



Arlington Conservation Commission

Date: Thursday, October 23, 2025

Time: 7:00 PM

Location: Conducted by Remote Participation.

Please register in advance for this meeting. Reference materials, instructions, and access information for this specific meeting will be available 48 hours prior to the meeting on the Commission's agenda and minutes page. This meeting will be conducted in a remote format consistent with An Act Extending Certain COVID-19 Measures Adopted During the State of Emergency, which further extends certain COVID-19 measures regarding remote participation in public meetings until June 30, 2027. Please note: Not all items listed may in fact be discussed and other items not listed may be brought up for discussion to the extent permitted by law. This agenda includes those matters which can be reasonably anticipated to be discussed at the meeting.

Agenda

1. Administrative
 - a. Review Meeting Minutes.
 - b. Correspondence Received.
2. Discussion
 - a. Symmes Conservation Restriction.
 - b. Mayors Monarch Pledge Sign-on Vote.
 - c. Native Planting Bylaw.
 - d. Water Bodies Working Group.
 - e. CPA Committee Liaison.
 - f. Tree Committee Update.
3. Hearings

DEP #091-0372: Notice of Intent: 40 Park Avenue.

DEP #091-0372: Notice of Intent: 40 Park Avenue.

The Conservation Commission will hold a public hearing to consider a Notice of Intent to repair a loading dock at 40 Park Ave in Arlington. Areas proposed to be altered include the Riverfront Area and the Buffer Zone/Adjacent Upland Resource Area associated with Bank to Mill Brook.

DEP #091-0373: Notice of Intent: 26 Reed Street.

DEP #091-0373: Notice of Intent: 26 Reed Street.

The Conservation Commission will hold a public hearing to consider a Notice of Intent for an addition,

porch, and hardscaping at 26 Reed Street in Arlington. Areas proposed to be altered include the Riverfront Area to an unnamed stream and the Buffer Zone/Adjacent Upland Resource Area associated with an Isolated Vegetated Wetland.



Town of Arlington, Massachusetts

Correspondence Received.

Summary:

Correspondence Received.

ATTACHMENTS:

	Type	File Name	Description
▢	Reference Material	FINAL_Response_to_BSC_10-15-25_executed.pdf	Thorndike Place - Response to BSC Group Submission from Hill Law, for Arlington Land Trust - 10/15/2025

Wednesday, October 15, 2025

By EMAIL: georgia.pendergast@mass.gov

Georgia Pendergast, Environmental Analyst
MassDEP Wetlands Program
150 Presidential Way
Woburn, MA 01801

Re: Request for Superseding Order of Conditions (“SOC”)
Thorndike Place, Dorothy Road, Arlington, Massachusetts
DEP File #091-0356

Dear Ms. Pendergast:

On behalf of the Arlington Land Trust (“ALT”), this letter is submitted jointly by Michael Mobile, Ph.D., CGWP of McDonald Morrissey Associates, LLC (“MMA”) and John C. Chessia, P.E. of Chessia Consulting Services.¹ We have the following comments in response to BSC Group’s October 6, 2025 correspondence submitted by Dominic Rinaldi.

Item #1 in your July 31, 2025 Information Request Letter (“IRL”) for the Thorndike Place project (the “Project”) requested **“Confirmation that the 6” crushed stone base proposed underneath Infiltration System 1 (INF-1) and Infiltration System 7 (INF-7) was included in the measurement to determine separation from Estimated Seasonal High Ground Water (ESHGW).”** However, the response letter provided by Mr. Rinaldi instead confirms that *“The 6-inch crushed stone base is not included in the measurement to ESHGW...”* for both systems (i.e., INF-1 and INF-7) (emphasis added).

Mr. Rinaldi attempts to justify the omission of the stone layer by claiming it is “standard industry practice by civil engineers duly licensed in Massachusetts”. On the contrary, it is **not** common practice—nor is it technically justified—to omit the stone layer from calculations intended to estimate the vertical separation between infiltration systems and ESHGW for the following reasons:

- In our collective experience, which includes hundreds of project reviews and design efforts, it is standard practice to evaluate vertical separation using the bottom of the stone base layer as the bottom of the infiltration system. Notably, MassDEP has confirmed this in decisions related to other development projects, such as stating that the *“...required two (2) feet of separation between the [sic] seasonal high groundwater and the bottom of the*

¹ For background, Mr. Chessia has been a registered professional engineer in the Commonwealth of Massachusetts continuously since 1993. His practice specialty is general civil engineering in relation to real estate development projects, including stormwater and wastewater engineering. He has designed Comprehensive Permit projects, wastewater treatment plants and numerous other site development projects. He has assisted other engineering companies with stormwater designs and quality control reviews, and has performed hundreds of peer review assignments on behalf of municipal boards and commissions across the Commonwealth, including recent Chapter 40B project applications in Weston, Norwell and on Nantucket.

infiltration system should be measured from the bottom of the stone layer”².

- As shown on the Applicant’s latest plan set³, the “stone layer”, as it is referred to in the IRL, is specified as “6” washed crushed stone base w/ filter fabric between stone base and existing subgrade soils”. Though the purposes of the stone layer may also include providing a stable structural base for the StormTrap chambers, as Mr. Rinaldi suggests, it is comprised of an imported material that would have a significantly higher permeability than the native soils underlying the system (i.e., assumed by the Applicant to be consistent with Hydrologic Soil Group [HSG] C). Water would nearly instantaneously fill the voids in the stone, unlike with natural soil or sand fill. Accordingly, the stone layer would not be the restrictive/limiting medium with respect to infiltration rates. Instead, the interface between the stone layer and the native soils would represent the infiltration surface. In this sense, the StormTrap design can be viewed as the same as any other subsurface infiltration structure that is placed on a base consisting of high permeability, crushed stone.
- Subsurface infiltration systems, such as the ones proposed by the Applicant, can experience adverse hydraulic impacts when exfiltrating/infiltrating water causes significant local groundwater mounding, as is expected to occur here (see MMA letters dated January 15, 2025⁴ and June 26, 2025, p. 10, Conclusions #2-4). If the mounded water table rises to or above the infiltration surface, system exfiltration/infiltration rates can plummet⁵, thus impacting the abilities of the system to attenuate site runoff rates (i.e., in the context of evaluations required to demonstrate compliance with Stormwater Standard 2) and drain within required timeframes as stated in the Stormwater Handbook (i.e., 72 hours). Vertical separation between the bottom of an infiltration system and ESHGW is evaluated primarily to understand the potential for such adverse impacts.
- The information provided by StormTrap that is attached to Mr. Rinaldi’s letter, as well as the discussion offered by Mr. Rinaldi in relation to his approach in modeling the system using HydroCAD, focuses entirely on accounting for system storage volume, as opposed to assessing potential mounding impacts. The stone layer typically has a void ratio of approximately 40%, but the storage offered by the available pore space over the 6” thickness of the stone layer is small compared to the interior open spaces of the Stormtrap chambers. Thus, it may be conservative to ignore the stone layer when modeling system routing using HydroCAD, as Mr. Rinaldi suggests. However, that practice has no bearing on

² Letter from Rachel Freed, Deputy Regional Director, MassDEP-NERO to Chris D’Antonio. RE: WETLANDS/WAYLAND DEP File# 322-0897, 24 School Street, Superseding Order of Conditions, Affirmation of Denial. Dated July 16, 2019.

https://www.wayland.ma.us/sites/g/files/vyhlf9231/f/uploads/24_school_st_denial.pdf

³ Refer to Sheet C-203, Thorndike Place Notice of Intent plan set, revised date December 10, 2024.

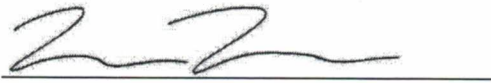
⁴ Attached as Exhibit F to Hill Law’s June 27, 2025 letter.

⁵ Refer to U.S. EPA (Environmental Protection Agency). 2021. *Enhanced Aquifer Recharge of Stormwater in the United States: State of the Science Review*. Office of Research and Development, Washington, DC; EPA/600/R-21/037F. <https://assessments.epa.gov/global/document/&deid=352238>

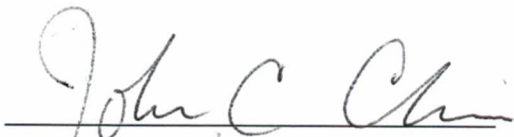
evaluating potential adverse impacts to system function due to groundwater mounding, which again, is the purpose of estimating vertical separation relative to ESHGW.

In conclusion, based on the points raised above, we respectfully ask MassDEP to be consistent with the position indicated in the IRL—and in prior DEP decisions—and recognize that the vertical separation from ESHGW, as shown on plan sheet C-203, was improperly measured by the Applicant from the bottom of the chamber unit rather than from the bottom of the 6" crushed stone base layer. As a result, the vertical separation distance is only 3.5-feet above the Applicant's claimed ESHGW elevation at INF-1, and the Applicant has no basis for avoiding an evaluation of groundwater mounding impacts at that system as outlined by the Stormwater Handbook, Vol. 3, Ch. 1, p. 28. Additionally, we reiterate that there are other consequential errors and methodological flaws in the Applicant's assessment of potential groundwater mounding impacts that were previously highlighted in MMA's letters dated January 15, 2025 and June 26, 2025, both of which were submitted as part of this SOC proceeding. Finally, we respectfully renew our request to meet with you (by Zoom or otherwise) to discuss appropriate methods that should be employed by the Applicant to produce a reliable and representative groundwater mounding analysis for the Project.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Mobile", written over a horizontal line.

Michael Mobile, Ph.D., CGWP
President – McDonald Morrissey Associates, LLC

A handwritten signature in black ink, appearing to read "John C. Chessia", written over a horizontal line.

John C. Chessia, P.E.
Chessia Consulting Services, LLC



Town of Arlington, Massachusetts

DEP #091-0372: Notice of Intent: 40 Park Avenue.

Summary:

DEP #091-0372: Notice of Intent: 40 Park Avenue.

The Conservation Commission will hold a public hearing to consider a Notice of Intent to repair a loading dock at 40 Park Ave in Arlington. Areas proposed to be altered include the Riverfront Area and the Buffer Zone/Adjacent Upland Resource Area associated with Bank to Mill Brook.

ATTACHMENTS:

	Type	File Name	Description
▢	Reference Material	40_Park_Ave_Site_Improvements_NOI.pdf	40 Park Ave Site Improvements NOI.pdf
▢	Reference Material	40_Park_Ave_Site_Improvements_NOI_plans_-_Stamped.pdf	40 Park Ave Site Improvements NOI plans - Stamped.pdf

40 Park Avenue - Proposed Site Improvements

Arlington, Massachusetts

PREPARED FOR

40 Park Avenue Associates, LLC
PO Box 288
Arlington, MA 02476
781.790.8478

PREPARED BY



260 Arsenal Place #2
PO Box 9151
Watertown, MA 02471
617.924.1770

September 2025



September 3, 2025

Ref: 13346.07

David White, Chair
Arlington Conservation Commission
730 Mass Ave. Annex
Arlington, MA 02476

Re: 40 Park Avenue – Proposed Site Improvements
Notice of Intent

Dear Chairperson White,

On behalf of the Applicant, 40 Park Avenue Associates, LLC, VHB is submitting the enclosed Notice of Intent (NOI) for proposed renovations to the existing loading dock at the rear of the facility located at 40 Park Avenue in Arlington, MA. Proposed work generally consists of removing material adjacent to the existing loading dock to create a 48" reveal, and paving of the access way. A leaching basin will also be installed beneath an area of existing pavement and connected to the existing roof drains of the facility. Disturbed areas which are not proposed for paving will be loamed and seeded with a native conservation blend after the completion of work. All work is proposed within previously developed and degraded areas. A full scope of work is included in the attached NOI narrative. This NOI is being filed pursuant to the Massachusetts Wetlands Protection Act (WPA) and the Town of Arlington's Wetlands Protection Bylaw (the Bylaw).

Portions of land on or near the Project Site contain resource areas subject to the jurisdiction of the WPA and the Bylaw, including Bank and Riverfront Area (RA). The Bylaw also establishes a 100-foot Adjacent Upland Resource Area (AURA), with specific limitations within 25 feet and 50 feet of resource areas. Additionally, the WPA and the Bylaw establish a 100-foot buffer zone to Bank. All resource areas are associated with Mill Brook. As proposed, the Project will result in impacts within the RA, 100-foot AURA, and buffer zone to Bank.

Checks for the submission will be mailed directly to the Conservation Commission office, separately from this submittal. A check made payable to the Town of Arlington in the amount of \$387.50 for the Municipal share of the NOI filing fee will be provided, and an additional check for the Bylaw filing fee and legal ad fee will be provided once the payment amount is confirmed. A check made payable to the



Commonwealth of Massachusetts in the amount of \$362.50 will be submitted to the MassDEP lockbox for payment of the State share of the NOI filing fee.

In compliance with the WPA and the Arlington Conservation Commission filing guidelines, notification to abutters within 100 feet of the Project Site has been made by certified, return-receipt mail. A copy of the abutter notification form and a certified list of abutters are enclosed as part of the NOI.

Should you have any questions concerning this submittal or require any additional information, please contact me at 617-607-6310.

Sincerely,

A handwritten signature in blue ink that reads "Taylor Donovan".

Taylor Donovan
Environmental Scientist

Attachment: Notice of Intent – 40 Park Avenue - Proposed Site Improvements

CC: DEP Northeastern Regional Office (filed electronically via eDEP)
40 Park Avenue Associates, LLC

Table of Contents

Notice of Intent Forms

- › WPA Form 3
- › Fee Transmittal Form
- › Bylaw Filing Fee Transmittal Form

Notice of Intent Figures

- › Figure 1 – USGS Map
- › Figure 2 – Aerial Map
- › Figure 3 – NHESP Map
- › Figure 4 – FEMA Map

Attachment A - Notice of Intent Narrative

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Attachment B – Abutter Notification

Attachment C – Supporting Delineation Information

Attachment D – Stormwater Memorandum

Attachment E – Project Plans

Notice of Intent Forms

- › WPA Form 3
- › Fee Transmittal Form
- › Bylaw Filing Fee Transmittal Form



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 3 - Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
MassDEP File #:
eDEP Transaction #:1914911
City/Town:ARLINGTON

A.General Information

1. Project Location:

a. Street Address	40 PARK AVENUE	c. Zip Code	02476
b. City/Town	ARLINGTON	e. Longitude	71.18231W
d. Latitude	42.42478N	g.Parcel/Lot #	059.0-0001-0010.B
f. Map/Plat #	7525		

2. Applicant:

☐ Individual ☒ Organization

a. First Name	RICK	b.Last Name	VALLARELLI
c. Organization	40 PARK AVE ASSOCIATES LLC		
d. Mailing Address	PO BOX 288		
e. City/Town	ARLINGTON	f. State	MA
g. Zip Code	02476		
h. Phone Number	781-790-8478	i. Fax	
j. Email	rvallarelli@jandcomp.com		

3.Property Owner:

☒ more than one owner

a. First Name		b. Last Name	
c. Organization	40 PARK AVE ASSOCIATES LLC		
d. Mailing Address	PO BOX 288		
e. City/Town	ARLINGTON	f.State	MA
g. Zip Code	02476		
h. Phone Number	781-790-8478	i. Fax	
j.Email	rvallarelli@jandcomp.com		

4.Representative:

a. First Name	TAYLOR	b. Last Name	DONOVAN
c. Organization	VHB		
d. Mailing Address	260 ARSENAL PLACE		
e. City/Town	WATERTOWN	f. State	MA
g. Zip Code	02472		
h.Phone Number	617-607-6310	i.Fax	
j.Email	tdonovan@vhb.com		

5.Total WPA Fee Paid (Automatically inserted from NOI Wetland Fee Transmittal Form):

a.Total Fee Paid	750.00	b.State Fee Paid	362.50	c.City/Town Fee Paid	387.50
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6.General Project Description:

THE PROJECT PROPOSES TO MODIFY THE EXISTING LOADING DOCK TO CREATE A 48' REVEAL AND PAVE THE APPROACH TO THE LOADING DOCK. A LEACHING BASIN WILL ALSO BE INSTALLED BENEATH AN AREA OF EXISTING PAVEMENT AND CONNECTED TO THE EXISTING ROOF DRAINS OF THE FACILITY. ALL WORK IS PROPOSED WITHIN PREVIOUSLY DEVELOPED AND DEGRADED RIVERFRONT AREA.

7a.Project Type:

- | | |
|---|--|
| 1. ☐ Single Family Home | 2. ☐ Residential Subdivision |
| 3. ☐ Limited Project Driveway Crossing | 4. ☒ Commercial/Industrial |
| 5. ☐ Dock/Pier | 6. ☐ Utilities |
| 7. ☐ Coastal Engineering Structure | 8. ☐ Agriculture (eg., cranberries, forestry) |
| 9. ☐ Transportation | 10. ☐ Other |

Additional Property Owner: P&D REALTY
28 CHURCH ST SUITE 16
WINCHESTER,MA 01890

Owner of Parcel ID 59-1-10.D (1293-1305 Mass Ave)



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7b. Is any portion of the proposed activity eligible to be treated as a limited project subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

1. ☐ Yes ☒ No If yes, describe which limited project applies to this project:
2. Limited Project

8. Property recorded at the Registry of Deeds for:

a. County:	b. Certificate:	c. Book:	d. Page:
SOUTHERN MIDDLESEX		83139	336

B. Buffer Zone & Resource Area Impacts (temporary & permanent)

1. Buffer Zone & Resource Area Impacts (temporary & permanent):

☐ This is a Buffer Zone only project - Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.

2. Inland Resource Areas: (See 310 CMR 10.54 - 10.58, if not applicable, go to Section B.3. Coastal Resource Areas)

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
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a. ☐ Bank	1. linear feet	2. linear feet
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b. ☐ Bordering Vegetated Wetland	1. square feet	2. square feet
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c. ☐ Land under Waterbodies and Waterways	1. Square feet	2. square feet
	3. cubic yards dredged	

d. ☐ Bordering Land Subject to Flooding	1. square feet	2. square feet
	3. cubic feet of flood storage lost	4. cubic feet replaced

e. ☐ Isolated Land Subject to Flooding	1. square feet	
	2. cubic feet of flood storage lost	3. cubic feet replaced

f. ☒ Riverfront Area
Mill Brook
1. Name of Waterway (if any)
2. Width of Riverfront Area (check one)
☐ 25 ft. - Designated Densely Developed Areas only
☐ 100 ft. - New agricultural projects only
☒ 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project 11945 square feet

4. Proposed Alteration of the Riverfront Area:

780	780	0
a. total square feet	b. square feet within 100 ft.	c. square feet between 100 ft.

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and 200 ft.

5. Has an alternatives analysis been done and is it attached to this NOI? ☐ Yes ☒ No
6. Was the lot where the activity is proposed created prior to August 1, 1996? ☒ Yes ☐ No

3.Coastal Resource Areas: (See 310 CMR 10.25 - 10.35)

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Designated Port Areas	Indicate size under	Land under the ocean below,
b. ☐ Land Under the Ocean	1. square feet	
	2. cubic yards dredged	
c. ☐ Barrier Beaches	Indicate size under Coastal Beaches and/or Coastal Dunes, below	
d. ☐ Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e. ☐ Coastal Dunes	1. square feet	2. cubic yards dune nourishment
f. ☐ Coastal Banks	1. linear feet	
g. ☐ Rocky Intertidal Shores	1. square feet	
h. ☐ Salt Marshes	1. square feet	2. sq ft restoration, rehab, crea.
i. ☐ Land Under Salt Ponds	1. square feet	
	2. cubic yards dredged	
j. ☐ Land Containing Shellfish	1. square feet	
k. ☐ Fish Runs	Indicate size under Coastal Banks, Inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	
	1. cubic yards dredged	
l. ☐ Land Subject to Coastal Storm Flowage	1. square feet	

4. Restoration/Enhancement

☐ Restoration/Replacement

If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please entered the additional amount here.

- a. square feet of BVW b. square feet of Salt Marsh

5. Projects Involves Stream Crossings



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☐ Project Involves Streams Crossings

If the project involves Stream Crossings, please enter the number of new stream crossings/number of replacement stream crossings.

a. number of new stream crossings

b. number of replacement stream crossings

C. Other Applicable Standards and Requirements

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage of Endangered Species program (NHESP)?

a. ☐ Yes ☒ No

If yes, include proof of mailing or hand delivery of NOI to:
Natural Heritage and Endangered Species
Program
Division of Fisheries and Wildlife
1 Rabbit Hill Road
Westborough, MA 01581

b. Date of map:FROM MAP VIEWER

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18)...

c. Submit Supplemental Information for Endangered Species Review * (Check boxes as they apply)

1. ☐ Percentage/acreage of property to be altered:

(a) within Wetland Resource Area

percentage/acreage

(b) outside Resource Area

percentage/acreage

2. ☐ Assessor's Map or right-of-way plan of site

3. ☐ Project plans for entire project site, including wetland resource areas and areas outside of wetland jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work **

a. ☐ Project description (including description of impacts outside of wetland resource area & buffer zone)

b. ☐ Photographs representative of the site

c. ☐ MESA filing fee (fee information available at: <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/mass-endangered-species-act-mesa/mesa-fee-schedule.html>)

Make check payable to "Natural Heritage & Endangered Species Fund" and **mail to NHESP** at above address

Projects altering 10 or more acres of land, also submit:

d. ☐ Vegetation cover type map of site

e. ☐ Project plans showing Priority & Estimated Habitat boundaries

d. OR Check One of the following

1. ☐ Project is exempt from MESA review. Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, <http://www.mass.gov/eea/agencies/dfg/dfw/laws-regulations/cmr/321-cmr-1000-massachusetts-endangered-species-act.html#10.14>; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. ☐ Separate MESA review ongoing.

a. NHESP Tracking Number



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Provided by MassDEP:
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b. Date submitted to NHESP

3. ☐ Separate MESA review completed.

Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review...

2. For coastal projects only, is any portion of the proposed project located below the mean high waterline or in a fish run?

a. ☒ Not applicable - project is in inland resource area only

b. ☐ Yes ☐ No

If yes, include proof of mailing or hand delivery of NOI to either:

South Shore - Cohasset to Rhode Island, and the Cape & Islands:

North Shore - Hull to New Hampshire:

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 S. Rodney French Blvd
New Bedford, MA 02744

Division of Marine Fisheries -
North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930

If yes, it may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office.

For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional office.

3. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?

a. ☐ Yes ☒ No

If yes, provide name of ACEC (see instructions to WPA Form 3 or DEP Website for ACEC locations). **Note:** electronic filers click on Website.

b. ACEC Name

4. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?

a. ☐ Yes ☒ No

5. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L.c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L.c. 130, § 105)?

a. ☐ Yes ☒ No

6. Is this project subject to provisions of the MassDEP Stormwater Management Standards?

a. ☒ Yes, Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:

1. Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol.2, Chapter 3)

2. ☒ A portion of the site constitutes redevelopment

3. ☐ Proprietary BMPs are included in the Stormwater Management System

b. ☐ No, Explain why the project is exempt:

1. ☐ Single Family Home

**Massachusetts Department of Environmental
Protection**

Bureau of Resource Protection - Wetlands

WPA Form 3 - Notice of Intent

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Provided by MassDEP:
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2. ☐ Emergency Road Repair
3. Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.
- ☐

D. Additional Information

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

Online Users: Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department by regular mail delivery.

1. USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
2. Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.
3. Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s).
4. Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.
5. List the titles and dates for all plans and other materials submitted with this NOI.

a. Plan Title: _____ **b. Plan Prepared By:** _____ **c. Plan Signed/Stamped By:** _____ **c. Revised Final Date:** _____ **e. Scale:** _____

40 PARK AVENUE

NICHOLAS SKOLY

9/3/25

9/3/25 1" = 20'

$$1'' = 20'$$

5. If there is more than one property owner, please attach a list of these property owners not listed on this form.
☒
6. Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.
☐
7. Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.
☐
8. Attach NOI Wetland Fee Transmittal Form.
☒
9. Attach Stormwater Report, if needed.
☒



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

WPA Form 3 - Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File #:

eDEP Transaction #:1914911

City/Town:ARLINGTON

E. Fees

1. Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

2. Municipal Check Number	3. Check date
3576	9/3/2025
4. State Check Number	5. Check date
3574	9/3/2025
6. Payer name on check: First Name	7. Payer name on check: Last Name

F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

4. Signature of Applicant

2. Date

P&D Realty to sign. Currently obtaining signature.

3. Signature of Property Owner(if different)

4. Date

5. Signature of Representative (if any)

9/2/2025

6. Date

For Conservation Commission:

Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

For MassDEP:

One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a copy of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

Other:

If the applicant has checked the "yes" box in Section C, Items 1-3, above, refer to that section and the Instructions for additional submittal requirements.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 3 - Notice of Wetland Fee Transmittal Form

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
MassDEP File #:
eDEP Transaction #:1914911
City/Town:ARLINGTON

A. Applicant Information

1. Applicant:

a. First Name	RICK	b. Last Name	VALLARELLI
c. Organization	40 PARK AVE ASSOCIATES LLC		
d. Mailing Address	PO BOX 288		
e. City/Town	ARLINGTON	f. State	MA
g. Zip Code	02476		
h. Phone Number	7817908478	i. Fax	
j. Email	rvallarelli@jandcomp.com		

2. Property Owner:(if different)

a. First Name		b. Last Name	
c. Organization	40 PARK AVE ASSOCIATES LLC		
d. Mailing Address	PO BOX 288		
e. City/Town	ARLINGTON	f. State	MA
g. Zip Code	02476		
h. Phone Number	7817908478	i. Fax	
j. Email	rvallarelli@jandcomp.com		

3. Project Location:

a. Street Address	40 PARK AVENUE	b. City/Town	ARLINGTON
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Are you exempted from Fee? ☐ (YOU HAVE SELECTED 'NO')

Note: Fee will be exempted if you are one of the following:

- City/Town/County/District
- Municipal Housing Authority
- Indian Tribe Housing Authority
- MBTA

State agencies are only exempt if the fee is less than \$100

B. Fees

Activity Type	Activity Number	Activity Fee	RF Multiplier	Sub Total
J.) ANY OTHER ACTIVITY NOT IN CATEGORY 1,3,4,5 OR 6;	1	500.00	RFA MULTIPLIER 1.5	750.00
		City/Town share of filing fee \$387.50	State share of filing fee \$362.50	Total Project Fee \$750.00

****Fee not finalized - would like confirmation that the below is accurate.**

BYLAW FILING FEES AND TRANSMITTAL FORM

Rules:

1. Fees are payable at the time of filing the application and are non-refundable.
2. Fees shall be calculated per schedule below.
3. Town, County, State, and Federal Projects are exempt from fees.
4. These fees are in addition to the fees paid under M.G.L. Ch. 131, s.40 (ACT).
5. A legal notice charge of \$150 is assessed on all applications for the cost of filing the public notice.

Fee Schedule (ACC approved 1/8/15):

\$	No./Area	Category
		(R1) RDA - \$150 local fee, no state fee
		(N1) Minor Project - \$200 (house addition, tennis court, swimming pool, utility work, work in/on/or affecting any body of water, wetland or floodplain).
		(N2) Single Family Dwelling - \$600
		(N3) Multiple Dwelling Structures - \$600 + \$100 per unit all or part of which lies within 100 feet of wetlands or within land subject to flooding.
\$800 + \$0.50/sf*780 sf = \$1,190		(N4) Commercial, Industrial, and Institutional Projects - \$800 + 50¢/s.f. wetland disturbed; 2¢/s.f. land subject to flooding or buffer zone disturbed.
		(N5) Subdivisions - \$600 + \$4/l.f. feet of roadway sideline within 100 ft. of wetlands or within land subject to flooding.
		(N6) Other Fees - copies, printouts; per public records law
		(N7) Minor Project Change - \$50
		(N8) Work on Docks, Piers, Revetments, Dikes, etc - \$4 per linear foot
		(N9) Resource Boundary Delineation (ANRAD) - \$1 per linear foot
		(N10) Certificate of Compliance (COC or PCOC) - No charge if before expiration of Order, \$200 if after that date.
		(N11) Amendments - \$300 or 50% of original local filing fee, whichever is less.
		(N12) Extensions -
		a. Single family dwelling or minor project - \$100.
		b. Other - \$150.
		(N13) Consultant Fee -per estimate from consultant
<i>Subtotal</i>		
	+ \$150	Legal Notice Charge
\$1,340.00	TOTAL	

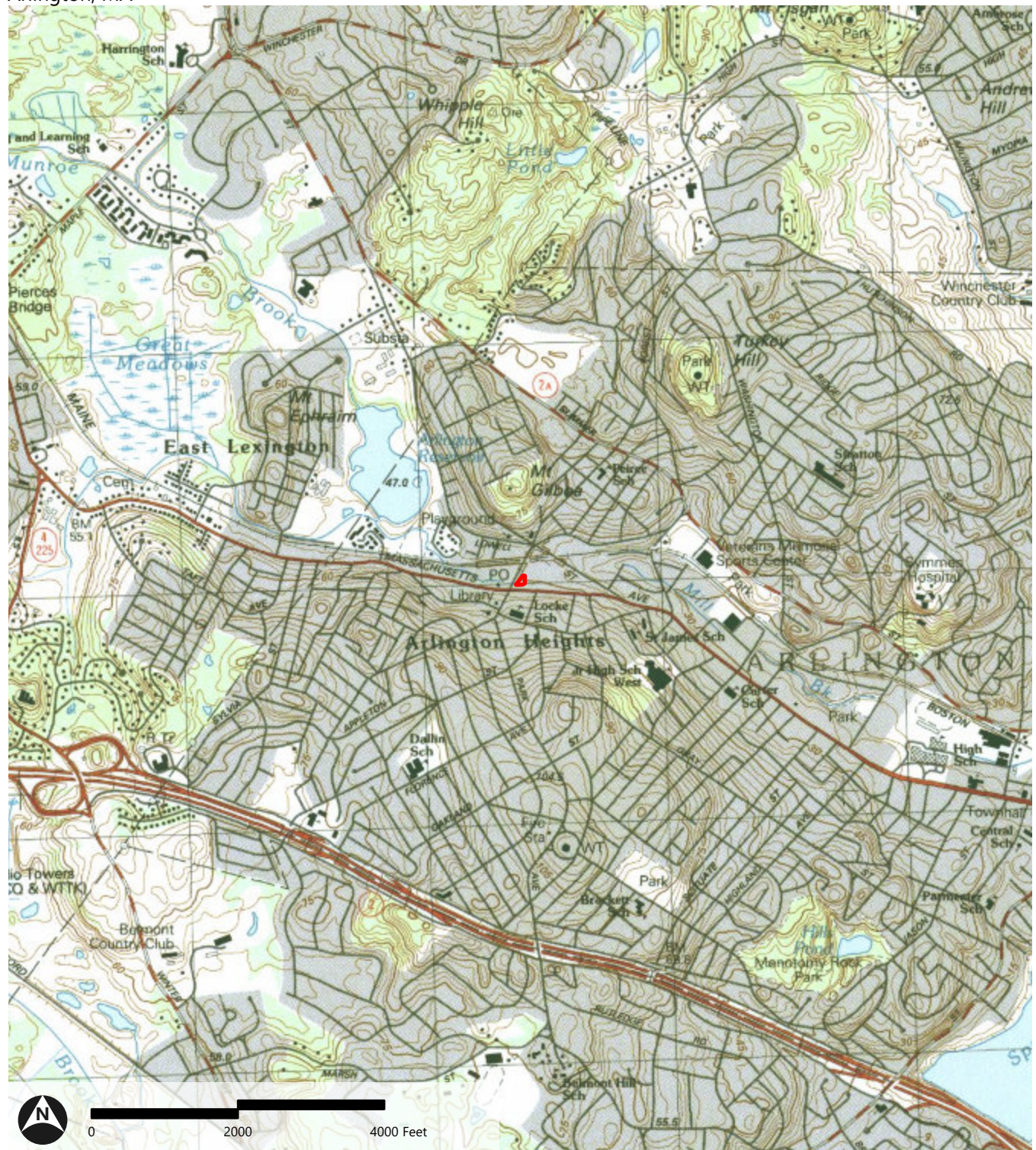
Note: The Notice of Intent Fee Transmittal Form is still required. [Details for calculating the NOI fee are included below.](#)

Notice of Intent Figures

- › Figure 1 – USGS Map
- › Figure 2 – Aerial Map
- › Figure 3 – NHESP Map
- › Figure 4 – FEMA Map

