STORMWATER POLLUTION PREVENTION PLAN

PROPOSED GASOLINE STATION RENOVATIONS

657 Saw Mill River Road
Village of Ardsley, New York

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Prepared by:

JMC Project 18175

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I. INTRODUCTION

This Stormwater Pollution Prevention Plan has been prepared for the 0.53 acre Gas Station site, located in the Village of Ardsley, Westchester County, New York (hereinafter referred to as the "Site"). The site is bordered by the Bramble Brook and Ashford Avenue to the north, Ridge Road to the south, wooded area to the east, and Saw Mill River Road to the west. The development has been designed in accordance with the following:

- Requirements of the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit No. GP-0-20-001, effective January 29, 2020.
- Chapter 171 "Stormwater Management and Erosion and Sediment Control" of the Ardsley Zoning Code

Site work on this project includes removal of the existing gas station convenience store building, installation of new gas pumps with canopy and subsurface gas tanks. An 1,800 square foot convenience store building will be installed with a total of 20 proposed parking spaces with associated driveway and sidewalk modifications.

II. STORMWATER MANAGEMENT PLANNING

In order to be eligible for coverage under the NYSDEC SPDES General Permit No. GP-0-20-001 for Stormwater Discharges from Construction Activities, the Stormwater Pollution Prevention Plan (SWPPP) includes stormwater management practices (SMP's) from the publication "New York State Stormwater Management Design Manual," last revised January 2015.

A Stormwater Pollution Prevention Plan has been prepared for this project because it is a construction activity that involves:

- Construction activity that discharges into an impaired watercourse.

The proposed stormwater facilities have been designed such that the quantity and quality of stormwater runoff during and after construction are not adversely altered or are enhanced when compared to pre-development conditions.

The Six Step Process for Stormwater Site Planning and Practice Selection

Stormwater management using green infrastructure is summarized in the six step process described below. The six step process was adhered to when developing this SWPPP. Information is provided in this SWPPP which documents compliance with the required process as follows:

Step 1: Site Planning

Implement planning practices that protect natural resources and utilize the hydrology of the site. Strong consideration must be given to reducing impervious cover to aid in the preservation of natural resources including protecting natural areas, avoiding sensitive areas and minimizing grading and soil disturbance.

Step 2: Determine Water Quality Treatment Volume (WQv)

Determine the required WQv for the site based on the site layout, impervious areas and sub-catchments. This initial calculation of WQv will have to be revised after green infrastructure techniques are applied. The following method has been used to calculate the WQv.

- **90% Rule -** According to the New York State Stormwater Design Manual, Section 4.1, the water quality volume is determined from the 90% rule. The method is based on 90% of the average annual stormwater runoff volume which must be provided due to impervious surfaces. The Water Quality Volume (denoted as the WQv) is designed to improve water quality sizing to capture and treat 90% of the average annual stormwater runoff volume. The WQv is directly related to the amount of impervious cover created at a site. The average rainfall storm depth for 90% of storms in New

York State in one year is used to calculate a volume of runoff. The rainfall depth depends on the location of the site within the state. From this depth of rainfall, the required water quality volume is calculated.

The project is a redevelopment and therefore will comply with the strategies outlined within Chapter 9: Redevelopment Projects of the Design Manual. There are different options to control water quality depending on the redevelopment.

The plan proposes that a minimum of 25% of the water quality volume (WQv) from the disturbed area is captured and treated by the implementation of standard practices. When utilizing structural stormwater management practices, these practices should be targeted to treat areas with the greatest pollutant generation potential (e.g. parking areas, service stations, etc).

Proposed standard SMP's will effectively treat 100% of the 1 year storm for all existing and new impervious areas and the proposed alternative SMP's will also treat 100% of the 1 year storm for all existing impervious areas which is above and beyond the water quality requirements for Redevelopment Projects.

Step 3: Runoff Reduction Volumes (RRv) by Applying Green Infrastructure Techniques and Standard SMP's

RRv is not required for this project since it is a redevelopment.

Step 4: Determine the minimum RRv Required

The minimum RRv is calculated similar to the WQV. However, it is determined using only the new impervious cover and accounts for the hydrologic soil group present. In no case shall the runoff reduction achieved from the newly constructed impervious area be less than the minimum runoff reduction volume (RRv_{min}).

Step 5: Apply Standard Stormwater Management Practices to Address Remaining Water Quality Volume

Apply the standard SMP's to meet additional water quality volume requirements that cannot be addressed by applying the green infrastructure techniques. The standard SMP's with RRv capacity must be implemented to verify that the RRv requirement has been met.

Step 6: Apply Volume and Peak Rate Control Practices to Meet Water Quantity Requirements
The Channel Protection Volume (CPv), Overbank Flood Control (Qp) and Extreme Flood Control (Qf) must be met for the plan to be completed. This is accomplished by using practices such as infiltration basins, dry detention basins, etc. to meet water quantity requirements. The following standards must be met:

1. **Stream Channel Protection (CPv)**

   Stream Channel Protection Volume Requirements (CPv) are designed to protect stream channels from erosion. In New York State this goal is accomplished by providing 24-hour extended detention of the one-year, 24-hour storm event, remained from runoff reduction. Reduction of runoff for meeting stream channel protection objectives, where site conditions allow, is encouraged and the volume reduction achieved through green infrastructure can be deducted from CPv. Trout waters may be exempted from the 24-hour ED requirement, with only 12 hours of extended detention required to meet this criterion. Detention time may be calculated using either a center of mass method or plug flow calculation method.

   - CPv for a redevelopment project is not required if there is no increase in impervious area or changes to hydrology that increase the discharge rate. This criterion, as defined in Chapter 4 of New York State Stormwater Design Manual, is not based on a pre versus post-development comparison. However, for a redevelopment project this requirement is relaxed. If the hydrology and hydraulic study shows that the post-construction 1-year 24 hour discharge rate and velocity

are less than or equal to the pre-construction discharge rate, providing 24 hour detention of the 1-year storm to meet the channel protection criteria is not required.

2. Overbank Flood (Qp) which is the 10 year storm.

Overbank control requires storage to attenuate the post development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates.

The overbank flood control requirement (Qp) does not apply in certain conditions, including:

- The site discharges directly tidal waters or fifth order (fifth downstream) or larger streams.
- A downstream analysis reveals that overbank control is not needed.

3. Extreme Storm (Qf) which is the 100 year storm.

100 Year Control requires storage to attenuate the post development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates.

The 100-year storm control requirement can be waived if:

- The site discharges directly tidal waters or fifth order (fifth downstream) or larger streams.
- Development is prohibited within the ultimate 100-year floodplain
- A downstream analysis reveals that 100-year control is not needed.

- If redevelopment results in no increase in impervious area or changes to hydrology that increase the discharge rate from the site the hundred-year criteria does not apply.

Based on the foregoing, this project is eligible for coverage under NYSDEC SPDES General Permit No. GP-0-20-001.

III. STUDY METHODOLOGY

Runoff rates were calculated based upon the standards set forth by the United States Department of Agriculture Natural Resources Conservation Service Technical Release 55, Urban Hydrology for Small Watersheds (TR-55), dated June 1986. The methodology set forth in TR-55 considers a multitude of characteristics for watershed areas including soil types, soil permeability, vegetative cover, time of concentration, topography, rainfall intensity, ponding areas, etc.

The 1, 10, and 100 year storm recurrence intervals were reviewed in the design of the stormwater management facilities (see Appendices A & B Existing/Proposed Hydrologic Calculations).

Anticipated drainage conditions were analyzed taking into account the rate of runoff which will result from the construction of buildings, parking areas and other impervious surfaces associated with the site development.

Base Data and Design Criteria

For the stormwater management analysis, the following base information and methodology were used:

1. The site drainage patterns and outfall facilities were reviewed by JMC personnel for the purpose of gathering background data and confirming existing mapping of the watershed areas.

2. A Natural Resource and Existing Drainage Area Map was developed from the topographical survey. The drainage area map reflects the existing conditions within and around the project area.

3. A Proposed Drainage Area Map was developed from the proposed grading design superimposed over the topographical survey. The drainage area map reflects the proposed conditions within the project area and the existing conditions to remain in the surrounding area.

4. The United States Department of Agriculture (USDA) Web Soil Survey of the site available on its website at http://websoilsurvey.nrcd.usda.gov.

5. Soil Survey of Putnam and Westchester Counties, 1994.

6. The United States Department of Agriculture Natural Resources Conservation Service National Engineering Handbook, Section 4 - Hydrology", dated March 1985.

7. The United States Department of Agriculture Natural Resources Conservation Service Technical Report No. 55, Urban Hydrology for Small Watersheds (TR-55), dated June 1986.

8. United States Department of Commerce Weather Bureau Technical Release No. 40 Rainfall Frequency Atlas of the United States.

The time of concentration was calculated using the methods described in Chapter 3 of TR-55, Second Edition, June 1986. Manning's kinematics wave equation was used to determine the travel time of sheet flow. The 2-year 24 hour precipitation amount of 3.43 inches was used in

the equation for all storm events. The travel time for shallow concentrated flow was computed using Figure 3-1 and Table 3-1 of TR-55. Manning's Equation was used to determine the travel time for channel reaches.

9. All hydrologic calculations were performed with the Bentley PondPack software package version 10.0.

10. All hydraulic calculations were performed with the Civil 3D Storm Sewer Analysis, software package version 13.2.

11. The New York State Stormwater Management Design Manual, revised January 2015.

12. New York Standards and Specifications for Erosion and Sediment Control, November 2016.

13. The storm flows for the *CHOOSE ALL THAT APPLY* 1, 10, & 100 year recurrence interval storms were analyzed for the total watershed areas. The Type III distribution design storm for a 24 hour duration was used and the mass rainfall for each design storm was taken from the Extreme Precipitation in New York & New England developed by the Natural Resource Conservation Service (NRCS) and the Northeast Regional Climate Center (NRCC) as follows:

24 Hour Rainfall Amounts

Design Storm Recurrence Interval	Inches of Rainfall
1 Year	2.82
10 Year	5.07
100 Year	8.93

IV. EXISTING CONDITIONS

The existing conditions of the project site consists of an existing gas station building, subsurface tanks, and associated pumps. The majority of the site consists of Impervious Coverage. Part of the site drains towards the south to underground stormwater infrastructure. The northern portion of the site drains to the Bramble brook water course. The entire site is located with the Saw Mill River drainage basin. After stormwater runoff exits the project site, it flows to to the Saw Mill River.

The following natural features, conservation areas, resource areas and drainage patterns of the project site have been identified and utilized to develop Drawing DA-1 "Existing Drainage Area Map" which is included in Appendix F:

- Wetlands (jurisdictional, wetland of special concern)
- Waterways (major, perennial, intermittent, springs)
- Buffers (stream, wetland, forest, etc.)
- Floodplains
- Vegetative cover
- Critical areas
- Topography (contour lines, existing flow paths, steep slopes, etc.)
- Soil (hydrologic soil groups, highly erodible soils, etc.)

Based on the USDA WEB soil survey, all on-site soils are well drained and belong to hydrological group B. The soil types, boundaries and drainage areas/designations are depicted on Drawing DA-1 within Appendix F.

One Design Point (DP-1) were identified for comparing peak rates of runoff in existing and proposed conditions. Two separate drainage areas were identified in existing conditions based on the existing drainage divides at the site. The numbers included in the name of each drainage area correspond to the Design Point they drain towards.

The following is a description of each of the drainage areas analyzed in the existing conditions analysis:

Existing Drainage Area 1A (EDA-1A) is 0.56 acres in size and is located on the Southern portion of the site along Saw Mill River Road. This area consists of pavement, the existing gas station building, and entrance driveways. This drainage area drains in the southerly direction towards existing subsurface stormwater infrastructure.

The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 89 and 5 minutes, respectively. Refer to Drawing DA-1 in Appendix F.

Existing Drainage Area X1B(EDA-1B) is 0.05 acres in size and is located on the Northern portion of the site along the Bramble Brook which is south of Ardsley Road. This area consists of mostly of vegetated area and drains to the Bramble Brook which eventually discharges to the Saw Mill River.

The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 62 and 5 minutes, respectively. Refer to Drawing DA-1 in Appendix F.

The peak rates of runoff to the design points from the drainage areas for each storm are shown in the table below:

Table 1
Summary of Peak Rates of Runoff in Existing Conditions
(Cubic Feet per Second)

Storm Recurrence Interval	DP-1
1 year	1.02
10 year	2.20
100 year	4.24

The volumes of runoff to each design point are shown in the table below, as well as the total volume of runoff produced by the entire site.

V. PROPOSED CONDITIONS

The proposed improvements consist of the addition of an 1,800 square foot convenience store building, new gas pumps with canopy, subsurface gas tanks, and a total of 20 parking spaces. The improvements also include a proposed subsurface sand filter to treat runoff from the site. The proposed improvements will result in a decrease in impervious coverage which will allows the peak rates and volumes of stormwater runoff to be attenuated in the 1, 10 and 100 year storms.

This section describes the design and analysis of the proposed conditions used to demonstrate that the SWPPP meets the requirements of the General Permit.

The Six Step Process For Stormwater Site Planning and Practice Selection

Step 1: Site Planning

The following practices and site features were incorporated in the site design:

- Preserving hydrology - Maintaining drainage divides
- Waterways (major, perennial, intermittent, springs) – The location, setback, cross section, etc. of the existing waterway has been maintained.
- Critical areas have been preserved.
- Topography (contour lines, existing flow paths, steep slopes, etc.) has been maintained or disturbed to the minimum extent practicable.
- Soil (hydrologic soil groups, highly erodible soils, etc.)
- Bedrock, significant geology features have been accounted for.

Step 2: Determine Water Quality Treatment Volume (WQv)

The following method has been used to calculate the WQv.

- **90% Rule -** According to the New York State Stormwater Design Manual, Section 4.1, the water quality volume is determined from the 90% rule. The method is based on 90% of the average annual stormwater runoff volume which must be provided due to impervious surfaces. The Water Quality Volume (denoted as the WQv) is designed to improve water quality sizing to capture and treat 90% of the average annual stormwater runoff volume. The WQv is directly related to the amount of impervious cover created at a site. The average rainfall storm depth for 90% of storms in New York State in one year is used to calculate a volume of runoff. The rainfall depth depends on the location of the site within the state. From this depth of rainfall, the required water quality volume is calculated.

The project is a redevelopment and therefore will comply with the strategies outlined within Chapter 9: Redevelopment Projects of the Design Manual. There are different options to control water quality depending on the redevelopment.

The proposed stormwater management practices will effectively treat 100% of the 1 year storm for all impervious areas on-site which is consistent with the requirements for Redevelopment Projects.

Step 3: Runoff Reduction Volumes (RRv) by Applying Green Infrastructure Techniques and Standard SMP's

RRv is not required because this project is a redevelopment.

Step 4: Determine the minimum RRv Required

RRv is not required because this project is a redevelopment.

Step 5: Apply Standard Stormwater Management Practices to Address Remaining Water Quality Volume

- **FILTERING PRACTICES**

Underground Sand Filter (F-2)

Description

A filtering practice that treats stormwater as it flows through underground settling and filtering chambers.

Non Standard/Alternative SMP's to Address Remaining Water Quality Volume (for Redevelopment Projects)

- **Hydrodynamic Separators**

Step 6: Apply Volume and Peak Rate Control Practices to Meet Water Quantity Requirements

Underground Sand Filter (F-2)

Description

A filtering practice that treats stormwater as it flows through underground settling and filtering chambers.

All practices exceed the required elements of SMP criteria as outlined in Chapter 6 of the NYS Stormwater Management Design Manual. A summary of each category is provided below.

1. Feasibility – Stormwater practices are designed based upon unique physical environmental considerations noted in the NYS Stormwater Management Design Manual (NYSSMDM).

2. Conveyance – The design conveys runoff to the designed stormwater practice in a manner that is safe, minimizes erosion and disruption to natural drainage channel and promotes filtering and infiltration.

3. Pretreatment – All stormwater practices provide pretreatment as required in accordance with NYSSMDM design guidelines.

4. Treatment Geometry – The plan provides water quality treatment in accordance with NYSSMDM guidelines.

5. Environmental/Landscaping –Extensive landscaping has been provided for each proposed stormwater practice to enhance pollutant removal and provide aesthetic enhancement to the property.

6. Maintenance – Maintenance for the environment practices has been provided and is detain the SWPPP Report as required. Maintenance access is provided in the design plans.

In order to determine the post-development rates of runoff generated on-site, the following drainage areas were analyzed in the post-development conditions. These areas are graphically depicted on Drawing DA-2 "Proposed Drainage Area Map" located in Appendix F.

One Design Point (DP-1) were identified for comparing peak rates of runoff in existing and proposed conditions. Two separate drainage areas were identified in proposed conditions based on the proposed drainage divides at the site. The numbers included in the name of each drainage area correspond to the Design Point they drain towards.

The following is a description of each of the drainage areas analyzed in the proposed conditions analysis:

Proposed Drainage Area 1A-1 (PDA-1A-1) is 0.48 acres in size and is located on the Southern portion of the site along Saw Mill River Road. This area consists of pavement, the addition of a proposed gas station convenience building, driveway improvements, addition of lawn areas and associated sidewalk improvements. This drainage area drains in the southerly direction. Runoff from this area is either captured by slotted drain or is captured by drain inlets and conveyed to the existing stormwater infrastructure and eventually discharged into the Saw Mill River.

The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 87 and 5 minutes, respectively.

Proposed Drainage Area 1A-2 (PDA-1A-2) 0.08 Acres in size and is located towards the center of the site. This drainage area drains in the southerly direction and is fully comprised of the gas pump concrete pad area and underground gas tank filling area. This area is captured by slotted drains and conveyed to a proposed subsurface sand filter for water quality treatment. Once treated, stormwater will be conveyed to the existing stormwater infrastructure and eventually discharged into the Saw Mill River.

The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 98 and 5 minutes, respectively.

Proposed Drainage Area 1B (PDA-1B) is 0.05 acres in size and is located on the Northern portion of the site along the Bramble Brook which is south of Ardsley Road. This area consists of mostly of undisturbed vegetated area with minor curb line improvements. This drainage area drains to the Bramble Brook which eventually discharges to the Saw Mill River.
The Curve Number (CN) and Time of Concentration (Tc) for this drainage area are 61 and 5 minutes, respectively.

Refer to Drawing DA-2 in Appendix H.

The peak rates of runoff to the design point of each of the analyzed drainage areas for each storm are shown on the table below:

Table 2
Summary of Proposed Peak Rates of Runoff in Proposed Conditions
(Cubic Feet per Second)

Storm Recurrence Interval	DP-1
1 year	1.01
10 year	2.18
100 year	4.22

The reductions in peak rates of runoff from proposed to existing conditions are shown on the table below:

Table 3
Percent Reductions in Peak Rates of Runoff (Existing vs. Proposed Conditions)
(Cubic Feet per Second)

Design Point	Storm Recurrence Frequency (Years)	Existing Peak Runoff Rate (cfs)	Proposed Peak Runoff Rate (cfs)	Percent Reduction (%)
1	1 year	1.02	1.01	0.98
	10 year	2.20	2.18	0.91
	100 year	4.24	4.22	0.47

As demonstrated in Table 3, the proposed stormwater improvements will result in significant reductions of peak rates of runoff for all storms and design points analyzed.

By reducing the peak rates of volume discharging from the site, the velocity of runoff discharging form the site is consequently reduced thereby reducing the flow to the existing 12" reinforced concrete pipe that the site drains into.

VI. SOIL EROSION & SEDIMENT CONTROL

A potential impact of the proposed development on any soils or slopes will be that of erosion and transport of sediment during construction. An Erosion and Sediment Control Management Program will be established for the proposed development, beginning at the start of construction and continuing throughout its course, as outlined in the "New York State Standards and Specifications for Erosion and Sediment Control," November 2016. A continuing maintenance

program will be implemented for the control of sediment transport and erosion control after construction and throughout the useful life of the project.

The Operator shall have a qualified professional conduct an assessment of the site prior to the commencement of construction and certify that the appropriate erosion and sediment controls, as shown on the Sediment & Erosion Control Plans, have been adequately installed to ensure overall preparedness of the site for the commencement of construction. In addition, the Operator shall have a qualified professional conduct one site inspection at least every seven calendar days and at least two site inspections every seven calendar days when greater than five acres of soil is disturbed at any one time.

Prior to the commencement of construction activity, the owner or operator must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The owner or operator shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the trained contractor. The owner or operator shall ensure that at least one trained contractor is on site on a daily basis when soil disturbance activities are being performed. The owner or operator shall have each of the contractors and subcontractors identified above sign a copy of the certification statement provided in this document before they commence any construction activity.

Soil Description

As provided by the United States Department of Agriculture, Soil Conservation Service "Web Soil Survey," soil classifications which exist on the subject site are described below.

Soils are placed into four hydrologic groups: A, B, C, and D. In the definitions of the classes, infiltration rate is the rate at which water enters the soil at the surface and is controlled by the

surface conditions. Transmission rate is the rate at which water moves in the soil and is controlled by soil properties. Definitions of the classes are as follows:

A. (Low runoff potential). The soils have a high infiltration rate even when thoroughly wetted. They chiefly consist of deep, well drained to excessively drained sands or gravels. They have a high rate of water transmission.

B. The soils have a moderate infiltration rate when thoroughly wetted. They chiefly are moderately deep to deep, moderately well drained to well drained soils that have moderately fine to moderately coarse textures. They have a moderate rate of water transmission.

C. The soils have a slow infiltration rate when thoroughly wetted. They chiefly have a layer that impedes downward movement of water or have moderately fine to fine texture. They have a slow rate of water transmission.

D. (High runoff potential). The soils have a very slow infiltration rate when thoroughly wetted. They chiefly consist of clay soils that have a high swelling potential, soils that have a permanent high water table, soils that have a claypan or clay layer at or near the surface, and shallow soils over nearly impervious material. They have a very slow rate of water transmission.

A soil's tendency to erode is also described in the USDA web soil survey. The ratings in this interpretation indicate the hazard of soil loss from unsurfaced areas. The ratings are based on soil erosion factor K, slope, and content of rock fragments. The hazard is described as "slight," "moderate," or "SEVERE." A rating of "slight" indicates that little or no erosion is likely; "moderate" indicates that some erosion is likely, that the temporarily unsurfaced / unstabilized during construction may require occasional maintenance, and that simple erosion-control measures are needed; and "SEVERE" indicates that significant erosion is expected, that the roads or trails require frequent maintenance, and that erosion-control measures are needed.

Per the Soil Survey, the following soils listed below are present at the site. Following this list is a detailed description of each soil type found on the property:

SYM.	HYDRO. SOIL GROUP	DESCRIPTION
ChC	B	Charlton fine sandy loam, 8 to15 slopes

ChC, Charlton fine sandy loam, 8 TO 15 PERCENT SLOPE

This soil is well drained. The parent material consists of Coarse-loamy melt-out till derived from granite, gneiss, and/or schist. Depth to the top of a seasonal high water table is more than 80 inches. Available water capacity is moderate (about 6.9 inches).

