



To: Nick Moreno and Katherine
Oetheimer, Boston Conservation
Commission

Date: August 31, 2022

Memorandum

Project #: 15334.00

From: Klaire Gubler, VHB

Re: Supplemental Information, 51 Melcher Street NOI

This memorandum responds to a request by staff of the Boston Conservation Commission (the "Commission") for additional information regarding the Notice of Intent for the 51 Melcher Street NOI (DEP File No. 006-1889 and BOS 2022-044), which was originally submitted on July 20, 2022. This memo includes an assessment of the use of a deployable flood barrier to protect the exterior transformer and the switchgear and an evaluation of the possible use of screening instead of bollards to protect the transformer. In addition, an Operations and Maintenance Plan including a Spill Prevention and Response Plan for the loading dock, as well as information pertaining to the diesel tank associated with the generator, is attached. Responses to the Commission's information requests are described below.

1. *The Commission requested the inclusion of a deployable flood barrier to protect the transformer and the switchgear, or the use of a similarly protective measure. Chair Parker specifically asked about consideration of screening instead of bollards.*

Bala Consulting Engineers, Inc. (Bala) corresponded with Eversource regarding the resiliency of their transformers to flooding on July 13, 2022. As indicated in this correspondence, Eversource did not recommend the use of flood shields due to the fact that their transformers are semi-submersible and can withstand submersion in flood waters without being damaged. Bala asked about the possibility of installing submersible switches and Eversource responded that they do not have submersible switches for the 13.8KV distribution system. Instead, Eversource's practice is to replace damaged switches within one to two days following a large flooding event.

Eversource was also asked for the maximum permissible elevation at which an equipment pad can be placed. Eversource responded transformers and switch pads may be placed at a maximum of 12 inches above the surrounding. As such, the proposed transformer and switch will be raised to this maximum height for increased flood resiliency. Bala also asked Eversource about the risk of impact from floating debris to the transformers and whether bollards would provide ample protection from such debris in a flood event. Eversource responded that the pad transformers are sturdy and are not anticipated to be adversely impacted by floating debris.

Since the proposed transformer and switch are owned and operated by Eversource, the Proponent must abide by Eversource's policies and requirements. The Proponent is working to maintain resilience to flooding while remaining in compliance with Eversource standards by raising the pad to the maximum height allowable.

2. *Commissioner Sullivan requested to see the spill prevention and response plan for the loading dock and was specifically concerned about potential spills from the diesel tank. He also asked how large the diesel tank is.*



Memorandum

Attached to this memo is an Operations and Maintenance Plan containing a Spill Prevention and Response Plan and the sub-tank cut sheet for the diesel generator.

The diesel generator has a dual tank mounted below the generator. The containment tank's double layer construction protects against fuel leaks and ruptures. The inner tank is sealed inside the outer tank. The outer tank contains the fuel in the event that the inner tank leaks or ruptures. This design is anticipated to protect resource areas from fuel leaks.



Image shown may not reflect actual configuration

C4.4 and C7.1 Sub-base Fuel Tanks

Diesel Generator Set
80 – 200 kW 60 Hz

Features

- UL Listed for United States (UL 142) and Canada (CAN/ULC S601)
- Facilitate compliance with NFPA 30 code, NFPA 37 and 110 standards and CSA C282 code and B139-09 standard
- Welded, heavy steel gauge construction with a containment basin sized as a minimum 110% of the tank
- Gloss black polyester triglycidyl isocyanurate (TGIC) powder coating
- Dedicated external customer interface area with access to the 4" (101.6 mm) fuel fill, visual level gauge, normal and emergency vents
- Rear electrical stub-up area with removable access panel
- Removable engine supply and return dip tubes
- Two additional 1" (25.4 mm) ports for customer use
- Tanks are rated to safely support the weight of the generator
- 8 gal (30.3 L) drip pan for oil and coolant (for generator sets up to 60 kW only)
- Standard NPT tank fittings
- UL listed emergency vents sized as per UL standards 3" (76.2 mm), 4" (101.6 mm), and 5" (127 mm) NPT
- Normal atmospheric vent 1-1/4" (31.75 mm)
- Top-mounted fuel level sensor with control panel alarms
- Top-mounted leak detection switch
- Lockable fuel fill cap, 4" (101.6 mm) NPT

