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:

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

Date: October 4, 2021

Last Revised: November 23, 2021

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NHDES Alteration of Terrain

I. APPLICATION

A. Copy of Signed Application

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ALTERATION OF TERRAIN PERMIT APPLICATION

Water Division/ Alteration of Terrain Bureau/ Land Resources Management
Check the Status of your Application: www.des.nh.gov/onestop

RSA/ Rule: RSA 485-A:17, Env-Wq 1500

Administrative Use Only	Administrative Use Only	Administrative Use Only	File Number:
			Check No.
			Amount:
			Initials:

1. APPLICANT INFORMATION (INTENDED PERMIT HOLDER)		
Applicant Name: Lowell Road Property Owner, LLC	Contact Name: Hayley Palazola	
Email: hpalazola@gfipartners.com	Daytime Telephone: 617-292-0101	
Mailing Address: 133 Pearl Street #300		
Town/City: Boston	State: MA	Zip Code: 02110
2. APPLICANT'S AGENT INFORMATION If none, check here: ☒		
Business Name:	Contact Name:	
Email:	Daytime Telephone:	
Address:		
Town/City:	State:	Zip Code:
3. PROPERTY OWNER INFORMATION (IF DIFFERENT FROM APPLICANT)		
Applicant Name: 5 Way Realty Trust, Peter Horne Trustee	Contact Name:	
Email:	Daytime Telephone:	
Mailing Address: PO Box 1435		
Town/City: North Hampton	State: NH	Zip Code: 03862
4. PROPERTY OWNER'S AGENT INFORMATION If none, check here: ☒		
Business Name:	Contact Name:	
Email:	Daytime Telephone:	
Address:		
Town/City:	State:	Zip Code:
5. CONSULTANT INFORMATION If none, check here: ☐		
Engineering Firm: The Dubay Group, Inc.	Contact Name: Doug MacGuire, PE	
Email: doug@thedubaygroup.com	Daytime Telephone: 603-458-6462	
Address: 136 Harvey Road Bldg B101		
Town/City: Londonderry	State: NH	Zip Code: 03053

6. PROJECT TYPE

☐ Excavation Only ☐ Residential ☒ Commercial ☐ Golf Course ☐ School ☐ Municipal
☐ Agricultural ☐ Land Conversion ☐ Other:

7. PROJECT LOCATION INFORMATION

Project Name: Friars Drive Site Plan

Street/Road Address: 161 Lowell Road

Town/City: Hudson	County: Hillsborough

Tax Map: 209	Block:	Lot Number: 001	Unit:

Location Coordinates: 42.7456N, 71.4318W ☒ Latitude/Longitude ☐ UTM ☐ State Plane

Post-development, will the proposed project withdraw from or directly discharge to any of the following? If yes, identify the purpose.

1. Stream or Wetland Purpose: Existing flow path	☒ Yes ☐ No	☐ Withdrawal	☒ Discharge
2. Man-made pond created by impounding a stream or wetland Purpose:	☐ Yes ☒ No	☐ Withdrawal	☐ Discharge
3. Unlined pond dug into the water table Purpose:	☐ Yes ☒ No	☐ Withdrawal	☐ Discharge

Post-development, will the proposed project discharge to:

- A surface water impaired for phosphorus and/or nitrogen? ☒ No ☐ **Yes - include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen**
- A Class A surface water or Outstanding Resource Water? ☒ No ☐ **Yes - include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen**
- A lake or pond not covered previously? ☒ No ☐ **Yes - include information to demonstrate that project will not cause net increase in phosphorus in the lake or pond**

Is the project a High Load area? ☐ Yes ☒ No
If yes, specify the type of high load land use or activity: ______

Is the project within a Water Supply Intake Protection Area (WSIPA)? ☐ Yes ☒ No
Is the project within a Groundwater Protection Area (GPA)? ☐ Yes ☒ No
Will the well setbacks identified in Env-Wq 1508.02 be met? ☐ Yes ☐ No

Note: Guidance document titled "*Using NHDES's OneStop WebGIS to Locate Protection Areas*" is available online. For more details on the restrictions in these areas, read Chapter 3.1 in Volume 2 of the NH Stormwater Manual.

Is any part of the property within the 100-year floodplain? ☐ Yes ☒ No
If yes: Cut volume: ______ cubic feet within the 100-year floodplain
Fill volume: ______ cubic feet within the 100-year floodplain

☒ Project **IS** within **¼ mile of a designated river** Name of River: Merrimack River
☐ Project is **NOT** within ¼ mile of a designated river

☐ Project **IS** within **a Coastal/Great Bay Region community** - **include info required by Env-Wq 1503.08(l) if applicable**
☒ Project is **NOT** within a Coastal/Great Bay Region community

8. BRIEF PROJECT DESCRIPTION (PLEASE DO NOT REPLY "SEE ATTACHED")

The proposed development consists of a single commercial building (504 KSF) and supporting infrastructure within the Sagamore Industrial Park.

9. IF APPLICABLE, DESCRIBE ANY WORK STARTED PRIOR TO RECEIVING PERMIT

n/a

10. ADDITIONAL REQUIRED INFORMATION

A. Date a copy of the application was sent to the municipality as required by Env-Wq 1503.05(e)[1]: 11/23/2021.

(Attach proof of delivery)

B. Date a copy of the application was sent to the local river advisory committee if required by Env-Wq 1503.05(e)[2]: __/__/____.

(Attach proof of delivery)

C. Type of plan required: ☐ Land Conversion ☒ Detailed Development ☐ Excavation, Grading & Reclamation ☐ Steep Slope

D. Additional plans required: ☒ Stormwater Drainage & Hydrologic Soil Groups ☐ Source Control ☐ Chloride Management

E. Total area of disturbance: 1,850,000 square feet

F. Additional impervious cover as a result of the project: 1,122,386 square feet (use the "-" symbol to indicate a net reduction in impervious coverage).

Total final impervious cover: 1,122,386 square feet

G. Total undisturbed cover: 1,410,249 square feet

H. Number of lots proposed: 1

I. Total length of roadway: 0 linear feet

J. Name(s) of receiving water(s): Merrimack R.

K. Identify all other NHDES permits required for the project, and for each indicate whether an application has been filed and is pending, or if the required approval has been issued provide the permit number, registration date, or approval letter number, as applicable.

Type of Approval	Application Filed?	Status	
		Pending	If Issued:
1. Water Supply Approval	☐ Yes ☐ No ☒ N/A	☐	Permit number:
2. Wetlands Permit	☐ Yes ☐ No ☒ N/A	☐	Permit number:
3. Shoreland Permit	☐ Yes ☐ No ☒ N/A	☐	Permit number:
4. UIC Registration	☐ Yes ☐ No ☒ N/A	☐	Registration date:
5. Large/Small Community Well Approval	☐ Yes ☐ No ☒ N/A	☐	Approval letter date:
6. Large Groundwater Withdrawal Permit	☐ Yes ☐ No ☒ N/A	☐	Permit number:
7. Other:	☐ Yes ☐ No	☐	Permit number:

L. List all species identified by the Natural Heritage Bureau as threatened or endangered or of concern: n/a

M. Using NHDES's Web GIS OneStop program (www2.des.state.nh.us/gis/onestop/), with the Surface Water Impairment layer turned on, list the impairments identified for each receiving water. If no pollutants are listed, enter "N/A."

N/A

N. Did the applicant/applicant's agent have a pre-application meeting with AOT staff? ☐ Yes ☒ No

If yes, name of staff member:

O. Will blasting of bedrock be required? ☐ Yes ☒ No If yes, estimated quantity of blast rock: _____ cubic yards

If yes, standard blasting BMP notes must be placed on the plans, available at: http://des.nh.gov/organization/commissioner/pip/publications/wd/documents/wd-10-12.pdf

NOTE: If greater than 5,000 cubic yards of blast rock will be generated, a groundwater monitoring program must be developed and submitted to NHDES. Contact AOT staff for additional detail.

[1] Env-Wq 1503.05(c)(6), requires proof that a completed application form, checklist, plans and specifications, and all other supporting materials have been sent or delivered to the governing body of each municipality in which the project is proposed.

[2] Env-Wq 1503.05(c)(6), requires proof that a completed application form, checklist, plans and specifications, and all other supporting materials have been sent or delivered to the Local River Advisory Committee, if the project is within ¼ mile of a designated river.

11. CHECK ALL APPLICATION ATTACHMENTS THAT APPLY (SUBMIT WITH APPLICATION IN ORDER LISTED)

LOOSE:

- ☒ Signed application form: des.nh.gov/organization/divisions/water/aot/index.htm (with attached proof(s) of delivery)
- ☒ Check for the application fee: des.nh.gov/organization/divisions/water/aot/fees.htm
- ☒ Color copy of a USGS map with the property boundaries outlined (1" = 2,000' scale)
- ☒ If Applicant is not the property owner, proof that the applicant will have a legal right to undertake the project on the property if a permit is issued to the applicant.

BIND IN A REPORT IN THE FOLLOWING ORDER:

- ☒ Copy of the signed application form & application checklist (des.nh.gov/organization/divisions/water/aot/index.htm)
- ☒ Copy of the check
- ☒ Copy of the USGS map with the property boundaries outlined (1" = 2,000' scale)
- ☒ Narrative of the project with a summary table of the peak discharge rate for the off-site discharge points
- ☒ Web GIS printout with the "Surface Water Impairments" layer turned on - http://www4.des.state.nh.us/onestopdatamapper/onestopmapper.aspx
- ☒ Web GIS printouts with the AOT screening layers turned on - http://www4.des.state.nh.us/onestopdatamapper/onestopmapper.aspx
- ☒ NHB letter using DataCheck Tool – www.nhdfl.org/about-forests-and-lands/bureaus/natural-heritage-bureau/
- ☒ The Web Soil Survey Map with project's watershed outlined – websoilsurvey.nrcs.usda.gov
- ☒ Aerial photograph (1" = 2,000' scale with the site boundaries outlined)
- ☒ Photographs representative of the site
- ☒ Groundwater Recharge Volume calculations (one worksheet for each permit application): des.nh.gov/organization/divisions/water/aot/documents/bmp_worksh.xls
- ☒ BMP worksheets (one worksheet for each treatment system): des.nh.gov/organization/divisions/water/aot/documents/bmp_worksh.xls
- ☒ Drainage analysis, stamped by a professional engineer (see Application Checklist for details)
- ☒ Riprap apron or other energy dissipation or stability calculations
- ☒ Site Specific Soil Survey report, stamped and with a certification note prepared by the soil scientist that the survey was done in accordance with the Site Specific Soil Mapping standards, *Site-Specific Soil Mapping Standards for NH & VT, SSSNNE Special Publication No. 3*.
- ☒ Infiltration Feasibility Report (example online) [Env-Wq 1503.08(f)(3)]
- ☒ Registration and Notification Form for Storm Water Infiltration to Groundwater (UIC Registration-for underground systems only, including drywells and trenches): (http://des.nh.gov/organization/divisions/water/dwgb/dwspp/gw_discharge)
- ☒ Inspection and maintenance manual with, if applicable, long term maintenance agreements [Env-Wq 1503.08(g)]
- ☒ Source control plan

PLANS:

- ☒ One set of design plans on 34 - 36" by 22 - 24" white paper (see Application Checklist for details)
- ☒ Pre & post-development color coded soil plans on 11" x 17" (see Application Checklist for details)
- ☒ Pre & post-development drainage area plans on 34 - 36" by 22 - 24" white paper (see Application Checklist for details)

100-YEAR FLOODPLAIN REPORT:

- ☐ All information required in Env-Wq 1503.09, submitted as a separate report.

ADDITIONAL INFORMATION RE: NUTRIENTS, CLIMATE

- ☐ See Checklist for Details

☒ **REVIEW APPLICATION FOR COMPLETENESS & CONFIRM INFORMATION LISTED ON THE APPLICATION IS INCLUDED WITH SUBMITTAL.**

12. REQUIRED SIGNATURES

_____ By initialing here, I acknowledge that I am required by Env-Wq 1503.20(e) to submit a copy of all approved documents to the department in PDF format on a CD within one week after permit approval.

By signing below, I certify that:

- The information contained in or otherwise submitted with this application is true, complete, and not misleading to the best of my knowledge and belief;
- I understand that the submission of false, incomplete, or misleading information constitutes grounds for the department to deny the application, revoke any permit that is granted based on the information, and/or refer the matter to the board of professional engineers established by RSA 310-A:3 if I am a professional engineer; and
- I understand that I am subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641.

☒ **APPLICANT** ☐ **APPLICANT'S AGENT**:

Signature: ______________________ Date: 10-15-21

Name (print or type): Hayley Marsh Title: VP

☐ PROPERTY OWNER ☐ PROPERTY OWNER'S AGENT:

Signature: ______________________ Date: _____

Name (print or type): _____ Title: _____

ATTACHMENT A:
ALTERATION OF TERRAIN PERMIT APPLICATION CHECKLIST

Check the box to indicate the item has been provided or provide an explanation why the item does not apply.

DESIGN PLANS

☒ Plans printed on 34 - 36” by 22 - 24” white paper

☒ PE stamp

☒ Wetland delineation

☒ Temporary erosion control measures

☒ Treatment for all stormwater runoff from impervious surfaces such as roadways (including gravel roadways), parking areas, and non-residential roof runoff. Guidance on treatment BMPs can be found in Volume 2, Chapter 4 of the NH Stormwater Management Manual.

☒ Pre-existing 2-foot contours

☒ Proposed 2-foot contours

☐ Drainage easements protecting the drainage/treatment structures

☒ Compliance with the Wetlands Bureau, RSA 482- A http://des.nh.gov/organization/divisions/water/wetlands/index.htm. Note that artificial detention in wetlands is not allowed.

☒ Compliance with the Comprehensive Shoreland Protection Act, RSA 483-B. http://des.nh.gov/organization/divisions/water/wetlands/cspa

☐ Benches. Benching is needed if you have more than 20 feet change in elevation on a 2:1 slope, 30 feet change in elevation on a 3:1 slope, 40 feet change in elevation on a 4:1 slope.

☒ Check to see if any proposed ponds need state Dam permits. http://des.nh.gov/organization/divisions/water/dam/documents/damdef.pdf

DETAILS

☐ Typical roadway x-section

☒ Detention basin with inverts noted on the outlet structure

☐ Stone berm level spreader

☒ Outlet protection – riprap aprons

☒ A general installation detail for an erosion control blanket

☒ Silt fences or mulch berm

☒ Storm drain inlet protection. Note that since hay bales must be embedded 4 inches into the ground, they are not to be used on hard surfaces such as pavement.

☒ Hay bale barriers

☒ Stone check dams

☒ Gravel construction exit

☒ Temporary sediment trap

☒ The treatment BMP’s proposed

☐ Any innovative BMP’s proposed

CONSTRUCTION SEQUENCE/EROSION CONTROL

☒ Note that the project is to be managed in a manner that meets the requirements and intent of RSA 430:53 and Chapter Agr 3800 relative to invasive species.

☒ Note that perimeter controls shall be installed prior to earth moving operations.

☒ Note that temporary water diversion (swales, basins, etc) must be used as necessary until areas are stabilized.

☒ Note that ponds and swales shall be installed early on in the construction sequence (before rough grading the site).

☒ Note that all ditches and swales shall be stabilized prior to directing runoff to them.

☒ Note that all roadways and parking lots shall be stabilized within 72 hours of achieving finished grade.

☒ Note that all cut and fill slopes shall be seeded/loamed within 72 hours of achieving finished grade

☒ Note that all erosion controls shall be inspected weekly AND after every half-inch of rainfall.

☒ Note the limits on the open area allowed, see Env-Wq 1505.02 for detailed information.

Example note: The smallest practical area shall be disturbed during construction, but in no case shall exceed 5 acres at any one time before disturbed areas are stabilized.

☒ Note the definition of the word "stable"

Example note: An area shall be considered stable if one of the following has occurred:

- Base course gravels have been installed in areas to be paved.
- A minimum of 85 percent vegetated growth has been established.
- A minimum of 3 inches of non-erosive material such stone or riprap has been installed.
- Or, erosion control blankets have been properly installed.

☒ Note the limit of time an area may be exposed
Example note: All areas shall be stabilized within 45 days of initial disturbance.

☒ Provide temporary and permanent seeding specifications. (Reed canary grass is listed in the Green Book; however, this is a problematic species according to the Wetlands Bureau and therefore should not be specified)

☒ Provide winter construction notes that meet or exceed our standards.

Standard Winter Notes:

- All proposed vegetated areas that do not exhibit a minimum of 85 percent vegetative growth by October 15, or which are disturbed after October 15, shall be stabilized by seeding and installing erosion control blankets on slopes greater than 3:1, and seeding and placing 3 to 4 tons of mulch per acre, secured with anchored netting, elsewhere. The installation of erosion control blankets or mulch and netting shall not occur over accumulated snow or on frozen ground and shall be completed in advance of thaw or spring melt events.
- All ditches or swales which do not exhibit a minimum of 85 percent vegetative growth by October 15, or which are disturbed after October 15, shall be stabilized temporarily with stone or erosion control blankets appropriate for the design flow conditions.
- After October 15, incomplete road or parking surfaces, where work has stopped for the winter season, shall be protected with a minimum of 3 inches of crushed gravel per NHDOT item 304.3.

☒ Note at the end of the construction sequence that "Lot disturbance, other than that shown on the approved plans, shall not commence until after the roadway has the base course to design elevation and the associated drainage is complete and stable." – This note is applicable to single/duplex family subdivisions, when lot development is not part of the permit.

DRAINAGE ANALYSES

Please double-side 8 ½” × 11” sheets where possible but, **do not** reduce the text such that more than one page fits on one side.

☒ PE stamp

☒ Rainfall amount obtained from the Northeast Regional Climate Center- http://precip.eas.cornell.edu/. Include extreme precipitation table as obtained from the above referenced website.

☒ Drainage analyses, in the following order:

- Pre-development analysis: Drainage diagram.
- Pre-development analysis: Area Listing and Soil Listing.
- Pre-development analysis: Node listing 1-year (if applicable), 2-year, 10-year and 50-year.
- Pre-development analysis: Full summary of the 10-year storm.
- Post-development analysis: Drainage diagram.
- Post-development analysis: Area Listing and Soil Listing.
- Post-development analysis: Node listing for the 2-year, 10-year and 50-year.
- Post-development analysis: Full summary of the 10-year storm.

☒ Review the Area Listing and Soil Listing reports

- Hydrologic soil groups (HSG) match the HSGs on the soil maps provided.
- There is the same or less HSG A soil area after development (check for each HSG).
- There is the same or less “woods” cover in the post-development.
- Undeveloped land was assumed to be in “good” condition.
- The amount of impervious cover in the analyses is correct.

Note: A good check is to subtract the total impervious area used in the pre analysis from the total impervious area used in the post-analysis. For residential projects without demolition occurring, a good check is to take this change in impervious area, subtract out the roadway and divide the remaining by the number of houses/units proposed. Do these numbers make sense?

☒ Check the storage input used to model the ponds.

☒ Check to see if the artificial berms pass the 50-year storm, i.e., make sure the constructed berms on ponds are not overtopped.

☒ Check the outlet structure proposed and make sure it matches that modeled.

☒ Check to see if the total areas in the pre and post analyses are same.

☒ Confirm the correct NRCS storm type was modeled (Coos, Carroll & Grafton counties are Type II, all others Type III).

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PRE- AND POST-DEVELOPMENT DRAINAGE AREA PLANS

☒ Plans printed on 34 - 36” by 22 - 24” on white paper.

☒ Submit these plans separate from the soil plans.

☒ A north arrow.

☒ A scale.

☒ Labeled subcatchments, reaches and ponds.

☒ Tc lines.

☒ A clear delineation of the subcatchment boundaries.

☒ Roadway station numbers.

☒ Culverts and other conveyance structures.

PRE AND POST-DEVELOPMENT COLOR-CODED SOIL PLANS

☒ 11" × 17"sheets suitable, as long as it is readable.

☒ Submit these plans separate from the drainage area plans.

☒ A north arrow.

☒ A scale.

☒ Name of the soil scientist who performed the survey and date the soil survey took place.

☒ 2-foot contours (5-foot contours if application is for a gravel pit) as well as other surveyed features.

☒ Delineation of the soil boundaries and wetland boundaries.

☒ Delineation of the subcatchment boundaries.

☒ Soil series symbols (e.g., 26).

☒ A key or legend which identifies each soil series symbol and its associated soil series name (e.g., 26 = Windsor).

☒ The hydrologic soil group color coding (A = Green, B = yellow, C= orange, D=red, Water=blue, & Impervious = gray).

Please note that excavation projects (e.g., gravel pits) have similar requirements to that above, however the following are common exceptions/additions:

☐ Drainage report is not needed if site does not have off-site flow.

☐ 5 foot contours allowed rather than 2 foot.

☐ No PE stamp needed on the plans.

☐ Add a note to the plans that the applicant must submit to the Department of Environmental Services a written update of the project and revised plans documenting the project status every five years from the date of the Alteration of Terrain permit.

☐ Add reclamation notes.

See NRCS publication titled: *Vegetating New Hampshire Sand and Gravel Pits* for a good resource, it is posted online at: http://des.nh.gov/organization/divisions/water/aot/categories/publications.

ADDITIONAL INFORMATION RE: NUTRIENTS, CLIMATE

☐ If project will discharge stormwater to a surface water impaired for phosphorus and/or nitrogen, include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen.

☐ If project will discharge stormwater to a Class A surface water or Outstanding Resource Water, include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen.

☐ If project will discharge stormwater to a lake or pond not covered previously, include information to demonstrate that project will not cause net increase in phosphorus in the lake or pond.

☐ If project is within a Coastal/Great Bay Region community, include info required by Env-Wq 1503.08(l) if applicable.

TO VERIFY AUTHENTICITY, SEE REVERSE SIDE FOR DESCRIPTION OF THE 11 SECURITY FEATURES

CRE Acquisition, LLC
133 Pearl Street
Boston, MA 02110

First Republic Bank
One Post Office Square
Boston, MA 02110

595

**** TWENTY FOUR THOUSAND THREE HUNDRED SEVENTY FIVE AND 00/100 DOLLARS

TO THE ORDER OF

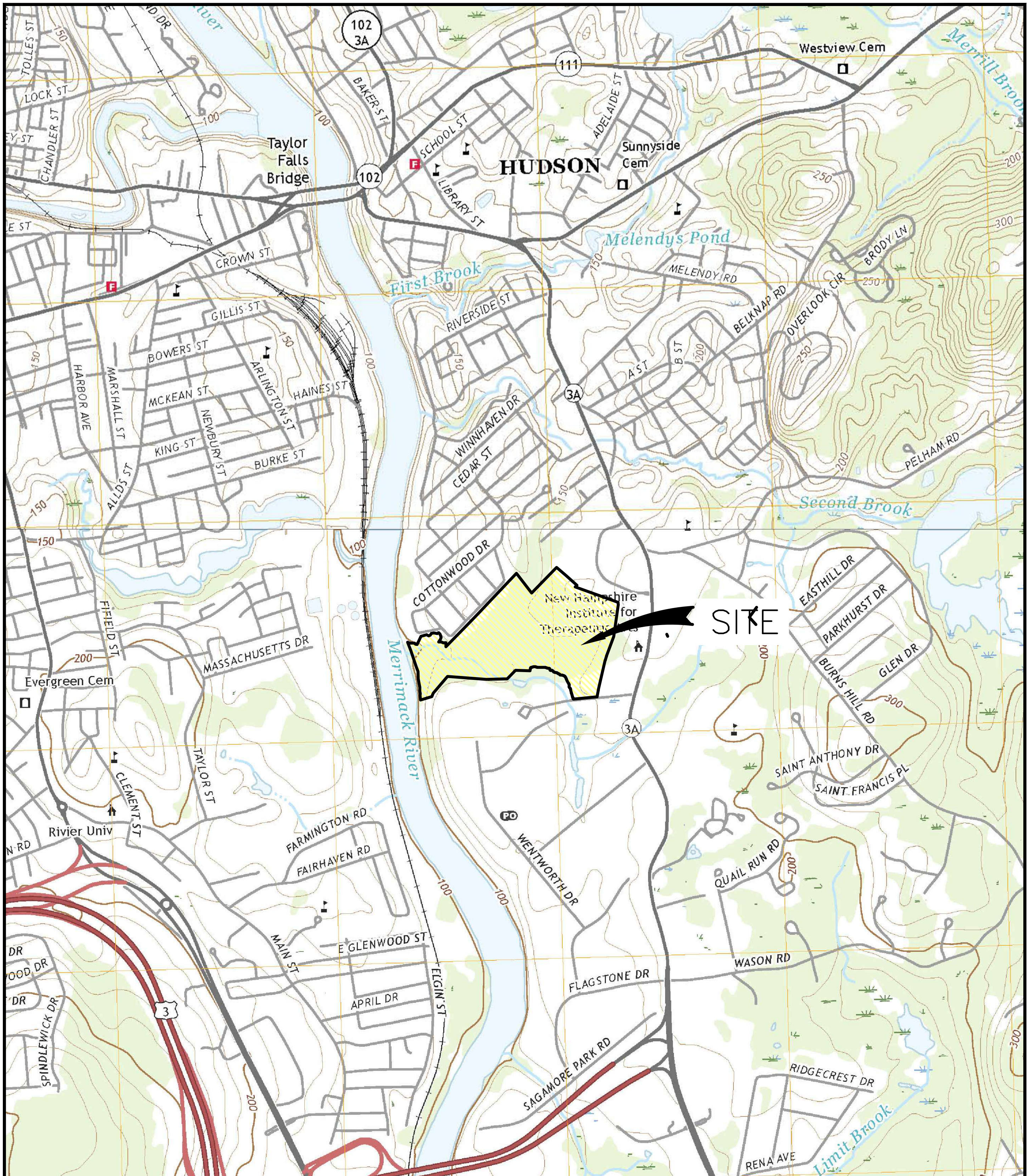
10/14/2021 $24,375.00**

Treasurer State of New Hampshire
PO Box 2160
Concord, NH 03302-2160

⑈0000595⑈ ⑆321081669⑆⑈80006947883⑈

DATE:10/14/2021 CK#:595 TOTAL:$24,375.00** BANK:CRE Acquisition-First Republic(creacqfr)
PAYEE:Treasurer State of New Hampshire(nh-treas)

Job(Prop)	Categ(Acct)	Invoice - Date	Description	Amount
161lowell(creacq)	G0001020(62050)	AOT fee-10/14/2021	AOT Permit App Friars Drive Hudson	24,375.00
				24,375.00



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2000 0 1000 2000
1 inch = 2000 ft.

N

FRIARS DRIVE
TAX MAP 209 LOT 1

HUDSON, NH 03051

NASHUA SOUTH QUADRANGLE
NEW HAMPSHIRE–MASSACHUSETTS
7.5 MINUTE SERIES (TOPOGRAPHIC)

TITLE:	USGS LOCATION MAP
DATE:	5/25/2021
SCALE:	1"=2000'
SHEET:	1 OF 1

N:\=PROJECTS\475-Five Way Realty, Hudson\DWG\NHAOT\USGSLOCMAP.dwg

The Dubay Group, Inc.
136 Harvey Road Bldg B101
Londonderry, NH 03053
603-458-6462 thedubaygroup.com

MEMORANDUM

To:	Alteration of Terrain Bureau	Date:	November 23, 2021
From:	Doug MacGuire, PE	Re:	Friars Drive Local Submission

This memorandum is intended to certify that the Town of Hudson Planning Board has received a full copy of the plans and NHDES Alteration of Terrain Permit Application submitted on November 23, 2021. The plans are currently under review with the town and Planning Board.

If you have any further questions please don't hesitate to call me at 603-458-6462.

NHDES Alteration of Terrain

II. STORMWATER MANAGEMENT REPORT NARRATIVE

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 almost entirely SCS Hydrologic Soil Group “A” with some Group “B” on the western portion of the site. No wetlands or buffer impacts are proposed, and 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 site soils are mainly classified as hydrologic group “A” with some hydrologic group “B”. 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 sheet flows offsite to a natural depression.

Design Point #2: This design point is located at the Merrimack River. The areas that immediately flows to this design point remain undisturbed.

Design Point # 3: 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.

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

Design Point #5: This design point is the northern portion of the property where Willard Street dead ends.

Design Point #6: This design point is located along the northern property line where the property abuts multi-family buildings.

C. Proposed Site Conditions

The proposed development consists of a single commercial building (504 KSF) and supporting infrastructure within the Sagamore Industrial Park. The soil for the majority of the property is “excessively well drained”.

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.

Low Impact Development Strategies: In an effort to minimize the overall disturbance footprint of the development, all associated docks, parking, and access ways have been designed to be close to the building itself. This strategy allows for more of a natural buffer between abutting properties to remain and for existing drainage patterns along the outside of the development to continue to behave as they would in the existing conditions. Perimeter disturbance will be allowed to naturally vegetate, therefore reducing runoff velocities, and encouraging infiltration where appropriate.

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.

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.

Table 1- Pre vs. Post Runoff Analysis

Design Storm	**Existing Conditions** *Peak Flow Runoff Rate*	**Developed Conditions** *Peak Flow Runoff Rate*	**Change**
DESIGN 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
DESIGN POINT #2			
	Node Label – L2	Node Label – L2	
2-Year	0.02	0.02	0.0
10-Year	0.71	0.71	0.0
25-Year	3.34	3.34	0.0
50-Year	8.18	8.19	0.01
DESIGN 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
DESIGN 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	0.12	-0.01
DESIGN POINT #5			
	Node Label – L5	Node Label – L5	
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 POINT #6			
	Node Label – L6	Node Label – L6	
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

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.

Table 2- Pre vs. Post Runoff Volume Analysis

Design Storm	**Existing Conditions** *Peak Flow Runoff Volume*	**Developed Conditions** *Peak Flow Runoff Volume*	**Change**
	DESIGN POINT #1		
	Node Label - L1	Node Label - L1	
2-Year	0.0	0.0	0.0
	DESIGN POINT #2		
	Node Label – L2	Node Label – L2	
2-Year	546 (0.013 a-f)	546 (0.013 a-f)	0.0
	DESIGN POINT #3		
	Node Label – L3	Node Label – L3	
2-Year	0.0	0.0	0.0
	DESIGN POINT #4		
	Node Label – L4	Node Label – L4	
2-Year	0.0	0.0	0.0
	DESIGN POINT #5		
	Node Label – L5	Node Label – L5	
2-Year	0.0	0.0	0.0
	DESIGN POINT #6		
	Node Label – L6	Node Label – L6	
2-Year	0.0	0.0	0.0

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 as well as an infiltration trench on the backside of the proposed landscape berm. 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.

Table 3- Pre vs. Post Discarded Volume Analysis

Pond	**2-Year Discarded Volume (CF/*Gal*)**	**10-Year Discarded Volume (CF/*Gal*)**	**25-Year Discarded Volume (CF/*Gal*)**	**50-Year Discarded Volume (CF/*Gal*)**
Infiltration Pond - PC	111,748 *835,875*	139,003 *1,039,742*	153,285 *1,146,572*	166,598 *1,246,153*
Infiltration Pond - PD	90,832 *679,423*	116,817 *873,791*	131,953 *987,008*	144,640 *1,081,907*
Infiltration Trench	0 *0*	0 *0*	97 *725*	416 *3,112*
Total	**202,580 CF** ***1,515,298 Gal***	**255,820 CF** ***1,913,534 Gal***	**285,335 CF** ***2,134,306 Gal***	**311,654 CF** ***2,331,172 Gal***

NHDES Alteration of Terrain

III. SUPPLEMENTAL SITE REVIEW CRITERIA

A. Web GIS Printout - AoT Screening Layers & Surface Water Impairment

B. Northeast Regional Climate Center Extreme Precipitation Tables

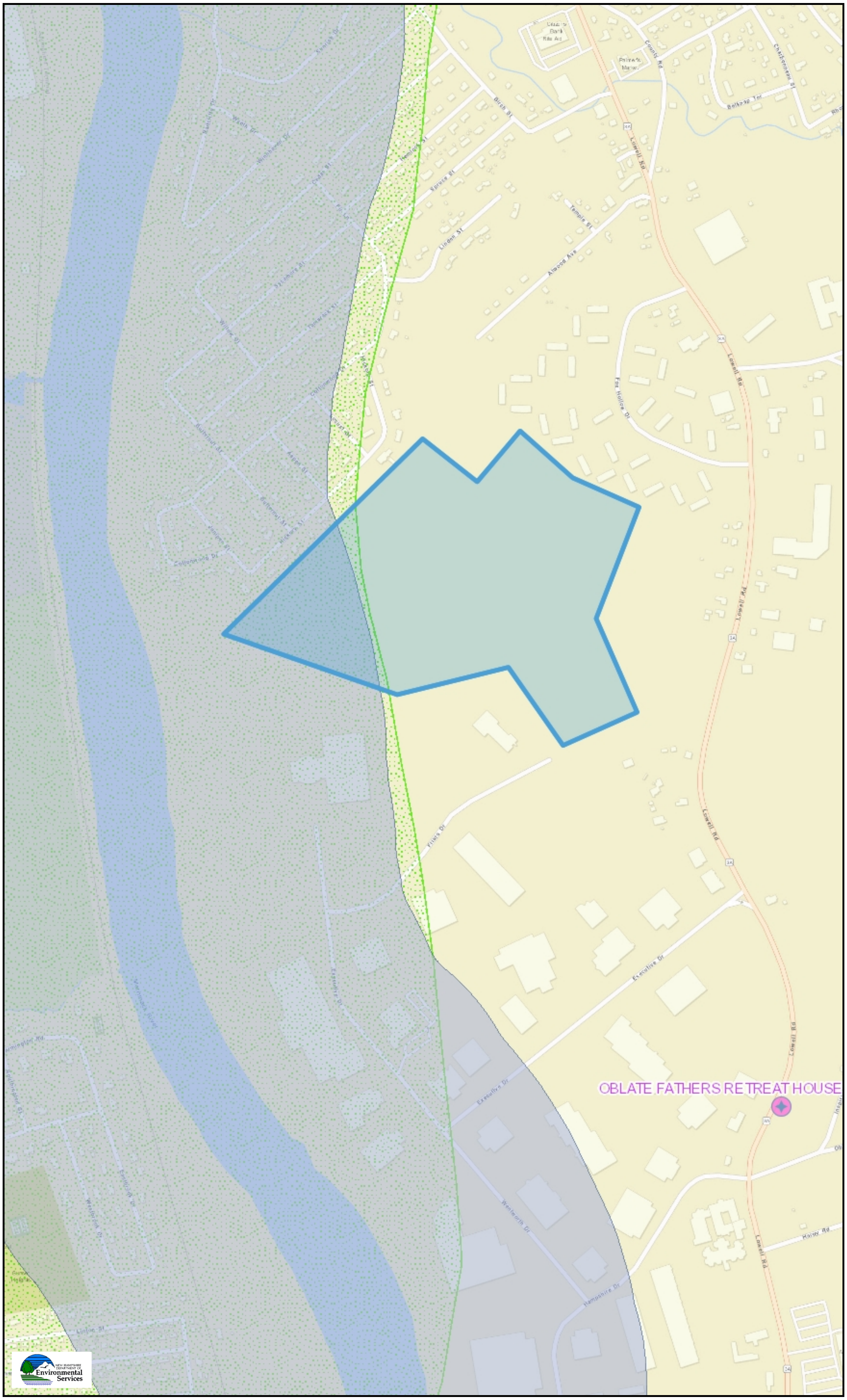
C. Web Soil Survey Map

D. Aerial Photograph

E. Rip Rap Calculations

F. Wildlife Habitat Assessment Report

Friars Drive



Legend

- Designated Rivers Quarterm Buffer
- Public Water Supply Wells
- Groundwater Classification / GA1
- Groundwater Classification / GA2
- Water Supply Intake Protect Areas
- Wellhead Protection Areas
- Class A Lakes with a Quarte Buffer
- Class A - All Features
- All Lakes, with a Quarter Mil Buffer
- Outstanding Resource Wate Watersheds
- Surface Waters with Impairn 2016 with Quarter Mile Buffe
- Watersheds with Chloride Impairments 2016

Map Scale

1: 10,000

Map Generated: 10/1/2021

Notes

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**

Powered by ACIS
Northeast Regional Climate Center

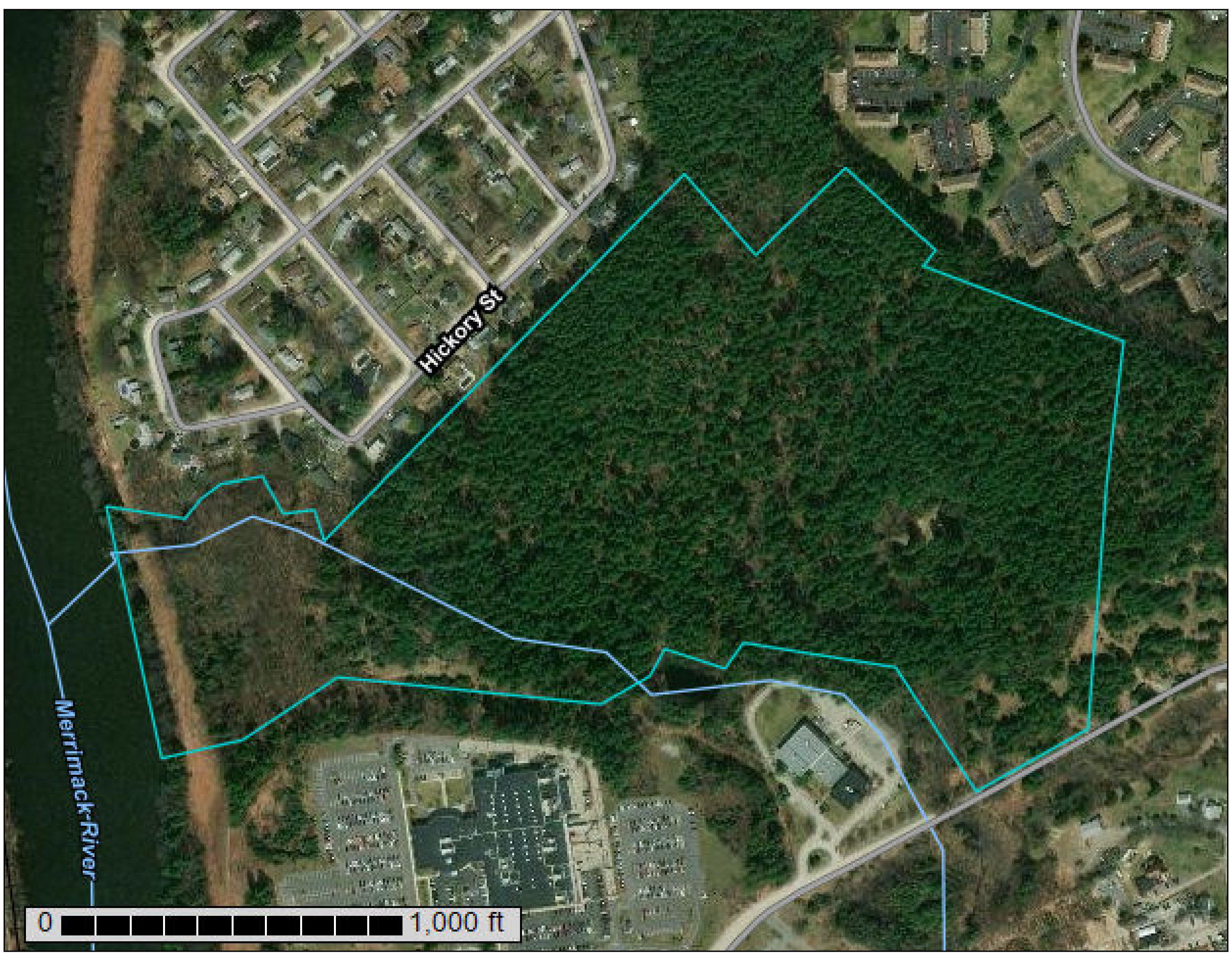
United States Department of Agriculture

NRCS

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



May 25, 2021

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

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.

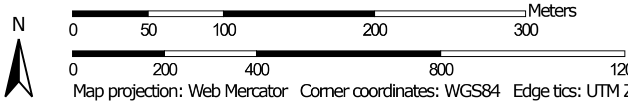
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in 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.

Soil Map

Map Scale: 1:5,010 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator   Corner coordinates: WGS84   Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

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 line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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 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.

Soil Survey Area: Hillsborough County, New Hampshire, Eastern Part
Survey Area Data: Version 22, May 29, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

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 Legend

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 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 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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136 Harvey Road BLDG B101
Londonderry NH 03053
www.TheDubayGroup.com
603-458-6462

500 0 250 500
1 inch = 500 ft.

N

FRIARS DRIVE

TAX MAP 209 LOT 1

HUDSON, NH 03051

TITLE:	AERIAL LOCATION MAP
DATE:	5/25/2021
SCALE:	1"=500'
SHEET:	1 OF 1

N:\=PROJECTS\475-Five Way Realty, Hudson\DWG\NHAOT\USGSLOCMAP.dwg

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	OR	Tw ≥ 1/2Do
Length of Apron (La):	La = 1.8Q/(Do)$^{1.5}$+7Do		La = 3.0Q/(Do)$^{1.5}$+7Do
Width of Apron:	W1=3*Do W2 = 3Do + La		W1=3*Do W2=3Do+0.4*La

If defined channel, use channel width for W1 and W2

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

Structure & Description		Input Values			Calculated Output					Use	Riprap Gradation Envelope				Riprap Depth
		Q (cfs)	Do (ft)	Tw (ft)	La	W1	W2	d50, ft	d50, in	d50 in.	d100 in.	d85 in.	d50 in.	d15 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-E5	Culvert from DMH-E10	0.78	1.00	0.45	8	3	11	0.0	0.39	6	9	8	6	3	15
FES-D1	Culvert from DMH-D4	22.79	2.50	2.43	35	8	21	0.2	2.30	6	9	8	6	3	15
FES-D2	Culvert from DMH-D6	8.03	2.00	1.41	23	6	15	0.1	1.28	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

Notes:

GOVE ENVIRONMENTAL SERVICES, INC.
Wetlands and Soil Mapping

WILDLIFE HABITAT ASSESSMENT

for a

Commercial Development
Friar's Drive
Hudson, New Hampshire

Lowell Road Property Owner, LLC

April 2021

8 Continental Dr Bldg 2 Unit H, Exeter, NH 03833-7526
Ph (603) 778 0644 / *Fax* (603) 778 0654
www.gesinc.biz
info@gesinc.biz

Index:

PART 1: SUMMARY AND FINDINGS

Wildlife Biologist: Luke Hurley	NHB21-3044
Gove Environmental Services, Inc.	Commercial Development
8 Continental Drive, Exeter, NH 03833	Friar's Drive, Hudson
lhurley@gesinc.biz	Lowell Road Property Owner, LLC
603-770-5114	AOT Application

PROPOSED PROJECT:
The proposed project is for a 504,000sf building facility, with associated driveways, parking spaces, loading docks and associated drainage.

PHASE I Threatened and Endangered Wildlife and Habitat Assessment Findings:
Check one
☐ No threatened and endangered wildlife and habitat present, no threatened or endangered wildlife, habitat, or wildlife corridors likely to be impacted by project activities.
X Threatened and endangered wildlife and habitat present; HOWEVER, NO threatened or endangered wildlife, habitat, or wildlife corridors likely to be impacted by project activities. No conservation measures are proposed.
☐ Threatened and endangered wildlife and habitat present or wildlife corridors present. Proposed actions have the potential for impacts. Conservation measures incorporated into the proposed project or project design.

THREATENED AND ENDANGERED WILDLIFE AND HABITAT:
NHB21-3044 has checked for records of rare species and exemplary natural communities near the area of the project. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government. No recorded occurrences for sensitive species near this project area were identified and none were observed on site during site visitation.

On-site habitat is dominated by mature Appalachian-oak-pine forest and stream side wetlands, which, based upon resources cited in this Assessment, may be habitat for the following species:

Bald eagle, SC, SGCN
Alewife. SC, SGCN
American eel, SC, SGCN
American shad, SC, SGCN
Banded sunfish, SC, SGCN
Bank swallow, SC, SGCN
Brook floater, SE, SGCN
Creeper, SGCN
Eastern pond mussel, ST, SGCN
Redfin pickerel, SC, SGCN
Black-billed cuckoo, SGCN
Chimney swift, SGCN
Eastern box turtle, SE, SGCN
Eastern towhee, SGCN
Eastern hognose snake, SE, SGCN
Eastern whip-poor-will, SGCN
Scarlet tanager, SGCN
American woodcock, SGCN
Big Brown Bat SC, SGCN
Silver-haired bat SC, SGCN
Tri-colored bat SE, SGCN
Eastern red bat SC, SGCN
Hoary bat SGCN
Little brown myotis SE, SGCN
Northern goshawk, SGCN
Purple finch, SGCN
Veery SGCN
Wood thrush SGCN
Wood turtle SC, SGCN
Northern leopard frog, SC, SGCN
Eastern ribbon snake, SGCN
Eastern hognose snake, SE, SGCN
Ruffed grouse SGCN
Spotted turtle, ST, SGCN

Fowler's toad, ST, SGCN
Northern black racer, ST, SGCN
Ringed boghaunter, ST, SGCN

PROPOSED CONSERVATION MEASURES:
As part of the project, 30-acres will be undeveloped and this will include the area along Fuller Brook, as well as the Merrimack River.

Ideal methods for erosion control around the perimeter of the work areas is mulch berms. These are natural and often readily available for development sites. These are easy to install and do not need to be removed once the project is complete. The use of mulch berms does not act as a barrier to wildlife as they are able to easily walk over the berms with no issues. The use of welded plastic or 'biodegradable plastic' netting or thread in erosion control matting should be avoided. There are numerous documented cases of snakes and other wildlife being trapped and killed in erosion control matting with synthetic netting and thread. The use of erosion control berm, white Filtrexx Degradable Woven Silt Sock, or several 'wildlife friendly' options such as woven organic material (e.g. coco or jute matting such as North American Green SC150BN or equivalent) are readily available.

PART 1: SUMMARY AND FINDINGS

NHB21-3044
Commercial Development
Friar's Drive, Hudson
Lowell Road Property Owner, LLC
AOT Application

Printed name, date and signature of Individual that conducted the Phase I Threatened and Endangered Wildlife and Habitat Assessment. Note: By signing this document, the qualified wildlife biologist (Env. Wq. 1503.19(h)) is assuming responsibility for the wildlife assessment. Credentials need to be included in Part 4: Appendices.

Luke Hurley___ April 30, 2021
Name – printed Date

____
Signature

Check Applicable Requested Action
☐ Request for NHFG Concurrence with Findings in compliance with Env. Wq. 1503.19(h)(1)a
X Request for NHFG Concurrence with Findings and Proposed Conservation Measures in compliance with Env. Wq. 1503.19(h)(1)b*
☐ Requests further coordination with NHFG to discuss proposed conservation measures and/or, potential focused survey needs (Phase II) *

*New Hampshire Fish and Game's review and recommendations are based on the information provided in this assessment. Changes to project scope may affect NHFG and/or NHDES determination on potential impacts and whether conservation measures and project design modifications proposed are still applicable or sufficient.

Other:

PART 2: NHB21-3044 Datacheck Results Letter, Figures, Site Photographs

Include in order presented below:
NHB21-3044 Datacheck Results Letter
Aerial Figure
Topographic Figure
NH Wildlife Action Plan - Land Cover Figure
NH Wildlife Action Plan - Habitat Rankings and Conservation Parcels Figure
Conservation Parcels
NRCS Soils
Site photographs with photograph location plan

NHB21-3044

New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

To: Luke Hurley
8 Continental Drive
Exeter, NH 03833

From: NH Natural Heritage Bureau

Date: 9/25/2021 (This letter is valid through 9/25/2022)

Re: Review by NH Natural Heritage Bureau of request dated 9/25/2021

Permit Type: Alteration of Terrain Permit

NHB ID: NHB21-3044

Applicant: Luke Hurley

Location: Hudson
Tax Map: 209, Tax Lot: 1
Address: Friar's Drive

Proj. Description: The proposed project is for a warehouse facility, with associated driveways, parking and loading docks. No wetland impacts are proposed.

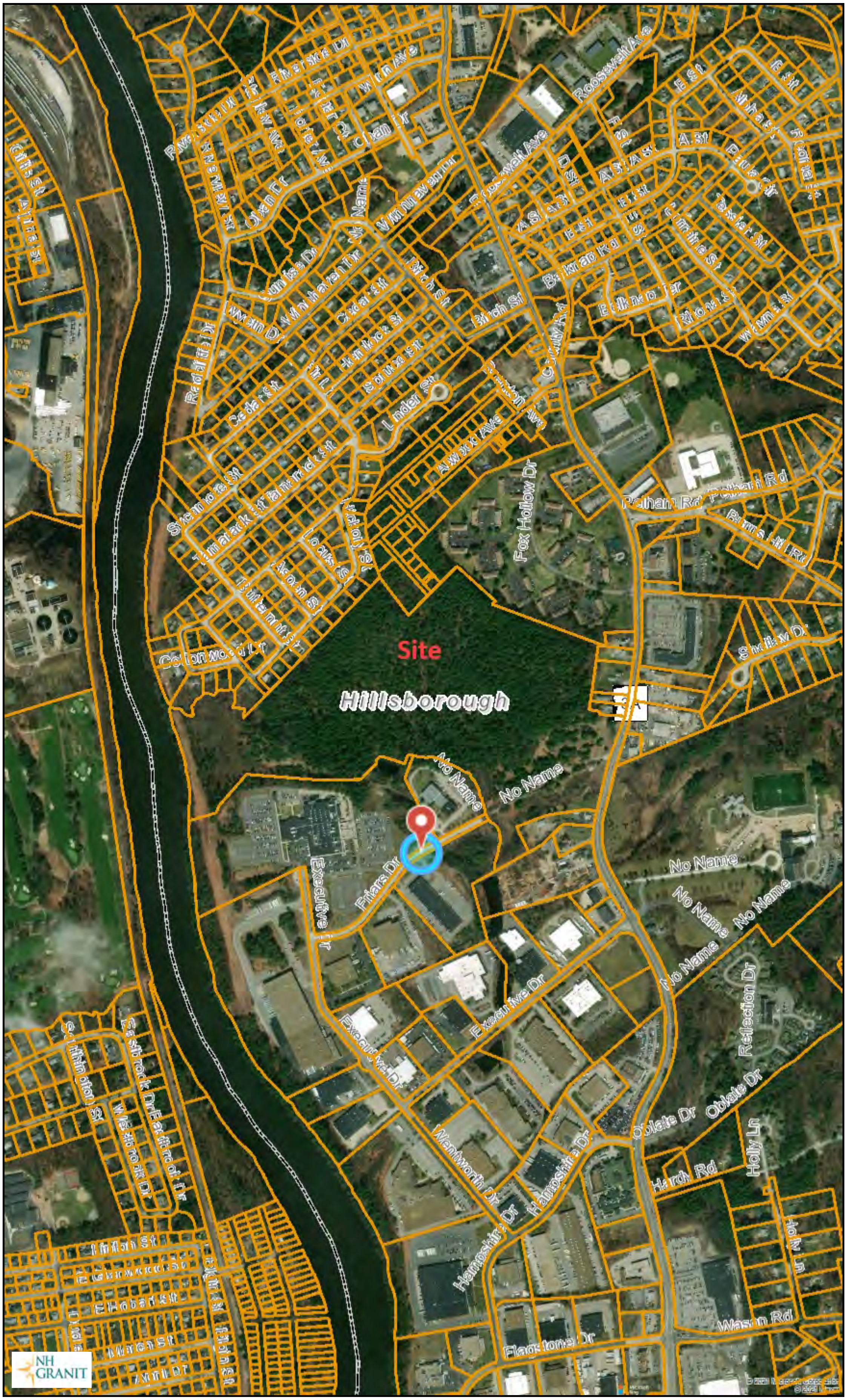
The NH Natural Heritage database has been checked for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government. We currently have no recorded occurrences for sensitive species near this project area.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

MAP OF PROJECT BOUNDARIES FOR: NHB21-3044

Aerial Photo

Aerial



Legend

Parcels

Parcel Polygons

Attributes for Additional Lines

State

County

City/Town

Map Scale

1: 12,988

© NH GRANIT, www.granit.unh.edu

Map Generated: 9/25/2021

Notes

USGS Topo Map

USGS

Legend

Parcels

Parcel Polygons

Attributes for Additional Lines

State

County

City/Town

Map Scale

1: 12,988

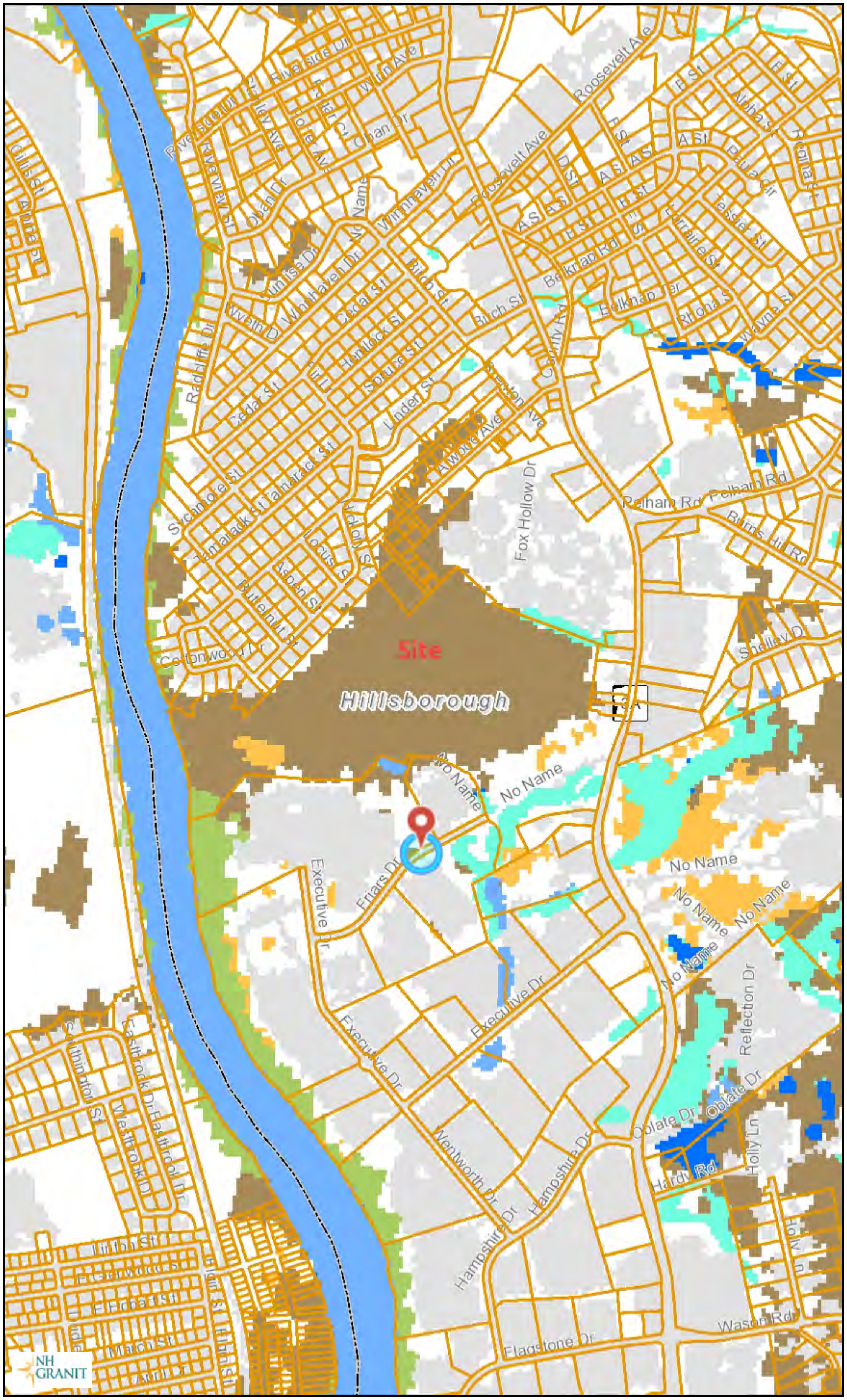
© NH GRANIT, www.granit.unh.edu

Map Generated: 9/25/2021

Notes

NH Wildlife Action Plan
Land Cover Figure

WAP 2020: Wildlife Habitat Land Cover



Legend

Parcels

- Parcel Polygons
- Attributes for Additional Lines

- State
- County
- City/Town

WAP 2020: Wildlife Habitat l Cover

- Alpine
- Appalachian oak-pine
- Cliff and Talus slope
- Coastal island and Rocky coast
- Developed Impervious
- Developed or Barren land
- Dune
- Floodplain forest
- Grassland
- Hemlock-hardwood-pine
- High-elevation spruce-fir
- Lowland spruce-fir
- Northern hardwood-conifer
- Northern swamp
- Open water
- Peatland
- Pine barren
- Rocky ridge
- Salt marsh
- Sand/Gravel
- Temperate swamp
- Marsh and shrub wetland

Map Scale

1: 12,988

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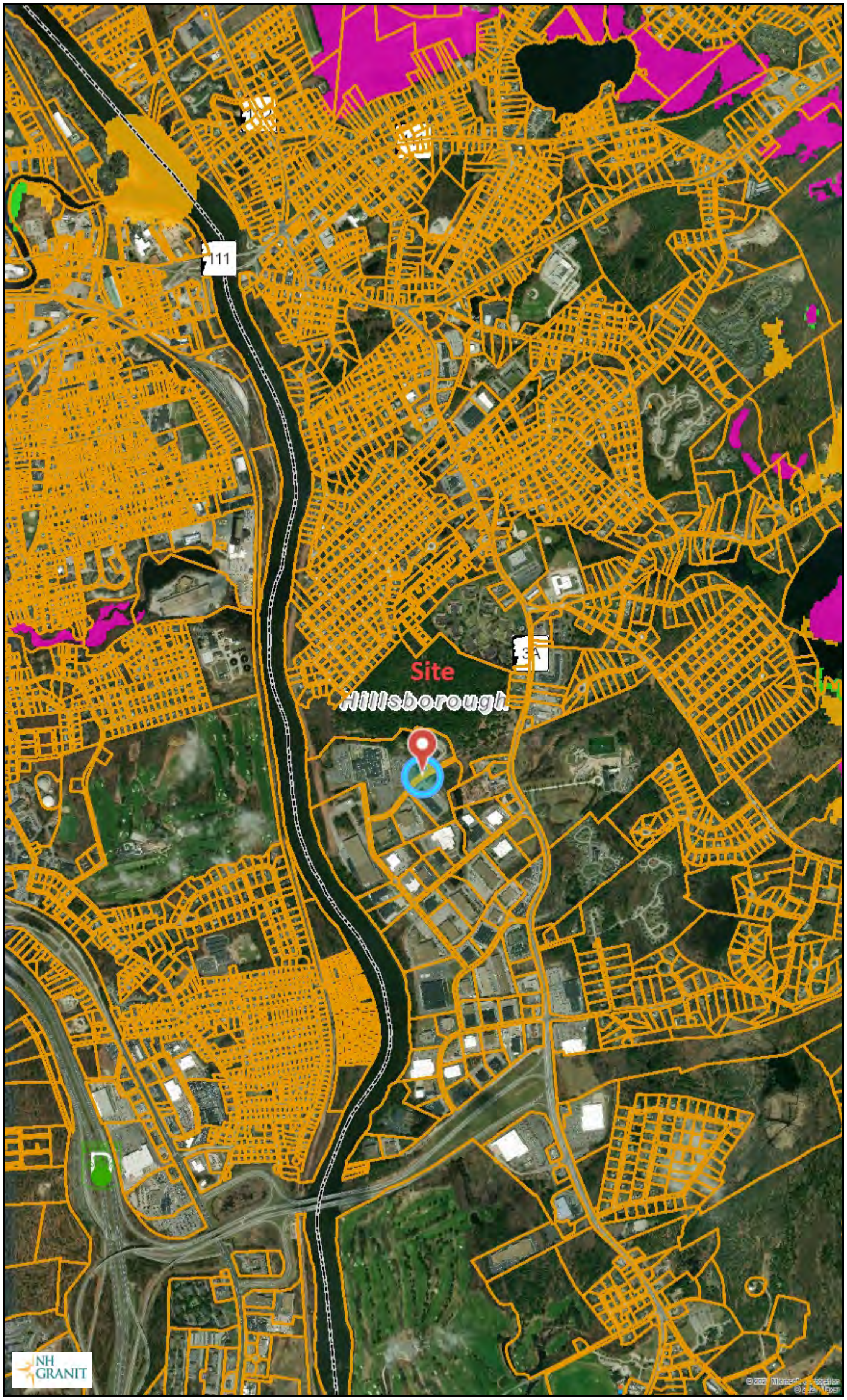
Map Generated: 9/25/2021

Notes

NH Wildlife Action Plan
Habitat Rankings

WAP 2020: Highest Ranked Wildlife Habitat



Legend

Parcels
- Parcel Polygons
- Attributes for Additional Lines

State
County
City/Town

WAP 2020: Highest Ranked Wildlife Habitat
- 1 Highest Ranked Habitat in NH
- 2 Highest Ranked Habitat in Regior
- 3 Supporting Landscape

Map Scale

1: 25,977

Map Generated: 9/25/2021

Notes

Conservation Parcels

Conservation Lands

Legend

Parcels

Parcel Polygons

Attributes for Additional Lines

State

County

City/Town

Conservation and Public Lar

Map Scale

1: 25,977

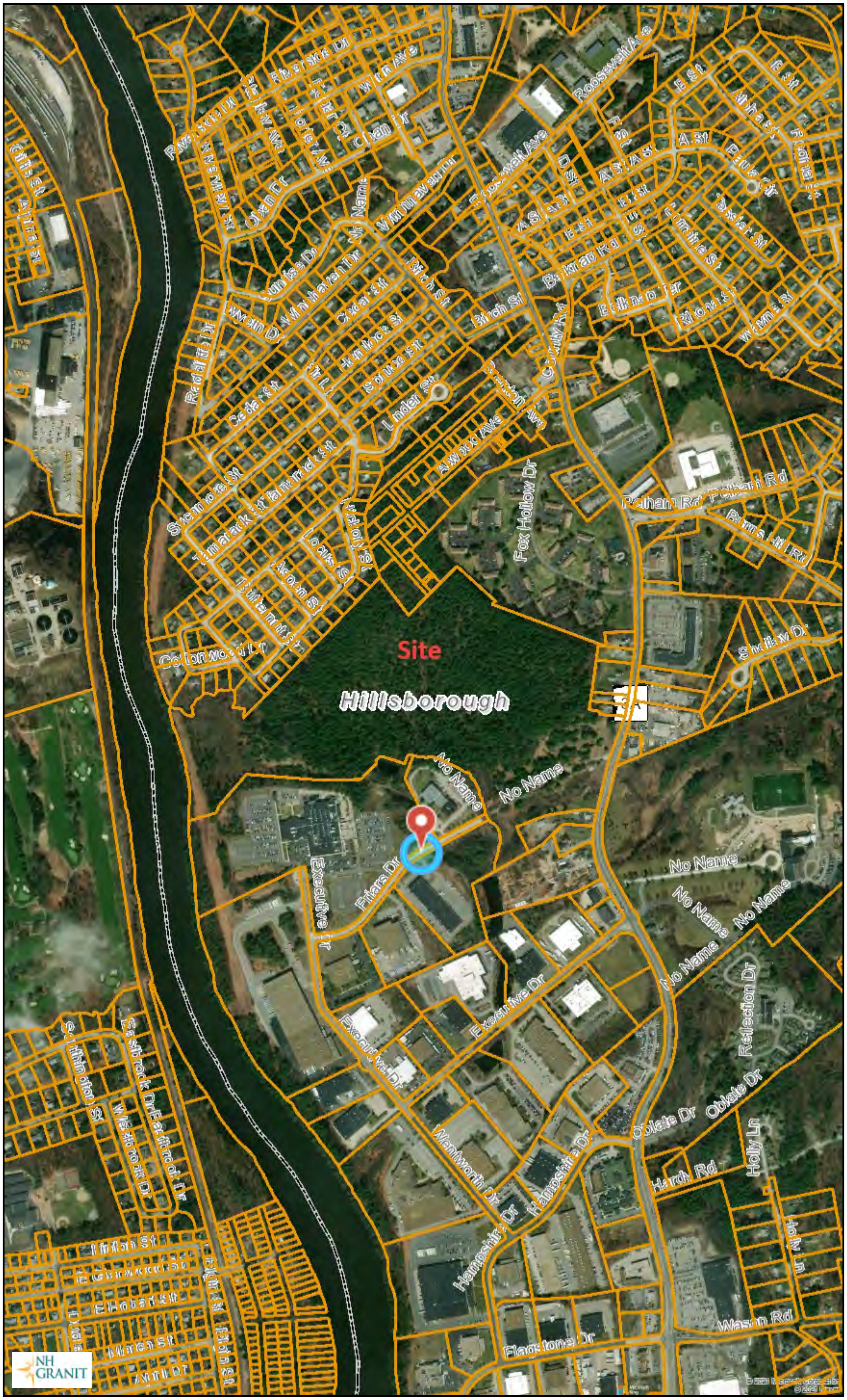
© NH GRANIT, www.granit.unh.edu

Map Generated: 9/25/2021

Notes

NRCS Soils

Aerial



Legend

Parcels

Parcel Polygons

Attributes for Additional Lines

State

County

City/Town

Map Scale

1: 12,988

Map Generated: 9/25/2021

Notes

1. Looking west over edge of recent construction project.

2. Looking west down Friar's Drive, with site on right.

3. Looking north over wood trail.

4. Additional view.

5. Open area of ATV trails and fire pit.

6. View looking west over Fuller Brook from Friar's Drive.

7. Adjacent wetland edge.

8. Adjacent upland.

9. View over brook further west.

10. Western view at bridge crossing.

11. View looking east over old dam.

12. View over pond at dam.

13. Western view over brook.

14. View over adjacent wooded land.

15. Opposite view.

16. View along brook bank.

17. Opposite view looking west.

18. View down drainage easement looking west.

19. View looking east up brook.

20. View looking west from drainage easement, downstream.

21. View of adjacent residential areas on western property line.

22. Adjacent hillside looking northeast.

23. Woods trail.

24. View of central wooded area.

25. Central wood trail.

26. Wooded area

27. Woods trail.

28. View of northern hillside adjacent to homes.

29. Opposite view.

30. Woods trail.

31. Hillside along northern adjacent to homes.

32. Hillside near current development.

33. Trail with ATV jump.

34. Wooded area.

35. Additional wooded view looking east.

PROPOSED PROJECT:
The proposed project is for the construction of a 504,000sf warehouse facility, with associated driveways, loading docks, parking spaces and stormwater treatment area. The site has fully-master planned utilities, sewer, water, gas etc. and access that will be utilized for the development.