Figure 1: USGS Site Location

40 Park Avenue
Arlington, MA



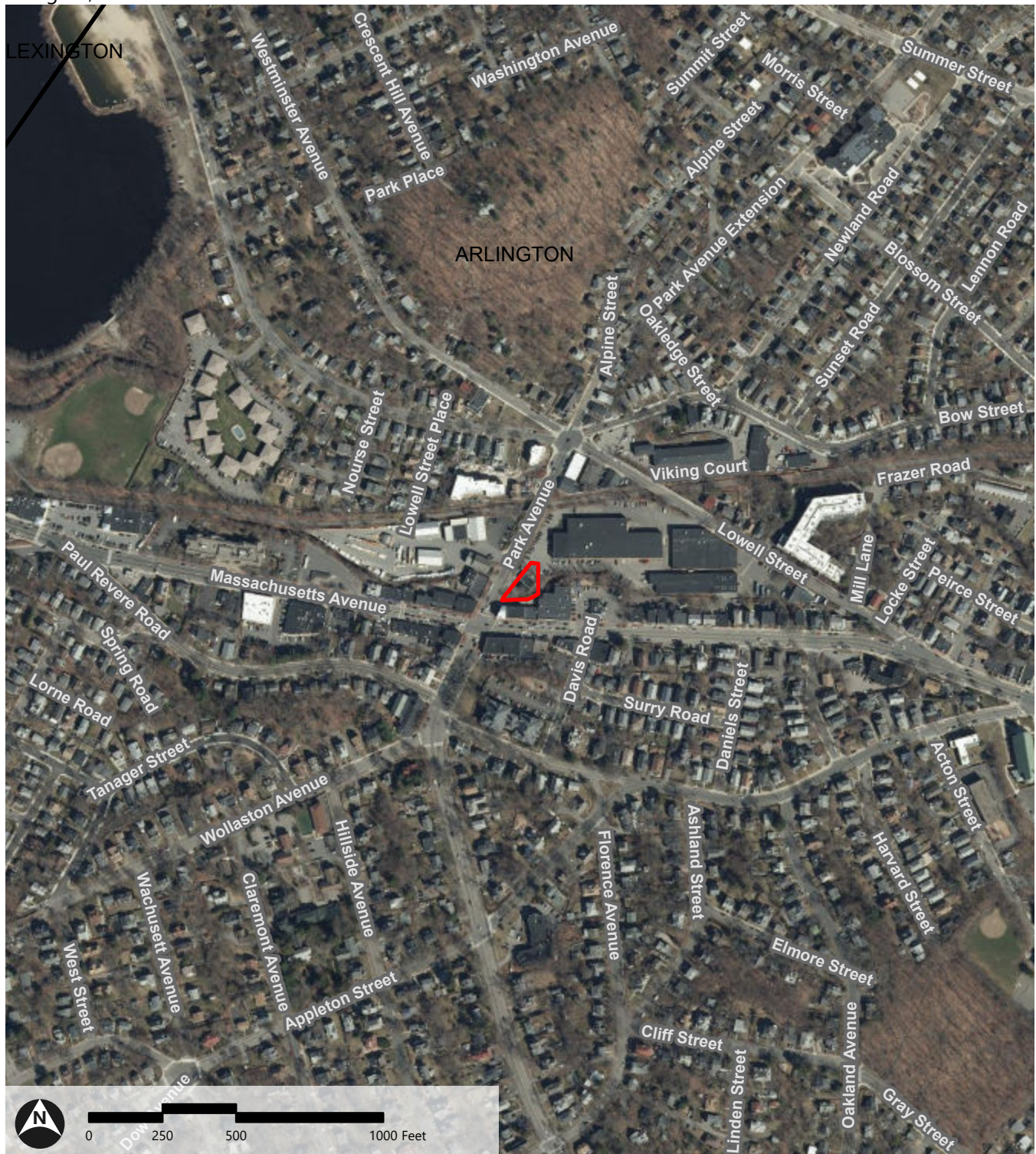
 Project Site

Sources: VHB, MassGIS

Path: \\vhb.com\gislibrary\Resources\Toolboxes\NOIFiguresUtilityPro\NOI_Template\NOI_Template.aprx (gmsaGIS\$, 7/18/2025)

Figure 2: Aerial Overview

40 Park Avenue
Arlington, MA

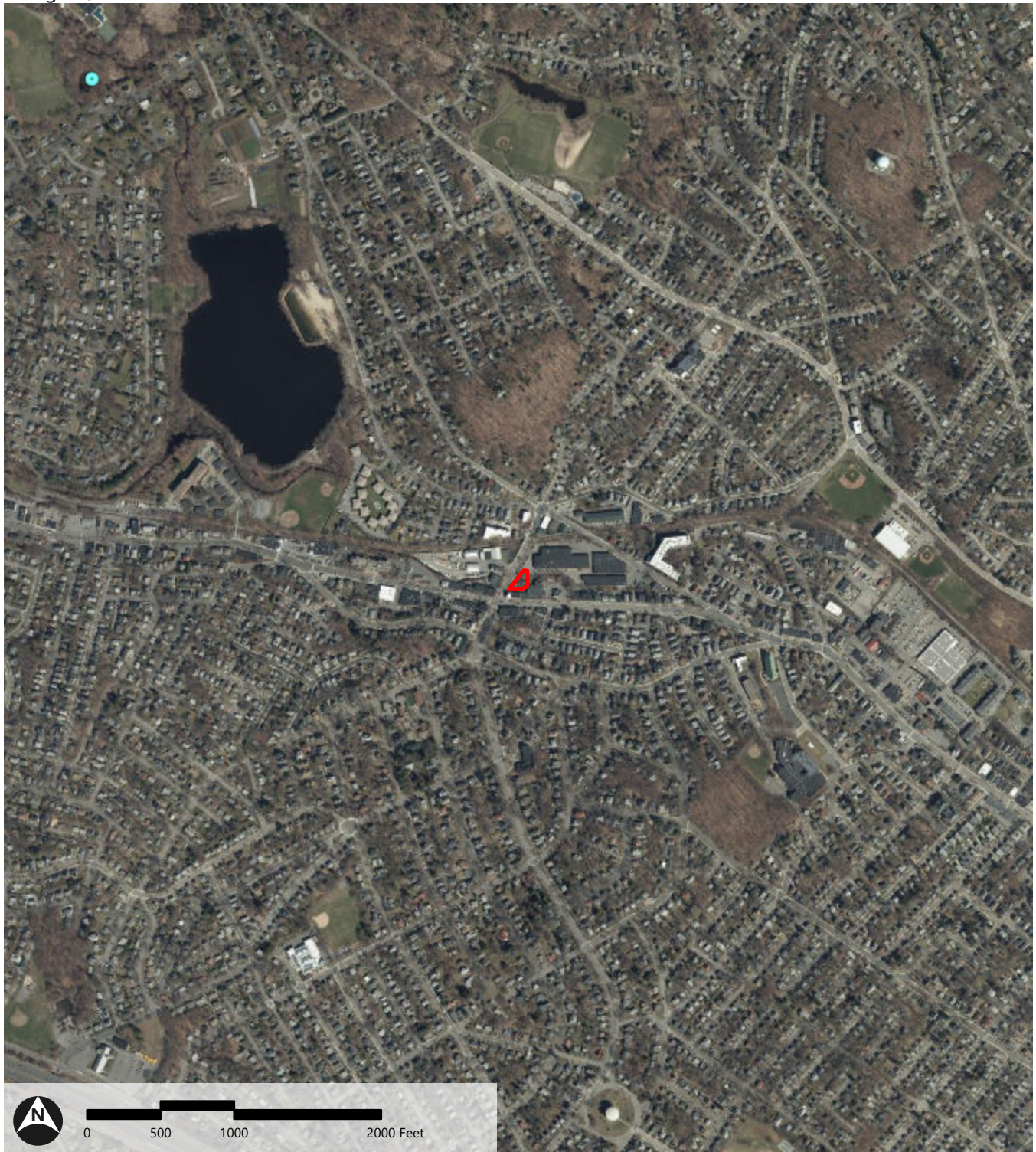


 Project Site

Path: \\vhb.com\gislibrary\Resources\Toolboxes\NOIFiguresUtility\Pro\NOI_Template.aprx (gmsaGIS\$, 7/18/2025)

Figure 3: Priority Habitat

40 Park Avenue
Arlington, MA



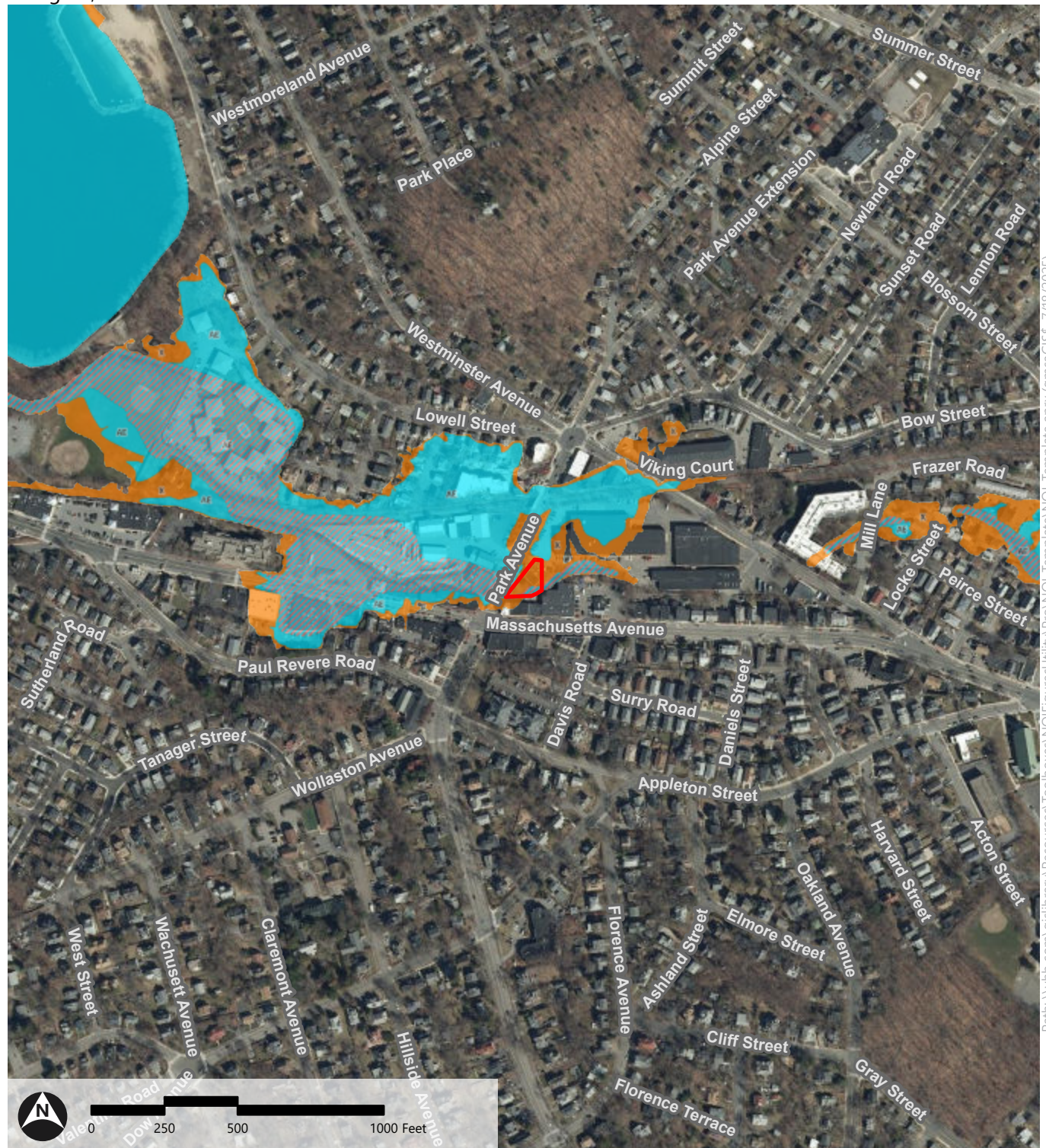
-  Project Site
-  NHESP Certified Vernal Pools - None Present
-  NHESP Priority Habitats of Rare Species - None Present
-  NHESP Potential Vernal Pools
-  NHESP Estimated Habitats of Rare Wildlife - None Present

Sources: VHB, MassGIS

Path: \\vhb.com\gislibrary\Resources\Toolboxes\NOIFiguresUtility\Pro\NOI_Template.aprx (gmsaGIS\$, 7/18/2025)

Figure 4: FEMA Floodplain

40 Park Avenue
Arlington, MA



- | | | |
|---|--|--|
| ■ A: 1% Annual Chance of Flooding, no BFE | ■ X: 1% Drainage Area < 1 Sq. Mi. | Project Site |
| ■ AE: 1% Annual Chance of Flooding, with BFE | ■ X: Reduced Flood Risk due to Levee | |
| ■ AE: Regulatory Floodway | ■ Area Not Included | |
| ■ AH: 1% Annual Chance of 1-3ft Ponding, with BFE | ■ Area with no DFIRM - Paper FIRMs in Effect | |
| ■ AO: 1% Annual Chance of 1-3ft Sheet Flow Flooding, with Depth | | |
| ■ VE: High Risk Coastal Area | | |
| ■ D: Possible But Undetermined Hazard | | |
| ■ X: 0.2% Annual Chance of Flooding | | |

Attachment A

Notice of Intent Narrative

- › Introduction
- › Site Description
- › Work Description
- › Mitigation Measures
- › Regulatory Compliance
- › Summary

Attachment A - Notice of Intent Narrative

This Notice of Intent (NOI) is filed pursuant to the Massachusetts Wetlands Protection Act (MGL Chapter 131, Section 40) and its implementing regulations (310 CMR 10.00) and the Town of Arlington's Wetlands Protection Bylaw¹ (the Bylaw). This narrative describes wetland resource areas associated with the Project Site, the proposed work, impacts to wetland resource areas, mitigation measures, and how the Project meets the performance standards of the WPA and the Bylaw. Refer to the accompanying Project plans included as Attachment E (bound separately) for a layout and details of the Project components.

Introduction

The Applicant, 40 Park Avenue Associates, LLC, is proposing to renovate the existing loading dock at the rear of the facility (the Project) located at 40 Park Avenue in Arlington, MA (the Project Site). Proposed work generally consists of removing material adjacent to the existing loading dock to create a 48" reveal at the loading dock and paving of the access way. A leaching basin will also be installed beneath an area of existing pavement and connected to the existing roof drains of the facility. All work is proposed within previously developed areas.

Portions of land on or near the Project Site contain resource areas subject to the jurisdiction of the WPA and the Bylaw, including Bank, Bordering Land Subject to Flooding (BLSF), and the 200-foot Riverfront Area (RA). The WPA and the Bylaw establish a 100-foot buffer zone to Bank. The Bylaw also establishes a 100-foot Adjacent Upland Resource Area (AURA), with specific limitations within 25 feet and 50 feet of resource areas. All resource areas are associated with Mill Brook, which flows south of the Project Site. As proposed, the Project will result in impacts within RA, the 100-foot buffer zone to Bank, and the local AURA.

Wetland resource areas will be protected from impacts during construction through the implementation of an erosion and sedimentation control program. This program includes provisions to limit erosion through stabilization and prevent sediment from leaving the site by installing structural controls. Runoff generated from the Project will be collected and treated in accordance with design guidelines² developed by the Department of Environmental Protection (DEP) and standards contained in the WPA

¹ Town of Arlington, 2023. Arlington Regulations for Wetlands Protection.

² DEP, 2008. Massachusetts Stormwater Handbook.

Regulations. Refer to the accompanying Stormwater Memorandum included as Attachment D for details of the Project's compliance with the DEP Stormwater Standards.

Site Description

The Project Site has an area of approximately 0.2 acres and is located at 40 Park Avenue (Map 59 Parcel 1-10.B) in Arlington, MA (See Figure 1 USGS Map and Figure 2 Aerial Map). The Project Site includes a previously developed commercial lot, which abuts Mill Brook on the southern side. The Project Site is primarily bound by commercial/industrial properties to the north, east, and west.

According to the most recently available data provided by the Massachusetts Natural Heritage and Endangered Species Program³ (NHESP), no portion of the Project Site is located within Priority Habitat of Rare Species or Estimated Habitat of Rare Wildlife, nor are there any Certified or Potential Vernal Pools on the Project Site (Figure 3).

The Project Site does not lie within any Area of Critical Environmental Concern⁴ (ACEC). According to the most recent information provided by MassDEP, the Project Site is not located in an area designated as an Outstanding Resource Water⁵, and no portion of the Project Site is located within a Zone II Interim Wellhead Protection Area⁶.

The most recently issued Flood Insurance Rate Maps⁷ (FIRM) for the area produced by the Federal Emergency Management Agency (FEMA) indicate that Mill Brook is mapped as a Zone AE Regulatory Floodway. The mapped Base Flood Elevation for the area is 146.2 feet NAVD88, with a portion of the mapped flood zone/floodway extending onto the southern portion of the Project Site (Figure 4). The areas of Zone AE floodplain and the floodway are regulated as BLSF under the WPA and the Bylaw.

The Natural Resources Conservation Service⁸ (NRCS) soil survey has mapped the majority of the Project Site as Urban Land.

Topography on the Project Site is generally flat, but immediately south of the property line slopes down steeply toward Mill Brook. Wetland resource areas on/near the Project are described below.

Wetland Resource Areas

Wetland resource areas on/near the Project Site were delineated by LEC Consulting in October of 2024. The following sections of this narrative describe the wetlands and identify resource areas that are regulated under the WPA Regulations (310 CMR 10.00)

³ NHESP, 2021. *Massachusetts Natural Heritage Atlas, 15th Edition*.

⁴ Massachusetts Executive Office of Energy and Environmental Affairs, 2009.

⁵ MassDEP, 2010. Designated Outstanding Resource Waters of Massachusetts

⁶ MassDEP, 2012. Approved Wellhead Protection Areas (Zone II).

⁷ Federal Emergency Management Agency, National Flood Hazard Layer, Digital Flood Insurance Rate Map (DFIRM).

⁸ Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey.

and/or the Bylaw. The resource areas and their buffer zones are depicted on the attached Project Plans (Attachment E).

The resource areas identified on or near the Project Site subject to state regulations under the WPA include Bank and Riverfront Area. The resource areas are defined under the WPA (310 CMR 10.00) as follows:

- › **Bank:** As defined at 310 CMR 10.54 (2), *"a Bank is the portion of the land surface which normally abuts and confines a water body ... The upper boundary of Bank is the first observable break in slope or the mean annual flood level, whichever is lower."*
- › **RA:** As defined by 310 CMR 10.58 (2)(a)(3), Riverfront Area is *"the area of land between a river's mean annual high-water line measured horizontally outward from the river and a parallel line located 200 feet away..."*

An additional resource area established under the Bylaw is the 100-foot Adjacent Upland Resource Area. The AURA is defined as the area within 100 feet of a resource area; in this case, Bank. The AURA also includes:

- › 25-foot No Disturb Zone (NDZ) – the innermost 25 feet of the 100-foot AURA
- › 50-foot No Build Zone (NBZ) – the inner 50 feet of the 100-foot AURA

Wetlands and their buffer zones on/adjacent to the property are described in more detail in Attachment C.

Work Description

The Applicant is proposing to renovate the existing loading dock at the rear of the facility on the Project Site. Proposed work generally consists of removing material adjacent to the existing loading dock to create a 48" reveal at the loading dock, and paving the access way and ramp. A leaching basin will be installed beneath an area of existing pavement and connected to the existing roof drains on the facility to improve drainage conditions on the site. All work is proposed within existing paved or degraded areas.

Detailed means and methods of construction will be at the discretion and responsibility of the contractor performing the work. However, the Project will consist of the following general activities:

- › Before any work begins, installing erosion and sedimentation controls according to the Project Plans;
- › Earthwork (removing material and grading);
- › Installation of the leaching basin;
- › Paving; and
- › After soils have stabilized, removing erosion controls.

Work in Riverfront Area & Buffer Zone

Work in RA and the 100-foot buffer zone is described below. This work fully complies with all applicable performance standards as demonstrated in the Regulatory Compliance section of this Narrative.

Work in Riverfront Area

All proposed work is located within a previously developed and degraded portion of the 200-foot RA to Mill Brook. This work includes material removal, grading, paving, and installation of the leaching basin. After work is complete, disturbed areas of the site which are to remain unpaved will be loamed and seeded with a native seed mix.

As a result of the proposed work, there will be an increase of 780 square feet (sf) of impervious surface within RA on the Project Site. The proposed leaching basin and loaming and seeding of disturbed areas will help restore portions of the inner riparian zone and represent an improvement over existing conditions.

Work in Buffer Zone

Work in the 100-foot WPA buffer zone is the same as the work proposed in the RA described above.

Work in Locally Jurisdictional Resource Areas

Work in the AURA is the same as the work described in the 100-foot buffer zone and RA.

The AURA has additional limitations on work within 25 feet and 50 feet of a resource area. Work proposed in the 25-foot No Disturb Zone (NDZ) is limited to the installation of a portion of the proposed erosion controls at the southern limit of work.

Work within the 50-foot No Build Zone (NBZ) includes the renovation of the loading dock, including material removal, grading, and paving. Installation of the leaching basin and restoration with loam and seed is also proposed within the 50-foot NBZ. All work is proposed within the existing disturbed footprint.

Mitigation Measures

A suite of mitigation measures is proposed to prevent short- and long-term impacts to wetland resource areas. Mitigation measures proposed for this project include an erosion and sedimentation control program, which will include structural and non-structural practices.

Erosion and Sediment Control

An erosion and sedimentation control program will be implemented to minimize temporary impacts to wetland resource areas during the construction phase of the

project. The program incorporates Best Management Practices (BMPs) specified in guidelines developed by the DEP⁹ and the U.S. Environmental Protection Agency¹⁰ (EPA).

Proper implementation of the erosion and sedimentation control program will:

- › minimize exposed soil areas through sequencing and temporary stabilization;
- › place structures to manage stormwater runoff and erosion; and
- › establish a permanent vegetative cover or other forms of stabilization as soon as practicable.

The following sections describe the controls that will be used and practices that will be followed during construction. These practices comply with criteria contained in the NPDES General Permit for Discharges from Large and Small Construction Activities issued by the EPA.

Non-Structural Practices

Non-structural practices to be used during construction include temporary stabilization, temporary seeding, permanent seeding, and dust control. These practices will be initiated as soon as practicable in appropriate areas at the site.

Temporary Stabilization

Any areas of exposed soil or stockpiles that will remain inactive for more than 14 days will be covered with a layer of straw mulch applied at a rate of 90 pounds per 1,000 square feet. The mulch will be anchored with a tacking coat (non-tar) applied by a hydroseeded. Steeper slopes (greater than 10 percent) will be covered with a bonded fiber matrix (EcoAegis® or similar) according to the recommendations provided by the manufacturer.

Temporary Seeding

If conditions allow, a temporary vegetative cover will be established on areas of exposed soils (including stockpiles) that remain unstabilized for a period of more than 14 days. The seeded surfaces will be covered with a layer of straw mulch or bonded fiber matrix as described above. The seed mix shall include a blend of rapid germinating grasses that are indigenous to eastern Massachusetts.

Permanent Seeding

Upon completion of final grading, any areas not covered by pavement, other forms of stabilization, or other methods of landscaping will be seeded with New England Conservation/Wildlife mix produced by New England Wetland Plants, Inc. This seed mix

⁹ DEP, 1997. *Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas: A Guide for Planners, Designers, and Municipal Officials*.

¹⁰ EPA, 2007. *Interim Developing Your Stormwater Pollution Prevention Plan: A Guide for Construction Sites*. Office of Water. Report EPA 833-R-060-04.

includes Virginia wild rye (*Elymus virginicus*), little bluestem (*Schizachyrium scoparium*), big bluestem (*Andropogon gerardii*), red fescue (*Festuca rubra*), switch grass (*Panicum virgatum*), partridge pea (*Chamaecrista fasciculata*), panicledleaf tick trefoil (*Desmodium paniculatum*), indian grass (*Sorghastrum nutans*), blue vervain (*Verbena hastata*), butterfly milkweed (*Asclepias tuberosa*), black eyed Susan (*Rudbeckia hirta*), common sneezeweed (*Helenium autumnale*), heath aster (*Aster pilosus/Symphotrichum pilosum*), early goldenrod (*Solidago juncea*), upland bentgrass (*Agrostis perennans*). The mix will be applied at a rate of 25 pounds per acre and will be covered with mulch or bonded fiber matrix as described above.

Dust Control

The erosion and sediment control program includes provisions to minimize the generation of dust during dry and windy conditions. When necessary, larger areas of exposed soil will be wetted to prevent wind borne transport of fine-grained sediment. Enough water shall be applied to wet the upper 0.5 inches of soil. The water will be applied as a fine spray to prevent erosion. A water truck will be kept on the property (or at a nearby location) to facilitate this practice.

Structural Practices

Structural erosion and sedimentation controls to be used on the site include barriers, catch basin inlet protection, stabilized construction exits, and temporary sediment basins.

Erosion Control Barriers

Prior to any ground disturbance, approved erosion control barriers will be installed at the limits of work. As construction progresses, additional barriers will be installed around the base of stockpiles and other erosion prone areas.

If sediment has accumulated to a depth which impairs proper functioning of the barrier, it will be removed by hand or by machinery operating upslope of the barriers. This material will be either reused at the Project Site or disposed of at a suitable offsite location. Any damaged sections of the barrier will be repaired or replaced immediately upon discovery.

Stormwater Management

Runoff generated from impervious surfaces will be collected and managed in accordance with the DEP policy. A stormwater management system will be constructed that includes measures to provide groundwater recharge, attenuate peak flows, and provide water quality treatment. Full details on the system (including supporting calculations) are included in the accompanying Stormwater Memorandum (Attachment D).

Compliance with the 10 stormwater management standards cited in Section 310 CMR 10.05(6)(k) of the WPA Regulations is evaluated in the Regulatory Compliance section of the Stormwater Memorandum.

Regulatory Compliance

As demonstrated below, the Project work fully complies with applicable performance standards contained in the WPA for RA and will protect the interests of the Bylaw. Compliance with each of the applicable performance standards is described in more detail below.

Work in Riverfront Area

As demonstrated below, work proposed in the Riverfront Area complies with the requirements contained in 310 CMR 10.58(5):

Notwithstanding the provisions of 310 CMR 10.58(4)(c) and (d), the issuing authority may allow work to redevelop a previously developed riverfront area, provided the proposed work improves existing conditions ... Work to redevelop previously developed riverfront areas shall conform to the following criteria:

(a) At a minimum, proposed work shall result in an improvement over existing conditions of the capacity of the riverfront area to protect the interests identified in M.G.L. c. 131 § 40. When a lot is previously developed but no portion of the riverfront area is degraded, the requirements of 310 CMR 10.58(4) shall be met.

Work proposed in the RA will improve the existing condition of the RA on the Project Site by adding a subsurface leaching basin which will receive and infiltrate stormwater runoff from the building and new loading area, and by loaming and seeding previously developed and disturbed areas with a native conservation seed mix. The Project proposes a significant improvement to the stormwater management on site by matching and/or decreasing peak rates, decreasing runoff volumes for the design storms, and adding subsurface infiltration.

(b) Stormwater management is provided according to standards established by the Department.

Stormwater management measures on the Project Site meet or exceed the standards established by the DEP. Refer to the attached Stormwater Memorandum (Attachment D) for more details.

(c) Within 200-foot riverfront areas, proposed work shall not be located closer to the river than existing conditions or 100 feet, whichever is less, or not closer than existing conditions within 25-foot riverfront areas, except in accordance with 310 CMR 10.58(5)(f) or (g).

Proposed work within the RA is not located closer to the Brook than the existing conditions.

(d) Proposed work, including expansion of existing structures, shall be located outside the riverfront area or toward the riverfront area boundary and away from the river, except in accordance with 310 CMR 10.58(5)(f) or (g).

Due to the proximity of the site to Mill Brook, work in the RA is unavoidable. Proposed work will be contained within existing degraded areas of the RA and will not be located in areas closer to the Brook beyond what is currently degraded.

(e) The area of proposed work shall not exceed the amount of degraded area, provided that the proposed work may alter up to 10% if the degraded area is less than 10% of the riverfront area, except in accordance with 310 CMR 10.58(5)(f) or (g).

Proposed work is located entirely within previously disturbed and degraded areas of the RA.

(f) When an applicant proposes restoration on-site of degraded riverfront area, alteration may be allowed notwithstanding the criteria of 310 CMR 10.58(5)(c), (d), and (e) at a ratio in square feet of at least 1:1 of restored area to area of alteration not conforming to the criteria. Areas immediately along the river shall be selected for restoration. Alteration not conforming to the criteria shall begin at the riverfront area boundary.

The Applicant is not proposing on-site restoration of degraded RA.

Work in Buffer Zone

Work within buffer zone is not governed by specific regulatory performance standards in the WPA or the Bylaw. In general, work within buffer zones is permissible when said work has been designed, or can be conditioned, such that there will be no impact on the downgradient wetland resource area(s) being buffered. As identified in 310 CMR 10.53(1) of the WPA regulations:

For work in Buffer Zone subject to review under 310 CMR 10.02(2)(b)3., the issuing authority should consider the characteristics of the buffer zone, such as the presence of steep slopes, that may increase the potential for adverse impacts on resource areas. Conditions may include limitations on the scope and location of work in the buffer zone as necessary to avoid alteration of resource areas. The issuing authority may require erosion and sedimentation controls during construction, a clear limit of work, and the preservation of natural vegetation adjacent to the resource area and/or other measures commensurate with the scope and location of the work within the buffer zone to protect the interests of the Act.

The proposed Project has been designed to address these requirements. A clear limit of work will be established, and an erosion and sedimentation control program will be implemented to prevent adverse impacts to the nearby resource areas both during and after construction. No vegetation clearing is proposed as part of the Project.

Work in Locally Established Resource Areas

As the majority of the Project Site is located within the existing degraded 100-foot Adjacent Upland Resource Area, work within the resource area is unavoidable. However, the proposed Project has been designed to protect the interests of the Bylaw and will provide an improvement over existing conditions. As stated in Section 26 of the Bylaw Regulations:

F. No activities or work, other than passive passage and resource area enhancement, are permitted within the first 25 feet of the AURA (measured horizontally from a resource area specified in Section 2, A(1) through (4). Except as part of Resource Area Enhancement or an Ecological Restoration Project, no vegetation may be disturbed, and leaf litter and natural debris shall remain in place. This No-Disturbance area shall at a minimum contain the same amount of area of undisturbed and natural vegetation as its pre-project state. A previously disturbed or previously developed 25-foot area shall be restored to a naturally vegetated state to the greatest extent practicable. Depending on site conditions including but not limited to slopes greater than 15% on highly erodible soils or hydrologic conditions likely to promote significant erosion, affect soil permeability or other impact potential the Commission may require a wider undisturbed buffer.

Work within the 25-foot NDZ is limited to the installation of erosion controls at the southern limit of work, which lies at the outer edge of the 25-foot AURA. No vegetation will be removed within the 25-foot NDZ.

Also stated in Section 26 of the Bylaw Regulations:

G. No new structure(s) shall be placed in the first 50 feet of the AURA measured horizontally from a resource area specified in Section 2, A(1) through (4). The Commission may allow new structures within the first 50 feet if the project is deemed an overall improvement of the resource area. Depending upon site conditions, including but not limited to slopes greater than 15% on highly erodible soils, or hydrologic conditions likely to promote significant erosion, affect soil permeability or other impact potential, the Commission may require new structures to be setback greater than 50 feet.

No new structures are proposed within the 50-foot NBZ to Mill Brook.

...

I. Impervious surface.

(1) The total area of impervious surface within the AURA shall not increase over existing total area unless the Commission in its sole discretion determines, based on sufficient proposed mitigation, that there is no permanent, significant impact on Resource Area values.

Though the Project proposes new pavement within the AURA, the area of proposed pavement is generally coincident with the footprint of the existing gravel/unvegetated

loading dock ramp. This portion of the Project Site is degraded by the lack of topsoil, and likely functions similarly to an impervious surface in its current condition. The proposed work will provide an improvement to the area by installing subsurface stormwater infiltration and native loam and seed.

(2) Impervious surfaces shall not intrude farther into the AURA than pre-project conditions unless the Commission in its sole discretion determines that the total area of impervious surface is significantly decreased, or other sufficient mitigation is provided that serves to protect the resource area values. Impervious surface shall be kept as close as possible to the outer (upland) boundary of the AURA.

As noted above, the proposed pavement is generally coincident with the footprint of the existing degraded loading dock ramp. A subsurface leaching basin is proposed to mitigate the impacts of the new areas of pavement which will receive and infiltrate stormwater runoff from the building and new loading area. Additionally, disturbed areas adjacent to the proposed pavement will be loamed and seeded with a native conservation/wildlife seed mix. The Project proposes a significant improvement to the stormwater management on site by matching and/or decreasing peak rates, decreasing runoff volumes for the design storms, and adding subsurface infiltration.

(3) Work in the AURA shall not adversely affect the hydrology of the site including runoff rates, volume, water quality, flood storage capacity, or flow paths.

Proposed work will provide an improvement to the hydrology of the site. Please refer to the Stormwater Memorandum included as Attachment D for additional information on the proposed stormwater system.

Climate Change Resilience

The Bylaw's implementing regulations require that the project "integrate considerations of adaptation planning into their project to promote climate change resilience to protect and promote resource area values into the future." Compliance with each of the applicable performance standards outlined in the Bylaw Regulations is described below.

(1) Describe project design considerations and measures to limit storm and flood damage during extended periods of disruption and flooding as might be expected in extreme weather events, using the FEMA 500-year flood elevation to represent extreme weather event flood levels, depending on the size and nature of the project. Project design considerations may include but not be limited to stormwater mitigation measures sized for increased precipitation expected due to climate change, 2:1 compensatory flood storage replacement, and 2:1 or higher tree replacement/plantings, See Land Subject to Flooding Section 24, Vegetative Wetlands Section 25, Adjacent Upland Resource Area Section 26, and Stormwater Management Section 33 of these Regulations.

No specific design considerations for extreme flooding events were implemented for this Project due to the minimal size and nature of the proposed work. However, the

proposed infiltration basin represents an improvement over existing conditions for the stormwater management system on the Project Site.

- (2) *Calculate project stormwater surface runoff that is expected to increase due to extreme weather events using NOAA 14 Plus Plus rainfall data (see definition in Section 4) and how this will be managed and mitigated to prevent pollution (including nutrients from fertilizers, roadway runoff, etc.) from entering the resource area in the future, with consideration of eliminating or decreasing impervious surfaces as much as feasible. Project design considerations may include but not be limited to stormwater mitigation measures sized for increased precipitation expected due to climate change. See Stormwater Management Section 33 of these Regulations.*

In the 100-year storm event, the surface runoff is expected to increase by approximately 300 cubic feet (cf). The Project is proposing a leaching basin to capture the added impervious area and roof drainage to treat and infiltrate the runoff. With the proposed infiltration, the Project actually decreases stormwater runoff by approximately 500 cf in the 100-year storm due to the infiltration practices.

- (3) *Describe project vegetation/planting plans and any other measures to improve the resiliency of the resource areas to provide resource area values including but not limited to wildlife habitat; that is, to enable resource areas to withstand extreme precipitation/rainfall changes (drought and excess) and extreme temperatures including extreme heat due to climate change. Project design considerations may include but not be limited to diversity and abundance of replacement plantings and consideration of shading and cooling. See Vegetation Removal and Replacement Section 25 of these Regulations.*

The Project proposes loam and seed with a native conservation/wildlife seed mix in previously disturbed unvegetated areas of the RA. The native grasses and herbaceous cover will represent an improvement over the existing conditions in these portions of the Project Site for potential use by wildlife as well as for potential heat reduction effects.

