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# Long-Term Pollution Prevention Plan and Stormwater Operation and Maintenance Plan

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Civil Engineering



Transportation  
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Resilience & Green  
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Planning



Land Surveying



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## SECTION 1 Introduction

The purpose of this document is to specify the pollution prevention measures and stormwater management system operation and maintenance for the Boston College – Newton Support Building site. The Responsible Party indicated below shall implement the management practices outlined in this document and proactively conduct operations at the project site in an environmentally responsible manner. Compliance with this Manual does not in any way dismiss the responsible party, owner, property manager, or occupants from compliance with other applicable federal, state or local laws.

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This Document has been prepared in compliance with Standards 4 and 9 of the 2008 Massachusetts Department of Environmental Protection (MassDEP) Stormwater Management Standards, which state:

### Standard 4

The Long-Term Pollution Prevention Plan shall include the proper procedures for the following:

1. Good housekeeping;
2. Storing materials and waste products inside or under cover;
3. Vehicle washing;
4. Routine inspections of stormwater best management practices;
5. Spill prevention and response;
6. Maintenance of lawns, gardens, and other landscaped areas;
7. Storage and use of fertilizers, herbicides, and pesticides;
8. Pet waste management;
9. Operation and management of septic systems; and
10. Proper management of deicing chemicals and snow.

### Standard 9

The Long-Term Operation and Maintenance Plan shall at a minimum include:

1. Stormwater management system(s) owner(s);
2. The party or parties responsible for operation and maintenance, including how future property owners shall be notified of the presence of the stormwater management system and the requirement for operation and maintenance;
3. The routine and non-routine maintenance tasks to be undertaken after construction is complete and a schedule for implementing those tasks;
4. A plan that is drawn to scale and shows the location of all stormwater BMPs in each treatment train along with the discharge point;
5. A description and delineation of public safety features; and
6. An estimated operations and maintenance budget.



## SECTION 2 Long-Term Pollution Prevention Plan

The Responsible Party shall implement the following good housekeeping procedures at the project site to reduce the possibility of accidental releases and to reduce safety hazards.

### Storage of Hazardous Materials

To prevent leaks and spills, keep hazardous materials and waste products under cover or inside. Use drip pans or spill containment systems to prevent chemicals from entering the drainage system. Inspect storage areas for materials and waste products at least once per year to determine amount and type of the material on site, and if the material requires disposal.

Securely store liquid petroleum products and other liquid chemicals in federally- and state-approved containers. Restrict access to maintenance personnel and administrators.

### Storage of Waste Products

Collect and store all waste materials in securely lidded dumpster(s) or other secure containers as applicable to the material. Keep dumpster lids closed and the areas around them clean. Do not fill the dumpsters with liquid waste or hose them out. Sweep areas around the dumpster regularly and put the debris in the garbage, instead of sweeping or hosing it into the parking lot. Legally dispose of collected waste on a regular basis.

Segregate liquid wastes from solid waste and recycle through hazardous waste disposal companies, whenever possible. Contact a hazardous waste hauler for proper disposal to a hazardous waste collection center.

### Spill Prevention and Response

Implement spill response procedures for releases of significant materials such as fuels, oils, or chemical materials onto the ground or other area that could reasonably be expected to discharge to surface or groundwater.


1. For minor spills, keep fifty (50) gallon spill control kits and Speedy Dry at all shop and work areas.
2. Immediately contact applicable Federal, State, and local agencies for reportable quantities as required by law.
3. Immediately perform applicable containment and cleanup procedures following a spill release.
4. Promptly remove and dispose of all material collected during the response in accordance with Federal, State, and local requirements. A licensed emergency response contractor may be required to assist in cleanup of releases depending on the amount of the release, and the ability of the Contractor to perform the required response.
5. Reportable quantities of chemicals, fuels, or oils are established under the Clean Water Act and enforced through MassDEP.

### Minimize Soil Erosion

Soil erosion facilitates mechanical transport of nutrients, pathogens, and organic matter to surface water bodies. Repair all areas where erosion is occurring throughout the project site. Stabilize bare soil with riprap, seed, mulch, or vegetation.

### Vehicle Washing

Vehicle washing will occur within the covered service area. The car wash will be a state-of-the art system that will reclaim and reuse water for the car wash operation. Eventual discharge of the wash water will be directed to the



sanitary sewer.

