



westonandsampson.com

55 Walkers Brook Drive, Suite 100  
Reading, MA 01867  
tel: 978.532.1900

Application for Special Permit  
And Site Plan Review

May 2025

JUDD WIRE INC.  
BATTERY ENERGY STORAGE  
SYSTEM DEVELOPMENT  
124 TURNPIKE RD, TURNERS  
FALLS, MA

PREPARED FOR: POWERBESSCO 2, LLC

SUBMITTED TO: TOWN OF MONTAGUE PLANNING  
BOARD

May 29, 2025

Ms. Maureen Pollock  
Planning Director  
Town of Montague  
1 Avenue A  
Turners Falls, MA 01376

Re: **Special Permit Application and Site Plan Review  
BESS Development  
124 Turnpike Rd, Turners Falls, MA 01376**

Dear Ms. Pollock:

Weston & Sampson Engineers, Inc. (Weston & Sampson) is submitting this package which includes an Application for Special Permit & Site Plan Review and related appendices to be filed with the Town of Montague Planning Board for the above-mentioned project on behalf of Peak Power Inc. d/b/a Power BESSCo 2, LLC (the Applicant). The Applicant proposes to develop the project, a stand-alone battery energy storage system (BESS), at the site located at 124 Turnpike Road.

The project will consist of a BESS and associated equipment secured within a chain link fence within the existing parking lot of the Judd Wire, Inc. facility. This application package includes the following attachments.

- Application Fee (\$200.00 (Site Plan Review Fee) Payable to Town of Montague)
- Application Fee (\$143.00 (Special Permit Fee) Payable to Town of Montague)
- Application Forms
- Appendix A – Project Narrative
- Appendix B – Site Plans – Issued for Permitting
- Appendix C – Operation & Maintenance Plan
- Appendix D – Decommissioning Plan & Cost Estimate
- Appendix E – Stormwater Management Report
- Appendix F – Project Support Letter
- Appendix G – Waiver Request Letter

If you have any further questions or require any additional information, please feel free to contact me by phone at (978) 532-1900 or by email at [costello.melinda@wseinc.com](mailto:costello.melinda@wseinc.com).

Sincerely,  
WESTON & SAMPSON ENGINEERS, INC.



Melinda Costello, P.E.  
Project Manager

cc: Dmytro Gladyshevskyi, PowerBESSCo 2, LLC

Application Forms



# MONTAGUE PLANNING BOARD

Town Hall, One Avenue A, Turners Falls, MA 01376 (413) 863-3200 Ext 207

## Application for Special Permit & Site Plan Review



Please Do Not Write In Shaded Boxes

Application # SP/SPR 2025-02

Amount of fee &  
date pd. \$343

Date filed with  
Town Clerk 6/9/25

Checked  
by Planner ☒

PB Hearing  
Date 6/24/25

PB Decision  
Filed \_\_\_\_\_

1. APPLICATION IS HEREBY MADE TO THE TOWN OF MONTAGUE PLANNING BOARD  
FOR: Special Permit pursuant to Section(s) 5.5.3; 8.9; 9 of the Montague Zoning Bylaws  
Site Plan Review pursuant to Section(s) 8.9 of the Montague Zoning Bylaws
2. Applicant PowerBESSCo 2, LLC , Dmytro Gladyshevskiy  
Address 444 Somerville Avenue, Somerville, MA, 02143  
Phone +1 (647) 567-7878 Email dmytro.gladyshevskiy@peakpowerenergy.com
3. Property Owner Judd Wire Inc  
Address 124 Turnpike Rd Turners Falls, MA 01376
4. Applicant is: \_\_\_\_\_ Owner ☒ Lessee \_\_\_\_\_ Contract Purchaser \_\_\_\_\_ Tenant in Possession
5. Location of Property 124 Turnpike Rd Turners Falls, MA 01376, being situated on the \_\_\_\_\_  
Right side of Sandy Lane Street, and shown on the Assessor's Map(s) # 14  
Parcel(s) 162; Franklin County Registry of Deeds Book # 2252, Page 226.  
Zoning District Industrial
6. Description of proposed work and/or use stand- alone Battery Energy Storage System (BESS)  
Development
7. Site Plan attached ☒ Yes \_\_\_\_\_ No (see checklist for information required)  
If not attached, application may be considered to be incomplete and may not be accepted for filing.



9. I hereby certify that information contained herein is true to the best of my knowledge.

Applicant's Signature 

Date 6/9/2025

Application Filed: \_\_\_\_\_

Attest to filing, Town Clerk:

Decision Filed: \_\_\_\_\_

Attest, Town Clerk \_\_\_\_\_

**INFORMATION FOR APPLICANT:**

**ADDITIONAL COPIES:** In addition to the original application form and supplemental documents, a digital copy of all materials in .pdf format is also required. The Planning Board may require up to 6 hard copies of any and all documents, at the discretion of the Planning Board Chair.

**FILING FEE:** \$50.00 for a special permit; \$200 plus \$2.00 per parking space for site plan review; plus \$3.00 for each "party in interest" listed to a maximum of \$100, payable to the Town of Montague, is required to be paid before the application will be accepted for filing with the Town Clerk and Planning Board Clerk. The Planning Clerk can provide you with an estimate of the approximate number of parties of interest prior to submission of application. Applicant will also be billed for cost of legal advertisement; which must be paid in full before the public hearing.

**NOTICES:** The Planning Department will obtain the certified abutter's list and conduct the statutory legal notices which include mailing notice to parties of interest, posting and advertising the public hearing.

**ADDITIONAL APPLICATION REVIEW FEES:** The Planning Board may determine that the assistance of outside professional expertise is required due to the size, scale or complexity of a given project or its potential impact on the health, safety and welfare of the Town. When outside review is determined to be necessary, the Board may require that the applicant pay all reasonable expenses for this purpose, in accordance with Board regulations and M.G.L. Chapter 44 Section 53G.

**CONDITIONS FOR APPROVAL:** The applicant should be aware that if the application is approved, the Board may, at its discretion, and in addition to any applicable conditions specified in the zoning ordinances or subdivision regulations, impose such additional conditions as it finds reasonably appropriate to safeguard the neighborhood or serve the purposes of the zoning ordinance and subdivision regulations. Such conditions will be imposed in writing. The applicant may be required to post bond or other security for compliance with said conditions in an amount satisfactory to the Board.

**FOR ADDITIONAL INFORMATION, CONTACT:**

Planning Department, Town of Montague

Town Hall, One Avenue A

Turners Falls, MA 01376

Phone (413) 863-3200 Ext 207 Fax (413) 863-3222

Email: [planner@montague.net](mailto:planner@montague.net)



## MONTAGUE PLANNING BOARD

Town Hall, One Avenue A, Turners Falls, MA 01376 (413) 863 3200 ex 206

# Management Plan Form

### APPLICANT INFORMATION:

Applicant: Dmytro Gladyshevskiy, PowerBESSCo 2, LLC

Address: 444 Somerville Ave  
Somerville, MA, 02143

Telephone: 647-567-7878

Email: dmytro.gladyshevskiy@peakpowerenergy.com

Owner: Judd Wire Inc. Anthony Fernando  
*(if different from applicant)*

Address: 124 Turnpike Rd Turners Falls, MA  
01376

Telephone: +1 860-449-3505

Email: afernando@juddwire.com

### PROJECT INFORMATION:

Project Address and Description:

124 Turnpike Rd Turner Falls, MA 01376

Amendment to previously approved management plan?

☐ yes

☒ no

### INFORMATION REQUIRED FOR ALL PROJECTS:

*(Attach additional sheets as necessary)*

Trash and recycling, including storage location, enclosure or screening, with frequency of pickup and name of hauling company, and responsible party to contact in case of complaint:

Project does not involve trash and recycling

Parking, including size and number of spaces, location, screening, provision for handicapped spaces:

Project does not involve parking

Lighting, including hours of illumination by location, types and wattage of fixtures:

Project does not involve lighting

Signage, including location, size, materials, and any illumination:

Project does not involve signage

Landscape Maintenance, including annual schedule of watering, fertilizing, mowing, pruning, leaf pick-up, and so forth, and maintenance and replacement schedule of site furnishings:

Project does not involve landscape maintenance

Snow Removal, including name of contractor:

Project does not involve snow removal

**ADDITIONAL INFORMATION FOR SPECIFIC PROJECT TYPES (ATTACH ADDITIONAL SHEETS):**

**ADDITIONAL INFORMATION REQUIRED FOR APARTMENTS:**

Number of units, existing and proposed

Number of bedrooms, existing and proposed

Number of tenants

Owner-occupied?

On-site manager?

Copy of standard lease

Noise management of tenants, parties, music, and any outdoor

HVAC equipment

Material, equipment, and large household goods storage

On-site recreational facilities

Project does not involve apartments

**ADDITIONAL INFORMATION REQUIRED FOR NON  
RESIDENTIAL USES/ HOME OCCUPATIONS:**

Type of business

Number of Employees

Hours of operation

Deliveries to the site

Equipment used/ Noise generated

Material and equipment storage

Project does not involve residential  
uses/home occupations



Application # \_\_\_\_\_

# MONTAGUE PLANNING BOARD

Town Hall, One Avenue A, Turners Falls, MA 01376 (413) 863-3200 Ext 207

## Application Checklist for Site Plan Review

NOTE: Applicants are strongly advised to consult with the Town Planner on any items that are not included or believed not to be applicable. Incomplete information may result in delay or denial of approval.

### **SITE PLAN, GENERAL INFORMATION:**

Information	Included	Not included	Not applicable
Name of applicant	X		
Name of property owner	X		
Name of development	X		
Engineer seal	X		
Architect seal			X
Land surveyor seal	X		
Base map source	X		
Parcel boundaries with dimensions	X		
Scale	X		
Survey accuracy statement	X		
North arrow	X		
Locus map @ 1"=1000'	X		
Date of plans or revisions	X		

### **SITE PLAN, EXISTING CONDITIONS**

Information	Included	Not included	Not applicable
Current zoning designation	X		
Zoning designation of adjacent properties	X		
Location of existing structures	X		
Topography/existing grades	X		
Wetland boundaries and location of waterways	X		
Floodplain boundaries (FIRM)	X		
Treeline/vegetation boundaries	X		

### **SITE PLAN, PROPOSED DEVELOPMENT**

Information	Included	Not included	Not applicable
Proposed street lines and names			X
Proposed street profiles and details			X
Limits of paving—Roads, driveways, sidewalks, parking	X		
Proposed easements & rights of way			X
Proposed grades/grading plan			X
Utilities (including all structures and pipe dimensions)	X		
Electric and gas lines	X		gas not applicable
Storm and sanitary sewers			X
Well locations and water lines			X
Telephone & data lines			X
Location of fire lanes and hydrants			X

**SITE PLAN, PROPOSED DEVELOPMENT, continued**

<b>Information</b>	<b>Included</b>	<b>Not included</b>	<b>Not applicable</b>
Location of proposed structures	X		
Dimension of front, side and rear yards	X		
Distances from structures to all property lines			
Architectural—Building elevations			X
Lot coverage—area and percent of impervious surfaces			X
Parking Areas—Number & size of bays			X
Parking Areas—Spaces for disabled drivers			X
Refuse disposal, including location & screening			X
Loading areas			X
Signs—Attached, freestanding and directional	X		
Lighting—Location and type			X
Landscaping plan—Sites and size of proposed plantings			X
Landscaping plan—Size of plants at maturity			X
Landscaping plan—Common & Latin names of species			X
Location of designated open space or trails, if any			X

**Additional information (can be submitted in narrative form)**

<b>Information</b>	<b>Included</b>	<b>Not included</b>	<b>Not applicable</b>
Description of use(s) proposed for site	X		
Hours of Operation			X
Description of methods to control noise & vibration	X		
Description of methods to control waste heat			X
Description of methods to prevent air pollution			X
Soil type(s)	X		
Drainage calculations	X		
Description of drainage plans & infrastructure	X		
Analysis of traffic impacts			X
Passenger vehicles (estimated daily and peak hour trips)			X
Trucks/delivery vehicles (estimated daily trips)			X
Description of plans to enhance vehicular, pedestrian, and bicyclist safety			X
Natural resources on site, impacts and mitigation plans	X		
Wetlands & water resources	X		
Rare or endangered plant or animal communities			X
Historic resources on site, impacts & mitigation plans			X
Analysis of impact to Schools, police, fire (if any)			X
Estimated volume of water use			X
Estimated volume of wastewater			X

Questions: Contact the Town Planner 413 863 3200 ext 207, [planner@montague-ma.gov](mailto:planner@montague-ma.gov)

## Appendix A – Project Narrative

## Introduction

Peak Power, Inc. d/b/a PowerBESSCo 2, LLC (the Applicant) proposes to construct a battery energy storage system (BESS) encompassing approximately 3,315 sf of the approximately 13.15-acre site, located at 124 Turnpike Rd Turners Falls, MA 01376 (Map 14, Parcel 162). The project site is located in the Industrial District (ID).

The property is currently developed with an industrial building and parking lot for use by Judd Wire Inc. manufacturing facility. The existing utility meter (08100281) and utility transformer (535708) are pad mounted in the exterior electrical area to the Judd Wire facility.

The following narrative and documentation are hereby submitted to the Planning Board under Section 8.9.5 of the Town of Montague Zoning Bylaw, dated May 7, 2022.

This application package includes an Application for Special Permit & Site Plan Review, Management Plan Form, Application Checklist for Site Plan Review, and related appendices. The application appendices can be referenced in the cover letter included in this package.

## Proposed Project

The proposed BESS site will be accessed from Sandy Lane. The parcel is owned by Judd Wire Inc. A battery energy storage facility is a permitted use within the ID zoning district via a Special Permit and Site Plan Review by the Planning Board.

The name of the Project Developer is:

PowerBESSCo 2, LLC  
444 Somerville Ave  
Somerville, MA, 02143  
Contact: Dmytro Gladyshevskyi  
Phone: 647-567-7878  
Email: dmytro.gladyshevskyi@peakpowerenergy.com

The name and contact information of the Engineer authorized to represent the Project Developer:

Weston & Sampson Engineers, Inc.  
55 Walkers Brook Drive, Suite 100  
Reading, MA 01867  
Contact: Melinda Costello, P.E.  
Phone: (978) 532-1900  
e-mail: costello.melinda@wseinc.com

## Project Schedule

The following is an estimated schedule related to permitting and construction of this project.

Construction: September 2026 – December 2026

The developer is planning to start construction following receipt of all permits as early as September 2026 with a construction completion date of December 2026.

## Compliance with Bylaws

On behalf of the developer, Weston & Sampson has developed a set of plans (**Appendix B**) that are intended to meet requirements set forth in the Bylaws for the ID zoning district in which the project is proposed. Below is a summary of the dimensional aspects of the project:

**Table 1 Dimensional and Density Regulations:**

Requirements	Required <sup>1</sup>	Proposed <sup>2</sup>
Minimum Frontage <sup>1</sup>	no minimum lot frontage	506 ft
Minimum Front Yard Setback	25 ft	5 ft (min)
Minimum Rear Yard Setback	30 ft	250 ft (min)
Minimum Side Yard Setback	15 ft	N/A
Minimum Lot Area	87,120 sf	572,757 sf $\pm$ (No change)
Maximum Structure Height	50 ft	15 ft $\pm$

1. Setbacks listed in Section 5.5.1 of the Bylaws.
2. Proposed setbacks measured from the property line to the BESS.

Provisions of the Bylaws relative to the project, followed by an analysis of the project's compliance with applicable provisions (in underlined font), are listed below. The outlined regulations represent an analysis primarily applicable to Section 8.9 of the Solar Energy Installations & Facilities and Battery Energy Storage Facilities portion of the Bylaws.

## 8.9 SOLAR ENERGY INSTALLATIONS & FACILITIES AND BATTERY ENERGY STORAGE FACILITIES

### 8.9.2. Definitions.

BATTERY ENERGY STORAGE FACILITY: a physical container providing secondary containment to one or more battery cells for storing electrical energy that is equipped with cooling, ventilation, fire suppression, and an electronic battery management system. It may be a primary use or accessory to a solar energy facility, power generation facility, an electrical substation or other similar uses. Battery Energy Storage Facilities shall not constitute a Public Utility for the purposes of this bylaw. For the purpose of this bylaw, the aggregate rating of the facility shall exceed 80 kWh.

Acknowledged. The proposed BESS qualifies as a Battery Energy Storage Facility as its intended use is for storing electrical energy with a proposed name plate rating of 2,700 kWh.

### 8.9.5 Solar Energy Facilities and Battery Energy Storage Facilities

Solar Energy Facilities and Battery Energy Storage Facilities are allowed in the Industrial and Historic-Industrial Districts by Special Permit and Site Plan Review from the Planning Board, subject to the submittal requirements and standards in this section. The Planning Board may require additional conditions or vary the prescribed conditions upon a finding that such action is reasonably necessary to meet the purpose and intent of the Bylaws.

The proposed BESS is located in the ID zoning district and thus requires Special Permit and Site Plan Review by the Town of Montague Planning Board. This narrative is being submitted as a supplement to the application package.

- (a) Required Submittals. In addition to the required Site Plan elements in 9, the following materials are required for permitting approval of Solar Energy and Battery Storage Facilities:



- i. A plan for the general procedures of operation and maintenance of the installation including security measures, maintenance of emergency access and the clear and available means of shutting down the facility in the event of an emergency.

An operation and maintenance plan for the BESS, which includes measures for security, maintenance of emergency access, and emergency shut down procedures, as well as general procedures for the operational maintenance of the solar energy system, is included in **Appendix C**.

- ii. A fully inclusive estimate of the costs associated with removal and site restoration, prepared by a professional engineer.

A fully inclusive, detailed, and itemized Decommissioning Plan and Estimate of the estimated cost associated with removal and full decommissioning of the BESS facility is included in **Appendix D**.

- iii. Owners and successors in title shall provide a satisfactory form of surety, either through escrow account, bond or otherwise, to cover the cost of removal and restoration of the landscape in an amount determined to be reasonable by the planning board, but in no event to exceed more than 125 percent of the cost of removal. Such surety may be waived for municipally or state-owned facilities. The form of surety shall be subject to review and approval of Town Counsel.

Acknowledged. The Applicant will work with the Town to provide a form of financial surety prior to construction in line with the costs outlined in the decommissioning plan submitted under **Appendix D**.

- iv. A stormwater management report prepared by a professional engineer.

A stormwater management report which adheres to the requirements outlined in the Planning Board Stormwater Policy is included in **Appendix E**.

- v. A native flowering planting and maintenance plan that supports pollinator habitat within the project area and its perimeter. Plan to be developed consistently with UMASS Clean Energy's Extension Pollinator Friendly Solar PV Guide.

The proposed BESS development is within an existing impervious parking lot with no change in the vegetative cover proposed for the project. Therefore, a native flowering planting and maintenance plan is not applicable to the project.

#### (b) Special Permit Standards

- i. Adequate access and parking shall be provided for service and emergency vehicles; however, there shall be no exterior long-term storage of equipment or service vehicles on the site.

No parking will be required or is proposed for the BESS project. A total of 12 existing parking spaces within the Judd Wire, Inc. parking lot are proposed to be removed, however, adequate parking is available for the Judd Wire, Inc. facility adjacent to the BESS and across Sandy Lane. A letter from Judd Wire is included in **Appendix F** noting the reduction in parking will not impact their facility operations.

- ii. For every mature tree cleared for construction, measured in board feet of wood; at least an equivalent mass of living mature trees shall be retained on-site.

Acknowledged. No tree clearing is proposed for the project.

- iii. An 8-foot security fence shall be installed no closer to a property line than the setback required for a principal building. In addition, the site and its fencing shall be screened by buffering vegetation from a general view from the surrounding ground level unless the Planning Board determines that there is no public benefit from such screening.

Acknowledged. An 8ft tall perimeter fence is proposed around the BESS, however a waiver is being requested from the setback requirements for the ID. A formal waiver request letter is included with this application package in **Appendix G**.

- iv. The facility shall provide a vegetated buffer strip of at least 100 feet from any street line property boundaries or from the property line of any abutting residential use. Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, screening vegetation and/or structures;

The proposed BESS is located within the ID zoning district at the existing Judd Wire Inc. manufacturing facility. The lot abuts Sandy Lane, Town owned transfer station and an existing solar field to the south. No vegetation is proposed with the project.

- v. To the extent feasible, all network interconnections and power lines, to and from the facility, shall be via underground lines.

The proposed electrical interconnection to the Judd Wire Facility will be underground.

- vi. Drainage from impervious surfaces shall be fully accommodated onsite.

Acknowledged. There is no new impervious proposed for the project, or changes to stormwater runoff patterns.

- vii. No facility shall be floodlit.

Acknowledged. There is no proposed lighting with the project.

- viii. Herbicides may not be used to control vegetation at the facility. The operator shall conduct annual monitoring of the pollinator plantings and will remove invasive species and replant native flowering plants as needed.

Acknowledged. Herbicide use is not proposed for the project.

- ix. The owner of the facility must provide for and post a 24 hour emergency phone number and identification of the owner. The information shall remain current and shall also be provided to the Police Chief and Fire Chief.

Acknowledged. Emergency contact information will be posted on the perimeter fence of the proposed BESS.

- x. Decommissioning Requirements. Any facility which has reached the end of its useful life or has been abandoned shall be decommissioned by the owner or operator who shall notify the Board by certified mail of the proposed date of shut down and removal. Decommissioning shall consist of the following:
  - a. Physical removal of all panels, structures, equipment, security barriers and transmission lines from the site within 180 days following the date of notice to the Board.
  - b. Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.
  - c. Stabilization and re-vegetation of the site and erosion prevention.

- d. The Town shall have the right, upon determination of abandonment, but not the obligation, to claim the financial surety, enter the site and remove the facility in accordance with the requirements of this section.
- e. All facilities, attachments, and accessory structures which have not been used for a period of two (2) years shall be considered abandoned. The removal expense shall be secured with the performance guarantee.

Acknowledged. Decommissioning is outlined in the Decommissioning Plan and Estimate included in **Appendix D.**

- xi. Battery Energy Storage Facilities are encouraged to co-locate with solar energy facilities, energy, power generation stations, and electrical sub-stations. Facilities that are a primary use shall be located within a physical building that is harmonious with the adjacent architecture. Relief from this requirement may be granted for exceptional screening or the provision of publicly accessible open space or recreational amenities.

Acknowledged. Although the proposed BESS is not directly co-located with a solar energy facility, it is located in the ID zoning district and will be used to support the existing manufacturing facility, Judd Wire, Inc.

- xii. All facilities must comply with the Massachusetts Electrical Code (527 CMR 12.00) and Fire Code (527 CMR 1.00).

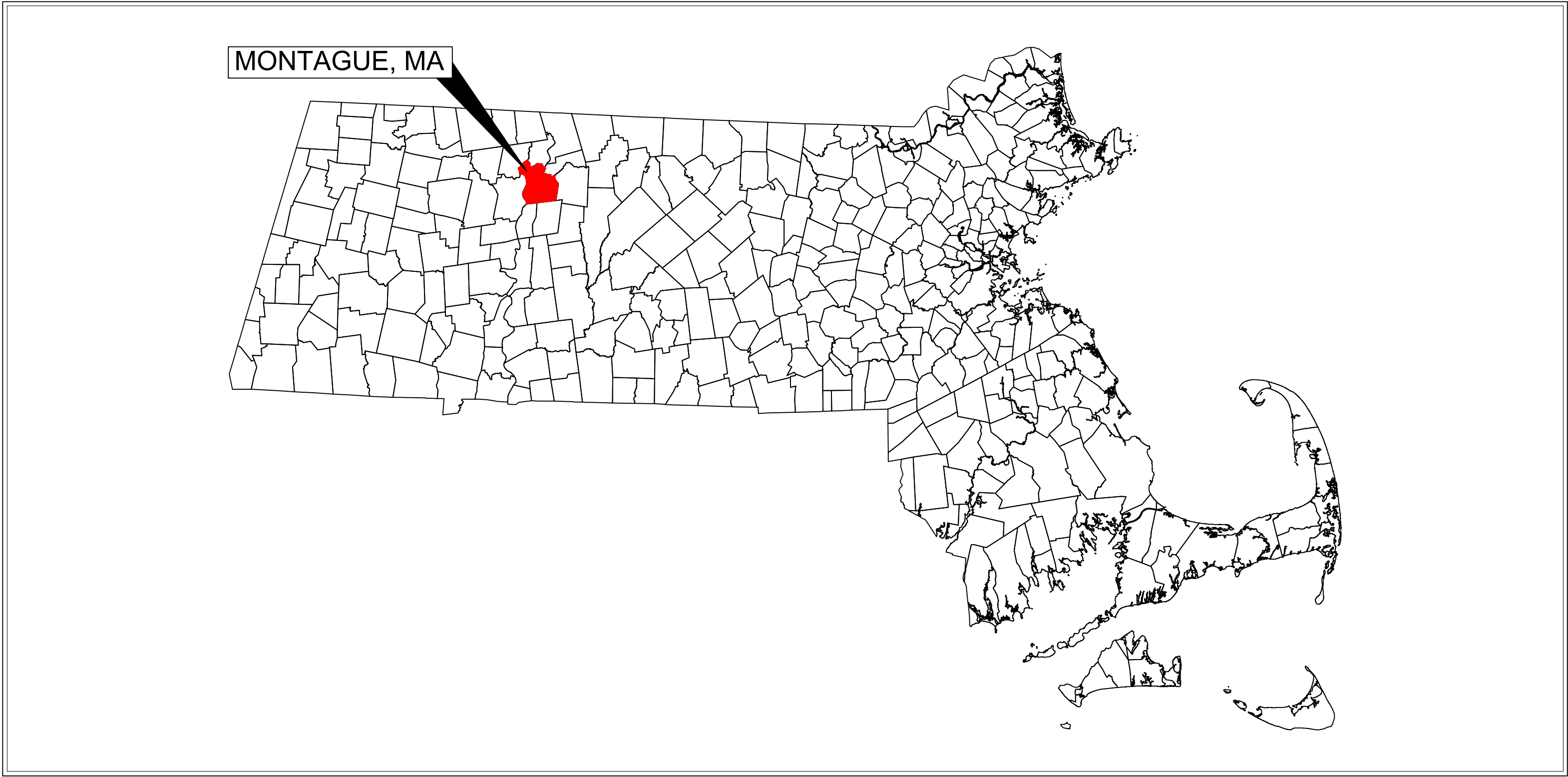
Acknowledged. The BESS electrical design will comply with the Massachusetts Electrical Code and Fire Code.

## Appendix B – Site Plans



# BATTERY ENERGY STORAGE SYSTEM (BESS)

124 TURNPIKE ROAD, TURNERS FALLS, MASSACHUSETTS



DRAWING INDEX	
SHEET	TITLE
GENERAL	
G001	COVER SHEET
SURVEY	
	BOUNDARY, PARTIAL TOPOGRAPHIC & UTILITY SURVEY SHEET 1 OF 2
	BOUNDARY, PARTIAL TOPOGRAPHIC & UTILITY SURVEY SHEET 2 OF 2
CIVIL	
C101	PROPOSED SITE PLAN
C102	PROPOSED SITE PLAN INSET
C501	DETAILS

ZONING INFORMATION	
ZONE:	INDUSTRIAL (ID)
DIMENSIONAL REQUIREMENTS	
MIN. LOT AREA SQUARE FEET:	87,120
MIN. LOT FRONTAGE:	NONE
MIN. FRONT YARD AND STREET LINE SETBACK: LINEAR FEET:	25
MIN. SIDE YARD SETBACK LINEAR FEET:	15 OR 50 WHERE A NEW INDUSTRIAL USE ABUTS AN EXISTING RESIDENTIAL USE
MIN. REAR YARD SETBACK LINEAR FEET:	10 FEET
MAX. BUILDING HEIGHT LINEAR FEET:	50

(a) NO BUILDING NEED PROVIDE A STREET LINE SETBACK GREATER THAN THAT OF THE PRINCIPAL BUILDINGS ON 3 OUT OF 4 ADJOINING PROPERTIES ON THE SAME SIDE OF THE STREET.

SITE INFORMATION	
LAND OWNER:	JUDD WIRE, INC.
BOOK NUMBER:	2252
BOOK PAGE:	226
PARCEL ID:	14-0-162
PARCEL AREA:	13.149 ACRES

Owner:



JUDD WIRE, INC.  
124 TURNPIKE ROAD  
TURNERS FALLS, MA 01376  
TEL: (413) 863-4357  
<https://www.juddwire.com>

Project Developer:



PowerBESSCo 2, LLC  
444 SOMERVILLE AVE  
SOMERVILLE, MA 02143  
TEL: (857) 895-6389  
<https://peakpowerenergy.com>

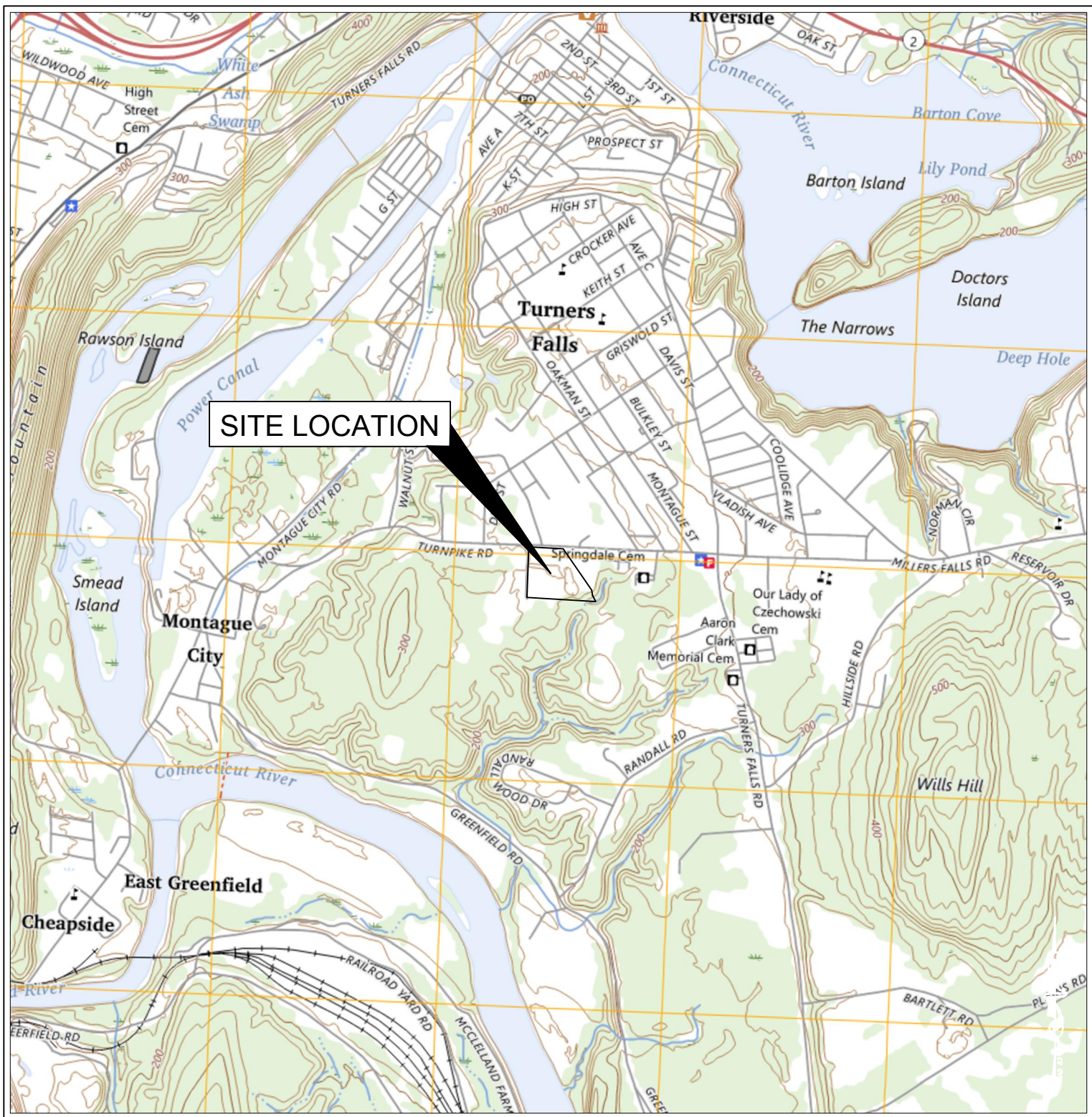
Consultant:



WESTON & SAMPSON ENGINEERS, INC.  
55 WALKERS BROOK DRIVE, SUITE 100  
READING, MA 01867  
978.532.1900 800.SAMPSON  
[www.westonandsampson.com](http://www.westonandsampson.com)

## MASSACHUSETTS MUNICIPAL MAP

NOT TO SCALE



SITE LOCUS MAP

1" = 2,000'



SITE AERIAL MAP

1" = 1,000'

0	ISSUED FOR PERMITTING	05/29/2025
REV #	DESCRIPTION	DATE

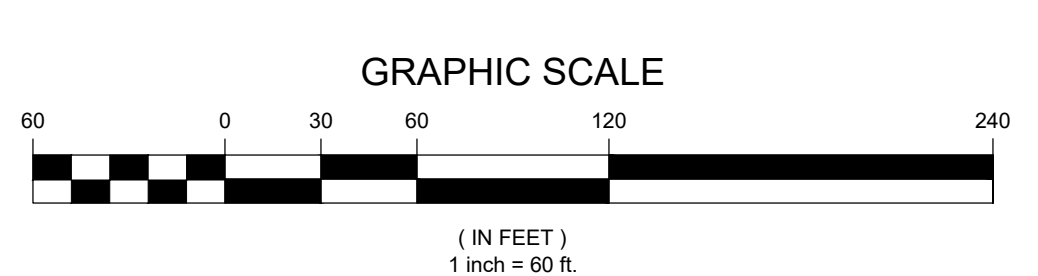
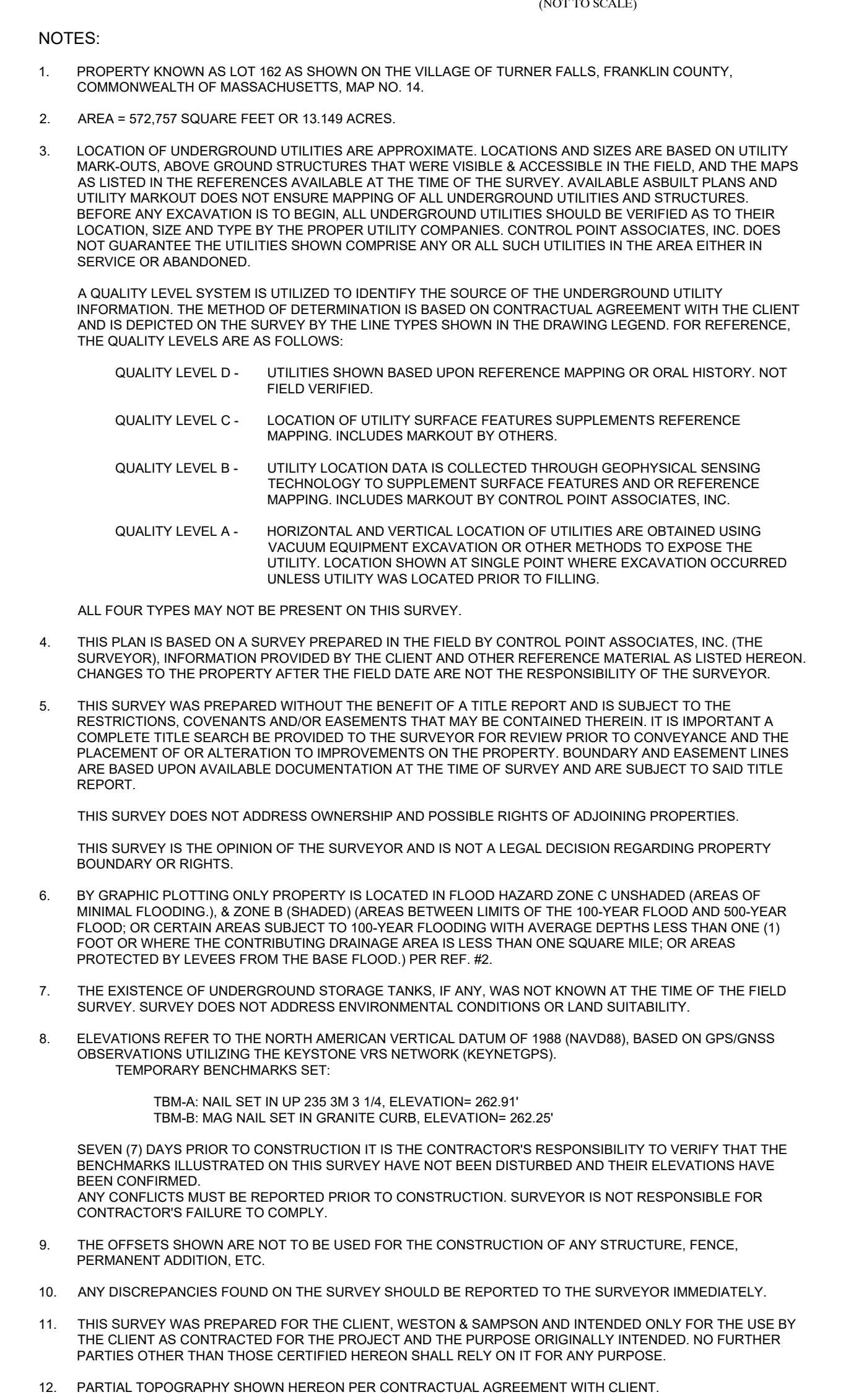
Seal:





Know what's below.  
Call before you dig.

