

**Project #:** EBOS-0027

December 6, 2019

Boston Conservation Commission  
Boston City Hall  
1 City Hall Square, Room 709  
Boston, MA 02201



**Subject:** 93-95 Prescott Street, East Boston, MA  
Revised Notice of Intent Application

Dear Boston Conservation Commission,

Thank you for your consideration and feedback on the Notice of Intent and Site Plan at 93-95 Prescott Street.

Based on your feedback, we have revised the plan and Notice of Intent application and Site Plan in the following ways:

- The individuals listed as Applicant and Owner on the WPA Form 3 page 1 are not the same individuals that signed page 9. We need the listed Applicant and Owner to sign the WPA Form 3. We will need two revised hard copies.

The applicant and owner's name has been revised in the Notice of Intent Application.

- On WPA Form 3 page 2, section A (7a) is marked incorrectly for the type of work being done. We will need two revised hard copies.

We have checked the "Other" box instead of industrial/commercial.

- In your narrative, you indicate that you are removing a private catch basin. Are you allowing runoff to be directed to the sidewalk/street?

Yes, runoff will now be directed towards Prescott Street and to the passageway off Prescott Street. A trench drain has been added to both sides of the project.

- Only a stormwater checklist was provided. We will also need a stormwater report detailing how the project is/is not meeting all of the standards and the hydrologic calculations. We will need two hard copies.

A Stormwater Report and copy of the Stormwater Report been included in the attached revised application.

- We will need two hard copies of a signed illicit discharge statement.

Two hard copies of the signed illicit discharge statement have been included in the attached revised application.

- Not all of the elevations listed on the climate resiliency checklist are shown on the plan set. Additionally, we will need the resource area delineated on all sheets. We will need two hard copies of a new stamped plan set.

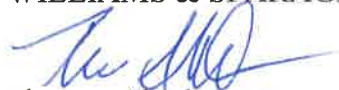
Elevations listed on the climate resiliency checklist are now shown on the plan set. Additionally, the limit of Land Subject to Coastal Storm Flowage has been added to the plan set. The entire parcel is within Land Subject to Coastal Storm Flowage.

- We will need a digital copy of the complete revised application, preferably as an email attachment or digital download

A digital copy has been provided to the Commission.

Should you have any questions in the meantime, please feel free to reach out. We look forward to presenting to you at your next Commission meeting.

Sincerely,  
WILLIAMS & SPARAGES LLC



Thorsen Akerley, RS

cc: Massachusetts Department of Environmental Protection (NERO)  
687 Saratoga Street Realty Trust  
LAR Property Management



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

# WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

East Boston

City/Town

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



**Note:**  
Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

## A. General Information

1. Project Location (**Note:** electronic filers will click on button to locate project site):

93-95 Prescott Street  
a. Street Address

East Boston  
b. City/Town

02128  
c. Zip Code

Latitude and Longitude:  
42.328173  
d. Latitude

-71.075615  
e. Longitude

f. Assessors Map/Plat Number 0106907000 (93 Prescott), 0106908000 (95 Prescott)

2. Applicant:

Rita & Louie  
a. First Name

Roberto  
b. Last Name

687 Saratoga Street Realty Trust (Owner of 95 Prescott / Applicant)  
c. Organization

282 Bennington Street  
d. Street Address

East Boston  
e. City/Town

MA  
f. State

02128  
g. Zip Code

617-567-1992  
h. Phone Number

i. Fax Number

celeste@spinellis.com  
j. Email Address

3. Property owner (required if different from applicant):  Check if more than one owner

Rita & Louie  
a. First Name

Roberto  
b. Last Name

LAR Property Management (Owner of 93 Prescott)  
c. Organization

282 Bennington Street  
d. Street Address

East Boston  
e. City/Town

MA  
f. State

02128  
g. Zip Code

(617) 567-4499  
h. Phone Number

i. Fax Number

anthony@spinellis.com  
j. Email address

4. Representative (if any):

Thorsen  
a. First Name

Akerley  
b. Last Name

Williams & Sparages LLC  
c. Company

189 North Main Street  
d. Street Address

Middleton  
e. City/Town

MA  
f. State

01949  
g. Zip Code

(978) 539-8088  
h. Phone Number

(978) 539-8200  
i. Fax Number

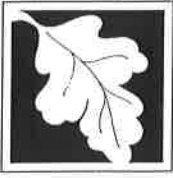
takerley@wsengineers.com  
j. Email address

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

\$1,050.00  
a. Total Fee Paid

\$512.50  
b. State Fee Paid

\$0  
c. City/Town Fee Paid



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### A. General Information (continued)

6. General Project Description:

Demolish existing 2-family home and erect a three level townhouse-style dwelling and conduct grading within land subject to coastal storm flowage.

7a. Project Type Checklist: (Limited Project Types see Section A. 7b.)

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Single Family Home                        | 2. <input type="checkbox"/> Residential Subdivision       |
| 3. <input type="checkbox"/> Commercial/Industrial                     | 4. <input type="checkbox"/> Dock/Pier                     |
| 5. <input type="checkbox"/> Utilities                                 | 6. <input type="checkbox"/> Coastal engineering Structure |
| 7. <input type="checkbox"/> Agriculture (e.g., cranberries, forestry) | 8. <input type="checkbox"/> Transportation                |
| 9. <input checked="" type="checkbox"/> Other                          |   |

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

1.  Yes  No      If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR 10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

Suffolk

a. County

See attached deed references

c. Book

b. Certificate # (if registered land)

d. Page Number

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

- Buffer Zone Only – Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.
- Inland Resource Areas (see 310 CMR 10.54-10.58; if not applicable, go to Section B.3, Coastal Resource Areas).

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

## WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

East Boston

City/Town

### B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input type="checkbox"/> Bank	1. linear feet _____	2. linear feet _____
b. <input type="checkbox"/> Bordering Vegetated Wetland	1. square feet _____	2. square feet _____
c. <input type="checkbox"/> Land Under Waterbodies and Waterways	1. square feet _____	2. square feet _____
	3. cubic yards dredged _____	

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. <input type="checkbox"/> Bordering Land Subject to Flooding	1. square feet _____	2. square feet _____
	3. cubic feet of flood storage lost _____	4. cubic feet replaced _____
e. <input type="checkbox"/> Isolated Land Subject to Flooding	1. square feet _____	
	2. cubic feet of flood storage lost _____	3. cubic feet replaced _____
f. <input type="checkbox"/> Riverfront Area	1. Name of Waterway (if available) - <b>specify coastal or inland</b> _____	

2. Width of Riverfront Area (check one):

25 ft. - Designated Densely Developed Areas only

100 ft. - New agricultural projects only

200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project: \_\_\_\_\_

square feet

4. Proposed alteration of the Riverfront Area:

a. total square feet \_\_\_\_\_

b. square feet within 100 ft. \_\_\_\_\_

c. square feet between 100 ft. and 200 ft. \_\_\_\_\_

5. Has an alternatives analysis been done and is it attached to this NOI?  Yes  No

6. Was the lot where the activity is proposed created prior to August 1, 1996?  Yes  No

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

**Note:** for coastal riverfront areas, please complete **Section B.2.f.** above.



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 Bureau of Resource Protection - Wetlands

**WPA Form 3 – Notice of Intent**

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

East Boston

City/Town

**B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)**

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Online Users:  
 Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
a. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. <input type="checkbox"/> Land Under the Ocean	1. square feet _____	
	2. cubic yards dredged _____	
c. <input type="checkbox"/> Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. <input type="checkbox"/> Coastal Beaches	1. square feet _____	2. cubic yards beach nourishment _____
e. <input type="checkbox"/> Coastal Dunes	1. square feet _____	2. cubic yards dune nourishment _____
	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
f. <input type="checkbox"/> Coastal Banks	1. linear feet _____	
g. <input type="checkbox"/> Rocky Intertidal Shores	1. square feet _____	
h. <input type="checkbox"/> Salt Marshes	1. square feet _____	2. sq ft restoration, rehab., creation _____
i. <input type="checkbox"/> Land Under Salt Ponds	1. square feet _____	
	2. cubic yards dredged _____	
j. <input type="checkbox"/> Land Containing Shellfish	1. square feet _____	
k. <input type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	
	1. cubic yards dredged _____	
l. <input checked="" type="checkbox"/> Land Subject to Coastal Storm Flowage	1,147 _____	
	1. square feet _____	
4. <input type="checkbox"/> Restoration/Enhancement	If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.	
	a. square feet of BVW _____	b. square feet of Salt Marsh _____
5. <input type="checkbox"/> Project Involves Stream Crossings		
	a. number of new stream crossings _____	b. number of replacement stream crossings _____



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

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MassDEP File Number

Document Transaction Number

East Boston

City/Town

**C. Other Applicable Standards and Requirements**

- This is a proposal for an Ecological Restoration Limited Project. Skip Section C and complete Appendix A: Ecological Restoration Limited Project Checklists – Required Actions (310 CMR 10.11).

**Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review**

1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the *Massachusetts Natural Heritage Atlas* or go to [http://maps.massgis.state.ma.us/PRI\\_EST\\_HAB/viewer.htm](http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm).

- a.  Yes  No **If yes, include proof of mailing or hand delivery of NOI to:**

Natural Heritage and Endangered Species Program  
Division of Fisheries and Wildlife  
1 Rabbit Hill Road  
Westborough, MA 01581

8/2017

b. Date of map

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.c, and include requested materials with this Notice of Intent (NOI); *OR* complete Section C.2.f, if applicable. *If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).*

- c. Submit Supplemental Information for Endangered Species Review\*
1.  Percentage/acreage of property to be altered:
    - (a) within wetland Resource Area \_\_\_\_\_  
percentage/acreage
    - (b) outside Resource Area \_\_\_\_\_  
percentage/acreage
  2.  Assessor's Map or right-of-way plan of site
2.  Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work \*\*
- (a)  Project description (including description of impacts outside of wetland resource area & buffer zone)
  - (b)  Photographs representative of the site

\* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/>). Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

\*\* MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

## WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

East Boston

City/Town

### C. Other Applicable Standards and Requirements (cont'd)

- (c)  MESA filing fee (fee information available at [http://www.mass.gov/dfwele/dfw/nhosp/regulatory\\_review/mesa/mesa\\_fee\\_schedule.htm](http://www.mass.gov/dfwele/dfw/nhosp/regulatory_review/mesa/mesa_fee_schedule.htm)). Make check payable to "Commonwealth of Massachusetts - NHESP" and **mail to NHESP** at above address

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

- (d)  Vegetation cover type map of site

- (e)  Project plans showing Priority & Estimated Habitat boundaries

- (f) OR Check One of the Following

1.  Project is exempt from MESA review.  
Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, [http://www.mass.gov/dfwele/dfw/nhosp/regulatory\\_review/mesa/mesa\\_exemptions.htm](http://www.mass.gov/dfwele/dfw/nhosp/regulatory_review/mesa/mesa_exemptions.htm); the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2.  Separate MESA review ongoing. a. NHESP Tracking # \_\_\_\_\_ b. Date submitted to NHESP \_\_\_\_\_

3.  Separate MESA review completed.  
Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

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

- a.  Not applicable – project is in inland resource area only      b.  Yes     No

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

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

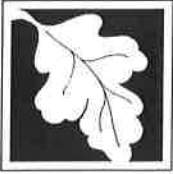
Division of Marine Fisheries -  
Southeast Marine Fisheries Station  
Attn: Environmental Reviewer  
836 South Rodney French Blvd.  
New Bedford, MA 02744  
Email: [DMF.EnvReview-South@state.ma.us](mailto:DMF.EnvReview-South@state.ma.us)

North Shore - Hull to New Hampshire border:

Division of Marine Fisheries -  
North Shore Office  
Attn: Environmental Reviewer  
30 Emerson Avenue  
Gloucester, MA 01930  
Email: [DMF.EnvReview-North@state.ma.us](mailto:DMF.EnvReview-North@state.ma.us)

Also if yes, the project may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional Office.





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Bureau of Resource Protection - Wetlands

## WPA Form 3 – Notice of Intent

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

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MassDEP File Number

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### C. Other Applicable Standards and Requirements (cont'd)

**Online Users:**

Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?
- a.  Yes  No      If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.
- b. ACEC
5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?
- a.  Yes  No
6. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?
- a.  Yes  No
7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?
- a.  Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:
1.  Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)
  2.  A portion of the site constitutes redevelopment
  3.  Proprietary BMPs are included in the Stormwater Management System.
- b.  No. Check why the project is exempt:
1.  Single-family house
  2.  Emergency road repair
  3.  Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

### D. Additional Information

- This is a proposal for an Ecological Restoration Limited Project. Skip Section D and complete Appendix A: Ecological Restoration Notice of Intent – Minimum Required Documents (310 CMR 10.12).

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

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

1.  USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
2.  Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.



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Bureau of Resource Protection - Wetlands

**WPA Form 3 – Notice of Intent**

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

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**D. Additional Information (cont'd)**

3.  Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.

4.  List the titles and dates for all plans and other materials submitted with this NOI.

Permit Set - Site Plan 93-95 Prescott Street, East Boston, MA

a. Plan Title

Williams & Sparages LLC

Christ P. Sparages, P.E.

b. Prepared By

c. Signed and Stamped by

12/2/19

1" = 20'

d. Final Revision Date

e. Scale

Stormwater Checklist

12/2/19

f. Additional Plan or Document Title

g. Date

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

**E. Fees**

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

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

18704

8-21-19

2. Municipal Check Number

3. Check date

18703

8-21-19

4. State Check Number

5. Check date

Rita

Roberto

6. Payor name on check: First Name

7. Payor name on check: Last Name



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**F. Signatures and Submittal Requirements**

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

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

<p>1. Signature of Applicant</p> <p>3. Signature of Property Owner (if different)</p> <p>5. Signature of Representative (if any)</p>	<p>2. Date</p> <p>4. Date</p> <p>6. Date</p>
<p><i>Louie Roberto</i></p> <p><i>Rita Roberto</i></p> <p><i>[Signature]</i></p>	<p><i>8-12-19</i></p> <p></p> <p><i>12-2-19</i></p>

**For Conservation Commission:**

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

**For MassDEP:**

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

**Other:**

If the applicant has checked the "yes" box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

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



**Massachusetts Department of Environmental Protection**  
 Bureau of Resource Protection - Wetlands  
**NOI Wetland Fee Transmittal Form**  
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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



**A. Applicant Information**

1. Location of Project:

93-95 Prescott Street East Boston  
 a. Street Address b. City/Town  
 18703 \$512.50  
 c. Check number d. Fee amount

2. Applicant Mailing Address:

Rita & Louie Roberto  
 a. First Name b. Last Name  
 687 Saratoga Street Realty Trust (Owner of 95 Prescott/ Applicant)  
 c. Organization  
 282 Bennington Street  
 d. Mailing Address  
 East Boston MA 02128  
 e. City/Town f. State g. Zip Code  
 (617) 567-4499 celeste@spinellis.com  
 h. Phone Number i. Fax Number j. Email Address

3. Property Owner (if different):

Rita & Louie Roberto  
 a. First Name b. Last Name  
 LAR Property Management (Owner of 93 Prescott)  
 c. Organization  
 282 Bennington Street  
 d. Mailing Address  
 East Boston MA 02128  
 e. City/Town f. State g. Zip Code  
 617-567-1992 anthony@spinellis.com  
 h. Phone Number i. Fax Number j. Email Address

To calculate filing fees, refer to the category fee list and examples in the instructions for filling out WPA Form 3 (Notice of Intent).

**B. Fees**

Fee should be calculated using the following process & worksheet. **Please see Instructions before filling out worksheet.**

**Step 1/Type of Activity:** Describe each type of activity that will occur in wetland resource area and buffer zone.

**Step 2/Number of Activities:** Identify the number of each type of activity.

**Step 3/Individual Activity Fee:** Identify each activity fee from the six project categories listed in the instructions.

**Step 4/Subtotal Activity Fee:** Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

**Step 5/Total Project Fee:** Determine the total project fee by adding the subtotal amounts from Step 4.

**Step 6/Fee Payments:** To calculate the state share of the fee, divide the total fee in half and subtract \$12.50. To calculate the city/town share of the fee, divide the total fee in half and add \$12.50.



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**B. Fees** (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
(3.b.) towhouse-type development	1	\$1050.00	\$1050.00

**Step 5/Total Project Fee:** \$1050.00

**Step 6/Fee Payments:**

Total Project Fee:	<u>\$1050.00</u>
State share of filing Fee:	a. Total Fee from Step 5 <u>\$512.50</u> b. 1/2 Total Fee <b>less</b> \$12.50
City/Town share of filing Fee:	c. 1/2 Total Fee <b>plus</b> \$12.50

**C. Submittal Requirements**

- a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

Department of Environmental Protection  
 Box 4062  
 Boston, MA 02211

- b.) **To the Conservation Commission:** Send the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and the city/town fee payment.

**To MassDEP Regional Office** (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)

**#93-95 Prescott Street  
East Boston, Massachusetts**

**Project Narrative**  
(December 2, 2019)  
Revised December 5, 2019

Introduction

The Proposed Redevelopment Project ("Project") is located at 93-95 Prescott Street in the East Boston section of the City of Boston. The site of the Project is comprised of 2 parcels with a combined area of 2,100 square feet currently improved by a 2 story 2-family home. The property is located in the Three-Family Residential (3F-2000) sub district, which allows for the construction of multi-family dwellings. The entire subject property is located within a Flood Hazard Area, Zone AE, elevation 10 NGVD (elevation 16.5 Boston City Base), as shown on Flood Insurance Rate Map (FIRM) Community Panel Number 25025C0019J, map revised March 16, 2016. The flood waters are associated with coastal storm flow from the Atlantic Ocean, therefore, the subject property lies with the wetland resource area known as Land Subject to Coastal Storm Flowage (LSCSF).

The City of Boston Assessor's office describes the property as a residential property and is assessed for residential only. The lot is predominantly covered by building, deck area, and paved surfaces.

Proposal

The proposal is to re-develop the property into a 3 story multi-family dwelling with decks, 1,000-gallon drywell, and utilities on the subject property. The new building on the Project site will consist of six units, three units containing two (2) bedrooms each and three unit containing one (1) bedroom for a total of 9 bedrooms within the new building. All of the work is proposed to take place within the Land Subject to Coastal Storm Flowage (LSCSF) resource area. The proposed first floor elevation will be constructed one foot above the base flood elevation at elevation 17.5 (Boston City Base).

The existing catch basin in the rear corner of the parcel is proposed to be removed as well. As a result, the rear portion of the project site is proposed to be regraded to allow for stormwater to flow towards Prescott Street instead of towards the catch basin. This work involves the filling of LSCSF, and has been noted on the NOI application.

Stormwater Management

The proposed redevelopment of the subject property results in a slight reduction in impervious surfaces. As an added benefit, an infiltration drywell has been designed to capture runoff from the roof. The 1,000 gallon drywell is to be located below the deck area and will be surrounded with crushed stone on all sides. This infiltration device has been designed to capture 1-inch of runoff from the roof.

Performance Standards

There is no performance standard for work within LSCSF. As the project and site are subject to flow from the Atlantic Ocean, the proposed work can have no measureable affect on potential flooding

on the property. In prior cases involving LSCSF from the Atlantic Ocean, Massachusetts Courts have ruled that any compensatory flood storage consumed by a project in LSCSF is insignificant in comparison to the size of the ocean's basin.

#### Construction/ Erosion & Sediment Control

There is very little earth moving activity proposed on the subject property and the subject property is relatively flat. The potential for erosion and sediment migrating from this construction site is very low. The applicant proposes the use of siltfence and/or straw waddle along the abutting properties as a precaution. This line of sediment control will also help demarcate the property line and limit of work. Should any sediment migrate onto Prescott Street during construction, the sediment will be swept up daily by the contractor or contractor's subcontractors. Utility installation will be coordinated with the Department of Public Works and the appropriate utility companies in East Boston.

# Boston Planning & Development Agency Climate Resiliency Report Summary



**Submitted:** 12/05/2019 14:56:54

## A.1 - Project Information

Project Name:			
Project Address:	93-95 Prescott Street, East Boston, MA 02128		
Filing Type:	Construction / Certificate of Occupancy (post construction completion)		
Filing Contact:	Matt Provencher	Williams & Sparages, LLC	mprovencher@wsengineers.com 9785398088
Is MEPA approval required?	No	MEPA date:	

## A.2 - Project Team

Owner / Developer:	LAR Property Management, LLC
Architect:	Curtis DiBenedetto and Associates, Inc.
Engineer:	
Sustainability / LEED:	N/A
Permitting:	Williams & Sparages, LLC
Construction Management:	LAR Property Management, LLC

## A.3 - Project Description and Design Conditions

List the principal Building Uses:	Residential
List the First Floor Uses:	Residential
List any Critical Site Infrastructure and or Building Uses:	Water, sewer, natural gas, electric, and CATV services.

### Site and Building:

Site Area (SF):	2100	Building Area (SF):	1542
Building Height (Ft):	33.75	Building Height (Stories):	3
Existing Site Elevation – Low (Ft BCB):	13.1	Existing Site Elevation – High (Ft BCB):	16.0
Proposed Site Elevation – Low (Ft BCB):	14.6	Proposed Site Elevation – High (Ft BCB):	16.6
Proposed First Floor Elevation (Ft BCB):	17.5	Below grade spaces/levels (#):	0

### Article 37 Green Building:

LEED Version - Rating System:	N/A	LEED Certification:	
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# Boston Planning & Development Agency Climate Resiliency Report Summary



Proposed LEED rating: **Certified**      Proposed LEED point score (Pts.):

### Building Envelope:

When reporting R values, differentiate between R discontinuous and R continuous. For example, use "R13" to show R13 discontinuous and use R10c.i. to show R10 continuous. When reporting U value, report total assembly U value including supports and structural elements.

Roof:	<b>R38</b>	Exposed Floor:	<b>R30</b>
Foundation Wall:	<b>n/a</b>	Slab Edge (at or below grade):	<b>R10c.i</b>
Vertical Above-grade Assemblies (%'s are of total vertical area and together should total 100%):			
Area of Opaque Curtain Wall & Spandrel Assembly:		Wall & Spandrel Assembly Value:	<b>.048</b>
Area of Framed & Insulated / Standard Wall:	<b>82.6%</b>	Wall Value:	<b>R21</b>
Area of Vision Window:	<b>16.2%</b>	Window Glazing Assembly Value:	<b>0.30</b>
		Window Glazing SHGC:	<b>0.30</b>
Area of Doors:	<b>1.2%</b>	Door Assembly Value:	<b>0.20</b>

### Energy Loads and Performance

For this filing – describe how energy loads & performance were determined

**Ekotrope modeling, IECC 2015 UA Compliance and system specifications**

Annual Electric (kWh):	<b>15497</b>	Peak Electric (kW):	<b>5.2</b>
Annual Heating (MMbtu/hr):	<b>133.8</b>	Peak Heating (MMbtu):	<b>0.76</b>
Annual Cooling (Tons/hr):	<b>0.80</b>	Peak Cooling (Tons):	<b>3.0</b>
Energy Use - Below ASHRAE 90.1 - 2013 (%):	<b>7.2</b>	Have the local utilities reviewed the building energy performance?:	<b>No</b>
Energy Use - Below Mass. Code (%):	<b>5.3</b>	Energy Use Intensity (kBtu/SF):	<b>30.7</b>

### Back-up / Emergency Power System

Electrical Generation Output (kW):	<b>0</b>	Number of Power Units:	<b>0</b>
System Type (kW):	<b>0</b>	Fuel Source:	<b>n/a</b>

### Emergency and Critical System Loads (in the event of a service interruption)

Electric (kW):	<b>5.2</b>	Heating (MMbtu/hr):	<b>.76</b>
		Cooling (Tons/hr):	<b>3.0</b>

---

**B – Greenhouse Gas Reduction and Net Zero / Net Positive Carbon Building Performance**

Reducing greenhouse gas emissions is critical to avoiding more extreme climate change conditions. To achieve the City’s goal of carbon-neutrality by 2050 the performance of new buildings will need to progressively improve to carbon net zero and net positive.

**B.1 – GHG Emissions - Design Conditions**

For this filing - Annual Building GHG Emissions (Tons): [REDACTED]

For this filing - describe how building energy performance has been integrated into project planning, design, and engineering and any supporting analysis or modeling:

[REDACTED]

Describe building specific passive energy efficiency measures including orientation, massing, building envelop, and systems:

[REDACTED]

Describe building specific active energy efficiency measures including high performance equipment, controls, fixtures, and systems:

[REDACTED]

Describe building specific load reduction strategies including on-site renewable energy, clean energy, and storage systems:

[REDACTED]

Describe any area or district scale emission reduction strategies including renewable energy, central energy plants, distributed energy systems, and smart grid infrastructure:

[REDACTED]

Describe any energy efficiency assistance or support provided or to be provided to the project:

[REDACTED]

**B.2 - GHG Reduction - Adaptation Strategies**

Describe how the building and its systems will evolve to further reduce GHG emissions and achieve annual carbon net zero and net positive performance (e.g. added efficiency measures, renewable energy, energy storage, etc.) and the timeline for meeting that goal (by 2050):

[Redacted]

**C - Extreme Heat Events**

Annual average temperature in Boston increased by about 2 ° F in the past hundred years and will continue to rise due to climate change. By the end of the century, the average annual temperature could be 56° (compared to 46° now) and the number of days above 90° (currently about 10 a year) could rise to 90.

**C.1 – Extreme Heat - Design Conditions**

Temperature Range - Low (Deg.): -10  
Annual Heating Degree Days:

Temperature Range - High (Deg.): 95  
Annual Cooling Degree Days:

What Extreme Heat Event characteristics will be / have been used for project planning

Days - Above 90° (#): 4

Days - Above 100° (#): 1

Number of Heatwaves / Year (#): 1

Average Duration of Heatwave (Days): 4

Describe all building and site measures to reduce heat-island effect at the site and in the surrounding area:

[Redacted]

**C.2 - Extreme Heat – Adaptation Strategies**

Describe how the building and its systems will be adapted to efficiently manage future higher average temperatures, higher extreme temperatures, additional annual heatwaves, and longer heatwaves:

[Redacted]

Describe all mechanical and non-mechanical strategies that will support building functionality and use during extended interruptions of utility services and infrastructure including proposed and future adaptations:

[Redacted]

**D - Extreme Precipitation Events**

From 1958 to 2010, there was a 70 percent increase in the amount of precipitation that fell on the days with the heaviest precipitation. Currently, the 10-Year, 24-Hour Design Storm precipitation level is 5.25". There is a significant probability that

this will increase to at least 6” by the end of the century. Additionally, fewer, larger storms are likely to be accompanied by more frequent droughts.

**D.1 – Extreme Precipitation - Design Conditions**

What is the project design precipitation level? (In. / 24 Hours)

Describe all building and site measures for reducing storm water run-off:

Construction of a new 1000 gallon infiltration drywell with stone.

**D.2 - Extreme Precipitation - Adaptation Strategies**

Describe how site and building systems will be adapted to efficiently accommodate future more significant rain events (e.g. rainwater harvesting, on-site storm water retention, bio swales, green roofs):

Construction of a new 1000 gallon infiltration drywell with stone.

**E – Sea Level Rise and Storms**

Under any plausible greenhouse gas emissions scenario, the sea level in Boston will continue to rise throughout the century. This will increase the number of buildings in Boston susceptible to coastal flooding and the likely frequency of flooding for those already in the floodplain.

Is any portion of the site in a FEMA Special Flood Hazard Area?  What Zone:

What is the current FEMA SFHA Zone Base Flood Elevation for the site (Ft BCB)?

Is any portion of the site in the BPDA Sea Level Rise Flood Hazard Area (see [SLR-FHA online map](#))?

***If you answered YES to either of the above questions, please complete the following questions. Otherwise you have completed the questionnaire; thank you!***

**E.1 – Sea Level Rise and Storms – Design Conditions**

Proposed projects should identify immediate and future adaptation strategies for managing the flooding scenario represented by the Sea Level Rise Flood Hazard Area (SLR-FHA), which includes 3.2’ of sea level rise above 2013 tide levels, an additional 2.5” to account for subsidence, and the 1% Annual Chance Flood. After using the SLR-FHA to identify a project’s Sea Level Rise Base Flood Elevation, proponents should calculate the Sea Level Rise Design Flood Elevation by

# Boston Planning & Development Agency Climate Resiliency Report Summary



boston planning &  
development agency

adding 12" of freeboard for buildings, and 24" of freeboard for critical facilities and infrastructure and any ground floor residential units.

What is the Sea Level Rise - Base Flood Elevation for the site (Ft BCB)?	19.5		
What is the Sea Level Rise - Design Flood Elevation for the site (Ft BCB)?	20.5	First Floor Elevation (Ft BCB):	17.5
What are the Site Elevations at Building (Ft BCB)?	16.6	What is the Accessible Route Elevation (Ft BCB)?	

Describe site design strategies for adapting to sea level rise including building access during flood events, elevated site areas, hard and soft barriers, wave / velocity breaks, storm water systems, utility services, etc.:

[Redacted]

Describe how the proposed Building Design Flood Elevation will be achieved including dry / wet flood proofing, critical systems protection, utility service protection, temporary flood barriers, waste and drain water back flow prevention, etc.:

[Redacted]

Describe how occupants might shelter in place during a flooding event including any emergency power, water, and waste water provisions and the expected availability of any such measures:

[Redacted]

Describe any strategies that would support rapid recovery after a weather event:

[Redacted]

## E.2 – Sea Level Rise and Storms – Adaptation Strategies

Describe future site design and or infrastructure adaptation strategies for responding to sea level rise including future elevating of site areas and access routes, barriers, wave / velocity breaks, storm water systems, utility services, etc.:

[Redacted]

Describe future building adaptation strategies for raising the Sea Level Rise Design Flood Elevation and further protecting critical systems, including permanent and temporary measures:

[Redacted]

Thank you for completing the Boston Climate Change Checklist!

For questions or comments about this checklist or Climate Change best practices, please contact:

[John.Dalzell@boston.gov](mailto:John.Dalzell@boston.gov)

# STORMWATER REPORT

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**Proposed Building  
93-95 Prescott Street  
East Boston, Massachusetts**

**December 5, 2019**

**Owner (95 Prescott)/Applicant:  
687 Saratoga Street Realty Trust  
282 Bennington Street  
East Boston, MA 02128**

**Owner (93 Prescott):  
LAR Property Management  
282 Bennington Street  
East Boston, MA 02128**

**Prepared By  
Williams & Sparages, LLC  
189 North Main Street, Suite 101  
Middleton, MA 01949  
Ph: 978-539-8088  
Fax: 978-539-8200  
[www.wsengineers.com](http://www.wsengineers.com)**

**W&S Project Data  
EBOS-0027  
SPprescott#93-95\_BWSC\_R1.dwg  
Existing.hcp  
Proposed.hcp  
p:\ebos-0027(93-95 prescott street)\drainage\stormwater\_report.docx**



## TABLE OF CONTENTS

<b>1   Mitigative Drainage Analysis.....</b>	<b>3</b>
1.1 Purpose .....	3
1.2 Introduction.....	3
1.3 Existing Condition Soils Analysis .....	3
1.4 Stormwater Modeling Methodology .....	4
1.5 Pre-Development Watershed.....	4
1.6 Post-Development Watershed.....	4
1.7 Compliance with DEP Stormwater Management Standards.....	5
1.8 Conclusion.....	7
1.9 HydroCAD Data.....	9
Existing Condition .....	10
Proposed Condition.....	11
<b>2   MassDEP Stormwater Checklist .....</b>	<b>12</b>
Standard 1: No New Untreated Discharges.....	14
Standard 2: Peak Rate Attenuation .....	14
Standard 3: Recharge .....	15
Standard 4: Water Quality.....	16
Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs) .....	17
Standard 6: Critical Areas.....	17
Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable.....	17
Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control.....	18
Standard 9: Operation and Maintenance Plan.....	18
Standard 10: Prohibition of Illicit Discharges.....	19
<b>3   NRCS Web Soil Survey.....</b>	<b>20</b>

## ***1 | Mitigative Drainage Analysis***

### ***1.1 Purpose***

The purpose of this analysis is to compare the pre-development watershed condition to the post development watershed condition for the project located at 93-95 Prescott Street in n, MA. This is accomplished by analyzing the surface runoff rates to the limit of watershed analysis as shown on the accompanying watershed maps. The result of this analysis is presented below in the Peak Rate of Runoff tables.

### ***1.2 Introduction***

The site of the Project is comprised of 2 parcels with a combined area of 2,100 square feet currently improved by a 2 story 2-family home. The site is mostly impervious with the existing building, pavement, and concrete patio. A small portion of the site behind the building contains planters and some bare ground overgrown with weeds.

The proposal is to improve the site by constructing a 1,570 s.f. building to be used as a 3 story multi-family dwelling with decks, 1,000-gallon drywell, and utilities.

The proposed redevelopment of the subject property results in a slight reduction in impervious surfaces. As an added benefit, an infiltration drywell has been designed to capture runoff from the roof. The 1,000 gallon drywell is to be located below the deck area and will be surrounded with crushed stone on all sides. This infiltration device has been designed to capture 1-inch of runoff from the roof.

It should be noted that the subject property is located within a Flood Hazard Area, Zone AE, elevation 10 NGVD (elevation 16.5 Boston City Base), as shown on Flood Insurance Rate Map (FIRM) Community Panel Number 25025C0019J, map revised March 16, 2016. The flood waters are associated with coastal storm flow from the Atlantic Ocean, therefore, the subject property lies with the wetland resource area known as Land Subject to Coastal Storm Flowage (LSCSF). There is no performance standard for work within LSCSF. As the project and site are subject to flow from the Atlantic Ocean, the proposed work can have no measureable effect on potential flooding on the property.

### ***1.3 Existing Condition Soils Analysis***

In order to model the excess runoff for both the existing and proposed watershed condition, the parent soils on site were mapped using the Web Soil Survey (WSS) made available on the United States Department of Agriculture (USDA) National Resources Conservation Service (NRCS) website. The WSS provides vital soil data and information such as Hydrologic Soil Group (HSG), which is then input into a mathematical model to generate runoff curve numbers.

The user inputs soil cover type as well as the hydrologic soil group to generate a weighted curve number (CN) and also uses the topography of the land to generate a time of concentration (Tc) from which the stormwater runoff rate and volume can be calculated for a given watershed for comparison.

The soils present on site are comprised of urban land, wet substratum, which does not have an assigned HSG rating by the NRCS.



### **1.4 Stormwater Modeling Methodology**

The mathematical model used in this analysis is computed using the stormwater modeling software HydroCAD, v10.00, developed by HydroCAD Software Solutions LLC. HydroCAD is a program used to model the hydrology and hydraulics of stormwater runoff and is based largely on programs and techniques developed by the NRCS, specifically TR-20 and TR-55 as well as other hydraulic calculation methods.

HydroCAD allows the user, for a given rainfall event, to generate runoff hydrographs for single or multiple watersheds and is used to determine if a given drainage system is adequate under the desired conditions and to predict flooding or other hydraulic impacts at specified locations such as erosion.

Four design storm events are analyzed and the results presented below for the 2-year, 10 year, and 100-year storm events for comparison.

### **1.5 Pre-Development Watershed**

The total pre-development watershed area is separated into two (2) sub catchments resulting from existing topography and for comparison with the post-development condition.

Comparison edge 1L represents surficial flow tributary towards Prescott Street and then into the municipal drainage system amounts to approximately 528 ft<sup>2</sup>.

Comparison edge 2L represents surficial flow tributary towards the northwesterly property boundary abutting the passageway and the existing drywell amounts to approximately 1,572 ft<sup>2</sup>.

The total watershed area within the limit of watershed analysis is 2,100 ft<sup>2</sup> and is represented by link 3L.

Using the methods described in the stormwater modeling methodology above, runoff curve numbers and times of concentration are generated for each watershed for the pre-development condition to be used for comparison with the post-development condition described below. A schematic of the mathematical model and the results of the calculations for the 2-year, 10-year, and 100-year Type III, 24-hour storm events are included in this analysis.

### **1.6 Post-Development Watershed**

Similar to the pre-development condition, the post-development watershed is separated into three (3) sub catchments.

Comparison edge 1L represents the flow towards the municipal drainage system in Prescott Street and amounts to 2,100 ft<sup>2</sup>.

Comparison edge 2L represents surficial flow tributary from the passageway into the proposed trench drain and amounts to approximately 232 ft<sup>2</sup>.

Comparison edge 4L represents the surficial flow towards the proposed Trench Drain adjacent to Prescott Street and amounts to approximately 298 ft<sup>2</sup>.

Subcatchment 5S represents the roof area that discharges into the proposed 1,000-gallon drywell. Watershed area 3L amounts to approximately 1,570 ft<sup>2</sup>.

The total watershed area within the limit of watershed analysis is 2,100 ft<sup>2</sup> and is represented by link 3L.

