STORMWATER REPORT

FOR

FOX HOWE
500 MAIN STREET

IN

GROTON,
MASSACHUSETTS

PREPARED BY: DILLIS & ROY
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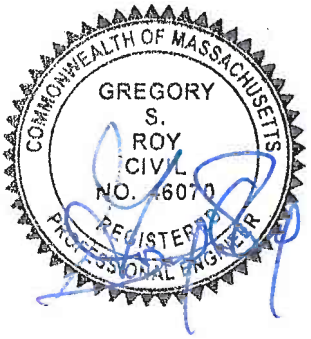

AUGUST 20TH, 2025
CDG PROJECT # 6842-T

DILLIS & ROY
CIVIL DESIGN GROUP
CIVIL ENGINEERS LAND SURVEYORS WETLAND CONSULTANTS

TABLE OF CONTENTS

1.0 Project Narrative

1.1 Project Type

The Applicant, Transom GP Capital Holdings I, LLC., is proposing the construction of a residential development on the north side of Route 119 just northerly of the intersection of Mill Street & Main Street. The proposed development consists of two hundred (200) rental units of which one hundred and seventy-six (176) units will be contained in two multi-story multi-family apartment building (62,906 SF) and twenty-four (24) units contained in six (6) quadplex townhouses (5,201 SF ea.) located at the property. The project includes amenity areas, outdoor recreational facilities, pool, private roadway, on-site parking, stormwater management systems, and new utility connections with associated appurtenances.

1.2 Purpose and Scope

This report has been prepared to comply with the requirements of the Stormwater Management Standards incorporated in the Massachusetts Wetlands Protection Act Regulations, 310 CMR 10.00. These standards are intended to promote increased groundwater recharge and prevent stormwater discharges from causing or contributing to the pollution of surface waters and ground waters of the Commonwealth. The standards aim to accomplish these goals by encouraging the greater use of low impact development (LID) techniques and improving the operation and maintenance of stormwater best management practices (BMP).

This report addresses compliance of the proposed development with each of the ten stormwater standards, it provides calculations to support the compliance information, and it provides a Long-Term Pollution Prevention Plan and an Operation and Maintenance Plan for the stormwater management system.

1.3 LID Measures

Care has been taken to lay out the proposed site in a manner that works with existing topography. BMPs, have been specified to manage the stormwater runoff. Stormwater from the proposed impervious surface locations is routed to constructed stormwater wetlands or wet basin via land flow, curb and gutter systems, or the proposed drainage pipe system. The stormwater areas will reduce run off rates below pre-developed rates while providing water quality pre-treatment by sediment forebays.

1.4 Site Description

The subject site is found on the North side of Route 119 just northerly of the intersection of Mill Street & Main Street. An existing internal road runs from Main Street and travels northeast connecting to the onsite parking lot. An existing

101,570 SF building was formerly located towards the center of the site. Following the Comprehensive Permit approval, the office building was demolished in 2024. An existing parking lot is located towards the northern corner of the site and wraps around the eastern side of the former building. The southwestern half of the site is primarily an undeveloped grassed area with clusters of woods. Wetland areas as shown on the attached Site Plans are present on site located to the north, east, and west of the proposed development. Under existing conditions, the wetlands receive untreated stormwater sheet flow and point discharges.

An existing detention basin located adjacent to the former building collects and treats a portion of the existing impervious area on site. An outlet pipe runs from the subject detention basin under the existing paved parking area to the north where it then discharges into an existing wetland system. A smaller stormwater management area is located just north of the northern parking area where it receives run-off from portions of the existing parking lot & tributary undeveloped overland flow. The remaining stormwater runoff generated from the existing impervious area that is not collected sheet flows towards the surrounding wetland systems without any form of treatment.

The NRCS soil survey information indicates that all of the site is underlain by soils classified as belonging to Hydrologic Soil Groups A (Carlton Fine Sandy Loam), B (Charlton-Hollis-Rock outcrop & Hollis-Rock Outcrop-Charlton complex), C (Paxton Fine Sandy Loam) & D (Swansea Muck, Freetown Muck, Ridgebury Fine Sandy Loam & Whitman Fine Sandy Loam).

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Soils belonging to group B have a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Soils belonging to group D have a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Please refer to Appendix C for further information regarding the soils on-site & existing test hole data.

1.5 Proposed Stormwater Management System

Runoff from the proposed development will be conveyed and treated through a combination of Best Management Practices (BMP's). The following is a brief discussion of each conveyance and treatment BMP proposed.

Deep Sump Hooded Catch Basin

Deep sump hooded catch basins are proposed to convey the runoff from the proposed paved areas and roofs to the stormwater wetlands or wet basin. These catch basins will discharge to manholes and conventional storm drains. Please refer to Sediment Loading Calculations in Appendix F.

Constructed Stormwater Wetlands

Constructed stormwater wetlands are stormwater wetland systems that maximize the removal of pollutants from stormwater runoff through wetland vegetation uptake, retention and settling. Constructed stormwater wetlands temporarily store runoff in shallow pools that support conditions suitable for the growth of wetland plants. Proposed constructed stormwater wetlands must be used with other BMPs, such as sediment forebays, as proposed.

Wet Basin

The proposed reconstructed wet basin utilizes a permanent pool of water as the primary mechanism to treat stormwater runoff. The permanent pool has been set at an elevation to intercept the existing groundwater table to ensure sufficient permanent pool volume. The pool allows sediments to settle (including fine sediments) and removes soluble pollutants. The wet basin has been designed to provide additional dry storage capacity to control peak discharge rates. The wet basin allows incoming stormwater to displace the water present in the pool. This stormwater remains until displaced by runoff from another storm event. Increased retention time allows particulates, including fine sediments, to settle out of the water column. The permanent pool also serves to protect deposited sediments from resuspending during large storm events. A sediment forebay designed at the entrance of the basin was included to decrease the velocity of flow and increase the settlement of heavy solids prior to the basin. Riprap will also be installed at the inlet of the sediment forebays and the outlet of the basin to control the overflow of stormwater into the adjacent wetlands and will reduce the potential for scouring.

Grassed Swales

The grassed channels have been designed with a relatively flat (2.0%) slope to reduced runoff velocity and increase hydraulic residency time to promote particulate settling. The grassed channel has been provided with a sediment forebay for stormwater pretreatment. The grass swales will receive runoff from the proposed roofs along the townhomes & sheet flow from the entrance road. The entrance road has been designed with a 2% cross-slope to pitch towards a grassed swale system to convey the runoff to Stormwater Wetland #1's sediment forebay for additional treatment.

1.6 Methods of Analysis

The United States Department of Agriculture Natural Resources Conservation Service (NRCS) soil cover complex methods (TR-20) were employed to compute runoff quantities for the subject property. Watershed analysis demonstrate that natural drainage patterns drain toward the wetlands (design point). Two design points were modeled to analyze the total runoff from the site. HydroCAD 10.0 computer software was employed in this hydrologic analysis.

A comparison of pre- and post-development runoff quantities at the analysis points were performed in order to design a stormwater management system that will limit peak rates of runoff from the development to predevelopment levels for 24-hour rainfall events of 2-, 10-, 25- and 100-year return frequencies. Watershed boundaries for existing conditions are depicted on the attached Predevelopment Watershed Plan. Post-Developed watershed boundaries are indicated on the Post-development Watershed Plan.

2.0 Stormwater Standards Compliance

2.1 Standard 1 – Untreated Discharge

The stormwater management system for the proposed development will not result in any new discharges of untreated stormwater to wetland resource areas. Stormwater management structures have been designed such that there is no erosion or scour to wetland resource areas or waters of the Commonwealth.

2.2 Standard 2 – Peak Rate Attenuation

Hydrologic calculations for existing and proposed site conditions are included in Appendices D and E respectively. Calculations for 24-hour rainfall events of 2-, 10-, 25- and 100-year return frequencies are provided. The "NRCC Extreme Precipitation in New York & New England" rainfall rates were used in the hydraulic model. Additionally, per Chapter 352 Section 13, in the Town of Groton Bylaw, the hydraulic modeling was prepared using the altered Curve

Numbers stated in the subject section, within Table 2. The following table provides a summary of peak rates of runoff related to each of these storms for the design point through which all runoff from the subject property must flow. For all rainfall events considered, the proposed stormwater management system will control runoff from the development such that corresponding peak flows at the design point will be lower than pre-developed rates.

Table 1: Wetland Design Point Runoff Summary

	Pre-Developed (ft^3 / sec)	**Post-Developed (ft^3 / sec)**	**Delta Δ (ft^3 / sec)**
Design Point "A"			
2-Year	20.88	11.35	-9.53
10-Year	38.37	32.62	-5.75
25-Year	53.28	47.15	-6.13
100-Year	85.26	78.37	-6.89

2.3 Standard 3 – Recharge

The NRCS soil survey information indicates that all of the site is underlain by soils classified as belonging to Hydrologic Soil Groups A (Carlton Fine Sandy Loam), B (Charlton-Hollis-Rock outcrop & Hollis-Rock Outcrop-Charlton complex), C (Paxton Fine Sandy Loam) & D (Swansea Muck, Freetown Muck, Ridgebury Fine Sandy Loam & Whitman Fine Sandy Loam). Please refer to Appendix C for further information regarding the soils on-site & existing test hole data.

The recharge standard is being met in virtue of the fact that the impervious area is being reduced on the site. The following table shows a summary of the existing and proposed runoff volumes being discharged offsite. In all design storms, the amount of runoff volume is being reduced under the proposed site conditions. This means that more stormwater is being recharged on site as compared to the preexisting conditions.

Table 1: Wetland Design Point Volume Summary

	Pre-Developed (acre-feet)	**Post-Developed (acre-feet)**	**Increase in Recharge Volume (acre-feet)**
Design Point "A"			
2-Year	3.067	2.249	0.818
10-Year	5.690	4.886	0.804
25-Year	7.911	7.142	0.769
100-Year	12.748	12.081	0.667

2.4 Standard 4 – Water Quality

TSS removal calculations have been provided (Appendix F) showing that the proposed TSS removal efficiency from these areas will be >80% using the stormwater wetlands/wet basins with the sediment forebay & deep sump hooded catch basins for pretreatment. This BMP train is proposed for both stormwater wetlands along with the proposed wet basin (as documented). Four TSS calculation sheets have been provided. The sheet with a deep sump catch basin into a sediment forebay shows proper pre-treatment before entering the stormwater wetlands/wet basin. An additional pretreatment sheet has been included documenting the proper pretreatment for the collected sheet flow from the entrance road into the grassed channel / sediment forebay. The sheets with deep sump catch basin into a stormwater wetland & wet basin show there is enough TSS removal within the whole system. Water quality calculations have been included in Appendix F.

2.5 Standard 5 – Land Uses with Higher Pollutant Loads

The current and proposed uses of the subject site do not constitute land use with higher potential pollutant load, thus Standard 5 does not apply to the proposed project.

2.6 Standard 6 –Critical Areas

The proposed project is located within the Petapawag Watershed. The proposed stormwater management system has been designed in accordance with the specifications and sizing methodologies in Volumes 2 and 3 of the Massachusetts Stormwater Handbook. Please refer to Appendix F for required water quality volumes of 1.0-inch times the proposed impervious area. Proper pre-treatment of at least 44% has been achieved with the proposed BMP trains (as recommended in Table CA 1 Standard 6 within the Massachusetts Stormwater Manual). Please refer to Appendix F for TSS calculations regarding the proposed treatment methods.

2.7 Standard 7 – Redevelopment

The proposed project does meet the standards to be considered a Redevelopment project, however the stormwater management system has been designed to meet the standards set forth for a new development project. All requirements have been met with this proposal.

2.8 Standard 8 – Construction Period Pollution Prevention Plan and Erosion and Sediment Control

The project is subject to the filing of an Environmental Protection Agency Notice of Intent (EPA NOI), and the work will be pursuant to the NPDES Construction General Permit for disturbance to an area greater than 1 acre, a copy of the Stormwater Pollution Prevention Plan (SWPPP) will be submitted prior to construction. The SWPPP will satisfy the Standard 8 Construction Period Pollution prevention. And Erosion and Sediment Control Plan is included in the attached Site Plans.

2.9 Standard 9 – Operation and Maintenance Plan

Refer to Appendix H for a complete copy of the Stormwater Operation and Maintenance Plan.

2.10 Standard 10 – Prohibition of Illicit Discharge

An illicit discharge statement will be prepared if approvals are received and prior to construction.

3.0 Appendices

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Appendix A - Locus Map

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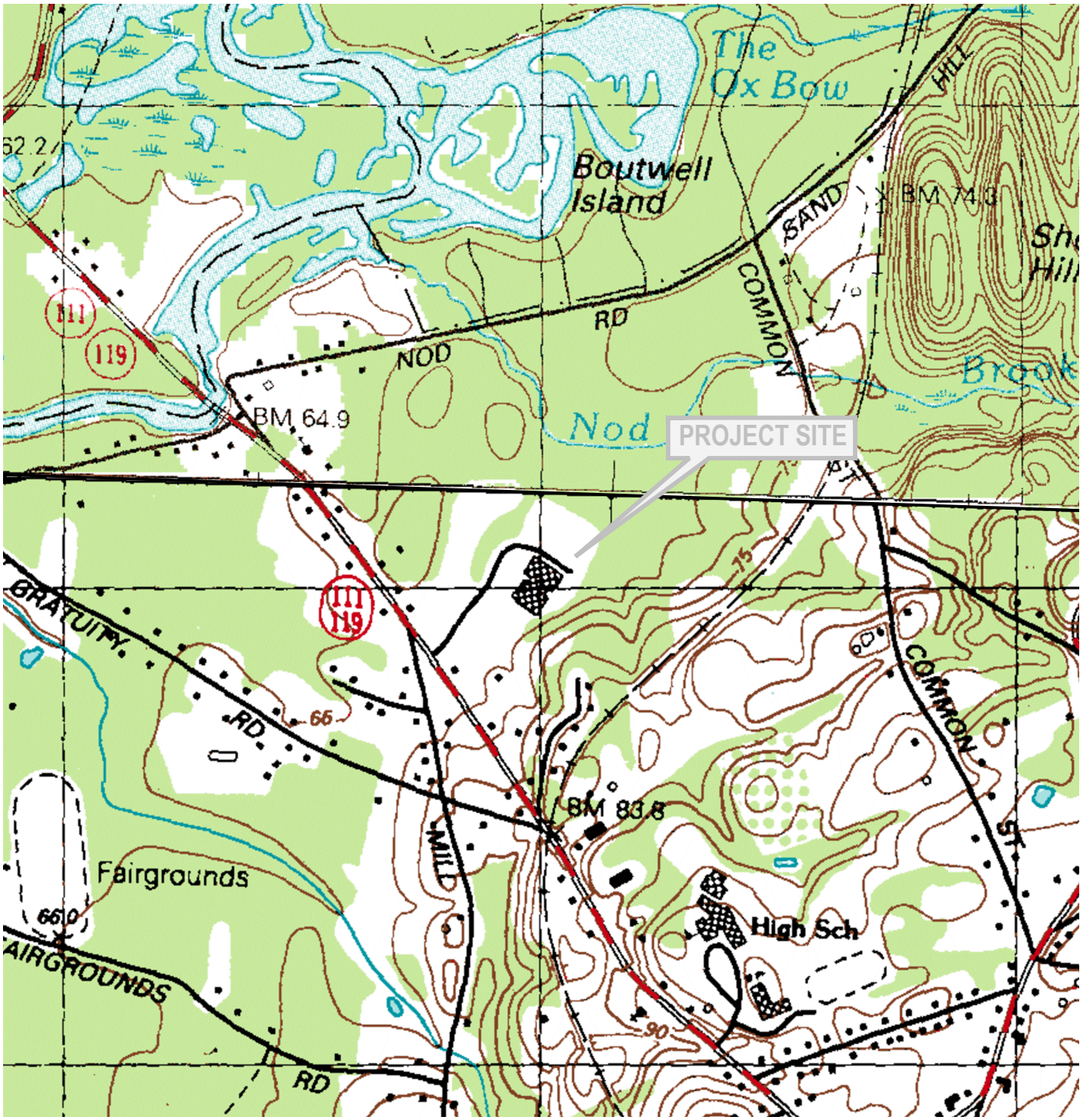

FIGURE 1 - LOCUS MAP

1"=1,000'

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References: 1988 USGS Groton
Massachusetts Topographic Map

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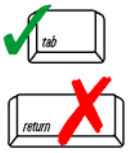
Appendix B - Checklist for Stormwater Report

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

A. Introduction

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A Stormwater Report must be submitted with the Notice of Intent permit application to document compliance with the Stormwater Management Standards. The following checklist is NOT a substitute for the Stormwater Report (which should provide more substantive and detailed information) but is offered here as a tool to help the applicant organize their Stormwater Management documentation for their Report and for the reviewer to assess this information in a consistent format. As noted in the Checklist, the Stormwater Report must contain the engineering computations and supporting information set forth in Volume 3 of the Massachusetts Stormwater Handbook. The Stormwater Report must be prepared and certified by a Registered Professional Engineer (RPE) licensed in the Commonwealth.

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals.[1] This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8[2]
- Operation and Maintenance Plan required by Standard 9

In addition to all plans and supporting information, the Stormwater Report must include a brief narrative describing stormwater management practices, including environmentally sensitive site design and LID techniques, along with a diagram depicting runoff through the proposed BMP treatment train. Plans are required to show existing and proposed conditions, identify all wetland resource areas, NRCS soil types, critical areas, Land Uses with Higher Potential Pollutant Loads (LUHPPL), and any areas on the site where infiltration rate is greater than 2.4 inches per hour. The Plans shall identify the drainage areas for both existing and proposed conditions at a scale that enables verification of supporting calculations.

As noted in the Checklist, the Stormwater Management Report shall document compliance with each of the Stormwater Management Standards as provided in the Massachusetts Stormwater Handbook. The soils evaluation and calculations shall be done using the methodologies set forth in Volume 3 of the Massachusetts Stormwater Handbook.

To ensure that the Stormwater Report is complete, applicants are required to fill in the Stormwater Report Checklist by checking the box to indicate that the specified information has been included in the Stormwater Report. If any of the information specified in the checklist has not been submitted, the applicant must provide an explanation. The completed Stormwater Report Checklist and Certification must be submitted with the Stormwater Report.

[1] The Stormwater Report may also include the Illicit Discharge Compliance Statement required by Standard 10. If not included in the Stormwater Report, the Illicit Discharge Compliance Statement must be submitted prior to the discharge of stormwater runoff to the post-construction best management practices.

[2] For some complex projects, it may not be possible to include the Construction Period Erosion and Sedimentation Control Plan in the Stormwater Report. In that event, the issuing authority has the discretion to issue an Order of Conditions that approves the project and includes a condition requiring the proponent to submit the Construction Period Erosion and Sedimentation Control Plan before commencing any land disturbance activity on the site.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

B. Stormwater Checklist and Certification

The following checklist is intended to serve as a guide for applicants as to the elements that ordinarily need to be addressed in a complete Stormwater Report. The checklist is also intended to provide conservation commissions and other reviewing authorities with a summary of the components necessary for a comprehensive Stormwater Report that addresses the ten Stormwater Standards.

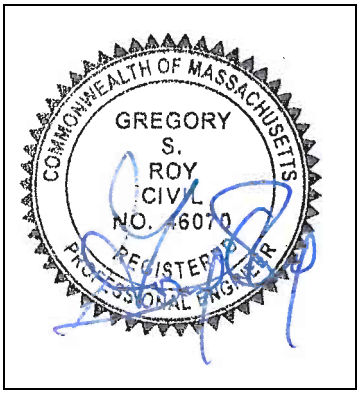
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the item is not applicable (N.A.) and provide the reasons for that determination.

A complete checklist must include the Certification set forth below signed by the Registered Professional Engineer who prepared the Stormwater Report.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included), the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement (if included) and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature



Aug. 20, 2025

Signature and Date

Checklist

Project Type: Is the application for new development, redevelopment, or a mix of new and redevelopment?

- ☐ New development
- ☑ Redevelopment
- ☐ Mix of New Development and Redevelopment

Although the project would meet the standards as a redevelopment project, the site stormwater system has been designed to fully comply with new construction standards.

Checklist for Stormwater Report

Checklist (continued)

LID Measures: Stormwater Standards require LID measures to be considered. Document what environmentally sensitive design and LID Techniques were considered during the planning and design of the project:

- [x] No disturbance to any Wetland Resource Areas
- [ ] Site Design Practices (e.g. clustered development, reduced frontage setbacks)
- [ ] Reduced Impervious Area (Redevelopment Only)
- [ ] Minimizing disturbance to existing trees and shrubs
- [ ] LID Site Design Credit Requested:
  - [ ] Credit 1
  - [ ] Credit 2
  - [ ] Credit 3
- [ ] Use of "country drainage" versus curb and gutter conveyance and pipe
- [ ] Bioretention Cells (includes Rain Gardens)
- [ ] Constructed Stormwater Wetlands (includes Gravel Wetlands designs)
- [ ] Treebox Filter
- [ ] Water Quality Swale
- [x] Grass Channel
- [ ] Green Roof
- [x] Other (describe): Constructed Stormwater Wetlands, Wet Detention Basin

Standard 1: No New Untreated Discharges

- [x] No new untreated discharges
- [x] Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth
- [x] Supporting calculations specified in Volume 3 of the Massachusetts Stormwater Handbook included.

Checklist for Stormwater Report

Checklist (continued)

Standard 2: Peak Rate Attenuation

- ☐ Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.
- ☑ Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.
- ☑ Calculations provided to show that post-development peak discharge rates do not exceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

Standard 3: Recharge

The recharge standard is being met in virtue of the fact that the impervious area is being reduced on the site. The following table shows a summary of the existing and proposed runoff volumes being discharged offsite. In all design storms, the amount of runoff volume is being reduced under the proposed site conditions. This means that more stormwater is being recharged on site as compared to the preexisting conditions.

- ☑ Soil Analysis provided.
- ☑ Required Recharge Volume calculation provided.
- ☐ Required Recharge volume reduced through use of the LID site Design Credits.
- ☑ Sizing the infiltration, BMPs is based on the following method: Check the method used.
  - ☑ Static ☐ Simple Dynamic ☐ Dynamic Field[1]
- ☐ Runoff from all impervious areas at the site discharging to the infiltration BMP.
- ☐ Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.
- ☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume.
- ☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:
  - ☐ Site is comprised solely of C and D soils and/or bedrock at the land surface
  - ☐ M.G.L. c. 21E sites pursuant to 310 CMR 40.0000
  - ☐ Solid Waste Landfill pursuant to 310 CMR 19.000
  - ☐ Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.
- ☑ Calculations showing that the infiltration BMPs will drain in 72 hours are provided.
- ☐ Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

[1] 80% TSS removal is required prior to discharge to infiltration BMP if Dynamic Field method is used.

Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

☑ The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.

☑ Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

Standard 4: Water Quality

The Long-Term Pollution Prevention Plan typically includes the following:

- Good housekeeping practices;
- Provisions for storing materials and waste products inside or under cover;
- Vehicle washing controls;
- Requirements for routine inspections and maintenance of stormwater BMPs;
- Spill prevention and response plans;
- Provisions for maintenance of lawns, gardens, and other landscaped areas;
- Requirements for storage and use of fertilizers, herbicides, and pesticides;
- Pet waste management provisions;
- Provisions for operation and management of septic systems;
- Provisions for solid waste management;
- Snow disposal and plowing plans relative to Wetland Resource Areas;
- Winter Road Salt and/or Sand Use and Storage restrictions;
- Street sweeping schedules;
- Provisions for prevention of illicit discharges to the stormwater management system;
- Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
- Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
- List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.

☑ A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.

☑ Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:

- ☐ is within the Zone II or Interim Wellhead Protection Area
- ☐ is near or to other critical areas
- ☑ is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
- ☐ involves runoff from land uses with higher potential pollutant loads.

☐ The Required Water Quality Volume is reduced through use of the LID site Design Credits.

☑ Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.

Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

☑ The BMP is sized (and calculations provided) based on:

- ☑ The ½" or 1" Water Quality Volume or
- ☐ The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.

☑ The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.

☐ A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs)

☐ The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.

☐ The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted ***prior to*** the discharge of stormwater to the post-construction stormwater BMPs.

☐ The NPDES Multi-Sector General Permit does ***not*** cover the land use.

☐ LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.

☐ All exposure has been eliminated.

☐ All exposure has ***not*** been eliminated and all BMPs selected are on MassDEP LUHPPL list.

☐ The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

Standard 6: Critical Areas

☑ The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.

☑ Critical areas and BMPs are identified in the Stormwater Report.

Checklist for Stormwater Report

Checklist (continued)

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable

☐ The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:

- ☐ Limited Project
- ☐ Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
- ☐ Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
- ☐ Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
- ☐ Bike Path and/or Foot Path
- ☐ Redevelopment Project
- ☐ Redevelopment portion of mix of new and redevelopment.

☐ Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.

☐ The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include the following information:

- Narrative;
- Construction Period Operation and Maintenance Plan;
- Names of Persons or Entity Responsible for Plan Compliance;
- Construction Period Pollution Prevention Measures;
- Erosion and Sedimentation Control Plan Drawings;
- Detail drawings and specifications for erosion control BMPs, including sizing calculations;
- Vegetation Planning;
- Site Development Plan;
- Construction Sequencing Plan;
- Sequencing of Erosion and Sedimentation Controls;
- Operation and Maintenance of Erosion and Sedimentation Controls;
- Inspection Schedule;
- Maintenance Schedule;
- Inspection and Maintenance Log Form.

☐ A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.

Checklist for Stormwater Report

Checklist (continued)

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control (continued)

☐ The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has ***not*** been included in the Stormwater Report but will be submitted ***before*** land disturbance begins.

☐ The project is ***not*** covered by a NPDES Construction General Permit.

☐ The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.

☑ The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

Standard 9: Operation and Maintenance Plan

☑ The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:

- ☑ Name of the stormwater management system owners;
- ☑ Party responsible for operation and maintenance;
- ☑ Schedule for implementation of routine and non-routine maintenance tasks;
- ☑ Plan showing the location of all stormwater BMPs maintenance access areas;
- ☑ Description and delineation of public safety features;
- ☑ Estimated operation and maintenance budget; and
- ☑ Operation and Maintenance Log Form.

☐ The responsible party is ***not*** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:

- ☐ A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
- ☐ A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

Standard 10: Prohibition of Illicit Discharges

☐ The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;

☐ An Illicit Discharge Compliance Statement is attached;

☑ NO Illicit Discharge Compliance Statement is attached but will be submitted ***prior to*** the discharge of any stormwater to post-construction BMPs.

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Appendix C - Soils Data

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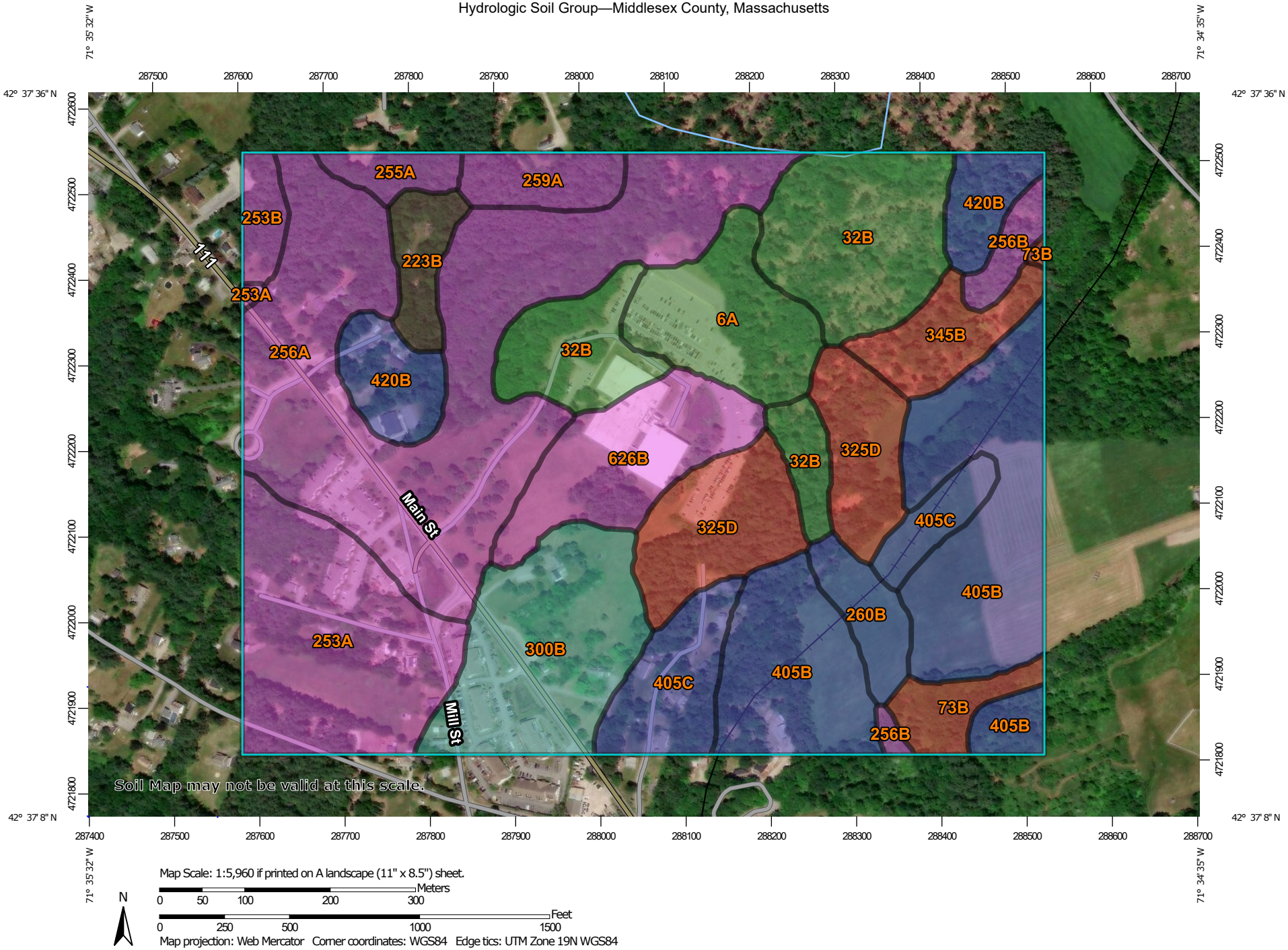

71° 35' 32" W
71° 34' 35" W
42° 37' 36" N
42° 37' 8" N
287500
287600
287700
287800
287900
288000
288100
288200
288300
288400
288500
288600
288700
4722600
4722500
4722400
4722300
4722200
4722100
4722000
4721900
4721800
255A
259A
253B
223B
420B
32B
256B
73B
111
253A
6A
345B
256A
32B
420B
626B
32B
325D
Main St
325D
405C
405B
260B
253A
300B
405C
405B
73B
Mill St
256B
405B
Soil Map may not be valid at this scale.
Map Scale: 1:5,960 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0 50 100 200 300
Feet
0 250 500 1000 1500
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 Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

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 1:25,000.

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: Middlesex County, Massachusetts
Survey Area Data: Version 20, Jun 9, 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 imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
6A	Scarboro mucky fine sandy loam, 0 to 3 percent slopes	A/D	7.7	4.7%
32B	Wareham loamy fine sand, 0 to 5 percent slopes	A/D	17.1	10.4%
73B	Whitman fine sandy loam, 0 to 3 percent slopes, extremely stony	D	2.6	1.6%
223B	Scio very fine sandy loam, 3 to 8 percent slopes	B/D	2.8	1.7%
253A	Hinckley loamy sand, 0 to 3 percent slopes	A	15.1	9.2%
253B	Hinckley loamy sand, 3 to 8 percent slopes	A	1.8	1.1%
255A	Windsor loamy sand, 0 to 3 percent slopes	A	1.8	1.1%
256A	Deerfield loamy fine sand, 0 to 3 percent slopes	A	34.5	21.0%
256B	Deerfield loamy fine sand, 3 to 8 percent slopes	A	2.0	1.2%
259A	Carver loamy coarse sand, 0 to 3 percent slopes	A	3.1	1.9%
260B	Sudbury fine sandy loam, 3 to 8 percent slopes	B	2.9	1.8%
300B	Montauk fine sandy loam, 3 to 8 percent slopes	C	12.3	7.5%
325D	Newport channery fine sandy loam, 8 to 25 percent slopes	D	11.5	7.0%
345B	Pittstown silt loam, 3 to 8 percent slopes	D	4.1	2.5%
405B	Charlton fine sandy loam, 3 to 8 percent slopes	B	23.2	14.1%
405C	Charlton fine sandy loam, 8 to 15 percent slopes	B	7.4	4.5%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
420B	Canton fine sandy loam, 3 to 8 percent slopes	B	6.1	3.7%
626B	Merrimac-Urban land complex, 0 to 8 percent slopes	A	8.4	5.1%
Totals for Area of Interest			**164.2**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Commonwealth of Massachusetts
City/Town of Bolton
Form 11 - Soil Suitability Assessment of On-Site Sewage Disposal

Deep Observation Hole Number: 1, 2, 3 SAME

11/23/22

Depth (In.)	Soil Horizon/Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
12	AP	10YR 3/4				SL					
30	BW	10YR 5/6	5YR 5/8	30"	± 50	LS					
84	C	2.5Y 6/4				MED SAND					
			KEEPING / STANDING WATER @ 66"								

Additional Notes: _____

Commonwealth of Massachusetts
City/Town of Bolton
Form 11 - Soil Suitability Assessment of On-Site Sewage Disposal

Deep Observation Hole Number: 4 5 6 ~~3 4 5~~

Depth (In.)			Soil Horizon/Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
					Depth	Color	Percent		Gravel	Cobbles & Stones			
48"	36	48	HTM/A mix	10YR 3/4									
66	66	66	Bw	10YR 5/6	66"	5YR 5/8	± 50						
96	96	108	C	25y 6/4									

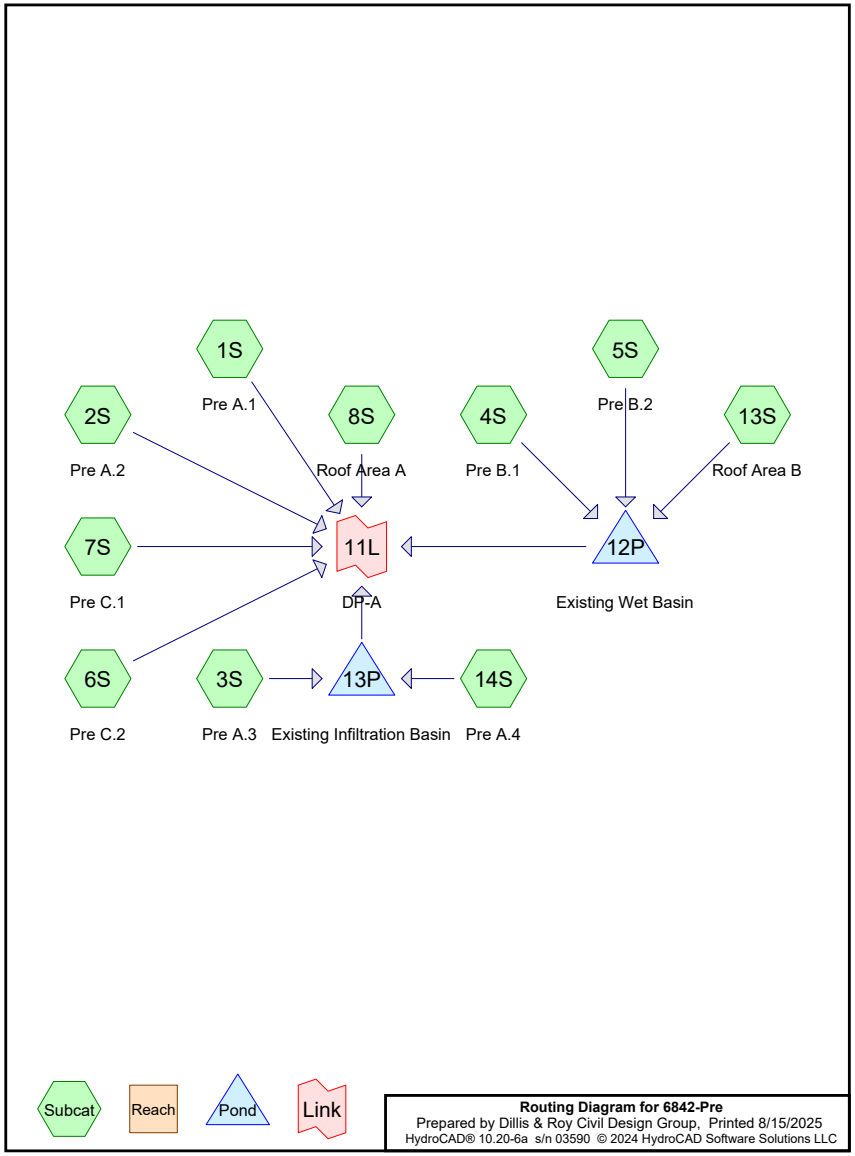
4 5 6 Additional Notes:

4 WEEP 24

5 WEEP 90

6 WEEP 102

Appendix D - Existing Conditions Hydrologic Calculations



Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Pre A.1 Runoff Area=242,230 sf 49.29% Impervious Runoff Depth=1.66"
Flow Length=298' Tc=10.8 min CN=86 Runoff=9.16 cfs 0.770 af

Subcatchment2S: Pre A.2 Runoff Area=289,668 sf 0.00% Impervious Runoff Depth=0.25"
Flow Length=658' Tc=28.0 min CN=57 Runoff=0.53 cfs 0.136 af

Subcatchment3S: Pre A.3 Runoff Area=19,199 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=1.25 cfs 0.102 af

Subcatchment4S: Pre B.1 Runoff Area=220,300 sf 66.26% Impervious Runoff Depth=2.07"
Flow Length=736' Tc=24.4 min CN=91 Runoff=7.52 cfs 0.873 af

Subcatchment5S: Pre B.2 Runoff Area=71,871 sf 5.57% Impervious Runoff Depth=0.71"
Flow Length=416' Tc=12.4 min UI Adjusted CN=70 Runoff=0.96 cfs 0.098 af

Subcatchment6S: Pre C.2 Runoff Area=100,825 sf 0.00% Impervious Runoff Depth=0.91"
Flow Length=364' Tc=16.2 min CN=74 Runoff=1.67 cfs 0.175 af

Subcatchment7S: Pre C.1 Runoff Area=258,507 sf 5.40% Impervious Runoff Depth=0.96"
Flow Length=754' Tc=15.2 min CN=75 Runoff=4.68 cfs 0.475 af

Subcatchment8S: Roof Area A Runoff Area=71,756 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=4.68 cfs 0.380 af

Subcatchment13S: Roof Area B Runoff Area=29,814 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=1.94 cfs 0.158 af

Subcatchment14S: Pre A.4 Runoff Area=31,394 sf 0.00% Impervious Runoff Depth=0.01"
Tc=6.0 min CN=43 Runoff=0.00 cfs 0.001 af

Pond 12P: Existing Wet Basin Peak Elev=214.92' Storage=11,331 cf Inflow=9.06 cfs 1.129 af
15.0" Round Culvert n=0.013 L=517.0' S=0.0011 '/' Outflow=3.60 cfs 1.129 af

Pond 13P: Existing Infiltration Basin Peak Elev=212.92' Storage=1,264 cf Inflow=1.25 cfs 0.102 af
Discarded=0.22 cfs 0.101 af Primary=0.03 cfs 0.001 af Outflow=0.25 cfs 0.102 af

Link 11L: DP-A Inflow=20.88 cfs 3.067 af
Primary=20.88 cfs 3.067 af

Total Runoff Area = 30.660 ac Runoff Volume = 3.168 af Average Runoff Depth = 1.24"
69.74% Pervious = 21.383 ac 30.26% Impervious = 9.277 ac

Summary for Subcatchment 1S: Pre A.1

Runoff = 9.16 cfs @ 12.15 hrs, Volume= 0.770 af, Depth= 1.66"
Routed to Link 11L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
*	71,903	98	Paved parking, HSG A
	41,850	98	Paved parking, HSG B
*	45,336	68	>75% Grass cover, Good, HSG A
*	77,493	79	>75% Grass cover, Good, HSG B
	485	98	Unconnected pavement, HSG A
	5,163	98	Unconnected pavement, HSG B
	242,230	86	Weighted Average
	122,829		50.71% Pervious Area
	119,401		49.29% Impervious Area
	5,648		4.73% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	50	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.95"
2.9	223	0.0330	1.27		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.2	25	0.0081	1.83		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.8	298	Total			

Summary for Subcatchment 2S: Pre A.2

Runoff = 0.53 cfs @ 12.65 hrs, Volume= 0.136 af, Depth= 0.25"
Routed to Link 11L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
*	78,930	30	Woods, Good, HSG A
	49,074	55	Woods, Good, HSG B
	31,909	77	Woods, Good, HSG D
*	116,373	68	>75% Grass cover, Good, HSG A
*	13,268	79	>75% Grass cover, Good, HSG B
*	114	89	>75% Grass cover, Good, HSG D
	289,668	57	Weighted Average
	289,668		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.8	50	0.0600	0.22		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.95"
21.0	536	0.0037	0.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.2	72	0.0055	0.37		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
28.0	658	Total			

Summary for Subcatchment 3S: Pre A.3

Runoff = 1.25 cfs @ 12.09 hrs, Volume= 0.102 af, Depth= 2.77"
Routed to Pond 13P : Existing Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
19,199	98	Paved parking, HSG A
19,199		100.00% Impervious Area

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

Summary for Subcatchment 4S: Pre B.1

Runoff = 7.52 cfs @ 12.33 hrs, Volume= 0.873 af, Depth= 2.07"
Routed to Pond 12P : Existing Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
	59,394	98	Paved parking, HSG A
	49,116	98	Paved parking, HSG B
	36,430	98	Paved parking, HSG D
*	3,947	68	>75% Grass cover, Good, HSG A
*	9,665	79	>75% Grass cover, Good, HSG B
*	556	89	>75% Grass cover, Good, HSG D
	1,032	98	Unconnected pavement, HSG B
	60,160	77	Woods, Good, HSG D
	220,300	91	Weighted Average
	74,328		33.74% Pervious Area
	145,972		66.26% Impervious Area
	1,032		0.71% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.0	50	0.0300	0.04		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.95"
3.0	100	0.0500	0.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.4	586	0.0410	4.11		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
24.4	736	Total			

Summary for Subcatchment 5S: Pre B.2

Runoff = 0.96 cfs @ 12.20 hrs, Volume= 0.098 af, Depth= 0.71"
Routed to Pond 12P : Existing Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Adj	Description
*	16,037	79		>75% Grass cover, Good, HSG B
*	15,072	89		>75% Grass cover, Good, HSG D
	2,551	98		Unconnected pavement, HSG B
	1,451	98		Unconnected pavement, HSG D
	32,793	55		Woods, Good, HSG B
	3,967	77		Woods, Good, HSG D
	71,871	71	70	Weighted Average, UI Adjusted
	67,869			94.43% Pervious Area
	4,002			5.57% Impervious Area
	4,002			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	50	0.0780	0.11		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.95"
0.1	10	0.1000	1.58		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.2	39	0.3230	2.84		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.8	165	0.0380	0.97		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.2	10	0.0200	0.71		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.8	55	0.0520	1.14		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.8	87	0.1430	1.89		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
12.4	416	Total			

Summary for Subcatchment 6S: Pre C.2

Runoff = 1.67 cfs @ 12.25 hrs, Volume= 0.175 af, Depth= 0.91"
Routed to Link 11L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
	26,537	55	Woods, Good, HSG B
	2,127	77	Woods, Good, HSG D
*	62,399	79	>75% Grass cover, Good, HSG B
*	9,762	89	>75% Grass cover, Good, HSG D
	100,825	74	Weighted Average
	100,825		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	18	0.0160	0.03		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.95"
2.5	33	0.0730	0.22		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.95"
0.8	121	0.1440	2.66		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	10	0.1790	2.12		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.3	41	0.1260	2.48		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.5	125	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.1	6	0.0170	0.91		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.0	5	0.0210	2.94		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	5	0.0190	0.96		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
16.2	364	Total			

Summary for Subcatchment 7S: Pre C.1

Runoff = 4.68 cfs @ 12.23 hrs, Volume= 0.475 af, Depth= 0.96"
Routed to Link 11L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
*	78,314	68	>75% Grass cover, Good, HSG A
*	147,609	79	>75% Grass cover, Good, HSG B
	2,514	98	Roofs, HSG B
	11,441	98	Paved parking, HSG B
	18,629	55	Woods, Good, HSG B
	258,507	75	Weighted Average
	244,552		94.60% Pervious Area
	13,955		5.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	10	0.1000	0.09		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.95"
2.7	40	0.0900	0.25		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.95"
1.1	120	0.0700	1.85		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	36	0.0650	1.27		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.6	175	0.0650	1.78		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.0	5	0.0190	2.80		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
7.4	368	0.0140	0.83		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
15.2	754	Total			

Summary for Subcatchment 8S: Roof Area A

Runoff = 4.68 cfs @ 12.09 hrs, Volume= 0.380 af, Depth= 2.77"
Routed to Link 11L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
71,756	98	Roofs, HSG B
71,756		100.00% Impervious Area

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

Summary for Subcatchment 13S: Roof Area B

Runoff = 1.94 cfs @ 12.09 hrs, Volume= 0.158 af, Depth= 2.77"
Routed to Pond 12P : Existing Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
29,814	98	Roofs, HSG B
29,814		100.00% Impervious Area

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

Summary for Subcatchment 14S: Pre A.4

Runoff = 0.00 cfs @ 22.18 hrs, Volume= 0.001 af, Depth= 0.01"
Routed to Pond 13P : Existing Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
*	10,963	68	>75% Grass cover, Good, HSG A
	20,431	30	Woods, Good, HSG A
	31,394	43	Weighted Average
	31,394		100.00% Pervious Area

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

Summary for Pond 12P: Existing Wet Basin

Inflow Area = 7.392 ac, 55.84% Impervious, Inflow Depth = 1.83" for 2-yr event
Inflow = 9.06 cfs @ 12.31 hrs, Volume= 1.129 af
Outflow = 3.60 cfs @ 12.77 hrs, Volume= 1.129 af, Atten= 60%, Lag= 27.7 min
Primary = 3.60 cfs @ 12.77 hrs, Volume= 1.129 af
Routed to Link 11L : DP-A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 214.92' @ 12.77 hrs Surf.Area= 13,149 sf Storage= 11,331 cf

Plug-Flow detention time= 22.6 min calculated for 1.128 af (100% of inflow)
Center-of-Mass det. time= 22.6 min (841.2 - 818.6)

Volume	Invert	Avail.Storage	Storage Description
#1	212.30'	64,778 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
212.30	50	75.0	0	0	50
213.00	556	100.0	180	180	403
214.00	5,786	393.0	2,712	2,892	11,901
215.00	13,981	580.0	9,587	12,479	26,388
216.00	19,970	757.0	16,887	29,366	45,232
217.00	53,560	1,442.0	35,412	64,778	165,106

Device	Routing	Invert	Outlet Devices
#1	Primary	212.37'	**15.0" Round Culvert** L= 517.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 212.37' / 211.80' S= 0.0011 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 1.23 sf

Primary OutFlow Max=3.60 cfs @ 12.77 hrs HW=214.91' (Free Discharge)
└**1=Culvert** (Barrel Controls 3.60 cfs @ 2.93 fps)

Summary for Pond 13P: Existing Infiltration Basin

Inflow Area = 1.161 ac, 37.95% Impervious, Inflow Depth = 1.06" for 2-yr event
Inflow = 1.25 cfs @ 12.09 hrs, Volume= 0.102 af
Outflow = 0.25 cfs @ 12.52 hrs, Volume= 0.102 af, Atten= 80%, Lag= 25.9 min
Discarded = 0.22 cfs @ 12.52 hrs, Volume= 0.101 af
Primary = 0.03 cfs @ 12.52 hrs, Volume= 0.001 af
Routed to Link 11L : DP-A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 212.92' @ 12.52 hrs Surf.Area= 3,299 sf Storage= 1,264 cf