Issued For:	PERMITTING	Drawn By:	DED
Issued Date:	05/29/2025	Reviewed By:	RJB
Drawing Title:	COVER SHEET	Approved By:	MRC
		Job No:	ENG25-0360
		Sheet Number:	G001





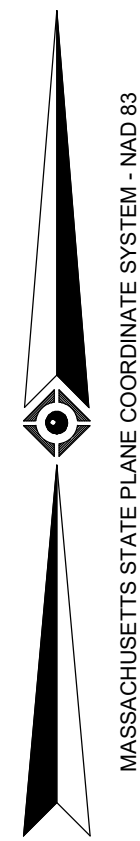
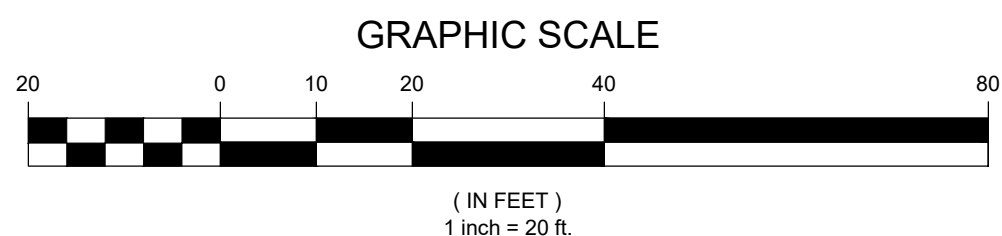
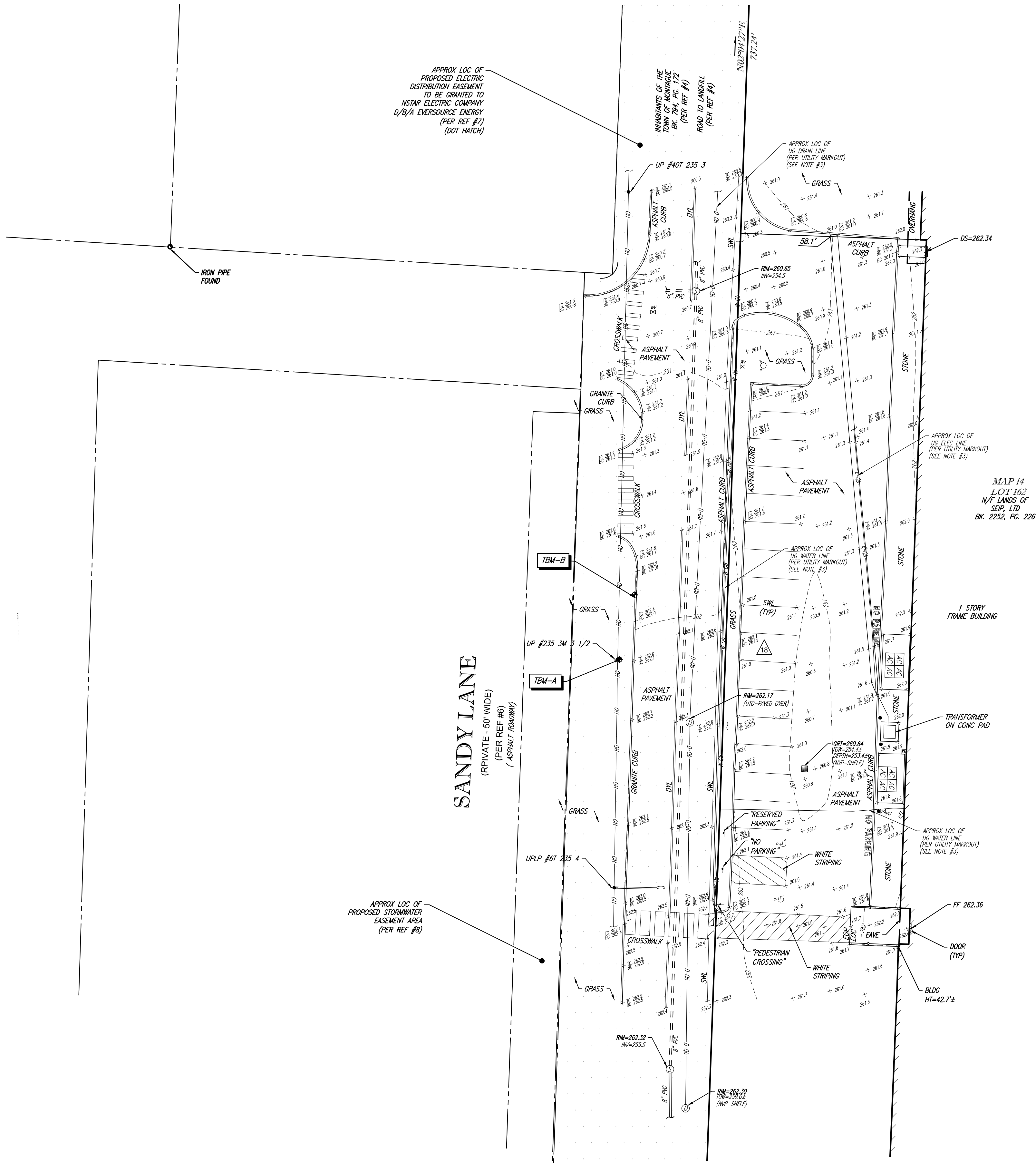
<p>THIS SURVEY HAS BEEN PERFORMED IN THE FIELD UNDER MY SUPERVISION, AND TO THE BEST OF MY KNOWLEDGE, BELIEF, AND INFORMATION, THIS SURVEY HAS BEEN PERFORMED IN ACCORDANCE WITH CURRENTLY ACCEPTED ACCURACY STANDARDS.</p>		<p>NOT A VALID ORIGINAL DOCUMENT UNLESS EMBOSSED WITH RAISED IMPRESSION OR BLUE INK SEAL.</p>	<p>4-24-2025 DATE</p>
<p>FIELD DATE 3-31-2025</p>	<p>FIELD BOOK NO. 24-14 MA</p> <p>FIELD BOOK PG. 73</p>	<p>FIELD CREW J.D.O.</p> <p>DRAWN: A.B.</p>	<p>REVIEWED: R.J.K.</p>
<p>BOUNDARY, PARTIAL TOPOGRAPHIC &amp; UTILITY SURVEY</p>	<p><b>WESTON &amp; SAMPSON</b></p> <p>124 TURNPIKE ROAD LOT 162, MAP 14 VILLAGE OF TURNER FALLS, FRANKLIN COUNTY COMMONWEALTH OF MASSACHUSETTS</p>	 <p><b>CONTROL POINT ASSOCIATES, INC.</b></p> <p>352 TURNPIKE ROAD SOUTHBOROUGH, MA 01772</p> <p>908-945-5300 WWW.CPASURVEY.COM</p>	<p>APPROVED: G.L.H.</p> <p>DATE 4-24-2025</p>
		<p>SCALE 1" = 60'</p>	<p>FILE NO. 03-240455-00</p>
<p><b>GERRY L. HOLDRIGHT</b> MASSACHUSETTS PROFESSIONAL LAND SURVEYOR #49221</p>			<p>WARREN, NJ 908.668.0009 CHATHAM, VT 252.373.8888 MT. LAUREL, NJ 908.557.2099 MASSACHUSETTS 781.326.0111 LONG ISLAND, NY 631.501.2445 ALBANY, NY 518.377.5010 ROCKSTER, NY 516.250.1364 PILGRIMAGE, VT 802.372.0080 HUDSON VALLEY, NY 845.601.7333 FT. LAUDERDALE, FL 954.566.7611</p>
		<p>SHEET 1 OF 2</p>	



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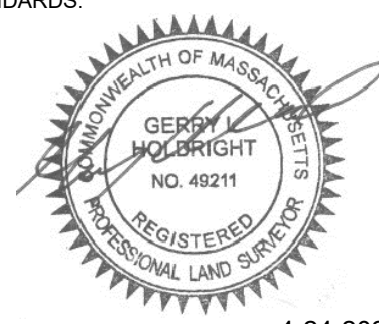
THE COMMONWEALTH OF MASSACHUSETTS REQUIRES NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.



LEGEND	
---	EXISTING CONTOUR
125	EXISTING SPOT ELEVATION
X 123.45	EXIST. TOP OF CURB ELEVATION
X TC 123.45	EXIST. BOTTOM OF CURB ELEVATION
X BC 122.95	OVERHEAD WIRES
OH	APPROX. LOC. UNDERGROUND ELECTRIC LINE
E	APPROX. LOC. UNDERGROUND SANITARY LINE
D	APPROX. LOC. UNDERGROUND DRAINAGE LINE
W	APPROX. LOC. UNDERGROUND WATER LINE
-20	SUBSURFACE UTILITY QUALITY LEVEL B
=====	DEPRESSED CURB
HYDRANT	HYDRANT
FIRE DEPARTMENT CONNECTION (F.D.C.)	FIRE DEPARTMENT CONNECTION (F.D.C.)
WATER VALVE	WATER VALVE
UTILITY POLE	UTILITY POLE
SIGN	SIGN
SANITARY/SEWER MANHOLE	SANITARY/SEWER MANHOLE
DRAINAGE/STORM MANHOLE	DRAINAGE/STORM MANHOLE
CATCH BASINS	CATCH BASINS
PARKING SPACE COUNT	PARKING SPACE COUNT
SOLID WHITE LINE	SOLID WHITE LINE
BOLLARD	BOLLARD
EVIDENCE FOUND	EVIDENCE FOUND
TOP OF WATER	TOP OF WATER

THIS SURVEY HAS BEEN PERFORMED IN THE FIELD UNDER MY SUPERVISION, AND TO THE BEST OF MY KNOWLEDGE, BELIEF, AND INFORMATION, THIS SURVEY HAS BEEN PERFORMED IN ACCORDANCE WITH CURRENTLY ACCEPTED ACCURACY STANDARDS.

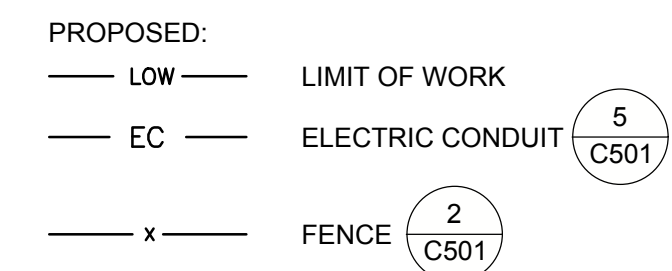
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GERRY L. HOLDRIGHT  
MASSACHUSETTS PROFESSIONAL LAND SURVEYOR #49211

4-24-2025  
DATE

FIELD DATE 3-31-2025	BOUNDARY, PARTIAL TOPOGRAPHIC & UTILITY SURVEY <b>WESTON &amp; SAMPSON</b> 124 TURNPIKE ROAD LOT 162, MAP 14 VILLAGE OF TURNER FALLS, FRANKLIN COUNTY COMMONWEALTH OF MASSACHUSETTS				
FIELD BOOK NO. 24-14 MA					
FIELD BOOK PG. 73					
FIELD CREW J.D.O.					
DRAWN: A.B.					
REVIEWED: R.J.K.	APPROVED: G.L.H.	DATE 4-24-2025	SCALE 1" = 20'	FILE NO. 03-240455-00	SHEET 1 OF 2



C101



Applicant:

PowerBESSCo 2, LLC  
444 Somerville Ave  
Somerville, MA 02143  
Tel: (857) 895-6389  
<https://peakpowerenergy.com>

0	05/29/2025	ISSUED FOR PERMITTING
No.	Date	Description
Revisions:		



PERMITTING

W&S Project No.: ENG25-0360  
W&S File No.: Peak Power

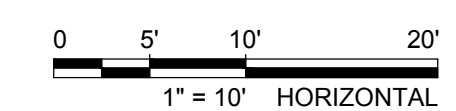
PROPOSED  
SITE PLAN  
INSET

C102

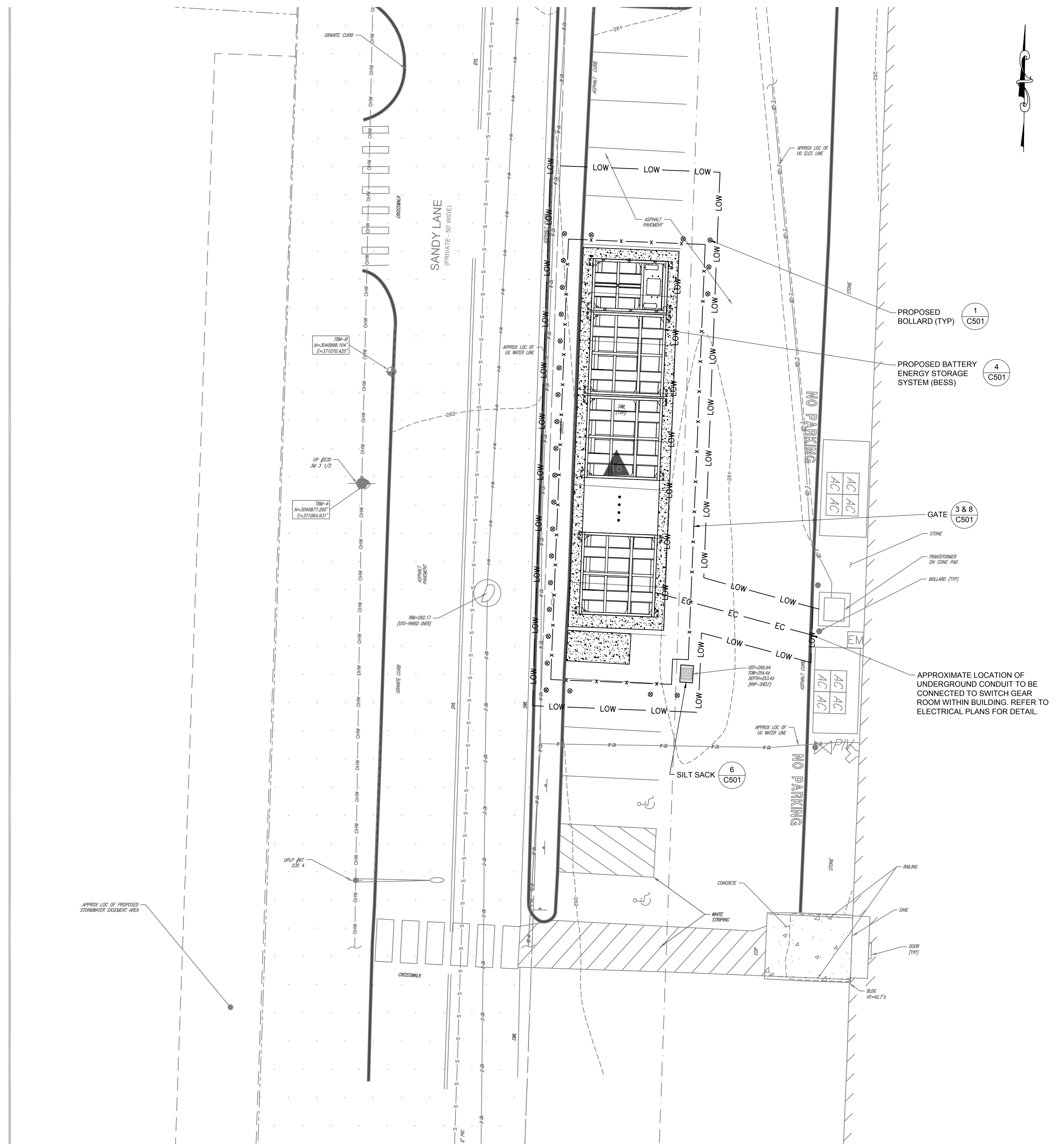
1. ELECTRICAL DESIGN, INCLUDING UTILITY POLES, PERFORMED BY OTHERS. ELECTRICAL EQUIPMENT AND COMPONENTS SHOWN TO ILLUSTRATE LOCATIONS ONLY. REFER TO ELECTRICAL DRAWINGS FOR DETAILED ELECTRICAL SYSTEM INFORMATION.
2. BESS LAYOUT AND CAPACITY ARE SUBJECT TO FINAL DESIGN (BY OTHERS) BUT WILL REMAIN WITHIN THE PROPOSED LIMITS OF WORK.
3. NOTHING SHOWN OR OMITTED FROM THE DOCUMENTS PROVIDED SHALL RELIEVE THE CONTRACTOR FROM FULL COMPLIANCE WITH ALL APPLICABLE CODES, REGULATIONS, BYLAWS, AND ORDINANCES.
4. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND PROTECTING ALL EXISTING UTILITY LINES WITHIN OR ADJACENT TO THE CONSTRUCTION AREA. ANY DAMAGE TO EXISTING FACILITIES CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
5. ALL WORK SHALL COMPLY WITH THE MASSACHUSETTS BUILDING CODE AND TOWN OF MONTAGUE BUILDING REQUIREMENTS.
6. GATE LOCATION SUBJECT TO CHANGE BASED ON FINAL ELECTRICAL DESIGN AND OWNER INPUT.

	PROPERTY LINE
	ABUTTER'S PROPERTY LINE
	EASEMENT
	EDGE OF PAVEMENT
	BUILDING
	EXISTING MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	OVERHEAD WIRES
	APPROX. LOC. UNDERGROUND SANITARY LINE
	APPROX. LOC. UNDERGROUND DRAINAGE LINE
	APPROX. LOC. UNDERGROUND WATER LINE
	SUBSURFACE UTILITY QUALITY LEVEL B
	DEPRESSED CURB
	STORMWATER BASIN
	WETLAND FLAG WITH IDENTIFIER
	HYDRANT
	FIRE DEPARTMENT CONNECTION
	WATER VALVE
	UTILITY POLE
	SIGN
	SANITARY/SEWER MANHOLE
	DRAINAGE/STORM MANHOLE
	CATCH BASINS
	PARKING SPACE COUNT
	SOLID WHITE LINE
	DOUBLE YELLOW LINE
	POLYVINYL CHLORIDE
	EDGE OF PAVEMENT
	BOLLARD
	EVIDENCE FOUND
	TOP OF WATER
	ELECTRIC METER

— LOW —      LIMIT OF WORK  
 — EC —      ELECTRIC CONDUIT  $\frac{5}{C501}$   
 — x —      FENCE  $\frac{2}{C501}$



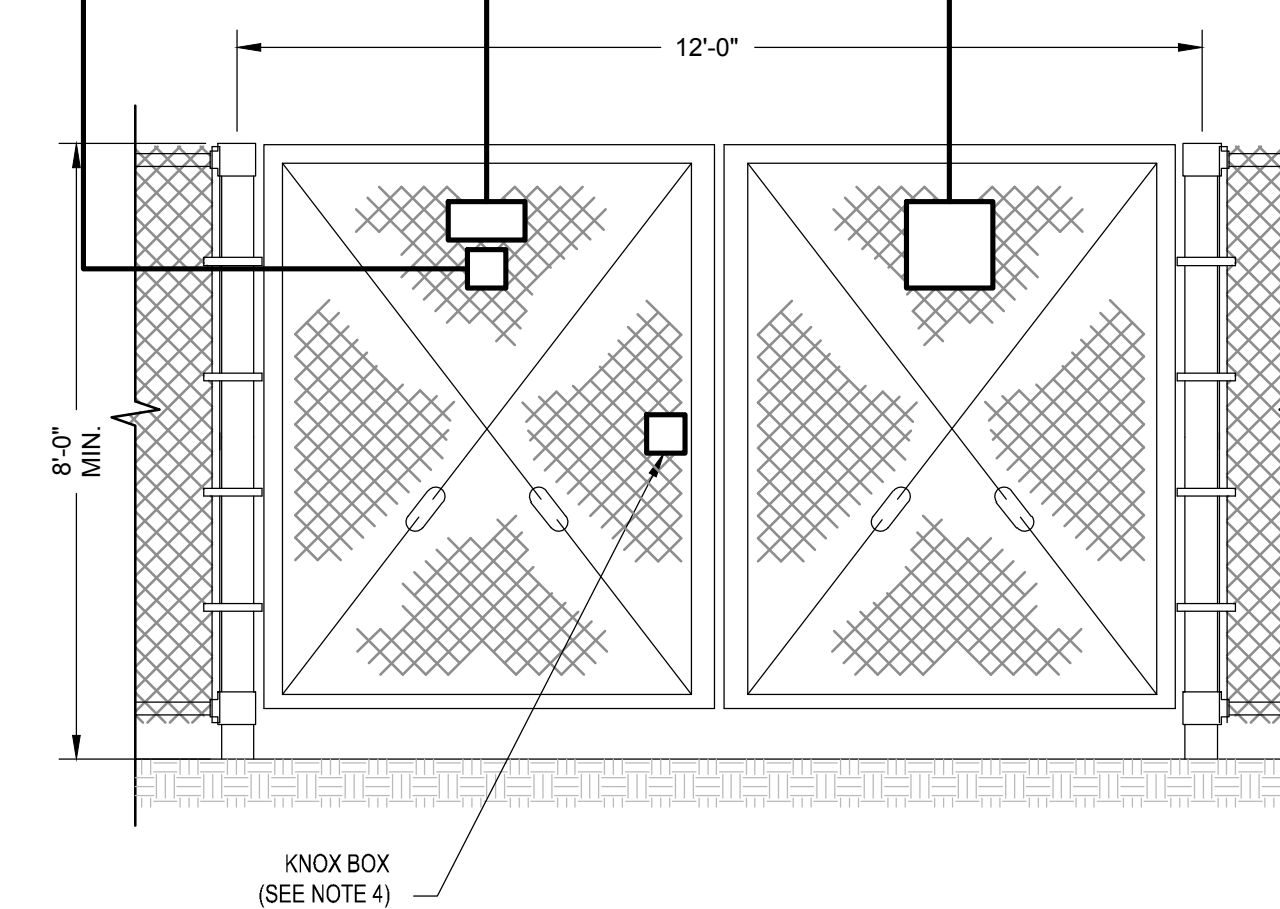
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## Appendix C – Operation & Maintenance Plan

# EXHIBITS

SYL's maintenance program aims to maximize system uptime, optimize performance, extend asset lifespan, ensure safety and compliance, and possibly provide data-driven insights for cost-effective, reliable, and proactive management of the battery storage system.

It is also structured to complement SYL's warranty program, aiming to reduce the client's financial and resource burden while maximizing visibility into the condition and performance of the client's assets.

During the term of this agreement, SYL is committed to delivering a range of services as outlined in Exhibit A, which is an integral part of the Annual Services package. These services encompass preventive maintenance, unplanned maintenance & emergency response, spare part management, training & support, health & safety administration, reporting and record keeping, as well as additional expert services. It is understood that, unless otherwise specified in this document, all services detailed in Exhibit A will be covered under the Service Fee outlined in Exhibit B.

## Exhibit A - Scope of Services Overview

This section provides a summary of the services the SYL is obligated to offer under this agreement:

- **Preventive Maintenance:** Refer to section A.3.
- **Unplanned maintenance & emergency response:** Section A.4.
- **Reporting:** Detailed in A.5 – Reports.
- **Job Safety Analysis / EHS:** See A.6 - Job Safety Analysis.
- **Training:** Covered in A.7 – Training.
- **Spare Parts Management:** Explained in A.8 - Spare Parts Management.

## Overview of Related Exhibits (Referenced within Exhibit A – Scope of Services)

This agreement also includes additional exhibits that are pertinent to and referenced within Exhibit A:

1. **Exhibit B:** Details on the Base Service Fee.
2. **Exhibit C:** Information on Additional Service Fees.
3. **Exhibit D:** Job Safety Analysis (JSA) specifics.
4. **Exhibit E:** Standard BESS O&M Plan.
5. **Exhibit F:** Service Report Form.
6. **Exhibit G:** Guidelines for Service Reporting.

## EXHIBIT A - SCOPE OF SERVICES OVERVIEW

### **A.1 - Annual Maintenance Plan Meeting Agenda**

SYL and Client shall meet on an annual basis to discuss the following:

- A summary of result and performance for the previous year, including but not limited to :
  - Maintenance Schedule and Procedures and Emergency Services performed during the preceding period.
  - Any issues which have arisen with respect to the performance, servicing, and maintenance of the system.
  - Any environmental, health and safety concerns raised by both parties, or any incidents or near misses occurred on the site during the performance of any service.
  - Any Emergency Services events occurring over the previous period, how they were resolved, and how future response can be improved.
  - Any Emergency maintenance events and any identified reoccurring issues
- Any suggestion from SYL into long term reliability and availability of the system based on activities performed over the previous period; and
- Revision or improvements for the Annual Maintenance Plan described in Section A.3

### **A.2 – Services and Additional Services Notifications**

SYL must notify Client about its, or its Subcontractor's, presence to the Site as per the following:

- **Preventive Maintenance:**
  - Tentative schedule – on a quarterly basis
  - Confirmation – 1 week prior to the service
- **Emergency Services or Major Events or Significant Events** described in the Section A.4.3: Operator shall confirm to visit within the Response Time described in the Section A.4.3
- **Additional Services** (other than Emergency services, Major Events or Significant Events)
  - Tentative schedule – 1 week prior to the service
  - Confirmation – 1 day prior to the service

SYL must maintain reports that include:

- Date / entrance time / exit time
- Reason of the access / any reference to a service ticket or work authorization
- Service technicians visiting the Site

SYL's notification can be performed by email or other means of direct communication agreed upon with the client.

### **A.3 - Predictive Maintenance Schedule**

[The version included below is a generic version and shall be replaced with a Final version of Maintenance Schedule]  
This section serves as an overview of major maintenance activities and the frequency that they will be performed but shall not serve as a substitute for the Standard O&M Manual.