Stormwater runoff from the roof area will be collected by roof drains which discharge into a subsurface 1,000-gallon drywell. The drywell is proposed to be installed with six (6) inches of stone surrounding the structure on all sides and twelve (12) inches of stone on the bottom. The infiltration drywell with stone is designed to capture one (1) inch of runoff from the roof area and is equipped with an overflow pipe should the systems reach their capacities. The overflow pipe is proposed to connect to the City drainage system in Prescott Street. We are also installing trench drains where noted above to capture runoff and direct towards the proposed drywell.

Using the methods described in the stormwater modeling methodology above, runoff curve numbers and times of concentration were generated for each watershed for the proposed condition to be used for comparison with the existing condition. A schematic of the mathematical model and the results of the calculations for the 2-year, 10 year, and 100-year, Type III, 24-hour storm events are included in this analysis.

### **1.7 Compliance with DEP Stormwater Management Standards**

#### **Standard 1**

*No new stormwater conveyances (e.g. outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.*

Not applicable.

#### **Standard 2**

*Stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates. This Standard may be waived for discharges to land subject to coastal storm flowage as defined in 310 CMR 10.04.*

Not applicable, waiver requested because the project is located in land subject to coastal storm flowage.

#### **Standard 3**

*Loss of annual recharge to groundwater shall be eliminated or minimized through the use of infiltration measures including environmentally sensitive site design, low impact development techniques, stormwater best management practices, and good operation and maintenance. At a minimum, the annual recharge from the post-development site shall approximate the annual recharge from the pre-development conditions based on soil type. This Standard is met when the stormwater management system is designed to infiltrate the required recharge volume as determined in accordance with the Massachusetts Stormwater Handbook.*

The project proposes the use of a 1,000-gallon drywell for groundwater recharge practice.

#### **Standard 4**

*Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS). This Standard is met when:*

- a. Suitable practices for source control and pollution prevention are identified in a long-term pollution prevention plan, and thereafter are implemented and maintained;*
- b. Structural stormwater best management practices are sized to capture the required water quality volume determined in accordance with the Massachusetts Stormwater Handbook; and*
- c. Pretreatment is provided in accordance with the Massachusetts Stormwater Handbook*

Not applicable.

**Standard 5**

*For land uses with higher potential pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable. If through source control and/or pollution prevention all land uses with higher potential pollutant loads cannot be completely protected from exposure to rain, snow melt, and stormwater runoff, the proponent shall use specific structural stormwater BMPs determined by the Department to be suitable for such uses as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from land uses with higher potential pollutant loads shall also comply with the requirements of the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53 and the regulations promulgated there under at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00.*

Not applicable.

**Standard 6**

*Stormwater discharges within the Zone II or Interim Wellhead Protection Area of a public water supply, and stormwater discharges near or to any other critical area, require the use of the specific source control and pollution prevention measures and the specific structural stormwater best management practices determined by the Department to be suitable for managing discharges to such areas, as provided in the Massachusetts Stormwater Handbook. A discharge is near a critical area if there is a strong likelihood of a significant impact occurring to said area, taking into account site-specific factors. Stormwater discharges to Outstanding Resource Waters and Special Resource Waters shall be removed and set back from the receiving water or wetland and receive the highest and best practical method of treatment. A “storm water discharge” as defined in 314 CMR 3.04(2) (a) (1 or (b) to an Outstanding Resource Water or Special Resource Water shall comply with 314 CMR 3.00 and 314 CMR 4.00. Stormwater discharges to a Zone I or Zone A are prohibited unless essential to the operation of public water supply.*

Not applicable.

**Standard 7**

*A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural best management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent practicable. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.*

There is a slight reduction in the amount of impervious area, therefore the project does meet the criteria for a Redevelopment Project and the project is in compliance to the maximum extent practicable.

**Standard 8**

*A plan to control construction-related impacts including erosion, sedimentation and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan) shall be developed and implemented.*

See previously submitted Erosion & Sediment Control Plan in the Notice of Intent package.

**Standard 9**

*A long-term operation and maintenance plan shall be developed and implemented to ensure that stormwater management systems function as designed.*

See the previously submitted Operation & Maintenance Plan (O&M) and Long-Term Pollution Prevention Plan in the Notice of Intent package.

**Standard 10**

*All illicit discharges to the stormwater management system are prohibited.*

***Illicit Discharge Compliance Statement***

No connection between the stormwater and wastewater management systems is proposed. Per requirements of Standard 10 it is herein stated that there are no proposed illicit discharges into the Stormwater Management System to be constructed as shown on the site plan.

**1.8 Conclusion**

As you can see by examining the following Peak Rate of Runoff and Basin Performance tables, there is a slight decrease in the 2-year storm but no increase in the amount of runoff generated for the 10- & 100-year storms on the site, see table 1. Although there will be a negligible increase in the peak flow rates to the municipal drainage system for the 2, 10, and 100-year storm events, there will be a reduction in the peak rate of runoff of surface flow towards Prescott Street as now all of the runoff from the site will be intercepted and then piped directly into the municipal drainage system.

Therefore, we are meeting the requirement to the maximum extent practicable as we are a Redevelopment and we lie within a Land Subject to Coastal Storm Flowage with the waiver.



**Table 1.0: Peak Rate of Runoff | Comparison Location 3L (Total runoff generated on site)**

Description	2 Year	10 Year	100 Year
Existing Peak Rate of Runoff (cfs)	0.14	0.21	0.30
Proposed Peak Rate of Runoff (cfs)	0.13	0.21	0.30
Difference	<b>-0.01 Negligible</b>	<b>0.0</b>	<b>0.0</b>

**Table 2.0: Peak Rate of Runoff | Comparison Location 2L (Flow to existing drywell)**

Description	2 Year	10 Year	100 Year
Existing Peak Rate of Runoff (cfs)	0.11	0.16	0.23
Proposed Peak Rate of Runoff (cfs)	NA	NA	NA
Difference	<b>Drywell removed in proposed condition</b>		

**Table 3.0: Peak Rate of Runoff | Comparison Location 1L (Flow to municipal drainage)**

Description	2 Year	10 Year	100 Year
Existing Peak Rate of Runoff (cfs)	0.04	0.05	0.08
Proposed Peak Rate of Runoff (cfs)	0.13	0.21	0.30
Difference	<b>+0.09 Negligible</b>	<b>+0.16 Negligible</b>	<b>+0.22 Negligible</b>

**Table 3.0: Stormwater Management Area 1P | 1,000 Gallon Drywell Performance Table**

24 Hour Type III Storm event	Peak Rate of Inflow (cfs)	Peak Rates of runoff out (cfs)			8" Overflow (cfs)	Peak Water Level (ft)
		Total Outflow (cfs)	Exfiltration (cfs)			
<b>2 year</b>	0.14	0.13	0.0		0.13	10.41
<b>10 year</b>	0.21	0.21	0.0		0.21	10.45
<b>100 year</b>	0.30	0.30	0.0		0.30	10.51

*1.9 HydroCAD Data*

*Existing Condition*



Prescott



Yard Drain



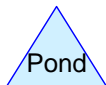
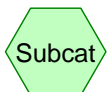
Flow to Municipal  
Drainage System



Flow from walkway area



Total runoff generated  
on Site



**Routing Diagram for Existing-PMB**  
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**Existing-PMB**

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Page 2

**Area Listing (all nodes)**

Area (sq-ft)	CN	Description (subcatchment-numbers)
223	89	<50% Grass cover, Poor, HSG D (4S)
923	98	Paved parking, HSG D (3S, 4S)
954	98	Roofs, HSG D (3S, 4S)
<b>2,100</b>	<b>97</b>	<b>TOTAL AREA</b>

**Existing-PMB**

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Page 3

**Soil Listing (all nodes)**

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
0	HSG C	
2,100	HSG D	3S, 4S
0	Other	
<b>2,100</b>		<b>TOTAL AREA</b>

**Existing-PMB**

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Page 4

**Summary for Subcatchment 3S: Prescott**

Runoff = 0.04 cfs @ 12.09 hrs, Volume= 131 cf, Depth= 2.97"

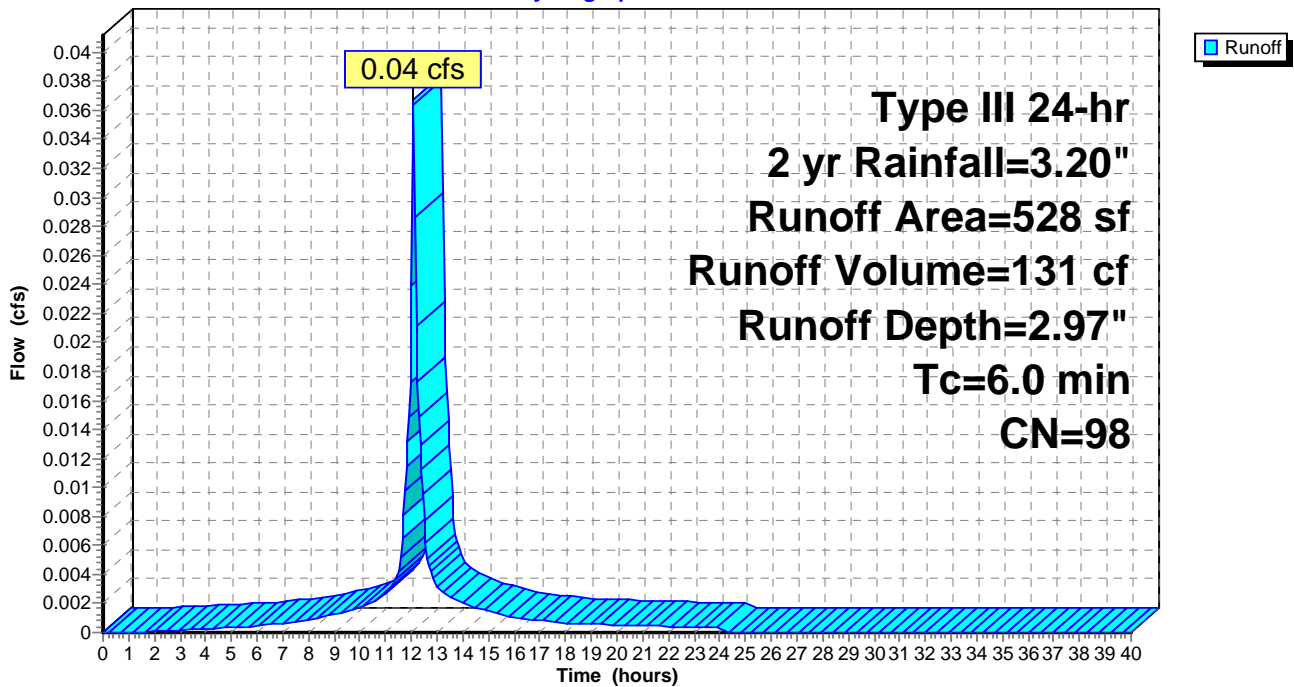
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2 yr Rainfall=3.20"

Area (sf)	CN	Description
468	98	Roofs, HSG D
60	98	Paved parking, HSG D
528	98	Weighted Average
528		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 3S: Prescott**

Hydrograph



**Existing-PMB**

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Page 5

**Summary for Subcatchment 4S: Yard Drain**

Runoff = 0.11 cfs @ 12.09 hrs, Volume= 374 cf, Depth= 2.86"

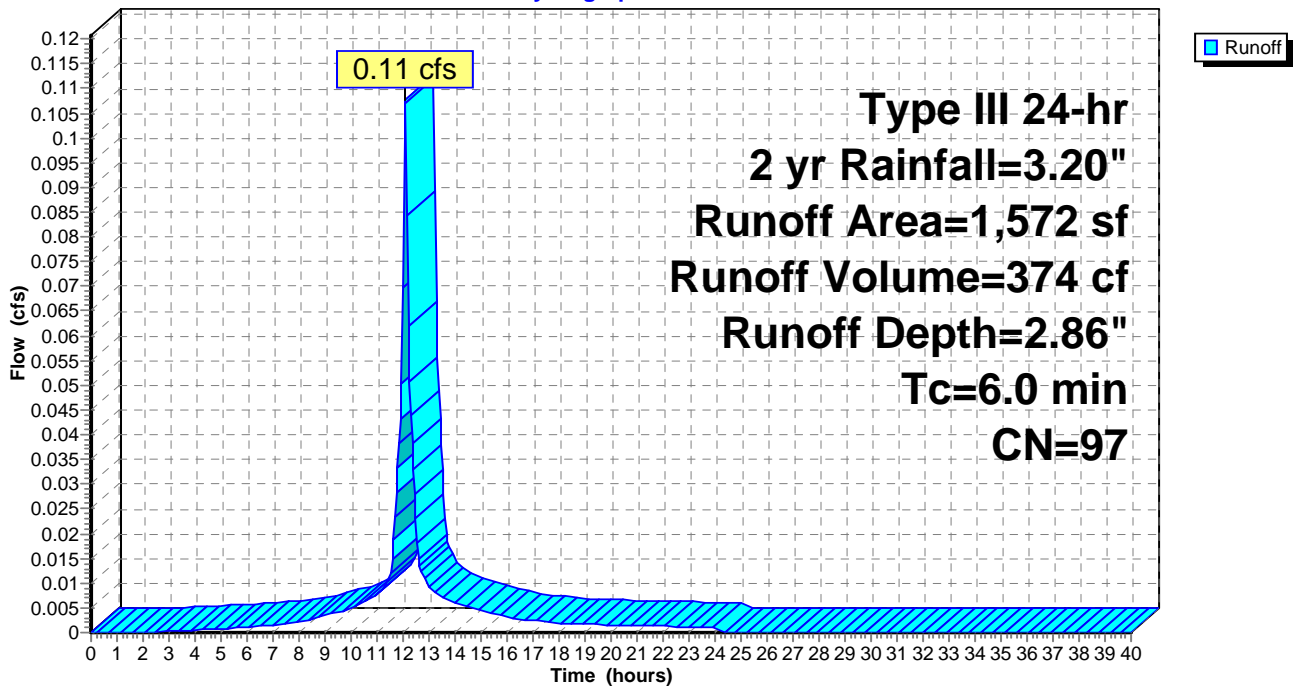
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2 yr Rainfall=3.20"

Area (sf)	CN	Description
486	98	Roofs, HSG D
863	98	Paved parking, HSG D
223	89	<50% Grass cover, Poor, HSG D
1,572	97	Weighted Average
223		14.19% Pervious Area
1,349		85.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 4S: Yard Drain**

Hydrograph



**Existing-PMB**

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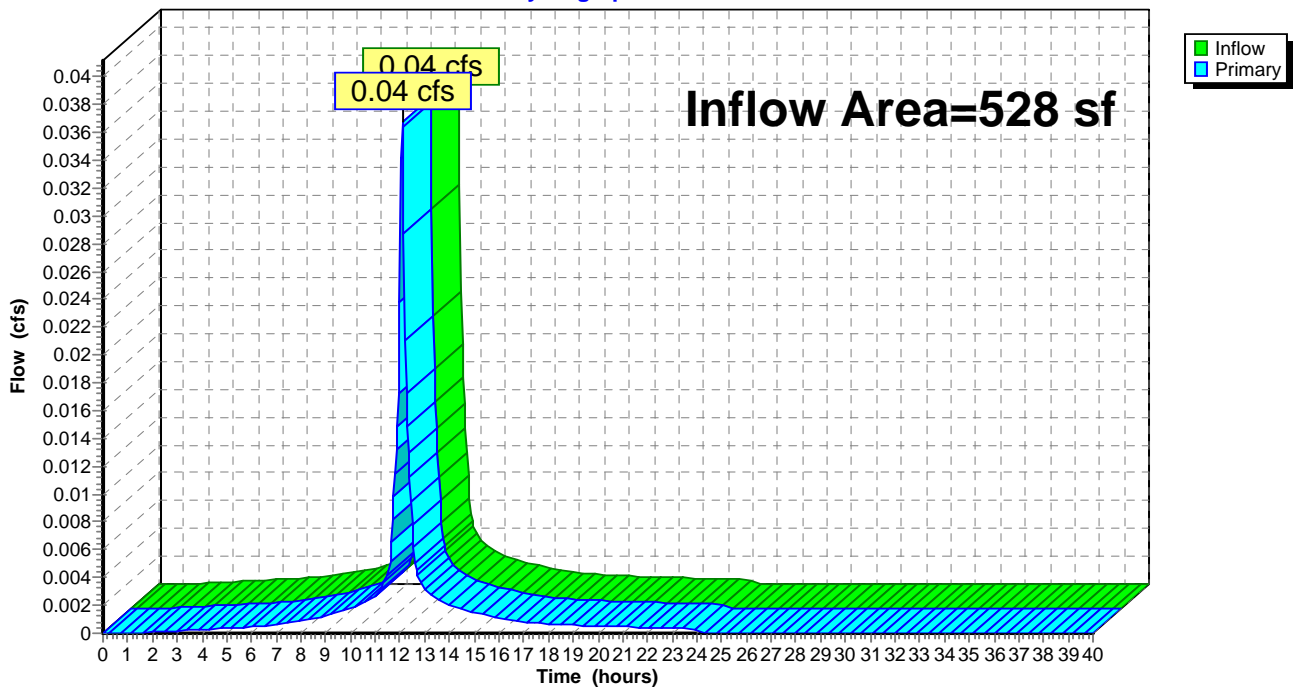
**Summary for Link 1L: Flow to Municipal Drainage System**

Inflow Area = 528 sf, 100.00% Impervious, Inflow Depth = 2.97" for 2 yr event  
Inflow = 0.04 cfs @ 12.09 hrs, Volume= 131 cf  
Primary = 0.04 cfs @ 12.09 hrs, Volume= 131 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

**Link 1L: Flow to Municipal Drainage System**

Hydrograph



**Existing-PMB**

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Page 7

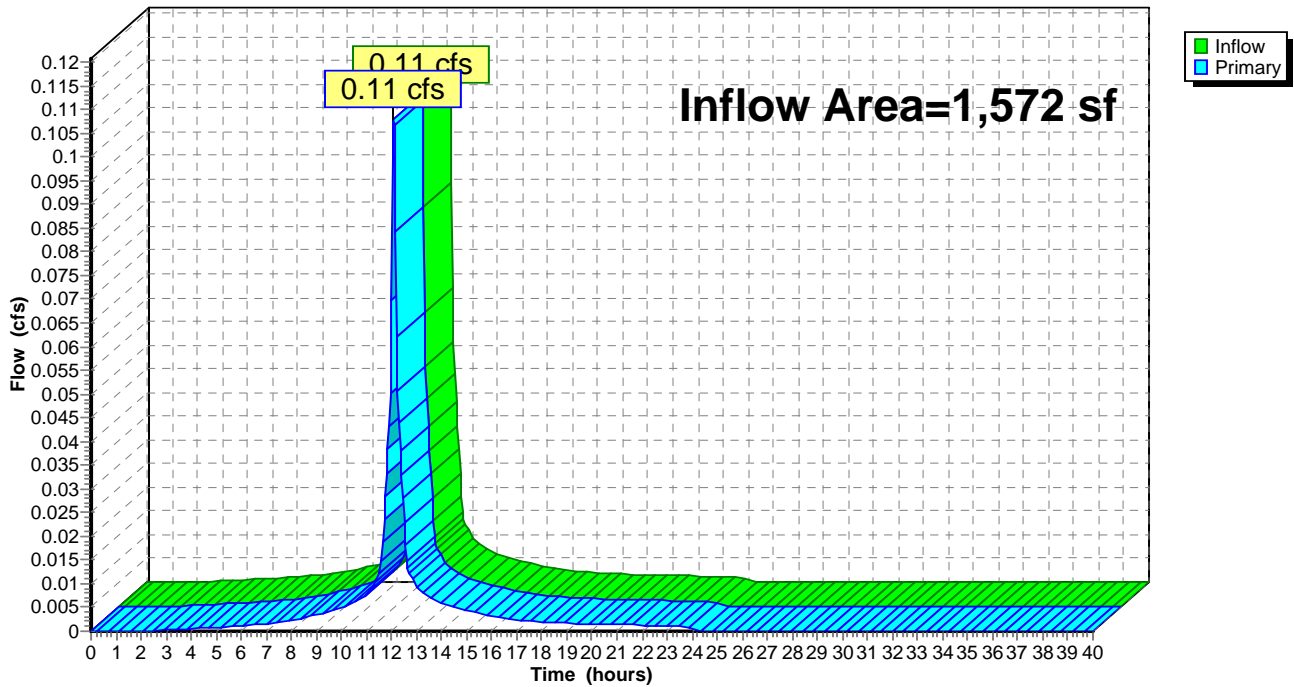
**Summary for Link 2L: Flow from walkway area**

Inflow Area = 1,572 sf, 85.81% Impervious, Inflow Depth = 2.86" for 2 yr event  
Inflow = 0.11 cfs @ 12.09 hrs, Volume= 374 cf  
Primary = 0.11 cfs @ 12.09 hrs, Volume= 374 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

**Link 2L: Flow from walkway area**

Hydrograph



**Existing-PMB**

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Page 8

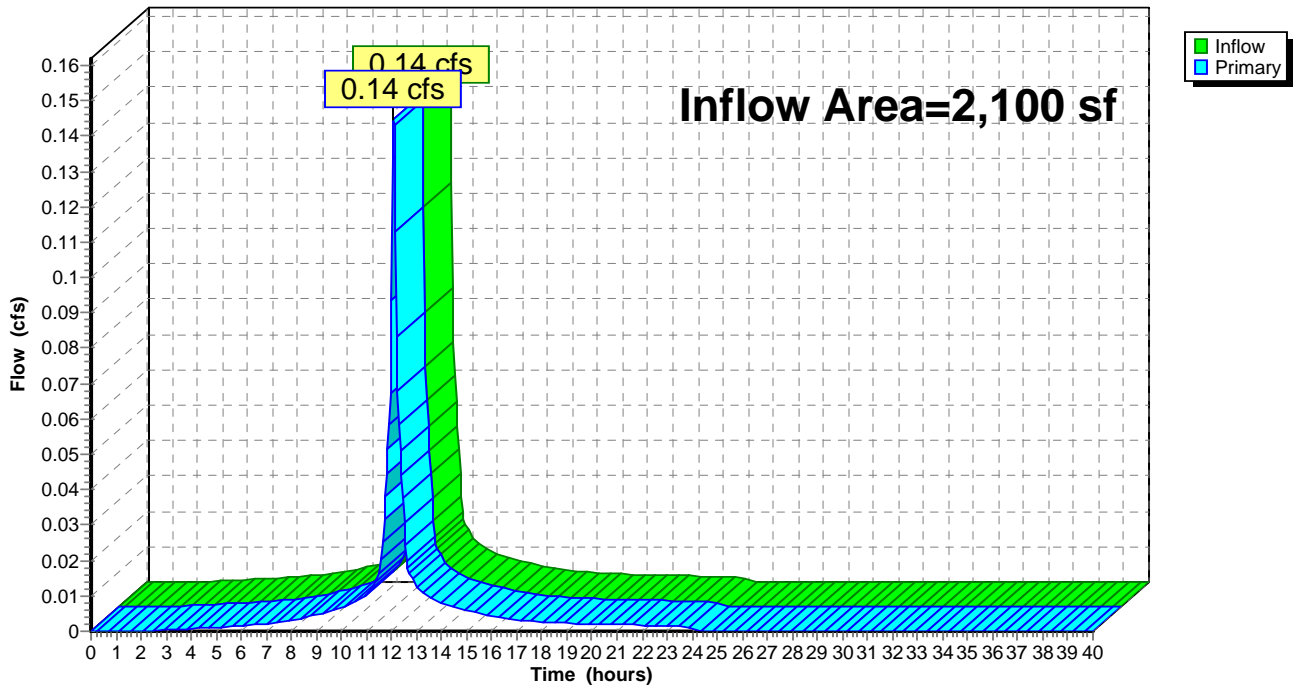
**Summary for Link 3L: Total runoff generated on Site**

Inflow Area = 2,100 sf, 89.38% Impervious, Inflow Depth = 2.88" for 2 yr event  
Inflow = 0.14 cfs @ 12.09 hrs, Volume= 505 cf  
Primary = 0.14 cfs @ 12.09 hrs, Volume= 505 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

**Link 3L: Total runoff generated on Site**

Hydrograph



**Existing-PMB**

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Page 9

**Summary for Subcatchment 3S: Prescott**

Runoff = 0.05 cfs @ 12.09 hrs, Volume= 192 cf, Depth= 4.36"

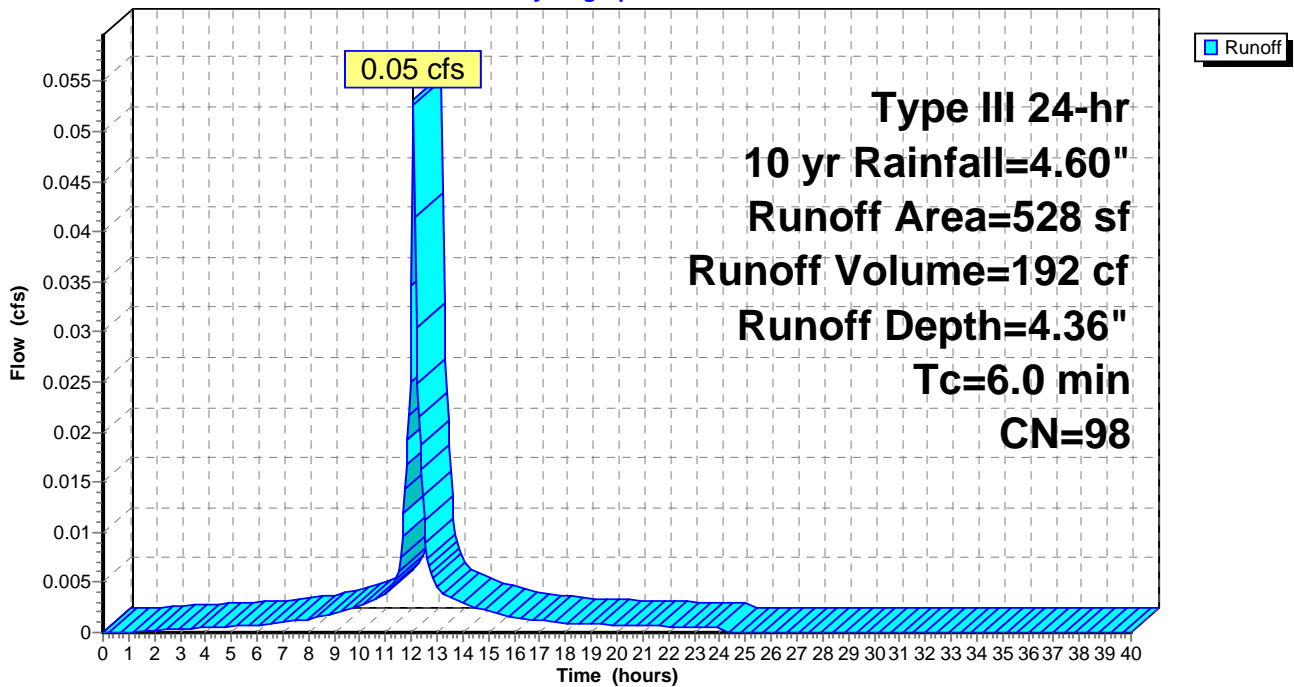
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10 yr Rainfall=4.60"

Area (sf)	CN	Description
468	98	Roofs, HSG D
60	98	Paved parking, HSG D
528	98	Weighted Average
528		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 3S: Prescott**

Hydrograph





**Existing-PMB**

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Page 10

**Summary for Subcatchment 4S: Yard Drain**

Runoff = 0.16 cfs @ 12.09 hrs, Volume= 557 cf, Depth= 4.25"

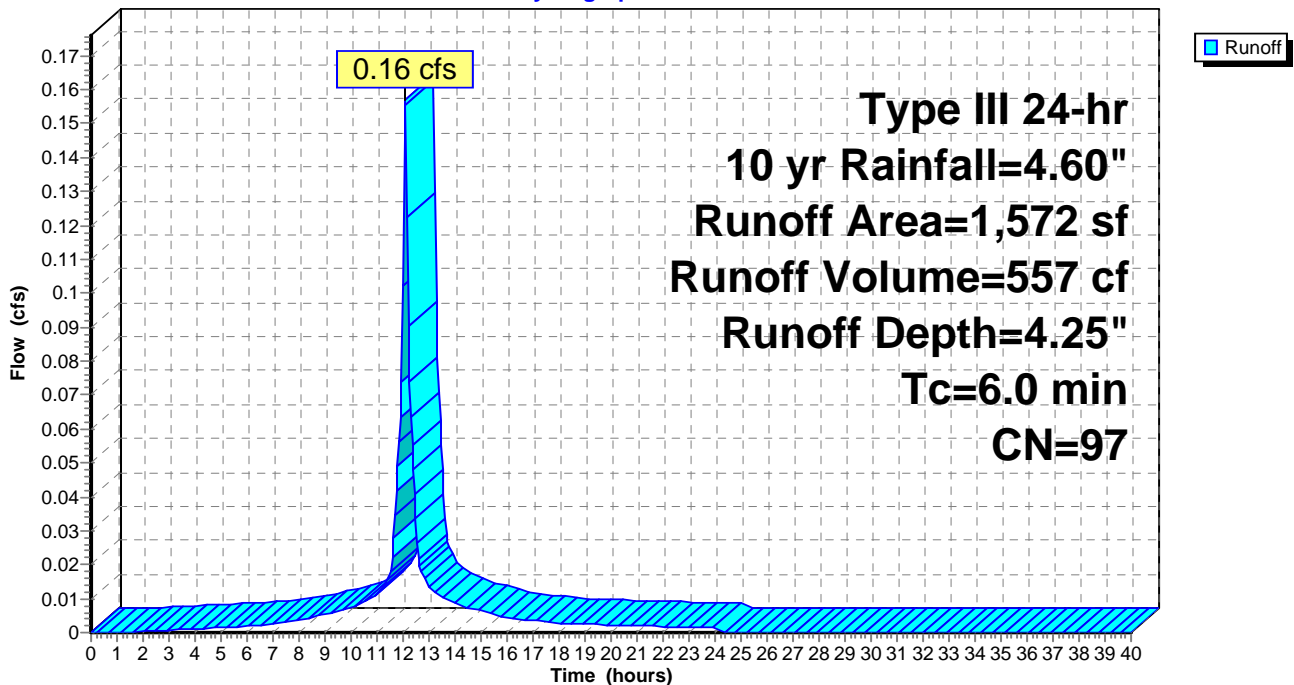
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10 yr Rainfall=4.60"

Area (sf)	CN	Description
486	98	Roofs, HSG D
863	98	Paved parking, HSG D
223	89	<50% Grass cover, Poor, HSG D
1,572	97	Weighted Average
223		14.19% Pervious Area
1,349		85.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 4S: Yard Drain**

Hydrograph



**Existing-PMB**

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Page 11

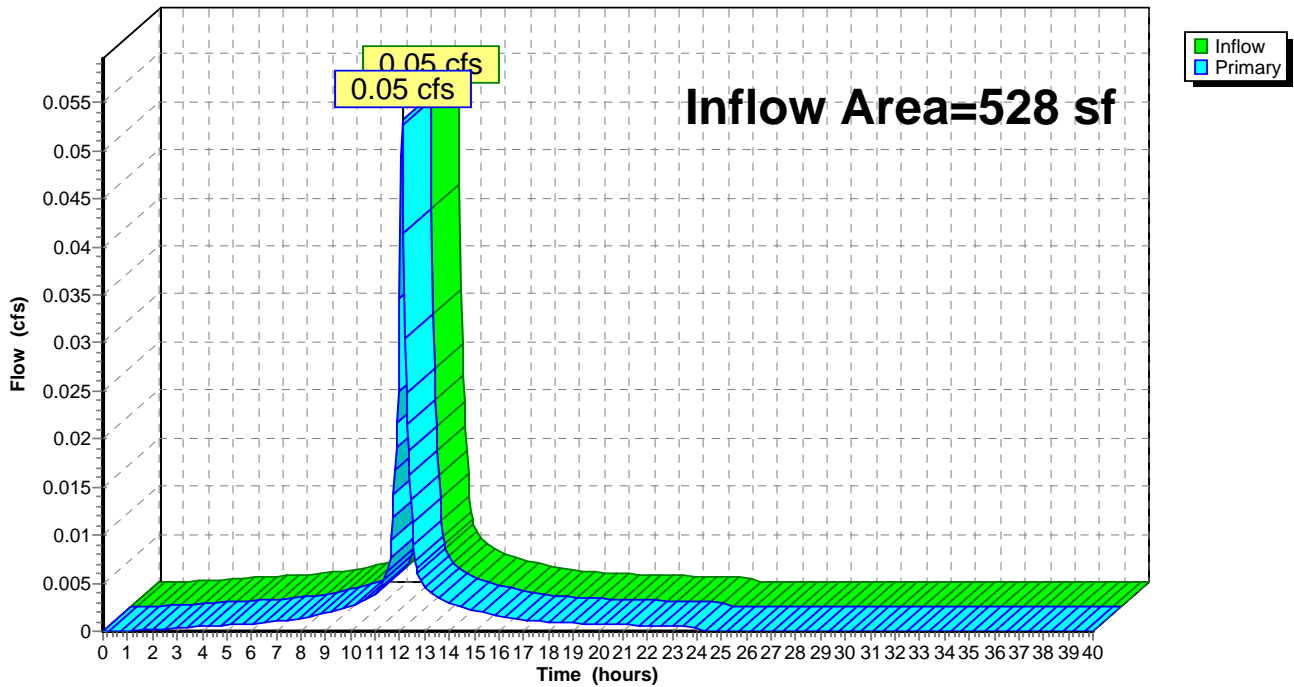
**Summary for Link 1L: Flow to Municipal Drainage System**

Inflow Area = 528 sf, 100.00% Impervious, Inflow Depth = 4.36" for 10 yr event  
Inflow = 0.05 cfs @ 12.09 hrs, Volume= 192 cf  
Primary = 0.05 cfs @ 12.09 hrs, Volume= 192 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

**Link 1L: Flow to Municipal Drainage System**

Hydrograph



**Existing-PMB**

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Page 12

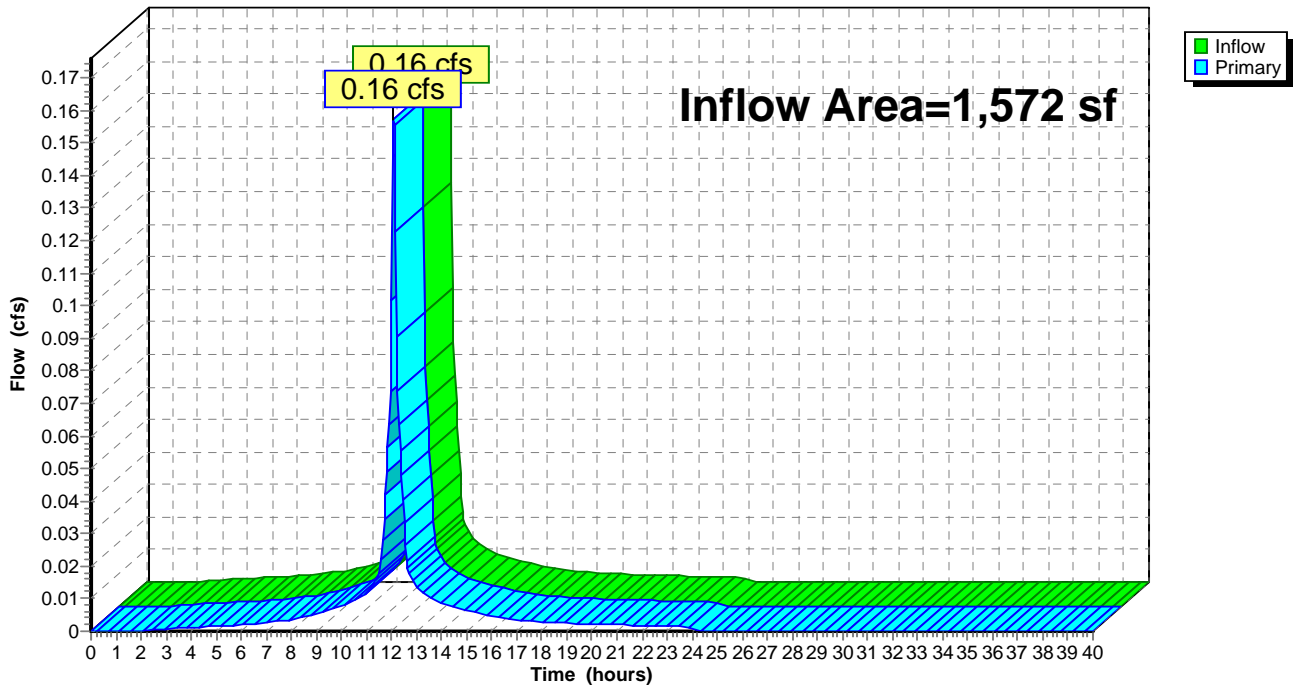
**Summary for Link 2L: Flow from walkway area**