Plug-Flow detention time= 38.4 min calculated for 0.102 af (100% of inflow)
Center-of-Mass det. time= 38.4 min (798.7 - 760.3)

Volume	Invert	Avail.Storage	Storage Description
#1	212.50'	11,128 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
212.50	2,793	372.0	0	0	2,793
213.00	3,407	450.0	1,547	1,547	7,899
214.00	4,790	473.0	4,079	5,626	9,651
215.00	6,246	497.0	5,502	11,128	11,566

Device	Routing	Invert	Outlet Devices
#1	Primary	212.83'	**15.0" Round Culvert** L= 90.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 212.83' / 210.39' S= 0.0271 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Discarded	212.50'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 210.40'
#3	Device 1	212.63'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.22 cfs @ 12.52 hrs HW=212.92' (Free Discharge)
└**2=Exfiltration** (Controls 0.22 cfs)

Primary OutFlow Max=0.03 cfs @ 12.52 hrs HW=212.92' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.03 cfs @ 0.78 fps)
└**3=Orifice/Grate** (Passes 0.03 cfs of 0.07 cfs potential flow)

Summary for Link 11L: DP-A

Inflow Area = 30.660 ac, 30.26% Impervious, Inflow Depth = 1.20" for 2-yr event
Inflow = 20.88 cfs @ 12.16 hrs, Volume= 3.067 af
Primary = 20.88 cfs @ 12.16 hrs, Volume= 3.067 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Pre A.1 Runoff Area=242,230 sf 49.29% Impervious Runoff Depth=2.95"
Flow Length=298' Tc=10.8 min CN=86 Runoff=16.13 cfs 1.366 af

Subcatchment2S: Pre A.2 Runoff Area=289,668 sf 0.00% Impervious Runoff Depth=0.82"
Flow Length=658' Tc=28.0 min CN=57 Runoff=2.93 cfs 0.455 af

Subcatchment3S: Pre A.3 Runoff Area=19,199 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=1.87 cfs 0.154 af

Subcatchment4S: Pre B.1 Runoff Area=220,300 sf 66.26% Impervious Runoff Depth=3.44"
Flow Length=736' Tc=24.4 min CN=91 Runoff=12.26 cfs 1.450 af

Subcatchment5S: Pre B.2 Runoff Area=71,871 sf 5.57% Impervious Runoff Depth=1.63"
Flow Length=416' Tc=12.4 min UI Adjusted CN=70 Runoff=2.44 cfs 0.224 af

Subcatchment6S: Pre C.2 Runoff Area=100,825 sf 0.00% Impervious Runoff Depth=1.93"
Flow Length=364' Tc=16.2 min CN=74 Runoff=3.75 cfs 0.372 af

Subcatchment7S: Pre C.1 Runoff Area=258,507 sf 5.40% Impervious Runoff Depth=2.00"
Flow Length=754' Tc=15.2 min CN=75 Runoff=10.34 cfs 0.991 af

Subcatchment8S: Roof Area A Runoff Area=71,756 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=6.98 cfs 0.577 af

Subcatchment13S: Roof Area B Runoff Area=29,814 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=2.90 cfs 0.240 af

Subcatchment14S: Pre A.4 Runoff Area=31,394 sf 0.00% Impervious Runoff Depth=0.21"
Tc=6.0 min CN=43 Runoff=0.04 cfs 0.013 af

Pond 12P: Existing Wet Basin Peak Elev=215.76' Storage=24,747 cf Inflow=15.28 cfs 1.914 af
15.0" Round Culvert n=0.013 L=517.0' S=0.0011 '/' Outflow=4.34 cfs 1.914 af

Pond 13P: Existing Infiltration Basin Peak Elev=213.14' Storage=2,039 cf Inflow=1.87 cfs 0.167 af
Discarded=0.25 cfs 0.151 af Primary=0.13 cfs 0.016 af Outflow=0.39 cfs 0.167 af

Link 11L: DP-A Inflow=38.37 cfs 5.690 af
Primary=38.37 cfs 5.690 af

Total Runoff Area = 30.660 ac Runoff Volume = 5.841 af Average Runoff Depth = 2.29"
69.74% Pervious = 21.383 ac 30.26% Impervious = 9.277 ac

Summary for Subcatchment 1S: Pre A.1

Runoff = 16.13 cfs @ 12.15 hrs, Volume= 1.366 af, Depth= 2.95"
Routed to Link 11L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
*	71,903	98	Paved parking, HSG A
	41,850	98	Paved parking, HSG B
*	45,336	68	>75% Grass cover, Good, HSG A
*	77,493	79	>75% Grass cover, Good, HSG B
	485	98	Unconnected pavement, HSG A
	5,163	98	Unconnected pavement, HSG B
	242,230	86	Weighted Average
	122,829		50.71% Pervious Area
	119,401		49.29% Impervious Area
	5,648		4.73% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	50	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.95"
2.9	223	0.0330	1.27		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.2	25	0.0081	1.83		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.8	298	Total			

Summary for Subcatchment 2S: Pre A.2

Runoff = 2.93 cfs @ 12.49 hrs, Volume= 0.455 af, Depth= 0.82"
Routed to Link 11L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
*	78,930	30	Woods, Good, HSG A
	49,074	55	Woods, Good, HSG B
	31,909	77	Woods, Good, HSG D
*	116,373	68	>75% Grass cover, Good, HSG A
*	13,268	79	>75% Grass cover, Good, HSG B
*	114	89	>75% Grass cover, Good, HSG D
	289,668	57	Weighted Average
	289,668		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.8	50	0.0600	0.22		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.95"
21.0	536	0.0037	0.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.2	72	0.0055	0.37		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
28.0	658	Total			

Summary for Subcatchment 3S: Pre A.3

Runoff = 1.87 cfs @ 12.09 hrs, Volume= 0.154 af, Depth= 4.20"
Routed to Pond 13P : Existing Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
	19,199	98	Paved parking, HSG A
	19,199		100.00% Impervious Area

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

Summary for Subcatchment 4S: Pre B.1

Runoff = 12.26 cfs @ 12.33 hrs, Volume= 1.450 af, Depth= 3.44"
Routed to Pond 12P : Existing Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
	59,394	98	Paved parking, HSG A
	49,116	98	Paved parking, HSG B
	36,430	98	Paved parking, HSG D
*	3,947	68	>75% Grass cover, Good, HSG A
*	9,665	79	>75% Grass cover, Good, HSG B
*	556	89	>75% Grass cover, Good, HSG D
	1,032	98	Unconnected pavement, HSG B
	60,160	77	Woods, Good, HSG D
	220,300	91	Weighted Average
	74,328		33.74% Pervious Area
	145,972		66.26% Impervious Area
	1,032		0.71% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.0	50	0.0300	0.04		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.95"
3.0	100	0.0500	0.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.4	586	0.0410	4.11		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
24.4	736	Total			

Summary for Subcatchment 5S: Pre B.2

Runoff = 2.44 cfs @ 12.18 hrs, Volume= 0.224 af, Depth= 1.63"
Routed to Pond 12P : Existing Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Adj	Description
*	16,037	79		>75% Grass cover, Good, HSG B
*	15,072	89		>75% Grass cover, Good, HSG D
	2,551	98		Unconnected pavement, HSG B
	1,451	98		Unconnected pavement, HSG D
	32,793	55		Woods, Good, HSG B
	3,967	77		Woods, Good, HSG D
	71,871	71	70	Weighted Average, UI Adjusted
	67,869			94.43% Pervious Area
	4,002			5.57% Impervious Area
	4,002			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	50	0.0780	0.11		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.95"
0.1	10	0.1000	1.58		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.2	39	0.3230	2.84		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.8	165	0.0380	0.97		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.2	10	0.0200	0.71		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.8	55	0.0520	1.14		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.8	87	0.1430	1.89		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
12.4	416	Total			

Summary for Subcatchment 6S: Pre C.2

Runoff = 3.75 cfs @ 12.23 hrs, Volume= 0.372 af, Depth= 1.93"
Routed to Link 11L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
	26,537	55	Woods, Good, HSG B
	2,127	77	Woods, Good, HSG D
*	62,399	79	>75% Grass cover, Good, HSG B
*	9,762	89	>75% Grass cover, Good, HSG D
	100,825	74	Weighted Average
	100,825		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	18	0.0160	0.03		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.95"
2.5	33	0.0730	0.22		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.95"
0.8	121	0.1440	2.66		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	10	0.1790	2.12		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.3	41	0.1260	2.48		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.5	125	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.1	6	0.0170	0.91		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.0	5	0.0210	2.94		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	5	0.0190	0.96		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
16.2	364	Total			

Summary for Subcatchment 7S: Pre C.1

Runoff = 10.34 cfs @ 12.22 hrs, Volume= 0.991 af, Depth= 2.00"
Routed to Link 11L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
*	78,314	68	>75% Grass cover, Good, HSG A
*	147,609	79	>75% Grass cover, Good, HSG B
	2,514	98	Roofs, HSG B
	11,441	98	Paved parking, HSG B
	18,629	55	Woods, Good, HSG B
	258,507	75	Weighted Average
	244,552		94.60% Pervious Area
	13,955		5.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	10	0.1000	0.09		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.95"
2.7	40	0.0900	0.25		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.95"
1.1	120	0.0700	1.85		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	36	0.0650	1.27		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.6	175	0.0650	1.78		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.0	5	0.0190	2.80		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
7.4	368	0.0140	0.83		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
15.2	754	Total			

Summary for Subcatchment 8S: Roof Area A

Runoff = 6.98 cfs @ 12.09 hrs, Volume= 0.577 af, Depth= 4.20"
Routed to Link 11L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
	71,756	98	Roofs, HSG B
	71,756		100.00% Impervious Area

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

Summary for Subcatchment 13S: Roof Area B

Runoff = 2.90 cfs @ 12.09 hrs, Volume= 0.240 af, Depth= 4.20"
Routed to Pond 12P : Existing Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

Area (sf)	CN	Description
29,814	98	Roofs, HSG B
29,814		100.00% Impervious Area

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

Summary for Subcatchment 14S: Pre A.4

Runoff = 0.04 cfs @ 12.44 hrs, Volume= 0.013 af, Depth= 0.21"
Routed to Pond 13P : Existing Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
*	10,963	68	>75% Grass cover, Good, HSG A
	20,431	30	Woods, Good, HSG A
	31,394	43	Weighted Average
	31,394		100.00% Pervious Area

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

Summary for Pond 12P: Existing Wet Basin

Inflow Area = 7.392 ac, 55.84% Impervious, Inflow Depth = 3.11" for 10-yr event
Inflow = 15.28 cfs @ 12.29 hrs, Volume= 1.914 af
Outflow = 4.34 cfs @ 12.89 hrs, Volume= 1.914 af, Atten= 72%, Lag= 35.8 min
Primary = 4.34 cfs @ 12.89 hrs, Volume= 1.914 af
Routed to Link 11L : DP-A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.76' @ 12.89 hrs Surf.Area= 18,432 sf Storage= 24,747 cf

Plug-Flow detention time= 44.0 min calculated for 1.914 af (100% of inflow)
Center-of-Mass det. time= 43.6 min (850.3 - 806.8)

Volume	Invert	Avail.Storage	Storage Description
#1	212.30'	64,778 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
212.30	50	75.0	0	0	50
213.00	556	100.0	180	180	403
214.00	5,786	393.0	2,712	2,892	11,901
215.00	13,981	580.0	9,587	12,479	26,388
216.00	19,970	757.0	16,887	29,366	45,232
217.00	53,560	1,442.0	35,412	64,778	165,106

Device	Routing	Invert	Outlet Devices
#1	Primary	212.37'	**15.0" Round Culvert** L= 517.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 212.37' / 211.80' S= 0.0011 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 1.23 sf

Primary OutFlow Max=4.34 cfs @ 12.89 hrs HW=215.76' (Free Discharge)
↑**1=Culvert** (Barrel Controls 4.34 cfs @ 3.54 fps)

Summary for Pond 13P: Existing Infiltration Basin

Inflow Area = 1.161 ac, 37.95% Impervious, Inflow Depth = 1.73" for 10-yr event
Inflow = 1.87 cfs @ 12.09 hrs, Volume= 0.167 af
Outflow = 0.39 cfs @ 12.53 hrs, Volume= 0.167 af, Atten= 79%, Lag= 26.4 min
Discarded = 0.25 cfs @ 12.53 hrs, Volume= 0.151 af
Primary = 0.13 cfs @ 12.53 hrs, Volume= 0.016 af
Routed to Link 11L : DP-A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 213.14' @ 12.53 hrs Surf.Area= 3,587 sf Storage= 2,039 cf

Plug-Flow detention time= 47.4 min calculated for 0.167 af (100% of inflow)
Center-of-Mass det. time= 47.4 min (816.2 - 768.8)

Volume	Invert	Avail.Storage	Storage Description
#1	212.50'	11,128 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
212.50	2,793	372.0	0	0	2,793
213.00	3,407	450.0	1,547	1,547	7,899
214.00	4,790	473.0	4,079	5,626	9,651
215.00	6,246	497.0	5,502	11,128	11,566

Device	Routing	Invert	Outlet Devices
#1	Primary	212.83'	**15.0" Round Culvert** L= 90.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 212.83' / 210.39' S= 0.0271 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Discarded	212.50'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 210.40'
#3	Device 1	212.63'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.25 cfs @ 12.53 hrs HW=213.14' (Free Discharge)
└**2=Exfiltration** (Controls 0.25 cfs)

Primary OutFlow Max=0.13 cfs @ 12.53 hrs HW=213.14' (Free Discharge)
└**1=Culvert** (Passes 0.13 cfs of 0.36 cfs potential flow)
└**3=Orifice/Grate** (Orifice Controls 0.13 cfs @ 2.68 fps)

Summary for Link 11L: DP-A

Inflow Area = 30.660 ac, 30.26% Impervious, Inflow Depth = 2.23" for 10-yr event
Inflow = 38.37 cfs @ 12.17 hrs, Volume= 5.690 af
Primary = 38.37 cfs @ 12.17 hrs, Volume= 5.690 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Pre A.1 Runoff Area=242,230 sf 49.29% Impervious Runoff Depth=3.98"
Flow Length=298' Tc=10.8 min CN=86 Runoff=21.57 cfs 1.846 af

Subcatchment2S: Pre A.2 Runoff Area=289,668 sf 0.00% Impervious Runoff Depth=1.41"
Flow Length=658' Tc=28.0 min CN=57 Runoff=5.69 cfs 0.781 af

Subcatchment3S: Pre A.3 Runoff Area=19,199 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=2.34 cfs 0.195 af

Subcatchment4S: Pre B.1 Runoff Area=220,300 sf 66.26% Impervious Runoff Depth=4.52"
Flow Length=736' Tc=24.4 min CN=91 Runoff=15.90 cfs 1.904 af

Subcatchment5S: Pre B.2 Runoff Area=71,871 sf 5.57% Impervious Runoff Depth=2.45"
Flow Length=416' Tc=12.4 min UI Adjusted CN=70 Runoff=3.76 cfs 0.337 af

Subcatchment6S: Pre C.2 Runoff Area=100,825 sf 0.00% Impervious Runoff Depth=2.81"
Flow Length=364' Tc=16.2 min CN=74 Runoff=5.54 cfs 0.542 af

Subcatchment7S: Pre C.1 Runoff Area=258,507 sf 5.40% Impervious Runoff Depth=2.90"
Flow Length=754' Tc=15.2 min CN=75 Runoff=15.13 cfs 1.435 af

Subcatchment8S: Roof Area A Runoff Area=71,756 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=8.74 cfs 0.729 af

Subcatchment13S: Roof Area B Runoff Area=29,814 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=3.63 cfs 0.303 af

Subcatchment14S: Pre A.4 Runoff Area=31,394 sf 0.00% Impervious Runoff Depth=0.52"
Tc=6.0 min CN=43 Runoff=0.17 cfs 0.031 af

Pond 12P: Existing Wet Basin Peak Elev=216.30' Storage=36,550 cf Inflow=20.19 cfs 2.544 af
15.0" Round Culvert n=0.013 L=517.0' S=0.0011 '/' Outflow=4.75 cfs 2.544 af

Pond 13P: Existing Infiltration Basin Peak Elev=213.37' Storage=2,908 cf Inflow=2.44 cfs 0.226 af
Discarded=0.29 cfs 0.193 af Primary=0.17 cfs 0.034 af Outflow=0.47 cfs 0.226 af

Link 11L: DP-A Inflow=53.28 cfs 7.911 af
Primary=53.28 cfs 7.911 af

Total Runoff Area = 30.660 ac Runoff Volume = 8.104 af Average Runoff Depth = 3.17"
69.74% Pervious = 21.383 ac 30.26% Impervious = 9.277 ac

Summary for Subcatchment 1S: Pre A.1

Runoff = 21.57 cfs @ 12.15 hrs, Volume= 1.846 af, Depth= 3.98"
Routed to Link 11L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
*	71,903	98	Paved parking, HSG A
	41,850	98	Paved parking, HSG B
*	45,336	68	>75% Grass cover, Good, HSG A
*	77,493	79	>75% Grass cover, Good, HSG B
	485	98	Unconnected pavement, HSG A
	5,163	98	Unconnected pavement, HSG B
	242,230	86	Weighted Average
	122,829		50.71% Pervious Area
	119,401		49.29% Impervious Area
	5,648		4.73% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	50	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.95"
2.9	223	0.0330	1.27		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.2	25	0.0081	1.83		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.8	298	Total			

Summary for Subcatchment 2S: Pre A.2

Runoff = 5.69 cfs @ 12.45 hrs, Volume= 0.781 af, Depth= 1.41"
Routed to Link 11L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
*	78,930	30	Woods, Good, HSG A
	49,074	55	Woods, Good, HSG B
	31,909	77	Woods, Good, HSG D
*	116,373	68	>75% Grass cover, Good, HSG A
*	13,268	79	>75% Grass cover, Good, HSG B
*	114	89	>75% Grass cover, Good, HSG D
	289,668	57	Weighted Average
	289,668		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.8	50	0.0600	0.22		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.95"
21.0	536	0.0037	0.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.2	72	0.0055	0.37		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
28.0	658	Total			

Summary for Subcatchment 3S: Pre A.3

Runoff = 2.34 cfs @ 12.09 hrs, Volume= 0.195 af, Depth= 5.31"
Routed to Pond 13P : Existing Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

Area (sf)	CN	Description
19,199	98	Paved parking, HSG A
19,199		100.00% Impervious Area

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

Summary for Subcatchment 4S: Pre B.1

Runoff = 15.90 cfs @ 12.32 hrs, Volume= 1.904 af, Depth= 4.52"
Routed to Pond 12P : Existing Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
	59,394	98	Paved parking, HSG A
	49,116	98	Paved parking, HSG B
	36,430	98	Paved parking, HSG D
*	3,947	68	>75% Grass cover, Good, HSG A
*	9,665	79	>75% Grass cover, Good, HSG B
*	556	89	>75% Grass cover, Good, HSG D
	1,032	98	Unconnected pavement, HSG B
	60,160	77	Woods, Good, HSG D
	220,300	91	Weighted Average
	74,328		33.74% Pervious Area
	145,972		66.26% Impervious Area
	1,032		0.71% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.0	50	0.0300	0.04		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.95"
3.0	100	0.0500	0.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.4	586	0.0410	4.11		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
24.4	736	Total			

Summary for Subcatchment 5S: Pre B.2

Runoff = 3.76 cfs @ 12.18 hrs, Volume= 0.337 af, Depth= 2.45"
Routed to Pond 12P : Existing Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Adj	Description
*	16,037	79		>75% Grass cover, Good, HSG B
*	15,072	89		>75% Grass cover, Good, HSG D
	2,551	98		Unconnected pavement, HSG B
	1,451	98		Unconnected pavement, HSG D
	32,793	55		Woods, Good, HSG B
	3,967	77		Woods, Good, HSG D
	71,871	71	70	Weighted Average, UI Adjusted
	67,869			94.43% Pervious Area
	4,002			5.57% Impervious Area
	4,002			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	50	0.0780	0.11		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.95"
0.1	10	0.1000	1.58		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.2	39	0.3230	2.84		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.8	165	0.0380	0.97		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.2	10	0.0200	0.71		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.8	55	0.0520	1.14		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.8	87	0.1430	1.89		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
12.4	416	Total			

Summary for Subcatchment 6S: Pre C.2

Runoff = 5.54 cfs @ 12.23 hrs, Volume= 0.542 af, Depth= 2.81"
Routed to Link 11L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
	26,537	55	Woods, Good, HSG B
	2,127	77	Woods, Good, HSG D
*	62,399	79	>75% Grass cover, Good, HSG B
*	9,762	89	>75% Grass cover, Good, HSG D
	100,825	74	Weighted Average
	100,825		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	18	0.0160	0.03		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.95"
2.5	33	0.0730	0.22		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.95"
0.8	121	0.1440	2.66		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	10	0.1790	2.12		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.3	41	0.1260	2.48		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.5	125	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.1	6	0.0170	0.91		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.0	5	0.0210	2.94		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	5	0.0190	0.96		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
16.2	364	Total			

Summary for Subcatchment 7S: Pre C.1

Runoff = 15.13 cfs @ 12.21 hrs, Volume= 1.435 af, Depth= 2.90"
Routed to Link 11L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
*	78,314	68	>75% Grass cover, Good, HSG A
*	147,609	79	>75% Grass cover, Good, HSG B
	2,514	98	Roofs, HSG B
	11,441	98	Paved parking, HSG B
	18,629	55	Woods, Good, HSG B
	258,507	75	Weighted Average
	244,552		94.60% Pervious Area
	13,955		5.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	10	0.1000	0.09		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.95"
2.7	40	0.0900	0.25		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.95"
1.1	120	0.0700	1.85		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	36	0.0650	1.27		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.6	175	0.0650	1.78		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.0	5	0.0190	2.80		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
7.4	368	0.0140	0.83		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
15.2	754	Total			

Summary for Subcatchment 8S: Roof Area A

Runoff = 8.74 cfs @ 12.09 hrs, Volume= 0.729 af, Depth= 5.31"
Routed to Link 11L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

Area (sf)	CN	Description
71,756	98	Roofs, HSG B
71,756		100.00% Impervious Area

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

Summary for Subcatchment 13S: Roof Area B

Runoff = 3.63 cfs @ 12.09 hrs, Volume= 0.303 af, Depth= 5.31"
Routed to Pond 12P : Existing Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

Area (sf)	CN	Description
29,814	98	Roofs, HSG B
29,814		100.00% Impervious Area

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

Summary for Subcatchment 14S: Pre A.4

Runoff = 0.17 cfs @ 12.29 hrs, Volume= 0.031 af, Depth= 0.52"
Routed to Pond 13P : Existing Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
*	10,963	68	>75% Grass cover, Good, HSG A
	20,431	30	Woods, Good, HSG A
	31,394	43	Weighted Average
	31,394		100.00% Pervious Area

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

Summary for Pond 12P: Existing Wet Basin

Inflow Area = 7.392 ac, 55.84% Impervious, Inflow Depth = 4.13" for 25-yr event
Inflow = 20.19 cfs @ 12.29 hrs, Volume= 2.544 af
Outflow = 4.75 cfs @ 12.97 hrs, Volume= 2.544 af, Atten= 76%, Lag= 41.3 min
Primary = 4.75 cfs @ 12.97 hrs, Volume= 2.544 af
Routed to Link 11L : DP-A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.30' @ 12.97 hrs Surf.Area= 28,314 sf Storage= 36,550 cf

Plug-Flow detention time= 61.3 min calculated for 2.542 af (100% of inflow)
Center-of-Mass det. time= 61.2 min (861.6 - 800.4)

Volume	Invert	Avail.Storage	Storage Description
#1	212.30'	64,778 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
212.30	50	75.0	0	0	50
213.00	556	100.0	180	180	403
214.00	5,786	393.0	2,712	2,892	11,901
215.00	13,981	580.0	9,587	12,479	26,388
216.00	19,970	757.0	16,887	29,366	45,232
217.00	53,560	1,442.0	35,412	64,778	165,106

Device	Routing	Invert	Outlet Devices
#1	Primary	212.37'	**15.0" Round Culvert** L= 517.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 212.37' / 211.80' S= 0.0011 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 1.23 sf

Primary OutFlow Max=4.75 cfs @ 12.97 hrs HW=216.30' (Free Discharge)
└**1=Culvert** (Barrel Controls 4.75 cfs @ 3.87 fps)

Summary for Pond 13P: Existing Infiltration Basin

Inflow Area = 1.161 ac, 37.95% Impervious, Inflow Depth = 2.34" for 25-yr event
Inflow = 2.44 cfs @ 12.09 hrs, Volume= 0.226 af
Outflow = 0.47 cfs @ 12.57 hrs, Volume= 0.226 af, Atten= 81%, Lag= 28.5 min
Discarded = 0.29 cfs @ 12.57 hrs, Volume= 0.193 af
Primary = 0.17 cfs @ 12.57 hrs, Volume= 0.034 af
Routed to Link 11L : DP-A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 213.37' @ 12.57 hrs Surf.Area= 3,895 sf Storage= 2,908 cf

Plug-Flow detention time= 57.3 min calculated for 0.226 af (100% of inflow)
Center-of-Mass det. time= 57.3 min (830.6 - 773.3)

Volume	Invert	Avail.Storage	Storage Description
#1	212.50'	11,128 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
212.50	2,793	372.0	0	0	2,793
213.00	3,407	450.0	1,547	1,547	7,899
214.00	4,790	473.0	4,079	5,626	9,651
215.00	6,246	497.0	5,502	11,128	11,566

Device	Routing	Invert	Outlet Devices
#1	Primary	212.83'	**15.0" Round Culvert** L= 90.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 212.83' / 210.39' S= 0.0271 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Discarded	212.50'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 210.40'
#3	Device 1	212.63'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.29 cfs @ 12.57 hrs HW=213.37' (Free Discharge)
└**2=Exfiltration** (Controls 0.29 cfs)

Primary OutFlow Max=0.17 cfs @ 12.57 hrs HW=213.37' (Free Discharge)
└**1=Culvert** (Passes 0.17 cfs of 1.01 cfs potential flow)
└**3=Orifice/Grate** (Orifice Controls 0.17 cfs @ 3.55 fps)

Summary for Link 11L: DP-A

Inflow Area = 30.660 ac, 30.26% Impervious, Inflow Depth = 3.10" for 25-yr event
Inflow = 53.28 cfs @ 12.17 hrs, Volume= 7.911 af
Primary = 53.28 cfs @ 12.17 hrs, Volume= 7.911 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Pre A.1 Runoff Area=242,230 sf 49.29% Impervious Runoff Depth=6.15"
Flow Length=298' Tc=10.8 min CN=86 Runoff=32.63 cfs 2.849 af

Subcatchment2S: Pre A.2 Runoff Area=289,668 sf 0.00% Impervious Runoff Depth=2.87"
Flow Length=658' Tc=28.0 min CN=57 Runoff=12.56 cfs 1.589 af

Subcatchment3S: Pre A.3 Runoff Area=19,199 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=3.30 cfs 0.278 af

Subcatchment4S: Pre B.1 Runoff Area=220,300 sf 66.26% Impervious Runoff Depth=6.74"
Flow Length=736' Tc=24.4 min CN=91 Runoff=23.22 cfs 2.839 af

Subcatchment5S: Pre B.2 Runoff Area=71,871 sf 5.57% Impervious Runoff Depth=4.30"
Flow Length=416' Tc=12.4 min UI Adjusted CN=70 Runoff=6.72 cfs 0.591 af

Subcatchment6S: Pre C.2 Runoff Area=100,825 sf 0.00% Impervious Runoff Depth=4.76"
Flow Length=364' Tc=16.2 min CN=74 Runoff=9.44 cfs 0.917 af

Subcatchment7S: Pre C.1 Runoff Area=258,507 sf 5.40% Impervious Runoff Depth=4.87"
Flow Length=754' Tc=15.2 min CN=75 Runoff=25.38 cfs 2.409 af

Subcatchment8S: Roof Area A Runoff Area=71,756 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=12.33 cfs 1.039 af

Subcatchment13S: Roof Area B Runoff Area=29,814 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=5.12 cfs 0.432 af

Subcatchment14S: Pre A.4 Runoff Area=31,394 sf 0.00% Impervious Runoff Depth=1.45"
Tc=6.0 min CN=43 Runoff=0.94 cfs 0.087 af

Pond 12P: Existing Wet Basin Peak Elev=216.98' Storage=63,901 cf Inflow=30.28 cfs 3.862 af
15.0" Round Culvert n=0.013 L=517.0' S=0.0011 '/' Outflow=5.23 cfs 3.862 af

Pond 13P: Existing Infiltration Basin Peak Elev=213.93' Storage=5,306 cf Inflow=4.20 cfs 0.365 af
Discarded=0.40 cfs 0.283 af Primary=0.25 cfs 0.082 af Outflow=0.64 cfs 0.365 af

Link 11L: DP-A Inflow=85.26 cfs 12.748 af
Primary=85.26 cfs 12.748 af

Total Runoff Area = 30.660 ac Runoff Volume = 13.031 af Average Runoff Depth = 5.10"
69.74% Pervious = 21.383 ac 30.26% Impervious = 9.277 ac

Summary for Subcatchment 1S: Pre A.1

Runoff = 32.63 cfs @ 12.15 hrs, Volume= 2.849 af, Depth= 6.15"
Routed to Link 11L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
*	71,903	98	Paved parking, HSG A
	41,850	98	Paved parking, HSG B
*	45,336	68	>75% Grass cover, Good, HSG A
*	77,493	79	>75% Grass cover, Good, HSG B
	485	98	Unconnected pavement, HSG A
	5,163	98	Unconnected pavement, HSG B
	242,230	86	Weighted Average
	122,829		50.71% Pervious Area
	119,401		49.29% Impervious Area
	5,648		4.73% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	50	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.95"
2.9	223	0.0330	1.27		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.2	25	0.0081	1.83		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.8	298	Total			

Summary for Subcatchment 2S: Pre A.2

Runoff = 12.56 cfs @ 12.42 hrs, Volume= 1.589 af, Depth= 2.87"
Routed to Link 11L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
*	78,930	30	Woods, Good, HSG A
	49,074	55	Woods, Good, HSG B
	31,909	77	Woods, Good, HSG D
*	116,373	68	>75% Grass cover, Good, HSG A
*	13,268	79	>75% Grass cover, Good, HSG B
*	114	89	>75% Grass cover, Good, HSG D
	289,668	57	Weighted Average
	289,668		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.8	50	0.0600	0.22		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.95"
21.0	536	0.0037	0.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.2	72	0.0055	0.37		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
28.0	658	Total			

Summary for Subcatchment 3S: Pre A.3

Runoff = 3.30 cfs @ 12.09 hrs, Volume= 0.278 af, Depth= 7.57"
Routed to Pond 13P : Existing Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

Area (sf)	CN	Description
19,199	98	Paved parking, HSG A
19,199		100.00% Impervious Area

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

Summary for Subcatchment 4S: Pre B.1

Runoff = 23.22 cfs @ 12.32 hrs, Volume= 2.839 af, Depth= 6.74"
Routed to Pond 12P : Existing Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
	59,394	98	Paved parking, HSG A
	49,116	98	Paved parking, HSG B
	36,430	98	Paved parking, HSG D
*	3,947	68	>75% Grass cover, Good, HSG A
*	9,665	79	>75% Grass cover, Good, HSG B
*	556	89	>75% Grass cover, Good, HSG D
	1,032	98	Unconnected pavement, HSG B
	60,160	77	Woods, Good, HSG D
	220,300	91	Weighted Average
	74,328		33.74% Pervious Area
	145,972		66.26% Impervious Area
	1,032		0.71% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.0	50	0.0300	0.04		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.95"
3.0	100	0.0500	0.56		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.4	586	0.0410	4.11		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
24.4	736	Total			

Summary for Subcatchment 5S: Pre B.2

Runoff = 6.72 cfs @ 12.17 hrs, Volume= 0.591 af, Depth= 4.30"
Routed to Pond 12P : Existing Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Adj	Description
*	16,037	79		>75% Grass cover, Good, HSG B
*	15,072	89		>75% Grass cover, Good, HSG D
	2,551	98		Unconnected pavement, HSG B
	1,451	98		Unconnected pavement, HSG D
	32,793	55		Woods, Good, HSG B
	3,967	77		Woods, Good, HSG D
	71,871	71	70	Weighted Average, UI Adjusted
	67,869			94.43% Pervious Area
	4,002			5.57% Impervious Area
	4,002			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	50	0.0780	0.11		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.95"
0.1	10	0.1000	1.58		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.2	39	0.3230	2.84		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.8	165	0.0380	0.97		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.2	10	0.0200	0.71		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.8	55	0.0520	1.14		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.8	87	0.1430	1.89		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
12.4	416	Total			

Summary for Subcatchment 6S: Pre C.2

Runoff = 9.44 cfs @ 12.22 hrs, Volume= 0.917 af, Depth= 4.76"
Routed to Link 11L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
	26,537	55	Woods, Good, HSG B
	2,127	77	Woods, Good, HSG D
*	62,399	79	>75% Grass cover, Good, HSG B
*	9,762	89	>75% Grass cover, Good, HSG D
	100,825	74	Weighted Average
	100,825		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	18	0.0160	0.03		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.95"
2.5	33	0.0730	0.22		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.95"
0.8	121	0.1440	2.66		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.1	10	0.1790	2.12		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.3	41	0.1260	2.48		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.5	125	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.1	6	0.0170	0.91		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.0	5	0.0210	2.94		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	5	0.0190	0.96		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
16.2	364	Total			

Summary for Subcatchment 7S: Pre C.1

Runoff = 25.38 cfs @ 12.21 hrs, Volume= 2.409 af, Depth= 4.87"
Routed to Link 11L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
*	78,314	68	>75% Grass cover, Good, HSG A
*	147,609	79	>75% Grass cover, Good, HSG B
	2,514	98	Roofs, HSG B
	11,441	98	Paved parking, HSG B
	18,629	55	Woods, Good, HSG B
	258,507	75	Weighted Average
	244,552		94.60% Pervious Area
	13,955		5.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	10	0.1000	0.09		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 2.95"
2.7	40	0.0900	0.25		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.95"
1.1	120	0.0700	1.85		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	36	0.0650	1.27		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.6	175	0.0650	1.78		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.0	5	0.0190	2.80		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
7.4	368	0.0140	0.83		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
15.2	754	Total			

Summary for Subcatchment 8S: Roof Area A

Runoff = 12.33 cfs @ 12.09 hrs, Volume= 1.039 af, Depth= 7.57"
Routed to Link 11L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
	71,756	98	Roofs, HSG B
	71,756		100.00% Impervious Area

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

Summary for Subcatchment 13S: Roof Area B

Runoff = 5.12 cfs @ 12.09 hrs, Volume= 0.432 af, Depth= 7.57"
Routed to Pond 12P : Existing Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

Area (sf)	CN	Description
29,814	98	Roofs, HSG B
29,814		100.00% Impervious Area

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

Summary for Subcatchment 14S: Pre A.4

Runoff = 0.94 cfs @ 12.11 hrs, Volume= 0.087 af, Depth= 1.45"
Routed to Pond 13P : Existing Infiltration Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
*	10,963	68	>75% Grass cover, Good, HSG A
	20,431	30	Woods, Good, HSG A
	31,394	43	Weighted Average
	31,394		100.00% Pervious Area

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

Summary for Pond 12P: Existing Wet Basin

Inflow Area = 7.392 ac, 55.84% Impervious, Inflow Depth = 6.27" for 100-yr event
Inflow = 30.28 cfs @ 12.27 hrs, Volume= 3.862 af
Outflow = 5.23 cfs @ 13.16 hrs, Volume= 3.862 af, Atten= 83%, Lag= 53.0 min
Primary = 5.23 cfs @ 13.16 hrs, Volume= 3.862 af
Routed to Link 11L : DP-A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.98' @ 13.16 hrs Surf.Area= 52,875 sf Storage= 63,901 cf

Plug-Flow detention time= 102.8 min calculated for 3.862 af (100% of inflow)
Center-of-Mass det. time= 102.4 min (893.7 - 791.2)

Volume	Invert	Avail.Storage	Storage Description
#1	212.30'	64,778 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
212.30	50	75.0	0	0	50
213.00	556	100.0	180	180	403
214.00	5,786	393.0	2,712	2,892	11,901
215.00	13,981	580.0	9,587	12,479	26,388
216.00	19,970	757.0	16,887	29,366	45,232
217.00	53,560	1,442.0	35,412	64,778	165,106

Device	Routing	Invert	Outlet Devices
#1	Primary	212.37'	**15.0" Round Culvert** L= 517.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 212.37' / 211.80' S= 0.0011 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 1.23 sf

Primary OutFlow Max=5.23 cfs @ 13.16 hrs HW=216.98' (Free Discharge)
↑**1=Culvert** (Barrel Controls 5.23 cfs @ 4.26 fps)

Summary for Pond 13P: Existing Infiltration Basin

Inflow Area = 1.161 ac, 37.95% Impervious, Inflow Depth = 3.77" for 100-yr event
Inflow = 4.20 cfs @ 12.09 hrs, Volume= 0.365 af
Outflow = 0.64 cfs @ 12.64 hrs, Volume= 0.365 af, Atten= 85%, Lag= 32.5 min
Discarded = 0.40 cfs @ 12.64 hrs, Volume= 0.283 af
Primary = 0.25 cfs @ 12.64 hrs, Volume= 0.082 af
Routed to Link 11L : DP-A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 213.93' @ 12.64 hrs Surf.Area= 4,689 sf Storage= 5,306 cf

Plug-Flow detention time= 81.3 min calculated for 0.365 af (100% of inflow)
Center-of-Mass det. time= 81.2 min (859.6 - 778.3)

Volume	Invert	Avail.Storage	Storage Description
#1	212.50'	11,128 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
212.50	2,793	372.0	0	0	2,793
213.00	3,407	450.0	1,547	1,547	7,899
214.00	4,790	473.0	4,079	5,626	9,651
215.00	6,246	497.0	5,502	11,128	11,566

Device	Routing	Invert	Outlet Devices
#1	Primary	212.83'	**15.0" Round Culvert** L= 90.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 212.83' / 210.39' S= 0.0271 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Discarded	212.50'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 210.40'
#3	Device 1	212.63'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.40 cfs @ 12.64 hrs HW=213.93' (Free Discharge)
└**2=Exfiltration** (Controls 0.40 cfs)

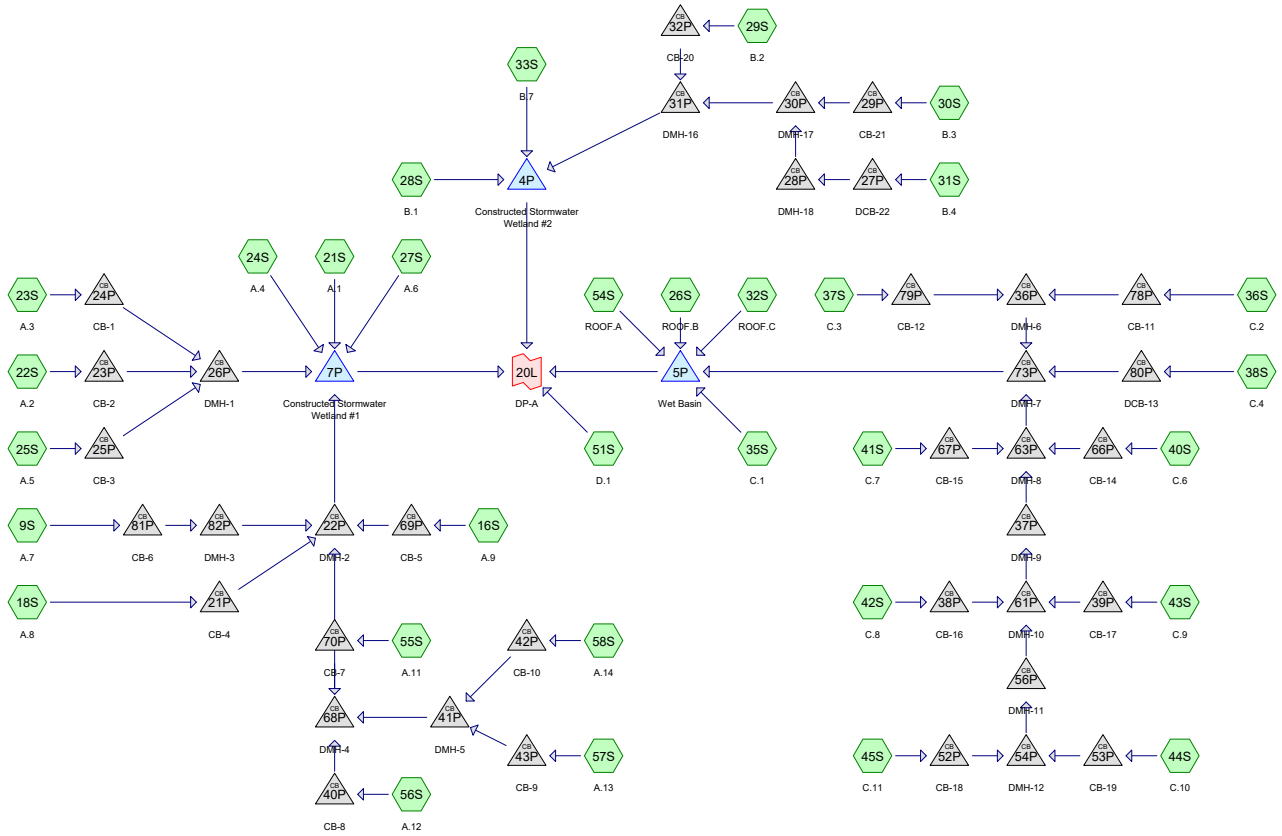
Primary OutFlow Max=0.25 cfs @ 12.64 hrs HW=213.93' (Free Discharge)
└**1=Culvert** (Passes 0.25 cfs of 3.23 cfs potential flow)
└**3=Orifice/Grate** (Orifice Controls 0.25 cfs @ 5.06 fps)

Summary for Link 11L: DP-A

Inflow Area = 30.660 ac, 30.26% Impervious, Inflow Depth = 4.99" for 100-yr event
Inflow = 85.26 cfs @ 12.17 hrs, Volume= 12.748 af
Primary = 85.26 cfs @ 12.17 hrs, Volume= 12.748 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

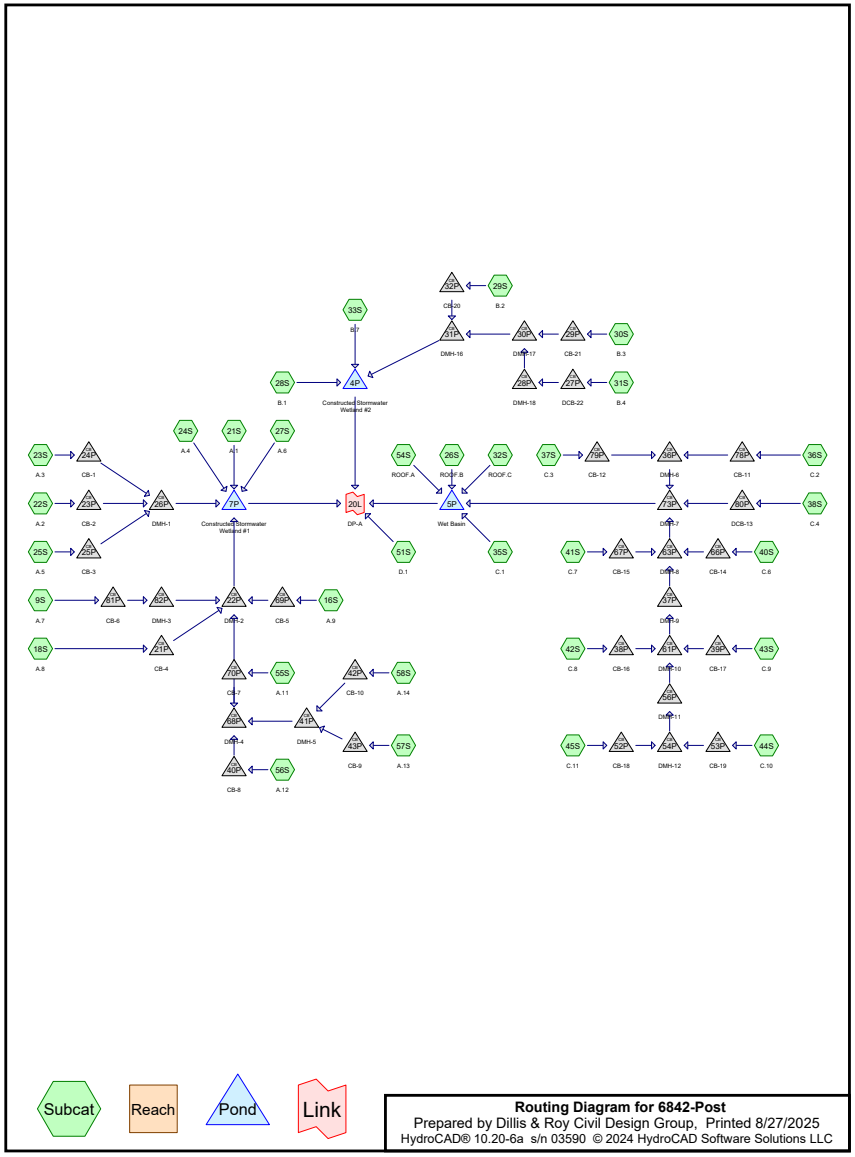
Appendix E - Proposed Conditions Hydrologic Calculations



Subcat Reach Pond Link

Routing Diagram for 6842-Post

Prepared by Dillis & Roy Civil Design Group, Printed 8/27/2025



Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 9S: A.7 Runoff Area=13,754 sf 90.13% Impervious Runoff Depth=2.45"
Tc=6.0 min CN=95 Runoff=0.84 cfs 0.064 af

Subcatchment 16S: A.9 Runoff Area=4,499 sf 81.35% Impervious Runoff Depth=2.16"
Tc=6.0 min CN=92 Runoff=0.25 cfs 0.019 af

Subcatchment 18S: A.8 Runoff Area=9,251 sf 89.84% Impervious Runoff Depth=2.45"
Tc=6.0 min CN=95 Runoff=0.57 cfs 0.043 af

Subcatchment 21S: A.1 Runoff Area=31,332 sf 0.00% Impervious Runoff Depth=0.63"
Tc=10.0 min CN=68 Runoff=0.37 cfs 0.038 af

Subcatchment 22S: A.2 Runoff Area=12,807 sf 95.22% Impervious Runoff Depth=2.66"
Tc=6.0 min CN=97 Runoff=0.82 cfs 0.065 af

Subcatchment 23S: A.3 Runoff Area=7,817 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.51 cfs 0.041 af

Subcatchment 24S: A.4 Runoff Area=62,775 sf 13.03% Impervious Runoff Depth=0.71"
Tc=6.0 min UI Adjusted CN=70 Runoff=1.04 cfs 0.086 af

Subcatchment 25S: A.5 Runoff Area=37,798 sf 70.42% Impervious Runoff Depth=1.90"
Tc=6.0 min CN=89 Runoff=1.88 cfs 0.137 af

Subcatchment 26S: ROOF.B Runoff Area=22,403 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=1.46 cfs 0.119 af

Subcatchment 27S: A.6 Runoff Area=288,122 sf 3.62% Impervious Runoff Depth=0.91"
Tc=30.0 min CN=74 Runoff=3.70 cfs 0.501 af

Subcatchment 28S: B.1 Runoff Area=18,758 sf 2.84% Impervious Runoff Depth=0.63"
Tc=10.0 min UI Adjusted CN=68 Runoff=0.22 cfs 0.022 af

Subcatchment 29S: B.2 Runoff Area=8,642 sf 91.71% Impervious Runoff Depth=2.55"
Tc=6.0 min CN=96 Runoff=0.54 cfs 0.042 af

Subcatchment 30S: B.3 Runoff Area=18,791 sf 94.22% Impervious Runoff Depth=2.55"
Tc=6.0 min CN=96 Runoff=1.18 cfs 0.092 af