PROJECT SITE AND SURROUNDING LAND USE DESCRIPTION:
The site is located on the southwest portion of Hudson. The Merrimack River borders the site to the west, residential neighborhoods to the north west and north east and condominiums to the east and large-scale industrial warehouse facilities immediately to the southwest and south east.

The site is located within the Town of Hudson's Sagamore Industrial Park and is also within the economic revitalization zone program in conjunction with the Nashua Regional Planning Commission and State of New Hampshire.

A sewer main exists thru the southern portion of the property, and a power line along the river.

The parcel is entirely covered with Appalachian-oak-pine forest with Fuller Brook flowing along the southern portion of the site from the east to the west where it empties into the Merrimack River. This is the only wetland system on site.

The site slopes from the north and east sharply to the central area of the site where it is relatively flat. This continues to the brook where the bank along the Merrimack drops sharply.

The site has a relatively open understory, and several trails are present, used by neighboring abutters, as well as ATV use.

The site drainage is collected via a closed drainage system which flows to either open drainage ponds or a subsurface chamber systems. Multiple ponds are proposed, including a series of detention ponds and infiltration ponds. The detention ponds are providing detention for the runoff and then directing and metering flow to proposed treatment swales on site, and proposed infiltration ponds and practices on site. The infiltration ponds and subsurface infiltration systems provide treatment through isolator rows and soil 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. 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.

FIELD ANALYSIS
The site was visited on April 30, 2021, and potential for TE species and potential habitat, as well as overall site conditions were assessed and documented. The field work was conducted over 6 hours under sunny skies and 65 degrees (F). Field work was performed by slowly walking the

parcel. Resources used: NH Wildlife Action Plan, Wildlife Action Plan – Community Maps (Habitat, Scoring, and SGCN by Town), NHFG Endangered and Threatened Wildlife of NH, Rare Animals, and Exemplary Natural Communities in New Hampshire Towns, Taking Action for Wildlife, NH GRANIT GIS clearinghouse, USDA Web Soil Survey. NH F&G WAP Maps indicate parcel has no level of Highest Ranked Habitat.

<u>Upland Cover Type</u>
<u>Appalachian Oak-White Pine Forest</u>
Field analysis revealed that a semi-mature red oak and white pine community type is the primary upland forested cover type on the property. Red Oak-White Pine-Eastern hemlock forest covers approximately 80% of the project area, outside of the wetlands. The forest canopy of this site is primarily comprised of red oak ranging in size from 6-30" dbh (diameter at breast height). White pine ranging in size from 4-28" dbh is a secondary component of the tree stratum. Occasionally present species include white oak, black cherry, white ash, glossy buckthorn, and gray birch. The sapling stratum is primarily comprised of young red and white oak and white pine. Gray birch is more prominent in this layer and hemlock is present adjacent wetland areas in the western portion of the site. The scrub/shrub layer is minimal in places due to the dense tree canopy, representative species include regenerating oak and white pine, honey suckle, low bush blueberry with partridge berry, tea berry and Canadian mayflower in the herbaceous layer.

<u>Red maple-Shrub-Riverside Swamp</u>
The red maple-shrub-riverside swamp occurs along the banks of Fuller Brook. This is dominated by red maple, yellow birch, highbush blueberry, winterberry, alder, dogwood, and speckled alder in the shrub layer, with cinnamon and sensitive fern, sphagnum moss, swamp dewberry and sedges and grasses. This brook flows along the southern property line of the site.

No vernal pools are on the site.

SOILS AND GEOLOGY
NRCS soil map[s show this area dominated by Hinckley and Windsor, loamy sands. The lower layers contain some gravel. His material is derived from Outwash and is well to excessively drained. No ESHWT was encounter, nor restrictive lay4ers or ledge.

CONSERVATION LANDS
No conservation lands are in the vicinity the parcel.

WILDLIFE TRAVEL CORRIDOR
Wildlife corridors exist along Fuller Brook to and from the river, as well as along the river bank. The site is essentially an island and no significant travel from this parcel to another exists, as there is significant urban development surrounding the site.

Any travel along the brook or river is not to be impacted as no work is proposed in these areas.

THREATENED AND ENDANGERED WILDLIFE AND HABITAT EVALUATION:
NHB21-3044 has checked for records of rare species and exemplary natural communities near the area of the project. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government. No recorded occurrences for sensitive species near this project area were identified.

The onsite habitat of Appalachian Oak-White Pine Forest and stream side wetland and Merrimack River is habitat for the species below, however, little or no impact to the habitat is expected resulting in no threat to jeopardize the continued existence of the species in the area or the destruction or significant modification of critical habitat:

<u>Bald eagle, SC, SGCN</u>
Bald eagles breed in forested areas near bodies of water and winter near open water (i.e. coastal areas, rivers, and lakes with open water). No work is proposed along the Merrimack River or Brook. No impacts to this species are expected.

<u>Alewife. SC, SGCN</u>
The alewife is found in lakes, ponds, freshwater rivers, estuaries, and coastal habitats. As no work is being done near the brook or river, no impact is expected.

<u>American eel, SC, SGCN</u>
American eels may be found in almost any freshwater habitat that can be accessed from the ocean, although they reach their largest sizes and abundance in lakes, ponds, and larger rivers. No work is being done near these habitat types. No impact is expected.

<u>American shad, SC, SGCN</u>
American shad spend most of their lives in the ocean, but they migrate upstream in medium to large sized freshwater rivers to spawn in reaches with moderate current. No work is being done near these habitat types. No impact is expected.

<u>Banded sunfish, SC, SGCN</u>
Banded sunfish prefer stands of submerged aquatic vegetation along the margins of lakes, ponds, and slow flowing rivers. They are often found surprisingly far upstream in beaver ponds and small wetlands in the headwater streams of a watershed. These smaller streams may provide refuge from introduced predators like largemouth bass. Banded sunfish are highly tolerant of acidic water, which gives them a competitive advantage in waters with a pH that drops below 4.5.

<u>Bank swallow, SC, SGCN</u>
Bank Swallows breed in exposed vertical banks along rivers, lakes, and oceans, where regular erosion by currents or wave action results in new substrate continually being exposed. They will also use exposed sand or dirt banks created in sand and gravel quarries and road cuts, and even dirt piles at construction sites. The largest colonies in New Hampshire have historically been on dynamic stretches of higher-order rivers such as the Connecticut, Merrimack, and Saco, and their larger tributaries. Some colonies in

sand pits can also get quite large, although their persistence is often limited by ongoing extraction and nearby human activity. Impacts to this species would be from loss of bank habitat along the river, which is not proposed. No impact to this species is expected.

<u>American woodcock, SGCN</u>
Woodcock require four different habitat types. Clearings are used by males for courtship display. Moist, fertile soils with alder or dense second growth hardwood offer feeding areas. Young, second growth hardwood stands provide nesting and brood rearing habitat. Large fields are needed as night roosting sites. It is important to have all four habitat elements in proximity. With the remaining land along the margins and mostly in the southern area of the site not to be impacted all of these required species will be intact along the margins of the site adjacent to intact forest cover. No impact is expected.

<u>Big Brown Bat SC, SGCN</u>
<u>Silver-haired bat SC, SGCN</u>
<u>Tri-colored bat SE, SGCN</u>
<u>Eastern red bat SC, SGCN</u>
<u>Hoary bat SGCN</u>
<u>Little brown myotis SE, SGCN</u>
Any of the above species of bats could be expected to be present on site based on the mixed age and some mature tree species within the forest canopy. Timing any cutting to the time of year when these species are not on site will minimize impacts.

<u>Purple finch, SGCN</u>
The Purple Finch uses a wide range of forest types, including those of an anthropogenic nature such as orchards, conifer plantations, and suburban yards (Wootton 1996). Densities are probably highest in more northern forest types with significant conifer components. No impacts are expected to this species.

<u>Veery SGCN</u>
The veery is most common in moist hardwood forests. Such sites include mid-successional forests, floodplains, swamps, and mature forests with dense shrub layers. These moist wooded areas are present along Fuller Brook and the River. As this area is not to be encroached upon, impacts will be minimal.

<u>Wood thrush SGCN</u>
The wood thrush uses a wide range of hardwood and mixed forests with mesic soils and well- developed shrub and sub canopy layers. Similar to the Veery, the keeping of any work within the southern portion of the site will limit impacts.

<u>Wood turtle SC, SGCN</u>
This turtle is found in slow-moving streams and channels with sandy bottoms. Extensive use of terrestrial habitats during summer, including floodplains, meadows, woodlands, fields, as well as wetlands. No wetland impacts are proposed as part of the project and significant remaining land will be left along the southern edge to minimize impacts.

Northern leopard frog, SC, SGCN
This frog may be found in slow streams, marshes, bogs, or ponds. During summer most often found in wet meadows or fields associated with river floodplains. In hot weather, may rest in water or burrow under logs and moist vegetation. impacts. Impacts to this species would be from wetland impacts or loss of habitat along the edges of wetlands and streams. No wetland impacts are proposed, and a significant area of open land will remain adjacent to the river and wetlands, with some overland travel. Impacts to this species are not expected.

Eastern towhee, SGCN
These species occur in habitats dominated by shrubs or young trees, sometimes interspersed with mature trees (e.g., pine barrens) or open bare or grassy areas. Typical examples in New Hampshire include regenerating timber harvests, power line rights-of-way, shrubby old fields and edges, and pine barrens. Ample areas of the site are potential habitat for this species with the mixed age forest cover. Impacts would be from the loss of needed habitat. This area is primarily mixed in the Wooded habitat closer to the river and south of the brook. Minimal impact is expected.

Eastern whip-poor-will, SGCN
Eastern Whip-poor-wills inhabit areas of dry soils and open understory, especially in pine and oak woodlands (Cink 2002). They prefer to forage in open areas, such as fields, clearings, regenerating clear cuts, recent burns, and power line rights-of-way (Wilson 2003, Hunt 2013). Dry soil, which contributes to the sparse understory that whip-poor-wills prefer, may also allow for better drainage of the leaf litter where the birds lay their eggs, although definitive data are lacking. In New Hampshire, whip-poor-will records during the Breeding Bird Atlas were all from areas below 1200' elevation (Foss 1994). During a study in the Piscataquog River watershed in 2003, whip-poor-will records were concentrated in the northeastern quarter of the watershed. A preliminary analysis of habitat at points where whip-poor-wills were detected suggests that birds were more likely to occur in areas identified by aerial photography as "dry pine forest," "gravel pit," or "disturbed" (Hunt 2006). Impacts to this species would be from the loss of the open wooded area of the site. Some portion of this will remain along the west and southern areas of the site which will limit impacts to this species.

Scarlet tanager, SGCN
The Scarlet tanager uses a wide range of mature hardwood and mixed forest, especially with oaks. Impacts to this species would be from the loss of habitat through clearing for the project. Some portion of this will remain along the west and southern areas of the site which will limit impacts to this species.

Canada Warbler, SGCN
The Canada Warbler uses a wide range of forest types with well-developed shrub layers, and often wet or even swampy (Reitsma et al. 2010). Examples include red maple/hemlock swamps, regenerating clear cuts, bogs, and dense riparian thickets. No wetland impacts are proposed as part of the project and all wetland buffer as well as

considerable adjacent land is to remain unaltered along the brook and along the southern edge of the site. No impacts to this species are proposed.
proposed on the site. Additionally there will be significant buffers to the wetlands and over all in the areas potentially used by this species. No impacts are expected.

Eastern ribbon snake, SGCN
This snake is found in and near aquatic habitats such as ponds, swamps, bogs, and stream edges. May be found in wet woodlands but seldom stray far from water. Uses brushy areas on the edges of water for concealment. Similar to the northern leopard frog, no impacts are expected.

Eastern hognose snake, SE, SGCN
This snake requires sandy, gravely soils such as open fields, river valleys, pine forests, and upland hillsides. Feeds predominately on toads; therefore needs breeding habitat (e.g., wetlands, vernal pools) for amphibians. As the project is designed, most of the work will occur in the central area of the site and therefore no impacts are expected.

Ruffed grouse SGCN
The Ruffed Grouse uses deciduous and coniferous forests in both upland and wetland settings. Ruffed Grouse are early successional forest specialists. Grouse require four different cover types for drumming, brood rearing, nesting, and wintering. In general, they inhabit brushy, mixed-age woodlands, early successional to mature hardwood and mixed forests, often with aspen and birch as a component. Optimal habitat for Ruffed Grouse includes young (6 to 15-year-old), even-age deciduous stands typically supporting 20-25,000 woody stems/ha (Gullion 1984). These habitats are available to grouse for approximately one decade because stem densities decrease rapidly through natural thinning as succession proceeds (Dessecker and McAuley 2001). Although commonly identified as an "edge" species, Ruffed Grouse association with habitat edges largely reflects their use of various interspersed forest habitats at different times of the year and their use of marginal habitats where quality habitat is lacking. They typically avoid hard-contrast edges (Dessecker and McAuley 2001). Old orchards are an ideal fall habitat in New England (DeGraaf and Yamasaki 2001). Catkin-bearing trees are also an indicator of grouse habitat. They use logs or stone walls for drumming sites and dense cover for protection (Brooks and Birch 1988). Hens and broods prefer areas with a dense understory and open herbaceous ground cover. Grouse nest and feed in hardwood stands and dust themselves in sunny openings. Ruffed Grouse use mature woodlands, especially coniferous forests, during winter. When snow is deep and soft, birds will roost in the snow. Otherwise they will roost on the ground or in trees. The impacts to this species, which would occur from total clearing are not proposed on this site. The project is keeping a portion of the southern area of the site intact, which will limit impacts.

Spotted turtle, ST, SGCN
This turtle is found in wetlands with shallow, permanent water bodies and emergent vegetation. Marshes, vernal pools, wet meadows, swamps, ponds, and slow-moving streams and rivers all provide suitable habitats for spotted turtles. Terrestrial habitat used extensively while searching for suitable nesting sites, traveling among wetland habitats,

and periods of inactivity during high temperatures. No wetlands are proposed for impact and the large open wetland along the south west portion of the is to remain untouched and with a significant buffer. The entire southern portion of the site is to remain uncut and will be kept intact, which will limit any impacts to this species.

Fowler's toad, ST, SGCN
Found in sandy areas such as river valleys, floodplains, lakeshores, and agricultural areas. Also in pine forests, fields, and lawns. Habitat areas used by this species would be along the margins of the site and in areas where no work is proposed. No impact is expected.

Northern black racer, ST, SGCN
Found in a variety of habitats including dry brushy pastures, powerline corridors, rocky ledges, and woodlands. Have large home ranges and require large patches of suitable habitat. The proposed project will have 42-acres of land remaining undisturbed. This will minimize any impacts.

CONSERVATION MEASURES
As part of the project, 30-acres will be undeveloped and this will include the area along Fuller Brook, as well as the Merrimack River.

Erosion Control
Ideal methods for erosion control around the perimeter of the work areas is mulch berms. These are natural and often readily available for development sites. These are easy to install and do not need to be removed once the project is complete. The use of mulch berms does not act as a barrier to wildlife as they are able to easily walk over the berms with no issues. The use of welded plastic or 'biodegradable plastic' netting or thread in erosion control matting should be avoided. There are numerous documented cases of snakes and other wildlife being trapped and killed in erosion control matting with synthetic netting and thread. The use of erosion control berm, white Filtrexx Degradable Woven Silt Sock, or several 'wildlife friendly' options such as woven organic material (e.g. coco or jute matting such as North American Green SC150BN or equivalent) are readily available.

PART 4: Appendices
Resume of qualified wildlife biologist.

LUKE D. HURLEY
CSS, CWS, CESWII,
Vice President
Senior Wetland Scientist, Soil Scientist, Ecologist, and Project Field Coordinator

EXPERIENCE

2001–Present Vice President *Gove Environmental Services, Inc., Exeter, NH*
2000–2001 Environmental/Wetland Scientist, *Acton Survey & Engineering, Acton, MA*
1999–2000 Staff Naturalist, *Massachusetts Audubon Society, Lincoln, MA*
1998–1999 Environmental Inorganic Chemist, *Severn Trent Laboratories, Billerica, MA*

EDUCATION

B.S. in Environmental Biology, University of Massachusetts, 1996. Concentration in Ornithology, Field Ecology & Biology, Entomology, Invertebrate Zoology, Botany, Wetland Ecology and Limnology.

CERTIFICATIONS

Certified Wetland Scientist, State of New Hampshire (*No 232*)
Certified Soil Scientist, State of New Hampshire (*No. 095)*
Certified Erosion, Sediment, and Storm Water Inspector

PROFESSIONAL SOCIETIES

Association of Massachusetts Wetland Scientists (AMWS)
International Erosion Control Association (IECA)
Massachusetts Association of Conservation Commissions (MACC)
New Hampshire Association of Natural Resource Scientists (NHANRS)

PROFESSIONAL EXPERIENCE SYNOPSIS

Luke Hurley has worked in the field of wetland science and ecology since 1999. As a Senior Wetland and Soil Scientist and Ecologist and Project Manager at GES, he is responsible for over-seeing and implementing all phases of large-scale commercial retail and residential development including preliminary land evaluations, permitting and alternatives analysis under all aspects of local, state and federal regulations. Mr. Hurley is also responsible for coordinating and performing field wetland and soil analyses, delineating wetlands, wetland functions and values and project environmental impact assessments, vernal pool certification, wetland mitigation and restoration design and monitoring, wildlife habitat assessments, threatened and endangered species assessments, inventories and permitting documents. He specializes in permitting under the NH DES Wetlands Bureau and NH DES Shoreland Protection Act, as well as the US Army Corps of Engineers and US Environmental Protection Agency, ME DEP Natural Resource Protection, and Massachusetts Wetlands Protection Act, through Notice's of Intent, as well as additional wetland related permitting through Notice of Resource area Delineations (NRAD) and Abbreviated NRAD (ANRAD), Determination of Applicability and represents clients at hearings with local conservation

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commissions and other state and federal agencies. Mr. Hurley has a Bachelor of Science Degree in Environmental Biology from the University of Massachusetts. He is certified as Wetland Scientist and Soil Scientist by the State of New Hampshire.

PROFESSIONAL SPECIALIZATION

New Hampshire Department of Environmental Services

- Dredge and Fill Applications
- Shoreland Protection Act
- Wildlife Habitat Assessments
- Threatened and Endangered Species Assessments

Massachusetts Wetlands Protection Act (MWPA) & Massachusetts Environmental Policy Act (MEPA) Permitting including:

- NOI (Notice of Intent)
- ANOI (Abbreviated Notice of Intent)
- NRAD (Notice of Resource Area Delineation)
- ANRAD (Abbreviated Notice of Resource Area Delineation)
- RDA (Request of the Determination of Applicability)
- Water Quality Certification
- Ecological Impact Assessments
- Critical Habitat Evaluation in Terrestrial
  Aquatic Ecosystems; Wildlife Ecology

Massachusetts Endangered Species Act (MESA) Regulations and Massachusetts Natural Heritage & Endangered Species Program including:

- Priority/Estimated Habitat Certification
- Vernal Pool Assessment and Certification
- Rare, Threatened & Endangered Species Inventories
- Natural Communities & Habitat Classification
- Qualified Biologist for Rare, Threatened and Endangered Species Collection

ME DEP Natural Resource Protection

- Ch 305 Permit by Rule
- Ch 310 Wetlands
- Ch 315 Assessing and Mitigating Impacts to Scenic and Aesthetic Uses
- Ch 335 Significant Wildlife Habitat

Wildlife Habitat Assessments and Threatened & Endangered Species Assessments

Threatened and endangered plant transplant projects for State: threatened sweet goldenrod and yellow star grass.

Extensive Wildlife Habitat Assessments, Environmental Impact Assessments and threatened and endangered species assessments, following protocols set forth by UNH Cooperative Extension and EPA EcoBox.

Typical protocols are based on: *Natural Resource Inventories: A Guide for New Hampshire Communities*. Durham, NH: University of New Hampshire Cooperative Extension. This method is primarily focused on for overall habitat assessment with varying micro habitats to document the existing conditions, as well as directly observed and potential species using that habitat based on desk top analysis and field work.

1.0 Introduction; site location, proposed project, existing conditions, and surrounding area land use, i.e. residential, urban, agriculture
2.0 Water resources; wetlands, vernal pools, lakes/ponds, rivers/streams, aquifers, etc.
3.0 Wildlife and Habitats known and potential species, TE, NHB Habitats
4.0 NRCS and Site-Specific Soils
5.0 Slopes and Rock Outcrops
6.0 Scenic Resources
7.0 Historic and Cultural resources, i.e., stone walls, cellar holes, stone foundations, etc.
8.0 Conservation lands
9.0 Potential threats and conservation measures

Additional protocols are created for individual TE, species, i.e., spotted turtles, Blanding's turtles, wood turtles, hognose snake, black racer, NE Cottontail, woodcock, and vernal pool Assessments. These species-specific assessments focus on individual species and their habitats. These assessments focus on overall habitat, and whether the specific habitat is onsite to support the various needs, for nesting/denning, feeding, and breeding, rearing, and fledging of juveniles. Protocol creation is like the outline through the EPA EcoBox ERA including:

1. Planning and problem formulation
2. Identifying stressors, most often physical through development
3. Identifying receptors of endangered species or critical habitat
4. Identifying potential ecological effects
5. Proposing minimization and/or mitigation of potential impacts

SAMPLE PROJECTS:

2001- Exeter, NH-Wildlife habitat assessment on 62 acres for a proposed commercial retail development. Included documentation of onsite existing conditions of forest habitat cover, existing species occurring on site and potential wildlife species occurring on site. Assessment for TE species was also performed.

2004- Windham, NH-Wildlife habitat assessment on 126 acres for a proposed development. Included documentation of onsite existing conditions of forest habitat cover, existing species occurring on site and potential wildlife species occurring on site. Assessment for TE species was also performed. Specific assessment for Eastern box turtle and Dry- Appalachian Oak-Hickory Forest State of NH Exemplary Community.

2005-Nashua, NH-Wildlife habitat assessment on 50 acres for a proposed commercial retail development. Included documentation of onsite existing conditions of forest habitat cover, existing species occurring on site and potential wildlife species occurring on site. Assessment for TE species was also performed. Specific assessment was done for the bald eagle.

2005-Hooksett, NH-Woodcock habitat assessment and species assessment and management plan for protected land as part of 24.5 acre proposed commercial project.

2006-Pelham, NH-Wildlife habitat assessment on 305 acres as part of a proposed residential subdivision. Documentation was made of existing conditions on site of habitat type and vegetation cover, as well as wildlife species occurring on site and those potentially occurring on site based on habitat type. Specific focus was on the presence of the State listed Blanding's and spotted turtle for occurrence and habitat.

2011-Salem, NH-Wildlife habitat assessment on 70 acres for a proposed residential development. Assessment and assessment were for habitat and cover type, as well as existing and potential wildlife species on site based on the cover type and specific focus was on the swamp white oak flood plain forest and State listed spotted turtle.

2011-Hudson, NH, -Wildlife Habitat and upland community analysis on 290 acres for the presence of dry-Appalachian oak hickory forest and the potential for the State listed New England Cottontail.

2012-North Hampton, NH-Wildlife habitat assessment on 55 acres for a proposed residential development. Assessment and assessment were for habitat and cover type, as well as existing and potential wildlife species on site based on the cover type.

2013-Epping, NH-Wildlife habitat assessment on 198 acres for a proposed development. Focus was on the existing conditions of the site through assessment and documentation of the upland and wetland habitat, as well as existing and potential wildlife species on site.

2013-Newmarket, NH-Wildlife habitat assessment on 105 acres for a proposed development. Focus was on the existing conditions of the site through assessment and documentation of the upland and wetland habitat, and cover type, as well as existing and potential wildlife species on site. Specific attention was paid to the presence of Low-gradient silty-sandy riverbank system and specific species Assessment of State listed Blanding's and spotted turtles.

2014- Newmarket, NH-Wildlife habitat assessment on 25 acres for a proposed development. Focus was on the existing conditions of the site through assessment and documentation of the upland and wetland habitat, and cover type, as well as existing and potential species on site.

2016-Exeter-NH-Wildlife habitat assessment on 62 acres for a proposed development. Focus was on the existing conditions of the site through assessment and documentation of the upland and wetland habitat, and cover type, as well as existing and potential wildlife species on site.

2018-Phillips Exeter Academy, NH-Wildlife habitat assessment on 15 acres for assessment of existing community types and existing and potential wildlife use as part of a management plan and wildlife habitat improvement project.

2018-Alpine habitat survey in Rangeley Maine on a 10 acre portion of alpine land to assess for Bicknell thrush and habitat and specific habitats of Alpine Cliff, Bilberry - Mountain-heath Alpine Snowbank, Cotton-grass - Heath Alpine Bog, Crowberry - Bilberry Summit Bald, Diapensia Alpine Ridge, Dwarf Heath - Graminoid Alpine Ridge, Heath - Lichen Subalpine Slope Bog, Mountain Alder - Bush-honeysuckle Subalpine Meadow, Spruce - Fir - Birch Krummholz

2019- Portsmouth, NH-Wildlife habitat assessment on 66 acres for a proposed development. Focus was on the existing conditions of the site through assessment and documentation of the upland and wetland habitat, and cover type, as well as existing and potential species on site.

2020- York, Maine-Wildlife habitat assessment on 85 acres for a proposed development. Focus was on the existing conditions of the site through assessment and documentation of the upland and wetland habitat, and cover type, as well as existing and potential species on site. Specific assessment was for Blanding's and spotted turtles.

2020-Nottingham, NH-Wildlife habitat assessment 20 acres for a proposed development. Focus was on the existing conditions of the site through assessment and documentation of the upland and wetland habitat, and cover type, as well as existing and potential species on site. Specific assessment was for Blanding's and spotted turtles, Jefferson/Blue Spotted Salamander Complex, and black racer.

SUMMARY OF WILDLIFE ASSESSMENTS:

Mr. Hurley has performed wildlife habitat assessments and threatened and endangered plant Assessments on thousands of acres of land throughout the states of NH, MA, and ME. Additional individual assessments for state listed threatened and endangered plants and habits throughout MA and northern New England. All assessments habitat assessments, or individual plant or animal species were at the request of MA Natural Heritage Program, Vermont Nongame and Natural Heritage Program, New Hampshire Fish and Game and NH Natural Heritage Bureau and various local land use boards as part of the project review and conducted per the above two protocols.

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

GROUNDWATER RECHARGE VOLULME (GRV) CALCULATION
(Env-Wq 1507.04)

25.83	ac	Area of HSG A soil that was replaced by impervious cover	0.40"
	ac	Area of HSG B soil that was replaced by impervious cover	0.25"
	ac	Area of HSG C soil that was replaced by impervious cover	0.10"
	ac	Area of HSG D soil or impervious cover that was replaced by impervious cover	0.0"
0.40	inches	Rd = Weighted groundwater recharge depth	
10.332	ac-in	GRV = AI * Rd	
37,505	cf	GRV conversion (ac-in x 43,560 sf/ac x 1ft/12”)	

Provide calculations below showing that the project meets the groundwater recharge requirements (Env-Wq 1507.04):

NEW HAMPSHIRE DEPARTMENT OF **Environmental Services**

INFILTRATION PRACTICE CRITERIA (Env-Wq 1508.06)

Type/Node Name: **Infiltration Pond -PC**

Enter the type of infiltration practice (e.g., basin, trench) and the node name in the drainage analysis, if applicable.

		Have you reviewed Env-Wq 1508.06(a) to ensure that infiltration is allowed?	← yes
15.74	ac	A = Area draining to the practice	
12.87	ac	A_I = Impervious area draining to the practice	
0.82	decimal	I = Percent impervious area draining to the practice, in decimal form	
0.79	unitless	Rv = Runoff coefficient = 0.05 + (0.9 x I)	
12.37	ac-in	WQV= 1” x Rv x A	
44,903	cf	WQV conversion (ac-in x 43,560 sf/ac x 1ft/12”)	
11,226	cf	25% x WQV (check calc for sediment forebay volume)	
Sediment Forebay		Method of pretreatment? (not required for clean or roof runoff)	
8,000	cf	V_{SED} = Sediment forebay volume, if used for pretreatment	≥ 25%WQV
187,896	cf	V = Volume[1] (attach a stage-storage table)	≥ WQV
23,000	sf	A_{SA} = Surface area of the bottom of the pond	
3.00	iph	$Ksat_{DESIGN}$ = Design infiltration rate[2]	
7.8	hours	T_{DRAIN} = Drain time = V / (A_{SA} * I_{DESIGN})	< 72-hrs
144.00	feet	E_{BTM} = Elevation of the bottom of the basin	
140.00	feet	E_{SHWT} = Elevation of SHWT (if none found, enter the lowest elevation of the test pit)	
136.00	feet	E_{ROCK} = Elevation of bedrock (if none found, enter the lowest elevation of the test pit)	
4.00	feet	D_{SHWT} = Separation from SHWT	≥ *[3]
8.0	feet	D_{ROCK} = Separation from bedrock	≥ *[3]
2.0	ft	D_{amend} = Depth of amended soil, if applicable due high infiltation rate	≥ 24"
	ft	D_T = Depth of trench, if trench proposed	4 - 10 ft
No	Yes/No	If a trench or underground system is proposed, has observation well been provided?	←yes
		If a trench is proposed, does materialmeet Env-Wq 1508.06(k)(2) requirements.[4]	← yes
Yes	Yes/No	If a basin is proposed, Is the perimeter curvilinear, and basin floor flat?	← yes
3.0	:1	If a basin is proposed, pond side slopes.	≥3:1
147.18	ft	Peak elevation of the 10-year storm event (infiltration can be used in analysis)	
149.23	ft	Peak elevation of the 50-year storm event (infiltration can be used in analysis)	
150.50	ft	Elevation of the top of the practice (if a basin, this is the elevation of the berm)	
YES		10 peak elevation ≤ Elevation of the top of the trench?[5]	← yes
YES		If a basin is proposed, 50-year peak elevation ≤ Elevation of berm?	← yes

1. Volume below the lowest invert of the outlet structure and excludes forebay volume
2. $Ksat_{DESIGN}$ includes a factor of safety. See Env-Wq 1504.14 for requirements for determining the infiltr. rate
3. 1' separation if treatment not required; 4' for treatment in GPAs & WSIPAs; & 3' in all other areas.
4. Clean, washed well graded diameter of 1.5 to 3 inches above the in-situ soil.
5. If 50-year peak elevation exceeds top of trench, the overflow must be routed in HydroCAD as secondary discharge.

Designer's Notes: The forebay has been checked for the required WQV:

Forebay (FC1): 9.90 ac. Inflow area, 7.07 ac. Impervious inflow area.

WQV = 24,895 CF, 25% WQV = 6,224 CF, Forebay FC1 area = 8,000 CF (Complies)

Summary for Pond PC: POND C

Inflow Area = 685,779 sf, 81.72% Impervious, Inflow Depth > 5.32" for 50-YR event
Inflow = 85.88 cfs @ 12.09 hrs, Volume= 303,934 cf
Outflow = 2.90 cfs @ 15.68 hrs, Volume= 166,598 cf, Atten= 97%, Lag= 215.5 min
Discarded = 2.90 cfs @ 15.68 hrs, Volume= 166,598 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= 149.29' @ 15.68 hrs Surf.Area= 41,322 sf Storage= 179,257 cf
Flood Elev= 150.50' Surf.Area= 45,600 sf Storage= 231,359 cf

Plug-Flow detention time= 280.3 min calculated for 166,598 cf (55% of inflow)
Center-of-Mass det. time= 162.1 min (922.3 - 760.2)

Volume	Invert	Avail.Storage	Storage Description
#1	144.00'	231,359 cf	**Custom Stage Data (Conic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
144.00	23,000	0	0	23,000
146.00	33,700	56,360	56,360	33,766
148.00	38,000	71,657	128,017	38,270
150.00	43,200	81,144	209,162	43,663
150.50	45,600	22,197	231,359	46,092

Device	Routing	Invert	Outlet Devices
#1	Discarded	144.00'	**3.000 in/hr Exfiltration over Wetted area** Phase-In= 0.01'
#2	Primary	146.50'	**24.0" Round Culvert** L= 36.0' Ke= 0.500 Inlet / Outlet Invert= 146.50' / 144.34' S= 0.0600 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#3	Device 2	149.50'	**36.0" x 48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=2.90 cfs @ 15.68 hrs HW=149.29' (Free Discharge)
└─**1=Exfiltration** (Exfiltration Controls 2.90 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)

Stage-Area-Storage for Pond PC: POND C

Elevation (feet)	Surface (sq-ft)	Wetted (sq-ft)	Storage (cubic-feet)
144.00	23,000	23,000	0
144.02	23,097	23,098	461
144.04	23,194	23,195	924
144.06	23,291	23,293	1,389
144.08	23,389	23,391	1,856
144.10	23,487	23,490	2,324
144.12	23,585	23,588	2,795
144.14	23,683	23,687	3,268
144.16	23,781	23,786	3,742
144.18	23,880	23,885	4,219
144.20	23,978	23,984	4,697
144.22	24,077	24,084	5,178
144.24	24,176	24,184	5,661
144.26	24,276	24,284	6,145
144.28	24,375	24,384	6,632
144.30	24,475	24,484	7,120
144.32	24,575	24,585	7,611
144.34	24,675	24,686	8,103
144.36	24,776	24,787	8,598
144.38	24,876	24,888	9,094
144.40	24,977	24,989	9,593
144.42	25,078	25,091	10,093
144.44	25,179	25,193	10,596
144.46	25,281	25,295	11,100
144.48	25,382	25,397	11,607
144.50	25,484	25,499	12,116
144.52	25,586	25,602	12,626
144.54	25,688	25,705	13,139
144.56	25,791	25,808	13,654
144.58	25,893	25,911	14,171
144.60	25,996	26,014	14,690
144.62	26,099	26,118	15,211
144.64	26,202	26,222	15,734
144.66	26,306	26,326	16,259
144.68	26,409	26,430	16,786
144.70	26,513	26,535	17,315
144.72	26,617	26,640	17,846
144.74	26,722	26,744	18,380
144.76	26,826	26,850	18,915
144.78	26,931	26,955	19,453
144.80	27,035	27,060	19,992
144.82	27,141	27,166	20,534
144.84	27,246	27,272	21,078
144.86	27,351	27,378	21,624
144.88	27,457	27,484	22,172
144.90	27,563	27,591	22,722
144.92	27,669	27,698	23,275
144.94	27,775	27,805	23,829
144.96	27,882	27,912	24,386
144.98	27,988	28,019	24,944
145.00	28,095	28,127	25,505
145.02	28,202	28,234	26,068
145.04	28,310	28,342	26,633

Stage-Area-Storage for Pond PC: POND C (continued)

Elevation (feet)	Surface (sq-ft)	Wetted (sq-ft)	Storage (cubic-feet)
145.06	28,417	28,451	27,201
145.08	28,525	28,559	27,770
145.10	28,633	28,667	28,342
145.12	28,741	28,776	28,915
145.14	28,849	28,885	29,491
145.16	28,958	28,994	30,069
145.18	29,067	29,104	30,650
145.20	29,175	29,213	31,232
145.22	29,285	29,323	31,817
145.24	29,394	29,433	32,403
145.26	29,504	29,544	32,992
145.28	29,613	29,654	33,583
145.30	29,723	29,765	34,177
145.32	29,833	29,875	34,772
145.34	29,944	29,986	35,370
145.36	30,054	30,098	35,970
145.38	30,165	30,209	36,572
145.40	30,276	30,321	37,177
145.42	30,387	30,433	37,783
145.44	30,499	30,545	38,392
145.46	30,610	30,657	39,003
145.48	30,722	30,769	39,617
145.50	30,834	30,882	40,232
145.52	30,946	30,995	40,850
145.54	31,059	31,108	41,470
145.56	31,171	31,221	42,092
145.58	31,284	31,335	42,717
145.60	31,397	31,449	43,344
145.62	31,510	31,563	43,973
145.64	31,624	31,677	44,604
145.66	31,737	31,791	45,238
145.68	31,851	31,905	45,874
145.70	31,965	32,020	46,512
145.72	32,079	32,135	47,152
145.74	32,194	32,250	47,795
145.76	32,308	32,366	48,440
145.78	32,423	32,481	49,087
145.80	32,538	32,597	49,737
145.82	32,654	32,713	50,389
145.84	32,769	32,829	51,043
145.86	32,885	32,945	51,700
145.88	33,001	33,062	52,358
145.90	33,117	33,179	53,020
145.92	33,233	33,296	53,683
145.94	33,349	33,413	54,349
145.96	33,466	33,530	55,017
145.98	33,583	33,648	55,688
146.00	33,700	33,766	56,360
146.02	33,742	33,809	57,035
146.04	33,783	33,853	57,710
146.06	33,825	33,897	58,386
146.08	33,867	33,941	59,063
146.10	33,909	33,985	59,741

Stage-Area-Storage for Pond PC: POND C (continued)

Elevation (feet)	Surface (sq-ft)	Wetted (sq-ft)	Storage (cubic-feet)
146.12	33,951	34,028	60,419
146.14	33,993	34,072	61,099
146.16	34,035	34,116	61,779
146.18	34,076	34,160	62,460
146.20	34,118	34,204	63,142
146.22	34,160	34,248	63,825
146.24	34,202	34,292	64,509
146.26	34,244	34,336	65,193
146.28	34,286	34,380	65,878
146.30	34,329	34,424	66,565
146.32	34,371	34,468	67,252
146.34	34,413	34,512	67,939
146.36	34,455	34,557	68,628
146.38	34,497	34,601	69,318
146.40	34,539	34,645	70,008
146.42	34,582	34,689	70,699
146.44	34,624	34,734	71,391
146.46	34,666	34,778	72,084
146.48	34,708	34,822	72,778
146.50	34,751	34,867	73,472
146.52	34,793	34,911	74,168
146.54	34,836	34,955	74,864
146.56	34,878	35,000	75,561
146.58	34,920	35,044	76,259
146.60	34,963	35,089	76,958
146.62	35,005	35,133	77,658
146.64	35,048	35,178	78,358
146.66	35,090	35,222	79,060
146.68	35,133	35,267	79,762
146.70	35,176	35,312	80,465
146.72	35,218	35,356	81,169
146.74	35,261	35,401	81,874
146.76	35,304	35,446	82,579
146.78	35,346	35,490	83,286
146.80	35,389	35,535	83,993
146.82	35,432	35,580	84,701
146.84	35,475	35,625	85,411
146.86	35,517	35,670	86,120
146.88	35,560	35,714	86,831
146.90	35,603	35,759	87,543
146.92	35,646	35,804	88,255
146.94	35,689	35,849	88,969
146.96	35,732	35,894	89,683
146.98	35,775	35,939	90,398
147.00	35,818	35,984	91,114
147.02	35,861	36,029	91,831
147.04	35,904	36,074	92,548
147.06	35,947	36,119	93,267
147.08	35,990	36,165	93,986
147.10	36,033	36,210	94,706
147.12	36,076	36,255	95,428
147.14	36,119	36,300	96,149
147.16	36,163	36,345	96,872

Stage-Area-Storage for Pond PC: POND C (continued)

Elevation (feet)	Surface (sq-ft)	Wetted (sq-ft)	Storage (cubic-feet)
147.18	36,206	36,391	97,596
147.20	36,249	36,436	98,321
147.22	36,292	36,481	99,046
147.24	36,336	36,527	99,772
147.26	36,379	36,572	100,499
147.28	36,422	36,618	101,227
147.30	36,466	36,663	101,956
147.32	36,509	36,708	102,686
147.34	36,552	36,754	103,417
147.36	36,596	36,799	104,148
147.38	36,639	36,845	104,880
147.40	36,683	36,891	105,614
147.42	36,726	36,936	106,348
147.44	36,770	36,982	107,083
147.46	36,814	37,027	107,819
147.48	36,857	37,073	108,555
147.50	36,901	37,119	109,293
147.52	36,944	37,165	110,031
147.54	36,988	37,210	110,771
147.56	37,032	37,256	111,511
147.58	37,076	37,302	112,252
147.60	37,119	37,348	112,994
147.62	37,163	37,394	113,737
147.64	37,207	37,440	114,480
147.66	37,251	37,485	115,225
147.68	37,295	37,531	115,970
147.70	37,339	37,577	116,717
147.72	37,382	37,623	117,464
147.74	37,426	37,669	118,212
147.76	37,470	37,715	118,961
147.78	37,514	37,762	119,711
147.80	37,558	37,808	120,462
147.82	37,602	37,854	121,213
147.84	37,647	37,900	121,966
147.86	37,691	37,946	122,719
147.88	37,735	37,992	123,473
147.90	37,779	38,039	124,228
147.92	37,823	38,085	124,984
147.94	37,867	38,131	125,741
147.96	37,911	38,178	126,499
147.98	37,956	38,224	127,258
148.00	38,000	38,270	128,017
148.02	38,050	38,322	128,778
148.04	38,101	38,375	129,539
148.06	38,151	38,427	130,302
148.08	38,202	38,479	131,065
148.10	38,252	38,532	131,830
148.12	38,303	38,584	132,596
148.14	38,353	38,636	133,362
148.16	38,404	38,689	134,130
148.18	38,454	38,741	134,898
148.20	38,505	38,794	135,668
148.22	38,556	38,847	136,438

Stage-Area-Storage for Pond PC: POND C (continued)

Elevation (feet)	Surface (sq-ft)	Wetted (sq-ft)	Storage (cubic-feet)
148.24	38,606	38,899	137,210
148.26	38,657	38,952	137,983
148.28	38,708	39,004	138,756
148.30	38,759	39,057	139,531
148.32	38,810	39,110	140,307
148.34	38,860	39,163	141,083
148.36	38,911	39,215	141,861
148.38	38,962	39,268	142,640
148.40	39,013	39,321	143,420
148.42	39,064	39,374	144,200
148.44	39,115	39,427	144,982
148.46	39,166	39,480	145,765
148.48	39,218	39,533	146,549
148.50	39,269	39,586	147,334
148.52	39,320	39,639	148,120
148.54	39,371	39,692	148,907
148.56	39,422	39,745	149,694
148.58	39,474	39,799	150,483
148.60	39,525	39,852	151,273
148.62	39,576	39,905	152,064
148.64	39,628	39,958	152,856
148.66	39,679	40,012	153,650
148.68	39,731	40,065	154,444
148.70	39,782	40,118	155,239
148.72	39,834	40,172	156,035
148.74	39,885	40,225	156,832
148.76	39,937	40,279	157,630
148.78	39,988	40,332	158,430
148.80	40,040	40,386	159,230
148.82	40,092	40,439	160,031
148.84	40,143	40,493	160,834
148.86	40,195	40,547	161,637
148.88	40,247	40,600	162,441
148.90	40,299	40,654	163,247
148.92	40,351	40,708	164,053
148.94	40,402	40,762	164,861
148.96	40,454	40,816	165,669
148.98	40,506	40,869	166,479
149.00	40,558	40,923	167,290
149.02	40,610	40,977	168,101
149.04	40,662	41,031	168,914
149.06	40,714	41,085	169,728
149.08	40,767	41,139	170,543
149.10	40,819	41,193	171,358
149.12	40,871	41,247	172,175
149.14	40,923	41,302	172,993
149.16	40,975	41,356	173,812
149.18	41,028	41,410	174,632
149.20	41,080	41,464	175,453
149.22	41,132	41,519	176,276
149.24	41,185	41,573	177,099
149.26	41,237	41,627	177,923
149.28	41,290	41,682	178,748

Stage-Area-Storage for Pond PC: POND C (continued)

Elevation (feet)	Surface (sq-ft)	Wetted (sq-ft)	Storage (cubic-feet)
149.30	41,342	41,736	179,574
149.32	41,395	41,791	180,402
149.34	41,447	41,845	181,230
149.36	41,500	41,900	182,060
149.38	41,552	41,954	182,890
149.40	41,605	42,009	183,722
149.42	41,658	42,063	184,554
149.44	41,710	42,118	185,388
149.46	41,763	42,173	186,223
149.48	41,816	42,227	187,059
149.50	41,869	42,282	187,896
149.52	41,922	42,337	188,733
149.54	41,974	42,392	189,572
149.56	42,027	42,447	190,412
149.58	42,080	42,502	191,253
149.60	42,133	42,557	192,096
149.62	42,186	42,612	192,939
149.64	42,239	42,667	193,783
149.66	42,292	42,722	194,628
149.68	42,346	42,777	195,475
149.70	42,399	42,832	196,322
149.72	42,452	42,887	197,171
149.74	42,505	42,942	198,020
149.76	42,558	42,997	198,871
149.78	42,612	43,053	199,723
149.80	42,665	43,108	200,575
149.82	42,718	43,163	201,429
149.84	42,772	43,219	202,284
149.86	42,825	43,274	203,140
149.88	42,879	43,329	203,997
149.90	42,932	43,385	204,855
149.92	42,986	43,440	205,714
149.94	43,039	43,496	206,575
149.96	43,093	43,552	207,436
149.98	43,146	43,607	208,298
150.00	43,200	43,663	209,162
150.02	43,295	43,759	210,027
150.04	43,390	43,855	210,894
150.06	43,485	43,951	211,762
150.08	43,580	44,047	212,633
150.10	43,675	44,143	213,506
150.12	43,770	44,240	214,380
150.14	43,865	44,336	215,256
150.16	43,961	44,433	216,135
150.18	44,057	44,530	217,015
150.20	44,152	44,626	217,897
150.22	44,248	44,723	218,781
150.24	44,344	44,820	219,667
150.26	44,440	44,918	220,555
150.28	44,536	45,015	221,444
150.30	44,632	45,112	222,336
150.32	44,729	45,210	223,230
150.34	44,825	45,307	224,125

Stage-Area-Storage for Pond PC: POND C (continued)

Elevation (feet)	Surface (sq-ft)	Wetted (sq-ft)	Storage (cubic-feet)
150.36	44,921	45,405	225,023
150.38	45,018	45,503	225,922
150.40	45,115	45,601	226,823
150.42	45,212	45,699	227,727
150.44	45,309	45,797	228,632
150.46	45,406	45,895	229,539
150.48	45,503	45,993	230,448
150.50	**45,600**	**46,092**	**231,359**

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

INFILTRATION PRACTICE CRITERIA
(Env-Wq 1508.06)

Type/Node Name: **Infiltration Pond -PD**

Enter the type of infiltration practice (e.g., basin, trench) and the node name in the drainage analysis, if applicable.

Value	Unit	Description	Criteria
		Have you reviewed Env-Wq 1508.06(a) to ensure that infiltration is allowed?	← yes
23.13	ac	A = Area draining to the practice	
13.17	ac	A_I = Impervious area draining to the practice	
0.57	decimal	I = Percent impervious area draining to the practice, in decimal form	
0.56	unitless	Rv = Runoff coefficient = 0.05 + (0.9 x I)	
13.01	ac-in	WQV= 1" x Rv x A	
47,224	cf	WQV conversion (ac-in x 43,560 sf/ac x 1ft/12")	
11,806	cf	25% x WQV (check calc for sediment forebay volume)	
Sediment Forebay		Method of pretreatment? (not required for clean or roof runoff)	
3,250	cf	V_{SED} = Sediment forebay volume, if used for pretreatment	≥ 25%WQV
220,765	cf	V = Volume[1] (attach a stage-storage table)	≥ WQV
20,000	sf	A_{SA} = Surface area of the bottom of the pond	
3.00	iph	$Ksat_{DESIGN}$ = Design infiltration rate[2]	
9.4	hours	T_{DRAIN} = Drain time = V / (A_{SA} * I_{DESIGN})	≤ 72-hrs
142.00	feet	E_{BTM} = Elevation of the bottom of the basin	
137.00	feet	E_{SHWT} = Elevation of SHWT (if none found, enter the lowest elevation of the test pit)	
135.00	feet	E_{ROCK} = Elevation of bedrock (if none found, enter the lowest elevation of the test pit)	
5.00	feet	D_{SHWT} = Separation from SHWT	≥ *[3]
7.0	feet	D_{ROCK} = Separation from bedrock	≥ *[3]
2.0	ft	D_{amend} = Depth of amended soil, if applicable due high infiltation rate	≥ 24"
	ft	D_T = Depth of trench, if trench proposed	4 - 10 ft
No	Yes/No	If a trench or underground system is proposed, has observation well been provided?	←yes
		If a trench is proposed, does materialmeet Env-Wq 1508.06(k)(2) requirements.[4]	← yes
Yes	Yes/No	If a basin is proposed, Is the perimeter curvilinear, and basin floor flat?	← yes
3.0	:1	If a basin is proposed, pond side slopes.	≥3:1
146.48	ft	Peak elevation of the 10-year storm event (infiltration can be used in analysis)	
149.23	ft	Peak elevation of the 50-year storm event (infiltration can be used in analysis)	
150.50	ft	Elevation of the top of the practice (if a basin, this is the elevation of the berm)	
YES		10 peak elevation ≤ Elevation of the top of the trench?[5]	← yes
YES		If a basin is proposed, 50-year peak elevation ≤ Elevation of berm?	← yes

1. Volume below the lowest invert of the outlet structure and excludes forebay volume
2. $Ksat_{DESIGN}$ includes a factor of safety. See Env-Wq 1504.14 for requirements for determining the infiltr. rate
3. 1' separation if treatment not required; 4' for treatment in GPAs & WSIPAs; & 3' in all other areas.
4. Clean, washed well graded diameter of 1.5 to 3 inches above the in-situ soil.
5. If 50-year peak elevation exceeds top of trench, the overflow must be routed in HydroCAD as secondary discharge.

Designer's Notes: The forebay has been checked for the required WQV:

Forebay (FD1): 3.61 ac. Inflow area, 1.55 ac. Impervious inflow area.