Inflow Area = 1,572 sf, 85.81% Impervious, Inflow Depth = 4.25" for 10 yr event  
Inflow = 0.16 cfs @ 12.09 hrs, Volume= 557 cf  
Primary = 0.16 cfs @ 12.09 hrs, Volume= 557 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

**Link 2L: Flow from walkway area**

Hydrograph



**Existing-PMB**

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Page 13

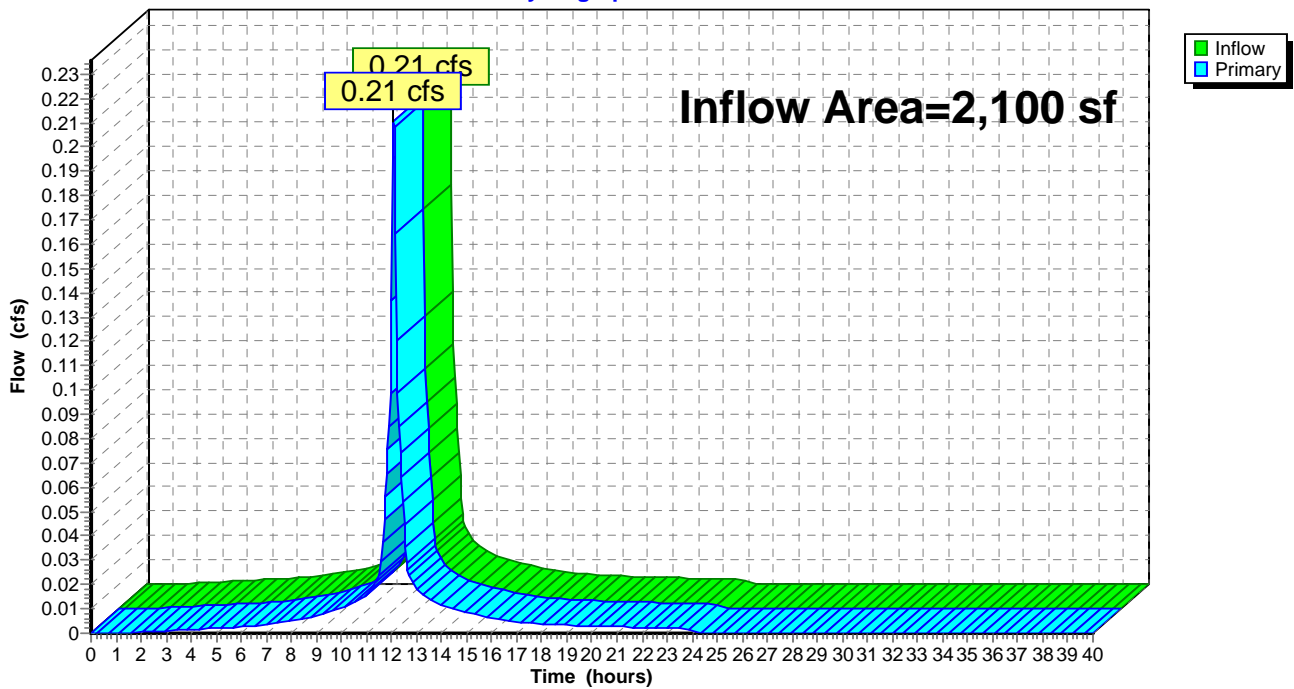
**Summary for Link 3L: Total runoff generated on Site**

Inflow Area = 2,100 sf, 89.38% Impervious, Inflow Depth = 4.28" for 10 yr event  
Inflow = 0.21 cfs @ 12.09 hrs, Volume= 749 cf  
Primary = 0.21 cfs @ 12.09 hrs, Volume= 749 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

**Link 3L: Total runoff generated on Site**

Hydrograph



**Existing-PMB**

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Page 14

**Summary for Subcatchment 3S: Prescott**

Runoff = 0.08 cfs @ 12.09 hrs, Volume= 280 cf, Depth= 6.36"

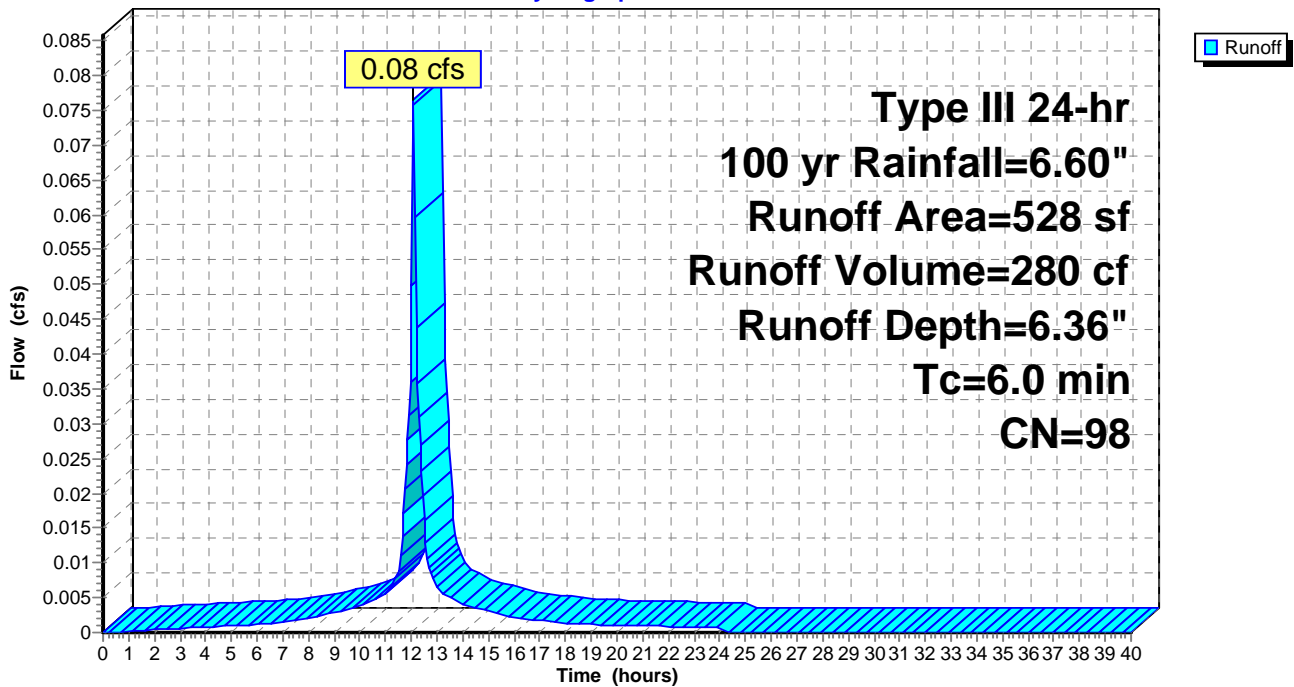
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100 yr Rainfall=6.60"

Area (sf)	CN	Description
468	98	Roofs, HSG D
60	98	Paved parking, HSG D
528	98	Weighted Average
528		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 3S: Prescott**

Hydrograph



**Existing-PMB**

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Page 15

**Summary for Subcatchment 4S: Yard Drain**

Runoff = 0.23 cfs @ 12.09 hrs, Volume= 818 cf, Depth= 6.24"

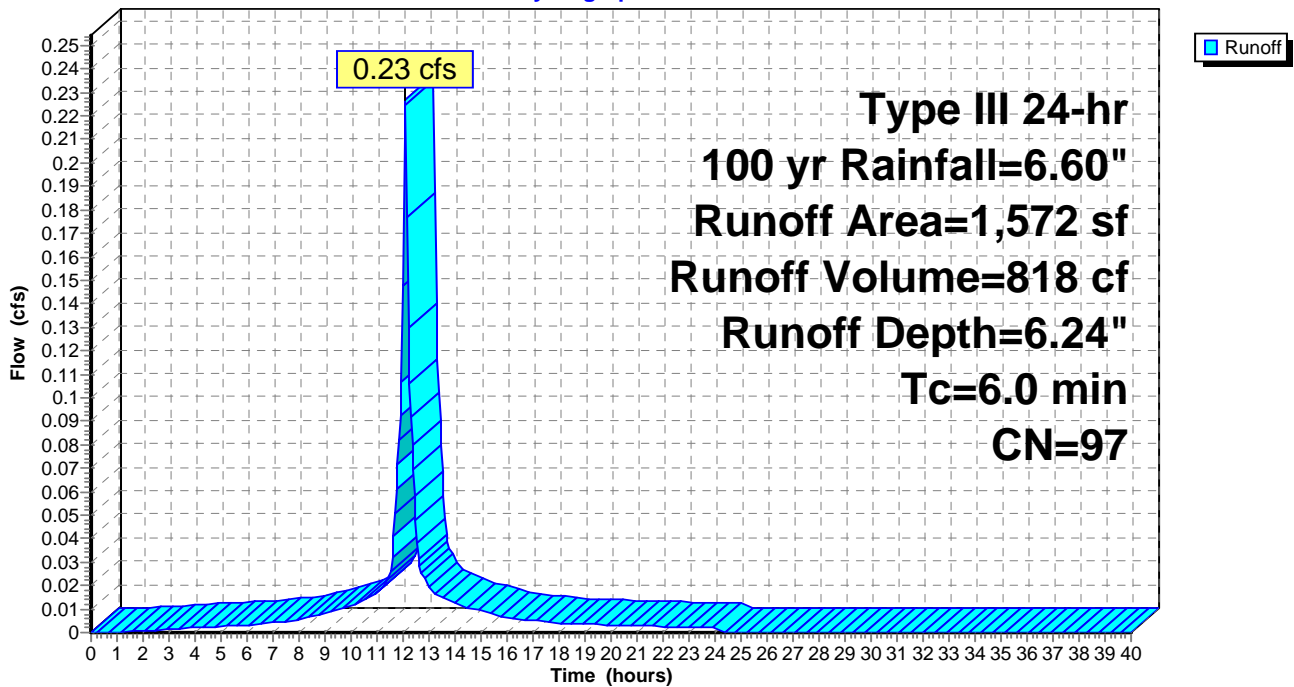
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 100 yr Rainfall=6.60"

Area (sf)	CN	Description
486	98	Roofs, HSG D
863	98	Paved parking, HSG D
223	89	<50% Grass cover, Poor, HSG D
1,572	97	Weighted Average
223		14.19% Pervious Area
1,349		85.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 4S: Yard Drain**

Hydrograph



**Existing-PMB**

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Page 16

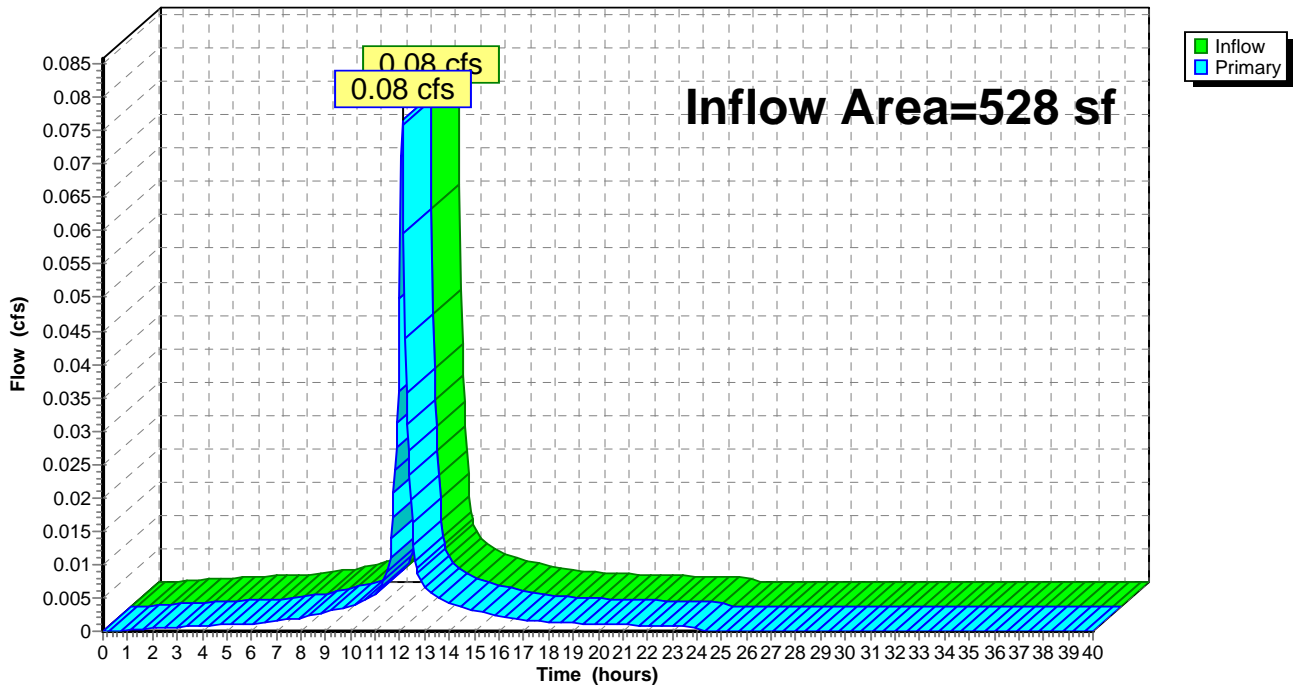
**Summary for Link 1L: Flow to Municipal Drainage System**

Inflow Area = 528 sf, 100.00% Impervious, Inflow Depth = 6.36" for 100 yr event  
Inflow = 0.08 cfs @ 12.09 hrs, Volume= 280 cf  
Primary = 0.08 cfs @ 12.09 hrs, Volume= 280 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

**Link 1L: Flow to Municipal Drainage System**

Hydrograph



**Existing-PMB**

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Page 17

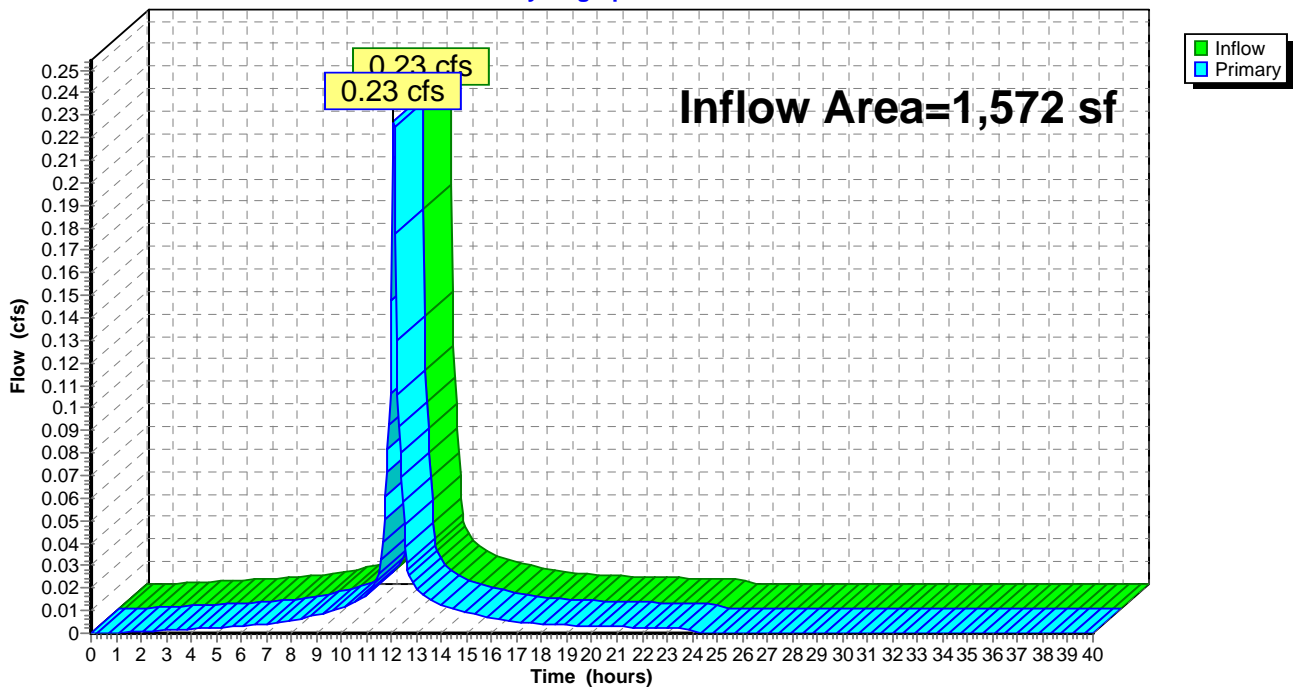
**Summary for Link 2L: Flow from walkway area**

Inflow Area = 1,572 sf, 85.81% Impervious, Inflow Depth = 6.24" for 100 yr event  
Inflow = 0.23 cfs @ 12.09 hrs, Volume= 818 cf  
Primary = 0.23 cfs @ 12.09 hrs, Volume= 818 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

**Link 2L: Flow from walkway area**

Hydrograph





**Existing-PMB**

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Page 18

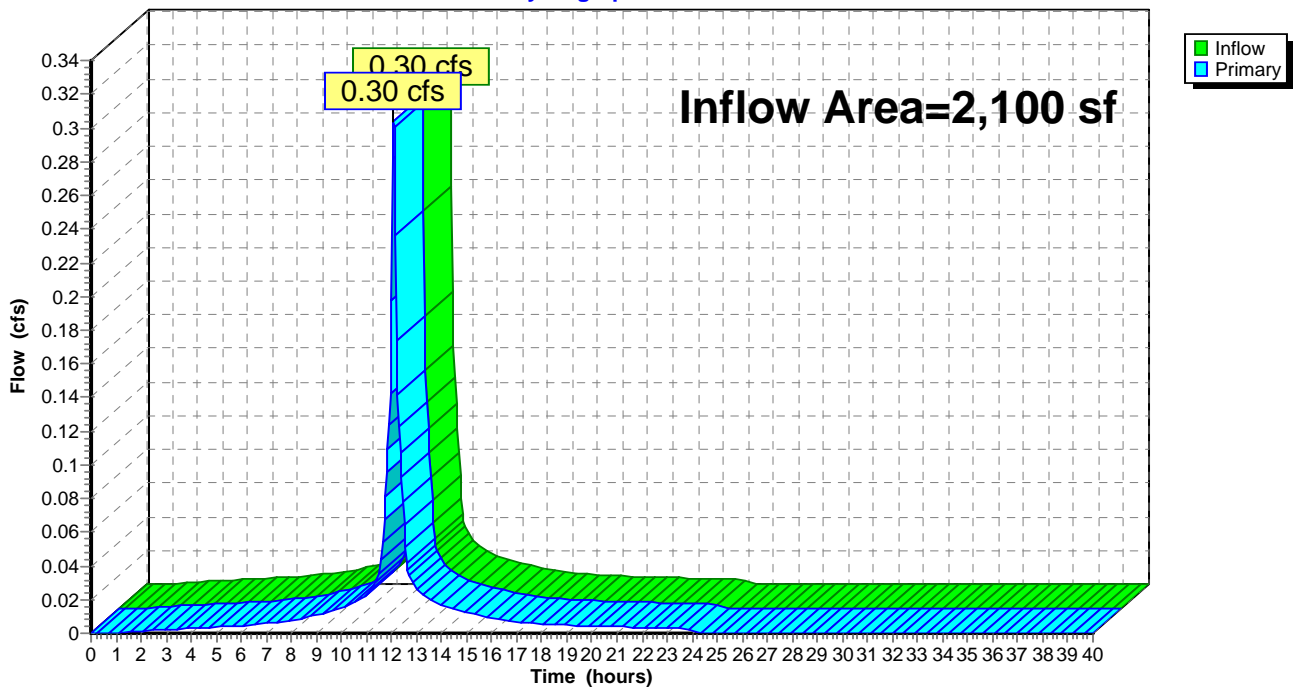
**Summary for Link 3L: Total runoff generated on Site**

Inflow Area = 2,100 sf, 89.38% Impervious, Inflow Depth = 6.27" for 100 yr event  
Inflow = 0.30 cfs @ 12.09 hrs, Volume= 1,098 cf  
Primary = 0.30 cfs @ 12.09 hrs, Volume= 1,098 cf, Atten= 0%, Lag= 0.0 min

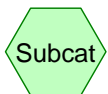
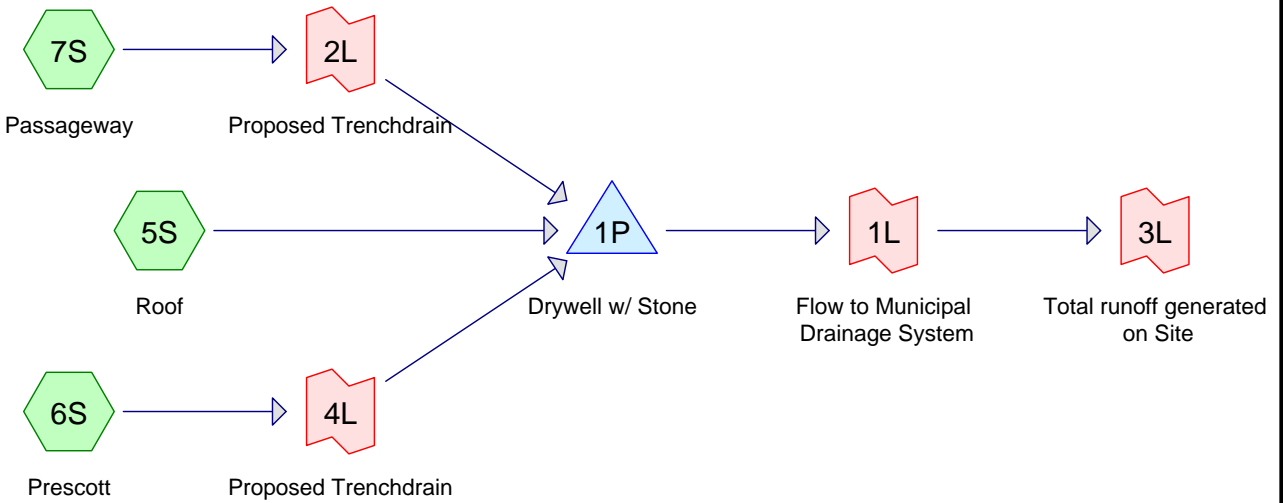
Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

**Link 3L: Total runoff generated on Site**

Hydrograph



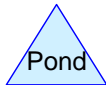
**Proposed Condition**



Subcat



Reach



Pond



Link

**Routing Diagram for Proposed-PMB**  
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**Proposed-PMB**

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Page 2

**Area Listing (all nodes)**

Area (sq-ft)	CN	Description (subcatchment-numbers)
509	91	Gravel roads, HSG D (6S, 7S)
21	98	Paved parking, HSG D (7S)
1,570	98	Unconnected roofs, HSG D (5S)

**Proposed-PMB**

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Page 3

**Soil Listing (all nodes)**

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
0	HSG C	
2,100	HSG D	5S, 6S, 7S
0	Other	

**Proposed-PMB**

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Page 4

**Summary for Subcatchment 5S: Roof**

Runoff = 0.11 cfs @ 12.09 hrs, Volume= 388 cf, Depth= 2.97"

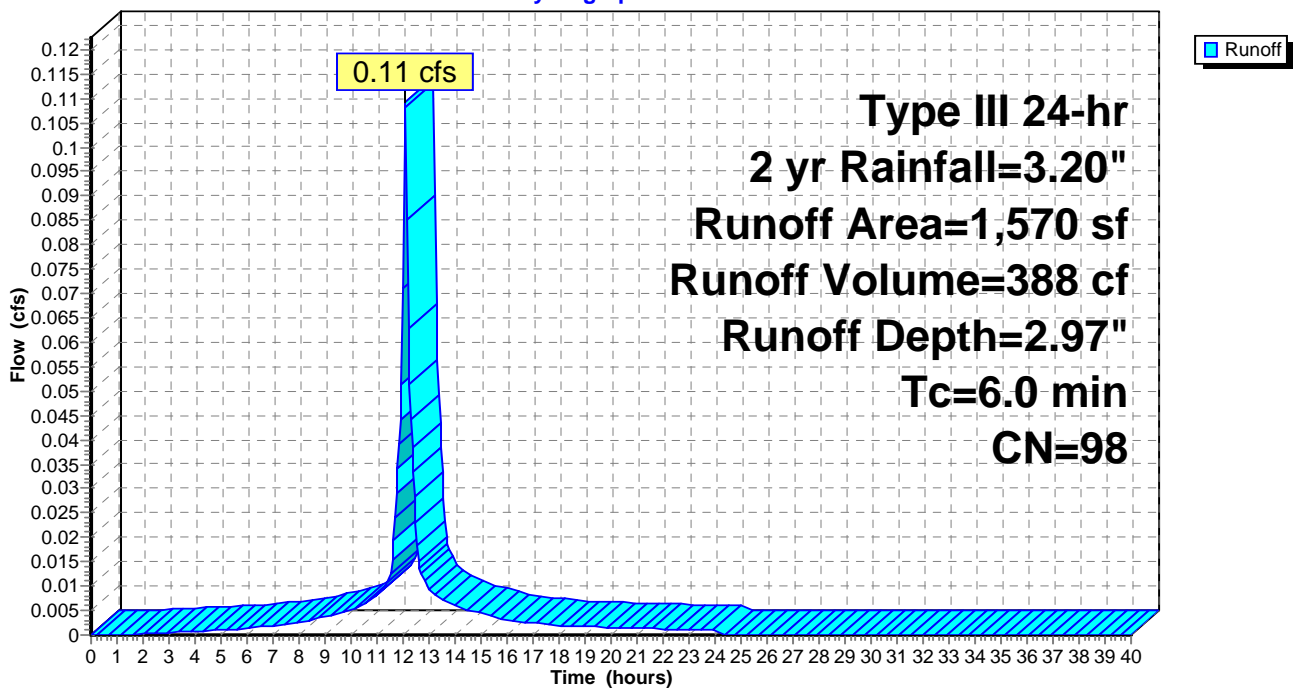
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2 yr Rainfall=3.20"

Area (sf)	CN	Description
1,570	98	Unconnected roofs, HSG D
1,570		100.00% Impervious Area
1,570		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 5S: Roof**

Hydrograph



**Proposed-PMB**

Type III 24-hr 2 yr Rainfall=3.20"

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**Summary for Subcatchment 6S: Prescott**

Runoff = 0.02 cfs @ 12.09 hrs, Volume= 56 cf, Depth= 2.26"

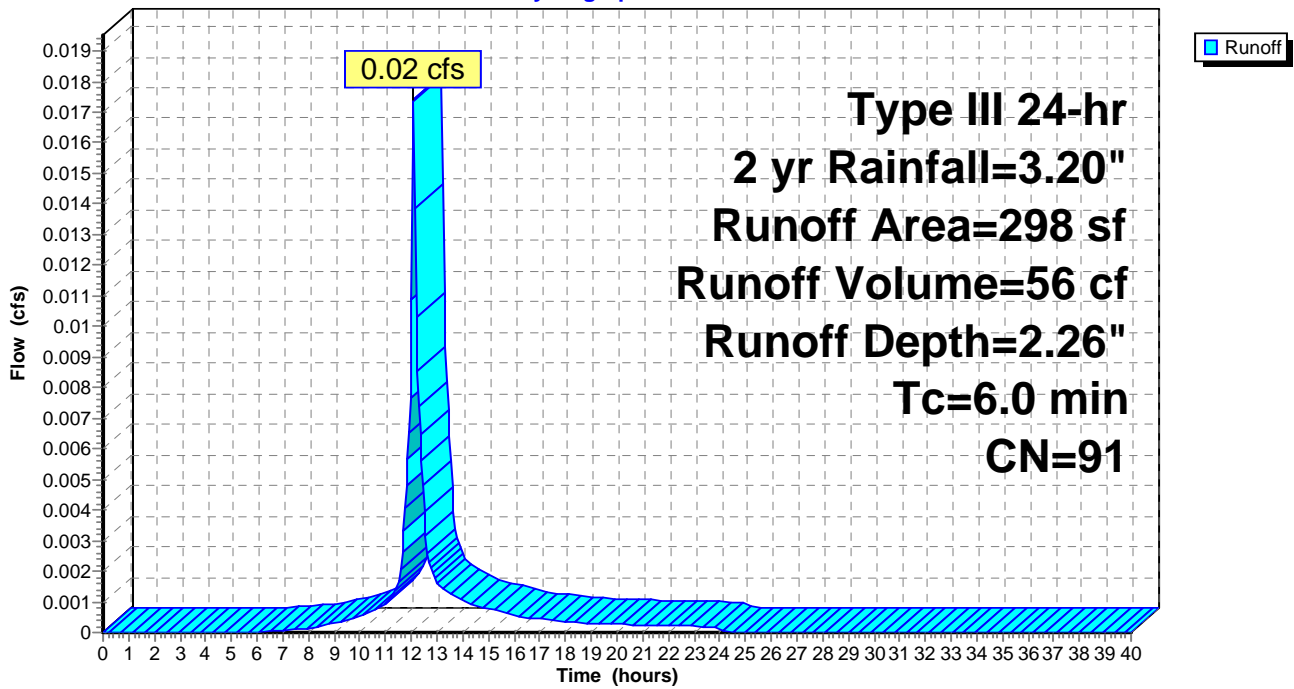
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2 yr Rainfall=3.20"

Area (sf)	CN	Description
298	91	Gravel roads, HSG D
298		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 6S: Prescott**

Hydrograph



**Proposed-PMB**

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Page 6

**Summary for Subcatchment 7S: Passageway**

Runoff = 0.01 cfs @ 12.09 hrs, Volume= 45 cf, Depth= 2.35"

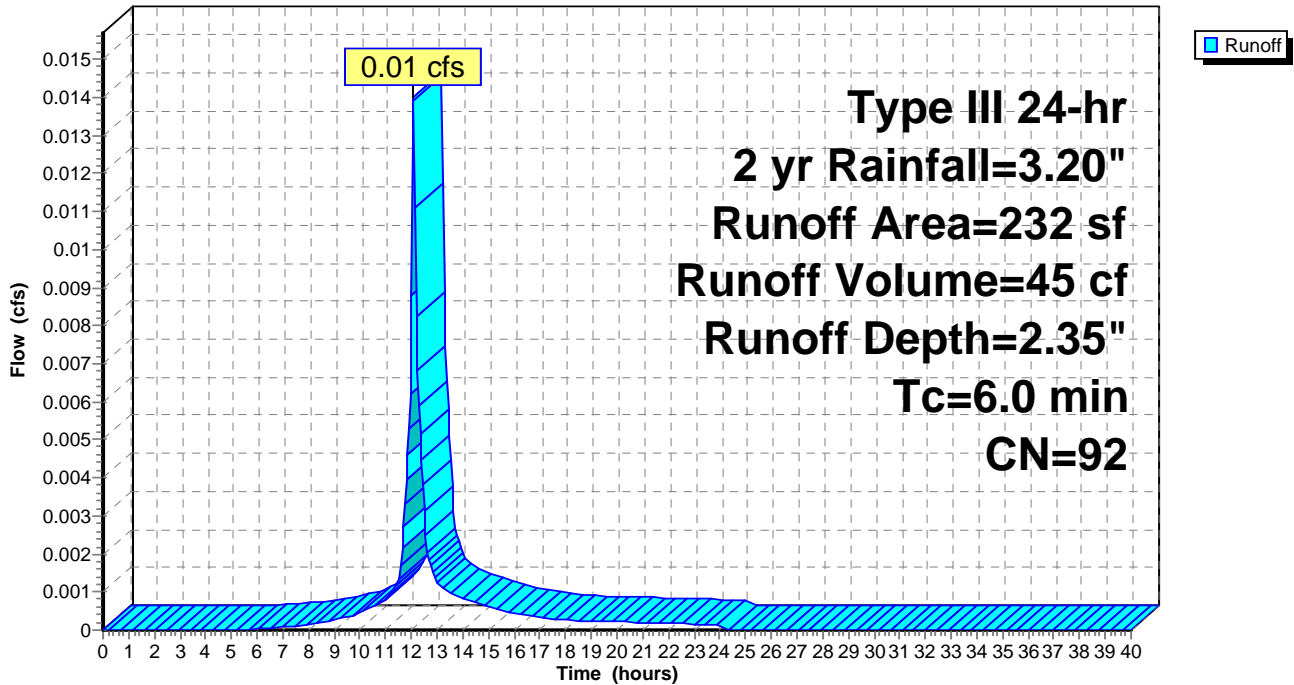
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs  
Type III 24-hr 2 yr Rainfall=3.20"

Area (sf)	CN	Description
211	91	Gravel roads, HSG D
21	98	Paved parking, HSG D
232	92	Weighted Average
211		90.95% Pervious Area
21		9.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 7S: Passageway**

Hydrograph





**Proposed-PMB**

Type III 24-hr 2 yr Rainfall=3.20"

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Page 7

**Summary for Pond 1P: Drywell w/ Stone**

Inflow Area = 2,100 sf, 75.76% Impervious, Inflow Depth = 2.80" for 2 yr event  
 Inflow = 0.14 cfs @ 12.09 hrs, Volume= 490 cf  
 Outflow = 0.13 cfs @ 12.16 hrs, Volume= 290 cf, Atten= 5%, Lag= 4.5 min  
 Discarded = 0.00 cfs @ 3.90 hrs, Volume= 34 cf  
 Primary = 0.13 cfs @ 12.16 hrs, Volume= 255 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs / 3  
 Peak Elev= 10.41' @ 12.17 hrs Surf.Area= 64 sf Storage= 225 cf

Plug-Flow detention time= 258.6 min calculated for 290 cf (59% of inflow)  
 Center-of-Mass det. time= 150.0 min ( 915.5 - 765.5 )

Volume	Invert	Avail.Storage	Storage Description
#1	5.20'	38 cf	<b>9.00'D x 6.00'H Vertical Cone/Cylinder</b> 382 cf Overall - 286 cf Embedded = 95 cf x 40.0% Voids
#2	6.70'	226 cf	<b>8.00'D x 4.50'H Vertical Cone/Cylinder</b> Inside #1 286 cf Overall - 6.0" Wall Thickness = 226 cf
		264 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	5.20'	<b>0.170 in/hr Exfiltration over Surface area</b>
#2	Primary	10.20'	<b>8.0" Round Culvert</b> L= 102.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 10.20' / 8.82' S= 0.0135 '/' Cc= 0.900 n= 0.010, Flow Area= 0.35 sf

**Discarded OutFlow** Max=0.00 cfs @ 3.90 hrs HW=5.26' (Free Discharge)  
 ↑1=Exfiltration (Exfiltration Controls 0.00 cfs)

**Primary OutFlow** Max=0.12 cfs @ 12.16 hrs HW=10.39' TW=0.00' (Dynamic Tailwater)  
 ↑2=Culvert (Inlet Controls 0.12 cfs @ 1.47 fps)

**Proposed-PMB**

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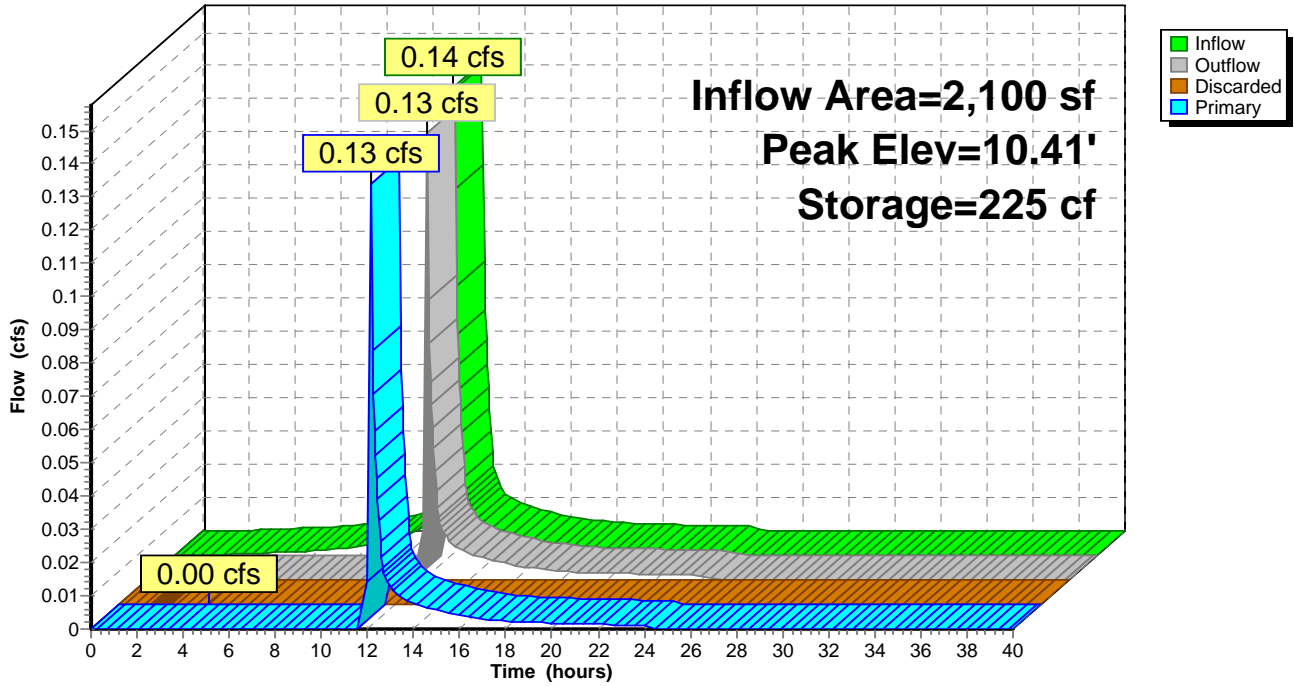
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Page 8