Subcatchment 31S: B.4 Runoff Area=19,850 sf 92.24% Impervious Runoff Depth=2.55"
Tc=6.0 min CN=96 Runoff=1.25 cfs 0.097 af

Subcatchment 32S: ROOF.C Runoff Area=21,236 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=1.38 cfs 0.112 af

Subcatchment 33S: B.7 Runoff Area=24,998 sf 42.47% Impervious Runoff Depth=1.31"
Tc=6.0 min CN=81 Runoff=0.86 cfs 0.063 af

Subcatchment 35S: C.1 Runoff Area=221,268 sf 7.29% Impervious Runoff Depth=1.07"
Tc=20.0 min UI Adjusted CN=77 Runoff=4.11 cfs 0.453 af

Subcatchment 36S: C.2 Runoff Area=12,593 sf 78.73% Impervious Runoff Depth=2.16"
Tc=6.0 min CN=92 Runoff=0.70 cfs 0.052 af

Subcatchment 37S: C.3 Runoff Area=11,956 sf 77.84% Impervious Runoff Depth=2.07"
Tc=6.0 min CN=91 Runoff=0.64 cfs 0.047 af

Subcatchment 38S: C.4 Runoff Area=28,385 sf 90.83% Impervious Runoff Depth=2.45"
Tc=6.0 min CN=95 Runoff=1.74 cfs 0.133 af

Subcatchment 40S: C.6 Runoff Area=2,477 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.16 cfs 0.013 af

Subcatchment 41S: C.7 Runoff Area=4,104 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.27 cfs 0.022 af

Subcatchment 42S: C.8 Runoff Area=2,348 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.15 cfs 0.012 af

Subcatchment 43S: C.9 Runoff Area=2,458 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.16 cfs 0.013 af

Subcatchment 44S: C.10 Runoff Area=2,596 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.17 cfs 0.014 af

Subcatchment 45S: C.11 Runoff Area=2,841 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.19 cfs 0.015 af

Subcatchment 51S: D.1 Runoff Area=358,257 sf 1.76% Impervious Runoff Depth=0.40"
Tc=20.0 min UI Adjusted CN=62 Runoff=1.65 cfs 0.273 af

Subcatchment 54S: ROOF.A Runoff Area=19,211 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=1.25 cfs 0.102 af

Subcatchment 55S: A.11 Runoff Area=8,332 sf 63.63% Impervious Runoff Depth=1.74"
Tc=6.0 min CN=87 Runoff=0.38 cfs 0.028 af

Subcatchment 56S: A.12 Runoff Area=31,388 sf 71.70% Impervious Runoff Depth=1.98"
Tc=6.0 min CN=90 Runoff=1.63 cfs 0.119 af

Subcatchment 57S: A.13 Runoff Area=12,383 sf 64.96% Impervious Runoff Depth=1.74"
Tc=6.0 min CN=87 Runoff=0.57 cfs 0.041 af

Subcatchment 58S: A.14 Runoff Area=12,099 sf 63.54% Impervious Runoff Depth=1.74"
Tc=6.0 min CN=87 Runoff=0.55 cfs 0.040 af

Pond 4P: Constructed Stormwater Wetland Peak Elev=214.55' Storage=12,757 cf Inflow=3.99 cfs 0.316 af
Outflow=0.05 cfs 0.047 af

Pond 5P: Wet Basin Peak Elev=215.91' Storage=23,559 cf Inflow=10.35 cfs 1.108 af
Outflow=3.42 cfs 0.707 af

6842-Post *Type III 24-hr 2-yr Rainfall=3.00"*
Prepared by Dillis & Roy Civil Design Group Printed 8/27/2025
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Pond 7P: Constructed Stormwater Wetland Peak Elev=215.27' Storage=5,430 cf Inflow=10.41 cfs 1.223 af
Outflow=9.26 cfs 1.222 af

Pond 21P: CB-4 Peak Elev=216.09' Inflow=0.57 cfs 0.043 af
12.0" Round Culvert n=0.013 L=41.0' S=0.0100 '/' Outflow=0.57 cfs 0.043 af

Pond 22P: DMH-2 Peak Elev=215.55' Inflow=4.79 cfs 0.355 af
24.0" Round Culvert n=0.013 L=117.0' S=0.0068 '/' Outflow=4.79 cfs 0.355 af

Pond 23P: CB-2 Peak Elev=215.94' Inflow=0.82 cfs 0.065 af
12.0" Round Culvert n=0.013 L=24.0' S=0.0100 '/' Outflow=0.82 cfs 0.065 af

Pond 24P: CB-1 Peak Elev=215.40' Inflow=0.51 cfs 0.041 af
12.0" Round Culvert n=0.013 L=11.0' S=0.0100 '/' Outflow=0.51 cfs 0.041 af

Pond 25P: CB-3 Peak Elev=216.65' Inflow=1.88 cfs 0.137 af
15.0" Round Culvert n=0.013 L=45.0' S=0.0100 '/' Outflow=1.88 cfs 0.137 af

Pond 26P: DMH-1 Peak Elev=215.65' Inflow=3.21 cfs 0.244 af
18.0" Round Culvert n=0.013 L=57.0' S=0.0104 '/' Outflow=3.21 cfs 0.244 af

Pond 27P: DCB-22 Peak Elev=216.35' Inflow=1.25 cfs 0.097 af
12.0" Round Culvert n=0.013 L=47.0' S=0.0070 '/' Outflow=1.25 cfs 0.097 af

Pond 28P: DMH-18 Peak Elev=215.89' Inflow=1.25 cfs 0.097 af
12.0" Round Culvert n=0.013 L=167.0' S=0.0070 '/' Outflow=1.25 cfs 0.097 af

Pond 29P: CB-21 Peak Elev=216.40' Inflow=1.18 cfs 0.092 af
12.0" Round Culvert n=0.013 L=83.0' S=0.0100 '/' Outflow=1.18 cfs 0.092 af

Pond 30P: DMH-17 Peak Elev=214.98' Inflow=2.42 cfs 0.189 af
12.0" Round Culvert n=0.013 L=112.0' S=0.0070 '/' Outflow=2.42 cfs 0.189 af

Pond 31P: DMH-16 Peak Elev=213.95' Inflow=2.97 cfs 0.231 af
18.0" Round Culvert n=0.013 L=66.0' S=0.0094 '/' Outflow=2.97 cfs 0.231 af

Pond 32P: CB-20 Peak Elev=216.14' Inflow=0.54 cfs 0.042 af
12.0" Round Culvert n=0.013 L=65.0' S=0.0200 '/' Outflow=0.54 cfs 0.042 af

Pond 36P: DMH-6 Peak Elev=215.86' Inflow=1.35 cfs 0.099 af
12.0" Round Culvert n=0.013 L=43.0' S=0.0121 '/' Outflow=1.35 cfs 0.099 af

Pond 37P: DMH-9 Peak Elev=223.37' Inflow=0.67 cfs 0.054 af
12.0" Round Culvert n=0.013 L=83.0' S=0.0749 '/' Outflow=0.67 cfs 0.054 af

Pond 38P: CB-16 Peak Elev=232.27' Inflow=0.15 cfs 0.012 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0200 '/' Outflow=0.15 cfs 0.012 af

Pond 39P: CB-17 Peak Elev=232.27' Inflow=0.16 cfs 0.013 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0200 '/' Outflow=0.16 cfs 0.013 af

Pond 40P: CB-8 Peak Elev=217.44' Inflow=1.63 cfs 0.119 af
15.0" Round Culvert n=0.013 L=12.0' S=0.0200 '/' Outflow=1.63 cfs 0.119 af

Pond 41P: DMH-5 Peak Elev=217.08' Inflow=1.12 cfs 0.081 af
12.0" Round Culvert n=0.013 L=195.0' S=0.0070 '/' Outflow=1.12 cfs 0.081 af

Pond 42P: CB-10 Peak Elev=217.22' Inflow=0.55 cfs 0.040 af
12.0" Round Culvert n=0.013 L=29.0' S=0.0069 '/' Outflow=0.55 cfs 0.040 af

Pond 43P: CB-9 Peak Elev=217.23' Inflow=0.57 cfs 0.041 af
12.0" Round Culvert n=0.013 L=29.0' S=0.0069 '/' Outflow=0.57 cfs 0.041 af

Pond 52P: CB-18 Peak Elev=247.36' Inflow=0.19 cfs 0.015 af
12.0" Round Culvert n=0.013 L=18.0' S=0.0222 '/' Outflow=0.19 cfs 0.015 af

Pond 53P: CB-19 Peak Elev=247.35' Inflow=0.17 cfs 0.014 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0200 '/' Outflow=0.17 cfs 0.014 af

Pond 54P: DMH-12 Peak Elev=246.94' Inflow=0.35 cfs 0.029 af
12.0" Round Culvert n=0.013 L=84.0' S=0.0750 '/' Outflow=0.35 cfs 0.029 af

Pond 56P: DMH-11 Peak Elev=240.54' Inflow=0.35 cfs 0.029 af
12.0" Round Culvert n=0.013 L=110.0' S=0.0750 '/' Outflow=0.35 cfs 0.029 af

Pond 61P: DMH-10 Peak Elev=232.09' Inflow=0.67 cfs 0.054 af
12.0" Round Culvert n=0.013 L=115.0' S=0.0750 '/' Outflow=0.67 cfs 0.054 af

Pond 63P: DMH-8 Peak Elev=217.18' Inflow=1.10 cfs 0.089 af
12.0" Round Culvert n=0.013 L=80.0' S=0.0239 '/' Outflow=1.10 cfs 0.089 af

Pond 66P: CB-14 Peak Elev=218.66' Inflow=0.16 cfs 0.013 af
12.0" Round Culvert n=0.013 L=12.0' S=0.0200 '/' Outflow=0.16 cfs 0.013 af

Pond 67P: CB-15 Peak Elev=218.72' Inflow=0.27 cfs 0.022 af
12.0" Round Culvert n=0.013 L=12.0' S=0.0200 '/' Outflow=0.27 cfs 0.022 af

Pond 68P: DMH-4 Peak Elev=215.95' Inflow=3.13 cfs 0.228 af
18.0" Round Culvert n=0.013 L=54.0' S=0.0070 '/' Outflow=3.13 cfs 0.228 af

Pond 69P: CB-5 Peak Elev=216.91' Inflow=0.25 cfs 0.019 af
12.0" Round Culvert n=0.013 L=33.0' S=0.0200 '/' Outflow=0.25 cfs 0.019 af

Pond 70P: CB-7 Peak Elev=217.11' Inflow=0.38 cfs 0.028 af
12.0" Round Culvert n=0.013 L=12.0' S=0.0200 '/' Outflow=0.38 cfs 0.028 af

Pond 73P: DMH-7 Peak Elev=215.48' Inflow=4.18 cfs 0.322 af
24.0" Round Culvert n=0.013 L=52.0' S=0.0115 '/' Outflow=4.18 cfs 0.322 af

Pond 78P: CB-11 Peak Elev=216.13' Inflow=0.70 cfs 0.052 af
12.0" Round Culvert n=0.013 L=29.0' S=0.0121 '/' Outflow=0.70 cfs 0.052 af

Pond 79P: CB-12 Peak Elev=216.11' Inflow=0.64 cfs 0.047 af
12.0" Round Culvert n=0.013 L=29.0' S=0.0121 '/' Outflow=0.64 cfs 0.047 af

Pond 80P: DCB-13 Peak Elev=217.14' Inflow=1.74 cfs 0.133 af
15.0" Round Culvert n=0.013 L=119.0' S=0.0149 '/' Outflow=1.74 cfs 0.133 af

Pond 81P: CB-6 Peak Elev=216.23' Inflow=0.84 cfs 0.064 af
12.0" Round Culvert n=0.013 L=27.0' S=0.0070 '/' Outflow=0.84 cfs 0.064 af

Pond 82P: DMH-3 Peak Elev=215.86' Inflow=0.84 cfs 0.064 af
24.0" Round Culvert n=0.013 L=198.0' S=0.0038 '/' Outflow=0.84 cfs 0.064 af

Link 20L: DP-A Inflow=11.35 cfs 2.249 af
Primary=11.35 cfs 2.249 af

Total Runoff Area = 30.660 ac Runoff Volume = 2.919 af Average Runoff Depth = 1.14"
74.89% Pervious = 22.961 ac 25.11% Impervious = 7.699 ac

Summary for Subcatchment 9S: A.7

Runoff = 0.84 cfs @ 12.09 hrs, Volume= 0.064 af, Depth= 2.45"
Routed to Pond 81P : CB-6

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
	11,369	98	Unconnected pavement, HSG A
*	1,358	68	>75% Grass cover, Good, HSG A
	783	98	Unconnected pavement, HSG A
	244	98	Roofs, HSG A
	13,754	95	Weighted Average
	1,358		9.87% Pervious Area
	12,396		90.13% Impervious Area
	12,152		98.03% Unconnected

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

Summary for Subcatchment 16S: A.9

Runoff = 0.25 cfs @ 12.09 hrs, Volume= 0.019 af, Depth= 2.16"
Routed to Pond 69P : CB-5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
	3,142	98	Paved parking, HSG A
*	839	68	>75% Grass cover, Good, HSG A
	518	98	Unconnected pavement, HSG A
	4,499	92	Weighted Average
	839		18.65% Pervious Area
	3,660		81.35% Impervious Area
	518		14.15% Unconnected

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

Summary for Subcatchment 18S: A.8

Runoff = 0.57 cfs @ 12.09 hrs, Volume= 0.043 af, Depth= 2.45"
Routed to Pond 21P : CB-4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
	7,383	98	Paved parking, HSG A
*	940	68	>75% Grass cover, Good, HSG A
	284	98	Unconnected pavement, HSG A
	644	98	Roofs, HSG A
	9,251	95	Weighted Average
	940		10.16% Pervious Area
	8,311		89.84% Impervious Area
	284		3.42% Unconnected

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

Summary for Subcatchment 21S: A.1

Runoff = 0.37 cfs @ 12.17 hrs, Volume= 0.038 af, Depth= 0.63"
Routed to Pond 7P : Constructed Stormwater Wetland #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
*	31,332	68	>75% Grass cover, Good, HSG A
	31,332		100.00% Pervious Area

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

Summary for Subcatchment 22S: A.2

Runoff = 0.82 cfs @ 12.09 hrs, Volume= 0.065 af, Depth= 2.66"
Routed to Pond 23P : CB-2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
	12,195	98	Paved parking, HSG A
*	612	68	>75% Grass cover, Good, HSG A
	12,807	97	Weighted Average
	612		4.78% Pervious Area
	12,195		95.22% Impervious Area

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

Summary for Subcatchment 23S: A.3

Runoff = 0.51 cfs @ 12.09 hrs, Volume= 0.041 af, Depth= 2.77"
Routed to Pond 24P : CB-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
7,817	98	Paved parking, HSG A
7,817		100.00% Impervious Area

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

Summary for Subcatchment 24S: A.4

Runoff = 1.04 cfs @ 12.11 hrs, Volume= 0.086 af, Depth= 0.71"
Routed to Pond 7P : Constructed Stormwater Wetland #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Adj	Description
*	54,594	68		>75% Grass cover, Good, HSG A
	7,083	98		Unconnected pavement, HSG A
	1,098	98		Roofs, HSG A
	62,775	72	70	Weighted Average, UI Adjusted
	54,594			86.97% Pervious Area
	8,181			13.03% Impervious Area
	7,083			86.58% Unconnected

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

Summary for Subcatchment 25S: A.5

Runoff = 1.88 cfs @ 12.09 hrs, Volume= 0.137 af, Depth= 1.90"
Routed to Pond 25P : CB-3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
	14,601	98	Paved parking, HSG A
*	11,179	68	>75% Grass cover, Good, HSG A
	10,448	98	Roofs, HSG A
	1,570	98	Unconnected pavement, HSG A
	37,798	89	Weighted Average
	11,179		29.58% Pervious Area
	26,619		70.42% Impervious Area
	1,570		5.90% Unconnected

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

Summary for Subcatchment 26S: ROOF.B

Runoff = 1.46 cfs @ 12.09 hrs, Volume= 0.119 af, Depth= 2.77"
Routed to Pond 5P : Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
22,403	98	Roofs, HSG A
22,403		100.00% Impervious Area

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

Summary for Subcatchment 27S: A.6

Runoff = 3.70 cfs @ 12.46 hrs, Volume= 0.501 af, Depth= 0.91"
Routed to Pond 7P : Constructed Stormwater Wetland #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
*	126,122	68	>75% Grass cover, Good, HSG A
*	96,968	86	>75% Grass cover, Good, HSG C
*	12,765	89	>75% Grass cover, Good, HSG D
*	26,304	43	Woods, Good, HSG A
*	14,849	76	Woods, Good, HSG C
*	696	82	Woods, Good, HSG D
	1,799	98	Unconnected pavement, HSG A
	78	98	Unconnected pavement, HSG C
	8,541	98	Roofs, HSG A
	288,122	74	Weighted Average
	277,704		96.38% Pervious Area
	10,418		3.62% Impervious Area
	1,877		18.02% Unconnected

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

Summary for Subcatchment 28S: B.1

Runoff = 0.22 cfs @ 12.17 hrs, Volume= 0.022 af, Depth= 0.63"
Routed to Pond 4P : Constructed Stormwater Wetland #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Adj	Description
*	18,184	68		>75% Grass cover, Good, HSG A
*	41	82		Woods, Good, HSG D
	533	98		Unconnected pavement, HSG A
	18,758	69	68	Weighted Average, UI Adjusted
	18,225			97.16% Pervious Area
	533			2.84% Impervious Area
	533			100.00% Unconnected

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

Summary for Subcatchment 29S: B.2

Runoff = 0.54 cfs @ 12.09 hrs, Volume= 0.042 af, Depth= 2.55"
Routed to Pond 32P : CB-20

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
	548	98	Roofs, HSG A
	6,777	98	Paved parking, HSG A
	601	98	Unconnected pavement, HSG A
*	716	68	>75% Grass cover, Good, HSG A
	8,642	96	Weighted Average
	716		8.29% Pervious Area
	7,926		91.71% Impervious Area
	601		7.58% Unconnected

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

Summary for Subcatchment 30S: B.3

Runoff = 1.18 cfs @ 12.09 hrs, Volume= 0.092 af, Depth= 2.55"
Routed to Pond 29P : CB-21

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
	569	98	Roofs, HSG A
	15,960	98	Paved parking, HSG A
	1,175	98	Unconnected pavement, HSG A
*	1,087	68	>75% Grass cover, Good, HSG A
	18,791	96	Weighted Average
	1,087		5.78% Pervious Area
	17,704		94.22% Impervious Area
	1,175		6.64% Unconnected

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

Summary for Subcatchment 31S: B.4

Runoff = 1.25 cfs @ 12.09 hrs, Volume= 0.097 af, Depth= 2.55"
Routed to Pond 27P : DCB-22

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
	16,815	98	Paved parking, HSG A
	1,494	98	Unconnected pavement, HSG A
*	1,541	68	>75% Grass cover, Good, HSG A
	19,850	96	Weighted Average
	1,541		7.76% Pervious Area
	18,309		92.24% Impervious Area
	1,494		8.16% Unconnected

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

Summary for Subcatchment 32S: ROOF.C

Runoff = 1.38 cfs @ 12.09 hrs, Volume= 0.112 af, Depth= 2.77"
Routed to Pond 5P : Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
	21,236	98	Roofs, HSG A
	21,236		100.00% Impervious Area

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

Summary for Subcatchment 33S: B.7

Runoff = 0.86 cfs @ 12.10 hrs, Volume= 0.063 af, Depth= 1.31"
Routed to Pond 4P : Constructed Stormwater Wetland #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
	10,617	98	Unconnected pavement, HSG A
*	14,381	68	>75% Grass cover, Good, HSG A
	24,998	81	Weighted Average
	14,381		57.53% Pervious Area
	10,617		42.47% Impervious Area
	10,617		100.00% Unconnected

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

Summary for Subcatchment 35S: C.1

Runoff = 4.11 cfs @ 12.30 hrs, Volume= 0.453 af, Depth= 1.07"
Routed to Pond 5P : Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Adj	Description
*	118,961	68		>75% Grass cover, Good, HSG A
*	258	43		Woods, Good, HSG A
*	70,218	89		>75% Grass cover, Good, HSG D
*	15,701	82		Woods, Good, HSG D
	576	98		Roofs, HSG D
	125	98		Unconnected pavement, HSG D
	9,316	98		Unconnected pavement, HSG A
	6,113	98		Roofs, HSG A
	221,268	78	77	Weighted Average, UI Adjusted
	205,138			92.71% Pervious Area
	16,130			7.29% Impervious Area
	9,441			58.53% Unconnected

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

Summary for Subcatchment 36S: C.2

Runoff = 0.70 cfs @ 12.09 hrs, Volume= 0.052 af, Depth= 2.16"
Routed to Pond 78P : CB-11

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
	7,807	98	Paved parking, HSG A
*	2,679	68	>75% Grass cover, Good, HSG A
	2,107	98	Unconnected pavement, HSG A
	12,593	92	Weighted Average
	2,679		21.27% Pervious Area
	9,914		78.73% Impervious Area
	2,107		21.25% Unconnected

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

Summary for Subcatchment 37S: C.3

Runoff = 0.64 cfs @ 12.09 hrs, Volume= 0.047 af, Depth= 2.07"
Routed to Pond 79P : CB-12

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
	7,826	98	Paved parking, HSG A
	1,481	98	Unconnected pavement, HSG A
*	2,649	68	>75% Grass cover, Good, HSG A
	11,956	91	Weighted Average
	2,649		22.16% Pervious Area
	9,307		77.84% Impervious Area
	1,481		15.91% Unconnected

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

Summary for Subcatchment 38S: C.4

Runoff = 1.74 cfs @ 12.09 hrs, Volume= 0.133 af, Depth= 2.45"
Routed to Pond 80P : DCB-13

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
	1,066	98	Roofs, HSG A
	23,555	98	Paved parking, HSG A
	1,160	98	Unconnected pavement, HSG A
*	2,604	68	>75% Grass cover, Good, HSG A
	28,385	95	Weighted Average
	2,604		9.17% Pervious Area
	25,781		90.83% Impervious Area
	1,160		4.50% Unconnected

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

Summary for Subcatchment 40S: C.6

Runoff = 0.16 cfs @ 12.09 hrs, Volume= 0.013 af, Depth= 2.77"
Routed to Pond 66P : CB-14

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
1,531	98	Paved parking, HSG A
946	98	Paved parking, HSG D
2,477	98	Weighted Average
2,477		100.00% Impervious Area

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

Summary for Subcatchment 41S: C.7

Runoff = 0.27 cfs @ 12.09 hrs, Volume= 0.022 af, Depth= 2.77"
Routed to Pond 67P : CB-15

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
1,474	98	Paved parking, HSG A
1,594	98	Paved parking, HSG D
832	98	Unconnected pavement, HSG A
204	98	Unconnected pavement, HSG D
4,104	98	Weighted Average
4,104		100.00% Impervious Area
1,036		25.24% Unconnected

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

Summary for Subcatchment 42S: C.8

Runoff = 0.15 cfs @ 12.09 hrs, Volume= 0.012 af, Depth= 2.77"
Routed to Pond 38P : CB-16

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
2,348	98	Paved parking, HSG D
2,348		100.00% Impervious Area

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

Summary for Subcatchment 43S: C.9

Runoff = 0.16 cfs @ 12.09 hrs, Volume= 0.013 af, Depth= 2.77"
Routed to Pond 39P : CB-17

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
2,458	98	Paved parking, HSG D
2,458		100.00% Impervious Area

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

Summary for Subcatchment 44S: C.10

Runoff = 0.17 cfs @ 12.09 hrs, Volume= 0.014 af, Depth= 2.77"
Routed to Pond 53P : CB-19

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
2,596	98	Paved parking, HSG D
2,596		100.00% Impervious Area

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

Summary for Subcatchment 45S: C.11

Runoff = 0.19 cfs @ 12.09 hrs, Volume= 0.015 af, Depth= 2.77"
Routed to Pond 52P : CB-18

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
2,841	98	Paved parking, HSG D
2,841		100.00% Impervious Area

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

Summary for Subcatchment 51S: D.1

Runoff = 1.65 cfs @ 12.41 hrs, Volume= 0.273 af, Depth= 0.40"
Routed to Link 20L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Adj	Description
*	167,879	68		>75% Grass cover, Good, HSG A
*	194	79		>75% Grass cover, Good, HSG B
*	51,927	89		>75% Grass cover, Good, HSG D
*	128,994	43		Woods, Good, HSG A
*	2,944	65		Woods, Good, HSG B
	3,179	98		Roofs, HSG A
	3,140	98		Unconnected pavement, HSG A
	358,257	63	62	Weighted Average, UI Adjusted
	351,938			98.24% Pervious Area
	6,319			1.76% Impervious Area
	3,140			49.69% Unconnected

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

Summary for Subcatchment 54S: ROOF.A

Runoff = 1.25 cfs @ 12.09 hrs, Volume= 0.102 af, Depth= 2.77"
Routed to Pond 5P : Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
19,211	98	Roofs, HSG A
19,211		100.00% Impervious Area

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

Summary for Subcatchment 55S: A.11

Runoff = 0.38 cfs @ 12.09 hrs, Volume= 0.028 af, Depth= 1.74"
Routed to Pond 70P : CB-7

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
	4,102	98	Paved parking, HSG A
	1,200	98	Unconnected pavement, HSG A
*	3,030	68	>75% Grass cover, Good, HSG A
	8,332	87	Weighted Average
	3,030		36.37% Pervious Area
	5,302		63.63% Impervious Area
	1,200		22.63% Unconnected

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

Summary for Subcatchment 56S: A.12

Runoff = 1.63 cfs @ 12.09 hrs, Volume= 0.119 af, Depth= 1.98"
Routed to Pond 40P : CB-8

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
	13,088	98	Paved parking, HSG A
*	8,884	68	>75% Grass cover, Good, HSG A
	7,310	98	Roofs, HSG A
	2,106	98	Unconnected pavement, HSG A
	31,388	90	Weighted Average
	8,884		28.30% Pervious Area
	22,504		71.70% Impervious Area
	2,106		9.36% Unconnected

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

Summary for Subcatchment 57S: A.13

Runoff = 0.57 cfs @ 12.09 hrs, Volume= 0.041 af, Depth= 1.74"
Routed to Pond 43P : CB-9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
	6,088	98	Paved parking, HSG A
*	4,339	68	>75% Grass cover, Good, HSG A
	1,956	98	Unconnected pavement, HSG A
	12,383	87	Weighted Average
	4,339		35.04% Pervious Area
	8,044		64.96% Impervious Area
	1,956		24.32% Unconnected

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

Summary for Subcatchment 58S: A.14

Runoff = 0.55 cfs @ 12.09 hrs, Volume= 0.040 af, Depth= 1.74"
Routed to Pond 42P : CB-10

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.00"

	Area (sf)	CN	Description
	5,369	98	Paved parking, HSG A
*	4,411	68	>75% Grass cover, Good, HSG A
	2,319	98	Unconnected pavement, HSG A
	12,099	87	Weighted Average
	4,411		36.46% Pervious Area
	7,688		63.54% Impervious Area
	2,319		30.16% Unconnected

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

Summary for Pond 4P: Constructed Stormwater Wetland #2

Inflow Area = 2.090 ac, 60.51% Impervious, Inflow Depth = 1.82" for 2-yr event
Inflow = 3.99 cfs @ 12.09 hrs, Volume= 0.316 af
Outflow = 0.05 cfs @ 22.94 hrs, Volume= 0.047 af, Atten= 99%, Lag= 651.1 min
Primary = 0.05 cfs @ 22.94 hrs, Volume= 0.047 af
Routed to Link 20L : DP-A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 214.55' @ 22.94 hrs Surf.Area= 7,709 sf Storage= 12,757 cf

Plug-Flow detention time= 1,053.3 min calculated for 0.047 af (15% of inflow)
Center-of-Mass det. time= 830.6 min (1,628.0 - 797.5)

Volume	Invert	Avail.Storage	Storage Description
#1	212.50'	25,645 cf	**Custom Stage Data (Irregular)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
212.50	5,003	366.0	0	0	5,003
213.00	5,563	378.0	2,640	2,640	5,737
214.00	6,736	400.0	6,140	8,780	7,154
215.00	8,551	456.0	7,625	16,406	10,992
216.00	9,945	475.0	9,239	25,645	12,475

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**20.0' long x 12.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.57 2.62 2.70 2.67 2.66 2.67 2.66 2.64
#2	Device 3	214.90'	**4.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Primary	212.50'	**15.0" Round Culvert** L= 111.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 212.50' / 210.44' S= 0.0186 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#4	Device 3	214.40'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.05 cfs @ 22.94 hrs HW=214.55' (Free Discharge)
↑ **1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)
└ **3=Culvert** (Passes 0.05 cfs of 5.57 cfs potential flow)
  ↑ **2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)
  └ **4=Orifice/Grate** (Orifice Controls 0.05 cfs @ 1.32 fps)

Summary for Pond 5P: Wet Basin

Inflow Area = 8.124 ac, 39.79% Impervious, Inflow Depth = 1.64" for 2-yr event
Inflow = 10.35 cfs @ 12.10 hrs, Volume= 1.108 af
Outflow = 3.42 cfs @ 12.62 hrs, Volume= 0.707 af, Atten= 67%, Lag= 31.3 min
Primary = 3.42 cfs @ 12.62 hrs, Volume= 0.707 af
Routed to Link 20L : DP-A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.91' @ 12.62 hrs Surf.Area= 15,839 sf Storage= 23,559 cf

Plug-Flow detention time= 239.6 min calculated for 0.707 af (64% of inflow)
Center-of-Mass det. time= 130.2 min (940.6 - 810.4)

Volume	Invert	Avail.Storage	Storage Description
#1	214.00'	106,697 cf	**Custom Stage Data (Irregular)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
214.00	9,189	420.0	0	0	9,189
216.00	16,216	442.0	25,075	25,075	10,927
218.00	20,181	766.0	36,325	61,399	42,096
220.00	25,210	608.0	45,298	106,697	59,427

Device	Routing	Invert	Outlet Devices
#1	Primary	214.00'	**24.0" Round Culvert** L= 691.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.00' / 211.63' S= 0.0034 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	215.50'	**45.0 deg x 4.0' long Sharp-Crested Vee/Trap Weir** Cv= 2.56 (C= 3.20)
#3	Device 1	216.00'	**4.2' long x 4.2' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.53 2.69 2.68 2.67 2.67 2.65 2.66 2.66

2.67 2.71 2.72 2.74 2.77 2.85 3.01 3.23

Primary OutFlow Max=3.41 cfs @ 12.62 hrs HW=215.90' (Free Discharge)
↑ **1=Culvert** (Passes 3.41 cfs of 11.01 cfs potential flow)
  ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 3.41 cfs @ 2.02 fps)
  └ **3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 7P: Constructed Stormwater Wetland #1

Inflow Area = 12.221 ac, 25.01% Impervious, Inflow Depth = 1.20" for 2-yr event
Inflow = 10.41 cfs @ 12.10 hrs, Volume= 1.223 af
Outflow = 9.26 cfs @ 12.15 hrs, Volume= 1.222 af, Atten= 11%, Lag= 3.2 min
Primary = 9.26 cfs @ 12.15 hrs, Volume= 1.222 af
Routed to Link 20L : DP-A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 215.27' @ 12.15 hrs Surf.Area= 12,369 sf Storage= 5,430 cf

Plug-Flow detention time= 53.7 min calculated for 1.222 af (100% of inflow)
Center-of-Mass det. time= 53.2 min (897.7 - 844.5)

Volume	Invert	Avail.Storage	Storage Description
#1	214.80'	15,607 cf	**Custom Stage Data (Irregular)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
214.80	10,823	764.0	0	0	10,823
215.00	11,206	768.0	2,203	2,203	11,334
216.00	15,729	1,216.0	13,404	15,607	82,072

Device	Routing	Invert	Outlet Devices
#1	Primary	215.10'	**40.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Primary	214.80'	**12.0" Round Culvert X 3.00** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.80' / 214.00' S= 0.0320 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=9.21 cfs @ 12.15 hrs HW=215.27' (Free Discharge)
↑ **1=Broad-Crested Rectangular Weir** (Weir Controls 7.18 cfs @ 1.04 fps)
└ **2=Culvert** (Inlet Controls 2.03 cfs @ 1.85 fps)

Summary for Pond 21P: CB-4

Inflow Area = 0.212 ac, 89.84% Impervious, Inflow Depth = 2.45" for 2-yr event
Inflow = 0.57 cfs @ 12.09 hrs, Volume= 0.043 af
Outflow = 0.57 cfs @ 12.09 hrs, Volume= 0.043 af, Atten= 0%, Lag= 0.0 min
Primary = 0.57 cfs @ 12.09 hrs, Volume= 0.043 af
Routed to Pond 22P : DMH-2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.09' @ 12.09 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**12.0" Round Culvert** L= 41.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.70' / 215.29' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.55 cfs @ 12.09 hrs HW=216.08' (Free Discharge)
1=Culvert (Barrel Controls 0.55 cfs @ 2.95 fps)

Summary for Pond 22P: DMH-2

Inflow Area = 2.105 ac, 74.05% Impervious, Inflow Depth = 2.02" for 2-yr event
Inflow = 4.79 cfs @ 12.09 hrs, Volume= 0.355 af
Outflow = 4.79 cfs @ 12.09 hrs, Volume= 0.355 af, Atten= 0%, Lag= 0.0 min
Primary = 4.79 cfs @ 12.09 hrs, Volume= 0.355 af
Routed to Pond 7P : Constructed Stormwater Wetland #1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.55' @ 12.09 hrs
Flood Elev= 220.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.55'	**24.0" Round Culvert** L= 117.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 214.55' / 213.75' S= 0.0068 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf

Primary OutFlow Max=4.68 cfs @ 12.09 hrs HW=215.54' (Free Discharge)
1=Culvert (Barrel Controls 4.68 cfs @ 4.43 fps)

Summary for Pond 23P: CB-2

Inflow Area = 0.294 ac, 95.22% Impervious, Inflow Depth = 2.66" for 2-yr event
Inflow = 0.82 cfs @ 12.09 hrs, Volume= 0.065 af
Outflow = 0.82 cfs @ 12.09 hrs, Volume= 0.065 af, Atten= 0%, Lag= 0.0 min
Primary = 0.82 cfs @ 12.09 hrs, Volume= 0.065 af
Routed to Pond 26P : DMH-1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.94' @ 12.09 hrs
Flood Elev= 218.44'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.44'	**12.0" Round Culvert** L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.44' / 215.20' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.80 cfs @ 12.09 hrs HW=215.93' (Free Discharge)
1=Culvert (Barrel Controls 0.80 cfs @ 3.05 fps)

Summary for Pond 24P: CB-1

Inflow Area = 0.179 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.51 cfs @ 12.09 hrs, Volume= 0.041 af
Outflow = 0.51 cfs @ 12.09 hrs, Volume= 0.041 af, Atten= 0%, Lag= 0.0 min
Primary = 0.51 cfs @ 12.09 hrs, Volume= 0.041 af
Routed to Pond 26P : DMH-1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.40' @ 12.09 hrs
Flood Elev= 218.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.00'	**12.0" Round Culvert** L= 11.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.00' / 214.89' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.50 cfs @ 12.09 hrs HW=215.40' (Free Discharge)
1=Culvert (Barrel Controls 0.50 cfs @ 2.54 fps)

Summary for Pond 25P: CB-3

Inflow Area = 0.868 ac, 70.42% Impervious, Inflow Depth = 1.90" for 2-yr event
Inflow = 1.88 cfs @ 12.09 hrs, Volume= 0.137 af
Outflow = 1.88 cfs @ 12.09 hrs, Volume= 0.137 af, Atten= 0%, Lag= 0.0 min
Primary = 1.88 cfs @ 12.09 hrs, Volume= 0.137 af
Routed to Pond 26P : DMH-1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.65' @ 12.09 hrs
Flood Elev= 218.95'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.95'	**15.0" Round Culvert** L= 45.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.95' / 215.50' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=1.84 cfs @ 12.09 hrs HW=216.64' (Free Discharge)
1=Culvert (Barrel Controls 1.84 cfs @ 3.83 fps)

Summary for Pond 26P: DMH-1

Inflow Area = 1.341 ac, 79.82% Impervious, Inflow Depth = 2.18" for 2-yr event
Inflow = 3.21 cfs @ 12.09 hrs, Volume= 0.244 af
Outflow = 3.21 cfs @ 12.09 hrs, Volume= 0.244 af, Atten= 0%, Lag= 0.0 min
Primary = 3.21 cfs @ 12.09 hrs, Volume= 0.244 af
Routed to Pond 7P : Constructed Stormwater Wetland #1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.65' @ 12.09 hrs
Flood Elev= 218.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.79'	**18.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 214.79' / 214.20' S= 0.0104 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=3.14 cfs @ 12.09 hrs HW=215.64' (Free Discharge)
1=Culvert (Barrel Controls 3.14 cfs @ 4.37 fps)

Summary for Pond 27P: DCB-22

Inflow Area = 0.456 ac, 92.24% Impervious, Inflow Depth = 2.55" for 2-yr event
Inflow = 1.25 cfs @ 12.09 hrs, Volume= 0.097 af
Outflow = 1.25 cfs @ 12.09 hrs, Volume= 0.097 af, Atten= 0%, Lag= 0.0 min
Primary = 1.25 cfs @ 12.09 hrs, Volume= 0.097 af
Routed to Pond 28P : DMH-18

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.35' @ 12.09 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**12.0" Round Culvert** L= 47.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.70' / 215.37' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.21 cfs @ 12.09 hrs HW=216.34' (Free Discharge)
1=Culvert (Barrel Controls 1.21 cfs @ 3.23 fps)

Summary for Pond 28P: DMH-18

Inflow Area = 0.456 ac, 92.24% Impervious, Inflow Depth = 2.55" for 2-yr event
Inflow = 1.25 cfs @ 12.09 hrs, Volume= 0.097 af
Outflow = 1.25 cfs @ 12.09 hrs, Volume= 0.097 af, Atten= 0%, Lag= 0.0 min
Primary = 1.25 cfs @ 12.09 hrs, Volume= 0.097 af
Routed to Pond 30P : DMH-17

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 215.89' @ 12.09 hrs
Flood Elev= 219.41'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.27'	**12.0" Round Culvert** L= 167.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.27' / 214.10' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.21 cfs @ 12.09 hrs HW=215.88' (Free Discharge)
1=Culvert (Barrel Controls 1.21 cfs @ 3.45 fps)

Summary for Pond 29P: CB-21

Inflow Area = 0.431 ac, 94.22% Impervious, Inflow Depth = 2.55" for 2-yr event
Inflow = 1.18 cfs @ 12.09 hrs, Volume= 0.092 af
Outflow = 1.18 cfs @ 12.09 hrs, Volume= 0.092 af, Atten= 0%, Lag= 0.0 min
Primary = 1.18 cfs @ 12.09 hrs, Volume= 0.092 af
Routed to Pond 30P : DMH-17

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.40' @ 12.09 hrs
Flood Elev= 218.83'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.83'	**12.0" Round Culvert** L= 83.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.83' / 215.00' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.15 cfs @ 12.09 hrs HW=216.39' (Free Discharge)
1=Culvert (Inlet Controls 1.15 cfs @ 2.54 fps)

Summary for Pond 30P: DMH-17

Inflow Area = 0.887 ac, 93.20% Impervious, Inflow Depth = 2.55" for 2-yr event
Inflow = 2.42 cfs @ 12.09 hrs, Volume= 0.189 af
Outflow = 2.42 cfs @ 12.09 hrs, Volume= 0.189 af, Atten= 0%, Lag= 0.0 min
Primary = 2.42 cfs @ 12.09 hrs, Volume= 0.189 af
Routed to Pond 31P : DMH-16

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 214.98' @ 12.09 hrs
Flood Elev= 220.43'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.00'	**12.0" Round Culvert** L= 112.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 214.00' / 213.22' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.36 cfs @ 12.09 hrs HW=214.96' (Free Discharge)
1=Culvert (Barrel Controls 2.36 cfs @ 3.92 fps)

Summary for Pond 31P: DMH-16

Inflow Area = 1.085 ac, 92.93% Impervious, Inflow Depth = 2.55" for 2-yr event
Inflow = 2.97 cfs @ 12.09 hrs, Volume= 0.231 af
Outflow = 2.97 cfs @ 12.09 hrs, Volume= 0.231 af, Atten= 0%, Lag= 0.0 min
Primary = 2.97 cfs @ 12.09 hrs, Volume= 0.231 af
Routed to Pond 4P : Constructed Stormwater Wetland #2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 213.95' @ 12.09 hrs
Flood Elev= 220.47'

Device	Routing	Invert	Outlet Devices
#1	Primary	213.12'	**18.0" Round Culvert** L= 66.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 213.12' / 212.50' S= 0.0094 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=2.89 cfs @ 12.09 hrs HW=213.94' (Free Discharge)
1=Culvert (Barrel Controls 2.89 cfs @ 4.24 fps)

Summary for Pond 32P: CB-20

Inflow Area = 0.198 ac, 91.71% Impervious, Inflow Depth = 2.55" for 2-yr event
Inflow = 0.54 cfs @ 12.09 hrs, Volume= 0.042 af
Outflow = 0.54 cfs @ 12.09 hrs, Volume= 0.042 af, Atten= 0%, Lag= 0.0 min
Primary = 0.54 cfs @ 12.09 hrs, Volume= 0.042 af
Routed to Pond 31P : DMH-16

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.14' @ 12.09 hrs
Flood Elev= 218.77'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.77'	**12.0" Round Culvert** L= 65.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.77' / 214.47' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.53 cfs @ 12.09 hrs HW=216.13' (Free Discharge)
1=Culvert (Inlet Controls 0.53 cfs @ 2.05 fps)

Summary for Pond 36P: DMH-6

Inflow Area = 0.564 ac, 78.30% Impervious, Inflow Depth = 2.12" for 2-yr event
Inflow = 1.35 cfs @ 12.09 hrs, Volume= 0.099 af
Outflow = 1.35 cfs @ 12.09 hrs, Volume= 0.099 af, Atten= 0%, Lag= 0.0 min
Primary = 1.35 cfs @ 12.09 hrs, Volume= 0.099 af
Routed to Pond 73P : DMH-7

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.86' @ 12.09 hrs
Flood Elev= 219.28'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.25'	**12.0" Round Culvert** L= 43.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.25' / 214.73' S= 0.0121 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.31 cfs @ 12.09 hrs HW=215.85' (Free Discharge)
1=Culvert (Inlet Controls 1.31 cfs @ 2.65 fps)

Summary for Pond 37P: DMH-9

Inflow Area = 0.235 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.67 cfs @ 12.09 hrs, Volume= 0.054 af
Outflow = 0.67 cfs @ 12.09 hrs, Volume= 0.054 af, Atten= 0%, Lag= 0.0 min
Primary = 0.67 cfs @ 12.09 hrs, Volume= 0.054 af
Routed to Pond 63P : DMH-8

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 223.37' @ 12.09 hrs
Flood Elev= 226.46'

Device	Routing	Invert	Outlet Devices
#1	Primary	222.96'	**12.0" Round Culvert** L= 83.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 222.96' / 216.74' S= 0.0749 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.65 cfs @ 12.09 hrs HW=223.37' (Free Discharge)
1=Culvert (Inlet Controls 0.65 cfs @ 2.17 fps)

Summary for Pond 38P: CB-16

Inflow Area = 0.054 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.15 cfs @ 12.09 hrs, Volume= 0.012 af
Outflow = 0.15 cfs @ 12.09 hrs, Volume= 0.012 af, Atten= 0%, Lag= 0.0 min
Primary = 0.15 cfs @ 12.09 hrs, Volume= 0.012 af
Routed to Pond 61P : DMH-10

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 232.27' @ 12.09 hrs
Flood Elev= 235.58'

Device	Routing	Invert	Outlet Devices
#1	Primary	232.08'	**12.0" Round Culvert** L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 232.08' / 231.78' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.15 cfs @ 12.09 hrs HW=232.27' (Free Discharge)
1=Culvert (Inlet Controls 0.15 cfs @ 1.47 fps)

Summary for Pond 39P: CB-17

Inflow Area = 0.056 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.16 cfs @ 12.09 hrs, Volume= 0.013 af
Outflow = 0.16 cfs @ 12.09 hrs, Volume= 0.013 af, Atten= 0%, Lag= 0.0 min
Primary = 0.16 cfs @ 12.09 hrs, Volume= 0.013 af
Routed to Pond 61P : DMH-10

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 232.27' @ 12.09 hrs
Flood Elev= 235.58'

Device	Routing	Invert	Outlet Devices
#1	Primary	232.08'	**12.0" Round Culvert** L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 232.08' / 231.78' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.15 cfs @ 12.09 hrs HW=232.27' (Free Discharge)
1=Culvert (Inlet Controls 0.15 cfs @ 1.49 fps)

Summary for Pond 40P: CB-8

Inflow Area = 0.721 ac, 71.70% Impervious, Inflow Depth = 1.98" for 2-yr event
Inflow = 1.63 cfs @ 12.09 hrs, Volume= 0.119 af
Outflow = 1.63 cfs @ 12.09 hrs, Volume= 0.119 af, Atten= 0%, Lag= 0.0 min
Primary = 1.63 cfs @ 12.09 hrs, Volume= 0.119 af
Routed to Pond 68P : DMH-4

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.44' @ 12.09 hrs
Flood Elev= 219.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.80'	**15.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.80' / 216.56' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=1.59 cfs @ 12.09 hrs HW=217.43' (Free Discharge)
1=Culvert (Barrel Controls 1.59 cfs @ 3.71 fps)

Summary for Pond 41P: DMH-5

Inflow Area = 0.562 ac, 64.26% Impervious, Inflow Depth = 1.74" for 2-yr event
Inflow = 1.12 cfs @ 12.09 hrs, Volume= 0.081 af
Outflow = 1.12 cfs @ 12.09 hrs, Volume= 0.081 af, Atten= 0%, Lag= 0.0 min
Primary = 1.12 cfs @ 12.09 hrs, Volume= 0.081 af
Routed to Pond 68P : DMH-4

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.08' @ 12.09 hrs
Flood Elev= 220.13'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.50'	**12.0" Round Culvert** L= 195.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.50' / 215.13' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.10 cfs @ 12.09 hrs HW=217.08' (Free Discharge)
1=Culvert (Barrel Controls 1.10 cfs @ 3.39 fps)

Summary for Pond 42P: CB-10

Inflow Area = 0.278 ac, 63.54% Impervious, Inflow Depth = 1.74" for 2-yr event
Inflow = 0.55 cfs @ 12.09 hrs, Volume= 0.040 af
Outflow = 0.55 cfs @ 12.09 hrs, Volume= 0.040 af, Atten= 0%, Lag= 0.0 min
Primary = 0.55 cfs @ 12.09 hrs, Volume= 0.040 af
Routed to Pond 41P : DMH-5

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.22' @ 12.09 hrs
Flood Elev= 219.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.80'	**12.0" Round Culvert** L= 29.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.80' / 216.60' S= 0.0069 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.54 cfs @ 12.09 hrs HW=217.22' (Free Discharge)
1=Culvert (Barrel Controls 0.54 cfs @ 2.58 fps)

Summary for Pond 43P: CB-9

Inflow Area = 0.284 ac, 64.96% Impervious, Inflow Depth = 1.74" for 2-yr event
Inflow = 0.57 cfs @ 12.09 hrs, Volume= 0.041 af
Outflow = 0.57 cfs @ 12.09 hrs, Volume= 0.041 af, Atten= 0%, Lag= 0.0 min
Primary = 0.57 cfs @ 12.09 hrs, Volume= 0.041 af
Routed to Pond 41P : DMH-5

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.23' @ 12.09 hrs
Flood Elev= 219.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.80'	**12.0" Round Culvert** L= 29.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.80' / 216.60' S= 0.0069 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.56 cfs @ 12.09 hrs HW=217.22' (Free Discharge)
1=Culvert (Barrel Controls 0.56 cfs @ 2.60 fps)