Description

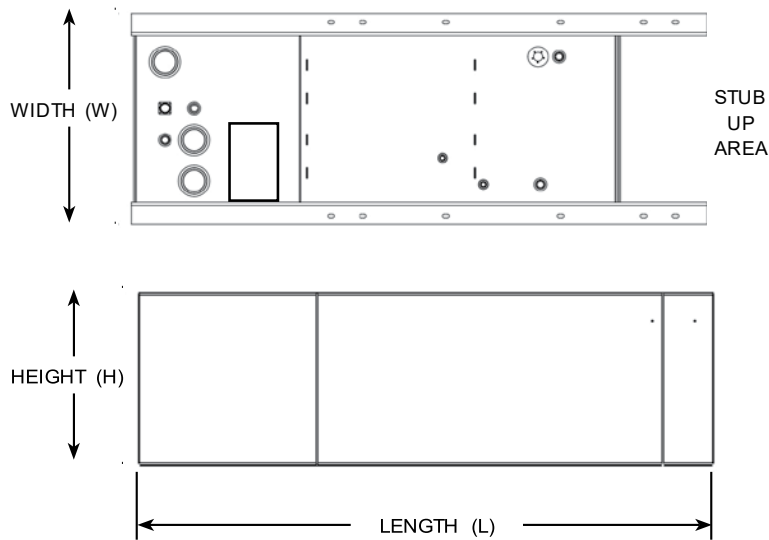
- Dual wall, secondary containment
- Pressure tested to UL requirements
- Fuel tank mounts directly below generator skid base
- Modular tank design is compatible with all factory units open and enclosed

Options

- Emergency vent and normal vent extension kits 12' (3.66 m)
- 5 gal (18.9 L) spill containment
- Overfill prevention valve
- Tank riser to allow for visual secondary containment leak inspection
- Drop tube

C4.4, and C7.1 Sub-base Fuel Tank Dimensions and Capacities

Engine Model	Tank Feature Code	Generator Set Rating kW	Est. Run Time hrs	Fillable Capacity		Usable Capacity		Vent in	Length 'L'		Width 'W'		Height 'H'		Weight (Dry)	
				L	gal	L	gal		mm	in	mm	in	mm	in	kg	lb
C4.4	FSBTC24	80 100	30 25	793	209	733	194	3	3447	135.7	1000	39.4	485	19.1	526	1160
	FSBTD48	80 100	58 49	1492	394	1432	378	4					835	32.9	739	1629
C7.1	FSBTI24	125 150 175 200	40 35 29 27	1520	402	1495	395	4	4035	158.9	1000	39.4	647	25.5	720	1587
		FSBTJ48	125 150 175 200	78 68 57 52	2940	777	2918	771	5	5035			198.2	933	36.7	1145



Note: For reference only – do not use for installation design. Please contact your local dealer for exact dimensions.

Tanks are UL Listed and constructed in accordance with UL Standard for Safety UL 142, Steel Aboveground Tanks for Flammable and Combustible Liquids and Canada CAN/ULC S601, Standard for Shop Fabricated Steel Aboveground Horizontal Tanks for Flammable and Combustible Liquids.