**Pond 1P: Drywell w/ Stone**

Hydrograph



**Proposed-PMB**

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Page 9

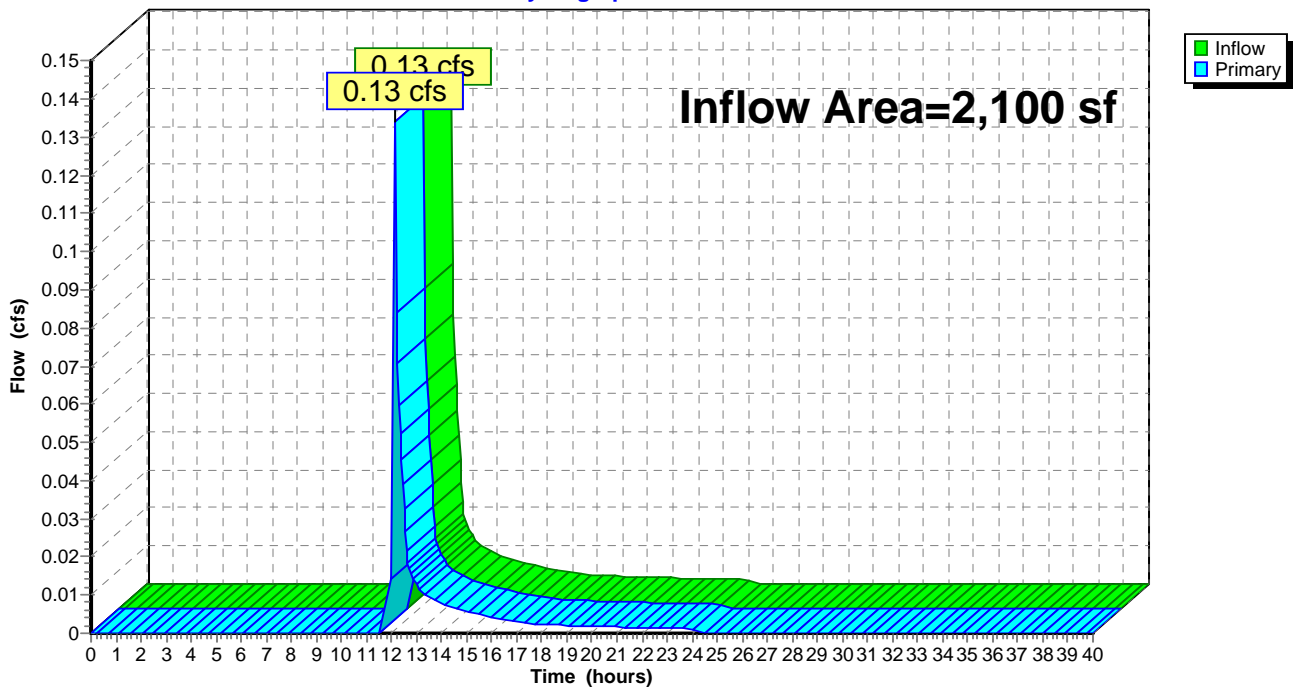
**Summary for Link 1L: Flow to Municipal Drainage System**

Inflow Area = 2,100 sf, 75.76% Impervious, Inflow Depth = 1.46" for 2 yr event  
Inflow = 0.13 cfs @ 12.16 hrs, Volume= 255 cf  
Primary = 0.13 cfs @ 12.16 hrs, Volume= 255 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

**Link 1L: Flow to Municipal Drainage System**

Hydrograph



**Proposed-PMB**

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Page 10

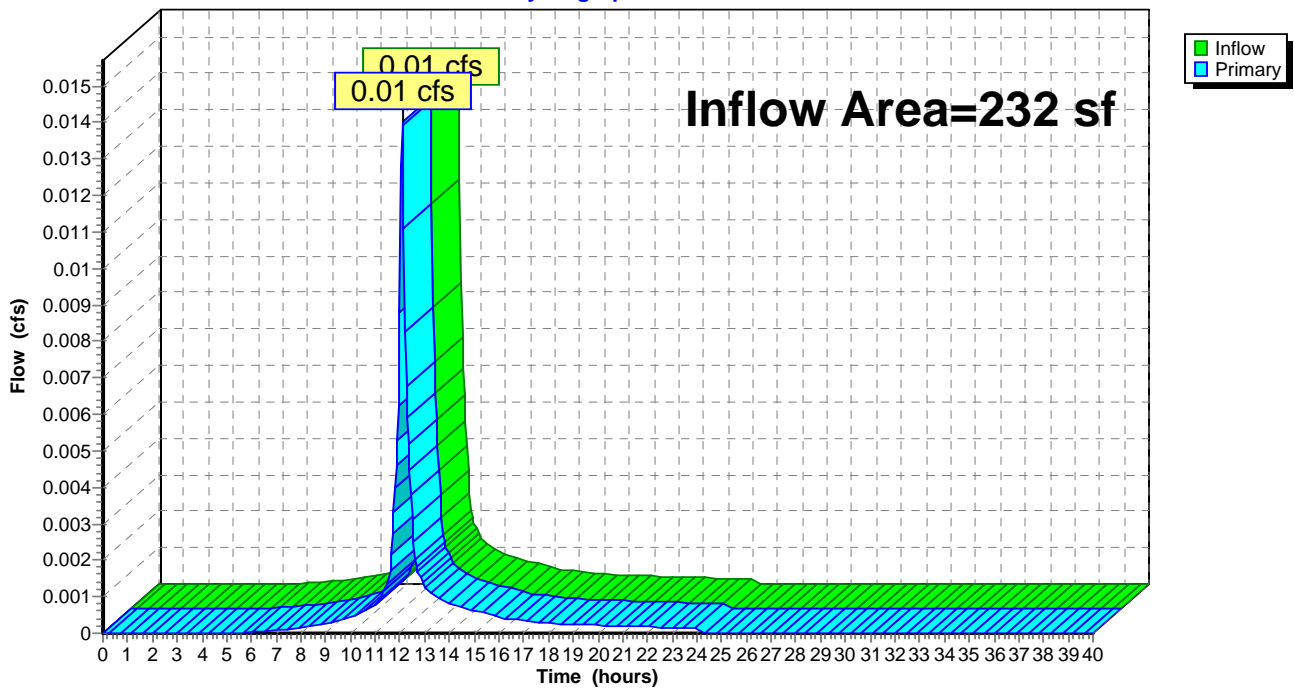
**Summary for Link 2L: Proposed Trenchdrain**

Inflow Area = 232 sf, 9.05% Impervious, Inflow Depth = 2.35" for 2 yr event  
Inflow = 0.01 cfs @ 12.09 hrs, Volume= 45 cf  
Primary = 0.01 cfs @ 12.09 hrs, Volume= 45 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

**Link 2L: Proposed Trenchdrain**

Hydrograph



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Page 11

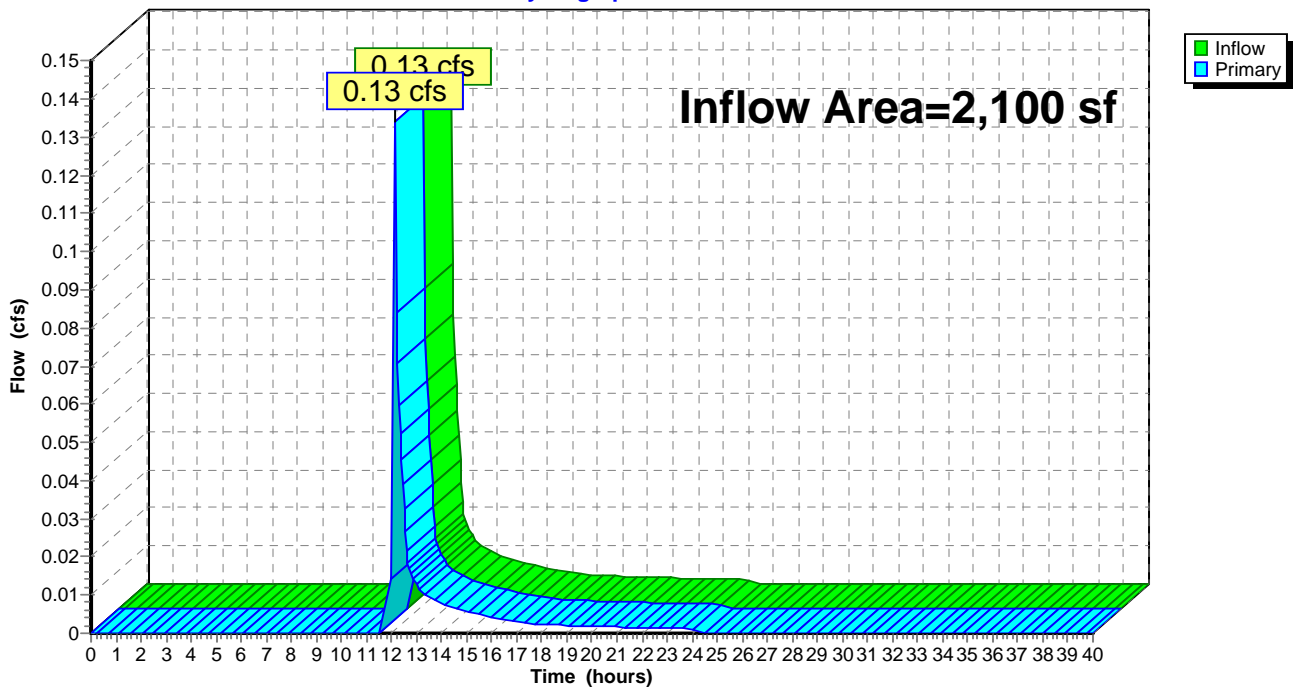
**Summary for Link 3L: Total runoff generated on Site**

Inflow Area = 2,100 sf, 75.76% Impervious, Inflow Depth = 1.46" for 2 yr event  
Inflow = 0.13 cfs @ 12.16 hrs, Volume= 255 cf  
Primary = 0.13 cfs @ 12.16 hrs, Volume= 255 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

**Link 3L: Total runoff generated on Site**

Hydrograph



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Page 12

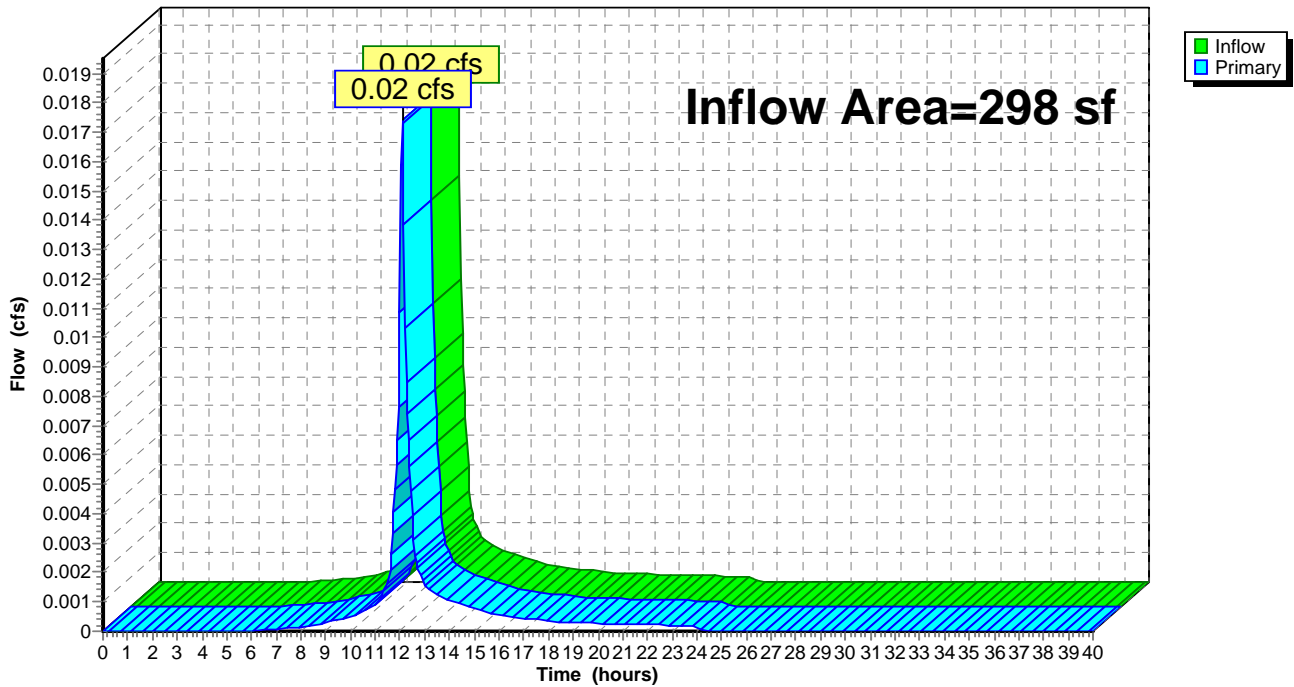
**Summary for Link 4L: Proposed Trenchdrain**

Inflow Area = 298 sf, 0.00% Impervious, Inflow Depth = 2.26" for 2 yr event  
Inflow = 0.02 cfs @ 12.09 hrs, Volume= 56 cf  
Primary = 0.02 cfs @ 12.09 hrs, Volume= 56 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

**Link 4L: Proposed Trenchdrain**

Hydrograph



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Page 13

**Summary for Subcatchment 5S: Roof**

Runoff = 0.16 cfs @ 12.09 hrs, Volume= 571 cf, Depth= 4.36"

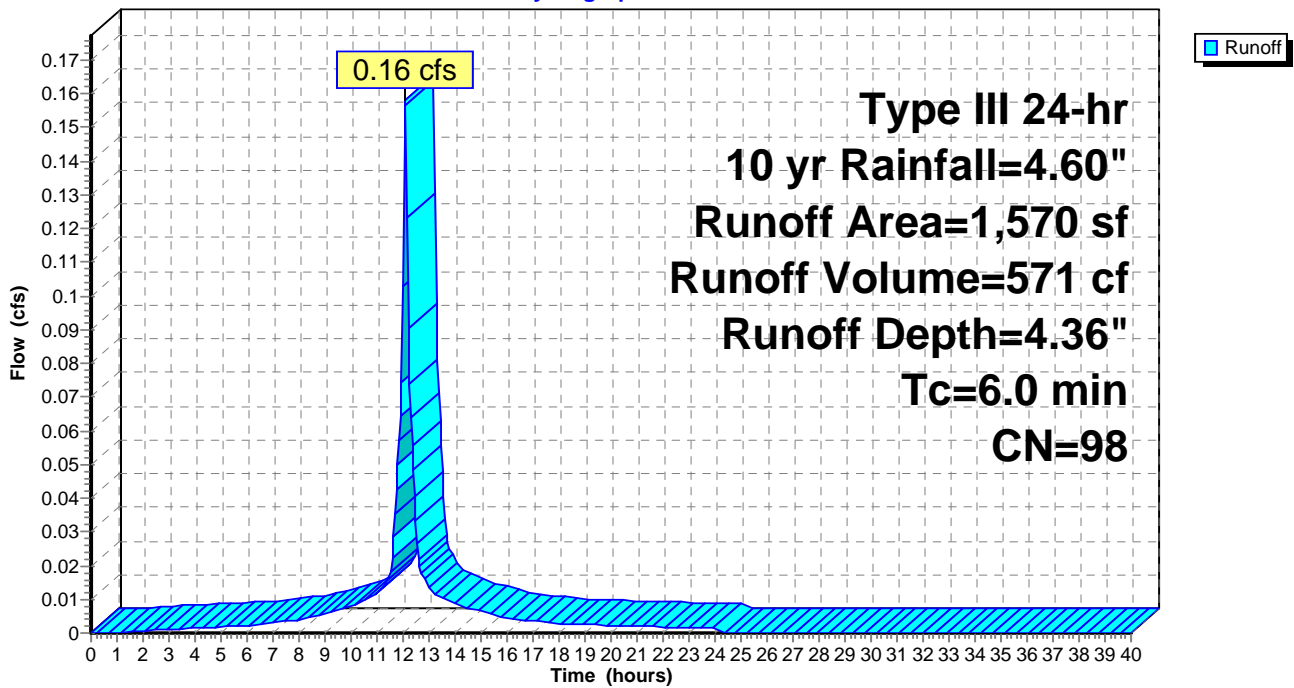
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10 yr Rainfall=4.60"

Area (sf)	CN	Description
1,570	98	Unconnected roofs, HSG D
1,570		100.00% Impervious Area
1,570		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 5S: Roof**

Hydrograph



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Page 14

**Summary for Subcatchment 6S: Prescott**

Runoff = 0.03 cfs @ 12.09 hrs, Volume= 89 cf, Depth= 3.59"

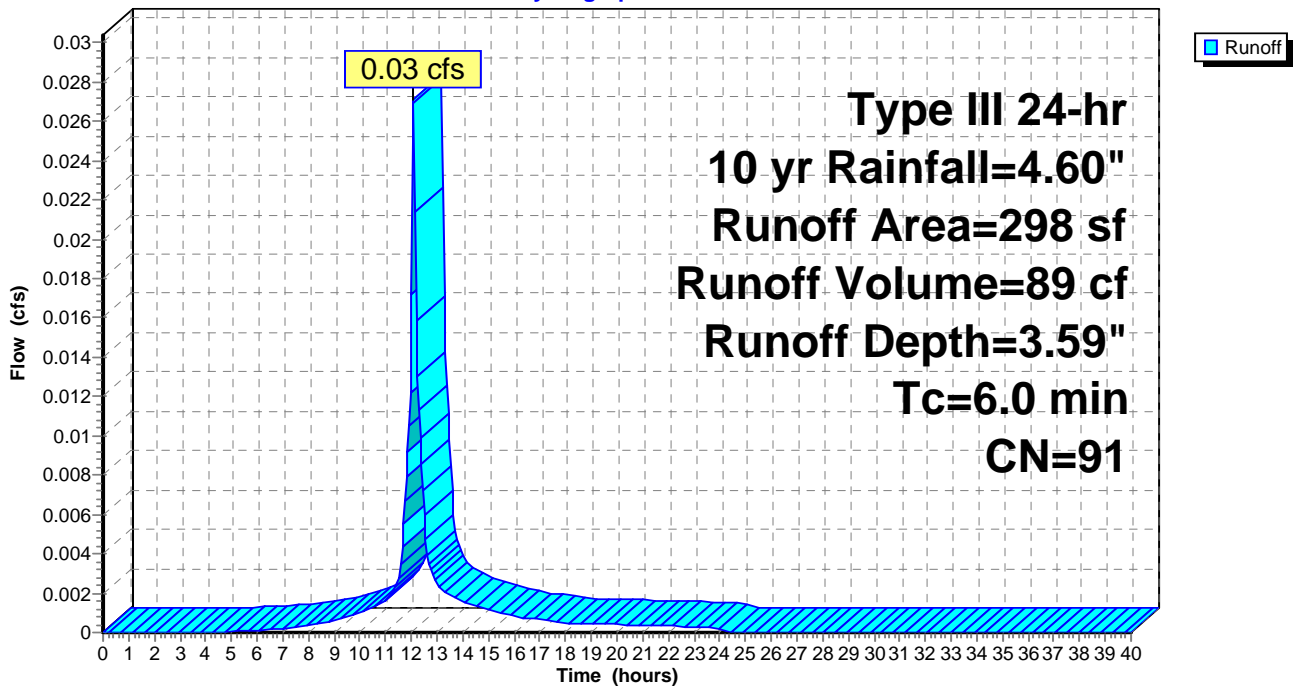
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10 yr Rainfall=4.60"

Area (sf)	CN	Description
298	91	Gravel roads, HSG D
298		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 6S: Prescott**

Hydrograph





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Page 15

**Summary for Subcatchment 7S: Passageway**

Runoff = 0.02 cfs @ 12.09 hrs, Volume= 72 cf, Depth= 3.70"

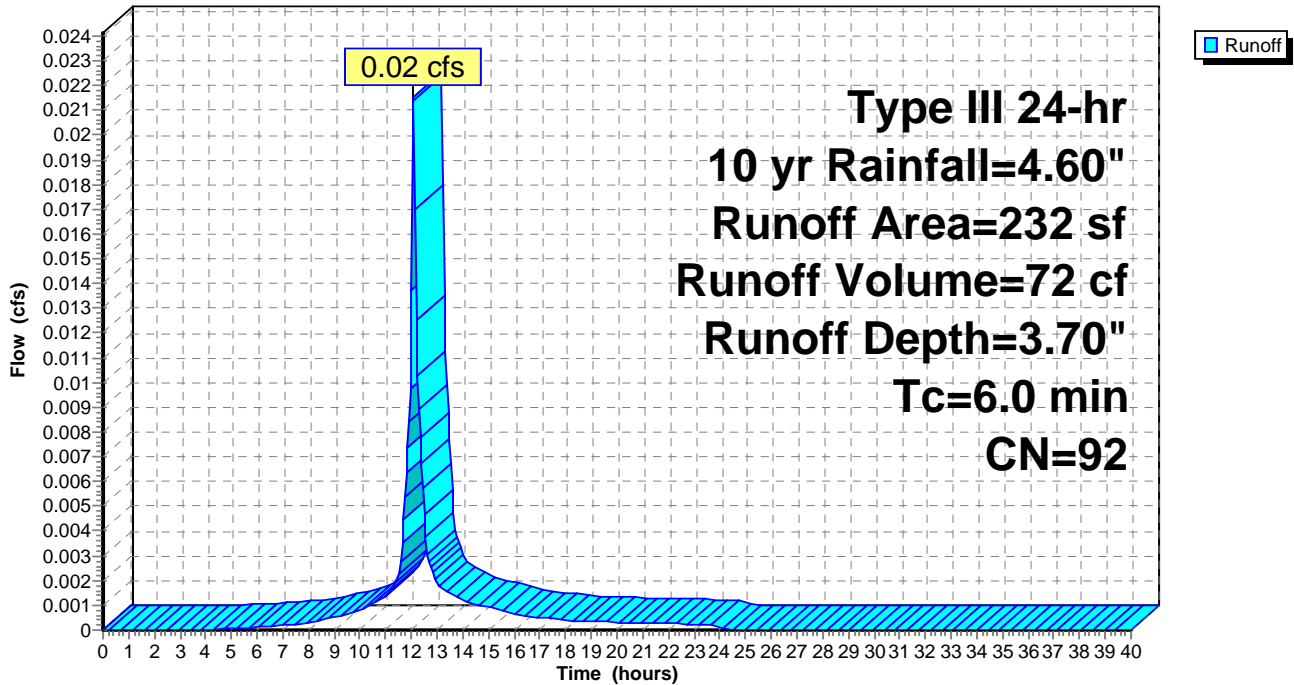
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10 yr Rainfall=4.60"

Area (sf)	CN	Description
211	91	Gravel roads, HSG D
21	98	Paved parking, HSG D
232	92	Weighted Average
211		90.95% Pervious Area
21		9.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 7S: Passageway**

Hydrograph



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Page 16

**Summary for Pond 1P: Drywell w/ Stone**

Inflow Area = 2,100 sf, 75.76% Impervious, Inflow Depth = 4.18" for 10 yr event  
 Inflow = 0.21 cfs @ 12.09 hrs, Volume= 732 cf  
 Outflow = 0.21 cfs @ 12.10 hrs, Volume= 531 cf, Atten= 0%, Lag= 0.6 min  
 Discarded = 0.00 cfs @ 2.70 hrs, Volume= 35 cf  
 Primary = 0.21 cfs @ 12.10 hrs, Volume= 496 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs / 3  
 Peak Elev= 10.45' @ 12.10 hrs Surf.Area= 64 sf Storage= 227 cf

Plug-Flow detention time= 192.5 min calculated for 531 cf (73% of inflow)  
 Center-of-Mass det. time= 103.8 min ( 861.7 - 757.8 )

Volume	Invert	Avail.Storage	Storage Description
#1	5.20'	38 cf	<b>9.00'D x 6.00'H Vertical Cone/Cylinder</b> 382 cf Overall - 286 cf Embedded = 95 cf x 40.0% Voids
#2	6.70'	226 cf	<b>8.00'D x 4.50'H Vertical Cone/Cylinder</b> Inside #1 286 cf Overall - 6.0" Wall Thickness = 226 cf
		264 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	5.20'	<b>0.170 in/hr Exfiltration over Surface area</b>
#2	Primary	10.20'	<b>8.0" Round Culvert</b> L= 102.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 10.20' / 8.82' S= 0.0135 '/' Cc= 0.900 n= 0.010, Flow Area= 0.35 sf

**Discarded OutFlow** Max=0.00 cfs @ 2.70 hrs HW=5.26' (Free Discharge)

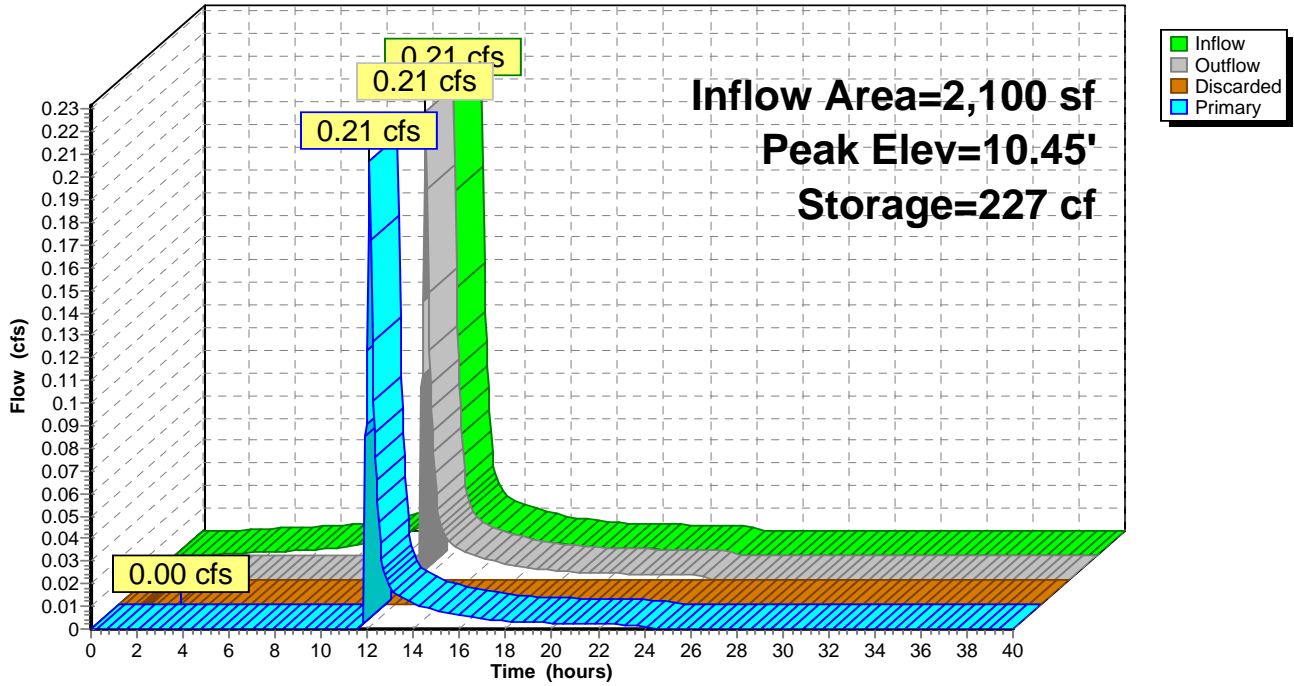
↑1=Exfiltration (Exfiltration Controls 0.00 cfs)

**Primary OutFlow** Max=0.21 cfs @ 12.10 hrs HW=10.45' TW=0.00' (Dynamic Tailwater)

↑2=Culvert (Inlet Controls 0.21 cfs @ 1.71 fps)

### Pond 1P: Drywell w/ Stone

Hydrograph



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Page 18

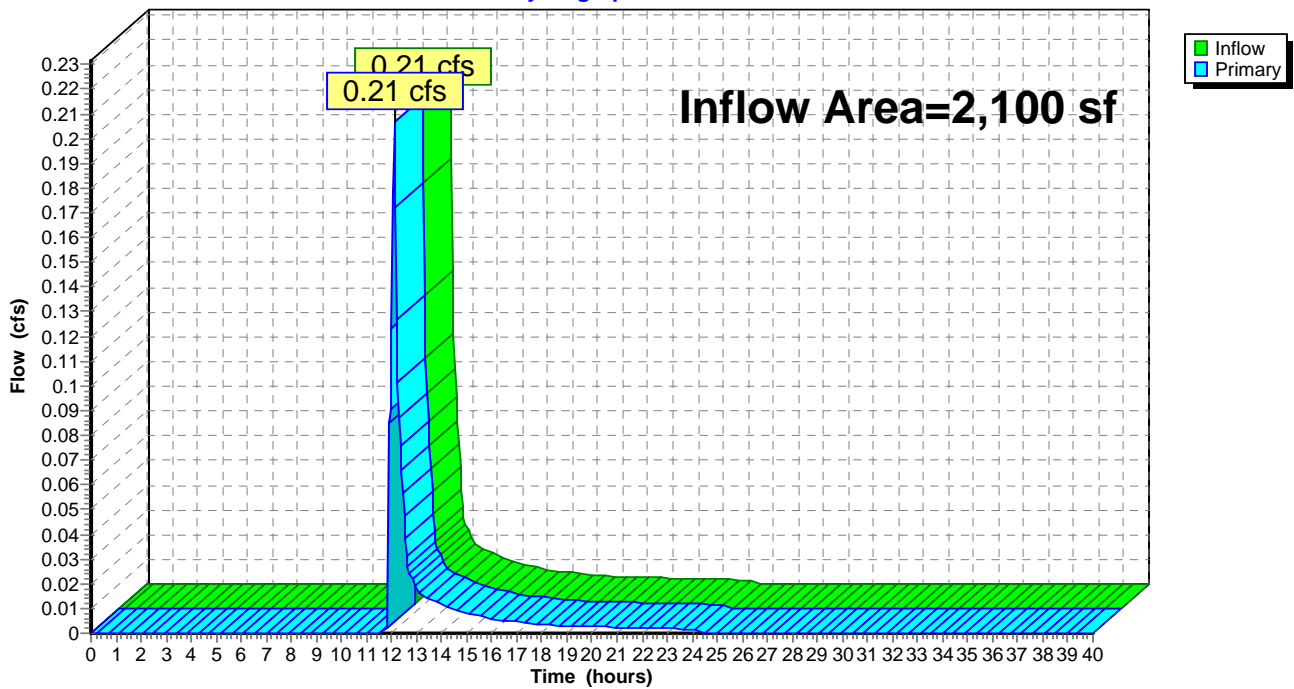
**Summary for Link 1L: Flow to Municipal Drainage System**

Inflow Area = 2,100 sf, 75.76% Impervious, Inflow Depth = 2.84" for 10 yr event  
Inflow = 0.21 cfs @ 12.10 hrs, Volume= 496 cf  
Primary = 0.21 cfs @ 12.10 hrs, Volume= 496 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

**Link 1L: Flow to Municipal Drainage System**

Hydrograph



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Page 19

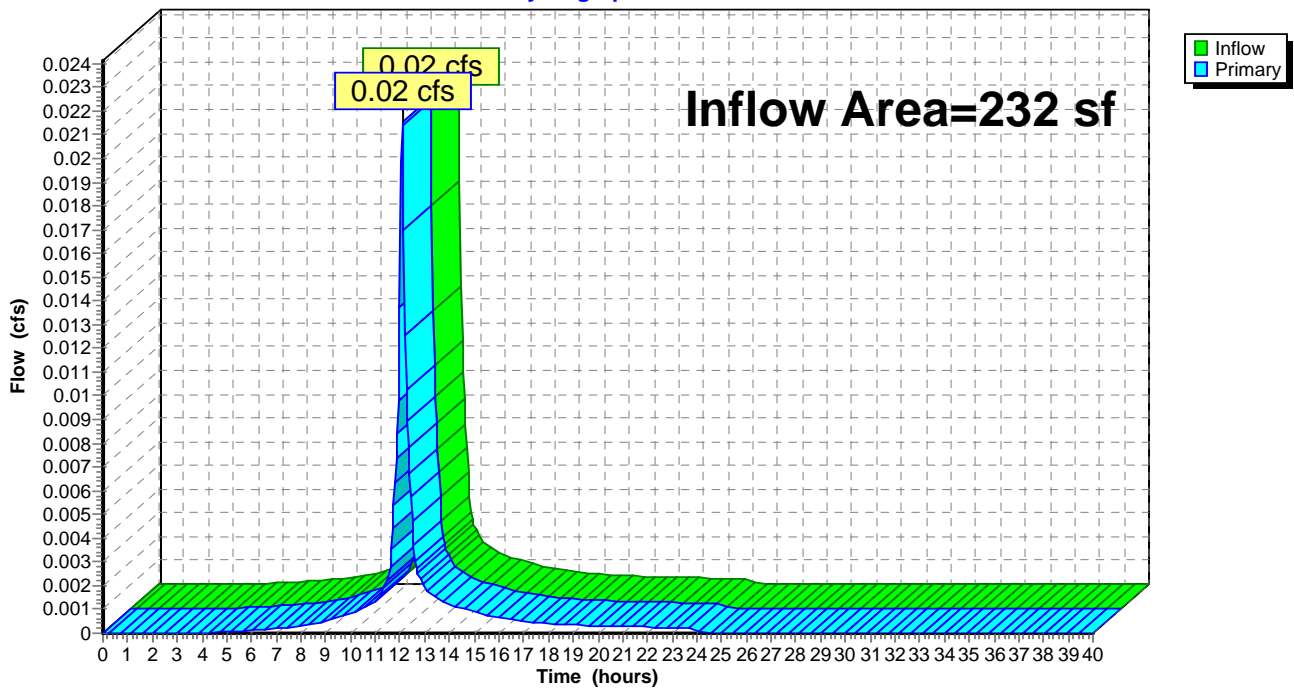
**Summary for Link 2L: Proposed Trenchdrain**

Inflow Area = 232 sf, 9.05% Impervious, Inflow Depth = 3.70" for 10 yr event  
Inflow = 0.02 cfs @ 12.09 hrs, Volume= 72 cf  
Primary = 0.02 cfs @ 12.09 hrs, Volume= 72 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

**Link 2L: Proposed Trenchdrain**

Hydrograph



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Page 20

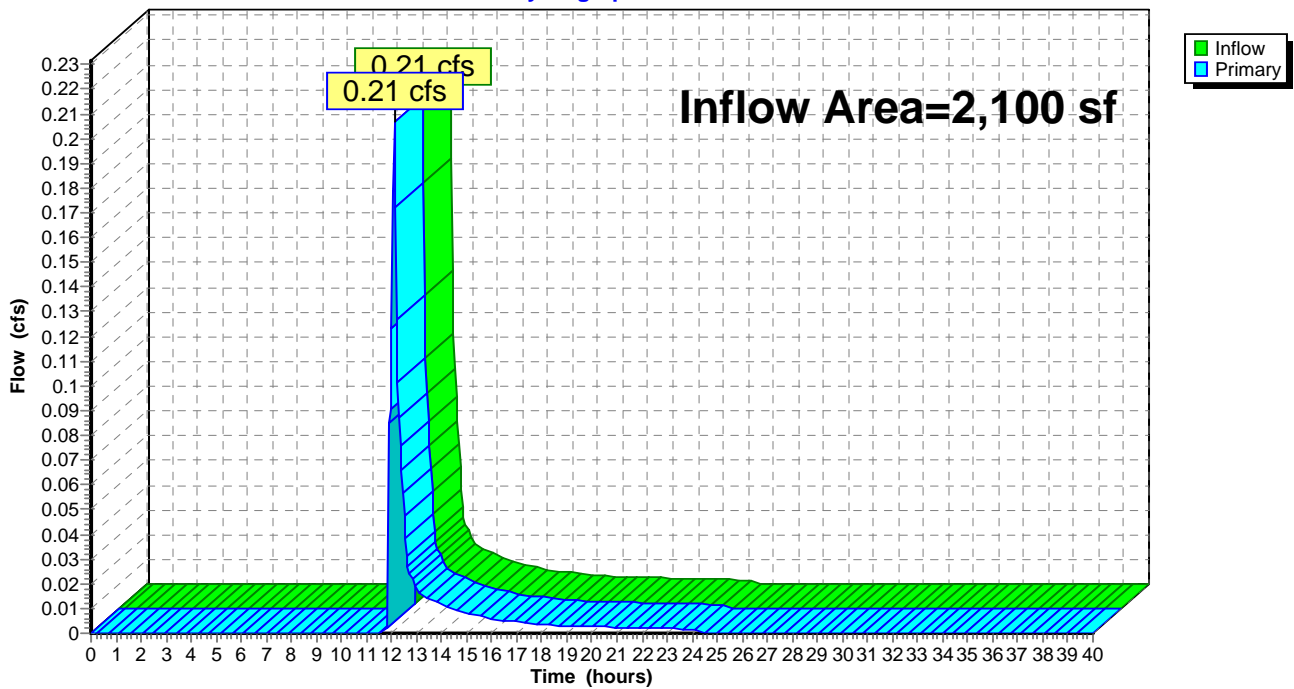
**Summary for Link 3L: Total runoff generated on Site**