- (4) *Describe project considerations and measures to avoid, minimize, and mitigate for extreme heat effects in resource areas. Project design considerations may include but not be limited to reducing impervious surfaces, increasing or maintaining naturally vegetated surfaces, increasing tree canopy, consideration of shading of structures.*

The Project will loam and seed currently disturbed unvegetated areas within the limits of the Project Site. Once the seeded areas are germinated, the native grasses and herbaceous cover will aid in reducing heat effects in these portions of the Project Site.

Summary

The Applicant is proposing to renovate the existing loading dock at the rear of the facility located at 40 Park Avenue in Arlington, MA. In addition to modifying the existing

ramp, a leaching basin will be installed and connected to the existing roof drains of the facility in order to improve stormwater management for the Project Site. Disturbed areas which will not be paved will be loamed and seeded with a native seed mix after the completion of work.

As proposed, the Project will result in impacts to a degraded RA and the 100-foot buffer zone to Bank, as well as the 100-foot Adjacent Upland Resource Area. All work will occur within previously developed areas. A suite of mitigation measures is proposed to prevent short- and long-term impacts to resource area buffer zones. Mitigation measures proposed include an erosion and sedimentation control program, which will include structural and non-structural practices.

The Applicant respectfully requests that the Arlington Conservation Commission find these measures adequately protective of the interests identified in the WPA and the Bylaw and issue an Order of Conditions approving the work described in this NOI and shown on the accompanying plans.

Attachment B

Abutter Information

- › Notice to Abutters
- › List of Abutters
- › Affidavit of Service

ABUTTER NOTIFICATION

Notification to Abutters Under the Massachusetts Wetlands Protection Act and Arlington Wetlands Protection Bylaw

In accordance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, and the Arlington Wetlands Protection Bylaw, you are hereby notified of the following:

The Conservation Commission will hold a virtual public meeting using Zoom, on *September 18th, 2025* at 7:00 PM in accordance with the provisions of the Mass. Wetlands Protection Act (M.G.L. Ch. 131, s. 40, as amended), the Town of Arlington Bylaws Article 8, Bylaw for Wetland Protection, and in accordance with the Governor's Order Suspending Certain Provisions of the Open Meeting Law, G. L. c. 30A, § 20 relating to the COVID-19 emergency, for a Notice of Intent from 40 Park Ave, LLC, for proposed renovations to the existing loading dock at the rear of the facility at 40 Park Avenue within 100 feet of a wetland, on Assessor's Parcel ID #59-1-10.B and 59-1-10.D. Please refer to the Commission's online meeting agenda for specific Zoom meeting access information.

A copy of the application and accompanying plans are available by request by contacting the Arlington Conservation at 781-316-3012 or concomm@town.arlington.ma.us. For more information, call the applicant's representative (617-607-6310), the Arlington Conservation Commission (781-316-3012), or the DEP Northeast Regional Office (978-694-3200).

NOTE: Notice of the Public Hearing will be published at least five (5) business days in advance in *The Advocate and Star* and will also be posted at least 48 hours in advance in the Arlington Town Hall.



TOWN OF ARLINGTON
Office of the Board of Assessors
730 Massachusetts Avenue
781.316.3050
assessors@town.arlington.ma.us

RECEIVED
TOWN OF ARLINGTON
2025 AUG 26 AM 8:20
OFFICE OF ASSESSORS

Request for Certified Abutters List

Please allow a minimum of two (2) business days to process the request.

Property Location: 40 Park Avenue & 1293-1305 Mass Ave

Owner of Record: 40 Park Avenue Associates & P&D Realty

Requested by: Taylor Donovan

Preferred method of
contacting, please check

Phone Number: 617-607-6310

☐

Email: tdonovan@vhb.com

☒

Below are the typical abutters list requirements. Please select the appropriate one. If you need a list that does not match one of these, please select "other" below and specify parameters.

Please note if your requested radius crossed the Arlington town line you must go to that other town for more information.

- ☐ **Redevelopment Board-** all abutters within 300 feet of property line
- ☐ **Zoning Board of Appeals-** all abutters within 300 feet of property line
- ☐ **Residential Construction, Demolition, & Good Neighbor-** all abutters within 200 feet of property line
- ☒ **Conservation Commission-** all abutters within 100 feet of property line
- ☐ **Board of Health for Keeping to Hens-** all direct abutters
- ☐ **Board of Health for Geothermal Well-** all abutters within 200 feet of property line
- ☐ **Select Board for Liquor License-** all direct abutters and any school, church or hospital within 500 feet

☐ **Other:** _____ (Please Specify Reason)

ABUTTERS: ☐ Direct ☐ Within _____ feet ☐ Provided List/Map

☒ EMAIL

☐ PICK UP

Delivery Method: Certified abutters list and mailing label file
will be sent via email.

Certified abutters list and mailing labels will be
picked up when complete.

43 of 163

Emails may go to spam, please check your spam and/or junk folder.

**CERTIFIED ABUTTERS LIST**

Date: August 26, 2025

Subject Property Address: 40 PARK AVE & 1293-1305 MASS AVE Arlington, MA

Subject Property ID: 59.1.10.B & 59.1.10.D

Search Distance: 100 Feet - Conservation

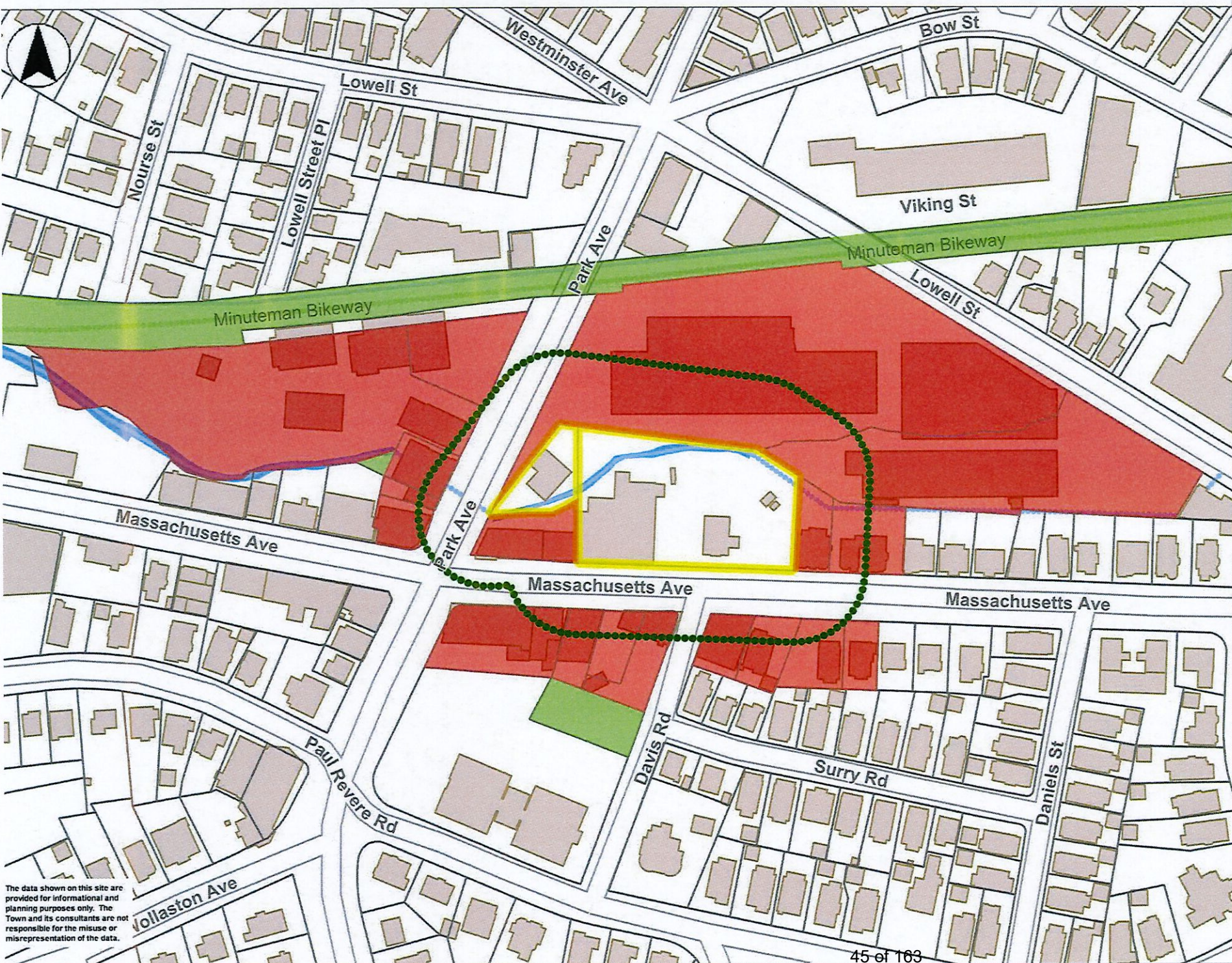
1

Parcel ID:	Property Location	Owner 1	Owner 2	MAILING ADDRESS				
				Mailing Address 1	Mailing Address 2	Town	State	Zip
170-2-1	1310--1328 MASS AVE	ATINIZIAN NIGOGHOS & CAROLYN	TRS/ FRESH POND SHOPPING	545 CONCORD AVE	SUITE 400	CAMBRIDGE	MA	02138
170-2-2	1306--1308 MASS AVE	RB FARINA ROOFING & CONSTRUCTION	INC	1319 MASS AVE		ARLINGTON	MA	02476
170-2-3	0-LOT MASS AVE	CAMBRIDGE SAVINGS BANK		ATTN: FACILITIES DEPARTMENT	1374 MASS AVENUE	CAMBRIDGE	MA	02138
170-2-4	1300 MASS AVE	CAMBRIDGE SAVINGS BANK		ATTN: FACILITIES DEPARTMENT	1374 MASS AVENUE	CAMBRIDGE	MA	02138
170-3-5	1298 MASS AVE	SHATTUCK HEIGHTS REAL ESTATE LLC		24 MILL ST		ARLINGTON	MA	02476
170-3-6	1296--1296B MASS AVE	WHEATLEY HEIGHTS REAL ESTATE LLC		24 MILL ST		ARLINGTON	MA	02476
170-3-7	1292--1294 MASS AVE	LECAIN ELEANOR &	CLARK JOHN KEVIN	1292-1294 MASS AVE		ARLINGTON	MA	02476
165.A-3-1288	1288 MASS AVE UNIT 1	O'BRIEN JESSE D & REGINA M		1290 MASS AVE		ARLINGTON	MA	02476
165.A-3-1290	1290 MASS AVE UNIT 2	OBRIEN JESSE D & REGINA M		1290 MASS AVE UNIT 2		ARLINGTON	MA	02476
59.A-1-1.1	1283 MASS AVE UNIT 1	MA XIAOHE	WEI RONG QING	1283 MASS AVE #1		ARLINGTON	MA	02476
59.A-1-1.2	1283 MASS AVE UNIT 2	CATKA KATHERINE		PO BOX 367		ARLINGTON	MA	02476
59.A-1-1.3	1283 MASS AVE UNIT 3	SRIRAM RADHIKA	GANDHI MANISH	46 BOSTON RD		WESTFORD	MA	01886
59-1-7	1281 MASS AVE	LACOURT ENTERPRISES LLC		30 COLLEGE AVE		SOMERVILLE	MA	02144
59-1-9	1287--1289 MASS AVE	GALVIN SEAN/TRUSTEE	1020-1024 BEACON STREET REALTY	630 HIGH ST		MEDFORD	MA	02155
59-1-10.B	40 PARK AVE	40 PARK AVENUE ASSOCIATES LLC		PO BOX 288		ARLINGTON	MA	02476
59-1-10.D	1293--1305 MASS AVE	P&D REALTY	R.P.S.D REALTY TRUST	28 CHURCH ST	SUITE 16	WINCHESTER	MA	01890
59-1-11	1309--1323 MASS AVE	1309-1323 MASS AVE LLC		C/O MARCO DICARA	20 SUNSET ROCK LN	READING	MA	01867
59-1-12	30 PARK AVE	30 PARK AVE ASSOC LLP		PO BOX 288		ARLINGTON	MA	02476
59-1-19	50 LOWELL ST	30 PARK AVE ASSOCIATES LLC		PO BOX 288		ARLINGTON	MA	02476
60-1-1	35 PARK AVE	ARLINGTON COAL & LUMBER CO		41 PARK AVE		ARLINGTON	MA	02476
60-1-2	41--45 PARK AVE	ARLINGTON COAL & LUMBER CO		41 PARK AVE		ARLINGTON	MA	02476
60-1-4	47--53 PARK AVE	ARLINGTON COAL & LUMBER CO		41 PARK AVE		ARLINGTON	MA	02476
60-1-5.A	53-A PARK AVE	ARLINGTON COAL & LUMBER CO		41 PARK AVENUE		ARLINGTON	MA	02476
60-1-6.A	1331--1337 MASS AVE	ARLINGTON 1331 REALTY LLC		1742 E FORT DOUGLAS CIR		SALT LAKE CITY	UT	84103

The Board of Assessors certifies the names and addresses of requested parties in interest, all abutters to a single parcel within 100 feet.

Town of Arlington
Office of the Board of Assessors
730 Massachusetts Ave • Arlington, MA 02476
P: 781.316.3050 E: assessors@town.arlington.ma.us





- Places by Category
- Police Station
 - Fire Station
 - School
 - Library
 - Public Works
 - Recreation - Facilities
 - Recreation - Fields Cc
 - Recreation - Fields Cc
 - Open Space: Conserv
 - Open Space - Minuter
 - Open Space - Labels
 - Open Space
 - Town, State, or
 - Other Town Ow.
 - MA Highways
 - Interstate
 - US Highway
 - Numbered Rout
 - Abutting Towns
 - Town Boundary
 - Parcels
 - Buildings
 - Cemetery - Roads
 - Road1
 - Road2
 - Road3
 - Road4
 - Pavement Markings
 - Impervious Surface - I
 - Street
 - Sidewalk
 - Street Island
 - Driveway
 - Parking Lot
 - Bike Path
 - Roads - For Large Sc
 - Roads - For Small Sc
 - Major Road
 - Local Road
 - Master Plan Base Map
 - Water Line
 - Water Body

The data shown on this site are provided for informational and planning purposes only. The Town and its consultants are not responsible for the misuse or misrepresentation of the data.

AFFIDAVIT OF SERVICE

I, *Taylor Donovan*, being duly sworn, do hereby state as follows: on *9/3/2025*, I mailed a "Notification to Abutters" in compliance with the second paragraph of Massachusetts General Laws, Chapter 131, s.40, the DEP Guide to Abutter Notification dated April 8, 1994, and the Arlington Wetlands Protection Bylaw, Title V, Article 8 of the Town of Arlington Bylaws in connection with the following matter:

Proposed renovations to the existing loading dock at the rear of the facility located at 40 Park Avenue in Arlington, MA. Proposed work generally consists of removing material adjacent to the existing loading dock to create a 48" reveal, and paving of the access way. A leaching basin will also be installed beneath an area of existing pavement and connected to the existing roof drains of the facility.

The form of the notification, and a list of the abutters to whom it was provided and their addresses, are attached to this Affidavit of Service.

Signed under the pains and penalties of perjury, this *third of September, 2025*.

Taylor Donovan

Name

Attachment C

Supporting Delineation Information

September 2, 2025

Email (cknight@davidsonmanagement.net)

Mr. Carter Knight
30 Park Avenue Associates LLP
P. O. Box 288
Arlington, MA 02476

**Re: Wetland Resource Area Analysis
40 Park Avenue
Arlington, Massachusetts**

[LEC File #: PAALLP\24-453.02]

Dear Mr. Knight:

Pursuant to your request, LEC Environmental Consultants, Inc., (LEC) conducted a site evaluation and Wetland Resource Area boundary determination at 40 Park Avenue in Arlington, Massachusetts. Our site evaluation was conducted in accordance with the *Massachusetts Wetlands Protection Act* (the *Act*, M.G.L. c. 131, s. 40), its implementing *Regulations* (the *Act Regulations*, 310 CMR 10.00), the *Town of Arlington Wetlands Protection Bylaw* (Article 8, the *Bylaw*), and its implementing *Wetlands Protection Regulations* (March 16, 2024, the *Bylaw Regulations*).

LEC also employed the criteria provided in the *Massachusetts Handbook for Delineation of Bordering Vegetated Wetlands (Second Edition, September 2022)* and the *Field Indicators for Identifying Hydric Soils in New England* (Version 4, June 2020, the *Field Indicators Guide*). The following report provides a general site description, wetland delineation methodology, and a description of the Wetland Resource Areas and potential regulatory implications.

General Site Description

The site is located to the east of Park Avenue, north of Massachusetts Avenue, and southwest of Lowell Street. in the northwestern portion of Arlington (Attachment A, Figures 1 and 2). Commercial development is located to the northwest, northeast, and south of the property.

A small commercial building composes the majority of the property, with a parking area to the southwest of the building, and a large, paved parking lot to the north, associated with the abutting property. Mill Brook flows eastward along the southern edge of the property. The brook has a rocky and gravelly substrate, with variable depth ranging from one to three feet. Onsite uplands to the north of the Brook were subject to a restoration planting area in spring of 2025. A variety of native trees, shrubs, and herbaceous species were planted on the slopes above the brook and flatter areas closer to the building, generally extending up to 25 feet outward from the Brook.

LEC inspected vegetation and soil conditions within the uplands upgradient of the Brook and did not observe a wetland plant community, hydric soils, redoximorphic features or other indicators of hydrology.

LEC Environmental Consultants, Inc.

www.lecenvironmental.com

12 Resnik Road
Suite 1
Plymouth, MA 02360
508.746.9491

380 Lowell Street
Suite 101
Wakefield, MA 01880
781.245.2500

100 Grove Street
Suite 310
Worcester, MA 01605
508.753.3077

P. O. Box 590
Rindge, NH 03461
603.899.6726

680 Warren Avenue
Suite 3
East Providence, RI 02914
401.685.3109

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PLYMOUTH, MA

WAKEFIELD, MA

WORCESTER, MA

RINDGE, NH

EAST PROVIDENCE, RI

Natural Heritage and Endangered Species Program (NHESP) Designation

According to the 15th Edition (August 1, 2021) of the Natural Heritage & Endangered Species Program (NHESP) *Massachusetts Natural Heritage Atlas*, the site is not located within *Estimated Habitat of Rare Species* or *Priority Habitat of Rare Species*. No Potential or Certified Vernal Pools exist on or in proximity to the property (Attachment A, Figures 1 and 2).

Floodplain Designation

According to the July 8, 2025 *Federal Emergency Management Agency Flood Insurance Rate Map* for Middlesex County, Massachusetts (Map No: 25017C0416F), portions of the site are located within a Zone AE - *Special flood hazard areas subject to inundation by the 1% annual chance flood*: with a base flood elevation of approximately 146.2 feet NAVD88. Within Mill Brook is the Regulatory Floodway: *The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights* (Attachment A, Figure 3). The following image shows a close-up view of the FEMA map for clarity, since the site-level mapping is not discernible on the FIRMette.



Wetland Boundary Determination

On October 22, 2024, LEC conducted a site evaluation to identify and characterize existing protectable Wetland Resource Areas on and proximate to the subject property, and to delineate their boundaries. The extent of Wetland Resource Areas was determined through observations of existing plant communities, hydric soil indicators, and hydrologic indicators in accordance with the *Act*, the *Act Regulations*, the



Bylaw, and the *Bylaw Regulations*. Based on our observations and review of pertinent maps, LEC determined that the Wetland Resource Areas associated with the property include Bank-Mean Annual High Water (MAHW) of Mill Brook.

The Bank-MAHW boundary was demarcated with blue surveyor's tape and/or blue pin flags numbered R-1 through R-10. The existing concrete wall demarcates the edge of Bank-MAHW extending southwest from flag R-10 to the property boundary. Wetland flags were survey-located by Rober Survey, and are shown on the Plan titled *Conservation Plan*, dated October 28, 2024.

A brief description of the Wetland Resource Areas is provided below.

Bank-MAHW Line

According to the *Act Regulations* [310 CMR 10.58(2)(a)(2)], MAHW is defined as *the line that is apparent from visible markings or changes in the character of soils or vegetation due to the prolonged presence of water and that distinguishes between predominantly aquatic and predominantly terrestrial land. Field indicators of bankfull conditions shall be used to determine the mean annual high-water line. Bankfull field indicators include but are not limited to: changes in slope, changes in vegetation, stain lines, top of pointbars, changes in bank materials, or bank undercuts...*

The Bank-MAHW was delineated from the edge of existing undisturbed vegetation to the east of the property, upstream to the southern corner of the onsite building, where an existing retaining wall demarcates the Bank-MAHW line westward to the edge of property. Vegetation along the banks was absent, due to vegetation removal that took place in summer of 2024.

Summary

LEC conducted a site evaluation and wetland delineation on October 22, 2024 to determine the extent of Wetland Resource Areas subject to jurisdiction under the *Act*, the *Act Regulations*, the *Bylaw*, and the *Bylaw Regulations*. Based on our site evaluation and review of pertinent maps, LEC determined that the Wetland Resource Areas located on the subject properties include Bank-MAHW of Mill Brook. The Bank-MAHW delineated in the field places a 100-foot Buffer Zone and a 200-foot Riverfront Area onto the project site.

If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

LEC Environmental Consultants, Inc.

Dan Wells

Senior Wildlife/Wetland Scientist

Attachment A

Figure 1: USGS Topographic Map

Figure 2: Orthophoto Map

Figure 3: FEMA FIRMette



Legend

- Property Boundary
- M010TaxPar_CY24_FY24
- NHESP Certified Vernal Pools
- Potential Vernal Pools
- NHESP Estimated Habitats of Rare Wildlife
- NHESP Priority Habitats of Rare Species



MassGIS Data Source:
"Bureau of Geographic Information (MassGIS),
Commonwealth of Massachusetts, Executive
Office of Technology and Security Services".

MassGIS 2023 Orthophoto



LEC Environmental Consultants, Inc.
Wakefield, MA 781.245.2500
www.lecenvironmental.com

Figure 2 Orthophoto Map

40 Park Avenue
Arlington, MA

Date: 9/2/2025



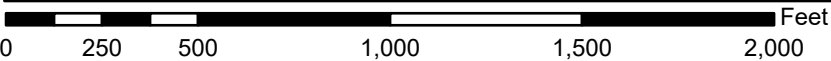
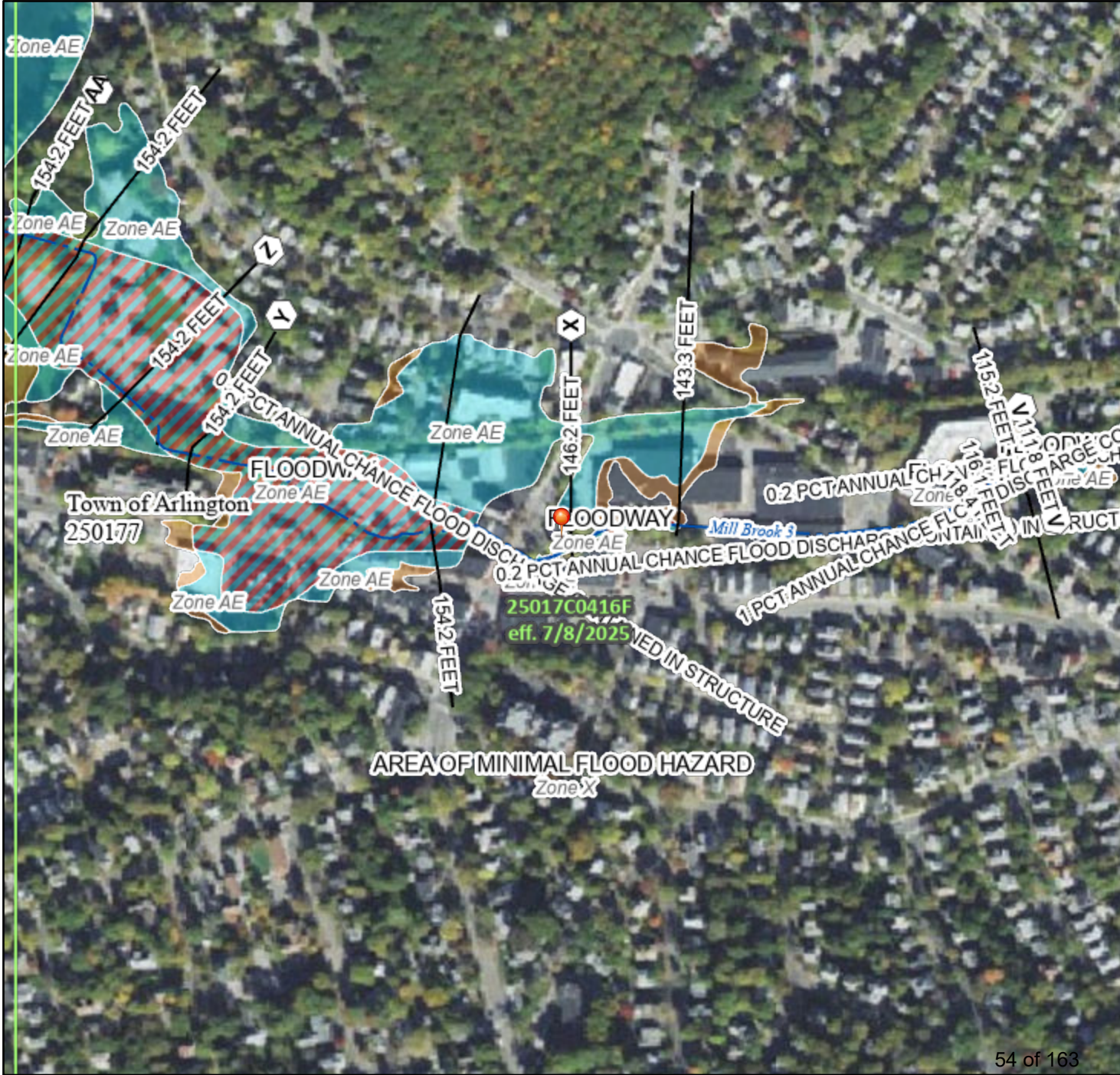
1 inch = 40 feet

0 10 20 40 Feet
53 of 163

National Flood Hazard Layer FIRMMette



71°11'15"W 42°25'42"N



1:6,000

54 of 163

71°10'38"W 42°25'16"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
OTHER FEATURES		Profile Baseline
		Hydrographic Feature
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/2/2025 at 1:12 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Attachment D

Stormwater Memorandum



To: 40 Park Ave Associates LLC

Date: August 2025

Memorandum

Project #: 13346.07

From: Nick Skoly, P.E.

Re: Stormwater Management Memo
40 Park Drive
Arlington, Massachusetts

This Stormwater memorandum has been prepared to demonstrate compliance with the Town of Arlington Stormwater Management Regulations and the Massachusetts DEP Stormwater Management Standards.

Project Description

40 Park Ave Associates LLC, (the Applicant) proposes to renovate the existing loading dock at 40 Park Ave in Arlington, MA (the Site). As proposed, the Project consists of removing material adjacent to the existing loading dock to create a 48" reveal at the loading dock and paving of the access.

The Project is not considered a Land Use with Higher Potential Pollutant Loads (LUHPPL).

The Site is a 0.17-acre parcel of land located at 40 Park Ave in Arlington, Massachusetts (see Figure 1). The Site lies within the surface watershed of the Mystic River and is bounded by Park Avenue to the west, Mill Brook to the south, and east, and 30 Park Avenue to the north.

The Site is located in Zone AE and X per FEMA Flood Insurance Rate Mapping. The 100 year flood plain lies entirely within the channel of Mill Brook. The wetland resources on site include Mill Brook and the associated buffer zone and riverfront areas.

Existing and Proposed Drainage Conditions

According to the Natural Resources Conservation Service (NRCS), surface soils on the Site include urban land with no Hydrologic Soil Group Rating (HSG). However adjacent parcels contain Merrimac and Charlton urban land with associated HSG of A.

Under existing conditions, the Site is fully developed, consisting of one building, associated parking/pavement, and poor landscaping adjacent to Mill Brook. The stormwater flows untreated overland into Mill Brook. (See figure 1)

Under the proposed condition, the stormwater runoff from the building and new loading area will be collected in a leaching basin and infiltrated. The remaining portion of the site will continue to flow overland into Mill Brook. During larger storm events, the leaching basin will overflow and stormwater will flow overland into Mill Brook as well (See Figure 2). The Project proposes a significant improvement to the stormwater runoff on site by matching or decreasing peak rates and by decreasing runoff volumes for the design storms.

The project's limit of work represents an increase of 780 square feet of impervious coverage compared to the existing condition. Table 1 below summarizes the existing and proposed cover types on the Site.

Table 1 Impervious Surface Summary

	Existing (SF)	Proposed (SF)	Net Change (SF)
Building Footprint	2,210	2,210	0
Bituminous Driveway	3,870	4,650	+780
Total Areas	6,080	6,860	+780

Regulatory Compliance

Standard 1: No New Untreated Discharges or Erosion to Wetlands

The Project has been designed to comply with Standard 1.

The Best Management Practices (BMPs) included in the proposed stormwater management system have been designed in accordance with the Massachusetts Stormwater Handbook, revised and updated in 2008. Supporting information and computations demonstrating that no new untreated discharges will result from the Project are presented through compliance with Standards 4 through 6.

Standard 2: Peak Rate Attenuation

The Project has been designed to comply with Standard 2.

The rainfall-runoff response of the Site under existing and proposed conditions was analyzed for storm events with recurrence intervals of 2, 10, 25 and 100 years. The results of the analysis, as summarized in Table 2 below, indicate that there is no net increase in peak discharge rates between the existing and proposed conditions.

Computations and supporting information regarding the hydrologic modeling are included in Attachment 1.

Table 2 Peak Discharge Rates (cfs)

Design Point	2-year	10-year	25-year	100-year
Design Point: 1				
Existing	0.6	1.0	1.3	1.8
Proposed	0.4	0.9	1.3	1.8

Standard 3: Stormwater Recharge

The Project has been designed to comply with Standard 3.

In accordance with the Stormwater Handbook, the Required Recharge Volume for the Project is therefore 39 cubic feet.

Recharge of stormwater has been provided through the use of a leaching basin, which has been sized using the *Static* method. Each infiltration BMP has been designed to drain completely within 72 hours. Table 5 below provides a summary of the proposed infiltration BMPs utilized for the Project.

Table 4 Summary of Recharge Calculations

Infiltration BMP	Provided Recharge Volume (cubic feet)
Leaching Basin	446
Total Provided Recharge	446
Total Required Recharge	39

Standard 4: Water Quality

The Project has been designed to comply with Standard 4.

The proposed stormwater management system implements a treatment train of BMPs that has been designed to provide removal of a minimum 80% of total suspended solids (TSS) from stormwater runoff from all proposed impervious surfaces.

Computations and supporting information, including the Long-Term Pollution Prevention Plan, are included.

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

The Project is not considered a LUHPPL.

Standard 6: Critical Areas

The Project will not discharge stormwater near or to a critical area.

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the Maximum Extent Practicable

The Project has been designed to comply with all ten of the Stormwater Management Standards. Refer directly to each Standard for applicable computations and supporting information demonstrating compliance with each.

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

The Project will disturb less than 0.1 acres of land and is not required to obtain coverage under the Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Construction General Permit. In lieu of the Stormwater Pollution Prevention Plan (SWPPP) required under NPDES, a Construction Period Pollution Prevention and Erosion Sedimentation Control Plan has been attached.

Standard 9: Operation and Maintenance Plan

In compliance with Standard 9, a Post Construction Stormwater Operation and Maintenance (O&M) Plan has been developed for the Project. The O&M Plan is included as an attachment as part of the Long Term Pollution Prevention Plan.

Standard 10: Prohibition of Illicit Discharges

Sanitary sewer and storm drainage structures remaining from previous development which are part of the redevelopment area will be removed or will be incorporated into updated sanitary sewer and separate stormwater sewer systems. The design plans submitted with this report have been designed so that the components included therein are in full compliance with current standards. No statement is made with regard to the drainage system in portions of the site not included in the redevelopment project area. The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges.

Article 15 & Stormwater Management Standards

The Project is subject to the Minor Stormwater Management Permit and is required to provide minimum storage of 830 gallons (111 cf). The Project provides approximately 3,306 gallons (446 cf) of static storage.

Figures

1. Existing Drainage Conditions
2. Proposed Drainage Conditions

Attachments

1. HydroCAD Analysis
2. Recharge and Drawdown Calculation
3. TSS Removal Calculation
4. Recommended Construction Period Pollution Prevention
5. Operation & Maintenance Plan



Legend

SYMBOLS

X

DESIGN POINT

X

DRAINAGE AREA DESIGNATION

X

POND

LINETYPES

DRAINAGE AREA BOUNDARY

01530 Feet

60 of 163

vhb

Existing Drainage Conditions

40 Park Avenue

Arlington, MA

Figure 1

August 2025



Legend

SYMBOLS



DESIGN POINT



DRAINAGE AREA DESIGNATION



POND

LINETYPES



DRAINAGE AREA BOUNDARY

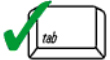




Checklist for Stormwater Report

A. Introduction

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



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

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals.¹ This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8²
- Operation and Maintenance Plan required by Standard 9

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

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

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

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

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



Checklist for Stormwater Report

B. Stormwater Checklist and Certification

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

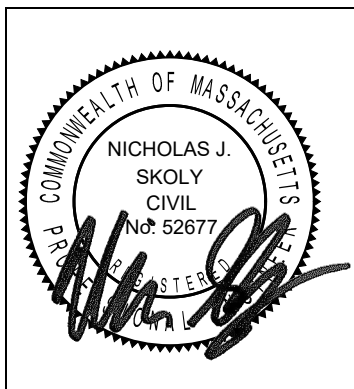
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the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

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

Registered Professional Engineer's Certification

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

Registered Professional Engineer Block and Signature



AUGUST 29, 2025

Signature and Date

Checklist

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

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



Checklist for Stormwater Report

Checklist (continued)

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

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

Standard 1: No New Untreated Discharges

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



Checklist for Stormwater Report

Checklist (continued)

Standard 2: Peak Rate Attenuation

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

Standard 3: Recharge

- ☐ Soil Analysis provided.
- ☒ Required Recharge Volume calculation provided.
- ☐ Required Recharge volume reduced through use of the LID site Design Credits.
- ☒ Sizing the infiltration, BMPs is based on the following method: Check the method used.
 - ☒ Static
 - ☐ Simple Dynamic
 - ☐ Dynamic Field¹
- ☒ Runoff from all impervious areas at the site discharging to the infiltration BMP.
- ☐ Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.
- ☒ Recharge BMPs have been sized to infiltrate the Required Recharge Volume.
- ☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:
 - ☐ Site is comprised solely of C and D soils and/or bedrock at the land surface
 - ☐ M.G.L. c. 21E sites pursuant to 310 CMR 40.0000
 - ☐ Solid Waste Landfill pursuant to 310 CMR 19.000
 - ☐ Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.
- ☒ Calculations showing that the infiltration BMPs will drain in 72 hours are provided.
- ☐ Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

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



Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

- ☐ The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.
- ☐ Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

Standard 4: Water Quality

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

- Good housekeeping practices;
 - Provisions for storing materials and waste products inside or under cover;
 - Vehicle washing controls;
 - Requirements for routine inspections and maintenance of stormwater BMPs;
 - Spill prevention and response plans;
 - Provisions for maintenance of lawns, gardens, and other landscaped areas;
 - Requirements for storage and use of fertilizers, herbicides, and pesticides;
 - Pet waste management provisions;
 - Provisions for operation and management of septic systems;
 - Provisions for solid waste management;
 - Snow disposal and plowing plans relative to Wetland Resource Areas;
 - Winter Road Salt and/or Sand Use and Storage restrictions;
 - Street sweeping schedules;
 - Provisions for prevention of illicit discharges to the stormwater management system;
 - Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
 - Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
 - List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.
- ☒ A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.
 - ☐ Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:
 - ☐ is within the Zone II or Interim Wellhead Protection Area
 - ☐ is near or to other critical areas
 - ☐ is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
 - ☐ involves runoff from land uses with higher potential pollutant loads.
 - ☐ The Required Water Quality Volume is reduced through use of the LID site Design Credits.
 - ☒ Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.



Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

- ☒ The BMP is sized (and calculations provided) based on:
 - ☒ The ½" or 1" Water Quality Volume or
 - ☐ The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.
- ☐ The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.
- ☐ A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

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

- ☐ The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.
- ☐ The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted **prior to** the discharge of stormwater to the post-construction stormwater BMPs.
- ☒ The NPDES Multi-Sector General Permit does **not** cover the land use.
- ☐ LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.
- ☐ All exposure has been eliminated.
- ☐ All exposure has **not** been eliminated and all BMPs selected are on MassDEP LUHPPL list.
- ☐ The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

Standard 6: Critical Areas

- ☐ The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.
- ☒ Critical areas and BMPs are identified in the Stormwater Report.



Checklist for Stormwater Report

Checklist (continued)

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

- ☐ The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:
 - ☐ Limited Project
 - ☐ Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
 - ☐ Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
 - ☐ Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
 - ☐ Bike Path and/or Foot Path
 - ☐ Redevelopment Project
 - ☐ Redevelopment portion of mix of new and redevelopment.
- ☐ Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.
- ☐ The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

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

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

- Narrative;
 - Construction Period Operation and Maintenance Plan;
 - Names of Persons or Entity Responsible for Plan Compliance;
 - Construction Period Pollution Prevention Measures;
 - Erosion and Sedimentation Control Plan Drawings;
 - Detail drawings and specifications for erosion control BMPs, including sizing calculations;
 - Vegetation Planning;
 - Site Development Plan;
 - Construction Sequencing Plan;
 - Sequencing of Erosion and Sedimentation Controls;
 - Operation and Maintenance of Erosion and Sedimentation Controls;
 - Inspection Schedule;
 - Maintenance Schedule;
 - Inspection and Maintenance Log Form.
- ☒ A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.



Checklist for Stormwater Report

Checklist (continued)

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

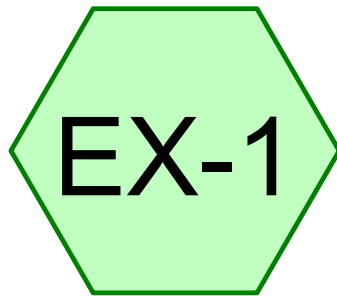
- ☐ The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has **not** been included in the Stormwater Report but will be submitted **before** land disturbance begins.
- ☒ The project is **not** covered by a NPDES Construction General Permit.
- ☐ The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.
- ☐ The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

Standard 9: Operation and Maintenance Plan

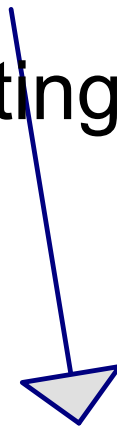
- ☒ The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:
 - ☒ Name of the stormwater management system owners;
 - ☐ Party responsible for operation and maintenance;
 - ☒ Schedule for implementation of routine and non-routine maintenance tasks;
 - ☐ Plan showing the location of all stormwater BMPs maintenance access areas;
 - ☐ Description and delineation of public safety features;
 - ☐ Estimated operation and maintenance budget; and
 - ☒ Operation and Maintenance Log Form.
- ☐ The responsible party is **not** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:
 - ☐ A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
 - ☐ A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

Standard 10: Prohibition of Illicit Discharges

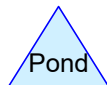
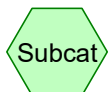
- ☒ The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;
- ☐ An Illicit Discharge Compliance Statement is attached;
- ☐ NO Illicit Discharge Compliance Statement is attached but will be submitted **prior to** the discharge of any stormwater to post-construction BMPs.



Existing



Mill Brook



40 Park EX

Prepared by VHB, Inc

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Page 2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
2,890	68	<50% Grass cover, Poor, HSG A (EX-1)
6,080	98	Paved parking, HSG A (EX-1)

40 Park EX

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Type III 24-hr 2-year Rainfall=3.27"

Printed 7/29/2025

Page 3

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentEX-1: Existing

Runoff Area=8,970 sf 67.78% Impervious Runoff Depth=2.06"

Tc=0.0 min CN=88 Runoff=0.57 cfs 1,540 cf

Link DP-1: Mill Brook

Inflow=0.57 cfs 1,540 cf

Primary=0.57 cfs 1,540 cf

40 Park EX

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Type III 24-hr 2-year Rainfall=3.27"

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Page 4

Summary for Subcatchment EX-1: Existing

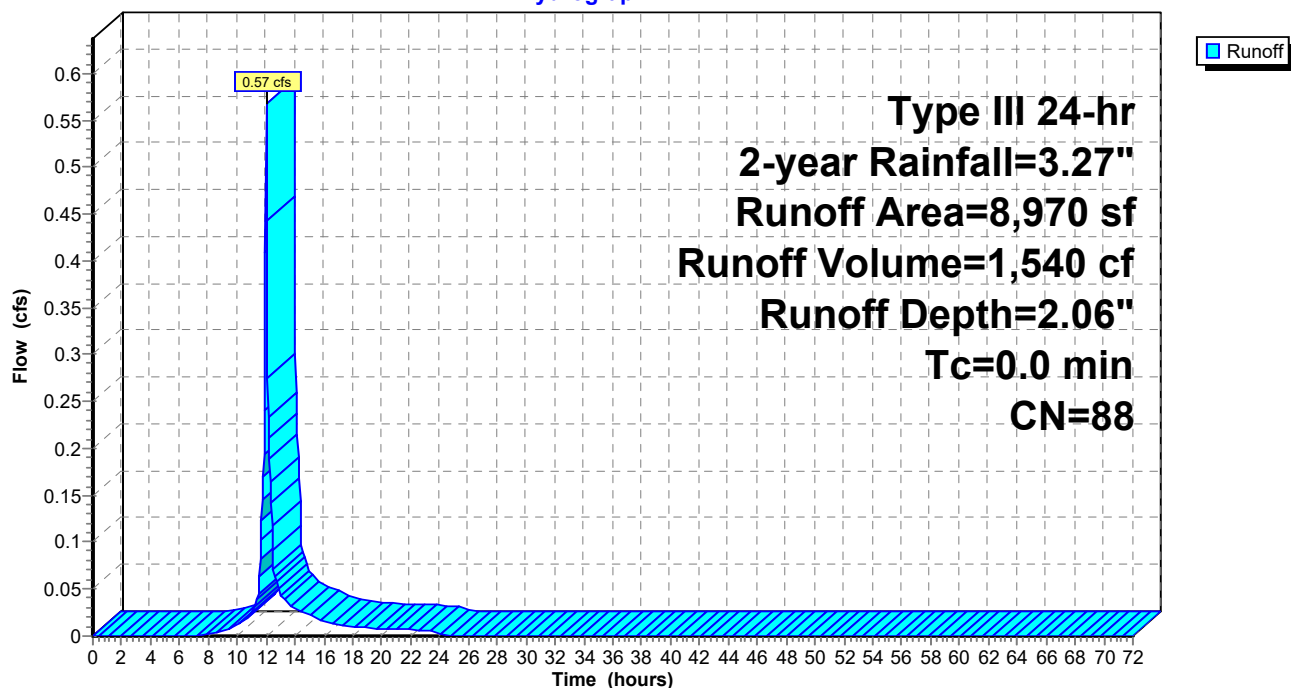
Runoff = 0.57 cfs @ 12.00 hrs, Volume= 1,540 cf, Depth= 2.06"
Routed to Link DP-1 : Mill Brook

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.27"

Area (sf)	CN	Description
2,890	68	<50% Grass cover, Poor, HSG A
6,080	98	Paved parking, HSG A
8,970	88	Weighted Average
2,890		32.22% Pervious Area
6,080		67.78% Impervious Area

Subcatchment EX-1: Existing

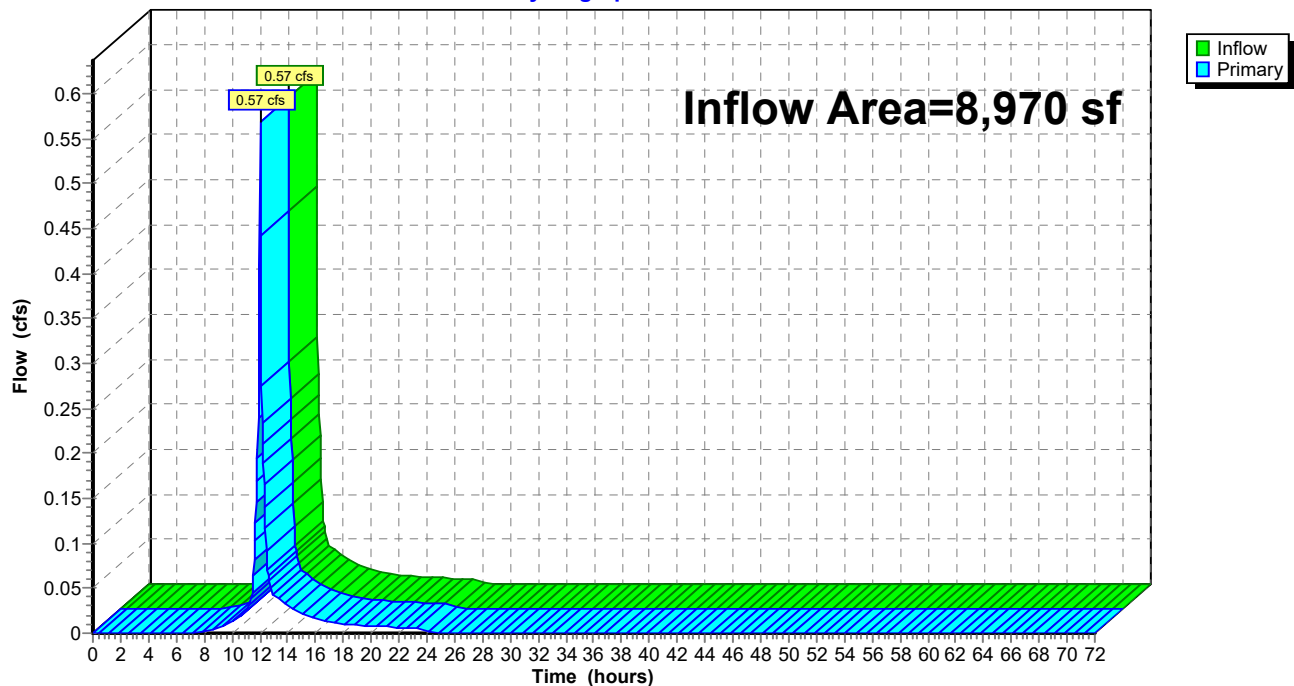
Hydrograph



Summary for Link DP-1: Mill Brook

Inflow Area = 8,970 sf, 67.78% Impervious, Inflow Depth = 2.06" for 2-year event
Inflow = 0.57 cfs @ 12.00 hrs, Volume= 1,540 cf
Primary = 0.57 cfs @ 12.00 hrs, Volume= 1,540 cf, Atten= 0%, Lag= 0.0 min

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

Link DP-1: Mill Brook**Hydrograph**

40 Park EX

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Type III 24-hr 10-year Rainfall=5.16"

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Page 6

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentEX-1: Existing

Runoff Area=8,970 sf 67.78% Impervious Runoff Depth=3.82"

Tc=0.0 min CN=88 Runoff=1.03 cfs 2,856 cf

Link DP-1: Mill Brook

Inflow=1.03 cfs 2,856 cf

Primary=1.03 cfs 2,856 cf

40 Park EX

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Type III 24-hr 10-year Rainfall=5.16"

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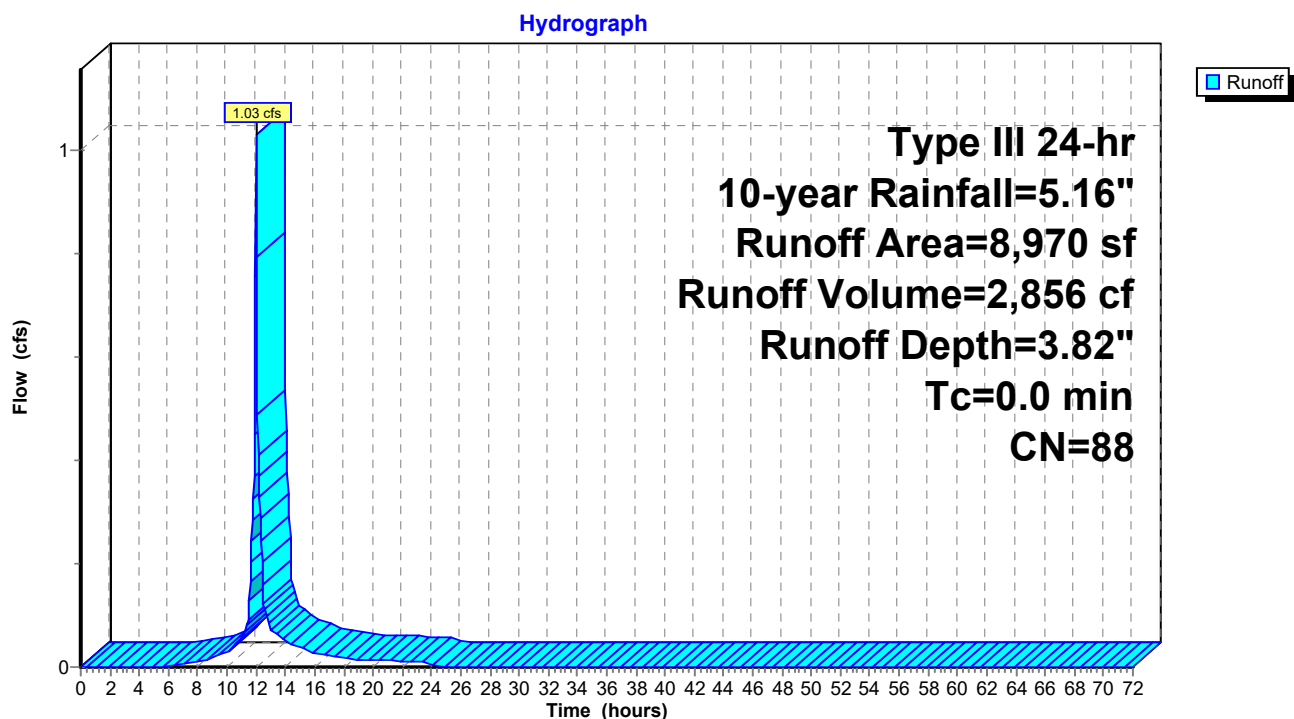
Summary for Subcatchment EX-1: Existing

Runoff = 1.03 cfs @ 12.00 hrs, Volume= 2,856 cf, Depth= 3.82"
Routed to Link DP-1 : Mill Brook

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=5.16"

Area (sf)	CN	Description
2,890	68	<50% Grass cover, Poor, HSG A
6,080	98	Paved parking, HSG A
8,970	88	Weighted Average
2,890		32.22% Pervious Area
6,080		67.78% Impervious Area

Subcatchment EX-1: Existing



40 Park EX

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Type III 24-hr 10-year Rainfall=5.16"

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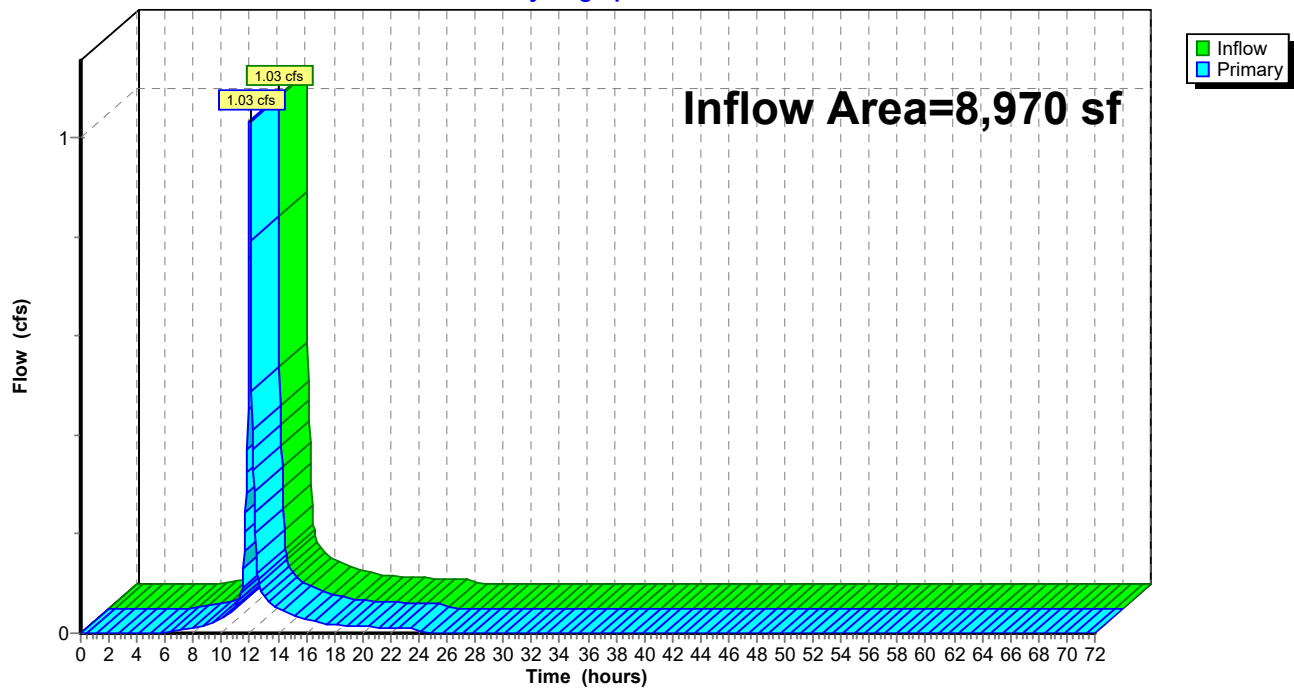
Summary for Link DP-1: Mill Brook

Inflow Area = 8,970 sf, 67.78% Impervious, Inflow Depth = 3.82" for 10-year event
Inflow = 1.03 cfs @ 12.00 hrs, Volume= 2,856 cf
Primary = 1.03 cfs @ 12.00 hrs, Volume= 2,856 cf, Atten= 0%, Lag= 0.0 min

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

Link DP-1: Mill Brook

Hydrograph



40 Park EX

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Type III 24-hr 25-year Rainfall=6.34"

Printed 7/29/2025

Page 9

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentEX-1: Existing

Runoff Area=8,970 sf 67.78% Impervious Runoff Depth=4.95"

Tc=0.0 min CN=88 Runoff=1.32 cfs 3,703 cf

Link DP-1: Mill Brook

Inflow=1.32 cfs 3,703 cf

Primary=1.32 cfs 3,703 cf

40 Park EX

Prepared by VHB, Inc

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Type III 24-hr 25-year Rainfall=6.34"

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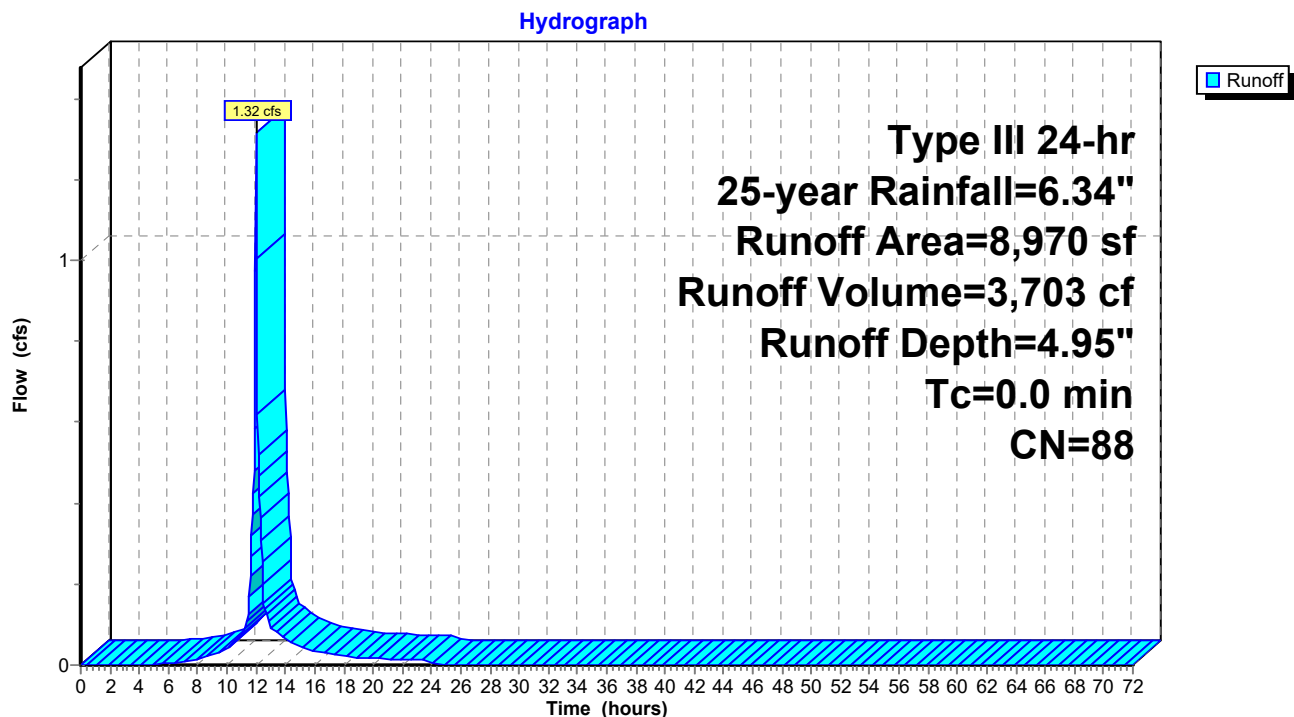
Summary for Subcatchment EX-1: Existing

Runoff = 1.32 cfs @ 12.00 hrs, Volume= 3,703 cf, Depth= 4.95"
Routed to Link DP-1 : Mill Brook

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=6.34"

Area (sf)	CN	Description
2,890	68	<50% Grass cover, Poor, HSG A
6,080	98	Paved parking, HSG A
8,970	88	Weighted Average
2,890		32.22% Pervious Area
6,080		67.78% Impervious Area

Subcatchment EX-1: Existing



40 Park EX

Prepared by VHB, Inc

HydroCAD® 10.20-5c s/n 01038 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 25-year Rainfall=6.34"

Printed 7/29/2025

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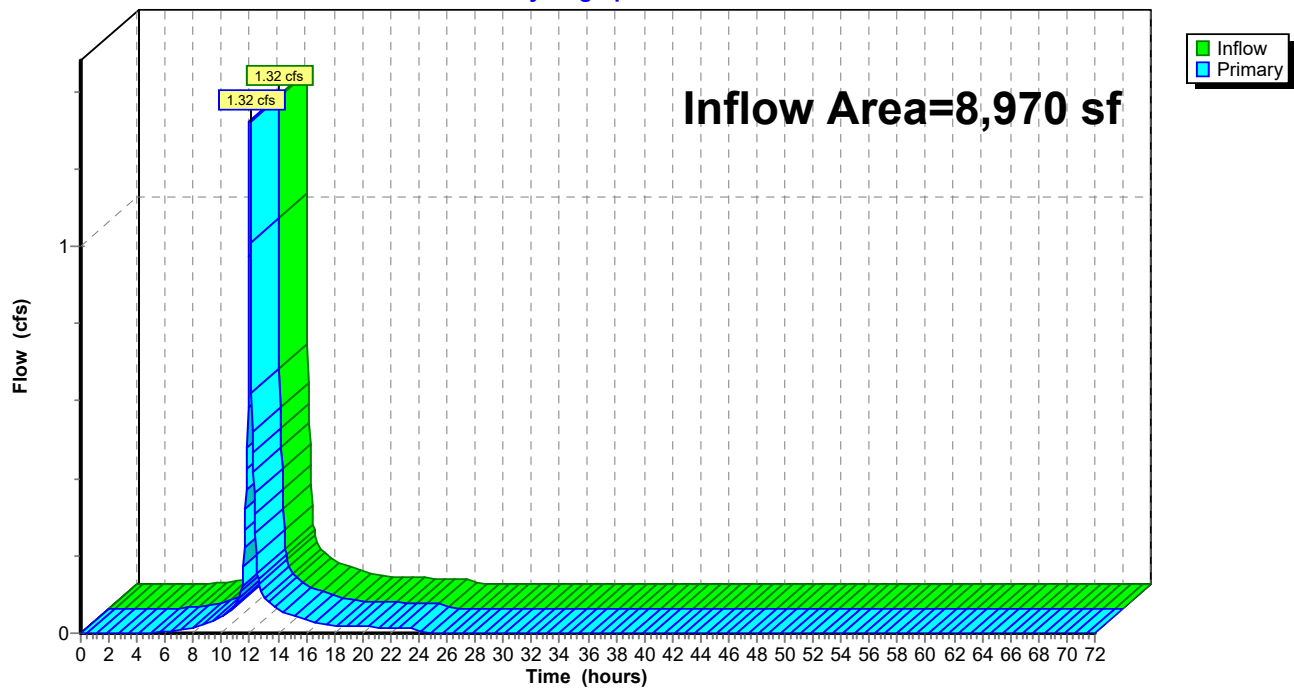
Summary for Link DP-1: Mill Brook

Inflow Area = 8,970 sf, 67.78% Impervious, Inflow Depth = 4.95" for 25-year event
Inflow = 1.32 cfs @ 12.00 hrs, Volume= 3,703 cf
Primary = 1.32 cfs @ 12.00 hrs, Volume= 3,703 cf, Atten= 0%, Lag= 0.0 min

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

Link DP-1: Mill Brook

Hydrograph



40 Park EX

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Type III 24-hr 100-year Rainfall=8.15"

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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentEX-1: Existing

Runoff Area=8,970 sf 67.78% Impervious Runoff Depth=6.71"

Tc=0.0 min CN=88 Runoff=1.76 cfs 5,019 cf

Link DP-1: Mill Brook

Inflow=1.76 cfs 5,019 cf

Primary=1.76 cfs 5,019 cf

40 Park EX

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Type III 24-hr 100-year Rainfall=8.15"

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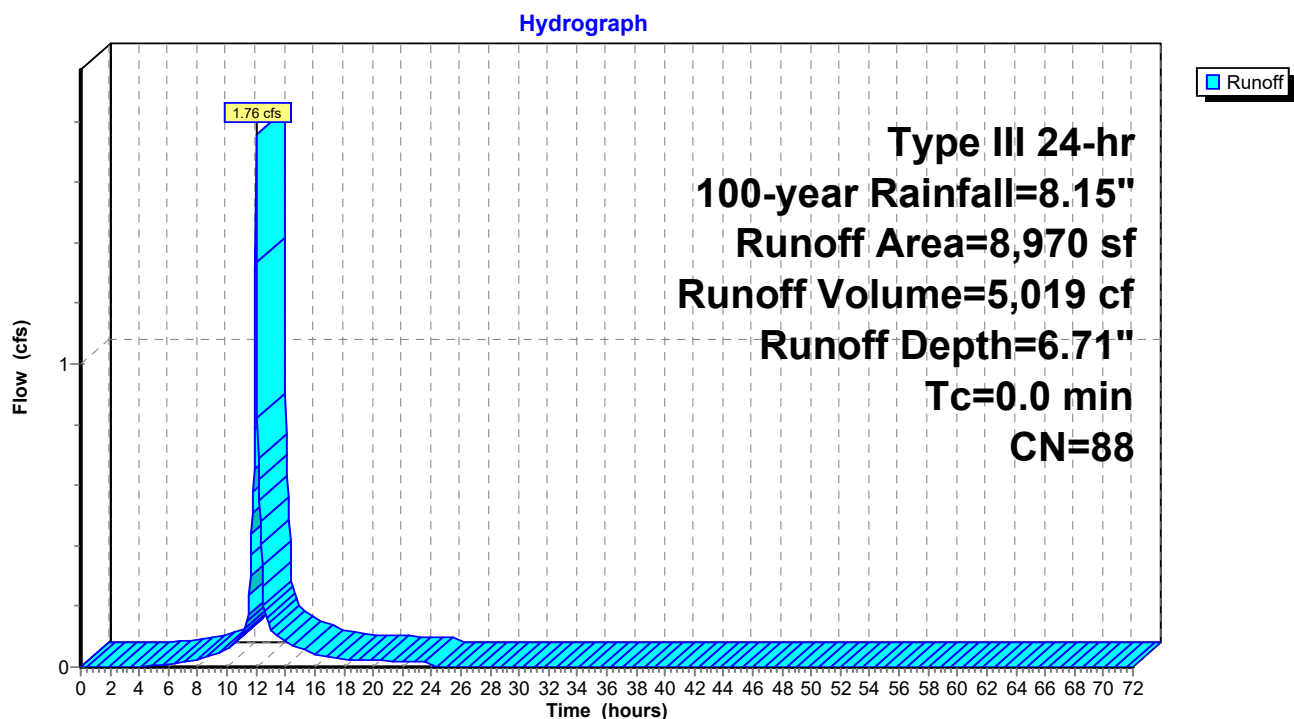
Summary for Subcatchment EX-1: Existing

Runoff = 1.76 cfs @ 12.00 hrs, Volume= 5,019 cf, Depth= 6.71"
Routed to Link DP-1 : Mill Brook

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.15"

Area (sf)	CN	Description
2,890	68	<50% Grass cover, Poor, HSG A
6,080	98	Paved parking, HSG A
8,970	88	Weighted Average
2,890		32.22% Pervious Area
6,080		67.78% Impervious Area

Subcatchment EX-1: Existing



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Type III 24-hr 100-year Rainfall=8.15"

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Summary for Link DP-1: Mill Brook

Inflow Area = 8,970 sf, 67.78% Impervious, Inflow Depth = 6.71" for 100-year event

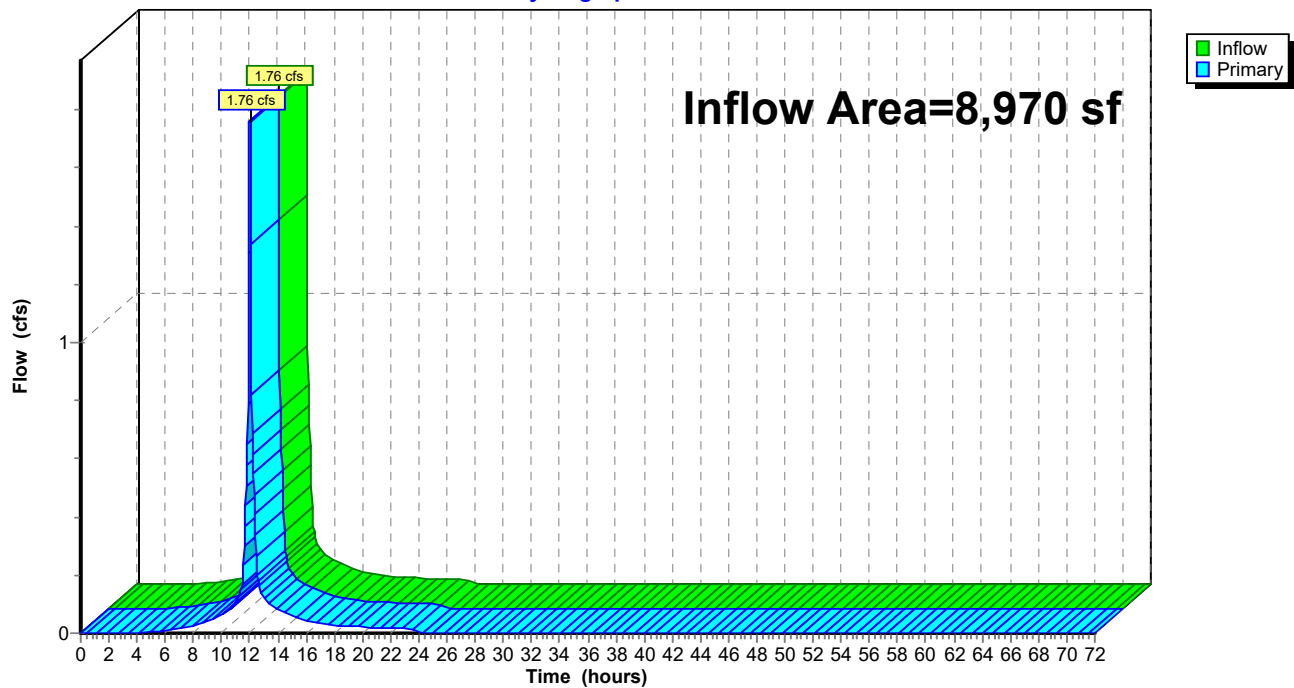
Inflow = 1.76 cfs @ 12.00 hrs, Volume= 5,019 cf