Hydrologic group: B
Erosion Hazard Rating: Severe

On-Site Pollution Prevention

There are temporary pollution prevention measures used to control litter and construction debris on site, such as:

- Silt Fence
- Silt Sack
- Stone & Block Drop Inlet Protection

There will be inlet protection provided for all storm drains and inlets with the use of curb gutter inlet protection structures and stone & block drop inlet protection, which keep silt, sediment and construction litter and debris out of the on-site stormwater drainage system.

Temporary Control Measures

Temporary control measures and facilities will include silt fences, construction ditches, stabilized construction access, temporary seeding, mulching and sediment traps with temporary riser and anti-vortex devices.

Throughout the construction of the proposed redevelopment, temporary control facilities will be implemented to control on-site erosion and sediment transfer. Construction ditches, if required, will be used to direct stormwater runoff to temporary sediment traps for settlement. The sediment traps will be constructed as part of this project will serve as temporary sediment basins to remove sediment and pollutants from the stormwater runoff produced during construction. Descriptions of the temporary sediment & erosion controls that will be used during the development of the site including silt fence, stabilized construction access, seeding, mulching and inlet protection are as follows:

1. Silt Fence is constructed using a geotextile fabric. The fence will be either 18 inches or 30 inches high. The height of the fence can be increased in the event of placing these devices on uncompacted fills or extremely loose undisturbed soils. The fences will not be placed in areas which receive concentrated flows such as ditches, swales and channels nor will the filter fabric material be placed across the entrance to pipes, culverts, spillway structures, sediment traps or basins.

2. Stabilized Construction Access consists of AASHTO No. 1 rock. The rock entrance will be a minimum of 50 feet in length by 24 feet in width by 8 inches in depth.

3. Seeding will be used to create a vegetative surface to stabilize disturbed earth until at least 80% of the disturbed area has a perennial vegetative cover. This amount is required to adequately function as a sediment and erosion control facility. Grass lining will also be used to line temporary channels and the surrounding disturbed areas.

4. Mulching is used as an anchor for seeding and disturbed areas to reduce soil loss due to storm events. These areas will be mulched with straw at a rate of 3 tons per acre such that the mulch forms a continuous blanket. Mulch must be placed after seeding or within 48 hours after seeding is completed.

5. Inlet Protection will be provided for all stormwater basins and inlets with the use of curb & gutter inlet protection and stone & block inlet protection structures, which will keep silt, sediment and construction debris out of the storm system. Existing structures within existing paved areas will be protected using "Silt Sacks" inside the structures.

The contractor shall be responsible for maintaining the temporary sediment and erosion control measures throughout construction. This maintenance will include, but not be limited to, the following tasks:

1. For dust control purposes, moisten all exposed graded areas with water at least twice a day in those areas where soil is exposed and cannot be planted with a temporary cover due to construction operations or the season (December through March).

2. Inspection of erosion and sediment control measures shall be performed at the end of each construction day and immediately following each rainfall event. All required repairs shall be immediately executed by the contractor.

3. Sediment deposits shall be removed when they reach approximately ⅓ the height of the silt fence. All such sediment shall be properly disposed of in fill areas on the site, as directed by the Owner's Field Representative. Fill shall be protected following disposal with mulch, temporary and/or permanent vegetation and be completely circumscribed on the downhill side by silt fence.

4. Rake all exposed areas parallel to the slope during earthwork operations.

5. Following final grading, the disturbed area shall be stabilized with a permanent surface treatment (i.e. turf grass, pavement or sidewalk). During rough grading, areas which are not to be disturbed for fourteen or more days shall be stabilized with the temporary seed mixture, as defined on the plans. Seed all piles of dirt in exposed soil areas that will not receive a permanent surface treatment.

Concrete Material and Equipment Management

Concrete washouts shall be used to contain concrete and liquids when the chutes of concrete mixers and hoppers of concrete pumps are rinsed out after delivery. The washout facilities consolidate solid for easier disposal and prevent runoff of liquids. The wash water is alkaline and contains high levels of chromium, which can leach into the ground and contaminate groundwater. It can also migrate to a storm drain, which can increase the pH of area waters and harm aquatic life. Solids that are improperly disposed of can clog storm drain pipes and cause flooding. Installing concrete washout facilities not only prevents pollution but also is a matter of good housekeeping at your construction site.

Prefabricated concrete washout containers can be delivered to the site to provide maintenance and disposal of materials. Regular pick-ups of solid and liquid waste materials will be necessary. To prevent leaks on the job site, ensure that prefabricated washout containers are watertight. A self installed concrete washout facility can be utilized although they are much less reliable than prefabricated containers and are prone to leaks. There are many design options for the washout, but they are preferably built below-grade to prevent breaches and reduce the likelihood of runoff. Above-grade structures can also be used if they are sized and constructed correctly and are diligently maintained. One of the most common problems with self-installed concrete washout facilities is that they can leak or be breached as a result of constant use, therefore the contractor shall be sure to use quality materials and inspect the facilities on a daily basis.

Washouts must be sized to handle solids, wash water, and rainfall to prevent overflow. Concrete Washout Systems, Inc. estimates that 7 gallons of wash water are used to wash one truck chute and 50 gallons are used to wash out the hopper of a concrete pump truck.

For larger sites, a below-grade washout should be at least 10 feet wide and sized to contain all liquid and solid waste expected to be generated in between cleanout periods. A minimum of 12-inches of freeboard must be provided. The pit must be lined with plastic sheeting of at least 10-mil thickness without holes or tears to prevent leaching of liquids into the ground. Concrete

wash water should never be placed in a pit that is connected to the storm drain system or that drains to nearby waterways.

An above-grade washout can be constructed at least 10 feet wide by 10 feet long and sized to contain all liquid and solid waste expected to be generated in between cleanout periods. A minimum of 4-inches of freeboard must be provided. The washout structures can be constructed with staked straw bales or sandbags double-or triple lined with plastic sheeting of at least 10-mil thickness without holes or tears.

Concrete washout facilities shall not be located within 50 feet of storm drains, open ditches, or water bodies and should be placed in locations that allow for convenient access for concrete trucks. The contractor shall check all concrete washout facilities daily to determine if they have been filled to 75 percent capacity, which is when materials need to be removed. Both above-and below-ground self-installed washouts should be inspected daily to ensure that plastic linings are intact and sidewalls have not been damaged by construction activities. Prefabricated washout containers should be inspected daily as well as to ensure the container is not leaking or nearing 75 percent capacity. Inspectors should also note whether the facilities are being used regularly. Additional signage for washouts may be needed in more convenient locations if concrete truck operators are not utilizing them.

The washout structures must be drained or covered prior to predicted rainstorms to prevent overflows. Hardened solids either whole or broken must be removed and then they may be reused onsite or hauled away for recycling.

Once materials are removed from the concrete washout, a new structure must be built or excavated, or if the previous structure is still intact, inspect it for signs of weakening or damage and make any necessary repairs. Line the structure with new plastic that is free of holes or tears and replace signage if necessary. It is very important that new plastic be used after every cleaning because pumps and concrete removal equipment can damage the existing liner.

<u>Construction Site Chemical Control</u>

The purpose of this management measure is to prevent the generation of nonpoint source pollution from construction sites due to improper handling and usage of nutrients and toxic substances, and to prevent the movement of toxic substances from the construction site.

Many potential pollutants other than sediment are associated with construction activities. These pollutants include pesticides; fertilizers used for vegetative stabilization; petrochemicals; construction chemicals such as concrete products, sealers, and paints; wash water associated with these products; paper; wood; garbage; and sanitary waste.

Disposal of excess pesticides and pesticide-related wastes should conform to registered label directions for the disposal and storage of pesticides and pesticide containers set forth in applicable Federal, State and local regulations that govern their usage, handling, storage, and disposal.

Pesticides should be disposed of through either a licensed waste management firm or a treatment, storage and disposal (TSD) facility. Containers should be triple-rinsed before disposal, and rinse waters should be reused as product.
Other practices include setting aside a locked storage area, tightly closing lids, storing in a cool, dry place, checking containers periodically for leaks or deterioration, maintaining a list of products in storage, using plastic sheeting to line the storage areas, and notifying neighboring property owners prior to spraying.

When storing petroleum products, follow these guidelines:

- Create a shelter around the area with cover and wind protection;
- Line the storage area with a double layer of plastic sheeting or similar material;
- Create an impervious berm around the perimeter with a capacity of 110 percent greater than that of the largest container;
- Clearly label all products;
- Keep tanks off the ground; and

- Keep lids securely fastened.

Post spill procedure information and have persons trained in spill handling on site or on call at all times. Materials for cleaning up spills should be kept on site and easily available. Spills should be cleaned up immediately and the contaminated material properly disposed of. Maintain and wash equipment and machinery in confined areas specifically designed to control runoff.

Thinners or solvents should not be discharged into sanitary or storm systems when cleaning machinery. Use alternative methods for cleaning larger equipment parts, such as high-pressure, high-temperature water washes, or steam cleaning. Equipment-washing detergents can be used, and wash water may be discharged into sanitary sewers if solids are removed from the solution first. (This practice should be verified with the local sewer authority.) Small parts can be cleaned with degreasing solvents, which can then be reused or recycled.

Solid Waste Management and Portable Sanitary Management

The purpose of this management measure is to prevent the potential for solid waste such as construction debris, trash, etc. from construction sites due to improper handling and storage. Debris and litter should be removed periodically from the BMP's and surrounding areas to prevent clogging of pipes and structures. All construction material shall be stored in designated staging areas. Roll-off containers shall be placed on site and all empty containers, construction debris and litter shall be placed in the containers.

Portable sanitary units may be utilized on-site or bathrooms will be provided within construction trailers. A sanitation removal company will be hired to pump/remove any sanitary waste. In the event that portable sanitary units are used and then cleaned after being emptied, the rinse water may not be disposed of to the storm drain system. It shall be contained for later disposal if it can't be disposed of on-site. Remove paper and trash before cleaning the portable sanitary units. The portable sanitary units shall be located away from the storm drain system if possible. Provide over head cover for wash areas if possible. Maintain spill response material and equipment on site

to eliminate the potential for contaminants and wash water from entering the storm drain system.

Permanent Control Measures and Facilities for Long Term Protection

Towards the completion of construction, permanent sediment and erosion control measures will be developed for long term erosion protection. The following permanent control measures and facilities have been proposed to be implemented for the project:

1. CDS Water Quality Structure will be used to provide pretreatment of the water quality flow rate for separating sediment, debris, floatables, etc. from the runoff prior to discharge to the SMP's.

Specifications for Soil Restoration

Prior to the final stabilization of the disturbed areas, soil restoration will be required for all vegetated areas to recover the original properties and porosity of the soil. Soil Restoration Requirements are provided on Table 7 below:

Table 4

Soil Restoration Requirements

Type of Soil Disturbance	Soil Restoration Requirement		Comments/Examples
No soil disturbance	Restoration not permitted		Preservation of Natural Features
Minimal soil disturbance	Restoration not required		Clearing and grubbing
Areas where topsoil is stripped only – no change in grade	HSG A&B	HSG C&D	Protect area from any ongoing construction activities
	apply 6 inches of topsoil	Aerate* and apply 6 inches of topsoil	
Areas of cut or fill	HSG A&B	HSG C&D	Clearing and grubbing
	Aerate and apply 6 inches of topsoil	Apply full Soil Restoration**	

Heavy traffic areas on site (especially) in a zone 5-25 feet around buildings but not within a 5 foot perimeter around foundation walls)	Apply full Soil Restoration (decompaction and compost enhancement)	
Areas where Runoff Reduction and/or Infiltration practices are applied	Restoration not required, but may be applied to enhance the reduction specified for appropriate practices.	Keep construction equipment from crossing these areas. To protect newly installed practice from any ongoing construction activities construct a single phase operation fence area.
Redevelopment projects	Soil Restoration is required on redevelopment projects in areas where existing impervious area will be converted to pervious area.	

* Aeration includes the use of machines such as tractor-drawn implements with coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs which function like a mini-subsoiler.

** Per "Deep Ripping and De-compaction, DEC 2008."

During periods of relatively low to moderate subsoil moisture, the disturbed subsoils are returned to rough grade and the following full soil restoration steps applied:

1. Apply 3 inches of compost over subsoil.

2. Till compost into subsoil to a depth of at least 12 inches using a cat-mounted ripper, tractor-mounted disc, or tiller, mixing, and circulating air and compost into subsoils.

3. Rock-pick until uplifted stone/rock materials of four inches and larger size are cleaned off the site.

Specifications for Final Stabilization of Graded Areas

Final stabilization of graded areas consists of the placement of topsoil and installation of landscaping (unless the area is to be paved, or a building is to be constructed in the location). Topsoil is to be spread as soon as grading operations are completed. Topsoil is to be placed to a minimum depth of six inches on all embankments, planting areas and seeding/sod areas. The subgrade is to be scarified to a depth of two inches to provide a bond of the topsoil with the subsoil. Topsoil is to be raked to an even surface and cleared of all debris, roots, stones and other unsatisfactory material.

Planting operations shall be conducted under favorable weather conditions as follows:

- Permanent Lawns - April 15 (provided soil is frost-free and not excessively moist) to May 15; August 15 to October 15.
- Temporary Lawn Seeding - if outside of the time periods noted above, the areas shall be seeded immediately on completion of topsoil operations with annual ryegrass (Italian rye) at a rate of six pounds per 1,000 square feet. Temporary lawn installation is permitted provided the soil is frost-free and not excessively moist. The permanent lawn is to be installed the next planting season.

On slopes with a grade of 3 horizontal to 1 vertical or greater, and in swales, a geotextile netting or mat shall be installed for stabilization purposes as shown on the Plans. Seeded areas are to be mulched with straw or hay at an application rate of 70-90 pounds per 1,000 s.f. Straw or hay mulch must be spread uniformly and anchored immediately after spreading to prevent wind blowing. Mulches must be inspected periodically and in particular after rainstorms to check for erosion. If erosion is observed, additional mulch must be applied. Netting shall be inspected after rainstorms for dislocation or failure; any damage shall be repaired immediately.

All denuded surfaces which will be exposed for a period of over two months or more shall be temporarily hydroseeded with (a) perennial ryegrass at a rate of 40 lbs per acre (1.0 lb per 1000

square feet); (b) Certified "Aroostook" winter rye (cereal rye) @ 100 lb per acre (2.5 lb/1000 s.f.) to be used in the months of October and November.

Permanent turfgrass cover is to consist of a seed mixture as follows:

(a) Sunny sites

Kentucky Bluegrass	2.0-2.6 pounds/1000 square feet
Perennial Ryegrass	0.6-0.7 pounds/1000 square feet
Fine Fescue	0.4-0.6 pounds/1000 square feet

(b) Shady sites

Kentucky Bluegrass	0.8-1.0 pounds/1000 square feet
Perennial Ryegrass	0.6-0.7 pounds/1000 square feet
Fine Fescue	2.6-3.3 pounds/1000 square feet

All plant materials shall comply with the standards of the American Association Of Nurserymen with respect to height and caliper as described in its publication American Standard for Nursery Stock, latest edition.

VII. CONSTRUCTION PHASE AND POST-CONSTRUCTION MAINTENANCE

During the construction phase and following construction of the project, a number of maintenance measures will be taken with respect to the site maintenance. Measures to be taken included the following:

1. During Construction

A comprehensive sediment and erosion control plan will be in place during the construction period. Maintenance measures for sediment and erosion controls will include:

A qualified professional acceptable to the municipality will be hired by the owner or operator to monitor the installation and maintenance of the sediment and erosion control plans. The qualified professional shall report directly to the Engineering Consultant and shall be responsible for ensuring compliance with the design of the sediment and erosion control plans.

The qualified professional so hired will inspect all sediment and erosion control measures at least every seven calendar days. In the event that there has been a variance with the design of the sediment and erosion control measures so that the ability of the measures to adequately perform the intended function is lessened or compromised and/or the facilities are not adequately maintained, the qualified professional shall be required to report such variance to the Engineering Consultant within 48 hours and shall be empowered to order immediate repairs to the sediment and erosion control measures.

The qualified professional will also be responsible for observing the adequacy of the vegetation growth (trees, shrubs, groundcovers and turfgrasses) in newly graded areas and for ordering additional plantings in the event that the established plant materials do not adequately protect the ground surface from erosion.

2. Following Construction

Site maintenance activities on the property will include:

- Grounds maintenance, including mowing of lawns;
- Planting of trees, shrubs and groundcovers; pruning of trees and shrubs;
- Application of fertilizer and herbicides;
- Maintenance of stormwater management area;

Grounds maintenance on the site will be performed by landscaping contractor.

Fertilizer is typically applied twice in the year - once in the spring and once in the fall. The application of fertilizer is usually necessary to maintain healthy lawn growth due to competition for nutrients with trees and shrubs and since the clippings are often removed. It is not recommended that fertilizer be applied during the summer. It is at this time that lawns are typically dormant.

Fertilizers come in three basic types: (1) Organic; (2) Soluble synthetic and (3) Slow release.

Organic fertilizers are derived from plant or animal waste. Since they are heavier and bulkier than other fertilizers, it is necessary to apply a much greater amount at one time. Soluble synthetic fertilizers are predictable with determining the exact impact on a lawn. However more applications are necessary since their effect is often short term. Slow release fertilizers have a high percentage of nitrogen so quantities that need be handled at one time are smaller. Slow release fertilizers will be utilized by the project.

A complete fertilizer contains all three of the primary nutrients - nitrogen (N), phosphorus (P) and potassium in the form of potash (K). Typically, a 3-1-2 ratio of nutrients (N-P-K) is used for lawn applications.

Fertilizer shall be applied by the landscape contractor in accordance with the manufacturer's instructions. The application of fertilizer does require some skill on the part of the operator. Should there be a spill of fertilizer, the landscape contractor shall be required to scrape or vacuum it up. The area will then be watered in accordance with the manufacturer's instructions to ensure that the fertilizer becomes soluble and available to plants and does not run off.

The owner will be responsible for the long-term operation and maintenance of the permanent stormwater management practices. The permanent stormwater management practices shall be maintained in accordance with the Maintenance Inspection Checklists provided in this document.

VIII. CONCLUSION

This Stormwater Pollution Prevention Plan has been prepared to describe the project's pre and post-development stormwater management improvements and its sediment and erosion control improvements to be utilized during construction. The proposed permanent improvements and the interim improvements to be utilized during construction have been designed in accordance with the requirements of the:

- New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit No. GP-0-20-001, effective January 29, 2020.
- Chapter 171 "Storm Sewers" of the Ardsley Zoning Code.
- New York State Stormwater Management Design Manual.

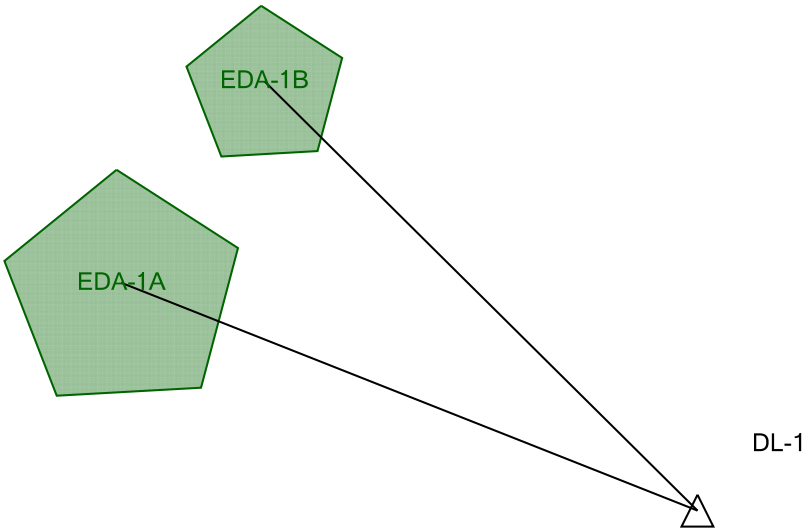
The project employs a variety of practices to enhance stormwater quality and reduce peak rates of runoff associated with the proposed improvements. These measures include a water quality structure and a sand filter and a reduction on impervious coverage in proposed conditions. These improvements will also mitigate runoff volumes from the proposed improvements as runoff volumes will be slightly reduced or maintained in all the analyzed storms.

Based on the foregoing, it is our professional opinion that the proposed improvements will provide water quantity and quality enhancements which exceed the above mentioned requirements and are not anticipated to have any adverse impacts to the site or any surrounding areas.