Inflow Area = 2,100 sf, 75.76% Impervious, Inflow Depth = 2.84" for 10 yr event  
Inflow = 0.21 cfs @ 12.10 hrs, Volume= 496 cf  
Primary = 0.21 cfs @ 12.10 hrs, Volume= 496 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

**Link 3L: Total runoff generated on Site**

Hydrograph



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Page 21

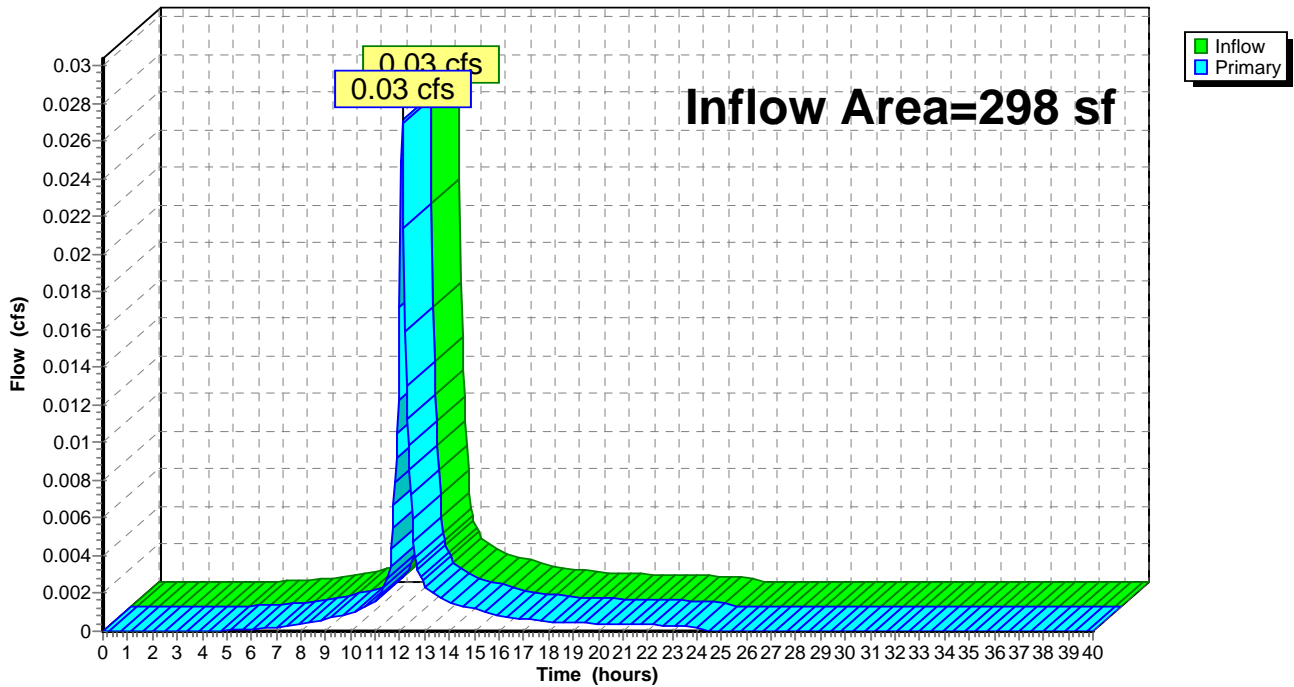
**Summary for Link 4L: Proposed Trenchdrain**

Inflow Area = 298 sf, 0.00% Impervious, Inflow Depth = 3.59" for 10 yr event  
Inflow = 0.03 cfs @ 12.09 hrs, Volume= 89 cf  
Primary = 0.03 cfs @ 12.09 hrs, Volume= 89 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

**Link 4L: Proposed Trenchdrain**

Hydrograph



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Page 22

**Summary for Subcatchment 5S: Roof**

Runoff = 0.23 cfs @ 12.09 hrs, Volume= 832 cf, Depth= 6.36"

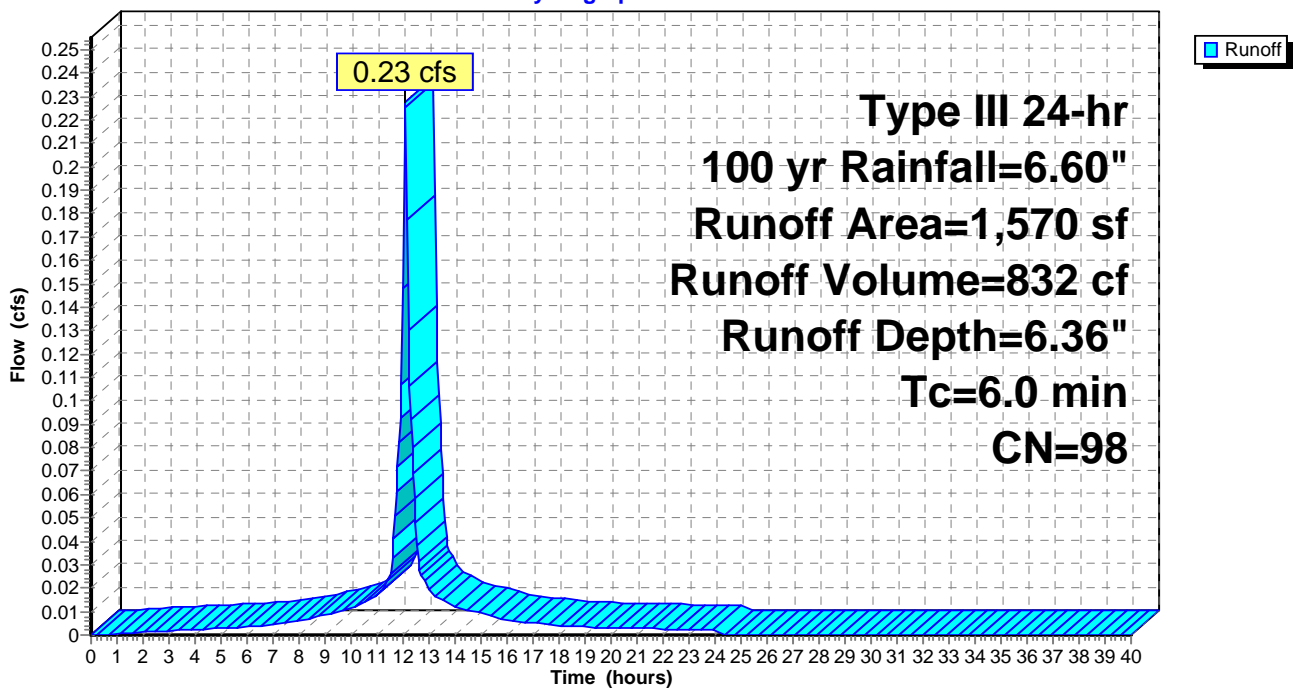
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100 yr Rainfall=6.60"

Area (sf)	CN	Description
1,570	98	Unconnected roofs, HSG D
1,570		100.00% Impervious Area
1,570		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 5S: Roof**

Hydrograph





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Page 23

**Summary for Subcatchment 6S: Prescott**

Runoff = 0.04 cfs @ 12.09 hrs, Volume= 138 cf, Depth= 5.55"

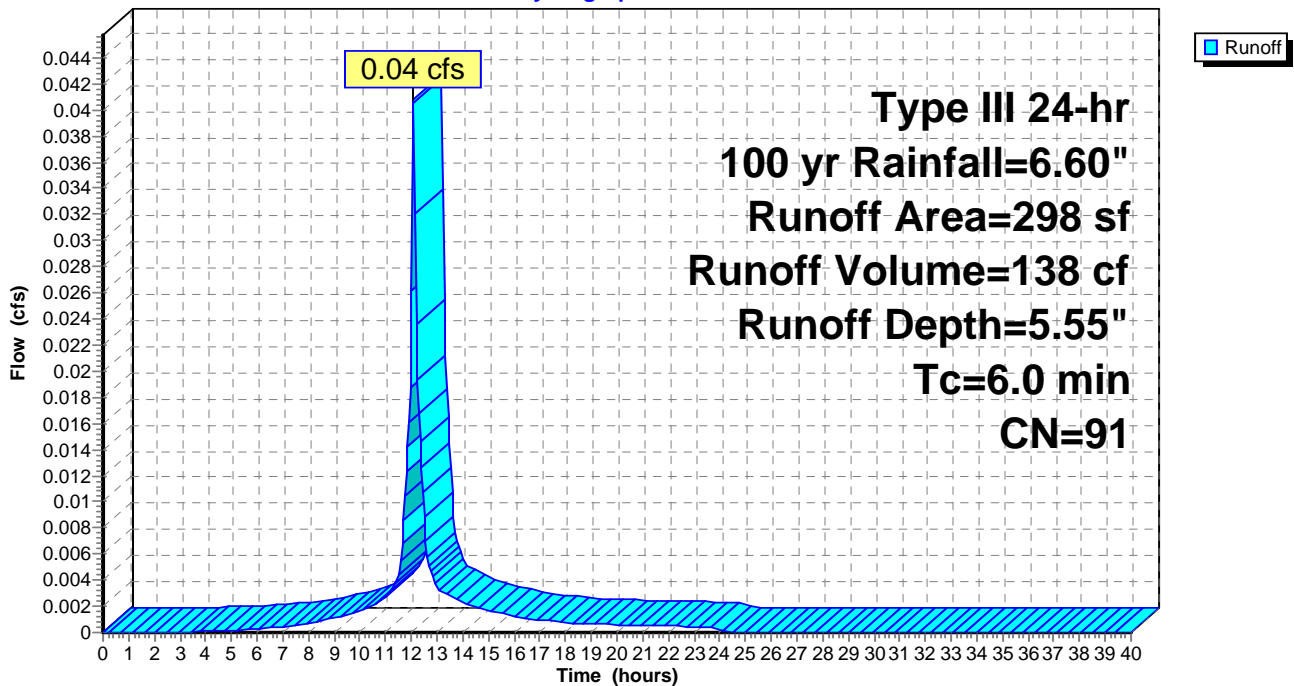
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100 yr Rainfall=6.60"

Area (sf)	CN	Description
298	91	Gravel roads, HSG D
298		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 6S: Prescott**

Hydrograph



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Page 24

**Summary for Subcatchment 7S: Passageway**

Runoff = 0.03 cfs @ 12.09 hrs, Volume= 109 cf, Depth= 5.66"

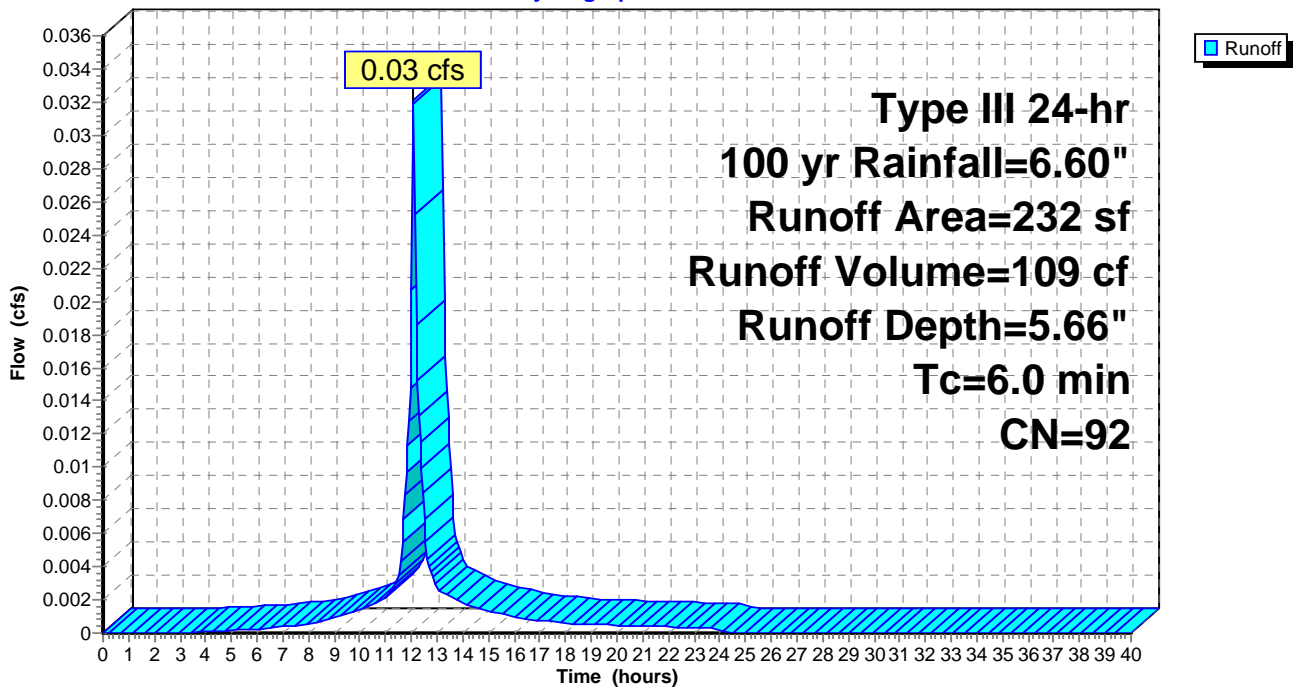
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 100 yr Rainfall=6.60"

Area (sf)	CN	Description
211	91	Gravel roads, HSG D
21	98	Paved parking, HSG D
232	92	Weighted Average
211		90.95% Pervious Area
21		9.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

**Subcatchment 7S: Passageway**

Hydrograph



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Page 25

**Summary for Pond 1P: Drywell w/ Stone**

Inflow Area = 2,100 sf, 75.76% Impervious, Inflow Depth = 6.17" for 100 yr event  
 Inflow = 0.30 cfs @ 12.09 hrs, Volume= 1,079 cf  
 Outflow = 0.30 cfs @ 12.10 hrs, Volume= 879 cf, Atten= 0%, Lag= 0.6 min  
 Discarded = 0.00 cfs @ 1.80 hrs, Volume= 35 cf  
 Primary = 0.30 cfs @ 12.10 hrs, Volume= 844 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs / 3  
 Peak Elev= 10.51' @ 12.10 hrs Surf.Area= 64 sf Storage= 230 cf

Plug-Flow detention time= 155.4 min calculated for 879 cf (81% of inflow)  
 Center-of-Mass det. time= 81.3 min ( 832.6 - 751.3 )

Volume	Invert	Avail.Storage	Storage Description
#1	5.20'	38 cf	<b>9.00'D x 6.00'H Vertical Cone/Cylinder</b> 382 cf Overall - 286 cf Embedded = 95 cf x 40.0% Voids
#2	6.70'	226 cf	<b>8.00'D x 4.50'H Vertical Cone/Cylinder</b> Inside #1 286 cf Overall - 6.0" Wall Thickness = 226 cf
		264 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	5.20'	<b>0.170 in/hr Exfiltration over Surface area</b>
#2	Primary	10.20'	<b>8.0" Round Culvert</b> L= 102.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 10.20' / 8.82' S= 0.0135 '/' Cc= 0.900 n= 0.010, Flow Area= 0.35 sf

**Discarded OutFlow** Max=0.00 cfs @ 1.80 hrs HW=5.26' (Free Discharge)

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

**Primary OutFlow** Max=0.30 cfs @ 12.10 hrs HW=10.51' TW=0.00' (Dynamic Tailwater)

↑**2=Culvert** (Inlet Controls 0.30 cfs @ 1.89 fps)

**Proposed-PMB**

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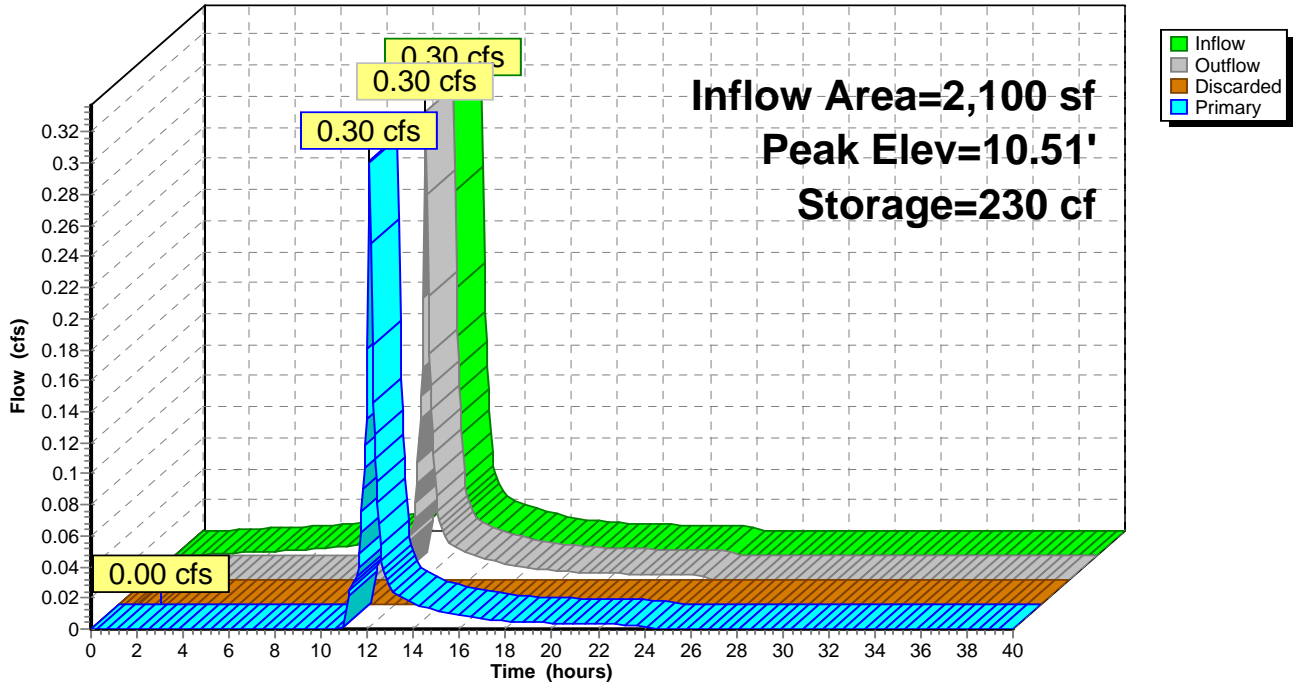
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Page 26

**Pond 1P: Drywell w/ Stone**

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Page 27

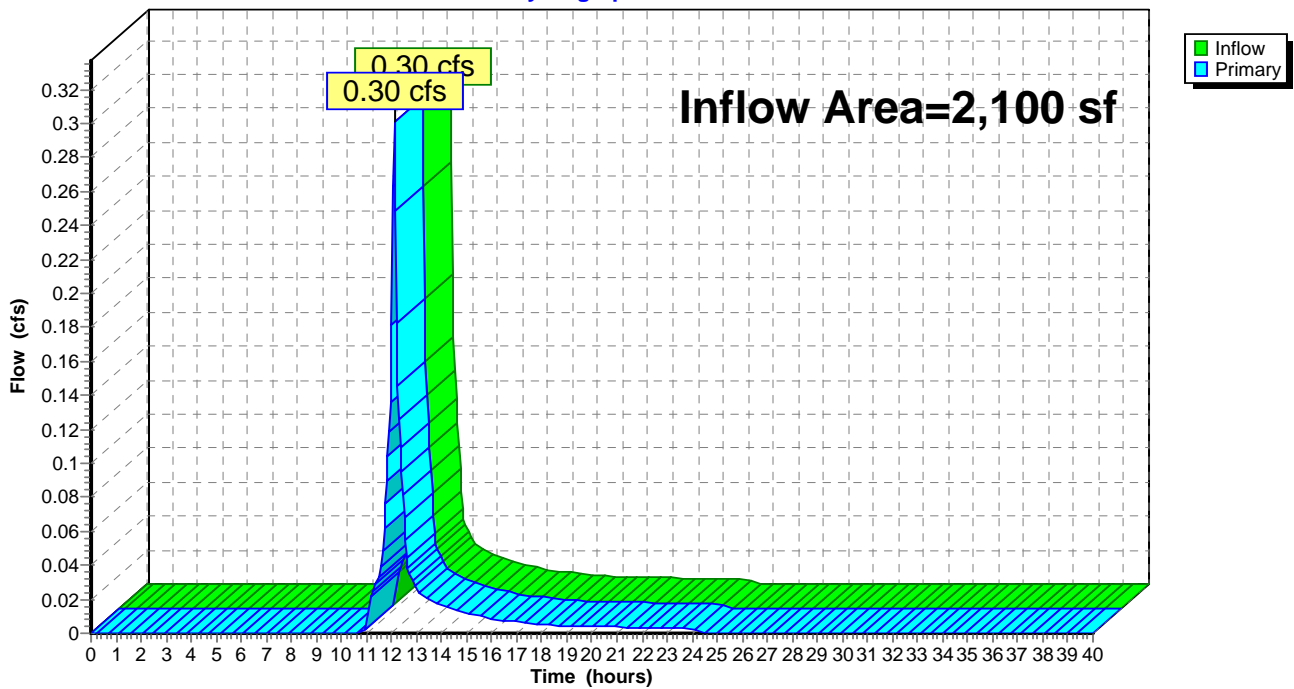
**Summary for Link 1L: Flow to Municipal Drainage System**

Inflow Area = 2,100 sf, 75.76% Impervious, Inflow Depth = 4.82" for 100 yr event  
Inflow = 0.30 cfs @ 12.10 hrs, Volume= 844 cf  
Primary = 0.30 cfs @ 12.10 hrs, Volume= 844 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

**Link 1L: Flow to Municipal Drainage System**

Hydrograph



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Page 28

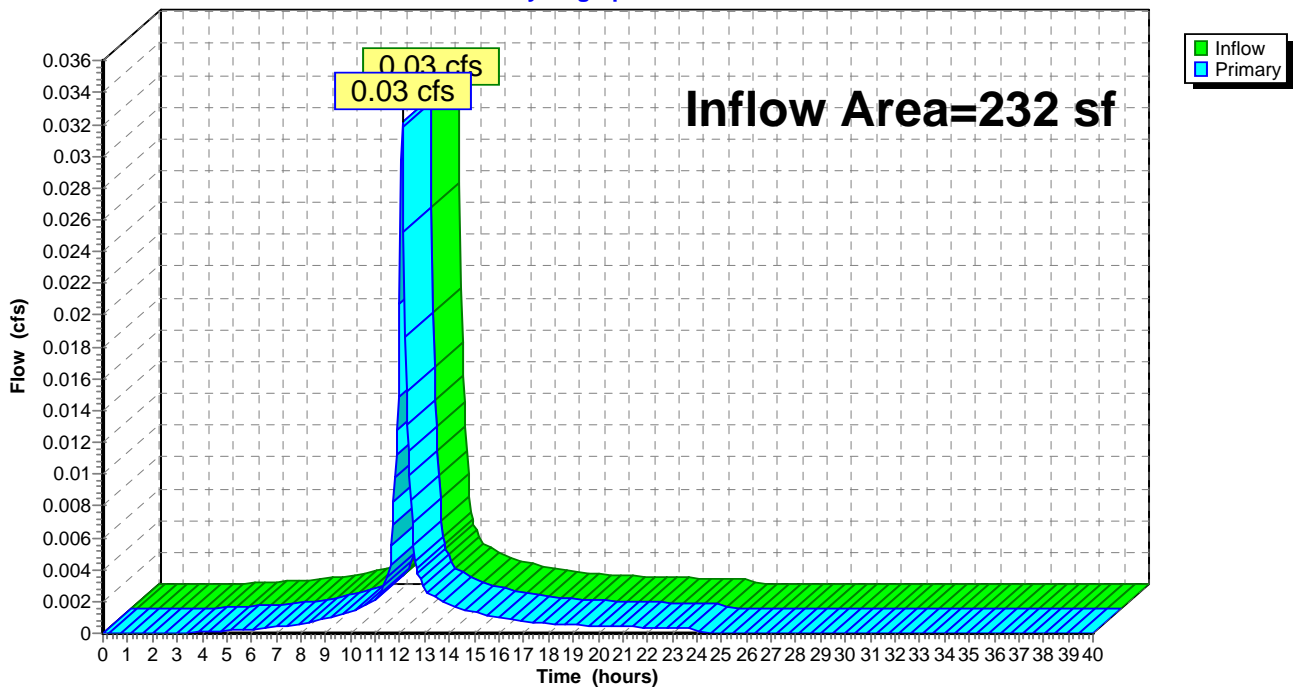
**Summary for Link 2L: Proposed Trenchdrain**

Inflow Area = 232 sf, 9.05% Impervious, Inflow Depth = 5.66" for 100 yr event  
Inflow = 0.03 cfs @ 12.09 hrs, Volume= 109 cf  
Primary = 0.03 cfs @ 12.09 hrs, Volume= 109 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

**Link 2L: Proposed Trenchdrain**

Hydrograph



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Page 29

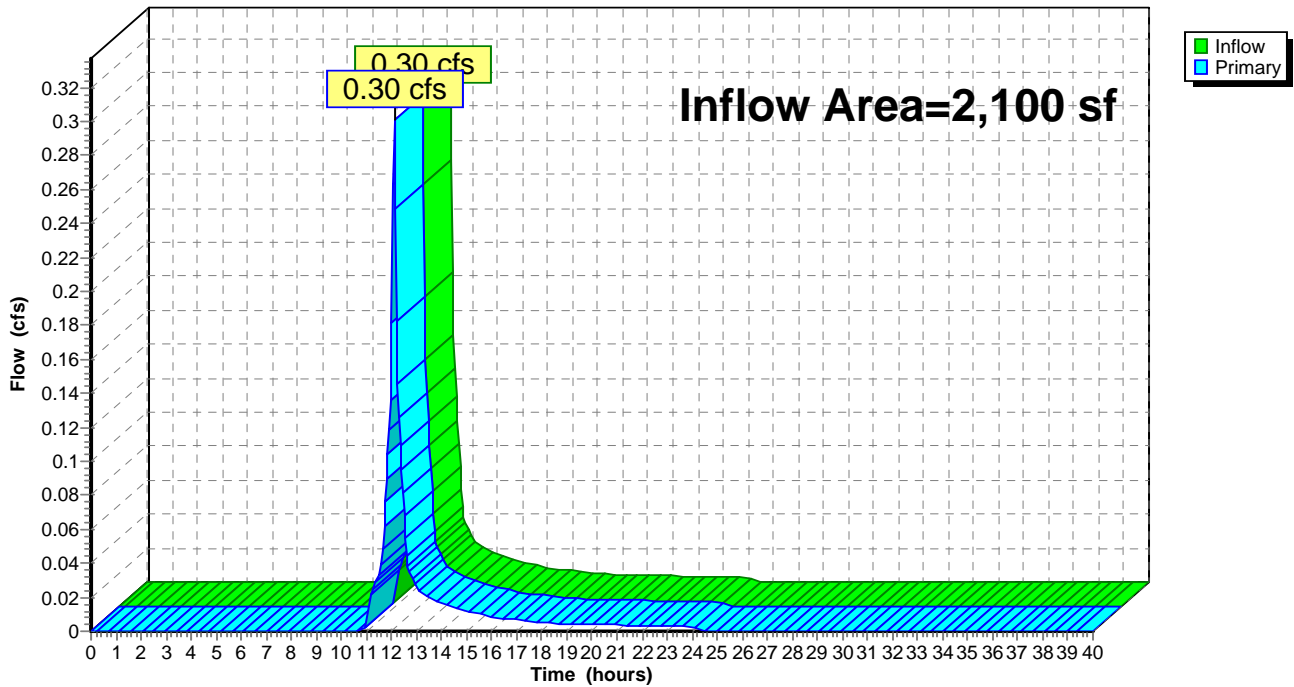
**Summary for Link 3L: Total runoff generated on Site**

Inflow Area = 2,100 sf, 75.76% Impervious, Inflow Depth = 4.82" for 100 yr event  
Inflow = 0.30 cfs @ 12.10 hrs, Volume= 844 cf  
Primary = 0.30 cfs @ 12.10 hrs, Volume= 844 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

**Link 3L: Total runoff generated on Site**

Hydrograph



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Page 30

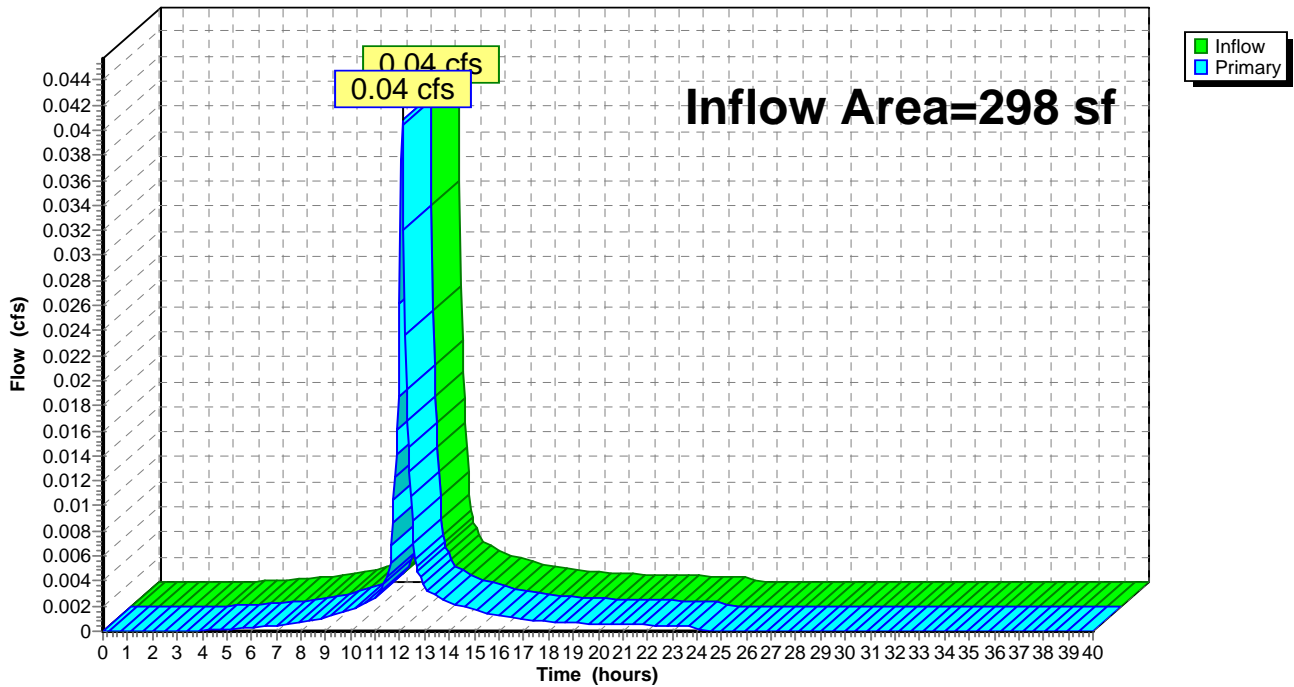
**Summary for Link 4L: Proposed Trenchdrain**

Inflow Area = 298 sf, 0.00% Impervious, Inflow Depth = 5.55" for 100 yr event  
Inflow = 0.04 cfs @ 12.09 hrs, Volume= 138 cf  
Primary = 0.04 cfs @ 12.09 hrs, Volume= 138 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

**Link 4L: Proposed Trenchdrain**

Hydrograph





## 2 | MassDEP Stormwater Checklist



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands Program

# Checklist for Stormwater Report

## A. Introduction

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

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals.<sup>1</sup> This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8<sup>2</sup>
- Operation and Maintenance Plan required by Standard 9

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

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

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

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



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

## B. Stormwater Checklist and Certification

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

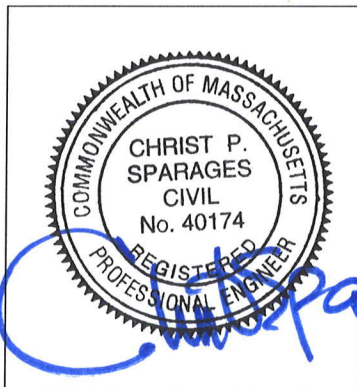
*Note:* Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that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

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

### Registered Professional Engineer's Certification

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

Registered Professional Engineer Block and Signature



Signature and Date

## Checklist

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

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

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

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

**Standard 1: No New Untreated Discharges**

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

**Standard 2: Peak Rate Attenuation**

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

post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

**Standard 3: Recharge**

- Soil Analysis provided.
- Required Recharge Volume calculation provided.
- Required Recharge volume reduced through use of the LID site Design Credits.
- Sizing the infiltration, BMPs is based on the following method: Check the method used.
  - Static             Simple Dynamic             Dynamic Field<sup>1</sup>
- Runoff from all impervious areas at the site discharging to the infiltration BMP.
- Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.
- Recharge BMPs have been sized to infiltrate the Required Recharge Volume.
- Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:
  - Site is comprised solely of C and D soils and/or bedrock at the land surface
  - M.G.L. c. 21E sites pursuant to 310 CMR 40.0000
  - Solid Waste Landfill pursuant to 310 CMR 19.000
  - Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.
- Calculations showing that the infiltration BMPs will drain in 72 hours are provided.
- Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.
- The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.
- Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

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

### Standard 4: Water Quality

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

- Good housekeeping practices;
  - Provisions for storing materials and waste products inside or under cover;
  - Vehicle washing controls;
  - Requirements for routine inspections and maintenance of stormwater BMPs;
  - Spill prevention and response plans;
  - Provisions for maintenance of lawns, gardens, and other landscaped areas;
  - Requirements for storage and use of fertilizers, herbicides, and pesticides;
  - Pet waste management provisions;
  - Provisions for operation and management of septic systems;
  - Provisions for solid waste management;
  - Snow disposal and plowing plans relative to Wetland Resource Areas;
  - Winter Road Salt and/or Sand Use and Storage restrictions;
  - Street sweeping schedules;
  - Provisions for prevention of illicit discharges to the stormwater management system;
  - Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
  - Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;  
List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.
- A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.
- Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one-inch rule for calculating the water quality volume are included, and discharge:
- is within the Zone II or Interim Wellhead Protection Area
  - is near or to other critical areas
  - is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
  - involves runoff from land uses with higher potential pollutant loads.
- The Required Water Quality Volume is reduced through use of the LID site Design Credits.
- Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.
- The BMP is sized (and calculations provided) based on:
- The ½" or **1"** Water Quality Volume or
  - The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.
- The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.
- A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided. (see Massachusetts Stormwater Handbook, Volume 2, Chapter 2, page 86)

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

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

**Standard 6: Critical Areas**

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

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

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

and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

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

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

- Narrative;
  - Construction Period Operation and Maintenance Plan;
  - Names of Persons or Entity Responsible for Plan Compliance;
  - Construction Period Pollution Prevention Measures;
  - Erosion and Sedimentation Control Plan Drawings;
  - Detail drawings and specifications for erosion control BMPs, including sizing calculations;
  - Vegetation Planning;
  - Site Development Plan;
  - Construction Sequencing Plan;
  - Sequencing of Erosion and Sedimentation Controls;
  - Operation and Maintenance of Erosion and Sedimentation Controls;
  - Inspection Schedule;
  - Maintenance Schedule;
  - Inspection and Maintenance Log Form.
- A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.
- The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has **not** been included in the Stormwater Report but will be submitted **before** land disturbance begins.
- The project is **not** covered by a NPDES Construction General Permit.
- The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.
- The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

**Standard 9: Operation and Maintenance Plan**

- The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:
- Name of the stormwater management system owners;
  - Party responsible for operation and maintenance;
  - Schedule for implementation of routine and non-routine maintenance tasks;
  - Plan showing the location of all stormwater BMPs maintenance access areas; (See Site Plan Set)
  - Description and delineation of public safety features;

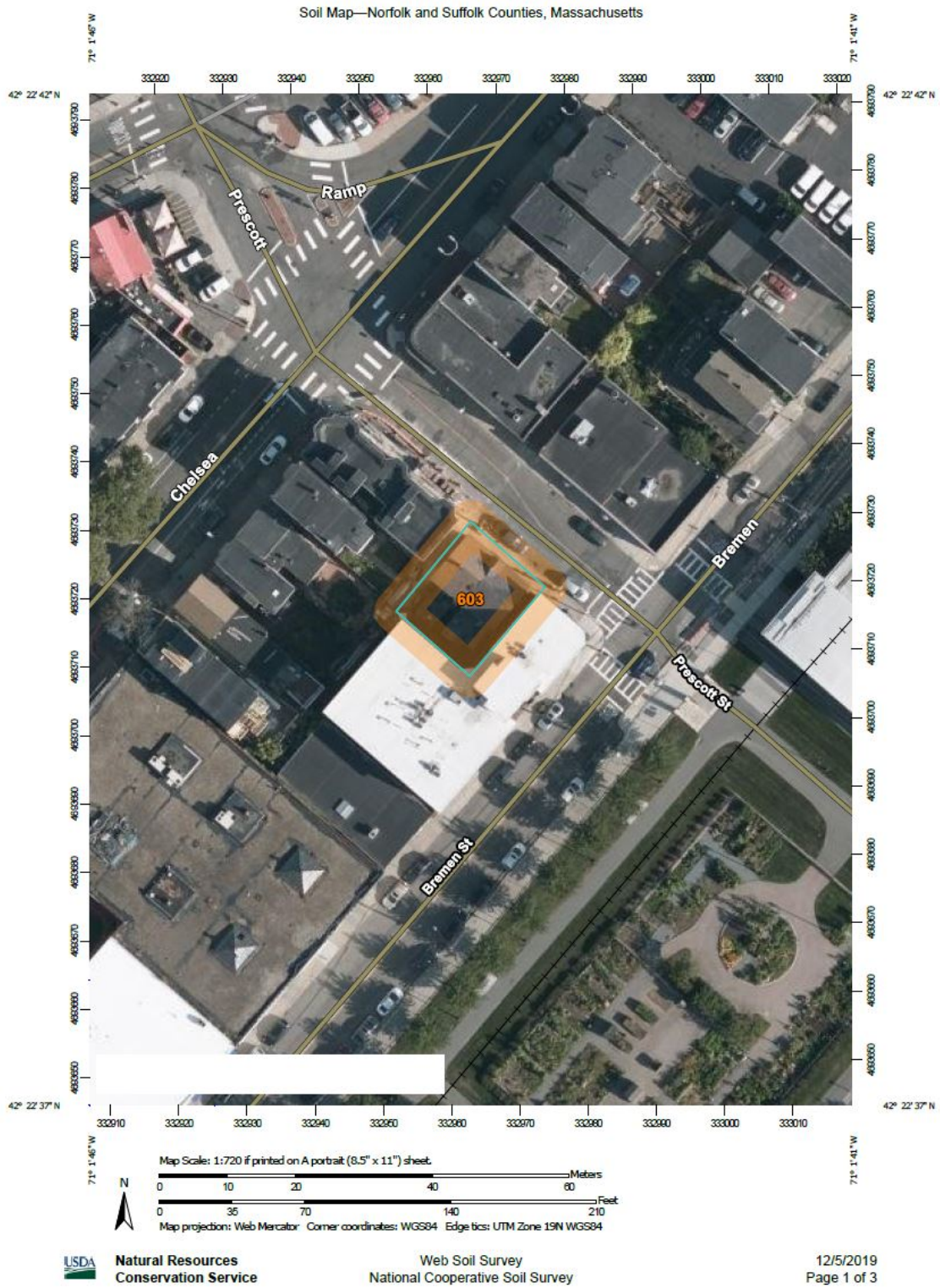
- Estimated operation and maintenance budget; and
- Operation and Maintenance Log Form.
- The responsible party is **not** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:
  - A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs; (See Appendix P)
  - A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

**Standard 10: Prohibition of Illicit Discharges**

- The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;
- An Illicit Discharge Compliance Statement is attached; (See section 1.7 of the Mitigative Drainage Analysis)
- NO Illicit Discharge Compliance Statement is attached but will be submitted **prior to** the discharge of any stormwater to post-construction BMPs.