Summary for Pond 52P: CB-18

Inflow Area = 0.065 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.19 cfs @ 12.09 hrs, Volume= 0.015 af
Outflow = 0.19 cfs @ 12.09 hrs, Volume= 0.015 af, Atten= 0%, Lag= 0.0 min
Primary = 0.19 cfs @ 12.09 hrs, Volume= 0.015 af
Routed to Pond 54P : DMH-12

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 247.36' @ 12.09 hrs
Flood Elev= 250.65'

Device	Routing	Invert	Outlet Devices
#1	Primary	247.15'	**12.0" Round Culvert** L= 18.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 247.15' / 246.75' S= 0.0222 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.18 cfs @ 12.09 hrs HW=247.36' (Free Discharge)
1=Culvert (Inlet Controls 0.18 cfs @ 1.54 fps)

Summary for Pond 53P: CB-19

Inflow Area = 0.060 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.17 cfs @ 12.09 hrs, Volume= 0.014 af
Outflow = 0.17 cfs @ 12.09 hrs, Volume= 0.014 af, Atten= 0%, Lag= 0.0 min
Primary = 0.17 cfs @ 12.09 hrs, Volume= 0.014 af
Routed to Pond 54P : DMH-12

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 247.35' @ 12.09 hrs
Flood Elev= 250.65'

Device	Routing	Invert	Outlet Devices
#1	Primary	247.15'	**12.0" Round Culvert** L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 247.15' / 246.75' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.16 cfs @ 12.09 hrs HW=247.35' (Free Discharge)
1=Culvert (Inlet Controls 0.16 cfs @ 1.51 fps)

Summary for Pond 54P: DMH-12

Inflow Area = 0.125 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.35 cfs @ 12.09 hrs, Volume= 0.029 af
Outflow = 0.35 cfs @ 12.09 hrs, Volume= 0.029 af, Atten= 0%, Lag= 0.0 min
Primary = 0.35 cfs @ 12.09 hrs, Volume= 0.029 af
Routed to Pond 56P : DMH-11

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 246.94' @ 12.09 hrs
Flood Elev= 249.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	246.65'	**12.0" Round Culvert** L= 84.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 246.65' / 240.35' S= 0.0750 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.34 cfs @ 12.09 hrs HW=246.94' (Free Discharge)
1=Culvert (Inlet Controls 0.34 cfs @ 1.83 fps)

Summary for Pond 56P: DMH-11

Inflow Area = 0.125 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.35 cfs @ 12.09 hrs, Volume= 0.029 af
Outflow = 0.35 cfs @ 12.09 hrs, Volume= 0.029 af, Atten= 0%, Lag= 0.0 min
Primary = 0.35 cfs @ 12.09 hrs, Volume= 0.029 af
Routed to Pond 61P : DMH-10

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 240.54' @ 12.09 hrs
Flood Elev= 243.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	240.25'	**12.0" Round Culvert** L= 110.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 240.25' / 232.00' S= 0.0750 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.34 cfs @ 12.09 hrs HW=240.54' (Free Discharge)
1=Culvert (Inlet Controls 0.34 cfs @ 1.83 fps)

Summary for Pond 61P: DMH-10

Inflow Area = 0.235 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.67 cfs @ 12.09 hrs, Volume= 0.054 af
Outflow = 0.67 cfs @ 12.09 hrs, Volume= 0.054 af, Atten= 0%, Lag= 0.0 min
Primary = 0.67 cfs @ 12.09 hrs, Volume= 0.054 af
Routed to Pond 37P : DMH-9

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 232.09' @ 12.09 hrs
Flood Elev= 235.07'

Device	Routing	Invert	Outlet Devices
#1	Primary	231.68'	**12.0" Round Culvert** L= 115.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 231.68' / 223.06' S= 0.0750 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.65 cfs @ 12.09 hrs HW=232.09' (Free Discharge)
1=Culvert (Inlet Controls 0.65 cfs @ 2.17 fps)

Summary for Pond 63P: DMH-8

Inflow Area = 0.386 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 1.10 cfs @ 12.09 hrs, Volume= 0.089 af
Outflow = 1.10 cfs @ 12.09 hrs, Volume= 0.089 af, Atten= 0%, Lag= 0.0 min
Primary = 1.10 cfs @ 12.09 hrs, Volume= 0.089 af
Routed to Pond 73P : DMH-7

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.18' @ 12.09 hrs
Flood Elev= 221.97'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.64'	**12.0" Round Culvert** L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.64' / 214.73' S= 0.0239 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.07 cfs @ 12.09 hrs HW=217.18' (Free Discharge)
1=Culvert (Inlet Controls 1.07 cfs @ 2.49 fps)

Summary for Pond 66P: CB-14

Inflow Area = 0.057 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.16 cfs @ 12.09 hrs, Volume= 0.013 af
Outflow = 0.16 cfs @ 12.09 hrs, Volume= 0.013 af, Atten= 0%, Lag= 0.0 min
Primary = 0.16 cfs @ 12.09 hrs, Volume= 0.013 af
Routed to Pond 63P : DMH-8

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 218.66' @ 12.09 hrs
Flood Elev= 221.97'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.47'	**12.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 218.47' / 218.23' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.16 cfs @ 12.09 hrs HW=218.66' (Free Discharge)
1=Culvert (Inlet Controls 0.16 cfs @ 1.49 fps)

Summary for Pond 67P: CB-15

Inflow Area = 0.094 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.27 cfs @ 12.09 hrs, Volume= 0.022 af
Outflow = 0.27 cfs @ 12.09 hrs, Volume= 0.022 af, Atten= 0%, Lag= 0.0 min
Primary = 0.27 cfs @ 12.09 hrs, Volume= 0.022 af
Routed to Pond 63P : DMH-8

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 218.72' @ 12.09 hrs
Flood Elev= 221.97'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.47'	**12.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 218.47' / 218.23' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.26 cfs @ 12.09 hrs HW=218.72' (Free Discharge)
1=Culvert (Inlet Controls 0.26 cfs @ 1.70 fps)

Summary for Pond 68P: DMH-4

Inflow Area = 1.474 ac, 67.81% Impervious, Inflow Depth = 1.86" for 2-yr event
Inflow = 3.13 cfs @ 12.09 hrs, Volume= 0.228 af
Outflow = 3.13 cfs @ 12.09 hrs, Volume= 0.228 af, Atten= 0%, Lag= 0.0 min
Primary = 3.13 cfs @ 12.09 hrs, Volume= 0.228 af
Routed to Pond 22P : DMH-2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 215.95' @ 12.09 hrs
Flood Elev= 220.11'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.03'	**18.0" Round Culvert** L= 54.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.03' / 214.65' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=3.07 cfs @ 12.09 hrs HW=215.94' (Free Discharge)
1=Culvert (Barrel Controls 3.07 cfs @ 3.90 fps)

Summary for Pond 69P: CB-5

Inflow Area = 0.103 ac, 81.35% Impervious, Inflow Depth = 2.16" for 2-yr event
Inflow = 0.25 cfs @ 12.09 hrs, Volume= 0.019 af
Outflow = 0.25 cfs @ 12.09 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min
Primary = 0.25 cfs @ 12.09 hrs, Volume= 0.019 af
Routed to Pond 22P : DMH-2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.91' @ 12.09 hrs
Flood Elev= 219.67'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.67'	**12.0" Round Culvert** L= 33.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.67' / 216.01' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.24 cfs @ 12.09 hrs HW=216.91' (Free Discharge)
1=Culvert (Inlet Controls 0.24 cfs @ 1.67 fps)

Summary for Pond 70P: CB-7

Inflow Area = 0.191 ac, 63.63% Impervious, Inflow Depth = 1.74" for 2-yr event
Inflow = 0.38 cfs @ 12.09 hrs, Volume= 0.028 af
Outflow = 0.38 cfs @ 12.09 hrs, Volume= 0.028 af, Atten= 0%, Lag= 0.0 min
Primary = 0.38 cfs @ 12.09 hrs, Volume= 0.028 af
Routed to Pond 68P : DMH-4

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.11' @ 12.09 hrs
Flood Elev= 219.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.80'	**12.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.80' / 216.56' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.37 cfs @ 12.09 hrs HW=217.10' (Free Discharge)
1=Culvert (Inlet Controls 0.37 cfs @ 1.87 fps)

Summary for Pond 73P: DMH-7

Inflow Area = 1.601 ac, 88.63% Impervious, Inflow Depth = 2.41" for 2-yr event
Inflow = 4.18 cfs @ 12.09 hrs, Volume= 0.322 af
Outflow = 4.18 cfs @ 12.09 hrs, Volume= 0.322 af, Atten= 0%, Lag= 0.0 min
Primary = 4.18 cfs @ 12.09 hrs, Volume= 0.322 af
Routed to Pond 5P : Wet Basin

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.48' @ 12.09 hrs
Flood Elev= 219.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.60'	**24.0" Round Culvert** L= 52.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 214.60' / 214.00' S= 0.0115 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf

Primary OutFlow Max=4.07 cfs @ 12.09 hrs HW=215.47' (Free Discharge)
1=Culvert (Barrel Controls 4.07 cfs @ 4.60 fps)

Summary for Pond 78P: CB-11

Inflow Area = 0.289 ac, 78.73% Impervious, Inflow Depth = 2.16" for 2-yr event
Inflow = 0.70 cfs @ 12.09 hrs, Volume= 0.052 af
Outflow = 0.70 cfs @ 12.09 hrs, Volume= 0.052 af, Atten= 0%, Lag= 0.0 min
Primary = 0.70 cfs @ 12.09 hrs, Volume= 0.052 af
Routed to Pond 36P : DMH-6

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.13' @ 12.09 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**12.0" Round Culvert** L= 29.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.70' / 215.35' S= 0.0121 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.69 cfs @ 12.09 hrs HW=216.13' (Free Discharge)
1=Culvert (Barrel Controls 0.69 cfs @ 3.18 fps)

Summary for Pond 79P: CB-12

Inflow Area = 0.274 ac, 77.84% Impervious, Inflow Depth = 2.07" for 2-yr event
Inflow = 0.64 cfs @ 12.09 hrs, Volume= 0.047 af
Outflow = 0.64 cfs @ 12.09 hrs, Volume= 0.047 af, Atten= 0%, Lag= 0.0 min
Primary = 0.64 cfs @ 12.09 hrs, Volume= 0.047 af
Routed to Pond 36P : DMH-6

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.11' @ 12.09 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**12.0" Round Culvert** L= 29.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.70' / 215.35' S= 0.0121 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.63 cfs @ 12.09 hrs HW=216.10' (Free Discharge)
1=Culvert (Barrel Controls 0.63 cfs @ 3.12 fps)

Summary for Pond 80P: DCB-13

Inflow Area = 0.652 ac, 90.83% Impervious, Inflow Depth = 2.45" for 2-yr event
Inflow = 1.74 cfs @ 12.09 hrs, Volume= 0.133 af
Outflow = 1.74 cfs @ 12.09 hrs, Volume= 0.133 af, Atten= 0%, Lag= 0.0 min
Primary = 1.74 cfs @ 12.09 hrs, Volume= 0.133 af
Routed to Pond 73P : DMH-7

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.14' @ 12.09 hrs
Flood Elev= 219.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.50'	**15.0" Round Culvert** L= 119.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.50' / 214.73' S= 0.0149 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=1.69 cfs @ 12.09 hrs HW=217.13' (Free Discharge)
1=Culvert (Inlet Controls 1.69 cfs @ 2.71 fps)

Summary for Pond 81P: CB-6

Inflow Area = 0.316 ac, 90.13% Impervious, Inflow Depth = 2.45" for 2-yr event
Inflow = 0.84 cfs @ 12.09 hrs, Volume= 0.064 af
Outflow = 0.84 cfs @ 12.09 hrs, Volume= 0.064 af, Atten= 0%, Lag= 0.0 min
Primary = 0.84 cfs @ 12.09 hrs, Volume= 0.064 af
Routed to Pond 82P : DMH-3

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 216.23' @ 12.09 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**12.0" Round Culvert** L= 27.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.70' / 215.51' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.82 cfs @ 12.09 hrs HW=216.23' (Free Discharge)
1=Culvert (Barrel Controls 0.82 cfs @ 2.85 fps)

Summary for Pond 82P: DMH-3

Inflow Area = 0.316 ac, 90.13% Impervious, Inflow Depth = 2.45" for 2-yr event
Inflow = 0.84 cfs @ 12.09 hrs, Volume= 0.064 af
Outflow = 0.84 cfs @ 12.09 hrs, Volume= 0.064 af, Atten= 0%, Lag= 0.0 min
Primary = 0.84 cfs @ 12.09 hrs, Volume= 0.064 af
Routed to Pond 22P : DMH-2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.86' @ 12.09 hrs
Flood Elev= 219.32'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.41'	**24.0" Round Culvert** L= 198.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.41' / 214.65' S= 0.0038 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf

Primary OutFlow Max=0.82 cfs @ 12.09 hrs HW=215.85' (Free Discharge)
1=Culvert (Barrel Controls 0.82 cfs @ 2.40 fps)

Summary for Link 20L: DP-A

Inflow Area = 30.660 ac, 25.11% Impervious, Inflow Depth > 0.88" for 2-yr event
Inflow = 11.35 cfs @ 12.45 hrs, Volume= 2.249 af
Primary = 11.35 cfs @ 12.45 hrs, Volume= 2.249 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 9S: A.7 Runoff Area=13,754 sf 90.13% Impervious Runoff Depth=3.87"
Tc=6.0 min CN=95 Runoff=1.29 cfs 0.102 af

Subcatchment 16S: A.9 Runoff Area=4,499 sf 81.35% Impervious Runoff Depth=3.54"
Tc=6.0 min CN=92 Runoff=0.40 cfs 0.031 af

Subcatchment 18S: A.8 Runoff Area=9,251 sf 89.84% Impervious Runoff Depth=3.87"
Tc=6.0 min CN=95 Runoff=0.87 cfs 0.068 af

Subcatchment 21S: A.1 Runoff Area=31,332 sf 0.00% Impervious Runoff Depth=1.49"
Tc=10.0 min CN=68 Runoff=1.03 cfs 0.089 af

Subcatchment 22S: A.2 Runoff Area=12,807 sf 95.22% Impervious Runoff Depth=4.09"
Tc=6.0 min CN=97 Runoff=1.23 cfs 0.100 af

Subcatchment 23S: A.3 Runoff Area=7,817 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=0.76 cfs 0.063 af

Subcatchment 24S: A.4 Runoff Area=62,775 sf 13.03% Impervious Runoff Depth=1.63"
Tc=6.0 min UI Adjusted CN=70 Runoff=2.63 cfs 0.196 af

Subcatchment 25S: A.5 Runoff Area=37,798 sf 70.42% Impervious Runoff Depth=3.24"
Tc=6.0 min CN=89 Runoff=3.15 cfs 0.234 af

Subcatchment 26S: ROOF.B Runoff Area=22,403 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=2.18 cfs 0.180 af

Subcatchment 27S: A.6 Runoff Area=288,122 sf 3.62% Impervious Runoff Depth=1.93"
Tc=30.0 min CN=74 Runoff=8.31 cfs 1.062 af

Subcatchment 28S: B.1 Runoff Area=18,758 sf 2.84% Impervious Runoff Depth=1.49"
Tc=10.0 min UI Adjusted CN=68 Runoff=0.62 cfs 0.054 af

Subcatchment 29S: B.2 Runoff Area=8,642 sf 91.71% Impervious Runoff Depth=3.98"
Tc=6.0 min CN=96 Runoff=0.82 cfs 0.066 af

Subcatchment 30S: B.3 Runoff Area=18,791 sf 94.22% Impervious Runoff Depth=3.98"
Tc=6.0 min CN=96 Runoff=1.79 cfs 0.143 af

Subcatchment 31S: B.4 Runoff Area=19,850 sf 92.24% Impervious Runoff Depth=3.98"
Tc=6.0 min CN=96 Runoff=1.89 cfs 0.151 af

Subcatchment 32S: ROOF.C Runoff Area=21,236 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=2.06 cfs 0.171 af

Subcatchment 33S: B.7 Runoff Area=24,998 sf 42.47% Impervious Runoff Depth=2.50"
Tc=6.0 min CN=81 Runoff=1.65 cfs 0.119 af

Subcatchment 35S: C.1 Runoff Area=221,268 sf 7.29% Impervious Runoff Depth=2.16"
Tc=20.0 min UI Adjusted CN=77 Runoff=8.60 cfs 0.915 af

Subcatchment 36S: C.2 Runoff Area=12,593 sf 78.73% Impervious Runoff Depth=3.54"
Tc=6.0 min CN=92 Runoff=1.12 cfs 0.085 af

Subcatchment 37S: C.3 Runoff Area=11,956 sf 77.84% Impervious Runoff Depth=3.44"
Tc=6.0 min CN=91 Runoff=1.04 cfs 0.079 af

Subcatchment 38S: C.4 Runoff Area=28,385 sf 90.83% Impervious Runoff Depth=3.87"
Tc=6.0 min CN=95 Runoff=2.67 cfs 0.210 af

Subcatchment 40S: C.6 Runoff Area=2,477 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=0.24 cfs 0.020 af

Subcatchment 41S: C.7 Runoff Area=4,104 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=0.40 cfs 0.033 af

Subcatchment 42S: C.8 Runoff Area=2,348 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=0.23 cfs 0.019 af

Subcatchment 43S: C.9 Runoff Area=2,458 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=0.24 cfs 0.020 af

Subcatchment 44S: C.10 Runoff Area=2,596 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=0.25 cfs 0.021 af

Subcatchment 45S: C.11 Runoff Area=2,841 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=0.28 cfs 0.023 af

Subcatchment 51S: D.1 Runoff Area=358,257 sf 1.76% Impervious Runoff Depth=1.11"
Tc=20.0 min UI Adjusted CN=62 Runoff=6.29 cfs 0.758 af

Subcatchment 54S: ROOF.A Runoff Area=19,211 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=1.87 cfs 0.155 af

Subcatchment 55S: A.11 Runoff Area=8,332 sf 63.63% Impervious Runoff Depth=3.04"
Tc=6.0 min CN=87 Runoff=0.66 cfs 0.049 af

Subcatchment 56S: A.12 Runoff Area=31,388 sf 71.70% Impervious Runoff Depth=3.34"
Tc=6.0 min CN=90 Runoff=2.68 cfs 0.200 af

Subcatchment 57S: A.13 Runoff Area=12,383 sf 64.96% Impervious Runoff Depth=3.04"
Tc=6.0 min CN=87 Runoff=0.98 cfs 0.072 af

Subcatchment 58S: A.14 Runoff Area=12,099 sf 63.54% Impervious Runoff Depth=3.04"
Tc=6.0 min CN=87 Runoff=0.96 cfs 0.070 af

Pond 4P: Constructed Stormwater Wetland Peak Elev=214.95' Storage=15,949 cf Inflow=6.68 cfs 0.533 af
Outflow=0.39 cfs 0.264 af

Pond 5P: Wet Basin Peak Elev=216.31' Storage=30,210 cf Inflow=17.45 cfs 1.930 af
Outflow=11.78 cfs 1.529 af

Pond 7P: Constructed Stormwater Wetland Peak Elev=215.38' Storage=6,800 cf Inflow=19.63 cfs 2.336 af
Outflow=18.06 cfs 2.336 af

Pond 21P: CB-4 Peak Elev=216.20' Inflow=0.87 cfs 0.068 af
12.0" Round Culvert n=0.013 L=41.0' S=0.0100 '/' Outflow=0.87 cfs 0.068 af

Pond 22P: DMH-2 Peak Elev=215.89' Inflow=7.84 cfs 0.592 af
24.0" Round Culvert n=0.013 L=117.0' S=0.0068 '/' Outflow=7.84 cfs 0.592 af

Pond 23P: CB-2 Peak Elev=216.07' Inflow=1.23 cfs 0.100 af
12.0" Round Culvert n=0.013 L=24.0' S=0.0100 '/' Outflow=1.23 cfs 0.100 af

Pond 24P: CB-1 Peak Elev=215.50' Inflow=0.76 cfs 0.063 af
12.0" Round Culvert n=0.013 L=11.0' S=0.0100 '/' Outflow=0.76 cfs 0.063 af

Pond 25P: CB-3 Peak Elev=216.92' Inflow=3.15 cfs 0.234 af
15.0" Round Culvert n=0.013 L=45.0' S=0.0100 '/' Outflow=3.15 cfs 0.234 af

Pond 26P: DMH-1 Peak Elev=215.95' Inflow=5.14 cfs 0.397 af
18.0" Round Culvert n=0.013 L=57.0' S=0.0104 '/' Outflow=5.14 cfs 0.397 af

Pond 27P: DCB-22 Peak Elev=216.55' Inflow=1.89 cfs 0.151 af
12.0" Round Culvert n=0.013 L=47.0' S=0.0070 '/' Outflow=1.89 cfs 0.151 af

Pond 28P: DMH-18 Peak Elev=216.07' Inflow=1.89 cfs 0.151 af
12.0" Round Culvert n=0.013 L=167.0' S=0.0070 '/' Outflow=1.89 cfs 0.151 af

Pond 29P: CB-21 Peak Elev=216.56' Inflow=1.79 cfs 0.143 af
12.0" Round Culvert n=0.013 L=83.0' S=0.0100 '/' Outflow=1.79 cfs 0.143 af

Pond 30P: DMH-17 Peak Elev=215.94' Inflow=3.68 cfs 0.294 af
12.0" Round Culvert n=0.013 L=112.0' S=0.0070 '/' Outflow=3.68 cfs 0.294 af

Pond 31P: DMH-16 Peak Elev=214.19' Inflow=4.51 cfs 0.360 af
18.0" Round Culvert n=0.013 L=66.0' S=0.0094 '/' Outflow=4.51 cfs 0.360 af

Pond 32P: CB-20 Peak Elev=216.23' Inflow=0.82 cfs 0.066 af
12.0" Round Culvert n=0.013 L=65.0' S=0.0200 '/' Outflow=0.82 cfs 0.066 af

Pond 36P: DMH-6 Peak Elev=216.08' Inflow=2.17 cfs 0.164 af
12.0" Round Culvert n=0.013 L=43.0' S=0.0121 '/' Outflow=2.17 cfs 0.164 af

Pond 37P: DMH-9 Peak Elev=223.47' Inflow=1.00 cfs 0.082 af
12.0" Round Culvert n=0.013 L=83.0' S=0.0749 '/' Outflow=1.00 cfs 0.082 af

Pond 38P: CB-16 Peak Elev=232.31' Inflow=0.23 cfs 0.019 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0200 '/' Outflow=0.23 cfs 0.019 af

Pond 39P: CB-17 Peak Elev=232.32' Inflow=0.24 cfs 0.020 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0200 '/' Outflow=0.24 cfs 0.020 af

Pond 40P: CB-8 Peak Elev=217.68' Inflow=2.68 cfs 0.200 af
15.0" Round Culvert n=0.013 L=12.0' S=0.0200 '/' Outflow=2.68 cfs 0.200 af

Pond 41P: DMH-5 Peak Elev=217.31' Inflow=1.94 cfs 0.143 af
12.0" Round Culvert n=0.013 L=195.0' S=0.0070 '/' Outflow=1.94 cfs 0.143 af

Pond 42P: CB-10 Peak Elev=217.38' Inflow=0.96 cfs 0.070 af
12.0" Round Culvert n=0.013 L=29.0' S=0.0069 '/' Outflow=0.96 cfs 0.070 af

Pond 43P: CB-9 Peak Elev=217.38' Inflow=0.98 cfs 0.072 af
12.0" Round Culvert n=0.013 L=29.0' S=0.0069 '/' Outflow=0.98 cfs 0.072 af

Pond 52P: CB-18 Peak Elev=247.41' Inflow=0.28 cfs 0.023 af
12.0" Round Culvert n=0.013 L=18.0' S=0.0222 '/' Outflow=0.28 cfs 0.023 af

Pond 53P: CB-19 Peak Elev=247.40' Inflow=0.25 cfs 0.021 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0200 '/' Outflow=0.25 cfs 0.021 af

Pond 54P: DMH-12 Peak Elev=247.01' Inflow=0.53 cfs 0.044 af
12.0" Round Culvert n=0.013 L=84.0' S=0.0750 '/' Outflow=0.53 cfs 0.044 af

Pond 56P: DMH-11 Peak Elev=240.61' Inflow=0.53 cfs 0.044 af
12.0" Round Culvert n=0.013 L=110.0' S=0.0750 '/' Outflow=0.53 cfs 0.044 af

Pond 61P: DMH-10 Peak Elev=232.20' Inflow=1.00 cfs 0.082 af
12.0" Round Culvert n=0.013 L=115.0' S=0.0750 '/' Outflow=1.00 cfs 0.082 af

Pond 63P: DMH-8 Peak Elev=217.33' Inflow=1.64 cfs 0.135 af
12.0" Round Culvert n=0.013 L=80.0' S=0.0239 '/' Outflow=1.64 cfs 0.135 af

Pond 66P: CB-14 Peak Elev=218.71' Inflow=0.24 cfs 0.020 af
12.0" Round Culvert n=0.013 L=12.0' S=0.0200 '/' Outflow=0.24 cfs 0.020 af

Pond 67P: CB-15 Peak Elev=218.78' Inflow=0.40 cfs 0.033 af
12.0" Round Culvert n=0.013 L=12.0' S=0.0200 '/' Outflow=0.40 cfs 0.033 af

Pond 68P: DMH-4 Peak Elev=216.31' Inflow=5.28 cfs 0.391 af
18.0" Round Culvert n=0.013 L=54.0' S=0.0070 '/' Outflow=5.28 cfs 0.391 af

Pond 69P: CB-5 Peak Elev=216.98' Inflow=0.40 cfs 0.031 af
12.0" Round Culvert n=0.013 L=33.0' S=0.0200 '/' Outflow=0.40 cfs 0.031 af

Pond 70P: CB-7 Peak Elev=217.21' Inflow=0.66 cfs 0.049 af
12.0" Round Culvert n=0.013 L=12.0' S=0.0200 '/' Outflow=0.66 cfs 0.049 af

Pond 73P: DMH-7 Peak Elev=215.74' Inflow=6.47 cfs 0.509 af
24.0" Round Culvert n=0.013 L=52.0' S=0.0115 '/' Outflow=6.47 cfs 0.509 af

Pond 78P: CB-11 Peak Elev=216.27' Inflow=1.12 cfs 0.085 af
12.0" Round Culvert n=0.013 L=29.0' S=0.0121 '/' Outflow=1.12 cfs 0.085 af

Pond 79P: CB-12 Peak Elev=216.24' Inflow=1.04 cfs 0.079 af
12.0" Round Culvert n=0.013 L=29.0' S=0.0121 '/' Outflow=1.04 cfs 0.079 af

Pond 80P: DCB-13 Peak Elev=217.33' Inflow=2.67 cfs 0.210 af
15.0" Round Culvert n=0.013 L=119.0' S=0.0149 '/' Outflow=2.67 cfs 0.210 af

Pond 81P: CB-6 Peak Elev=216.39' Inflow=1.29 cfs 0.102 af
12.0" Round Culvert n=0.013 L=27.0' S=0.0070 '/' Outflow=1.29 cfs 0.102 af

Pond 82P: DMH-3 Peak Elev=215.96' Inflow=1.29 cfs 0.102 af
24.0" Round Culvert n=0.013 L=198.0' S=0.0038 '/' Outflow=1.29 cfs 0.102 af

Link 20L: DP-A Inflow=32.62 cfs 4.886 af
Primary=32.62 cfs 4.886 af

Total Runoff Area = 30.660 ac Runoff Volume = 5.557 af Average Runoff Depth = 2.17"
74.89% Pervious = 22.961 ac 25.11% Impervious = 7.699 ac

Summary for Subcatchment 9S: A.7

Runoff = 1.29 cfs @ 12.09 hrs, Volume= 0.102 af, Depth= 3.87"
Routed to Pond 81P : CB-6

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
	11,369	98	Unconnected pavement, HSG A
*	1,358	68	>75% Grass cover, Good, HSG A
	783	98	Unconnected pavement, HSG A
	244	98	Roofs, HSG A
	13,754	95	Weighted Average
	1,358		9.87% Pervious Area
	12,396		90.13% Impervious Area
	12,152		98.03% Unconnected

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

Summary for Subcatchment 16S: A.9

Runoff = 0.40 cfs @ 12.09 hrs, Volume= 0.031 af, Depth= 3.54"
Routed to Pond 69P : CB-5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
	3,142	98	Paved parking, HSG A
*	839	68	>75% Grass cover, Good, HSG A
	518	98	Unconnected pavement, HSG A
	4,499	92	Weighted Average
	839		18.65% Pervious Area
	3,660		81.35% Impervious Area
	518		14.15% Unconnected

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

Summary for Subcatchment 18S: A.8

Runoff = 0.87 cfs @ 12.09 hrs, Volume= 0.068 af, Depth= 3.87"
Routed to Pond 21P : CB-4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
	7,383	98	Paved parking, HSG A
*	940	68	>75% Grass cover, Good, HSG A
	284	98	Unconnected pavement, HSG A
	644	98	Roofs, HSG A
	9,251	95	Weighted Average
	940		10.16% Pervious Area
	8,311		89.84% Impervious Area
	284		3.42% Unconnected

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

Summary for Subcatchment 21S: A.1

Runoff = 1.03 cfs @ 12.15 hrs, Volume= 0.089 af, Depth= 1.49"
Routed to Pond 7P : Constructed Stormwater Wetland #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
*	31,332	68	>75% Grass cover, Good, HSG A
	31,332		100.00% Pervious Area

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

Summary for Subcatchment 22S: A.2

Runoff = 1.23 cfs @ 12.09 hrs, Volume= 0.100 af, Depth= 4.09"
Routed to Pond 23P : CB-2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
	12,195	98	Paved parking, HSG A
*	612	68	>75% Grass cover, Good, HSG A
	12,807	97	Weighted Average
	612		4.78% Pervious Area
	12,195		95.22% Impervious Area

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

Summary for Subcatchment 23S: A.3

Runoff = 0.76 cfs @ 12.09 hrs, Volume= 0.063 af, Depth= 4.20"
Routed to Pond 24P : CB-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

Area (sf)	CN	Description
7,817	98	Paved parking, HSG A
7,817		100.00% Impervious Area

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

Summary for Subcatchment 24S: A.4

Runoff = 2.63 cfs @ 12.10 hrs, Volume= 0.196 af, Depth= 1.63"
Routed to Pond 7P : Constructed Stormwater Wetland #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Adj	Description
*	54,594	68		>75% Grass cover, Good, HSG A
	7,083	98		Unconnected pavement, HSG A
	1,098	98		Roofs, HSG A
	62,775	72	70	Weighted Average, UI Adjusted
	54,594			86.97% Pervious Area
	8,181			13.03% Impervious Area
	7,083			86.58% Unconnected

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

Summary for Subcatchment 25S: A.5

Runoff = 3.15 cfs @ 12.09 hrs, Volume= 0.234 af, Depth= 3.24"
Routed to Pond 25P : CB-3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
	14,601	98	Paved parking, HSG A
*	11,179	68	>75% Grass cover, Good, HSG A
	10,448	98	Roofs, HSG A
	1,570	98	Unconnected pavement, HSG A
	37,798	89	Weighted Average
	11,179		29.58% Pervious Area
	26,619		70.42% Impervious Area
	1,570		5.90% Unconnected

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

Summary for Subcatchment 26S: ROOF.B

Runoff = 2.18 cfs @ 12.09 hrs, Volume= 0.180 af, Depth= 4.20"
Routed to Pond 5P : Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
	22,403	98	Roofs, HSG A
	22,403		100.00% Impervious Area

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

Summary for Subcatchment 27S: A.6

Runoff = 8.31 cfs @ 12.44 hrs, Volume= 1.062 af, Depth= 1.93"
Routed to Pond 7P : Constructed Stormwater Wetland #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
*	126,122	68	>75% Grass cover, Good, HSG A
*	96,968	86	>75% Grass cover, Good, HSG C
*	12,765	89	>75% Grass cover, Good, HSG D
*	26,304	43	Woods, Good, HSG A
*	14,849	76	Woods, Good, HSG C
*	696	82	Woods, Good, HSG D
	1,799	98	Unconnected pavement, HSG A
	78	98	Unconnected pavement, HSG C
	8,541	98	Roofs, HSG A
	288,122	74	Weighted Average
	277,704		96.38% Pervious Area
	10,418		3.62% Impervious Area
	1,877		18.02% Unconnected

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

Summary for Subcatchment 28S: B.1

Runoff = 0.62 cfs @ 12.15 hrs, Volume= 0.054 af, Depth= 1.49"
Routed to Pond 4P : Constructed Stormwater Wetland #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Adj	Description
*	18,184	68		>75% Grass cover, Good, HSG A
*	41	82		Woods, Good, HSG D
	533	98		Unconnected pavement, HSG A
	18,758	69	68	Weighted Average, UI Adjusted
	18,225			97.16% Pervious Area
	533			2.84% Impervious Area
	533			100.00% Unconnected

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

Summary for Subcatchment 29S: B.2

Runoff = 0.82 cfs @ 12.09 hrs, Volume= 0.066 af, Depth= 3.98"
Routed to Pond 32P : CB-20

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
	548	98	Roofs, HSG A
	6,777	98	Paved parking, HSG A
	601	98	Unconnected pavement, HSG A
*	716	68	>75% Grass cover, Good, HSG A
	8,642	96	Weighted Average
	716		8.29% Pervious Area
	7,926		91.71% Impervious Area
	601		7.58% Unconnected

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

Summary for Subcatchment 30S: B.3

Runoff = 1.79 cfs @ 12.09 hrs, Volume= 0.143 af, Depth= 3.98"
Routed to Pond 29P : CB-21

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
	569	98	Roofs, HSG A
	15,960	98	Paved parking, HSG A
	1,175	98	Unconnected pavement, HSG A
*	1,087	68	>75% Grass cover, Good, HSG A
	18,791	96	Weighted Average
	1,087		5.78% Pervious Area
	17,704		94.22% Impervious Area
	1,175		6.64% Unconnected

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

Summary for Subcatchment 31S: B.4

Runoff = 1.89 cfs @ 12.09 hrs, Volume= 0.151 af, Depth= 3.98"
Routed to Pond 27P : DCB-22

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
	16,815	98	Paved parking, HSG A
	1,494	98	Unconnected pavement, HSG A
*	1,541	68	>75% Grass cover, Good, HSG A
	19,850	96	Weighted Average
	1,541		7.76% Pervious Area
	18,309		92.24% Impervious Area
	1,494		8.16% Unconnected

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

Summary for Subcatchment 32S: ROOF.C

Runoff = 2.06 cfs @ 12.09 hrs, Volume= 0.171 af, Depth= 4.20"
Routed to Pond 5P : Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
	21,236	98	Roofs, HSG A
	21,236		100.00% Impervious Area

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

Summary for Subcatchment 33S: B.7

Runoff = 1.65 cfs @ 12.09 hrs, Volume= 0.119 af, Depth= 2.50"
Routed to Pond 4P : Constructed Stormwater Wetland #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
	10,617	98	Unconnected pavement, HSG A
*	14,381	68	>75% Grass cover, Good, HSG A
	24,998	81	Weighted Average
	14,381		57.53% Pervious Area
	10,617		42.47% Impervious Area
	10,617		100.00% Unconnected

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

Summary for Subcatchment 35S: C.1

Runoff = 8.60 cfs @ 12.28 hrs, Volume= 0.915 af, Depth= 2.16"
Routed to Pond 5P : Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Adj	Description
*	118,961	68		>75% Grass cover, Good, HSG A
*	258	43		Woods, Good, HSG A
*	70,218	89		>75% Grass cover, Good, HSG D
*	15,701	82		Woods, Good, HSG D
	576	98		Roofs, HSG D
	125	98		Unconnected pavement, HSG D
	9,316	98		Unconnected pavement, HSG A
	6,113	98		Roofs, HSG A
	221,268	78	77	Weighted Average, UI Adjusted
	205,138			92.71% Pervious Area
	16,130			7.29% Impervious Area
	9,441			58.53% Unconnected

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

Summary for Subcatchment 36S: C.2

Runoff = 1.12 cfs @ 12.09 hrs, Volume= 0.085 af, Depth= 3.54"
Routed to Pond 78P : CB-11

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
	7,807	98	Paved parking, HSG A
*	2,679	68	>75% Grass cover, Good, HSG A
	2,107	98	Unconnected pavement, HSG A
	12,593	92	Weighted Average
	2,679		21.27% Pervious Area
	9,914		78.73% Impervious Area
	2,107		21.25% Unconnected

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

Summary for Subcatchment 37S: C.3

Runoff = 1.04 cfs @ 12.09 hrs, Volume= 0.079 af, Depth= 3.44"
Routed to Pond 79P : CB-12

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
	7,826	98	Paved parking, HSG A
	1,481	98	Unconnected pavement, HSG A
*	2,649	68	>75% Grass cover, Good, HSG A
	11,956	91	Weighted Average
	2,649		22.16% Pervious Area
	9,307		77.84% Impervious Area
	1,481		15.91% Unconnected

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

Summary for Subcatchment 38S: C.4

Runoff = 2.67 cfs @ 12.09 hrs, Volume= 0.210 af, Depth= 3.87"
Routed to Pond 80P : DCB-13

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
	1,066	98	Roofs, HSG A
	23,555	98	Paved parking, HSG A
	1,160	98	Unconnected pavement, HSG A
*	2,604	68	>75% Grass cover, Good, HSG A
	28,385	95	Weighted Average
	2,604		9.17% Pervious Area
	25,781		90.83% Impervious Area
	1,160		4.50% Unconnected

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

Summary for Subcatchment 40S: C.6

Runoff = 0.24 cfs @ 12.09 hrs, Volume= 0.020 af, Depth= 4.20"
Routed to Pond 66P : CB-14

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

Area (sf)	CN	Description
1,531	98	Paved parking, HSG A
946	98	Paved parking, HSG D
2,477	98	Weighted Average
2,477		100.00% Impervious Area

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

Summary for Subcatchment 41S: C.7

Runoff = 0.40 cfs @ 12.09 hrs, Volume= 0.033 af, Depth= 4.20"
Routed to Pond 67P : CB-15

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

Area (sf)	CN	Description
1,474	98	Paved parking, HSG A
1,594	98	Paved parking, HSG D
832	98	Unconnected pavement, HSG A
204	98	Unconnected pavement, HSG D
4,104	98	Weighted Average
4,104		100.00% Impervious Area
1,036		25.24% Unconnected

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

Summary for Subcatchment 42S: C.8

Runoff = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af, Depth= 4.20"
Routed to Pond 38P : CB-16

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

Area (sf)	CN	Description
2,348	98	Paved parking, HSG D
2,348		100.00% Impervious Area

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

Summary for Subcatchment 43S: C.9

Runoff = 0.24 cfs @ 12.09 hrs, Volume= 0.020 af, Depth= 4.20"
Routed to Pond 39P : CB-17

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

Area (sf)	CN	Description
2,458	98	Paved parking, HSG D
2,458		100.00% Impervious Area

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

Summary for Subcatchment 44S: C.10

Runoff = 0.25 cfs @ 12.09 hrs, Volume= 0.021 af, Depth= 4.20"
Routed to Pond 53P : CB-19

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

Area (sf)	CN	Description
2,596	98	Paved parking, HSG D
2,596		100.00% Impervious Area

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

Summary for Subcatchment 45S: C.11

Runoff = 0.28 cfs @ 12.09 hrs, Volume= 0.023 af, Depth= 4.20"
Routed to Pond 52P : CB-18

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

Area (sf)	CN	Description
2,841	98	Paved parking, HSG D
2,841		100.00% Impervious Area

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

Summary for Subcatchment 51S: D.1

Runoff = 6.29 cfs @ 12.32 hrs, Volume= 0.758 af, Depth= 1.11"
Routed to Link 20L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Adj	Description
*	167,879	68		>75% Grass cover, Good, HSG A
*	194	79		>75% Grass cover, Good, HSG B
*	51,927	89		>75% Grass cover, Good, HSG D
*	128,994	43		Woods, Good, HSG A
*	2,944	65		Woods, Good, HSG B
	3,179	98		Roofs, HSG A
	3,140	98		Unconnected pavement, HSG A
	358,257	63	62	Weighted Average, UI Adjusted
	351,938			98.24% Pervious Area
	6,319			1.76% Impervious Area
	3,140			49.69% Unconnected

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

Summary for Subcatchment 54S: ROOF.A

Runoff = 1.87 cfs @ 12.09 hrs, Volume= 0.155 af, Depth= 4.20"
Routed to Pond 5P : Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

Area (sf)	CN	Description
19,211	98	Roofs, HSG A
19,211		100.00% Impervious Area

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

Summary for Subcatchment 55S: A.11

Runoff = 0.66 cfs @ 12.09 hrs, Volume= 0.049 af, Depth= 3.04"
Routed to Pond 70P : CB-7

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
	4,102	98	Paved parking, HSG A
	1,200	98	Unconnected pavement, HSG A
*	3,030	68	>75% Grass cover, Good, HSG A
	8,332	87	Weighted Average
	3,030		36.37% Pervious Area
	5,302		63.63% Impervious Area
	1,200		22.63% Unconnected

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

Summary for Subcatchment 56S: A.12

Runoff = 2.68 cfs @ 12.09 hrs, Volume= 0.200 af, Depth= 3.34"
Routed to Pond 40P : CB-8

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
	13,088	98	Paved parking, HSG A
*	8,884	68	>75% Grass cover, Good, HSG A
	7,310	98	Roofs, HSG A
	2,106	98	Unconnected pavement, HSG A
	31,388	90	Weighted Average
	8,884		28.30% Pervious Area
	22,504		71.70% Impervious Area
	2,106		9.36% Unconnected

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

Summary for Subcatchment 57S: A.13

Runoff = 0.98 cfs @ 12.09 hrs, Volume= 0.072 af, Depth= 3.04"
Routed to Pond 43P : CB-9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
	6,088	98	Paved parking, HSG A
*	4,339	68	>75% Grass cover, Good, HSG A
	1,956	98	Unconnected pavement, HSG A
	12,383	87	Weighted Average
	4,339		35.04% Pervious Area
	8,044		64.96% Impervious Area
	1,956		24.32% Unconnected

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

Summary for Subcatchment 58S: A.14

Runoff = 0.96 cfs @ 12.09 hrs, Volume= 0.070 af, Depth= 3.04"
Routed to Pond 42P : CB-10

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.44"

	Area (sf)	CN	Description
	5,369	98	Paved parking, HSG A
*	4,411	68	>75% Grass cover, Good, HSG A
	2,319	98	Unconnected pavement, HSG A
	12,099	87	Weighted Average
	4,411		36.46% Pervious Area
	7,688		63.54% Impervious Area
	2,319		30.16% Unconnected

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

Summary for Pond 4P: Constructed Stormwater Wetland #2

Inflow Area = 2.090 ac, 60.51% Impervious, Inflow Depth = 3.06" for 10-yr event
Inflow = 6.68 cfs @ 12.09 hrs, Volume= 0.533 af
Outflow = 0.39 cfs @ 14.14 hrs, Volume= 0.264 af, Atten= 94%, Lag= 123.0 min
Primary = 0.39 cfs @ 14.14 hrs, Volume= 0.264 af
Routed to Link 20L : DP-A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 214.95' @ 14.14 hrs Surf.Area= 8,448 sf Storage= 15,949 cf

Plug-Flow detention time= 507.6 min calculated for 0.264 af (49% of inflow)
Center-of-Mass det. time= 385.6 min (1,173.9 - 788.4)

Volume	Invert	Avail.Storage	Storage Description
#1	212.50'	25,645 cf	**Custom Stage Data (Irregular)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
212.50	5,003	366.0	0	0	5,003
213.00	5,563	378.0	2,640	2,640	5,737
214.00	6,736	400.0	6,140	8,780	7,154
215.00	8,551	456.0	7,625	16,406	10,992
216.00	9,945	475.0	9,239	25,645	12,475

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**20.0' long x 12.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.57 2.62 2.70 2.67 2.66 2.67 2.66 2.64
#2	Device 3	214.90'	**4.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Primary	212.50'	**15.0" Round Culvert** L= 111.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 212.50' / 210.44' S= 0.0186 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#4	Device 3	214.40'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.39 cfs @ 14.14 hrs HW=214.95' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)
└**3=Culvert** (Passes 0.39 cfs of 6.30 cfs potential flow)
└**2=Sharp-Crested Rectangular Weir** (Weir Controls 0.13 cfs @ 0.70 fps)
└**4=Orifice/Grate** (Orifice Controls 0.26 cfs @ 2.97 fps)

Summary for Pond 5P: Wet Basin

Inflow Area = 8.124 ac, 39.79% Impervious, Inflow Depth = 2.85" for 10-yr event
Inflow = 17.45 cfs @ 12.11 hrs, Volume= 1.930 af
Outflow = 11.78 cfs @ 12.38 hrs, Volume= 1.529 af, Atten= 32%, Lag= 16.7 min
Primary = 11.78 cfs @ 12.38 hrs, Volume= 1.529 af
Routed to Link 20L : DP-A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.31' @ 12.38 hrs Surf.Area= 16,804 sf Storage= 30,210 cf

Plug-Flow detention time= 166.6 min calculated for 1.529 af (79% of inflow)
Center-of-Mass det. time= 85.5 min (887.7 - 802.2)

Volume	Invert	Avail.Storage	Storage Description
#1	214.00'	106,697 cf	**Custom Stage Data (Irregular)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
214.00	9,189	420.0	0	0	9,189
216.00	16,216	442.0	25,075	25,075	10,927
218.00	20,181	766.0	36,325	61,399	42,096
220.00	25,210	608.0	45,298	106,697	59,427

Device	Routing	Invert	Outlet Devices
#1	Primary	214.00'	**24.0" Round Culvert** L= 691.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.00' / 211.63' S= 0.0034 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	215.50'	**45.0 deg x 4.0' long Sharp-Crested Vee/Trap Weir** Cv= 2.56 (C= 3.20)
#3	Device 1	216.00'	**4.2' long x 4.2' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.53 2.69 2.68 2.67 2.67 2.65 2.66 2.66

2.67 2.71 2.72 2.74 2.77 2.85 3.01 3.23

Primary OutFlow Max=11.73 cfs @ 12.38 hrs HW=216.31' (Free Discharge)
└**1=Culvert** (Passes 11.73 cfs of 13.59 cfs potential flow)
  └**2=Sharp-Crested Vee/Trap Weir** (Weir Controls 9.95 cfs @ 2.83 fps)
  └**3=Broad-Crested Rectangular Weir** (Weir Controls 1.78 cfs @ 1.37 fps)

Summary for Pond 7P: Constructed Stormwater Wetland #1

Inflow Area = 12.221 ac, 25.01% Impervious, Inflow Depth = 2.29" for 10-yr event
Inflow = 19.63 cfs @ 12.10 hrs, Volume= 2.336 af
Outflow = 18.06 cfs @ 12.15 hrs, Volume= 2.336 af, Atten= 8%, Lag= 2.7 min
Primary = 18.06 cfs @ 12.15 hrs, Volume= 2.336 af
Routed to Link 20L : DP-A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 215.38' @ 12.15 hrs Surf.Area= 12,846 sf Storage= 6,800 cf

Plug-Flow detention time= 35.7 min calculated for 2.336 af (100% of inflow)
Center-of-Mass det. time= 35.4 min (866.7 - 831.3)

Volume	Invert	Avail.Storage	Storage Description
#1	214.80'	15,607 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
214.80	10,823	764.0	0	0	10,823
215.00	11,206	768.0	2,203	2,203	11,334
216.00	15,729	1,216.0	13,404	15,607	82,072

Device	Routing	Invert	Outlet Devices
#1	Primary	215.10'	**40.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Primary	214.80'	**12.0" Round Culvert X 3.00** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.80' / 214.00' S= 0.0320 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=17.98 cfs @ 12.15 hrs HW=215.38' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 15.07 cfs @ 1.34 fps)
└**2=Culvert** (Inlet Controls 2.92 cfs @ 2.05 fps)

