STORMWATER REPORT

FOR

GROTON FARMS
500 MAIN STREET

IN

GROTON,
MASSACHUSETTS

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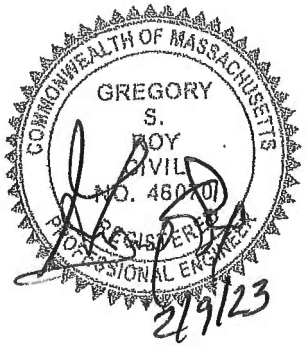

FEBRUARY 9TH, 2023
CDG PROJECT # 6842

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

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1.0 Project Narrative

1.1 Project Type

The Applicant, 500 MG 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 16 quadplex units (1,220 SF ea.), 16 quadplex units (643 SF ea.), 3 apartment buildings (17,818 sf ea.), and clubhouse building (4,950 sf). The proposed work is located on Assessor's Map 216- Block 94, 95, & 96. The proposed scope of construction also includes a private roadway, on-site parking, clubhouse area with associated amenities, stormwater management systems, and new utility connections with their 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 infiltration basins via land flow, curb and gutter systems, or the proposed drainage pipe system. The stormwater basins 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 and existing building. The existing 101,570 SF building is located towards center of the site. An existing parking lot is located towards the northern corner of the site and

wraps around the eastern side of the building. The southwestern half of the site is primarily undeveloped grassed area with clusters of woods. Multiple 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 building collects and treats a substantial 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 will sheet flow 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 infiltration basins. These catch basins will discharge to manholes and conventional storm drains. Please refer to Sediment Loading Calculations in Appendix F.

Infiltration Basin

The infiltration basins are designed to reduce the runoff rates and increase the groundwater recharge rates. Sediment forebays designed at the entrance of each basin were included to decrease the velocity of flow and increase the settlement of heavy solids prior to the infiltration basin. Riprap will also be installed at the inlet of the sediment forebays and the outlet of the basins to control the overflow of stormwater into the adjacent wetlands and will reduce the potential for scouring. Please refer to Groundwater Mounding Calculations in Appendix F.

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. Sediment forebays 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 infiltration 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 Infiltration Basin #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. 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)**
Design Point "A"		
2-Year	11.73	3.17
10-Year	23.20	11.61
25-Year	34.21	22.80
100-Year	60.31	38.91

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). Infiltration Basin 1 &2 have been designed with an exfiltration rate of 2.41 inches/hour (Loamy/Medium Sand) as confirmed by the attached in-situ soil testing logs. Please refer to Appendix C for further information regarding the soils on-site & existing test hole data.

Recharge calculations can be found in Appendix F.

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 infiltration/wet basins with the sediment forebay & deep sump hooded catch basins for pretreatment. This BMP train is proposed for both infiltration basins 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 infiltration basins/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 sheet with deep sump catch basin into a infiltration basin & wet basin shows there is enough TSS removal within the whole system.

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 after approvals are received and prior to construction.

3.0 Appendices

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Appendix A - Locus Map

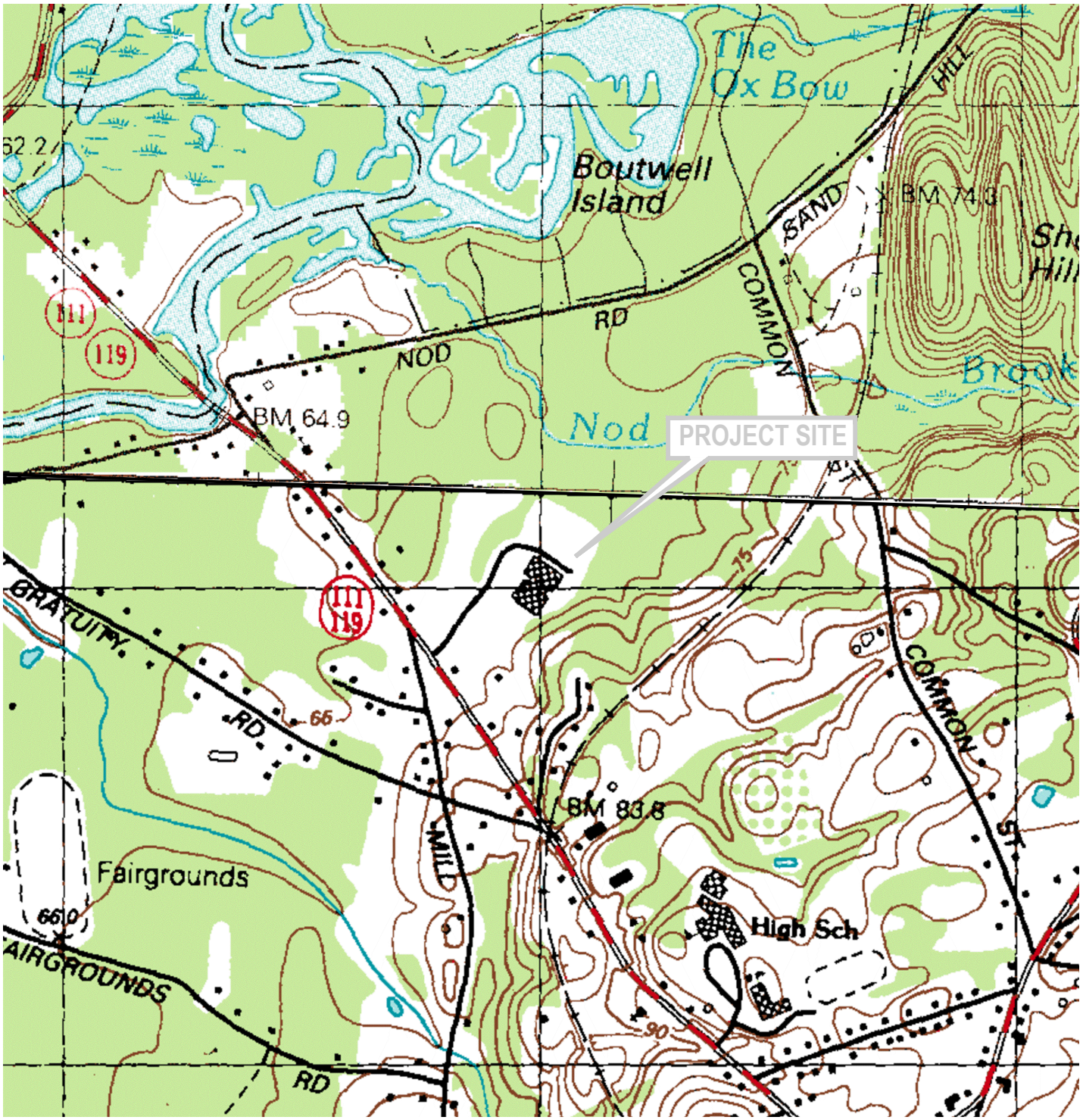

FIGURE 1 - LOCUS MAP

1"=1,000'

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References: 1988 USGS Townsend & Ayer Massachusetts Topographic Map

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Appendix B - Checklist for Stormwater Report

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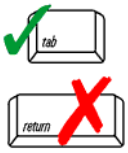
Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

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.

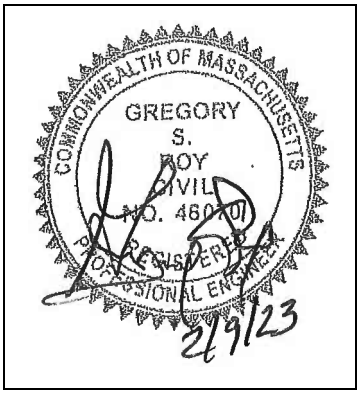
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the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



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

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): Infiltration Basins, Wet 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

☑ 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.

Appendix C - Soils Data

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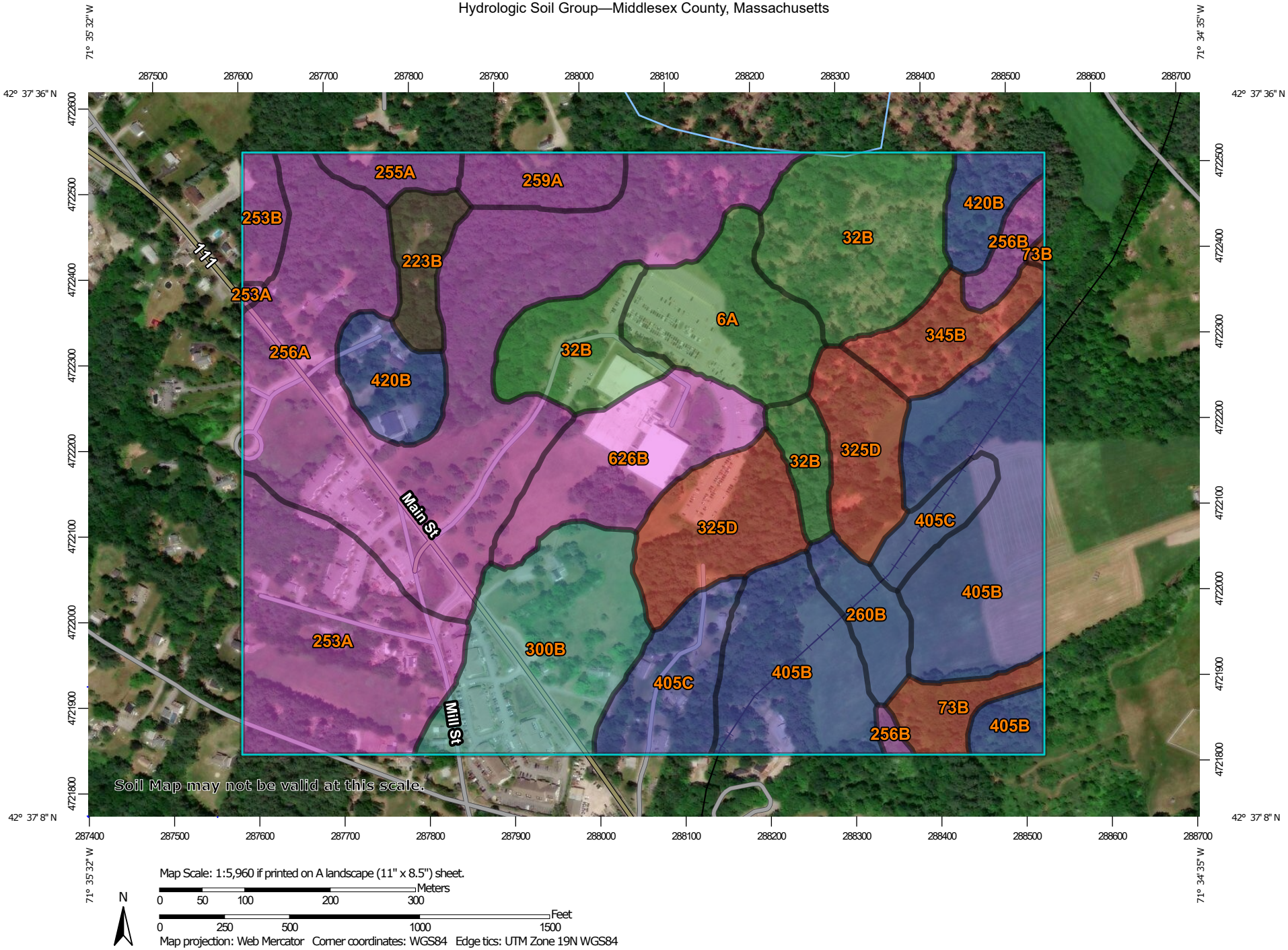
71° 35' 32" W
71° 34' 35" W
42° 37' 36" N
42° 37' 8" N
287500
287600
287700
287800
287900
288000
288100
288200
288300
288400
288500
288600
288700
4722600
4722500
4722400
4722300
4722200
4722100
4722000
4721900
4721800
255A
259A
253B
223B
420B
32B
256B
73B
111
253A
6A
345B
256A
32B
420B
626B
32B
325D
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

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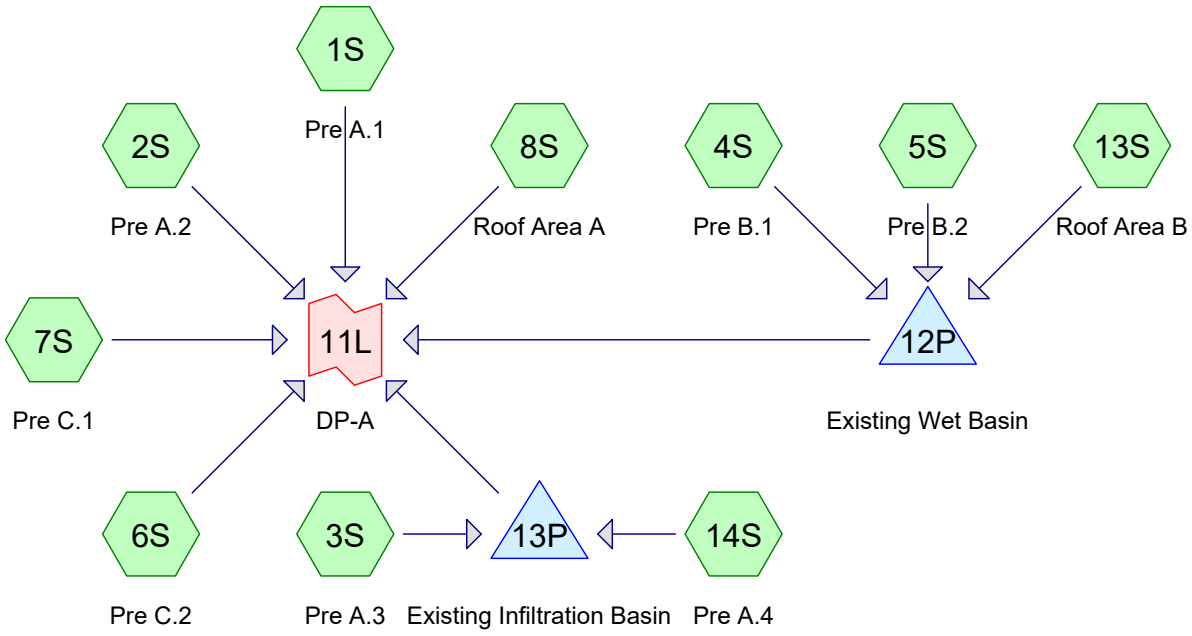

Subcat Reach Pond Link

Routing Diagram for 6842-Pre
Prepared by {enter your company name here}

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 1S: Pre A.1 Runoff Area=242,230 sf 49.29% Impervious Runoff Depth=0.96"
Flow Length=298' Tc=10.8 min CN=75 Runoff=4.98 cfs 0.445 af

Subcatchment 2S: Pre A.2 Runoff Area=289,668 sf 0.00% Impervious Runoff Depth=0.02"
Flow Length=658' Tc=28.0 min CN=44 Runoff=0.01 cfs 0.009 af

Subcatchment 3S: 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

Subcatchment 4S: Pre B.1 Runoff Area=220,300 sf 66.26% Impervious Runoff Depth=1.98"
Flow Length=736' Tc=24.4 min CN=90 Runoff=7.24 cfs 0.836 af

Subcatchment 5S: Pre B.2 Runoff Area=71,871 sf 5.57% Impervious Runoff Depth=0.47"
Flow Length=416' Tc=12.4 min UI Adjusted CN=64 Runoff=0.50 cfs 0.064 af

Subcatchment 6S: Pre C.2 Runoff Area=100,825 sf 0.00% Impervious Runoff Depth=0.40"
Flow Length=364' Tc=16.2 min CN=62 Runoff=0.49 cfs 0.077 af

Subcatchment 7S: Pre C.1 Runoff Area=258,507 sf 5.40% Impervious Runoff Depth=0.22"
Flow Length=754' Tc=15.2 min CN=56 Runoff=0.46 cfs 0.109 af

Subcatchment 8S: 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

Subcatchment 13S: 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

Subcatchment 14S: Pre A.4 Runoff Area=31,394 sf 0.00% Impervious Runoff Depth=0.00"
Tc=6.0 min CN=33 Runoff=0.00 cfs 0.000 af

Pond 12P: Existing Wet Basin Peak Elev=214.82' Storage=10,111 cf Inflow=8.44 cfs 1.059 af
15.0" Round Culvert n=0.013 L=517.0' S=0.0011 '/' Outflow=3.51 cfs 1.058 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 0.100 af Primary=0.03 cfs 0.001 af Outflow=0.25 cfs 0.102 af

Link 11L: DP-A Inflow=11.73 cfs 2.079 af
Primary=11.73 cfs 2.079 af

Total Runoff Area = 30.660 ac Runoff Volume = 2.180 af Average Runoff Depth = 0.85"
69.74% Pervious = 21.383 ac 30.26% Impervious = 9.277 ac

Summary for Subcatchment 1S: Pre A.1

Runoff = 4.98 cfs @ 12.16 hrs, Volume= 0.445 af, Depth= 0.96"

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	39	>75% Grass cover, Good, HSG A
77,493	61	>75% Grass cover, Good, HSG B
485	98	Unconnected pavement, HSG A
5,163	98	Unconnected pavement, HSG B
242,230	75	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 = 0.01 cfs @ 21.48 hrs, Volume= 0.009 af, Depth= 0.02"

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	39	>75% Grass cover, Good, HSG A
13,268	61	>75% Grass cover, Good, HSG B
114	80	>75% Grass cover, Good, HSG D
289,668	44	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"

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 = 7.24 cfs @ 12.33 hrs, Volume= 0.836 af, Depth= 1.98"

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	39	>75% Grass cover, Good, HSG A
9,665	61	>75% Grass cover, Good, HSG B
556	80	>75% Grass cover, Good, HSG D
1,032	98	Unconnected pavement, HSG B
60,160	77	Woods, Good, HSG D
220,300	90	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 = 0.50 cfs @ 12.23 hrs, Volume= 0.064 af, Depth= 0.47"

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	61		>75% Grass cover, Good, HSG B
15,072	80		>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	65	64	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 = 0.49 cfs @ 12.34 hrs, Volume= 0.077 af, Depth= 0.40"

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	61	>75% Grass cover, Good, HSG B
9,762	80	>75% Grass cover, Good, HSG D
100,825	62	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 = 0.46 cfs @ 12.49 hrs, Volume= 0.109 af, Depth= 0.22"

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
78,314	39	>75% Grass cover, Good, HSG A
147,609	61	>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	56	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"

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"

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

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	39	>75% Grass cover, Good, HSG A
20,431	30	Woods, Good, HSG A
31,394	33	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 = 1.72" for 2-yr event
Inflow = 8.44 cfs @ 12.31 hrs, Volume= 1.059 af
Outflow = 3.51 cfs @ 12.76 hrs, Volume= 1.058 af, Atten= 58%, Lag= 26.7 min
Primary = 3.51 cfs @ 12.76 hrs, Volume= 1.058 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 214.82' @ 12.76 hrs Surf.Area= 12,236 sf Storage= 10,111 cf

Plug-Flow detention time= 20.6 min calculated for 1.058 af (100% of inflow)
Center-of-Mass det. time= 20.6 min (842.1 - 821.5)

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=3.51 cfs @ 12.76 hrs HW=214.82' (Free Discharge)
└**1=Culvert** (Barrel Controls 3.51 cfs @ 2.86 fps)

Summary for Pond 13P: Existing Infiltration Basin

Inflow Area = 1.161 ac, 37.95% Impervious, Inflow Depth = 1.05" 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= 0.100 af
Primary = 0.03 cfs @ 12.52 hrs, Volume= 0.001 af

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= 38.5 min calculated for 0.102 af (100% of inflow)
Center-of-Mass det. time= 38.5 min (796.3 - 757.8)

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=0.22 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 = 0.81" for 2-yr event
Inflow = 11.73 cfs @ 12.13 hrs, Volume= 2.079 af
Primary = 11.73 cfs @ 12.13 hrs, Volume= 2.079 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 1S: Pre A.1 Runoff Area=242,230 sf 49.29% Impervious Runoff Depth=2.00"
Flow Length=298' Tc=10.8 min CN=75 Runoff=10.94 cfs 0.928 af

Subcatchment 2S: Pre A.2 Runoff Area=289,668 sf 0.00% Impervious Runoff Depth=0.25"
Flow Length=658' Tc=28.0 min CN=44 Runoff=0.35 cfs 0.136 af

Subcatchment 3S: 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

Subcatchment 4S: Pre B.1 Runoff Area=220,300 sf 66.26% Impervious Runoff Depth=3.34"
Flow Length=736' Tc=24.4 min CN=90 Runoff=11.97 cfs 1.407 af

Subcatchment 5S: Pre B.2 Runoff Area=71,871 sf 5.57% Impervious Runoff Depth=1.23"
Flow Length=416' Tc=12.4 min UI Adjusted CN=64 Runoff=1.73 cfs 0.169 af

Subcatchment 6S: Pre C.2 Runoff Area=100,825 sf 0.00% Impervious Runoff Depth=1.11"
Flow Length=364' Tc=16.2 min CN=62 Runoff=1.92 cfs 0.213 af

Subcatchment 7S: Pre C.1 Runoff Area=258,507 sf 5.40% Impervious Runoff Depth=0.77"
Flow Length=754' Tc=15.2 min CN=56 Runoff=2.95 cfs 0.379 af

Subcatchment 8S: 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

Subcatchment 13S: 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

Subcatchment 14S: Pre A.4 Runoff Area=31,394 sf 0.00% Impervious Runoff Depth=0.01"
Tc=6.0 min CN=33 Runoff=0.00 cfs 0.000 af

Pond 12P: Existing Wet Basin Peak Elev=215.66' Storage=22,873 cf Inflow=14.49 cfs 1.816 af
15.0" Round Culvert n=0.013 L=517.0' S=0.0011 '/' Outflow=4.26 cfs 1.816 af

Pond 13P: Existing Infiltration Basin Peak Elev=213.13' Storage=2,008 cf Inflow=1.87 cfs 0.155 af
Discarded=0.25 cfs 0.141 af Primary=0.13 cfs 0.014 af Outflow=0.38 cfs 0.155 af

Link 11L: DP-A Inflow=23.20 cfs 4.064 af
Primary=23.20 cfs 4.064 af

Total Runoff Area = 30.660 ac Runoff Volume = 4.205 af Average Runoff Depth = 1.65"
69.74% Pervious = 21.383 ac 30.26% Impervious = 9.277 ac

Summary for Subcatchment 1S: Pre A.1

Runoff = 10.94 cfs @ 12.16 hrs, Volume= 0.928 af, Depth= 2.00"

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	39	>75% Grass cover, Good, HSG A
77,493	61	>75% Grass cover, Good, HSG B
485	98	Unconnected pavement, HSG A
5,163	98	Unconnected pavement, HSG B
242,230	75	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 = 0.35 cfs @ 12.76 hrs, Volume= 0.136 af, Depth= 0.25"

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	39	>75% Grass cover, Good, HSG A
13,268	61	>75% Grass cover, Good, HSG B
114	80	>75% Grass cover, Good, HSG D
289,668	44	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"

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 = 11.97 cfs @ 12.33 hrs, Volume= 1.407 af, Depth= 3.34"

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	39	>75% Grass cover, Good, HSG A
9,665	61	>75% Grass cover, Good, HSG B
556	80	>75% Grass cover, Good, HSG D
1,032	98	Unconnected pavement, HSG B
60,160	77	Woods, Good, HSG D
220,300	90	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 = 1.73 cfs @ 12.19 hrs, Volume= 0.169 af, Depth= 1.23"

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	61		>75% Grass cover, Good, HSG B
15,072	80		>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	65	64	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 = 1.92 cfs @ 12.26 hrs, Volume= 0.213 af, Depth= 1.11"

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
26,537	55	Woods, Good, HSG B
2,127	77	Woods, Good, HSG D
62,399	61	>75% Grass cover, Good, HSG B
9,762	80	>75% Grass cover, Good, HSG D
100,825	62	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 = 2.95 cfs @ 12.27 hrs, Volume= 0.379 af, Depth= 0.77"

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	39	>75% Grass cover, Good, HSG A
147,609	61	>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	56	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"

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"

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 = 0.00 cfs @ 23.22 hrs, Volume= 0.000 af, Depth= 0.01"

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	39	>75% Grass cover, Good, HSG A
20,431	30	Woods, Good, HSG A
31,394	33	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 = 2.95" for 10-yr event
Inflow = 14.49 cfs @ 12.30 hrs, Volume= 1.816 af
Outflow = 4.26 cfs @ 12.88 hrs, Volume= 1.816 af, Atten= 71%, Lag= 34.9 min
Primary = 4.26 cfs @ 12.88 hrs, Volume= 1.816 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.66' @ 12.88 hrs Surf.Area= 17,789 sf Storage= 22,873 cf

Plug-Flow detention time= 41.1 min calculated for 1.816 af (100% of inflow)
Center-of-Mass det. time= 40.8 min (850.6 - 809.8)

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=4.26 cfs @ 12.88 hrs HW=215.66' (Free Discharge)
└**1=Culvert** (Barrel Controls 4.26 cfs @ 3.47 fps)

Summary for Pond 13P: Existing Infiltration Basin

Inflow Area = 1.161 ac, 37.95% Impervious, Inflow Depth = 1.60" for 10-yr event
Inflow = 1.87 cfs @ 12.09 hrs, Volume= 0.155 af
Outflow = 0.38 cfs @ 12.51 hrs, Volume= 0.155 af, Atten= 80%, Lag= 25.3 min
Discarded = 0.25 cfs @ 12.51 hrs, Volume= 0.141 af
Primary = 0.13 cfs @ 12.51 hrs, Volume= 0.014 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 213.13' @ 12.51 hrs Surf.Area= 3,576 sf Storage= 2,008 cf

Plug-Flow detention time= 46.5 min calculated for 0.155 af (100% of inflow)
Center-of-Mass det. time= 46.4 min (797.9 - 751.5)

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 @ 12.51 hrs HW=213.13' (Free Discharge)
└**2=Exfiltration** (Controls 0.25 cfs)

Primary OutFlow Max=0.13 cfs @ 12.51 hrs HW=213.13' (Free Discharge)
└**1=Culvert** (Passes 0.13 cfs of 0.34 cfs potential flow)
└**3=Orifice/Grate** (Orifice Controls 0.13 cfs @ 2.64 fps)

Summary for Link 11L: DP-A

Inflow Area = 30.660 ac, 30.26% Impervious, Inflow Depth = 1.59" for 10-yr event
Inflow = 23.20 cfs @ 12.15 hrs, Volume= 4.064 af
Primary = 23.20 cfs @ 12.15 hrs, Volume= 4.064 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 1S: Pre A.1 Runoff Area=242,230 sf 49.29% Impervious Runoff Depth=2.90"
Flow Length=298' Tc=10.8 min CN=75 Runoff=15.98 cfs 1.345 af

Subcatchment 2S: Pre A.2 Runoff Area=289,668 sf 0.00% Impervious Runoff Depth=0.57"
Flow Length=658' Tc=28.0 min CN=44 Runoff=1.46 cfs 0.318 af

Subcatchment 3S: 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

Subcatchment 4S: Pre B.1 Runoff Area=220,300 sf 66.26% Impervious Runoff Depth=4.41"
Flow Length=736' Tc=24.4 min CN=90 Runoff=15.63 cfs 1.858 af

Subcatchment 5S: Pre B.2 Runoff Area=71,871 sf 5.57% Impervious Runoff Depth=1.95"
Flow Length=416' Tc=12.4 min UI Adjusted CN=64 Runoff=2.89 cfs 0.268 af

Subcatchment 6S: Pre C.2 Runoff Area=100,825 sf 0.00% Impervious Runoff Depth=1.79"
Flow Length=364' Tc=16.2 min CN=62 Runoff=3.33 cfs 0.345 af

Subcatchment 7S: Pre C.1 Runoff Area=258,507 sf 5.40% Impervious Runoff Depth=1.34"
Flow Length=754' Tc=15.2 min CN=56 Runoff=6.01 cfs 0.661 af

Subcatchment 8S: 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

Subcatchment 13S: 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

Subcatchment 14S: Pre A.4 Runoff Area=31,394 sf 0.00% Impervious Runoff Depth=0.10"
Tc=6.0 min CN=33 Runoff=0.01 cfs 0.006 af

Pond 12P: Existing Wet Basin Peak Elev=216.21' Storage=34,261 cf Inflow=19.29 cfs 2.429 af
15.0" Round Culvert n=0.013 L=517.0' S=0.0011 '/' Outflow=4.69 cfs 2.429 af

Pond 13P: Existing Infiltration Basin Peak Elev=213.31' Storage=2,667 cf Inflow=2.34 cfs 0.201 af
Discarded=0.28 cfs 0.175 af Primary=0.16 cfs 0.026 af Outflow=0.45 cfs 0.201 af

Link 11L: DP-A Inflow=34.21 cfs 5.853 af
Primary=34.21 cfs 5.853 af

Total Runoff Area = 30.660 ac Runoff Volume = 6.029 af Average Runoff Depth = 2.36"
69.74% Pervious = 21.383 ac 30.26% Impervious = 9.277 ac

Summary for Subcatchment 1S: Pre A.1

Runoff = 15.98 cfs @ 12.16 hrs, Volume= 1.345 af, Depth= 2.90"

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	39	>75% Grass cover, Good, HSG A
77,493	61	>75% Grass cover, Good, HSG B
485	98	Unconnected pavement, HSG A
5,163	98	Unconnected pavement, HSG B
242,230	75	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 = 1.46 cfs @ 12.60 hrs, Volume= 0.318 af, Depth= 0.57"

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	39	>75% Grass cover, Good, HSG A
13,268	61	>75% Grass cover, Good, HSG B
114	80	>75% Grass cover, Good, HSG D
289,668	44	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"

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 = 15.63 cfs @ 12.32 hrs, Volume= 1.858 af, Depth= 4.41"

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	39	>75% Grass cover, Good, HSG A
9,665	61	>75% Grass cover, Good, HSG B
556	80	>75% Grass cover, Good, HSG D
1,032	98	Unconnected pavement, HSG B
60,160	77	Woods, Good, HSG D
220,300	90	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 = 2.89 cfs @ 12.19 hrs, Volume= 0.268 af, Depth= 1.95"

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	61		>75% Grass cover, Good, HSG B
15,072	80		>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	65	64	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 = 3.33 cfs @ 12.24 hrs, Volume= 0.345 af, Depth= 1.79"

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	61	>75% Grass cover, Good, HSG B
9,762	80	>75% Grass cover, Good, HSG D
100,825	62	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 = 6.01 cfs @ 12.24 hrs, Volume= 0.661 af, Depth= 1.34"

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	39	>75% Grass cover, Good, HSG A
147,609	61	>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	56	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"

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"

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 = 0.01 cfs @ 15.03 hrs, Volume= 0.006 af, Depth= 0.10"

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
10,963	39	>75% Grass cover, Good, HSG A
20,431	30	Woods, Good, HSG A
31,394	33	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 = 3.94" for 25-yr event
Inflow = 19.29 cfs @ 12.29 hrs, Volume= 2.429 af
Outflow = 4.69 cfs @ 12.97 hrs, Volume= 2.429 af, Atten= 76%, Lag= 40.3 min
Primary = 4.69 cfs @ 12.97 hrs, Volume= 2.429 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.21' @ 12.97 hrs Surf.Area= 25,805 sf Storage= 34,261 cf

Plug-Flow detention time= 58.1 min calculated for 2.427 af (100% of inflow)
Center-of-Mass det. time= 58.0 min (861.6 - 803.6)

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=4.69 cfs @ 12.97 hrs HW=216.21' (Free Discharge)
└**1=Culvert** (Barrel Controls 4.69 cfs @ 3.82 fps)

Summary for Pond 13P: Existing Infiltration Basin

Inflow Area = 1.161 ac, 37.95% Impervious, Inflow Depth = 2.08" for 25-yr event
Inflow = 2.34 cfs @ 12.09 hrs, Volume= 0.201 af
Outflow = 0.45 cfs @ 12.52 hrs, Volume= 0.201 af, Atten= 81%, Lag= 26.2 min
Discarded = 0.28 cfs @ 12.52 hrs, Volume= 0.175 af
Primary = 0.16 cfs @ 12.52 hrs, Volume= 0.026 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 213.31' @ 12.52 hrs Surf.Area= 3,811 sf Storage= 2,667 cf

Plug-Flow detention time= 53.0 min calculated for 0.201 af (100% of inflow)
Center-of-Mass det. time= 53.0 min (809.5 - 756.5)

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=0.28 cfs @ 12.52 hrs HW=213.31' (Free Discharge)
└**2=Exfiltration** (Controls 0.28 cfs)

Primary OutFlow Max=0.16 cfs @ 12.52 hrs HW=213.31' (Free Discharge)
└**1=Culvert** (Passes 0.16 cfs of 0.81 cfs potential flow)
└**3=Orifice/Grate** (Orifice Controls 0.16 cfs @ 3.33 fps)

Summary for Link 11L: DP-A

Inflow Area = 30.660 ac, 30.26% Impervious, Inflow Depth = 2.29" for 25-yr event
Inflow = 34.21 cfs @ 12.16 hrs, Volume= 5.853 af
Primary = 34.21 cfs @ 12.16 hrs, Volume= 5.853 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 1S: Pre A.1 Runoff Area=242,230 sf 49.29% Impervious Runoff Depth=4.87"
Flow Length=298' Tc=10.8 min CN=75 Runoff=26.77 cfs 2.257 af

Subcatchment 2S: Pre A.2 Runoff Area=289,668 sf 0.00% Impervious Runoff Depth=1.54"
Flow Length=658' Tc=28.0 min CN=44 Runoff=5.67 cfs 0.854 af

Subcatchment 3S: 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

Subcatchment 4S: Pre B.1 Runoff Area=220,300 sf 66.26% Impervious Runoff Depth=6.62"
Flow Length=736' Tc=24.4 min CN=90 Runoff=22.98 cfs 2.789 af

Subcatchment 5S: Pre B.2 Runoff Area=71,871 sf 5.57% Impervious Runoff Depth=3.63"
Flow Length=416' Tc=12.4 min UI Adjusted CN=64 Runoff=5.59 cfs 0.499 af

Subcatchment 6S: Pre C.2 Runoff Area=100,825 sf 0.00% Impervious Runoff Depth=3.41"
Flow Length=364' Tc=16.2 min CN=62 Runoff=6.65 cfs 0.658 af

Subcatchment 7S: Pre C.1 Runoff Area=258,507 sf 5.40% Impervious Runoff Depth=2.76"
Flow Length=754' Tc=15.2 min CN=56 Runoff=13.79 cfs 1.365 af

Subcatchment 8S: 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

Subcatchment 13S: 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

Subcatchment 14S: Pre A.4 Runoff Area=31,394 sf 0.00% Impervious Runoff Depth=0.58"
Tc=6.0 min CN=33 Runoff=0.17 cfs 0.035 af

Pond 12P: Existing Wet Basin Peak Elev=216.92' Storage=60,808 cf Inflow=29.24 cfs 3.720 af
15.0" Round Culvert n=0.013 L=517.0' S=0.0011 '/' Outflow=5.19 cfs 3.720 af

Pond 13P: Existing Infiltration Basin Peak Elev=213.72' Storage=4,349 cf Inflow=3.33 cfs 0.313 af
Discarded=0.36 cfs 0.251 af Primary=0.22 cfs 0.062 af Outflow=0.58 cfs 0.313 af

Link 11L: DP-A Inflow=60.31 cfs 9.955 af
Primary=60.31 cfs 9.955 af

Total Runoff Area = 30.660 ac Runoff Volume = 10.207 af Average Runoff Depth = 3.99"
69.74% Pervious = 21.383 ac 30.26% Impervious = 9.277 ac

Summary for Subcatchment 1S: Pre A.1

Runoff = 26.77 cfs @ 12.15 hrs, Volume= 2.257 af, Depth= 4.87"

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	39	>75% Grass cover, Good, HSG A
77,493	61	>75% Grass cover, Good, HSG B
485	98	Unconnected pavement, HSG A
5,163	98	Unconnected pavement, HSG B
242,230	75	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 = 5.67 cfs @ 12.48 hrs, Volume= 0.854 af, Depth= 1.54"

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	39	>75% Grass cover, Good, HSG A
13,268	61	>75% Grass cover, Good, HSG B
114	80	>75% Grass cover, Good, HSG D
289,668	44	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"

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 = 22.98 cfs @ 12.32 hrs, Volume= 2.789 af, Depth= 6.62"

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	39	>75% Grass cover, Good, HSG A
9,665	61	>75% Grass cover, Good, HSG B
556	80	>75% Grass cover, Good, HSG D
1,032	98	Unconnected pavement, HSG B
60,160	77	Woods, Good, HSG D
220,300	90	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 = 5.59 cfs @ 12.18 hrs, Volume= 0.499 af, Depth= 3.63"

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	61		>75% Grass cover, Good, HSG B
15,072	80		>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	65	64	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 = 6.65 cfs @ 12.23 hrs, Volume= 0.658 af, Depth= 3.41"

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	61	>75% Grass cover, Good, HSG B
9,762	80	>75% Grass cover, Good, HSG D
100,825	62	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 = 13.79 cfs @ 12.22 hrs, Volume= 1.365 af, Depth= 2.76"

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	39	>75% Grass cover, Good, HSG A
147,609	61	>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	56	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"

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"

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 = 0.17 cfs @ 12.34 hrs, Volume= 0.035 af, Depth= 0.58"

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	39	>75% Grass cover, Good, HSG A
20,431	30	Woods, Good, HSG A
31,394	33	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 = 6.04" for 100-yr event
Inflow = 29.24 cfs @ 12.28 hrs, Volume= 3.720 af
Outflow = 5.19 cfs @ 13.15 hrs, Volume= 3.720 af, Atten= 82%, Lag= 51.9 min
Primary = 5.19 cfs @ 13.15 hrs, Volume= 3.720 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.92' @ 13.15 hrs Surf.Area= 50,422 sf Storage= 60,808 cf

Plug-Flow detention time= 98.6 min calculated for 3.720 af (100% of inflow)
Center-of-Mass det. time= 98.2 min (892.6 - 794.4)

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=5.19 cfs @ 13.15 hrs HW=216.92' (Free Discharge)
└**1=Culvert** (Barrel Controls 5.19 cfs @ 4.23 fps)

Summary for Pond 13P: Existing Infiltration Basin

Inflow Area = 1.161 ac, 37.95% Impervious, Inflow Depth = 3.24" for 100-yr event
Inflow = 3.33 cfs @ 12.09 hrs, Volume= 0.313 af
Outflow = 0.58 cfs @ 12.59 hrs, Volume= 0.313 af, Atten= 83%, Lag= 30.0 min
Discarded = 0.36 cfs @ 12.59 hrs, Volume= 0.251 af
Primary = 0.22 cfs @ 12.59 hrs, Volume= 0.062 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 213.72' @ 12.59 hrs Surf.Area= 4,381 sf Storage= 4,349 cf