WQV = 5,719 CF, 25% WQV = 1,430 CF, Forebay FC1 area = 3,250 CF (Complies)

Summary for Pond PD: POND D

Inflow Area = 1,007,497 sf, 56.93% Impervious, Inflow Depth > 3.70" for 50-YR event
Inflow = 33.71 cfs @ 12.12 hrs, Volume= 310,269 cf
Outflow = 2.61 cfs @ 16.64 hrs, Volume= 144,640 cf, Atten= 92%, Lag= 271.3 min
Discarded = 2.61 cfs @ 16.64 hrs, Volume= 144,640 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= 148.78' @ 16.64 hrs Surf.Area= 37,010 sf Storage= 193,639 cf
Flood Elev= 150.50' Surf.Area= 40,900 sf Storage= 260,517 cf

Plug-Flow detention time= 286.5 min calculated for 144,340 cf (47% of inflow)
Center-of-Mass det. time= 149.9 min (942.7 - 792.8)

Volume	Invert	Avail.Storage	Storage Description
#1	142.00'	260,517 cf	**Custom Stage Data (Conic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
142.00	20,200	0	0	20,200
144.00	24,000	44,145	44,145	24,143
146.00	31,050	54,899	99,044	31,290
148.00	35,300	66,305	165,349	35,732
150.00	39,750	75,006	240,355	40,389
150.50	40,900	20,162	260,517	41,593

Device	Routing	Invert	Outlet Devices
#1	Discarded	142.00'	**3.000 in/hr Exfiltration over Wetted area** Phase-In= 0.01'
#2	Primary	146.50'	**24.0" Round Culvert** L= 122.0' Ke= 0.500 Inlet / Outlet Invert= 146.50' / 144.67' S= 0.0150 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#3	Device 2	149.50'	**36.0" x 48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=2.61 cfs @ 16.64 hrs HW=148.78' (Free Discharge)
└─**1=Exfiltration** (Exfiltration Controls 2.61 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)

Stage-Area-Storage for Pond PD: POND D

Elevation (feet)	Surface (sq-ft)	Wetted (sq-ft)	Storage (cubic-feet)
142.00	20,200	20,200	0
142.02	20,236	20,238	404
142.04	20,273	20,276	809
142.06	20,309	20,313	1,215
142.08	20,346	20,351	1,622
142.10	20,382	20,389	2,029
142.12	20,419	20,427	2,437
142.14	20,455	20,465	2,846
142.16	20,492	20,503	3,255
142.18	20,529	20,541	3,666
142.20	20,565	20,579	4,076
142.22	20,602	20,617	4,488
142.24	20,639	20,655	4,901
142.26	20,675	20,693	5,314
142.28	20,712	20,732	5,728
142.30	20,749	20,770	6,142
142.32	20,786	20,808	6,558
142.34	20,823	20,846	6,974
142.36	20,860	20,885	7,390
142.38	20,897	20,923	7,808
142.40	20,934	20,961	8,226
142.42	20,971	21,000	8,645
142.44	21,008	21,038	9,065
142.46	21,045	21,077	9,486
142.48	21,082	21,115	9,907
142.50	21,119	21,154	10,329
142.52	21,157	21,193	10,752
142.54	21,194	21,231	11,175
142.56	21,231	21,270	11,599
142.58	21,268	21,309	12,024
142.60	21,306	21,347	12,450
142.62	21,343	21,386	12,877
142.64	21,380	21,425	13,304
142.66	21,418	21,464	13,732
142.68	21,455	21,503	14,161
142.70	21,493	21,541	14,590
142.72	21,530	21,580	15,020
142.74	21,568	21,619	15,451
142.76	21,605	21,658	15,883
142.78	21,643	21,697	16,316
142.80	21,681	21,737	16,749
142.82	21,718	21,776	17,183
142.84	21,756	21,815	17,618
142.86	21,794	21,854	18,053
142.88	21,832	21,893	18,489
142.90	21,869	21,932	18,926
142.92	21,907	21,972	19,364
142.94	21,945	22,011	19,803
142.96	21,983	22,050	20,242
142.98	22,021	22,090	20,682
143.00	22,059	22,129	21,123
143.02	22,097	22,169	21,564
143.04	22,135	22,208	22,007

Stage-Area-Storage for Pond PD: POND D (continued)

Elevation (feet)	Surface (sq-ft)	Wetted (sq-ft)	Storage (cubic-feet)
143.06	22,173	22,248	22,450
143.08	22,211	22,287	22,894
143.10	22,249	22,327	23,338
143.12	22,288	22,366	23,784
143.14	22,326	22,406	24,230
143.16	22,364	22,446	24,677
143.18	22,402	22,485	25,124
143.20	22,441	22,525	25,573
143.22	22,479	22,565	26,022
143.24	22,517	22,605	26,472
143.26	22,556	22,645	26,923
143.28	22,594	22,685	27,374
143.30	22,633	22,724	27,826
143.32	22,671	22,764	28,279
143.34	22,710	22,804	28,733
143.36	22,748	22,844	29,188
143.38	22,787	22,884	29,643
143.40	22,826	22,925	30,099
143.42	22,864	22,965	30,556
143.44	22,903	23,005	31,014
143.46	22,942	23,045	31,472
143.48	22,981	23,085	31,931
143.50	23,019	23,126	32,391
143.52	23,058	23,166	32,852
143.54	23,097	23,206	33,314
143.56	23,136	23,247	33,776
143.58	23,175	23,287	34,239
143.60	23,214	23,327	34,703
143.62	23,253	23,368	35,168
143.64	23,292	23,408	35,633
143.66	23,331	23,449	36,099
143.68	23,370	23,489	36,566
143.70	23,409	23,530	37,034
143.72	23,448	23,571	37,503
143.74	23,487	23,611	37,972
143.76	23,527	23,652	38,442
143.78	23,566	23,693	38,913
143.80	23,605	23,734	39,385
143.82	23,645	23,774	39,857
143.84	23,684	23,815	40,331
143.86	23,723	23,856	40,805
143.88	23,763	23,897	41,280
143.90	23,802	23,938	41,755
143.92	23,842	23,979	42,232
143.94	23,881	24,020	42,709
143.96	23,921	24,061	43,187
143.98	23,960	24,102	43,666
144.00	24,000	24,143	44,145
144.02	24,066	24,210	44,626
144.04	24,132	24,277	45,108
144.06	24,198	24,344	45,591
144.08	24,265	24,411	46,076
144.10	24,331	24,479	46,562

Stage-Area-Storage for Pond PD: POND D (continued)

Elevation (feet)	Surface (sq-ft)	Wetted (sq-ft)	Storage (cubic-feet)
144.12	24,397	24,546	47,049
144.14	24,464	24,614	47,538
144.16	24,531	24,681	48,028
144.18	24,597	24,749	48,519
144.20	24,664	24,817	49,012
144.22	24,731	24,884	49,506
144.24	24,798	24,952	50,001
144.26	24,865	25,020	50,498
144.28	24,932	25,088	50,996
144.30	25,000	25,157	51,495
144.32	25,067	25,225	51,996
144.34	25,135	25,293	52,498
144.36	25,202	25,362	53,001
144.38	25,270	25,430	53,506
144.40	25,337	25,499	54,012
144.42	25,405	25,568	54,519
144.44	25,473	25,637	55,028
144.46	25,541	25,706	55,538
144.48	25,609	25,775	56,050
144.50	25,678	25,844	56,562
144.52	25,746	25,913	57,077
144.54	25,814	25,982	57,592
144.56	25,883	26,052	58,109
144.58	25,951	26,121	58,628
144.60	26,020	26,191	59,147
144.62	26,089	26,260	59,668
144.64	26,157	26,330	60,191
144.66	26,226	26,400	60,715
144.68	26,295	26,470	61,240
144.70	26,364	26,540	61,767
144.72	26,434	26,610	62,294
144.74	26,503	26,680	62,824
144.76	26,572	26,751	63,355
144.78	26,642	26,821	63,887
144.80	26,711	26,892	64,420
144.82	26,781	26,962	64,955
144.84	26,851	27,033	65,491
144.86	26,920	27,104	66,029
144.88	26,990	27,175	66,568
144.90	27,060	27,246	67,109
144.92	27,130	27,317	67,651
144.94	27,201	27,388	68,194
144.96	27,271	27,459	68,739
144.98	27,341	27,530	69,285
145.00	27,412	27,602	69,832
145.02	27,482	27,673	70,381
145.04	27,553	27,745	70,932
145.06	27,624	27,817	71,483
145.08	27,694	27,888	72,037
145.10	27,765	27,960	72,591
145.12	27,836	28,032	73,147
145.14	27,907	28,104	73,705
145.16	27,979	28,177	74,264

Stage-Area-Storage for Pond PD: POND D (continued)

Elevation (feet)	Surface (sq-ft)	Wetted (sq-ft)	Storage (cubic-feet)
145.18	28,050	28,249	74,824
145.20	28,121	28,321	75,386
145.22	28,193	28,394	75,949
145.24	28,264	28,466	76,513
145.26	28,336	28,539	77,079
145.28	28,408	28,611	77,647
145.30	28,479	28,684	78,216
145.32	28,551	28,757	78,786
145.34	28,623	28,830	79,358
145.36	28,695	28,903	79,931
145.38	28,768	28,976	80,505
145.40	28,840	29,050	81,081
145.42	28,912	29,123	81,659
145.44	28,985	29,196	82,238
145.46	29,057	29,270	82,818
145.48	29,130	29,344	83,400
145.50	29,203	29,417	83,984
145.52	29,275	29,491	84,568
145.54	29,348	29,565	85,155
145.56	29,421	29,639	85,742
145.58	29,494	29,713	86,331
145.60	29,567	29,787	86,922
145.62	29,641	29,862	87,514
145.64	29,714	29,936	88,108
145.66	29,788	30,010	88,703
145.68	29,861	30,085	89,299
145.70	29,935	30,160	89,897
145.72	30,008	30,234	90,497
145.74	30,082	30,309	91,097
145.76	30,156	30,384	91,700
145.78	30,230	30,459	92,304
145.80	30,304	30,534	92,909
145.82	30,378	30,609	93,516
145.84	30,453	30,685	94,124
145.86	30,527	30,760	94,734
145.88	30,601	30,836	95,345
145.90	30,676	30,911	95,958
145.92	30,751	30,987	96,572
145.94	30,825	31,062	97,188
145.96	30,900	31,138	97,805
145.98	30,975	31,214	98,424
146.00	31,050	31,290	99,044
146.02	31,091	31,333	99,666
146.04	31,132	31,376	100,288
146.06	31,174	31,419	100,911
146.08	31,215	31,462	101,535
146.10	31,256	31,506	102,160
146.12	31,297	31,549	102,785
146.14	31,339	31,592	103,412
146.16	31,380	31,635	104,039
146.18	31,421	31,678	104,667
146.20	31,463	31,722	105,296
146.22	31,504	31,765	105,925

Stage-Area-Storage for Pond PD: POND D (continued)

Elevation (feet)	Surface (sq-ft)	Wetted (sq-ft)	Storage (cubic-feet)
146.24	31,546	31,808	106,556
146.26	31,587	31,852	107,187
146.28	31,629	31,895	107,819
146.30	31,670	31,938	108,452
146.32	31,712	31,982	109,086
146.34	31,753	32,025	109,721
146.36	31,795	32,069	110,356
146.38	31,837	32,112	110,992
146.40	31,878	32,156	111,630
146.42	31,920	32,199	112,268
146.44	31,962	32,243	112,906
146.46	32,003	32,287	113,546
146.48	32,045	32,330	114,187
146.50	32,087	32,374	114,828
146.52	32,129	32,418	115,470
146.54	32,171	32,461	116,113
146.56	32,213	32,505	116,757
146.58	32,254	32,549	117,402
146.60	32,296	32,593	118,047
146.62	32,338	32,637	118,693
146.64	32,380	32,681	119,341
146.66	32,422	32,725	119,989
146.68	32,464	32,768	120,637
146.70	32,507	32,812	121,287
146.72	32,549	32,856	121,938
146.74	32,591	32,900	122,589
146.76	32,633	32,945	123,241
146.78	32,675	32,989	123,894
146.80	32,717	33,033	124,548
146.82	32,760	33,077	125,203
146.84	32,802	33,121	125,859
146.86	32,844	33,165	126,515
146.88	32,886	33,209	127,173
146.90	32,929	33,254	127,831
146.92	32,971	33,298	128,490
146.94	33,014	33,342	129,150
146.96	33,056	33,387	129,810
146.98	33,098	33,431	130,472
147.00	33,141	33,475	131,134
147.02	33,183	33,520	131,797
147.04	33,226	33,564	132,461
147.06	33,269	33,609	133,126
147.08	33,311	33,653	133,792
147.10	33,354	33,698	134,459
147.12	33,396	33,742	135,126
147.14	33,439	33,787	135,795
147.16	33,482	33,832	136,464
147.18	33,525	33,876	137,134
147.20	33,567	33,921	137,805
147.22	33,610	33,966	138,477
147.24	33,653	34,011	139,149
147.26	33,696	34,055	139,823
147.28	33,739	34,100	140,497

Stage-Area-Storage for Pond PD: POND D (continued)

Elevation (feet)	Surface (sq-ft)	Wetted (sq-ft)	Storage (cubic-feet)
147.30	33,782	34,145	141,172
147.32	33,824	34,190	141,848
147.34	33,867	34,235	142,525
147.36	33,910	34,280	143,203
147.38	33,953	34,325	143,882
147.40	33,996	34,370	144,561
147.42	34,039	34,415	145,242
147.44	34,083	34,460	145,923
147.46	34,126	34,505	146,605
147.48	34,169	34,550	147,288
147.50	34,212	34,595	147,972
147.52	34,255	34,640	148,656
147.54	34,298	34,685	149,342
147.56	34,342	34,730	150,028
147.58	34,385	34,776	150,716
147.60	34,428	34,821	151,404
147.62	34,472	34,866	152,093
147.64	34,515	34,911	152,783
147.66	34,558	34,957	153,473
147.68	34,602	35,002	154,165
147.70	34,645	35,048	154,857
147.72	34,689	35,093	155,551
147.74	34,732	35,138	156,245
147.76	34,776	35,184	156,940
147.78	34,819	35,229	157,636
147.80	34,863	35,275	158,333
147.82	34,906	35,320	159,030
147.84	34,950	35,366	159,729
147.86	34,994	35,412	160,428
147.88	35,037	35,457	161,129
147.90	35,081	35,503	161,830
147.92	35,125	35,549	162,532
147.94	35,169	35,595	163,235
147.96	35,212	35,640	163,939
147.98	35,256	35,686	164,643
148.00	35,300	35,732	165,349
148.02	35,343	35,777	166,055
148.04	35,386	35,822	166,763
148.06	35,430	35,868	167,471
148.08	35,473	35,913	168,180
148.10	35,516	35,958	168,890
148.12	35,560	36,004	169,600
148.14	35,603	36,049	170,312
148.16	35,646	36,094	171,025
148.18	35,690	36,140	171,738
148.20	35,733	36,185	172,452
148.22	35,777	36,231	173,167
148.24	35,820	36,276	173,883
148.26	35,864	36,322	174,600
148.28	35,907	36,367	175,318
148.30	35,951	36,413	176,036
148.32	35,994	36,458	176,756
148.34	36,038	36,504	177,476

Stage-Area-Storage for Pond PD: POND D (continued)

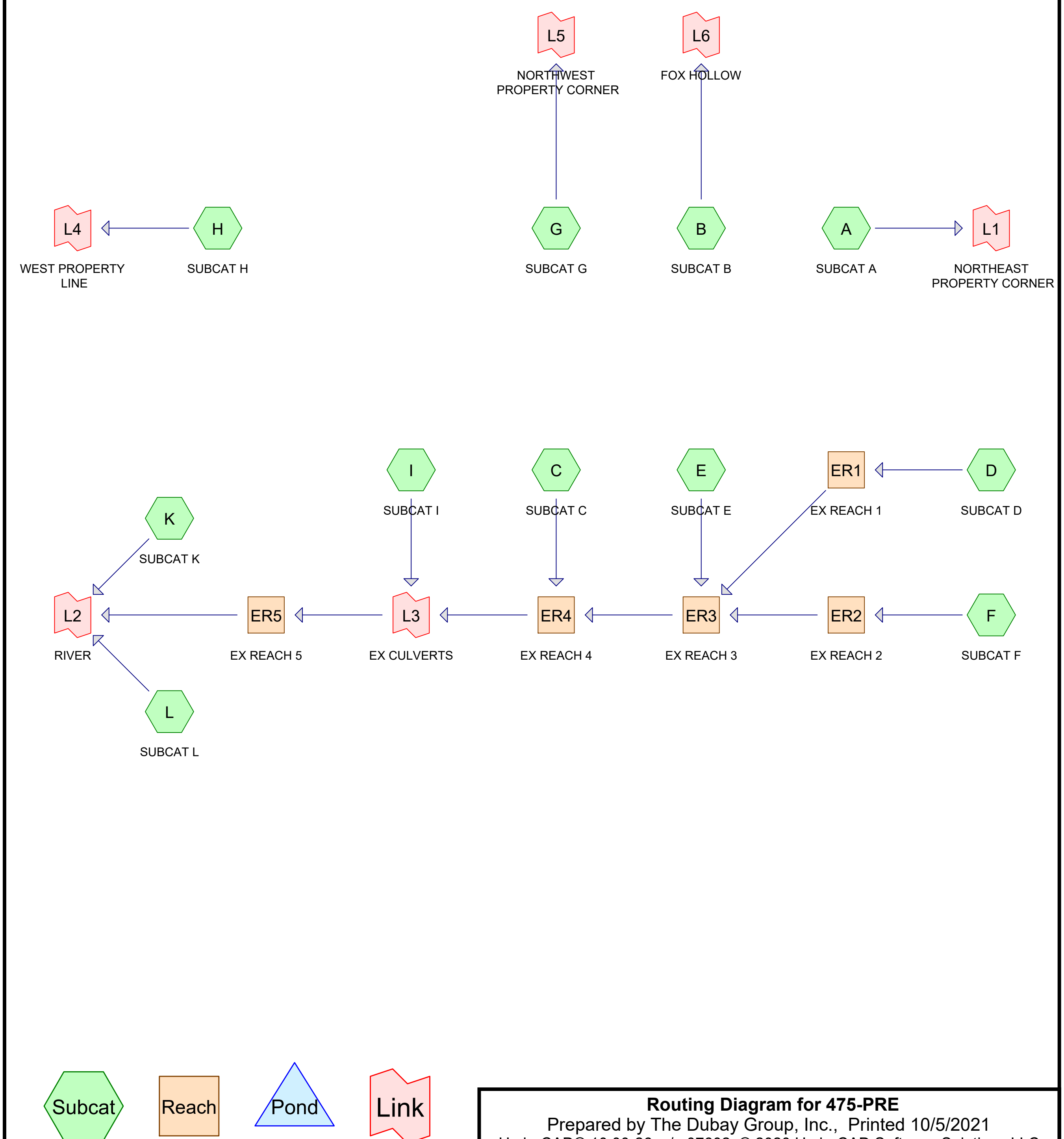
Elevation (feet)	Surface (sq-ft)	Wetted (sq-ft)	Storage (cubic-feet)
148.36	36,082	36,550	178,197
148.38	36,125	36,595	178,919
148.40	36,169	36,641	179,642
148.42	36,213	36,687	180,366
148.44	36,256	36,733	181,091
148.46	36,300	36,779	181,816
148.48	36,344	36,824	182,543
148.50	36,388	36,870	183,270
148.52	36,432	36,916	183,998
148.54	36,475	36,962	184,727
148.56	36,519	37,008	185,457
148.58	36,563	37,054	186,188
148.60	36,607	37,100	186,920
148.62	36,651	37,146	187,653
148.64	36,695	37,192	188,386
148.66	36,739	37,238	189,120
148.68	36,783	37,284	189,856
148.70	36,827	37,330	190,592
148.72	36,872	37,377	191,329
148.74	36,916	37,423	192,067
148.76	36,960	37,469	192,805
148.78	37,004	37,515	193,545
148.80	37,048	37,562	194,285
148.82	37,093	37,608	195,027
148.84	37,137	37,654	195,769
148.86	37,181	37,701	196,512
148.88	37,225	37,747	197,256
148.90	37,270	37,793	198,001
148.92	37,314	37,840	198,747
148.94	37,359	37,886	199,494
148.96	37,403	37,933	200,242
148.98	37,448	37,979	200,990
149.00	37,492	38,026	201,739
149.02	37,537	38,072	202,490
149.04	37,581	38,119	203,241
149.06	37,626	38,166	203,993
149.08	37,670	38,212	204,746
149.10	37,715	38,259	205,500
149.12	37,759	38,306	206,255
149.14	37,804	38,352	207,010
149.16	37,849	38,399	207,767
149.18	37,894	38,446	208,524
149.20	37,938	38,493	209,282
149.22	37,983	38,540	210,042
149.24	38,028	38,587	210,802
149.26	38,073	38,634	211,563
149.28	38,118	38,681	212,325
149.30	38,162	38,727	213,087
149.32	38,207	38,774	213,851
149.34	38,252	38,822	214,616
149.36	38,297	38,869	215,381
149.38	38,342	38,916	216,148
149.40	38,387	38,963	216,915

Stage-Area-Storage for Pond PD: POND D (continued)

Elevation (feet)	Surface (sq-ft)	Wetted (sq-ft)	Storage (cubic-feet)
149.42	38,432	39,010	217,683
149.44	38,477	39,057	218,452
149.46	38,522	39,104	219,222
149.48	38,568	39,151	219,993
149.50	38,613	39,199	220,765
149.52	38,658	39,246	221,538
149.54	38,703	39,293	222,311
149.56	38,748	39,341	223,086
149.58	38,794	39,388	223,861
149.60	38,839	39,435	224,637
149.62	38,884	39,483	225,415
149.64	38,930	39,530	226,193
149.66	38,975	39,578	226,972
149.68	39,020	39,625	227,752
149.70	39,066	39,673	228,533
149.72	39,111	39,720	229,314
149.74	39,157	39,768	230,097
149.76	39,202	39,815	230,881
149.78	39,248	39,863	231,665
149.80	39,293	39,911	232,451
149.82	39,339	39,958	233,237
149.84	39,384	40,006	234,024
149.86	39,430	40,054	234,812
149.88	39,476	40,102	235,601
149.90	39,521	40,149	236,391
149.92	39,567	40,197	237,182
149.94	39,613	40,245	237,974
149.96	39,658	40,293	238,767
149.98	39,704	40,341	239,560
150.00	39,750	40,389	240,355
150.02	39,796	40,437	241,150
150.04	39,841	40,485	241,947
150.06	39,887	40,532	242,744
150.08	39,933	40,580	243,542
150.10	39,979	40,628	244,341
150.12	40,025	40,676	245,141
150.14	40,070	40,724	245,942
150.16	40,116	40,772	246,744
150.18	40,162	40,820	247,547
150.20	40,208	40,868	248,351
150.22	40,254	40,916	249,155
150.24	40,300	40,965	249,961
150.26	40,346	41,013	250,767
150.28	40,392	41,061	251,575
150.30	40,438	41,109	252,383
150.32	40,484	41,157	253,192
150.34	40,530	41,206	254,002
150.36	40,576	41,254	254,813
150.38	40,623	41,302	255,625
150.40	40,669	41,351	256,438
150.42	40,715	41,399	257,252
150.44	40,761	41,447	258,067
150.46	40,807	41,496	258,883

Stage-Area-Storage for Pond PD: POND D (continued)

Elevation (feet)	Surface (sq-ft)	Wetted (sq-ft)	Storage (cubic-feet)
150.48	40,854	41,544	259,699
150.50	**40,900**	**41,593**	**260,517**



Routing Diagram for 475-PRE
Prepared by The Dubay Group, Inc., Printed 10/5/2021
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Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
210,573	39	>75% Grass cover, Good, HSG A (A, D, F, H, K, L)
30,443	61	>75% Grass cover, Good, HSG B (K)
59,650	30	Brush, Good, HSG A (C, E, I)
75,110	48	Brush, Good, HSG B (L)
7,709	98	Ex. Building (K)
12,451	98	Ex. Pavement (F, K)
71,325	98	Ex. Wetland (C, E, F, I, K)
3,093,798	30	Woods, Good, HSG A (A, B, C, D, E, F, G, H, I, K, L)
118,156	55	Woods, Good, HSG B (K, L)
3,679,215	**34**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment 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**

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 A: 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: 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

Subcatchment I: SUBCAT I 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

Subcatchment L: SUBCAT L 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

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 cf Average Runoff Depth = 0.00"
97.51% Pervious = 3,587,730 sf 2.49% Impervious = 91,485 sf

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 2-YR Rainfall=2.96"

	Area (sf)	CN	Description
	835	39	>75% Grass cover, Good, HSG A
	63,949	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	64,784	30	Weighted Average
	64,784		100.00% Pervious Area

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

Summary for Subcatchment B: 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 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% 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 (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment C: SUBCAT C

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
	10,208	30	Brush, Good, HSG A
	877,266	30	Woods, Good, HSG A
*	1,890	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	889,364	30	Weighted Average
	887,474		99.79% Pervious Area
	1,890		0.21% Impervious Area

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

Summary for Subcatchment D: SUBCAT D

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
	40,833	39	>75% Grass cover, Good, HSG A
	161,270	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	202,103	32	Weighted Average
	202,103		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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 @ 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
	13,501	30	Brush, Good, HSG A
	283,954	30	Woods, Good, HSG A
*	4,020	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	301,475	31	Weighted Average
	297,455		98.67% Pervious Area
	4,020		1.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	50	0.1200	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.95"
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			

Summary for Subcatchment F: SUBCAT F

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
	102,210	39	>75% Grass cover, Good, HSG A
	142,851	30	Woods, Good, HSG A
*	15,394	98	Ex. Wetland
*	0	98	Ex. Building
*	11,679	98	Ex. Pavement
	272,134	40	Weighted Average
	245,061		90.05% Pervious Area
	27,073		9.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	50	0.1200	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.95"
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"

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% Grass cover, Good, HSG A
	181,015	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	181,015	30	Weighted Average
	181,015		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
	5,832	39	>75% Grass cover, Good, HSG A
	248,081	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	253,913	30	Weighted Average
	253,913		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (sf)	CN	Description
	35,941	30	Brush, Good, HSG A
	788,781	30	Woods, Good, HSG A
*	33,536	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	858,258	33	Weighted Average
	824,722		96.09% Pervious Area
	33,536		3.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

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
	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

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
10.6	1,223	Total			

Summary for Subcatchment L: SUBCAT L

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

Summary for Reach ER1: EX REACH 1

Inflow Area = 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, 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= 0.50' Flow Area= 15.0 sf, Capacity= 66.94 cfs

25.00' x 0.50' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 10.0 '/' Top Width= 35.00'
Length= 755.0' Slope= 0.0252 '/'
Inlet Invert= 161.00', Outlet Invert= 142.00'

Summary for Reach ER2: EX REACH 2

Inflow Area = 272,134 sf, 9.95% 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= 159.63 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= 260.0' Slope= 0.0154 '/'
Inlet Invert= 146.00', Outlet Invert= 142.00'

Summary for Reach ER3: EX REACH 3

Inflow Area = 775,712 sf, 4.01% 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= 113.75 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= 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 = 0.00" 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= 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

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 Area =	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,	Atten= 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 > 0.00"	for 2-YR event	
Inflow =	0.02 cfs @	17.20 hrs,	Volume=	546 cf	
Primary =	0.02 cfs @	17.20 hrs,	Volume=	546 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 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	
Primary =	0.00 cfs @	0.00 hrs,	Volume=	0 cf,	Atten= 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	
Inflow =	0.00 cfs @	0.00 hrs,	Volume=	0 cf	
Primary =	0.00 cfs @	0.00 hrs,	Volume=	0 cf,	Atten= 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 = 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, 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 Area = 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, Atten= 0%, Lag= 0.0 min

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

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 A: 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: 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 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: 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

Subcatchment I: SUBCAT I 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: SUBCAT K 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

Subcatchment L: 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

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

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

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"

	Area (sf)	CN	Description
	835	39	>75% Grass cover, Good, HSG A
	63,949	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	64,784	30	Weighted Average
	64,784		100.00% Pervious Area

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

Summary for Subcatchment B: 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 Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.47"

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

Summary for Subcatchment C: SUBCAT C

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
	10,208	30	Brush, Good, HSG A
	877,266	30	Woods, Good, HSG A
*	1,890	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	889,364	30	Weighted Average
	887,474		99.79% Pervious Area
	1,890		0.21% Impervious Area

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

Summary for Subcatchment D: SUBCAT D

Runoff = 0.00 cfs @ 24.00 hrs, Volume= 35 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
	40,833	39	>75% Grass cover, Good, HSG A
	161,270	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	202,103	32	Weighted Average
	202,103		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

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
	13,501	30	Brush, Good, HSG A
	283,954	30	Woods, Good, HSG A
*	4,020	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	301,475	31	Weighted Average
	297,455		98.67% Pervious Area
	4,020		1.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	50	0.1200	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.95"
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			

Summary for Subcatchment F: SUBCAT F

Runoff = 0.11 cfs @ 13.89 hrs, Volume= 2,952 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"

	Area (sf)	CN	Description
	102,210	39	>75% Grass cover, Good, HSG A
	142,851	30	Woods, Good, HSG A
*	15,394	98	Ex. Wetland
*	0	98	Ex. Building
*	11,679	98	Ex. Pavement
	272,134	40	Weighted Average
	245,061		90.05% Pervious Area
	27,073		9.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	50	0.1200	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.95"
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"

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
	0	39	>75% Grass cover, Good, HSG A
	181,015	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	181,015	30	Weighted Average
	181,015		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
	5,832	39	>75% Grass cover, Good, HSG A
	248,081	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	253,913	30	Weighted Average
	253,913		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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 = 0.03 cfs @ 23.36 hrs, Volume= 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"

	Area (sf)	CN	Description
	35,941	30	Brush, Good, HSG A
	788,781	30	Woods, Good, HSG A
*	33,536	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	858,258	33	Weighted Average
	824,722		96.09% Pervious Area
	33,536		3.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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 = 0.71 cfs @ 12.45 hrs, Volume= 7,605 cf, Depth> 0.29"

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 10-YR Rainfall=4.47"

	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

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
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

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

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

25.00' x 0.50' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 10.0 '/' Top Width= 35.00'
Length= 755.0' Slope= 0.0252 '/'
Inlet Invert= 161.00', Outlet Invert= 142.00'

Summary for Reach ER2: EX REACH 2

Inflow Area = 272,134 sf, 9.95% Impervious, Inflow Depth > 0.13" for 10-YR event
Inflow = 0.11 cfs @ 13.89 hrs, Volume= 2,952 cf
Outflow = 0.11 cfs @ 14.01 hrs, Volume= 2,913 cf, Atten= 0%, Lag= 7.2 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.35 fps, Min. Travel Time= 12.3 min
Avg. Velocity = 0.30 fps, Avg. Travel Time= 14.3 min

Peak Storage= 81 cf @ 14.01 hrs
Average Depth at Peak Storage= 0.01'
Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 159.63 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= 260.0' Slope= 0.0154 '/'
Inlet Invert= 146.00', Outlet Invert= 142.00'