Summary for Pond 21P: CB-4

Inflow Area = 0.212 ac, 89.84% Impervious, Inflow Depth = 3.87" for 10-yr event
Inflow = 0.87 cfs @ 12.09 hrs, Volume= 0.068 af
Outflow = 0.87 cfs @ 12.09 hrs, Volume= 0.068 af, Atten= 0%, Lag= 0.0 min
Primary = 0.87 cfs @ 12.09 hrs, Volume= 0.068 af
Routed to Pond 22P : DMH-2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.20' @ 12.09 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**12.0" Round Culvert** L= 41.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.70' / 215.29' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.85 cfs @ 12.09 hrs HW=216.19' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.85 cfs @ 3.26 fps)

Summary for Pond 22P: DMH-2

Inflow Area = 2.105 ac, 74.05% Impervious, Inflow Depth = 3.37" for 10-yr event
Inflow = 7.84 cfs @ 12.09 hrs, Volume= 0.592 af
Outflow = 7.84 cfs @ 12.09 hrs, Volume= 0.592 af, Atten= 0%, Lag= 0.0 min
Primary = 7.84 cfs @ 12.09 hrs, Volume= 0.592 af
Routed to Pond 7P : Constructed Stormwater Wetland #1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.89' @ 12.09 hrs
Flood Elev= 220.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.55'	**24.0" Round Culvert** L= 117.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 214.55' / 213.75' S= 0.0068 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf

Primary OutFlow Max=7.65 cfs @ 12.09 hrs HW=215.87' (Free Discharge)
└**1=Culvert** (Barrel Controls 7.65 cfs @ 4.95 fps)

Summary for Pond 23P: CB-2

Inflow Area = 0.294 ac, 95.22% Impervious, Inflow Depth = 4.09" for 10-yr event
Inflow = 1.23 cfs @ 12.09 hrs, Volume= 0.100 af
Outflow = 1.23 cfs @ 12.09 hrs, Volume= 0.100 af, Atten= 0%, Lag= 0.0 min
Primary = 1.23 cfs @ 12.09 hrs, Volume= 0.100 af
Routed to Pond 26P : DMH-1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.07' @ 12.09 hrs
Flood Elev= 218.44'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.44'	**12.0" Round Culvert** L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.44' / 215.20' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.20 cfs @ 12.09 hrs HW=216.06' (Free Discharge)
1=Culvert (Barrel Controls 1.20 cfs @ 3.33 fps)

Summary for Pond 24P: CB-1

Inflow Area = 0.179 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.76 cfs @ 12.09 hrs, Volume= 0.063 af
Outflow = 0.76 cfs @ 12.09 hrs, Volume= 0.063 af, Atten= 0%, Lag= 0.0 min
Primary = 0.76 cfs @ 12.09 hrs, Volume= 0.063 af
Routed to Pond 26P : DMH-1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.50' @ 12.09 hrs
Flood Elev= 218.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.00'	**12.0" Round Culvert** L= 11.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.00' / 214.89' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.74 cfs @ 12.09 hrs HW=215.50' (Free Discharge)
1=Culvert (Barrel Controls 0.74 cfs @ 2.78 fps)

Summary for Pond 25P: CB-3

Inflow Area = 0.868 ac, 70.42% Impervious, Inflow Depth = 3.24" for 10-yr event
Inflow = 3.15 cfs @ 12.09 hrs, Volume= 0.234 af
Outflow = 3.15 cfs @ 12.09 hrs, Volume= 0.234 af, Atten= 0%, Lag= 0.0 min
Primary = 3.15 cfs @ 12.09 hrs, Volume= 0.234 af
Routed to Pond 26P : DMH-1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.92' @ 12.09 hrs
Flood Elev= 218.95'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.95'	**15.0" Round Culvert** L= 45.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.95' / 215.50' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=3.08 cfs @ 12.09 hrs HW=216.90' (Free Discharge)
1=Culvert (Barrel Controls 3.08 cfs @ 4.26 fps)

Summary for Pond 26P: DMH-1

Inflow Area = 1.341 ac, 79.82% Impervious, Inflow Depth = 3.55" for 10-yr event
Inflow = 5.14 cfs @ 12.09 hrs, Volume= 0.397 af
Outflow = 5.14 cfs @ 12.09 hrs, Volume= 0.397 af, Atten= 0%, Lag= 0.0 min
Primary = 5.14 cfs @ 12.09 hrs, Volume= 0.397 af
Routed to Pond 7P : Constructed Stormwater Wetland #1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.95' @ 12.09 hrs
Flood Elev= 218.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.79'	**18.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 214.79' / 214.20' S= 0.0104 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=5.02 cfs @ 12.09 hrs HW=215.93' (Free Discharge)
1=Culvert (Barrel Controls 5.02 cfs @ 4.81 fps)

Summary for Pond 27P: DCB-22

Inflow Area = 0.456 ac, 92.24% Impervious, Inflow Depth = 3.98" for 10-yr event
Inflow = 1.89 cfs @ 12.09 hrs, Volume= 0.151 af
Outflow = 1.89 cfs @ 12.09 hrs, Volume= 0.151 af, Atten= 0%, Lag= 0.0 min
Primary = 1.89 cfs @ 12.09 hrs, Volume= 0.151 af
Routed to Pond 28P : DMH-18

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.55' @ 12.09 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**12.0" Round Culvert** L= 47.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.70' / 215.37' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.84 cfs @ 12.09 hrs HW=216.54' (Free Discharge)
1=Culvert (Barrel Controls 1.84 cfs @ 3.55 fps)

Summary for Pond 28P: DMH-18

Inflow Area = 0.456 ac, 92.24% Impervious, Inflow Depth = 3.98" for 10-yr event
Inflow = 1.89 cfs @ 12.09 hrs, Volume= 0.151 af
Outflow = 1.89 cfs @ 12.09 hrs, Volume= 0.151 af, Atten= 0%, Lag= 0.0 min
Primary = 1.89 cfs @ 12.09 hrs, Volume= 0.151 af
Routed to Pond 30P : DMH-17

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 216.07' @ 12.09 hrs
Flood Elev= 219.41'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.27'	**12.0" Round Culvert** L= 167.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.27' / 214.10' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.84 cfs @ 12.09 hrs HW=216.06' (Free Discharge)
1=Culvert (Barrel Controls 1.84 cfs @ 3.80 fps)

Summary for Pond 29P: CB-21

Inflow Area = 0.431 ac, 94.22% Impervious, Inflow Depth = 3.98" for 10-yr event
Inflow = 1.79 cfs @ 12.09 hrs, Volume= 0.143 af
Outflow = 1.79 cfs @ 12.09 hrs, Volume= 0.143 af, Atten= 0%, Lag= 0.0 min
Primary = 1.79 cfs @ 12.09 hrs, Volume= 0.143 af
Routed to Pond 30P : DMH-17

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.56' @ 12.09 hrs
Flood Elev= 218.83'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.83'	**12.0" Round Culvert** L= 83.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.83' / 215.00' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.74 cfs @ 12.09 hrs HW=216.55' (Free Discharge)
1=Culvert (Inlet Controls 1.74 cfs @ 2.89 fps)

Summary for Pond 30P: DMH-17

Inflow Area = 0.887 ac, 93.20% Impervious, Inflow Depth = 3.98" for 10-yr event
Inflow = 3.68 cfs @ 12.09 hrs, Volume= 0.294 af
Outflow = 3.68 cfs @ 12.09 hrs, Volume= 0.294 af, Atten= 0%, Lag= 0.0 min
Primary = 3.68 cfs @ 12.09 hrs, Volume= 0.294 af
Routed to Pond 31P : DMH-16

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.94' @ 12.09 hrs
Flood Elev= 220.43'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.00'	**12.0" Round Culvert** L= 112.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 214.00' / 213.22' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=3.59 cfs @ 12.09 hrs HW=215.84' (Free Discharge)
1=Culvert (Barrel Controls 3.59 cfs @ 4.57 fps)

Summary for Pond 31P: DMH-16

Inflow Area = 1.085 ac, 92.93% Impervious, Inflow Depth = 3.98" for 10-yr event
Inflow = 4.51 cfs @ 12.09 hrs, Volume= 0.360 af
Outflow = 4.51 cfs @ 12.09 hrs, Volume= 0.360 af, Atten= 0%, Lag= 0.0 min
Primary = 4.51 cfs @ 12.09 hrs, Volume= 0.360 af
Routed to Pond 4P : Constructed Stormwater Wetland #2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 214.19' @ 12.09 hrs
Flood Elev= 220.47'

Device	Routing	Invert	Outlet Devices
#1	Primary	213.12'	**18.0" Round Culvert** L= 66.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 213.12' / 212.50' S= 0.0094 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=4.39 cfs @ 12.09 hrs HW=214.18' (Free Discharge)
1=Culvert (Barrel Controls 4.39 cfs @ 4.63 fps)

Summary for Pond 32P: CB-20

Inflow Area = 0.198 ac, 91.71% Impervious, Inflow Depth = 3.98" for 10-yr event
Inflow = 0.82 cfs @ 12.09 hrs, Volume= 0.066 af
Outflow = 0.82 cfs @ 12.09 hrs, Volume= 0.066 af, Atten= 0%, Lag= 0.0 min
Primary = 0.82 cfs @ 12.09 hrs, Volume= 0.066 af
Routed to Pond 31P : DMH-16

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.23' @ 12.09 hrs
Flood Elev= 218.77'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.77'	**12.0" Round Culvert** L= 65.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.77' / 214.47' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.80 cfs @ 12.09 hrs HW=216.23' (Free Discharge)
1=Culvert (Inlet Controls 0.80 cfs @ 2.30 fps)

Summary for Pond 36P: DMH-6

Inflow Area = 0.564 ac, 78.30% Impervious, Inflow Depth = 3.49" for 10-yr event
Inflow = 2.17 cfs @ 12.09 hrs, Volume= 0.164 af
Outflow = 2.17 cfs @ 12.09 hrs, Volume= 0.164 af, Atten= 0%, Lag= 0.0 min
Primary = 2.17 cfs @ 12.09 hrs, Volume= 0.164 af
Routed to Pond 73P : DMH-7

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.08' @ 12.09 hrs
Flood Elev= 219.28'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.25'	**12.0" Round Culvert** L= 43.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.25' / 214.73' S= 0.0121 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.11 cfs @ 12.09 hrs HW=216.07' (Free Discharge)
1=Culvert (Barrel Controls 2.11 cfs @ 4.19 fps)

Summary for Pond 37P: DMH-9

Inflow Area = 0.235 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 1.00 cfs @ 12.09 hrs, Volume= 0.082 af
Outflow = 1.00 cfs @ 12.09 hrs, Volume= 0.082 af, Atten= 0%, Lag= 0.0 min
Primary = 1.00 cfs @ 12.09 hrs, Volume= 0.082 af
Routed to Pond 63P : DMH-8

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 223.47' @ 12.09 hrs
Flood Elev= 226.46'

Device	Routing	Invert	Outlet Devices
#1	Primary	222.96'	**12.0" Round Culvert** L= 83.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 222.96' / 216.74' S= 0.0749 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.97 cfs @ 12.09 hrs HW=223.47' (Free Discharge)
1=Culvert (Inlet Controls 0.97 cfs @ 2.42 fps)

Summary for Pond 38P: CB-16

Inflow Area = 0.054 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af
Outflow = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min
Primary = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af
Routed to Pond 61P : DMH-10

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 232.31' @ 12.09 hrs
Flood Elev= 235.58'

Device	Routing	Invert	Outlet Devices
#1	Primary	232.08'	**12.0" Round Culvert** L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 232.08' / 231.78' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.22 cfs @ 12.09 hrs HW=232.31' (Free Discharge)
1=Culvert (Inlet Controls 0.22 cfs @ 1.63 fps)

Summary for Pond 39P: CB-17

Inflow Area = 0.056 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.24 cfs @ 12.09 hrs, Volume= 0.020 af
Outflow = 0.24 cfs @ 12.09 hrs, Volume= 0.020 af, Atten= 0%, Lag= 0.0 min
Primary = 0.24 cfs @ 12.09 hrs, Volume= 0.020 af
Routed to Pond 61P : DMH-10

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 232.32' @ 12.09 hrs
Flood Elev= 235.58'

Device	Routing	Invert	Outlet Devices
#1	Primary	232.08'	**12.0" Round Culvert** L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 232.08' / 231.78' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.23 cfs @ 12.09 hrs HW=232.31' (Free Discharge)
1=Culvert (Inlet Controls 0.23 cfs @ 1.65 fps)

Summary for Pond 40P: CB-8

Inflow Area = 0.721 ac, 71.70% Impervious, Inflow Depth = 3.34" for 10-yr event
Inflow = 2.68 cfs @ 12.09 hrs, Volume= 0.200 af
Outflow = 2.68 cfs @ 12.09 hrs, Volume= 0.200 af, Atten= 0%, Lag= 0.0 min
Primary = 2.68 cfs @ 12.09 hrs, Volume= 0.200 af
Routed to Pond 68P : DMH-4

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.68' @ 12.09 hrs
Flood Elev= 219.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.80'	**15.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.80' / 216.56' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=2.61 cfs @ 12.09 hrs HW=217.66' (Free Discharge)
1=Culvert (Barrel Controls 2.61 cfs @ 4.07 fps)

Summary for Pond 41P: DMH-5

Inflow Area = 0.562 ac, 64.26% Impervious, Inflow Depth = 3.04" for 10-yr event
Inflow = 1.94 cfs @ 12.09 hrs, Volume= 0.143 af
Outflow = 1.94 cfs @ 12.09 hrs, Volume= 0.143 af, Atten= 0%, Lag= 0.0 min
Primary = 1.94 cfs @ 12.09 hrs, Volume= 0.143 af
Routed to Pond 68P : DMH-4

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.31' @ 12.09 hrs
Flood Elev= 220.13'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.50'	**12.0" Round Culvert** L= 195.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.50' / 215.13' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.89 cfs @ 12.09 hrs HW=217.30' (Free Discharge)
1=Culvert (Barrel Controls 1.89 cfs @ 3.85 fps)

Summary for Pond 42P: CB-10

Inflow Area = 0.278 ac, 63.54% Impervious, Inflow Depth = 3.04" for 10-yr event
Inflow = 0.96 cfs @ 12.09 hrs, Volume= 0.070 af
Outflow = 0.96 cfs @ 12.09 hrs, Volume= 0.070 af, Atten= 0%, Lag= 0.0 min
Primary = 0.96 cfs @ 12.09 hrs, Volume= 0.070 af
Routed to Pond 41P : DMH-5

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.38' @ 12.09 hrs
Flood Elev= 219.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.80'	**12.0" Round Culvert** L= 29.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.80' / 216.60' S= 0.0069 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.94 cfs @ 12.09 hrs HW=217.37' (Free Discharge)
1=Culvert (Barrel Controls 0.94 cfs @ 2.94 fps)

Summary for Pond 43P: CB-9

Inflow Area = 0.284 ac, 64.96% Impervious, Inflow Depth = 3.04" for 10-yr event
Inflow = 0.98 cfs @ 12.09 hrs, Volume= 0.072 af
Outflow = 0.98 cfs @ 12.09 hrs, Volume= 0.072 af, Atten= 0%, Lag= 0.0 min
Primary = 0.98 cfs @ 12.09 hrs, Volume= 0.072 af
Routed to Pond 41P : DMH-5

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.38' @ 12.09 hrs
Flood Elev= 219.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.80'	**12.0" Round Culvert** L= 29.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.80' / 216.60' S= 0.0069 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.96 cfs @ 12.09 hrs HW=217.38' (Free Discharge)
1=Culvert (Barrel Controls 0.96 cfs @ 2.95 fps)

Summary for Pond 52P: CB-18

Inflow Area = 0.065 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.28 cfs @ 12.09 hrs, Volume= 0.023 af
Outflow = 0.28 cfs @ 12.09 hrs, Volume= 0.023 af, Atten= 0%, Lag= 0.0 min
Primary = 0.28 cfs @ 12.09 hrs, Volume= 0.023 af
Routed to Pond 54P : DMH-12

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 247.41' @ 12.09 hrs
Flood Elev= 250.65'

Device	Routing	Invert	Outlet Devices
#1	Primary	247.15'	**12.0" Round Culvert** L= 18.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 247.15' / 246.75' S= 0.0222 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.27 cfs @ 12.09 hrs HW=247.40' (Free Discharge)
1=Culvert (Inlet Controls 0.27 cfs @ 1.71 fps)

Summary for Pond 53P: CB-19

Inflow Area = 0.060 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.25 cfs @ 12.09 hrs, Volume= 0.021 af
Outflow = 0.25 cfs @ 12.09 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.0 min
Primary = 0.25 cfs @ 12.09 hrs, Volume= 0.021 af
Routed to Pond 54P : DMH-12

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 247.40' @ 12.09 hrs
Flood Elev= 250.65'

Device	Routing	Invert	Outlet Devices
#1	Primary	247.15'	**12.0" Round Culvert** L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 247.15' / 246.75' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.25 cfs @ 12.09 hrs HW=247.39' (Free Discharge)
1=Culvert (Inlet Controls 0.25 cfs @ 1.67 fps)

Summary for Pond 54P: DMH-12

Inflow Area = 0.125 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.53 cfs @ 12.09 hrs, Volume= 0.044 af
Outflow = 0.53 cfs @ 12.09 hrs, Volume= 0.044 af, Atten= 0%, Lag= 0.0 min
Primary = 0.53 cfs @ 12.09 hrs, Volume= 0.044 af
Routed to Pond 56P : DMH-11

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 247.01' @ 12.09 hrs
Flood Elev= 249.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	246.65'	**12.0" Round Culvert** L= 84.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 246.65' / 240.35' S= 0.0750 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.51 cfs @ 12.09 hrs HW=247.01' (Free Discharge)
1=Culvert (Inlet Controls 0.51 cfs @ 2.04 fps)

Summary for Pond 56P: DMH-11

Inflow Area = 0.125 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.53 cfs @ 12.09 hrs, Volume= 0.044 af
Outflow = 0.53 cfs @ 12.09 hrs, Volume= 0.044 af, Atten= 0%, Lag= 0.0 min
Primary = 0.53 cfs @ 12.09 hrs, Volume= 0.044 af
Routed to Pond 61P : DMH-10

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 240.61' @ 12.09 hrs
Flood Elev= 243.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	240.25'	**12.0" Round Culvert** L= 110.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 240.25' / 232.00' S= 0.0750 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.51 cfs @ 12.09 hrs HW=240.61' (Free Discharge)
1=Culvert (Inlet Controls 0.51 cfs @ 2.04 fps)

Summary for Pond 61P: DMH-10

Inflow Area = 0.235 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 1.00 cfs @ 12.09 hrs, Volume= 0.082 af
Outflow = 1.00 cfs @ 12.09 hrs, Volume= 0.082 af, Atten= 0%, Lag= 0.0 min
Primary = 1.00 cfs @ 12.09 hrs, Volume= 0.082 af
Routed to Pond 37P : DMH-9

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 232.20' @ 12.09 hrs
Flood Elev= 235.07'

Device	Routing	Invert	Outlet Devices
#1	Primary	231.68'	**12.0" Round Culvert** L= 115.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 231.68' / 223.06' S= 0.0750 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.97 cfs @ 12.09 hrs HW=232.19' (Free Discharge)
1=Culvert (Inlet Controls 0.97 cfs @ 2.42 fps)

Summary for Pond 63P: DMH-8

Inflow Area = 0.386 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 1.64 cfs @ 12.09 hrs, Volume= 0.135 af
Outflow = 1.64 cfs @ 12.09 hrs, Volume= 0.135 af, Atten= 0%, Lag= 0.0 min
Primary = 1.64 cfs @ 12.09 hrs, Volume= 0.135 af
Routed to Pond 73P : DMH-7

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.33' @ 12.09 hrs
Flood Elev= 221.97'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.64'	**12.0" Round Culvert** L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.64' / 214.73' S= 0.0239 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.59 cfs @ 12.09 hrs HW=217.32' (Free Discharge)
1=Culvert (Inlet Controls 1.59 cfs @ 2.80 fps)

Summary for Pond 66P: CB-14

Inflow Area = 0.057 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.24 cfs @ 12.09 hrs, Volume= 0.020 af
Outflow = 0.24 cfs @ 12.09 hrs, Volume= 0.020 af, Atten= 0%, Lag= 0.0 min
Primary = 0.24 cfs @ 12.09 hrs, Volume= 0.020 af
Routed to Pond 63P : DMH-8

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 218.71' @ 12.09 hrs
Flood Elev= 221.97'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.47'	**12.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 218.47' / 218.23' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.23 cfs @ 12.09 hrs HW=218.71' (Free Discharge)
1=Culvert (Inlet Controls 0.23 cfs @ 1.65 fps)

Summary for Pond 67P: CB-15

Inflow Area = 0.094 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.40 cfs @ 12.09 hrs, Volume= 0.033 af
Outflow = 0.40 cfs @ 12.09 hrs, Volume= 0.033 af, Atten= 0%, Lag= 0.0 min
Primary = 0.40 cfs @ 12.09 hrs, Volume= 0.033 af
Routed to Pond 63P : DMH-8

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 218.78' @ 12.09 hrs
Flood Elev= 221.97'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.47'	**12.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 218.47' / 218.23' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.39 cfs @ 12.09 hrs HW=218.78' (Free Discharge)
1=Culvert (Inlet Controls 0.39 cfs @ 1.89 fps)

Summary for Pond 68P: DMH-4

Inflow Area = 1.474 ac, 67.81% Impervious, Inflow Depth = 3.19" for 10-yr event
Inflow = 5.28 cfs @ 12.09 hrs, Volume= 0.391 af
Outflow = 5.28 cfs @ 12.09 hrs, Volume= 0.391 af, Atten= 0%, Lag= 0.0 min
Primary = 5.28 cfs @ 12.09 hrs, Volume= 0.391 af
Routed to Pond 22P : DMH-2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 216.31' @ 12.09 hrs
Flood Elev= 220.11'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.03'	**18.0" Round Culvert** L= 54.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.03' / 214.65' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=5.15 cfs @ 12.09 hrs HW=216.29' (Free Discharge)
1=Culvert (Barrel Controls 5.15 cfs @ 4.38 fps)

Summary for Pond 69P: CB-5

Inflow Area = 0.103 ac, 81.35% Impervious, Inflow Depth = 3.54" for 10-yr event
Inflow = 0.40 cfs @ 12.09 hrs, Volume= 0.031 af
Outflow = 0.40 cfs @ 12.09 hrs, Volume= 0.031 af, Atten= 0%, Lag= 0.0 min
Primary = 0.40 cfs @ 12.09 hrs, Volume= 0.031 af
Routed to Pond 22P : DMH-2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.98' @ 12.09 hrs
Flood Elev= 219.67'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.67'	**12.0" Round Culvert** L= 33.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.67' / 216.01' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.39 cfs @ 12.09 hrs HW=216.98' (Free Discharge)
1=Culvert (Inlet Controls 0.39 cfs @ 1.89 fps)

Summary for Pond 70P: CB-7

Inflow Area = 0.191 ac, 63.63% Impervious, Inflow Depth = 3.04" for 10-yr event
Inflow = 0.66 cfs @ 12.09 hrs, Volume= 0.049 af
Outflow = 0.66 cfs @ 12.09 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.0 min
Primary = 0.66 cfs @ 12.09 hrs, Volume= 0.049 af
Routed to Pond 68P : DMH-4

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.21' @ 12.09 hrs
Flood Elev= 219.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.80'	**12.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.80' / 216.56' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.64 cfs @ 12.09 hrs HW=217.20' (Free Discharge)
1=Culvert (Inlet Controls 0.64 cfs @ 2.16 fps)

Summary for Pond 73P: DMH-7

Inflow Area = 1.601 ac, 88.63% Impervious, Inflow Depth = 3.82" for 10-yr event
Inflow = 6.47 cfs @ 12.09 hrs, Volume= 0.509 af
Outflow = 6.47 cfs @ 12.09 hrs, Volume= 0.509 af, Atten= 0%, Lag= 0.0 min
Primary = 6.47 cfs @ 12.09 hrs, Volume= 0.509 af
Routed to Pond 5P : Wet Basin

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.74' @ 12.09 hrs
Flood Elev= 219.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.60'	**24.0" Round Culvert** L= 52.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 214.60' / 214.00' S= 0.0115 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf

Primary OutFlow Max=6.30 cfs @ 12.09 hrs HW=215.72' (Free Discharge)
1=Culvert (Barrel Controls 6.30 cfs @ 5.01 fps)

Summary for Pond 78P: CB-11

Inflow Area = 0.289 ac, 78.73% Impervious, Inflow Depth = 3.54" for 10-yr event
Inflow = 1.12 cfs @ 12.09 hrs, Volume= 0.085 af
Outflow = 1.12 cfs @ 12.09 hrs, Volume= 0.085 af, Atten= 0%, Lag= 0.0 min
Primary = 1.12 cfs @ 12.09 hrs, Volume= 0.085 af
Routed to Pond 36P : DMH-6

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.27' @ 12.09 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**12.0" Round Culvert** L= 29.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.70' / 215.35' S= 0.0121 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.09 cfs @ 12.09 hrs HW=216.26' (Free Discharge)
1=Culvert (Barrel Controls 1.09 cfs @ 3.50 fps)

Summary for Pond 79P: CB-12

Inflow Area = 0.274 ac, 77.84% Impervious, Inflow Depth = 3.44" for 10-yr event
Inflow = 1.04 cfs @ 12.09 hrs, Volume= 0.079 af
Outflow = 1.04 cfs @ 12.09 hrs, Volume= 0.079 af, Atten= 0%, Lag= 0.0 min
Primary = 1.04 cfs @ 12.09 hrs, Volume= 0.079 af
Routed to Pond 36P : DMH-6

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.24' @ 12.09 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**12.0" Round Culvert** L= 29.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.70' / 215.35' S= 0.0121 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.02 cfs @ 12.09 hrs HW=216.24' (Free Discharge)
1=Culvert (Barrel Controls 1.02 cfs @ 3.45 fps)

Summary for Pond 80P: DCB-13

Inflow Area = 0.652 ac, 90.83% Impervious, Inflow Depth = 3.87" for 10-yr event
Inflow = 2.67 cfs @ 12.09 hrs, Volume= 0.210 af
Outflow = 2.67 cfs @ 12.09 hrs, Volume= 0.210 af, Atten= 0%, Lag= 0.0 min
Primary = 2.67 cfs @ 12.09 hrs, Volume= 0.210 af
Routed to Pond 73P : DMH-7

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.33' @ 12.09 hrs
Flood Elev= 219.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.50'	**15.0" Round Culvert** L= 119.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.50' / 214.73' S= 0.0149 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=2.60 cfs @ 12.09 hrs HW=217.31' (Free Discharge)
1=Culvert (Inlet Controls 2.60 cfs @ 3.07 fps)

Summary for Pond 81P: CB-6

Inflow Area = 0.316 ac, 90.13% Impervious, Inflow Depth = 3.87" for 10-yr event
Inflow = 1.29 cfs @ 12.09 hrs, Volume= 0.102 af
Outflow = 1.29 cfs @ 12.09 hrs, Volume= 0.102 af, Atten= 0%, Lag= 0.0 min
Primary = 1.29 cfs @ 12.09 hrs, Volume= 0.102 af
Routed to Pond 82P : DMH-3

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 216.39' @ 12.09 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**12.0" Round Culvert** L= 27.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.70' / 215.51' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.26 cfs @ 12.09 hrs HW=216.38' (Free Discharge)
1=Culvert (Barrel Controls 1.26 cfs @ 3.15 fps)

Summary for Pond 82P: DMH-3

Inflow Area = 0.316 ac, 90.13% Impervious, Inflow Depth = 3.87" for 10-yr event
Inflow = 1.29 cfs @ 12.09 hrs, Volume= 0.102 af
Outflow = 1.29 cfs @ 12.09 hrs, Volume= 0.102 af, Atten= 0%, Lag= 0.0 min
Primary = 1.29 cfs @ 12.09 hrs, Volume= 0.102 af
Routed to Pond 22P : DMH-2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.96' @ 12.09 hrs
Flood Elev= 219.32'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.41'	**24.0" Round Culvert** L= 198.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.41' / 214.65' S= 0.0038 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf

Primary OutFlow Max=1.26 cfs @ 12.09 hrs HW=215.96' (Free Discharge)
1=Culvert (Barrel Controls 1.26 cfs @ 2.72 fps)

Summary for Link 20L: DP-A

Inflow Area = 30.660 ac, 25.11% Impervious, Inflow Depth = 1.91" for 10-yr event
Inflow = 32.62 cfs @ 12.34 hrs, Volume= 4.886 af
Primary = 32.62 cfs @ 12.34 hrs, Volume= 4.886 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 9S: A.7 Runoff Area=13,754 sf 90.13% Impervious Runoff Depth=4.96"
Tc=6.0 min CN=95 Runoff=1.64 cfs 0.131 af

Subcatchment 16S: A.9 Runoff Area=4,499 sf 81.35% Impervious Runoff Depth=4.63"
Tc=6.0 min CN=92 Runoff=0.52 cfs 0.040 af

Subcatchment 18S: A.8 Runoff Area=9,251 sf 89.84% Impervious Runoff Depth=4.96"
Tc=6.0 min CN=95 Runoff=1.10 cfs 0.088 af

Subcatchment 21S: A.1 Runoff Area=31,332 sf 0.00% Impervious Runoff Depth=2.28"
Tc=10.0 min CN=68 Runoff=1.63 cfs 0.137 af

Subcatchment 22S: A.2 Runoff Area=12,807 sf 95.22% Impervious Runoff Depth=5.20"
Tc=6.0 min CN=97 Runoff=1.55 cfs 0.127 af

Subcatchment 23S: A.3 Runoff Area=7,817 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=0.95 cfs 0.079 af

Subcatchment 24S: A.4 Runoff Area=62,775 sf 13.03% Impervious Runoff Depth=2.45"
Tc=6.0 min UI Adjusted CN=70 Runoff=4.03 cfs 0.295 af

Subcatchment 25S: A.5 Runoff Area=37,798 sf 70.42% Impervious Runoff Depth=4.30"
Tc=6.0 min CN=89 Runoff=4.13 cfs 0.311 af

Subcatchment 26S: ROOF.B Runoff Area=22,403 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=2.73 cfs 0.228 af

Subcatchment 27S: A.6 Runoff Area=288,122 sf 3.62% Impervious Runoff Depth=2.81"
Tc=30.0 min CN=74 Runoff=12.26 cfs 1.549 af

Subcatchment 28S: B.1 Runoff Area=18,758 sf 2.84% Impervious Runoff Depth=2.28"
Tc=10.0 min UI Adjusted CN=68 Runoff=0.98 cfs 0.082 af

Subcatchment 29S: B.2 Runoff Area=8,642 sf 91.71% Impervious Runoff Depth=5.08"
Tc=6.0 min CN=96 Runoff=1.04 cfs 0.084 af

Subcatchment 30S: B.3 Runoff Area=18,791 sf 94.22% Impervious Runoff Depth=5.08"
Tc=6.0 min CN=96 Runoff=2.26 cfs 0.183 af

Subcatchment 31S: B.4 Runoff Area=19,850 sf 92.24% Impervious Runoff Depth=5.08"
Tc=6.0 min CN=96 Runoff=2.39 cfs 0.193 af

Subcatchment 32S: ROOF.C Runoff Area=21,236 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=2.59 cfs 0.216 af

Subcatchment 33S: B.7 Runoff Area=24,998 sf 42.47% Impervious Runoff Depth=3.48"
Tc=6.0 min CN=81 Runoff=2.28 cfs 0.166 af

Subcatchment 35S: C.1 Runoff Area=221,268 sf 7.29% Impervious Runoff Depth=3.09"
Tc=20.0 min UI Adjusted CN=77 Runoff=12.35 cfs 1.308 af

Subcatchment 36S: C.2 Runoff Area=12,593 sf 78.73% Impervious Runoff Depth=4.63"
Tc=6.0 min CN=92 Runoff=1.44 cfs 0.111 af

Subcatchment 37S: C.3 Runoff Area=11,956 sf 77.84% Impervious Runoff Depth=4.52"
Tc=6.0 min CN=91 Runoff=1.35 cfs 0.103 af

Subcatchment 38S: C.4 Runoff Area=28,385 sf 90.83% Impervious Runoff Depth=4.96"
Tc=6.0 min CN=95 Runoff=3.38 cfs 0.270 af

Subcatchment 40S: C.6 Runoff Area=2,477 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=0.30 cfs 0.025 af

Subcatchment 41S: C.7 Runoff Area=4,104 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=0.50 cfs 0.042 af

Subcatchment 42S: C.8 Runoff Area=2,348 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=0.29 cfs 0.024 af

Subcatchment 43S: C.9 Runoff Area=2,458 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=0.30 cfs 0.025 af

Subcatchment 44S: C.10 Runoff Area=2,596 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=0.32 cfs 0.026 af

Subcatchment 45S: C.11 Runoff Area=2,841 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=0.35 cfs 0.029 af

Subcatchment 51S: D.1 Runoff Area=358,257 sf 1.76% Impervious Runoff Depth=1.79"
Tc=20.0 min UI Adjusted CN=62 Runoff=10.90 cfs 1.226 af

Subcatchment 54S: ROOF.A Runoff Area=19,211 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=2.34 cfs 0.195 af

Subcatchment 55S: A.11 Runoff Area=8,332 sf 63.63% Impervious Runoff Depth=4.09"
Tc=6.0 min CN=87 Runoff=0.88 cfs 0.065 af

Subcatchment 56S: A.12 Runoff Area=31,388 sf 71.70% Impervious Runoff Depth=4.41"
Tc=6.0 min CN=90 Runoff=3.49 cfs 0.265 af

Subcatchment 57S: A.13 Runoff Area=12,383 sf 64.96% Impervious Runoff Depth=4.09"
Tc=6.0 min CN=87 Runoff=1.30 cfs 0.097 af

Subcatchment 58S: A.14 Runoff Area=12,099 sf 63.54% Impervious Runoff Depth=4.09"
Tc=6.0 min CN=87 Runoff=1.27 cfs 0.095 af

Pond 4P: Constructed Stormwater Wetland Peak Elev=215.14' Storage=17,649 cf Inflow=8.81 cfs 0.708 af
Outflow=1.88 cfs 0.439 af

Pond 5P: Wet Basin Peak Elev=216.67' Storage=36,308 cf Inflow=23.18 cfs 2.602 af
Outflow=14.21 cfs 2.201 af

Pond 7P: Constructed Stormwater Wetland Peak Elev=215.46' Storage=7,775 cf Inflow=27.26 cfs 3.278 af
Outflow=25.34 cfs 3.277 af

Pond 21P: CB-4 Peak Elev=216.27' Inflow=1.10 cfs 0.088 af
12.0" Round Culvert n=0.013 L=41.0' S=0.0100 '/' Outflow=1.10 cfs 0.088 af

Pond 22P: DMH-2 Peak Elev=216.13' Inflow=10.19 cfs 0.780 af
24.0" Round Culvert n=0.013 L=117.0' S=0.0068 '/' Outflow=10.19 cfs 0.780 af

Pond 23P: CB-2 Peak Elev=216.17' Inflow=1.55 cfs 0.127 af
12.0" Round Culvert n=0.013 L=24.0' S=0.0100 '/' Outflow=1.55 cfs 0.127 af

Pond 24P: CB-1 Peak Elev=215.58' Inflow=0.95 cfs 0.079 af
12.0" Round Culvert n=0.013 L=11.0' S=0.0100 '/' Outflow=0.95 cfs 0.079 af

Pond 25P: CB-3 Peak Elev=217.11' Inflow=4.13 cfs 0.311 af
15.0" Round Culvert n=0.013 L=45.0' S=0.0100 '/' Outflow=4.13 cfs 0.311 af

Pond 26P: DMH-1 Peak Elev=216.17' Inflow=6.63 cfs 0.518 af
18.0" Round Culvert n=0.013 L=57.0' S=0.0104 '/' Outflow=6.63 cfs 0.518 af

Pond 27P: DCB-22 Peak Elev=216.70' Inflow=2.39 cfs 0.193 af
12.0" Round Culvert n=0.013 L=47.0' S=0.0070 '/' Outflow=2.39 cfs 0.193 af

Pond 28P: DMH-18 Peak Elev=216.22' Inflow=2.39 cfs 0.193 af
12.0" Round Culvert n=0.013 L=167.0' S=0.0070 '/' Outflow=2.39 cfs 0.193 af

Pond 29P: CB-21 Peak Elev=216.69' Inflow=2.26 cfs 0.183 af
12.0" Round Culvert n=0.013 L=83.0' S=0.0100 '/' Outflow=2.26 cfs 0.183 af

Pond 30P: DMH-17 Peak Elev=216.93' Inflow=4.65 cfs 0.375 af
12.0" Round Culvert n=0.013 L=112.0' S=0.0070 '/' Outflow=4.65 cfs 0.375 af

Pond 31P: DMH-16 Peak Elev=214.37' Inflow=5.68 cfs 0.459 af
18.0" Round Culvert n=0.013 L=66.0' S=0.0094 '/' Outflow=5.68 cfs 0.459 af

Pond 32P: CB-20 Peak Elev=216.30' Inflow=1.04 cfs 0.084 af
12.0" Round Culvert n=0.013 L=65.0' S=0.0200 '/' Outflow=1.04 cfs 0.084 af

Pond 36P: DMH-6 Peak Elev=216.29' Inflow=2.79 cfs 0.215 af
12.0" Round Culvert n=0.013 L=43.0' S=0.0121 '/' Outflow=2.79 cfs 0.215 af

Pond 37P: DMH-9 Peak Elev=223.55' Inflow=1.25 cfs 0.104 af
12.0" Round Culvert n=0.013 L=83.0' S=0.0749 '/' Outflow=1.25 cfs 0.104 af

Pond 38P: CB-16 Peak Elev=232.34' Inflow=0.29 cfs 0.024 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0200 '/' Outflow=0.29 cfs 0.024 af

Pond 39P: CB-17 Peak Elev=232.35' Inflow=0.30 cfs 0.025 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0200 '/' Outflow=0.30 cfs 0.025 af

Pond 40P: CB-8 Peak Elev=217.84' Inflow=3.49 cfs 0.265 af
15.0" Round Culvert n=0.013 L=12.0' S=0.0200 '/' Outflow=3.49 cfs 0.265 af

Pond 41P: DMH-5 Peak Elev=217.50' Inflow=2.57 cfs 0.191 af
12.0" Round Culvert n=0.013 L=195.0' S=0.0070 '/' Outflow=2.57 cfs 0.191 af

Pond 42P: CB-10 Peak Elev=217.48' Inflow=1.27 cfs 0.095 af
12.0" Round Culvert n=0.013 L=29.0' S=0.0069 '/' Outflow=1.27 cfs 0.095 af

Pond 43P: CB-9 Peak Elev=217.49' Inflow=1.30 cfs 0.097 af
12.0" Round Culvert n=0.013 L=29.0' S=0.0069 '/' Outflow=1.30 cfs 0.097 af

Pond 52P: CB-18 Peak Elev=247.44' Inflow=0.35 cfs 0.029 af
12.0" Round Culvert n=0.013 L=18.0' S=0.0222 '/' Outflow=0.35 cfs 0.029 af

Pond 53P: CB-19 Peak Elev=247.43' Inflow=0.32 cfs 0.026 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0200 '/' Outflow=0.32 cfs 0.026 af

Pond 54P: DMH-12 Peak Elev=247.06' Inflow=0.66 cfs 0.055 af
12.0" Round Culvert n=0.013 L=84.0' S=0.0750 '/' Outflow=0.66 cfs 0.055 af

Pond 56P: DMH-11 Peak Elev=240.66' Inflow=0.66 cfs 0.055 af
12.0" Round Culvert n=0.013 L=110.0' S=0.0750 '/' Outflow=0.66 cfs 0.055 af

Pond 61P: DMH-10 Peak Elev=232.27' Inflow=1.25 cfs 0.104 af
12.0" Round Culvert n=0.013 L=115.0' S=0.0750 '/' Outflow=1.25 cfs 0.104 af

Pond 63P: DMH-8 Peak Elev=217.44' Inflow=2.05 cfs 0.171 af
12.0" Round Culvert n=0.013 L=80.0' S=0.0239 '/' Outflow=2.05 cfs 0.171 af

Pond 66P: CB-14 Peak Elev=218.74' Inflow=0.30 cfs 0.025 af
12.0" Round Culvert n=0.013 L=12.0' S=0.0200 '/' Outflow=0.30 cfs 0.025 af

Pond 67P: CB-15 Peak Elev=218.82' Inflow=0.50 cfs 0.042 af
12.0" Round Culvert n=0.013 L=12.0' S=0.0200 '/' Outflow=0.50 cfs 0.042 af

Pond 68P: DMH-4 Peak Elev=216.59' Inflow=6.93 cfs 0.521 af
18.0" Round Culvert n=0.013 L=54.0' S=0.0070 '/' Outflow=6.93 cfs 0.521 af

Pond 69P: CB-5 Peak Elev=217.03' Inflow=0.52 cfs 0.040 af
12.0" Round Culvert n=0.013 L=33.0' S=0.0200 '/' Outflow=0.52 cfs 0.040 af

Pond 70P: CB-7 Peak Elev=217.28' Inflow=0.88 cfs 0.065 af
12.0" Round Culvert n=0.013 L=12.0' S=0.0200 '/' Outflow=0.88 cfs 0.065 af

Pond 73P: DMH-7 Peak Elev=215.93' Inflow=8.22 cfs 0.655 af
24.0" Round Culvert n=0.013 L=52.0' S=0.0115 '/' Outflow=8.22 cfs 0.655 af

Pond 78P: CB-11 Peak Elev=216.36' Inflow=1.44 cfs 0.111 af
12.0" Round Culvert n=0.013 L=29.0' S=0.0121 '/' Outflow=1.44 cfs 0.111 af

Pond 79P: CB-12 Peak Elev=216.34' Inflow=1.35 cfs 0.103 af
12.0" Round Culvert n=0.013 L=29.0' S=0.0121 '/' Outflow=1.35 cfs 0.103 af

Pond 80P: DCB-13 Peak Elev=217.46' Inflow=3.38 cfs 0.270 af
15.0" Round Culvert n=0.013 L=119.0' S=0.0149 '/' Outflow=3.38 cfs 0.270 af

Pond 81P: CB-6 Peak Elev=216.50' Inflow=1.64 cfs 0.131 af
12.0" Round Culvert n=0.013 L=27.0' S=0.0070 '/' Outflow=1.64 cfs 0.131 af

Pond 82P: DMH-3 Peak Elev=216.04' Inflow=1.64 cfs 0.131 af
24.0" Round Culvert n=0.013 L=198.0' S=0.0038 '/' Outflow=1.64 cfs 0.131 af

Link 20L: DP-A Inflow=47.15 cfs 7.142 af
Primary=47.15 cfs 7.142 af

Total Runoff Area = 30.660 ac Runoff Volume = 7.813 af Average Runoff Depth = 3.06"
74.89% Pervious = 22.961 ac 25.11% Impervious = 7.699 ac

Summary for Subcatchment 9S: A.7

Runoff = 1.64 cfs @ 12.09 hrs, Volume= 0.131 af, Depth= 4.96"
Routed to Pond 81P : CB-6

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
	11,369	98	Unconnected pavement, HSG A
*	1,358	68	>75% Grass cover, Good, HSG A
	783	98	Unconnected pavement, HSG A
	244	98	Roofs, HSG A
	13,754	95	Weighted Average
	1,358		9.87% Pervious Area
	12,396		90.13% Impervious Area
	12,152		98.03% Unconnected

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

Summary for Subcatchment 16S: A.9

Runoff = 0.52 cfs @ 12.09 hrs, Volume= 0.040 af, Depth= 4.63"
Routed to Pond 69P : CB-5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
	3,142	98	Paved parking, HSG A
*	839	68	>75% Grass cover, Good, HSG A
	518	98	Unconnected pavement, HSG A
	4,499	92	Weighted Average
	839		18.65% Pervious Area
	3,660		81.35% Impervious Area
	518		14.15% Unconnected

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

Summary for Subcatchment 18S: A.8

Runoff = 1.10 cfs @ 12.09 hrs, Volume= 0.088 af, Depth= 4.96"
Routed to Pond 21P : CB-4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
	7,383	98	Paved parking, HSG A
*	940	68	>75% Grass cover, Good, HSG A
	284	98	Unconnected pavement, HSG A
	644	98	Roofs, HSG A
	9,251	95	Weighted Average
	940		10.16% Pervious Area
	8,311		89.84% Impervious Area
	284		3.42% Unconnected

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

Summary for Subcatchment 21S: A.1

Runoff = 1.63 cfs @ 12.15 hrs, Volume= 0.137 af, Depth= 2.28"
Routed to Pond 7P : Constructed Stormwater Wetland #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
*	31,332	68	>75% Grass cover, Good, HSG A
	31,332		100.00% Pervious Area

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

Summary for Subcatchment 22S: A.2

Runoff = 1.55 cfs @ 12.09 hrs, Volume= 0.127 af, Depth= 5.20"
Routed to Pond 23P : CB-2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
	12,195	98	Paved parking, HSG A
*	612	68	>75% Grass cover, Good, HSG A
	12,807	97	Weighted Average
	612		4.78% Pervious Area
	12,195		95.22% Impervious Area

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

Summary for Subcatchment 23S: A.3

Runoff = 0.95 cfs @ 12.09 hrs, Volume= 0.079 af, Depth= 5.31"
Routed to Pond 24P : CB-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

Area (sf)	CN	Description
7,817	98	Paved parking, HSG A
7,817		100.00% Impervious Area

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

Summary for Subcatchment 24S: A.4

Runoff = 4.03 cfs @ 12.10 hrs, Volume= 0.295 af, Depth= 2.45"
Routed to Pond 7P : Constructed Stormwater Wetland #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Adj	Description
*	54,594	68		>75% Grass cover, Good, HSG A
	7,083	98		Unconnected pavement, HSG A
	1,098	98		Roofs, HSG A
	62,775	72	70	Weighted Average, UI Adjusted
	54,594			86.97% Pervious Area
	8,181			13.03% Impervious Area
	7,083			86.58% Unconnected

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

Summary for Subcatchment 25S: A.5

Runoff = 4.13 cfs @ 12.09 hrs, Volume= 0.311 af, Depth= 4.30"
Routed to Pond 25P : CB-3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
	14,601	98	Paved parking, HSG A
*	11,179	68	>75% Grass cover, Good, HSG A
	10,448	98	Roofs, HSG A
	1,570	98	Unconnected pavement, HSG A
	37,798	89	Weighted Average
	11,179		29.58% Pervious Area
	26,619		70.42% Impervious Area
	1,570		5.90% Unconnected

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

Summary for Subcatchment 26S: ROOF.B

Runoff = 2.73 cfs @ 12.09 hrs, Volume= 0.228 af, Depth= 5.31"
Routed to Pond 5P : Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

Area (sf)	CN	Description
22,403	98	Roofs, HSG A
22,403		100.00% Impervious Area

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

Summary for Subcatchment 27S: A.6

Runoff = 12.26 cfs @ 12.43 hrs, Volume= 1.549 af, Depth= 2.81"
Routed to Pond 7P : Constructed Stormwater Wetland #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
*	126,122	68	>75% Grass cover, Good, HSG A
*	96,968	86	>75% Grass cover, Good, HSG C
*	12,765	89	>75% Grass cover, Good, HSG D
*	26,304	43	Woods, Good, HSG A
*	14,849	76	Woods, Good, HSG C
*	696	82	Woods, Good, HSG D
	1,799	98	Unconnected pavement, HSG A
	78	98	Unconnected pavement, HSG C
	8,541	98	Roofs, HSG A
	288,122	74	Weighted Average
	277,704		96.38% Pervious Area
	10,418		3.62% Impervious Area
	1,877		18.02% Unconnected

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

Summary for Subcatchment 28S: B.1

Runoff = 0.98 cfs @ 12.15 hrs, Volume= 0.082 af, Depth= 2.28"
Routed to Pond 4P : Constructed Stormwater Wetland #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Adj	Description
*	18,184	68		>75% Grass cover, Good, HSG A
*	41	82		Woods, Good, HSG D
	533	98		Unconnected pavement, HSG A
	18,758	69	68	Weighted Average, UI Adjusted
	18,225			97.16% Pervious Area
	533			2.84% Impervious Area
	533			100.00% Unconnected