APPENDIX A

EXISTING HYDROLOGIC CALCULATIONS

Scenario: Pre-Development



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Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
EDA-1B	Pre-Development-1 yr	1	57.000	12.150	0.01
EDA-1B	Pre-Development-10 yr	10	263.000	12.100	0.07
EDA-1B	Pre-Development-100 yr	100	768.000	12.100	0.22
EDA-1A	Pre-Development-1 yr	1	3,565.000	12.100	1.01
EDA-1A	Pre-Development-10 yr	10	7,835.000	12.100	2.13
EDA-1A	Pre-Development-100 yr	100	15,466.000	12.100	4.02

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
O-69	Pre-Development-1 yr	1	3,622.000	12.100	1.02
O-69	Pre-Development-10 yr	10	8,098.000	12.100	2.20
O-69	Pre-Development-100 yr	100	16,234.000	12.100	4.24

Subsection: Unit Hydrograph Summary
Label: EDA-1A
Scenario: Pre-Development-1 yr

Return Event: 1 years
Storm Event: 1-year

Storm Event	1-year
Return Event	1 years
Duration	72.000 hours
Depth	2.820 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	24,315.000 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.111 hours
Flow (Peak, Computed)	1.01 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.100 hours
Flow (Peak Interpolated Output)	1.01 ft³/s

Drainage Area	
SCS CN (Composite)	89.265
Area (User Defined)	24,315.000 ft²
Maximum Retention (Pervious)	1.203 in
Maximum Retention (Pervious, 20 percent)	0.241 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.759 in
Runoff Volume (Pervious)	3,564.809 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	3,565.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Subsection: Unit Hydrograph Summary
Label: EDA-1A
Scenario: Pre-Development-1 yr

Return Event: 1 years
Storm Event: 1-year

SCS Unit Hydrograph Parameters	
Unit peak, qp	7.59 ft³/s
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: EDA-1A Storm Event: 1-year
Scenario: Pre-Development-1 yr

Storm Event	1-year
Return Event	1 years
Duration	72.000 hours
Depth	2.820 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	24,315.000 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
7.100	0.00	0.00	0.00	0.00	0.00
7.350	0.00	0.00	0.00	0.00	0.00
7.600	0.00	0.00	0.00	0.00	0.00
7.850	0.00	0.00	0.00	0.00	0.00
8.100	0.01	0.01	0.01	0.01	0.01
8.350	0.01	0.01	0.01	0.01	0.01
8.600	0.01	0.01	0.01	0.01	0.01
8.850	0.01	0.01	0.01	0.01	0.01
9.100	0.01	0.01	0.02	0.02	0.02
9.350	0.02	0.02	0.02	0.02	0.02
9.600	0.02	0.02	0.02	0.02	0.02
9.850	0.02	0.02	0.03	0.03	0.03
10.100	0.03	0.03	0.03	0.03	0.03
10.350	0.03	0.04	0.04	0.04	0.04
10.600	0.04	0.04	0.04	0.05	0.05
10.850	0.05	0.05	0.05	0.05	0.06
11.100	0.06	0.06	0.07	0.07	0.08
11.350	0.08	0.09	0.09	0.10	0.12
11.600	0.14	0.18	0.22	0.27	0.32
11.850	0.37	0.43	0.63	0.87	0.96
12.100	1.01	0.84	0.61	0.52	0.46
12.350	0.40	0.35	0.29	0.23	0.20
12.600	0.16	0.15	0.14	0.14	0.13
12.850	0.12	0.12	0.11	0.11	0.10
13.100	0.10	0.10	0.09	0.09	0.09
13.350	0.09	0.09	0.09	0.08	0.08
13.600	0.08	0.08	0.08	0.08	0.08
13.850	0.07	0.07	0.07	0.07	0.07
14.100	0.07	0.07	0.07	0.06	0.06
14.350	0.06	0.06	0.06	0.06	0.06
14.600	0.06	0.06	0.06	0.06	0.06
14.850	0.06	0.05	0.05	0.05	0.05
15.100	0.05	0.05	0.05	0.05	0.05

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: EDA-1A Storm Event: 1-year
Scenario: Pre-Development-1 yr

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
15.350	0.05	0.05	0.05	0.05	0.04
15.600	0.04	0.04	0.04	0.04	0.04
15.850	0.04	0.04	0.04	0.04	0.04
16.100	0.04	0.04	0.04	0.04	0.03
16.350	0.03	0.03	0.03	0.03	0.03
16.600	0.03	0.03	0.03	0.03	0.03
16.850	0.03	0.03	0.03	0.03	0.03
17.100	0.03	0.03	0.03	0.03	0.03
17.350	0.03	0.03	0.03	0.03	0.03
17.600	0.03	0.03	0.03	0.02	0.02
17.850	0.02	0.02	0.02	0.02	0.02
18.100	0.02	0.02	0.02	0.02	0.02
18.350	0.02	0.02	0.02	0.02	0.02
18.600	0.02	0.02	0.02	0.02	0.02
18.850	0.02	0.02	0.02	0.02	0.02
19.100	0.02	0.02	0.02	0.02	0.02
19.350	0.02	0.02	0.02	0.02	0.02
19.600	0.02	0.02	0.02	0.02	0.02
19.850	0.02	0.02	0.02	0.02	0.02
20.100	0.02	0.02	0.02	0.02	0.02
20.350	0.02	0.02	0.02	0.02	0.02
20.600	0.02	0.02	0.02	0.02	0.02
20.850	0.02	0.02	0.02	0.02	0.02
21.100	0.02	0.02	0.02	0.02	0.02
21.350	0.02	0.02	0.02	0.02	0.02
21.600	0.02	0.02	0.02	0.02	0.02
21.850	0.02	0.02	0.02	0.02	0.02
22.100	0.02	0.02	0.02	0.01	0.01
22.350	0.01	0.01	0.01	0.01	0.01
22.600	0.01	0.01	0.01	0.01	0.01
22.850	0.01	0.01	0.01	0.01	0.01
23.100	0.01	0.01	0.01	0.01	0.01
23.350	0.01	0.01	0.01	0.01	0.01
23.600	0.01	0.01	0.01	0.01	0.01
23.850	0.01	0.01	0.01	0.01	0.01
24.100	0.00	0.00	(N/A)	(N/A)	(N/A)

Subsection: Unit Hydrograph Summary
Label: EDA-1A
Scenario: Pre-Development-10 yr

Return Event: 10 years
Storm Event: 10-year

Storm Event	10-year
Return Event	10 years
Duration	72.000 hours
Depth	5.070 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	24,315.000 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.100 hours
Flow (Peak, Computed)	2.13 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.100 hours
Flow (Peak Interpolated Output)	2.13 ft³/s

Drainage Area	
SCS CN (Composite)	89.265
Area (User Defined)	24,315.000 ft²
Maximum Retention (Pervious)	1.203 in
Maximum Retention (Pervious, 20 percent)	0.241 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	3.867 in
Runoff Volume (Pervious)	7,834.880 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	7,835.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Subsection: Unit Hydrograph Summary
Label: EDA-1A
Scenario: Pre-Development-10 yr

Return Event: 10 years
Storm Event: 10-year

SCS Unit Hydrograph Parameters	
Unit peak, qp	7.59 ft³/s
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: EDA-1A Storm Event: 10-year
Scenario: Pre-Development-10 yr

Storm Event	10-year
Return Event	10 years
Duration	72.000 hours
Depth	5.070 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	24,315.000 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
4.600	0.00	0.00	0.00	0.00	0.00
4.850	0.00	0.00	0.00	0.00	0.00
5.100	0.00	0.00	0.00	0.00	0.00
5.350	0.00	0.00	0.00	0.01	0.01
5.600	0.01	0.01	0.01	0.01	0.01
5.850	0.01	0.01	0.01	0.01	0.01
6.100	0.01	0.01	0.01	0.01	0.01
6.350	0.01	0.01	0.01	0.01	0.01
6.600	0.01	0.01	0.01	0.01	0.01
6.850	0.01	0.02	0.02	0.02	0.02
7.100	0.02	0.02	0.02	0.02	0.02
7.350	0.02	0.02	0.02	0.02	0.02
7.600	0.02	0.02	0.02	0.02	0.03
7.850	0.03	0.03	0.03	0.03	0.03
8.100	0.03	0.03	0.03	0.03	0.03
8.350	0.04	0.04	0.04	0.04	0.04
8.600	0.04	0.04	0.04	0.04	0.05
8.850	0.05	0.05	0.05	0.05	0.05
9.100	0.05	0.06	0.06	0.06	0.06
9.350	0.06	0.06	0.06	0.07	0.07
9.600	0.07	0.07	0.07	0.07	0.08
9.850	0.08	0.08	0.08	0.08	0.08
10.100	0.09	0.09	0.09	0.10	0.10
10.350	0.10	0.10	0.11	0.11	0.11
10.600	0.12	0.12	0.12	0.13	0.13
10.850	0.13	0.14	0.14	0.14	0.15
11.100	0.16	0.17	0.18	0.19	0.20
11.350	0.21	0.22	0.23	0.24	0.29
11.600	0.34	0.43	0.53	0.64	0.75
11.850	0.86	0.98	1.40	1.91	2.07
12.100	2.13	1.76	1.27	1.06	0.93
12.350	0.81	0.70	0.58	0.47	0.39
12.600	0.32	0.30	0.28	0.27	0.26

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: EDA-1A Storm Event: 10-year
Scenario: Pre-Development-10 yr

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
12.850	0.25	0.24	0.22	0.21	0.20
13.100	0.19	0.19	0.19	0.18	0.18
13.350	0.18	0.17	0.17	0.17	0.16
13.600	0.16	0.16	0.16	0.15	0.15
13.850	0.15	0.14	0.14	0.14	0.13
14.100	0.13	0.13	0.13	0.13	0.12
14.350	0.12	0.12	0.12	0.12	0.12
14.600	0.12	0.11	0.11	0.11	0.11
14.850	0.11	0.11	0.11	0.10	0.10
15.100	0.10	0.10	0.10	0.10	0.09
15.350	0.09	0.09	0.09	0.09	0.09
15.600	0.09	0.08	0.08	0.08	0.08
15.850	0.08	0.08	0.07	0.07	0.07
16.100	0.07	0.07	0.07	0.07	0.07
16.350	0.07	0.07	0.07	0.06	0.06
16.600	0.06	0.06	0.06	0.06	0.06
16.850	0.06	0.06	0.06	0.06	0.06
17.100	0.06	0.06	0.06	0.05	0.05
17.350	0.05	0.05	0.05	0.05	0.05
17.600	0.05	0.05	0.05	0.05	0.05
17.850	0.05	0.05	0.05	0.04	0.04
18.100	0.04	0.04	0.04	0.04	0.04
18.350	0.04	0.04	0.04	0.04	0.04
18.600	0.04	0.04	0.04	0.04	0.04
18.850	0.04	0.04	0.04	0.04	0.04
19.100	0.04	0.04	0.04	0.04	0.04
19.350	0.04	0.04	0.04	0.04	0.04
19.600	0.04	0.04	0.04	0.04	0.04
19.850	0.04	0.04	0.04	0.04	0.04
20.100	0.04	0.04	0.04	0.04	0.03
20.350	0.03	0.03	0.03	0.03	0.03
20.600	0.03	0.03	0.03	0.03	0.03
20.850	0.03	0.03	0.03	0.03	0.03
21.100	0.03	0.03	0.03	0.03	0.03
21.350	0.03	0.03	0.03	0.03	0.03
21.600	0.03	0.03	0.03	0.03	0.03
21.850	0.03	0.03	0.03	0.03	0.03
22.100	0.03	0.03	0.03	0.03	0.03
22.350	0.03	0.03	0.03	0.03	0.03
22.600	0.03	0.03	0.03	0.03	0.03
22.850	0.03	0.03	0.03	0.03	0.03
23.100	0.03	0.03	0.03	0.03	0.03

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: EDA-1A Storm Event: 10-year
Scenario: Pre-Development-10 yr

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
23.350	0.03	0.03	0.03	0.03	0.02
23.600	0.02	0.02	0.02	0.02	0.02
23.850	0.02	0.02	0.02	0.02	0.01
24.100	0.00	0.00	(N/A)	(N/A)	(N/A)

Subsection: Unit Hydrograph Summary
Label: EDA-1A
Scenario: Pre-Development-100 yr

Return Event: 100 years
Storm Event: 100-year

Storm Event	100-year
Return Event	100 years
Duration	72.000 hours
Depth	8.930 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	24,315.000 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.100 hours
Flow (Peak, Computed)	4.02 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.100 hours
Flow (Peak Interpolated Output)	4.02 ft³/s

Drainage Area	
SCS CN (Composite)	89.265
Area (User Defined)	24,315.000 ft²
Maximum Retention (Pervious)	1.203 in
Maximum Retention (Pervious, 20 percent)	0.241 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	7.633 in
Runoff Volume (Pervious)	15,466.652 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	15,466.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Subsection: Unit Hydrograph Summary
Label: EDA-1A
Scenario: Pre-Development-100 yr

Return Event: 100 years
Storm Event: 100-year

SCS Unit Hydrograph Parameters	
Unit peak, qp	7.59 ft³/s
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: EDA-1A Storm Event: 100-year
Scenario: Pre-Development-100 yr

Storm Event	100-year
Return Event	100 years
Duration	72.000 hours
Depth	8.930 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	24,315.000 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
2.800	0.00	0.00	0.00	0.00	0.00
3.050	0.00	0.00	0.00	0.00	0.00
3.300	0.01	0.01	0.01	0.01	0.01
3.550	0.01	0.01	0.01	0.01	0.01
3.800	0.01	0.01	0.01	0.01	0.01
4.050	0.01	0.01	0.01	0.01	0.02
4.300	0.02	0.02	0.02	0.02	0.02
4.550	0.02	0.02	0.02	0.02	0.02
4.800	0.02	0.02	0.02	0.02	0.02
5.050	0.02	0.02	0.02	0.03	0.03
5.300	0.03	0.03	0.03	0.03	0.03
5.550	0.03	0.03	0.03	0.03	0.03
5.800	0.03	0.03	0.03	0.03	0.03
6.050	0.04	0.04	0.04	0.04	0.04
6.300	0.04	0.04	0.04	0.04	0.04
6.550	0.05	0.05	0.05	0.05	0.05
6.800	0.05	0.05	0.05	0.05	0.06
7.050	0.06	0.06	0.06	0.06	0.06
7.300	0.06	0.06	0.06	0.07	0.07
7.550	0.07	0.07	0.07	0.07	0.07
7.800	0.08	0.08	0.08	0.08	0.08
8.050	0.08	0.08	0.09	0.09	0.09
8.300	0.09	0.10	0.10	0.10	0.10
8.550	0.11	0.11	0.11	0.11	0.12
8.800	0.12	0.12	0.13	0.13	0.13
9.050	0.13	0.14	0.14	0.14	0.15
9.300	0.15	0.15	0.15	0.16	0.16
9.550	0.16	0.17	0.17	0.17	0.18
9.800	0.18	0.18	0.19	0.19	0.19
10.050	0.20	0.20	0.21	0.21	0.22
10.300	0.22	0.23	0.23	0.24	0.25
10.550	0.25	0.26	0.26	0.27	0.28
10.800	0.28	0.29	0.29	0.30	0.31

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: EDA-1A Storm Event: 100-year
Scenario: Pre-Development-100 yr

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
11.050	0.32	0.33	0.35	0.37	0.39
11.300	0.41	0.44	0.46	0.48	0.50
11.550	0.59	0.70	0.88	1.08	1.28
11.800	1.49	1.71	1.92	2.72	3.68
12.050	3.94	4.02	3.30	2.37	1.98
12.300	1.73	1.51	1.29	1.08	0.86
12.550	0.72	0.60	0.55	0.52	0.50
12.800	0.48	0.45	0.43	0.41	0.39
13.050	0.37	0.36	0.35	0.34	0.34
13.300	0.33	0.32	0.32	0.31	0.31
13.550	0.30	0.30	0.29	0.28	0.28
13.800	0.27	0.27	0.26	0.25	0.25
14.050	0.24	0.24	0.24	0.23	0.23
14.300	0.23	0.23	0.22	0.22	0.22
14.550	0.21	0.21	0.21	0.21	0.20
14.800	0.20	0.20	0.19	0.19	0.19
15.050	0.19	0.18	0.18	0.18	0.17
15.300	0.17	0.17	0.17	0.16	0.16
15.550	0.16	0.15	0.15	0.15	0.15
15.800	0.14	0.14	0.14	0.13	0.13
16.050	0.13	0.13	0.13	0.12	0.12
16.300	0.12	0.12	0.12	0.12	0.12
16.550	0.12	0.11	0.11	0.11	0.11
16.800	0.11	0.11	0.11	0.11	0.11
17.050	0.10	0.10	0.10	0.10	0.10
17.300	0.10	0.10	0.10	0.09	0.09
17.550	0.09	0.09	0.09	0.09	0.09
17.800	0.09	0.08	0.08	0.08	0.08
18.050	0.08	0.08	0.08	0.08	0.08
18.300	0.08	0.08	0.08	0.08	0.08
18.550	0.08	0.08	0.07	0.07	0.07
18.800	0.07	0.07	0.07	0.07	0.07
19.050	0.07	0.07	0.07	0.07	0.07
19.300	0.07	0.07	0.07	0.07	0.07
19.550	0.07	0.07	0.07	0.07	0.07
19.800	0.07	0.07	0.07	0.07	0.06
20.050	0.06	0.06	0.06	0.06	0.06
20.300	0.06	0.06	0.06	0.06	0.06
20.550	0.06	0.06	0.06	0.06	0.06
20.800	0.06	0.06	0.06	0.06	0.06
21.050	0.06	0.06	0.06	0.06	0.06
21.300	0.06	0.06	0.06	0.06	0.06

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: EDA-1A Storm Event: 100-year
Scenario: Pre-Development-100 yr

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
21.550	0.06	0.06	0.06	0.06	0.05
21.800	0.05	0.05	0.05	0.05	0.05
22.050	0.05	0.05	0.05	0.05	0.05
22.300	0.05	0.05	0.05	0.05	0.05
22.550	0.05	0.05	0.05	0.05	0.05
22.800	0.05	0.05	0.05	0.05	0.05
23.050	0.05	0.05	0.05	0.05	0.05
23.300	0.05	0.05	0.05	0.05	0.05
23.550	0.04	0.04	0.04	0.04	0.04
23.800	0.04	0.04	0.04	0.04	0.04
24.050	0.03	0.01	0.00	0.00	(N/A)

Subsection: Unit Hydrograph Summary
Label: EDA-1B
Scenario: Pre-Development-1 yr

Return Event: 1 years
Storm Event: 1-year

Storm Event	1-year
Return Event	1 years
Duration	72.000 hours
Depth	2.820 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	2,172.000 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.133 hours
Flow (Peak, Computed)	0.01 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.150 hours
Flow (Peak Interpolated Output)	0.01 ft³/s

Drainage Area	
SCS CN (Composite)	61.613
Area (User Defined)	2,172.000 ft²
Maximum Retention (Pervious)	6.230 in
Maximum Retention (Pervious, 20 percent)	1.246 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	0.317 in
Runoff Volume (Pervious)	57.455 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	57.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Subsection: Unit Hydrograph Summary
Label: EDA-1B
Scenario: Pre-Development-1 yr

Return Event: 1 years
Storm Event: 1-year

SCS Unit Hydrograph Parameters	
Unit peak, qp	0.68 ft³/s
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: EDA-1B Storm Event: 1-year
Scenario: Pre-Development-1 yr

Storm Event	1-year
Return Event	1 years
Duration	72.000 hours
Depth	2.820 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	2,172.000 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
11.950	0.00	0.00	0.00	0.01	0.01
12.200	0.01	0.01	0.01	0.01	0.01
12.450	0.01	0.00	0.00	0.00	0.00
12.700	0.00	0.00	0.00	0.00	0.00
12.950	0.00	0.00	0.00	0.00	0.00
13.200	0.00	0.00	0.00	0.00	0.00
13.450	0.00	0.00	0.00	0.00	0.00
13.700	0.00	0.00	0.00	0.00	0.00
13.950	0.00	0.00	0.00	0.00	0.00
14.200	0.00	0.00	0.00	0.00	0.00
14.450	0.00	0.00	0.00	0.00	0.00
14.700	0.00	0.00	0.00	0.00	0.00
14.950	0.00	0.00	0.00	0.00	0.00
15.200	0.00	0.00	0.00	0.00	0.00
15.450	0.00	0.00	0.00	0.00	0.00
15.700	0.00	0.00	0.00	0.00	0.00
15.950	0.00	0.00	0.00	0.00	0.00
16.200	0.00	0.00	0.00	0.00	0.00
16.450	0.00	0.00	0.00	(N/A)	(N/A)

Subsection: Unit Hydrograph Summary
Label: EDA-1B
Scenario: Pre-Development-10 yr

Return Event: 10 years
Storm Event: 10-year

Storm Event	10-year
Return Event	10 years
Duration	72.000 hours
Depth	5.070 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	2,172.000 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.111 hours
Flow (Peak, Computed)	0.07 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.100 hours
Flow (Peak Interpolated Output)	0.07 ft³/s

Drainage Area	
SCS CN (Composite)	61.613
Area (User Defined)	2,172.000 ft²
Maximum Retention (Pervious)	6.230 in
Maximum Retention (Pervious, 20 percent)	1.246 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.454 in
Runoff Volume (Pervious)	263.241 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	263.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Subsection: Unit Hydrograph Summary
Label: EDA-1B
Scenario: Pre-Development-10 yr

Return Event: 10 years
Storm Event: 10-year

SCS Unit Hydrograph Parameters	
Unit peak, qp	0.68 ft³/s
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: EDA-1B Storm Event: 10-year
Scenario: Pre-Development-10 yr

Storm Event	10-year
Return Event	10 years
Duration	72.000 hours
Depth	5.070 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	2,172.000 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
11.300	0.00	0.00	0.00	0.00	0.00
11.550	0.00	0.00	0.01	0.01	0.01
11.800	0.01	0.02	0.02	0.03	0.05
12.050	0.06	0.07	0.06	0.05	0.04
12.300	0.04	0.03	0.03	0.03	0.02
12.550	0.02	0.01	0.01	0.01	0.01
12.800	0.01	0.01	0.01	0.01	0.01
13.050	0.01	0.01	0.01	0.01	0.01
13.300	0.01	0.01	0.01	0.01	0.01
13.550	0.01	0.01	0.01	0.01	0.01
13.800	0.01	0.01	0.01	0.01	0.01
14.050	0.01	0.01	0.01	0.01	0.01
14.300	0.01	0.01	0.01	0.01	0.01
14.550	0.01	0.01	0.01	0.01	0.01
14.800	0.01	0.01	0.01	0.01	0.01
15.050	0.01	0.01	0.01	0.01	0.01
15.300	0.00	0.00	0.00	0.00	0.00
15.550	0.00	0.00	0.00	0.00	0.00
15.800	0.00	0.00	0.00	0.00	0.00
16.050	0.00	0.00	0.00	0.00	0.00
16.300	0.00	0.00	0.00	0.00	0.00
16.550	0.00	0.00	0.00	0.00	0.00
16.800	0.00	0.00	0.00	0.00	0.00
17.050	0.00	0.00	0.00	0.00	0.00
17.300	0.00	0.00	0.00	0.00	0.00
17.550	0.00	0.00	0.00	0.00	0.00
17.800	0.00	0.00	0.00	0.00	0.00
18.050	0.00	0.00	0.00	0.00	0.00
18.300	0.00	0.00	0.00	0.00	0.00
18.550	0.00	0.00	0.00	0.00	0.00
18.800	0.00	0.00	0.00	0.00	0.00
19.050	0.00	0.00	0.00	0.00	0.00
19.300	0.00	0.00	0.00	0.00	0.00

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: EDA-1B Storm Event: 10-year
Scenario: Pre-Development-10 yr

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
19.550	0.00	0.00	0.00	0.00	0.00
19.800	0.00	0.00	0.00	0.00	0.00
20.050	0.00	0.00	0.00	0.00	0.00
20.300	0.00	0.00	0.00	0.00	0.00
20.550	0.00	0.00	0.00	0.00	0.00
20.800	0.00	0.00	0.00	0.00	0.00
21.050	0.00	0.00	0.00	0.00	0.00
21.300	0.00	0.00	0.00	0.00	0.00
21.550	0.00	0.00	0.00	0.00	0.00
21.800	0.00	0.00	0.00	0.00	0.00
22.050	0.00	0.00	0.00	0.00	0.00
22.300	0.00	0.00	0.00	0.00	0.00
22.550	0.00	0.00	0.00	0.00	0.00
22.800	0.00	0.00	0.00	0.00	0.00
23.050	0.00	0.00	0.00	0.00	0.00
23.300	0.00	0.00	0.00	0.00	0.00
23.550	0.00	0.00	0.00	0.00	0.00
23.800	0.00	0.00	0.00	0.00	0.00
24.050	0.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Unit Hydrograph Summary
Label: EDA-1B
Scenario: Pre-Development-100 yr