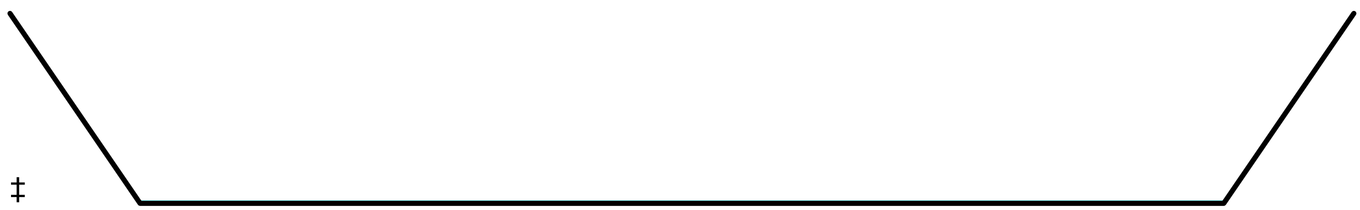
Summary for Reach ER3: EX REACH 3

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

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

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 Area = 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, Atten= 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 @ 12.45 hrs, Volume= 13,301 cf
Primary = 0.71 cfs @ 12.45 hrs, Volume= 13,301 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 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
Primary = 0.10 cfs @ 15.70 hrs, Volume= 3,200 cf, Atten= 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
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 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 =       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,  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 Area =        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,  Atten= 0%,  Lag= 0.0 min
```

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

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 A: SUBCAT A Runoff Area=64,784 sf 0.00% Impervious Runoff Depth>0.04"
Tc=6.0 min CN=30 Runoff=0.01 cfs 213 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 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

Subcatchment D: SUBCAT D Runoff Area=202,103 sf 0.00% Impervious Runoff Depth>0.09"
Flow Length=530' Tc=18.3 min CN=32 Runoff=0.05 cfs 1,432 cf

Subcatchment E: SUBCAT E Runoff Area=301,475 sf 1.33% Impervious Runoff Depth>0.06"
Flow Length=630' Tc=14.0 min CN=31 Runoff=0.05 cfs 1,515 cf

Subcatchment F: SUBCAT F Runoff Area=272,134 sf 9.95% Impervious Runoff Depth>0.40"
Flow Length=825' Tc=11.7 min CN=40 Runoff=0.89 cfs 8,975 cf

Subcatchment G: SUBCAT G Runoff Area=181,015 sf 0.00% Impervious Runoff Depth>0.04"
Tc=6.0 min CN=30 Runoff=0.02 cfs 596 cf

Subcatchment H: SUBCAT H Runoff Area=253,913 sf 0.00% Impervious Runoff Depth>0.04"
Flow Length=530' Tc=11.7 min CN=30 Runoff=0.03 cfs 829 cf

Subcatchment I: SUBCAT I Runoff Area=858,258 sf 3.91% Impervious Runoff Depth>0.11"
Flow Length=1,590' Tc=31.7 min CN=33 Runoff=0.30 cfs 8,023 cf

Subcatchment K: SUBCAT K Runoff Area=318,471 sf 7.84% Impervious Runoff Depth>0.66"
Flow Length=1,223' Tc=10.6 min CN=45 Runoff=2.58 cfs 17,610 cf

Subcatchment L: SUBCAT L Runoff Area=313,113 sf 0.00% Impervious Runoff Depth>0.35"
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

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"

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 cover, Good, HSG A
	63,949	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	64,784	30	Weighted Average
	64,784		100.00% Pervious Area

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

Summary for Subcatchment 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 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 (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment C: SUBCAT C

Runoff = 0.09 cfs @ 17.80 hrs, Volume= 2,727 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
	10,208	30	Brush, Good, HSG A
	877,266	30	Woods, Good, HSG A
*	1,890	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	889,364	30	Weighted Average
	887,474		99.79% Pervious Area
	1,890		0.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (sf)	CN	Description
	40,833	39	>75% Grass cover, Good, HSG A
	161,270	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	202,103	32	Weighted Average
	202,103		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

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
	13,501	30	Brush, Good, HSG A
	283,954	30	Woods, Good, HSG A
*	4,020	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	301,475	31	Weighted Average
	297,455		98.67% Pervious Area
	4,020		1.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	50	0.1200	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.95"
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			

Summary for Subcatchment F: SUBCAT F

Runoff = 0.89 cfs @ 12.45 hrs, Volume= 8,975 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"

	Area (sf)	CN	Description
	102,210	39	>75% Grass cover, Good, HSG A
	142,851	30	Woods, Good, HSG A
*	15,394	98	Ex. Wetland
*	0	98	Ex. Building
*	11,679	98	Ex. Pavement
	272,134	40	Weighted Average
	245,061		90.05% Pervious Area
	27,073		9.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	50	0.1200	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.95"
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 = 0.02 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 cover, Good, HSG A
	181,015	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	181,015	30	Weighted Average
	181,015		100.00% Pervious Area

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

Summary for Subcatchment H: SUBCAT H

Runoff = 0.03 cfs @ 17.21 hrs, Volume= 829 cf, Depth> 0.04"

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
	5,832	39	>75% Grass cover, Good, HSG A
	248,081	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	253,913	30	Weighted Average
	253,913		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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 = 0.30 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"

	Area (sf)	CN	Description
	35,941	30	Brush, Good, HSG A
	788,781	30	Woods, Good, HSG A
*	33,536	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	858,258	33	Weighted Average
	824,722		96.09% Pervious Area
	33,536		3.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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 = 2.58 cfs @ 12.26 hrs, Volume= 17,610 cf, Depth> 0.66"

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"

	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

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

Summary for Reach ER1: EX REACH 1

Inflow Area = 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, Atten= 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

25.00' x 0.50' deep channel, n= 0.030 Earth, grassed & winding
Side Slope Z-value= 10.0 '/' Top Width= 35.00'
Length= 755.0' Slope= 0.0252 '/'
Inlet Invert= 161.00', Outlet Invert= 142.00'

Summary for Reach ER2: EX REACH 2

Inflow Area = 272,134 sf, 9.95% Impervious, Inflow Depth > 0.40" for 25-YR event
Inflow = 0.89 cfs @ 12.45 hrs, Volume= 8,975 cf
Outflow = 0.85 cfs @ 12.51 hrs, Volume= 8,904 cf, Atten= 4%, Lag= 4.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.77 fps, Min. Travel Time= 5.6 min
Avg. Velocity = 0.43 fps, Avg. Travel Time= 10.2 min

Peak Storage= 288 cf @ 12.51 hrs
Average Depth at Peak Storage= 0.04'
Bank-Full Depth= 1.00' Flow Area= 28.0 sf, Capacity= 159.63 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= 260.0' Slope= 0.0154 '/'
Inlet Invert= 146.00', Outlet Invert= 142.00'

Summary for Reach ER3: EX REACH 3

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

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 > 0.10" 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

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

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 Area =	64,784 sf,	0.00% Impervious,	Inflow Depth > 0.04"	for 25-YR event
Inflow =	0.01 cfs @	17.13 hrs, Volume=	213 cf	
Primary =	0.01 cfs @	17.13 hrs, Volume=	213 cf,	Atten= 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 > 0.18"	for 25-YR event
Inflow =	3.34 cfs @	12.33 hrs, Volume=	47,807 cf	
Primary =	3.34 cfs @	12.33 hrs, Volume=	47,807 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 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	
Primary =	0.69 cfs @	15.68 hrs, Volume=	21,749 cf,	Atten= 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
Inflow =	0.03 cfs @	17.21 hrs, Volume=	829 cf	
Primary =	0.03 cfs @	17.21 hrs, Volume=	829 cf,	Atten= 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 =	181,015 sf,	0.00% Impervious, Inflow Depth > 0.04"	for 25-YR event
Inflow =	0.02 cfs @ 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 Area =	24,585 sf,	0.00% Impervious, Inflow Depth > 0.04"	for 25-YR event
Inflow =	0.00 cfs @ 17.13 hrs, Volume=	81 cf	
Primary =	0.00 cfs @ 17.13 hrs, Volume=	81 cf,	Atten= 0%, Lag= 0.0 min

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

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

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 D Runoff Area=202,103 sf 0.00% Impervious Runoff Depth>0.26"
Flow Length=530' Tc=18.3 min CN=32 Runoff=0.18 cfs 4,381 cf

Subcatchment E: SUBCAT E Runoff Area=301,475 sf 1.33% Impervious Runoff Depth>0.21"
Flow Length=630' Tc=14.0 min CN=31 Runoff=0.20 cfs 5,355 cf

Subcatchment F: SUBCAT F Runoff Area=272,134 sf 9.95% Impervious Runoff Depth>0.75"
Flow Length=825' Tc=11.7 min CN=40 Runoff=2.33 cfs 16,934 cf

Subcatchment G: SUBCAT G 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

Subcatchment H: SUBCAT H Runoff Area=253,913 sf 0.00% Impervious Runoff Depth>0.17"
Flow Length=530' Tc=11.7 min CN=30 Runoff=0.13 cfs 3,583 cf

Subcatchment I: SUBCAT I Runoff Area=858,258 sf 3.91% Impervious Runoff Depth>0.31"
Flow Length=1,590' Tc=31.7 min CN=33 Runoff=1.04 cfs 22,065 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

Subcatchment L: SUBCAT L Runoff Area=313,113 sf 0.00% Impervious Runoff Depth>0.68"
Tc=6.0 min CN=39 Runoff=2.40 cfs 17,734 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

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

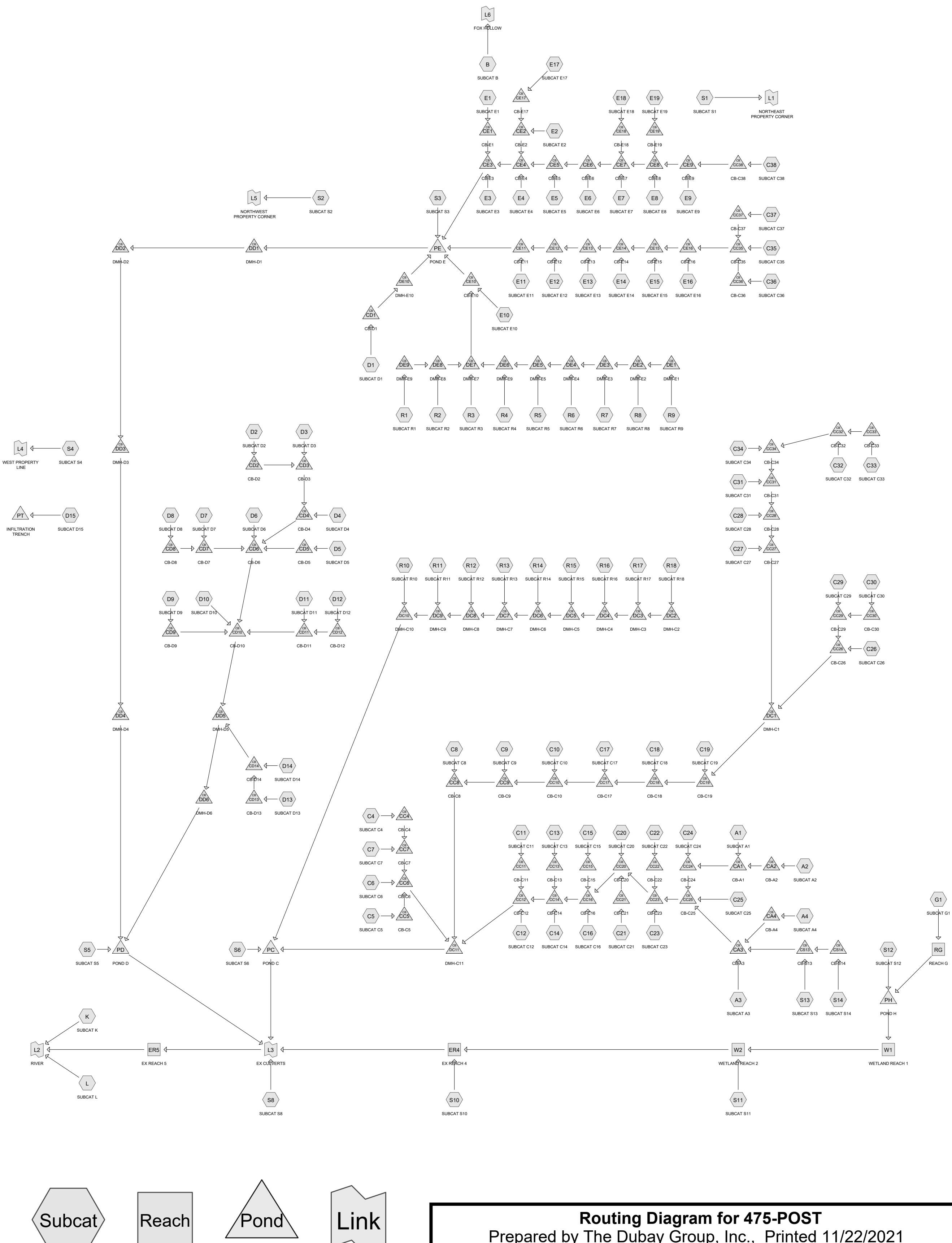
Link L3: EX CULVERTS
Inflow=2.53 cfs 59,501 cf
Primary=2.53 cfs 59,501 cf

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



Routing Diagram for 475-POST
Prepared by The Dubay Group, Inc., Printed 11/22/2021
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Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
179,462	39	>75% Grass cover, Good, HSG A (A1, A3, A4, C10, C11, C12, C13, C15, C17, C18, C19, C20, C21, C22, C23, C24, C26, C27, C28, C29, C31, C32, C34, C35, C37, C38, C4, C7, C8, C9, D10, D11, D14, D3, D4, D5, D6, D7, E1, E10, E11, E12, E13, E14, E15, E16, E2, E3, E4, E5, E6, E7, E8, E9, K, L, S1, S12, S13, S14)
30,443	61	>75% Grass cover, Good, HSG B (K)
643,446	30	Brush, Good, HSG A (C33, C36, C5, D13, D15, D2, D8, D9, E17, E18, E19, G1, S10, S11, S2, S3, S4, S5, S6, S8)
75,110	48	Brush, Good, HSG B (L)
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)
505,601	98	Proposed Building (R1, R10, R11, R12, R13, R14, R15, R16, R17, R18, R2, R3, R4, R5, R6, R7, R8, R9, S8)
619,621	98	Proposed Pavement (A1, A2, A3, A4, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C4, C5, C6, C7, C8, C9, D1, D10, D11, D12, D13, D14, 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)
1,355,002	30	Woods, Good, HSG A (B, D15, D2, 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	**55**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
2,177,910	HSG A	A1, A3, A4, B, C10, C11, C12, C13, C15, C17, C18, C19, C20, C21, C22, C23, C24, C26, C27, C28, C29, C31, C32, C33, C34, C35, C36, C37, C38, C4, C5, C7, C8, C9, D10, D11, D13, D14, D15, 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	
1,217,596	Other	A1, A2, A3, A4, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C4, C5, C6, C7, C8, C9, D1, D10, D11, D12, D13, D14, 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**

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>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 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

Subcatchment C20: 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 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

Subcatchment C35: SUBCAT C35 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

Subcatchment C37: SUBCAT C37 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

Subcatchment C4: SUBCAT C4 Runoff Area=7,965 sf 31.79% Impervious Runoff Depth>0.26"
Tc=6.0 min CN=58 Runoff=0.02 cfs 173 cf

Subcatchment C5: SUBCAT C5 Runoff Area=4,960 sf 33.57% Impervious Runoff Depth>0.14"
Tc=6.0 min CN=53 Runoff=0.00 cfs 58 cf

Subcatchment C6: SUBCAT C6 Runoff Area=2,113 sf 100.00% Impervious Runoff Depth>2.73"
Tc=6.0 min CN=98 Runoff=0.14 cfs 480 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=6,290 sf 100.00% Impervious Runoff Depth>2.73"
Tc=6.0 min CN=98 Runoff=0.40 cfs 1,429 cf

Subcatchment D10: SUBCAT D10 Runoff Area=3,583 sf 77.28% Impervious Runoff Depth>1.55"
Tc=6.0 min CN=85 Runoff=0.15 cfs 464 cf

Subcatchment D11: SUBCAT D11 Runoff Area=11,394 sf 91.17% Impervious Runoff Depth>2.21"
Tc=6.0 min CN=93 Runoff=0.65 cfs 2,102 cf

Subcatchment D12: SUBCAT D12 Runoff Area=11,726 sf 100.00% Impervious Runoff Depth>2.73"
Tc=6.0 min CN=98 Runoff=0.75 cfs 2,664 cf

Subcatchment D13: SUBCAT D13 Runoff Area=8,374 sf 35.55% Impervious Runoff Depth>0.16"
Tc=6.0 min CN=54 Runoff=0.01 cfs 112 cf

Subcatchment D14: SUBCAT D14 Runoff Area=13,000 sf 75.23% Impervious Runoff Depth>1.41"
Tc=6.0 min CN=83 Runoff=0.48 cfs 1,531 cf

Subcatchment D15: SUBCAT D15 Runoff Area=29,359 sf 0.00% Impervious Runoff Depth=0.00"
Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf

Subcatchment D2: SUBCAT D2 Runoff Area=12,142 sf 26.64% Impervious Runoff Depth>0.05"
Tc=6.0 min CN=48 Runoff=0.00 cfs 55 cf

Subcatchment D3: SUBCAT D3 Runoff Area=7,477 sf 52.87% Impervious Runoff Depth>0.69"
Tc=6.0 min CN=70 Runoff=0.12 cfs 431 cf

Subcatchment D4: SUBCAT D4 Runoff Area=5,859 sf 87.54% Impervious Runoff Depth>2.03"
Tc=6.0 min CN=91 Runoff=0.31 cfs 992 cf

Subcatchment D5: SUBCAT D5 Runoff Area=6,306 sf 95.48% Impervious Runoff Depth>2.41"
Tc=6.0 min CN=95 Runoff=0.38 cfs 1,266 cf

Subcatchment D6: SUBCAT D6 Runoff Area=6,445 sf 73.28% Impervious Runoff Depth>1.35"
Tc=6.0 min CN=82 Runoff=0.23 cfs 723 cf

Subcatchment D7: SUBCAT D7 Runoff Area=2,640 sf 78.07% Impervious Runoff Depth>1.55"
Tc=6.0 min CN=85 Runoff=0.11 cfs 342 cf

Subcatchment D8: SUBCAT D8 Runoff Area=7,020 sf 31.34% Impervious Runoff Depth>0.10"
Tc=6.0 min CN=51 Runoff=0.00 cfs 59 cf

Subcatchment D9: SUBCAT D9 Runoff Area=8,307 sf 33.33% Impervious Runoff Depth>0.14"
Tc=6.0 min CN=53 Runoff=0.01 cfs 97 cf

Subcatchment E1: SUBCAT E1 Runoff Area=5,639 sf 95.66% Impervious Runoff Depth>2.41"
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"
Tc=6.0 min CN=95 Runoff=1.13 cfs 3,780 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

Subcatchment E16: SUBCAT E16 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"
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

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

Subcatchment L: SUBCAT L Runoff Area=313,113 sf 0.00% Impervious Runoff Depth=0.00"
Tc=6.0 min CN=39 Runoff=0.00 cfs 0 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

Subcatchment R16: SUBCAT R16 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 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

Subcatchment R18: SUBCAT R18 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 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

Subcatchment R6: SUBCAT R6 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 R7: SUBCAT R7 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 R8: SUBCAT R8 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 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

Subcatchment S1: SUBCAT S1 Runoff Area=57,112 sf 0.00% Impervious Runoff Depth=0.00"
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

Subcatchment S11: SUBCAT S11 Runoff Area=113,276 sf 14.81% Impervious Runoff Depth=0.00"
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

Subcatchment S13: SUBCAT S13 Runoff Area=13,348 sf 89.17% Impervious Runoff Depth>2.12"
Tc=6.0 min CN=92 Runoff=0.73 cfs 2,360 cf

Subcatchment S14: SUBCAT S14 Runoff Area=11,820 sf 88.58% Impervious Runoff Depth>2.03"
Tc=6.0 min CN=91 Runoff=0.63 cfs 2,002 cf

Subcatchment S2: SUBCAT S2 Runoff Area=72,817 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=96,497 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=227,373 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=53,062 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=72,250 sf 0.00% Impervious Runoff Depth=0.00"
Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf

Subcatchment S8: SUBCAT S8 Runoff Area=446,502 sf 7.87% 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 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

Reach RG: REACH G Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf
12.0" Round Pipe n=0.012 L=180.0' S=0.0278 '/' Capacity=6.43 cfs Outflow=0.00 cfs 0 cf

Reach W1: WETLAND REACH 1 Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf
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=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf
n=0.030 L=480.0' S=0.0083 '/' Capacity=117.48 cfs Outflow=0.00 cfs 0 cf

Pond CA1: CB-A1 Peak Elev=156.08' Inflow=0.47 cfs 1,632 cf
12.0" Round Culvert n=0.012 L=83.0' S=0.0100 '/' Outflow=0.47 cfs 1,632 cf

Pond CA2: CB-A2 Peak Elev=156.54' Inflow=0.35 cfs 1,230 cf
12.0" Round Culvert n=0.012 L=41.0' S=0.0100 '/' Outflow=0.35 cfs 1,230 cf

Pond CA3: CB-A3 Peak Elev=154.65' Inflow=2.07 cfs 6,714 cf
18.0" Round Culvert n=0.012 L=169.0' S=0.0050 '/' Outflow=2.07 cfs 6,714 cf

Pond CA4: CB-A4 Peak Elev=155.23' Inflow=0.36 cfs 1,170 cf
12.0" Round Culvert n=0.012 L=50.0' S=0.0100 '/' Outflow=0.36 cfs 1,170 cf

Pond CC10: CB-C10 Peak Elev=152.92' Inflow=9.27 cfs 30,723 cf
30.0" Round Culvert n=0.012 L=170.0' S=0.0050 '/' Outflow=9.27 cfs 30,723 cf

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 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

Pond CC27: CB-C27 Peak Elev=158.18' Inflow=2.02 cfs 6,517 cf
18.0" Round Culvert n=0.012 L=122.0' S=0.0050 '/' Outflow=2.02 cfs 6,517 cf

Pond CC28: CB-C28 Peak Elev=158.88' Inflow=1.58 cfs 5,121 cf
15.0" Round Culvert n=0.012 L=101.0' S=0.0050 '/' Outflow=1.58 cfs 5,121 cf

Pond CC29: CB-C29 Peak Elev=160.09' Inflow=0.35 cfs 1,193 cf
12.0" Round Culvert n=0.012 L=77.0' S=0.0200 '/' Outflow=0.35 cfs 1,193 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

Pond CC31: CB-C31 Peak Elev=159.55' Inflow=1.14 cfs 3,711 cf
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

Pond CC33: CB-C33 Peak Elev=162.26' Inflow=0.06 cfs 249 cf
12.0" Round Culvert n=0.012 L=26.0' S=0.0288 '/' Outflow=0.06 cfs 249 cf

Pond CC34: CB-C34 Peak Elev=160.11' Inflow=0.66 cfs 2,192 cf
12.0" Round Culvert n=0.012 L=88.0' S=0.0050 '/' Outflow=0.66 cfs 2,192 cf

Pond CC35: CB-C35 Peak Elev=159.23' Inflow=0.27 cfs 990 cf
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

Pond CC37: CB-C37 Peak Elev=159.48' Inflow=0.17 cfs 611 cf
12.0" Round Culvert n=0.012 L=34.0' S=0.0050 '/' Outflow=0.17 cfs 611 cf

Pond CC38: CB-C38 Peak Elev=161.56' Inflow=0.28 cfs 868 cf
12.0" Round Culvert n=0.012 L=120.0' S=0.0179 '/' Outflow=0.28 cfs 868 cf

Pond CC4: CB-C4 Peak Elev=157.57' Inflow=0.02 cfs 173 cf
12.0" Round Culvert n=0.012 L=26.0' S=0.0100 '/' Outflow=0.02 cfs 173 cf

Pond CC5: CB-C5 Peak Elev=159.48' Inflow=0.00 cfs 58 cf
12.0" Round Culvert n=0.012 L=30.0' S=0.0100 '/' Outflow=0.00 cfs 58 cf

Pond CC6: CB-C6 Peak Elev=156.67' Inflow=0.25 cfs 1,045 cf
12.0" Round Culvert n=0.012 L=73.0' S=0.0100 '/' Outflow=0.25 cfs 1,045 cf

Pond CC7: CB-C7 Peak Elev=157.31' Inflow=0.12 cfs 508 cf
12.0" Round Culvert n=0.012 L=62.0' S=0.0100 '/' Outflow=0.12 cfs 508 cf

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=158.36' Inflow=0.40 cfs 1,429 cf
12.0" Round Culvert n=0.012 L=141.0' S=0.0300 '/' Outflow=0.40 cfs 1,429 cf

Pond CD10: CB-D10 Peak Elev=156.87' Inflow=2.69 cfs 9,194 cf
24.0" Round Culvert n=0.012 L=83.0' S=0.0049 '/' Outflow=2.69 cfs 9,194 cf

Pond CD11: CB-D11 Peak Elev=158.76' Inflow=1.40 cfs 4,767 cf
15.0" Round Culvert n=0.012 L=41.0' S=0.0051 '/' Outflow=1.40 cfs 4,767 cf

Pond CD12: CB-D12 Peak Elev=159.15' Inflow=0.75 cfs 2,664 cf
12.0" Round Culvert n=0.012 L=60.0' S=0.0050 '/' Outflow=0.75 cfs 2,664 cf

Pond CD13: CB-D13 Peak Elev=157.46' Inflow=0.01 cfs 112 cf
12.0" Round Culvert n=0.012 L=35.0' S=0.0051 '/' Outflow=0.01 cfs 112 cf

Pond CD14: CB-D14 Peak Elev=157.46' Inflow=0.48 cfs 1,643 cf
12.0" Round Culvert n=0.012 L=107.0' S=0.0050 '/' Outflow=0.48 cfs 1,643 cf

Pond CD2: CB-D2 Peak Elev=158.78' Inflow=0.00 cfs 55 cf
12.0" Round Culvert n=0.012 L=26.0' S=0.0050 '/' Outflow=0.00 cfs 55 cf

Pond CD3: CB-D3 Peak Elev=158.74' Inflow=0.12 cfs 485 cf
12.0" Round Culvert n=0.012 L=27.0' S=0.0052 '/' Outflow=0.12 cfs 485 cf

Pond CD4: CB-D4 Peak Elev=158.65' Inflow=0.43 cfs 1,478 cf
12.0" Round Culvert n=0.012 L=109.0' S=0.0050 '/' Outflow=0.43 cfs 1,478 cf

Pond CD5: CB-D5 Peak Elev=158.80' Inflow=0.38 cfs 1,266 cf
12.0" Round Culvert n=0.012 L=50.0' S=0.0154 '/' Outflow=0.38 cfs 1,266 cf

Pond CD6: CB-D6 Peak Elev=158.05' Inflow=1.14 cfs 3,867 cf
15.0" Round Culvert n=0.012 L=128.0' S=0.0050 '/' Outflow=1.14 cfs 3,867 cf

Pond CD7: CB-D7 Peak Elev=158.68' Inflow=0.11 cfs 401 cf
12.0" Round Culvert n=0.012 L=41.0' S=0.0193 '/' Outflow=0.11 cfs 401 cf

Pond CD8: CB-D8 Peak Elev=158.78' Inflow=0.00 cfs 59 cf
12.0" Round Culvert n=0.012 L=26.0' S=0.0050 '/' Outflow=0.00 cfs 59 cf

Pond CD9: CB-D9 Peak Elev=158.40' Inflow=0.01 cfs 97 cf
12.0" Round Culvert n=0.012 L=26.0' S=0.0050 '/' Outflow=0.01 cfs 97 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=152.41' 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

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

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=17.97 cfs 59,872 cf
42.0" Round Culvert n=0.012 L=174.0' S=0.0050 '/' Outflow=17.97 cfs 59,872 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=151.05' Inflow=16.00 cfs 104,915 cf
30.0" Round Culvert n=0.012 L=182.0' S=0.0050 '/' Outflow=16.00 cfs 104,915 cf

Pond DD2: DMH-D2 Peak Elev=150.09' Inflow=16.00 cfs 104,915 cf
30.0" Round Culvert n=0.012 L=94.0' S=0.0050 '/' Outflow=16.00 cfs 104,915 cf

Pond DD3: DMH-D3 Peak Elev=149.36' Inflow=16.00 cfs 104,915 cf
30.0" Round Culvert n=0.012 L=213.0' S=0.0050 '/' Outflow=16.00 cfs 104,915 cf

Pond DD4: DMH-D4 Peak Elev=148.11' Inflow=16.00 cfs 104,915 cf
30.0" Round Culvert n=0.012 L=133.0' S=0.0050 '/' Outflow=16.00 cfs 104,915 cf

Pond DD5: DMH-D5 Peak Elev=156.33' Inflow=3.17 cfs 10,838 cf
24.0" Round Culvert n=0.012 L=124.0' S=0.0478 '/' Outflow=3.17 cfs 10,838 cf

Pond DD6: DMH-D6 Peak Elev=150.38' Inflow=3.17 cfs 10,838 cf
24.0" Round Culvert n=0.012 L=127.0' S=0.0050 '/' Outflow=3.17 cfs 10,838 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

Pond DE10: DMH-E10 Peak Elev=154.03' Inflow=0.40 cfs 1,429 cf
12.0" Round Culvert n=0.012 L=27.0' S=0.1211 '/' Outflow=0.40 cfs 1,429 cf

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=145.85' Storage=51,246 cf Inflow=34.17 cfs 117,134 cf
Discarded=2.28 cfs 111,748 cf Primary=0.00 cfs 0 cf Outflow=2.28 cfs 111,748 cf

Pond PD: POND D Peak Elev=144.47' Storage=55,778 cf Inflow=17.93 cfs 115,753 cf
Discarded=1.79 cfs 90,832 cf Primary=0.00 cfs 0 cf Outflow=1.79 cfs 90,832 cf

Pond PE: POND E Peak Elev=152.11' Storage=37,663 cf Inflow=31.12 cfs 107,057 cf
Outflow=16.00 cfs 104,915 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

Pond PT: INFILTRATION TRENCH Peak Elev=150.00' Storage=0 cf Inflow=0.00 cfs 0 cf
Outflow=0.00 cfs 0 cf

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 = 3,619,215 sf Runoff Volume = 235,575 cf Average Runoff Depth = 0.78"
66.36% Pervious = 2,401,619 sf 33.64% Impervious = 1,217,596 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"

	Area (sf)	CN	Description
*	3,089	98	Proposed Pavement
	1,806	39	>75% Grass cover, Good, HSG A
	4,895	76	Weighted Average
	1,806		36.89% Pervious Area
	3,089		63.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (sf)	CN	Description
*	5,412	98	Proposed Pavement
	0	39	>75% Grass cover, Good, HSG A
	5,412	98	Weighted Average
	5,412		100.00% Impervious Area

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

Summary for Subcatchment A3: SUBCAT A3

Runoff = 0.35 cfs @ 12.09 hrs, Volume= 1,182 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"

	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

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

Summary for Subcatchment A4: SUBCAT A4

Runoff = 0.36 cfs @ 12.09 hrs, Volume= 1,170 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"

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

Summary for Subcatchment B: 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 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% 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 (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (sf)	CN	Description
*	25,480	98	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% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
*	4,311	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% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (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% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (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% Impervious Area

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

Summary for Subcatchment C14: SUBCAT C14

Runoff = 0.19 cfs @ 12.09 hrs, Volume= 680 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
*	2,992	98	Proposed Pavement
	0	39	>75% Grass cover, Good, HSG A
	2,992	98	Weighted Average
	2,992		100.00% Impervious Area

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

Summary for Subcatchment C15: SUBCAT C15

Runoff = 0.17 cfs @ 12.09 hrs, Volume= 549 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"

	Area (sf)	CN	Description
*	3,152	98	Proposed Pavement
	720	39	>75% Grass cover, Good, HSG A
	3,872	87	Weighted Average
	720		18.60% Pervious Area
	3,152		81.40% Impervious Area

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

Summary for Subcatchment C16: SUBCAT C16

Runoff = 0.19 cfs @ 12.09 hrs, Volume= 680 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
*	2,992	98	Proposed Pavement
	0	39	>75% Grass cover, Good, HSG A
	2,992	98	Weighted Average
	2,992		100.00% Impervious Area

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

Summary for Subcatchment C17: SUBCAT C17

Runoff = 1.54 cfs @ 12.09 hrs, Volume= 5,120 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"

	Area (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% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (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% Impervious Area

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

Summary for Subcatchment C19: SUBCAT C19

Runoff = 1.87 cfs @ 12.09 hrs, Volume= 5,901 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"

	Area (sf)	CN	Description
*	33,675	98	Proposed Pavement
	7,909	39	>75% Grass cover, Good, HSG A
	41,584	87	Weighted Average
	7,909		19.02% Pervious Area
	33,675		80.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (sf)	CN	Description
*	3,013	98	Proposed Pavement
	679	39	>75% Grass cover, Good, HSG A
	3,692	87	Weighted Average
	679		18.39% Pervious Area
	3,013		81.61% Impervious Area

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

Summary for Subcatchment C21: SUBCAT C21

Runoff = 0.16 cfs @ 12.09 hrs, Volume= 489 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"

	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

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

Summary for Subcatchment C22: SUBCAT C22

Runoff = 0.16 cfs @ 12.09 hrs, Volume= 510 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"

	Area (sf)	CN	Description
*	3,040	98	Proposed Pavement
	900	39	>75% Grass cover, Good, HSG A
	3,940	85	Weighted Average
	900		22.84% Pervious Area
	3,040		77.16% Impervious Area

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

Summary for Subcatchment C23: SUBCAT C23

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"

	Area (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

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

Summary for Subcatchment C24: SUBCAT C24

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

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 2-YR Rainfall=2.96"

	Area (sf)	CN	Description
*	6,366	98	Proposed Pavement
	4,815	39	>75% Grass cover, Good, HSG A
	11,181	73	Weighted Average
	4,815		43.06% Pervious Area
	6,366		56.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (sf)	CN	Description
*	5,747	98	Proposed Pavement
	0	39	>75% Grass cover, Good, HSG A
	5,747	98	Weighted Average
	5,747		100.00% Impervious Area

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

Summary for Subcatchment C26: SUBCAT C26

Runoff = 0.14 cfs @ 12.09 hrs, Volume= 467 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"

	Area (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)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	7,324	98	Proposed Pavement
	919	39	>75% Grass cover, Good, HSG A
	8,243	91	Weighted Average
	919		11.15% Pervious Area
	7,324		88.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	7,771	98	Proposed Pavement
	1,318	39	>75% Grass cover, Good, HSG A
	9,089	89	Weighted Average
	1,318		14.50% Pervious Area
	7,771		85.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
*	3,220	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

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

Summary for Subcatchment C30: SUBCAT C30

Runoff = 0.21 cfs @ 12.09 hrs, Volume= 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"

	Area (sf)	CN	Description
*	3,220	98	Proposed Pavement
	0	39	>75% Grass cover, Good, HSG A
	3,220	98	Weighted Average
	3,220		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
*	8,105	98	Proposed Pavement
	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)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	3,188	98	Proposed Pavement
	1,522	39	>75% Grass cover, Good, HSG A
	4,710	79	Weighted Average
	1,522		32.31% Pervious Area
	3,188		67.69% Impervious Area

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

Summary for Subcatchment C33: SUBCAT C33

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

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
*	3,191	98	Proposed Pavement
	2,940	30	Brush, Good, HSG A
	6,131	65	Weighted Average
	2,940		47.95% Pervious Area
	3,191		52.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	7,727	98	Proposed Pavement
	1,065	39	>75% Grass cover, Good, HSG A
	8,792	91	Weighted Average
	1,065		12.11% Pervious Area
	7,727		87.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	2,325	98	Proposed Pavement
	1,216	39	>75% Grass cover, Good, 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)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment C36: SUBCAT C36

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

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
*	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

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

Summary for Subcatchment C37: 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 Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=2.96"

	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

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (sf)	CN	Description
*	5,075	98	Proposed Pavement
	1,325	39	>75% Grass cover, Good, HSG A
	6,400	86	Weighted Average
	1,325		20.70% Pervious Area
	5,075		79.30% Impervious Area

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

Summary for Subcatchment C4: SUBCAT C4

Runoff = 0.02 cfs @ 12.31 hrs, Volume= 173 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"

	Area (sf)	CN	Description
*	2,532	98	Proposed Pavement
	5,433	39	>75% Grass cover, Good, HSG A
	7,965	58	Weighted Average
	5,433		68.21% Pervious Area
	2,532		31.79% Impervious Area

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

Summary for Subcatchment C5: SUBCAT C5

Runoff = 0.00 cfs @ 12.44 hrs, Volume= 58 cf, Depth> 0.14"

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
*	1,665	98	Proposed Pavement
	3,295	30	Brush, Good, HSG A
	4,960	53	Weighted Average
	3,295		66.43% Pervious Area
	1,665		33.57% Impervious Area

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

Summary for Subcatchment C6: SUBCAT C6

Runoff = 0.14 cfs @ 12.09 hrs, Volume= 480 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
*	2,113	98	Proposed Pavement
	0	39	>75% Grass cover, Good, HSG A
	2,113	98	Weighted Average
	2,113		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	1,980	98	Proposed Pavement
	489	39	>75% Grass cover, Good, HSG A
	2,469	86	Weighted Average
	489		19.81% Pervious Area
	1,980		80.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**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"

	Area (sf)	CN	Description
*	27,832	98	Proposed Pavement
	3,957	39	>75% Grass cover, Good, HSG A
	31,789	91	Weighted Average
	3,957		12.45% Pervious Area
	27,832		87.55% Impervious Area

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

Summary for Subcatchment C9: SUBCAT C9

Runoff = 1.72 cfs @ 12.09 hrs, Volume= 6,079 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
*	26,576	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

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

Summary for Subcatchment D1: SUBCAT D1

Runoff = 0.40 cfs @ 12.09 hrs, Volume= 1,429 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
*	6,290	98	Proposed Pavement
	0	39	>75% Grass cover, Good, HSG A
	6,290	98	Weighted Average
	6,290		100.00% Impervious Area

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

Summary for Subcatchment D10: SUBCAT D10

Runoff = 0.15 cfs @ 12.09 hrs, Volume= 464 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"

	Area (sf)	CN	Description
*	2,769	98	Proposed Pavement
	814	39	>75% Grass cover, Good, HSG A
	3,583	85	Weighted Average
	814		22.72% Pervious Area
	2,769		77.28% Impervious Area

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

Summary for Subcatchment D11: SUBCAT D11

Runoff = 0.65 cfs @ 12.09 hrs, Volume= 2,102 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"

	Area (sf)	CN	Description
*	10,388	98	Proposed Pavement
	1,006	39	>75% Grass cover, Good, HSG A
	11,394	93	Weighted Average
	1,006		8.83% Pervious Area
	10,388		91.17% Impervious Area

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

Summary for Subcatchment D12: SUBCAT D12

Runoff = 0.75 cfs @ 12.09 hrs, Volume= 2,664 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
*	11,726	98	Proposed Pavement
	11,726		100.00% Impervious Area

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

Summary for Subcatchment D13: SUBCAT D13

Runoff = 0.01 cfs @ 12.41 hrs, Volume= 112 cf, Depth> 0.16"

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"

	Area (sf)	CN	Description
*	2,977	98	Proposed Pavement
	5,397	30	Brush, Good, HSG A
	8,374	54	Weighted Average
	5,397		64.45% Pervious Area
	2,977		35.55% Impervious Area

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

Summary for Subcatchment D14: SUBCAT D14

Runoff = 0.48 cfs @ 12.09 hrs, Volume= 1,531 cf, Depth> 1.41"

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"

	Area (sf)	CN	Description
*	9,780	98	Proposed Pavement
	3,220	39	>75% Grass cover, Good, HSG A
	13,000	83	Weighted Average
	3,220		24.77% Pervious Area
	9,780		75.23% Impervious Area

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

Summary for Subcatchment D15: SUBCAT D15

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
	26,789	30	Brush, Good, HSG A
	2,570	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	29,359	30	Weighted Average
	29,359		100.00% Pervious Area

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

Summary for Subcatchment D2: SUBCAT D2

Runoff = 0.00 cfs @ 15.04 hrs, Volume= 55 cf, Depth> 0.05"

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
*	3,235	98	Proposed Pavement
	7,269	30	Brush, Good, HSG A
	1,638	30	Woods, Good, HSG A
	12,142	48	Weighted Average
	8,907		73.36% Pervious Area
	3,235		26.64% Impervious Area

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

Summary for Subcatchment D3: SUBCAT D3

Runoff = 0.12 cfs @ 12.11 hrs, Volume= 431 cf, Depth> 0.69"

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
*	3,953	98	Proposed Pavement
	3,524	39	>75% Grass cover, Good, HSG A
	7,477	70	Weighted Average
	3,524		47.13% Pervious Area
	3,953		52.87% Impervious Area

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

Summary for Subcatchment D4: SUBCAT D4

Runoff = 0.31 cfs @ 12.09 hrs, Volume= 992 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"

	Area (sf)	CN	Description
*	5,129	98	Proposed Pavement
	730	39	>75% Grass cover, Good, HSG A
	5,859	91	Weighted Average
	730		12.46% Pervious Area
	5,129		87.54% Impervious Area

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

Summary for Subcatchment D5: SUBCAT D5

Runoff = 0.38 cfs @ 12.09 hrs, Volume= 1,266 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"

	Area (sf)	CN	Description
*	6,021	98	Proposed Pavement
	285	39	>75% Grass cover, Good, HSG A
	6,306	95	Weighted Average
	285		4.52% Pervious Area
	6,021		95.48% Impervious Area

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

Summary for Subcatchment D6: SUBCAT D6

Runoff = 0.23 cfs @ 12.10 hrs, Volume= 723 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"

	Area (sf)	CN	Description
*	4,723	98	Proposed Pavement
	1,722	39	>75% Grass cover, Good, HSG A
	6,445	82	Weighted Average
	1,722		26.72% Pervious Area
	4,723		73.28% Impervious Area

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

Summary for Subcatchment D7: SUBCAT D7

Runoff = 0.11 cfs @ 12.09 hrs, Volume= 342 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"

	Area (sf)	CN	Description
*	2,061	98	Proposed Pavement
	579	39	>75% Grass cover, Good, HSG A
	2,640	85	Weighted Average
	579		21.93% Pervious Area
	2,061		78.07% Impervious Area

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

Summary for Subcatchment D8: SUBCAT D8

Runoff = 0.00 cfs @ 13.66 hrs, Volume= 59 cf, Depth> 0.10"

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"

	Area (sf)	CN	Description
*	2,200	98	Proposed Pavement
	4,820	30	Brush, Good, HSG A
	7,020	51	Weighted Average
	4,820		68.66% Pervious Area
	2,200		31.34% Impervious Area

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

Summary for Subcatchment D9: SUBCAT D9

Runoff = 0.01 cfs @ 12.44 hrs, Volume= 97 cf, Depth> 0.14"

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
*	2,769	98	Proposed Pavement
	5,538	30	Brush, Good, HSG A
	8,307	53	Weighted Average
	5,538		66.67% Pervious Area
	2,769		33.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
*	5,394	98	Proposed Pavement
	245	39	>75% Grass cover, Good, HSG A
	5,639	95	Weighted Average
	245		4.34% Pervious Area
	5,394		95.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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 Pavement
	4,302	39	>75% Grass cover, Good, HSG A
	11,128	75	Weighted Average
	4,302		38.66% Pervious Area
	6,826		61.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	21,962	98	Proposed Pavement
	1,413	39	>75% Grass cover, Good, HSG A
	23,375	94	Weighted Average
	1,413		6.04% Pervious Area
	21,962		93.96% Impervious Area

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

Summary for Subcatchment E12: SUBCAT E12

Runoff = 1.13 cfs @ 12.09 hrs, Volume= 3,780 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"

	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

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

Summary for Subcatchment E13: SUBCAT E13

Runoff = 2.14 cfs @ 12.09 hrs, Volume= 7,119 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"

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

Summary for Subcatchment E14: SUBCAT 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"

	Area (sf)	CN	Description
*	27,291	98	Proposed Pavement
	517	39	>75% Grass cover, Good, HSG A
	27,808	97	Weighted Average
	517		1.86% Pervious Area
	27,291		98.14% Impervious Area

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

Summary for Subcatchment E15: SUBCAT E15

Runoff = 2.05 cfs @ 12.09 hrs, Volume= 7,064 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"

	Area (sf)	CN	Description
*	31,789	98	Proposed Pavement
	603	39	>75% Grass cover, Good, HSG A
	32,392	97	Weighted Average
	603		1.86% Pervious Area
	31,789		98.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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 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% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
	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	30	Weighted Average
	120,518		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	50	0.1200	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.95"
0.5	55	0.1200	1.73		**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 2-YR Rainfall=2.96"

	Area (sf)	CN	Description
	11,752	30	Brush, Good, HSG A
	0	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	11,752	30	Weighted Average
	11,752		100.00% Pervious Area

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

Summary for Subcatchment E19: SUBCAT E19

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
	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	30	Weighted Average
	75,753		100.00% Pervious Area

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

Summary for Subcatchment E2: SUBCAT E2

Runoff = 0.42 cfs @ 12.09 hrs, Volume= 1,412 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 (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment E3: SUBCAT E3

Runoff = 0.60 cfs @ 12.09 hrs, Volume= 1,963 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 Area
	9,518		93.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (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"

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
*	9,769	98	Proposed Pavement
	1,309	39	>75% Grass cover, Good, HSG A
	11,078	91	Weighted Average
	1,309		11.82% Pervious Area
	9,769		88.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (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% Impervious Area

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

Summary for Subcatchment E6: SUBCAT E6

Runoff = 0.40 cfs @ 12.10 hrs, Volume= 1,275 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"

	Area (sf)	CN	Description
*	8,885	98	Proposed Pavement
	4,330	39	>75% Grass cover, Good, HSG A
	13,215	79	Weighted Average
	4,330		32.77% Pervious Area
	8,885		67.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (sf)	CN	Description
*	8,274	98	Proposed Pavement
	826	39	>75% Grass cover, Good, HSG A
	9,100	93	Weighted Average
	826		9.08% Pervious Area
	8,274		90.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	11,495	98	Proposed Pavement
	1,202	39	>75% Grass cover, Good, HSG A
	12,697	92	Weighted Average
	1,202		9.47% Pervious Area
	11,495		90.53% Impervious Area

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

Summary for Subcatchment E9: SUBCAT E9

Runoff = 0.24 cfs @ 12.09 hrs, Volume= 800 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"

	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

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

Summary for Subcatchment G1: SUBCAT G1

Runoff = 0.00 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
	130,014	30	Brush, Good, HSG A
	73,521	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	203,535	30	Weighted Average
	203,535		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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,** 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	1,090	Total			

Summary for Subcatchment K: SUBCAT K

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

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 2-YR Rainfall=2.96"

	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

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
10.6	1,223	Total			

Summary for Subcatchment L: SUBCAT L

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

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

Summary for Subcatchment R11: SUBCAT R11

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

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"

	Area (sf)	CN	Description
*	31,500	98	Proposed 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 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 Building
	26,325		100.00% Impervious Area

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

Summary for Subcatchment R14: SUBCAT R14

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 Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=2.96"

	Area (sf)	CN	Description
*	28,575	98	Proposed Building
	28,575		100.00% Impervious Area

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

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 (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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 (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (sf)	CN	Description
*	31,500	98	Proposed 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 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"

	Area (sf)	CN	Description
*	7,200	98	Proposed Building
	7,200		100.00% Impervious Area

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

Summary for Subcatchment R2: SUBCAT R2

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 (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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 Building
	56,700		100.00% Impervious Area

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

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 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 Building
	26,325		100.00% Impervious Area

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

Summary for Subcatchment R5: 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 Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=2.96"

	Area (sf)	CN	Description
*	28,575	98	Proposed Building
	28,575		100.00% Impervious Area

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

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

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 (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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 (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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 (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**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 2-YR Rainfall=2.96"

	Area (sf)	CN	Description
	816	39	>75% Grass cover, Good, HSG A
	56,296	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	57,112	30	Weighted Average
	57,112		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
	19,991	30	Brush, Good, HSG A
	70,751	30	Woods, Good, HSG A
*	5,910	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	96,652	34	Weighted Average
	90,742		93.89% Pervious Area
	5,910		6.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (sf)	CN	Description
	38,318	30	Brush, Good, HSG A
	58,186	30	Woods, Good, HSG A
*	15,394	98	Ex. Wetland
*	0	98	Ex. Building
*	1,378	98	Ex. Pavement
	113,276	40	Weighted Average
	96,504		85.19% Pervious Area
	16,772		14.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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 to minimum Tc = 6.0 min			

Summary for Subcatchment S12: SUBCAT S12

Runoff = 0.00 cfs @ 24.00 hrs, Volume= 1 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
	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

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

Summary for Subcatchment S13: SUBCAT S13

Runoff = 0.73 cfs @ 12.09 hrs, Volume= 2,360 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"

	Area (sf)	CN	Description
	1,445	39	>75% Grass cover, Good, HSG A
	0	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	6,578	98	Ex. Pavement
*	5,325	98	Proposed Pavement
	13,348	92	Weighted Average
	1,445		10.83% Pervious Area
	11,903		89.17% Impervious Area

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

Summary for Subcatchment S14: SUBCAT S14

Runoff = 0.63 cfs @ 12.09 hrs, Volume= 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
Type III 24-hr 2-YR Rainfall=2.96"

	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

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

Summary for Subcatchment S2: SUBCAT S2

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
	6,086	30	Brush, Good, HSG A
	66,731	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	72,817	30	Weighted Average
	72,817		100.00% Pervious Area

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

Summary for Subcatchment S3: SUBCAT S3

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
	69,232	30	Brush, Good, HSG A
	27,265	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	96,497	30	Weighted Average
	96,497		100.00% Pervious Area

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

Summary for Subcatchment S4: SUBCAT S4

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
	16,627	30	Brush, Good, HSG A
	210,746	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	227,373	30	Weighted Average
	227,373		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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
	48,388	30	Brush, Good, HSG A
	4,674	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	53,062	30	Weighted Average
	53,062		100.00% Pervious Area

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

Summary for Subcatchment S6: SUBCAT S6

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
	68,729	30	Brush, Good, HSG A
	3,521	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	72,250	30	Weighted Average
	72,250		100.00% Pervious Area

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

Summary for Subcatchment S8: SUBCAT S8

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
	101,355	30	Brush, Good, HSG A
	310,010	30	Woods, Good, HSG A
*	33,536	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
*	1,601	98	Proposed Building
	446,502	35	Weighted Average
	411,365		92.13% Pervious Area
	35,137		7.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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 = 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, 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= 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 = 2,576,385 sf, 46.29% 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= 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'

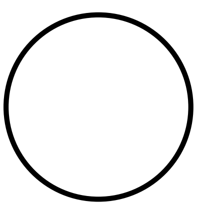
Summary for Reach RG: REACH G

Inflow Area = 203,535 sf, 0.00% Impervious, Inflow Depth = 0.00" for 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= 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'

Summary for Reach W2: WETLAND REACH 2

Inflow Area = 339,955 sf, 5.18% 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= 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 > 1.90" for 2-YR event
Inflow = 0.47 cfs @ 12.09 hrs, Volume= 1,632 cf
Outflow = 0.47 cfs @ 12.09 hrs, Volume= 1,632 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.47 cfs @ 12.09 hrs, Volume= 1,632 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= 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 = 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 = 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 min
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'

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 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, Atten= 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 = 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 min
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 = 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'

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 =	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 =	151,042 sf,	86.68% Impervious,	Inflow Depth > 2.01"	for 2-YR event
Inflow =	7.66 cfs @	12.09 hrs, Volume=	25,353 cf	
Outflow =	7.66 cfs @	12.09 hrs, Volume=	25,353 cf,	Atten= 0%, Lag= 0.0 min
Primary =	7.66 cfs @	12.09 hrs, Volume=	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'

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)
└─**1=Culvert** (Outlet Controls 5.52 cfs @ 3.83 fps)

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, Atten= 0%, Lag= 0.0 min	
Primary =	4.38 cfs @ 12.09 hrs, Volume=	14,078 cf	

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 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 = 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 = 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= 510 cf, Atten= 0%, Lag= 0.0 min
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'

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% Impervious, Inflow Depth > 1.34" for 2-YR event
Inflow = 0.69 cfs @ 12.09 hrs, Volume= 2,407 cf
Outflow = 0.69 cfs @ 12.09 hrs, Volume= 2,407 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.69 cfs @ 12.09 hrs, Volume= 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 =	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 min
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,	Atten= 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'

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 = 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 CC30: CB-C30

Inflow Area = 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 =	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 min
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'

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= 0.900 n= 0.012, Flow Area= 0.79 sf

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 =	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 = 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 = 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'

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 = 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, Atten= 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 =	7,965 sf, 31.79% Impervious,	Inflow Depth > 0.26" for 2-YR event	
Inflow =	0.02 cfs @ 12.31 hrs,	Volume=	173 cf
Outflow =	0.02 cfs @ 12.31 hrs,	Volume=	173 cf, Atten= 0%, Lag= 0.0 min
Primary =	0.02 cfs @ 12.31 hrs,	Volume=	173 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 157.57' @ 12.31 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 @ 12.31 hrs HW=157.57' TW=157.27' (Dynamic Tailwater)
1=Culvert (Barrel Controls 0.02 cfs @ 1.28 fps)

Summary for Pond CC5: CB-C5

Inflow Area =	4,960 sf, 33.57% Impervious,	Inflow Depth > 0.14" for 2-YR event	
Inflow =	0.00 cfs @ 12.44 hrs,	Volume=	58 cf
Outflow =	0.00 cfs @ 12.44 hrs,	Volume=	58 cf, Atten= 0%, Lag= 0.0 min
Primary =	0.00 cfs @ 12.44 hrs,	Volume=	58 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 159.48' @ 12.44 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=0.00 cfs @ 12.44 hrs HW=159.48' TW=156.56' (Dynamic Tailwater)
1=Culvert (Barrel Controls 0.00 cfs @ 0.78 fps)

Summary for Pond CC6: CB-C6

Inflow Area =	17,507 sf, 47.35% Impervious,	Inflow Depth > 0.72" for 2-YR event	
Inflow =	0.25 cfs @ 12.10 hrs,	Volume=	1,045 cf
Outflow =	0.25 cfs @ 12.10 hrs,	Volume=	1,045 cf, Atten= 0%, Lag= 0.0 min
Primary =	0.25 cfs @ 12.10 hrs,	Volume=	1,045 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'

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=0.25 cfs @ 12.10 hrs HW=156.66' TW=147.55' (Dynamic Tailwater)
1=Culvert (Inlet Controls 0.25 cfs @ 1.68 fps)