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

Summary for Subcatchment 29S: B.2

Runoff = 1.04 cfs @ 12.09 hrs, Volume= 0.084 af, Depth= 5.08"
Routed to Pond 32P : CB-20

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
	548	98	Roofs, HSG A
	6,777	98	Paved parking, HSG A
	601	98	Unconnected pavement, HSG A
*	716	68	>75% Grass cover, Good, HSG A
	8,642	96	Weighted Average
	716		8.29% Pervious Area
	7,926		91.71% Impervious Area
	601		7.58% Unconnected

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

Summary for Subcatchment 30S: B.3

Runoff = 2.26 cfs @ 12.09 hrs, Volume= 0.183 af, Depth= 5.08"
Routed to Pond 29P : CB-21

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
	569	98	Roofs, HSG A
	15,960	98	Paved parking, HSG A
	1,175	98	Unconnected pavement, HSG A
*	1,087	68	>75% Grass cover, Good, HSG A
	18,791	96	Weighted Average
	1,087		5.78% Pervious Area
	17,704		94.22% Impervious Area
	1,175		6.64% Unconnected

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

Summary for Subcatchment 31S: B.4

Runoff = 2.39 cfs @ 12.09 hrs, Volume= 0.193 af, Depth= 5.08"
Routed to Pond 27P : DCB-22

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
	16,815	98	Paved parking, HSG A
	1,494	98	Unconnected pavement, HSG A
*	1,541	68	>75% Grass cover, Good, HSG A
	19,850	96	Weighted Average
	1,541		7.76% Pervious Area
	18,309		92.24% Impervious Area
	1,494		8.16% Unconnected

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

Summary for Subcatchment 32S: ROOF.C

Runoff = 2.59 cfs @ 12.09 hrs, Volume= 0.216 af, Depth= 5.31"
Routed to Pond 5P : Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

Area (sf)	CN	Description
21,236	98	Roofs, HSG A
21,236		100.00% Impervious Area

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

Summary for Subcatchment 33S: B.7

Runoff = 2.28 cfs @ 12.09 hrs, Volume= 0.166 af, Depth= 3.48"
Routed to Pond 4P : Constructed Stormwater Wetland #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
	10,617	98	Unconnected pavement, HSG A
*	14,381	68	>75% Grass cover, Good, HSG A
	24,998	81	Weighted Average
	14,381		57.53% Pervious Area
	10,617		42.47% Impervious Area
	10,617		100.00% Unconnected

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

Summary for Subcatchment 35S: C.1

Runoff = 12.35 cfs @ 12.28 hrs, Volume= 1.308 af, Depth= 3.09"
Routed to Pond 5P : Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Adj	Description
*	118,961	68		>75% Grass cover, Good, HSG A
*	258	43		Woods, Good, HSG A
*	70,218	89		>75% Grass cover, Good, HSG D
*	15,701	82		Woods, Good, HSG D
	576	98		Roofs, HSG D
	125	98		Unconnected pavement, HSG D
	9,316	98		Unconnected pavement, HSG A
	6,113	98		Roofs, HSG A
	221,268	78	77	Weighted Average, UI Adjusted
	205,138			92.71% Pervious Area
	16,130			7.29% Impervious Area
	9,441			58.53% Unconnected

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

Summary for Subcatchment 36S: C.2

Runoff = 1.44 cfs @ 12.09 hrs, Volume= 0.111 af, Depth= 4.63"
Routed to Pond 78P : CB-11

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
	7,807	98	Paved parking, HSG A
*	2,679	68	>75% Grass cover, Good, HSG A
	2,107	98	Unconnected pavement, HSG A
	12,593	92	Weighted Average
	2,679		21.27% Pervious Area
	9,914		78.73% Impervious Area
	2,107		21.25% Unconnected

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

Summary for Subcatchment 37S: C.3

Runoff = 1.35 cfs @ 12.09 hrs, Volume= 0.103 af, Depth= 4.52"
Routed to Pond 79P : CB-12

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
	7,826	98	Paved parking, HSG A
	1,481	98	Unconnected pavement, HSG A
*	2,649	68	>75% Grass cover, Good, HSG A
	11,956	91	Weighted Average
	2,649		22.16% Pervious Area
	9,307		77.84% Impervious Area
	1,481		15.91% Unconnected

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

Summary for Subcatchment 38S: C.4

Runoff = 3.38 cfs @ 12.09 hrs, Volume= 0.270 af, Depth= 4.96"
Routed to Pond 80P : DCB-13

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
	1,066	98	Roofs, HSG A
	23,555	98	Paved parking, HSG A
	1,160	98	Unconnected pavement, HSG A
*	2,604	68	>75% Grass cover, Good, HSG A
	28,385	95	Weighted Average
	2,604		9.17% Pervious Area
	25,781		90.83% Impervious Area
	1,160		4.50% Unconnected

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

Summary for Subcatchment 40S: C.6

Runoff = 0.30 cfs @ 12.09 hrs, Volume= 0.025 af, Depth= 5.31"
Routed to Pond 66P : CB-14

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

Area (sf)	CN	Description
1,531	98	Paved parking, HSG A
946	98	Paved parking, HSG D
2,477	98	Weighted Average
2,477		100.00% Impervious Area

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

Summary for Subcatchment 41S: C.7

Runoff = 0.50 cfs @ 12.09 hrs, Volume= 0.042 af, Depth= 5.31"
Routed to Pond 67P : CB-15

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

Area (sf)	CN	Description
1,474	98	Paved parking, HSG A
1,594	98	Paved parking, HSG D
832	98	Unconnected pavement, HSG A
204	98	Unconnected pavement, HSG D
4,104	98	Weighted Average
4,104		100.00% Impervious Area
1,036		25.24% Unconnected

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

Summary for Subcatchment 42S: C.8

Runoff = 0.29 cfs @ 12.09 hrs, Volume= 0.024 af, Depth= 5.31"
Routed to Pond 38P : CB-16

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

Area (sf)	CN	Description
2,348	98	Paved parking, HSG D
2,348		100.00% Impervious Area

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

Summary for Subcatchment 43S: C.9

Runoff = 0.30 cfs @ 12.09 hrs, Volume= 0.025 af, Depth= 5.31"
Routed to Pond 39P : CB-17

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

Area (sf)	CN	Description
2,458	98	Paved parking, HSG D
2,458		100.00% Impervious Area

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

Summary for Subcatchment 44S: C.10

Runoff = 0.32 cfs @ 12.09 hrs, Volume= 0.026 af, Depth= 5.31"
Routed to Pond 53P : CB-19

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

Area (sf)	CN	Description
2,596	98	Paved parking, HSG D
2,596		100.00% Impervious Area

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

Summary for Subcatchment 45S: C.11

Runoff = 0.35 cfs @ 12.09 hrs, Volume= 0.029 af, Depth= 5.31"
Routed to Pond 52P : CB-18

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

Area (sf)	CN	Description
2,841	98	Paved parking, HSG D
2,841		100.00% Impervious Area

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

Summary for Subcatchment 51S: D.1

Runoff = 10.90 cfs @ 12.30 hrs, Volume= 1.226 af, Depth= 1.79"
Routed to Link 20L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Adj	Description
*	167,879	68		>75% Grass cover, Good, HSG A
*	194	79		>75% Grass cover, Good, HSG B
*	51,927	89		>75% Grass cover, Good, HSG D
*	128,994	43		Woods, Good, HSG A
*	2,944	65		Woods, Good, HSG B
	3,179	98		Roofs, HSG A
	3,140	98		Unconnected pavement, HSG A
	358,257	63	62	Weighted Average, UI Adjusted
	351,938			98.24% Pervious Area
	6,319			1.76% Impervious Area
	3,140			49.69% Unconnected

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

Summary for Subcatchment 54S: ROOF.A

Runoff = 2.34 cfs @ 12.09 hrs, Volume= 0.195 af, Depth= 5.31"
Routed to Pond 5P : Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

Area (sf)	CN	Description
19,211	98	Roofs, HSG A
19,211		100.00% Impervious Area

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

Summary for Subcatchment 55S: A.11

Runoff = 0.88 cfs @ 12.09 hrs, Volume= 0.065 af, Depth= 4.09"
Routed to Pond 70P : CB-7

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
	4,102	98	Paved parking, HSG A
	1,200	98	Unconnected pavement, HSG A
*	3,030	68	>75% Grass cover, Good, HSG A
	8,332	87	Weighted Average
	3,030		36.37% Pervious Area
	5,302		63.63% Impervious Area
	1,200		22.63% Unconnected

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

Summary for Subcatchment 56S: A.12

Runoff = 3.49 cfs @ 12.09 hrs, Volume= 0.265 af, Depth= 4.41"
Routed to Pond 40P : CB-8

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
	13,088	98	Paved parking, HSG A
*	8,884	68	>75% Grass cover, Good, HSG A
	7,310	98	Roofs, HSG A
	2,106	98	Unconnected pavement, HSG A
	31,388	90	Weighted Average
	8,884		28.30% Pervious Area
	22,504		71.70% Impervious Area
	2,106		9.36% Unconnected

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

Summary for Subcatchment 57S: A.13

Runoff = 1.30 cfs @ 12.09 hrs, Volume= 0.097 af, Depth= 4.09"
Routed to Pond 43P : CB-9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
	6,088	98	Paved parking, HSG A
*	4,339	68	>75% Grass cover, Good, HSG A
	1,956	98	Unconnected pavement, HSG A
	12,383	87	Weighted Average
	4,339		35.04% Pervious Area
	8,044		64.96% Impervious Area
	1,956		24.32% Unconnected

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

Summary for Subcatchment 58S: A.14

Runoff = 1.27 cfs @ 12.09 hrs, Volume= 0.095 af, Depth= 4.09"
Routed to Pond 42P : CB-10

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=5.55"

	Area (sf)	CN	Description
	5,369	98	Paved parking, HSG A
*	4,411	68	>75% Grass cover, Good, HSG A
	2,319	98	Unconnected pavement, HSG A
	12,099	87	Weighted Average
	4,411		36.46% Pervious Area
	7,688		63.54% Impervious Area
	2,319		30.16% Unconnected

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

Summary for Pond 4P: Constructed Stormwater Wetland #2

Inflow Area = 2.090 ac, 60.51% Impervious, Inflow Depth = 4.06" for 25-yr event
Inflow = 8.81 cfs @ 12.09 hrs, Volume= 0.708 af
Outflow = 1.88 cfs @ 12.53 hrs, Volume= 0.439 af, Atten= 79%, Lag= 26.2 min
Primary = 1.88 cfs @ 12.53 hrs, Volume= 0.439 af
Routed to Link 20L : DP-A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.14' @ 12.53 hrs Surf.Area= 8,745 sf Storage= 17,649 cf

Plug-Flow detention time= 377.8 min calculated for 0.439 af (62% of inflow)
Center-of-Mass det. time= 271.6 min (1,054.9 - 783.3)

Volume	Invert	Avail.Storage	Storage Description
#1	212.50'	25,645 cf	**Custom Stage Data (Irregular)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
212.50	5,003	366.0	0	0	5,003
213.00	5,563	378.0	2,640	2,640	5,737
214.00	6,736	400.0	6,140	8,780	7,154
215.00	8,551	456.0	7,625	16,406	10,992
216.00	9,945	475.0	9,239	25,645	12,475

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**20.0' long x 12.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.57 2.62 2.70 2.67 2.66 2.67 2.66 2.64
#2	Device 3	214.90'	**4.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Primary	212.50'	**15.0" Round Culvert** L= 111.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 212.50' / 210.44' S= 0.0186 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#4	Device 3	214.40'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.87 cfs @ 12.53 hrs HW=215.14' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)
└**3=Culvert** (Passes 1.87 cfs of 6.63 cfs potential flow)
└**2=Sharp-Crested Rectangular Weir** (Weir Controls 1.55 cfs @ 1.61 fps)
└**4=Orifice/Grate** (Orifice Controls 0.32 cfs @ 3.65 fps)

Summary for Pond 5P: Wet Basin

Inflow Area = 8.124 ac, 39.79% Impervious, Inflow Depth = 3.84" for 25-yr event
Inflow = 23.18 cfs @ 12.11 hrs, Volume= 2.602 af
Outflow = 14.21 cfs @ 12.25 hrs, Volume= 2.201 af, Atten= 39%, Lag= 8.4 min
Primary = 14.21 cfs @ 12.25 hrs, Volume= 2.201 af
Routed to Link 20L : DP-A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.67' @ 12.44 hrs Surf.Area= 17,490 sf Storage= 36,308 cf

Plug-Flow detention time= 140.1 min calculated for 2.200 af (85% of inflow)
Center-of-Mass det. time= 73.8 min (871.1 - 797.3)

Volume	Invert	Avail.Storage	Storage Description
#1	214.00'	106,697 cf	**Custom Stage Data (Irregular)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
214.00	9,189	420.0	0	0	9,189
216.00	16,216	442.0	25,075	25,075	10,927
218.00	20,181	766.0	36,325	61,399	42,096
220.00	25,210	608.0	45,298	106,697	59,427

Device	Routing	Invert	Outlet Devices
#1	Primary	214.00'	**24.0" Round Culvert** L= 691.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.00' / 211.63' S= 0.0034 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	215.50'	**45.0 deg x 4.0' long Sharp-Crested Vee/Trap Weir** Cv= 2.56 (C= 3.20)
#3	Device 1	216.00'	**4.2' long x 4.2' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.53 2.69 2.68 2.67 2.67 2.65 2.66 2.66

2.67 2.71 2.72 2.74 2.77 2.85 3.01 3.23

Primary OutFlow Max=14.23 cfs @ 12.25 hrs HW=216.54' (Free Discharge)
└**1=Culvert** (Barrel Controls 14.23 cfs @ 4.61 fps)
└**2=Sharp-Crested Vee/Trap Weir** (Passes < 14.78 cfs potential flow)
└**3=Broad-Crested Rectangular Weir** (Passes < 4.42 cfs potential flow)

Summary for Pond 7P: Constructed Stormwater Wetland #1

Inflow Area = 12.221 ac, 25.01% Impervious, Inflow Depth = 3.22" for 25-yr event
Inflow = 27.26 cfs @ 12.10 hrs, Volume= 3.278 af
Outflow = 25.34 cfs @ 12.14 hrs, Volume= 3.277 af, Atten= 7%, Lag= 2.5 min
Primary = 25.34 cfs @ 12.14 hrs, Volume= 3.277 af
Routed to Link 20L : DP-A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 215.46' @ 12.14 hrs Surf.Area= 13,180 sf Storage= 7,775 cf

Plug-Flow detention time= 27.5 min calculated for 3.274 af (100% of inflow)
Center-of-Mass det. time= 28.6 min (852.6 - 824.0)

Volume	Invert	Avail.Storage	Storage Description
#1	214.80'	15,607 cf	**Custom Stage Data (Irregular)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
214.80	10,823	764.0	0	0	10,823
215.00	11,206	768.0	2,203	2,203	11,334
216.00	15,729	1,216.0	13,404	15,607	82,072

Device	Routing	Invert	Outlet Devices
#1	Primary	215.10'	**40.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Primary	214.80'	**12.0" Round Culvert X 3.00** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.80' / 214.00' S= 0.0320 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=25.17 cfs @ 12.14 hrs HW=215.46' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 21.60 cfs @ 1.52 fps)
└**2=Culvert** (Inlet Controls 3.57 cfs @ 2.18 fps)

Summary for Pond 21P: CB-4

Inflow Area = 0.212 ac, 89.84% Impervious, Inflow Depth = 4.96" for 25-yr event
Inflow = 1.10 cfs @ 12.09 hrs, Volume= 0.088 af
Outflow = 1.10 cfs @ 12.09 hrs, Volume= 0.088 af, Atten= 0%, Lag= 0.0 min
Primary = 1.10 cfs @ 12.09 hrs, Volume= 0.088 af
Routed to Pond 22P : DMH-2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.27' @ 12.09 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**12.0" Round Culvert** L= 41.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.70' / 215.29' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.07 cfs @ 12.09 hrs HW=216.26' (Free Discharge)
1=Culvert (Barrel Controls 1.07 cfs @ 3.43 fps)

Summary for Pond 22P: DMH-2

Inflow Area = 2.105 ac, 74.05% Impervious, Inflow Depth = 4.44" for 25-yr event
Inflow = 10.19 cfs @ 12.09 hrs, Volume= 0.780 af
Outflow = 10.19 cfs @ 12.09 hrs, Volume= 0.780 af, Atten= 0%, Lag= 0.0 min
Primary = 10.19 cfs @ 12.09 hrs, Volume= 0.780 af
Routed to Pond 7P : Constructed Stormwater Wetland #1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.13' @ 12.09 hrs
Flood Elev= 220.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.55'	**24.0" Round Culvert** L= 117.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 214.55' / 213.75' S= 0.0068 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf

Primary OutFlow Max=9.93 cfs @ 12.09 hrs HW=216.10' (Free Discharge)
1=Culvert (Barrel Controls 9.93 cfs @ 5.23 fps)

Summary for Pond 23P: CB-2

Inflow Area = 0.294 ac, 95.22% Impervious, Inflow Depth = 5.20" for 25-yr event
Inflow = 1.55 cfs @ 12.09 hrs, Volume= 0.127 af
Outflow = 1.55 cfs @ 12.09 hrs, Volume= 0.127 af, Atten= 0%, Lag= 0.0 min
Primary = 1.55 cfs @ 12.09 hrs, Volume= 0.127 af
Routed to Pond 26P : DMH-1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.17' @ 12.09 hrs
Flood Elev= 218.44'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.44'	**12.0" Round Culvert** L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.44' / 215.20' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.51 cfs @ 12.09 hrs HW=216.16' (Free Discharge)
1=Culvert (Barrel Controls 1.51 cfs @ 3.50 fps)

Summary for Pond 24P: CB-1

Inflow Area = 0.179 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 0.95 cfs @ 12.09 hrs, Volume= 0.079 af
Outflow = 0.95 cfs @ 12.09 hrs, Volume= 0.079 af, Atten= 0%, Lag= 0.0 min
Primary = 0.95 cfs @ 12.09 hrs, Volume= 0.079 af
Routed to Pond 26P : DMH-1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.58' @ 12.09 hrs
Flood Elev= 218.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.00'	**12.0" Round Culvert** L= 11.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.00' / 214.89' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.93 cfs @ 12.09 hrs HW=215.57' (Free Discharge)
1=Culvert (Barrel Controls 0.93 cfs @ 2.92 fps)

Summary for Pond 25P: CB-3

Inflow Area = 0.868 ac, 70.42% Impervious, Inflow Depth = 4.30" for 25-yr event
Inflow = 4.13 cfs @ 12.09 hrs, Volume= 0.311 af
Outflow = 4.13 cfs @ 12.09 hrs, Volume= 0.311 af, Atten= 0%, Lag= 0.0 min
Primary = 4.13 cfs @ 12.09 hrs, Volume= 0.311 af
Routed to Pond 26P : DMH-1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.11' @ 12.09 hrs
Flood Elev= 218.95'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.95'	**15.0" Round Culvert** L= 45.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.95' / 215.50' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=4.02 cfs @ 12.09 hrs HW=217.09' (Free Discharge)
1=Culvert (Barrel Controls 4.02 cfs @ 4.49 fps)

Summary for Pond 26P: DMH-1

Inflow Area = 1.341 ac, 79.82% Impervious, Inflow Depth = 4.63" for 25-yr event
Inflow = 6.63 cfs @ 12.09 hrs, Volume= 0.518 af
Outflow = 6.63 cfs @ 12.09 hrs, Volume= 0.518 af, Atten= 0%, Lag= 0.0 min
Primary = 6.63 cfs @ 12.09 hrs, Volume= 0.518 af
Routed to Pond 7P : Constructed Stormwater Wetland #1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.17' @ 12.09 hrs
Flood Elev= 218.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.79'	**18.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 214.79' / 214.20' S= 0.0104 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=6.46 cfs @ 12.09 hrs HW=216.15' (Free Discharge)
1=Culvert (Barrel Controls 6.46 cfs @ 5.05 fps)

Summary for Pond 27P: DCB-22

Inflow Area = 0.456 ac, 92.24% Impervious, Inflow Depth = 5.08" for 25-yr event
Inflow = 2.39 cfs @ 12.09 hrs, Volume= 0.193 af
Outflow = 2.39 cfs @ 12.09 hrs, Volume= 0.193 af, Atten= 0%, Lag= 0.0 min
Primary = 2.39 cfs @ 12.09 hrs, Volume= 0.193 af
Routed to Pond 28P : DMH-18

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.70' @ 12.09 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**12.0" Round Culvert** L= 47.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.70' / 215.37' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.32 cfs @ 12.09 hrs HW=216.68' (Free Discharge)
1=Culvert (Barrel Controls 2.32 cfs @ 3.74 fps)

Summary for Pond 28P: DMH-18

Inflow Area = 0.456 ac, 92.24% Impervious, Inflow Depth = 5.08" for 25-yr event
Inflow = 2.39 cfs @ 12.09 hrs, Volume= 0.193 af
Outflow = 2.39 cfs @ 12.09 hrs, Volume= 0.193 af, Atten= 0%, Lag= 0.0 min
Primary = 2.39 cfs @ 12.09 hrs, Volume= 0.193 af
Routed to Pond 30P : DMH-17

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 216.22' @ 12.09 hrs
Flood Elev= 219.41'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.27'	**12.0" Round Culvert** L= 167.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.27' / 214.10' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.32 cfs @ 12.09 hrs HW=216.20' (Free Discharge)
1=Culvert (Barrel Controls 2.32 cfs @ 3.98 fps)

Summary for Pond 29P: CB-21

Inflow Area = 0.431 ac, 94.22% Impervious, Inflow Depth = 5.08" for 25-yr event
Inflow = 2.26 cfs @ 12.09 hrs, Volume= 0.183 af
Outflow = 2.26 cfs @ 12.09 hrs, Volume= 0.183 af, Atten= 0%, Lag= 0.0 min
Primary = 2.26 cfs @ 12.09 hrs, Volume= 0.183 af
Routed to Pond 30P : DMH-17

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.69' @ 12.09 hrs
Flood Elev= 218.83'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.83'	**12.0" Round Culvert** L= 83.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.83' / 215.00' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.20 cfs @ 12.09 hrs HW=216.67' (Free Discharge)
1=Culvert (Inlet Controls 2.20 cfs @ 3.12 fps)

Summary for Pond 30P: DMH-17

Inflow Area = 0.887 ac, 93.20% Impervious, Inflow Depth = 5.08" for 25-yr event
Inflow = 4.65 cfs @ 12.09 hrs, Volume= 0.375 af
Outflow = 4.65 cfs @ 12.09 hrs, Volume= 0.375 af, Atten= 0%, Lag= 0.0 min
Primary = 4.65 cfs @ 12.09 hrs, Volume= 0.375 af
Routed to Pond 31P : DMH-16

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.93' @ 12.09 hrs
Flood Elev= 220.43'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.00'	**12.0" Round Culvert** L= 112.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 214.00' / 213.22' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=4.52 cfs @ 12.09 hrs HW=216.80' (Free Discharge)
1=Culvert (Barrel Controls 4.52 cfs @ 5.76 fps)

Summary for Pond 31P: DMH-16

Inflow Area = 1.085 ac, 92.93% Impervious, Inflow Depth = 5.08" for 25-yr event
Inflow = 5.68 cfs @ 12.09 hrs, Volume= 0.459 af
Outflow = 5.68 cfs @ 12.09 hrs, Volume= 0.459 af, Atten= 0%, Lag= 0.0 min
Primary = 5.68 cfs @ 12.09 hrs, Volume= 0.459 af
Routed to Pond 4P : Constructed Stormwater Wetland #2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 214.37' @ 12.09 hrs
Flood Elev= 220.47'

Device	Routing	Invert	Outlet Devices
#1	Primary	213.12'	**18.0" Round Culvert** L= 66.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 213.12' / 212.50' S= 0.0094 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=5.53 cfs @ 12.09 hrs HW=214.35' (Free Discharge)
1=Culvert (Barrel Controls 5.53 cfs @ 4.86 fps)

Summary for Pond 32P: CB-20

Inflow Area = 0.198 ac, 91.71% Impervious, Inflow Depth = 5.08" for 25-yr event
Inflow = 1.04 cfs @ 12.09 hrs, Volume= 0.084 af
Outflow = 1.04 cfs @ 12.09 hrs, Volume= 0.084 af, Atten= 0%, Lag= 0.0 min
Primary = 1.04 cfs @ 12.09 hrs, Volume= 0.084 af
Routed to Pond 31P : DMH-16

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.30' @ 12.09 hrs
Flood Elev= 218.77'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.77'	**12.0" Round Culvert** L= 65.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.77' / 214.47' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.01 cfs @ 12.09 hrs HW=216.29' (Free Discharge)
1=Culvert (Inlet Controls 1.01 cfs @ 2.45 fps)

Summary for Pond 36P: DMH-6

Inflow Area = 0.564 ac, 78.30% Impervious, Inflow Depth = 4.57" for 25-yr event
Inflow = 2.79 cfs @ 12.09 hrs, Volume= 0.215 af
Outflow = 2.79 cfs @ 12.09 hrs, Volume= 0.215 af, Atten= 0%, Lag= 0.0 min
Primary = 2.79 cfs @ 12.09 hrs, Volume= 0.215 af
Routed to Pond 73P : DMH-7

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.29' @ 12.09 hrs
Flood Elev= 219.28'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.25'	**12.0" Round Culvert** L= 43.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.25' / 214.73' S= 0.0121 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.72 cfs @ 12.09 hrs HW=216.27' (Free Discharge)
1=Culvert (Inlet Controls 2.72 cfs @ 3.46 fps)

Summary for Pond 37P: DMH-9

Inflow Area = 0.235 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 1.25 cfs @ 12.09 hrs, Volume= 0.104 af
Outflow = 1.25 cfs @ 12.09 hrs, Volume= 0.104 af, Atten= 0%, Lag= 0.0 min
Primary = 1.25 cfs @ 12.09 hrs, Volume= 0.104 af
Routed to Pond 63P : DMH-8

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 223.55' @ 12.09 hrs
Flood Elev= 226.46'

Device	Routing	Invert	Outlet Devices
#1	Primary	222.96'	**12.0" Round Culvert** L= 83.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 222.96' / 216.74' S= 0.0749 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.21 cfs @ 12.09 hrs HW=223.54' (Free Discharge)
1=Culvert (Inlet Controls 1.21 cfs @ 2.59 fps)

Summary for Pond 38P: CB-16

Inflow Area = 0.054 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 0.29 cfs @ 12.09 hrs, Volume= 0.024 af
Outflow = 0.29 cfs @ 12.09 hrs, Volume= 0.024 af, Atten= 0%, Lag= 0.0 min
Primary = 0.29 cfs @ 12.09 hrs, Volume= 0.024 af
Routed to Pond 61P : DMH-10

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 232.34' @ 12.09 hrs
Flood Elev= 235.58'

Device	Routing	Invert	Outlet Devices
#1	Primary	232.08'	**12.0" Round Culvert** L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 232.08' / 231.78' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.28 cfs @ 12.09 hrs HW=232.34' (Free Discharge)
1=Culvert (Inlet Controls 0.28 cfs @ 1.73 fps)

Summary for Pond 39P: CB-17

Inflow Area = 0.056 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 0.30 cfs @ 12.09 hrs, Volume= 0.025 af
Outflow = 0.30 cfs @ 12.09 hrs, Volume= 0.025 af, Atten= 0%, Lag= 0.0 min
Primary = 0.30 cfs @ 12.09 hrs, Volume= 0.025 af
Routed to Pond 61P : DMH-10

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 232.35' @ 12.09 hrs
Flood Elev= 235.58'

Device	Routing	Invert	Outlet Devices
#1	Primary	232.08'	**12.0" Round Culvert** L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 232.08' / 231.78' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.29 cfs @ 12.09 hrs HW=232.34' (Free Discharge)
1=Culvert (Inlet Controls 0.29 cfs @ 1.75 fps)

Summary for Pond 40P: CB-8

Inflow Area = 0.721 ac, 71.70% Impervious, Inflow Depth = 4.41" for 25-yr event
Inflow = 3.49 cfs @ 12.09 hrs, Volume= 0.265 af
Outflow = 3.49 cfs @ 12.09 hrs, Volume= 0.265 af, Atten= 0%, Lag= 0.0 min
Primary = 3.49 cfs @ 12.09 hrs, Volume= 0.265 af
Routed to Pond 68P : DMH-4

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.84' @ 12.09 hrs
Flood Elev= 219.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.80'	**15.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.80' / 216.56' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=3.40 cfs @ 12.09 hrs HW=217.83' (Free Discharge)
1=Culvert (Barrel Controls 3.40 cfs @ 4.29 fps)

Summary for Pond 41P: DMH-5

Inflow Area = 0.562 ac, 64.26% Impervious, Inflow Depth = 4.09" for 25-yr event
Inflow = 2.57 cfs @ 12.09 hrs, Volume= 0.191 af
Outflow = 2.57 cfs @ 12.09 hrs, Volume= 0.191 af, Atten= 0%, Lag= 0.0 min
Primary = 2.57 cfs @ 12.09 hrs, Volume= 0.191 af
Routed to Pond 68P : DMH-4

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.50' @ 12.09 hrs
Flood Elev= 220.13'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.50'	**12.0" Round Culvert** L= 195.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.50' / 215.13' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.51 cfs @ 12.09 hrs HW=217.48' (Free Discharge)
1=Culvert (Barrel Controls 2.51 cfs @ 4.06 fps)

Summary for Pond 42P: CB-10

Inflow Area = 0.278 ac, 63.54% Impervious, Inflow Depth = 4.09" for 25-yr event
Inflow = 1.27 cfs @ 12.09 hrs, Volume= 0.095 af
Outflow = 1.27 cfs @ 12.09 hrs, Volume= 0.095 af, Atten= 0%, Lag= 0.0 min
Primary = 1.27 cfs @ 12.09 hrs, Volume= 0.095 af
Routed to Pond 41P : DMH-5

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.48' @ 12.09 hrs
Flood Elev= 219.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.80'	**12.0" Round Culvert** L= 29.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.80' / 216.60' S= 0.0069 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.24 cfs @ 12.09 hrs HW=217.47' (Free Discharge)
1=Culvert (Barrel Controls 1.24 cfs @ 3.14 fps)

Summary for Pond 43P: CB-9

Inflow Area = 0.284 ac, 64.96% Impervious, Inflow Depth = 4.09" for 25-yr event
Inflow = 1.30 cfs @ 12.09 hrs, Volume= 0.097 af
Outflow = 1.30 cfs @ 12.09 hrs, Volume= 0.097 af, Atten= 0%, Lag= 0.0 min
Primary = 1.30 cfs @ 12.09 hrs, Volume= 0.097 af
Routed to Pond 41P : DMH-5

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.49' @ 12.09 hrs
Flood Elev= 219.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.80'	**12.0" Round Culvert** L= 29.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.80' / 216.60' S= 0.0069 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.27 cfs @ 12.09 hrs HW=217.48' (Free Discharge)
1=Culvert (Barrel Controls 1.27 cfs @ 3.15 fps)

Summary for Pond 52P: CB-18

Inflow Area = 0.065 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 0.35 cfs @ 12.09 hrs, Volume= 0.029 af
Outflow = 0.35 cfs @ 12.09 hrs, Volume= 0.029 af, Atten= 0%, Lag= 0.0 min
Primary = 0.35 cfs @ 12.09 hrs, Volume= 0.029 af
Routed to Pond 54P : DMH-12

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 247.44' @ 12.09 hrs
Flood Elev= 250.65'

Device	Routing	Invert	Outlet Devices
#1	Primary	247.15'	**12.0" Round Culvert** L= 18.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 247.15' / 246.75' S= 0.0222 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.34 cfs @ 12.09 hrs HW=247.44' (Free Discharge)
1=Culvert (Inlet Controls 0.34 cfs @ 1.82 fps)

Summary for Pond 53P: CB-19

Inflow Area = 0.060 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 0.32 cfs @ 12.09 hrs, Volume= 0.026 af
Outflow = 0.32 cfs @ 12.09 hrs, Volume= 0.026 af, Atten= 0%, Lag= 0.0 min
Primary = 0.32 cfs @ 12.09 hrs, Volume= 0.026 af
Routed to Pond 54P : DMH-12

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 247.43' @ 12.09 hrs
Flood Elev= 250.65'

Device	Routing	Invert	Outlet Devices
#1	Primary	247.15'	**12.0" Round Culvert** L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 247.15' / 246.75' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.31 cfs @ 12.09 hrs HW=247.42' (Free Discharge)
1=Culvert (Inlet Controls 0.31 cfs @ 1.78 fps)

Summary for Pond 54P: DMH-12

Inflow Area = 0.125 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 0.66 cfs @ 12.09 hrs, Volume= 0.055 af
Outflow = 0.66 cfs @ 12.09 hrs, Volume= 0.055 af, Atten= 0%, Lag= 0.0 min
Primary = 0.66 cfs @ 12.09 hrs, Volume= 0.055 af
Routed to Pond 56P : DMH-11

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 247.06' @ 12.09 hrs
Flood Elev= 249.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	246.65'	**12.0" Round Culvert** L= 84.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 246.65' / 240.35' S= 0.0750 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.64 cfs @ 12.09 hrs HW=247.05' (Free Discharge)
1=Culvert (Inlet Controls 0.64 cfs @ 2.16 fps)

Summary for Pond 56P: DMH-11

Inflow Area = 0.125 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 0.66 cfs @ 12.09 hrs, Volume= 0.055 af
Outflow = 0.66 cfs @ 12.09 hrs, Volume= 0.055 af, Atten= 0%, Lag= 0.0 min
Primary = 0.66 cfs @ 12.09 hrs, Volume= 0.055 af
Routed to Pond 61P : DMH-10

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 240.66' @ 12.09 hrs
Flood Elev= 243.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	240.25'	**12.0" Round Culvert** L= 110.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 240.25' / 232.00' S= 0.0750 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.64 cfs @ 12.09 hrs HW=240.65' (Free Discharge)
1=Culvert (Inlet Controls 0.64 cfs @ 2.16 fps)

Summary for Pond 61P: DMH-10

Inflow Area = 0.235 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 1.25 cfs @ 12.09 hrs, Volume= 0.104 af
Outflow = 1.25 cfs @ 12.09 hrs, Volume= 0.104 af, Atten= 0%, Lag= 0.0 min
Primary = 1.25 cfs @ 12.09 hrs, Volume= 0.104 af
Routed to Pond 37P : DMH-9

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 232.27' @ 12.09 hrs
Flood Elev= 235.07'

Device	Routing	Invert	Outlet Devices
#1	Primary	231.68'	**12.0" Round Culvert** L= 115.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 231.68' / 223.06' S= 0.0750 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.21 cfs @ 12.09 hrs HW=232.26' (Free Discharge)
1=Culvert (Inlet Controls 1.21 cfs @ 2.59 fps)

Summary for Pond 63P: DMH-8

Inflow Area = 0.386 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 2.05 cfs @ 12.09 hrs, Volume= 0.171 af
Outflow = 2.05 cfs @ 12.09 hrs, Volume= 0.171 af, Atten= 0%, Lag= 0.0 min
Primary = 2.05 cfs @ 12.09 hrs, Volume= 0.171 af
Routed to Pond 73P : DMH-7

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.44' @ 12.09 hrs
Flood Elev= 221.97'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.64'	**12.0" Round Culvert** L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.64' / 214.73' S= 0.0239 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.99 cfs @ 12.09 hrs HW=217.42' (Free Discharge)
1=Culvert (Inlet Controls 1.99 cfs @ 3.02 fps)

Summary for Pond 66P: CB-14

Inflow Area = 0.057 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 0.30 cfs @ 12.09 hrs, Volume= 0.025 af
Outflow = 0.30 cfs @ 12.09 hrs, Volume= 0.025 af, Atten= 0%, Lag= 0.0 min
Primary = 0.30 cfs @ 12.09 hrs, Volume= 0.025 af
Routed to Pond 63P : DMH-8

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 218.74' @ 12.09 hrs
Flood Elev= 221.97'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.47'	**12.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 218.47' / 218.23' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.29 cfs @ 12.09 hrs HW=218.74' (Free Discharge)
1=Culvert (Inlet Controls 0.29 cfs @ 1.75 fps)

Summary for Pond 67P: CB-15

Inflow Area = 0.094 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 0.50 cfs @ 12.09 hrs, Volume= 0.042 af
Outflow = 0.50 cfs @ 12.09 hrs, Volume= 0.042 af, Atten= 0%, Lag= 0.0 min
Primary = 0.50 cfs @ 12.09 hrs, Volume= 0.042 af
Routed to Pond 63P : DMH-8

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 218.82' @ 12.09 hrs
Flood Elev= 221.97'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.47'	**12.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 218.47' / 218.23' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.49 cfs @ 12.09 hrs HW=218.82' (Free Discharge)
1=Culvert (Inlet Controls 0.49 cfs @ 2.01 fps)

Summary for Pond 68P: DMH-4

Inflow Area = 1.474 ac, 67.81% Impervious, Inflow Depth = 4.24" for 25-yr event
Inflow = 6.93 cfs @ 12.09 hrs, Volume= 0.521 af
Outflow = 6.93 cfs @ 12.09 hrs, Volume= 0.521 af, Atten= 0%, Lag= 0.0 min
Primary = 6.93 cfs @ 12.09 hrs, Volume= 0.521 af
Routed to Pond 22P : DMH-2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 216.59' @ 12.09 hrs
Flood Elev= 220.11'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.03'	**18.0" Round Culvert** L= 54.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.03' / 214.65' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=6.77 cfs @ 12.09 hrs HW=216.56' (Free Discharge)
1=Culvert (Barrel Controls 6.77 cfs @ 4.66 fps)

Summary for Pond 69P: CB-5

Inflow Area = 0.103 ac, 81.35% Impervious, Inflow Depth = 4.63" for 25-yr event
Inflow = 0.52 cfs @ 12.09 hrs, Volume= 0.040 af
Outflow = 0.52 cfs @ 12.09 hrs, Volume= 0.040 af, Atten= 0%, Lag= 0.0 min
Primary = 0.52 cfs @ 12.09 hrs, Volume= 0.040 af
Routed to Pond 22P : DMH-2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.03' @ 12.09 hrs
Flood Elev= 219.67'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.67'	**12.0" Round Culvert** L= 33.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.67' / 216.01' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.50 cfs @ 12.09 hrs HW=217.02' (Free Discharge)
1=Culvert (Inlet Controls 0.50 cfs @ 2.02 fps)

Summary for Pond 70P: CB-7

Inflow Area = 0.191 ac, 63.63% Impervious, Inflow Depth = 4.09" for 25-yr event
Inflow = 0.88 cfs @ 12.09 hrs, Volume= 0.065 af
Outflow = 0.88 cfs @ 12.09 hrs, Volume= 0.065 af, Atten= 0%, Lag= 0.0 min
Primary = 0.88 cfs @ 12.09 hrs, Volume= 0.065 af
Routed to Pond 68P : DMH-4

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.28' @ 12.09 hrs
Flood Elev= 219.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.80'	**12.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.80' / 216.56' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.85 cfs @ 12.09 hrs HW=217.28' (Free Discharge)
1=Culvert (Barrel Controls 0.85 cfs @ 3.39 fps)

Summary for Pond 73P: DMH-7

Inflow Area = 1.601 ac, 88.63% Impervious, Inflow Depth = 4.91" for 25-yr event
Inflow = 8.22 cfs @ 12.09 hrs, Volume= 0.655 af
Outflow = 8.22 cfs @ 12.09 hrs, Volume= 0.655 af, Atten= 0%, Lag= 0.0 min
Primary = 8.22 cfs @ 12.09 hrs, Volume= 0.655 af
Routed to Pond 5P : Wet Basin

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.93' @ 12.09 hrs
Flood Elev= 219.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.60'	**24.0" Round Culvert** L= 52.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 214.60' / 214.00' S= 0.0115 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf

Primary OutFlow Max=8.01 cfs @ 12.09 hrs HW=215.90' (Free Discharge)
1=Culvert (Barrel Controls 8.01 cfs @ 5.25 fps)

Summary for Pond 78P: CB-11

Inflow Area = 0.289 ac, 78.73% Impervious, Inflow Depth = 4.63" for 25-yr event
Inflow = 1.44 cfs @ 12.09 hrs, Volume= 0.111 af
Outflow = 1.44 cfs @ 12.09 hrs, Volume= 0.111 af, Atten= 0%, Lag= 0.0 min
Primary = 1.44 cfs @ 12.09 hrs, Volume= 0.111 af
Routed to Pond 36P : DMH-6

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.36' @ 12.09 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**12.0" Round Culvert** L= 29.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.70' / 215.35' S= 0.0121 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.41 cfs @ 12.09 hrs HW=216.35' (Free Discharge)
1=Culvert (Barrel Controls 1.41 cfs @ 3.69 fps)

Summary for Pond 79P: CB-12

Inflow Area = 0.274 ac, 77.84% Impervious, Inflow Depth = 4.52" for 25-yr event
Inflow = 1.35 cfs @ 12.09 hrs, Volume= 0.103 af
Outflow = 1.35 cfs @ 12.09 hrs, Volume= 0.103 af, Atten= 0%, Lag= 0.0 min
Primary = 1.35 cfs @ 12.09 hrs, Volume= 0.103 af
Routed to Pond 36P : DMH-6

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.34' @ 12.09 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**12.0" Round Culvert** L= 29.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.70' / 215.35' S= 0.0121 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.32 cfs @ 12.09 hrs HW=216.33' (Free Discharge)
1=Culvert (Barrel Controls 1.32 cfs @ 3.64 fps)

Summary for Pond 80P: DCB-13

Inflow Area = 0.652 ac, 90.83% Impervious, Inflow Depth = 4.96" for 25-yr event
Inflow = 3.38 cfs @ 12.09 hrs, Volume= 0.270 af
Outflow = 3.38 cfs @ 12.09 hrs, Volume= 0.270 af, Atten= 0%, Lag= 0.0 min
Primary = 3.38 cfs @ 12.09 hrs, Volume= 0.270 af
Routed to Pond 73P : DMH-7

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.46' @ 12.09 hrs
Flood Elev= 219.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.50'	**15.0" Round Culvert** L= 119.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.50' / 214.73' S= 0.0149 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=3.29 cfs @ 12.09 hrs HW=217.44' (Free Discharge)
1=Culvert (Inlet Controls 3.29 cfs @ 3.31 fps)

Summary for Pond 81P: CB-6

Inflow Area = 0.316 ac, 90.13% Impervious, Inflow Depth = 4.96" for 25-yr event
Inflow = 1.64 cfs @ 12.09 hrs, Volume= 0.131 af
Outflow = 1.64 cfs @ 12.09 hrs, Volume= 0.131 af, Atten= 0%, Lag= 0.0 min
Primary = 1.64 cfs @ 12.09 hrs, Volume= 0.131 af
Routed to Pond 82P : DMH-3

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 216.50' @ 12.09 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**12.0" Round Culvert** L= 27.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.70' / 215.51' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.59 cfs @ 12.09 hrs HW=216.48' (Free Discharge)
1=Culvert (Barrel Controls 1.59 cfs @ 3.32 fps)

Summary for Pond 82P: DMH-3

Inflow Area = 0.316 ac, 90.13% Impervious, Inflow Depth = 4.96" for 25-yr event
Inflow = 1.64 cfs @ 12.09 hrs, Volume= 0.131 af
Outflow = 1.64 cfs @ 12.09 hrs, Volume= 0.131 af, Atten= 0%, Lag= 0.0 min
Primary = 1.64 cfs @ 12.09 hrs, Volume= 0.131 af
Routed to Pond 22P : DMH-2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.04' @ 12.09 hrs
Flood Elev= 219.32'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.41'	**24.0" Round Culvert** L= 198.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.41' / 214.65' S= 0.0038 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf

Primary OutFlow Max=1.59 cfs @ 12.09 hrs HW=216.03' (Free Discharge)
1=Culvert (Barrel Controls 1.59 cfs @ 2.90 fps)

Summary for Link 20L: DP-A

Inflow Area = 30.660 ac, 25.11% Impervious, Inflow Depth = 2.80" for 25-yr event
Inflow = 47.15 cfs @ 12.20 hrs, Volume= 7.142 af
Primary = 47.15 cfs @ 12.20 hrs, Volume= 7.142 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 9S: A.7 Runoff Area=13,754 sf 90.13% Impervious Runoff Depth=7.21"
Tc=6.0 min CN=95 Runoff=2.33 cfs 0.190 af

Subcatchment 16S: A.9 Runoff Area=4,499 sf 81.35% Impervious Runoff Depth=6.86"
Tc=6.0 min CN=92 Runoff=0.75 cfs 0.059 af

Subcatchment 18S: A.8 Runoff Area=9,251 sf 89.84% Impervious Runoff Depth=7.21"
Tc=6.0 min CN=95 Runoff=1.57 cfs 0.128 af

Subcatchment 21S: A.1 Runoff Area=31,332 sf 0.00% Impervious Runoff Depth=4.08"
Tc=10.0 min CN=68 Runoff=2.97 cfs 0.244 af

Subcatchment 22S: A.2 Runoff Area=12,807 sf 95.22% Impervious Runoff Depth=7.45"
Tc=6.0 min CN=97 Runoff=2.19 cfs 0.183 af

Subcatchment 23S: A.3 Runoff Area=7,817 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=1.34 cfs 0.113 af

Subcatchment 24S: A.4 Runoff Area=62,775 sf 13.03% Impervious Runoff Depth=4.30"
Tc=6.0 min UI Adjusted CN=70 Runoff=7.13 cfs 0.517 af

Subcatchment 25S: A.5 Runoff Area=37,798 sf 70.42% Impervious Runoff Depth=6.50"
Tc=6.0 min CN=89 Runoff=6.09 cfs 0.470 af

Subcatchment 26S: ROOF.B Runoff Area=22,403 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=3.85 cfs 0.324 af

Subcatchment 27S: A.6 Runoff Area=288,122 sf 3.62% Impervious Runoff Depth=4.76"
Tc=30.0 min CN=74 Runoff=20.80 cfs 2.622 af

Subcatchment 28S: B.1 Runoff Area=18,758 sf 2.84% Impervious Runoff Depth=4.08"
Tc=10.0 min UI Adjusted CN=68 Runoff=1.78 cfs 0.146 af

Subcatchment 29S: B.2 Runoff Area=8,642 sf 91.71% Impervious Runoff Depth=7.33"
Tc=6.0 min CN=96 Runoff=1.47 cfs 0.121 af

Subcatchment 30S: B.3 Runoff Area=18,791 sf 94.22% Impervious Runoff Depth=7.33"
Tc=6.0 min CN=96 Runoff=3.21 cfs 0.264 af

Subcatchment 31S: B.4 Runoff Area=19,850 sf 92.24% Impervious Runoff Depth=7.33"
Tc=6.0 min CN=96 Runoff=3.39 cfs 0.278 af

Subcatchment 32S: ROOF.C Runoff Area=21,236 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=3.65 cfs 0.308 af

Subcatchment 33S: B.7 Runoff Area=24,998 sf 42.47% Impervious Runoff Depth=5.56"
Tc=6.0 min CN=81 Runoff=3.60 cfs 0.266 af

Subcatchment 35S: C.1 Runoff Area=221,268 sf 7.29% Impervious Runoff Depth=5.10"
Tc=20.0 min UI Adjusted CN=77 Runoff=20.36 cfs 2.159 af

Subcatchment 36S: C.2 Runoff Area=12,593 sf 78.73% Impervious Runoff Depth=6.86"
Tc=6.0 min CN=92 Runoff=2.09 cfs 0.165 af

Subcatchment 37S: C.3 Runoff Area=11,956 sf 77.84% Impervious Runoff Depth=6.74"
Tc=6.0 min CN=91 Runoff=1.97 cfs 0.154 af