Plug-Flow detention time= 71.0 min calculated for 0.313 af (100% of inflow)
Center-of-Mass det. time= 70.9 min (836.8 - 765.9)

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=0.36 cfs @ 12.59 hrs HW=213.72' (Free Discharge)
└**2=Exfiltration** (Controls 0.36 cfs)

Primary OutFlow Max=0.22 cfs @ 12.59 hrs HW=213.72' (Free Discharge)
└**1=Culvert** (Passes 0.22 cfs of 2.37 cfs potential flow)
└**3=Orifice/Grate** (Orifice Controls 0.22 cfs @ 4.55 fps)

Summary for Link 11L: DP-A

Inflow Area = 30.660 ac, 30.26% Impervious, Inflow Depth = 3.90" for 100-yr event
Inflow = 60.31 cfs @ 12.16 hrs, Volume= 9.955 af
Primary = 60.31 cfs @ 12.16 hrs, Volume= 9.955 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 E - Proposed Conditions Hydrologic Calculations

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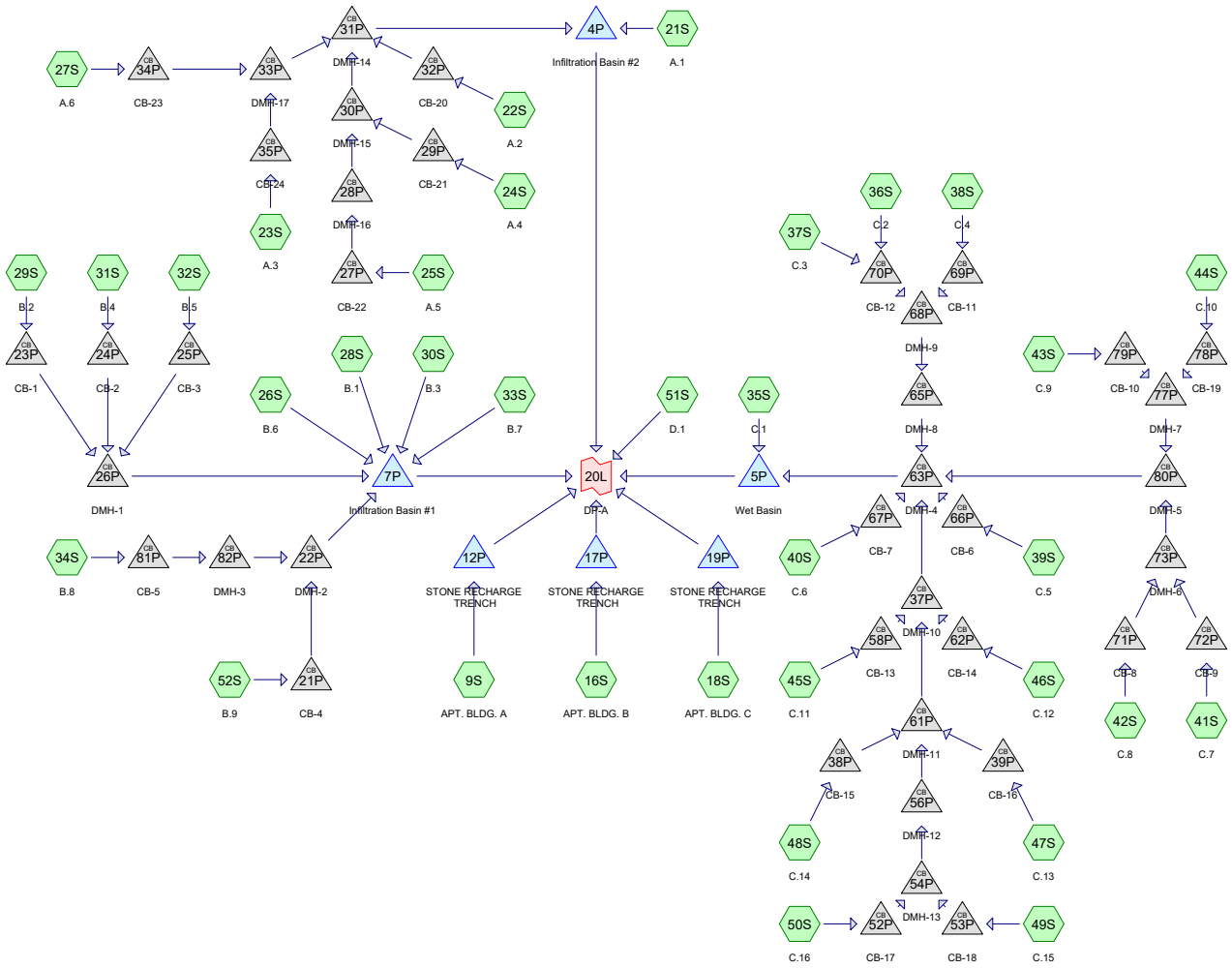
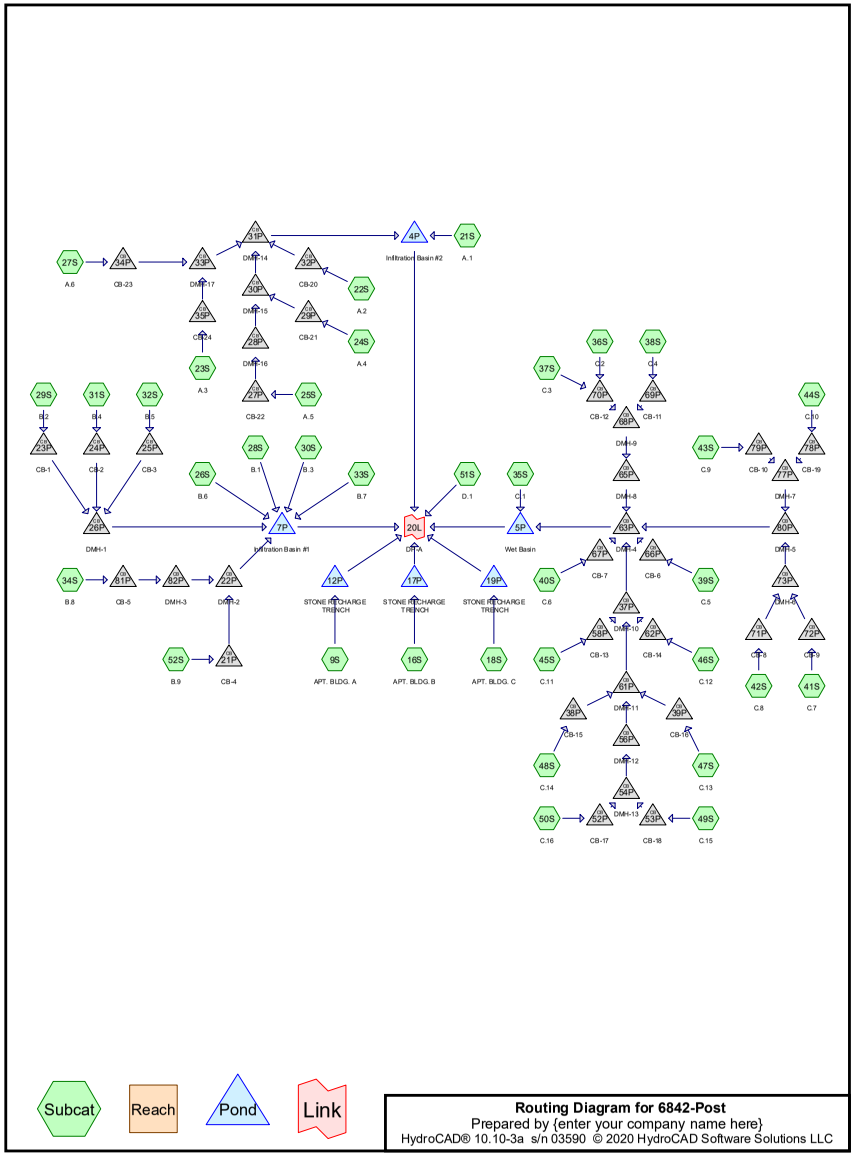


Subcat Reach Pond Link

Routing Diagram for 6842-Post

Prepared by {enter your company name here}



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: APT. BLDG. A Runoff Area=17,818 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=1.16 cfs 0.094 af

Subcatchment 16S: APT. BLDG. B Runoff Area=17,818 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=1.16 cfs 0.094 af

Subcatchment 18S: APT. BLDG. C Runoff Area=17,818 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=1.16 cfs 0.094 af

Subcatchment 21S: A.1 Runoff Area=20,195 sf 5.87% Impervious Runoff Depth=0.00"
Tc=10.0 min CN=42 Runoff=0.00 cfs 0.000 af

Subcatchment 22S: A.2 Runoff Area=13,850 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.90 cfs 0.073 af

Subcatchment 23S: A.3 Runoff Area=9,767 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.64 cfs 0.052 af

Subcatchment 24S: A.4 Runoff Area=5,341 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.35 cfs 0.028 af

Subcatchment 25S: A.5 Runoff Area=22,426 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=1.46 cfs 0.119 af

Subcatchment 26S: B.6 Runoff Area=40,090 sf 22.31% Impervious Runoff Depth=0.09"
Tc=6.0 min UI Adjusted CN=50 Runoff=0.01 cfs 0.007 af

Subcatchment 27S: A.6 Runoff Area=12,567 sf 87.12% Impervious Runoff Depth=1.98"
Tc=6.0 min CN=90 Runoff=0.65 cfs 0.048 af

Subcatchment 28S: B.1 Runoff Area=30,829 sf 0.88% Impervious Runoff Depth=0.00"
Tc=6.0 min UI Adjusted CN=39 Runoff=0.00 cfs 0.000 af

Subcatchment 29S: B.2 Runoff Area=13,381 sf 83.76% Impervious Runoff Depth=1.82"
Tc=6.0 min CN=88 Runoff=0.64 cfs 0.047 af

Subcatchment 30S: B.3 Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=2.45"
Tc=6.0 min CN=95 Runoff=1.04 cfs 0.080 af

Subcatchment 31S: B.4 Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=2.45"
Tc=6.0 min CN=95 Runoff=1.04 cfs 0.080 af

Subcatchment 32S: B.5 Runoff Area=24,627 sf 67.38% Impervious Runoff Depth=1.19"
Tc=6.0 min CN=79 Runoff=0.76 cfs 0.056 af

Subcatchment 33S: B.7 Runoff Area=290,511 sf 2.55% Impervious Runoff Depth=0.19"
Tc=30.0 min CN=55 Runoff=0.33 cfs 0.108 af

Subcatchment 34S: B.8 Runoff Area=12,484 sf 88.82% Impervious Runoff Depth=2.07"
Tc=6.0 min CN=91 Runoff=0.67 cfs 0.049 af

Subcatchment 35S: C.1 Runoff Area=236,308 sf 9.34% Impervious Runoff Depth=0.27"
Tc=20.0 min UI Adjusted CN=58 Runoff=0.58 cfs 0.124 af

Subcatchment 36S: C.2 Runoff Area=22,516 sf 83.62% Impervious Runoff Depth=1.82"
Tc=6.0 min CN=88 Runoff=1.08 cfs 0.078 af

Subcatchment 37S: C.3 Runoff Area=12,429 sf 61.75% Impervious Runoff Depth=0.96"
Tc=6.0 min CN=75 Runoff=0.30 cfs 0.023 af

Subcatchment 38S: C.4 Runoff Area=4,655 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.30 cfs 0.025 af

Subcatchment 39S: C.5 Runoff Area=5,857 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.38 cfs 0.031 af

Subcatchment 40S: C.6 Runoff Area=4,047 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.26 cfs 0.021 af

Subcatchment 41S: C.7 Runoff Area=7,188 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.47 cfs 0.038 af

Subcatchment 42S: C.8 Runoff Area=7,639 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.50 cfs 0.040 af

Subcatchment 43S: C.9 Runoff Area=8,732 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.57 cfs 0.046 af

Subcatchment 44S: C.10 Runoff Area=5,326 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.35 cfs 0.028 af

Subcatchment 45S: C.11 Runoff Area=2,631 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.17 cfs 0.014 af

Subcatchment 46S: C.12 Runoff Area=5,910 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.39 cfs 0.031 af

Subcatchment 47S: C.13 Runoff Area=1,987 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.13 cfs 0.011 af

Subcatchment 48S: C.14 Runoff Area=1,885 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.12 cfs 0.010 af

Subcatchment 49S: C.15 Runoff Area=3,487 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.23 cfs 0.018 af

Subcatchment 50S: C.16 Runoff Area=3,508 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.23 cfs 0.019 af

Subcatchment 51S: D.1 Runoff Area=402,771 sf 0.38% Impervious Runoff Depth=0.00"
Tc=20.0 min CN=41 Runoff=0.00 cfs 0.001 af

Subcatchment 52S: B.9 Runoff Area=15,018 sf 80.72% Impervious Runoff Depth=1.74"
Tc=6.0 min CN=87 Runoff=0.69 cfs 0.050 af

Pond 4P: Infiltration Basin #2 Peak Elev=213.15' Storage=4,645 cf Inflow=4.00 cfs 0.320 af
Discarded=0.55 cfs 0.320 af Primary=0.00 cfs 0.000 af Outflow=0.55 cfs 0.320 af

Pond 5P: Wet Basin Peak Elev=214.39' Storage=3,778 cf Inflow=5.48 cfs 0.558 af
Outflow=3.17 cfs 0.558 af

Pond 7P: Infiltration Basin #1 Peak Elev=215.24' Storage=5,097 cf Inflow=4.84 cfs 0.477 af
Discarded=0.83 cfs 0.477 af Primary=0.00 cfs 0.000 af Outflow=0.83 cfs 0.477 af

Pond 12P: STONE RECHARGE TRENCH Peak Elev=220.30' Storage=1,261 cf Inflow=1.16 cfs 0.094 af
Discarded=0.15 cfs 0.094 af Primary=0.00 cfs 0.000 af Outflow=0.15 cfs 0.094 af

Pond 17P: STONE RECHARGE TRENCH Peak Elev=220.30' Storage=1,261 cf Inflow=1.16 cfs 0.094 af
Discarded=0.15 cfs 0.094 af Primary=0.00 cfs 0.000 af Outflow=0.15 cfs 0.094 af

Pond 19P: STONE RECHARGE TRENCH Peak Elev=220.30' Storage=1,261 cf Inflow=1.16 cfs 0.094 af
Discarded=0.15 cfs 0.094 af Primary=0.00 cfs 0.000 af Outflow=0.15 cfs 0.094 af

Pond 21P: CB-4 Peak Elev=216.01' Inflow=0.69 cfs 0.050 af
12.0" Round Culvert n=0.013 L=37.0' S=0.0054 '/' Outflow=0.69 cfs 0.050 af

Pond 22P: DMH-2 Peak Elev=216.04' Inflow=1.36 cfs 0.099 af
12.0" Round Culvert n=0.013 L=101.0' S=0.0050 '/' Outflow=1.36 cfs 0.099 af

Pond 23P: CB-1 Peak Elev=216.07' Inflow=0.64 cfs 0.047 af
12.0" Round Culvert n=0.013 L=27.0' S=0.0074 '/' Outflow=0.64 cfs 0.047 af

Pond 24P: CB-2 Peak Elev=216.81' Inflow=1.04 cfs 0.080 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0400 '/' Outflow=1.04 cfs 0.080 af

Pond 25P: CB-3 Peak Elev=217.00' Inflow=0.76 cfs 0.056 af
12.0" Round Culvert n=0.013 L=38.0' S=0.0289 '/' Outflow=0.76 cfs 0.056 af

Pond 26P: DMH-1 Peak Elev=216.13' Inflow=2.44 cfs 0.182 af
18.0" Round Culvert n=0.013 L=48.0' S=0.0104 '/' Outflow=2.44 cfs 0.182 af

Pond 27P: CB-22 Peak Elev=216.33' Inflow=1.46 cfs 0.119 af
12.0" Round Culvert n=0.013 L=51.0' S=0.0039 '/' Outflow=1.46 cfs 0.119 af

Pond 28P: DMH-16 Peak Elev=216.02' Inflow=1.46 cfs 0.119 af
12.0" Round Culvert n=0.013 L=160.0' S=0.0037 '/' Outflow=1.46 cfs 0.119 af

Pond 29P: CB-21 Peak Elev=216.53' Inflow=0.35 cfs 0.028 af
12.0" Round Culvert n=0.013 L=26.0' S=0.0192 '/' Outflow=0.35 cfs 0.028 af

Pond 30P: DMH-15 Peak Elev=215.32' Inflow=1.81 cfs 0.147 af
15.0" Round Culvert n=0.013 L=250.0' S=0.0036 '/' Outflow=1.81 cfs 0.147 af

Pond 31P: DMH-14 Peak Elev=214.62' Inflow=4.00 cfs 0.320 af
18.0" Round Culvert n=0.013 L=61.0' S=0.0164 '/' Outflow=4.00 cfs 0.320 af

Pond 32P: CB-20 Peak Elev=216.06' Inflow=0.90 cfs 0.073 af
12.0" Round Culvert n=0.013 L=12.0' S=0.0167 '/' Outflow=0.90 cfs 0.073 af

Pond 33P: DMH-17 Peak Elev=215.79' Inflow=1.29 cfs 0.099 af
12.0" Round Culvert n=0.013 L=180.0' S=0.0083 '/' Outflow=1.29 cfs 0.099 af

Pond 34P: CB-23 Peak Elev=215.96' Inflow=0.65 cfs 0.048 af
12.0" Round Culvert n=0.013 L=28.0' S=0.0107 '/' Outflow=0.65 cfs 0.048 af

Pond 35P: CB-24 Peak Elev=215.96' Inflow=0.64 cfs 0.052 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0150 '/' Outflow=0.64 cfs 0.052 af

Pond 37P: DMH-10 Peak Elev=218.71' Inflow=1.26 cfs 0.103 af
15.0" Round Culvert n=0.013 L=122.0' S=0.0295 '/' Outflow=1.26 cfs 0.103 af

Pond 38P: CB-15 Peak Elev=232.39' Inflow=0.12 cfs 0.010 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0333 '/' Outflow=0.12 cfs 0.010 af

Pond 39P: CB-16 Peak Elev=232.40' Inflow=0.13 cfs 0.011 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0333 '/' Outflow=0.13 cfs 0.011 af

Pond 52P: CB-17 Peak Elev=247.66' Inflow=0.23 cfs 0.019 af
12.0" Round Culvert n=0.013 L=18.0' S=0.0500 '/' Outflow=0.23 cfs 0.019 af

Pond 53P: CB-18 Peak Elev=247.66' Inflow=0.23 cfs 0.018 af
12.0" Round Culvert n=0.013 L=19.0' S=0.0474 '/' Outflow=0.23 cfs 0.018 af

Pond 54P: DMH-13 Peak Elev=246.78' Inflow=0.46 cfs 0.037 af
12.0" Round Culvert n=0.013 L=85.0' S=0.0753 '/' Outflow=0.46 cfs 0.037 af

Pond 56P: DMH-12 Peak Elev=240.28' Inflow=0.46 cfs 0.037 af
12.0" Round Culvert n=0.013 L=110.0' S=0.0745 '/' Outflow=0.46 cfs 0.037 af

Pond 58P: CB-13 Peak Elev=219.13' Inflow=0.17 cfs 0.014 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0467 '/' Outflow=0.17 cfs 0.014 af

Pond 61P: DMH-11 Peak Elev=232.09' Inflow=0.71 cfs 0.058 af
12.0" Round Culvert n=0.013 L=198.0' S=0.0677 '/' Outflow=0.71 cfs 0.058 af

Pond 62P: CB-14 Peak Elev=219.25' Inflow=0.39 cfs 0.031 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0467 '/' Outflow=0.39 cfs 0.031 af

Pond 63P: DMH-4 Peak Elev=219.26' Inflow=5.47 cfs 0.434 af
24.0" Round Culvert n=0.013 L=122.0' S=0.0295 '/' Outflow=5.47 cfs 0.434 af

Pond 65P: DMH-8 Peak Elev=215.63' Inflow=1.68 cfs 0.126 af
15.0" Round Culvert n=0.013 L=215.0' S=0.0028 '/' Outflow=1.68 cfs 0.126 af

Pond 66P: CB-6 Peak Elev=216.35' Inflow=0.38 cfs 0.031 af
12.0" Round Culvert n=0.013 L=24.0' S=0.0208 '/' Outflow=0.38 cfs 0.031 af

Pond 67P: CB-7 Peak Elev=216.28' Inflow=0.26 cfs 0.021 af
12.0" Round Culvert n=0.013 L=24.0' S=0.0208 '/' Outflow=0.26 cfs 0.021 af

Pond 68P: DMH-9 Peak Elev=216.24' Inflow=1.68 cfs 0.126 af
15.0" Round Culvert n=0.013 L=190.0' S=0.0026 '/' Outflow=1.68 cfs 0.126 af

Pond 69P: CB-11 Peak Elev=215.93' Inflow=0.30 cfs 0.025 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0067 '/' Outflow=0.30 cfs 0.025 af

Pond 70P: CB-12 Peak Elev=216.38' Inflow=1.38 cfs 0.101 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0067 '/' Outflow=1.38 cfs 0.101 af

Pond 71P: CB-8 Peak Elev=215.92' Inflow=0.50 cfs 0.040 af
12.0" Round Culvert n=0.013 L=32.0' S=0.0062 '/' Outflow=0.50 cfs 0.040 af

Pond 72P: CB-9 Peak Elev=215.91' Inflow=0.47 cfs 0.038 af
12.0" Round Culvert n=0.013 L=37.0' S=0.0054 '/' Outflow=0.47 cfs 0.038 af

Pond 73P: DMH-6 Peak Elev=215.83' Inflow=0.97 cfs 0.079 af
12.0" Round Culvert n=0.013 L=96.0' S=0.0042 '/' Outflow=0.97 cfs 0.079 af

Pond 77P: DMH-7 Peak Elev=216.22' Inflow=0.92 cfs 0.074 af
15.0" Round Culvert n=0.013 L=181.0' S=0.0050 '/' Outflow=0.92 cfs 0.074 af

Pond 78P: CB-19 Peak Elev=216.36' Inflow=0.35 cfs 0.028 af
12.0" Round Culvert n=0.013 L=49.0' S=0.0041 '/' Outflow=0.35 cfs 0.028 af

Pond 79P: CB-10 Peak Elev=216.44' Inflow=0.57 cfs 0.046 af
12.0" Round Culvert n=0.013 L=29.0' S=0.0069 '/' Outflow=0.57 cfs 0.046 af

Pond 80P: DMH-5 Peak Elev=215.47' Inflow=1.88 cfs 0.153 af
15.0" Round Culvert n=0.013 L=78.0' S=0.0064 '/' Outflow=1.88 cfs 0.153 af

Pond 81P: CB-5 Peak Elev=216.54' Inflow=0.67 cfs 0.049 af
12.0" Round Culvert n=0.013 L=31.0' S=0.0032 '/' Outflow=0.67 cfs 0.049 af

Pond 82P: DMH-3 Peak Elev=216.54' Inflow=0.67 cfs 0.049 af
12.0" Round Culvert n=0.013 L=31.0' S=0.0032 '/' Outflow=0.67 cfs 0.049 af

Link 20L: DP-A Inflow=3.17 cfs 0.559 af
Primary=3.17 cfs 0.559 af

Total Runoff Area = 30.660 ac Runoff Volume = 1.639 af Average Runoff Depth = 0.64"
75.28% Pervious = 23.079 ac 24.72% Impervious = 7.580 ac

Summary for Subcatchment 9S: APT. BLDG. A

Runoff = 1.16 cfs @ 12.09 hrs, Volume= 0.094 af, Depth= 2.77"

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
17,818	98	Roofs, HSG A
17,818		100.00% Impervious Area

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

Summary for Subcatchment 16S: APT. BLDG. B

Runoff = 1.16 cfs @ 12.09 hrs, Volume= 0.094 af, Depth= 2.77"

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
17,818	98	Roofs, HSG A
17,818		100.00% Impervious Area

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

Summary for Subcatchment 18S: APT. BLDG. C

Runoff = 1.16 cfs @ 12.09 hrs, Volume= 0.094 af, Depth= 2.77"

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
17,818	98	Roofs, HSG A
17,818		100.00% Impervious Area

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

Summary for Subcatchment 21S: A.1

Runoff = 0.00 cfs @ 23.51 hrs, Volume= 0.000 af, Depth= 0.00"

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
18,718	39	>75% Grass cover, Good, HSG A
291	30	Woods, Good, HSG A
95	98	Unconnected pavement, HSG A
1,091	98	Roofs, HSG A
20,195	42	Weighted Average
19,009		94.13% Pervious Area
1,186		5.87% Impervious Area
95		8.01% Unconnected

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

Summary for Subcatchment 22S: A.2

Runoff = 0.90 cfs @ 12.09 hrs, Volume= 0.073 af, Depth= 2.77"

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
12,935	98	Paved parking, HSG A
915	98	Roofs, HSG A
13,850	98	Weighted Average
13,850		100.00% 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 = 0.64 cfs @ 12.09 hrs, Volume= 0.052 af, Depth= 2.77"

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
9,767	98	Paved parking, HSG A
9,767		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 = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af, Depth= 2.77"

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
227	98	Paved parking, HSG A
5,114	98	Roofs, HSG A
5,341	98	Weighted Average
5,341		100.00% Impervious Area

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

Summary for Subcatchment 25S: A.5

Runoff = 1.46 cfs @ 12.09 hrs, Volume= 0.119 af, Depth= 2.77"

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
22,426	98	Paved parking, HSG A
22,426		100.00% Impervious Area

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

Summary for Subcatchment 26S: B.6

Runoff = 0.01 cfs @ 13.77 hrs, Volume= 0.007 af, Depth= 0.09"

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
31,146	39		>75% Grass cover, Good, HSG A
3,467	98		Unconnected pavement, HSG A
5,477	98		Roofs, HSG A
40,090	52	50	Weighted Average, UI Adjusted
31,146			77.69% Pervious Area
8,944			22.31% Impervious Area
3,467			38.76% Unconnected

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

Summary for Subcatchment 27S: A.6

Runoff = 0.65 cfs @ 12.09 hrs, Volume= 0.048 af, Depth= 1.98"

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
8,883	98	Paved parking, HSG A
1,619	39	>75% Grass cover, Good, HSG A
948	98	Unconnected pavement, HSG A
1,117	98	Roofs, HSG A
12,567	90	Weighted Average
1,619		12.88% Pervious Area
10,948		87.12% Impervious Area
948		8.66% Unconnected

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

Summary for Subcatchment 28S: B.1

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

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
30,559	39		>75% Grass cover, Good, HSG A
270	98		Unconnected pavement, HSG A
30,829	40	39	Weighted Average, UI Adjusted
30,559			99.12% Pervious Area
270			0.88% Impervious Area
270			100.00% Unconnected

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

Summary for Subcatchment 29S: B.2

Runoff = 0.64 cfs @ 12.09 hrs, Volume= 0.047 af, Depth= 1.82"

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
2,173	39	>75% Grass cover, Good, HSG A
1,997	98	Unconnected pavement, HSG A
9,211	98	Paved parking, HSG A
13,381	88	Weighted Average
2,173		16.24% Pervious Area
11,208		83.76% Impervious Area
1,997		17.82% 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 = 1.04 cfs @ 12.09 hrs, Volume= 0.080 af, Depth= 2.45"

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
731	39	>75% Grass cover, Good, HSG A
2,575	98	Unconnected pavement, HSG A
13,754	98	Paved parking, HSG A
17,060	95	Weighted Average
731		4.28% Pervious Area
16,329		95.72% Impervious Area
2,575		15.77% 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 = 1.04 cfs @ 12.09 hrs, Volume= 0.080 af, Depth= 2.45"

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
731	39	>75% Grass cover, Good, HSG A
2,575	98	Unconnected pavement, HSG A
13,754	98	Paved parking, HSG A
17,060	95	Weighted Average
731		4.28% Pervious Area
16,329		95.72% Impervious Area
2,575		15.77% Unconnected

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

Summary for Subcatchment 32S: B.5

Runoff = 0.76 cfs @ 12.10 hrs, Volume= 0.056 af, Depth= 1.19"

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
8,616	98	Paved parking, HSG A
8,034	39	>75% Grass cover, Good, HSG A
1,324	98	Unconnected pavement, HSG A
6,653	98	Roofs, HSG A
24,627	79	Weighted Average
8,034		32.62% Pervious Area
16,593		67.38% Impervious Area
1,324		7.98% Unconnected

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

Summary for Subcatchment 33S: B.7

Runoff = 0.33 cfs @ 12.74 hrs, Volume= 0.108 af, Depth= 0.19"

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
129,407	39	>75% Grass cover, Good, HSG A
97,286	74	>75% Grass cover, Good, HSG C
9,046	80	>75% Grass cover, Good, HSG D
27,194	30	Woods, Good, HSG A
15,779	70	Woods, Good, HSG C
4,399	77	Woods, Good, HSG D
1,606	98	Unconnected pavement, HSG A
319	98	Unconnected pavement, HSG C
5,475	98	Roofs, HSG A
290,511	55	Weighted Average
283,111		97.45% Pervious Area
7,400		2.55% Impervious Area
1,925		26.01% Unconnected

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

Summary for Subcatchment 34S: B.8

Runoff = 0.67 cfs @ 12.09 hrs, Volume= 0.049 af, Depth= 2.07"

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
9,724	98	Paved parking, HSG A
1,396	39	>75% Grass cover, Good, HSG A
1,364	98	Unconnected pavement, HSG A
12,484	91	Weighted Average
1,396		11.18% Pervious Area
11,088		88.82% Impervious Area
1,364		12.30% 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 = 0.58 cfs @ 12.51 hrs, Volume= 0.124 af, Depth= 0.27"

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
128,543	39		>75% Grass cover, Good, HSG A
69,229	80		>75% Grass cover, Good, HSG D
16,469	77		Woods, Good, HSG D
14,141	98		Unconnected pavement, HSG A
7,926	98		Roofs, HSG A
236,308	59	58	Weighted Average, UI Adjusted
214,241			90.66% Pervious Area
22,067			9.34% Impervious Area
14,141			64.08% 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 = 1.08 cfs @ 12.09 hrs, Volume= 0.078 af, Depth= 1.82"

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
12,989	98	Paved parking, HSG A
3,687	39	>75% Grass cover, Good, HSG A
2,989	98	Unconnected pavement, HSG A
2,851	98	Roofs, HSG A
22,516	88	Weighted Average
3,687		16.38% Pervious Area
18,829		83.62% Impervious Area
2,989		15.87% 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 = 0.30 cfs @ 12.10 hrs, Volume= 0.023 af, Depth= 0.96"

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
5,266	98	Paved parking, HSG A
4,754	39	>75% Grass cover, Good, HSG A
509	98	Roofs, HSG A
1,900	98	Roofs, HSG A
12,429	75	Weighted Average
4,754		38.25% Pervious Area
7,675		61.75% Impervious Area

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

Summary for Subcatchment 38S: C.4

Runoff = 0.30 cfs @ 12.09 hrs, Volume= 0.025 af, Depth= 2.77"

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
4,655	98	Paved parking, HSG A
4,655		100.00% Impervious Area

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

Summary for Subcatchment 39S: C.5

Runoff = 0.38 cfs @ 12.09 hrs, Volume= 0.031 af, Depth= 2.77"

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
4,080	98	Paved parking, HSG A
1,777	98	Unconnected pavement, HSG A
5,857	98	Weighted Average
5,857		100.00% Impervious Area
1,777		30.34% 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 = 0.26 cfs @ 12.09 hrs, Volume= 0.021 af, Depth= 2.77"

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
4,047	98	Paved parking, HSG A
4,047		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 = 0.47 cfs @ 12.09 hrs, Volume= 0.038 af, Depth= 2.77"

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
6,072	98	Paved parking, HSG A
1,116	98	Roofs, HSG A
7,188	98	Weighted Average
7,188		100.00% Impervious Area

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

Summary for Subcatchment 42S: C.8

Runoff = 0.50 cfs @ 12.09 hrs, Volume= 0.040 af, Depth= 2.77"

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
7,639	98	Paved parking, HSG A
7,639		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 = 0.57 cfs @ 12.09 hrs, Volume= 0.046 af, Depth= 2.77"

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
8,732	98	Paved parking, HSG A
8,732		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 = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af, Depth= 2.77"

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
5,326	98	Paved parking, HSG A
5,326		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 = 0.17 cfs @ 12.09 hrs, Volume= 0.014 af, Depth= 2.77"

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
1,483	98	Paved parking, HSG A
946	98	Paved parking, HSG D
126	98	Unconnected pavement, HSG A
76	98	Unconnected pavement, HSG D
2,631	98	Weighted Average
2,631		100.00% Impervious Area
202		7.68% Unconnected

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

Summary for Subcatchment 46S: C.12

Runoff = 0.39 cfs @ 12.09 hrs, Volume= 0.031 af, Depth= 2.77"

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
2,144	98	Paved parking, HSG A
2,121	98	Paved parking, HSG D
853	98	Unconnected pavement, HSG A
696	98	Unconnected pavement, HSG D
96	98	Roofs, HSG A
5,910	98	Weighted Average
5,910		100.00% Impervious Area
1,549		26.21% Unconnected

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

Summary for Subcatchment 47S: C.13

Runoff = 0.13 cfs @ 12.09 hrs, Volume= 0.011 af, Depth= 2.77"

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
1,832	98	Paved parking, HSG D
155	98	Unconnected pavement, HSG D
1,987	98	Weighted Average
1,987		100.00% Impervious Area
155		7.80% Unconnected

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

Summary for Subcatchment 48S: C.14

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Depth= 2.77"

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
1,744	98	Paved parking, HSG D
141	98	Unconnected pavement, HSG D
1,885	98	Weighted Average
1,885		100.00% Impervious Area
141		7.48% Unconnected

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

Summary for Subcatchment 49S: C.15

Runoff = 0.23 cfs @ 12.09 hrs, Volume= 0.018 af, Depth= 2.77"

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
3,220	98	Paved parking, HSG D
267	98	Unconnected pavement, HSG D
3,487	98	Weighted Average
3,487		100.00% Impervious Area
267		7.66% Unconnected

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

Summary for Subcatchment 50S: C.16

Runoff = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af, Depth= 2.77"

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
3,238	98	Paved parking, HSG D
270	98	Unconnected pavement, HSG D
3,508	98	Weighted Average
3,508		100.00% Impervious Area
270		7.70% Unconnected

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

Summary for Subcatchment 51S: D.1

Runoff = 0.00 cfs @ 24.03 hrs, Volume= 0.001 af, Depth= 0.00"

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
1,527	98	Unconnected pavement, HSG A
182,934	39	>75% Grass cover, Good, HSG A
518	61	>75% Grass cover, Good, HSG B
51,440	80	>75% Grass cover, Good, HSG D
160,796	30	Woods, Good, HSG A
5,106	55	Woods, Good, HSG B
450	77	Woods, Good, HSG D
402,771	41	Weighted Average
401,244		99.62% Pervious Area
1,527		0.38% Impervious Area
1,527		100.00% Unconnected

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

Summary for Subcatchment 52S: B.9

Runoff = 0.69 cfs @ 12.09 hrs, Volume= 0.050 af, Depth= 1.74"

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
10,973	98	Paved parking, HSG A
2,895	39	>75% Grass cover, Good, HSG A
1,150	98	Unconnected pavement, HSG A
15,018	87	Weighted Average
2,895		19.28% Pervious Area
12,123		80.72% Impervious Area
1,150		9.49% Unconnected

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

Summary for Pond 4P: Infiltration Basin #2

Inflow Area = 1.932 ac, 75.49% Impervious, Inflow Depth = 1.99" for 2-yr event
Inflow = 4.00 cfs @ 12.09 hrs, Volume= 0.320 af
Outflow = 0.55 cfs @ 12.62 hrs, Volume= 0.320 af, Atten= 86%, Lag= 31.7 min
Discarded = 0.55 cfs @ 12.62 hrs, Volume= 0.320 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 213.15' @ 12.62 hrs Surf.Area= 7,596 sf Storage= 4,645 cf

Plug-Flow detention time= 65.3 min calculated for 0.320 af (100% of inflow)
Center-of-Mass det. time= 65.3 min (831.0 - 765.7)

Volume	Invert	Avail.Storage	Storage Description
#1	212.50'	32,065 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	6,645	342.0	0	0	6,645
214.00	8,926	397.0	11,636	11,636	9,927
216.00	11,559	453.0	20,428	32,065	13,809

Device	Routing	Invert	Outlet Devices
#1	Discarded	212.50'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 210.40'
#2	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

Discarded OutFlow Max=0.55 cfs @ 12.62 hrs HW=213.15' (Free Discharge)
└**1=Exfiltration** (Controls 0.55 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=212.50' (Free Discharge)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 5P: Wet Basin

Inflow Area = 7.670 ac, 33.35% Impervious, Inflow Depth = 0.87" for 2-yr event
Inflow = 5.48 cfs @ 12.09 hrs, Volume= 0.558 af
Outflow = 3.17 cfs @ 12.22 hrs, Volume= 0.558 af, Atten= 42%, Lag= 8.0 min
Primary = 3.17 cfs @ 12.22 hrs, Volume= 0.558 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 214.39' @ 12.22 hrs Surf.Area= 10,391 sf Storage= 3,778 cf

Plug-Flow detention time= 33.8 min calculated for 0.557 af (100% of inflow)
Center-of-Mass det. time= 33.9 min (848.6 - 814.7)

Volume	Invert	Avail.Storage	Storage Description
#1	214.00'	103,930 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	20,207	375.0	36,350	61,425	15,359
220.00	22,316	390.0	42,506	103,930	16,550

Device	Routing	Invert	Outlet Devices
#1	Primary	213.43'	**24.0" Round Culvert** L= 580.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 213.43' / 211.63' S= 0.0031 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	214.00'	**45.0 deg x 4.0' long Sharp-Crested Vee/Trap Weir**

			Cv= 2.56 (C= 3.20)
#3	Device 1	215.50'	**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=3.15 cfs @ 12.22 hrs HW=214.38' (Free Discharge)
└**1=Culvert** (Passes 3.15 cfs of 3.36 cfs potential flow)
└**2=Sharp-Crested Vee/Trap Weir** (Weir Controls 3.15 cfs @ 1.97 fps)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 7P: Infiltration Basin #1