Return Event: 100 years
Storm Event: 100-year

Storm Event	100-year
Return Event	100 years
Duration	72.000 hours
Depth	8.930 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	2,172.000 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.111 hours
Flow (Peak, Computed)	0.22 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.100 hours
Flow (Peak Interpolated Output)	0.22 ft³/s

Drainage Area	
SCS CN (Composite)	61.613
Area (User Defined)	2,172.000 ft²
Maximum Retention (Pervious)	6.230 in
Maximum Retention (Pervious, 20 percent)	1.246 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	4.243 in
Runoff Volume (Pervious)	768.048 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	768.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670

Subsection: Unit Hydrograph Summary
Label: EDA-1B
Scenario: Pre-Development-100 yr

Return Event: 100 years
Storm Event: 100-year

SCS Unit Hydrograph Parameters	
Unit peak, qp	0.68 ft³/s
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: EDA-1B Storm Event: 100-year
Scenario: Pre-Development-100 yr

Storm Event	100-year
Return Event	100 years
Duration	72.000 hours
Depth	8.930 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	2,172.000 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
9.400	0.00	0.00	0.00	0.00	0.00
9.650	0.00	0.00	0.00	0.00	0.00
9.900	0.00	0.00	0.00	0.00	0.00
10.150	0.00	0.00	0.00	0.00	0.00
10.400	0.00	0.00	0.00	0.01	0.01
10.650	0.01	0.01	0.01	0.01	0.01
10.900	0.01	0.01	0.01	0.01	0.01
11.150	0.01	0.01	0.01	0.01	0.01
11.400	0.01	0.02	0.02	0.02	0.02
11.650	0.03	0.04	0.05	0.06	0.07
11.900	0.08	0.13	0.18	0.21	0.22
12.150	0.19	0.14	0.12	0.11	0.09
12.400	0.08	0.07	0.05	0.05	0.04
12.650	0.04	0.03	0.03	0.03	0.03
12.900	0.03	0.03	0.03	0.02	0.02
13.150	0.02	0.02	0.02	0.02	0.02
13.400	0.02	0.02	0.02	0.02	0.02
13.650	0.02	0.02	0.02	0.02	0.02
13.900	0.02	0.02	0.02	0.02	0.02
14.150	0.02	0.02	0.02	0.02	0.02
14.400	0.02	0.01	0.01	0.01	0.01
14.650	0.01	0.01	0.01	0.01	0.01
14.900	0.01	0.01	0.01	0.01	0.01
15.150	0.01	0.01	0.01	0.01	0.01
15.400	0.01	0.01	0.01	0.01	0.01
15.650	0.01	0.01	0.01	0.01	0.01
15.900	0.01	0.01	0.01	0.01	0.01
16.150	0.01	0.01	0.01	0.01	0.01
16.400	0.01	0.01	0.01	0.01	0.01
16.650	0.01	0.01	0.01	0.01	0.01
16.900	0.01	0.01	0.01	0.01	0.01
17.150	0.01	0.01	0.01	0.01	0.01
17.400	0.01	0.01	0.01	0.01	0.01

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: EDA-1B Storm Event: 100-year
Scenario: Pre-Development-100 yr

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
17.650	0.01	0.01	0.01	0.01	0.01
17.900	0.01	0.01	0.01	0.01	0.01
18.150	0.01	0.01	0.01	0.01	0.01
18.400	0.01	0.01	0.01	0.01	0.01
18.650	0.01	0.01	0.01	0.01	0.01
18.900	0.01	0.01	0.01	0.01	0.01
19.150	0.01	0.01	0.01	0.00	0.00
19.400	0.00	0.00	0.00	0.00	0.00
19.650	0.00	0.00	0.00	0.00	0.00
19.900	0.00	0.00	0.00	0.00	0.00
20.150	0.00	0.00	0.00	0.00	0.00
20.400	0.00	0.00	0.00	0.00	0.00
20.650	0.00	0.00	0.00	0.00	0.00
20.900	0.00	0.00	0.00	0.00	0.00
21.150	0.00	0.00	0.00	0.00	0.00
21.400	0.00	0.00	0.00	0.00	0.00
21.650	0.00	0.00	0.00	0.00	0.00
21.900	0.00	0.00	0.00	0.00	0.00
22.150	0.00	0.00	0.00	0.00	0.00
22.400	0.00	0.00	0.00	0.00	0.00
22.650	0.00	0.00	0.00	0.00	0.00
22.900	0.00	0.00	0.00	0.00	0.00
23.150	0.00	0.00	0.00	0.00	0.00
23.400	0.00	0.00	0.00	0.00	0.00
23.650	0.00	0.00	0.00	0.00	0.00
23.900	0.00	0.00	0.00	0.00	0.00

Subsection: Addition Summary
Label: O-69
Scenario: Pre-Development-1 yr

Return Event: 1 years
Storm Event: 1-year

Summary for Hydrograph Addition at 'O-69'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA-1A
<Catchment to Outflow Node>	EDA-1B

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)	EDA-1A	3,564.581	12.100	1.01
Flow (From)	EDA-1B	57.438	12.150	0.01
Flow (In)	O-69	3,622.018	12.100	1.02

Subsection: Addition Summary
Label: O-69
Scenario: Pre-Development-10 yr

Return Event: 10 years
Storm Event: 10-year

Summary for Hydrograph Addition at 'O-69'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA-1A
<Catchment to Outflow Node>	EDA-1B

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	EDA-1A	7,834.615	12.100	2.13
Flow (From)	EDA-1B	263.194	12.100	0.07
Flow (In)	O-69	8,097.808	12.100	2.20

Subsection: Addition Summary
Label: O-69
Scenario: Pre-Development-100 yr

Return Event: 100 years
Storm Event: 100-year

Summary for Hydrograph Addition at 'O-69'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	EDA-1A
<Catchment to Outflow Node>	EDA-1B

Node Inflows

Inflow Type	Element	Volume (ft³)	Time to Peak (hours)	Flow (Peak) (ft³/s)
Flow (From)	EDA-1A	15,466.380	12.100	4.02
Flow (From)	EDA-1B	767.968	12.100	0.22
Flow (In)	O-69	16,234.348	12.100	4.24

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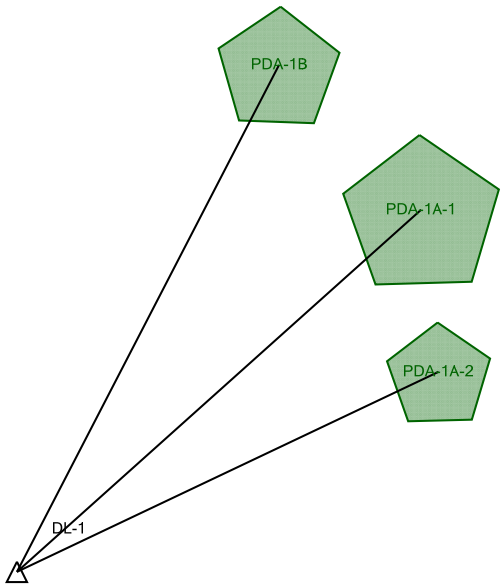
APPENDIX B

PROPOSED HYDROLOGIC CALCULATIONS

Scenario: POST-DEVELOPMENT



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Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
PDA-1A-1	POST-DEVELOPMENT -1 YR	1	2,841.000	12.100	0.81
PDA-1A-1	POST-DEVELOPMENT -10 YR	10	6,432.000	12.100	1.77
PDA-1A-1	POST-DEVELOPMENT -100 YR	100	12,922.000	12.100	3.40
PDA-1B	POST-DEVELOPMENT -1 YR	1	53.000	12.150	0.01
PDA-1B	POST-DEVELOPMENT -10 YR	10	251.000	12.100	0.07
PDA-1B	POST-DEVELOPMENT -100 YR	100	742.000	12.100	0.21
PDA-1A-2	POST-DEVELOPMENT -1 YR	1	759.000	12.100	0.19
PDA-1A-2	POST-DEVELOPMENT -10 YR	10	1,418.000	12.100	0.34
PDA-1A-2	POST-DEVELOPMENT -100 YR	100	2,549.000	12.100	0.61

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
DL-1	POST-DEVELOPMENT -1 YR	1	3,654.000	12.100	1.01
DL-1	POST-DEVELOPMENT -10 YR	10	8,101.000	12.100	2.18
DL-1	POST-DEVELOPMENT -100 YR	100	16,212.000	12.100	4.22

Time-Depth Curve: 100-year	
Label	100-year
Start Time	0.000 hours
Increment	0.100 hours
End Time	24.000 hours
Return Event	100 years

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
0.000	0.000	0.009	0.018	0.027	0.036
0.500	0.045	0.054	0.063	0.071	0.080
1.000	0.089	0.098	0.107	0.116	0.125
1.500	0.134	0.143	0.152	0.161	0.170
2.000	0.179	0.188	0.197	0.206	0.215
2.500	0.225	0.235	0.244	0.254	0.264
3.000	0.275	0.285	0.295	0.306	0.317
3.500	0.328	0.339	0.350	0.361	0.372
4.000	0.384	0.396	0.407	0.419	0.431
4.500	0.444	0.456	0.469	0.481	0.494
5.000	0.507	0.520	0.533	0.546	0.560
5.500	0.573	0.587	0.601	0.615	0.629
6.000	0.643	0.658	0.672	0.688	0.704
6.500	0.720	0.737	0.754	0.772	0.790
7.000	0.808	0.827	0.847	0.866	0.887
7.500	0.908	0.929	0.950	0.972	0.995
8.000	1.018	1.042	1.067	1.092	1.119
8.500	1.147	1.176	1.206	1.237	1.269
9.000	1.302	1.336	1.371	1.407	1.444
9.500	1.482	1.521	1.561	1.602	1.645
10.000	1.688	1.733	1.780	1.829	1.880
10.500	1.933	1.989	2.047	2.106	2.168
11.000	2.232	2.302	2.379	2.465	2.559
11.500	2.661	2.807	3.031	3.334	3.715
12.000	4.465	5.215	5.596	5.899	6.123
12.500	6.269	6.371	6.465	6.551	6.628
13.000	6.697	6.762	6.824	6.883	6.941
13.500	6.997	7.050	7.101	7.150	7.197
14.000	7.242	7.285	7.328	7.369	7.409
14.500	7.448	7.486	7.523	7.559	7.594
15.000	7.628	7.661	7.693	7.724	7.754
15.500	7.783	7.811	7.838	7.863	7.888
16.000	7.912	7.935	7.958	7.980	8.001
16.500	8.023	8.043	8.064	8.083	8.103
17.000	8.122	8.140	8.158	8.176	8.193

Subsection: Time-Depth Curve
Label: Time-Depth - 1
Scenario: POST-DEVELOPMENT-100 YR

Return Event: 100 years
Storm Event: 100-year

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
17.500	8.210	8.226	8.242	8.258	8.273
18.000	8.287	8.301	8.315	8.329	8.343
18.500	8.357	8.370	8.384	8.397	8.410
19.000	8.423	8.436	8.449	8.461	8.474
19.500	8.486	8.499	8.511	8.523	8.534
20.000	8.546	8.558	8.569	8.580	8.592
20.500	8.603	8.614	8.625	8.636	8.646
21.000	8.657	8.668	8.678	8.688	8.699
21.500	8.709	8.719	8.729	8.739	8.748
22.000	8.758	8.768	8.777	8.786	8.796
22.500	8.805	8.814	8.823	8.832	8.840
23.000	8.849	8.858	8.866	8.874	8.883
23.500	8.891	8.899	8.907	8.915	8.922
24.000	8.930	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time-Depth Curve
Label: Time-Depth - 1
Scenario: POST-DEVELOPMENT-10 YR

Return Event: 10 years
Storm Event: 10-year

Time-Depth Curve: 10-year	
Label	10-year
Start Time	0.000 hours
Increment	0.100 hours
End Time	24.000 hours
Return Event	10 years

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
0.000	0.000	0.005	0.010	0.015	0.020
0.500	0.025	0.030	0.035	0.041	0.046
1.000	0.051	0.056	0.061	0.066	0.071
1.500	0.076	0.081	0.086	0.091	0.096
2.000	0.101	0.107	0.112	0.117	0.122
2.500	0.128	0.133	0.139	0.144	0.150
3.000	0.156	0.162	0.168	0.174	0.180
3.500	0.186	0.192	0.199	0.205	0.211
4.000	0.218	0.225	0.231	0.238	0.245
4.500	0.252	0.259	0.266	0.273	0.280
5.000	0.288	0.295	0.303	0.310	0.318
5.500	0.325	0.333	0.341	0.349	0.357
6.000	0.365	0.373	0.382	0.391	0.400
6.500	0.409	0.418	0.428	0.438	0.448
7.000	0.459	0.470	0.481	0.492	0.503
7.500	0.515	0.527	0.540	0.552	0.565
8.000	0.578	0.591	0.606	0.620	0.635
8.500	0.651	0.668	0.685	0.702	0.720
9.000	0.739	0.758	0.778	0.799	0.820
9.500	0.841	0.864	0.886	0.910	0.934
10.000	0.958	0.984	1.010	1.038	1.067
10.500	1.098	1.129	1.162	1.196	1.231
11.000	1.267	1.307	1.351	1.400	1.453
11.500	1.511	1.594	1.721	1.893	2.109
12.000	2.535	2.961	3.177	3.349	3.476
12.500	3.559	3.617	3.670	3.719	3.763
13.000	3.802	3.839	3.874	3.908	3.941
13.500	3.972	4.003	4.032	4.060	4.086
14.000	4.112	4.136	4.160	4.184	4.206
14.500	4.229	4.250	4.271	4.292	4.312
15.000	4.331	4.350	4.368	4.385	4.402
15.500	4.419	4.435	4.450	4.464	4.479
16.000	4.492	4.505	4.518	4.530	4.543
16.500	4.555	4.567	4.578	4.589	4.600
17.000	4.611	4.622	4.632	4.642	4.652

Subsection: Time-Depth Curve
Label: Time-Depth - 1
Scenario: POST-DEVELOPMENT-10 YR

Return Event: 10 years
Storm Event: 10-year

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
17.500	4.661	4.670	4.680	4.688	4.697
18.000	4.705	4.713	4.721	4.729	4.737
18.500	4.745	4.752	4.760	4.767	4.775
19.000	4.782	4.790	4.797	4.804	4.811
19.500	4.818	4.825	4.832	4.839	4.845
20.000	4.852	4.859	4.865	4.872	4.878
20.500	4.884	4.891	4.897	4.903	4.909
21.000	4.915	4.921	4.927	4.933	4.939
21.500	4.944	4.950	4.956	4.961	4.967
22.000	4.972	4.978	4.983	4.988	4.994
22.500	4.999	5.004	5.009	5.014	5.019
23.000	5.024	5.029	5.034	5.038	5.043
23.500	5.048	5.052	5.057	5.061	5.066
24.000	5.070	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time-Depth Curve
Label: Time-Depth - 1
Scenario: POST-DEVELOPMENT-1 YR

Return Event: 1 years
Storm Event: 1-year

Time-Depth Curve: 1-year	
Label	1-year
Start Time	0.000 hours
Increment	0.100 hours
End Time	24.000 hours
Return Event	1 years

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
0.000	0.000	0.003	0.006	0.008	0.011
0.500	0.014	0.017	0.020	0.023	0.025
1.000	0.028	0.031	0.034	0.037	0.039
1.500	0.042	0.045	0.048	0.051	0.054
2.000	0.056	0.059	0.062	0.065	0.068
2.500	0.071	0.074	0.077	0.080	0.084
3.000	0.087	0.090	0.093	0.097	0.100
3.500	0.103	0.107	0.110	0.114	0.118
4.000	0.121	0.125	0.129	0.132	0.136
4.500	0.140	0.144	0.148	0.152	0.156
5.000	0.160	0.164	0.168	0.172	0.177
5.500	0.181	0.185	0.190	0.194	0.199
6.000	0.203	0.208	0.212	0.217	0.222
6.500	0.227	0.233	0.238	0.244	0.249
7.000	0.255	0.261	0.267	0.274	0.280
7.500	0.287	0.293	0.300	0.307	0.314
8.000	0.321	0.329	0.337	0.345	0.353
8.500	0.362	0.371	0.381	0.391	0.401
9.000	0.411	0.422	0.433	0.444	0.456
9.500	0.468	0.480	0.493	0.506	0.519
10.000	0.533	0.547	0.562	0.577	0.594
10.500	0.611	0.628	0.646	0.665	0.685
11.000	0.705	0.727	0.751	0.778	0.808
11.500	0.840	0.886	0.957	1.053	1.173
12.000	1.410	1.647	1.767	1.863	1.934
12.500	1.980	2.012	2.042	2.069	2.093
13.000	2.115	2.135	2.155	2.174	2.192
13.500	2.209	2.226	2.243	2.258	2.273
14.000	2.287	2.301	2.314	2.327	2.340
14.500	2.352	2.364	2.376	2.387	2.398
15.000	2.409	2.419	2.429	2.439	2.449
15.500	2.458	2.467	2.475	2.483	2.491
16.000	2.499	2.506	2.513	2.520	2.527
16.500	2.533	2.540	2.546	2.553	2.559
17.000	2.565	2.571	2.576	2.582	2.587

Subsection: Time-Depth Curve
Label: Time-Depth - 1
Scenario: POST-DEVELOPMENT-1 YR

Return Event: 1 years
Storm Event: 1-year

CUMULATIVE RAINFALL (in)
Output Time Increment = 0.100 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
17.500	2.593	2.598	2.603	2.608	2.612
18.000	2.617	2.621	2.626	2.630	2.635
18.500	2.639	2.643	2.648	2.652	2.656
19.000	2.660	2.664	2.668	2.672	2.676
19.500	2.680	2.684	2.688	2.691	2.695
20.000	2.699	2.702	2.706	2.710	2.713
20.500	2.717	2.720	2.724	2.727	2.730
21.000	2.734	2.737	2.740	2.744	2.747
21.500	2.750	2.753	2.756	2.760	2.763
22.000	2.766	2.769	2.772	2.775	2.778
22.500	2.780	2.783	2.786	2.789	2.792
23.000	2.794	2.797	2.800	2.802	2.805
23.500	2.808	2.810	2.813	2.815	2.818
24.000	2.820	(N/A)	(N/A)	(N/A)	(N/A)

Storm Event	1-year
Return Event	1 years
Duration	72.000 hours
Depth	2.820 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	20,832.000 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.111 hours
Flow (Peak, Computed)	0.81 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.100 hours
Flow (Peak Interpolated Output)	0.81 ft³/s

Drainage Area	
SCS CN (Composite)	87.707
Area (User Defined)	20,832.000 ft²
Maximum Retention (Pervious)	1.402 in
Maximum Retention (Pervious, 20 percent)	0.280 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.637 in
Runoff Volume (Pervious)	2,841.051 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	2,841.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	6.50 ft³/s

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Storm Event	1-year
Return Event	1 years
Duration	72.000 hours
Depth	2.820 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	20,832.000 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
7.800	0.00	0.00	0.00	0.00	0.00
8.050	0.00	0.00	0.00	0.00	0.00
8.300	0.00	0.00	0.00	0.00	0.00
8.550	0.00	0.00	0.01	0.01	0.01
8.800	0.01	0.01	0.01	0.01	0.01
9.050	0.01	0.01	0.01	0.01	0.01
9.300	0.01	0.01	0.01	0.01	0.01
9.550	0.01	0.01	0.01	0.01	0.02
9.800	0.02	0.02	0.02	0.02	0.02
10.050	0.02	0.02	0.02	0.02	0.02
10.300	0.02	0.02	0.03	0.03	0.03
10.550	0.03	0.03	0.03	0.03	0.03
10.800	0.03	0.04	0.04	0.04	0.04
11.050	0.04	0.04	0.05	0.05	0.05
11.300	0.06	0.06	0.07	0.07	0.07
11.550	0.09	0.11	0.14	0.17	0.21
11.800	0.25	0.29	0.34	0.49	0.69
12.050	0.77	0.81	0.68	0.50	0.42
12.300	0.37	0.33	0.28	0.24	0.19
12.550	0.16	0.13	0.12	0.12	0.11
12.800	0.11	0.10	0.10	0.09	0.09
13.050	0.08	0.08	0.08	0.08	0.08
13.300	0.07	0.07	0.07	0.07	0.07
13.550	0.07	0.07	0.07	0.06	0.06
13.800	0.06	0.06	0.06	0.06	0.06
14.050	0.06	0.06	0.05	0.05	0.05
14.300	0.05	0.05	0.05	0.05	0.05
14.550	0.05	0.05	0.05	0.05	0.05
14.800	0.05	0.05	0.05	0.04	0.04
15.050	0.04	0.04	0.04	0.04	0.04
15.300	0.04	0.04	0.04	0.04	0.04
15.550	0.04	0.04	0.04	0.03	0.03
15.800	0.03	0.03	0.03	0.03	0.03
16.050	0.03	0.03	0.03	0.03	0.03

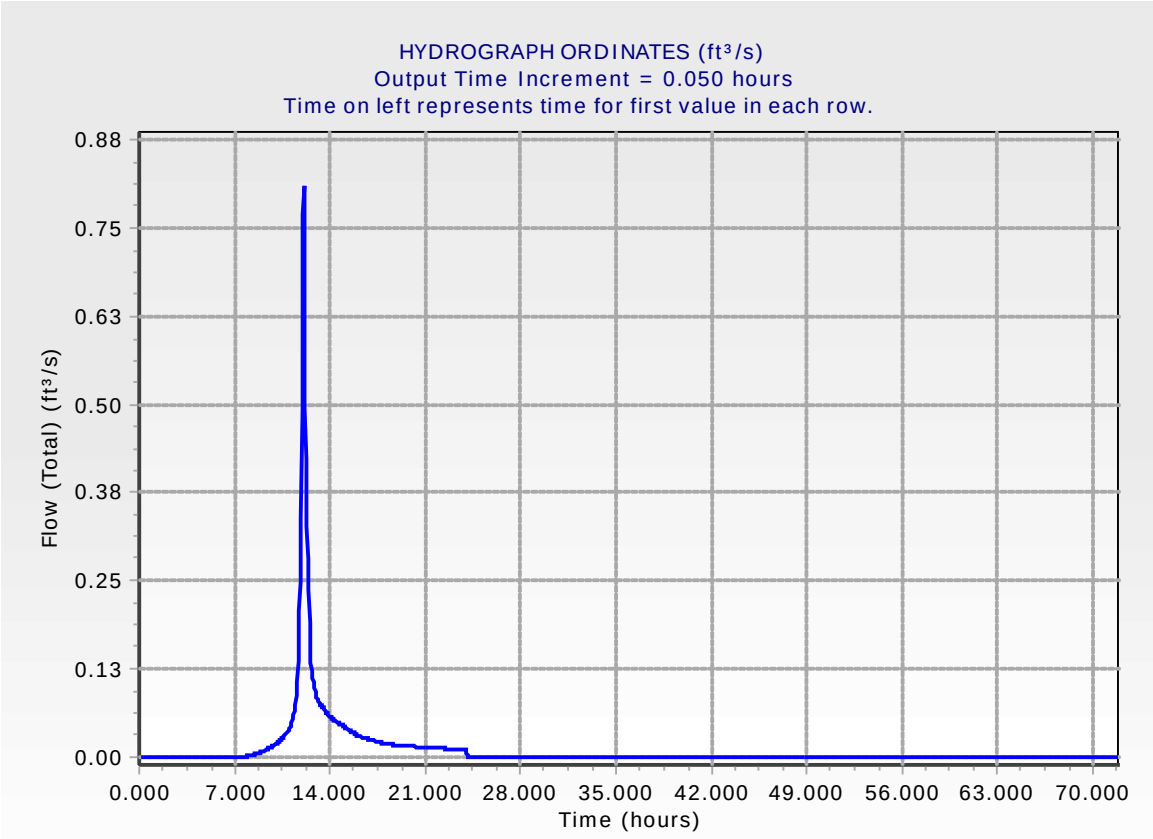
Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: PDA-1A-1 Storm Event: 1-year
Scenario: POST-DEVELOPMENT-1 YR