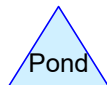
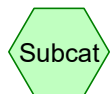
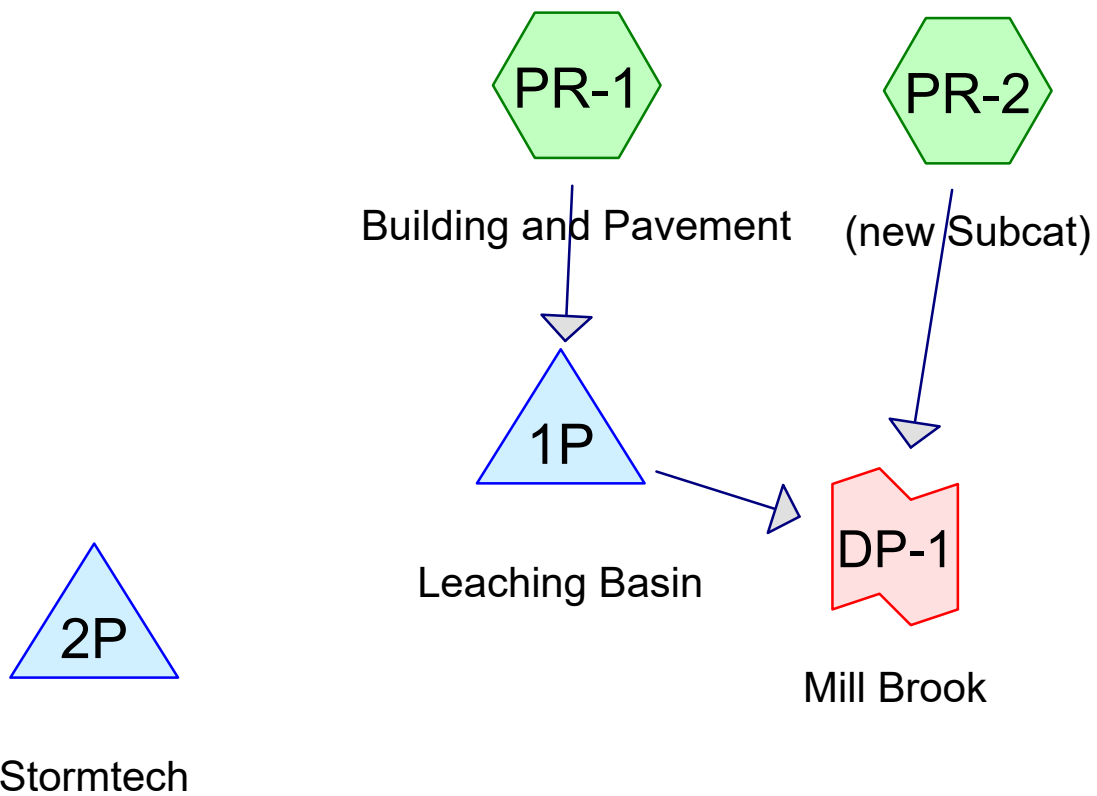
Primary = 1.76 cfs @ 12.00 hrs, Volume= 5,019 cf, Atten= 0%, Lag= 0.0 min

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

Link DP-1: Mill Brook

Hydrograph





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Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
2,110	68	<50% Grass cover, Poor, HSG A (PR-1, PR-2)
6,860	98	Paved parking, HSG A (PR-1, PR-2)

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Type III 24-hr 2-year Rainfall=3.27"

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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentPR-1: Building and Pavement Runoff Area=3,320 sf 89.46% Impervious Runoff Depth=2.71"
Tc=0.0 min CN=95 Runoff=0.26 cfs 751 cf

SubcatchmentPR-2: (new Subcat) Runoff Area=5,650 sf 68.85% Impervious Runoff Depth=2.15"
Tc=0.0 min CN=89 Runoff=0.37 cfs 1,010 cf

Pond 1P: Leaching Basin Peak Elev=148.40' Storage=447 cf Inflow=0.26 cfs 751 cf
Discarded=0.00 cfs 689 cf Primary=0.01 cfs 61 cf Outflow=0.01 cfs 751 cf

Pond 2P: Stormtech Peak Elev=0.00' Storage=0 cf
Discarded=0.00 cfs 0 cf Primary=0.00 cfs 0 cf

Link DP-1: Mill Brook Inflow=0.37 cfs 1,072 cf
Primary=0.37 cfs 1,072 cf

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Type III 24-hr 2-year Rainfall=3.27"

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Summary for Subcatchment PR-1: Building and Pavement

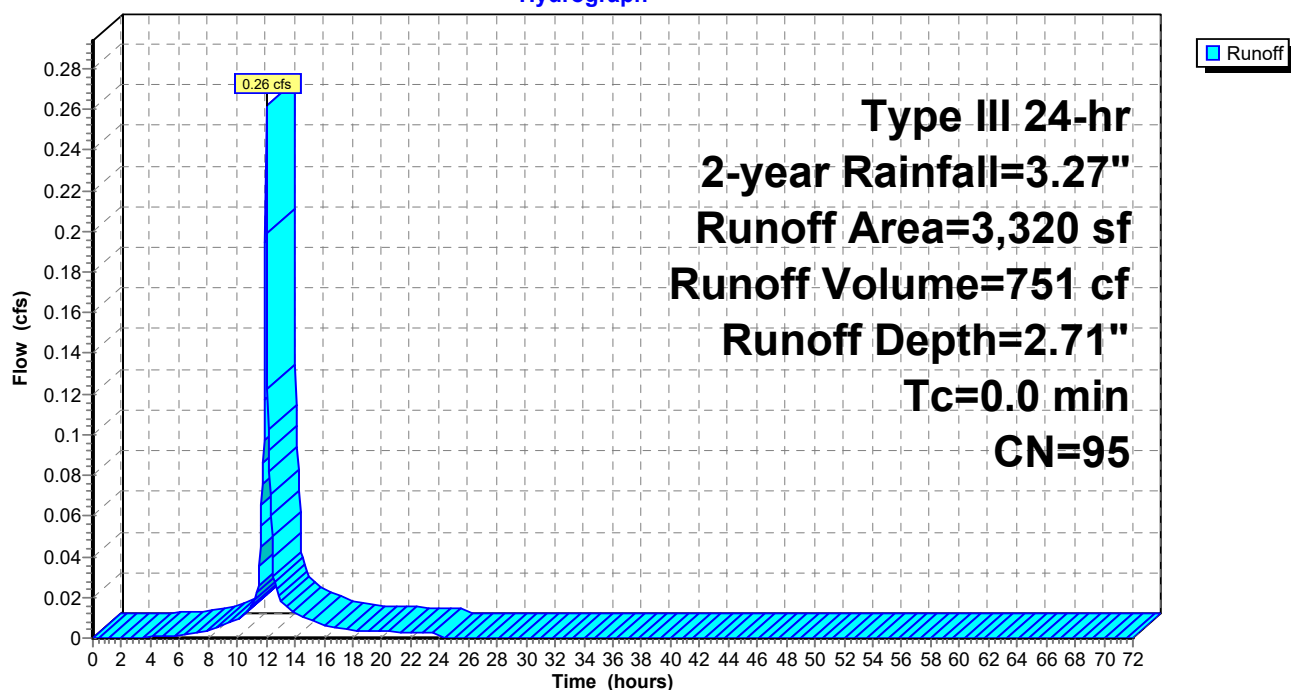
Runoff = 0.26 cfs @ 12.00 hrs, Volume= 751 cf, Depth= 2.71"
Routed to Pond 1P : Leaching Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.27"

Area (sf)	CN	Description
350	68	<50% Grass cover, Poor, HSG A
2,970	98	Paved parking, HSG A
3,320	95	Weighted Average
350		10.54% Pervious Area
2,970		89.46% Impervious Area

Subcatchment PR-1: Building and Pavement

Hydrograph



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Type III 24-hr 2-year Rainfall=3.27"

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Summary for Subcatchment PR-2: (new Subcat)

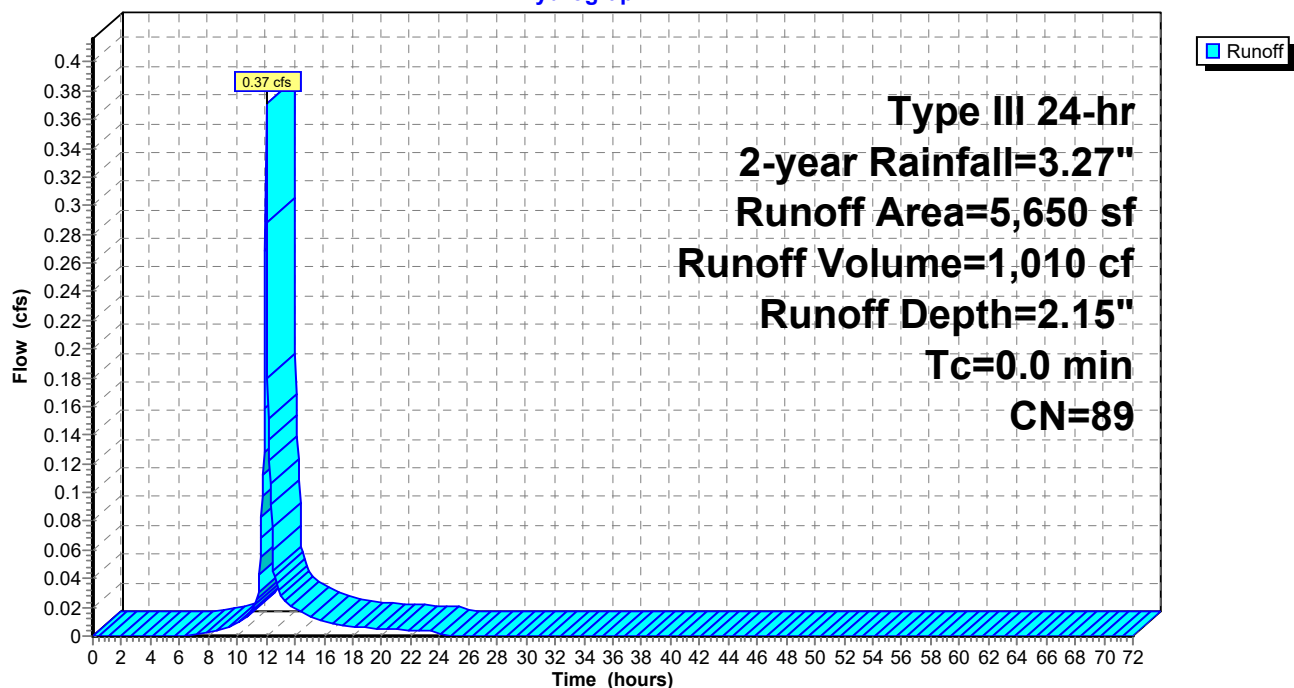
Runoff = 0.37 cfs @ 12.00 hrs, Volume= 1,010 cf, Depth= 2.15"
Routed to Link DP-1 : Mill Brook

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=3.27"

Area (sf)	CN	Description
1,760	68	<50% Grass cover, Poor, HSG A
3,890	98	Paved parking, HSG A
5,650	89	Weighted Average
1,760		31.15% Pervious Area
3,890		68.85% Impervious Area

Subcatchment PR-2: (new Subcat)

Hydrograph



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Type III 24-hr 2-year Rainfall=3.27"

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Summary for Pond 1P: Leaching Basin

Inflow Area = 3,320 sf, 89.46% Impervious, Inflow Depth = 2.71" for 2-year event
 Inflow = 0.26 cfs @ 12.00 hrs, Volume= 751 cf
 Outflow = 0.01 cfs @ 13.52 hrs, Volume= 751 cf, Atten= 94%, Lag= 91.2 min
 Discarded = 0.00 cfs @ 8.45 hrs, Volume= 689 cf
 Primary = 0.01 cfs @ 13.52 hrs, Volume= 61 cf
 Routed to Link DP-1 : Mill Brook

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 148.40' @ 13.52 hrs Surf.Area= 79 sf Storage= 447 cf

Plug-Flow detention time= 861.3 min calculated for 750 cf (100% of inflow)
 Center-of-Mass det. time= 861.8 min (1,636.5 - 774.7)

Volume	Invert	Avail.Storage	Storage Description
#1	141.90'	112 cf	10.00'D x 6.00'H Vertical Cone/Cylinder 471 cf Overall - 192 cf Embedded = 279 cf x 40.0% Voids
#2	142.90'	192 cf	7.00'D x 5.00'H Vertical Cone/Cylinder Inside #1
#3	147.90'	595 cf	Surface (Prismatic) Listed below (Recalc) -Impervious
		899 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
147.90	20	0	0
148.20	350	56	56
149.00	1,000	540	595

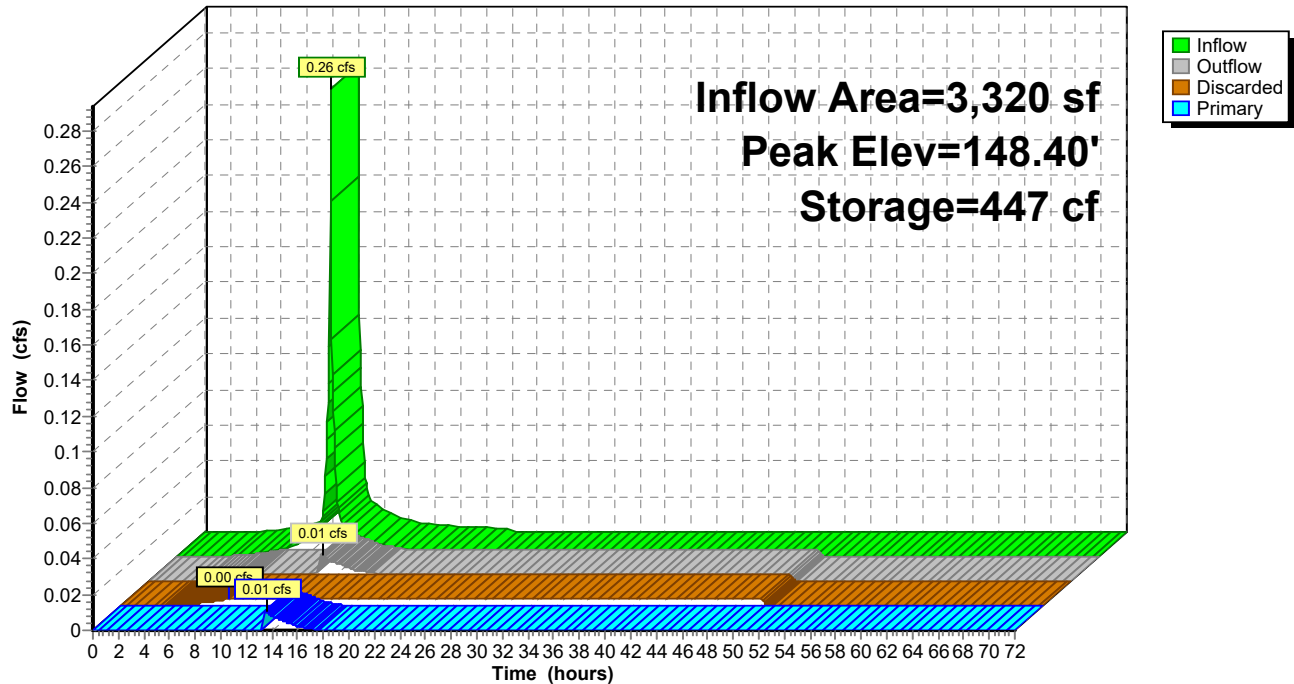
Device	Routing	Invert	Outlet Devices
#1	Discarded	141.90'	2.410 in/hr Exfiltration over Surface area
#2	Primary	148.40'	8.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Discarded OutFlow Max=0.00 cfs @ 8.45 hrs HW=141.97' (Free Discharge)
 ↑ **1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.00 cfs @ 13.52 hrs HW=148.40' (Free Discharge)
 ↑ **2=Broad-Crested Rectangular Weir**(Weir Controls 0.00 cfs @ 0.14 fps)

Pond 1P: Leaching Basin

Hydrograph



Summary for Pond 2P: Stormtech

Volume	Invert	Avail.Storage	Storage Description
#1	143.90'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder Impervious
#2	147.90'	596 cf	Surface (Prismatic) Listed below (Recalc) - Impervious
#3A	143.00'	197 cf	11.00'W x 17.86'L x 3.50'H Field A 687 cf Overall - 194 cf Embedded = 493 cf x 40.0% Voids
#4A	143.50'	194 cf	ADS_StormTech SC-740 b +Cap x 4 Inside #3 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 4 Chambers in 2 Rows Cap Storage= 2.7 cf x 2 x 2 rows = 10.6 cf
		1,037 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
147.90	20	0	0
148.20	350	55	55
149.00	1,000	540	596

Device	Routing	Invert	Outlet Devices
#1	Discarded	143.00'	2.410 in/hr Exfiltration over Surface area
#2	Primary	148.40'	8.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Discarded OutFlow Max=0.00 cfs @ 0.00 hrs HW=0.00' (Free Discharge)

↑1=Exfiltration (Controls 0.00 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=0.00' (Free Discharge)

↑2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

40 Park PR

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Type III 24-hr 2-year Rainfall=3.27"

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Pond 2P: Stormtech - Chamber Wizard Field A

Chamber Model = ADS_StormTechSC-740 b +Cap (ADS StormTech®SC-740 with cap storage)

Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf

Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

Cap Storage= 2.7 cf x 2 x 2 rows = 10.6 cf

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

2 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 15.86' Row Length +12.0" End Stone x 2 = 17.86' Base Length

2 Rows x 51.0" Wide + 6.0" Spacing x 1 + 12.0" Side Stone x 2 = 11.00' Base Width

6.0" Stone Base + 30.0" Chamber Height + 6.0" Stone Cover = 3.50' Field Height

4 Chambers x 45.9 cf + 2.7 cf Cap Volume x 2 x 2 Rows = 194.4 cf Chamber Storage

687.5 cf Field - 194.4 cf Chambers = 493.1 cf Stone x 40.0% Voids = 197.2 cf Stone Storage

Chamber Storage + Stone Storage = 391.6 cf = 0.009 af

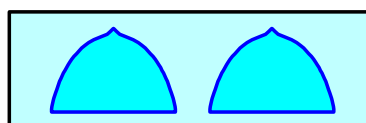
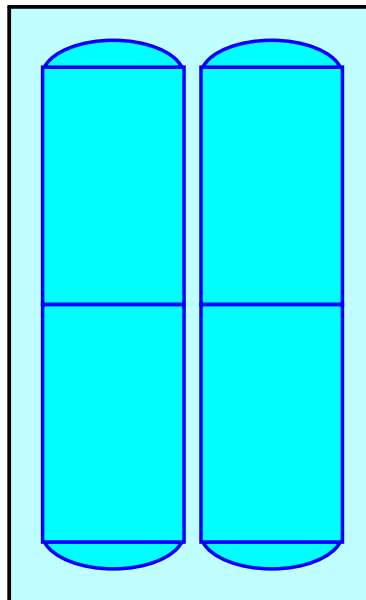
Overall Storage Efficiency = 57.0%

Overall System Size = 17.86' x 11.00' x 3.50'

4 Chambers

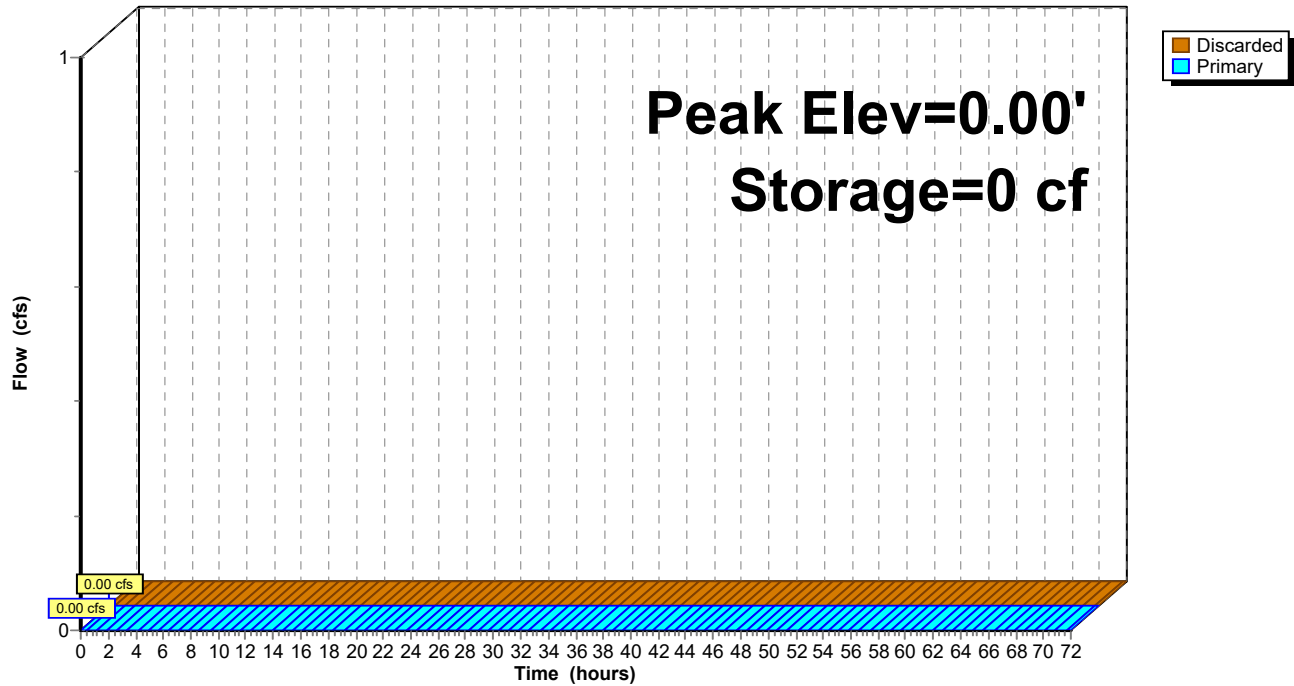
25.5 cy Field

18.3 cy Stone



Pond 2P: Stormtech

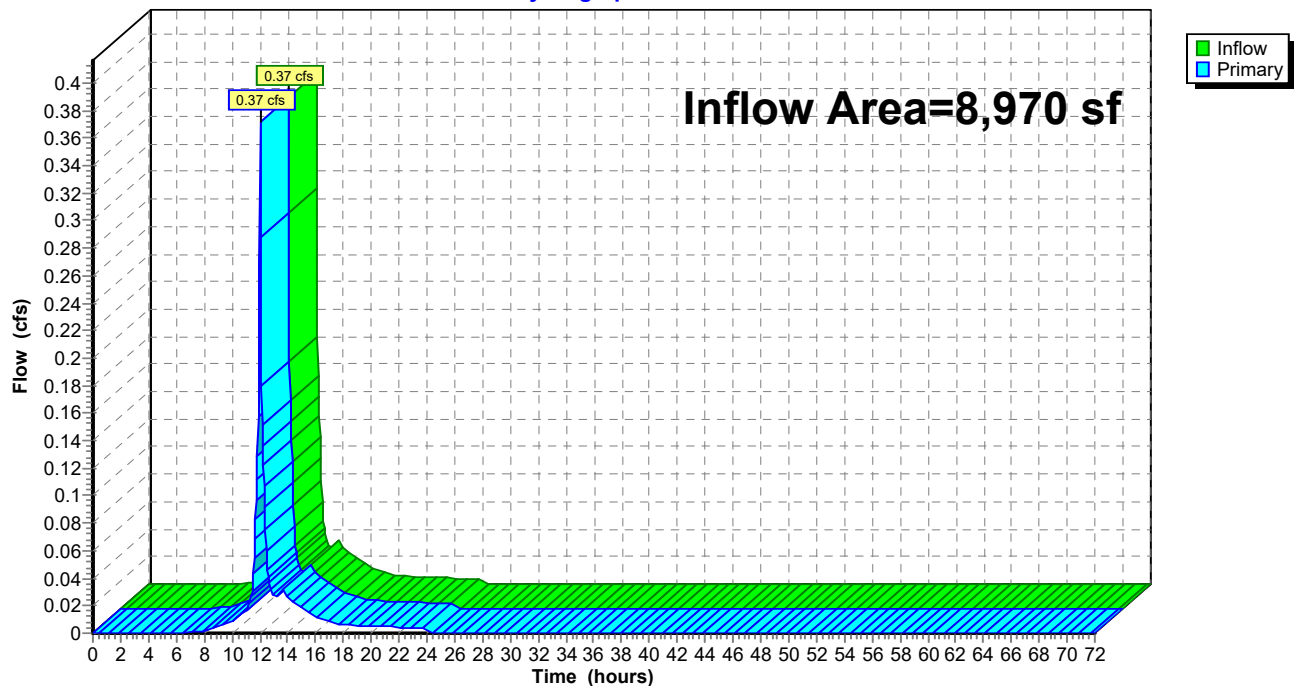
Hydrograph



Summary for Link DP-1: Mill Brook

Inflow Area = 8,970 sf, 76.48% Impervious, Inflow Depth = 1.43" for 2-year event
Inflow = 0.37 cfs @ 12.00 hrs, Volume= 1,072 cf
Primary = 0.37 cfs @ 12.00 hrs, Volume= 1,072 cf, Atten= 0%, Lag= 0.0 min

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

Link DP-1: Mill Brook**Hydrograph**

40 Park PR

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Type III 24-hr 10-year Rainfall=5.16"

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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentPR-1: Building and Pavement Runoff Area=3,320 sf 89.46% Impervious Runoff Depth=4.58"
Tc=0.0 min CN=95 Runoff=0.43 cfs 1,267 cf

SubcatchmentPR-2: (new Subcat) Runoff Area=5,650 sf 68.85% Impervious Runoff Depth=3.93"
Tc=0.0 min CN=89 Runoff=0.66 cfs 1,848 cf

Pond 1P: Leaching Basin Peak Elev=148.47' Storage=481 cf Inflow=0.43 cfs 1,267 cf
Discarded=0.00 cfs 747 cf Primary=0.39 cfs 520 cf Outflow=0.39 cfs 1,267 cf

Pond 2P: Stormtech Peak Elev=0.00' Storage=0 cf
Discarded=0.00 cfs 0 cf Primary=0.00 cfs 0 cf

Link DP-1: Mill Brook Inflow=0.88 cfs 2,368 cf
Primary=0.88 cfs 2,368 cf

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Type III 24-hr 10-year Rainfall=5.16"

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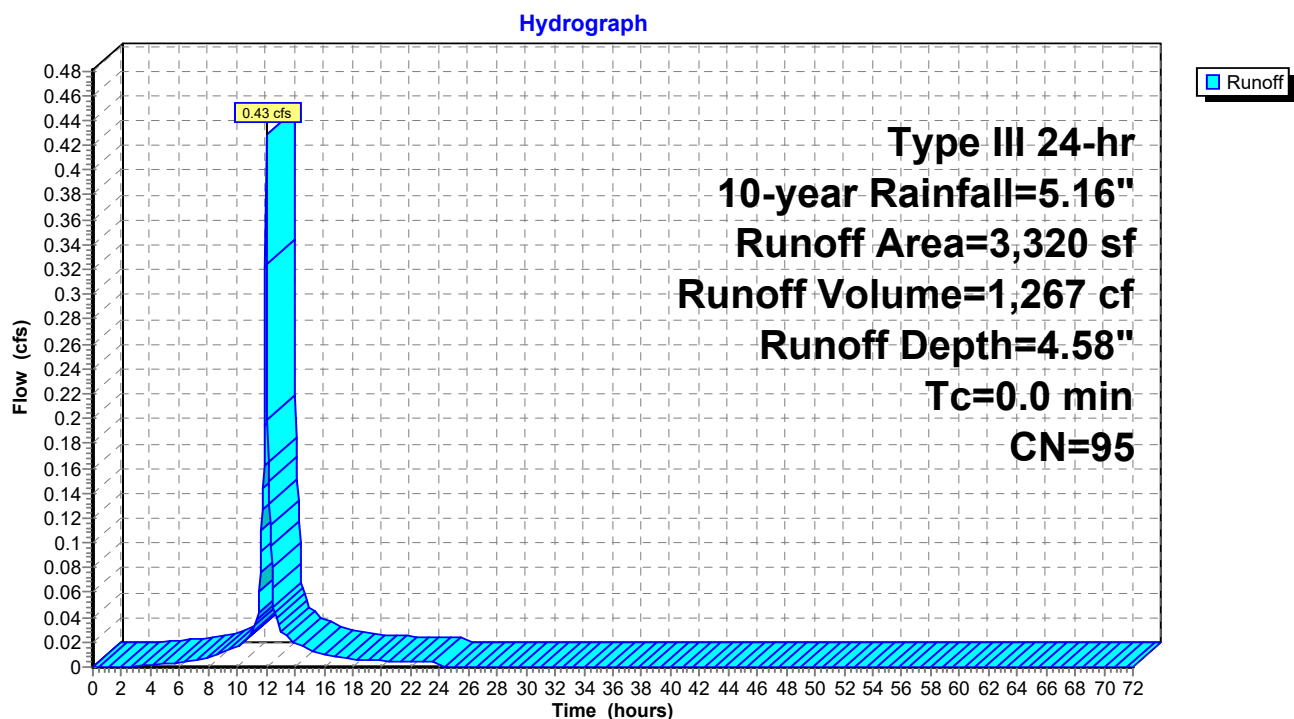
Summary for Subcatchment PR-1: Building and Pavement

Runoff = 0.43 cfs @ 12.00 hrs, Volume= 1,267 cf, Depth= 4.58"
Routed to Pond 1P : Leaching Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=5.16"

Area (sf)	CN	Description
350	68	<50% Grass cover, Poor, HSG A
2,970	98	Paved parking, HSG A
3,320	95	Weighted Average
350		10.54% Pervious Area
2,970		89.46% Impervious Area

Subcatchment PR-1: Building and Pavement



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Type III 24-hr 10-year Rainfall=5.16"

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Summary for Subcatchment PR-2: (new Subcat)

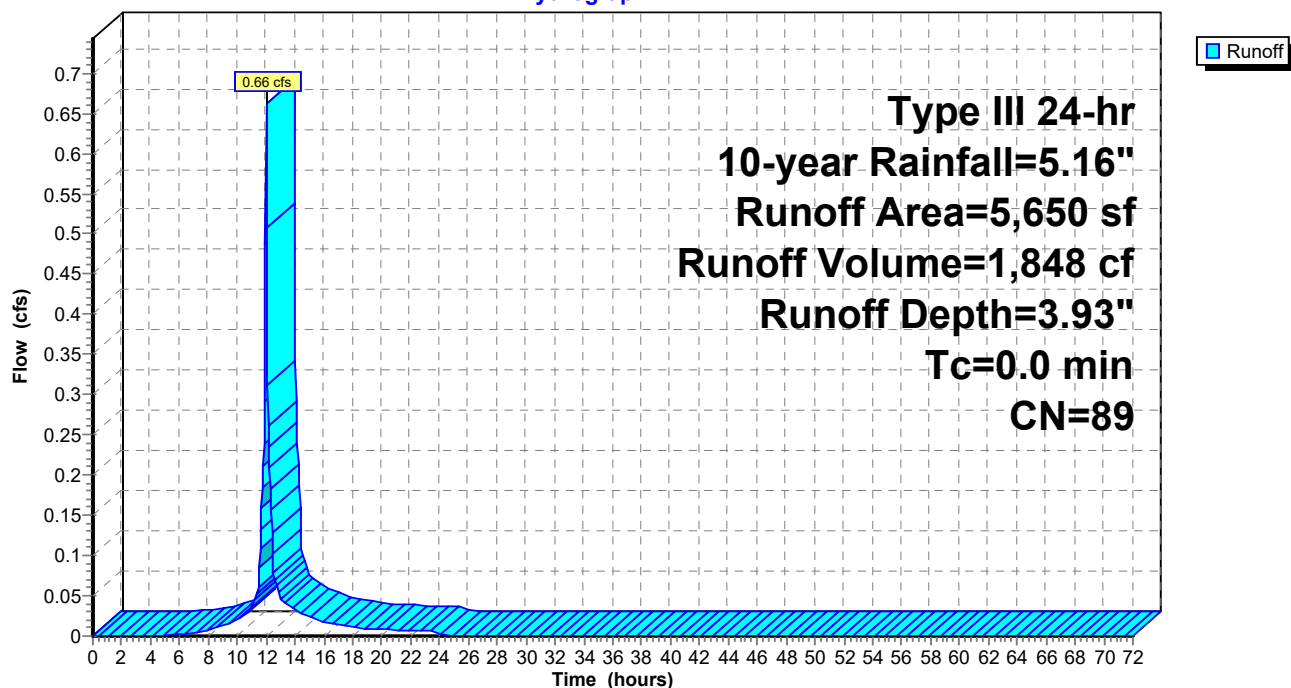
Runoff = 0.66 cfs @ 12.00 hrs, Volume= 1,848 cf, Depth= 3.93"
Routed to Link DP-1 : Mill Brook

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=5.16"

Area (sf)	CN	Description
1,760	68	<50% Grass cover, Poor, HSG A
3,890	98	Paved parking, HSG A
5,650	89	Weighted Average
1,760		31.15% Pervious Area
3,890		68.85% Impervious Area

Subcatchment PR-2: (new Subcat)

Hydrograph



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Type III 24-hr 10-year Rainfall=5.16"

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Summary for Pond 1P: Leaching Basin

Inflow Area = 3,320 sf, 89.46% Impervious, Inflow Depth = 4.58" for 10-year event
 Inflow = 0.43 cfs @ 12.00 hrs, Volume= 1,267 cf
 Outflow = 0.39 cfs @ 12.06 hrs, Volume= 1,267 cf, Atten= 9%, Lag= 3.7 min
 Discarded = 0.00 cfs @ 6.65 hrs, Volume= 747 cf
 Primary = 0.39 cfs @ 12.06 hrs, Volume= 520 cf
 Routed to Link DP-1 : Mill Brook

