operational Guidelines** Identify who the responsible party is for the maintenance activities and lists out contracting requirements and minimum specifications for de-icing, anti-icing and pretreatment practices and equipment. This guideline should describe the level of service required by the development which directly impacts maintenance operation plans.
 - Winter Operator Certification Requirements This section outlines employed or contracted contractors training and certification requirements. (Green SnowPro Training is recommended).
 - Weather Monitoring Outline where weather information will be gathered from and how it is used to ensure that winter operators are making informed decisions as to when and to what extent materials are applied to private roadways, sidewalks and parking lots. An important part of this will be developing a good communication plan that identified key personal responsible for weather monitoring.
 - Equipment Calibration Requirements Outline all winter equipment calibration requirements. Typically a 25% reduction in salt use can be achieved simply by calibrating equipment, and is the single most important aspect to achieving salt use reductions.
 - **Mechanical Removal** Describe mechanical removal practices such as where snow should be stored and how often plowing should occur as well as goals, such as

mechanical removal, that minimize snow- and ice-pack that reduce the need for abrasives, salt and or brine applicants.

- Salt Usage Evaluation and Monitoring Describe how salt usage will be documented and how salt use will be monitored and evaluated in conjunction with the town's salt reduction plan (if
- applicable). Monitoring salt usage as well as winter maintenance actions is key to determining what works, how much salt and other winter maintenance materials were used and estimating what is needed for the next winter season, and if salt minimization plan goals contributed to salt load reductions in the watershed. It is recommended that a report be developed annually shortly following the winter season, and provided to the town in which the development or work is occurring in for use in documenting private contractor use and allocations in the watershed. A schedule for how often the Salt Minimization Plan is updated should be included and tracked within this section as well.

Salt Evaluation and Monitoring Elements:

- \checkmark Where the maintenance is occurring.
- ✓ What the activity being performed is and/or what equipment is being used.
- ✓ What the weather conditions are include:
 - Event timing (pre-storm, during, post-weather event)
 - Air and ground temperatures
- ✓ Time of activity
- ✓ Application rates
- ✓ Results
- ✓ Other info BMPs in practice for consideration, etc.
- Analysis of Alternative De-icing Materials, Site Design Considerations and Watershed Offsets Describe alternative de-icing materials that could be used for winter maintenance activities, such as calcium magnesium acetate, and discuss what was considered, incorporated, and/or eliminated and why. Discuss what site design features or amenities were incorporated or considered, such as parking garages, heated sidewalks, vegetation, etc., to minimize salt use. Include a discussion on other options for offsets within the watershed such as educating others and applying good salt application strategies to other facilities.

Not all items above need to be included within the plan, generally the more complex the project, the more detailed the plan. In addition, some of these items may already be thoroughly covered in the broader Winter Maintenance Plan. NHDES staff are available to discuss and help identify what level of detail is necessary to achieve salt-minimization for any type or size of project.

ATTACHMENT B – SMART SALTING PRACTICES

A checklist for snow and ice maintenance contractors.

	Check which response applies to current practices and anticipated site maintenance activities for job site.				
	Already		Might	Will not	If "will not do"why
Recommended practice	do	Will do	do	do	not?
Use an application rate chart.					
Calibrate equipment each year.					
Learn about the deicer ingredients and use the appropriate one for the condition.					
Look for reasons if and why materials are leaking or spilling from vehicles and fix them (e.g. gaps, overfilling, etc).					
Develop a comprehensive winter maintenance policy.					
Measure and use pavement temperatures.					
Use anti-icing appropriately prior to the storm.					
Plow before applying deicers.					
Use wet materials (pre-wet or pre- treated).					
Don't apply sodium chloride (road salt) for pavement temperatures below 15ºF.					
Don't apply deicers for pavement temps under -10° F. It's too cold.					
Separate salt and sand. Use salt for melting. Use sand for traction.					
Apply deicers in the center of the road or on the high side of the curve.					
Store the salt in a building or under secure cover.					
Store salt away from water flow and direct the water away from storage area.					
Store snow away from lakes, ponds and wetlands.					
Sweep up sand, dispose of properly. For each event, document what you did and how well it worked. Use this information to make improvements.					

Checklist is adapted from worksheet created by Fortin Consulting as a part of the Minnesota Pollution Control Agency Smart Salting Voluntary Certification Program.