Fuel tanks facilitate compliance with the following United States NFPA Code and Standards:

- NFPA 30: Flammable and Combustible Liquids Code
- NFPA 37: Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines
- NFPA 110: Standard for Emergency and Standby Power Systems

Fuel tanks facilitate compliance with the following Canadian Standard and Code:

- CSA C282 – Emergency Electrical Power Supply for Buildings
- CSA B139-09 – Installation Code for Oil-Burning Equipment

51 Melcher

51 Melcher Street
Boston, MA 02210

PREPARED FOR

GI ETS Fort Point I LLC
c/o GI Partners
188 The Embarcadero, Suite 700
San Francisco, CA 94105

PREPARED BY



99 High Street, 10th Floor
Boston, MA 02129
617.724.7777

August, 2022

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Project Information

Site

51 Melcher Street
Boston, MA 02210

Developer

GI ETS Fort Point I LLC
c/o GI Partners
188 The Embarcadero, Suite 700
San Francisco, CA 94105

Site Supervisor

Wise Construction
21 East Street
Winchester, MA
781.721.1100

Site Contact

Name: TBD

Telephone: TBD

Cell phone: TBD

Email: TBD

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Section A: Source Control

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A Source Control

A comprehensive source control program will be implemented at 51 Melcher Street, which includes the following components:

- › Regular pavement sweeping in the public way (standard asphalt section)
- › Catch basin cleaning
- › Clearing litter from the loading dock areas
- › Enclosure and regular maintenance of all dumpsters
- › Spill Prevention training

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Section B: Spill Prevention

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B Spill Prevention

Spill prevention equipment and training will be provided by the property management company.

B.1 Initial Notification

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

Facility Manager (name):	TBD
Facility Manager (phone):	TBD
Construction Manager (name) :	TBD
Construction Manager (phone):	TBD

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

B.2 Further Notification

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

Emergency Notification Phone Numbers

1. FACILITY MANAGER

Name: TBD

Phone: _____

Beeper/Cell: _____

Home Phone: _____

Alternate Contact: _____

Phone: _____

Beeper/Cell: _____

Home Phone: _____

2. FIRE & POLICE DEPARTMENT

Emergency: 911

3. CLEANUP CONTRACTOR

Address: TBD

Phone: _____

4. MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP)

Emergency: (888) 304-1133

5. NATIONAL RESPONSE CENTER

Alternate: U.S. Environmental Protection Agency

Phone: (800) 424-8802

Emergency: (800) 424-8802

Business: _____

6. BOSTON PUBLIC HEALTH COMISSION

Municipal Conservation Commission:

Phone: (617) 534-5393

Phone: _____

Hazardous Waste & Oil Spill Report

Date: _____ Time: _____ AM / PM

Exact location
(Transformer #): _____

Type of equipment: _____ Make: _____ Size: _____

S / N: _____ Weather Conditions: _____

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

Type of chemical / oil spilled: _____

Amount of chemical / oil spilled: _____

Cause of spill: _____

Measures taken to contain or clean up spill: _____

Amount of chemical / oil recovered: _____ Method: _____

Material collected as a result of cleanup:

_____ drums containing _____

_____ drums containing _____

_____ drums containing _____

Location and method of debris disposal: _____

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

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

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

Spill reported to DEP / National Response Center by: _____

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

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

Additional comments: _____

B.3 Assessment – Initial Containment

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

Fire / Police Department:	<u>911</u>
Boston Public Health Commission	<u>(617) 534-5395</u>
Boston Conservation Commission:	<u>(617) 635-3850</u>

Emergency Response Equipment

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

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

Section C: Snow Management

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C Snow Management

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

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Section D: Maintenance of Stormwater Management Systems

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D Maintenance of Stormwater Management Systems

D.1 Pavement Systems

D.1.1 Standard Asphalt Pavement

- › Sweep or vacuum standard asphalt pavement areas at least four times per year with a rotary brush sweeper, vacuum or regenerative air sweeper and properly dispose of removed material.
- › Recommended sweeping schedule:
 - › Oct/Nov
 - › Feb/Mar
 - › Apr/May
 - › Aug/Sep
- › More frequent sweeping of paved surfaces will result in less accumulation in catch basins, less cleaning of subsurface structures, and less disposal costs.
- › Check loading docks and dumpster areas frequently for spillage and/or pavement staining and clean as necessary.