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 148.47' @ 12.06 hrs Surf.Area= 79 sf Storage= 481 cf

Plug-Flow detention time= 564.5 min calculated for 1,267 cf (100% of inflow)
 Center-of-Mass det. time= 564.5 min (1,326.3 - 761.8)

Volume	Invert	Avail.Storage	Storage Description
#1	141.90'	112 cf	10.00'D x 6.00'H Vertical Cone/Cylinder 471 cf Overall - 192 cf Embedded = 279 cf x 40.0% Voids
#2	142.90'	192 cf	7.00'D x 5.00'H Vertical Cone/Cylinder Inside #1
#3	147.90'	595 cf	Surface (Prismatic) Listed below (Recalc) -Impervious
		899 cf	Total Available Storage

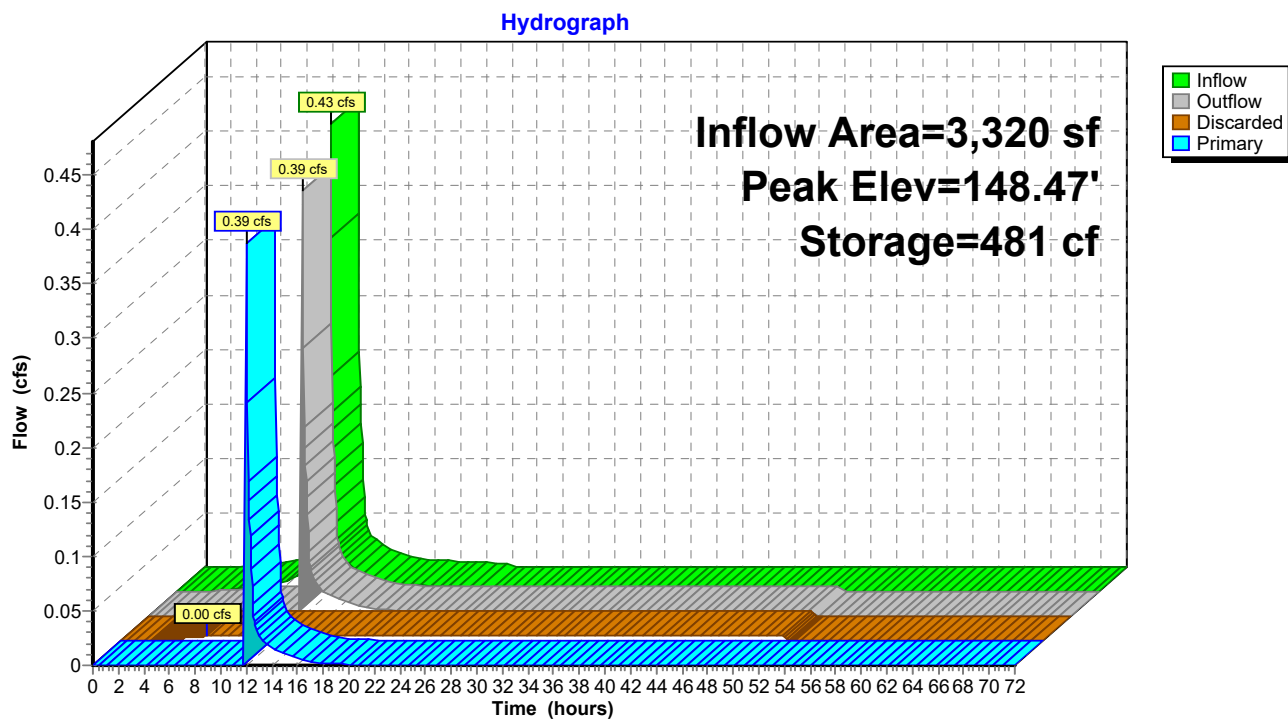
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
147.90	20	0	0
148.20	350	56	56
149.00	1,000	540	595

Device	Routing	Invert	Outlet Devices
#1	Discarded	141.90'	2.410 in/hr Exfiltration over Surface area
#2	Primary	148.40'	8.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Discarded OutFlow Max=0.00 cfs @ 6.65 hrs HW=141.97' (Free Discharge)
 ↑ **1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.30 cfs @ 12.06 hrs HW=148.46' (Free Discharge)
 ↑ **2=Broad-Crested Rectangular Weir**(Weir Controls 0.30 cfs @ 0.65 fps)

Pond 1P: Leaching Basin



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Type III 24-hr 10-year Rainfall=5.16"

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Summary for Pond 2P: Stormtech

Volume	Invert	Avail.Storage	Storage Description
#1	143.90'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder Impervious
#2	147.90'	596 cf	Surface (Prismatic) Listed below (Recalc) - Impervious
#3A	143.00'	197 cf	11.00'W x 17.86'L x 3.50'H Field A
			687 cf Overall - 194 cf Embedded = 493 cf x 40.0% Voids
#4A	143.50'	194 cf	ADS_StormTech SC-740 b +Cap x 4 Inside #3
			Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
			Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap
			4 Chambers in 2 Rows
			Cap Storage= 2.7 cf x 2 x 2 rows = 10.6 cf
		1,037 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
147.90	20	0	0
148.20	350	55	55
149.00	1,000	540	596

Device	Routing	Invert	Outlet Devices
#1	Discarded	143.00'	2.410 in/hr Exfiltration over Surface area
#2	Primary	148.40'	8.0' long x 1.0' breadth Broad-Crested Rectangular Weir
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00
			Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
			3.30 3.31 3.32

Discarded OutFlow Max=0.00 cfs @ 0.00 hrs HW=0.00' (Free Discharge)↑ **1=Exfiltration** (Controls 0.00 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=0.00' (Free Discharge)↑ **2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 2P: Stormtech - Chamber Wizard Field A

Chamber Model = ADS_StormTechSC-740 b +Cap (ADS StormTech®SC-740 with cap storage)

Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf

Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

Cap Storage= 2.7 cf x 2 x 2 rows = 10.6 cf

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

2 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 15.86' Row Length +12.0" End Stone x 2 = 17.86' Base Length

2 Rows x 51.0" Wide + 6.0" Spacing x 1 + 12.0" Side Stone x 2 = 11.00' Base Width

6.0" Stone Base + 30.0" Chamber Height + 6.0" Stone Cover = 3.50' Field Height

4 Chambers x 45.9 cf + 2.7 cf Cap Volume x 2 x 2 Rows = 194.4 cf Chamber Storage

687.5 cf Field - 194.4 cf Chambers = 493.1 cf Stone x 40.0% Voids = 197.2 cf Stone Storage

Chamber Storage + Stone Storage = 391.6 cf = 0.009 af

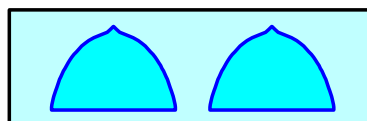
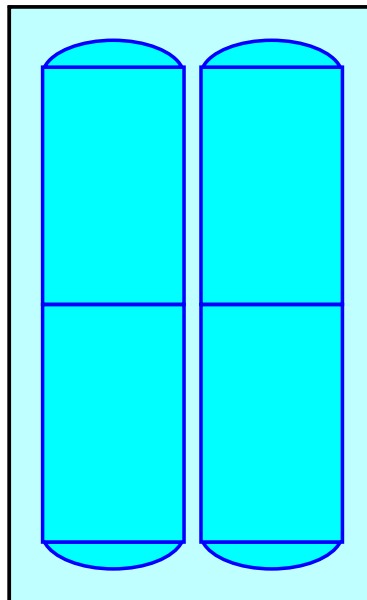
Overall Storage Efficiency = 57.0%

Overall System Size = 17.86' x 11.00' x 3.50'

4 Chambers

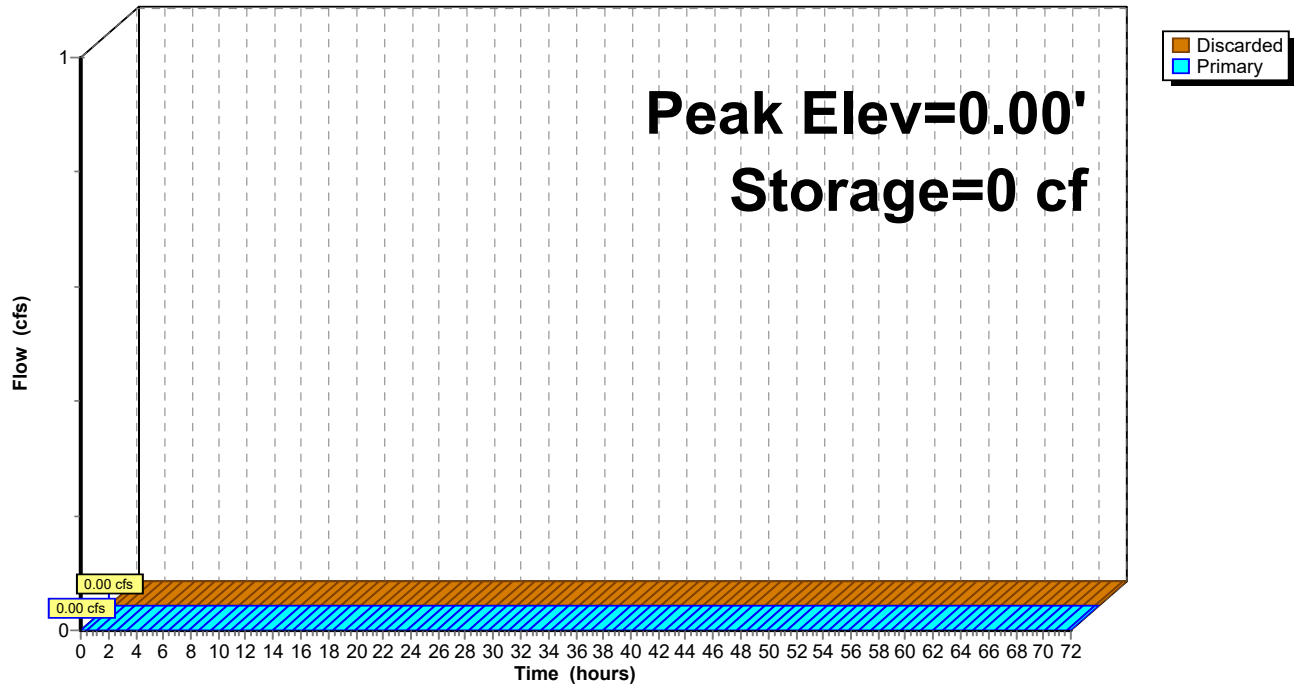
25.5 cy Field

18.3 cy Stone



Pond 2P: Stormtech

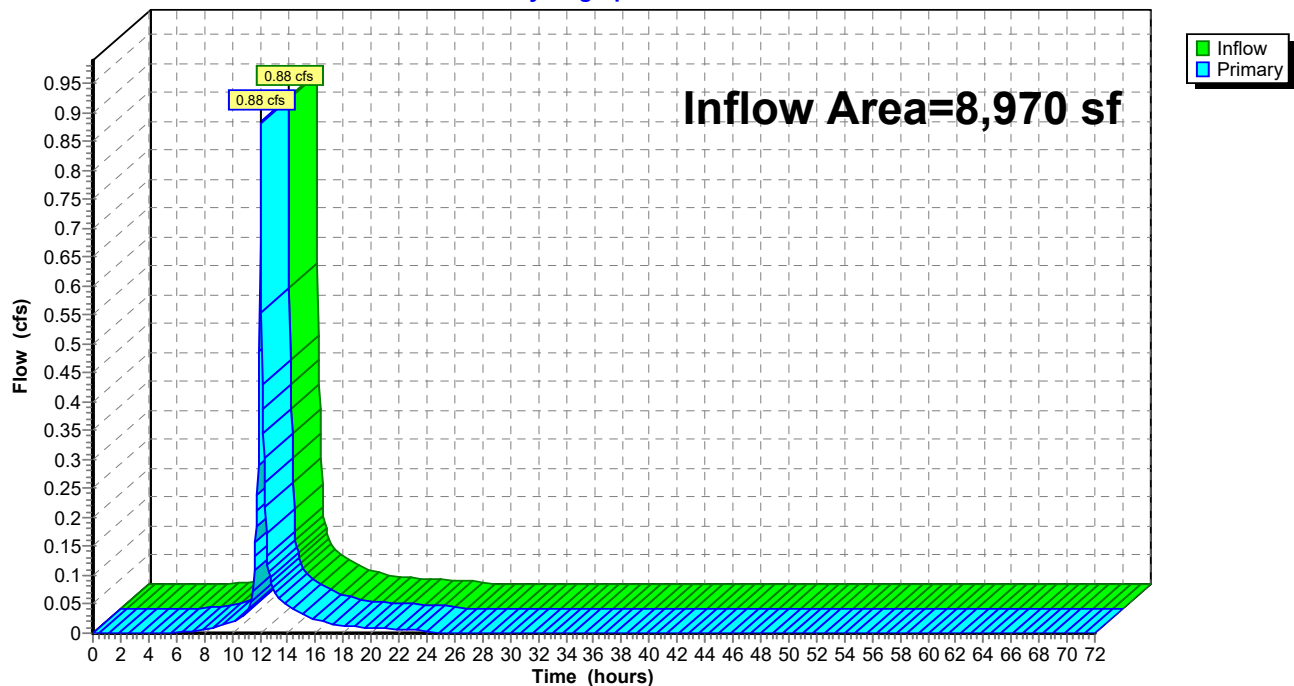
Hydrograph



Summary for Link DP-1: Mill Brook

Inflow Area = 8,970 sf, 76.48% Impervious, Inflow Depth = 3.17" for 10-year event
Inflow = 0.88 cfs @ 12.04 hrs, Volume= 2,368 cf
Primary = 0.88 cfs @ 12.04 hrs, Volume= 2,368 cf, Atten= 0%, Lag= 0.0 min

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

Link DP-1: Mill Brook**Hydrograph**

40 Park PR

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Type III 24-hr 25-year Rainfall=6.34"

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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentPR-1: Building and Pavement Runoff Area=3,320 sf 89.46% Impervious Runoff Depth=5.75"
Tc=0.0 min CN=95 Runoff=0.53 cfs 1,591 cf

SubcatchmentPR-2: (new Subcat) Runoff Area=5,650 sf 68.85% Impervious Runoff Depth=5.07"
Tc=0.0 min CN=89 Runoff=0.84 cfs 2,385 cf

Pond 1P: Leaching Basin Peak Elev=148.48' Storage=488 cf Inflow=0.53 cfs 1,591 cf
Discarded=0.00 cfs 765 cf Primary=0.50 cfs 825 cf Outflow=0.50 cfs 1,591 cf

Pond 2P: Stormtech Peak Elev=0.00' Storage=0 cf
Discarded=0.00 cfs 0 cf Primary=0.00 cfs 0 cf

Link DP-1: Mill Brook Inflow=1.33 cfs 3,210 cf
Primary=1.33 cfs 3,210 cf

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Type III 24-hr 25-year Rainfall=6.34"

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Summary for Subcatchment PR-1: Building and Pavement

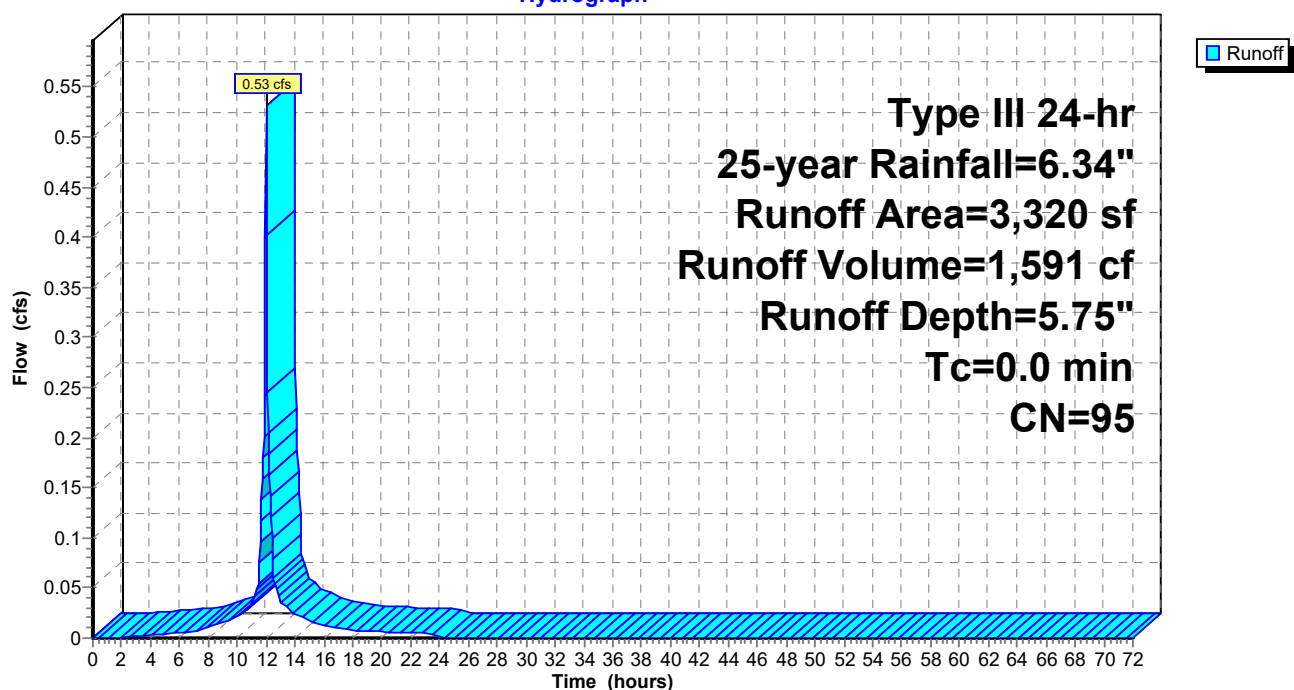
Runoff = 0.53 cfs @ 12.00 hrs, Volume= 1,591 cf, Depth= 5.75"
Routed to Pond 1P : Leaching Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=6.34"

Area (sf)	CN	Description
350	68	<50% Grass cover, Poor, HSG A
2,970	98	Paved parking, HSG A
3,320	95	Weighted Average
350		10.54% Pervious Area
2,970		89.46% Impervious Area

Subcatchment PR-1: Building and Pavement

Hydrograph



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Type III 24-hr 25-year Rainfall=6.34"

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Summary for Subcatchment PR-2: (new Subcat)

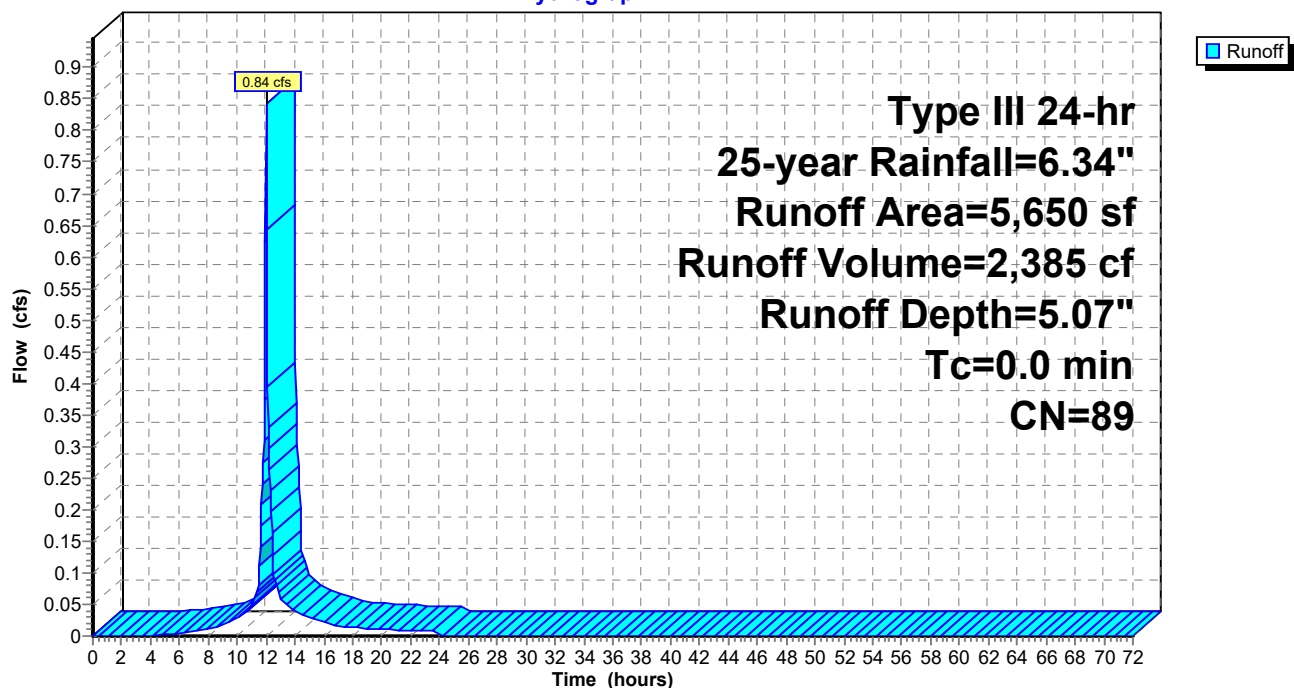
Runoff = 0.84 cfs @ 12.00 hrs, Volume= 2,385 cf, Depth= 5.07"
Routed to Link DP-1 : Mill Brook

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=6.34"

Area (sf)	CN	Description
1,760	68	<50% Grass cover, Poor, HSG A
3,890	98	Paved parking, HSG A
5,650	89	Weighted Average
1,760		31.15% Pervious Area
3,890		68.85% Impervious Area

Subcatchment PR-2: (new Subcat)

Hydrograph



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Type III 24-hr 25-year Rainfall=6.34"

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Summary for Pond 1P: Leaching Basin

Inflow Area = 3,320 sf, 89.46% Impervious, Inflow Depth = 5.75" for 25-year event
 Inflow = 0.53 cfs @ 12.00 hrs, Volume= 1,591 cf
 Outflow = 0.50 cfs @ 12.02 hrs, Volume= 1,591 cf, Atten= 6%, Lag= 1.1 min
 Discarded = 0.00 cfs @ 5.65 hrs, Volume= 765 cf
 Primary = 0.50 cfs @ 12.02 hrs, Volume= 825 cf
 Routed to Link DP-1 : Mill Brook

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 148.48' @ 12.02 hrs Surf.Area= 79 sf Storage= 488 cf

Plug-Flow detention time= 461.7 min calculated for 1,591 cf (100% of inflow)
 Center-of-Mass det. time= 461.7 min (1,218.4 - 756.7)

Volume	Invert	Avail.Storage	Storage Description
#1	141.90'	112 cf	10.00'D x 6.00'H Vertical Cone/Cylinder 471 cf Overall - 192 cf Embedded = 279 cf x 40.0% Voids
#2	142.90'	192 cf	7.00'D x 5.00'H Vertical Cone/Cylinder Inside #1
#3	147.90'	595 cf	Surface (Prismatic) Listed below (Recalc) -Impervious
		899 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
147.90	20	0	0
148.20	350	56	56
149.00	1,000	540	595

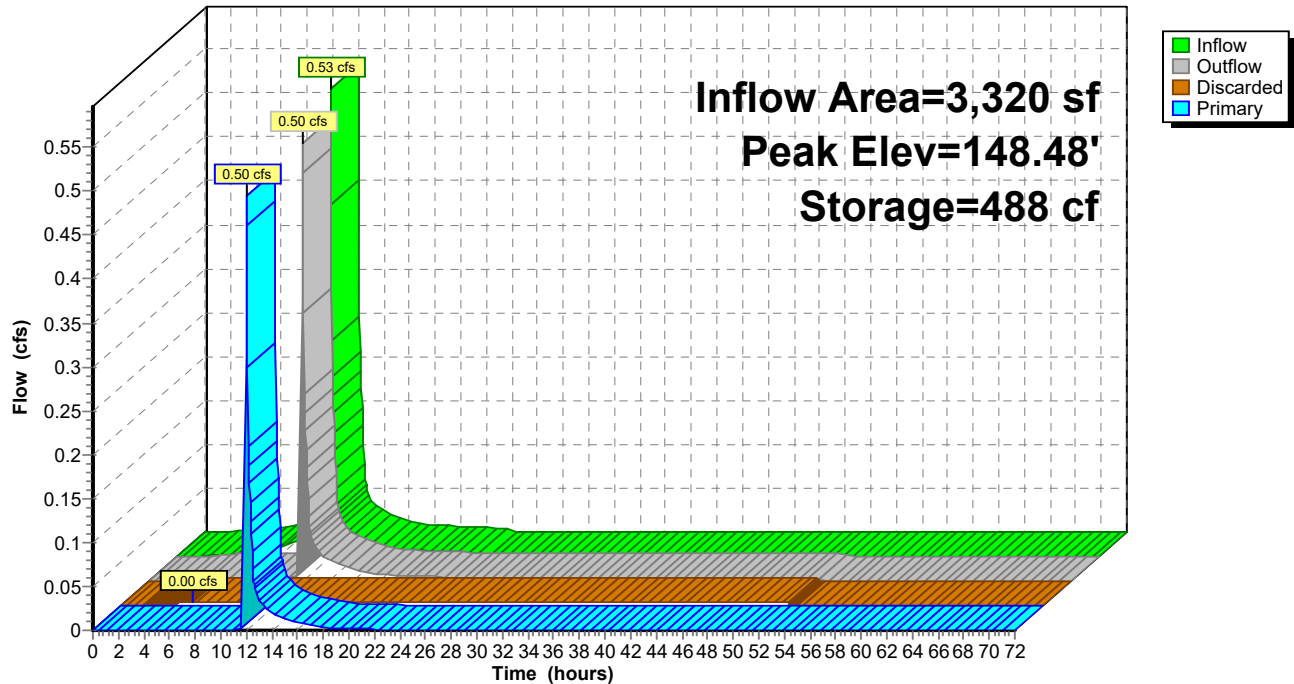
Device	Routing	Invert	Outlet Devices
#1	Discarded	141.90'	2.410 in/hr Exfiltration over Surface area
#2	Primary	148.40'	8.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Discarded OutFlow Max=0.00 cfs @ 5.65 hrs HW=141.97' (Free Discharge)
 ↑ **1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.44 cfs @ 12.02 hrs HW=148.47' (Free Discharge)
 ↑ **2=Broad-Crested Rectangular Weir**(Weir Controls 0.44 cfs @ 0.73 fps)

Pond 1P: Leaching Basin

Hydrograph



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Type III 24-hr 25-year Rainfall=6.34"

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Summary for Pond 2P: Stormtech

Volume	Invert	Avail.Storage	Storage Description
#1	143.90'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder Impervious
#2	147.90'	596 cf	Surface (Prismatic) Listed below (Recalc) -Impervious
#3A	143.00'	197 cf	11.00'W x 17.86'L x 3.50'H Field A
			687 cf Overall - 194 cf Embedded = 493 cf x 40.0% Voids
#4A	143.50'	194 cf	ADS_StormTech SC-740 b +Cap x 4 Inside #3
			Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
			Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap
			4 Chambers in 2 Rows
			Cap Storage= 2.7 cf x 2 x 2 rows = 10.6 cf
		1,037 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
147.90	20	0	0
148.20	350	55	55
149.00	1,000	540	596

Device	Routing	Invert	Outlet Devices
#1	Discarded	143.00'	2.410 in/hr Exfiltration over Surface area
#2	Primary	148.40'	8.0' long x 1.0' breadth Broad-Crested Rectangular Weir
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00
			Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
			3.30 3.31 3.32

Discarded OutFlow Max=0.00 cfs @ 0.00 hrs HW=0.00' (Free Discharge)↑**1=Exfiltration** (Controls 0.00 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=0.00' (Free Discharge)↑**2=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Pond 2P: Stormtech - Chamber Wizard Field A**Chamber Model = ADS_StormTechSC-740 b +Cap (ADS StormTech®SC-740 with cap storage)**

Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf

Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

Cap Storage= 2.7 cf x 2 x 2 rows = 10.6 cf

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

2 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 15.86' Row Length +12.0" End Stone x 2 = 17.86' Base Length

2 Rows x 51.0" Wide + 6.0" Spacing x 1 + 12.0" Side Stone x 2 = 11.00' Base Width

6.0" Stone Base + 30.0" Chamber Height + 6.0" Stone Cover = 3.50' Field Height

4 Chambers x 45.9 cf + 2.7 cf Cap Volume x 2 x 2 Rows = 194.4 cf Chamber Storage

687.5 cf Field - 194.4 cf Chambers = 493.1 cf Stone x 40.0% Voids = 197.2 cf Stone Storage

Chamber Storage + Stone Storage = 391.6 cf = 0.009 af

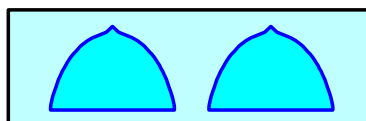
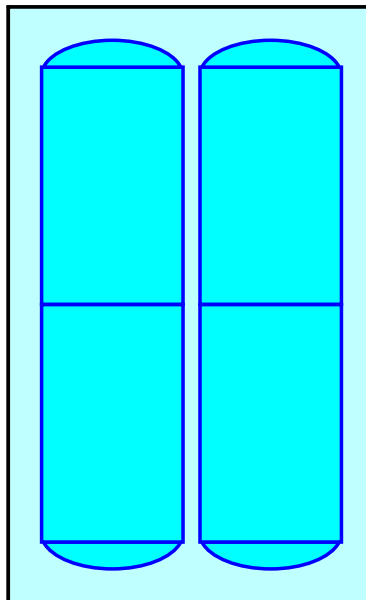
Overall Storage Efficiency = 57.0%

Overall System Size = 17.86' x 11.00' x 3.50'

4 Chambers

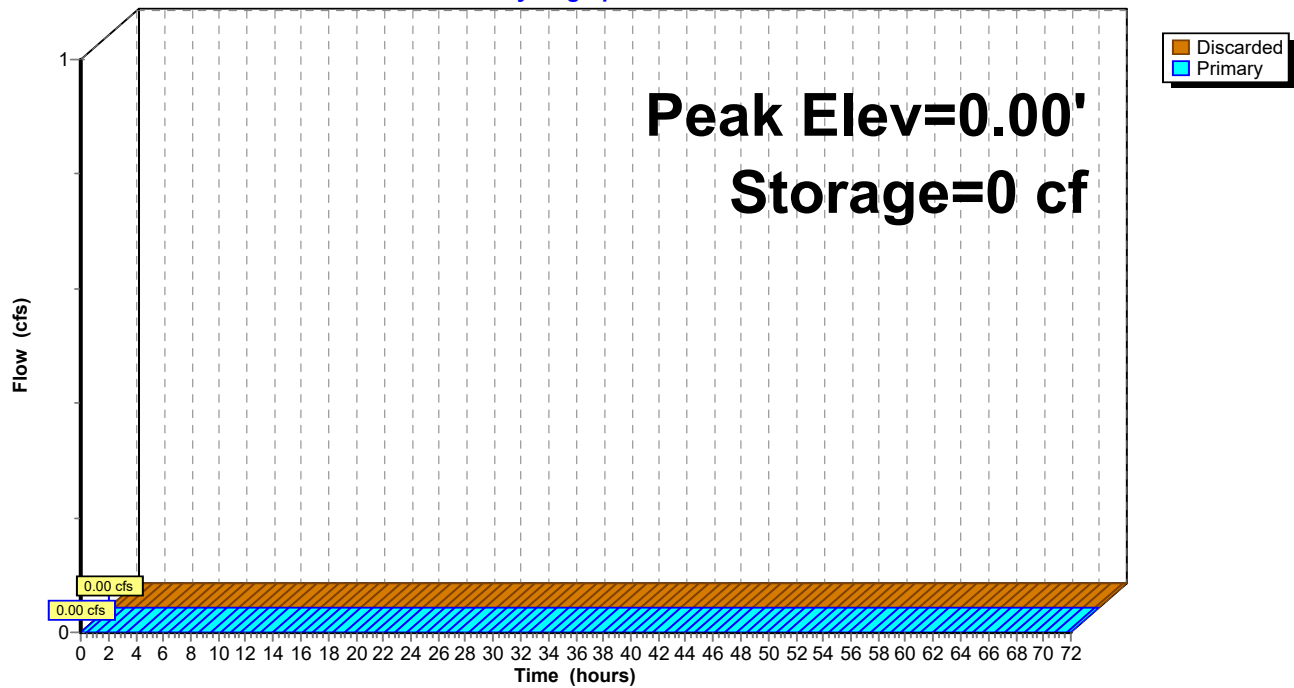
25.5 cy Field

18.3 cy Stone



Pond 2P: Stormtech

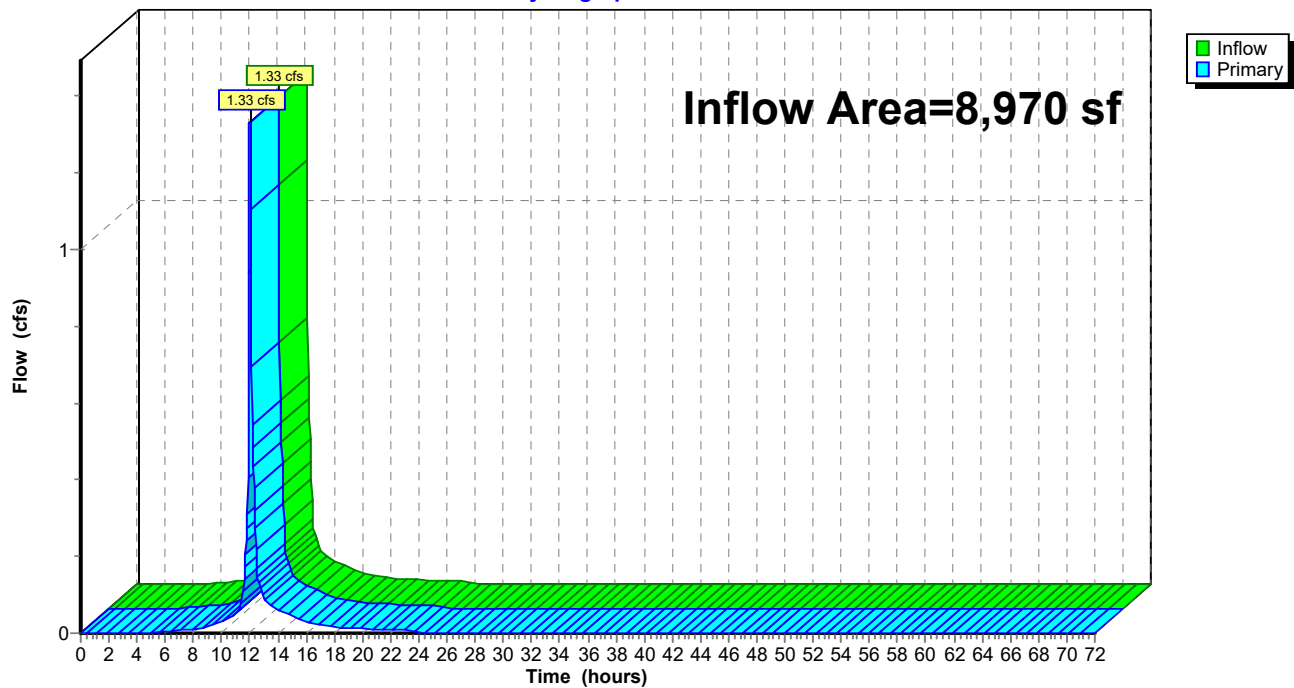
Hydrograph



Summary for Link DP-1: Mill Brook

Inflow Area = 8,970 sf, 76.48% Impervious, Inflow Depth = 4.29" for 25-year event
Inflow = 1.33 cfs @ 12.01 hrs, Volume= 3,210 cf
Primary = 1.33 cfs @ 12.01 hrs, Volume= 3,210 cf, Atten= 0%, Lag= 0.0 min