### **Maintenance of Lawns, Gardens, and other Landscaped Areas**

Pesticides and fertilizers shall not be used in the landscaped areas associated with the project site and shall not be stored on-site. Dumping of lawn wastes, brush or leaves or other materials or debris is not permitted in any Resource Area. Grass clippings, pruned branches and any other landscaped waste should be disposed of or composted in an appropriate location. No irrigation shall be used in the landscaped areas for this project.

### **Management of Deicing Chemicals and Snow**

The qualified contractor selected for snow plowing and deicing shall be made fully aware of the requirements of this section.

No road salt (sodium chloride) shall be stored on-site. The use of magnesium chloride de-icing product with a 0.5 to 1.0 percent sodium chloride mix for snow and ice treatment is permitted. The product shall be stored in a locked room inside the building and shall be used at exterior stairs and walkways. The snow plow contractor shall adhere to these magnesium chloride use and storage requirements.

During typical snow plowing operations, snow shall be pushed to the designated snow removal areas noted on the Snow Storage Plan (Figure 2). Snow shall not be stockpiled in wetland resource areas or the 100-foot Buffer Zone, catch basins, area drains, or trench drains. In severe conditions where snow cannot be stockpiled on site, the snow shall be removed from the site and properly disposed of in accordance with DEP Guideline BRP601-01.

Use of sand is permitted only for impervious roadways and parking areas. If sand is applied, the snow plowed from impervious areas shall not be stored on porous asphalt.

Porous asphalt areas are proposed throughout the site, as indicated on the Stormwater Management System Location Map (Figure 1). These areas will be delineated on-site using pavement markings. Porous asphalt performs well in cold climates and can reduce meltwater runoff during the snowmelt period; however there are specific winter management techniques that must be followed for porous asphalt systems.

The porous asphalt areas shall be maintained during snow events as provided below:

1. Apply anti-icing treatments only when absolutely necessary (in extreme events). It is not anticipated that deicing chemicals will be required for typical winter events.
2. Plow as needed after storm events. Avoid scarifying the porous asphalt surface. Special plow blades should be used whenever possible. Raised blade is not recommended.
3. Apply the minimum amount of deicing agents during and after storms required to control compact snow and ice that are not removed by plowing.
4. Do not apply sand in porous asphalt areas "No Sanding" signs shall be posted before the first snowfall and maintenance and snow removal contractors shall be made aware of this requirement.

Before winter begins, the property owner and the contractor shall review snow plowing, deicing, and stockpiling procedures. Areas designated for stockpiling should be cleaned of any debris. Street and parking lot sweeping should be followed in accordance with the Operation and Maintenance Plan.

### **Coordination with other Permits and Requirements**

Certain conditions of other approvals affecting the long-term management of the property shall be considered part of this Long-Term Pollution Prevention Plan. The Owner shall become familiar with those documents and comply with the guidelines set forth in those documents.

## SECTION 3

## Stormwater Management System Operation and Maintenance Plan

### Introduction

This Operation and Maintenance Plan (O&M Plan) for Boston College – Newton Support Building site is required under Standard 9 of the 2008 MassDEP Stormwater Handbook to provide best management practices for implementing maintenance activities for the stormwater management system in a manner that minimizes impacts to wetland resource areas.

The Owner shall implement this O&M Plan and proactively conduct operations at the site in an environmentally responsible manner. Compliance with this O&M Plan does not in any way dismiss the Owner from compliance with other applicable Federal, State or local laws.

Routine maintenance during construction and post-development phases of the project, as defined in the Operation and Maintenance Plan, shall be permitted without amendment to the Order of Conditions. A continuing condition in the Certificate of Compliance shall ensure that maintenance can be performed without triggering further filings under the Wetlands Protection Act.

All stormwater best management practices (BMPs) shall be operated and maintained in accordance with the design plans and the Operation and Maintenance Plan approved by the issuing authority. The Owner shall:

1. Maintain an operation and maintenance log for the last three years, including inspections, repairs, replacement, and disposal (for disposal the log shall indicate the type of material and the disposal location). This is a rolling log in which the responsible party records all operation and maintenance activities for the past three years.
2. Make this log available to MassDEP and the Conservation Commission upon request; and
3. Allow members and agents of the MassDEP and the Conservation Commission to enter and inspect the premises to evaluate and ensure that the Owner complies with the Operation and Maintenance requirements for each BMP.