Summary for Pond CC7: CB-C7

Inflow Area =	10,434 sf, 43.24% Impervious,	Inflow Depth > 0.58"	for 2-YR event
Inflow =	0.12 cfs @ 12.11 hrs, Volume=	508 cf	
Outflow =	0.12 cfs @ 12.11 hrs, Volume=	508 cf, Atten= 0%, Lag= 0.0 min	
Primary =	0.12 cfs @ 12.11 hrs, Volume=	508 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 @ 12.11 hrs HW=157.30' TW=156.66' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.12 cfs @ 2.09 fps)

Summary for Pond CC8: CB-C8

Inflow Area =	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 =	12.67 cfs @ 12.09 hrs, Volume=	42,185 cf, Atten= 0%, Lag= 0.0 min	
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 = 6,290 sf,100.00% Impervious, Inflow Depth > 2.73" for 2-YR event
Inflow = 0.40 cfs @ 12.09 hrs, Volume= 1,429 cf
Outflow = 0.40 cfs @ 12.09 hrs, Volume= 1,429 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.40 cfs @ 12.09 hrs, Volume= 1,429 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.36' @ 12.09 hrs
Flood Elev= 162.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.05'	**12.0" Round Culvert** L= 141.0' Ke= 0.500 Inlet / Outlet Invert= 158.05' / 153.82' S= 0.0300 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.39 cfs @ 12.09 hrs HW=158.36' TW=154.03' (Dynamic Tailwater)
1=Culvert (Inlet Controls 0.39 cfs @ 1.90 fps)

Summary for Pond CD10: CB-D10

Inflow Area = 82,899 sf, 66.31% Impervious, Inflow Depth > 1.33" for 2-YR event
Inflow = 2.69 cfs @ 12.09 hrs, Volume= 9,194 cf
Outflow = 2.69 cfs @ 12.09 hrs, Volume= 9,194 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.69 cfs @ 12.09 hrs, Volume= 9,194 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 156.87' @ 12.10 hrs
Flood Elev= 161.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.09'	**24.0" Round Culvert** L= 83.0' Ke= 0.500

Inlet / Outlet Invert= 156.09' / 155.68' S= 0.0049 '/' Cc= 0.900
n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=2.53 cfs @ 12.09 hrs HW=156.86' TW=156.32' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 2.53 cfs @ 3.38 fps)

Summary for Pond CD11: CB-D11

Inflow Area =	23,120 sf,	95.65% Impervious,	Inflow Depth > 2.47"	for 2-YR event	
Inflow =	1.40 cfs @	12.09 hrs,	Volume=	4,767 cf	
Outflow =	1.40 cfs @	12.09 hrs,	Volume=	4,767 cf,	Atten= 0%, Lag= 0.0 min
Primary =	1.40 cfs @	12.09 hrs,	Volume=	4,767 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.76' @ 12.09 hrs
Flood Elev= 161.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.10'	**15.0" Round Culvert** L= 41.0' Ke= 0.500 Inlet / Outlet Invert= 158.10' / 157.89' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.36 cfs @ 12.09 hrs HW=158.75' TW=156.86' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 1.36 cfs @ 3.08 fps)

Summary for Pond CD12: CB-D12

Inflow Area =	11,726 sf,	100.00% Impervious,	Inflow Depth > 2.73"	for 2-YR event	
Inflow =	0.75 cfs @	12.09 hrs,	Volume=	2,664 cf	
Outflow =	0.75 cfs @	12.09 hrs,	Volume=	2,664 cf,	Atten= 0%, Lag= 0.0 min
Primary =	0.75 cfs @	12.09 hrs,	Volume=	2,664 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 159.15' @ 12.09 hrs
Flood Elev= 162.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.65'	**12.0" Round Culvert** L= 60.0' Ke= 0.500 Inlet / Outlet Invert= 158.65' / 158.35' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.71 cfs @ 12.09 hrs HW=159.15' TW=158.75' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 0.71 cfs @ 2.67 fps)

Summary for Pond CD13: CB-D13

Inflow Area =	8,374 sf,	35.55% Impervious,	Inflow Depth > 0.16"	for 2-YR event	
Inflow =	0.01 cfs @	12.41 hrs,	Volume=	112 cf	
Outflow =	0.01 cfs @	12.41 hrs,	Volume=	112 cf,	Atten= 0%, Lag= 0.0 min
Primary =	0.01 cfs @	12.41 hrs,	Volume=	112 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 157.46' @ 12.16 hrs
Flood Elev= 161.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.35'	**12.0" Round Culvert** L= 35.0' Ke= 0.500 Inlet / Outlet Invert= 157.35' / 157.17' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.01 cfs @ 12.41 hrs HW=157.42' TW=157.30' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 0.01 cfs @ 0.68 fps)

Summary for Pond CD14: CB-D14

Inflow Area = 21,374 sf, 59.68% Impervious, Inflow Depth > 0.92" for 2-YR event
Inflow = 0.48 cfs @ 12.09 hrs, Volume= 1,643 cf
Outflow = 0.48 cfs @ 12.09 hrs, Volume= 1,643 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.48 cfs @ 12.09 hrs, Volume= 1,643 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 157.46' @ 12.09 hrs
Flood Elev= 161.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.07'	**12.0" Round Culvert** L= 107.0' Ke= 0.500 Inlet / Outlet Invert= 157.07' / 156.53' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.48 cfs @ 12.09 hrs HW=157.46' TW=156.32' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 0.48 cfs @ 2.52 fps)

Summary for Pond CD2: CB-D2

Inflow Area = 12,142 sf, 26.64% Impervious, Inflow Depth > 0.05" for 2-YR event
Inflow = 0.00 cfs @ 15.04 hrs, Volume= 55 cf
Outflow = 0.00 cfs @ 15.04 hrs, Volume= 55 cf, Atten= 0%, Lag= 0.2 min
Primary = 0.00 cfs @ 15.04 hrs, Volume= 55 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.78' @ 15.04 hrs
Flood Elev= 162.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.75'	**12.0" Round Culvert** L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 158.75' / 158.62' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 15.04 hrs HW=158.78' TW=158.58' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 0.00 cfs @ 0.50 fps)

Summary for Pond CD3: CB-D3

Inflow Area = 19,619 sf, 36.64% Impervious, Inflow Depth > 0.30" for 2-YR event
Inflow = 0.12 cfs @ 12.11 hrs, Volume= 485 cf
Outflow = 0.12 cfs @ 12.11 hrs, Volume= 485 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.12 cfs @ 12.11 hrs, Volume= 485 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.74' @ 12.12 hrs
Flood Elev= 162.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.52'	**12.0" Round Culvert** L= 27.0' Ke= 0.500 Inlet / Outlet Invert= 158.52' / 158.38' S= 0.0052 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.11 cfs @ 12.11 hrs HW=158.74' TW=158.64' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 0.11 cfs @ 1.27 fps)

Summary for Pond CD4: CB-D4

Inflow Area = 25,478 sf, 48.34% Impervious, Inflow Depth > 0.70" for 2-YR event
Inflow = 0.43 cfs @ 12.09 hrs, Volume= 1,478 cf
Outflow = 0.43 cfs @ 12.09 hrs, Volume= 1,478 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.43 cfs @ 12.09 hrs, Volume= 1,478 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.65' @ 12.10 hrs
Flood Elev= 162.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.28'	**12.0" Round Culvert** L= 109.0' Ke= 0.500 Inlet / Outlet Invert= 158.28' / 157.73' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.41 cfs @ 12.09 hrs HW=158.64' TW=158.04' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 0.41 cfs @ 2.37 fps)

Summary for Pond CD5: CB-D5

Inflow Area = 6,306 sf, 95.48% Impervious, Inflow Depth > 2.41" for 2-YR event
Inflow = 0.38 cfs @ 12.09 hrs, Volume= 1,266 cf
Outflow = 0.38 cfs @ 12.09 hrs, Volume= 1,266 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.38 cfs @ 12.09 hrs, Volume= 1,266 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.80' @ 12.09 hrs
Flood Elev= 162.75'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.50'	**12.0" Round Culvert** L= 50.0' Ke= 0.500

Inlet / Outlet Invert= 158.50' / 157.73' S= 0.0154 '/' Cc= 0.900
n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.37 cfs @ 12.09 hrs HW=158.80' TW=158.04' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 0.37 cfs @ 1.87 fps)

Summary for Pond CD6: CB-D6

Inflow Area =	47,889 sf,	57.05% Impervious,	Inflow Depth > 0.97"	for 2-YR event
Inflow =	1.14 cfs @	12.09 hrs, Volume=	3,867 cf	
Outflow =	1.14 cfs @	12.09 hrs, Volume=	3,867 cf,	Atten= 0%, Lag= 0.0 min
Primary =	1.14 cfs @	12.09 hrs, Volume=	3,867 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.05' @ 12.09 hrs
Flood Elev= 162.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.48'	**15.0" Round Culvert** L= 128.0' Ke= 0.500 Inlet / Outlet Invert= 157.48' / 156.84' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.12 cfs @ 12.09 hrs HW=158.04' TW=156.86' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 1.12 cfs @ 3.10 fps)

Summary for Pond CD7: CB-D7

Inflow Area =	9,660 sf,	44.11% Impervious,	Inflow Depth > 0.50"	for 2-YR event
Inflow =	0.11 cfs @	12.09 hrs, Volume=	401 cf	
Outflow =	0.11 cfs @	12.09 hrs, Volume=	401 cf,	Atten= 0%, Lag= 0.0 min
Primary =	0.11 cfs @	12.09 hrs, Volume=	401 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.68' @ 12.09 hrs
Flood Elev= 162.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.52'	**12.0" Round Culvert** L= 41.0' Ke= 0.500 Inlet / Outlet Invert= 158.52' / 157.73' S= 0.0193 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.11 cfs @ 12.09 hrs HW=158.68' TW=158.04' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 0.11 cfs @ 1.35 fps)

Summary for Pond CD8: CB-D8

Inflow Area =	7,020 sf,	31.34% Impervious,	Inflow Depth > 0.10"	for 2-YR event
Inflow =	0.00 cfs @	13.66 hrs, Volume=	59 cf	
Outflow =	0.00 cfs @	13.66 hrs, Volume=	59 cf,	Atten= 0%, Lag= 0.1 min
Primary =	0.00 cfs @	13.66 hrs, Volume=	59 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.78' @ 13.66 hrs
Flood Elev= 162.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.75'	**12.0" Round Culvert** L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 158.75' / 158.62' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 13.66 hrs HW=158.78' TW=158.57' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 0.00 cfs @ 0.52 fps)

Summary for Pond CD9: CB-D9

Inflow Area = 8,307 sf, 33.33% Impervious, Inflow Depth > 0.14" for 2-YR event
Inflow = 0.01 cfs @ 12.44 hrs, Volume= 97 cf
Outflow = 0.01 cfs @ 12.44 hrs, Volume= 97 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.01 cfs @ 12.44 hrs, Volume= 97 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.40' @ 12.44 hrs
Flood Elev= 161.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.35'	**12.0" Round Culvert** L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 158.35' / 158.22' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.01 cfs @ 12.44 hrs HW=158.40' TW=156.50' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 0.01 cfs @ 0.72 fps)

Summary for Pond CE1: CB-E1

Inflow Area = 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 min
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 =	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 min
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' @ 12.11 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=14.30 cfs @ 12.09 hrs HW=152.28' TW=151.76' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 14.30 cfs @ 4.32 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= 152.41' @ 12.12 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=8.23 cfs @ 12.09 hrs HW=152.38' TW=151.77' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 8.23 cfs @ 4.02 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 min
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=7.63 cfs @ 12.09 hrs HW=153.04' TW=152.38' (Dynamic Tailwater)
1=Culvert (Outlet Controls 7.63 cfs @ 3.98 fps)

Summary for Pond CE13: CB-E13

Inflow Area =	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 min
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'

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,	Atten= 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 event
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 =	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,	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)
└─**1=Culvert** (Controls 0.00 cfs)

Summary for Pond CE18: CB-E18

Inflow Area = 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'

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, 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= 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)
└─**1=Culvert** (Controls 0.00 cfs)

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, Atten= 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=151.78' (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 min
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'

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)
└─**1=Culvert** (Barrel Controls 2.37 cfs @ 3.56 fps)

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, Atten= 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)
└─**1=Culvert** (Outlet Controls 1.14 cfs @ 2.87 fps)

Summary for Pond CE9: CB-E9

Inflow Area = 10,388 sf, 85.30% Impervious, Inflow Depth > 1.93" for 2-YR event
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= 0.0 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, Atten= 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'

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% Impervious,	Inflow Depth > 2.03"	for 2-YR event
Inflow =	0.63 cfs @ 12.09 hrs, Volume=	2,002 cf	
Outflow =	0.63 cfs @ 12.09 hrs, Volume=	2,002 cf, Atten= 0%, Lag= 0.0 min	
Primary =	0.63 cfs @ 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,	Inflow 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=144.98' (Dynamic Tailwater)
1=Culvert (Barrel Controls 15.76 cfs @ 5.66 fps)

Summary for Pond DC11: DMH-C11

Inflow Area = 361,529 sf, 85.31% Impervious, Inflow Depth > 1.99" for 2-YR event
Inflow = 17.97 cfs @ 12.09 hrs, Volume= 59,872 cf
Outflow = 17.97 cfs @ 12.09 hrs, Volume= 59,872 cf, Atten= 0%, Lag= 0.0 min
Primary = 17.97 cfs @ 12.09 hrs, Volume= 59,872 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=17.56 cfs @ 12.09 hrs HW=147.54' TW=144.99' (Dynamic Tailwater)
1=Culvert (Barrel Controls 17.56 cfs @ 5.57 fps)

Summary for Pond DC2: DMH-C2

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)
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 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 DC4: DMH-C4

Inflow Area = 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 =	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 =	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'

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=9.08 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 =	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
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 = 850,162 sf, 59.50% Impervious, Inflow Depth > 1.48" for 2-YR event
Inflow = 16.00 cfs @ 12.23 hrs, Volume= 104,915 cf
Outflow = 16.00 cfs @ 12.23 hrs, Volume= 104,915 cf, Atten= 0%, Lag= 0.0 min
Primary = 16.00 cfs @ 12.23 hrs, Volume= 104,915 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 151.05' @ 12.27 hrs
Flood Elev= 162.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	148.95'	**30.0" Round Culvert** L= 182.0' Ke= 0.500 Inlet / Outlet Invert= 148.95' / 148.04' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=15.38 cfs @ 12.23 hrs HW=151.03' TW=150.07' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 15.38 cfs @ 4.77 fps)

Summary for Pond DD2: DMH-D2

Inflow Area = 850,162 sf, 59.50% Impervious, Inflow Depth > 1.48" for 2-YR event
Inflow = 16.00 cfs @ 12.23 hrs, Volume= 104,915 cf
Outflow = 16.00 cfs @ 12.23 hrs, Volume= 104,915 cf, Atten= 0%, Lag= 0.0 min
Primary = 16.00 cfs @ 12.23 hrs, Volume= 104,915 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 150.09' @ 12.26 hrs
Flood Elev= 162.66'

Device	Routing	Invert	Outlet Devices
#1	Primary	147.94'	**30.0" Round Culvert** L= 94.0' Ke= 0.500 Inlet / Outlet Invert= 147.94' / 147.47' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=15.47 cfs @ 12.23 hrs HW=150.07' TW=149.35' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 15.47 cfs @ 4.67 fps)

Summary for Pond DD3: DMH-D3

Inflow Area = 850,162 sf, 59.50% Impervious, Inflow Depth > 1.48" for 2-YR event
Inflow = 16.00 cfs @ 12.23 hrs, Volume= 104,915 cf
Outflow = 16.00 cfs @ 12.23 hrs, Volume= 104,915 cf, Atten= 0%, Lag= 0.0 min
Primary = 16.00 cfs @ 12.23 hrs, Volume= 104,915 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 149.36' @ 12.24 hrs
Flood Elev= 162.43'

Device	Routing	Invert	Outlet Devices
#1	Primary	147.37'	**30.0" Round Culvert** L= 213.0' Ke= 0.500 Inlet / Outlet Invert= 147.37' / 146.30' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=15.79 cfs @ 12.23 hrs HW=149.35' TW=148.10' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 15.79 cfs @ 5.20 fps)

Summary for Pond DD4: DMH-D4

Inflow Area = 850,162 sf, 59.50% Impervious, Inflow Depth > 1.48" for 2-YR event
Inflow = 16.00 cfs @ 12.23 hrs, Volume= 104,915 cf
Outflow = 16.00 cfs @ 12.23 hrs, Volume= 104,915 cf, Atten= 0%, Lag= 0.0 min
Primary = 16.00 cfs @ 12.23 hrs, Volume= 104,915 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 148.11' @ 12.23 hrs
Flood Elev= 152.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	146.20'	**30.0" Round Culvert** L= 133.0' Ke= 0.500

Inlet / Outlet Invert= 146.20' / 145.53' S= 0.0050 '/' Cc= 0.900
n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=15.92 cfs @ 12.23 hrs HW=148.10' TW=142.97' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 15.92 cfs @ 5.50 fps)

Summary for Pond DD5: DMH-D5

Inflow Area = 104,273 sf, 64.96% Impervious, Inflow Depth > 1.25" for 2-YR event
Inflow = 3.17 cfs @ 12.09 hrs, Volume= 10,838 cf
Outflow = 3.17 cfs @ 12.09 hrs, Volume= 10,838 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.17 cfs @ 12.09 hrs, Volume= 10,838 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 156.33' @ 12.09 hrs
Flood Elev= 163.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.58'	**24.0" Round Culvert** L= 124.0' Ke= 0.500 Inlet / Outlet Invert= 155.58' / 149.65' S= 0.0478 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=3.10 cfs @ 12.09 hrs HW=156.32' TW=150.37' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 3.10 cfs @ 2.93 fps)

Summary for Pond DD6: DMH-D6

Inflow Area = 104,273 sf, 64.96% Impervious, Inflow Depth > 1.25" for 2-YR event
Inflow = 3.17 cfs @ 12.09 hrs, Volume= 10,838 cf
Outflow = 3.17 cfs @ 12.09 hrs, Volume= 10,838 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.17 cfs @ 12.09 hrs, Volume= 10,838 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 150.38' @ 12.09 hrs
Flood Elev= 153.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	149.55'	**24.0" Round Culvert** L= 127.0' Ke= 0.500 Inlet / Outlet Invert= 149.55' / 148.92' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=3.10 cfs @ 12.09 hrs HW=150.37' TW=142.61' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 3.10 cfs @ 3.81 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)
└─**1=Culvert** (Outlet Controls 0.44 cfs @ 2.61 fps)

Summary for Pond DE10: DMH-E10

Inflow Area = 6,290 sf,100.00% Impervious, Inflow Depth > 2.73" for 2-YR event
Inflow = 0.40 cfs @ 12.09 hrs, Volume= 1,429 cf
Outflow = 0.40 cfs @ 12.09 hrs, Volume= 1,429 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.40 cfs @ 12.09 hrs, Volume= 1,429 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 154.03' @ 12.09 hrs
Flood Elev= 160.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.72'	**12.0" Round Culvert** L= 27.0' Ke= 0.500 Inlet / Outlet Invert= 153.72' / 150.45' S= 0.1211 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.39 cfs @ 12.09 hrs HW=154.03' TW=151.76' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 0.39 cfs @ 1.90 fps)

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 =	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 =	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=154.75' (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 =	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= 154.13' @ 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)

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 =	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 = 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'

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 = 685,779 sf, 81.72% Impervious, Inflow Depth > 2.05" for 2-YR event
Inflow = 34.17 cfs @ 12.09 hrs, Volume= 117,134 cf
Outflow = 2.28 cfs @ 13.64 hrs, Volume= 111,748 cf, Atten= 93%, Lag= 93.3 min
Discarded = 2.28 cfs @ 13.64 hrs, Volume= 111,748 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= 145.85' @ 13.64 hrs Surf.Area= 32,805 sf Storage= 51,246 cf
Flood Elev= 150.50' Surf.Area= 45,600 sf Storage= 231,359 cf

Plug-Flow detention time= 210.1 min calculated for 111,748 cf (95% of inflow)
Center-of-Mass det. time= 183.5 min (959.4 - 775.8)

Volume	Invert	Avail.Storage	Storage Description
#1	144.00'	231,359 cf	**Custom Stage Data (Conic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
144.00	23,000	0	0	23,000
146.00	33,700	56,360	56,360	33,766
148.00	38,000	71,657	128,017	38,270
150.00	43,200	81,144	209,162	43,663
150.50	45,600	22,197	231,359	46,092

Device	Routing	Invert	Outlet Devices
#1	Discarded	144.00'	**3.000 in/hr Exfiltration over Wetted area** Phase-In= 0.01'
#2	Primary	146.50'	**24.0" Round Culvert** L= 36.0' Ke= 0.500 Inlet / Outlet Invert= 146.50' / 144.34' S= 0.0600 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#3	Device 2	149.50'	**36.0" x 48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=2.28 cfs @ 13.64 hrs HW=145.85' (Free Discharge)
└─**1=Exfiltration** (Exfiltration Controls 2.28 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)

Summary for Pond PD: POND D

Inflow Area = 1,007,497 sf, 56.93% Impervious, Inflow Depth > 1.38" for 2-YR event
Inflow = 17.93 cfs @ 12.17 hrs, Volume= 115,753 cf
Outflow = 1.79 cfs @ 14.86 hrs, Volume= 90,832 cf, Atten= 90%, Lag= 161.0 min
Discarded = 1.79 cfs @ 14.86 hrs, Volume= 90,832 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= 144.47' @ 14.86 hrs Surf.Area= 25,573 sf Storage= 55,778 cf
Flood Elev= 150.50' Surf.Area= 40,900 sf Storage= 260,517 cf

Plug-Flow detention time= 252.8 min calculated for 90,644 cf (78% of inflow)
Center-of-Mass det. time= 174.4 min (980.1 - 805.7)

Volume	Invert	Avail.Storage	Storage Description
#1	142.00'	260,517 cf	**Custom Stage Data (Conic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
142.00	20,200	0	0	20,200
144.00	24,000	44,145	44,145	24,143
146.00	31,050	54,899	99,044	31,290
148.00	35,300	66,305	165,349	35,732
150.00	39,750	75,006	240,355	40,389
150.50	40,900	20,162	260,517	41,593

Device	Routing	Invert	Outlet Devices
#1	Discarded	142.00'	**3.000 in/hr Exfiltration over Wetted area** Phase-In= 0.01'
#2	Primary	146.50'	**24.0" Round Culvert** L= 122.0' Ke= 0.500 Inlet / Outlet Invert= 146.50' / 144.67' S= 0.0150 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#3	Device 2	149.50'	**36.0" x 48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=1.79 cfs @ 14.86 hrs HW=144.47' (Free Discharge)
└─**1=Exfiltration** (Exfiltration Controls 1.79 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 = 850,162 sf, 59.50% Impervious, Inflow Depth > 1.51" for 2-YR event
Inflow = 31.12 cfs @ 12.09 hrs, Volume= 107,057 cf
Outflow = 16.00 cfs @ 12.23 hrs, Volume= 104,915 cf, Atten= 49%, Lag= 8.4 min
Primary = 16.00 cfs @ 12.23 hrs, Volume= 104,915 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Starting Elev= 150.00' Surf.Area= 9,000 sf Storage= 15,000 cf
Peak Elev= 152.11' @ 12.24 hrs Surf.Area= 12,459 sf Storage= 37,663 cf (22,663 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= 137.3 min calculated for 89,728 cf (84% of inflow)
Center-of-Mass det. time= 32.2 min (805.7 - 773.4)

Volume	Invert	Avail.Storage	Storage Description
#1	148.00'	200,400 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
148.00	6,000	0	0
150.00	9,000	15,000	15,000
152.00	12,250	21,250	36,250
154.00	15,900	28,150	64,400
156.00	20,150	36,050	100,450
158.00	24,800	44,950	145,400
160.00	30,200	55,000	200,400

Device	Routing	Invert	Outlet Devices
#1	Primary	149.90'	**30.0" Round Culvert** L= 170.0' Ke= 0.500 Inlet / Outlet Invert= 149.90' / 149.05' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf
#2	Device 1	150.00'	**24.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	157.50'	**36.0" x 48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=15.71 cfs @ 12.23 hrs HW=152.11' TW=151.03' (Dynamic Tailwater)
└─**1=Culvert** (Passes 15.71 cfs of 17.87 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 15.71 cfs @ 5.00 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)

Volume	Invert	Avail.Storage	Storage Description
#1	146.00'	47,909 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
146.00	1,500	0	0	1,500
148.00	3,225	4,616	4,616	3,258
150.00	5,950	9,037	13,653	6,024
152.00	8,574	14,444	28,098	8,716
154.00	11,300	19,811	47,909	11,532

Device	Routing	Invert	Outlet Devices
#1	Primary	150.00'	**15.0" Round Culvert** L= 22.0' Ke= 0.500 Inlet / Outlet Invert= 150.00' / 149.78' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	150.00'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Primary	153.50'	**48.0" x 36.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

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 Pond PT: INFILTRATION TRENCH

Inflow Area = 29,359 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
Discarded = 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= 150.00' @ 0.00 hrs Surf.Area= 1,410 sf Storage= 0 cf
Flood Elev= 152.00' Surf.Area= 1,410 sf Storage= 1,128 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	150.00'	1,128 cf	**3.00'W x 470.00'L x 2.00'H Prismatoid** 2,820 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Discarded	150.00'	**3.000 in/hr Exfiltration over Wetted area** Phase-In= 0.01'

Discarded OutFlow Max=0.00 cfs @ 0.00 hrs HW=150.00' (Free Discharge)
└—**1=Exfiltration** (Controls 0.00 cfs)

Summary for Link L1: NORTHEAST PROPERTY CORNER

Inflow Area = 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, Atten= 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 = 3,207,969 sf, 37.96% Impervious, Inflow Depth > 0.00" for 2-YR event
Inflow = 0.02 cfs @ 17.20 hrs, Volume= 546 cf
Primary = 0.02 cfs @ 17.20 hrs, Volume= 546 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 Area = 2,576,385 sf, 46.29% 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, Atten= 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 = 227,373 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, Atten= 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 =	72,817 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, 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 Area =	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, Atten= 0%, Lag= 0.0 min	

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

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>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 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

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

Subcatchment C21: SUBCAT C21 Runoff Area=3,610 sf 79.03% Impervious Runoff Depth>2.97"
Tc=6.0 min CN=86 Runoff=0.28 cfs 894 cf

Subcatchment C22: SUBCAT C22 Runoff Area=3,940 sf 77.16% Impervious Runoff Depth>2.88"
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

Subcatchment C26: SUBCAT C26 Runoff Area=2,533 sf 92.22% Impervious Runoff Depth>3.68"
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

Subcatchment C30: SUBCAT C30 Runoff Area=3,220 sf 100.00% Impervious Runoff Depth>4.23"
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

Subcatchment C33: SUBCAT C33 Runoff Area=6,131 sf 52.05% Impervious Runoff Depth>1.31"
Tc=6.0 min CN=65 Runoff=0.20 cfs 669 cf

Subcatchment C34: SUBCAT C34 Runoff Area=8,792 sf 87.89% Impervious Runoff Depth>3.47"
Tc=6.0 min CN=91 Runoff=0.77 cfs 2,540 cf

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

Subcatchment C37: SUBCAT C37 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=7,965 sf 31.79% Impervious Runoff Depth>0.89" Tc=6.0 min CN=58 Runoff=0.15 cfs 590 cf
Subcatchment C5: SUBCAT C5	Runoff Area=4,960 sf 33.57% Impervious Runoff Depth>0.63" Tc=6.0 min CN=53 Runoff=0.05 cfs 259 cf
Subcatchment C6: SUBCAT C6	Runoff Area=2,113 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=0.21 cfs 745 cf
Subcatchment C7: SUBCAT C7	Runoff Area=2,469 sf 80.19% Impervious Runoff Depth>2.97" 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
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=6,290 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=0.62 cfs 2,218 cf
Subcatchment D10: SUBCAT D10	Runoff Area=3,583 sf 77.28% Impervious Runoff Depth>2.88" Tc=6.0 min CN=85 Runoff=0.27 cfs 860 cf
Subcatchment D11: SUBCAT D11	Runoff Area=11,394 sf 91.17% Impervious Runoff Depth>3.68" Tc=6.0 min CN=93 Runoff=1.04 cfs 3,490 cf
Subcatchment D12: SUBCAT D12	Runoff Area=11,726 sf 100.00% Impervious Runoff Depth>4.23" Tc=6.0 min CN=98 Runoff=1.15 cfs 4,135 cf
Subcatchment D13: SUBCAT D13	Runoff Area=8,374 sf 35.55% Impervious Runoff Depth>0.68" Tc=6.0 min CN=54 Runoff=0.10 cfs 472 cf
Subcatchment D14: SUBCAT D14	Runoff Area=13,000 sf 75.23% Impervious Runoff Depth>2.70" Tc=6.0 min CN=83 Runoff=0.92 cfs 2,921 cf
Subcatchment D15: SUBCAT D15	Runoff Area=29,359 sf 0.00% Impervious Runoff Depth=0.00" Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf
Subcatchment D2: SUBCAT D2	Runoff Area=12,142 sf 26.64% Impervious Runoff Depth>0.40" Tc=6.0 min CN=48 Runoff=0.05 cfs 408 cf
Subcatchment D3: SUBCAT D3	Runoff Area=7,477 sf 52.87% Impervious Runoff Depth>1.65" Tc=6.0 min CN=70 Runoff=0.32 cfs 1,029 cf
Subcatchment D4: SUBCAT D4	Runoff Area=5,859 sf 87.54% Impervious Runoff Depth>3.47" Tc=6.0 min CN=91 Runoff=0.52 cfs 1,693 cf
Subcatchment D5: SUBCAT D5	Runoff Area=6,306 sf 95.48% Impervious Runoff Depth>3.89" Tc=6.0 min CN=95 Runoff=0.60 cfs 2,046 cf

Subcatchment D6: SUBCAT D6 Runoff Area=6,445 sf 73.28% Impervious Runoff Depth>2.61"
Tc=6.0 min CN=82 Runoff=0.44 cfs 1,400 cf

Subcatchment D7: SUBCAT D7 Runoff Area=2,640 sf 78.07% Impervious Runoff Depth>2.88"
Tc=6.0 min CN=85 Runoff=0.20 cfs 633 cf

Subcatchment D8: SUBCAT D8 Runoff Area=7,020 sf 31.34% Impervious Runoff Depth>0.53"
Tc=6.0 min CN=51 Runoff=0.05 cfs 312 cf

Subcatchment D9: SUBCAT D9 Runoff Area=8,307 sf 33.33% Impervious Runoff Depth>0.63"
Tc=6.0 min CN=53 Runoff=0.09 cfs 434 cf

Subcatchment E1: SUBCAT E1 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

Subcatchment E10: SUBCAT E10 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

Subcatchment E15: SUBCAT E15 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

Subcatchment E16: SUBCAT E16 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

Subcatchment E3: SUBCAT E3 Runoff Area=10,197 sf 93.34% Impervious Runoff Depth>3.78"
Tc=6.0 min CN=94 Runoff=0.95 cfs 3,215 cf

Subcatchment E4: SUBCAT E4 Runoff Area=11,078 sf 88.18% Impervious Runoff Depth>3.47"
Tc=6.0 min CN=91 Runoff=0.98 cfs 3,200 cf

Subcatchment E5: SUBCAT E5 Runoff Area=9,740 sf 67.06% Impervious Runoff Depth>2.35"
Tc=6.0 min CN=79 Runoff=0.60 cfs 1,907 cf

Subcatchment E6: SUBCAT E6 Runoff Area=13,215 sf 67.23% Impervious Runoff Depth>2.35"
Tc=6.0 min CN=79 Runoff=0.82 cfs 2,587 cf

Subcatchment E7: SUBCAT E7 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

Subcatchment E8: SUBCAT E8 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

Subcatchment E9: SUBCAT E9 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

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>0.29"
Flow Length=1,223' Tc=10.6 min CN=45 Runoff=0.71 cfs 7,605 cf

Subcatchment L: 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

Subcatchment R1: SUBCAT R1 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 R10: SUBCAT R10 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

Subcatchment R11: SUBCAT R11 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 R12: SUBCAT R12 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 R13: SUBCAT R13 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 R14: SUBCAT R14 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 R15: SUBCAT R15 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 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

Subcatchment S1: SUBCAT S1 Runoff Area=57,112 sf 0.00% Impervious Runoff Depth=0.00"
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>0.02"
Flow Length=455' Tc=12.0 min CN=34 Runoff=0.01 cfs 136 cf

Subcatchment S11: SUBCAT S11 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

Subcatchment S13: SUBCAT S13 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

Subcatchment S14: SUBCAT S14 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

Subcatchment S2: SUBCAT S2 Runoff Area=72,817 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=96,497 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=227,373 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=53,062 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=72,250 sf 0.00% Impervious Runoff Depth=0.00"
Tc=6.0 min CN=30 Runoff=0.00 cfs 0 cf

Subcatchment S8: SUBCAT S8 Runoff Area=446,502 sf 7.87% Impervious Runoff Depth>0.03"
Flow Length=2,253' Tc=13.6 min CN=35 Runoff=0.04 cfs 1,079 cf

Reach ER4: EX REACH 4 Avg. Flow Depth=0.01' Max Vel=0.31 fps Inflow=0.04 cfs 1,329 cf
n=0.030 L=1,291.0' S=0.0187 '/' Capacity=176.06 cfs Outflow=0.04 cfs 1,225 cf

Reach ER5: EX REACH 5 Avg. Flow Depth=0.01' Max Vel=0.34 fps Inflow=0.08 cfs 2,304 cf
n=0.030 L=1,085.0' S=0.0224 '/' Capacity=192.80 cfs Outflow=0.07 cfs 2,119 cf

Reach RG: REACH G Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf
12.0" Round Pipe n=0.012 L=180.0' S=0.0278 '/' Capacity=6.43 cfs Outflow=0.00 cfs 0 cf

Reach W1: WETLAND REACH 1 Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf
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=0.01' Max Vel=0.21 fps Inflow=0.05 cfs 1,234 cf
n=0.030 L=480.0' S=0.0083 '/' Capacity=117.48 cfs Outflow=0.04 cfs 1,193 cf

Pond CA1: CB-A1 Peak Elev=156.20' Inflow=0.80 cfs 2,767 cf
12.0" Round Culvert n=0.012 L=83.0' S=0.0100 '/' Outflow=0.80 cfs 2,767 cf

Pond CA2: CB-A2 Peak Elev=156.62' Inflow=0.53 cfs 1,908 cf
12.0" Round Culvert n=0.012 L=41.0' S=0.0100 '/' Outflow=0.53 cfs 1,908 cf

Pond CA3: CB-A3 Peak Elev=154.89' Inflow=3.39 cfs 11,265 cf
18.0" Round Culvert n=0.012 L=169.0' S=0.0050 '/' Outflow=3.39 cfs 11,265 cf

Pond CA4: CB-A4 Peak Elev=155.33' Inflow=0.59 cfs 1,968 cf
12.0" Round Culvert n=0.012 L=50.0' S=0.0100 '/' Outflow=0.59 cfs 1,968 cf

Pond CC10: CB-C10 Peak Elev=153.47' Inflow=15.32 cfs 51,594 cf
30.0" Round Culvert n=0.012 L=170.0' S=0.0050 '/' Outflow=15.32 cfs 51,594 cf

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 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
12.0" Round Culvert n=0.012 L=41.0' S=0.0224 '/' Outflow=0.84 cfs 2,848 cf

Pond CC27: CB-C27 Peak Elev=158.48' Inflow=3.56 cfs 11,610 cf
18.0" Round Culvert n=0.012 L=122.0' S=0.0050 '/' Outflow=3.56 cfs 11,610 cf

Pond CC28: CB-C28 Peak Elev=159.17' Inflow=2.83 cfs 9,229 cf
15.0" Round Culvert n=0.012 L=101.0' S=0.0050 '/' Outflow=2.83 cfs 9,229 cf

Pond CC29: CB-C29 Peak Elev=160.19' Inflow=0.61 cfs 2,072 cf
12.0" Round Culvert n=0.012 L=77.0' S=0.0200 '/' Outflow=0.61 cfs 2,072 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

Pond CC31: CB-C31 Peak Elev=159.81' Inflow=2.07 cfs 6,756 cf
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

Pond CC33: CB-C33 Peak Elev=162.37' Inflow=0.20 cfs 669 cf
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

Pond CC35: CB-C35 Peak Elev=159.41' Inflow=0.71 cfs 2,372 cf
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

Pond CC37: CB-C37 Peak Elev=159.64' Inflow=0.45 cfs 1,458 cf
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

Pond CC4: CB-C4 Peak Elev=157.70' Inflow=0.15 cfs 590 cf
12.0" Round Culvert n=0.012 L=26.0' S=0.0100 '/' Outflow=0.15 cfs 590 cf

Pond CC5: CB-C5 Peak Elev=159.56' Inflow=0.05 cfs 259 cf
12.0" Round Culvert n=0.012 L=30.0' S=0.0100 '/' Outflow=0.05 cfs 259 cf

Pond CC6: CB-C6 Peak Elev=156.81' Inflow=0.60 cfs 2,206 cf
12.0" Round Culvert n=0.012 L=73.0' S=0.0100 '/' Outflow=0.60 cfs 2,206 cf

Pond CC7: CB-C7 Peak Elev=157.43' Inflow=0.34 cfs 1,201 cf
12.0" Round Culvert n=0.012 L=62.0' S=0.0100 '/' Outflow=0.34 cfs 1,201 cf

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=158.44' Inflow=0.62 cfs 2,218 cf
12.0" Round Culvert n=0.012 L=141.0' S=0.0300 '/' Outflow=0.62 cfs 2,218 cf

Pond CD10: CB-D10 Peak Elev=157.17' Inflow=4.68 cfs 16,440 cf
24.0" Round Culvert n=0.012 L=83.0' S=0.0049 '/' Outflow=4.68 cfs 16,440 cf

Pond CD11: CB-D11 Peak Elev=158.96' Inflow=2.19 cfs 7,625 cf
15.0" Round Culvert n=0.012 L=41.0' S=0.0051 '/' Outflow=2.19 cfs 7,625 cf

Pond CD12: CB-D12 Peak Elev=159.32' Inflow=1.15 cfs 4,135 cf
12.0" Round Culvert n=0.012 L=60.0' S=0.0050 '/' Outflow=1.15 cfs 4,135 cf

Pond CD13: CB-D13 Peak Elev=157.68' Inflow=0.10 cfs 472 cf
12.0" Round Culvert n=0.012 L=35.0' S=0.0051 '/' Outflow=0.10 cfs 472 cf

Pond CD14: CB-D14 Peak Elev=157.66' Inflow=1.02 cfs 3,394 cf
12.0" Round Culvert n=0.012 L=107.0' S=0.0050 '/' Outflow=1.02 cfs 3,394 cf

Pond CD2: CB-D2 Peak Elev=158.95' Inflow=0.05 cfs 408 cf
12.0" Round Culvert n=0.012 L=26.0' S=0.0050 '/' Outflow=0.05 cfs 408 cf

Pond CD3: CB-D3 Peak Elev=158.93' Inflow=0.35 cfs 1,436 cf
12.0" Round Culvert n=0.012 L=27.0' S=0.0052 '/' Outflow=0.35 cfs 1,436 cf

Pond CD4: CB-D4 Peak Elev=158.83' Inflow=0.86 cfs 3,129 cf
12.0" Round Culvert n=0.012 L=109.0' S=0.0050 '/' Outflow=0.86 cfs 3,129 cf

Pond CD5: CB-D5 Peak Elev=158.89' Inflow=0.60 cfs 2,046 cf
12.0" Round Culvert n=0.012 L=50.0' S=0.0154 '/' Outflow=0.60 cfs 2,046 cf

Pond CD6: CB-D6 Peak Elev=158.29' Inflow=2.14 cfs 7,520 cf
15.0" Round Culvert n=0.012 L=128.0' S=0.0050 '/' Outflow=2.14 cfs 7,520 cf

Pond CD7: CB-D7 Peak Elev=158.76' Inflow=0.25 cfs 945 cf
12.0" Round Culvert n=0.012 L=41.0' S=0.0193 '/' Outflow=0.25 cfs 945 cf

Pond CD8: CB-D8 Peak Elev=158.89' Inflow=0.05 cfs 312 cf
12.0" Round Culvert n=0.012 L=26.0' S=0.0050 '/' Outflow=0.05 cfs 312 cf

Pond CD9: CB-D9 Peak Elev=158.52' Inflow=0.09 cfs 434 cf
12.0" Round Culvert n=0.012 L=26.0' S=0.0050 '/' Outflow=0.09 cfs 434 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=153.27' 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=153.29' 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

Pond CE12: CB-E12 Peak Elev=153.62' Inflow=13.94 cfs 47,773 cf
30.0" Round Culvert n=0.012 L=127.0' S=0.0050 '/' Outflow=13.94 cfs 47,773 cf

Pond CE13: CB-E13 Peak Elev=154.32' Inflow=12.15 cfs 41,664 cf
30.0" Round Culvert n=0.012 L=161.0' S=0.0050 '/' Outflow=12.15 cfs 41,664 cf

Pond CE14: CB-E14 Peak Elev=155.32' Inflow=8.80 cfs 30,159 cf
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

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=156.71' 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

Pond CE19: CB-E19 Peak Elev=157.37' 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=161.16' Inflow=0.65 cfs 2,251 cf
12.0" Round Culvert n=0.012 L=101.0' S=0.0612 '/' Outflow=0.65 cfs 2,251 cf

Pond CE3: CB-E3 Peak Elev=154.48' Inflow=7.38 cfs 24,433 cf
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

Pond CE5: CB-E5 Peak Elev=155.59' Inflow=4.27 cfs 13,938 cf
18.0" Round Culvert n=0.012 L=76.0' S=0.0050 '/' Outflow=4.27 cfs 13,938 cf

Pond CE6: CB-E6 Peak Elev=156.32' Inflow=3.67 cfs 12,032 cf
18.0" Round Culvert n=0.012 L=140.0' S=0.0050 '/' Outflow=3.67 cfs 12,032 cf

Pond CE7: CB-E7 Peak Elev=156.94' Inflow=2.85 cfs 9,445 cf
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

Pond CE9: CB-E9 Peak Elev=159.53' Inflow=0.87 cfs 2,879 cf
12.0" Round Culvert n=0.012 L=94.0' S=0.0218 '/' Outflow=0.87 cfs 2,879 cf

Pond CS13: CB-S13 Peak Elev=155.73' Inflow=2.24 cfs 7,386 cf
15.0" Round Culvert n=0.012 L=145.0' S=0.0050 '/' Outflow=2.24 cfs 7,386 cf

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=30.01 cfs 101,257 cf
42.0" Round Culvert n=0.012 L=174.0' S=0.0050 '/' Outflow=30.01 cfs 101,257 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=151.49' Inflow=20.00 cfs 169,865 cf
30.0" Round Culvert n=0.012 L=182.0' S=0.0050 '/' Outflow=20.00 cfs 169,865 cf

Pond DD2: DMH-D2 Peak Elev=150.49' Inflow=20.00 cfs 169,865 cf
30.0" Round Culvert n=0.012 L=94.0' S=0.0050 '/' Outflow=20.00 cfs 169,865 cf

Pond DD3: DMH-D3 Peak Elev=149.71' Inflow=20.00 cfs 169,865 cf
30.0" Round Culvert n=0.012 L=213.0' S=0.0050 '/' Outflow=20.00 cfs 169,865 cf

Pond DD4: DMH-D4 Peak Elev=148.41' Inflow=20.00 cfs 169,865 cf
30.0" Round Culvert n=0.012 L=133.0' S=0.0050 '/' Outflow=20.00 cfs 169,865 cf

Pond DD5: DMH-D5 Peak Elev=156.62' Inflow=5.70 cfs 19,834 cf
24.0" Round Culvert n=0.012 L=124.0' S=0.0478 '/' Outflow=5.70 cfs 19,834 cf

Pond DD6: DMH-D6 Peak Elev=150.70' Inflow=5.70 cfs 19,834 cf
24.0" Round Culvert n=0.012 L=127.0' S=0.0050 '/' Outflow=5.70 cfs 19,834 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

Pond DE10: DMH-E10 Peak Elev=154.11' Inflow=0.62 cfs 2,218 cf
12.0" Round Culvert n=0.012 L=27.0' S=0.1211 '/' Outflow=0.62 cfs 2,218 cf

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=147.19' Storage=98,022 cf Inflow=54.67 cfs 190,119 cf
Discarded=2.53 cfs 139,003 cf Primary=0.00 cfs 0 cf Outflow=2.53 cfs 139,003 cf

Pond PD: POND D Peak Elev=146.20' Storage=105,375 cf Inflow=25.11 cfs 189,699 cf
Discarded=2.20 cfs 116,817 cf Primary=0.00 cfs 0 cf Outflow=2.20 cfs 116,817 cf

Pond PE: POND E Peak Elev=153.21' Storage=52,360 cf Inflow=49.37 cfs 172,533 cf
Outflow=20.00 cfs 169,865 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

Pond PT: INFILTRATION TRENCH Peak Elev=150.00' Storage=0 cf Inflow=0.00 cfs 0 cf
Outflow=0.00 cfs 0 cf

Link L1: NORTHEAST PROPERTY CORNER Inflow=0.00 cfs 0 cf
Primary=0.00 cfs 0 cf

Link L2: RIVER Inflow=0.71 cfs 12,480 cf
Primary=0.71 cfs 12,480 cf

Link L3: EX CULVERTS Inflow=0.08 cfs 2,304 cf
Primary=0.08 cfs 2,304 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 = 3,619,215 sf Runoff Volume = 395,600 cf Average Runoff Depth = 1.31"
66.36% Pervious = 2,401,619 sf 33.64% Impervious = 1,217,596 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"

	Area (sf)	CN	Description
*	3,089	98	Proposed Pavement
	1,806	39	>75% Grass cover, Good, HSG A
	4,895	76	Weighted Average
	1,806		36.89% Pervious Area
	3,089		63.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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% Grass cover, Good, HSG A
	5,412	98	Weighted Average
	5,412		100.00% Impervious Area

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

Summary for Subcatchment A3: SUBCAT A3

Runoff = 0.56 cfs @ 12.09 hrs, Volume= 1,910 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
*	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

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

Summary for Subcatchment A4: SUBCAT A4

Runoff = 0.59 cfs @ 12.09 hrs, Volume= 1,968 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 (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment B: 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 Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.47"

	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 (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (sf)	CN	Description
*	25,480	98	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% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
*	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% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (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% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**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"

	Area (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% Impervious Area

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

Summary for Subcatchment C14: SUBCAT C14

Runoff = 0.29 cfs @ 12.09 hrs, Volume= 1,055 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
*	2,992	98	Proposed Pavement
	0	39	>75% Grass cover, Good, HSG A
	2,992	98	Weighted Average
	2,992		100.00% Impervious Area

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

Summary for Subcatchment C15: SUBCAT C15

Runoff = 0.31 cfs @ 12.09 hrs, Volume= 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"

	Area (sf)	CN	Description
*	3,152	98	Proposed Pavement
	720	39	>75% Grass cover, Good, HSG A
	3,872	87	Weighted Average
	720		18.60% Pervious Area
	3,152		81.40% Impervious Area

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

Summary for Subcatchment C16: SUBCAT C16

Runoff = 0.29 cfs @ 12.09 hrs, Volume= 1,055 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
*	2,992	98	Proposed Pavement
	0	39	>75% Grass cover, Good, HSG A
	2,992	98	Weighted Average
	2,992		100.00% Impervious Area

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

Summary for Subcatchment C17: SUBCAT C17

Runoff = 2.42 cfs @ 12.09 hrs, Volume= 8,273 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
*	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% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (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% Impervious Area

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

Summary for Subcatchment C19: SUBCAT C19

Runoff = 3.32 cfs @ 12.09 hrs, Volume= 10,634 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"

	Area (sf)	CN	Description
*	33,675	98	Proposed Pavement
	7,909	39	>75% Grass cover, Good, HSG A
	41,584	87	Weighted Average
	7,909		19.02% Pervious Area
	33,675		80.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (sf)	CN	Description
*	3,013	98	Proposed Pavement
	679	39	>75% Grass cover, Good, HSG A
	3,692	87	Weighted Average
	679		18.39% Pervious Area
	3,013		81.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
*	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

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

Summary for Subcatchment C22: SUBCAT C22

Runoff = 0.30 cfs @ 12.09 hrs, Volume= 945 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"

	Area (sf)	CN	Description
*	3,040	98	Proposed Pavement
	900	39	>75% Grass cover, Good, HSG A
	3,940	85	Weighted Average
	900		22.84% Pervious Area
	3,040		77.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (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

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

Summary for Subcatchment C24: SUBCAT C24

Runoff = 0.55 cfs @ 12.10 hrs, Volume= 1,743 cf, Depth> 1.87"

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 10-YR Rainfall=4.47"

	Area (sf)	CN	Description
*	6,366	98	Proposed Pavement
	4,815	39	>75% Grass cover, Good, HSG A
	11,181	73	Weighted Average
	4,815		43.06% Pervious Area
	6,366		56.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	5,747	98	Proposed Pavement
	0	39	>75% Grass cover, Good, HSG A
	5,747	98	Weighted Average
	5,747		100.00% Impervious Area

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

Summary for Subcatchment C26: SUBCAT C26

Runoff = 0.23 cfs @ 12.09 hrs, Volume= 776 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"

	Area (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)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	7,324	98	Proposed Pavement
	919	39	>75% Grass cover, Good, HSG A
	8,243	91	Weighted Average
	919		11.15% Pervious Area
	7,324		88.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	7,771	98	Proposed Pavement
	1,318	39	>75% Grass cover, Good, HSG A
	9,089	89	Weighted Average
	1,318		14.50% Pervious Area
	7,771		85.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
*	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

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

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 (sf)	CN	Description
*	3,220	98	Proposed Pavement
	0	39	>75% Grass cover, Good, HSG A
	3,220	98	Weighted Average
	3,220		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
*	8,105	98	Proposed Pavement
	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)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**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"

	Area (sf)	CN	Description
*	3,188	98	Proposed Pavement
	1,522	39	>75% Grass cover, Good, HSG A
	4,710	79	Weighted Average
	1,522		32.31% Pervious Area
	3,188		67.69% Impervious Area

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

Summary for Subcatchment C33: SUBCAT C33

Runoff = 0.20 cfs @ 12.10 hrs, Volume= 669 cf, Depth> 1.31"

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 10-YR Rainfall=4.47"

	Area (sf)	CN	Description
*	3,191	98	Proposed Pavement
	2,940	30	Brush, Good, HSG A
	6,131	65	Weighted Average
	2,940		47.95% Pervious Area
	3,191		52.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	7,727	98	Proposed Pavement
	1,065	39	>75% Grass cover, Good, HSG A
	8,792	91	Weighted Average
	1,065		12.11% Pervious Area
	7,727		87.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	2,325	98	Proposed Pavement
	1,216	39	>75% Grass cover, Good, 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)	Velocity (ft/sec)	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"

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
*	1,589	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

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

Summary for Subcatchment C37: SUBCAT C37

Runoff = 0.45 cfs @ 12.10 hrs, Volume= 1,458 cf, Depth> 1.65"

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 10-YR Rainfall=4.47"

	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

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (sf)	CN	Description
*	5,075	98	Proposed Pavement
	1,325	39	>75% Grass cover, Good, HSG A
	6,400	86	Weighted Average
	1,325		20.70% Pervious Area
	5,075		79.30% Impervious Area

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

Summary for Subcatchment C4: SUBCAT C4

Runoff = 0.15 cfs @ 12.11 hrs, Volume= 590 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
*	2,532	98	Proposed Pavement
	5,433	39	>75% Grass cover, Good, HSG A
	7,965	58	Weighted Average
	5,433		68.21% Pervious Area
	2,532		31.79% Impervious Area

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

Summary for Subcatchment C5: SUBCAT C5

Runoff = 0.05 cfs @ 12.13 hrs, Volume= 259 cf, Depth> 0.63"

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 10-YR Rainfall=4.47"

	Area (sf)	CN	Description
*	1,665	98	Proposed Pavement
	3,295	30	Brush, Good, HSG A
	4,960	53	Weighted Average
	3,295		66.43% Pervious Area
	1,665		33.57% Impervious Area

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

Summary for Subcatchment C6: SUBCAT C6

Runoff = 0.21 cfs @ 12.09 hrs, Volume= 745 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
*	2,113	98	Proposed Pavement
	0	39	>75% Grass cover, Good, HSG A
	2,113	98	Weighted Average
	2,113		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	1,980	98	Proposed Pavement
	489	39	>75% Grass cover, Good, HSG A
	2,469	86	Weighted Average
	489		19.81% Pervious Area
	1,980		80.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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% Grass cover, Good, HSG A
	31,789	91	Weighted Average
	3,957		12.45% Pervious Area
	27,832		87.55% Impervious Area

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

Summary for Subcatchment C9: SUBCAT C9

Runoff = 2.62 cfs @ 12.09 hrs, Volume= 9,433 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
*	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

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

Summary for Subcatchment D1: SUBCAT D1

Runoff = 0.62 cfs @ 12.09 hrs, Volume= 2,218 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
*	6,290	98	Proposed Pavement
	0	39	>75% Grass cover, Good, HSG A
	6,290	98	Weighted Average
	6,290		100.00% Impervious Area

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

Summary for Subcatchment D10: SUBCAT D10

Runoff = 0.27 cfs @ 12.09 hrs, Volume= 860 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"

	Area (sf)	CN	Description
*	2,769	98	Proposed Pavement
	814	39	>75% Grass cover, Good, HSG A
	3,583	85	Weighted Average
	814		22.72% Pervious Area
	2,769		77.28% Impervious Area

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

Summary for Subcatchment D11: SUBCAT D11

Runoff = 1.04 cfs @ 12.09 hrs, Volume= 3,490 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"

	Area (sf)	CN	Description
*	10,388	98	Proposed Pavement
	1,006	39	>75% Grass cover, Good, HSG A
	11,394	93	Weighted Average
	1,006		8.83% Pervious Area
	10,388		91.17% Impervious Area

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

Summary for Subcatchment D12: SUBCAT D12

Runoff = 1.15 cfs @ 12.09 hrs, Volume= 4,135 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 (sf)	CN	Description
*	11,726	98	Proposed Pavement
	11,726		100.00% Impervious Area

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

Summary for Subcatchment D13: SUBCAT D13

Runoff = 0.10 cfs @ 12.12 hrs, Volume= 472 cf, Depth> 0.68"

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"

	Area (sf)	CN	Description
*	2,977	98	Proposed Pavement
	5,397	30	Brush, Good, HSG A
	8,374	54	Weighted Average
	5,397		64.45% Pervious Area
	2,977		35.55% Impervious Area

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

Summary for Subcatchment D14: SUBCAT D14

Runoff = 0.92 cfs @ 12.09 hrs, Volume= 2,921 cf, Depth> 2.70"

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 10-YR Rainfall=4.47"

	Area (sf)	CN	Description
*	9,780	98	Proposed Pavement
	3,220	39	>75% Grass cover, Good, HSG A
	13,000	83	Weighted Average
	3,220		24.77% Pervious Area
	9,780		75.23% Impervious Area

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

Summary for Subcatchment D15: SUBCAT D15

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
	26,789	30	Brush, Good, HSG A
	2,570	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	29,359	30	Weighted Average
	29,359		100.00% Pervious Area

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

Summary for Subcatchment D2: SUBCAT D2

Runoff = 0.05 cfs @ 12.30 hrs, Volume= 408 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 10-YR Rainfall=4.47"

	Area (sf)	CN	Description
*	3,235	98	Proposed Pavement
	7,269	30	Brush, Good, HSG A
	1,638	30	Woods, Good, HSG A
	12,142	48	Weighted Average
	8,907		73.36% Pervious Area
	3,235		26.64% Impervious Area

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

Summary for Subcatchment D3: SUBCAT D3

Runoff = 0.32 cfs @ 12.10 hrs, Volume= 1,029 cf, Depth> 1.65"

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 10-YR Rainfall=4.47"

	Area (sf)	CN	Description
*	3,953	98	Proposed Pavement
	3,524	39	>75% Grass cover, Good, HSG A
	7,477	70	Weighted Average
	3,524		47.13% Pervious Area
	3,953		52.87% Impervious Area

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

Summary for Subcatchment D4: SUBCAT D4

Runoff = 0.52 cfs @ 12.09 hrs, Volume= 1,693 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
*	5,129	98	Proposed Pavement
	730	39	>75% Grass cover, Good, HSG A
	5,859	91	Weighted Average
	730		12.46% Pervious Area
	5,129		87.54% Impervious Area

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

Summary for Subcatchment D5: SUBCAT D5

Runoff = 0.60 cfs @ 12.09 hrs, Volume= 2,046 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
*	6,021	98	Proposed Pavement
	285	39	>75% Grass cover, Good, HSG A
	6,306	95	Weighted Average
	285		4.52% Pervious Area
	6,021		95.48% Impervious Area

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

Summary for Subcatchment D6: SUBCAT D6