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

Link DP-1: Mill Brook**Hydrograph**

40 Park PR

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Type III 24-hr 100-year Rainfall=8.15"

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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentPR-1: Building and Pavement Runoff Area=3,320 sf 89.46% Impervious Runoff Depth=7.55"
Tc=0.0 min CN=95 Runoff=0.69 cfs 2,089 cf

SubcatchmentPR-2: (new Subcat) Runoff Area=5,650 sf 68.85% Impervious Runoff Depth=6.83"
Tc=0.0 min CN=89 Runoff=1.12 cfs 3,218 cf

Pond 1P: Leaching Basin Peak Elev=148.49' Storage=498 cf Inflow=0.69 cfs 2,089 cf
Discarded=0.00 cfs 781 cf Primary=0.64 cfs 1,308 cf Outflow=0.64 cfs 2,089 cf

Pond 2P: Stormtech Peak Elev=0.00' Storage=0 cf
Discarded=0.00 cfs 0 cf Primary=0.00 cfs 0 cf

Link DP-1: Mill Brook Inflow=1.75 cfs 4,526 cf
Primary=1.75 cfs 4,526 cf

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Type III 24-hr 100-year Rainfall=8.15"

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Summary for Subcatchment PR-1: Building and Pavement

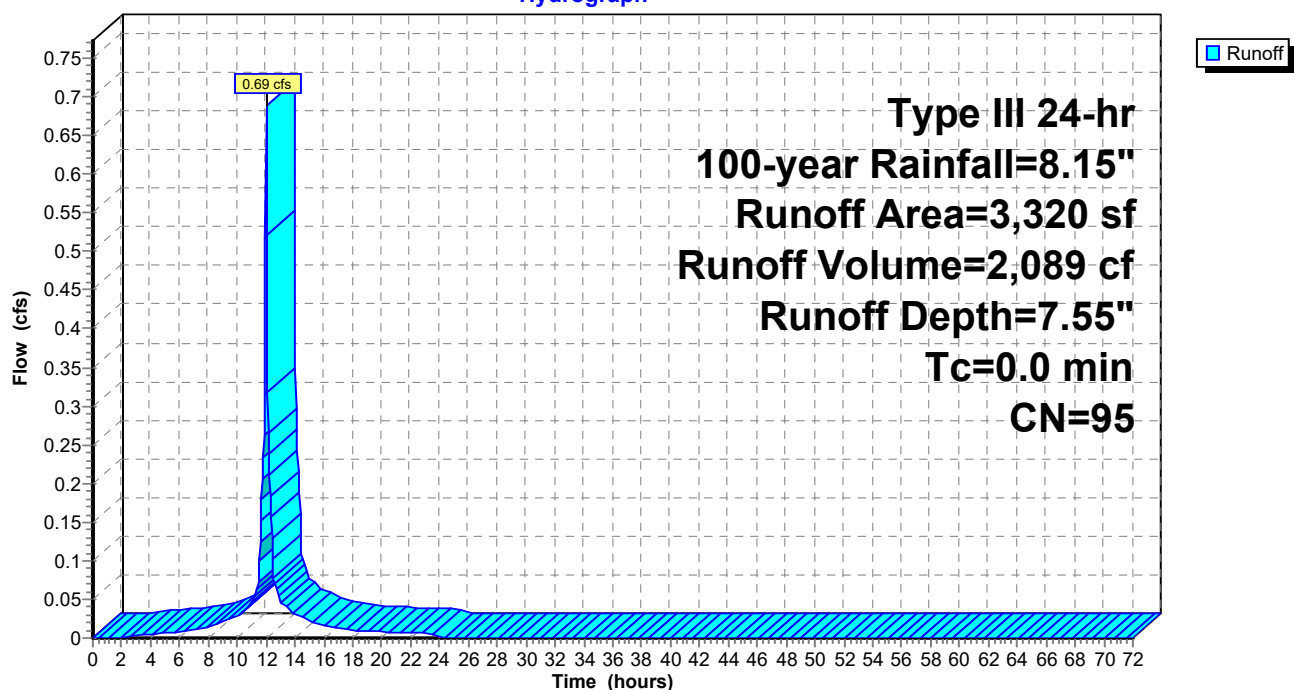
Runoff = 0.69 cfs @ 12.00 hrs, Volume= 2,089 cf, Depth= 7.55"
Routed to Pond 1P : Leaching Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.15"

Area (sf)	CN	Description
350	68	<50% Grass cover, Poor, HSG A
2,970	98	Paved parking, HSG A
3,320	95	Weighted Average
350		10.54% Pervious Area
2,970		89.46% Impervious Area

Subcatchment PR-1: Building and Pavement

Hydrograph



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Type III 24-hr 100-year Rainfall=8.15"

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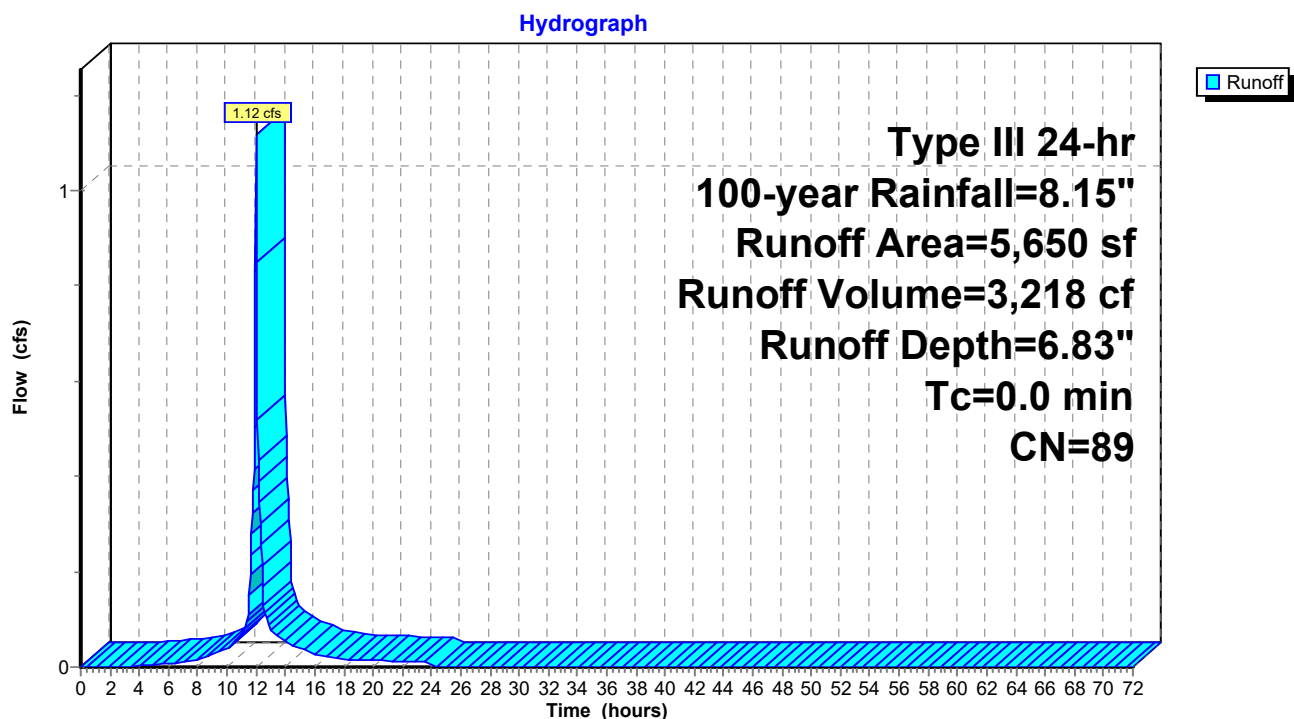
Summary for Subcatchment PR-2: (new Subcat)

Runoff = 1.12 cfs @ 12.00 hrs, Volume= 3,218 cf, Depth= 6.83"
Routed to Link DP-1 : Mill Brook

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.15"

Area (sf)	CN	Description
1,760	68	<50% Grass cover, Poor, HSG A
3,890	98	Paved parking, HSG A
5,650	89	Weighted Average
1,760		31.15% Pervious Area
3,890		68.85% Impervious Area

Subcatchment PR-2: (new Subcat)



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Type III 24-hr 100-year Rainfall=8.15"

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Summary for Pond 1P: Leaching Basin

Inflow Area = 3,320 sf, 89.46% Impervious, Inflow Depth = 7.55" for 100-year event
 Inflow = 0.69 cfs @ 12.00 hrs, Volume= 2,089 cf
 Outflow = 0.64 cfs @ 12.02 hrs, Volume= 2,089 cf, Atten= 7%, Lag= 1.1 min
 Discarded = 0.00 cfs @ 4.20 hrs, Volume= 781 cf
 Primary = 0.64 cfs @ 12.02 hrs, Volume= 1,308 cf
 Routed to Link DP-1 : Mill Brook

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 148.49' @ 12.02 hrs Surf.Area= 79 sf Storage= 498 cf

Plug-Flow detention time= 360.9 min calculated for 2,088 cf (100% of inflow)
 Center-of-Mass det. time= 361.8 min (1,112.9 - 751.1)

Volume	Invert	Avail.Storage	Storage Description
#1	141.90'	112 cf	10.00'D x 6.00'H Vertical Cone/Cylinder 471 cf Overall - 192 cf Embedded = 279 cf x 40.0% Voids
#2	142.90'	192 cf	7.00'D x 5.00'H Vertical Cone/Cylinder Inside #1
#3	147.90'	595 cf	Surface (Prismatic) Listed below (Recalc) -Impervious
		899 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
147.90	20	0	0
148.20	350	56	56
149.00	1,000	540	595

Device	Routing	Invert	Outlet Devices
#1	Discarded	141.90'	2.410 in/hr Exfiltration over Surface area
#2	Primary	148.40'	8.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Discarded OutFlow Max=0.00 cfs @ 4.20 hrs HW=141.97' (Free Discharge)

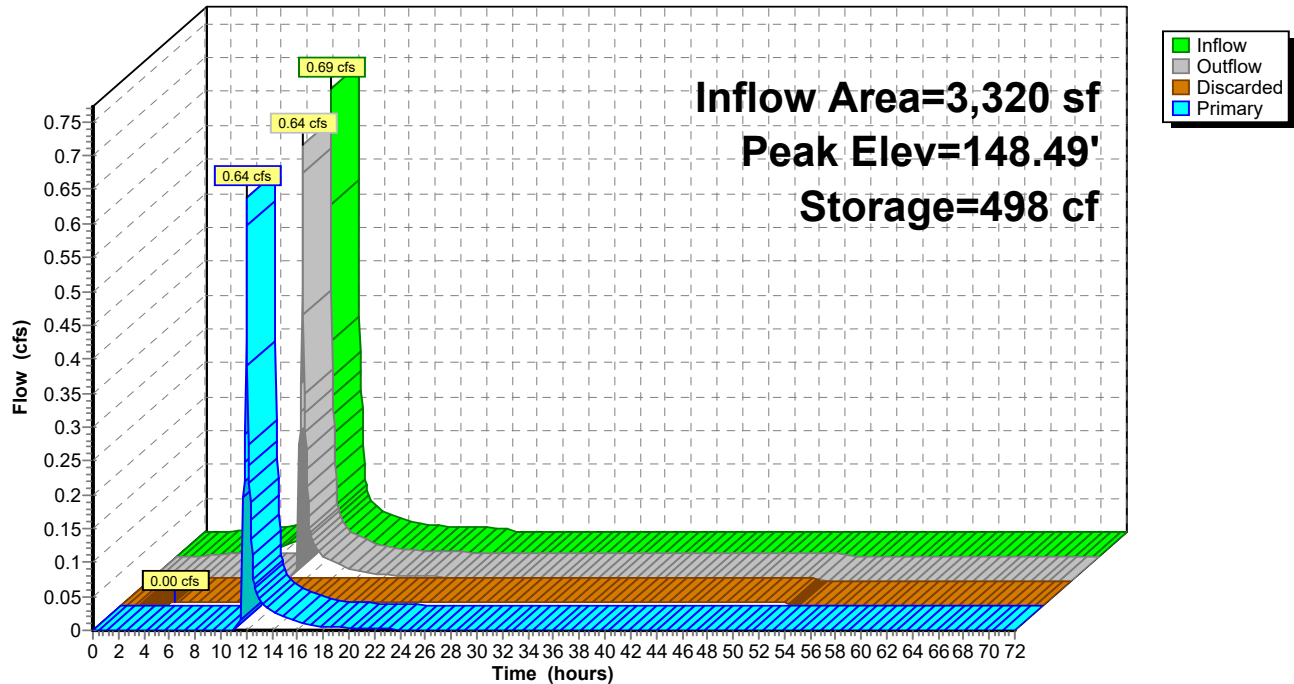
↑ **1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.59 cfs @ 12.02 hrs HW=148.49' (Free Discharge)

↑ **2=Broad-Crested Rectangular Weir**(Weir Controls 0.59 cfs @ 0.81 fps)

Pond 1P: Leaching Basin

Hydrograph



Summary for Pond 2P: Stormtech

Volume	Invert	Avail.Storage	Storage Description
#1	143.90'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder Impervious
#2	147.90'	596 cf	Surface (Prismatic) Listed below (Recalc) - Impervious
#3A	143.00'	197 cf	11.00'W x 17.86'L x 3.50'H Field A 687 cf Overall - 194 cf Embedded = 493 cf x 40.0% Voids
#4A	143.50'	194 cf	ADS_StormTech SC-740 b +Cap x 4 Inside #3 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 4 Chambers in 2 Rows Cap Storage= 2.7 cf x 2 x 2 rows = 10.6 cf
		1,037 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
147.90	20	0	0
148.20	350	55	55
149.00	1,000	540	596

Device	Routing	Invert	Outlet Devices
#1	Discarded	143.00'	2.410 in/hr Exfiltration over Surface area
#2	Primary	148.40'	8.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Discarded OutFlow Max=0.00 cfs @ 0.00 hrs HW=0.00' (Free Discharge)

↑1=Exfiltration (Controls 0.00 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=0.00' (Free Discharge)

↑2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 2P: Stormtech - Chamber Wizard Field A

Chamber Model = ADS_StormTechSC-740 b +Cap (ADS StormTech®SC-740 with cap storage)

Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf

Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

Cap Storage= 2.7 cf x 2 x 2 rows = 10.6 cf

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

2 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 15.86' Row Length +12.0" End Stone x 2 = 17.86' Base Length

2 Rows x 51.0" Wide + 6.0" Spacing x 1 + 12.0" Side Stone x 2 = 11.00' Base Width

6.0" Stone Base + 30.0" Chamber Height + 6.0" Stone Cover = 3.50' Field Height

4 Chambers x 45.9 cf + 2.7 cf Cap Volume x 2 x 2 Rows = 194.4 cf Chamber Storage

687.5 cf Field - 194.4 cf Chambers = 493.1 cf Stone x 40.0% Voids = 197.2 cf Stone Storage

Chamber Storage + Stone Storage = 391.6 cf = 0.009 af

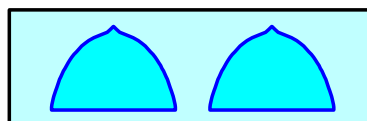
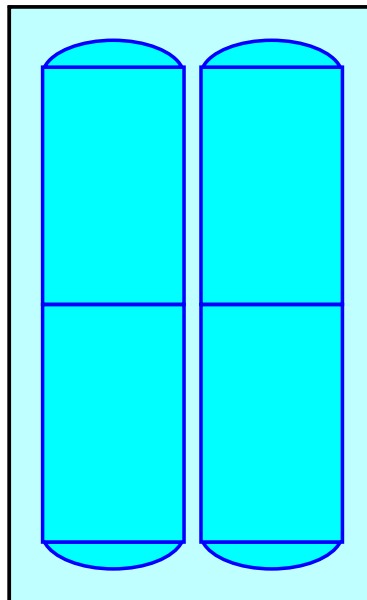
Overall Storage Efficiency = 57.0%

Overall System Size = 17.86' x 11.00' x 3.50'

4 Chambers

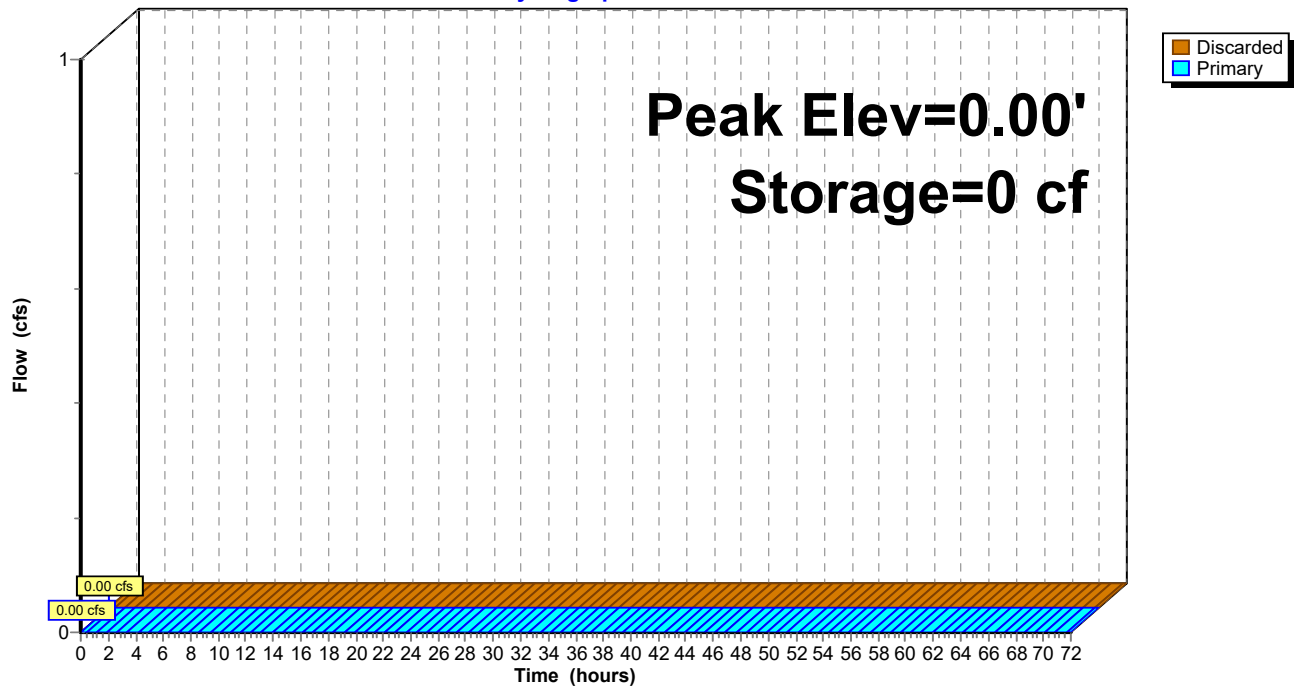
25.5 cy Field

18.3 cy Stone



Pond 2P: Stormtech

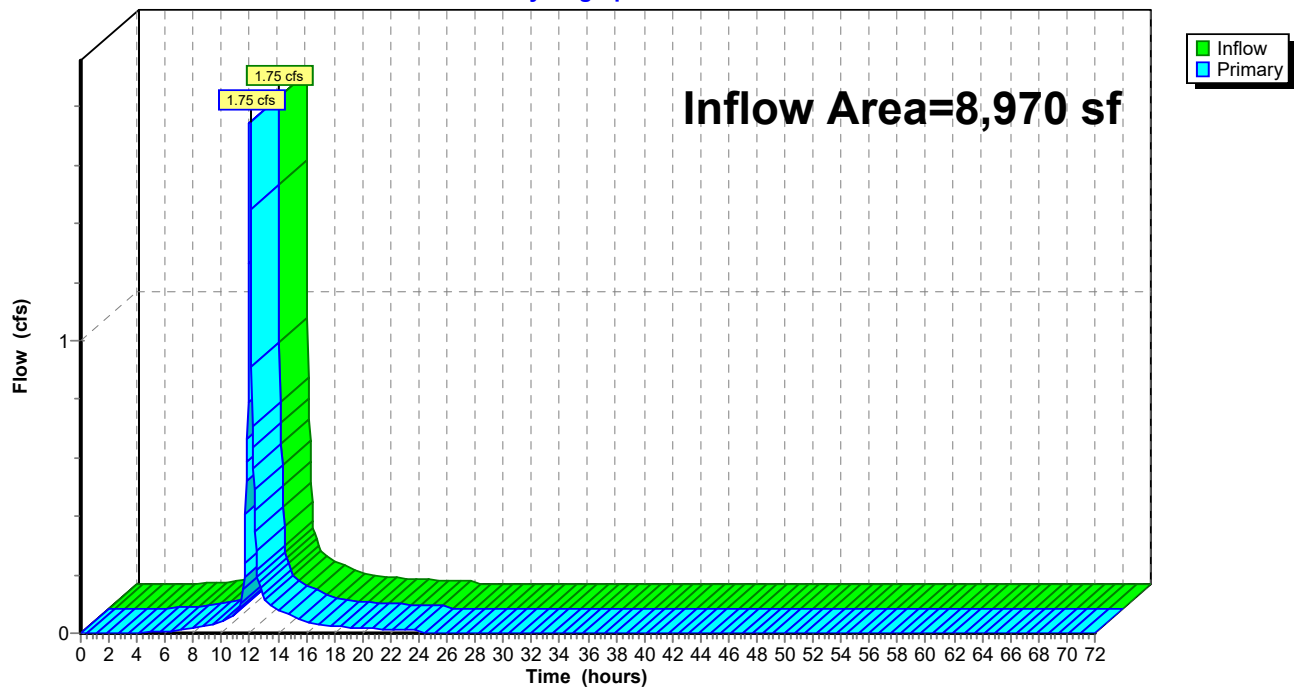
Hydrograph



Summary for Link DP-1: Mill Brook

Inflow Area = 8,970 sf, 76.48% Impervious, Inflow Depth = 6.05" for 100-year event
Inflow = 1.75 cfs @ 12.01 hrs, Volume= 4,526 cf
Primary = 1.75 cfs @ 12.01 hrs, Volume= 4,526 cf, Atten= 0%, Lag= 0.0 min

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

Link DP-1: Mill Brook**Hydrograph**



Recharge Calculations

Project	40 Park Ave Arlington, MA	Project #	13346.07
Calculated by	NJS	Date	7/29/2025
Checked by		Date	

REQUIRED RECHARGE VOLUME

Hydrologic Soil Group (HSG)	Area (ft ²)	Inches of Runoff (in)	Volume (ft ³)
A	780	0.60	39
B	0	0.35	0
C	0	0.25	0
D	0	0.10	0
TOTAL			39

CAPTURE AREA ADJUSTMENT

Required Recharge Volume (ft ³)	39
Total Site Net Impervious Area (ft ²)	780
Total Site Impervious Area Draining to Recharge Facilities (ft ²)	3,320
Capture Area Adjustment Factor	0.23
Adjusted Required Recharge Volume (ft ³)	9

PROVIDED RECHARGE VOLUME

BASIN #1:

Leaching Basin

Volumes provided below the lowest outlet at elevation: 446.0

Provided Volume:	Bottom Area (ft ²)	Volume (ft ³)
	79	446
Drawdown:	(V _{Infiltration} /A _{Bottom})/Rawl's Rate	
Rawls Recharge Rate:	2.41	(in/hr)
Drawdown Time:	28.29	(hours)

RECHARGE VOLUME SUMMARY

Required Recharge Volume:	39	(ft ³)
Total Recharge Volume Provided:	446	(ft ³)

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VHB, Inc..
101 Walnut Street
Post Office Box 9151
Watertown, MA 02471
P 617.924.1770

TSS Removal Calculation Worksheet

Project Name: **40 Park Ave**
Project Number: **13346.07**
Location: **Arlington**
Discharge Point: **1**
Drainage Area(s):

Sheet: **1 of 1**
Date: **29-Jul-2025**
Computed by: **NJS**
Checked by:

A	B	C	D	E
BMP*	TSS Removal Rate*	Starting TSS Load**	Amount Removed (C*D)	Remaining Load (D-E)
Leaching Catch Basin	80%	1.00	0.80	0.20
	0%	0.20	0.00	0.20
	0%	0.20	0.00	0.20
	0%	0.20	0.00	0.20
	0%	0.20	0.00	0.20

* BMP and TSS Removal Rate Values from the MassDEP Stormwater Handbook Vol. 1.

** Equals remaining load from previous BMP (E)

**Treatment Train
TSS Removal =**

80%

Erosion and Sedimentation Control Measures

The following erosion and sedimentation controls are for use during the earthwork and construction phases of the project. The following controls are provided as recommendations for the site contractor and do not constitute or replace the final Stormwater Pollution Prevention Plan that must be fully implemented by the Contractor and owner in Compliance with EPA NPDES regulations.

Straw Bale Barriers

Straw bale barriers will be placed to trap sediment transported by runoff before it reaches the drainage system or leaves the construction site. Bales will be set at least four inches into the existing ground to minimize undercutting by runoff.

Silt Fencing

In areas where high runoff velocities or high sediment loads are expected, straw bale barriers will be backed up with silt fencing. This semi-permeable barrier made of a synthetic porous fabric will provide additional protection. The silt fences and straw bale barrier will be replaced as determined by periodic field inspections.

Catch Basin Protection

Newly constructed and existing catch basins will be protected with straw bale barriers (where appropriate) or silt sacks throughout construction.

Gravel and Construction Entrance/Exit

A temporary crushed-stone construction entrance/exit will be constructed. A cross slope will be placed in the entrance to direct runoff to a protected catch basin inlet or settling area. If deemed necessary after construction begins, a wash pad may be included to wash off vehicle wheels before leaving the project site.

Diversion Channels

Diversion channels will be used to collect runoff from construction areas and discharge to either sedimentation basins or protected catch basin inlets.

Temporary Sediment Basins

Temporary sediment basins will be designed either as excavations or bermed stormwater detention structures (depending on grading) that will retain runoff for a

sufficient period of time to allow suspended soil particles to settle out prior to discharge. These temporary basins will be located based on construction needs as determined by the contractor and outlet devices will be designed to control velocity and sediment. Points of discharge from sediment basins will be stabilized to minimize erosion.

Vegetative Slope Stabilization

Stabilization of open soil surfaces will be implemented within 14 days after grading or construction activities have temporarily or permanently ceased, unless there is sufficient snow cover to prohibit implementation. Vegetative slope stabilization will be used to minimize erosion on slopes of 3:1 or flatter. Annual grasses, such as annual rye, will be used to ensure rapid germination and production of root mass. Permanent stabilization will be completed with the planting of perennial grasses or legumes. Establishment of temporary and permanent vegetative cover may be established by hydro-seeding or sodding. A suitable topsoil, good seedbed preparation, and adequate lime, fertilizer and water will be provided for effective establishment of these vegetative stabilization methods. Mulch will also be used after permanent seeding to protect soil from the impact of falling rain and to increase the capacity of the soil to absorb water.

Maintenance

- The contractor or subcontractor will be responsible for implementing each control shown on the Sedimentation and Erosion Control Plan. In accordance with EPA regulations, the contractor must sign a copy of a certification to verify that a plan has been prepared and that permit regulations are understood.
- The on-site contractor will inspect all sediment and erosion control structures periodically and after each rainfall event. Records of the inspections will be prepared and maintained on-site by the contractor.
- Silt shall be removed from behind barriers if greater than 6-inches deep or as needed.
- Damaged or deteriorated items will be repaired immediately after identification.
- The underside of straw bales should be kept in close contact with the earth and reset as necessary.
- Sediment that is collected in structures shall be disposed of properly and covered if stored on-site.
- Erosion control structures shall remain in place until all disturbed earth has been securely stabilized. After removal of structures, disturbed areas shall be re-graded and stabilized as necessary.

40 Park Ave

Arlington, MA 02476

PREPARED FOR

40 Park Ave Associates LLC
PO Box 288
Arlington, MA 02467
781.643.5335

PREPARED BY



260 Arsenal Place #2
PO Box 9151
Watertown, MA 02472
617.924.1770

August 2025

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Project Information

Site

40 Park Avenue
Arlington, MA 02467

Owner/Developer

40 Park Ave Associates LLC
PO Box 288
Arlington, MA 02467

781.643.5335Site Supervisor/Contact

Name: _____

Address: _____

Telephone: _____

Cell phone: _____

Email: _____

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Section A: Source Control

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A Source Control

A comprehensive source control program will be implemented which includes the following components:

- › Catch basin cleaning
- › Clearing litter from the parking area, islands, and perimeter landscape areas
- › Enclosure and regular maintenance of all dumpsters
- › Spill Prevention training

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Section B: Spill Prevention

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B Spill Prevention

Spill prevention equipment and training will be provided by Boston College.

B.1 Initial Notification

In the event of a spill the facility and/or construction manager or supervisor will be notified immediately.

Facility Manager (name): _____

Facility Manager (phone): _____

Construction Manager (name) : _____

Construction Manager (phone): _____

The supervisor will first contact the Arlington Fire Department and then notify the Arlington Police Department, the Arlington Health & Human Services Department and the Arlington Conservation Commission. The Fire Department is ultimately responsible for matters of public health and safety and should be notified immediately.

B.2 Further Notification

Based on the assessment from the Fire Chief, additional notification to a cleanup contractor may be made. The Massachusetts Department of Environmental Protection (DEP) and the Environmental Protection Agency (EPA) may be notified depending upon the nature and severity of the spill. The Fire Chief will be responsible for determining the level of cleanup and notification required. The attached list of emergency phone numbers shall be posted in the main construction/facility office and readily accessible to all employees. A hazardous waste spill report shall be completed as necessary using the attached form.

Emergency Notification Phone Numbers

1. FACILITY MANAGER

Name: _____

Phone: _____

Beeper/Cell: _____

Home Phone: _____

Alternate Contact: _____

Phone: _____

Beeper/Cell: _____

Home Phone: _____

2. FIRE & POLICE DEPARTMENT

Emergency: 911

3. CLEANUP CONTRACTOR

Address: _____

Phone: _____

4. MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP)

Emergency: (978) 694-3200

5. NATIONAL RESPONSE CENTER

Alternate: U.S. Environmental Protection Agency

Phone: (800) 424-8802

6. ARLINGTON HEALTH DEPARTMENT

Arlington Conservation Commission:

Phone: (617) 316-3170

Phone: (781) 316-3012

Hazardous Waste & Oil Spill Report

Date: _____ Time: _____ AM / PM

Exact location
(Transformer #): _____

Type of equipment: _____ Make: _____ Size: _____

S / N: _____ Weather Conditions: _____

On or near water? ☐ Yes ☐ No If yes, name of body of water: _____

Type of chemical / oil spilled: _____

Amount of chemical / oil spilled: _____

Cause of spill: _____

Measures taken to
contain or clean up spill: _____

Amount of chemical / oil recovered: _____ Method: _____

Material collected as a result of cleanup:

_____ drums containing _____

_____ drums containing _____

_____ drums containing _____

Location and method of debris disposal: _____

Name and address of any person, firm,
or corporation suffering charges: _____

Procedures, method, and precautions
instituted to prevent a similar occurrence
from recurring: _____

Spill reported by General Office by: _____ Time: _____ AM / PM

Spill reported to DEP / National Response Center by: _____

DEP Date: _____ Time: _____ AM / PM Inspector: _____

NRC Date: _____ Time: _____ AM / PM Inspector: _____

Additional comments: _____

B.3 Assessment – Initial Containment

The supervisor or manager will assess the incident and initiate containment control measures with the appropriate spill containment equipment included in the spill kit kept on-site. A list of recommended spill equipment to be kept on site is included on the following page.

Fire / Police Department:	<u>911</u>
Arlington Health Department:	<u>(617) 316-3170</u>
Arlington Conservation Commission:	<u>(781) 316-3012</u>

Emergency Response Equipment

The following equipment and materials should be maintained at all times and stored in a secure area for long-term emergency response need.

Supplies	Quantity	Recommended Suppliers
› Sorbent Pillows/"Pigs"	2	http://www.newpig.com Item # KIT276 — mobile container with two pigs
› Sorbent Boom/Sock	25 feet	http://www.forestry-suppliers.com
› Sorbent Pads	50	
› Lite-Dri® Absorbent	5 pounds	
› Shovel	1	Item # 33934 — Shovel (or equivalent)
› Pry Bar	1	Item # 43210 — Manhole cover pick (or equivalent)
› Goggles	1 pair	Item # 23334 — Goggles (or equivalent)
› Gloves – Heavy	1 pair	Item # 90926 — Gloves (or equivalent)

Section C: Snow Management

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C Snow Management

- › Snow storage areas will be managed to prevent blockage of storm drain catch basins and stormwater drainage swales. Snow combined with sand and debris may block a storm drainage system, diminishing the infiltration capacity of the system and causing localized flooding.
- › Sand and debris deposited on vegetated or paved areas shall be cleared from the site and properly disposed of at the end of the snow season, no later than May 15.
- › Snow shall not be dumped into any waterbody, pond, or wetland resource area.