Anti-Icing NH Best Management Practices



GET OUT EARLY

Typically anti-icing is most effective if applied 1-2 hours before the precipitation begins however it can be applied up to 24 hours in advance.

TRY IT FIRST

Trying anti-icing for the first time? Make a 23.3% brine solution and before a storm spray pavement on your own property using a masonry/ plant sprayer. Use this experiment to determine how best to use it with your clients.

LEAVE SOME **PAVEMENT BARE**

It's always best to use stream nozzles instead of fan tip to avoid creating a slippery condition. If the antiicing liquid freezes the bare pavement will still provide a traction surface.

USE A FILTER

Having a filter in your liquid dispensing system will reduce clogs in your nozzle. Automotive in line fuel filters work quiet well. If your liquid dispenser is not functioning properly be sure to check the filter first.

A Proactive Treatment

Anti-Icing before a storm is very similar to using a non-stick spray on a pan before cooking. Just like a non-stick spray prevents food from bonding to the pan, anti-icing prevents snow and ice from bonding to the pavement so that it can be plowed away. Anti-icing can save you money as it costs 50% less than reactive deicing.



How Much Should I Use and When?

You can apply brine up to 24 hours in advance of the storm. Typical application rates range from 0.5 to 0.75 gallon per 1000 sq.ft. (10' x 100' area). Other chemicals such as magnesium are also available-consult your supplier for application rates. Anti-icing is not advised prior to freezing rain events.



Produced in partnership with:



Getting Started

Try making your own salt brine by putting 13 lb of salt in 5 gallons of water to get a 23.3% salt brine solution. Mix the brine until all of the salt is dissolved. Using a masonry sprayer apply the liquid several hours before a storm. Start by applying about 0.25-0.5 gallons to a 10' x 50' area. Adjust the application rates based on your experience. Being careful not to over apply and cause a slippery condition.





Make Your Own Salt Brine

When making brine it is important to add enough salt to produce a 23.3% solution which freezes around 0°F. Roughly 2.5lb per gallon of water will produce a 23.3% solution. You can verify using a salometer (~\$20) a 23.3% solution will have a specific gravity of 1.176, or 85% salinity. Consult the Brine Making BMP sheet for more info.



Appendix C. Deicing Application Rates and Documentation Form

Deicing Application Rate Guidelines

24' of pavement (typcial two-lane road)

These rates are not fixed values, but rather the middle of a range to be selected and adjusted by an agency according to its local conditions and experience.

				Pounds per tw	vo-lane mile	
Pavement Temp. (°F) and Trend (个↓)	d Weather Condition	Maintenance Actions	Salt Prewetted / Pretreated with Salt Brine	Salt Prewetted / Pretreated with Other Blends	Dry Salt*	Winter Sand (abrasives)
> 30° ↑	Snow	Plow, treat intersections only	80	70	100*	Not recommended
> 30	Freezing Rain	Apply Chemical	80 - 160	70 - 140	100 - 200*	Not recommended
30° ↓	Snow	Plow and apply chemical	80 - 160	70 - 140	100 - 200*	Not recommended
	Freezing Rain	Apply Chemical	150 - 200	130 - 180	180 - 240*	Not recommended
25°-30° ↑	Snow	Plow and apply chemical	120 - 160	100 - 140	150 - 200*	Not recommended
	Freezing Rain	Apply Chemical	150 - 200	130 - 180	180 - 240*	Not recommended
25°-30° ↓	Snow	Plow and apply chemical	120 - 160	100 - 140	150 - 200*	Not recommended
	Freezing Rain	Apply Chemical	160 - 240	140 - 210	200 - 300*	400
20° - 25° 个	Snow or Freezing Rain	Plow and apply chemical	160 - 240	140 - 210	200 - 300*	400
20° - 25° ↓	Snow	Plow and apply chemical	200 - 280	175 - 250	250 - 350*	Not recommended
20 23 V	Freezing Rain	Apply Chemical	240 - 320	210 - 280	300 - 400*	400
15° - 20° 个	Snow	Plow and apply chemical	200 - 280	175 - 250	250 - 350*	Not recommended
	^I Freezing Rain	Apply Chemical	240 - 320	210 - 280	300 - 400*	400
15°-20° ↓	Snow or Freezing Rain	Plow and apply chemical	240 - 320	210 - 280	300 - 400*	500 for freezing rain
0° - 15° 个、	Snow	Plow, treat with blends, sand hazardous areas	Not recommended	300 - 400	Not recommended	500 - 750 spot treatment as needed
< 0°	Snow	Plow, treat with blends, sand hazardous areas	Not recommended	400 - 600**	Not recommended	500 - 750 spot treatment as needed

* Dry salt is not recommended. It is likely to blow off the road before it melts ice.