#### **A.3.1 Universal Predictive Maintenance Schedule**

##### **Fire Suppression and HVAC**

Fire Suppression Equipment	Frequency
Conduct maintenance and inspections as required by local and national code and as required by the provider.	12 months

Inspect clean agent system accumulator bottles and dispensers. Test electrical System and complete discharge test.	12 months
Inspect Tanks, Pressure Gauge, Tank hold down Brackets,	6 months
Check that the actuators are in place. Check all actuation piping. Check that wiring has not been tampered or disconnected.	6 months
Ensure that all pressure switches are installed and in the correct non-operated position.	6 months
Perform Overall System functionality check by inspecting functionality of Actuators, Detectors, Horns, Strobes, and other system functions in accordance with applicable laws and codes and the System Maintenance Manual.	6 months
<b>HVAC</b>	
Conduct maintenance and inspections as required by the manufacturer.	6 months
Turn on the fan to check if it is smooth and if there is any abnormal noise.	6 months
Inspect unit control panel. Inspect wiring and ensure no insect or animal activity.	6 months
Install new air filters. Air filters to be provided by Client.	6 months
Visually check whether the drainage mouth is blocked.	6 months
Perform condenser coil cleaning.	6 months
<b>Communications Cabinet</b>	
Conduct maintenance and inspections as required by the manufacturer.	6 months
Install new air filters. Air filters to be provided by Client.	6 months

### **BESS System**

<b>Visual Inspection</b>	<b>Frequency</b>
<b>System Enclosure</b>	
Verify all Systems are labeled and label if missing.	12 months
Visually inspect DC disconnect knob for damage and ensure knob/handle functionality.	12 months
Visually inspect exterior of enclosure for any signs of damage, rust or vandalism. For signs of rust, remove rust and coat with rust protector. Repair metal fatigue if necessary. Repair as needed under Additional Services and Additional Services fees terms. Paint over any vandalism.	12 months



Visually inspect all louvers for any signs of damage, metal fatigue or vandalism. For signs of metal fatigue or rust, remove rust and coat with rust protector. Paint over any vandalism.	12 months
Inspect all anchor bolts are securely fastened and check for any signs of damage, metal fatigue or vandalism. For signs of metal fatigue or rust, remove rust and coat with rust protector. Paint over any vandalism.	12 months
Verify door and hinges move freely without restrictions and without creaking. Apply lubricant as necessary.	12 months
Verify locking mechanisms lock freely and properly without restrictions. Apply lubricant as necessary.	12 months
Verify door insulation is not damaged and does not stick to the door when opening. Also verify all doors are sealed tightly when handle is locked.	12 months
Visually inspect interior of Systems for any signs of damage, metal fatigue and/or water damage and/or spots and egress. For signs of metal fatigue or rust, remove rust and coat with rust protector, allowing for appropriate dry time/ventilation after application of paint or rust protector. Repair metal fatigue if necessary. Repair as needed under Additional Services and Additional Services fees terms. Caulk any areas where water egress could or has occurred.	12 months
Collect asset information of ESS enclosure.	12 months
Visually inspect all battery management systems (“BMS”).	12 months
Visually inspect batteries for any damage, rust, discoloration, condensation or leakage. Repair or replace as needed under Additional Services and Additional Services fees terms.	12 months
Visually inspect battery power cables for any damage, rust, discoloration, condensation, warping or leakage. Repair or replace as needed under Additional Services and Additional Services fees terms.	12 months
Visually inspect battery communication cables for any damage, rust, discoloration, condensation, warping or leakage. Repair or replace as needed under Additional Services and Additional Services fees terms. .	12 months
Collect asset information of all batteries and switchgears.	12 months
Perform container interlock tests.	12 months

Power Conversion System (PCS)/ Power Modules	
Visually inspect converter for signs of damage, water intrusion, corrosion, or potential malfunctioning.	12 months
Visually inspect whether the status of PCS running are normal, as indicated by HMI fault logs or indicator lights.	12 months

Inspect UPS, emergency lights, grounding system, vents for air-flow, hold-downs.	12 months
<b>Battery System</b>	
Check that all alarms, events and fault logs recorded by Golden Shield are complete.	12 months
Check whether the equipotential connecting wire of the electric cabinet is complete	12 months
Export the Golden Shield event record and analyze the data for anomalies	12 months
Example Export 3-day historical BLOCK-BAU data to analyze system running status	12 months
Refer to the collected data, analyze the SOC consistency, historical failure, voltage difference and other information of the battery	12 months
<b>Auxiliary Power Transformers</b>	
Visually inspect transformer for signs of damage or malfunctioning. Repair or replace as needed under Additional Services and Additional Services fees terms.	12 months
Visually inspect connections after opening cover if necessary. Repair or replace as needed under Additional Services and Additional Services fees terms.	12 months
<b>Mechanical Inspection</b>	
Assess System enclosure for mechanical integrity, including, but not limited to, the below.	12 months
Look for signs of physical damage.	12 months
<b>Mechanical Inspection</b>	
Check ventilation and insulation for signs of corrosion and dust deposits.	12 months
Ensure the power conditioning unit installation meets environmental requirements of the power conditioning unit, including temperature, humidity, seismic, and electromagnetic.	12 months
Ensure there is adequate ventilation to efficiently remove heat away from inverter to maintain the ambient temperature within specification.	12 months
Ensure there is no presence of water leakage and no presence of corrosive gases in the surrounding area by looking for standing water, water staining, excessive corrosion, etc.	12 months
Check and clean/replace air filters. Ensure air filter is clean (no visible dirt) and there is no visible damage. Assess whether more frequent cleaning is appropriate. Replace as needed under Additional Services and Additional Services fees terms.	12 months
Visually inspect the bolt, bus joints', and cables' torque through the location marks on the bolts or nuts. Torque bolts, bus joints and cable terminals per System installation manual if needed.	12 months



<b>Electrical Inspection</b>	
Perform visual inspection of AC/DC current sensors. Compare current reading from LCD screen against a known measurement (for example, measured by calibrated clamp meter). If the current reading is significantly different (greater than 5%) from the last calibration, it may indicate a compromised sensor.	12 months
Perform visual inspection of temperature sensors.	12 months
Check surge protectors' condition by confirming the status of surge protector.	12 months
Check for open fuse(s). Do so by inspecting the protected circuit, and if any damage is found, remove any fault condition that caused the burning or damage of the fuse initially before replacing the fuse and re-energizing the circuit.	12 months
Measure insulation resistance between battery (+) to ground and battery (-) to ground according to prevailing codes and standards. Troubleshoot for resistance value less than specification.	12 months
Inspect wiring harnesses, connectors, and power cables for signs of damage. Inspect field fitted and installed cables for proper sealing. Inspect factory sealed connections. Damaged sealing may indicate unauthorized field modification. Perform thermal scan on power cables and look for hot spots that indicate high resistance. Repair any hot spots under Additional Services and Additional Services fees terms.	12 months
Inspect circuit boards, by checking ribbon cables and wire connectors are seated properly. Check for any sign of overheating. Repair or replace components showing signs of overheating. Repair or replace as needed under Additional Services and Additional Services fees terms.	12 months
Inspect fan operation, check all signs of wear and tear and abnormal noise; ensure that fan works properly as per control signals. Repair fan, if necessary, under Additional Services and Additional Services fees terms.	12 months
Inspect the electrical panel, check whether each circuit breaker inside can cut off and close the power supply of each circuit load normally.	12 months
Inspect the status of LED lights, check whether they all work. Replace if not working, under Additional Services and Additional Services fees terms.	12 months
Perform the inspection of battery and BMS system, including termination points, cabling, bus-work, rack structure, panels, and switches.	12 months
Verify connections to BMS are tight and solidly connected. Torque DC terminals to manufacturer's recommended settings.	12 months
Measuring the resistance of the container shell to the equipotential point of the electrical cabinet < 0.5Ω	12 months
Insulation detection with 1500V DC voltage: Stable insulation	12 months

resistance >10MΩ	
The HMI checks the BMS-RACK data and checks whether there is a temperature difference alarm for the RACK pressure difference	12 months
<b>Safety Inspection</b>	
Check all warning signs are clear and legible.	12 months
Check door latching and locking mechanism operate correctly.	12 months
Check emergency stop button's function.	12 months
Check all safety ground connections.	12 months
<b>Functional Verification</b>	
Review all alarm, event, and fault logs as recorded by the power conditioning unit.	12 months
<b>Testing and Calibration</b>	
Supervise EPC Energy performing the system SOC calibration as needed under Additional Services and Additional Services fees terms.	12 months
Supervise EPC Energy performing system capacity testing as required under Additional Services and Additional Services fees terms.	12 months
Supervise EPC Energy performing power performance tests as required under Additional Services and Additional Services fees terms.	12 months
<b>Technical Assessment, Repair and Replacement</b>	
<u>Battery System and PCS</u>	
Check battery log information annually. Check cycle degradation and coordinate with EPC Energy as necessary for augmentation or replacement if available capacity drops below the capacity guarantee or other issues are found under Additional Services and Additional Services Fees terms.	12 months
Check whether the circuit board and the component are clean; Check the temperature and dust off the circuit board heat-sink. Open the fan to clean the module; Replace the air filter. Air filter to be provided by Client.	12 months
Check if there is any crack in the fan blade; Check fan bearings and if there is abnormal noise during the running of the fan; Replace the fan if cracked, producing abnormal noise, or otherwise necessary. Repair or replace as needed under Additional Services and Additional Services fees terms.	12 months
Routine check of the corrosion of the metal components; replace or repair any corroded metal under Additional Service.; Annually check the contactors (auxiliary switches and micro-switches) to ensure the functional operation; Check the running parameters (voltage and insulation)	12 months
Check the emergency stop button and the LCD stop function; Simulation shutdown and check the shutdown signal communication signal; Check the warning labels and other markings for damage or unclarity. Replace them if necessary under Additional Services and Additional Services fees terms.	12 months
Check whether the circuit board and the component are clean and free of dust; Check the temperature to ensure between operational requirements under the warranties and performance guaranties. Replace the air filter. Air filter to be provided by Client.	12 months

Check whether the power cable connections are loose. Retighten them with the torque specified in the System Maintenance Manual if necessary; Check if the power cables and control cables, especially the surface in contact with the metal are damaged.	12 months
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<b>BOP Equipment</b>	
Check all safety signage and arc flash stickers for wear and tear.	6 months
Inspect and test ground connections.	6 months
Check nameplates for legibility.	6 months
Draw and test a transformer oil sample (oil testing executed by qualified third party laboratory at Operator's expense).	12 months
Perform thermal scan of enclosures while operating; look for hot spots that indicate high resistance.	12 months
Visually inspect for dust, foreign objects or water ingress. Clean as necessary. Caulk any areas where water ingress could or has occurred.	6 months
Inspect all anchor bolts are securely fastened and check for any signs of damage, degradation, or rust. Remove rust and repaint with matching rust resistant paint.	6 months
Inspect walking and driving surfaces for safety. Surfaces should be relatively level and smooth.	6 months
Check all louvers and vents are not blocked and operable, if applicable.	6 months
Visually inspect all BOP equipment for dust, foreign objects, or water. Clean as necessary.	6 months
Inspect the SCADA/communication panel, visual check whether any power or communication wiring seems loose. Inspect if the ventilation and heat dissipation work properly.	6 month
Walk the perimeter fence of the Facility. Verify the fence is in good condition. Look for signs of erosion under the fence that could allow access.	6 months
Look for evidence of animals or insects on Facility (burrows, spider webs, ant hills, etc.). Recommend corrective action to Client as appropriate.	6 months
Inspect the status of the vegetation at the Facility. Depending upon extent of vegetation growth, either treat or arrange third party vegetation control at Client's expense. Recommend pretreating if appropriate.	6 months

### **A.3.2 Project Specific Predictive Maintenance Schedul**

[The version included below is a generic version and shall be replaced by with a Final version of Maintenance Schedule]

This section serves as an overview of project specific maintenance activities and the frequency that they will be performed.

<b>Vegetation and Weed Control</b>
------------------------------------

Inspect perimeter and around equipment for vegetation overgrowth	Quarterly, with additional checks during the growing season (spring and summer).
Trim or remove any vegetation that could impede access or pose a fire hazard.	
Apply weed control measures, such as herbicides, in compliance with environmental regulations	
Dust and Debris Management	
Clean ventilation systems, filters, and any exposed equipment surfaces	Monthly in high-dust areas; otherwise, quarterly
Clear dust from sensitive components, especially cooling fans and HVAC systems	
Inspect air filters and replace if clogged or excessively dirty	
Corrosion Prevention	
Inspect metal surfaces and structural components for signs of corrosion	Semi-annually, with increased frequency (quarterly) in coastal or humid areas
Apply anti-corrosion treatments or protective coatings as needed	
Tighten and secure any exposed connections to minimize exposure to moisture.	
Pest and Wildlife Management	
Inspect equipment housings and enclosures for signs of animal or insect activity	Monthly, with additional checks during peak seasons for local wildlife
Install deterrents or barriers to prevent nesting in or near equipment	
Apply pest control measures (e.g., traps, repellents) as needed.	

#### **A.4 – Unplanned Maintenance and Emergency Response**

##### **A.4.1 Unplanned Maintenance**

Unplanned maintenance services are defined as maintenance activities required due to unforeseen issues or failures affecting the system's performance or operational integrity. These activities are intended to restore the system to its normal operating condition and minimize downtime.

##### **A.4.2 Emergency Response**

Emergency response services are initiated in the event of critical system issues that pose a risk to safety, equipment, or the environment. Emergency response will be prioritized based on the severity and potential impact on the system's functionality, safety, and compliance with regulatory standards.

Unplanned maintenance and emergency response services are available to the Client on a 24/7 basis.

**A.4.3 Response Time Guarantee:** SYL guarantees to Client that SYL shall respond to (in accordance with approval from Client) all issues within the time frames (commencing from the time issuance of the applicable field agent ticket)



set forth below, in accordance with the severity of the issue and system impact. All other unplanned maintenance activity shall be arranged through Client agreement.

<b>Major Event</b>	May imminently affect public safety, Equipment damage; or Results in a reduction in performance or availability that would cause Client to be out of compliance with project's obligations.
<b>Major Event Response Time</b>	24/7 response time over phone, to discuss the issue and create a plan. 12-hour response time if onsite maintenance is required. The measurement of the 12-hour response time will begin upon written notification by the Client to the Operator.
<b>Significant Event</b>	Affects component that could have some impact to project performance or availability so long as such reduction would not cause Client to be out of compliance with the project's current obligations.
<b>Significant Event Response Time</b>	24/7 response time over phone, to discuss the issue and create a plan. 24-hour response time if onsite maintenance is required. The measurement of the 24-hour response time will begin upon written notification by the Client to the Operator.

**Excuse Event.** An "Excuse Event" for purposes of this Response Time Guarantee means any Force Majeure Event (or any other event *REASONABLY likely to cause harm or endanger physical life or safety the SYL*) or failure of Client to comply with its obligations under the Agreement.

#### **A.5 – Reports**

SYL shall provide the following reports in accordance with Exhibits F and G.

- A report, in electronic format, following the conclusion of any onsite work.
- A monthly operations report providing a summary of key operations statistics, key performance indicators, equipment health, work performed on site during the previous month, a compilation of reported events and issues.

#### **A.6 - Job Safety Analysis**

Before starting any Service or Additional Service at the Site, SYL shall perform a toolbox meeting with all its works, agents, Subcontractors or affiliates present at the Site and fill in a Job Safety Analysis ("JSA") in line with the OSHA recommendations. SYL shall provide Client with the JSA within three (3) Business Days from the service date, and shall notify Client if any near misses, incident, or EHS issues occurred at the Site. An example of the JSA can be found in Exhibit E.

#### **A.7 – Training**

**A.7.1 -- Annual Refresh Training.** Annual Refresh Training will occur at the SYL's regional training center. SYL shall provide annual training consisting of the following to the Asset Owner on behalf of the Client:

- Site Walk and Review of BESS / Site Special Safety Precautions.
- BESS Start Up Procedure: Training and On-Site Demonstration.
- BESS Shut Down Procedure: Training and On-Site Demonstration.
- BESS Arc Flash Study: Walk-down, label explanation, and guidance on PPE necessary based on the results of the Client's ARC Flash Study.
- BESS Lock Out Tag Out Procedure: Training and On-Site demonstration.
- BESS Preventative Maintenance Schedule: On-Site demonstration of Preventative Maintenance items.
- Fire Safety and First Responder Training: On site explanation and overview of BESS to fire safety and first responder personnel.

**A7.2 – Optional Training.** In addition, optional training is available and can be provided via the SYL at SYL's training facility. SYL shall be compensated in accordance with the applicable fess in Exhibit D. The topics to be included in the additional training will include:

- Introduction to Energy Storage Systems.
- Electrical Safety.
- Basics of Electrical Theory.
- Power Conversion Systems (PCS) components and operations.
- Battery Energy Storage Systems (ESS) components and operations.
- Balance of Plant (BoP) components and operations.
- SCADA fundamentals including networking and communications topology.
- Data Gathering and Fault/Alarm triage.
- Review of Operations and Maintenance Manuals and Preventative Maintenance Procedures.
- Cell Balancing and SOC Calibration.

**A.8 - Spare Parts Management**

As part of Spare Parts Management of the scope of Annual Services, SYL shall provide the following services on behalf of Client:

- Continuous and detailed record keeping on the status and identification of Spare Parts and removed components. (e.g., track serial numbers or other identifiers of components such as battery trays as they are removed or added to the system).
- Semiannual onsite Spare Parts inventory update.
- Return merchandise authorization (RMA) coordination with applicable party.
- Return and disposal services are not included in the Service Fee and subject to additional fees. A separate quote will be provided.
- Client to provide adequate warehousing and logistics capabilities near the Facility to be used to receive and store spare part materials.
- Client is responsible for the cost of procuring or replacing spare part inventory.



#### **EXHIBIT B: DETAILS ON THE BASE SERVICE FEE**

Service Fee for the generic predictive maintenance portion of this contract is paid on an annual basis USD [xxxxx].

Service Fee for the project specific predictive maintenance portion of this contract is paid on an annual basis USD [xxxxx], but each project may have all or part of the services described in A.3.2

Unplanned maintenance and emergency response portion of this contract is paid on a T&M basis USD [xxxxx].

Routine annual training is included in the annual service fee. All optional training courses should be compensated additionally.

#### **EXHIBIT C: INFORMATION ON ADDITIONAL SERVICE FEES**

Tasks outside of those covered in the LTSA will be performed at a rate defined in the SYL Risen Agreement.



## EXHIBIT D: JOB SAFETY ANALYSIS (JSA) SPECIFICS (SAMPLE)



## Job Safety Analysis (JSA)

Safety Analysis		Work Order # (if applicable):		Date:	
<b>Instructions:</b>  1. List basic steps of job 2. List expected hazards for each step 3. List Controls for each hazard 4. See team leader for review and signature 5. After completion of job, save a copy of this JSA on the Company Drive	<b>Job Description:</b>	<b>Department (check box):</b> Construction <input type="checkbox"/> Commissioning <input type="checkbox"/> Operations <input type="checkbox"/> Contractor (Name) <input type="checkbox"/>  Other (Descr.) <input type="checkbox"/>	<b>Hazard Controls - Required PPE (check box):</b>		
		Hard Hat <input type="checkbox"/> Safety Glasses <input type="checkbox"/> Hearing Protection <input type="checkbox"/> Safety Boots <input type="checkbox"/> Face Shield <input type="checkbox"/> Chemical Goggles <input type="checkbox"/> Leather Gloves <input type="checkbox"/> Impact Gloves <input type="checkbox"/> Rubber Gloves <input type="checkbox"/> Rubber Goods <input type="checkbox"/>	<input type="checkbox"/> Fall Protection <input type="checkbox"/> Respirator <input type="checkbox"/> Welding Wear <input type="checkbox"/> FR Clothing <input type="checkbox"/> Tyvek Coveralls <input type="checkbox"/> Cooling Vest <input type="checkbox"/> Racking Suit <input type="checkbox"/> Chemical Suit <input type="checkbox"/> Special PPE (list below):	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Place a check in the box next to hazards you expect to encounter on the job. List all hazard controls on next page					

Place a check in the box next to hazards you expect to encounter on the job. List all hazard controls on next page

Hazard	Precaution	Hazard	Precaution	Hazard	Precaution
<input type="checkbox"/> Aerial Lifts	Training, Qualification, Lift Plan	<input type="checkbox"/> Impact Hazard (Tools)	Proper use of tools, Inspection/PPE	<input type="checkbox"/> Toxic Chemicals	HACCM Program, SDS, PPE, Labels
<input type="checkbox"/> Arc Flash	LOTO, Qualification, LFE, Barricades	<input type="checkbox"/> Ladders (Portable)	Ladder 4:1 pitch, Secure from movement, Inspect, Fall Protection, Qualification, PPE (Respirators)	<input type="checkbox"/> Trenching / Shoring	Maintain walking surfaces, Awareness of Surroundings
<input type="checkbox"/> Asbestos	Qualification, PPE	<input type="checkbox"/> Lead Exposure		<input type="checkbox"/> Tripping Hazards	Maintain walking surfaces, Awareness of Surroundings
<input type="checkbox"/> Biological (Histoplasmosis, Legionella, Hantavirus)	PPE	<input type="checkbox"/> Leaks	Barricades, Isolate Source	<input type="checkbox"/> Vibration of Tools	Proper Tools for job, Impact Gloves, PPE
<input type="checkbox"/> Chemical Hazard	SDS, Label Info, PPE	<input type="checkbox"/> Line of Fire / Pinch Points	Proper positioning	<input type="checkbox"/> Walking / Working Surfaces	Fall Protection, Warning of holes and openings in floors
<input type="checkbox"/> Confined Space	Qualification, Confined Space Program, Entry Permit, Rescue	<input type="checkbox"/> Material Deformation (Crushing)	Inspection of Material / Equipment		
<input type="checkbox"/> Dust Exposure	PPE, Housekeeping, Ventilation	<input type="checkbox"/> Natural Environment (Rain, Snow, Ice, High / Low Temps)	Adjust work activity to weather conditions (temperatures)		
<input type="checkbox"/> Enfranchisement Hazard	Rescue Personnel	<input type="checkbox"/> Noise (Above 85 db's)	PPE (Hearing Protection, Limit Exposure Time)		
<input type="checkbox"/> Ergonomics / Lifting	Proper Tools, Physical Limitations, Proper Working Height, Etc.	<input type="checkbox"/> Operating Equipment (Conveyors, pumps, etc.)	Equipment movement hazards, No loose clothing, Safe distance from moving parts, Guarding		
<input type="checkbox"/> Fall Hazards	Handrails, Fall Protection Equipment	<input type="checkbox"/> Portable Power Tools	Inspect prior to use, Grounded / Double insulated, GFCI, Guards		
<input type="checkbox"/> Fire / Explosion Hazard	SDS's, Hot Work Permit, Ventilation, Non Sparking Tools	<input type="checkbox"/> Pressure Release Hazard	LOTO, relieve pressure before disconnecting, Line break		
<input type="checkbox"/> Hand Tools	Inspect prior to use, Proper tool for job	<input type="checkbox"/> Respiratory Exposures	Trained, Fit Tested, Medical Clearance		
<input type="checkbox"/> Hazardous Energy	LOTO Program	<input type="checkbox"/> Scaffolding	Qualification, Fall Protection, Scaffold Tag		
<input type="checkbox"/> Hoisting / Lifting	Qualification, Training, Inspect Equipment, Barricading, Rated Equipment, Tag Lines	<input type="checkbox"/> Simultaneous Operations	SI-MOPS Plan		
<input type="checkbox"/> Hot Work	Hot Work Program, Permit	<input type="checkbox"/> Slipping Hazards	Good Housekeeping		
<input type="checkbox"/> Hydrogen	Test for leaks, Control Ignition sources, Non-Sparking tools	<input type="checkbox"/> Thermal Extremes (Heat / Cold Stress)	PPE, Limit Exposure, Rest, Hydration		

[illegible]

	<b>Additional Safety Precautions</b>

Team Member Guidelines:	Before the Job (Team Members Print / Sign)		After the Job - Review	After the Job (Team Members Print / Sign)	
<i>The Team Member(s) signature is an indication that they have reviewed this JSA and have participated in a discussion about the basic steps of the job, expected job hazards, and hazard control methods necessary for performing the job safely. Where single person work is taking place, it will only indicate a review of this JSA</i>					
<i>*Person Leading the work signature confirms above mentioned mitigations are in place and expected to be effective</i>					
	Person Leading the Work*		Person Leading the Work*		





**EXHIBIT E: STANDARD BESS O&M PLAN**

The full BESS O&M manual package is available for download at these URLs.

BESS - <Insert Link for SYL Risen Systems Here>

Draft

**EXHIBIT F: SERVICE REPORT FORM (SAMPLE)**

**SERVICE REPORT FORM**

 <b>RISEN SERVICE REPORT FORM</b>			
<b>DR Ref.</b>			
<b>Basic Information</b>			
<b>Work Order Number:</b>	<b>Technician Name</b>		
<b>Working time:</b>	<b>Start time:</b>		<b>Stop time:</b>
<b>Service Details</b>			
<b>Case No.1</b>			
<b>Location</b>	<b>Fault description:</b>	<b>Field solution:</b>	<b>Result:</b>
<b>Case No.2</b>			
<b>Location</b>	<b>Fault description:</b>	<b>Field solution:</b>	<b>Result:</b>
<b>Service Procedures &amp; Photos</b>			
<b>Used Spare Part No.</b>	<b>Description</b>	<b>Reason</b>	<b>Quantity</b>
<b>Comment *</b> If the customer is not at the service site, the OSA engineer sign on behalf of him and other special circumstances, the situation could be stated here			
<b>Signature Reporter</b>	<b>Signature FSE</b>		

## **EXHIBIT G: GUIDELINES FOR SERVICE REPORTING**

### **SERVICE REPORT GUIDELINES**

The Service Report provided by SYL to Client should include at least the following information:

- Project site / address
- Date / entrance time / exit time
- Technicians' names performing the service.
- Reason for the visit / any reference to a service ticket or request for Additional Service.
- Before / after conditions (what has been found at arrival, what has been solved)
  - Current (active) and historical alarms (logs)
  - Photos of service work done with timestamps and geotagged locations embedded.
- Equipment serial numbers and nameplate information.
- Details and explanations on areas of major interest related to availability and system performance, and if the service required any outage or site derating.
- Spare parts used, and where they were sourced from (e.g. Spare Parts Stock, Replacement Spare Parts, return merchandise authorization, purchased through a dealer, etc.)
- Has the problem been rectified after the Site visit, and if not, provide the next steps and timeline needed for repairs.
- Whether a warranty claim will need to be submitted.
- If Additional Service is required outside the scope of the LTSA, a detailed T&M (time and material) cost breakdown.
- Any environmental, health and safety concerns, incidents or near misses occurred on the site during the performance of the service.
- Details on third party SYL used (if applicable) and scope of work performed (e.g. HVAC Contractors, Fire Suppression Personnel, Landscapers, etc.).

## Appendix D – Decommissioning Plan & Cost Estimate

## 15 DECOMMISSIONING PLAN AND COSTS

DNV reviewed Peak Power's approach to decommissioning described in the "Decommissioning Plan" [87]. The Project comprises distributed assets such as solar PV systems and BESSs at approximately 59 C&I host sites. Peak Power stated that the ESAs with the host sites require that assets such as BESSs and solar PV systems be decommissioned at end of life and that the sites be returned to their original condition. The typical term of an ESA is 15 years, at the end of which Peak Power and the host site may agree to one of the following options [87].

- Enter into a PPA using the existing solar PV equipment while removing and decommissioning the BESS.
- Replace the BESS assets at the end of life under a new contract to extend the VPP's life cycle.
- Decommissioning the project in its entirety which will include removal of all assets, re-use or recycling of assets, and restoration of the site to its original state. Decommissioning will start within 9 months following the decision to decommission the project and will be completed within 18 months.
  - Peak Power will coordinate and outsource asset removal to specialized contractors.
  - All recyclable assets will be recycled if they cannot be re-used.
  - Peak Power will work with local EPCs that are familiar with BESSs and, where possible, the infrastructure at the host site. Site restoration will be completed by third-party contractors but will be overseen by Peak Power.

DNV finds Peak Power's high-level approach to decommissioning to be reasonable. Additionally, DNV reviewed the following supporting documents to further assess the alignment of Peak Power's decommissioning plan and costs with industry expectations.

- Li-Cycle services presentation [88]
- Form services agreement for recycling services between Peak Power and Li-Cycle [89]
- BESS Decommissioning Costs - Indicative Pricing from SunGrid Solutions [90]

DNV's findings from the review of the above supporting documents are summarized in Sections 15.1-15.3 and the overall conclusions are provided in Section 15.4. DNV's review focused on Peak Power's approach to decommissioning of the BESSs at host sites. Review of the decommissioning plan for solar PV systems is outside of DNV's present scope of work.

### 15.1 EPC decommissioning

DNV reviewed the indicative pricing for decommissioning services by SunGrid. SunGrid as the EPC contractor will decommission civil equipment foundations, mechanical, and electrical terminal capping. SunGrid will also provide decommissioning assistance for the BESS supplier by offering crane/forklift services. The total decommissioning cost associated with the offered services for a BESS size of 2.5 MWac / 5 MWhdc is \$336,600, which is equivalent to \$67.32/kWhdc. Also, the total decommissioning cost associated with the offered services for a BESS size of 3 MWac / 12 MWhdc is \$448,000, which is equivalent to \$37.33/kWhdc. DNV considers the indicative pricing for decommissioning services by SunGrid to be in line with industry expectations.

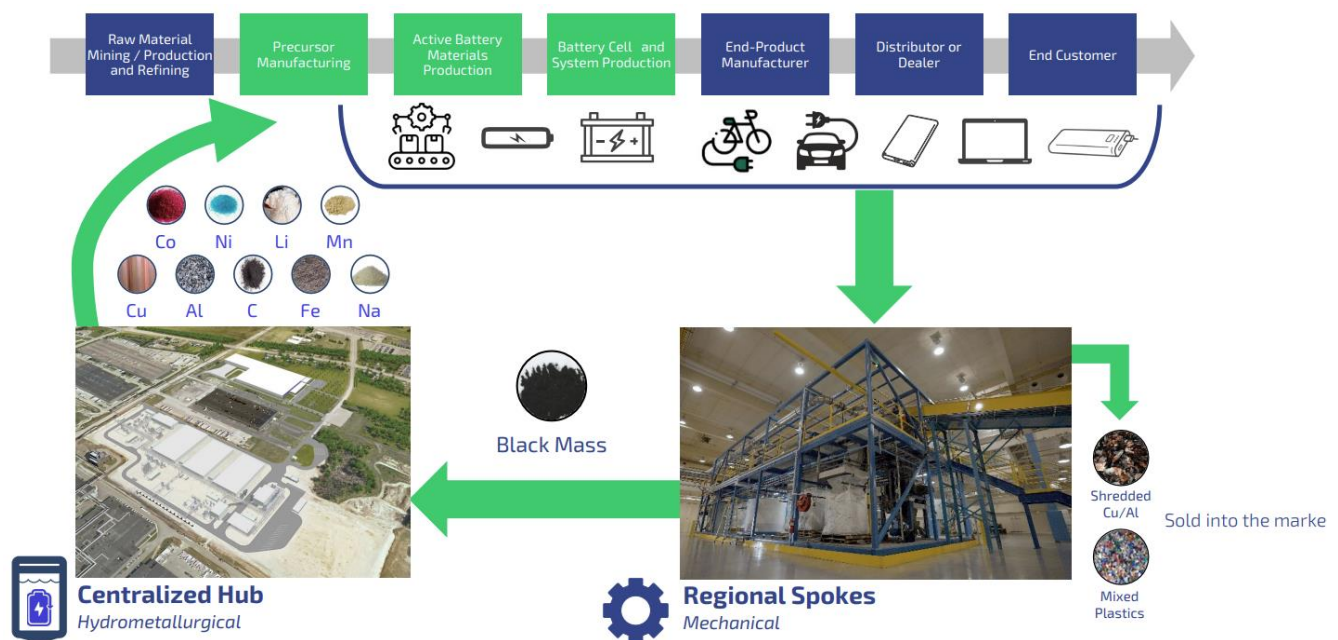
### 15.2 Recycling

Peak Power intends to contract with Li-Cycle, a company that specializes in recycling lithium-ion batteries using a proprietary process with up to 95% recycling efficiency [88]. DNV reviewed documentation detailing Li-Cycle's capabilities and pricing of services. Li-Cycle has multiple processing facilities in North America in ON, NY, AZ, and AL, and is considering expanding its business to Germany and Norway [88]. The processing capacity (in metric ton per year) of the North American facilities that are in operation or in development are shown in Table 15-1.

**Table 15-1 Li-Cycle facilities**

North American	Capacity	Operational
Kingston, ON	5,000 MT/y	2020
Rochester, NY	5,000 MT/y	2020
Gilbert, AZ	10,000 MT/y	March 2022
Tuscaloosa, AL	10,000 MT/y	Q2 2022
North American Hub	90,000 MT/y	2023

Li-Cycle's recycling process of the batteries is illustrated in Figure 15-1. At the end of life, batteries are shipped to the regional spokes for shredding and sorting for the battery's materials. Some of the sorted materials, such as plastic and metals are directly sold into the market. The mixture of the battery cells content (black mass) is further hydrometallurgical processed to extract valuable metals such as lithium, manganese, cobalt, and nickel. The extracted materials are recycled back into the battery supply chain.



**Figure 15-1 Li-Cycle's recycling process [88]**

DNV takes no exception to Li-Cycle's capabilities as the recycling service provider for Peak Power's portfolio.

The unexecuted services agreement for recycling services by Li-Cycle, includes pricing for recycling and transportation of batteries from Peak Power's facility to Li-Cycle's facility. The prices are as follows [89]:

- Recycling cost for LFP battery: \$0.80/lbs.

- Full truckload shipment cost: \$1,614/shipment for 8 shipments.

The agreement states that Peak Power is responsible for packaging the batteries according to Department of Transportation (DOT) regulations and standards. DNV considers the recycling and transportation costs to be within industry expectations.

### 15.3 Decommissioning cost estimates

Peak Power has estimated the decommissioning and recycling costs shown in Table 15-2 based on indicative pricing received from vendors. The BESS decommissioning cost assumption of \$69/kWh under the OpEx inputs of the archetype model is in line with these budget estimates and meets expectations for BESS decommissioning costs.

**Table 15-2 Peak Power's decommissioning costs assumptions**

Decommissioning Item	Cost (\$/kWh)
BESS Decommissioning	50.40
BESS Recycling	19.07

Peak Power plans to establish a sinking fund for the decommissioning costs. Based on the projected decommissioning and recycling costs, Peak Power estimates collecting \$66 million for the fund from the project revenue. The proposed sinking fund will use a 13-year lookahead period, with contributions starting after 2 years of project operations. Peak Power will contribute to the fund using 25% of the available cash for the period until the fund reaches the target balance. Based on the current financial model, Peak Power anticipates that it will reach the required balance to decommission the entire portfolio of projects by 2033. DNV considers Peak Power's BESS decommissioning and recycling cost assumptions to be reasonable [89], [90].

### 15.4 Decommissioning conclusion

DNV finds Peak Power's high-level approach to decommissioning to be reasonable. Peak Power will contract with third-party service providers for decommissioning and recycling of the VPP assets. DNV notes that the indicative pricing obtained by Peak Power from vendors for BESS decommissioning and recycling services are in line with expectations. DNV has not reviewed detailed decommissioning plan procedures that will be utilized by the third-party service providers. DNV recommends that Peak Power ensure that the third-party service providers have a documented decommissioning process that includes the procedure for safely and effectively shutting down, uninstalling, disassembling, removing systems from a site, and disposing and/or recycling such systems, as applicable, both in the case of normal end of life decommissioning and in the case of an abnormal failure or fire event. An effective decommissioning plan takes into account safety and the environment, and will adhere to industry best practices, standards, regulations, and local legislation. A typical decommissioning plan may include guidance around the following topics:

- Safety
- Disconnect and isolation of systems
- Removal of hazardous materials
- Waste management and recycling
- Site restoration
- Environmental monitoring to ensure there is no harmful impact

## Appendix E – Stormwater Management Report





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Weston & Sampson Engineers, Inc.  
55 Walkers Brook Drive, Suite 100  
Reading, MA 01867  
tel. 978 532-1900

# REPORT

May 2025

PowerBESSCo2, LLC

Battery Energy Storage  
System (BESS) Development

124 Turnpike Road  
Turners Falls, MA 01376

Stormwater Report

## TABLE OF CONTENTS

Stormwater Report

Attachment A - Figures

Attachment B - Wetland Delineation Report

Attachment C - NRCS Web Soil Survey Map & Report: Hydrologic Soils Group,  
FEMA FIRMette, NOAA Atlas 14 Rainfall Data

Attachment D - Drainage Area Maps & HydroCAD Reports

Attachment E - Long Term Pollution Prevention Plan

Attachment F - Construction Period Pollution and Erosion and Sedimentation Control  
Plan

**Applicant/Project Name:** PowerBESSCo2, LLC  
Battery Energy Storage System (BESS) Development

**Project Location:** 124 Turnpike Road, Turners Falls, MA 01376

**Application Prepared by:**  
Firm: Weston & Sampson Engineers, Inc.  
Registered PE: Melinda Costello, P.E.

## Introduction

Weston & Sampson Engineers, Inc. (Weston & Sampson) has prepared this stormwater report on behalf of PowerBESSCo2, LLC, to develop a Battery Energy Storage System (BESS), located at 124 Turnpike Road in Turners Falls, MA.