### Stormwater Operation and Maintenance Requirements

Inspect and maintain the stormwater management system as directed below. Refer to the Stormwater Management System Location Map (Figure 1) for the location of each component of the system. Repairs to any component of the system shall be made as soon as possible to prevent any potential pollutants (including silt) from entering the resource areas.

#### ***Deep Sump and Hooded Catch Basins***

Inspect or clean catch basins four times per year and at the end of foliage and snow-removal seasons. Other inspection and maintenance requirements include:

1. Remove organic material, sediment and hydrocarbons four times per year or whenever the depth of deposits is greater than or equal to one half the depth from the bottom of the invert of the lowest pipe in the basin.
2. Always clean out catch basins after street sweeping. If any evidence of hydrocarbons is found during inspection, immediately remove the material using absorbent pads or other suitable measures and dispose of legally. Remove other accumulated debris as necessary.
3. If handling runoff from land uses with higher potential pollutant loads or discharging runoff near or to a critical area, more frequent cleaning may be necessary.
4. Transport and disposal of accumulated sediment off-site shall be in accordance with applicable local, state and federal guidelines and regulations.



### ***Porous Asphalt***

Porous asphalt areas are proposed throughout the site, as indicated on the Stormwater Management System Location Map (Figure 1). These areas will be delineated on-site using pavement markings.

Frequent cleaning and maintenance of the porous asphalt surface is critical to prevent clogging. Frequent vacuum sweeping along with jet washing of porous asphalt is required. No winter sanding shall be conducted on the porous surface. For proper maintenance:

1. Post signs identifying porous asphalt areas.
2. Minimize salt use during winter months.
3. No winter sanding is allowed.
4. Keep landscaped areas well maintained to prevent soil from being transported onto the pavement.
5. Regularly monitor the porous asphalt surface to make sure that it drains properly after storm events. Inspect surface annually for deterioration or spalling.
6. At a minimum, the porous asphalt shall be cleaned after the winter season and every three months thereafter. This requirement may be adjusted as needed, based on regular visual inspections of the porous asphalt surface.
7. For porous asphalts and concretes, clean the surface using power washer to dislodge trapped particles and then vacuum sweep the area.
8. For paving stones, add joint material to replace material that has been transported. Reseed grass pavers to fill in bare spots.
9. Never reseal or repave with impermeable materials.
10. Once per year, the infiltrative capacity of the porous asphalt should be tested by running a hose over each porous pavement area for 30 minutes.
11. Sections of damaged porous asphalt (rutting, etc.) can be repaired by heating and rerolling the asphalt.
12. When infiltrative capacity of porous asphalt is reduced to less than the design rate, the porous asphalt shall be replaced by milling to the choker course.
13. Attach rollers to the bottoms of snowplows to prevent them from catching on the edges of grass pavers and some paving stones.

### ***Area Drains***

Inspect area drains at least once per month and remove debris from the grate. Clean out accumulated sediments at least once per year and more frequently as necessary.

### ***Water Quality Units (Proprietary Separators)***

Maintain water quality units according the recommendations set forth by the manufacturer. General inspection and maintenance procedures for proprietary devices are provided below:

1. Inspect units following completion of construction, prior to being put into service.
2. Inspect units at least twice per year following installation and no less than once per year thereafter.
3. Inspect units immediately after any oil, fuel or chemical spill.
4. All inspections shall include checking the oil level and sediment depth in the unit. Removal of sediments/oils shall occur per manufacturer recommendations.
5. A licensed waste management company shall remove captured petroleum waste products from any oil, chemical or fuel spills and dispose.
6. OSHA confined space entry protocols shall be followed if entry into the unit is required.

### Subsurface Infiltration Structures

1. Inspect subsurface infiltration structures twice per year. Inspect the inlets and observation ports to determine if there is accumulated sediment within the system. Remove all debris and accumulated sediment that may clog the system.

### Street Sweeping

Perform mechanical broom street sweeping at least twice per year, whenever there is significant debris present on roads and parking lots. Street sweeping shall occur in the spring and fall. Sweepings must be handled and disposed of properly according to the Newton Conservation Commission.

### Repair of the Stormwater Management System

The stormwater management system shall be maintained. The repair of any component of the system shall be made as soon as possible to prevent any potential pollutants including silt from entering the resource areas or the existing closed drainage system.

### Estimated Operations and Maintenance Budget

An Operations and Maintenance Budget was prepared in compliance with the MassDEP Stormwater Standards.