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
16.300	0.03	0.03	0.03	0.03	0.03
16.550	0.03	0.03	0.03	0.03	0.03
16.800	0.03	0.03	0.03	0.03	0.02
17.050	0.02	0.02	0.02	0.02	0.02
17.300	0.02	0.02	0.02	0.02	0.02
17.550	0.02	0.02	0.02	0.02	0.02
17.800	0.02	0.02	0.02	0.02	0.02
18.050	0.02	0.02	0.02	0.02	0.02
18.300	0.02	0.02	0.02	0.02	0.02
18.550	0.02	0.02	0.02	0.02	0.02
18.800	0.02	0.02	0.02	0.02	0.02
19.050	0.02	0.02	0.02	0.02	0.02
19.300	0.02	0.02	0.02	0.02	0.02
19.550	0.02	0.02	0.02	0.02	0.02
19.800	0.02	0.02	0.02	0.02	0.02
20.050	0.02	0.02	0.02	0.02	0.02
20.300	0.01	0.01	0.01	0.01	0.01
20.550	0.01	0.01	0.01	0.01	0.01
20.800	0.01	0.01	0.01	0.01	0.01
21.050	0.01	0.01	0.01	0.01	0.01
21.300	0.01	0.01	0.01	0.01	0.01
21.550	0.01	0.01	0.01	0.01	0.01
21.800	0.01	0.01	0.01	0.01	0.01
22.050	0.01	0.01	0.01	0.01	0.01
22.300	0.01	0.01	0.01	0.01	0.01
22.550	0.01	0.01	0.01	0.01	0.01
22.800	0.01	0.01	0.01	0.01	0.01
23.050	0.01	0.01	0.01	0.01	0.01
23.300	0.01	0.01	0.01	0.01	0.01
23.550	0.01	0.01	0.01	0.01	0.01
23.800	0.01	0.01	0.01	0.01	0.01
24.050	0.01	0.00	0.00	(N/A)	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table)
Label: PDA-1A-1
Scenario: POST-DEVELOPMENT-1 YR

Return Event: 1 years
Storm Event: 1-year



Storm Event	10-year
Return Event	10 years
Duration	72.000 hours
Depth	5.070 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	20,832.000 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.100 hours
Flow (Peak, Computed)	1.77 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.100 hours
Flow (Peak Interpolated Output)	1.77 ft³/s

Drainage Area	
SCS CN (Composite)	87.707
Area (User Defined)	20,832.000 ft²
Maximum Retention (Pervious)	1.402 in
Maximum Retention (Pervious, 20 percent)	0.280 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	3.705 in
Runoff Volume (Pervious)	6,432.613 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	6,432.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	6.50 ft³/s

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Storm Event	10-year
Return Event	10 years
Duration	72.000 hours
Depth	5.070 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	20,832.000 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
5.200	0.00	0.00	0.00	0.00	0.00
5.450	0.00	0.00	0.00	0.00	0.00
5.700	0.00	0.00	0.00	0.00	0.00
5.950	0.00	0.00	0.00	0.00	0.00
6.200	0.01	0.01	0.01	0.01	0.01
6.450	0.01	0.01	0.01	0.01	0.01
6.700	0.01	0.01	0.01	0.01	0.01
6.950	0.01	0.01	0.01	0.01	0.01
7.200	0.01	0.01	0.01	0.01	0.01
7.450	0.01	0.01	0.02	0.02	0.02
7.700	0.02	0.02	0.02	0.02	0.02
7.950	0.02	0.02	0.02	0.02	0.02
8.200	0.02	0.02	0.02	0.03	0.03
8.450	0.03	0.03	0.03	0.03	0.03
8.700	0.03	0.03	0.03	0.03	0.04
8.950	0.04	0.04	0.04	0.04	0.04
9.200	0.04	0.04	0.05	0.05	0.05
9.450	0.05	0.05	0.05	0.05	0.05
9.700	0.06	0.06	0.06	0.06	0.06
9.950	0.06	0.06	0.07	0.07	0.07
10.200	0.07	0.07	0.08	0.08	0.08
10.450	0.08	0.09	0.09	0.09	0.09
10.700	0.10	0.10	0.10	0.10	0.11
10.950	0.11	0.11	0.12	0.12	0.13
11.200	0.14	0.15	0.16	0.17	0.18
11.450	0.19	0.20	0.23	0.28	0.35
11.700	0.43	0.52	0.61	0.70	0.80
11.950	1.15	1.58	1.71	1.77	1.47
12.200	1.06	0.89	0.78	0.68	0.58
12.450	0.49	0.39	0.33	0.27	0.25
12.700	0.24	0.23	0.22	0.21	0.20
12.950	0.19	0.18	0.17	0.16	0.16
13.200	0.16	0.15	0.15	0.15	0.15
13.450	0.14	0.14	0.14	0.14	0.13

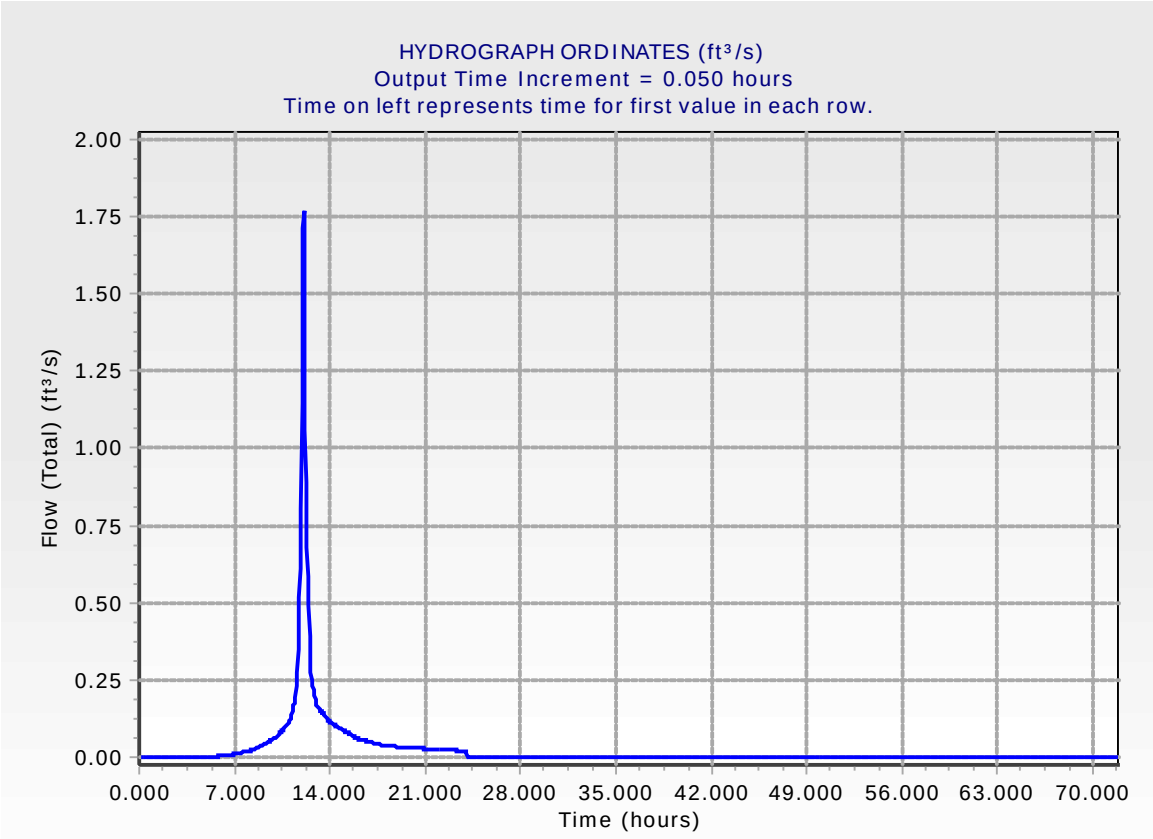
Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-1A-1 Storm Event: 10-year
Scenario: POST-DEVELOPMENT-10 YR

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
13.700	0.13	0.13	0.13	0.12	0.12
13.950	0.12	0.11	0.11	0.11	0.11
14.200	0.11	0.11	0.11	0.10	0.10
14.450	0.10	0.10	0.10	0.10	0.10
14.700	0.10	0.09	0.09	0.09	0.09
14.950	0.09	0.09	0.09	0.08	0.08
15.200	0.08	0.08	0.08	0.08	0.08
15.450	0.08	0.07	0.07	0.07	0.07
15.700	0.07	0.07	0.07	0.07	0.06
15.950	0.06	0.06	0.06	0.06	0.06
16.200	0.06	0.06	0.06	0.06	0.06
16.450	0.06	0.05	0.05	0.05	0.05
16.700	0.05	0.05	0.05	0.05	0.05
16.950	0.05	0.05	0.05	0.05	0.05
17.200	0.05	0.05	0.05	0.05	0.04
17.450	0.04	0.04	0.04	0.04	0.04
17.700	0.04	0.04	0.04	0.04	0.04
17.950	0.04	0.04	0.04	0.04	0.04
18.200	0.04	0.04	0.04	0.04	0.04
18.450	0.04	0.04	0.04	0.04	0.03
18.700	0.03	0.03	0.03	0.03	0.03
18.950	0.03	0.03	0.03	0.03	0.03
19.200	0.03	0.03	0.03	0.03	0.03
19.450	0.03	0.03	0.03	0.03	0.03
19.700	0.03	0.03	0.03	0.03	0.03
19.950	0.03	0.03	0.03	0.03	0.03
20.200	0.03	0.03	0.03	0.03	0.03
20.450	0.03	0.03	0.03	0.03	0.03
20.700	0.03	0.03	0.03	0.03	0.03
20.950	0.03	0.03	0.03	0.03	0.03
21.200	0.03	0.03	0.03	0.03	0.03
21.450	0.03	0.03	0.03	0.03	0.03
21.700	0.03	0.03	0.03	0.03	0.03
21.950	0.03	0.03	0.02	0.02	0.02
22.200	0.02	0.02	0.02	0.02	0.02
22.450	0.02	0.02	0.02	0.02	0.02
22.700	0.02	0.02	0.02	0.02	0.02
22.950	0.02	0.02	0.02	0.02	0.02
23.200	0.02	0.02	0.02	0.02	0.02
23.450	0.02	0.02	0.02	0.02	0.02
23.700	0.02	0.02	0.02	0.02	0.02
23.950	0.02	0.02	0.01	0.00	0.00

Subsection: Unit Hydrograph (Hydrograph Table)
Label: PDA-1A-1
Scenario: POST-DEVELOPMENT-10 YR

Return Event: 10 years
Storm Event: 10-year



Storm Event	100-year
Return Event	100 years
Duration	72.000 hours
Depth	8.930 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	20,832.000 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.100 hours
Flow (Peak, Computed)	3.40 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.100 hours
Flow (Peak Interpolated Output)	3.40 ft³/s

Drainage Area	
SCS CN (Composite)	87.707
Area (User Defined)	20,832.000 ft²
Maximum Retention (Pervious)	1.402 in
Maximum Retention (Pervious, 20 percent)	0.280 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	7.444 in
Runoff Volume (Pervious)	12,922.054 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	12,922.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	6.50 ft³/s

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Storm Event	100-year
Return Event	100 years
Duration	72.000 hours
Depth	8.930 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	20,832.000 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.01	0.01	0.01	0.01
4.000	0.01	0.01	0.01	0.01	0.01
4.250	0.01	0.01	0.01	0.01	0.01
4.500	0.01	0.01	0.01	0.01	0.01
4.750	0.01	0.01	0.01	0.01	0.02
5.000	0.02	0.02	0.02	0.02	0.02
5.250	0.02	0.02	0.02	0.02	0.02
5.500	0.02	0.02	0.02	0.02	0.02
5.750	0.02	0.02	0.02	0.02	0.02
6.000	0.02	0.03	0.03	0.03	0.03
6.250	0.03	0.03	0.03	0.03	0.03
6.500	0.03	0.03	0.03	0.03	0.04
6.750	0.04	0.04	0.04	0.04	0.04
7.000	0.04	0.04	0.04	0.04	0.05
7.250	0.05	0.05	0.05	0.05	0.05
7.500	0.05	0.05	0.05	0.05	0.06
7.750	0.06	0.06	0.06	0.06	0.06
8.000	0.06	0.06	0.07	0.07	0.07
8.250	0.07	0.07	0.08	0.08	0.08
8.500	0.08	0.08	0.09	0.09	0.09
8.750	0.09	0.09	0.10	0.10	0.10
9.000	0.10	0.11	0.11	0.11	0.11
9.250	0.12	0.12	0.12	0.12	0.13
9.500	0.13	0.13	0.13	0.14	0.14
9.750	0.14	0.14	0.15	0.15	0.15
10.000	0.15	0.16	0.16	0.17	0.17
10.250	0.18	0.18	0.19	0.19	0.20
10.500	0.20	0.21	0.21	0.22	0.22
10.750	0.23	0.23	0.24	0.24	0.25
11.000	0.25	0.26	0.27	0.29	0.31
11.250	0.32	0.34	0.36	0.38	0.40
11.500	0.42	0.49	0.58	0.73	0.90

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: PDA-1A-1 Storm Event: 100-year
Scenario: POST-DEVELOPMENT-100 YR

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
11.750	1.07	1.25	1.43	1.61	2.28
12.000	3.10	3.32	3.40	2.80	2.01
12.250	1.68	1.46	1.28	1.10	0.92
12.500	0.73	0.61	0.51	0.47	0.44
12.750	0.42	0.41	0.39	0.37	0.35
13.000	0.33	0.32	0.30	0.30	0.29
13.250	0.29	0.28	0.28	0.27	0.27
13.500	0.26	0.26	0.25	0.25	0.24
13.750	0.24	0.23	0.23	0.22	0.22
14.000	0.21	0.21	0.20	0.20	0.20
14.250	0.20	0.19	0.19	0.19	0.19
14.500	0.18	0.18	0.18	0.18	0.17
14.750	0.17	0.17	0.17	0.17	0.16
15.000	0.16	0.16	0.16	0.15	0.15
15.250	0.15	0.15	0.14	0.14	0.14
15.500	0.14	0.13	0.13	0.13	0.13
15.750	0.12	0.12	0.12	0.12	0.11
16.000	0.11	0.11	0.11	0.11	0.11
16.250	0.11	0.10	0.10	0.10	0.10
16.500	0.10	0.10	0.10	0.10	0.10
16.750	0.10	0.09	0.09	0.09	0.09
17.000	0.09	0.09	0.09	0.09	0.09
17.250	0.08	0.08	0.08	0.08	0.08
17.500	0.08	0.08	0.08	0.08	0.08
17.750	0.07	0.07	0.07	0.07	0.07
18.000	0.07	0.07	0.07	0.07	0.07
18.250	0.07	0.07	0.07	0.07	0.06
18.500	0.06	0.06	0.06	0.06	0.06
18.750	0.06	0.06	0.06	0.06	0.06
19.000	0.06	0.06	0.06	0.06	0.06
19.250	0.06	0.06	0.06	0.06	0.06
19.500	0.06	0.06	0.06	0.06	0.06
19.750	0.06	0.06	0.06	0.06	0.06
20.000	0.06	0.05	0.05	0.05	0.05
20.250	0.05	0.05	0.05	0.05	0.05
20.500	0.05	0.05	0.05	0.05	0.05
20.750	0.05	0.05	0.05	0.05	0.05
21.000	0.05	0.05	0.05	0.05	0.05
21.250	0.05	0.05	0.05	0.05	0.05
21.500	0.05	0.05	0.05	0.05	0.05
21.750	0.05	0.05	0.05	0.05	0.05
22.000	0.05	0.05	0.05	0.05	0.04
22.250	0.04	0.04	0.04	0.04	0.04

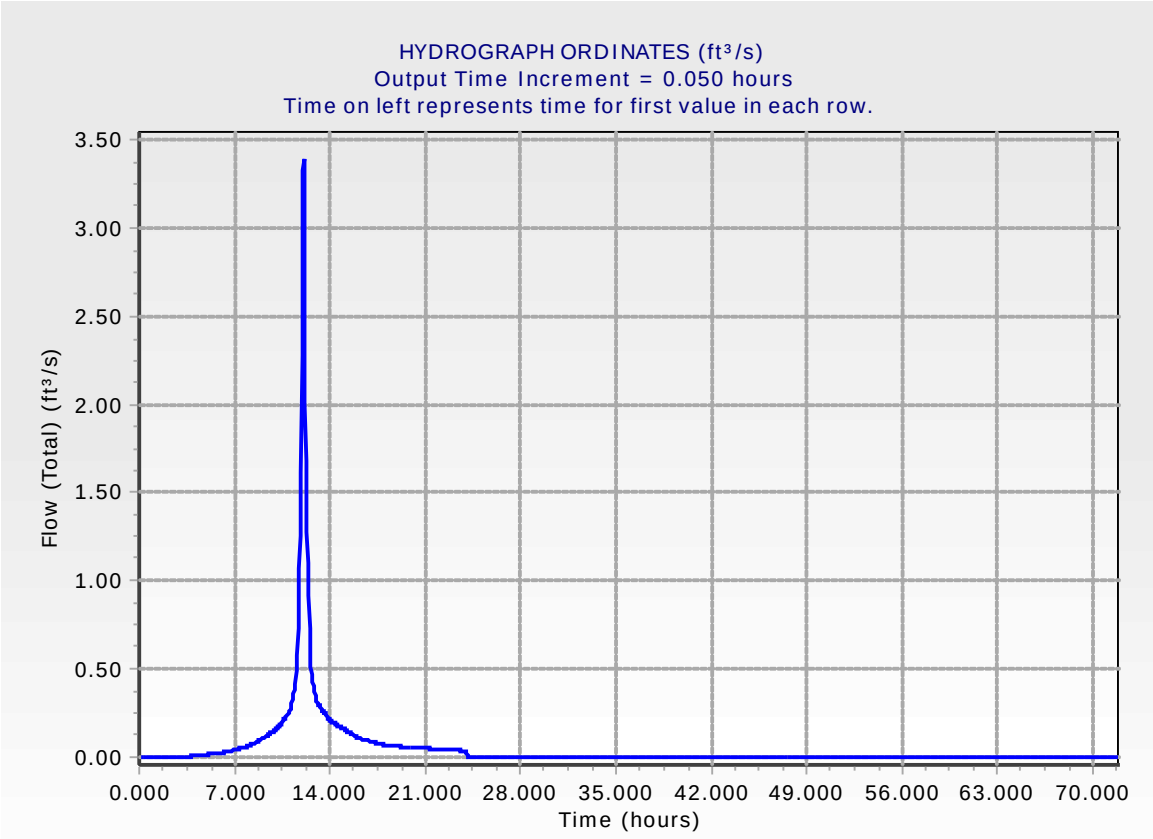
Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: PDA-1A-1 Storm Event: 100-year
Scenario: POST-DEVELOPMENT-100 YR

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
22.500	0.04	0.04	0.04	0.04	0.04
22.750	0.04	0.04	0.04	0.04	0.04
23.000	0.04	0.04	0.04	0.04	0.04
23.250	0.04	0.04	0.04	0.04	0.04
23.500	0.04	0.04	0.04	0.04	0.04
23.750	0.04	0.04	0.04	0.04	0.04
24.000	0.04	0.02	0.01	0.00	0.00

Subsection: Unit Hydrograph (Hydrograph Table)
Label: PDA-1A-1
Scenario: POST-DEVELOPMENT-100 YR

Return Event: 100 years
Storm Event: 100-year



Storm Event	1-year
Return Event	1 years
Duration	72.000 hours
Depth	2.820 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	3,520.000 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.100 hours
Flow (Peak, Computed)	0.19 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.100 hours
Flow (Peak Interpolated Output)	0.19 ft³/s

Drainage Area	
SCS CN (Composite)	98.000
Area (User Defined)	3,520.000 ft²
Maximum Retention (Pervious)	0.204 in
Maximum Retention (Pervious, 20 percent)	0.041 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	2.589 in
Runoff Volume (Pervious)	759.458 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	759.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	1.10 ft³/s

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Storm Event	1-year
Return Event	1 years
Duration	72.000 hours
Depth	2.820 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	3,520.000 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
3.350	0.00	0.00	0.00	0.00	0.00
3.600	0.00	0.00	0.00	0.00	0.00
3.850	0.00	0.00	0.00	0.00	0.00
4.100	0.00	0.00	0.00	0.00	0.00
4.350	0.00	0.00	0.00	0.00	0.00
4.600	0.00	0.00	0.00	0.00	0.00
4.850	0.00	0.00	0.00	0.00	0.00
5.100	0.00	0.00	0.00	0.00	0.00
5.350	0.00	0.00	0.00	0.00	0.00
5.600	0.00	0.00	0.00	0.00	0.00
5.850	0.00	0.00	0.00	0.00	0.00
6.100	0.00	0.00	0.00	0.00	0.00
6.350	0.00	0.00	0.00	0.00	0.00
6.600	0.00	0.00	0.00	0.00	0.00
6.850	0.00	0.00	0.00	0.00	0.00
7.100	0.00	0.00	0.00	0.00	0.00
7.350	0.00	0.00	0.00	0.00	0.00
7.600	0.00	0.00	0.00	0.00	0.00
7.850	0.00	0.00	0.00	0.00	0.00
8.100	0.01	0.01	0.01	0.01	0.01
8.350	0.01	0.01	0.01	0.01	0.01
8.600	0.01	0.01	0.01	0.01	0.01
8.850	0.01	0.01	0.01	0.01	0.01
9.100	0.01	0.01	0.01	0.01	0.01
9.350	0.01	0.01	0.01	0.01	0.01
9.600	0.01	0.01	0.01	0.01	0.01
9.850	0.01	0.01	0.01	0.01	0.01
10.100	0.01	0.01	0.01	0.01	0.01
10.350	0.01	0.01	0.01	0.01	0.01
10.600	0.01	0.01	0.01	0.01	0.01
10.850	0.01	0.01	0.02	0.02	0.02
11.100	0.02	0.02	0.02	0.02	0.02
11.350	0.02	0.02	0.02	0.02	0.03
11.600	0.03	0.04	0.05	0.06	0.07