Runoff = 0.44 cfs @ 12.09 hrs, Volume= 1,400 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"

	Area (sf)	CN	Description
*	4,723	98	Proposed Pavement
	1,722	39	>75% Grass cover, Good, HSG A
	6,445	82	Weighted Average
	1,722		26.72% Pervious Area
	4,723		73.28% Impervious Area

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

Summary for Subcatchment D7: SUBCAT D7

Runoff = 0.20 cfs @ 12.09 hrs, Volume= 633 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"

	Area (sf)	CN	Description
*	2,061	98	Proposed Pavement
	579	39	>75% Grass cover, Good, HSG A
	2,640	85	Weighted Average
	579		21.93% Pervious Area
	2,061		78.07% Impervious Area

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

Summary for Subcatchment D8: SUBCAT D8

Runoff = 0.05 cfs @ 12.15 hrs, Volume= 312 cf, Depth> 0.53"

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
*	2,200	98	Proposed Pavement
	4,820	30	Brush, Good, HSG A
	7,020	51	Weighted Average
	4,820		68.66% Pervious Area
	2,200		31.34% Impervious Area

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

Summary for Subcatchment D9: SUBCAT D9

Runoff = 0.09 cfs @ 12.13 hrs, Volume= 434 cf, Depth> 0.63"

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 10-YR Rainfall=4.47"

	Area (sf)	CN	Description
*	2,769	98	Proposed Pavement
	5,538	30	Brush, Good, HSG A
	8,307	53	Weighted Average
	5,538		66.67% Pervious Area
	2,769		33.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
*	5,394	98	Proposed Pavement
	245	39	>75% Grass cover, Good, HSG A
	5,639	95	Weighted Average
	245		4.34% Pervious Area
	5,394		95.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	6,826	98	Proposed Pavement
	4,302	39	>75% Grass cover, Good, HSG A
	11,128	75	Weighted Average
	4,302		38.66% Pervious Area
	6,826		61.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (sf)	CN	Description
*	21,962	98	Proposed Pavement
	1,413	39	>75% Grass cover, Good, HSG A
	23,375	94	Weighted Average
	1,413		6.04% Pervious Area
	21,962		93.96% Impervious Area

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

Summary for Subcatchment E12: SUBCAT E12

Runoff = 1.78 cfs @ 12.09 hrs, Volume= 6,109 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
*	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

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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
	35,467	95	Weighted Average
	1,924		5.42% Pervious Area
	33,543		94.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (sf)	CN	Description
*	27,291	98	Proposed Pavement
	517	39	>75% Grass cover, Good, HSG A
	27,808	97	Weighted Average
	517		1.86% Pervious Area
	27,291		98.14% Impervious Area

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

Summary for Subcatchment E15: SUBCAT E15

Runoff = 3.14 cfs @ 12.09 hrs, Volume= 11,112 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"

	Area (sf)	CN	Description
*	31,789	98	Proposed Pavement
	603	39	>75% Grass cover, Good, HSG A
	32,392	97	Weighted Average
	603		1.86% Pervious Area
	31,789		98.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (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% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
	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	30	Weighted Average
	120,518		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	50	0.1200	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.95"
0.5	55	0.1200	1.73		**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 (sf)	CN	Description
	11,752	30	Brush, Good, HSG A
	0	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	11,752	30	Weighted Average
	11,752		100.00% Pervious Area

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

Summary for Subcatchment E19: SUBCAT E19

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
	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	30	Weighted Average
	75,753		100.00% Pervious Area

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

Summary for Subcatchment E2: SUBCAT E2

Runoff = 0.65 cfs @ 12.09 hrs, Volume= 2,251 cf, Depth> 4.00"

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

Summary for Subcatchment E3: SUBCAT E3

Runoff = 0.95 cfs @ 12.09 hrs, Volume= 3,215 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"

	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 Area
	9,518		93.34% Impervious Area

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

Summary for Subcatchment E4: SUBCAT E4

Runoff = 0.98 cfs @ 12.09 hrs, Volume= 3,200 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
*	9,769	98	Proposed Pavement
	1,309	39	>75% Grass cover, Good, HSG A
	11,078	91	Weighted Average
	1,309		11.82% Pervious Area
	9,769		88.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (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% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
*	8,885	98	Proposed Pavement
	4,330	39	>75% Grass cover, Good, HSG A
	13,215	79	Weighted Average
	4,330		32.77% Pervious Area
	8,885		67.23% Impervious Area

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

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"

	Area (sf)	CN	Description
*	8,274	98	Proposed Pavement
	826	39	>75% Grass cover, Good, HSG A
	9,100	93	Weighted Average
	826		9.08% Pervious Area
	8,274		90.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	11,495	98	Proposed Pavement
	1,202	39	>75% Grass cover, Good, HSG A
	12,697	92	Weighted Average
	1,202		9.47% Pervious Area
	11,495		90.53% Impervious Area

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

Summary for Subcatchment E9: SUBCAT E9

Runoff = 0.38 cfs @ 12.09 hrs, Volume= 1,294 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
*	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

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

Summary for Subcatchment G1: SUBCAT G1

Runoff = 0.00 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
	130,014	30	Brush, Good, HSG A
	73,521	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	203,535	30	Weighted Average
	203,535		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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,** 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	1,090	Total			

Summary for Subcatchment K: SUBCAT K

Runoff = 0.71 cfs @ 12.45 hrs, Volume= 7,605 cf, Depth> 0.29"

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 10-YR Rainfall=4.47"

	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

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
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

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

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"

	Area (sf)	CN	Description
*	7,200	98	Proposed Building
	7,200		100.00% Impervious Area

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

Summary for Subcatchment R10: SUBCAT R10

Runoff = 3.17 cfs @ 12.09 hrs, Volume= 11,425 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
*	32,400	98	Proposed Building
	32,400		100.00% Impervious Area

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

Summary for Subcatchment R11: SUBCAT R11

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 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 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"

	Area (sf)	CN	Description
*	31,500	98	Proposed 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 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	Description
*	26,325	98	Proposed Building
	26,325		100.00% Impervious Area

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

Summary for Subcatchment R14: SUBCAT R14

Runoff = 2.80 cfs @ 12.09 hrs, Volume= 10,076 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
*	28,575	98	Proposed Building
	28,575		100.00% Impervious Area

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

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"

	Area (sf)	CN	Description
*	31,500	98	Proposed 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 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 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 R17: SUBCAT R17

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 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 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"

	Area (sf)	CN	Description
*	7,200	98	Proposed Building
	7,200		100.00% Impervious Area

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

Summary for Subcatchment R2: SUBCAT R2

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 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 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"

	Area (sf)	CN	Description
*	56,700	98	Proposed Building
	56,700		100.00% Impervious Area

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

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"

	Area (sf)	CN	Description
*	26,325	98	Proposed Building
	26,325		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
*	28,575	98	Proposed Building
	28,575		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (sf)	CN	Description
*	31,500	98	Proposed 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 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"

	Area (sf)	CN	Description
*	31,500	98	Proposed 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"

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 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 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
*	7,200	98	Proposed Building
	7,200		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**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
	816	39	>75% Grass cover, Good, HSG A
	56,296	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	57,112	30	Weighted Average
	57,112		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
	19,991	30	Brush, Good, HSG A
	70,751	30	Woods, Good, HSG A
*	5,910	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	96,652	34	Weighted Average
	90,742		93.89% Pervious Area
	5,910		6.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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 = 0.05 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"

	Area (sf)	CN	Description
	38,318	30	Brush, Good, HSG A
	58,186	30	Woods, Good, HSG A
*	15,394	98	Ex. Wetland
*	0	98	Ex. Building
*	1,378	98	Ex. Pavement
	113,276	40	Weighted Average
	96,504		85.19% Pervious Area
	16,772		14.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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 to minimum Tc = 6.0 min			

Summary for Subcatchment S12: SUBCAT S12

Runoff = 0.01 cfs @ 13.62 hrs, Volume= 305 cf, Depth> 0.16"

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 10-YR Rainfall=4.47"

	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

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

Summary for Subcatchment S13: SUBCAT S13

Runoff = 1.20 cfs @ 12.09 hrs, Volume= 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"

	Area (sf)	CN	Description
	1,445	39	>75% Grass cover, Good, HSG A
	0	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	6,578	98	Ex. Pavement
*	5,325	98	Proposed Pavement
	13,348	92	Weighted Average
	1,445		10.83% Pervious Area
	11,903		89.17% Impervious Area

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

Summary for Subcatchment S14: SUBCAT S14

Runoff = 1.04 cfs @ 12.09 hrs, Volume= 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"

	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

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

Summary for Subcatchment S2: SUBCAT S2

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
	6,086	30	Brush, Good, HSG A
	66,731	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	72,817	30	Weighted Average
	72,817		100.00% Pervious Area

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

Summary for Subcatchment S3: SUBCAT S3

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
	69,232	30	Brush, Good, HSG A
	27,265	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	96,497	30	Weighted Average
	96,497		100.00% Pervious Area

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

Summary for Subcatchment S4: SUBCAT S4

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
	16,627	30	Brush, Good, HSG A
	210,746	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	227,373	30	Weighted Average
	227,373		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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 10-YR Rainfall=4.47"

	Area (sf)	CN	Description
	48,388	30	Brush, Good, HSG A
	4,674	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	53,062	30	Weighted Average
	53,062		100.00% Pervious Area

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

Summary for Subcatchment S6: SUBCAT S6

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
	68,729	30	Brush, Good, HSG A
	3,521	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	72,250	30	Weighted Average
	72,250		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (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"

	Area (sf)	CN	Description
	101,355	30	Brush, Good, HSG A
	310,010	30	Woods, Good, HSG A
*	33,536	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
*	1,601	98	Proposed Building
	446,502	35	Weighted Average
	411,365		92.13% Pervious Area
	35,137		7.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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 = 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, Atten= 9%, Lag= 91.7 min

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

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 = 2,576,385 sf, 46.29% Impervious, Inflow Depth > 0.01" for 10-YR event
Inflow = 0.08 cfs @ 17.13 hrs, Volume= 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'

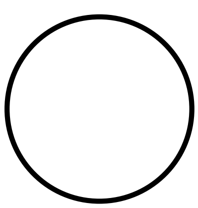
Summary for Reach RG: REACH G

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

Inflow Area = 339,955 sf, 5.18% Impervious, Inflow Depth > 0.04" for 10-YR event
Inflow = 0.05 cfs @ 13.80 hrs, Volume= 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 =	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 min
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 =	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'

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 CC10: CB-C10

Inflow Area =	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 min	
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 = 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'

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% Impervious, Inflow Depth > 3.30" for 10-YR event
Inflow = 7.67 cfs @ 12.09 hrs, Volume= 25,633 cf
Outflow = 7.67 cfs @ 12.09 hrs, Volume= 25,633 cf, Atten= 0%, Lag= 0.0 min
Primary = 7.67 cfs @ 12.09 hrs, Volume= 25,633 cf

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 =	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
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)
1=Culvert (Inlet Controls 0.30 cfs @ 1.77 fps)

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'

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 10-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 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 = 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
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 = 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 min
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'

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 cf	
Outflow =	5.90 cfs @	12.09 hrs, Volume=	19,766 cf,	Atten= 0%, Lag= 0.0 min
Primary =	5.90 cfs @	12.09 hrs, Volume=	19,766 cf	

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 =	21,488 sf,	69.19% Impervious,	Inflow Depth > 2.52"	for 10-YR event
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 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 =	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'

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=0.82 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 =	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 min
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'

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 = 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 min
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)
└─**1=Culvert** (Inlet Controls 0.60 cfs @ 2.12 fps)

Summary for Pond CC30: CB-C30

Inflow Area = 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 = 28,995 sf, 76.60% Impervious, Inflow Depth > 2.80" for 10-YR event
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'

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 = 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 min
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 =	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 = 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 min
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'

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, Atten= 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, Atten= 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)
1=Culvert (Inlet Controls 0.49 cfs @ 2.01 fps)

Summary for Pond CC4: CB-C4

Inflow Area =	7,965 sf, 31.79% Impervious,	Inflow Depth > 0.89"	for 10-YR event
Inflow =	0.15 cfs @ 12.11 hrs, Volume=	590 cf	
Outflow =	0.15 cfs @ 12.11 hrs, Volume=	590 cf,	Atten= 0%, Lag= 0.0 min
Primary =	0.15 cfs @ 12.11 hrs, Volume=	590 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 157.70' @ 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=0.14 cfs @ 12.11 hrs HW=157.69' TW=157.42' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.14 cfs @ 2.04 fps)

Summary for Pond CC5: CB-C5

Inflow Area =	4,960 sf, 33.57% Impervious,	Inflow Depth > 0.63"	for 10-YR event
Inflow =	0.05 cfs @ 12.13 hrs, Volume=	259 cf	
Outflow =	0.05 cfs @ 12.13 hrs, Volume=	259 cf,	Atten= 0%, Lag= 0.0 min
Primary =	0.05 cfs @ 12.13 hrs, Volume=	259 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 159.56' @ 12.13 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=0.05 cfs @ 12.13 hrs HW=159.56' TW=156.79' (Dynamic Tailwater)
1=Culvert (Barrel Controls 0.05 cfs @ 1.64 fps)

Summary for Pond CC6: CB-C6

Inflow Area =	17,507 sf, 47.35% Impervious,	Inflow Depth > 1.51"	for 10-YR event
Inflow =	0.60 cfs @ 12.10 hrs, Volume=	2,206 cf	
Outflow =	0.60 cfs @ 12.10 hrs, Volume=	2,206 cf,	Atten= 0%, Lag= 0.0 min
Primary =	0.60 cfs @ 12.10 hrs, Volume=	2,206 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'

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=0.59 cfs @ 12.10 hrs HW=156.81' TW=148.16' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 0.59 cfs @ 2.12 fps)

Summary for Pond CC7: CB-C7

Inflow Area = 10,434 sf, 43.24% Impervious, Inflow Depth > 1.38" for 10-YR event
Inflow = 0.34 cfs @ 12.10 hrs, Volume= 1,201 cf
Outflow = 0.34 cfs @ 12.10 hrs, Volume= 1,201 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.34 cfs @ 12.10 hrs, Volume= 1,201 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 157.43' @ 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=0.34 cfs @ 12.10 hrs HW=157.43' TW=156.81' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 0.34 cfs @ 2.69 fps)

Summary for Pond CC8: CB-C8

Inflow Area = 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 min
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 = 6,290 sf,100.00% Impervious, Inflow Depth > 4.23" for 10-YR event
Inflow = 0.62 cfs @ 12.09 hrs, Volume= 2,218 cf
Outflow = 0.62 cfs @ 12.09 hrs, Volume= 2,218 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.62 cfs @ 12.09 hrs, Volume= 2,218 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.44' @ 12.09 hrs
Flood Elev= 162.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.05'	**12.0" Round Culvert** L= 141.0' Ke= 0.500 Inlet / Outlet Invert= 158.05' / 153.82' S= 0.0300 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.60 cfs @ 12.09 hrs HW=158.44' TW=154.11' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 0.60 cfs @ 2.12 fps)

Summary for Pond CD10: CB-D10

Inflow Area = 82,899 sf, 66.31% Impervious, Inflow Depth > 2.38" for 10-YR event
Inflow = 4.68 cfs @ 12.09 hrs, Volume= 16,440 cf
Outflow = 4.68 cfs @ 12.09 hrs, Volume= 16,440 cf, Atten= 0%, Lag= 0.0 min
Primary = 4.68 cfs @ 12.09 hrs, Volume= 16,440 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 157.17' @ 12.10 hrs
Flood Elev= 161.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.09'	**24.0" Round Culvert** L= 83.0' Ke= 0.500

Inlet / Outlet Invert= 156.09' / 155.68' S= 0.0049 '/' Cc= 0.900
n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=4.32 cfs @ 12.09 hrs HW=157.15' TW=156.60' (Dynamic Tailwater)
1=Culvert (Outlet Controls 4.32 cfs @ 3.70 fps)

Summary for Pond CD11: CB-D11

Inflow Area =	23,120 sf,	95.65% Impervious,	Inflow Depth > 3.96"	for 10-YR event
Inflow =	2.19 cfs @	12.09 hrs, Volume=	7,625 cf	
Outflow =	2.19 cfs @	12.09 hrs, Volume=	7,625 cf,	Atten= 0%, Lag= 0.0 min
Primary =	2.19 cfs @	12.09 hrs, Volume=	7,625 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.96' @ 12.09 hrs
Flood Elev= 161.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.10'	**15.0" Round Culvert** L= 41.0' Ke= 0.500 Inlet / Outlet Invert= 158.10' / 157.89' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.13 cfs @ 12.09 hrs HW=158.94' TW=157.15' (Dynamic Tailwater)
1=Culvert (Barrel Controls 2.13 cfs @ 3.43 fps)

Summary for Pond CD12: CB-D12

Inflow Area =	11,726 sf,	100.00% Impervious,	Inflow Depth > 4.23"	for 10-YR event
Inflow =	1.15 cfs @	12.09 hrs, Volume=	4,135 cf	
Outflow =	1.15 cfs @	12.09 hrs, Volume=	4,135 cf,	Atten= 0%, Lag= 0.0 min
Primary =	1.15 cfs @	12.09 hrs, Volume=	4,135 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 159.32' @ 12.10 hrs
Flood Elev= 162.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.65'	**12.0" Round Culvert** L= 60.0' Ke= 0.500 Inlet / Outlet Invert= 158.65' / 158.35' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.04 cfs @ 12.09 hrs HW=159.30' TW=158.94' (Dynamic Tailwater)
1=Culvert (Outlet Controls 1.04 cfs @ 2.72 fps)

Summary for Pond CD13: CB-D13

Inflow Area =	8,374 sf,	35.55% Impervious,	Inflow Depth > 0.68"	for 10-YR event
Inflow =	0.10 cfs @	12.12 hrs, Volume=	472 cf	
Outflow =	0.10 cfs @	12.12 hrs, Volume=	472 cf,	Atten= 0%, Lag= 0.0 min
Primary =	0.10 cfs @	12.12 hrs, Volume=	472 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 157.68' @ 12.14 hrs
Flood Elev= 161.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.35'	**12.0" Round Culvert** L= 35.0' Ke= 0.500 Inlet / Outlet Invert= 157.35' / 157.17' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.10 cfs @ 12.12 hrs HW=157.66' TW=157.63' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.10 cfs @ 0.74 fps)

Summary for Pond CD14: CB-D14

Inflow Area = 21,374 sf, 59.68% Impervious, Inflow Depth > 1.91" for 10-YR event
Inflow = 1.02 cfs @ 12.10 hrs, Volume= 3,394 cf
Outflow = 1.02 cfs @ 12.10 hrs, Volume= 3,394 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.02 cfs @ 12.10 hrs, Volume= 3,394 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= 161.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.07'	**12.0" Round Culvert** L= 107.0' Ke= 0.500 Inlet / Outlet Invert= 157.07' / 156.53' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.01 cfs @ 12.10 hrs HW=157.65' TW=156.61' (Dynamic Tailwater)
1=Culvert (Barrel Controls 1.01 cfs @ 3.05 fps)

Summary for Pond CD2: CB-D2

Inflow Area = 12,142 sf, 26.64% Impervious, Inflow Depth > 0.40" for 10-YR event
Inflow = 0.05 cfs @ 12.30 hrs, Volume= 408 cf
Outflow = 0.05 cfs @ 12.30 hrs, Volume= 408 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.05 cfs @ 12.30 hrs, Volume= 408 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.95' @ 12.19 hrs
Flood Elev= 162.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.75'	**12.0" Round Culvert** L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 158.75' / 158.62' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.06 cfs @ 12.30 hrs HW=158.91' TW=158.81' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.06 cfs @ 1.14 fps)

Summary for Pond CD3: CB-D3

Inflow Area = 19,619 sf, 36.64% Impervious, Inflow Depth > 0.88" for 10-YR event
Inflow = 0.35 cfs @ 12.11 hrs, Volume= 1,436 cf
Outflow = 0.35 cfs @ 12.11 hrs, Volume= 1,436 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.35 cfs @ 12.11 hrs, Volume= 1,436 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.93' @ 12.14 hrs
Flood Elev= 162.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.52'	**12.0" Round Culvert** L= 27.0' Ke= 0.500 Inlet / Outlet Invert= 158.52' / 158.38' S= 0.0052 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.28 cfs @ 12.11 hrs HW=158.91' TW=158.83' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 0.28 cfs @ 1.43 fps)

Summary for Pond CD4: CB-D4

Inflow Area = 25,478 sf, 48.34% Impervious, Inflow Depth > 1.47" for 10-YR event
Inflow = 0.86 cfs @ 12.10 hrs, Volume= 3,129 cf
Outflow = 0.86 cfs @ 12.10 hrs, Volume= 3,129 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.86 cfs @ 12.10 hrs, Volume= 3,129 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.83' @ 12.11 hrs
Flood Elev= 162.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.28'	**12.0" Round Culvert** L= 109.0' Ke= 0.500 Inlet / Outlet Invert= 158.28' / 157.73' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.81 cfs @ 12.10 hrs HW=158.83' TW=158.28' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 0.81 cfs @ 2.66 fps)

Summary for Pond CD5: CB-D5

Inflow Area = 6,306 sf, 95.48% Impervious, Inflow Depth > 3.89" for 10-YR event
Inflow = 0.60 cfs @ 12.09 hrs, Volume= 2,046 cf
Outflow = 0.60 cfs @ 12.09 hrs, Volume= 2,046 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.60 cfs @ 12.09 hrs, Volume= 2,046 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.89' @ 12.09 hrs
Flood Elev= 162.75'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.50'	**12.0" Round Culvert** L= 50.0' Ke= 0.500

Inlet / Outlet Invert= 158.50' / 157.73' S= 0.0154 '/' Cc= 0.900
n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.58 cfs @ 12.09 hrs HW=158.88' TW=158.27' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 0.58 cfs @ 2.11 fps)

Summary for Pond CD6: CB-D6

Inflow Area =	47,889 sf,	57.05% Impervious,	Inflow Depth > 1.88" for 10-YR event
Inflow =	2.14 cfs @	12.09 hrs, Volume=	7,520 cf
Outflow =	2.14 cfs @	12.09 hrs, Volume=	7,520 cf, Atten= 0%, Lag= 0.0 min
Primary =	2.14 cfs @	12.09 hrs, Volume=	7,520 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.29' @ 12.09 hrs
Flood Elev= 162.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.48'	**15.0" Round Culvert** L= 128.0' Ke= 0.500 Inlet / Outlet Invert= 157.48' / 156.84' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.11 cfs @ 12.09 hrs HW=158.28' TW=157.16' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 2.11 cfs @ 3.62 fps)

Summary for Pond CD7: CB-D7

Inflow Area =	9,660 sf,	44.11% Impervious,	Inflow Depth > 1.17" for 10-YR event
Inflow =	0.25 cfs @	12.10 hrs, Volume=	945 cf
Outflow =	0.25 cfs @	12.10 hrs, Volume=	945 cf, Atten= 0%, Lag= 0.0 min
Primary =	0.25 cfs @	12.10 hrs, Volume=	945 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.76' @ 12.10 hrs
Flood Elev= 162.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.52'	**12.0" Round Culvert** L= 41.0' Ke= 0.500 Inlet / Outlet Invert= 158.52' / 157.73' S= 0.0193 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.24 cfs @ 12.10 hrs HW=158.76' TW=158.28' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 0.24 cfs @ 1.67 fps)

Summary for Pond CD8: CB-D8

Inflow Area =	7,020 sf,	31.34% Impervious,	Inflow Depth > 0.53" for 10-YR event
Inflow =	0.05 cfs @	12.15 hrs, Volume=	312 cf
Outflow =	0.05 cfs @	12.15 hrs, Volume=	312 cf, Atten= 0%, Lag= 0.0 min
Primary =	0.05 cfs @	12.15 hrs, Volume=	312 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.89' @ 12.15 hrs
Flood Elev= 162.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.75'	**12.0" Round Culvert** L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 158.75' / 158.62' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.06 cfs @ 12.15 hrs HW=158.89' TW=158.75' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 0.06 cfs @ 1.29 fps)

Summary for Pond CD9: CB-D9

Inflow Area =	8,307 sf,	33.33% Impervious,	Inflow Depth > 0.63" for 10-YR event
Inflow =	0.09 cfs @	12.13 hrs, Volume=	434 cf
Outflow =	0.09 cfs @	12.13 hrs, Volume=	434 cf, Atten= 0%, Lag= 0.0 min
Primary =	0.09 cfs @	12.13 hrs, Volume=	434 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.52' @ 12.13 hrs
Flood Elev= 161.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.35'	**12.0" Round Culvert** L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 158.35' / 158.22' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.08 cfs @ 12.13 hrs HW=158.51' TW=157.13' (Dynamic Tailwater)
↑—**1=Culvert** (Barrel Controls 0.08 cfs @ 1.51 fps)

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, Volume=	1,829 cf
Outflow =	0.53 cfs @	12.09 hrs, Volume=	1,829 cf, Atten= 0%, Lag= 0.0 min
Primary =	0.53 cfs @	12.09 hrs, Volume=	1,829 cf

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 = 263,128 sf, 98.37% Impervious, Inflow Depth > 4.14" for 10-YR event
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= 153.27' @ 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=17.08 cfs @ 12.09 hrs HW=152.84' TW=152.50' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 17.08 cfs @ 3.57 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= 153.29' @ 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=11.59 cfs @ 12.09 hrs HW=152.97' TW=152.51' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 11.59 cfs @ 3.67 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=11.41 cfs @ 12.09 hrs HW=153.56' TW=152.97' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 11.41 cfs @ 3.95 fps)

Summary for Pond CE13: CB-E13

Inflow Area = 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 min
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'

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=10.28 cfs @ 12.09 hrs HW=154.27' TW=153.56' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 10.28 cfs @ 4.08 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 = 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 =	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)
1=Culvert (Controls 0.00 cfs)

Summary for Pond CE18: CB-E18

Inflow Area = 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'

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= 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)
└─**1=Culvert** (Controls 0.00 cfs)

Summary for Pond CE2: CB-E2

Inflow Area = 127,264 sf, 5.11% Impervious, Inflow Depth > 0.21" for 10-YR event
Inflow = 0.65 cfs @ 12.09 hrs, Volume= 2,251 cf
Outflow = 0.65 cfs @ 12.09 hrs, Volume= 2,251 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.65 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=152.52' (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, Atten= 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'

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)
└─**1=Culvert** (Barrel Controls 4.18 cfs @ 4.07 fps)

Summary for Pond CE6: CB-E6

Inflow Area = 132,905 sf, 28.23% Impervious, Inflow Depth > 1.09" 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, Atten= 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 = 119,690 sf, 23.92% Impervious, Inflow Depth > 0.95" for 10-YR event
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 = 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, Atten= 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'

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)
└─**1=Culvert** (Outlet Controls 2.12 cfs @ 3.52 fps)

Summary for Pond CS14: CB-S14

Inflow Area =	11,820 sf,	88.58% Impervious,	Inflow Depth > 3.47"	for 10-YR event
Inflow =	1.04 cfs @	12.09 hrs, Volume=	3,415 cf	
Outflow =	1.04 cfs @	12.09 hrs, Volume=	3,415 cf,	Atten= 0%, Lag= 0.0 min
Primary =	1.04 cfs @	12.09 hrs, Volume=	3,415 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= 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 =	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 min
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=145.77' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 24.00 cfs @ 6.22 fps)

Summary for Pond DC11: DMH-C11

Inflow Area = 361,529 sf, 85.31% Impervious, Inflow Depth > 3.36" for 10-YR event
Inflow = 30.01 cfs @ 12.09 hrs, Volume= 101,257 cf
Outflow = 30.01 cfs @ 12.09 hrs, Volume= 101,257 cf, Atten= 0%, Lag= 0.0 min
Primary = 30.01 cfs @ 12.09 hrs, Volume= 101,257 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=29.27 cfs @ 12.09 hrs HW=148.14' TW=145.78' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 29.27 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 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= 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 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 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 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 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 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 Area = 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'

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 event
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 = 850,162 sf, 59.50% Impervious, Inflow Depth > 2.40" for 10-YR event
Inflow = 20.00 cfs @ 12.21 hrs, Volume= 169,865 cf
Outflow = 20.00 cfs @ 12.21 hrs, Volume= 169,865 cf, Atten= 0%, Lag= 0.0 min
Primary = 20.00 cfs @ 12.21 hrs, Volume= 169,865 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 151.49' @ 12.30 hrs
Flood Elev= 162.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	148.95'	**30.0" Round Culvert** L= 182.0' Ke= 0.500 Inlet / Outlet Invert= 148.95' / 148.04' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=19.41 cfs @ 12.21 hrs HW=151.46' TW=150.48' (Dynamic Tailwater)
└**1=Culvert** (Outlet Controls 19.41 cfs @ 4.90 fps)

Summary for Pond DD2: DMH-D2

Inflow Area =	850,162 sf,	59.50% Impervious,	Inflow Depth > 2.40"	for 10-YR event
Inflow =	20.00 cfs @	12.21 hrs, Volume=	169,865 cf	
Outflow =	20.00 cfs @	12.21 hrs, Volume=	169,865 cf,	Atten= 0%, Lag= 0.0 min
Primary =	20.00 cfs @	12.21 hrs, Volume=	169,865 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 150.49' @ 12.27 hrs
Flood Elev= 162.66'

Device	Routing	Invert	Outlet Devices
#1	Primary	147.94'	**30.0" Round Culvert** L= 94.0' Ke= 0.500 Inlet / Outlet Invert= 147.94' / 147.47' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=19.68 cfs @ 12.21 hrs HW=150.48' TW=149.70' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 19.68 cfs @ 4.90 fps)

Summary for Pond DD3: DMH-D3

Inflow Area =	850,162 sf,	59.50% Impervious,	Inflow Depth > 2.40"	for 10-YR event
Inflow =	20.00 cfs @	12.21 hrs, Volume=	169,865 cf	
Outflow =	20.00 cfs @	12.21 hrs, Volume=	169,865 cf,	Atten= 0%, Lag= 0.0 min
Primary =	20.00 cfs @	12.21 hrs, Volume=	169,865 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 149.71' @ 12.24 hrs
Flood Elev= 162.43'

Device	Routing	Invert	Outlet Devices
#1	Primary	147.37'	**30.0" Round Culvert** L= 213.0' Ke= 0.500 Inlet / Outlet Invert= 147.37' / 146.30' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=19.89 cfs @ 12.21 hrs HW=149.70' TW=148.41' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 19.89 cfs @ 5.42 fps)

Summary for Pond DD4: DMH-D4

Inflow Area =	850,162 sf,	59.50% Impervious,	Inflow Depth > 2.40"	for 10-YR event
Inflow =	20.00 cfs @	12.21 hrs, Volume=	169,865 cf	
Outflow =	20.00 cfs @	12.21 hrs, Volume=	169,865 cf,	Atten= 0%, Lag= 0.0 min
Primary =	20.00 cfs @	12.21 hrs, Volume=	169,865 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 148.41' @ 12.21 hrs
Flood Elev= 152.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	146.20'	**30.0" Round Culvert** L= 133.0' Ke= 0.500

Inlet / Outlet Invert= 146.20' / 145.53' S= 0.0050 '/' Cc= 0.900
n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=19.97 cfs @ 12.21 hrs HW=148.41' TW=143.78' (Dynamic Tailwater)
1=Culvert (Barrel Controls 19.97 cfs @ 5.78 fps)

Summary for Pond DD5: DMH-D5

Inflow Area =	104,273 sf,	64.96% Impervious,	Inflow Depth > 2.28"	for 10-YR event
Inflow =	5.70 cfs @	12.09 hrs, Volume=	19,834 cf	
Outflow =	5.70 cfs @	12.09 hrs, Volume=	19,834 cf,	Atten= 0%, Lag= 0.0 min
Primary =	5.70 cfs @	12.09 hrs, Volume=	19,834 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 156.62' @ 12.09 hrs
Flood Elev= 163.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.58'	**24.0" Round Culvert** L= 124.0' Ke= 0.500 Inlet / Outlet Invert= 155.58' / 149.65' S= 0.0478 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=5.59 cfs @ 12.09 hrs HW=156.61' TW=150.69' (Dynamic Tailwater)
1=Culvert (Inlet Controls 5.59 cfs @ 3.45 fps)

Summary for Pond DD6: DMH-D6

Inflow Area =	104,273 sf,	64.96% Impervious,	Inflow Depth > 2.28"	for 10-YR event
Inflow =	5.70 cfs @	12.09 hrs, Volume=	19,834 cf	
Outflow =	5.70 cfs @	12.09 hrs, Volume=	19,834 cf,	Atten= 0%, Lag= 0.0 min
Primary =	5.70 cfs @	12.09 hrs, Volume=	19,834 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 150.70' @ 12.09 hrs
Flood Elev= 153.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	149.55'	**24.0" Round Culvert** L= 127.0' Ke= 0.500 Inlet / Outlet Invert= 149.55' / 148.92' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=5.59 cfs @ 12.09 hrs HW=150.69' TW=143.35' (Dynamic Tailwater)
1=Culvert (Barrel Controls 5.59 cfs @ 4.39 fps)

Summary for Pond DE1: DMH-E1

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 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= 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 DE10: DMH-E10

Inflow Area =	6,290 sf,100.00% Impervious,	Inflow Depth > 4.23"	for 10-YR event
Inflow =	0.62 cfs @ 12.09 hrs, Volume=	2,218 cf	
Outflow =	0.62 cfs @ 12.09 hrs, Volume=	2,218 cf,	Atten= 0%, Lag= 0.0 min
Primary =	0.62 cfs @ 12.09 hrs, Volume=	2,218 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 154.11' @ 12.09 hrs
Flood Elev= 160.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.72'	**12.0" Round Culvert** L= 27.0' Ke= 0.500 Inlet / Outlet Invert= 153.72' / 150.45' S= 0.1211 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.60 cfs @ 12.09 hrs HW=154.11' TW=152.50' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 0.60 cfs @ 2.12 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 = 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 = 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' @ 12.09 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=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 = 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= 155.22' @ 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 =	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=19.67 cfs @ 12.09 hrs HW=153.34' TW=152.84' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 19.67 cfs @ 4.11 fps)

Summary for Pond DE8: DMH-E8

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= 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 =	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'

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 =	685,779 sf, 81.72% Impervious,	Inflow Depth > 3.33" for 10-YR event			
Inflow =	54.67 cfs @	12.09 hrs,	Volume=	190,119 cf	
Outflow =	2.53 cfs @	14.70 hrs,	Volume=	139,003 cf,	Atten= 95%, Lag= 156.6 min
Discarded =	2.53 cfs @	14.70 hrs,	Volume=	139,003 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= 147.19' @ 14.70 hrs Surf.Area= 36,231 sf Storage= 98,022 cf
Flood Elev= 150.50' Surf.Area= 45,600 sf Storage= 231,359 cf

Plug-Flow detention time= 268.7 min calculated for 138,714 cf (73% of inflow)
Center-of-Mass det. time= 179.7 min (946.8 - 767.1)

Volume	Invert	Avail.Storage	Storage Description
#1	144.00'	231,359 cf	**Custom Stage Data (Conic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
144.00	23,000	0	0	23,000
146.00	33,700	56,360	56,360	33,766
148.00	38,000	71,657	128,017	38,270
150.00	43,200	81,144	209,162	43,663
150.50	45,600	22,197	231,359	46,092

Device	Routing	Invert	Outlet Devices
#1	Discarded	144.00'	**3.000 in/hr Exfiltration over Wetted area** Phase-In= 0.01'
#2	Primary	146.50'	**24.0" Round Culvert** L= 36.0' Ke= 0.500 Inlet / Outlet Invert= 146.50' / 144.34' S= 0.0600 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#3	Device 2	149.50'	**36.0" x 48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=2.53 cfs @ 14.70 hrs HW=147.19' (Free Discharge)
└─**1=Exfiltration** (Exfiltration Controls 2.53 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)

Summary for Pond PD: POND D

Inflow Area = 1,007,497 sf, 56.93% Impervious, Inflow Depth > 2.26" for 10-YR event
Inflow = 25.11 cfs @ 12.12 hrs, Volume= 189,699 cf
Outflow = 2.20 cfs @ 15.62 hrs, Volume= 116,817 cf, Atten= 91%, Lag= 209.9 min
Discarded = 2.20 cfs @ 15.62 hrs, Volume= 116,817 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= 146.20' @ 15.62 hrs Surf.Area= 31,468 sf Storage= 105,375 cf
Flood Elev= 150.50' Surf.Area= 40,900 sf Storage= 260,517 cf

Plug-Flow detention time= 270.1 min calculated for 116,574 cf (61% of inflow)
Center-of-Mass det. time= 165.6 min (960.8 - 795.3)

Volume	Invert	Avail.Storage	Storage Description
#1	142.00'	260,517 cf	**Custom Stage Data (Conic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
142.00	20,200	0	0	20,200
144.00	24,000	44,145	44,145	24,143
146.00	31,050	54,899	99,044	31,290
148.00	35,300	66,305	165,349	35,732
150.00	39,750	75,006	240,355	40,389
150.50	40,900	20,162	260,517	41,593

Device	Routing	Invert	Outlet Devices
#1	Discarded	142.00'	**3.000 in/hr Exfiltration over Wetted area** Phase-In= 0.01'
#2	Primary	146.50'	**24.0" Round Culvert** L= 122.0' Ke= 0.500 Inlet / Outlet Invert= 146.50' / 144.67' S= 0.0150 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#3	Device 2	149.50'	**36.0" x 48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=2.20 cfs @ 15.62 hrs HW=146.20' (Free Discharge)
└─**1=Exfiltration** (Exfiltration Controls 2.20 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 = 850,162 sf, 59.50% Impervious, Inflow Depth > 2.44" for 10-YR event
Inflow = 49.37 cfs @ 12.09 hrs, Volume= 172,533 cf
Outflow = 20.00 cfs @ 12.21 hrs, Volume= 169,865 cf, Atten= 59%, Lag= 7.6 min
Primary = 20.00 cfs @ 12.21 hrs, Volume= 169,865 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Starting Elev= 150.00' Surf.Area= 9,000 sf Storage= 15,000 cf
Peak Elev= 153.21' @ 12.31 hrs Surf.Area= 14,452 sf Storage= 52,360 cf (37,360 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= 110.6 min calculated for 154,543 cf (90% of inflow)
Center-of-Mass det. time= 30.0 min (794.7 - 764.7)

Volume	Invert	Avail.Storage	Storage Description
#1	148.00'	200,400 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
148.00	6,000	0	0
150.00	9,000	15,000	15,000
152.00	12,250	21,250	36,250
154.00	15,900	28,150	64,400
156.00	20,150	36,050	100,450
158.00	24,800	44,950	145,400
160.00	30,200	55,000	200,400

Device	Routing	Invert	Outlet Devices
#1	Primary	149.90'	**30.0" Round Culvert** L= 170.0' Ke= 0.500 Inlet / Outlet Invert= 149.90' / 149.05' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf
#2	Device 1	150.00'	**24.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	157.50'	**36.0" x 48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=19.56 cfs @ 12.21 hrs HW=153.13' TW=151.46' (Dynamic Tailwater)
└─**1=Culvert** (Passes 19.56 cfs of 30.56 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 19.56 cfs @ 6.23 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)

Volume	Invert	Avail.Storage	Storage Description
#1	146.00'	47,909 cf	**Custom Stage Data (Conic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
146.00	1,500	0	0	1,500
148.00	3,225	4,616	4,616	3,258
150.00	5,950	9,037	13,653	6,024
152.00	8,574	14,444	28,098	8,716
154.00	11,300	19,811	47,909	11,532

Device	Routing	Invert	Outlet Devices
#1	Primary	150.00'	**15.0" Round Culvert** L= 22.0' Ke= 0.500 Inlet / Outlet Invert= 150.00' / 149.78' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	150.00'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Primary	153.50'	**48.0" x 36.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

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 Pond PT: INFILTRATION TRENCH

Inflow Area = 29,359 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
Discarded = 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= 150.00' @ 0.00 hrs Surf.Area= 1,410 sf Storage= 0 cf
Flood Elev= 152.00' Surf.Area= 1,410 sf Storage= 1,128 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	150.00'	1,128 cf	**3.00'W x 470.00'L x 2.00'H Prismatoid** 2,820 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Discarded	150.00'	**3.000 in/hr Exfiltration over Wetted area** Phase-In= 0.01'

Discarded OutFlow Max=0.00 cfs @ 0.00 hrs HW=150.00' (Free Discharge)
└─**1=Exfiltration** (Controls 0.00 cfs)

Summary for Link L1: NORTHEAST PROPERTY CORNER

Inflow Area = 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, Atten= 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 = 3,207,969 sf, 37.96% Impervious, Inflow Depth > 0.05" for 10-YR event
Inflow = 0.71 cfs @ 12.45 hrs, Volume= 12,480 cf
Primary = 0.71 cfs @ 12.45 hrs, Volume= 12,480 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 Area = 2,576,385 sf, 46.29% 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

Summary for Link L4: WEST PROPERTY LINE

Inflow Area = 227,373 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, Atten= 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 =	72,817 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, 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 Area =	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, Atten= 0%, Lag= 0.0 min	

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

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>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 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

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

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"
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 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

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

Subcatchment C34: SUBCAT C34 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

Subcatchment C35: SUBCAT C35 Runoff Area=3,541 sf 65.66% Impervious Runoff Depth>3.27"
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

Subcatchment C37: SUBCAT C37 Runoff Area=10,601 sf 53.01% Impervious Runoff Depth>2.53"
Tc=6.0 min CN=70 Runoff=0.70 cfs 2,233 cf

Subcatchment C38: SUBCAT C38 Runoff Area=6,400 sf 79.30% Impervious Runoff Depth>4.07"
Tc=6.0 min CN=86 Runoff=0.67 cfs 2,173 cf

Subcatchment C4: SUBCAT C4 Runoff Area=7,965 sf 31.79% Impervious Runoff Depth>1.54"
Tc=6.0 min CN=58 Runoff=0.30 cfs 1,023 cf

Subcatchment C5: SUBCAT C5 Runoff Area=4,960 sf 33.57% Impervious Runoff Depth>1.18"
Tc=6.0 min CN=53 Runoff=0.13 cfs 487 cf

Subcatchment C6: SUBCAT C6 Runoff Area=2,113 sf 100.00% Impervious Runoff Depth>5.41"
Tc=6.0 min CN=98 Runoff=0.26 cfs 952 cf

Subcatchment C7: SUBCAT C7 Runoff Area=2,469 sf 80.19% Impervious Runoff Depth>4.07"
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

Subcatchment C9: SUBCAT C9 Runoff Area=26,752 sf 99.34% Impervious Runoff Depth>5.41"
Tc=6.0 min CN=98 Runoff=3.32 cfs 12,058 cf

Subcatchment D1: SUBCAT D1 Runoff Area=6,290 sf 100.00% Impervious Runoff Depth>5.41"
Tc=6.0 min CN=98 Runoff=0.78 cfs 2,835 cf

Subcatchment D10: SUBCAT D10 Runoff Area=3,583 sf 77.28% Impervious Runoff Depth>3.97"
Tc=6.0 min CN=85 Runoff=0.37 cfs 1,185 cf

Subcatchment D11: SUBCAT D11 Runoff Area=11,394 sf 91.17% Impervious Runoff Depth>4.83"
Tc=6.0 min CN=93 Runoff=1.35 cfs 4,590 cf

Subcatchment D12: SUBCAT D12 Runoff Area=11,726 sf 100.00% Impervious Runoff Depth>5.41"
Tc=6.0 min CN=98 Runoff=1.45 cfs 5,285 cf

Subcatchment D13: SUBCAT D13 Runoff Area=8,374 sf 35.55% Impervious Runoff Depth>1.25"
Tc=6.0 min CN=54 Runoff=0.24 cfs 871 cf

Subcatchment D14: SUBCAT D14 Runoff Area=13,000 sf 75.23% Impervious Runoff Depth>3.76"
Tc=6.0 min CN=83 Runoff=1.28 cfs 4,078 cf

Subcatchment D15: SUBCAT D15 Runoff Area=29,359 sf 0.00% Impervious Runoff Depth>0.04"
Tc=6.0 min CN=30 Runoff=0.00 cfs 97 cf

Subcatchment D2: SUBCAT D2 Runoff Area=12,142 sf 26.64% Impervious Runoff Depth>0.85"
Tc=6.0 min CN=48 Runoff=0.18 cfs 856 cf

Subcatchment D3: SUBCAT D3 Runoff Area=7,477 sf 52.87% Impervious Runoff Depth>2.53"
Tc=6.0 min CN=70 Runoff=0.50 cfs 1,575 cf

Subcatchment D4: SUBCAT D4 Runoff Area=5,859 sf 87.54% Impervious Runoff Depth>4.61"
Tc=6.0 min CN=91 Runoff=0.68 cfs 2,252 cf

Subcatchment D5: SUBCAT D5 Runoff Area=6,306 sf 95.48% Impervious Runoff Depth>5.06"
Tc=6.0 min CN=95 Runoff=0.77 cfs 2,659 cf

Subcatchment D6: SUBCAT D6 Runoff Area=6,445 sf 73.28% Impervious Runoff Depth>3.66"
Tc=6.0 min CN=82 Runoff=0.62 cfs 1,968 cf

Subcatchment D7: SUBCAT D7 Runoff Area=2,640 sf 78.07% Impervious Runoff Depth>3.97"
Tc=6.0 min CN=85 Runoff=0.27 cfs 873 cf

Subcatchment D8: SUBCAT D8 Runoff Area=7,020 sf 31.34% Impervious Runoff Depth>1.04"
Tc=6.0 min CN=51 Runoff=0.15 cfs 609 cf

Subcatchment D9: SUBCAT D9 Runoff Area=8,307 sf 33.33% Impervious Runoff Depth>1.18"
Tc=6.0 min CN=53 Runoff=0.21 cfs 815 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

Subcatchment E3: SUBCAT E3 Runoff Area=10,197 sf 93.34% Impervious Runoff Depth>4.95"
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

Subcatchment E5: SUBCAT E5 Runoff Area=9,740 sf 67.06% Impervious Runoff Depth>3.37"
Tc=6.0 min CN=79 Runoff=0.86 cfs 2,732 cf

Subcatchment E6: SUBCAT E6 Runoff Area=13,215 sf 67.23% Impervious Runoff Depth>3.37"
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

Subcatchment G1: SUBCAT G1 Runoff Area=203,535 sf 0.00% Impervious Runoff Depth>0.04"
Flow Length=1,090' Tc=11.8 min CN=30 Runoff=0.02 cfs 664 cf

Subcatchment K: SUBCAT K Runoff Area=318,471 sf 7.84% Impervious Runoff Depth>0.66"
Flow Length=1,223' Tc=10.6 min CN=45 Runoff=2.58 cfs 17,610 cf

Subcatchment L: SUBCAT L Runoff Area=313,113 sf 0.00% Impervious Runoff Depth>0.35"
Tc=6.0 min CN=39 Runoff=0.86 cfs 9,114 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

Subcatchment R10: SUBCAT R10 Runoff Area=32,400 sf 100.00% Impervious Runoff Depth>5.41"
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

Subcatchment R13: SUBCAT R13 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 R14: SUBCAT R14 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

Subcatchment R15: SUBCAT R15 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 R16: SUBCAT R16 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 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

Subcatchment R18: SUBCAT R18 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

Subcatchment R2: SUBCAT R2 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 R3: SUBCAT R3 Runoff Area=56,700 sf 100.00% Impervious Runoff Depth>5.41"
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

Subcatchment R6: SUBCAT R6 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 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

Subcatchment R8: SUBCAT R8 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 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

Subcatchment S1: SUBCAT S1 Runoff Area=57,112 sf 0.00% Impervious Runoff Depth>0.04"
Tc=6.0 min CN=30 Runoff=0.01 cfs 188 cf

Subcatchment S10: SUBCAT S10 Runoff Area=96,652 sf 6.11% Impervious Runoff Depth>0.15"
Flow Length=455' Tc=12.0 min CN=34 Runoff=0.04 cfs 1,178 cf

Subcatchment S11: SUBCAT S11 Runoff Area=113,276 sf 14.81% Impervious Runoff Depth>0.40"
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

Subcatchment S13: SUBCAT S13 Runoff Area=13,348 sf 89.17% Impervious Runoff Depth>4.72"
Tc=6.0 min CN=92 Runoff=1.56 cfs 5,253 cf

Subcatchment S14: SUBCAT S14 Runoff Area=11,820 sf 88.58% Impervious Runoff Depth>4.61"
Tc=6.0 min CN=91 Runoff=1.36 cfs 4,543 cf

Subcatchment S2: SUBCAT S2 Runoff Area=72,817 sf 0.00% Impervious Runoff Depth>0.04"
Tc=6.0 min CN=30 Runoff=0.01 cfs 240 cf

Subcatchment S3: SUBCAT S3 Runoff Area=96,497 sf 0.00% Impervious Runoff Depth>0.04"
Tc=6.0 min CN=30 Runoff=0.01 cfs 318 cf

Subcatchment S4: SUBCAT S4 Runoff Area=227,373 sf 0.00% Impervious Runoff Depth>0.04"
Flow Length=530' Tc=11.7 min CN=30 Runoff=0.02 cfs 742 cf

Subcatchment S5: SUBCAT S5 Runoff Area=53,062 sf 0.00% Impervious Runoff Depth>0.04"
Tc=6.0 min CN=30 Runoff=0.01 cfs 175 cf

Subcatchment S6: SUBCAT S6 Runoff Area=72,250 sf 0.00% Impervious Runoff Depth>0.04"
Tc=6.0 min CN=30 Runoff=0.01 cfs 238 cf

Subcatchment S8: SUBCAT S8 Runoff Area=446,502 sf 7.87% 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 Avg. Flow Depth=0.02' Max Vel=0.46 fps Inflow=0.26 cfs 4,839 cf
n=0.030 L=1,291.0' S=0.0187 '/' Capacity=176.06 cfs Outflow=0.19 cfs 4,587 cf

Reach ER5: EX REACH 5 Avg. Flow Depth=0.03' Max Vel=0.67 fps Inflow=0.45 cfs 11,325 cf
n=0.030 L=1,085.0' S=0.0224 '/' Capacity=192.80 cfs Outflow=0.44 cfs 10,949 cf

Reach RG: REACH G Avg. Flow Depth=0.04' Max Vel=1.90 fps Inflow=0.02 cfs 664 cf
12.0" Round Pipe n=0.012 L=180.0' S=0.0278 '/' Capacity=6.43 cfs Outflow=0.02 cfs 662 cf

Reach W1: WETLAND REACH 1 Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf
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=0.03' Max Vel=0.40 fps Inflow=0.39 cfs 3,747 cf
n=0.030 L=480.0' S=0.0083 '/' Capacity=117.48 cfs Outflow=0.26 cfs 3,661 cf

Pond CA1: CB-A1 Peak Elev=156.29' Inflow=1.07 cfs 3,695 cf
12.0" Round Culvert n=0.012 L=83.0' S=0.0100 '/' Outflow=1.07 cfs 3,695 cf

Pond CA2: CB-A2 Peak Elev=156.69' Inflow=0.67 cfs 2,439 cf
12.0" Round Culvert n=0.012 L=41.0' S=0.0100 '/' Outflow=0.67 cfs 2,439 cf

Pond CA3: CB-A3 Peak Elev=155.05' Inflow=4.41 cfs 14,883 cf
18.0" Round Culvert n=0.012 L=169.0' S=0.0050 '/' Outflow=4.41 cfs 14,883 cf

Pond CA4: CB-A4 Peak Elev=155.43' Inflow=0.77 cfs 2,604 cf
12.0" Round Culvert n=0.012 L=50.0' S=0.0100 '/' Outflow=0.77 cfs 2,604 cf

Pond CC10: CB-C10 Peak Elev=153.91' Inflow=20.07 cfs 68,328 cf
30.0" Round Culvert n=0.012 L=170.0' S=0.0050 '/' Outflow=20.07 cfs 68,328 cf

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 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

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 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=157.78' Inflow=0.30 cfs 1,023 cf
12.0" Round Culvert n=0.012 L=26.0' S=0.0100 '/' Outflow=0.30 cfs 1,023 cf

Pond CC5: CB-C5 Peak Elev=159.63' Inflow=0.13 cfs 487 cf
12.0" Round Culvert n=0.012 L=30.0' S=0.0100 '/' Outflow=0.13 cfs 487 cf

Pond CC6: CB-C6 Peak Elev=156.92' Inflow=0.94 cfs 3,300 cf
12.0" Round Culvert n=0.012 L=73.0' S=0.0100 '/' Outflow=0.94 cfs 3,300 cf

Pond CC7: CB-C7 Peak Elev=157.52' Inflow=0.55 cfs 1,861 cf
12.0" Round Culvert n=0.012 L=62.0' S=0.0100 '/' Outflow=0.55 cfs 1,861 cf

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=158.50' Inflow=0.78 cfs 2,835 cf
12.0" Round Culvert n=0.012 L=141.0' S=0.0300 '/' Outflow=0.78 cfs 2,835 cf

Pond CD10: CB-D10 Peak Elev=157.42' Inflow=6.52 cfs 22,668 cf