Table 2. Operations and Maintenance Budget

BMP Type	# of BMPs	Annual O & M Cost (per BMP)	Total Cost
Catch Basin	3	\$240-\$480	\$720-\$1,440
Water Quality Inlet	1	\$240-\$480	\$240-\$480
Area Drain	2	\$60-\$120	\$120-\$240
Subsurface Infiltration System	1	\$200-\$400	\$200-\$400
Water Quality Units	2	\$120-\$360	\$240-\$720
Porous Asphalt	1	\$1,080	\$1,080
Trench Drain	1	\$60-\$120	\$60-\$120
Total:			\$2,660-\$4,480

### Reporting

The Owner shall maintain a record of drainage system inspections and maintenance (per this Plan) and submit a yearly report to the Newton Conservation Commission.



## STORMWATER MANAGEMENT SYSTEM INSPECTION FORM

<b>BOSTON COLLEGE NEWTON SUPPORT BUILDING</b> Newton, MA		Inspected by: _____ Date: _____
<b>Component</b>	<b>Status/Inspection</b>	<b>Action Taken</b>
Deep Sump Catch Basins, Area Drains and Drain Manholes		
Trench Drain		
Subsurface Infiltration System		
Water Quality Units		
Porous Asphalt		
General site conditions – evidence of erosion, etc.		

**SUBMIT COPIES OF STORMWATER MANAGEMENT SYSTEM INSPECTION FORM TO THE NEWTON CONSERVATION COMMISSION WITH THE YEARLY REPORT.**