### 3 | NRCS Web Soil Survey



Soil Map—Norfolk and Suffolk Counties, Massachusetts

### MAP LEGEND

<p><b>Area of Interest (AOI)</b></p> <ul style="list-style-type: none"> <li> Area of Interest (AOI)</li> </ul> <p><b>Soils</b></p> <ul style="list-style-type: none"> <li> Soil Map Unit Polygons</li> <li> Soil Map Unit Lines</li> <li> Soil Map Unit Points</li> </ul> <p><b>Special Point Features</b></p> <ul style="list-style-type: none"> <li> Blowout</li> <li> Borrow Pit</li> <li> Clay Spot</li> <li> Closed Depression</li> <li> Gravel Pit</li> <li> Gravelly Spot</li> <li> Landfill</li> <li> Lava Flow</li> <li> Marsh or swamp</li> <li> Mine or Quarry</li> <li> Miscellaneous Water</li> <li> Perennial Water</li> <li> Rock Outcrop</li> <li> Saline Spot</li> <li> Sandy Spot</li> <li> Severely Eroded Spot</li> <li> Sinkhole</li> <li> Slide or Slip</li> <li> Sodic Spot</li> </ul>	<ul style="list-style-type: none"> <li> Spoil Area</li> <li> Stony Spot</li> <li> Very Stony Spot</li> <li> Wet Spot</li> <li> Other</li> <li> Special Line Features</li> </ul> <p><b>Water Features</b></p> <ul style="list-style-type: none"> <li> Streams and Canals</li> </ul> <p><b>Transportation</b></p> <ul style="list-style-type: none"> <li> Rails</li> <li> Interstate Highways</li> <li> US Routes</li> <li> Major Roads</li> <li> Local Roads</li> </ul> <p><b>Background</b></p> <ul style="list-style-type: none"> <li> Aerial Photography</li> </ul>
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### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:25,000.

**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: <http://websoilsurvey.sc.egov.usda.gov>  
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: Norfolk and Suffolk Counties, Massachusetts  
Survey Area Data: Version 15, Sep 12, 2019

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

Date(s) aerial images were photographed: Sep 11, 2019—Oct 5, 2019

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.

12/5/2019  
Page 2 of 3

Web Soil Survey  
National Cooperative Soil Survey



Soil Map—Norfolk and Suffolk Counties, Massachusetts

### Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
603	Urban land, wet substratum, 0 to 3 percent slopes	0.1	100.0%
<b>Totals for Area of Interest</b>		<b>0.1</b>	<b>100.0%</b>



PLAN INDEX		
SHEET DESIGNATION	DRAWING	SHEET
COVER SHEET	C-1	1
EXISTING CONDITION PLAN	C-2	2
DEMOLITION PLAN	C-3	3
SITE PLAN	C-4	4
SITE/CONSTRUCTION DETAILS	C-5	5

WARD: 1094 PARCELS: 0106907000 & 0106908000

ZONE: ARTICLE 53 EAST BOSTON NEIGHBORHOOD DISTRICT SUBDISTRICT: THREE-FAMILY RESIDENTIAL (3F-2000)		
	REQUIRED/ALLOWED	PROVIDED
MINIMUM LOT AREA	2,000 SF FOR 1 OR 2 UNITS	2,000 SF
ADDITIONAL LOT AREA / ADDITIONAL DWELLING UNIT	1,000 SF x 4 UNITS	25 SF
MINIMUM LOT WIDTH	20 FT	42 FT
MINIMUM LOT FRONTAGE	20 FT	42 FT
MINIMUM FRONT YARD	5 FT OR EXISTING BUILDING ALIGNMENT OF THE BLOCK	0.5 FT
MINIMUM SIDE YARD	2.5 FT	0.5 FT
MINIMUM REAR SETBACK	40 FT	5 FT
MAXIMUM BUILD. HEIGHT	3 STY/ 35 FT	3 STY/ 34 FT
MAXIMUM FLOOR AREA RATIO	1.0	2.09/ 4,648 SF
MINIMUM USABLE OPEN SPACE/ DWELLING UNIT	300 SF x 6 UNITS= 1,800 SF	300 SF
PARKING	1.5 SP/ DWELLING UNIT =9 SPACES REQ'D	3 OFF SITE SPACES LOCATED @ 368-370 BREMEN ST.

**OWNER: 93 PRESCOTT STREET**  
LAR PROPERTY MANAGEMENT, LLC  
282 BENNINGTON STREET  
EAST BOSTON, MA 02128  
TEL. (617) 567-1992  
CONTACT PERSON: CELESTE HEWITT  
LAND COURT CERTIFICATE NO. 130238

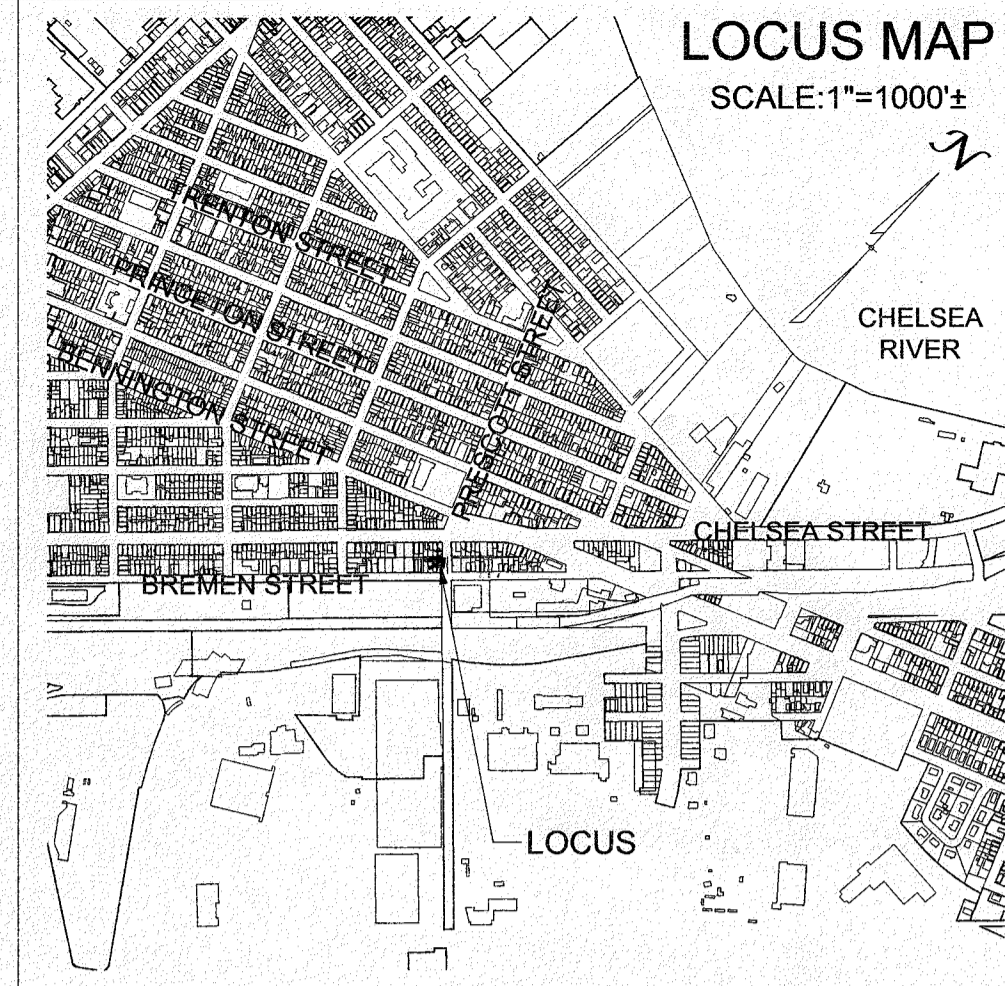
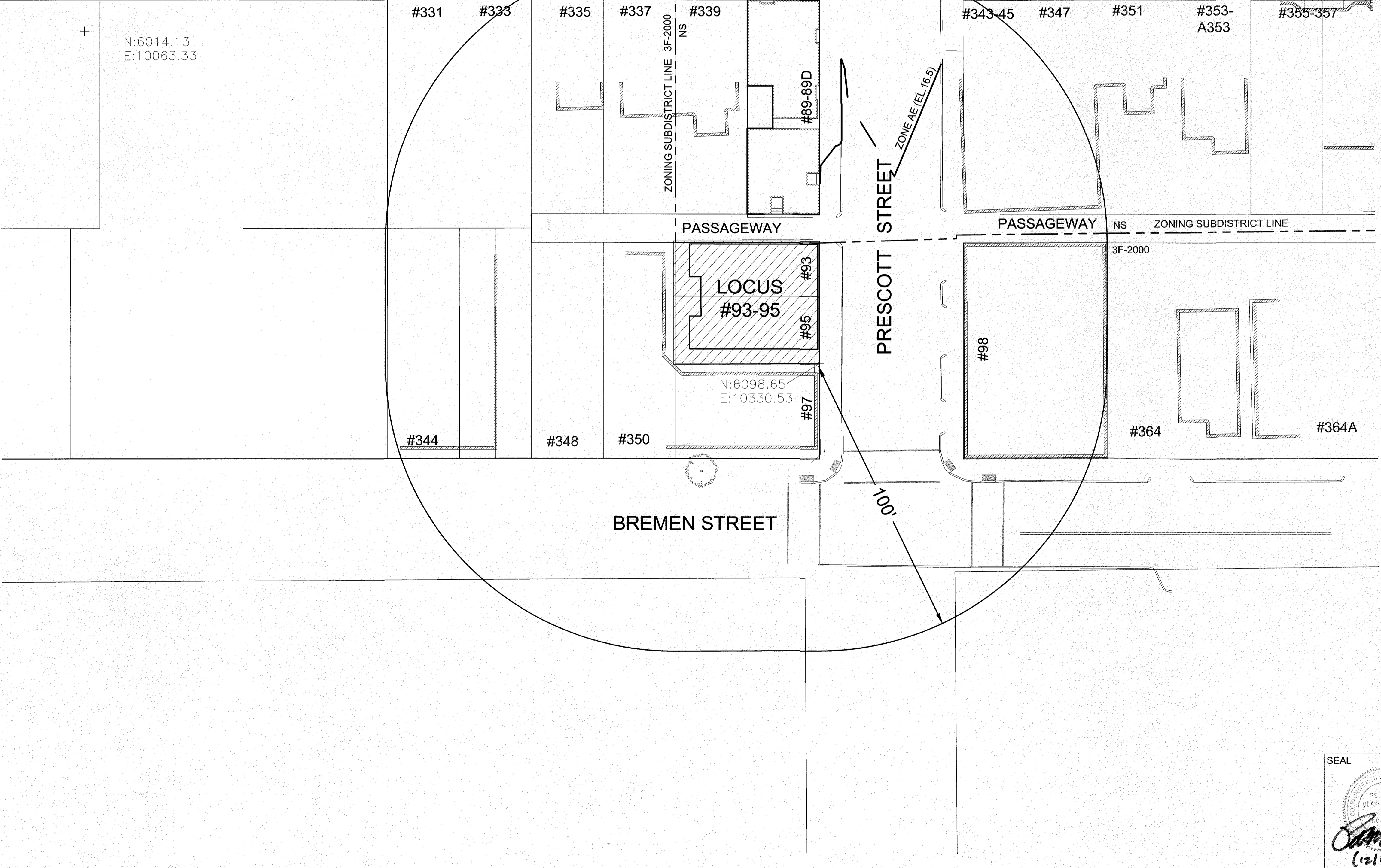
**OWNER: 95 PRESCOTT STREET:**  
LOUIE & RITA ROBERTO, TRUSTEES  
687 SARATOGA STREET REALTY TRUST  
282 BENNINGTON STREET  
EAST BOSTON, MA 02128  
TEL (617) 567-8306  
CONTACT PERSON: ANTONY ROBERTO  
DEED BOOK 58744 PAGE 121

**PROJECT LOCATION:**  
93 - 95 PRESCOTT STREET  
EAST BOSTON, MA 02128  
PARCEL: 0106907000 & 0106908000

**PLAN REFERENCES:**  
1. BOOK 492 PAGE END  
2. BOOK 2014 PAGE 133  
3. LC PLAN 32881A  
4. LC PLAN 31523A  
5. LC PLAN 1016A

- PROJECT NOTES:**
- DEED AND PLANS ARE FROM THE SUFFOLK REGISTRY OF DEEDS (SRD) AND LAND COURT.
  - ALL ELEVATIONS LISTED ON THE SITE PLAN ARE REFERENCED TO THE BOSTON CITY BASE (BCB) DATUM.
  - EXISTING TOPOGRAPHIC INFORMATION IS THE RESULT OF AN ACTUAL INSTRUMENT SURVEY PERFORMED BY WILLIAMS & SPARAGES, LLC CONDUCTED IN OCTOBER 2017.
  - THE UTILITIES SHOWN ARE THE RESULT OF AND ACTUAL INSTRUMENT SURVEY PERFORMED BY WILLIAMS & SPARAGES, LLC AND FROM VARIOUS PLANS ON FILE WITH THE CITY OF BOSTON, BOSTON WATER AND SEWER COMMISSION, AND PLANS AND DEMARCATION FROM LOCAL UTILITY SERVICE PROVIDERS. NO REPRESENTATION OR WARRANTY IS MADE AS TO THE ACCURACY OF THE LOCATION OF THE SUBSURFACE UTILITIES DEPICTED OR NOT DEPICTED AND SHOULD BE CONSIDERED APPROXIMATE. VERIFY UTILITIES PRIOR TO CONSTRUCTION.
  - ALL UTILITIES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION AND SHALL NOTIFY THE OWNER'S REPRESENTATIVE IF EXISTING CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN THAT WILL PREVENT THE PROPOSED WORK FROM BEING COMPLETED AS INTENDED.
  - IF DURING CONSTRUCTION A CONFLICT SHOULD ARISE BETWEEN AN EXISTING UTILITY AND PROPOSED WORK THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING FOR RESOLUTION OF THE CONFLICT.
  - CONTRACTOR TO CALL DIGSAFE PRIOR TO CONSTRUCTION (811), TO UPDATE TICKET AND/OR VERIFY TICKET VALIDATION. DIGSAFE TICKET IS VALID 30 DAYS FROM THE DATE OF ISSUE. BEYOND THIS POINT, TICKETS ARE VALID INDEFINITELY, PROVIDED THAT 1) THE MARKS ARE MAINTAINED, AND 2) THE WORK IS CONTINUOUS.
  - THE PROPOSED WATER CONNECTION SIZE, TYPE & LOCATION ARE TO BE DESIGNED IN ACCORDANCE WITH 248 CMR 10.00: UNIFORM STATE PLUMBING CODE.
  - THE CONTRACTOR SHALL VERIFY ALL BUILDING DIMENSIONS AND ARCHITECTURAL SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION.
  - ALL PROPOSED DRAIN PIPES ARE TO BE HDPE OR APPROVED EQUIVALENT UNLESS OTHERWISE SPECIFIED.
  - THE APPLICANT SHALL COORDINATE WITH THE BOSTON WATER AND SEWER COMMISSION TO ENSURE PROPER DOMESTIC AND FIRE FLOWS PRIOR TO BUILDING PERMIT.
  - VERIFY ROOF DRAIN LOCATIONS WITH ARCHITECTURAL PLANS.
  - THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ABUTTING PROPERTIES FROM DAMAGE IN RELATION TO ALL PROPOSED SITE WORK.
  - THE FOUNDATION PERIMETER DRAIN SHALL BE INSTALLED IN ACCORDANCE WITH 780 CMR 6405 (THE MASSACHUSETTS STATE BUILDING CODE).
  - SEE ORDER OF CONDITIONS PRIOR TO SITE WORK.
  - THE PROPERTY LIE WITHIN A FLOOD HAZARD AREA, ZONE AE, AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 25025C0019J, EFFECTIVE DATE: MARCH 16, 2016 AND IS SHOWN ON PLAN AS ELEVATION 10 NAVD, WHICH IS EQUIVALENT TO 16.5 BOSTON CITY BASE (BCB).
  - PROPOSED SEWER SERVICE SHALL BE 6" SDR35 PVC.
  - WHEREVER FEASIBLE, SEWERS WILL BE LAID AT A MINIMUM OF 10 FEET, HORIZONTALLY, FROM ANY EXISTING OR PROPOSED WATER MAIN. SHOULD LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET TO A WATER MAIN THE SEWER MAIN WILL BE LAID IN A SEPARATE TRENCH AND THE ELEVATION OF THE CROWN OF THE SEWER PLACED AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN. WHENEVER SEWERS MUST CROSS UNDER WATER MAINS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN. WHEN IT IS IMPOSSIBLE TO OBTAIN HORIZONTAL OR VERTICAL SEPARATION AS STIPULATED ABOVE, BOTH THE WATER MAIN AND SEWER SHOULD BE ENCASED IN CONCRETE FOR 10 FEET EITHER SIDE OF THE CROSSING.

FOR BWSO USE ONLY



Owner: #93 / Applicant:  
LAR Property Management, LLC  
282 Bennington Street  
East Boston, MA 02128  
Tel. (617) 567-4499

Owner: #95:  
687 Saratoga Street Realty Trust  
282 Bennington Street  
East Boston, MA 02128  
Tel. (617) 567-4499

Designed By: MRP  
Drawn By: MRP  
Reviewed By: CFS  
Project Manager: CFS  
Job File Number: EBOS-0027  
Drawing File Folder: EBOS23

Drawing Issued for Review Only  
 Drawing Issued for Permit  
 Drawing Issued for Construction

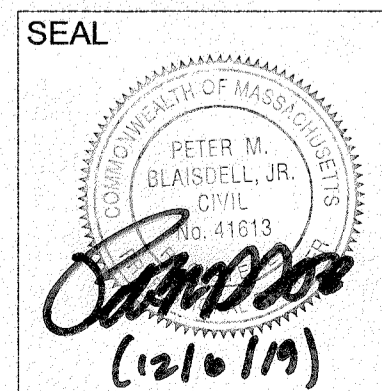
NO.	REVISION	DATE
6		
5		
4		
3		
2		
1		

**PERMIT SET - COVER SHEET**  
93-95 PRESCOTT STREET, EAST BOSTON, MA

0' 10' 20' 40'  
SCALE: 1" = 20'

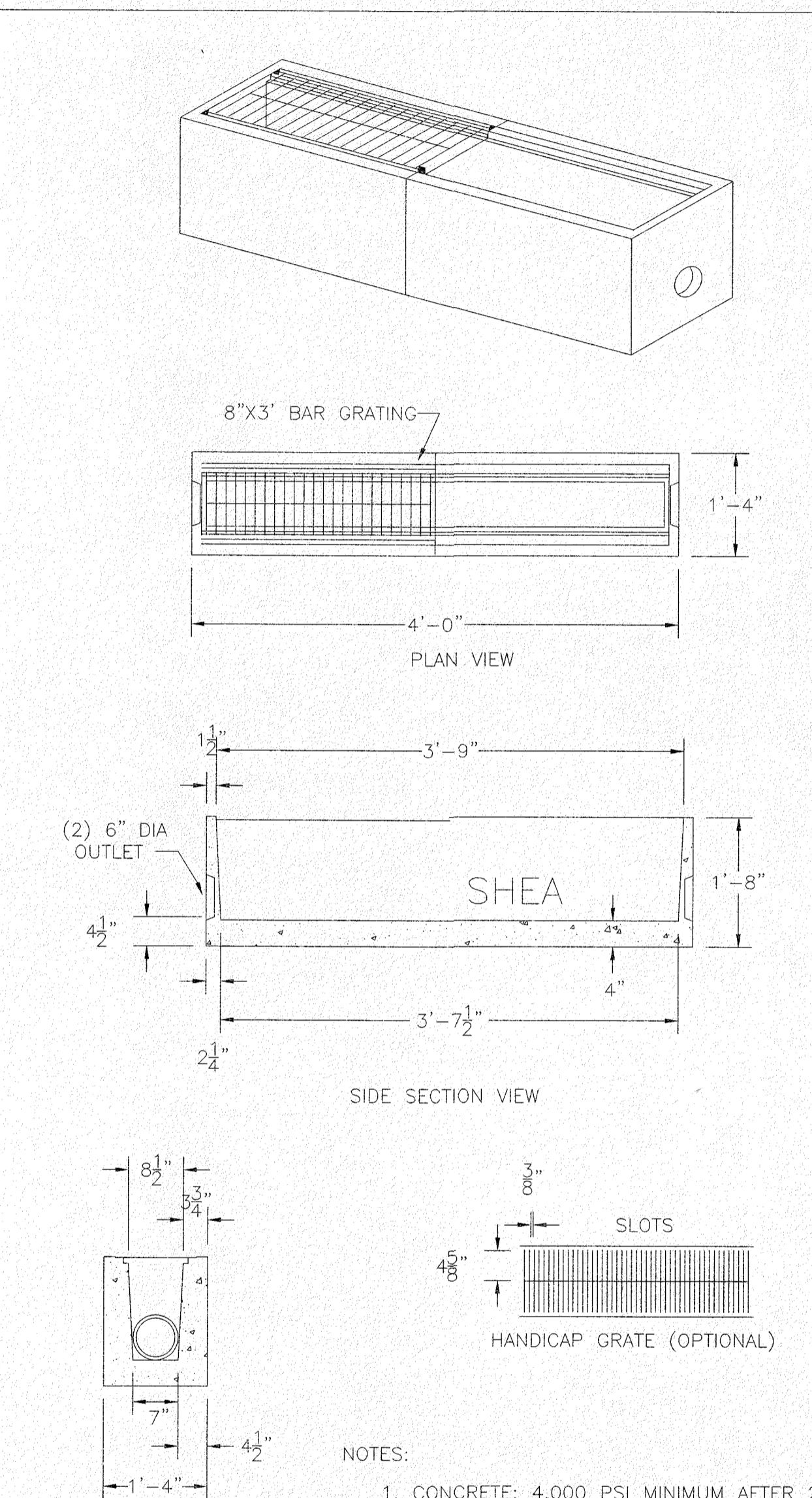
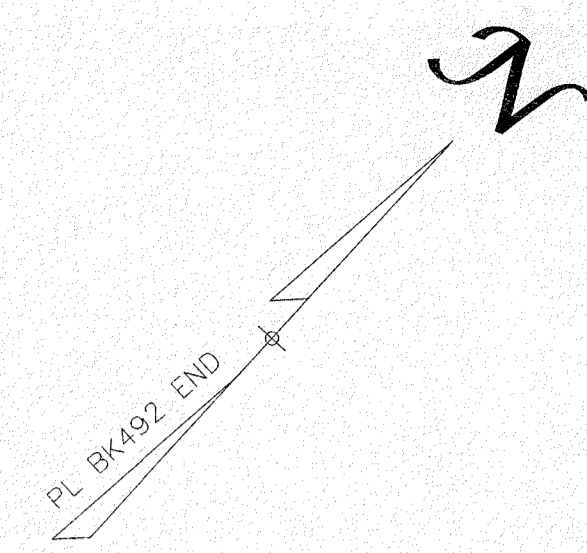
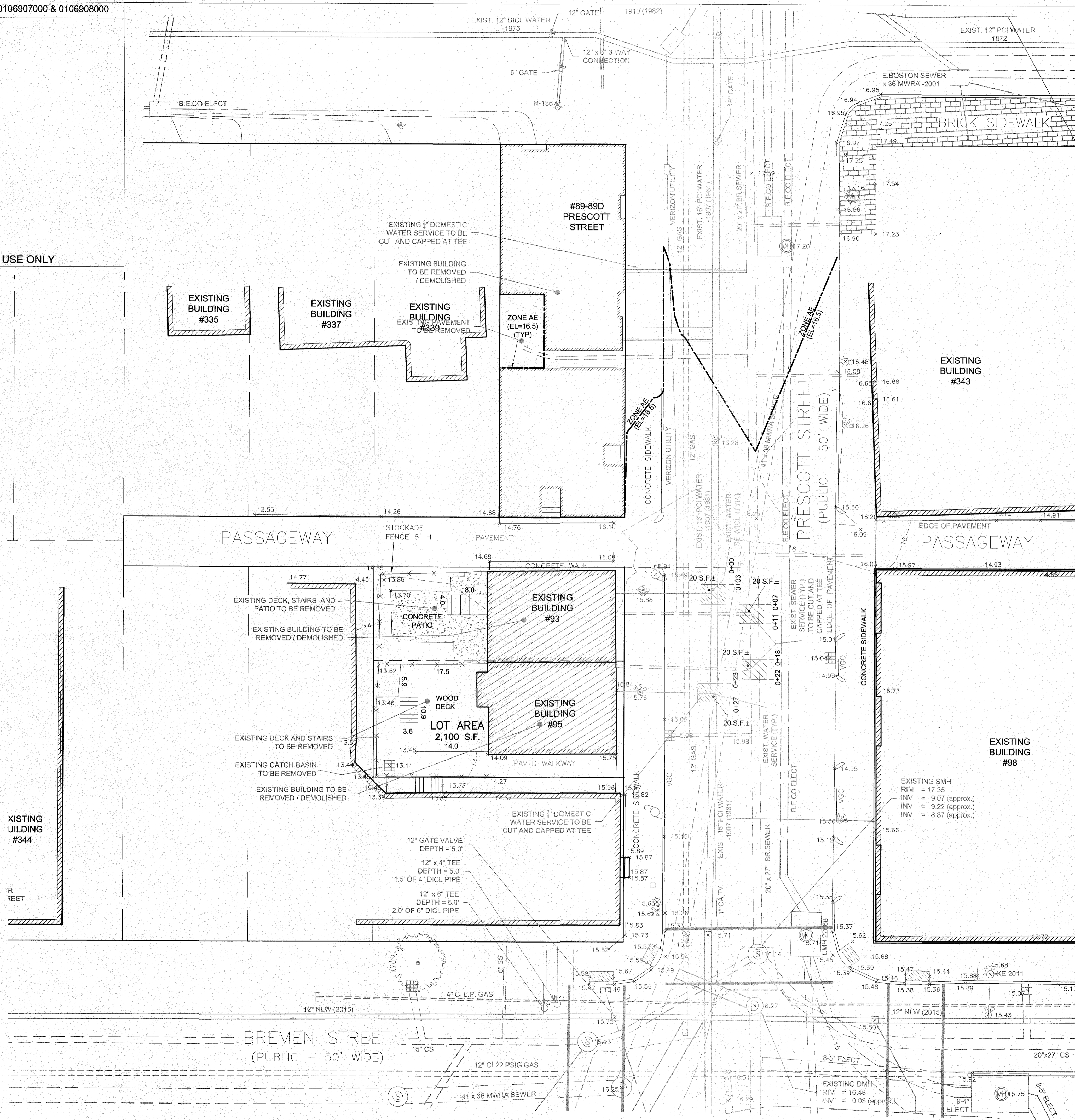
DECEMBER 2, 2019

DRAWING: C-1  
SHEET 1 OF 5



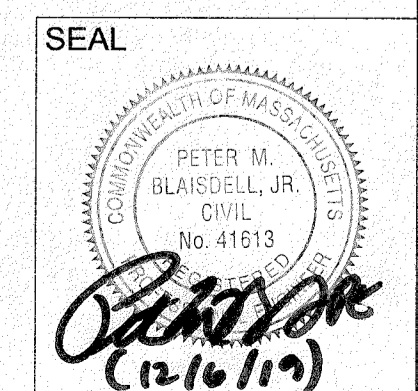


FOR BWSC USE ONLY



- NOTES:
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
  2. AVAILABLE IN 3' AND 6' SECTIONS.
  3. AVAILABLE IN END OR MIDDLE SECTIONS.
  4. CONFORMS TO H-20 LOADING.

- NOTES:
1. WATER ACCOUNT NUMBERS : 360324000 (#93) & 318079000 (#95)
  2. REMOVE EXISTING SIDEWALK BOX.
  3. RETAIN EXISTING 1" METERS FOR RE-USE, METER NUMBER 04017641 (#93) & METER NUMBER 02222919 (#95)



**PERMIT SET - DEMOLITION PLAN**  
 93-95 PRESCOTT STREET, EAST BOSTON, MA

DRAWING: C-3  
 SHEET 3 OF 5

Owner (#93) / Applicant:  
 LAR Property Management, LLC  
 282 Bennington Street  
 East Boston, MA 02128  
 Tel. (617) 567-4499

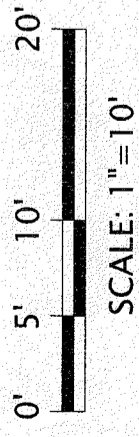
Owner (#95):  
 189 North Main Street  
 Middleton, MA 01949  
 Phone: (978) 339-8688  
 Fax: (978) 339-8688  
 Web: WSENGINEERS.COM

Designed By: MRP  
 Drawn By: MRP  
 Reviewed By: CPS  
 Project Manager: CPS  
 Job File Number: EBOS-0027  
 Drawing File Folder: EBOS23

Drawing issued for Review Only  
 Drawing issued for Permit  
 Drawing issued for Construction

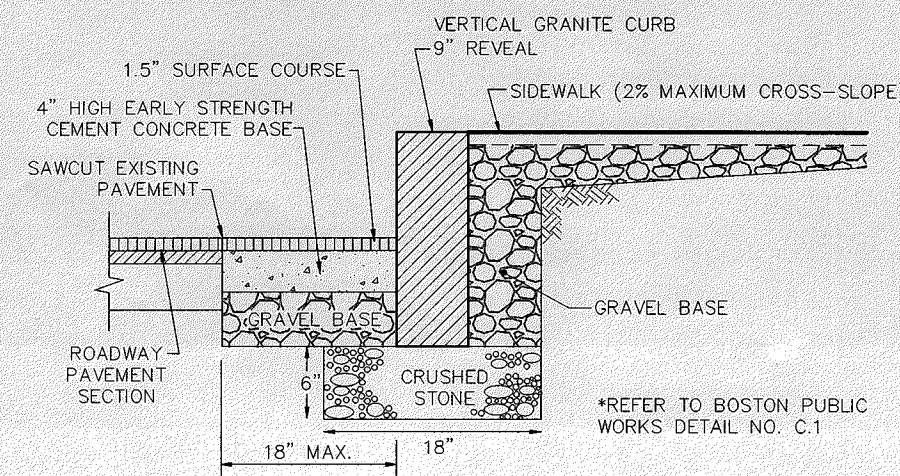
NO.	REVISION	DATE	BY	DESCRIPTION
1		12/16/2019		BOSTON ENVIRONMENT DEPARTMENT COMMENTS
2				
3				
4				
5				
6				

DECEMBER 2, 2019



SCALE: 1" = 10'

FOR BWSO USE ONLY



VERTICAL GRANITE CURB DETAIL (SCALE: NOT TO SCALE)

AFTER THE SITE PLAN IS SIGNED BY THE CHIEF ENGINEER OR HIS DESIGNEE, A GENERAL SERVICE APPLICATION MUST BE FILLED OUT AND SIGNED BY THE OWNER OF THE PROPERTY OR THE OWNER'S AGENT PRIOR TO THE TIME OF INSTALLATION OF DOMESTIC WATER SERVICE, FIRE PIPE SERVICE, BUILDING SEWER, OR BUILDING STORM DRAIN CONNECTIONS. A PREREQUISITE FOR FILING A GENERAL SERVICE APPLICATION WITH THE BOSTON WATER AND SEWER COMMISSION FOR NEW CONSTRUCTION IS THE ROUGH CONSTRUCTION SIGN-OFF DOCUMENT FROM THE CITY OF BOSTON'S INSPECTION SERVICES DEPARTMENT. AN INSPECTION FEE WILL BE CHARGED FOR EACH WATER AND SEWER CONNECTION. TWENTY FOUR (24) HOURS ADVANCED NOTICE IS REQUIRED FOR INCEPTION SCHEDULING. IF ANY INSPECTION DATE IS SCHEDULED ON THE WEEKEND, HOLIDAY OR AFTER REGULAR WORK HOURS, AND THE CONTRACTOR FAILS TO NOTIFY THE BWSO INSPECTORS OF CANCELLATION IN ADVANCE, AN ADDITIONAL INSPECTION FEE WILL BE CHARGED TO THE CONTRACTOR WHEN THE JOB IS SUBSEQUENTLY RESCHEDULED.