Subcatchment 38S: C.4 Runoff Area=28,385 sf 90.83% Impervious Runoff Depth=7.21"
Tc=6.0 min CN=95 Runoff=4.82 cfs 0.392 af

Subcatchment 40S: C.6 Runoff Area=2,477 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=0.43 cfs 0.036 af

Subcatchment 41S: C.7 Runoff Area=4,104 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=0.71 cfs 0.059 af

Subcatchment 42S: C.8 Runoff Area=2,348 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=0.40 cfs 0.034 af

Subcatchment 43S: C.9 Runoff Area=2,458 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=0.42 cfs 0.036 af

Subcatchment 44S: C.10 Runoff Area=2,596 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=0.45 cfs 0.038 af

Subcatchment 45S: C.11 Runoff Area=2,841 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=0.49 cfs 0.041 af

Subcatchment 51S: D.1 Runoff Area=358,257 sf 1.76% Impervious Runoff Depth=3.41"
Tc=20.0 min UI Adjusted CN=62 Runoff=21.76 cfs 2.337 af

Subcatchment 54S: ROOF.A Runoff Area=19,211 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=3.30 cfs 0.278 af

Subcatchment 55S: A.11 Runoff Area=8,332 sf 63.63% Impervious Runoff Depth=6.26"
Tc=6.0 min CN=87 Runoff=1.31 cfs 0.100 af

Subcatchment 56S: A.12 Runoff Area=31,388 sf 71.70% Impervious Runoff Depth=6.62"
Tc=6.0 min CN=90 Runoff=5.12 cfs 0.397 af

Subcatchment 57S: A.13 Runoff Area=12,383 sf 64.96% Impervious Runoff Depth=6.26"
Tc=6.0 min CN=87 Runoff=1.95 cfs 0.148 af

Subcatchment 58S: A.14 Runoff Area=12,099 sf 63.54% Impervious Runoff Depth=6.26"
Tc=6.0 min CN=87 Runoff=1.90 cfs 0.145 af

Pond 4P: Constructed Stormwater Peak Elev=215.53' Storage=21,134 cf Inflow=13.24 cfs 1.075 af
Outflow=7.06 cfs 0.806 af

Pond 5P: Wet Basin Peak Elev=217.72' Storage=55,748 cf Inflow=35.13 cfs 4.024 af
Outflow=15.72 cfs 3.623 af

Pond 7P: Constructed Stormwater Wetland Peak Elev=215.59' Storage=9,579 cf Inflow=43.49 cfs 5.315 af
Outflow=40.92 cfs 5.314 af

Pond 21P: CB-4 Peak Elev=216.41' Inflow=1.57 cfs 0.128 af
12.0" Round Culvert n=0.013 L=41.0' S=0.0100 '/' Outflow=1.57 cfs 0.128 af

Pond 22P: DMH-2 Peak Elev=216.63' Inflow=14.93 cfs 1.167 af
24.0" Round Culvert n=0.013 L=117.0' S=0.0068 '/' Outflow=14.93 cfs 1.167 af

Pond 23P: CB-2 Peak Elev=216.36' Inflow=2.19 cfs 0.183 af
12.0" Round Culvert n=0.013 L=24.0' S=0.0100 '/' Outflow=2.19 cfs 0.183 af

Pond 24P: CB-1 Peak Elev=215.71' Inflow=1.34 cfs 0.113 af
12.0" Round Culvert n=0.013 L=11.0' S=0.0100 '/' Outflow=1.34 cfs 0.113 af

Pond 25P: CB-3 Peak Elev=217.72' Inflow=6.09 cfs 0.470 af
15.0" Round Culvert n=0.013 L=45.0' S=0.0100 '/' Outflow=6.09 cfs 0.470 af

Pond 26P: DMH-1 Peak Elev=216.87' Inflow=9.63 cfs 0.766 af
18.0" Round Culvert n=0.013 L=57.0' S=0.0104 '/' Outflow=9.63 cfs 0.766 af

Pond 27P: DCB-22 Peak Elev=217.24' Inflow=3.39 cfs 0.278 af
12.0" Round Culvert n=0.013 L=47.0' S=0.0070 '/' Outflow=3.39 cfs 0.278 af

Pond 28P: DMH-18 Peak Elev=217.04' Inflow=3.39 cfs 0.278 af
12.0" Round Culvert n=0.013 L=167.0' S=0.0070 '/' Outflow=3.39 cfs 0.278 af

Pond 29P: CB-21 Peak Elev=217.05' Inflow=3.21 cfs 0.264 af
12.0" Round Culvert n=0.013 L=83.0' S=0.0100 '/' Outflow=3.21 cfs 0.264 af

Pond 30P: DMH-17 Peak Elev=219.69' Inflow=6.59 cfs 0.542 af
12.0" Round Culvert n=0.013 L=112.0' S=0.0070 '/' Outflow=6.59 cfs 0.542 af

Pond 31P: DMH-16 Peak Elev=214.76' Inflow=8.07 cfs 0.663 af
18.0" Round Culvert n=0.013 L=66.0' S=0.0094 '/' Outflow=8.07 cfs 0.663 af

Pond 32P: CB-20 Peak Elev=216.42' Inflow=1.47 cfs 0.121 af
12.0" Round Culvert n=0.013 L=65.0' S=0.0200 '/' Outflow=1.47 cfs 0.121 af

Pond 36P: DMH-6 Peak Elev=216.91' Inflow=4.06 cfs 0.319 af
12.0" Round Culvert n=0.013 L=43.0' S=0.0121 '/' Outflow=4.06 cfs 0.319 af

Pond 37P: DMH-9 Peak Elev=223.68' Inflow=1.76 cfs 0.148 af
12.0" Round Culvert n=0.013 L=83.0' S=0.0749 '/' Outflow=1.76 cfs 0.148 af

Pond 38P: CB-16 Peak Elev=232.39' Inflow=0.40 cfs 0.034 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0200 '/' Outflow=0.40 cfs 0.034 af

Pond 39P: CB-17 Peak Elev=232.40' Inflow=0.42 cfs 0.036 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0200 '/' Outflow=0.42 cfs 0.036 af

Pond 40P: CB-8 Peak Elev=218.18' Inflow=5.12 cfs 0.397 af
15.0" Round Culvert n=0.013 L=12.0' S=0.0200 '/' Outflow=5.12 cfs 0.397 af

Pond 41P: DMH-5 Peak Elev=218.99' Inflow=3.85 cfs 0.293 af
12.0" Round Culvert n=0.013 L=195.0' S=0.0070 '/' Outflow=3.85 cfs 0.293 af

Pond 42P: CB-10 Peak Elev=217.68' Inflow=1.90 cfs 0.145 af
12.0" Round Culvert n=0.013 L=29.0' S=0.0069 '/' Outflow=1.90 cfs 0.145 af

Pond 43P: CB-9 Peak Elev=217.69' Inflow=1.95 cfs 0.148 af
12.0" Round Culvert n=0.013 L=29.0' S=0.0069 '/' Outflow=1.95 cfs 0.148 af

Pond 52P: CB-18 Peak Elev=247.50' Inflow=0.49 cfs 0.041 af
12.0" Round Culvert n=0.013 L=18.0' S=0.0222 '/' Outflow=0.49 cfs 0.041 af

Pond 53P: CB-19 Peak Elev=247.48' Inflow=0.45 cfs 0.038 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0200 '/' Outflow=0.45 cfs 0.038 af

Pond 54P: DMH-12 Peak Elev=247.15' Inflow=0.93 cfs 0.079 af
12.0" Round Culvert n=0.013 L=84.0' S=0.0750 '/' Outflow=0.93 cfs 0.079 af

Pond 56P: DMH-11 Peak Elev=240.75' Inflow=0.93 cfs 0.079 af
12.0" Round Culvert n=0.013 L=110.0' S=0.0750 '/' Outflow=0.93 cfs 0.079 af

Pond 61P: DMH-10 Peak Elev=232.40' Inflow=1.76 cfs 0.148 af
12.0" Round Culvert n=0.013 L=115.0' S=0.0750 '/' Outflow=1.76 cfs 0.148 af

Pond 63P: DMH-8 Peak Elev=217.72' Inflow=2.89 cfs 0.244 af
12.0" Round Culvert n=0.013 L=80.0' S=0.0239 '/' Outflow=2.89 cfs 0.244 af

Pond 66P: CB-14 Peak Elev=218.79' Inflow=0.43 cfs 0.036 af
12.0" Round Culvert n=0.013 L=12.0' S=0.0200 '/' Outflow=0.43 cfs 0.036 af

Pond 67P: CB-15 Peak Elev=218.90' Inflow=0.71 cfs 0.059 af
12.0" Round Culvert n=0.013 L=12.0' S=0.0200 '/' Outflow=0.71 cfs 0.059 af

Pond 68P: DMH-4 Peak Elev=217.47' Inflow=10.28 cfs 0.791 af
18.0" Round Culvert n=0.013 L=54.0' S=0.0070 '/' Outflow=10.28 cfs 0.791 af

Pond 69P: CB-5 Peak Elev=217.11' Inflow=0.75 cfs 0.059 af
12.0" Round Culvert n=0.013 L=33.0' S=0.0200 '/' Outflow=0.75 cfs 0.059 af

Pond 70P: CB-7 Peak Elev=217.42' Inflow=1.31 cfs 0.100 af
12.0" Round Culvert n=0.013 L=12.0' S=0.0200 '/' Outflow=1.31 cfs 0.100 af

Pond 73P: DMH-7 Peak Elev=216.28' Inflow=11.77 cfs 0.955 af
24.0" Round Culvert n=0.013 L=52.0' S=0.0115 '/' Outflow=11.77 cfs 0.955 af

Pond 78P: CB-11 Peak Elev=216.54' Inflow=2.09 cfs 0.165 af
12.0" Round Culvert n=0.013 L=29.0' S=0.0121 '/' Outflow=2.09 cfs 0.165 af

Pond 79P: CB-12 Peak Elev=216.51' Inflow=1.97 cfs 0.154 af
12.0" Round Culvert n=0.013 L=29.0' S=0.0121 '/' Outflow=1.97 cfs 0.154 af

Pond 80P: DCB-13 Peak Elev=217.79' Inflow=4.82 cfs 0.392 af
15.0" Round Culvert n=0.013 L=119.0' S=0.0149 '/' Outflow=4.82 cfs 0.392 af

Pond 81P: CB-6 Peak Elev=216.71' Inflow=2.33 cfs 0.190 af
12.0" Round Culvert n=0.013 L=27.0' S=0.0070 '/' Outflow=2.33 cfs 0.190 af

Pond 82P: DMH-3 Peak Elev=216.16' Inflow=2.33 cfs 0.190 af
24.0" Round Culvert n=0.013 L=198.0' S=0.0038 '/' Outflow=2.33 cfs 0.190 af

Link 20L: DP-A Inflow=78.37 cfs 12.081 af
Primary=78.37 cfs 12.081 af

Total Runoff Area = 30.660 ac Runoff Volume = 12.752 af Average Runoff Depth = 4.99"
74.89% Pervious = 22.961 ac 25.11% Impervious = 7.699 ac

Summary for Subcatchment 9S: A.7

Runoff = 2.33 cfs @ 12.09 hrs, Volume= 0.190 af, Depth= 7.21"
Routed to Pond 81P : CB-6

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
	11,369	98	Unconnected pavement, HSG A
*	1,358	68	>75% Grass cover, Good, HSG A
	783	98	Unconnected pavement, HSG A
	244	98	Roofs, HSG A
	13,754	95	Weighted Average
	1,358		9.87% Pervious Area
	12,396		90.13% Impervious Area
	12,152		98.03% Unconnected

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

Summary for Subcatchment 16S: A.9

Runoff = 0.75 cfs @ 12.09 hrs, Volume= 0.059 af, Depth= 6.86"
Routed to Pond 69P : CB-5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
	3,142	98	Paved parking, HSG A
*	839	68	>75% Grass cover, Good, HSG A
	518	98	Unconnected pavement, HSG A
	4,499	92	Weighted Average
	839		18.65% Pervious Area
	3,660		81.35% Impervious Area
	518		14.15% Unconnected

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

Summary for Subcatchment 18S: A.8

Runoff = 1.57 cfs @ 12.09 hrs, Volume= 0.128 af, Depth= 7.21"
Routed to Pond 21P : CB-4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
	7,383	98	Paved parking, HSG A
*	940	68	>75% Grass cover, Good, HSG A
	284	98	Unconnected pavement, HSG A
	644	98	Roofs, HSG A
	9,251	95	Weighted Average
	940		10.16% Pervious Area
	8,311		89.84% Impervious Area
	284		3.42% Unconnected

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

Summary for Subcatchment 21S: A.1

Runoff = 2.97 cfs @ 12.15 hrs, Volume= 0.244 af, Depth= 4.08"
Routed to Pond 7P : Constructed Stormwater Wetland #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
*	31,332	68	>75% Grass cover, Good, HSG A
	31,332		100.00% Pervious Area

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

Summary for Subcatchment 22S: A.2

Runoff = 2.19 cfs @ 12.09 hrs, Volume= 0.183 af, Depth= 7.45"
Routed to Pond 23P : CB-2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
	12,195	98	Paved parking, HSG A
*	612	68	>75% Grass cover, Good, HSG A
	12,807	97	Weighted Average
	612		4.78% Pervious Area
	12,195		95.22% Impervious Area

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

Summary for Subcatchment 23S: A.3

Runoff = 1.34 cfs @ 12.09 hrs, Volume= 0.113 af, Depth= 7.57"
Routed to Pond 24P : CB-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

Area (sf)	CN	Description
7,817	98	Paved parking, HSG A
7,817		100.00% Impervious Area

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

Summary for Subcatchment 24S: A.4

Runoff = 7.13 cfs @ 12.09 hrs, Volume= 0.517 af, Depth= 4.30"
Routed to Pond 7P : Constructed Stormwater Wetland #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Adj	Description
*	54,594	68		>75% Grass cover, Good, HSG A
	7,083	98		Unconnected pavement, HSG A
	1,098	98		Roofs, HSG A
	62,775	72	70	Weighted Average, UI Adjusted
	54,594			86.97% Pervious Area
	8,181			13.03% Impervious Area
	7,083			86.58% Unconnected

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

Summary for Subcatchment 25S: A.5

Runoff = 6.09 cfs @ 12.09 hrs, Volume= 0.470 af, Depth= 6.50"
Routed to Pond 25P : CB-3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
	14,601	98	Paved parking, HSG A
*	11,179	68	>75% Grass cover, Good, HSG A
	10,448	98	Roofs, HSG A
	1,570	98	Unconnected pavement, HSG A
	37,798	89	Weighted Average
	11,179		29.58% Pervious Area
	26,619		70.42% Impervious Area
	1,570		5.90% Unconnected

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

Summary for Subcatchment 26S: ROOF.B

Runoff = 3.85 cfs @ 12.09 hrs, Volume= 0.324 af, Depth= 7.57"
Routed to Pond 5P : Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

Area (sf)	CN	Description
22,403	98	Roofs, HSG A
22,403		100.00% Impervious Area

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

Summary for Subcatchment 27S: A.6

Runoff = 20.80 cfs @ 12.42 hrs, Volume= 2.622 af, Depth= 4.76"
Routed to Pond 7P : Constructed Stormwater Wetland #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
*	126,122	68	>75% Grass cover, Good, HSG A
*	96,968	86	>75% Grass cover, Good, HSG C
*	12,765	89	>75% Grass cover, Good, HSG D
*	26,304	43	Woods, Good, HSG A
*	14,849	76	Woods, Good, HSG C
*	696	82	Woods, Good, HSG D
	1,799	98	Unconnected pavement, HSG A
	78	98	Unconnected pavement, HSG C
	8,541	98	Roofs, HSG A
	288,122	74	Weighted Average
	277,704		96.38% Pervious Area
	10,418		3.62% Impervious Area
	1,877		18.02% Unconnected

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

Summary for Subcatchment 28S: B.1

Runoff = 1.78 cfs @ 12.15 hrs, Volume= 0.146 af, Depth= 4.08"
Routed to Pond 4P : Constructed Stormwater Wetland #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Adj	Description
*	18,184	68		>75% Grass cover, Good, HSG A
*	41	82		Woods, Good, HSG D
	533	98		Unconnected pavement, HSG A
	18,758	69	68	Weighted Average, UI Adjusted
	18,225			97.16% Pervious Area
	533			2.84% Impervious Area
	533			100.00% Unconnected

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

Summary for Subcatchment 29S: B.2

Runoff = 1.47 cfs @ 12.09 hrs, Volume= 0.121 af, Depth= 7.33"
Routed to Pond 32P : CB-20

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
	548	98	Roofs, HSG A
	6,777	98	Paved parking, HSG A
	601	98	Unconnected pavement, HSG A
*	716	68	>75% Grass cover, Good, HSG A
	8,642	96	Weighted Average
	716		8.29% Pervious Area
	7,926		91.71% Impervious Area
	601		7.58% Unconnected

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

Summary for Subcatchment 30S: B.3

Runoff = 3.21 cfs @ 12.09 hrs, Volume= 0.264 af, Depth= 7.33"
Routed to Pond 29P : CB-21

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
	569	98	Roofs, HSG A
	15,960	98	Paved parking, HSG A
	1,175	98	Unconnected pavement, HSG A
*	1,087	68	>75% Grass cover, Good, HSG A
	18,791	96	Weighted Average
	1,087		5.78% Pervious Area
	17,704		94.22% Impervious Area
	1,175		6.64% Unconnected

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

Summary for Subcatchment 31S: B.4

Runoff = 3.39 cfs @ 12.09 hrs, Volume= 0.278 af, Depth= 7.33"
Routed to Pond 27P : DCB-22

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
	16,815	98	Paved parking, HSG A
	1,494	98	Unconnected pavement, HSG A
*	1,541	68	>75% Grass cover, Good, HSG A
	19,850	96	Weighted Average
	1,541		7.76% Pervious Area
	18,309		92.24% Impervious Area
	1,494		8.16% Unconnected

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

Summary for Subcatchment 32S: ROOF.C

Runoff = 3.65 cfs @ 12.09 hrs, Volume= 0.308 af, Depth= 7.57"
Routed to Pond 5P : Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
	21,236	98	Roofs, HSG A
	21,236		100.00% Impervious Area

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

Summary for Subcatchment 33S: B.7

Runoff = 3.60 cfs @ 12.09 hrs, Volume= 0.266 af, Depth= 5.56"
Routed to Pond 4P : Constructed Stormwater Wetland #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
	10,617	98	Unconnected pavement, HSG A
*	14,381	68	>75% Grass cover, Good, HSG A
	24,998	81	Weighted Average
	14,381		57.53% Pervious Area
	10,617		42.47% Impervious Area
	10,617		100.00% Unconnected

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

Summary for Subcatchment 35S: C.1

Runoff = 20.36 cfs @ 12.27 hrs, Volume= 2.159 af, Depth= 5.10"
Routed to Pond 5P : Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Adj	Description
*	118,961	68		>75% Grass cover, Good, HSG A
*	258	43		Woods, Good, HSG A
*	70,218	89		>75% Grass cover, Good, HSG D
*	15,701	82		Woods, Good, HSG D
	576	98		Roofs, HSG D
	125	98		Unconnected pavement, HSG D
	9,316	98		Unconnected pavement, HSG A
	6,113	98		Roofs, HSG A
	221,268	78	77	Weighted Average, UI Adjusted
	205,138			92.71% Pervious Area
	16,130			7.29% Impervious Area
	9,441			58.53% Unconnected

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

Summary for Subcatchment 36S: C.2

Runoff = 2.09 cfs @ 12.09 hrs, Volume= 0.165 af, Depth= 6.86"
Routed to Pond 78P : CB-11

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
	7,807	98	Paved parking, HSG A
*	2,679	68	>75% Grass cover, Good, HSG A
	2,107	98	Unconnected pavement, HSG A
	12,593	92	Weighted Average
	2,679		21.27% Pervious Area
	9,914		78.73% Impervious Area
	2,107		21.25% Unconnected

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

Summary for Subcatchment 37S: C.3

Runoff = 1.97 cfs @ 12.09 hrs, Volume= 0.154 af, Depth= 6.74"
Routed to Pond 79P : CB-12

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
	7,826	98	Paved parking, HSG A
	1,481	98	Unconnected pavement, HSG A
*	2,649	68	>75% Grass cover, Good, HSG A
	11,956	91	Weighted Average
	2,649		22.16% Pervious Area
	9,307		77.84% Impervious Area
	1,481		15.91% Unconnected

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

Summary for Subcatchment 38S: C.4

Runoff = 4.82 cfs @ 12.09 hrs, Volume= 0.392 af, Depth= 7.21"
Routed to Pond 80P : DCB-13

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
	1,066	98	Roofs, HSG A
	23,555	98	Paved parking, HSG A
	1,160	98	Unconnected pavement, HSG A
*	2,604	68	>75% Grass cover, Good, HSG A
	28,385	95	Weighted Average
	2,604		9.17% Pervious Area
	25,781		90.83% Impervious Area
	1,160		4.50% Unconnected

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

Summary for Subcatchment 40S: C.6

Runoff = 0.43 cfs @ 12.09 hrs, Volume= 0.036 af, Depth= 7.57"
Routed to Pond 66P : CB-14

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

Area (sf)	CN	Description
1,531	98	Paved parking, HSG A
946	98	Paved parking, HSG D
2,477	98	Weighted Average
2,477		100.00% Impervious Area

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

Summary for Subcatchment 41S: C.7

Runoff = 0.71 cfs @ 12.09 hrs, Volume= 0.059 af, Depth= 7.57"
Routed to Pond 67P : CB-15

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

Area (sf)	CN	Description
1,474	98	Paved parking, HSG A
1,594	98	Paved parking, HSG D
832	98	Unconnected pavement, HSG A
204	98	Unconnected pavement, HSG D
4,104	98	Weighted Average
4,104		100.00% Impervious Area
1,036		25.24% Unconnected

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

Summary for Subcatchment 42S: C.8

Runoff = 0.40 cfs @ 12.09 hrs, Volume= 0.034 af, Depth= 7.57"
Routed to Pond 38P : CB-16

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

Area (sf)	CN	Description
2,348	98	Paved parking, HSG D
2,348		100.00% Impervious Area

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

Summary for Subcatchment 43S: C.9

Runoff = 0.42 cfs @ 12.09 hrs, Volume= 0.036 af, Depth= 7.57"
Routed to Pond 39P : CB-17

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

Area (sf)	CN	Description
2,458	98	Paved parking, HSG D
2,458		100.00% Impervious Area

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

Summary for Subcatchment 44S: C.10

Runoff = 0.45 cfs @ 12.09 hrs, Volume= 0.038 af, Depth= 7.57"
Routed to Pond 53P : CB-19

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

Area (sf)	CN	Description
2,596	98	Paved parking, HSG D
2,596		100.00% Impervious Area

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

Summary for Subcatchment 45S: C.11

Runoff = 0.49 cfs @ 12.09 hrs, Volume= 0.041 af, Depth= 7.57"
Routed to Pond 52P : CB-18

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

Area (sf)	CN	Description
2,841	98	Paved parking, HSG D
2,841		100.00% Impervious Area

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

Summary for Subcatchment 51S: D.1

Runoff = 21.76 cfs @ 12.29 hrs, Volume= 2.337 af, Depth= 3.41"
Routed to Link 20L : DP-A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Adj	Description
*	167,879	68		>75% Grass cover, Good, HSG A
*	194	79		>75% Grass cover, Good, HSG B
*	51,927	89		>75% Grass cover, Good, HSG D
*	128,994	43		Woods, Good, HSG A
*	2,944	65		Woods, Good, HSG B
	3,179	98		Roofs, HSG A
	3,140	98		Unconnected pavement, HSG A
	358,257	63	62	Weighted Average, UI Adjusted
	351,938			98.24% Pervious Area
	6,319			1.76% Impervious Area
	3,140			49.69% Unconnected

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

Summary for Subcatchment 54S: ROOF.A

Runoff = 3.30 cfs @ 12.09 hrs, Volume= 0.278 af, Depth= 7.57"
Routed to Pond 5P : Wet Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

Area (sf)	CN	Description
19,211	98	Roofs, HSG A
19,211		100.00% Impervious Area

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

Summary for Subcatchment 55S: A.11

Runoff = 1.31 cfs @ 12.09 hrs, Volume= 0.100 af, Depth= 6.26"
Routed to Pond 70P : CB-7

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
	4,102	98	Paved parking, HSG A
	1,200	98	Unconnected pavement, HSG A
*	3,030	68	>75% Grass cover, Good, HSG A
	8,332	87	Weighted Average
	3,030		36.37% Pervious Area
	5,302		63.63% Impervious Area
	1,200		22.63% Unconnected

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

Summary for Subcatchment 56S: A.12

Runoff = 5.12 cfs @ 12.09 hrs, Volume= 0.397 af, Depth= 6.62"
Routed to Pond 40P : CB-8

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
	13,088	98	Paved parking, HSG A
*	8,884	68	>75% Grass cover, Good, HSG A
	7,310	98	Roofs, HSG A
	2,106	98	Unconnected pavement, HSG A
	31,388	90	Weighted Average
	8,884		28.30% Pervious Area
	22,504		71.70% Impervious Area
	2,106		9.36% Unconnected

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

Summary for Subcatchment 57S: A.13

Runoff = 1.95 cfs @ 12.09 hrs, Volume= 0.148 af, Depth= 6.26"
Routed to Pond 43P : CB-9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
	6,088	98	Paved parking, HSG A
*	4,339	68	>75% Grass cover, Good, HSG A
	1,956	98	Unconnected pavement, HSG A
	12,383	87	Weighted Average
	4,339		35.04% Pervious Area
	8,044		64.96% Impervious Area
	1,956		24.32% Unconnected

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

Summary for Subcatchment 58S: A.14

Runoff = 1.90 cfs @ 12.09 hrs, Volume= 0.145 af, Depth= 6.26"
Routed to Pond 42P : CB-10

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=7.81"

	Area (sf)	CN	Description
	5,369	98	Paved parking, HSG A
*	4,411	68	>75% Grass cover, Good, HSG A
	2,319	98	Unconnected pavement, HSG A
	12,099	87	Weighted Average
	4,411		36.46% Pervious Area
	7,688		63.54% Impervious Area
	2,319		30.16% Unconnected

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

Summary for Pond 4P: Constructed Stormwater Wetland #2

Inflow Area = 2.090 ac, 60.51% Impervious, Inflow Depth = 6.18" for 100-yr event
Inflow = 13.24 cfs @ 12.09 hrs, Volume= 1.075 af
Outflow = 7.06 cfs @ 12.25 hrs, Volume= 0.806 af, Atten= 47%, Lag= 9.6 min
Primary = 7.06 cfs @ 12.25 hrs, Volume= 0.806 af
Routed to Link 20L : DP-A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.53' @ 12.25 hrs Surf.Area= 9,277 sf Storage= 21,134 cf

Plug-Flow detention time= 268.3 min calculated for 0.806 af (75% of inflow)
Center-of-Mass det. time= 183.3 min (959.2 - 775.9)

Volume	Invert	Avail.Storage	Storage Description
#1	212.50'	25,645 cf	**Custom Stage Data (Irregular)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
212.50	5,003	366.0	0	0	5,003
213.00	5,563	378.0	2,640	2,640	5,737
214.00	6,736	400.0	6,140	8,780	7,154
215.00	8,551	456.0	7,625	16,406	10,992
216.00	9,945	475.0	9,239	25,645	12,475

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**20.0' long x 12.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.57 2.62 2.70 2.67 2.66 2.67 2.66 2.64
#2	Device 3	214.90'	**4.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Primary	212.50'	**15.0" Round Culvert** L= 111.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 212.50' / 210.44' S= 0.0186 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#4	Device 3	214.40'	**4.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=7.01 cfs @ 12.25 hrs HW=215.53' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 0.26 cfs @ 0.44 fps)
└**3=Culvert** (Passes 6.74 cfs of 7.23 cfs potential flow)
└**2=Sharp-Crested Rectangular Weir** (Weir Controls 6.33 cfs @ 2.60 fps)
└**4=Orifice/Grate** (Orifice Controls 0.41 cfs @ 4.73 fps)

Summary for Pond 5P: Wet Basin

Inflow Area = 8.124 ac, 39.79% Impervious, Inflow Depth = 5.94" for 100-yr event
Inflow = 35.13 cfs @ 12.11 hrs, Volume= 4.024 af
Outflow = 15.72 cfs @ 12.55 hrs, Volume= 3.623 af, Atten= 55%, Lag= 26.5 min
Primary = 15.72 cfs @ 12.55 hrs, Volume= 3.623 af
Routed to Link 20L : DP-A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.72' @ 12.55 hrs Surf.Area= 19,591 sf Storage= 55,748 cf

Plug-Flow detention time= 116.1 min calculated for 3.620 af (90% of inflow)
Center-of-Mass det. time= 67.2 min (856.7 - 789.5)

Volume	Invert	Avail.Storage	Storage Description
#1	214.00'	106,697 cf	**Custom Stage Data (Irregular)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
214.00	9,189	420.0	0	0	9,189
216.00	16,216	442.0	25,075	25,075	10,927
218.00	20,181	766.0	36,325	61,399	42,096
220.00	25,210	608.0	45,298	106,697	59,427

Device	Routing	Invert	Outlet Devices
#1	Primary	214.00'	**24.0" Round Culvert** L= 691.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.00' / 211.63' S= 0.0034 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	215.50'	**45.0 deg x 4.0' long Sharp-Crested Vee/Trap Weir** Cv= 2.56 (C= 3.20)
#3	Device 1	216.00'	**4.2' long x 4.2' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.53 2.69 2.68 2.67 2.67 2.65 2.66 2.66

2.67 2.71 2.72 2.74 2.77 2.85 3.01 3.23

Primary OutFlow Max=15.72 cfs @ 12.55 hrs HW=217.72' (Free Discharge)
└**1=Culvert** (Barrel Controls 15.72 cfs @ 5.00 fps)
└**2=Sharp-Crested Vee/Trap Weir** (Passes < 49.94 cfs potential flow)
└**3=Broad-Crested Rectangular Weir** (Passes < 25.09 cfs potential flow)

Summary for Pond 7P: Constructed Stormwater Wetland #1

Inflow Area = 12.221 ac, 25.01% Impervious, Inflow Depth = 5.22" for 100-yr event
Inflow = 43.49 cfs @ 12.10 hrs, Volume= 5.315 af
Outflow = 40.92 cfs @ 12.14 hrs, Volume= 5.314 af, Atten= 6%, Lag= 2.1 min
Primary = 40.92 cfs @ 12.14 hrs, Volume= 5.314 af
Routed to Link 20L : DP-A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 215.59' @ 12.14 hrs Surf.Area= 13,788 sf Storage= 9,579 cf

Plug-Flow detention time= 21.1 min calculated for 5.314 af (100% of inflow)
Center-of-Mass det. time= 20.7 min (833.8 - 813.1)

Volume	Invert	Avail.Storage	Storage Description
#1	214.80'	15,607 cf	**Custom Stage Data (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
214.80	10,823	764.0	0	0	10,823
215.00	11,206	768.0	2,203	2,203	11,334
216.00	15,729	1,216.0	13,404	15,607	82,072

Device	Routing	Invert	Outlet Devices
#1	Primary	215.10'	**40.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#2	Primary	214.80'	**12.0" Round Culvert X 3.00** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.80' / 214.00' S= 0.0320 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=40.51 cfs @ 12.14 hrs HW=215.59' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 35.76 cfs @ 1.83 fps)
└**2=Culvert** (Inlet Controls 4.75 cfs @ 2.39 fps)

Summary for Pond 21P: CB-4

Inflow Area = 0.212 ac, 89.84% Impervious, Inflow Depth = 7.21" for 100-yr event
Inflow = 1.57 cfs @ 12.09 hrs, Volume= 0.128 af
Outflow = 1.57 cfs @ 12.09 hrs, Volume= 0.128 af, Atten= 0%, Lag= 0.0 min
Primary = 1.57 cfs @ 12.09 hrs, Volume= 0.128 af
Routed to Pond 22P : DMH-2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.41' @ 12.09 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**12.0" Round Culvert** L= 41.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.70' / 215.29' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.53 cfs @ 12.09 hrs HW=216.39' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.53 cfs @ 3.70 fps)

Summary for Pond 22P: DMH-2

Inflow Area = 2.105 ac, 74.05% Impervious, Inflow Depth = 6.65" for 100-yr event
Inflow = 14.93 cfs @ 12.09 hrs, Volume= 1.167 af
Outflow = 14.93 cfs @ 12.09 hrs, Volume= 1.167 af, Atten= 0%, Lag= 0.0 min
Primary = 14.93 cfs @ 12.09 hrs, Volume= 1.167 af
Routed to Pond 7P : Constructed Stormwater Wetland #1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.63' @ 12.09 hrs
Flood Elev= 220.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.55'	**24.0" Round Culvert** L= 117.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 214.55' / 213.75' S= 0.0068 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf

Primary OutFlow Max=14.55 cfs @ 12.09 hrs HW=216.58' (Free Discharge)
└**1=Culvert** (Barrel Controls 14.55 cfs @ 5.66 fps)

Summary for Pond 23P: CB-2

Inflow Area = 0.294 ac, 95.22% Impervious, Inflow Depth = 7.45" for 100-yr event
Inflow = 2.19 cfs @ 12.09 hrs, Volume= 0.183 af
Outflow = 2.19 cfs @ 12.09 hrs, Volume= 0.183 af, Atten= 0%, Lag= 0.0 min
Primary = 2.19 cfs @ 12.09 hrs, Volume= 0.183 af
Routed to Pond 26P : DMH-1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.36' @ 12.09 hrs
Flood Elev= 218.44'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.44'	**12.0" Round Culvert** L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.44' / 215.20' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.14 cfs @ 12.09 hrs HW=216.34' (Free Discharge)
1=Culvert (Barrel Controls 2.14 cfs @ 3.77 fps)

Summary for Pond 24P: CB-1

Inflow Area = 0.179 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 1.34 cfs @ 12.09 hrs, Volume= 0.113 af
Outflow = 1.34 cfs @ 12.09 hrs, Volume= 0.113 af, Atten= 0%, Lag= 0.0 min
Primary = 1.34 cfs @ 12.09 hrs, Volume= 0.113 af
Routed to Pond 26P : DMH-1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.71' @ 12.09 hrs
Flood Elev= 218.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.00'	**12.0" Round Culvert** L= 11.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.00' / 214.89' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.31 cfs @ 12.09 hrs HW=215.69' (Free Discharge)
1=Culvert (Barrel Controls 1.31 cfs @ 3.16 fps)

Summary for Pond 25P: CB-3

Inflow Area = 0.868 ac, 70.42% Impervious, Inflow Depth = 6.50" for 100-yr event
Inflow = 6.09 cfs @ 12.09 hrs, Volume= 0.470 af
Outflow = 6.09 cfs @ 12.09 hrs, Volume= 0.470 af, Atten= 0%, Lag= 0.0 min
Primary = 6.09 cfs @ 12.09 hrs, Volume= 0.470 af
Routed to Pond 26P : DMH-1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.72' @ 12.09 hrs
Flood Elev= 218.95'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.95'	**15.0" Round Culvert** L= 45.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.95' / 215.50' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=5.86 cfs @ 12.09 hrs HW=217.65' (Free Discharge)
1=Culvert (Barrel Controls 5.86 cfs @ 4.77 fps)

Summary for Pond 26P: DMH-1

Inflow Area = 1.341 ac, 79.82% Impervious, Inflow Depth = 6.85" for 100-yr event
Inflow = 9.63 cfs @ 12.09 hrs, Volume= 0.766 af
Outflow = 9.63 cfs @ 12.09 hrs, Volume= 0.766 af, Atten= 0%, Lag= 0.0 min
Primary = 9.63 cfs @ 12.09 hrs, Volume= 0.766 af
Routed to Pond 7P : Constructed Stormwater Wetland #1

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.87' @ 12.09 hrs
Flood Elev= 218.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.79'	**18.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 214.79' / 214.20' S= 0.0104 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=9.31 cfs @ 12.09 hrs HW=216.80' (Free Discharge)
1=Culvert (Barrel Controls 9.31 cfs @ 5.27 fps)

Summary for Pond 27P: DCB-22

Inflow Area = 0.456 ac, 92.24% Impervious, Inflow Depth = 7.33" for 100-yr event
Inflow = 3.39 cfs @ 12.09 hrs, Volume= 0.278 af
Outflow = 3.39 cfs @ 12.09 hrs, Volume= 0.278 af, Atten= 0%, Lag= 0.0 min
Primary = 3.39 cfs @ 12.09 hrs, Volume= 0.278 af
Routed to Pond 28P : DMH-18

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.24' @ 12.08 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**12.0" Round Culvert** L= 47.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.70' / 215.37' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=3.30 cfs @ 12.09 hrs HW=217.18' (Free Discharge)
1=Culvert (Barrel Controls 3.30 cfs @ 4.20 fps)

Summary for Pond 28P: DMH-18

Inflow Area = 0.456 ac, 92.24% Impervious, Inflow Depth = 7.33" for 100-yr event
Inflow = 3.39 cfs @ 12.09 hrs, Volume= 0.278 af
Outflow = 3.39 cfs @ 12.09 hrs, Volume= 0.278 af, Atten= 0%, Lag= 0.0 min
Primary = 3.39 cfs @ 12.09 hrs, Volume= 0.278 af
Routed to Pond 30P : DMH-17

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 217.04' @ 12.09 hrs
Flood Elev= 219.41'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.27'	**12.0" Round Culvert** L= 167.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.27' / 214.10' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=3.30 cfs @ 12.09 hrs HW=216.94' (Free Discharge)
└**1=Culvert** (Barrel Controls 3.30 cfs @ 4.20 fps)

Summary for Pond 29P: CB-21

Inflow Area = 0.431 ac, 94.22% Impervious, Inflow Depth = 7.33" for 100-yr event
Inflow = 3.21 cfs @ 12.09 hrs, Volume= 0.264 af
Outflow = 3.21 cfs @ 12.09 hrs, Volume= 0.264 af, Atten= 0%, Lag= 0.0 min
Primary = 3.21 cfs @ 12.09 hrs, Volume= 0.264 af
Routed to Pond 30P : DMH-17

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.05' @ 12.09 hrs
Flood Elev= 218.83'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.83'	**12.0" Round Culvert** L= 83.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.83' / 215.00' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=3.12 cfs @ 12.09 hrs HW=217.01' (Free Discharge)
└**1=Culvert** (Inlet Controls 3.12 cfs @ 3.97 fps)

Summary for Pond 30P: DMH-17

Inflow Area = 0.887 ac, 93.20% Impervious, Inflow Depth = 7.33" for 100-yr event
Inflow = 6.59 cfs @ 12.09 hrs, Volume= 0.542 af
Outflow = 6.59 cfs @ 12.09 hrs, Volume= 0.542 af, Atten= 0%, Lag= 0.0 min
Primary = 6.59 cfs @ 12.09 hrs, Volume= 0.542 af
Routed to Pond 31P : DMH-16

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 219.69' @ 12.09 hrs
Flood Elev= 220.43'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.00'	**12.0" Round Culvert** L= 112.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 214.00' / 213.22' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=6.42 cfs @ 12.09 hrs HW=219.42' (Free Discharge)
└**1=Culvert** (Barrel Controls 6.42 cfs @ 8.17 fps)

Summary for Pond 31P: DMH-16

Inflow Area = 1.085 ac, 92.93% Impervious, Inflow Depth = 7.33" for 100-yr event
Inflow = 8.07 cfs @ 12.09 hrs, Volume= 0.663 af
Outflow = 8.07 cfs @ 12.09 hrs, Volume= 0.663 af, Atten= 0%, Lag= 0.0 min
Primary = 8.07 cfs @ 12.09 hrs, Volume= 0.663 af
Routed to Pond 4P : Constructed Stormwater Wetland #2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 214.76' @ 12.09 hrs
Flood Elev= 220.47'

Device	Routing	Invert	Outlet Devices
#1	Primary	213.12'	**18.0" Round Culvert** L= 66.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 213.12' / 212.50' S= 0.0094 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=7.87 cfs @ 12.09 hrs HW=214.72' (Free Discharge)
└**1=Culvert** (Inlet Controls 7.87 cfs @ 4.45 fps)

Summary for Pond 32P: CB-20

Inflow Area = 0.198 ac, 91.71% Impervious, Inflow Depth = 7.33" for 100-yr event
Inflow = 1.47 cfs @ 12.09 hrs, Volume= 0.121 af
Outflow = 1.47 cfs @ 12.09 hrs, Volume= 0.121 af, Atten= 0%, Lag= 0.0 min
Primary = 1.47 cfs @ 12.09 hrs, Volume= 0.121 af
Routed to Pond 31P : DMH-16

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.42' @ 12.09 hrs
Flood Elev= 218.77'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.77'	**12.0" Round Culvert** L= 65.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.77' / 214.47' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.43 cfs @ 12.09 hrs HW=216.41' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.43 cfs @ 2.72 fps)

Summary for Pond 36P: DMH-6

Inflow Area = 0.564 ac, 78.30% Impervious, Inflow Depth = 6.80" for 100-yr event
Inflow = 4.06 cfs @ 12.09 hrs, Volume= 0.319 af
Outflow = 4.06 cfs @ 12.09 hrs, Volume= 0.319 af, Atten= 0%, Lag= 0.0 min
Primary = 4.06 cfs @ 12.09 hrs, Volume= 0.319 af
Routed to Pond 73P : DMH-7

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.91' @ 12.09 hrs
Flood Elev= 219.28'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.25'	**12.0" Round Culvert** L= 43.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.25' / 214.73' S= 0.0121 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=3.95 cfs @ 12.09 hrs HW=216.85' (Free Discharge)
1=Culvert (Barrel Controls 3.95 cfs @ 5.04 fps)

Summary for Pond 37P: DMH-9

Inflow Area = 0.235 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 1.76 cfs @ 12.09 hrs, Volume= 0.148 af
Outflow = 1.76 cfs @ 12.09 hrs, Volume= 0.148 af, Atten= 0%, Lag= 0.0 min
Primary = 1.76 cfs @ 12.09 hrs, Volume= 0.148 af
Routed to Pond 63P : DMH-8

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 223.68' @ 12.09 hrs
Flood Elev= 226.46'

Device	Routing	Invert	Outlet Devices
#1	Primary	222.96'	**12.0" Round Culvert** L= 83.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 222.96' / 216.74' S= 0.0749 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.71 cfs @ 12.09 hrs HW=223.67' (Free Discharge)
1=Culvert (Inlet Controls 1.71 cfs @ 2.87 fps)

Summary for Pond 38P: CB-16

Inflow Area = 0.054 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 0.40 cfs @ 12.09 hrs, Volume= 0.034 af
Outflow = 0.40 cfs @ 12.09 hrs, Volume= 0.034 af, Atten= 0%, Lag= 0.0 min
Primary = 0.40 cfs @ 12.09 hrs, Volume= 0.034 af
Routed to Pond 61P : DMH-10

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 232.39' @ 12.09 hrs
Flood Elev= 235.58'

Device	Routing	Invert	Outlet Devices
#1	Primary	232.08'	**12.0" Round Culvert** L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 232.08' / 231.78' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.39 cfs @ 12.09 hrs HW=232.39' (Free Discharge)
1=Culvert (Inlet Controls 0.39 cfs @ 1.89 fps)

Summary for Pond 39P: CB-17

Inflow Area = 0.056 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 0.42 cfs @ 12.09 hrs, Volume= 0.036 af
Outflow = 0.42 cfs @ 12.09 hrs, Volume= 0.036 af, Atten= 0%, Lag= 0.0 min
Primary = 0.42 cfs @ 12.09 hrs, Volume= 0.036 af
Routed to Pond 61P : DMH-10

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 232.40' @ 12.09 hrs
Flood Elev= 235.58'

Device	Routing	Invert	Outlet Devices
#1	Primary	232.08'	**12.0" Round Culvert** L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 232.08' / 231.78' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.41 cfs @ 12.09 hrs HW=232.40' (Free Discharge)
1=Culvert (Inlet Controls 0.41 cfs @ 1.92 fps)

Summary for Pond 40P: CB-8

Inflow Area = 0.721 ac, 71.70% Impervious, Inflow Depth = 6.62" for 100-yr event
Inflow = 5.12 cfs @ 12.09 hrs, Volume= 0.397 af
Outflow = 5.12 cfs @ 12.09 hrs, Volume= 0.397 af, Atten= 0%, Lag= 0.0 min
Primary = 5.12 cfs @ 12.09 hrs, Volume= 0.397 af
Routed to Pond 68P : DMH-4

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 218.18' @ 12.09 hrs
Flood Elev= 219.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.80'	**15.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.80' / 216.56' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=4.98 cfs @ 12.09 hrs HW=218.16' (Free Discharge)
1=Culvert (Barrel Controls 4.98 cfs @ 4.66 fps)

Summary for Pond 41P: DMH-5

Inflow Area = 0.562 ac, 64.26% Impervious, Inflow Depth = 6.26" for 100-yr event
Inflow = 3.85 cfs @ 12.09 hrs, Volume= 0.293 af
Outflow = 3.85 cfs @ 12.09 hrs, Volume= 0.293 af, Atten= 0%, Lag= 0.0 min
Primary = 3.85 cfs @ 12.09 hrs, Volume= 0.293 af
Routed to Pond 68P : DMH-4

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 218.99' @ 12.09 hrs
Flood Elev= 220.13'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.50'	**12.0" Round Culvert** L= 195.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.50' / 215.13' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=3.76 cfs @ 12.09 hrs HW=218.84' (Free Discharge)
1=Culvert (Barrel Controls 3.76 cfs @ 4.79 fps)

Summary for Pond 42P: CB-10

Inflow Area = 0.278 ac, 63.54% Impervious, Inflow Depth = 6.26" for 100-yr event
Inflow = 1.90 cfs @ 12.09 hrs, Volume= 0.145 af
Outflow = 1.90 cfs @ 12.09 hrs, Volume= 0.145 af, Atten= 0%, Lag= 0.0 min
Primary = 1.90 cfs @ 12.09 hrs, Volume= 0.145 af
Routed to Pond 41P : DMH-5

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.68' @ 12.09 hrs
Flood Elev= 219.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.80'	**12.0" Round Culvert** L= 29.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.80' / 216.60' S= 0.0069 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.86 cfs @ 12.09 hrs HW=217.66' (Free Discharge)
1=Culvert (Barrel Controls 1.86 cfs @ 3.45 fps)

Summary for Pond 43P: CB-9

Inflow Area = 0.284 ac, 64.96% Impervious, Inflow Depth = 6.26" for 100-yr event
Inflow = 1.95 cfs @ 12.09 hrs, Volume= 0.148 af
Outflow = 1.95 cfs @ 12.09 hrs, Volume= 0.148 af, Atten= 0%, Lag= 0.0 min
Primary = 1.95 cfs @ 12.09 hrs, Volume= 0.148 af
Routed to Pond 41P : DMH-5

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.69' @ 12.09 hrs
Flood Elev= 219.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.80'	**12.0" Round Culvert** L= 29.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.80' / 216.60' S= 0.0069 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.90 cfs @ 12.09 hrs HW=217.68' (Free Discharge)
1=Culvert (Barrel Controls 1.90 cfs @ 3.47 fps)

Summary for Pond 52P: CB-18

Inflow Area = 0.065 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 0.49 cfs @ 12.09 hrs, Volume= 0.041 af
Outflow = 0.49 cfs @ 12.09 hrs, Volume= 0.041 af, Atten= 0%, Lag= 0.0 min
Primary = 0.49 cfs @ 12.09 hrs, Volume= 0.041 af
Routed to Pond 54P : DMH-12

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 247.50' @ 12.09 hrs
Flood Elev= 250.65'

Device	Routing	Invert	Outlet Devices
#1	Primary	247.15'	**12.0" Round Culvert** L= 18.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 247.15' / 246.75' S= 0.0222 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.47 cfs @ 12.09 hrs HW=247.49' (Free Discharge)
1=Culvert (Inlet Controls 0.47 cfs @ 1.99 fps)