24.0" Round Culvert n=0.012 L=83.0' S=0.0049 '/' Outflow=6.52 cfs 22,668 cf

Pond CD11: CB-D11 Peak Elev=159.10' Inflow=2.81 cfs 9,876 cf
15.0" Round Culvert n=0.012 L=41.0' S=0.0051 '/' Outflow=2.81 cfs 9,876 cf

Pond CD12: CB-D12 Peak Elev=159.44' Inflow=1.45 cfs 5,285 cf
12.0" Round Culvert n=0.012 L=60.0' S=0.0050 '/' Outflow=1.45 cfs 5,285 cf

Pond CD13: CB-D13 Peak Elev=157.84' Inflow=0.24 cfs 871 cf
12.0" Round Culvert n=0.012 L=35.0' S=0.0051 '/' Outflow=0.24 cfs 871 cf

Pond CD14: CB-D14 Peak Elev=157.81' Inflow=1.51 cfs 4,949 cf
12.0" Round Culvert n=0.012 L=107.0' S=0.0050 '/' Outflow=1.51 cfs 4,949 cf

Pond CD2: CB-D2 Peak Elev=159.15' Inflow=0.18 cfs 856 cf
12.0" Round Culvert n=0.012 L=26.0' S=0.0050 '/' Outflow=0.18 cfs 856 cf

Pond CD3: CB-D3 Peak Elev=159.12' Inflow=0.67 cfs 2,431 cf
12.0" Round Culvert n=0.012 L=27.0' S=0.0052 '/' Outflow=0.67 cfs 2,431 cf

Pond CD4: CB-D4 Peak Elev=159.02' Inflow=1.34 cfs 4,683 cf
12.0" Round Culvert n=0.012 L=109.0' S=0.0050 '/' Outflow=1.34 cfs 4,683 cf

Pond CD5: CB-D5 Peak Elev=158.96' Inflow=0.77 cfs 2,659 cf
12.0" Round Culvert n=0.012 L=50.0' S=0.0154 '/' Outflow=0.77 cfs 2,659 cf

Pond CD6: CB-D6 Peak Elev=158.51' Inflow=3.14 cfs 10,792 cf
15.0" Round Culvert n=0.012 L=128.0' S=0.0050 '/' Outflow=3.14 cfs 10,792 cf

Pond CD7: CB-D7 Peak Elev=158.86' Inflow=0.42 cfs 1,482 cf
12.0" Round Culvert n=0.012 L=41.0' S=0.0193 '/' Outflow=0.42 cfs 1,482 cf

Pond CD8: CB-D8 Peak Elev=158.98' Inflow=0.15 cfs 609 cf
12.0" Round Culvert n=0.012 L=26.0' S=0.0050 '/' Outflow=0.15 cfs 609 cf

Pond CD9: CB-D9 Peak Elev=158.61' Inflow=0.21 cfs 815 cf
12.0" Round Culvert n=0.012 L=26.0' S=0.0050 '/' Outflow=0.21 cfs 815 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=154.14' 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=154.17' 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

Pond CE12: CB-E12 Peak Elev=154.24' 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

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=39.55 cfs 134,651 cf
42.0" Round Culvert n=0.012 L=174.0' S=0.0050 '/' Outflow=39.55 cfs 134,651 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=151.88' Inflow=22.79 cfs 222,451 cf
30.0" Round Culvert n=0.012 L=182.0' S=0.0050 '/' Outflow=22.79 cfs 222,451 cf

Pond DD2: DMH-D2 Peak Elev=150.89' Inflow=22.79 cfs 222,451 cf
30.0" Round Culvert n=0.012 L=94.0' S=0.0050 '/' Outflow=22.79 cfs 222,451 cf

Pond DD3: DMH-D3 Peak Elev=149.97' Inflow=22.79 cfs 222,451 cf
30.0" Round Culvert n=0.012 L=213.0' S=0.0050 '/' Outflow=22.79 cfs 222,451 cf

Pond DD4: DMH-D4 Peak Elev=148.63' Inflow=22.79 cfs 222,451 cf
30.0" Round Culvert n=0.012 L=133.0' S=0.0050 '/' Outflow=22.79 cfs 222,451 cf

Pond DD5: DMH-D5 Peak Elev=156.85' Inflow=8.03 cfs 27,617 cf
24.0" Round Culvert n=0.012 L=124.0' S=0.0478 '/' Outflow=8.03 cfs 27,617 cf

Pond DD6: DMH-D6 Peak Elev=150.96' Inflow=8.03 cfs 27,617 cf
24.0" Round Culvert n=0.012 L=127.0' S=0.0050 '/' Outflow=8.03 cfs 27,617 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

Pond DE10: DMH-E10 Peak Elev=154.17' Inflow=0.78 cfs 2,835 cf
12.0" Round Culvert n=0.012 L=27.0' S=0.1211 '/' Outflow=0.78 cfs 2,835 cf

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
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=154.18' 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=148.29' Storage=139,093 cf Inflow=70.81 cfs 248,478 cf
Discarded=2.71 cfs 153,285 cf Primary=0.00 cfs 0 cf Outflow=2.71 cfs 153,285 cf

Pond PD: POND D Peak Elev=147.53' Storage=149,046 cf Inflow=29.40 cfs 250,243 cf
Discarded=2.41 cfs 131,953 cf Primary=0.00 cfs 0 cf Outflow=2.41 cfs 131,953 cf

Pond PE: POND E Peak Elev=154.09' Storage=65,844 cf Inflow=63.72 cfs 225,538 cf
Outflow=22.79 cfs 222,451 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

Pond PT: INFILTRATION TRENCH Peak Elev=150.00' Storage=0 cf Inflow=0.00 cfs 97 cf
Outflow=0.00 cfs 97 cf

Link L1: NORTHEAST PROPERTY CORNER Inflow=0.01 cfs 188 cf
Primary=0.01 cfs 188 cf

Link L2: RIVER Inflow=3.34 cfs 37,673 cf
Primary=3.34 cfs 37,673 cf

Link L3: EX CULVERTS Inflow=0.45 cfs 11,325 cf
Primary=0.45 cfs 11,325 cf

Link L4: WEST PROPERTY LINE Inflow=0.02 cfs 742 cf
Primary=0.02 cfs 742 cf

Link L5: NORTHWEST PROPERTY CORNER Inflow=0.01 cfs 240 cf
Primary=0.01 cfs 240 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 = 543,069 cf Average Runoff Depth = 1.80"
66.36% Pervious = 2,401,619 sf 33.64% Impervious = 1,217,596 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	Description
*	3,089	98	Proposed Pavement
	1,806	39	>75% Grass cover, Good, HSG A
	4,895	76	Weighted Average
	1,806		36.89% Pervious Area
	3,089		63.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/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"

	Area (sf)	CN	Description
*	5,412	98	Proposed Pavement
	0	39	>75% Grass cover, Good, HSG A
	5,412	98	Weighted Average
	5,412		100.00% Impervious Area

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

Summary for Subcatchment A3: SUBCAT A3

Runoff = 0.71 cfs @ 12.09 hrs, Volume= 2,484 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
*	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

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

Summary for Subcatchment A4: 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 Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.65"

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

Summary for Subcatchment 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 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 (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (sf)	CN	Description
*	25,480	98	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% Impervious Area

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

Summary for Subcatchment C11: SUBCAT C11

Runoff = 0.57 cfs @ 12.09 hrs, Volume= 1,795 cf, Depth> 3.56"

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
*	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% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (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% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (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% Impervious Area

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

Summary for Subcatchment C14: SUBCAT C14

Runoff = 0.37 cfs @ 12.09 hrs, Volume= 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"

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

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

Summary for Subcatchment C15: SUBCAT C15

Runoff = 0.42 cfs @ 12.09 hrs, Volume= 1,349 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"

	Area (sf)	CN	Description
*	3,152	98	Proposed Pavement
	720	39	>75% Grass cover, Good, HSG A
	3,872	87	Weighted Average
	720		18.60% Pervious Area
	3,152		81.40% Impervious Area

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

Summary for Subcatchment C16: SUBCAT C16

Runoff = 0.37 cfs @ 12.09 hrs, Volume= 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"

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

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"

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
*	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% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (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% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (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"

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
*	33,675	98	Proposed Pavement
	7,909	39	>75% Grass cover, Good, HSG A
	41,584	87	Weighted Average
	7,909		19.02% Pervious Area
	33,675		80.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	3,013	98	Proposed Pavement
	679	39	>75% Grass cover, Good, HSG A
	3,692	87	Weighted Average
	679		18.39% Pervious Area
	3,013		81.61% Impervious Area

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

Summary for Subcatchment C21: SUBCAT C21

Runoff = 0.38 cfs @ 12.09 hrs, Volume= 1,226 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	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

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

Summary for Subcatchment C22: SUBCAT C22

Runoff = 0.41 cfs @ 12.09 hrs, Volume= 1,304 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"

	Area (sf)	CN	Description
*	3,040	98	Proposed Pavement
	900	39	>75% Grass cover, Good, HSG A
	3,940	85	Weighted Average
	900		22.84% Pervious Area
	3,040		77.16% Impervious Area

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

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"

	Area (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

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

Summary for Subcatchment C24: SUBCAT C24

Runoff = 0.83 cfs @ 12.09 hrs, Volume= 2,607 cf, Depth> 2.80"

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
*	6,366	98	Proposed Pavement
	4,815	39	>75% Grass cover, Good, HSG A
	11,181	73	Weighted Average
	4,815		43.06% Pervious Area
	6,366		56.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	5,747	98	Proposed Pavement
	0	39	>75% Grass cover, Good, HSG A
	5,747	98	Weighted Average
	5,747		100.00% Impervious Area

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

Summary for Subcatchment C26: SUBCAT C26

Runoff = 0.30 cfs @ 12.09 hrs, Volume= 1,020 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"

	Area (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)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	7,324	98	Proposed Pavement
	919	39	>75% Grass cover, Good, HSG A
	8,243	91	Weighted Average
	919		11.15% Pervious Area
	7,324		88.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	7,771	98	Proposed Pavement
	1,318	39	>75% Grass cover, Good, HSG A
	9,089	89	Weighted Average
	1,318		14.50% Pervious Area
	7,771		85.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
*	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

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

Summary for Subcatchment C30: SUBCAT C30

Runoff = 0.40 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"

	Area (sf)	CN	Description
*	3,220	98	Proposed Pavement
	0	39	>75% Grass cover, Good, HSG A
	3,220	98	Weighted Average
	3,220		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
*	8,105	98	Proposed Pavement
	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)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (sf)	CN	Description
*	3,188	98	Proposed Pavement
	1,522	39	>75% Grass cover, Good, HSG A
	4,710	79	Weighted Average
	1,522		32.31% Pervious Area
	3,188		67.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
*	3,191	98	Proposed Pavement
	2,940	30	Brush, Good, HSG A
	6,131	65	Weighted Average
	2,940		47.95% Pervious Area
	3,191		52.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**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"

	Area (sf)	CN	Description
*	7,727	98	Proposed Pavement
	1,065	39	>75% Grass cover, Good, HSG A
	8,792	91	Weighted Average
	1,065		12.11% Pervious Area
	7,727		87.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	2,325	98	Proposed Pavement
	1,216	39	>75% Grass cover, Good, 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)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment C36: SUBCAT C36

Runoff = 0.12 cfs @ 12.11 hrs, Volume= 460 cf, Depth> 1.18"

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"

	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

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

Summary for Subcatchment C37: SUBCAT C37

Runoff = 0.70 cfs @ 12.10 hrs, Volume= 2,233 cf, Depth> 2.53"

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
*	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

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

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	Description
*	5,075	98	Proposed Pavement
	1,325	39	>75% Grass cover, Good, HSG A
	6,400	86	Weighted Average
	1,325		20.70% Pervious Area
	5,075		79.30% Impervious Area

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

Summary for Subcatchment C4: SUBCAT C4

Runoff = 0.30 cfs @ 12.10 hrs, Volume= 1,023 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"

	Area (sf)	CN	Description
*	2,532	98	Proposed Pavement
	5,433	39	>75% Grass cover, Good, HSG A
	7,965	58	Weighted Average
	5,433		68.21% Pervious Area
	2,532		31.79% Impervious Area

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

Summary for Subcatchment C5: SUBCAT C5

Runoff = 0.13 cfs @ 12.11 hrs, Volume= 487 cf, Depth> 1.18"

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"

	Area (sf)	CN	Description
*	1,665	98	Proposed Pavement
	3,295	30	Brush, Good, HSG A
	4,960	53	Weighted Average
	3,295		66.43% Pervious Area
	1,665		33.57% Impervious Area

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

Summary for Subcatchment C6: SUBCAT C6

Runoff = 0.26 cfs @ 12.09 hrs, Volume= 952 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
*	2,113	98	Proposed Pavement
	0	39	>75% Grass cover, Good, HSG A
	2,113	98	Weighted Average
	2,113		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	1,980	98	Proposed Pavement
	489	39	>75% Grass cover, Good, HSG A
	2,469	86	Weighted Average
	489		19.81% Pervious Area
	1,980		80.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**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
*	27,832	98	Proposed Pavement
	3,957	39	>75% Grass cover, Good, HSG A
	31,789	91	Weighted Average
	3,957		12.45% Pervious Area
	27,832		87.55% Impervious Area

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

Summary for Subcatchment C9: SUBCAT C9

Runoff = 3.32 cfs @ 12.09 hrs, Volume= 12,058 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
*	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

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

Summary for Subcatchment D1: SUBCAT D1

Runoff = 0.78 cfs @ 12.09 hrs, Volume= 2,835 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
*	6,290	98	Proposed Pavement
	0	39	>75% Grass cover, Good, HSG A
	6,290	98	Weighted Average
	6,290		100.00% Impervious Area

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

Summary for Subcatchment D10: SUBCAT D10

Runoff = 0.37 cfs @ 12.09 hrs, Volume= 1,185 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"

	Area (sf)	CN	Description
*	2,769	98	Proposed Pavement
	814	39	>75% Grass cover, Good, HSG A
	3,583	85	Weighted Average
	814		22.72% Pervious Area
	2,769		77.28% Impervious Area

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

Summary for Subcatchment D11: SUBCAT D11

Runoff = 1.35 cfs @ 12.09 hrs, Volume= 4,590 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"

	Area (sf)	CN	Description
*	10,388	98	Proposed Pavement
	1,006	39	>75% Grass cover, Good, HSG A
	11,394	93	Weighted Average
	1,006		8.83% Pervious Area
	10,388		91.17% Impervious Area

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

Summary for Subcatchment D12: SUBCAT D12

Runoff = 1.45 cfs @ 12.09 hrs, Volume= 5,285 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
*	11,726	98	Proposed Pavement
	11,726		100.00% Impervious Area

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

Summary for Subcatchment D13: SUBCAT D13

Runoff = 0.24 cfs @ 12.11 hrs, Volume= 871 cf, Depth> 1.25"

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
*	2,977	98	Proposed Pavement
	5,397	30	Brush, Good, HSG A
	8,374	54	Weighted Average
	5,397		64.45% Pervious Area
	2,977		35.55% Impervious Area

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

Summary for Subcatchment D14: SUBCAT D14

Runoff = 1.28 cfs @ 12.09 hrs, Volume= 4,078 cf, Depth> 3.76"

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
*	9,780	98	Proposed Pavement
	3,220	39	>75% Grass cover, Good, HSG A
	13,000	83	Weighted Average
	3,220		24.77% Pervious Area
	9,780		75.23% Impervious Area

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

Summary for Subcatchment D15: SUBCAT D15

Runoff = 0.00 cfs @ 17.13 hrs, Volume= 97 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
	26,789	30	Brush, Good, HSG A
	2,570	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	29,359	30	Weighted Average
	29,359		100.00% Pervious Area

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

Summary for Subcatchment D2: SUBCAT D2

Runoff = 0.18 cfs @ 12.12 hrs, Volume= 856 cf, Depth> 0.85"

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
*	3,235	98	Proposed Pavement
	7,269	30	Brush, Good, HSG A
	1,638	30	Woods, Good, HSG A
	12,142	48	Weighted Average
	8,907		73.36% Pervious Area
	3,235		26.64% Impervious Area

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

Summary for Subcatchment D3: SUBCAT D3

Runoff = 0.50 cfs @ 12.10 hrs, Volume= 1,575 cf, Depth> 2.53"

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
*	3,953	98	Proposed Pavement
	3,524	39	>75% Grass cover, Good, HSG A
	7,477	70	Weighted Average
	3,524		47.13% Pervious Area
	3,953		52.87% Impervious Area

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

Summary for Subcatchment D4: SUBCAT D4

Runoff = 0.68 cfs @ 12.09 hrs, Volume= 2,252 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
*	5,129	98	Proposed Pavement
	730	39	>75% Grass cover, Good, HSG A
	5,859	91	Weighted Average
	730		12.46% Pervious Area
	5,129		87.54% Impervious Area

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

Summary for Subcatchment D5: SUBCAT D5

Runoff = 0.77 cfs @ 12.09 hrs, Volume= 2,659 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
*	6,021	98	Proposed Pavement
	285	39	>75% Grass cover, Good, HSG A
	6,306	95	Weighted Average
	285		4.52% Pervious Area
	6,021		95.48% Impervious Area

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

Summary for Subcatchment D6: SUBCAT D6

Runoff = 0.62 cfs @ 12.09 hrs, Volume= 1,968 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"

	Area (sf)	CN	Description
*	4,723	98	Proposed Pavement
	1,722	39	>75% Grass cover, Good, HSG A
	6,445	82	Weighted Average
	1,722		26.72% Pervious Area
	4,723		73.28% Impervious Area

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

Summary for Subcatchment D7: SUBCAT D7

Runoff = 0.27 cfs @ 12.09 hrs, Volume= 873 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"

	Area (sf)	CN	Description
*	2,061	98	Proposed Pavement
	579	39	>75% Grass cover, Good, HSG A
	2,640	85	Weighted Average
	579		21.93% Pervious Area
	2,061		78.07% Impervious Area

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

Summary for Subcatchment D8: SUBCAT D8

Runoff = 0.15 cfs @ 12.11 hrs, Volume= 609 cf, Depth> 1.04"

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
*	2,200	98	Proposed Pavement
	4,820	30	Brush, Good, HSG A
	7,020	51	Weighted Average
	4,820		68.66% Pervious Area
	2,200		31.34% Impervious Area

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

Summary for Subcatchment D9: SUBCAT D9

Runoff = 0.21 cfs @ 12.11 hrs, Volume= 815 cf, Depth> 1.18"

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"

	Area (sf)	CN	Description
*	2,769	98	Proposed Pavement
	5,538	30	Brush, Good, HSG A
	8,307	53	Weighted Average
	5,538		66.67% Pervious Area
	2,769		33.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
*	5,394	98	Proposed Pavement
	245	39	>75% Grass cover, Good, HSG A
	5,639	95	Weighted Average
	245		4.34% Pervious Area
	5,394		95.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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 Pavement
	4,302	39	>75% Grass cover, Good, HSG A
	11,128	75	Weighted Average
	4,302		38.66% Pervious Area
	6,826		61.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	21,962	98	Proposed Pavement
	1,413	39	>75% Grass cover, Good, HSG A
	23,375	94	Weighted Average
	1,413		6.04% Pervious Area
	21,962		93.96% Impervious Area

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

Summary for Subcatchment E12: SUBCAT E12

Runoff = 2.29 cfs @ 12.09 hrs, Volume= 7,942 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
*	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

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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 (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (sf)	CN	Description
*	27,291	98	Proposed Pavement
	517	39	>75% Grass cover, Good, HSG A
	27,808	97	Weighted Average
	517		1.86% Pervious Area
	27,291		98.14% Impervious Area

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

Summary for Subcatchment E15: SUBCAT E15

Runoff = 4.00 cfs @ 12.09 hrs, Volume= 14,284 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"

	Area (sf)	CN	Description
*	31,789	98	Proposed Pavement
	603	39	>75% Grass cover, Good, HSG A
	32,392	97	Weighted Average
	603		1.86% Pervious Area
	31,789		98.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (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% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
	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	30	Weighted Average
	120,518		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	50	0.1200	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.95"
0.5	55	0.1200	1.73		**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 @ 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, Good, HSG A
	0	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	11,752	30	Weighted Average
	11,752		100.00% Pervious Area

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

Summary for Subcatchment E19: SUBCAT E19

Runoff = 0.01 cfs @ 17.13 hrs, Volume= 249 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
	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	30	Weighted Average
	75,753		100.00% Pervious Area

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

Summary for Subcatchment E2: SUBCAT E2

Runoff = 0.83 cfs @ 12.09 hrs, Volume= 2,910 cf, Depth> 5.18"

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"

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

Summary for Subcatchment E3: SUBCAT E3

Runoff = 1.22 cfs @ 12.09 hrs, Volume= 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"

	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 Area
	9,518		93.34% Impervious Area

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

Summary for Subcatchment E4: SUBCAT E4

Runoff = 1.28 cfs @ 12.09 hrs, Volume= 4,258 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
*	9,769	98	Proposed Pavement
	1,309	39	>75% Grass cover, Good, HSG A
	11,078	91	Weighted Average
	1,309		11.82% Pervious Area
	9,769		88.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (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% Impervious Area

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

Summary for Subcatchment E6: SUBCAT E6

Runoff = 1.17 cfs @ 12.09 hrs, Volume= 3,707 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"

	Area (sf)	CN	Description
*	8,885	98	Proposed Pavement
	4,330	39	>75% Grass cover, Good, HSG A
	13,215	79	Weighted Average
	4,330		32.77% Pervious Area
	8,885		67.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (sf)	CN	Description
*	8,274	98	Proposed Pavement
	826	39	>75% Grass cover, Good, HSG A
	9,100	93	Weighted Average
	826		9.08% Pervious Area
	8,274		90.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

	Area (sf)	CN	Description
*	11,495	98	Proposed Pavement
	1,202	39	>75% Grass cover, Good, HSG A
	12,697	92	Weighted Average
	1,202		9.47% Pervious Area
	11,495		90.53% Impervious Area

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

Summary for Subcatchment E9: SUBCAT E9

Runoff = 0.48 cfs @ 12.09 hrs, Volume= 1,682 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
*	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

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 cfs @ 17.21 hrs, Volume= 664 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
	130,014	30	Brush, Good, HSG A
	73,521	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	203,535	30	Weighted Average
	203,535		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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,** 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	1,090	Total			

Summary for Subcatchment K: SUBCAT K

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

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"

	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

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

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"

	Area (sf)	CN	Description
*	7,200	98	Proposed Building
	7,200		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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"

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
*	32,400	98	Proposed Building
	32,400		100.00% Impervious Area

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

Summary for Subcatchment R11: SUBCAT R11

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
*	31,500	98	Proposed 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 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"

	Area (sf)	CN	Description
*	31,500	98	Proposed 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 R13: SUBCAT R13

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"

	Area (sf)	CN	Description
*	26,325	98	Proposed Building
	26,325		100.00% Impervious Area

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

Summary for Subcatchment R14: SUBCAT R14

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
*	28,575	98	Proposed Building
	28,575		100.00% Impervious Area

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

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"

	Area (sf)	CN	Description
*	31,500	98	Proposed 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 R16: SUBCAT R16

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
*	31,500	98	Proposed 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 R17: SUBCAT R17

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
*	31,500	98	Proposed 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 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"

	Area (sf)	CN	Description
*	7,200	98	Proposed Building
	7,200		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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
*	31,500	98	Proposed 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 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

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

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"

	Area (sf)	CN	Description
*	26,325	98	Proposed Building
	26,325		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	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
*	28,575	98	Proposed Building
	28,575		100.00% Impervious Area

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

Summary for Subcatchment R6: SUBCAT R6

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
*	31,500	98	Proposed 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 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"

	Area (sf)	CN	Description
*	31,500	98	Proposed 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 = 3.91 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
*	31,500	98	Proposed 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 R9: SUBCAT R9

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"

	Area (sf)	CN	Description
*	7,200	98	Proposed Building
	7,200		100.00% Impervious Area

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

Summary for Subcatchment S1: SUBCAT S1

Runoff = 0.01 cfs @ 17.13 hrs, Volume= 188 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
	816	39	>75% Grass cover, Good, HSG A
	56,296	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	57,112	30	Weighted Average
	57,112		100.00% Pervious Area

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

Summary for Subcatchment S10: SUBCAT S10

Runoff = 0.04 cfs @ 14.74 hrs, Volume= 1,178 cf, Depth> 0.15"

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
	19,991	30	Brush, Good, HSG A
	70,751	30	Woods, Good, HSG A
*	5,910	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	96,652	34	Weighted Average
	90,742		93.89% Pervious Area
	5,910		6.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (sf)	CN	Description
	38,318	30	Brush, Good, HSG A
	58,186	30	Woods, Good, HSG A
*	15,394	98	Ex. Wetland
*	0	98	Ex. Building
*	1,378	98	Ex. Pavement
	113,276	40	Weighted Average
	96,504		85.19% Pervious Area
	16,772		14.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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 to minimum Tc = 6.0 min			

Summary for Subcatchment S12: SUBCAT S12

Runoff = 0.10 cfs @ 12.33 hrs, Volume= 862 cf, Depth> 0.45"

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
	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

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

Summary for Subcatchment S13: SUBCAT S13

Runoff = 1.56 cfs @ 12.09 hrs, Volume= 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"

	Area (sf)	CN	Description
	1,445	39	>75% Grass cover, Good, HSG A
	0	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	6,578	98	Ex. Pavement
*	5,325	98	Proposed Pavement
	13,348	92	Weighted Average
	1,445		10.83% Pervious Area
	11,903		89.17% Impervious Area

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

Summary for Subcatchment S14: SUBCAT S14

Runoff = 1.36 cfs @ 12.09 hrs, Volume= 4,543 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
	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

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

Summary for Subcatchment S2: SUBCAT S2

Runoff = 0.01 cfs @ 17.13 hrs, Volume= 240 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
	6,086	30	Brush, Good, HSG A
	66,731	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	72,817	30	Weighted Average
	72,817		100.00% Pervious Area

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

Summary for Subcatchment S3: SUBCAT S3

Runoff = 0.01 cfs @ 17.13 hrs, Volume= 318 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
	69,232	30	Brush, Good, HSG A
	27,265	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	96,497	30	Weighted Average
	96,497		100.00% Pervious Area

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

Summary for Subcatchment S4: SUBCAT S4

Runoff = 0.02 cfs @ 17.21 hrs, Volume= 742 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
	16,627	30	Brush, Good, HSG A
	210,746	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	227,373	30	Weighted Average
	227,373		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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 hrs, Volume= 175 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
	48,388	30	Brush, Good, HSG A
	4,674	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	53,062	30	Weighted Average
	53,062		100.00% Pervious Area

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

Summary for Subcatchment S6: SUBCAT S6

Runoff = 0.01 cfs @ 17.13 hrs, Volume= 238 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
	68,729	30	Brush, Good, HSG A
	3,521	30	Woods, Good, HSG A
*	0	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
	72,250	30	Weighted Average
	72,250		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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"

	Area (sf)	CN	Description
	101,355	30	Brush, Good, HSG A
	310,010	30	Woods, Good, HSG A
*	33,536	98	Ex. Wetland
*	0	98	Ex. Building
*	0	98	Ex. Pavement
*	1,601	98	Proposed Building
	446,502	35	Weighted Average
	411,365		92.13% Pervious Area
	35,137		7.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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 = 436,607 sf, 5.39% Impervious, Inflow Depth > 0.13" for 25-YR event
Inflow = 0.26 cfs @ 12.58 hrs, Volume= 4,839 cf
Outflow = 0.19 cfs @ 13.99 hrs, Volume= 4,587 cf, Atten= 28%, Lag= 84.7 min

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

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 = 2,576,385 sf, 46.29% Impervious, Inflow Depth > 0.05" for 25-YR event
Inflow = 0.45 cfs @ 13.88 hrs, Volume= 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'

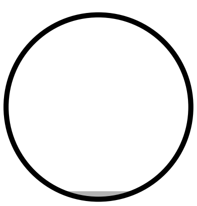
Summary for Reach RG: REACH G

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'

Summary for Reach W2: WETLAND REACH 2

Inflow Area = 339,955 sf, 5.18% Impervious, Inflow Depth > 0.13" for 25-YR event
Inflow = 0.39 cfs @ 12.36 hrs, Volume= 3,747 cf
Outflow = 0.26 cfs @ 12.56 hrs, Volume= 3,661 cf, Atten= 35%, Lag= 12.3 min

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)

Summary for Pond CA2: CB-A2

Inflow Area =	5,412 sf,100.00% Impervious,	Inflow Depth > 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 =	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 =	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'

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 CC10: CB-C10

Inflow Area =	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)

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 Area = 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 = 3,872 sf, 77.27% Impervious, Inflow Depth > 3.97" for 25-YR event
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'

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 = 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
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 = 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)
↑**1=Culvert** (Inlet Controls 0.41 cfs @ 1.91 fps)

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 min
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'

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)
└─**1=Culvert** (Outlet Controls 11.29 cfs @ 4.02 fps)

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 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 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 = 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 min
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 = 3,940 sf, 77.16% Impervious, Inflow Depth > 3.97" for 25-YR event
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 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'

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, Atten= 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, Atten= 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)

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 =	10,538 sf, 83.28% Impervious,	Inflow Depth > 4.34"	for 25-YR event
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	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=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'

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)
└─**1=Culvert** (Outlet Controls 4.39 cfs @ 3.85 fps)

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 cf
Outflow = 3.83 cfs @ 12.09 hrs, Volume= 12,612 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.83 cfs @ 12.09 hrs, Volume= 12,612 cf

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 = 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 min
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 CC30: CB-C30

Inflow Area = 3,220 sf,100.00% Impervious, Inflow Depth > 5.41" for 25-YR event
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 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'

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 =	10,841 sf,	58.84% Impervious,	Inflow Depth > 2.65"	for 25-YR event
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 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	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=0.74 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
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 = 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 = 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'

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
Outflow = 0.70 cfs @ 12.10 hrs, Volume= 2,233 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.70 cfs @ 12.10 hrs, Volume= 2,233 cf

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 = 6,400 sf, 79.30% Impervious, Inflow Depth > 4.07" 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, Atten= 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 = 7,965 sf, 31.79% Impervious, Inflow Depth > 1.54" for 25-YR event
Inflow = 0.30 cfs @ 12.10 hrs, Volume= 1,023 cf
Outflow = 0.30 cfs @ 12.10 hrs, Volume= 1,023 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.30 cfs @ 12.10 hrs, Volume= 1,023 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 157.78' @ 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=0.28 cfs @ 12.10 hrs HW=157.78' TW=157.52' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 0.28 cfs @ 2.31 fps)

Summary for Pond CC5: CB-C5

Inflow Area = 4,960 sf, 33.57% Impervious, Inflow Depth > 1.18" for 25-YR event
Inflow = 0.13 cfs @ 12.11 hrs, Volume= 487 cf
Outflow = 0.13 cfs @ 12.11 hrs, Volume= 487 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.13 cfs @ 12.11 hrs, Volume= 487 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 159.63' @ 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=0.12 cfs @ 12.11 hrs HW=159.62' TW=156.91' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 0.12 cfs @ 2.08 fps)

Summary for Pond CC6: CB-C6

Inflow Area = 17,507 sf, 47.35% Impervious, Inflow Depth > 2.26" for 25-YR event
Inflow = 0.94 cfs @ 12.10 hrs, Volume= 3,300 cf
Outflow = 0.94 cfs @ 12.10 hrs, Volume= 3,300 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.94 cfs @ 12.10 hrs, Volume= 3,300 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 156.92' @ 12.10 hrs
Flood Elev= 162.70'

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 = 10,434 sf, 43.24% Impervious, Inflow Depth > 2.14" for 25-YR event
Inflow = 0.55 cfs @ 12.10 hrs, Volume= 1,861 cf
Outflow = 0.55 cfs @ 12.10 hrs, Volume= 1,861 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.55 cfs @ 12.10 hrs, Volume= 1,861 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 157.52' @ 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=0.53 cfs @ 12.10 hrs HW=157.52' TW=156.92' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 0.53 cfs @ 2.94 fps)

Summary for Pond CC8: CB-C8

Inflow Area = 236,335 sf, 89.20% Impervious, Inflow Depth > 4.70" for 25-YR event
Inflow = 27.05 cfs @ 12.09 hrs, Volume= 92,603 cf
Outflow = 27.05 cfs @ 12.09 hrs, Volume= 92,603 cf, Atten= 0%, Lag= 0.0 min
Primary = 27.05 cfs @ 12.09 hrs, Volume= 92,603 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 = 6,290 sf,100.00% Impervious, Inflow Depth > 5.41" for 25-YR event
Inflow = 0.78 cfs @ 12.09 hrs, Volume= 2,835 cf
Outflow = 0.78 cfs @ 12.09 hrs, Volume= 2,835 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.78 cfs @ 12.09 hrs, Volume= 2,835 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.50' @ 12.09 hrs
Flood Elev= 162.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.05'	**12.0" Round Culvert** L= 141.0' Ke= 0.500 Inlet / Outlet Invert= 158.05' / 153.82' S= 0.0300 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.76 cfs @ 12.09 hrs HW=158.49' TW=154.16' (Dynamic Tailwater)
1=Culvert (Inlet Controls 0.76 cfs @ 2.26 fps)

Summary for Pond CD10: CB-D10

Inflow Area = 82,899 sf, 66.31% Impervious, Inflow Depth > 3.28" for 25-YR event
Inflow = 6.52 cfs @ 12.09 hrs, Volume= 22,668 cf
Outflow = 6.52 cfs @ 12.09 hrs, Volume= 22,668 cf, Atten= 0%, Lag= 0.0 min
Primary = 6.52 cfs @ 12.09 hrs, Volume= 22,668 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 157.42' @ 12.11 hrs
Flood Elev= 161.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	156.09'	**24.0" Round Culvert** L= 83.0' Ke= 0.500

Inlet / Outlet Invert= 156.09' / 155.68' S= 0.0049 '/' Cc= 0.900
n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=5.92 cfs @ 12.09 hrs HW=157.39' TW=156.83' (Dynamic Tailwater)
1=Culvert (Outlet Controls 5.92 cfs @ 3.88 fps)

Summary for Pond CD11: CB-D11

Inflow Area =	23,120 sf, 95.65% Impervious,	Inflow Depth > 5.13"	for 25-YR event
Inflow =	2.81 cfs @ 12.09 hrs, Volume=	9,876 cf	
Outflow =	2.81 cfs @ 12.09 hrs, Volume=	9,876 cf,	Atten= 0%, Lag= 0.0 min
Primary =	2.81 cfs @ 12.09 hrs, Volume=	9,876 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 159.10' @ 12.09 hrs
Flood Elev= 161.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.10'	**15.0" Round Culvert** L= 41.0' Ke= 0.500 Inlet / Outlet Invert= 158.10' / 157.89' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.73 cfs @ 12.09 hrs HW=159.08' TW=157.38' (Dynamic Tailwater)
1=Culvert (Barrel Controls 2.73 cfs @ 3.64 fps)

Summary for Pond CD12: CB-D12

Inflow Area =	11,726 sf,100.00% Impervious,	Inflow Depth > 5.41"	for 25-YR event
Inflow =	1.45 cfs @ 12.09 hrs, Volume=	5,285 cf	
Outflow =	1.45 cfs @ 12.09 hrs, Volume=	5,285 cf,	Atten= 0%, Lag= 0.0 min
Primary =	1.45 cfs @ 12.09 hrs, Volume=	5,285 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 159.44' @ 12.11 hrs
Flood Elev= 162.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.65'	**12.0" Round Culvert** L= 60.0' Ke= 0.500 Inlet / Outlet Invert= 158.65' / 158.35' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.28 cfs @ 12.09 hrs HW=159.42' TW=159.08' (Dynamic Tailwater)
1=Culvert (Outlet Controls 1.28 cfs @ 2.73 fps)

Summary for Pond CD13: CB-D13

Inflow Area =	8,374 sf, 35.55% Impervious,	Inflow Depth > 1.25"	for 25-YR event
Inflow =	0.24 cfs @ 12.11 hrs, Volume=	871 cf	
Outflow =	0.24 cfs @ 12.11 hrs, Volume=	871 cf,	Atten= 0%, Lag= 0.0 min
Primary =	0.24 cfs @ 12.11 hrs, Volume=	871 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 157.84' @ 12.14 hrs
Flood Elev= 161.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.35'	**12.0" Round Culvert** L= 35.0' Ke= 0.500 Inlet / Outlet Invert= 157.35' / 157.17' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.13 cfs @ 12.11 hrs HW=157.81' TW=157.80' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 0.13 cfs @ 0.54 fps)

Summary for Pond CD14: CB-D14

Inflow Area =	21,374 sf,	59.68% Impervious,	Inflow Depth > 2.78"	for 25-YR event
Inflow =	1.51 cfs @	12.09 hrs, Volume=	4,949 cf	
Outflow =	1.51 cfs @	12.09 hrs, Volume=	4,949 cf,	Atten= 0%, Lag= 0.0 min
Primary =	1.51 cfs @	12.09 hrs, Volume=	4,949 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 157.81' @ 12.09 hrs
Flood Elev= 161.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.07'	**12.0" Round Culvert** L= 107.0' Ke= 0.500 Inlet / Outlet Invert= 157.07' / 156.53' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.48 cfs @ 12.09 hrs HW=157.80' TW=156.83' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 1.48 cfs @ 3.35 fps)

Summary for Pond CD2: CB-D2

Inflow Area =	12,142 sf,	26.64% Impervious,	Inflow Depth > 0.85"	for 25-YR event
Inflow =	0.18 cfs @	12.12 hrs, Volume=	856 cf	
Outflow =	0.18 cfs @	12.12 hrs, Volume=	856 cf,	Atten= 0%, Lag= 0.0 min
Primary =	0.18 cfs @	12.12 hrs, Volume=	856 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 159.15' @ 12.19 hrs
Flood Elev= 162.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.75'	**12.0" Round Culvert** L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 158.75' / 158.62' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 12.12 hrs HW=159.09' TW=159.10' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.00 cfs)

Summary for Pond CD3: CB-D3

Inflow Area = 19,619 sf, 36.64% Impervious, Inflow Depth > 1.49" for 25-YR event
Inflow = 0.67 cfs @ 12.10 hrs, Volume= 2,431 cf
Outflow = 0.67 cfs @ 12.10 hrs, Volume= 2,431 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.67 cfs @ 12.10 hrs, Volume= 2,431 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 159.12' @ 12.14 hrs
Flood Elev= 162.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.52'	**12.0" Round Culvert** L= 27.0' Ke= 0.500 Inlet / Outlet Invert= 158.52' / 158.38' S= 0.0052 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.45 cfs @ 12.10 hrs HW=159.09' TW=159.02' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 0.45 cfs @ 1.40 fps)

Summary for Pond CD4: CB-D4

Inflow Area = 25,478 sf, 48.34% Impervious, Inflow Depth > 2.21" for 25-YR event
Inflow = 1.34 cfs @ 12.10 hrs, Volume= 4,683 cf
Outflow = 1.34 cfs @ 12.10 hrs, Volume= 4,683 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.34 cfs @ 12.10 hrs, Volume= 4,683 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 159.02' @ 12.11 hrs
Flood Elev= 162.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.28'	**12.0" Round Culvert** L= 109.0' Ke= 0.500 Inlet / Outlet Invert= 158.28' / 157.73' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.24 cfs @ 12.10 hrs HW=159.01' TW=158.50' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 1.24 cfs @ 2.80 fps)

Summary for Pond CD5: CB-D5

Inflow Area = 6,306 sf, 95.48% Impervious, Inflow Depth > 5.06" for 25-YR event
Inflow = 0.77 cfs @ 12.09 hrs, Volume= 2,659 cf
Outflow = 0.77 cfs @ 12.09 hrs, Volume= 2,659 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.77 cfs @ 12.09 hrs, Volume= 2,659 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.96' @ 12.10 hrs
Flood Elev= 162.75'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.50'	**12.0" Round Culvert** L= 50.0' Ke= 0.500

Inlet / Outlet Invert= 158.50' / 157.73' S= 0.0154 '/' Cc= 0.900
n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.69 cfs @ 12.09 hrs HW=158.95' TW=158.49' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.69 cfs @ 2.95 fps)

Summary for Pond CD6: CB-D6

Inflow Area =	47,889 sf,	57.05% Impervious,	Inflow Depth > 2.70"	for 25-YR event
Inflow =	3.14 cfs @	12.09 hrs, Volume=	10,792 cf	
Outflow =	3.14 cfs @	12.09 hrs, Volume=	10,792 cf,	Atten= 0%, Lag= 0.0 min
Primary =	3.14 cfs @	12.09 hrs, Volume=	10,792 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= 162.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	157.48'	**15.0" Round Culvert** L= 128.0' Ke= 0.500 Inlet / Outlet Invert= 157.48' / 156.84' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=3.09 cfs @ 12.09 hrs HW=158.50' TW=157.40' (Dynamic Tailwater)
1=Culvert (Barrel Controls 3.09 cfs @ 3.95 fps)

Summary for Pond CD7: CB-D7

Inflow Area =	9,660 sf,	44.11% Impervious,	Inflow Depth > 1.84"	for 25-YR event
Inflow =	0.42 cfs @	12.10 hrs, Volume=	1,482 cf	
Outflow =	0.42 cfs @	12.10 hrs, Volume=	1,482 cf,	Atten= 0%, Lag= 0.0 min
Primary =	0.42 cfs @	12.10 hrs, Volume=	1,482 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.86' @ 12.11 hrs
Flood Elev= 162.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.52'	**12.0" Round Culvert** L= 41.0' Ke= 0.500 Inlet / Outlet Invert= 158.52' / 157.73' S= 0.0193 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.38 cfs @ 12.10 hrs HW=158.85' TW=158.50' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.38 cfs @ 2.47 fps)

Summary for Pond CD8: CB-D8

Inflow Area =	7,020 sf,	31.34% Impervious,	Inflow Depth > 1.04"	for 25-YR event
Inflow =	0.15 cfs @	12.11 hrs, Volume=	609 cf	
Outflow =	0.15 cfs @	12.11 hrs, Volume=	609 cf,	Atten= 0%, Lag= 0.0 min
Primary =	0.15 cfs @	12.11 hrs, Volume=	609 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.98' @ 12.14 hrs
Flood Elev= 162.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.75'	**12.0" Round Culvert** L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 158.75' / 158.62' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.13 cfs @ 12.11 hrs HW=158.98' TW=158.85' (Dynamic Tailwater)
└—**1=Culvert** (Outlet Controls 0.13 cfs @ 1.48 fps)

Summary for Pond CD9: CB-D9

Inflow Area = 8,307 sf, 33.33% Impervious, Inflow Depth > 1.18" for 25-YR event
Inflow = 0.21 cfs @ 12.11 hrs, Volume= 815 cf
Outflow = 0.21 cfs @ 12.11 hrs, Volume= 815 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.21 cfs @ 12.11 hrs, Volume= 815 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 158.61' @ 12.11 hrs
Flood Elev= 161.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	158.35'	**12.0" Round Culvert** L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 158.35' / 158.22' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.21 cfs @ 12.11 hrs HW=158.61' TW=157.40' (Dynamic Tailwater)
└—**1=Culvert** (Barrel Controls 0.21 cfs @ 1.93 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 cf
Outflow = 0.68 cfs @ 12.09 hrs, Volume= 2,378 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.68 cfs @ 12.09 hrs, Volume= 2,378 cf

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 Area = 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
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= 154.14' @ 12.38 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=17.37 cfs @ 12.09 hrs HW=153.30' TW=153.08' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 17.37 cfs @ 2.90 fps)

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= 154.17' @ 12.37 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=13.43 cfs @ 12.09 hrs HW=153.47' TW=153.10' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 13.43 cfs @ 3.35 fps)

Summary for Pond CE12: CB-E12

Inflow Area = 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= 154.24' @ 12.38 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=13.77 cfs @ 12.09 hrs HW=153.98' TW=153.47' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 13.77 cfs @ 3.78 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=	55,062 cf,	Atten= 0%, Lag= 0.0 min
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'

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=12.74 cfs @ 12.09 hrs HW=154.63' TW=153.98' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 12.74 cfs @ 4.01 fps)

Summary for Pond CE14: CB-E14

Inflow Area =	109,749 sf,	83.89% Impervious,	Inflow Depth > 4.39"	for 25-YR event
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 @ 4.69 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,	Atten= 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 = 120,518 sf, 0.00% Impervious, Inflow Depth > 0.04" for 25-YR event
Inflow = 0.01 cfs @ 17.15 hrs, Volume= 396 cf
Outflow = 0.01 cfs @ 17.15 hrs, Volume= 396 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.01 cfs @ 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, 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'

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 = 75,753 sf, 0.00% Impervious, Inflow Depth > 0.04" for 25-YR event
Inflow = 0.01 cfs @ 17.13 hrs, Volume= 249 cf
Outflow = 0.01 cfs @ 17.13 hrs, Volume= 249 cf, Atten= 0%, Lag= 0.1 min
Primary = 0.01 cfs @ 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, Atten= 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=153.10' (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,	Atten= 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'

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" 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, Atten= 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, Atten= 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 = 2.64 cfs @ 12.09 hrs, Volume= 9,101 cf
Outflow = 2.64 cfs @ 12.09 hrs, Volume= 9,101 cf, Atten= 0%, Lag= 0.0 min
Primary = 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 = 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 min
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 = 25,168 sf, 88.89% Impervious, 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, Atten= 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'

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 event
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	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=30.42 cfs @ 12.09 hrs HW=152.45' TW=146.40' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 30.42 cfs @ 6.54 fps)

Summary for Pond DC11: DMH-C11

Inflow Area = 361,529 sf, 85.31% Impervious, Inflow Depth > 4.47" for 25-YR event
Inflow = 39.55 cfs @ 12.09 hrs, Volume= 134,651 cf
Outflow = 39.55 cfs @ 12.09 hrs, Volume= 134,651 cf, Atten= 0%, Lag= 0.0 min
Primary = 39.55 cfs @ 12.09 hrs, Volume= 134,651 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=146.41' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 38.56 cfs @ 6.62 fps)

Summary for Pond DC2: DMH-C2

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, Atten= 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= 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 DC3: DMH-C3

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 DC4: DMH-C4

Inflow Area = 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 =	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-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= 155.15' @ 12.11 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=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 min
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 = 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 = 850,162 sf, 59.50% Impervious, Inflow Depth > 3.14" for 25-YR event
Inflow = 22.79 cfs @ 12.23 hrs, Volume= 222,451 cf
Outflow = 22.79 cfs @ 12.23 hrs, Volume= 222,451 cf, Atten= 0%, Lag= 0.0 min
Primary = 22.79 cfs @ 12.23 hrs, Volume= 222,451 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 151.88' @ 12.32 hrs
Flood Elev= 162.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	148.95'	**30.0" Round Culvert** L= 182.0' Ke= 0.500 Inlet / Outlet Invert= 148.95' / 148.04' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=21.56 cfs @ 12.23 hrs HW=151.79' TW=150.85' (Dynamic Tailwater)
└—**1=Culvert** (Outlet Controls 21.56 cfs @ 4.83 fps)

Summary for Pond DD2: DMH-D2

Inflow Area = 850,162 sf, 59.50% Impervious, Inflow Depth > 3.14" for 25-YR event
Inflow = 22.79 cfs @ 12.23 hrs, Volume= 222,451 cf
Outflow = 22.79 cfs @ 12.23 hrs, Volume= 222,451 cf, Atten= 0%, Lag= 0.0 min
Primary = 22.79 cfs @ 12.23 hrs, Volume= 222,451 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 150.89' @ 12.27 hrs
Flood Elev= 162.66'

Device	Routing	Invert	Outlet Devices
#1	Primary	147.94'	**30.0" Round Culvert** L= 94.0' Ke= 0.500 Inlet / Outlet Invert= 147.94' / 147.47' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=22.28 cfs @ 12.23 hrs HW=150.85' TW=149.96' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 22.28 cfs @ 4.54 fps)

Summary for Pond DD3: DMH-D3

Inflow Area = 850,162 sf, 59.50% Impervious, Inflow Depth > 3.14" for 25-YR event
Inflow = 22.79 cfs @ 12.23 hrs, Volume= 222,451 cf
Outflow = 22.79 cfs @ 12.23 hrs, Volume= 222,451 cf, Atten= 0%, Lag= 0.0 min
Primary = 22.79 cfs @ 12.23 hrs, Volume= 222,451 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 149.97' @ 12.25 hrs
Flood Elev= 162.43'

Device	Routing	Invert	Outlet Devices
#1	Primary	147.37'	**30.0" Round Culvert** L= 213.0' Ke= 0.500 Inlet / Outlet Invert= 147.37' / 146.30' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=22.65 cfs @ 12.23 hrs HW=149.96' TW=148.63' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 22.65 cfs @ 5.54 fps)

Summary for Pond DD4: DMH-D4

Inflow Area = 850,162 sf, 59.50% Impervious, Inflow Depth > 3.14" for 25-YR event
Inflow = 22.79 cfs @ 12.23 hrs, Volume= 222,451 cf
Outflow = 22.79 cfs @ 12.23 hrs, Volume= 222,451 cf, Atten= 0%, Lag= 0.0 min
Primary = 22.79 cfs @ 12.23 hrs, Volume= 222,451 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 148.63' @ 12.23 hrs
Flood Elev= 152.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	146.20'	**30.0" Round Culvert** L= 133.0' Ke= 0.500

Inlet / Outlet Invert= 146.20' / 145.53' S= 0.0050 '/' Cc= 0.900