Inflow Area = 10.584 ac, 21.75% Impervious, Inflow Depth = 0.54" for 2-yr event
Inflow = 4.84 cfs @ 12.09 hrs, Volume= 0.477 af
Outflow = 0.83 cfs @ 12.89 hrs, Volume= 0.477 af, Atten= 83%, Lag= 48.1 min
Discarded = 0.83 cfs @ 12.89 hrs, Volume= 0.477 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.24' @ 12.89 hrs Surf.Area= 12,406 sf Storage= 5,097 cf

Plug-Flow detention time= 48.8 min calculated for 0.477 af (100% of inflow)
Center-of-Mass det. time= 48.8 min (900.5 - 851.7)

Volume	Invert	Avail.Storage	Storage Description
#1	214.80'	15,542 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	10,430	800.0	0	0	10,430
215.00	11,580	1,000.0	2,200	2,200	39,078
216.00	15,185	1,210.0	13,342	15,542	76,027

Device	Routing	Invert	Outlet Devices
#1	Primary	215.30'	**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	Discarded	214.80'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 212.80'

Discarded OutFlow Max=0.83 cfs @ 12.89 hrs HW=215.24' (Free Discharge)
└**2=Exfiltration** (Controls 0.83 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=214.80' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 12P: STONE RECHARGE TRENCH

Inflow Area = 0.409 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 1.16 cfs @ 12.09 hrs, Volume= 0.094 af
Outflow = 0.15 cfs @ 12.62 hrs, Volume= 0.094 af, Atten= 87%, Lag= 31.9 min
Discarded = 0.15 cfs @ 12.62 hrs, Volume= 0.094 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 220.30' @ 12.62 hrs Surf.Area= 2,427 sf Storage= 1,261 cf

Plug-Flow detention time= 52.7 min calculated for 0.094 af (100% of inflow)
Center-of-Mass det. time= 52.6 min (810.4 - 757.8)

Volume	Invert	Avail.Storage	Storage Description
#1	219.00'	1,942 cf	**3.00'W x 809.00'L x 2.00'H Prismatoid** 4,854 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Primary	221.00'	**809.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	219.00'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 210.00'

Discarded OutFlow Max=0.15 cfs @ 12.62 hrs HW=220.30' (Free Discharge)
↑**2=Exfiltration** (Controls 0.15 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=219.00' (Free Discharge)
↑**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 17P: STONE RECHARGE TRENCH

Inflow Area = 0.409 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 1.16 cfs @ 12.09 hrs, Volume= 0.094 af
Outflow = 0.15 cfs @ 12.62 hrs, Volume= 0.094 af, Atten= 87%, Lag= 31.9 min
Discarded = 0.15 cfs @ 12.62 hrs, Volume= 0.094 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 220.30' @ 12.62 hrs Surf.Area= 2,427 sf Storage= 1,261 cf

Plug-Flow detention time= 52.7 min calculated for 0.094 af (100% of inflow)
Center-of-Mass det. time= 52.6 min (810.4 - 757.8)

Volume	Invert	Avail.Storage	Storage Description
#1	219.00'	1,942 cf	**3.00'W x 809.00'L x 2.00'H Prismatoid** 4,854 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Primary	221.00'	**809.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	219.00'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 210.00'

Discarded OutFlow Max=0.15 cfs @ 12.62 hrs HW=220.30' (Free Discharge)
↑**2=Exfiltration** (Controls 0.15 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=219.00' (Free Discharge)
↑**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 19P: STONE RECHARGE TRENCH

Inflow Area = 0.409 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 1.16 cfs @ 12.09 hrs, Volume= 0.094 af
Outflow = 0.15 cfs @ 12.62 hrs, Volume= 0.094 af, Atten= 87%, Lag= 31.9 min
Discarded = 0.15 cfs @ 12.62 hrs, Volume= 0.094 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 220.30' @ 12.62 hrs Surf.Area= 2,427 sf Storage= 1,261 cf

Plug-Flow detention time= 52.7 min calculated for 0.094 af (100% of inflow)
Center-of-Mass det. time= 52.6 min (810.4 - 757.8)

Volume	Invert	Avail.Storage	Storage Description
#1	219.00'	1,942 cf	**3.00'W x 809.00'L x 2.00'H Prismatoid** 4,854 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Primary	221.00'	**809.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	219.00'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 210.00'

Discarded OutFlow Max=0.15 cfs @ 12.62 hrs HW=220.30' (Free Discharge)
↑**2=Exfiltration** (Controls 0.15 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=219.00' (Free Discharge)
↑**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 21P: CB-4

Inflow Area = 0.345 ac, 80.72% Impervious, Inflow Depth = 1.74" for 2-yr event
Inflow = 0.69 cfs @ 12.09 hrs, Volume= 0.050 af
Outflow = 0.69 cfs @ 12.09 hrs, Volume= 0.050 af, Atten= 0%, Lag= 0.0 min
Primary = 0.69 cfs @ 12.09 hrs, Volume= 0.050 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.01' @ 12.09 hrs
Flood Elev= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 37.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0054 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.68 cfs @ 12.09 hrs HW=216.00' (Free Discharge)
1=Culvert (Barrel Controls 0.68 cfs @ 2.48 fps)

Summary for Pond 22P: DMH-2

Inflow Area = 0.631 ac, 84.40% Impervious, Inflow Depth = 1.89" for 2-yr event
Inflow = 1.36 cfs @ 12.09 hrs, Volume= 0.099 af
Outflow = 1.36 cfs @ 12.09 hrs, Volume= 0.099 af, Atten= 0%, Lag= 0.0 min
Primary = 1.36 cfs @ 12.09 hrs, Volume= 0.099 af

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= 218.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.30'	**12.0" Round Culvert** L= 101.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.30' / 214.80' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.33 cfs @ 12.09 hrs HW=216.03' (Free Discharge)
1=Culvert (Barrel Controls 1.33 cfs @ 3.01 fps)

Summary for Pond 23P: CB-1

Inflow Area = 0.307 ac, 83.76% Impervious, Inflow Depth = 1.82" 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

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= 218.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.60'	**12.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.60' / 215.40' S= 0.0074 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.63 cfs @ 12.09 hrs HW=216.07' (Free Discharge)
1=Culvert (Barrel Controls 0.63 cfs @ 2.57 fps)

Summary for Pond 24P: CB-2

Inflow Area = 0.392 ac, 95.72% Impervious, Inflow Depth = 2.45" for 2-yr event
Inflow = 1.04 cfs @ 12.09 hrs, Volume= 0.080 af
Outflow = 1.04 cfs @ 12.09 hrs, Volume= 0.080 af, Atten= 0%, Lag= 0.0 min
Primary = 1.04 cfs @ 12.09 hrs, Volume= 0.080 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.81' @ 12.09 hrs
Flood Elev= 219.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.20'	**12.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.20' / 215.40' S= 0.0400 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.02 cfs @ 12.09 hrs HW=216.80' (Free Discharge)
1=Culvert (Inlet Controls 1.02 cfs @ 2.08 fps)

Summary for Pond 25P: CB-3

Inflow Area = 0.565 ac, 67.38% Impervious, Inflow Depth = 1.19" for 2-yr event
Inflow = 0.76 cfs @ 12.10 hrs, Volume= 0.056 af
Outflow = 0.76 cfs @ 12.10 hrs, Volume= 0.056 af, Atten= 0%, Lag= 0.0 min
Primary = 0.76 cfs @ 12.10 hrs, Volume= 0.056 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.00' @ 12.10 hrs
Flood Elev= 219.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.50'	**12.0" Round Culvert** L= 38.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.50' / 215.40' S= 0.0289 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.75 cfs @ 12.10 hrs HW=217.00' (Free Discharge)
1=Culvert (Inlet Controls 0.75 cfs @ 1.90 fps)

Summary for Pond 26P: DMH-1

Inflow Area = 1.264 ac, 80.14% Impervious, Inflow Depth = 1.73" for 2-yr event
Inflow = 2.44 cfs @ 12.09 hrs, Volume= 0.182 af
Outflow = 2.44 cfs @ 12.09 hrs, Volume= 0.182 af, Atten= 0%, Lag= 0.0 min
Primary = 2.44 cfs @ 12.09 hrs, Volume= 0.182 af

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= 218.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.30'	**18.0" Round Culvert** L= 48.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.30' / 214.80' S= 0.0104 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=2.39 cfs @ 12.09 hrs HW=216.12' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.39 cfs @ 2.43 fps)

Summary for Pond 27P: CB-22

Inflow Area = 0.515 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 1.46 cfs @ 12.09 hrs, Volume= 0.119 af
Outflow = 1.46 cfs @ 12.09 hrs, Volume= 0.119 af, Atten= 0%, Lag= 0.0 min
Primary = 1.46 cfs @ 12.09 hrs, Volume= 0.119 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.33' @ 12.09 hrs
Flood Elev= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 51.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0039 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.42 cfs @ 12.09 hrs HW=216.32' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.42 cfs @ 2.82 fps)

Summary for Pond 28P: DMH-16

Inflow Area = 0.515 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 1.46 cfs @ 12.09 hrs, Volume= 0.119 af
Outflow = 1.46 cfs @ 12.09 hrs, Volume= 0.119 af, Atten= 0%, Lag= 0.0 min
Primary = 1.46 cfs @ 12.09 hrs, Volume= 0.119 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.02' @ 12.09 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.20'	**12.0" Round Culvert** L= 160.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.20' / 214.60' S= 0.0037 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.42 cfs @ 12.09 hrs HW=216.00' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.42 cfs @ 2.87 fps)

Summary for Pond 29P: CB-21

Inflow Area = 0.123 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af
Outflow = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af, Atten= 0%, Lag= 0.0 min
Primary = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.53' @ 12.09 hrs
Flood Elev= 219.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.20'	**12.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.20' / 215.70' S= 0.0192 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.34 cfs @ 12.09 hrs HW=216.52' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.34 cfs @ 1.53 fps)

Summary for Pond 30P: DMH-15

Inflow Area = 0.637 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 1.81 cfs @ 12.09 hrs, Volume= 0.147 af
Outflow = 1.81 cfs @ 12.09 hrs, Volume= 0.147 af, Atten= 0%, Lag= 0.0 min
Primary = 1.81 cfs @ 12.09 hrs, Volume= 0.147 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.32' @ 12.09 hrs
Flood Elev= 219.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.50'	**15.0" Round Culvert** L= 250.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.50' / 213.60' S= 0.0036 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=1.76 cfs @ 12.09 hrs HW=215.31' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.76 cfs @ 3.00 fps)

Summary for Pond 31P: DMH-14

Inflow Area = 1.468 ac, 97.47% Impervious, Inflow Depth = 2.61" for 2-yr event
Inflow = 4.00 cfs @ 12.09 hrs, Volume= 0.320 af
Outflow = 4.00 cfs @ 12.09 hrs, Volume= 0.320 af, Atten= 0%, Lag= 0.0 min
Primary = 4.00 cfs @ 12.09 hrs, Volume= 0.320 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 214.62' @ 12.09 hrs
Flood Elev= 218.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	213.50'	**18.0" Round Culvert** L= 61.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 213.50' / 212.50' S= 0.0164 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=3.90 cfs @ 12.09 hrs HW=214.60' (Free Discharge)
└**1=Culvert** (Inlet Controls 3.90 cfs @ 2.81 fps)

Summary for Pond 32P: CB-20

Inflow Area = 0.318 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.90 cfs @ 12.09 hrs, Volume= 0.073 af
Outflow = 0.90 cfs @ 12.09 hrs, Volume= 0.073 af, Atten= 0%, Lag= 0.0 min
Primary = 0.90 cfs @ 12.09 hrs, Volume= 0.073 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.06' @ 12.09 hrs
Flood Elev= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 12.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0167 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.88 cfs @ 12.09 hrs HW=216.05' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.88 cfs @ 1.99 fps)

Summary for Pond 33P: DMH-17

Inflow Area = 0.513 ac, 92.75% Impervious, Inflow Depth = 2.33" for 2-yr event
Inflow = 1.29 cfs @ 12.09 hrs, Volume= 0.099 af
Outflow = 1.29 cfs @ 12.09 hrs, Volume= 0.099 af, Atten= 0%, Lag= 0.0 min
Primary = 1.29 cfs @ 12.09 hrs, Volume= 0.099 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.79' @ 12.09 hrs
Flood Elev= 218.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.10'	**12.0" Round Culvert** L= 180.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.10' / 213.60' S= 0.0083 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.26 cfs @ 12.09 hrs HW=215.78' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.26 cfs @ 2.21 fps)

Summary for Pond 34P: CB-23

Inflow Area = 0.288 ac, 87.12% Impervious, Inflow Depth = 1.98" for 2-yr event
Inflow = 0.65 cfs @ 12.09 hrs, Volume= 0.048 af
Outflow = 0.65 cfs @ 12.09 hrs, Volume= 0.048 af, Atten= 0%, Lag= 0.0 min
Primary = 0.65 cfs @ 12.09 hrs, Volume= 0.048 af

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= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.20' S= 0.0107 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.64 cfs @ 12.09 hrs HW=215.96' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.64 cfs @ 1.82 fps)

Summary for Pond 35P: CB-24

Inflow Area = 0.224 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.64 cfs @ 12.09 hrs, Volume= 0.052 af
Outflow = 0.64 cfs @ 12.09 hrs, Volume= 0.052 af, Atten= 0%, Lag= 0.0 min
Primary = 0.64 cfs @ 12.09 hrs, Volume= 0.052 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.96' @ 12.09 hrs
Flood Elev= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.20' S= 0.0150 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.62 cfs @ 12.09 hrs HW=215.95' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.62 cfs @ 1.80 fps)

Summary for Pond 37P: DMH-10

Inflow Area = 0.446 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 1.26 cfs @ 12.09 hrs, Volume= 0.103 af
Outflow = 1.26 cfs @ 12.09 hrs, Volume= 0.103 af, Atten= 0%, Lag= 0.0 min
Primary = 1.26 cfs @ 12.09 hrs, Volume= 0.103 af

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= 222.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.10'	**15.0" Round Culvert** L= 122.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.10' / 214.50' S= 0.0295 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=1.23 cfs @ 12.09 hrs HW=218.70' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.23 cfs @ 2.09 fps)

Summary for Pond 38P: CB-15

Inflow Area = 0.043 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af
Outflow = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min
Primary = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 232.39' @ 12.09 hrs
Flood Elev= 236.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	232.20'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 232.20' / 231.70' S= 0.0333 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.12 cfs @ 12.09 hrs HW=232.39' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.12 cfs @ 1.16 fps)

Summary for Pond 39P: CB-16

Inflow Area = 0.046 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.13 cfs @ 12.09 hrs, Volume= 0.011 af
Outflow = 0.13 cfs @ 12.09 hrs, Volume= 0.011 af, Atten= 0%, Lag= 0.0 min
Primary = 0.13 cfs @ 12.09 hrs, Volume= 0.011 af

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= 236.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	232.20'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 232.20' / 231.70' S= 0.0333 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.13 cfs @ 12.09 hrs HW=232.39' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.13 cfs @ 1.18 fps)

Summary for Pond 52P: CB-17

Inflow Area = 0.081 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af
Outflow = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min
Primary = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 247.66' @ 12.09 hrs
Flood Elev= 251.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	247.40'	**12.0" Round Culvert** L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 247.40' / 246.50' S= 0.0500 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.22 cfs @ 12.09 hrs HW=247.66' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.22 cfs @ 1.37 fps)

Summary for Pond 53P: CB-18

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.23 cfs @ 12.09 hrs, Volume= 0.018 af
Outflow = 0.23 cfs @ 12.09 hrs, Volume= 0.018 af, Atten= 0%, Lag= 0.0 min
Primary = 0.23 cfs @ 12.09 hrs, Volume= 0.018 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 247.66' @ 12.09 hrs
Flood Elev= 251.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	247.40'	**12.0" Round Culvert** L= 19.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 247.40' / 246.50' S= 0.0474 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.22 cfs @ 12.09 hrs HW=247.66' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.22 cfs @ 1.37 fps)

Summary for Pond 54P: DMH-13

Inflow Area = 0.161 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.46 cfs @ 12.09 hrs, Volume= 0.037 af
Outflow = 0.46 cfs @ 12.09 hrs, Volume= 0.037 af, Atten= 0%, Lag= 0.0 min
Primary = 0.46 cfs @ 12.09 hrs, Volume= 0.037 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 246.78' @ 12.09 hrs
Flood Elev= 250.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	246.40'	**12.0" Round Culvert** L= 85.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 246.40' / 240.00' S= 0.0753 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.44 cfs @ 12.09 hrs HW=246.78' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.44 cfs @ 1.65 fps)

Summary for Pond 56P: DMH-12

Inflow Area = 0.161 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.46 cfs @ 12.09 hrs, Volume= 0.037 af
Outflow = 0.46 cfs @ 12.09 hrs, Volume= 0.037 af, Atten= 0%, Lag= 0.0 min
Primary = 0.46 cfs @ 12.09 hrs, Volume= 0.037 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 240.28' @ 12.09 hrs
Flood Elev= 244.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	239.90'	**12.0" Round Culvert** L= 110.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 239.90' / 231.70' S= 0.0745 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.44 cfs @ 12.09 hrs HW=240.28' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.44 cfs @ 1.65 fps)

Summary for Pond 58P: CB-13

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

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 219.13' @ 12.09 hrs
Flood Elev= 221.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.90'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.90' / 218.20' S= 0.0467 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.17 cfs @ 12.09 hrs HW=219.12' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.17 cfs @ 1.27 fps)

Summary for Pond 61P: DMH-11

Inflow Area = 0.249 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.71 cfs @ 12.09 hrs, Volume= 0.058 af
Outflow = 0.71 cfs @ 12.09 hrs, Volume= 0.058 af, Atten= 0%, Lag= 0.0 min
Primary = 0.71 cfs @ 12.09 hrs, Volume= 0.058 af

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= 235.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	231.60'	**12.0" Round Culvert** L= 198.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 231.60' / 218.20' S= 0.0677 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.69 cfs @ 12.09 hrs HW=232.08' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.69 cfs @ 1.86 fps)

Summary for Pond 62P: CB-14

Inflow Area = 0.136 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.39 cfs @ 12.09 hrs, Volume= 0.031 af
Outflow = 0.39 cfs @ 12.09 hrs, Volume= 0.031 af, Atten= 0%, Lag= 0.0 min
Primary = 0.39 cfs @ 12.09 hrs, Volume= 0.031 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 219.25' @ 12.09 hrs
Flood Elev= 221.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.90'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.90' / 218.20' S= 0.0467 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.37 cfs @ 12.09 hrs HW=219.24' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.37 cfs @ 1.57 fps)

Summary for Pond 63P: DMH-4

Inflow Area = 2.245 ac, 91.37% Impervious, Inflow Depth = 2.32" for 2-yr event
Inflow = 5.47 cfs @ 12.09 hrs, Volume= 0.434 af
Outflow = 5.47 cfs @ 12.09 hrs, Volume= 0.434 af, Atten= 0%, Lag= 0.0 min
Primary = 5.47 cfs @ 12.09 hrs, Volume= 0.434 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 219.26' @ 12.09 hrs
Flood Elev= 222.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.10'	**24.0" Round Culvert** L= 122.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.10' / 214.50' S= 0.0295 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf

Primary OutFlow Max=5.33 cfs @ 12.09 hrs HW=219.24' (Free Discharge)
└**1=Culvert** (Inlet Controls 5.33 cfs @ 2.87 fps)

Summary for Pond 65P: DMH-8

Inflow Area = 0.909 ac, 78.68% Impervious, Inflow Depth = 1.66" for 2-yr event
Inflow = 1.68 cfs @ 12.09 hrs, Volume= 0.126 af
Outflow = 1.68 cfs @ 12.09 hrs, Volume= 0.126 af, Atten= 0%, Lag= 0.0 min
Primary = 1.68 cfs @ 12.09 hrs, Volume= 0.126 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.63' @ 12.09 hrs
Flood Elev= 220.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.80'	**15.0" Round Culvert** L= 215.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.80' / 214.20' S= 0.0028 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=1.65 cfs @ 12.09 hrs HW=215.62' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.65 cfs @ 2.73 fps)

Summary for Pond 66P: CB-6

Inflow Area = 0.134 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.38 cfs @ 12.09 hrs, Volume= 0.031 af
Outflow = 0.38 cfs @ 12.09 hrs, Volume= 0.031 af, Atten= 0%, Lag= 0.0 min
Primary = 0.38 cfs @ 12.09 hrs, Volume= 0.031 af

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= 219.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.50' S= 0.0208 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.37 cfs @ 12.09 hrs HW=216.34' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.37 cfs @ 1.57 fps)

Summary for Pond 67P: CB-7

Inflow Area = 0.093 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.26 cfs @ 12.09 hrs, Volume= 0.021 af
Outflow = 0.26 cfs @ 12.09 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.0 min
Primary = 0.26 cfs @ 12.09 hrs, Volume= 0.021 af

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= 219.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.50' S= 0.0208 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.26 cfs @ 12.09 hrs HW=216.28' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.26 cfs @ 1.42 fps)

Summary for Pond 68P: DMH-9

Inflow Area = 0.909 ac, 78.68% Impervious, Inflow Depth = 1.66" for 2-yr event
Inflow = 1.68 cfs @ 12.09 hrs, Volume= 0.126 af
Outflow = 1.68 cfs @ 12.09 hrs, Volume= 0.126 af, Atten= 0%, Lag= 0.0 min
Primary = 1.68 cfs @ 12.09 hrs, Volume= 0.126 af

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	215.40'	**15.0" Round Culvert** L= 190.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.40' / 214.90' S= 0.0026 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=1.65 cfs @ 12.09 hrs HW=216.23' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.65 cfs @ 2.68 fps)

Summary for Pond 69P: CB-11

Inflow Area = 0.107 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-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

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= 218.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.60'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.60' / 215.50' S= 0.0067 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.29 cfs @ 12.09 hrs HW=215.92' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.29 cfs @ 2.01 fps)

Summary for Pond 70P: CB-12

Inflow Area = 0.802 ac, 75.84% Impervious, Inflow Depth = 1.51" for 2-yr event
Inflow = 1.38 cfs @ 12.09 hrs, Volume= 0.101 af
Outflow = 1.38 cfs @ 12.09 hrs, Volume= 0.101 af, Atten= 0%, Lag= 0.0 min
Primary = 1.38 cfs @ 12.09 hrs, Volume= 0.101 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.38' @ 12.09 hrs
Flood Elev= 218.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.60'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.60' / 215.50' S= 0.0067 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.35 cfs @ 12.09 hrs HW=216.38' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.35 cfs @ 2.86 fps)

Summary for Pond 71P: CB-8

Inflow Area = 0.175 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.50 cfs @ 12.09 hrs, Volume= 0.040 af
Outflow = 0.50 cfs @ 12.09 hrs, Volume= 0.040 af, Atten= 0%, Lag= 0.0 min
Primary = 0.50 cfs @ 12.09 hrs, Volume= 0.040 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.92' @ 12.09 hrs
Flood Elev= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 32.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0062 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.48 cfs @ 12.09 hrs HW=215.91' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.48 cfs @ 2.35 fps)

Summary for Pond 72P: CB-9

Inflow Area = 0.165 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.47 cfs @ 12.09 hrs, Volume= 0.038 af
Outflow = 0.47 cfs @ 12.09 hrs, Volume= 0.038 af, Atten= 0%, Lag= 0.0 min
Primary = 0.47 cfs @ 12.09 hrs, Volume= 0.038 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.91' @ 12.09 hrs
Flood Elev= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 37.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0054 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.46 cfs @ 12.09 hrs HW=215.91' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.46 cfs @ 2.26 fps)

Summary for Pond 73P: DMH-6

Inflow Area = 0.340 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.97 cfs @ 12.09 hrs, Volume= 0.079 af
Outflow = 0.97 cfs @ 12.09 hrs, Volume= 0.079 af, Atten= 0%, Lag= 0.0 min
Primary = 0.97 cfs @ 12.09 hrs, Volume= 0.079 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.83' @ 12.09 hrs
Flood Elev= 219.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.20'	**12.0" Round Culvert** L= 96.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.20' / 214.80' S= 0.0042 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.94 cfs @ 12.09 hrs HW=215.82' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.94 cfs @ 2.64 fps)

Summary for Pond 77P: DMH-7

Inflow Area = 0.323 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.92 cfs @ 12.09 hrs, Volume= 0.074 af
Outflow = 0.92 cfs @ 12.09 hrs, Volume= 0.074 af, Atten= 0%, Lag= 0.0 min
Primary = 0.92 cfs @ 12.09 hrs, Volume= 0.074 af

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= 220.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**15.0" Round Culvert** L= 181.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.70' / 214.80' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=0.89 cfs @ 12.09 hrs HW=216.21' (Free Discharge)
1=Culvert (Barrel Controls 0.89 cfs @ 2.76 fps)

Summary for Pond 78P: CB-19

Inflow Area = 0.122 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af
Outflow = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af, Atten= 0%, Lag= 0.0 min
Primary = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af

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= 219.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 49.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.80' S= 0.0041 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.34 cfs @ 12.09 hrs HW=216.36' (Free Discharge)
1=Culvert (Barrel Controls 0.34 cfs @ 1.98 fps)

Summary for Pond 79P: CB-10

Inflow Area = 0.200 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.57 cfs @ 12.09 hrs, Volume= 0.046 af
Outflow = 0.57 cfs @ 12.09 hrs, Volume= 0.046 af, Atten= 0%, Lag= 0.0 min
Primary = 0.57 cfs @ 12.09 hrs, Volume= 0.046 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.44' @ 12.09 hrs
Flood Elev= 219.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 29.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.80' S= 0.0069 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.55 cfs @ 12.09 hrs HW=216.44' (Free Discharge)
1=Culvert (Barrel Controls 0.55 cfs @ 2.47 fps)

Summary for Pond 80P: DMH-5

Inflow Area = 0.663 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 1.88 cfs @ 12.09 hrs, Volume= 0.153 af
Outflow = 1.88 cfs @ 12.09 hrs, Volume= 0.153 af, Atten= 0%, Lag= 0.0 min
Primary = 1.88 cfs @ 12.09 hrs, Volume= 0.153 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.47' @ 12.09 hrs
Flood Elev= 219.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.70'	**15.0" Round Culvert** L= 78.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.70' / 214.20' S= 0.0064 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=1.83 cfs @ 12.09 hrs HW=215.46' (Free Discharge)
1=Culvert (Inlet Controls 1.83 cfs @ 2.34 fps)

Summary for Pond 81P: CB-5

Inflow Area = 0.287 ac, 88.82% Impervious, Inflow Depth = 2.07" for 2-yr event
Inflow = 0.67 cfs @ 12.09 hrs, Volume= 0.049 af
Outflow = 0.67 cfs @ 12.09 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.0 min
Primary = 0.67 cfs @ 12.09 hrs, Volume= 0.049 af

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= 219.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.90' S= 0.0032 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.66 cfs @ 12.09 hrs HW=216.54' (Free Discharge)
1=Culvert (Barrel Controls 0.66 cfs @ 2.21 fps)

Summary for Pond 82P: DMH-3

Inflow Area = 0.287 ac, 88.82% Impervious, Inflow Depth = 2.07" for 2-yr event
Inflow = 0.67 cfs @ 12.09 hrs, Volume= 0.049 af
Outflow = 0.67 cfs @ 12.09 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.0 min
Primary = 0.67 cfs @ 12.09 hrs, Volume= 0.049 af

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= 218.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.90' S= 0.0032 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.66 cfs @ 12.09 hrs HW=216.54' (Free Discharge)
1=Culvert (Barrel Controls 0.66 cfs @ 2.21 fps)

Summary for Link 20L: DP-A

Inflow Area = 30.660 ac, 24.72% Impervious, Inflow Depth = 0.22" for 2-yr event
Inflow = 3.17 cfs @ 12.22 hrs, Volume= 0.559 af
Primary = 3.17 cfs @ 12.22 hrs, Volume= 0.559 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: APT. BLDG. A Runoff Area=17,818 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=1.73 cfs 0.143 af

Subcatchment 16S: APT. BLDG. B Runoff Area=17,818 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=1.73 cfs 0.143 af

Subcatchment 18S: APT. BLDG. C Runoff Area=17,818 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=1.73 cfs 0.143 af

Subcatchment 21S: A.1 Runoff Area=20,195 sf 5.87% Impervious Runoff Depth=0.18"
Tc=10.0 min CN=42 Runoff=0.02 cfs 0.007 af

Subcatchment 22S: A.2 Runoff Area=13,850 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=1.35 cfs 0.111 af

Subcatchment 23S: A.3 Runoff Area=9,767 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=0.95 cfs 0.079 af

Subcatchment 24S: A.4 Runoff Area=5,341 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=0.52 cfs 0.043 af

Subcatchment 25S: A.5 Runoff Area=22,426 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=2.18 cfs 0.180 af

Subcatchment 26S: B.6 Runoff Area=40,090 sf 22.31% Impervious Runoff Depth=0.48"
Tc=6.0 min UI Adjusted CN=50 Runoff=0.24 cfs 0.037 af

Subcatchment 27S: A.6 Runoff Area=12,567 sf 87.12% Impervious Runoff Depth=3.34"
Tc=6.0 min CN=90 Runoff=1.07 cfs 0.080 af

Subcatchment 28S: B.1 Runoff Area=30,829 sf 0.88% Impervious Runoff Depth=0.10"
Tc=6.0 min UI Adjusted CN=39 Runoff=0.01 cfs 0.006 af

Subcatchment 29S: B.2 Runoff Area=13,381 sf 83.76% Impervious Runoff Depth=3.14"
Tc=6.0 min CN=88 Runoff=1.09 cfs 0.080 af

Subcatchment 30S: B.3 Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=3.87"
Tc=6.0 min CN=95 Runoff=1.60 cfs 0.126 af

Subcatchment 31S: B.4 Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=3.87"
Tc=6.0 min CN=95 Runoff=1.60 cfs 0.126 af

Subcatchment 32S: B.5 Runoff Area=24,627 sf 67.38% Impervious Runoff Depth=2.33"
Tc=6.0 min CN=79 Runoff=1.51 cfs 0.110 af

Subcatchment 33S: B.7 Runoff Area=290,511 sf 2.55% Impervious Runoff Depth=0.72"
Tc=30.0 min CN=55 Runoff=2.34 cfs 0.398 af

Subcatchment 34S: B.8 Runoff Area=12,484 sf 88.82% Impervious Runoff Depth=3.44"
Tc=6.0 min CN=91 Runoff=1.09 cfs 0.082 af

Subcatchment 35S: C.1 Runoff Area=236,308 sf 9.34% Impervious Runoff Depth=0.87"
Tc=20.0 min UI Adjusted CN=58 Runoff=2.99 cfs 0.395 af

Subcatchment 36S: C.2 Runoff Area=22,516 sf 83.62% Impervious Runoff Depth=3.14"
Tc=6.0 min CN=88 Runoff=1.83 cfs 0.135 af

Subcatchment 37S: C.3 Runoff Area=12,429 sf 61.75% Impervious Runoff Depth=2.00"
Tc=6.0 min CN=75 Runoff=0.65 cfs 0.048 af

Subcatchment 38S: C.4 Runoff Area=4,655 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=0.45 cfs 0.037 af

Subcatchment 39S: C.5 Runoff Area=5,857 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=0.57 cfs 0.047 af

Subcatchment 40S: C.6 Runoff Area=4,047 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=0.39 cfs 0.033 af

Subcatchment 41S: C.7 Runoff Area=7,188 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=0.70 cfs 0.058 af

Subcatchment 42S: C.8 Runoff Area=7,639 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=0.74 cfs 0.061 af

Subcatchment 43S: C.9 Runoff Area=8,732 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=0.85 cfs 0.070 af

Subcatchment 44S: C.10 Runoff Area=5,326 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=0.52 cfs 0.043 af

Subcatchment 45S: C.11 Runoff Area=2,631 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=0.26 cfs 0.021 af

Subcatchment 46S: C.12 Runoff Area=5,910 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=0.57 cfs 0.048 af

Subcatchment 47S: C.13 Runoff Area=1,987 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af

Subcatchment 48S: C.14 Runoff Area=1,885 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=0.18 cfs 0.015 af

Subcatchment 49S: C.15 Runoff Area=3,487 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=0.34 cfs 0.028 af

Subcatchment 50S: C.16 Runoff Area=3,508 sf 100.00% Impervious Runoff Depth=4.20"
Tc=6.0 min CN=98 Runoff=0.34 cfs 0.028 af

Subcatchment 51S: D.1 Runoff Area=402,771 sf 0.38% Impervious Runoff Depth=0.15"
Tc=20.0 min CN=41 Runoff=0.20 cfs 0.118 af

Subcatchment 52S: B.9 Runoff Area=15,018 sf 80.72% Impervious Runoff Depth=3.04"
Tc=6.0 min CN=87 Runoff=1.19 cfs 0.087 af

Pond 4P: Infiltration Basin #2 Peak Elev=213.57' Storage=7,982 cf Inflow=6.07 cfs 0.501 af
Discarded=0.67 cfs 0.501 af Primary=0.00 cfs 0.000 af Outflow=0.67 cfs 0.501 af

Pond 5P: Wet Basin Peak Elev=214.69' Storage=7,103 cf Inflow=9.52 cfs 1.084 af
Outflow=5.55 cfs 1.084 af

Pond 7P: Infiltration Basin #1 Peak Elev=215.42' Storage=7,333 cf Inflow=8.44 cfs 1.052 af
Discarded=0.93 cfs 0.774 af Primary=4.01 cfs 0.278 af Outflow=4.94 cfs 1.052 af

Pond 12P: STONE RECHARGE TRENCH Peak Elev=221.00' Storage=1,942 cf Inflow=1.73 cfs 0.143 af
Discarded=0.17 cfs 0.137 af Primary=0.69 cfs 0.006 af Outflow=0.85 cfs 0.143 af

Pond 17P: STONE RECHARGE TRENCH Peak Elev=221.00' Storage=1,942 cf Inflow=1.73 cfs 0.143 af
Discarded=0.17 cfs 0.137 af Primary=0.69 cfs 0.006 af Outflow=0.85 cfs 0.143 af

Pond 19P: STONE RECHARGE TRENCH Peak Elev=221.00' Storage=1,942 cf Inflow=1.73 cfs 0.143 af
Discarded=0.17 cfs 0.137 af Primary=0.69 cfs 0.006 af Outflow=0.85 cfs 0.143 af

Pond 21P: CB-4 Peak Elev=216.20' Inflow=1.19 cfs 0.087 af
12.0" Round Culvert n=0.013 L=37.0' S=0.0054 '/' Outflow=1.19 cfs 0.087 af

Pond 22P: DMH-2 Peak Elev=216.38' Inflow=2.28 cfs 0.170 af
12.0" Round Culvert n=0.013 L=101.0' S=0.0050 '/' Outflow=2.28 cfs 0.170 af

Pond 23P: CB-1 Peak Elev=216.24' Inflow=1.09 cfs 0.080 af
12.0" Round Culvert n=0.013 L=27.0' S=0.0074 '/' Outflow=1.09 cfs 0.080 af

Pond 24P: CB-2 Peak Elev=216.99' Inflow=1.60 cfs 0.126 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0400 '/' Outflow=1.60 cfs 0.126 af

Pond 25P: CB-3 Peak Elev=217.26' Inflow=1.51 cfs 0.110 af
12.0" Round Culvert n=0.013 L=38.0' S=0.0289 '/' Outflow=1.51 cfs 0.110 af

Pond 26P: DMH-1 Peak Elev=216.45' Inflow=4.20 cfs 0.316 af
18.0" Round Culvert n=0.013 L=48.0' S=0.0104 '/' Outflow=4.20 cfs 0.316 af

Pond 27P: CB-22 Peak Elev=216.61' Inflow=2.18 cfs 0.180 af
12.0" Round Culvert n=0.013 L=51.0' S=0.0039 '/' Outflow=2.18 cfs 0.180 af

Pond 28P: DMH-16 Peak Elev=216.30' Inflow=2.18 cfs 0.180 af
12.0" Round Culvert n=0.013 L=160.0' S=0.0037 '/' Outflow=2.18 cfs 0.180 af

Pond 29P: CB-21 Peak Elev=216.61' Inflow=0.52 cfs 0.043 af
12.0" Round Culvert n=0.013 L=26.0' S=0.0192 '/' Outflow=0.52 cfs 0.043 af

Pond 30P: DMH-15 Peak Elev=215.55' Inflow=2.70 cfs 0.223 af
15.0" Round Culvert n=0.013 L=250.0' S=0.0036 '/' Outflow=2.70 cfs 0.223 af

Pond 31P: DMH-14 Peak Elev=215.06' Inflow=6.07 cfs 0.494 af
18.0" Round Culvert n=0.013 L=61.0' S=0.0164 '/' Outflow=6.07 cfs 0.494 af

Pond 32P: CB-20 Peak Elev=216.21' Inflow=1.35 cfs 0.111 af
12.0" Round Culvert n=0.013 L=12.0' S=0.0167 '/' Outflow=1.35 cfs 0.111 af

Pond 33P: DMH-17 Peak Elev=216.05' Inflow=2.02 cfs 0.159 af
12.0" Round Culvert n=0.013 L=180.0' S=0.0083 '/' Outflow=2.02 cfs 0.159 af

Pond 34P: CB-23 Peak Elev=216.12' Inflow=1.07 cfs 0.080 af
12.0" Round Culvert n=0.013 L=28.0' S=0.0107 '/' Outflow=1.07 cfs 0.080 af

Pond 35P: CB-24 Peak Elev=216.07' Inflow=0.95 cfs 0.079 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0150 '/' Outflow=0.95 cfs 0.079 af

Pond 37P: DMH-10 Peak Elev=218.87' Inflow=1.89 cfs 0.156 af
15.0" Round Culvert n=0.013 L=122.0' S=0.0295 '/' Outflow=1.89 cfs 0.156 af

Pond 38P: CB-15 Peak Elev=232.43' Inflow=0.18 cfs 0.015 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0333 '/' Outflow=0.18 cfs 0.015 af

Pond 39P: CB-16 Peak Elev=232.44' Inflow=0.19 cfs 0.016 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0333 '/' Outflow=0.19 cfs 0.016 af

Pond 52P: CB-17 Peak Elev=247.73' Inflow=0.34 cfs 0.028 af
12.0" Round Culvert n=0.013 L=18.0' S=0.0500 '/' Outflow=0.34 cfs 0.028 af

Pond 53P: CB-18 Peak Elev=247.72' Inflow=0.34 cfs 0.028 af
12.0" Round Culvert n=0.013 L=19.0' S=0.0474 '/' Outflow=0.34 cfs 0.028 af