D.2 Structural Stormwater Management Devices

D.2.1 Catch Basins

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

There is one existing (1) catch basin at 51 Melcher. Disposal of all sediments must be in accordance with applicable local, state, and federal guidelines. A map of the catch basin locations is included in Section E.5 Maintenance Checklists and Device Location Maps.

Inspections and Cleaning

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

D.2.2 Subsurface Infiltration Basins

The subsurface infiltration/detention basins are used to detain and infiltrate rooftop runoff. There is one subsurface infiltration basin at 51 Melcher. A map of the infiltration basin locations is included in Section E.5 Maintenance Checklists and Device Location Maps.

Inspections and Cleaning

- › The subsurface infiltration systems will be inspected at least once each year by removing the manhole/access port covers and determining the thickness of sediment that has accumulated in the sediment removal row.
- › If sediment is more than six inches deep, it must be suspended via flushing with clean water and removed using a vactor truck.
- › Manufacturer's specifications and instructions for cleaning the sediment removal row are provided as an attachment to this section.
- › Emergency overflow pipes will be examined at least once each year and verified that no blockage has occurred.
- › System will be observed after rainfalls to see if it is properly draining.

D.2.3 Roof Drain Leader

Roof runoff from building and canopy at 51 Melcher are directed to the subsurface infiltration unit.

- › Perform routine roof inspections quarterly.
- › Keep roofs clean and free of debris.
- › Keep roof drainage systems clear.

- › Keep roof access limited to authorized personnel.
- › Clean inlets twice per year or as necessary.

Section E: Operations and Maintenance Plan Summary

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E Operations and Maintenance Plan Summary

This Operation and Maintenance Plan has been prepared in accordance with the Stormwater Management Policy developed by the DEP, CZM and Boston DPW regulations as applicable. It specifies operational practices and drainage system maintenance requirements for the 51 Melcher Core Upgrade. Requirements should be adjusted by the site manager as necessary to ensure successful functioning of system components.

E.1 Routine Maintenance Checklists

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

E.2 Reporting and Documentation

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

The Maintenance Log shall:

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

E.3 Construction Practices Maintenance/ Evaluation Checklist

51 Melcher – Boston, MA

Best Management Practice	Inspection Frequency	Date Inspected	Inspector Initials	Minimum Maintenance and Key Items to Check	Cleaning or Repair Needed <input type="checkbox"/> Yes/No (List Items)	Date of Cleaning or Repair	Performed by:
Hay Bales/ Silt Fencing	Weekly and after any rainfall			Sediment build up, broken bales or stakes			
Catch Basin Protection	Weekly and after any rainfall			Clogged or sediment build-up at surface or in basin			

Stormwater Control Manager: _____

E.4 Long-term Maintenance/Evaluation Checklist

51 Melcher – Boston, MA

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

* Recommend sweeping Oct/Nov, Feb/Mar, Apr/May Jul/Aug with late winter most important

Stormwater Control Manager: _____

E.5 Maintenance Checklists and Device Location Maps

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

Maintenance Checklists

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

Catch Basin	Inspected (Y/N)	Sediment Depth (inches)	Cleaning needed (Y/N)	Date Cleaned	Comments (Trash, Oil, Pet waste, Lawn Debris, Damage)
CB 1				/ /	

Infiltration/Detention Basins – Inspect once per year, remove sediment if more than 6 inches has accumulated in sediment forebay or sediment collection row.