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: PDA-1A-2 Storm Event: 1-year
Scenario: POST-DEVELOPMENT-1 YR

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
11.850	0.08	0.09	0.13	0.17	0.19
12.100	0.19	0.16	0.11	0.09	0.08
12.350	0.07	0.06	0.05	0.04	0.03
12.600	0.03	0.03	0.02	0.02	0.02
12.850	0.02	0.02	0.02	0.02	0.02
13.100	0.02	0.02	0.02	0.02	0.02
13.350	0.02	0.01	0.01	0.01	0.01
13.600	0.01	0.01	0.01	0.01	0.01
13.850	0.01	0.01	0.01	0.01	0.01
14.100	0.01	0.01	0.01	0.01	0.01
14.350	0.01	0.01	0.01	0.01	0.01
14.600	0.01	0.01	0.01	0.01	0.01
14.850	0.01	0.01	0.01	0.01	0.01
15.100	0.01	0.01	0.01	0.01	0.01
15.350	0.01	0.01	0.01	0.01	0.01
15.600	0.01	0.01	0.01	0.01	0.01
15.850	0.01	0.01	0.01	0.01	0.01
16.100	0.01	0.01	0.01	0.01	0.01
16.350	0.01	0.01	0.01	0.01	0.01
16.600	0.01	0.01	0.01	0.01	0.01
16.850	0.01	0.00	0.00	0.00	0.00
17.100	0.00	0.00	0.00	0.00	0.00
17.350	0.00	0.00	0.00	0.00	0.00
17.600	0.00	0.00	0.00	0.00	0.00
17.850	0.00	0.00	0.00	0.00	0.00
18.100	0.00	0.00	0.00	0.00	0.00
18.350	0.00	0.00	0.00	0.00	0.00
18.600	0.00	0.00	0.00	0.00	0.00
18.850	0.00	0.00	0.00	0.00	0.00
19.100	0.00	0.00	0.00	0.00	0.00
19.350	0.00	0.00	0.00	0.00	0.00
19.600	0.00	0.00	0.00	0.00	0.00
19.850	0.00	0.00	0.00	0.00	0.00
20.100	0.00	0.00	0.00	0.00	0.00
20.350	0.00	0.00	0.00	0.00	0.00
20.600	0.00	0.00	0.00	0.00	0.00
20.850	0.00	0.00	0.00	0.00	0.00
21.100	0.00	0.00	0.00	0.00	0.00
21.350	0.00	0.00	0.00	0.00	0.00
21.600	0.00	0.00	0.00	0.00	0.00
21.850	0.00	0.00	0.00	0.00	0.00
22.100	0.00	0.00	0.00	0.00	0.00
22.350	0.00	0.00	0.00	0.00	0.00

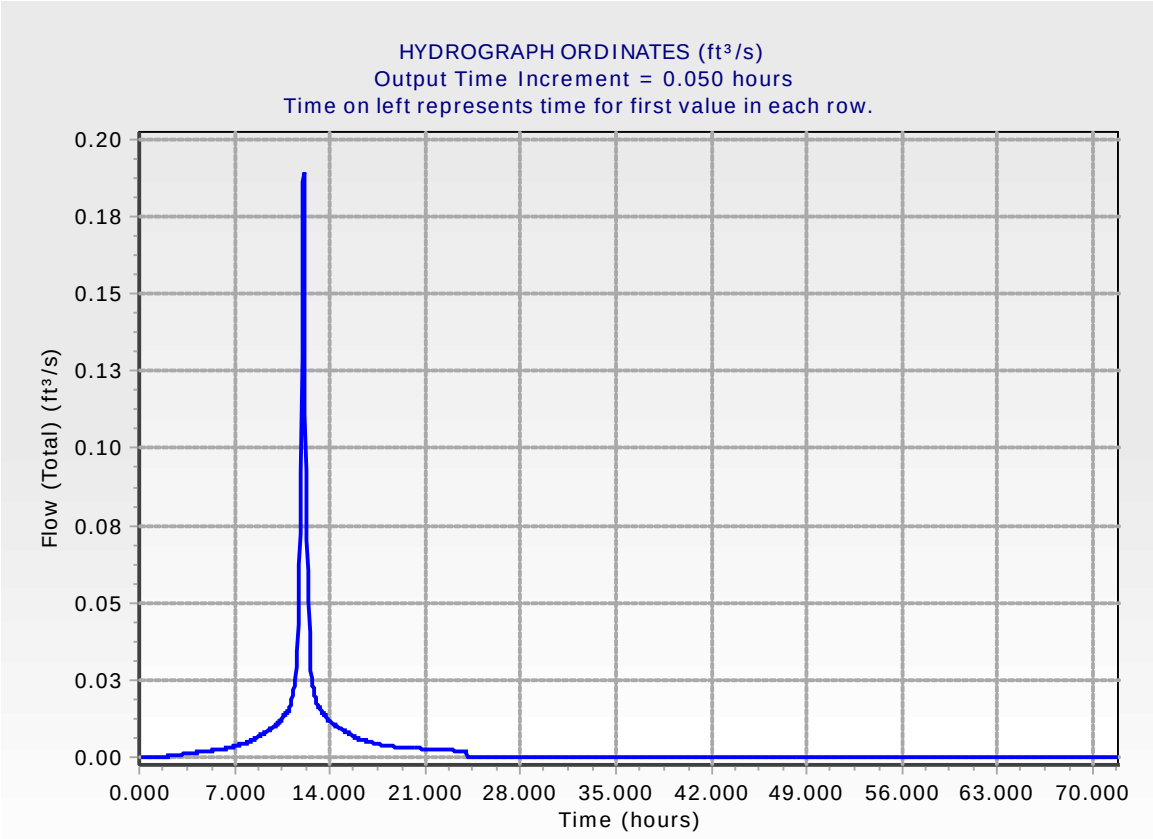
Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: PDA-1A-2 Storm Event: 1-year
Scenario: POST-DEVELOPMENT-1 YR

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
22.600	0.00	0.00	0.00	0.00	0.00
22.850	0.00	0.00	0.00	0.00	0.00
23.100	0.00	0.00	0.00	0.00	0.00
23.350	0.00	0.00	0.00	0.00	0.00
23.600	0.00	0.00	0.00	0.00	0.00
23.850	0.00	0.00	0.00	0.00	0.00
24.100	0.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table)
Label: PDA-1A-2
Scenario: POST-DEVELOPMENT-1 YR

Return Event: 1 years
Storm Event: 1-year



Storm Event	10-year
Return Event	10 years
Duration	72.000 hours
Depth	5.070 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	3,520.000 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.100 hours
Flow (Peak, Computed)	0.34 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.100 hours
Flow (Peak Interpolated Output)	0.34 ft³/s

Drainage Area	
SCS CN (Composite)	98.000
Area (User Defined)	3,520.000 ft²
Maximum Retention (Pervious)	0.204 in
Maximum Retention (Pervious, 20 percent)	0.041 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	4.833 in
Runoff Volume (Pervious)	1,417.698 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	1,418.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	1.10 ft³/s

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Storm Event	10-year
Return Event	10 years
Duration	72.000 hours
Depth	5.070 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	3,520.000 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
1.500	0.00	0.00	0.00	0.00	0.00
1.750	0.00	0.00	0.00	0.00	0.00
2.000	0.00	0.00	0.00	0.00	0.00
2.250	0.00	0.00	0.00	0.00	0.00
2.500	0.00	0.00	0.00	0.00	0.00
2.750	0.00	0.00	0.00	0.00	0.00
3.000	0.00	0.00	0.00	0.00	0.00
3.250	0.00	0.00	0.00	0.00	0.00
3.500	0.00	0.00	0.00	0.00	0.00
3.750	0.00	0.00	0.00	0.00	0.00
4.000	0.00	0.00	0.00	0.00	0.00
4.250	0.00	0.00	0.00	0.00	0.00
4.500	0.00	0.00	0.00	0.00	0.00
4.750	0.00	0.00	0.00	0.00	0.00
5.000	0.00	0.00	0.00	0.00	0.00
5.250	0.00	0.00	0.01	0.01	0.01
5.500	0.01	0.01	0.01	0.01	0.01
5.750	0.01	0.01	0.01	0.01	0.01
6.000	0.01	0.01	0.01	0.01	0.01
6.250	0.01	0.01	0.01	0.01	0.01
6.500	0.01	0.01	0.01	0.01	0.01
6.750	0.01	0.01	0.01	0.01	0.01
7.000	0.01	0.01	0.01	0.01	0.01
7.250	0.01	0.01	0.01	0.01	0.01
7.500	0.01	0.01	0.01	0.01	0.01
7.750	0.01	0.01	0.01	0.01	0.01
8.000	0.01	0.01	0.01	0.01	0.01
8.250	0.01	0.01	0.01	0.01	0.01
8.500	0.01	0.01	0.01	0.01	0.01
8.750	0.01	0.01	0.01	0.01	0.01
9.000	0.01	0.01	0.01	0.02	0.02
9.250	0.02	0.02	0.02	0.02	0.02
9.500	0.02	0.02	0.02	0.02	0.02
9.750	0.02	0.02	0.02	0.02	0.02

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-1A-2 Storm Event: 10-year
Scenario: POST-DEVELOPMENT-10 YR

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
10.000	0.02	0.02	0.02	0.02	0.02
10.250	0.02	0.02	0.02	0.02	0.02
10.500	0.02	0.02	0.02	0.03	0.03
10.750	0.03	0.03	0.03	0.03	0.03
11.000	0.03	0.03	0.03	0.03	0.03
11.250	0.04	0.04	0.04	0.04	0.04
11.500	0.05	0.05	0.06	0.08	0.10
11.750	0.11	0.13	0.15	0.17	0.24
12.000	0.32	0.34	0.34	0.28	0.20
12.250	0.17	0.15	0.13	0.11	0.09
12.500	0.07	0.06	0.05	0.05	0.04
12.750	0.04	0.04	0.04	0.04	0.03
13.000	0.03	0.03	0.03	0.03	0.03
13.250	0.03	0.03	0.03	0.03	0.03
13.500	0.03	0.03	0.02	0.02	0.02
13.750	0.02	0.02	0.02	0.02	0.02
14.000	0.02	0.02	0.02	0.02	0.02
14.250	0.02	0.02	0.02	0.02	0.02
14.500	0.02	0.02	0.02	0.02	0.02
14.750	0.02	0.02	0.02	0.02	0.02
15.000	0.02	0.02	0.02	0.02	0.01
15.250	0.01	0.01	0.01	0.01	0.01
15.500	0.01	0.01	0.01	0.01	0.01
15.750	0.01	0.01	0.01	0.01	0.01
16.000	0.01	0.01	0.01	0.01	0.01
16.250	0.01	0.01	0.01	0.01	0.01
16.500	0.01	0.01	0.01	0.01	0.01
16.750	0.01	0.01	0.01	0.01	0.01
17.000	0.01	0.01	0.01	0.01	0.01
17.250	0.01	0.01	0.01	0.01	0.01
17.500	0.01	0.01	0.01	0.01	0.01
17.750	0.01	0.01	0.01	0.01	0.01
18.000	0.01	0.01	0.01	0.01	0.01
18.250	0.01	0.01	0.01	0.01	0.01
18.500	0.01	0.01	0.01	0.01	0.01
18.750	0.01	0.01	0.01	0.01	0.01
19.000	0.01	0.01	0.01	0.01	0.01
19.250	0.01	0.01	0.01	0.01	0.01
19.500	0.01	0.01	0.01	0.01	0.01
19.750	0.01	0.01	0.01	0.01	0.01
20.000	0.01	0.01	0.01	0.01	0.01
20.250	0.01	0.01	0.01	0.01	0.01
20.500	0.01	0.01	0.01	0.01	0.01

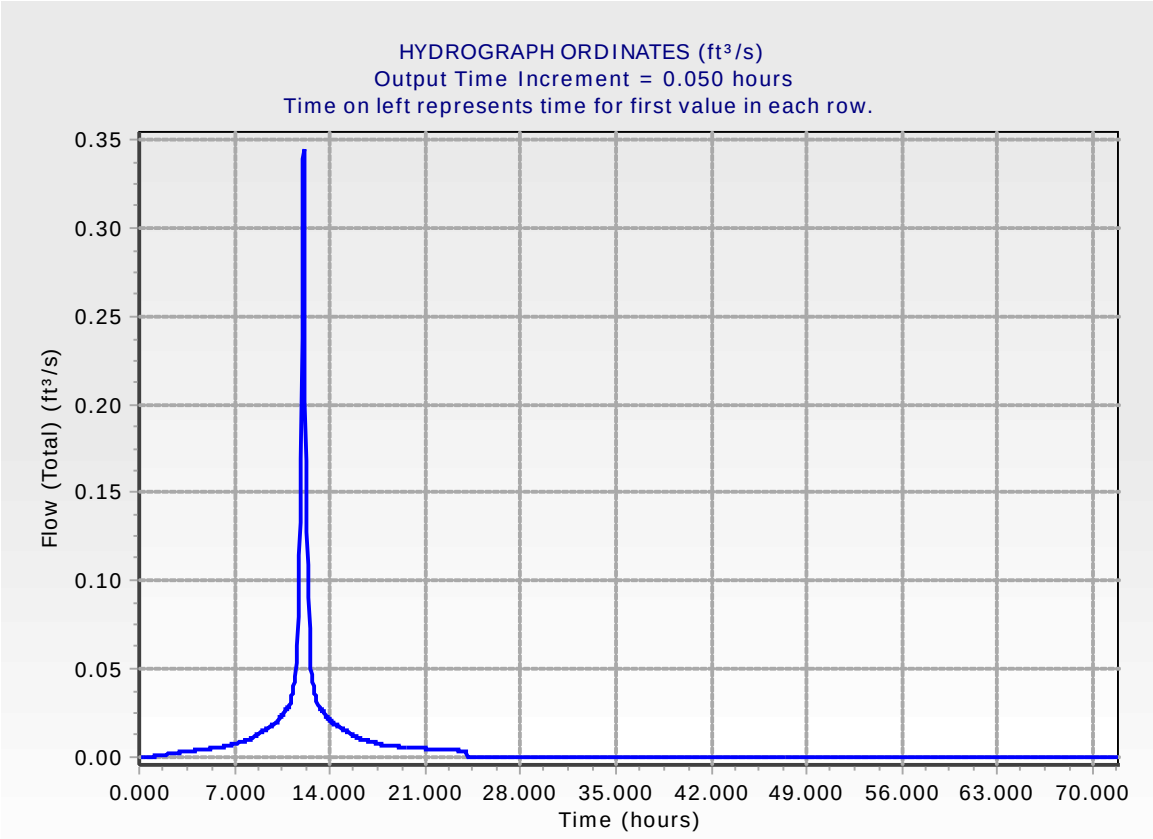
Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-1A-2 Storm Event: 10-year
Scenario: POST-DEVELOPMENT-10 YR

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
20.750	0.01	0.01	0.01	0.00	0.00
21.000	0.00	0.00	0.00	0.00	0.00
21.250	0.00	0.00	0.00	0.00	0.00
21.500	0.00	0.00	0.00	0.00	0.00
21.750	0.00	0.00	0.00	0.00	0.00
22.000	0.00	0.00	0.00	0.00	0.00
22.250	0.00	0.00	0.00	0.00	0.00
22.500	0.00	0.00	0.00	0.00	0.00
22.750	0.00	0.00	0.00	0.00	0.00
23.000	0.00	0.00	0.00	0.00	0.00
23.250	0.00	0.00	0.00	0.00	0.00
23.500	0.00	0.00	0.00	0.00	0.00
23.750	0.00	0.00	0.00	0.00	0.00
24.000	0.00	0.00	0.00	(N/A)	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table)
Label: PDA-1A-2
Scenario: POST-DEVELOPMENT-10 YR

Return Event: 10 years
Storm Event: 10-year



Storm Event	100-year
Return Event	100 years
Duration	72.000 hours
Depth	8.930 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	3,520.000 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.100 hours
Flow (Peak, Computed)	0.61 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.100 hours
Flow (Peak Interpolated Output)	0.61 ft³/s

Drainage Area	
SCS CN (Composite)	98.000
Area (User Defined)	3,520.000 ft²
Maximum Retention (Pervious)	0.204 in
Maximum Retention (Pervious, 20 percent)	0.041 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	8.690 in
Runoff Volume (Pervious)	2,548.974 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	2,549.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	1.10 ft³/s

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Storm Event	100-year
Return Event	100 years
Duration	72.000 hours
Depth	8.930 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	3,520.000 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
0.700	0.00	0.00	0.00	0.00	0.00
0.950	0.00	0.00	0.00	0.00	0.00
1.200	0.00	0.00	0.00	0.00	0.00
1.450	0.00	0.00	0.00	0.00	0.00
1.700	0.00	0.00	0.00	0.00	0.00
1.950	0.00	0.00	0.00	0.00	0.00
2.200	0.00	0.01	0.01	0.01	0.01
2.450	0.01	0.01	0.01	0.01	0.01
2.700	0.01	0.01	0.01	0.01	0.01
2.950	0.01	0.01	0.01	0.01	0.01
3.200	0.01	0.01	0.01	0.01	0.01
3.450	0.01	0.01	0.01	0.01	0.01
3.700	0.01	0.01	0.01	0.01	0.01
3.950	0.01	0.01	0.01	0.01	0.01
4.200	0.01	0.01	0.01	0.01	0.01
4.450	0.01	0.01	0.01	0.01	0.01
4.700	0.01	0.01	0.01	0.01	0.01
4.950	0.01	0.01	0.01	0.01	0.01
5.200	0.01	0.01	0.01	0.01	0.01
5.450	0.01	0.01	0.01	0.01	0.01
5.700	0.01	0.01	0.01	0.01	0.01
5.950	0.01	0.01	0.01	0.01	0.01
6.200	0.01	0.01	0.01	0.01	0.01
6.450	0.01	0.01	0.01	0.01	0.01
6.700	0.01	0.01	0.01	0.01	0.01
6.950	0.01	0.01	0.01	0.01	0.01
7.200	0.02	0.02	0.02	0.02	0.02
7.450	0.02	0.02	0.02	0.02	0.02
7.700	0.02	0.02	0.02	0.02	0.02
7.950	0.02	0.02	0.02	0.02	0.02
8.200	0.02	0.02	0.02	0.02	0.02
8.450	0.02	0.02	0.02	0.02	0.02
8.700	0.02	0.02	0.02	0.02	0.03
8.950	0.03	0.03	0.03	0.03	0.03

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: PDA-1A-2 Storm Event: 100-year
Scenario: POST-DEVELOPMENT-100 YR

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
9.200	0.03	0.03	0.03	0.03	0.03
9.450	0.03	0.03	0.03	0.03	0.03
9.700	0.03	0.03	0.03	0.03	0.03
9.950	0.03	0.03	0.04	0.04	0.04
10.200	0.04	0.04	0.04	0.04	0.04
10.450	0.04	0.04	0.04	0.04	0.05
10.700	0.05	0.05	0.05	0.05	0.05
10.950	0.05	0.05	0.05	0.06	0.06
11.200	0.06	0.07	0.07	0.07	0.08
11.450	0.08	0.08	0.10	0.11	0.14
11.700	0.17	0.20	0.24	0.27	0.30
11.950	0.42	0.56	0.60	0.61	0.50
12.200	0.36	0.30	0.26	0.22	0.19
12.450	0.16	0.13	0.11	0.09	0.08
12.700	0.08	0.07	0.07	0.07	0.06
12.950	0.06	0.06	0.06	0.05	0.05
13.200	0.05	0.05	0.05	0.05	0.05
13.450	0.05	0.05	0.04	0.04	0.04
13.700	0.04	0.04	0.04	0.04	0.04
13.950	0.04	0.04	0.04	0.04	0.03
14.200	0.03	0.03	0.03	0.03	0.03
14.450	0.03	0.03	0.03	0.03	0.03
14.700	0.03	0.03	0.03	0.03	0.03
14.950	0.03	0.03	0.03	0.03	0.03
15.200	0.03	0.03	0.03	0.02	0.02
15.450	0.02	0.02	0.02	0.02	0.02
15.700	0.02	0.02	0.02	0.02	0.02
15.950	0.02	0.02	0.02	0.02	0.02
16.200	0.02	0.02	0.02	0.02	0.02
16.450	0.02	0.02	0.02	0.02	0.02
16.700	0.02	0.02	0.02	0.02	0.02
16.950	0.02	0.02	0.02	0.02	0.01
17.200	0.01	0.01	0.01	0.01	0.01
17.450	0.01	0.01	0.01	0.01	0.01
17.700	0.01	0.01	0.01	0.01	0.01
17.950	0.01	0.01	0.01	0.01	0.01
18.200	0.01	0.01	0.01	0.01	0.01
18.450	0.01	0.01	0.01	0.01	0.01
18.700	0.01	0.01	0.01	0.01	0.01
18.950	0.01	0.01	0.01	0.01	0.01
19.200	0.01	0.01	0.01	0.01	0.01
19.450	0.01	0.01	0.01	0.01	0.01
19.700	0.01	0.01	0.01	0.01	0.01