Pond 54P: DMH-13 Peak Elev=246.87' Inflow=0.68 cfs 0.056 af
12.0" Round Culvert n=0.013 L=85.0' S=0.0753 '/' Outflow=0.68 cfs 0.056 af

Pond 56P: DMH-12 Peak Elev=240.37' Inflow=0.68 cfs 0.056 af
12.0" Round Culvert n=0.013 L=110.0' S=0.0745 '/' Outflow=0.68 cfs 0.056 af

Pond 58P: CB-13 Peak Elev=219.18' Inflow=0.26 cfs 0.021 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0467 '/' Outflow=0.26 cfs 0.021 af

Pond 61P: DMH-11 Peak Elev=232.21' Inflow=1.06 cfs 0.087 af
12.0" Round Culvert n=0.013 L=198.0' S=0.0677 '/' Outflow=1.06 cfs 0.087 af

Pond 62P: CB-14 Peak Elev=219.33' Inflow=0.57 cfs 0.048 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0467 '/' Outflow=0.57 cfs 0.048 af

Pond 63P: DMH-4 Peak Elev=219.63' Inflow=8.59 cfs 0.688 af
24.0" Round Culvert n=0.013 L=122.0' S=0.0295 '/' Outflow=8.59 cfs 0.688 af

Pond 65P: DMH-8 Peak Elev=215.99' Inflow=2.93 cfs 0.220 af
15.0" Round Culvert n=0.013 L=215.0' S=0.0028 '/' Outflow=2.93 cfs 0.220 af

Pond 66P: CB-6 Peak Elev=216.43' Inflow=0.57 cfs 0.047 af
12.0" Round Culvert n=0.013 L=24.0' S=0.0208 '/' Outflow=0.57 cfs 0.047 af

Pond 67P: CB-7 Peak Elev=216.35' Inflow=0.39 cfs 0.033 af
12.0" Round Culvert n=0.013 L=24.0' S=0.0208 '/' Outflow=0.39 cfs 0.033 af

Pond 68P: DMH-9 Peak Elev=216.60' Inflow=2.93 cfs 0.220 af
15.0" Round Culvert n=0.013 L=190.0' S=0.0026 '/' Outflow=2.93 cfs 0.220 af

Pond 69P: CB-11 Peak Elev=216.01' Inflow=0.45 cfs 0.037 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0067 '/' Outflow=0.45 cfs 0.037 af

Pond 70P: CB-12 Peak Elev=216.79' Inflow=2.48 cfs 0.183 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0067 '/' Outflow=2.48 cfs 0.183 af

Pond 71P: CB-8 Peak Elev=216.02' Inflow=0.74 cfs 0.061 af
12.0" Round Culvert n=0.013 L=32.0' S=0.0062 '/' Outflow=0.74 cfs 0.061 af

Pond 72P: CB-9 Peak Elev=216.01' Inflow=0.70 cfs 0.058 af
12.0" Round Culvert n=0.013 L=37.0' S=0.0054 '/' Outflow=0.70 cfs 0.058 af

Pond 73P: DMH-6 Peak Elev=216.00' Inflow=1.44 cfs 0.119 af
12.0" Round Culvert n=0.013 L=96.0' S=0.0042 '/' Outflow=1.44 cfs 0.119 af

Pond 77P: DMH-7 Peak Elev=216.35' Inflow=1.37 cfs 0.113 af
15.0" Round Culvert n=0.013 L=181.0' S=0.0050 '/' Outflow=1.37 cfs 0.113 af

Pond 78P: CB-19 Peak Elev=216.45' Inflow=0.52 cfs 0.043 af
12.0" Round Culvert n=0.013 L=49.0' S=0.0041 '/' Outflow=0.52 cfs 0.043 af

Pond 79P: CB-10 Peak Elev=216.56' Inflow=0.85 cfs 0.070 af
12.0" Round Culvert n=0.013 L=29.0' S=0.0069 '/' Outflow=0.85 cfs 0.070 af

Pond 80P: DMH-5 Peak Elev=215.69' Inflow=2.81 cfs 0.232 af
15.0" Round Culvert n=0.013 L=78.0' S=0.0064 '/' Outflow=2.81 cfs 0.232 af

Pond 81P: CB-5 Peak Elev=216.72' Inflow=1.09 cfs 0.082 af
12.0" Round Culvert n=0.013 L=31.0' S=0.0032 '/' Outflow=1.09 cfs 0.082 af

Pond 82P: DMH-3 Peak Elev=216.72' Inflow=1.09 cfs 0.082 af
12.0" Round Culvert n=0.013 L=31.0' S=0.0032 '/' Outflow=1.09 cfs 0.082 af

Link 20L: DP-A Inflow=11.61 cfs 1.498 af
Primary=11.61 cfs 1.498 af

Total Runoff Area = 30.660 ac Runoff Volume = 3.184 af Average Runoff Depth = 1.25"
75.28% Pervious = 23.079 ac 24.72% Impervious = 7.580 ac

Summary for Subcatchment 9S: APT. BLDG. A

Runoff = 1.73 cfs @ 12.09 hrs, Volume= 0.143 af, Depth= 4.20"

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
17,818	98	Roofs, HSG A
17,818		100.00% Impervious Area

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

Summary for Subcatchment 16S: APT. BLDG. B

Runoff = 1.73 cfs @ 12.09 hrs, Volume= 0.143 af, Depth= 4.20"

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
17,818	98	Roofs, HSG A
17,818		100.00% Impervious Area

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

Summary for Subcatchment 18S: APT. BLDG. C

Runoff = 1.73 cfs @ 12.09 hrs, Volume= 0.143 af, Depth= 4.20"

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
17,818	98	Roofs, HSG A
17,818		100.00% Impervious Area

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

Summary for Subcatchment 21S: A.1

Runoff = 0.02 cfs @ 12.54 hrs, Volume= 0.007 af, Depth= 0.18"

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
18,718	39	>75% Grass cover, Good, HSG A
291	30	Woods, Good, HSG A
95	98	Unconnected pavement, HSG A
1,091	98	Roofs, HSG A
20,195	42	Weighted Average
19,009		94.13% Pervious Area
1,186		5.87% Impervious Area
95		8.01% Unconnected

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

Summary for Subcatchment 22S: A.2

Runoff = 1.35 cfs @ 12.09 hrs, Volume= 0.111 af, Depth= 4.20"

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
12,935	98	Paved parking, HSG A
915	98	Roofs, HSG A
13,850	98	Weighted Average
13,850		100.00% 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= 4.20"

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
9,767	98	Paved parking, HSG A
9,767		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 = 0.52 cfs @ 12.09 hrs, Volume= 0.043 af, Depth= 4.20"

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
227	98	Paved parking, HSG A
5,114	98	Roofs, HSG A
5,341	98	Weighted Average
5,341		100.00% Impervious Area

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

Summary for Subcatchment 25S: A.5

Runoff = 2.18 cfs @ 12.09 hrs, Volume= 0.180 af, Depth= 4.20"

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
22,426	98	Paved parking, HSG A
22,426		100.00% Impervious Area

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

Summary for Subcatchment 26S: B.6

Runoff = 0.24 cfs @ 12.16 hrs, Volume= 0.037 af, Depth= 0.48"

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
31,146	39		>75% Grass cover, Good, HSG A
3,467	98		Unconnected pavement, HSG A
5,477	98		Roofs, HSG A
40,090	52	50	Weighted Average, UI Adjusted
31,146			77.69% Pervious Area
8,944			22.31% Impervious Area
3,467			38.76% Unconnected

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

Summary for Subcatchment 27S: A.6

Runoff = 1.07 cfs @ 12.09 hrs, Volume= 0.080 af, Depth= 3.34"

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
8,883	98	Paved parking, HSG A
1,619	39	>75% Grass cover, Good, HSG A
948	98	Unconnected pavement, HSG A
1,117	98	Roofs, HSG A
12,567	90	Weighted Average
1,619		12.88% Pervious Area
10,948		87.12% Impervious Area
948		8.66% Unconnected

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

Summary for Subcatchment 28S: B.1

Runoff = 0.01 cfs @ 14.79 hrs, Volume= 0.006 af, Depth= 0.10"

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	Adj	Description
30,559	39		>75% Grass cover, Good, HSG A
270	98		Unconnected pavement, HSG A
30,829	40	39	Weighted Average, UI Adjusted
30,559			99.12% Pervious Area
270			0.88% Impervious Area
270			100.00% Unconnected

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

Summary for Subcatchment 29S: B.2

Runoff = 1.09 cfs @ 12.09 hrs, Volume= 0.080 af, Depth= 3.14"

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
2,173	39	>75% Grass cover, Good, HSG A
1,997	98	Unconnected pavement, HSG A
9,211	98	Paved parking, HSG A
13,381	88	Weighted Average
2,173		16.24% Pervious Area
11,208		83.76% Impervious Area
1,997		17.82% 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 = 1.60 cfs @ 12.09 hrs, Volume= 0.126 af, Depth= 3.87"

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
731	39	>75% Grass cover, Good, HSG A
2,575	98	Unconnected pavement, HSG A
13,754	98	Paved parking, HSG A
17,060	95	Weighted Average
731		4.28% Pervious Area
16,329		95.72% Impervious Area
2,575		15.77% 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 = 1.60 cfs @ 12.09 hrs, Volume= 0.126 af, Depth= 3.87"

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
731	39	>75% Grass cover, Good, HSG A
2,575	98	Unconnected pavement, HSG A
13,754	98	Paved parking, HSG A
17,060	95	Weighted Average
731		4.28% Pervious Area
16,329		95.72% Impervious Area
2,575		15.77% Unconnected

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

Summary for Subcatchment 32S: B.5

Runoff = 1.51 cfs @ 12.09 hrs, Volume= 0.110 af, Depth= 2.33"

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
8,616	98	Paved parking, HSG A
8,034	39	>75% Grass cover, Good, HSG A
1,324	98	Unconnected pavement, HSG A
6,653	98	Roofs, HSG A
24,627	79	Weighted Average
8,034		32.62% Pervious Area
16,593		67.38% Impervious Area
1,324		7.98% Unconnected

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

Summary for Subcatchment 33S: B.7

Runoff = 2.34 cfs @ 12.54 hrs, Volume= 0.398 af, Depth= 0.72"

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
129,407	39	>75% Grass cover, Good, HSG A
97,286	74	>75% Grass cover, Good, HSG C
9,046	80	>75% Grass cover, Good, HSG D
27,194	30	Woods, Good, HSG A
15,779	70	Woods, Good, HSG C
4,399	77	Woods, Good, HSG D
1,606	98	Unconnected pavement, HSG A
319	98	Unconnected pavement, HSG C
5,475	98	Roofs, HSG A
290,511	55	Weighted Average
283,111		97.45% Pervious Area
7,400		2.55% Impervious Area
1,925		26.01% Unconnected

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

Summary for Subcatchment 34S: B.8

Runoff = 1.09 cfs @ 12.09 hrs, Volume= 0.082 af, Depth= 3.44"

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
9,724	98	Paved parking, HSG A
1,396	39	>75% Grass cover, Good, HSG A
1,364	98	Unconnected pavement, HSG A
12,484	91	Weighted Average
1,396		11.18% Pervious Area
11,088		88.82% Impervious Area
1,364		12.30% 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 = 2.99 cfs @ 12.34 hrs, Volume= 0.395 af, Depth= 0.87"

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
128,543	39		>75% Grass cover, Good, HSG A
69,229	80		>75% Grass cover, Good, HSG D
16,469	77		Woods, Good, HSG D
14,141	98		Unconnected pavement, HSG A
7,926	98		Roofs, HSG A
236,308	59	58	Weighted Average, UI Adjusted
214,241			90.66% Pervious Area
22,067			9.34% Impervious Area
14,141			64.08% 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 = 1.83 cfs @ 12.09 hrs, Volume= 0.135 af, Depth= 3.14"

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
12,989	98	Paved parking, HSG A
3,687	39	>75% Grass cover, Good, HSG A
2,989	98	Unconnected pavement, HSG A
2,851	98	Roofs, HSG A
22,516	88	Weighted Average
3,687		16.38% Pervious Area
18,829		83.62% Impervious Area
2,989		15.87% 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 = 0.65 cfs @ 12.10 hrs, Volume= 0.048 af, Depth= 2.00"

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
5,266	98	Paved parking, HSG A
4,754	39	>75% Grass cover, Good, HSG A
509	98	Roofs, HSG A
1,900	98	Roofs, HSG A
12,429	75	Weighted Average
4,754		38.25% Pervious Area
7,675		61.75% Impervious Area

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

Summary for Subcatchment 38S: C.4

Runoff = 0.45 cfs @ 12.09 hrs, Volume= 0.037 af, Depth= 4.20"

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
4,655	98	Paved parking, HSG A
4,655		100.00% Impervious Area

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

Summary for Subcatchment 39S: C.5

Runoff = 0.57 cfs @ 12.09 hrs, Volume= 0.047 af, Depth= 4.20"

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
4,080	98	Paved parking, HSG A
1,777	98	Unconnected pavement, HSG A
5,857	98	Weighted Average
5,857		100.00% Impervious Area
1,777		30.34% 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 = 0.39 cfs @ 12.09 hrs, Volume= 0.033 af, Depth= 4.20"

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
4,047	98	Paved parking, HSG A
4,047		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 = 0.70 cfs @ 12.09 hrs, Volume= 0.058 af, Depth= 4.20"

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
6,072	98	Paved parking, HSG A
1,116	98	Roofs, HSG A
7,188	98	Weighted Average
7,188		100.00% Impervious Area

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

Summary for Subcatchment 42S: C.8

Runoff = 0.74 cfs @ 12.09 hrs, Volume= 0.061 af, Depth= 4.20"

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
7,639	98	Paved parking, HSG A
7,639		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 = 0.85 cfs @ 12.09 hrs, Volume= 0.070 af, Depth= 4.20"

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
8,732	98	Paved parking, HSG A
8,732		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 = 0.52 cfs @ 12.09 hrs, Volume= 0.043 af, Depth= 4.20"

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
5,326	98	Paved parking, HSG A
5,326		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 = 0.26 cfs @ 12.09 hrs, Volume= 0.021 af, Depth= 4.20"

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
1,483	98	Paved parking, HSG A
946	98	Paved parking, HSG D
126	98	Unconnected pavement, HSG A
76	98	Unconnected pavement, HSG D
2,631	98	Weighted Average
2,631		100.00% Impervious Area
202		7.68% Unconnected

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

Summary for Subcatchment 46S: C.12

Runoff = 0.57 cfs @ 12.09 hrs, Volume= 0.048 af, Depth= 4.20"

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
2,144	98	Paved parking, HSG A
2,121	98	Paved parking, HSG D
853	98	Unconnected pavement, HSG A
696	98	Unconnected pavement, HSG D
96	98	Roofs, HSG A
5,910	98	Weighted Average
5,910		100.00% Impervious Area
1,549		26.21% Unconnected

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

Summary for Subcatchment 47S: C.13

Runoff = 0.19 cfs @ 12.09 hrs, Volume= 0.016 af, Depth= 4.20"

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
1,832	98	Paved parking, HSG D
155	98	Unconnected pavement, HSG D
1,987	98	Weighted Average
1,987		100.00% Impervious Area
155		7.80% Unconnected

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

Summary for Subcatchment 48S: C.14

Runoff = 0.18 cfs @ 12.09 hrs, Volume= 0.015 af, Depth= 4.20"

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
1,744	98	Paved parking, HSG D
141	98	Unconnected pavement, HSG D
1,885	98	Weighted Average
1,885		100.00% Impervious Area
141		7.48% Unconnected

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

Summary for Subcatchment 49S: C.15

Runoff = 0.34 cfs @ 12.09 hrs, Volume= 0.028 af, Depth= 4.20"

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
3,220	98	Paved parking, HSG D
267	98	Unconnected pavement, HSG D
3,487	98	Weighted Average
3,487		100.00% Impervious Area
267		7.66% Unconnected

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

Summary for Subcatchment 50S: C.16

Runoff = 0.34 cfs @ 12.09 hrs, Volume= 0.028 af, Depth= 4.20"

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
3,238	98	Paved parking, HSG D
270	98	Unconnected pavement, HSG D
3,508	98	Weighted Average
3,508		100.00% Impervious Area
270		7.70% Unconnected

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

Summary for Subcatchment 51S: D.1

Runoff = 0.20 cfs @ 13.87 hrs, Volume= 0.118 af, Depth= 0.15"

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
1,527	98	Unconnected pavement, HSG A
182,934	39	>75% Grass cover, Good, HSG A
518	61	>75% Grass cover, Good, HSG B
51,440	80	>75% Grass cover, Good, HSG D
160,796	30	Woods, Good, HSG A
5,106	55	Woods, Good, HSG B
450	77	Woods, Good, HSG D
402,771	41	Weighted Average
401,244		99.62% Pervious Area
1,527		0.38% Impervious Area
1,527		100.00% Unconnected

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

Summary for Subcatchment 52S: B.9

Runoff = 1.19 cfs @ 12.09 hrs, Volume= 0.087 af, Depth= 3.04"

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
10,973	98	Paved parking, HSG A
2,895	39	>75% Grass cover, Good, HSG A
1,150	98	Unconnected pavement, HSG A
15,018	87	Weighted Average
2,895		19.28% Pervious Area
12,123		80.72% Impervious Area
1,150		9.49% Unconnected

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

Summary for Pond 4P: Infiltration Basin #2

Inflow Area = 1.932 ac, 75.49% Impervious, Inflow Depth = 3.11" for 10-yr event
Inflow = 6.07 cfs @ 12.09 hrs, Volume= 0.501 af
Outflow = 0.67 cfs @ 12.78 hrs, Volume= 0.501 af, Atten= 89%, Lag= 41.9 min
Discarded = 0.67 cfs @ 12.78 hrs, Volume= 0.501 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 213.57' @ 12.78 hrs Surf.Area= 8,244 sf Storage= 7,982 cf

Plug-Flow detention time= 101.9 min calculated for 0.500 af (100% of inflow)
Center-of-Mass det. time= 101.9 min (862.8 - 760.9)

Volume	Invert	Avail.Storage	Storage Description
#1	212.50'	32,065 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	6,645	342.0	0	0	6,645
214.00	8,926	397.0	11,636	11,636	9,927
216.00	11,559	453.0	20,428	32,065	13,809

Device	Routing	Invert	Outlet Devices
#1	Discarded	212.50'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 210.40'
#2	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

Discarded OutFlow Max=0.67 cfs @ 12.78 hrs HW=213.57' (Free Discharge)
└**1=Exfiltration** (Controls 0.67 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=212.50' (Free Discharge)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 5P: Wet Basin

Inflow Area = 7.670 ac, 33.35% Impervious, Inflow Depth = 1.70" for 10-yr event
Inflow = 9.52 cfs @ 12.10 hrs, Volume= 1.084 af
Outflow = 5.55 cfs @ 12.40 hrs, Volume= 1.084 af, Atten= 42%, Lag= 18.3 min
Primary = 5.55 cfs @ 12.40 hrs, Volume= 1.084 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 214.69' @ 12.40 hrs Surf.Area= 11,394 sf Storage= 7,103 cf

Plug-Flow detention time= 29.0 min calculated for 1.083 af (100% of inflow)
Center-of-Mass det. time= 29.1 min (846.3 - 817.2)

Volume	Invert	Avail.Storage	Storage Description
#1	214.00'	103,930 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	20,207	375.0	36,350	61,425	15,359
220.00	22,316	390.0	42,506	103,930	16,550

Device	Routing	Invert	Outlet Devices
#1	Primary	213.43'	**24.0" Round Culvert** L= 580.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 213.43' / 211.63' S= 0.0031 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	214.00'	**45.0 deg x 4.0' long Sharp-Crested Vee/Trap Weir**

			Cv= 2.56 (C= 3.20)
#3	Device 1	215.50'	**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=5.54 cfs @ 12.40 hrs HW=214.69' (Free Discharge)
└**1=Culvert** (Barrel Controls 5.54 cfs @ 3.79 fps)
└**2=Sharp-Crested Vee/Trap Weir** (Passes 5.54 cfs of 7.78 cfs potential flow)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 7P: Infiltration Basin #1

Inflow Area = 10.584 ac, 21.75% Impervious, Inflow Depth = 1.19" for 10-yr event
Inflow = 8.44 cfs @ 12.09 hrs, Volume= 1.052 af
Outflow = 4.94 cfs @ 12.37 hrs, Volume= 1.052 af, Atten= 41%, Lag= 16.2 min
Discarded = 0.93 cfs @ 12.37 hrs, Volume= 0.774 af
Primary = 4.01 cfs @ 12.37 hrs, Volume= 0.278 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.42' @ 12.37 hrs Surf.Area= 13,026 sf Storage= 7,333 cf

Plug-Flow detention time= 51.7 min calculated for 1.051 af (100% of inflow)
Center-of-Mass det. time= 51.7 min (902.0 - 850.4)

Volume	Invert	Avail.Storage	Storage Description
#1	214.80'	15,542 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	10,430	800.0	0	0	10,430
215.00	11,580	1,000.0	2,200	2,200	39,078
216.00	15,185	1,210.0	13,342	15,542	76,027

Device	Routing	Invert	Outlet Devices
#1	Primary	215.30'	**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	Discarded	214.80'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 212.80'

Discarded OutFlow Max=0.93 cfs @ 12.37 hrs HW=215.42' (Free Discharge)
└**2=Exfiltration** (Controls 0.93 cfs)

Primary OutFlow Max=4.00 cfs @ 12.37 hrs HW=215.42' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 4.00 cfs @ 0.85 fps)

Summary for Pond 12P: STONE RECHARGE TRENCH

Inflow Area = 0.409 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 1.73 cfs @ 12.09 hrs, Volume= 0.143 af
Outflow = 0.85 cfs @ 12.40 hrs, Volume= 0.143 af, Atten= 51%, Lag= 18.7 min
Discarded = 0.17 cfs @ 12.40 hrs, Volume= 0.137 af
Primary = 0.69 cfs @ 12.40 hrs, Volume= 0.006 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 221.00' @ 12.40 hrs Surf.Area= 2,427 sf Storage= 1,942 cf

Plug-Flow detention time= 81.2 min calculated for 0.143 af (100% of inflow)
Center-of-Mass det. time= 81.2 min (831.2 - 750.1)

Volume	Invert	Avail.Storage	Storage Description
#1	219.00'	1,942 cf	**3.00'W x 809.00'L x 2.00'H Prismatoid** 4,854 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Primary	221.00'	**809.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	219.00'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 210.00'

Discarded OutFlow Max=0.17 cfs @ 12.40 hrs HW=221.00' (Free Discharge)
↑**2=Exfiltration** (Controls 0.17 cfs)

Primary OutFlow Max=0.22 cfs @ 12.40 hrs HW=221.00' (Free Discharge)
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 0.22 cfs @ 0.12 fps)

Summary for Pond 17P: STONE RECHARGE TRENCH

Inflow Area = 0.409 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 1.73 cfs @ 12.09 hrs, Volume= 0.143 af
Outflow = 0.85 cfs @ 12.40 hrs, Volume= 0.143 af, Atten= 51%, Lag= 18.7 min
Discarded = 0.17 cfs @ 12.40 hrs, Volume= 0.137 af
Primary = 0.69 cfs @ 12.40 hrs, Volume= 0.006 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 221.00' @ 12.40 hrs Surf.Area= 2,427 sf Storage= 1,942 cf

Plug-Flow detention time= 81.2 min calculated for 0.143 af (100% of inflow)
Center-of-Mass det. time= 81.2 min (831.2 - 750.1)

Volume	Invert	Avail.Storage	Storage Description
#1	219.00'	1,942 cf	**3.00'W x 809.00'L x 2.00'H Prismatoid** 4,854 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Primary	221.00'	**809.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	219.00'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 210.00'

Discarded OutFlow Max=0.17 cfs @ 12.40 hrs HW=221.00' (Free Discharge)
↑**2=Exfiltration** (Controls 0.17 cfs)

Primary OutFlow Max=0.22 cfs @ 12.40 hrs HW=221.00' (Free Discharge)
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 0.22 cfs @ 0.12 fps)

Summary for Pond 19P: STONE RECHARGE TRENCH

Inflow Area = 0.409 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 1.73 cfs @ 12.09 hrs, Volume= 0.143 af
Outflow = 0.85 cfs @ 12.40 hrs, Volume= 0.143 af, Atten= 51%, Lag= 18.7 min
Discarded = 0.17 cfs @ 12.40 hrs, Volume= 0.137 af
Primary = 0.69 cfs @ 12.40 hrs, Volume= 0.006 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 221.00' @ 12.40 hrs Surf.Area= 2,427 sf Storage= 1,942 cf

Plug-Flow detention time= 81.2 min calculated for 0.143 af (100% of inflow)
Center-of-Mass det. time= 81.2 min (831.2 - 750.1)

Volume	Invert	Avail.Storage	Storage Description
#1	219.00'	1,942 cf	**3.00'W x 809.00'L x 2.00'H Prismatoid** 4,854 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Primary	221.00'	**809.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	219.00'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 210.00'

Discarded OutFlow Max=0.17 cfs @ 12.40 hrs HW=221.00' (Free Discharge)
↑**2=Exfiltration** (Controls 0.17 cfs)

Primary OutFlow Max=0.22 cfs @ 12.40 hrs HW=221.00' (Free Discharge)
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 0.22 cfs @ 0.12 fps)

Summary for Pond 21P: CB-4

Inflow Area = 0.345 ac, 80.72% Impervious, Inflow Depth = 3.04" for 10-yr event
Inflow = 1.19 cfs @ 12.09 hrs, Volume= 0.087 af
Outflow = 1.19 cfs @ 12.09 hrs, Volume= 0.087 af, Atten= 0%, Lag= 0.0 min
Primary = 1.19 cfs @ 12.09 hrs, Volume= 0.087 af

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= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 37.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0054 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.16 cfs @ 12.09 hrs HW=216.19' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.16 cfs @ 2.82 fps)

Summary for Pond 22P: DMH-2

Inflow Area = 0.631 ac, 84.40% Impervious, Inflow Depth = 3.22" for 10-yr event
Inflow = 2.28 cfs @ 12.09 hrs, Volume= 0.170 af
Outflow = 2.28 cfs @ 12.09 hrs, Volume= 0.170 af, Atten= 0%, Lag= 0.0 min
Primary = 2.28 cfs @ 12.09 hrs, Volume= 0.170 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.38' @ 12.09 hrs
Flood Elev= 218.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.30'	**12.0" Round Culvert** L= 101.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.30' / 214.80' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.23 cfs @ 12.09 hrs HW=216.36' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.23 cfs @ 2.84 fps)

Summary for Pond 23P: CB-1

Inflow Area = 0.307 ac, 83.76% Impervious, Inflow Depth = 3.14" for 10-yr event
Inflow = 1.09 cfs @ 12.09 hrs, Volume= 0.080 af
Outflow = 1.09 cfs @ 12.09 hrs, Volume= 0.080 af, Atten= 0%, Lag= 0.0 min
Primary = 1.09 cfs @ 12.09 hrs, Volume= 0.080 af

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= 218.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.60'	**12.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.60' / 215.40' S= 0.0074 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.06 cfs @ 12.09 hrs HW=216.23' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.06 cfs @ 2.88 fps)

Summary for Pond 24P: CB-2

Inflow Area = 0.392 ac, 95.72% Impervious, Inflow Depth = 3.87" for 10-yr event
Inflow = 1.60 cfs @ 12.09 hrs, Volume= 0.126 af
Outflow = 1.60 cfs @ 12.09 hrs, Volume= 0.126 af, Atten= 0%, Lag= 0.0 min
Primary = 1.60 cfs @ 12.09 hrs, Volume= 0.126 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.99' @ 12.09 hrs
Flood Elev= 219.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.20'	**12.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.20' / 215.40' S= 0.0400 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.56 cfs @ 12.09 hrs HW=216.98' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.56 cfs @ 2.37 fps)

Summary for Pond 25P: CB-3

Inflow Area = 0.565 ac, 67.38% Impervious, Inflow Depth = 2.33" for 10-yr event
Inflow = 1.51 cfs @ 12.09 hrs, Volume= 0.110 af
Outflow = 1.51 cfs @ 12.09 hrs, Volume= 0.110 af, Atten= 0%, Lag= 0.0 min
Primary = 1.51 cfs @ 12.09 hrs, Volume= 0.110 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.26' @ 12.09 hrs
Flood Elev= 219.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.50'	**12.0" Round Culvert** L= 38.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.50' / 215.40' S= 0.0289 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.49 cfs @ 12.09 hrs HW=217.26' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.49 cfs @ 2.34 fps)

Summary for Pond 26P: DMH-1

Inflow Area = 1.264 ac, 80.14% Impervious, Inflow Depth = 3.00" for 10-yr event
Inflow = 4.20 cfs @ 12.09 hrs, Volume= 0.316 af
Outflow = 4.20 cfs @ 12.09 hrs, Volume= 0.316 af, Atten= 0%, Lag= 0.0 min
Primary = 4.20 cfs @ 12.09 hrs, Volume= 0.316 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.45' @ 12.09 hrs
Flood Elev= 218.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.30'	**18.0" Round Culvert** L= 48.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.30' / 214.80' S= 0.0104 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=4.11 cfs @ 12.09 hrs HW=216.43' (Free Discharge)
└**1=Culvert** (Inlet Controls 4.11 cfs @ 2.86 fps)

Summary for Pond 27P: CB-22

Inflow Area = 0.515 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 2.18 cfs @ 12.09 hrs, Volume= 0.180 af
Outflow = 2.18 cfs @ 12.09 hrs, Volume= 0.180 af, Atten= 0%, Lag= 0.0 min
Primary = 2.18 cfs @ 12.09 hrs, Volume= 0.180 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.61' @ 12.09 hrs
Flood Elev= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 51.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0039 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.12 cfs @ 12.09 hrs HW=216.58' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.12 cfs @ 3.11 fps)

Summary for Pond 28P: DMH-16

Inflow Area = 0.515 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 2.18 cfs @ 12.09 hrs, Volume= 0.180 af
Outflow = 2.18 cfs @ 12.09 hrs, Volume= 0.180 af, Atten= 0%, Lag= 0.0 min
Primary = 2.18 cfs @ 12.09 hrs, Volume= 0.180 af

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= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.20'	**12.0" Round Culvert** L= 160.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.20' / 214.60' S= 0.0037 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.12 cfs @ 12.09 hrs HW=216.28' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.12 cfs @ 3.12 fps)

Summary for Pond 29P: CB-21

Inflow Area = 0.123 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.52 cfs @ 12.09 hrs, Volume= 0.043 af
Outflow = 0.52 cfs @ 12.09 hrs, Volume= 0.043 af, Atten= 0%, Lag= 0.0 min
Primary = 0.52 cfs @ 12.09 hrs, Volume= 0.043 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.61' @ 12.09 hrs
Flood Elev= 219.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.20'	**12.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.20' / 215.70' S= 0.0192 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.50 cfs @ 12.09 hrs HW=216.60' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.50 cfs @ 1.71 fps)

Summary for Pond 30P: DMH-15

Inflow Area = 0.637 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 2.70 cfs @ 12.09 hrs, Volume= 0.223 af
Outflow = 2.70 cfs @ 12.09 hrs, Volume= 0.223 af, Atten= 0%, Lag= 0.0 min
Primary = 2.70 cfs @ 12.09 hrs, Volume= 0.223 af

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= 219.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.50'	**15.0" Round Culvert** L= 250.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.50' / 213.60' S= 0.0036 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=2.63 cfs @ 12.09 hrs HW=215.53' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.63 cfs @ 3.29 fps)

Summary for Pond 31P: DMH-14

Inflow Area = 1.468 ac, 97.47% Impervious, Inflow Depth = 4.03" for 10-yr event
Inflow = 6.07 cfs @ 12.09 hrs, Volume= 0.494 af
Outflow = 6.07 cfs @ 12.09 hrs, Volume= 0.494 af, Atten= 0%, Lag= 0.0 min
Primary = 6.07 cfs @ 12.09 hrs, Volume= 0.494 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.06' @ 12.09 hrs
Flood Elev= 218.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	213.50'	**18.0" Round Culvert** L= 61.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 213.50' / 212.50' S= 0.0164 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=5.90 cfs @ 12.09 hrs HW=215.02' (Free Discharge)
└**1=Culvert** (Inlet Controls 5.90 cfs @ 3.34 fps)

Summary for Pond 32P: CB-20

Inflow Area = 0.318 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 1.35 cfs @ 12.09 hrs, Volume= 0.111 af
Outflow = 1.35 cfs @ 12.09 hrs, Volume= 0.111 af, Atten= 0%, Lag= 0.0 min
Primary = 1.35 cfs @ 12.09 hrs, Volume= 0.111 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.21' @ 12.09 hrs
Flood Elev= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 12.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0167 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.31 cfs @ 12.09 hrs HW=216.20' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.31 cfs @ 2.24 fps)

Summary for Pond 33P: DMH-17

Inflow Area = 0.513 ac, 92.75% Impervious, Inflow Depth = 3.72" for 10-yr event
Inflow = 2.02 cfs @ 12.09 hrs, Volume= 0.159 af
Outflow = 2.02 cfs @ 12.09 hrs, Volume= 0.159 af, Atten= 0%, Lag= 0.0 min
Primary = 2.02 cfs @ 12.09 hrs, Volume= 0.159 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.05' @ 12.09 hrs
Flood Elev= 218.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.10'	**12.0" Round Culvert** L= 180.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.10' / 213.60' S= 0.0083 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.97 cfs @ 12.09 hrs HW=216.03' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.97 cfs @ 2.59 fps)

Summary for Pond 34P: CB-23

Inflow Area = 0.288 ac, 87.12% Impervious, Inflow Depth = 3.34" for 10-yr event
Inflow = 1.07 cfs @ 12.09 hrs, Volume= 0.080 af
Outflow = 1.07 cfs @ 12.09 hrs, Volume= 0.080 af, Atten= 0%, Lag= 0.0 min
Primary = 1.07 cfs @ 12.09 hrs, Volume= 0.080 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.12' @ 12.09 hrs
Flood Elev= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.20' S= 0.0107 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.05 cfs @ 12.09 hrs HW=216.11' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.05 cfs @ 2.10 fps)

Summary for Pond 35P: CB-24

Inflow Area = 0.224 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-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

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= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.20' S= 0.0150 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.92 cfs @ 12.09 hrs HW=216.06' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.92 cfs @ 2.02 fps)

Summary for Pond 37P: DMH-10

Inflow Area = 0.446 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 1.89 cfs @ 12.09 hrs, Volume= 0.156 af
Outflow = 1.89 cfs @ 12.09 hrs, Volume= 0.156 af, Atten= 0%, Lag= 0.0 min
Primary = 1.89 cfs @ 12.09 hrs, Volume= 0.156 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 218.87' @ 12.09 hrs
Flood Elev= 222.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.10'	**15.0" Round Culvert** L= 122.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.10' / 214.50' S= 0.0295 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=1.84 cfs @ 12.09 hrs HW=218.86' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.84 cfs @ 2.35 fps)

Summary for Pond 38P: CB-15

Inflow Area = 0.043 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.18 cfs @ 12.09 hrs, Volume= 0.015 af
Outflow = 0.18 cfs @ 12.09 hrs, Volume= 0.015 af, Atten= 0%, Lag= 0.0 min
Primary = 0.18 cfs @ 12.09 hrs, Volume= 0.015 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 232.43' @ 12.09 hrs
Flood Elev= 236.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	232.20'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 232.20' / 231.70' S= 0.0333 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.18 cfs @ 12.09 hrs HW=232.43' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.18 cfs @ 1.29 fps)

Summary for Pond 39P: CB-16

Inflow Area = 0.046 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.19 cfs @ 12.09 hrs, Volume= 0.016 af
Outflow = 0.19 cfs @ 12.09 hrs, Volume= 0.016 af, Atten= 0%, Lag= 0.0 min
Primary = 0.19 cfs @ 12.09 hrs, Volume= 0.016 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 232.44' @ 12.09 hrs
Flood Elev= 236.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	232.20'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 232.20' / 231.70' S= 0.0333 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.19 cfs @ 12.09 hrs HW=232.44' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.19 cfs @ 1.31 fps)

Summary for Pond 52P: CB-17

Inflow Area = 0.081 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.34 cfs @ 12.09 hrs, Volume= 0.028 af
Outflow = 0.34 cfs @ 12.09 hrs, Volume= 0.028 af, Atten= 0%, Lag= 0.0 min
Primary = 0.34 cfs @ 12.09 hrs, Volume= 0.028 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 247.73' @ 12.09 hrs
Flood Elev= 251.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	247.40'	**12.0" Round Culvert** L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 247.40' / 246.50' S= 0.0500 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.33 cfs @ 12.09 hrs HW=247.72' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.33 cfs @ 1.52 fps)

Summary for Pond 53P: CB-18

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.34 cfs @ 12.09 hrs, Volume= 0.028 af
Outflow = 0.34 cfs @ 12.09 hrs, Volume= 0.028 af, Atten= 0%, Lag= 0.0 min
Primary = 0.34 cfs @ 12.09 hrs, Volume= 0.028 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 247.72' @ 12.09 hrs
Flood Elev= 251.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	247.40'	**12.0" Round Culvert** L= 19.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 247.40' / 246.50' S= 0.0474 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.33 cfs @ 12.09 hrs HW=247.72' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.33 cfs @ 1.52 fps)

Summary for Pond 54P: DMH-13

Inflow Area = 0.161 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.68 cfs @ 12.09 hrs, Volume= 0.056 af
Outflow = 0.68 cfs @ 12.09 hrs, Volume= 0.056 af, Atten= 0%, Lag= 0.0 min
Primary = 0.68 cfs @ 12.09 hrs, Volume= 0.056 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 246.87' @ 12.09 hrs
Flood Elev= 250.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	246.40'	**12.0" Round Culvert** L= 85.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 246.40' / 240.00' S= 0.0753 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.66 cfs @ 12.09 hrs HW=246.87' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.66 cfs @ 1.84 fps)

Summary for Pond 56P: DMH-12

Inflow Area = 0.161 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.68 cfs @ 12.09 hrs, Volume= 0.056 af
Outflow = 0.68 cfs @ 12.09 hrs, Volume= 0.056 af, Atten= 0%, Lag= 0.0 min
Primary = 0.68 cfs @ 12.09 hrs, Volume= 0.056 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 240.37' @ 12.09 hrs
Flood Elev= 244.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	239.90'	**12.0" Round Culvert** L= 110.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 239.90' / 231.70' S= 0.0745 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.66 cfs @ 12.09 hrs HW=240.37' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.66 cfs @ 1.84 fps)