**DRAINAGE CALCULATIONS:**

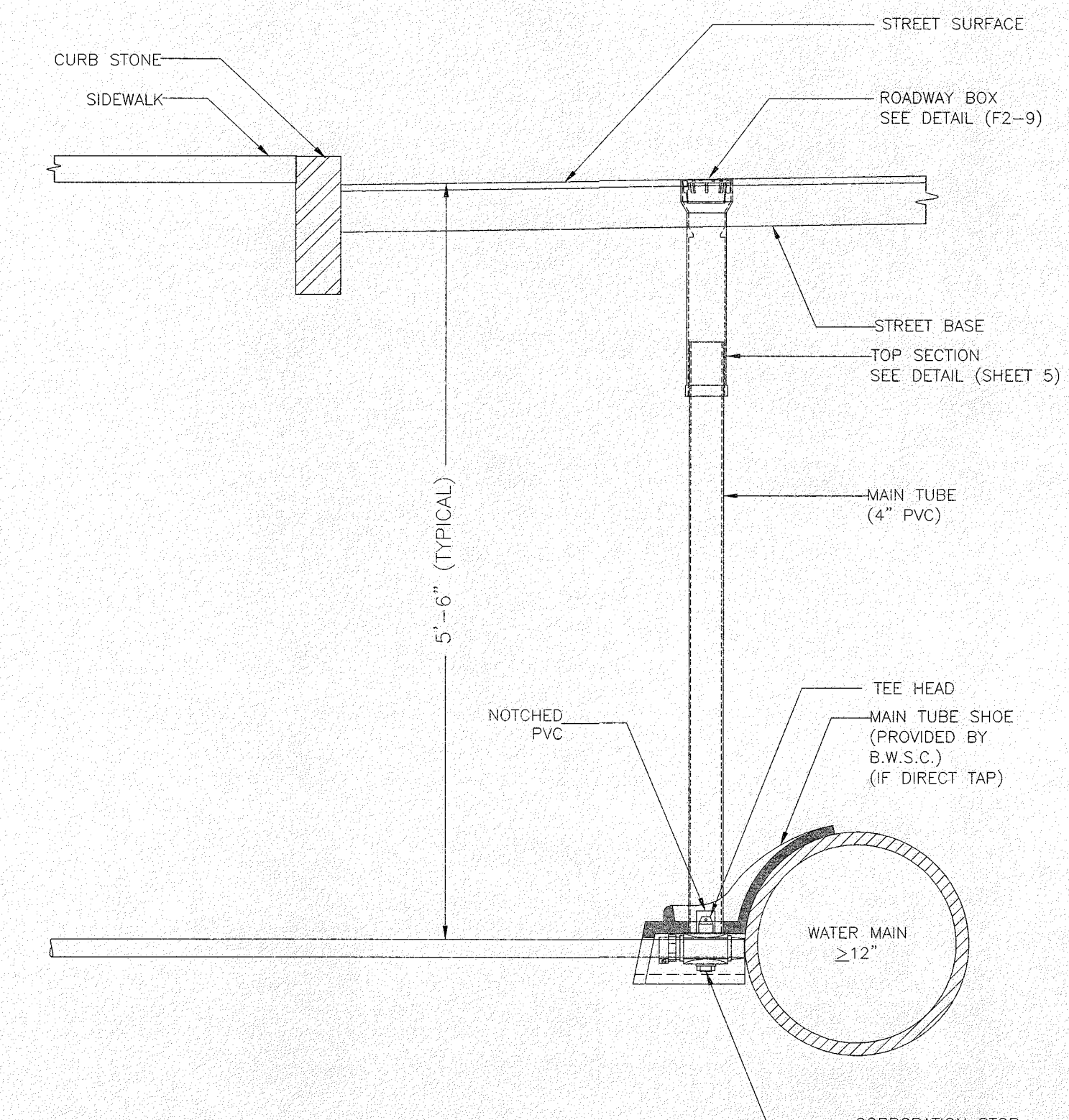
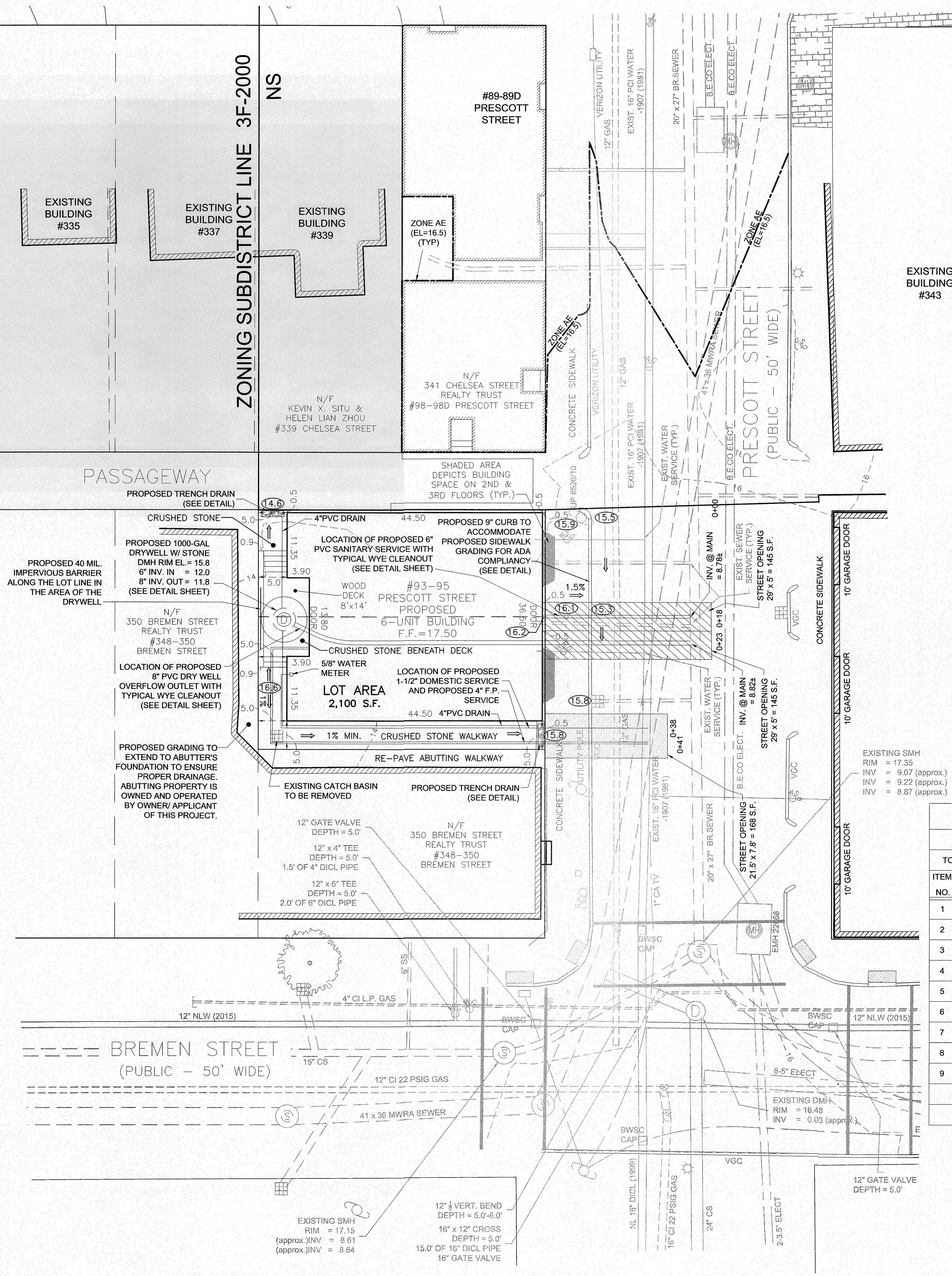
STORE FIRST 1" OF RAINFALL  
 ROOF AREA = 1570 ft<sup>2</sup>  
 TOTAL IMPERVIOUS AREA = ROOF AREA = 1570 ft<sup>2</sup>  
 VOLUME TO STORE = (1570 ft<sup>2</sup>) \* (1 in) \* (1 ft/12 in) = 130.8 ft<sup>3</sup>  
 VOLUME TO STORE = 130.8 ft<sup>3</sup> \* 7.48 GALLONS/ft<sup>3</sup> = 978.6 GALLONS  
 (USE ONE 1000-GALLON DRY WELL WITH 6" SIDE STONE AND 12" STONE BELOW)

VOLUME OF STONE AND CHAMBER: (17)(4.5)(15.5) = 350 ft<sup>3</sup>  
 OUTSIDE VOLUME OF CHAMBER: (17)(4.5)(14.5) = 226 ft<sup>3</sup>  
 VOLUME OF STONE VOIDS PER CHAMBER: (350ft<sup>3</sup> - 226ft<sup>3</sup>)(0.3) = 37.2 ft<sup>3</sup>  
 (ASSUMED 30% VOID SPACE FOR STONE)

TOTAL VOLUME OF VOID SPACE: (37.2 ft<sup>3</sup>)(7.48 GALLONS/ft<sup>3</sup>) = 278.3 GALLONS  
 TOTAL VOLUME OF CHAMBER: = 1000 GALLONS  
 TOTAL VOLUME OF SYSTEM: (278.3 GAL + 1000 GAL) = 1278.3 GALLONS  
 CONCLUSION: 1278 GALLONS > 978.6 GALLONS  
 (170.9 ft<sup>3</sup> > 130.8 ft<sup>3</sup>)

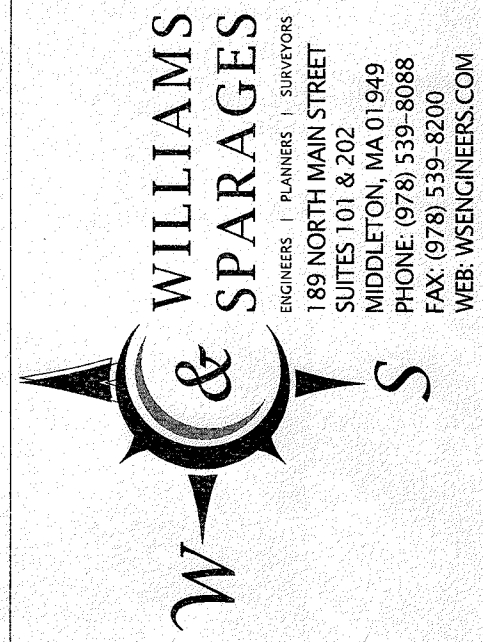
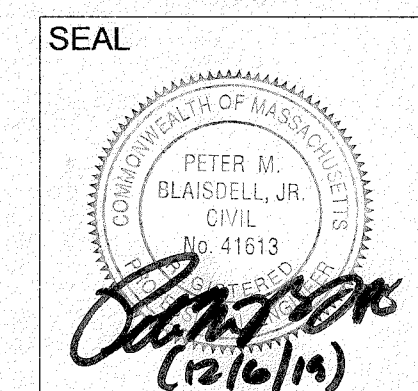
**GENERAL PROJECT INFORMATION:**

- ACCOUNT NUMBER: 360324000 (#93) & 318079000 (#95)
- PARCEL NUMBERS: 0106907000 (#93) & 0106908000 (#95)
- WARD: 1094
- PROPERTY LOCATION: 93 - 95 PRESCOTT STREET
- NEIGHBORHOOD: EAST BOSTON
- ZIP CODE: 02128
- OWNER NAME: LAR PROPERTY MANAGEMENT, LLC (#93)  
687 SARATOGA STREET REALTY TRUST (#95)
- OWNER ADDRESS: 282 BENNINGTON STREET  
EAST BOSTON, MA 02128
- OWNER TELEPHONE NO.: (617) 567-8306
- TYPE OF PREMISE: RESIDENTIAL PROPERTY
- METER SIZE: 5/8"
- INSIDE: YES
- OUTSIDE: NO
- TYPE OF BUILDING: RESIDENTIAL
- SEWER FLOWS: (9 br)(110 gpd/br) = 990 gpd
- LANDUSE CODE: 3F-2000
- SITE PLAN: # xxxxxx



TYPICAL WATER CONNECTION FOR 1-1/2 AND 2-INCH SERVICE PIPES TO 12"-16" WATER MAINS (SCALE: NOT TO SCALE)

INSPECTION SIGN-OFF SCHEDULE				
SERVICE CONNECTIONS				
TO BE SUBMITTED WITH PROPOSED PLANS			TO BE SUBMITTED WITH AS BUILT PLANS	
ITEM NO.	DESCRIPTION OF SERVICE	QTY	BWSO INSPECTOR/ DATE	COMMENTS
1	CUT & CAP WATER	2		
2	CUT & CAP SEWER #1	1		
3	CUT & CAP SEWER #2	1		
4	6" SEWER	1		
5	1-1/2" DOMESTIC SERVICE	1		
6	4" FIRE PIPE SERVICE	1		
7	INFILTRATION (DRY WELL)	1		
8	DRY WELL OVERFLOW	1		
9	AS BUILT PREPARATION FEE	1		



**WILLIAMS & SPARGES**  
 INCORPORATED  
 189 NORTH MAIN STREET  
 SUITES 101 & 202  
 MIDDLETON, MA 01949  
 TEL: (617) 567-8306  
 FAX: (617) 567-8300  
 WEB: WSENGINEERS.COM

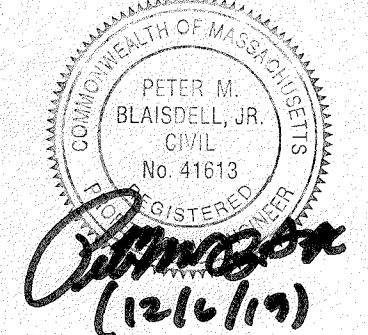
Owner: (#93) / Applicant: LAR Property Management, LLC  
 282 Bennington Street  
 East Boston, MA 02128  
 Tel: (617) 567-4499  
 Owner: (#95): 687 Saratoga Street Realty Trust  
 282 Bennington Street  
 East Boston, MA 02128  
 Tel: (617) 567-4499

Designed By: MRP  
 Drawn By: MRP  
 Reviewed By: CPS  
 Project Manager: CPS  
 Job File Number: EBOS-0027  
 Drawing File Folder: EBOS23

**PERMIT SET - SITE PLAN**  
 93-95 PRESCOTT STREET, EAST BOSTON, MA

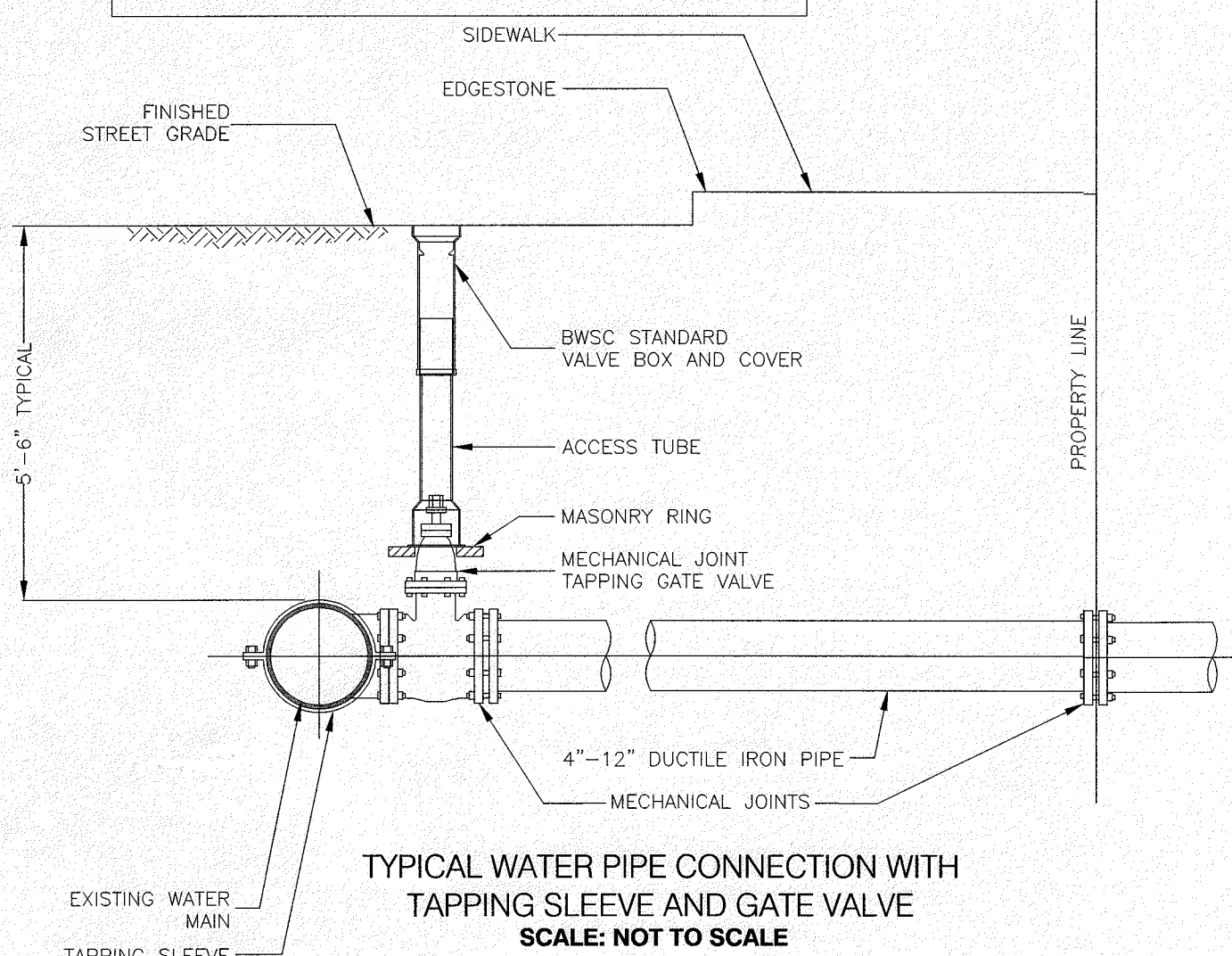
DRAWING: C-4  
 SHEET 4 OF 5

DECEMBER 2, 2019  
 BOSTON ENVIRONMENT DEPARTMENT COMMENTS: 12/16/2019

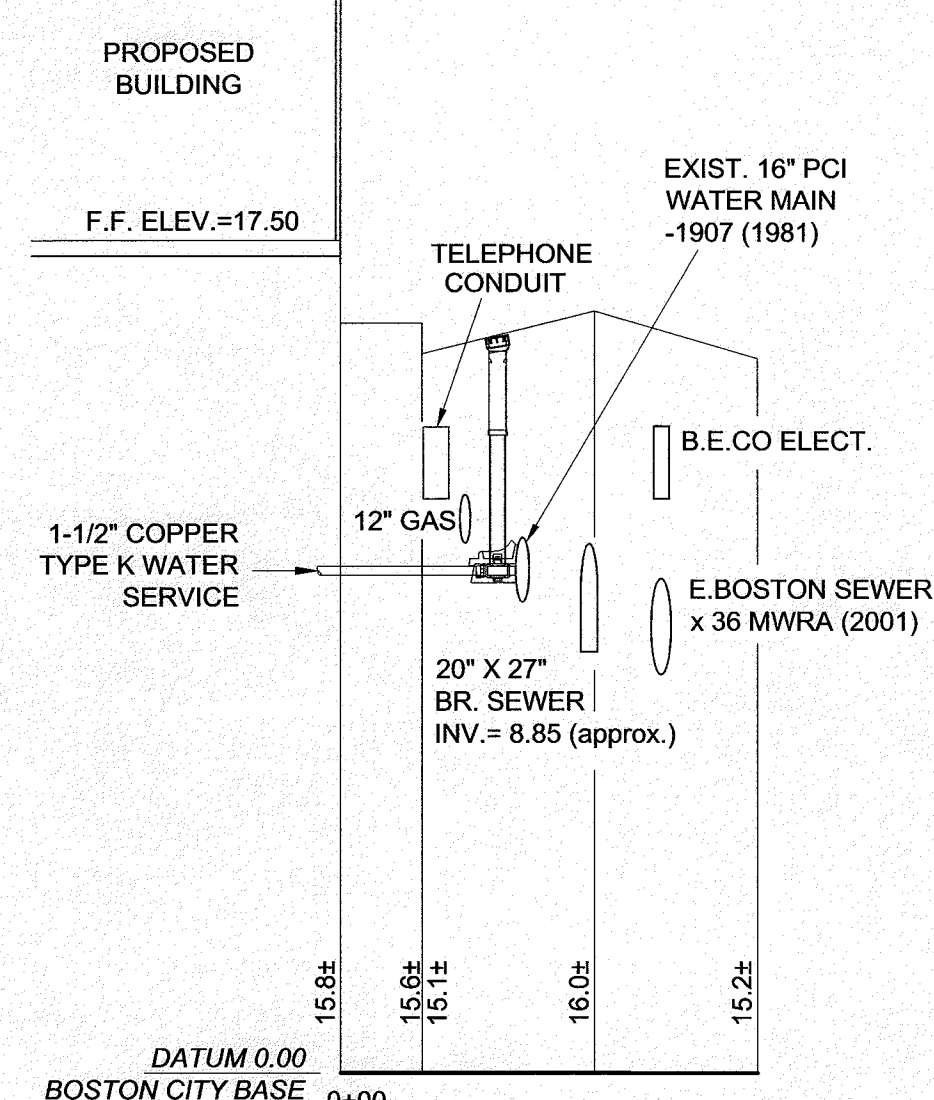


FOR BWSO USE ONLY

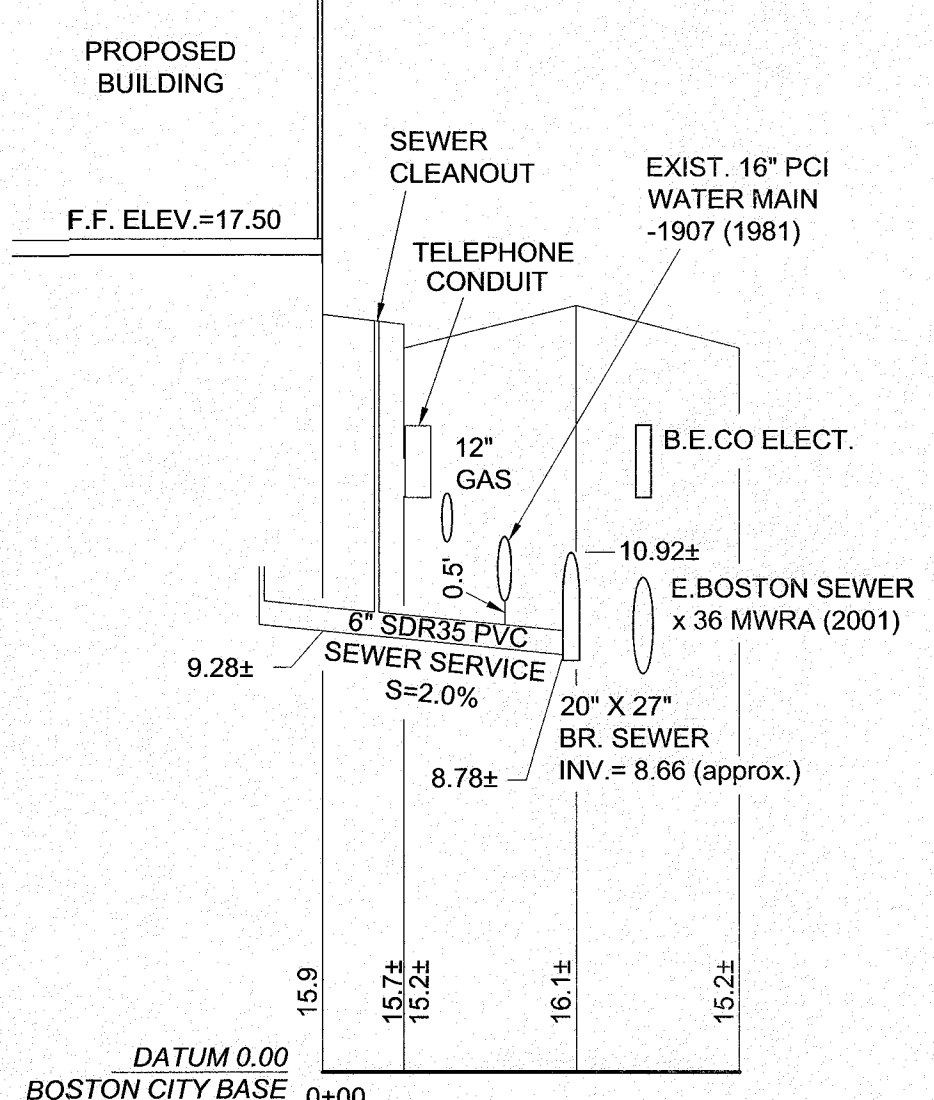
NOTES:  
 - CONCRETE THRUST BLOCK TO BE USED ONLY WHERE IT WILL BEAR ON UNDISTURBED EARTH.  
 - USE RESTRAINED JOINT FITTINGS OR THE RODS WHERE CONCRETE THRUST BLOCK IS UNACCEPTABLE.  
 - SIZE OF BLOCK OR MEGALUG TO BE DESIGNED FOR SPECIFIC CONDITIONS.



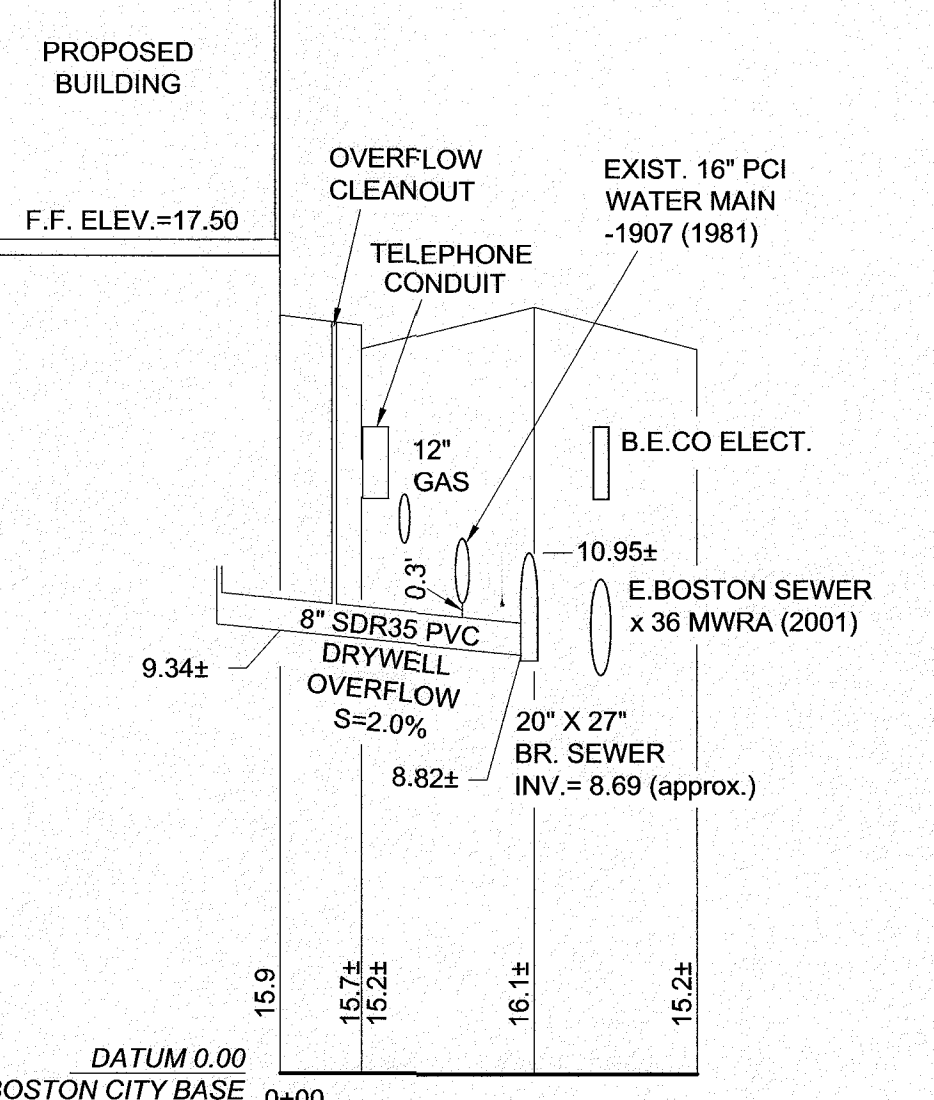
TYPICAL WATER PIPE CONNECTION WITH TAPPING SLEEVE AND GATE VALVE  
 SCALE: NOT TO SCALE



WATER PROFILE  
 PRESCOTT STREET  
 SCALE: 1"=20' HOR. & 1"=4' VER.

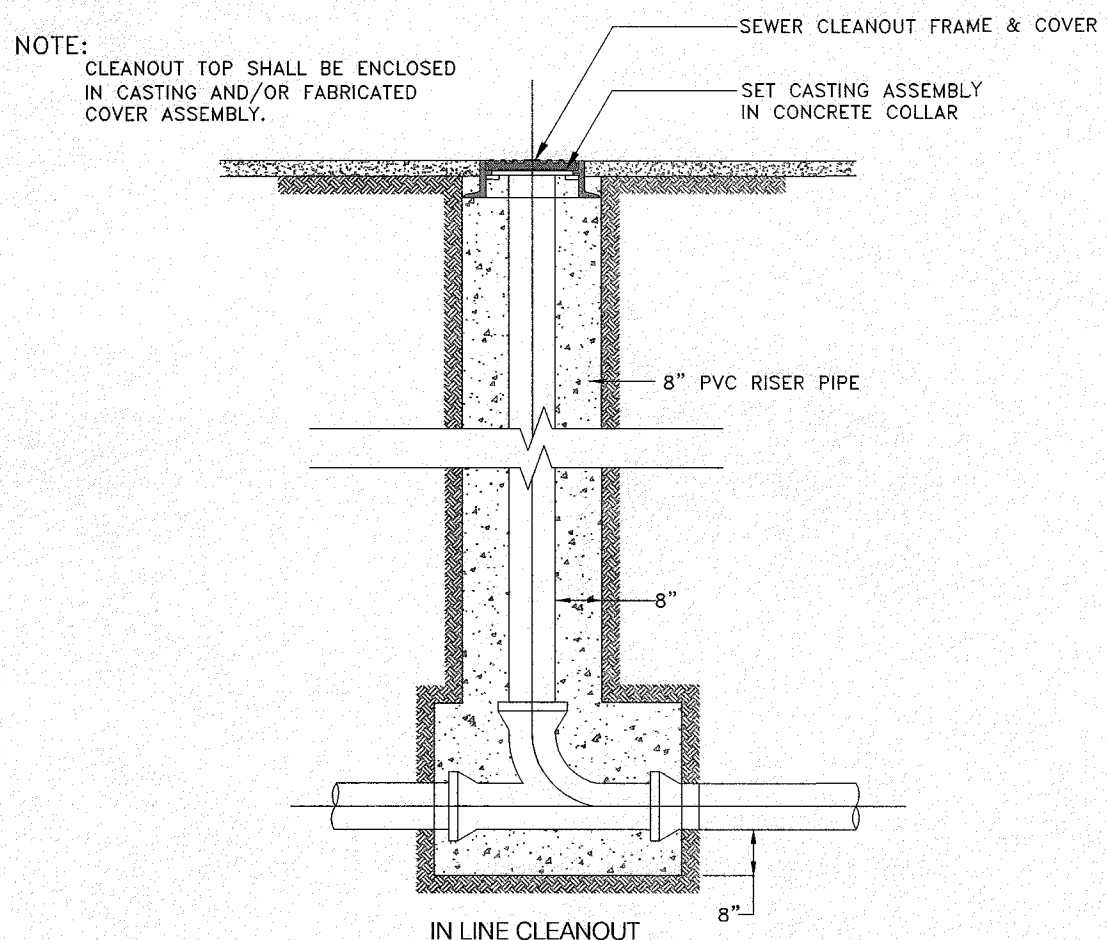


SEWER PROFILE  
 PRESCOTT STREET  
 SCALE: 1"=20' HOR. & 1"=4' VER.

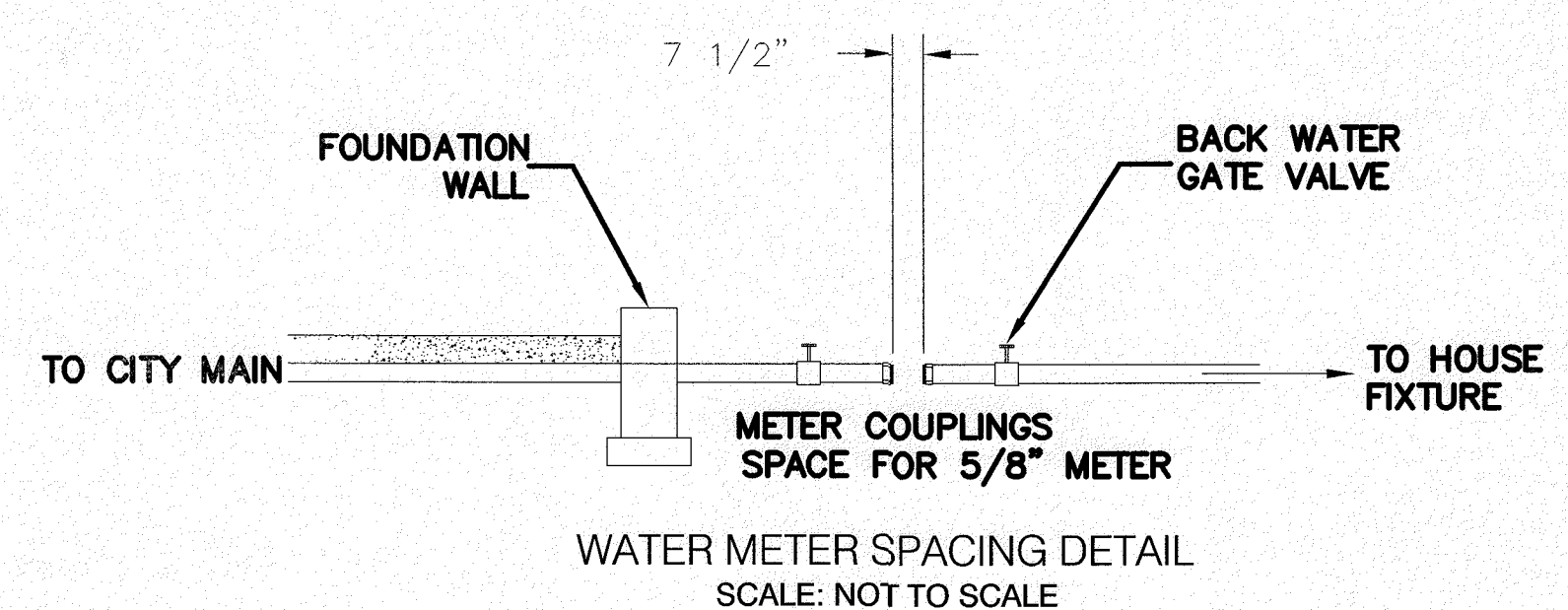


DRAIN / DRYWELL  
 OVERFLOW PROFILE  
 PRESCOTT STREET  
 SCALE: 1"=20' HOR. & 1"=4' VER.