** A blend of 6 - 8 gal/ton $MgCl_2$ or $CaCl_2$ added to NaCl can melt ice as low as -10°.

	Anti-icing Route Data Form						
Truck Station:							
Date:							
	<u> </u>						
Air Temperature	Pavement Temperature	Relative Humidity	Dew Point	Sky			
Reason for applying:							
Route:							
Chemical:							
Application Time:							
Application Amount:							
Observation (first day	/):						
Observation (after ev	ent):						
Observation (before r	next application):						
Name:							

Deicing Log

Area of Treatment in Square Feet	Date of Treatment	Amount of Deicing Materials Applied	Type of Deicing Materials Applied	Responsible Party for Applying Materials

CONTROL OF INVASIVE PLANTS

During maintenance activities, check for the presence of invasive plants and remove in a safe manner as described on the following pages. They should be controlled as described on the following pages.

Invasive plants are introduced, alien, or non-native plants, which have been moved by people from their native habitat to a new area. Some exotic plants are imported for human use such as landscaping, erosion control, or food crops. They also can arrive as "hitchhikers" among shipments of other plants, seeds, packing materials, or fresh produce. Some exotic plants become invasive and cause harm by:

- becoming weedy and overgrown;
- killing established shade trees;
- obstructing pipes and drainage systems;
- forming dense beds in water;
- lowering water levels in lakes, streams, and wetlands;
- destroying natural communities;
- promoting erosion on stream banks and hillsides; and
- resisting control except by hazardous chemical.

UNIVERSITY of NEW HAMPSHIRE Methods for Disposing COOPERATIVE EXTENSION Non-Native Invasive Plants

Prepared by the Invasives Species Outreach Group, volunteers interested in helping people control invasive plants. Assistance provided by the Piscataquog Land Conservancy and the NH Invasives Species Committee. Edited by Karen Bennett, Extension Forestry Professor and Specialist.



 Tatarian honeysuckle

 Lonicera tatarica

 USDA-NRCS PLANTS Database / Britton, N.L., and

 A. Brown. 1913. An illustrated flora of the northern

 United States, Canada and the British Possessions.

 Vol. 3: 282.

Non-native invasive plants crowd out natives in natural and managed landscapes. They cost taxpayers billions of dollars each year from lost agricultural and forest crops, decreased biodiversity, impacts to natural resources and the environment, and the cost to control and eradicate them.

Invasive plants grow well even in less than desirable conditions such as sandy soils along roadsides, shaded wooded areas, and in wetlands. In ideal conditions, they grow and spread even faster. There are many ways to remove these nonnative invasives, but once removed, care is needed to dispose the removed plant material so the plants don't grow where disposed.

Knowing how a particular plant reproduces indicates its method of spread and helps determine

the appropriate disposal method. Most are spread by seed and are dispersed by wind, water, animals, or people. Some reproduce by vegetative means from pieces of stems or roots forming new plants. Others spread through both seed and vegetative means.

Because movement and disposal of viable plant parts is restricted (see NH Regulations), viable invasive parts can't be brought to most transfer stations in the state. Check with your transfer station to see if there is an approved, designated area for invasives disposal. This fact sheet gives recommendations for rendering plant parts nonviable.

Control of invasives is beyond the scope of this fact sheet. For information about control visit <u>www.nhinvasives.org</u> or contact your UNH Cooperative Extension office.

New Hampshire Regulations

Prohibited invasive species shall only be disposed of in a manner that renders them nonliving and nonviable. (Agr. 3802.04)

No person shall collect, transport, import, export, move, buy, sell, distribute, propagate or transplant any living and viable portion of any plant species, which includes all of their cultivars and varieties, listed in Table 3800.1 of the New Hampshire prohibited invasive species list. (Agr 3802.01)

How and When to Dispose of Invasives?

To prevent seed from spreading remove invasive plants before seeds are set (produced). Some plants continue to grow, flower and set seed even after pulling or cutting. Seeds can remain viable in the ground for many years. If the plant has flowers or seeds, place the flowers and seeds in a heavy plastic bag "head first" at the weeding site and transport to the disposal site. The following are general descriptions of disposal methods. See the chart for recommendations by species.