n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=22.77 cfs @ 12.23 hrs HW=148.63' TW=144.49' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 22.77 cfs @ 5.95 fps)

Summary for Pond DD5: DMH-D5

Inflow Area =	104,273 sf,	64.96% Impervious,	Inflow Depth > 3.18"	for 25-YR event
Inflow =	8.03 cfs @	12.09 hrs, Volume=	27,617 cf	
Outflow =	8.03 cfs @	12.09 hrs, Volume=	27,617 cf,	Atten= 0%, Lag= 0.0 min
Primary =	8.03 cfs @	12.09 hrs, Volume=	27,617 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 156.85' @ 12.09 hrs
Flood Elev= 163.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	155.58'	**24.0" Round Culvert** L= 124.0' Ke= 0.500 Inlet / Outlet Invert= 155.58' / 149.65' S= 0.0478 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=7.87 cfs @ 12.09 hrs HW=156.83' TW=150.94' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 7.87 cfs @ 3.81 fps)

Summary for Pond DD6: DMH-D6

Inflow Area =	104,273 sf,	64.96% Impervious,	Inflow Depth > 3.18"	for 25-YR event
Inflow =	8.03 cfs @	12.09 hrs, Volume=	27,617 cf	
Outflow =	8.03 cfs @	12.09 hrs, Volume=	27,617 cf,	Atten= 0%, Lag= 0.0 min
Primary =	8.03 cfs @	12.09 hrs, Volume=	27,617 cf	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 150.96' @ 12.09 hrs
Flood Elev= 153.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	149.55'	**24.0" Round Culvert** L= 127.0' Ke= 0.500 Inlet / Outlet Invert= 149.55' / 148.92' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=7.87 cfs @ 12.09 hrs HW=150.94' TW=143.97' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 7.87 cfs @ 4.74 fps)

Summary for Pond DE1: DMH-E1

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,	Atten= 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= 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 DE10: DMH-E10

Inflow Area = 6,290 sf,100.00% Impervious, Inflow Depth > 5.41" for 25-YR event
Inflow = 0.78 cfs @ 12.09 hrs, Volume= 2,835 cf
Outflow = 0.78 cfs @ 12.09 hrs, Volume= 2,835 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.78 cfs @ 12.09 hrs, Volume= 2,835 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 154.17' @ 12.09 hrs
Flood Elev= 160.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	153.72'	**12.0" Round Culvert** L= 27.0' Ke= 0.500 Inlet / Outlet Invert= 153.72' / 150.45' S= 0.1211 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.76 cfs @ 12.09 hrs HW=154.16' TW=153.08' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 0.76 cfs @ 2.26 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 = 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 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= 156.36' @ 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=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 = 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 = 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' @ 12.10 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=17.85 cfs @ 12.09 hrs HW=154.82' TW=153.74' (Dynamic Tailwater)
1=Culvert (Outlet Controls 17.85 cfs @ 5.39 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= 154.18' @ 12.41 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=22.75 cfs @ 12.09 hrs HW=153.74' TW=153.30' (Dynamic Tailwater)
1=Culvert (Outlet Controls 22.75 cfs @ 3.89 fps)

Summary for Pond DE8: DMH-E8

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= 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=153.74' (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, Atten= 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'

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 = 685,779 sf, 81.72% Impervious, Inflow Depth > 4.35" for 25-YR event
Inflow = 70.81 cfs @ 12.09 hrs, Volume= 248,478 cf
Outflow = 2.71 cfs @ 15.31 hrs, Volume= 153,285 cf, Atten= 96%, Lag= 193.2 min
Discarded = 2.71 cfs @ 15.31 hrs, Volume= 153,285 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= 148.29' @ 15.31 hrs Surf.Area= 38,730 sf Storage= 139,093 cf
Flood Elev= 150.50' Surf.Area= 45,600 sf Storage= 231,359 cf

Plug-Flow detention time= 276.2 min calculated for 153,285 cf (62% of inflow)
Center-of-Mass det. time= 169.4 min (932.3 - 762.9)

Volume	Invert	Avail.Storage	Storage Description
#1	144.00'	231,359 cf	**Custom Stage Data (Conic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
144.00	23,000	0	0	23,000
146.00	33,700	56,360	56,360	33,766
148.00	38,000	71,657	128,017	38,270
150.00	43,200	81,144	209,162	43,663
150.50	45,600	22,197	231,359	46,092

Device	Routing	Invert	Outlet Devices
#1	Discarded	144.00'	**3.000 in/hr Exfiltration over Wetted area** Phase-In= 0.01'
#2	Primary	146.50'	**24.0" Round Culvert** L= 36.0' Ke= 0.500 Inlet / Outlet Invert= 146.50' / 144.34' S= 0.0600 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#3	Device 2	149.50'	**36.0" x 48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=2.71 cfs @ 15.31 hrs HW=148.29' (Free Discharge)
└─**1=Exfiltration** (Exfiltration Controls 2.71 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)

Summary for Pond PD: POND D

Inflow Area = 1,007,497 sf, 56.93% Impervious, Inflow Depth > 2.98" for 25-YR event
Inflow = 29.40 cfs @ 12.12 hrs, Volume= 250,243 cf
Outflow = 2.41 cfs @ 16.11 hrs, Volume= 131,953 cf, Atten= 92%, Lag= 239.4 min
Discarded = 2.41 cfs @ 16.11 hrs, Volume= 131,953 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= 147.53' @ 16.11 hrs Surf.Area= 34,280 sf Storage= 149,046 cf
Flood Elev= 150.50' Surf.Area= 40,900 sf Storage= 260,517 cf

Plug-Flow detention time= 279.1 min calculated for 131,679 cf (53% of inflow)
Center-of-Mass det. time= 158.1 min (950.7 - 792.6)

Volume	Invert	Avail.Storage	Storage Description
#1	142.00'	260,517 cf	**Custom Stage Data (Conic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
142.00	20,200	0	0	20,200
144.00	24,000	44,145	44,145	24,143
146.00	31,050	54,899	99,044	31,290
148.00	35,300	66,305	165,349	35,732
150.00	39,750	75,006	240,355	40,389
150.50	40,900	20,162	260,517	41,593

Device	Routing	Invert	Outlet Devices
#1	Discarded	142.00'	**3.000 in/hr Exfiltration over Wetted area** Phase-In= 0.01'
#2	Primary	146.50'	**24.0" Round Culvert** L= 122.0' Ke= 0.500 Inlet / Outlet Invert= 146.50' / 144.67' S= 0.0150 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#3	Device 2	149.50'	**36.0" x 48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=2.41 cfs @ 16.11 hrs HW=147.53' (Free Discharge)
└─**1=Exfiltration** (Exfiltration Controls 2.41 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 = 850,162 sf, 59.50% Impervious, Inflow Depth > 3.18" for 25-YR event
Inflow = 63.72 cfs @ 12.09 hrs, Volume= 225,538 cf
Outflow = 22.79 cfs @ 12.23 hrs, Volume= 222,451 cf, Atten= 64%, Lag= 8.3 min
Primary = 22.79 cfs @ 12.23 hrs, Volume= 222,451 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Starting Elev= 150.00' Surf.Area= 9,000 sf Storage= 15,000 cf
Peak Elev= 154.09' @ 12.35 hrs Surf.Area= 16,092 sf Storage= 65,844 cf (50,844 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= 98.9 min calculated for 207,020 cf (92% of inflow)
Center-of-Mass det. time= 29.9 min (791.9 - 762.0)

Volume	Invert	Avail.Storage	Storage Description
#1	148.00'	200,400 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
148.00	6,000	0	0
150.00	9,000	15,000	15,000
152.00	12,250	21,250	36,250
154.00	15,900	28,150	64,400
156.00	20,150	36,050	100,450
158.00	24,800	44,950	145,400
160.00	30,200	55,000	200,400

Device	Routing	Invert	Outlet Devices
#1	Primary	149.90'	**30.0" Round Culvert** L= 170.0' Ke= 0.500 Inlet / Outlet Invert= 149.90' / 149.05' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf
#2	Device 1	150.00'	**24.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	157.50'	**36.0" x 48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=22.21 cfs @ 12.23 hrs HW=153.95' TW=151.79' (Dynamic Tailwater)
└─**1=Culvert** (Passes 22.21 cfs of 34.31 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 22.21 cfs @ 7.07 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)

Volume	Invert	Avail.Storage	Storage Description
#1	146.00'	47,909 cf	**Custom Stage Data (Conic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
146.00	1,500	0	0	1,500
148.00	3,225	4,616	4,616	3,258
150.00	5,950	9,037	13,653	6,024
152.00	8,574	14,444	28,098	8,716
154.00	11,300	19,811	47,909	11,532

Device	Routing	Invert	Outlet Devices
#1	Primary	150.00'	**15.0" Round Culvert** L= 22.0' Ke= 0.500 Inlet / Outlet Invert= 150.00' / 149.78' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	150.00'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Primary	153.50'	**48.0" x 36.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

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 Pond PT: INFILTRATION TRENCH

Inflow Area = 29,359 sf, 0.00% Impervious, Inflow Depth > 0.04" for 25-YR event
Inflow = 0.00 cfs @ 17.13 hrs, Volume= 97 cf
Outflow = 0.00 cfs @ 17.14 hrs, Volume= 97 cf, Atten= 0%, Lag= 0.9 min
Discarded = 0.00 cfs @ 17.14 hrs, Volume= 97 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 150.00' @ 17.14 hrs Surf.Area= 1,410 sf Storage= 0 cf
Flood Elev= 152.00' Surf.Area= 1,410 sf Storage= 1,128 cf

Plug-Flow detention time= 1.0 min calculated for 96 cf (100% of inflow)
Center-of-Mass det. time= 0.5 min (1,166.0 - 1,165.5)

Volume	Invert	Avail.Storage	Storage Description
#1	150.00'	1,128 cf	**3.00'W x 470.00'L x 2.00'H Prismatoid** 2,820 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Discarded	150.00'	**3.000 in/hr Exfiltration over Wetted area** Phase-In= 0.01'

Discarded OutFlow Max=0.00 cfs @ 17.14 hrs HW=150.00' (Free Discharge)
└─**1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Summary for Link L1: NORTHEAST PROPERTY CORNER

Inflow Area = 57,112 sf, 0.00% Impervious, Inflow Depth > 0.04" for 25-YR event
Inflow = 0.01 cfs @ 17.13 hrs, Volume= 188 cf
Primary = 0.01 cfs @ 17.13 hrs, Volume= 188 cf, Atten= 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 = 3,207,969 sf, 37.96% Impervious, Inflow Depth > 0.14" for 25-YR event
Inflow = 3.34 cfs @ 12.33 hrs, Volume= 37,673 cf
Primary = 3.34 cfs @ 12.33 hrs, Volume= 37,673 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 Area = 2,576,385 sf, 46.29% Impervious, Inflow Depth > 0.05" for 25-YR event
Inflow = 0.45 cfs @ 13.88 hrs, Volume= 11,325 cf
Primary = 0.45 cfs @ 13.88 hrs, Volume= 11,325 cf, Atten= 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 = 227,373 sf, 0.00% Impervious, Inflow Depth > 0.04" for 25-YR event
Inflow = 0.02 cfs @ 17.21 hrs, Volume= 742 cf
Primary = 0.02 cfs @ 17.21 hrs, Volume= 742 cf, Atten= 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 = 72,817 sf, 0.00% Impervious, Inflow Depth > 0.04" for 25-YR event
Inflow = 0.01 cfs @ 17.13 hrs, Volume= 240 cf
Primary = 0.01 cfs @ 17.13 hrs, Volume= 240 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 Area = 24,585 sf, 0.00% Impervious, Inflow Depth > 0.04" for 25-YR event
Inflow = 0.00 cfs @ 17.13 hrs, Volume= 81 cf
Primary = 0.00 cfs @ 17.13 hrs, Volume= 81 cf, Atten= 0%, Lag= 0.0 min

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

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

Subcatchment A2: SUBCAT A2 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

Subcatchment A4: 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 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

Subcatchment C20: 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

Subcatchment C24: SUBCAT C24 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

Subcatchment C25: SUBCAT C25 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

Subcatchment C26: SUBCAT C26 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

Subcatchment C27: SUBCAT C27 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

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

Subcatchment C34: SUBCAT C34 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

Subcatchment C35: SUBCAT C35 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

Subcatchment C36: SUBCAT C36 Runoff Area=4,686 sf 33.91% Impervious Runoff Depth>1.79"
Tc=6.0 min CN=53 Runoff=0.20 cfs 698 cf

Subcatchment C37: SUBCAT C37 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

Subcatchment C38: SUBCAT C38 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=7,965 sf 31.79% Impervious Runoff Depth>2.24"
Tc=6.0 min CN=58 Runoff=0.45 cfs 1,486 cf

Subcatchment C5: SUBCAT C5 Runoff Area=4,960 sf 33.57% Impervious Runoff Depth>1.79"
Tc=6.0 min CN=53 Runoff=0.21 cfs 738 cf

Subcatchment C6: SUBCAT C6 Runoff Area=2,113 sf 100.00% Impervious Runoff Depth>6.51"
Tc=6.0 min CN=98 Runoff=0.31 cfs 1,146 cf

Subcatchment C7: SUBCAT C7 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=6,290 sf 100.00% Impervious Runoff Depth>6.51"
Tc=6.0 min CN=98 Runoff=0.93 cfs 3,411 cf

Subcatchment D10: SUBCAT D10 Runoff Area=3,583 sf 77.28% Impervious Runoff Depth>5.01"
Tc=6.0 min CN=85 Runoff=0.46 cfs 1,496 cf

Subcatchment D11: SUBCAT D11 Runoff Area=11,394 sf 91.17% Impervious Runoff Depth>5.92"
Tc=6.0 min CN=93 Runoff=1.64 cfs 5,621 cf

Subcatchment D12: SUBCAT D12 Runoff Area=11,726 sf 100.00% Impervious Runoff Depth>6.51"
Tc=6.0 min CN=98 Runoff=1.74 cfs 6,359 cf

Subcatchment D13: SUBCAT D13 Runoff Area=8,374 sf 35.55% Impervious Runoff Depth>1.87"
Tc=6.0 min CN=54 Runoff=0.38 cfs 1,308 cf

Subcatchment D14: SUBCAT D14 Runoff Area=13,000 sf 75.23% Impervious Runoff Depth>4.79"
Tc=6.0 min CN=83 Runoff=1.61 cfs 5,188 cf

Subcatchment D15: SUBCAT D15 Runoff Area=29,359 sf 0.00% Impervious Runoff Depth>0.17"
Tc=6.0 min CN=30 Runoff=0.02 cfs 416 cf

Subcatchment D2: SUBCAT D2 Runoff Area=12,142 sf 26.64% Impervious Runoff Depth>1.36"
Tc=6.0 min CN=48 Runoff=0.36 cfs 1,377 cf

Subcatchment D3: SUBCAT D3 Runoff Area=7,477 sf 52.87% Impervious Runoff Depth>3.41"
Tc=6.0 min CN=70 Runoff=0.67 cfs 2,124 cf

Subcatchment D4: SUBCAT D4 Runoff Area=5,859 sf 87.54% Impervious Runoff Depth>5.69"
Tc=6.0 min CN=91 Runoff=0.82 cfs 2,778 cf

Subcatchment D5: SUBCAT D5 Runoff Area=6,306 sf 95.48% Impervious Runoff Depth>6.15"
Tc=6.0 min CN=95 Runoff=0.92 cfs 3,233 cf

Subcatchment D6: SUBCAT D6	Runoff Area=6,445 sf 73.28% Impervious Runoff Depth>4.68" Tc=6.0 min CN=82 Runoff=0.78 cfs 2,513 cf
Subcatchment D7: SUBCAT D7	Runoff Area=2,640 sf 78.07% Impervious Runoff Depth>5.01" Tc=6.0 min CN=85 Runoff=0.34 cfs 1,102 cf
Subcatchment D8: SUBCAT D8	Runoff Area=7,020 sf 31.34% Impervious Runoff Depth>1.61" Tc=6.0 min CN=51 Runoff=0.26 cfs 943 cf
Subcatchment D9: SUBCAT D9	Runoff Area=8,307 sf 33.33% Impervious Runoff Depth>1.79" Tc=6.0 min CN=53 Runoff=0.36 cfs 1,237 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
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" 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

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"
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

Subcatchment L: SUBCAT L Runoff Area=313,113 sf 0.00% Impervious Runoff Depth>0.68"
Tc=6.0 min CN=39 Runoff=2.40 cfs 17,734 cf

Subcatchment R1: SUBCAT R1 Runoff Area=7,200 sf 100.00% Impervious Runoff Depth>6.51"
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"
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

Subcatchment R16: SUBCAT R16 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 R17: SUBCAT R17 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 R18: SUBCAT R18 Runoff Area=7,200 sf 100.00% Impervious Runoff Depth>6.51"
Tc=6.0 min CN=98 Runoff=1.07 cfs 3,904 cf

Subcatchment R2: SUBCAT R2 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 R3: SUBCAT R3 Runoff Area=56,700 sf 100.00% Impervious Runoff Depth>6.51"
Tc=6.0 min CN=98 Runoff=8.42 cfs 30,747 cf

Subcatchment R4: SUBCAT R4 Runoff Area=26,325 sf 100.00% Impervious Runoff Depth>6.51"
Tc=6.0 min CN=98 Runoff=3.91 cfs 14,275 cf

Subcatchment R5: SUBCAT R5 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 R6: SUBCAT R6 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 R7: SUBCAT R7 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 R8: SUBCAT R8 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 R9: SUBCAT R9 Runoff Area=7,200 sf 100.00% Impervious Runoff Depth>6.51"
Tc=6.0 min CN=98 Runoff=1.07 cfs 3,904 cf

Subcatchment S1: SUBCAT S1 Runoff Area=57,112 sf 0.00% Impervious Runoff Depth>0.17"
Tc=6.0 min CN=30 Runoff=0.03 cfs 810 cf

Subcatchment S10: SUBCAT S10 Runoff Area=96,652 sf 6.11% Impervious Runoff Depth>0.37"
Flow Length=455' Tc=12.0 min CN=34 Runoff=0.23 cfs 2,955 cf

Subcatchment S11: SUBCAT S11 Runoff Area=113,276 sf 14.81% Impervious Runoff Depth>0.75"
Flow Length=327' Tc=6.0 min CN=40 Runoff=1.10 cfs 7,066 cf

Subcatchment S12: SUBCAT S12 Runoff Area=23,144 sf 3.59% Impervious Runoff Depth>0.82"
Tc=6.0 min CN=41 Runoff=0.27 cfs 1,580 cf

Subcatchment S13: SUBCAT S13 Runoff Area=13,348 sf 89.17% Impervious Runoff Depth>5.80"
Tc=6.0 min CN=92 Runoff=1.90 cfs 6,456 cf

Subcatchment S14: SUBCAT S14 Runoff Area=11,820 sf 88.58% Impervious Runoff Depth>5.69"
Tc=6.0 min CN=91 Runoff=1.66 cfs 5,604 cf

Subcatchment S2: SUBCAT S2 Runoff Area=72,817 sf 0.00% Impervious Runoff Depth>0.17"
Tc=6.0 min CN=30 Runoff=0.04 cfs 1,032 cf

Subcatchment S3: SUBCAT S3 Runoff Area=96,497 sf 0.00% Impervious Runoff Depth>0.17"
Tc=6.0 min CN=30 Runoff=0.05 cfs 1,368 cf

Subcatchment S4: SUBCAT S4 Runoff Area=227,373 sf 0.00% Impervious Runoff Depth>0.17"
Flow Length=530' Tc=11.7 min CN=30 Runoff=0.12 cfs 3,209 cf

Subcatchment S5: SUBCAT S5 Runoff Area=53,062 sf 0.00% Impervious Runoff Depth>0.17"
Tc=6.0 min CN=30 Runoff=0.03 cfs 752 cf

Subcatchment S6: SUBCAT S6 Runoff Area=72,250 sf 0.00% Impervious Runoff Depth>0.17"
Tc=6.0 min CN=30 Runoff=0.04 cfs 1,024 cf

Subcatchment S8: SUBCAT S8 Runoff Area=446,502 sf 7.87% Impervious Runoff Depth>0.42"
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

Reach ER5: EX REACH 5 Avg. Flow Depth=0.05' Max Vel=1.07 fps Inflow=1.81 cfs 25,311 cf
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

Reach W1: WETLAND REACH 1 Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf
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

Pond CA1: CB-A1 Peak Elev=156.38' Inflow=1.32 cfs 4,580 cf
12.0" Round Culvert n=0.012 L=83.0' S=0.0100 '/' Outflow=1.32 cfs 4,580 cf

Pond CA2: CB-A2 Peak Elev=156.74' Inflow=0.80 cfs 2,935 cf
12.0" Round Culvert n=0.012 L=41.0' S=0.0100 '/' Outflow=0.80 cfs 2,935 cf

Pond CA3: CB-A3 Peak Elev=155.20' Inflow=5.36 cfs 18,280 cf
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

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

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 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

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 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=157.86' Inflow=0.45 cfs 1,486 cf
12.0" Round Culvert n=0.012 L=26.0' S=0.0100 '/' Outflow=0.45 cfs 1,486 cf

Pond CC5: CB-C5 Peak Elev=159.68' Inflow=0.21 cfs 738 cf
12.0" Round Culvert n=0.012 L=30.0' S=0.0100 '/' Outflow=0.21 cfs 738 cf

Pond CC6: CB-C6 Peak Elev=157.02' Inflow=1.30 cfs 4,424 cf
12.0" Round Culvert n=0.012 L=73.0' S=0.0100 '/' Outflow=1.30 cfs 4,424 cf

Pond CC7: CB-C7 Peak Elev=157.60' Inflow=0.77 cfs 2,540 cf
12.0" Round Culvert n=0.012 L=62.0' S=0.0100 '/' Outflow=0.77 cfs 2,540 cf

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=158.55' Inflow=0.93 cfs 3,411 cf
12.0" Round Culvert n=0.012 L=141.0' S=0.0300 '/' Outflow=0.93 cfs 3,411 cf

Pond CD10: CB-D10 Peak Elev=157.65' Inflow=8.33 cfs 28,782 cf
24.0" Round Culvert n=0.012 L=83.0' S=0.0049 '/' Outflow=8.33 cfs 28,782 cf

Pond CD11: CB-D11 Peak Elev=159.23' Inflow=3.38 cfs 11,980 cf
15.0" Round Culvert n=0.012 L=41.0' S=0.0051 '/' Outflow=3.38 cfs 11,980 cf

Pond CD12: CB-D12 Peak Elev=159.56' Inflow=1.74 cfs 6,359 cf
12.0" Round Culvert n=0.012 L=60.0' S=0.0050 '/' Outflow=1.74 cfs 6,359 cf

Pond CD13: CB-D13 Peak Elev=157.99' Inflow=0.38 cfs 1,308 cf
12.0" Round Culvert n=0.012 L=35.0' S=0.0051 '/' Outflow=0.38 cfs 1,308 cf

Pond CD14: CB-D14 Peak Elev=157.96' Inflow=1.99 cfs 6,496 cf
12.0" Round Culvert n=0.012 L=107.0' S=0.0050 '/' Outflow=1.99 cfs 6,496 cf

Pond CD2: CB-D2 Peak Elev=159.34' Inflow=0.36 cfs 1,377 cf
12.0" Round Culvert n=0.012 L=26.0' S=0.0050 '/' Outflow=0.36 cfs 1,377 cf

Pond CD3: CB-D3 Peak Elev=159.32' Inflow=1.03 cfs 3,500 cf
12.0" Round Culvert n=0.012 L=27.0' S=0.0052 '/' Outflow=1.03 cfs 3,500 cf

Pond CD4: CB-D4 Peak Elev=159.22' Inflow=1.84 cfs 6,278 cf
12.0" Round Culvert n=0.012 L=109.0' S=0.0050 '/' Outflow=1.84 cfs 6,278 cf

Pond CD5: CB-D5 Peak Elev=159.06' Inflow=0.92 cfs 3,233 cf
12.0" Round Culvert n=0.012 L=50.0' S=0.0154 '/' Outflow=0.92 cfs 3,233 cf

Pond CD6: CB-D6 Peak Elev=158.73' Inflow=4.14 cfs 14,070 cf
15.0" Round Culvert n=0.012 L=128.0' S=0.0050 '/' Outflow=4.14 cfs 14,070 cf

Pond CD7: CB-D7 Peak Elev=158.97' Inflow=0.60 cfs 2,046 cf
12.0" Round Culvert n=0.012 L=41.0' S=0.0193 '/' Outflow=0.60 cfs 2,046 cf

Pond CD8: CB-D8 Peak Elev=159.08' Inflow=0.26 cfs 943 cf
12.0" Round Culvert n=0.012 L=26.0' S=0.0050 '/' Outflow=0.26 cfs 943 cf

Pond CD9: CB-D9 Peak Elev=158.69' Inflow=0.36 cfs 1,237 cf
12.0" Round Culvert n=0.012 L=26.0' S=0.0050 '/' Outflow=0.36 cfs 1,237 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=154.97' 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=155.02' 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

Pond CE12: CB-E12 Peak Elev=155.09' 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=155.17' 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=155.03' 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

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=149.29' Inflow=48.48 cfs 166,258 cf
42.0" Round Culvert n=0.012 L=174.0' S=0.0050 '/' Outflow=48.48 cfs 166,258 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=152.36' Inflow=24.94 cfs 274,238 cf
30.0" Round Culvert n=0.012 L=182.0' S=0.0050 '/' Outflow=24.94 cfs 274,238 cf

Pond DD2: DMH-D2 Peak Elev=151.24' Inflow=24.94 cfs 274,238 cf
30.0" Round Culvert n=0.012 L=94.0' S=0.0050 '/' Outflow=24.94 cfs 274,238 cf

Pond DD3: DMH-D3 Peak Elev=150.17' Inflow=24.94 cfs 274,238 cf
30.0" Round Culvert n=0.012 L=213.0' S=0.0050 '/' Outflow=24.94 cfs 274,238 cf

Pond DD4: DMH-D4 Peak Elev=148.80' Inflow=24.94 cfs 274,238 cf
30.0" Round Culvert n=0.012 L=133.0' S=0.0050 '/' Outflow=24.94 cfs 274,238 cf

Pond DD5: DMH-D5 Peak Elev=157.06' Inflow=10.32 cfs 35,278 cf
24.0" Round Culvert n=0.012 L=124.0' S=0.0478 '/' Outflow=10.32 cfs 35,278 cf

Pond DD6: DMH-D6 Peak Elev=151.20' Inflow=10.32 cfs 35,278 cf
24.0" Round Culvert n=0.012 L=127.0' S=0.0050 '/' Outflow=10.32 cfs 35,278 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

Pond DE10: DMH-E10 Peak Elev=154.92' Inflow=0.93 cfs 3,411 cf
12.0" Round Culvert n=0.012 L=27.0' S=0.1211 '/' Outflow=0.93 cfs 3,411 cf

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

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

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=155.15' 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=155.01' 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=149.29' Storage=179,257 cf Inflow=85.88 cfs 303,934 cf
Discarded=2.90 cfs 166,598 cf Primary=0.00 cfs 0 cf Outflow=2.90 cfs 166,598 cf

Pond PD: POND D Peak Elev=148.78' Storage=193,639 cf Inflow=33.71 cfs 310,269 cf
Discarded=2.61 cfs 144,640 cf Primary=0.00 cfs 0 cf Outflow=2.61 cfs 144,640 cf

Pond PE: POND E Peak Elev=154.92' Storage=79,935 cf Inflow=77.11 cfs 277,705 cf
Outflow=24.94 cfs 274,238 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

Pond PT: INFILTRATION TRENCH Peak Elev=150.00' Storage=1 cf Inflow=0.02 cfs 416 cf
Outflow=0.02 cfs 416 cf

Link L1: NORTHEAST PROPERTY CORNER Inflow=0.03 cfs 810 cf
Primary=0.03 cfs 810 cf

Link L2: RIVER Inflow=8.19 cfs 72,188 cf
Primary=8.19 cfs 72,188 cf

Link L3: EX CULVERTS Inflow=1.81 cfs 25,311 cf
Primary=1.81 cfs 25,311 cf

Link L4: WEST PROPERTY LINE Inflow=0.12 cfs 3,209 cf
Primary=0.12 cfs 3,209 cf

Link L5: NORTHWEST PROPERTY CORNER Inflow=0.04 cfs 1,032 cf
Primary=0.04 cfs 1,032 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 = 701,129 cf Average Runoff Depth = 2.32"
66.36% Pervious = 2,401,619 sf 33.64% Impervious = 1,217,596 sf

NHDES Alteration of Terrain

V. SITE SPECIFIC SOIL SURVEY REPORT

SITE-SPECIFIC SOIL SURVEY REPORT
For
Friars Drive, Hudson
By
Gove Environmental Services, Inc.

1. MAPPING STANDARDS
Site-Specific Soil Mapping Standards for New Hampshire and Vermont. SSSNNE Special Publication No. 3, current version. This map product is within the technical standards of the National Cooperative Soil Survey. It is a special product, intended for the submission to NH DES Alteration of Terrain. It was produced by a professional soil scientist and is not a product of the USDA Natural Resource Conservation Service.

OVERVIEW:
This site is located on one landform and is a large outwash sand plain that extends over much of the area. The soils tend to be uniformly sandy with some having gravel lower layers.

This map product is within the technical standards of the National Cooperative Soil Survey. It is a special purpose product, intended for infiltration requirements by the NH DES Alteration of Terrain Bureau. It was produced by a professional soil scientist and is not a product of the USDA Natural Resources Conservation Service. There is a report that accompanies this map.
The site-specific soil survey (SSSS) was produced September 20, 2021, and was prepared by Luke D. Hurley, CSS # 095, Gove Environmental Services, Inc.

The survey area is located at Friars Drive, Hudson, NH.

Soils were identified with the New Hampshire State-wide Numerical Soils Legend, USDA NRCS, Durham, NH. Issue # 10, January 2011. The numeric legend was amended to identify the correct soil components of the complex.
Hydrologic Soil Group from Ksat Values for New Hampshire Soils, Society of Soil Scientists of New England, Special Publication No. 5, September 2009.

2. DATE SOIL MAP PRODUCED
Date(s) of on-site field work: September 20, 2021
Date(s) of test pits: December 28, 2020, and 9/2/21
Test pits recorded by: Miller Engineering, Inc., and The Dubay Group, respectively

3. GEOGRAPHIC LOCATION AND SIZE OF SITE
City or town where soil mapping was conducted: Hudson
Location: Tax Map 209. Lot 1
Size of area: approximately 50 acres
Was the map for the entire lot? Yes

8 Continental Dr Bldg 2 Unit H, Exeter, NH 03833-7526
Ph (603) 778 0644 / *Fax* (603) 778 0654
info@gesinc.biz
www.gesinc.biz

If no, where was the mapping conducted on the parcel:

4. PURPOSE OF THE SOIL MAP
Was the map prepared to meet the requirement of Alteration of Terrain? Yes
If no, what was the purpose of the map? N/A
Who was the map prepared for? The Dubay Group

5. SOIL MAP UNIT DESCRIPTIONS – SOIL DESCRIPTIONS

SSSS SYM.	SSSS MAP NAME	HISS SYM.	HYDRO. SOIL GRP.
26	Windsor	111	A

The Windsor series consists of very deep, excessively drained soils formed in sandy outwash or eolian deposits. They are nearly level through very steep soils on glaciofluvial landforms. Slope ranges from 0 through 60 percent. Saturated hydraulic conductivity is high or very high. These soils are found along the wester portion of the site and are dominated by loamy sand over sands. No ESHWT was encountered, nor was there any ledge/restrictive layer.

12	Hinckley	111	A

The Hinckley series consists of very deep, excessively drained soils formed in glaciofluvial materials. They are nearly level through very steep soils on outwash terraces, outwash plains, outwash deltas, kames, kame terraces, and eskers. Saturated hydraulic conductivity is high or very high. Slope ranges from 0 to 60 percent. These soils are found on site in the north and eastern portion of the site. Soils are dominated by loamy sand and sands in the upper layers and gravel in the lower layers. No ESHWT was encountered, and no ledge/restrictive layers were encountered.

1	Occum	211	B

The Occum series consists of very deep, well drained loamy soils formed in alluvial sediments. They are nearly level soils on flood plains, subject to common flooding. Slope ranges from 0 to 3 percent. Saturated hydraulic conductivity is moderately high or high in the loamy layers and high or very high in the sandy substratum. These soils are dominated by loamy sand in the upper layer and underlain by gravel in the lower layers. These soils are found in the southwestern portion of the site closes to the Merrimack River. No ESHWT was encountered, nor was there any ledge/restrictive layer.

115/VP	Scarboro	511	D

The Scarboro series consists of very deep, very poorly drained soils in sandy glaciofluvial deposits on outwash plains, deltas, and terraces. They are nearly level soils in depressions. Slope ranges from 0 through 3 percent. These soils are the soils found in the wetland area of the brook on the southern portion of the site.

Detail soil descriptions are in the test pit report for the site. This is a separate document from this report. 6

6. RESPONSIBLE SOIL SCIENTIST

Name: Luke D. Hurley
Certified Soil Scientist Number: 095

7. OTHER DISTINGUISHING FEATURES OF SITE

Is the site in a natural condition? Yes
If no, what is the nature of the disturbance?

NHDES Alteration of Terrain

VI. MAINTENANCE AND INSPECTION

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

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.

Clearing Inlets and Outlets: 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.

Clearing Inlets and Outlets: 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

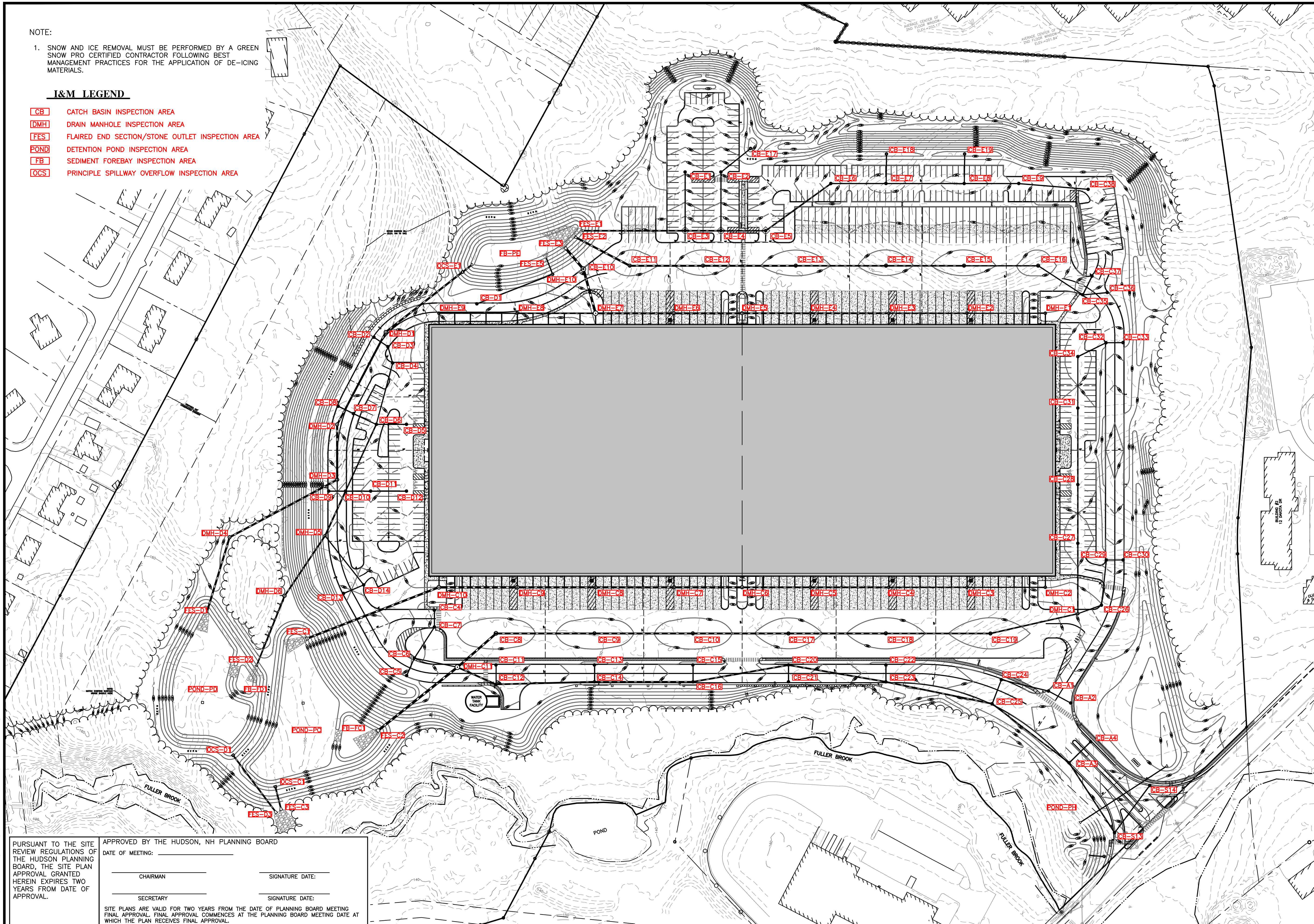
The proposed development will result in greater than one acre of pavement, therefor will require a snow and ice management plan. The contractor responsible for the snow and ice management is required to be Green Snow-Pro certified. Please refer to the Snow & Ice Management supplemental Criteria section for guidance.

NOTE:

1. SNOW AND ICE REMOVAL MUST BE PERFORMED BY A GREEN SNOW PRO CERTIFIED CONTRACTOR FOLLOWING BEST MANAGEMENT PRACTICES FOR THE APPLICATION OF DE-ICING MATERIALS.

I&M LEGEND

CB	CATCH BASIN INSPECTION AREA
DMH	DRAIN MANHOLE INSPECTION AREA
FES	FLAIRED END SECTION/STONE OUTLET INSPECTION AREA
POND	DETENTION POND INSPECTION AREA
FB	SEDIMENT FOREBAY INSPECTION AREA
OCS	PRINCIPLE SPILLWAY OVERFLOW INSPECTION AREA



PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES TWO YEARS FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD

DATE OF MEETING: ____________

CHAIRMAN ____________ SIGNATURE DATE: ____________

SECRETARY ____________ SIGNATURE DATE: ____________

SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

The Dubay Group, Inc.
136 Harvey Rd. Bldg B101
Londonderry, NH 03053
603-458-6462

Engineers
Planners
Surveyors
TheDubayGroup.com

REVISIONS:

REV:	DATE:	COMMENT:	BY:

DRAWN BY:	SJK
CHECKED BY:	KRD
DATE:	AUG. 3, 2021
SCALE:	1" = 80'
FILE:	475-I&M Plan
DEED REF:	

PROJECT:

SITE PLAN
FRIARS DRIVE
TAX MAP 209
LOT 001-000
161 LOWELL ROAD
HUDSON, NH

PREPARED FOR

GFI PARTNERS

LOWELL ROAD PROPERTY OWNER, LLC
133 PEARL STREET #300
BOSTON, MA 02110

OWNER

5 WAY REALTY TRUST
PETER HORNE, TRUSTEE
PO BOX 1435
N. HAMPTON, NH 03862

SHEET TITLE:

INSPECTION & MAINTENANCE PLAN

PROJECT #475 SHEET 1 of 1

N:_PROJECTS\475-Five Way Realty, Hudson\DWG\NHAOT\475-I&M Plan.dwg

Stormwater Inspection Report

Project Name

Location Start/End

Date of Inspection

Inspector's Name(s)

Inspector's Title(s)

Inspector's Contact Info

Type of Inspection

☐ **Regular** ☐ **Pre-storm event** ☐ **During storm event** ☐ **Post-storm event**

Do you suspect that discharges may have occurred since the last inspection?

☐ Yes ☐ No

Are there any discharges at the time of inspection?

☐ Yes ☐ No

	BMP Description	BMP Installed and Operating Properly?	Corrective Action Needed	Date for corrective action/responsible person
A	Street Sweeping			
	• Evidence of oil grease			
B	Catch Basins			
	• Inlet and outlet clear of debris	☐ Yes ☐ No		
	• Evidence of oil grease	☐ Yes ☐ No		
	• Accumulated sediment	☐ Yes ☐ No		
	• Evidence of structural deterioration	☐ Yes ☐ No		
	• Evidence of spalling or cracking of structural parts	☐ Yes ☐ No		
	• Other (specify)	☐ Yes ☐ No		
C	• Detention Basins/Forebay	☐ 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		
	• Unauthorized planting	☐ Yes ☐ No		
	• Other (specify)			

	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)			
E	• 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:

☐ Owner: ______________________________

☐ City: ______________________________

☐ State: ______________________________

Inspection & Maintenance Log

Area of I & M	Date of Inspection	Description of Maintenance Activity	Responsible Party for Performing Inspection/Maintenance

ENVIRONMENTAL
Fact Sheet

NEW HAMPSHIRE
DEPARTMENT OF
Environmental
Services

29 Hazen Drive, Concord, New Hampshire 03301 • (603) 271-3503 • www.des.nh.gov

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 chloride-impaired 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 over-salting 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, watershed-wide 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 T^2) 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 T^2 webpage at: http://t2.unh.edu/green-snowpro-training-and-nhdes-certification.

- **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 refer to the NHDES webpage at: http://des.nh.gov/organization/divisions/water/wmb/was/salt-reduction-initiative/salt-applicator-certification.htm

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 http://www.sima.org/new-hampshire-salt-symposium.

- **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.
http://des.nh.gov/organization/divisions/water/wmb/was/salt-reduction-initiative/index.htm

Assessing the Efficacy of Current Road Salt Management Programs, University of Waterloo (2010)
http://www.saltinstitute.org/wp-content/uploads/2014/01/Road-Using-Best-Road-Salt-Management-Practices-Waterloo-2010-1.pdf

Environment and Climate Change Canada – technical documents, BMPs and general information.
http://www.ec.gc.ca/sels-salts/default.asp?lang=En&n=DECEDD7C-1

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
http://des.nh.gov/organization/divisions/water/wmb/was/salt-reduction-initiative/documents/green-snowpro-business-flyer.pdf

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)
http://des.nh.gov/organization/divisions/water/wmb/was/salt-reduction-initiative/tech-assist-bmp-practices.htm

Snow and Ice Removal for the Business Owner – Clean Water and Safe Parking Lots, NHDES (2014)
http://des.nh.gov/organization/commissioner/pip/factsheets/wmb/documents/wmb-24.pdf

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)
https://www.pca.state.mn.us/sites/default/files/p-tr1-10.pdf

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:
- ✓ 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.

Recommended practice	Check which response applies to current practices and anticipated site maintenance activities for job site.				
	Already do	Will do	Might do	Will not do	If "will not do"….why 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. Follow your 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 -10º 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 anti-icing 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.

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.

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.

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.

Produced in partnership with:

New Hampshire Department of Environmental Services

New Hampshire DOT

Technology Transfer Center

New Hampshire LTAP at UNH

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 two-lane mile			
Pavement Temp. (°F) and Trend (↑↓)	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
	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° ↑	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
	Freezing Rain	Apply Chemical	240 - 320	210 - 280	300 - 400*	400
15° - 20° ↑	Snow	Plow and apply chemical	200 - 280	175 - 250	250 - 350*	Not recommended
	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° ↑↓	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:				
Air Temperature	Pavement Temperature	Relative Humidity	Dew Point	Sky
Reason for applying:				
Route:				
Chemical:				
Application Time:				
Application Amount:				
Observation (first day):				
Observation (after event):				
Observation (before 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.

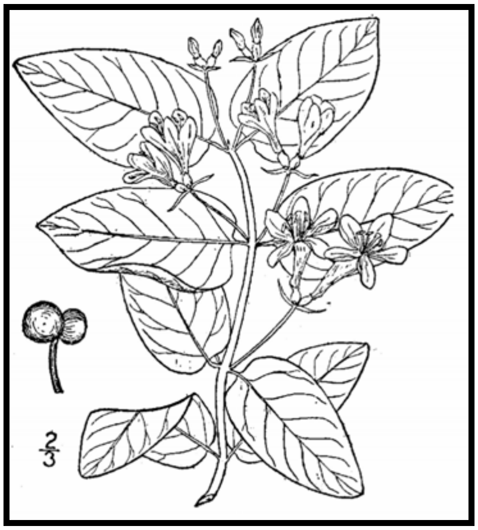
Invasive plants are introduced, alien, or non-native plants, which have been moved by people from their native habitat to a new area. Some exotic plants are imported for human use such as landscaping, erosion control, or food crops. They also can arrive as "hitchhikers" among shipments of other plants, 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
COOPERATIVE EXTENSION

Methods for Disposing 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 non-native 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 non-viable.

Control of invasives is beyond the scope of this fact sheet. For information about control visit www.nhinvasives.org or contact your UNH Cooperative Extension office.

New Hampshire Regulations

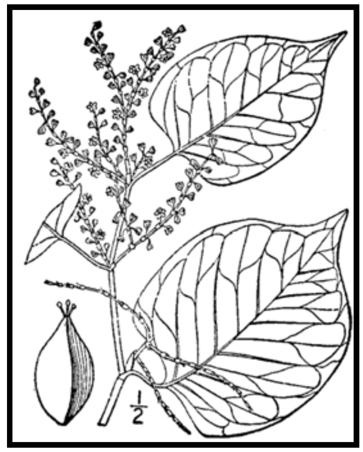
Prohibited invasive species shall only be disposed of in a manner that renders them nonliving and nonviable. (Agr. 3802.04)

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.



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.

Bagging (solarization): Use this technique with softer-tissue 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 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.

<table>
<tr><th>Woody Plants</th><th>Method of Reproducing</th><th>Methods of Disposal</th></tr>
<tr><td rowspan="2">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)</td><td rowspan="2">**Fruit and Seeds**</td><td>**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.</td></tr>
<tr><td>**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.</td></tr>
<tr><td rowspan="2">oriental bittersweet
(Celastrus orbiculatus)
multiflora rose
(Rosa multiflora)</td><td rowspan="2">**Fruits, Seeds, Plant Fragments**</td><td>**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.</td></tr>
<tr><td>**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.</td></tr>
</table>

Non-Woody Plants	Method of Reproducing	Methods of Disposal
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)*	**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 pile remaining material. (You can pile onto plastic or cover with plastic sheeting). ▪ Monitor. Remove any re-sprouting material.
common reed (*Phragmites australis*) Japanese knotweed *(Polygonum cuspidatum)* Bohemian knotweed *(Polygonum x bohemicum)*	**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.

January 2010

GUIDE TO CONTROL OF INVASIVE PLANTS

New Hampshire Department of Agriculture, Markets & Food
Douglas Cygan
603-271-3488
Doug.cygan@agr.nh.gov

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 Control: 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.
Control: (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.
Control: (1) - seedlings only. Herbicide - use Garlon 3a (9) with no more than a 1" gap between cuts, or (10); plus (11) on re-growth. Or paint bottom 12" 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.
Control: (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.
Control: (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.
Control: (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). *Control:* (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.
Control: (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.
Control: (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.
Control: (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.
Control: 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.)
Control: 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.
Control: 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.

Control: same as for stilt grass.

SPOTTED KNAPWEED (*Centaurea maculosa*), a biennial with thistle-like flowers.

Control: 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 weed infestations.

(7) CUT DOWN the tree. Grind out the stump, or clip off re-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.

NOTE ON HERBICIDES: 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

The Dubay Group, Inc.
136 Harvey Road – Bldg B101
Londonderry, NH 03053
(603) 458-6462

INFILTRATION FEASIBILITY REPORT

FRIARS DRIVE

MAP 209 LOT 001-000

161 LOWELL ROAD, HUDSON NH

OCTOBER 4, 2021

Summary of Systems Evaluated:

A. Infiltration Pond – PC & PD

Appendix:

A. Full Test Pit Reports

A. INFILTRATION PONDS – PC & PD

Location of the Practice

Infiltration Ponds – PC and PD are located in the south western corner of the disturbance area, just north of Fuller Brook. The location is detailed on Exhibit A included within this report.

Existing Topography at the Location of the Practice

The existing topography within the area of the ponds slopes generally slopes to the south and west to a steep slope which drops approximately 30 feet to Fuller Brook.

Test Pit Locations

Infiltration Pond – PC is approximately 23,000 square feet and Infiltration Pond – PD is approximately 20,000 square feet for a total area of 43,000 square feet, subsequently six test pit were performed in this location. The test pit is identified on the plans as TP 107 through TP 112, the pertinent design criteria is detailed below. Full test pit logs are included within the appendix of this report.

Seasonal High Water Table (SHWT) and Bedrock Elevations

The following test pit data was collected on September 2, 2021.

Bottom of Infiltration Pond – PC = 144.00’

Bottom of Infiltration Pond – PD = 142.00’

TP# - TP107: Existing Surface Elevation of TP = 145.00’
SHWT = 138.00’
Bedrock = none
Deepest Elevation of TP = 136.00’

TP# - TP108: Existing Surface Elevation of TP = 147.00’
SHWT = 140.00’
Bedrock = none
Deepest Elevation of TP = 138.50’

TP# - TP109: Existing Surface Elevation of TP = 148.0’
SHWT = 139.50’

Bedrock = none

Deepest Elevation of TP = 139.00'

TP# - TP110: Existing Surface Elevation of TP = 145.0'

SHWT = none

Bedrock = none

Deepest Elevation of TP = 136.00'

TP# - TP111: Existing Surface Elevation of TP = 143.0'

SHWT = 137.00'

Bedrock = none

Deepest Elevation of TP = 135.00'

TP# - TP112: Existing Surface Elevation of TP = 147.00'

SHWT = none

Bedrock = none

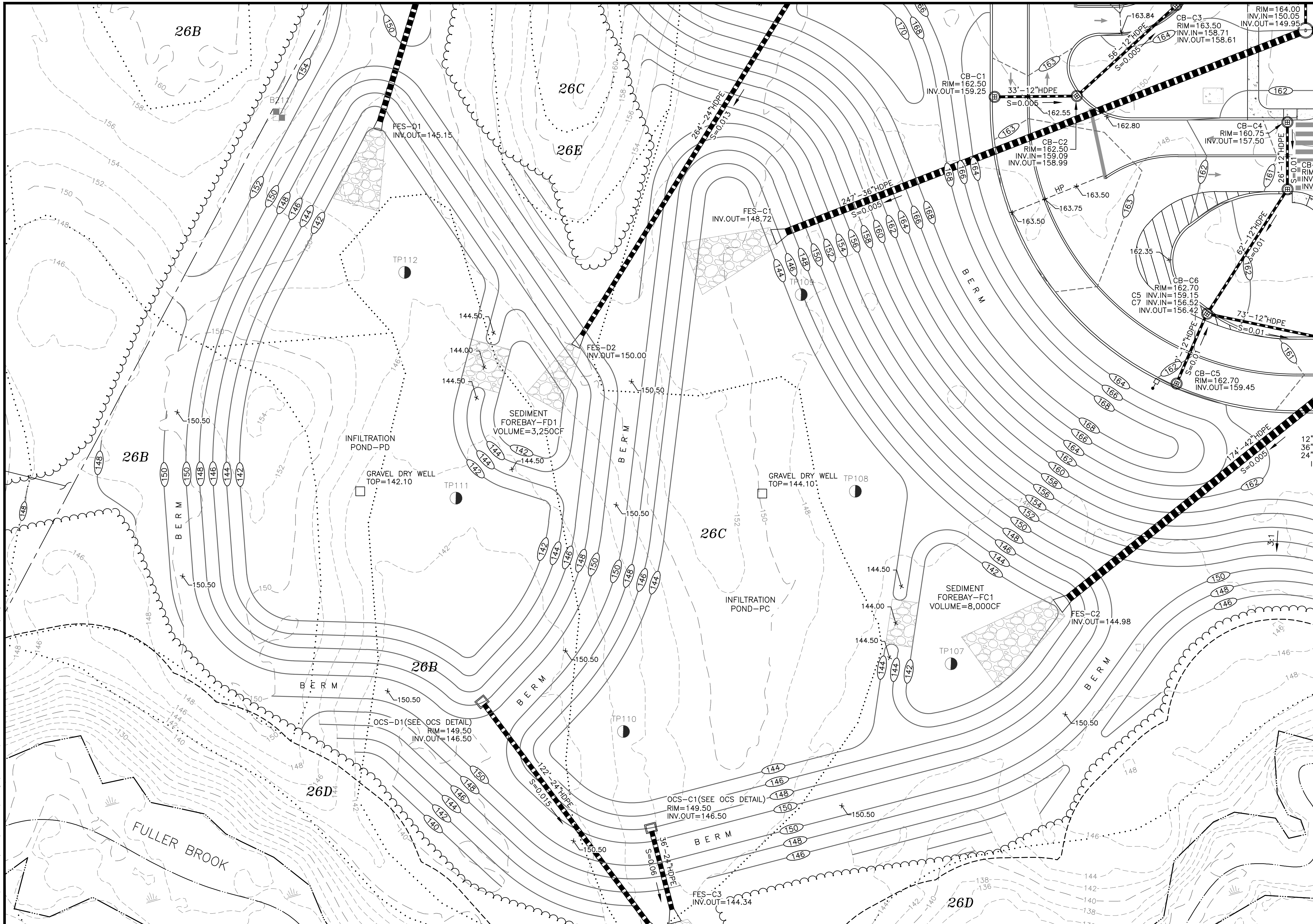
Deepest Elevation of TP = 138.00'

Infiltration Rate Determination

Per Env-Wq 1504.14, the infiltration rate was determined using default values.

- Soil in the practice area = 26 – Windsor (Per Site Specific Soil Mapping)
- Per SSSNNE Special Publication No. 5, Ksat Low B = 6 in/hr
- Applying the factor of safety, 6 in/hr * 0.5 = 3 in/hour design rate

APPENDIX-A



The Dubay Group, Inc.
136 Harvey Rd. Bldg B101
Londonderry, NH 03053
603-458-6462

Engineers
Planners
Surveyors
TheDubayGroup.com

1 INCH = 20 FEET

REVISIONS:

REV:	DATE:	COMMENT:	BY:

DRAWN BY: SJK
CHECKED BY: KRD
DATE: AUG. 3, 2021
SCALE: 1" = 20'
FILE: 475-Infiltration Feasibility
DEED REF:

PROJECT:
SITE PLAN
FRIARS DRIVE
TAX MAP 209
LOT 001-000
161 LOWELL ROAD
HUDSON, NH

PREPARED FOR
GFI PARTNERS
LOWELL ROAD PROPERTY OWNER, LLC
133 PEARL STREET #300
BOSTON, MA 02110

OWNER
5 WAY REALTY TRUST
PETER HORNE, TRUSTEE
PO BOX 1435
N. HAMPTON, NH 03862

SHEET TITLE:
EXHIBIT-A
INFILTRATION
PONDS PC & PD

PROJECT #475 SHEET 1 of 1

N:_PROJECTS\475-Five Way Realty, Hudson\Drainage\Section VII\Infiltration Sections\475-Infiltration Feasibility.dwg

The Dubay Group, Inc.
136 Harvey Road – Bldg B101
Londonderry, NH 03053
(603) 458-6462

Friars Drive
161 Lowell Road
Hudson, NH

Test Pits Report

TP 107 DATE: 9/2/2021

0-10"	10YR 4/1, DARK GRAY, SANDY LOAM, GRANULAR, FRIABLE
10-30"	10YR 5/6, YELLOWISH BROWN, SANDY LOAM, GRANULAR, FRIABLE
30-108"	2.5Y 6/6, OLIVE YELLOW, SAND, SINGLE GRAIN, LOOSE, DISTINCT REDOX @ 84"

ESHWT: 84" OWT: NONE LEDGE: NONE ROOTS: 80"

TP 108 DATE: 9/2/2021

0-10"	10YR 4/1, DARK GRAY, SANDY LOAM, GRANULAR, FRIABLE
10-28"	10YR 5/6, YELLOWISH BROWN, SANDY LOAM, GRANULAR, FRIABLE
28-84"	2.5Y 6/6, OLIVE YELLOW, SAND, SINGLE GRAIN, LOOSE, RESTRICTIVE @ 84"
84-102"	2.5Y 7/2, LIGHT GRAY, SILTY SAND, MASSIVE, FIRM

ESHWT: 84" OWT: NONE LEDGE: NONE ROOTS: 84"

TP 109 DATE: 9/2/2021

0-8"	10YR 4/1, DARK GRAY, SANDY LOAM, GRANULAR, FRIABLE
8-24"	10YR 5/6, YELLOWISH BROWN, SANDY LOAM, GRANULAR, FRIABLE
12-102"	2.5Y 6/6, OLIVE YELLOW, SAND, SINGLE GRAIN, LOOSE, RESTRICTIVE @ 102"
102-132"	2.5Y 7/2, LIGHT GRAY, SILTY SAND, MASSIVE, FIRM

ESHWT: 102" OWT: NONE LEDGE: NONE ROOTS: NONE

TP 110 DAT DATE: 9/2/2021

0-12"	10YR 4/1, DARK GRAY, SANDY LOAM, GRANULAR, FRIABLE
12-38"	10YR 5/6, YELLOWISH BROWN, SANDY LOAM, GRANULAR, FRIABLE
38-108"	2.5Y 6/4, LIGHT YELLOWISH BROWN, SAND, SINGLE GRAIN, LOOSE

ESHWT: NONE OWT: NONE LEDGE: NONE ROOTS: TO 60"

TP 111	DATE: 9/2/2021
0-10”	10YR 4/1, DARK GRAY, SANDY LOAM, GRANULAR, FRIABLE
10-32”	10YR 5/6, YELLOWISH BROWN, SANDY LOAM, GRANULAR, FRIABLE
32-48”	2.5Y 6/4, LIGHT YELLOWISH BROWN, SAND, SINGLE GRAIN, LOOSE
48-60”	10YR 5/4, YELLOWISH BROWN, COARSE SAND W/ GRAVEL, SINGLE GRAIN, LOOSE
60-72”	2.5Y 6/4, LIGHT YELLOWISH BROWN, SAND, SINGLE GRAIN, LOOSE
72-96	2.5Y 7/2 LIGHT GRAY, SANDY SILT, FIRM, SINGLE GRAIN

ESHWT: 72”   OWT: NONE   LEDGE: NONE   ROOTS: NONE

TP 112	DATE: 9/2/2021
0-12”	10YR 4/1, DARK GRAY, SANDY LOAM, GRANULAR, FRIABLE
12-32”	10YR 5/6, YELLOWISH BROWN, SANDY LOAM, GRANULAR, FRIABLE
32-108”	2.5Y 6/4, LIGHT YELLOWISH BROWN, LOAMY SAND, MASSIVE, FRIABLE

ESHWT: NONE   OWT: NONE   LEDGE: NONE   ROOTS: NONE

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

REGISTRATION AND NOTIFICATION FORM FOR STORMWATER INFILTRATION TO GROUNDWATER (5H1)

Groundwater Discharge Program

RSA/Rule: RSA 485-A:6, VII; 485:3, X; Env-Wq 402

Applicant Information

Name: Lowell Road Property Owner, LLC	Daytime Phone: 617-292-0101	
Mailing Address: 133 Pearl Street #300		
City: Boston	State: MA	ZIP: 02110
Contact Person Name: Hayley Palazola	Email: hpalazola@gfipartners.com	
Contact Person Phone Number: 617-292-0101	Fax Number:	

Facility Information

Name: Friars Drive Site Plan		
Address: 161 Lowell Road		
City: Hudson	State: NH	ZIP: 03051
Property Tax Map: 209	Lot Number: 001-000	
Latitude & Longitude of discharge point(s): 42.7453N 71.4345W		

Facility Owner Information (complete only if different than applicant)

Owner Name:	Daytime Phone:	
Mailing Address:		
City/Town:	State:	ZIP:
Contact Person Name:	Email:	
Contact Person Phone Number:	Fax Number:	

Property Owner (complete only if different then Applicant)

Name: 5 Way Realty Trust, Peter Horne Trustee	Daytime Phone:	
Mailing Address: PO Box 1435		
City: North Hampton	State: NH	ZIP: 03862
Contact Person Name:	Email:	
Contact Person Phone Number:	Fax Number:	

Facility Operator's Information (complete only if different than applicant)

Facility Operator Name:	Daytime Phone:	
Mailing Address:		
City:	State:	ZIP:

Complete this form if you are using a drywell or other subsurface infiltration structures to recharge stormwater to the ground or groundwater. If a completed Underground Injection Control (UIC) registration form was submitted to the Alteration of Terrain Bureau for this project, then one is not required to be sent directly to the Drinking Water and Groundwater Bureau (DWGB).

REGISTRATION AND NOTIFICATION FORM FOR STORMWATER INFILTRATION TO GROUNDWATER (attach additional sheets, as necessary, for responses to questions below)

Please provide a complete description of the facility including historic uses, any former contamination and/or ongoing remedial action at the site.
The existing site is undeveloped and wooded throughout. The proposed facility includes a 504,000 sf warehouse facility with supporting infrastructure.

Please provide information concerning the location of the infiltration activity, include Locus map (i.e. USGS map).
Please see the USGS map located within the stormwater report.

Please describe the pretreatment system, if any, and capacity of the system.
Sediment forebays will be utilized for pretreatment of the two infiltration ponds.

Please describe the materials and products used for the subsurface infiltration structure (i.e., pipe and stone leachfield, plastic chamber units, concrete drywell, etc.).
There are no subsurface infiltration structures proposed on-site.

Please describe the disposal method and location. Include a site plan showing: the infiltration structure, any other on-site infiltration structures, dimensions, depth to groundwater (if known), adjacent septic system(s), and drinking water source(s).
Please refer to the Grading, Drainage, & Utility Plan for details on the Infiltration Pond.

Please provide information concerning methods and schedule for periodic inspection and/or maintenance.
Please refer to the Inspection & Maintenance Manual within the stormwater report.

Applicant/Owner Certification Statement and Signature

By signing this application, the signer certifies that the information contained in or otherwise submitted with this application is true, complete and not misleading to the best of the signer's knowledge and belief.

By signing this application, the signer understands that submission of false, incomplete or misleading information is grounds for:

- Denying the application;

- Revoking any application that is granted based on the information; and

- If the signer is acting as or on behalf of a listed engineer as defined in Env-C 502.10, debarring the listed engineer from the roster.

By signing the application, the signer and applicant agree to comply with all applicable rules and conditions of this permit and to not discharge to the holding tank(s) until written permission from the department has been received.

	10-12-2021
Signature of Facility Owner or Contact	**Date**

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

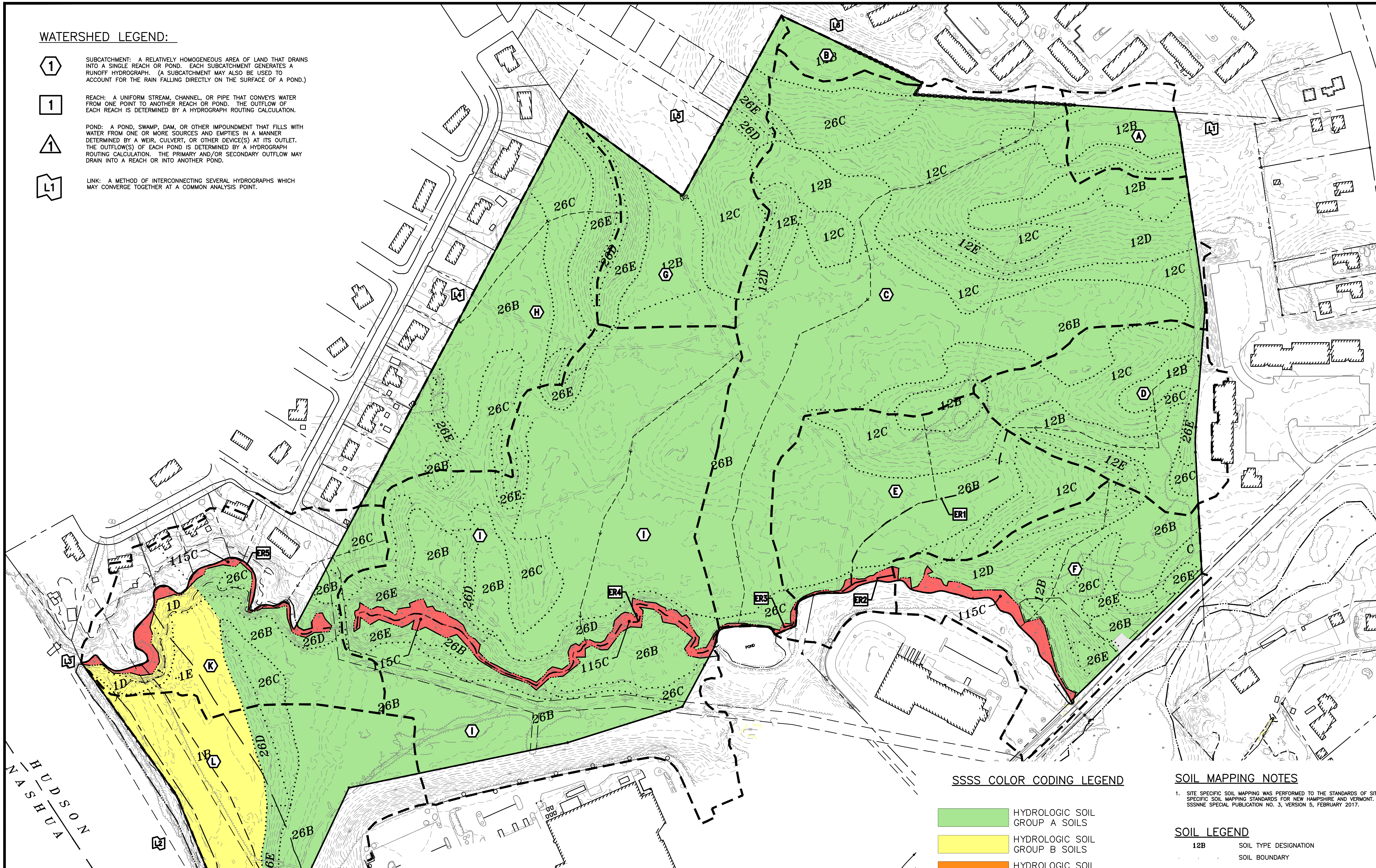
WATERSHED LEGEND:

SUBCATCHMENT: A RELATIVELY HOMOGENEOUS AREA OF LAND THAT DRAINS INTO A SINGLE REACH OR POND. EACH SUBCATCHMENT GENERATES A RUNOFF HYDROGRAPH. (A SUBCATCHMENT MAY ALSO BE USED TO ACCOUNT FOR THE RAIN FALLING DIRECTLY ON THE SURFACE OF A POND.)

REACH: A UNIFORM STREAM, CHANNEL, OR PIPE THAT CONVEYS WATER FROM ONE POINT TO ANOTHER REACH OR POND. THE OUTFLOW OF EACH REACH IS DETERMINED BY A HYDROGRAPH ROUTING CALCULATION.

POND: A POND, SWAMP, DAM, OR OTHER IMPOUNDMENT THAT FILLS WITH WATER FROM ONE OR MORE SOURCES AND EMPTIES IN A MANNER DETERMINED BY A WEIR, CULVERT, OR OTHER DEVICE(S) AT ITS OUTLET. THE OUTFLOW(S) OF EACH POND IS DETERMINED BY A HYDROGRAPH ROUTING CALCULATION. THE PRIMARY AND/OR SECONDARY OUTFLOW MAY DRAIN INTO A REACH OR INTO ANOTHER POND.

LINK: A METHOD OF INTERCONNECTING SEVERAL HYDROGRAPHS WHICH MAY CONVERGE TOGETHER AT A COMMON ANALYSIS POINT.



SSSS COLOR CODING LEGEND

HYDROLOGIC SOIL GROUP A SOILS

HYDROLOGIC SOIL GROUP B SOILS

HYDROLOGIC SOIL GROUP C SOILS

HYDROLOGIC SOIL GROUP D SOILS

IMPERVIOUS SURFACES

OPEN WATER

SOIL MAPPING NOTES

1. SITE SPECIFIC SOIL MAPPING WAS PERFORMED TO THE STANDARDS OF SITE SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT. SSSNNE SPECIAL PUBLICATION NO. 3, VERSION 5, FEBRUARY 2017.

SOIL LEGEND

12B SOIL TYPE DESIGNATION

. . . SOIL BOUNDARY

SITE–SPECIFIC SOIL MAPPING LEGEND

NUMBER	SOIL MAP UNIT NAME	DRAINAGE CLASS	HSG
1	OCCUM	MODERATELY WELL DRAINED	B
12	HINCKLEY	EXCESSIVELY WELL DRAINED	A
26	WINDSOR	EXCESSIVELY WELL DRAINED	A
115	SCARBORO	VERY POORLY DRAINED	D

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES TWO YEARS FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD

DATE OF MEETING: ____________

____________ CHAIRMAN ____________ SIGNATURE DATE:

____________ SECRETARY ____________ SIGNATURE DATE:

SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

N:\=PROJECTS\475–Five Way Realty, Hudson\DWG\NHAOT\475–PRE–COLOR.dwg

The Dubay Group, Inc.
136 Harvey Rd. Bldg B101
Londonderry, NH 03053
603-458-6462

Engineers
Planners
Surveyors
TheDubayGroup.com

120 0 60 120

1 INCH = 120 FEET

STATE OF NEW HAMPSHIRE KARL R. DUBAY No. 9006 LICENSED PROFESSIONAL ENGINEER

REVISIONS:

REV:	DATE:	COMMENT:	BY:

DRAWN BY:	SJK
CHECKED BY:	KRD
DATE:	AUG. 3, 2021
SCALE:	1" = 120'
FILE:	475–PRE–COLOR
DEED REF:	

PROJECT:

SITE PLAN

FRIARS DRIVE
TAX MAP 209
LOT 001-000
161 LOWELL ROAD
HUDSON, NH

PREPARED FOR

GFI PARTNERS

LOWELL ROAD PROPERTY OWNER, LLC
133 PEARL STREET #300
BOSTON, MA 02110

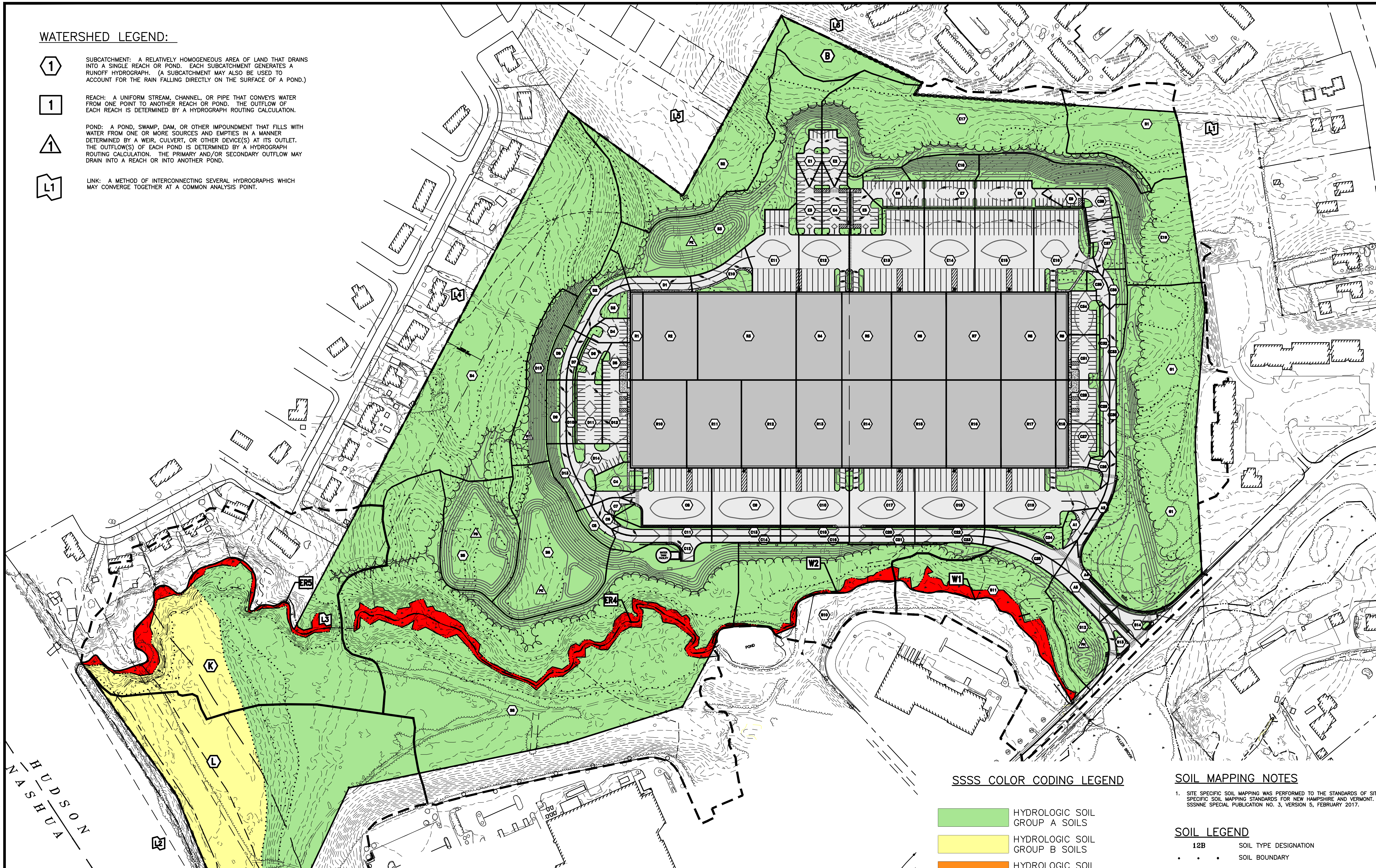
OWNER

5 WAY REALTY TRUST
PETER HORNE, TRUSTEE
PO BOX 1435
N. HAMPTON, NH 03862

SHEET TITLE:

PRE DEVELOPMENT SITE SPECIFIC SOIL MAPPING PLAN

PROJECT #475 SHEET 1 of 2



WATERSHED LEGEND:

SUBCATCHMENT: A RELATIVELY HOMOGENEOUS AREA OF LAND THAT DRAINS INTO A SINGLE REACH OR POND. EACH SUBCATCHMENT GENERATES A RUNOFF HYDROGRAPH. (A SUBCATCHMENT MAY ALSO BE USED TO ACCOUNT FOR THE RAIN FALLING DIRECTLY ON THE SURFACE OF A POND.)

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L1 LINK: A METHOD OF INTERCONNECTING SEVERAL HYDROGRAPHS WHICH MAY CONVERGE TOGETHER AT A COMMON ANALYSIS POINT.

SSSS COLOR CODING LEGEND

- HYDROLOGIC SOIL GROUP A SOILS
- HYDROLOGIC SOIL GROUP B SOILS
- HYDROLOGIC SOIL GROUP C SOILS
- HYDROLOGIC SOIL GROUP D SOILS
- IMPERVIOUS SURFACES
- OPEN WATER

SOIL MAPPING NOTES

1. SITE SPECIFIC SOIL MAPPING WAS PERFORMED TO THE STANDARDS OF SITE SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT. SSSNNE SPECIAL PUBLICATION NO. 3, VERSION 5, FEBRUARY 2017.

SOIL LEGEND

12B SOIL TYPE DESIGNATION

• • • SOIL BOUNDARY

SITE–SPECIFIC SOIL MAPPING LEGEND

NUMBER	SOIL MAP UNIT NAME	DRAINAGE CLASS	HSG
1	OCCUM	MODERATELY WELL DRAINED	B
12	HINCKLEY	EXCESSIVELY WELL DRAINED	A
26	WINDSOR	EXCESSIVELY WELL DRAINED	A
115	SCARBORO	VERY POORLY DRAINED	D

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES TWO YEARS FROM DATE OF APPROVAL.

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120 0 60 120
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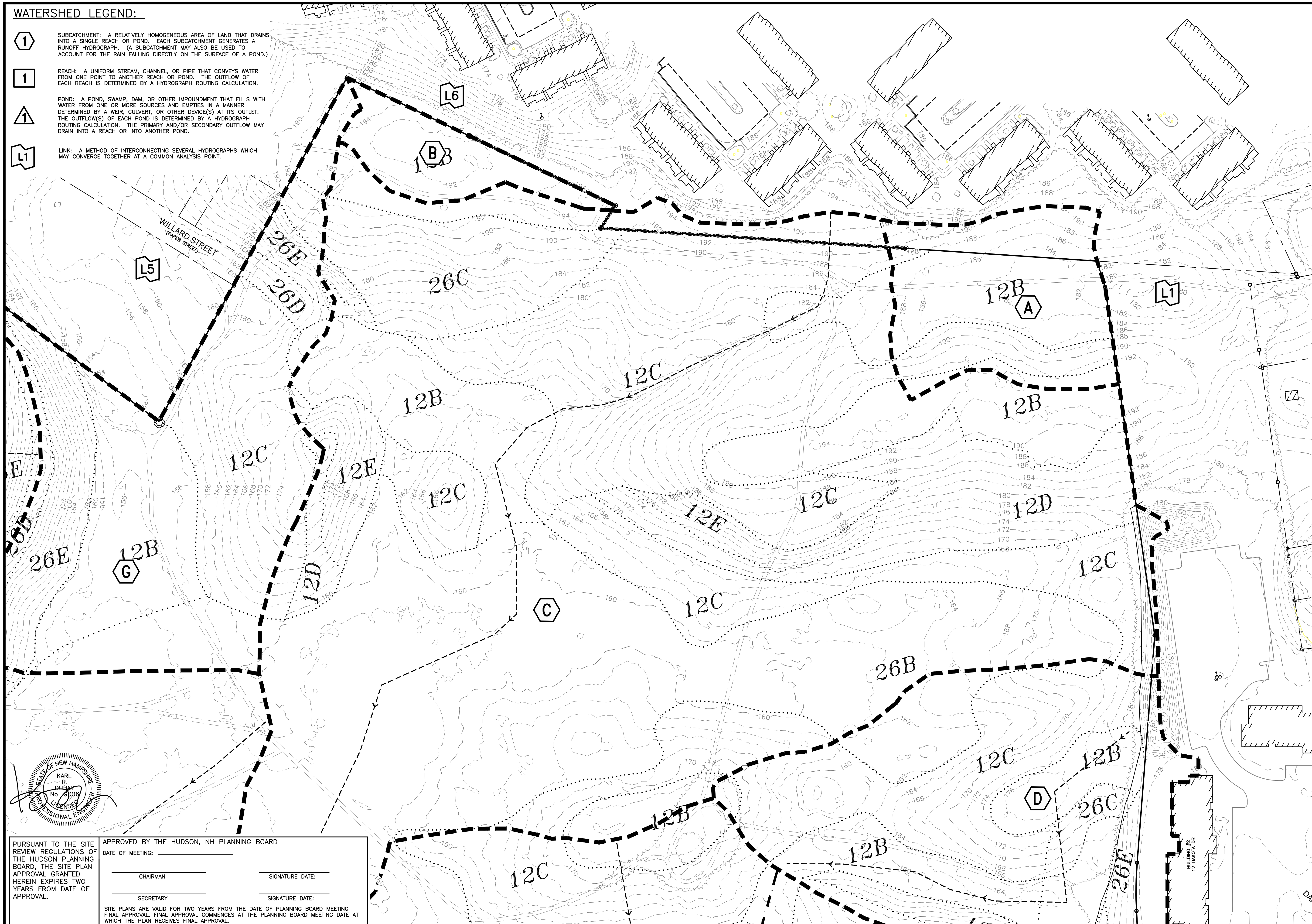

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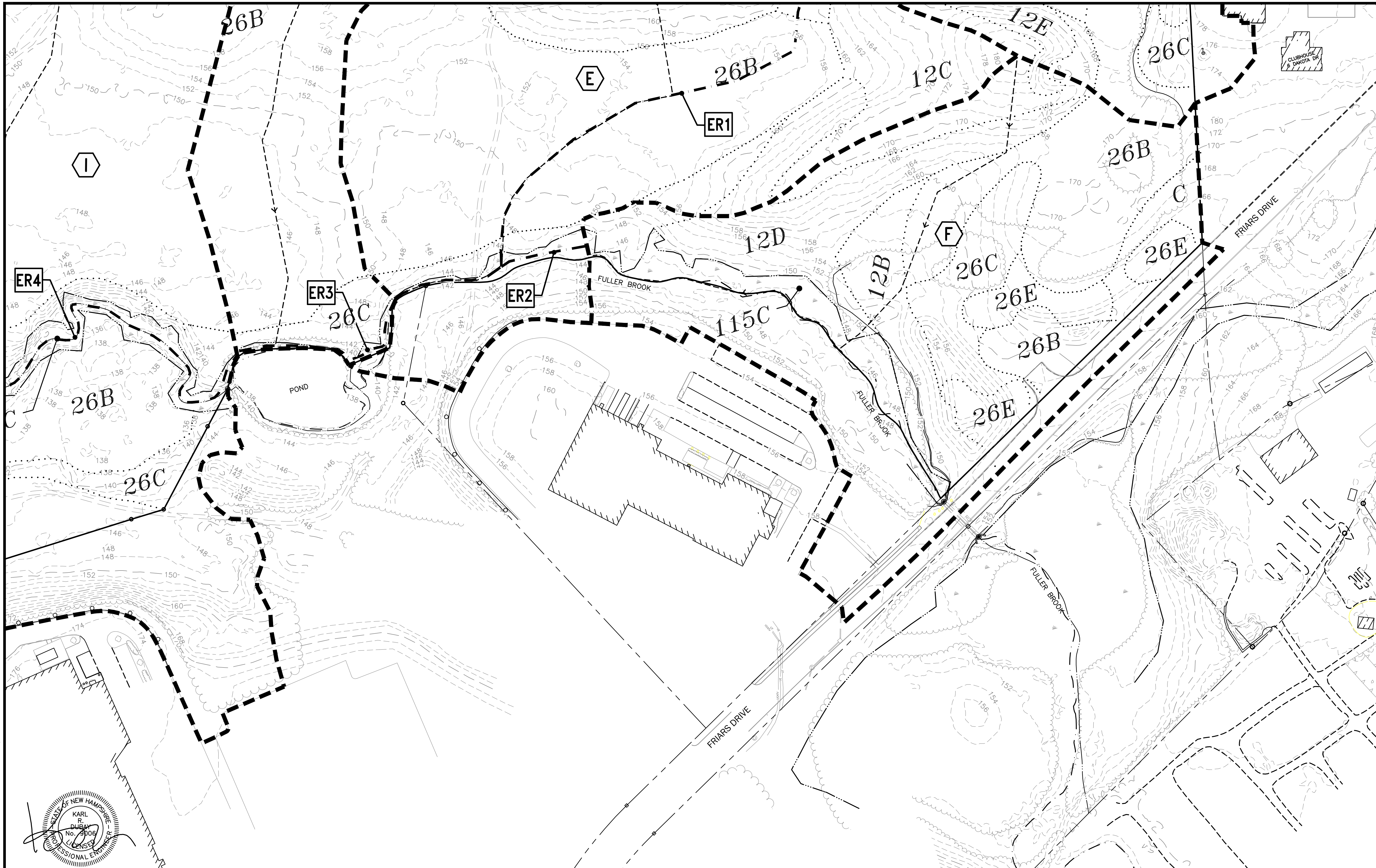
PRE-DEVELOPMENT WATERHSED PLAN - A

PROJECT #475 SHEET 1 of 4



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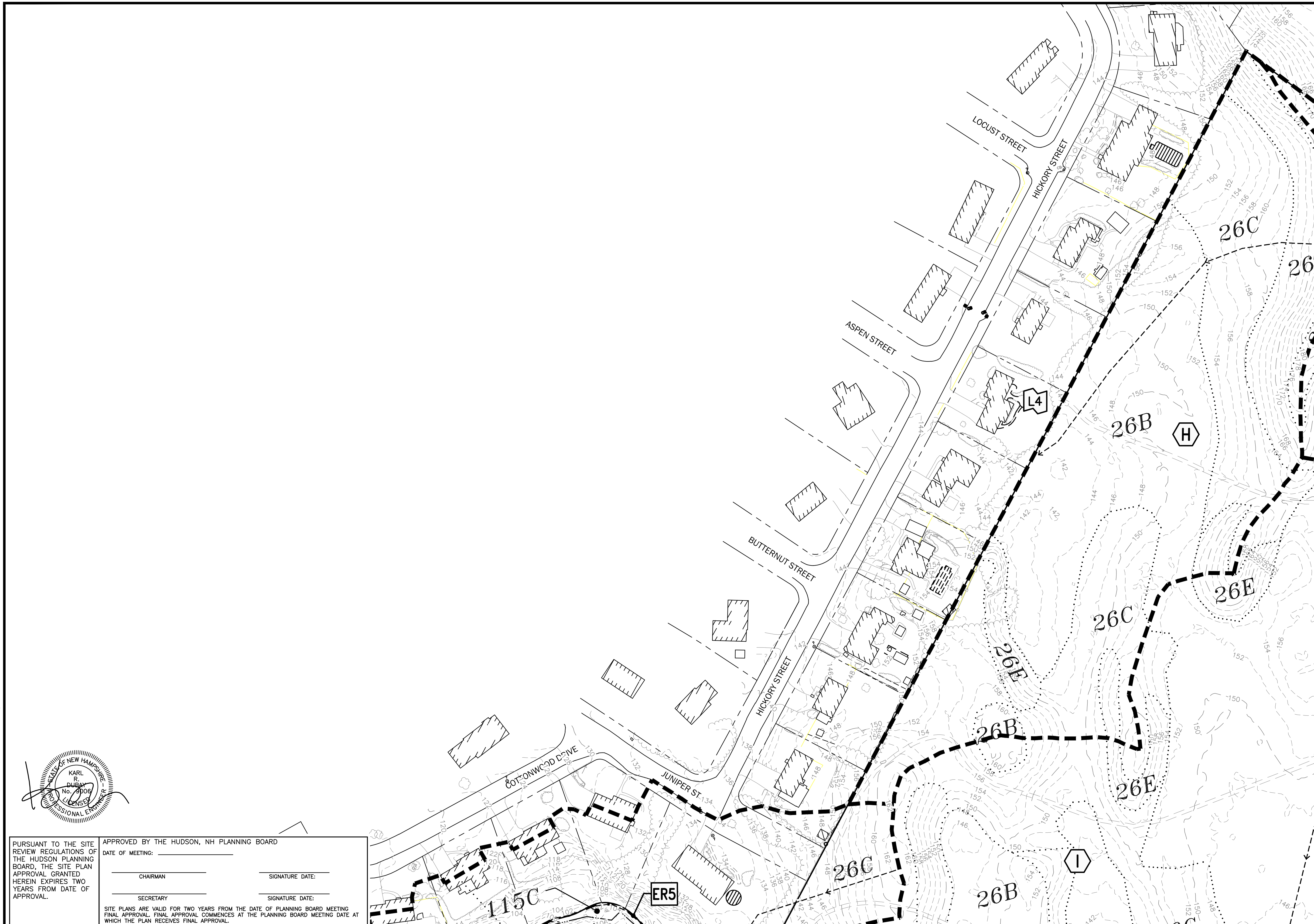
SHEET TITLE:
PRE-DEVELOPMENT WATERHSED PLAN - B

PROJECT #475 SHEET 2 of 4



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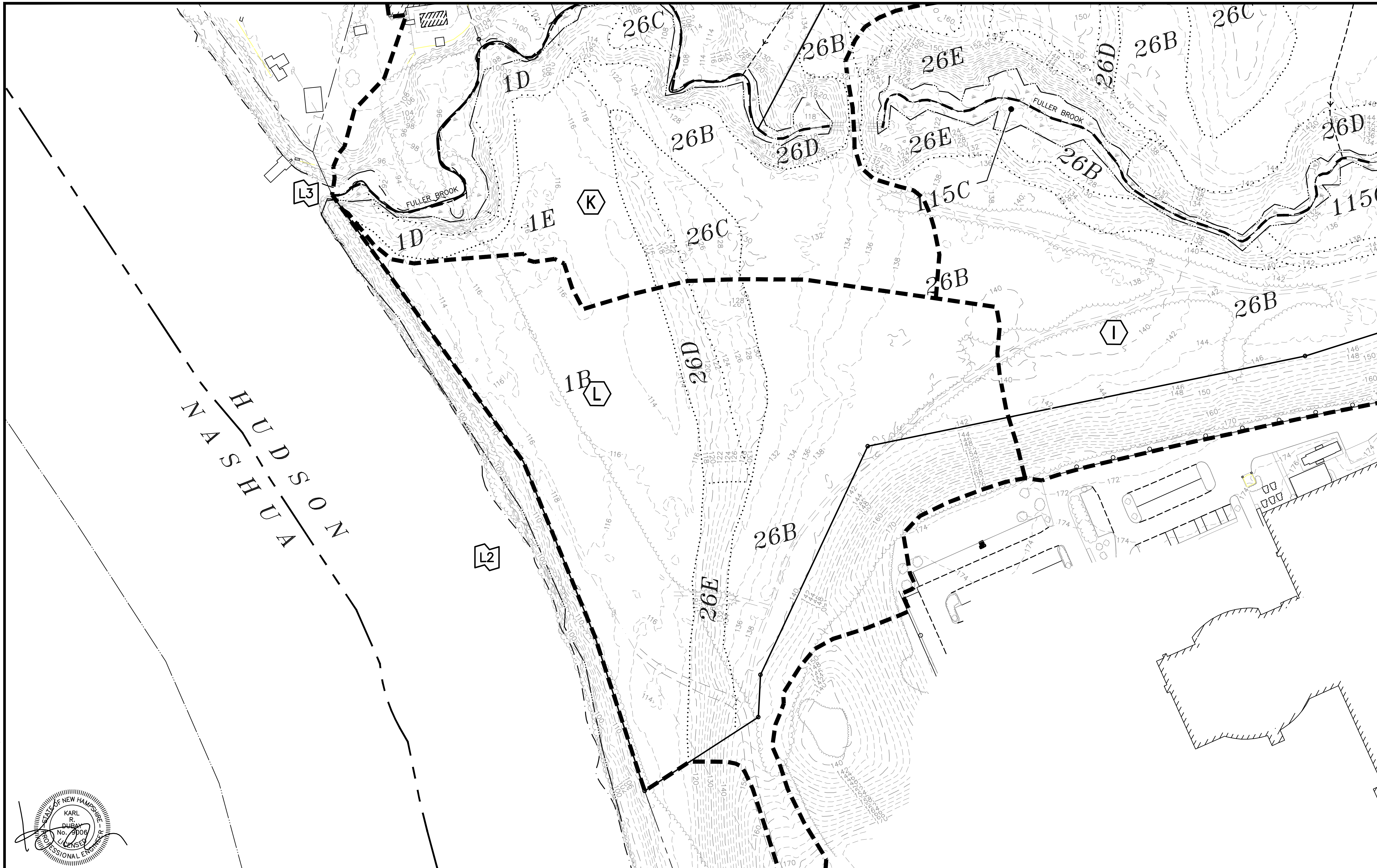

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SHEET TITLE:

PRE-DEVELOPMENT WATERHSED PLAN - D

PROJECT #475 SHEET 4 of 4

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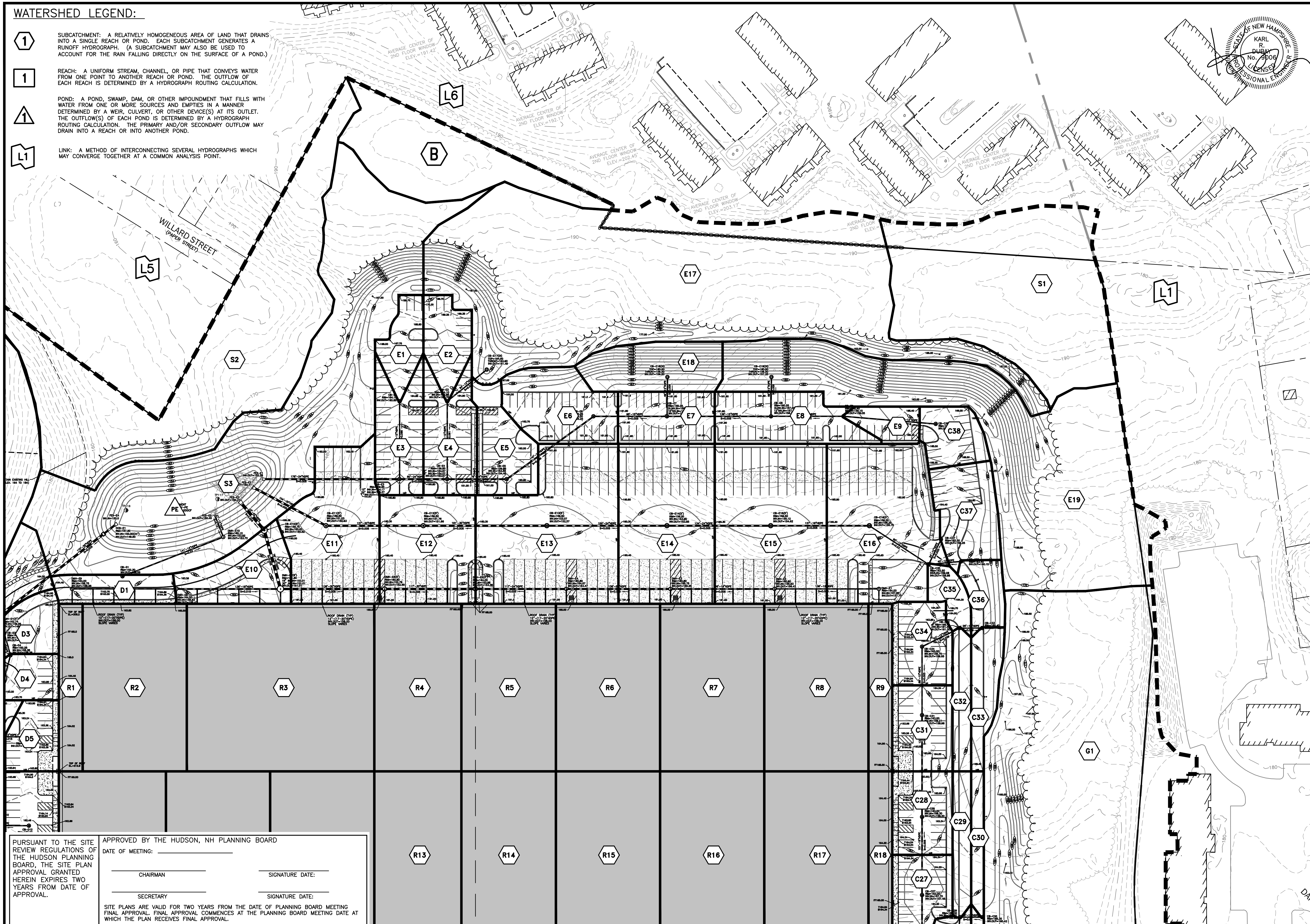

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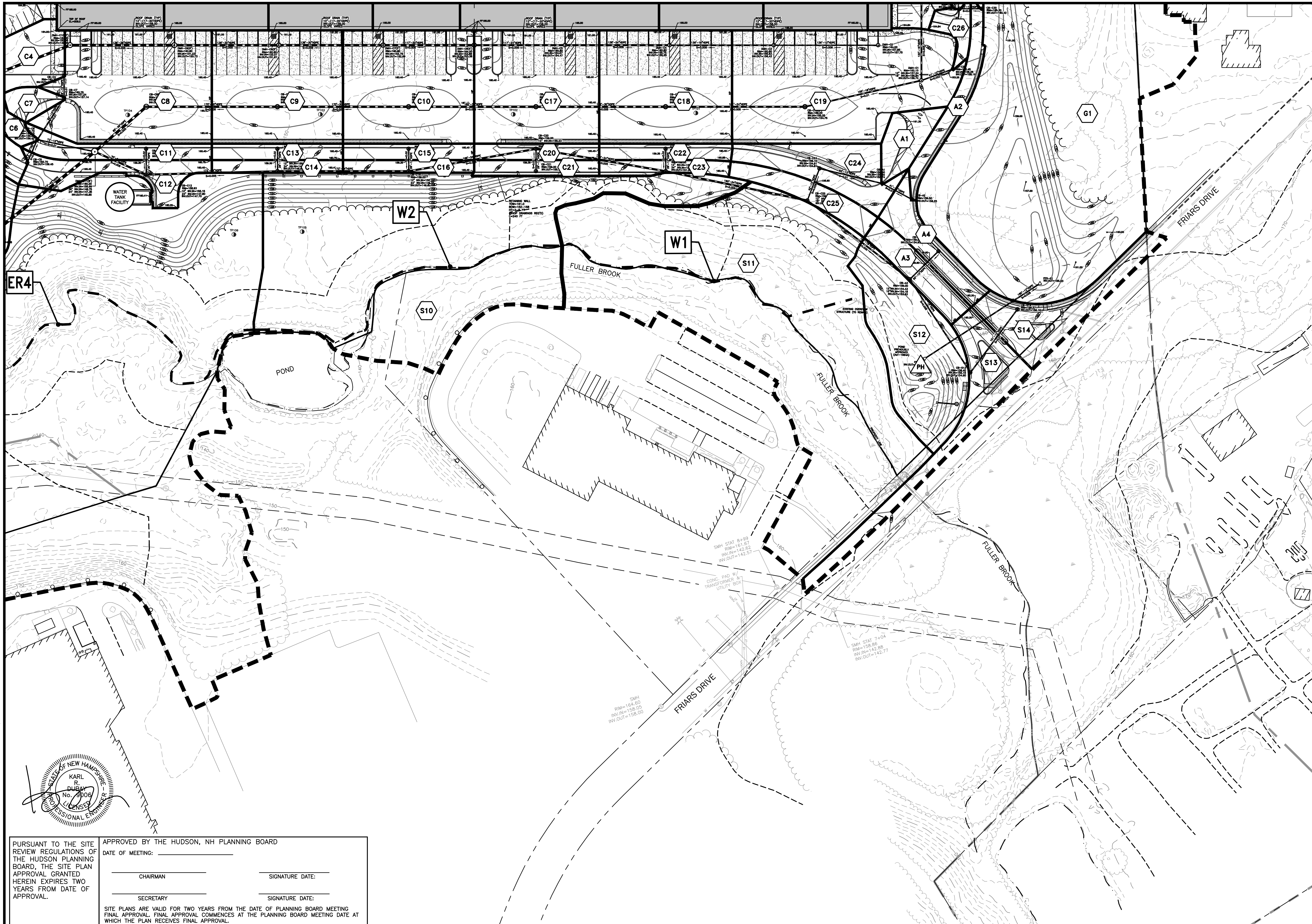

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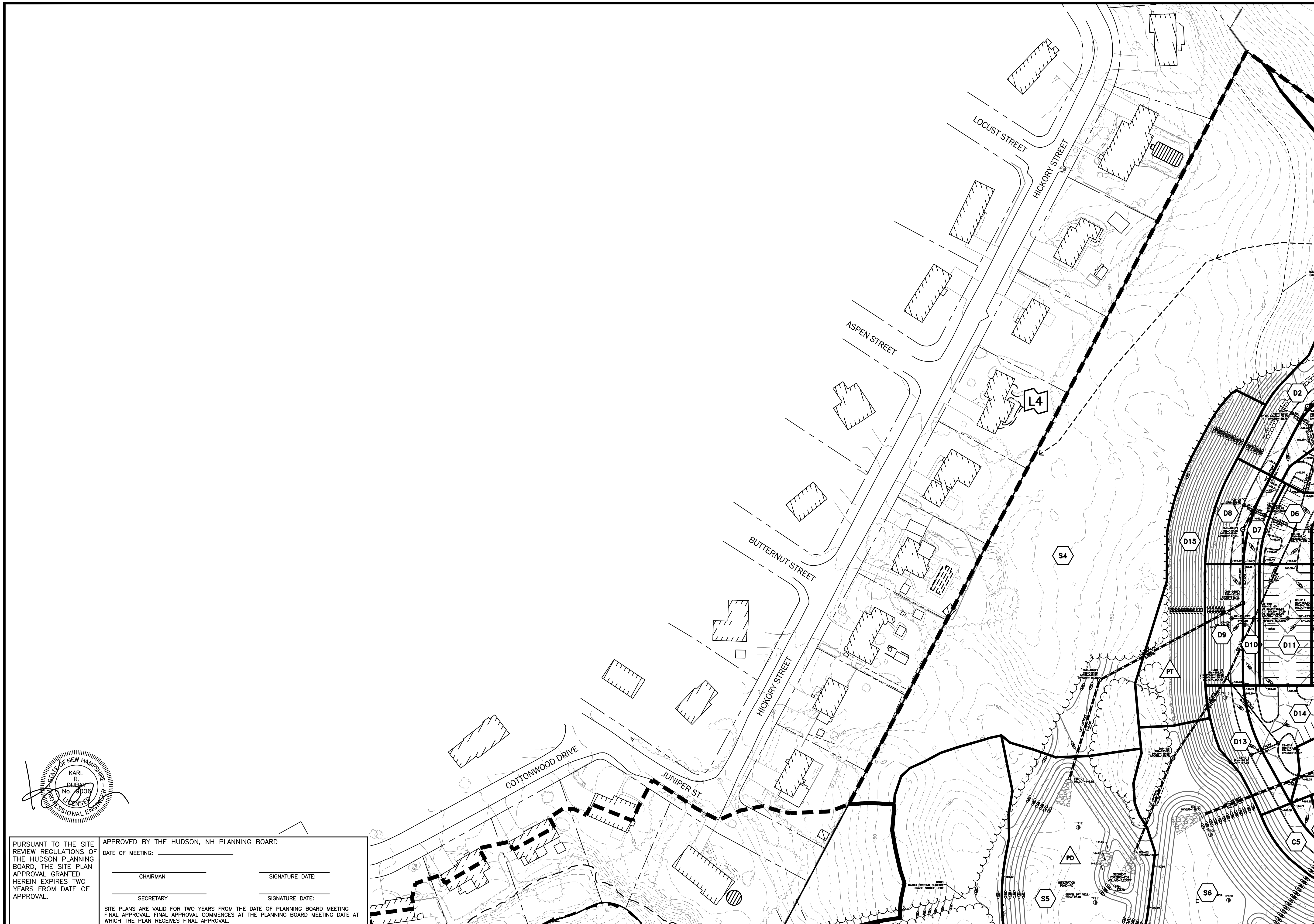

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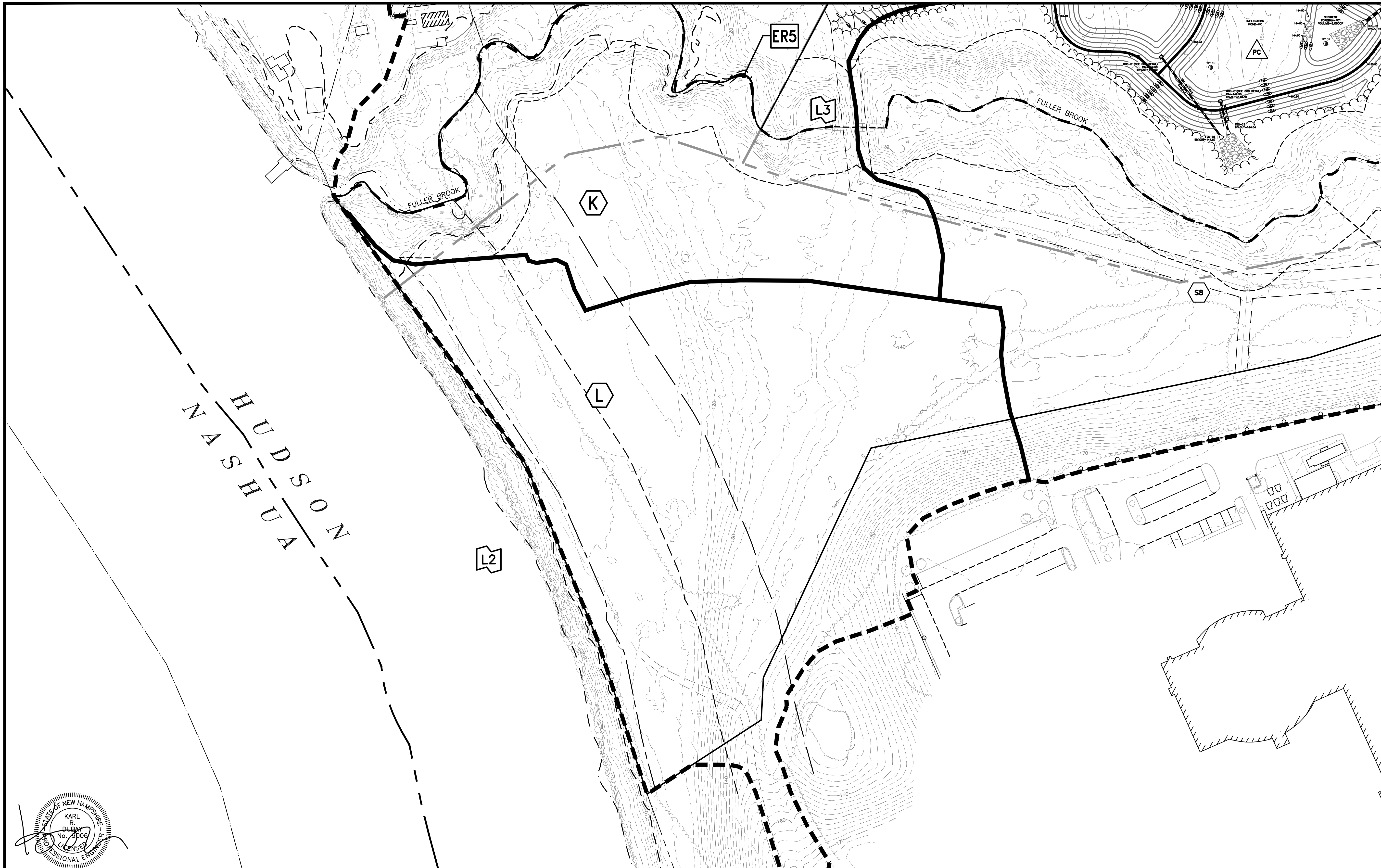

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