The existing site is located on an approximately 13.149-acre parcel privately owned land. The eastern portion of the parcel includes Judd Wire Inc, a business manufacturing and supply building. The site is bounded by Turnpike Road the north, Sandy Lane to the west, Franklin County Sheriff's Office to the south, and undeveloped land to the east.

## Proposed Project

The project will consist of a BESS and associated equipment pads. A post driven chain link fence and bollards will be used to provide security and separation of any unqualified personnel from the proposed BESS system, as required by the National Electric Code (NEC). There is an estimated 215 linear feet of new fencing that will be installed to surround and enclose the BESS and associated equipment pads. The total area within the fence limits is approximately 2,075 square feet.

A Locus Map of the project location is included as Figure 1 in **Attachment A**.

The project area lies outside of the 100-year FEMA flood zone. The FEMA FIRMette is included in **Attachment C**. There are no wetlands on-site based on a field investigation performed by Weston & Sampson. A wetland delineation report is included in **Attachment B**. Based on MassGIS data the site area is not located within the 100-year flood zone.

## Stormwater Analysis

Pre- and post-development peak design flows were assessed using the National Resources Conservation Service (NRCS) Technical Release 20 (TR-20) methodology. HydroCAD® version 10.20-3c stormwater modeling software was used to analyze and compare pre- and post-development stormwater conditions for the 2-, 10-, 25-, and 100-year 24-hour storm events. It is a comprehensive hydrodynamic modeling program used to analyze systems such as, but not limited to, site hydrology, water conveyance infrastructure, and stormwater management systems.

According to the United States Department of Agriculture Natural Resource Conservation Service (USDA NRCS) Web Soil Survey online soil mapping data, the site is comprised exclusively of hydrologic soil group (HSG) A soils. Table 1 below shows the soils associated with the site. For more information, the NRCS Web Soil Survey report with associated soil descriptions and maps are included in **Attachment C**.

Table 1 – NRCS Site Soils Description &amp; HSG

Map Unit Symbol	Map Unit Name	HSG
255A	Windsor loamy sand, 0 to 3 percent slopes	A
656	Udorthents, refuse substratum	A

Rainfall data is referenced from the National Oceanic and Atmospheric Administration (NOAA) Atlas 14, Volume 10, Version 3 for Turners Falls, Massachusetts and is included in **Attachment C**.

A summary of the analysis is provided below. The full HydroCAD® reports for pre- and post-development conditions with associated drainage area maps are included in **Attachment D**.

### Existing Hydrology

The site's high point is the eastern part of the pedestrian crosswalk north of the proposed BESS at a general elevation of approximately 262.4-feet. The southern part of the existing asphalt parking lot slopes north towards the existing catch basin, located in the center of the parking lot. The northern part of the parking lot has a high point of approximately 261.4-feet, where on the south side of the high point slopes towards the existing catch basin and the north side slopes towards Sandy Lane off site. There is a grassed area on site bounded by a curb that has a gradual slope moving south to north.

The site has multiple isolated high points. It is evident that most stormwater runoff eventually drains to an existing catch basin infrastructure in the center of the paved parking lot, with a northern high point draining to Sandy Lane.

Based on the survey entitled 'Boundary, Topographic & Utility Survey' for Weston & Sampson, dated March 31, 2025 by Control Point Associates, Inc. of the project parcel, the existing catch basin located in the parking lot is a drywell and infiltrates stormwater.

The stormwater analysis for this project was modeled using the limits of the parking lot area. The limits of Sandy Lane were not considered with this analysis.

Based on the site topography and existing drainage pathways, two points-of-analysis (POA) were analyzed and are listed below.

- **POA-1** – catch basin located at the low point of the existing parking lot
- **POA-2** – Sandy Lane, located northwest of the existing parking lot

Figure 1 of **Attachment D** displays the limits of the drainage areas, time of concentration flow paths, and land coverages for the pre-development conditions.

### Proposed Hydrology

The proposed project includes the installation of a BESS and associated equipment pads in the asphalt parking lot west of the existing building. The proposed BESS is located on impervious areas, with 18 bollards located on the grass area bounded by the curb of the parking lot. Therefore, the existing ground coverage and drainage pathways will remain the same from pre- to post-development conditions, with the exception of the included bollards which are included as disconnected impervious in the proposed hydrology model.

Figure 2 of **Attachment D** displays the limits of the drainage areas, time of concentration flow paths, and land coverages for the post-development conditions. The same POAs and drainage areas were used for the post-development conditions as the pre-development conditions.

### Massachusetts Stormwater Management Standards

The project site is outside of Massachusetts Wetland Protection Act Resource Areas and buffers, however, the project site was designed to comply with the Massachusetts Stormwater Standards to the maximum extent practicable.

Below is a summary of the proposed stormwater management system's compliance with the Massachusetts Stormwater Management Standards 1-10.

#### **Standard 1: No New Untreated Discharges**

There will be no new untreated discharges associated with the project as there is limited variation in land coverage, and no variation time-of-concentration flow paths from pre- to post-development conditions.

#### **Standard 2: Peak Rate Attenuation**

Table 2 and Table 3 below show the comparison of peak flow runoff rate and runoff volume from pre- to post-development conditions, respectively. There is no increase in peak flow runoff rate in cubic-feet per second (cfs) nor runoff volume in acre-feet (af) from pre- to post-development conditions for POAs 1 and 2 for the 2-, 10-, 25-, and 100-year 24-hour storm events.

**Table 2 – Stormwater Peak Flow Rate Comparison**

Point of Analysis	24 Hr Storm	Peak Runoff Rate (cfs)		Difference in Peak Runoff Rate (cfs)
		Pre-	Post-	
POA-1	2yr	0.6	0.6	0.0
	10yr	0.9	0.9	0.0
	25yr	1.2	1.2	0.0
	100yr	1.5	1.5	0.0
POA-2	2yr	0.4	0.4	0.0
	10yr	0.6	0.6	0.0
	25yr	0.8	0.8	0.0
	100yr	1.0	1.0	0.0

**Table 3 – Stormwater Runoff Volume Comparison**

Point of Analysis	24 Hr Storm	Runoff Volume (af)		Difference in Runoff Volume (af)
		Pre-	Post-	
POA-1	2yr	0.043	0.043	0.000
	10yr	0.071	0.071	0.000
	25yr	0.089	0.089	0.000
	100yr	0.116	0.116	0.000
POA-2	2yr	0.027	0.027	0.000
	10yr	0.047	0.047	0.000
	25yr	0.059	0.059	0.000
	100yr	0.079	0.079	0.000

The full HydroCAD® reports for pre- and post-development conditions are included in **Attachment D**.

**Standard 3: Recharge**

The added impervious coverage associated with the bollards are not considered impervious coverage requiring treatment per MassDEP nor the Town of Turner Falls. Therefore, recharge calculations are not required.

**Standard 4: Water Quality**

As stated above, there is no proposed impervious coverage requiring treatment, therefore, the water quality calculations are not required.

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

Not Applicable. There are no LUHPPLs in the work area.

**Standard 6: Critical Areas**

There are no critical areas within the proposed project area. A critical areas map is included in **Attachment A**.

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

Not Applicable. This project is new construction.

**Standard 8: Construction Period Pollution Prevention and Erosion and Sediment Control**

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan is included in **Attachment E**. To ensure that the work incorporates the performance standards recommended in MassDEP's Stormwater Management Policy, necessary erosion and sedimentation control measures will be utilized during construction as shown on the site plans.

**Standard 9: Operation and Maintenance Plan**

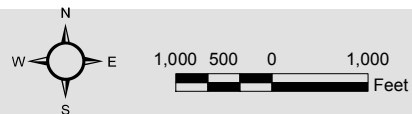
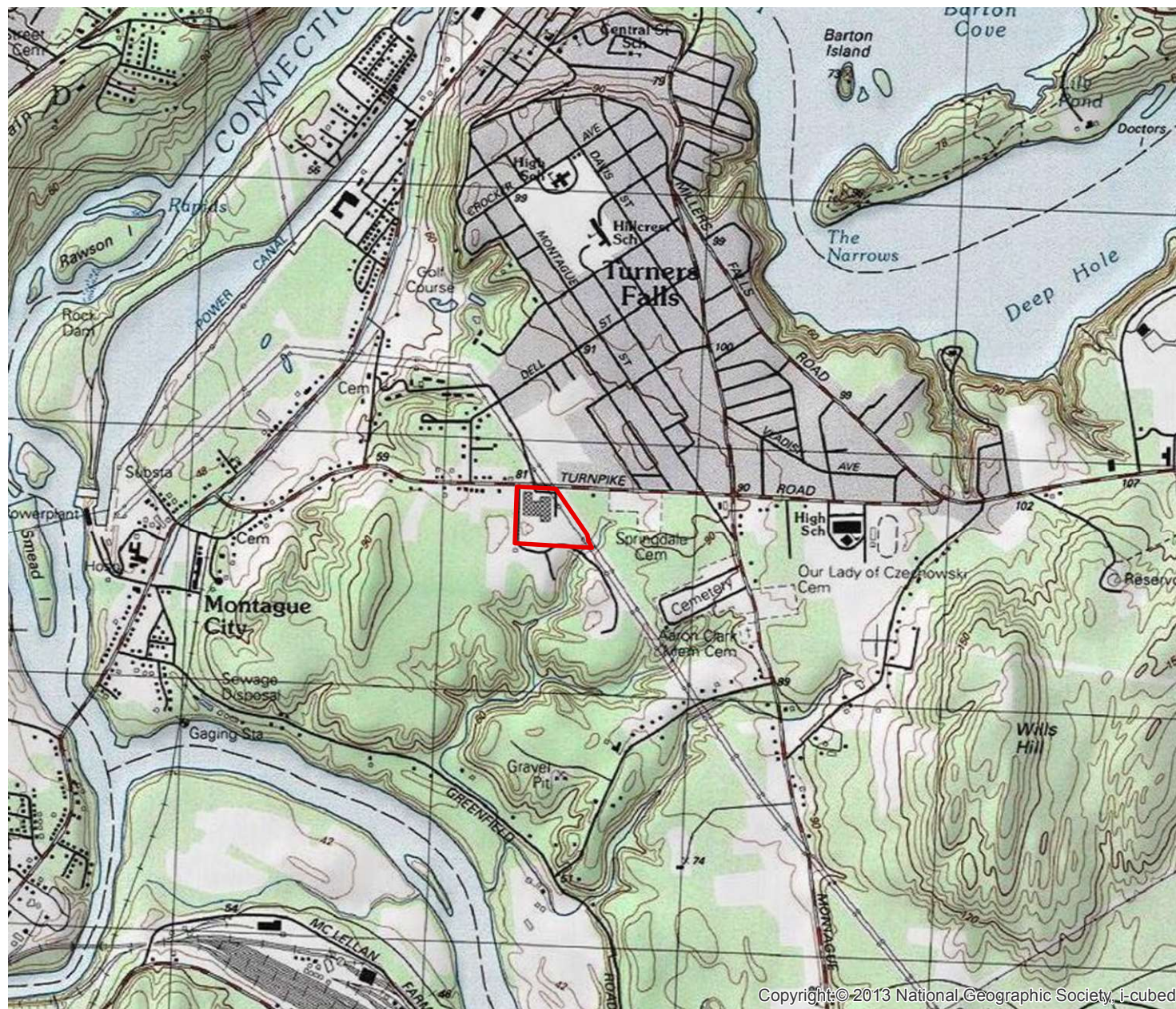
Not Applicable. There are no Stormwater BMPs proposed for the project site.

**Standard 10: Prohibition of Illicit Discharges**

Not applicable. There are no illicit discharges associated with the proposed project.

Attachment A - Figures





Data Source: Office of Geographic and Environmental Information (MassGIS),  
Commonwealth of Massachusetts Executive Office of Environmental Affairs

## Legend

— Property Line

124 Turnpike Road  
Turners Falls, MA

USGS Topographic Map

Weston & Sampson<sup>SM</sup>





## Legend

- Property Line
- Marsh/Bog
- Wooded marsh
- Cranberry Bog
- Salt Marsh
- Open Water
- Reservoir (with PWSID)
- Tidal Flats
- Beach/Dune
- ACECs**
- ACECs
- NHESP Habitats**
- NHESP Estimated Habitats of Rare Wildlife
- NHESP Priority Habitats of Rare Species
- NHESP Certified Vernal Pools
- NHESP Potential Vernal Pools
- Cold Water Fisheries
- Outstanding Resource Waters**
- Public Water Supply Contributor
- ORW for ACEC
- ORW for both Water Supply and Other

124 Turnpike Road  
Turners Falls, MA

USGS Topographic Map

Weston & Sampson<sup>SM</sup>

Data Source: Office of Geographic and Environmental Information (MassGIS),  
Commonwealth of Massachusetts Executive Office of Environmental Affairs

Attachment B - Wetland Delineation Report





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55 Walkers Brook Drive, Suite 100  
Reading, MA 01867  
tel: 978.532.1900

## Wetland Delineation Report



April 2025

Turners Falls, Massachusetts  
Project # ENG25-0360

124 Turnpike Road  
Turners Falls, MA

Wetland Delineation Conducted By:  
Devin Herrick, CWS on 4/18/2025

Delineation Report Reviewed By:  
Rhianna Sommers, PWS



## TABLE OF CONTENTS

	Page
1.0 SITE DESCRIPTION .....	1-1
2.0 DELINEATION OF WETLAND RESOURCES .....	2-1
2.1 Site Observations .....	2-1
2.2 Wetland Delineation Methodology .....	2-1
2.3 Stormwater Basins .....	2-2
2.4 Other Protected Areas .....	2-3
3.0 SUMMARY .....	3-1
4.0 REFERENCES .....	4-1

## FIGURES

Figure 1 .....	Wetlands Field Map
Figure 2 .....	USGS Topographic Map
Figure 3 .....	FEMA FIRM Map
Figure 4 .....	Environmental Resources Map

## APPENDICES

Appendix A .....	Site Photographs
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## 1.0 SITE DESCRIPTION

On April 18<sup>th</sup>, 2025, the presence of wetland resources was investigated near 124 Turnpike Road in Turners Falls, MA. This investigation area is located adjacent to residential neighborhoods and commercial properties. Please see Figure 1 (Wetlands Field Map) and Figure 2 (USGS Topographic Map) of this report for the investigation area.

Wetland resource areas were assessed by a Weston & Sampson employee who is trained in the wetland delineation process using the Massachusetts Department of Environmental Protection (MassDEP) and the US Army Corps of Engineers methodology. No wetland resource areas were identified within the investigation area. Two non-jurisdictional stormwater wetlands were observed.

## 2.0 DELINEATION OF WETLAND RESOURCES

### 2.1 Site Observations

A Weston & Sampson wetland scientist, trained in the ACOE Wetland Delineation Manual and Massachusetts Department of Environmental Protection (MassDEP) Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetland Protection Act (WPA) guidance document investigated the site for the presence of wetland resource areas. No jurisdictional wetland resource areas were identified within the investigation area.

See Appendix A for site photographs.

### 2.2 Wetland Delineation Methodology

A wetland delineation assessment was conducted in accordance with the Massachusetts Wetland Protection Act Regulations (310 CMR 10.55(2)(c)), Massachusetts Department of Environmental Protection (MassDEP) Massachusetts Handbook for Delineation of Bordering Vegetated Wetlands (Second Edition, September 2022), and ACOE Wetland Manual (Technical Report Y-87-1).

The bordering vegetated wetlands (BWV) delineation methodology includes the characterization of vegetation, hydrologic conditions, and soil in both wetland and upland areas to identify the transitional area, which is used as the wetland limit.

Vegetation, hydrology and soils are assessed in both wetland and upland areas to accurately delineate the wetland limits at each site. The percentage of vegetative species was estimated by creating sample plots. Sample plot radius for trees, saplings, shrubs, groundcover and woody vine strata was 30', 15', 15', 5' and 30', respectively. After creating the sample plot areas, the percent basal area coverage of each species within the monitoring plot was recorded. Using these field observations, the percent dominance of each species within its stratum was calculated. The 50/20 Rule was then used to determine dominance. Dominant species were considered the most abundant plant species (when ranked in descending order of abundance and cumulatively totaled) that immediately exceeds 50% of the total dominance measure (basal area) for the stratum, plus any additional species comprising 20% or more of the total dominance measure for the stratum. Once the dominant species were determined, they were treated equally to determine the presence of hydrophytic vegetation. If the number of dominant species with a Wetland Indicator Status of FAC (excluding FAC-), FACW or OBL is greater

.....

than, or equal to, the number of remaining dominant species, the area was considered a jurisdictional wetland resource area based on vegetation.

A soil sample from each wetland sample plot were also taken. Each soil sample goes to a depth of at least 12-24 inches. The soil was characterized to determine if the soil sample was considered a hydric (wetland) soil. Soil samples, including mottles, were characterized based on color using Munsell Soil-Color charts as a color reference.

The general area was then assessed for hydrologic conditions, including, but not limited to, site inundation, depth to free water, depth of soil saturation, water marks, drift lines, sediment deposits, water-stained leaves.

### 2.3 Stormwater Basins

Two stormwater basins were identified within the investigation area. Based on field observation, these stormwater basins appear to be currently maintained structures used for drainage purposes. If it can be shown that these basins are in fact stormwater management systems that are maintained, then the basins may be considered non-jurisdictional per 310 CMR 10.02 (2)(C) which states:

*Notwithstanding the provisions of 310 CMR 10.02(1) and (2)(a) and (b), stormwater management systems designed, constructed, installed, operated, maintained, and/or improved as defined in 310 CMR 10.04 in accordance with the Stormwater Management Standards as provided in the Stormwater Management Policy (1996) or 310 CMR 10.05(6)(k) through (q) do not by themselves constitute Areas Subject to Protection under M.G.L. c. 131, § 40 or Buffer Zone provided that:*

1. *the system was designed, constructed, installed, and/or improved as defined in 310 CMR 10.04 on or after November 18, 1996; and*
2. *if the system was constructed in an Area Subject to Protection under M.G.L. c. 131, § 40 or Buffer Zone, the system was designed, constructed, and installed in accordance with all applicable provisions in 310 CMR 10.00.*



GPS locations taken in the field included:

- SW A1 through SW A10 (Stormwater “A” Series)
- SW B1 through SW B3 (Stormwater “B” Series)

Based on a review of available aerial imagery, SW A is located on the investigation area property and appears to have been constructed around 1993. SW B is located on an adjacent property, GPS locations were taken along the fence at the closest accessible points within the investigation area, and appears to have been constructed around 2023.

In order to comply with 310 CMR 10.02 (2)(C), the stormwater management system needs to have been designed, constructed, installed, and/or improved as defined in 310 CMR 10.04 on or after November 18, 1996. SW A appears to have been constructed around 1993. If it is determined that this wetland cannot be classified as a “stormwater management systems” then it could be classified as an isolated vegetated wetland. The limit of SW A was determined by locating the transitional area between wetland and upland vegetation, soils and hydrologic conditions. Vegetation, hydrology and soils were assessed in the same manner as described above for identifying BVW. The Massachusetts Wetland Protection Act does not protect isolated vegetated wetlands, unless they are vernal pools or meet the criteria for Isolated Land Subject to Flooding (ILSF). Pursuant to 310 CMR 10.57(2)(b), ILSF is “*an isolated depression or closed basin without an inlet or an outlet which at least once a year confines standing water to a volume of at least 1/4 acre-feet and to an average depth of at least six inches*”. SW A has multiple inlets in the form of culverts and had no vernal pool criteria observed during the investigation. As a result, SW A cannot be classified as ILSF or a potential vernal pool.

SW A does not meet the definition of any jurisdictional wetland resource area under the WPA.

## 2.4 Other Protected Areas

Weston & Sampson created environmental resources maps (see Figure 4) of the site to determine the presence of other protected areas. The data source of these map layers was the Massachusetts Geographic Information System (MassGIS). These areas included:



- NHESP Priority Habitats of Rare Species
- NHESP Estimated Habitats of Rare Wildlife
- NHESP Certified and Potential Vernal Pools
- Areas of Critical Environmental Concern (ACEC)
- Outstanding Resource Waters (ORW)
- Coldwater Fisheries
- Article 97 Land

Based on the MassGIS information there are no protected areas within the investigation area.

FEMA Flood Insurance Rate Maps (FIRM) were unavailable from the FEMA website. MassGIS was utilized to determine if there is a 100-year floodplain at the site. See Figure 3 for FEMA map. Based on MassGIS data the investigation areas are not located within the 100-year flood zone.

## 3.0 SUMMARY

On April 18<sup>th</sup>, 2025, the presence of wetland resources was investigated near 124 Turnpike Road in Turners Falls, MA. No jurisdictional wetland resource areas were identified within the investigation area.

Two stormwater basins were identified at the site. SW A is located on the investigation area property and SW B is located on an adjacent property, GPS locations were taken along the fence at the closest accessible points within the investigation area.

This Wetlands Delineation Report has been reviewed and approved by a Professional Wetland Scientist (PWS).

#### 4.0 REFERENCES

Massachusetts Department of Environmental Protection. September 2022. "Massachusetts Handbook for Delineation of Bordering Vegetated Wetlands – Second Edition".

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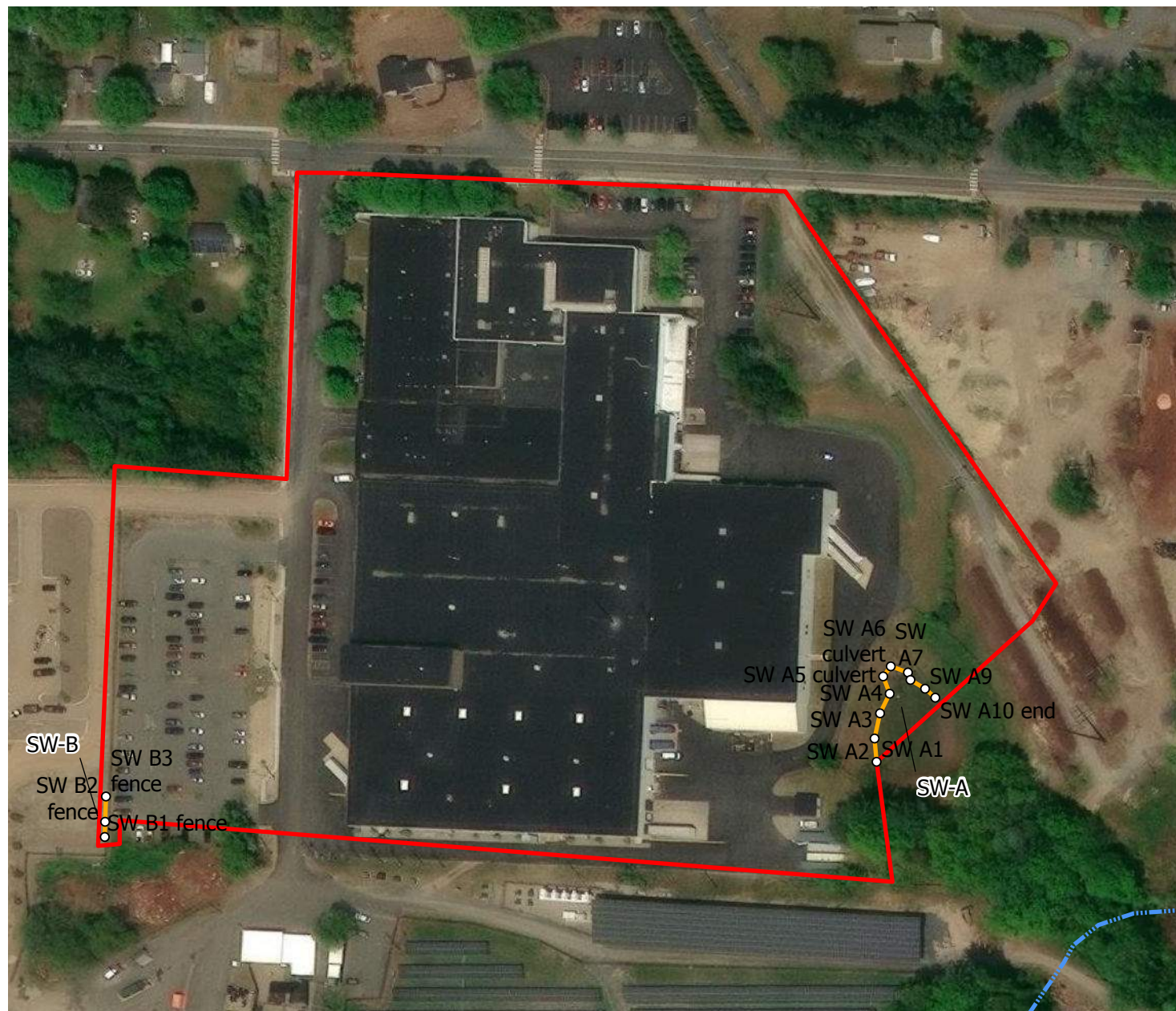
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Tiner, Jr., Ralph W, 2009, Field Guide to Tidal Wetland Plants of the Northeastern United States and Neighboring Canada.

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New England Hydric Soils Technical Committee, 2019, Version 4, *Field Indicator of Identifying Hydric Soils in New England*. New England Interstate Water Pollution Control Commission, Lowell, MA.

.



## Legend

- Investigation Area
- Stormwater Basin
- Wetland Flags
- MassDOT Roads
- USGS Streams
  - Perennial Stream
  - - - Intermittent Stream
  - Hydrologic Connection
- DEP Wetland Areas**
  - Marsh/Bog
  - Wooded marsh
  - Cranberry Bog
  - Salt Marsh
  - Open Water
  - Reservoir (with PWSID)
  - Tidal Flats
  - Beach/Dune

**FIGURE 1**

124 Turnpike Road  
Turners Falls, MA

Wetlands Field Map

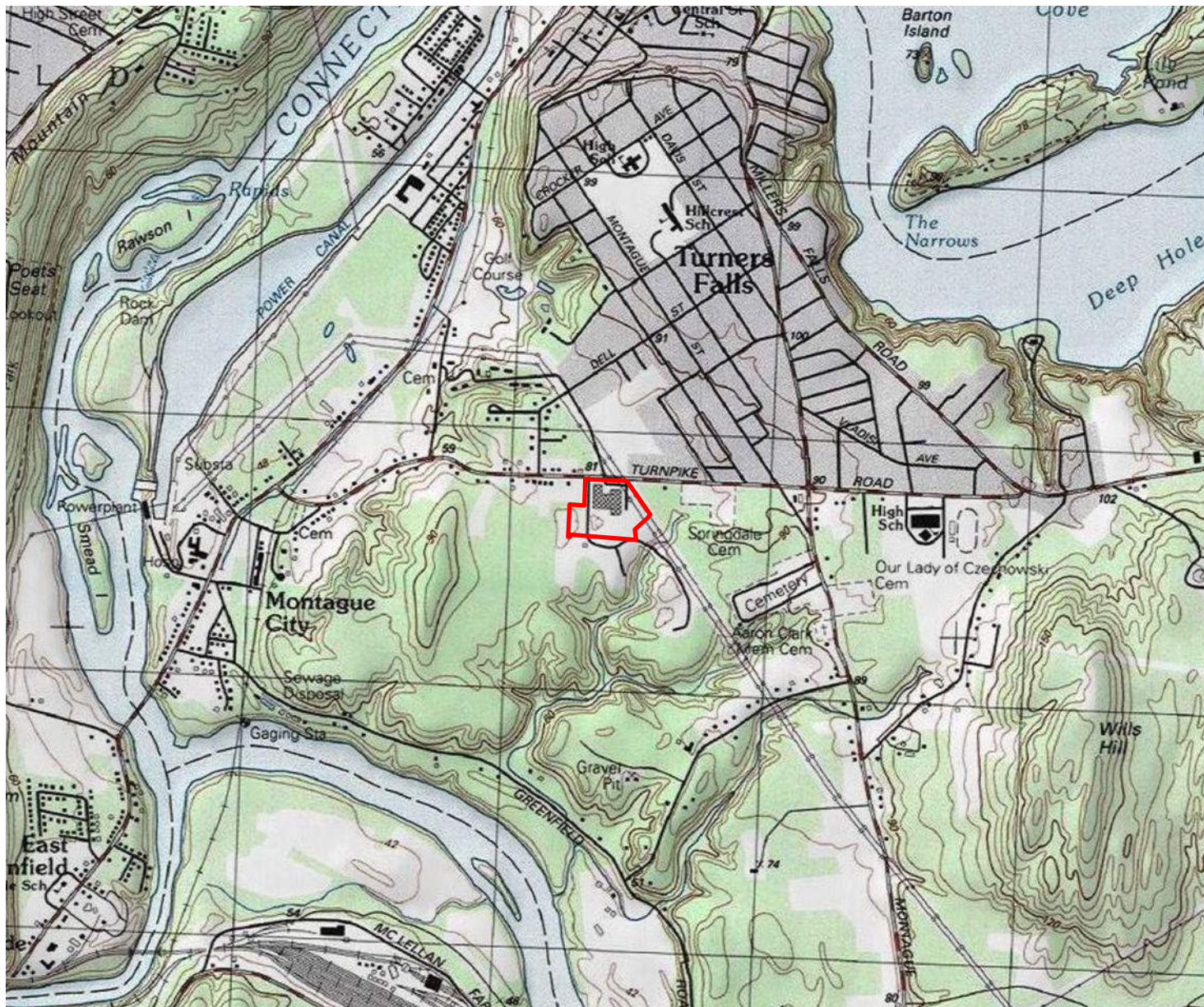


200 100 0 200  
Feet

Data Source: Office of Geographic and Environmental Information  
(MassGIS), Maxar, Microsoft

Weston & Sampson





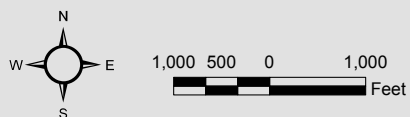
#### Legend

Investigation Area

#### FIGURE 2

124 Turnpike Road  
Turners Falls, MA

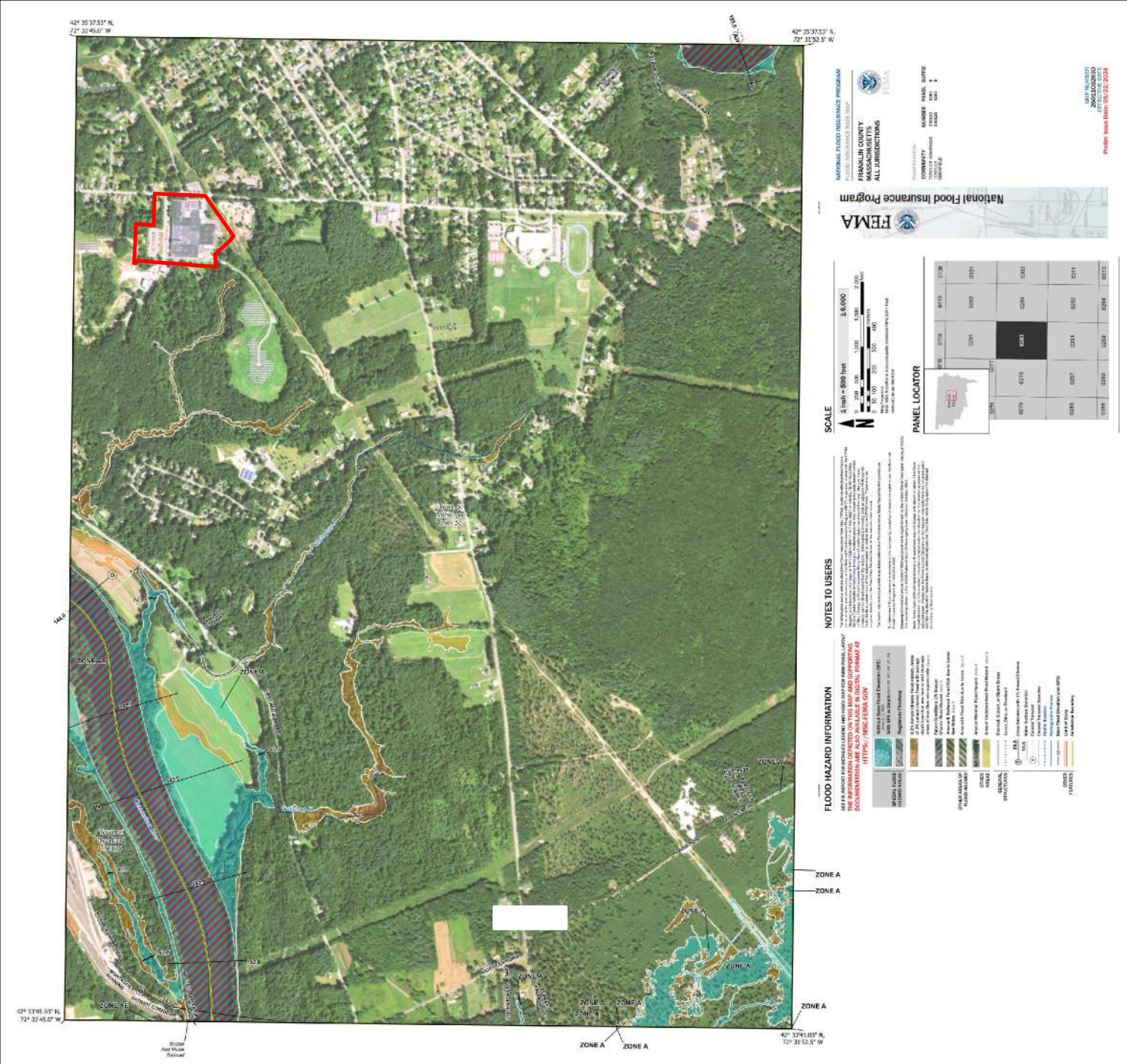
USGS Topographic Map



Data Source: Office of Geographic and Environmental Information (MassGIS),  
Copyright: © 2013 National Geographic Society, i-cubed