Burning: Large woody branches and trunks can be used as firewood or burned in piles. For outside burning, a written fire permit from the local forest fire warden is required unless the ground is covered in snow. Brush larger than 5 inches in diameter can't be burned. Invasive plants with easily airborne seeds like black swallow-wort with mature seed pods (indicated by their brown color) shouldn't be burned as the seeds may disperse by the hot air created by the fire.

Bagging (solarization): Use this technique with softertissue plants. Use heavy black or clear plastic bags (contractor grade), making sure that no parts of the plants poke through. Allow the bags to sit in the sun for several weeks and on dark pavement for the best effect.

Tarping and Drying: Pile material on a sheet of plastic



Japanese knotweed Polygonum cuspidatum USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. An illustrated flora of the northern United States, Canada and the British Possessions. Vol. 1: 676.

and cover with a tarp, fastening the tarp to the ground and monitoring it for escapes. Let the material dry for several weeks, or until it is clearly nonviable.

Chipping: Use this method for woody plants that don't reproduce vegetatively.

Burying: This is risky, but can be done with watchful diligence. Lay thick plastic in a deep pit before placing the cut up plant material in the hole. Place the material away from the edge of the plastic before covering it with more heavy plastic. Eliminate as much air as possible and toss in soil to weight down the material in the pit. Note that the top of the buried material should be at least three feet underground. Japanese knotweed should be at least 5 feet underground!

Drowning: Fill a large barrel with water and place soft-tissue plants in the water. Check after a few weeks and look for rotted plant material (roots, stems, leaves, flowers). Well-rotted plant material may be composted. A word of caution- seeds may still be viable after using this method. Do this before seeds are set. This method isn't used often. Be prepared for an awful stink!

Composting: Invasive plants can take root in compost. Don't compost any invasives unless you know there is no viable (living) plant material left. Use one of the above techniques (bagging, tarping, drying, chipping, or drowning) to render the plants nonviable before composting. Closely examine the plant before composting and avoid composting seeds.

Be diligent looking for seedlings for years in areas where removal and disposal took place.

Suggested Disposal Methods for Non-Native Invasive Plants

This table provides information concerning the disposal of removed invasive plant material. If the infestation is treated with herbicide and left in place, these guidelines don't apply. Don't bring invasives to a local transfer station, unless there is a designated area for their disposal, or they have been rendered non-viable. This listing includes wetland and upland plants from the New Hampshire Prohibited Invasive Species List. The disposal of aquatic plants isn't addressed.

Woody Plants	Method of Reproducing	Methods of Disposal
Norway maple (Acer platanoides) European barberry (Berberis vulgaris) Japanese barberry (Berberis thunbergii) autumn olive (Elaeagnus umbellata) burning bush (Euonymus alatus) Morrow's honeysuckle (Lonicera morrowii) Tatarian honeysuckle (Lonicera tatarica) showy bush honeysuckle (Lonicera x bella) common buckthorn (Rhamnus cathartica) glossy buckthorn (Frangula alnus)	Fruit and Seeds	 Prior to fruit/seed ripening Seedlings and small plants Pull or cut and leave on site with roots exposed. No special care needed. Larger plants Use as firewood. Make a brush pile. Chip. Burn. After fruit/seed is ripe Don't remove from site. Burn. Make a covered brush pile. Chip once all fruit has dropped from branches. Leave resulting chips on site and monitor.
oriental bittersweet (<i>Celastrus orbiculatus</i>) multiflora rose (<i>Rosa multiflora</i>)	Fruits, Seeds, Plant Fragments	 Prior to fruit/seed ripening Seedlings and small plants Pull or cut and leave on site with roots exposed. No special care needed. Larger plants Make a brush pile. Burn. After fruit/seed is ripe Don't remove from site. Burn. Make a covered brush pile. Chip – only after material has fully dried (1 year) and all fruit has dropped from branches. Leave resulting chips on site and monitor.