Summary for Pond 53P: CB-19

Inflow Area = 0.060 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 0.45 cfs @ 12.09 hrs, Volume= 0.038 af
Outflow = 0.45 cfs @ 12.09 hrs, Volume= 0.038 af, Atten= 0%, Lag= 0.0 min
Primary = 0.45 cfs @ 12.09 hrs, Volume= 0.038 af
Routed to Pond 54P : DMH-12

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 247.48' @ 12.09 hrs
Flood Elev= 250.65'

Device	Routing	Invert	Outlet Devices
#1	Primary	247.15'	**12.0" Round Culvert** L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 247.15' / 246.75' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.43 cfs @ 12.09 hrs HW=247.48' (Free Discharge)
1=Culvert (Inlet Controls 0.43 cfs @ 1.95 fps)

Summary for Pond 54P: DMH-12

Inflow Area = 0.125 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 0.93 cfs @ 12.09 hrs, Volume= 0.079 af
Outflow = 0.93 cfs @ 12.09 hrs, Volume= 0.079 af, Atten= 0%, Lag= 0.0 min
Primary = 0.93 cfs @ 12.09 hrs, Volume= 0.079 af
Routed to Pond 56P : DMH-11

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 247.15' @ 12.09 hrs
Flood Elev= 249.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	246.65'	**12.0" Round Culvert** L= 84.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 246.65' / 240.35' S= 0.0750 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.91 cfs @ 12.09 hrs HW=247.14' (Free Discharge)
1=Culvert (Inlet Controls 0.91 cfs @ 2.38 fps)

Summary for Pond 56P: DMH-11

Inflow Area = 0.125 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 0.93 cfs @ 12.09 hrs, Volume= 0.079 af
Outflow = 0.93 cfs @ 12.09 hrs, Volume= 0.079 af, Atten= 0%, Lag= 0.0 min
Primary = 0.93 cfs @ 12.09 hrs, Volume= 0.079 af
Routed to Pond 61P : DMH-10

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 240.75' @ 12.09 hrs
Flood Elev= 243.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	240.25'	**12.0" Round Culvert** L= 110.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 240.25' / 232.00' S= 0.0750 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.91 cfs @ 12.09 hrs HW=240.74' (Free Discharge)
1=Culvert (Inlet Controls 0.91 cfs @ 2.38 fps)

Summary for Pond 61P: DMH-10

Inflow Area = 0.235 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 1.76 cfs @ 12.09 hrs, Volume= 0.148 af
Outflow = 1.76 cfs @ 12.09 hrs, Volume= 0.148 af, Atten= 0%, Lag= 0.0 min
Primary = 1.76 cfs @ 12.09 hrs, Volume= 0.148 af
Routed to Pond 37P : DMH-9

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 232.40' @ 12.09 hrs
Flood Elev= 235.07'

Device	Routing	Invert	Outlet Devices
#1	Primary	231.68'	**12.0" Round Culvert** L= 115.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 231.68' / 223.06' S= 0.0750 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.71 cfs @ 12.09 hrs HW=232.39' (Free Discharge)
1=Culvert (Inlet Controls 1.71 cfs @ 2.87 fps)

Summary for Pond 63P: DMH-8

Inflow Area = 0.386 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 2.89 cfs @ 12.09 hrs, Volume= 0.244 af
Outflow = 2.89 cfs @ 12.09 hrs, Volume= 0.244 af, Atten= 0%, Lag= 0.0 min
Primary = 2.89 cfs @ 12.09 hrs, Volume= 0.244 af
Routed to Pond 73P : DMH-7

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.72' @ 12.09 hrs
Flood Elev= 221.97'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.64'	**12.0" Round Culvert** L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.64' / 214.73' S= 0.0239 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.81 cfs @ 12.09 hrs HW=217.69' (Free Discharge)
1=Culvert (Inlet Controls 2.81 cfs @ 3.58 fps)

Summary for Pond 66P: CB-14

Inflow Area = 0.057 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 0.43 cfs @ 12.09 hrs, Volume= 0.036 af
Outflow = 0.43 cfs @ 12.09 hrs, Volume= 0.036 af, Atten= 0%, Lag= 0.0 min
Primary = 0.43 cfs @ 12.09 hrs, Volume= 0.036 af
Routed to Pond 63P : DMH-8

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 218.79' @ 12.09 hrs
Flood Elev= 221.97'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.47'	**12.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 218.47' / 218.23' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.41 cfs @ 12.09 hrs HW=218.79' (Free Discharge)
1=Culvert (Inlet Controls 0.41 cfs @ 1.92 fps)

Summary for Pond 67P: CB-15

Inflow Area = 0.094 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 0.71 cfs @ 12.09 hrs, Volume= 0.059 af
Outflow = 0.71 cfs @ 12.09 hrs, Volume= 0.059 af, Atten= 0%, Lag= 0.0 min
Primary = 0.71 cfs @ 12.09 hrs, Volume= 0.059 af
Routed to Pond 63P : DMH-8

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 218.90' @ 12.09 hrs
Flood Elev= 221.97'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.47'	**12.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 218.47' / 218.23' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.69 cfs @ 12.09 hrs HW=218.89' (Free Discharge)
1=Culvert (Inlet Controls 0.69 cfs @ 2.20 fps)

Summary for Pond 68P: DMH-4

Inflow Area = 1.474 ac, 67.81% Impervious, Inflow Depth = 6.44" for 100-yr event
Inflow = 10.28 cfs @ 12.09 hrs, Volume= 0.791 af
Outflow = 10.28 cfs @ 12.09 hrs, Volume= 0.791 af, Atten= 0%, Lag= 0.0 min
Primary = 10.28 cfs @ 12.09 hrs, Volume= 0.791 af
Routed to Pond 22P : DMH-2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 217.47' @ 12.09 hrs
Flood Elev= 220.11'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.03'	**18.0" Round Culvert** L= 54.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.03' / 214.65' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=10.02 cfs @ 12.09 hrs HW=217.39' (Free Discharge)
1=Culvert (Barrel Controls 10.02 cfs @ 5.67 fps)

Summary for Pond 69P: CB-5

Inflow Area = 0.103 ac, 81.35% Impervious, Inflow Depth = 6.86" for 100-yr event
Inflow = 0.75 cfs @ 12.09 hrs, Volume= 0.059 af
Outflow = 0.75 cfs @ 12.09 hrs, Volume= 0.059 af, Atten= 0%, Lag= 0.0 min
Primary = 0.75 cfs @ 12.09 hrs, Volume= 0.059 af
Routed to Pond 22P : DMH-2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.11' @ 12.09 hrs
Flood Elev= 219.67'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.67'	**12.0" Round Culvert** L= 33.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.67' / 216.01' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.73 cfs @ 12.09 hrs HW=217.10' (Free Discharge)
1=Culvert (Inlet Controls 0.73 cfs @ 2.24 fps)

Summary for Pond 70P: CB-7

Inflow Area = 0.191 ac, 63.63% Impervious, Inflow Depth = 6.26" for 100-yr event
Inflow = 1.31 cfs @ 12.09 hrs, Volume= 0.100 af
Outflow = 1.31 cfs @ 12.09 hrs, Volume= 0.100 af, Atten= 0%, Lag= 0.0 min
Primary = 1.31 cfs @ 12.09 hrs, Volume= 0.100 af
Routed to Pond 68P : DMH-4

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.42' @ 12.09 hrs
Flood Elev= 219.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.80'	**12.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.80' / 216.56' S= 0.0200 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.28 cfs @ 12.09 hrs HW=217.41' (Free Discharge)
1=Culvert (Barrel Controls 1.28 cfs @ 3.64 fps)

Summary for Pond 73P: DMH-7

Inflow Area = 1.601 ac, 88.63% Impervious, Inflow Depth = 7.15" for 100-yr event
Inflow = 11.77 cfs @ 12.09 hrs, Volume= 0.955 af
Outflow = 11.77 cfs @ 12.09 hrs, Volume= 0.955 af, Atten= 0%, Lag= 0.0 min
Primary = 11.77 cfs @ 12.09 hrs, Volume= 0.955 af
Routed to Pond 5P : Wet Basin

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.28' @ 12.09 hrs
Flood Elev= 219.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.60'	**24.0" Round Culvert** L= 52.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 214.60' / 214.00' S= 0.0115 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf

Primary OutFlow Max=11.45 cfs @ 12.09 hrs HW=216.24' (Free Discharge)
1=Culvert (Barrel Controls 11.45 cfs @ 5.63 fps)

Summary for Pond 78P: CB-11

Inflow Area = 0.289 ac, 78.73% Impervious, Inflow Depth = 6.86" for 100-yr event
Inflow = 2.09 cfs @ 12.09 hrs, Volume= 0.165 af
Outflow = 2.09 cfs @ 12.09 hrs, Volume= 0.165 af, Atten= 0%, Lag= 0.0 min
Primary = 2.09 cfs @ 12.09 hrs, Volume= 0.165 af
Routed to Pond 36P : DMH-6

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.54' @ 12.09 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**12.0" Round Culvert** L= 29.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.70' / 215.35' S= 0.0121 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.04 cfs @ 12.09 hrs HW=216.53' (Free Discharge)
1=Culvert (Barrel Controls 2.04 cfs @ 3.97 fps)

Summary for Pond 79P: CB-12

Inflow Area = 0.274 ac, 77.84% Impervious, Inflow Depth = 6.74" for 100-yr event
Inflow = 1.97 cfs @ 12.09 hrs, Volume= 0.154 af
Outflow = 1.97 cfs @ 12.09 hrs, Volume= 0.154 af, Atten= 0%, Lag= 0.0 min
Primary = 1.97 cfs @ 12.09 hrs, Volume= 0.154 af
Routed to Pond 36P : DMH-6

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.51' @ 12.09 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**12.0" Round Culvert** L= 29.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.70' / 215.35' S= 0.0121 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.92 cfs @ 12.09 hrs HW=216.49' (Free Discharge)
1=Culvert (Barrel Controls 1.92 cfs @ 3.92 fps)

Summary for Pond 80P: DCB-13

Inflow Area = 0.652 ac, 90.83% Impervious, Inflow Depth = 7.21" for 100-yr event
Inflow = 4.82 cfs @ 12.09 hrs, Volume= 0.392 af
Outflow = 4.82 cfs @ 12.09 hrs, Volume= 0.392 af, Atten= 0%, Lag= 0.0 min
Primary = 4.82 cfs @ 12.09 hrs, Volume= 0.392 af
Routed to Pond 73P : DMH-7

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.79' @ 12.09 hrs
Flood Elev= 219.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.50'	**15.0" Round Culvert** L= 119.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 216.50' / 214.73' S= 0.0149 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=4.68 cfs @ 12.09 hrs HW=217.75' (Free Discharge)
1=Culvert (Inlet Controls 4.68 cfs @ 3.81 fps)

Summary for Pond 81P: CB-6

Inflow Area = 0.316 ac, 90.13% Impervious, Inflow Depth = 7.21" for 100-yr event
Inflow = 2.33 cfs @ 12.09 hrs, Volume= 0.190 af
Outflow = 2.33 cfs @ 12.09 hrs, Volume= 0.190 af, Atten= 0%, Lag= 0.0 min
Primary = 2.33 cfs @ 12.09 hrs, Volume= 0.190 af
Routed to Pond 82P : DMH-3

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Peak Elev= 216.71' @ 12.09 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**12.0" Round Culvert** L= 27.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.70' / 215.51' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.27 cfs @ 12.09 hrs HW=216.69' (Free Discharge)
↑**1=Culvert** (Barrel Controls 2.27 cfs @ 3.62 fps)

Summary for Pond 82P: DMH-3

Inflow Area = 0.316 ac, 90.13% Impervious, Inflow Depth = 7.21" for 100-yr event
Inflow = 2.33 cfs @ 12.09 hrs, Volume= 0.190 af
Outflow = 2.33 cfs @ 12.09 hrs, Volume= 0.190 af, Atten= 0%, Lag= 0.0 min
Primary = 2.33 cfs @ 12.09 hrs, Volume= 0.190 af
Routed to Pond 22P : DMH-2

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.16' @ 12.09 hrs
Flood Elev= 219.32'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.41'	**24.0" Round Culvert** L= 198.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 215.41' / 214.65' S= 0.0038 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf

Primary OutFlow Max=2.27 cfs @ 12.09 hrs HW=216.15' (Free Discharge)
↑**1=Culvert** (Barrel Controls 2.27 cfs @ 3.19 fps)

Summary for Link 20L: DP-A

Inflow Area = 30.660 ac, 25.11% Impervious, Inflow Depth = 4.73" for 100-yr event
Inflow = 78.37 cfs @ 12.24 hrs, Volume= 12.081 af
Primary = 78.37 cfs @ 12.24 hrs, Volume= 12.081 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

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Appendix F – Stormwater Calculations

Fox Howe
Groton, MA

August 20, 2025
6842

Water Quality Volume Calculations

Water Quality Calculation:

$$V_{WQ} = D_{WQ}(ft) x\ A_T(ft^2)$$

Water Quality Depth =	1	in
Water Quality Depth , DwQ =	**0.08**	**ft.**
Total impervious area on site, AT =	7.699	Ac.
AT =	**335,368**	**ft²**
Required Water Quality Volume, RVwQ =	**27,947**	**C.ft.**
Provided Water Quality Volume, PVwQ =	**29,071**	**C.ft.**
***See attached HydroCAD Storage Tables**		

REFERENCES

1 inch depth
Zone II discharges
IWPA discharges
Critical Area
Runoff from LUHPPL
Infiltration rate >2.4 inches/hour
1/2 inch depth
Discharge to other ares
8 inch
9 inch
10 inch
11 inch

Stage-Area-Storage for Pond 5P: Wet Basin (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
215.04	12,596	11,282
215.05	12,631	11,408
215.06	12,666	11,534
215.07	12,702	11,661
215.08	12,737	11,788
215.09	12,773	11,916
215.10	12,809	12,044
215.11	12,844	12,172
215.12	12,880	12,301
215.13	12,916	12,430
215.14	12,951	12,559
215.15	12,987	12,689
215.16	13,023	12,819
215.17	13,059	12,949
215.18	13,095	13,080
215.19	13,131	13,211
215.20	13,167	13,342
215.21	13,203	13,474
215.22	13,240	13,606
215.23	13,276	13,739
215.24	13,312	13,872
215.25	13,349	14,005
215.26	13,385	14,139
215.27	13,421	14,273
215.28	13,458	14,407
215.29	13,494	14,542
215.30	13,531	14,677
215.31	13,568	14,813
215.32	13,604	14,949
215.33	13,641	15,085
215.34	13,678	15,221
215.35	13,715	15,358
215.36	13,752	15,496
215.37	13,789	15,633
215.38	13,826	15,772
215.39	13,863	15,910
215.40	13,900	16,049
215.41	13,937	16,188
215.42	13,974	16,328
215.43	14,011	16,467
215.44	14,049	16,608
215.45	14,086	16,748
215.46	14,123	16,889
215.47	14,161	17,031
215.48	14,198	17,173
215.49	14,236	17,315
215.50	14,273	17,457
215.51	14,311	17,600
215.52	14,349	17,744
215.53	14,386	17,887
215.54	14,424	18,031
215.55	14,462	18,176
215.56	14,500	18,321
215.57	14,538	18,466
215.58	14,576	18,611
215.59	14,614	18,757
215.60	14,652	18,904
215.61	14,690	19,050
215.62	14,728	19,197
215.63	14,767	19,345
215.64	14,805	19,493
215.65	14,843	19,641
215.66	14,882	19,790
215.67	14,920	19,939
215.68	14,958	20,088
215.69	14,997	20,238
215.70	15,036	20,388
215.71	15,074	20,539
215.72	15,113	20,689
215.73	15,152	20,841
215.74	15,190	20,993
215.75	15,229	21,145
215.76	15,268	21,297
215.77	15,307	21,450
215.78	15,346	21,603
215.79	15,385	21,757
215.80	15,424	21,911
215.81	15,463	22,065
215.82	15,502	22,220
215.83	15,542	22,375
215.84	15,581	22,531
215.85	15,620	22,687
215.86	15,660	22,843
215.87	15,699	23,000
215.88	15,738	23,157
215.89	15,778	23,315
215.90	15,818	23,473
215.91	15,857	23,631
215.92	15,897	23,790
215.93	15,937	23,949
215.94	15,976	24,109
215.95	16,016	24,269
215.96	16,056	24,429
215.97	16,096	24,590
215.98	16,136	24,751
215.99	16,176	24,913
216.00	16,216	25,075
216.01	16,235	25,237
216.02	16,254	25,399
216.03	16,272	25,562
216.04	16,291	25,725
216.05	16,310	25,888
216.06	16,329	26,051
216.07	16,347	26,214

17,457 CF of water quality volume below lowest outlet

Stage-Area-Storage for Pond 4P: Constructed Stormwater Wetland #2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
212.50	5,003	0
212.55	5,058	252
212.60	5,113	506
212.65	5,168	763
212.70	5,223	1,023
212.75	5,279	1,285
212.80	5,335	1,550
212.85	5,392	1,819
212.90	5,449	2,090
212.95	5,506	2,364
213.00	5,563	2,640
213.05	5,619	2,920
213.10	5,675	3,202
213.15	5,732	3,487
213.20	5,789	3,775
213.25	5,846	4,066
213.30	5,903	4,360
213.35	5,961	4,657
213.40	6,019	4,956
213.45	6,077	5,258
213.50	6,135	5,564
213.55	6,194	5,872
213.60	6,253	6,183
213.65	6,313	6,497
213.70	6,372	6,814
213.75	6,432	7,135
213.80	6,492	7,458
213.85	6,553	7,784
213.90	6,614	8,113
213.95	6,675	8,445
214.00	6,736	8,780
214.05	6,822	9,119
214.10	6,908	9,463
214.15	6,994	9,810
214.20	7,082	10,162
214.25	7,169	10,518
214.30	7,258	10,879
214.35	7,347	11,244
214.40	7,436	11,614
214.45	7,526	11,988
214.50	7,616	12,366
214.55	7,707	12,749
214.60	7,799	13,137
214.65	7,891	13,529
214.70	7,984	13,926
214.75	8,077	14,328
214.80	8,171	14,734
214.85	8,265	15,145
214.90	8,360	15,560
214.95	8,455	15,981
215.00	8,551	16,406
215.05	8,618	16,835
215.10	8,686	17,268
215.15	8,753	17,704
215.20	8,821	18,143
215.25	8,890	18,586
215.30	8,958	19,032
215.35	9,027	19,482
215.40	9,096	19,935
215.45	9,165	20,391
215.50	9,235	20,851
215.55	9,305	21,315
215.60	9,375	21,782
215.65	9,445	22,252
215.70	9,516	22,726
215.75	9,587	23,204
215.80	9,658	23,685
215.85	9,729	24,170
215.90	9,801	24,658
215.95	9,873	25,150
216.00	**9,945**	**25,645**

11,614 CF of water quality volume below lowest outlet

Provided Water Quality Volume
Pwq = 17,457 CF + 11,614 CF = 29,071 CF
Rwq = 28,404 CF
Pwq > Rwq

Fox Howe
Residential MBTA Community
Groton, Massachusetts
CDG# 6842-T
August 18, 2025

Rational Pipe Sizing Calculations

Design Period Storm:		25	Year	Design Period Intensity*		5.55	in/hr									
LOCATION		IMPERVIOUS			OTHER			SUM CA	Tc (min)	I (in/hr)	Q (cfs)	D (in)	S (ft/ft)	Material	n	Q Full (cfs)	V Full (fps)
FROM	TO	A	C	CA	A	C	CA										
ROOF DRAIN	18" HEADER	1.44	0.98	1.41	0.00	0.30	0.00	1.41	6	5.55	7.85	18	0.005	HDPE	0.012	8.05	4.55

*Rainfall intensity provided by TR55 Exhibit X-XX or Cornell University's NRCC Atlas of Precipitation Extremes for the North Eastern United States and Canada or NOAA Atlas 14, Volume 10, Version 2 on DATE

PIPE FLOW CAPACITY IS MET

PIPE SCOUR VELOCITY IS MET

INSTRUCTIONS:

Version 1, Automated: Mar. 4, 2008

1. In BMP Column, click on Blue Cell to Activate Drop Down Menu
2. Select BMP from Drop Down Menu
3. After BMP is selected, TSS Removal and other Columns are automatically completed.

Location: TSS removal with pretreatment calculation.

TSS Removal Calculation Worksheet

B BMP[1]	C TSS Removal Rate[1]	D Starting TSS Load*	E Amount Removed (C*D)	F Remaining Load (D-E)
Deep Sump and Hooded Catch Basin	**0.25**	**1.00**	**0.25**	**0.75**
Sediment Forebay	**0.25**	**0.75**	**0.19**	**0.56**
	0.00	**0.56**	**0.00**	**0.56**
	0.00	**0.56**	**0.00**	**0.56**
	0.00	**0.56**	**0.00**	**0.56**

Total TSS Removal = **44%**

Separate Form Needs to be Completed for Each Outlet or BMP Train

Project: **Fox Howe**

Prepared By: **RPV**

Date: **20-Aug-25**

*Equals remaining load from previous BMP (E) which enters the BMP

INSTRUCTIONS:

Version 1, Automated: Mar. 4, 2008

1. In BMP Column, click on Blue Cell to Activate Drop Down Menu
2. Select BMP from Drop Down Menu
3. After BMP is selected, TSS Removal and other Columns are automatically completed.

Location: TSS removal with pretreatment calculation.

TSS Removal Calculation Worksheet

B BMP[1]	C TSS Removal Rate[1]	D Starting TSS Load*	E Amount Removed (C*D)	F Remaining Load (D-E)
Grass Channel	0.50	1.00	0.50	0.50
Sediment Forebay	0.25	0.50	0.13	0.38
	0.00	0.38	0.00	0.38
	0.00	0.38	0.00	0.38
	0.00	0.38	0.00	0.38

Total TSS Removal = 63%

Separate Form Needs to be Completed for Each Outlet or BMP Train

Project: Fox Howe
Prepared By: RPV
Date: 20-Aug-25

*Equals remaining load from previous BMP (E) which enters the BMP

INSTRUCTIONS:

Version 1, Automated: Mar. 4, 2008

1. In BMP Column, click on Blue Cell to Activate Drop Down Menu
2. Select BMP from Drop Down Menu
3. After BMP is selected, TSS Removal and other Columns are automatically completed.

Location: TSS removal for overall site.

TSS Removal Calculation Worksheet

B BMP[1]	C TSS Removal Rate[1]	D Starting TSS Load*	E Amount Removed (C*D)	F Remaining Load (D-E)
Deep Sump and Hooded Catch Basin	**0.25**	**1.00**	**0.25**	**0.75**
Constructed Stormwater Wetland	**0.80**	**0.75**	**0.60**	**0.15**
	0.00	**0.15**	**0.00**	**0.15**
	0.00	**0.15**	**0.00**	**0.15**
	0.00	**0.15**	**0.00**	**0.15**

Total TSS Removal = **85%**

Separate Form Needs to be Completed for Each Outlet or BMP Train

Project: **Fox Howe**

Prepared By: **RPV**

Date: **20-Aug-25**

*Equals remaining load from previous BMP (E) which enters the BMP

INSTRUCTIONS:

Version 1, Automated: Mar. 4, 2008

1. In BMP Column, click on Blue Cell to Activate Drop Down Menu
2. Select BMP from Drop Down Menu
3. After BMP is selected, TSS Removal and other Columns are automatically completed.

Location: TSS removal for overall site.

TSS Removal Calculation Worksheet

B BMP[1]	C TSS Removal Rate[1]	D Starting TSS Load*	E Amount Removed (C*D)	F Remaining Load (D-E)
Deep Sump and Hooded Catch Basin	**0.25**	**1.00**	**0.25**	**0.75**
Wet Basin	**0.80**	**0.75**	**0.60**	**0.15**
	0.00	**0.15**	**0.00**	**0.15**
	0.00	**0.15**	**0.00**	**0.15**
	0.00	**0.15**	**0.00**	**0.15**

Total TSS Removal = **85%**

Separate Form Needs to be Completed for Each Outlet or BMP Train

Project: **Fox Howe**

Prepared By: **RPV**

Date: **20-Aug-25**

*Equals remaining load from previous BMP (E) which enters the BMP

Fox Howe
Groton, MA

August 20, 2025
6842

FES-2 & FES-3 Sediment Forebay Sizing Calculations

Stormwater Recharge Calculations

CALCULATIONS

Recharge Volume, Rv:

$R_v = A_C x F$

Hydrologic Soil Group	Impervious Area (Ac) [1]	Target Depth (F)	Recharge Volume (Rv) Ac-feet
A	1.496	0.6	0.075
C	0.002	0.25	0.000
Total	**1.498**		**0.075**

Required Sediment Forebay vol, Fv:

$F_v = A_C(cu.ft)x0.1inch$ of impervious area

[1] Imp. area captured by ponds, Ap = 1.498 Ac

Required Sediment Forebay vol, Fv= 544 C.ft

Sediment Forebay Volume Provided = 920.0 C.ft

REFERENCES

Table 2.3.2: Recharge Target Depth by Hydrologic Soil Group

NRCS Hydrologic Soil Group	Approx. Soil Texture	Target Depth Factor (F)
A	sand	0.6 inch
B	loam	0.35 inch
C	silty loam	0.25 inch
D	clay	0.1 inch

Fox Howe
Groton, MA

August 20, 2025
6842

FES-4 Sediment Forebay Sizing Calculations

Stormwater Recharge Calculations

CALCULATIONS

Recharge Volume, Rv:

$R_v = A_C x F$

Hydrologic Soil Group	Impervious Area (Ac) [1]	Target Depth (F)	Recharge Volume (Rv) Ac-feet
A	1.558	0.6	0.078
Total	**1.558**		**0.078**

Required Sediment Forebay vol, Fv:

$F_v = A_C(cu.ft)x0.1inch$ of impervious area

[1] Imp. area captured by ponds, Ap = 1.558 Ac

Required Sediment Forebay vol, Fv= 566 C.ft

Sediment Forebay Volume Provided = 572.0 C.ft

REFERENCES

Table 2.3.2: Recharge Target Depth by Hydrologic Soil Group

NRCS Hydrologic Soil Group	Approx. Soil Texture	Target Depth Factor (F)
A	sand	0.6 inch
B	loam	0.35 inch
C	silty loam	0.25 inch
D	clay	0.1 inch

Fox Howe
Groton, MA

August 20, 2025
6842

FES-5 Sediment Forebay Sizing Calculations

Stormwater Recharge Calculations

CALCULATIONS

Recharge Volume, Rv:

$R_v = A_C x F$

Hydrologic Soil Group	Impervious Area (Ac) [1]	Target Depth (F)	Recharge Volume (Rv) Ac-feet
A	2.919	0.6	0.146
D	0.314	0.1	0.003
Total	**3.233**		**0.149**

Required Sediment Forebay vol, Fv:

$F_v = A_C(cu.ft)x0.1inch$ of impervious area

[1] Imp. area captured by ponds, Ap = 3.233 Ac

Required Sediment Forebay vol, Fv= 1,174 C.ft

Sediment Forebay Volume Provided = 10,966.0 **C.ft**

REFERENCES

Table 2.3.2: Recharge Target Depth by Hydrologic Soil Group

NRCS Hydrologic Soil Group	Approx. Soil Texture	Target Depth Factor (F)
A	sand	0.6 inch
B	loam	0.35 inch
C	silty loam	0.25 inch
D	clay	0.1 inch

Fox Howe
Groton, MA

August 20, 2025
6842

FES-6 Sediment Forebay Sizing Calculations

Stormwater Recharge Calculations

CALCULATIONS

Recharge Volume, Rv:

$R_v = A_C x F$

Hydrologic Soil Group	Impervious Area (Ac) [1]	Target Depth (F)	Recharge Volume (Rv) Ac-feet
A	1.265	0.6	0.063
Total	**1.265**		**0.063**

Required Sediment Forebay vol, Fv:

$F_v = A_C(cu.ft)x0.1inch$ of impervious area

[1] Imp. area captured by ponds, Ap = 1.265 Ac

Required Sediment Forebay vol, Fv= 459 C.ft

Sediment Forebay Volume Provided = 728.0 C.ft

REFERENCES

Table 2.3.2: Recharge Target Depth by Hydrologic Soil Group

NRCS Hydrologic Soil Group	Approx. Soil Texture	Target Depth Factor (F)
A	sand	0.6 inch
B	loam	0.35 inch
C	silty loam	0.25 inch
D	clay	0.1 inch

DILLIS & ROY
CIVIL DESIGN GROUP

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ENGINEERING LAND SURVEYING WETLAND CONSULTING

08/20/2025
#6842

Fox Howe
500 Main Street
Groton, MA

Sediment Loading Calculations

The following pretreatment structure below for the proposed development receives the largest amount of tributary runoff on site to be sanded. This structure was used to analyze the capacity of the four-foot sump within the structure. This area is the sum of all paved areas that will be routed through the pre-treatment device prior to entering the stormwater management areas. The volume of sediment accumulated is based on a sand density of 90 pounds per cubic foot and assumes a frequency of 10 sandings per year. The calculation used is as follows:

$$Annual\ Sediment\ Accumulated = (Area\ to\ be\ sanded\ in\ acres)\ x\ 500\frac{lbs}{acre-storm}x\frac{10\ storms}{90\frac{lbs}{ft^3}}$$

Structure	Area to be Sanded (Acres)	Annual Sediment Accumulated (ft^3)
DCB-13	0.592	32.88

A four-foot sump in these structures equates to a storage area of approximately 50 cubic feet. As such, the accumulated sediment will not cause any clogging to the outlet culverts.

Ryan Vickers, E.I.T.
Civil Engineer

Gregory S. Roy, P.E.
Principal

Appendix G – Construction Period Pollution Prevention

The project is covered under the National Pollutant Discharge Elimination System (NPDES) Construction General Permit, which will be submitted in place of the Construction Period Pollution Prevention Plan, prior to any land disturbance.

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Appendix H - Operation and Maintenance Plan

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STORMWATER OPERATION & MAINTENANCE MANUAL

FOR

FOX HOWE
500 MAIN STREET

IN

GROTON,
MASSACHUSETTS

PREPARED BY: DILLIS & ROY
CIVIL DESIGN GROUP, INC.
1 Main Street, Suite 1
Lunenburg, MA 01462

PREPARED FOR: TRANSOM GP CAPITAL HOLDINGS I, LLC
46 WALTHAM STREET, SUITE 600
BOSTON, MA 02118

AUGUST 20TH, 2025

CDG PROJECT #6842-T

DILLIS & ROY CIVIL DESIGN GROUP
CIVIL ENGINEERS LAND SURVEYORS WETLAND CONSULTANTS

TABLE OF CONTENTS:

1.0 Project Narrative

1.1 Proposed Stormwater Management System

The proposed stormwater management system was designed to reduce the peak rate of stormwater leaving the site, promote groundwater recharge, and increase the water quality. Runoff from the proposed development will be conveyed and treated using sedimentation forebays, stormwater wetlands, & a wet basin.

Constructed Stormwater Wetlands with Sediment Forebay

Two constructed stormwater wetlands with sediment forebays will treat the runoff. Constructed stormwater wetlands are stormwater wetland systems that maximize the removal of pollutants from stormwater runoff through wetland vegetation uptake, retention and settling. Constructed stormwater wetlands temporarily store runoff in shallow pools that support conditions suitable for the growth of wetland plants. The sediment forebays are designed to reduce the velocity of flow which will increase the settlement of heavy solids before emptying to the basins. Riprap will also be installed at the inlet of the sediment forebays to reduce the potential for scouring.

Deep Sump Hooded Catch Basins

Deep sump hooded catch basins are proposed to convey the runoff from the proposed roadway & roofs to the stormwater wetlands or wet basin. These catch basins will discharge to manholes and conventional storm drains.

Wet Basin

The proposed reconstructed wet basin utilizes a permanent pool of water as the primary mechanism to treat stormwater runoff. The pool allows sediments to settle (including fine sediments) and removes soluble pollutants. The wet basin has been designed to provide additional dry storage capacity to control peak discharge rates. The wet basin allows incoming stormwater to displace the water present in the pool. This stormwater remains until displaced by runoff from another storm event. Increased retention time allows particulates, including fine sediments, to settle out of the water column. The permanent pool also serves to protect deposited sediments from resuspending during large storm events. A sediment forebay was designed at the entrance of the basin to decrease the velocity of flow and increase the settlement of heavy solids prior to entering the basin. Riprap will also be installed at the inlet of the sediment forebays and the outlet of the basin to control the overflow of stormwater into the adjacent wetlands and will reduce the potential for scouring.

Grassed Swales

The grassed channels have been designed with a relatively flat (2.0%) slope to reduced runoff velocity and increase hydraulic residency time to promote particulate settling. The grassed channel has been provided with a sediment forebay for stormwater pretreatment. The grass swales will receive runoff from the proposed roofs along the townhomes & sheet flow from the entrance road. The entrance road has been designed with a 2% cross-slope to pitch towards a grassed swale system to convey the runoff to Constructed Stormwater Wetland #1's sediment forebay for additional treatment.

1.2 Operation & Maintenance Tasks

The following activities should be performed routinely to allow for proper functioning of the stormwater system. The following are guidelines referring to each major component of the stormwater management system.

1.2.1 Street Sweeping

Street sweeping should be performed at least annually. For most effective results, sweeping should be preformed by a vacuum style truck in the early spring before spring rain events can wash silt and sediment into the stormwater system. Silt and sediment should be disposed of in accordance with local, state and federal guidelines for hazardous waste.

1.2.2 Constructed Stormwater Wetlands

Unlike conventional wet basin systems that require large-scale sediment removal at infrequent intervals, constructed stormwater wetlands require small-scale maintenance at regular intervals to evaluate the health and composition of the plant species.

Proponents must carefully observe the constructed stormwater wetland system over time. In the first three years after construction, inspect the constructed stormwater wetlands twice a year during both the growing and non-growing seasons. This requirement must be included in the Operation & Maintenance plan. During these inspections, record and map the following information:

•The types and distribution of the dominant
wetland plants in the marsh;
•The presence and distribution of planted wetland species;
•The presence and distribution of invasive wetland
species (invasives must be removed);
•Indications that other species are replacing the planted wetland species;

•Percentage of standing water that is unvegetated (excluding the deep water cells which are not suitable for emergent plant growth);
•The maximum elevation and the vegetative condition in this zone, if the design elevation of the normal pool is being maintained for wetlands with extended zones;
•Stability of the original depth zones and the micro-topographic features; and
•Accumulation of sediment in the forebay and micropool; and survival rate of plants (cells with dead plants must be replanted).

1.2.3 Sediment Forebay

A sediment forebay is required as a pretreatment device prior to discharging stormwater to the constructed wetlands & wet basin. The sediment forebay will provide pretreatment by slowing stormwater runoff and increasing settlement of the sediment. The sediment forebay should be inspected monthly and cleaned of accumulated sediment on a quarterly basis. After sediment removal, repair any damaged vegetation by reseeding or re-sodding. Grass should be maintained at a height of 4-6 inches.

1.2.4 Deep Sump Catch Basins

Deep sump catch basins shall be inspected at least semi-annually for signs of wear, settling, cracking or other fatigue. Catch basin castings should be inspected for signs of root intrusion or significant water infiltration. Catch basin sump should be check for silt/sediment buildup and cleaned as necessary. Cleaning should be performed by a vacuum truck. Catch basins should be resealed as required and outlets should be inspected incidentally with all structure inspections.

1.2.5 Storm Drain Lines

Storm drainage inlets and outlets should be inspected incidentally with all structure inspections. Evidence of debris intrusion or excessive siltation or sedimentation could result in the need to clean a storm drain line. Flushing or jetting should be performed as required. All flushing and jetting should be performed in the direction away from any outlet devices. A vacuum truck should be used at the opposite end of the flushing or jetting to remove any silt or sediment that is cleaned from the storm drain.

1.2.6 Wet Basin

Inspect the wet basin at least once per year to ensure it is operating as designed. Inspect the outlet structure for evidence of clogging or excessive

outflow releases. Potential problems to check include: subsidence, erosion, cracking or tree growth on the embankment, damage to the emergency spillway, sediment accumulation around the outlet, inadequacy of the inlet/outlet channel erosion control measures, changes in the condition of the pilot channel, erosion within the basin and banks, and the emergence of invasive species. Make any necessary repairs immediately. During inspections, note any changes to the wet basin or the contributing watershed area because these may affect basin performance. At least twice a year, mow the upper-stage, side slopes, embankment and emergency spillway. At this time, also check the sediment forebay for accumulated material, sediment, trash, and debris and remove it. Remove sediment from the basin as necessary, and at least once every 10 years. Providing an on on-site sediment disposal area will reduce the overall sediment removal costs.

The riprap used for the sediment forebay should be inspected regularly for sediment build up, clogging or other unwanted materials such as trash. The rip-rap should be cleaned as required.

O&M Schedule

	O&M Task	Monthly	Quarterly	Spring	Fall	2-years	As-required
1.	**Constructed Stormwater Wetlands**						
	Inspection			x	x		x
	Remove Debris			x	x		x
	Remove Sediment						x
	Re-seed						x
2.	**Sediment Forebay**						
	Inspection	x		x	x		x
	Mowing	**3-4 times during the growing season**					
	Remove Debris		x				x
	Remove Sediment		x				x
	Re-seed						x
3.	**Stone Rip Rap**						
	Inspection			x			
	Remove Debris			x			x
	Remove Silt/Sediment					x	x
	Repair						x
4.	**Storm Drain Lines**						
	Inspection			x			x
	Clean						x
5.	**Catch Basin**						
	Inspection			x	x		
	Remove Debris						x
	Remove Silt/Sediment						x
7.	**Drain Manholes**						
	Inspect Rims						
	Inspect inside/inlet and outlet pipes			x	x		
	Remove sediment					x	x
8.	**Wet Basin**						
	Inspection			x	x		x
	Remove Debris			x	x		x
	Remove Sediment						x

APPENDIX A

Stormwater Management System Owners/Operators

1.	Stormwater Management System Owners:	To be determined
2.	Current and future operators:	To be determined
3.	Emergency contact information:	To be determined
4.	Change of trustee:	To be determined
5.	Financial Responsible Party:	To be determined
6.	Routine Maintenance:	To be determined
7.	O&M activities:	To be determined
8.	Record keeping	To be determined

Appendix I - Long Term Pollution Prevention Plan

LONG-TERM POLLUTION PREVENTION PLAN

FOR

FOX HOWE
500 MAIN STREET

IN

GROTON,
MASSACHUSETTS

PREPARED BY: DILLIS & ROY
CIVIL DESIGN GROUP, INC.
1 Main Street, Suite 1
Lunenburg, MA 01462

PREPARED FOR: TRANSOM GP CAPITAL HOLDINGS I, LLC
46 WALTHAM STREET, SUITE 600
BOSTON, MA 02118

AUGUST 20TH, 2025
CDG PROJECT #6842-T

DILLIS & ROY CIVIL DESIGN GROUP
CIVIL ENGINEERS LAND SURVEYORS WETLAND CONSULTANTS

1.0 Summary

This Long-Term Pollution Prevention Plan (LTPPP) has been prepared by Dillis & Roy Civil Design Group, Inc. pursuant to the Massachusetts Stormwater Regulations. The Applicant, Transom Real Estate LLC., is proposing the construction of a residential development on the north side of Route 119 just northerly of the intersection of Mill Street & Main Street. The proposed development consists of two hundred (200) rental units of which one hundred and seventy-six (176) units will be contained in two multi-story multi-family apartment building (62,906 SF) and twenty-four (24) units contained in six (6) quadplex townhouses (5,201 SF ea.) located at the property. The project includes amenity areas, outdoor recreational facilities, pool, private roadway, on-site parking, stormwater management systems, and new utility connections with associated appurtenances.

The layout of the proposed site has been carefully planned to reduce the amount of stormwater leaving the site. The stormwater management system has been designed in accordance with the Massachusetts Stormwater Regulations to provide pretreatment of the stormwater prior to discharge.

2.0 Spill Prevention Plan

No hazardous materials other than normal cleaning items are expected to be stored on site after the construction period has ended.

It is expected that normal DEP notification procedures would be triggered for major spills such as heating oil or propane and natural gas leaks.

3.0 Stormwater System O&M

A Stormwater Operation & Maintenance plan has been prepared for the proposed stormwater management system. Refer to this document for details pertaining to the required inspections, routine maintenance and operation details.

4.0 Fertilizers, herbicides, and pesticides

Application of fertilizer, herbicides and pesticides shall be performed in a manner consistent with the industry standards for the application.

No application of chemicals is to be performed within the stormwater management areas on the site.

5.0 Snow/Salt Management

5.1 Snow Plowing

It is expected that the site will be plowed by the Groton DPW once the road is accepted.

5.2 Salt/Sand Usage

It is expected that sanding and salting will be performed on an infrequent basis during times when unusually icy conditions persist for periods of time.

5.3 Street Sweeping

The Stormwater Operation & Maintenance Plan calls for the road and parking areas to be swept in the spring, after the threat of winter precipitation has passed.

6.0 Waste Management

6.1 Solid Waste

A dumpster will be located on the site during construction. This area will be the primary area for the on-site storage of solid waste prior to pick-up by a waste management company.

4.0 Plans

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Pre-development Watershed Plan

PRE A.2
WOODS (A) = 78,930 SF
WOODS (B) = 49,074 SF
WOODS (D) = 31,909 SF
GRASS (A) = 116,373 SF
GRASS (B) = 13,268 SF
GRASS (D) = 114 SF

PRE A.1
PAVEMENT (A) = 71,903 SF
PAVEMENT (B) = 41,850 SF
GRASS (A) = 45,336 SF
GRASS (B) = 77,493 SF
CONC (A) = 485 SF
CONC (B) = 5,163 SF

PRE A.3
PAVEMENT (A) = 19,199 SF

PRE A.4
GRASS (A) = 10,963 SF
WOODS (A) = 20,451 SF

PRE B.1
PAVEMENT (A) = 59,394 SF
PAVEMENT (B) = 49,116 SF
PAVEMENT (D) = 36,430 SF
GRASS (A) = 3,947 SF
GRASS (B) = 9,665 SF
GRASS (D) = 556 SF
CONC (B) = 1,032 SF
WOODS (D) = 60,160 SF

PRE B.2
GRASS (B) = 16,037 SF
GRASS (D) = 15,072 SF
CONC (B) = 2,551 SF
CONC (D) = 1,451 SF
WOODS (B) = 32,793 SF
WOODS (D) = 3,967 SF

PRE C.1
WOODS (B) = 18,629 SF
PAVEMENT (B) = 9,034 SF
ROOF (B) = 2,514 SF
GRASS (B) = 150,016 SF
GRASS (A) = 78,314 SF

PRE C.2
WOODS (D) = 2,127 SF
GRASS (D) = 9,762 SF
WOODS (B) = 26,537 SF
GRASS (B) = 62,399 SF

FORMER ROOF AREA A
ROOF = 71,756 SF

FORMER ROOF AREA B
ROOF = 29,814 SF

AREA ACCOUNTED FOR IN A.2

MAIN STREET (ROUTE 119)

MAIN STREET

MILL STREET

256A

626B

300B

325D

32B

6A

L=225.00'
S=0.046

PREPARED BY:
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APPLICANT:
TRANSOM GP CAPITAL HOLDINGS I, LLC
46 WALTHAM STREET, SUITE 600
BOSTON, MA 02118

SCALE:
80 0 40 80 160 320
1 in. = 80 ft.

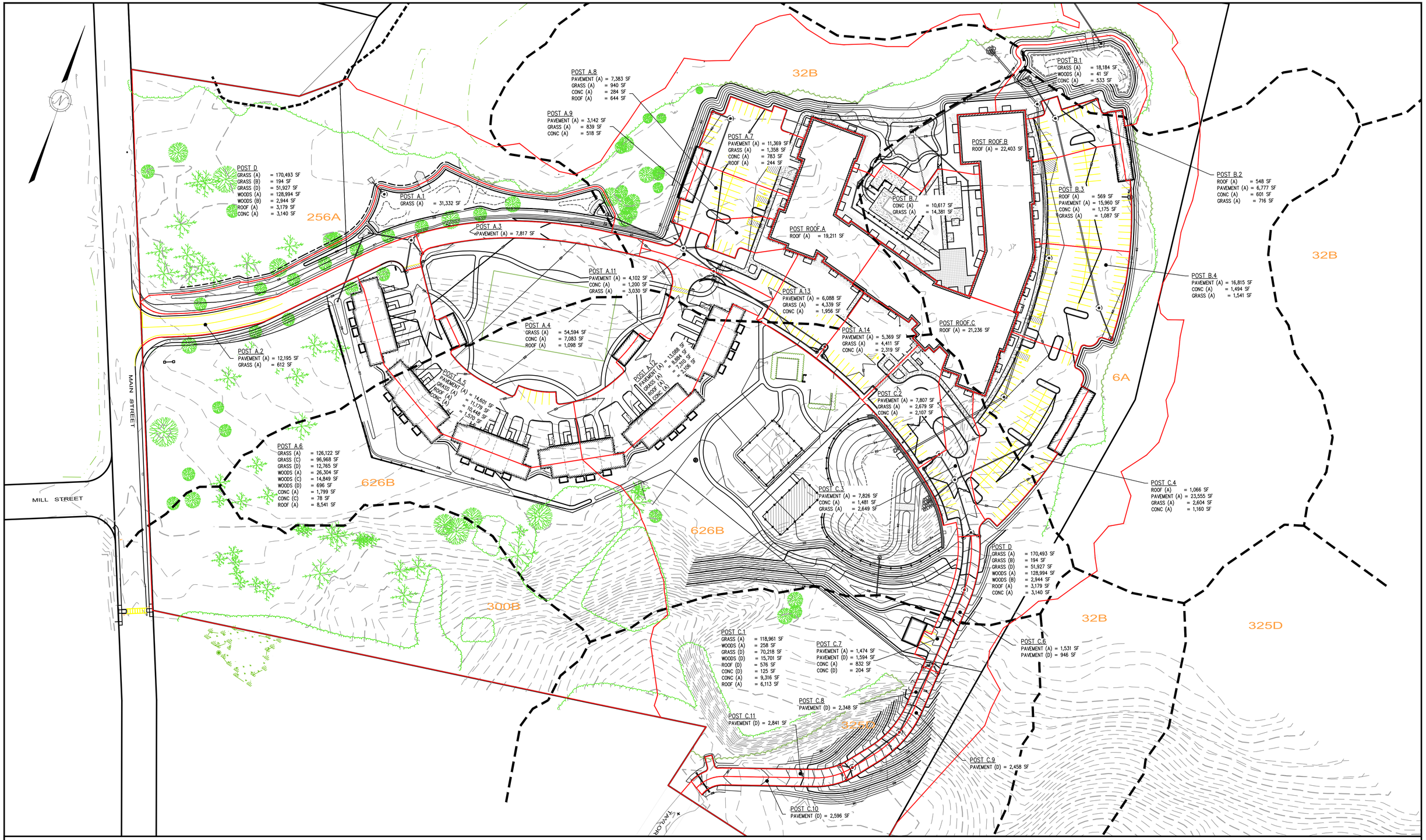
DATE: 8/20/25
DESIGN BY: GSR
DRAWN BY: RPV
CHECKED BY: GSR

PRE-DEVELOPED WATERSHED MAP
FOX HOWE
500 MAIN STREET
GROTON, MASSACHUSETTS

NO.	DATE	DESCRIPTION	BY

JOB NO. 6842
DRAWING NO. 6842-PRE-DEV
SHEET NO. DRN

Post-development Watershed Plan



PREPARED BY:
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OWNER:
500 MG LLC
6 LYBERTY WAY, SUITE 203
WESTFORD, MASSACHUSETTS

APPLICANT:
TRANSOM GP CAPITAL HOLDINGS I, LLC
46 WALTHAM STREET, SUITE 600
BOSTON, MA 02118

SCALE:
60 0 30 60 120 240
1 in. = 60 ft.

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POST-DEVELOPED WATERSHED MAP
FOX HOWE
500 MAIN STREET
GROTON, MASSACHUSETTS

NO.	DATE	DESCRIPTION	BY

JOB NO. 6842
DRAWING NO. 6842-SP
SHEET NO. DRN