Summary for Pond 58P: CB-13

Inflow Area = 0.060 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.26 cfs @ 12.09 hrs, Volume= 0.021 af
Outflow = 0.26 cfs @ 12.09 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.0 min
Primary = 0.26 cfs @ 12.09 hrs, Volume= 0.021 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 219.18' @ 12.09 hrs
Flood Elev= 221.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.90'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.90' / 218.20' S= 0.0467 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.25 cfs @ 12.09 hrs HW=219.18' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.25 cfs @ 1.41 fps)

Summary for Pond 61P: DMH-11

Inflow Area = 0.249 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 1.06 cfs @ 12.09 hrs, Volume= 0.087 af
Outflow = 1.06 cfs @ 12.09 hrs, Volume= 0.087 af, Atten= 0%, Lag= 0.0 min
Primary = 1.06 cfs @ 12.09 hrs, Volume= 0.087 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 232.21' @ 12.09 hrs
Flood Elev= 235.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	231.60'	**12.0" Round Culvert** L= 198.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 231.60' / 218.20' S= 0.0677 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.03 cfs @ 12.09 hrs HW=232.20' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.03 cfs @ 2.08 fps)

Summary for Pond 62P: CB-14

Inflow Area = 0.136 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.57 cfs @ 12.09 hrs, Volume= 0.048 af
Outflow = 0.57 cfs @ 12.09 hrs, Volume= 0.048 af, Atten= 0%, Lag= 0.0 min
Primary = 0.57 cfs @ 12.09 hrs, Volume= 0.048 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 219.33' @ 12.09 hrs
Flood Elev= 221.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.90'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.90' / 218.20' S= 0.0467 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.56 cfs @ 12.09 hrs HW=219.33' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.56 cfs @ 1.75 fps)

Summary for Pond 63P: DMH-4

Inflow Area = 2.245 ac, 91.37% Impervious, Inflow Depth = 3.68" for 10-yr event
Inflow = 8.59 cfs @ 12.09 hrs, Volume= 0.688 af
Outflow = 8.59 cfs @ 12.09 hrs, Volume= 0.688 af, Atten= 0%, Lag= 0.0 min
Primary = 8.59 cfs @ 12.09 hrs, Volume= 0.688 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 219.63' @ 12.09 hrs
Flood Elev= 222.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.10'	**24.0" Round Culvert** L= 122.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.10' / 214.50' S= 0.0295 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf

Primary OutFlow Max=8.37 cfs @ 12.09 hrs HW=219.61' (Free Discharge)
└**1=Culvert** (Inlet Controls 8.37 cfs @ 3.30 fps)

Summary for Pond 65P: DMH-8

Inflow Area = 0.909 ac, 78.68% Impervious, Inflow Depth = 2.91" for 10-yr event
Inflow = 2.93 cfs @ 12.09 hrs, Volume= 0.220 af
Outflow = 2.93 cfs @ 12.09 hrs, Volume= 0.220 af, Atten= 0%, Lag= 0.0 min
Primary = 2.93 cfs @ 12.09 hrs, Volume= 0.220 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.99' @ 12.09 hrs
Flood Elev= 220.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.80'	**15.0" Round Culvert** L= 215.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.80' / 214.20' S= 0.0028 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=2.87 cfs @ 12.09 hrs HW=215.97' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.87 cfs @ 3.12 fps)

Summary for Pond 66P: CB-6

Inflow Area = 0.134 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.57 cfs @ 12.09 hrs, Volume= 0.047 af
Outflow = 0.57 cfs @ 12.09 hrs, Volume= 0.047 af, Atten= 0%, Lag= 0.0 min
Primary = 0.57 cfs @ 12.09 hrs, Volume= 0.047 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.43' @ 12.09 hrs
Flood Elev= 219.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.50' S= 0.0208 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.55 cfs @ 12.09 hrs HW=216.42' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.55 cfs @ 1.75 fps)

Summary for Pond 67P: CB-7

Inflow Area = 0.093 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.39 cfs @ 12.09 hrs, Volume= 0.033 af
Outflow = 0.39 cfs @ 12.09 hrs, Volume= 0.033 af, Atten= 0%, Lag= 0.0 min
Primary = 0.39 cfs @ 12.09 hrs, Volume= 0.033 af

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= 219.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.50' S= 0.0208 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.38 cfs @ 12.09 hrs HW=216.35' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.38 cfs @ 1.58 fps)

Summary for Pond 68P: DMH-9

Inflow Area = 0.909 ac, 78.68% Impervious, Inflow Depth = 2.91" for 10-yr event
Inflow = 2.93 cfs @ 12.09 hrs, Volume= 0.220 af
Outflow = 2.93 cfs @ 12.09 hrs, Volume= 0.220 af, Atten= 0%, Lag= 0.0 min
Primary = 2.93 cfs @ 12.09 hrs, Volume= 0.220 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.60' @ 12.09 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.40'	**15.0" Round Culvert** L= 190.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.40' / 214.90' S= 0.0026 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=2.87 cfs @ 12.09 hrs HW=216.58' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.87 cfs @ 3.08 fps)

Summary for Pond 69P: CB-11

Inflow Area = 0.107 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.45 cfs @ 12.09 hrs, Volume= 0.037 af
Outflow = 0.45 cfs @ 12.09 hrs, Volume= 0.037 af, Atten= 0%, Lag= 0.0 min
Primary = 0.45 cfs @ 12.09 hrs, Volume= 0.037 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.01' @ 12.09 hrs
Flood Elev= 218.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.60'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.60' / 215.50' S= 0.0067 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.44 cfs @ 12.09 hrs HW=216.00' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.44 cfs @ 2.20 fps)

Summary for Pond 70P: CB-12

Inflow Area = 0.802 ac, 75.84% Impervious, Inflow Depth = 2.74" for 10-yr event
Inflow = 2.48 cfs @ 12.09 hrs, Volume= 0.183 af
Outflow = 2.48 cfs @ 12.09 hrs, Volume= 0.183 af, Atten= 0%, Lag= 0.0 min
Primary = 2.48 cfs @ 12.09 hrs, Volume= 0.183 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.79' @ 12.09 hrs
Flood Elev= 218.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.60'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.60' / 215.50' S= 0.0067 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.44 cfs @ 12.09 hrs HW=216.77' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.44 cfs @ 3.34 fps)

Summary for Pond 71P: CB-8

Inflow Area = 0.175 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.74 cfs @ 12.09 hrs, Volume= 0.061 af
Outflow = 0.74 cfs @ 12.09 hrs, Volume= 0.061 af, Atten= 0%, Lag= 0.0 min
Primary = 0.74 cfs @ 12.09 hrs, Volume= 0.061 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.02' @ 12.09 hrs
Flood Elev= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 32.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0062 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.72 cfs @ 12.09 hrs HW=216.01' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.72 cfs @ 2.58 fps)

Summary for Pond 72P: CB-9

Inflow Area = 0.165 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.70 cfs @ 12.09 hrs, Volume= 0.058 af
Outflow = 0.70 cfs @ 12.09 hrs, Volume= 0.058 af, Atten= 0%, Lag= 0.0 min
Primary = 0.70 cfs @ 12.09 hrs, Volume= 0.058 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.01' @ 12.09 hrs
Flood Elev= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 37.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0054 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.68 cfs @ 12.09 hrs HW=216.01' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.68 cfs @ 2.49 fps)

Summary for Pond 73P: DMH-6

Inflow Area = 0.340 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 1.44 cfs @ 12.09 hrs, Volume= 0.119 af
Outflow = 1.44 cfs @ 12.09 hrs, Volume= 0.119 af, Atten= 0%, Lag= 0.0 min
Primary = 1.44 cfs @ 12.09 hrs, Volume= 0.119 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.00' @ 12.09 hrs
Flood Elev= 219.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.20'	**12.0" Round Culvert** L= 96.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.20' / 214.80' S= 0.0042 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.40 cfs @ 12.09 hrs HW=215.99' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.40 cfs @ 2.91 fps)

Summary for Pond 77P: DMH-7

Inflow Area = 0.323 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 1.37 cfs @ 12.09 hrs, Volume= 0.113 af
Outflow = 1.37 cfs @ 12.09 hrs, Volume= 0.113 af, Atten= 0%, Lag= 0.0 min
Primary = 1.37 cfs @ 12.09 hrs, Volume= 0.113 af

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= 220.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**15.0" Round Culvert** L= 181.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.70' / 214.80' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=1.33 cfs @ 12.09 hrs HW=216.34' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.33 cfs @ 3.06 fps)

Summary for Pond 78P: CB-19

Inflow Area = 0.122 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.52 cfs @ 12.09 hrs, Volume= 0.043 af
Outflow = 0.52 cfs @ 12.09 hrs, Volume= 0.043 af, Atten= 0%, Lag= 0.0 min
Primary = 0.52 cfs @ 12.09 hrs, Volume= 0.043 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.45' @ 12.09 hrs
Flood Elev= 219.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 49.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.80' S= 0.0041 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.50 cfs @ 12.09 hrs HW=216.45' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.50 cfs @ 2.19 fps)

Summary for Pond 79P: CB-10

Inflow Area = 0.200 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 0.85 cfs @ 12.09 hrs, Volume= 0.070 af
Outflow = 0.85 cfs @ 12.09 hrs, Volume= 0.070 af, Atten= 0%, Lag= 0.0 min
Primary = 0.85 cfs @ 12.09 hrs, Volume= 0.070 af

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= 219.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 29.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.80' S= 0.0069 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.83 cfs @ 12.09 hrs HW=216.55' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.83 cfs @ 2.70 fps)

Summary for Pond 80P: DMH-5

Inflow Area = 0.663 ac,100.00% Impervious, Inflow Depth = 4.20" for 10-yr event
Inflow = 2.81 cfs @ 12.09 hrs, Volume= 0.232 af
Outflow = 2.81 cfs @ 12.09 hrs, Volume= 0.232 af, Atten= 0%, Lag= 0.0 min
Primary = 2.81 cfs @ 12.09 hrs, Volume= 0.232 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.69' @ 12.09 hrs
Flood Elev= 219.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.70'	**15.0" Round Culvert** L= 78.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.70' / 214.20' S= 0.0064 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=2.73 cfs @ 12.09 hrs HW=215.68' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.73 cfs @ 2.66 fps)

Summary for Pond 81P: CB-5

Inflow Area = 0.287 ac, 88.82% Impervious, Inflow Depth = 3.44" for 10-yr event
Inflow = 1.09 cfs @ 12.09 hrs, Volume= 0.082 af
Outflow = 1.09 cfs @ 12.09 hrs, Volume= 0.082 af, Atten= 0%, Lag= 0.0 min
Primary = 1.09 cfs @ 12.09 hrs, Volume= 0.082 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.72' @ 12.09 hrs
Flood Elev= 219.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.90' S= 0.0032 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.06 cfs @ 12.09 hrs HW=216.71' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.06 cfs @ 2.51 fps)

Summary for Pond 82P: DMH-3

Inflow Area = 0.287 ac, 88.82% Impervious, Inflow Depth = 3.44" for 10-yr event
Inflow = 1.09 cfs @ 12.09 hrs, Volume= 0.082 af
Outflow = 1.09 cfs @ 12.09 hrs, Volume= 0.082 af, Atten= 0%, Lag= 0.0 min
Primary = 1.09 cfs @ 12.09 hrs, Volume= 0.082 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.72' @ 12.09 hrs
Flood Elev= 218.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.90' S= 0.0032 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.06 cfs @ 12.09 hrs HW=216.71' (Free Discharge)
1=Culvert (Barrel Controls 1.06 cfs @ 2.51 fps)

Summary for Link 20L: DP-A

Inflow Area = 30.660 ac, 24.72% Impervious, Inflow Depth = 0.59" for 10-yr event
Inflow = 11.61 cfs @ 12.40 hrs, Volume= 1.498 af
Primary = 11.61 cfs @ 12.40 hrs, Volume= 1.498 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: APT. BLDG. A Runoff Area=17,818 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=2.17 cfs 0.181 af

Subcatchment 16S: APT. BLDG. B Runoff Area=17,818 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=2.17 cfs 0.181 af

Subcatchment 18S: APT. BLDG. C Runoff Area=17,818 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=2.17 cfs 0.181 af

Subcatchment 21S: A.1 Runoff Area=20,195 sf 5.87% Impervious Runoff Depth=0.47"
Tc=10.0 min CN=42 Runoff=0.09 cfs 0.018 af

Subcatchment 22S: A.2 Runoff Area=13,850 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=1.69 cfs 0.141 af

Subcatchment 23S: A.3 Runoff Area=9,767 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=1.19 cfs 0.099 af

Subcatchment 24S: A.4 Runoff Area=5,341 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=0.65 cfs 0.054 af

Subcatchment 25S: A.5 Runoff Area=22,426 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=2.73 cfs 0.228 af

Subcatchment 26S: B.6 Runoff Area=40,090 sf 22.31% Impervious Runoff Depth=0.93"
Tc=6.0 min UI Adjusted CN=50 Runoff=0.72 cfs 0.071 af

Subcatchment 27S: A.6 Runoff Area=12,567 sf 87.12% Impervious Runoff Depth=4.41"
Tc=6.0 min CN=90 Runoff=1.40 cfs 0.106 af

Subcatchment 28S: B.1 Runoff Area=30,829 sf 0.88% Impervious Runoff Depth=0.32"
Tc=6.0 min UI Adjusted CN=39 Runoff=0.07 cfs 0.019 af

Subcatchment 29S: B.2 Runoff Area=13,381 sf 83.76% Impervious Runoff Depth=4.19"
Tc=6.0 min CN=88 Runoff=1.43 cfs 0.107 af

Subcatchment 30S: B.3 Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=4.96"
Tc=6.0 min CN=95 Runoff=2.03 cfs 0.162 af

Subcatchment 31S: B.4 Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=4.96"
Tc=6.0 min CN=95 Runoff=2.03 cfs 0.162 af

Subcatchment 32S: B.5 Runoff Area=24,627 sf 67.38% Impervious Runoff Depth=3.28"
Tc=6.0 min CN=79 Runoff=2.13 cfs 0.155 af

Subcatchment 33S: B.7 Runoff Area=290,511 sf 2.55% Impervious Runoff Depth=1.27"
Tc=30.0 min CN=55 Runoff=4.81 cfs 0.704 af

Subcatchment 34S: B.8 Runoff Area=12,484 sf 88.82% Impervious Runoff Depth=4.52"
Tc=6.0 min CN=91 Runoff=1.41 cfs 0.108 af

Subcatchment 35S: C.1 Runoff Area=236,308 sf 9.34% Impervious Runoff Depth=1.48"
Tc=20.0 min UI Adjusted CN=58 Runoff=5.69 cfs 0.671 af

Subcatchment 36S: C.2 Runoff Area=22,516 sf 83.62% Impervious Runoff Depth=4.19"
Tc=6.0 min CN=88 Runoff=2.41 cfs 0.181 af

Subcatchment 37S: C.3 Runoff Area=12,429 sf 61.75% Impervious Runoff Depth=2.90"
Tc=6.0 min CN=75 Runoff=0.95 cfs 0.069 af

Subcatchment 38S: C.4 Runoff Area=4,655 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=0.57 cfs 0.047 af

Subcatchment 39S: C.5 Runoff Area=5,857 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=0.71 cfs 0.060 af

Subcatchment 40S: C.6 Runoff Area=4,047 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=0.49 cfs 0.041 af

Subcatchment 41S: C.7 Runoff Area=7,188 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=0.88 cfs 0.073 af

Subcatchment 42S: C.8 Runoff Area=7,639 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=0.93 cfs 0.078 af

Subcatchment 43S: C.9 Runoff Area=8,732 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=1.06 cfs 0.089 af

Subcatchment 44S: C.10 Runoff Area=5,326 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=0.65 cfs 0.054 af

Subcatchment 45S: C.11 Runoff Area=2,631 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=0.32 cfs 0.027 af

Subcatchment 46S: C.12 Runoff Area=5,910 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=0.72 cfs 0.060 af

Subcatchment 47S: C.13 Runoff Area=1,987 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=0.24 cfs 0.020 af

Subcatchment 48S: C.14 Runoff Area=1,885 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=0.23 cfs 0.019 af

Subcatchment 49S: C.15 Runoff Area=3,487 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=0.42 cfs 0.035 af

Subcatchment 50S: C.16 Runoff Area=3,508 sf 100.00% Impervious Runoff Depth=5.31"
Tc=6.0 min CN=98 Runoff=0.43 cfs 0.036 af

Subcatchment 51S: D.1 Runoff Area=402,771 sf 0.38% Impervious Runoff Depth=0.42"
Tc=20.0 min CN=41 Runoff=1.30 cfs 0.322 af

Subcatchment 52S: B.9 Runoff Area=15,018 sf 80.72% Impervious Runoff Depth=4.09"
Tc=6.0 min CN=87 Runoff=1.58 cfs 0.117 af

Pond 4P: Infiltration Basin #2 Peak Elev=213.92' Storage=10,923 cf Inflow=7.67 cfs 0.646 af
Discarded=0.77 cfs 0.646 af Primary=0.00 cfs 0.000 af Outflow=0.77 cfs 0.646 af

Pond 5P: Wet Basin Peak Elev=215.01' Storage=10,944 cf Inflow=13.49 cfs 1.559 af
Outflow=8.05 cfs 1.559 af

Pond 7P: Infiltration Basin #1 Peak Elev=215.49' Storage=8,341 cf Inflow=12.24 cfs 1.606 af
Discarded=0.97 cfs 0.935 af Primary=8.51 cfs 0.671 af Outflow=9.49 cfs 1.606 af

Pond 12P: STONE RECHARGE TRENCH Peak Elev=221.01' Storage=1,942 cf Inflow=2.17 cfs 0.181 af
Discarded=0.17 cfs 0.156 af Primary=2.41 cfs 0.025 af Outflow=2.58 cfs 0.181 af

Pond 17P: STONE RECHARGE TRENCH Peak Elev=221.01' Storage=1,942 cf Inflow=2.17 cfs 0.181 af
Discarded=0.17 cfs 0.156 af Primary=2.41 cfs 0.025 af Outflow=2.58 cfs 0.181 af

Pond 19P: STONE RECHARGE TRENCH Peak Elev=221.01' Storage=1,942 cf Inflow=2.17 cfs 0.181 af
Discarded=0.17 cfs 0.156 af Primary=2.41 cfs 0.025 af Outflow=2.58 cfs 0.181 af

Pond 21P: CB-4 Peak Elev=216.34' Inflow=1.58 cfs 0.117 af
12.0" Round Culvert n=0.013 L=37.0' S=0.0054 '/' Outflow=1.58 cfs 0.117 af

Pond 22P: DMH-2 Peak Elev=216.94' Inflow=2.99 cfs 0.225 af
12.0" Round Culvert n=0.013 L=101.0' S=0.0050 '/' Outflow=2.99 cfs 0.225 af

Pond 23P: CB-1 Peak Elev=216.36' Inflow=1.43 cfs 0.107 af
12.0" Round Culvert n=0.013 L=27.0' S=0.0074 '/' Outflow=1.43 cfs 0.107 af

Pond 24P: CB-2 Peak Elev=217.15' Inflow=2.03 cfs 0.162 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0400 '/' Outflow=2.03 cfs 0.162 af

Pond 25P: CB-3 Peak Elev=217.51' Inflow=2.13 cfs 0.155 af
12.0" Round Culvert n=0.013 L=38.0' S=0.0289 '/' Outflow=2.13 cfs 0.155 af

Pond 26P: DMH-1 Peak Elev=216.73' Inflow=5.59 cfs 0.424 af
18.0" Round Culvert n=0.013 L=48.0' S=0.0104 '/' Outflow=5.59 cfs 0.424 af

Pond 27P: CB-22 Peak Elev=216.97' Inflow=2.73 cfs 0.228 af
12.0" Round Culvert n=0.013 L=51.0' S=0.0039 '/' Outflow=2.73 cfs 0.228 af

Pond 28P: DMH-16 Peak Elev=216.91' Inflow=2.73 cfs 0.228 af
12.0" Round Culvert n=0.013 L=160.0' S=0.0037 '/' Outflow=2.73 cfs 0.228 af

Pond 29P: CB-21 Peak Elev=216.66' Inflow=0.65 cfs 0.054 af
12.0" Round Culvert n=0.013 L=26.0' S=0.0192 '/' Outflow=0.65 cfs 0.054 af

Pond 30P: DMH-15 Peak Elev=215.73' Inflow=3.38 cfs 0.282 af
15.0" Round Culvert n=0.013 L=250.0' S=0.0036 '/' Outflow=3.38 cfs 0.282 af

Pond 31P: DMH-14 Peak Elev=215.54' Inflow=7.66 cfs 0.628 af
18.0" Round Culvert n=0.013 L=61.0' S=0.0164 '/' Outflow=7.66 cfs 0.628 af

Pond 32P: CB-20 Peak Elev=216.32' Inflow=1.69 cfs 0.141 af
12.0" Round Culvert n=0.013 L=12.0' S=0.0167 '/' Outflow=1.69 cfs 0.141 af

Pond 33P: DMH-17 Peak Elev=216.35' Inflow=2.59 cfs 0.205 af
12.0" Round Culvert n=0.013 L=180.0' S=0.0083 '/' Outflow=2.59 cfs 0.205 af

Pond 34P: CB-23 Peak Elev=216.23' Inflow=1.40 cfs 0.106 af
12.0" Round Culvert n=0.013 L=28.0' S=0.0107 '/' Outflow=1.40 cfs 0.106 af

Pond 35P: CB-24 Peak Elev=216.16' Inflow=1.19 cfs 0.099 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0150 '/' Outflow=1.19 cfs 0.099 af

Pond 37P: DMH-10 Peak Elev=218.99' Inflow=2.36 cfs 0.197 af
15.0" Round Culvert n=0.013 L=122.0' S=0.0295 '/' Outflow=2.36 cfs 0.197 af

Pond 38P: CB-15 Peak Elev=232.46' Inflow=0.23 cfs 0.019 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0333 '/' Outflow=0.23 cfs 0.019 af

Pond 39P: CB-16 Peak Elev=232.47' Inflow=0.24 cfs 0.020 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0333 '/' Outflow=0.24 cfs 0.020 af

Pond 52P: CB-17 Peak Elev=247.77' Inflow=0.43 cfs 0.036 af
12.0" Round Culvert n=0.013 L=18.0' S=0.0500 '/' Outflow=0.43 cfs 0.036 af

Pond 53P: CB-18 Peak Elev=247.77' Inflow=0.42 cfs 0.035 af
12.0" Round Culvert n=0.013 L=19.0' S=0.0474 '/' Outflow=0.42 cfs 0.035 af

Pond 54P: DMH-13 Peak Elev=246.94' Inflow=0.85 cfs 0.071 af
12.0" Round Culvert n=0.013 L=85.0' S=0.0753 '/' Outflow=0.85 cfs 0.071 af

Pond 56P: DMH-12 Peak Elev=240.44' Inflow=0.85 cfs 0.071 af
12.0" Round Culvert n=0.013 L=110.0' S=0.0745 '/' Outflow=0.85 cfs 0.071 af

Pond 58P: CB-13 Peak Elev=219.22' Inflow=0.32 cfs 0.027 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0467 '/' Outflow=0.32 cfs 0.027 af

Pond 61P: DMH-11 Peak Elev=232.30' Inflow=1.32 cfs 0.110 af
12.0" Round Culvert n=0.013 L=198.0' S=0.0677 '/' Outflow=1.32 cfs 0.110 af

Pond 62P: CB-14 Peak Elev=219.39' Inflow=0.72 cfs 0.060 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0467 '/' Outflow=0.72 cfs 0.060 af

Pond 63P: DMH-4 Peak Elev=219.94' Inflow=11.02 cfs 0.888 af
24.0" Round Culvert n=0.013 L=122.0' S=0.0295 '/' Outflow=11.02 cfs 0.888 af

Pond 65P: DMH-8 Peak Elev=216.40' Inflow=3.93 cfs 0.297 af
15.0" Round Culvert n=0.013 L=215.0' S=0.0028 '/' Outflow=3.93 cfs 0.297 af

Pond 66P: CB-6 Peak Elev=216.49' Inflow=0.71 cfs 0.060 af
12.0" Round Culvert n=0.013 L=24.0' S=0.0208 '/' Outflow=0.71 cfs 0.060 af

Pond 67P: CB-7 Peak Elev=216.40' Inflow=0.49 cfs 0.041 af
12.0" Round Culvert n=0.013 L=24.0' S=0.0208 '/' Outflow=0.49 cfs 0.041 af

Pond 68P: DMH-9 Peak Elev=217.15' Inflow=3.93 cfs 0.297 af
15.0" Round Culvert n=0.013 L=190.0' S=0.0026 '/' Outflow=3.93 cfs 0.297 af

Pond 69P: CB-11 Peak Elev=216.06' Inflow=0.57 cfs 0.047 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0067 '/' Outflow=0.57 cfs 0.047 af

Pond 70P: CB-12 Peak Elev=217.37' Inflow=3.36 cfs 0.250 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0067 '/' Outflow=3.36 cfs 0.250 af

Pond 71P: CB-8 Peak Elev=216.10' Inflow=0.93 cfs 0.078 af
12.0" Round Culvert n=0.013 L=32.0' S=0.0062 '/' Outflow=0.93 cfs 0.078 af

Pond 72P: CB-9 Peak Elev=216.09' Inflow=0.88 cfs 0.073 af
12.0" Round Culvert n=0.013 L=37.0' S=0.0054 '/' Outflow=0.88 cfs 0.073 af

Pond 73P: DMH-6 Peak Elev=216.13' Inflow=1.81 cfs 0.151 af
12.0" Round Culvert n=0.013 L=96.0' S=0.0042 '/' Outflow=1.81 cfs 0.151 af

Pond 77P: DMH-7 Peak Elev=216.44' Inflow=1.71 cfs 0.143 af
15.0" Round Culvert n=0.013 L=181.0' S=0.0050 '/' Outflow=1.71 cfs 0.143 af

Pond 78P: CB-19 Peak Elev=216.51' Inflow=0.65 cfs 0.054 af
12.0" Round Culvert n=0.013 L=49.0' S=0.0041 '/' Outflow=0.65 cfs 0.054 af

Pond 79P: CB-10 Peak Elev=216.64' Inflow=1.06 cfs 0.089 af
12.0" Round Culvert n=0.013 L=29.0' S=0.0069 '/' Outflow=1.06 cfs 0.089 af

Pond 80P: DMH-5 Peak Elev=215.88' Inflow=3.52 cfs 0.294 af
15.0" Round Culvert n=0.013 L=78.0' S=0.0064 '/' Outflow=3.52 cfs 0.294 af

Pond 81P: CB-5 Peak Elev=216.84' Inflow=1.41 cfs 0.108 af
12.0" Round Culvert n=0.013 L=31.0' S=0.0032 '/' Outflow=1.41 cfs 0.108 af

Pond 82P: DMH-3 Peak Elev=216.84' Inflow=1.41 cfs 0.108 af
12.0" Round Culvert n=0.013 L=31.0' S=0.0032 '/' Outflow=1.41 cfs 0.108 af

Link 20L: DP-A Inflow=22.80 cfs 2.627 af
Primary=22.80 cfs 2.627 af

Total Runoff Area = 30.660 ac Runoff Volume = 4.676 af Average Runoff Depth = 1.83"
75.28% Pervious = 23.079 ac 24.72% Impervious = 7.580 ac

Summary for Subcatchment 9S: APT. BLDG. A

Runoff = 2.17 cfs @ 12.09 hrs, Volume= 0.181 af, Depth= 5.31"

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
17,818	98	Roofs, HSG A
17,818		100.00% Impervious Area

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

Summary for Subcatchment 16S: APT. BLDG. B

Runoff = 2.17 cfs @ 12.09 hrs, Volume= 0.181 af, Depth= 5.31"

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
17,818	98	Roofs, HSG A
17,818		100.00% Impervious Area

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

Summary for Subcatchment 18S: APT. BLDG. C

Runoff = 2.17 cfs @ 12.09 hrs, Volume= 0.181 af, Depth= 5.31"

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
17,818	98	Roofs, HSG A
17,818		100.00% Impervious Area

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

Summary for Subcatchment 21S: A.1

Runoff = 0.09 cfs @ 12.38 hrs, Volume= 0.018 af, Depth= 0.47"

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
18,718	39	>75% Grass cover, Good, HSG A
291	30	Woods, Good, HSG A
95	98	Unconnected pavement, HSG A
1,091	98	Roofs, HSG A
20,195	42	Weighted Average
19,009		94.13% Pervious Area
1,186		5.87% Impervious Area
95		8.01% Unconnected

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

Summary for Subcatchment 22S: A.2

Runoff = 1.69 cfs @ 12.09 hrs, Volume= 0.141 af, Depth= 5.31"

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
12,935	98	Paved parking, HSG A
915	98	Roofs, HSG A
13,850	98	Weighted Average
13,850		100.00% 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 = 1.19 cfs @ 12.09 hrs, Volume= 0.099 af, Depth= 5.31"

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
9,767	98	Paved parking, HSG A
9,767		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 = 0.65 cfs @ 12.09 hrs, Volume= 0.054 af, Depth= 5.31"

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
227	98	Paved parking, HSG A
5,114	98	Roofs, HSG A
5,341	98	Weighted Average
5,341		100.00% Impervious Area

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

Summary for Subcatchment 25S: A.5

Runoff = 2.73 cfs @ 12.09 hrs, Volume= 0.228 af, Depth= 5.31"

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
22,426	98	Paved parking, HSG A
22,426		100.00% Impervious Area

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

Summary for Subcatchment 26S: B.6

Runoff = 0.72 cfs @ 12.12 hrs, Volume= 0.071 af, Depth= 0.93"

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
31,146	39		>75% Grass cover, Good, HSG A
3,467	98		Unconnected pavement, HSG A
5,477	98		Roofs, HSG A
40,090	52	50	Weighted Average, UI Adjusted
31,146			77.69% Pervious Area
8,944			22.31% Impervious Area
3,467			38.76% Unconnected

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

Summary for Subcatchment 27S: A.6

Runoff = 1.40 cfs @ 12.09 hrs, Volume= 0.106 af, Depth= 4.41"

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
8,883	98	Paved parking, HSG A
1,619	39	>75% Grass cover, Good, HSG A
948	98	Unconnected pavement, HSG A
1,117	98	Roofs, HSG A
12,567	90	Weighted Average
1,619		12.88% Pervious Area
10,948		87.12% Impervious Area
948		8.66% Unconnected

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

Summary for Subcatchment 28S: B.1

Runoff = 0.07 cfs @ 12.39 hrs, Volume= 0.019 af, Depth= 0.32"

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
30,559	39		>75% Grass cover, Good, HSG A
270	98		Unconnected pavement, HSG A
30,829	40	39	Weighted Average, UI Adjusted
30,559			99.12% Pervious Area
270			0.88% Impervious Area
270			100.00% Unconnected

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

Summary for Subcatchment 29S: B.2

Runoff = 1.43 cfs @ 12.09 hrs, Volume= 0.107 af, Depth= 4.19"

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
2,173	39	>75% Grass cover, Good, HSG A
1,997	98	Unconnected pavement, HSG A
9,211	98	Paved parking, HSG A
13,381	88	Weighted Average
2,173		16.24% Pervious Area
11,208		83.76% Impervious Area
1,997		17.82% 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 = 2.03 cfs @ 12.09 hrs, Volume= 0.162 af, Depth= 4.96"

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
731	39	>75% Grass cover, Good, HSG A
2,575	98	Unconnected pavement, HSG A
13,754	98	Paved parking, HSG A
17,060	95	Weighted Average
731		4.28% Pervious Area
16,329		95.72% Impervious Area
2,575		15.77% 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 = 2.03 cfs @ 12.09 hrs, Volume= 0.162 af, Depth= 4.96"

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
731	39	>75% Grass cover, Good, HSG A
2,575	98	Unconnected pavement, HSG A
13,754	98	Paved parking, HSG A
17,060	95	Weighted Average
731		4.28% Pervious Area
16,329		95.72% Impervious Area
2,575		15.77% Unconnected

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

Summary for Subcatchment 32S: B.5

Runoff = 2.13 cfs @ 12.09 hrs, Volume= 0.155 af, Depth= 3.28"

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
8,616	98	Paved parking, HSG A
8,034	39	>75% Grass cover, Good, HSG A
1,324	98	Unconnected pavement, HSG A
6,653	98	Roofs, HSG A
24,627	79	Weighted Average
8,034		32.62% Pervious Area
16,593		67.38% Impervious Area
1,324		7.98% Unconnected

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

Summary for Subcatchment 33S: B.7

Runoff = 4.81 cfs @ 12.49 hrs, Volume= 0.704 af, Depth= 1.27"

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
129,407	39	>75% Grass cover, Good, HSG A
97,286	74	>75% Grass cover, Good, HSG C
9,046	80	>75% Grass cover, Good, HSG D
27,194	30	Woods, Good, HSG A
15,779	70	Woods, Good, HSG C
4,399	77	Woods, Good, HSG D
1,606	98	Unconnected pavement, HSG A
319	98	Unconnected pavement, HSG C
5,475	98	Roofs, HSG A
290,511	55	Weighted Average
283,111		97.45% Pervious Area
7,400		2.55% Impervious Area
1,925		26.01% Unconnected

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

Summary for Subcatchment 34S: B.8

Runoff = 1.41 cfs @ 12.09 hrs, Volume= 0.108 af, Depth= 4.52"

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
9,724	98	Paved parking, HSG A
1,396	39	>75% Grass cover, Good, HSG A
1,364	98	Unconnected pavement, HSG A
12,484	91	Weighted Average
1,396		11.18% Pervious Area
11,088		88.82% Impervious Area
1,364		12.30% 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 = 5.69 cfs @ 12.31 hrs, Volume= 0.671 af, Depth= 1.48"

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
128,543	39		>75% Grass cover, Good, HSG A
69,229	80		>75% Grass cover, Good, HSG D
16,469	77		Woods, Good, HSG D
14,141	98		Unconnected pavement, HSG A
7,926	98		Roofs, HSG A
236,308	59	58	Weighted Average, UI Adjusted
214,241			90.66% Pervious Area
22,067			9.34% Impervious Area
14,141			64.08% 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 = 2.41 cfs @ 12.09 hrs, Volume= 0.181 af, Depth= 4.19"

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
12,989	98	Paved parking, HSG A
3,687	39	>75% Grass cover, Good, HSG A
2,989	98	Unconnected pavement, HSG A
2,851	98	Roofs, HSG A
22,516	88	Weighted Average
3,687		16.38% Pervious Area
18,829		83.62% Impervious Area
2,989		15.87% 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 = 0.95 cfs @ 12.09 hrs, Volume= 0.069 af, Depth= 2.90"

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
5,266	98	Paved parking, HSG A
4,754	39	>75% Grass cover, Good, HSG A
509	98	Roofs, HSG A
1,900	98	Roofs, HSG A
12,429	75	Weighted Average
4,754		38.25% Pervious Area
7,675		61.75% Impervious Area

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

Summary for Subcatchment 38S: C.4

Runoff = 0.57 cfs @ 12.09 hrs, Volume= 0.047 af, Depth= 5.31"

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
4,655	98	Paved parking, HSG A
4,655		100.00% Impervious Area

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

Summary for Subcatchment 39S: C.5

Runoff = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 5.31"

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
4,080	98	Paved parking, HSG A
1,777	98	Unconnected pavement, HSG A
5,857	98	Weighted Average
5,857		100.00% Impervious Area
1,777		30.34% 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 = 0.49 cfs @ 12.09 hrs, Volume= 0.041 af, Depth= 5.31"

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
4,047	98	Paved parking, HSG A
4,047		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 = 0.88 cfs @ 12.09 hrs, Volume= 0.073 af, Depth= 5.31"

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
6,072	98	Paved parking, HSG A
1,116	98	Roofs, HSG A
7,188	98	Weighted Average
7,188		100.00% Impervious Area

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

Summary for Subcatchment 42S: C.8

Runoff = 0.93 cfs @ 12.09 hrs, Volume= 0.078 af, Depth= 5.31"

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
7,639	98	Paved parking, HSG A
7,639		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 = 1.06 cfs @ 12.09 hrs, Volume= 0.089 af, Depth= 5.31"

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
8,732	98	Paved parking, HSG A
8,732		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 = 0.65 cfs @ 12.09 hrs, Volume= 0.054 af, Depth= 5.31"

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
5,326	98	Paved parking, HSG A
5,326		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 = 0.32 cfs @ 12.09 hrs, Volume= 0.027 af, Depth= 5.31"

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
1,483	98	Paved parking, HSG A
946	98	Paved parking, HSG D
126	98	Unconnected pavement, HSG A
76	98	Unconnected pavement, HSG D
2,631	98	Weighted Average
2,631		100.00% Impervious Area
202		7.68% Unconnected

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

Summary for Subcatchment 46S: C.12

Runoff = 0.72 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 5.31"

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
2,144	98	Paved parking, HSG A
2,121	98	Paved parking, HSG D
853	98	Unconnected pavement, HSG A
696	98	Unconnected pavement, HSG D
96	98	Roofs, HSG A
5,910	98	Weighted Average
5,910		100.00% Impervious Area
1,549		26.21% Unconnected

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

Summary for Subcatchment 47S: C.13

Runoff = 0.24 cfs @ 12.09 hrs, Volume= 0.020 af, Depth= 5.31"

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
1,832	98	Paved parking, HSG D
155	98	Unconnected pavement, HSG D
1,987	98	Weighted Average
1,987		100.00% Impervious Area
155		7.80% Unconnected

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

Summary for Subcatchment 48S: C.14

Runoff = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af, Depth= 5.31"

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
1,744	98	Paved parking, HSG D
141	98	Unconnected pavement, HSG D
1,885	98	Weighted Average
1,885		100.00% Impervious Area
141		7.48% Unconnected

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

Summary for Subcatchment 49S: C.15

Runoff = 0.42 cfs @ 12.09 hrs, Volume= 0.035 af, Depth= 5.31"

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
3,220	98	Paved parking, HSG D
267	98	Unconnected pavement, HSG D
3,487	98	Weighted Average
3,487		100.00% Impervious Area
267		7.66% Unconnected

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

Summary for Subcatchment 50S: C.16

Runoff = 0.43 cfs @ 12.09 hrs, Volume= 0.036 af, Depth= 5.31"

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
3,238	98	Paved parking, HSG D
270	98	Unconnected pavement, HSG D
3,508	98	Weighted Average
3,508		100.00% Impervious Area
270		7.70% Unconnected

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

Summary for Subcatchment 51S: D.1

Runoff = 1.30 cfs @ 12.55 hrs, Volume= 0.322 af, Depth= 0.42"