Non-Woody Plants	Method of Reproducing	Methods of Disposal	
<pre>garlic mustard (Alliaria petiolata) spotted knapweed (Centaurea maculosa) • Sap of related knapweed can cause skin irritation and tumors. Wear gloves when handling. black swallow-wort (Cynanchum nigrum) • May cause skin rash. Wear gloves and long sleeves when handling. pale swallow-wort (Cynanchum rossicum) giant hogweed (Heracleum mantegazzianum) • Can cause major skin rash. Wear gloves and long sleeves when handling. dame's rocket (Hesperis matronalis) perennial pepperweed (Lepidium latifolium) purple loosestrife (Lythrum salicaria) Japanese stilt grass (Microstegium vimineum) mile-a-minute weed (Polygonum perfoliatum)</pre>	Fruits and Seeds	 Prior to flowering Depends on scale of infestation Small infestation Pull or cut plant and leave on site with roots exposed. Large infestation Pull or cut plant and pile. (You can pile onto or cover with plastic sheeting). Monitor. Remove any re-sprouting material. During and following flowering Do nothing until the following year or remove flowering heads and bag and let rot. Small infestation Pull or cut plant and leave on site with roots exposed. Large infestation Pull or cut plant and leave on site with roots exposed. Large infestation Pull or cut plant and pile remaining material. (You can pile onto plastic or cover with plastic sheeting). Monitor. Remove any re-sprouting material. 	
common reed (<i>Phragmites australis</i>) Japanese knotweed (<i>Polygonum cuspidatum</i>) Bohemian knotweed (<i>Polygonum x bohemicum</i>)	Fruits, Seeds, Plant Fragments Primary means of spread in these species is by plant parts. Although all care should be given to preventing the dispersal of seed during control activities, the presence of seed doesn't materially influence disposal activities.	 Small infestation Bag all plant material and let rot. Never pile and use resulting material as compost. Burn. Large infestation Remove material to unsuitable habitat (dry, hot and sunny or dry and shaded location) and scatter or pile. Monitor and remove any sprouting material. Pile, let dry, and burn. 	

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GUIDE TO CONTROL OF INVASIVE PLANTS

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This guide lists garden plants and weeds which are already causing significant changes to natural areas in the Mid-Atlantic. Measures for controlling each species are indicated by number, e.g., (3), in the text with a full explanation at the end of this article. Click on the word <u>Control</u>: to jump to that section. Then click your "back" button to return to the text. Following each section suggested alternative plants are given. These alternatives are native plants, well adapted and needing little care, attractive to birds and butterflies, and an important part of the food web for our indigenous species.

NORWAY MAPLE (*Acer platanoides*) has large leaves similar to sugar maple. To easily confirm that the plant is Norway maple, break off a leaf and if it's truly Norway maple it will exude milky white sap. Fall foliage is yellow. (Exception: cultivars such as 'Crimson King,' which have red leaves in spring or summer, may have red autumn leaves.) The leaves turn color late, usually in late October after native trees have dropped their foliage. This tree suppresses growth of grass, garden plants, and forest understory beneath it, at least as far as the drip-line. Its wind-borne seeds can germinate and grow in deep shade. The presence of young Norway maples in our woodlands is increasing. <u>*Control:*</u>(1); (7), (8), (9), or (10); (11) in mid-October to early November, before the leaves turn color.

TREE OF HEAVEN (*Ailanthus altissima*), is incredibly tough and can grow in the poorest conditions. It produces huge quantities of wind-borne seeds, grows rapidly, and secretes a toxin that kills other plants. Its long compound leaves, with 11-25 lance-shaped leaflets, smell like peanut butter or burnt coffee when crushed. Once established, this tree cannot be removed by mechanical means alone.

<u>Control:</u> (1) - seedlings only. Herbicide - use Garlon 3a (9) with no more than a 1^e gap between cuts, or (10); plus (11) on re-growth. Or paint bottom 12^e of bark with Garlon 4 Ultra (in February or March to protect surrounding plants). USE MAXIMUM STRENGTH SPECIFIED ON LABEL for all herbicide applications on Ailanthus. Glyphosate is not effective against Ailanthus.

AUTUMN OLIVE (*Eleagnus umbellata*): Formerly recommended for erosion control and wildlife value, these have proved highly invasive and diminish the overall quality of wildlife habitat. <u>Control:</u> (1) - up to 4⁺ diameter trunks; (7) or (10) or bury stump. Do not mow.