Weston & Sampson





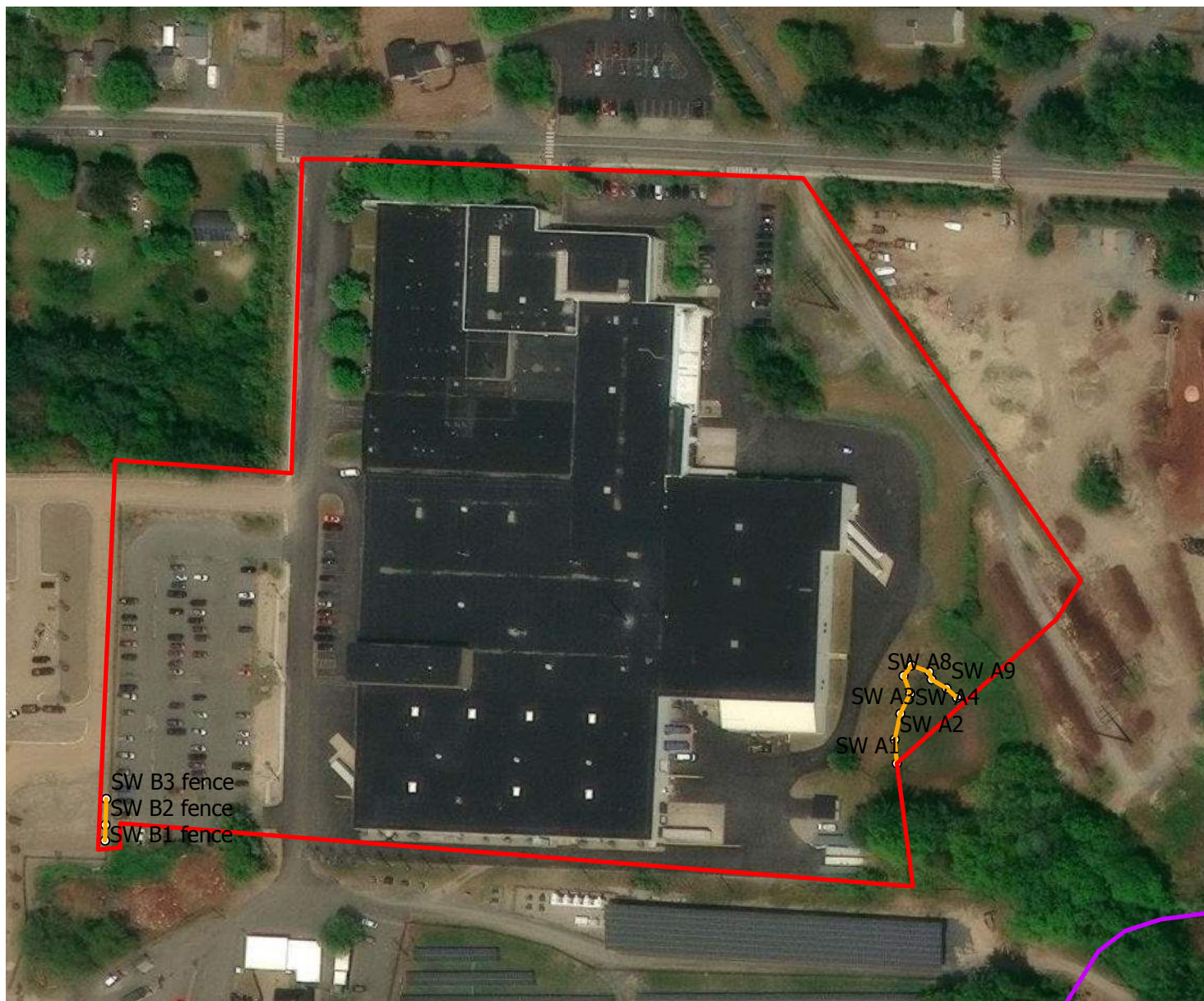
**Legend**  
 Investigation Area

**FIGURE 3**

124 Turnpike Road  
 Turner Falls MA

FEMA Map





## Legend

- Investigation Area
- Stormwater Basin
- Wetland Flags
- MassDOT Roads
- Article 97 Land
- ACECs
- NHESP Estimated Habitats of Rare Wildlife
- NHESP Priority Habitats of Rare Species
- \* NHESP Certified Vernal Pools
- \* NHESP Potential Vernal Pools
- Cold Water Fisheries
- Outstanding Resource Waters**
- Public Water Supply Contributor
- ORW for ACEC
- ORW for both Water Supply and Other

**FIGURE 4**  
124 Turnpike Road  
Turners Falls, MA

Environmental Receptors Map



150 75 0 150  
Feet

**Data Source:** Office of Geographic and Environmental Information (MassGIS),  
Maxar, Microsoft, NHESP, MassGIS

Weston & Sampson

## APPENDIX A

### Site Photographs





Photo 1: SW-A Series facing southeast.



Photo 2: SW-B Series facing west.


Attachment C - NRCS Web Soil Survey Map & Report: Hydrologic Soils Group,  
FEMA FIRMette, NOAA Atlas 14 Rainfall Data











# Hydrologic Soil Group—Franklin County, Massachusetts



**MAP LEGEND****Area of Interest (AOI)**
 Area of Interest (AOI)
**Soils****Soil Rating Polygons**





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

**Soil Rating Lines**

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

**Soil Rating Points**

-  A
-  A/D
-  B
-  B/D

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

**Water Features**
 Streams and Canals
**Transportation**

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

**Background**
 Aerial Photography
**MAP INFORMATION**

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Franklin County, Massachusetts

Survey Area Data: Version 19, Aug 27, 2024

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

Date(s) aerial images were photographed: Oct 15, 2020—Oct 31, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
255A	Windsor loamy sand, 0 to 3 percent slopes	A	1.6	12.6%
255B	Windsor loamy sand, 3 to 8 percent slopes	A	0.9	7.3%
651	Udorthents, smoothed	A	1.6	12.9%
652	Udorthents, refuse substratum	B	1.2	9.6%
656	Udorthents-Urban land complex	A	7.1	57.6%
<b>Totals for Area of Interest</b>			<b>12.4</b>	<b>100.0%</b>

## Description

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

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

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

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

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

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

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

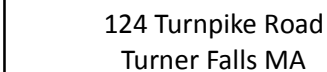
## Rating Options

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher





FEMA Map



NOAA Atlas 14, Volume 10, Version 3  
Location name: Turners Falls, Massachusetts,  
USA\*

Latitude: 42.5877°, Longitude: -72.5576°

Elevation: 260 ft\*\*

\* source: ESRI Maps

\*\* source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & aerals](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches) <sup>1</sup>										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.310 (0.245-0.385)	0.363 (0.287-0.452)	0.449 (0.354-0.563)	0.521 (0.408-0.655)	0.620 (0.468-0.809)	0.696 (0.513-0.926)	0.773 (0.550-1.06)	0.854 (0.579-1.21)	0.964 (0.626-1.41)	1.05 (0.664-1.56)
10-min	0.439 (0.347-0.546)	0.514 (0.406-0.640)	0.636 (0.501-0.795)	0.738 (0.578-0.928)	0.878 (0.663-1.15)	0.986 (0.726-1.31)	1.10 (0.779-1.50)	1.21 (0.819-1.71)	1.37 (0.888-2.00)	1.49 (0.941-2.22)
15-min	0.516 (0.408-0.642)	0.605 (0.478-0.753)	0.750 (0.591-0.937)	0.869 (0.680-1.09)	1.03 (0.780-1.35)	1.16 (0.854-1.54)	1.29 (0.916-1.77)	1.42 (0.963-2.01)	1.61 (1.04-2.35)	1.75 (1.11-2.61)
30-min	0.721 (0.571-0.897)	0.845 (0.668-1.05)	1.05 (0.824-1.31)	1.21 (0.950-1.53)	1.44 (1.09-1.89)	1.62 (1.20-2.16)	1.80 (1.28-2.47)	1.99 (1.35-2.81)	2.25 (1.46-3.28)	2.45 (1.55-3.65)
60-min	0.926 (0.733-1.15)	1.08 (0.857-1.35)	1.34 (1.06-1.68)	1.56 (1.22-1.96)	1.86 (1.40-2.42)	2.08 (1.54-2.77)	2.31 (1.65-3.18)	2.56 (1.73-3.61)	2.89 (1.88-4.22)	3.15 (1.99-4.70)
2-hr	1.17 (0.929-1.44)	1.37 (1.09-1.70)	1.71 (1.36-2.12)	1.99 (1.57-2.49)	2.38 (1.81-3.09)	2.67 (1.98-3.54)	2.97 (2.14-4.08)	3.31 (2.25-4.64)	3.78 (2.46-5.49)	4.16 (2.64-6.16)
3-hr	1.33 (1.06-1.63)	1.57 (1.25-1.93)	1.96 (1.56-2.43)	2.29 (1.81-2.84)	2.74 (2.09-3.55)	3.08 (2.30-4.07)	3.43 (2.48-4.70)	3.83 (2.61-5.36)	4.41 (2.88-6.37)	4.88 (3.10-7.19)
6-hr	1.65 (1.33-2.02)	1.96 (1.58-2.40)	2.47 (1.98-3.03)	2.89 (2.30-3.57)	3.47 (2.67-4.48)	3.91 (2.94-5.15)	4.37 (3.18-5.98)	4.91 (3.36-6.82)	5.70 (3.73-8.19)	6.36 (4.06-9.32)
12-hr	2.03 (1.64-2.46)	2.42 (1.97-2.95)	3.08 (2.49-3.76)	3.62 (2.91-4.44)	4.37 (3.38-5.60)	4.92 (3.73-6.45)	5.52 (4.05-7.52)	6.22 (4.27-8.60)	7.29 (4.79-10.4)	8.20 (5.24-11.9)
24-hr	2.39 (1.96-2.88)	2.89 (2.36-3.49)	3.71 (3.02-4.49)	4.38 (3.54-5.34)	5.32 (4.15-6.79)	6.00 (4.59-7.85)	6.75 (5.01-9.19)	7.67 (5.28-10.5)	9.07 (5.98-12.9)	10.3 (6.60-14.9)
2-day	2.71 (2.24-3.25)	3.32 (2.73-3.98)	4.31 (3.53-5.18)	5.13 (4.18-6.21)	6.26 (4.93-7.96)	7.09 (5.46-9.23)	8.00 (5.99-10.9)	9.15 (6.33-12.5)	11.0 (7.24-15.4)	12.5 (8.07-18.0)
3-day	2.95 (2.44-3.52)	3.62 (2.99-4.32)	4.71 (3.88-5.65)	5.62 (4.60-6.77)	6.87 (5.43-8.71)	7.78 (6.03-10.1)	8.80 (6.62-11.9)	10.1 (6.99-13.7)	12.1 (8.04-17.1)	14.0 (9.00-19.9)
4-day	3.16 (2.63-3.77)	3.88 (3.22-4.62)	5.04 (4.17-6.03)	6.01 (4.93-7.23)	7.34 (5.82-9.29)	8.32 (6.46-10.8)	9.40 (7.09-12.7)	10.8 (7.48-14.6)	13.0 (8.62-18.2)	14.9 (9.65-21.3)
7-day	3.77 (3.16-4.47)	4.56 (3.81-5.41)	5.86 (4.87-6.96)	6.93 (5.72-8.28)	8.41 (6.70-10.6)	9.49 (7.39-12.2)	10.7 (8.08-14.4)	12.2 (8.50-16.4)	14.6 (9.70-20.3)	16.7 (10.8-23.6)
10-day	4.40 (3.69-5.19)	5.22 (4.38-6.17)	6.58 (5.49-7.79)	7.70 (6.38-9.17)	9.25 (7.38-11.5)	10.4 (8.10-13.3)	11.6 (8.78-15.5)	13.2 (9.20-17.7)	15.5 (10.4-21.5)	17.6 (11.4-24.8)
20-day	6.37 (5.39-7.46)	7.24 (6.12-8.49)	8.67 (7.29-10.2)	9.86 (8.23-11.7)	11.5 (9.20-14.1)	12.7 (9.92-16.0)	14.0 (10.5-18.2)	15.4 (10.9-20.5)	17.5 (11.7-24.1)	19.2 (12.5-26.9)
30-day	8.02 (6.81-9.35)	8.93 (7.58-10.4)	10.4 (8.80-12.2)	11.6 (9.76-13.7)	13.3 (10.7-16.3)	14.6 (11.4-18.2)	16.0 (11.9-20.5)	17.3 (12.2-22.9)	19.2 (12.9-26.2)	20.6 (13.4-28.8)
45-day	10.0 (8.57-11.7)	11.0 (9.39-12.8)	12.6 (10.7-14.7)	13.9 (11.7-16.3)	15.7 (12.7-19.1)	17.1 (13.4-21.1)	18.5 (13.8-23.5)	19.9 (14.1-26.1)	21.6 (14.6-29.4)	22.8 (14.9-31.7)
60-day	11.7 (10.0-13.6)	12.8 (10.9-14.8)	14.5 (12.3-16.8)	15.9 (13.4-18.6)	17.8 (14.4-21.5)	19.4 (15.2-23.8)	20.8 (15.6-26.3)	22.2 (15.8-29.1)	23.9 (16.2-32.4)	25.0 (16.4-34.7)

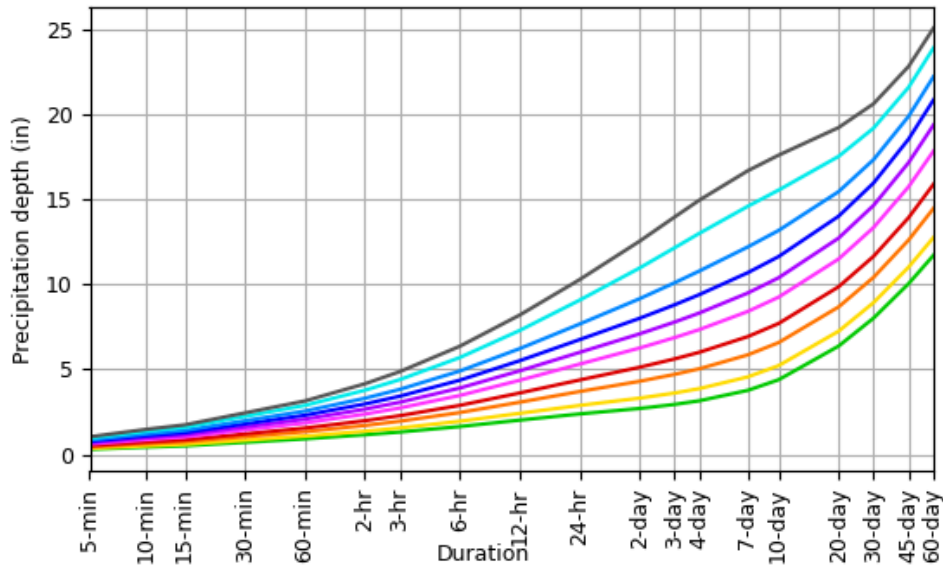
<sup>1</sup> Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

[Back to Top](#)

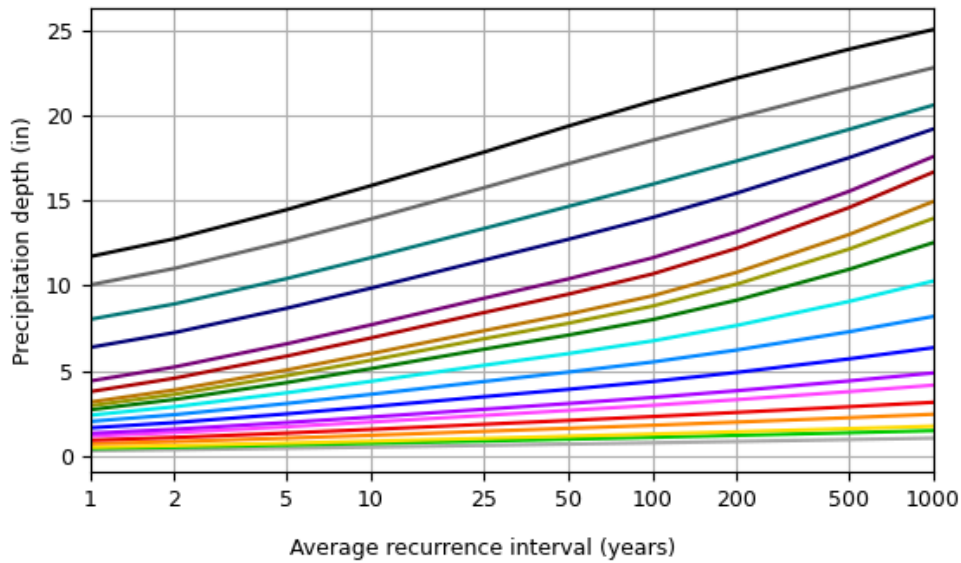
PF graphical



PDS-based depth-duration-frequency (DDF) curves  
Latitude: 42.5877°, Longitude: -72.5576°



Average recurrence interval (years)
1
2
5
10
25
50
100
200
500
1000

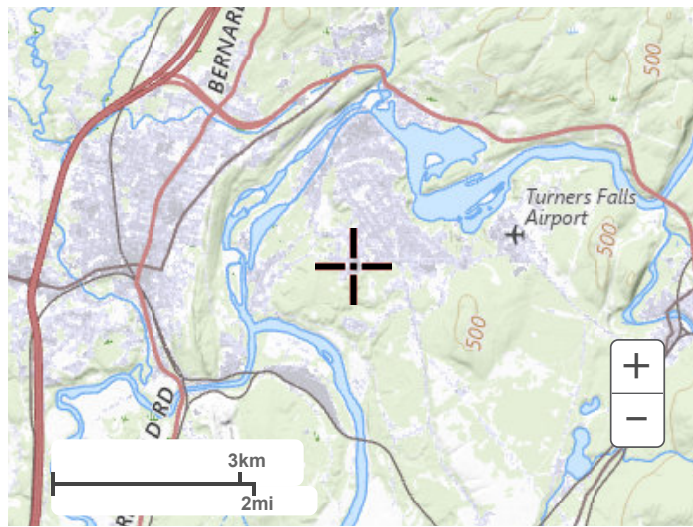


Duration	
5-min	2-day
10-min	3-day
15-min	4-day
30-min	7-day
60-min	10-day
2-hr	20-day
3-hr	30-day
6-hr	45-day
12-hr	60-day
24-hr	

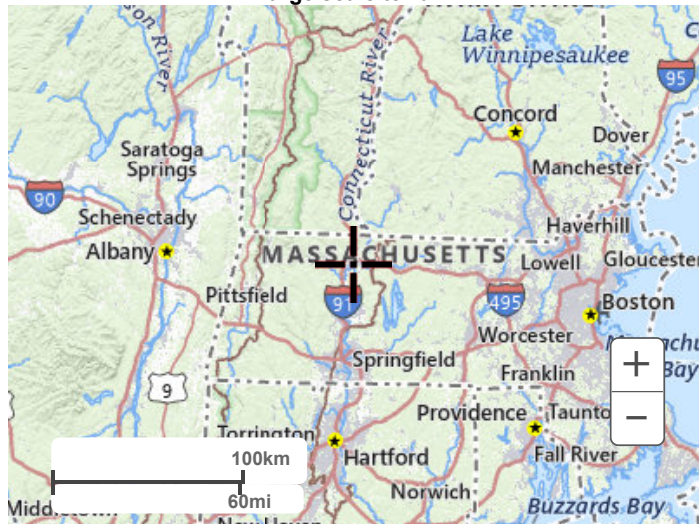
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## Maps & aerials

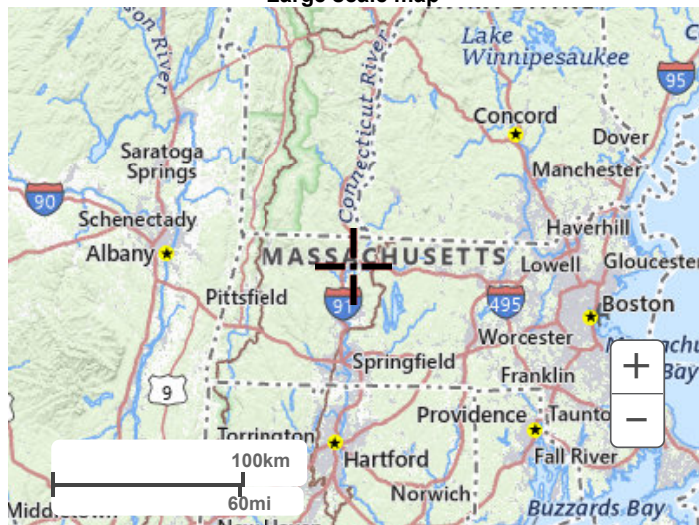
Small scale terrain



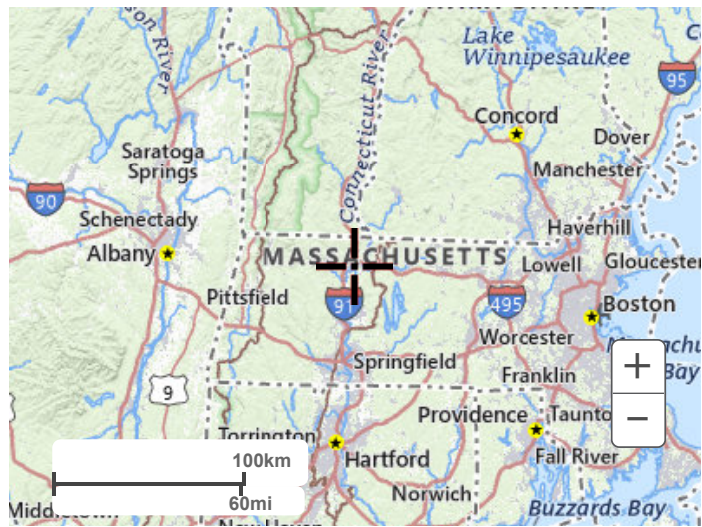
Large scale terrain



Large scale map



Large scale aerial



[Back to Top](#)

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[US Department of Commerce](#)  
[National Oceanic and Atmospheric Administration](#)  
[National Weather Service](#)  
[National Water Center](#)  
1325 East West Highway  
Silver Spring, MD 20910  
Questions?: [HDSC.Questions@noaa.gov](mailto:HDSC.Questions@noaa.gov)

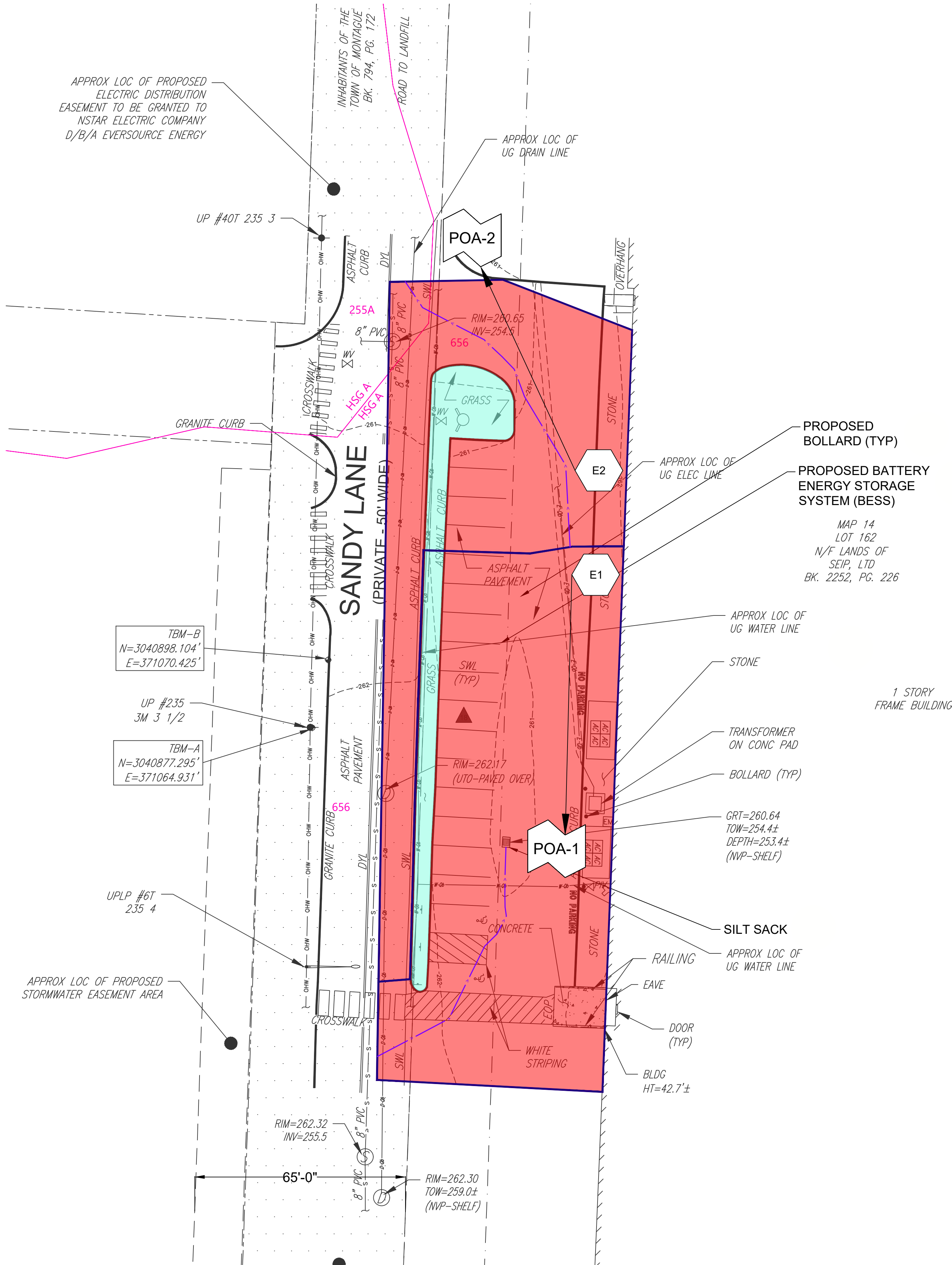
[Disclaimer](#)



Attachment D - Drainage Area Maps & HydroCAD Reports

NRCS SITE SOILS		
Map Unit Symbol	Map Unit Name	HSG
255A	Windsor loamy sand, 0 to 3 percent slopes	A
656	Udorthents, refuse substratum	A

PRE-DEVELOPMENT TO LIST				
Drainage Area	Flow Type	Ground Cover	Length (ft)	Slope
E-1	SHEET	IMPERVIOUS	50	1.00%
	SCF	IMPERVIOUS	32.76	3.36%
E-2	SHEET	IMPERVIOUS	50	0.80%
	SCF	IMPERVIOUS	53	1.32%



NOTES:

- ELECTRICAL DESIGN, INCLUDING UTILITY POLES, PERFORMED BY OTHERS. ELECTRICAL EQUIPMENT AND COMPONENTS SHOWN TO ILLUSTRATE LOCATIONS ONLY. REFER TO ELECTRICAL DRAWINGS FOR DETAILED ELECTRICAL SYSTEM INFORMATION.
- BESS LAYOUT AND CAPACITY ARE SUBJECT TO FINAL DESIGN (BY OTHERS) BUT WILL REMAIN WITHIN THE PROPOSED LIMITS OF WORK.
- NOTHING SHOWN OR OMITTED FROM THE DOCUMENTS PROVIDED SHALL RELIEVE THE CONTRACTOR FROM FULL COMPLIANCE WITH ALL APPLICABLE CODES, REGULATIONS, BYLAWS, AND ORDINANCES.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND PROTECTING ALL EXISTING UTILITY LINES WITHIN OR ADJACENT TO THE CONSTRUCTION AREA. ANY DAMAGE TO EXISTING FACILITIES CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
- ALL WORK SHALL COMPLY WITH THE MASSACHUSETTS BUILDING CODE AND TOWN OF STURBRIDGE BUILDING REQUIREMENTS.