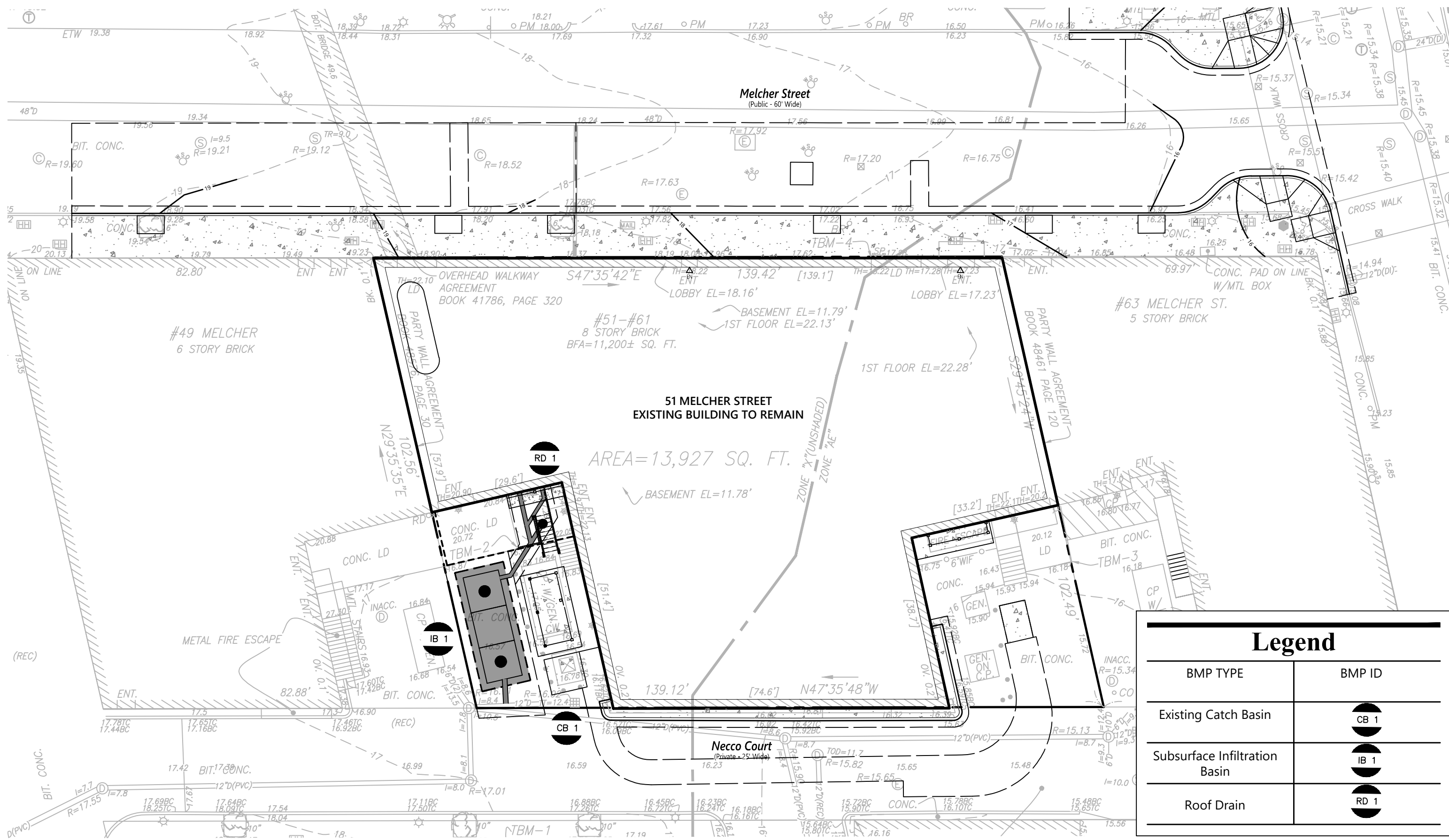
Basin	Inspected (Y/N)	Sediment Depth (inches)	Cleaning needed (Y/N)	Date Cleaned	Comments (Trash, Oil, Pet waste, Lawn Debris, Damage)
IB 1				/ /	

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

Bldg #	Inspected (Y/N)	Sediment Depth (inches)	Cleaning needed (Y/N)	Date Cleaned	Comments (Trash, Oil, Pet waste, Lawn Debris, Damage)
Bldg 1				/ /	
Canopy 1				/ /	

Device Location Maps

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Legend	
BMP TYPE	BMP ID
Existing Catch Basin	CB 1
Subsurface Infiltration Basin	IB 1
Roof Drain	RD 1