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
1,527	98	Unconnected pavement, HSG A
182,934	39	>75% Grass cover, Good, HSG A
518	61	>75% Grass cover, Good, HSG B
51,440	80	>75% Grass cover, Good, HSG D
160,796	30	Woods, Good, HSG A
5,106	55	Woods, Good, HSG B
450	77	Woods, Good, HSG D
402,771	41	Weighted Average
401,244		99.62% Pervious Area
1,527		0.38% Impervious Area
1,527		100.00% Unconnected

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

Summary for Subcatchment 52S: B.9

Runoff = 1.58 cfs @ 12.09 hrs, Volume= 0.117 af, Depth= 4.09"

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
10,973	98	Paved parking, HSG A
2,895	39	>75% Grass cover, Good, HSG A
1,150	98	Unconnected pavement, HSG A
15,018	87	Weighted Average
2,895		19.28% Pervious Area
12,123		80.72% Impervious Area
1,150		9.49% Unconnected

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

Summary for Pond 4P: Infiltration Basin #2

Inflow Area = 1.932 ac, 75.49% Impervious, Inflow Depth = 4.01" for 25-yr event
Inflow = 7.67 cfs @ 12.09 hrs, Volume= 0.646 af
Outflow = 0.77 cfs @ 12.91 hrs, Volume= 0.646 af, Atten= 90%, Lag= 49.1 min
Discarded = 0.77 cfs @ 12.91 hrs, Volume= 0.646 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 213.92' @ 12.91 hrs Surf.Area= 8,795 sf Storage= 10,923 cf

Plug-Flow detention time= 129.4 min calculated for 0.646 af (100% of inflow)
Center-of-Mass det. time= 129.4 min (888.2 - 758.8)

Volume	Invert	Avail.Storage	Storage Description
#1	212.50'	32,065 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	6,645	342.0	0	0	6,645
214.00	8,926	397.0	11,636	11,636	9,927
216.00	11,559	453.0	20,428	32,065	13,809

Device	Routing	Invert	Outlet Devices
#1	Discarded	212.50'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 210.40'
#2	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

Discarded OutFlow Max=0.77 cfs @ 12.91 hrs HW=213.92' (Free Discharge)
└**1=Exfiltration** (Controls 0.77 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=212.50' (Free Discharge)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 5P: Wet Basin

Inflow Area = 7.670 ac, 33.35% Impervious, Inflow Depth = 2.44" for 25-yr event
Inflow = 13.49 cfs @ 12.10 hrs, Volume= 1.559 af
Outflow = 8.05 cfs @ 12.44 hrs, Volume= 1.559 af, Atten= 40%, Lag= 20.1 min
Primary = 8.05 cfs @ 12.44 hrs, Volume= 1.559 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.01' @ 12.44 hrs Surf.Area= 12,501 sf Storage= 10,944 cf

Plug-Flow detention time= 27.3 min calculated for 1.558 af (100% of inflow)
Center-of-Mass det. time= 27.4 min (843.4 - 816.0)

Volume	Invert	Avail.Storage	Storage Description
#1	214.00'	103,930 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	20,207	375.0	36,350	61,425	15,359
220.00	22,316	390.0	42,506	103,930	16,550

Device	Routing	Invert	Outlet Devices
#1	Primary	213.43'	**24.0" Round Culvert** L= 580.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 213.43' / 211.63' S= 0.0031 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	214.00'	**45.0 deg x 4.0' long Sharp-Crested Vee/Trap Weir**

			Cv= 2.56 (C= 3.20)
#3	Device 1	215.50'	**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=8.05 cfs @ 12.44 hrs HW=215.01' (Free Discharge)
└**1=Culvert** (Barrel Controls 8.05 cfs @ 4.14 fps)
└**2=Sharp-Crested Vee/Trap Weir** (Passes 8.05 cfs of 14.12 cfs potential flow)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 7P: Infiltration Basin #1

Inflow Area = 10.584 ac, 21.75% Impervious, Inflow Depth = 1.82" for 25-yr event
Inflow = 12.24 cfs @ 12.10 hrs, Volume= 1.606 af
Outflow = 9.49 cfs @ 12.20 hrs, Volume= 1.606 af, Atten= 23%, Lag= 6.2 min
Discarded = 0.97 cfs @ 12.20 hrs, Volume= 0.935 af
Primary = 8.51 cfs @ 12.20 hrs, Volume= 0.671 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.49' @ 12.20 hrs Surf.Area= 13,300 sf Storage= 8,341 cf

Plug-Flow detention time= 45.2 min calculated for 1.606 af (100% of inflow)
Center-of-Mass det. time= 45.2 min (891.5 - 846.2)

Volume	Invert	Avail.Storage	Storage Description
#1	214.80'	15,542 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	10,430	800.0	0	0	10,430
215.00	11,580	1,000.0	2,200	2,200	39,078
216.00	15,185	1,210.0	13,342	15,542	76,027

Device	Routing	Invert	Outlet Devices
#1	Primary	215.30'	**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	Discarded	214.80'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 212.80'

Discarded OutFlow Max=0.97 cfs @ 12.20 hrs HW=215.49' (Free Discharge)
└**2=Exfiltration** (Controls 0.97 cfs)

Primary OutFlow Max=8.51 cfs @ 12.20 hrs HW=215.49' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 8.51 cfs @ 1.10 fps)

Summary for Pond 12P: STONE RECHARGE TRENCH

Inflow Area = 0.409 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 2.17 cfs @ 12.09 hrs, Volume= 0.181 af
Outflow = 2.58 cfs @ 12.20 hrs, Volume= 0.181 af, Atten= 0%, Lag= 6.8 min
Discarded = 0.17 cfs @ 12.20 hrs, Volume= 0.156 af
Primary = 2.41 cfs @ 12.20 hrs, Volume= 0.025 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 221.01' @ 12.20 hrs Surf.Area= 2,427 sf Storage= 1,942 cf

Plug-Flow detention time= 75.0 min calculated for 0.181 af (100% of inflow)
Center-of-Mass det. time= 74.9 min (821.3 - 746.3)

Volume	Invert	Avail.Storage	Storage Description
#1	219.00'	1,942 cf	**3.00'W x 809.00'L x 2.00'H Prismatoid** 4,854 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Primary	221.00'	**809.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	219.00'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 210.00'

Discarded OutFlow Max=0.17 cfs @ 12.20 hrs HW=221.01' (Free Discharge)
└**2=Exfiltration** (Controls 0.17 cfs)

Primary OutFlow Max=1.47 cfs @ 12.20 hrs HW=221.01' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 1.47 cfs @ 0.24 fps)

Summary for Pond 17P: STONE RECHARGE TRENCH

Inflow Area = 0.409 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 2.17 cfs @ 12.09 hrs, Volume= 0.181 af
Outflow = 2.58 cfs @ 12.20 hrs, Volume= 0.181 af, Atten= 0%, Lag= 6.8 min
Discarded = 0.17 cfs @ 12.20 hrs, Volume= 0.156 af
Primary = 2.41 cfs @ 12.20 hrs, Volume= 0.025 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 221.01' @ 12.20 hrs Surf.Area= 2,427 sf Storage= 1,942 cf

Plug-Flow detention time= 75.0 min calculated for 0.181 af (100% of inflow)
Center-of-Mass det. time= 74.9 min (821.3 - 746.3)

Volume	Invert	Avail.Storage	Storage Description
#1	219.00'	1,942 cf	**3.00'W x 809.00'L x 2.00'H Prismatoid** 4,854 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Primary	221.00'	**809.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	219.00'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 210.00'

Discarded OutFlow Max=0.17 cfs @ 12.20 hrs HW=221.01' (Free Discharge)
└**2=Exfiltration** (Controls 0.17 cfs)

Primary OutFlow Max=1.47 cfs @ 12.20 hrs HW=221.01' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 1.47 cfs @ 0.24 fps)

Summary for Pond 19P: STONE RECHARGE TRENCH

Inflow Area = 0.409 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 2.17 cfs @ 12.09 hrs, Volume= 0.181 af
Outflow = 2.58 cfs @ 12.20 hrs, Volume= 0.181 af, Atten= 0%, Lag= 6.8 min
Discarded = 0.17 cfs @ 12.20 hrs, Volume= 0.156 af
Primary = 2.41 cfs @ 12.20 hrs, Volume= 0.025 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 221.01' @ 12.20 hrs Surf.Area= 2,427 sf Storage= 1,942 cf

Plug-Flow detention time= 75.0 min calculated for 0.181 af (100% of inflow)
Center-of-Mass det. time= 74.9 min (821.3 - 746.3)

Volume	Invert	Avail.Storage	Storage Description
#1	219.00'	1,942 cf	**3.00'W x 809.00'L x 2.00'H Prismatoid** 4,854 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Primary	221.00'	**809.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	219.00'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 210.00'

Discarded OutFlow Max=0.17 cfs @ 12.20 hrs HW=221.01' (Free Discharge)
└**2=Exfiltration** (Controls 0.17 cfs)

Primary OutFlow Max=1.47 cfs @ 12.20 hrs HW=221.01' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 1.47 cfs @ 0.24 fps)

Summary for Pond 21P: CB-4

Inflow Area = 0.345 ac, 80.72% Impervious, Inflow Depth = 4.09" for 25-yr event
Inflow = 1.58 cfs @ 12.09 hrs, Volume= 0.117 af
Outflow = 1.58 cfs @ 12.09 hrs, Volume= 0.117 af, Atten= 0%, Lag= 0.0 min
Primary = 1.58 cfs @ 12.09 hrs, Volume= 0.117 af

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= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 37.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0054 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.54 cfs @ 12.09 hrs HW=216.33' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.54 cfs @ 3.01 fps)

Summary for Pond 22P: DMH-2

Inflow Area = 0.631 ac, 84.40% Impervious, Inflow Depth = 4.28" for 25-yr event
Inflow = 2.99 cfs @ 12.09 hrs, Volume= 0.225 af
Outflow = 2.99 cfs @ 12.09 hrs, Volume= 0.225 af, Atten= 0%, Lag= 0.0 min
Primary = 2.99 cfs @ 12.09 hrs, Volume= 0.225 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.94' @ 12.09 hrs
Flood Elev= 218.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.30'	**12.0" Round Culvert** L= 101.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.30' / 214.80' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.92 cfs @ 12.09 hrs HW=216.89' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.92 cfs @ 3.71 fps)

Summary for Pond 23P: CB-1

Inflow Area = 0.307 ac, 83.76% Impervious, Inflow Depth = 4.19" for 25-yr event
Inflow = 1.43 cfs @ 12.09 hrs, Volume= 0.107 af
Outflow = 1.43 cfs @ 12.09 hrs, Volume= 0.107 af, Atten= 0%, Lag= 0.0 min
Primary = 1.43 cfs @ 12.09 hrs, Volume= 0.107 af

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= 218.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.60'	**12.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.60' / 215.40' S= 0.0074 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.40 cfs @ 12.09 hrs HW=216.35' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.40 cfs @ 3.06 fps)

Summary for Pond 24P: CB-2

Inflow Area = 0.392 ac, 95.72% Impervious, Inflow Depth = 4.96" for 25-yr event
Inflow = 2.03 cfs @ 12.09 hrs, Volume= 0.162 af
Outflow = 2.03 cfs @ 12.09 hrs, Volume= 0.162 af, Atten= 0%, Lag= 0.0 min
Primary = 2.03 cfs @ 12.09 hrs, Volume= 0.162 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.15' @ 12.09 hrs
Flood Elev= 219.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.20'	**12.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.20' / 215.40' S= 0.0400 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.98 cfs @ 12.09 hrs HW=217.13' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.98 cfs @ 2.60 fps)

Summary for Pond 25P: CB-3

Inflow Area = 0.565 ac, 67.38% Impervious, Inflow Depth = 3.28" for 25-yr event
Inflow = 2.13 cfs @ 12.09 hrs, Volume= 0.155 af
Outflow = 2.13 cfs @ 12.09 hrs, Volume= 0.155 af, Atten= 0%, Lag= 0.0 min
Primary = 2.13 cfs @ 12.09 hrs, Volume= 0.155 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.51' @ 12.09 hrs
Flood Elev= 219.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.50'	**12.0" Round Culvert** L= 38.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.50' / 215.40' S= 0.0289 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.09 cfs @ 12.09 hrs HW=217.49' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.09 cfs @ 2.67 fps)

Summary for Pond 26P: DMH-1

Inflow Area = 1.264 ac, 80.14% Impervious, Inflow Depth = 4.02" for 25-yr event
Inflow = 5.59 cfs @ 12.09 hrs, Volume= 0.424 af
Outflow = 5.59 cfs @ 12.09 hrs, Volume= 0.424 af, Atten= 0%, Lag= 0.0 min
Primary = 5.59 cfs @ 12.09 hrs, Volume= 0.424 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.73' @ 12.09 hrs
Flood Elev= 218.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.30'	**18.0" Round Culvert** L= 48.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.30' / 214.80' S= 0.0104 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=5.47 cfs @ 12.09 hrs HW=216.70' (Free Discharge)
└**1=Culvert** (Inlet Controls 5.47 cfs @ 3.18 fps)

Summary for Pond 27P: CB-22

Inflow Area = 0.515 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 2.73 cfs @ 12.09 hrs, Volume= 0.228 af
Outflow = 2.73 cfs @ 12.09 hrs, Volume= 0.228 af, Atten= 0%, Lag= 0.0 min
Primary = 2.73 cfs @ 12.09 hrs, Volume= 0.228 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.97' @ 12.08 hrs
Flood Elev= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 51.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0039 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.66 cfs @ 12.09 hrs HW=216.92' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.66 cfs @ 3.39 fps)

Summary for Pond 28P: DMH-16

Inflow Area = 0.515 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 2.73 cfs @ 12.09 hrs, Volume= 0.228 af
Outflow = 2.73 cfs @ 12.09 hrs, Volume= 0.228 af, Atten= 0%, Lag= 0.0 min
Primary = 2.73 cfs @ 12.09 hrs, Volume= 0.228 af

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= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.20'	**12.0" Round Culvert** L= 160.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.20' / 214.60' S= 0.0037 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.66 cfs @ 12.09 hrs HW=216.83' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.66 cfs @ 3.39 fps)

Summary for Pond 29P: CB-21

Inflow Area = 0.123 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 0.65 cfs @ 12.09 hrs, Volume= 0.054 af
Outflow = 0.65 cfs @ 12.09 hrs, Volume= 0.054 af, Atten= 0%, Lag= 0.0 min
Primary = 0.65 cfs @ 12.09 hrs, Volume= 0.054 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.66' @ 12.09 hrs
Flood Elev= 219.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.20'	**12.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.20' / 215.70' S= 0.0192 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.63 cfs @ 12.09 hrs HW=216.66' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.63 cfs @ 1.81 fps)

Summary for Pond 30P: DMH-15

Inflow Area = 0.637 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 3.38 cfs @ 12.09 hrs, Volume= 0.282 af
Outflow = 3.38 cfs @ 12.09 hrs, Volume= 0.282 af, Atten= 0%, Lag= 0.0 min
Primary = 3.38 cfs @ 12.09 hrs, Volume= 0.282 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.73' @ 12.09 hrs
Flood Elev= 219.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.50'	**15.0" Round Culvert** L= 250.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.50' / 213.60' S= 0.0036 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=3.29 cfs @ 12.09 hrs HW=215.71' (Free Discharge)
└**1=Culvert** (Barrel Controls 3.29 cfs @ 3.45 fps)

Summary for Pond 31P: DMH-14

Inflow Area = 1.468 ac, 97.47% Impervious, Inflow Depth = 5.13" for 25-yr event
Inflow = 7.66 cfs @ 12.09 hrs, Volume= 0.628 af
Outflow = 7.66 cfs @ 12.09 hrs, Volume= 0.628 af, Atten= 0%, Lag= 0.0 min
Primary = 7.66 cfs @ 12.09 hrs, Volume= 0.628 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.54' @ 12.09 hrs
Flood Elev= 218.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	213.50'	**18.0" Round Culvert** L= 61.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 213.50' / 212.50' S= 0.0164 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=7.46 cfs @ 12.09 hrs HW=215.48' (Free Discharge)
└**1=Culvert** (Inlet Controls 7.46 cfs @ 4.22 fps)

Summary for Pond 32P: CB-20

Inflow Area = 0.318 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 1.69 cfs @ 12.09 hrs, Volume= 0.141 af
Outflow = 1.69 cfs @ 12.09 hrs, Volume= 0.141 af, Atten= 0%, Lag= 0.0 min
Primary = 1.69 cfs @ 12.09 hrs, Volume= 0.141 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.32' @ 12.09 hrs
Flood Elev= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 12.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0167 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.64 cfs @ 12.09 hrs HW=216.31' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.64 cfs @ 2.42 fps)

Summary for Pond 33P: DMH-17

Inflow Area = 0.513 ac, 92.75% Impervious, Inflow Depth = 4.80" for 25-yr event
Inflow = 2.59 cfs @ 12.09 hrs, Volume= 0.205 af
Outflow = 2.59 cfs @ 12.09 hrs, Volume= 0.205 af, Atten= 0%, Lag= 0.0 min
Primary = 2.59 cfs @ 12.09 hrs, Volume= 0.205 af

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= 218.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.10'	**12.0" Round Culvert** L= 180.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.10' / 213.60' S= 0.0083 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.52 cfs @ 12.09 hrs HW=216.31' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.52 cfs @ 3.21 fps)

Summary for Pond 34P: CB-23

Inflow Area = 0.288 ac, 87.12% Impervious, Inflow Depth = 4.41" for 25-yr event
Inflow = 1.40 cfs @ 12.09 hrs, Volume= 0.106 af
Outflow = 1.40 cfs @ 12.09 hrs, Volume= 0.106 af, Atten= 0%, Lag= 0.0 min
Primary = 1.40 cfs @ 12.09 hrs, Volume= 0.106 af

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= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.20' S= 0.0107 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.36 cfs @ 12.09 hrs HW=216.21' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.36 cfs @ 2.27 fps)

Summary for Pond 35P: CB-24

Inflow Area = 0.224 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 1.19 cfs @ 12.09 hrs, Volume= 0.099 af
Outflow = 1.19 cfs @ 12.09 hrs, Volume= 0.099 af, Atten= 0%, Lag= 0.0 min
Primary = 1.19 cfs @ 12.09 hrs, Volume= 0.099 af

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= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.20' S= 0.0150 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.16 cfs @ 12.09 hrs HW=216.15' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.16 cfs @ 2.16 fps)

Summary for Pond 37P: DMH-10

Inflow Area = 0.446 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 2.36 cfs @ 12.09 hrs, Volume= 0.197 af
Outflow = 2.36 cfs @ 12.09 hrs, Volume= 0.197 af, Atten= 0%, Lag= 0.0 min
Primary = 2.36 cfs @ 12.09 hrs, Volume= 0.197 af

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= 222.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.10'	**15.0" Round Culvert** L= 122.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.10' / 214.50' S= 0.0295 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=2.30 cfs @ 12.09 hrs HW=218.97' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.30 cfs @ 2.51 fps)

Summary for Pond 38P: CB-15

Inflow Area = 0.043 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af
Outflow = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min
Primary = 0.23 cfs @ 12.09 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 232.46' @ 12.09 hrs
Flood Elev= 236.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	232.20'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 232.20' / 231.70' S= 0.0333 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.22 cfs @ 12.09 hrs HW=232.46' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.22 cfs @ 1.37 fps)

Summary for Pond 39P: CB-16

Inflow Area = 0.046 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-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

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 232.47' @ 12.09 hrs
Flood Elev= 236.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	232.20'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 232.20' / 231.70' S= 0.0333 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.23 cfs @ 12.09 hrs HW=232.47' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.23 cfs @ 1.39 fps)

Summary for Pond 52P: CB-17

Inflow Area = 0.081 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-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

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 247.77' @ 12.09 hrs
Flood Elev= 251.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	247.40'	**12.0" Round Culvert** L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 247.40' / 246.50' S= 0.0500 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.42 cfs @ 12.09 hrs HW=247.76' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.42 cfs @ 1.62 fps)

Summary for Pond 53P: CB-18

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 0.42 cfs @ 12.09 hrs, Volume= 0.035 af
Outflow = 0.42 cfs @ 12.09 hrs, Volume= 0.035 af, Atten= 0%, Lag= 0.0 min
Primary = 0.42 cfs @ 12.09 hrs, Volume= 0.035 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 247.77' @ 12.09 hrs
Flood Elev= 251.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	247.40'	**12.0" Round Culvert** L= 19.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 247.40' / 246.50' S= 0.0474 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.41 cfs @ 12.09 hrs HW=247.76' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.41 cfs @ 1.62 fps)

Summary for Pond 54P: DMH-13

Inflow Area = 0.161 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 0.85 cfs @ 12.09 hrs, Volume= 0.071 af
Outflow = 0.85 cfs @ 12.09 hrs, Volume= 0.071 af, Atten= 0%, Lag= 0.0 min
Primary = 0.85 cfs @ 12.09 hrs, Volume= 0.071 af

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= 250.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	246.40'	**12.0" Round Culvert** L= 85.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 246.40' / 240.00' S= 0.0753 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.83 cfs @ 12.09 hrs HW=246.93' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.83 cfs @ 1.96 fps)

Summary for Pond 56P: DMH-12

Inflow Area = 0.161 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 0.85 cfs @ 12.09 hrs, Volume= 0.071 af
Outflow = 0.85 cfs @ 12.09 hrs, Volume= 0.071 af, Atten= 0%, Lag= 0.0 min
Primary = 0.85 cfs @ 12.09 hrs, Volume= 0.071 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 240.44' @ 12.09 hrs
Flood Elev= 244.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	239.90'	**12.0" Round Culvert** L= 110.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 239.90' / 231.70' S= 0.0745 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.83 cfs @ 12.09 hrs HW=240.43' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.83 cfs @ 1.96 fps)

Summary for Pond 58P: CB-13

Inflow Area = 0.060 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 0.32 cfs @ 12.09 hrs, Volume= 0.027 af
Outflow = 0.32 cfs @ 12.09 hrs, Volume= 0.027 af, Atten= 0%, Lag= 0.0 min
Primary = 0.32 cfs @ 12.09 hrs, Volume= 0.027 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 219.22' @ 12.09 hrs
Flood Elev= 221.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.90'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.90' / 218.20' S= 0.0467 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.31 cfs @ 12.09 hrs HW=219.21' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.31 cfs @ 1.50 fps)

Summary for Pond 61P: DMH-11

Inflow Area = 0.249 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 1.32 cfs @ 12.09 hrs, Volume= 0.110 af
Outflow = 1.32 cfs @ 12.09 hrs, Volume= 0.110 af, Atten= 0%, Lag= 0.0 min
Primary = 1.32 cfs @ 12.09 hrs, Volume= 0.110 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 232.30' @ 12.09 hrs
Flood Elev= 235.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	231.60'	**12.0" Round Culvert** L= 198.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 231.60' / 218.20' S= 0.0677 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.29 cfs @ 12.09 hrs HW=232.29' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.29 cfs @ 2.23 fps)

Summary for Pond 62P: CB-14

Inflow Area = 0.136 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 0.72 cfs @ 12.09 hrs, Volume= 0.060 af
Outflow = 0.72 cfs @ 12.09 hrs, Volume= 0.060 af, Atten= 0%, Lag= 0.0 min
Primary = 0.72 cfs @ 12.09 hrs, Volume= 0.060 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 219.39' @ 12.09 hrs
Flood Elev= 221.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.90'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.90' / 218.20' S= 0.0467 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.70 cfs @ 12.09 hrs HW=219.38' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.70 cfs @ 1.87 fps)

Summary for Pond 63P: DMH-4

Inflow Area = 2.245 ac, 91.37% Impervious, Inflow Depth = 4.75" for 25-yr event
Inflow = 11.02 cfs @ 12.09 hrs, Volume= 0.888 af
Outflow = 11.02 cfs @ 12.09 hrs, Volume= 0.888 af, Atten= 0%, Lag= 0.0 min
Primary = 11.02 cfs @ 12.09 hrs, Volume= 0.888 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 219.94' @ 12.09 hrs
Flood Elev= 222.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.10'	**24.0" Round Culvert** L= 122.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.10' / 214.50' S= 0.0295 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf

Primary OutFlow Max=10.74 cfs @ 12.09 hrs HW=219.90' (Free Discharge)
└**1=Culvert** (Inlet Controls 10.74 cfs @ 3.61 fps)

Summary for Pond 65P: DMH-8

Inflow Area = 0.909 ac, 78.68% Impervious, Inflow Depth = 3.92" for 25-yr event
Inflow = 3.93 cfs @ 12.09 hrs, Volume= 0.297 af
Outflow = 3.93 cfs @ 12.09 hrs, Volume= 0.297 af, Atten= 0%, Lag= 0.0 min
Primary = 3.93 cfs @ 12.09 hrs, Volume= 0.297 af

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= 220.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.80'	**15.0" Round Culvert** L= 215.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.80' / 214.20' S= 0.0028 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=3.89 cfs @ 12.09 hrs HW=216.35' (Free Discharge)
└**1=Culvert** (Barrel Controls 3.89 cfs @ 3.26 fps)

Summary for Pond 66P: CB-6

Inflow Area = 0.134 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af
Outflow = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af, Atten= 0%, Lag= 0.0 min
Primary = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.49' @ 12.09 hrs
Flood Elev= 219.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.50' S= 0.0208 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.69 cfs @ 12.09 hrs HW=216.48' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.69 cfs @ 1.86 fps)

Summary for Pond 67P: CB-7

Inflow Area = 0.093 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-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

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= 219.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.50' S= 0.0208 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.48 cfs @ 12.09 hrs HW=216.39' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.48 cfs @ 1.68 fps)

Summary for Pond 68P: DMH-9

Inflow Area = 0.909 ac, 78.68% Impervious, Inflow Depth = 3.92" for 25-yr event
Inflow = 3.93 cfs @ 12.09 hrs, Volume= 0.297 af
Outflow = 3.93 cfs @ 12.09 hrs, Volume= 0.297 af, Atten= 0%, Lag= 0.0 min
Primary = 3.93 cfs @ 12.09 hrs, Volume= 0.297 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.15' @ 12.10 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.40'	**15.0" Round Culvert** L= 190.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.40' / 214.90' S= 0.0026 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=3.77 cfs @ 12.09 hrs HW=217.08' (Free Discharge)
└**1=Culvert** (Barrel Controls 3.77 cfs @ 3.07 fps)

Summary for Pond 69P: CB-11

Inflow Area = 0.107 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 0.57 cfs @ 12.09 hrs, Volume= 0.047 af
Outflow = 0.57 cfs @ 12.09 hrs, Volume= 0.047 af, Atten= 0%, Lag= 0.0 min
Primary = 0.57 cfs @ 12.09 hrs, Volume= 0.047 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.06' @ 12.09 hrs
Flood Elev= 218.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.60'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.60' / 215.50' S= 0.0067 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.55 cfs @ 12.09 hrs HW=216.06' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.55 cfs @ 2.31 fps)

Summary for Pond 70P: CB-12

Inflow Area = 0.802 ac, 75.84% Impervious, Inflow Depth = 3.73" for 25-yr event
Inflow = 3.36 cfs @ 12.09 hrs, Volume= 0.250 af
Outflow = 3.36 cfs @ 12.09 hrs, Volume= 0.250 af, Atten= 0%, Lag= 0.0 min
Primary = 3.36 cfs @ 12.09 hrs, Volume= 0.250 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.37' @ 12.09 hrs
Flood Elev= 218.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.60'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.60' / 215.50' S= 0.0067 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=3.29 cfs @ 12.09 hrs HW=217.31' (Free Discharge)
└**1=Culvert** (Inlet Controls 3.29 cfs @ 4.19 fps)

Summary for Pond 71P: CB-8

Inflow Area = 0.175 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 0.93 cfs @ 12.09 hrs, Volume= 0.078 af
Outflow = 0.93 cfs @ 12.09 hrs, Volume= 0.078 af, Atten= 0%, Lag= 0.0 min
Primary = 0.93 cfs @ 12.09 hrs, Volume= 0.078 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.10' @ 12.09 hrs
Flood Elev= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 32.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0062 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.91 cfs @ 12.09 hrs HW=216.09' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.91 cfs @ 2.72 fps)

Summary for Pond 72P: CB-9

Inflow Area = 0.165 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 0.88 cfs @ 12.09 hrs, Volume= 0.073 af
Outflow = 0.88 cfs @ 12.09 hrs, Volume= 0.073 af, Atten= 0%, Lag= 0.0 min
Primary = 0.88 cfs @ 12.09 hrs, Volume= 0.073 af

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= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 37.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0054 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.85 cfs @ 12.09 hrs HW=216.08' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.85 cfs @ 2.62 fps)

Summary for Pond 73P: DMH-6

Inflow Area = 0.340 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 1.81 cfs @ 12.09 hrs, Volume= 0.151 af
Outflow = 1.81 cfs @ 12.09 hrs, Volume= 0.151 af, Atten= 0%, Lag= 0.0 min
Primary = 1.81 cfs @ 12.09 hrs, Volume= 0.151 af

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= 219.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.20'	**12.0" Round Culvert** L= 96.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.20' / 214.80' S= 0.0042 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.76 cfs @ 12.09 hrs HW=216.12' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.76 cfs @ 3.06 fps)

Summary for Pond 77P: DMH-7

Inflow Area = 0.323 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 1.71 cfs @ 12.09 hrs, Volume= 0.143 af
Outflow = 1.71 cfs @ 12.09 hrs, Volume= 0.143 af, Atten= 0%, Lag= 0.0 min
Primary = 1.71 cfs @ 12.09 hrs, Volume= 0.143 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.44' @ 12.09 hrs
Flood Elev= 220.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**15.0" Round Culvert** L= 181.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.70' / 214.80' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=1.67 cfs @ 12.09 hrs HW=216.43' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.67 cfs @ 3.23 fps)

Summary for Pond 78P: CB-19

Inflow Area = 0.122 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 0.65 cfs @ 12.09 hrs, Volume= 0.054 af
Outflow = 0.65 cfs @ 12.09 hrs, Volume= 0.054 af, Atten= 0%, Lag= 0.0 min
Primary = 0.65 cfs @ 12.09 hrs, Volume= 0.054 af

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= 219.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 49.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.80' S= 0.0041 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.63 cfs @ 12.09 hrs HW=216.50' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.63 cfs @ 2.32 fps)

Summary for Pond 79P: CB-10

Inflow Area = 0.200 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 1.06 cfs @ 12.09 hrs, Volume= 0.089 af
Outflow = 1.06 cfs @ 12.09 hrs, Volume= 0.089 af, Atten= 0%, Lag= 0.0 min
Primary = 1.06 cfs @ 12.09 hrs, Volume= 0.089 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.64' @ 12.09 hrs
Flood Elev= 219.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 29.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.80' S= 0.0069 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.03 cfs @ 12.09 hrs HW=216.63' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.03 cfs @ 2.84 fps)

Summary for Pond 80P: DMH-5

Inflow Area = 0.663 ac,100.00% Impervious, Inflow Depth = 5.31" for 25-yr event
Inflow = 3.52 cfs @ 12.09 hrs, Volume= 0.294 af
Outflow = 3.52 cfs @ 12.09 hrs, Volume= 0.294 af, Atten= 0%, Lag= 0.0 min
Primary = 3.52 cfs @ 12.09 hrs, Volume= 0.294 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.88' @ 12.09 hrs
Flood Elev= 219.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.70'	**15.0" Round Culvert** L= 78.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.70' / 214.20' S= 0.0064 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=3.43 cfs @ 12.09 hrs HW=215.86' (Free Discharge)
└**1=Culvert** (Inlet Controls 3.43 cfs @ 2.89 fps)

Summary for Pond 81P: CB-5

Inflow Area = 0.287 ac, 88.82% Impervious, Inflow Depth = 4.52" for 25-yr event
Inflow = 1.41 cfs @ 12.09 hrs, Volume= 0.108 af
Outflow = 1.41 cfs @ 12.09 hrs, Volume= 0.108 af, Atten= 0%, Lag= 0.0 min
Primary = 1.41 cfs @ 12.09 hrs, Volume= 0.108 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.84' @ 12.09 hrs
Flood Elev= 219.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.90' S= 0.0032 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.37 cfs @ 12.09 hrs HW=216.83' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.37 cfs @ 2.69 fps)

Summary for Pond 82P: DMH-3

Inflow Area = 0.287 ac, 88.82% Impervious, Inflow Depth = 4.52" for 25-yr event
Inflow = 1.41 cfs @ 12.09 hrs, Volume= 0.108 af
Outflow = 1.41 cfs @ 12.09 hrs, Volume= 0.108 af, Atten= 0%, Lag= 0.0 min
Primary = 1.41 cfs @ 12.09 hrs, Volume= 0.108 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.84' @ 12.09 hrs
Flood Elev= 218.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.90' S= 0.0032 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.37 cfs @ 12.09 hrs HW=216.83' (Free Discharge)
1=Culvert (Barrel Controls 1.37 cfs @ 2.69 fps)

Summary for Link 20L: DP-A

Inflow Area = 30.660 ac, 24.72% Impervious, Inflow Depth = 1.03" for 25-yr event
Inflow = 22.80 cfs @ 12.20 hrs, Volume= 2.627 af
Primary = 22.80 cfs @ 12.20 hrs, Volume= 2.627 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: APT. BLDG. A Runoff Area=17,818 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=3.06 cfs 0.258 af

Subcatchment 16S: APT. BLDG. B Runoff Area=17,818 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=3.06 cfs 0.258 af

Subcatchment 18S: APT. BLDG. C Runoff Area=17,818 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=3.06 cfs 0.258 af

Subcatchment 21S: A.1 Runoff Area=20,195 sf 5.87% Impervious Runoff Depth=1.35"
Tc=10.0 min CN=42 Runoff=0.46 cfs 0.052 af

Subcatchment 22S: A.2 Runoff Area=13,850 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=2.38 cfs 0.201 af

Subcatchment 23S: A.3 Runoff Area=9,767 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=1.68 cfs 0.141 af

Subcatchment 24S: A.4 Runoff Area=5,341 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=0.92 cfs 0.077 af

Subcatchment 25S: A.5 Runoff Area=22,426 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=3.85 cfs 0.325 af

Subcatchment 26S: B.6 Runoff Area=40,090 sf 22.31% Impervious Runoff Depth=2.14"
Tc=6.0 min UI Adjusted CN=50 Runoff=2.07 cfs 0.164 af

Subcatchment 27S: A.6 Runoff Area=12,567 sf 87.12% Impervious Runoff Depth=6.62"
Tc=6.0 min CN=90 Runoff=2.05 cfs 0.159 af

Subcatchment 28S: B.1 Runoff Area=30,829 sf 0.88% Impervious Runoff Depth=1.08"
Tc=6.0 min UI Adjusted CN=39 Runoff=0.54 cfs 0.064 af

Subcatchment 29S: B.2 Runoff Area=13,381 sf 83.76% Impervious Runoff Depth=6.38"
Tc=6.0 min CN=88 Runoff=2.13 cfs 0.163 af

Subcatchment 30S: B.3 Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=7.21"
Tc=6.0 min CN=95 Runoff=2.90 cfs 0.235 af

Subcatchment 31S: B.4 Runoff Area=17,060 sf 95.72% Impervious Runoff Depth=7.21"
Tc=6.0 min CN=95 Runoff=2.90 cfs 0.235 af

Subcatchment 32S: B.5 Runoff Area=24,627 sf 67.38% Impervious Runoff Depth=5.33"
Tc=6.0 min CN=79 Runoff=3.42 cfs 0.251 af

Subcatchment 33S: B.7 Runoff Area=290,511 sf 2.55% Impervious Runoff Depth=2.66"
Tc=30.0 min CN=55 Runoff=11.17 cfs 1.476 af

Subcatchment 34S: B.8 Runoff Area=12,484 sf 88.82% Impervious Runoff Depth=6.74"
Tc=6.0 min CN=91 Runoff=2.05 cfs 0.161 af

Subcatchment 35S: C.1 Runoff Area=236,308 sf 9.34% Impervious Runoff Depth=2.98"
Tc=20.0 min UI Adjusted CN=58 Runoff=12.31 cfs 1.345 af

Subcatchment 36S: C.2 Runoff Area=22,516 sf 83.62% Impervious Runoff Depth=6.38"
Tc=6.0 min CN=88 Runoff=3.59 cfs 0.275 af

Subcatchment 37S: C.3 Runoff Area=12,429 sf 61.75% Impervious Runoff Depth=4.87"
Tc=6.0 min CN=75 Runoff=1.59 cfs 0.116 af

Subcatchment 38S: C.4 Runoff Area=4,655 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=0.80 cfs 0.067 af

Subcatchment 39S: C.5 Runoff Area=5,857 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=1.01 cfs 0.085 af

Subcatchment 40S: C.6 Runoff Area=4,047 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=0.70 cfs 0.059 af

Subcatchment 41S: C.7 Runoff Area=7,188 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=1.24 cfs 0.104 af

Subcatchment 42S: C.8 Runoff Area=7,639 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=1.31 cfs 0.111 af

Subcatchment 43S: C.9 Runoff Area=8,732 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=1.50 cfs 0.126 af

Subcatchment 44S: C.10 Runoff Area=5,326 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=0.92 cfs 0.077 af

Subcatchment 45S: C.11 Runoff Area=2,631 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=0.45 cfs 0.038 af

Subcatchment 46S: C.12 Runoff Area=5,910 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=1.02 cfs 0.086 af

Subcatchment 47S: C.13 Runoff Area=1,987 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=0.34 cfs 0.029 af

Subcatchment 48S: C.14 Runoff Area=1,885 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=0.32 cfs 0.027 af

Subcatchment 49S: C.15 Runoff Area=3,487 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=0.60 cfs 0.051 af

Subcatchment 50S: C.16 Runoff Area=3,508 sf 100.00% Impervious Runoff Depth=7.57"
Tc=6.0 min CN=98 Runoff=0.60 cfs 0.051 af

Subcatchment 51S: D.1 Runoff Area=402,771 sf 0.38% Impervious Runoff Depth=1.26"
Tc=20.0 min CN=41 Runoff=6.61 cfs 0.970 af

Subcatchment 52S: B.9 Runoff Area=15,018 sf 80.72% Impervious Runoff Depth=6.26"
Tc=6.0 min CN=87 Runoff=2.36 cfs 0.180 af

Pond 4P: Infiltration Basin #2 Peak Elev=214.65' Storage=17,701 cf Inflow=11.20 cfs 0.956 af
Discarded=0.99 cfs 0.956 af Primary=0.00 cfs 0.000 af Outflow=0.99 cfs 0.956 af