LEGEND:  
EXISTING:

- PROPERTY LINE
- ABUTTER'S PROPERTY LINE
- EASEMENT
- EDGE OF PAVEMENT
- BUILDING
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- OVERHEAD WIRES
- APPROX. LOC. UNDERGROUND SANITARY LINE
- APPROX. LOC. UNDERGROUND DRAINAGE LINE
- APPROX. LOC. UNDERGROUND WATER LINE
- SUBSURFACE UTILITY QUALITY LEVEL B
- DEPRESSED CURB
- STORMWATER BASIN
- WETLAND FLAG WITH IDENTIFIER
- HYDRANT
- FIRE DEPARTMENT CONNECTION
- WATER VALVE
- UTILITY POLE
- SIGN
- SANITARY/SEWER MANHOLE
- DRAINAGE/STORM MANHOLE
- CATCH BASINS
- PARKING SPACE COUNT
- SOLID WHITE LINE
- DOUBLE YELLOW LINE
- PVC
- EDGE OF PAVEMENT
- BOLLARD
- EVIDENCE FOUND
- TOP OF WATER
- ELECTRIC METER

HYDROLOGY:

- TIME OF CONCENTRATION FLOW PATH
- DRAINAGE AREA LABEL
- POINT OF ANALYSIS
- MEADOW
- IMPERVIOUS
- NRCS SOIL BOUNDARY
- NRCS MAP UNITS
- WATERSHED BOUNDARY

Project:  
BATTERY ENERGY STORAGE  
SYSTEM (BESS) DEVELOPMENT

124 TURNPIKE ROAD  
TURNERS FALLS, MA

Weston & Sampson

Weston & Sampson Engineers, Inc.  
55 Walkers Brook Drive, Suite 100  
Reading, MA 01867  
978.532.1900 800.SAMPSON  
www.westonandsampson.com

Applicant:

PEAK  
POWER

PowerBESSCo2, LLC  
444 SOMERVILLE AVE  
SOMERVILLE, MA 02143  
TEL: (857) 895-6389  
https://peakpowerenergy.com


0	05/29/2025	ISSUED FOR PERMITTING
No.	Date	Description

Revisions:

Seal:

Issued For:

PERMITTING

Scale: AS SHOWN

Issued Date: 05/29/2025

Drawn By: BRB

Reviewed By: RJB

Approved By: MRC

W&S Project No.: ENG25-0360  
W&S File No.: Peak Power

Drawing Title:

PRE-DEVELOPMENT  
DRAINAGE  
AREA MAP

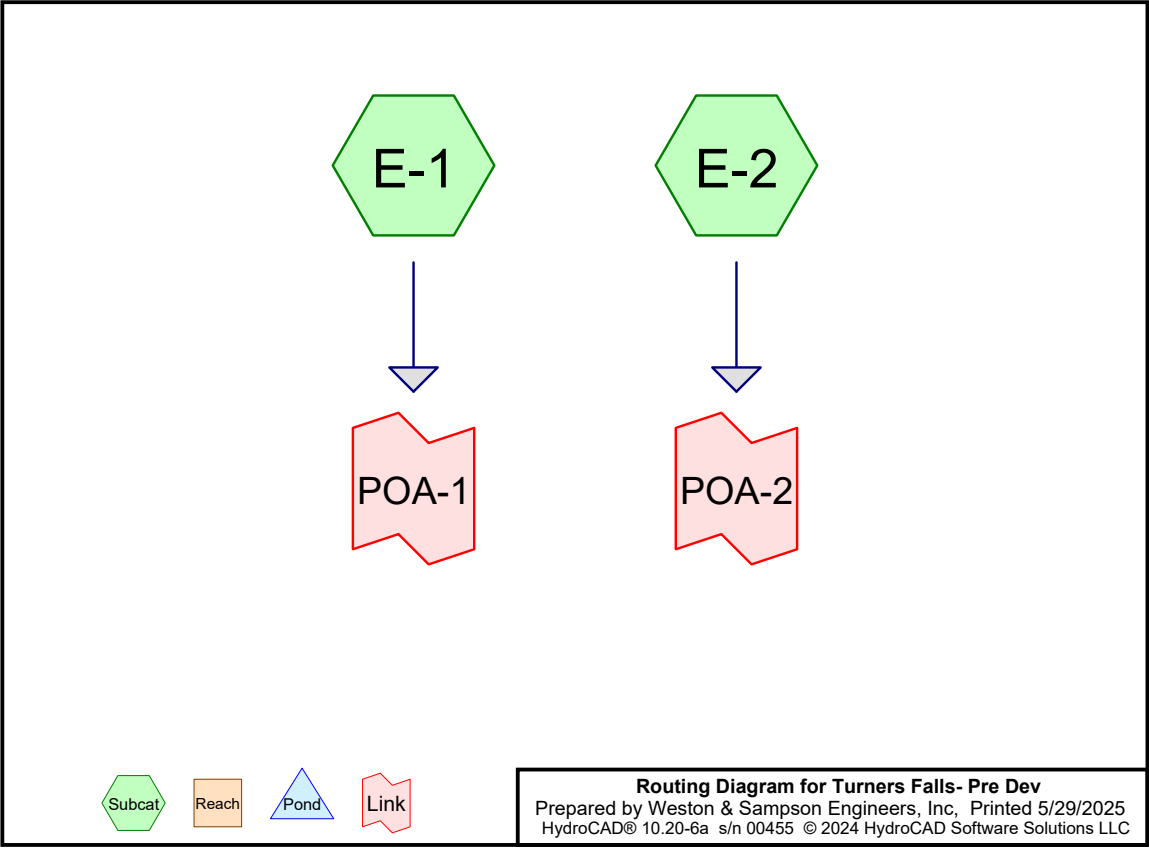
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FIGURE 1

NOT FOR CONSTRUCTION







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**Rainfall Events Listing (selected events)**

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-yr	Type III 24-hr		Default	24.00	1	2.89	2
2	10-yr	Type III 24-hr		Default	24.00	1	4.38	2
3	25-yr	Type III 24-hr		Default	24.00	1	5.32	2
4	100-yr	Type III 24-hr		Default	24.00	1	6.75	2

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.033	30	Meadow, non-grazed, HSG A (E-1, E-2)
0.373	98	Paved parking, HSG A (E-1, E-2)
0.407	92	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.407	HSG A	E-1, E-2
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
0.407		TOTAL AREA



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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.033	0.000	0.000	0.000	0.000	0.033	Meadow, non-grazed	E-1, E-2
0.373	0.000	0.000	0.000	0.000	0.373	Paved parking	E-1, E-2
0.407	0.000	0.000	0.000	0.000	0.407	TOTAL AREA	

Turners Falls- Pre Dev

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Type III 24-hr 2-yr Rainfall=2.89"  
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Page 6

Summary for Subcatchment E-1:

Runoff = 0.57 cfs @ 12.09 hrs, Volume= 0.043 af, Depth> 2.15"  
Routed to Link POA-1 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-yr Rainfall=2.89"

Area (sf)	CN	Description
713	30	Meadow, non-grazed, HSG A
9,712	98	Paved parking, HSG A
10,425	93	Weighted Average
713		6.84% Pervious Area
9,712		93.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	50	0.0100	0.86		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.89"
0.1	33	0.0336	3.72		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.1	83	Total, Increased to minimum Tc = 6.0 min			

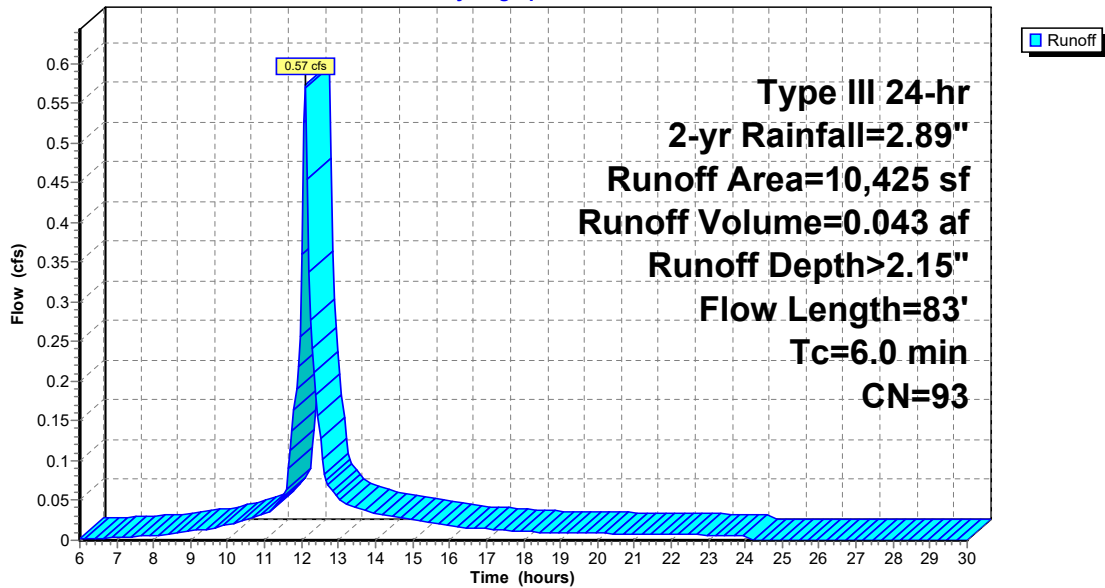
**Turners Falls- Pre Dev**

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Type III 24-hr 2-yr Rainfall=2.89"

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**Subcatchment E-1:****Hydrograph****Turners Falls- Pre Dev**

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Type III 24-hr 2-yr Rainfall=2.89"

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Page 8

**Summary for Subcatchment E-2:**

Runoff = 0.37 cfs @ 12.09 hrs, Volume= 0.027 af, Depth> 1.97"  
Routed to Link POA-2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-yr Rainfall=2.89"

Area (sf)	CN	Description
729	30	Meadow, non-grazed, HSG A
6,556	98	Paved parking, HSG A
7,285	91	Weighted Average
729		10.01% Pervious Area
6,556		89.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	50	0.0080	0.79		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.89"
0.4	53	0.0132	2.33		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.5	103				Total, Increased to minimum Tc = 6.0 min

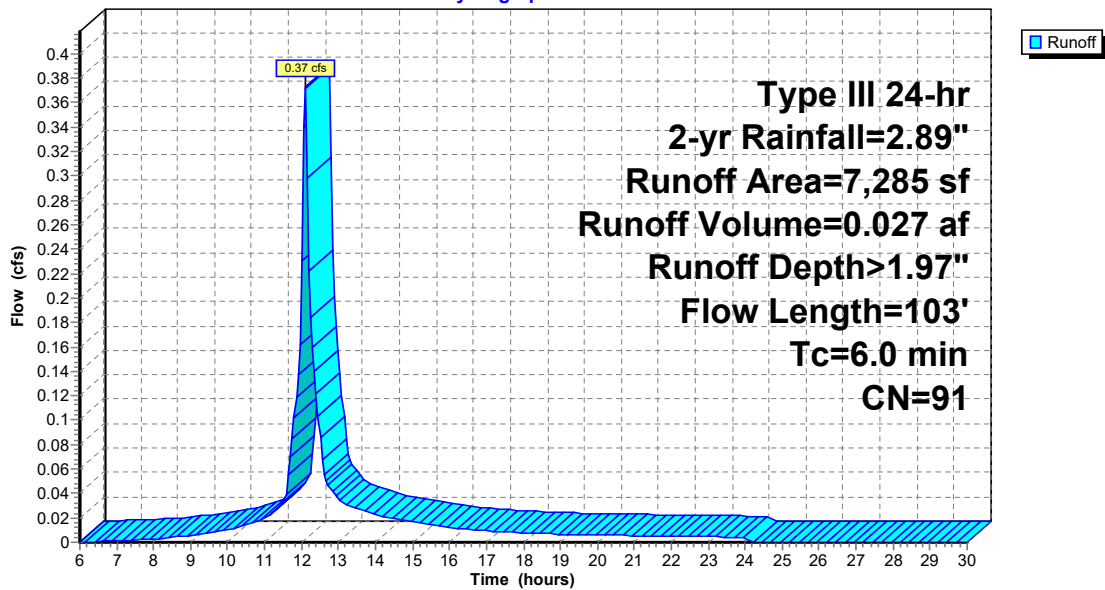
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Type III 24-hr 2-yr Rainfall=2.89"

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**Subcatchment E-2:****Hydrograph****Turners Falls- Pre Dev**

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Type III 24-hr 2-yr Rainfall=2.89"

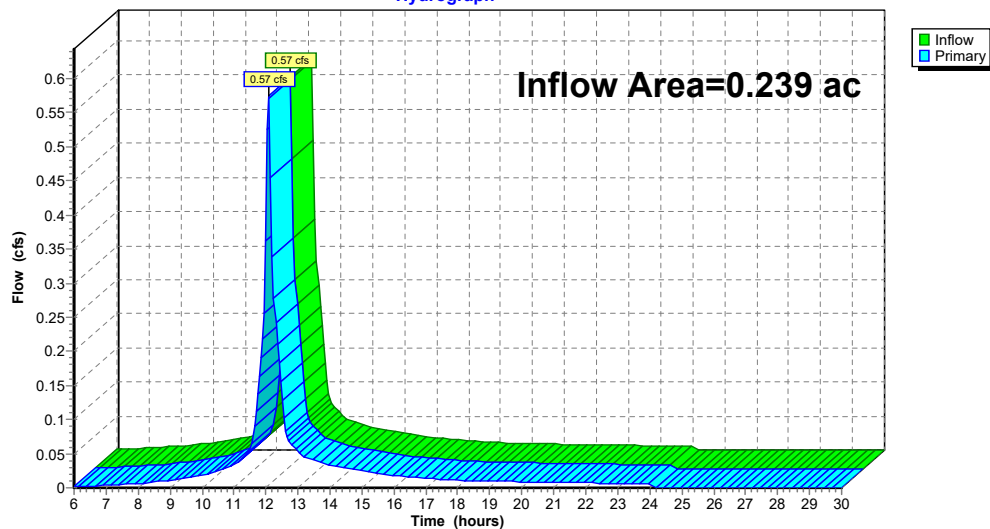
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Page 10

**Summary for Link POA-1:**

Inflow Area = 0.239 ac, 93.16% Impervious, Inflow Depth > 2.15" for 2-yr event  
Inflow = 0.57 cfs @ 12.09 hrs, Volume= 0.043 af  
Primary = 0.57 cfs @ 12.09 hrs, Volume= 0.043 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs

**Link POA-1:****Hydrograph**

**Turners Falls- Pre Dev**

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Type III 24-hr 2-yr Rainfall=2.89"

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Page 11

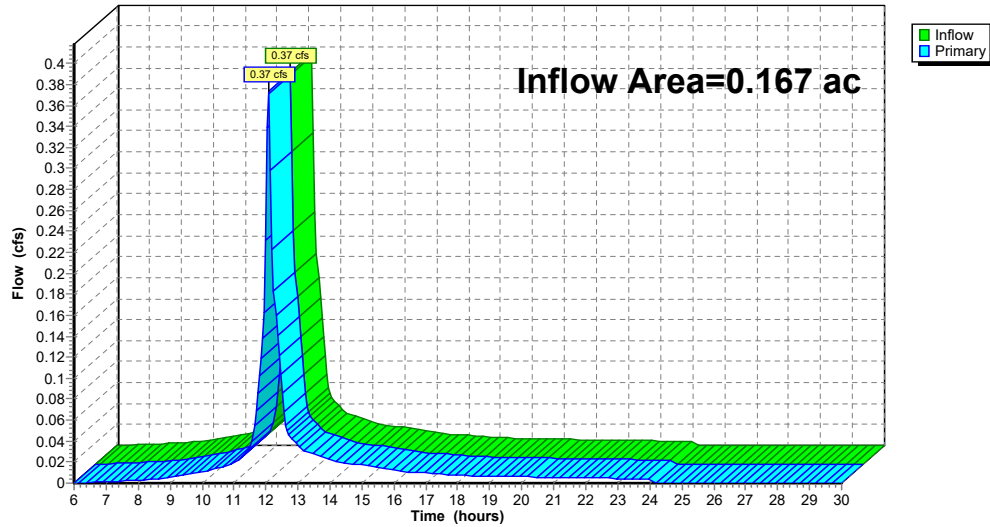
**Summary for Link POA-2:**

Inflow Area = 0.167 ac, 89.99% Impervious, Inflow Depth > 1.97" for 2-yr event  
Inflow = 0.37 cfs @ 12.09 hrs, Volume= 0.027 af  
Primary = 0.37 cfs @ 12.09 hrs, Volume= 0.027 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs

**Link POA-2:**

Hydrograph

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Type III 24-hr 10-yr Rainfall=4.38"

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Page 12

**Summary for Subcatchment E-1:**

Runoff = 0.93 cfs @ 12.09 hrs, Volume= 0.071 af, Depth> 3.56"  
Routed to Link POA-1 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10-yr Rainfall=4.38"

Area (sf)	CN	Description
713	30	Meadow, non-grazed, HSG A
9,712	98	Paved parking, HSG A
10,425	93	Weighted Average
713		6.84% Pervious Area
9,712		93.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	50	0.0100	0.86		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.89"
0.1	33	0.0336	3.72		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.1	83	Total, Increased to minimum Tc = 6.0 min			

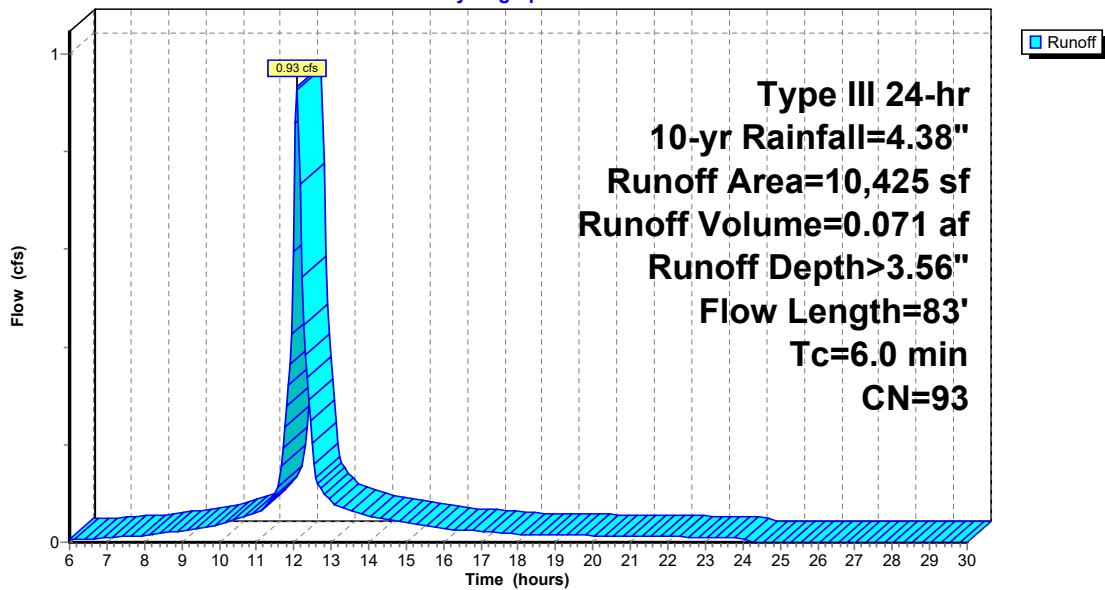
**Turners Falls- Pre Dev**

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Type III 24-hr 10-yr Rainfall=4.38"

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Page 13

**Subcatchment E-1:****Hydrograph****Turners Falls- Pre Dev**

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Type III 24-hr 10-yr Rainfall=4.38"

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Page 14

**Summary for Subcatchment E-2:**

Runoff = 0.63 cfs @ 12.09 hrs, Volume= 0.047 af, Depth> 3.37"  
Routed to Link POA-2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10-yr Rainfall=4.38"

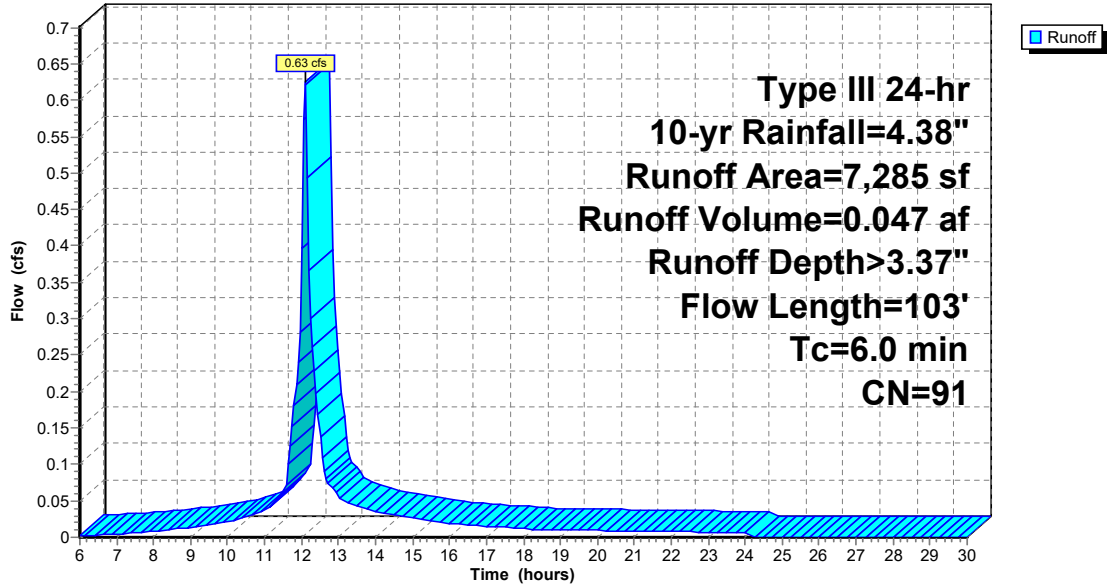
Area (sf)	CN	Description
729	30	Meadow, non-grazed, HSG A
6,556	98	Paved parking, HSG A
7,285	91	Weighted Average
729		10.01% Pervious Area
6,556		89.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	50	0.0080	0.79		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.89"
0.4	53	0.0132	2.33		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.5	103				Total, Increased to minimum Tc = 6.0 min



## Subcatchment E-2:

## Hydrograph



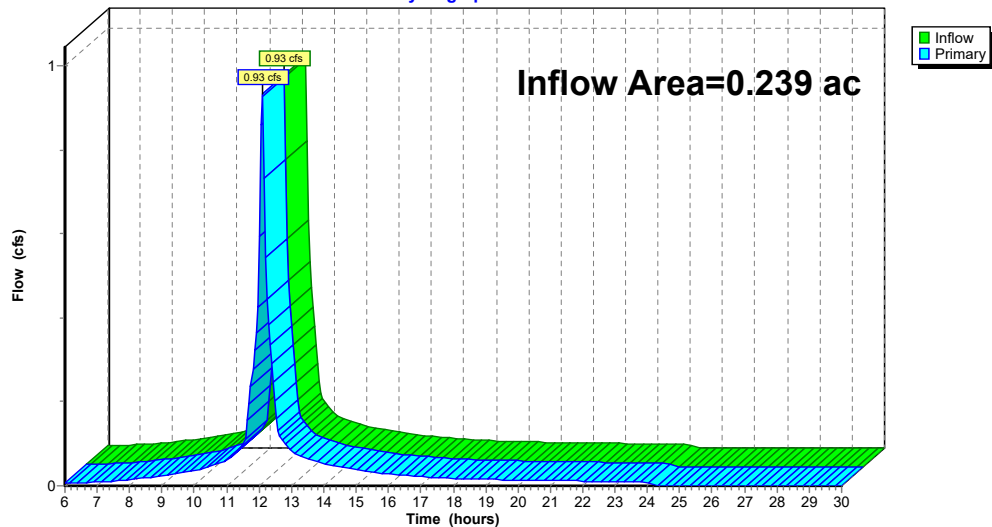
## Summary for Link POA-1:

Inflow Area = 0.239 ac, 93.16% Impervious, Inflow Depth > 3.56" for 10-yr event  
Inflow = 0.93 cfs @ 12.09 hrs, Volume= 0.071 af  
Primary = 0.93 cfs @ 12.09 hrs, Volume= 0.071 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs

## Link POA-1:

## Hydrograph



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Type III 24-hr 10-yr Rainfall=4.38"

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Page 17

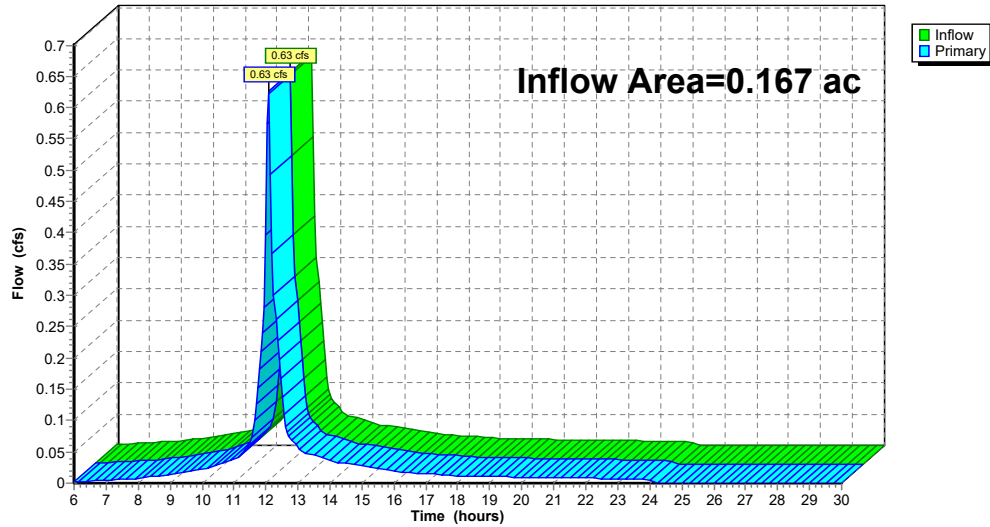
**Summary for Link POA-2:**

Inflow Area = 0.167 ac, 89.99% Impervious, Inflow Depth > 3.37" for 10-yr event  
Inflow = 0.63 cfs @ 12.09 hrs, Volume= 0.047 af  
Primary = 0.63 cfs @ 12.09 hrs, Volume= 0.047 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs

**Link POA-2:**

Hydrograph

**Turners Falls- Pre Dev**

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Type III 24-hr 25-yr Rainfall=5.32"

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Page 18

**Summary for Subcatchment E-1:**

Runoff = 1.16 cfs @ 12.09 hrs, Volume= 0.089 af, Depth> 4.46"  
Routed to Link POA-1 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25-yr Rainfall=5.32"

Area (sf)	CN	Description
713	30	Meadow, non-grazed, HSG A
9,712	98	Paved parking, HSG A
10,425	93	Weighted Average
713		6.84% Pervious Area
9,712		93.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	50	0.0100	0.86		<b>Sheet Flow,</b> Smooth surfaces n= 0.011 P2= 2.89" <b>Shallow Concentrated Flow,</b> Paved Kv= 20.3 fps
0.1	33	0.0336	3.72		
1.1	83	Total, Increased to minimum Tc = 6.0 min			

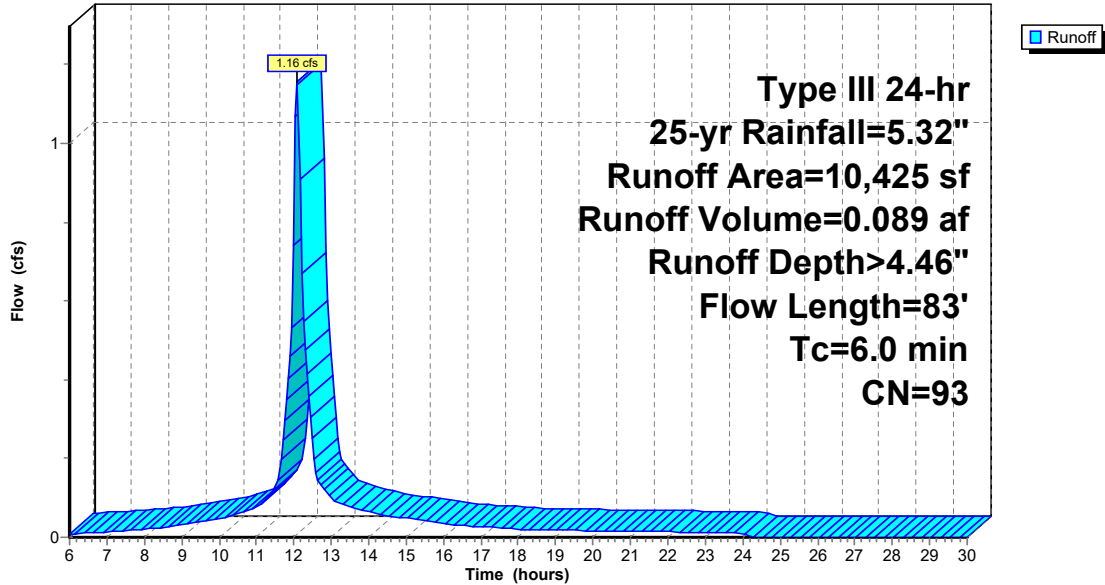
**Turners Falls- Pre Dev**

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Type III 24-hr 25-yr Rainfall=5.32"

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Page 19

**Subcatchment E-1:****Hydrograph****Turners Falls- Pre Dev**

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Type III 24-hr 25-yr Rainfall=5.32"

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Page 20

**Summary for Subcatchment E-2:**

Runoff = 0.78 cfs @ 12.09 hrs, Volume= 0.059 af, Depth> 4.27"  
Routed to Link POA-2 :

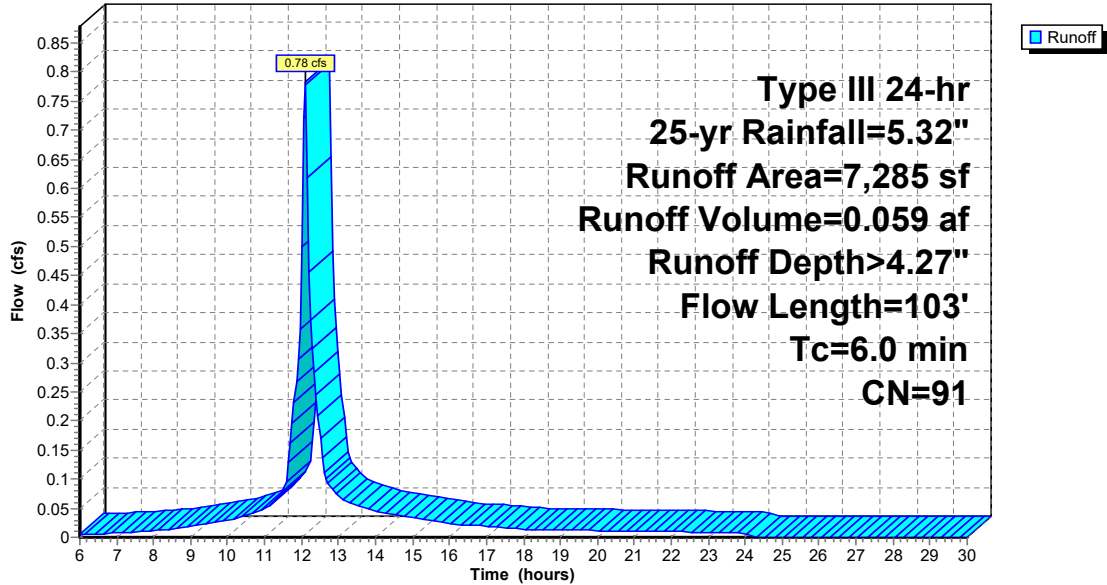
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25-yr Rainfall=5.32"

Area (sf)	CN	Description
729	30	Meadow, non-grazed, HSG A
6,556	98	Paved parking, HSG A
7,285	91	Weighted Average
729		10.01% Pervious Area
6,556		89.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	50	0.0080	0.79		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.89"
0.4	53	0.0132	2.33		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.5	103				Total, Increased to minimum Tc = 6.0 min

## Subcatchment E-2:

## Hydrograph



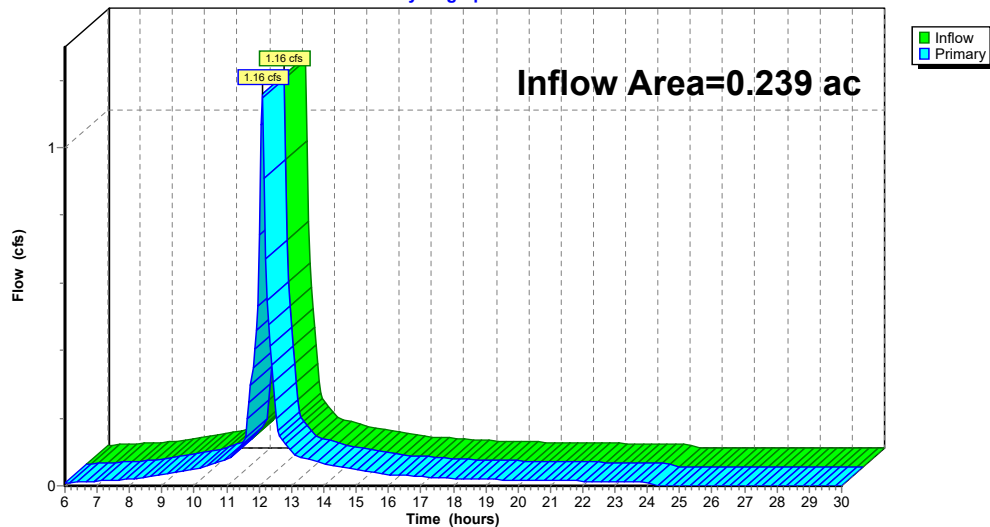
## Summary for Link POA-1:

Inflow Area = 0.239 ac, 93.16% Impervious, Inflow Depth > 4.46" for 25-yr event  
Inflow = 1.16 cfs @ 12.09 hrs, Volume= 0.089 af  
Primary = 1.16 cfs @ 12.09 hrs, Volume= 0.089 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs

## Link POA-1:

## Hydrograph



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Type III 24-hr 25-yr Rainfall=5.32"

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Page 23

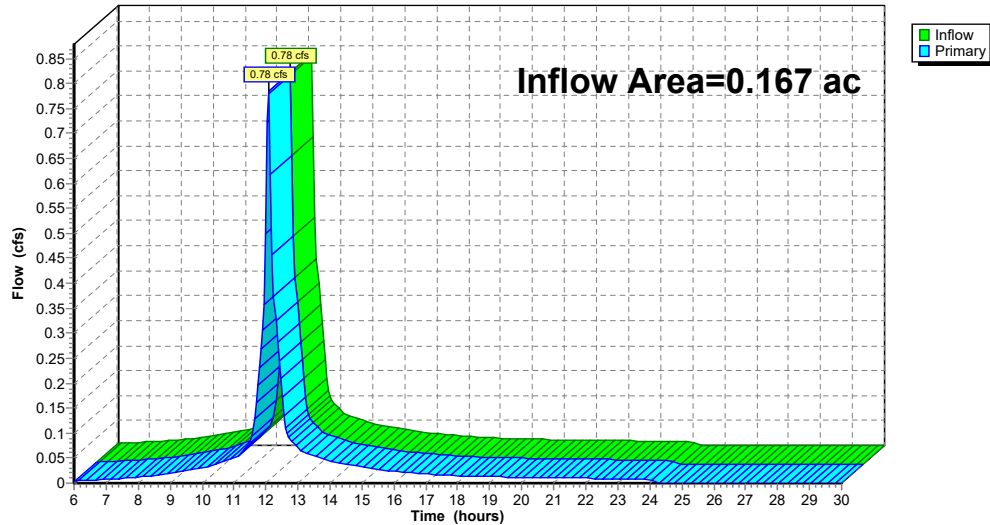
**Summary for Link POA-2:**

Inflow Area = 0.167 ac, 89.99% Impervious, Inflow Depth > 4.27" for 25-yr event  
Inflow = 0.78 cfs @ 12.09 hrs, Volume= 0.059 af  
Primary = 0.78 cfs @ 12.09 hrs, Volume= 0.059 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs

**Link POA-2:**

Hydrograph

**Turners Falls- Pre Dev**

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Type III 24-hr 100-yr Rainfall=6.75"

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Page 24

**Summary for Subcatchment E-1:**

Runoff = 1.50 cfs @ 12.09 hrs, Volume= 0.116 af, Depth> 5.83"  
Routed to Link POA-1 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100-yr Rainfall=6.75"

Area (sf)	CN	Description
713	30	Meadow, non-grazed, HSG A
9,712	98	Paved parking, HSG A
10,425	93	Weighted Average
713		6.84% Pervious Area
9,712		93.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	50	0.0100	0.86		<b>Sheet Flow,</b> Smooth surfaces n= 0.011 P2= 2.89" <b>Shallow Concentrated Flow,</b> Paved Kv= 20.3 fps
0.1	33	0.0336	3.72		
1.1	83	Total, Increased to minimum Tc = 6.0 min			