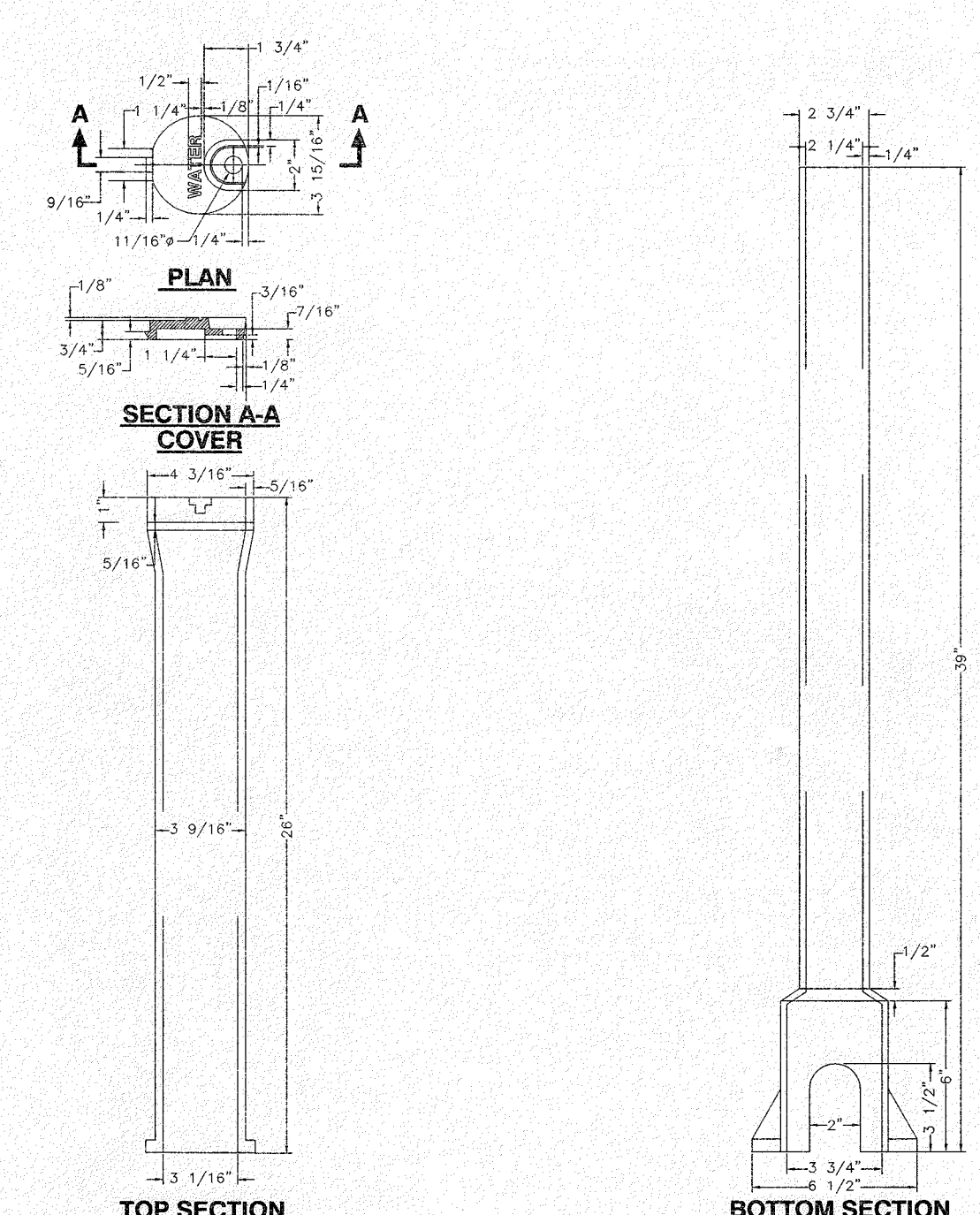
\*TELEPHONE, GAS, E.BOSTON SEWER AND B.E.CO ELECTRIC UTILITIES' DEPTH ARE NOT CONFIRMED.  
 CONTRACTOR RESPONSIBLE FOR CONFIRMATION PRIOR TO CONSTRUCTION ACTIVITIES.  
 \*SEE NOTE 18 ON SHEET 1 OF THIS SET REGARDING SEWER & WATER CROSSINGS.



TYPICAL WYE CLEANOUT  
 SCALE: NOT TO SCALE

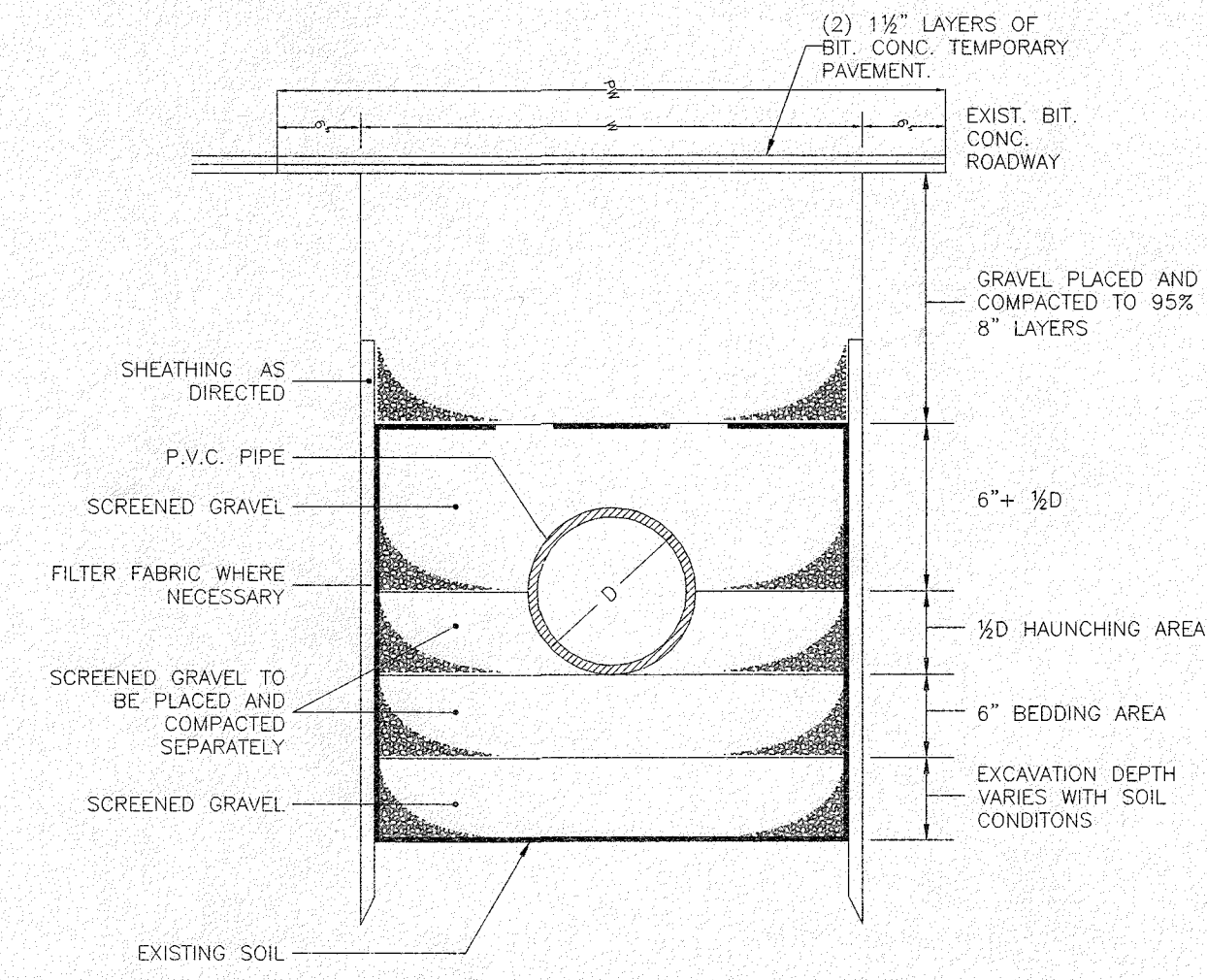


WATER METER SPACING DETAIL  
 SCALE: NOT TO SCALE



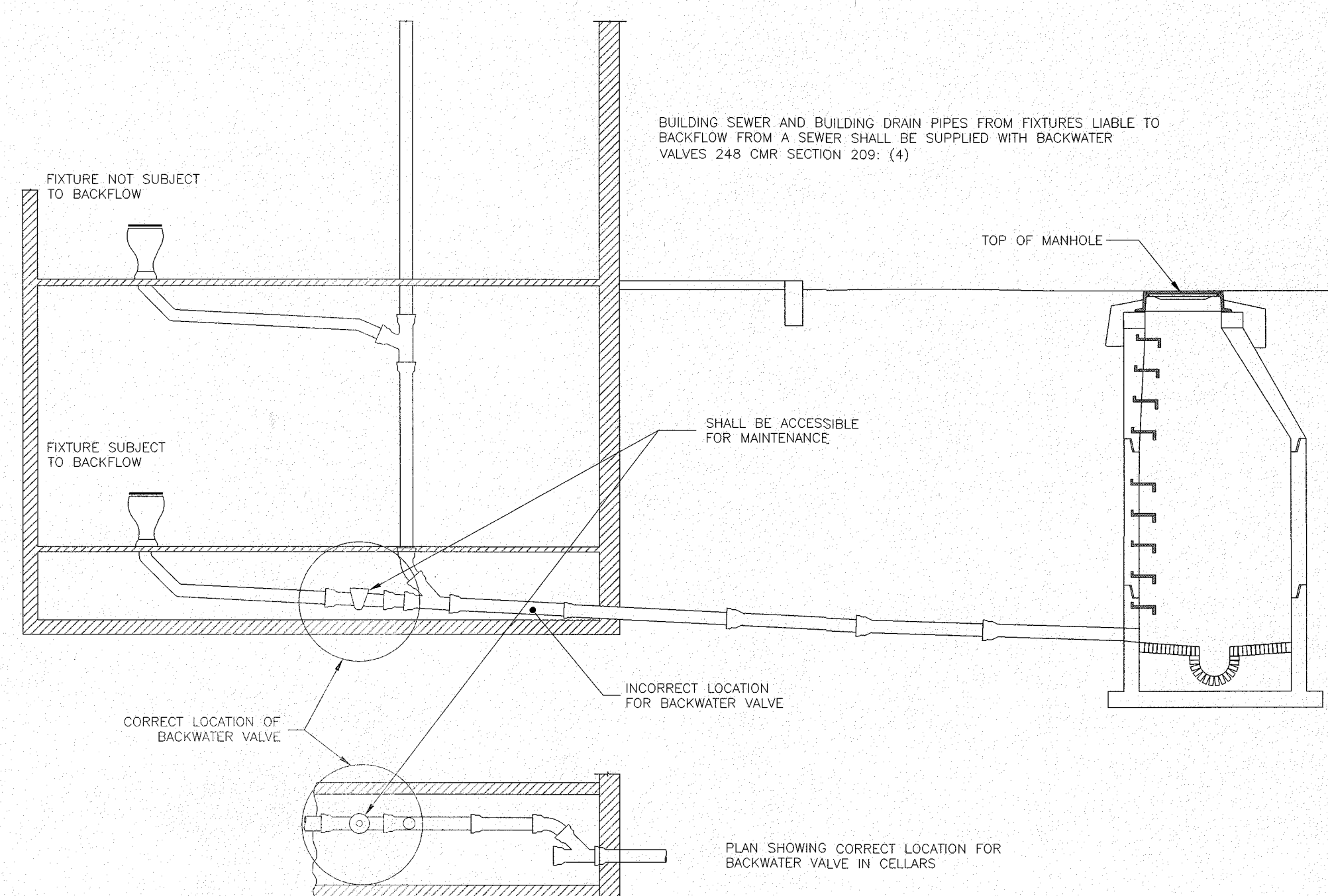
ITEM	NUMBER
COVER	99602000
TOP SECTION	99602001
BOTTOM SECTION	99602002
BOLT ONLY	99602003

TYPICAL CURB BOX  
 SCALE: NOT TO SCALE



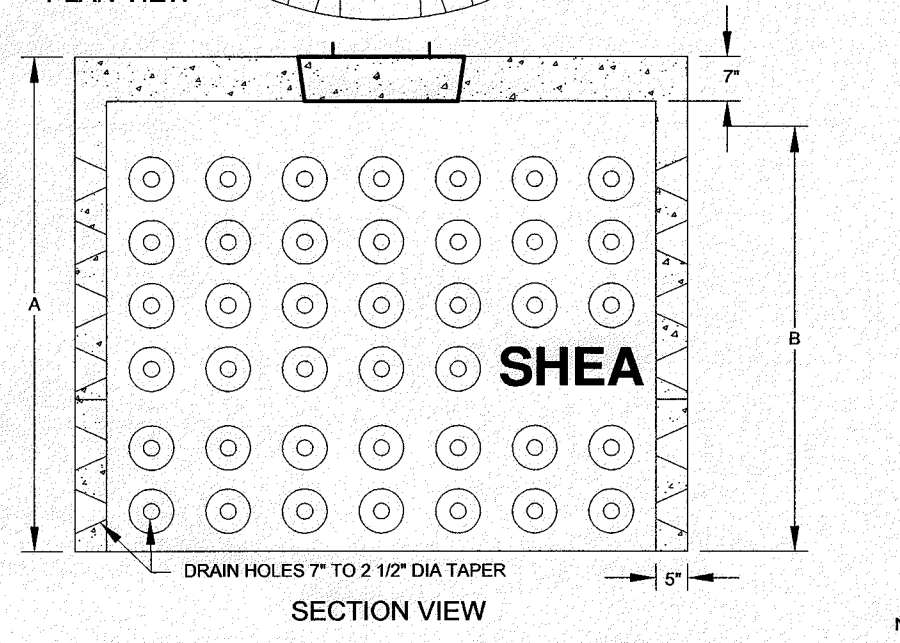
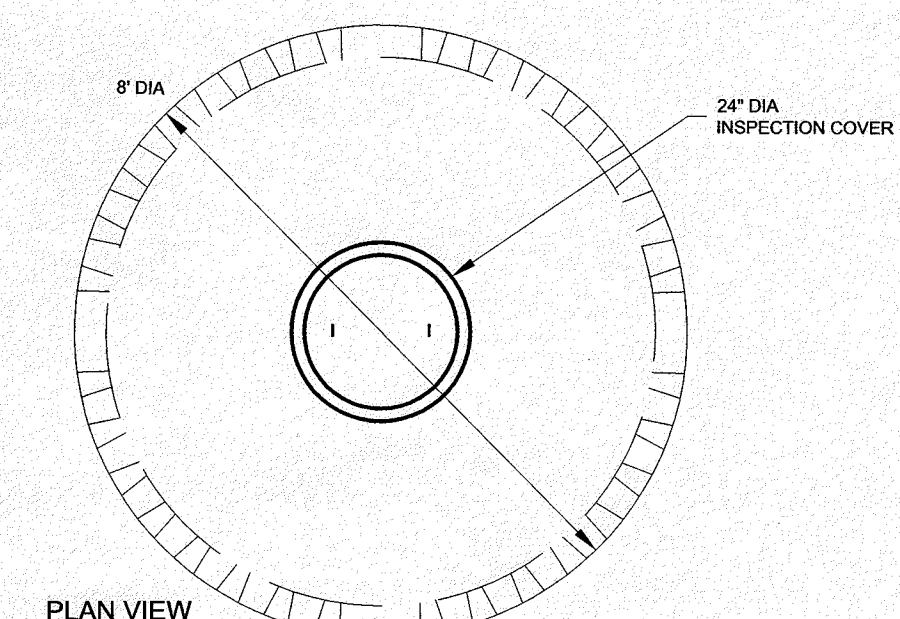
TRENCH DETAIL FOR PVC PIPE  
 SCALE: NOT TO SCALE

W = MAXIMUM TRENCH WIDTH  
 PW = MAXIMUM PAVING WIDTH = W+1'-0"  
 D = OUTSIDE DIAMETER  
 UNSHEATHED TRENCH: W = D+2' (3'-0" MIN.)  
 SHEATHED TRENCH: W = D+2' + SHEATHING WIDTH:  
 4'-0" MIN. W/D WALKERS  
 5'-0" MIN. W/WALKERS  
 TRENCH BOX OR HYDRAULIC SHORING:  
 W = D+2' + [WALL SHEILD WIDTH ± 8"] + 1' FOR TRENCH BOX



LOCATION OF BACKWATER VALVE  
 SCALE: NOT TO SCALE

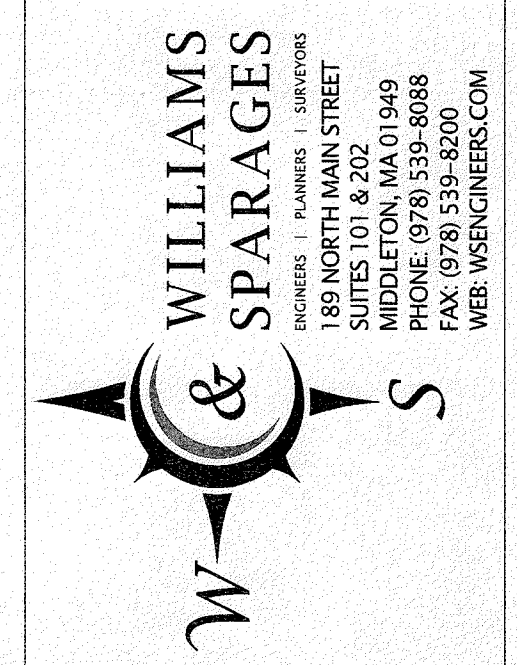
NOTE:  
 ALL PLUMBING FIXTURES BELOW THE LEVEL OF THE TOP OF THE MANHOLE OF THE SEWER SERVING THE FIXTURE(S) SHALL BE CONSIDERED AS BEING SUBJECT TO BACKFLOW AND SHALL BE SUPPLIED WITH BACKWATER VALVES.



GALLONS	A (HOT)	B (CL)	ITEM NO.	WEIGHT
1000	4'-6"	3'-6"	TK-1000CDW	113,270#

8" DIA. PRECAST DRYWELL  
 (SCALE: NOT TO SCALE)

NOTES:  
 1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.  
 2. DESIGNED FOR H-20 LOADING, 1 TO 5 FEET OF COVER.



Owner: #93 / Applicant:  
 LAR Property Management, LLC  
 282 Bennington Street  
 East Boston, MA 02128  
 Tel. (617) 567-4499

Owner: #95:  
 687 Saratoga Street Realty Trust  
 282 Bennington Street  
 East Boston, MA 02128  
 Tel. (617) 567-4499

Designed By: MRP  
 Drawn By: MRP  
 Reviewed By: CFS  
 Project Manager: CFS  
 Job File Number: EBOS-0027  
 Drawing File Folder: EBOS23

Drawing Issued for Review Only  
 Drawing Issued for Permit  
 Drawing Issued for Construction

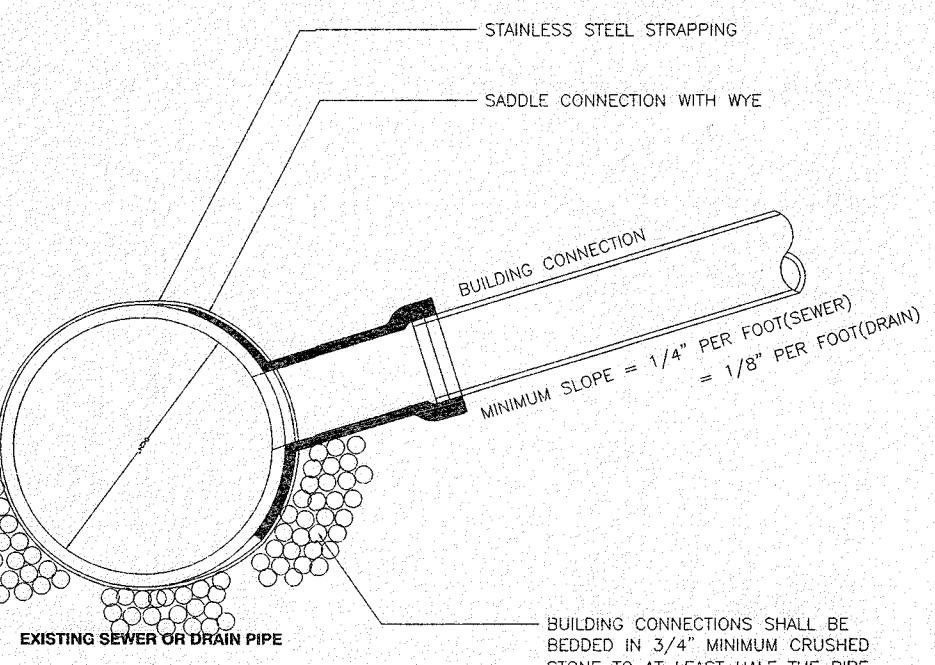
PERMIT SET - SITE PLAN  
 93-95 PRESCOTT STREET, EAST BOSTON, MA

NO.	REVISION	DATE	BY	REASON
1				
2				
3				
4				
5				
6				

SCALE AS NOTED  
 DECEMBER 2, 2019  
 BOSTON ENVIRONMENT DEPARTMENT COMMENTS

DRAWING: C-5  
 SHEET 5 OF 5

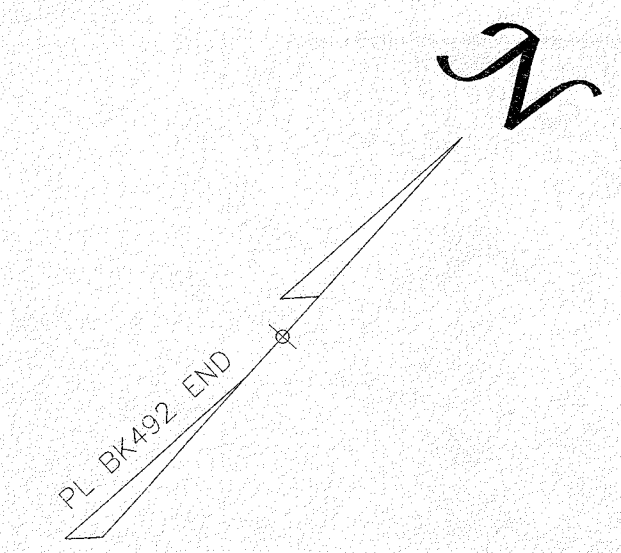
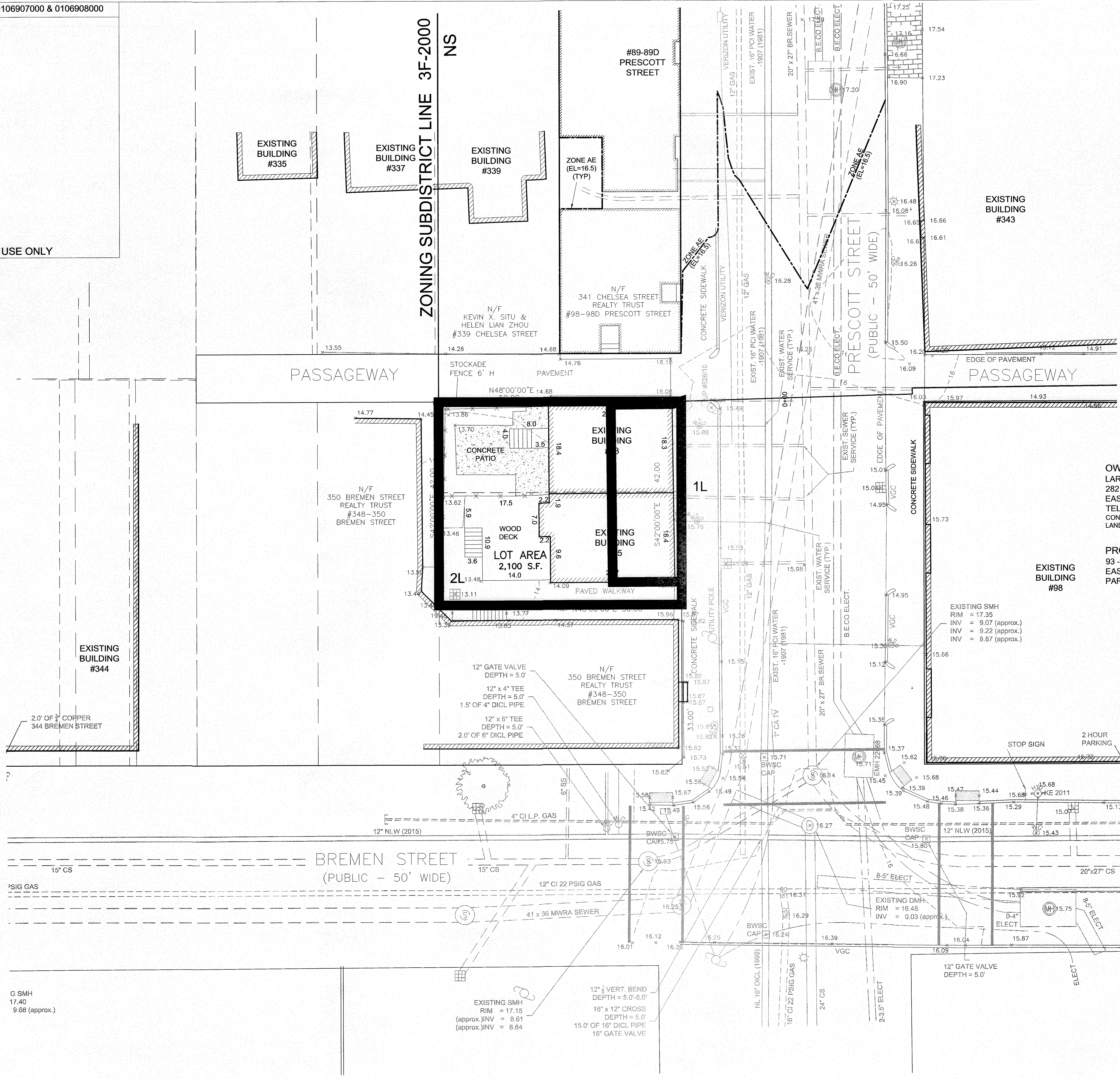
TYPICAL SEWER CONNECTION  
 SCALE: NOT TO SCALE



NOTES:  
 1. FULL PVC OR IRON SADDLE MAY BE USED TO CONNECT TO EXISTING PVC, CLAY, CONCRETE, OR IRON PIPE.  
 2. SADDLES MUST HAVE RUBBER GASKETS AND SHALL BE TIGHTENED WITH STRAPS. SADDLES WILL NOT BE CONSIDERED ON TO THE PIPE.  
 3. FULL WYE CONNECTION FITTINGS MAY BE USED.  
 4. PIPE SHALL BE CUT TO CONFORM TO THE OPENING IN THE SADDLE.  
 5. CONNECTIONS DIRECTLY INTO THE EXISTING PIPE WITHOUT A SADDLE OR A FULL WYE FITTING ARE NOT ALLOWED.



FOR BWSC USE ONLY



**OWNER: 93 PRESCOTT STREET**  
 LAR PROPERTY MANAGEMENT, LLC  
 282 BENNINGTON STREET  
 EAST BOSTON, MA 02128  
 TEL: (617) 567-8306  
 CONTACT PERSON: ANTHONY ROBERTO  
 LAND COURT CERTIFICATE NO. 130238

**OWNER: 95 PRESCOTT STREET:**  
 LOUIE & RITA ROBERTO, TRUSTEES  
 687 SARATOGA STREET REALTY TRUST  
 282 BENNINGTON STREET  
 EAST BOSTON, MA 02128  
 TEL: (617) 567-8306  
 CONTACT PERSON: ANTHONY ROBERTO  
 DEED BOOK 58744 PAGE 121

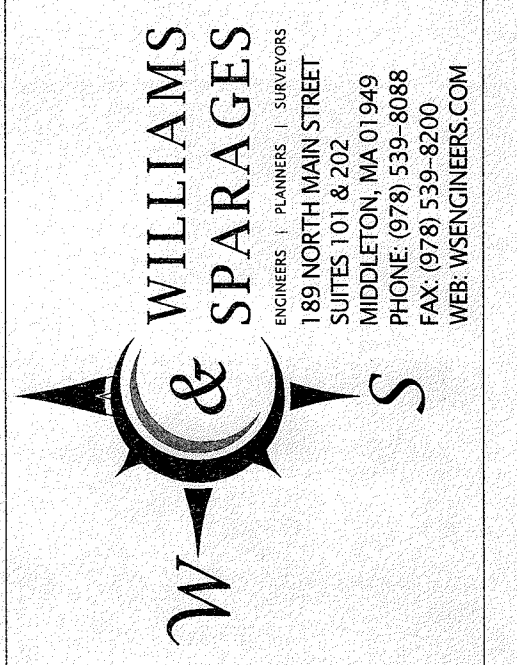
**PROJECT LOCATION:**  
 93 - 95 PRESCOTT STREET  
 EAST BOSTON, MA 02128  
 PARCEL: 0106907000 & 0106908000

- PLAN REFERENCES:**
1. BOOK 492 PAGE END
  2. BOOK 2014 PAGE 133
  3. LC PLAN 32881A
  4. LC PLAN 31523A
  5. LC PLAN 1016A

**NOTE: DEED AND PLANS ARE AS RECORDED AT THE SUFFOLK REGISTRY OF DEEDS OR LAND COURT.**

**DATUM: BOSTON CITY BASE**

LOCUS PROPERTY LIES WITHIN A FLOOD HAZARD AREA (ZONE AE) AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 25025C0019J, EFFECTIVE DATE MARCH 16, 2016 AND IS SHOWN ON MAP AS ELEVATION 10 NAVD, WHICH EQUALS ELEVATION 16.5 BOSTON CITY BASE.



**Owner (#93) / Applicant:**  
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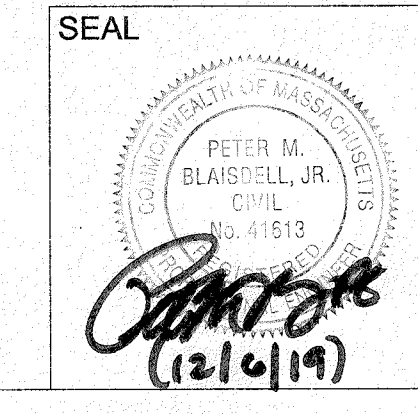
Designed By: MRP  
 Drawn By: MRP  
 Reviewed By: CPS  
 Project Manager: CPS  
 Job File Number: EBOS-0027  
 Drawing File Folder: EBOS23

Drawing Issued for Review Only  
 Drawing Issued for Permit  
 Drawing Issued for Construction

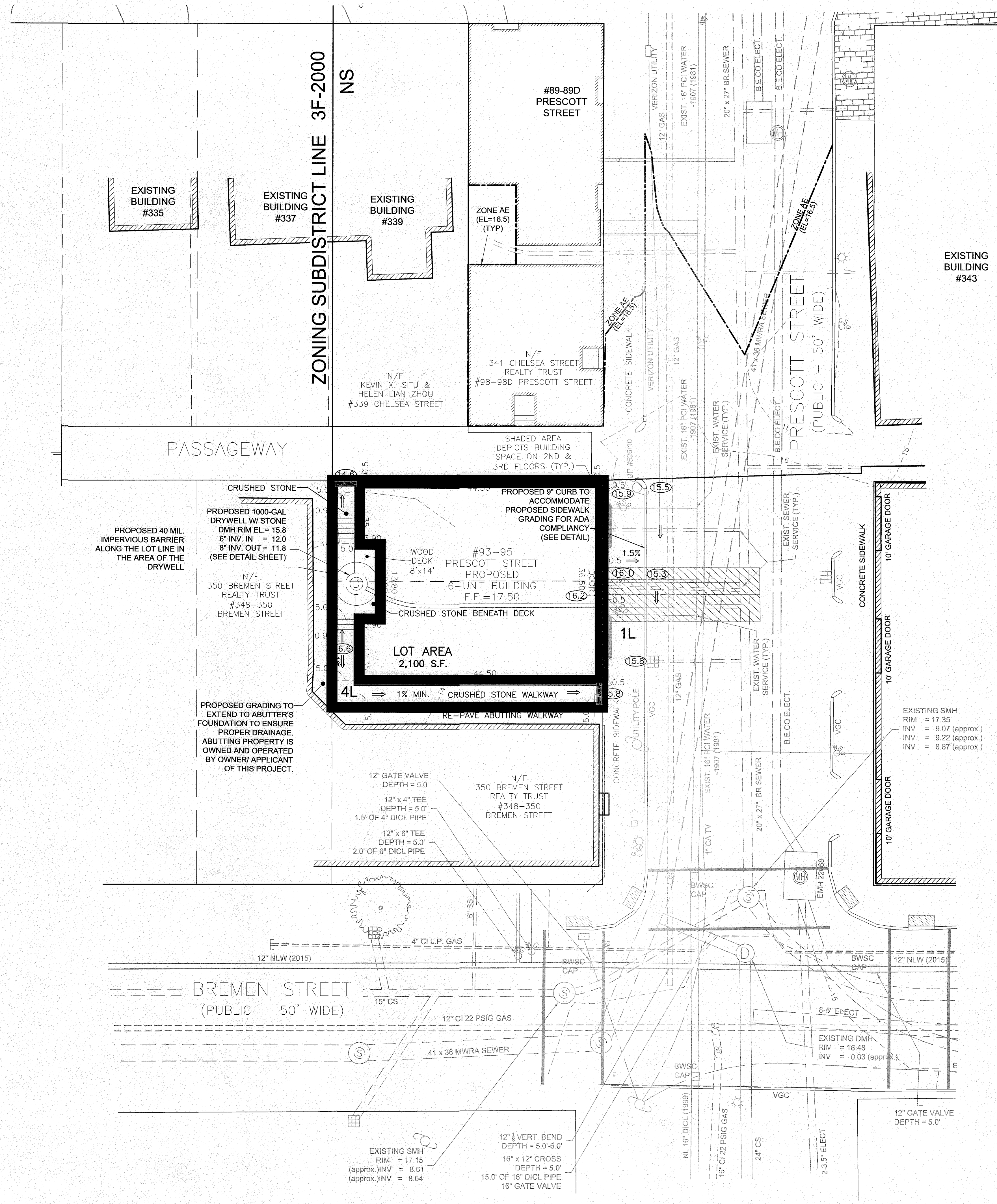
**PERMIT SET - EXISTING WATERSHED MAP**  
 93-95 PRESCOTT STREET, EAST BOSTON, MA

DRAWING: WS-1  
 SHEET 1 OF 2

DECEMBER 5, 2019



FOR BWSC USE ONLY



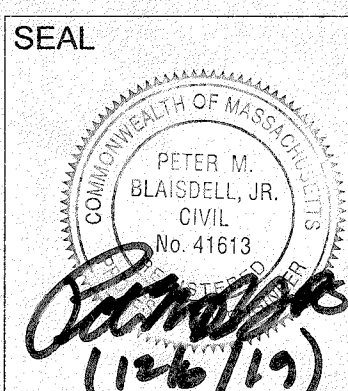
**DRAINAGE CALCULATIONS:**

STORE FIRST 1" OF RAINFALL

ROOF AREA = 1570 ft<sup>2</sup>  
 TOTAL IMPERVIOUS AREA = ROOF AREA = 1570 ft<sup>2</sup>  
 VOLUME TO STORE = (1570 ft<sup>2</sup>)(1 in)(1 ft/12 in) = 130.8 ft<sup>3</sup>  
 VOLUME TO STORE = 130.8 ft<sup>3</sup> \* 7.48 GALLONS/ft<sup>3</sup> = 978.6 GALLONS  
 (USE ONE 1000-GALLON DRY WELL WITH 6" SIDE STONE AND 12" STONE BELOW)

VOLUME OF STONE AND CHAMBER: (11')(4.5')(5.5) = 350 ft<sup>3</sup>  
 OUTSIDE VOLUME OF CHAMBER: (11')(4.5')(4.5) = 226 ft<sup>3</sup>  
 VOLUME OF STONE VOIDS PER CHAMBER: (350ft<sup>3</sup> - 226ft<sup>3</sup>)(0.3) = 37.2 ft<sup>3</sup>  
 (ASSUMED 30% VOID SPACE FOR STONE)

TOTAL VOLUME OF VOID SPACE: (37.2 ft<sup>3</sup>)(7.48 GALLONS/ft<sup>3</sup>) = 278.3 GALLONS  
 TOTAL VOLUME OF CHAMBER: = 1000 GALLONS  
 TOTAL VOLUME OF SYSTEM: (278.3 GAL + 1000 GAL) = 1278.3 GALLONS  
 CONCLUSION: 1278 GALLONS > 978.6 GALLONS  
 (170.9 ft<sup>3</sup> > 130.8 ft<sup>3</sup>)



**PERMIT SET - PROPOSED WATERSHED MAP**  
 93-95 PRESCOTT STREET, EAST BOSTON, MA

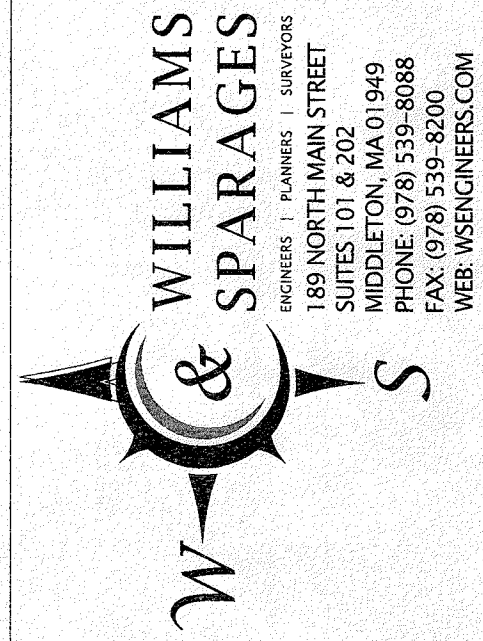
DRAWING: WS-2  
 SHEET 2 OF 2

Designed By: MRP  
 Drawn By: MRP  
 Reviewed By: CPS  
 Project Manager: CPS  
 Job File Number: EBOOS-0027  
 Drawing File Folder: EBOOS23

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 Drawing Issued for Construction

Owner (#893) / Applicant:  
 LAR Property Management, LLC  
 282 Bennington Street  
 East Boston, MA 02128  
 Tel. (617) 567-4499

Owner (#85):  
 687 Saratoga Street Realty Trust  
 282 Bennington Street  
 East Boston, MA 02128  
 Tel. (617) 567-4499



DECEMBER 5, 2019