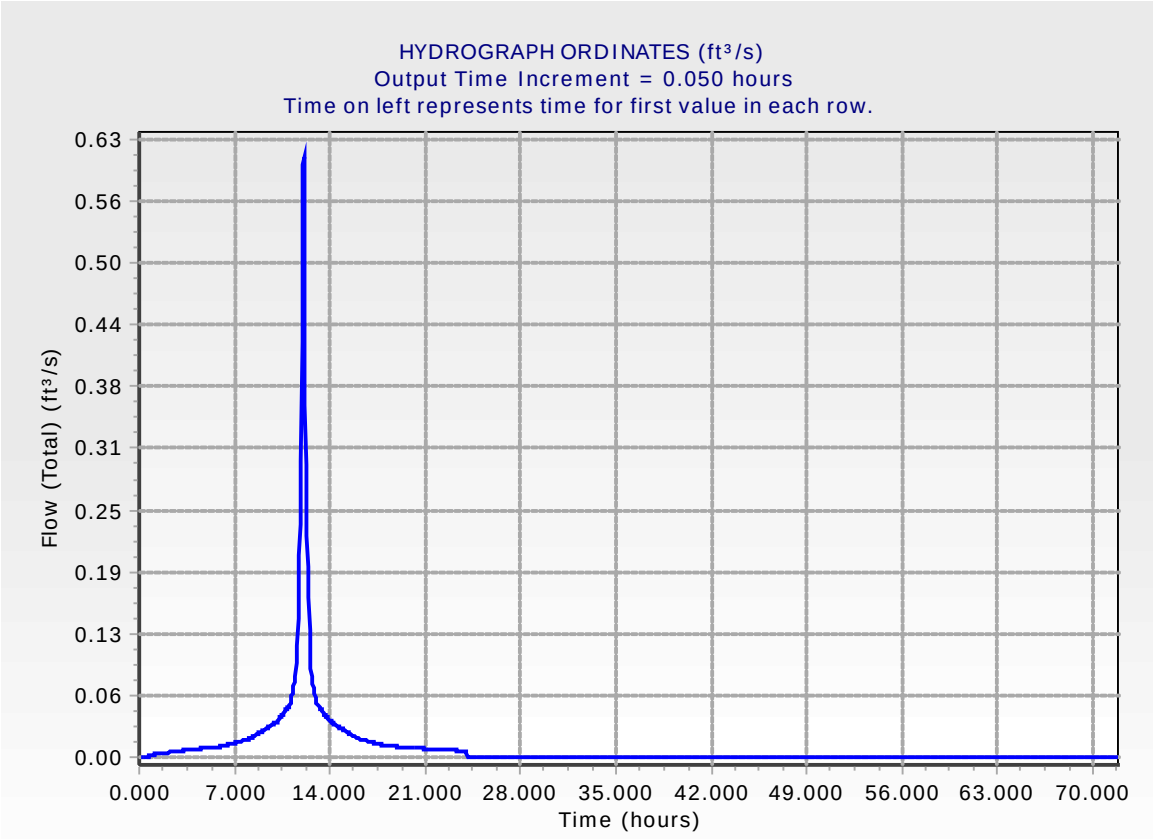
Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: PDA-1A-2 Storm Event: 100-year
Scenario: POST-DEVELOPMENT-100 YR

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
19.950	0.01	0.01	0.01	0.01	0.01
20.200	0.01	0.01	0.01	0.01	0.01
20.450	0.01	0.01	0.01	0.01	0.01
20.700	0.01	0.01	0.01	0.01	0.01
20.950	0.01	0.01	0.01	0.01	0.01
21.200	0.01	0.01	0.01	0.01	0.01
21.450	0.01	0.01	0.01	0.01	0.01
21.700	0.01	0.01	0.01	0.01	0.01
21.950	0.01	0.01	0.01	0.01	0.01
22.200	0.01	0.01	0.01	0.01	0.01
22.450	0.01	0.01	0.01	0.01	0.01
22.700	0.01	0.01	0.01	0.01	0.01
22.950	0.01	0.01	0.01	0.01	0.01
23.200	0.01	0.01	0.01	0.01	0.01
23.450	0.01	0.01	0.01	0.01	0.01
23.700	0.01	0.01	0.01	0.01	0.01
23.950	0.01	0.01	0.00	0.00	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table)
Label: PDA-1A-2
Scenario: POST-DEVELOPMENT-100 YR

Return Event: 100 years
Storm Event: 100-year



Storm Event	1-year
Return Event	1 years
Duration	72.000 hours
Depth	2.820 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	2,135.000 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.133 hours
Flow (Peak, Computed)	0.01 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.150 hours
Flow (Peak Interpolated Output)	0.01 ft³/s

Drainage Area	
SCS CN (Composite)	61.000
Area (User Defined)	2,135.000 ft²
Maximum Retention (Pervious)	6.393 in
Maximum Retention (Pervious, 20 percent)	1.279 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	0.299 in
Runoff Volume (Pervious)	53.268 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	53.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	0.67 ft³/s

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 1 years
Label: PDA-1B Storm Event: 1-year
Scenario: POST-DEVELOPMENT-1 YR

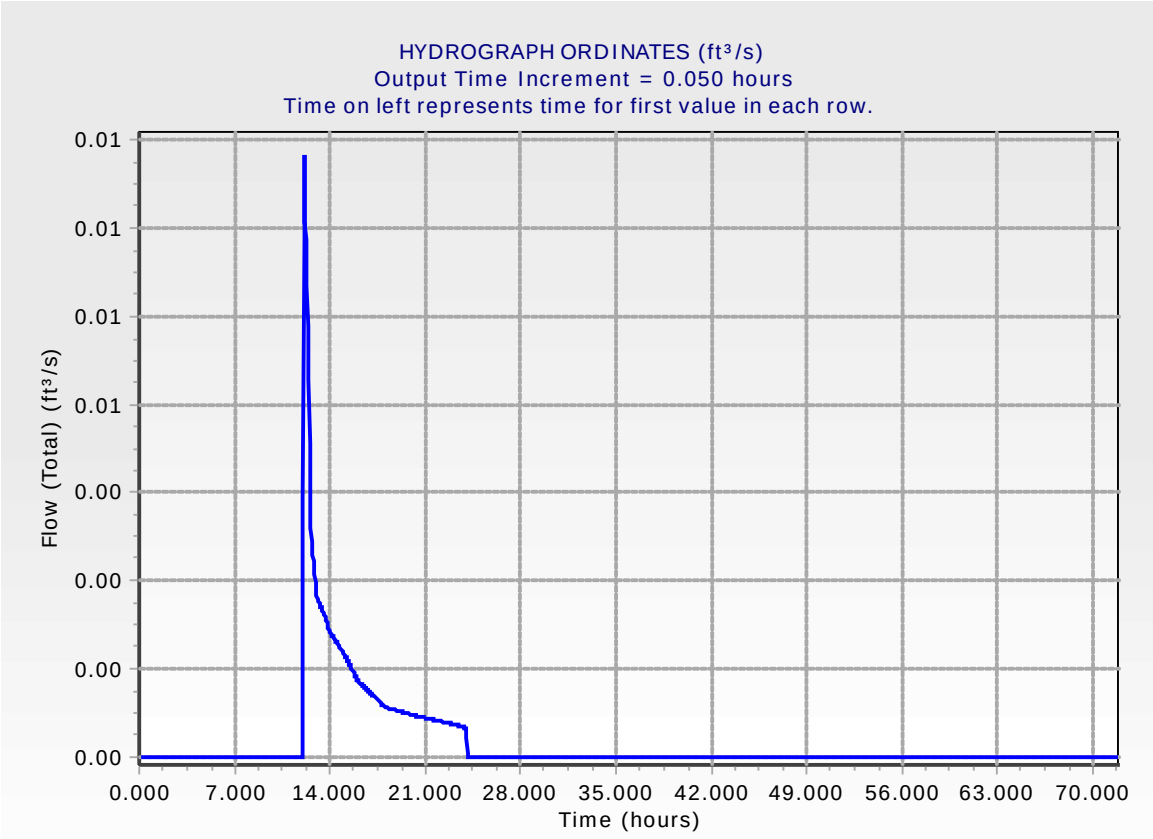
Storm Event	1-year
Return Event	1 years
Duration	72.000 hours
Depth	2.820 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	2,135.000 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
12.000	0.00	0.00	0.01	0.01	0.01
12.250	0.01	0.01	0.01	0.01	0.01
12.500	0.00	0.00	0.00	0.00	0.00
12.750	0.00	0.00	0.00	0.00	0.00
13.000	0.00	0.00	0.00	0.00	0.00
13.250	0.00	0.00	0.00	0.00	0.00
13.500	0.00	0.00	0.00	0.00	0.00
13.750	0.00	0.00	0.00	0.00	0.00
14.000	0.00	0.00	0.00	0.00	0.00
14.250	0.00	0.00	0.00	0.00	0.00
14.500	0.00	0.00	0.00	0.00	0.00
14.750	0.00	0.00	0.00	0.00	0.00
15.000	0.00	0.00	0.00	0.00	0.00
15.250	0.00	0.00	0.00	0.00	0.00
15.500	0.00	0.00	0.00	0.00	0.00
15.750	0.00	0.00	0.00	0.00	0.00
16.000	0.00	0.00	0.00	0.00	0.00

Subsection: Unit Hydrograph (Hydrograph Table)
Label: PDA-1B
Scenario: POST-DEVELOPMENT-1 YR

Return Event: 1 years
Storm Event: 1-year



Storm Event	10-year
Return Event	10 years
Duration	72.000 hours
Depth	5.070 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	2,135.000 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.111 hours
Flow (Peak, Computed)	0.07 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.100 hours
Flow (Peak Interpolated Output)	0.07 ft³/s

Drainage Area	
SCS CN (Composite)	61.000
Area (User Defined)	2,135.000 ft²
Maximum Retention (Pervious)	6.393 in
Maximum Retention (Pervious, 20 percent)	1.279 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	1.411 in
Runoff Volume (Pervious)	251.099 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	251.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	0.67 ft³/s

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Storm Event	10-year
Return Event	10 years
Duration	72.000 hours
Depth	5.070 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	2,135.000 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
11.350	0.00	0.00	0.00	0.00	0.00
11.600	0.00	0.00	0.01	0.01	0.01
11.850	0.02	0.02	0.03	0.05	0.06
12.100	0.07	0.06	0.05	0.04	0.04
12.350	0.03	0.03	0.02	0.02	0.02
12.600	0.01	0.01	0.01	0.01	0.01
12.850	0.01	0.01	0.01	0.01	0.01
13.100	0.01	0.01	0.01	0.01	0.01
13.350	0.01	0.01	0.01	0.01	0.01
13.600	0.01	0.01	0.01	0.01	0.01
13.850	0.01	0.01	0.01	0.01	0.01
14.100	0.01	0.01	0.01	0.01	0.01
14.350	0.01	0.01	0.01	0.01	0.01
14.600	0.01	0.01	0.01	0.01	0.01
14.850	0.01	0.01	0.01	0.01	0.01
15.100	0.01	0.00	0.00	0.00	0.00
15.350	0.00	0.00	0.00	0.00	0.00
15.600	0.00	0.00	0.00	0.00	0.00
15.850	0.00	0.00	0.00	0.00	0.00
16.100	0.00	0.00	0.00	0.00	0.00
16.350	0.00	0.00	0.00	0.00	0.00
16.600	0.00	0.00	0.00	0.00	0.00
16.850	0.00	0.00	0.00	0.00	0.00
17.100	0.00	0.00	0.00	0.00	0.00
17.350	0.00	0.00	0.00	0.00	0.00
17.600	0.00	0.00	0.00	0.00	0.00
17.850	0.00	0.00	0.00	0.00	0.00
18.100	0.00	0.00	0.00	0.00	0.00
18.350	0.00	0.00	0.00	0.00	0.00
18.600	0.00	0.00	0.00	0.00	0.00
18.850	0.00	0.00	0.00	0.00	0.00
19.100	0.00	0.00	0.00	0.00	0.00
19.350	0.00	0.00	0.00	0.00	0.00
19.600	0.00	0.00	0.00	0.00	0.00

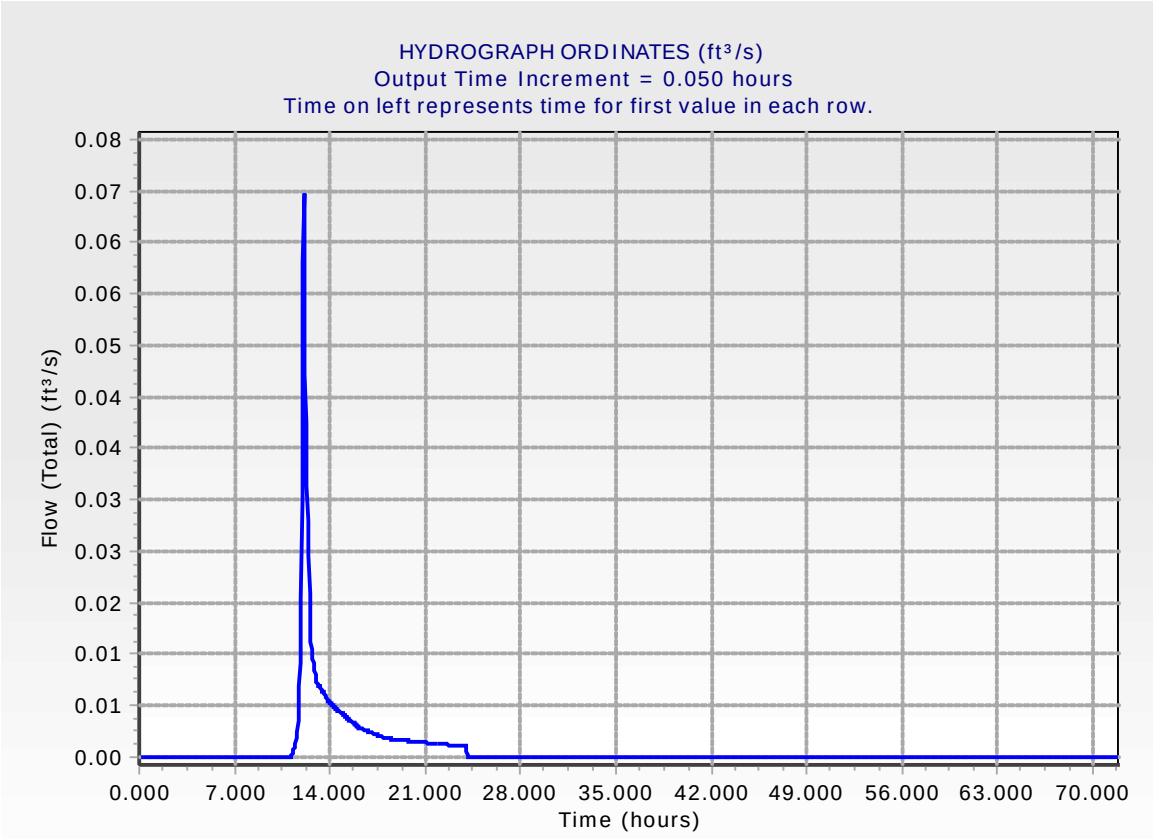
Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 10 years
Label: PDA-1B Storm Event: 10-year
Scenario: POST-DEVELOPMENT-10 YR

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
19.850	0.00	0.00	0.00	0.00	0.00
20.100	0.00	0.00	0.00	0.00	0.00
20.350	0.00	0.00	0.00	0.00	0.00
20.600	0.00	0.00	0.00	0.00	0.00
20.850	0.00	0.00	0.00	0.00	0.00
21.100	0.00	0.00	0.00	0.00	0.00
21.350	0.00	0.00	0.00	0.00	0.00
21.600	0.00	0.00	0.00	0.00	0.00
21.850	0.00	0.00	0.00	0.00	0.00
22.100	0.00	0.00	0.00	0.00	0.00
22.350	0.00	0.00	0.00	0.00	0.00
22.600	0.00	0.00	0.00	0.00	0.00
22.850	0.00	0.00	0.00	0.00	0.00
23.100	0.00	0.00	0.00	0.00	0.00
23.350	0.00	0.00	0.00	0.00	0.00
23.600	0.00	0.00	0.00	0.00	0.00
23.850	0.00	0.00	0.00	0.00	0.00

Subsection: Unit Hydrograph (Hydrograph Table)
Label: PDA-1B
Scenario: POST-DEVELOPMENT-10 YR

Return Event: 10 years
Storm Event: 10-year



Storm Event	100-year
Return Event	100 years
Duration	72.000 hours
Depth	8.930 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	2,135.000 ft²

Computational Time Increment	0.011 hours
Time to Peak (Computed)	12.111 hours
Flow (Peak, Computed)	0.21 ft³/s
Output Increment	0.050 hours
Time to Flow (Peak Interpolated Output)	12.100 hours
Flow (Peak Interpolated Output)	0.21 ft³/s

Drainage Area	
SCS CN (Composite)	61.000
Area (User Defined)	2,135.000 ft²
Maximum Retention (Pervious)	6.393 in
Maximum Retention (Pervious, 20 percent)	1.279 in

Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	4.168 in
Runoff Volume (Pervious)	741.608 ft³

Hydrograph Volume (Area under Hydrograph curve)	
Volume	742.000 ft³

SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	0.67 ft³/s

Subsection: Unit Hydrograph Summary
Label: PDA-1B
Scenario: POST-DEVELOPMENT-100 YR

Return Event: 100 years
Storm Event: 100-year

SCS Unit Hydrograph Parameters	
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: PDA-1B Storm Event: 100-year
Scenario: POST-DEVELOPMENT-100 YR

Storm Event	100-year
Return Event	100 years
Duration	72.000 hours
Depth	8.930 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	2,135.000 ft²

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
9.500	0.00	0.00	0.00	0.00	0.00
9.750	0.00	0.00	0.00	0.00	0.00
10.000	0.00	0.00	0.00	0.00	0.00
10.250	0.00	0.00	0.00	0.00	0.00
10.500	0.00	0.00	0.00	0.01	0.01
10.750	0.01	0.01	0.01	0.01	0.01
11.000	0.01	0.01	0.01	0.01	0.01
11.250	0.01	0.01	0.01	0.01	0.01
11.500	0.02	0.02	0.02	0.03	0.04
11.750	0.05	0.06	0.07	0.08	0.12
12.000	0.17	0.20	0.21	0.18	0.13
12.250	0.11	0.10	0.09	0.08	0.07
12.500	0.05	0.04	0.04	0.03	0.03
12.750	0.03	0.03	0.03	0.03	0.03
13.000	0.02	0.02	0.02	0.02	0.02
13.250	0.02	0.02	0.02	0.02	0.02
13.500	0.02	0.02	0.02	0.02	0.02
13.750	0.02	0.02	0.02	0.02	0.02
14.000	0.02	0.02	0.02	0.02	0.02
14.250	0.02	0.02	0.01	0.01	0.01
14.500	0.01	0.01	0.01	0.01	0.01
14.750	0.01	0.01	0.01	0.01	0.01
15.000	0.01	0.01	0.01	0.01	0.01
15.250	0.01	0.01	0.01	0.01	0.01
15.500	0.01	0.01	0.01	0.01	0.01
15.750	0.01	0.01	0.01	0.01	0.01
16.000	0.01	0.01	0.01	0.01	0.01
16.250	0.01	0.01	0.01	0.01	0.01
16.500	0.01	0.01	0.01	0.01	0.01
16.750	0.01	0.01	0.01	0.01	0.01
17.000	0.01	0.01	0.01	0.01	0.01
17.250	0.01	0.01	0.01	0.01	0.01
17.500	0.01	0.01	0.01	0.01	0.01
17.750	0.01	0.01	0.01	0.01	0.01

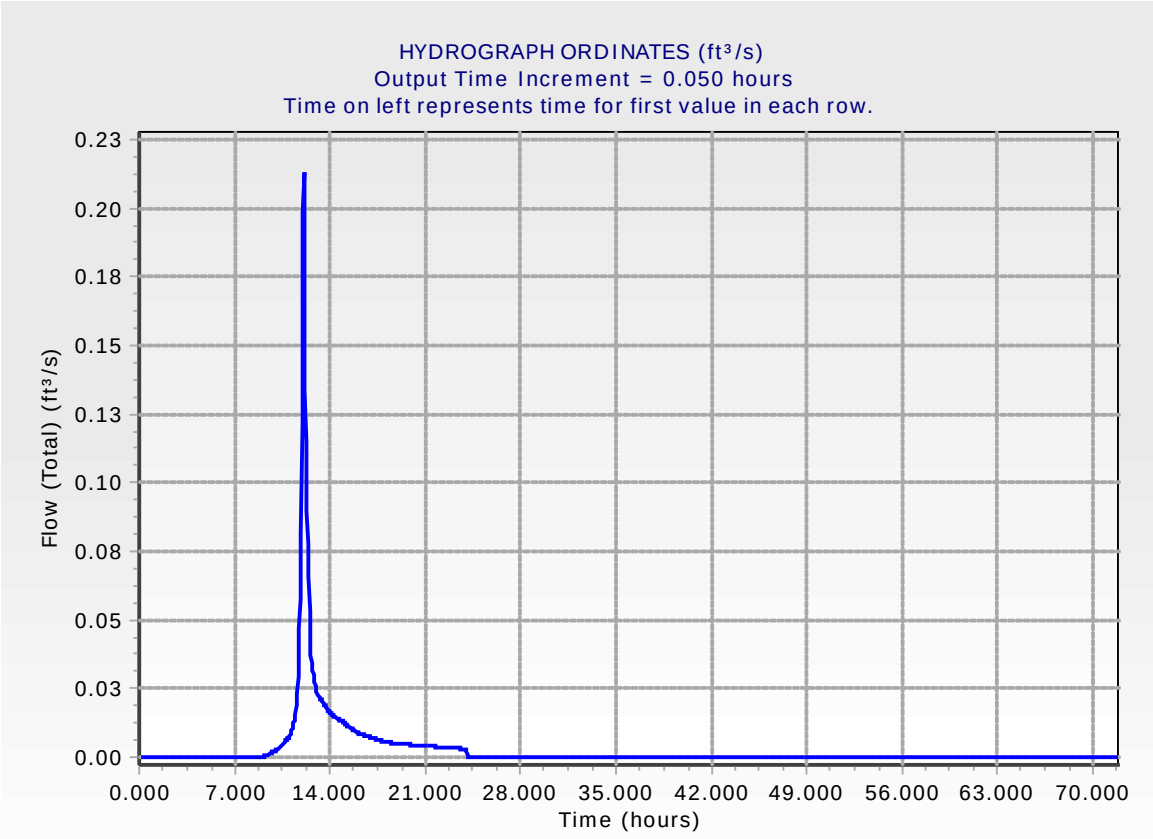
Subsection: Unit Hydrograph (Hydrograph Table) Return Event: 100 years
Label: PDA-1B Storm Event: 100-year
Scenario: POST-DEVELOPMENT-100 YR

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.050 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
18.000	0.01	0.01	0.01	0.01	0.01
18.250	0.01	0.01	0.01	0.01	0.01
18.500	0.01	0.01	0.01	0.01	0.01
18.750	0.01	0.01	0.01	0.01	0.01
19.000	0.01	0.00	0.00	0.00	0.00
19.250	0.00	0.00	0.00	0.00	0.00
19.500	0.00	0.00	0.00	0.00	0.00
19.750	0.00	0.00	0.00	0.00	0.00
20.000	0.00	0.00	0.00	0.00	0.00
20.250	0.00	0.00	0.00	0.00	0.00
20.500	0.00	0.00	0.00	0.00	0.00
20.750	0.00	0.00	0.00	0.00	0.00
21.000	0.00	0.00	0.00	0.00	0.00
21.250	0.00	0.00	0.00	0.00	0.00
21.500	0.00	0.00	0.00	0.00	0.00
21.750	0.00	0.00	0.00	0.00	0.00
22.000	0.00	0.00	0.00	0.00	0.00
22.250	0.00	0.00	0.00	0.00	0.00
22.500	0.00	0.00	0.00	0.00	0.00
22.750	0.00	0.00	0.00	0.00	0.00
23.000	0.00	0.00	0.00	0.00	0.00
23.250	0.00	0.00	0.00	0.00	0.00
23.500	0.00	0.00	0.00	0.00	0.00
23.750	0.00	0.00	0.00	0.00	0.00
24.000	0.00	0.00	0.00	(N/A)	(N/A)