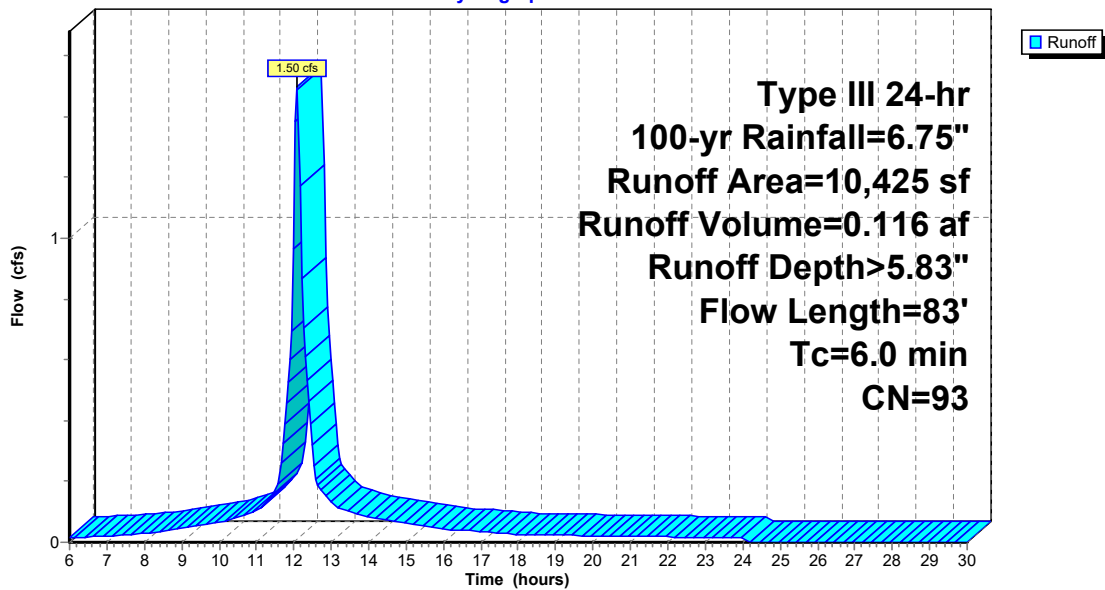
**Turners Falls- Pre Dev**

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Type III 24-hr 100-yr Rainfall=6.75"

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Page 25

**Subcatchment E-1:****Hydrograph****Turners Falls- Pre Dev**

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Type III 24-hr 100-yr Rainfall=6.75"

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Page 26

**Summary for Subcatchment E-2:**

Runoff = 1.02 cfs @ 12.09 hrs, Volume= 0.079 af, Depth> 5.63"  
Routed to Link POA-2 :

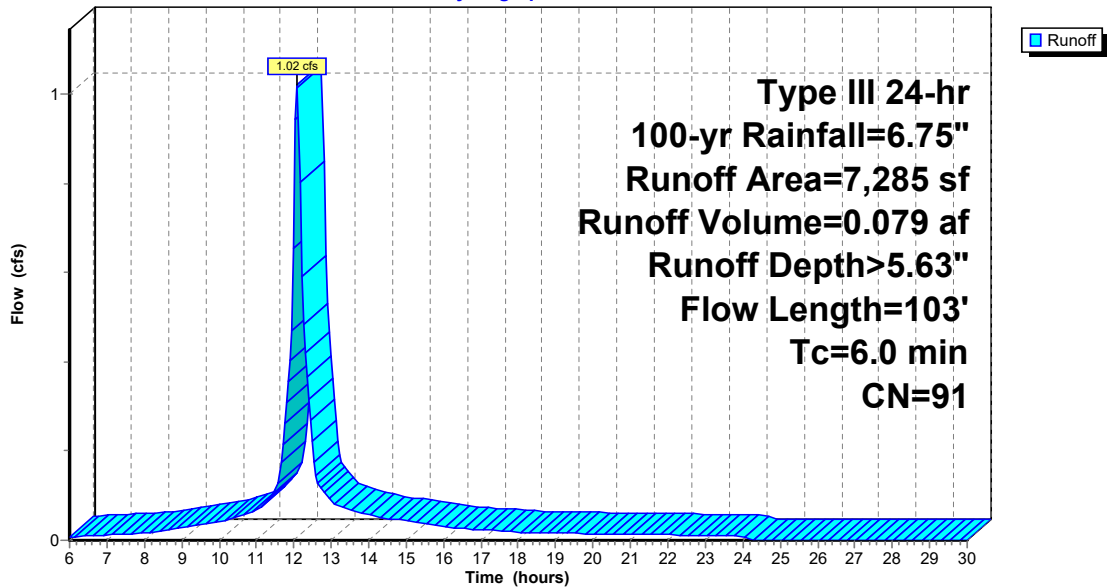
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100-yr Rainfall=6.75"

Area (sf)	CN	Description
729	30	Meadow, non-grazed, HSG A
6,556	98	Paved parking, HSG A
7,285	91	Weighted Average
729		10.01% Pervious Area
6,556		89.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	50	0.0080	0.79		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.89"
0.4	53	0.0132	2.33		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.5	103				Total, Increased to minimum Tc = 6.0 min

## Subcatchment E-2:

## Hydrograph



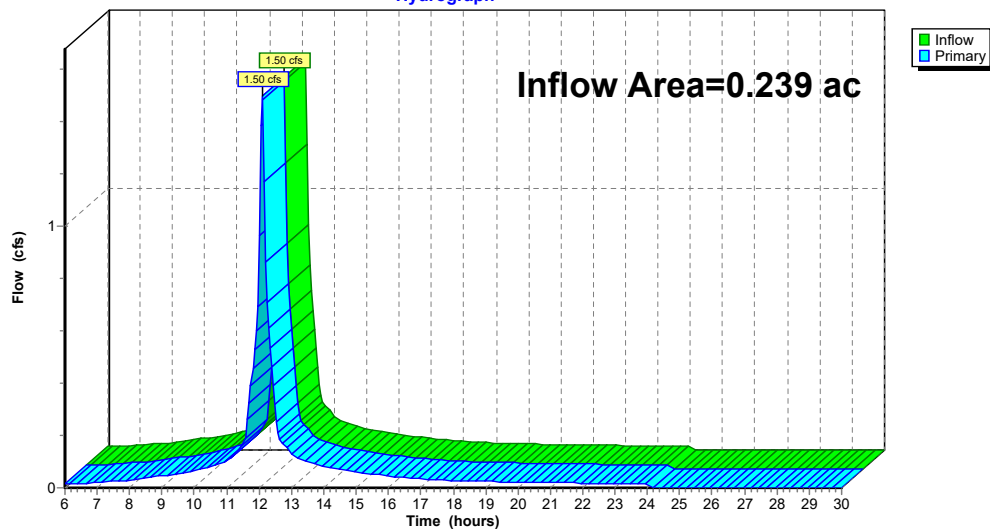
## Summary for Link POA-1:

Inflow Area = 0.239 ac, 93.16% Impervious, Inflow Depth > 5.83" for 100-yr event  
Inflow = 1.50 cfs @ 12.09 hrs, Volume= 0.116 af  
Primary = 1.50 cfs @ 12.09 hrs, Volume= 0.116 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs

## Link POA-1:

## Hydrograph



# Turners Falls- Pre Dev

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Type III 24-hr 100-yr Rainfall=6.75"

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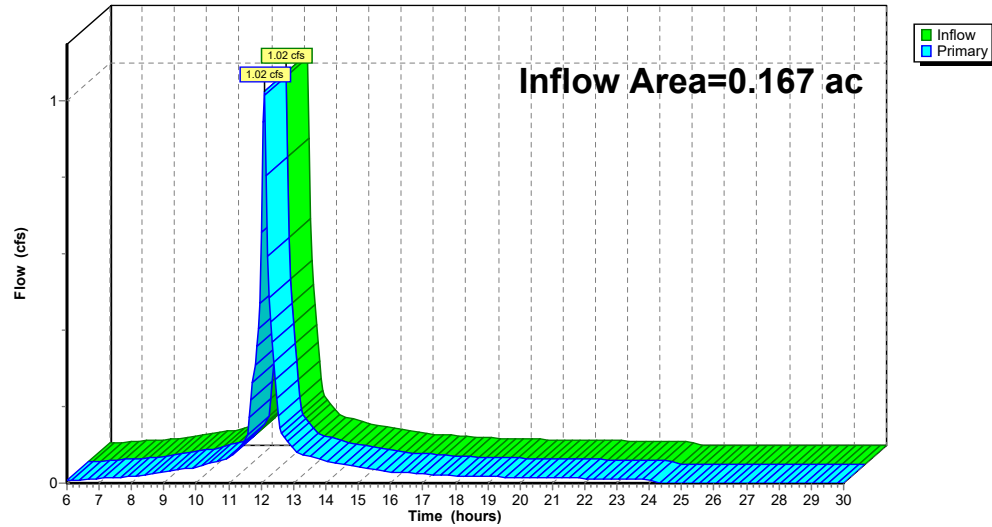
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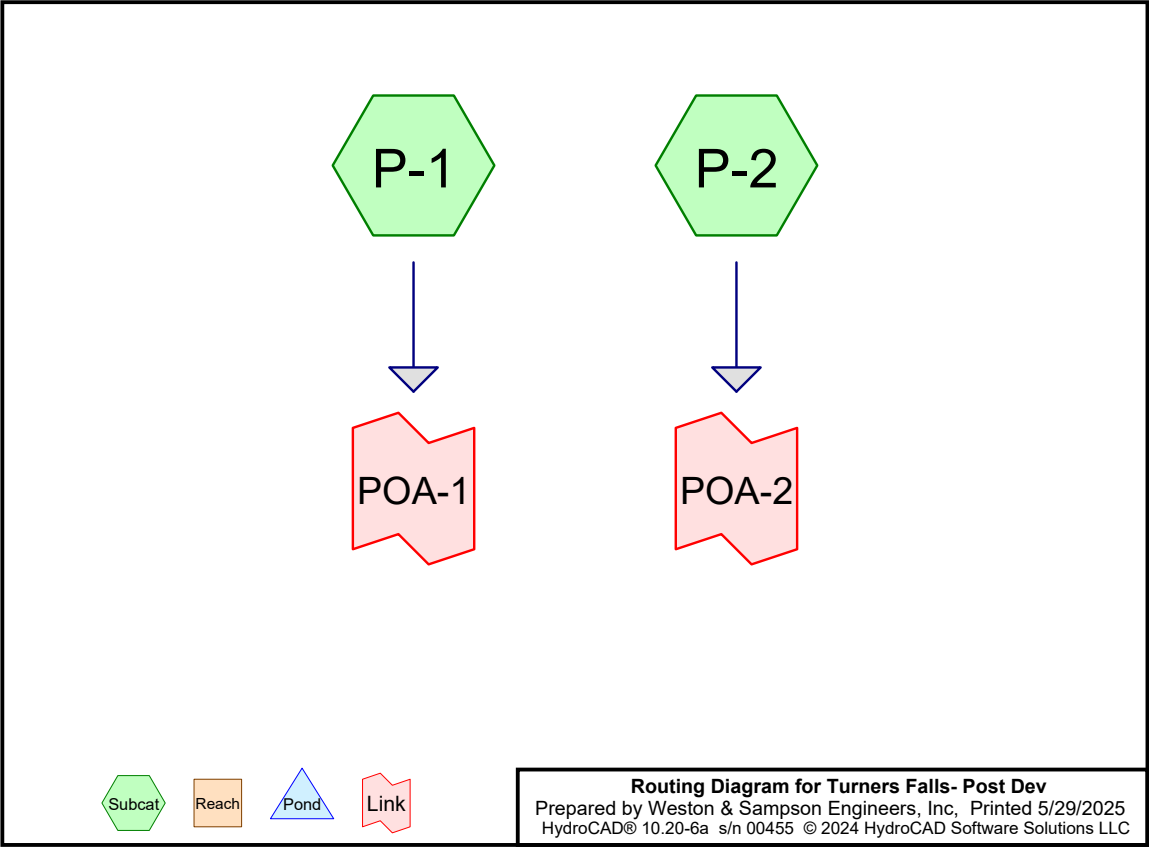
Inflow Area = 0.167 ac, 89.99% Impervious, Inflow Depth > 5.63" for 100-yr event  
Inflow = 1.02 cfs @ 12.09 hrs, Volume= 0.079 af  
Primary = 1.02 cfs @ 12.09 hrs, Volume= 0.079 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs

## Link POA-2:

Hydrograph





**Turners Falls- Post Dev**

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**Rainfall Events Listing (selected events)**

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-yr	Type III 24-hr		Default	24.00	1	2.89	2
2	10-yr	Type III 24-hr		Default	24.00	1	4.38	2
3	25-yr	Type III 24-hr		Default	24.00	1	5.32	2
4	100-yr	Type III 24-hr		Default	24.00	1	6.75	2

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.033	30	Meadow, non-grazed, HSG A (P-1, P-2)
0.373	98	Paved parking, HSG A (P-1, P-2)
0.000	98	Unconnected pavement, HSG A (P-1)
0.407	93	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.407	HSG A	P-1, P-2
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
0.407		TOTAL AREA



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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.033	0.000	0.000	0.000	0.000	0.033	Meadow, non-grazed	P-1, P-2
0.373	0.000	0.000	0.000	0.000	0.373	Paved parking	P-1, P-2
0.000	0.000	0.000	0.000	0.000	0.000	Unconnected pavement	P-1
0.407	0.000	0.000	0.000	0.000	0.407	TOTAL AREA	

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Type III 24-hr 2-yr Rainfall=2.89"  
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Summary for Subcatchment P-1:

Runoff = 0.57 cfs @ 12.09 hrs, Volume= 0.043 af, Depth> 2.15"  
Routed to Link POA-1 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-yr Rainfall=2.89"

Area (sf)	CN	Description
699	30	Meadow, non-grazed, HSG A
9,712	98	Paved parking, HSG A
14	98	Unconnected pavement, HSG A
10,425	93	Weighted Average
699		6.71% Pervious Area
9,726		93.29% Impervious Area
14		0.14% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	50	0.0100	0.86		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.89"
0.1	33	0.0336	3.72		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.1	83				Total, Increased to minimum Tc = 6.0 min

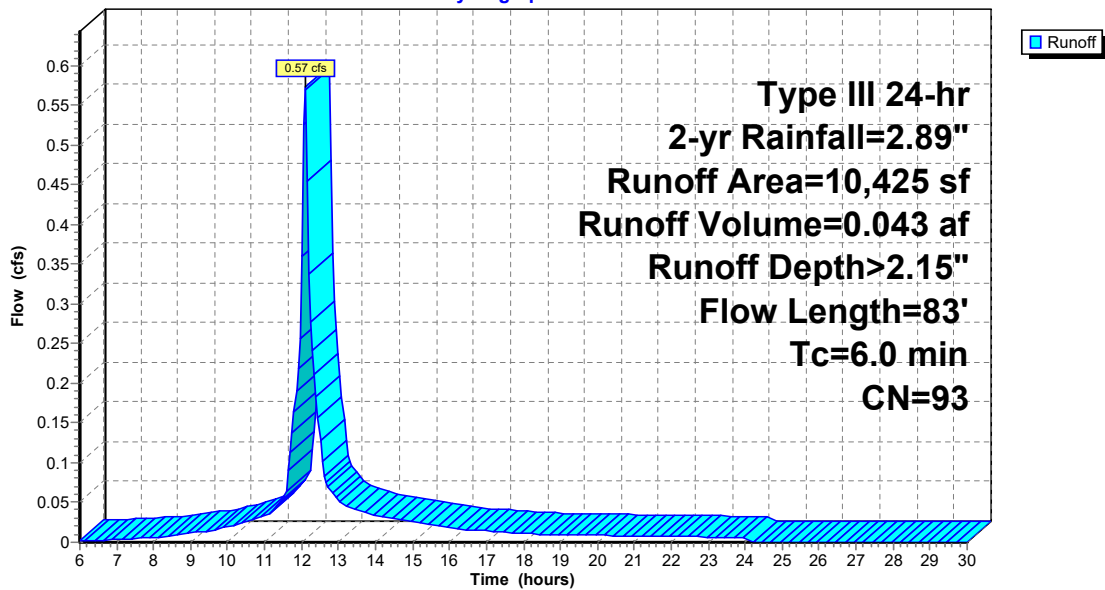
**Turners Falls- Post Dev**

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Type III 24-hr 2-yr Rainfall=2.89"

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Page 7

**Subcatchment P-1:****Hydrograph****Turners Falls- Post Dev**

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Type III 24-hr 2-yr Rainfall=2.89"

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Page 8

**Summary for Subcatchment P-2:**

Runoff = 0.37 cfs @ 12.09 hrs, Volume= 0.027 af, Depth> 1.97"  
Routed to Link POA-2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2-yr Rainfall=2.89"

Area (sf)	CN	Description
729	30	Meadow, non-grazed, HSG A
6,556	98	Paved parking, HSG A
7,285	91	Weighted Average
729		10.01% Pervious Area
6,556		89.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	50	0.0080	0.79		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.89"
0.4	53	0.0132	2.33		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.5	103				Total, Increased to minimum Tc = 6.0 min

# Turners Falls- Post Dev

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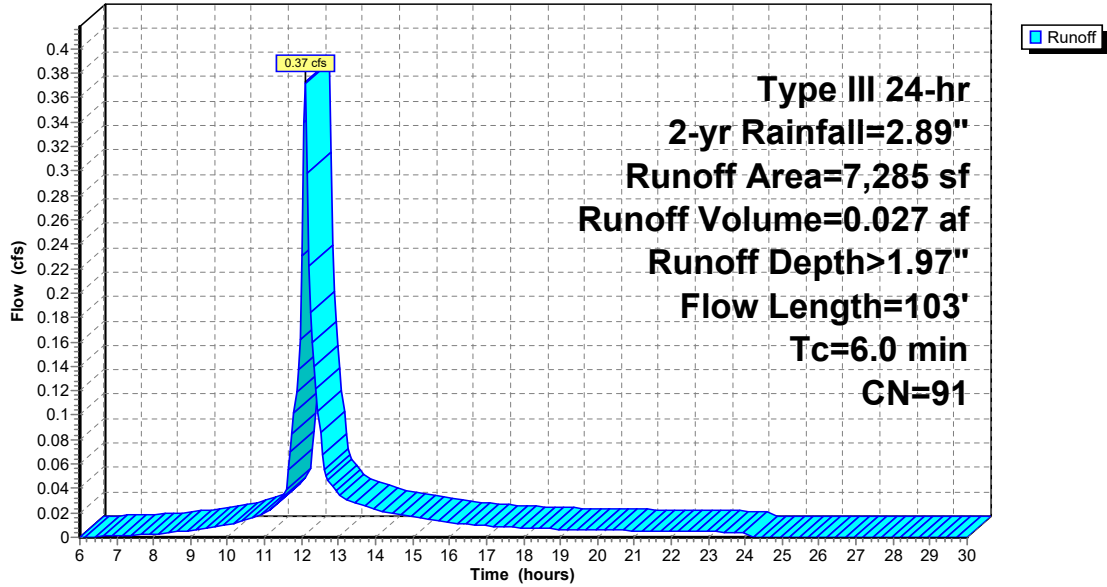
Type III 24-hr 2-yr Rainfall=2.89"

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Page 9

## Subcatchment P-2:

### Hydrograph



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Page 10

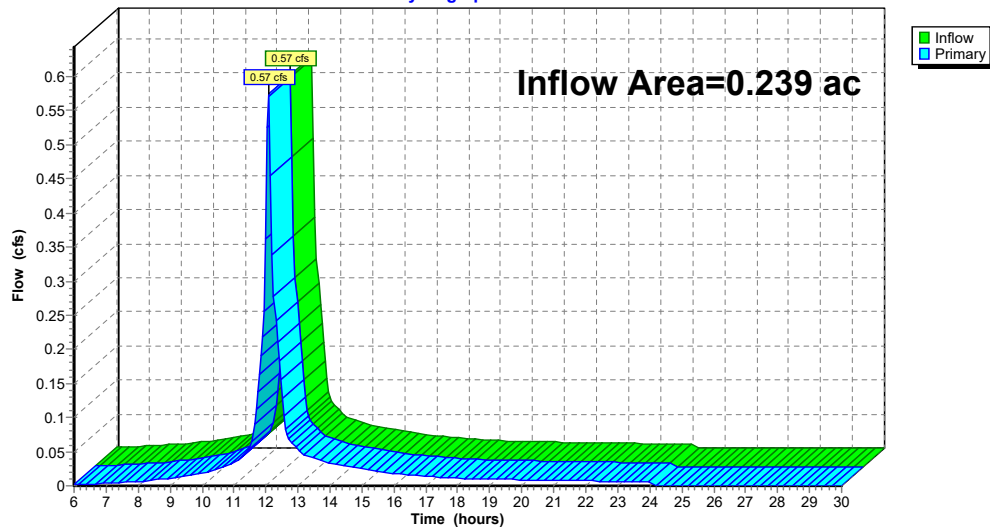
## Summary for Link POA-1:

Inflow Area = 0.239 ac, 93.29% Impervious, Inflow Depth > 2.15" for 2-yr event  
Inflow = 0.57 cfs @ 12.09 hrs, Volume= 0.043 af  
Primary = 0.57 cfs @ 12.09 hrs, Volume= 0.043 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs

## Link POA-1:

### Hydrograph



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Type III 24-hr 2-yr Rainfall=2.89"

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Page 11

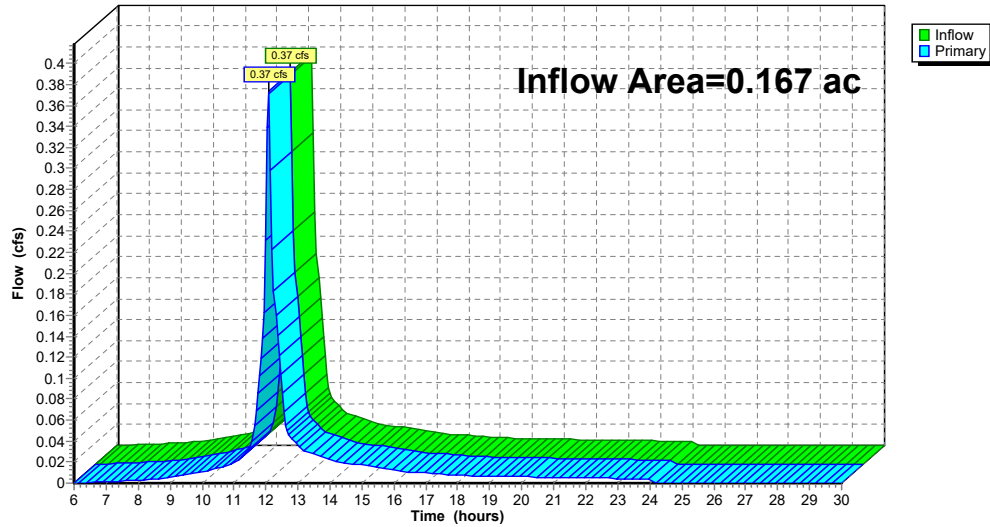
**Summary for Link POA-2:**

Inflow Area = 0.167 ac, 89.99% Impervious, Inflow Depth > 1.97" for 2-yr event  
Inflow = 0.37 cfs @ 12.09 hrs, Volume= 0.027 af  
Primary = 0.37 cfs @ 12.09 hrs, Volume= 0.027 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs

**Link POA-2:**

Hydrograph

**Turners Falls- Post Dev**

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Type III 24-hr 10-yr Rainfall=4.38"

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Page 12

**Summary for Subcatchment P-1:**

Runoff = 0.93 cfs @ 12.09 hrs, Volume= 0.071 af, Depth> 3.56"  
Routed to Link POA-1 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10-yr Rainfall=4.38"

Area (sf)	CN	Description
699	30	Meadow, non-grazed, HSG A
9,712	98	Paved parking, HSG A
14	98	Unconnected pavement, HSG A
10,425	93	Weighted Average
699		6.71% Pervious Area
9,726		93.29% Impervious Area
14		0.14% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	50	0.0100	0.86		<b>Sheet Flow,</b> Smooth surfaces n= 0.011 P2= 2.89"
0.1	33	0.0336	3.72		<b>Shallow Concentrated Flow,</b> Paved Kv= 20.3 fps
1.1	83				Total, Increased to minimum Tc = 6.0 min

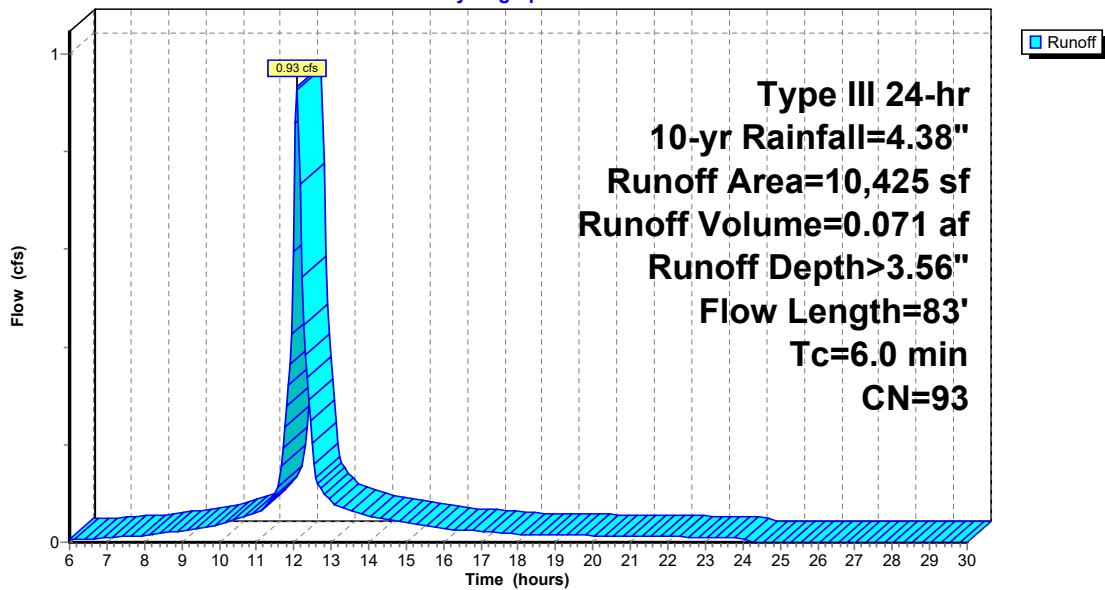
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Type III 24-hr 10-yr Rainfall=4.38"

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Page 13

**Subcatchment P-1:****Hydrograph****Turners Falls- Post Dev**

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Type III 24-hr 10-yr Rainfall=4.38"

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Page 14

**Summary for Subcatchment P-2:**

Runoff = 0.63 cfs @ 12.09 hrs, Volume= 0.047 af, Depth> 3.37"  
Routed to Link POA-2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10-yr Rainfall=4.38"

Area (sf)	CN	Description
729	30	Meadow, non-grazed, HSG A
6,556	98	Paved parking, HSG A
7,285	91	Weighted Average
729		10.01% Pervious Area
6,556		89.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	50	0.0080	0.79		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.89"
0.4	53	0.0132	2.33		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.5	103				Total, Increased to minimum Tc = 6.0 min



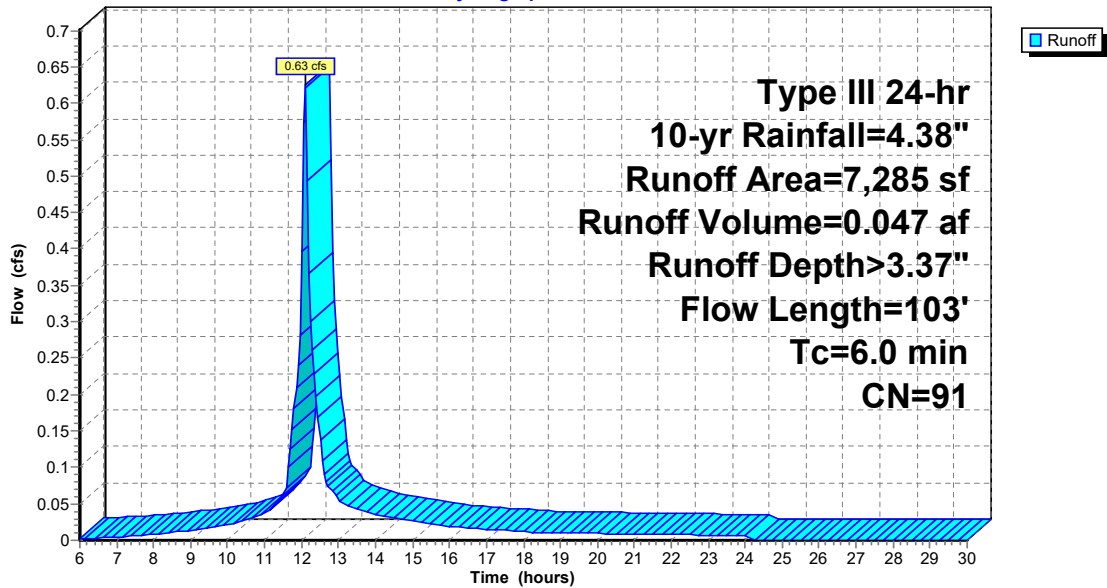
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Type III 24-hr 10-yr Rainfall=4.38"

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Page 15

**Subcatchment P-2:****Hydrograph****Turners Falls- Post Dev**

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Type III 24-hr 10-yr Rainfall=4.38"

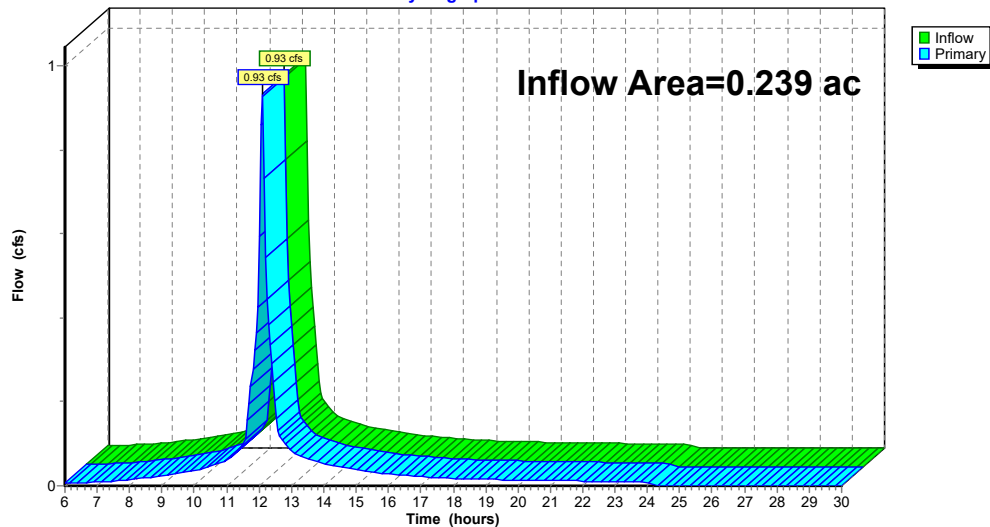
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Page 16

**Summary for Link POA-1:**

Inflow Area = 0.239 ac, 93.29% Impervious, Inflow Depth > 3.56" for 10-yr event  
Inflow = 0.93 cfs @ 12.09 hrs, Volume= 0.071 af  
Primary = 0.93 cfs @ 12.09 hrs, Volume= 0.071 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs

**Link POA-1:****Hydrograph**

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Type III 24-hr 10-yr Rainfall=4.38"

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Page 17

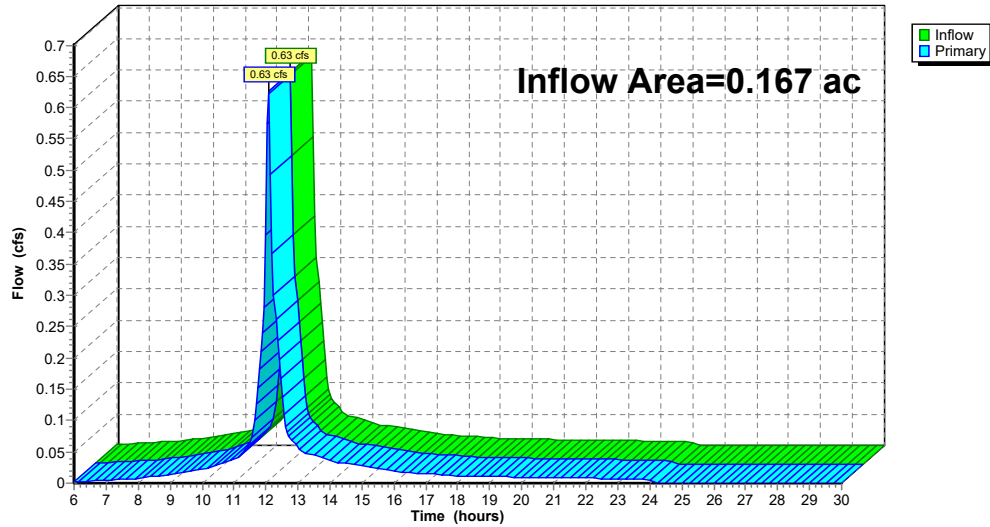
**Summary for Link POA-2:**

Inflow Area = 0.167 ac, 89.99% Impervious, Inflow Depth > 3.37" for 10-yr event  
Inflow = 0.63 cfs @ 12.09 hrs, Volume= 0.047 af  
Primary = 0.63 cfs @ 12.09 hrs, Volume= 0.047 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs

**Link POA-2:**

Hydrograph

**Turners Falls- Post Dev**

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Type III 24-hr 25-yr Rainfall=5.32"

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Page 18

**Summary for Subcatchment P-1:**

Runoff = 1.16 cfs @ 12.09 hrs, Volume= 0.089 af, Depth> 4.46"  
Routed to Link POA-1 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25-yr Rainfall=5.32"

Area (sf)	CN	Description
699	30	Meadow, non-grazed, HSG A
9,712	98	Paved parking, HSG A
14	98	Unconnected pavement, HSG A
10,425	93	Weighted Average
699		6.71% Pervious Area
9,726		93.29% Impervious Area
14		0.14% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	50	0.0100	0.86		<b>Sheet Flow,</b> Smooth surfaces n= 0.011 P2= 2.89"
0.1	33	0.0336	3.72		<b>Shallow Concentrated Flow,</b> Paved Kv= 20.3 fps
1.1	83				Total, Increased to minimum Tc = 6.0 min