Pond 5P: Wet Basin Peak Elev=215.73' Storage=20,903 cf Inflow=22.50 cfs 2.646 af
Outflow=13.02 cfs 2.646 af

Pond 7P: Infiltration Basin #1 Peak Elev=215.63' Storage=10,175 cf Inflow=21.92 cfs 2.929 af
Discarded=1.05 cfs 1.184 af Primary=19.17 cfs 1.745 af Outflow=20.22 cfs 2.929 af

Pond 12P: STONE RECHARGE TRENCH Peak Elev=221.01' Storage=1,942 cf Inflow=3.06 cfs 0.258 af
Discarded=0.17 cfs 0.188 af Primary=2.83 cfs 0.070 af Outflow=3.00 cfs 0.258 af

Pond 17P: STONE RECHARGE TRENCH Peak Elev=221.01' Storage=1,942 cf Inflow=3.06 cfs 0.258 af
Discarded=0.17 cfs 0.188 af Primary=2.83 cfs 0.070 af Outflow=3.00 cfs 0.258 af

Pond 19P: STONE RECHARGE TRENCH Peak Elev=221.01' Storage=1,942 cf Inflow=3.06 cfs 0.258 af
Discarded=0.17 cfs 0.188 af Primary=2.83 cfs 0.070 af Outflow=3.00 cfs 0.258 af

Pond 21P: CB-4 Peak Elev=216.63' Inflow=2.36 cfs 0.180 af
12.0" Round Culvert n=0.013 L=37.0' S=0.0054 '/' Outflow=2.36 cfs 0.180 af

Pond 22P: DMH-2 Peak Elev=218.28' Inflow=4.42 cfs 0.341 af
12.0" Round Culvert n=0.013 L=101.0' S=0.0050 '/' Outflow=4.42 cfs 0.341 af

Pond 23P: CB-1 Peak Elev=216.61' Inflow=2.13 cfs 0.163 af
12.0" Round Culvert n=0.013 L=27.0' S=0.0074 '/' Outflow=2.13 cfs 0.163 af

Pond 24P: CB-2 Peak Elev=217.64' Inflow=2.90 cfs 0.235 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0400 '/' Outflow=2.90 cfs 0.235 af

Pond 25P: CB-3 Peak Elev=218.31' Inflow=3.42 cfs 0.251 af
12.0" Round Culvert n=0.013 L=38.0' S=0.0289 '/' Outflow=3.42 cfs 0.251 af

Pond 26P: DMH-1 Peak Elev=217.63' Inflow=8.44 cfs 0.650 af
18.0" Round Culvert n=0.013 L=48.0' S=0.0104 '/' Outflow=8.44 cfs 0.650 af

Pond 27P: CB-22 Peak Elev=217.65' Inflow=3.85 cfs 0.325 af
12.0" Round Culvert n=0.013 L=51.0' S=0.0039 '/' Outflow=3.85 cfs 0.325 af

Pond 28P: DMH-16 Peak Elev=218.18' Inflow=3.85 cfs 0.325 af
12.0" Round Culvert n=0.013 L=160.0' S=0.0037 '/' Outflow=3.85 cfs 0.325 af

Pond 29P: CB-21 Peak Elev=216.76' Inflow=0.92 cfs 0.077 af
12.0" Round Culvert n=0.013 L=26.0' S=0.0192 '/' Outflow=0.92 cfs 0.077 af

Pond 30P: DMH-15 Peak Elev=216.67' Inflow=4.77 cfs 0.402 af
15.0" Round Culvert n=0.013 L=250.0' S=0.0036 '/' Outflow=4.77 cfs 0.402 af

Pond 31P: DMH-14 Peak Elev=216.86' Inflow=10.88 cfs 0.903 af
18.0" Round Culvert n=0.013 L=61.0' S=0.0164 '/' Outflow=10.88 cfs 0.903 af

Pond 32P: CB-20 Peak Elev=216.63' Inflow=2.38 cfs 0.201 af
12.0" Round Culvert n=0.013 L=12.0' S=0.0167 '/' Outflow=2.38 cfs 0.201 af

Pond 33P: DMH-17 Peak Elev=217.21' Inflow=3.73 cfs 0.301 af
12.0" Round Culvert n=0.013 L=180.0' S=0.0083 '/' Outflow=3.73 cfs 0.301 af

Pond 34P: CB-23 Peak Elev=216.46' Inflow=2.05 cfs 0.159 af
12.0" Round Culvert n=0.013 L=28.0' S=0.0107 '/' Outflow=2.05 cfs 0.159 af

Pond 35P: CB-24 Peak Elev=216.32' Inflow=1.68 cfs 0.141 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0150 '/' Outflow=1.68 cfs 0.141 af

Pond 37P: DMH-10 Peak Elev=219.23' Inflow=3.34 cfs 0.281 af
15.0" Round Culvert n=0.013 L=122.0' S=0.0295 '/' Outflow=3.34 cfs 0.281 af

Pond 38P: CB-15 Peak Elev=232.52' Inflow=0.32 cfs 0.027 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0333 '/' Outflow=0.32 cfs 0.027 af

Pond 39P: CB-16 Peak Elev=232.53' Inflow=0.34 cfs 0.029 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0333 '/' Outflow=0.34 cfs 0.029 af

Pond 52P: CB-17 Peak Elev=247.84' Inflow=0.60 cfs 0.051 af
12.0" Round Culvert n=0.013 L=18.0' S=0.0500 '/' Outflow=0.60 cfs 0.051 af

Pond 53P: CB-18 Peak Elev=247.84' Inflow=0.60 cfs 0.051 af
12.0" Round Culvert n=0.013 L=19.0' S=0.0474 '/' Outflow=0.60 cfs 0.051 af

Pond 54P: DMH-13 Peak Elev=247.06' Inflow=1.20 cfs 0.101 af
12.0" Round Culvert n=0.013 L=85.0' S=0.0753 '/' Outflow=1.20 cfs 0.101 af

Pond 56P: DMH-12 Peak Elev=240.56' Inflow=1.20 cfs 0.101 af
12.0" Round Culvert n=0.013 L=110.0' S=0.0745 '/' Outflow=1.20 cfs 0.101 af

Pond 58P: CB-13 Peak Elev=219.28' Inflow=0.45 cfs 0.038 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0467 '/' Outflow=0.45 cfs 0.038 af

Pond 61P: DMH-11 Peak Elev=232.49' Inflow=1.87 cfs 0.157 af
12.0" Round Culvert n=0.013 L=198.0' S=0.0677 '/' Outflow=1.87 cfs 0.157 af

Pond 62P: CB-14 Peak Elev=219.50' Inflow=1.02 cfs 0.086 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0467 '/' Outflow=1.02 cfs 0.086 af

Pond 63P: DMH-4 Peak Elev=220.88' Inflow=15.98 cfs 1.301 af
24.0" Round Culvert n=0.013 L=122.0' S=0.0295 '/' Outflow=15.98 cfs 1.301 af

Pond 65P: DMH-8 Peak Elev=217.99' Inflow=5.98 cfs 0.458 af
15.0" Round Culvert n=0.013 L=215.0' S=0.0028 '/' Outflow=5.98 cfs 0.458 af

Pond 66P: CB-6 Peak Elev=216.59' Inflow=1.01 cfs 0.085 af
12.0" Round Culvert n=0.013 L=24.0' S=0.0208 '/' Outflow=1.01 cfs 0.085 af

Pond 67P: CB-7 Peak Elev=216.48' Inflow=0.70 cfs 0.059 af
12.0" Round Culvert n=0.013 L=24.0' S=0.0208 '/' Outflow=0.70 cfs 0.059 af

Pond 68P: DMH-9 Peak Elev=218.48' Inflow=5.98 cfs 0.458 af
15.0" Round Culvert n=0.013 L=190.0' S=0.0026 '/' Outflow=5.98 cfs 0.458 af

Pond 69P: CB-11 Peak Elev=216.17' Inflow=0.80 cfs 0.067 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0067 '/' Outflow=0.80 cfs 0.067 af

Pond 70P: CB-12 Peak Elev=219.10' Inflow=5.18 cfs 0.391 af
12.0" Round Culvert n=0.013 L=15.0' S=0.0067 '/' Outflow=5.18 cfs 0.391 af

Pond 71P: CB-8 Peak Elev=216.24' Inflow=1.31 cfs 0.111 af
12.0" Round Culvert n=0.013 L=32.0' S=0.0062 '/' Outflow=1.31 cfs 0.111 af

Pond 72P: CB-9 Peak Elev=216.22' Inflow=1.24 cfs 0.104 af
12.0" Round Culvert n=0.013 L=37.0' S=0.0054 '/' Outflow=1.24 cfs 0.104 af

Pond 73P: DMH-6 Peak Elev=216.59' Inflow=2.55 cfs 0.215 af
12.0" Round Culvert n=0.013 L=96.0' S=0.0042 '/' Outflow=2.55 cfs 0.215 af

Pond 77P: DMH-7 Peak Elev=216.61' Inflow=2.42 cfs 0.204 af
15.0" Round Culvert n=0.013 L=181.0' S=0.0050 '/' Outflow=2.42 cfs 0.204 af

Pond 78P: CB-19 Peak Elev=216.62' Inflow=0.92 cfs 0.077 af
12.0" Round Culvert n=0.013 L=49.0' S=0.0041 '/' Outflow=0.92 cfs 0.077 af

Pond 79P: CB-10 Peak Elev=216.79' Inflow=1.50 cfs 0.126 af
12.0" Round Culvert n=0.013 L=29.0' S=0.0069 '/' Outflow=1.50 cfs 0.126 af

Pond 80P: DMH-5 Peak Elev=216.45' Inflow=4.96 cfs 0.418 af
15.0" Round Culvert n=0.013 L=78.0' S=0.0064 '/' Outflow=4.96 cfs 0.418 af

Pond 81P: CB-5 Peak Elev=217.08' Inflow=2.05 cfs 0.161 af
12.0" Round Culvert n=0.013 L=31.0' S=0.0032 '/' Outflow=2.05 cfs 0.161 af

Pond 82P: DMH-3 Peak Elev=217.08' Inflow=2.05 cfs 0.161 af
12.0" Round Culvert n=0.013 L=31.0' S=0.0032 '/' Outflow=2.05 cfs 0.161 af

Link 20L: DP-A Inflow=38.91 cfs 5.572 af
Primary=38.91 cfs 5.572 af

Total Runoff Area = 30.660 ac Runoff Volume = 8.275 af Average Runoff Depth = 3.24"
75.28% Pervious = 23.079 ac 24.72% Impervious = 7.580 ac

Summary for Subcatchment 9S: APT. BLDG. A

Runoff = 3.06 cfs @ 12.09 hrs, Volume= 0.258 af, Depth= 7.57"

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
17,818	98	Roofs, HSG A
17,818		100.00% Impervious Area

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

Summary for Subcatchment 16S: APT. BLDG. B

Runoff = 3.06 cfs @ 12.09 hrs, Volume= 0.258 af, Depth= 7.57"

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
17,818	98	Roofs, HSG A
17,818		100.00% Impervious Area

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

Summary for Subcatchment 18S: APT. BLDG. C

Runoff = 3.06 cfs @ 12.09 hrs, Volume= 0.258 af, Depth= 7.57"

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
17,818	98	Roofs, HSG A
17,818		100.00% Impervious Area

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

Summary for Subcatchment 21S: A.1

Runoff = 0.46 cfs @ 12.18 hrs, Volume= 0.052 af, Depth= 1.35"

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
18,718	39	>75% Grass cover, Good, HSG A
291	30	Woods, Good, HSG A
95	98	Unconnected pavement, HSG A
1,091	98	Roofs, HSG A
20,195	42	Weighted Average
19,009		94.13% Pervious Area
1,186		5.87% Impervious Area
95		8.01% Unconnected

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

Summary for Subcatchment 22S: A.2

Runoff = 2.38 cfs @ 12.09 hrs, Volume= 0.201 af, Depth= 7.57"

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
12,935	98	Paved parking, HSG A
915	98	Roofs, HSG A
13,850	98	Weighted Average
13,850		100.00% 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 = 1.68 cfs @ 12.09 hrs, Volume= 0.141 af, Depth= 7.57"

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
9,767	98	Paved parking, HSG A
9,767		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 = 0.92 cfs @ 12.09 hrs, Volume= 0.077 af, Depth= 7.57"

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
227	98	Paved parking, HSG A
5,114	98	Roofs, HSG A
5,341	98	Weighted Average
5,341		100.00% Impervious Area

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

Summary for Subcatchment 25S: A.5

Runoff = 3.85 cfs @ 12.09 hrs, Volume= 0.325 af, Depth= 7.57"

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
22,426	98	Paved parking, HSG A
22,426		100.00% Impervious Area

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

Summary for Subcatchment 26S: B.6

Runoff = 2.07 cfs @ 12.10 hrs, Volume= 0.164 af, Depth= 2.14"

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	Adj	Description
31,146	39		>75% Grass cover, Good, HSG A
3,467	98		Unconnected pavement, HSG A
5,477	98		Roofs, HSG A
40,090	52	50	Weighted Average, UI Adjusted
31,146			77.69% Pervious Area
8,944			22.31% Impervious Area
3,467			38.76% Unconnected

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

Summary for Subcatchment 27S: A.6

Runoff = 2.05 cfs @ 12.09 hrs, Volume= 0.159 af, Depth= 6.62"

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
8,883	98	Paved parking, HSG A
1,619	39	>75% Grass cover, Good, HSG A
948	98	Unconnected pavement, HSG A
1,117	98	Roofs, HSG A
12,567	90	Weighted Average
1,619		12.88% Pervious Area
10,948		87.12% Impervious Area
948		8.66% Unconnected

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

Summary for Subcatchment 28S: B.1

Runoff = 0.54 cfs @ 12.13 hrs, Volume= 0.064 af, Depth= 1.08"

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
30,559	39		>75% Grass cover, Good, HSG A
270	98		Unconnected pavement, HSG A
30,829	40	39	Weighted Average, UI Adjusted
30,559			99.12% Pervious Area
270			0.88% Impervious Area
270			100.00% Unconnected

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

Summary for Subcatchment 29S: B.2

Runoff = 2.13 cfs @ 12.09 hrs, Volume= 0.163 af, Depth= 6.38"

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
2,173	39	>75% Grass cover, Good, HSG A
1,997	98	Unconnected pavement, HSG A
9,211	98	Paved parking, HSG A
13,381	88	Weighted Average
2,173		16.24% Pervious Area
11,208		83.76% Impervious Area
1,997		17.82% 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 = 2.90 cfs @ 12.09 hrs, Volume= 0.235 af, Depth= 7.21"

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
731	39	>75% Grass cover, Good, HSG A
2,575	98	Unconnected pavement, HSG A
13,754	98	Paved parking, HSG A
17,060	95	Weighted Average
731		4.28% Pervious Area
16,329		95.72% Impervious Area
2,575		15.77% 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 = 2.90 cfs @ 12.09 hrs, Volume= 0.235 af, Depth= 7.21"

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
731	39	>75% Grass cover, Good, HSG A
2,575	98	Unconnected pavement, HSG A
13,754	98	Paved parking, HSG A
17,060	95	Weighted Average
731		4.28% Pervious Area
16,329		95.72% Impervious Area
2,575		15.77% Unconnected

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

Summary for Subcatchment 32S: B.5

Runoff = 3.42 cfs @ 12.09 hrs, Volume= 0.251 af, Depth= 5.33"

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
8,616	98	Paved parking, HSG A
8,034	39	>75% Grass cover, Good, HSG A
1,324	98	Unconnected pavement, HSG A
6,653	98	Roofs, HSG A
24,627	79	Weighted Average
8,034		32.62% Pervious Area
16,593		67.38% Impervious Area
1,324		7.98% Unconnected

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

Summary for Subcatchment 33S: B.7

Runoff = 11.17 cfs @ 12.45 hrs, Volume= 1.476 af, Depth= 2.66"

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
129,407	39	>75% Grass cover, Good, HSG A
97,286	74	>75% Grass cover, Good, HSG C
9,046	80	>75% Grass cover, Good, HSG D
27,194	30	Woods, Good, HSG A
15,779	70	Woods, Good, HSG C
4,399	77	Woods, Good, HSG D
1,606	98	Unconnected pavement, HSG A
319	98	Unconnected pavement, HSG C
5,475	98	Roofs, HSG A
290,511	55	Weighted Average
283,111		97.45% Pervious Area
7,400		2.55% Impervious Area
1,925		26.01% Unconnected

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

Summary for Subcatchment 34S: B.8

Runoff = 2.05 cfs @ 12.09 hrs, Volume= 0.161 af, Depth= 6.74"

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
9,724	98	Paved parking, HSG A
1,396	39	>75% Grass cover, Good, HSG A
1,364	98	Unconnected pavement, HSG A
12,484	91	Weighted Average
1,396		11.18% Pervious Area
11,088		88.82% Impervious Area
1,364		12.30% 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 = 12.31 cfs @ 12.29 hrs, Volume= 1.345 af, Depth= 2.98"

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
128,543	39		>75% Grass cover, Good, HSG A
69,229	80		>75% Grass cover, Good, HSG D
16,469	77		Woods, Good, HSG D
14,141	98		Unconnected pavement, HSG A
7,926	98		Roofs, HSG A
236,308	59	58	Weighted Average, UI Adjusted
214,241			90.66% Pervious Area
22,067			9.34% Impervious Area
14,141			64.08% 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 = 3.59 cfs @ 12.09 hrs, Volume= 0.275 af, Depth= 6.38"

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
12,989	98	Paved parking, HSG A
3,687	39	>75% Grass cover, Good, HSG A
2,989	98	Unconnected pavement, HSG A
2,851	98	Roofs, HSG A
22,516	88	Weighted Average
3,687		16.38% Pervious Area
18,829		83.62% Impervious Area
2,989		15.87% 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 = 1.59 cfs @ 12.09 hrs, Volume= 0.116 af, Depth= 4.87"

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
5,266	98	Paved parking, HSG A
4,754	39	>75% Grass cover, Good, HSG A
509	98	Roofs, HSG A
1,900	98	Roofs, HSG A
12,429	75	Weighted Average
4,754		38.25% Pervious Area
7,675		61.75% Impervious Area

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

Summary for Subcatchment 38S: C.4

Runoff = 0.80 cfs @ 12.09 hrs, Volume= 0.067 af, Depth= 7.57"

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
4,655	98	Paved parking, HSG A
4,655		100.00% Impervious Area

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

Summary for Subcatchment 39S: C.5

Runoff = 1.01 cfs @ 12.09 hrs, Volume= 0.085 af, Depth= 7.57"

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
4,080	98	Paved parking, HSG A
1,777	98	Unconnected pavement, HSG A
5,857	98	Weighted Average
5,857		100.00% Impervious Area
1,777		30.34% 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 = 0.70 cfs @ 12.09 hrs, Volume= 0.059 af, Depth= 7.57"

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
4,047	98	Paved parking, HSG A
4,047		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 = 1.24 cfs @ 12.09 hrs, Volume= 0.104 af, Depth= 7.57"

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
6,072	98	Paved parking, HSG A
1,116	98	Roofs, HSG A
7,188	98	Weighted Average
7,188		100.00% Impervious Area

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

Summary for Subcatchment 42S: C.8

Runoff = 1.31 cfs @ 12.09 hrs, Volume= 0.111 af, Depth= 7.57"

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
7,639	98	Paved parking, HSG A
7,639		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 = 1.50 cfs @ 12.09 hrs, Volume= 0.126 af, Depth= 7.57"

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
8,732	98	Paved parking, HSG A
8,732		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 = 0.92 cfs @ 12.09 hrs, Volume= 0.077 af, Depth= 7.57"

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
5,326	98	Paved parking, HSG A
5,326		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 = 0.45 cfs @ 12.09 hrs, Volume= 0.038 af, Depth= 7.57"

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
1,483	98	Paved parking, HSG A
946	98	Paved parking, HSG D
126	98	Unconnected pavement, HSG A
76	98	Unconnected pavement, HSG D
2,631	98	Weighted Average
2,631		100.00% Impervious Area
202		7.68% Unconnected

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

Summary for Subcatchment 46S: C.12

Runoff = 1.02 cfs @ 12.09 hrs, Volume= 0.086 af, Depth= 7.57"

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
2,144	98	Paved parking, HSG A
2,121	98	Paved parking, HSG D
853	98	Unconnected pavement, HSG A
696	98	Unconnected pavement, HSG D
96	98	Roofs, HSG A
5,910	98	Weighted Average
5,910		100.00% Impervious Area
1,549		26.21% Unconnected

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

Summary for Subcatchment 47S: C.13

Runoff = 0.34 cfs @ 12.09 hrs, Volume= 0.029 af, Depth= 7.57"

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
1,832	98	Paved parking, HSG D
155	98	Unconnected pavement, HSG D
1,987	98	Weighted Average
1,987		100.00% Impervious Area
155		7.80% Unconnected

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

Summary for Subcatchment 48S: C.14

Runoff = 0.32 cfs @ 12.09 hrs, Volume= 0.027 af, Depth= 7.57"

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
1,744	98	Paved parking, HSG D
141	98	Unconnected pavement, HSG D
1,885	98	Weighted Average
1,885		100.00% Impervious Area
141		7.48% Unconnected

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

Summary for Subcatchment 49S: C.15

Runoff = 0.60 cfs @ 12.09 hrs, Volume= 0.051 af, Depth= 7.57"

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
3,220	98	Paved parking, HSG D
267	98	Unconnected pavement, HSG D
3,487	98	Weighted Average
3,487		100.00% Impervious Area
267		7.66% Unconnected

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

Summary for Subcatchment 50S: C.16

Runoff = 0.60 cfs @ 12.09 hrs, Volume= 0.051 af, Depth= 7.57"

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
3,238	98	Paved parking, HSG D
270	98	Unconnected pavement, HSG D
3,508	98	Weighted Average
3,508		100.00% Impervious Area
270		7.70% Unconnected

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

Summary for Subcatchment 51S: D.1

Runoff = 6.61 cfs @ 12.37 hrs, Volume= 0.970 af, Depth= 1.26"

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
1,527	98	Unconnected pavement, HSG A
182,934	39	>75% Grass cover, Good, HSG A
518	61	>75% Grass cover, Good, HSG B
51,440	80	>75% Grass cover, Good, HSG D
160,796	30	Woods, Good, HSG A
5,106	55	Woods, Good, HSG B
450	77	Woods, Good, HSG D
402,771	41	Weighted Average
401,244		99.62% Pervious Area
1,527		0.38% Impervious Area
1,527		100.00% Unconnected

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

Summary for Subcatchment 52S: B.9

Runoff = 2.36 cfs @ 12.09 hrs, Volume= 0.180 af, Depth= 6.26"

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
10,973	98	Paved parking, HSG A
2,895	39	>75% Grass cover, Good, HSG A
1,150	98	Unconnected pavement, HSG A
15,018	87	Weighted Average
2,895		19.28% Pervious Area
12,123		80.72% Impervious Area
1,150		9.49% Unconnected

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

Summary for Pond 4P: Infiltration Basin #2

Inflow Area = 1.932 ac, 75.49% Impervious, Inflow Depth = 5.94" for 100-yr event
Inflow = 11.20 cfs @ 12.09 hrs, Volume= 0.956 af
Outflow = 0.99 cfs @ 13.05 hrs, Volume= 0.956 af, Atten= 91%, Lag= 57.5 min
Discarded = 0.99 cfs @ 13.05 hrs, Volume= 0.956 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 214.65' @ 13.05 hrs Surf.Area= 9,744 sf Storage= 17,701 cf

Plug-Flow detention time= 181.3 min calculated for 0.956 af (100% of inflow)
Center-of-Mass det. time= 181.2 min (937.5 - 756.2)

Volume	Invert	Avail.Storage	Storage Description
#1	212.50'	32,065 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	6,645	342.0	0	0	6,645
214.00	8,926	397.0	11,636	11,636	9,927
216.00	11,559	453.0	20,428	32,065	13,809

Device	Routing	Invert	Outlet Devices
#1	Discarded	212.50'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 210.40'
#2	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

Discarded OutFlow Max=0.99 cfs @ 13.05 hrs HW=214.65' (Free Discharge)
└**1=Exfiltration** (Controls 0.99 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=212.50' (Free Discharge)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 5P: Wet Basin

Inflow Area = 7.670 ac, 33.35% Impervious, Inflow Depth = 4.14" for 100-yr event
Inflow = 22.50 cfs @ 12.11 hrs, Volume= 2.646 af
Outflow = 13.02 cfs @ 12.49 hrs, Volume= 2.646 af, Atten= 42%, Lag= 22.5 min
Primary = 13.02 cfs @ 12.49 hrs, Volume= 2.646 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.73' @ 12.49 hrs Surf.Area= 15,168 sf Storage= 20,903 cf

Plug-Flow detention time= 26.6 min calculated for 2.646 af (100% of inflow)
Center-of-Mass det. time= 26.3 min (838.0 - 811.8)

Volume	Invert	Avail.Storage	Storage Description
#1	214.00'	103,930 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	20,207	375.0	36,350	61,425	15,359
220.00	22,316	390.0	42,506	103,930	16,550

Device	Routing	Invert	Outlet Devices
#1	Primary	213.43'	**24.0" Round Culvert** L= 580.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 213.43' / 211.63' S= 0.0031 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	214.00'	**45.0 deg x 4.0' long Sharp-Crested Vee/Trap Weir**

			Cv= 2.56 (C= 3.20)
#3	Device 1	215.50'	**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=13.01 cfs @ 12.49 hrs HW=215.73' (Free Discharge)
└**1=Culvert** (Barrel Controls 13.01 cfs @ 4.51 fps)
└**2=Sharp-Crested Vee/Trap Weir** (Passes < 33.37 cfs potential flow)
└**3=Broad-Crested Rectangular Weir** (Passes < 1.13 cfs potential flow)

Summary for Pond 7P: Infiltration Basin #1

Inflow Area = 10.584 ac, 21.75% Impervious, Inflow Depth = 3.32" for 100-yr event
Inflow = 21.92 cfs @ 12.10 hrs, Volume= 2.929 af
Outflow = 20.22 cfs @ 12.15 hrs, Volume= 2.929 af, Atten= 8%, Lag= 3.1 min
Discarded = 1.05 cfs @ 12.15 hrs, Volume= 1.184 af
Primary = 19.17 cfs @ 12.15 hrs, Volume= 1.745 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 215.63' @ 12.15 hrs Surf.Area= 13,792 sf Storage= 10,175 cf

Plug-Flow detention time= 37.3 min calculated for 2.927 af (100% of inflow)
Center-of-Mass det. time= 37.3 min (875.3 - 838.0)

Volume	Invert	Avail.Storage	Storage Description
#1	214.80'	15,542 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	10,430	800.0	0	0	10,430
215.00	11,580	1,000.0	2,200	2,200	39,078
216.00	15,185	1,210.0	13,342	15,542	76,027

Device	Routing	Invert	Outlet Devices
#1	Primary	215.30'	**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	Discarded	214.80'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 212.80'

Discarded OutFlow Max=1.05 cfs @ 12.15 hrs HW=215.63' (Free Discharge)
└**2=Exfiltration** (Controls 1.05 cfs)

Primary OutFlow Max=19.11 cfs @ 12.15 hrs HW=215.63' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 19.11 cfs @ 1.45 fps)

Summary for Pond 12P: STONE RECHARGE TRENCH

Inflow Area = 0.409 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 3.06 cfs @ 12.09 hrs, Volume= 0.258 af
Outflow = 3.00 cfs @ 12.08 hrs, Volume= 0.258 af, Atten= 2%, Lag= 0.0 min
Discarded = 0.17 cfs @ 12.10 hrs, Volume= 0.188 af
Primary = 2.83 cfs @ 12.08 hrs, Volume= 0.070 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 221.01' @ 12.10 hrs Surf.Area= 2,427 sf Storage= 1,942 cf

Plug-Flow detention time= 67.1 min calculated for 0.258 af (100% of inflow)
Center-of-Mass det. time= 67.1 min (808.6 - 741.5)

Volume	Invert	Avail.Storage	Storage Description
#1	219.00'	1,942 cf	**3.00'W x 809.00'L x 2.00'H Prismatoid** 4,854 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Primary	221.00'	**809.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	219.00'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 210.00'

Discarded OutFlow Max=0.17 cfs @ 12.10 hrs HW=221.01' (Free Discharge)
↑**2=Exfiltration** (Controls 0.17 cfs)

Primary OutFlow Max=1.86 cfs @ 12.08 hrs HW=221.01' (Free Discharge)
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 1.86 cfs @ 0.26 fps)

Summary for Pond 17P: STONE RECHARGE TRENCH

Inflow Area = 0.409 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 3.06 cfs @ 12.09 hrs, Volume= 0.258 af
Outflow = 3.00 cfs @ 12.08 hrs, Volume= 0.258 af, Atten= 2%, Lag= 0.0 min
Discarded = 0.17 cfs @ 12.10 hrs, Volume= 0.188 af
Primary = 2.83 cfs @ 12.08 hrs, Volume= 0.070 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 221.01' @ 12.10 hrs Surf.Area= 2,427 sf Storage= 1,942 cf

Plug-Flow detention time= 67.1 min calculated for 0.258 af (100% of inflow)
Center-of-Mass det. time= 67.1 min (808.6 - 741.5)

Volume	Invert	Avail.Storage	Storage Description
#1	219.00'	1,942 cf	**3.00'W x 809.00'L x 2.00'H Prismatoid** 4,854 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Primary	221.00'	**809.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	219.00'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 210.00'

Discarded OutFlow Max=0.17 cfs @ 12.10 hrs HW=221.01' (Free Discharge)
↑**2=Exfiltration** (Controls 0.17 cfs)

Primary OutFlow Max=1.86 cfs @ 12.08 hrs HW=221.01' (Free Discharge)
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 1.86 cfs @ 0.26 fps)

Summary for Pond 19P: STONE RECHARGE TRENCH

Inflow Area = 0.409 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 3.06 cfs @ 12.09 hrs, Volume= 0.258 af
Outflow = 3.00 cfs @ 12.08 hrs, Volume= 0.258 af, Atten= 2%, Lag= 0.0 min
Discarded = 0.17 cfs @ 12.10 hrs, Volume= 0.188 af
Primary = 2.83 cfs @ 12.08 hrs, Volume= 0.070 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 221.01' @ 12.10 hrs Surf.Area= 2,427 sf Storage= 1,942 cf

Plug-Flow detention time= 67.1 min calculated for 0.258 af (100% of inflow)
Center-of-Mass det. time= 67.1 min (808.6 - 741.5)

Volume	Invert	Avail.Storage	Storage Description
#1	219.00'	1,942 cf	**3.00'W x 809.00'L x 2.00'H Prismatoid** 4,854 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Primary	221.00'	**809.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	219.00'	**2.410 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 210.00'

Discarded OutFlow Max=0.17 cfs @ 12.10 hrs HW=221.01' (Free Discharge)
↑**2=Exfiltration** (Controls 0.17 cfs)

Primary OutFlow Max=1.86 cfs @ 12.08 hrs HW=221.01' (Free Discharge)
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 1.86 cfs @ 0.26 fps)

Summary for Pond 21P: CB-4

Inflow Area = 0.345 ac, 80.72% Impervious, Inflow Depth = 6.26" for 100-yr event
Inflow = 2.36 cfs @ 12.09 hrs, Volume= 0.180 af
Outflow = 2.36 cfs @ 12.09 hrs, Volume= 0.180 af, Atten= 0%, Lag= 0.0 min
Primary = 2.36 cfs @ 12.09 hrs, Volume= 0.180 af

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= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 37.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0054 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.31 cfs @ 12.09 hrs HW=216.61' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.31 cfs @ 3.31 fps)

Summary for Pond 22P: DMH-2

Inflow Area = 0.631 ac, 84.40% Impervious, Inflow Depth = 6.48" for 100-yr event
Inflow = 4.42 cfs @ 12.09 hrs, Volume= 0.341 af
Outflow = 4.42 cfs @ 12.09 hrs, Volume= 0.341 af, Atten= 0%, Lag= 0.0 min
Primary = 4.42 cfs @ 12.09 hrs, Volume= 0.341 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 218.28' @ 12.09 hrs
Flood Elev= 218.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.30'	**12.0" Round Culvert** L= 101.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.30' / 214.80' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=4.31 cfs @ 12.09 hrs HW=218.17' (Free Discharge)
└**1=Culvert** (Barrel Controls 4.31 cfs @ 5.48 fps)

Summary for Pond 23P: CB-1

Inflow Area = 0.307 ac, 83.76% Impervious, Inflow Depth = 6.38" for 100-yr event
Inflow = 2.13 cfs @ 12.09 hrs, Volume= 0.163 af
Outflow = 2.13 cfs @ 12.09 hrs, Volume= 0.163 af, Atten= 0%, Lag= 0.0 min
Primary = 2.13 cfs @ 12.09 hrs, Volume= 0.163 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.61' @ 12.09 hrs
Flood Elev= 218.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.60'	**12.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.60' / 215.40' S= 0.0074 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.09 cfs @ 12.09 hrs HW=216.59' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.09 cfs @ 3.35 fps)

Summary for Pond 24P: CB-2

Inflow Area = 0.392 ac, 95.72% Impervious, Inflow Depth = 7.21" for 100-yr event
Inflow = 2.90 cfs @ 12.09 hrs, Volume= 0.235 af
Outflow = 2.90 cfs @ 12.09 hrs, Volume= 0.235 af, Atten= 0%, Lag= 0.0 min
Primary = 2.90 cfs @ 12.09 hrs, Volume= 0.235 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.64' @ 12.09 hrs
Flood Elev= 219.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.20'	**12.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.20' / 215.40' S= 0.0400 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.82 cfs @ 12.09 hrs HW=217.59' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.82 cfs @ 3.59 fps)

Summary for Pond 25P: CB-3

Inflow Area = 0.565 ac, 67.38% Impervious, Inflow Depth = 5.33" for 100-yr event
Inflow = 3.42 cfs @ 12.09 hrs, Volume= 0.251 af
Outflow = 3.42 cfs @ 12.09 hrs, Volume= 0.251 af, Atten= 0%, Lag= 0.0 min
Primary = 3.42 cfs @ 12.09 hrs, Volume= 0.251 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 218.31' @ 12.09 hrs
Flood Elev= 219.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.50'	**12.0" Round Culvert** L= 38.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.50' / 215.40' S= 0.0289 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=3.34 cfs @ 12.09 hrs HW=218.25' (Free Discharge)
└**1=Culvert** (Inlet Controls 3.34 cfs @ 4.26 fps)

Summary for Pond 26P: DMH-1

Inflow Area = 1.264 ac, 80.14% Impervious, Inflow Depth = 6.17" for 100-yr event
Inflow = 8.44 cfs @ 12.09 hrs, Volume= 0.650 af
Outflow = 8.44 cfs @ 12.09 hrs, Volume= 0.650 af, Atten= 0%, Lag= 0.0 min
Primary = 8.44 cfs @ 12.09 hrs, Volume= 0.650 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.63' @ 12.09 hrs
Flood Elev= 218.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.30'	**18.0" Round Culvert** L= 48.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.30' / 214.80' S= 0.0104 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=8.24 cfs @ 12.09 hrs HW=217.55' (Free Discharge)
└**1=Culvert** (Inlet Controls 8.24 cfs @ 4.66 fps)

Summary for Pond 27P: CB-22

Inflow Area = 0.515 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 3.85 cfs @ 12.09 hrs, Volume= 0.325 af
Outflow = 3.85 cfs @ 12.09 hrs, Volume= 0.325 af, Atten= 0%, Lag= 0.0 min
Primary = 3.85 cfs @ 12.09 hrs, Volume= 0.325 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.65' @ 12.09 hrs
Flood Elev= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 51.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0039 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=3.75 cfs @ 12.09 hrs HW=217.58' (Free Discharge)
└**1=Culvert** (Inlet Controls 3.75 cfs @ 4.78 fps)

Summary for Pond 28P: DMH-16

Inflow Area = 0.515 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 3.85 cfs @ 12.09 hrs, Volume= 0.325 af
Outflow = 3.85 cfs @ 12.09 hrs, Volume= 0.325 af, Atten= 0%, Lag= 0.0 min
Primary = 3.85 cfs @ 12.09 hrs, Volume= 0.325 af

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= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.20'	**12.0" Round Culvert** L= 160.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.20' / 214.60' S= 0.0037 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=3.75 cfs @ 12.09 hrs HW=218.05' (Free Discharge)
└**1=Culvert** (Barrel Controls 3.75 cfs @ 4.78 fps)

Summary for Pond 29P: CB-21

Inflow Area = 0.123 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 0.92 cfs @ 12.09 hrs, Volume= 0.077 af
Outflow = 0.92 cfs @ 12.09 hrs, Volume= 0.077 af, Atten= 0%, Lag= 0.0 min
Primary = 0.92 cfs @ 12.09 hrs, Volume= 0.077 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.76' @ 12.09 hrs
Flood Elev= 219.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.20'	**12.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.20' / 215.70' S= 0.0192 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.89 cfs @ 12.09 hrs HW=216.75' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.89 cfs @ 2.00 fps)

Summary for Pond 30P: DMH-15

Inflow Area = 0.637 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 4.77 cfs @ 12.09 hrs, Volume= 0.402 af
Outflow = 4.77 cfs @ 12.09 hrs, Volume= 0.402 af, Atten= 0%, Lag= 0.0 min
Primary = 4.77 cfs @ 12.09 hrs, Volume= 0.402 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.67' @ 12.09 hrs
Flood Elev= 219.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.50'	**15.0" Round Culvert** L= 250.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.50' / 213.60' S= 0.0036 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=4.64 cfs @ 12.09 hrs HW=216.57' (Free Discharge)
└**1=Culvert** (Barrel Controls 4.64 cfs @ 3.78 fps)

Summary for Pond 31P: DMH-14

Inflow Area = 1.468 ac, 97.47% Impervious, Inflow Depth = 7.38" for 100-yr event
Inflow = 10.88 cfs @ 12.09 hrs, Volume= 0.903 af
Outflow = 10.88 cfs @ 12.09 hrs, Volume= 0.903 af, Atten= 0%, Lag= 0.0 min
Primary = 10.88 cfs @ 12.09 hrs, Volume= 0.903 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.86' @ 12.09 hrs
Flood Elev= 218.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	213.50'	**18.0" Round Culvert** L= 61.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 213.50' / 212.50' S= 0.0164 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=10.59 cfs @ 12.09 hrs HW=216.74' (Free Discharge)
└**1=Culvert** (Inlet Controls 10.59 cfs @ 5.99 fps)