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Section D: Maintenance of Stormwater Management Systems

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D Maintenance of Stormwater Management Systems

D.1 Pavement Systems

D.1.1 Standard Asphalt Pavement

- › Sweep or vacuum standard asphalt pavement as needed with a rotary brush sweeper, vacuum or regenerative air sweeper and properly dispose of removed material.
- › More frequent sweeping of paved surfaces will result in less accumulation in catch basins, less cleaning of subsurface structures, and less disposal costs.
- › Check loading docks and dumpster areas frequently for spillage and/or pavement staining and clean as necessary.

D.2 Structural Stormwater Management Devices

D.2.1 Catch Basins/Leaching Basin

The proper removal of sediments and associated pollutants and trash occurs only when catch basin inlets and sumps are cleaned out regularly. The more frequent the cleaning, the less likely sediments will be re-suspended and subsequently discharged. In addition, frequent cleaning also results in more volume available for future deposition and enhances the overall performance. As noted in the pavement Operation and Maintenance (O&M) section, more frequent sweeping of paved surfaces will result in less accumulation in catch basins, less cleaning of subsurface structures, and less disposal costs.

Inspections and Cleaning

- › All catch basins shall be inspected at least four times per year and cleaned a minimum of at least once per year.
- › Sediment (if more than six inches deep) and/or floatable pollutants shall be pumped from the basin and disposed of at an approved offsite facility in accordance with all applicable regulations.
- › Any structural damage or other indication of malfunction will be reported to the site manager and repaired as necessary

- › During colder periods, the catch basin grates must be kept free of snow and ice.
- › During warmer periods, the catch basin grates must be kept free of leaves, litter, sand, and debris.

D.2.2 Roof Drain Leaders

Roof runoff from the buildings are directed to the leaching basin.

- › Perform routine roof inspections quarterly.
- › Keep roofs clean and free of debris.
- › Keep roof drainage systems clear.
- › Keep roof access limited to authorized personnel.
- › Clean inlets twice per year or as necessary.

D.3 Vegetated Stormwater Management Devices

D.3.1 Vegetated Areas Maintenance

Although not a structural component of the drainage system, the maintenance of vegetated areas may affect the functioning of the stormwater management system. This includes the health/density of vegetative cover and activities such as the application and disposal of lawn and garden care products, disposal of leaves and yard trimmings and proper aeration of soils.

- › Inspect planted areas on a semi-annual basis and remove any litter.
- › Maintain planted areas adjacent to pavement to prevent soil washout.
- › Immediately clean any soil deposited on pavement.
- › Re-seed bare areas; install appropriate erosion control measures when native soil is exposed or erosion channels are forming.
- › Plant alternative mixture of grass species in the event of unsuccessful establishment.
- › The grass vegetation should be cut to a height between three and four inches.
- › Pesticide/Herbicide Usage – No pesticides are to be used unless a single spot treatment is required for a specific control application.
- › Fertilizer usage should be avoided. If deemed necessary, slow release fertilizer should be used. Fertilizer may be used to begin the establishment of vegetation in bare or damaged areas, but should not be applied on a regular basis unless necessary.
- › Annual application of compost amendments and aeration are recommended.

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Section E: Operations and Maintenance Plan Summary

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E Operations and Maintenance Plan Summary

This Operation and Maintenance Plan has been prepared in accordance with the MassDEP Stormwater Management Standards. It specifies operational practices and drainage system maintenance requirements for the site. Requirements should be adjusted by the site manager as necessary to ensure successful functioning of system components.

E.1 Routine Maintenance Checklists

Routine required maintenance is described in Sections A – D. The following checklists are to be used by the property manager to implement and document the required maintenance and inspection tasks.

E.2 Reporting and Documentation

The site supervisor shall be responsible for ensuring that the scheduled tasks as described in this plan are appropriately completed and recorded in the Maintenance Log. Accurate records of all inspections, routine maintenance and repairs shall be documented and these records shall be available for inspection by members of the Arlington Conservation Commission, or their designated agent, upon request.

The Maintenance Log shall:

- › Document the completion of required maintenance tasks.
- › Identify the person responsible for the completion of tasks.
- › Identify any outstanding problems, malfunctions or inconsistencies identified during the course of routine maintenance.
- › Document specific repairs or replacements.

E.3 Construction Practices Maintenance/ Evaluation Checklist

40 Park Ave - Arlington, MA

Best Management Practice	Inspection Frequency	Date Inspected	Inspector Initials	Minimum Maintenance and Key Items to Check	Cleaning or Repair Needed ☐ Yes/No (List Items)	Date of Cleaning or Repair	Performed by:
--------------------------	----------------------	----------------	--------------------	--	--	----------------------------	---------------

Hay Bales/ Silt Fencing	Weekly and after any rainfall			Sediment build up, broken bales or stakes			
Gravel Construction Entrance	Weekly and after any rainfall			Filled voids, runoff/sediments into street			
Catch Basin Protection	Weekly and after any rainfall			Clogged or sediment build- up at surface or in basin			
Diversion Channels	Weekly and after any rainfall			Maintained, moved as necessary to correct locations, Check for erosion or breakout			
Temporary Sedimentation Basins	Weekly and after any rainfall			Cracking, erosion, breakout, sediment buildup, contaminants			

Stormwater Control Manager: _____

E.4 Long-term Maintenance/Evaluation Checklist

40 Park Ave - Arlington, MA

Best Management Practice	Minimum Maintenance and Key Items to Check	Inspection Frequency	Date Inspected	Inspector Initials	Cleaning Frequency	Cleaning or Repair Needed ☐ Yes/No	Date of Cleaning or Repair	Performed by:
Street Sweeping	Vacuum sweeper	As Needed			As needed			
Deep Sump and Hooded Catch basins	Remove sediment 1X per year or if >6 inches	4X per year			1X per year or as necessary			
Roof Drains	Remove debris, clean inlets draining to subsurface bed	4x per year roof inspection			2x per year inlet cleaning, roof debris as necessary			

Stormwater Control Manager: _____

E.5 Maintenance Checklists

These checklists are provided for the maintenance crew to photocopy and use when conducting inspections and cleaning activities to the stormwater management systems.

Maintenance Checklists

Annual inspection logs shall be submitted to the DPW Engineering Division as required to maintain certification of compliance under Arlington's NPDES MS4 Permit.

Catch Basins – Inspect 4 times per year, clean when sediment depth >6 inches or at least once per year.

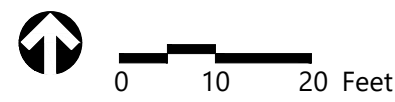
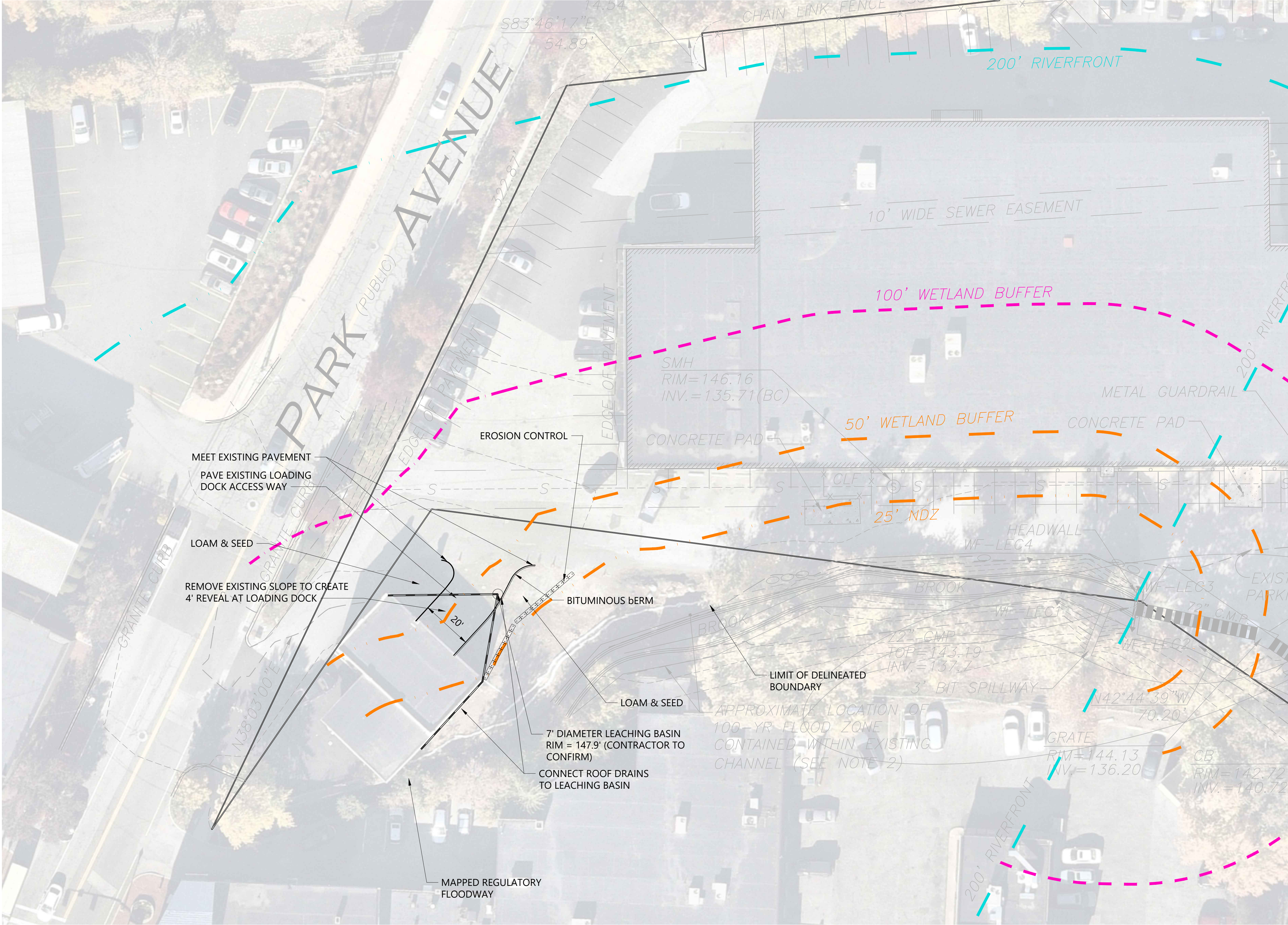
Catch Basin	Inspected (Y/N)	Sediment Depth (inches)	Cleaning needed (Y/N)	Date Cleaned	Comments (Trash, Oil, Pet waste, Lawn Debris, Damage)
LB				/ /	

Roof Runoff Downspouts – Inspect roof drains monthly, clean inlets draining to the subsurface bed twice per year.

Bldg #	Inspected (Y/N)	Sediment Depth (inches)	Cleaning needed (Y/N)	Date Cleaned	Comments (Trash, Oil, Pet waste, Lawn Debris, Damage)
				/ /	
				/ /	
				/ /	
				/ /	

Attachment E

Project Plans (Bound Separately)



40 Park Avenue

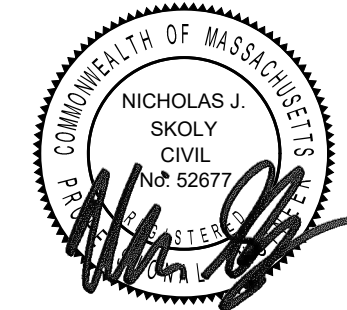
Arlington, MA

No.	Revision	Date	Appr'd.
Designed by		Checked by	
Issued for		Date	
Notice of Intent		August 22, 2025	

Drawing Title

Site Plan

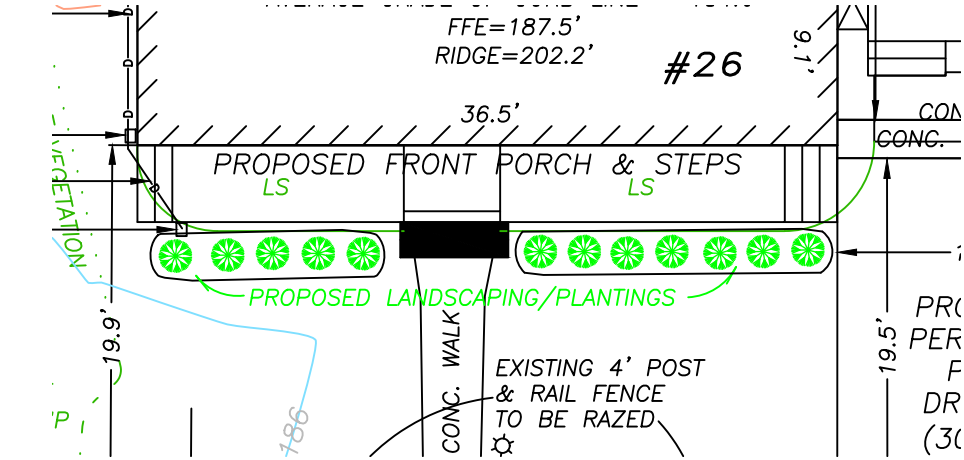
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C-1

Sheet 1 of 2

Project Number
13346.07



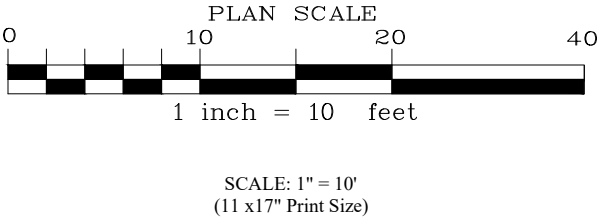
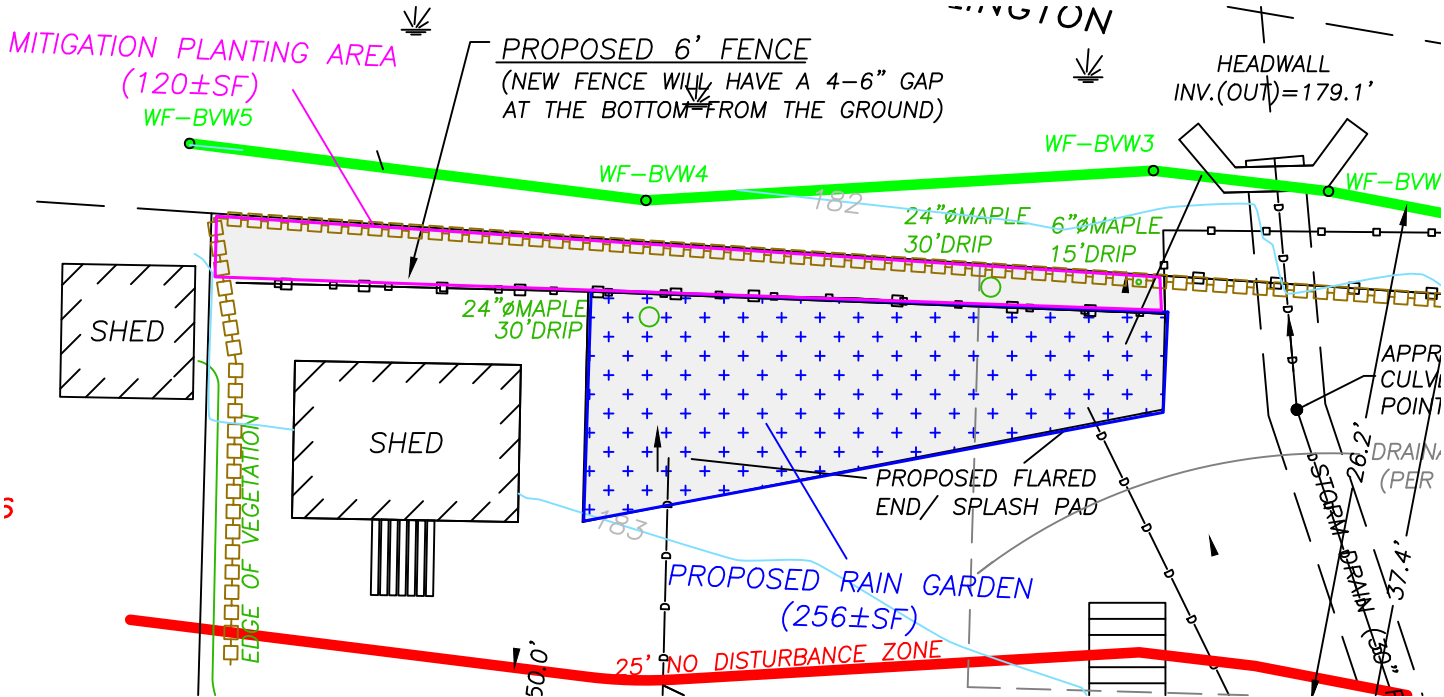
LANDSCAPE SHRUBS PLANTING SPECIFICATIONS					
	COMMON NAME	GENUS/SPECIES	SIZE	PLANTING SPECIFICATIONS	NUMBER OF EACH SPECIES
	SHRUBS				
	black chokeberry	<i>Aronia melanocarpa</i>	2' min.	clusters of 3-7, spaced 4-6' on-center	NA
	sweet pepperbush	<i>Clethra alnifolia</i>	2' min.	clusters of 3-7, spaced 4-6' on-center	NA
	pink azalea	<i>Rhododendron periclymenoides</i>	2' min.	clusters of 3-7, spaced 4-6' on-center	NA
	winterberry	<i>Ilex verticillata</i>	2' min.	clusters of 3-7, spaced 4-6' on-center	NA
	northern bush honeysuckle	<i>Diervilla lonicera</i>	2' min.	clusters of 3-7, spaced 4-6' on-center	NA
	arrowwood	<i>Viburnum dentatum</i>	2' min.	clusters of 3-7, spaced 4-6' on-center	NA
	red twig dogwood	<i>Cornus sericea</i>	2' min.	clusters of 3-7, spaced 4-6' on-center	NA
	inkberry	<i>Ilex glabra</i>	2' min.	clusters of 3-7, spaced 4-6' on-center	NA
				Total Shrubs	12 min.
ONE OR MORE OF THE ABOVE LIST OF NATIVE SPECIES MAY BE USED FOR SHRUBS IN THE PROPOSED PLANTING BED. A MINIMUM OF 12 PLANTINGS SHALL BE INSTALLED USING ANY OF THE ABOVE SHRUB SPECIES SHALL BE PLANTED IN THE LANDSCAPE BED (1-2 GALLON POTS).					

MITIGATION PLANTING AREA NOTES

- PRIOR TO WORK ACTIVITY, EXISTING EROSION CONTROLS SHALL BE INSPECTED BY THE WETLAND SCIENTIST.
- THIS RESTORATION/MITIGATION PLANTING PLAN IS SOLELY INTENDED TO BE USED FOR RESTORATION RELATED WORK ACTIVITY ONLY.
- A ONE TIME 2 INCH APPLICATION OF LEAF COMPOST OR PINE BARK MULCH MAY BE APPLIED TO THE THE DRIP LINE OF PROPOSED PLANTINGS.
- SHOULD PLANTS BE STOCKPILED TEMPORARILY, THEY SHALL BE WATERED APPROPRIATELY AND STORED IN THE SHADE.
- PLANTS SHALL BE PROTECTED FROM THE WIND/COVERED WHEN TRANSPORTED TO THE SITE.
- PLANTING IN THE EARLY SPRING OR DURING THE FALL IS RECOMMENDED.
- ANY SUBSTITUTE/AMENDED/SUPPLEMENTAL NATIVE MEADOW FLOWERS, FERNS OR SEEDS SHALL BE APPROVED BY THE WETLAND SCIENTIST OR ARLINGTON CONSERVATION AGENT AND NATIVE TO MASSACHUSETTS.
- CLEAN (E.G. FREE OF INVASIVE SPECIES SEED AND/OR CONTAMINANTS), ORGANIC RICH TOPSOIL (MINERAL SOIL AND LEAF COMPOST MIXTURE) IS RECOMMENDED.
- PLANTINGS SHALL BE THE NATIVE SPECIES AND NOT CULTIVARS.**

WATERING NOTES

- A DEEP SOAKING IS RECOMMENDED THE SAME DAY AS PLANTS ARE INSTALLED.
- FOR THE FIRST MONTH AFTER PLANT INSTALLATION, A DEEP WATERING IS RECOMMENDED APPROXIMATELY TWICE A WEEK DEPENDING ON FREQUENCY OF RAIN EVENTS AND TIME OF SEASON.
- GENERAL SUGGESTED WATERING FREQUENCY AFTER FIRST MONTH AND DURING THE FIRST GROWING SEASON: A DEEP SOAKING OF THE ROOT ZONE ONCE A WEEK IN SPRING AND FALL. TWICE A WEEK DURING THE HOTTEST PORTION OF SUMMER..
- AN ADEQUATE WATERING REPLACEMENT RAIN EVENT IS APPROXIMATELY A MINIMUM OF A HALF INCH OF RAINFALL.
- WATERING IS RECOMMENDED IN THE EARLY MORNING HOURS.
- A DEEP SOAKING MEANS INCLUDING THE SOAKING OF THE ENTIRE ROOT BALL AND THE IMMEDIATE SURROUNDING SOIL.
- A REDUCTION IN THE FREQUENCY OF WATERING IS RECOMMENDED AFTER THE FIRST YEAR. RESUME WATERING PROGRAM AS NECESSARY DURING SECOND GROWING SEASON WHEN PERIODS OF DROUGHT OR DURING EXTENDED DRY PERIODS.
- THE ABOVE SHALL ONLY BE APPLIED IN ACCORDANCE WITH LOCAL WATERING REQUIREMENTS/REGULATIONS.



RAIN GARDEN GROUNDCOVER

THE FOLLOWING LIST NATIVE SPECIES MAY BE USED FOR GROUNDCOVER THROUGHOUT THE RAIN GARDEN. A MINIMUM OF 10 PLANTINGS OF THE FOLLOWING SPECIES SHALL BE PLANTED IN THE RAIN GARDEN (5 -1 GALLON POTS).

- CINNAMON FERN (OSMUNDA CINNAMOMEA)
- NEW YORK FERN (THELYPTERIS NOVEBORACENSIS)
- OSTRICH FERN (MATTEUCCIA STRUTHIOPTERIS)
- CHAIN FERN (WOODWARDIA AREOLATA)
- WOOD FERN (DRYOPTERIS EXPANSA)
- SENSITIVE FERN (ONOCLEA SENSIBILIS);
- LADY FERN (ATHYRIUM FILIX-FEMINA)
- JACK IN THE PULPIT (ARISAEMA TRIPHYLLUM)

A CUSTOM SHADE TOLERANT SEEDMIX SHALL BE SPREAD THROUGHOUT THE RAIN GARDEN USING AT LEAST 5 OF THE FOLLOWING SPECIES.

- GREAT BLUE LOBELIA (LOBELIA SIPHILITICA).
- CARDINAL FLOWER (RUDBECKIA HIRTA)
- WHITE TURTLEHEAD (CHELONE GLABRA)
- BLADDER SEDGE (CAREX INTUMESCENS)
- GRAY'S SEDGE (CAREX GRAYI)
- PATH RUSH (JUNCUS TENUIS)
- GOLDEN ALEXANDERS (ZIZEA AUREA)
- DEER TONGUE GRASS (PANICUM CLANDESTINUM)
- CALICO ASTER (SYMPHYOTRICHUM LATERIFLORUM)
- BROAD-LEAVED MOUNTAIN-MINT (PYCNANTHEMUM MUTICUM)

RAIN GARDEN SHRUBS PLANTING SPECIFICATIONS					
	COMMON NAME	GENUS/SPECIES	SIZE	PLANTING SPECIFICATIONS	NUMBER OF EACH SPECIES
	SHRUBS				
	nannyberry	<i>Viburnum lentago</i>	2' min.	clusters of 3-7, spaced 4-6' on-center	NA
	sweet pepperbush	<i>Clethra alnifolia</i>	2' min.	clusters of 3-7, spaced 4-6' on-center	NA
	swamp azalea	<i>Rhododendron viscosum</i>	2' min.	clusters of 3-7, spaced 4-6' on-center	NA
	winterberry	<i>Ilex verticillata</i>	2' min.	clusters of 3-7, spaced 4-6' on-center	NA
	spicebush	<i>Lindera benzoin</i>	2' min.	clusters of 3-7, spaced 4-6' on-center	NA
	pink azalea	<i>Rhododendron periclymenoides</i>	2' min.	clusters of 3-7, spaced 4-6' on-center	NA
				Total Shrubs	7 min.
THE ABOVE LIST NATIVE SPECIES MAY BE USED FOR SHRUBS THROUGHOUT THE RAIN GARDEN. A MINIMUM OF 7 PLANTINGS USING AT LEAST 3 OF THE ABOVE SHRUB SPECIES SHALL BE PLANTED IN THE RAIN GARDEN (1-2 GALLON POTS).					

MITIGATION PLANTING AREA PLANTING SPECIFICATIONS					
	COMMON NAME	GENUS/SPECIES	SIZE	PLANTING SPECIFICATIONS	NUMBER OF EACH SPECIES
	SHRUBS				
	mapleleaf viburnum	<i>Viburnum acerifolium</i>	2' min.	clusters of 3-7, spaced 4-6' on-center	NA
	American hazelnut	<i>Corylus americana</i>	2' min.	clusters of 3-7, spaced 4-6' on-center	NA
	flame azlea	<i>Rhododendron calendulaceum</i>	2' min.	clusters of 3-7, spaced 4-6' on-center	NA
	northern bush honeysuckle	<i>Diervilla lonicera</i>	2' min.	clusters of 3-7, spaced 4-6' on-center	NA
	arrowwood	<i>Viburnum dentatum</i>	2' min.	clusters of 3-7, spaced 4-6' on-center	NA
				Total Shrubs	5 min.
THE ABOVE LIST OF NATIVE SPECIES MAY BE USED FOR SHRUBS IN THE PROPOSED MITIGATION PLANTING AREA. A MINIMUM OF 5 PLANTINGS FROM THE ABOVE SHRUB SPECIES LIST SHALL BE PLANTED IN THIS AREA (1-2 GALLON POTS).					

Mitigation Planting Plan

26 Reed Street
Arlington, MA

September 25, 2025
Revised 10-20-2025

PREPARED BY:

LEC
Environmental Consultants, Inc.

12 Resnik Road
Suite 1
Plymouth, MA 02360
508.746.9491
508.746.9492 fax
email: southlec@leceenvironmental.com
www.leceenvironmental.com

WETLANDS WILDLIFE WATERWAYS

LEC File: YanJ 25-400

SHEET 1 OF 1



Plan adapted by:
LEC Environmental Consultants, Inc.
from plan entitled;

NOTICE OF INTENT PLAN
DATED: September 23, 2025

Prepared by:

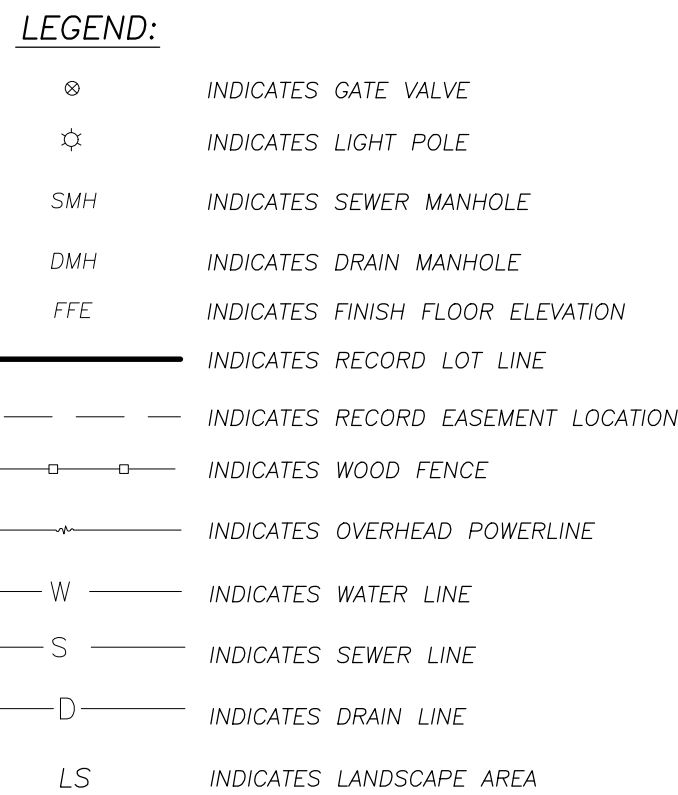
M.T. Adams and Associates
163 Highland Ave
Needham, MA 02494

Diagram illustrating the cross-section of a stone paver installation:

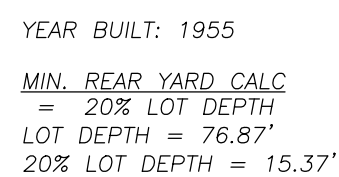
- 3" thick conc./brick pavers
- joint spacing by paver's manufacturer
- ground surface level
- 1.5" thick bedding course (ASTM # 8 stones)
- 10" thick base course (ASTM # 57 stones)
- Soil subgrade
- Geotextile fabric over soil before loading stones

A cross-sectional diagram of a pond. The pond is filled with water and contains several lily pads. The bottom of the pond is a curved, bowl-like shape. The layers from top to bottom are: Top soil, Gravel stone (~3" thick), Soil mix (~9" thick; ~50% sand, ~25% compost, ~25% topsoil), Scarified soil (transition layer), and Native soil. A label 'Pond depth ~6"' points to the water level. Arrows indicate the boundaries between the different layers.

A cross-sectional diagram of a water discharge port installation. A 4-inch drainage pipe is shown extending from the left, passing through a concrete base, and terminating in a water discharge port. The port is a curved, downward-facing outlet. The area around the port is filled with a material represented by a cross-hatch pattern. The top of the diagram shows a grassy area with some plants. Labels with leader lines point to the '4" drainage pipe' and the 'Water discharge port'.



1. PLAN ENTITLED "SUBDIVISION PLAN OF LAND LOCATED IN ARLINGTON, MA" PREPARED BY P.J.F. & ASSOCIATES, DATED JUNE 20TH, 1994, RECORDED W/ THE MIDDLESEX SOUTH REGISTRY OF DEEDS PLAN NO. 642 OF 1994.
2. PLAN ENTITLED "EASEMENT PLAN, REED'S BROOK, ARLINGTON, MA" PREPARED BY HOLDEN ENGINEERING & SURVEYING, INC. DATED JANUARY 29TH 1998, RECORDED W/ THE MIDDLESEX SOUTH REGISTRY OF DEEDS PLAN NO. 903 OF 2002.



EXISTING		PROPOSED	
STRUCTURES		STRUCTURES	
BUILDING	1,190±SF	BUILDING	1,267±SF
SHED	96±SF	SHED	96±SF
WOOD DECK	310±SF	WOOD DECK	310±SF
PORCH	46±SF	PORCH	166±SF
STOOP	22±SF		
HARDSCAPE		HARDSCAPE	
WALKWAYS	100±SF	WALKWAY	45±SF
DRIVEWAY	334±SF	DRIVEWAY	334±SF
		GARAGE APRON	25±SF
TOTAL	2,098±SF	TOTAL	2,233±SF
LOT AREA	6,107±SF	LOT AREA	6,334±SF
OPEN SPACE	4,236±SF	OPEN SPACE	4,101±SF

1. FLOOD PLAN NOTE: NO PORTION OF THE PREMISES SHOWN HEREON IS LOCATED WITHIN A FLOOD HAZARD AREA AS INDICATED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON FLOOD INSURANCE RATE MAP NO. **250170C0416F**, WITH A DATE OF IDENTIFICATION OF **JULY 8TH, 2025**, FOR COMMUNITY NO. **250177**, IN THE TOWN OF ARLINGTON, COUNTY OF SOUTHERN MIDDLESEX, STATE OF MASSACHUSETTS, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY IN WHICH SAID PREMISES IS SITUATED.
2. THIS PLAN DOES NOT SHOW ANY UNRECORDED OR UNWRITTEN EASEMENTS WHICH MAY EXIST, A REASONABLE AND DILIGENT ATTEMPT HAS BEEN MADE TO OBSERVE ANY APPARENT, VISIBLE USES OF THE LAND; HOWEVER THIS DOES NOT CONSTITUTE A GUARANTEE THAT NO SUCH EASEMENTS EXIST.
3. THIS PLAN HAS BEEN PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO THE FINDINGS SUCH A REPORT MIGHT DISCLOSE.
4. THIS PLAN WAS PREPARED FROM AN ACTUAL ON THE GROUND FIELD SURVEY CONDUCTED BY M.T. ADAMS & ASSOCIATES, IN **AUGUST & SEPTEMBER OF 2025**.
5. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). ELEVATIONS ESTABLISHED BY RTK GPS SURVEY PROCEDURE USING NETWORK ROVER OBSERVATIONS ON CONTROL POINTS.
6. UTILITIES SHOWN FROM SURFACE LOCATIONS AND RECORDED UTILITY PLANS, UTILITIES OTHER THAN THOSE SHOWN MAY EXIST, CALL DIG-SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION.
7. M.T. ADAMS & ASSOCIATES, PLLC ARE NOT ZONING EXPERTS, ZONING TABLE IS TAKEN FROM TABLE PROVIDED BY LOCAL ZONING ORDINANCE, CLIENT AND/OR ARCHITECT AND/OR ENGINEER TO VERIFY THE ACCURACY OF ZONING ANALYSIS.
8. BASIS OF BEARINGS IS PLAN REF. 2.
9. CURBED ALIGNMENT BASED ON MANHOLE INVERT SHOTS, SURFACE OBSERVATIONS, AND HANDHELD METAL DETECTION. INTERMEDIATE BEND IS SURVEYED AND WILL NOT VERIFY BY GTSV OR TEST PIT. USE CAUTION AND VERIFY IN THE FIELD PRIOR TO EXCAVATION.

Drawing: <i>Reed St 26 EC.dwg</i>	A.P.N. 109-1-4
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