Subsection: Unit Hydrograph (Hydrograph Table)
Label: PDA-1B
Scenario: POST-DEVELOPMENT-100 YR

Return Event: 100 years
Storm Event: 100-year



Summary for Hydrograph Addition at 'DL-1'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	PDA-1A-1
<Catchment to Outflow Node>	PDA-1A-2
<Catchment to Outflow Node>	PDA-1B

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	PDA-1A-1	2,840.840	12.100	0.81
Flow (From)	PDA-1A-2	759.452	12.100	0.19
Flow (From)	PDA-1B	53.251	12.150	0.01
Flow (In)	DL-1	3,653.543	12.100	1.01

Subsection: Addition Summary
Label: DL-1
Scenario: POST-DEVELOPMENT-10 YR

Return Event: 10 years
Storm Event: 10-year

Summary for Hydrograph Addition at 'DL-1'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	PDA-1A-1
<Catchment to Outflow Node>	PDA-1A-2
<Catchment to Outflow Node>	PDA-1B

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	PDA-1A-1	6,432.355	12.100	1.77
Flow (From)	PDA-1A-2	1,417.690	12.100	0.34
Flow (From)	PDA-1B	251.053	12.100	0.07
Flow (In)	DL-1	8,101.098	12.100	2.18

Summary for Hydrograph Addition at 'DL-1'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	PDA-1A-1
<Catchment to Outflow Node>	PDA-1A-2
<Catchment to Outflow Node>	PDA-1B

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	PDA-1A-1	12,921.781	12.100	3.40
Flow (From)	PDA-1A-2	2,548.964	12.100	0.61
Flow (From)	PDA-1B	741.529	12.100	0.21
Flow (In)	DL-1	16,212.273	12.100	4.22

Index

Time-Depth - 1 (Time-Depth Curve, 100 years (POST-DEVELOPMENT-100 YR))...2,
3

APPENDIX C

NYSDEC STORMWATER SIZING CALCULATIONS

PROPRIETARY PRACTICE WORKSHEET

JMC Project:	**18175**
Design Point:	**DL-1**
Drainage Area:	**PDA-1A-1**

Continuous Deflective Separation Unit

Rainfall Distribution Type:		**III**

		A	B	C
Coefficients for the equation unit peak [$R = I_a / P$] [$C_i = A \times R^2 + B \times R + C$]	C_0	-1.774	0.3301	2.4577
	C_1	1.8622	-0.7397	-0.4627
	C_2	-0.0648	0.2276	-0.1932

Site Data for Drainage Area to be Treated by Practice			
DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Design Storm [90% Rainfall Event Number]	P	1.5	In
Impervious Area	I	0.35	Ac
Area	A	0.48	Ac
Percent Impervious	%I	72.18	%
Runoff Coefficient [0.05 + 0.009 x %I]	R_V	0.70	CF
TOTAL VOLUME Required [$WQ_V = (P \times R_V \times A) / 12$]	WQ_V	**1,822**	CF
Design Storm [1-yr Storm Depth]	P	2.8	In
TOTAL VOLUME Required *(TMDL)* [WQ_V = 1-yr Storm Runoff]	WQ_V	**2,841**	CF

Water Quality Peak Flow Calculation			
DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Water Quality Volume	WQ_V	2,841	CF
Design Storm [90% Rainfall Event Number] **or** [1-yr Storm Depth]	P	2.8	In
Time of Concentration	t_c	0.0833	Hr
Runoff Volume [$Q = WQ_V / (A \times 3630)$]	Q	1.64	In
Curve Number [$CN = 1000 / (10 + 5P + 10Q - 10 \times (Q^2 + 1.25\ QP)^{½}$]	CN	87.71	
Curve Number	CN	88	
Initial Abstraction [$I_a = 200 / CN - 2$]	I_a	0.28	In
Ratio [$R = I_a / P$]	R	0.10	
$C_0 = A \times R^2 + B \times R + C$	C_0	2.47	
$C_1 = A \times R2 + B \times R + C$	C_1	-0.52	
$C_2 = A \times R2 + B \times R + C$	C_2	-0.17	
Unit Peak Discharge	q_u	679.85	$cfs/mi^2/in$
Peak Discharge [$Q_p = q_u \times A \times Q / 640$]	Q_p	**0.83**	cfs

Proposed Device			
DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Water Quality Peak Flow Provided	Q_p	**1.8**	cfs
Water Quality Volume Provided [$WQ_V = 640 \times 3600 \times Q_P / q_u$]	WQ_V	**6,100**	CF
Model Designation		Cascade CS-4	
Quantity		1	

Date Printed: 3/8/2022

SAND FILTER

JMC Project:	**18175**
Design Point:	**DL-1**
Drainage Area:	**PDA 1A-2**

Perimeter Sand Filter

Site Data for Drainage Area to be Treated by Practice			
DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Design Storm [90% Rainfall Event Number]	P	1.5	In
Impervious Area	I	0.08	Ac
Area	A	0.08	Ac
Percent Impervious	%I	100.00	%
Runoff Coefficient [0.05 + 0.009 x %I]	R_V	0.95	CF
TOTAL VOLUME Required [$WQ_V = (P \times R_V \times A) / 12$]	WQ_V	**418**	CF

Minimum Sandfilter Bed Area			
DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Water Quality Volume	WQ_V	418	CF
Coefficient of permeability of filter media (hydraulic conductivity)	k	3.50	Ft / Day
Filter bed Depth (Sand Media)	d_f	1.50	Ft
Average Height of water above filter bed	h_f	1.50	Ft
Design filter bed drain Time	t_f	1.67	Days
Required Surface Area of Filter Bed [$A_f = (WQ_V \times d_f) / (k \times (h_f + d_f) \times t_f)$]	A_f	**35.76**	SF

Proposed SandfilterArea			
DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Calculated filter bed area (Length x Width)		80.00	SF
Surface Area of Filter Bed Provided	A_f	**80.00**	SF
Actual Volume Provided		**935.20**	CF

Sedimentation basin area			
DESCRIPTION	*SYMBOL*	*VALUE*	*UNITS*
Required Sedimentation Basin Volume = SBv=(0.25*WQV)	SBv	**105**	CF
Provided Sedimentation Basin Area	As	**310**	SF
Provided Sedimentation Basin Volume SBv = As * 2.2'	SBv	**682**	CF

WATER QUALITY VOLUME WORKSHEET

JMC Project:	**18175**
Design Point:	**DL-1**

Ardsley Gas Station	Drainage Area:	**PDA-1A-1 & PDA-1A-2**

Initial Water Quality Treatment Volume

DESCRIPTION	Design Storm	Area	Impervious Area	Percent Impervious	Runoff Coefficient	Total Required WQ Volume
SYMBOL	P	A	I	%I	R_V	WQ_V
VALUE	1.5	0.56	0.43	76.20	0.735828679	**2,240**
UNITS	In	Ac	Ac	%	CF	CF
VALUE	Enhanced Phosphorus Removal (WQ_V = 1-yr Storm Runoff)					

Runoff Reduction Techniques (Area)

DESCRIPTION	Total Area	Impervious Area
SYMBOL	A	I
Conservation of Natural Areas		
Sheetflow to Riparian Buffers or Filter Strips		
Vegetated Swale		
Tree Planting / Tree Pit		
Disconnection of Rooftop Runoff		
Stream Daylighting		
TOTAL		
UNITS	Ac	Ac

Adjusted Water Quality Treatment Volume

DESCRIPTION	Design Storm	Area	Impervious Area	Percent Impervious	Runoff Coefficient	Total Required WQ Volume
SYMBOL	P	A	I	%I	R_V	WQ_V
VALUE	1.5	0.56	0.43	76.20	0.735828679	**2,240**
UNITS	In	Ac	Ac	%	CF	CF
VALUE	Enhanced Phosphorus Removal (WQ_V = 1-yr Storm Runoff)					

Net Water Quality Treatment Volume = Adjusted WQv - Provided RRv

Initial Water Quality Treatment Volume	2,240	CF
Adjusted Water Quality Treatment Volume	2,240	CF
Provided Runoff Reduction Volume		CF
Net Water Quality Treatment Volume	2,240	CF

Date Printed: 3/8/2022

APPENDIX D

TEMPORARY EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE CHECKLIST PERMANENT STORMWATER PRACTICE OPERATION, MAINTENANCE AND MANAGEMENT INSPECTION CHECKLISTS

JMC Project 18175
Ardsley Gas Station
657 Saw Mill River Road
Village of Ardsley, NY

Temporary Erosion and Sediment Control Inspection and Maintenance Checklist

Erosion and Sediment Control Measure	Inspection/Maintenance Intervals	Inspection/Maintenance Requirements
Stabilized Construction Entrance	Daily	• Periodic top dressing with additional aggregate as required • Clean sediment in public right-of-ways immediately
Silt Fence	Weekly + After Each Rain	• Remove & redistribute sediment when bulges develop in the silt fence.
Inlet Protection	Weekly + After Each Rain	• Remove sediment as necessary and replace filter fabric, crushed stone etc. • Any broken and damaged components should be replaced. • Check all materials for proper anchorage and secure as necessary.
Concrete Washout	Daily	• Damaged or leaking facilities shall be deactivated and repaired or replaced immediately.
	After Each Rain	• Pump excess rainwater that has accumulated over hardened concrete to a stabilized area.
		• Remove accumulated hardened material when 75% of the storage capacity of the structure is filled. Replace plastic liner with each cleaning of the washout facility.

Permanent Stormwater Management Practice Inspection and Maintenance Checklist (Cont'd)

Stormwater Management Practice	Inspection/Maintenance Intervals	Inspection/Maintenance Requirements
Drain Inlets	Monthly	• Check for blockage and/or erosion at top of each inlet. Repair/remove as necessary. • Check for sediment and debris collected within sumps and clean out as necessary.
Hydrodynamic Water Quality Structure	(See Maintenance Guidelines in Appendix XXXXX)	• Open access cover for visual inspection and measure the distance from the standing water surface to the sediment pile with a measuring stick or tape. If less than 4 feet, insert hose from vacuum truck into the sump and screen through both access covers to clean out the standing water, layer of oil, sediment, trash, etc. • The screen must be powerwashed to ensure it is free of trash and debris.

Permanent Stormwater Management Practice Inspection and Maintenance Checklist (Cont'd)

Stormwater Management Practice	Inspection/Maintenance Intervals	• Inspection/Maintenance Requirements
Subsurface Sand Filter	Quaterly + After Major Storms	• Check level of sediment and debris accumulated within the system. • Check structural integrity of the system pipes, structures, etc. for cracking, bulging or deterioration. Repair/remove as necessary. • Confirm all inlets and outlet structures/pipes are operating properly.

The owner/operator responsible for inspection and maintenance as outlined above:

Contact Company
Contact Name
Street Address
City, State Zip
Phone:
Fax:
Email:

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APPENDIX E

CONTRACTOR'S CERTIFICATION

JMC Project 18175
Ardsley Gas Station
657 Saw Mill River Road
Village of Ardsley, NY

CONTRACTOR'S CERTIFICATION

"I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the qualified inspector during a site inspection. I also understand that the owner or operator must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

Company Name: _____

Address: _____

Telephone Number: _____

Name and Title: _____

Signature: _____Date: _____

Permit Identification No.:_____

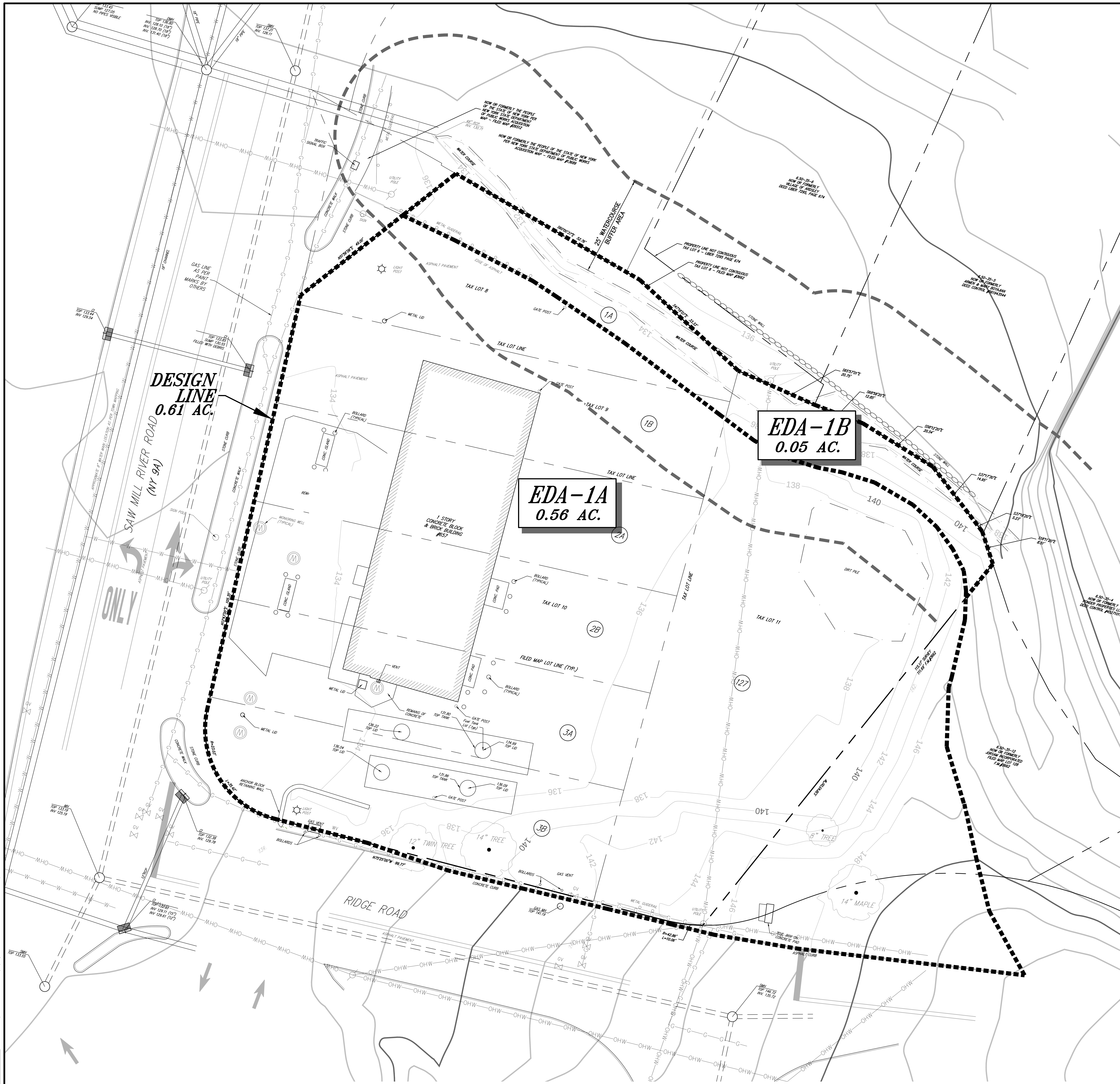
Name and Title of Trained Contractor:_____

Elements of the SWPPP Contractor is responsible for:_____

p:\2018\18175\drainage\reports\2022-01-13_dc\appendix g contractor's certification\nys contractors certification.docx

APPENDIX F

DRAWINGS



EXISTING DRAINAGE LEGEND

- EXISTING GRADE
- FLAGGED WETLANDS WITH FLAG NUMBERS
- EXISTING STONE WALL
- WATERSHED BOUNDARY LINE
- BOUNDARY OF COVER TYPE LINE
- LIMIT OF SOIL GROUPS LINE
- FLOW PATH LINE
- HYDROLOGIC SOIL GROUP 'C'
- HYDROLOGIC SOIL GROUP 'B'

No.	Revision	Date	By

Previous Editions Obsolete

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25 SAINT CHARLES STREET
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John Meyer Consulting, Inc.
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EXISTING DRAINAGE AREA MAP

GAS STATION
657 SAW MILL RIVER ROAD
VILLAGE OF ARDSLEY, NEW YORK

GIS GEOGRAPHIC INFORMATION SYSTEMS

THE 2-FOOT CONTOURS DEPICTED ON THIS PLAN ARE INTENDED TO BE USED FOR PLANNING & PRELIMINARY ENGINEERING APPLICATIONS. THEY ARE NOT INTENDED TO BE USED IN ENGINEERING DESIGN AND DO NOT NEGATE THE NEED FOR A FIELD SURVEY. THE WESTCHESTER COUNTY GIS DATASET CONTAINS CONTOUR LINES MODELED AT A TWO FOOT INTERVAL. THE SOURCE INFORMATION USED IN THE COLLECTION OF THE DATASET WAS PART OF THE NEW YORK STATE DIGITAL ORTHOIMAGERY PROGRAM; PHOTOS TAKEN IN APRIL 2004. VERTICAL DATUM IS NAVD88.
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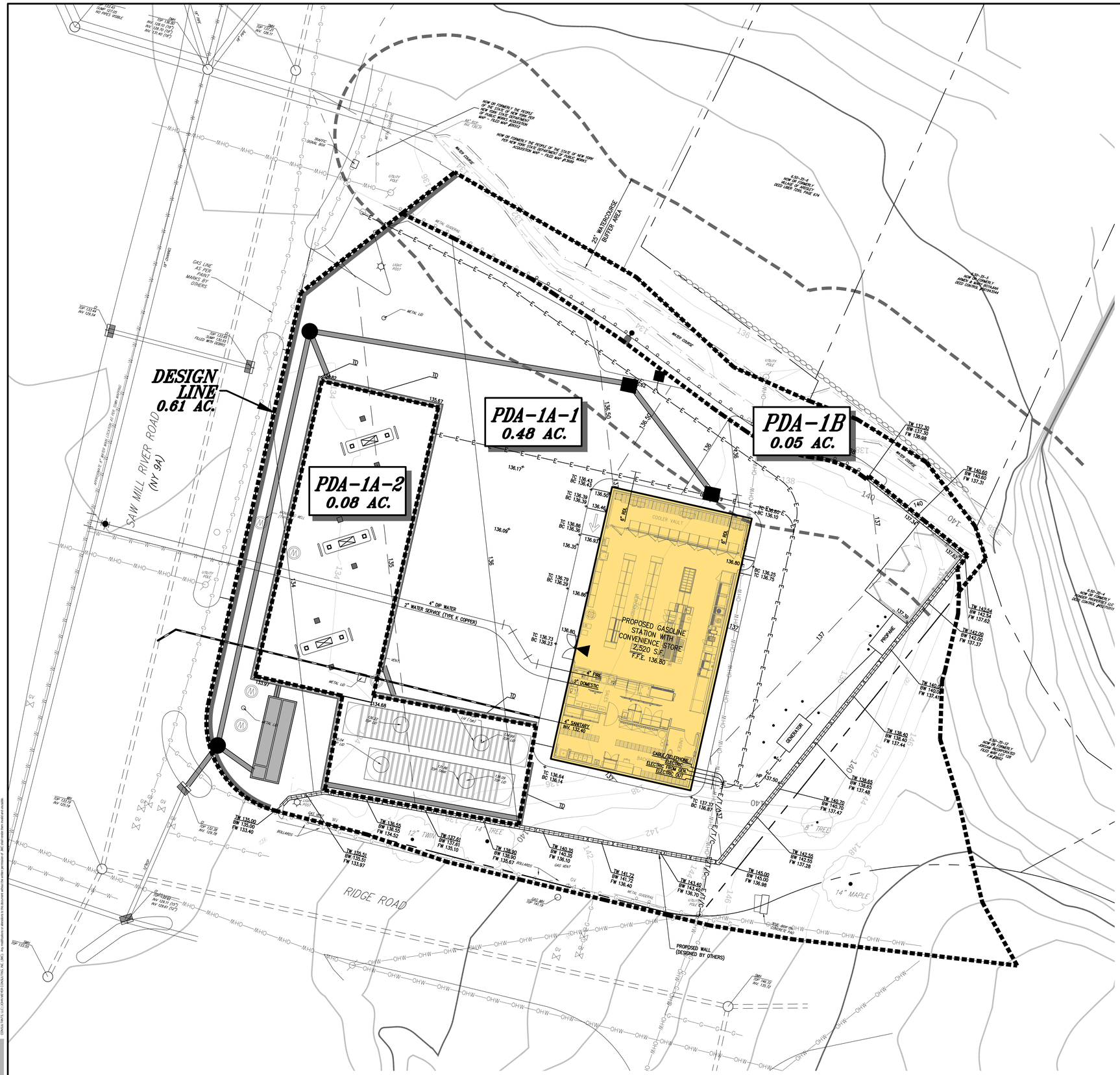
Scale:	1" = 10'		
Date:	01/13/2022		
Project No:	18175		
18175-DRAINAGE	EDA	--	

DA-1



PROPOSED DRAINAGE LEGEND

- EXISTING GRADE
- PROPOSED FINISHED GRADE
- FLAGGED WETLANDS WITH FLAG NUMBERS
- PROPOSED DITCH OR SWALE
- EXISTING STONE WALL
- WATERSHED BOUNDARY LINE
- SUBAREA BOUNDARY LINE
- GOOD CONDITION BOUNDARY COVER TYPE LINE
- FAIR CONDITION BOUNDARY COVER TYPE LINE
- LIMIT OF SOIL GROUPS LINE
- FLOW PATH LINE
- HYDROLOGIC SOIL GROUP 'C'
- HYDROLOGIC SOIL GROUP 'B'
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED MANHOLE (MH)
- EXISTING DRAIN INLET
- PROPOSED YARD INLET (YI)
- PROPOSED DRAIN INLET (DI)
- PROPOSED DOUBLE DRAIN INLET (DDI)
- PROPOSED COMBINATION INLET (CI)
- PROPOSED END SECTION (ES)
- PROPOSED WATER QUALITY STRUCTURE
- RIP RAP ENERGY DISSIPATOR

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PROPOSED DRAINAGE AREA MAP

GAS STATION
657 SAW MILL RIVER ROAD
VILLAGE OF ARDSLEY, NEW YORK

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Scale:	1" = 10'		
Date:	01/13/2022		
Project No:	18175		
18175-DRAINAGE	PDA		---
Drawing No:	DA-2		

NOT FOR CONSTRUCTION