MULTIFLORA ROSE (*Rosa multiflora*), formerly recommended for erosion control, hedges, and wildlife habitat, becomes a huge shrub that chokes out all other vegetation and is too dense for many species of birds to nest in, though a few favor it. In shade, it grows up trees like a vine. It is covered with white flowers in June. (Our native roses have fewer flowers, mostly pink.) Distinguish multiflora by its size, and by the presence of very hard, curved thorns, and a fringed edge to the leaf stalk. <u>*Control:*</u> (1) - pull seedlings, dig out larger plants at least 6[°] from the crown and 6[°] down; (4) on extensive infestations; (10) or (11). It may remain green in winter, so herbicide may *applied when other plants are dormant. For foliar application, mix Rodeo with extra sticker-spreader, or use Roundup Sure Shot Foam on small plants.*

BUSH HONEYSUCKLES (*Lonicera spp.*), including Belle, Amur, Morrow's, and Tatarian honeysuckle. (In our region, assume that any honeysuckle is exotic unless it is a scarlet-flowered vine). Bush honeysuckles create denser shade than native shrubs, reducing plant diversity and eliminating nest

sites for many forest interior species.

<u>Control:</u> (2) on ornamentals; (1); on shady sites only, brush cut in early spring and again in early fall (3); (4) during the growing season; (7); or (10) late in the growing season.

BLUNT-LEAVED PRIVET (*Ligustrum* obtusifolium). <u>*Control*</u>: (1); (7) or (10); or trim off all flowers. Do not cut back or mow.

BURNING BUSH, WINGED EUONYMUS (*Euonymus alatus*), identified by wide, corky wings on the branches.

Control: (1); (7) or (10); or trim off all flowers.

JAPANESE BARBERRY (*Berberis thunbergii*), and all cultivars and varieties. <u>*Control:*</u>(1); (7) or (10); or trim off all flowers.

All of these vines shade out the shrubs and young trees of the forest understory, eventually killing them, and changing the open structure of the forest into a dense tangle. DO NOT PLANT NEXT TO OPEN SPACE.

JAPANESE HONEYSUCKLE (*Lonicera japonica*), including Hall's honeysuckle, has gold-and-white flowers with a heavenly scent and sweet nectar in June. This is probably the familiar honeysuckle of your childhood. It is a rampant grower that spirals around trees, often strangling them. <u>*Control*</u>: (1); (3); (10); (11) in fall or early spring when native vegetation is dormant. Plan to re-treat repeatedly.

ORIENTAL BITTERSWEET (*Celastrus orbiculatus*) has almost completely displaced American bittersweet (*C. scandens*). The Asian plant has its flowers and bright orange seed capsules in clusters all along the stem, while the native species bears them only at the branch tips. <u>Control:</u> (1); keep ornamental plants cut back, remove all fruits as soon as they open, and bag or burn fruits; to eradicate use Garlon 3a (10).

JAPANESE KNOTWEED, MEXICAN BAMBOO (*Polygonum cuspidatum*) can grow in shade. The stems have knotty joints, reminiscent of bamboo. It grows 6-10' tall and has large pointed oval or triangular leaves.

<u>Control:</u> Cut at least 3 times each growing season and/or treat with Rodeo (10) or (11). In gardens, heavy mulch or dense shade may kill it.

GARLIC MUSTARD (*Alliaria petiolata*, *A. officinalis*), a white-flowered biennial with rough, scalloped leaves (kidney-, heart- or arrow-shaped), recognizable by the smell of garlic and taste of mustard when its leaves are crushed. (The odor fades by fall.)

<u>Control:</u> Pull before it flowers in spring (1), removing crown and roots. Tamp down soil afterwards. Once it has flowered, cut (2), being careful not to scatter seed, then bag and burn or send to the landfill. (11) may be appropriate in some settings.

JAPANESE STILT GRASS (*Microstegium vimineum*) can be identified by its lime-green color and a line of silvery hairs down the middle of the 2-3" long blade. It tolerates sun or dense shade and quickly invades areas left bare or disturbed by tilling or flooding. An annual grass, it builds up a large seed bank in the soil.

<u>Control:</u> Easily pulled in early to mid-summer (1) - be sure to pull before it goes to seed. If seeds have formed, bag and burn or send to landfill. Mowing weekly or when it has just begun to flower may prevent it from setting seed (3). Use glyphosate (11) or herbicidal soap (less effective) on large infestations. Follow up with

(5) in spring.

MILE-A-MINUTE VINE, DEVIL'S TAIL TEARTHUMB (*Polygonum perfoliatum*), a rapidly growing annual vine with triangular leaves, barbed stems, and turquoise berries in August which are spread by birds. It quickly covers and shades out herbaceous plants. <u>Control</u>: same as for stilt grass.