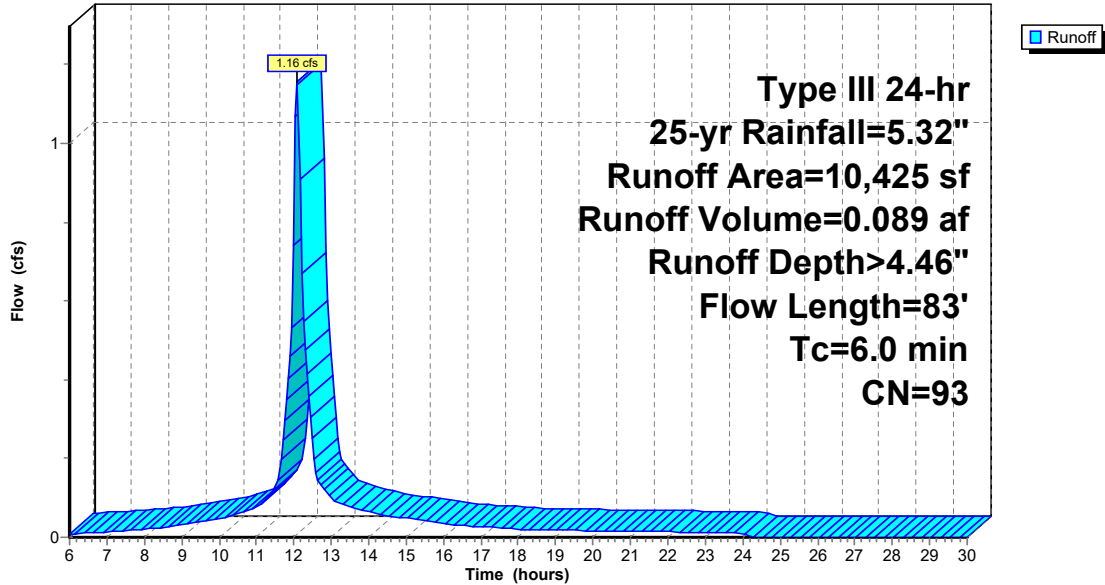
**Turners Falls- Post Dev**

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Type III 24-hr 25-yr Rainfall=5.32"

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Page 19

**Subcatchment P-1:****Hydrograph****Turners Falls- Post Dev**

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Type III 24-hr 25-yr Rainfall=5.32"

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Page 20

**Summary for Subcatchment P-2:**

Runoff = 0.78 cfs @ 12.09 hrs, Volume= 0.059 af, Depth> 4.27"  
Routed to Link POA-2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25-yr Rainfall=5.32"

Area (sf)	CN	Description
729	30	Meadow, non-grazed, HSG A
6,556	98	Paved parking, HSG A
7,285	91	Weighted Average
729		10.01% Pervious Area
6,556		89.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	50	0.0080	0.79		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.89"
0.4	53	0.0132	2.33		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.5	103				Total, Increased to minimum Tc = 6.0 min

# Turners Falls- Post Dev

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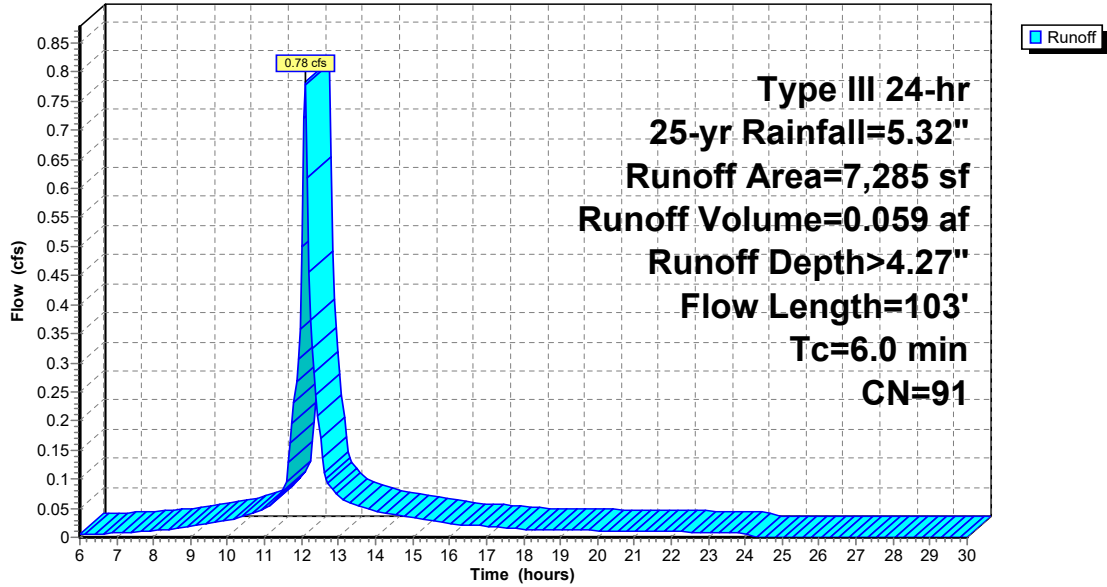
Type III 24-hr 25-yr Rainfall=5.32"

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Page 21

## Subcatchment P-2:

### Hydrograph



# Turners Falls- Post Dev

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Type III 24-hr 25-yr Rainfall=5.32"

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Page 22

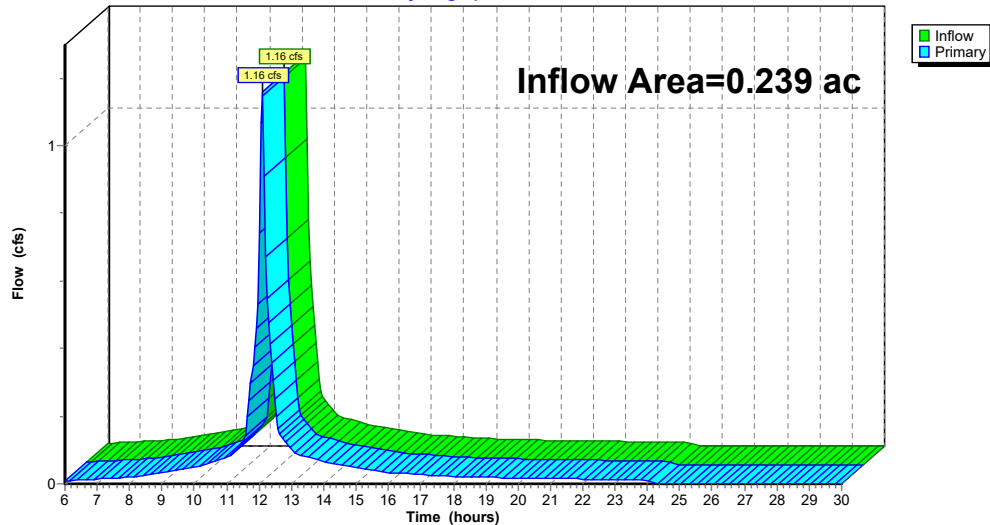
## Summary for Link POA-1:

Inflow Area = 0.239 ac, 93.29% Impervious, Inflow Depth > 4.46" for 25-yr event  
Inflow = 1.16 cfs @ 12.09 hrs, Volume= 0.089 af  
Primary = 1.16 cfs @ 12.09 hrs, Volume= 0.089 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs

## Link POA-1:

### Hydrograph





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Type III 24-hr 25-yr Rainfall=5.32"

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Page 23

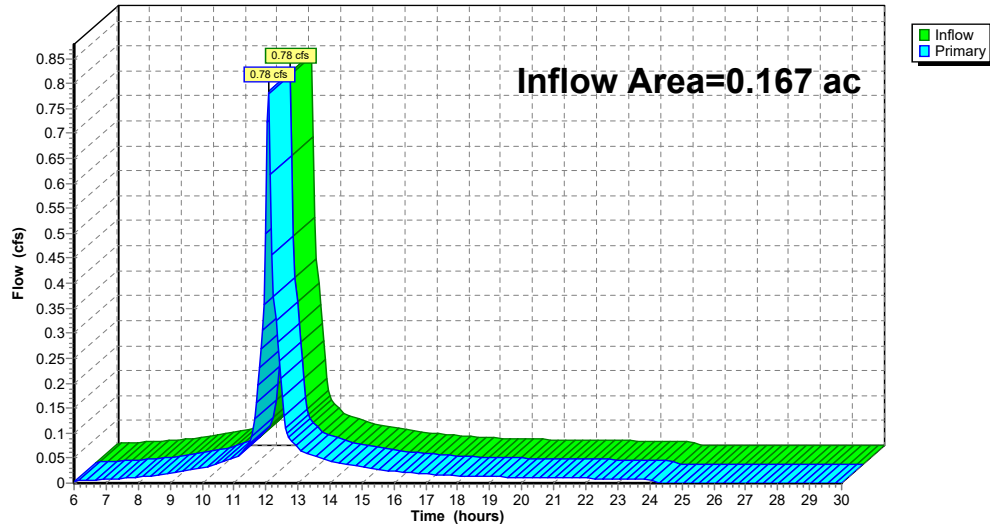
**Summary for Link POA-2:**

Inflow Area = 0.167 ac, 89.99% Impervious, Inflow Depth > 4.27" for 25-yr event  
Inflow = 0.78 cfs @ 12.09 hrs, Volume= 0.059 af  
Primary = 0.78 cfs @ 12.09 hrs, Volume= 0.059 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs

**Link POA-2:**

Hydrograph

**Turners Falls- Post Dev**

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Type III 24-hr 100-yr Rainfall=6.75"

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Page 24

**Summary for Subcatchment P-1:**

Runoff = 1.50 cfs @ 12.09 hrs, Volume= 0.116 af, Depth> 5.83"  
Routed to Link POA-1 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100-yr Rainfall=6.75"

Area (sf)	CN	Description
699	30	Meadow, non-grazed, HSG A
9,712	98	Paved parking, HSG A
14	98	Unconnected pavement, HSG A
10,425	93	Weighted Average
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14		0.14% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
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0.1	33	0.0336	3.72		<b>Shallow Concentrated Flow,</b> Paved Kv= 20.3 fps
1.1	83				Total, Increased to minimum Tc = 6.0 min

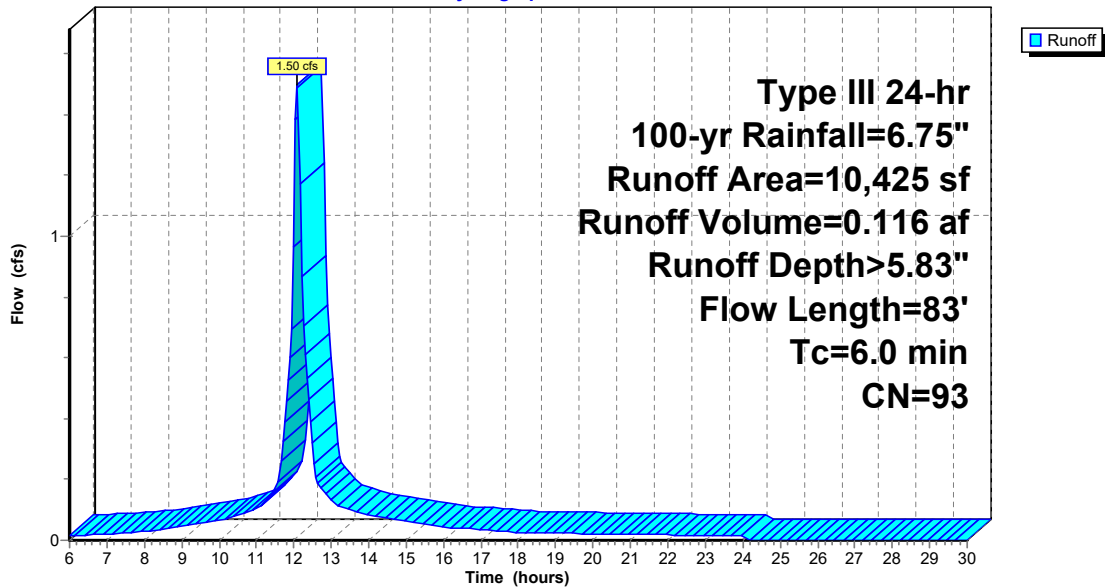
**Turners Falls- Post Dev**

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Type III 24-hr 100-yr Rainfall=6.75"

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Page 25

**Subcatchment P-1:****Hydrograph****Turners Falls- Post Dev**

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Type III 24-hr 100-yr Rainfall=6.75"

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Page 26

**Summary for Subcatchment P-2:**

Runoff = 1.02 cfs @ 12.09 hrs, Volume= 0.079 af, Depth> 5.63"  
Routed to Link POA-2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100-yr Rainfall=6.75"

Area (sf)	CN	Description
729	30	Meadow, non-grazed, HSG A
6,556	98	Paved parking, HSG A
7,285	91	Weighted Average
729		10.01% Pervious Area
6,556		89.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	50	0.0080	0.79		Sheet Flow, Smooth surfaces n= 0.011 P2= 2.89"
0.4	53	0.0132	2.33		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.5	103				Total, Increased to minimum Tc = 6.0 min

# Turners Falls- Post Dev

Prepared by Weston & Sampson Engineers, Inc  
HydroCAD® 10.20-6a s/n 00455 © 2024 HydroCAD Software Solutions LLC

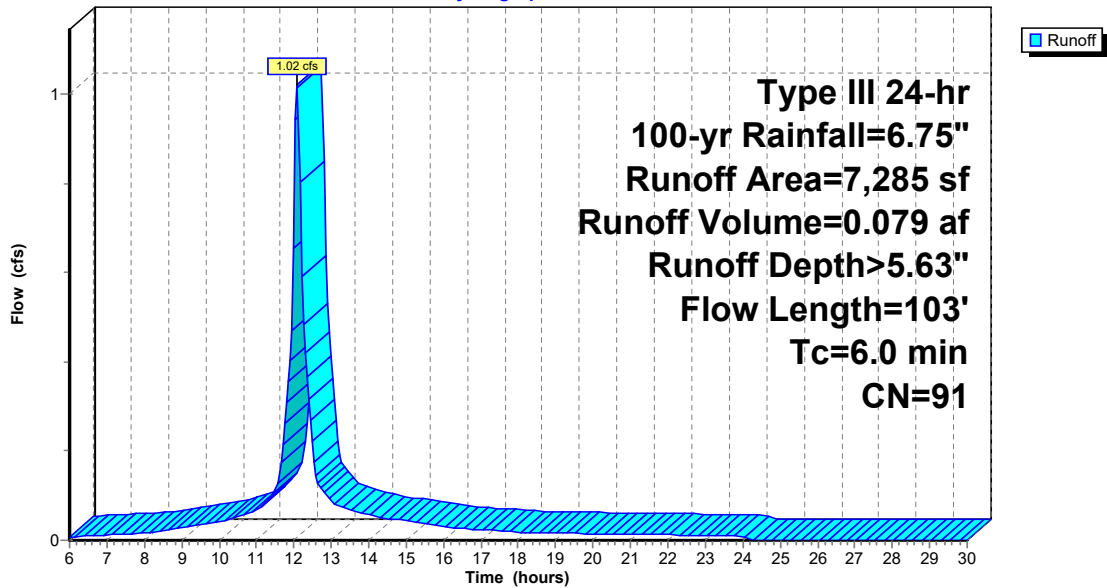
Type III 24-hr 100-yr Rainfall=6.75"

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Page 27

## Subcatchment P-2:

### Hydrograph



# Turners Falls- Post Dev

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Type III 24-hr 100-yr Rainfall=6.75"

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Page 28

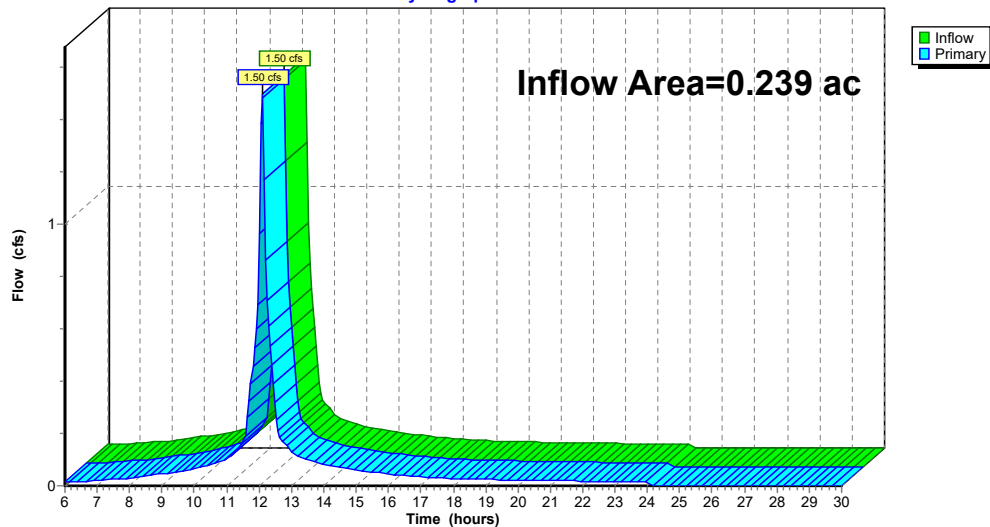
## Summary for Link POA-1:

Inflow Area = 0.239 ac, 93.29% Impervious, Inflow Depth > 5.83" for 100-yr event  
Inflow = 1.50 cfs @ 12.09 hrs, Volume= 0.116 af  
Primary = 1.50 cfs @ 12.09 hrs, Volume= 0.116 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs

## Link POA-1:

### Hydrograph



## Turners Falls- Post Dev

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Type III 24-hr 100-yr Rainfall=6.75"

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Page 29

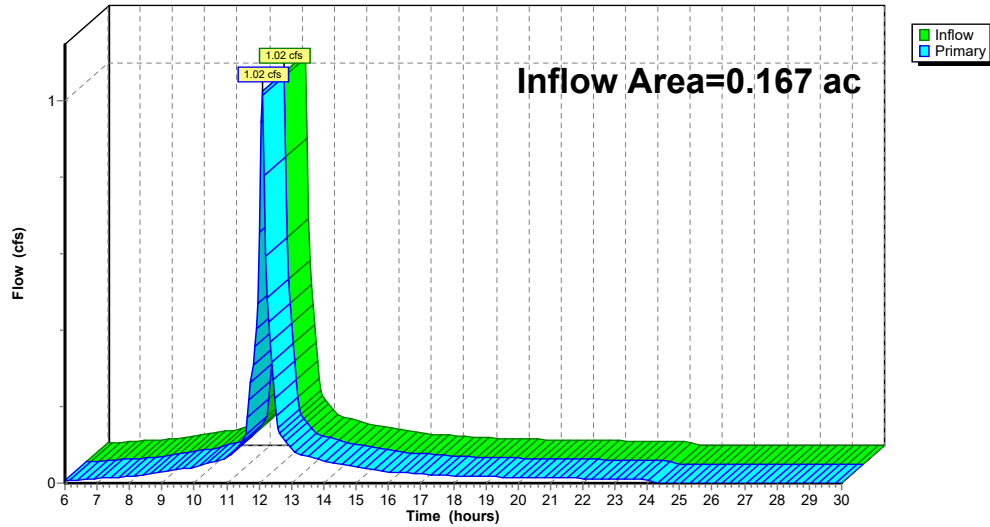
### Summary for Link POA-2:

Inflow Area = 0.167 ac, 89.99% Impervious, Inflow Depth > 5.63" for 100-yr event  
Inflow = 1.02 cfs @ 12.09 hrs, Volume= 0.079 af  
Primary = 1.02 cfs @ 12.09 hrs, Volume= 0.079 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 6.00-30.00 hrs, dt= 0.05 hrs

### Link POA-2:

Hydrograph





Attachment E - Long Term Pollution Prevention Plan

# Long Term Pollution Prevention Plan

To meet the requirements of Standard 4 of the Massachusetts Stormwater Handbook, this Long Term Pollution Prevention Plan is provided to identify the proper procedures and practices for source control and pollution prevention.

## Storage and Handling of Oil and other Hazardous Materials

There will be no hazardous materials stored or handled onsite with the exception of fuel for construction equipment. Fuel will be stored in approved storage containers.

## Operation and Maintenance of Stormwater Control Structures

As there are no proposed permanent stormwater best management practices included with the project, an Operation and Maintenance plan was not included.

## Landscaping

The landscaped areas will be maintained by the owner. There is no intent to use herbicides or pesticides for this project, nor will they be stored on site.

## Septic System

There will be no septic system or wastewater produced on site as part of the project.

## Snow Management

Following construction, the BESS will be monitored remotely, and routine site visits will be performed 1-2 times per year. Snow removal will be performed as needed along in the vicinity of the equipment pad area for clear access through the gate. Salt and/or sand will not be stored on-site.

## Non-Hazardous Waste Management/Good Housekeeping Practices

All non-hazardous waste is to be stored in designated trash or recycling containers onsite for periodic collection by the local trash collector, or Contractor during construction. Following construction all non-hazardous waste should not be stored onsite. PowerBESSCo2, LLC maintenance staff should inspect the site during maintenance visits, if trash is observed it should be collected and removed from the site.

## Prohibition of Illicit Discharges

Illicit discharges to the on-site stormwater management system are strictly prohibited. Illicit discharges are defined as any direct or indirect non-stormwater discharge to the on-site stormwater system. There are no illicit discharges associated with the project.

## Contact Information/Responsible Parties

**Owner/Operator:**  
PowerBESSCo2, LLC  
444 Somerville Ave  
Somerville, MA 02143

Attachment F - Construction Period Pollution and Erosion and Sedimentation Control  
Plan

# CONSTRUCTION PERIOD POLLUTION PREVENTION AND EROSION AND SEDIMENTATION CONTROL PLAN

## **SECTION 1: Introduction**

The project applicant proposes construction of a Battery Energy Storage System with associated electrical equipment.

As part of this project, this "Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan" has been created to ensure that no further disturbance to the nearby locations is created during the project.

## **SECTION 2: Construction Period Pollution Prevention Measures**

Best Management Practices (BMPs) will be utilized as Construction Period Pollution Prevention Measures to reduce potential pollutants and prevent any off-site discharge. The objectives of the BMPs for construction activity are to minimize the disturbed areas, stabilize any disturbed areas, control the site perimeter, and retain sediment. Both erosion and sedimentation controls and non-stormwater best management measures will be used to minimize site disturbance and ensure compliance with the performance standards of the Wetlands Protection Act and Stormwater Standards. Measures will be taken to minimize the area disturbed by construction activities to reduce the potential for soil erosion and stormwater pollution problems. In addition, good housekeeping measures will be followed for the day-to-day operation of the construction site under the control of the contractor to minimize the impact of construction. This section describes the control practices that will be in place during construction activities. Recommended control practices will comply with the standards set in the MassDEP Stormwater Policy Handbook.

### **2.1 Minimize Disturbed Area and Protect Natural Features and Soil**

To minimize disturbed areas, work will be completed within well-defined work limits. These work limits are shown on the project plans. The Contractor will not disturb native vegetation in the undisturbed off-site areas. The Contractor will be responsible to make sure that their workers and any subcontractors know the proper work limits and do not extend their work into the undisturbed areas. The protective measures are described in more detail in the following sections.

### **2.2 Control Stormwater Flowing onto and through the Project**

The perimeter of construction areas will be lined with sediment barriers. The barriers will be inspected at least once every 7 calendar days, or every 14 calendar days and within 24 hours of a storm event of 0.25 inches or greater, and accumulated silt will be removed as needed.

### **2.3 Stabilize Soils**

The proposed project is located within an existing paved parking area. There is no proposed grading associated with the project.

## CONSTRUCTION PERIOD POLLUTION PREVENTION AND EROSION AND SEDIMENTATION CONTROL PLAN

### 2.4 Proper Storage and Cover of Any Stockpiles

The location of the Contractor's storage areas for equipment and/or materials should be upon cleared portions of the job site or areas to be cleared as a part of this project, within the defined limits of work.

Adequate measures for erosion and sediment control such as the placement of sediment barriers around the downstream perimeter of stockpiles will be employed to protect any downstream areas from siltation.

### 2.5 Perimeter Controls and Sediment Barriers

Not applicable, the proposed project is within an existing paved parking area.

### 2.6 Storm Drain Inlet Protection

Silt sack inlet protection will be used for the storm drain(s) within the project area.

### 2.7 Retain Sediment On-Site

The Contractor will be responsible for monitoring erosion control measures. Whenever necessary, the Contractor will replace silt sacks that have been silted up during construction. Inspections must be documented using the attached Monitoring Form.

### 2.8 Material Handling and Waste Management

Materials stored on-site will be stored in a neat, orderly manner in appropriate containers. Materials will be kept in their original containers with the original manufacturer's label. Substances will not be mixed with one another unless recommended by the manufacturer.

Waste materials will be collected and stored in a securely lidded metal container from a licensed management company. The waste and any construction debris from the site will be hauled off-site and disposed of properly. The contractor will be responsible for waste removal. Manufacturer's recommendations for proper use and disposal will be followed for materials. If portable sanitary waste facilities will be used on-site, sanitary waste will be collected from the units a minimum of once a week, by a licensed sanitary waste management contractor.

### 2.9 Designated Washout Areas

The Contractor shall washout equipment only in the location designated on the project plans.

### 2.10 Proper Equipment/Vehicle Fueling and Maintenance Practices

On-site vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the risk of leakage. To ensure that leaks from stored equipment do not contaminate the site, oil-absorbing mats will be placed under oil-containing equipment during storage. Regular fueling and service of the equipment may be performed using approved methods and with care taken to minimize chance of spills. Any petroleum products will be stored in tightly sealed containers that are clearly labeled with spill control pads/socks placed under/around their perimeters.

### 2.11 Equipment/Vehicle Washing

The Contractor shall washout equipment only in the location designated on the project plans.



**SECTION 3: Spill Prevention and Control Plan**

The Contractor will be responsible for preventing spills in accordance with the project drawings and applicable federal, state, and local regulations. The Contractor will identify a properly trained site employee, involved with the day-to-day site operations to be the spill prevention and cleanup coordinator. The name(s) of the responsible spill personnel will be posted on-site. Each employee will be instructed that all spills are to be reported to the spill prevention and cleanup coordinator.

**3.1 Spill Control Equipment**

Spill control/containment equipment will be kept in the work area. Materials and equipment necessary for spill cleanup will be kept either in the work area or in an otherwise accessible on-site location. Equipment and materials will include, but not be limited to, absorbent booms/mats, brooms, dust pans, mops, rags, gloves, sand, plastic and metal containers specifically for this purpose. It is the responsibility of the Contractor to ensure the inventory will be readily accessible and maintained.

**3.2 Notification**

Workers will be directed to inform the on-site supervisor of a spill event. The supervisor will assess the incident and initiate proper containment and response procedures immediately upon notification. Workers should avoid direct contact with spilled materials during the containment procedures. Primary notification of a spill should be made to the local Fire Department and Police Departments. Secondary Notification will be to the certified cleanup contractor if deemed necessary by Fire and/or Police personnel. The third level of notification (within 1 hour), if required, is to the DEP or municipality's Licensed Site Professional (LSP) if the spill exceeds the reportable quantity for the material spilled. The specific cleanup contractor to be used will be identified by the Contractor prior to commencement of construction activities.

**3.3 Spill Containment and Clean-Up Measures**

Spills will be contained with granular sorbent material, sand, sorbent pads, booms or all of the above to prevent spreading. Certified cleanup contractors should complete spill cleanup. The material manufacturer's recommended methods for spill cleanup will be clearly posted and on-site personnel will be made aware of the procedures and the location of the information and cleanup supplies.

**3.4 Hazardous Materials Spill Report**

The Contractor will report and record any spill. The spill report will present a description of the release, including the quantity and type of material, date of the spill, circumstances leading to the release, location of spill, response actions and personnel, documentation of notifications and corrective measures implemented to prevent reoccurrence.

*This document does not relieve the Contractor of the Federal reporting requirements of 40 CFR Part 110, 40 CFR Part 117, 40 CFR Part 302 and the State requirements specified under the Massachusetts Contingency Plan (M.C.P) relating to spills or other releases of oils or hazardous substances. Where a release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117 or 40 CFR Part 302, occurs during a twenty-four (24) hour period, the Contractor is required to comply with the response requirements of the above mentioned regulations. Spills of oil or hazardous material in excess of the reportable quantity will be reported to the National Response Center (NRC).*

**SECTION 4: Contact Information/Responsible Parties****Owner/Operator:**

PowerBESSCo2, LLC  
444 Somerville Ave  
Somerville, MA 02143

**Engineer:**

Melinda Costello, PE  
Weston & Sampson Engineers, Inc.  
55 Walkers Brook Drive, Suite 100  
Reading, MA 01867  
978-532-1900

**Site Inspector:**

TBD

**Contractor:**

TBD

**SECTION 5: Erosion and Sedimentation Control**

Erosion and Sedimentation Control features can be found in the attached project plans which include specifications for installation and monitoring control devices.

**SECTION 6: Site Development Plan**

The proposed site development plan is included in the attached plans.

**SECTION 7: Operation and Maintenance of Erosion Control**

The erosion control measures will be installed as detailed in project plans. If there is a failure of the controls, the Contractor is required to stop work until the failure is repaired.

Periodically throughout the work, the sediment that has been deposited against the controls will be removed to ensure that the controls are working properly.

**SECTION 8: Inspection Schedule**

During construction, the erosion and sedimentation controls will be inspected at least once every 7 calendar days, or once every 14 calendar days and within 24 hours of the end of a storm event of 0.25 inches or greater. Once the Contractor is selected, an on-site inspector will be identified to ensure that erosion and sedimentation controls are in place and working properly. A Monitoring Form is included for use by the on-site inspector.

CONSTRUCTION PERIOD POLLUTION PREVENTION AND  
EROSION AND SEDIMENTATION CONTROL PLAN

## Monitoring Form

Inspected By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

YES	NO	DOES NOT APPLY	ITEM
			Do any erosion/siltation control measures require repair or clean out to maintain adequate function?
			Is there any evidence that sediment is leaving the site and entering the wetlands?
			Are any temporary soil stockpiles or construction materials located in non-approved areas?
			Are on-site construction traffic routes, parking, and storage of equipment and supplies located in areas not specifically designed for them?
			Are storage of fuels located outside of resource areas and associated buffer zones? Are fuels stored in proper storage containers?

Specific location, current weather conditions, and action to be taken:

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Other Comments:

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Pending the actions noted above I certify that the erosion and sedimentation controls at the site are in compliance with the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Appendix F – Project Support Letter

**JUDD WIRE INC.**

124 Turnpike Rd.  
Turners Falls, MA 01376  
Toll Free: 1-800-JuddWire

From: Anthony A. Fernando  
Judd Wire, Inc  
Facility Engineering & Maintenance Manager  
124 Turnpike Road  
Turners falls, MA 01376  
[AFernando@JuddWire.Com](mailto:AFernando@JuddWire.Com)

May 27, 2025

To Whom It May Concern:

I'm submitting this written response in reference to our proposed Battery Energy Storage System (BESS) located at our property at Judd Wire, Inc., 124 Turnpike Road, Turners Falls, MA 01376, along Sandy Lane portion of our property.

We have no objections to the project and understand it will provide energy and environmental benefits without impacting our property or parking capacity. We utilize approximately 75% of our full parking capacity so if the battery units are placed in existing spaces it will not affect our parking capacity.

Very Respectfully,

Anthony A. Fernando  
(413) 676-3343 (Office)



## Appendix G – Waiver Request Letter

May 29, 2025

55 Walkers Brook Drive, Suite 100, Reading, MA 01867  
Tel: 978.532.1900

Ms. Maureen Pollock  
Planning Director  
Town of Montague  
1 Avenue A  
Turners Falls, MA 01376

Re: **Front Yard Setback Waiver Request**  
**BESS Development**  
**124 Turnpike Rd, Turners Falls, MA 01376**

Dear Ms. Pollock:

Weston & Sampson Engineers, Inc. (Weston & Sampson) on behalf of the Applicant, Peak Power Inc. d/b/a Power BESSCo 2, LLC, is hereby submitting this waiver request for relief from Section 5.5.1 of the Town of Montague Zoning Bylaw, dated May 7, 2022 (Town Bylaw). The Applicant proposes to develop a stand-alone battery energy storage system (BESS) at the Judd Wire, Inc. facility located at 124 Turnpike Road (the site). The property has a parcel ID of 14-0-162 and is located within the Industrial Zoning District.

A private way, "Sandy Lane", understood to be recorded in public record this year as a public right of way, has been constructed along the western property line of the site. The construction of this road changed the side yard of the parcel to a front yard.

Setbacks listed in Section 5.5.1 of the Town Bylaw require a minimum front setback of 25 feet in the Industrial zoning district. The Applicant is requesting a relief of a front setback, along Sandy Lane, from 25 feet to 5 feet for the proposed BESS as shown on the proposed site plans (Appendix B of the Site Plan Review Application).

Should you have any further questions or require any additional information, please feel free to contact me by phone at (978) 532-1900 or by email at [costello.melinda@wseinc.com](mailto:costello.melinda@wseinc.com).

Sincerely,  
WESTON & SAMPSON ENGINEERS, INC.



Melinda Costello, P.E.  
Project Manager

cc: Dmytro Gladyshevskiy, PowerBESSCo 2, LLC