Summary for Pond 32P: CB-20

Inflow Area = 0.318 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 2.38 cfs @ 12.09 hrs, Volume= 0.201 af
Outflow = 2.38 cfs @ 12.09 hrs, Volume= 0.201 af, Atten= 0%, Lag= 0.0 min
Primary = 2.38 cfs @ 12.09 hrs, Volume= 0.201 af

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= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 12.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0167 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.32 cfs @ 12.09 hrs HW=216.60' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.32 cfs @ 2.95 fps)

Summary for Pond 33P: DMH-17

Inflow Area = 0.513 ac, 92.75% Impervious, Inflow Depth = 7.03" for 100-yr event
Inflow = 3.73 cfs @ 12.09 hrs, Volume= 0.301 af
Outflow = 3.73 cfs @ 12.09 hrs, Volume= 0.301 af, Atten= 0%, Lag= 0.0 min
Primary = 3.73 cfs @ 12.09 hrs, Volume= 0.301 af

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= 218.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.10'	**12.0" Round Culvert** L= 180.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.10' / 213.60' S= 0.0083 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=3.64 cfs @ 12.09 hrs HW=217.12' (Free Discharge)
└**1=Culvert** (Barrel Controls 3.64 cfs @ 4.64 fps)

Summary for Pond 34P: CB-23

Inflow Area = 0.288 ac, 87.12% Impervious, Inflow Depth = 6.62" for 100-yr event
Inflow = 2.05 cfs @ 12.09 hrs, Volume= 0.159 af
Outflow = 2.05 cfs @ 12.09 hrs, Volume= 0.159 af, Atten= 0%, Lag= 0.0 min
Primary = 2.05 cfs @ 12.09 hrs, Volume= 0.159 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.46' @ 12.09 hrs
Flood Elev= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.20' S= 0.0107 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.00 cfs @ 12.09 hrs HW=216.44' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.00 cfs @ 2.61 fps)

Summary for Pond 35P: CB-24

Inflow Area = 0.224 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 1.68 cfs @ 12.09 hrs, Volume= 0.141 af
Outflow = 1.68 cfs @ 12.09 hrs, Volume= 0.141 af, Atten= 0%, Lag= 0.0 min
Primary = 1.68 cfs @ 12.09 hrs, Volume= 0.141 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.32' @ 12.09 hrs
Flood Elev= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.20' S= 0.0150 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.63 cfs @ 12.09 hrs HW=216.30' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.63 cfs @ 2.41 fps)

Summary for Pond 37P: DMH-10

Inflow Area = 0.446 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 3.34 cfs @ 12.09 hrs, Volume= 0.281 af
Outflow = 3.34 cfs @ 12.09 hrs, Volume= 0.281 af, Atten= 0%, Lag= 0.0 min
Primary = 3.34 cfs @ 12.09 hrs, Volume= 0.281 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 219.23' @ 12.09 hrs
Flood Elev= 222.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.10'	**15.0" Round Culvert** L= 122.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.10' / 214.50' S= 0.0295 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=3.25 cfs @ 12.09 hrs HW=219.21' (Free Discharge)
└**1=Culvert** (Inlet Controls 3.25 cfs @ 2.83 fps)

Summary for Pond 38P: CB-15

Inflow Area = 0.043 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 0.32 cfs @ 12.09 hrs, Volume= 0.027 af
Outflow = 0.32 cfs @ 12.09 hrs, Volume= 0.027 af, Atten= 0%, Lag= 0.0 min
Primary = 0.32 cfs @ 12.09 hrs, Volume= 0.027 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 232.52' @ 12.09 hrs
Flood Elev= 236.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	232.20'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 232.20' / 231.70' S= 0.0333 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.31 cfs @ 12.09 hrs HW=232.51' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.31 cfs @ 1.50 fps)

Summary for Pond 39P: CB-16

Inflow Area = 0.046 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 0.34 cfs @ 12.09 hrs, Volume= 0.029 af
Outflow = 0.34 cfs @ 12.09 hrs, Volume= 0.029 af, Atten= 0%, Lag= 0.0 min
Primary = 0.34 cfs @ 12.09 hrs, Volume= 0.029 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 232.53' @ 12.09 hrs
Flood Elev= 236.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	232.20'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 232.20' / 231.70' S= 0.0333 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.33 cfs @ 12.09 hrs HW=232.52' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.33 cfs @ 1.52 fps)

Summary for Pond 52P: CB-17

Inflow Area = 0.081 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 0.60 cfs @ 12.09 hrs, Volume= 0.051 af
Outflow = 0.60 cfs @ 12.09 hrs, Volume= 0.051 af, Atten= 0%, Lag= 0.0 min
Primary = 0.60 cfs @ 12.09 hrs, Volume= 0.051 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 247.84' @ 12.09 hrs
Flood Elev= 251.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	247.40'	**12.0" Round Culvert** L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 247.40' / 246.50' S= 0.0500 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.59 cfs @ 12.09 hrs HW=247.84' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.59 cfs @ 1.78 fps)

Summary for Pond 53P: CB-18

Inflow Area = 0.080 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 0.60 cfs @ 12.09 hrs, Volume= 0.051 af
Outflow = 0.60 cfs @ 12.09 hrs, Volume= 0.051 af, Atten= 0%, Lag= 0.0 min
Primary = 0.60 cfs @ 12.09 hrs, Volume= 0.051 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 247.84' @ 12.09 hrs
Flood Elev= 251.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	247.40'	**12.0" Round Culvert** L= 19.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 247.40' / 246.50' S= 0.0474 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.58 cfs @ 12.09 hrs HW=247.84' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.58 cfs @ 1.77 fps)

Summary for Pond 54P: DMH-13

Inflow Area = 0.161 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 1.20 cfs @ 12.09 hrs, Volume= 0.101 af
Outflow = 1.20 cfs @ 12.09 hrs, Volume= 0.101 af, Atten= 0%, Lag= 0.0 min
Primary = 1.20 cfs @ 12.09 hrs, Volume= 0.101 af

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= 250.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	246.40'	**12.0" Round Culvert** L= 85.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 246.40' / 240.00' S= 0.0753 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.17 cfs @ 12.09 hrs HW=247.05' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.17 cfs @ 2.17 fps)

Summary for Pond 56P: DMH-12

Inflow Area = 0.161 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 1.20 cfs @ 12.09 hrs, Volume= 0.101 af
Outflow = 1.20 cfs @ 12.09 hrs, Volume= 0.101 af, Atten= 0%, Lag= 0.0 min
Primary = 1.20 cfs @ 12.09 hrs, Volume= 0.101 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 240.56' @ 12.09 hrs
Flood Elev= 244.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	239.90'	**12.0" Round Culvert** L= 110.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 239.90' / 231.70' S= 0.0745 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.17 cfs @ 12.09 hrs HW=240.55' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.17 cfs @ 2.17 fps)

Summary for Pond 58P: CB-13

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

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 219.28' @ 12.09 hrs
Flood Elev= 221.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.90'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.90' / 218.20' S= 0.0467 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.44 cfs @ 12.09 hrs HW=219.27' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.44 cfs @ 1.64 fps)

Summary for Pond 61P: DMH-11

Inflow Area = 0.249 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 1.87 cfs @ 12.09 hrs, Volume= 0.157 af
Outflow = 1.87 cfs @ 12.09 hrs, Volume= 0.157 af, Atten= 0%, Lag= 0.0 min
Primary = 1.87 cfs @ 12.09 hrs, Volume= 0.157 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 232.49' @ 12.09 hrs
Flood Elev= 235.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	231.60'	**12.0" Round Culvert** L= 198.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 231.60' / 218.20' S= 0.0677 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.82 cfs @ 12.09 hrs HW=232.47' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.82 cfs @ 2.51 fps)

Summary for Pond 62P: CB-14

Inflow Area = 0.136 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 1.02 cfs @ 12.09 hrs, Volume= 0.086 af
Outflow = 1.02 cfs @ 12.09 hrs, Volume= 0.086 af, Atten= 0%, Lag= 0.0 min
Primary = 1.02 cfs @ 12.09 hrs, Volume= 0.086 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 219.50' @ 12.09 hrs
Flood Elev= 221.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.90'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.90' / 218.20' S= 0.0467 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.99 cfs @ 12.09 hrs HW=219.49' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.99 cfs @ 2.06 fps)

Summary for Pond 63P: DMH-4

Inflow Area = 2.245 ac, 91.37% Impervious, Inflow Depth = 6.95" for 100-yr event
Inflow = 15.98 cfs @ 12.09 hrs, Volume= 1.301 af
Outflow = 15.98 cfs @ 12.09 hrs, Volume= 1.301 af, Atten= 0%, Lag= 0.0 min
Primary = 15.98 cfs @ 12.09 hrs, Volume= 1.301 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 220.88' @ 12.09 hrs
Flood Elev= 222.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	218.10'	**24.0" Round Culvert** L= 122.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 218.10' / 214.50' S= 0.0295 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf

Primary OutFlow Max=15.57 cfs @ 12.09 hrs HW=220.80' (Free Discharge)
└**1=Culvert** (Inlet Controls 15.57 cfs @ 4.95 fps)

Summary for Pond 65P: DMH-8

Inflow Area = 0.909 ac, 78.68% Impervious, Inflow Depth = 6.05" for 100-yr event
Inflow = 5.98 cfs @ 12.09 hrs, Volume= 0.458 af
Outflow = 5.98 cfs @ 12.09 hrs, Volume= 0.458 af, Atten= 0%, Lag= 0.0 min
Primary = 5.98 cfs @ 12.09 hrs, Volume= 0.458 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 217.99' @ 12.09 hrs
Flood Elev= 220.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.80'	**15.0" Round Culvert** L= 215.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.80' / 214.20' S= 0.0028 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=5.83 cfs @ 12.09 hrs HW=217.88' (Free Discharge)
└**1=Culvert** (Barrel Controls 5.83 cfs @ 4.75 fps)

Summary for Pond 66P: CB-6

Inflow Area = 0.134 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 1.01 cfs @ 12.09 hrs, Volume= 0.085 af
Outflow = 1.01 cfs @ 12.09 hrs, Volume= 0.085 af, Atten= 0%, Lag= 0.0 min
Primary = 1.01 cfs @ 12.09 hrs, Volume= 0.085 af

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= 219.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.50' S= 0.0208 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.98 cfs @ 12.09 hrs HW=216.58' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.98 cfs @ 2.05 fps)

Summary for Pond 67P: CB-7

Inflow Area = 0.093 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 0.70 cfs @ 12.09 hrs, Volume= 0.059 af
Outflow = 0.70 cfs @ 12.09 hrs, Volume= 0.059 af, Atten= 0%, Lag= 0.0 min
Primary = 0.70 cfs @ 12.09 hrs, Volume= 0.059 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.48' @ 12.09 hrs
Flood Elev= 219.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.50' S= 0.0208 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.68 cfs @ 12.09 hrs HW=216.47' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.68 cfs @ 1.85 fps)

Summary for Pond 68P: DMH-9

Inflow Area = 0.909 ac, 78.68% Impervious, Inflow Depth = 6.05" for 100-yr event
Inflow = 5.98 cfs @ 12.09 hrs, Volume= 0.458 af
Outflow = 5.98 cfs @ 12.09 hrs, Volume= 0.458 af, Atten= 0%, Lag= 0.0 min
Primary = 5.98 cfs @ 12.09 hrs, Volume= 0.458 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 218.48' @ 12.09 hrs
Flood Elev= 218.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.40'	**15.0" Round Culvert** L= 190.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.40' / 214.90' S= 0.0026 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=5.83 cfs @ 12.09 hrs HW=218.37' (Free Discharge)
└**1=Culvert** (Barrel Controls 5.83 cfs @ 4.75 fps)

Summary for Pond 69P: CB-11

Inflow Area = 0.107 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 0.80 cfs @ 12.09 hrs, Volume= 0.067 af
Outflow = 0.80 cfs @ 12.09 hrs, Volume= 0.067 af, Atten= 0%, Lag= 0.0 min
Primary = 0.80 cfs @ 12.09 hrs, Volume= 0.067 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.17' @ 12.09 hrs
Flood Elev= 218.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.60'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.60' / 215.50' S= 0.0067 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.78 cfs @ 12.09 hrs HW=216.16' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.78 cfs @ 2.50 fps)

Summary for Pond 70P: CB-12

Inflow Area = 0.802 ac, 75.84% Impervious, Inflow Depth = 5.84" for 100-yr event
Inflow = 5.18 cfs @ 12.09 hrs, Volume= 0.391 af
Outflow = 5.18 cfs @ 12.09 hrs, Volume= 0.391 af, Atten= 0%, Lag= 0.0 min
Primary = 5.18 cfs @ 12.09 hrs, Volume= 0.391 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 219.10' @ 12.09 hrs
Flood Elev= 218.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.60'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.60' / 215.50' S= 0.0067 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=5.06 cfs @ 12.09 hrs HW=218.97' (Free Discharge)
└**1=Culvert** (Inlet Controls 5.06 cfs @ 6.44 fps)

Summary for Pond 71P: CB-8

Inflow Area = 0.175 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 1.31 cfs @ 12.09 hrs, Volume= 0.111 af
Outflow = 1.31 cfs @ 12.09 hrs, Volume= 0.111 af, Atten= 0%, Lag= 0.0 min
Primary = 1.31 cfs @ 12.09 hrs, Volume= 0.111 af

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= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 32.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0062 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.28 cfs @ 12.09 hrs HW=216.22' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.28 cfs @ 2.94 fps)

Summary for Pond 72P: CB-9

Inflow Area = 0.165 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 1.24 cfs @ 12.09 hrs, Volume= 0.104 af
Outflow = 1.24 cfs @ 12.09 hrs, Volume= 0.104 af, Atten= 0%, Lag= 0.0 min
Primary = 1.24 cfs @ 12.09 hrs, Volume= 0.104 af

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= 218.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.50'	**12.0" Round Culvert** L= 37.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.50' / 215.30' S= 0.0054 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.20 cfs @ 12.09 hrs HW=216.21' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.20 cfs @ 2.84 fps)

Summary for Pond 73P: DMH-6

Inflow Area = 0.340 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 2.55 cfs @ 12.09 hrs, Volume= 0.215 af
Outflow = 2.55 cfs @ 12.09 hrs, Volume= 0.215 af, Atten= 0%, Lag= 0.0 min
Primary = 2.55 cfs @ 12.09 hrs, Volume= 0.215 af

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= 219.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.20'	**12.0" Round Culvert** L= 96.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.20' / 214.80' S= 0.0042 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.47 cfs @ 12.09 hrs HW=216.53' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.47 cfs @ 3.15 fps)

Summary for Pond 77P: DMH-7

Inflow Area = 0.323 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 2.42 cfs @ 12.09 hrs, Volume= 0.204 af
Outflow = 2.42 cfs @ 12.09 hrs, Volume= 0.204 af, Atten= 0%, Lag= 0.0 min
Primary = 2.42 cfs @ 12.09 hrs, Volume= 0.204 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.61' @ 12.09 hrs
Flood Elev= 220.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	215.70'	**15.0" Round Culvert** L= 181.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 215.70' / 214.80' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=2.35 cfs @ 12.09 hrs HW=216.59' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.35 cfs @ 3.51 fps)

Summary for Pond 78P: CB-19

Inflow Area = 0.122 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 0.92 cfs @ 12.09 hrs, Volume= 0.077 af
Outflow = 0.92 cfs @ 12.09 hrs, Volume= 0.077 af, Atten= 0%, Lag= 0.0 min
Primary = 0.92 cfs @ 12.09 hrs, Volume= 0.077 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.62' @ 12.09 hrs
Flood Elev= 219.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 49.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.80' S= 0.0041 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.89 cfs @ 12.09 hrs HW=216.61' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.89 cfs @ 2.53 fps)

Summary for Pond 79P: CB-10

Inflow Area = 0.200 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 1.50 cfs @ 12.09 hrs, Volume= 0.126 af
Outflow = 1.50 cfs @ 12.09 hrs, Volume= 0.126 af, Atten= 0%, Lag= 0.0 min
Primary = 1.50 cfs @ 12.09 hrs, Volume= 0.126 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.79' @ 12.09 hrs
Flood Elev= 219.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 29.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.80' S= 0.0069 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.46 cfs @ 12.09 hrs HW=216.78' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.46 cfs @ 3.06 fps)

Summary for Pond 80P: DMH-5

Inflow Area = 0.663 ac,100.00% Impervious, Inflow Depth = 7.57" for 100-yr event
Inflow = 4.96 cfs @ 12.09 hrs, Volume= 0.418 af
Outflow = 4.96 cfs @ 12.09 hrs, Volume= 0.418 af, Atten= 0%, Lag= 0.0 min
Primary = 4.96 cfs @ 12.09 hrs, Volume= 0.418 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 216.45' @ 12.09 hrs
Flood Elev= 219.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	214.70'	**15.0" Round Culvert** L= 78.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 214.70' / 214.20' S= 0.0064 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=4.83 cfs @ 12.09 hrs HW=216.40' (Free Discharge)
└**1=Culvert** (Inlet Controls 4.83 cfs @ 3.94 fps)

Summary for Pond 81P: CB-5

Inflow Area = 0.287 ac, 88.82% Impervious, Inflow Depth = 6.74" for 100-yr event
Inflow = 2.05 cfs @ 12.09 hrs, Volume= 0.161 af
Outflow = 2.05 cfs @ 12.09 hrs, Volume= 0.161 af, Atten= 0%, Lag= 0.0 min
Primary = 2.05 cfs @ 12.09 hrs, Volume= 0.161 af

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= 219.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.90' S= 0.0032 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.00 cfs @ 12.09 hrs HW=217.06' (Free Discharge)
└**1=Culvert** (Barrel Controls 2.00 cfs @ 2.98 fps)

Summary for Pond 82P: DMH-3

Inflow Area = 0.287 ac, 88.82% Impervious, Inflow Depth = 6.74" for 100-yr event
Inflow = 2.05 cfs @ 12.09 hrs, Volume= 0.161 af
Outflow = 2.05 cfs @ 12.09 hrs, Volume= 0.161 af, Atten= 0%, Lag= 0.0 min
Primary = 2.05 cfs @ 12.09 hrs, Volume= 0.161 af

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= 218.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	216.00'	**12.0" Round Culvert** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 216.00' / 215.90' S= 0.0032 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.00 cfs @ 12.09 hrs HW=217.06' (Free Discharge)
↑**1=Culvert** (Barrel Controls 2.00 cfs @ 2.98 fps)

Summary for Link 20L: DP-A

Inflow Area = 30.660 ac, 24.72% Impervious, Inflow Depth = 2.18" for 100-yr event
Inflow = 38.91 cfs @ 12.16 hrs, Volume= 5.572 af
Primary = 38.91 cfs @ 12.16 hrs, Volume= 5.572 af, Atten= 0%, Lag= 0.0 min

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

Appendix F – Stormwater Calculations

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Groton Farms
Groton, MA

February 1, 2023
6842

Infiltration Basin #1

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	2.295	0.6	0.115
Total	**2.295**		**0.115**

Total Recharge Volume Required = 0.038 Ac-ft
Total Recharge Volume Required (Rv) = 1,673 C.ft
***Recharge Vol. Provided (from Infil. Basin 1) = 5,827.0 C.ft**

*Stage Area Storage at elevation below lowest outlet = 215.30 (See Attached HydroCAD Storage Table)

Required Sediment Forebay vol, Fv:

$F_v = A_C(cu.ft)x0.1inch$ of impervious area

[1] Imp. area captured by ponds, Ap = 2.295 Ac
Required Sediment Forebay vol, Fv= 833 C.ft

Sediment Forebay Volume Provided = 1,687 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

Drawdown Calculations

CALCULATIONS

Proposed Infiltration Area Calculations:

$$Drawdown = \frac{R_V}{(Rawls\ Rate)(Bottom\ Area)}$$

Drawdown Calculations:

Soil Texture: 2 Loamy Sand

[2] **Bottom Surface Area (A): 10,430 SF**
Rawls Rate: 2.41 in/hr
Total Recharge Volume Required = 1,673 C.ft
Drawdown: 0.80 hr
Drawdown is less than 72 Hours as Required

REFERENCES

Table 2.3.3: 1982 Rawls Rates

Texture Class	NRCS Hydrologic Soil Group	Infiltration Rate
1 Sand	A	8.27 in/hr
2 Loamy Sand	A	2.41 in/hr
3 Sandy Loam	B	1.02 in/hr
4 Loam	B	0.52 in/hr
5 Silt Loam	C	0.27 in/hr
6 Sandy Clay Loam	C	0.17 in/hr
7 Clay Loam	D	0.09 in/hr
8 Silty Clay Loam	D	0.06 in/hr
9 Sandy Clay	D	0.05 in/hr
10 Silty Clay	D	0.04 in/hr
11 Clay	D	0.02 in/hr

NOTES:

Input Values

[1] = Refer to Proposed Conditions HydroCAD modeling report

Stage-Area-Storage for Pond 7P: Infiltration Basin #1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
214.80	10,430	0
214.82	10,542	210
214.84	10,655	422
214.86	10,769	636
214.88	10,883	852
214.90	10,997	1,071
214.92	11,113	1,292
214.94	11,229	1,516
214.96	11,345	1,742
214.98	11,462	1,970
215.00	11,580	2,200
215.02	11,647	2,432
215.04	11,715	2,666
215.06	11,783	2,901
215.08	11,850	3,137
215.10	11,919	3,375
215.12	11,987	3,614
215.14	12,055	3,854
215.16	12,124	4,096
215.18	12,193	4,339
215.20	12,262	4,584
215.22	12,331	4,830
215.24	12,401	5,077
215.26	12,470	5,326
215.28	12,540	5,576
215.30	12,610	5,827
215.32	12,681	6,080
215.34	12,751	6,335
215.36	12,822	6,590
215.38	12,892	6,848
215.40	12,963	7,106
215.42	13,035	7,366
215.44	13,106	7,627
215.46	13,178	7,890
215.48	13,250	8,155
215.50	13,322	8,420
215.52	13,394	8,687
215.54	13,466	8,956
215.56	13,539	9,226
215.58	13,611	9,498
215.60	13,684	9,771
215.62	13,758	10,045
215.64	13,831	10,321
215.66	13,905	10,598
215.68	13,978	10,877
215.70	14,052	11,157
215.72	14,126	11,439
215.74	14,201	11,722
215.76	14,275	12,007
215.78	14,350	12,293
215.80	14,425	12,581
215.82	14,500	12,870
215.84	14,575	13,161
215.86	14,651	13,453
215.88	14,727	13,747
215.90	14,803	14,043
215.92	14,879	14,339
215.94	14,955	14,638
215.96	15,031	14,938
215.98	15,108	15,239
216.00	**15,185**	**15,542**

Groton Farms
Groton, MA

February 1, 2023
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Infiltration Basin #2

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	1.458	0.6	0.073
Total	**1.458**		**0.073**

Total Recharge Volume Required = 0.045 Ac-ft
Total Recharge Volume Required (Rv) = 1,952 C.ft
***Recharge Vol. Provided (from Infil. Area 2) = 26,459.0 C.ft**

*Stage Area Storage at elevation below lowest outlet = 215.50 (See Attached HydroCAD Storage Table)

Required Sediment Forebay vol, Fv:

$F_v = A_C(cu.ft)x0.1inch$ of impervious area

[1] Imp. area captured by ponds, Ap = 1.458 Ac
Required Sediment Forebay vol, Fv= 529 C.ft

Sediment Forebay Volume Provided = 2,134.0 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

Drawdown Calculations

CALCULATIONS

Proposed Infiltration Area Calculations:

$$Drawdown = \frac{R_V}{(Rawls\ Rate)(Bottom\ Area)}$$

Drawdown Calculations:

Soil Texture: 2 Loamy Sand

[2] **Bottom Surface Area (A): 6,645 SF**
Rawls Rate: 2.41 in/hr
Total Recharge Volume Required = 1,952 C.ft
Drawdown: 1.46 hr
Drawdown is less than 72 Hours as Required

REFERENCES

Table 2.3.3: 1982 Rawls Rates

Texture Class	NRCS Hydrologic Soil Group	Infiltration Rate
1 Sand	A	8.27 in/hr
2 Loamy Sand	A	2.41 in/hr
3 Sandy Loam	B	1.02 in/hr
4 Loam	B	0.52 in/hr
5 Silt Loam	C	0.27 in/hr
6 Sandy Clay Loam	C	0.17 in/hr
7 Clay Loam	D	0.09 in/hr
8 Silty Clay Loam	D	0.06 in/hr
9 Sandy Clay	D	0.05 in/hr
10 Silty Clay	D	0.04 in/hr
11 Clay	D	0.02 in/hr

NOTES:

Input Values

[1] = Refer to Proposed Conditions HydroCAD modeling report

Stage-Area-Storage for Pond 4P: Infiltration Basin #2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
212.50	6,645	0
212.55	6,716	334
212.60	6,787	672
212.65	6,858	1,013
212.70	6,930	1,357
212.75	7,002	1,706
212.80	7,074	2,058
212.85	7,147	2,413
212.90	7,220	2,772
212.95	7,294	3,135
213.00	7,368	3,502
213.05	7,442	3,872
213.10	7,517	4,246
213.15	7,592	4,624
213.20	7,668	5,005
213.25	7,744	5,390
213.30	7,820	5,780
213.35	7,896	6,172
213.40	7,973	6,569
213.45	8,051	6,970
213.50	8,128	7,374
213.55	8,206	7,783
213.60	8,285	8,195
213.65	8,364	8,611
213.70	8,443	9,031
213.75	8,523	9,455
213.80	8,602	9,884
213.85	8,683	10,316
213.90	8,763	10,752
213.95	8,845	11,192
214.00	8,926	11,636
214.05	8,988	12,084
214.10	9,050	12,535
214.15	9,112	12,989
214.20	9,174	13,446
214.25	9,237	13,906
214.30	9,299	14,370
214.35	9,362	14,836
214.40	9,425	15,306
214.45	9,489	15,779
214.50	9,552	16,255
214.55	9,616	16,734
214.60	9,680	17,217
214.65	9,744	17,702
214.70	9,809	18,191
214.75	9,874	18,683
214.80	9,938	19,178
214.85	10,004	19,677
214.90	10,069	20,179
214.95	10,134	20,684
215.00	10,200	21,192
215.05	10,266	21,704
215.10	10,332	22,219
215.15	10,398	22,737
215.20	10,465	23,259
215.25	10,532	23,784
215.30	10,599	24,312
215.35	10,666	24,843
215.40	10,733	25,378
215.45	10,801	25,917
215.50	10,869	26,459
215.55	10,937	27,004
215.60	11,005	27,552
215.65	11,074	28,104
215.70	11,142	28,660
215.75	11,211	29,218
215.80	11,280	29,781
215.85	11,350	30,346
215.90	11,419	30,916
215.95	11,489	31,488
216.00	**11,559**	**32,065**

Groton Farms
Groton, MA

February 1, 2023
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Adjusted Recharge/WQV Calcs

Stormwater Recharge Calculations

Capture Area Adjustment, Rvadj:

$$R_v adj = \frac{A_t}{A_p} x R_v$$

[1] Imp. area captured by ponds, Ap =	3.753	Ac
Total impervious area on site, AT =	6.353	Ac
Recharge volume required, Rv =	13,837	C.ft
Capture Rate=	**59%**	
Capture Area Adjustment Factor=	**1.69**	
Adjusted Recharge Volume Required Rvadj =	**23,423**	**C.ft**

Total impervious area on site, AT, omits the three apartment building's roofs as they are being recharged via drip line trench.

[1] **Total Recharge Volume Provided =** 32,286.0 **C.ft**

NOTES:

Input Values

[1] = Sum of Recharge Vol. Provided from Infil. Basin 1, Infil. Basin 2

Water Quality Calculations

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 =	6.353	Ac.
AT =	**276,737**	**ft^2**
Required Water Quality Volume, VWQ =	**23,061**	**C.ft.**

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

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: **500 Main Street**

Prepared By: **RPV**

Date: **1-Feb-23**

*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: 500 Main Street

Prepared By: RPV

Date: 1-Feb-23

*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**
Infiltration 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: **500 Main Street**

Prepared By: **RPV**

Date: **1-Feb-23**

*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.

TSS Removal Calculation Worksheet

Location: TSS removal for overall site.

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: **500 Main Street**

Prepared By: **RPV**

Date: **1-Feb-23**

*Equals remaining load from previous BMP (E) which enters the BMP

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ENGINEERING LAND SURVEYING WETLAND CONSULTING

02/09/2023
#6842

Groton Farms
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-12	0.487	27.05

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

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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

GROTON FARMS
500 MAIN STREET

IN

GROTON,
MASSACHUSETTS

PREPARED BY: DILLIS & ROY
CIVIL DESIGN GROUP, INC.
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Lunenburg, MA 01462

PREPARED FOR: 500 MG LLC
6 LYBERTY WAY
WESTFORD, MA 01886

FEBRUARY 9TH, 2023

CDG PROJECT #6842

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 & infiltration/wet basins. Three proposed apartment buildings will utilize a drip line recharge trench along the building's perimeter.

Infiltration Basin with Sediment Forebay

Two infiltration basins with sediment forebays will treat the runoff. The volumes of the infiltration basins were designed to reduce runoff rates up to the 100-year storm event, infiltrate the require recharge volume and sized to handle the appropriate water quality volume. The basins are combined with sediment forebays. 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 infiltration basins. These catch basins will discharge to manholes and conventional storm drains.

Drip Line Recharge Trenches

Drip line recharge trenches are proposed along the foundations of each dwelling to collect and mitigate any stormwater runoff associated with the proposed roofs. The recharge trenches will consist of ¾" trap stone laid on filter fabric to prevent sediment buildup. The recharge trenches have been designed to accommodate the runoff volume associated with the 100-year storm.

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. Sediment forebays 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 infiltration 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 Infiltration Basin #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 Infiltration Basin

The infiltration basins should be monitored and maintained regularly to ensure no obstructions in the system are present. The basin should be monitored for the buildup of sedimentation. If the depth of sedimentation begins to impair the basin's ability to infiltrate water, the basin will need to be cleaned out.

The riprap used for the spillway and sediment forebay should be inspected regularly for sediment build up, clogging or other unwanted materials such as trash. The riprap should be cleaned as required.

1.2.3 Sediment Forebay

A sediment forebay is required as a pretreatment device prior to discharging stormwater to the infiltration 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 Drip Line Recharge Trenches

Perform preventive maintenance at least twice a year. Inspect and clean pretreatment BMPs every six months and after every major storm event (2-year return frequency). Remove accumulated sediment, trash, debris, leaves, and grass clippings from mowing. Remove tree seedlings, before they become firmly established. Inspect the infiltration trench after the first several rainfall events, after all major storms, and on regularly scheduled dates twice a year. If the top of the trench is grassed, it must be mowed on a seasonal basis. Grass height must be maintained to be no more than four inches. Routinely remove grass clippings leaves and accumulated sediment from the surface of the trench. Inspect the trench 24 hours or several days after a rain event, to look for ponded water. If there is ponded water at the surface of the trench, it is likely that the trench surface is clogged. To address surface clogging, remove and replace the topsoil or first layer of stone aggregate and the filter fabric. If water is

ponded inside the trench, it may indicate that the bottom of the trench has failed. To rehabilitate a failed trench, all accumulated sediment must be stripped from the bottom, the bottom of the trench must be scarified and tilled to induce infiltration, and all the stone aggregate and filter fabric or media must be removed and replaced.

1.2.7 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 riprap should be cleaned as required.

Infiltration structures should be inspected on a routine basis (at least semiannually) and after a major storm event. Important items to examine include: differential settlement, cracking, erosion, leakage or tree growth on the embankment, and sediment accumulation and the density of grass. Site design should be reevaluated should clogging occur to determine the factors responsible for the problem.

These inspections should be used to determine the effectiveness of the regular maintenance schedule as well as to determine the timing of corrective maintenance procedures.

Buffers, side slopes, and basin floors should be mowed at least twice a year. A routine should be developed for the removal of trash and debris. Grading and landscaping around facility inlets shall be designed to facilitate mowing, trimming, removal and other general maintenance. Grass clippings and accumulated organic matter must be removed to prevent the formation of an impervious organic layer or mat. Trees, shrubs and other vegetative cover also

require periodic maintenance such as fertilizing, pruning and pest control to maintain healthy growth.

O&M Schedule

	O&M Task	Monthly	Quarterly	Spring	Fall	2-years	As-required
1.	**Infiltration Basin**						
	Inspection			**x**	**x**		**x**
	Mowing	**3-4 times during the growing season**					
	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

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LONG-TERM POLLUTION PREVENTION PLAN

FOR

GROTON FARMS
500 MAIN STREET

IN

GROTON,
MASSACHUSETTS

PREPARED BY: DILLIS & ROY
CIVIL DESIGN GROUP, INC.
1 Main Street, Suite 1
Lunenburg, MA 01462

PREPARED FOR: 500 MG LLC
6 LYBERTY WAY
WESTFORD, MA 01886

FEBRUARY 9TH, 2023

CDG PROJECT #6842

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 500 MG LLC is proposing the construction of a mixed-use development on the north side of Route 119 just northerly of the intersection of Mill Street & Main Street. The proposed development consists of 16 quadplex units (1,220 SF ea.), 16 quadplex units (643 SF ea.), 3 apartment buildings (17,818 sf ea.), and clubhouse building (4,950 sf). The proposed work is located on Assessor's Map 216- Block 94, 95, & 96. The proposed scope of construction also includes a private roadway, on-site parking, clubhouse area with associated amenities, stormwater management systems, and new utility connections with their 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.

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4.0 Plans

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Pre-development Watershed Plan

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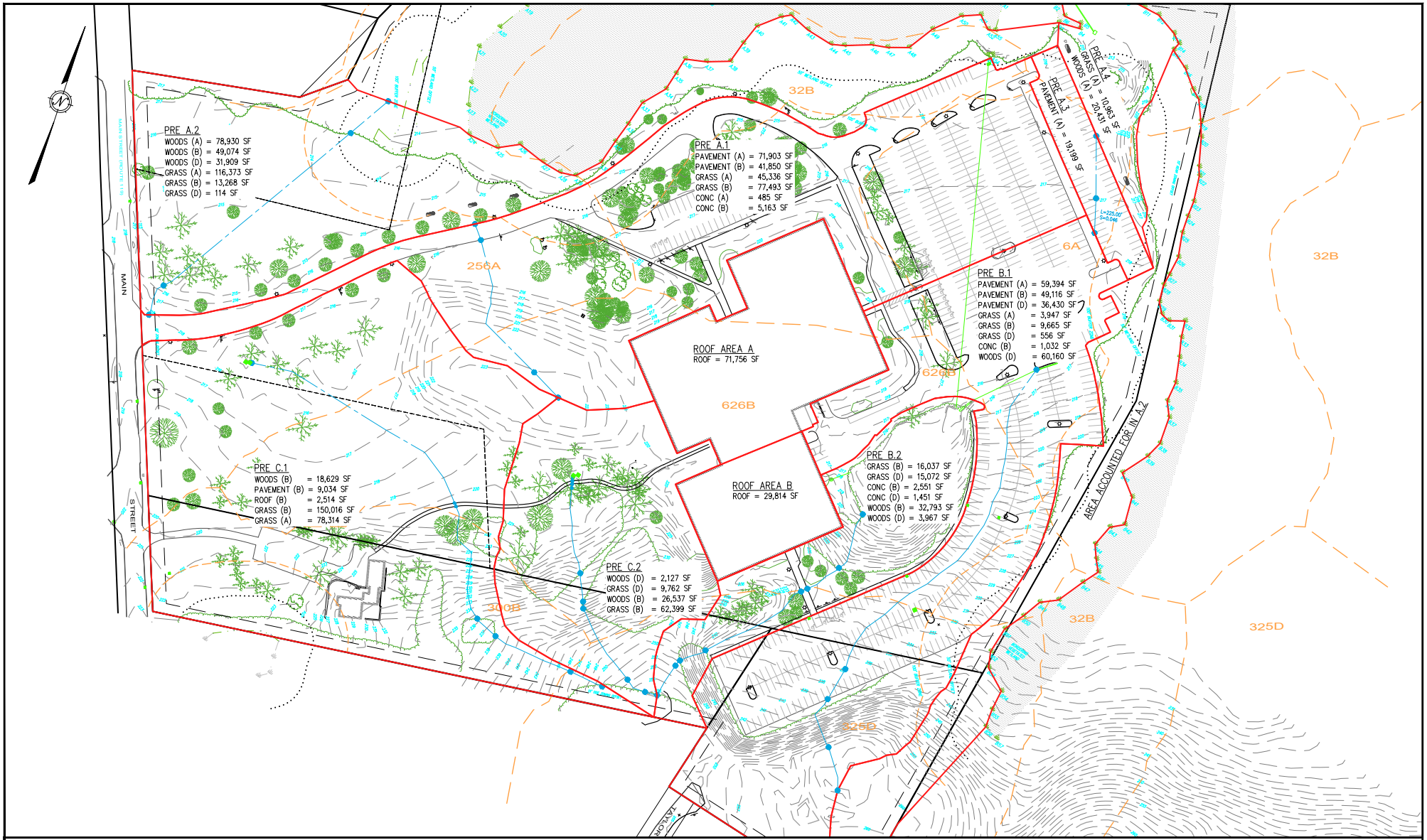

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PHONE: (978) 779-6091
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OWNER:
500 MG LLC
6 LYBERTY WAY
WESTFORD, MASSACHUSETTS

APPLICANT:
500 MG LLC
6 LYBERTY WAY
WESTFORD, MASSACHUSETTS

SCALE:
80 0 40 80 160 320
1 in. = 80 ft.

DATE: 2/09/23
DESIGN BY: GSR
DRAWN BY: RPV
CHECKED BY: GSR

PRE-DEVELOPED WATERSHED MAP
500 MAIN STREET
GROTON, MASSACHUSETTS

NO.	DATE	DESCRIPTION	BY

JOB NO. 6842
DRAWING NO. 6842-PRE-DEV
SHEET NO. DRN

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Post-development Watershed Plan

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PREPARED BY:
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OWNER:
500 MG LLC
6 LYBERTY WAY, SUITE 203
WESTFORD, MASSACHUSETTS

APPLICANT:
500 MG LLC
6 LYBERTY WAY, SUITE 203
WESTFORD, MASSACHUSETTS

SCALE:
60 0 30 60 120 240
1 in. = 60 ft.

DATE: 2/09/22
DESIGN BY: GSR
DRAWN BY: RPV
CHECKED BY: GSR

POST-DEVELOPED WATERSHED MAP
GROTON FARMS
500 MAIN STREET
GROTON, MASSACHUSETTS

NO.	DATE	DESCRIPTION	BY

JOB NO. 6842
DRAWING NO. 6842-SP
SHEET NO. DRN