## FIGURES

Figure 1: Stormwater Management System Location Map

Figure 2: Snow Storage Map

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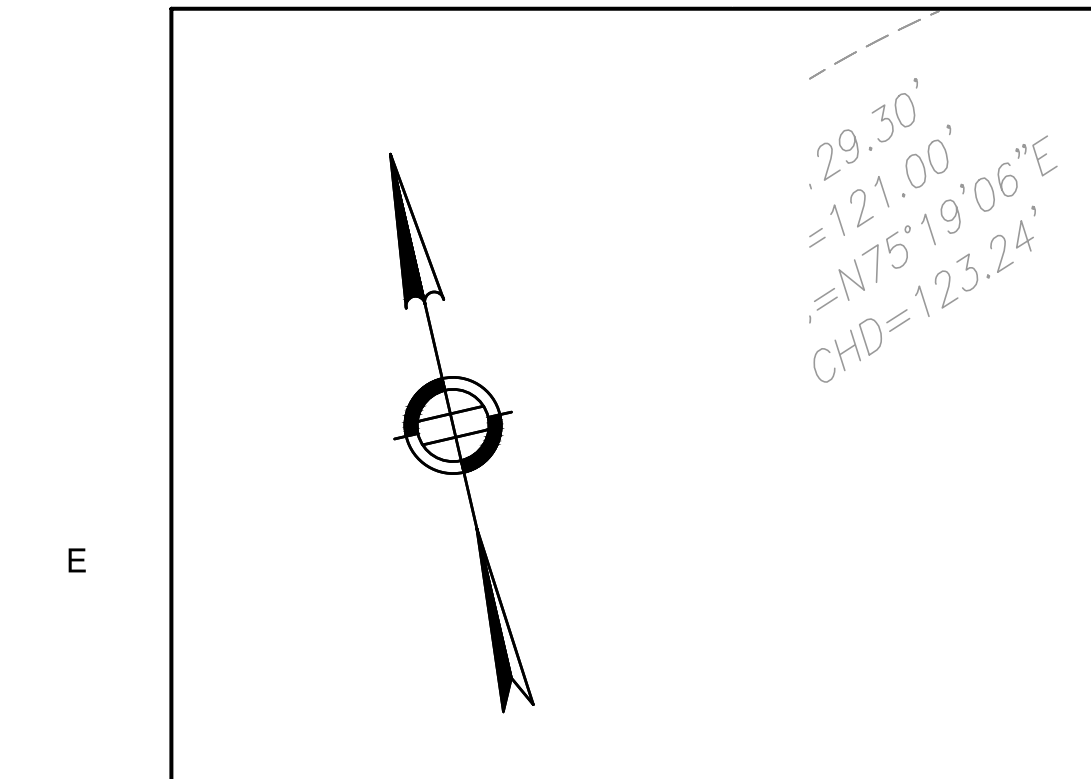
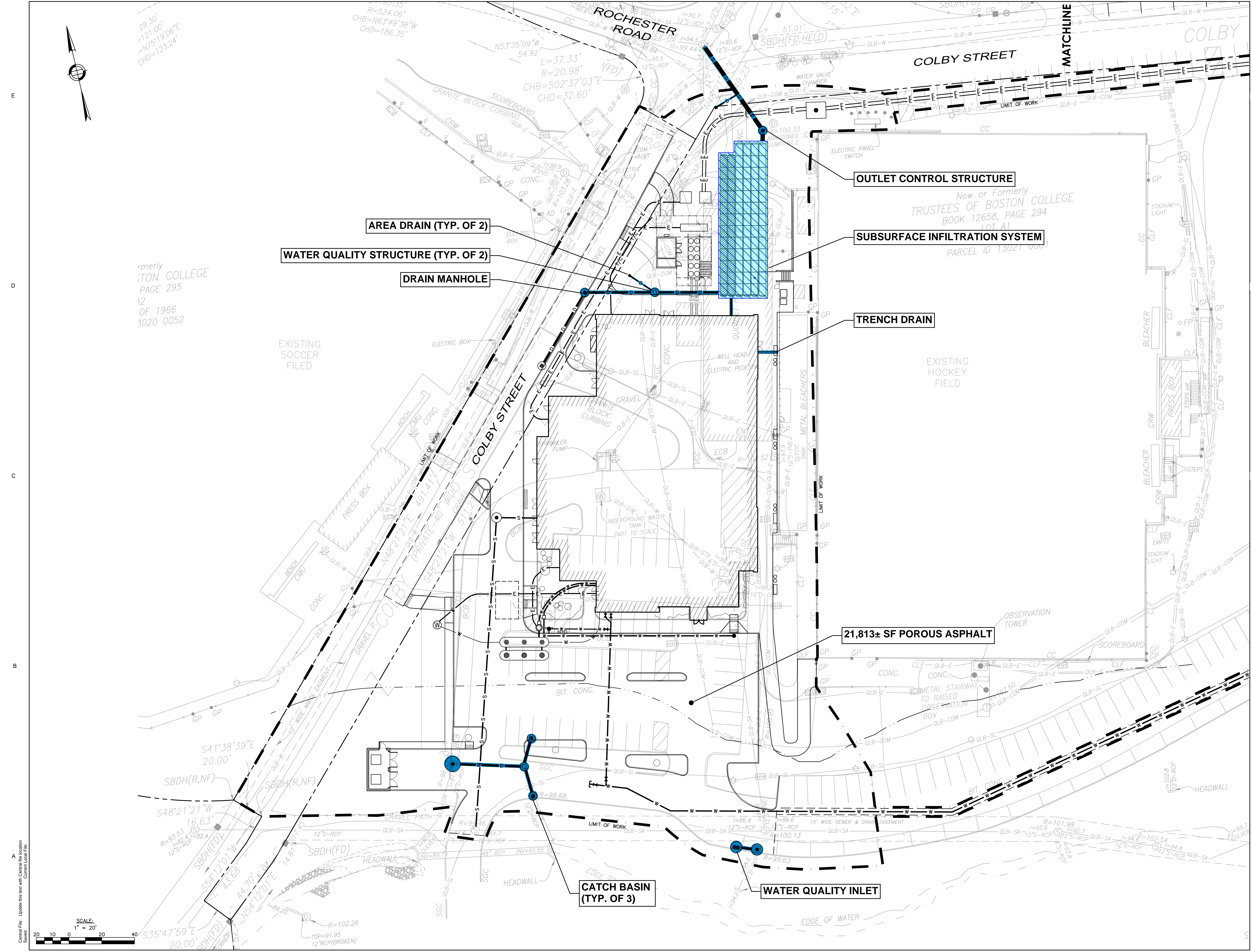


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0	ADMINISTRATIVE SITE PLAN REVIEW		06/12/2024

**STORMWATER MANAGEMENT SYSTEM LOCATION MAP**

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Issue Date:	Project No:	Scale:

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**FIG-1**



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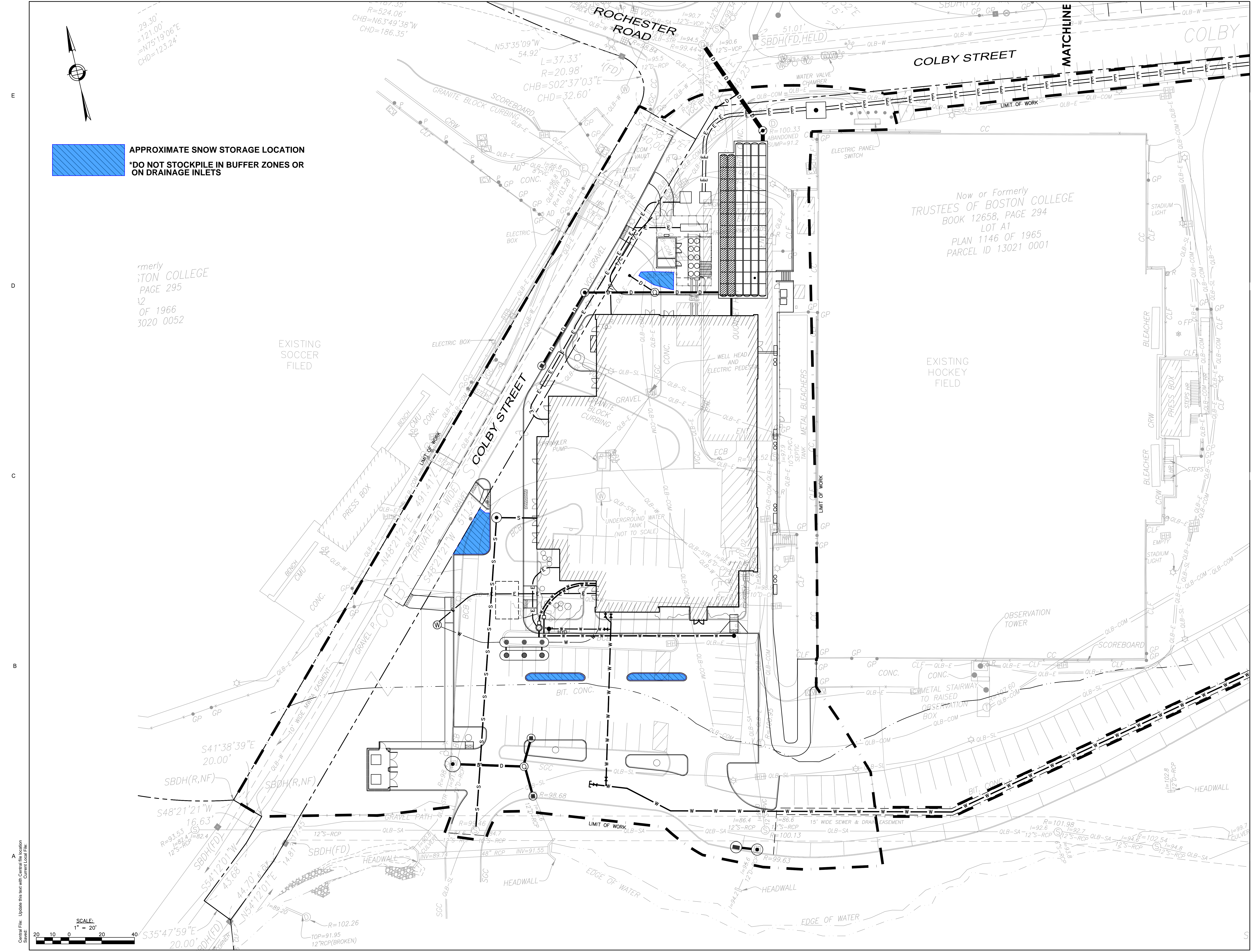


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**SNOW STORAGE MAP**

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**FIG-2**



$29.30'$   
 $=121.00'$   
 $=N75^{\circ}19'06''E$   
 $CHD=123.24'$

$R=524.06'$   
 $CHB=N63^{\circ}49'38''W$   
 $CHD=186.35'$

$L=37.33'$   
 $R=20.98'$   
 $CHB=S02^{\circ}37'03''E$   
 $CHD=32.60'$

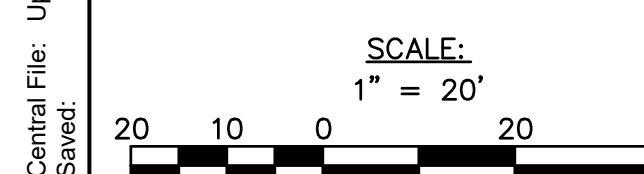
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EXISTING SOCCER FIELD

EXISTING HOCKEY FIELD

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