SPOTTED KNAPWEED (*Centaurea maculosa*), a biennial with thistle-like flowers.
<u>Control:</u> Do NOT pull (1) unless the plant is young and the ground is very soft - the tap root will break off and produce several new plants. Wear sturdy gloves. (2); (6); (10) or (11).
(1) PULL seedlings and small or shallow-rooted plants when soil is moist. Dig out larger plants, including the root systems. Use a forked spade or weed wrench for trees or shrubs.

- (2) DEADHEAD to prevent spread of seeds of invasive plants. Cut off seeds or fruits before they ripen. Bag, and burn or send to a landfill.
- (3) MOW or CUTTING at least 4 times a season to deplete plants' store of nutrients and carbohydrates, reduce seed formation, and kill or minimize spread of plants. If necessary, repeat each year.
- (4)CONTROLLED BURNING during the spring, repeated over several years, allows native vegetation to compete more effectively with the invasive species. This requires a permit. Spot treatment with glyphosate in late fall can be used to make this method more effective.
- (5) Use a CORN-BASED PRE-EMERGENCE HERBICIDE on annual weeds. This product is also an organic fertilizer, i.e., it can stimulate growth of existing plants, including weeds, so it is appropriate for lawns and gardens but may not be appropriate in woodlands.
- (6) In lawns, SPOT TREAT with BROAD-LEAF WEEDKILLER. Good lawn-care practices (test soil; use lime and fertilizer only when soil test shows a need; mow high and frequently; leave clippings on lawn) reduce weedinfestations.

(7) CUT DOWN the tree. Grind out the stump, or clip offre-growth.

(8) GIRDLE tree: cut through the bark and growing layer (cambium) all around the trunk, about 6" above the ground. Girdling is most effective in spring when the sap is rising, and from middle to late summer when the tree is sending down food to the roots. Clip off sucker sprouts.

- (9) FRILL: Using a machete, hatchet or similar device, hack scars (several holes in larger trees) downward into the cambium layer, and squirt in glyphosate (or triclopyr if recommended in text above). Follow label directions for Injection and Frill Applications. This is most effective from middle to late summer. Clip off any sucker sprouts or treat with glyphosate.
- (10) CUT STEM / CUT STUMP WITH GLYPHOSATE (or triclopyr if specified above). Follow label directions for Cut Stump Application. Clip off sucker sprouts or paint with glyphosate. See Note on Herbicides.

(11) FOLIAR SPRAY WITH GLYPHOSATE herbicide (see Note on Herbicides). Use a backpack or garden sprayer or mist blower, following label directions. Avoid overspray and/or dripping onto non-target plants, because glyphosate kills most plants except moss. If it rolls off waxy or grass-like foliage, use additional sticker-spreader. Deciduous trees, shrubs, and perennials move nutrients down to the roots in late summer. Glyphosate is particularly effective at this time and when plants have just gone out of flowering. Several invasive species retain their foliage after native plants have lost theirs, and resume growth earlier in spring than most natives. This allows you to treat them without harming the natives. However, the plant must be actively growing for the herbicide to work. Retreatments may be necessary the following year if suckering occurs or the plant hasn't been entirely killed.

<u>NOTE ON HERBICIDES</u>: It is highly recommended that small populations try to be controlled using non-chemical methods wherever feasible. However, for large infestations, and for a few plants specified above, herbicide use is essential. Apply herbicides carefully to avoid non-target plants, glyphosate is the least environmentally damaging herbicide in most cases. Add food coloring for visibility, and a soap-based sticker such as Cide-Kick. Glyphosate is ineffective on some plants; for these, triclopyr (Garlon) may be indicated. When using herbicides, read the entire label and observe all precautions listed, including proper disposal. If in doubt, call your local Cooperative Extension Service.

NHDES Alteration of Terrain

VII. INFILTRATION PRACTICE SUPPLEMENTAL CRITERIA

- A. Infiltration Feasibility Report
- B. Registration and Notification Form for Stormwater Infiltration

NHDES Alteration of Terrain

VIII. DRAINAGE AREA PLANS

- A. Project Area Plan
- B. Color Coded Soil Plan
- C. Pre-Development Drainage Area Plan
- D. Post-Development Drainage Area Plan



